

## CONTRACT, LEASE, AGREEMENT CONTROL FORM

Date: 10/22/2021

Contract/Lease Control #: C20-2974-AP

Procurement#: ITB AP 27-20

Contract/Lease Type: CONTRACT

Award To/Lessee: ANDERSON COLUMBIA CO., INC.

Owner/Lessor: OKALOOSA COUNTY

Effective Date: 09/20/2020

Expiration Date: 06/25/2021

Description of: VPS PARKING LOT B EXPANSION

Department: AP

Department Monitor: STAGE

Monitor's Telephone #: 850-651-7160

Monitor's FAX # or E-mail: TSTAGE@MYOKALOOSA.COM

Closed:

Cc: BCC RECORDS

013216

**CONTRACT CLOSE-OUT CHECKLIST**  
(To Be Prepared by the Contracts & Lease Coordinator)

**DATE:** October 1, 2021

**TO:** Finance Department

**SUBJECT:** Contract No. C20-2974-AP

**MANAGING DEPARTMENT:** AP

**CONTRACTOR'S NAME:** ANDERSON COLUMBIA CO., INC.

**PROJECT TITLE:** VPS PARKING LOT B EXPANSION

The attached has met the final payment contract requirement in subject contract.

		Yes	No	
1.	Final Invoice	X		
2.	Completed Contract/Lease Payment Approval Form	X		
3.	Close-Out Documents	Yes	No	N/A
	a. Signed Release of Lien	X		
	b. Proof of Completion Advertisement	X		
	c. Certificate of Insurance			X
	d. Consent of Surety to Final Payment	X		
	e. Proof of Performance/Payment Bond Continuation 12 Months Following Final Payment	X		
	f. Grants approval/signature	X		
4.	Remarks			

**Faye Douglas** Digitally signed by Faye Douglas  
Date: 2021.09.28 14:40:53 -05'00'

\_\_\_\_\_  
OMB DIRECTOR

\_\_\_\_\_  
DATE



September 20, 2021

Mr. Tracy Stage, A.A.E.  
Airports Director  
**Okaloosa County Airports**  
1701 State Road 85 N.  
Eglin Air Force Base, Florida 32542

**Reference: Pay Application No. 7 (FINAL) - Approved**  
**VPS Parking Lot B Expansion**  
**Okaloosa County Contract No. C20-2974-AP**

Dear Mr. Stage:

Please find enclosed one (1) signed copy of the contractor's Pay Application No. 7 (FINAL) in the amount of \$309,861.63 covering the period from 6/7/21 through 6/30/21 for the above-referenced project.

Based on observations by our staff, we believe that the application amount accurately reflects the value of work performed and accepted through the end of the pay application period. Based on the materials furnished and work performed through the pay application period, **we recommend payment to the Contractor in the requested amount of \$309,861.63** per our certification on the enclosed applications. The amount includes release of all retainage as follows:

Total Earned:	\$ 1,795,335.13
0% Retainage:	\$ 0.00
Total Earned Less Retainage:	\$ 1,795,335.13
Less Previous Payments:	\$ 1,485,473.50
Invoice Amount (this period):	\$ 309,861.63

The following documentation has been provided by the Contractor as part of the close-out process and is enclosed for your records:

- Notice of Completion Advertisement

Additionally, enclosed is the Engineer's Certification of Completion for this project.

The following documentation has not yet been provided by the Contractor as part of the close-out process but will be forwarded separately:

- Consent of Surety to Final Payment
- Final Release of Liens from Anderson Columbia Co., Inc.
- Final Release of Liens from subcontractors
- Certificate of Liability Insurance
- Statement from insurance company that insurance is written on an occurrence basis.
- Statement from insurance company that Performance Bond will remain in force for one year following final payment.

**Mr. Tracy Stage**  
**September 20, 2021**  
**Page 2**

If you have any questions regarding this project, please do not hesitate to contact us at your convenience.

Sincerely,  
AVCON, INC.

A handwritten signature in cursive script that reads "John Collins".

John Collins, P.E.  
Project Manager

Enclosures



**AVCON, INC.**  
ENGINEERS & PLANNERS

320 Bayshore Drive, Suite A  
Niceville, Florida 32578  
Phone: (850) 678-0650  
avconinc.com

September 20, 2021

Mr. Tracy Stage, A.A.E.  
Airports Director  
**Okaloosa County Airports**  
1701 State Road 85 N.  
Eglin Air Force Base, Florida 32542

**Reference: Project Certification**  
**VPS Parking Lot B Expansion project**  
**Destin-Fort Walton Beach Airport, Eglin AFB, Florida**  
**AVCON No.: 2019.050.05**

Dear Mr. Stage:

Pursuant to our letter dated today recommending final payment for the above-referenced Okaloosa County contract with Anderson Columbia Co., Inc., this letter is provided to certify the completion of the work per the requirements of Public Transportation Grant Agreement (PTGA) for this project.

We have reviewed the VPS Parking Lot B Expansion project site and the contractor's final submittals and know of no outstanding requirements to be performed by the contractor. To the best of our belief and knowledge, we hereby certify that the project was completed in accordance with applicable plans and specifications, is in place at the Destin-Fort Walton Beach Airport, that Okaloosa County has an adequate lease to the property, and that the project is suitable for the intended purpose.

We appreciate the opportunity to serve the County on this important project. If you have any questions or require additional information, please do not hesitate to contact me at your convenience.

Sincerely,

AVCON, INC.

John Collins, P.E.  
Project Manager



**Contractor's Application for Payment No. 7 FINAL**

Application Period: 6-30-21 to 6-30-21	Application Date: 6/30/2021	7 FINAL
To (Owner): Ocalaosa County BCC	From (Contractor): Anderson Columbia Co., Inc.	Via (Engineer): Avcon
Project: YFS Airport Parking Lot B Expansion	Contract: C20-2974-AP	Engineer's Project No.: 320201
Owner's Contract No.:	Contractor's Project No.:	

**Application For Payment  
Change Order Summary**

Approved Change Order Number	Additions	Deductions
1	\$201,811.01	
TOTALS	\$201,811.01	
NET CHANGE BY CHANGE ORDERS	\$201,811.01	

1. ORIGINAL CONTRACT PRICE..... \$ 1,658,641.10
2. Net change by Change Orders..... \$ 201,811.01
3. Current Contract Price (Line 1 + 2)..... \$ 1,852,452.11
4. TOTAL COMPLETED AND STORED TO DATE (Column F total on Progress Estimates)..... \$ 1,795,335.13
5. RETAINAGE:
  - a.  Work Completed..... \$
  - b.  Stored Material..... \$
  - c. Total Retainage (Line 5a + Line 5.b)..... \$
6. AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5.c)..... \$ 1,795,335.13
7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application)..... \$ 1,485,473.59
8. AMOUNT DUE THIS APPLICATION..... \$ 309,861.63
9. BALANCE TO FINISH, PLUS RETAINAGE (Column G total on Progress Estimates + Line 5.c above)..... \$

**Contractor's Certification**

The undersigned Contractor certifies, to the best of its knowledge, the following:

(1) All previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with the Work covered by prior Applications for Payment.

(2) Title to all Work, materials and equipment incorporated in said Work, or otherwise listed in or covered by this Application for Payment, will pass to Owner at time of payment free and clear of all Liens, security interests, and encumbrances (except such as are covered by a bond acceptable to Owner indemnifying Owner against any such Liens, security interest, or encumbrances); and

(3) All the Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

**Kevin M Buchanan**  
Digitally signed by Kevin M Buchanan  
Date: 2021.09.16 07:44:30 -0500'

Contractor Signature: \_\_\_\_\_ Date: 6/30/2021

Payment of: \$ 309,861.63  
(Line 8 or other - attach explanation of the other amount)

is recommended by: Kevin M Buchanan 9-20-2021  
(Engineer)

Payment of: \$ \_\_\_\_\_  
(Line 8 or other - attach explanation of the other amount)

is approved by: \_\_\_\_\_  
(Owner)

Approved by: \_\_\_\_\_  
Funding or Financing Entity (if applicable) \_\_\_\_\_  
(Date)

**Progress Estimate - Unit Price Work**

**Contractor's Application**

For (Contract):		Application Number:		Application Date:		Application Date:				
VPS Airport Parking Lot B Expansion		7 FINAL		6/30/2021		6/30/2021				
Application Period: 6-30-21 to 6-30-21										
Bid Item No.	Item Description	Contract Information			C	D	E	F		
		Item Quantity	Units	Unit Price				Total Value of Item (\$)	Completed and Stored to Date (D + E)	% (F / B)
101-1	Base Bid - Lot B Expansion	1	LS	\$50,000.00	\$50,000.00			\$50,000.00	100.0%	
102-1	Mobilization - Base Bid	1	LS	\$1,894.65	\$1,894.65			\$1,894.65	100.0%	
104-1	Maintenance of Traffic	1	LS	\$7,498.63	\$7,498.63			\$7,498.63	100.0%	
110-1	Prevention, Control, and Abatement of Erosion and Water Pollution	1	LS	\$10,331.90	\$10,331.90			\$10,331.90	100.0%	
110-2	Miscellaneous Demolition	0.6	AC	\$11,999.46	\$7,199.68			\$7,199.68	100.0%	
120-1	Cleaning and Gribbling with Tree Removal	2,400	CY	\$15.04	\$36,096.00			\$36,096.00	100.0%	
160-1	Unclassified Excavation and Embankment	27,750	SY	\$2.74	\$76,035.00			\$76,035.00	100.0%	
285-1	12" Stabilized Subbase (LBR 40)	23,440	SY	\$16.55	\$421,032.00			\$421,032.00	100.0%	
334-1	8" Limerock Base Course	2,800	TN	\$107.11	\$299,908.00			\$299,908.00	100.0%	
425-1	2" Superpave Asphaltic Concrete	5	EA	\$5,978.16	\$29,890.80			\$29,890.80	100.0%	
425-2	Type 5/6 Curb Inlet, Type P Bottom	2	EA	\$2,521.39	\$5,042.78			\$5,042.78	100.0%	
425-3	24" Mitered End Section	2	Each	\$4,338.21	\$8,676.42			\$8,676.42	100.0%	
430-1	24" ADS N-12 Pipe	290	LF	\$69.03	\$20,018.70			\$20,018.70	100.0%	
430-2	30" ADS N-12 Pipe	180	LF	\$91.73	\$16,511.40			\$16,511.40	100.0%	
520-1	F-Curb	2,030	LF	\$27.79	\$56,413.70			\$56,413.70	100.0%	
522-1	Concrete Sidewalk	330	LF	\$56.85	\$18,760.50			\$18,760.50	100.0%	
550-1	7-ft Chain Link Fence with Additional 1-ft Barbed Wire Attachment and Rock Base	825	LF	\$42.07	\$34,707.75			\$34,707.75	29.1%	\$24,610.95
550-2	Temporary 7-ft Chain Link Fence with Additional 1-ft Barbed Wire Attachment	550	LF	\$40.40	\$22,220.00			\$22,220.00		\$22,220.00
570-1	Sodding	2,000	SY	\$2.55	\$5,060.00			\$5,060.00	100.0%	
570-2	Seeding	4,500	SY	\$0.63	\$2,835.00			\$2,835.00		\$2,835.00
700-1	Traffic Control Signs	1	LS	\$1,895.09	\$1,895.09			\$1,895.09	100.0%	
710-1	Prevention Markings	1	LS	\$30,886.25	\$30,886.25			\$30,886.25	100.0%	
LT-1	Area Lighting, Complete	1	LS	\$348,000.00	\$348,000.00			\$348,000.00	100.0%	
GA-1	Power and Data for Automatic Gate Arms and Ticket Machines	1	LS	\$12,500.00	\$12,500.00			\$12,500.00	100.0%	
SC-1	Security Camera Allowance	1	LS	\$40,000.00	\$40,000.00			\$40,000.00	90.7%	\$3,716.93
WH-1	Wheel Stops	40	EA	\$101.06	\$4,042.40			\$4,042.40	127.5%	-\$1,111.66
101-1	Alt 2 - Lot B Expansion									
102-1	Mobilization - ALT 2	1	LS	\$2,500.00	\$2,500.00			\$2,500.00	100.0%	
104-1	Maintenance of Traffic	1	LS	\$1,895.09	\$1,895.09			\$1,895.09	100.0%	
110-1	Prevention, Control, and Abatement of Erosion and Water Pollution	1	LS	\$3,332.06	\$3,332.06			\$3,332.06	100.0%	
110-2	Cleaning and Gribbling with Tree Removal	5	AC	\$12,002.26	\$60,011.30			\$60,011.30	100.0%	

**Progress Estimate - Unit Price Work**

**Contractor's Application**

For (Contract):		VPS Airport Parking Lot B Expansion		Application Number: 7 FINAL		Avcon					
Application Period:		6-30-21 to 6-30-21		Application Date:		6/30/2021					
Bid Item No.	Item Description	Contract Information			C	D	E	F			
		Item Quantity	Units	Unit Price					Total Value of Item (\$)	Estimated Quantity Installed	Value of Work Installed to Date
570-2	Seeding	24,200	SY	\$0.63	\$15,246.00	24200	\$15,246.00		\$15,246.00	100.0%	
	<b>Original Contract Total</b>				<b>\$1,659,641.10</b>		<b>\$1,547,280.18</b>		<b>\$1,547,280.18</b>		<b>\$103,360.92</b>
	<b>Change Directives</b>										
CD-1	SIDA - Fence Relocation	1	LS	\$4,492.40	\$4,492.40	1	\$4,492.40		\$4,492.40	100.0%	
CD-1	12" Water Line Relocation	1	LS	\$15,246.00	\$15,246.00	1	\$15,246.00		\$15,246.00	100.0%	
CD-1	Sewer Manhole Adjustment	1	LS	\$4,400.00	\$4,400.00	1	\$4,400.00		\$4,400.00	100.0%	
CD-1	SIDA - Fence Relocation - For Future Concourse	1	LS	\$43,002.39	\$43,002.39	1	\$43,002.39		\$43,002.39	100.0%	
CD-1	Baldwin Bldg Parking Lot	1	LS	\$107,573.25	\$107,573.25	1	\$107,573.25		\$107,573.25	100.0%	
CD-1	Baldwin Bldg Parking Lot - Resurfacing	1	LS	\$37,439.53	\$37,439.53	1	\$37,439.53		\$37,439.53	100.0%	
CD-1	Additional Stop Bars and Stop Signs for Parking Lot B	1	LS	\$1,552.50	\$1,552.50	1	\$1,552.50		\$1,552.50	100.0%	
CD-1	Credit for deleting 3 light poles from Parking Lot B	1	LS	-\$10,132.92	-\$10,132.92	1	-\$10,132.92		-\$10,132.92	100.0%	
CD-1	ADA Max Replacement	1	LS	\$14,078.80	\$14,078.80	1	\$14,078.80		\$14,078.80	100.0%	
CD-1	Restriping of Airport Perimeter Roads	1	LS	\$16,800.00	\$16,800.00	1	\$16,800.00		\$16,800.00	100.0%	
CD-1	Rock Base Credit for remaining 140' of Fence	340	LF	-\$4.00	-\$1,360.00	240	-\$960.00		-\$960.00	70.0%	-\$400.00
CD-1	Contractor for Parking Lot Lights	1	LS	\$5,830.00	\$5,830.00	1	\$5,830.00		\$5,830.00	100.0%	
CD-1	Parking Lot Row Signs	38	EA	\$203.50	\$7,733.00	38	\$7,733.00		\$7,733.00	100.0%	
	<b>Change Directives - Total</b>				<b>\$47,654.98</b>		<b>\$48,264.08</b>		<b>\$48,264.08</b>		<b>-\$400.00</b>



PAY APPLICATION NO. 7 (FINAL)  
 CONFIRMATION OF CONSTRUCTION QUANTITIES  
 VPS PARKING LOT B EXPANSION

28-Sep-21

BASE BID - PARKING LOT B EXPANSION

ITEM NO.	BID ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	EXTENDED TOTAL	COMPLETE PREVIOUS APPLICATION	MATERIALS STORED THIS PERIOD	QUANTITIES ACCEPTED THIS PERIOD	COMPLETE AND ACCEPTED THIS PERIOD	TOTAL TO DATE STORED AND COMPLETE	RETAINAGE
1	101-1	MOBILIZATION	LS	1	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00				\$ 50,000.00	\$ 2,800.00
2	102-1	MAINTENANCE OF TRAFFIC	LS	1	\$ 1,894.65	\$ 1,894.65	\$ 1,894.65				\$ 1,894.65	\$ 94.73
3	104-1	PREVENTION, CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION	LS	1	\$ 7,648.63	\$ 7,648.63	\$ 7,648.63				\$ 7,648.63	\$ 374.83
4	105-1	MISC. LEANING DEMOLITION	LS	1	\$ 10,331.80	\$ 10,331.80	\$ 10,331.80				\$ 10,331.80	\$ 516.80
5	106-1	CLEARING AND GRUBBING WITH TREE REMOVAL	AC	0.8	\$ 11,399.48	\$ 9,119.58	\$ 7,188.88				\$ 9,119.58	\$ 354.96
6	107-1	UNCLASSIFIED EXCAVATION AND EMBANKMENT	CY	2,400	\$ 11,399.48	\$ 27,358.75	\$ 36,045.00				\$ 36,045.00	\$ 1,804.96
7	108-1	7" STABILIZED SUBBASE (18R, 4)	SY	27,750	\$ 6.74	\$ 186,825.00	\$ 75,035.00				\$ 75,035.00	\$ 3,601.75
8	109-1	4" UNIFORM BASE COURSE	SY	27,750	\$ 6.74	\$ 186,825.00	\$ 42,104.00				\$ 42,104.00	\$ 2,105.20
9	110-1	4" UNIFORM ASPHALT CONCRETE	SY	27,750	\$ 6.74	\$ 186,825.00	\$ 24,214.33				\$ 24,214.33	\$ 1,210.72
10	111-1	TYPE 5R CURB INLET TYPE P BOTTOM	EA	2,000	\$ 10.71	\$ 21,420.00	\$ 28,895.90				\$ 28,895.90	\$ 1,444.83
11	112-1	TYPE 5R CURB INLET TYPE P BOTTOM	EA	2	\$ 3,878.16	\$ 7,756.32	\$ 3,878.16				\$ 3,878.16	\$ 193.91
12	113-1	4" INTERLOCKED SECTION	EA	2	\$ 4,438.21	\$ 8,876.42	\$ 4,438.21				\$ 4,438.21	\$ 221.91
13	114-1	3" INTERLOCKED SECTION	EA	2	\$ 3,411.38	\$ 6,822.76	\$ 3,411.38				\$ 3,411.38	\$ 170.57
14	115-1	3" ADS, N-12 PIPE	LF	250	\$ 8.96	\$ 2,240.00	\$ 2,240.00				\$ 2,240.00	\$ 112.00
15	116-1	3" ADS, N-12 PIPE	LF	250	\$ 8.96	\$ 2,240.00	\$ 2,240.00				\$ 2,240.00	\$ 112.00
16	117-1	CONCRETE SIDEWALK	LF	250	\$ 27.56	\$ 6,890.00	\$ 15,448.00				\$ 15,448.00	\$ 772.40
17	118-1	7 FT CHAIN LINK FENCE WITH ADDITIONAL 1 FT BARBED WIRE ATTACHMENT AND ROCK BASE	SY	250	\$ 56.45	\$ 14,112.50	\$ 15,068.50				\$ 15,068.50	\$ 753.33
18	119-1	TEMPORARY 7 FT CHAIN LINK FENCE WITH ADDITIONAL 1 FT BARBED WIRE ATTACHMENT	SY	250	\$ 46.02	\$ 11,505.00	\$ 10,065.00				\$ 10,065.00	\$ 503.23
19	120-1	SEEDING	SY	250	\$ 6.00	\$ 1,500.00	\$ 1,500.00				\$ 1,500.00	\$ 75.00
20	121-1	SEEDING	SY	4,500	\$ 6.63	\$ 29,835.00	\$ 2,765.00		940	\$ 2,277.00	\$ 5,042.00	\$ 252.00
21	122-1	CON CONTROL SIGNS	LS	1	\$ 1,895.09	\$ 1,895.09	\$ 1,895.09				\$ 1,895.09	\$ 94.75
22	123-1	PAVEMENT MARKINGS	LS	1	\$ 30,885.25	\$ 30,885.25	\$ 30,885.25				\$ 30,885.25	\$ 1,544.31
23	124-1	AREA LIGHTING, COMPLETE	LS	1	\$ 349,000.00	\$ 349,000.00	\$ 349,000.00				\$ 349,000.00	\$ 17,450.00
24	GA-1	POWER AND DATA FOR AUTOMATIC GATE ARMS AND TICKET MACHINES	LS	1	\$ 12,500.00	\$ 12,500.00	\$ 12,500.00				\$ 12,500.00	\$ 625.00
25	SC-1	SECURITY CAMERA ALLOWANCE	EA	1	\$ 40,000.00	\$ 40,000.00	\$ 40,000.00		0.867	\$ 36,289.07	\$ 36,289.07	\$ 1,814.15
26	WB-1	WHEEL STOPS	EA	40	\$ 101.06	\$ 4,042.40	\$ 4,042.40		11	\$ 1,111.66	\$ 5,154.06	\$ 257.70
27	CP-1	CONTACTOR FOR PARKING LOT LIGHTS	LS	1	\$ 5,830.00	\$ 5,830.00	\$ 5,830.00		1	\$ 7,793.00	\$ 13,623.00	\$ 684.65
28	PR-1	PARKING LOT ROW LIGHTS	EA	38	\$ 205.90	\$ 7,733.00	\$ 7,733.00				\$ 7,733.00	\$ 386.65
29	CO-1-1	12" WATER LINE RELOCATION	LS	1	\$ 15,248.00	\$ 15,248.00	\$ 15,248.00				\$ 15,248.00	\$ 762.40
30	CO-1-2	NORTHEAST FENCE RELOCATION	LS	1	\$ 4,482.40	\$ 4,482.40	\$ 4,482.40				\$ 4,482.40	\$ 224.12
31	CO-1-3	NORTHSOUTH FENCE RELOCATION	LS	1	\$ 43,002.39	\$ 43,002.39	\$ 43,002.39				\$ 43,002.39	\$ 2,150.12
32	CO-1-4	SEWER MANHOLE AND HYDRANT ADJUSTMENTS	LS	1	\$ 4,600.00	\$ 4,600.00	\$ 4,600.00				\$ 4,600.00	\$ 230.00
33	CO-1-5	NEW BALDWIN PARKING LOT IMPROVEMENTS	LS	1	\$ 107,573.25	\$ 107,573.25	\$ 107,573.25				\$ 107,573.25	\$ 5,378.66
34	CO-1-6	HILL AND OVERLAY EXISTING ACCESS ROAD AND PARKING LOT	LS	1	\$ 37,439.53	\$ 37,439.53	\$ 37,439.53		1	\$ 107,573.25	\$ 144,992.78	\$ 7,171.98
35	CO-1-7	ADDITIONAL PAVEMENT MARKINGS AND STOP SIGNS	LS	1	\$ 1,552.50	\$ 1,552.50	\$ 1,552.50		1	\$ 1,552.50	\$ 3,105.00	\$ 155.25
36	CO-1-8	CREDIT TO REMOVE THREE LIGHT POLES	LS	1	\$ (10,132.92)	\$ (10,132.92)	\$ (10,132.92)				\$ (10,132.92)	\$ (506.65)
37	CO-1-9	REPLACE TRUNCATED DOME MATS	LS	1	\$ 15,078.80	\$ 15,078.80	\$ 15,078.80				\$ 15,078.80	\$ 753.94
38	CO-1-10	AIRPORT RESTRIPING	LS	1	\$ 15,800.00	\$ 15,800.00	\$ 15,800.00				\$ 15,800.00	\$ 790.00
39	CO-1-11	CREDIT TO REMOVE ROCK BASE FROM NEW FENCE	LS	1	\$ (1,360.00)	\$ (1,360.00)	\$ (1,360.00)				\$ (1,360.00)	\$ (68.00)
					Subtotal:	\$ 1,567,656.65	\$ 1,480,671.87			\$ 231,678.81	\$ 1,712,350.68	\$ 89,617.53

ADDITIVE ALTERNATE 2 - CLEAR ZONE TREE REMOVAL

ITEM NO.	BID ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	EXTENDED TOTAL	COMPLETE PREVIOUS APPLICATION	MATERIALS STORED THIS PERIOD	QUANTITIES ACCEPTED THIS PERIOD	COMPLETE AND ACCEPTED THIS PERIOD	TOTAL TO DATE STORED AND COMPLETE	RETAINAGE
1	101-1	MOBILIZATION	LS	1	\$ 2,500.00	\$ 2,500.00	\$ 2,500.00				\$ 2,500.00	\$ 125.00
2	102-1	MAINTENANCE OF TRAFFIC	LS	1	\$ 1,895.09	\$ 1,895.09	\$ 1,895.09				\$ 1,895.09	\$ 94.75
3	104-1	PREVENTION, CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION	LS	1	\$ 3,332.06	\$ 3,332.06	\$ 3,332.06				\$ 3,332.06	\$ 166.60
4	110-1	CLEARING & GRUBBING WITH TREE REMOVAL	AC	5	\$ 12,002.26	\$ 60,011.30	\$ 60,011.30				\$ 60,011.30	\$ 3,000.57
5	570-2	SEEDING	SY	24,200	\$ 0.63	\$ 15,246.00	\$ 15,246.00				\$ 15,246.00	\$ 762.30
					Subtotal:	\$ 82,984.45	\$ 82,984.45				\$ 82,984.45	\$ 4,148.22

Total Estimated Construction Cost: \$ 1,650,641.10 \$ 1,663,656.32

\$ 231,678.81 \$ 1,796,336.13 \$ 89,766.76

Project Title: Parking Lot B Expansion @ VPS

Bids

County Check Date	County Check #	Invoice #	Invoice Amount	Start Date		Airport	Retainage	Total Funding
				Expiration Date				
				FDOT	Match			
	GOL13							
			50%	50%				
			\$1,242,000.00	\$1,242,000.00				\$2,484,000.00
			1/12/15	6/30/21				
			741723/563490	741723/563490	4202/531500	421/2051100		Check Total
51,650,641.10	2/18/2021	Pay App 01	\$ 119,085.94	\$ 59,542.97	\$ 59,542.97	\$ (11,908.59)	\$ 107,177.35	
CO 1 add 201.811.01	2/19/2021	Pay App 02	\$ 282,748.32	\$ 141,374.16	\$ 141,374.16	\$ (28,274.84)	\$ 254,473.48	
	4/8/2021	Pay App 03	\$ 290,456.38	\$ 145,228.19	\$ 145,228.19	\$ (29,045.63)	\$ 261,410.75	
51,852,452.11	4/29/2021	Pay App 04	\$ 339,919.50	\$ 169,959.75	\$ 169,959.75	\$ (33,991.95)	\$ 305,927.55	
	6/17/2021	Pay App 05	\$ 440,630.19	\$ 220,315.09	\$ 220,315.10	\$ (44,063.02)	\$ 376,597.27	
Percentage Complete	8/12/2021	Pay app 06	\$ 90,815.98	\$ 45,407.99	\$ 45,407.99	\$ (9,081.59)	\$ 86,275.18	
96.92%		Pay app 7 Final	\$ 231,678.82	\$ 115,839.41	\$ 115,839.41	\$ (23,167.88)	\$ 309,861.63	
Design, Bidding, CA	12/19/19	116733	\$ 20,745.00	\$ 10,372.50	\$ 10,372.50	\$ (2,074.50)	\$ 20,745.00	
\$434,995.00	3/16/2020	116944	\$ 60,980.00	\$ 30,490.00	\$ 30,490.00	\$ (6,098.00)	\$ 60,980.00	
Percentage Complete	04/02/2020	117346	\$ 93,020.00	\$ 46,510.00	\$ 46,510.00	\$ (9,302.00)	\$ 93,020.00	
	5/7/2020	117461	\$ 30,125.00	\$ 15,062.50	\$ 15,062.50	\$ (3,012.50)	\$ 30,125.00	
	10/1/2020	118401	\$ 2,085.00	\$ 1,042.50	\$ 1,042.50	\$ (208.50)	\$ 2,085.00	
	10/1/2020	118225	\$ 5,650.00	\$ 2,815.00	\$ 2,815.00	\$ (565.00)	\$ 5,650.00	
	6/24/2021	119134	\$ 15,735.00	\$ 7,867.50	\$ 7,867.50	\$ (1,573.50)	\$ 15,735.00	
	6/24/2021	119626	\$ 13,980.00	\$ 6,990.00	\$ 6,990.00	\$ (1,398.00)	\$ 13,980.00	
	6/24/2021	119854	\$ 7,890.00	\$ 3,945.00	\$ 3,945.00	\$ (789.00)	\$ 7,890.00	
	6/24/2021	119445	\$ 20,425.00	\$ 10,212.50	\$ 10,212.50	\$ (2,042.50)	\$ 20,425.00	
71.07%	6/24/2021	120020	\$ 11,940.00	\$ 5,970.00	\$ 5,970.00	\$ (1,194.00)	\$ 11,940.00	
	7/29/2021	120183	\$ 5,477.50	\$ 2,738.75	\$ 2,738.75	\$ (547.75)	\$ 5,477.50	
		120482 Final	\$ 21,135.00	\$ 10,567.50	\$ 10,567.50	\$ (2,113.50)	\$ 21,135.00	
	2/4/2021	2084.01	\$ 9,100.00	\$ 4,550.00	\$ 4,550.00	\$ (910.00)	\$ 9,100.00	
Parking Lot B Expansion RPR	3/5/2021	2084.02	\$ 13,520.00	\$ 6,760.00	\$ 6,760.00	\$ (1,352.00)	\$ 13,520.00	
\$60,200.00	4/1/2021	2084.03	\$ 14,200.00	\$ 7,100.00	\$ 7,100.00	\$ (1,420.00)	\$ 14,200.00	
Percentage Complete	4/29/2021	2084.04	\$ 14,200.00	\$ 7,100.00	\$ 7,100.00	\$ (1,420.00)	\$ 14,200.00	
100.00%	6/10/2021	2084.05 Final	\$ 9,180.00	\$ 4,590.00	\$ 4,590.00	\$ (918.00)	\$ 9,180.00	
	6/17/2021	119858	\$ 13,000.00	\$ 6,500.00	\$ 6,500.00	\$ (1,300.00)	\$ 13,000.00	
Percentage Complete			\$ 13,000.00	\$ 6,500.00	\$ 6,500.00	\$ (1,300.00)	\$ 13,000.00	
100.00%								
	2/27/2020	2003457	\$ 324.36	\$ 162.18	\$ 162.18	\$ (32.436)	\$ 324.36	
Growth management Planning review and sign fees	6/24/2020	22001108	\$ 512.80	\$ 256.40	\$ 256.40	\$ (51.280)	\$ 512.80	
Public Works Storm Water management fee	7/29/2020	22001258	\$ 856.20	\$ 428.10	\$ 428.10	\$ (85.620)	\$ 856.20	
Total Funding of Program Cost			\$ 2,179,395.99	\$ 1,079,325.50	\$ 1,079,325.50	\$ (207,450.00)	\$ 2,179,395.99	
							\$0.00	

1,795,335.13  
57,116.98

309,167.50  
125,827.50

60,200.00  
\$0.00

13,000.00

1,693.36

Retainage \$	(44,883.38)	\$	(44,883.37)
Total Funds	\$1,242,000.00	\$	\$1,242,000.00
Balance Remaining	\$162,674.51	\$	\$162,674.50
	\$325,349.01	\$	\$325,349.01

Anderson Columbia	\$ 1,795,335.13
AVCON Contract # C20-2872-AP	\$ 309,167.50
ICE Task Order 4 RPR	\$ 60,200.00

# LOCALiQ

The Gainesville Sun | The Ledger  
Daily Commercial | Ocala StarBanner PO Box 631244 Cincinnati, OH 45263-1244  
News Chief | Herald-Tribune | News Herald  
Northwest Florida Daily News

## PROOF OF PUBLICATION

Hampton Jordan  
Anderson Columbia Co. Inc.  
2316 Highway 71  
Marianna FL 32448-2534

**Advertisement of Completion**  
Anderson Columbia Co., Inc.  
2316 Hwy 71  
Marianna, Fl. 32448

STATE OF FLORIDA, COUNTY OF OKALOOSA

The Northwest Florida Daily News, a newspaper printed and published in the city of Fort Walton, and of general circulation in the County of Okaloosa, State of Florida, and personal knowledge of the facts herein state and that the notice hereto annexed was Published in said newspapers in the issue:

07/19/2021, 07/26/2021, 08/02/2021, 08/09/2021

and that the fees charged are legal.  
Sworn to and subscribed before on 08/09/2021

Gives notice of completion of VPS Lot B Expansion and sets June 30th, 2021 as the date of final settlement. All persons and firms should file all claims for payment to the below address prior to the settlement date:

Okaloosa County  
(Owner)  
ATTN: Contracts and Lease Coordinator  
5479A Old Bethel Rd.  
Crestview, Fl. 32536

By: Kevin Buchanan  
Project Manager  
7/19, 7/26, 8/2 & 8/9/2021  
6074600

Legal Clerk

Notary, State of WI, County of Brown

My commission expires

Publication Cost: \$213.56  
Order No: 6074600 # of Copies:  
Customer No: 570306 1  
PO #:

**THIS IS NOT AN INVOICE!**

*Please do not use this form for payment remittance.*

SARAH BERTELSEN  
Notary Public  
State of Wisconsin



106

Maintenance  
Bond  
Warranty Term  
in years

Bond Number T: 107279767  
B: 47-SUR-3000124-01-0091

**MAINTENANCE BOND**

KNOW ALL BY THESE PRESENTS, That we, Anderson Columbia Co., Inc.  
2316 Highway 71 Marianna FL 32448

as Principal, and Travelers Casualty and Surety Company of America, a corporation organized under the laws of the State  
and Berkshire Hathaway Specialty Insurance Company  
CT/NE and duly authorized to do business in the State of, FL as Surety, are held and firmly bound  
unto Okaloosa County

as Obligees, in the penal sum of One Million Seven Hundred Ninety Five Thousand Three Hundred Thirty Five Dollars and 13/100  
(\$ 1,795,335.13), to which payment well and truly to be made we do bind ourselves, our and each of our  
heirs, executors, administrators, successors and assigns jointly and severally, firmly by these presents.

WHEREAS, the said Principal entered into a Contract with the Obligees, dated the 29th day of September,  
2020, a copy of which is hereto attached and made a part hereof, for VPS Parking Lot B Expansion;  
Contract No. C20-2974-AP

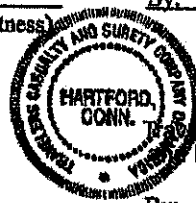
NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the Principal shall guarantee that  
the work will be free of any defective materials or workmanship which become apparent during the period of  
1 (one) year(s) following completion of the Contract then this obligation shall be void, otherwise to remain  
in full force and effect, provided however, any additional warranty or guarantee whether expressed or implied is  
extended by the Principal or Manufacturer only, and the Surety assumes no liability for such a guarantee.

Signed, sealed and dated this 20th day of September, 2021.

PRINCIPAL

Anderson Columbia Co., Inc.

By: \_\_\_\_\_ (Seal)  
(Witness)



Amy Scott  
Amy Scott (Witness)

By: Kevin Wojtowicz (Seal)  
Kevin Wojtowicz, Attorney-in-Fact



**Travelers Casualty and Surety Company of America**  
**Travelers Casualty and Surety Company**  
**St. Paul Fire and Marine Insurance Company**

**POWER OF ATTORNEY**

**KNOW ALL MEN BY THESE PRESENTS:** That Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint **Kevin Wojtowicz** of **SAINT PETERSBURG Florida**, their true and lawful Attorney-in-Fact to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

**IN WITNESS WHEREOF**, the Companies have caused this instrument to be signed, and their corporate seals to be hereto affixed, this 3rd day of February, 2017.



State of Connecticut

City of Hartford ss.

By: *Robert L. Raney*  
 Robert L. Raney, Senior Vice President

On this the 3rd day of February, 2017, before me personally appeared **Robert L. Raney**, who acknowledged himself to be the Senior Vice President of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

**In Witness Whereof**, I hereunto set my hand and official seal.

My Commission expires the 30th day of June, 2021



*Marie C. Tetreault*  
 Marie C. Tetreault, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, which resolutions are now in full force and effect, reading as follows:

**RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

**FURTHER RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

**FURTHER RESOLVED**, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

**FURTHER RESOLVED**, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, **Kevin E. Hughes**, the undersigned, Assistant Secretary of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this 20th day of September, 2021



*Kevin E. Hughes*  
 Kevin E. Hughes, Assistant Secretary

**To verify the authenticity of this Power of Attorney, please call us at 1-800-421-3880.**  
**Please refer to the above-named Attorney-in-Fact and the details of the bond to which the power is attached.**

**Power Of Attorney  
BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY  
NATIONAL INDEMNITY COMPANY / NATIONAL LIABILITY & FIRE INSURANCE COMPANY**

Know all men by these presents, that **BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY**, a corporation existing under and by virtue of the laws of the State of Nebraska and having an office at One Lincoln Street, 23rd Floor, Boston, Massachusetts 02111, **NATIONAL INDEMNITY COMPANY**, a corporation existing under and by virtue of the laws of the State of Nebraska and having an office at 3024 Harney Street, Omaha, Nebraska 68131 and **NATIONAL LIABILITY & FIRE INSURANCE COMPANY**, a corporation existing under and by virtue of the laws of the State of Connecticut and having an office at 100 First Stamford Place, Stamford, Connecticut 06902 (hereinafter collectively the "Companies"), pursuant to and by the authority granted as set forth herein, do hereby name, constitute and appoint: **Kevin Wojtowicz, 1000 Central Avenue, Suite 200 of the city of St. Petersburg, State of Florida**, their true and lawful attorney(s)-in-fact to make, execute, seal, acknowledge, and deliver, for and on their behalf as surety and as their act and deed, any and all undertakings, bonds, or other such writings obligatory in the nature thereof, in pursuance of these presents, the execution of which shall be as binding upon the Companies as if it has been duly signed and executed by their regularly elected officers in their own proper persons. This authority for the Attorney-in-Fact shall be limited to the execution of the attached bond(s) or other such writings obligatory in the nature thereof.

In witness whereof, this Power of Attorney has been subscribed by an authorized officer of the Companies, and the corporate seals of the Companies have been affixed hereto this date of December 20, 2018. This Power of Attorney is made and executed pursuant to and by authority of the Bylaws, Resolutions of the Board of Directors, and other Authorizations of **BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY, NATIONAL INDEMNITY COMPANY and NATIONAL LIABILITY & FIRE INSURANCE COMPANY**, which are in full force and effect, each reading as appears on the back page of this Power of Attorney, respectively. The following signature by an authorized officer of the Company may be a facsimile, which shall be deemed the equivalent of and constitute the written signature of such officer of the Company for all purposes regarding this Power of Attorney, including satisfaction of any signature requirements on any and all undertakings, bonds, or other such writings obligatory in the nature thereof, to which this Power of Attorney applies.

**BERKSHIRE HATHAWAY SPECIALTY  
INSURANCE COMPANY,**

By:

David Fields, Executive Vice President



**NATIONAL INDEMNITY COMPANY,  
NATIONAL LIABILITY & FIRE INSURANCE COMPANY,**

By:

David Fields, Vice President

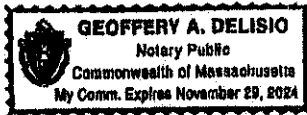


**NOTARY**

State of Massachusetts, County of Suffolk, ss:

On this 20th day of December, 2018, before me appeared David Fields, Executive Vice President of **BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY** and Vice President of **NATIONAL INDEMNITY COMPANY** and **NATIONAL LIABILITY & FIRE INSURANCE COMPANY**, who being duly sworn, says that his capacity is as designated above for such Companies; that he knows the corporate seals of the Companies; that the seals affixed to the foregoing Instrument are such corporate seals; that they were affixed by order of the board of directors or other governing body of said Companies pursuant to its Bylaws, Resolutions and other Authorizations, and that he signed said instrument in that capacity of said Companies.

[Notary Seal]



Notary Public

I, Ralph Tortorella, the undersigned, Officer of **BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY, NATIONAL INDEMNITY COMPANY and NATIONAL LIABILITY & FIRE INSURANCE COMPANY**, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies which is in full force and effect and has not been revoked. IN TESTIMONY WHEREOF, see hereunto affixed the seals of said Companies this September 20, 2021.



Officer

To verify the authenticity of this Power of Attorney please contact us at BHSI Surety Department, Berkshire Hathaway Specialty Insurance Company, One Lincoln Street, 23rd Floor Boston, MA 02111 | (770) 625-3516 or by email at [Jennifer.Parkes@bhsurety.com](mailto:Jennifer.Parkes@bhsurety.com) THIS POWER OF ATTORNEY IS VOID IF ALTERED To notify us of a claim please contact us on our 24-hour toll free number at (855) 454-9675, via email at [claims@bhsurety.com](mailto:claims@bhsurety.com), via fax to (617) 507-8259, or via mail.

**CONSENT OF  
SURETY COMPANY  
TO FINAL PAYMENT**

Conforms with the American Institute of  
Architects, AIA Document G707

OWNER   
ARCHITECT   
CONTRACTOR   
SURETY   
OTHER

T: 107279767  
B: 47-SUR-3000124-01-0091

Bond No

**PROJECT:** VPS Parking Lot B Expansion  
(name, address)

**TO (Owner)**

Okaloosa County  
101 E. James Lee Blvd. Room 288  
 Crestview, FL 32536

**ARCHITECT'S PROJECT NO:** ITB AP 27-20  
**CONTRACT FOR:** VPS Parking Lot B Expansion  
 **CONTRACT DATE:**

**CONTRACTOR:** Anderson Columbia Co., Inc.

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above, the  
*(here insert name and address of Surety Company)*

Travelers Casualty and Surety Company of America, One Tower Square, Hartford, CT 06183 and  
Berkshire Hathaway Specialty Insurance Company, 1314 Douglas St., Ste 1400, **, SURETY COMPANY**  
Omaha, NE 68102

on bond of *(here insert name and address of Contractor)*

Anderson Columbia Co., Inc. **, CONTRACTOR,**  
2316 Highway 71, Marianna, FL 32448

hereby approves of the final payment to the Contractor, and agrees that final payment to the Contractor shall not relieve  
the Surety Company of any of its obligations to *(here insert name and address of Owner)*

Okaloosa County **, OWNER,**  
101 E. James Lee Blvd. Room 288, Crestview, FL 32536

as set forth in the said Surety Company's bond.

**IN WITNESS, WHEREOF,**  
the Surety Company has hereunto set its hand this

20th day of , September, 2021

Travelers Casualty and Surety Company of America AND  
Berkshire Hathaway Specialty Insurance Company

Surety Company



Signature of Authorized Representative

Kevin Wojtowicz

Attorney-in-Fact

Title

Attest:  
(Seal):

NOTE: This form is to be used as a companion document to AIA DOCUMENT G700, CONTRACTOR'S AFFIDAVIT OF PAYMENT OF DEDTS AND CLAIMS,  
Current Edition.



**Travelers Casualty and Surety Company of America  
Travelers Casualty and Surety Company  
St. Paul Fire and Marine Insurance Company**

**POWER OF ATTORNEY**

**KNOW ALL MEN BY THESE PRESENTS:** That Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint **Kevin Wojtowicz** of **SAINT PETERSBURG Florida**, their true and lawful Attorney-in-Fact to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.  
**IN WITNESS WHEREOF**, the Companies have caused this instrument to be signed, and their corporate seals to be hereto affixed, this **3rd day of February, 2017**.



State of Connecticut

City of Hartford ss.

By: *Robert L. Raney*  
Robert L. Raney, Senior Vice President

On this the **3rd day of February, 2017**, before me personally appeared **Robert L. Raney**, who acknowledged himself to be the Senior Vice President of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.

My Commission expires the **30th day of June, 2021**



*Marie C. Tetreault*  
Marie C. Tetreault, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, which resolutions are now in full force and effect, reading as follows:

**RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her, and it is

**FURTHER RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

**FURTHER RESOLVED**, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

**FURTHER RESOLVED**, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, **Kevin E. Hughes**, the undersigned, Assistant Secretary of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this **20th** day of **September**, **2021**



*Kevin E. Hughes*  
Kevin E. Hughes, Assistant Secretary

**To verify the authenticity of this Power of Attorney, please call us at 1-800-421-3880.  
Please refer to the above-named Attorney-in-Fact and the details of the bond to which the power is attached.**





Berkshire Hathaway Specialty Insurance

47-SUR-3000124-01-0091

Power Of Attorney
BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY
NATIONAL INDEMNITY COMPANY / NATIONAL LIABILITY & FIRE INSURANCE COMPANY

Know all men by these presents, that BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY, a corporation existing under and by virtue of the laws of the State of Nebraska and having an office at One Lincoln Street, 23rd Floor, Boston, Massachusetts 02111, NATIONAL INDEMNITY COMPANY, a corporation existing under and by virtue of the laws of the State of Nebraska and having an office at 3024 Harney Street, Omaha, Nebraska 68131 and NATIONAL LIABILITY & FIRE INSURANCE COMPANY, a corporation existing under and by virtue of the laws of the State of Connecticut and having an office at 100 First Stamford Place, Stamford, Connecticut 06902 (hereinafter collectively the "Companies"), pursuant to and by the authority granted as set forth herein, do hereby name, constitute and appoint: Kevin Wojtowicz, 1000 Central Avenue, Suite 200 of the city of St. Petersburg, State of Florida, their true and lawful attorney(s)-in-fact to make, execute, seal, acknowledge, and deliver, for and on their behalf as surety and as their act and deed, any and all undertakings, bonds, or other such writings obligatory in the nature thereof, in pursuance of these presents, the execution of which shall be as binding upon the Companies as if it has been duly signed and executed by their regularly elected officers in their own proper persons. This authority for the Attorney-in-Fact shall be limited to the execution of the attached bond(s) or other such writings obligatory in the nature thereof.

In witness whereof, this Power of Attorney has been subscribed by an authorized officer of the Companies, and the corporate seals of the Companies have been affixed hereto this date of December 20, 2018. This Power of Attorney is made and executed pursuant to and by authority of the Bylaws, Resolutions of the Board of Directors, and other Authorizations of BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY, NATIONAL INDEMNITY COMPANY and NATIONAL LIABILITY & FIRE INSURANCE COMPANY, which are in full force and effect, each reading as appears on the back page of this Power of Attorney, respectively. The following signature by an authorized officer of the Company may be a facsimile, which shall be deemed the equivalent of and constitute the written signature of such officer of the Company for all purposes regarding this Power of Attorney, including satisfaction of any signature requirements on any and all undertakings, bonds, or other such writings obligatory in the nature thereof, to which this Power of Attorney applies.

BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY,

[Signature of David Fields]

By:

David Fields, Executive Vice President



NATIONAL INDEMNITY COMPANY, NATIONAL LIABILITY & FIRE INSURANCE COMPANY,

[Signature of David Fields]

By:

David Fields, Vice President

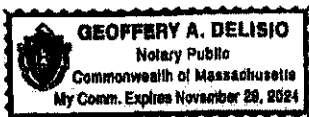


NOTARY

State of Massachusetts, County of Suffolk, ss:

On this 20th day of December, 2018, before me appeared David Fields, Executive Vice President of BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY and Vice President of NATIONAL INDEMNITY COMPANY and NATIONAL LIABILITY & FIRE INSURANCE COMPANY, who being duly sworn, says that his capacity is as designated above for such Companies; that he knows the corporate seals of the Companies; that the seals affixed to the foregoing instrument are such corporate seals; that they were affixed by order of the board of directors or other governing body of said Companies pursuant to its Bylaws, Resolutions and other Authorizations, and that he signed said instrument in that capacity of said Companies.

[Notary Seal]



[Signature of Geoffrey A. Delisio]

Notary Public

I, Ralph Tortorella, the undersigned, Officer of BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY, NATIONAL INDEMNITY COMPANY and NATIONAL LIABILITY & FIRE INSURANCE COMPANY, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies which is in full force and effect and has not been revoked. IN TESTIMONY WHEREOF, see hereunto affixed the seals of said Companies this September 20, 2021.



[Signature of Ralph Tortorella]

Officer

To verify the authenticity of this Power of Attorney please contact us at BHSIC Surety Department, Berkshire Hathaway Specialty Insurance Company, One Lincoln Street, 29th Floor, Boston, MA 02111. | (770) 625-2516 or by email at kwojto@bhsic.com. THIS POWER OF ATTORNEY IS VOID IF ALTERED. To notify us of a claim please contact us on our 24-hour toll free number at (855) 453-9675, via email at claim@bhsic.com, via fax to (617) 547-8259, or via mail.

**WAIVER and RELEASE OF LIEN  
UPON FINAL PAYMENT**

The undersigned lienor, in consideration of the Final Payment in the amount of  
\$309,861.63 hereby waives and releases its lien and right to claim a lien of labor, services, or  
materials furnished to Okaloosa County Board of County Commissioners on the job of VPS  
Airport Parking Lot B Expansion-Fort Walton Beach, FL to the following described property:

VPS Airport Parking Lot B

Ft. Walton Beach, FL

This waiver and release does not cover any retention of labor, services or materials furnished  
after the date specified.

DATED on:

Lienor Name: Anderson Columbia Co., Inc.

Address: 624 NE Hwy 349, Old Town, FL 32680

Authorized Signature:

*Becky Bussard*

Printed Name:

*Becky Bussard*

---

STATE OF FLORIDA

COUNTY OF DIXIE

The Foregoing instrument was acknowledged before me this 28<sup>th</sup> day of September, 2021 by  
Becky Bussard who is personally known to me or has produced identification.

Notary Public

*Suzan J. Carnright*

Commission Expiration

(or No



*A person may not require a lienor to furnish a lien waiver or release of lien that is different from  
the forms in Florida Statutes Chapter 713, Section 20, Subsection (4) or Subsection (5).*

ACCI JOB # 320201

**WAIVER OF LIEN AND RELEASE OF ALL CLAIMS  
UPON FINAL PAYMENT**

**BIG ISLAND CONSTRUCTION CO  
2121 WHITEHOUSE RD, MONTICELLO FL 32344**

Upon receipt of payment in the amount of \$20,240.00 BIG ISLAND CONSTRUCTION CO does hereby release its lien and right to claim a lien and does further hereby fully and finally release and discharge ANDERSON COLUMBIA CO. INC., its surety and OKALOOSA COUNTY BOARD OF COUN [OWNER] the owner, from any and all claims, suits or liens in law or in equity of every kind and nature whatsoever, including but not limited to: claims for additional work, extra work, extended or additional job cost and overhead, lost profits, lost productivity, inefficiency, impact costs and the like, claims or demands arising from any claimed delays, disruptions or changes to the work as well as any such action relating to the payment bond associated with the Project, if any. In addition, the undersigned hereby certifies that they have been paid in full for all labor, services, or materials for which a claim or lien could be filed on the Project.

In the construction of VPS PRK LOT B EXPANSION- FT WALTON BCH AIRPORT-ITB AP 27-20 (the Project)

This waiver and release does not cover any retention or labor services or materials furnished after the date specified herein.

Dated On 9/22, 2021

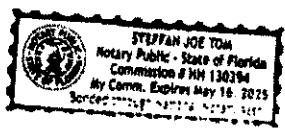
BIG ISLAND CONSTRUCTION CO  
By Cherie Nodge  
(Signature)  
Its Pres  
(Title)

STATE OF FLORIDA  
COUNTY OF Jefferson

The foregoing instrument was acknowledged before me by means of  physical presence or  online notarization, this 22 day of Sept, 2021, by Cherie Nodge as Pres for Big Island Const

Steffan Tom  
Notary Public, State of Florida at Large  
Steffan Tom  
Print, Type or Stamp Name of Notary

Personally Known OR Produced Identification  
Type of Identification Produced: \_\_\_\_\_



ACCI JOB # 320201

SUBCONTRACTOR'S FINAL PAYMENT AFFIDAVIT

STATE OF FLORIDA  
COUNTY OF Jefferson

Before me, the undersigned authority, personally appeared Cherrie Hodge, after being first duly sworn, deposes and says of his or her personal knowledge the following.

1. He or she is the President of BIG ISLAND CONSTRUCTION CO, which does business in the State of Florida, hereinafter referred to as the "Subcontractor."
2. Subcontractor, pursuant to a subcontract agreement with Anderson Columbia Co., Inc. ("Contractor"), has furnished or caused to be furnished labor, materials and services for the construction of certain improvements to real property as more particularly set forth in said subcontract.
3. This affidavit is executed by Subcontractor for the purposes of obtaining final payment from Contractor in the amount of \$20,240.00
4. All work to be performed under the subcontract has been fully completed and all lower-tier subcontractors and suppliers who provided a notice to owner or notice to contractor, and all lienors under the direct contract, have been paid in full, except the following listed lienors

<u>NAME OF LIENOR</u>	<u>AMOUNT DUE</u>
-----------------------	-------------------

Signed, sealed and delivered this 27 day of Sept, 2021.

Cherrie Hodge  
 (Name of Affiant)  
Pres  
 (Title of Affiant)

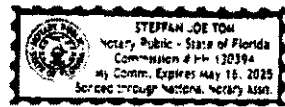
BIG ISLAND CONSTRUCTION CO  
 (Name of Subcontractor)

Sworn to and subscribed before me by mean of  physical presence or  online notarization, this day of 9/27, 2021, by Cherrie Hodge, Pres. for Big Island Const

Stephan Tom  
 Notary Public, State of Florida at Large

Stephan Tom  
 Print, Type or Stamp Name of Notary

Personally Known OR Produced Identification  
 Type of Identification Produced: \_\_\_\_\_



ACCI JOB # 320201

WAIVER OF LIEN AND RELEASE OF ALL CLAIMS  
UPON FINAL PAYMENT

CONSTRUCTION MATERIALS OF NORTHWEST FLORIDA INC  
PO BOX 1247, SHALIMAR FL 32678

Upon receipt of payment in the amount of \$23,156.25 CONSTRUCTION MATERIALS OF NORTHWEST FLORIDA INC does hereby release its lien and right to claim a lien and does further hereby fully and finally release and discharge ANDERSON COLUMBIA CO., INC., its surety and OKALOOSA COUNTY BOARD OF COUN [OWNER] the owner, from any and all claims, suits or liens in law or in equity of every kind and nature whatsoever, including but not limited to: claims for additional work, extra work, extended or additional job cost and overhead, lost profits, lost productivity, inefficiency, impact costs and the like, claims or demands arising from any claimed delays, disruptions or changes to the work as well as any such action relating to the payment bond associated with the Project, if any. In addition, the undersigned hereby certifies that they have been paid in full for all labor, services, or materials for which a claim or lien could be filed on the Project.

In the construction of: VPS PRK LOT B EXPANSION- FT WALTON BCH AIRPORT-ITB AP 27-20 (the "Project")

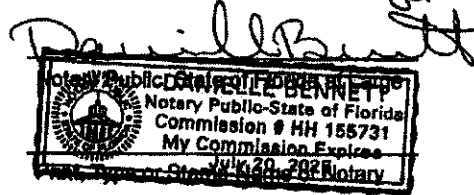
This waiver and release does not cover any retention or labor, services, or materials furnished after the date specified herein.

Dated On September 22 20 21.

CONSTRUCTION MATERIALS OF NORTHWEST F  
By: *Patricia Moreland*  
(Signature)  
Its: OFFICE MANAGER  
(Title)

STATE OF FLORIDA  
COUNTY OF OKALOOSA

The foregoing instrument was acknowledged before me by means of  physical presence or  online notarization, this 22 day of September 20 21, by Patricia Moreland as Office Manager for Construction Materials of Northwest Florida



Personally Known OR Produced Identification

Type of Identification Produced: FL. LICENSE #M645-697-60-691-0

ACCI JOB # 320201

SUBCONTRACTOR'S FINAL PAYMENT AFFIDAVIT

STATE OF FLORIDA  
COUNTY OF Okaloosa

Before me, the undersigned authority, personally appeared Trisha Moreland, who, after being first duly sworn, deposes and says of his or her personal knowledge the following:

1. He or she is the Office Manager of CONSTRUCTION MATERIALS OF NORTHWEST FLORIDA INC, which does business in the State of Florida, hereinafter referred to as the "Subcontractor."

2. Subcontractor, pursuant to a subcontract agreement with Anderson Columbia Co., Inc. ("Contractor"), has furnished or caused to be furnished labor, materials and services for the construction of certain improvements to real property as more particularly set forth in said subcontract.

3. This affidavit is executed by Subcontractor for the purposes of obtaining final payment from Contractor in the amount of \$23,166.26.

4. All work to be performed under the subcontract has been fully completed and all lower-tier subcontractors and suppliers who provided a notice to owner or notice to contractor, and all lienors under the direct contract, have been paid in full, except the following listed lienors:

<u>NAME OF LIENOR</u>	<u>AMOUNT DUE</u>
-----------------------	-------------------

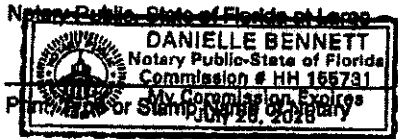
Signed, sealed and delivered this 22 day of September, 20 21.

Trisha Moreland  
(Name of Affiant)  
Office Manager  
(Title of Affiant)

CONSTRUCTION MATERIALS OF NORTHWEST  
FLORIDA INC

Sworn to and subscribed before me by mean of  physical presence or  online notarization, this 22nd day of September 20 21, by Patricia Moreland

Danielle Bennett



Personally Known OR Produced Identification

Type of Identification Produced: PKD

ACCI JOB # 320201

**WAIVER OF LIEN AND RELEASE OF ALL CLAIMS  
UPON FINAL PAYMENT**

**EMERALD COAST STRIPING, LLC  
1901 N. EAST AVE, PANAMA CITY FL 32405**

Upon receipt of payment in the amount of \$1,619.31 EMERALD COAST STRIPING, LLC does hereby release its lien and right to claim a lien and does further hereby fully and finally release and discharge ANDERSON COLUMBIA CO. INC. its surety and OKALOOSA COUNTY BOARD OF COUN [OWNER] the owner, from any and all claims, suits or liens in law or in equity of every kind and nature whatsoever, including but not limited to: claims for additional work, extra work, extended or additional job cost and overhead, lost profits, lost productivity, inefficiency, impact costs and the like, claims or demands arising from any claimed delays, disruptions or changes to the work as well as any such action relating to the payment bond associated with the Project, if any. In addition, the undersigned hereby certifies that they have been paid in full for all labor, services, or materials for which a claim or lien could be filed on the Project.

In the construction of: VPS PRK LOT B EXPANSION- FT WALTON BCH AIRPORT-ITB AP 27-20 (the "Project")

This waiver and release does not cover any retention or labor, services, or materials furnished after the date specified herein.

Dated On 23 Sept 2021

EMERALD COAST STRIPING, LLC

By: \_\_\_\_\_

(Signature)

Its: Patrick Neville - CFO

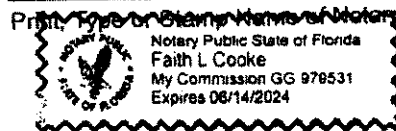
(Title)

STATE OF FLORIDA

COUNTY OF Bay

The foregoing instrument was acknowledged before me by means of  physical presence or  online notarization, this 23rd day of Sept, 2021, by Patrick Neville as CFO for Emerald Coast Striping

Faith L. Cooke  
Notary Public, State of Florida at Large



Personally Known OR Produced Identification

Type of Identification Produced: \_\_\_\_\_

*M 9/23/21*

ACCI JOB # 320201

SUBCONTRACTOR'S FINAL PAYMENT AFFIDAVIT

STATE OF FLORIDA

COUNTY OF Bay

Before me, the undersigned authority, personally appeared Patrick Neville who, after being first duly sworn, deposes and says of his or her personal knowledge the following:

1. He or she is the CEO of EMERALD COAST STRIPING, LLC, which does business in the State of Florida, hereinafter referred to as the "Subcontractor."

2. Subcontractor, pursuant to a subcontract agreement with Anderson Columbia Co., Inc. ("Contractor"), has furnished or caused to be furnished labor, materials and services for the construction of certain improvements to real property as more particularly set forth in said subcontract.

3. This affidavit is executed by Subcontractor for the purposes of obtaining final payment from Contractor in the amount of \$1,619.31.

4. All work to be performed under the subcontract has been fully completed and all lower-tier subcontractors and suppliers who provided a notice to owner or notice to contractor, and all lienors under the direct contract, have been paid in full, except the following listed lienors:

NAME OF LIENOR                      AMOUNT DUE

Signed, sealed and delivered this 23<sup>rd</sup> day of Sept., 2021.

[Signature]  
(Name of Affiant)  
Patrick Neville CEO  
(Title of Affiant)

EMERALD COAST STRIPING, LLC  
(Name of Subcontractor)

Sworn to and subscribed before me by mean of  physical presence or  online notarization, this 23<sup>rd</sup> day of Sept., 2021, by Patrick Neville

Faith L Cooke  
Notary Public, State of Florida at Large

Print, Type or Stamp Name of Notary

Personally Known OR Produced Identification  
Type of Identification Produced: \_\_\_\_\_





ACCI JOB # 320201

**WAIVER OF LIEN AND RELEASE OF ALL CLAIMS  
UPON FINAL PAYMENT**

**INGRAM SIGNALIZATION  
4522 NORTH DAVIS HIGHWAY, PENSACOLA FL 32503**


Upon receipt of payment in the amount of **\$7,457.50** INGRAM SIGNALIZATION does hereby release its lien and right to claim a lien and does further hereby fully and finally release and discharge ANDERSON COLUMBIA CO., INC., its surety and OKALOOSA COUNTY BOARD OF COUN [OWNER] the owner, from any and all claims, suits or liens in law or in equity of every kind and nature whatsoever, including but not limited to: claims for additional work, extra work, extended or additional job cost and overhead, lost profits, lost productivity, inefficiency, impact costs and the like, claims or demands arising from any claimed delays, disruptions or changes to the work as well as any such action relating to the payment bond associated with the Project, if any. In addition, the undersigned hereby certifies that they have been paid in full for all labor, services, or materials for which a claim or lien could be filed on the Project.

In the construction of: VPS PRK LOT B EXPANSION- FT WALTON BCH AIRPORT-ITB AP 27-20 (the "Project")

This waiver and release does not cover any retention or labor, services, or materials furnished after the date specified herein.

Dated On September 23, 20 21.

INGRAM SIGNALIZATION

By:   
(Signature)  
Its: President  
(Title)

STATE OF FLORIDA  
COUNTY OF Escambia

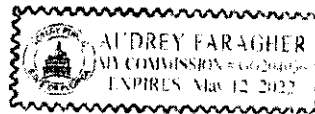
The foregoing instrument was acknowledged before me by means of  physical presence or  online notarization, this 23rd day of September, 2021, by Traci Ingram-Gay as President for Ingram Signalization, Inc.

  
Notary Public, State of Florida at Large

Audrey Faragher  
Print, Type or Stamp Name of Notary

Personally Known OR Produced Identification

Type of Identification Produced: \_\_\_\_\_



*Handwritten note:* 12/9/23/21

ACCI JOB # 320201

SUBCONTRACTOR'S FINAL PAYMENT AFFIDAVIT

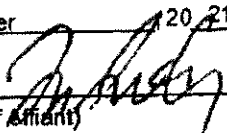
STATE OF FLORIDA  
COUNTY OF Escambia

Before me, the undersigned authority, personally appeared Traci Ingram-Gay, who, after being first duly sworn, deposes and says of his or her personal knowledge the following:

1. He or she is the President of INGRAM SIGNALIZATION, which does business in the State of Florida, hereinafter referred to as the "Subcontractor."
2. Subcontractor, pursuant to a subcontract agreement with Anderson Columbia Co., Inc. ("Contractor"), has furnished or caused to be furnished labor, materials and services for the construction of certain improvements to real property as more particularly set forth in said subcontract.
3. This affidavit is executed by Subcontractor for the purposes of obtaining final payment from Contractor in the amount of \$7,457.50.
4. All work to be performed under the subcontract has been fully completed and all lower-tier subcontractors and suppliers who provided a notice to owner or notice to contractor, and all lienors under the direct contract, have been paid in full, except the following listed lienors:

<u>NAME OF LIENOR</u>	<u>AMOUNT DUE</u>
-----------------------	-------------------

Signed, sealed and delivered this 23rd day of September, 2021.

  
 \_\_\_\_\_  
 (Name of Affiant)  
 President  
 \_\_\_\_\_  
 (Title of Affiant)

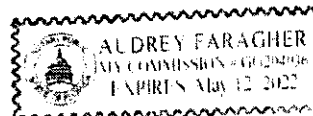
INGRAM SIGNALIZATION  
(Name of Subcontractor)

Sworn to and subscribed before me by mean of  physical presence or  online notarization, this 23rd day of September, 2021, by Traci Ingram-Gay.

  
 \_\_\_\_\_  
 Notary Public, State of Florida at Large

Audrey Faragher  
\_\_\_\_\_  
Print, Type or Stamp Name of Notary

Personally Known OR Produced Identification  
Type of Identification Produced: \_\_\_\_\_



ACCI JOB # 320201

**WAIVER OF LIEN AND RELEASE OF ALL CLAIMS  
UPON FINAL PAYMENT**

**J&P FENCE INC  
1495 LIPFORD ROAD, MARIANNA FL 32448**

Upon receipt of payment in the amount of \$163.44 J&P FENCE INC does hereby release its lien and right to claim a lien and does further hereby fully and finally release and discharge ANDERSON COLUMBIA CO., INC., its surety and OKALOOSA COUNTY BOARD OF COUN [OWNER] the owner, from any and all claims, suits or liens in law or in equity of every kind and nature whatsoever, including but not limited to, claims for additional work, extra work, extended or additional job cost and overhead, lost profits, lost productivity, inefficiency, impact costs and the like, claims or demands arising from any claimed delays, disruptions or changes to the work as well as any such action relating to the payment bond associated with the Project, if any. In addition, the undersigned hereby certifies that they have been paid in full for all labor, services, or materials for which a claim or lien could be filed on the Project.

In the construction of: VPS PRK LOT B EXPANSION- FT WALTON BCH AIRPORT-ITB AP 27-20 (the "Project")

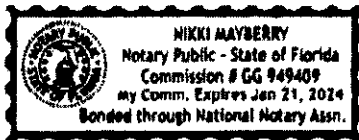
This waiver and release does not cover any retention or labor, services, or materials furnished after the date specified herein.

Dated On 9/23, 2021

J&P FENCE INC  
By: [Signature]  
(Signature)  
Its Vice President  
(Title)

STATE OF FLORIDA  
COUNTY OF Jackson

The foregoing instrument was acknowledged before me by means of  physical presence or  online notarization, this 23<sup>rd</sup> day of Sept, 2021, by Tebecca Partin as Vice President for J&P Fence, Inc.



[Signature]  
Notary Public, State of Florida at Large

Print, Type or Stamp Name of Notary

Personally Known OR Produced Identification

Type of Identification Produced: \_\_\_\_\_

*m 9/23/21*

ACCI JOB # 320201

SUBCONTRACTOR'S FINAL PAYMENT AFFIDAVIT

STATE OF FLORIDA  
COUNTY OF Jackson

Before me, the undersigned authority, personally appeared Rebecca Partin who, after being first duly sworn, deposes and says of his or her personal knowledge the following:

1. He or she is the Vice President of J&P FENCE INC, which does business in the State of Florida, hereinafter referred to as the "Subcontractor."

2. Subcontractor, pursuant to a subcontract agreement with Anderson Columbia Co., Inc. ("Contractor"), has furnished or caused to be furnished labor, materials and services for the construction of certain improvements to real property as more particularly set forth in said subcontract.

3. This affidavit is executed by Subcontractor for the purposes of obtaining final payment from Contractor in the amount of \$163.44.

4. All work to be performed under the subcontract has been fully completed and all lower-tier subcontractors and suppliers who provided a notice to owner or notice to contractor, and all lienors under the direct contract, have been paid in full, except the following listed lienors:

NAME OF LIENOR                      AMOUNT DUE

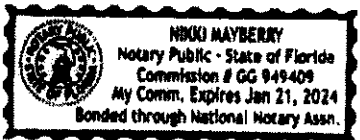
Signed, sealed and delivered this 23 day of September, 2021.

Rebecca Partin  
\_\_\_\_\_  
(Name of Affiant)  
Vice President  
\_\_\_\_\_  
(Title of Affiant)

J&P FENCE INC  
(Name of Subcontractor)

Sworn to and subscribed before me by mean of  physical presence or  online notarization, this 23rd day of Sept, 2021, by Rebecca Partin

Nikki Mayberry  
\_\_\_\_\_  
Notary Public, State of Florida at Large



\_\_\_\_\_  
Print, Type or Stamp Name of Notary

Personally Known OR Produced Identification  
Type of Identification Produced: \_\_\_\_\_

ACCI JOB # 328291

*Left*

**WAIVER OF LIEN AND RELEASE OF ALL CLAIMS  
UPON FINAL PAYMENT**

**P.N.J. CONCRETE INC  
1486 BOY SCOUT ROAD, DEFUNIAK SPRINGS FL 32438**

Upon receipt of payment in the amount of \$1,748.78 P.N.J. CONCRETE INC does hereby release its lien and right to claim a lien and does further hereby fully and finally release and discharge ANDERSON COLUMBIA CO., INC., its surety and OKALOOSA COUNTY BOARD OF COUN [OWNER] the owner, from any and all claims, suits or liens in law or in equity of every kind and nature whatsoever, including but not limited to: claims for additional work, extra work, extended or additional job cost and overhead, lost profits, lost productivity, inefficiency, impact costs and the like, claims or demands arising from any claimed delays, disruptions or changes to the work, as well as any such action relating to the payment bond associated with the Project, if any. In addition, the undersigned hereby certifies that they have been paid in full for all labor, services, or materials for which a claim or lien could be filed on the Project.

In the construction of: VPS PRK LOT B EXPANSION- FT WALTON BCH AIRPORT-ITB AP 27-20 (the "Project")

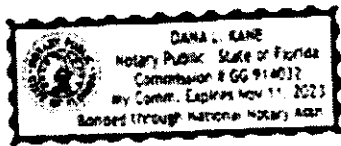
This waiver and release does not cover any retention or labor, services, or materials furnished after the date specified herein.

Dated On: 23<sup>rd</sup> Sept 2021

P.N.J. CONCRETE INC  
By: *Nancy S. Harker*  
(Signature)  
Its: Registered Agent  
(Title)

STATE OF FLORIDA  
COUNTY OF Walton

The foregoing instrument was acknowledged before me by means of  physical presence or  online notarization, this 23<sup>rd</sup> day of September 2021, by Nancy S. Harker as Registered Agent for P.N.J. Concrete, Inc.



*DANA L. KANE*  
Notary Public, State of Florida at Large  
DANA L. KANE  
Print, Type or Stamp Name of Notary

Personally Known OR Produced Identification  
Type of Identification Produced \_\_\_\_\_

ACCI JOB # 328201

SUBCONTRACTOR'S FINAL PAYMENT AFFIDAVIT

STATE OF FLORIDA  
COUNTY OF WALTON

Before me, the undersigned authority, personally appeared Nancy S. Harb, who, after being first duly sworn, deposes and says of his or her personal knowledge the following:

1. He or she is the Registered Agent of P.N.J. CONCRETE INC, which does business in the State of Florida, hereinafter referred to as the "Subcontractor."

2. Subcontractor, pursuant to a subcontract agreement with Anderson Columbia Co., Inc. ("Contractor"), has furnished or caused to be furnished labor, materials and services for the construction of certain improvements to real property as more particularly set forth in said subcontract.

3. This affidavit is executed by Subcontractor for the purposes of obtaining final payment from Contractor in the amount of \$1,748.70.

4. All work to be performed under the subcontract has been fully completed and all lower-tier subcontractors and suppliers who provided a notice to owner or notice to contractor, and all lienors under the direct contract, have been paid in full, except the following listed lienor:

NAME OF LIENOR

AMOUNT DUE

Signed, sealed and delivered this 25<sup>th</sup> day of September, 2021.

Nancy S. Harb

(Name of Affiant)

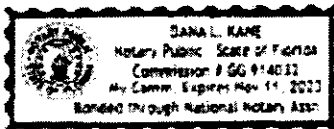
Registered Agent

(Title of Affiant)

P.N.J. CONCRETE INC

(Name of Subcontractor)

Sworn to and subscribed before me by means of  physical presence or  online notarization, this 25<sup>th</sup> day of September, 2021, by Nancy S. Harb.



Dana L. Kane

Notary Public, State of Florida at Large

Dana L. Kane

Print, Type or Stamp Name of Notary

Personally Known OR Produced Identification

Type of Identification Produced: \_\_\_\_\_

ACCI JOB # 320201

**WAIVER OF LIEN AND RELEASE OF ALL CLAIMS  
UPON FINAL PAYMENT**

**RYLES GRASSING, LLC  
PO BOX 711, BAKER FL 32531**

Upon receipt of payment in the amount of \$4,740.00 RYLES GRASSING, LLC does hereby release its lien and right to claim a lien and does further hereby fully and finally release and discharge ANDERSON COLUMBIA CO., INC., its surety and OKALOOSA COUNTY BOARD OF COUN [OWNER] the owner, from any and all claims, suits or liens in law or in equity of every kind and nature whatsoever, including but not limited to: claims for additional work, extra work, extended or additional job cost and overhead, lost profits, lost productivity, inefficiency, impact costs and the like, claims or demands arising from any claimed delays, disruptions or changes to the work as well as any such action relating to the payment bond associated with the Project, if any. In addition, the undersigned hereby certifies that they have been paid in full for all labor, services, or materials for which a claim or lien could be filed on the Project

In the construction of: VPS PRK LOT B EXPANSION- FT WALTON BCH AIRPORT-ITB AP 27-20 (the "Project")

This waiver and release does not cover any retention or labor, services, or materials furnished after the date specified herein.

Dated On Sept 23<sup>rd</sup>, 2021.

RYLES GRASSING, LLC  
By: *Chris Ryles*  
(Signature)  
Its: Owner  
(Title)

STATE OF FLORIDA  
COUNTY OF Okaloosa

The foregoing instrument was acknowledged before me by means of  physical presence or  online notarization, this 23<sup>rd</sup> day of Sept, 2021, by Chris Ryles as Owner for Ryles Grassing, LLC



*Tabatha Ann McLeod*  
Notary Public, State of Florida at Large  
Tabatha Ann McLeod  
Print, Type or Stamp Name of Notary  
444 149487

Personally Known OR Produced Identification

Type of Identification Produced: \_\_\_\_\_

ACCI JOB # 320201

SUBCONTRACTOR'S FINAL PAYMENT AFFIDAVIT

STATE OF FLORIDA  
COUNTY OF Okaloosa

Before me, the undersigned authority, personally appeared Christy Ryles who, after being first duly sworn, deposes and says of his or her personal knowledge the following:

1. He or she is the Owner of RYLES GRASSING, LLC, which does business in the State of Florida, hereinafter referred to as the "Subcontractor."
2. Subcontractor, pursuant to a subcontract agreement with Anderson Columbia Co., Inc. ("Contractor"), has furnished or caused to be furnished labor, materials and services for the construction of certain improvements to real property as more particularly set forth in said subcontract.
3. This affidavit is executed by Subcontractor for the purposes of obtaining final payment from Contractor in the amount of \$4,740.00.
4. All work to be performed under the subcontract has been fully completed and all lower-tier subcontractors and suppliers who provided a notice to owner or notice to contractor, and all lienors under the direct contract, have been paid in full, except the following listed lienors:

<u>NAME OF LIENOR</u>	<u>AMOUNT DUE</u>
Signed, sealed and delivered this <u>23rd</u> day of <u>September</u> , 20 <u>21</u>	
<u>Christy Ryles</u>	
(Name of Affiant)	
<u>Owner</u>	
(Title of Affiant)	

RYLES GRASSING LLC  
(Name of Subcontractor)

Sworn to and subscribed before me by mean of  physical presence or  online notarization, this 23rd day of September, 2021, by Christy Ryles



Tabatha Ann McLeod  
Notary Public, State of Florida at Large  
Tabatha Ann McLeod  
Print, Type or Stamp Name of Notary  
HH 149487

Personally Known OR Produced Identification  
Type of Identification Produced: \_\_\_\_\_



## CONTRACT, LEASE, AGREEMENT CONTROL FORM

Date: 05/18/2021

Contract/Lease Control #: C20-2974-AP

Procurement#: ITB AP 27-20

Contract/Lease Type: CONTRACT

Award To/Lessee: ANDERSON COLUMBIA CO., INC.

Owner/Lessor: OKALOOSA COUNTY

Effective Date: 09/29/2020

Expiration Date: 06/25/2021

Description of: CONSTRUCT PARKING LOT B AT VPS

Department: AP

Department Monitor: STAGE

Monitor's Telephone #: 850-651-7160

Monitor's FAX # or E-mail: TSTAGE@MYOKALOOSA.COM

Closed:

Cc: BCC RECORDS

CONTRACT#: C20-2974-AP  
 ANDESON COLUMBIA CO., INC.  
 CONSTRUCT PARKING LOT B AT VPS  
 EXPIRES: 06/25/2021

**CHANGE ORDER FORM**

Date: 4-12-2021 Contract No.: C20-2974-AP Change Order No.: 01

Owner: OKALOOSA COUNTY BOARD OF COUNTY COMMISSIONERS

Contractor: Anderson Columbia Co., Inc.

CHANGE TO CONTRACT PRICE	
DESCRIPTION	AMOUNT
Original Contract Price:	\$ 1,650,641.10
Net change by previously authorized Change Orders:	0.00
Present Contract Price:	\$ 1,650,641.10
This Change Order will (add/deduct):	\$ 201,811.01
New Contract Price:	\$ 1,852,452.11

CHANGE TO CONTRACT TIME	
DESCRIPTION	DATE or NUMBER OF DAYS
Original Contract Time:	120
Original Substantial Completion Date:	03/29/2021
Net change by previously authorized Change Orders:	0
This Change Order will (add/deduct):	87
New Contract Time:	207
New Substantial Completion Date:	6/25/2021

APPROVALS

REQUESTED BY: [Signature]  
Tracy Stager, A.S.E., Airport's Director

DATE: 4.13.21

PROJECT ENGINEER: John Collins  
Digitally signed by John Collins  
 Date: 2021.04.12 10:04:55 -0500  
 John Collins P.E. Project Manager Avcon, Inc.

DATE: 4/12/21

CONTRACTOR: Kevin M Buchanan  
Digitally signed by Kevin M Buchanan  
 Date: 2021.04.12 10:23:05 -0500  
 Kevin Buchanan Project Manager Anderson Columbia Inc

DATE: 4/12/21

OWNER: [Signature]  
Carolyn N. Ketchel  
 Chairman, Board of County Commissioners

DATE: MAY 18 2021



This Change Order is an amendment to the Contract/Agreement between Contractor and the Owner, and all other contract provisions shall remain in full force and effect unless specifically amended in writing, signed by both parties.

## **Attachment A**

### **VPS Parking Lot B Expansion Destin-Fort Walton Beach Airport**

#### **Change Order No. 1 Justification April 12, 2021**

The primary purpose for Change Order No. 1 is to reconcile the contract quantities per the actual final quantities accepted and measured in the field and add additional work requested by the County to utilize available grant funds. This change order also adds 87 calendar days to the construction contract due to weather days experienced during the Parking Lot B Expansion construction period and additional time needed to construct the Baldwin Parking Lot improvements.

The revised construction quantities and prices are summarized in Attachment B. The changes to the scope of work are detailed in Attachments C through I.

**SUMMARY OF CHANGE ORDER NO. 1 QUANTITIES AND PRICES**  
**VPS Parking Lot B Expansion**  
**Destin - Ft. Walton Beach Airport, Okaloosa County, FL**

Anderson Columbia Co., Inc.

ITEM NUMBER	BID ITEM	ITEM DESCRIPTION	UNIT	CONTRACT QUANTITY	REVISED QUANTITY	UNIT PRICE	EXTENDED TOTAL	CHANGE IN AMOUNT	
<b>BASE BID - PARKING LOT B EXPANSION</b>									
1	101-1	MOBILIZATION	LS	1		\$ 50,000.00	\$ 50,000.00		
2	102-1	MAINTENANCE OF TRAFFIC	LS	1		\$ 1,894.65	\$ 1,894.65		
3	104-1	PREVENTION, CONTROL, AND ABATEMENT OF EROSION AND WATER POLLUTION	LS	1		\$ 7,498.63	\$ 7,498.63		
4	110-1	MISCELLANEOUS DEMOLITION	LS	1		\$ 10,331.90	\$ 10,331.90		
5	110-2	CLEARING AND GRUBBING WITH TREE REMOVAL	AC	0.5		\$ 11,999.46	\$ 7,199.68		
6	120-1	UNCLASSIFIED EXCAVATION AND EMBANKMENT	CY	2,400		\$ 15.04	\$ 36,096.00		
7	160-1	12" STABILIZED SUBBASE (LBR 40)	SY	27,750		\$ 2.74	\$ 76,035.00		
8	285-1	8" LIMEROCK BASE COURSE	SY	25,440		\$ 16.55	\$ 421,032.00		
9	334-1	2" SUPERPAVE ASPHALTIC CONCRETE	TON	2,800		\$ 107.11	\$ 299,908.00		
10	425-1	TYPE 5/6 CURB INLET, TYPE P BOTTOM	EA	5	6	\$ 5,978.16	\$ 29,890.80	\$ 5,978.16	
11	425-2	24" MITERED END SECTION	EA	2		\$ 2,521.39	\$ 5,042.78		
12	425-3	30" MITERED END SECTION	EA	2		\$ 4,439.21	\$ 8,878.42		
13	430-1	24" ADS, N-12 PIPE	LF	290		\$ 69.03	\$ 20,018.70		
14	430-2	30" ADS, N-12 PIPE	LF	180	200	\$ 91.73	\$ 18,511.40	\$ 1,834.60	
15	520-1	F-CURB	LF	2,030	2,080	\$ 27.79	\$ 58,413.70	\$ 1,389.50	
16	520-2	CONCRETE SIDEWALK	SY	330		\$ 56.85	\$ 18,760.50		
17	550-1	7-FT CHAIN LINK FENCE WITH ADDITIONAL 1-FT BARBED WIRE ATTACHMENT AND ROCK BASE	LF	825	340	\$ 42.07	\$ 34,707.75	\$ (20,403.95)	
18	550-2	TEMPORARY 7-FT CHAIN LINK FENCE WITH ADDITIONAL 1-FT BARBED WIRE ATTACHMENT	LF	550	0	\$ 40.40	\$ 22,220.00	\$ (22,220.00)	
19	570-1	SEEDING	SY	2,000	2,675	\$ 2.53	\$ 5,060.00	\$ 1,707.75	
20	570-2	SEEDING	SY	4,500	3,600	\$ 0.63	\$ 2,835.00	\$ (567.00)	
21	700-1	TRAFFIC CONTROL SIGNS	LS	1		\$ 1,895.09	\$ 1,895.09		
22	710-1	PAVEMENT MARKINGS	LS	1		\$ 30,886.25	\$ 30,886.25		
23	LT-1	AREA LIGHTING, COMPLETE	LS	1		\$ 348,000.00	\$ 348,000.00		
24	GA-1	POWER AND DATA FOR AUTOMATIC GATE ARMS AND TICKET MACHINES	LS	1		\$ 12,500.00	\$ 12,500.00		
25	SC-1	SECURITY CAMERA ALLOWANCE	AL	1		\$ 40,000.00	\$ 40,000.00		
26	WH-1	WHEEL STOPS	EA	40		\$ 101.06	\$ 4,042.40		
27	CO-1-1	12" WATERLINE RELOCATION	LS	0	1			\$ 15,246.00	
28	CO-1-2	NORTHEAST FENCE RELOCATION	LS	0	1			\$ 4,492.40	
29	CO-1-3	NORTH/SOUTH FENCE RELOCATION	LS	0	1			\$ 43,002.39	
30	CO-1-4	SEWER MANHOLD AND HYDRANT ADJUSTMENTS	LS	0	1			\$ 4,400.00	
31	CO-1-5	NEW BALDWIN PARKING LOT IMPROVEMENTS	LS	0	1			\$ 107,573.25	
32	CO-1-6	MILL AND OVERLAY EXISTING ACCESS ROAD AND PARKING LOT	LS	0	1			\$ 37,439.53	
33	CO-1-7	ADDITIONAL PAVEMENT MARKINGS AND STOP SIGNS	LS	0	1			\$ 1,552.50	
34	CO-1-8	CREDIT TO REMOVE THREE LIGHT POLES	LS	0	1			\$ (10,132.92)	
35	CO-1-9	REPLACE TRUNCATED DOME MATS	LS	0	1			\$ 15,078.80	
36	CO-1-10	AIRPORT RESTRIPIING	LS	0	1			\$ 16,800.00	
37	CO-1-11	CREDIT TO REMOVE ROCK BASE FROM NEW FENCE	LS	0	1			\$ (1,360.00)	
Subtotal Amount:							\$ 1,567,656.65	\$ 201,811.01	

**ADDITIVE ALTERNATE NO. 2 - CLEAR ZONE TREE REMOVAL**

1	101-1	MOBILIZATION	LS	1		\$ 2,500.00	\$ 2,500.00		
2	102-1	MAINTENANCE OF TRAFFIC	LS	1		\$ 1,895.09	\$ 1,895.09		
3	104-1	PREVENTION, CONTROL, AND ABATEMENT OF EROSION AND WATER POLLUTION	LS	1		\$ 3,332.06	\$ 3,332.06		
4	110-1	CLEARING AND GRUBBING WITH TREE REMOVAL	AC	5		\$ 12,002.26	\$ 60,011.30		
5	570-2	SEEDING	SY	24,200		\$ 0.63	\$ 15,246.00		
Subtotal Amount:							\$ 82,984.45		

Grand Total Amount: \$ 1,650,641.10 \$ 201,811.01

Total Revised Contract Amount with Change Order No. 1: \$ 1,852,452.11


**AVCON, INC.**

Engineers &amp; Planners

320 Bayshore Drive, Suite A

Niceville, Florida 32578

Phone: (850) 678-0050

[www.avconinc.com](http://www.avconinc.com)

December 22, 2020

Mr. Kevin Buchanan  
**Anderson Columbia Co., Inc.**  
 2316 Hwy 71  
 Marianna, Florida 32448

**Reference: Work Directive No. 1, Fence Revisions and Waterline Modification  
 VPS Parking Lot B Expansion  
 Destin-Fort Walton Beach Airport**

Dear Mr. Buchanan:

Please find enclosed revised Sheets C-3, C-4, and E-102. Please include these sheets with your Release for Construction drawings. The changes include the following:

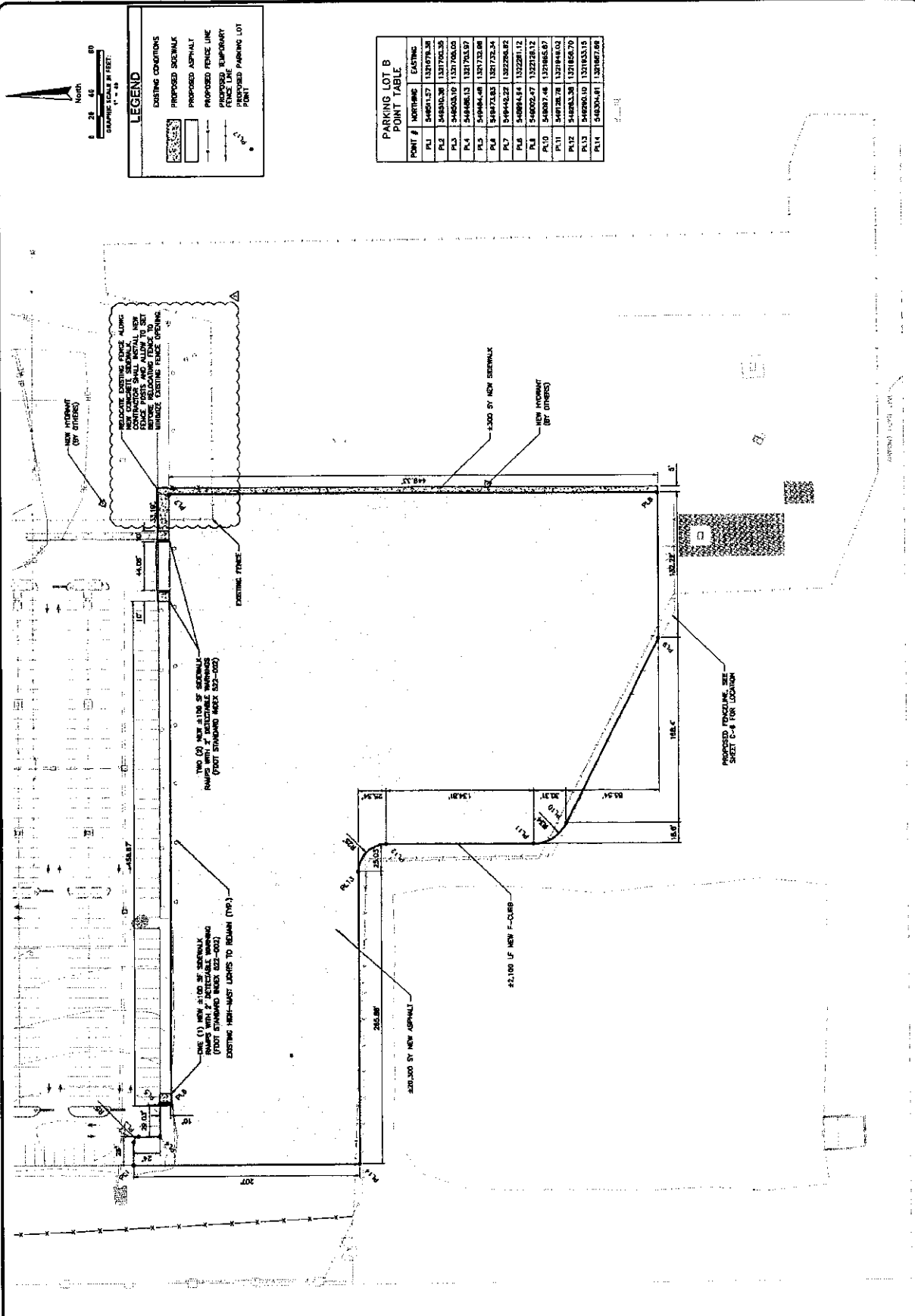
- Sheet C-3: Relocate existing fence along northeast corner of parking lot. Please provide a lump sum price for this work.
- Sheet C-4: Modify existing 12-inch waterline to go under the new storm pipe. Please provide a lump sum price for this work.
- Sheet C-4: Add grading around northeast corner of the parking lot based on actual constructed grades.
- Sheet C-4: Clarified asphalt grades along northwest corner of parking lot in response to grading which differed from the grading files provided to us.
- Sheet E-102: Re-supply existing lighting along north edge of parking lot. Please confirm whether this work was included in Ingram's work or not.
- Sheet E-102: Remove existing light as shown.
- Sheet E-102: Relocate proposed light as shown.

Please feel free to contact us with any questions or concerns.

Sincerely,

**AVCON, INC.**

John Collins  
 Project Manager



**STORMWATER PIPE TABLE**

NAME	DESCRIPTION	LENGTH	SLOPE
STM-P-01	24" ADS, 10'-12"	24.37'	0.15%
STM-P-02	30" ADS, 10'-12"	30.37'	0.10%
STM-P-03	24" ADS, 10'-12"	30.37'	0.15%
STM-P-04	30" ADS, 10'-12"	111.76'	0.15%
STM-P-05	24" ADS, 10'-12"	22.60'	0.15%
STM-P-06	30" ADS, 10'-12"	70.00'	0.10%
STM-P-07	30" ADS, 10'-12"	70.00'	0.10%

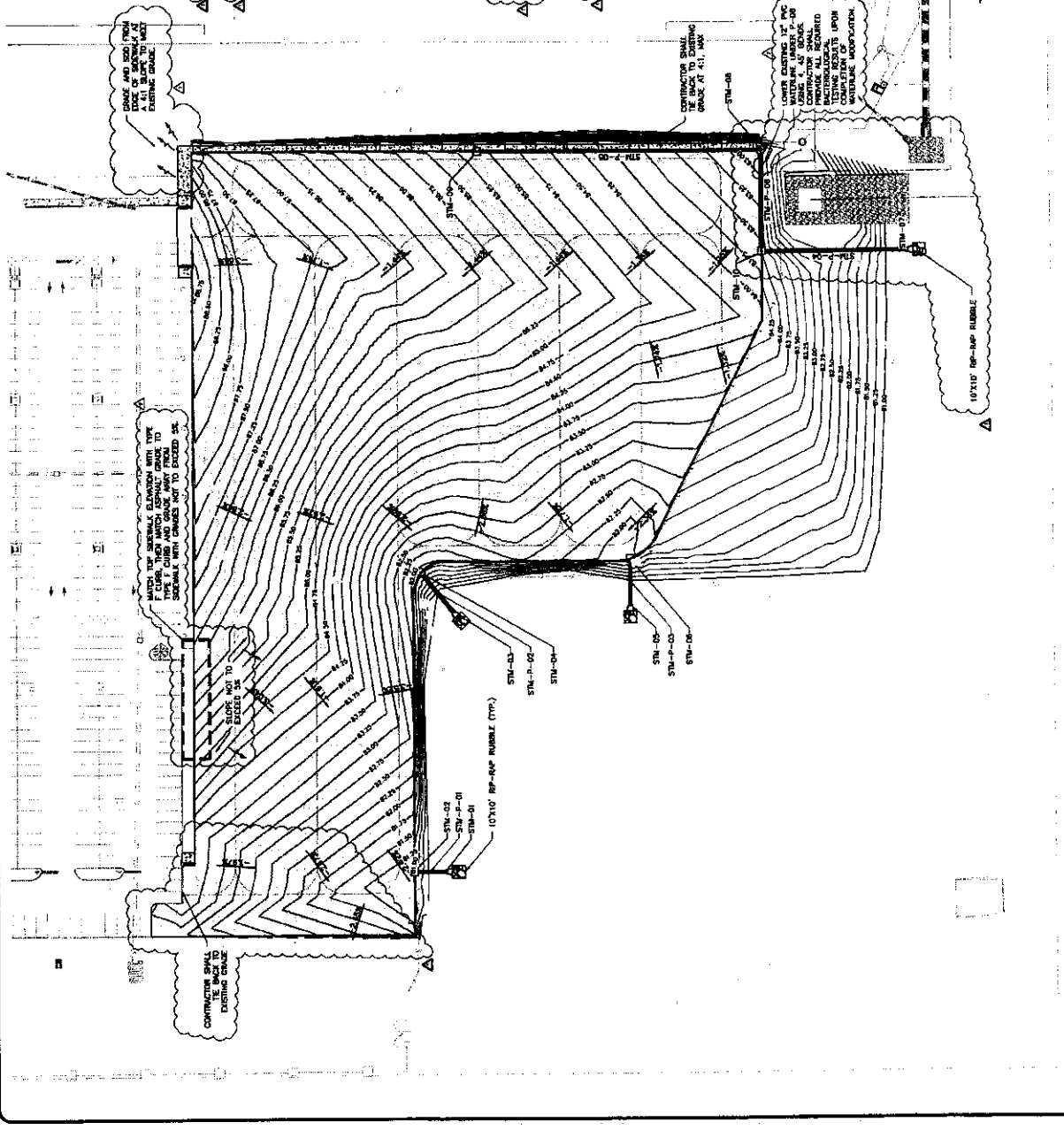
**LEGEND**

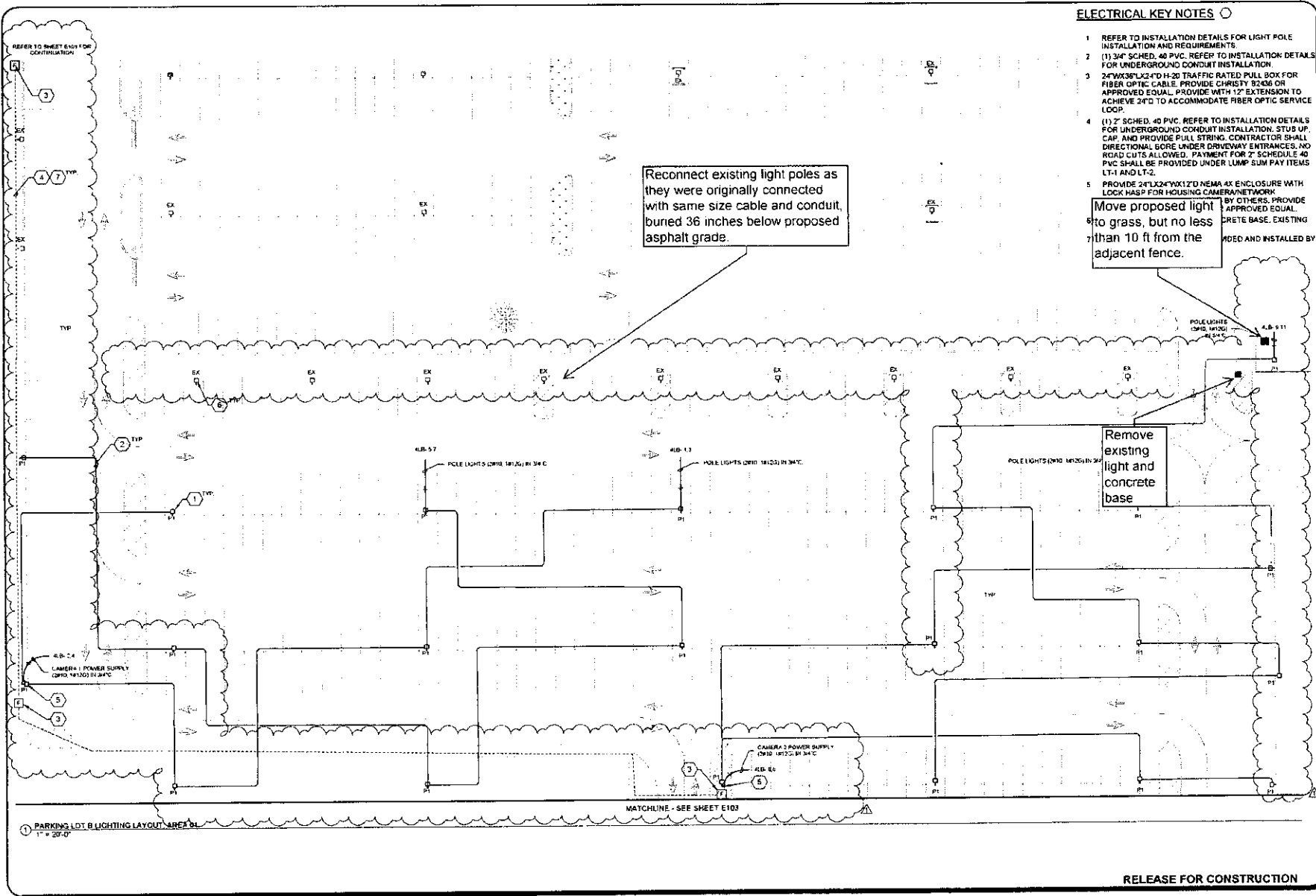
- EXISTING CONTOUR
- - - PROPOSED MAJOR CONTOUR
- - - PROPOSED MINOR CONTOUR
- - - PROPOSED SPOT ELEVATION
- X04-R PROPOSED DRIVE ABLE CENTERLINE

**STORMWATER STRUCTURE TABLE**

STRUCTURE NAME	STRUCTURE TYPE	DETAILS	NORTHING/EASTING
STM-01	24" ADS	RM = 60.10 STM-P-01 INV IN = 77.60 STM-P-01 INV OUT = 77.60 E: 132712.072	N: 54827.47 E: 132712.072
STM-02	TYPE 3/8 CURB INLET	RM = 70.00 STM-P-02 INV IN = 77.04 STM-P-02 INV OUT = 77.04 E: 132714.308	N: 54829.80 E: 132714.308
STM-03	30" ADS	RM = 70.00 STM-P-03 INV IN = 77.00 STM-P-03 INV OUT = 77.00 E: 132819.250	N: 54829.80 E: 132819.250
STM-04	TYPE 3/8 CURB INLET	RM = 67.00 STM-P-04 INV IN = 77.04 STM-P-04 INV OUT = 77.04 E: 132819.087	N: 54828.18 E: 132819.087
STM-05	24" ADS	RM = 70.00 STM-P-05 INV IN = 77.50 STM-P-05 INV OUT = 77.50 E: 132818.185	N: 54829.80 E: 132818.185
STM-06	TYPE 3/8 CURB INLET	RM = 60.10 STM-P-06 INV IN = 77.00 STM-P-06 INV OUT = 77.00 E: 132818.032	N: 54829.80 E: 132818.032
STM-07	30" ADS	RM = 60.10 STM-P-07 INV IN = 77.33 STM-P-07 INV OUT = 77.33 E: 132817.768	N: 54803.67 E: 132817.768
STM-08	RM = 62.00 TYPE P BOT	RM = 62.00 STM-P-08 INV IN = 77.58 STM-P-08 INV OUT = 77.58 E: 132826.104	N: 54804.44 E: 132826.104
STM-09	TYPE 3/8 CURB INLET	RM = 63.50 STM-P-09 INV IN = 77.68 STM-P-09 INV OUT = 77.68 E: 132827.864	N: 54821.95 E: 132827.864
STM-10	TYPE 3/8 CURB INLET	RM = 62.00 STM-P-10 INV IN = 77.50 STM-P-10 INV OUT = 77.50 E: 132822.143	N: 54803.44 E: 132822.143

- GRADING AND DRAINAGE NOTES:**
1. THE SLOPE OF ALL SWALES AND PAVES SHALL BE NO STEEPER THAN 4:1, (MAX) EXCEPT WHERE NOTED.
  2. CONTRACTOR SHALL INSTALL SELF FENCE PRIOR TO COMMENCING IN ANY CONSTRUCTION ACTIVITIES AND MAINTAIN SELF FENCE THROUGHOUT CONSTRUCTION.
  3. CONTRACTOR SHALL NOTIFY THE ENGINEER IF EROSION CONTROL ISSUES DEVELOP DURING CONSTRUCTION.
  4. CONTRACTOR SHALL BE RESPONSIBLE FOR EROSION CONTROL MEASURES ON SITE 24 HOURS A DAY THROUGHOUT CONSTRUCTION.
  5. CONTRACTOR SHALL MAINTAIN AND MAINTAIN INLET PROTECTION THROUGHOUT CONSTRUCTION PER SHEET C-7 FOR DETAILS.
  6. ALL DISTURBED AREAS (INCLUDING RE-GRADED AREAS) SHALL BE RETURNED TO ORIGINAL CONDITION.
  7. ALL EXISTING MATERIALS EXCAVATED SHALL BE USED IN THE REPAIR OF EXISTING AREAS OR AS FILL FOR EXCAVATIONS FOR FUTURE USE IN ACCORDANCE WITH THE PLANS AND AS DIRECTED BY THE ENGINEER. UNUSABLE MATERIAL EXCAVATED SHALL BE DEPOSITED BY THE CONTRACTOR AT LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. UNUSABLE MATERIALS EXCAVATED IN THE SUBGRADE REPAIR SHALL BE DEPOSITED AT THE LOCATION AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL ALWAYS OBTAIN NECESSARY AUTHORIZATION PRIOR TO REMOVAL AND UNLOADING OPERATIONS UPON ANY EXISTING STRUCTURE OR UTILITY. THE CONTRACTOR SHALL VERIFY THE BOTTOM OF THE UNDERCUT AREA FOR THE PURPOSES OF ESTABLISHING PERMIT QUANTITIES.
  8. EXCAVATION LIKELY TO DEGRADE, DAMAGE, OR IMPAIR THE STRENGTH OF OTHER STRUCTURES AHEAD IN PLACE SHALL BE DONE ONLY AFTER ADEQUATE PROTECTION HAS BEEN PROVIDED FOR THE IN-PLACE STRUCTURES.
  9. CONTRACTOR SHALL GRADE ALL AREAS AS INDICATED OR UNGRADED OR UNGRADED AREAS SHALL BE GRADED TO CORNER WITH ADJACENT STRUCTURES.
  10. CONTRACTOR SHALL PROTECT EXISTING TREES, TRUNKS, BRANCHES, AND ROOTS. NO TREES SHALL BE REMOVED UNLESS SPECIFICALLY NOTED OTHERWISE. ANY AREAS WHERE BRANCHES OR ROOTS ARE REMOVED SHALL BE REGRADED AND RESEEDING. NO FILLING OF LOW AREAS WITH SAND WILL BE ACCEPTED.
  11. UNGRADED AREAS SHALL BE GRADED TO PROMOTE POSITIVE DRAINAGE TO THE STORMWATER DETENTION AREA OR ASSOCIATED INLET.
  12. DETENTION AREA OR ASSOCIATED INLET.





**ELECTRICAL KEY NOTES** ○

- 1 REFER TO INSTALLATION DETAILS FOR LIGHT POLE INSTALLATION AND REQUIREMENTS.
- 2 (1) 3/4" SCHED. 40 PVC. REFER TO INSTALLATION DETAILS FOR UNDERGROUND CONDUIT INSTALLATION.
- 3 2" X 1/2" SCHED. 40 H-20 TRAFFIC RATED PULL BOX FOR FIBER OPTIC CABLE. PROVIDE CHRISTY S2466 OR APPROVED EQUAL. PROVIDE WITH 12" EXTENSION TO ACHIEVE 2" TO ACCOMMODATE FIBER OPTIC SERVICE LOOP.
- 4 (1) 2" SCHED. 40 PVC. REFER TO INSTALLATION DETAILS FOR UNDERGROUND CONDUIT INSTALLATION. STUB UP, CAP, AND PROVIDE PULL STRING. CONTRACTOR SHALL DIRECTIONAL BORE UNDER DRIVEWAY ENTRANCES, NO ROAD CUTS ALLOWED. PAYMENT FOR 2" SCHEDULE 40 PVC SHALL BE PROVIDED UNDER LUMP SUM PAY ITEMS LT-1 AND LT-2.
- 5 PROVIDE 24" X 24" X 1/2" NEMA 4X ENCLOSURE WITH LOCK HASP FOR HOUSING CAMERA NETWORK BY OTHERS. PROVIDE APPROVED EQUAL. PRETE BASE, EXISTING TO BE REMOVED AND INSTALLED BY CONTRACTOR.

Reconnect existing light poles as they were originally connected with same size cable and conduit, buried 36 inches below proposed asphalt grade.

Move proposed light pole to grass, but no less than 10 ft from the adjacent fence.

Remove existing light and concrete base

**AVCON, INC.**  
ENGINEERS & PLANNERS  
1300 S.W. 38th DRIVE, SUITE 4  
MIAMI, FL 33135  
TEL: 305.444.8800  
FAX: 305.444.8801  
E-MAIL: AVCON@AVCON.COM  
AVCON.COM

---

AVCON  
REGISTERED PROFESSIONAL ENGINEER  
STATE OF FLORIDA  
LICENSE NO. 12517

---

DESIGNED BY: [ ]  
DRAWN BY: [ ]  
CHECKED BY: [ ]  
APPROVED BY: [ ]  
PROJECT NO: 091100019  
DATE: OCTOBER 2013

---

RELEASE FOR CONSTRUCTION

---

DESIGNED BY: [ ]  
DRAWN BY: [ ]  
CHECKED BY: [ ]  
APPROVED BY: [ ]  
PROJECT NO: 091100019  
DATE: OCTOBER 2013

---

SHEET NUMBER  
**E102**

RELEASE FOR CONSTRUCTION





**AVCON, INC.**

Engineers & Planners

320 Bayshore Drive, Suite A

Niceville, Florida 32578

Phone: (850) 678-0050

[www.avconinc.com](http://www.avconinc.com)

January 12, 2021

Mr. Kevin Buchanan  
Anderson Columbia Co., Inc.  
2316 Hwy 71  
Marianna, Florida 32448

**Reference: Work Directive No. 2, Additional Type F Curb and Light Removal  
VPS Parking Lot B Expansion  
Destin-Fort Walton Beach Airport**

Dear Mr. Buchanan:

Please find enclosed revised Sheets C-6 and E-102 and include these sheets with your Release for Construction drawings. The changes include the following:

- Sheet C-6: Add concrete curb and sod to create island around existing light pole to remain. This will add approx. 50 lf of Type F Curb and 22 sy of sod.
- Sheet E-102: Remove a total of three (3) proposed light fixtures from the project. Please provide a total credit for removing these three light foundations, poles, and fixtures from the scope of work.

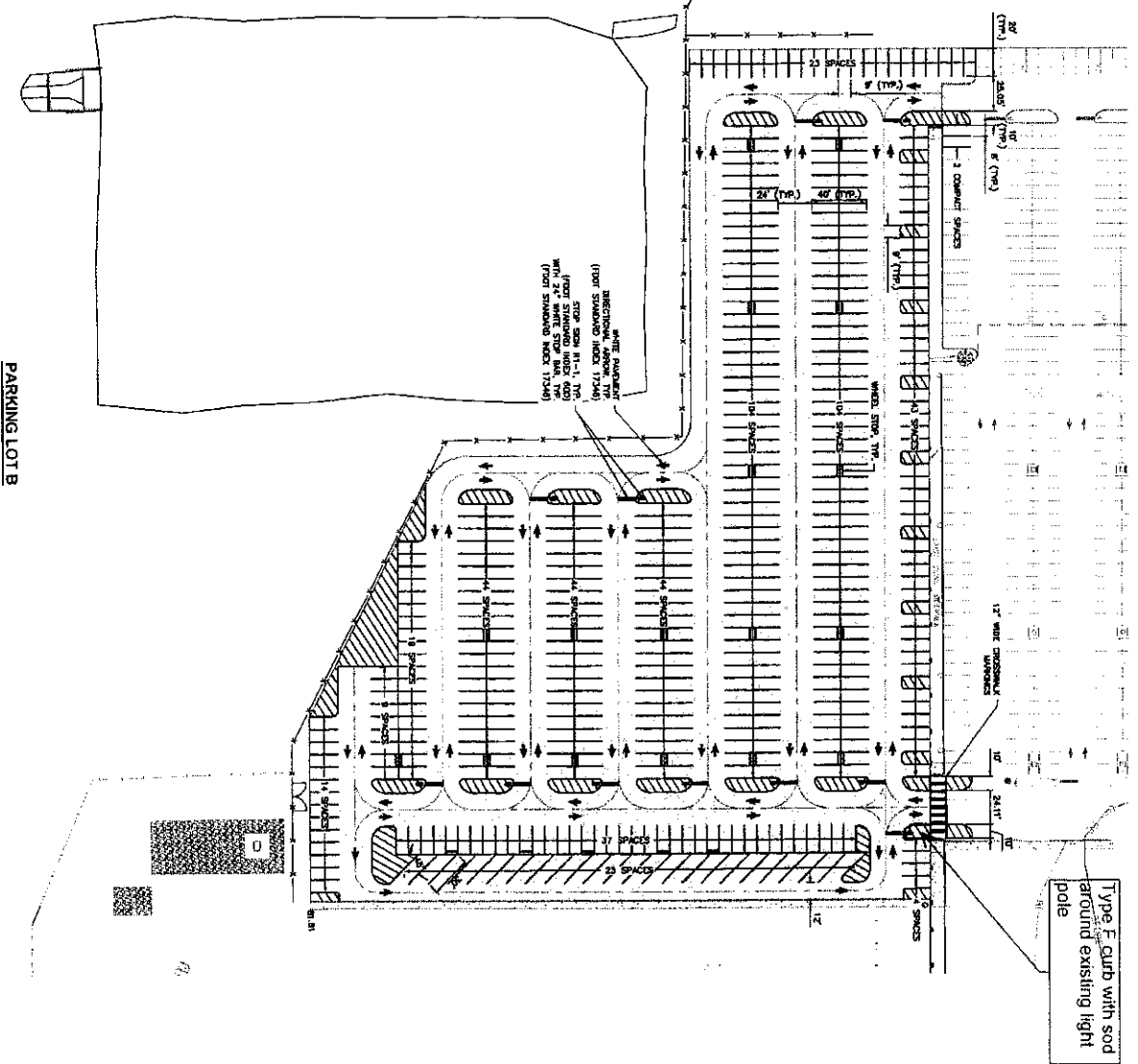
Feel free to contact us with any questions or concerns.

Sincerely,

**AVCON, INC.**

A handwritten signature in black ink that reads "John Collins". The signature is written in a cursive, flowing style.

John Collins  
Project Manager



- MARKING NOTES:**
1. ALL SPACED SPACES SHALL BE 8' WIDE AND 20' DEEP. COMPACT SPACES TO BE 8' WIDE.
  2. ALL SPACES WITH A WHEEL STOP SHALL BE MARKED "COMPACT ONLY"
  3. UNLESS OTHERWISE NOTED DRIVE AISLES TO BE 24' WIDE.

**LEGEND**

EXISTING CONDITIONS  
 DRIVEWAY  
 DRIVEWAY  
 DRIVEWAY  
 DRIVEWAY  
 DRIVEWAY

WHITE SIGNAGE  
 STOP SIGN  
 WHITE SIGNAGE WITH STOP SIGN

North

Graphic scale: 0, 20, 40, 80 FEET

**VPS PARKING LOT B EXPANSION**

PREPARED FOR  
**DESTIN - FORT WALTON BEACH AIRPORT**

DESIGNED BY: J.A.C.  
 DRAWN BY: B.A.K.  
 CHECKED BY: J.A.C.  
 PROJECT NUMBER: 07-14-2008  
 DATE: 07-14-2008

**PAVEMENT MARKING & SIGNAGE PLAN**

RELEASE FOR CONSTRUCTION

DATE: 07-14-2008

JOHN R. COLLINS  
 LICENSED PROFESSIONAL ENGINEER  
 AUTHORIZATION NO. 5562

**AVCON**

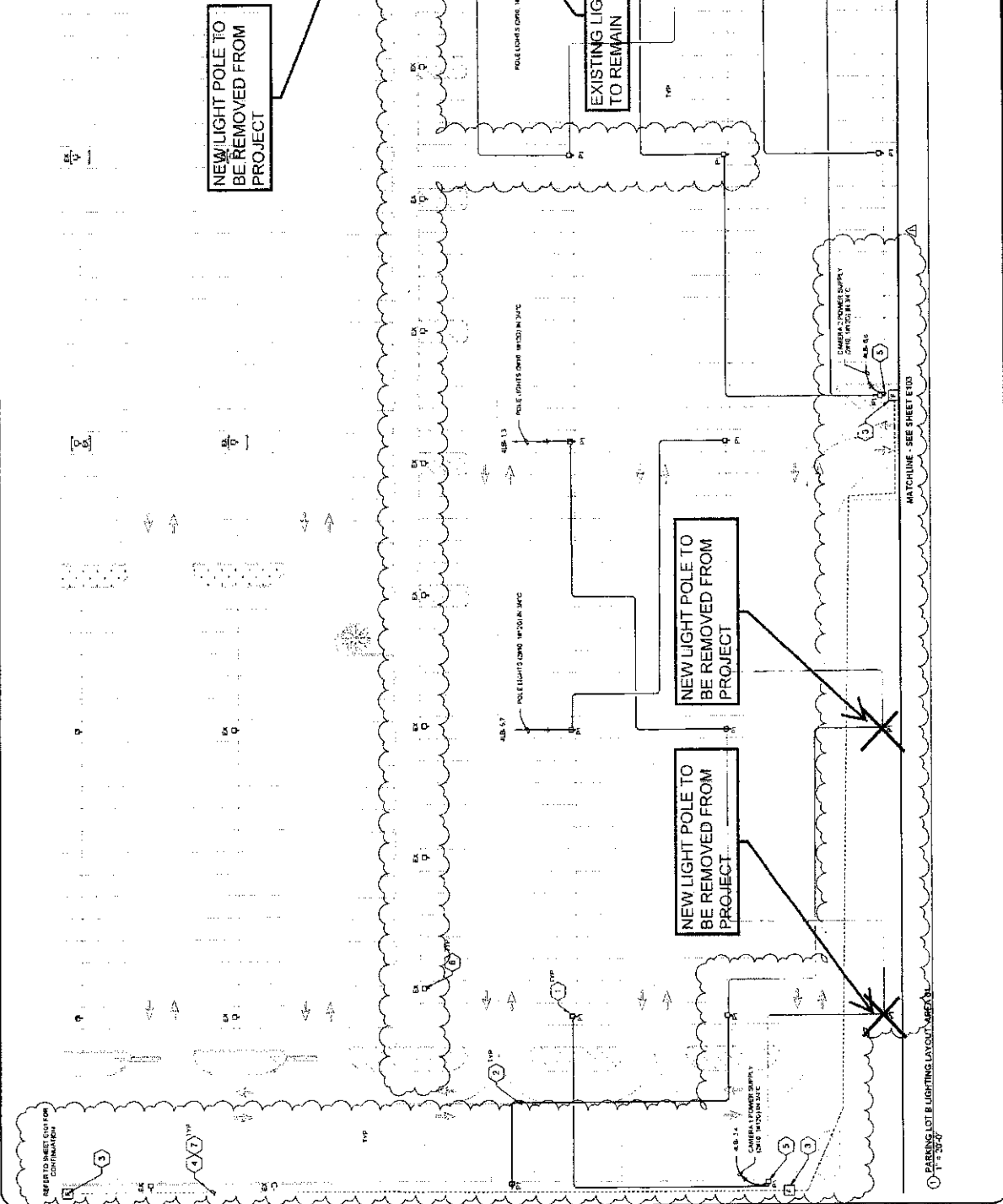
ENGINEERS & PLANNERS

370 BAYSHORE DRIVE, SUITE A  
 MEEVILLE, FL 32578-2625  
 OFFICE: (904) 878-0250  
 FAX: (904) 878-0248  
 CORPORATE CERTIFICATE OF AUTHORIZATION NUMBER: 5557  
 WWW.AVCONINC.COM

TRANSFORMING TODAY'S IDEAS  
 INTO TOMORROW'S REALITY

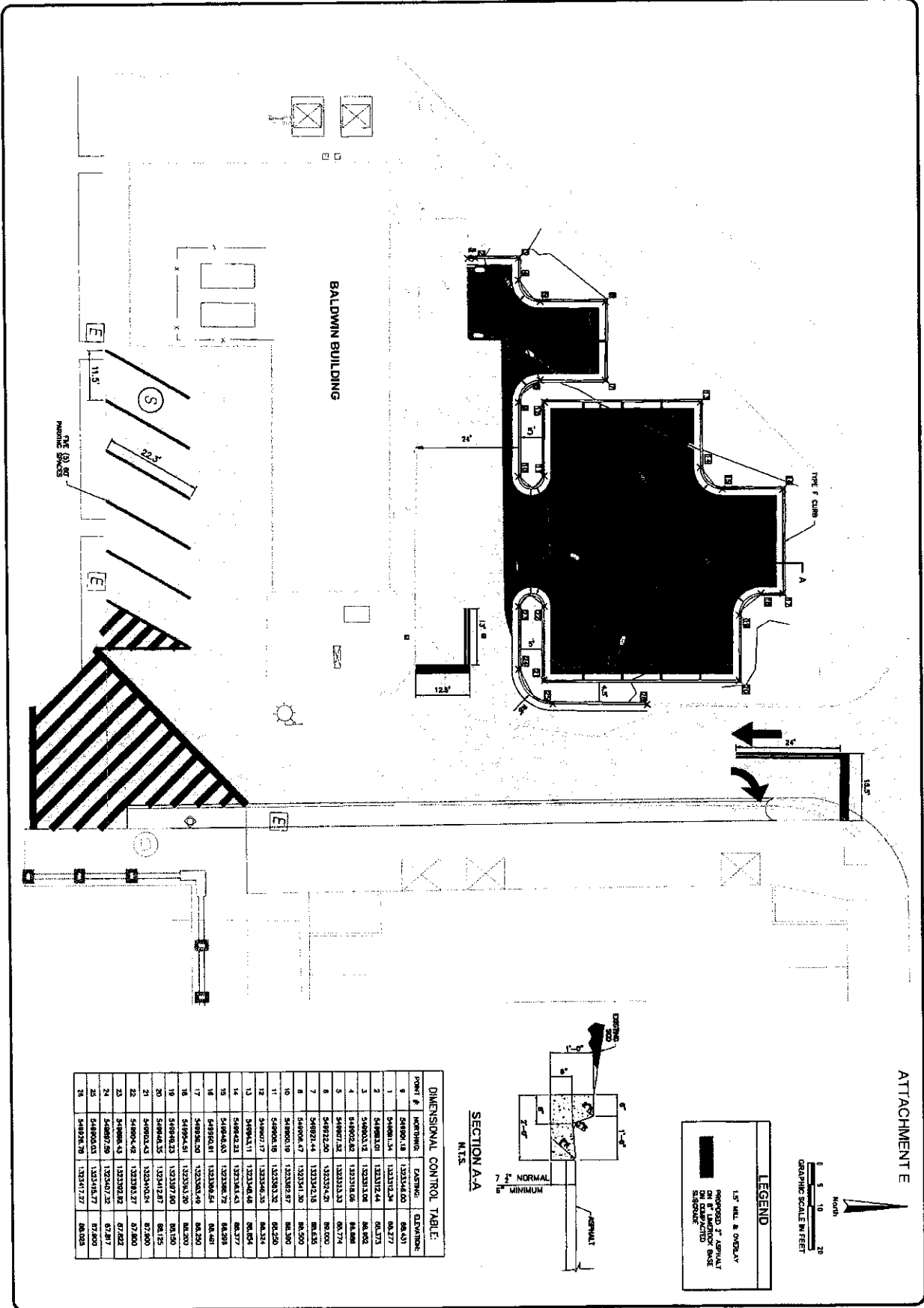
SHEET NUMBER  
**C-6**

- ELECTRICAL KEY NOTES**
- REFER TO INSTALLATION DETAILS FOR LIGHT POLE INSTALLATION AND REQUIREMENTS.
  - REFER TO INSTALLATION DETAILS FOR UNDERGROUND CONDUIT INSTALLATION.
  - 24" W x 36" X 24" H 300 TRAFFIC RATED PULL BOX FOR FIBER OPTIC CABLE. PROVIDE CHRISTY SZABOR APPROVED EQUAL PROVIDE WITH FIBER OPTIC SERVICE LOOP.
  - (1) 2" SCHED. 40 P.V.C. REFER TO INSTALLATION DETAILS FOR UNDERGROUND CONDUIT INSTALLATION. STUB UP UNDERGROUND CONDUIT TO THE LIGHT POLE AND PROVIDE DIRECTIONAL MARKS UNDER DRIVEWAY ENTRANCES. NO ROAD CUTS ALLOWED. PAYMENT FOR 2" SCHEDULE 40 P.V.C. SHALL BE PROVIDED UNDER LUMP SUM PAY ITEMS 1.14 AND 1.15.
  - PROVIDE 24" X 36" X 24" NEMA 4X ENCLOSURE WITH LOCK HASP FOR HOUSING CABLE NETWORK COMPONENTS TO BE PROVIDED BY OTHERS. PROVIDE 1" DIA. HOLES FOR CABLES TO BE PROVIDED BY OTHERS.
  - EXISTING LIGHT POLE AND CONCRETE BASE. EXISTING LIGHT FIXTURE TO REMAIN.
  - FIBER OPTIC CABLE TO BE PROVIDED AND INSTALLED BY OTHERS.



<b>AVCON, INC.</b> ENGINEERS & PLANNERS 1300 KAYDING DRIVE SUITE 4 FORT WORTH, TEXAS 76104 PHONE: (817) 339-0000 FAX: (817) 339-0001 WWW.AVCONINC.COM		SHEET NO. <b>E102</b> PROJECT NO. <b>100000000</b> DATE: <b>OCTOBER 2010</b> SHEET TOTAL: <b>10</b>
<b>VPS PARKING LOT B</b> EXPANSION PREPARED FOR <b>DESTIN - FORT WALTON</b> <b>BEACH AIRPORT</b>		DESIGNED BY: <b>MA/RS</b> CHECKED BY: <b>MA/RS</b> APPROVED BY: <b>MA/RS</b> PROJECT NO. <b>100000000</b> DATE: <b>OCTOBER 2010</b> SHEET TOTAL: <b>10</b>
AREA 01 LIGHTING LAYOUT MEASURE FROM CONSTRUCTION		SCALE: 1" = 20'-0" DATE: <b>OCTOBER 2010</b> SHEET TOTAL: <b>10</b>





ATTACHMENT E

GRAPHIC SCALE IN FEET  
1" = 5' 10"

**LEGEND**

1/8" WALL & OVERLAY  
PROPOSED 1" ASPHALT ON 4" LATCHING BASE IN PARKING

SECTION A-A  
N.T.S.

**DIMENSIONAL CONTROL TABLE**

POINT #	NORTHING	EASTING	EASTING
1	549881.25	132312.24	86.517
2	549881.12	132312.24	86.517
3	549881.12	132312.24	86.517
4	549881.12	132312.24	86.517
5	549881.12	132312.24	86.517
6	549881.12	132312.24	86.517
7	549881.12	132312.24	86.517
8	549881.12	132312.24	86.517
9	549881.12	132312.24	86.517
10	549881.12	132312.24	86.517
11	549881.12	132312.24	86.517
12	549881.12	132312.24	86.517
13	549881.12	132312.24	86.517
14	549881.12	132312.24	86.517
15	549881.12	132312.24	86.517
16	549881.12	132312.24	86.517
17	549881.12	132312.24	86.517
18	549881.12	132312.24	86.517
19	549881.12	132312.24	86.517
20	549881.12	132312.24	86.517
21	549881.12	132312.24	86.517
22	549881.12	132312.24	86.517
23	549881.12	132312.24	86.517
24	549881.12	132312.24	86.517
25	549881.12	132312.24	86.517
26	549881.12	132312.24	86.517
27	549881.12	132312.24	86.517
28	549881.12	132312.24	86.517
29	549881.12	132312.24	86.517
30	549881.12	132312.24	86.517
31	549881.12	132312.24	86.517
32	549881.12	132312.24	86.517
33	549881.12	132312.24	86.517
34	549881.12	132312.24	86.517
35	549881.12	132312.24	86.517
36	549881.12	132312.24	86.517
37	549881.12	132312.24	86.517
38	549881.12	132312.24	86.517
39	549881.12	132312.24	86.517
40	549881.12	132312.24	86.517
41	549881.12	132312.24	86.517
42	549881.12	132312.24	86.517
43	549881.12	132312.24	86.517
44	549881.12	132312.24	86.517
45	549881.12	132312.24	86.517
46	549881.12	132312.24	86.517
47	549881.12	132312.24	86.517
48	549881.12	132312.24	86.517
49	549881.12	132312.24	86.517
50	549881.12	132312.24	86.517
51	549881.12	132312.24	86.517
52	549881.12	132312.24	86.517
53	549881.12	132312.24	86.517
54	549881.12	132312.24	86.517
55	549881.12	132312.24	86.517
56	549881.12	132312.24	86.517
57	549881.12	132312.24	86.517
58	549881.12	132312.24	86.517
59	549881.12	132312.24	86.517
60	549881.12	132312.24	86.517
61	549881.12	132312.24	86.517
62	549881.12	132312.24	86.517
63	549881.12	132312.24	86.517
64	549881.12	132312.24	86.517
65	549881.12	132312.24	86.517
66	549881.12	132312.24	86.517
67	549881.12	132312.24	86.517
68	549881.12	132312.24	86.517
69	549881.12	132312.24	86.517
70	549881.12	132312.24	86.517
71	549881.12	132312.24	86.517
72	549881.12	132312.24	86.517
73	549881.12	132312.24	86.517
74	549881.12	132312.24	86.517
75	549881.12	132312.24	86.517
76	549881.12	132312.24	86.517
77	549881.12	132312.24	86.517
78	549881.12	132312.24	86.517
79	549881.12	132312.24	86.517
80	549881.12	132312.24	86.517
81	549881.12	132312.24	86.517
82	549881.12	132312.24	86.517
83	549881.12	132312.24	86.517
84	549881.12	132312.24	86.517
85	549881.12	132312.24	86.517
86	549881.12	132312.24	86.517
87	549881.12	132312.24	86.517
88	549881.12	132312.24	86.517
89	549881.12	132312.24	86.517
90	549881.12	132312.24	86.517
91	549881.12	132312.24	86.517
92	549881.12	132312.24	86.517
93	549881.12	132312.24	86.517
94	549881.12	132312.24	86.517
95	549881.12	132312.24	86.517
96	549881.12	132312.24	86.517
97	549881.12	132312.24	86.517
98	549881.12	132312.24	86.517
99	549881.12	132312.24	86.517
100	549881.12	132312.24	86.517

**AVCON ENGINEERS & PLANNERS**  
 110 BAY SHORE DRIVE, SUITE A  
 NICEVILLE, FL 32578-2415  
 OFFICE: (904) 678-0830  
 FAX: (904) 678-6468  
 CORPORATE CERTIFICATE OF AUTHORIZATION NUMBER: 5057  
 WWW.AVCON.COM

**AVCON**  
 TRANSFORMING TODAY'S IDEAS  
 INTO TOMORROW'S REALITY

**BALDWIN BUILDING PARKING LOT**  
 PREPARED FOR  
 DESTIN - FORT WALTON BEACH AIRPORT  
 (RELEASE FOR CONSTRUCTION)

**GEOMETRY PLAN**

**DESIGNED BY:** J.M.C.  
**DRAWN BY:** M.J.B.  
**CHECKED BY:** J.M.C.  
**APPROVED BY:** J.M.C.  
 PROJECT NO. 18180000  
 DATE: MARCH 2015

**SHEET NUMBER**  
**CB-2**

JOHN M. COLLINS  
 FLORIDA CERTIFIED PROFESSIONAL ENGINEER  
 LICENSE NO. 12511  
 AUTHORIZATION NO. 5057

**AVCON, INC.**  
 ENGINEERS & PLANNERS  
 320 BAYSHORE DRIVE, SUITE A  
 ROCKVILLE, MD 20850  
 TEL: (301) 918-8800  
 FAX: (301) 918-8800  
 COMPANY'S CERTIFICATE OF  
 AUTHORIZATION NUMBER: 9517  
 WWW.AVCON.COM  
 TRANSFORMING TODAY'S IDEAS  
 INTO TOMORROW'S REALITY

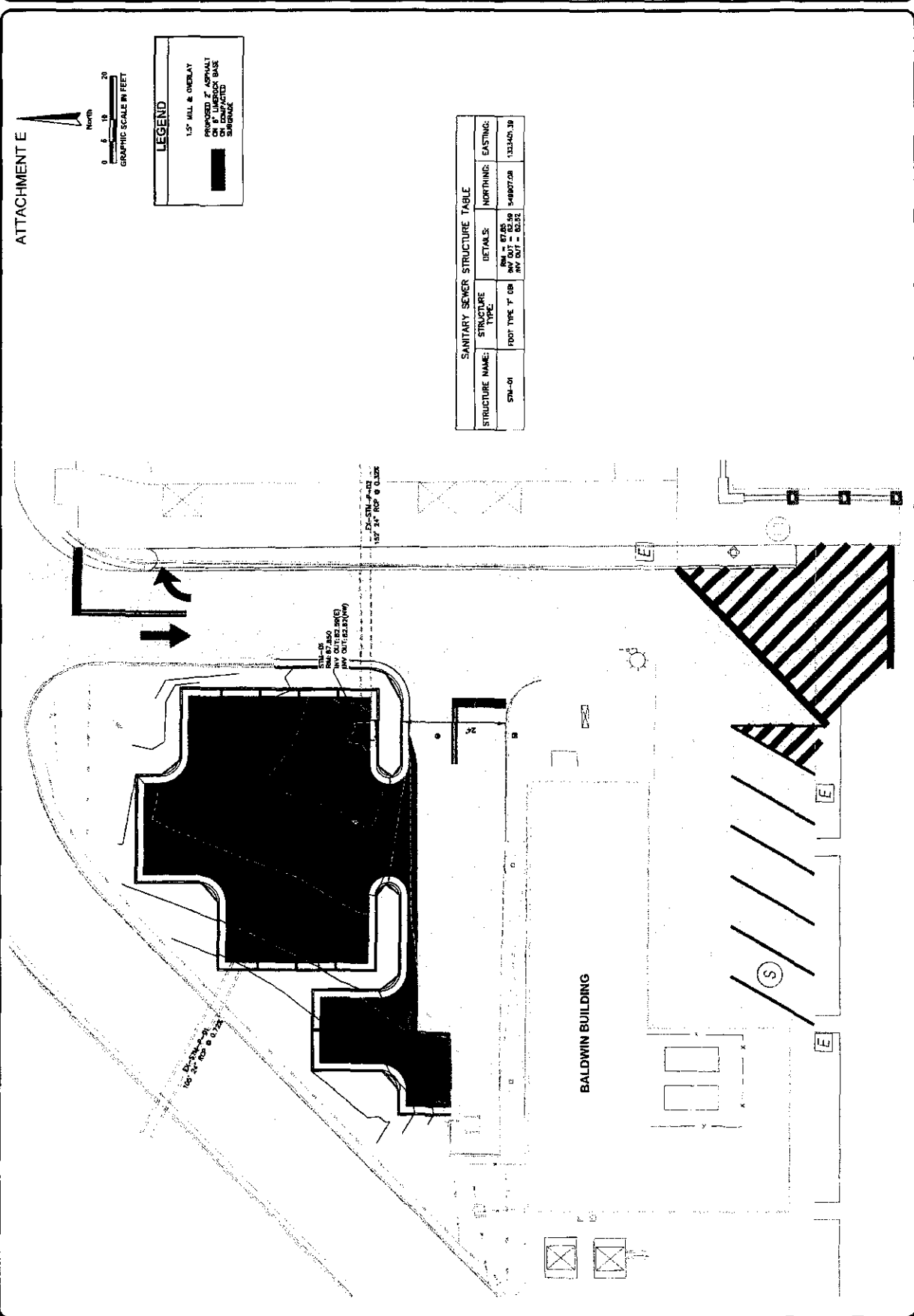
**AVCON**

JAMES COLLINS  
 P. LICENSE NO. 7519  
 F. LICENSE NO. 7519  
 AUTHORIZED FROM 10/19/17

PLEASE FOR CONSTRUCTION	
DATE	REVISION

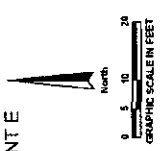
**BALDWIN BUILDING**  
 PARKING LOT  
 PREPARED FOR  
 DESTIN - FORT MALTON  
 BEACH AIRPORT  
 DRAWN BY: J.R.C.  
 CHECKED BY: M.J.A.  
 APPROVED BY: J.A.C.  
 PROJECT NO: 2016-00001  
 DATE: MARCH 2017

**CB-3**  
 SHEET NUMBER



ATTACHMENT E

ATTACHMENT E

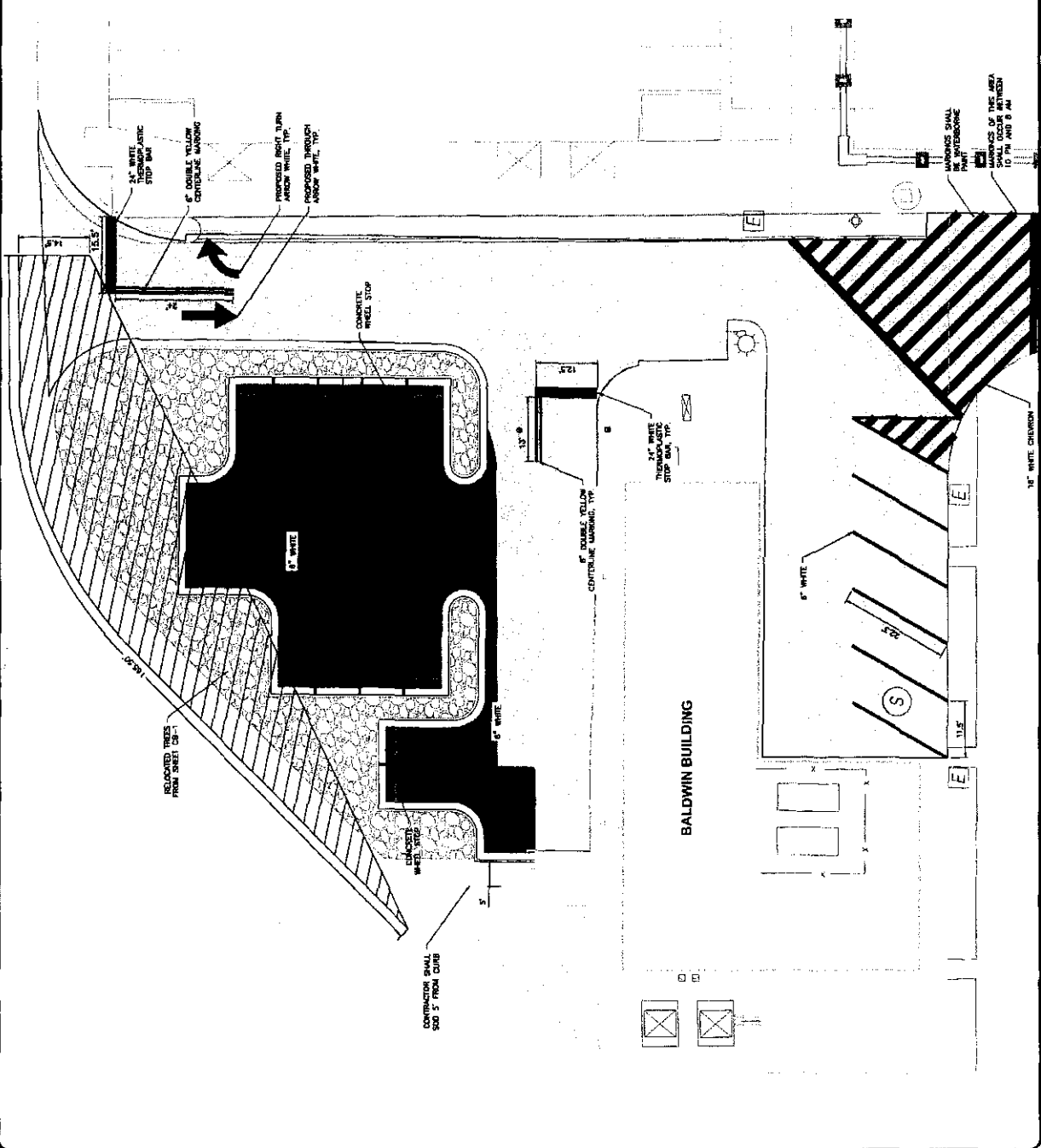


**LEGEND**

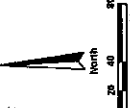
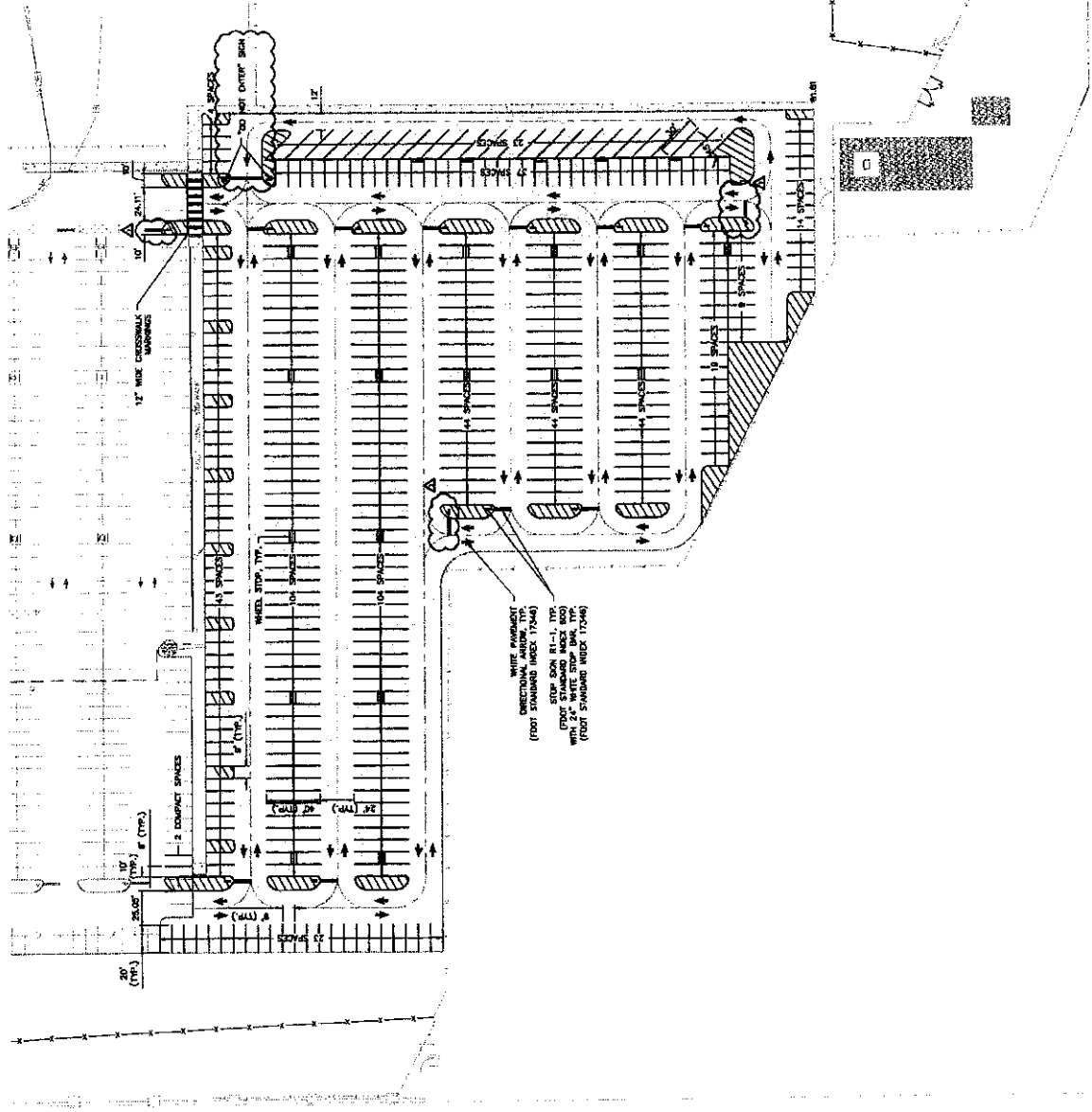
	1.5" HILL & OVERLAY
	PROPOSED 6" CURB ON 6" UNDERLAY
	6" CURB ON COMPACTED BASE
	6" CURB ON COMPACTED BASE WITH 1" OF RED LANDSCAPING ROCK

**VISION TRIANGLE**  
 (SEE: LAYOUT - LATERALS - MARKERS  
 (SEE: INTERSECTION SHIRT DISTANCE (IT)  
 (SEE: DESIGN SPEED (MPS)  
 (SEE: THE GAP (GAP)

**NOTES:**  
 1. ALL MARKINGS SHALL BE THERMO PLASTIC CHEST FOR CROSSWALK ON SOUTH END OF PROJECT.



ATTACHMENT F



**LEGEND**

[Symbol]	EXISTING CONDITIONS
[Symbol]	CONCRETE SIDEWALK
[Symbol]	ASPHALT PAVEMENT
[Symbol]	WHEEL STOP
[Symbol]	WHEEL STOP WITH DIRECTIONAL ARROW
[Symbol]	STOP SIGN
[Symbol]	STOP SIGN WITH DIRECTIONAL ARROW
[Symbol]	STOP SIGN WITH STOP SIGN AND DIRECTIONAL ARROW

AVCON, INC.  
ENGINEERS & PLANNERS  
2350 BIRCHWOOD DRIVE, SUITE A  
HUNTSVILLE, AL 35894-2915  
OFFICE: (256) 836-0010  
FAX: (256) 836-0011  
CORPORATE CENTER OF  
COMMUNICATIONS BUILDING  
400 UNIVERSITY BLVD., SUITE 200  
HUNTSVILLE, AL 35893-1201

AVCON  
TRANSFORMING TODAY'S IDEAS  
INTO TOMORROW'S REALITY

JOHN R. COLLINS  
REGISTERED PROFESSIONAL ENGINEER  
STATE OF ALABAMA  
NO. 38711  
EXPIRES 12/31/2017  
AUTHORIZATION NO. 38711

NO.	REVISION
1	ISSUE FOR CONSTRUCTION
2	FOR MARKING PLAN

PREPARED FOR  
**VPS PARKING  
LOT B EXPANSION**  
DESTIN-FORT WALTON  
BEACH AIRPORT

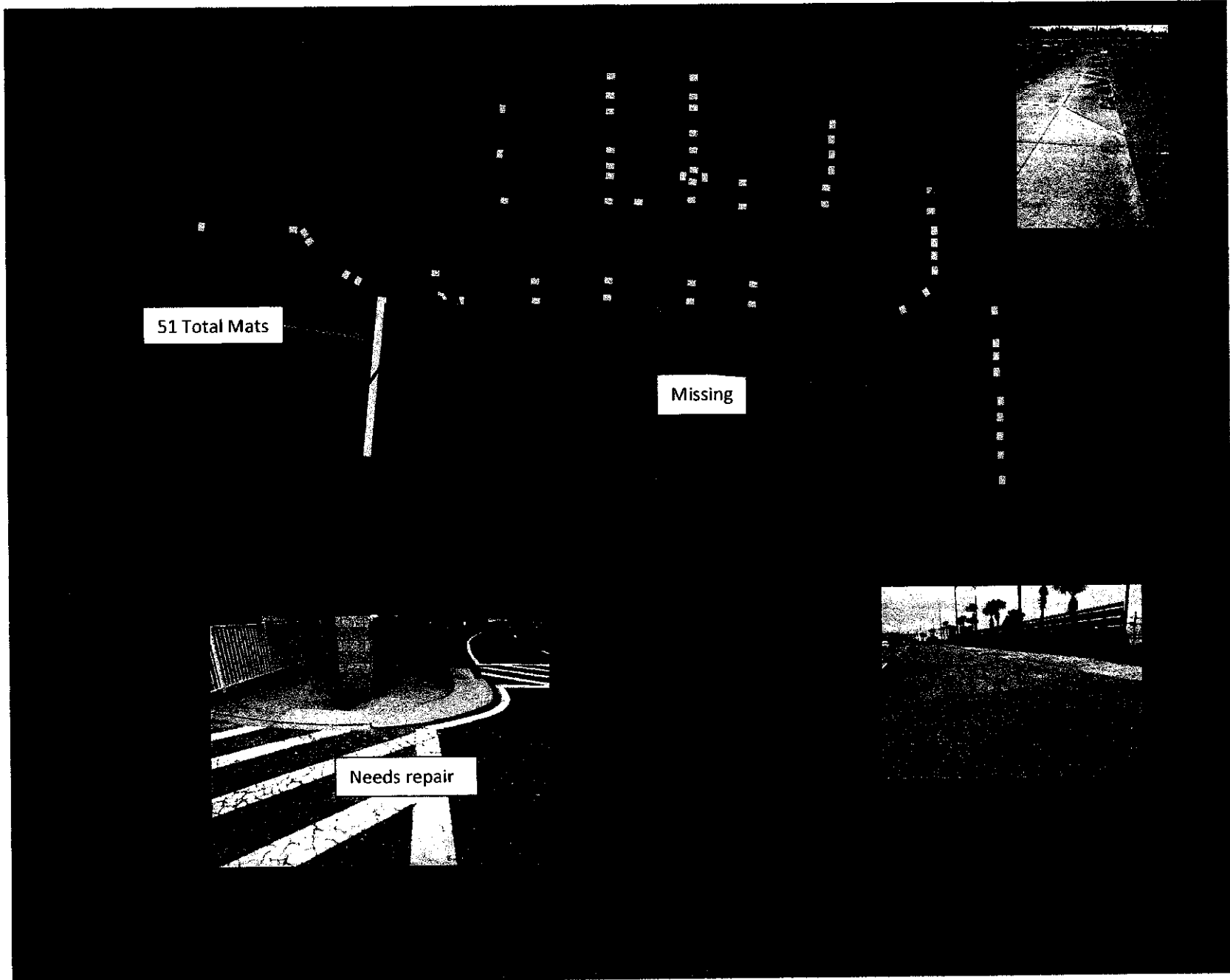
PAVEMENT MARKING &  
SIGNAGE PLAN

DESIGNED BY: JALC  
DRAWN BY: BLVA  
CHECKED BY: JALC  
APPROVED BY: JALC  
PROJECT NUMBER: 2017001  
DATE: OCTOBER 2017  
SHEET NUMBER  
**C-6**

- MARKING NOTES:**
1. ALL FORWARD SPACES SHALL BE 8' WIDE AND 20' DEEP. COMPACT SPACES TO BE 8' WIDE.
  2. ALL SPACES WITH A WHEEL STOP SHALL BE MARKED "COMPACT ONLY".
  3. UNLESS OTHERWISE NOTED DRIVE ARROWS TO BE 24" WIDE.

**PARKING LOT B**





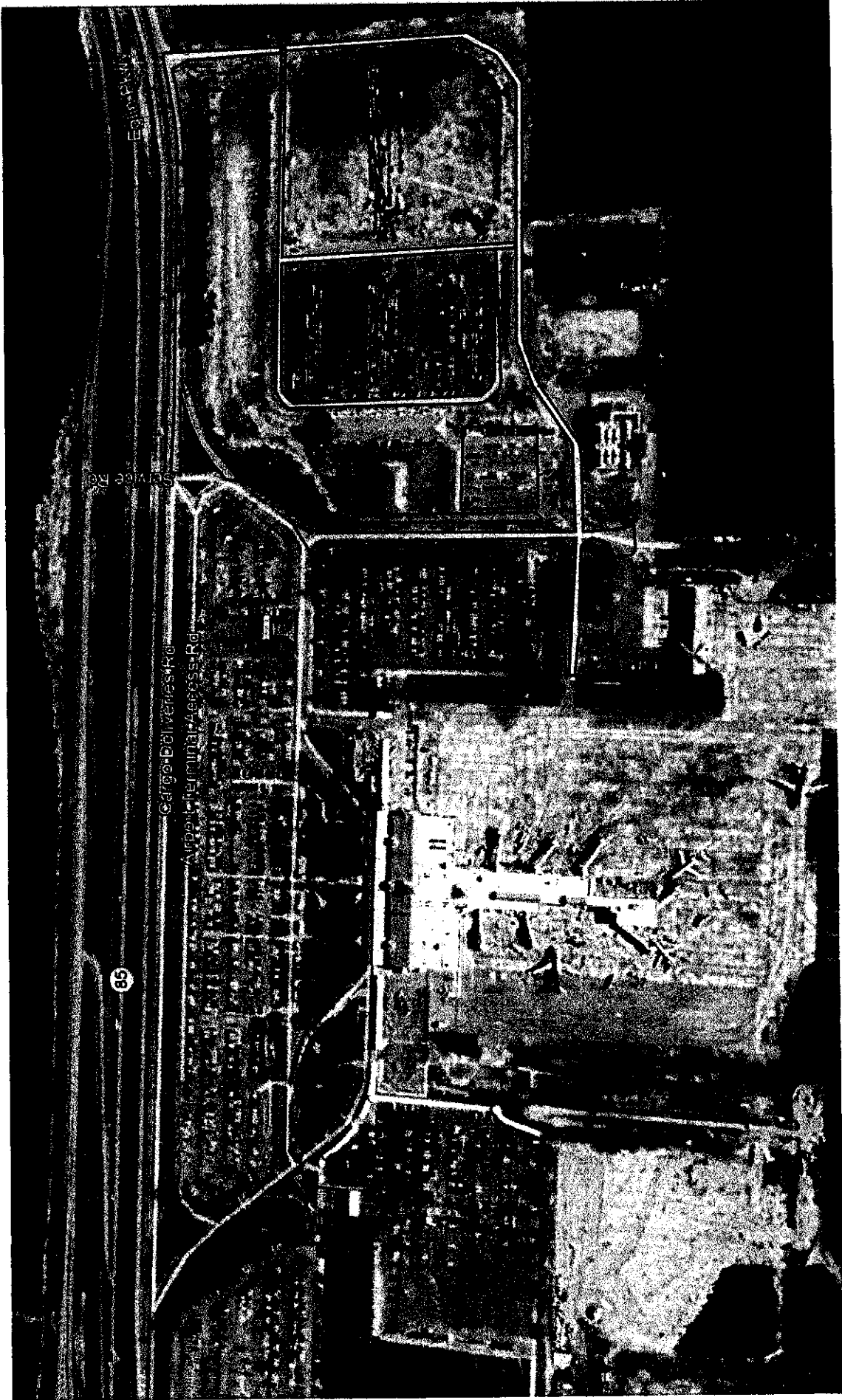
51 Total Mats

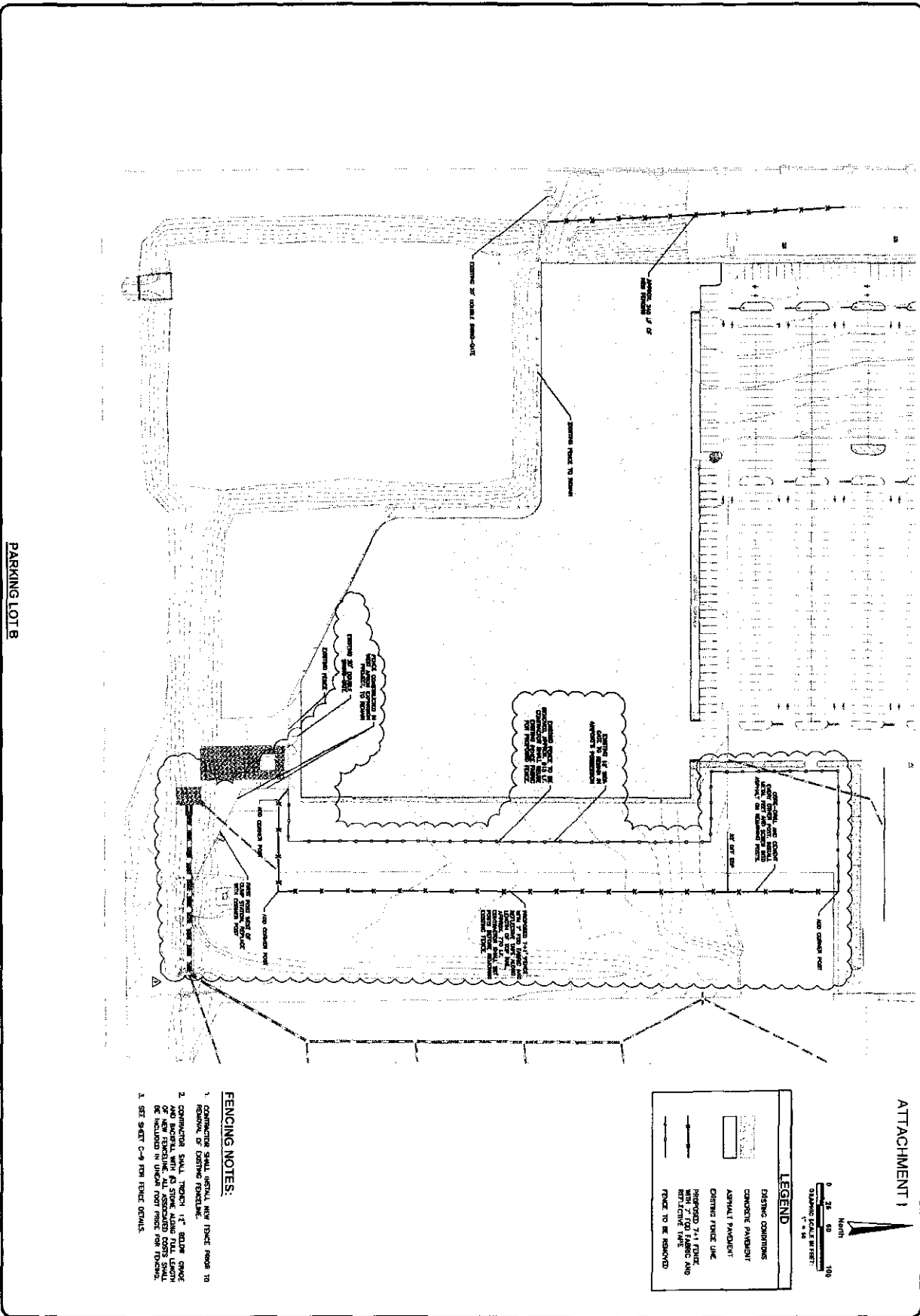
Missing



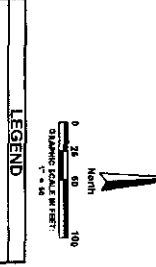
Needs repair







ATTACHMENT 1



- FENCING NOTES:**
1. CONSTRUCTION SHALL VERIFY FENCE PROBE TO DETERMINE EXISTING FENCING.
  2. CONSTRUCTION SHALL TIGHTEN 1" BELUM CHAIN OR NEW FENCING. ALL ASSOCIATED COISTS SHALL BE INCLUDED IN UNDER FOOT PRICE FOR TIGHTENING.
1. SEE SHEET C-9 FOR FENCE DETAILS.

PARKING LOT B

<p><b>C-8</b></p> <p>SHEET NUMBER</p>	<p><b>VPS PARKING LOT B EXPANSION</b></p> <p>PREPARED FOR DESTIN - FORT WALTON BEACH AIRPORT</p> <p>RELEASE FOR CONSTRUCTION</p>	<p>FENCE PLAN</p>	<table border="1"> <tr><th>NO.</th><th>DATE</th><th>DESCRIPTION</th></tr> <tr><td>1</td><td>10/21/11</td><td>CHANGE ORDER #1</td></tr> <tr><td>2</td><td>11/13/11</td><td>ENGINEER'S ADDRESS APPROVED</td></tr> <tr><td>3</td><td>02/21</td><td>CONTRACTOR'S ADDRESS APPROVED</td></tr> <tr><td>4</td><td></td><td></td></tr> <tr><td>5</td><td></td><td></td></tr> <tr><td>6</td><td></td><td></td></tr> <tr><td>7</td><td></td><td></td></tr> <tr><td>8</td><td></td><td></td></tr> <tr><td>9</td><td></td><td></td></tr> <tr><td>10</td><td></td><td></td></tr> </table>	NO.	DATE	DESCRIPTION	1	10/21/11	CHANGE ORDER #1	2	11/13/11	ENGINEER'S ADDRESS APPROVED	3	02/21	CONTRACTOR'S ADDRESS APPROVED	4			5			6			7			8			9			10			<p><b>AVCON, INC.</b> ENGINEERS &amp; PLANNERS</p> <p>150 BAYSHORE DRIVE, SUITE A MIDDLETON, PA 17057-0213 OFFICE (800) 878-0060 FAX: (800) 878-0060 CORPORATE CERTIFICATE OF AUTHORIZATION NUMBER: 5017 www.avconinc.com</p>
			NO.	DATE	DESCRIPTION																																
1	10/21/11	CHANGE ORDER #1																																			
2	11/13/11	ENGINEER'S ADDRESS APPROVED																																			
3	02/21	CONTRACTOR'S ADDRESS APPROVED																																			
4																																					
5																																					
6																																					
7																																					
8																																					
9																																					
10																																					
<p>DESIGNED BY: J.A.C.</p> <p>CHECKED BY: M.J.H.</p> <p>APPROVED BY: J.A.C.</p> <p>PROJECT NO: 10251480000101 DATE: OCTOBER 2011</p>																																					

## Stephen Saxer

---

**From:** Robert Chad Rogers  
**Sent:** Friday, April 9, 2021 3:14 PM  
**To:** Stephen Saxer  
**Subject:** Fwd: VPS Parking Expansion - Change Order Review

FYSA

Begin forwarded message:

**From:** Kerry Parsons <kparsons@myokaloosa.com>  
**Date:** April 9, 2021 at 3:09:51 PM CDT  
**To:** Robert Chad Rogers <rrogers@myokaloosa.com>  
**Cc:** Tracy Stage <tstage@myokaloosa.com>, Allyson Oury <aoury@myokaloosa.com>, Lynn Hoshihara <lhoshihara@myokaloosa.com>  
**Subject:** Re: VPS Parking Expansion - Change Order Review

Hey Chad:

I would not have seen this through minute Traq so I appreciate you sending this to me. Having reviewed the change order, along with your summary below, I agree that this is legally permissible and is approved for legal purposes.

Have a good day,

Kerry

Kerry A. Parsons

Chief Assistant County Attorney

Okaloosa County, Florida

**From:** Robert Chad Rogers  
**Sent:** Friday, April 9, 2021 1:23:19 PM  
**To:** 'Parsons, Kerry'; Kerry Parsons  
**Cc:** Tracy Stage; Allyson Oury  
**Subject:** VPS Parking Expansion - Change Order Review

Kerry,

With the issue earlier this week on the change order for a project at Bob Sikes, I wanted to provide a courtesy review request on the attached project on-going at VPS. Not sure if you would be included through the Minute Traq coord process. All of the items are well documented and either required due to field conflicts like utilities that needed to be resolved or otherwise related to original work scope items including pavements, signage, markings, fencing or public way safety items. We have had a number of adjoining projects designed and constructed within the same general area making the timing of design and execution key factors to a number of unforeseen needed changes...a domino in one project has ripple effects. More details are included in the Agenda item background summary below.

---

**BACKGROUND:** AVCON completed the design and the project was advertised for bid on January 27, 2020. Bids were opened on March 4, 2020 with three companies submitting bids. All bids were competitive and within a tight spread, but regardless of the selection of base bid and alternates Anderson Columbia had the lowest bid for the base and both alternates.

The scope of the project awarded includes the base bid and alternate 2. This included the expansion of Parking Lot B by roughly 500 parking spaces with supporting infrastructure of lighting, signage, markings, drainage system, curbing, and security cameras. Clearing, grubbing, and planting turf seed of five acres of trees that were obstructions within the Runway 12/30 clear zone were also removed in the project under bid alternate 2. Lot D on the east side of the Airport to offer over 100 additional overflow spaces during peak parking demand such as the holidays was designed and bid but not awarded.

With on-going and near future terminal expansion projects, space is quickly being eliminated for key airport functions and vendors that need easy access to the terminal. This need along with project savings and remaining grant budget necessitate a change order to add an additional 11-space parking area near the Baldwin Building and pre-arranged lot. These spaces will allow for adequate parking of ASU deputies and AOC staff as an already congested area on the east side of the airport near the rental car ready return lot becomes busier. Airport Administration staff have already relocated to this area due to the baggage handling system expansion project construction area on the west. In the future the baggage claim expansion will engulf the pre-arranged lot further driving the need for additional near-terminal space. The added spaces will not only serve the Airport Security Unit but also provide an area for Airport vendors, consultants and special guests to accommodate short duration business at the Airport. Many of these visitors utilize the secondary curb, which is becoming increasingly needed for passenger pick-up and drop-off.

---

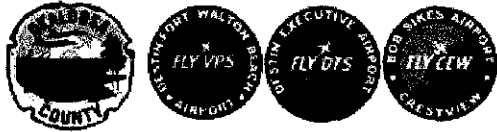
Thank you for the review and guidance so that we can proceed with completing this project prior to grant expiration on 6/30/2021.

VR,

Chad

Robert C. Rogers, P.E.  
Airports Deputy Director – Plans & Programs  
Okaloosa County Airports

1701 State Rd 85 N  
Eglin AFB, FL 32542-1498  
Office: (850) 651-7160, Option 0 then Ext. 1055  
Cell: (850) 612-6862  
E-mail: [rrogers@myokaloosa.com](mailto:rrogers@myokaloosa.com)



Destin-Fort Walton Beach Airport (VPS) - Destin Executive Airport (DTS) - Bob Sikes Airport (CEW)

[www.FlyVPS.com](http://www.FlyVPS.com) [www.FlyCEW.com](http://www.FlyCEW.com) [www.FlyDTS.com](http://www.FlyDTS.com)

Please note: Due to Florida's very broad public records laws, most written communications to or from County employees regarding County business are public records available to the public and media upon request. Therefore, this written email communication including your email address, may be subject to public disclosure.

## CONTRACT, LEASE, AGREEMENT CONTROL FORM

Date: 04/12/2020

Contract/Lease Control #: C20-2974-AP

Procurement#: ITB AP 27-20

Contract/Lease Type: CONTRACT

Award To/Lessee: ANDERSON COLUMBIA CO., INC.

Owner/Lessor: OKALOOSA COUNTY

Effective Date: 09/29/2020

Expiration Date: 120 CALENDAR DAYS FROM NTP

Description of Contract/Lease: VPS PARKING LOT B EXPANSION

Department: AP

Department Monitor: STAGE

Monitor's Telephone #: 850-689-7160

Monitor's FAX # or E-mail: TSTAGE@MYOKALOOSA.COM

Closed:

Cc: Finance Department Contracts & Grants Office



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

4/27/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> PentaRisk Associates of Georgia 1870 The Exchange #100 Atlanta GA 30339	<b>CONTACT NAME:</b> Catherine Galbraith <b>PHONE (A/C, No, Ext):</b> 404-809-2530 <b>E-MAIL ADDRESS:</b> cgalbraith@pentarisk.com	<b>FAX (A/C, No):</b> 404-809-2531
	<b>INSURER(S) AFFORDING COVERAGE</b>	
<b>INSURED</b> Anderson Columbia Co., Inc. P.O. Box 1829 Lake City FL 32056	<b>INSURER A :</b> Zurich American Insurance Company <b>NAIC #</b> 16535	
	<b>INSURER B :</b> RSUI Indemnity Company <b>22314</b>	
	<b>INSURER C :</b> XL Insurance America, Inc. <b>24554</b>	
	<b>INSURER D :</b> Safety National Casualty Corporation <b>15105</b>	
	<b>INSURER E :</b> Endurance American Specialty Insurance Company <b>41718</b>	
	<b>INSURER F :</b>	

**COVERAGES**

CERTIFICATE NUMBER: 1811652499

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	<b>COMMERCIAL GENERAL LIABILITY</b> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: POLICY <input checked="" type="checkbox"/> PROJECT <input checked="" type="checkbox"/> LOC OTHER:			GLO-0193980-05	5/1/2021	5/1/2022	EACH OCCURRENCE	\$ 2,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 300,000
							MED EXP (Any one person)	\$ 10,000
							PERSONAL & ADV INJURY	\$ 2,000,000
							GENERAL AGGREGATE	\$ 4,000,000
							PRODUCTS - COMPI/OP AGG	\$ 4,000,000
								\$
A	<b>AUTOMOBILE LIABILITY</b> <input checked="" type="checkbox"/> ANY AUTO <input checked="" type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY			BAP-0193981-05	5/1/2021	5/1/2022	COMBINED SINGLE LIMIT (Ea accident)	\$ 2,000,000
							BODILY INJURY (Per person)	\$
							BODILY INJURY (Per accident)	\$
							PROPERTY DAMAGE (Per accident)	\$
								\$
B C E	<b>UMBRELLA LIAB</b> <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED      RETENTION \$			NHA093861 SXS004977204 EXC30000098105	5/1/2021 5/1/2021 5/1/2021	5/1/2022 5/1/2022 5/1/2022	EACH OCCURRENCE	\$ 10,000,000
							AGGREGATE	\$ 10,000,000
								\$
D	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input type="checkbox"/> Y / <input checked="" type="checkbox"/> N If yes, describe under DESCRIPTION OF OPERATIONS below			SP 4064574	4/1/2021	4/1/2022	X PER STATUTE	OTH-ER
							E.L. EACH ACCIDENT	\$ 1,000,000
							E.L. DISEASE - EA EMPLOYEE	\$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	\$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)  
 Contract # ITB AP 27-20 VPS Parking Lot B Expansion

The following applies to the General Liability, Auto Liability, Umbrella/Excess policies where required by written contract with named insured: Okaloosa County Purchasing Department is additional insured and a Waiver of Subrogation applies in their 1 waiver of Subrogation applies to the above listed additional insureds, where required by w provided is primary and non-contributory, where required by written contract with named ir

**CONTRACT#: C20-2974-AP**  
**ANDERSON COLUMBIA, INC.**  
**CONSTRUCT PARKING LOT B AT VPS**  
**EXPIRES: 120 CALENDAR DAYS FROM NTP**

**CERTIFICATE HOLDER****CANCEL**

SHOUL THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Okaloosa Board of County Commissioners  
 5479A Old Bethel Road  
 Crestview FL 32536





# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

3/24/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER PentaRisk Associates of Georgia 1870 The Exchange #100 Atlanta GA 30339	CONTACT NAME: Catherine Galbraith
	PHONE (A/C, No, Ext): 404-809-2530 FAX (A/C, No): 404-809-2531
	E-MAIL ADDRESS: cgalbraith@pentarisk.com
	INSURER(S) AFFORDING COVERAGE
	INSURER A : Zurich American Insurance Company NAIC # 16535
	INSURER B : RSUI Indemnity Company 22314
	INSURER C : XL Insurance America, Inc. 24554
	INSURER D : Safety National Casualty Corporation 15105
	INSURER E : Endurance American Specialty Insurance Company 41718
	INSURER F :

COVERAGES CERTIFICATE NUMBER: 1807186121 REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR		GLO-0193980-04	5/1/2020	5/1/2021	EACH OCCURRENCE \$ 2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 2,000,000 GENERAL AGGREGATE \$ 4,000,000 PRODUCTS - COMP/OP AGG \$ 4,000,000 OTHER \$
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input checked="" type="checkbox"/> OWNED AUTOS ONLY <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY		BAP-0193981-04	5/1/2020	5/1/2021	COMBINED SINGLE LIMIT (Ea accident) \$ 2,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ OTHER \$
B C E	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE		NHA089847 SXS004977203 EXC30000098104	5/1/2020 5/1/2020 5/1/2020	5/1/2021 5/1/2021 5/1/2021	EACH OCCURRENCE \$ 10,000,000 AGGREGATE \$ 10,000,000 DED RETENTION \$
D	<input checked="" type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory In NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N <input checked="" type="checkbox"/> N N/A	SP 4064574	4/1/2021	4/1/2022	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)  
Contract # ITB AP 27-20 VPS Parking Lot B Expansion

The following applies to the General Liability, Auto Liability, Umbrella/Excess policies where required by written contract with named insured: Okaloosa County Purchasing Department is additional insured and a Waiver of Subrogation applies in their favor. The following applies to the Workers Compensation policy: waiver of Subrogation applies to the above listed Okaloosa County, where required by writ provided is primary and non-contributory, where required by written contract with named insi

CERTIFICATE HOLDER

MAR 31 2021

CANCEL

CONTRACT#: C20-2974-AP  
ANDERSON COLUMBIA CO., INC.  
CONSTRUCT PARKING LOT B AT VPS  
EXPIRES: 120 DAYS FROM NTP

Received by  
Risk Management

Okaloosa Board of County Commissioners  
5479A Old Bethel Road  
Crestview FL 32536

SHOULD THE EXPIRATION DATE THEREOF, NOTICE MUST BE RECEIVED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

**CONTRACT #: C20-2974-AP  
ANDERSON COLUMBIA CO., INC.  
CONSTRUCT PARKING LOT B AT VPS  
EXPIRES: 120 CALENDAR DAYS  
FROM NTP**

**STANDARD FORM OF AGREEMENT**

THIS AGREEMENT is dated as of the SEP day of 29 in the year 2020 by and between The Board of County Commissioners of Okaloosa County, Florida (hereinafter called Owner) and Anderson Columbia Co., Inc. (hereinafter called Contractor).

Owner and Contractor, in consideration of the mutual covenants hereinafter set forth, agree as follows:

**Article 1. WORK.**

Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

**VPS PARKING LOT B EXPANSION**

**Article 2. ENGINEER.**

The Project has been designed by

**AVCON, INC.**

who is hereinafter called Engineer and who is to act as Owner's representative, assume all duties and responsibilities and have the rights and authority assigned to Engineer in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

**Article 3. CONTRACT TIMES.**

3.1 The Work will be substantially completed within 60 calendar days after the date when the Contract Times commence to run as provided in paragraph 2.3 of the General Conditions. The project shall be deemed substantially complete upon completion of the asphalt pavement, concrete curb and sidewalk, fencing, and pavement markings. The Work will be completed and ready for final payment in accordance with paragraph 14.13 of the General Conditions within 120 calendar days after the date when the Contract Times commence to run.

3.2 *Liquidated Damages.* Owner and Contractor recognize that time is of the essence of this Agreement and that Owner will suffer financial loss if the Work is not completed within the times specified in paragraph 3.1 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. They also recognize the delays, expense and difficulties involved in proving the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring of such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty) Contractor shall pay Owner the amount specified in Paragraph 3.3 for each day that expires after the time specified in paragraph 3.1 for Substantial Completion until the Work is substantially complete. After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the time specified in paragraph 3.1 for completion and readiness for final payment or any proper extension thereof granted by Owner, Contractor shall pay Owner the amount specified in Paragraph 3.3 for each day that expires after the time specified in paragraph 3.1 for completion and readiness for final payment. The Contractor hereby expressly waives and relinquishes any right which it may have to seek to characterize the liquidated damages as a penalty, which the parties agree represents a fair and reasonable estimate of

the Owner's actual damages at the time of contracting if the Contractor fails to substantially complete the Work in a timely manner.

3.3.1 Liquidated Damages are based upon the original contract amount, as established by Okaloosa County. Liquidated damages, based upon the original contract amount \$1,650,641.10 will be dollars \$ 1,924.00 per calendar day.

**Article 4. CONTRACT PRICE.**

Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the established unit price for each separately identified item of Unit Price Work times the estimated quantity of that item as indicated in the Bid Schedule submitted in the Bid Form. The cost of this project is \$ 1,650,641.10 as per the attached Contractor bid.

As provided in paragraph 11.9 of the General Conditions estimated quantities are not guaranteed, and determinations of actual quantities and classification are to be made by Engineer as provided in paragraph 9.10 of the General Conditions. Unit prices have been computed as provided in paragraph 11.9.2 of the General Conditions.

**Article 5. PAYMENT PROCEDURES**

Contractor shall submit Application for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

5.1 *Progress Payments; Retainage.* Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment as recommended by Engineer, on or about the fifteenth (15th) day of each month during construction as provided in paragraphs 5.1.1 and 5.1.2 below. All such payments will be measured based on the number of units completed. Payments to the Contractor shall in no way imply approval or acceptance of Contractor's work.

5.1.1 Prior to Substantial completion, payments will be made in an amount equal to the percentage indicated below, but, in each case, less the aggregate of payments previously made and less such amounts as Engineer shall determine, or Owner may withhold, in accordance with paragraph 14.7 of the General Conditions.

90 % of Work completed (with the balance being retainage). Once the Contractor completes at least 50% of the Work based on approved pay applications, the retainage will be reduced from 10% to 5% for the remainder of the project. Therefore, following completion of at least 50% of the Work, the Contractor may be paid 95 % of Work completed (with the balance being retainage).

90 % (with the balance being retainage) of materials and equipment not incorporated in the Work (but delivered, suitably stored and accompanied by documentation satisfactory to Owner as provided in paragraph 14.2 of the General Conditions). Once the Contractor completes at least 50% of the Work based on approved pay applications, the retainage will be reduced from 10% to 5% for the remainder of the project. Therefore, following completion of at least 50% of the Work, the Contractor may be paid 95 % of materials and equipment not incorporated in the Work (but delivered, suitably stored and accompanied

by documentation satisfactory to Owner as provided in paragraph 14.2 of the General Conditions).

5.1.2 Upon Substantial Completion, in an amount sufficient to increase total payments to Contractor to 95 % of the Contract Price (with the balance being retainage), less such amounts as Engineer shall determine, or Owner may withhold, in accordance with paragraph 14.7 of the General Conditions.

5.1.3 Retainage requirements may be changed to reflect a proposed change to state regulatory statutes.

5.2 *Final Payment.* Upon final completion and acceptance of the Work in accordance with paragraph 14.13 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said paragraph 14.13.

5.2.1 Contractor's acceptance of final payment shall constitute a full waiver of any and all claims by Contractor against the County arising out of this Agreement or otherwise relating to the Project, except those previously made in writing and identified by Contractor as unsettled at the time of the final Application for Payment. Neither the acceptance of the Work nor payment by the County shall be deemed to be a waiver of the County's right to enforce any obligations of the Contractor hereunder or to the recovery of damages for defective Work not discovered by the Engineer or the County at the time of final inspection.

### 5.3 Payments Withheld

5.3.1 The Engineer or the County may decline to approve any Applications for Payment, or portions thereof, because of subsequently discovered evidence or subsequent inspections. The Engineer or the County may nullify the whole or any part of any inspections. The Engineer or the County may nullify the whole or any part of any approval for payment previously issued and the County may withhold any payments otherwise due Contractor under this Agreement or any other agreement between the County and the Contractor, to such extent as may be necessary in the County's opinion to protect it from loss because of:

5.3.1.1 Defective Work not remedied;

5.3.1.2 Third party claims filed or reasonable evidence indicating probable filing of such claims;

5.3.1.3 Failure of Contractor to make payment properly to subcontractors or for labor, materials or equipment;

5.3.1.4 Reasonable doubt that the Work can be completed for the unpaid balance of the Contract Amount;

5.3.1.5 Reasonable indication that the Work will not be completed within the Contract Time;

5.3.1.6 Unsatisfactory prosecution of the Work by the Contractor;

5.3.1.7 Failure to provide accurate and current "As-Builts"; or

5.3.1.8 Any other material breach of the Contract Documents.

5.3.2 If these conditions in Subsection 5.3.1 are not remedied or removed, the County may after three (3) days written notice, rectify the same at Contractor's expense. The County also may offset against any sums due Contractor the amount of any liquidated or unliquidated obligations of Contractor to the County, whether relating to or arising out of his Agreement or any other agreement between Contractor and the County.

**Article 6. CONTRACTOR'S REPRESENTATIONS.**

In order to induce Owner to enter into this Agreement Contractor makes the following representations:

6.1 Contractor has examined and carefully studied the Contract Documents (including the Addenda listed in Article 7) and the other related data identified in the Project Documents including "technical data."

6.2 Contractor has visited the site and become familiar with and is satisfied as to the general, local, and site conditions that may affect cost, progress, performance or furnishing of the Work.

6.3 Contractor is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, performance and furnishing of the Work.

6.4 Contractor has carefully studied all reports of explorations and tests of subsurface conditions at or contiguous to site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in paragraph 4.2.1 of the General Conditions. Contractor accepts the determination of the extent of the "technical data" contained in such reports and drawings upon which Contractor is entitled to rely as provided in paragraph 4.2 of the General Conditions. Contractor acknowledges that such reports and drawings are not Contract Documents and may not be complete for Contractor's purposes. Contractor acknowledges that Owner and Engineer do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Contract Documents with respect to Underground Facilities at or contiguous to the site. Contractor has obtained and carefully studied (or assumes responsibility for having done so) all such additional supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance, or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor and safety precautions, and programs incident thereto. Contractor does not consider that any additional examinations, investigations, explorations, tests, studies, or data are necessary for the performance and furnishing of the Work at the Contract Price, within the Contract Times and in accordance with the other terms and conditions of the Contract Documents.

6.5 Contractor is aware of the general nature of work to be performed by Owner and others at the site that relates to the Work as indicated in the Contract Documents.

6.6 Contractor has correlated the information known to Contractor, information and observation obtained from visits to the site, reports, and drawings identified in the Contract Documents and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.

6.7 Contractor has given Engineer written notice of all conflicts, errors, ambiguities or discrepancies that Contractor has discovered in the Contract Documents and the written resolution thereof by Engineer is acceptable to Contractor, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

**Article 7. CONTRACT DOCUMENTS**

The Contract Documents that comprise the entire agreement between Owner and Contractor concerning the Work consist of the following:

- 7.1 This Agreement (pages 1 to 8, inclusive)
- 7.2 Contractor's Bid (pages 9 to 100 inclusive)
- 7.3 Okaloosa County Standard Clauses (pages 101 to 106, inclusive)
- 7.4 General Conditions (pages 107 to 165, inclusive)
- 7.5 Addenda number 1 (page 166 to 203, inclusive)
- 7.6 Addenda number 2 (page 204 to 211, inclusive)
- 7.7 Specifications package : (page 212 to 400, inclusive)
- 7.8 Drawings consisting of sheets numbered G-1 to E-108 (page 401 to 428, inclusive) with each sheet bearing the following general title:

VPS PARKING LOT B EXPANSION

- 7.9 The following which may be delivered or issued after the Effective Date of the Agreement and are not attached hereto:

All Written Amendments and other documents amending, modifying or supplementing the Contract Documents pursuant to paragraphs 3.5 and 3.6 of the General Conditions

The Contract Documents may only be amended, modified or supplemented as provided in paragraphs 3.5 and 3.6 of the General Conditions.

**Article 8. PUBLIC RECORDS**

Any record created by either party in accordance with this Contract shall be retained and maintained in accordance with the public records law, Florida Statutes, Chapter 119.

**IF THE CONSULTANT HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT OKALOOSA COUNTY RISK MANAGEMENT DEPARTMENT 302 NORTH WILSON STREET, SUITE 301 CRESTVIEW, FL 32536 PHONE: (850) 689-5977 [riskinfo@myokaloosa.com](mailto:riskinfo@myokaloosa.com).**

Consultant must comply with the public records laws, Florida Statute chapter 119, specifically Consultant must:

8.1 Keep and maintain public records required by the County to perform the service.

8.2 Upon request from the County's custodian of public records, provide the County with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in chapter 119 Florida Statutes or as otherwise provided by law.

8.3 Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the consultant does not transfer the records to the County.

8.4 Upon completion of the contract, transfer, at no cost, to the County all public records in possession of the contractor or keep and maintain public records required by the County to perform the service. If the consultant transfers all public records to the public agency upon completion of the contract, the consultant shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the consultant keeps and maintains public records upon completion of the contract, the consultant shall meet all applicable requirements for retaining the public records. All records stored electronically must be provided to the public agency, upon the request from the public agency's custodian of public records, in a format that is compatible with the information technology systems of the public agency.

**Article 9. AUDIT**

The County and/or its designee shall have the right from time to time at its sole expense to audit the compliance by the Contractor with the terms, conditions, obligations, limitations, restrictions, and requirements of this Contract and such right shall extend for a period of three (3) years after termination of this Contract.

**Article 10. TERMINATION FOR CONVENIENCE**

Owner may at any time and for any reason terminate Contractor's services and work at Owner's convenience. Upon receipt of such notice, Contractor shall, unless the notice directs otherwise, immediately discontinue the work and placing of orders for materials, facilities and supplies in connection with the performance of this Agreement.

Upon such termination, Contractor shall be entitled to payment only as follows: (1) the actual cost of the work completed in conformity with this Agreement; plus, and (2) such other costs actually incurred by Contractor as are permitted by the prime contract and approved by Owner. There shall be deducted from such sums as provided in this subparagraph the amount of any payments made to Contractor prior to the date of the termination of this Agreement. Contractor shall not be entitled to any claim or claim of lien against Owner for any additional compensation or damages in the event of such termination and payment. Further, Owner may terminate this contract immediately for failure of contractor to comply with Chapter 119, Florida Statutes.

**Article 11. VIOLATIONS OF CHAPTER 119 FLORIDA STATUTES**

The County reserves the right to terminate this agreement immediately for failure of Contractor to adhere to the requirements of Florida Statutes Chapter 119.

**Article 12. MISCELLANEOUS.**

12.1 Terms used in this Agreement which are defined in Article 1 of the General Conditions will have the meanings indicated in the General Conditions.

12.2 No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

12.3 Owner and Contractor each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

12.4 Any provisions or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

IN WITNESS WHEREOF, Owner, and Contractor have signed this Agreement in triplicate. One counterpart each has been delivered to Owner, Contractor, and Engineer. All portions of the Contract Documents have been signed, initialed or identified by Owner, and Contractor, or identified by Engineer on their behalf.



This Agreement will be effective on: SEP 29, 2020 (which is the Effective Date of the Agreement).

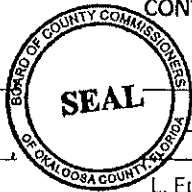
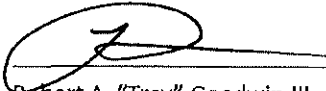
**Article 13. INCORPORATION OF DOCUMENTS**

**OWNER**

**CONTRACTOR**

Okaloosa County, Florida

Anderson Columbia, Inc.



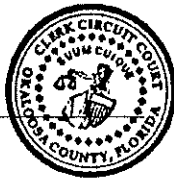
Lawrence E Strickland  
Digitally signed by Lawrence E Strickland  
Date: 2020.07.24 10:23:44 -05'00'

Robert A. "Trey" Goodwin III  
Chairman, Okaloosa County Board of County Commissioners

L. Eugene Strickland, Vice President

Attest

J.D. Peacock II  
Clerk of Circuit Court



Attest

Address for giving notices

Address for giving notices

(If Owner is a public body, attached evidence of authority to sign and resolution or other documents authorizing execution of Agreement).

License No. \_\_\_\_\_

Agent for services of process: \_\_\_\_\_

If Contractor is a corporation, attach evidence of authority to sign).

**BID DOCUMENTS**

for

**VPS PARKING LOT B EXPANSION**

**ITB AP 27-20**

Prepared for:



**Okaloosa County Board  
of County Commissioners**

Prepared by:



**AVCON, INC.**  
320 Bayshore Dr, Ste A  
Niceville, Florida 32578  
Phone: 850.678.0050

**AVCON Project Number: 2019.0050.05**

**BID DOCUMENTS**

January 2020

**TABLE OF CONTENTS**

**FRONT END DOCUMENTS**

Respondent’s Acknowledgement  
 Notice to Bidders..... NTB- 1  
 Instructions to Contractors ..... ITC- 1  
 Okaloosa County Standard Clauses..... BOC- 1

**BID DOCUMENTS**

Bid Form ..... BF- 1  
 Bid Schedule ..... BS- 1  
 Bid Affidavit .....BA- 1  
 Bid Bond .....BB- 1  
 Contractor’s Qualification Questionnaire . CQQ- 1  
 Form of Non-collusion Affidavit ..... NCA- 1  
 Certification of Non-Segregated Facilities...NSF- 1  
 Sworn Statement Under Section 287.133 (3) (a),  
 Florida Statutes, on Public Entity Crimes SSPEC- 1  
 Certificate as to Corporate Principal.....CCP- 1  
 Certified Copy of Resolution of Board of  
 Directors ..... RBD- 1  
 Conflict of Interest Disclosure Form..... OC- 1  
 Drug-Free Workplace Certification ..... OC- 2  
 Certification of Contractor Regarding Trench  
 Safety ..... OC- 3  
 Indemnification and Hold Harmless..... OC- 4  
 Insurance Compliance ..... OC- 5  
 Affidavit – Worker’s Compensation ..... OC- 6  
 Recycled Content Form ..... OC- 7  
 Disadvantaged Business Enterprise ..... OC- 8-11  
 DBE Certificate of Compliance Form..... OC- 12  
 Performance of Work By  
 Subcontractors ..... PWSC- 1  
 E-Verify Compliance Certification .....EVCC- 1  
 Cone of Silence ..... CS- 1  
 Buy American Certificate..... BAC- 1  
 Lobbying – 31 USC 1352..... LF- 1  
 Equal Employment Opportunity Report  
 Statement..... EEOR- 1  
 Vendors on Scrutinized List ..... VSL-1  
 Addendum Acknowledgement Form ..... AA-1  
 Company Data Form..... CD-1  
 System For Award Management Form ..... SAM-1

**CONTRACT FORMS**

Standard Form of Agreement ..... SFA- 1  
 Performance Bond ..... PFBND- 1  
 Payment Bond..... PYBND- 1  
 Contractor’s Release of Liens..... CONRELNS- 1  
 Advertisement of Completion ..... AFC- 1  
 Standard Additional Contract Clauses ..... SACC-1

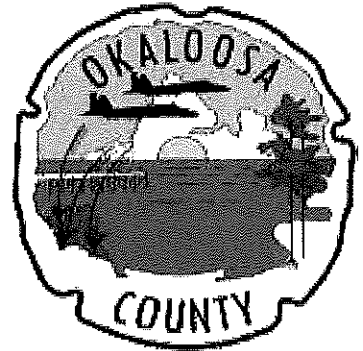
**GENERAL CONDITIONS .....GC-1**

**TECHNICAL SPECIFICATIONS**

101 Mobilization  
 102 Maintenance of Traffic  
 104 Erosion Control  
 105 Contractor Quality Control  
 110 Clearing and Grubbing  
 120 Excavation and Embankment  
 160 Stabilized Subbase  
 285 Optional Base Course  
 334 Superpave Asphalt Concrete  
 347 Portland Cement Concrete – NS  
 425 Inlets  
 430 Pipe Culverts  
 520 Curb  
 522 Sidewalk  
 524 Concrete Ditch and Slope Pavements  
 550 Fencing  
 570 Performance Sod  
 700 Signage  
 710 Pavement Markings  
 981 Turf Materials  
 26 05 00 General Electrical Requirements  
 26 05 19 Power Conductors and Cables  
 26 05 26 Grounding and Bonding  
 26 05 43 Underground Ducts and Raceways  
 26 05 53 Identification  
 26 24 16 Panelboards  
 26 56 00 Exterior Lighting

**APPENDIX A – Advisory Circular 150/5210-5D**  
**APPENDIX B –Advisory Circular 150/5200-18D**  
**APPENDIX C – Advisory Circular 150/5370-2G**

# FRONT END DOCUMENTS



BID DOCUMENTS  
VPS PARKING LOT B EXPANSION



INVITATION TO BID (ITB) & RESPONDENT'S ACKNOWLEDGEMENT

**ITB TITLE:**  
VPS PARKING LOT B EXPANSION for  
DESTIN-FORT WALTON BEACH AIRPORT

**ITB NUMBER:**  
ITB AP 27-20

**ISSUE DATE:** January 28, 2020

**PRE-BID CONFERENCE:** February 5, 2020 2:30 A.M. CST

**LAST DAY FOR QUESTIONS:** February 12, 2020 3:00 P.M. CST

**ITB OPENING DATE & TIME:** February 26 ~~March 4~~, 2020 3:00 P.M. CST

**NOTE: BIDS RECEIVED AFTER THE BID OPENING DATE & TIME WILL NOT BE CONSIDERED.**

Okaloosa County, Florida solicits your company to submit a bid on the above referenced goods or services. All terms, specifications and conditions set forth in this ITB are incorporated into your response. A bid will not be accepted unless all conditions have been met. All bids must have an authorized signature in the space provided below. All bids must be sealed and received by the Okaloosa County Crestview Courthouse BCC Records by the "ITB Opening Date & Time" referenced above. The official clock for the purpose of receiving bids is located in the Okaloosa County Courthouse, #282 located at 101 James Lee Blvd, Crestview, FL 32536. All envelopes containing sealed bids must reference the "ITB Title", "ITB Number" and the "ITB Opening Date & Time". Okaloosa County is not responsible for lost or late delivery of bids by the U.S. Postal Service or other delivery services used by the respondent. Neither faxed nor electronically submitted bids will be accepted. Bids may not be withdrawn for a period of ninety (90) days after the bid opening unless otherwise specified.

**RESPONDENT ACKNOWLEDGEMENT FORM BELOW MUST BE COMPLETED, SIGNED, AND RETURNED AS PART OF YOUR BID. BIDS WILL NOT BE ACCEPTED WITHOUT THIS FORM, SIGNED BY AN AUTHORIZED AGENT OF THE RESPONDENT.**

COMPANY NAME Anderson Columbia Co., Inc

MAILING ADDRESS 2316 HWY 71

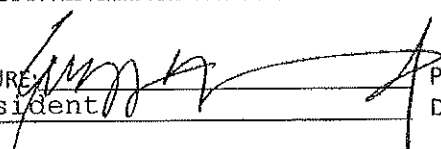
CITY, STATE, ZIP Marianna, FL 32448

FEDERAL EMPLOYER'S IDENTIFICATION NUMBER (FEIN): 59-2871935

TELEPHONE: 850-526-4440 EXT: 305 FAX: 850-526-7106

EMAIL: genes@andersoncolumbia.com

I CERTIFY THAT THIS BID IS MADE WITHOUT PRIOR UNDERSTANDING, AGREEMENT, OR CONNECTION WITH ANY OTHER RESPONDENT SUBMITTING A BID FOR THE SAME MATERIALS, SUPPLIES, EQUIPMENT OR SERVICES, AND IS IN ALL RESPECTS FAIR AND WITHOUT COLLUSION OR FRAUD. I AGREE TO ABIDE BY ALL TERMS AND CONDITIONS OF THIS BID AND CERTIFY THAT I AM AUTHORIZED TO SIGN THIS BID FOR THE RESPONDENT.

AUTHORIZED SIGNATURE:  PRINTED NAME: L. Eugene Strickland

TITLE: Vice President DATE: March 4th, 2020

**NOTICE TO BIDDERS**

VPS PARKING LOT B EXPANSION  
FOR  
DESTIN-FORT WALTON BEACH AIRPORT  
OKALOOSA COUNTY, FLORIDA

Notice is hereby given that the Board of County Commissioners of Okaloosa County will receive sealed bids until Wednesday, February 26, 2020 until 3:00 pm (local time) for the VPS Parking Lot B Expansion project at which time and place all bids will be publicly opened and read aloud. Bids must be submitted in a sealed envelope clearly marked "**BID ENCLOSED – VPS PARKING LOT B EXPANSION.**"

Interested respondents desiring consideration shall provide an original and two (2) copies (total three (3)) and one (1) thumb drive of their Invitation to Bids (ITB) response with the respondent's areas of expertise identified. Submissions shall be portrait orientation, unbound, and 8 ½" x 11" where practical. **All originals must have original signatures in blue ink.**

The Board of County Commissioners will consider all bids properly submitted at its scheduled bid opening in the Okaloosa County Crestview Courthouse, 101 East James Lee Blvd, Room #282, Crestview, FL 32536. Bids may be submitted prior to bid opening by being delivered in person or by mail to the Clerk of Circuit Court, 101 East James Lee Blvd, Room #282, Crestview, FL 32536. **NOTE: Crestview, FL is not a next day guaranteed delivery location by most delivery services.** Respondents using mail or delivery services assume all risks of late or non-delivery. **MUST RING DOORBELL TO GAIN ENTRANCE INTO ROOM 282. THE CLERK WILL COME ACCEPT YOUR PACKAGE OR SHOW YOU TO THE CONFERENCE ROOM FOR THE SCHEDULED BID OPENING.**

**NOTE: THE NEW CRESTVIEW COURTHOUSE HAS SECURITY AT ENTRY POINT-PLEASE ALLOW FOR TIME TO GET THROUGH SECURITY WHEN ARRIVING FOR THE BID OPENING.**

The VPS Parking Lot B Expansion project generally includes construction of a 506-space and 119-space parking lot consisting of clearing and grubbing, construction of subgrade improvements, base material and asphalt, pavement markings, concrete curb and sidewalk, grading, stormwater improvements, pavement markings, and site lighting and security camera improvements.

Beginning on Monday, January 27, 2020 digital copies of the above documents may be downloaded by accessing the following sites:

<http://www.myokaloosa.com/purchasing/home> then accessing the link "View Current Solicitations"

<https://www.bidnetdirect.com/florida>

[https://www.demandstar.com/supplier/bids/agency\\_inc/bid\\_list.asp?f=search&mi=2442519](https://www.demandstar.com/supplier/bids/agency_inc/bid_list.asp?f=search&mi=2442519)

A non-mandatory Pre-Bid Conference will be conducted at the Destin-Fort Walton Beach Airport, Conference Room No. 1, 1701 State Road 85 N., Eglin AFB, Florida 32542, on Wednesday, February 5, 2020 at 2:30 p.m. (local time). Engineer will transmit to all plan holders of record an Addenda in response to written questions received no later than seven (7) days prior to the Bid Opening date. Oral statements may not be relied upon and will not be binding or legally effective.

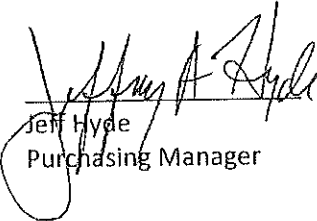
The County reserves the right to award the bid to the lowest responsive respondent and to waive any irregularity or technicality in bids received. Okaloosa County shall be the sole judge of the bid and the resulting agreement that is in its best interest and its decision shall be final.

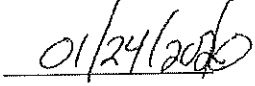
Funding for this project is being provided by Okaloosa County and the Florida Department of Transportation and will be subject to all applicable County requirements.

Any Respondent failing to mark outside of the envelope as set forth herein may not be entitled to have their bid considered.

All bids should be addressed as follows:

VPS Parking Lot B Expansion For Destin-Fort Walton Beach Airport  
ITB AP 27-20  
Crestview Courthouse  
Attn: BCC Records  
101 East James Lee Blvd. Room #282  
Crestview, FL 32536

  
Jeff Hyde  
Purchasing Manager

  
Date

BOARD OF COUNTY COMMISSIONERS  
OKALOOSA COUNTY, FL

Robert A. "Trey" Godwin III  
Chairman

**INSTRUCTIONS TO CONTRACTORS**

PROJECT IDENTIFICATION:

- a) Project Title:  
**VPS PARKING LOT B EXPANSION**
- b) Owner:  
**OKALOOSA COUNTY BOARD OF COUNTY COMMISSIONERS**
- c) Engineer:  
**AVCON, INC.**

**INDEX**

<u>Item</u>	<u>Para.</u>	<u>Page</u>
Availability of Lands for Work	5	ITC-4
Award of Contract	17	ITC-8
Bid Form	11	ITC-6
Bid Security	7	ITC-5
Bids to Remain Subject to Acceptance	15	ITC-7
Contract Times	8	ITC-5
Copies of Project Documents	2	ITC-2
Defined Terms	1	ITC-2
Disqualification of Contractors	16	ITC-7
Examination of Contract Documents and Site	4	ITC-2
Interpretations and Addenda	6	ITC-4
Modification and Withdrawal of Bids	13	ITC-7
Opening of Bids	14	ITC-7
Pre-Proposal Conference	18	ITC-8
Qualification of Contractors	3	ITC-2
Sales and Use Taxes	19	ITC-9
Subcontractors, Suppliers, and Others	10	ITC-6
Submission of Bids	12	ITC-7
Substitute or "Or-Equal" Items	9	ITC-5



**1. Defined Terms.**

Terms used in the Instructions to Contractors that are defined in the Standard General Conditions of the Project Manual have the meanings assigned to them in the General Conditions.

Certain additional terms used in the Instruction to Contractors have the meanings indicated below which are applicable to both the singular and plural thereof.

- 1.1 Contractor – one who submits a Bid directly to Owner as distinct from sub-contractor, who submits a bid to a Contractor.
- 1.2 Issuing Office – the office from which the Project Documents are to be issued and where the bid procedures are to be administered.
- 1.3 Successful Contractor – the lowest, responsible and responsive Contractor to whom Owner (on the basis of Owner's evaluation as hereinafter provided) makes and award.

**2. Copies of Project Documents.**

- 2.1 Complete sets of the Project Documents in the number and for the sum, if any, stated in the Advertisement or Notice to Contractors may be obtained from the Issuing Office.
- 2.2 Complete sets of Project Documents must be used in preparing Bids; neither Owner nor Engineer assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Project Documents.
- 2.3 Owner and Engineer in making copies of Project Documents available on the above terms do so only for the purpose of obtaining Bids for the Work and do not confer a license or grant for any other use.

**3. Qualifications of Contractors.**

To demonstrate qualifications to perform the Work, each Contractor must submit within two (2) business days after Bid opening upon Owner's request detailed written evidence such as financial data, previous experience, present commitments and other such data as may be called for below. Each Bid must contain evidence of Contractors qualification to do business in the state where the Project is located or covenant to obtain such qualification prior to award of the contract.

**4. Examination of Documents and Site.**

- 4.1 It is the responsibility of each contractor before submitting a Bid:
  - 4.1.1 To examine thoroughly these documents and other related data identified (including "technical data" referred to below);
  - 4.1.2 To visit the site to become familiar with and satisfy Contractor as to the general, local and site conditions that may affect cost, progress, performance, or furnishing of the Work;

- 4.1.3 To consider federal, state, and local Laws and Regulations that may affect cost, progress, performance or furnishing of the Work;
- 4.1.4 To study and carefully correlate Contractors knowledge and observations with these Project Documents and such other related data; and
- 4.1.5 To promptly notify Engineer of all conflicts, errors, ambiguities or discrepancies which Contractor has discovered in or between these Project Documents and such other related documents.
- 4.2 Reference is made to the Supplementary Conditions for identification of:
- 4.2.1 Those reports of explorations and tests of subsurface conditions at or contiguous to the site which have been utilized by Engineer in preparation of these Project Documents. Contractor may rely upon the general accuracy of the "technical data" contained in such reports but not upon other data, interpretations, opinions or information contained in such reports or otherwise relating to the subsurface conditions at the site, nor upon the completeness thereof for the purposes of the bid or construction.
- 4.2.2 Those drawings of physical conditions in or relating to existing surface and subsurface structures (except Underground Facilities) which are at or contiguous to the site that have been utilized by Engineer in preparation of these Project Documents. Contractor may rely upon the general accuracy of the "technical data" contained in such drawings but not upon other data, interpretations, opinions, or information shown or indicated in such drawings or otherwise relating to such structures, nor upon the completeness thereof for the purposes of the bid or construction.
- Copies of such reports and drawings will be made available by Owner to any Contractor on request. Those reports and drawings are not part of the Project Documents, but the "technical data" contained therein upon which Contractor is entitled to rely as provided in Paragraph 4.2 of the General Conditions and has been identified and established in Article 4 of the Supplementary Conditions. Contractor is responsible for any interpretation or conclusion drawn from any "technical data" or any such data, interpretations, opinions, or information.
- 4.3 Information and data shown or indicated in these Project Documents with respect to existing Underground Facilities at or contiguous to the site is based upon information and data furnished to Owner and Engineer by Owners of such Underground Facilities or others, and the Owner and Engineer do not assume responsibility for the accuracy or completeness thereof unless it is expressly provided otherwise in the Supplementary Conditions.
- 4.4 Provisions concerning responsibilities for the adequacy of data furnished to prospective Contractors with respect to subsurface conditions, other physical conditions and Underground Facilities, and possible changes in these Project Documents due to differing or unanticipated conditions appear in Paragraphs 4.2 and 4.3 of the General Conditions.
- 4.5 Before submitting a Bid each Contractor will be responsible to obtain such additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the site or otherwise, which may affect cost, progress, performance or furnishing of the Work or which

relate to any aspect of the means, methods, techniques, sequences or procedures of construction to be employed by the Contractor and safety precautions and programs incident thereto or performing and furnishing the Work in accordance with the time, price, and other terms and conditions of the Contact Documents.

- 4.6 On request, Owner will provide each Contractor access to the site to conduct such examinations, investigations, explorations, tests, and studies as each Contractor deems necessary for submission of a Bid. Contractor must fill all holes and clean up and restore the site to its former conditions upon completion of such explorations, investigations, tests, and studies.
- 4.7 Reference is made to the Supplementary Conditions for the identification of the general nature of work that is to be performed at the site by Owner or others (such as utilities and other prime contractors) that relates to the work for which a Bid is to be submitted. On request, Owner will provide to each Contractor for examination access to or copies of appropriate documents (other than portions thereof related to price) for such work.
- 4.8 The submission of a Bid will constitute an incontrovertible representation by Contractor that Contractor has complied with every requirement of this Article 4, that without exception of the Bid is premised upon performing and furnishing the Work required by these Project Documents and applying the specific means, methods, techniques, sequences, or procedures for construction (if any) that may be shown or indicated or expressly required by these Project Documents, the Contractor has given Engineer written notice of all conflicts, errors, ambiguities and discrepancies that Contractor has discovered in these Project Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.
- 4.9 The provisions of 1-4.1 through 4.8, inclusive, do not apply to Asbestos, Polychlorinated biphenyls (PCBs), Petroleum, Hazardous Waste, or Radioactive Material covered by Paragraph 4.5 of the General Conditions.

**5. Availability of Lands for Work, Etc.**

The lands upon which the Work is to be performed, rights-of-way and easements for access thereto and other lands designated for use by the successful Contractor in performing the Work are identified in these Project Documents. All additional land and access thereto required for temporary construction facilities, construction equipment, or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by the Successful Contractor. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by Owner unless otherwise provided in these Project Documents.

**6. Interpretations and Addenda.**

- 6.1 All questions about the meaning or intent of these Project Documents are to be directed to Engineer. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda mailed, faxed or delivered to all parties recorded by Engineer as having received the Project Documents. Questions received less than ten (10) days prior to the date for opening of Bids may not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

6.2 Addenda may also be issued to modify these Project Documents as deemed advisable by Owner or Engineer.

**7. Bid Security.**

7.1 Each Bid must be accompanied by Bid security made payable to Owner in an amount of five percent (5%) of Contractors maximum Bid Price in the form of a certified or bank check or a Bid Bond on form attached, issued by a surety meeting the requirements of Paragraph 5.1 of the General Conditions.

7.2 The Bid security of Successful Contractor will be retained until such Contractor has executed the Agreement, furnished the required contract security, and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Contractor fails to execute and deliver the Agreement and furnishes the required contract security within fifteen days after the Notice of Award, Owner may annul the Notice of Award and the Bid security of that Contractor will be forfeited. The Contractor security of other Contractors whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of:

the seventh (7th) day after the Effective Date of the Agreement

or

the sixtieth (60th) day after the Bid opening,

whereupon Bid security furnished by such Contractors will be returned. Bid security with Bids which are not competitive will be returned within seven (7) days after the Bid opening.

**8. Contract Times.**

The number of days within which, or the dates by which, the Work is to be substantially completed and also completed and ready for final payment (the term "Contract Times" is defined in paragraph 1.12 of the General Conditions) are set forth in the Agreement (or incorporated therein by reference to the attached Bid Form).

**9. Substitute and "Or-Equal" Items.**

The Contract, if awarded, will be on the basis of materials and equipment described in the Drawings or specified in the Specifications. Whenever it is indicated in the Drawings or specified in the specifications that a substitute or "or-equal" item of material or equipment may be furnished or used by Contractor if acceptable to the County, acceptance of the substitution "or equal" to material or equipment, will typically be considered by the County after the contract is awarded. However, any proposed substitution that represents a deviation from the design intent, must be approved prior to submission of the bid responses. A determination as to whether a design deviation or particular item that changes the design intent of the plans or specification is acceptable as a substitute or "equal" will be made by the County and Engineer. Design deviations approved prior to bid submittals will be made known to other bidders through an addendum. Specific product substitute materials or equipment and requested "or

equal" items to be used will be reviewed during the submittal process and follow the procedures outlined in Paragraphs 6.7.1, 6.7.2. and 6.7.3. of the General Conditions.

**10. Subcontractors, Suppliers, and Others**

10.1 If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers and other persons and organizations (including those who are to furnished the principal items of material and equipment) to be submitted to Owner in advance of a specified date prior to the Effective Date of the Agreement, apparent Successful Contractor, and any other Contractor so requested, shall within 24 hours after Bid opening submit to Owner a list of all such Subcontractors, Suppliers, and other persons and organizations proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor Supplier, person, or organization if requested by Owner. An Owner or Engineer who after due investigation has reasonable objection to any proposed Subcontractor, Supplier, other person, or organization, may before the Notice of Award is given request apparent Successful Contractor to submit an acceptable substitute without an increase in Bid Price.

If apparent Successful Contractor declines to make any such substitution, Owner may award the contract to the next lowest Contractor that proposes to use acceptable Subcontractors, Suppliers, and other persons and organizations. The declining to make requested substitutions will not constitute grounds for sacrificing the Bid security of any Contractor. Any subcontractor, Supplier, other person or organization listed and to whom Owner or Engineer does not make written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to revocation of such acceptance after the Effective Date of the Agreement as provided in Paragraph 6.8.2 of the General Conditions.

**11. Bid Form.**

11.1 All blanks on the Bid Form must be completed by printing in ink or by typewriter.

11.2 Bids by corporations must be executed in the corporate name by the president or a vice-president (or other corporate officer accompanied by evidence of authority to sign) and the corporate seal must be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation must be shown below the signature.

11.3 Bids by partnerships must be executed in the partnership name and signed by a partner, whose title must appear under the signature and the official address of the partnership must be shown below the signature.

11.4 All names must be typed or printed in ink below the signature.

11.5 The bid shall contain an acknowledgment of receipt of all Addenda (the numbers of which must be filled in on the Bid Form).

11.6 The address and telephone number for communications regarding the bid must be shown.

11.7 Evidence of authority to conduct business as an out-of-state corporation in the state where the Work is to be performed shall be provided. State contractor license number, if any, must also be shown.

**12. Submission of Bids.**

12.1 Contractor shall submit the original plus two (2) copies of their bid to the place indicated in the Advertisement of Notice to Bidder.

12.2 Bids shall be submitted at the time and place indicated in the Advertisement of Notice to Bidder and shall be enclosed in an opaque sealed envelope, marked with the Project title and name and address of Contractor and accompanied by the Bid security and other required documents. If the Bid is sent through the mail or other delivery system the sealed envelope shall be enclosed in a separate envelope with the notation "**BID ENCLOSED – VPS PARKING LOT B EXPANSION**" on the face of it.

**13. Modification and Withdrawal of Bids.**

13.1 Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are submitted at any time prior to the opening of Bids.

13.2 If, within twenty-four hours after Bids are opened, any Contractor files a duly signed, written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Contractor may withdraw its Bid and bid security will be returned. Thereafter, that Contractor will be disqualified from further bids on the Work to be provided under the Project Documents.

**14. Opening of Bids.**

Bids will be opened and (unless obviously non-responsive) read aloud publicly at the place where Bids are to be submitted. An abstract of the amounts of the base Bids and major alternates (if any) will be made available to Contractors after the opening of Bids.

**15. Bids to Remain Subject to Acceptance.**

All Bids will remain subject to acceptance for sixty (60) days after the day of the Bid opening, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to that date.

**16. Disqualification of Contractors**

Any of the following reasons may be considered as sufficient for the disqualification of a contractor and the rejection of his proposal or proposals:

- A. More than one proposal for the same work from an individual, firm or corporation under the same or different name.
- B. Evidence that the contractor has a financial interest in the firm of another contractor for the same work.

- C. Evidence of collusion among contractors. Participants in such conclusion will receive no recognition as contractors for any future work of the County until such participant shall have been reinstated as a qualified contractor.
- D. Uncompleted work that in the judgment of the County might hinder or prevent the prompt completion of additional work if awarded.
- E. Failure to pay or satisfactorily settle all bills due for labor and material on former contracts in force at the time of advertisement for bids.
- F. Default under previous contract.

**17. Award of Contract.**

- 17.1 Owner reserves the right to reject any or all Bids, including without limitation the rights to reject any or all nonconforming, non-responsive, unbalanced, or conditional Bids and to reject the Bid of any Contractor if Owner believes that it would not be in the best interest of the Project to make an award to that Contractor, whether because the Bid is not responsible or the Contractor is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by Owner. Owner also reserves the right to waive all informalities not involving price, time, or changes in the Work. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.
- 17.2 Owner may conduct such investigations as Owner deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications, and financial ability of Contractors, proposed Subcontractors, Suppliers, and other persons and organizations to perform and furnish the Work in accordance with the Project Documents to Owner's satisfaction within the prescribed time.
- 17.3 The Owner in its absolute discretion may reject any bid of a Contractor that has failed, in the opinion of the Owner, to complete or perform an Owner-contracted project in a timely fashion, and emphasizes this condition to potential Contractors.
- 17.4 If a contract is to be awarded, it shall be awarded to the responsible and responsive bidder who submits the lowest responsive bid. Owner may request from the proposers additional information to be provided to the County prior to Notice of Award.

**18. Pre-Bid Conference.**

A **non-mandatory** Pre-Bid Conference will be conducted at the Destin-Fort Walton Beach Airport, Conference Room No. 1, 1701 State Road 85 N., Eglin AFB, Florida 32542, at 2:30 am (local time) on Wednesday, February 5, 2020. Engineer, in conjunction with the County's Purchasing Department, will transmit to all plan holders of record such Addenda as Engineer considers necessary in response to written questions received no later than seven (7) days prior to the Bid Opening date. Oral statements may not be relied upon and will not be binding or legally effective.

**19. Sales and Use Taxes.**

Work under this Bid is subject to the provisions of Chapter 212, Florida Statutes, Tax on state, Use and Other Transactions. Other state, local, or federal taxes may be applicable. The contractor is responsible to remit to the appropriate governmental entity all applicable taxes. Any applicable tax shall be included in the total Bid price by the contractor.



**OKALOOSA COUNTY STANDARD CLAUSES**

**INDEMNIFICATION AND HOLD HARMLESS**

**CONTRACTOR** shall indemnify and hold harmless **COUNTY**, its officers and employees from liabilities, damages, losses, and costs including but not limited to reasonable attorney fees, to the extent caused by the negligence, recklessness, or intentional wrongful conduct of the **CONTRACTOR** and other persons employed or utilized by the **CONTRACTOR** in the performance of this Agreement.

NOTE: For Contractor's convenience, this certification form is enclosed and is made a part of the bid package.

**CONFLICT OF INTEREST**

The award hereunder is subject to the provisions of Chapter 112, Florida Statutes. All respondents must disclose with the proposal the name of any officer, director, or agent who is also a public officer or an employee of the Okaloosa Board of County Commissioners, or any of its agencies.

Furthermore, all respondents must disclose the name of any County officer or employee who owns, directly or indirectly, an interest of five percent (5%) or more in the firm or any of its branches.

Furthermore, the official, prior to or at the time of submission of the proposal, must file a statement with the Clerk of Circuit Court of Okaloosa County if he is an officer or employee of the County, disclosing his or spouse's or child's interest and the nature of the intended business.

NOTE: For Contractor's convenience, a certification form is enclosed and is made a part of the bid package

**IDENTICAL TIE PROPOSALS**

In cases of identical procurement responses, the award shall be determined either by lot or on the basis of factors deemed to serve the best interest of the County. In the case of the latter, there must be adequate documentation to support such a decision.

**TRENCH SAFETY ACT**

Each contractor must submit with his bid an executed sworn certification that he will comply with the Trench Safety Act, Chapter 90-96, Florida Statutes, on trench safety.

NOTE: For Contractor's convenience, a certification form is enclosed and is made a part of the bid package.

**PUBLIC ENTITY CRIME INFORMATION**

A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.107, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.

**BONDING REQUIREMENTS**

A Bid Bond is required with the Respondent's submittal for 5% of the Bid price, in the form of a cashier's check, certified check or bond. A performance and payment bond will be required in the amount of 100% of the estimated contract value. The performance bond and payment bond can be a total of 100% combined.

**INSURANCE REQUIREMENTS**

**CONTRACTORS INSURANCE**

1. The Contractor shall not commence any work in connection with this Agreement until he has obtained all required insurance and such insurance has been approved by the Okaloosa County Risk Manager or designee.
2. All insurance policies shall be with insurers authorized to do business in the State of Florida.
3. All insurance shall include the interest of all entities named and their respective officials, employees & volunteers of each and all other interests as may be reasonably required by Okaloosa County. The coverage afforded the Additional Insured under this policy shall be primary insurance. If the Additional Insured have other insurance that is applicable to the loss, such other insurance shall be on an excess or contingent basis. The amount of the company's liability under this policy shall not be reduced by the existence of such other insurance.
4. Where applicable, the County shall be shown as an Additional Insured with a Waiver of Subrogation on the Certificate of Insurance.
5. The County shall retain the right to reject all insurance policies that do not meet the requirement of this Agreement. Further, the County reserves the right to change these insurance requirements with 60-day notice to the Contractor.
6. The County reserves the right at any time to require the Contractor to provide copies of any insurance policies to document the insurance coverage specified in this Agreement.
7. The designation of Contractor shall include any associated or subsidiary company which is involved and is a part of the contract and such, if any associated or subsidiary

company involved in the project must be named in the Workers' Compensation coverage.

8. Any exclusions or provisions in the insurance maintained by the Contractor that excludes coverage for work contemplated in this agreement shall be deemed unacceptable and shall be considered breach of contract.

#### **WORKERS' COMPENSATION INSURANCE**

1. The Contractor shall secure and maintain during the life of this Agreement Workers' Compensation insurance for all of his employees employed for the project or any site connected with the work, including supervision, administration or management, of this project and in case any work is sublet, with the approval of the County, the Contractor shall require the Subcontractor similarly to provide Workers' Compensation insurance for all employees employed at the site of the project, and such evidence of insurance shall be furnished to the County not less than ten (10) days prior to the commencement of any and all sub-contractual Agreements which have been approved by the County.
2. Contractor must be in compliance with all applicable State and Federal workers' compensation laws, including the U.S. Longshore Harbor Workers' Act or Jones Act, if applicable.
3. No class of employee, including the Contractor himself, shall be excluded from the Workers' Compensation insurance coverage. The Workers' Compensation insurance shall also include Employer's Liability coverage.

#### **BUSINESS AUTOMOBILE LIABILITY**

Coverage must be afforded for all Owned, Hired, Scheduled, and Non-Owned vehicles for Bodily Injury and Property Damage in an amount not less than \$1,000,000 combined single limit each accident. If the contractor does not own vehicles, the contractor shall maintain coverage for Hired & Non-Owned Auto Liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or separate Business Auto Policy. Contractor must maintain this insurance coverage throughout the life of this Agreement.

#### **COMMERCIAL GENERAL LIABILITY INSURANCE**

1. The Contractor shall carry other Commercial General Liability insurance against all other Bodily Injury, Property Damage and Personal and Advertising Injury exposures.
2. All liability insurance (other than Professional Liability) shall be written on an occurrence basis and shall not be written on a claims-made basis. If the insurance is issued with an aggregate limit of liability, the aggregate limit of liability shall apply only to the locations included in this Agreement. If, as the result of any claims or other reasons, the available limits of insurance reduce to less than those stated in the Limits of Liability, the Contractor shall notify the County representative in writing. The Contractor shall purchase additional liability insurance to maintain the requirements established in this Agreement. Umbrella or Excess Liability insurance can be purchased to meet the Limits of Liability specified in

this Agreement.

3. Commercial General Liability coverage shall include the following:

- 1.) Premises & Operations Liability
- 2.) Bodily Injury and Property Damage Liability
- 3.) Independent Contractors Liability
- 4.) Contractual Liability
- 5.) Products and Completed Operations Liability

4. Contractor shall agree to keep in continuous force Commercial General Liability coverage for the length of the contract.

#### LIMITS OF LIABILITY

The insurance required shall be written for not less than the following, or greater if required by law and shall include Employer's liability with limits as prescribed in this contract:

	<u>LIMIT</u>
1. Worker's Compensation	
1.) State	Statutory
2.) Employer's Liability	\$500,000 each accident
2. Business Automobile	\$1M each accident (A combined single limit)
3. Commercial General Liability	\$1M each occurrence for Bodily Injury & Property Damage
	\$1M each occurrence Products and completed operations
4. Personal and Advertising Injury	\$1M each occurrence

#### NOTICE OF CLAIMS OR LITIGATION

The Contractor agrees to report any incident or claim that results from performance of this Agreement. The County representative shall receive written notice in the form of a detailed written report describing the incident or claim within ten (10) days of the Contractor's knowledge. In the event such incident or claim involves injury and/or property damage to a third party, verbal notification shall be given the same day the Contractor becomes aware of the incident or claim followed by a written detailed report within ten (10) days of verbal notification.

#### INDEMNIFICATION & HOLD HARMLESS

Contractor shall indemnify and hold harmless the County, its officers and employees from liabilities, damages, losses, and costs including but not limited to reasonable attorney fees, to

the extent caused by the negligence, recklessness, or wrongful conduct of the Contractor and other persons employed or utilized by the Contractor in the performance of this contract.

**Note:** For Contractor's convenience, this certification form is enclosed and is made a part of the bid package.

#### **CERTIFICATE OF INSURANCE**

1. Certificates of insurance indicating the job site and evidencing all required coverage must be submitted not less than 10 days prior to the commencement of any of the work. The certificate holder(s) shall be as follows: Okaloosa County, 5479A Old Bethel Road, Crestview, Florida, 32536.
2. The contractor shall provide a Certificate of Insurance to the County with a thirty (30) day notice of cancellation; ten (10 days' notice if cancellation is for nonpayment of premium).
3. In the event that the insurer is unable to accommodate the cancellation notice requirement, it shall be the responsibility of the contractor to provide the proper notice. Such notification shall be in writing by registered mail, return receipt requested, and addressed to the Okaloosa County Purchasing Department at 5479-A Old Bethel Road, Crestview, FL 32536.

#### **GENERAL TERMS**

Any type of insurance or increase of limits of liability not described above which, the Respondent required for its own protection or on account of statute shall be its own responsibility and at its own expense.

The carrying of the insurance described shall in no way be interpreted as relieving the Respondent of any responsibility under this contract.

Should the Respondent engage a subcontractor or sub-subcontractor, the same conditions will apply under this Agreement to each subcontractor and sub-subcontractor.

The Respondent hereby waives all rights of subrogation against Okaloosa County and its consultants and other indemnities of the Respondent under all the foregoing policies of insurance.

#### **UMBRELLA INSURANCE**

The Respondent shall have the right to meet the liability insurance requirements with the purchase of an umbrella insurance policy. In all instances, the combination of primary and umbrella liability coverage must equal or exceed the minimum liability insurance limits stated in this Agreement.

#### **DELIVERY OF BIDS**

Bid Opening shall be public, on the date and time specified on the NOTICE TO CONTRACTORS. It is the contractor's responsibility to assure that his bid is delivered at the proper time and place. Offers by telegram, facsimile, or telephone are NOT acceptable. NOTE: Crestview, Florida is "not a next-day-guaranteed delivery location" by delivery services.

**Liquidated Damages:**

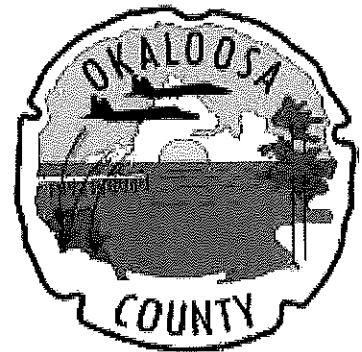
- a. In case of failure on the part of the Contractor to complete the work within the time(s) specified in the contract, or within such additional time(s) as may be granted by Okaloosa County, the County will suffer damage, the amount of which is difficult, if not impossible, to ascertain. Therefore, the Contractor shall pay to the County, as liquidated damages, the amount established in the schedule below for each calendar day of delay that actual completion extends beyond the time limit specified until such reasonable time as may be required for final completion of the work. In no way shall costs for liquidated damages be construed as penalty on the contractor.

**Daily Charge**

<u>Original Contract Amount</u>	<u>Per Calendar Day</u>
\$50,000 and under	\$ 311
Over \$50,000 but less than \$250,000	972
\$250,000 but less than \$500,000	1584
\$500,000 but less than \$2,500,000	1924
\$2,500,000 but less than \$5,000,000	2694
\$5,000,000 but less than \$10,000,000	3902
\$10,000,000 but less than \$15,000,000	6102
\$15,000,000 but less than \$20,000,000	7022
\$20,000,000 and over	7022 plus 0.2% for any amount over \$20 million

- b. **Determination of Number of Days of Default:** For all contracts, regardless of whether the contract time is stipulated in calendar days or working days, the default days shall be counted in calendar days.
- c. **Conditions under which Liquidated Damages are Imposed:** Should the Contractor or, in case of his default, the Surety, fail to complete the work within the time stipulated in the contract, or within such extra time as may have been granted by the County, the Contractor or, in case of his default, the Surety, shall pay to the County, not as a penalty, but as liquidated damages, the amount as provided above.
- d. **Right of Collection:** The County shall have the right to apply as payment on such liquidated damages any money which is due to the Contractor by the County.
- e. **Permitting Contractor to Finish Work:** Permitting the Contractor to continue and to finish the work, or any part of it, after the expiration of the contract time allowed, including extensions of time granted to the Contractor, shall in no way act as a waiver on the part of the County the liquidated damages due under the contract.
- f. **Completion of Work by County:** In case of default of the contract and the completion of the work by the County, the Contractor and his Surety shall be liable for the liquidated damages under the contract, but no liquidated damages shall be chargeable for any delay in the final completion of the work by the County due to any unreasonable action or delay on the part of the County.

# BID DOCUMENTS



BID DOCUMENTS  
VPS PARKING LOT B EXPANSION

**BID FORM**

**PROJECT IDENTIFICATION:**

VPS PARKING LOT B EXPANSION

**THIS BID IS SUBMITTED TO:**

OKALOOSA COUNTY PURCHASING DEPARTMENT

1. The undersigned Contractor proposes and agrees, if this Bid is accepted, to enter into an agreement with Owner in the form included in these documents to perform and furnish all Work as specified or indicated in these documents for the Bid Price and within the Bid Times indicated in this Bid and in accordance with the other terms and conditions of these documents.
2. Contractor accepts all of the terms and conditions of the Advertisement or Invitation to Bid and Instructions to Contractors, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for sixty (60) days after the day of Bid opening. Contractor will sign and deliver the required number of counterparts of the Agreement with the Bonds and other documents required by the Project Requirements within fifteen (15) days after the date of Owner's Notice of Award.
3. In submitting this Bid, Contractor represents as more fully set forth in the Agreement, that:
  - (a) Contractor has examined and carefully studied the Project Documents and the following Addenda receipt of all which is hereby acknowledged: (List Addenda by Addendum Number and Date)

Addendum No. 1 Date 2/19/20

Addendum No. 2 Date 2/26/20

Addendum No. \_\_\_\_\_ Date \_\_\_\_\_

Addendum No. \_\_\_\_\_ Date \_\_\_\_\_

- (b) Contractor has visited the site and become familiar with and is satisfied as to the general, local, and site conditions that may affect cost, progress, performance, and furnishing of the Work.
- (c) Contractor is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, performance, and furnishing of the Work.
- (d) Contractor has carefully studied all reports of explorations and tests of subsurface conditions at or contiguous to the site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site (except underground facilities) which have been identified in the Supplementary Conditions as provided in paragraph 4.2.1 of the General Conditions. Contractor accepts the determination set forth in Article 4 of the Supplementary Conditions of the extent of the "technical data" contained in such reports and drawings upon



which Contractor is entitled to rely as provided in paragraph 4.2 of the General Conditions. Contractor acknowledges that such reports and drawings are not Contract Documents and may not be complete for Contractor's purposes. Contractor acknowledges that Owner and Engineer do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Project Documents with respect to underground facilities at or contiguous to the site. Contractor has obtained and carefully studied (or assumes responsibility for having done so) all such additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and underground facilities) at or contiguous to the site or otherwise which may affect cost progress, performance or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto. Contractor does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the determination of this Bid for performance and furnishing of the Work in accordance with the times, price, and other terms and conditions of these Documents.

- (e) Contractor is aware of the general nature of Work to be performed by Owner and others at the site that relates to Work for which this Bid is submitted as indicated in these documents.
  - (f) Contractor has correlated the information known to Contractor, information and observation obtained from visits to the site, reports and drawings identified in these documents and all additional examinations, investigations, explorations, tests, studies, and data with these documents.
  - (g) Contractor has given Engineer written notice of all conflicts, errors, ambiguities or discrepancies that Contractor has discovered in these documents and the written resolution thereof by Engineer is acceptable to Contractor, and these documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work for which this Bid is submitted.
  - (h) This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm, or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization, or corporation; Contractor has not directly or indirectly induced or solicited any other Contractor to submit a false or sham Bid; Contractor has not solicited or induced any person, firm or corporation to refrain from Project; and Contractor has not sought by collusion to obtain for itself any advantage over any other Contractor or over Owner.
4. Contractor will complete the Work in accordance with these documents for the price found in the Bid Schedule:

Unit Prices have been computed in accordance with paragraph 11.9.2 of the General Conditions.

Contractor acknowledges that quantities are not guaranteed and final payment will be based on actual quantities determined as provided in these documents.

5. Contractor agrees that Work will be substantially complete 60 calendar days after the date when the Contract Time commences to run as provided in paragraph 2.3 of the General Conditions. The project shall be deemed substantially complete upon completion of the asphalt pavement, concrete

curb and sidewalk, fencing, and pavement markings. Contractor agrees that Work will be substantially complete and ready for final payment in accordance with paragraph 14.13 of the general conditions within 120 calendar days after the date when the Contract Time commences to run.

6. Contractor accepts the provisions of the Agreement as to liquidated damages in the event of failure to achieve substantial complete of the Work within the Substantial Completion time and achieve final completion of the work within the Final Completion time as specified in the Agreement.

7. The following documents are attached to and made a condition of this Bid:

a) Bid Security as required by the Instructions to Contractors in the form of a certified or bank check made payable to The Board of County Commissioners of Okaloosa County or a Bid Bond on form attached, issued by a surety meeting the requirements of Paragraph 5.1 of the General Conditions. (ITC-1 to ITC-8)

b) Bid Schedule (BS-1)

c) Bid Affidavit (BA-1)

d) Bid Bond (BB-1 to BB-3)

e) Required Contractor's Qualification Statement with supporting data. (CQQ-1 to CQQ-3)

f) Form of Non-collusion Affidavit (NCA-1)

g) Certification of Non-Segregated Facilities (NSF-1)

h) Public Entity Crimes (SSPEC-1 to SSPEC-3)

i) Certificate as to Corporate Principal (CCP-1)

j) Certified Copy of Resolution of Board of Directors (RBD-1)

k) Conflict of Interest Disclosure Form (OC-1)

l) Drug-Free Workplace Certification (OC-2)

m) Certification of Contractor Regarding Trench Safety (OC-3)

n) Indemnification and Hold Harmless (OC-4)

o) Insurance Compliance (OC-5)

p) Affidavit – Worker's Compensation (OC-6)

q) Recycled Content Form (OC-7)

r) Disadvantaged Business Enterprise Program (OC-8 to OC-11)

- s) DBE Certificate of Compliance Form (OC-12)
- t) A tabulation of Performance of Work by Subcontractors that Contractor prepares to use. (PWSC-1)
- u) E-Verify Compliance Certification (EVCC-1)
- v) Code of Silence (CS-1)
- w) Buy American Certificate (BAC-1)
- x) Lobbying – 31 USC 1352 (LF-1)
- y) Equal Employment Opportunity Report Statement (EEOR-1)
- z) Vendors on Scrutinized List (VSL-1)
- aa) Addendum Acknowledgement Form (AA-1)
- bb) Company Data (CD-1)
- cc) System For Award Management Form (SAM-1)

8. Communications concerning this Bid shall be addressed to the address of Contractor indicated below.

Anderson Columbia Co., Inc.

2316 Hwy 71

Marianna, FL 32448

9. Terms used in this Bid which are defined in the General Conditions or Instructions to Contractors will have the meanings indicated in the General Conditions or Instructions.

10. Contractor acknowledges that the Basis of Award shall be the Total Bid Amount, price and other factors considered. The bid bond amount shall be in the amount of the Total Bid Amount.

SUBMITTED on February 26th, 2020

State Contractor License No. CGC 060909

If Contractor is:

An Individual

By \_\_\_\_\_ (SEAL)  
(Individual's Name)

doing business as \_\_\_\_\_

Business address: \_\_\_\_\_

Phone No.: \_\_\_\_\_

A Partnership

By \_\_\_\_\_ (SEAL)  
(Firm Name)

\_\_\_\_\_ (General Partner)

Business address: \_\_\_\_\_

Phone No.: \_\_\_\_\_

A Corporation

By \_\_\_\_\_ Anderson Columbia Co., Inc. \_\_\_\_\_ (SEAL)  
(Corporation Name)

\_\_\_\_\_ Florida \_\_\_\_\_  
(State of Incorporation)

By \_\_\_\_\_ L. Eugene Strickland \_\_\_\_\_ (SEAL)  
(Name of person authorized to sign)

\_\_\_\_\_ Vice President  
(Title)

(Corporate Seal)

Attest \_\_\_\_\_  
(Secretary)

Business address: \_\_\_\_\_ 2316 Hwy 71 Marianna, FL 32448

Phone No.: \_\_\_\_\_ 850-526-4440

Date of Incorporation is \_\_\_\_\_ March, 7th 1988

A Joint Venture

By \_\_\_\_\_ (SEAL)  
(Name)

\_\_\_\_\_  
(Address)

By \_\_\_\_\_ (SEAL)  
(Name)

\_\_\_\_\_  
(Address)

Phone Number and Address for receipt of official communications

850-526-4440

2316 HWY 71, Marianna, FL 32446

(Each joint venturer must sign. The manner of signing for each individual, partnership and corporation that is a party to the joint venture should be in the manner indicated above).

BID SCHEDULE

BIDDER: Anderson Columbia Co., Inc. DATE: 3/4/20

PROJECT DESCRIPTION: VPS PARKING LOT B EXPANSION

Base Bid – Parking Lot B Expansion

Bid Item No.	Item No.	Item Description & Unit Price In Words	Unit	Estimated Quantity	Unit Price	Total Amt./ Item
1	101-1	Mobilization	LS	1	\$ 50,000.00	\$ 50,000.00
2	102-1	Maintenance of Traffic	LS	1	\$ 1,894.65	\$ 1,894.65
3	104-1	Prevention, Control, and Abatement of Erosion and Water Pollution	LS	1	\$ 7,498.63	\$ 7,498.63
4	110-1	Miscellaneous Demolition	LS	1	\$ 10,331.90	\$ 10,331.90
5	110-2	Clearing and Grubbing with Tree Removal	AC	0.6	\$ 11,999.46	\$ 7,199.68
6	120-1	Unclassified Excavation and Embankment	CY	2,400	\$ 15.04	\$ 36,096.00
7	160-1	12" Stabilized Subbase (LBR 40)	SY	27,750	\$ 2.74	\$ 76,035.00
8	285-1	8" Limerock Base Course	SY	25,440	\$ 16.55	\$ 421,032.00
9	334-1	2" Superpave Asphaltic Concrete	TON	2,800	\$ 107.11	\$ 299,908.00
10	425-1	Type 5/6 Curb Inlet, Type P Bottom	EA	5	\$ 5,978.16	\$ 29,890.80
11	425-2	24" Mitered End Section	EA	2	\$ 2,521.39	\$ 5,042.78
12	425-3	30" Mitered End Section	EA	2	\$ 4,438.21	\$ 8,876.42
13	430-1	24" ADS, N-12 Pipe	LF	290	\$ 69.03	\$ 20,018.70
14	430-2	30" ADS, N-12 Pipe	LF	180	\$ 91.73	\$ 16,511.40

Bid Item No.	Item No.	Item Description & Unit Price In Words	Unit	Estimated Quantity	Unit Price	Total Amt./ Item
15	520-1	F-Curb	LF	2,030	\$ 27.79	\$ 56,413.70
16	522-1	Concrete Sidewalk	SY	330	\$ 56.85	\$ 18,760.50
17	550-1	7-Ft Chain Link Fence with Additional 1-Ft Barbed Wire Attachment and Rock Base	LF	825	\$ 42.07	\$ 34,707.75
18	550-2	Temporary 7-Ft Chain Link Fence with Additional 1-Ft Barbed Wire Attachment	LF	550	\$ 40.40	\$ 22,220.00
19	570-1	Sodding	SY	2,000	\$ 2.53	\$ 5,060.00
20	T-901	Seeding	SY	4,500	\$ 0.63	\$ 2,835.00
21	700-1	Traffic Control Signs	LS	1	\$ 1,895.09	\$ 1,895.09
22	710-1	Pavement Markings	LS	1	\$ 30,886.25	\$ 30,886.25
23	LT-1	Area Lighting, Complete	LS	1	\$ 348,000.00	\$ 348,000.00
24	GA-1	Power and Data for Automatic Gate Arms and Ticket Machines	LS	1	\$ 12,500.00	\$ 12,500.00
25	SC-1	Security Camera Allowance	AL	1	\$40,000.00	\$40,000.00
26	WH-1	Wheel Stops	EA	40	\$ 101.06	\$ 4,042.40

For all work required to perform the work in accordance with the construction drawings, specifications, and other contract documents, including all costs related to the work, and any required permits, taxes, bonds and insurance, the undersigned submits a Total Base Bid Amount of:

TOTAL BASE BID AMOUNT (in words): One million five hundred sixty-seven thousand six hundred fifty six Dollars and sixty five cents  
 (\$ 1,567,656.65 )  
 (amount in numbers)

Note: Total Bid Amount shall equal the total amount for Bid Item No. 1 through 26.

Additive Alternate 1- Parking Lot D Improvements

Bid Item No.	Item No.	Item Description & Unit Price In Words	Unit	Estimated Quantity	Unit Price	Total Amt./ Item
1	101-1	Mobilization	LS	1	\$ 5,000.00	\$ 5,000.00
2	102-1	Maintenance of Traffic	LS	1	\$ 1,895.09	\$ 1,895.09
3	104-1	Prevention, Control, and Abatement of Erosion and Water Pollution	LS	1	\$ 3,332.06	\$ 3,332.06
4	110-1	Miscellaneous Demolition	LS	1	\$ 1,573.62	\$ 1,573.62
5	120-1	Unclassified Excavation and Embankment	CY	800	\$ 18.47	\$ 14,776.00
6	160-2	6" Rap Blended Subbase (12" Total Stabilized Subbase)	SY	5,810	\$ 3.35	\$ 19,463.50
7	285-1	6" Limerock Base Course	SY	5,330	\$ 13.57	\$ 72,328.10
8	334-1	2" Superpave Asphaltic Concrete	TON	540	\$ 95.00	\$ 51,300.00
9	520-1	F-Curb	LF	300	\$ 27.79	\$ 8,337.00
10	524-1	Concrete Flume, Type A, With Bollards and Rip-Rap	LS	1	\$ 4,421.88	\$ 4,421.88
11	550-3	4-ft Chain-Link Fence with Rock Base	LF	475	\$ 19.49	\$ 9,257.75
12	570-1	Sodding	SY	1,200	\$ 2.53	\$ 3,036.00
13	710-1	Pavement Markings	LS	1	\$ 8,632.16	\$ 8,632.16
14	GA-2	Power and Data for Automatic Gate Arms and Ticket Machines	LS	1	\$ 17,400.00	\$ 17,400.00
15	LT-2	Area Lighting, Complete	LS	1	\$ 50,600.00	\$ 50,600.00
16	SC-2	Security Camera Allowance	AL	1	\$30,000.00	\$30,000.00



For all work required to perform the work in accordance with the construction drawings, specifications, and other contract documents, including all costs related to the work, and any required permits, taxes, bonds and insurance, the undersigned submits a Total Additive Alternate No. 1 Amount of:

TOTAL ADDITIVE ALTERNATE NO. 1 AMOUNT (in words): Three Hundred One Thousand Three Hundred Fifty-Three Dollars and Sixteen cents  
 (\$ \$ 301,353.16 )  
 (amount in numbers)

Note: Total Additive Alternate No. 1 Amount shall equal the total amount for Bid Item No. 1 through 16.

**Additive Alternate 2- Clear Zone Tree Removal**

Bid Item No.	Item No.	Item Description & Unit Price In Words	Unit	Estimated Quantity	Unit Price	Total Amt./ Item
1	101-1	Mobilization	LS	1	\$ 2,500.00	\$ 2,500.00
2	102-1	Maintenance of Traffic	LS	1	\$ 1,895.09	\$ 1,895.09
3	104-1	Prevention, Control, and Abatement of Erosion and Water Pollution	LS	1	\$ 3,332.06	\$ 3,332.06
4	110-1	Clearing and Grubbing with Tree Removal	AC	5	\$ 12,002.26	\$ 60,011.30
5	T-901	Seeding	SY	24,200	\$ 0.63	\$ 15,246.00

For all work required to perform the work in accordance with the construction drawings, specifications, and other contract documents, including all costs related to the work, and any required permits, taxes, bonds and insurance, the undersigned submits a Total Additive Alternate No. 2 Amount of:

TOTAL ADDITIVE ALTERNATE NO. 2 AMOUNT (in words): Eighty-Two Thousand Nine Hundred Eighty-Four Dollars and forty-five cents  
 (\$ \$ 82,984.45 )  
 (amount in numbers)

Note: Total Additive Alternate No. 2 Amount shall equal the total amount for Bid Item No. 1 through 5.

BID SUMMARY (amount in numbers)

- (A) TOTAL BASE BID AMOUNT: \$ 1,567,656.<sup>65</sup>  
(B) TOTAL ADDITIVE ALTERNATE NO. 1 AMOUNT: \$ 301,353.<sup>16</sup>  
(C) TOTAL ADDITIVE ALTERNATE NO. 2 AMOUNT: \$ 82,984.<sup>45</sup>

*Contractor acknowledges that the Basis of Award shall be the Base Bid, or any combination of the Base Bid and Additive Alternates ultimately awarded by the County, price and other factors considered. The bid bond amount shall be in the amount of the Base Bid and Additive Alternate No. 1 and 2.*

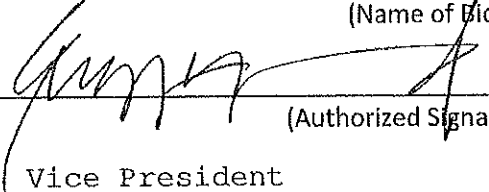
The Bidder represents that it has examined the site of the Work and informed itself fully in regard to all conditions pertaining to the place where the work is to be done; that it has examined the plans and specifications for the work and other Contract Documents relative thereto and has read all of the Addenda furnished prior to the opening of the Bids, as acknowledged below; and that it has otherwise fully informed itself regarding the nature, extent, scope and details of the Work to be performed.

If provided with a Notice of Intent to Award the Contract by the Owner, the Bidder shall execute and deliver to the Owner all of the documents required by the Contract Documents, including but not limited to, the Addendum to the Agreement and the Performance and Payment Bonds in the form contained in the Contract Documents, furnish the required evidence of the specified insurance coverages, furnish all necessary permits, license, materials, equipment, machinery, maintenance, tools, apparatus, means of transportation and labor necessary to complete the Work.

Dated and signed at Marianna, Florida, this 4th day of March, 2020.

Anderson Columbia CO., Inc.

(Name of Bidder)



(Authorized Signature)

Vice President

(Title)

2316 HWY 71

(Mailing Address)

Marianna, FL 32448

(City, State, Zip)

59-2871935

(Federal ID No. or SS No.)

BID AFFIDAVIT

The following affidavit must be executed in order that your quotation may be considered.

STATE OF Florida

COUNTY OF Okaloosa

L. Eugene Strickland of lawful age, being first duly sworn, upon his oath deposes and says: That he executed the accompanying Quotation of behalf of the Contractor therein named, and that he had lawful authority so to do, and said Contractor has not directly or indirectly, entered into any agreement, expressed or implied, with any Contractor or Contractors, having to its object the controlling of the price or amount of such quotation or any quotations, the limiting of the Quotation or Contractors, the parceling or farming out to any Contractor or Contractors, to other persons of any part of the contract or any of the subject matter or the Quotations, or of the profits thereof, and that he has not and will not divulge the sealed Quotation to any person whomsoever, except those having a partnership or other financial interest with him in said Quotation or Quotations, until after the sealed Quotation or Quotations are opened.

[Handwritten Signature]  
[signature]  
February 26, 2020  
[date]

STATE OF Florida COUNTY OF Jackson

PERSONALLY APPEARED BEFORE ME, the undersigned authority,

*[name of individual signing]*

who, after first being sworn by me, affixed his/her signature in the space provided above on this 26th day of February, 2020.

Subscribed and sworn to before me this 26th day of February, 2020

My Commission Expires:  
9/15/2023

[Handwritten Signature: Debra B. Ward]  
Notary Public



BID BOND

CONTRACTOR (Name and Address):

Anderson Columbia Co., Inc.  
2316 Highway 71  
Marianna, FL 32448

SURETY (Name and Address of Principal Place of Business):

Travelers Casualty and Surety Company of America AND Berkshire Hathaway Specialty Insurance Company  
One Tower Square 1314 Douglas Street, Suite 1400  
Hartford CT 06183 Omaha NE 68102-1944

OWNER (Name and Address):

Okaloosa County  
5479A Old Bethel Road  
Crestview, FL 32536

BID:

BID DUE DATE: February 26, 2020  
PROJECT (Brief Description Including Location):  
VPS PARKING LOT B EXPANSION  
Okaloosa County, Florida

BOND:

BOND NUMBER: Bid Bond  
DATE: (Not later than Bid Due Date): February 26, 2020  
PENAL SUM: Five Percent of the Amount Bid (5%)

IN WITNESS WHEREOF, Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Bid bond to be duly executed on its behalf by its authorized officer, agent, or representative.

CONTRACTOR

Anderson Columbia Co., Inc. (Seal)

Contractor's Name and Corporate Seal

By:

*[Signature]*  
L. Eugene Strickland, Jr. P.  
Signature and Title

Attest:

*[Signature]* Kevin Robinson  
Signature and Title Asst. Secy

SURETY Travelers Casualty and Surety Company of America  
AND Berkshire Hathaway Specialty Insurance Company (Seal)

Surety's Name and Corporate Seal

By:

*[Signature]*  
Kevin Wojtowicz  
Signature and Title Attorney-in-Fact  
(Attach Power of Attorney)

Attest:

*[Signature]*  
Signature and Title Jennifer Stephens WITNESS

Note: (1) Above addresses are to be used for giving required notice.

- (2) Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

EJCDC NO. 1910-28-C (1990 Edition)

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to pay to OWNER upon default of Contractor the penal sum set forth on the face of this Bond.

2. Default of Contractor shall occur upon the failure of Contractor to deliver within the time required by the Project Documents the executed Agreement required by the Project Documents and any performance and payment bonds required by the Project Documents and Contract Documents.

3. This obligation shall be null and void if:

3.1. OWNER accepts Contractor's Bid and Contractor delivers within the time required by the Project Documents (or any extension thereof agreed to in writing by OWNER) the executed Agreement required by the Project Documents and any performance and payment bonds required by the Project Documents and Contract Documents, or

3.2 All Bids are rejected by OWNER, or

3.3 OWNER fails to issue a notice of award to Contractor within the time specified in the Project Documents (or any extension thereof agreed to in writing by Contractor and, if applicable, consented to by Surety when required by paragraph 5 hereof).

4. Payment under this Bond will be due and payable upon default of Contractor and within 30 calendar days after receipt by Contractor and Surety of written notice of default from OWNER, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.

5. Surety waives notice of and any and all defenses based on or arising out of any time extension to issue notice of award agreed to in writing by OWNER and Contractor, provided that the time for issuing notice of award including extensions shall not in the aggregate exceed 120 days from Bid Due Date without Surety's written consent.

6. No suit or action shall commence under this Bond prior to 30 calendar days after the notice of default required in paragraph 4 above is received by Contractor and Surety, and in no case later than one year after Bid Due Date.

7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.

8. Notice required hereunder shall be in writing and sent to Contractor and Surety at their respective addresses shown on the face of this Bond. such notices may be sent by personal deliver, commercial courier or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.

9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent or representative who executed this Bond on behalf of Surety to execute, seal and deliver such Bond and bind the Surety thereby.

10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of any Bond conflicts with any applicable provision of any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.

11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.



**Travelers Casualty and Surety Company of America**  
**Travelers Casualty and Surety Company**  
**St. Paul Fire and Marine Insurance Company**

**POWER OF ATTORNEY**

KNOW ALL MEN BY THESE PRESENTS: That Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint Kevin Wojtowicz of St. Petersburg, Florida, their true and lawful Attorney-in-Fact to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed, and their corporate seals to be hereto affixed, this 3rd day of February, 2017.



State of Connecticut

City of Hartford ss.

By:   
 Robert L. Raney, Senior Vice President

On this the 3rd day of February, 2017, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.

My Commission expires the 30th day of June, 2021



Marie C. Tetreault  
 Marie C. Tetreault, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, which resolutions are now in full force and effect, reading as follows:

**RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

**FURTHER RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

**FURTHER RESOLVED**, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

**FURTHER RESOLVED**, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, Kevin E. Hughes, the undersigned, Assistant Secretary of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this 26<sup>th</sup> day of February, 2020



Kevin E. Hughes  
 Kevin E. Hughes, Assistant Secretary

To verify the authenticity of this Power of Attorney, please call us at 1-800-421-3880.  
 Please refer to the above-named Attorney-in-Fact and the details of the bond to which the power is attached.



Berkshire Hathaway Specialty Insurance

Power Of Attorney

BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY
NATIONAL INDEMNITY COMPANY / NATIONAL LIABILITY & FIRE INSURANCE COMPANY

Know all men by these presents, that BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY, a corporation existing under and by virtue of the laws of the State of Nebraska and having an office at One Lincoln Street, 23rd Floor, Boston, Massachusetts 02111, NATIONAL INDEMNITY COMPANY, a corporation existing under and by virtue of the laws of the State of Nebraska and having an office at 3024 Harney Street, Omaha, Nebraska 68131 and NATIONAL LIABILITY & FIRE INSURANCE COMPANY, a corporation existing under and by virtue of the laws of the State of Connecticut and having an office at 100 First Stamford Place, Stamford, Connecticut 06902 (hereinafter collectively the "Companies"), pursuant to and by the authority granted as set forth herein, do hereby name, constitute and appoint: Kevin Wojtowicz, 1000 Central Avenue, Suite 200 of the city of St. Petersburg State of Florida, their true and lawful attorney(s)-in-fact to make, execute, seal, acknowledge, and deliver, for and on their behalf as surety and as their act and deed, any and all undertakings, bonds, or other such writings obligatory in the nature thereof, in pursuance of these presents, the execution of which shall be as binding upon the Companies as if it has been duly signed and executed by their regularly elected officers in their own proper persons. This authority for the Attorney-in-Fact shall be limited to the execution of the attached bond(s) or other such writings obligatory in the nature thereof.

In witness whereof, this Power of Attorney has been subscribed by an authorized officer of the Companies, and the corporate seals of the Companies have been affixed hereto this date of December 20, 2018. This Power of Attorney is made and executed pursuant to and by authority of the Bylaws, Resolutions of the Board of Directors, and other Authorizations of BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY, NATIONAL INDEMNITY COMPANY and NATIONAL LIABILITY & FIRE INSURANCE COMPANY, which are in full force and effect, each reading as appears on the back page of this Power of Attorney, respectively. The following signature by an authorized officer of the Company may be a facsimile, which shall be deemed the equivalent of and constitute the written signature of such officer of the Company for all purposes regarding this Power of Attorney, including satisfaction of any signature requirements on any and all undertakings, bonds, or other such writings obligatory in the nature thereof, to which this Power of Attorney applies.

BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY,

[Signature of David Fields]

By:

David Fields, Executive Vice President



NATIONAL INDEMNITY COMPANY, NATIONAL LIABILITY & FIRE INSURANCE COMPANY,

[Signature of David Fields]

By:

David Fields, Vice President

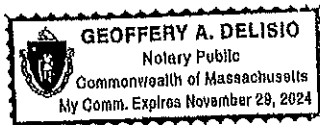


NOTARY

State of Massachusetts, County of Suffolk, ss:

On this 20th day of December, 2018, before me appeared David Fields, Executive Vice President of BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY and Vice President of NATIONAL INDEMNITY COMPANY and NATIONAL LIABILITY & FIRE INSURANCE COMPANY, who being duly sworn, says that his capacity is as designated above for such Companies; that he knows the corporate seals of the Companies; that the seals affixed to the foregoing Instrument are such corporate seals; that they were affixed by order of the board of directors or other governing body of said Companies pursuant to its Bylaws, Resolutions and other Authorizations, and that he signed said instrument in that capacity of said Companies.

[Notary Seal]



[Signature of Notary Public]

Notary Public

I, Ralph Tortorella, the undersigned, Officer of BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY, NATIONAL INDEMNITY COMPANY and NATIONAL LIABILITY & FIRE INSURANCE COMPANY, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies which is in full force and effect and has not been revoked. IN TESTIMONY WHEREOF, see hereto affixed the seals of said Companies this February 26, 2020.



[Signature of Officer]

Officer

To verify the authenticity of this Power of Attorney please contact us at: BHSISurety Department, Berkshire Hathaway Specialty Insurance Company, One Lincoln Street, 23rd Floor, Boston, MA 02111 | (770) 625-2516 or by email at: Jennifer.Ponter@bhspecialty.com. THIS POWER OF ATTORNEY IS VOID IF ALTERED. To notify us of a claim please contact us on our 24-hour toll free number at (855) 459-9675, via email at: claimservice@bhspecialty.com, via fax to (617) 507-8259, or via mail.



CONTRACTOR'S QUALIFICATION  
QUESTIONNAIRE

The undersigned guarantees the accuracy of all statements and answers herein contained. (Please print in ink).

1. How many years has your firm been in business as a Contractor?

62 Years

2. List up to three (3) projects of this nature that you have completed in the last three (3) years, and give the name, address and telephone number of a reference from each. Also give the completion date, the original contract bid price and the completed cost of each project listed.

SR-87 Santa Rosa Co.- Anu Shah - 9511 Holsberry Rd., Ste A Pensacola FL 32534  
Completion Date-8/16/18, Original Contract-\$18,411,475.03, Final Amount-\$18,803,779.91  
SR-83 (US-331) Walton Co. - Billy Robinson-1074 Hwy 90 East, Chipley FL 32428  
Completion Date-11/1/18, Original Contract-\$46,444,330.00, Final Amount-\$50,382,690.03  
SR-123(SR-123) Okaloosa Co.-Edward Blackmon-8130Pittman Rd, Pensacola FL 32534  
Completion Date-2/15/17, Original Contract-\$14,999,999.99, Final Amount-\$15,091,733.62

3. List projects presently under construction by your firm the dollar volume of the contract and the percentage completion of the contract.

See attached "Status of Contracts On Hand".

4. Have you ever failed to complete work awarded to you; if so, state where and why.

No

---

---

---

In Bid Folder

OKALOOSA COUNTY

CONTRACTOR'S QUALIFICATION QUESTIONNAIRE

VPS PARKING LOT B EXPANSION

5. Do you plan to sublet any part of this work? If so, give details.

Yes, Lighting & Electrical, Grassing, Drainage, Fencing, Striping

6. What equipment do you own that is available for this work?

Can be provided upon request.

7. What equipment do you plan to rent or purchase for this work?

Don't intent to purchase or rent any equipment for the construction of this project.

8. Have you ever performed work under the direction of a Professional Engineer or Registered Architect? If so, list up to three (3) such firms giving the name of the firm, its address, telephone number and the name of the project. (List most recent projects).

Donofro Architects, LLC 2910 Caledonia St., Marianna Fl 32446, 850-482-5261  
Project - Marianna K-8 School  
David H. Melvin Engineering 4428 Lafayette St., Marianna Fl 32446, 850-482-3405  
Project - SR-79 Washington & Holmes County Design Build  
Alday Howell Engineering 3017 Hwy 71 Marianna, 71 32446, 850-526-2040  
Project - Marianna K-8 School

9. Give the name, address and telephone number of an individual who represents each of the following and whom the Owner may contact to investigate your financial responsibility: a surety, a bank, and a major material supplier.

Travelers Casualty and Surety Company of America  
2420 Lakemont Ave, 2nd Floor, Orlando, Fl 32814  
Wells Fargo Bank  
One Independent Dr. 25th Floor, Jacksonville, Fl 32202  
Ring Power Corporation  
PO Box 2086 Jacksonville, FL 32216

Attn: Nate Omodt  
407-388-3263  
ATTN: Beth Gordon  
904-351-7306  
Attn: Mark Fowler  
904-737-7730 Ext 1127

In Bid Folder

OKALOOSA COUNTY  
CONTRACTOR'S QUALIFICATION QUESTIONNAIRE

VPS PARKING LOT B EXPANSION

10. Provide a financial statement for your company. This should include a balance and income statement for your most recent fiscal year. A certified audit is preferred but not required. Use an insert sheet, if needed. Only three (3) lowest bidders shall submit this information (if requested by Owner) to the Owner within two (2) business days of the opening of the Bids.

Will provide if necessary.

11. State the true, exact, correct and complete name of the partnership, corporation or trade name under which you do business, and the address of the place of business. (If a corporation, state the name of all partners. If a trade name, state the names of the individuals who do business under the trade name.) It is absolutely necessary that information be furnished.

Correct Name of Contractor Anderson Columbia Co., Inc.

(a) The business is a Corporation

(b) The address of principal place of business is:

871 NW Guerdon St Lake City, Fl 32056-1829

Mailing Address - PO Box 1829 Lake City, Fl 32056-1829

- (c) The names of the corporate officers, or partners, or individuals doing business under a trade name, are as follows:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

FORM OF NONCOLLUSION AFFIDAVIT

(This Affidavit Is Part of Bid)

STATE OF Florida

COUNTY OF Okaloosa

L Eugene Strickland Being

first duly sworn, deposes and says that he is

Vice President (Sole owner, a partner, president, secretary, etc.) of

Anderson Columbia Co., Inc. the party making the foregoing Proposal or BID that such BID is genuine and not collusive or sham; that said CONTRACTOR has not colluded, conspired, connived, or agreed, directly or indirectly, with any CONTRACTOR or person, to put in a sham BID, or that such other person shall refrain from the project, and has not in any manner, directly or indirectly sought by agreement or collusion, or communication or conference, with any person, to fix the Bid Price of affiant or any other CONTRACTOR, or to fix any overhead, profit or cost element of said Bid Price, or of that of any other CONTRACTOR, or to secure any advantage against OWNER any person interested in the proposed Contract; and that all statements in said Proposal or Bid are true; and further, that such CONTRACTOR has not, directly or indirectly submitted this BID, or the contents thereof, or divulged information or date relative thereto to any association or to any member or agent thereof.

[Signature] (Contractor)

Sworn to and subscribed before me this 26th day of

February, 20 20

Notary Public In and for

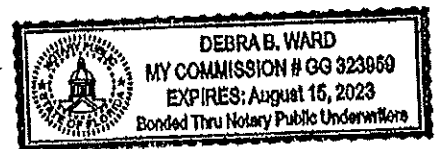
Jackson County,

Florida

My Commission Expires:

8/15, 2023.

[Signature: Debra B. Ward]



**CERTIFICATION OF NON-SEGREGATED FACILITIES**

(Must be completed and submitted with the Bid)

The Contractor certifies that it does not maintain or provide for its employee any segregated facilities at any segregated facilities at any of its establishments, and that it does not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor certifies further that it will not maintain or provide for its employees segregated facilities at any of its establishments, and that it will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this certification is a violation of the equal opportunity clause in this contract. As used in this certification, the term "segregated facilities" means any waiting room, work areas, restrooms and washrooms, restaurants and other eating areas, parking lots, drinking fountains, recreation or entertainment areas, transportation and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on basis of race, color, religion, or national origin, because of habit, local custom, or any other reason. The Contractor agrees that (except where it has obtained identical certification from proposed subcontractors for the specific time period) it will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the equal opportunity clause, and that it will retain such certification in its files.

Anderson Columbia Co., Inc.

(Name of Contractor)

By:



Title:

Vice President

Dated:

February 26, 2020

SWORN STATEMENT UNDER SECTION 287.133 (3) (a),  
FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES

THIS FORM MUST BE SIGNED AND SWORN IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS.

1. This sworn statement is submitted to Okaloosa County, Florida  
[print name of public entity]

by L. Eugene Strickland - Vice President  
[print Individuals name and title]

for Anderson Columbia Co.,  
[print name of entity submitting sworn statement]

whose business is 2316 Hwy 71 Marianna, FL 32448 and (if applicable) its  
Federal Employer Identification Number (FEIN) is 59-2871935 (If the entity has no FEIN,  
include the Social Security Number of the individual signing this sworn statement: \_\_\_\_\_.)

2. I understand that a "public entity crime" as defined in Section 287.133 (1) (g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or of the United States, including, but not limited to, any bid or contract for goods or services to be provided to any public entity or an agency or political subdivision of any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.

3. I understand that "convicted" or "conviction" as defined in Section 287.133 (1) (b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, non-jury trial, or entry of a plea of guilty or nolo contendere.

4. I understand that an "affiliate" as defined in Section 287.133 (1) (a), Florida Statutes, means:

A. A predecessor or successor of a person convicted of a public entity crime; or

B. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.

5. I understand that a "person" as defined in Section 287.133 (1) (e) Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, and employees, members, and agents who are active in management of an entity.

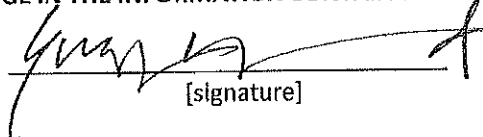
6. Based on information and belief, the statement which I have marked below is true and in relation to the entity submitting this sworn statement. [Indicate which statement applies.]

Neither the entity submitting this sworn statement, nor any of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, nor any affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989. However, there has been a subsequent proceeding before a Hearing Officer of the State of Florida, Division of Administrative Hearings and the Final Order entered by the Hearing Officer determined that it was not in the public interest to place the submitting this sworn statement on the convicted vendor list. [attach a copy of the final order]

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH 1 (ONE) ABOVE IS FOR THAT PUBLIC ENTITY ONLY AND, THAT THIS FORM IS VALID THOROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT I AM REQUIRED TO INFORM THE PUBLIC ENTITY PRIOR TO ENTERING INTO A CONTRACT IN EXCESS OF THE THRESHOLD AMOUNT PROVIDED IN SECTION 287.107, FLORIDA STATUTES FOR CATEGORY TWO ON ANY CHANGE IN THE INFORMATION CONTAINED IN THIS FORM.

  
[signature]

February 26, 2020  
[date]

STATE OF Florida COUNTY OF Jackson

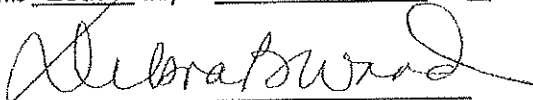
PERSONALLY APPEARED BEFORE ME, the undersigned authority,

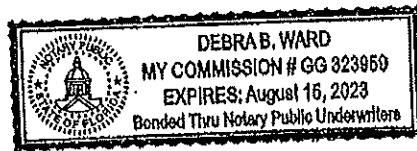
*[name of individual signing]*

who, after first being sworn by me, affixed his/her signature in the space provided above on this 26th day of February, 2020.

Subscribed and sworn to before me this 26th day of February, 2020.

My Commission Expires:  
8/15/2023

  
Notary Public

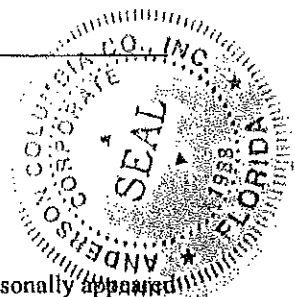




CERTIFICATE AS TO CORPORATE PRINCIPAL

I, BRIAN P. SCHWIBBE, certify that I am the Secretary of the Corporation named as Principal in the within bond; that GENE STRICKLAND who signed the bond on behalf of the Principal, was then VICE PRESIDENT of said Corporation; that I know his/her signature, and his/her signature hereto is genuine; and that said bond was duly signed, sealed, and attested for and in behalf of said Corporation by authority of its governing body.

B.P.S.  
Secretary (Corporate Seal)



STATE OF FLORIDA  
COUNTY OF

Before me, a Notary Public, duly commissioned, qualified and acting, personally appears Kevin Wojtowicz to me well known, who being my first duly sworn upon oath, says that he/she is the Attorney-in-Fact, for the Travelers Casualty and Surety Company of America AND Liberty Mutual Insurance Company and that he has been authorized by Travelers Casualty and Surety Company of America AND Liberty Mutual Insurance Company to execute the foregoing bond on behalf of the Contractor named therein in favor of Okaloosa County.

Subscribed and sworn to before me this 10th day of April, 2019, A.D.

[Attach Power of Attorney to Original Bid Bond and Financial Statement from Surety Company]

[Signature]

Notary Public  
State of Florida-at-Large

My commission Expires:



**CERTIFIED COPY OF RESOLUTION OF  
BOARD OF DIRECTORS OF**

Anderson Columbia Co., Inc

(NAME OF CORPORATION)

"RESOLVED that, Gene Strickland, Vice President (Title)  
(Person Authorized to Sign)

of Anderson Columbia Co., Inc  
(Name of Corporation)

is authorized to sign and submit the Bid of this corporation for the following Project:

**CONSTRUCT WEST APRON EXPANSION AND INFRASTRUCTURE AT VPS**

and to include in such bid the certificate as to non-collusion, and for any inaccuracies or misstatements in such certificate this corporate Contractor shall be liable under the penalties of perjury.

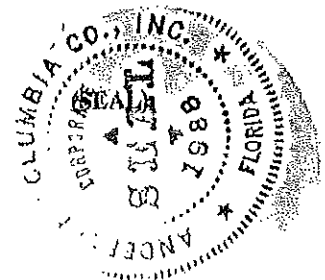
The foregoing is a true and correct copy of the resolution adopted by

Anderson Columbia Co., Inc

(NAME OF CORPORATION)

at a meeting of its Board of Directors held on the 13th day of June, 2012

By Brian P. Schreiber  
Brian P. Schreiber  
Title Secretary



**The above form must be completed if the Contractor is a Corporation.**

**CONFLICT OF INTEREST DISCLOSURE FORM**

For purposes of determining any possible conflict of interest, all contractors/proposers, must disclose if any Okaloosa Board of County Commissioner, employee(s), elected officials(s), or if any of its agencies is also an owner, corporate officer, agency, employee, etc., of their business.

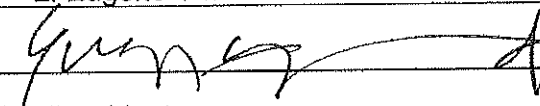
Indicate either "yes" (a county employee, elected official, or agency is also associated with your business), or "no." If yes, give person(s) name(s) and position(s) with your business.

YES \_\_\_\_\_ NO NO

NAME(S)	POSITION(S)
_____	
_____	
_____	
_____	

FIRM NAME: Anderson Columbia Co., Inc.

BY (PRINTED): L. Eugene Strickland

BY (SIGNATURE): 

TITLE: Vice President

ADDRESS: 2316 Hwy 71 Marianna, FL 32448

PHONE NO.: 850-526-4440

**DRUG-FREE WORKPLACE CERTIFICATION**

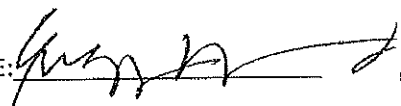
THE BELOW SIGNED CONTRACTOR CERTIFIES that it has implemented a drug-free workplace program. In order to have a drug-free workplace program, a business shall:

1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
3. Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection 1.
4. In the statement specified in subsection 1, notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, to any violation of Chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.
5. Impose a sanction on, or require the satisfactory participation in drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is convicted.
6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

As the person authorized to sign this statement, I certify that this firm complies fully with the above requirements.

DATE: February 26, 2020

COMPANY: Anderson Columbia Co., Inc.

SIGNATURE: 

ADDRESS: 2316 Hwy 71

NAME: L. Eugene Strickland

(Typed or Printed)

Marianna, FL 32448

TITLE: Vice President

PHONE #: 850-526-4440

**CERTIFICATION OF CONTRACTOR REGARDING TRENCH SAFETY**

This certification is required pursuant to the Trench Safety Act, Chapter 90-98, Florida Statutes regarding Trench Safety. The Act specifically incorporates the Occupational Safety and Health Administration's excavation safety standards, 29 CFR S. 1928.650 Subpart P as the state standard. Any revision to OSHA's safety standards that are consistent with the Florida Statutes shall also be complied with upon its effective date. The act requires that any bidder or prospective contractor, or any of their proposed subcontractors, shall provide written assurance that the contractor will comply with the applicable trench safety standards

NAME AND ADDRESS OF CONTRACTOR (Include Zip Code)

Anderson Columbia Co., Inc.

2316 Hwy 71

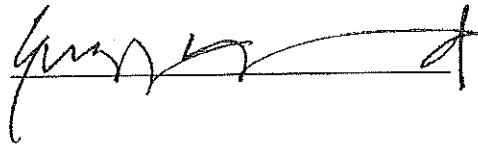
Marianna, FL 32448

1. Contractor agrees that he is aware of the Trench Safety Act and the requirements of the Act.  
Yes  No
  
2. Contractors agrees to comply with all applicable trench safety standards as set forth in the Act and as referenced in the Act.  
Yes  No

NAME AND TITLE OF SIGNER (Please Print or Type)

L. Eugene Strickland

SIGNATURE



DATE February 26, 2020

INDEMNIFICATION AND HOLD HARMLESS

CONTRACTOR shall indemnify and hold harmless COUNTY, its officers and employees from liabilities, damages, losses, and costs including but not limited to reasonable attorney fees, to the extent caused by the negligence, recklessness, or intentional wrongful conduct of the CONTRACTOR and other persons employed or utilized by the CONTRACTOR in the performance of this Agreement.

Anderson Columbia Co., Inc.  
Contractor's Company Name

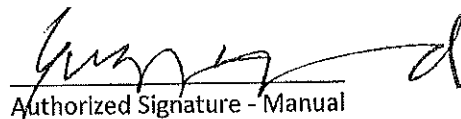
2316 Hwy 71 Marianna FL 32448  
Physical Address

2316 Hwy 71 Marianna FL 32448  
Mailing Address

850-526-4440  
Phone Number

850-526-8297  
Cellular Number

February 26, 2020  
Date

  
Authorized Signature - Manual

L. Eugene Strickland  
Authorized Signature - Typed

Vice President  
Title

850-526-7106  
FAX Number

\_\_\_\_\_  
After-Hours Number(s)

**INSURANCE COMPLIANCE**

This form is to be completed and signed the Contractor and by your insurance agent/carrler certifying that your policy either meets the insurance requirements (as specified in page BOC-2 to BOC-6) or that the insurance company has reviewed the bid requirements and certifies that you were bidd any price increase due to required coverage.


**CONTRACTOR**

I certify that the insurance requirements have been reviewed.

Company Name Anderson Columbia Co., Inc.

Address P.O. Box 1829 Lake City, FL 32056

Representative

Name Mark C. Resler, CPCU, AIC 

Title Risk Manager

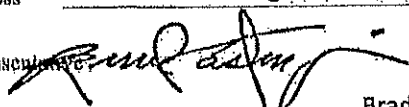
Phone Number (386) 752-7585, ext. 252

**INSURANCE COMPANY**

I certify that the insurance requirements have been reviewed with the above contractor.

Company Name PentaRisk Associates of Georgia

Address 1870 The Exchange SE, Suite 100, Atlanta, GA 30339

Representative 

Name Brad Lastinger

Title Sr. Vice President

Phone Number 404-809-2530

AFFIDAVIT - WORKER'S COMPENSATION

State of Florida

County of Columbia

SS: 59 2871935

of ANDERSON COLUMBIA CO., INC

being duly sworn, deposes and says that he now carries or that he has applied for a Worker's Compensation Policy to cover the operations, as set forth in the preceding contract, and to comply with the provisions thereof.

Signed: [Signature]

Subscribed and sworn to before me this 10<sup>th</sup> day of April, 2019

Notary Public  
Susan Chappell





RECYCLED CONTENT FORM

RECYCLED CONTENT INFORMATION:

1. Is the material in the above: VIRGIN \_\_\_\_\_ or RECYCLED X  
(Check the applicable blank)  
If RECYCLED, what percentage 20 %.

Product Description: Asphalt with 20% recycled Asphalt

2. Is your product packaged and/or shipped in material containing recycled content?  
Yes \_\_\_\_\_ No X

Specify: \_\_\_\_\_

3. Is your product recyclable after it has reached its intended end use?

Yes X No \_\_\_\_\_


Specify: Milled Asphalt can be used in the production of new asphalt.

Concrete can be crushed and used a roadway base material.

The above is not applicable if there is only a personal service involved with no product involvement.

Name of Contractor:

Anderson Columbia Co., Inc.

  
L Eugene Strickland

**DISADVANTAGED BUSINESS ENTERPRISE PROGRAM**

The following bid condition applies to this Department of Transportation (DOT) assisted contract. Submission of a bid/proposal by a prospective contractor shall constitute full acceptance of these bid conditions.

1. **DEFINITION** - Disadvantaged Business Enterprise (DBE) as used in this contract shall have the same meaning as defined in 49 CFR Part 26.
2. **POLICY** - It is the policy of DOT that DBE's as defined in 49 CFR Part 26 shall have the maximum opportunity to participate in the performance of contracts and subcontracts financed in whole or in part with Federal funds. Consequently, the DBE requirements of 49 CFR Part 26 apply to this contract.
3. **OBLIGATION** - The contractor agrees to ensure that DBE's as defined in 49 CFR Part 26 have the maximum opportunity to participate in the performance of contracts and subcontracts financed in whole or in part with Federal funds. In this regard, all contractors shall take all necessary and reasonable steps in accordance with 49 CFR Part 26 to ensure that DBE's have the maximum opportunity to compete for and perform contracts. Contractors shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of DOT assisted contracts.
4. **COMPLIANCE** - All bidders, potential contractors, or subcontractors for this DOT assisted contract are hereby notified that failure to carry out the DOT policy and the DBE obligation, as set forth above, shall constitute a breach of contract which may result in termination of the contract or such other remedy as deemed appropriate by the owner.
5. **CONTRACT CLAUSE** - All bidders and potential contractors hereby assure that they will include the above clauses in all subcontracts, which offer further subcontracting opportunities.
6. **CONTRACT AWARD** - Bidders are hereby advised that meeting the DBE subcontract goal or making an acceptable good faith effort to meet said goal are conditions of being awarded this DOT assigned contract.

The owner proposes to award the contract to the lowest responsive and responsible bidder submitting a reasonable bid provided he has met the goal for DBE participation or, if failing to meet the goal, he has made an acceptable good faith effort to meet the established goal for DBE participation. Bidder is advised that the owner reserves the right to reject any or all bids submitted.

7. **DBE PARTICIPATION GOAL** - No specific DBE goal has been established for this project; however, the contractor must make a good faith effort to include as much DBE participation as possible and must document the anticipated DBE participation on the next page.
8. **AVAILABLE DBE'S** - The FDOT maintains an online searchable database of DBE firms at <https://www3.dot.state.fl.us/equalopportunityoffice/biznet>. This program contains listing of DBE's (certified and noncertified). Bidders are encouraged to inspect this list to assist in locating DBE's for the work. Other DBE's may be added to the list in accordance with the owner's approved DBE

program. Credit toward the DBE goal will not be counted unless the DBE to be used can be certified by the owner.

9. **CONTRACTOR'S REQUIRED SUBMISSION** - The owner requires the submission of the following information with the bid:

**DISADVANTAGED BUSINESS ENTERPRISE PROGRAM**

**MBE's**

MBE Subcontractors Names/Addresses/ Identity	Subcontract Work Item	Dollar Value of Subcontract Work
<u>Ingram Signalization, Inc.</u>	<u>Electrical</u>	_____
<u>4522 N Davis Hwy</u>	_____	_____
<u>Pensacola, FL 32503</u>	_____	_____

**WBE's**

Women Subcontractors Names/Addresses/ Identity	Subcontract Work Item	Dollar Value of Subcontract Work
_____	_____	_____
_____	_____	_____
_____	_____	_____

**OSE's**

Other Socially and Economically Disadvantaged Subcontractors within the DBE Group Names/Addresses/ Identity	Subcontract Work Item	Dollar Value of Subcontract Work
_____	_____	_____
_____	_____	_____
_____	_____	_____

Total Dollar Value of Subcontract Work	_____
Total Dollar Value of Basic Bid	_____
Total DBE Percent	_____ %

\*(Black, Hispanic, Asian American, American Indian, and other economically disadvantaged.)

If the Contractor fails to meet the contract goal established in Section 7 above, the following information must be submitted prior to contract award to assist the owner in determining whether or not the contractor made acceptable good faith efforts to meet the contract goal. This information (when applicable), as well as the DBE information, should be submitted as specified in Section 9 above.

Suggested guidance for use in determining if good faith efforts were made by a contractor are included in 49 CFR Part 26.

A list of the efforts that a contractor may make and the owner may use in making a determination as to the acceptability of a contractor's efforts to meet the goal as included in 49 CFR Part 26 are as follows:

- a. Whether the contractor attended any pre-solicitation or pre-bid meetings that were scheduled by the recipient to inform DBE's of contracting and subcontracting opportunities;
- b. Whether the contractor advertised in general circulation, trade association, and minority-focus media concerning the subcontracting opportunities;
- c. Whether the contractor provided written notice to a reasonable number of specific DBE's that their interest in the contract was being solicited in sufficient time to allow the DBE's to participate effectively;
- d. Whether the contractor followed up initial solicitations of interest by contacting DBE's to determine with certainty whether the DBE's were interested;
- e. Whether the contractor selected portions of work to be performed by DBE's in order to increase the likelihood of meeting the DBE goal (including, where appropriate, breaking down contracts into economically feasible units to facilitate DBE participation);
- f. Whether the contractor provided interested DBE's with adequate information about the plans, specifications, and requirements of the contract;
- g. Whether the contractor negotiated in good faith with interested DBE's, not rejecting DBE's as unqualified without sound reasons based on a thorough investigation of their capabilities.
- h. Whether the contractor made efforts to assist interested DBE's in obtaining bonding, lines of credit, or insurance required by the recipient or contractor;  
and
- i. Whether the contractor effectively used the services of available minority community organizations; minority contractors' groups; local and state Federal Minority Business Assistance Offices; and other organizations that provide assistance in the recruitment and placement of DBE's.

**NOTE:** The nine items set forth above are merely suggested criteria and the owner may specify that you submit information on certain other actions a contractor took to secure DBE participation in an effort to meet the goals. A contractor may also submit to the owner other information on efforts to meet the goals.

**CONTRACTOR ASSURANCE** - The bidder hereby assures that he will meet one of the following as appropriate:

- a. The DBE participation goal as established in the General Conditions.
- b. The DBE participation percentage as shown in Section 9, which was submitted as a condition of contract award.

Agreements between bidder/proposer and a DBE in which the DBE promises not to provide subcontracting quotations to other bidders/proposers are prohibited. The bidder shall make a good faith effort to replace a DBE subcontract that is unable to perform successfully with another DBE subcontractor. Substitution must be coordinated and approved by the owner.

The bidder shall establish and maintain records and submit regular reports, as required, which will identify and assess progress in achieving DBE subcontract goals and other DBE affirmative action efforts.


11. **PROMPT PAYMENT** - The prime contractor agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than 10 days from the receipt of each payment the prime contractor receives from the owner. The prime contractor agrees further to return retainage payments to each subcontractor within 10 days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the owner. This clause applies to both DBE and non-DBE subcontractors.

DBE CERTIFICATE OF COMPLIANCE FORM

The Florida Department of Transportation maintains an online searchable database of DBE firms at <https://www3.dot.state.fl.us/equalopportunityoffice/biznet>.

Okaloosa County intends to utilize and implement this program in the awarding of this contract.

This is to certify that I have reviewed the plan, bid evaluation procedure, and DBE directory and will make all reasonable efforts to include DBE Contractors as outlined in pages OC-8 through OC-11.

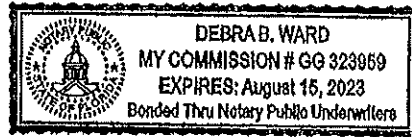
  
Eugene Strickland  
Contractor's Signature

February 26, 2020

Date

Vice President  
Title

  
Debra B. Ward  
Notary Public



**PERFORMANCE OF WORK BY SUBCONTRACTORS**

The CONTRACTOR hereby states that he proposes, if awarded the Contract, to use the following subcontractors on this project: List below all proposed subcontractors and trade specialties. (List only one subcontractor for each item.)

	<u>Items of Work (Describe)</u>	<u>Subcontractors</u>
1	Lighting and Electrical	Ingram Signalization
2	Striping	Emerald Coast Striping
3	Grassing	Ryles Grassing
4	Fence	J & P Fence, Inc.
5	Drainage & Concrete Paving	Big Island Construction
6	Clearing & Grubbing	Construction Materials of Northwest Florida Inc.
7		
8		
9		
10		
11		
12		
13		
14		
15		

Estimated Total Cost of Items that CONTRACTOR states will be performed by Subcontractor:

( \$ 247,000 )

E-VERIFY COMPLIANCE CERTIFICATION

In accordance with Okaloosa County Policy and Executive Order Number 11-116 from the office of the Governor of the State of Florida, Bidder hereby certifies that the U.S. Department of Homeland Security's E-Verify system will be used to verify the employment eligibility of all new employees hired by the contractor during the contract term, and shall expressly require any subcontractors performing work or providing services pursuant to the contract to likewise utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor during the contract term; and shall provide documentation of such verification to the OWNER upon request.

As the person authorized to sign this statement, I certify that this company complies/will comply fully with the above requirements.

DATE: July 10th, 2019

SIGNATURE: 

COMPANY: Anderson Columbia Co., Inc.

NAME: L. Eugene Strickland  
(Typed or Printed)

ADDRESS: 2316 Hwy 71

TITLE: Vice President

Marianna, FL 32448

E-MAIL: genes@andersoncolumbia.com

PHONE NO.: 850-526-4440



CONE OF SILENCE

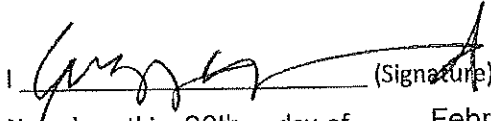
The Board of County Commissioners have established a solicitation silence policy (**Cone of Silence**) that prohibits oral and written communication regarding all formal solicitations for goods and services (ITB, RFP, ITQ, ITN, and RFQ) or other competitive solicitation between the bidder (or its agents or representatives) or other entity with the potential for a financial interest in the award (or their respective agents or representatives) regarding such competitive solicitation, and any County Commissioner or County employee, selection committee member or other persons authorized to act on behalf of the Board including the County's Architect, Engineer or their subconsultants, or anyone designated to provide a recommendation to award a particular contract, other than the Purchasing Department Staff..

The period commences from the time of advertisement until contract award.

Any information thought to affect the committee or staff recommendation submitted after bids are due, should be directed to the Purchasing Manager or an appointed representative. It shall be the Purchasing Manager's decision whether to consider this information in the decision process.

**Any violation of this policy shall be grounds to disqualify the respondent from consideration during the selection process.**

All respondents must agree to comply with this policy by signing the following statement and including it with their submittal.

I  (Signature) representing Anderson Columbia Co., Inc (Company Name) on this 26th day of February, 2020 hereby agree to abide by the County's "Cone of Silence Clause" and understand violation of this policy shall result in disqualification of my proposal/submittal.

BUY AMERICAN CERTIFICATE

Except for those items listed by the Bidder below or on a separate and clearly identified attachment to this Bid, the Bidder hereby certifies that steel and each manufactured product, is produced in the United States and that components of unknown origin are considered to have been produced or manufactured outside the United States.

PRODUCT

COUNTRY OF ORIGIN

---

---

---

---

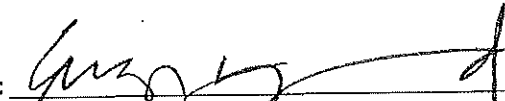
---

---

Anderson Columba Co., Inc.

(Name of Bidder)

By:



Title:

Vice President

L Eugene Strickland

Dated:

February 26th, 2020

**LOBBYING- 31 U.S.C. 1352, 49 CFR PART 19, 49 CFR PART 20**

APPENDIX A, 49 CFR PART 20—CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned (Contractor) certifies, to the best of his or her knowledge and belief, that:

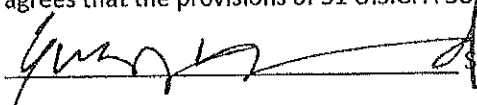
1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for making the lobbying contacts to an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form—LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions [as amended by "Government wide Guidance for New Restrictions on Lobbying," 61 Fed. Reg. 1413 (1/19/96). Note: Language in paragraph (2) herein has been modified in accordance with Section 10 of the Lobbying Disclosure Act of 1995 (P.L. 104-65, to be codified at 2 U.S.C. 1601, et seq.)]

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31, U.S.C. 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

[Note: Pursuant to 31 U.S.C. 1352(c)(1)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such expenditure or failure.]

The Contractor, Anderson Columbia Co., Inc. certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. A 3801, *et seq*, apply to this certification and disclosure, if any.



Signature of Contractor's Authorized Official

L. Eugene Strickland - Vice President Name and Title of Contractor's Authorized Official

February 26, 2020 Date

**EQUAL EMPLOYMENT OPPORTUNITY REPORT STATEMENT**

Section 60-1.7(b) of the Regulations of the Secretary of Labor requires each bidder or prospective prime Contractor and proposed Subcontractor, where appropriate, to state in the bid or at the outset of negotiations for the Contract whether it has participated in any previous Contract or Subcontract subject to the equal opportunity clause; and if so, whether it has filed with the Joint Reporting Committee, the Director, an agency, or the former President's Committee on Equal Employment Opportunity all reports due under the applicable filing requirements. In any case in which a bidder or prospective prime Contractor or proposed Subcontractor which participated in a previous Contract subject to Executive Order 10925, 11114 or 111246 has not filed a report due under the applicable filing documents, no Contract or Subcontract shall be awarded unless such Contractor submits a report covering the delinquent period or such other period specified by the FAA or the Director, OFCCP.

The Bidder (Proposer) shall complete the following statement by checking the appropriate boxes. Failure to complete these blanks may be grounds for rejection of bid.

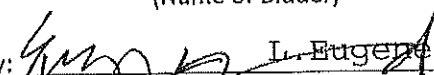
1. The Bidder (Proposer) has () has not () developed and has on file at each establishment Affirmative Action Programs pursuant to 41 CFR 60-1.4 and 41 CFR 60-2.
2. The Bidder (Proposer) has () has not () participated in any previous Contract or Subcontract subject to the Equal Opportunity Clause prescribed by Executive Order 10925, or Executive Order 111114, or Executive Order 11246.
3. The Bidder (Proposer) has () has not () filed with the Joint Reporting Committee the annual compliance report on Standard Form 100 (EEO-1 Report).
4. The Bidder (Proposer) has () has not () submitted all compliance reports in connection with any such Contract due under the application filing requirements; and that representations indicating submission of required compliance reports signed by proposed Subcontractors will be obtained prior to award of Subcontractors.
5. The Bidder (Proposer) does () does not () employ fifty (50) or more employees.

If the Bidder (Proposer) has participated in a previous Contract subject to the equal opportunity clause and has not submitted compliance reports due under applicable filing requirements, the Bidder (Proposer) shall submit a compliance report on Standard Form 100. "Employee Information EEO-1" prior to the award of Contract.

Standard Form 100 is normally furnished to Contractors annually, based on a mailing list currently maintained by the Joint Reporting Committee. In the event a Contractor has not received the form, he may obtain it by writing to the following address: Joint Reporting Committee, 1800 G Street, Washington, D.C. 20506.

Anderson Columbia Co., Inc.

(Name of Bidder)

By:  Eugene Strickland

Signature

Title: Vice President

Title

Date: February 26, 2020

\*Must be the same signature on Bid Proposal

**VENDORS ON SCRUTINIZED COMPANIES LISTS**

By executing this Certificate, the bid proposer, certifies that it is not: (1) listed on the Scrutinized Companies that Boycott Israel List, created pursuant to section 215.4725, Florida Statutes, (2) engaged in a boycott of Israel, (3) listed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, created pursuant to section 215.473, Florida Statutes, or (4) engaged in business operations in Cuba or Syria. Pursuant to section 287.135(5), Florida Statutes, the County may disqualify the bid proper immediately or immediately terminate any agreement entered into for cause if the bid proposer is found to have submitted a false certification as to the above or if the Contractor is placed on the Scrutinized Companies that Boycott Israel List, is engaged in a boycott of Israel, has been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or has been engaged in business operations in Cuba or Syria, during the term of the Agreement. If the County determines that the bid proposer has submitted a false certification, the County will provide written notice to the bid proposer. Unless the bid proposer demonstrates in writing, within 90 calendar days of receipt of the notice, that the County's determination of false certification was made in error, the County shall bring a civil action against the bid proposer. If the County's determination is upheld, a civil penalty shall apply, and the bid proposer will be ineligible to bid on any Agreement with a Florida agency or local governmental entity for three years after the date of County's determination of false certification by bid proposer.

As the person authorized to sign this statement, I certify that this firm complies fully with the above requirements.

DATE: February 26, 2020

SIGNATURE: 

COMPANY: Anderson Columbia Co., Inc. NAME: L. Eugene Strickland  
(Typed or Printed)

ADDRESS: 2316 Hwy 71  
Marianna, FL 32448

TITLE: Vice President

E-MAIL: genes@andersoncolumbia.com

PHONE NO.: 850-526-4440

ADDENDUM ACKNOWLEDGEMENT

ITB AP 27-20

Acknowledgment is hereby made of the following addenda (identified by number) received since issuance of solicitation:

ADDENDUM NO.	DATE
Addendum 1	2/19/20
Addendum 2	2/26/20

NOTE: Prior to submitting the response to this solicitation, it is the responsibility of the Respondent to confirm if any addenda have been issued. If such addenda have been issued, acknowledge receipt by noting number(s) and date(s) above.

COMPANY DATA

Respondent's Company Name: Anderson Columbia Co, Inc.

Physical Address & Phone #: 2316 HWY 71 Marianna, Florida 32448

Contact Person (Typed-Printed): L. Eugene Strickland

Phone #: (850) 526-4440

Cell #:

Email: genes@andersoncolumbia.com

Federal ID or SS #: 59-2871935

Respondent's License #: CGC 060909

Respondent's DUNS #: 158999198

Fax #: (850) 526-7106

Emergency #'s After Hours,  
Weekends & Holidays: 850-526-8297

**SYSTEM FOR AWARD MANAGEMENT (OCT 2016)**

(a) Definitions. As used in this provision.

“Electronic Funds Transfer (EFT) indicator” means a four-character suffix to the unique entity identifier. The suffix is assigned at the discretion of the commercial, nonprofit, or Government entity to establish additional System for Award Management records for identifying alternative EFT accounts (see subpart 32.11) for the same entity.

“Registered in the System for Award Management (SAM) database” means that.

(1) The Offeror has entered all mandatory information, including the unique entity identifier and the EFT indicator, if applicable, the Commercial and Government Entity (CAGE) code, as well as data required by the Federal Funding Accountability and Transparency Act of 2006 (see subpart 4.14) into the SAM database;

(2) The offeror has completed the Core, Assertions, and Representations and Certifications, and Points of Contact sections of the registration in the SAM database;

(3) The Government has validated all mandatory data fields, to include validation of the Taxpayer Identification Number (TIN) with the Internal Revenue Service (IRS). The offeror will be required to provide consent for TIN validation to the Government as a part of the SAM registration process; and

(4) The Government has marked the record “Active”.

“Unique entity identifier” means a number or other identifier used to identify a specific commercial, nonprofit, or Government entity. See www.sam.gov for the designated entity for establishing unique entity identifiers.

(b)(1) By submission of an offer, the offeror acknowledges the requirement that a prospective awardee shall be registered in the SAM database prior to award, during performance, and through final payment of any contract, basic agreement, basic ordering agreement, or blanket purchasing agreement resulting from this solicitation.

(2) The Offeror shall enter, in the block with its name and address on the cover page of its offer, the annotation “Unique Entity Identifier” followed by the unique entity identifier that identifies the Offeror’s name and address exactly as stated in the offer. The Offeror also shall enter its EFT indicator, if applicable. The unique entity identifier will be used by the Contracting Officer to verify that the Offeror is registered in the SAM database.

(c) If the Offeror does not have a unique entity identifier, it should contact the entity designated at www.sam.gov for establishment of the unique entity identifier directly to obtain one. The Offeror should be prepared to provide the following information:

(1) Company legal business name.

(2) Tradestyle, doing business, or other name by which your entity is commonly recognized.

(3) Company Physical Street Address, City, State, and Zip Code.

(4) Company Mailing Address, City, State and Zip Code (if separate from physical).



- (5) Company telephone number.
  - (6) Date the company was started.
  - (7) Number of employees at your location.
  - (8) Chief executive officer/key manager.
  - (9) Line of business (industry).
  - (10) Company Headquarters name and address (reporting relationship within your entity).
- (d) If the Offeror does not become registered in the SAM database in the time prescribed by the Contracting Officer, the Contracting Officer will proceed to award to the next otherwise successful registered Offeror.
- (e) Processing time, which normally takes 48 hours, should be taken into consideration when registering. Offerors who are not registered should consider applying for registration immediately upon receipt of this solicitation.
- (f) Offerors may obtain information on registration at <https://www.acquisition.gov>.

Offerors SAM information:

Entity Name: Anderson Columbia Co., Inc.

Entity Address: genes@andersoncolumbia.com

Duns Number: 158999198

CAGE Code: \_\_\_\_\_

CONTRACTOR:  
 ANDERSON COLUMBIA CO., INC.  
 POST OFFICE 1829  
 LAKE CITY, FL 32056

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION  
**STATUS OF CONTRACTS ON HAND**

STATUS AS OF: \_\_\_\_\_ April 1, 2019

(Furnish full information about all of your contracts, whether prime or subcontract, whether in progress or awarded, but not yet begun, and regardless of with whom contracted.)

1	2	3	4	5	
				UNCOMPLETED AMOUNT TO	AS SUB-
PROJECT OWNER, LOCATION AND DESCRIPTION	CONTRACTS (OR SUBCONTRACT) AMOUNT	AMOUNT SUBLET TO OTHERS	BALANCE OF CONTRACT AMOUNT	AS PRIME CONTRACTOR	CONTRACTOR
218108 SR 223 BRADFORD CO 20R001-15201 (T3616)	48,473,434.00	12,118,359	36,355,076	7,005,623	
217115 SR 13 (US 1) MASSAHL CO 436162-15201 (T2683)	9,130,119.00	2,282,530	6,847,588	388,982	
218101 SR 111 CASSAT AVE, DUNAL CO. 436171-15201 ETC. (T2679)	10,978,695.98	2,744,674	8,234,022	4,239,377	
218104 SR 38 (US 19) DIXIE CO. FIN 436172-15201 (T2693)	13,785,297.40	3,446,322	10,338,966	4,714,827	
218107 I-10 MADISON CO @WEIGHT STA. 440310-15201 (E2X01)	4,421,836.78	1,105,459	3,316,378	1,028,127	
218110 BRITT PL. WASHOUT REPAIR. CALTC	365,250.00	91,313	273,936	164,268	
218111 SR 35 (US 19) TAYLOR CO. FIN 437618-15201 (T2714)	8,132,277.22	2,093,099	6,039,208	6,059,732	
218112 SR 10 (US 90) SUWANNEE CO.FIN 434296-15201 (T2715)	9,116,585.86	2,278,146	6,837,439	6,787,923	
216113 SR 55 (US 19) DIXIE CO.: FIN 437619-15201 (T2721)	8,815,320.00	2,203,830	6,611,490	5,006,709	
218208 ANNUAL ASPHALT JOB 913003181919 1TB-114-2018	500,000.00	125,000	375,000	273,172	
218210 CR 152 HAMILTON CO	2,222,239.59	836,560	1,665,680	747,384	
218211 SW BERLONG ST-PHASE II COLUMBIA CO	2,156,921.82	539,730	1,619,191	697,493	
218216 SW KING ST & SW MAULDIN AVE-COLUMBIA CO	1,187,141.78	286,795	890,356	17,928	
218217 SE 150TH-BRADFORD CO	790,383.20	197,598	592,795	255,255	
218218 CR 150 MADISON CO	1,667,466.35	421,867	1,265,600	1,252,138	
218219 SE DONALDSON-MADISON CO	836,518.68	209,130	627,389	557,467	
218220 SW 35 & US 19 HAMILTON CO	1,276,926.12	319,232	957,695	703,632	
218221 SE 141ST BLVD. HAMILTON CO	978,875.55	244,719	734,157	666,083	
218222 104TH AVE 35TH DR. NW JORD PL. & CHAY BRIDGE RD HAMILTON CO	441,393.14	110,248	331,045	327,687	
218223 SR 341 UNION CO	1,149,608.87	287,377	862,130	139,188	
218224 RUDWYAY 1024 REHABILITATION CITY OF LAKE CITY	6,561,936.15	1,840,464	4,921,482	4,893,892	
218225 OLD VPRO STERY RD & KATE GREEN RD. DIXIE CO	1,703,803.69	423,951	1,277,853	1,265,123	
218705 CR 228 REALIGNMENT-CHEMOURS COMPANY. BAKER CO	3,150,000.00	787,500	2,362,500	1,873,909	
218707 HAUT RD OFF SR 200 STAKE FL. CHEMOURS COMPANY	2,919,771.00	729,949	2,189,828	565,899	
219201 SE 111TH ST-GULCHRIST CO	1,293,770.59	323,443	970,328	963,145	
219202 CR 405 CR 400 CR 425 CR 500 MONROE AVE. LAFALETTE CO	4,750,821.68	1,187,655	3,562,956	3,562,956	

CONTRACTOR:  
ANDERSON COLUMBIA CO., INC.  
POST OFFICE 1828  
LAKE CITY, FL 32055

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION  
STATUS OF CONTRACTS ON HAND

STATUS AS OF:

April 1, 2019

(Furnish full information about all of your contracts, whether prime or subcontracts, whether in progress or awarded, but not yet begun, and regardless of with whom contracted.)

1	2	3	4	5		6	
				UNCOMPLETED AMOUNT TO	EE DONE	AS SUB-CONTRACTOR	AS SUB-CONTRACTOR
219203	NEW ZIND AVENUE/251ST ST BRADFORD CO	433,896.39	108,424	325,272	325,272	807	
219701	TRU HOTEL PERI LOT PAVING/US 90 LA GATEWAY CROSSING	66,543.98	16,525	49,908			
219801	NE CLOVER AVE MADISON CO	212,928.03	53,232	159,696	159,696		
219802	RAIL TRAIL-LIVE OAK	98,983.97	24,995	74,988	74,988		
32110	SR 79 WASHINGTON CO 220772-95201 (SRK68)	87,313,802.00	21,928,401	65,485,202	20,801,309		
314107	FDOT DIST III PUSHBUTTON (T3517)	3,168,700.85	792,175	2,376,526	1,303,458		
315105	SR 77 WASHINGTON CO FDOT 217909-45201.ETC. (E3013)	54,218,770.87	13,454,693	40,664,079	16,544,742		
317102	DISTRICT III PUSHBUTTON 210876-95292 (E3029)	3,000,000.00	750,000	2,250,000	935,942		
317105	SR KILBO JACKSON CO FDOT 432740-5201 (T36443)	8,794,770.57	2,198,693	5,596,079	2,197,935		
318101	SR KILBO WASHINGTON CO 432738-5201 (T3537)	10,109,895.00	2,527,459	7,582,376	4,520,924		
318103	DISTRICT III PUSH BUTTON 220881-52298.ETC. (E3036)	5,000,000.00	1,250,000	3,750,000	3,112,769		
318105	SR 3690S 319) WAKULLA CO 220898-82201 (T3646)	15,698,484.00	3,824,618	11,773,848	10,044,223		
318106	DIST III PUSHBUTTON 423714-7221 (E3028R2)	500,000.00	125,000	375,000	348,424		
318107	SR 75 (US 221) JACKSON CO. FIN 432747-15201 (T3665)	3,436,000.00	859,000	2,577,000	824,449		
318108	SR 20 (US 99) BAY CO. FIN 431064-15201.ETC. (E3067)	10,661,823.00	2,666,495	7,996,367	6,819,662		
318111	SR 25 (US 231) JACKSON 432749-15201 (T3675)	2,592,777.98	646,194	1,944,583	1,567,420		
318113	SR 30 (US 298) FRANKLIN CO. FIN 431023-0201.ETC. (H3543)	8,821,217.27	2,205,304	6,615,913	5,007,016		
318114	DISTRICT III PUSHBUTTON 220918-55229 (E3513)	3,000,000.00	750,000	2,250,000	2,229,182		
318115	LA10 WASHINGTON CO 4432705-15201 (T3679)	9,320,113.54	2,330,090	6,990,089	6,720,356		
318207	MERRITT HALL ROAD RD FROM U 990 TO SR 71 JACKSON CO	1,541,168.00	386,292	1,155,876	1,022,506		
318208	MARLANNNA AIRPORT RUNWAY 13-36	1,795,450.00	428,363	1,279,038	1,267,637		
318801	DIST III PUSH BUTTON 220786-82295 (E3028)	2,448,045.00	611,511	1,834,594	1,760,974		
318701	MARLANNNA K-4 STEWOK	3,168,340.00	792,095	2,376,255	1,482,427		
319101	LA10 WASHINGTON/HOLMES CO FIN 443541-0201 (H3548)	1,039,810.00	259,952	779,858	771,920		
319102	LA10 JACKSON CO FIN 443547-0201 (H3549)	5,294,366.00	1,323,592	3,970,775	3,837,436		
52110	SR 79 WASHINGTON CO 220772-95201 (E3K68)-DESIGN BUILD (BRIDGE)	9,867,430.00	2,468,856	7,400,573	567,840		
515105	SR37 WASHINGTON CO FDOT 217909-45201 (E3015) BRIDGE PORTION OF 315105	6,324,089.54	1,331,022	3,993,067	1,461,846		

CONTRACTOR:  
ANDERSON COLUMBIA CO., INC.  
POST OFFICE 1829  
LAKE CITY, FL 32056

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION  
STATUS OF CONTRACTS ON HAND

STATUS AS OF: April 1, 2019

(Furnish full information about all of your contracts, whether prime or subcontractors, whether in progress or awarded, but not yet begun, and regardless of with whom contracted.)

1	2	3	4	5	
				UNCOMPLETED AMOUNT TO BE DONE	AS SUB-CONTRACTOR
516104	CR 99 ESCAMBIA CO. FDOT 43846-15201 (T3573)	4,529,735.00	1,392,434	3,997,301	167,011
516601	SR 95 (US-29) ESCAMBIA CO FDOT 21869-15201 (T3539)	7,473,146.50	1,868,287	5,604,859	1,313,107
517103	CR 436 (GULF BLVD) LEVY CO FDOT 41629-15201 (T3568)	7,927,540.95	1,991,885	5,945,656	1,001,504
517104	CR 399 JEFFERSON CO FDOT 43230-15201 (T35627)	3,125,123.94	791,281	2,343,843	376,712
517201	CR 2397 (COOKS BAYOU) BRIDGE REPLACEMENT, BAY CO	8,209,787.00	2,052,449	6,157,348	2,631,373
518101	CR 230 SUWANNEE CO 31972-15201 (T37093)	11,717,505.30	2,929,376	8,788,129	6,522,930
518107	I-10 MADISON CO (6WEIGHT STA. 44931-15201) (CONCRETE)	4,879,141.34	1,219,785	3,659,356	2,654,050
518108	SR 30 (US 98) BAY CO. FIN 43164-15201 (ETC) (E3027)	8,700,476.25	2,175,119	6,525,357	6,409,565
518109	CR 361 TAYLOR CO 21284-15201 (ETC) (T37099)	3,462,427.80	866,907	2,595,521	2,389,087
518801	SR 72 WASHINGTON CO RAIL SHEET PILE	65,856.00	16,464	49,392	22,957
519801	WEEMAS RD EXTENSION	3,494,231.50	873,359	2,620,874	2,620,874
519802	SR 87 SANTA ROSA FDOT 20442-75201 (T35143)	3,629,287.00	907,822	2,721,465	1,210,749
518102	SR 227 (FAIRFIELD DR) ESCAMBIA CO 41343-15201 (E3R03)	1,331,327.45	332,832	998,495	670,167
518602	I-75 HERNANDO CO FDOT 41101-15201 (E7523)	14,690,283.00	3,672,571	11,017,712	2,846,675
516803	I-75 AT FLORIDA TURNPIKE WILLOWOOD MOD CONTRACT EMV5	6,780,587.00	1,695,147	5,085,440	1,894,616
517502	SR 20 HAWTHORNE RD ALACHUA CO 200718-15201 (T3687)	2,017,424.20	504,355	1,513,069	1,055,329
518101	SR 492 MARION CO 43065-15201 (T3616)	4,178,482.75	1,044,621	3,133,862	724,988
518102	SR 200 MARION CO 35870-15201 (T3524)	9,141,071.09	2,285,268	6,855,803	6,561,271
518202	CR 320 MARION CO	1,211,904.95	302,976	908,929	332,892
518203	C-674 SLATER CO	2,487,337.29	621,834	1,865,503	1,091,378
518204	SR 87TH PL (CR 312) & SE 16TH ST (CR 453A) MARION CO	1,663,390.40	415,848	1,247,543	1,212,187
519101	I-75 (WILLOWOOD) WEIGH STA. MARION CO 44031-15201 (E32627)	11,173,430.29	2,739,359	8,380,073	8,380,073
51109	VA. HIGHLAND CO BORDER INSPECTION SAFETY FACILITY	20,357,235.00	5,088,308	15,267,926	2,234,812
516101	IH 2, HIDALGO CO	46,435,118.00	11,608,780	34,826,339	18,070,342
517102	IH 56 CORAL CO	8,243,081.00	2,060,755	6,182,326	1,214,778
517105	FM 133 DUNWITT CO	10,067,615.00	2,516,804	7,550,711	1,076,747
517106	US 277 MAVERICK CO	20,711,732.00	5,077,933	15,633,799	9,214,401

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION  
**STATUS OF CONTRACTS ON HAND**

STATUS AS OF:

April 1, 2019

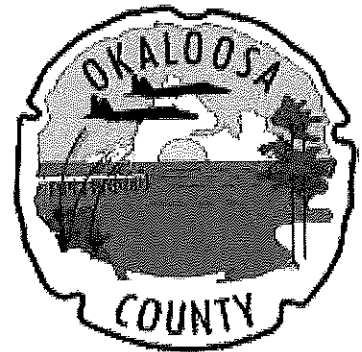
CONTRACTOR:  
 ANDERSON COLUMBIA CO., INC.  
 POST OFFICE 1829  
 LAKE CITY, FL 32056

(Furnish full information about all of your contracts, whether prime or subcontracts, whether in progress or awarded, but not yet begun and regardless of with whom contracted.)

1 PROJECT, OWNER, LOCATION AND DESCRIPTION	3 CONTRACTS (OR SUBCONTRACT) AMOUNT	3 AMOUNT SUBLET TO OTHERS	4 BALANCE OF CONTRACT AMOUNT	5 UNCOMPLETED AMOUNT TO	
				AS PRIME CONTRACTOR	AS SUB- CONTRACTOR
917107 US 83, HIDALGO CO (LAJOYA BYPASS)	47,832,900.03	11,959,225	35,874,675	20,759,742	
917201 COTULLA TRUCK RELIEF ROUTE	14,308,843.00	3,577,461	10,732,382	2,515,728	
917601 FM 1931, JIM WELLS	802,491.00	200,623	601,868	600,976	
917603 PINNACLE INDUSTRIAL CENTER	194,540.00	45,535	148,905	144,161	
917702 KAS TRUCK STOP PAVT AT FM 1472	79,150.00	19,788	59,363	59,363	
918101 HI 35 LASALLE CO NH2018(779)	11,555,295.26	2,913,824	8,741,471	7,470,094	
918103 SH 359 WEBB CO: STP-1802(248)	28,248,453.66	7,062,113	21,186,340	19,519,094	
918104 HI 35, LASALLE CO 0018-01-197	5,897,729.00	1,421,932	4,265,797	3,741,539	
918105 US 83 WEBB CO: NH-2018(048): 0037-09-033	48,720,816.80	12,180,204	35,540,613	36,234,220	
918601 US 277-MARVERICK COM-MATERIALS SALES NH1702(331)	2,955,937.00	713,984	2,141,953	1,343,465	
919101 SH 85 PRIO CO #0301-09-028 CS01-4-25	1,754,396.00	438,599	1,315,797	1,298,456	
919102 HI 35 WEBB CO #018-05-095, ETC. NH2018(375)	12,256,476.00	3,064,119	9,192,357	9,181,520	
<b>TOTALS</b>				<b>338,778,748</b>	
<b>TOTAL UNCOMPLETED WORK ON HAND TO BE DONE BY YOU</b>					<b>338,778,748</b>
<b>TOTAL-COLUMNS 5 AND 6</b>					<b>338,778,748</b>

NOTE: Columns 2 and 3 to show total contract (or subcontract) amounts. Column 4 to be difference between columns 2 and 3. Amount in columns 5 or 6 to be uncompleted portion of amount in columns 4. All amounts to be shown to nearest \$100. The Contractor may consolidate and list as a single item all contracts which, individually, do not exceed 3% of total, and which, in aggregate, amount to less

# CONTRACT FORMS



BID DOCUMENTS  
VPS PARKING LOT B EXPANSION

## STANDARD FORM OF AGREEMENT

THIS AGREEMENT is dated as of the \_\_\_\_\_ day of \_\_\_\_\_ in the year 20\_\_ by and between The Board of County Commissioners of Okaloosa County, Florida (hereinafter called Owner) and Anderson Columbia Co., Inc. (hereinafter called Contractor).

Owner and Contractor, in consideration of the mutual covenants hereinafter set forth, agree as follows:

### **Article 1. WORK.**

Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

#### **VPS PARKING LOT B EXPANSION**

### **Article 2. ENGINEER.**

The Project has been designed by

#### **AVCON, INC.**

who is hereinafter called Engineer and who is to act as Owner's representative, assume all duties and responsibilities and have the rights and authority assigned to Engineer in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

### **Article 3. CONTRACT TIMES.**

3.1 The Work will be substantially completed within 60 calendar days after the date when the Contract Times commence to run as provided in paragraph 2.3 of the General Conditions. The project shall be deemed substantially complete upon completion of the asphalt pavement, concrete curb and sidewalk, fencing, and pavement markings. The Work will be completed and ready for final payment in accordance with paragraph 14.13 of the General Conditions within 120 calendar days after the date when the Contract Times commence to run.

3.2 *Liquidated Damages.* Owner and Contractor recognize that time is of the essence of this Agreement and that Owner will suffer financial loss if the Work is not completed within the times specified in paragraph 3.1 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. They also recognize the delays, expense and difficulties involved in proving the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring of such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty) Contractor shall pay Owner the amount specified in Paragraph 3.3 for each day that expires after the time specified in paragraph 3.1 for Substantial Completion until the Work is substantially complete. After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the time specified in paragraph 3.1 for completion and readiness for final payment or any proper extension thereof granted by Owner, Contractor shall pay Owner the amount specified in Paragraph 3.3 for each day that expires after the time specified in paragraph 3.1 for completion and readiness for final payment. The Contractor hereby expressly waives and relinquishes any right which it may have to seek to characterize the liquidated damages as a penalty, which the parties agree represents a fair and reasonable estimate of

the Owner's actual damages at the time of contracting if the Contractor fails to substantially complete the Work in a timely manner.

3.3.1 Liquidated Damages are based upon the original contract amount, as established by Okaloosa County. Liquidated damages, based upon the original contract amount \$1,650,641.10 will be dollars \$ 1,924.00 per calendar day.

#### **Article 4. CONTRACT PRICE.**

Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the established unit price for each separately identified item of Unit Price Work times the estimated quantity of that item as indicated in the Bid Schedule submitted in the Bid Form. The cost of this project is \$ 1,650,641.10 as per the attached Contractor bid.

As provided in paragraph 11.9 of the General Conditions estimated quantities are not guaranteed, and determinations of actual quantities and classification are to be made by Engineer as provided in paragraph 9.10 of the General Conditions. Unit prices have been computed as provided in paragraph 11.9.2 of the General Conditions.

#### **Article 5. PAYMENT PROCEDURES**

Contractor shall submit Application for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

5.1 *Progress Payments; Retainage.* Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment as recommended by Engineer, on or about the fifteenth (15th) day of each month during construction as provided in paragraphs 5.1.1 and 5.1.2 below. All such payments will be measured based on the number of units completed. Payments to the Contractor shall in no way imply approval or acceptance of Contractor's work.

5.1.1 Prior to Substantial completion, payments will be made in an amount equal to the percentage indicated below, but, in each case, less the aggregate of payments previously made and less such amounts as Engineer shall determine, or Owner may withhold, in accordance with paragraph 14.7 of the General Conditions.

90 % of Work completed (with the balance being retainage). Once the Contractor completes at least 50% of the Work based on approved pay applications, the retainage will be reduced from 10% to 5% for the remainder of the project. Therefore, following completion of at least 50% of the Work, the Contractor may be paid 95 % of Work completed (with the balance being retainage).

90 % (with the balance being retainage) of materials and equipment not incorporated in the Work (but delivered, suitably stored and accompanied by documentation satisfactory to Owner as provided in paragraph 14.2 of the General Conditions). Once the Contractor completes at least 50% of the Work based on approved pay applications, the retainage will be reduced from 10% to 5% for the remainder of the project. Therefore, following completion of at least 50% of the Work, the Contractor may be paid 95 % of materials and equipment not incorporated in the Work (but delivered, suitably stored and accompanied



by documentation satisfactory to Owner as provided in paragraph 14.2 of the General Conditions).

5.1.2 Upon Substantial Completion, in an amount sufficient to increase total payments to Contractor to 95 % of the Contract Price (with the balance being retainage), less such amounts as Engineer shall determine, or Owner may withhold, in accordance with paragraph 14.7 of the General Conditions.

5.1.3 Retainage requirements may be changed to reflect a proposed change to state regulatory statutes.

5.2 *Final Payment.* Upon final completion and acceptance of the Work in accordance with paragraph 14.13 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said paragraph 14.13.

5.2.1 Contractor's acceptance of final payment shall constitute a full waiver of any and all claims by Contractor against the County arising out of this Agreement or otherwise relating to the Project, except those previously made in writing and identified by Contractor as unsettled at the time of the final Application for Payment. Neither the acceptance of the Work nor payment by the County shall be deemed to be a waiver of the County's right to enforce any obligations of the Contractor hereunder or to the recovery of damages for defective Work not discovered by the Engineer or the County at the time of final inspection.

### 5.3 Payments Withheld

5.3.1 The Engineer or the County may decline to approve any Applications for Payment, or portions thereof, because of subsequently discovered evidence or subsequent inspections. The Engineer or the County may nullify the whole or any part of any inspections. The Engineer or the County may nullify the whole or any part of any approval for payment previously issued and the County may withhold any payments otherwise due Contractor under this Agreement or any other agreement between the County and the Contractor, to such extent as may be necessary in the County's opinion to protect it from loss because of:

5.3.1.1 Defective Work not remedied;

5.3.1.2 Third party claims filed or reasonable evidence indicating probable filing of such claims;

5.3.1.3 Failure of Contractor to make payment properly to subcontractors or for labor, materials or equipment;

5.3.1.4 Reasonable doubt that the Work can be completed for the unpaid balance of the Contract Amount;

5.3.1.5 Reasonable indication that the Work will not be completed within the Contract Time;

5.3.1.6 Unsatisfactory prosecution of the Work by the Contractor;

5.3.1.7 Failure to provide accurate and current "As-Builts"; or

5.3.1.8 Any other material breach of the Contract Documents.

5.3.2 If these conditions in Subsection 5.3.1 are not remedied or removed, the County may after three (3) days written notice, rectify the same at Contractor's expense. The County also may offset against any sums due Contractor the amount of any liquidated or unliquidated obligations of Contractor to the County, whether relating to or arising out of his Agreement or any other agreement between Contractor and the County.

## **Article 6. CONTRACTOR'S REPRESENTATIONS.**

In order to induce Owner to enter into this Agreement Contractor makes the following representations:

6.1 Contractor has examined and carefully studied the Contract Documents (including the Addenda listed in Article 7) and the other related data identified in the Project Documents including "technical data."

6.2 Contractor has visited the site and become familiar with and is satisfied as to the general, local, and site conditions that may affect cost, progress, performance or furnishing of the Work.

6.3 Contractor is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, performance and furnishing of the Work.

6.4 Contractor has carefully studied all reports of explorations and tests of subsurface conditions at or contiguous to site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in paragraph 4.2.1 of the General Conditions. Contractor accepts the determination of the extent of the "technical data" contained in such reports and drawings upon which Contractor is entitled to rely as provided in paragraph 4.2 of the General Conditions. Contractor acknowledges that such reports and drawings are not Contract Documents and may not be complete for Contractor's purposes. Contractor acknowledges that Owner and Engineer do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Contract Documents with respect to Underground Facilities at or contiguous to the site. Contractor has obtained and carefully studied (or assumes responsibility for having done so) all such additional supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance, or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor and safety precautions, and programs incident thereto. Contractor does not consider that any additional examinations, investigations, explorations, tests, studies, or data are necessary for the performance and furnishing of the Work at the Contract Price, within the Contract Times and in accordance with the other terms and conditions of the Contract Documents.

6.5 Contractor is aware of the general nature of work to be performed by Owner and others at the site that relates to the Work as indicated in the Contract Documents.

6.6 Contractor has correlated the information known to Contractor, information and observation obtained from visits to the site, reports, and drawings identified in the Contract Documents and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.

6.7 Contractor has given Engineer written notice of all conflicts, errors, ambiguities or discrepancies that Contractor has discovered in the Contract Documents and the written resolution thereof by Engineer is acceptable to Contractor, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

**Article 7. CONTRACT DOCUMENTS**

The Contract Documents that comprise the entire agreement between Owner and Contractor concerning the Work consist of the following:

- 7.1 This Agreement (pages A-1 to A-8, inclusive)
- 7.2 Performance, Payment, and other Bonds
- 7.3 Notice to Proceed
- 7.4 Okaloosa County Standard Clauses (pages OC-1 to OC-12, inclusive)
- 7.5 General Conditions (pages GC-1 to GC-54, inclusive)
- 7.6 Specifications package as listed in the table of contents thereof
- 7.7 Drawings consisting of a cover sheet and sheets numbered \_\_\_\_\_ with each sheet bearing the following general title:

VPS PARKING LOT B EXPANSION

- 7.8 Addenda numbers N/A to N/A, inclusive
- 7.9 Contractor's Bid (pages BF-1 to BF-6 and BS-1 to BS-8 inclusive)
- 7.10 Documentation submitted by Contractor prior to Notice of Award
- 7.11 The following which may be delivered or issued after the Effective Date of the Agreement and are not attached hereto:

All Written Amendments and other documents amending, modifying or supplementing the Contract Documents pursuant to paragraphs 3.5 and 3.6 of the General Conditions

The documents listed in paragraph 7.2 et seq. above are attached to this Agreement (except as expressly noted otherwise above).

There are not Contract Documents other than those listed above in this Article 7. The Contract Documents may only be amended, modified or supplemented as provided in paragraphs 3.5 and 3.6 of the General Conditions.

**Article 8. PUBLIC RECORDS**

Any record created by either party in accordance with this Contract shall be retained and maintained in accordance with the public records law, Florida Statutes, Chapter 119.

**IF THE CONSULTANT HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT OKALOOSA COUNTY RISK MANAGEMENT DEPARTMENT 5479 OLD BETHEL ROAD CRESTVIEW, FL 32536 PHONE: (850) 689-5977 [riskinfo@co.okaloosa.fl.us](mailto:riskinfo@co.okaloosa.fl.us).**

Consultant must comply with the public records laws, Florida Statute chapter 119, specifically Consultant must:

8.1 Keep and maintain public records required by the County to perform the service.

8.2 Upon request from the County's custodian of public records, provide the County with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in chapter 119 Florida Statutes or as otherwise provided by law.

8.3 Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the consultant does not transfer the records to the County.

8.4 Upon completion of the contract, transfer, at no cost, to the County all public records in possession of the contractor or keep and maintain public records required by the County to perform the service. If the consultant transfers all public records to the public agency upon completion of the contract, the consultant shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the consultant keeps and maintains public records upon completion of the contract, the consultant shall meet all applicable requirements for retaining the public records. All records stored electronically must be provided to the public agency, upon the request from the public agency's custodian of public records, in a format that is compatible with the information technology systems of the public agency.

#### **Article 9. AUDIT**

The County and/or its designee shall have the right from time to time at its sole expense to audit the compliance by the Contractor with the terms, conditions, obligations, limitations, restrictions, and requirements of this Contract and such right shall extend for a period of three (3) years after termination of this Contract.

#### **Article 10. TERMINATION FOR CONVENIENCE**

Owner may at any time and for any reason terminate Contractor's services and work at Owner's convenience. Upon receipt of such notice, Contractor shall, unless the notice directs otherwise, immediately discontinue the work and placing of orders for materials, facilities and supplies in connection with the performance of this Agreement.

Upon such termination, Contractor shall be entitled to payment only as follows: (1) the actual cost of the work completed in conformity with this Agreement; plus, and (2) such other costs actually incurred by Contractor as are permitted by the prime contract and approved by Owner. There shall be deducted from such sums as provided in this subparagraph the amount of any payments made to Contractor prior to the date of the termination of this Agreement. Contractor shall not be entitled to any claim or claim of lien against Owner for any additional compensation or damages in the event of such termination and payment. Further, Owner may terminate this contract immediately for failure of contractor to comply with Chapter 119, Florida Statutes.

**Article 11. VIOLATIONS OF CHAPTER 119 FLORIDA STATUTES**

The County reserves the right to terminate this agreement immediately for failure of Contractor to adhere to the requirements of Florida Statutes Chapter 119.

**Article 12. MISCELLANEOUS.**

12.1 Terms used in this Agreement which are defined in Article 1 of the General Conditions will have the meanings indicated in the General Conditions.

12.2 No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

12.3 Owner and Contractor each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

12.4 Any provisions or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

IN WITNESS WHEREOF, Owner, and Contractor have signed this Agreement in triplicate. One counterpart each has been delivered to Owner, Contractor, and Engineer. All portions of the Contract Documents have been signed, initialed or identified by Owner, and Contractor, or identified by Engineer on their behalf.

This Agreement will be effective on \_\_\_\_\_, 20\_\_ (which is the Effective Date of the Agreement).

**Article 13. INCORPORATION OF DOCUMENTS**

**OWNER**

**CONTRACTOR**

\_\_\_\_\_ Okaloosa County, Florida \_\_\_\_\_,

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Robert A. "Trey" Godwin III  
Chairman, Okaloosa County Board of County  
Commissioners

Attest

Attest

\_\_\_\_\_

\_\_\_\_\_

J.D. Peacock II  
Clerk of Circuit Court

\_\_\_\_\_

Address for giving notices

Address for giving notices

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(If Owner is a public body, attached evidence of authority to sign and resolution or other documents authorizing execution of Agreement).

License No. \_\_\_\_\_

Agent for services of process: \_\_\_\_\_

\_\_\_\_\_

If Contractor is a corporation, attach evidence of authority to sign).

**PERFORMANCE BOND**

KNOW ALL MEN by these presents; That we (1) \_\_\_\_\_  
\_\_\_\_\_ a (2) \_\_\_\_\_  
hereinafter called "Principal" and (3) \_\_\_\_\_  
of \_\_\_\_\_, State of \_\_\_\_\_, hereinafter called the  
"Surety", are held and firmly bound unto (4) \_\_\_\_\_  
of \_\_\_\_\_, hereinafter called "OWNER", in the penal sum  
of \_\_\_\_\_ dollars (\$ \_\_\_\_\_)  
in lawful money of the United States for the payment of which sum well and truly to be made, we bind  
ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these  
presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain  
contract with the Owner, dated the \_\_\_ day of \_\_\_\_\_, 20\_\_\_, a copy of which is hereto  
attached and make a part hereof for the construction of:

VPS PARKING LOT B EXPANSION

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the  
undertakings, covenants, terms, conditions, and agreements of said contract during the original  
term thereof, and any extensions thereof which may be granted by the Owner, with or without  
notice to the Surety, and if he shall satisfy all claims and demands incurred under such contract,  
and shall fully indemnify and save harmless the Owner from all costs and damages which it may  
suffer by reason of failure to do so, and shall reimburse and repay the Owner all outlay and  
expense which the Owner may incur in making good any default, then this obligation shall be  
void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that  
no change, extension of time, alteration or addition to the terms of the contract or to the work  
to be performed thereunder or the Specifications accompanying the same shall in any way  
affect its obligations on this bond, and it does not hereby waive notice of any such change,  
extension of time, alteration or addition to the terms of the contract or to the work or to the  
Specifications.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in six (6) counterparts, each one of which shall be deemed an original, this the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

ATTEST:

\_\_\_\_\_  
(Principal) Secretary

\_\_\_\_\_  
Witness as to Surety

\_\_\_\_\_  
Address

\_\_\_\_\_  
Principal

By: \_\_\_\_\_

\_\_\_\_\_  
Address

SEAL:

ATTEST:

\_\_\_\_\_  
(Surety) Secretary

\_\_\_\_\_  
Witness as to Surety

\_\_\_\_\_  
Address

\_\_\_\_\_  
Surety

\_\_\_\_\_  
Attorney-in-Fact

\_\_\_\_\_  
Address

SEAL:

Date of bond must not be prior to date of Contract



1. Correct name of Contractor.
2. A Corporation, A Partnership or an Individual as case may be.
3. Correct name of Surety.
4. Correct name of Owner.
5. If Contractor is Partnership, all partners should execute bond.

PAYMENT BOND

KNOW ALL MEN by these presents; That we (1) \_\_\_\_\_  
\_\_\_\_\_ a (2) \_\_\_\_\_  
hereinafter called "Principal" and (3) \_\_\_\_\_  
of \_\_\_\_\_, State of \_\_\_\_\_, hereinafter call the  
"Surety", are held and firmly bound unto (4) \_\_\_\_\_  
of \_\_\_\_\_ State of Florida \_\_\_\_\_, hereinafter called "OWNER", in the penal sum of \_\_\_\_\_  
\_\_\_\_\_ dollars (\$ \_\_\_\_\_) in lawful money  
of the United States for the payment of which sum well and truly to be made, we bind ourselves, our  
heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that Whereas, the Principal entered into a certain contract  
with the Owner, dated the \_\_\_\_ day of \_\_\_\_\_, 20\_\_, a copy of which is hereto  
attached and make a part hereof for the construction of:

VPS PARKING LOT B EXPANSION

NOW, THEREFORE, if the Principal shall promptly make payments to all persons, firms, subcontractors,  
and corporations furnishing materials for or performing labor in the prosecution of the work provided  
for in such contract, and any authorized extension or modification thereof, including all amounts due for  
materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed  
or used in connection with the construction of such work, and all insurance premiums on said work, and  
for all labor, performed in such work, whether by subcontractor or otherwise, then this obligation shall  
be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be in any wise affect its obligation on this bond, and it does hereby waive notice of any such changes, extension of time, alteration or addition to the terms of the contractor or to the work or to the Specifications.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in six (6) counterparts, each one of which shall be deemed an original, this the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

ATTEST:

\_\_\_\_\_  
(Principal) Secretary

\_\_\_\_\_  
Witness as to Surety

\_\_\_\_\_  
Address

\_\_\_\_\_  
Principal

By: \_\_\_\_\_

\_\_\_\_\_  
Address

SEAL:

ATTEST:

\_\_\_\_\_  
(Surety) Secretary

\_\_\_\_\_  
Witness as to Surety

\_\_\_\_\_  
Address

\_\_\_\_\_  
Surety

\_\_\_\_\_  
Attorney-in-Fact

\_\_\_\_\_  
Address

SEAL:

**CONTRACTOR'S RELEASE OF LIENS**

STATE OF: \_\_\_\_\_

COUNTY OF: \_\_\_\_\_

Before me, the undersigned Notary Public in and for the said County and State personally appeared \_\_\_\_\_, representing the Contractor \_\_\_\_\_, who being duly sworn according to law deposes and says that all labor, materials, and outstanding claims and indebtedness of whatever nature arising out of the performance of the Contract with \_\_\_\_\_, the Owner, for \_\_\_\_\_, Contract No. \_\_\_\_\_, have been paid in full and that for the final payment in the amount of \$ \_\_\_\_\_, the Contractor releases and discharges the Owner and his authorized representatives from any liens or claims or any nature because of or arising from this Contract and/or its performance, which it has had, has or may have in the future.

By: \_\_\_\_\_

Sworn to and subscribed before me this

\_\_\_\_\_ day of \_\_\_\_\_

\_\_\_\_\_  
(Notary Public)

My Commission Expires: \_\_\_\_\_

ADVERTISEMENT OF COMPLETION

\_\_\_\_\_ (Contractor)

\_\_\_\_\_ (Address)

gives notice of completion of \_\_\_\_\_ (Project)

and sets \_\_\_\_\_ as the date of final settlement.

All persons and firms should file all claims for payment to the below address prior to the settlement date:

Okaloosa County  
5479A Old Bethel Road  
Crestview, FL 32536

By: \_\_\_\_\_ (Name)

\_\_\_\_\_ (Title)

Leg: \_\_\_\_\_ (Publication Dates)

## Title VI Clauses for Compliance with Nondiscrimination Requirements

### Compliance with Nondiscrimination Requirements

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Title VI List of Pertinent Nondiscrimination Acts And Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Nondiscrimination Acts And Authorities on the grounds of race, color, or national origin.
4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the sponsor or the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts And Authorities and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the sponsor or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the sponsor will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:
  - a. Withholding payments to the contractor under the contract until the contractor complies; and/or

- b. Cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the sponsor or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the sponsor to enter into any litigation to protect the interests of the sponsor. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

#### **Title VI List of Pertinent Nondiscrimination Acts and Authorities**

##### **Title VI List of Pertinent Nondiscrimination Acts and Authorities**

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin);
- 49 CFR part 21 (Non-discrimination In Federally-Assisted Programs of The Department of Transportation—Effectuation of Title VI of The Civil Rights Act of 1964);
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq.*), as amended, (prohibits discrimination on the basis of disability); and 49 CFR part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq.*), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);

- Titles II and III of the Americans with Disabilities Act of 1990, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 – 12189) as implemented by Department of Transportation regulations at 49 CFR parts 37 and 38;
- The Federal Aviation Administration’s Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

#### **FEDERAL FAIR LABOR STANDARDS ACT (FEDERAL MINIMUM WAGE)**

All contracts and subcontracts that result from this solicitation incorporate by reference the provisions of 29 CFR part 201, the Federal Fair Labor Standards Act (FLSA), with the same force and effect as if given in full text. The FLSA sets minimum wage, overtime pay, recordkeeping, and child labor standards for full and part time workers.

The [*contractor / consultant*] has full responsibility to monitor compliance to the referenced statute or regulation. The [*contractor / consultant*] must address any claims or disputes that arise from this requirement directly with the U.S. Department of Labor – Wage and Hour Division

#### **OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970**

All contracts and subcontracts that result from this solicitation incorporate by reference the requirements of 29 CFR Part 1910 with the same force and effect as if given in full text. Contractor must provide a work environment that is free from recognized hazards that may cause death or serious physical harm to the employee. The Contractor retains full responsibility to monitor its compliance and their subcontractor’s compliance with the applicable requirements of the Occupational Safety and Health Act of 1970 (20 CFR Part 1910). Contractor must address any claims or disputes that pertain to a referenced requirement directly with the U.S. Department of Labor – Occupational Safety and Health Administration.



**E-VERIFY**

Enrollment and verification requirements.

- (1) If the Contractor is not enrolled as a Federal Contractor in E-Verify at time of contract award, the Contractor shall-
  - a. Enroll. Enroll as a Federal Contractor in the E-Verify Program within thirty (30) calendar days of contract award;
  - b. Verify all new employees. Within ninety (90) calendar days of enrollment in the E-Verify program, begin to use E-Verify to initiate verification of employment eligibility of all new hires of the Contractor, who are working in the United States, whether or not assigned to the contract, within three (3) business days after the date of hire (but see paragraph (b)(3) of this section); and,
  - c. Verify employees assigned to the contract. For each employee assigned to the contract, initiate verification within ninety (90) calendar days after date of enrollment or within thirty (30) calendar days of the employee's assignment to the contract, whichever date is later (but see paragraph (b)(4) of this section.)
- (2) If the Contractor is enrolled as a Federal Contractor in E-Verify at time of contract award, the Contractor shall use E-Verify to initiate verification of employment eligibility of
  - a. All new employees.
    - i. Enrolled ninety (90) calendar days or more. The Contractor shall initiate verification of all new hires of the Contractor, who are working in the United States, whether or not assigned to the contract, within three (3) business days after the date of hire (but see paragraph (b)(3) of this section); or
    - b. Enrolled less than ninety (90) calendar days. Within ninety (90) calendar days after enrollment as a Federal Contractor in E-Verify, the Contractor shall initiate verification of all new hires of the contractor, who are working in the United States, whether or not assigned to the contract, within three (3) business days after the date of hire (but see paragraph (b)(3) of this section); or
    - ii. Employees assigned to the contract. For each employee assigned to the contract, the Contractor shall initiate verification within ninety (90) calendar days after date of contract award or within thirty (30) days after assignment to the contract, whichever date is later (but see paragraph (b)(4) of this section.)
- (3) If the Contractor is an institution of higher education (as defined at 20 U.S.C. 1001(a)); a State of local government or the government of a Federally recognized Indian tribe, or a surety performing under a takeover agreement entered into with a Federal agency pursuant to a performance bond, the Contractor may choose to verify only employees assigned to the contract, whether existing employees or new hires. The Contractor shall

follow the applicable verification requirements of (b)(1) or (b)(2), respectively, except that any requirement for verification of new employees applies only to new employees assigned to the contract.

- (4) Option to verify employment eligibility of all employees. The Contractor may elect to verify all existing employees hired after November 6, 1986 (after November 27, 2009, in the Commonwealth of the Northern Mariana Islands), rather than just those employees assigned to the contract. The Contractor shall initiate verification for each existing employee working in the United States who was hired after November 6, 1986 (after November 27, 2009, in the Commonwealth of the Northern Mariana Islands), within one hundred eighty (180) calendar days of-
- i. Enrollment in the E-Verify program; or
  - ii. Notification to E-Verify Operations of the Contractor's decision to exercise this option, using the contract information provided in the E-Verify program Memorandum of Understanding (MOU)
- (5) The Contractor shall comply, for the period of performance of this contract, with the requirements of the E-Verify program MOU.
- i. The Department of Homeland Security (DHS) or the Social Security Administration (SSA) may terminate the Contractor's MOU and deny access to the E-Verify system in accordance with the terms of the MOU. In such case, the Contractor, will be referred to a suspension or debarment official.
  - ii. During the period between termination of the MOU and a decision by the suspension or debarment official whether to suspend or debar, the contractor is excused from its obligations under paragraph (b) of this clause. If the suspension or debarment official determines not to suspend or debar the Contractor, then the Contractor must reenroll in E-Verify.
  - iii. Web site. Information on registration for and use of the E-Verify program can be obtained via the Internet at the Department of Homeland Security Web site: <http://www.dhs.gov/E-Verify>.
- Individuals previously verified. The Contractor is not required by this clause to perform additional employment verification using E-Verify for any employee-
- (a) Whose employment eligibility was previously verified by the Contractor through the E-Verify program;
  - (b) Who has been granted and holds an active U.S. Government security clearance for access to confidential, secret, or top secret information in accordance with the National Industrial Security Program Operating Manual; or

- (c) Who has undergone a completed background investigation and been issued credentials pursuant to Homeland Security Presidential Directive (HSPD)-12. Policy for a Common Identification Standard for Federal Employees and Contractors.

Subcontracts. The Contractor shall include the requirements of this clause, including this paragraph € (appropriately modified for identification of the parties in each subcontract that-

- (1) Is for-(i) Commercial and noncommercial services (except for commercial services that are part of the purchase of a COTS item (or an item that would be a COTS item, but for minor modifications), performed by the COTS provider, and are normally provided for that COTS item); or
  - (ii) Construction;
- (2) Has a value of more than \$3,500; and
- (3) Includes work performed in the United States.

# GENERAL CONDITIONS



BID DOCUMENTS  
VPS PARKING LOT B EXPANSION

**GENERAL CONDITIONS**

**ARTICLE 1 – DEFINITIONS**

Wherever used in these General Conditions or in the other Contract Documents the following terms have the meanings indicated which are applicable to both the singular and plural thereof:

- 1.1. AASHTO – The American Association of State Highway and Transportation Officials, the successor association AASHO.
- 1.2. Access Road – The right-of-way, the roadway and all improvements constructed thereon connecting the airport to a public highway.
- 1.3. Addenda – Written or graphic instruments issued prior to the opening of Bids which clarify, correct or change the Project Requirements or the Contract Documents.
- 1.4. Advertisement – A public announcement, as required by local law, inviting bids for work to be performed and materials to be furnished.
- 1.5. Agreement – The written contract between Owner and Contractor covering the Work to be performed; other Contract Documents are attached to the Agreement and made a part thereof as provided therein.
- 1.6. AIP – The Airport Improvement Program, a grant-in-aid program, administered by the Federal Aviation Administration.
- 1.7. Air Operations Area – For the purpose of these specifications, the term air operations area shall mean any area of the airport used or intended to be used for the landing, takeoff, or surface maneuvering of aircraft. An air operation area shall include such paved or unpaved areas that are used or intended to be used for the unobstructed movement of aircraft in addition to its associated runway, taxiway, or apron.
- 1.8. Airport – Airport means the area of land or water which is used or intended to be used for the landing and takeoff of aircraft, and includes its buildings and facilities, if any.
- 1.9. Application for Payment – The form accepted by Engineer which is to be used by Contractor in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
- 1.10. Asbestos – Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
- 1.11. ASTM – The American Society for Testing and Materials.
- 1.12. Award – The acceptance, by the Owner, of the successful contractor's proposal.
- 1.13. Bid – The offer or proposal of the contractor submitted on the prescribed form setting forth the prices for the Work to be performed.

- 1.14. Contractor – Any individual, partnership, firm, or corporation, acting directly or through a duly authorized representative, who submits a proposal for the work contemplated.
- 1.15. Project Documents – The advertisement or invitation to Bid, instructions to contractors, the Bid Form, and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids).
- 1.16. Project Requirements – The advertisement or invitation to Bid, instructions to contractors, and the Bid Form.
- 1.17. Building Area – An area on the airport to be used, considered, or intended to be used for airport buildings, or other facilities or rights-of-way together with all airport buildings and facilities located thereon.
- 1.18. Bonds – Performance and Payment bonds and other instruments of security.
- 1.19. Calendar Day – Every day shown on the calendar.
- 1.20. Certificates of Compliance – Written statements by the manufacturer stating the material furnished is in conformance with the Specifications.
- 1.21. Change Order – A document recommended by Engineer, which is signed by Contractor and Owner and authorizes an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement. The work covered by a change order shall be within the scope of the contract.
- 1.22. Contract Documents – The Agreement, Addenda (which pertain to the Contract Documents), Contractor's Bid (including documentation accompanying the Bid and any post Bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Agreement, the Notice to Proceed, the Bonds, these General Conditions, the Supplementary Conditions, the Specifications and the Drawings as the same are more specifically identified in the Agreement, together with all Written Amendments, Change Orders, Work Change Directives, Field Orders and Engineer's written interpretations and clarifications issued pursuant to paragraphs 3.5, 3.6.1, and 3.6.3 on or after the Effective Date of the Agreement. Shop Drawing submittals approved pursuant to paragraphs 6.19 and 6.20 and the reports and drawings referred to in paragraphs 4.2.1.1 and 4.2.2.2 are not Contract Documents.
- 1.23. Contract Price – The money payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of paragraph 11.9.1 in the case of Unit Price Work).
- 1.24. Contract Times – The numbers of days or the dates stated in the Agreement: (i) to achieve Substantial Completion, and (ii) to complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment in accordance with paragraph 14.13.
- 1.25. Contract Item (Pay Item) – A specific unit of work for which a price is provided in the Contract.

- 1.26. Contractor – The person, firm or corporation with whom Owner has entered into the Agreement.
- 1.27. Defective – An adjective which when modifying the word Work refers to Work that is unsatisfactory, faulty or deficient, in that it does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract Documents, or has been damaged prior to Engineer's recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with paragraph 14.8 or 14.10).
- 1.28. Drainage System – The system of pipes, ditches, and structures by which surface or subsurface waters are collected and conducted from the airport area.
- 1.29. Drawings – The drawings which show the scope, extent, and character of the Work to be furnished and performed by Contractor and which have been prepared or approved by Engineer and are referred to in the Contract Documents. Shop drawings are not Drawings as so defined.
- 1.30. Effective Date of the Agreement – The date indicated in the Agreement on which it becomes effective, but if no such date is indicated it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
- 1.31. Engineer – The person, firm, or corporation named as such in the Agreement.
- 1.32. Engineer's Consultant – A person, firm, or corporation having a contract with Engineer to furnish services as Engineer's independent professional associate or consultant with respect to the Project and who is identified as such in the Supplementary Conditions. The following list of independent professional associates and consultants are considered the Engineer's consultant for this Construction Contract: AVCON, Inc.
- 1.33. Equipment – All machinery, together with the necessary supplies for upkeep and maintenance, and also all tools and apparatus necessary for the proper construction and acceptable completion of the work.
- 1.34. Extra Work – An item of work not provided for in the awarded contract as previously modified by change order or supplemental agreement, but which if found by the Engineer to be necessary to complete the work within the intended scope of the contract as previously modified.
- 1.35. FAA – The Federal Aviation Administration of the U.S. Department of Transportation. When used to designate a person, FAA shall mean the Administrator or his duly authorized representative.
- 1.36. Federal Specifications – The Federal Specifications and Standards, and supplements, amendments, and indices thereto are prepared and issued by the General Services Administration of the Federal Government. They may be obtained from the Specifications Activity, Printed Materials Supply Division, Building 197, Naval Weapons Plant, Washington, D.C. 20407.

- 1.37. Field Order – A written order issued by Engineer which orders minor changes in the Work in accordance with paragraph 9.5 but which does not involve a change in the Contract Price or the Contract Times.
- 1.38. General Requirements – Sections of Division 1 of the Specifications.
- 1.39. Hazardous Waste – The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
- 1.40. Inspector – An authorized representative of the Engineer assigned to make all necessary inspections and/or tests of the work performed or being performed, or of the materials furnished or being furnished by the Contractor.
- 1.41. Intention of Terms – Whenever, in these specifications or on the plans, the words, "directed," "required," "permitted," "ordered," "designated," "prescribed," or words of the like import are used, it shall be understood that the direction, requirement, permission, order, designation, or prescription of the Engineer is intended; and similarly, the words "approved," "acceptable," "Satisfactory," or words of like import, shall mean approved by, or acceptable to, or satisfactory to the Engineer, subject in each case to the final determination of the Owner.
- 1.42. Laboratory – The official testing laboratories of the Owner or such other laboratories as may be designated by the Engineer.
- 1.43. Laws and Regulations; Laws or Regulations – Any and all applicable laws, rules, regulations, ordinances, codes and orders of any and all governmental bodies, agencies, authorities and courts having jurisdiction.
- 1.44. Liens – Liens, charges, security interests, or encumbrances upon real property or personal property.
- 1.45. Lighting – A system of fixtures providing or controlling the light sources used on or near the airport or within the airport buildings. The field lighting includes all luminous signals, markers, floodlights, and illuminating devices used on or near the airport or to aid in the operation of aircraft landing at, taking off from, or taxiing on the airport surface.
- 1.46. Major and Minor Contract Items – A major contract item shall be any item that is listed in the proposal, the total cost of which is equal to or greater than 25 percent of the total amount of the award contract. All other items shall be considered minor contract items.
- 1.47. Materials – Any substance specified for use in the construction of the Contract work.
- 1.48. Mil Specifications – The Military Specifications and Standard, and indices thereto, that are prepared and issued by the Department of Defense.
- 1.49. Milestone – A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.



- 1.50. Notice of Award – The written notice by Owner to the apparent successful contractor stating that upon compliance by the apparent successful contractor with the conditions precedent enumerated therein, within the time specified, Owner will sign and deliver the Agreement.
- 1.51. Notice to Proceed – A written notice given by Owner to Contractor (with a copy to Engineer) fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform Contractor's obligations under the Contract Documents.
- 1.52. FDOT – The Florida State Department of Transportation. When used to designate a person, FDOT shall mean the commissioner or his duly authorized representative.
- 1.53. Owner – The public body or authority, corporation, association, firm, or person with whom Contractor has entered into the Agreement and for whom the Work is to be provided.
- 1.54. Partial Utilization – Use by Owner of a substantially completed part of the Work for the purpose for which it is intended (or a related purpose) prior to Substantial Completion of all the Work.
- 1.55. Pavement – The combined surface course, base course, and subbase course, if any, considered as a single unit.
- 1.56. Payment Bond – The approved form of security furnished by the Contractor and his/her surety as a guaranty that he will pay in full all bills and accounts for materials and labor used in the construction of the work.
- 1.57. PCBs – Polychlorinated biphenyls.
- 1.58. Performance Bond – The approved form of security furnished by the Contractor and his/her surety as a guaranty that the Contractor will complete the work in accordance with the terms of the contract.
- 1.59. Petroleum – Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Wastes and crude oils.
- 1.60. Plans – The official drawings or exact reproductions which show the location, character, dimensions, and details of the airport and the work to be done and which are to be considered as a part of the contract, supplementary to the specifications.
- 1.61. Project – The total construction of which the Work to be provided under the Contract Documents may be the whole, or a part as indicated elsewhere in the Contract Documents.
- 1.62. Proposal – (See Bid).
- 1.63. Radioactive Material – Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

- 1.64. Resident Project Representative - The authorized representative of Engineer who may be assigned to the site or any part thereof.
- 1.65. Runway – The area on the airport prepared for the landing and takeoff of aircraft.
- 1.66. Samples – Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
- 1.67. Shop Drawings – All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
- 1.68. Special Provisions – The specific clauses setting forth conditions or requirements peculiar to the project under consideration, covering work or materials involved in the proposal and estimate, which are not thoroughly or satisfactorily stipulated in these specifications.
- 1.69. Specifications – Those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards, and workmanship as applied to the Work and certain administrative details applicable thereto.
- 1.70. Sponsor – For AIP Contracts, the term Sponsor shall have the meaning as the term Owner.
- 1.71. Structures – Airport facilities such as bridges; culverts; catch basins; inlets; retaining walls; cribbing; storm and sanitary sewer lines; water lines; underdrains; electrical ducts, manholes, handholes, lighting fixtures and bases; transformers; flexible and rigid pavements; navigational aids; buildings; vaults; and, other manmade features of the airport that may be encountered in the work and not otherwise classified herein.
- 1.72. Subcontractor – An individual, firm, or corporation having a direct contract with Contractor or with any other Subcontractor for performance of a part of the Work at the site.
- 1.73. Subgrade – The soil which forms the pavement foundation.
- 1.74. Superintendent – The Contractor's executive representative who is present on the work during progress, authorized to receive and fulfill instruction from the Engineer, and who shall supervise and direct the construction.
- 1.75. Substantial Completion – The Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer as evidenced by Engineer's definitive certificate of Substantial Completion, it is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it is intended; or if no such certificate is issued, when the Work is complete and ready for final payment as evidenced by Engineer's written recommendation of final payment in accordance with paragraph 14.13. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

- 1.76. Supplemental Agreement – A written agreement between the Contractor and the Owner covering: (1) work that would increase or decrease the total amount of the awarded contract, or any major contract item, by more than 25 percent, such increased or decreased work being within the scope of the originally awarded contract; or (2) work that is not within the scope of the originally awarded contract.
- 1.77. Supplementary Conditions – The part of the Contract Documents which amends or supplements these General Conditions.
- 1.78. Supplier – A manufacturer, fabricator, supplier, distributor, materialman, or vendor having direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or any Subcontractor.
- 1.79. Surety – The corporation, partnership, or individual, other than the Contractor, executing payment or performance bonds which are furnished to the Owner by the Contractor.
- 1.80. Taxiway – For the purpose of this document, the term taxiway means the portion of the air operations area of an airport that has been designated by competent airport authority for movement of aircraft to and from the airport's runways or aircraft parking areas.
- 1.81. Underground Facilities – All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone, or other communications, cable television, sewage and drainage removal, traffic or other control systems or water.
- 1.82. Unit Price Work – Work to be paid for on the basis of unit prices.
- 1.83. Work – The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work includes and is the result of performing or furnishing labor and furnishings and incorporating materials and equipment into the construction, and performing or furnishing services and furnishing documents, all as required by the Contract Documents.
- 1.84. Work Change Directive - A written directive to Contractor, issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen physical conditions under which the Work is to be performed as provided in paragraph 4.2 or 4.3 or to emergencies under paragraph 6.18. A Work Change Directive will not change the Contract Price or the Contract Times, but is evidence that the parties expect that the change directed or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times as provided in Article 10.
- 1.85. Working Day – A working day shall be any day other than a legal holiday, Saturday, or Sunday on which the normal working forces of the Contractor may proceed with regular work for at least 6 hours toward completion of the Contract. Unless work is suspended for causes beyond the Contractor's control, Saturdays, Sundays and holidays on which the Contractor's forces engage

in regular work, requiring the presence of an inspector, will be considered as working days.

- 1.86. **Work Period** – A work period shall consist of any designated block of time on which the normal working forces of the Contractor may proceed with regular work for at least 5 hours toward completion of the contract. Unless work is suspended for causes beyond the Contractor's control, work occurring on any day, regardless of it being a weekend or holiday, which requires an Inspector, will be considered a work period. Work periods are limited to between 7:00 a.m. and 5:00 p.m. local time Monday through Friday. Weekend work will not be permitted unless contractor obtains written permission from Owner.
- 1.87. **Written Amendment** – A written amendment of the Contract Documents, signed by Owner and Contractor on or after the Effective Date of the Agreement and normally dealing with the non-engineering or nontechnical rather than strictly construction-related aspects of the Contract Documents.

## **ARTICLE 2 – PRELIMINARY MATTERS**

### **Delivery of Bonds:**

- 2.1. When Contractor delivers the executed Agreements to Owner, Contractor shall also deliver to Owner such Bonds as Contractor may be required to furnish in accordance with paragraph 5.1.

### **Copies of Documents:**

- 2.2. Owner shall furnish to Contractor up to five copies (unless otherwise specified in the Supplementary Conditions) of the Contract Documents as are reasonably necessary for the execution of the Work. Additional copies will be furnished, upon request, at the cost of reproduction.

### **Commencement of Contract Times; Notice to Proceed:**

- 2.3. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement, or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within thirty days after the Effective Date of the Agreement. In no event will the Contract Time commence to run later than the *one hundred twentieth (120<sup>th</sup>)* day after the day of Bid opening or the *ninetieth (90<sup>th</sup>)* day after the Effective Date of the Agreement, whichever date is earlier.

### **Starting the Work:**

- 2.4. Contractor shall start to perform the Work on the date when the Contract Times commence to run, but no Work shall be done at the site prior to the date on which the Contract Times commence to run.

### **Before Starting Construction:**

- 2.5. Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity or discrepancy which Contractor may discover and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby; however, Contractor shall not be liable to Owner or Engineer for failure to report any conflict,

error, ambiguity or discrepancy in the Contract Documents, unless Contractor knew or reasonably should have known thereof.

2.6. Within ten days after the Construction Notice to Proceed contractor shall submit to Engineer for review:

2.6.1. a preliminary progress schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;

2.6.2. a preliminary schedule of Shop Drawings and Sample submittals which will list each required submittal and the times for submitting, reviewing and processing such submittal;

2.6.3. a preliminary schedule of values for all of the Work which will include quantities and prices of items aggregating the Contract Price and will subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. Such prices will include and appropriate amount of overhead and profit applicable to each item of Work.

2.7. Before any Work at the site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with paragraphs 5.4 and 5.6.

**Preconstruction Conference:**

2.8. Within twenty (20) days prior to Construction Notice to Proceed, but before any Work at the site is started, a conference attended by Contractor, Engineer and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in paragraph 2.6, procedures for handling Shop Drawings, and other submittals, processing Applications for Payment and maintaining required records.

**Initially Acceptable Schedules:**

2.9. Unless otherwise provided in the Contract Documents, at least ten days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with paragraph 2.6. Contractor shall have an additional ten days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until the schedules are submitted to and acceptable to Engineer as provided below. The progress schedule will be acceptable to Engineer as providing an orderly progression of the Work to completion within any specified Milestones and the Contract Times, but such acceptance will neither impose on Engineer responsibility for the sequencing, scheduling, or progress of Work nor interfere with or relieve Contractor from Contractor's full responsibility therefore, Contractor's schedule of Shop Drawing and Sample submissions will be acceptable to Engineer as providing a workable arrangement for reviewing and processing the required submittals. Contractor's schedule of values will be acceptable to Engineer as to form and substance.

**ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE**

**Intent:**

3.1. The Contract Documents comprise the entire agreement between Owner and Contractor concerning the Work. The Contract Documents are complementary: what is called for by one is as binding as if called for by all. The Contract Documents will be construed in accordance with the law of the place of the Project.

3.2. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any Work, materials, or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be furnished and performed whether or not specifically called for. When words or phrases, which have a well-known technical or construction industry or trade meaning are used to describe Work, materials, or equipment, such words or phrases shall be interpreted in accordance with the meaning. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in paragraph 9.4.

**3.3. Reference to Standards and Specifications of Technical Societies: Reporting and Resolving Discrepancies:**

3.3.1. Reference to standards, specifications, manuals or codes of any technical society, organization, or association, or to the Laws or Regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard, specification, manual, code or Laws or Regulations in effect at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

3.3.2. If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents or between the Contract Documents and any provision of any such Law or Regulation applicable to the performance of the Work or of any such standard, specification, manual, or code or of any instruction of any Supplier referred to in paragraph 6.5., Contractor shall report it to Engineer in writing at once, and, Contractor shall not proceed with the Work affected thereby (except in an emergency as authorized by paragraph 6.18) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in paragraph 3.5 or 3.6; provide, however, that Contractor shall not be liable to Owner or Engineer for failure to report any such conflict, error, ambiguity or discrepancy unless Contractor knew or reasonably should have known thereof.

3.3.3. Except as otherwise specifically stated in the Contract Documents or as may be provided by amendment or supplement thereto issued by one of the methods indicated in paragraph 3.5 or 3.6, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:

3.3.3.1. the provisions of any such standard, specification, manual, code, or instruction (whether or not specifically incorporated by reference in the Contract Documents): or

3.3.3.2. the provisions of any such Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

No provision of any such standard, specification, manual, code, or instruction shall be effective to change the duties and responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees from those set forth in the Contract Documents, nor shall it be effective to assign to Owner, Engineer, or any of Engineer's Consultants, agents, or employees any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of paragraph 9.13 or any other provision of the Contract Documents.

3.3.4. Whenever the plans or specifications are in conflict, resolution of such conflict shall be in the following order of precedence subject to agreement by Engineer:

- Contract Agreement
- Addenda, with those of later date having precedence over those of earlier dates
- Bid Documents
- Supplementary Conditions
- General Conditions
- Construction Drawings
- Technical Specifications
- FAA General Provisions
- Florida DOT Standard Specifications

In case of our inconsistency within the Contract Drawings, the order of procedure is as follows:

- Schedules
- Specific Details
- Typical Details
- Construction Drawings

3.4. Whenever in the Contract Documents the terms "as ordered," "as directed," "as required," "as allowed," "as approved" or terms of like effect or import are used, or the adjectives "reasonable," "suitable," "acceptable," "proper," or "satisfactory" or adjectives of like effect or import are used to describe a requirement, direction, review or judgment of Engineer as to the Work, it is intended that such requirement, direction, review, or judgment will be solely to evaluate, in general, the completed Work for compliance with the requirements of and information in the Contract Documents and conformance with the design concept of the completed Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective shall not be effective to assign to Engineer any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 9.13 or any other provision of the Contract Documents.

**Amending and Supplementing Contract Documents:**

3.5. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways:

- 3.5.1. a formal Written Amendment.
- 3.5.2. a Change Order (pursuant to paragraph 10.4) or
- 3.5.3. a Work Change Directive (pursuant to paragraph 10.1).

3.6. In addition, the requirements of the Contract Documents may be supplemented and minor variations, and deviations of the Work may be authorized, in one or more of the following ways:

- 3.6.1. a Field Order (pursuant to paragraph 9.5).
- 3.6.2. Engineer's approval of a Shop Drawing or Sample (pursuant to paragraphs 6.19 and 6.20), or
- 3.6.3. Engineer's written interpretation or clarification (pursuant to paragraph 9.4).

**Reuse of Documents:**

3.7. Contractor and any Subcontractor or Supplier or other person or organization performing or furnishing any of the Work under a direct or indirect contract with Owner (i) shall not have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or Engineer's Consultant, and (ii) shall not reuse any of such Drawings, Specifications, other documents, or copies on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer.

**ARTICLE 4 – AVAILABILITY OF LANDS: SUBSURFACE AND PHYSICAL CONDITIONS; REFERENCE POINTS**

**4.1 Availability of Lands:**

Owner shall furnish, as indicated in the Contract Documents, the lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and such other lands which are designated for the use of Contractor. Upon reasonable written request, Owner shall furnish Contractor with a correct statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's lien against such lands in accordance with applicable Laws and Regulations. Owner shall identify any encumbrances or restrictions not of general application but specifically related to use of lands so furnished with which Contractor will have to comply in performing the Work. Easements for permanent structures or permanent in existing facilities will be obtained and paid for by Owner, unless otherwise provided in the Contract Documents. If Contractor and Owner are unable to agree on entitlement to or the amount or extent of any adjustments in the Contract Price or the Contract Times as a result of any delay in Owner's furnishing these lands, rights-of-way or easements. Contractor may make a claim therefore as provided in Articles 11 and 12. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.



**4.2. Subsurface and Physical Conditions:**

**4.2.1. Reports and Drawings:** Reference is made to the *Information Available to Contractors* for identification of:

4.2.1.1. **Subsurface Conditions:** Those reports of explorations and tests of subsurface conditions at or contiguous to the site that have been utilized by Engineer in preparing the Contract Documents; and

4.2.1.2. **Physical Conditions:** Those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site (except Underground Facilities) that have been utilized by Engineer in preparing the Contract Documents.

**4.2.2. Limited Reliance by Contractor Authorized; Technical Data:** Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the *Information Available to Contractors*. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner, Engineer, or any of Engineer's Consultants with respect to:

4.2.2.1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto, or

4.2.2.2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings, or

4.2.2.3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such data, interpretations, opinions, or information.

**4.2.3. Notice of Differing Subsurface or Physical Conditions:** If Contractor believes that any subsurface or physical condition at or contiguous to the site that is uncovered or revealed either:

4.2.3.1. is of such a nature as to establish that any "technical data" on which Contractor is entitled to rely as provided in paragraphs 4.2.1 and 4.2.2 is materially inaccurate, or

4.2.3.2. is of such a nature as to require a change in the Contract Documents, or

4.2.3.3. differs materially from that shown or indicated in the Contract Documents, or

4.2.3.4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents; then Contractor shall, promptly, but in no event later than fifteen (15) days, after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as permitted by paragraph 6.18), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such conditions or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

4.2.4. **Engineer's Review:** Engineer will promptly review the pertinent conditions, determine the necessity of Owner's obtaining additional exploration or tests with respect thereto and advise Owner in writing (with a copy to Contractor) of Engineer's findings and conclusions.

4.2.5. **Possible Contract Documents Change:** If Engineer concludes that a change in the Contract Documents is required as a result of a condition that meets one or more of the categories in paragraph 4.2.3., a Work Change Directive or a Change Order will be issued as provided in Article 10 to reflect and document the consequences of such change.

4.2.6. **Possible Price and Times Adjustments:** An equitable adjustment in the Contract Price or in the Contract Times, or both, will be allowed to the extent that the existence of such uncovered or revealed condition causes an increase or decrease in Contractor's cost of, or time required for performance of the Work; subject, however, to the following:

4.2.6.1. such condition must meet any one or more of the categories described in paragraphs 4.2.3.1 through 4.2.3.4. inclusive;

4.2.6.2. a change in the Contract Documents pursuant to paragraph 4.2.5 will not be an automatic authorization of nor a condition precedent to entitlement to any such adjustment:

4.2.6.3. with respect to Work that is paid for on a Unit Price Basis, any adjustment in Contract price will be subject to the provisions of Article 10 and Paragraph 11.9; and

4.2.6.4. Contractor shall not be entitled to any adjustment in the Contract Price or Times if;

4.2.6.4.1. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner in respect of Contract Price and Contract Times by the submission of a bid or becoming bound under a contract: or

4.2.6.4.2. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the site and contiguous areas required by the Project Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or

4.2.6.4.3. Contractor failed to give the written notice within the time and as required by paragraph 4.2.3.

If Owner and Contractor are unable to agree on entitlement to or as to the amount or length of any such equitable adjustment in the Contract Price or Contract Times, a claim may be made therefore as provided in Articles 11 and 12. However, Owner, Engineer, and Engineer's Consultants shall not be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

#### 4.3. Physical Conditions – Underground Facilities:

4.3.1. **Shown or Indicated:** The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the site is based on information and

data furnished to Owner or Engineer by the owners of such Underground Facilities or by others. Unless it is otherwise expressly provided in the *Information Available to Contractors*:

4.3.1.1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data; and

4.3.1.2. The cost of all of the following will be included in the Contract Price and Contractor shall have full responsibility for: (i) reviewing and checking all such information and data, (ii) locating all Underground Facilities shown or indicated in the Contract Documents, (iii) coordination of the Work with the owners of such Underground Facilities during construction, and (iv) the safety and protection of all such Underground Facilities as provided in paragraph 6.20 and repairing any damage thereto resulting from the Work.

4.3.2. **Not Shown or Indicated:** If an Underground Facility is uncovered or revealed at or contiguous to the site which was not shown or indicated in the Contract Documents. Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by paragraph 6.18), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence of the Underground Facility. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued as provided in Article 10 to reflect and document such consequences. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility as provided in paragraph 6.15. Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, to the extent that they are attributable to the existence of any Underground Facility that was not shown or indicated in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or the amount or length of any such adjustment in Contract Price or Contract Times, Contractor may make a claim, therefore, as provided in Articles 11 and 12. However, Owner, Engineer, and Engineer's Consultants shall not be liable to Contractor for any claims, costs, losses or damages incurred or sustained by Contractor on or in connection with any other project or anticipated project.

**Reference Points:**

4.4. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and shall make no changes or relocations without the prior written approval of Owner, Contractor shall report to Engineer whenever any reference point is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points by professionally qualified personnel.

**4.5. Asbestos, PCBs, Petroleum, Hazardous Waste or Radioactive Material:**

4.5.1. Owner shall be responsible for any Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material uncovered or revealed at the site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work and which

may present a substantial danger to persons or property exposed thereto in connection with the Work at the site. Owner shall not be responsible for any such materials brought to the site by Contractor, Subcontractor, Suppliers, or anyone else for whom Contractor is responsible.

4.5.2. Contractor shall immediately: (i) stop all Work in connection with such hazardous condition and in any area affected thereby (except in an emergency as required by paragraph 6.18), and (ii) notify Owner and Engineer (and thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such hazardous condition to take corrective action, if any. Contractor shall not be required to resume Work in connection with such hazardous condition or in any such affected area until after Owner has obtained any required permits related thereto and delivered to Contractor special written notice: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or the amount or extent of an adjustment, if any, in Contract Price or Contract Times as a result of such Work stoppage or such special conditions under which Work is agreed by Contractor to be resumed, either party may make a claim therefore as provided in Articles 11 and 12.

4.5.3. If after receipt of such special written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order such portion of the Work that is in connection with such hazardous condition or in such affected area to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or the amount or extent of an adjustment, if any, in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a claim therefore as provided in Articles 11 and 12. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.

4.5.4. The provisions of paragraphs 4.2 and 4.3 are not intended to apply to Asbestos, PCBs, Petroleum, Hazardous Waste or Radioactive Material uncovered or revealed at the site.

#### **ARTICLE 5 – BONDS AND INSURANCE**

##### **Performance, Payment, and Other Bonds:**

5.1. Contractor shall furnish Performance and Payment Bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all Contractor's obligations under the Contract Documents. These Bonds shall remain in effect at least until one year after the date when final payment becomes due, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other Bonds as are required by the Supplementary Conditions. All Bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff, Bureau of Government Financial Operations, U.S. Treasury Department. All Bonds signed by an agent must be accompanied by a certified copy of such agent's authority to act.

5.2. If the surety on any Bond furnished by Contractor is declared a bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases

to meet the requirements of paragraph 5.1. Contractor shall within ten days thereafter substitute another bond and surety, both of which must be acceptable to Owner.

**5.3. Licensed Sureties and Insurers; Certificates of Insurance:**

5.3.1. All Bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue Bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.3.2. Contractor shall deliver to Owner, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain in accordance with paragraph 5.4.

**Contractor's Liability Insurance:**

5.4. Contractor shall purchase and maintain such liability and other insurance as is appropriate for the Work being performed and furnished and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance and furnishing of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed or furnished by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform or furnish any of the Work, or by anyone for whose acts any of them may be liable:

5.4.1. claims under workers' compensation, disability benefits and other similar employee benefit acts;

5.4.2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;

5.4.3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;

5.4.4. claims for damages insured by customary personal injury liability coverage which are sustained: (i) by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or by any other person for any other reason;

5.4.5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and

5.4.6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

The policies of insurance so required by this paragraph 5.4 to be purchased and maintained shall:

5.4.7. with respect to insurance required by paragraphs 5.4.3 through 5.4.6 inclusive, include as additional insureds (subject to any customary exclusion in respect of professional liability) Owner, Engineer, Engineer's Consultants and any other persons or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers and employees of all such additional insureds;

5.4.8. include the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;

5.4.8.1 Contractor's Liability Insurance and the Owner's Protective Liability Insurance specified above shall be provided in not less than the following amount:

a. Injury or death to more than one person or single occurrence	\$1,000,000
b. On and Off Premises Operations Liability	\$1,000,000
c. Explosion and Collapse Hazard	\$1,000,000
d. Underground Hazard	\$1,000,000
e. Completed Operations and Products Liability	\$1,000,000
f. Property damage in account of all occurrences	\$1,000,000
g. Independent Contractors Liability	\$1,000,000
h. Personal Injury Liability Insurance	\$1,000,000

Contractor's Vehicle Insurance as follows:

1. Injury or death to one person	\$1,000,000
2. Injury or death to more than one person or a single occurrence	\$1,000,000
3. Property Damage	\$1,000,000
4. Business Auto Liability, Including all owned, non owned and hired vehicles	\$1,000,000

An Umbrella Policy may be used to meet the above limits.

All policies shall be drawn to cover a period of not less than one (1) year from the date of issue.

5.4.9. include contractual liability insurance covering Contractor's indemnity obligations under paragraphs 6.9, 6.13.1, and 6.22.1 through 6.22.2.8;

5.4.10. contain a provision or endorsement that the coverage afforded will not be cancelled, materially changed or renewal refused until at least thirty days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to paragraph 5.3.2 will so provide);

5.4.11. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing or replacing defective Work in accordance with paragraph 13.12; and

5.4.12. with respect to completed operations insurance, and any insurance coverage written on an occurrence basis, remain in effect for at least two years after final payment (and Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions to whom

a certificate of insurance has been issued evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter).

**Owner's Liability Insurance:**

5.5. In addition to the insurance required to be provided by Contractor under paragraph 5.4, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents. Any liability insurance carried by Owner is excess and non-contributory to any and all other coverage whether collectable or not.

**Property Insurance:**

5.6 Contractor shall purchase and maintain property insurance upon the Work at the site in amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in these Supplementary Conditions or required by Laws and Regulations). This insurance shall:

- 5.6.1 include the interests of Owner, Contractor, Subcontractors, Engineer, Engineer's Consultants and any other persons or entities identified in the Supplementary Conditions each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;
- 5.6.2 include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
- 5.6.3 cover materials and equipment in transit for incorporation in the Work or stored at the site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer; and
- 5.6.4 be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with thirty days written notice to each other additional insured to whom a certificate of insurance has been issued.

**5.7. NOT USED**

**5.8. NOT USED**

5.9. Owner shall not be responsible for purchasing and maintaining any property insurance to protect the interests of Contractor, Subcontractors or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount, will be borne by Contractor, Subcontractor, or others suffering any such loss and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

**5.10. NOT USED**

**5.11. NOT USED**

**Receipt and Application of Insurance Proceeds:**

5.12. Any insureds loss under the policies of insurance required by paragraphs 5.5 and 5.6 will be adjusted with Owner and made payable to Owner as fiduciary for the insureds, as their interests may appear, subject to the requirements of any applicable mortgage clause and of paragraph 5.13. Owner shall deposit in a separate account any money so received, and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof and the Work and the cost thereof covered by an appropriate Change Order or Written Amendment.

5.13. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within fifteen days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

**Acceptance of Bonds and Insurance; Option to Replace:**

5.14. If either party (Owner or Contractor) has any objection to the coverage afforded by or other provisions of the Bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within ten days after receipt of the certificates (or other evidence requested) required by paragraph 2.7. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the Bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent Bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

**Partial Utilization – Property Insurance:**

5.15. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, such use or occupancy may be accomplished in accordance with paragraph 14.10; provided that no such use or occupancy shall commence before the insurers providing the property insurance have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be cancelled or permitted to lapse on account of any such partial use or occupancy.

**ARTICLE 6 – CONTRACTOR'S RESPONSIBILITIES**

**Supervision and Superintendence:**



6.1. Contractor shall supervise, inspect and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences and procedures of construction, but Contractor shall not be responsible for the negligence of others in the design or specification of a specific means, method, technique, sequence or procedure of construction which is shown or indicated in and expressly required by the Contract Documents. Contractor shall be responsible to see that the completed Work complies accurately with the Contract Documents.

6.2. Contractor shall keep on the Work at all times during its progress a competent resident superintendent, who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances. The superintendent will be Contractor's representative at the site and shall have authority to act on behalf of Contractor. All communications to the superintendent shall be as binding as if given to CONTRACTOR.

**Labor, Materials and Equipment:**

6.3. Contractor shall provide competent, suitably qualified personnel to survey, lay out and construct the Work as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the site. Except as otherwise required for the safety or protection of persons or the Work or property at the site or adjacent thereto, and except as otherwise indicated in the Contract Documents, all Work at the site shall be performed during regular working hours and Contractor will not permit overtime work or the performance of Work on Saturday, Sunday or any legal holiday without Owner's written consent given after prior written notice to Engineer.

6.4. Unless otherwise specified in the General Requirements, Contractor shall furnish and assume full responsibility for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up and completion of the Work.

6.5. All materials and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. All warranties and guarantees specifically called for by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with instructions of the applicable Supplier, except as otherwise provided in the Contract Documents.

**Progress Schedule:**

6.6. Contractor shall adhere to the progress schedule established in accordance with paragraph 2.9 as it may be adjusted from time to time as provided below:

6.6.1. Contractor shall submit to Engineer for acceptance (to the extent indicated in paragraph 2.9) proposed adjustments in the progress schedule that will not change the Contract Times (or

Milestones). Such adjustments will conform generally to the progress schedule then in effect and additionally will comply with any provisions of the General Requirements applicable thereto.

6.6.2. Proposed adjustments in the progress schedule that will change the Contract Times (or Milestones) shall be submitted in accordance with the requirements of paragraph 12.1. Such adjustments may only be made by a Change Order or Written Amendment in accordance with Article 12.

**6.7. Substitutes and "Or-Equal" Items:**

6.7.1. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be accepted by Engineer under the following circumstances:

**6.7.1.1. "Or-Equal":** If in Engineer's sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for acceptance of proposed substitute items.

**6.7.1.2. Substitute Items:** If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under subparagraph 6.7.2, it will be considered a proposed substitute item. Contractor shall submit sufficient information as provided below to allow Engineer to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefore. The procedure for review by the Engineer will include the following as supplemented in the General Requirements and as Engineer may decide is appropriate under the circumstances. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor. If Contractor wishes to furnish or use a substitute item of material or equipment, Contractor shall first make written application to Engineer for acceptance thereof, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar in substance to that specified and be suited to the same use as that specified. The application will state the extent, if any, to which the evaluation and acceptance of the proposed substitute will prejudice Contractor's achievement of Substantial Completion on time, whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for work on the Project) to adapt the design to the proposed substitute and whether or not incorporation or use of the substitute in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified will be identified in the application and available maintenance, repair and replacement service will be indicated. The application will also contain an itemized estimate of all costs or credits that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which will be

considered by Engineer in evaluating the proposed substitute. Engineer may require Contractor to furnish additional data about the proposed substitute.

**6.7.1.3. Contractor's Expense:** All data to be provided by Contractor in support of any proposed "or-equal" or substitute item will be at Contractor's expense.

**6.7.2. Substitute Construction Methods or Procedures:** If a specific means, method, technique, sequence or procedure of construction is shown or indicated in an expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence or procedure of construction acceptable to Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The procedure for review by Engineer will be similar to that provided in subparagraph 6.7.3.

**6.7.3. Engineer's Evaluation:** Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to paragraphs 6.7.1.1 and 6.7.1.2. Engineer will be the sole judge of acceptability. No "or-equal" or substitute will be ordered, installed or utilized without Engineer's prior written acceptance which will be evidenced by either a Change Order or an approved Shop Drawing. Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any "or-equal" or substitute. Engineer will record time required by Engineer and Engineer's Consultants in evaluating substitutes proposed or submitted by Contractor pursuant to paragraphs 6.7.1.1 and 6.7.1.2 and in making changes in the Contract Documents (or in the provisions of any other direct contract with Owner for work on the Project) occasioned thereby. Whether or not Engineer accepts a substitute item so proposed or submitted by Contractor, Contractor shall reimburse Owner for the changes of Engineer and Engineer's Consultants for evaluating each such proposed substitute item.

**6.8. Concerning Subcontractors, Suppliers and Others:**

The Contractor shall submit a list of Subcontractors and major Material Suppliers for the Owner's approval within (24) hours after Bid Opening. Such list shall be accompanied by an experience statement with pertinent information as to similar projects and other evidence of qualifications from each such Subcontractor, person and organization requested by Owner. If Owner, after due investigation has reasonable objections to any proposed Subcontractor, other person or organization, the Owner may before giving the Notice of Award request the apparent successful Contractor to submit an acceptable Subcontractor without an increase in Bid Price. If the apparent successful Contractor declines to make any such substitution, the Contract shall not be awarded to such Contractor, but his declining to make any such substitution will not constitute grounds for sacrificing his Bid Security. Any Subcontractor, other person or organization so listed and to whom Owner does not make written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner.

**6.8.1.** Contractor shall not employ any Subcontractor, Supplier or other person or organization (including those acceptable to Owner and Engineer as indicated in paragraph 6.8.2), whether initially or as a substitute, against whom Owner or Engineer may have reasonable objection. Contractor shall not be required to employ any subcontractor, Supplier or other person or organization to furnish or perform any of the Work against whom Contractor has reasonable objection.

6.8.2. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers or other persons or organizations (including those who are to furnish the principal items of materials or equipment) to be submitted to Owner in advance of the specified date prior to the Effective Date of the Agreement for acceptance by Owner and Engineer, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's or Engineer's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the project documents or the Contract Documents) of any such Subcontractor, Supplier or other person or organization so identified may be revoked on the basis of reasonable objection after due investigation, in which case Contractor shall submit an acceptable substitute, the Contract Price will be adjusted by the difference in the cost occasioned by such substitution and an appropriate Change Order will be issued or Written Amendment signed. No acceptance by Owner or Engineer of any such Subcontractor, Supplier or other person or organization shall constitute a waiver of any right of Owner or Engineer to reject defective Work.

6.8.3. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with Contractor just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents shall create for the benefit of any such Subcontractor, Supplier, or other person or organization any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other person or organization, nor shall it create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier or other person or organization except as may otherwise be required by Laws and Regulations.

6.8.4. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with Contractor. Contractor shall require all Subcontractors, Suppliers and such other persons and organizations performing or furnishing any of the Work to communicate with the Engineer through Contractor.

6.8.5. The divisions and sections of the Specifications and the identifications of any drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

6.8.6. All Work performed by Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as an additional insured on the property insurance provided in paragraph 5.5. or 5.6. the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, Engineer, Engineer's Consultants and all other additional insureds for all losses and damages caused by, arising out of or resulting from any of the perils covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

## **6.9 Patent Fees and Royalties:**

Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of Owner or Engineer its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner, Engineer, Engineer's Consultants and the officers, directors, employees, agents and other consultants of each and any of them from and against all claims, costs, losses and damages arising out of or resulting from any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product or device not specified in the Contract Documents.

**6.10. Permits:**

Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work, which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Contractor shall pay all charges of utility owners for connections to the Work, and Owner shall pay all charges of such utility owners for capital costs related thereto such as plant investment fees.

**6.11. Laws and Regulations:**

6.11.1. Contractor shall give all notices and comply with all Laws and Regulations applicable to furnishing and performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.

6.11.2. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses and damages caused by, arising out of or resulting therefrom: however, it shall not be Contractor's primary responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor or Contractor's obligations under paragraph 3.3.2.

**6.12. Taxes:**

Contractor shall pay all sales, consumer, use and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

**6.13. Use of Premises:**

6.13.1 Contractor shall confine construction equipment, the storage of materials and equipment and the operations of workers to the site and land and areas identified in and permitted by the Contract Documents, rights-of-way, permits and easements, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment. Contractor

shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof or of any adjacent land or areas, resulting from the performance of the Work. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by dispute resolution proceeding or at law. Contractor shall, to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner, Engineer, Engineer's Consultant and anyone directly or indirectly employed by any of them from and against all claims costs, losses and damages arising out of or resulting from any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.

6.13.2. During the progress of the Work, Contractor shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work Contractor shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery and surplus materials. Contractor shall leave the site clean and ready for occupancy by Owner at Substantial Completion of the Work. Contractor shall restore to original condition all property not designated for alteration by the Contract Documents.

6.13.3. Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

**6.14. Record Documents:**

Contractor shall maintain in a safe place at the site one record copy of all Drawings, Specifications, Addenda, Written Amendments, Change Orders, Work Change Directives, Field Orders and written interpretations and clarifications (issued pursuant to paragraph 9.4) in good order and annotated to show all changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents, Samples and Shop Drawings will be delivered to Engineer for Owner.

**6.15. Safety and Protection:**

Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

- 6.15.1. all persons on the Work site or who may be affected by the Work;
- 6.15.2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the site; and
- 6.15.3. other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and Underground Facilities not designated for removal, relocation or replacement in the course of construction.

Contractor shall comply with all applicable Laws and Regulations of any public body having jurisdiction for safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property. All damage, injury or loss to any property referred to in paragraph 6.15.2. or 6.15.3. caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier or any other person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or Engineer's Consultant or anyone employed by any of them or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier or other person or organization directly or indirectly employed by any of them). Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with paragraph 14.13. that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

**6.16. Safety Representative:**

Contractor shall designate a qualified and experienced safety representative at the site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

**6.17. Hazard Communication Programs:**

Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the site in accordance with Laws or Regulations.

**6.18. Emergencies:**

In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, Contractor, without special instruction or authorization from Owner or Engineer, is obligated to act to prevent threatened damage, injury or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued to document the consequences of such action.

**6.19. Shop Drawings and Samples:**

6.19.1. Contractor shall submit Shop Drawings to Engineer for review and approval in accordance with the accepted schedule of Shop Drawings and Sample submittals (see paragraph 2.9.). All submittals will be identified as Engineer may require and in the number of copies specified in the General Requirements. The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials and similar data to

shown Engineer the materials and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by paragraph 6.26.

6.19.2. Contractor shall also submit Samples to Engineer for review and approval in accordance with said accepted schedule of Shop Drawings and Sample submittals. Each Sample will be identified clearly as to material, Supplier, pertinent data such as catalog numbers and the use for which intended and otherwise as Engineer may require to enable Engineer to review the submittal for the limited purposes required by paragraph 6.20. The numbers of each Sample to be submitted will be as specified in the Specifications.

**6.20. Submittal Procedures:**

6.20.1. Before submitting each Shop Drawing or Sample, Contractor shall have determined and verified:

6.20.1.1 all field measurements, quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers and similar information with respect thereto,

6.20.1.2. all materials with respect to intended use, fabrication, shipping, handling storage, assembly and installation pertaining to the performance of the Work, and

6.20.1.3. all information relative to Contractor's sole responsibilities in respect of means, methods, techniques, sequences and procedures of construction and safety precautions and programs incident thereto.

Contractor shall also have reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents.

6.20.2 Each submittal will bear a stamp or specific written indication that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.

6.20.3. At the time of each submission, Contractor shall give Engineer specific written notice of such variations, if any, that the Shop Drawing or Sample submitted may have from the requirements of the Contract Documents, such notice to be in a written communication separate from the submittal; and, in addition, shall cause a specific notation to be made on each Shop Drawing and Sample submitted to Engineer for review and approval of each such variation.

6.20.4. Engineer will review and approve Shop Drawings and Samples in accordance with the schedule of Shop Drawings and Sample submittals accepted by Engineer as required by paragraph 2.9. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer's review and approval will not extend to means, methods, techniques, sequences or procedures of construction (except where a particular means, method, technique, sequence or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions. Contractor shall make corrections required by Engineer, and shall return the required number of corrected copies



of Shop Drawings and submit as required new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

6.20.5. Engineer's review and approval of Shop Drawings or Samples shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has in writing called Engineer's attention to each such variation at the time of submission as required by paragraph 6.20.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying Shop Drawing or Sample approval; nor will any approval by Engineer relieve Contractor from responsibility for complying with the requirements of paragraph 6.20.

6.20.6. Where a Shop Drawing or Sample is required by the Contract Documents or the schedule of Shop Drawings and Sample submissions accepted by Engineer as required by paragraph 2.9, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

**6.21. Continuing the Work:**

Contractor shall carry on the Work and adhere to the progress schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by paragraph 15.5 or as Owner and Contractor may otherwise agree in writing.

**6.22. Contractor's General Warranty and Guarantee:**

6.22.1. Contractor warrants and guarantees to Owner, Engineer and Engineer's Consultants that all Work will be in accordance with the Contract Documents and will not be defective. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

6.22.1.1. abuse, modification or improper maintenance or operation by persons other than Contractor, Subcontractors or Suppliers; or

6.22.1.2. normal wear and tear under normal usage.

6.22.2. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:

6.22.2.1. observations by Engineer;

6.22.2.2. recommendation of any progress or final payment by Engineer;

6.22.2.3. the issuance of a certificate of Substantial Completion or any payment by Owner to Contractor under the Contract Documents;

6.22.2.4. use or occupancy of the Work or any part thereof by Owner;

6.22.2.5. any acceptance by Owner or any failure to do so;

6.22.2.6. any review and approval of Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer pursuant to paragraph 14.13;

6.22.2.7. any inspection, test or approval by others; or

6.22.2.8. any correction of defective Work by Owner.

**6.23 Indemnification:**

6.23.1. To the fullest extent permitted by Laws and Regulations. Contractor shall indemnify and hold harmless Owner, Engineer, Engineer's Consultants and the officers, directors, employees, agents and other consultants of each and any of them from and against all claims, costs, losses and damages (including but not limited to all fees and charges of engineers, architects, attorneys and other professionals and all court or dispute resolution costs) caused by, arising out of or resulting from the performance of the Work, provided that any such claim, cost, loss or damage: (i) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, and (ii) is caused in whole or in part by any negligent act or omission of Contractor, any Subcontractor, any Supplier, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, regardless of whether or not caused in part by any negligence or omission of a person or entity indemnified hereunder or whether liability is imposed upon such indemnified party by Laws and Regulations regardless of the negligence of any such person or entity.

6.23.2. In any and all claims against Owner or Engineer or any of their respective consultants, agents, officers, directors or employees by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under paragraph 6.23.1 shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for Contractor or any such Subcontractor, Supplier or other person or organization under workers' compensation acts, disability benefit acts or other employee benefit acts.

6.23.3. The indemnification obligations of Contractor under paragraph 6.23.1 shall not extend to the liability of Engineer and Engineer's Consultants, officers, directors, employees or agents caused by the professional negligence, errors or omissions of any of them.

**6.24. Survival of Obligations:**

All representations, indemnifications, warranties and guarantees made in, required by or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion and acceptance of the Work and termination or completion of the Agreement.

## **ARTICLE 7 – OTHER WORK**

### **Related Work at Site:**

7.1. Owner may perform other work related to the Project at the site by Owner's own forces, or let other direct contracts therefore which shall contain General Conditions similar to these, or have other work performed by utility owners. If the fact that such other work is to be performed was not noted in the Contract Documents, then; (i) written notice thereof will be given to Contractor prior to starting any such other work, and (ii) Contractor may make a claim therefore as provided in Articles 11 and 12 if Contractor believes that such performance will involve additional expense to Contractor or requires additional time and the parties are unable to agree as to the amount or extent thereof.

7.2. Contractor shall afford each other contractor who is a party to such a direct contract and each utility owner (and Owner if Owner is performing the additional work with Owner's employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work and shall properly connect and coordinate the Work with theirs. Unless otherwise provided in the Contract Documents. Contractor shall do all cutting, fitting, and patching of the Work that may be required to make its several parts come together properly and integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.

7.3. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7. Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure so to report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent or non-apparent defects and deficiencies in such other work.

### **Coordination:**

7.4. If Owner contracts with others for the performance of other work on the Project at the site, the following will be set forth in Supplementary Conditions:

7.4.1. the person, firm or corporation who will have authority and responsibility for coordination of the activities among the various prime contractors will be identified;

7.4.2. the specific matters to be covered by such authority and responsibility will be itemized; and

7.4.3. the extent of such authority and responsibilities will be provided.

Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility in respect of such coordination.

## **ARTICLE 8 – OWNER'S RESPONSIBILITIES**

- 8.1. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.
- 8.2. In case of termination of the employment of Engineer, Owner shall appoint an engineer, whose status under the Contract Documents shall be that of the former Engineer.
- 8.3. Owner shall furnish the data required of Owner under the Contract Documents promptly and shall make payments to Contractor promptly when they are due as provided in paragraphs 14.4 and 14.13.
- 8.4. Owner's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in paragraphs 4.1 and 4.4. Paragraph 4.2 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions at the site and drawings of physical conditions in existing structures at or contiguous to the site that have been utilized by Engineer in preparing the Contract Documents.
- 8.5. Owner's responsibilities in respect of purchasing and maintaining liability and property insurance are set forth in paragraphs 5.5 through 5.6.
- 8.6. Owner is obligated to execute Change Orders as indicated in paragraph 10.4.
- 8.7. Owner's responsibility in respect of certain inspections, tests and approvals is set forth in paragraph 13.4.
- 8.8. In connection with Owner's right to stop Work or suspend Work, see paragraphs 13.10 and 15.1. Paragraph 15.2 deals with Owner's right to terminate services of Contractor under certain circumstances.
- 8.9. The Owner shall not supervise, direct or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences or procedures of construction or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the furnishing or performance of the Work. Owner will not be responsible for Contractor's failure to perform or furnish the Work in accordance with the Contract Documents.
- 8.10. Owner's responsibility in respect of undisclosed Asbestos, PCBs, Petroleum, Hazardous Waste or Radioactive Materials uncovered or revealed at the site is set forth in paragraph 4.5.
- 8.11. If and to the extent Owner has agreed to furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents, Owner's responsibility in respect thereof will be as set forth in the Supplementary Conditions.

#### **ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION**

**Owner's Representative:**

9.1. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents and shall not be extended without written consent of Owner and Engineer.

**Visits to Site:**

9.2. Engineer will make visits to the site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer will endeavor for the benefit of Owner to determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and on-site observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work. Engineer's visits and on-site observations are subject to all the limitations on Engineer's authority and responsibility set forth in paragraph 9.13, and particularly, but without limitation, during or as a result of Engineer's on-site visits or observations of Contractor's Work Engineer will not supervise, direct, control or have authority over or be responsible for Contractor's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the furnishing or performance of the Work.

**Project Representative:**

9.3. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more continuous observation of the Work. The responsibilities and authority and limitations thereon of any such Resident Project Representative and assistants will be as provided in paragraph 9.13 and in the Supplementary Conditions. If Owner designates another representative or agent to represent Owner at the site who is not Engineer's Consultant, agent or employee, the responsibilities and authority and limitations thereon of such other person will be as provided in the Supplementary Conditions.

9.3.1 Engineer may furnish a Resident Project Representative, assistants and other field staff as needed, to assist Owner in observing performance of the Work. The Resident Project Representative is to observe and inspect, in the Owner's interest, the materials furnished and the work done as the work progresses in order to insure full and complete compliance with the contract and to verify quantities of work completed.

9.3.2 Owner may also designate one of its employees to represent Owner for these purposes.

9.3.3 Engineer, Resident Project Representative, Owner and all such other persons referred to shall have unrestricted access to all parts of the Work. Contractor shall cooperate by supplying necessary facilities and assistance required by above persons to carry out their work of observation and inspection.

9.3.4 It is not the function of the Engineer, Resident Project Representative or Owner to supervise or direct the manner in which the work to be done under this Contract is carried on or conducted. The Engineer, Resident Project Representative or Owner is not responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the work, and they will not be responsible for the Contractor's failure to carry out the work in accordance with the Contract Documents. Nevertheless, Contractor agrees that any method or procedure, which in the opinion of the Engineer or Owner does not achieve the required results or quality of the work specified, shall be discontinued immediately upon the order of the Engineer.

9.3.5 All communications between Contractor and Engineer or Contractor and Owner are to be through the Resident Project Representative.

9.3.6 Duties and Responsibilities of Resident Project Representative (RPR):

- 1) RPR will act as directed by and under the supervision of Engineer and/or Owner, and will confer with Engineer and Owner regarding RPR's actions. RPR's dealings in matters pertaining to the on-site work shall in general be with Engineer and Contractor keeping Owner advised as necessary. RPR's dealings with subcontractors shall only be through or with the full knowledge and approval of Contractor.
- 2) Review progress schedule, schedule of Shop Drawing submittals and schedule of values prepared by Contractor and consult with Engineer and Owner concerning acceptability.
- 3) Attend meetings with Contractor, such as pre-construction conferences, progress meetings, job conferences and other project-related meetings, and prepare and circulate copies of minutes thereof.
- 4) Serve as Engineer's and Owner's liaison with Contractor, working principally through Contractor's superintendent and assist in understanding the intent of the Contract Documents.
- 5) Advise Engineer, Owner and Contractor of the commencement of any Work requiring a Shop Drawing or sample if the submittal has not been approved by Engineer.
- 6) Conduct on-site observations of the Work in progress to assist Engineer and Owner in determining if the Work is in general proceeding in accordance with the Contract Documents. Report to Engineer and Owner whenever RPR believes that any Work is unsatisfactory, faulty or defective or does not conform to the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise Engineer and Owner of Work that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.
- 7) Report to Engineer and Owner when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by Engineer.

- 8) Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and report with RPR's recommendations to Engineer and Owner. Transmit to Contractor decisions as issued by Engineer and/or Owner.
- 9) Maintain orderly files for correspondence, reports of job conferences, Shop Drawings and samples, reproductions of original Contract Documents including all Work Directive Changes, Addenda, Change Orders, Field Orders, additional Drawings issued subsequent to the execution of the Contract, Engineer's clarifications and interpretations of the Contract Documents, progress reports, and other Project related documents.
- 10) Keep a diary or log book, recording Contractor hours on the job site, weather conditions, data relative to questions of Work Directive Changes, Change Orders or Changed conditions, list of job site visitors, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to Engineer and Owner.
- 11) Record names, addresses and telephone numbers of all Contractors, subcontractors and major suppliers of materials and equipment.
- 12) Furnish Engineer and Owner periodic reports as required of progress of the Work and of Contractor's compliance with the progress schedule and schedule of Shop Drawing and sample submittals.
- 13) Draft proposed Change Orders and Work Directive Changes, obtaining backup material from Contractor and recommend to Engineer and Owner Change Orders, Work Directive Changes, and Field Orders.
- 14) Report immediately to Engineer and Owner upon the occurrence of any accident.
- 15) Review applications for payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to Engineer, noting particularly the relationship of the payment requested to the schedule of values, Work completed and materials and equipment delivered at the site but not incorporated in the Work.
- 16) During the course of the Work, verify that certificates, maintenance and operation manuals and other data required to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have this material delivered to Engineer for review and forwarding to Owner prior to final payment for the work.
- 17) Before Engineer issues a Certificate of Substantial Completion, submit to Contractor a list of observed items requiring completion or correction.
- 18) Conduct final inspection in the company of Engineer, Owner and Contractor and prepare a final list of items to be completed or corrected.

- 19) Observe that all items on final list have been completed or corrected and make recommendations to Engineer and Owner concerning acceptance.

9.3.7 Limitations of Authority of Resident Project Representative (RPR):

- 1) Shall not authorize any deviation from the Contract Documents or substitution of materials or equipment, unless authorized by Engineer or Owner.
- 2) Shall not exceed limitations of Engineer's authority as set forth in the Contract Documents.
- 3) Shall not undertake any of the responsibilities of Contractor, subcontractors or Contractor's superintendent.
- 4) Shall not advise on, issue directions relative to or assume control over any aspect of the means, methods, techniques, sequences or procedures of construction unless such advice or directions are specifically required by the Contract Documents.
- 5) Shall not advise on, issue directions regarding or assume control over safety precautions and programs in connection with the Work.
- 6) Shall not accept Shop Drawing or sample submittals from anyone other than Contractor.

9.3.8 The Engineer and or Owner shall have the authority to reject any work, or materials, or any part thereof, which does not in his opinion conform to the plans, drawings, specifications and contract, and it shall be permissible for him to do so at any time during the progress of the work and until its acceptance.

No material of any kind shall be used upon the work until it has been inspected and accepted by the Engineer. All materials rejected shall be removed immediately from the work and not again offered for inspection. Any materials or workmanship found at any time to be defective or not of the quality or character required by the plans and specifications shall be remedied at once regardless of previous inspection.

Such inspection shall not relieve the Contractor from any obligation to perform said work strictly in accordance with the plans and specifications and work not so constructed shall be removed and made good by the Contractor at his own expense, and free from all expense to the Owner whenever so ordered by the Owner without reference to any previous oversight or error in inspection.

**9.4. Clarifications and Interpretations:**

Engineer will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents (in the form of Drawings or otherwise) as Engineer may determine necessary, which shall be consistent with the intent of and reasonably inferable from Contract Documents. Such written clarifications and interpretations will be binding on Owner and Contractor. If Owner or Contractor believes that a written clarification or interpretation justifies an adjustment in the Contract Price or the Contract Times and the parties are unable to agree to the



amount or extent thereof, if any, Owner or Contractor may make a written claim therefore as provided in Article 11 or Article 12.

**9.5. Authorized Variations in Work:**

Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or the Contract Times and the parties are unable to agree as to the amount or extent thereof, Owner or Contractor may make a written claim therefore as provided in Article 11 or 12.

**9.6. Rejecting Defective Work:**

Engineer will have authority to disapprove or reject Work which Engineer believes to be defective, or that Engineer believes will not produce a complete Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in paragraph 13.9, whether or not the Work is fabricated, installed or completed.

**9.7. Shop Drawings, Change Orders and Payments:**

9.7.1 In connection with Engineer's authority as to Shop Drawings and Samples, see paragraphs 6.19 through 6.20.4 inclusive.

9.7.2. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.

9.7.3. In connection with Engineer's authority as to Applications for Payment, see Article 14.

**9.8. Determinations for Unit Prices:**

Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding upon Owner and Contractor, unless, within ten days after the date of any such decision, either Owner or Contractor delivers to the other and to Engineer written notice of intention to appeal from Engineer's decision and, a formal proceeding is instituted by the appealing party in a forum of competent jurisdiction to exercise such rights or remedies as the appealing party may have with respect to Engineer's decision, unless otherwise agreed in writing by Owner and Contractor. Such appeal will not be subject to procedures of paragraph 9.9.

**9.9. Decisions on Disputes:**

9.9.1. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work there under. Claims, disputes and other matters relating to the acceptability of the Work or the interpretation of the requirements of the Contract Documents pertaining to the performance and furnishing of the Work and Claims under Articles 11 and 12 in respect of changes in the Contract Price or Contract Times will be referred initially to Engineer in writing with a request for a formal decision in accordance with this paragraph. Written notice of each such claim, dispute or other matter will be delivered by the claimant to Engineer and the other party to the Agreement promptly, but in no event later than fifteen (15) days, after the start of the occurrence or event giving rise thereto, and written supporting data will be submitted to Engineer and the other party within forty-five (45) days after the start of such occurrence or event unless Engineer allows an additional period of time for the submission of additional or more accurate data in support of such claim, dispute or other matter. The opposing party shall submit any response to Engineer and the claimant within thirty days after receipt of the claimant's last submittal (unless Engineer allows additional time). Engineer will render a formal decision in writing within thirty days after receipt of the opposing party's submittal, if any, in accordance with this paragraph. Engineer's written decision on such claim, dispute or other matter will be final and binding upon Owner and Contractor unless: a written notice of intention to appeal from Engineer's written decision is delivered by Owner or Contractor to the other and to Engineer within thirty days after the date of such decision and a formal proceeding is instituted by the appealing party in a forum of competent jurisdiction to exercise such rights or remedies as the appealing party may have with respect to such claim, dispute or other matter in accordance with applicable Laws and Regulations within sixty days of the date of such decision, unless otherwise agreed in writing by Owner and Contractor.

9.9.2. When functioning as interpreter and judge under paragraph 9.9.1, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity. The rendering of a decision by Engineer pursuant to paragraphs 9.8 or 9.9 with respect to any such claim, dispute or other matter (except any which have been waived by the making or acceptance of final payment as provided in paragraph 14.15) will be a condition precedent to any exercise by Owner or Contractor of such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any such claim, dispute or other matter.

**9.10. Not Used**

**9.11. Not Used**

**9.12. Not Used**

**9.13. Limitations on Engineer's Authority and Responsibilities:**

9.13.1. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise or performance of any authority or responsibility by Engineer shall create, impose or give rise to any duty owed by Engineer to Contractor, any Subcontractor, and Supplier, any other person or organization, or to any surety for employee or agent of any of them.

9.13.2. Engineer will not supervise, direct, control or have authority over or be responsible for Contractor's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the furnishing or performance of the Work. Engineer will not be responsible for Contractor's failure to perform or furnish the Work in accordance with the Contract Documents.

9.13.3. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.

9.13.4. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds and certificates of inspection, tests, and approvals and Other documentation required to be delivered by paragraph 14.12 will only be to determine generally that their content complies with the requirements of, and in the case of, certificates of inspections, tests and approvals that the results certified indicate compliance with the Contract Documents.

9.13.5. the limitations upon authority and responsibility set forth in this paragraph 9.13 shall also apply to Engineer's Consultants, Resident Project Representative and assistants.

#### **ARTICLE 10 – CHANGES IN THE WORK**

10.1. Without invalidating the Agreement and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions or revisions in the Work. Such additions, deletions or revisions will be authorized by a Written Amendment, a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

10.2. If Owner and Contractor are unable to agree as to the extent, if any, of an adjustment in the Contract Price or an adjustment of the Contract Times that should be allowed as a result of a Work Change Directive, a claim may be made therefore as provided in Article 11 or Article 12.

10.3. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any Work performed that is not required by the Contract Documents as amended, modified and supplemented as provided in paragraphs 3.5 and 3.6 except in the case of an emergency as provided in paragraph 6.23 or in the case of uncovering Work as provided in paragraph 13.9.

10.4. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:

10.4.1. changes in the Work which are (i) ordered by Owner pursuant to paragraph 10.1, (ii) required because of acceptance of defective Work under paragraph 13.13 or correcting defective Work under paragraph 13.14, or (iii) agreed to by the parties;

10.4.2. changes in the Contract Price or Contract Times which are agreed to by the parties; and

10.4.3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to paragraph 9.9;

Provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the progress schedule as provided in paragraph 6.21.

10.5. If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times) is required by the provisions of any Bond to be given to a surety, the giving of any such notice will be Contractor's responsibility, and the amount of each applicable Bond will be adjusted accordingly.

#### **ARTICLE 11 – CHANGE OF CONTRACT PRICE**

11.1. The Contract Price constitutes the total compensation (subject to authorized adjustments) payable to Contractor for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by Contractor shall be at Contractor's expense without change in the Contract Price.

11.2. The Contract Price may only be changed by a Change Order. Any claim for an adjustment in the Contract Price shall be based on written notice delivered by the party making the claim to the other party and to Engineer promptly (but in no event later than ten days) after the start of the occurrence or event giving rise to the claim and stating the general nature of the claim. Notice of the amount of the claim with supporting data shall be delivered within thirty days after the start of such occurrence or event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of the claim) and shall be accompanied by claimant's written statement that the adjustment claimed covers all known amounts to which the claimant is entitled as a result of said occurrence or event. All claims for adjustment in the Contract Price shall be determined by Engineer in accordance with paragraph 9.8 if Owner and Contractor cannot otherwise agree on the amount involved. No claim for an adjustment in the Contract Price will be valid if not submitted in accordance with this paragraph 11.2.

11.3. The value of any Work covered by a Change Order or of any claim for an adjustment in the Contract Price will be determined as follows:

11.3.1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of paragraphs 11.9.1. through 11.9.3. inclusive);

11.3.2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with paragraph 11.6.2):

11.3.3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under paragraph 11.3.2, on the basis of the Cost of the Work (determined as provided in paragraphs 11.4 and 11.5) plus a Contractor's fee for overhead and profit (determined as provided in paragraph 11.6).

**Cost of the Work Covered by a Change Order:**

11.4. The term Cost of the Work means the sum of all costs necessarily incurred and paid by Contractor in the proper performance of the Work. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items and shall not include any of the costs itemized in paragraph 11.5.

11.4.1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include without limitation superintendents, foremen and other personnel employed full-time at the site. Payroll costs for employees not employed full-time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits which shall include social security contributions, unemployment, excise and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work after regular working hours, on Saturday, Sunday or legal holidays, shall be included in the above to the extent authorized by Owner.

11.4.2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.

11.4.3. Payments made by Contractor to the Subcontractors for Work performed or furnished by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner who will then determine, with the advice of Engineer, which bids, if any, will be accepted. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work Plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in paragraphs 11.4, 11.5, 11.6 and 11.7. All subcontracts shall be subject to the other provisions of the Contract Documents insofar as applicable.

11.4.4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys and accountants) employed for services specifically related to the Work.

11.4.5. Supplemental costs including the following:

11.4.5.1. The proportion of necessary transportation, travel and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.

11.4.5.2. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost less market value of such items used but not consumed which remain the property of Contractor.

11.4.5.3. Rentals of all construction equipment and machinery and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, installation, dismantling and removal thereof – all in accordance with the terms of said rental agreements. The rental of any such equipment, machinery or parts shall cease when the use thereof is no longer necessary for the Work.

11.4.5.4. Sales, consumer, use or similar taxes related to the work, and for which Contractor is liable, imposed by Laws and Regulations.

11.4.5.5. Deposits lost for causes other than negligence of Contractor, any Subcontractor or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

11.4.5.6. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance and furnishing of the Work (except losses and damages within the deductible amounts of property insurance established by Owner in accordance with paragraph 5.9), provided they have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee. If, however, any such loss or damage requires reconstruction and Contractor is placed in charge thereof, Contractor is placed in charge thereof, Contractor shall be paid for services a fee proportionate to that stated in paragraph 11.6.2.

11.4.5.7. The cost of utilities, fuel and sanitary facilities at the site.

11.4.5.8. Minor expenses such as telegrams, long distance telephone calls, telephone service at the site, expressage and similar petty cash items in connection with the Work.

11.4.5.9. Cost of premiums for additional Bonds and insurance required because of changes in the Work.

11.5. The term Cost of the Work Covered by a Change Order shall not include any of the following:

11.5.1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks and other personnel employed by Contractor whether at the site or in Contractor's principal or a branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in paragraph 11.4.1 or specifically covered by paragraph 11.4.4 – all of which are to be considered administrative costs covered by the Contractor's fee.

11.5.2. Expenses of Contractor's principal and branch offices other than Contractor's office at the site.

11.5.3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.

11.5.4. Cost of premiums for all Bonds and for all insurance whether or not Contractor is required by the Contract Documents to purchase and maintain the same (except for the cost of premiums covered by subparagraph 11.4.5.9 above).

11.5.5. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied and making good any damage to property.

Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraph 11.4.

11.6. The Contractor's fee allowed to Contractor for overhead and profit shall be determined as follows:

11.6.1. a mutually acceptable fixed fee; or

11.6.2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

11.6.2.1. for costs incurred under paragraphs 11.4.1 and 11.4.2, the Contractor's fee shall be ten percent;

11.6.2.2. for costs incurred under paragraph 11.4.3, the Contractor's fee shall be five percent.

11.6.2.3. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of paragraphs 11.4.1, 11.4.2, 11.4.3 and 11.6.2 is that the Subcontractor who actually performs or furnishes the Work, at whatever tier, will be paid a fee of ten percent of the costs incurred by such Subcontractor under paragraphs 11.4.1 and 11.4.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor:

11.6.2.4. no fee shall be payable on the basis of costs itemized under paragraphs 11.4.4, 11.4.5 and 11.5;

11.6.2.5. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and

11.6.2.6. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with paragraphs 11.6.2.1 through 11.6.2.5, inclusive.

11.7. Whenever the cost of any work is to be determined pursuant to paragraphs 11.4 and 11.5, Contractor will establish and maintain records thereof in accordance with generally accepted accounting

practices and submit in form acceptable to Engineer an itemized cost breakdown together with supporting data.

**11.8. Not Used**

**11.9. Unit Price Work:**

11.9.1. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer in accordance with paragraph 9.10.

11.9.2. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

11.9.3. Owner or Contractor may make a claim for an adjustment in the Contract Price in accordance with Article 11 if:

11.9.3.1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and

11.9.3.2. there is no corresponding adjustment with respect to any other item of Work; and

11.9.3.3. if Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

**ARTICLE 12 – CHANGE OF CONTRACT TIMES**

12.1. The Contract Times (or Milestones) may only be changed by a Change Order or a Written Amendment. Any claim for an adjustment of the Contract Times (or Milestones) shall be based on written notice delivered by the party making the claim to the other party and to Engineer promptly (but in no event later than thirty days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the extent of the claim with supporting data shall be delivered within sixty days after such occurrence (unless Engineer allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by the claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant has reason to believe it is entitled as a result of the occurrence of said event. All claims for adjustment in the Contract Times (or Milestones) shall be determined by Engineer in accordance with paragraph 9.11 if Owner and Contractor cannot otherwise agree. No claim for an adjustment in the Contract Times (or Milestones) will be valid if not submitted in accordance with the requirements of this paragraph 12.1.

12.2. All time limits stated in the Contract Documents are of the essence of the Agreement.



12.3. Where Contractor is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of Contractor, the Contract Times (or Milestones) will be extended in an amount equal to the time lost due to such delay if a claim is made therefore as provided in paragraph 12.1. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions or acts of God. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

12.4. Should Contractor be obstructed or delayed in the prosecution of or completion of the Work as a result of unforeseeable causes beyond the control of Contractor, and not due to its fault or neglect, including but not restricted to acts of God or of the public enemy, acts of government, fires, floods, epidemics, quarantine regulation, strikes or lockouts, Contractor shall notify the Owner in writing within forty-eight (48) hours after the commencement of such delay, stating the cause or causes thereof, or be deemed to have waived any right which Contractor may have had to request a time extension.

12.5. No interruption, interference, inefficiency, suspension or delay in the commencement or progress of the Work from any cause whatever, including those for which the Owner may be responsible, in whole or in part, shall relieve Contractor of his duty to perform or give rise to any right to damages or additional compensation from the Owner. Contractor expressly acknowledges and agrees that it shall receive no damages for delay. Contractor's sole remedy, if any, against the Owner will be the right to seek an extension to the Contract Time; provided, however, the granting of any such time extension shall not be a condition precedent to the aforementioned "No Damage For Delay" provision. This paragraph shall expressly apply to claims for early completion, as well as to claims based on late completion.

#### **ARTICLE 13 – TESTS AND INSPECTION: CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK**

13.1. **Notice of Defects:** Prompt notice of all defective Work of which Owner or Engineer have actual knowledge will be given to Contractor. All defective Work may be rejected, corrected or accepted as provided in this Article 13.

##### **Access to Work:**

13.2. Owner, Engineer, Engineer's Consultants, other representatives and personnel of Owner, independent testing laboratories and governmental agencies with jurisdictional interests will have access to the Work at reasonable times for their observation, inspecting and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's site safety procedures and programs so that they may comply therewith as applicable.

##### **Tests and Inspections:**

13.3. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests or approvals, and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

13.4. Contractor shall employ and pay for services of an independent testing laboratory to perform all Quality Control inspections, test or approvals required by the contract documents. Contractor shall

allow the Engineer access to all work done in the project for Acceptance Testing by the owner. This testing will be in addition to Quality Control Testing required by the Contractor. Owner shall arrange and pay all costs associated with Acceptance Testing done by an independent testing laboratory of the Owners choosing except:

- 13.4.1. for inspections, tests or approvals covered by paragraph 13.5 below.
- 13.4.2. that costs incurred in connection with tests or inspections conducted pursuant to paragraph 13.9 below shall be paid as provided in said paragraph 13.9; and
- 13.4.3. as otherwise specifically provided in the Contract Documents.
- 13.4.4. Owner shall perform the following test as part of quality assurance / acceptance testing:

**All material testing included in the Bidding Documents.**

All other required testing is to be completed by the contractor as part of the contractor's quality control procedures and submittals. This section shall take precedence over all other sections that describe testing requirements.

13.5. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection, or approval. Contractor shall also be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work, or of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Quality Control Testing of materials and equipment shall be the responsibility of the Contractor who shall pay all costs associated with the required testing. Contractor shall provide the Engineer adequate advance notice of intended tests to allow the Engineer to be present during the Testing.

13.6. If any Work (or the work of others) that is to be inspected, tested or approved is covered by Contractor without written concurrence of Engineer, it must, if requested by Engineer, be uncovered for observation.

13.7. Uncovering Work as provided in paragraph 13.6 shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

**Uncovering Work:**

13.8. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.

13.9. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose or otherwise make available for observation, inspection or testing as Engineer may require that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is

defective, Contractor shall pay all claims, costs, losses and damages caused by, arising out of or resulting from such uncovering, exposure, observation, inspection and testing and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others; and Owner shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, may make a claim therefore as provided in Article 11. If, however, such Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times (or Milestones), or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement and reconstruction; and, if the parties are unable to agree as to the amount or extent therefore, Contractor may make a claim therefore as provided in Articles 11 and 12.

**Owner May Stop the Work:**

13.10. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to furnish or perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor or any surety or other party.

**Correction or Removal of Defective Work:**

13.11. If required by Engineer, Contractor shall promptly, as directed, either correct all defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by Engineer, remove it from the site and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses and damages caused by or resulting from such correction or removal (including but not limited to all costs of repair or replacement of work of others).

**13.12. Correction Period:**

13.12.1. If within one year after the date of Substantial Completion or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any Work is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instruction: (i) correct such defective Work, or, if it has been rejected by Owner, remove it from the site and replace it with Work that is not defective, and (ii) satisfactorily correct or remove and replace any damage to other Work or the work of others resulting therefrom. If Contractor does not promptly comply with the terms of such instructions, or in any emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or the rejected Work removed and replaced, and all claims, costs, losses and damages caused by or resulting from such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.

13.12.2. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications or by Written Amendment.

13.12.3. Where defective Work (and damage to other Work resulting therefrom) has been corrected, removed or replaced under this paragraph 13.12, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

**13.13. Acceptance of Defective Work:**

If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, also Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness). If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, Owner may make a claim therefore as provided in Article 11. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

**13.14. Owner May Correct Defective Work:**

If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work or to remove and replace rejected Work as required by Engineer in accordance with paragraph 13.11, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days' written notice to Contractor, correct and remedy any such deficiency. In exercising the rights and remedies under this paragraph Owner shall proceed expeditiously. In connection with such corrective and remedial action, Owner may exclude Contractor from all or part of the site, take possession of all or part of the Work, and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the site and incorporate in the Work all materials and equipment stored at the site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representative, agents and employees, Owner's other contractors and Engineer and Engineer's Consultants access to the site to enable Owner to exercise the rights and remedies under this paragraph. All claims, costs, losses and damages incurred or sustained by Owner in exercising such rights and remedies will be charged against Contractor and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, Owner may make a claim therefore as provided in Article 11. Such claims, costs, losses and damages will include but not be limited to all costs of repair or replacement of work of others destroyed or damaged by correction, removal or replacement of Contractor's defective Work. Contractor shall not be allowed an extension of the Contract Times (or Milestones) because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies hereunder.

**ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION**

**Schedule of Values:**

14.1. The schedule of values established as provided in paragraph 2.9 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

**Application for Progress Payment:**

14.2. At least ten days before the date established for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect Owner's interest therein, all of which will be satisfactory to Owner. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

**Contractor's Warranty of Title:**

14.3. Contractor warrants and guarantees that title to all Work, materials and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

**Review of Applications for Progress Payment:**

14.4. Engineer will, within ~~ten~~ *fifteen (15)* days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application. ~~Ten~~ *Thirty (30)* days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of the last sentence of paragraph 14.7) become due and when due will be paid by Owner to Contractor.

14.5. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's on-site observations of the executed Work as an experienced and qualified design professional and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

14.5.1. the Work has progressed to the point indicated.

14.5.2. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under paragraph 9.8, and to any other qualifications stated in the recommendation), and

14.5.3. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.

However, by recommending any such payment Engineer will not thereby be deemed to have represented that: (i) exhaustive or continuous on-site inspections have been made to check the quality or the quantity of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents or (ii) that there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

14.6. Engineer's recommendation of any payment, including final payment, shall not mean that Engineer is responsible for Contractor's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the furnishing or performance of Work, or for any failure of Contractor to perform or furnish Work in accordance with the Contract Documents.

14.7. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner referred to in paragraph 14.5. Engineer may also refuse to recommend any such payment, or, because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify any such payment previously recommended, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:

14.7.1. the Work is defective, or completed Work has been damaged requiring correction or replacement.

14.7.2. the Contract Price has been reduced by Written Amendment or Change Order.

14.7.3. Owner has been required to correct defective Work or complete Work in accordance with paragraph 13.14. or

14.7.4. Engineer has actual knowledge of the occurrence of any of the events enumerated in paragraphs 15.2.1 through 15.2.4 inclusive.

Owner may refuse to make payment of the full amount recommended by Engineer because:

14.7.5. claims have been made against Owner on account of Contractor's performance or furnishing of the Work.

14.7.6. Liens have been filed in connection with the Work, except where Contractor has delivered a specific Bond satisfactory to Owner to secure the satisfaction and discharge of such Liens,

14.7.7. there are other items entitling Owner to a set-off against the amount recommended, or

14.7.8. Owner has actual knowledge of the occurrence of any of the events enumerated in paragraphs 14.7.1 through 14.7.3 or paragraphs 15.2.1 through 15.2.4 inclusive;

but Owner must give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor corrects to Owner's satisfaction the reasons for such action.

**Substantial Completion:**

14.8. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion. Within a reasonable time thereafter, Owner, Contractor and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefore. If Engineer considers the Work substantially complete, Engineer will prepare and deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will within fourteen days after submission of the tentative certificate to Owner notify Contractor in writing, stating the reasons therefore. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will within said fourteen days execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner. At the time of delivery of the tentative certificate of Substantial Completion Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, maintenance, heat, utilities, insurance and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.

14.9. Owner shall have the right to exclude Contractor from the Work after the date of Substantial Completion, but Owner shall allow Contractor reasonable access to complete or correct items on the tentative list.

**Partial Utilization:**

14.10. Use by Owner at Owner's option of any substantially completed part of the Work which: (i) has specifically been identified in the Contract Documents, or (ii) Owner, Engineer and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, may be accomplished prior to Substantial Completion of all the Work subject to the following:

14.10.1. Owner at any time may request Contractor in writing to permit Owner to use any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If Contractor agrees that such part of the Work is substantially complete, Contractor will certify to Owner and Engineer that such part of the Work is substantially complete and request Engineer to

issue a certificate of Substantial Completion for that part of the Work. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work. Within a reasonable time after either such request, Owner, Contractor and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefore. If Engineer considers that part of the Work to be substantially complete, the provisions of paragraphs 14.8 and 14.9 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

14.10.2. No occupancy or separate operation of part of the Work will be accomplished prior to compliance with the requirements of paragraph 5.6 in respect of property insurance.

Owner may at any time request Contractor in writing to permit Owner to take over operation of any such part of the work although it is not substantially complete. A copy of such request will be sent to Engineer and within a reasonable time thereafter Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion and will prepare a list of the items remaining to be completed or corrected thereon before final payment. If Contractor does not object in writing to Owner and Engineer that such part of the Work is not ready for separate operation by Owner, Engineer will finalize the list if items to be completed or corrected and will deliver such lists to Owner and Contractor together with a written recommendation as to the division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, maintenance, utilities, insurance, warranties and guarantees for that part of the Work which will become binding upon Owner and Contractor at the time when Owner takes over such operation (unless they shall have otherwise agreed in writing and so informed Engineer). During such operation and prior to Substantial Completion of such part of the Work, Owner shall allow Contractor reasonable access to complete or correct items on said list and to complete other related Work.

**Final Inspection:**

14.11. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

**Final Application for Payment:**

14.12. After Contractor has completed all such corrections to the satisfaction of Engineer and delivered in accordance with the Contract Documents all maintenance and operating instructions, schedules, guarantees, Bonds, certificates or other evidence of insurance required by paragraph 5.4, certificates of inspection, marked-up record documents (as provided in paragraph 6.14) and other documents, Contractor may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied (except as previously delivered) by:

- (i) consent of the surety, if any, to final payment.



(ii) complete and legally effective releases or waivers (satisfactory to Owner) of all Liens arising out of or filed in connection with the Work. In lieu of such releases or waivers of Liens and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material and equipment for which a Lien could be filed, and (ii) all payrolls, material and equipment bills and other indebtedness connected with the Work for which Owner or Owner's property might in any way be responsible have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a Bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

(iii) certification from surety that payment and performance bond shall remain in effect one (1) year following final payment.

(iv) contractor's advertisement of completion – advertisement for a period of four (4) successive weeks in the newspaper or largest circulation published within the county where the work is performed.

(v) certification from insurance company that any insurance coverage written on a claims-made basis, remain in effect for at least two (2) years following final payment.

**Final Payment and Acceptance:**

14.13. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of paragraph 14.15. Otherwise, Engineer will return the Application to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application. Thirty days after the presentation to Owner of the Application and accompanying documentation, in appropriate form and substance and with Engineer's recommendation and notice of acceptability, the amount recommended by Engineer will become due and will be paid by Owner to Contractor

14.14. If, through no fault of Contractor, final completion of the Work is significantly delayed and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment and recommendation of Engineer, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if Bonds have been furnished as required in paragraph 5.1, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

**Waiver of Claims:**

14.15. The making and acceptance of final payment will constitute:

14.15.1. a waiver of all claims by Owner against Contractor, except claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to paragraph 14.11, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and

14.15.12. a waiver of all claims by Contractor against Owner other than those previously made in writing and still unsettled.

#### **ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION**

##### **Owner May Suspend Work:**

15.1. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than ninety days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be allowed an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes an approved claim therefore as provided in Articles 11 and 12.

##### **Owner May Terminate:**

15.2. Upon the occurrence of any one or more of the following events:

15.2.1. if Contractor persistently fails to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule established under paragraph 2.9 as adjusted from time to time pursuant to paragraph 6.6);

15.2.2. if Contractor disregards Laws or Regulations of any public body having jurisdiction;

15.2.3. if Contractor disregards the authority of Engineer; or

15.2.4. if Contractor otherwise violates in any substantial way any provisions of the Contract Documents;

15.2.5 if Contractor commences a voluntary case under any chapter of the Bankruptcy Code (Title 11, United States Code), as now or hereafter in effect, or if Contractor takes any equivalent or similar action by filing a petition or otherwise under any other federal or state law in effect at such time relating to the bankruptcy or insolvency;

15.2.5.1 if a petition is filed against Contractor under any chapter of the Bankruptcy Code (Title 11, United States Code), as now or hereafter in effect at the time of filing, or if a petition is filed seeking any such equivalent or similar relief against Contractor under any other federal or state law in effect at the time relating to bankruptcy or insolvency;

15.2.5.2 if Contractor makes a general assignment for the benefit of creditors;

15.2.5.3 if a trustee, receiver, custodian, or agent of Contractor is appointed under applicable law or under contract, whose appointment or authority to take charge of property of Contractor is for the purpose of enforcing a Lien against such property or for the purpose of general administration of such property for the benefit of Contractor's creditors;

15.2.5.4 if Contractor admits in writing an inability to pay its debts generally as they become due.

Owner may, after giving Contractor (and the surety, if any,) seven days' written notice and to the extent permitted by Laws and Regulations, terminate the services of Contractor, exclude Contractor from the site and take possession of the Work and of all Contractor's tools, appliances, construction equipment and machinery at the site and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion), incorporate in the Work all materials and equipment stored at the site or for which Owner has paid Contractor but which are stored elsewhere, and finish the Work as Owner may deem expedient. In such case Contractor shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds all claims, costs, losses and damages sustained by Owner arising out of or resulting from completing the Work such excess will be paid to Contractor. If such claims, costs, losses and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and when so approved by Engineer incorporated in a Change Order, provided that when exercising any rights or remedies under this paragraph Owner shall not be required to obtain the lowest price for the Work performed.

15.3. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.

15.4. Upon seven days' written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, elect to terminate the Agreement. In such case, Contractor shall be paid (without duplication of any items):

15.4.1. for completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

15.4.2. for expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;

15.4.3. for all claims, costs, losses and damages incurred in settlement of terminated contracts with Subcontractors, Suppliers and other; and

15.4.4. for reasonable expenses directly attributable to termination.

Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

**Contractor May Stop Work or Terminate:**

15.5. If, through no act or fault of Contractor, the Work is suspended for a period of more than ninety days by Owner or under an order of court or other public authority, or Engineer fails to act on any Application for Payment within thirty days after it is submitted or Owner fails for thirty days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days' written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Agreement and recover from Owner payment on the same terms as provided in paragraph 15.4. In lieu of terminating the Agreement and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within thirty days after it is submitted, or Owner has failed for thirty days to pay Contractor any sum finally determined to be due, Contractor may upon seven day's written notice to Owner and Engineer stop the Work until payment of all such amounts due Contractor, including interest thereon. The provisions of this paragraph 15.5 are not intended to preclude Contractor from making claim under Articles 11 and 12 for an increase in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping Work as permitted by this paragraph.

#### **ARTICLE 16 – MISCELLANEOUS**

##### **16.1 Giving Notice:**

Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

##### **16.2 Computation of Times:**

16.2.1. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

16.2.2. A calendar day of twenty-four hours measured from midnight to the next midnight will constitute a day.

##### **16.3 Notice of Claim:**

Should Owner or Contractor suffer injury or damage to person or property because of any error, omission or act of the other part or of any of the other party's employees or agents or others for whose acts the other party is legally liable, claim will be made in writing to the other party promptly, but in no event later than fifteen (15) days of the first observance of such injury or damage. The provisions of this paragraph 16.3 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or repose.

##### **16.4 Cumulative Remedies:**

The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto, and, in particular but without limitation, the warranties, guarantees

and obligations imposed upon Contractor by paragraphs 6.2, 6.13, 6.22, 6.23, 13.1, 13.12, 13.14, 14.3 and 15.2 and all of the rights and remedies available to Owner and Engineer thereunder, are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee or by other provisions of the Contract Documents, and the provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right and remedy to which they apply.

**16.5. Professional Fees and Court Costs Included:**

Whenever reference is made to "claims, costs, losses and damages," it shall include in each case, but not be limited to, all fees and charges of engineers, architects, attorneys and other professionals and all court or other dispute resolution costs.

**16.6. Labor Records and Schedules:**

The Department of Jurisdiction on such public work shall require all Contractors and Subcontractors to keep the following records on the site of the public work project on which such Contractors, and Subcontractors are engaged:

16.6.1 Record of hours worked by each worker, laborer, and mechanic on each day.

16.6.2 Record of days worked each week by each worker, laborer, and mechanic.

16.6.3 Schedule of occupation or occupations at which each worker, laborer, and mechanic on the project is employed during each workday and week.

16.6.4 *Schedule of hourly wage rates and supplements paid to each worker, laborer, and mechanic for each occupation.*

**16.7. Wage Schedules:**

Pursuant to the Labor Law, each laborer, worker, or mechanic employed by the Contractor, Subcontractor, or other person shall be paid not less than the prevailing rate of wages for a legal day's work and shall be provided supplements not less than the prevailing supplements as determined by the Industrial Commissioner.

*The Contractor and every Subcontractor shall post in a prominent and accessible place on the site of the work a legible statement of all wage rates and supplements as specified in the Contract to be paid or provided, as the case may be, for the various classes of mechanics, workers, and laborers employed on the work.*

*The Owner does not represent or warrant that the accompanying schedule of wage rates and supplements with the classification of workers, mechanics, and laborers, as required the Labor Law, is complete, and it reserves the right to revise such schedule when required. If any occupation is not mentioned in the schedule of wage rates and supplements it shall be requested from the Industrial Commissioner, by the Contractor through the Engineer and such schedules, shall, upon notice to the Contractor, become and be a part of the wage and supplement schedules embodied in the Contract.*

*Also included is the Federal Wage Rate Determination. Laborers, workmen, and mechanics employed on the work done in performance of said Contract shall be paid not less than the rate of wages listed thereon for the trade or occupation of such laborer, etc.*



ADDENDUM 1

February 19, 2020

ITB AP 27-20

**VPS Parking Lot B Expansion Construction**

This addendum is to provide updated information regarding the referenced project.

**THE OPENING DATE FOR THIS ITB REMAINS FEBRUARY 26, 2020 @ 3:00 P.M.**

**ADDENDUM NO. 1**  
**to the**  
**PROJECT DOCUMENTS AND SPECIFICATIONS**  
**for**  
**DESTIN-FORT WALTON BEACH AIRPORT**  
**VPS PARKING LOT B EXPANSION**  
**(ITB AP 27-20)**

**Prepared for:**  
**OKALOOSA COUNTY**

**Prepared By:**



**320 Bayshore Drive, Suite A**  
**Niceville, Florida 32578-2425**

**AVCON Project No. 2019.050.05**

**Addendum Date: February 19, 2020**

Note: The bidder shall acknowledge receipt of this addendum on the Bid Form, Page BF-1 in the space provided.



**ADDENDUM NO. 1**  
**DESTIN-FORT WALTON BEACH AIRPORT**  
**VPS PARKING LOT B EXPANSION**  
**(ITB AP 27-20)**

- Date of Issue:** February 19, 2020
- Bid Submittal Deadline:** Wednesday, February 26, 2020 @ 3:00 p.m. (local time) (unchanged)
- Notice to all Plan Holders:** Please insert this addendum (2 pages including cover, excluding attachments) into your copy of the Project Bid Documents.

The following changes to the Project Documents and Specifications are issued by the Engineer and shall have the same force and effect as though part of the original issue:

**A. Changes to the Project Documents and Specifications:**

1. Bid Schedule **REPLACE** Bid Schedule, page BS-1 of 8 to 8 of 8, in its entirety, with page BS-1 of 5 to 5 of 5 attached as **Attachment A** (5 pages) hereto.
2. Specification T-901 **DELETE** all references to seeding in Specification 570 and **ADD** Specification T-901, Seeding attached as **Attachment B** (5 pages) hereto.

**B. Changes to the Drawings:**

1. Sheet C-11 **REVISE** Fencing Notes, Note 2, as follows:  

*“Contractor shall trench 12” below grade, and 12” wide (centered on fence line) and backfill with #3 stone along...”*
2. Sheet E003 through E108 **REPLACE** Sheets E003 through E108 in their entirety with Sheets E003 through E108 attached as **Attachment C** (9 pages) hereto.

**C. Additional Information:**

1. Pre-Bid Conference Minutes Please find attached the Pre-Bid Conference minutes attached as **Attachment D** (16 pages) hereto.

**END OF ADDENDUM NO. 1**

**BID SCHEDULE**

**BIDDER:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

**PROJECT DESCRIPTION:** VPS PARKING LOT B EXPANSION

**Base Bid – Parking Lot B Expansion**

Bid Item No.	Item No.	Item Description & Unit Price In Words	Unit	Estimated Quantity	Unit Price	Total Amt./ Item
1	101-1	Mobilization	LS	1		
2	102-1	Maintenance of Traffic	LS	1		
3	104-1	Prevention, Control, and Abatement of Erosion and Water Pollution	LS	1		
4	110-1	Miscellaneous Demolition	LS	1		
5	110-2	Clearing and Grubbing with Tree Removal	AC	0.6		
6	120-1	Unclassified Excavation and Embankment	CY	2,400		
7	160-1	12" Stabilized Subbase (LBR 40)	SY	27,750		
8	285-1	8" Limerock Base Course	SY	25,440		
9	334-1	2" Superpave Asphaltic Concrete	TON	2,800		
10	425-1	Type 5/6 Curb Inlet, Type P Bottom	EA	5		
11	425-2	24" Mitered End Section	EA	2		
12	425-3	30" Mitered End Section	EA	2		
13	430-1	24" ADS, N-12 Pipe	LF	290		
14	430-2	30" ADS, N-12 Pipe	LF	180		

Bid Item No.	Item No.	Item Description & Unit Price In Words	Unit	Estimated Quantity	Unit Price	Total Amt./ Item
15	520-1	F-Curb	LF	2,030		
16	522-1	Concrete Sidewalk	SY	330		
17	550-1	7-Ft Chain Link Fence with Additional 1-Ft Barbed Wire Attachment and Rock Base	LF	825		
18	550-2	Temporary 7-Ft Chain Link Fence with Additional 1-Ft Barbed Wire Attachment	LF	550		
19	570-1	Sodding	SY	2,000		
20	T-901	Seeding	SY	4,500		
21	700-1	Traffic Control Signs	LS	1		
22	710-1	Pavement Markings	LS	1		
23	LT-1	Area Lighting, Complete	LS	1		
24	GA-1	<i>Power and Data for Automatic Gate Arms and Ticket Machines</i>	LS	1		
25	SC-1	Security Camera Allowance	AL	1		
26	WH-1	Wheel Stops	EA	40		

For all work required to perform the work in accordance with the construction drawings, specifications, and other contract documents, including all costs related to the work, and any required permits, taxes, bonds and insurance, the undersigned submits a Total Base Bid Amount of:

TOTAL BASE BID AMOUNT (in words): \_\_\_\_\_

\_\_\_\_\_ Dollars and \_\_\_\_\_ cents

(\$ \_\_\_\_\_)

(amount in numbers)

Note: Total Bid Amount shall equal the total amount for Bid Item No. 1 through 26.

**Additive Alternate 1- Parking Lot D Improvements**

Bid Item No.	Item No.	Item Description & Unit Price In Words	Unit	Estimated Quantity	Unit Price	Total Amt./ Item
1	101-1	Mobilization	LS	1		
2	102-1	Maintenance of Traffic	LS	1		
3	104-1	Prevention, Control, and Abatement of Erosion and Water Pollution	LS	1		
4	110-1	Miscellaneous Demolition	LS	1		
5	120-1	Unclassified Excavation and Embankment	CY	800		
6	160-2	6" Rap Blended Subbase (12" Total Stabilized Subbase)	SY	5,810		
7	285-1	6" Limerock Base Course	SY	5,330		
8	334-1	2" Superpave Asphaltic Concrete	TON	540		
9	520-1	F-Curb	LF	300		
10	524-1	Concrete Flume, Type A, With Bollards and Rip-Rap	LS	1		
11	550-3	4-ft Chain-Link Fence with Rock Base	LF	475		
12	570-1	Sodding	SY	1,200		
13	710-1	Pavement Markings	LS	1		
14	<b>GA-2</b>	Power and Data for Automatic Gate Arms and Ticket Machines	LS	1		
15	LT-2	Area Lighting, Complete	LS	1		
16	SC-2	Security Camera Allowance	AL	1		

For all work required to perform the work in accordance with the construction drawings, specifications, and other contract documents, including all costs related to the work, and any required permits, taxes, bonds and insurance, the undersigned submits a Total Additive Alternate No. 1 Amount of:

TOTAL ADDITIVE ALTERNATE NO. 1 AMOUNT (in words): \_\_\_\_\_  
 \_\_\_\_\_ Dollars and \_\_\_\_\_ cents  
 (\$ \_\_\_\_\_)  
 (amount in numbers)

Note: Total Additive Alternate No. 1 Amount shall equal the total amount for Bid Item No. 1 through 16.

**Additive Alternate 2- Clear Zone Tree Removal**

Bid Item No.	Item No.	Item Description & Unit Price In Words	Unit	Estimated Quantity	Unit Price	Total Amt./ Item
1	101-1	Mobilization	LS	1		
2	102-1	Maintenance of Traffic	LS	1		
3	104-1	Prevention, Control, and Abatement of Erosion and Water Pollution	LS	1		
4	110-1	Clearing and Grubbing with Tree Removal	AC	5		
5	T-901	Seeding	SY	24,200		

For all work required to perform the work in accordance with the construction drawings, specifications, and other contract documents, including all costs related to the work, and any required permits, taxes, bonds and insurance, the undersigned submits a Total Additive Alternate No. 2 Amount of:

TOTAL ADDITIVE ALTERNATE NO. 2 AMOUNT (in words): \_\_\_\_\_  
 \_\_\_\_\_ Dollars and \_\_\_\_\_ cents  
 (\$ \_\_\_\_\_)  
 (amount in numbers)

Note: Total Additive Alternate No. 2 Amount shall equal the total amount for Bid Item No. 1 through 5.

**BID SUMMARY (amount in numbers)**

- (A) TOTAL BASE BID AMOUNT: \$ \_\_\_\_\_
- (B) TOTAL ADDITIVE ALTERNATE NO. 1 AMOUNT: \$ \_\_\_\_\_
- (C) TOTAL ADDITIVE ALTERNATE NO. 2 AMOUNT: \$ \_\_\_\_\_

*Contractor acknowledges that the Basis of Award shall be the Base Bid, or any combination of the Base Bid and Additive Alternates ultimately awarded by the County, price and other factors considered. The bid bond amount shall be in the amount of the Base Bid and Additive Alternate No. 1 and 2.*

The Bidder represents that it has examined the site of the Work and informed itself fully in regard to all conditions pertaining to the place where the work is to be done; that it has examined the plans and specifications for the work and other Contract Documents relative thereto and has read all of the Addenda furnished prior to the opening of the Bids, as acknowledged below; and that it has otherwise fully informed itself regarding the nature, extent, scope and details of the Work to be performed.

If provided with a Notice of Intent to Award the Contract by the Owner, the Bidder shall execute and deliver to the Owner all of the documents required by the Contract Documents, including but not limited to, the Addendum to the Agreement and the Performance and Payment Bonds in the form contained in the Contract Documents, furnish the required evidence of the specified insurance coverages, furnish all necessary permits, license, materials, equipment, machinery, maintenance, tools, apparatus, means of transportation and labor necessary to complete the Work.

Dated and signed at \_\_\_\_\_, \_\_\_\_\_, this \_\_\_\_\_ day of \_\_\_\_\_, 2020.

\_\_\_\_\_  
(Name of Bidder)

\_\_\_\_\_  
(Authorized Signature)

\_\_\_\_\_  
(Title)

\_\_\_\_\_  
(Mailing Address)

\_\_\_\_\_  
(City, State, Zip)

\_\_\_\_\_  
(Federal ID No. or SS No.)

**ITEM T-901**

**SEEDING**

DESCRIPTION

**901-1.1** This item shall consist of soil preparation and seeding in the areas shown on the plans or as directed by the Engineer in accordance with these specifications.

MATERIALS

**901-2.1 SEED** The species and application rates of grass, legume, and cover-crop seed furnished shall be those stipulated herein. Seed shall conform to the requirements of Fed. Spec. A-A-2671. No millet seed shall be permitted.

Seed shall be furnished separately or in mixtures in standard containers with the seed name, lot number, net weight, percentages of purity and of germination and hard seed, and percentage of maximum weed seed content clearly marked for each kind of seed. The Contractor shall furnish the Engineer duplicate signed copies of a statement by the vendor certifying that each lot of seed has been tested by a recognized laboratory for seed testing within 6 months of date of delivery. This statement shall include: name and address of laboratory, date of test, lot number for each kind of seed, and the results of tests as to name, percentages of purity and of germination, and percentage of weed content for each kind of seed furnished, and, in case of a mixture, the proportions of each kind of seed.

Seeds shall be Argentine Bahia and shall be applied as follows:

Minimum Seed Purity (Percent)	Minimum Germination (Percent)	Rate of Application lb./acre (or lb./1,000 S.F.)
98	85%	40 lbs./Acre

**901-2.2 LIME.** Lime shall be ground limestone containing not less than 85% of total carbonates, and shall be ground to such fineness that 90% will pass through a No. 20 mesh sieve and 50% will pass through a No. 100 mesh sieve. Coarser material will be acceptable, providing the rates of application are increased to provide not less than the minimum quantities and depth specified in the special provisions on the basis of the two sieve requirements above. Dolomitic lime or a high magnesium lime shall contain at least 10% of magnesium oxide. Lime shall be applied at the rate of 2,000 lbs. per acre. All liming materials shall conform to the requirements of ASTM C 602.

**901-2.3 FERTILIZER.** Fertilizer shall be standard commercial fertilizers supplied separately or in mixtures containing the percentages of total nitrogen, available phosphoric acid, and water-soluble potash. They shall be applied at the rate and to the depth specified herein, and shall meet the requirements of Fed. Spec. A-A-1909 and applicable state laws. They shall be furnished in standard containers with name, weight, and guaranteed analysis of contents clearly marked thereon. No cyanamide compounds or hydrated lime shall be permitted in mixed fertilizers.

The fertilizers may be supplied in one of the following forms:

- a. A dry, free-flowing fertilizer suitable for application by a common fertilizer spreader;
- b. A finely-ground fertilizer soluble in water, suitable for application by power sprayers;

or

- c. A granular or pellet form suitable for application by blower equipment.

Fertilizers shall be commercial fertilizer and shall be spread at the appropriate rate.

**901-2.4 SOIL FOR REPAIRS.** The soil for fill and topsoiling of areas to be repaired shall be at least of equal quality to that which exists in areas adjacent to the area to be repaired. The soil shall be relatively free from large stones, roots, stumps, or other materials that will interfere with subsequent sowing of seed, compacting, and establishing turf, and shall be approved by the Engineer before being placed.

#### CONSTRUCTION METHODS

**901-3.1 ADVANCE PREPARATION AND CLEANUP.** After grading of areas has been completed and before applying fertilizer and ground limestone, areas to be seeded shall be raked or otherwise cleared of stones larger than 2 inches (50 mm) in any diameter, sticks, stumps, and other debris which might interfere with sowing of seed, growth of grasses, or subsequent maintenance of grass-covered areas. If any damage by erosion or other causes has occurred after the completion of grading and before beginning the application of fertilizer and ground limestone, the Contractor shall repair such damage. This may include filling gullies, smoothing irregularities, and repairing other incidental damage.

An area to be seeded shall be considered a satisfactory seedbed without additional treatment if it has recently been thoroughly loosened and worked to a depth of not less than 5 inches (125 mm) as a result of grading operations and, if immediately prior to seeding, the top 3 inches (75 mm) of soil is loose, friable, reasonably free from large clods, rocks, large roots, or other undesirable matter, and if shaped to the required grade.

However, when the area to be seeded is sparsely sodded, weedy, barren and unworked, or packed and hard, any grass and weeds shall first be cut or otherwise satisfactorily disposed of, and the soil then scarified or otherwise loosened to a depth not less than 5 inches (125 mm). Clods shall be broken and the top 3 inches (75 mm) of soil shall be worked into a satisfactory seedbed by discing, or by use of cultipackers, rollers, drags, harrows, or other appropriate means.

#### **901-3.2 DRY APPLICATION METHOD.**

**a. Liming.** Lime shall be applied separately and prior to the application of any fertilizer or seed and only on seedbeds which have previously been prepared as described above. The lime shall then be worked into the top 3 inches (75 mm) of soil after which the seedbed shall again be properly graded and dressed to a smooth finish.

**b. Fertilizing.** Following advance preparations and cleanup fertilizer shall be uniformly spread at the rate, which will provide not less than the minimum quantity stated in paragraph 901-2.3.



**c. Seeding.** Grass seed shall be sown at the rate specified in paragraph 901-2.1 immediately after fertilizing, and the fertilizer and seed shall be raked within the depth range stated in the special provisions. Seeds of legumes, either alone or in mixtures, shall be inoculated before mixing or sowing, in accordance with the instructions of the manufacturer of the inoculant. When seeding is required at other than the seasons shown on the plans or in the special provisions, a cover crop shall be sown by the same methods required for grass and legume seeding.

**d. Rolling.** After the seed has been properly covered, the seedbed shall be immediately compacted by means of an approved lawnroller, weighing 40 to 65 pounds per foot (60 to 97 kg per meter) of width for clay soil (or any soil having a tendency to pack), and weighing 150 to 200 pounds per foot (223 to 298 kg per meter) of width for sandy or light soils.

### 901-3.3 WET APPLICATION METHOD.

**a. General.** The Contractor may elect to apply seed and fertilizer (and lime, if required) by spraying them on the previously prepared seedbed in the form of an aqueous mixture and by using the methods and equipment described herein. The rates of application shall be as specified in the special provisions.

**b. Spraying Equipment.** The spraying equipment shall have a container or water tank equipped with a liquid level gauge calibrated to read in increments not larger than 50 gallons (190 liters) over the entire range of the tank capacity, mounted so as to be visible to the nozzle operator. The container or tank shall also be equipped with a mechanical power-driven agitator capable of keeping all the solids in the mixture in complete suspension at all times until used.

The unit shall also be equipped with a pressure pump capable of delivering 100 gallons (380 liters) per minute at a pressure of 100 pounds per square inch (690 kPa). The pump shall be mounted in a line which will recirculate the mixture through the tank whenever it is not being sprayed from the nozzle. All pump passages and pipe lines shall be capable of providing clearance for 5/8 inch (15 mm) solids. The power unit for the pump and agitator shall have controls mounted so as to be accessible to the nozzle operator. There shall be an indicating pressure gauge connected and mounted immediately at the back of the nozzle.

The nozzle pipe shall be mounted on an elevated supporting stand in such a manner that it can be rotated through 360 degrees horizontally and inclined vertically from at least 20 degrees below to at least 60 degrees above the horizontal. There shall be a quick-acting, three-way control valve connecting the recirculating line to the nozzle pipe and mounted so that the nozzle operator can control and regulate the amount of flow of mixture delivered to the nozzle. At least three different types of nozzles shall be supplied so that mixtures may be properly sprayed over distance varying from 20 to 100 feet (6 to 30 m). One shall be a close-range ribbon nozzle, one a medium-range ribbon nozzle, and one a long-range jet nozzle. For case of removal and cleaning, all nozzles shall be connected to the nozzle pipe by means of quick-release couplings.

In order to reach areas inaccessible to the regular equipment, an extension hose at least 50 feet (15 m) in length shall be provided to which the nozzles may be connected.

**c. Mixtures.** Lime, if required, shall be applied separately, in the quantity specified, prior to the fertilizing and seeding operations. Not more than 220 pounds (100 kg) of lime shall be added to and mixed with each 100 gallons (380 liters) of water. Seed and fertilizer shall be mixed together in the relative proportions specified, but not more than a total of 220 pounds (100 kg) of these combined solids shall be added to and mixed with each 100 gallons (380 liters) of water.

All water used shall be obtained from fresh water sources and shall be free from injurious chemicals and other toxic substances harmful to plant life. Brackish water shall not be used at any time. The Contractor shall identify to the Engineer all sources of water at least 2 weeks prior to use. The Engineer may take samples of the water at the source or from the tank at any time and have a laboratory test the samples for chemical and saline content. The Contractor shall not use any water from any source which is disapproved by the Engineer following such tests.

All mixtures shall be constantly agitated from the time they are mixed until they are finally applied to the seedbed. All such mixtures shall be used within 2 hours from the time they were mixed or they shall be wasted and disposed of at locations acceptable to the Engineer.

**d. Spraying.** Lime, if required, shall be sprayed only upon previously prepared seedbeds. After the applied lime mixture has dried, the lime shall be worked into the top 3 inches (8 cm), after which the seedbed shall again be properly graded and dressed to a smooth finish.

Mixtures of seed and fertilizer shall only be sprayed upon previously prepared seedbeds on which the lime, if required, shall already have been worked in. The mixtures shall be applied by means of a high-pressure spray which shall always be directed upward into the air so that the mixtures will fall to the ground like rain in a uniform spray. Nozzles or sprays shall never be directed toward the ground in such a manner as might produce erosion or runoff.

Particular care shall be exercised to insure that the application is made uniformly and at the prescribed rate and to guard against misses and overlapped areas. Proper predetermined quantities of the mixture in accordance with specifications shall be used to cover specified sections of known area. Checks on the rate and uniformity of application may be made by observing the degree of wetting of the ground or by distributing test sheets of paper or pans over the area at intervals and observing the quantity of material deposited thereon.

On surfaces which are to be mulched as indicated by the plans or designated by the Engineer, seed and fertilizer applied by the spray method need not be raked into the soil or rolled. However, on surfaces on which mulch is not to be used, the raking and rolling operations will be required after the soil has dried.

**901-3.4 MAINTENANCE OF SEEDED AREAS.** The Contractor shall protect seeded areas against traffic or other use by warning signs or barricades, as approved by the Engineer. Surfaces gullied or otherwise damaged following seeding shall be repaired by regrading and reseeding as directed. The Contractor shall mow, water as directed, and otherwise maintain seeded areas in a satisfactory condition until final inspection and acceptance of the work.

When either the dry or wet application method outlined above is used for work done out of season, it will be required that the Contractor establish a good stand of grass of uniform color and density to the satisfaction of the Engineer. ~~A grass stand shall be considered adequate when bare spots are one square foot or less, randomly dispersed, and do not exceed 3% of the area seeded.~~ If at the time when

the contract has been otherwise completed it is not possible to make an adequate determination of the color, density, and uniformity of such stand of grass, payment for the unaccepted portions of the areas seeded out of season will be withheld until such time as these requirements have been met.

#### METHOD OF MEASUREMENT

**904-4.1** This item shall be measured on the basis of the area in square yards (square meters) of the surface covered with seed and accepted.

#### BASIS OF PAYMENT

**904-5.1** This item will be paid for on the basis of the contract unit price per square yard (square meter) for seeding, which price shall be full compensation for all labor, equipment, material, staking, and incidentals necessary to satisfactorily complete the items as specified.

Payment will be made under:

***Item T-901      Seeding      - per square yard (SY)***

#### MATERIAL REQUIREMENTS

ASTM C 602	Agricultural Liming Materials
ASTM D 977	Emulsified Asphalt
Fed. Spec. A-A-1909	Fertilizer
Fed. Spec. A-A-2671	Seeds, Agriculture

**END OF ITEM T-901**

Catalog Number: VP-L80L-180/4K7/4W/480/ADB Type: P1  
Notes: LPOC19-5899

**VIPER L STRIKE** LARGE VIPER LUMINAIRE

Cal# Job Type Approves BEACON

**SPECIFICATIONS**  
Intended Use: The Beacon Viper luminaire is available in two sizes with a wide choice of different LED wattage configurations and optical distributions designed to replace HLD lighting up to 1000W HLD or HPS. Luminaires are suitable for wet locations.  
Construction:  
• Manufactured with die cast aluminum.  
• Coated with a polyester finish that meets ASTM B117 corrosion test requirements and ASTM D3028 cracking and loss of adhesion test requirements.  
• External hardware is corrosion resistant.  
• One piece optical cartridge system consisting of an LED engine, LED lens, optics, gasket and stainless steel bezel.  
• Cartridge is held together with internal brass standards soldered to the board so that it can be field-replaced as a one piece optical system.  
• Two piece silicone and microchannel polyurethane frame gasket creates a weather proof seal around each individual optic.  
Control/Options:  
• Available in an optional passive infrared (PIR) motion sensor capable of detecting motion 300' around the luminaire. When no motion is detected for the specified time, the motion response system reduces the wattage to factory preset level, reducing the light level accordingly. When motion is detected by the PIR sensor, the luminaire returns to full wattage and full light output. Please contact Beacon Products for product requirements vary from standard configuration.  
• Available with Emergency for optional self dimming, timed dimming with simple delay, or timed dimming based on time of night base.  
• In addition, Viper can be specified with Beacon's wireless control system for reduction in energy and maintenance costs while optimizing light quality. For more details, see ordering information or visit: www.hubbell.com/beacon.  
Installation:  
• Mounting options for horizontal arm, vertical arm or traditional arm mounting available. Mounting hardware included.  
Finish:  
• IP65 polyester powder coat electrocoat applied and removed. IP65 finish consists of a five stage pretreatment regimen with a polymer primer and top coat with a fluoropolymer super TPOC polyester powder coat finish.  
• The finish meets the ANSI A82.24 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance and resist cracking or loss of adhesion per ASTM D3028 and resists surface impacts of up to 160 inch pounds.  
Certifications/Approvals:  
• Design Lights Consortium (DLC) qualified, consult DLC website for more details: [www.dlc-certification.com](http://www.dlc-certification.com).  
• Approved by UL, ENEC, CE, and CSA C22.2 devices.  
• Ambient operating temperature -40°C to 40°C.  
• Surge protection -20kA.  
• Beacon's Circuit - protects luminaires from excessive temperatures. The device shall activate at a specific factory preset temperature, and progressively reduce power over a finite temperature range. Components shall be smooth and undetectable to the eye.  
Thermal circuit is designed to "fail off", allowing the luminaire to reset to full power easily, or failing wiring connection to the owners. The device shall be able to co-wired with other 0-10V control devices (luminaires, sensors, external dimmers, etc.).  
Warranty: Five year limited warranty for more information visit: [www.hubbell.com/beacon/warranty](http://www.hubbell.com/beacon/warranty)

**PRODUCT IMAGE(S)**

**DIMENSIONS**

**MOUNTING OPTIONS**

**Hubbell Lighting**

Beacon Products • 2041 58th Avenue Circle East Bradenton, FL 34203 • Phone: 800-345-4828  
Due to our continued efforts to improve our products, product specifications are subject to change without notice.  
© 2019 BEACON PRODUCTS. All Rights Reserved. For more information visit: [www.hubbell.com/beacon](http://www.hubbell.com/beacon) • Printed in USA, APRIL 17, 2019 2:42 PM

Submitted On: Sep 20, 2019 1/4 Index Page

Catalog Number: VP-L80L-180/4K7/4W/480/ADB Type: P1  
Notes: LPOC19-5899

**ORDERING INFORMATION ORDERING EXAMPLE: VP-L80L-180/4K7/4W/480/ADB/PR-L/GEN/04BC**

**VPL**

Series	LED Engine	Color	Rotation	Voltage	Beam	Color	Options
VPL Viper	64L-135 130W LED array	3K 4000K 70 CRI	Left/Back for no rotation	120 120V	12°	DL Black/Neutral	F: Flu sig
	80L-180 180W LED array	3K 4000K 70 CRI	L1 Optic rotation left	208 208V	12°	DL Dark Bronze/Neutral	BCR Bt Opal
	80L-230 230W LED array	3K 4000K 70 CRI	R1 Optic rotation right	240 240V	12°	DT Light Gray/Smooth	BC Backlight (available for 7L, 2, 3, 4, 4W Optics)
	80L-280 280W LED array			277 277V		WH White/Neutral	
	80L-315 315W LED array			347 347V		CG Custom Color	
	80L-365 365W LED array			480 480V			

**CONTROL OPTIONS**

**MOUNTING**

**HOUSE SIDE SHIELD ACCESSORIES**

**MOUNTING ACCESSORIES**

**Hubbell Lighting**

Beacon Prod. c/o • 2041 58th Avenue • Circle East Bradenton, FL 34203 • Phone: 800-345-4828  
Due to our continued efforts to improve our products, product specifications are subject to change without notice.  
© 2019 BEACON PRODUCTS. All Rights Reserved. For more information visit: [www.hubbell.com/beacon](http://www.hubbell.com/beacon) • Printed in USA, APRIL 17, 2019 2:42 PM

Submitted On: Sep 20, 2019 2/4 Index Page

Catalog Number: VP-L80L-180/4K7/4W/480/ADB Type: P1  
Notes: LPOC19-5899

**PERFORMANCE DATA**

# LEDS	DRIVE CURRENT (MILLIAMPS)	SYSTEM WATTS	DISTRIBUTION TYPE	8K (4000K nominal, 70 CRI)				4K (4000K nominal, 70 CRI)				3K (4000K nominal, 70 CRI)							
				LUMENS	LP/W	B	U	LUMENS	LP/W	B	U	LUMENS	LP/W	B	U				
64	625 mA	130W	1A	1A	16220	132	2	2	17781	139	2	2	16441	119	2	0	2		
				2	17229	128	2	0	2	17781	139	2	0	2	16441	119	2	0	
				3	17229	128	2	0	3	17781	139	2	0	3	16441	119	2	0	
				4	17229	128	2	0	4	17781	139	2	0	4	16441	119	2	0	
				4W	16948	112	2	0	4	17183	115	2	0	4	1481	100	2	0	4
				5M	17298	128	4	0	2	17782	139	1	0	4	16441	119	4	0	2
				5N	18223	131	4	0	0	18280	138	4	0	0	18186	117	4	0	0
				5R	17410	127	4	0	4	17968	136	4	0	4	17615	113	4	0	4
				5W	16886	128	4	0	2	17099	134	4	0	2	17099	134	4	0	2
				1C	18225	130	2	2	2	18417	113	2	2	2	18283	88	1	1	2
				2	21865	121	3	0	3	22645	125	3	0	3	19791	109	2	0	3
				2	22033	128	2	0	4	22668	132	2	0	4	20033	115	2	0	4
4	21282	119	2	0	4	22187	122	2	0	4	18286	106	2	0	4				
4W	20513	112	2	0	4	21827	116	2	0	4	1894	100	2	0	4				
5M	22905	121	4	0	2	22868	126	4	0	2	19738	109	4	0	2				
5N	22979	127	4	0	1	22868	126	4	0	1	20070	114	4	0	1				
5R	22187	122	4	0	4	22868	126	4	0	4	18904	110	4	0	4				
5W	21035	116	5	0	3	21886	120	5	0	3	18887	104	4	0	3				
1C	18896	116	3	0	3	20522	118	3	0	3	17654	88	1	1	3				
1A	22849	121	2	0	2	22711	125	2	0	2	24879	108	2	0	2				
2	26524	114	3	0	3	27148	118	3	0	3	24819	110	3	0	3				
3	26378	114	3	0	4	27184	118	3	0	4	23629	103	3	0	4				
4	26777	114	3	0	3	26575	115	3	0	3	23128	100	3	0	3				
4W	25106	106	2	0	3	25888	108	2	0	3	22521	85	2	0	3				
5M	26381	114	4	0	2	27186	118	4	0	2	23861	103	4	0	2				
5N	27295	118	5	0	1	27800	122	5	0	1	24708	107	5	0	1				
5R	26611	115	5	0	2	27424	118	5	0	2	23888	104	4	0	2				
5W	25718	108	5	0	3	25868	113	5	0	3	23599	102	5	0	3				
1C	22884	102	2	1	2	24802	107	2	1	2	21404	83	2	1	2				
2	26338	121	3	0	3	27174	122	3	0	3	23841	108	3	0	3				
3	26803	121	3	0	3	27270	125	3	0	3	24861	108	3	0	3				
4	27052	119	3	0	4	28022	122	3	0	4	25899	107	3	0	4				
4W	24651	113	3	0	3	25413	117	3	0	3	22198	102	2	0	3				
5M	26898	122	4	0	2	27222	126	4	0	2	23884	110	4	0	2				
5N	27875	127	5	0	1	28427	131	5	0	1	24782	114	5	0	1				
5R	26987	122	5	0	4	27628	126	5	0	4	23881	110	4	0	4				
5W	26242	116	5	0	3	26023	120	5	0	3	23640	104	5	0	3				
1C	23887	110	2	1	2	24828	113	2	1	2	21424	89	2	1	2				
1A	33419	121	3	0	3	34453	125	3	0	3	28874	108	2	0	3				
2	31800	114	3	0	4	32577	118	3	0	4	28847	107	2	0	4				
3	31654	114	3	0	4	32523	118	3	0	4	28904	107	2	0	4				
4	30833	112	2	0	3	31888	115	2	0	3	27764	100	2	0	3				
4W	30131	106	3	0	3	31083	109	3	0	3	27055	85	3	0	3				
5M	31657	114	5	0	3	32638	118	5	0	3	28389	109	4	0	3				
5N	33558	119	5	0	1	34303	122	5	0	1	28800	107	5	0	1				
5R	31883	115	5	0	3	32621	119	5	0	3	28847	104	5	0	3				
5W	30958	109	5	0	4	31480	113	5	0	4	27143	99	4	0	4				
1C	28642	104	2	1	3	29238	107	2	1	3	25680	89	2	1	3				
1A	33688	113	3	0	2	34769	117	3	0	2	31689	107	2	0	2				
2	32725	107	4	0	4	34716	110	4	0	4	30404	86	3	0	4				
3	32782	107	3	0	3	34627	110	3	0	3	30399	86	3	0	3				
4	33072	107	3	0	3	34633	110	3	0	3	30399	86	3	0	3				
4W	32138	106	3	0	3	33133	108	3	0	3	28847	85	3	0	3				
5M	33785	107	3	0	3	34630	110	3	0	3	30399	86	3	0	3				
5N	33590	112	5	0	1	35271	115	5	0	1	31643	100	5	0	1				
5R	34000	108	5	0	3	35154	111	5	0	3	30667	97	5	0	3				
5W	33362	105	5	0	4	34169	110	5	0	4	28972	87	4	0	4				
1C	30588	87	2	1	3	31513	100	3	0	3	27476	87	2	1	3				
1A	36586	101	3	0	4	40783	104	3	0	4	35480	87	3	0	4				
2	36588	101	3	0	4	40783	104	3	0	4	35480	87	3	0	4				
3	38118	101	3	0	3	40845	104	3	0	3	35333	87	3	0	3				
4	38722	88	3	0	3	38821	101	3	0	3	34771	88	2	0	3				
4W	37720	108	3	0	3	38887	108	3	0	3	35001	89	3	0	3				
5M	38822	101	5	0	3	40848	104	5	0	3	35333	89	5	0	3				
5N	41384	105	5	0	1	42675	108	5	0	1	37272	89	5	0	1				
5R	38889	105	5	0	3	41205	105	5	0	3	35368	87	5	0	3				
5W	37877	87	5	0	4	38048	100	5	0	4	33886	87	5	0	4				
1C	35659	95	2	1	3	35359	95	2	1	3	32544	87	2	1	3				

**Hubbell Control Solutions - Accessories (sold separately)**

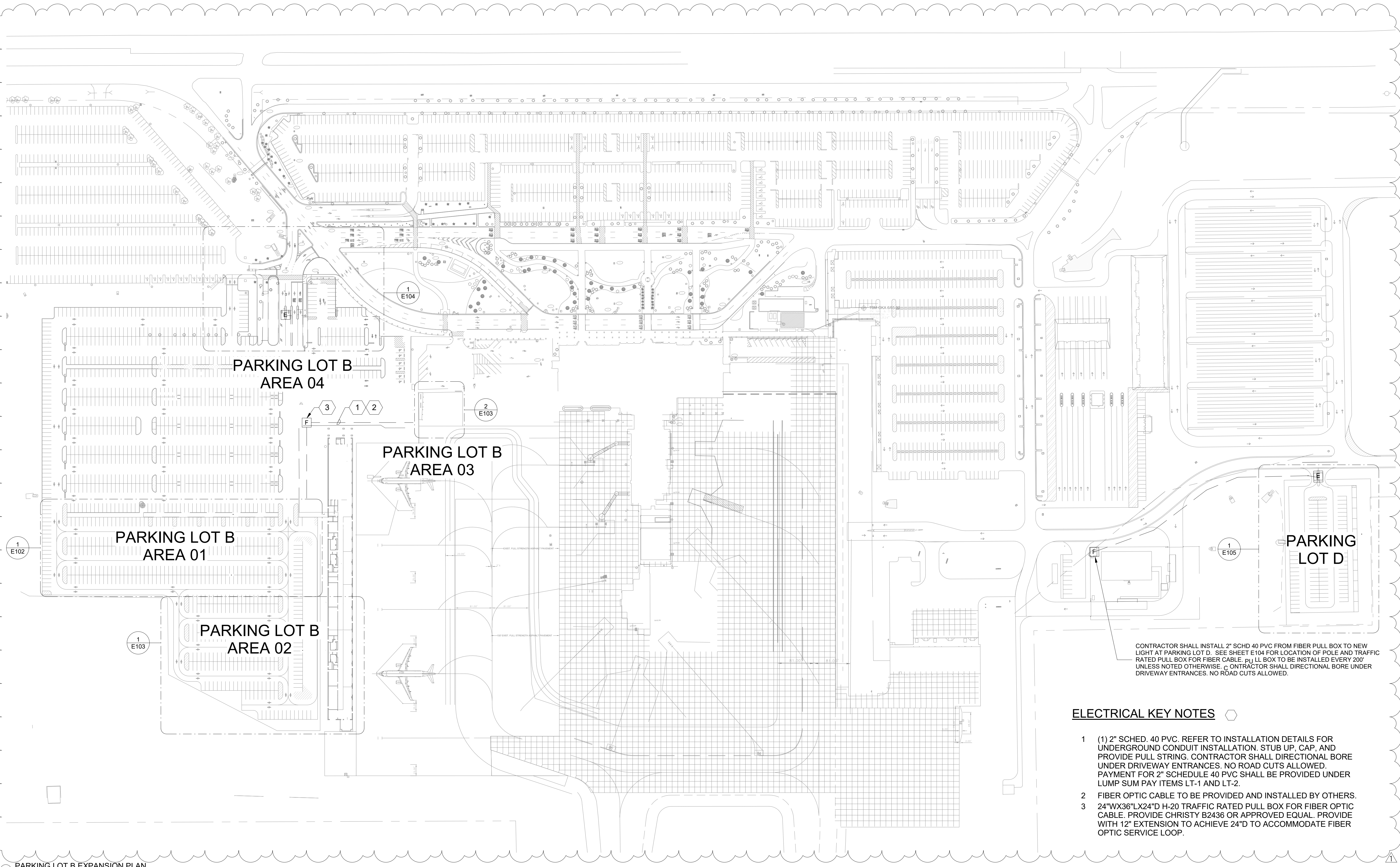
Control Number	Description	Hub System
SOP-REMOTE	Remote Control for 50V, 5-amp, 0-amp or at least one per project to program and control the occupancy sensor	Not Required
SWIMB*	Shadesync wireless interface board on LED fixture drive for use with owner supplied PC (Windows based only). Includes Shadesync license software and USB radio bridge node.	Intelligence™
SWIMB*	Wireless board and Shadesync interface software. Includes label with pre-installed address, Shadesync license and USB radio bridge node.	Intelligence™
SWIRB	Shadesync LED radio bridge node only. Order if a replacement is required or if an extra bit no. is requested.	Intelligence™
SWIPP*	Shadesync 7-pin on fixture model On/Off/Dim, Daylight sensor, occupancy sensor, and motion sensor.	Intelligence™

**SiteSync 7-Pin Module**

**Hubbell Lighting**

Beacon Prod. c/o • 2041 58th Avenue • Circle East Bradenton, FL 34203 • Phone: 800-345-4828  
Due to our continued efforts to improve our products, product specifications are subject to change without notice.  
© 2019 BEACON PRODUCTS. All Rights Reserved. For more information visit: [www.hubbell.com/beacon](http://www.hubbell.com/beacon) • Printed in USA, APRIL 17, 2019 2:42 PM

Submitted On: Sep 20,



CONTRACTOR SHALL INSTALL 2" SCHD 40 PVC FROM FIBER PULL BOX TO NEW LIGHT AT PARKING LOT D. SEE SHEET E104 FOR LOCATION OF POLE AND TRAFFIC RATED PULL BOX FOR FIBER CABLE. PULL BOX TO BE INSTALLED EVERY 200' UNLESS NOTED OTHERWISE. CONTRACTOR SHALL DIRECTIONAL BORE UNDER DRIVEWAY ENTRANCES. NO ROAD CUTS ALLOWED.

**ELECTRICAL KEY NOTES**

- 1 (1) 2" SCHED. 40 PVC. REFER TO INSTALLATION DETAILS FOR UNDERGROUND CONDUIT INSTALLATION. STUB UP, CAP, AND PROVIDE PULL STRING. CONTRACTOR SHALL DIRECTIONAL BORE UNDER DRIVEWAY ENTRANCES. NO ROAD CUTS ALLOWED. PAYMENT FOR 2" SCHEDULE 40 PVC SHALL BE PROVIDED UNDER LUMP SUM PAY ITEMS LT-1 AND LT-2.
- 2 FIBER OPTIC CABLE TO BE PROVIDED AND INSTALLED BY OTHERS.
- 3 24"WX36"LX24"D H-20 TRAFFIC RATED PULL BOX FOR FIBER OPTIC CABLE. PROVIDE CHRISTY B2436 OR APPROVED EQUAL. PROVIDE WITH 12" EXTENSION TO ACHIEVE 24"D TO ACCOMMODATE FIBER OPTIC SERVICE LOOP.

1 PARKING LOT B EXPANSION PLAN  
1" = 100'-0"

**AVCON, INC.**  
ENGINEERS & PLANNERS  
320 BAYSHORE DRIVE, SUITE A  
NICEVILLE, FL 32578-2425  
OFFICE: (850) 678-0050 - FAX: (850) 678-0040  
CORPORATE CERTIFICATE OF  
AUTHORIZATION NUMBER: 5057  
www.avconinc.com

**AVCON**  
TRANSFORMING TODAY'S IDEAS  
INTO TOMORROW'S REALITY

ENGINEER OF RECORD  
STATE OF FLORIDA SEAL

This sheet has been electronically signed and sealed for the professional record. Please contact the Florida Board of Professional Engineers and Architects for more information.

NO.	DATE	REVISION DESCRIPTION	BY
1	12/18/20	ADDENDUM 1	FB

VPS PARKING LOT B  
EXPANSION SITE  
LAYOUT  
RELEASE FOR BID

VPS PARKING LOT B  
EXPANSION  
PREPARED FOR  
DESTIN - FORT WALTON  
BEACH AIRPORT

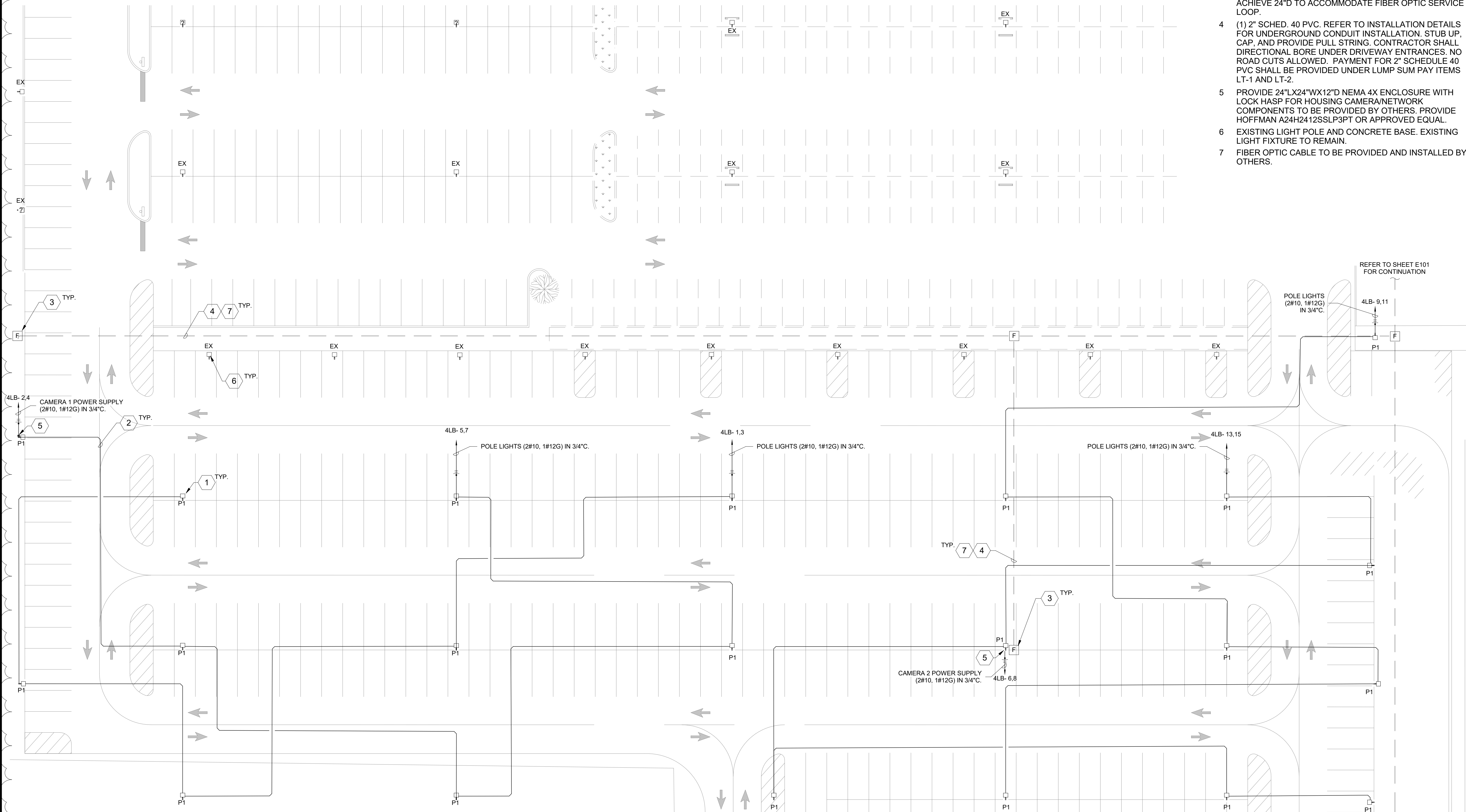
DESIGNED BY: KB  
DRAWN BY: KB / FB  
CHECKED BY: RC  
APPROVED BY: JC  
PROJECT NO: 2019.0050.05  
DATE: JANUARY 2019

SHEET NUMBER  
**E101**

THIS DOCUMENT CONTAINS UNCLASSIFIED AND PROPRIETARY INFORMATION. ALL OF WHICH IS EXPRESSLY PROVIDED BY AVCON, INC. FOR USE BY THE INTENDED RECIPIENT, AND FOR A SPECIFIC PURPOSE. WITHOUT THE EXPRESS WRITTEN CONSENT OF AVCON, INC. ANY DISTRIBUTION, REPRODUCTION, OR OTHER USE OF THIS DOCUMENT, IN WHOLE OR IN PART, IS STRICTLY PROHIBITED.

ELECTRICAL KEY NOTES

- 1 REFER TO INSTALLATION DETAILS FOR LIGHT POLE INSTALLATION AND REQUIREMENTS.
- 2 (1) 3/4" SCHED. 40 PVC. REFER TO INSTALLATION DETAILS FOR UNDERGROUND CONDUIT INSTALLATION.
- 3 24"WX36"LX24"D H-20 TRAFFIC RATED PULL BOX FOR FIBER OPTIC CABLE. PROVIDE CHRISTY B2436 OR APPROVED EQUAL. PROVIDE WITH 12" EXTENSION TO ACHIEVE 24"D TO ACCOMMODATE FIBER OPTIC SERVICE LOOP.
- 4 (1) 2" SCHED. 40 PVC. REFER TO INSTALLATION DETAILS FOR UNDERGROUND CONDUIT INSTALLATION. STUB UP, CAP, AND PROVIDE PULL STRING. CONTRACTOR SHALL DIRECTIONAL BORE UNDER DRIVEWAY ENTRANCES. NO ROAD CUTS ALLOWED. PAYMENT FOR 2" SCHEDULE 40 PVC SHALL BE PROVIDED UNDER LUMP SUM PAY ITEMS LT-1 AND LT-2.
- 5 PROVIDE 24"LX24"WX12"D NEMA 4X ENCLOSURE WITH LOCK HASP FOR HOUSING CAMERA/NETWORK COMPONENTS TO BE PROVIDED BY OTHERS. PROVIDE HOFFMAN A24H2412SSL3PT OR APPROVED EQUAL.
- 6 EXISTING LIGHT POLE AND CONCRETE BASE. EXISTING LIGHT FIXTURE TO REMAIN.
- 7 FIBER OPTIC CABLE TO BE PROVIDED AND INSTALLED BY OTHERS.



MATCHLINE - SEE SHEET E103

1 PARKING LOT B LIGHTING LAYOUT, AREA 01  
1" = 20'-0"

**AVCON, INC.**  
ENGINEERS & PLANNERS  
320 BAYSHORE DRIVE, SUITE A  
NICEVILLE, FL 32578-2425  
OFFICE: (850) 678-0050 - FAX: (850) 678-0040  
CORPORATE CERTIFICATE OF  
AUTHORIZATION NUMBER: 5057  
www.avconinc.com

**AVCON**  
TRANSFORMING TODAY'S IDEAS  
INTO TOMORROW'S REALITY

ENGINEER OF RECORD  
STATE OF FLORIDA SEAL

NO.	DATE	REVISION DESCRIPTION	BY
1	12/18/20	ADDENDUM 1	

VPS PARKING LOT B  
AREA 01 LIGHTING  
LAYOUT  
RELEASE FOR BID

VPS PARKING LOT B  
EXPANSION  
PREPARED FOR  
DESTIN - FORT WALTON  
BEACH AIRPORT

DESIGNED BY: KB  
DRAWN BY: KB / FB  
CHECKED BY: RC  
APPROVED BY: JC  
PROJECT NO: 2019.0050.05  
DATE: JANUARY 2019

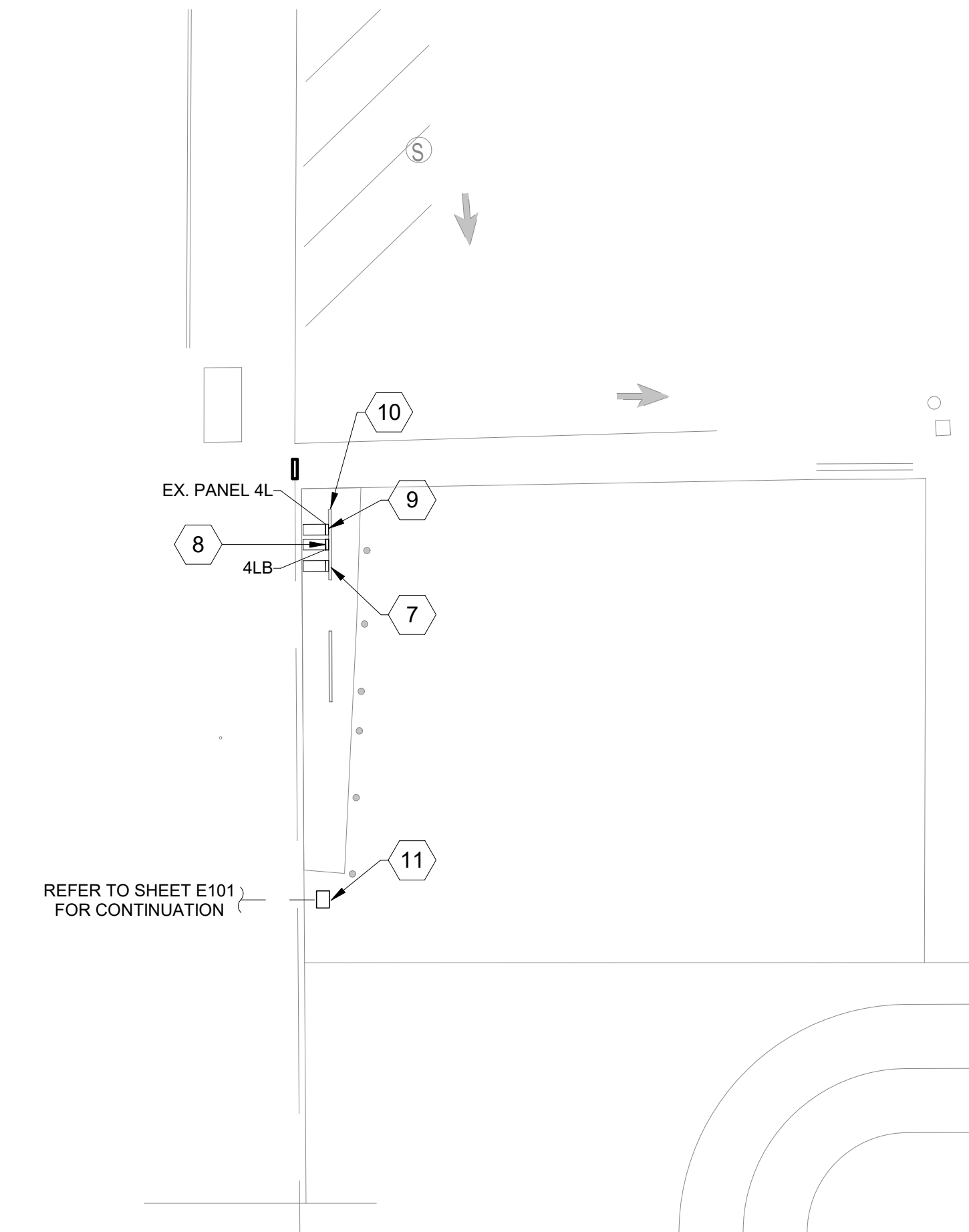
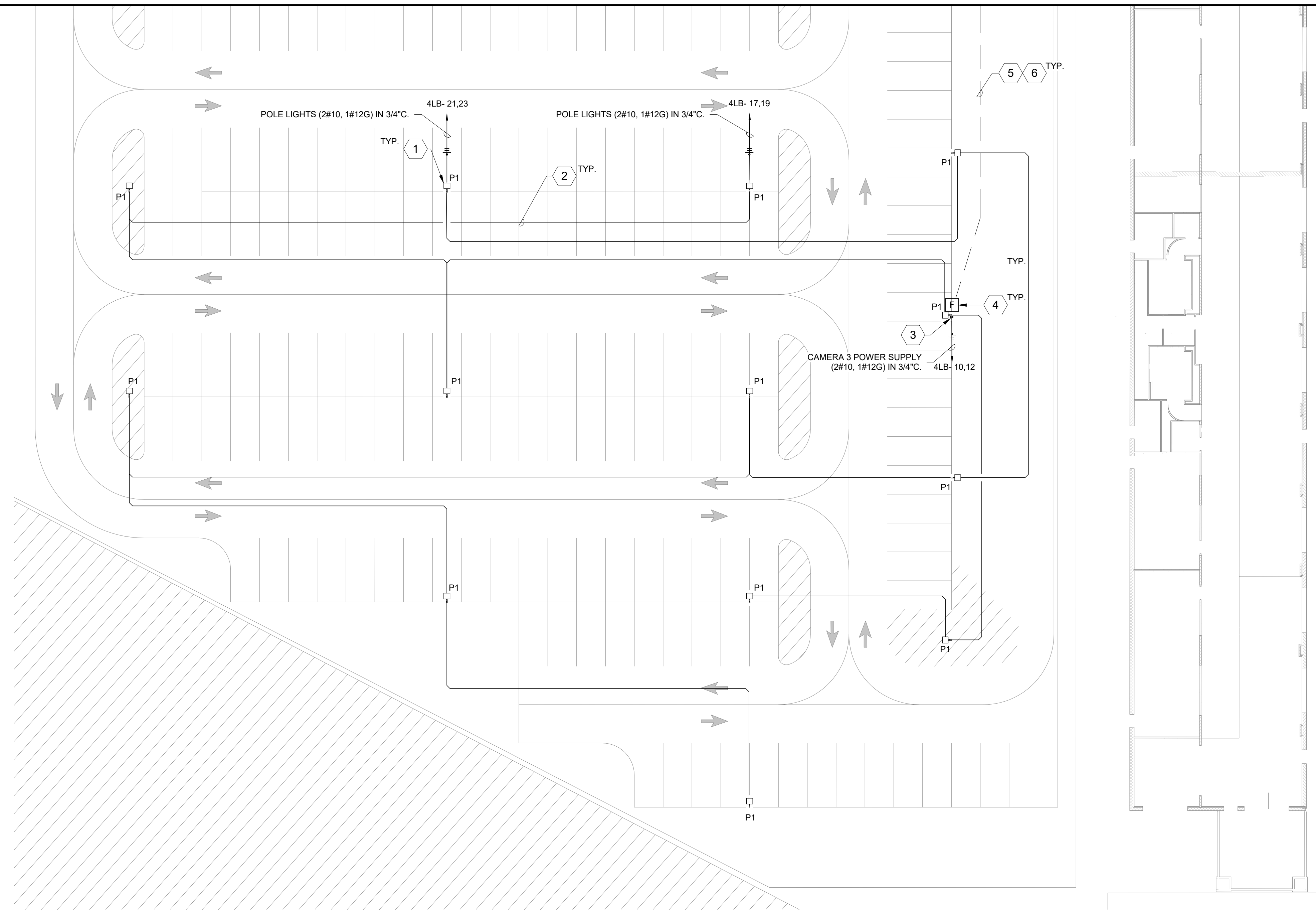
SHEET NUMBER  
**E102**

THIS DOCUMENT CONTAINS PRIVILEGED AND PROPRIETARY INFORMATION. ALL OF WHICH IS EXPRESSLY PROVIDED BY AVCON, INC. FOR USE BY THE INTENDED RECIPIENT, AND FOR A SPECIFIC PURPOSE. WITHOUT THE EXPRESS WRITTEN CONSENT OF AVCON, INC. ANY DISTRIBUTION, REPRODUCTION, OR OTHER USE OF THIS DOCUMENT, IN WHOLE OR IN PART, IS STRICTLY PROHIBITED.

ELECTRICAL KEY NOTES

- 1 REFER TO INSTALLATION DETAILS FOR LIGHT POLE INSTALLATION AND REQUIREMENTS.
- 2 (1) 3/4" SCHED. 40 PVC. REFER TO INSTALLATION DETAILS FOR UNDERGROUND CONDUIT INSTALLATION.
- 3 PROVIDE 24"LX24"WX12"D NEMA 4X ENCLOSURE WITH LOCK HASP FOR HOUSING CAMERA/NETWORK COMPONENTS TO BE PROVIDED BY OTHERS. PROVIDE HOFFMAN A24H2412SSLP3PT OR APPROVED EQUAL.
- 4 24"WX36"LX24"D H-20 TRAFFIC RATED PULL BOX FOR FIBER OPTIC CABLE. PROVIDE CHRISTY B2436 OR APPROVED EQUAL. PROVIDE WITH 12" EXTENSION TO ACHIEVE 24"D TO ACCOMMODATE FIBER OPTIC SERVICE LOOP.
- 5 (1) 2" SCHED. 40 PVC. REFER TO INSTALLATION DETAILS FOR UNDERGROUND CONDUIT INSTALLATION. STUB UP, CAP, AND PROVIDE PULL STRING. CONTRACTOR SHALL DIRECTIONAL BORE UNDER DRIVEWAY ENTRANCES. NO ROAD CUTS ALLOWED. PAYMENT FOR 2" SCHEDULE 40 PVC SHALL BE PROVIDED UNDER LUMP SUM PAY ITEMS LT-1 AND LT-2.
- 6 FIBER OPTIC CABLE TO BE PROVIDED AND INSTALLED BY OTHERS.
- 7 EXISTING MAIN DISTRIBUTION PANEL (MDP SITE). SEE PANEL SCHEDULES FOR DETAILS. CONTRACTOR TO VERIFY LOADS PRIOR TO CONSTRUCTION.
- 8 NEW POWER PANEL (4LB), NEMA 4X, SEE PANEL SCHEDULES FOR DETAILS. CONTRACTOR TO VERIFY LOADS PRIOR TO CONSTRUCTION.
- 9 EXISTING POWER PANEL (4L), SEE PANEL SCHEDULES FOR DETAILS. CONTRACTOR TO VERIFY LOADS PRIOR TO CONSTRUCTION.
- 10 EXISTING LOCATION FOR POWER DISTRIBUTION RACK. SEE PANEL SCHEDULES ON SHEET E106.
- 11 LOCATION OF EXISTING FREE-STANDING COMMUNICATION ENCLOSURE. PROVIDE NEW 2" PVC CONDUIT FROM ENCLOSURE TO PARKING LOT AREAS FOR ROUTING OF FIBER OPTIC CABLE TO LIGHT POLE MOUNTED CAMERA LOCATIONS ON SHEETS E101, E102, AND E103. FIBER OPTIC CABLE TO BE PROVIDED BY OTHERS.

MATCHLINE - SEE SHEET E102



1 PARKING LOT B LIGHTING LAYOUT, AREA 02  
1" = 20'-0"

2 PARKING LOT B LIGHTING LAYOUT, AREA 03  
1" = 20'-0"

**AVCON, INC.**  
ENGINEERS & PLANNERS  
320 BAYSHORE DRIVE, SUITE A  
NICEVILLE, FL 32578-2425  
OFFICE: (850) 678-0050 • FAX: (850) 678-0040  
CORPORATE CERTIFICATE OF  
AUTHORIZATION NUMBER: 5057  
www.avconinc.com

**AVCON**  
TRANSFORMING TODAY'S IDEAS  
INTO TOMORROW'S REALITY

ENGINEER OF RECORD  
STATE OF FLORIDA SEAL

This sheet has been electronically signed and sealed by the individual named herein and is the property of AVCON, INC. It is to be used only for the project and location specified herein. Any other use is strictly prohibited.

NO.	DATE	REVISION DESCRIPTION	BY
1	12/18/20	ADDENDUM 1	FB

VPS PARKING LOT B  
AREA 02 & 03  
LIGHTING LAYOUT  
RELEASE FOR BID

VPS PARKING LOT B  
EXPANSION  
PREPARED FOR  
DESTIN - FORT WALTON  
BEACH AIRPORT

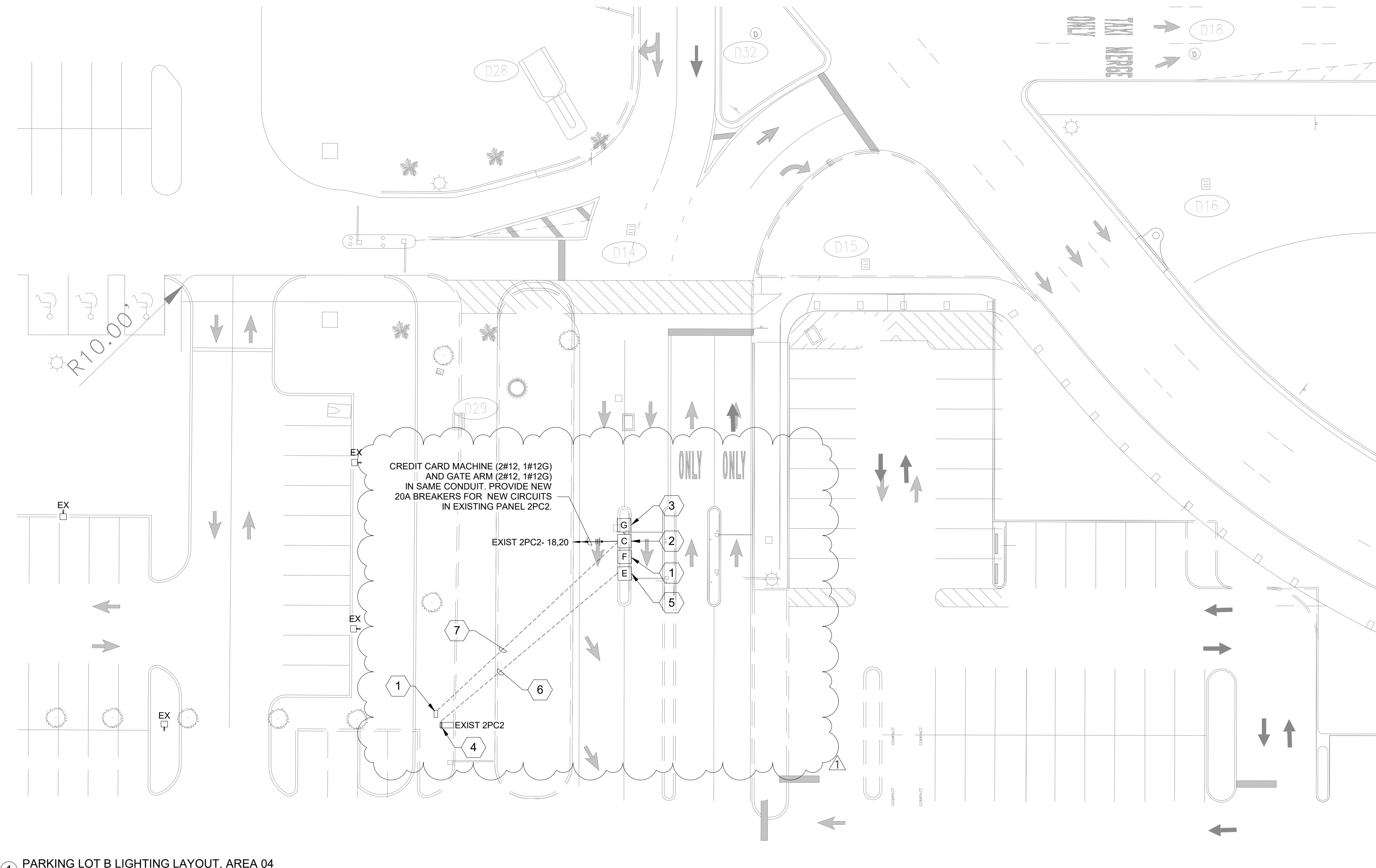
DESIGNED BY: KB  
DRAWN BY: KB / FB  
CHECKED BY: RC  
APPROVED BY: JC  
PROJECT NO: 2019.0050.05  
DATE: JANUARY 2019

SHEET NUMBER  
**E103**

THIS DOCUMENT CONTAINS PROPRIETARY AND CONFIDENTIAL INFORMATION. ALL OF WHICH IS EXPRESSLY PROVIDED BY AVCON, INC. FOR USE BY THE INTENDED RECIPIENT, AND FOR A SPECIFIC PURPOSE. WITHOUT THE EXPRESS WRITTEN CONSENT OF AVCON, INC. ANY DISTRIBUTION, REPRODUCTION, OR OTHER USE OF THIS DOCUMENT, IN WHOLE OR IN PART, IS STRICTLY PROHIBITED.

**ELECTRICAL KEY NOTES**

- 1 13"x23" TRAFFIC RATED PULL BOX FOR COMMUNICATION CONDUITS
- 2 CREDIT CARD MACHINE TO BE PROVIDED BY OTHERS
- 3 GATE ARM TO BE PROVIDED BY OTHERS
- 4 EXISTING POWER PANEL (2PC2). CONTRACTOR TO VERIFY LOADS PRIOR TO CONSTRUCTION.
- 5 13"x23" TRAFFIC RATED PULL BOX FOR ELECTRICAL CONDUITS
- 6 DIRECTIONAL DRILL (2) 1" CONDUIT FROM PANEL 2PC2 TO NEW ELECTRICAL PULL BOX IN EXISTING ISLAND.
- 7 DIRECTIONAL DRILL (2) 2" CONDUITS FROM NEW COMMUNICATION PULL BOX IN TURFED AREA TO NEW COMMUNICATION PULL BOX IN EXISTING ISLAND.



① PARKING LOT B LIGHTING LAYOUT, AREA 04  
1" = 20'-0"

**AVCON, INC.**  
ENGINEERS & PLANNERS  
320 BAYSHORE DRIVE, SUITE A  
NICEVILLE, FL 32578-2425  
OFFICE: (850) 678-0050 - FAX: (850) 678-0040  
CORPORATE CERTIFICATE OF AUTHORIZATION NUMBER: 5057  
www.avconinc.com

**AVCON**  
TRANSFORMING TODAY'S IDEAS  
INTO TOMORROW'S REALITY

ENGINEER OF RECORD  
STATE OF FLORIDA SEAL

This sheet has been electronically signed and sealed by the individual named hereon and is subject to the Florida Statutes, Chapter 481, Part I, F.S. and the Florida Board of Professional Engineers, Chapter 481, Part I, F.S. and the Florida Board of Professional Engineers, Chapter 481, Part I, F.S. and the Florida Board of Professional Engineers, Chapter 481, Part I, F.S.

NO.	DATE	REVISION DESCRIPTION	BY
1	12/18/20	ADDENDUM 1	FB

**VPS PARKING LOT B  
AREA 04 LIGHTING  
LAYOUT**  
RELEASE FOR BID

**VPS PARKING LOT B  
EXPANSION**  
PREPARED FOR  
**DESTIN - FORT WALTON  
BEACH AIRPORT**

DESIGNED BY: KB  
DRAWN BY: KB/FB  
CHECKED BY: RC  
APPROVED BY: JC  
PROJECT NO: 2019.0050.05  
DATE: JANUARY 2019

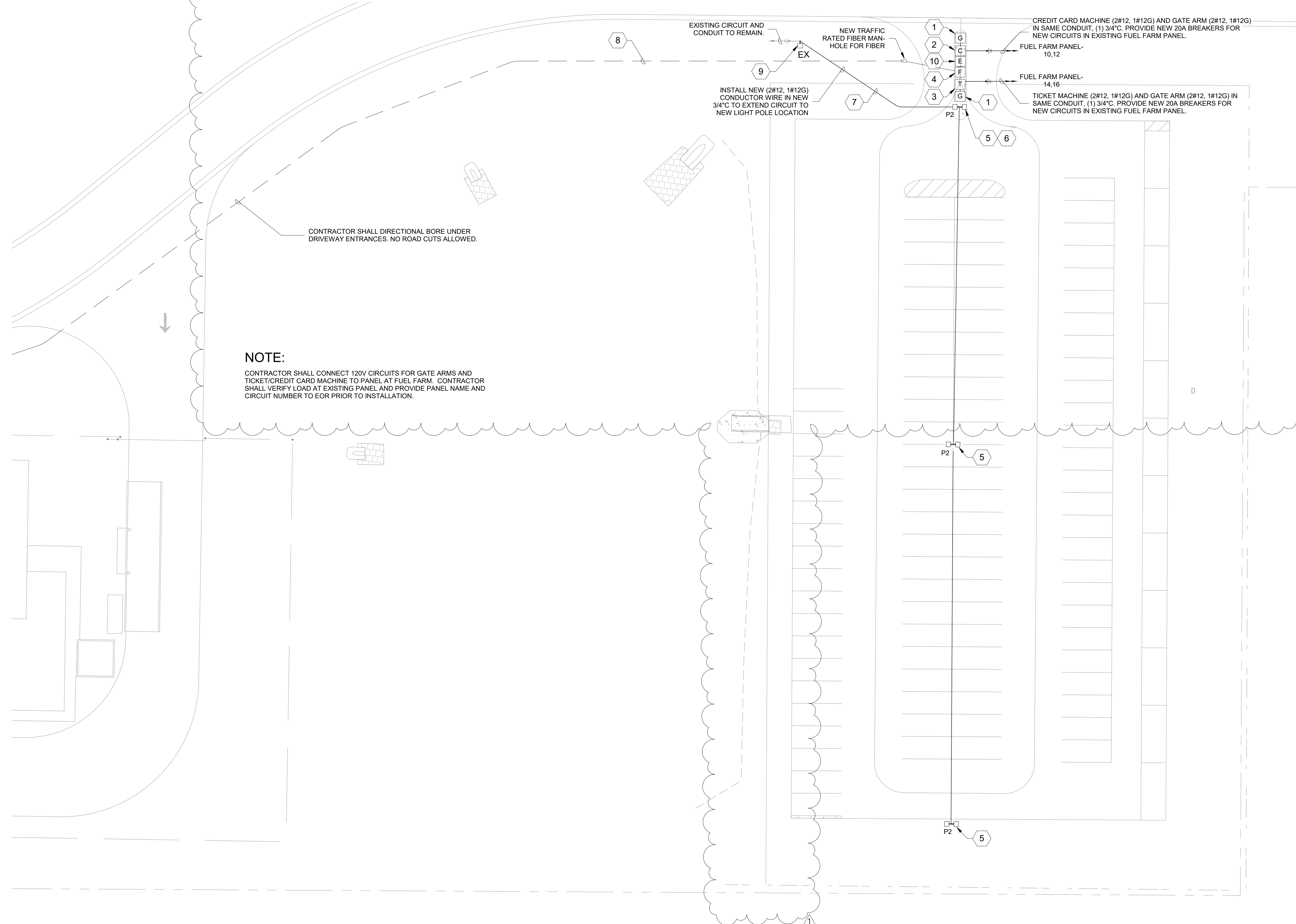
SHEET NUMBER  
**E104**

THIS DOCUMENT CONTAINS PRIVILEGED AND PROPRIETARY INFORMATION. ALL OF WHICH IS EXPRESSLY PROVIDED BY AVCON, INC. FOR USE BY THE INTENDED RECIPIENT, AND FOR A SPECIFIC PURPOSE. WITHOUT THE EXPRESS WRITTEN CONSENT OF AVCON, INC. ANY DISTRIBUTION, REPRODUCTION, OR OTHER USE OF THIS DOCUMENT, IN WHOLE OR IN PART, IS STRICTLY PROHIBITED.



ATTACHMENT C ELECTRICAL KEY NOTES

- 1 GATE ARM TO BE PROVIDED BY OTHERS
- 2 CREDIT CARD MACHINE TO BE PROVIDED BY OTHERS
- 3 TICKET MACHINE TO BE PROVIDED BY OTHERS
- 4 13"x23" TRAFFIC RATED PULL BOX FOR COMMUNICATION CONDUITS
- 5 REFER TO INSTALLATION DETAILS FOR LIGHT POLE INSTALLATION AND REQUIREMENTS.
- 6 PROVIDE 24"LX24"WX12"D NEMA 4X ENCLOSURE WITH LOCK HASP FOR HOUSING CAMERA/NETWORK COMPONENTS TO BE PROVIDED BY OTHERS. PROVIDE HOFFMAN A24H2412SSLP3PT OR APPROVED EQUAL.
- 7 (1) 1" SCHED. 40 PVC. REFER TO INSTALLATION DETAILS FOR UNDERGROUND CONDUIT INSTALLATION. INSTALL NEW (2#12, 1#12G) CONDUCTOR WIRE IN NEW 3/4"C TO EXTEND CIRCUIT TO NEW LIGHT POLE LOCATION.
- 8 (1) 2" SCHED. 40 PVC. REFER TO INSTALLATION DETAILS FOR UNDERGROUND CONDUIT INSTALLATION. STUB UP, CAP, AND PROVIDE PULL STRING. CONTRACTOR SHALL DIRECTIONAL BORE UNDER DRIVEWAY ENTRANCES. NO ROAD CUTS ALLOWED. PAYMENT FOR 2" SCHEDULE 40 PVC SHALL BE PROVIDED UNDER LUMP SUM PAY ITEMS LT-1 AND LT-2.
- 9 EXISTING LIGHT POLE AND CONCRETE BASE. EXISTING LIGHT FIXTURE TO REMAIN.
- 10 13"x23" TRAFFIC RATED PULL BOX FOR ELECTRICAL CONDUITS



**NOTE:**  
CONTRACTOR SHALL CONNECT 120V CIRCUITS FOR GATE ARMS AND TICKET/CREDIT CARD MACHINE TO PANEL AT FUEL FARM. CONTRACTOR SHALL VERIFY LOAD AT EXISTING PANEL AND PROVIDE PANEL NAME AND CIRCUIT NUMBER TO EOR PRIOR TO INSTALLATION.

CONTRACTOR SHALL DIRECTIONAL BORE UNDER DRIVEWAY ENTRANCES. NO ROAD CUTS ALLOWED.

1 PARKING LOT D LIGHTING LAYOUT  
1" = 20'-0"

**AVCON, INC.**  
ENGINEERS & PLANNERS  
320 BAYSHORE DRIVE, SUITE A  
NICEVILLE, FL 32578-2425  
OFFICE: (850) 678-0050 • FAX: (850) 678-0040  
CORPORATE CERTIFICATE OF AUTHORIZATION NUMBER: 5057  
www.avconinc.com

**AVCON**  
TRANSFORMING TODAY'S IDEAS INTO TOMORROW'S REALITY

ENGINEER OF RECORD  
STATE OF FLORIDA SEAL

This seal has been electronically signed and sealed by the individual named herein and is not valid for any other purpose. It is not to be reproduced or used for any other purpose without the express written consent of the individual named herein.

NO.	DATE	REVISION DESCRIPTION	BY
1	12/18/20	ADDENDUM 1	FB

**VPS PARKING LOT B EXPANSION**  
PREPARED FOR  
**DESTIN - FORT WALTON BEACH AIRPORT**

**VPS PARKING LOT D LIGHTING LAYOUT**  
RELEASE FOR BID

DESIGNED BY: KB  
DRAWN BY: KB / FB  
CHECKED BY: RC  
APPROVED BY: JC  
PROJECT NO: 2019.0050.05  
DATE: JANUARY 2019

SHEET NUMBER  
**E105**

THIS DOCUMENT CONTAINS PRIVILEGED AND PROPRIETARY INFORMATION. ALL OF WHICH IS EXPRESSLY PROVIDED BY AVCON, INC. FOR USE BY THE INTENDED RECIPIENT, AND FOR A SPECIFIC PURPOSE. WITHOUT THE EXPRESS WRITTEN CONSENT OF AVCON, INC. ANY DISTRIBUTION, REPRODUCTION, OR OTHER USE OF THIS DOCUMENT, IN WHOLE OR IN PART, IS STRICTLY PROHIBITED.

AVCON, INC. ENGINEERS & PLANNERS 320 BAYSHORE DRIVE, SUITE A NICEVILLE, FL 32578-2425 OFFICE: (850) 678-0050 - FAX: (850) 678-0040 CORPORATE CERTIFICATE OF AUTHORIZATION NUMBER: 5057 www.avconinc.com

ENGINEER OF RECORD STATE OF FLORIDA SEAL

ELECTRICAL LOAD CALCULATIONS AND PANEL SCHEDULE RELEASE FOR BID

VPS PARKING LOT B EXPANSION PREPARED FOR DESTIN - FORT WALTON BEACH AIRPORT DESIGNED BY: KB DRAWN BY: KB / FB CHECKED BY: RC APPROVED BY: JC PROJECT NO: 2019.0050.05 DATE: JANUARY 2019 SHEET NUMBER E106

PANEL: EXIST PNL MDP AIC RATING: EXIST VOLTAGE: 208Y/120V FRAME: 250A FED FROM: MDP MAIN TYPE: 150A MAIN CIRCUIT BREAKER LOCATION: SITE EXTERIOR RACK NEW CONSTRUCTION NEMA RATING: TYPE 4X PHASE: 3P BUS TYPE: COPPER LUG TYPE: BOLT-ON MOUNTING: SURFACE # of WIRES: 4W

Table with columns: LOAD DESCRIPTION, LOAD (kVA) (PHASES), LOAD AMPS, BREAKER (C/B TRIP, POLE, CKT #), LOAD (kVA) (PHASES), LOAD DESCRIPTION. Includes entries for NEW PNL 4LB, SPARE, and MAIN BREAKER.

DEMAND LOAD CALCS: LOAD CLASSIFICATION, CONNECTED, DEMAND, RECEPTACLE LOAD, LIGHTING LOAD, LARGEST MOTOR LOAD, HVAC HEATING LOAD, HVAC COOLING LOAD, EQUIPMENT LOAD, ELEVATOR LOAD, KITCHEN EQUIP LOAD. PANEL SCHEDULE NOTES: 1: SIZE CB PER MFG RECOMMENDATIONS.

GENERAL NOTES:

EXISTING ELECTRICAL PANELS SHOW NO LOAD EXCEPT FOR THE LOAD THAT IS BEING ADDED FOR THIS PROJECT. EOR DOES NOT HAVE PERTINANT DATA FOR COMPLETING THE LOAD INFORMATION FOR EXISTING PANELS. CONTRACTOR SHALL VERIFY EXISTING LOADS AND CIRCUIT INFORMATION AND PROVIDE INFORMATION TO EOR PRIOR TO CONSTRUCTION AND EQUIPMENT HAS BEEN PURCHASED.

PANEL: NEW PNL 4LB AIC RATING: 35,000 VOLTAGE: 480Y/277V FRAME: 100A FED FROM: MDP MAIN TYPE: MLO (MAIN LUG ONLY) LOCATION: SITE EXTERIOR RACK NEW CONSTRUCTION NEMA RATING: TYPE 4X PHASE: 3P BUS TYPE: COPPER LUG TYPE: BOLT-ON MOUNTING: SURFACE # of WIRES: 4W

Table with columns: LOAD DESCRIPTION, LOAD (kVA) (PHASES), LOAD AMPS, BREAKER (C/B TRIP, POLE, CKT #), LOAD (kVA) (PHASES), LOAD DESCRIPTION. Includes entries for LTG - PRKG LOT B POLE LIGHTS, CAMERA 1-2-3, and SPARE.

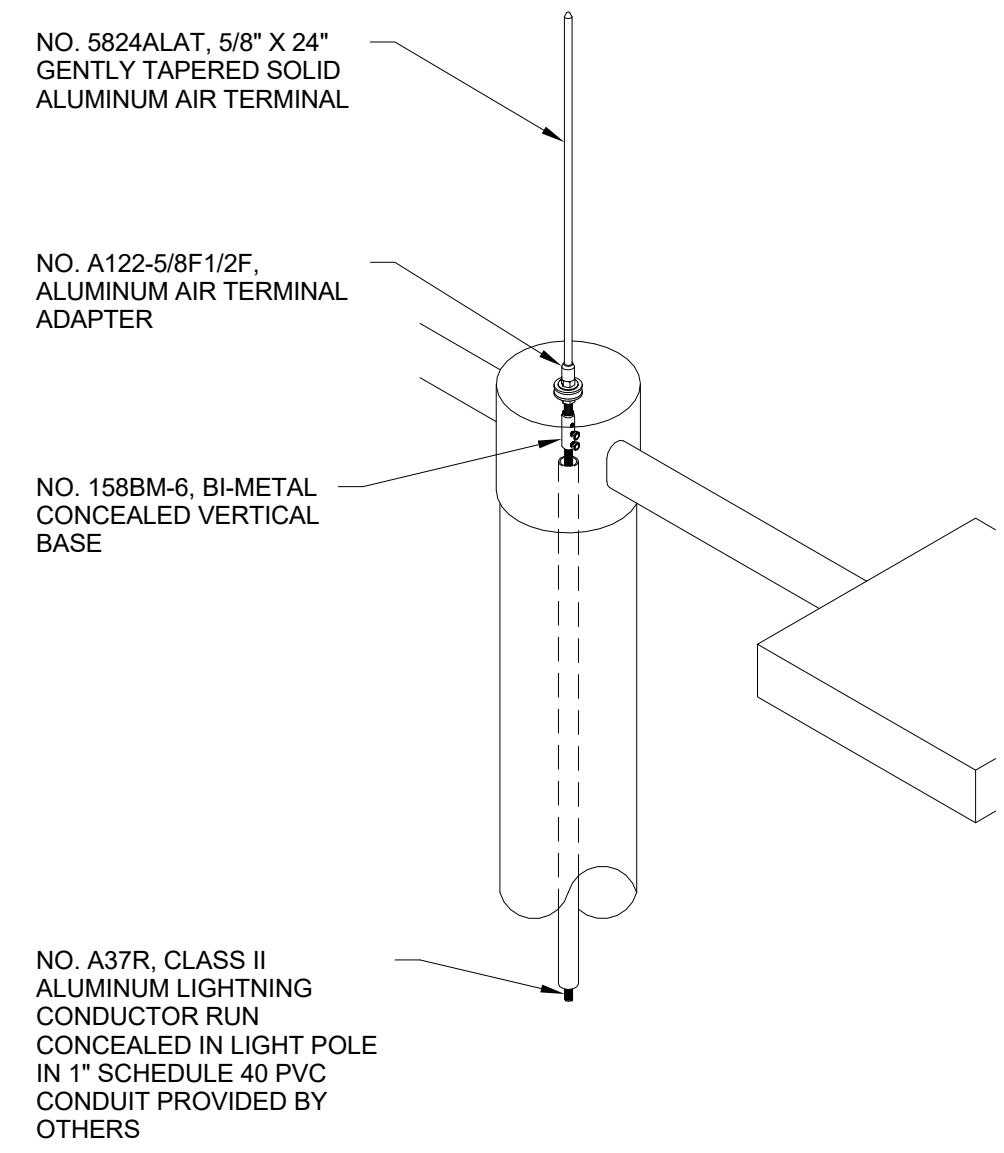
DEMAND LOAD CALCS: LOAD CLASSIFICATION, CONNECTED, DEMAND, RECEPTACLE LOAD, LIGHTING LOAD, LARGEST MOTOR LOAD, HVAC HEATING LOAD, HVAC COOLING LOAD, EQUIPMENT LOAD, ELEVATOR LOAD, KITCHEN EQUIP LOAD. PANEL SCHEDULE NOTES: 1: SIZE CB PER MFG RECOMMENDATIONS.

PANEL: EXIST PNL 4L AIC RATING: 35,000 VOLTAGE: 480Y/277V FRAME: 100A FED FROM: MDP MAIN TYPE: MLO (MAIN LUG ONLY) LOCATION: SITE EXTERIOR RACK NEW CONSTRUCTION NEMA RATING: TYPE 4X PHASE: 3P BUS TYPE: COPPER LUG TYPE: BOLT-ON MOUNTING: SURFACE # of WIRES: 4W

Table with columns: LOAD DESCRIPTION, LOAD (kVA) (PHASES), LOAD AMPS, BREAKER (C/B TRIP, POLE, CKT #), LOAD (kVA) (PHASES), LOAD DESCRIPTION. Includes entries for LTG - PRKG LOT B POLE LIGHTS, PWR - POWER CENTER 2PC1-2, and SPARE.

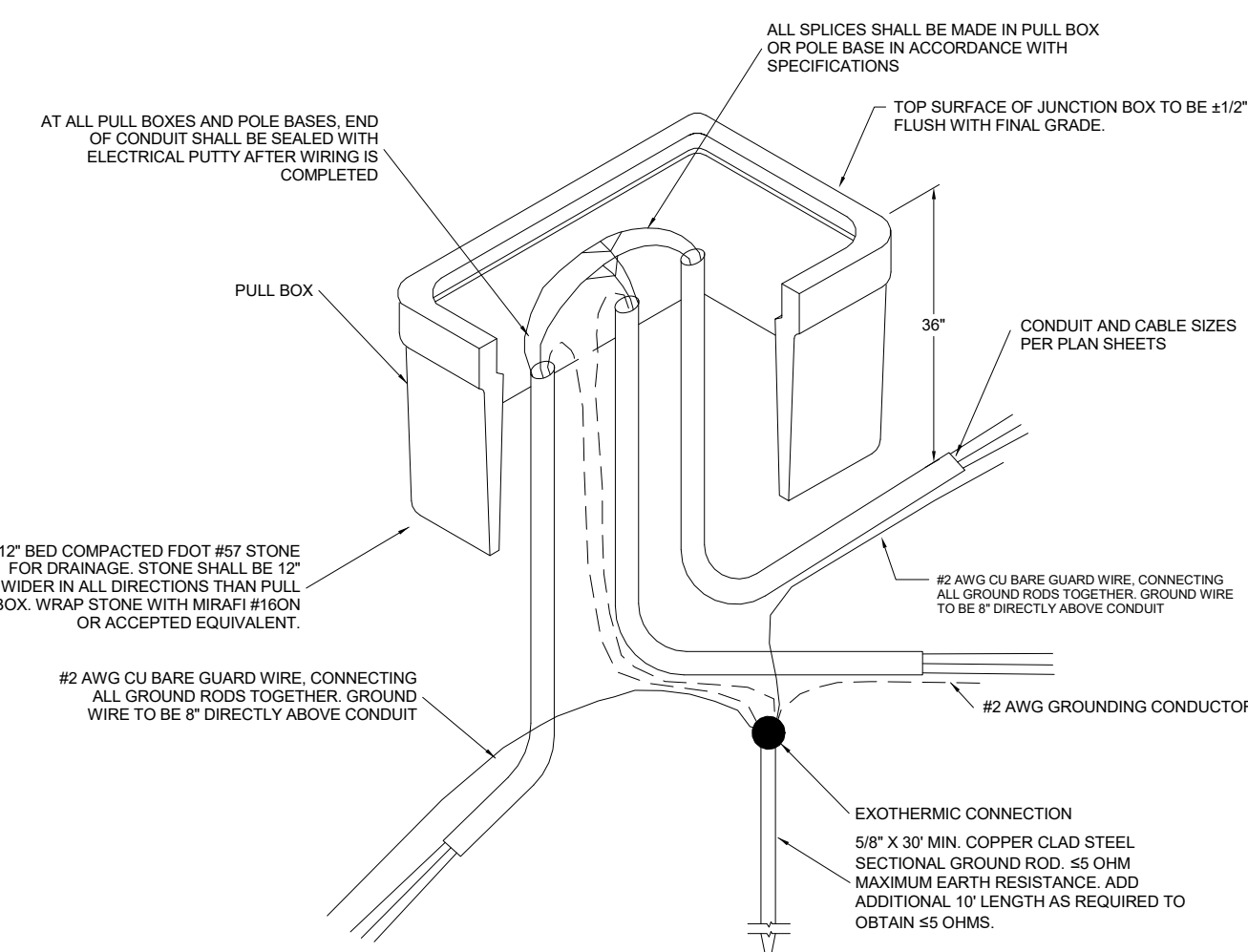
DEMAND LOAD CALCS: LOAD CLASSIFICATION, CONNECTED, DEMAND, RECEPTACLE LOAD, LIGHTING LOAD, LARGEST MOTOR LOAD, HVAC HEATING LOAD, HVAC COOLING LOAD, EQUIPMENT LOAD, ELEVATOR LOAD, KITCHEN EQUIP LOAD. PANEL SCHEDULE NOTES: 1: SIZE CB PER MFG RECOMMENDATIONS.

THIS DOCUMENT CONTAINS PRIVILEGED AND PROPRIETARY INFORMATION. ALL OF WHICH IS EXPRESSLY PROVIDED BY AVCON, INC. FOR USE BY THE INTENDED RECIPIENT, AND FOR A SPECIFIC PURPOSE. WITHOUT THE EXPRESS WRITTEN CONSENT OF AVCON, INC. ANY DISTRIBUTION, REPRODUCTION, OR OTHER USE OF THIS DOCUMENT, IN WHOLE OR IN PART, IS STRICTLY PROHIBITED.

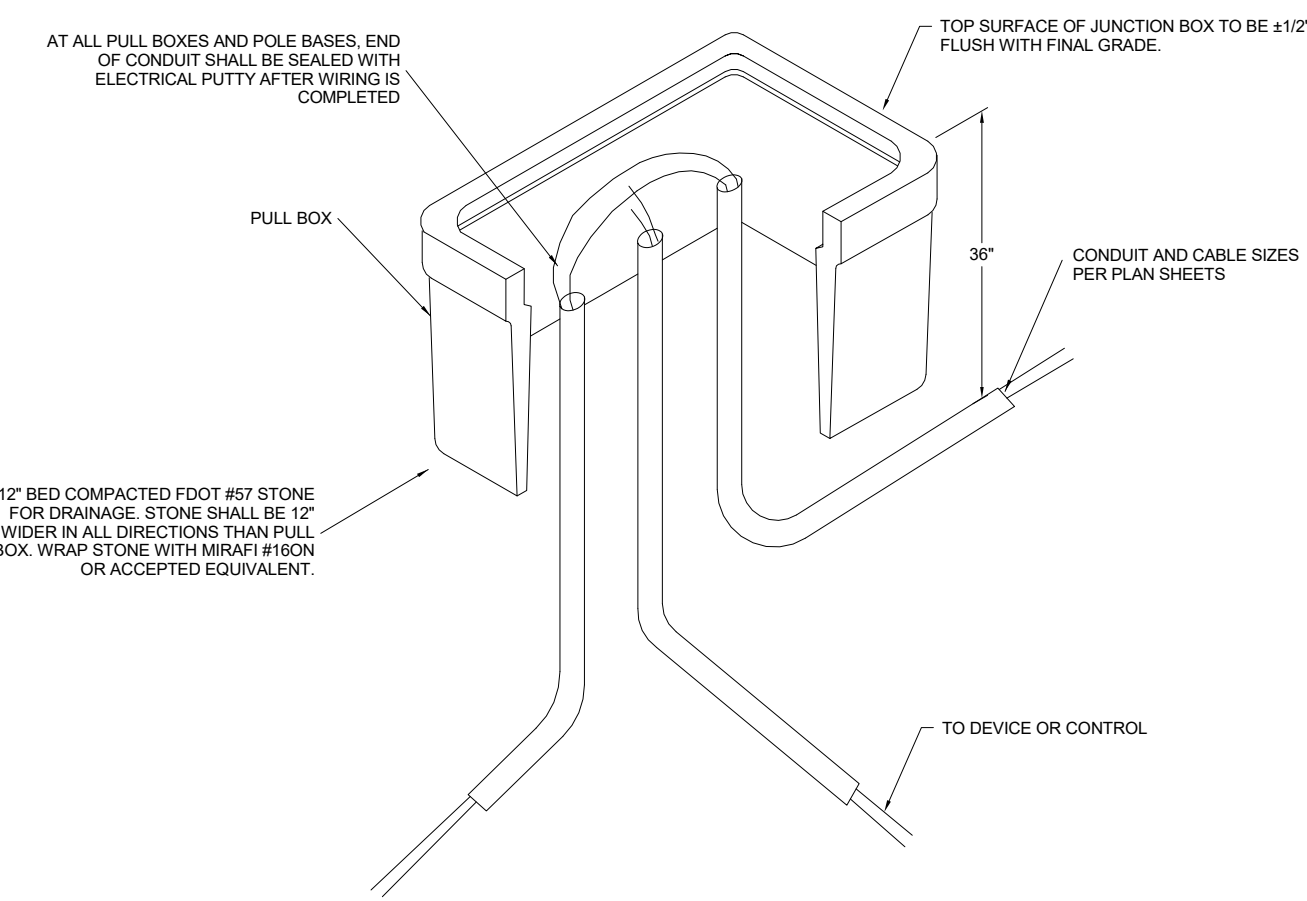


1 AIR TERMINAL DETAIL "A"  
NTS

1 SITE LIGHT LP DETAIL  
12" = 1'-0"

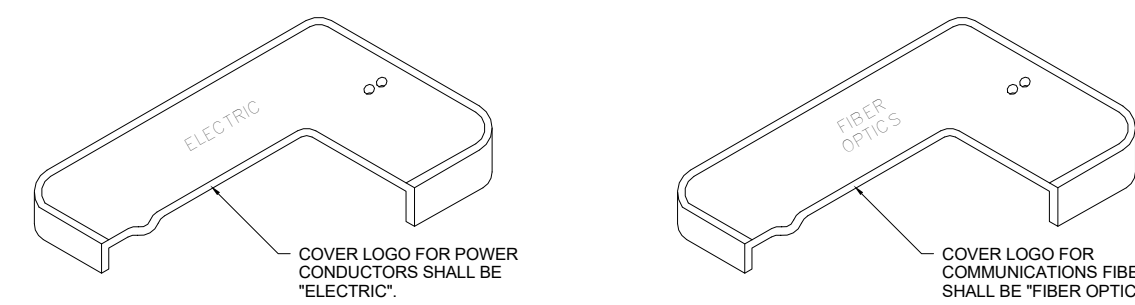


**GROUNDING REQUIREMENTS OF ELECTRICAL JUNCTION/PULL BOX**  
N.T.S.

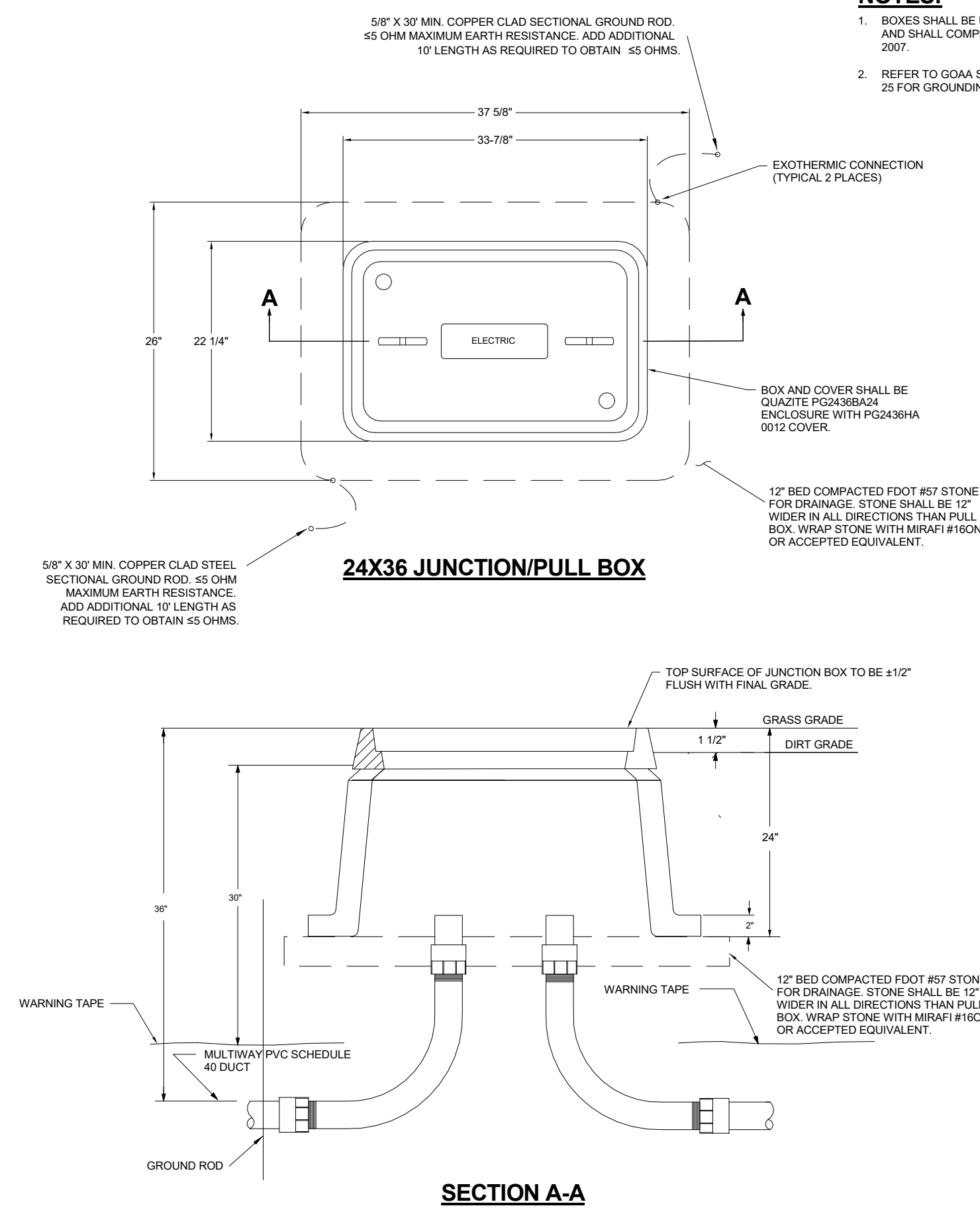


**FIBER OPTIC JUNCTION/PULL BOX AT DEVICE**

2 ELECTRICAL PULL BOX  
6" = 1'-0"



- NOTES:**
1. BOXES SHALL BE UL LISTED TIER 22 AND SHALL COMPLY WITH ANSICSTE 77 2007.
  2. REFER TO GOAA SPECIFICATION 25 06 25 FOR GROUNDING REQUIREMENTS.



**SECTION A-A**

**AVCON, INC.**  
ENGINEERS & PLANNERS  
320 BAYSHORE DRIVE, SUITE A  
NICEVILLE, FL 32578-2425  
OFFICE: (850) 678-0050 - FAX: (850) 678-0040  
CORPORATE CERTIFICATE OF AUTHORIZATION NUMBER: 5057  
www.avconinc.com

**AVCON**  
TRANSFORMING TODAY'S IDEAS INTO TOMORROW'S REALITY

ENGINEER OF RECORD  
STATE OF FLORIDA SEAL

This sheet has been electronically signed and sealed by the individual named herein under a license from the State of Florida. It is the responsibility of the user to verify the validity of the signature and seal. Please contact the Registrar for more information regarding electronic signatures.

NO.	DATE	REVISION DESCRIPTION	BY
1	12/18/20	ADDENDUM 1	FB

**ELECTRICAL DETAILS**  
RELEASE FOR BID

**VPS PARKING LOT B EXPANSION**  
PREPARED FOR  
**DESTIN - FORT WALTON BEACH AIRPORT**

DESIGNED BY: KB  
DRAWN BY: KB / FB  
CHECKED BY: RC  
APPROVED BY: JC  
PROJECT NO: 2019.0050.05  
DATE: JANUARY 2019

SHEET NUMBER  
**E107**

THIS DOCUMENT CONTAINS PRIVILEGED AND PROPRIETARY INFORMATION. ALL OF WHICH IS EXPRESSLY PROVIDED BY AVCON, INC. FOR USE BY THE INTENDED RECIPIENT, AND FOR A SPECIFIC PURPOSE. WITHOUT THE EXPRESS WRITTEN CONSENT OF AVCON, INC. ANY DISTRIBUTION, REPRODUCTION, OR OTHER USE OF THIS DOCUMENT, IN WHOLE OR IN PART, IS STRICTLY PROHIBITED.

**GENERAL NOTES:**

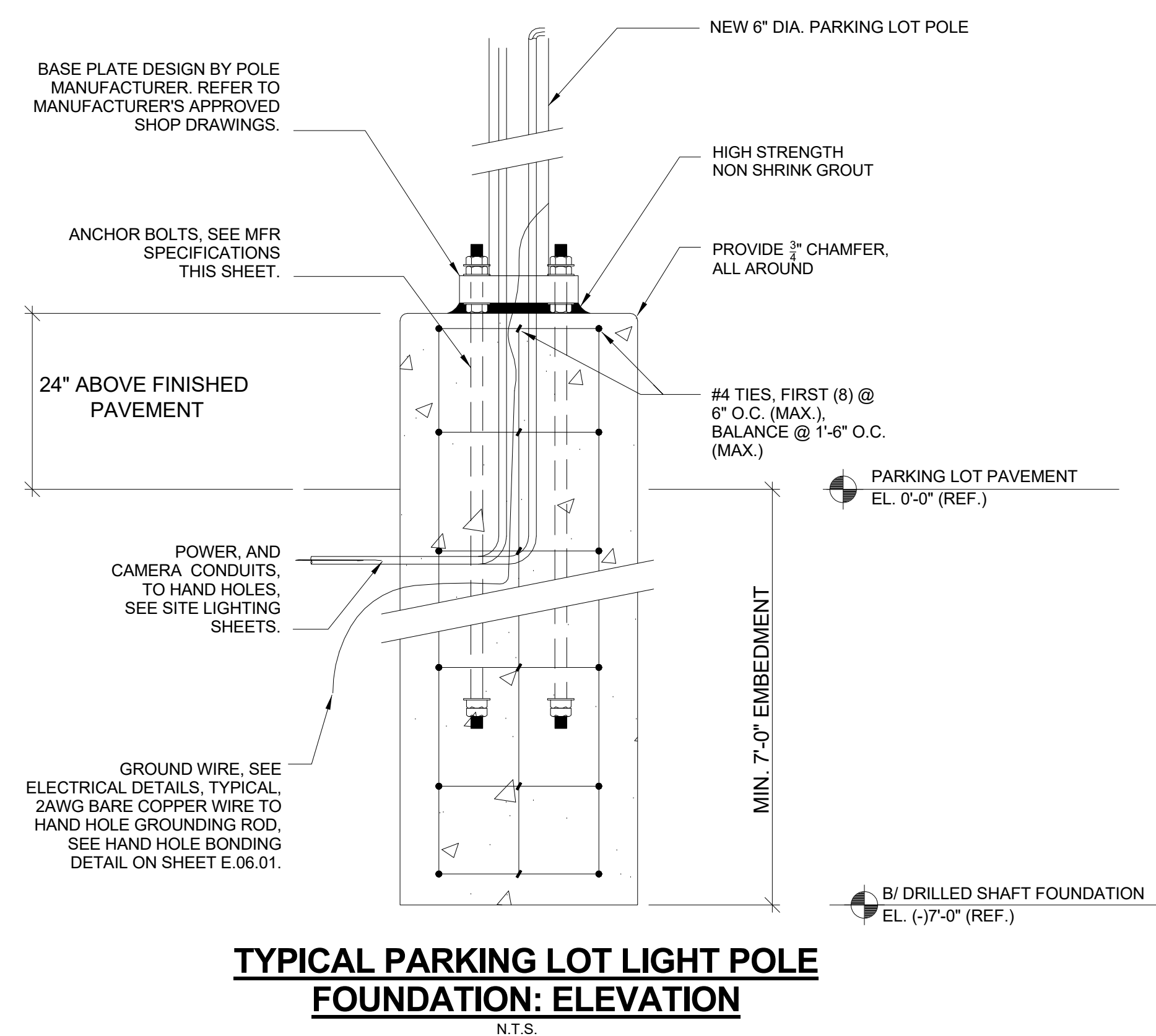
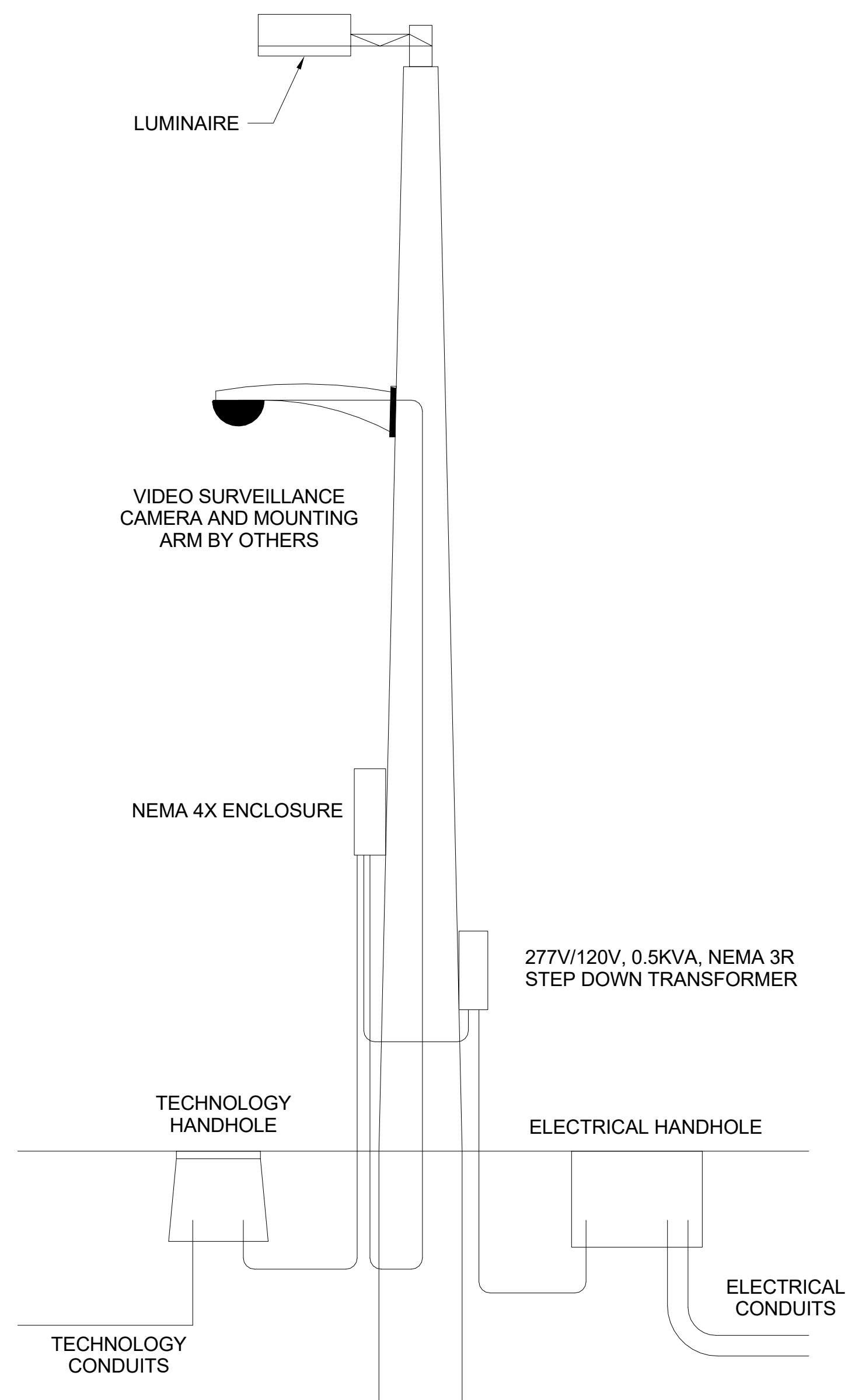
1. CCTV CAMERAS AND ASSOCIATED FIBER OPTIC CABLES TO BE PROVIDED BY OTHERS. CONTRACTOR TO PROVIDE CONDUIT, PULL BOXES, AND POLE-MOUNTED EQUIPMENT ENCLOSURES TO ACCOMMODATE CAMERA PROVIDED BY OTHERS.

**LIGHT POLE NOTES:**

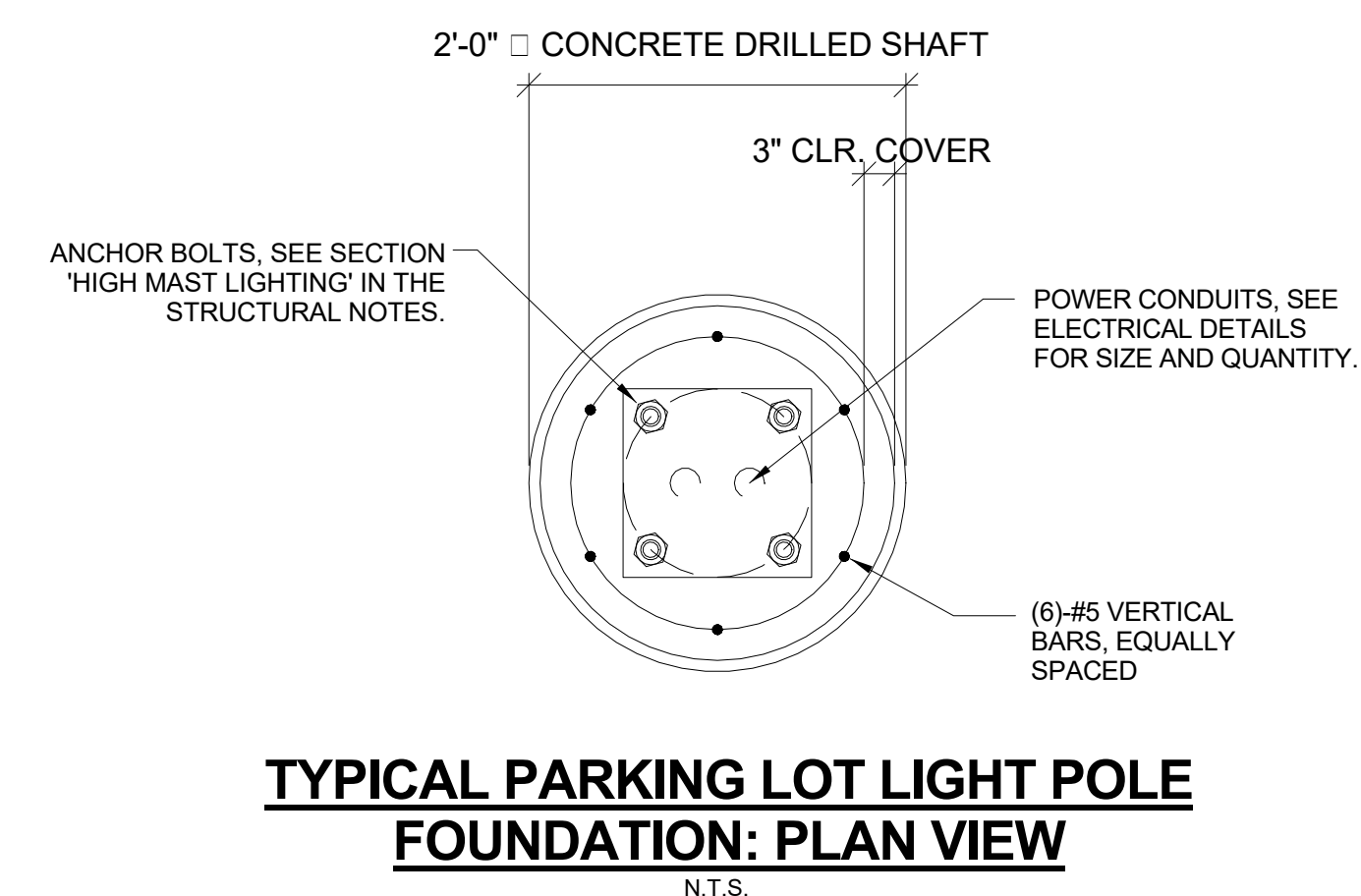
1. PROVIDE 6" DIAMETER, 25' TALL ALUMINUM POLES FOR MOUNTING OF NEW SITE LIGHTING. PROVIDE UNITED LIGHTING STANDARDS RSA-6253 OR APPROVED EQUAL. PROVIDE WITH DRILLED MOUNT OPTION.
2. LIGHT POLES WITH CAMERAS TO HAVE VIBRATION DAMPENERS AND CAMERA MOUNTING OPTION. REFER TO SITE PLANS FOR LIGHT POLES WITH CAMERA.
3. COORDINATE BOLT PATTERN WITH LIGHT POLE BASE.

**FOUNDATION NOTES:**

1. PROVIDE 2'-0" DIAMETER PRECAST FOUNDATIONS WITH 6" MINIMUM EMBEDMENT AND REINFORCED WITH (6) #5 VERTICALS (EQUALLY SPACED) AND #3 STIRRUPS SPACED AT 1'-0" OC (MAX.).
2. THE MINIMUM BAR CLEAR COVER SHALL BE 3" AND ALL EXPOSED EDGES SHALL HAVE A 3/4" CHAMFER.
3. PROVIDE 40" LONG ASTM F1554 OR MFR APPROVED ANCHOR RODS WITH DIAMETER MEETING THE REQUIREMENTS OF THE APPROVED POLE BASE DESIGN.
4. TERMINATE ANCHOR RODS EMBEDDED ENDS WITH NUT OR MIN. 4" 90° BEND.
5. FOLLOWING THE INSTALLATION OF THE FOUNDATION, CONTRACTOR SHALL COMPACT THE SURROUNDING SOILS TO 95% OF STANDARD PROCTOR.
6. REFER TO PLAN DETAILS FOR HEIGHT OF FOUNDATION ABOVE FINISHED GRADE/PAVEMENT FOR TOTAL LENGTH OF PRECAST FOUNDATIONS.
7. POLE BASES TO BE 10' HIGH. COORDINATE BOLT PATTERN WITH PROVIDED LIGHT POLE.



**TYPICAL PARKING LOT LIGHT POLE FOUNDATION: ELEVATION**  
N.T.S.



**TYPICAL PARKING LOT LIGHT POLE FOUNDATION: PLAN VIEW**  
N.T.S.

1 SECURITY CAMERA MOUNTED ON LIGHT POLE  
12" = 1'-0"

2 LIGHT POLE FOUNDATION DETAILS  
12" = 1'-0"

**AVCON, INC.**  
ENGINEERS & PLANNERS  
320 BAYSHORE DRIVE, SUITE A  
NICEVILLE, FL 32578-2425  
OFFICE: (850) 678-0050 - FAX: (850) 678-0040  
CORPORATE CERTIFICATE OF AUTHORIZATION NUMBER: 5057  
www.avconinc.com

**AVCON**  
TRANSFORMING TODAY'S IDEAS INTO TOMORROW'S REALITY

ENGINEER OF RECORD  
STATE OF FLORIDA SEAL

This sheet has been electronically signed and sealed by the individual named herein. Any use of this information without the written consent of the individual named herein is prohibited. Please contact the individual named herein for any questions regarding this sheet.

NO.	DATE	REVISION DESCRIPTION	BY
1	12/18/20	ADDENDUM 1	FB

**ELECTRICAL DETAILS**  
RELEASE FOR BID

**VPS PARKING LOT B EXPANSION**  
PREPARED FOR  
**DESTIN - FORT WALTON BEACH AIRPORT**

DESIGNED BY: KB  
DRAWN BY: KB / FB  
CHECKED BY: RC  
APPROVED BY: JC  
PROJECT NO: 2019.0050.05  
DATE: JANUARY 2019

SHEET NUMBER  
**E108**

THIS DOCUMENT CONTAINS PROPRIETARY AND CONFIDENTIAL INFORMATION. ALL OF WHICH IS EXPRESSLY PROVIDED BY AVCON, INC. FOR USE BY THE INTENDED RECIPIENT, AND FOR A SPECIFIC PURPOSE. WITHOUT THE EXPRESS WRITTEN CONSENT OF AVCON, INC. ANY DISTRIBUTION, REPRODUCTION, OR OTHER USE OF THIS DOCUMENT, IN WHOLE OR IN PART, IS STRICTLY PROHIBITED.




---

**MEMORANDUM**

**Date:** February 5, 2020

**To:** File – 2019.050.05/Meetings

**CC:** Meeting Attendees (noted on attached sheet)

**From:** John Collins, AVCON, Inc. (850-678-0050) 

**Re:** Minutes from Pre-Bid Conference on February 5, 2020  
VPS Parking Lot B Expansion  
Destin-Fort Walton Beach Airport

---

**MINUTES**

A project Pre-Bid Conference was held on February 5, 2020 from 2:30 - 3:40 p.m. at the Destin-Fort Walton Beach Airport with members from Okaloosa County Airports, Okaloosa County Purchasing, AVCON, and interested contractor representatives. A site visit was offered following this meeting with all interested meeting attendees.

The following minutes represent a summary of the salient issues discussed. They are not intended to be a verbatim transcript of the meeting or a part of the contract documents. These minutes are for informational purposes only.

A copy of the meeting agenda, the PowerPoint presentation provided at the meeting, and a list of meeting participants are attached. General introductions were made by Mr. Chad Rogers, Deputy Director for Okaloosa County Airports, followed by a review of the purpose of the meeting by Mr. John Collins, Project Manager for AVCON INC. The following items were discussed:

- **Introduction:** Mr. John Collins welcomed attendees and thanked them for their interest in the project. He stated that Parking Lot B is located in the southwest portion of the Destin-Fort Walton Beach Airport and is located outside of the Airport Operations Area (AOA) fence. Parking Lot D is located just east of the fuel farm in the southeast area of the airport. The locations of the Destin-Fort Walton Beach Airport, Parking Lot B, and Parking Lot D were depicted on a PowerPoint presentation.
- **Initial Activities:** Contractor shall field verify all existing conditions. The initial site preparation shall include installation of silt fence and erosion control improvements. Most of the Parking Lot B area has been cleared and grubbed by a previous contractor, and Parking Lot D consists of asphalt millings which will be re-used to prepare the stabilized subgrade material.
- **Scope of Work – Parking Lot B:** Parking Lot B consists of 507 new asphalt parking spaces with fencing, concrete curb and sidewalks, grading and drainage, site lighting improvements, and power and data conduits for security cameras. The pavement section consists of 2 inches of asphalt on 8 inches of limerock base on 12 inches of stabilized subbase (minimum LBR 40). This project also provides power and data conduits for future gate arms and credit card machines at an entrance island.
- **Scope of Work – Parking Lot D:** Parking Lot D consists of 119 new asphalt parking spaces with fencing, grading and drainage, site lighting improvements, and power and data conduits for security cameras. The pavement section consists of 2 inches of asphalt on 6 inches of limerock base on 12

inches of stabilized subbase (mixture of existing 6 inches of asphalt millings and six inches of existing subgrade material). This project also provides power and data conduits for future gate arms and credit card machines at an entrance island.

- **Bid Schedule:** This is a unit-price contract. The Base Bid is all work associated with Parking Lot B, Additive Alternate No. 1 consists of all work associated with the Parking Lot D improvements, and Additive Alternat No. 2 consists of all work associated with clearing approx. 5 acres of trees identified on Sheet G-5.
- **Construction Permits:** This project will require a Hot Works permit from Eglin AFB for any welding and an Okaloosa County Building Permit. Design Documents will be provided to the Okaloosa County Building Department before the County issues NTP for the construction work. The FAA airspace studies have been submitted and approved by the FAA.
- **Site Access:** Site access is provided via the temporary access road along the west side of the airport and connecting to Highway 85. The contractor is required to maintain this road and provide a flagger anytime the gate on Highway 85 is not locked. There may be multiple contractors working in this same area so care and coordination must be taken to ensure there are no conflicts. No airport badges are required for construction employees and any access needed on Eglin AFB will be provided by the airport of Eglin AFB.
- **Staging & Dust Control:** Dust control is an important requirement of this project. Since the commercial aircraft apron is located immediately east of the project site, the contractor shall minimize dust to protect aircraft, equipment, operations in the vicinity. The contractor shall utilize the staging and stockpile locations indicated in the plans. The contractor shall be responsible for daily inspections to check for debris on access roads.
- **Future Addenda:** An addendum is anticipated to remove a portion of the data conduit between the Cargo Building and Parking Lot D and provide guidance for the re-use of available parking lot light poles.
- **Bid Date:** Mr. Collins began a review of the administrative items. The bid date is Wednesday, February 26, 2020, until 3:00 p.m. central time in Crestview. Bids shall be sealed. Bids received after the specified time will not be considered. The bids will be opened and read aloud to all interested parties. The final day for questions is Wednesday, February 12 by 3:00 pm.
- **Basis of Award:** The basis of award shall be based on the lowest combination of the Base Bid and additive alternates ultimately awarded by the County.
- **Bid Documents:** The documents required to be submitted with the bid are listed in the Bid Form.
- **Contract Award:** The contract will be awarded by the County as soon as possible following receipt of the bids.
- **Contract Time:** The contract time to substantial completion is 60 days and the contract time to final completion is 120 days. Substantial Completion is defined as the completion of the asphalt pavement, concrete curb and sidewalk, fencing, and pavement markings. All remaining work much be finally complete within 120 days.
- **Liquidated Damages:** Liquidated damages are included in the Okaloosa County Standard Clauses in the bid documents. The amount of these damages is dependent upon the contract amount.

**VPS Parking Lot B Expansion Pre-Bid Conference Minutes**  
**Destin-Fort Walton Beach Airport**  
**February 5, 2020**  
**Page 3 of 3**

- **Insurance:** The Bid Documents require \$1M of general liability insurance. See Page BOC 4 of 6 for additional insurance requirements.
- **Disadvantaged Business Enterprise:** There is no specific DBE goal for this project. The contractor is required to make a good faith effort to provide DBE participation.
- **E-Verify:** The contractor shall adhere to all E-Verify requirements as stated in the E-Verify Compliance Certification form which shall be completed and submitted with the bid.
- **Weekly Construction Meetings:** The contractor shall host weekly construction status meetings at the Destin-Fort Walton Beach Airport to review the status of the project.
- **Mailing of Bid Submittals:** Crestview is not a guaranteed next-day delivery location so the bidders should plan accordingly.
- **Questions:** The following questions were provided during the meeting:
  - Is the 5 ac of clearing in Additive Alternate No. 2 required to be complete by the substantial completion date? Response – No, the 5 ac of tree clearing must be complete before the 120-day final completion date.
  - Is a specific type of seed required since the seeding will occur on Eglin AFB? Response – the engineer will review this an issue an addendum if a different specification is required.
  - Can the unit price in written words be removed from the Bid Schedule? Response – The County Purchasing Department will review this request and provide a response.
  - Can the geotechnical report be provided? Response – a geotechnical report for the adjacent West Apron Expansion project is available and will be provided in an addendum.

**END OF MINUTES**

**VPS PARKING LOT B EXPANSION AT  
DESTIN-FORT WALTON BEACH AIRPORT  
Okaloosa County, Florida**

**PRE-BID CONFERENCE  
FEBRUARY 5, 2020 – 2:30 pm CDT**

**AGENDA**

**I. INTRODUCTION OF PARTICIPANTS**

- A. Owner -** Okaloosa County
- B. Engineer-** AVCON, INC.
- C. Funding Agency -** Okaloosa County, Florida Department of Transportation (FDOT)

**II. PURPOSE**

To clarify and explain the construction scope, procedures, and safety measures associated with the bidding documents, and to answer questions.

**III. SCOPE OF WORK**

**A. Description of Project**

1. General overview
2. Site preparation
  - a. Erosion control, silt fence
  - b. Existing millings in Parking Lot B
3. Primary Construction elements
  - a. Clearing and grubbing
  - b. Fence removal
  - c. Grading
  - d. Parking Lot B pavement section
  - e. Parking Lot D pavement section
  - f. Drainage
  - g. Fencing
  - h. Area lighting
  - i. Data infrastructure
  - j. Power for gate arms and credit card reader
  - k. Additional tree clearing, grubbing, seeding
4. Bid Schedule
  - a. Base Bid – Parking Lot B expansion
  - b. Additive Alternate No. 1 – Parking Lot D development
  - c. Additive Alternate No. 2 – 5 ac tree clearing
5. Pay Items
  - a. Unit Price for each Bid Schedule

**B. Safety**

1. Safety During Construction Plan:
  - a. Temporary access road and flagger
  - b. Stay inside existing fence
  - c. Runway 12-30 Clear Zone
2. Dust and erosion control
3. Staging and access

**IV. FUTURE ADDENDA**

- A. Remove fiber between cargo building and Parking Lot D**
- B. Guidance to re-use existing light poles**



**V. ADMINISTRATION**

**A. Project Schedule and Time**

1. Last day for questions is Wednesday, February 12 by 3:00 pm local time
2. Bids due on Wednesday, February 26, 2020 until 3:00 pm local time
3. Contract Award
4. Duration and Time of Completion, 60 days to substantial, 120 to final
5. Liquidated Damages

**B. Contract Documents**

1. Unit Price Contract
2. Basis of Award
3. DBE Goal

**C. Bidding Documents**

**VI. QUESTIONS AND ANSWERS**

# VPS Parking Lot B Expansion

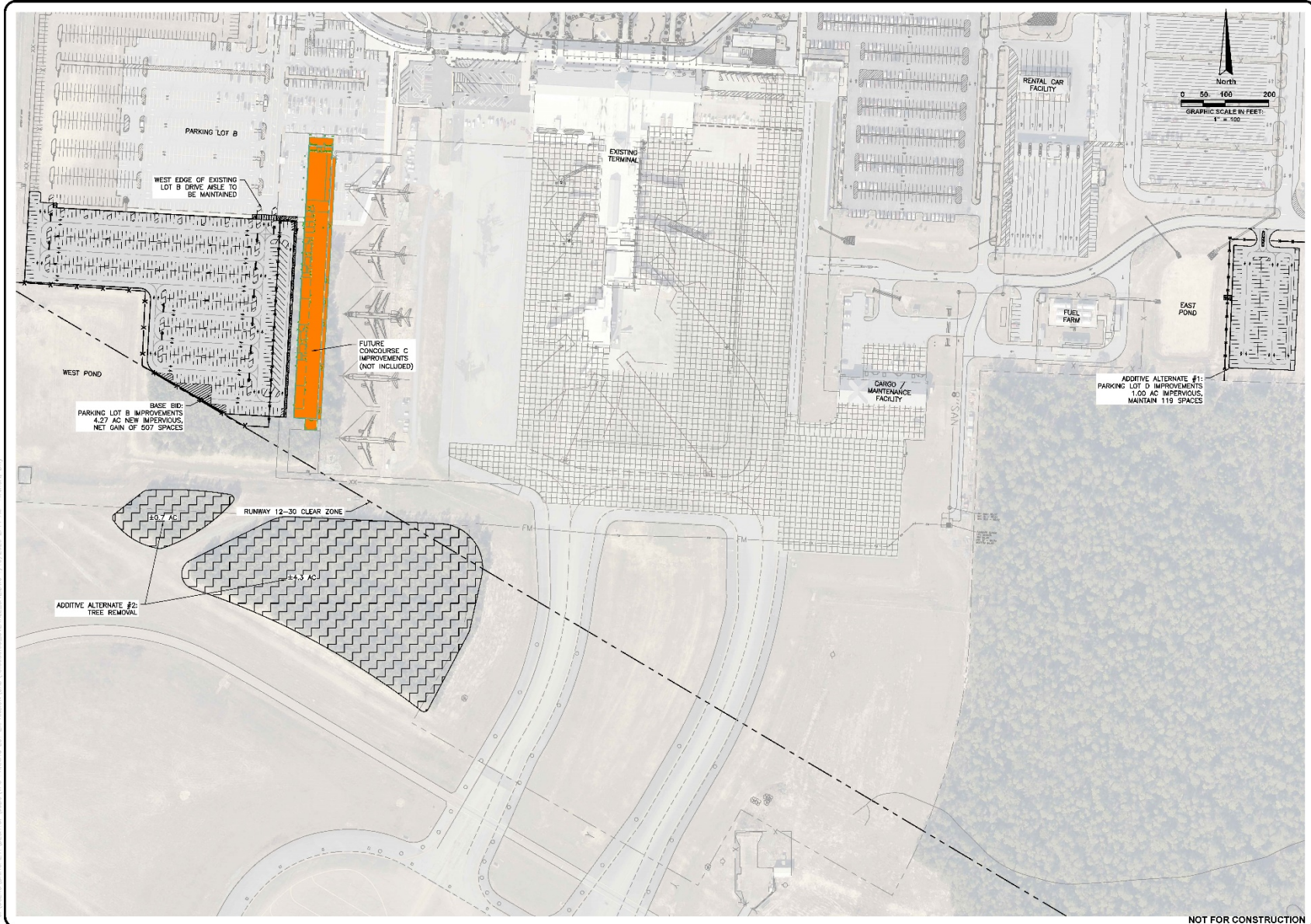
Pre-Bid Meeting, February 5, 2020 at 2:30 PM



# VPS Parking Lot B Expansion ATTACHMENT D



# VPS Parking Lot B Expansion



C:\PROJECTS\BIDDING\2020\12\10\12020-VPS\_PARKING\_LOT\_EXPANSION\CADD\3D\DRIVALS\_CUTTABLE\_SITE\_PLAN\_7\_10\_2020\_2-14\_AW\_isect.dwg, 10/1

**AVCON, INC.**  
**ENGINEERS & PLANNERS**  
 130 BAYSHORE DRIVE, SUITE A  
 NORTON MASS, 01922-2265  
 TEL: (978) 225-2265  
 FAX: (978) 225-0440  
 LICENSE NO. 00000000000000000000000000000000  
 AUTHORIZATION NUMBER: 1057  
 www.avconinc.com

**AVCON**  
 TRANSFORMING TODAY'S IDEAS  
 INTO TOMORROW'S REALITY

JOHN R. COLLINS FL LICENSE NO.: 15419 FBPR CERTIFICATE OF AUTHORIZATION NO. 5037
BY _____
NO. DATE _____
NO. DATE _____
NO. DATE _____
NO. DATE _____

**OVERALL SITE PLAN**  
 RELEASE FOR BID  
 NOT FOR CONSTRUCTION

**VPS PARKING LOT B EXPANSION**

PREPARED FOR:  
**DESTIN - FORT WALTON BEACH AIRPORT**

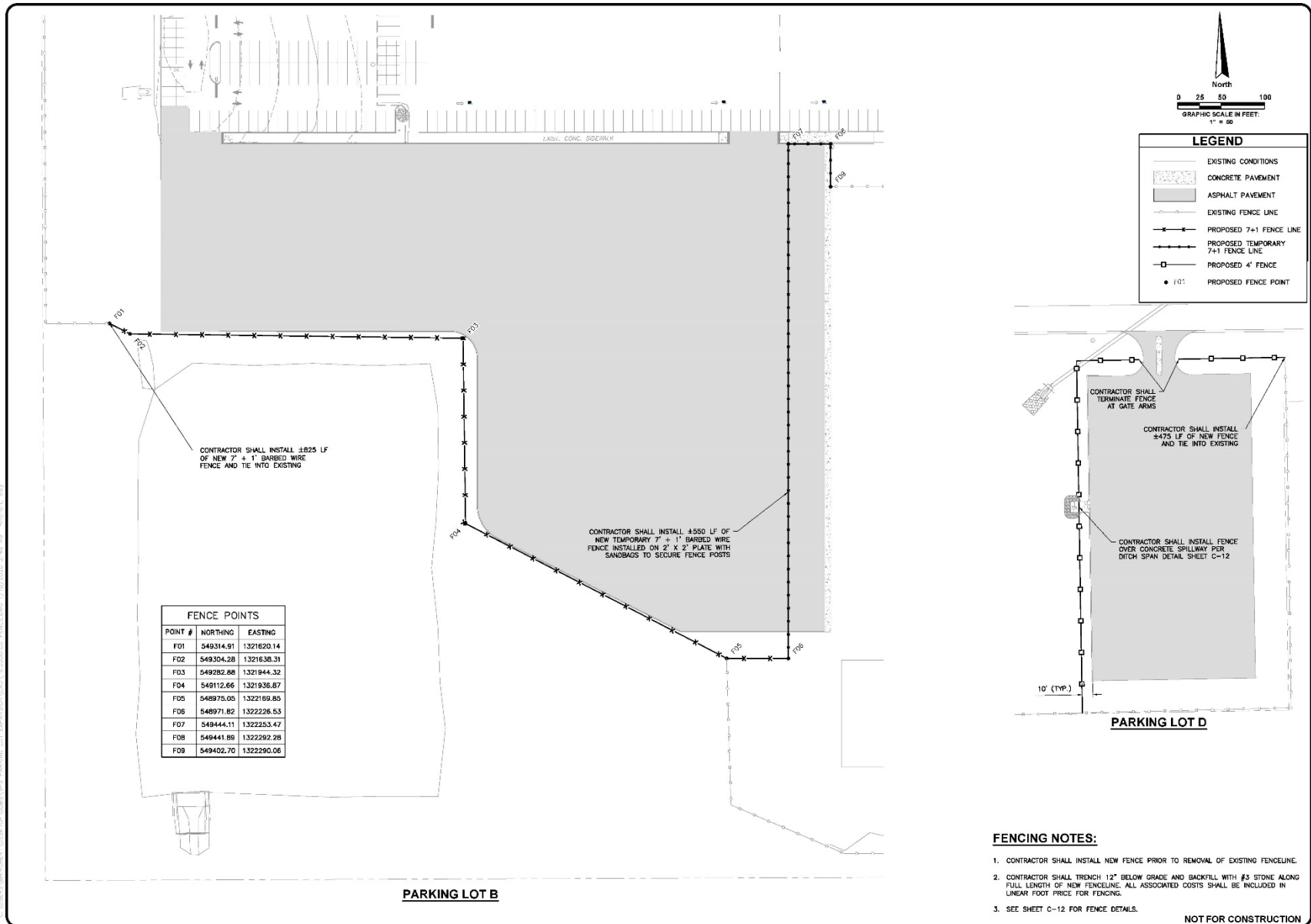
DESIGNED BY: J.R.C.  
 DRAWN BY: B.V.P.  
 CHECKED BY: J.R.C.  
 APPROVED BY: V.C.L.  
 PROJECT NO: 2019.0009.03  
 DATE: JANUARY 2020

**SHEET NUMBER**  
**C-1**

NOT FOR CONSTRUCTION



# VPS Parking Lot B Expansion



**AVCON, INC.**  
ENGINEERS & PLANNERS  
3500 W. STATE ROAD 10  
MUNNELLVILLE, FL 32750-2426  
OFFICE: (850) 879-0090  
CORPORATE CERTIFICATE OF AUTHORIZATION NUMBER: 0687  
AUTHORIZATION NUMBER: 0687

**AVCON**  
TRANSFORMING TODAY'S IDEAS INTO TOMORROW'S REALITY

**JOHN R. COLLINS**  
FL LICENSE NO. 76419  
FBRP CERTIFICATE OF AUTHORIZATION NO. 8457

NO.	DATE	REVISION

**FENCE PLAN**  
RELEASED FOR PERMIT AND NOT FOR CONSTRUCTION

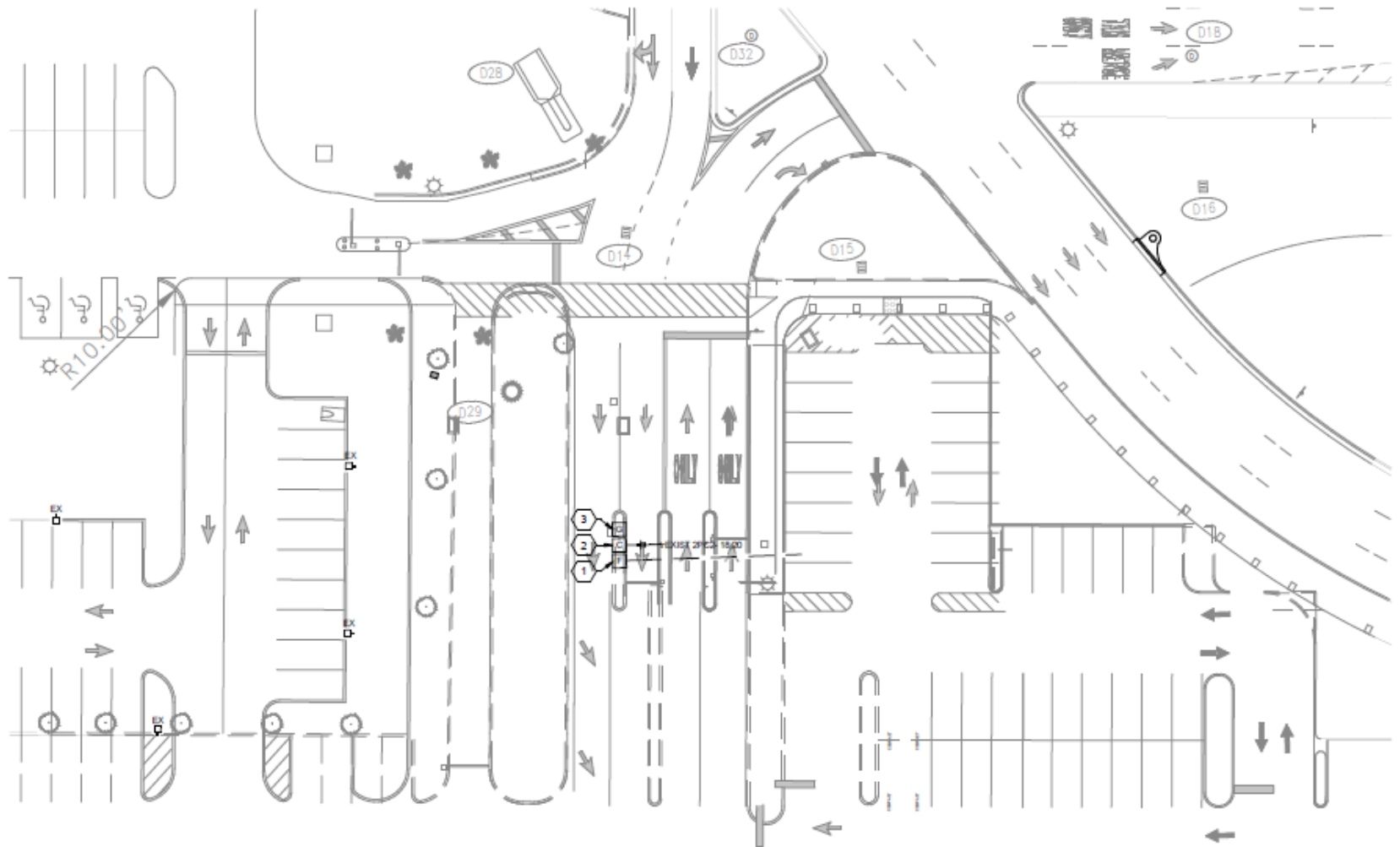
**VPS PARKING LOT B EXPANSION**  
PREPARED FOR  
DESTIN - FORT WALTON BEACH AIRPORT

DESIGNED BY: J.R.C.  
DRAWN BY: B.V.H.  
CHECKED BY: J.R.C.  
APPROVED BY: V.C.L.  
PROJECT NO: 2019.0050.05  
DATE: JANUARY 2020

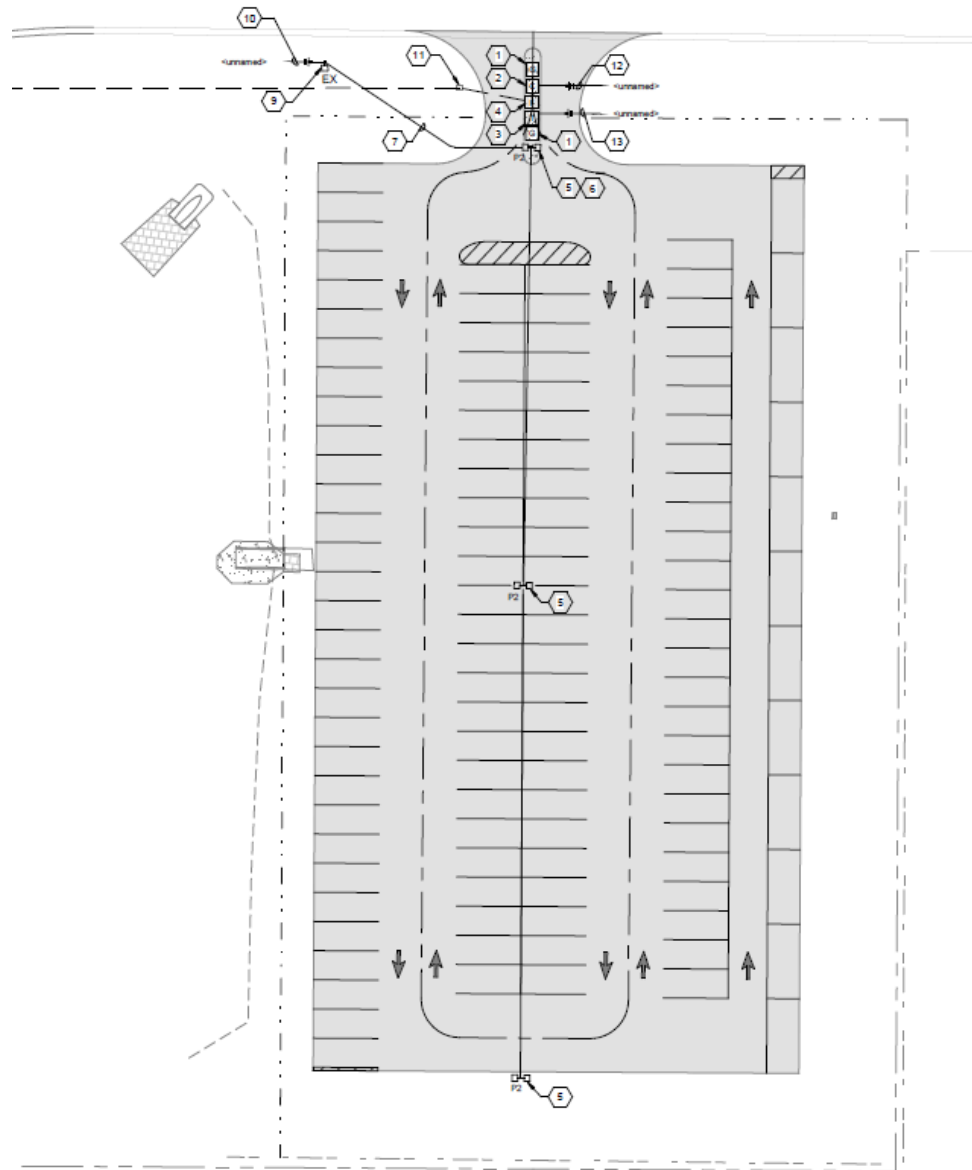
**SHEET NUMBER**  
**C-11**

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION AND IS THE PROPERTY OF AVCON, INC. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFIC PURPOSES. WITHOUT THE EXPRESS WRITTEN CONSENT OF AVCON, INC. THIS DOCUMENT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.

# VPS Parking Lot B Expansion



# VPS Parking Lot B Expansion





# VPS Parking Lot B Expansion



## PRE-BID CONFERENCE SIGN-IN SHEET

February 5, 2020 at 2:30 p.m.

VPS Parking Lot B Expansion  
Destin-Fort Walton Beach Airport

NAME	REPRESENTING	TELEPHONE	E-MAIL ADDRESS
Tracy Stage	Okaloosa County Airports	850-651-7160	tstage@myokaloosa.com
<i>CR</i> Chad Rogers	Okaloosa County Airports	850-651-7160	rrogers@myokaloosa.com
Allyson Oury	Okaloosa County Airports	850-651-7160	aoury@myokaloosa.com
Mike Stenson	Okaloosa County Airports	850-651-7160	mstenson@myokaloosa.com
<i>RB</i> Raymond Beasley	Okaloosa County Airports	850-651-7160	rbeasley@myokaloosa.com
<i>OW</i> Oscar Williams	Okaloosa County Airports	850-651-7160	owilliams@myokaloosa.com
Terry Kerwell	Okaloosa County Airports	850-651-7160	tkerwell@myokaloosa.com
<i>JC</i> John Collins	AVCON INC.	850-678-0050	jcollins@avconinc.com
<i>Gary Bearden</i>	<i>Bearden Electric</i>	<i>850-863-2131</i>	<i>gary@beardenelectric.com</i>
<i>Bayn Powell</i>	<i>CW Roberts</i>	<i>850-835-3500</i>	<i>bapowell@cwrccontracting.com</i>

ATTACHMENT D

**PRE-BID CONFERENCE SIGN-IN SHEET**

February 5, 2020 at 2:30 p.m.

VPS Parking Lot B Expansion  
Destin-Fort Walton Beach Airport

NAME	REPRESENTING	TELEPHONE	E-MAIL ADDRESS
Jeffrey A Hyde	Okaloosa Purchasing	850-689-5960	JHyde@myokaloosa.com
M. Hardy	VPS	850-826-204	m.hardy@myokaloosa.com
Derek A. Imane	Bill Smith Electric	850-777-9476	derek@billsmithelectric.com
Stephen Saxon	Airports		SSaxon@myokaloosa.com
Jenica Dorn	Okaloosa Purchasing	850-689-5960	jdorn@myokaloosa.com
Bryan Buchanan	Anderson Columbia	850-209-5631	bryan.buchanan@andersoncolumbia.com

ATTACHMENT D

**PRE-BID CONFERENCE SIGN-IN SHEET**

February 5, 2020 at 2:30 p.m.

VPS Parking Lot B Expansion  
Destin-Fort Walton Beach Airport

---

<b>NAME</b>	<b>REPRESENTING</b>	<b>TELEPHONE</b>	<b>E-MAIL ADDRESS</b>

---

**ADDENDUM NO. 2**  
**to the**  
**PROJECT DOCUMENTS AND SPECIFICATIONS**  
**for**  
**DESTIN-FORT WALTON BEACH AIRPORT**  
**VPS PARKING LOT B EXPANSION**  
**(ITB AP 27-20)**

**Prepared for:**  
**OKALOOSA COUNTY**

**Prepared By:**



**320 Bayshore Drive, Suite A**  
**Niceville, Florida 32578-2425**

**AVCON Project No. 2019.050.05**

**Addendum Date: February 26, 2020**

Note: The bidder shall acknowledge receipt of this addendum on the Bid Form, Page BF-1 in the space provided.

**ADDENDUM NO. 2**  
**DESTIN-FORT WALTON BEACH AIRPORT**  
**VPS PARKING LOT B EXPANSION**  
**(ITB AP 27-20)**

- Date of Issue:** February 26, 2020
- Bid Submittal Deadline:** Wednesday, ~~February 26~~ **March 4**, 2020 @ 3:00 p.m. (local time)
- Notice to all Plan Holders:** Please insert this addendum (2 pages including cover, excluding attachments) into your copy of the Project Bid Documents.

The following changes to the Project Documents and Specifications are issued by the Engineer and shall have the same force and effect as though part of the original issue:

**A. Changes to the Project Documents and Specifications:**

1. Invitation to Bid (ITB) **REPLACE** Invitation to Bid (ITB) & Respondent's Acknowledgement, in its entirety, with Invitation to Bid (ITB) & Respondent's Acknowledgement attached as **Attachment A** (1 page) hereto.

*\*\*This addendum revises the ITB opening date and time from February 26 to March 4, 2020 at 3:00 P.M. CST. All other references to ITB opening date and time shall be revised accordingly.\*\**

2. Bid Schedule **REPLACE** Bid Schedule, page BS-1 of 5 to 5 of 5, in its entirety, with page BS-1 of 5 to 5 of 5 attached as **Attachment A** (5 pages) hereto.

**END OF ADDENDUM NO. 2**



INVITATION TO BID (ITB) & RESPONDENT'S ACKNOWLEDGEMENT

ITB TITLE:
VPS PARKING LOT B EXPANSION for
DESTIN-FORT WALTON BEACH AIRPORT

ITB NUMBER:
ITB AP 27-20

ISSUE DATE: January 28, 2020
PRE-BID CONFERENCE: February 5, 2020 2:30 A.M. CST
LAST DAY FOR QUESTIONS: February 12, 2020 3:00 P.M. CST
ITB OPENING DATE & TIME: February 26 March 4, 2020 3:00 P.M. CST

NOTE: BIDS RECEIVED AFTER THE BID OPENING DATE & TIME WILL NOT BE CONSIDERED.

Okaloosa County, Florida solicits your company to submit a bid on the above referenced goods or services. All terms, specifications and conditions set forth in this ITB are incorporated into your response. A bid will not be accepted unless all conditions have been met. All bids must have an authorized signature in the space provided below. All bids must be sealed and received by the Okaloosa County Crestview Courthouse BCC Records by the "ITB Opening Date & Time" referenced above. The official clock for the purpose of receiving bids is located in the Okaloosa County Courthouse, #282 located at 101 James Lee Blvd, Crestview, FL 32536. All envelopes containing sealed bids must reference the "ITB Title", "ITB Number" and the "ITB Opening Date & Time". Okaloosa County is not responsible for lost or late delivery of bids by the U.S. Postal Service or other delivery services used by the respondent. Neither faxed nor electronically submitted bids will be accepted. Bids may not be withdrawn for a period of ninety (90) days after the bid opening unless otherwise specified.

RESPONDENT ACKNOWLEDGEMENT FORM BELOW MUST BE COMPLETED, SIGNED, AND RETURNED AS PART OF YOUR BID. BIDS WILL NOT BE ACCEPTED WITHOUT THIS FORM, SIGNED BY AN AUTHORIZED AGENT OF THE RESPONDENT.

COMPANY NAME
MAILING ADDRESS
CITY, STATE, ZIP
FEDERAL EMPLOYER'S IDENTIFICATION NUMBER (FEIN):
TELEPHONE: EXT: FAX:
EMAIL:

I CERTIFY THAT THIS BID IS MADE WITHOUT PRIOR UNDERSTANDING, AGREEMENT, OR CONNECTION WITH ANY OTHER RESPONDENT SUBMITTING A BID FOR THE SAME MATERIALS, SUPPLIES, EQUIPMENT OR SERVICES, AND IS IN ALL RESPECTS FAIR AND WITHOUT COLLUSION OR FRAUD. I AGREE TO ABIDE BY ALL TERMS AND CONDITIONS OF THIS BID AND CERTIFY THAT I AM AUTHORIZED TO SIGN THIS BID FOR THE RESPONDENT.

AUTHORIZED SIGNATURE:
TITLE:
PRINTED NAME:
DATE:

**BID SCHEDULE**

**BIDDER:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

**PROJECT DESCRIPTION:** VPS PARKING LOT B EXPANSION

**Base Bid – Parking Lot B Expansion**

Bid Item No.	Item No.	Item Description & Unit Price In Words	Unit	Estimated Quantity	Unit Price	Total Amt./ Item
1	101-1	Mobilization	LS	1		
2	102-1	Maintenance of Traffic	LS	1		
3	104-1	Prevention, Control, and Abatement of Erosion and Water Pollution	LS	1		
4	110-1	Miscellaneous Demolition	LS	1		
5	110-2	Clearing and Grubbing with Tree Removal	AC	0.6		
6	120-1	Unclassified Excavation and Embankment	CY	2,400		
7	160-1	12” Stabilized Subbase (LBR 40)	SY	27,750		
8	285-1	8” Limerock Base Course	SY	25,440		
9	334-1	2” Superpave Asphaltic Concrete	TON	2,800		
10	425-1	Type 5/6 Curb Inlet, Type P Bottom	EA	5		
11	425-2	24” Mitered End Section	EA	2		
12	425-3	30” Mitered End Section	EA	2		
13	430-1	24” ADS, N-12 Pipe	LF	290		
14	430-2	30” ADS, N-12 Pipe	LF	180		



Bid Item No.	Item No.	Item Description & Unit Price In Words	Unit	Estimated Quantity	Unit Price	Total Amt./ Item
15	520-1	F-Curb	LF	2,030		
16	522-1	Concrete Sidewalk	SY	330		
17	550-1	7-Ft Chain Link Fence with Additional 1-Ft Barbed Wire Attachment and Rock Base	LF	825		
18	550-2	Temporary 7-Ft Chain Link Fence with Additional 1-Ft Barbed Wire Attachment	LF	550		
19	570-1	Sodding	SY	2,000		
20	T-901	Seeding	SY	4,500		
21	700-1	Traffic Control Signs	LS	1		
22	710-1	Pavement Markings	LS	1		
23	LT-1	Area Lighting, Complete	LS	1		
24	GA-1	Power and Data for Automatic Gate Arms and Ticket Machines	LS	1		
25	SC-1	Security Camera Allowance	AL	1	<b>\$40,000.00</b>	<b>\$40,000.00</b>
26	WH-1	Wheel Stops	EA	40		

**For all work required to perform the work in accordance with the construction drawings, specifications, and other contract documents, including all costs related to the work, and any required permits, taxes, bonds and insurance, the undersigned submits a Total Base Bid Amount of:**

**TOTAL BASE BID AMOUNT (in words):** \_\_\_\_\_

\_\_\_\_\_ Dollars and \_\_\_\_\_ cents

(\$ \_\_\_\_\_)

(amount in numbers)

Note: Total Bid Amount shall equal the total amount for Bid Item No. 1 through 26.

**Additive Alternate 1- Parking Lot D Improvements**

Bid Item No.	Item No.	Item Description & Unit Price In Words	Unit	Estimated Quantity	Unit Price	Total Amt./ Item
1	101-1	Mobilization	LS	1		
2	102-1	Maintenance of Traffic	LS	1		
3	104-1	Prevention, Control, and Abatement of Erosion and Water Pollution	LS	1		
4	110-1	Miscellaneous Demolition	LS	1		
5	120-1	Unclassified Excavation and Embankment	CY	800		
6	160-2	6" Rap Blended Subbase (12" Total Stabilized Subbase	SY	5,810		
7	285-1	6" Limerock Base Course	SY	5,330		
8	334-1	2" Superpave Asphaltic Concrete	TON	540		
9	520-1	F-Curb	LF	300		
10	524-1	Concrete Flume, Type A, With Bollards and Rip-Rap	LS	1		
11	550-3	4-ft Chain-Link Fence with Rock Base	LF	475		
12	570-1	Sodding	SY	1,200		
13	710-1	Pavement Markings	LS	1		
14	<b>GA-2</b>	Power and Data for Automatic Gate Arms and Ticket Machines	LS	1		
15	LT-2	Area Lighting, Complete	LS	1		
16	SC-2	Security Camera Allowance	AL	1	<b>\$30,000.00</b>	<b>\$30,000.00</b>

For all work required to perform the work in accordance with the construction drawings, specifications, and other contract documents, including all costs related to the work, and any required permits, taxes, bonds and insurance, the undersigned submits a Total Additive Alternate No. 1 Amount of:

TOTAL ADDITIVE ALTERNATE NO. 1 AMOUNT (in words): \_\_\_\_\_  
 \_\_\_\_\_ Dollars and \_\_\_\_\_ cents  
 (\$ \_\_\_\_\_)  
 (amount in numbers)

Note: Total Additive Alternate No. 1 Amount shall equal the total amount for Bid Item No. 1 through 16.

**Additive Alternate 2- Clear Zone Tree Removal**

Bid Item No.	Item No.	Item Description & Unit Price In Words	Unit	Estimated Quantity	Unit Price	Total Amt./ Item
1	101-1	Mobilization	LS	1		
2	102-1	Maintenance of Traffic	LS	1		
3	104-1	Prevention, Control, and Abatement of Erosion and Water Pollution	LS	1		
4	110-1	Clearing and Grubbing with Tree Removal	AC	5		
5	T-901	Seeding	SY	24,200		

For all work required to perform the work in accordance with the construction drawings, specifications, and other contract documents, including all costs related to the work, and any required permits, taxes, bonds and insurance, the undersigned submits a Total Additive Alternate No. 2 Amount of:

TOTAL ADDITIVE ALTERNATE NO. 2 AMOUNT (in words): \_\_\_\_\_  
 \_\_\_\_\_ Dollars and \_\_\_\_\_ cents  
 (\$ \_\_\_\_\_)  
 (amount in numbers)

Note: Total Additive Alternate No. 2 Amount shall equal the total amount for Bid Item No. 1 through 5.

**BID SUMMARY (amount in numbers)**

- (A) TOTAL BASE BID AMOUNT: \$ \_\_\_\_\_
- (B) TOTAL ADDITIVE ALTERNATE NO. 1 AMOUNT: \$ \_\_\_\_\_
- (C) TOTAL ADDITIVE ALTERNATE NO. 2 AMOUNT: \$ \_\_\_\_\_

*Contractor acknowledges that the Basis of Award shall be the Base Bid, or any combination of the Base Bid and Additive Alternates ultimately awarded by the County, price and other factors considered. The bid bond amount shall be in the amount of the Base Bid and Additive Alternate No. 1 and 2.*

The Bidder represents that it has examined the site of the Work and informed itself fully in regard to all conditions pertaining to the place where the work is to be done; that it has examined the plans and specifications for the work and other Contract Documents relative thereto and has read all of the Addenda furnished prior to the opening of the Bids, as acknowledged below; and that it has otherwise fully informed itself regarding the nature, extent, scope and details of the Work to be performed.

If provided with a Notice of Intent to Award the Contract by the Owner, the Bidder shall execute and deliver to the Owner all of the documents required by the Contract Documents, including but not limited to, the Addendum to the Agreement and the Performance and Payment Bonds in the form contained in the Contract Documents, furnish the required evidence of the specified insurance coverages, furnish all necessary permits, license, materials, equipment, machinery, maintenance, tools, apparatus, means of transportation and labor necessary to complete the Work.

Dated and signed at \_\_\_\_\_, \_\_\_\_\_, this \_\_\_\_\_ day of \_\_\_\_\_, 2020.

\_\_\_\_\_  
(Name of Bidder)

\_\_\_\_\_  
(Authorized Signature)

\_\_\_\_\_  
(Title)

\_\_\_\_\_  
(Mailing Address)

\_\_\_\_\_  
(City, State, Zip)

\_\_\_\_\_  
(Federal ID No. or SS No.)

**SECTION 101**

**MOBILIZATION**

**101-1 Description**

Perform preparatory work and operations in mobilizing for beginning work on the project, including, but not limited to, those operations necessary for the movement of personnel, equipment, supplies, and incidentals to the project site and for the establishment of temporary offices, buildings, safety equipment and first aid supplies, and sanitary and other facilities.

Include the costs of bonds and any required insurance and any other preconstruction expense necessary for the start of the work, excluding the cost of construction materials.

**101-2 Basis of Payment**

**101-2.1 When a Separate Item is Included in the Proposal:** When the proposal includes a separate item of payment for this work, the work and incidental costs specified as being covered under this Section will be paid for at the Contract lump sum price for the item of Mobilization.

Payment will be made under:

*Item No. 101-1 Mobilization - per Lump Sum (LS)*

**101-2.2 Partial Payments:** When the proposal includes a separate pay item for Mobilization and the Notice to Proceed has been issued, partial payments will be made in accordance with the following:

For contracts of 120 contract days duration or less, partial payment will be made at 50% of the bid price per month for the first two months.

For contracts in excess of 120 contract days duration, partial payment will be made at 25% of the bid price per month for the first four months. In no event shall more than 50% of the bid price be paid prior to commencing construction on the project site.

Total partial payments for Mobilization on any project, including when more than one project or job is included in the Contract, will be limited to 10% of the original Contract amount for that project. Any remaining amount will be paid upon completion of all work on the Contract.

Retainage, as specified in 9-5, will be applied to all partial payments.

Partial payments made on this item will in no way act to preclude or limit any of the provisions for partial payments otherwise provided for by the Contract.

**101-2.3 When No Separate Item is Included in the Proposal:** When the proposal does not include a separate item for Mobilization, all work and incidental costs specified as being covered under this Section will be included for payment under the several scheduled items of the overall Contract, and no separate payment will be made therefore.

**END OF SECTION 101**

**SECTION 102**

**MAINTENANCE OF TRAFFIC**

**102-1 Description**

Maintain traffic within the limits of the project for the duration of the construction period, including any temporary suspensions of the work. Construct and maintain detours. Provide facilities for access to residences, businesses, etc., along the project. Furnish, install and maintain traffic control and safety devices during construction. Furnish and install work zone pavement markings for maintenance of traffic (MOT) in construction areas. Provide any other special requirements for safe and expeditious movement of traffic specified in the Plans. MOT includes all facilities, devices and operations as required for safety and convenience of the public within the work zone.

Do not maintain traffic over those portions of the project where no work is to be accomplished or where construction operations will not affect existing roads. Do not obstruct or create a hazard to any traffic during the performance of the work, and repair any damage to existing pavement open to traffic. Basis of Payment

**102-2 Materials.**

Meet the following requirements:

Bituminous Adhesive .....	Section 970
Temporary Raised Pavement Markers.....	Section 990
Paint .....	Section 971
Removable Tape .....	Section 990
Glass Spheres .....	Section 971
Temporary Traffic Control Device Materials.....	Section 990
Retroreflective and Nonreflective Sheeting for Temporary Traffic Control Devices .....	Section 994

**102-2.1 Temporary Traffic Control Devices:** Use only the materials meeting the requirements of Section 990, Section 994, Standard Plans and the Manual on Uniform Traffic Control Devices (MUTCD).

**102-2.2 Detour:** Provide all materials for the construction and maintenance of all detours.

**102-2.3 Commercial Materials for Driveway Maintenance:** Provide materials of the type typically used for base, including reclaimed asphalt pavement (RAP) material, and having stability and drainage properties that will provide a firm surface under wet conditions.

**102-3 Specific Requirements.**

**102-3.1 Beginning Date of Contractor's Responsibility:** Maintain traffic starting the day work begins on the project or on the first day Contract Time is charged, whichever is earlier.

**102-3.2 Worksite Traffic Supervisor:** Provide a Worksite Traffic Supervisor who is responsible for initiating, installing, and maintaining all temporary traffic control devices as described in this Section and the Contract Documents. Provide all equipment and materials needed to set up, take down, maintain traffic control, and handle traffic-related situations. Use approved alternate Worksite Traffic Supervisors when necessary.

The Worksite Traffic Supervisor must meet the personnel qualifications specified in Section 105. The Worksite Traffic Supervisor is to perform the following duties:

1. On site direction of all temporary traffic control on the project.
2. Is on site during all set up and take down, and performs a drive through inspection immediately after set up.
3. Is on site during all nighttime operations ensuring proper temporary traffic control.
4. Immediately corrects all safety deficiencies and corrects minor deficiencies that are not immediate safety hazards within 24 hours.
5. Is available on a 24 hour per day basis and present at the site within 45 minutes after notification of an emergency situation and is prepared to respond to maintain temporary traffic control or to provide alternate traffic arrangements.
6. Conducts daily daytime and weekly nighttime inspections of projects with predominately daytime work activities, and daily nighttime and weekly daytime inspections of projects with predominantly nighttime work activities of all traffic control devices, traffic flow, pedestrian, bicyclist, and business accommodations.

Advise the project personnel of the schedule of these inspections and give them the opportunity to join in the inspection as deemed necessary. Pedestrians are to be accommodated with a safe, accessible travel path around work sites separated from mainline traffic in compliance with the Americans with Disabilities Act (ADA) Standards for Transportation Facilities. Maintain existing or detour bicycle facilities satisfactorily throughout the project limits. Existing businesses in work areas are to be provided with adequate entrances for vehicular and pedestrian traffic during business hours.

The Owner may disqualify and remove from the project a Worksite Traffic Supervisor who fails to comply with the provisions of this Section. The Owner may temporarily suspend all activities, except traffic, erosion control and such other activities that are necessary for project maintenance and safety, for failure to comply with these provisions.

**102-3.3 Lane Closures:** Approval for all lane closures, mobile operations, and traffic pacing operations is required. Submit routine requests to the Engineer fourteen calendar days in advance of planned lane closures, mobile operations, and traffic pacing operations. For unforeseen events that require cancelling or rescheduling lane closures, mobile operations, and traffic pacing operations, revise the lane closure request as soon as possible.

#### **102-4 Alternative Traffic Control Plan.**

The Contractor may propose an alternative traffic control plan (TCP) to the plan presented in the Contract Documents. The Contractor's Engineer of Record must sign and seal the alternative plan and submit to the Engineer. Prepare the TCP in conformance with and in the form outlined in the current version of the FDOT Design Manual. Indicate in the plan a TCP for each phase of activities. Take responsibility for identifying and assessing any potential impacts to a utility that may be caused by the alternate TCP proposed by the Contractor, and notify the Owner in writing of any such potential impacts to utilities.

For projects with nighttime lane closure restrictions where paving is expected to extend into the winter months, the Contractor may propose an alternative TCP allowing for daytime lane closures for friction course paving. The alternative TCP must be a lane closure analysis based on actual traffic counts and prepared in accordance with the FDOT Design Manual.

Engineer's approval of the alternate TCP does not relieve the Contractor of sole responsibility for all utility impacts, costs, delays or damages, whether direct or indirect, resulting from Contractor initiated changes in the design or construction activities from those in the original Contract Specifications, Design Plans (including TCPs) or other Contract Documents and which effect a change in utility work different from that shown in the Utility Plans, joint project agreements or utility relocation schedules.

The Owner reserves the right to reject any alternative TCP. Obtain the Engineer's written approval before beginning work using an alternate TCP. The Engineer's written approval is required for all modifications to the TCP. The Engineer will only allow changes to the TCP in an emergency without the proper documentation.

#### **102-5 Traffic Control.**

**102-5.1 Standards:** FDOT Standard Plans are the minimum standards for the use in the development of all TCPs. The MUTCD, Part VI is the minimum national standard for traffic control for highway construction, maintenance, and utility operations. Follow the basic principles and minimum standards contained in these documents for the design, application, installation, maintenance, and removal of all traffic control devices, warning devices and barriers which are necessary to protect the public and workers from hazards within the project limits.

**102-5.2 Maintenance of Roadway Surfaces:** Maintain all lanes that are being used for the MOT, including those on detours and temporary facilities, under all weather conditions. Keep the lanes reasonably free of dust, potholes and rutting. Provide the lanes with the drainage facilities necessary to maintain a smooth riding surface under all weather conditions.

**102-5.3 Number of Traffic Lanes:** Maintain one lane of traffic in each direction. Maintain two lanes of traffic in each direction at existing four (or more) lane cross roads, where necessary to avoid undue traffic congestion. Construct each lane used for MOT at least as wide as the traffic lanes existing in the area before commencement of construction. Do not allow traffic control and warning devices to encroach on lanes used for MOT.

The Engineer may allow the Contractor to restrict traffic to one-way operation for short periods of time provided that the Contractor employs adequate means of traffic control and does not unreasonably delay traffic. When a construction activity requires restricting traffic to one-way operations, locate the flaggers within view of each other when possible. When visual contact between flaggers is not possible, equip them with 2-way radios, official, or pilot vehicles, or use traffic signals.

**102-5.4 Crossings and Intersections:** Provide and maintain adequate accommodations for intersecting and crossing traffic. Do not block or unduly restrict any median opening, road or street crossing the project unless approved by the Engineer. Before beginning any construction, submit to the Engineer the names and phone numbers of persons that can be contacted when signal operation malfunctions.



**102-5.5 Access for Residences and Businesses:** Provide continuous access to all residences and all places of business.

**102-5.6 Protection of the Work from Injury by Traffic:** Where traffic would be injurious to a base, surface course, or structure constructed as a part of the work, maintain all traffic outside the limits of such areas until the potential for injury no longer exists.

**102-5.7 Flagger:** Provide flaggers to control traffic when traffic in both directions must use a single lane and in other situations as required. All flaggers must meet the personnel qualifications specified in Section 105.

**102-5.8 Conflicting Pavement Markings:** Where the lane use or where normal vehicle or pedestrian paths are altered during construction, remove all pavement markings (paint, tape, thermoplastic, raised pavement markers, etc.) that will conflict with the adjusted vehicle or pedestrian paths. Use of paint to cover conflicting pavement markings is prohibited. Remove conflicting pavement markings using a method that will not damage the surface texture of the pavement and which will eliminate the previous marking pattern regardless of weather and light conditions.

Remove all pavement markings that will be in conflict with "next phase of operation" vehicle pedestrian paths as described above, before opening to vehicle traffic or use by pedestrians.

Cost for removing conflicting pavement markings (paint, tape, thermoplastic, raised pavement markers, etc.) to be included in Maintenance of Traffic, lump sum.

**102-5.9 Vehicle and Equipment Visibility:** Equip all pickups and automobiles used on the project with a minimum of one Class 2 warning light that meets the Society of Automotive Engineers Recommended Practice SAE J595, dated November 1, 2008, or SAE J845, dated December 1, 2007, and incorporated herein by reference. Existing lights that meet SAE J845, dated March, 1992, or SAE J1318, dated April, 1986, may be used to their end of service life. The warning lights must be a high intensity amber or white rotating, flashing, oscillating or strobe light. Lights must be unobstructed by ancillary vehicle equipment such as ladders, racks or booms and be visible 360 degrees around the vehicle. If the light is obstructed, additional lights will be required. The lights must be operating when the vehicle is in a work area where a potential hazard exists, when operating at less than the average speed for the facility while performing work activities, making frequent stops or called for in the Plans or Standard Plans.

Equip all other vehicles and equipment with a minimum of 4 square feet of retroreflective sheeting or warning lights.

**102-5.10 No Waiver of Liability:** Conduct operations in such a manner that no undue hazard results due to the requirements of this Article. The procedures and policies described herein in no way acts as a waiver of any terms of the liability of the Contractor or his surety.

## **102-6 Detours.**

**102-6.1 General:** Construct and maintain detour facilities wherever it becomes necessary to divert traffic, including pedestrians and bicyclists, from any existing facility, or wherever construction operations block the flow of traffic.

**102-6.2 Construction:** Plan, construct, and maintain detours for the safe passage of traffic in all conditions of weather. Provide the detour with all facilities necessary to meet this requirement.

Where pedestrian facilities are detoured, blocked or closed during the work, provide safe alternate accessible routes through or around the work zone meeting the requirements of the ADA Standards for Transportation Facilities. When temporary walkway surfaces and ramps are required to be constructed, ensure surfaces are stable, firm, slip resistant, and kept free of any obstructions and hazards such as holes, debris, mud, construction equipment and stored materials.

When the Plans call for the Owner to furnish detour bridge components, construct the pile bents in accordance with the Plans, unless otherwise authorized by the Engineer.

Provide two Contractor representatives, who will be directly involved in the erection of Owner-owned temporary bridging, to attend a mandatory one-day training session to be conducted at the Owner's storage facility. No bridging will be released to the Contractor prior to the completion of this training.

Submit the following: company name, phone number, office address, project contact person, names of the representatives who will attend the training described above, project number, detour bridge type, bridge length, span length, location and usage time frames, to the Engineer at least 30 calendar days before the intended pick-up date, to obtain the storage facility location and list of components for the project. Upon receipt, the Engineer will, within 10 calendar days submit an approved material list to the Contractor and the appropriate Owner storage yard.

Submit the name of the representative with authority to pick up components, to the Engineer at least 10 calendar days before the proposed pick-up date. The Owner is not obligated to load the bridge components without this notice. Take responsibility and sign for each item loaded at the time of issuance.

Provide timber dunnage, and transport the bridge components from the designated storage facility to the job site. Unload, erect, and maintain the bridge, then dismantle the bridge and load and return the components to the designated storage facility.

Notify the Engineer in writing at least 10 calendar days before returning the components. Include in this notice the name of the Contractor's representative authorized to sign for return of the bridge components. The yard supervisor is not obligated to unload the bridge components without this notice.

The Owner will provide equipment and an operator at the Owner's storage facility to assist in loading and unloading the bridge components. Furnish all other labor and equipment required for loading and unloading the components.

The Owner's representative will record all bridge components issued or returned on the Detour Bridge Issue and Credit Ticket. The tickets must be signed by a Owner and a Contractor representative, after loading or unloading each truck to document the quantity and type of bridging issued or returned.

Bind together all bridge components to be returned in accordance with the instructions given by the storage facility. The yard supervisor will repack components that are not packed in compliance with

these instructions. Upon request, written packing instructions will be made available to the Contractor, before dismantling of the bridge for return to the Owner's storage facility.

Assume responsibility for any shortage or damage to the bridge components. Monies due the Contractor will be reduced at the rate of \$35.00 per hour plus materials for repacking, repairs or replacement of bridge components.

The skid resistance of open steel grid decking on the detour bridge may decrease gradually after opening the bridge to traffic. The Owner will furnish a pneumatic floor scabber machine for roughening the roadway surface of the detour bridge decking. Provide an air compressor at the job site with 200 cubic feet per minute capacity, 90 psi air pressure for the power supply of the machine, and an operator. Transport the scabber machine to and from the Owner's structures shop. Repair any damage to the scabber machine caused by operations at no expense to the Owner. Perform scabbling when determined necessary by the Engineer. The Owner will pay for the cost of scabbling as Unforeseeable Work in accordance with 4-4.

Return the bridge components to the designated storage facility beginning no later than 10 calendar days after the date the detour bridge is no longer needed, the date the new bridge is placed in service, or the date Contract Time expires, whichever is earliest. Return the detour bridging at an average of not less than 200 feet per week. Upon failure to return the bridge components to the Owner within the time specified, compensate the Owner for the bridge components not returned at the rate of \$5.00 per 10 feet, per day, per bridge, for single lane; and \$10.00 per 10 feet, per day, per bridge, for dual lane until the bridge components are returned to the Owner.

**102-6.3 Construction Methods:** Select and use construction methods and materials that provide a stable and safe detour facility. Construct the detour facility to have sufficient durability to remain in good condition, supplemented by maintenance, for the entire period that the detour is required.

**102-6.4 Removal of Detours:** Remove detours when they are no longer needed and before the Contract is completed. Take ownership of all materials from the detour and dispose of them, except for the materials on loan from the Owner with the stipulation that they are returned.

**102-6.5 Detours Over Existing Roads and Streets:** When the Owner specifies that traffic be detoured over roads or streets outside the project area, do not maintain such roads or streets. However, maintain all signs and other devices placed for the purpose of the detour.

**102-6.6 Operation of Existing Movable Bridges:** The Owner will maintain and operate existing moveable bridges that are to be removed by the Contractor until such time as they are closed to traffic. During this period, make immediate repairs of any damage to such structures caused by use or operations related to the work at no expense to the Owner, but do not provide routine repairs or maintenance. In the event that use or operations result in damage to a bridge requiring repairs, give such repairs top priority to any equipment, material, or labor available.

**102-6.7 Special Detour:** A special detour is defined as a diversion or lane shift for vehicular traffic that requires temporary pavement.

**102-6.8 Pedestrian Special Detour:** A pedestrian special detour is defined as a temporary pedestrian way that requires temporary pavement or other stable, firm, slip-resistant surface.

**102-7 Traffic Control Officer.**

Provide uniformed law enforcement officers, including marked law enforcement vehicles, to assist in controlling and directing traffic in the work zone when the following types of work is necessary on projects:

1. When directing traffic/overriding the signal in a signalized intersection.
2. When Standard Plans, Index 102-619 is used on freeway facilities (interstates, toll roads, and expressways) at nighttime for work within the travel lane.
3. When Standard Plans, Index 102-655 Traffic Pacing is called for in the Plans or approved by the Engineer.
4. When pulling conductor/cable above an open traffic lane on limited access facilities, when called for in the Plans or approved by the Engineer.
5. When Standard Plans, Index 102-625 Temporary Road Closure 5 Minutes or Less is used.
6. When performing lane closures during nighttime operations on roadways with posted speed limits 55 mph or greater.

At the Contractor's option, traffic control officers may be used for operations other than those listed above.

Cost for traffic control officers will be paid for as described in 102-11.2.

The Owner will not consider any claim arising from the failure of a traffic control officer to be present or available on the project. A noncompensable time extension may be granted when a state or local emergency requires all area law enforcement officers to be on-duty and not available for hire.

**102-8 Driveway Maintenance.**

**102-8.1 General:** Ensure that each residence and business has safe, stable, and reasonable access.

**102-8.2 Construction Methods:** Place, level, manipulate, compact, and maintain the material, to the extent appropriate for the intended use. As permanent driveway construction is accomplished at a particular location, the Contractor may salvage and reuse previously placed materials that are suitable for reuse on other driveways.

**102-9 Temporary Traffic Control Devices.**

**102-9.1 General:** Use only devices that are listed on the APL. Immediately remove or cover, using any method of covering approved by the Engineer, any existing or temporary devices that do not apply to current conditions.

The use of NCHRP Report 350 Recommended Procedures for the Safety Performance Evaluation of Highway Features devices purchased prior to January 1, 2020 is permitted on projects let prior to January 1, 2030. All devices manufactured or purchased on or after January 1, 2020 must be MASH compliant in accordance with Section 990.

The APL number is to be permanently marked on the device at a readily visible location. Sheeting used on devices and pavement markings are exempt from this requirement.

Notify the Engineer in writing of any scheduled operation that will affect traffic patterns or safety sufficiently in advance of commencing such operation to permit review of the plan for the proposed installation of temporary traffic control devices.

Assign an employee the responsibility of maintaining the position and condition of all temporary traffic control devices throughout the duration of the Contract. Keep the Engineer advised at all times of the identification and means of contacting this employee on a 24 hour basis.

Maintain temporary traffic control devices in the correct position, properly oriented, clearly visible and clean, at all times. All applicable temporary traffic control devices must meet the classification category of Acceptable as defined in the American Traffic Safety Services Association (ATSSA) Quality Guidelines for Temporary Traffic Control Devices and Features. Temporary concrete barriers must meet the classification category of Acceptable defined in the FDOT's Temporary Concrete Barrier Evaluation Guide, which may be viewed at the following URL: [https://fdotwww.blob.core.windows.net/sitefinity/docs/defaultsource/programmanagement/implemented/urlinspecs/files/docs/default-source/contentdocs/programmanagement/implemented/urlinspecs/files/temporaryconcretebarrierguide.pdf.pdf?sfvrsn=343b4c97\\_10](https://fdotwww.blob.core.windows.net/sitefinity/docs/defaultsource/programmanagement/implemented/urlinspecs/files/docs/default-source/contentdocs/programmanagement/implemented/urlinspecs/files/temporaryconcretebarrierguide.pdf.pdf?sfvrsn=343b4c97_10). Pedestrian longitudinal channelizing devices (LCDs) must meet the classification category of Acceptable as defined in the Pedestrian LCD Evaluation Guide, which may be viewed at the following URL: [https://fdotwww.blob.core.windows.net/sitefinity/docs/defaultsource/programmanagement/implemented/urlinspecs/files/lcdevaluationguide.pdf?sfvrsn=166e0f16\\_2](https://fdotwww.blob.core.windows.net/sitefinity/docs/defaultsource/programmanagement/implemented/urlinspecs/files/lcdevaluationguide.pdf?sfvrsn=166e0f16_2). Immediately repair, replace or clean damaged, defaced or dirty devices. Traffic control devices must not be cleaned while installed/used. Use of warning lights on any temporary traffic control device is prohibited, with the exception of the trailer mounted portable regulatory signs.

Employ an approved independent Channelizing Device Supplier (CDS) to provide and maintain the condition of the following non-fixed channelizing devices: drums, cones, vertical panels, barricades, tubular markers, and longitudinal channelizing devices. Cones may be provided and maintained by the Contractor.

The CDS shall not be affiliated with the Contractor and shall be approved by the Engineer in accordance with 102-9.1.1. The CDS shall submit a monthly certification on letterhead that the channelizing devices mentioned above installed/used within the work zone meet classification category of Acceptable as defined in the Pedestrian LCD Evaluation Guide and the ATSSA Quality Guidelines for Temporary Traffic Control Devices and Features. The CDS shall submit the monthly certification on letterhead for channelizing devices installed/used within the work zone. The CDS certification shall include the following statement, "I certify that I have provided and maintained the following devices <list devices covered under the certification> in accordance with Pedestrian LCD Evaluation Guide and the ATSSA Quality Guidelines for Temporary Traffic Control Devices and Features." If the Contractor chooses to provide and maintain cones, the Contractor must submit a monthly Contractor certification on letterhead that all cones installed/used within the work zone meet acceptable standards as outlined in the ATSSA Quality Guidelines for Temporary Traffic Control Devices and Features. The Contractor certification shall include the following statement, "I certify that I have provided and maintained cones in accordance with the ATSSA Quality Guidelines for Temporary Traffic Control Devices and Features."

**102-9.1.1 Approved Independent Channelizing Device Supplier (CDS) Requirements:** Submit the following documents to the Engineer for independent CDS approval at the preconstruction conference. A CDS may elect to provide a one-time submittal of this information to the State Construction Office for review and pre-approval. FDOT approved CDSs are listed on the State Construction Office website. Inform the Engineer at the preconstruction conference of this approval.

1. A letter on company letterhead signed and dated by the owner of the company or company officer with the following information and statements:
  - a. The company's owners, stockholders, and officers.
  - b. A statement declaring that the company will not perform as a CDS on any project where there is common ownership, directly or indirectly, between the company and the Contractor.
  - c. A statement declaring that the company will furnish and maintain the condition of all channelizing devices with the exception of cones as required in 1029.1 with its own forces.
  - d. A statement declaring at least five years of experience in providing channelizing device supplier services, with its own inventory of channelizing devices.
  - e. On a separate sheet, list a sample project history of the company's experience as a channelizing device supplier for the five years declared in item 1(d) above including the following information:
    1. Project name and number and a brief description of CDS work performed,
    2. Beginning and ending date of CDS project activities,
    3. Location of project (city, state),
    4. Monetary amount of CDS work on project,
    5. Owner of project, contact person and phone number with area code,
    6. Name of Contractor (client) that the work was performed for and phone number with area code.
2. A maintenance plan for approval by the Owner that outlines the frequency and methods for maintaining the condition of all channelizing devices, except cones owned and maintained by the Contractor, installed/used in the work zone.

**102-9.2 Work Zone Signs:** Furnish, install, maintain, remove and relocate signs in accordance with the Plans and Standard Plans, Index 102-600.

**102-9.2.1 Post Mounted Signs:** Meet the requirements of 990-8.

**102-9.2.2 Portable Signs:** Use only approved systems, which includes sign stands and attachment hardware (nuts, bolts, clamps, brackets, braces, etc.), meeting the vendor requirements specified on the APL drawings.

**102-9.2.3 Barrier Mounted Signs:** If post mounting criteria cannot be achieved in accordance with Standard Plans, Index 102-600 and a barrier or traffic railing exists, use temporary sign criteria provided in Standard Plans, Index 700-013.

**102-9.3 Business Signs:** Provide and place signs in accordance with the Plans and Standard Plans, Index 102 series. Furnish signs having retroreflective sheeting meeting the requirements of Section 990.

**102-9.4 Project Information Signs:** Provide and place signs in accordance with the Plans and Standard Plans, Index 102 series. Furnish signs having retroreflective sheeting meeting the requirements of Section 990.

**102-9.5 Channelizing Devices:** Furnish, install, maintain, remove and relocate channelizing devices in accordance with the Plans and Standard Plans.

**102-9.5.1 Retroreflective Collars for Traffic Cones:** Use collars for traffic cones listed on the APL that meet the requirements of Section 990. Use cone collars at night designed to properly fit the taper of the cone when installed. Place the upper 6 inch collar a uniform 3-1/2 inches distance from the top of the cone and the lower 4 inch collar a uniform 2 inches distance below the bottom of the upper 6 inch collar. Collars must be capable of being removed for temporary use or attached permanently to the cone in accordance with the manufacturer's recommendations. Provide a white sheeting having a smooth outer surface and that has the property of a retroreflector over its entire surface.

**102-9.5.2 Longitudinal Channelizing Devices (LCDs):** Use LCDs listed on the APL and meeting the requirements of Section 990 and the Standard Plans. LCDs must be interlocked except for the stand-alone unit placed perpendicular to a sidewalk. For LCDs requiring internal ballasting, an indicator that clearly identifies the proper ballast level will be required. For LCDs requiring external ballasting, the ballasting methods must be detailed in the APL drawings including ballasting type and minimum weight.

Ensure that joints on the pedestrian LCDs are free of sharp edges and have a maximum offset of 1/2 inch in any plane.

Use alternating orange and white solid color vehicular LCDs. Vehicular LCDs may be substituted for drums, vertical panels, or barricades.

**102-9.6 Temporary Barrier:** Furnish, install, maintain, remove and relocate temporary barrier in accordance with the Plans and Standard Plans. Obtain and use precast temporary concrete barrier from a manufacturing plant that is on the FDOT's Production Facility Listing. Temporary concrete barrier must meet the material and construction requirements of Section 521 unless noted otherwise in the Standard Plans. Proprietary temporary concrete, steel, or water filled barrier used must be listed on the APL.

The maximum allowable height increase between consecutive temporary barrier units in the direction of traffic is 1 inch.

Temporary barrier must comply with Standard Plans, Index 102-100 or 102-120. Install temporary barriers as either anchored or freestanding as shown in the Plans or the Standard Plans. An anchored unit is defined as having at least one stake or bolt into the underlying pavement or bridge deck. All other units, including those with keeper pins, are considered freestanding.

Remove temporary asphalt pads and repair all attachment scars to permanent structures and pavements after barrier removal. Make necessary repairs due to defective material, work, or Contractor operations at no cost to the Owner. Restore barrier damaged by the traveling public within 24 hours after notification as authorized by the Engineer.

Trailer mounted barriers listed on the APL may be used at the option of the Contractor. Trailer mounted barriers listed on the APL must have an FHWA eligibility letter and be successfully crash tested in accordance with MASH TL-3 criteria. All trailer mounted barriers must be equipped with an APL listed truck mounted attenuator, an APL listed vehicle mounted arrow board and vehicle warning lights in accordance with this Section.

**102-9.6.1 Temporary Barrier Meeting the Requirements of Standard Plans, Index 102-120 and 102-110:** Ensure the marking requirements of the respective Index are met.

**102-9.6.2 Proprietary Precast Temporary Concrete Barrier Fabricated prior to 2005:** Submit a certification stating that all unmarked barrier units meet the requirements of the Specifications and the Standard Plans. Certifications will be project specific and non-transferable.

**102-9.6.3 Proprietary Precast Temporary Concrete Barrier Fabricated in 2005 or later:** Ensure each barrier unit has permanent clear markings, showing the manufacture date, serial number, manufacturer's name or symbol, and the APL number. Label the markings on a plate, plaque, or cast in the unit. Proprietary barrier fabricated prior to 2016 and marked with the "INDX 521" in lieu of the APL number will be permitted.

**102-9.6.4 Temporary Concrete Barrier Repair:** Before beginning the repair, remove all laitance, loose material, and any other deleterious matter to sound concrete or a minimum depth of one inch. Additionally, when reinforcing bars, inserts or weldments are exposed, remove the concrete to provide a minimum one inch clearance all around. Fill the repair area with an approved high performance concrete repair material in accordance with 930-5 and the manufacturer's recommendations. Restore surfaces and edges to the original dimensions and shape of the barrier.

Repairs are not allowed on barrier units that have one or more of the following deficiencies: structural cracking or cracks that exist through the entire cross-section; unit-to-unit connection assemblies or anchor slots are broken or no longer in a fixed position.

Do not paint repaired barriers.

**102-9.7 Barrier Delineators:** Install barrier delineators on top of temporary barrier and vehicular LCDs meeting the requirements of Section 705.



**102-9.8 Temporary Glare Screen:** Use temporary glare screens listed on the APL that meet the requirements of Section 990. Furnish, install, maintain, remove and relocate glare screen systems in conjunction with temporary barrier at locations identified in the Plans.

The anchorage of the glare screen to the barrier must be capable of safely resisting an equivalent tensile load of 600 pounds per foot of glare screen, with a requirement to use a minimum of three fasteners per barrier section.

When glare screen is utilized on temporary barrier, barrier delineators will not be required.

**102-9.9 Temporary Crash Cushion (Redirective or Gating):** Furnish, install, maintain and subsequently remove temporary crash cushions in accordance with the details and notes shown in the Plans, Standard Plans, and requirements of the pre-approved alternatives listed on the APL.

Temporary crash cushions can be either new or used functionally sound refurbished devices. Performance of intended function is the only condition for acceptance. All metallic components must be galvanized in accordance with Section 967.

Anchor abutting temporary barrier in accordance the Standard Plans or APL drawings, as required. Bidirectional installations must have a transition panel installed between the crash cushion and the abutting barrier. Delineate the crash cushion in accordance with Section 544. Maintain the crash cushions until their authorized removal. Do not place any materials or equipment within the length of the crash cushion.

Remove temporary asphalt or concrete pads and repair all attachment scars to permanent structures and pavements after crash cushion removal. Make necessary repairs due to defective material, work, or Contractor operations at no cost to the Owner. Restore crash cushions damaged by the traveling public within 24 hours after notification as authorized by the Engineer.

**102-9.10 Temporary Guardrail:** Furnish temporary guardrail in accordance with the Plans and Standard Plans. Meet the requirements of Section 536.

**102-9.11 Arrow Board:** Furnish arrow boards that meet the requirements of Section 990 as required by the Plans and Standard Plans to advise approaching traffic of lane closures or shoulder work. Ensure that the arrow board display panel is raised to a fully upright position and is fully visible to motorists. Type B arrow boards may be used on low to intermediate speed (0 mph to 50 mph) facilities or for maintenance or moving operations on any speed facility. Type C arrow boards must be used for all other operations on high-speed (50 mph and greater) facilities and may be substituted for Type B arrow boards on any speed facility.

**102-9.12 Portable Changeable Message Sign (PCMS):** Furnish PCMSs or truck mounted changeable message signs that meet the requirements of Section 990 as required by the Plans and Standard Plans to supplement other temporary traffic control devices used in work zones. Ensure that the PCMS display panel is raised to a fully upright position and is fully visible to motorists.

Messages must have no more than two phases. The display time for each phase must be at least two seconds but no more than three seconds. The sum of the display time must be a maximum of six seconds.

**102-9.13 Portable Regulatory Signs (PRS):** Furnish PRSs that meet the requirements of Section 990 as required by the Plans and Standard Plans. Ensure that the PRS sign panel is raised to a fully upright position and is fully visible to motorists.

Activate portable regulatory signs only during active work activities and deactivate when no work is being performed.

**102-9.14 Radar Speed Display Unit (RSDU):** Furnish RSDUs that meet the requirements of Section 990 as required by the Plans and Standard Plans to inform motorists of the posted speed and their actual speed. Ensure that the RSDU display panel is mounted in accordance with the manufacturer's recommendations.

Activate the radar speed display unit only during active work activities and deactivate when no work is being performed.

**102-9.15 Temporary Signalization and Maintenance:** Provide temporary signalization and maintenance at existing, temporary, and new intersections including but not limited to the following:

1. Installation of temporary poles and span wire assemblies as shown in the Plans,
2. Temporary portable traffic signals as shown in the Plans,
3. Adding or shifting signal heads,
4. Trouble calls,
5. Maintaining intersection and coordination timing and preemption devices. Coordination timing will require maintaining functionality of system communications.

Restore any loss of operation within 12 hours after notification. Provide alternate temporary traffic control until the signalization is restored.

Provide traffic signal equipment that meets the requirements of the Standard Plans and 603-2. The Engineer may approve used signal equipment if it is in acceptable condition. Replacement components for traffic signal cabinet assemblies will be provided by the maintaining agency. For temporary signals used for lane closure operations on two-lane, two-way roadways meet the requirements in 102-9.21.

**102-9.16 Temporary Traffic Detection and Maintenance:** Provide temporary traffic detection and maintenance at existing, temporary, and new signalized intersections. Provide temporary traffic detection equipment listed on the APL. Restore any loss of detection within 12 hours. Ensure 90% accuracy per signal phase, measured at the initial installation and after any lane shifts, by comparing sample data collected from the detection system with ground truth data collected by human observation. Collect the sample and ground truth data for a minimum of five minutes during a peak and five minutes during an off-peak period with a minimum three detections for each signal phase. Perform the test in the presence of the Engineer.

**102-9.17 Truck Mounted Attenuators and Trailer Mounted Attenuators:** Furnish, operate and maintain APL listed truck mounted and trailer mounted attenuators in accordance with the manufacturer's recommendations.

For posted speeds of 50 mph or greater, use either truck mounted attenuators or trailer mounted attenuators that meet TL-3 criteria. For posted speeds of 45 mph or less, use either truck mounted attenuators or trailer mounted attenuators that meet TL-2 or TL-3 criteria.

Attenuators will not be paid for separately. Include the cost of the truck with either a truck mounted attenuator or a trailer mounted attenuator in Maintenance of Traffic, lump sum. Payment includes all costs, including furnishing, operating maintaining and removal when no longer required, and all materials, labor, tools, equipment and incidentals required for attenuator maintenance.

**102-9.18 Temporary Raised Rumble Strip Set:** Furnish, install, maintain, remove, and reinstall temporary raised rumble strips per the manufacturer's recommendations and in accordance with Standard Plans, Index 102-603.

The temporary raised rumble strip may be either a removable polymer striping tape or a molded engineered polymer material.

**102-9.19 Automated Flagger Assistance Devices (AFAD):** Furnish, install, maintain, remove, and relocate AFADs in accordance with the Plans, Standard Plans, Index 102-603, and APL vendor drawings.

Position AFADs where they are clearly visible to oncoming traffic. AFADs may be placed on the centerline if they have been successfully crash tested in accordance with MASH TL-3 criteria. A gate arm is required in accordance with Section 990 if a single AFAD is used on the shoulder to control one direction of traffic.

The devices may be operated either by a single flagger at one end of the traffic control zone, from a central location, or by a separate flagger near each device location. Use only flaggers trained in accordance with Section 105 and in the operation of the AFAD. When in use, each AFAD must be in view of, and attended at all times by, the flagger operating the device.

Provide two flaggers on-site and use one of the following methods in the deployment of AFADs:

1. Place an AFAD at each end of the temporary traffic control zone, or
2. Place an AFAD at one end of the temporary traffic control zone and a flagger at the opposite end.

A single flagger may simultaneously operate two AFADs as described in (1) or a single AFAD as described in (2) if all of the following conditions are met:

1. The flagger has an unobstructed view of the AFAD(s),
2. The flagger has an unobstructed view of approaching traffic in both directions,

3. For two AFADs, the AFADs are less than 800 feet apart. For one AFAD, the AFAD and the flagger are less than 800 feet apart.
4. Two flaggers are available on-site to provide normal flagging operations should an AFAD malfunction.

AFADs may be either a remotely controlled Stop/Slow AFAD mounted on either a trailer or a movable cart system, or a remotely controlled Red/Yellow Lens AFAD.

Illuminate the flagging station when the AFAD is used at night. When the AFAD is not in use, remove or cover signs and move the AFAD device outside the clear zone or shield it with a barrier.

AFADs will not be paid for separately. AFADs may be used as a supplement or an alternate to flaggers in accordance with the Plans, Standard Plans, Index 102-603, and the APL vendor drawings. Include the cost for AFADs in Maintenance of Traffic, Lump Sum.

**102-9.20 Temporary Lane Separator:** Furnish, install, maintain, remove and relocate temporary lane separator in accordance with the Plans and Standard Plans, Index 102-600. Anchor the portable temporary lane separator with a removable anchor bolt. Use epoxy on bridge decks where anchoring is not allowed. Remove the epoxy from the bridge deck by hydroblasting or other method approved by the Engineer.

**102-9.21 Temporary Signals for Lane Closures on Two-Lane, Two-Way Roadways:** Furnish, install, maintain, remove, and relocate temporary signals for lane closure operations on two-lane, two-way roadways at the locations shown in the Plans. Temporary signals may be used, at the Contractor's option, as an alternate to flaggers for lane closure operations on two-lane, two-way roadways in accordance with Standard Plans, Index 102-606. Temporary signals can either be portable signals or span wire signals and must be listed on the APL.

#### **102-10 Work Zone Pavement Marking.**

**102-10.1 Description:** Furnish and install work zone pavement markings for MOT in construction areas and in close conformity with the lines and details shown in the Plans and Standard Plans. Centerlines, lane lines, edge lines, stop bars, standard crosswalks, and turn arrows will be required in work zones prior to opening the road to traffic.

#### **102-10.2 Painted Pavement Markings:**

**102-10.2.1 General:** Use painted pavement markings meeting the requirements of Section 710. Use standard paint unless otherwise identified in the Plans or approved by the Engineer.

#### **102-10.3 Removable Tape:**

**102-10.3.1 General:** Use removable tape listed on the APL as shown in the Plans and meeting the requirements of 990-4.

**102-10.3.2 Application:** Apply removable tape with a mechanical applicator to provide pavement lines that are neat, accurate and uniform. Equip the mechanical applicator with a film cut-off device and with measuring devices that automatically and accumulatively measure the length of each line placed within an accuracy tolerance of plus or minus 2%. Ensure removable tape adheres to the road surface. Removable tape may be placed by hand on short sections, 500 feet or less, if it is done in a neat accurate manner.

**102-10.3.3 Retroreflectivity:** Apply white and yellow pavement markings that will attain an initial retroreflectivity of not less than 300 mcd/lx·m<sup>2</sup> for white and contrast markings and not less than 250 mcd/lx·m<sup>2</sup> for yellow markings. Black portions of contrast tapes and black masking tapes must be non-reflective and have a reflectance of less than 5 mcd/lx m<sup>2</sup>. At the end of the six month service life, the retroreflectance of white and yellow removable tape shall not be less than 150 mcd/lx·m<sup>2</sup>.

**102-10.3.4 Removability:** Provide removable tape capable of being removed from bituminous concrete and portland cement concrete pavement intact or in substantially large strips, either manually or by a mechanical roll-up device, at temperatures above 40°F, without the use of heat, solvents, grinding or blasting.

**102-10.4 Temporary Raised Pavement Markers (RPMs):** Use Class B RPMs except for work that consists of ground-in rumble strips at centerline locations. For ground-in rumble strips at centerline locations, use temporary RPMs in accordance with Section 710. Provide only temporary RPMs listed on the APL. Install all markers in accordance with the manufacturer's recommendations, the Standard Plans, and Section 706. After initial installation, replace broken or missing temporary RPMs in locations where more than three consecutive temporary RPMs are broken or missing at no expense to the Owner.

#### **102-11 Method of Measurement.**

**102-11.1 General:** Devices installed/used on the project on any calendar day or portion thereof, within the Contract Time, including time extensions which may be granted, will be paid for at the Contract unit price for the applicable pay item. Include the cost of any work that is necessary to meet the requirements of the Contract Documents for MOT under Maintenance of Traffic, lump sum when separate payment is not provided.

**102-11.2 Traffic Control Officers:** The quantity to be paid for traffic control officers as specified in 102-7(1) through (5) will be at the Contract unit price per hour (4 hour minimum) for the actual number of officers certified to be on the project site, including any law enforcement vehicles and all other direct and indirect costs. Payment will be made only for those traffic control officers specified in the Plans and authorized by the Engineer.

Cost for traffic control officers as specified in 102-7(6) or used at the Contractor's option will be paid for under Maintenance of Traffic, lump sum.

**102-11.3 Special Detours:** When a special detour is shown in the Plans, the work of constructing, maintaining, and subsequently removing such detour facilities will be paid for under Special Detour, lump sum. However, traffic control devices, warning devices, barriers, signing, pavement markings, and restoration to final configuration will be paid for under their respective pay items.

When the Plans show more than one special detour, each special detour will be paid for separately, at the Contract lump sum price for each.

**102-11.4 Commercial Material for Driveway Maintenance:** The quantity to be paid for will be the certified volume, in cubic yards, of all materials authorized by the Engineer, acceptably placed and maintained for driveway maintenance. The volume, which is authorized to be reused, and which is acceptably salvaged, placed, and maintained in other designated driveways will be included again for payment.

**102-11.5 Work Zone Signs:** The number of temporary post-mounted signs (temporary regulatory, warning and guide) certified as installed/used on the project will be paid for at the Contract unit price for work zone signs. When multiple signs are located on single or multiple posts, each sign panel will be paid individually. Signs greater than 20 square feet and detailed in the Plans will be paid for under Maintenance of Traffic, lump sum.

Temporary portable signs (excluding mesh signs) and vehicular mounted signs will be included for payment under work zone signs, only if used in accordance with the Standard Plans.

The number of temporary barrier mounted signs (temporary regulatory, warning and guide) certified as installed/used on the project will be paid for at the Contract unit price for barrier mounted work zone signs.

Work zone signs may be installed fourteen days prior to the start of Contract Time with the approval of the Engineer and at no additional cost to the Owner.

**102-11.6 Business Signs:** The number of business signs certified as installed/used on the project will be paid for at the Contract unit price for business signs.

**102-11.7 Project Information Signs:** No separate payment will be made for project information signs. Payment will be included under Maintenance of Traffic, lump sum.

**102-11.8 Channelizing Devices:** The number of drums, vertical panels, and Type I, Type II, Type III, or direction indicator barricades, certified as installed/used on the project meeting the requirements of Standard Plans, Index 102-600 and have been properly maintained will be paid for at the Contract unit prices for channelizing device.

Payment for drums, vertical panels, and Type I, Type II, Type III, and direction indicator barricades will be paid per each per day.

Payment for vehicular LCDs will be paid as the length in feet installed divided by the device spacing for barricades, vertical panels, and drums and certified as installed/used on the project meeting the requirements of Standard Plans, Index 102-600 and have been properly maintained will be paid for at the Contract unit price for channelizing device.

Payment for pedestrian LCDs will be paid as the plan quantity length in feet, in place and accepted. For sidewalk closures, the plan quantity length will be based on the width of the sidewalk. The quantity of pedestrian LCDs will be paid for regardless of whether materials are new, used, or relocated from a previous installation on the project. Placement of pedestrian LCDs at locations not shown in the Plans, or not authorized by the Engineer, will be at the Contractor's expense. Payment for pedestrian LCD mounted signs will be made under Work Zone Signs, per each per day.

Payment will not be made for channelizing devices unsatisfactorily maintained, as determined by the Engineer. Payment will be made for each channelizing device that is used to delineate trailer mounted devices. Payment will be made for channelizing devices delineating portable changeable message signs during the period beginning 14 working days before Contract Time begins as authorized by the Engineer.

**102-11.9 Temporary Barrier:** The quantity to be paid for will be the length, in feet, of freestanding units or anchored units certified as installed/used on the project. The quantity to be paid for relocating barrier will be based on the relocated installation type. No separate payment will be made for the asphalt pad. For freestanding units transitioned to a crash cushion, the cost of anchoring the transition units will be included in the cost of the temporary crash cushion in accordance with 102-11.12.

**102-11.10 Barrier Delineators:** No separate payment will be made for barrier delineators installed on top of temporary barrier and vehicular LCDs. Include the cost for barrier delineators in the cost of the barrier or vehicular LCD.

**102-11.11 Temporary Glare Screen:** The certified quantity to be paid for will be determined by the number of sections times the nominal length of each section.

**102-11.12 Temporary Crash Cushions:** No separate payment will be made for the concrete or asphalt pad.

**102-11.12.1 Redirective:** The quantity to be paid for will be the number of temporary crash cushions (redirective) certified as installed/used and maintained on the project, including anchoring of temporary barrier necessary for transition to the crash cushion and delineation.

**102-11.12.2 Gating:** The quantity to be paid for will be the number of temporary crash cushions (gating) certified as installed/used and maintained on the project, including anchoring of temporary barrier necessary for transition to the crash cushion and delineation.

**102-11.13 Temporary Guardrail:** The quantity to be paid for will be the length, in feet, of temporary guardrail constructed and certified as installed/used on the project. The length of a run of guardrail will be determined as a multiple of the nominal panel lengths.

**102-11.14 Arrow Board:** The quantity to be paid at the contract unit price will be for the number of arrow boards certified as installed/used on the project on any calendar day or portion thereof within the Contract Time.

**102-11.15 Portable Changeable Message Sign:** The quantity to be paid at the Contract unit price will be for the number of PCMSs or truck mounted changeable message signs certified as installed/used on the project on any calendar day or portion thereof within the Contract Time. Payment will be made for each portable changeable message sign that is used during the period beginning fourteen working days before Contract Time begins as authorized by the Engineer.

**102-11.16 Portable Regulatory Signs:** The quantity to be paid for will be the number of portable regulatory signs certified as installed/used on the project on any calendar day or portion thereof within the Contract Time, will be paid for the Contract unit price for portable regulatory sign.

**102-11.17 Radar Speed Display Unit:** The quantity to be paid for will be the number of radar speed display units certified as installed/used on the project on any calendar day or portion thereof within the Contract Time, will be paid for the Contract unit price for radar speed display unit.

**102-11.18 Temporary Signalization and Maintenance:** For existing intersections, the certified quantity to be paid for will be the number of signalized intersections per day for the full duration of

the Contract. For temporary intersections, the certified quantity to be paid for will be the number of signalized intersections per day for the duration of the temporary intersection. No separate payment will be made for temporary signalization and maintenance at new intersections.

**102-11.19 Temporary Traffic Detection and Maintenance:** For existing intersections, the certified quantity to be paid for will be the number of signalized intersections per day beginning the day Contract Time begins and ending the day the permanent detection is operational and the final lane configuration is in place. For temporary and new intersections, the certified quantity to be paid for will be the number of signalized intersections per day beginning the day the temporary detection is functional and ending the day: the permanent detection is operational and the final lane configuration is in place for a new intersection; or, when the detection is removed for a temporary intersection.

**102-11.20 Work Zone Pavement Markings:** Painted pavement markings will be paid as specified in 710-10. The quantity of removable tape to be paid for solid, 10'-30' skip, 3'-9' dotted, 6'-10' dotted, and 2'-4' dotted lines will be the length, in gross miles, authorized and acceptably applied under this Section and certified as installed/used on the project. The quantity of removable tape to be paid for transverse lines will be the length, in linear feet, authorized and acceptably applied under this Section and certified as installed/used on the project. The quantity of removable tape to be paid for pavement messages, symbols, and arrows will be per each, authorized and acceptably applied under this Section and certified as installed/used on the project. The quantity of temporary RPMs to be paid will be the number of RPMs authorized and acceptably applied.

**102-11.21 Temporary Raised Rumble Strips:** The quantity to be paid for will be the number of calendar days, or portions thereof, that temporary raised rumble strips are certified as installed/used on the project within the Contract Time. The number of strips used must meet the requirements of Standard Plans, Index 102-603. No adjustment will be made to the per day measurement for the number of strips or sets used, or for the number of times the sets are relocated.

**102-11.22 Temporary Lane Separator:** The quantity to be paid for will be the field measure, in feet, of temporary lane separator certified as installed/used on the project, including drainage gaps, completed and accepted.

**102-11.23 Temporary Signals for Lane Closures on Two-Lane, Two-Way Roadways:** The quantity to be paid for will be the number of temporary signals per day installed/used at the locations shown in the Plans. Temporary signals installed/used at the Contractor's option as an alternative to flaggers will be included in Maintenance of Traffic, lump sum.

**102-11.24 Temporary Highway Lighting:** When temporary highway lighting is required by the Plans, the work of constructing, maintaining, and removing the temporary highway lighting, including all materials and any necessary design work, will be paid for under temporary highway lighting, lump sum.

**102-11.25 Pedestrian Special Detours:** When a pedestrian special detour is shown in the Plans, the work of constructing, maintaining, and subsequently removing such detour facilities will be paid for under pedestrian special detour, lump sum. However, traffic control devices, warning devices, barriers, signing, pavement markings, and restoration to final configuration will be paid for under their respective pay items.



**102-12 Submittals.**

**102-12.1 Submittal Instructions:** Prepare a certification of quantities for certified MOT payment items for each project in the Contract. Submit the certification of quantities to the Engineer. The Owner will not pay for any disputed items until the Engineer approves the certification of quantities.

**102-12.2 Contractor's Certification of Quantities:** Request payment by submitting a certification of quantities no later than Twelve O'clock noon Monday after the estimate cut-off date or as directed by the Engineer, based on the amount of work done or completed. Ensure the certification consists of the following:

1. Contract Number, FPID Number, Certification Number, Certification Date and the period that the certification represents.
2. The basis for arriving at the amount of the progress certification, less payments previously made and less an amount previously retained or withheld. The basis will include a detail breakdown provided on the certification of items of payment in accordance with 102-13. After the initial setup of the MOT items and counts, the interval for recording the counts will be made weekly on the certification sheet unless there is a change. This change will be documented on the day of occurrence. Some items may necessitate a daily interval of recording the counts.

**102-13 Basis of Payment.**

**102-13.1 Maintenance of Traffic (General Work):** When an item of work is included in the proposal, price and payment will be full compensation for all work and costs specified under this Section except as may be specifically covered for payment under other items.

**102-13.2 Traffic Control Officers:** Price and payment will be full compensation for the services of the traffic control officers.

**102-13.3 Special Detours:** Price and payment will be full compensation for providing all detour facilities shown in the Plans and all costs incurred in carrying out all requirements of this Section for general MOT within the limits of the detour, as shown in the Plans.

**102-13.4 Commercial Materials for Driveway Maintenance:** Price and payment will be full compensation for all work and materials specified for this item, including specifically all required shaping and maintaining of driveways.

**102-13.5 Work Zone Signs:** Price and payment will be full compensation for all work and materials for furnishing signs, supports and necessary hardware, installation, relocating, maintaining and removing signs.

**102-13.6 Business Signs:** Price and payment will be full compensation for all materials and labor required for furnishing, installing, relocating, maintaining, and removing the signs as well as the cost of installing any logos provided by business owners.

**102-13.7 Project Information Signs:** Price and payment will be full compensation for all materials and labor for furnishing, installing, relocating, maintaining and removing signs.

**102-13.8 Channelizing Devices:** Prices and payment will be full compensation for furnishing, installing, relocating, maintaining and removing the channelizing devices.

**102-13.9 Temporary Barrier:** Price and payment will be full compensation for furnishing, installing, maintaining, and removing the barrier and asphalt pad. When called for, temporary barrier (relocate) will be full compensation for relocating the barrier.

**102-13.10 Temporary Glare Screen:** Price and payment will be full compensation for furnishing, installing, maintaining, and removing the glare screen certified as installed/used on the project. When called for, glare screen (relocate) will be full compensation for relocating the glare screen.

**102-13.11 Temporary Crash Cushion (Redirective or Gating):** Price and payment will be full compensation for furnishing, installing, maintaining, and removing crash cushions and concrete or asphalt pads.

**102-13.12 Temporary Guardrail:** Price and payment will be full compensation for furnishing all materials required for a complete installation, including end anchorage assemblies and any end connections to other structures and for installing, maintaining and removing guardrail.

**102-13.13 Arrow Board:** Price and payment will be full compensation for furnishing, installing, operating, relocating, maintaining and removing arrow boards.

**102-13.14 Portable Changeable Message Sign:** Price and payment will be full compensation for furnishing, installing, operating, relocating, maintaining and removing portable changeable message signs.

**102-13.15 Portable Regulatory Signs:** Price and payment will be full compensation for furnishing, installing, relocating, operating, maintaining and removing a completely functioning system as described in these Specifications.

Payment will include all labor, materials, incidentals, repairs and any actions necessary to operate and maintain the unit at all times that work is being performed or traffic is being affected by construction and/or MOT operations.

**102-13.16 Radar Speed Display Unit:** Price and payment will be made only for a completely functioning system as described in these Specifications. Payment will include all labor, hardware, accessories, signs, and incidental items necessary for a complete system. Payment will include any measurements needed to ensure that the unit conforms to all Specification requirements.

Payment will include all labor, materials, incidentals, repairs and any actions necessary to operate and maintain the unit at all times that work is being performed or traffic is being affected by construction and MOT operations. Price and payment will be full compensation for furnishing, installing, operating, relocating, maintaining and removing radar speed display unit.

**102-13.17 Temporary Signalization and Maintenance:** Price and payment will constitute full compensation for furnishing, installing, operating, maintaining and removing temporary traffic control signals including all equipment and components necessary to provide an operable traffic signal. Payment will be withheld for each day at each intersection where the temporary signalization is not operational within 12 hours after notification.

**102-13.18 Temporary Traffic Detection and Maintenance:** Price and payment will constitute full compensation for furnishing, installing, operating, maintaining and removing temporary traffic

detection including all equipment and components necessary to provide an acceptable signalized intersection. Take ownership of all equipment and components. Payment will be withheld for each day at each intersection where the temporary detection is not operational within 12 hours after notification.

**102-13.19 Work Zone Pavement Markings:** Price and payment will be full compensation for all work specified including, all cleaning and preparing of surfaces, furnishing of all materials, application, curing and protection of all items, protection of traffic, furnishing of all tools, machines and equipment, and all incidentals necessary to complete the work. Final payment will be withheld until all deficiencies are corrected.

Removable tape or durable paint may be substituted for standard paint at no additional cost to the Owner.

Payment for temporary RPMs used to supplement line markings will be paid for under temporary raised pavement markers. Install these RPMs as detailed in the Standard Plans.

**102-13.20 Temporary Raised Rumble Strips:** Price and payment will be full compensation for all work and materials described in this Section, including all cleaning and preparing of surfaces, disposal of all debris, furnishing of all materials, application, curing, removal, reinstalling and protection of all items, protection of traffic, furnishing of all tools, machines and equipment, and all incidentals necessary to complete the work.

**102-13.21 Temporary Lane Separator:** Price and payment will be full compensation for all work specified in this Section.

**102-13.22 Temporary Signals for Lane Closures on Two-Lane, Two-Way Roadways:** Price and payment will be full compensation for furnishing, installing, operating, maintaining and removing temporary traffic signal including all equipment and components necessary to provide an operable portable traffic signal.

**102-13.23 Temporary Highway Lighting:** Price and payment will be full compensation for providing all temporary highway lighting shown in the Plans.

**102-13.24 Pedestrian Special Detours:** Price and payment will be full compensation for providing all pedestrian special detours shown in the Plans.

**102-13.25 Payment Items:** Payment will be made under:

<i>Item 102-1</i>	<i>Maintenance of Traffic</i>	<i>-per Lump Sum (LS)</i>
-------------------	-------------------------------	---------------------------

END OF SECTION 102

---

**SECTION 104**

**PREVENTION, CONTROL, AND ABATEMENT OF EROSION AND WATER POLLUTION**

**104-1 Description.**

Provide erosion control measures where work is accomplished in conjunction with the project, to prevent erosion, pollution of water, detrimental effects to public or private property adjacent to the project right-of-way and damage to work on the project.

**104-2 General.**

Coordinate the installation of temporary erosion control devices with the construction of the permanent erosion control devices to ensure economical, effective, and continuous control of erosion and water pollution throughout the life of the Contract.

**104-3 Control of Contractor's Operations Which May Result in Water Pollution.**

Prevent contaminants, pollutants or hazardous substances, as defined in Section 376.301, Florida Statutes, from migrating from the construction site or from materials and equipment into any surface waters, wetlands, groundwater or property beyond the project limits. Conduct and schedule operations to avoid and minimize pollution or siltation from the project to surface waters, wetlands, groundwater, or property beyond the project limits.

Do not drive in, operate, or place construction equipment or materials in surface waters, wetlands, groundwater, or property beyond the project limits without permitted authority for permanent or temporary impacts. Water crossings or other wetlands impacts must be authorized by permit. Obstructing or impeding the water flow or movement of the water or wildlife must be authorized by permit.

Where pumps are used to remove highly turbid waters from enclosed construction areas such as cofferdams or forms, treat the water by one or more of the following methods prior to discharge from the project: pumping into grassed swales or appropriate upland vegetated areas or constructed sediment basins, or confined by an appropriate enclosure such as turbidity barriers when other methods are not practical. Do not discharge, water that does not meet State water quality standards or does not meet the criteria specified in any applicable permit.

Remove sediment accumulated during construction from all existing or newly constructed stormwater facilities prior to final acceptance. Ensure that all stormwater conveyances and stormwater facilities meet final grade requirements at final acceptance. Remove silt or regrade as necessary to comply with the lines and grades shown in the Plans.

Do not enter onto lands or waters outside the limits of construction as staked, except as authorized by the Engineer. Do not allow water that does not meet state water quality standards or does not meet the permitted criteria to exit the project limits.

Obtain the Engineer's approval for the location and method of operation in borrow pits, material pits, and disposal areas furnished for waste material from the project (other than commercially operated sources) such that erosion during and after completion of the work will not result in detrimental siltation or water pollution.

**104-4 Materials for Temporary Erosion Control.**

The Engineer will not require testing of materials used in construction of temporary erosion control devices other than as provided for geotextile fabric in 985-3 unless such material is to be incorporated into the completed project. When no testing is required, the Engineer will base acceptance on visual inspection.

The Contractor may use new or used materials for the construction of temporary silt fence, staked turbidity barriers, and floating turbidity barrier not to be incorporated into the completed project, subject to the approval of the Engineer.

**104-5 Preconstruction Requirements.**

Prior to the Preconstruction Conference, submit an Erosion and Sediment Control Plan meeting the requirements or special conditions of all permits authorizing project construction. If no permits are required or the approved permits do not contain special conditions or specifically address erosion and water pollution, the project's Erosion and Sediment Control Plan will be governed by 7-1.1, 7-2.2, 7-8.1, 7-8.2, and Section 104.

When a DEP Generic Permit for Stormwater Discharge from Large and Small Construction Activities permit is issued, the Contractor's Erosion and Sediment Control Plan shall be prepared to accompany the Owner's Stormwater Pollution Prevention Plan. Ensure the Erosion and Sediment Control Plan includes procedures to control off-site tracking of soil by vehicles and construction equipment and a procedure for cleanup and reporting of non-storm water discharges, such as contaminated groundwater or accidental spills. Do not begin any soil disturbing activities before receiving the Engineer's written approval of the Erosion and Sediment Control Plan, including the required signed certification statements.

Failure to sign and submit any required documents or certification statements will be considered a default of the Contract. Any soil disturbing activities performed without the required signed documents or certification statements is considered a violation of the DEP Generic Permit for Stormwater Discharge from Large and Small Construction Activities.

Prepare a site-specific Erosion and Sediment Control Plan in accordance with the planned sequence of operations and present it in a format acceptable to the Owner. The Erosion and Sediment Control Plan shall describe, but not be limited to, the following items or activities:

1. For each phase of construction operations or activities, supply the following information:
  - a. Locations of all erosion control devices
  - b. Types of all erosion control devices
  - c. Estimated time erosion control devices will be in operation
  - d. Monitoring schedules for maintenance of erosion control devices
  - e. Methods of maintaining erosion control devices
  - f. Dewatering plan
  - g. Locations of all stored fuel or other containments, pollutants or hazardous waste
  - h. Spill prevention and response measures and disposal and removal methods
  - i. Submit any changes to the Erosion and Sediment Control Plan within seven calendar days
2. The name and telephone number of the person responsible for monitoring and maintaining the erosion control devices.
3. Submit for approval the Erosion and Sediment Control Plans meeting paragraphs 3a, 3b, or 3c below:

- a. Projects permitted by the Southwest Florida Water Management District (SWFWMD), require the following:

Submit the Erosion and Sediment Control Plan to the Engineer for review and to the appropriate SWFWMD Office for review and approval. Include the SWFWMD permit number on all submitted data or correspondence.

The Contractor may schedule a meeting with the appropriate SWFWMD Office to discuss the Erosion and Sediment Control Plan in detail, to expedite the review and approval process. Advise the Engineer of the time and place of any meetings scheduled with SWFWMD.

Do not begin construction activities until the Erosion and Sediment Control Plan receives written approval from both SWFWMD and the Engineer.

- b. Projects permitted by the South Florida Water Management District or the St. Johns River Water Management District, require the following:

Obtain the Engineer's approval of the Erosion and Sediment Control Plan.

Do not begin construction activities until the Erosion and Sediment Control Plan receives written approval from the Engineer.

- c. Projects authorized by permitting agencies other than the Water Management Districts or projects for which no permits are required require the following:

The Engineer will review and approve the Contractor's Erosion and Sediment Erosion Control Plan.

Do not begin construction activities until the Erosion and Sediment Control Plan receives written approval from the Engineer.

#### **104-6 Construction Requirements.**

**104-6.1 Limitation of Exposure of Erodible Earth:** Do not allow the surface area of erodible earth that clearing and grubbing operations, excavation and filling operations, or other earth disturbing activities to exceed 750,000 square feet without specific prior written approval by the Engineer. This limitation applies separately to clearing and grubbing operations and excavation and filling operations.

The Engineer may further limit the surface areas of unprotected erodible earth exposed by the construction operation and may direct the Contractor to provide additional erosion or pollution control measures to prevent contamination of any surface waters, wetlands, or groundwater or to prevent detrimental effects on property outside the project limits or damage to the project.

**104-6.2 Incorporation of Erosion and Sediment Control Devices:** Incorporate permanent erosion and sediment control devices into the project at the earliest practical time. Complete the installation of temporary erosion and sediment control devices prior to the commencement of any earthwork. Use temporary erosion and sediment control devices found in the State of Florida Erosion and Sediment Control Designer and Reviewer Manual (E&SC Manual) to control erosion and sediment generated by construction operations, to correct unforeseen conditions during construction, and to control

erosion and sediment prior to the incorporation of permanent erosion and sediment control devices. An electronic version of the E&SC Manual can be found at the following URL:  
<https://www.fdot.gov/programmanagement/Implemented/URLinSpecs/FL.ErosionSedimentManual.shtm>

**104-6.3 Scheduling of Successive Operations:** Schedule operations such that the area of unprotected erodible earth exposed at any one time is not larger than the minimum area necessary for efficient construction operations, and the duration of exposure of uncompleted construction to the elements is as short as practicable.

Schedule and perform clearing and grubbing such that grading operations can be incorporated immediately thereafter. Schedule and perform grading operations so that permanent erosion control devices can follow immediately thereafter if conditions on the project permit.

**104-6.4 Details for Temporary Erosion and Sediment Control Devices:**

**104-6.4.1 General:** Use temporary erosion, sediment and water pollution control devices found in the E&SC Manual. These devices consist of, but are not limited to, temporary sod, rolled erosion control products, sediment containment systems, runoff control structures, sediment barriers, inlet protection systems, silt fences, turbidity barriers, and chemical treatment. For design details for some of these devices, refer to the E&SC Manual. Perform installation, inspection, maintenance, and removal of all temporary erosion and sediment control devices in accordance with applicable permits, manufacturer's directions, and the Contract Documents.

**104-6.4.2 Temporary Sod:** The Engineer may designate certain areas of sod constructed in accordance with Section 570, as a temporary erosion control device. Do not use seed as a temporary erosion control device. The Engineer may waive the turf establishment requirements of Section 570 for areas of temporary sod that will not be a part of the permanent construction.

**104-6.4.3 Runoff Control Structures:** Construct runoff control structures in accordance with the details shown in the Contract Documents.

**104-6.4.4 Sediment Containment Systems:** Construct sediment containment systems in accordance with the details shown in the Contract Documents. Clean out sediment containment systems as necessary in accordance with the Contract Documents.

**104-6.4.5 Sediment Barriers:** Provide and install sediment barriers according to details shown in the Contract Documents or, as directed by the Engineer to protect against downstream accumulation of sediment. Sediment Barriers include, but are not limited to synthetic bales, silt fence, fiber logs and geosynthetic barriers. Reusable barriers that have had sediment deposits removed may be reinstalled on the project as approved by the Engineer.

**104-6.4.6 Silt Fence:**

**104-6.4.6.1 General:** Furnish, install, maintain, and remove silt fences, in accordance with the applicable permits, the manufacturer's directions, and the Contract Documents.

**104-6.4.6.2 Materials and Installation:** Use a geotextile fabric made from woven or nonwoven fabric, meeting the physical requirements of Section 985 according to those applications for erosion control.

Choose the type and size of posts and wire mesh reinforcement (if required). Do not use products which have a separate layer of plastic mesh or netting. Provide a durable and effective silt fence that controls sediment in accordance with the Contract Documents.

Erect silt fence at upland locations and at temporary locations shown in the Contract Documents or where continuous construction activities change the natural contour and drainage runoff. Do not attach silt fence to existing trees unless approved by the Engineer.

**104-6.4.6.3 Inspection and Maintenance:** Inspect all silt fences in accordance with any applicable permit. If the project does not have a permit, inspect within 24 hours after each rain event and at least daily during prolonged rainfall. Immediately correct any deficiencies. In addition, make a daily review of the location of silt fences in areas where construction activities have changed the natural contour and drainage runoff to ensure that the silt fences are properly located for effectiveness. Where deficiencies exist, repair or replace silt fences in accordance with the Contract Documents or as directed by the Engineer.

Remove sediment deposits when the deposit reaches approximately 1/2 the height of the silt fence or as directed by the Engineer. Shape any remaining sediment deposits to conform with the finished grade and prepare the area for turf in accordance with Section 570.

**104-6.4.7 Floating Turbidity Barriers and Staked Turbidity Barriers:** Furnish, install, maintain, and remove floating turbidity barriers in accordance with the applicable permits, the manufacturer's directions, and the Contract Documents. The Contractor may need to deploy turbidity barriers around isolated areas of concern (such as, seagrass beds, coral communities) both within as well as outside the project limits. The Engineer will identify such areas. Place the barriers prior to the commencement of any work that could impact the area of concern. Ensure that the type of barrier used and the deployment and maintenance of the barrier will minimize dispersion of turbid waters from the project. The Engineer may approve alternate methods or materials.

Install and maintain turbidity barriers to avoid or minimize the degradation of the water quality of the surrounding waters and minimize damage to areas where the floating barriers are installed.

**104-6.4.8 Inlet Protection System:** Furnish and install inlet protection systems as shown in the Contract Documents.

**104-6.4.9 Rolled Erosion Control Products (RECPs):**

**104-6.4.9.1 General:** Install RECPs in locations where temporary protection from erosion is needed. Two common applications are described below.

1. Use RECPs composed of natural or synthetic fiber mats, plastic sheeting, or netting as protection against erosion, when directed by the Engineer, during temporary pauses in construction caused by inclement weather or other circumstances. Remove the material when construction resumes.
2. Use RECPs as erosion control blankets, at locations shown in the Plans, to facilitate plant growth while permanent grassing is being established. For the purpose described, use non-toxic, biodegradable, natural or synthetic woven fiber mats. Install erosion control



blankets capable of sustaining a maximum design velocity of 6.5 ft/sec as determined from tests performed by Utah State University, Texas Transportation Institute or an independent testing laboratory approved by the Owner. Submit to the Engineer, certified test reports from the manufacturer showing that the erosion control blankets meet the requirements of this Specification. Certification must be attested, by a person having legal authority to bind the manufacturing company. Also, furnish two 4 by 8 inch samples for product identification. The manufacturers test records shall be made available to the Owner upon request. Leave the material in place, as installed, to biodegrade.

**104-6.4.10 Chemical Treatment:** Provide chemical treatment in accordance with the Contract Documents. Chemical treatment may be used to clarify turbid or sediment laden water that does not meet state water quality standards or to supplement other erosion and sediment control devices to aid in their performance. The contractor must provide the required toxicity testing information in accordance with the Contract Documents to the Engineer for review and acceptance prior to using any chemical treatment on the project site.

**104-6.5 Removal of Temporary Erosion Control Devices:** In general, remove or incorporate into the soil any temporary erosion control devices upon incorporation of the permanent erosion control devices into the project. The Engineer may direct that temporary devices be left in place.

#### **104-7 Maintenance of Erosion and Sediment Control Devices.**

**104-7.1 General:** Provide routine maintenance of permanent and temporary erosion and sediment control devices, at no expense to the Owner, until the project is complete and accepted. If reconstruction or replacement of erosion and sediment control devices is necessary due to the Contractor's negligence or carelessness or, in the case of temporary erosion and sediment control devices, improper installation, lack of maintenance, excessive wear, design-life exceedance or failure by the Contractor to install permanent erosion control devices as scheduled, the Contractor shall repair or replace such erosion control devices at no expense to the Owner. If reconstruction of permanent or temporary erosion and sediment control devices is necessary due to factors beyond the control of the Contractor, the Owner will pay for replacement under the appropriate Contract pay item or items.

Inspect all erosion and sediment control devices at least once every seven calendar days and within 24 hours of the end of a storm event that is 0.50 inches or greater. Maintain all erosion and sediment control devices as required in the Stormwater Pollution Prevention Plan, the Contractor's Erosion and Sediment Control Plan, and if applicable, as specified in the State of Florida Department of Environmental Protection Generic Permit for Stormwater Discharge from Large and Small Construction Activities.

#### **104-8 Protection During Suspension of Contract Time.**

Initiate stabilization measures within seven calendar days upon suspension of construction activities. If it is necessary to suspend the construction operations for any appreciable length of time, shape the disturbed areas to facilitate stormwater runoff and construct earthen berms along the top edges of embankments to intercept stormwater runoff. Provide temporary slope drains in areas that are highly erodible to avoid pollution of surface waters, wetlands, groundwater, or property beyond the project limits. Locate slope drains at intervals of approximately 500 feet and stabilize by paving or covering with waterproof materials. Should such preventive measures fail, immediately take action as necessary to

effectively prevent erosion and siltation. During suspension of operations, the Engineer may direct the Contractor to perform additional erosion and sediment control work as necessary.

**104-9 Method of Measurement.**

When separate items for temporary erosion control devices are included in the Contract, the quantities to be paid for will be:

1. the area, in square yards, of rolled erosion control products;
2. the length, in feet, of runoff control structures, measured along the surface of the work constructed;
3. the number of sediment containment systems constructed and accepted;
4. the number of sediment containment system cleanouts accomplished and accepted
5. the length, in feet, of sediment barriers;
6. the length, in feet, of floating turbidity barrier;
7. the length, in feet, of staked turbidity barrier;
8. the number of inlet protection systems, for existing inlets;
9. the area, in square yards, of chemical treatment.
10. the number of floc logs or drums of product for chemical treatment.

Upon acceptance by the Engineer, the quantity of floating turbidity barriers, sediment barriers, staked turbidity barriers, and inlet protection devices will be paid for regardless of whether materials are new, used, or relocated from a previous installation on the project. Protection of newly constructed inlets and drainage systems is incidental to their installation. No separate payment will be made for temporary erosion control devices used to protect newly constructed drainage systems.

**104-10 Basis of Payment.**

Prices and payments will be full compensation for all work specified in this Section, including construction and routine maintenance of temporary erosion control devices.

Any additional costs resulting from compliance with the requirements of this Section, other than construction, routine maintenance, and removal of temporary erosion control devices, will be included in the Contract unit prices for the item or items to which such costs are related. Temporary sod used as a temporary erosion control device in accordance with 104-6.4.2 will be paid for under Section 570.

Separate payment will not be made for the cost of constructing temporary earth berms along the edges of the roadways to prevent erosion during grading and subsequent operations. The Contractor shall include these costs in the Contract prices for grading items.

In case of repeated failure on the part of the Contractor to control erosion, pollution, or siltation, the Engineer reserves the right to employ outside assistance or to use the Owner's own forces to provide the necessary corrective measures. Any such costs incurred, including engineering costs, will be charged to the Contractor and appropriate deductions made from the monthly progress estimate.

Payment will be made under:

*Item No. 104-1      Prevention, Control, and Abatement of Erosion and Water Pollution*  
*- per Lump Sum (LS)*

END OF SECTION 104

## SECTION 105

### CONTRACTOR QUALITY CONTROL GENERAL REQUIREMENTS

#### 105-1 General.

##### 105-1.1 Quality Control Documentation.

**105-1.1.1 Submission of Materials Certification and Reporting Test Results:** Submit certifications prior to placement of materials. Report test results at completion of the test and meet the requirements of the applicable Specifications.

**105-1.1.2 Worksheets:** Make available to the Owner, when requested, worksheets used for collecting test information. Ensure the worksheets at a minimum contain the following:

1. Project Identification Number,
2. Time and Date,
3. Laboratory Identification and Name,
4. Training Identification Numbers (TIN) and initials,
5. Record details as specified within the test method.

##### 105-1.2 Inspections to Assure Compliance with Acceptance Criteria.

**105-1.2.1 General:** The Owner is not obligated to make an inspection of materials at the source of supply, manufacture, or fabrication. Provide the Engineer with unrestricted entry at all times to such parts of the facilities that concern the manufacture, fabrication, or production of the ordered materials. Bear all costs incurred in determining whether the material meets the requirements of these Specifications.

**105-1.2.2 Quality Control (QC) Inspection:** Provide all necessary inspection to assure effective QC of the operations related to materials acceptance. This includes but is not limited to sampling and testing, production, storage, delivery, construction and placement. Ensure that the equipment used in the production and testing of the materials provides accurate and precise measurements in accordance with the applicable Specifications. Maintain a record of all inspections, including but not limited to, date of inspection, results of inspection, and any subsequent corrective actions taken. Make available to the Owner the inspection records, when requested.

**105-1.2.3 Notification of Placing Order:** Order materials sufficiently in advance of their incorporation in the work to allow time for sampling, testing and inspection. Notify the Engineer prior to placing orders for materials.

Submit to the Engineer a fabrication schedule for all items requiring commercial inspection at least 30 days before beginning fabrication. These items include steel bridge components, moveable bridge components, pedestrian bridges, castings, forgings, structures erected either partially or completely over the travelled roadway or mounted on bridges as overhead traffic signs (some of these may be further classified as cantilevered, overhead trusses, or monotubes)

or any other item identified as an item requiring commercial inspection in the Contract Documents.

**105-2 Additional Requirements for Lump Sum Projects.**

Prepare and submit to the Engineer a project-specific list of material items and quantities to be used on the project as a Job Guide Schedule in the same format as the current Sampling, Testing, and Reporting Guide 2.1 calendar days prior to commencement of construction. Submit up-to-date quantities for the items on the Job Guide Schedule to the Engineer with each monthly progress estimate. The Owner may not authorize payment of any progress estimate not accompanied by updated Job Guide Schedule quantities. Maintain the Job Guide Schedule throughout the project including the quantity placed since the previous submittal, and total to date quantity and any additional materials placed. Do not commence work activities that require testing until the Job Guide Schedule has been reviewed and accepted by the Engineer. At final acceptance, submit a final Job Guide Schedule that includes all materials used on the project in the same format as the monthly reports.

**105-3 Quality Control Program.**

Certain operations require personnel with specific qualifications. Certain materials require production under an approved Quality Control (QC) Plan to ensure that these materials meet the requirements of the Contract Documents. Applicable materials include hot mix asphalt, portland cement concrete (Structural), earthwork, cementitious materials, timber, steel and miscellaneous metals, galvanized metal products, prestressed and/or precast concrete products, drainage products, and fiber reinforced polymer products. For all applicable materials included in the Contract, submit a QC Plan prepared in accordance with the requirements of this Section to the Engineer. Do not incorporate any of these materials into the project prior to the Engineer's approval of the QC Plan.

Steel and Miscellaneous Metal products, including aluminum, are defined as the metal components of bridges, including pedestrian and moveable bridges, overhead and cantilevered sign supports, ladders and platforms, bearings, end wall grates, roadway gratings, drainage items, expansion joints, roadway decking, shear connectors, handrails, galvanized products, fencing, guardrail, light poles, high mast light poles, standard mast arm assemblies and Monotube assemblies, stay in-place forms, casing pipe, strain poles, fasteners, connectors and other hardware.

**105-4 Producer Quality Control Program.**

**105-4.1 General:** When accreditation or certification is required, make supporting documents from the two previous inspections performed by the accrediting or certifying agency available to the Owner upon request.

Obtain Owner approval prior to beginning production. Meet and maintain the approved Producer Quality Control Program requirements at all times. Production of these products without the Owner's prior acceptance of the Producer Quality Control Program may result in rejection of the products. Continued approval will be subject to satisfactory results from Owner evaluations, including the Independent Assurance program. In cases of noncompliance with the accepted Producer Quality Control Program, identify all affected material and do not incorporate or supply to the Owner projects. The following conditions may result in suspension of a Producer Quality Control Program

1. Failure to timely supply information required.
2. Repeated failure of material to meet Standard Specification requirements.

3. Failure to take immediate corrective action relative to deficiencies in the performance of the Producer Quality Control Program.
4. Certifying materials that are not produced under an accepted Producer Quality Control Program for use on Owner projects.
5. Failure to correct any deficiencies related to any requirement of the Producer Quality Control Program, having received notice from the Owner, within the amount of time defined in the notice.

**105-4.2 Producer Quality Control Program Requirements:**

**105-4.2.1 Hot Mix Asphalt, Portland Cement Concrete (Structural), Earthwork, Cementitious Materials, Timber, Steel and Miscellaneous Metals, Galvanized Metal Products, Prestressed and/or Precast Concrete Products, Drainage Products, and Fiber Reinforced Polymer Products Quality Control Program:** Have an accepted Producer Quality Control Program, developed in accordance with this Section, during the production of materials to be used on Owner projects.

**105-4.2.2 Prestressed Concrete Quality Control Program:** Have a current certification from a FDOT approved precast prestressed concrete plant certification agency and a FDOT accepted Producer Quality Control Plan, meeting the requirements of this Section. The list of FDOT approved certification agencies is available on the website of the State Materials Office (SMO).

**105-4.2.3 Steel and Miscellaneous Metals Quality Control Program:** Have an accepted Producer Quality Control Plan, developed in accordance with this Section and a current American Institute for Steel Construction (AISC) certification, provided that AISC certification program is available for the category of the fabrication products.

**105-4.3 Submittal:** Depending on the type of products, producers shall submit their proposed Producer Quality Control Programs to the SMO or to the District Materials Office, as described below:

**105-4.3.1 State Materials Office (SMO):** Producers of cementitious materials, steel and miscellaneous metals, galvanized metal products, aggregates, and fiber reinforced polymer products must submit their proposed Producer Quality Control Program to the SMO for review and acceptance.

**105-4.3.2 District Materials Office:** Producers of hot mix asphalt, portland cement concrete (structural), earthwork, timber, prestressed and/or precast concrete products and drainage products must submit their proposed Producer Quality Control Program to the local District Materials Office for acceptance. Producers located outside the State must contact the SMO for address information of the District Materials Office responsible for the review of the proposed Quality Control Program.

**105-4.4 Compliance with the Materials Manual.**

Producers of Flexible Pipe shall meet the requirements of Section 6.1, Volume II of the FDOT's Materials Manual, which may be viewed at the following URL:

<https://www.fdot.gov/programmanagement/Implemented/URLinSpecs/Section61V2.shtm>.

Producers of Precast Concrete Pipe shall meet the requirements of Section 6.2, Volume II of the FDOT's Materials Manual, which may be viewed at the following URL:

<https://www.fdot.gov/programmanagement/Implemented/URLinSpecs/Section62V2.shtm>.

Producers of Precast Concrete Drainage Structures shall meet the requirements of Section 6.3, Volume II of the FDOT's Materials Manual, which may be viewed at the following URL:

<https://www.fdot.gov/programmanagement/Implemented/URLinSpecs/Section63V2.shtm>.

Producers of Precast/Prestressed Concrete Products shall meet the requirements of Sections 8.1 and 8.3 of the FDOT's Materials Manual, which may be viewed at the following URLs:

<https://www.fdot.gov/programmanagement/Implemented/URLinSpecs/Section81V1.shtm>.

<https://www.fdot.gov/programmanagement/Implemented/URLinSpecs/Section83V2.shtm>.

Producers of Precast Prestressed Concrete Products using Self Consolidating Concrete shall meet the requirements of Section 8.4, Volume II of the FDOT's Materials Manual, which may be viewed at the following URL:

<https://www.fdot.gov/programmanagement/Implemented/URLinSpecs/Section84V2.shtm>.

Producers of Incidental Precast/Prestressed Concrete Products shall meet the requirements of Section 8.2, Volume II of the FDOT's Materials Manual, which may be viewed at the following URL:

<https://www.fdot.gov/programmanagement/Implemented/URLinSpecs/Section82V2.shtm>.

Producers of Portland Cement Concrete shall meet the requirements of Section 9.2, Volume II of the FDOT's Materials Manual, which may be viewed at the following URL:

<https://www.fdot.gov/programmanagement/Implemented/URLinSpecs/Section92V2.shtm>.

Producers of Structural Steel and Miscellaneous Metal Components shall meet the requirements of Sections 11.1, 11.2, 11.3, 11.4, 11.5 and 11.6 of the FDOT's Materials Manual, which may be viewed at the following URLs:

<https://www.fdot.gov/programmanagement/Implemented/URLinSpecs/Section111V1.shtm>.

<https://www.fdot.gov/programmanagement/Implemented/URLinSpecs/Section112V2.shtm>.

<https://www.fdot.gov/programmanagement/Implemented/URLinSpecs/Section113V2.shtm>.

<https://www.fdot.gov/programmanagement/Implemented/URLinSpecs/Section114V2.shtm>.

<https://www.fdot.gov/programmanagement/Implemented/URLinSpecs/Section115V2.shtm>.

<https://www.fdot.gov/programmanagement/Implemented/URLinSpecs/Section116V2.shtm>.

Producers of Fiber Reinforced Polymer Composites shall meet the requirements of Section 12-1, Volume II of the FDOT's Materials Manual, which may be viewed at the following URL:

<https://www.fdot.gov/programmanagement/Implemented/URLinSpecs/Section121V2.shtm>.

**105-4.5 Producer Quality Control (QC) Plan Review and Acceptance:** The Owner will respond to the producer within 21 calendar days of receipt of the proposed Producer Quality Control Program. The Owner may perform evaluation activities to verify compliance with submitted documents prior to acceptance.

If the Producer Quality Control Program must be revised for any reason, including non-compliance, submit the revision to the Owner. The Owner will respond to the producer within seven calendar days of receipt of the revised Producer Quality Control Program.

**105-4.6 Producer's Quality Control (QC) Plan:** Submit detailed policies, methods and procedures to ensure the specified quality of all applicable materials and related production operations. Include other items in addition to these guidelines as necessary.

**105-4.6.1 Personnel:**

**105-4.6.1.1 Qualifications:** Submit the Training Identification Numbers (TINs) or any other information which will be traceable to the certification agency's training location and dates for all technicians performing sampling, testing and inspection for both field and laboratory tests. Submit the names of the Construction Training and Qualification Program (CTQP) certifications and other pertinent certifications held and the expiration dates for each certification for each technician. Include employed and subcontracted technicians.

**105-4.6.1.2 Level of Responsibility:** Identify the primary contact for the Owner. Identify roles and responsibilities of various personnel involved in the QC process.

**105-4.6.2 Raw Materials:**

**105-4.6.2.1 Source:** Identify the sources of raw materials. Submit locations and plant or mine numbers when applicable.

**105-4.6.2.2 Certification:** Submit methods of verifying compliance of certification with the Specifications.

**105-4.6.2.3 Disposition of Failing Materials:** Describe the system for controlling non-conforming materials, including procedures for identification, isolation and disposition.

**105-4.6.3 Storage Facilities for Raw Materials:** Describe measures and methods, including bedding details, for preventing segregation, contamination and degradation. Describe methods of identifying individual materials. Where applicable, submit a site plan showing the locations of various materials.

**105-4.6.4 Production Equipment:** Describe calibration frequencies, maintenance schedule and procedures for production equipment.

**105-4.6.5 Plant Requirements:**

**105-4.6.5.1 Plant Identification:** For those facilities producing materials listed in 105-3, submit the mailing address, physical address including county and X,Y ( latitude and longitude) coordinates of the plant, telephone and fax numbers, email address, primary contact at the plant, responsible person in charge, facility number provided by the Owner, owner information including parent company, vendor number, designed production capacity, and other information as required.

**105-4.6.5.2 Process Control System:** Describe the methods and measures established to ensure Contract compliance for the produced materials that are supplemental to the QC sampling and testing program described in the Contract Documents. These methods and



measures will include, but are not limited to, inspection schedule, additional sampling and testing, maintenance schedule, etc.

**105-4.6.5.3 Loading and Shipping Control:** Describe the methods and measures for preventing segregation, contamination and degradation during loading and shipping operations. Describe the methods established for materials to be in compliance with the Specifications at the point of use.

**105-4.6.5.4 Types of Products Generated:** Describe the products the plant is approved to produce under Owner guidelines.

**105-4.7 Other Requirements:**

**105-4.7.1 Submittal of Certification:** Submit certifications issued by the plant/Contractor for the applicable products approved by the Owner.

**105-4.7.2 Statement of Compliance:** Include a statement of compliance with all quality requirements set forth by the Owner in the Contract Documents and FDOT manuals.

**105-4.7.3 Documentation Storage:** Identify location of document storage to enable Owner review. Include QC charts, qualification and accreditation records, inspection reports, and other pertinent supporting documents.

**105-4.8 Final Manufactured Product - Plant Operations:** Describe inspection schedule and methods for identifying defects and non-compliance with the Specifications. Describe corrective actions and methods to resolve them.

**105-4.8.1 Storage:** When storage of the produced materials is required and it is not defined in the Contract Documents, describe the methods and duration for storage. Include measures and methods for preventing segregation, contamination and degradation during storage.

**105-4.8.2 Disposition of Failing Materials:** When not described in the Specifications, describe the methods and measures for identifying and controlling the failing materials. Include preventive and corrective measures. Describe disposition of failing materials.

**105-4.9 Testing Laboratories:** Identify the laboratories performing testing. Ensure that the testing laboratories comply with the Laboratory Qualification Program requirements of this Section or other applicable requirements.

**105-4.10 Owner Inspection Access:** Include a statement in the Quality Control Plan allowing the Owner inspectors access to the production facility to perform the inspections of the production process and the products produced for the Owner.

**105-5 Contractor Quality Control (QC) Plan.**

**105-5.1 General:** Submit the Contractor QC Plan seven days prior to beginning work on any QC material as defined in this Section. The QC Plan may be submitted as a whole or in portions for the work related to the Contract.

Update the QC Plan at least five working days prior to the implementation of any changes.

If at any time the Work is not in compliance with the Contract Documents, the Engineer may suspend operations in accordance with 8-6.1.

**105-5.2 Personnel Qualification:** Submit the Training Identification Numbers for all technicians performing sampling, testing and inspection for field tests. Include employed and subcontracted technicians.

**105-5.3 Production Facilities:** Identify the producers of materials listed in 105-4.4 for the project. Include the FDOT's facility ID number as part of the identification. All producers must have accepted Producer's Quality Control Program and be listed on the FDOT's Production Facility Listing.

**105-5.3.1 Structural Concrete Mix Designs:** Identify the approved structural concrete mix designs for each structural concrete production facility for review and approval by the Engineer. Do not begin work on the material without the Engineer's approval. The Engineer will review and respond within five calendar days of submittal.

**105-5.4 Testing Laboratories:** Identify the laboratories performing testing. Ensure that the testing laboratories comply with the Laboratory Qualification Program requirements of this Section.

**105-6 Contractor Certification of Compliance.**

Provide the Engineer with a notarized monthly certification of compliance with the Contract Documents, to accompany each progress estimate, on a form provided by the Engineer. The Owner may not authorize payment of any progress estimate not accompanied by an executed certification document.

Final payment in accordance with 9-8 will not be made until a final notarized certification summarizing all QC exceptions has been submitted.

**105-7 Lab Qualification Program.**

Testing laboratories participating in the FDOT's Acceptance Program must have current FDOT qualification when testing materials that are used on Owner projects. In addition, they must have one of the following:

1. Current AASHTO (AAP) accreditation.
2. Inspected on a regular basis per ASTM D 3740 for earthwork, ASTM D 3666 for asphalt and ASTM C 1077 for concrete for test methods used in the Acceptance Program, with all deficiencies corrected, and under the supervision of a Specialty Engineer.
3. Current Construction Materials Engineering Council (CMEC) program accreditation or other independent inspection program accreditation acceptable to the Engineer and equivalent to (1) or (2) above.

After meeting the criteria described above, submit a Laboratory Qualification Application to the Owner. Obtain the Owner's qualification prior to beginning testing. The Owner may inspect the laboratory for compliance with the accreditation requirements prior to issuing qualification.

Meet and maintain the qualification requirements at all times. Testing without Owner's qualification may result in a rejection of the test results. Continued qualifications are subject to satisfactory results from Owner evaluations, including Independent Assurance evaluations. In case of suspension or

disqualification, prior to resumption of testing, resolve the issues to the Owner's satisfaction and obtain reinstatement of qualification. The following conditions may result in suspension of a laboratory's qualified status:

1. Failure to timely supply required information.
2. Loss of accredited status.
3. Failure to correct deficiencies in a timely manner.
4. Unsatisfactory performance.
5. Changing the laboratory's physical location without notification to the accrediting agency and the Engineer.
6. Delays in reporting the test data in the Owner's database.
7. Incomplete or inaccurate reporting.
8. Using unqualified technicians performing testing.

Should any qualified laboratory falsify records, the laboratory qualification will be subject to revocation by the Engineer. Falsification of project-related documentation will be subject to further investigation and penalty under State and Federal laws.

It is prohibited for any contract laboratory or staff to perform Contractor QC testing and any other Acceptance Program testing on the same contract.

#### **105-8 Personnel Qualifications.**

**105-8.1 General:** Provide qualified personnel for sampling, testing and inspection of materials and construction activities. Ensure that qualifications are maintained during the course of sampling, testing and inspection.

Construction operations that require a qualified technician must not begin until the Owner verifies that the technician is on the CTQP list of qualified technicians. The CTQP lists are subject to satisfactory results from periodic Independent Assurance evaluations.

**105-8.2 Quality Control (QC) Manager:** Designate a QC Manager who has full authority to act as the Contractor's agent to institute any and all actions necessary to administer, implement, monitor, and as necessary, adjust quality control processes to ensure compliance with the Contract Documents. The QC Manager must speak and understand English. The QC Manager must be on-site at the project on a daily basis or always available upon four hours notice. Ensure that the QC Manager is qualified as such through the Construction Training and Qualification Program. The QC Manager and the Superintendent must not be the same individual.

Under the direction of the QC Manager summarize the daily QC activities including testing and material sampling. Since erasures are strictly prohibited on all reports and forms, use blue or colored ink. Do not use black ink. If manual corrections to original data are necessary, strike through, correct, and date the entry, including the initials of the person making the correction. Make copies

of the completed forms available for the Owner to review daily unless otherwise required in the Specifications. Ensure that the QC test data is entered into the Owner's database on a daily basis. Maintain all QC related reports and documentation for a period of three years from final acceptance of the project. Make copies available for review by the Owner upon request.

**105-8.3 Temporary Traffic Control (Maintenance of Traffic) Personnel:** Worksite Traffic Supervisors, flaggers, and other personnel responsible for work zone related transportation management and traffic control must obtain training and certification in accordance with the FDOT's Temporary Traffic Control (Maintenance of Traffic) Training Handbook located at the following URL address: <https://www.fdot.gov/roadway/TTC/Default.shtm>.

**105-8.4 Earthwork Quality Control (QC) Personnel:**

**105-8.4.1 Earthwork Level I:** Ensure the technician who samples soil and earthwork materials from the roadway project, takes earthwork moisture and density readings, and records those data in the Density Log Book holds a CTQP Earthwork Construction Inspection Level I qualification.

**105-8.4.2 Earthwork Level II:** Ensure the technician responsible for determining the disposition of soil and earthwork materials on the roadway, and for interpreting and meeting Contract Document requirements holds a CTQP Earthwork Construction Inspection Level II qualification.

**105-8.5 Asphalt Quality Control (QC) Personnel:**

**105-8.5.1 Plant Technicians:** For asphalt plant operations, provide a QC technician, qualified as a CTQP Asphalt Plant Level II Technician, available at the asphalt plant at all times when producing mix for the Owner. Perform all asphalt plant related testing with a CTQP Asphalt Plant Level I Technician. As an exception, measurements of temperature may be performed by someone under the supervision of a CTQP Plant Level II technician.

**105-8.5.2 Paving Technicians:** For paving operations (with the exception of miscellaneous or temporary asphalt), keep a qualified CTQP Asphalt Paving Level II Technician on the roadway at all times when placing asphalt mix for the Owner, and perform all testing with a CTQP Asphalt Paving Level I Technician. As an exception, measurements of cross-slope, temperature, and yield (spread rate) can be performed by someone under the supervision of a CTQP Paving Level II Technician at the roadway.

**105-8.5.3 Mix Designer:** Ensure all mix designs are developed by individuals who are CTQP qualified as an Asphalt Hot Mix Designer.

**105-8.5.4 Documentation:** Document all QC procedures, inspection, and all test results and make them available for review by the Engineer throughout the life of the Contract. Identify in the asphalt producer's QC Plan the QC Managers and Asphalt Plant Level II technicians responsible for the decision to resume production after a quality control failure.

**105-8.6 Concrete QC Personnel:**

**105-8.6.1 Concrete Field Technician - Level 1:** Ensure technicians performing plastic property testing on concrete for materials acceptance are qualified CTQP Concrete Field Technicians Level 1. Plastic property testing will include but not be limited to slump, temperature, air content, water-to-cementitious materials ratio calculation, and making and curing concrete cylinders. Duties will include initial sampling and testing to confirm specification compliance prior to

beginning concrete placements, ensuring timely placement of initial cure and providing for the transport of compressive strength samples to the designated laboratories. Ensure that personnel performing plastic property testing on self-consolidating concrete (SCC) possess an ACI Self-Consolidating Concrete Testing Technician Certification.

**105-8.6.2 Concrete Field Inspector - Level 2:** Ensure field inspectors responsible for the quality of concrete being placed on the following structure types are qualified CTQP Concrete Field Inspectors Level 2:

1. Moveable bridges
2. Bridges over a water opening of 1,000 feet or more
3. Bridges with a span of 190 feet or more
4. Cable supported or cable stayed bridges
5. Post-tensioned bridges
6. Steel girder or steel truss bridges
7. Multi-level roadways

With the exception of concrete traffic railing placements, a Level 2 Inspector must be present on the jobsite during all concrete placements. Prior to the placement of concrete, the inspector will inspect the element to be cast to ensure compliance with Contract Documents. A Level 2 Inspector's duties may include ensuring that concrete testing, inspection, and curing in the field are performed in accordance with the Contract Documents. The QC Inspector will inform the Verification Inspector of anticipated concrete placements and LOT sizes.

**105-8.6.3 Concrete Laboratory Technician – Level 1:** Ensure technicians testing cylinders and recording concrete strength for material acceptance are qualified CTQP Concrete Laboratory Technicians Level 1. Duties include final curing, compressive strength testing, and the recording/reporting of all test data.

**105-8.7 Structural Concrete Production Facility Quality Control (QC) Personnel:**

Ensure that each portland cement structural concrete production facility (plant), has designated personnel including plant manager of QC, concrete mix designer, concrete batch plant operator, and testing technicians to provide QC inspections and testing.

Upon Owner approval, the functions of the above positions may be performed by the same person when it can be demonstrated that the plant's operation and quality of concrete will not be detrimentally affected and personnel have the qualifications required herein.

**105-8.7.1 Plant Manager of QC:** Ensure that the plant manager of QC has at least three years of concrete related experience and the following training certifications:

1. CTQP Concrete Laboratory Technician - Level 1 certificate.
2. CTQP Concrete Field Technician - Level 1 certificate.

3. Concrete Batch Plant Operator certification in accordance with 1058.7.4.

As alternatives to these certifications, the Owner will accept, one of the following:

- a. Prestressed Concrete Institute (PCI) QC Personnel Certification Level III.
- b. Precast Concrete Pipe, Box Culverts, Drainage Structures or Incidental Precast Concrete Plants Level II QC Inspector Certifications.
- c. National Ready Mixed Concrete Association (NRMCA) Certified Concrete Technologist Level 2.

**105-8.7.2 Concrete Mix Designer:** Ensure that the concrete mix designer has the CTQP Concrete Laboratory Technician Level 2 certification. As an alternative, the Owner will accept any of the following qualifications:

1. PCI QC Personnel Level III Certification, for concrete mix designs of prestressed concrete products.
2. National Ready Mix Concrete Association (NRMCA) Certified Concrete Technologist Level 3.
3. Any of the Level II QC certifications in accordance with 105-8.9.2.2.

**105-8.7.3 Qualified Testing Technicians:** Ensure that the testing technicians have the following certifications:

1. ACI Concrete Field Testing Technician Grade I, for personnel performing concrete plastic property tests and ACI Self-Consolidating Concrete Testing Technician if testing self-consolidating concrete (SCC).
2. ACI Concrete Strength Testing Technician, for personnel performing tests on hardened properties of concrete.

**105-8.7.4 Concrete Batch Plant Operator:** Ensure that the concrete batch plant operator has a CTQP Concrete Batch Plant Operator Certification. As an alternative, the Owner will accept the following certifications:

- a. Precast Concrete Structures Association (PCSA) Batch Plant Operator,
- b. NRMCA Certified Concrete Technologist Level 3, or
- c. NRMCA Plant Manager Certification.

For dry cast concrete pipe and dry cast drainage structures, the Owner will accept American Concrete Pipe Association (ACPA) Quality School Level II Certification.

**105-8.8 Prestressed Concrete Plant Quality Control (QC) Personnel:** Obtain personnel certifications from Owner accredited training providers. The list of FDOT approved courses and their accredited providers is available on the SMO website at the following URL:

<https://www.fdot.gov/materials/administration/resources/training/structural/concreteprestressed.shtm>.

Ensure each prestressed concrete plant has an onsite production manager, an onsite plant QC manager, a plant engineer, and adequate onsite QC inspectors/technicians to provide complete QC inspections and testing.

Ensure the plant manager for QC has at least five years of related experience and the following certifications:

1. ACI Concrete Field Testing Technician Grade I certification.
2. PCI QC Personnel Certification Level III.
3. Certificate of completion of Section 450 Specification examination.

Ensure that the QC inspector/technician has the following certifications:

1. ACI Concrete Field Testing Technician Grade I certification.
2. Certificate of completion of Section 450 Specification examination.

**105-8.8.1 Additional Requirements for Quality Control (QC) Personnel of Prestressed Manufacturing Facilities:**

**105-8.8.1.1 Testing Personnel:** Ensure that testing technicians meet the requirement of 105-8.7.3.

**105-8.8.1.2 Batch Plant Operator:** Ensure that the batch plant operator meets the requirement of 105-8.7.4.

**105-8.9 Pipe and Precast Concrete Products Manufacturing Facilities Quality Control (QC) Personnel:**

**105-8.9.1 General:** Obtain personnel certifications from FDOT accredited training providers. The list of FDOT approved courses and their accredited providers is available on the SMO website at the following URL:

<https://www.fdot.gov/materials/administration/resources/training/structural/index.shtm>.

**105-8.9.2 Precast Concrete Drainage Structures, Precast Concrete Box Culvert, Precast Concrete Pipe, and Incidental Precast Concrete Manufacturing Facilities Quality Control (QC) Personnel:**

**105-8.9.2.1 Level I Quality Control Inspectors:** Ensure that the Level I Inspectors have the following certifications:

**105-8.9.2.1.1 Precast Concrete Drainage Technician Level I:** PCI Quality Control Technician Level I certification. As an alternative, a current Precast Concrete Quality Control Technician Level I certification in the respective work area will be accepted.

**105-8.9.2.1.2 Incidental Precast Concrete Technician Level I:** PCI Quality Control Technician Level I certification. As an alternative, a current Precast Concrete Quality Control Technician Level I certification in the respective work area will be accepted.

**105-8.9.2.1.3 Precast Concrete Pipe Technician Level I:** Precast Concrete Pipe Technician Level I certification.

**105-8.9.2.2 Level II Quality Control Inspectors:** Ensure that Level II Inspectors have the following certifications:

**105-8.9.2.2.1 Precast Concrete Drainage Technician Level II:**

1. Precast Concrete Drainage Technician Level I, in accordance with 105-8.9.2.1.1.
2. PCI Quality Control Technician Level II certification. As an alternative, a current Precast Concrete Quality Control Technician Level II certification in the respective work area will be accepted.
3. CTQP Concrete Field Technician Level 1, if the plant produces structural concrete in accordance with Section 346.

**105-8.9.2.2.2 Incidental Precast Concrete Technician Level II:**

1. Incidental Precast Concrete Technician Level I, in accordance with 105-8.9.2.1.2.
2. PCI Quality Control Technician Level II certification. As an alternative, a current Precast Concrete Quality Control Technician Level II in the respective work area will be accepted.
3. CTQP Concrete Field Technician Level 1.
4. Level II technicians who will perform quality control of incidental prestressed products must have a current certificate of completion of Section 450 Specification examination.

**105-8.9.2.2.3 Precast Concrete Pipe Technician Level II:**

1. Precast Concrete Pipe Technician Level I, in accordance with 105-8.9.2.1.3.
2. Precast Concrete Pipe Technician Certification Level II.

**105-8.9.2.3 Plant Quality Control Manager:** Ensure that the QC manager has a minimum of two years construction related experience in the specific work area and has the following certifications:

**105-8.9.2.3.1 Precast Concrete Drainage Facilities:** Precast Concrete Drainage Technician Level II in accordance with 105-8.9.2.2.1.

**105-8.9.2.3.2 Incidental Precast Concrete Facilities:**

1. Incidental Precast Concrete Technician Level II in accordance with 105-8.9.2.2.2.



2. Section 450 Specification Certification if the plant produces incidental prestressed products.

**105-8.9.2.3.3 Precast Concrete Pipe Facilities:** Precast Concrete Pipe Technician Level II in accordance with 105-8.9.2.2.3.

**105-8.9.2.4 Additional Requirements for Quality Control (QC) Personnel of Precast Concrete Drainage Structures and Box Culverts, Precast Concrete Pipe, and Incidental Precast Concrete Manufacturing Facilities:**

**105-8.9.2.4.1 Testing Personnel:** Ensure testing technicians meet the requirement of 105-8.7.3.

**105-8.9.2.4.2 Batch Plant Operator:** Ensure the batch plant operator meets the requirement of 105-8.7.4.

**105-8.10 Supervisory Personnel – Post-Tensioned and Movable Bridge Structures:**

**105-8.10.1 General:** Provide supervisory personnel meeting the qualification requirements only for the post-tensioned and movable bridge types detailed in this Article. Submit qualifications to the Engineer at the pre-construction conference. Do not begin construction until the qualifications of supervisory personnel have been approved by the Engineer.

**105-8.10.2 Proof of License or Certification:** Submit a copy of the Professional Engineer license current and in force issued by the state in which registration is held. The license must be for the field of engineering that the construction work involves such as Civil, Electrical or Mechanical. Under certain circumstances Florida registration may be required.

Submit a copy of the license issued by the State of Florida for tradesmen that require a license indicating that the license is in force and is current. Submit a copy of the certification issued by the International Society of Automation for each Certified Control Systems Technician.

**105-8.10.3 Experience Record:** Submit the following information for supervisory personnel to substantiate their experience record. The supervisor (project engineer, superintendent/manager or foreman) seeking approval must provide a notarized certification statement attesting to the completeness and accuracy of the information submitted. Submit the following experience information for each individual seeking approval as a supervisor:

Project owner's name and telephone number of an owner's representative, project identification number, state, city, county, highway number and feature intersected.

Detailed descriptions of each bridge construction experience and the level of supervisory authority during that experience. Report the duration in weeks, as well as begin and end dates, for each experience period.

The name, address and telephone number of an individual that can verify that the experience being reported is accurate. This individual should have been an immediate supervisor unless the supervisor cannot be contacted in which case another individual with direct knowledge of the experience is acceptable.

**105-8.10.4 Concrete Post-Tensioned Segmental Box Girder Construction:** Ensure the individuals filling the following positions meet the minimum requirements as follows:

**105-8.10.4.1 Project Engineer-New Construction:** Ensure the project engineer is a registered Professional Engineer with five years of bridge construction experience. Ensure a minimum of three years of experience is in segmental box girder construction engineering and includes a minimum of one year in segmental casting yard operations and related surveying, one year in segment erection and related surveying, including post-tensioning and grouting of longitudinal tendons and a minimum of one year as the project engineer in responsible charge of segmental box girder construction engineering. Ensure this individual is present at the site of construction, at all times while segmental box girder construction or segment erection is in progress.

**105-8.10.4.2 Project Engineer-Repair and Rehabilitation:** Ensure the project engineer is a registered Professional Engineer with five years of bridge construction experience. Ensure a minimum of three years of experience is in segmental box girder construction engineering and includes one year of post-tensioning and grouting of longitudinal tendons and a minimum of one year as the project engineer in responsible charge of segmental box girder rehabilitation engineering or segmental box girder new construction engineering.

**105-8.10.4.3 Project Superintendent/Manager-New Construction:** Ensure the project superintendent/manager has a minimum of ten years of bridge construction experience or is a registered Professional Engineer with five years of bridge construction experience. Ensure that a minimum of three years of experience is in segmental box girder construction operations and includes a minimum of one year in the casting yard operations and related surveying, one year in segment erection and related surveying including post-tensioning and grouting of longitudinal tendons and a minimum of one year as the project superintendent/manager in responsible charge of segmental box girder construction operations. Ensure this individual is present at the site of construction, at all times while segmental box girder construction or segment erection is in progress.

**105-8.10.4.4 Project Superintendent/Manager-Repair and Rehabilitation:** Ensure the project superintendent/manager has a minimum of five years of bridge construction experience or is a registered Professional Engineer with three years of bridge construction experience. Ensure that a minimum of two years of experience is in segmental box girder construction operations and includes a minimum of one year of experience performing post-tensioning and grouting of longitudinal tendons and a minimum of one year as the project superintendent/manager in responsible charge of segmental box girder rehabilitation operations or segmental box girder new construction operations.

**105-8.10.4.5 Foreman-New Construction:** Ensure that the foreman has a minimum of five years of bridge construction experience with two years of experience in segmental box girder operations and a minimum of one year as the foreman in responsible charge of segmental box girder new construction operations. Ensure this individual is present at the site of construction, at all times while segmental box girder construction or segment erection is in progress.

**105-8.10.4.6 Foreman-Repair and Rehabilitation:** Ensure the foremen has a minimum of five years of bridge construction experience with two years of experience in segmental box

girder operations and a minimum of one year as the foreman in responsible charge of segmental box girder rehabilitation operations or segmental box girder new construction operations.

**105-8.10.4.7 Geometry Control Engineer/Manager:** Ensure that the geometry control engineer/manager for construction of cast-in-place box segments is a registered Professional Engineer with one year of experience, a non-registered Engineer with three years of experience or a registered Professional Land Surveyor with three years of experience in geometry control for casting and erection of cast-in-place box segments. Credit for experience in cast-in-place box girder geometry control will be given for experience in precast box girder geometry control but not vice versa.

Ensure that the geometry control engineer/manager for precast box segments is a registered Professional Engineer with one year of experience or non-registered with three years of experience in casting yard geometry control of concrete box segments.

The geometry control engineer/manager must be responsible for and experienced at implementing the method for establishing and maintaining geometry control for segment casting yard operations and segment erection operations and must be experienced with the use of computer programs for monitoring and adjusting theoretical segment casting curves and geometry. This individual must be experienced at establishing procedures for assuring accurate segment form setup, post-tensioning duct and rebar alignment and effective concrete placement and curing operations as well as for verifying that casting and erection field survey data has been properly gathered and recorded. Ensure this individual is present at the site of construction, at all times while cast-in-place segmental box girder construction is in progress or until casting yard operations and segment erection is complete.

**105-8.10.4.8 Surveyor:** Ensure that the surveyor in charge of geometry control surveying for box segment casting and/or box segment erection has a minimum of one year of bridge construction surveying experience. Ensure this individual is present at the site of construction, at all times while segmental box girder construction or segment erection is in progress.

**105-8.10.5 Movable Bridge Construction:** Ensure the individual filling the following positions meet the minimum requirements as follows:

**105-8.10.5.1 Electrical Journeyman:** Ensure the electrical journeyman holds, an active journeyman electrician's license and has at least five years' experience in industrial electrical work, or is a certified control systems technician. A certified control systems technician will not be permitted to perform electrical power work including, but not limited to, conduit and wire-way installation or power conductor connection. Ensure the electrical journeyman has successfully completed the installation of one similar movable bridge electrical system during the last three years.

**105-8.10.5.2 Control Systems Engineer and Mechanical Systems Engineer:** Ensure the control systems engineer and mechanical systems engineer are both registered Professional Engineers with a minimum of 10 years supervisory experience each in movable bridge construction. Ensure the engineers have working knowledge of the movable bridge leaf motion control techniques, mechanical equipment and arrangements specified for this

project. Ensure that each engineer has been in responsible control of the design and implementation of at least three movable bridge electrical control and machinery systems within the past 10 years of which, at least one of the three bridges was within the last three years. Ensure that a minimum of one of the three bridge designs incorporated the same type of leaf motion control and machinery systems specified for this project.

**105-8.10.6 Concrete Post-Tensioned Other Than Segmental Box Girder Construction:** Ensure the individual filling the following positions meet the minimum requirements as follows:

**105-8.10.6.1 Project Engineer:** Ensure the project engineer is a registered Professional Engineer with five years of bridge construction experience. Ensure that a minimum of three years of experience is in concrete post-tensioned construction. Ensure that the three years of experience includes experience in girder erection, safe use of cranes, stabilization of girders; design of false work for temporary girder support, post-tensioning and grouting operations, and a minimum of one year as the project engineer in responsible charge of posttensioning related engineering responsibilities.

**105-8.10.6.2 Project Superintendent/Manager:** Ensure the project superintendent/manager has a minimum of ten years of bridge construction experience or is a registered Professional Engineer with five years of bridge construction experience and has a minimum of three years of supervisory experience in girder erection, safe use of cranes, stabilization of girders; design of falsework for temporary girder support post-tensioning, grouting operations and a minimum of one year as the project superintendent/manager in responsible charge of post-tensioning related operations.

**105-8.10.6.3 Foreman:** Ensure the foremen has a minimum of five years of bridge construction experience with two years of experience in post-tensioning related operations and a minimum of one year as the foreman in responsible charge of post-tensioning related operations.

**105-8.10.7 Post-Tensioning (PT) and Filler Injection Personnel Qualifications:** Perform all stressing and filler injection operations in the presence of the Engineer and with personnel meeting the qualifications of this article. Coordinate and schedule all PT and filler injection activities to facilitate inspection by the Engineer.

**105-8.10.7.1 Post-Tensioning:** Perform all PT field operations under the direct supervision of a Level II CTQP Qualified PT Technician who must be present at the site of the post-tensioning work during the entire duration of the operation. For the superstructures of bridges having concrete post-tensioned box or I girder construction, provide at least two CTQP Qualified PT Technicians, Level I or II, on the work crew. The supervisor of the work crew, who must be a Level II CTQP Qualified PT Technician, may also be a work crew member, in which case, the supervisor shall count as one of the two CTQP qualified work crew members. For PT operations other than the superstructures of post-tensioned box or I girder construction, perform all PT operations under the direct supervision of a Level II CTQP Qualified PT Technician who must be present at the site of the PT work during the entire duration of the operation. Work crew members are not required to be CTQP qualified.

**105-8.10.7.2 Grouting:** Perform all grouting field operations under the direct supervision of a Level II CTQP Qualified Grouting Technician who must be present at the site of the

grouting work during the entire duration of the operation. For the superstructures of bridges having concrete post-tensioned box or I girder construction, provide at least two CTQP Qualified Grouting Technicians, Level I or II, on the work crew. The supervisor of the work crew, who must be a Level II CTQP Qualified Grouting Technician, may also be a work crew member, in which case, the supervisor shall count as one of two CTQP qualified work crew members. For grouting operations other than the superstructures of post-tensioned box or I girder construction, perform all grouting operations under the direct supervision of a Level II CTQP Qualified Grouting Technician who must be present at the site of the grouting work during the entire duration of the operation. Work crew members are not required to be CTQP qualified.

Perform all vacuum grouting operations under the direct supervision of a crew foreman who has been trained and has experience in the use of vacuum grouting equipment and procedures. Submit the crew foreman's training and experience records to the Engineer for approval prior to performing any vacuum grouting operation.

**105-8.10.7.3 Flexible Filler Injection:** Perform all filler injection operations under the direct supervision of a filler injection foreman who has American Segmental Bridge Institute (ASBI) certification in the flexible filler process. Provide at least two CTQP Qualified Grouting Technicians with ASBI certification in the flexible filler process, one of whom must be a Level II CTQP Qualified Grouting Technician. Both technicians must be present at the site of the flexible filler injection work during the entire duration of the operation.

Provide a filler injection quality control (QC) inspector who has ASBI certification in the flexible filler process. The filler injection QC inspector must be present at the site of the flexible filler injection work during the entire duration of the operation.

Verifiable experience performing injection of similar flexible filler on at least two projects is acceptable in lieu of ASBI certification in the flexible filler process.

Perform all flexible filler repair operations under the direct supervision of a crew foreman who has been trained and has verifiable experience in the use of vacuum flexible filler repair equipment and procedures. Submit the crew foreman's training and experience records to the Engineer prior to performing any flexible filler operation.

**105-8.10.8 Failure to Comply with Bridge Qualification Requirements:** Make an immediate effort to reestablish compliance. If an immediate effort is not put forth as determined by the Engineer, payment for the bridge construction operations requiring supervisors to be qualified under this Specification will be withheld up to 60 days. Cease all bridge construction and related activities (casting yard, etc.) if compliance is not met within 60 days, regardless of how much effort is put forth. Resume bridge construction operations only after written approval from the Engineer stating that compliance is reestablished.

**105-8.11 Signal Installation Inspector:** Provide an inspector trained and certified by the International Municipal Signal Association (IMSA) as a traffic signal inspector to perform all signal installation inspections. Ensure all equipment, materials, and hardware is in compliance with Owner Specifications and verify that all equipment requiring certification is listed on the FDOT's Approved Product List (APL). Submit the completed signal inspection report forms, certified by the IMSA traffic

signal inspector to the Engineer. The FDOT's approved inspection report forms are available at the following URL: <http://www.fdot.gov/traffic/>.

**105-8.12 Structural Steel and Miscellaneous Metals Fabrication Facility Quality Control Personnel:**  
 Ensure each fabrication facility has an onsite production manager, an onsite facility manager for QC, a plant engineer, and onsite QC inspectors/technicians to provide complete QC inspections and testing.

Ensure that the facility manager for QC and QC inspectors/technicians meet the certification requirements set forth in the latest version of AASHTO/NSBA Steel Bridge Collaboration S 4.1, Steel Bridge Fabrication QC/QA Guide Specification, including the years of experience required in Table 105-1 below. The facility manager for QC must meet the requirements of Table 105-1 for every structural steel member type produced by a plant with QC being managed by the facility manager for QC. The facility manager for QC will report directly to the plant manager or plant engineer and must not be the plant production manager nor report to or be the subordinate of the plant production manager. QC inspectors/technicians must be the employees of, and must report directly to the facility manager for QC. Perform preparatory work and operations in mobilizing for beginning work on the project, including, but not limited to, those operations necessary for the movement of personnel, equipment, supplies, and incidentals to the project site and for the establishment of temporary offices, buildings, safety equipment and first aid supplies, and sanitary and other facilities.

Structural Steel Member Type	Minimum Years of Experience Required	
	QC Inspector/Technician	Facility Manager for QC
Rolled beam bridges	1 year	3 years
Welded plate girders (I sections, box sections, etc.)	2 years	4 years
Complex structures, such as trusses, arches, cable stayed bridges, and moveable bridges	3 years	5 years
Fracture critical (FC) members	3 years	5 years

END OF SECTION 105

## SECTION 110 CLEARING AND GRUBBING

### 110-1 Description.

Clear and grub within the areas shown in the Plans. Remove and dispose of all trees, stumps, roots and other such protruding objects, buildings, structures, appurtenances, existing flexible asphalt pavement, and other facilities necessary to prepare the area for the proposed construction. Remove and dispose of all product and debris not required to be salvaged or not required to complete the construction.

Perform miscellaneous work necessary for the complete preparation of the overall project site as specified in 110-10.

### 110-2 Standard Clearing and Grubbing.

**110-2.1 Work Included:** Completely remove and dispose of all buildings, timber, brush, trees, stumps, roots, rubbish, debris, existing flexible pavement and base, drainage structures, culverts, and pipes. Remove all other obstructions resting on or protruding through the surface of the existing ground and the surface of excavated areas.

Perform standard clearing and grubbing within the following areas:

1. All areas where excavation is to be done, including borrow pits, lateral ditches, right-of-way ditches, etc.
2. All areas where roadway embankments will be constructed.
3. All areas where structures will be constructed, including pipe culverts and other pipe lines.

**110-2.2 Depths of Removal of Roots, Stumps, and Other Debris:** In all areas where excavation is to be performed, or roadway embankments are to be constructed, remove roots and other debris to a depth of 12 inches below the ground surface. Remove roots and other debris from all excavated material to be used in the construction of roadway embankment or roadway base. Plow the surface to a depth of at least 6 inches, and remove all roots thereby exposed to a depth of at least 12 inches. Completely remove and dispose of all stumps within the roadway right-of-way.

Remove all roots, etc., protruding through or appearing on the surface of the completed excavation within the roadway area and for structures, to a depth of at least 12 inches below the finished excavation surface.

Remove or cut off all stumps, roots, etc., below the surface of the completed excavation in borrow pits, material pits, and lateral ditches.

In borrow and material pits, do not perform any clearing or grubbing within 3 feet inside the right-of-way line.

Within all other areas where standard clearing and grubbing is to be performed, remove roots and other debris projecting through or appearing on the surface of the original ground to a depth of 12 inches below the surface, but do not plow or harrow these areas.

**110-2.3 Boulders:** Remove any boulders encountered in the roadway excavation (other than as permitted under the provisions of 120-7.2) or found on the surface of the ground. When approved by

the Engineer place boulders in neat piles inside the right of way. The Contractor may stockpile boulders encountered in Department-furnished borrow areas, which are not suitable for use in the embankment construction, within the borrow area.

**110-2.4 Asbestos Containing Materials (ACM) Not Identified Prior to the Work:** When encountering or exposing any condition indicating the presence of asbestos, cease operations immediately in the vicinity and notify the Engineer, in accordance with 110-6.5.

**110-3 Selective Clearing and Grubbing.**

**110-3.1 General:** Remove and dispose of vegetation, obstructions, etc., as shown in the Plans. Provide acceptable fill material, and grade and compact holes or voids created by the removal of the stumps. Perform all selective clearing and grubbing in accordance with ANSI A300.

No staging, storing, stockpiling, parking or dumping will be allowed in selective clearing and grubbing areas. Only mechanical equipment related to selective clearing and grubbing activities will be allowed in selective clearing and grubbing areas. Protect trees to remain from trunk, branch and root damage.

**110-3.2 Trees to Remain:** Protect trees as shown in the Plans or directed by the Engineer.

At the driplines of areas designated as trees to remain, construct a tree protection barrier in accordance with Standard Plans, Index 110-100.

When pruning cuts or root pruning to existing trees is shown in the Plans, work is to be supervised on site by an International Society of Arboriculture (ISA) Certified Arborist performed in accordance with ANSI A300.

**110-3.3 Protection of Plant Preservation Areas:** Areas to remain natural may be designated in the Plans. Protect these areas with a tree protection barrier in accordance with Standard Plans, Index 110-100. No clearing and grubbing, staging, storage, stockpiling, parking or dumping is allowed in these areas. Do not bring equipment into these areas.

**110-4 Protection of Property Remaining in Place.**

Protect property to remain in place in accordance with 7-11.

**110-5 Removal of Buildings.**

**110-5.1 Parts to be Removed:** Completely remove all parts of the buildings, including utilities, plumbing, foundations, floors, basements, steps, connecting concrete sidewalks or other pavement, septic tanks, and any other appurtenances, by any practical manner which is not detrimental to other property and improvements.

Remove utilities to the point of connection to the utility authority's cut-in. After removing the sewer connections to the point of cut-in, construct a concrete plug at the cut-in point, as directed by the Engineer, except where the utility owners may elect to perform their own plugging. Contact the appropriate utility companies prior to removal of any part of the building to ensure disconnection of services.

Submit demolition schedule 15 working days before beginning any demolition or renovation of a building.



**110-5.2 Removal by Others:** Where buildings within the area to be cleared and grubbed are so specified to be removed by others, remove and dispose of any foundations, curtain walls, concrete floors, basements or other foundation parts which might be left in place after such removal of buildings by others.

**110-6 Removal of Existing Bridges.**

**110-6.1 General:** The work under this Article includes bridges, as defined in 1-3.

Remove and dispose of the materials from existing bridges. Remove

1. those bridges and approach slabs, or portions of bridges, shown in the Plans to be removed,
2. those bridges and approach slabs, or portions of bridges, found within the limits of the area to be cleared and grubbed, and directed by the Engineer to be removed,
3. those bridges and approach slabs, or portion of bridges, which are necessary to be removed in order to complete the work, and
4. other appurtenances or obstructions which may be designated in the Contract Documents to be included as an item of payment for the work under this Article.

Submit schedule information and demolition plan for approval 15 working days before beginning any demolition or renovation of any structures.

**110-6.2 Method of Removal:**

**110-6.2.1 General:** Remove the structures in such a way so as to leave no obstructions to any proposed new bridge or to any waterways. Pull, cut off, or break off pilings to the requirements of the permit or other Contract Documents, or if not specified, not less than 2 feet below the finish ground line. In the event that the Plans indicate channel excavation to be done by others, consider the finish ground line as the limits of such excavation. For materials which are to remain the property of the Department or are to be salvaged for use in temporary bridges, avoid damage to such materials, and entirely remove all bolts, nails, etc. from timbers to be so salvaged. Mark structural steel members for identification as directed.

**110-6.2.2 Removal of Steel Members with Hazardous Coatings:** Submit to the Engineer for approval the "Contractor's Lead in Construction Compliance Program", QP2 certification from the Society for Protective Coatings (SSPC) from the firm actually removing and disposing of these steel members before any members are disturbed.

Vacuum power tool clean any coated steel member to bare metal as defined by SSPC-SP11 a minimum of 4 inches either side of any area to be heated (e.g. torch cutting, sawing, grinding, etc.) in accordance with 29 CFR 1926.354. Abrasive blasting is prohibited.

**110-6.3 Partial Removal of Bridges:** On concrete bridges to be partially removed and widened, remove concrete by manually or mechanically operated pavement breakers, by concrete saws, by chipping hammers, or by hydro-demolition methods. Do not use explosives. Where concrete is to be removed to neat lines, use concrete saws or hydro-demolition methods capable of providing a reasonably uniform cleavage face. If the equipment used will not provide a uniform cut without surface spalling, first score the outlines of the work with small trenches or grooves. For all demolition methods, submit

for review and approval of the Engineer, a demolition plan that describes the method of removal, equipment to be used, types of rebar splices or couplers, and method of straightening or cutting rebar. In addition, for hydrodemolition, describe the method for control of water or slurry runoff and measures for safe containment of concrete fragments that are thrown out by the hydro-demolition machine.

**110-6.4 Authority of U.S. Coast Guard:** For bridges in navigable waters, when constructing the project under authority of a U.S. Coast Guard permit, the U.S. Coast Guard may inspect and approve the work to remove any existing bridges involved therein, prior to acceptance by the Department.

**110-6.5 Asbestos Containing Materials (ACM) Not Identified Prior to the Work:** When encountering or exposing any condition indicating the presence of asbestos, cease operations immediately in the vicinity and notify the Engineer.

Make every effort to minimize the disturbance of the ACM. Immediately provide provisions for the health and safety of all jobsite personnel and the public that may be exposed to any ACM. Provisions shall meet all applicable Federal, State, and Local Rules and Regulations regarding potentially hazardous conditions due to ACM.

The Engineer will notify the District Contamination Impact Coordinator (DCIC) who will engage the services of the Department's Contamination Assessment/Remediation Contractor (CAR). Provide access to the potential contamination area. Preliminary investigation by the CAR Contractor will determine the course of action necessary for site security and the steps necessary to resolve the contamination issue.

The CAR Contractor will perform an asbestos survey to delineate the asbestos areas, and identify any staging or holding areas that will be needed for assessment or abatement of the asbestos material. The CAR Contractor will maintain jurisdiction over activities within areas contaminated with ACM including staging and holding areas.

The CAR Contractor will be responsible for the health and safety of workers within these delineated areas. Provide continuous access to these areas for the CAR Contractor and representatives of regulatory or enforcement agencies having jurisdiction.

Coordinate with the CAR Contractor and Engineer to develop a work plan with projected completion dates for the final resolution of the contamination, in coordination with any regulatory agencies as appropriate. Use the work plan and schedule as a basis for planning the completion of all work efforts. The Engineer may grant Contract Time extensions according to the provisions of 8-7.3.2.

Cooperate with the CAR Contractor to expedite integration of the CAR Contractor's operations into the construction project. Adjustments to quantities or to Contract unit prices will be made according to work additions or reductions on the part of the Prime Contractor in accordance with 4-3.

The Engineer will inform the Prime Contractor when operations may resume in the affected area.

**110-7 Removal of Existing Concrete.**

Remove and dispose of existing rigid portland cement concrete pavement, sidewalk, slope pavement, ditch pavement, curb, and curb and gutter, etc., where shown in the Plans.

Remove all gravity walls, noise/sound walls, retaining walls, MSE walls, perimeter walls, and roadway concrete barriers, where shown in the Plans. All ancillary elements of these concrete features being removed including, but not limited to, leveling pads, copings, reinforcing steel or straps, footings, etc, are incidental and included in the cost of the removal.

**110-8 Ownership of Materials.**

Except as may be otherwise specified in the Contract Documents, take ownership of all buildings, structures, appurtenances, and other materials removed and dispose of them in accordance with 110-9.

**110-9 Disposal of Materials.**

**110-9.1 General:** Either stack materials designated to remain the property of the Department in neat piles within the right-of-way, load onto the Department's vehicles, or deliver to location designated in the Plans.

Dispose of timber, stumps, brush, roots, rubbish, and other material resulting from clearing and grubbing in areas and by methods meeting the applicable requirements of all Federal, State and Local Rules and Regulations. Do not block waterways by the disposal of debris.

With the approval of the Engineer, wood chips may be evenly distributed to a depth of no more than one inch in designated areas in the Department's right-of-way.

**110-9.2 Burning Debris:** Where burning of such materials is permitted, perform all such burning in accordance with the applicable Federal, State and Local rules and regulations. Perform all burning at locations where trees and shrubs adjacent to the cleared area will not be harmed.

**110-9.3 Timber and Crops:** The Contractor may sell any merchantable timber, fruit trees, and crops that are cleared under the operations of clearing and grubbing for his own benefit, subject to the provisions of 7-1.2, which may require that the timber, fruit trees, or crops be burned at or near the site of their removal, as directed by the Engineer. The Contractor is liable for any claims which may arise pursuant to the provisions of this Subarticle.

**110-9.4 Disposal of Treated Wood:** Treated wood must be handled and disposed of properly during removal. Treated wood should not be cut or otherwise mechanically altered in a manner that would generate dust or particles without proper respiratory and dermal protection. The treated wood must be disposed of in at least a lined solid waste facility or through recycling/reuse. Treated wood shall not be disposed by burning or placement in a construction and demolition (C&D) debris landfill.

**110-9.5 Hazardous Materials/Waste:** Handle, transport, and dispose of hazardous materials/waste in accordance with all Federal, State, and Local Rules and Regulations including, but not limited to, the following:

1. SSPC Guide 7
2. Federal Water Pollution Control Act, and
3. Resource Conservation and Recover Act (RCRA).

Accept responsibility for the collection, sampling, classification, packaging, labeling, accumulation time, storage, manifesting, transportation, treatment and disposal of hazardous materials/waste, both solid and liquid. Separate all solid and liquid waste and collect all liquids used at hygiene stations

and handle as hazardous materials/waste. Obtain written approval from the Engineer for all hazardous materials/waste stabilization methods before implementation.

Obtain an EPA/FDEP Hazardous Waste Identification Number (EPA/FDEP ID Number) before transporting and/or disposal of any hazardous materials/waste.

List the Department as the generator for hazardous materials/waste resulting from removal or demolition of Department materials.

Submit the following for the Engineers' approval before transporting, treatment or disposal of any hazardous materials/waste:

1. Name, address and qualifications of the transporter,
2. Name, address and qualifications of the treatment facility,
3. Proposed treatment and/or disposal of all Hazardous Materials/Waste.
4. EPA/FDEP Hazardous Waste Identification Number Application Form.
5. Manifest forms.

Transport all hazardous materials/waste in accordance with applicable Federal, State, and Local Rules and Regulations including, but not limited to, the 40 CFR 263 Standards. Submit all final Hazardous Materials/Waste manifest/bills of lading and certificates of disposal to the Engineer within 21 days of each shipment.

**110-9.5.1 Steel Members with Hazardous Coating:** Dispose of steel members with hazardous coating in one of the following manners:

1. Deliver the steel members and other hazardous waste to a licensed recycling or treatment facility capable of processing steel members with hazardous coating.
2. Deliver the steel members with hazardous coating to a site designated by the Engineer for use as an offshore artificial reef. Deliver any other hazardous materials/waste to a licensed hazardous materials/waste recycling treatment facility.

Dismantle and/or cut steel members to meet the required dimensions of the recycling facility, treatment facility or offshore artificial reef agency.

All compensation for the cost of removal and disposal of hazardous materials/waste will be included in the Cost of Removal of Existing Structures.

**110-9.5.2 Certification of Compliance:** Submit certification of Compliance from the firm actually removing and disposing of the hazardous materials/waste stipulating, the hazardous materials/waste has been handled, transported and disposed of in accordance with this Specification. The Certification of Compliance shall be attested to by a person having legal authority to bind the company.

Maintain all records required by this Specification and ensure these records are available to the Department upon request.

#### **110-10 Miscellaneous Operations.**

**110-10.1 Water Wells Required to be Plugged:** Fill or plug all water wells within the right-of-way, including areas of borrow pits and lateral ditches, that are not to remain in service, in accordance with applicable Federal, State, and Local Rules and Regulations.

Cut off the casing of cased wells at least 12 inches below the ground line or 12 inches below the elevation of the finished excavation surface, whichever is lower. Water wells, as referred to herein, are defined either as artesian or non-artesian, as follows:

1. An artesian well is an artificial hole in the ground from which water supplies may be obtained and which penetrates any water-bearing rock, the water in which is raised to the surface by natural flow or which rises to an elevation above the top of the waterbearing bed. Artesian wells are further defined to include all holes drilled as a source of water that penetrate any water-bearing beds that are a part of the artesian water system of Florida, as determined by representatives of the applicable Water Management District.
2. A non-artesian (water-table) well is a well in which the source of water is an unconfined aquifer. The water in a non-artesian well does not rise above the source bed.

**110-10.2 Leveling Terrain:** Within the areas between the limits of construction and the outer limits of clearing and grubbing, fill all holes and other depressions, and cut down all mounds and ridges. Make the area of a sufficient uniform contour so that the Department's subsequent mowing and cutting operations are not hindered by irregularity of terrain. Perform this work regardless of whether the irregularities were the result of construction operations or existed originally.

**110-10.3 Mailboxes:** When the Contract Documents require furnishing and installing mailboxes, permit each owner to remove the existing mailbox. Work with the Local Postmaster to develop a method of temporary mail service for the period between removal and installation of the new mailboxes. Install the mailboxes in accordance with the Standard Plans.

#### **110-11 Method of Measurement.**

**110-11.1 Clearing and Grubbing:** The quantity to be paid for will be the lump sum quantity.

**110-11.2 Selective Clearing and Grubbing:** The quantity to be paid will be the plan quantity area in acres designated for selective clearing and grubbing.

**110-11.3 Removal of Existing Bridges:** The quantity to be paid for will be the lump sum quantity or quantities for the specific structures, or portions of structures to be removed.

**110-11.4 Removal of Existing Concrete:** The quantity to be paid for will be the number of square yards of existing concrete elements, acceptably removed and disposed of, as specified. The quantity will be determined by actual measurement along the surface of the element before its removal. Measurements for appurtenances which have irregular surface configurations, such as curb and gutter, steps, and ditch pavement, will be the area as projected to an approximate horizontal plane. Where the removal of pavement areas is necessary only for the construction of box culverts, pipe culverts, storm sewers, inlets, manholes, etc., these areas will not be included in the measurements.

Area measurements for walls will be based on exposed vertical face measurements times the horizontal length of the wall.

**110-11.5 Plugging Water Wells:** The quantity to be paid for will be the number of water wells plugged, for each type of well (artesian or non-artesian).

**110-11.6 Mailboxes:** The quantity to be paid for will be the number of mailboxes acceptably furnished and installed.

**110-11.7 Delivery of Salvageable Material to the Department** The quantity to be paid for will be the Lump Sum quantity for delivery of salvageable materials to the Department, as indicated in the Plans.

**110-11.8 General:** In each case, except as provided below, where no item of separate payment for such work is included in the proposal, all costs of such work will be included in the various scheduled items in the Contract, or under specific items as specified herein below or elsewhere in the Contract.

#### **110-12 Basis of Payment.**

##### **110-12.1 Clearing and Grubbing:**

**110-12.1.1 Lump Sum Payment:** Price and payment will be full compensation for all clearing and grubbing required for the roadway right-of-way and for lateral ditches, channel changes, or other outfall areas, and any other clearing and grubbing indicated, or required for the construction of the entire project, including all necessary hauling, furnishing equipment, equipment operation, furnishing any areas required for disposal of debris, leveling of terrain and the landscaping work of trimming, etc.

Where construction easements are specified in the Plans and the limits of clearing and grubbing for such easements are dependent upon the final construction requirements, no adjustment will be made in the lump sum price and payment, either over or under, for variations from the limits of the easement defined in the Plans.

**110-12.1.2 When No Direct Payment is Provided:** When no item for clearing and grubbing is included in the proposal, the Contractor shall include the cost of any work of clearing and grubbing which is necessary for the proper construction of the project in the Contract price for the structure or other item of work for which such clearing and grubbing is required. The Contractor shall include the cost of all clearing and grubbing which might be necessary in pits or areas from which base material is obtained in the Contract price for the base in which such material is used. The clearing and grubbing of areas for obtaining stabilizing materials, where required only for the purpose of obtaining materials for stabilizing, will not be paid for separately.

**110-12.2 Selective Clearing and Grubbing:** Price and payment will be full compensation for all selective clearing and grubbing, including all necessary hauling, furnishing equipment, Certified Arborist, equipment operation, furnishing any areas required for disposal of debris, leveling of terrain, root pruning and tree protection.

**110-12.3 Removal of Existing Bridges:** Price and payment will be full compensation for all work of removal and disposal of the designated bridges.

When direct payment for the removal of existing bridges is not provided in the proposal, the Contractor shall include the cost of removing all bridges in the Contract price for clearing and grubbing or, if no item of clearing and grubbing is included, in the compensation for the other items covering the new bridge being constructed.

**110-12.4 Removal of Existing Concrete:** Price and payment will be full compensation for performing and completing all the work of removal and satisfactory disposal.

When no separate item for this work is provided and no applicable item of excavation or embankment covering such work (as provided in 120-13.1) is included, the Contractor shall include the costs of this work in the Contract price for the item of clearing and grubbing or for the pipe or other structure for which the concrete removal is required.

**110-12.5 Plugging Water Wells:** Price and payment will be full compensation for each type of well acceptably plugged.

If a water well requiring plugging is encountered and the Contract contains no price for plugging wells of that specific type, the plugging of such well will be paid for as unforeseeable work.

**110-12.6 Mailboxes:** Price and payment will be full compensation for all work and materials required, including supports and numbers.

**110-12.7 Delivery of Salvageable Material to the Department:** Price and payment will be full compensation for all work required for delivery of the materials to the Department.

**110-12.8 Payment Items:** Payment will be made under:

<i>Item No. 110-1</i>	<i>Miscellaneous Demolition</i>	<i>-per Lump Sum (LS)</i>
<i>Item No. 110-2</i>	<i>Clearing and Grubbing with Tree Removal</i>	<i>-per Acre (AC)</i>

END OF SECTION 110

## SECTION 120

### EXCAVATION AND EMBANKMENT

#### 120-1 120-1 Description.

**120-1.1 General:** Excavate and construct embankments as required for the roadway, ditches, channel changes and borrow material. Use suitable excavated material or authorized borrow to prepare subgrades and foundations. Construct embankments in accordance with Standard Plans, Index 120-001. Compact and dress excavated areas and embankments.

Meet the requirements of Section 110 for excavation of material for clearing and grubbing and Section 125 for excavation and backfilling of structures and pipe. Material displaced by the storm sewer or drainage structure system is not included in the earthwork quantities shown in the Plans.

**120-1.2 Unidentified Areas of Contamination:** When encountering or exposing any abnormal condition indicating the presence of contaminated materials, cease operations immediately in the vicinity and notify the Engineer. The presence of tanks or barrels; discolored earth, metal, wood, ground water, etc.; visible fumes; abnormal odors; excessively hot earth; smoke; or other conditions that appear abnormal may indicate the presence of contaminated materials and must be treated with extreme caution.

Make every effort to minimize the spread of contamination into uncontaminated areas. Immediately provide for the health and safety of all workers at the job site and make provisions necessary for the health and safety of the public that may be exposed to any potentially hazardous conditions. Ensure provisions adhere to all applicable laws, rules or regulations covering potentially hazardous conditions and will be in a manner commensurate with the gravity of the conditions.

The Engineer may grant the Contract Time extensions according to the provisions of 8-7.3.2.

The Engineer will direct the Prime Contractor when operations may resume in the affected area.

#### 120-2 Classifications of Excavation.

**120-2.1 General:** The Owner may classify excavation specified under this Section for payment as any of the following: regular excavation, subsoil excavation, lateral ditch excavation, and channel excavation.

If the proposal does not show subsoil excavation or lateral ditch excavation as separate items of payment, include such excavation under the item of regular excavation.

If the proposal shows lateral ditch excavation as a separate item of payment, but does not show channel excavation as a separate item of payment, include such excavation under the item of lateral ditch excavation. Otherwise, include channel excavation under the item of regular excavation.

**120-2.2 Regular Excavation:** Regular excavation includes roadway excavation and borrow excavation, as defined below for each.

**120-2.2.1 Roadway Excavation:** Roadway excavation consists of the excavation and the utilization or disposal of all materials necessary for the construction of the roadway, ditches,



channel changes, etc., except as may be specifically shown to be paid for separately and that portion of the lateral ditches within the limits of the roadway right-of-way as shown in the Plans.

**120-2.2.2 Borrow Excavation:** Borrow excavation consists of the excavation and utilization of material from authorized borrow pits, including only material that is suitable for the construction of roadway embankments or of other embankments covered by the Contract.

A Cost Savings Initiative Proposal (CSIP) submittal based on using borrow material from within the project limits will not be considered.

**120-2.3 Subsoil Excavation:** Subsoil excavation consists of the excavation and disposal of muck, clay, rock, or any other material that is unsuitable in its original position and that is excavated below the finished grading template. For stabilized bases and sand bituminous road mixes, consider the finished grading template as the top of the finished base, shoulders and slopes. For all other bases and rigid pavement, consider the finished grading template as the finished shoulder and slope lines and bottom of completed base or rigid pavement. For pond and ditches that identify the placement of a blanket material, consider the finished grading template as the bottom of the blanket material. Subsoil excavation also consists of the excavation of all suitable material within the above limits as necessary to excavate the unsuitable material. Consider the limits of subsoil excavation indicated in the Plans as being particularly variable, in accordance with the field conditions actually encountered.

The quantity of material required to replace the excavated material and to raise the elevation of the roadway to the bottom of the template will be paid for under embankment or borrow excavation (Truck Measure).

**120-2.4 Lateral Ditch Excavation:** Lateral ditch excavation consists of all excavation of inlet and outlet ditches to structures and roadway, changes in channels of streams, and ditches parallel to the roadway right-of-way. Dress lateral ditches to the grade and cross-section shown in the Plans.

**120-2.5 Channel Excavation:** Channel excavation consists of the excavation and satisfactory disposal of all materials from the limits of the channel as shown in the Plans.

### **120-3 Preliminary Soils Investigations.**

When the Plans contain the results of a soil survey, do not assume such data is a guarantee of the depth, extent, or character of material present.

### **120-4 Removal of Unsuitable Materials and Existing Roads.**

**120-4.1 Subsoil Excavation:** Where muck, rock, clay, or other material within the limits of the roadway is unsuitable in its original position, excavate such material to the cross-sections shown in the Plans or indicated by the Engineer, and backfill with suitable material. Shape backfill material to the required cross-sections. Where the removal of plastic soils below the finished earthwork grade is required, meet a construction tolerance, from the lines shown in the Plans as the removal limits, of plus or minus 0.2 feet in depth and plus or minus 6 inches (each side) in width.

**120-4.2 Construction over Existing Old Road:** Where a new roadway is to be constructed over an old one, plow or scarify the old road, and break it up full width, regardless of height of fill. If the Plans provide that paving materials may be incorporated into the fill, distribute such material in a manner so as not to create voids. Recompact the old road meeting the requirements of 120-10.2.

**120-4.3 Obliterating Old Road:** Where the Plans call for obliteration of portions of an old road outside of the proposed new roadway, obliterate such sections of the old road by grading to fill ditches and to restore approximately the original contour of the ground or a contour which produces a pleasing appearance.

**120-5 Disposal of Surplus and Unsuitable Material.**

**120-5.1 Ownership of Excavated Materials:** Dispose of surplus and excavated materials as shown in the Plans or, if the Plans do not indicate the method of disposal, take ownership of the materials and dispose of them outside the right-of-way.

**120-5.2 Disposal of Muck on Side Slopes:** As an exception to the provisions of 120-5. 1, when approved by the Engineer, in rural undeveloped areas, the Contractor may place muck (A-8 material) on the slopes, or store it alongside the roadway, provided there is a clear distance of at least 6 feet between the roadway grading limits and the muck, and the Contractor dresses the muck to present a neat appearance. In addition, the Contractor may also dispose of this material by placing it on the slopes in developed areas where, in the opinion of the Engineer, this will result in an aesthetically pleasing appearance and will have no detrimental effect on the adjacent developments. Where the Engineer permits the disposal of muck or other unsuitable material inside the right-of-way limits, do not place such material in a manner which will impede the inflow or outfall of any channel or side ditches. The Engineer will determine the limits adjacent to channels within which such materials may be disposed.

**120-5.3 Disposal of Paving Materials:** Unless otherwise noted, take ownership of paving materials, such as paving brick, asphalt block, concrete slab, sidewalk, curb and gutter, etc., excavated in the removal of existing pavements, and dispose of them outside the right-of-way. If the materials are to remain the property of the Owner, place them in neat piles as directed. Existing limerock base that is removed may be incorporated in the stabilized portion of the subgrade. If the construction sequence will allow, incorporate all existing limerock base into the project as allowed by the Contract Documents.

**120-5.4 Disposal Areas:** Where the Contract Documents require disposal of excavated materials outside the right-of-way, and the disposal area is not indicated in the Contract Documents, furnish the disposal area without additional compensation. Provide areas for disposal of removed paving materials out of sight of the project and at least 300 feet from the nearest roadway right-of-way line of any State maintained road. If the materials are buried, disregard the 300 foot limitation.

**120-6 Borrow.**

**120-6.1 Materials for Borrow:** Do not open borrow pits until the Engineer has approved their location.

Do not provide borrow materials that are polluted as defined in Chapter 376 of the Florida Statutes (oil of any kind and in any form, gasoline, pesticides, ammonia, chlorine, and derivatives thereof, excluding liquefied petroleum gas) in concentrations above any local, State, or Federal standards.

Prior to placing any borrow material that is the product of soil incineration, provide the Engineer with a copy of the Certificate of Materials Recycling and Post Burn Analysis showing that the material is below all allowable pollutant concentrations.

**120-6.2 Furnishing of Borrow Areas:** To obtain the Engineer's approval to use an offsite construction activity area that involves excavation such as a borrow pit or local aggregate pit, request in writing, a review for -cultural resources involvement. Send the request to the Division of Historical Resources (DHR), Department of State, State Historic Preservation Officer, Tallahassee, FL. As a minimum, include in the request the Project Identification Number, the County, a description of the property with Township, Range, Section, etc., the dimensions of the area to be affected, and a location map. Do not start any work at the off-site construction activity area prior to receiving clearance from the DHR that no additional research is warranted.

For certain locations, the DHR will require a Cultural Resources Assessment (CRA) Survey before approval can be granted. When this is required, secure professional archaeological services to complete an historical and archaeological survey report. Submit the report to the DHR and to the Owner. The Engineer will determine final approval or rejection of off-site construction activity areas based on input from the DHR.

Before receiving approval or before use of borrow areas, obtain written clearance from the Engineer concerning compliance with the Federal Endangered Species Act and other Wildlife Regulations as specified in 7-1.4 and Section 4(f) of the USDOT Act as specified in 71.8.

The Owner will adjust Contract Time in accordance with 8-7 for any suspension of operations required to comply with this Article. The Owner will not accept any monetary claims due to delays or loss of off-site construction activity areas.

Except where the Plans specifically call for the use of a particular borrow or dredging area, the Contractor may substitute borrow or dredging areas of his own choosing provided the Engineer determines the materials from such areas meet the Owner's standards and other requirements for stability for use in the particular sections of the work in which it is to be placed, and the Contractor absorbs any increase in hauling or other costs. Stake the corners of the proposed borrow area and provide the necessary equipment along with an operator in order for the Engineer to investigate the borrow area. The Engineer will determine test locations, collect samples, and perform tests to investigate the proposed borrow area based on soil strata and required soil properties. The Engineer will approve use of materials from the proposed area based on test results and project requirements. Final acceptance of materials will be based on Point of Use Test as described in 6-1.2.4.

Before using any borrow material from any substitute areas, obtain the Engineer's approval, in writing, for the use of the particular areas, and, where applicable, ensure that the Engineer has cross-sectioned the surface. Upon such written approval by the Engineer, consider the substitute areas as designated borrow areas.

When furnishing the dredging or borrow areas, supply the Owner with evidence that the necessary permits, rights, or waivers for the use of such areas have been secured.

Do not excavate any part of a Contractor furnished borrow area which is less than 300 feet from the right-of-way of the project or any State Road until the Engineer has approved a plan for landscaping and restoring the disturbed area. Perform this landscaping and land restoration at no expense to the Owner, prior to final acceptance of the project. Do not provide a borrow area closer than 25 feet to the right-of-way of any state road. In Owner furnished borrow pits, do not excavate material within 5 feet of adjacent property lines.

Upon completion of excavation, neatly shape, dress, grass, vegetate, landscape, and drain all exposed areas including haul roads, as necessary so as not to present an objectionable appearance.

Meet the requirements of Section 104 when furnishing borrow areas, regardless of location.

**120-6.3 Borrow Material for Shoulder Build-up:** When so indicated in the Plans, furnish borrow material with a specific minimum bearing value, for building up of existing shoulders. Blend materials as necessary to achieve this specified minimum bearing value prior to placing the materials on the shoulders. Take samples of this borrow material at the pit or blended stockpile. Include all costs of providing a material with the required bearing value in the Contract unit price for borrow material.

**120-6.4 Haul Routes for Borrow Pits:** Provide and maintain, at no expense to the Owner, all necessary roads for hauling the borrow material. Where borrow area haul roads or trails are used by others, do not cause such roads or trails to deteriorate in condition.

Arrange for the use of all non-public haul routes crossing the property of any railroad. Incur any expense for the use of such haul routes. Establish haul routes which will direct construction vehicles away from developed areas when feasible, and keep noise from hauling operations to a minimum. Advise the Engineer in writing of all proposed haul routes.

**120-6.5 Authorization for Use of Borrow:** When the item of borrow excavation is included in the Contract, use borrow only when sufficient quantities of suitable material are not available from roadway and drainage excavation, to properly construct the embankment, subgrade, and shoulders, and to complete the backfilling of structures. Do not use borrow material until so ordered by the Engineer, and then only use material from approved borrow pits.

#### **120-7 Materials for Embankment.**

**120-7.1 Use of Materials Excavated from the Roadway and Appurtenances:** Assume responsibility for determining the suitability of excavated material for use on the project in accordance with the applicable Contract Documents. Consider the sequence of work and maintenance of traffic phasing in the determination of the availability of this material.

**120-7.2 General Requirements for Embankment Materials:** Construct embankments of acceptable material including reclaimed asphalt pavement (RAP), recycled concrete aggregate (RCA) and portland cement concrete rubble, but containing no muck, stumps, roots, brush, vegetable matter, rubbish, reinforcement bar or other material that does not compact into a suitable and enduring roadbed. Do not use RAP or RCA in the top 3 feet of slopes and shoulders that are to be grassed or have other type of vegetation established. Do not use RAP or RCA in stormwater management facility fill slopes.

Remove all waste material designated as undesirable. Use material in embankment construction in accordance with plan details or as the Engineer directs.

Complete the embankment using maximum particle sizes (in any dimension) as follows:

1. In top 12 inches: 3-1/2 inches (in any dimension).
2. 12 to 24 inches: 6 inches (in any dimension).

3. In the depth below 24 inches: not to exceed 12 inches (in any dimension) or the compacted thickness of the layer being placed, whichever is less.

Spread all material so that the larger particles are separated from each other to minimize voids between them during compaction. Compact around these rocks in accordance with 120-9.2.

When and where approved by the Engineer, the Contractor may place larger rocks (not to exceed 18 inches in any dimension) outside the one to two slope and at least 4 feet or more below the bottom of the base. Compact around these rocks to a firmness equal to that of the supporting soil. Construct grassed embankment areas in accordance with 120-9.2.5. Where constructing embankments adjacent to bridge end bents or abutments, do not place rock larger than 3-1/2 inches in diameter within 3 feet of the location of any end-bent piling.

**120-7.3 Materials Used at Pipes, Culverts, etc.:** Construct embankments over and around pipes, culverts, and bridge foundations with selected materials.

#### **120-8 Embankment Construction.**

**120-8.1 General:** Construct embankments in sections of not less than 300 feet in length or for the full length of the embankment. Do not construct another LOT over an untested LOT without the Engineer's approval in writing.

For construction of mainline pavement lanes, turn lanes, ramps, parking lots, concrete box culverts and retaining wall systems, a LOT is defined as a single lift of finished embankment not to exceed 500 feet.

For construction of shoulder-only areas, shared use paths, and sidewalks areas, a LOT is defined as a single lift of finished embankment not to exceed 2000 feet.

Isolated compaction operations will be considered as separate LOTs. For multiple phase construction, a LOT shall not extend beyond the limits of the phase.

#### **120-8.2 Dry Fill Method:**

**120-8.2.1 General:** Construct embankments to meet the compaction requirements in 120-9 and in accordance with the acceptance program requirements in 120-10.

As far as practicable, distribute traffic over the work during the construction of embankments so as to cover the maximum area of the surface of each layer.

Construct embankment using the dry fill method whenever normal dewatering equipment and methods can accomplish the needed dewatering.

**120-8.2.1.1 Maximum Compacted Lift Thickness Requirements:** Construct the embankment in successive layers with lifts up to a maximum listed in the table below based on the embankment material classification group.

Group	AASHTO Soil Class	Maximum Lift Thickness	Thick Lift Control Test Section Requirements
1	A-3	12 inches	Not Needed
	A-2-4 (No. 200 Sieve ≤ 15%)		
2	A-1	6 inches without Control Test Section	Maximum of 12 inches per 120-8.2.1.2
	A-2-4 (No. 200 Sieve > 15%)		
	A-2-5, A-2-6, A-2-7, A-4, A-5, A-6		
	A-7 (Liquid Limit <50)		

**120-8.2.1.2 Thick Lift Requirements:** For embankment materials classified as Group 2 in the table above, the option to perform thick lift construction in successive layers of not more than 12 inches compacted thickness may be used after meeting the following requirements:

1. Notify the Engineer and obtain approval in writing prior to beginning construction of a test section.
  - a. Demonstrate the possession and control of compacting equipment sufficient to achieve density required by 120-10.2 for the full depth of a thicker lift.
2. Construct a test section of the length of one full LOT of not less than 500 feet.
3. Perform five Quality Control (QC) tests at random locations within the test section.
  - a. All five QC tests and must meet the density required by 120-10.2.
  - b. Identify the test section with the compaction effort and soil classification.
4. Obtain Engineer's approval in writing for the compaction effort after completing a successful test section.

In case of a change in compaction effort or soil classification, failing QC test or when the QC tests cannot be verified, construct a new test section. The Contractor may elect to place material in 6 inches compacted thickness at any time. Construct all layers approximately parallel to the centerline profile of the road.

The Engineer reserves the right to terminate the Contractor's use of thick lift construction. Whenever the Engineer determines that the Contractor is not achieving satisfactory results, revert to the 6 inch compacted lifts.

**120-8.2.1.3 Equipment and Methods:** Provide normal dewatering equipment including, but not limited to, surface pumps, sump pumps and trenching/digging machinery. Provide normal dewatering methods including, but not limited to, constructing shallow surface drainage trenches/ditches, using sand blankets, sumps and siphons.

When normal dewatering does not adequately remove the water, the Engineer may require the embankment material to be placed in the water or on low swampy ground in accordance with 120-9.2.3.

**120-8.2.2 Placing in Unstable Areas:** When depositing fill material in water, or on low swampy ground that will not support the weight of hauling equipment, construct the embankment by dumping successive loads in a uniformly distributed layer of a thickness not greater than necessary to support the hauling equipment while placing subsequent layers. Once sufficient material has been placed so that the hauling equipment can be supported, construct the remaining portion of the embankment in layers in accordance with the applicable provisions of 120-9.2.2.

**120-8.2.3 Placing on Steep Slopes:** When constructing an embankment on a hillside sloping more than 20 degrees from the horizontal, before starting the fill, deeply plow or cut steps into the surface of the original ground on which the embankment is to be placed.

**120-8.2.4 Placing Outside the Standard Minimum Slope:** The standard minimum slope is defined as the plane described by a one (vertical) to two (horizontal) slope downward from the roadway shoulder point or the gutter line, in accordance with Standard Plans, Index 120-001 and 120-002. Where material that is unsuitable for normal embankment construction is to be used in the embankment outside the standard minimum slope, place such material in layers of not more than 18 inches in thickness, measured loose. The Contractor may also place material which is suitable for normal embankment, outside such standard minimum slope, in 18 inch layers. Maintain a constant thickness for suitable material placed within and outside the standard minimum slope, unless placing in a separate operation.

**120-8.3 Hydraulic Method:**

**120-8.3.1 Method of Placing:** When the hydraulic method is used, as far as practicable, place all dredged material in its final position in the embankment by such method. Place and compact any dredged material that is reworked, or moved and placed in its final position by any other method, as specified in 120-9.2. Baffles or any other form of construction may be used if the slopes of the embankments are not steeper than indicated in the Plans. Remove all timber used for temporary bulkheads or baffles from the embankment, and fill and thoroughly compact all voids. When placing fill on submerged land, construct dikes prior to beginning of dredging, and maintain the dikes throughout the dredging operation.

**120-8.3.2 Excess Material:** Do not use any excess material placed outside the prescribed slopes or below the normal high-water table to raise the fill areas. Remove only the portion of this material required for dressing the slopes.

**120-8.3.3 Protection of Openings in Embankment:** Leave openings in the embankments at the bridge sites. Remove any material which invades these openings or existing channels without additional compensation to provide the same existing channel depth as before the construction of the embankment. Do not excavate or dredge any material within 200 feet of the toe of the proposed embankment.

**120-8.4 Reclaimed Asphalt Pavement (RAP) Method:**

**120-8.4.1 General:** Use only RAP material stored at facilities with an approved Florida Department of Environmental Protection Stormwater permit or, transferred directly from a milling project to the Owner project. Certify the source if RAP material is from an identifiable Owner project. Do not use RAP material in the following areas: construction areas that are below the seasonal high groundwater table elevation; MSE Wall backfill; underneath MSE Walls or the top 6 inches of embankment.

Prior to placement, submit documentation to the Engineer for his approval, outlining the proposed location of the RAP material.

**120-8.4.2 Soil and RAP Mixture:** Place the RAP material at the location and spread uniformly, using approved methods to obtain a maximum layer thickness of 4 inches. Mix this 4 inches maximum layer of RAP with a loose soil layer 8 to 10 inches thick. After mixing, meet all embankment utilization requirements of Standard Plans, Index 120-001 for the location used. The total RAP and other embankment material shall not exceed 12 inches per lift after mixing and compaction if the contractor can demonstrate that the density of the mixture can be achieved. Perform mixing using rotary tillers or other equipment meeting the approval of the Engineer. The Engineer will determine the order in which to spread the two materials. Mix both materials to the full depth. Ensure that the finished layer will have the thickness and shape required by the typical section. Demonstrate the feasibility of this construction method by successfully completing a 500 foot long test section.

**120-8.4.3 Alternate Soil and RAP Layer Construction:** Construct soil in 6 to 12 inch compacted lifts and RAP in alternate layers with 6 inch maximum compacted lifts. Use soil with a minimum LBR value of 40 to prevent failure during compaction of the overlying RAP layer. Demonstrate the feasibility of this construction method by successfully completing a 500 foot long test section.

#### **120-9 Compaction Requirements.**

**120-9.1 Moisture Content:** Compact the materials at a moisture content such that the specified density can be attained. If necessary to attain the specified density, add water to the material, or lower the moisture content by manipulating the material or allowing it to dry, as is appropriate.

#### **120-9.2 Compaction of Embankments:**

**120-9.2.1 General:** Uniformly compact each layer, using equipment that will achieve the required density, and as compaction operations progress, shape and manipulate each layer as necessary to ensure uniform density throughout the embankment.

**120-9.2.2 Compaction Over Unstable Foundations:** Where the embankment material is deposited in water or on low swampy ground, and in a layer thicker than 12 inches (as provided in 120-8.2.2), compact the top 6 inches (compacted thickness) of such layer to the density as specified in 120-10.2.

**120-9.2.3 Compaction Where Plastic Material Has Been Removed:** Where unsuitable material is removed and the remaining surface is of the A-4, A-5, A-6, or A-7 Soil Groups (see AASHTO M145), as determined by the Engineer, compact the surface of the excavated area by rolling with a sheepsfoot roller exerting a compression of at least 250 psi on the tamper feet, for the full width of the roadbed (subgrade and shoulders). Perform rolling before beginning any backfill, and continue until the roller feet do not penetrate the surface more than 1 inch. Do not perform such rolling where the remaining surface is below the normal water table and covered with water. Vary the procedure and equipment required for this operation at the discretion of the Engineer.

**120-9.2.4 Compaction of Grassed Shoulder Areas:** For the upper 6 inch layer of all shoulders which are to be grassed, since no specific density is required, compact only to the extent directed.



**120-9.2.5 Compaction of Grassed Embankment Areas:** Do not compact the outer layers of any embankments where plant growth will be established. Leave this layer in a loose condition to a minimum depth of 6 inches for the subsequent seeding or planting operations. Do not place RAP or RAP blended material within the top 12 inches of areas to be grassed.

**120-9.3 Compaction for Pipes, Culverts, etc.:** Compact the backfill of trenches to the densities specified for embankment or subgrade, as applicable, and in accordance with the requirements of 125-9.2.

Thoroughly compact embankments over and around pipes, culverts, and bridges in a manner which will not place undue stress on the structures, and in accordance with the requirements of 125-9.2.

**120-9.4 Compaction of Subgrade:** If the Plans do not provide for stabilizing, compact the subgrade as defined in 1-3 in both cuts and fills, to the density specified in 120-10.2. For cut areas, determine Standard Proctor Maximum Density in accordance with FM 1-T099 at a frequency of one per mile or when there is a change in soil type, whichever occurs first. For undisturbed soils, do not apply density requirements where constructing paved shoulders 5 feet or less in width.

Where trenches for widening strips are not of sufficient width to permit the use of standard compaction equipment, perform compaction using vibratory rollers, trench rollers, or other type compaction equipment approved by the Engineer.

Maintain the required density until the base or pavement is placed on the subgrade.

## **120-10 Acceptance Program.**

### **120-10.1 General Requirements:**

**120-10.1.1 Initial Equipment Comparison:** Before initial production, perform an initial nuclear moisture density gauge comparison with the Verification and Independent Assurance (IA) gauges. When comparing the computed dry density of one nuclear gauge to a second gauge, three sets of calculations must be performed (IA to QC, IA to Verification, and QC to Verification). Ensure that the difference between any two computed dry densities does not exceed 2 lb/ft<sup>3</sup> between gauges from the same manufacturer, and 3 lb/ft<sup>3</sup> between gauges from different manufacturers. Repair or replace any gauge that does not compare favorably with the IA gauge.

Perform a comparison analysis between the QC nuclear gauge and the Verification nuclear gauge any time a nuclear gauge or repaired nuclear gauge is first brought to the project. Repair and replace any QC gauge that does not compare favorably with the Verification gauge at any time during the remainder of the project. Calibrate all QC gauges annually.

**120-10.1.2 Initial Production LOT:** Before construction of any production LOT, prepare a 500 foot initial control section consisting of one full LOT. Notify the Engineer in writing at least 24 hours prior to production of the initial control section. Perform all QC tests required in 120-10.1.4. When the initial QC test results pass specifications, the Engineer will perform a Verification test to verify compliance with the specifications. Do not begin constructing another LOT until successfully completing the initial production LOT. The Engineer will notify the Contractor in writing of the initial production LOT approval within three working days after receiving the Contractor's QC data when test results meet the following conditions:

1. QC and Verification tests must meet the density requirements.
2. Difference between QC and Verification computed dry density results shall meet the requirements of 120-10.1.1.

If Verification test result fails the density requirements of 120-10.2, correct the areas of non-compliance. The QC and Verification tests will then be repeated.

**120-10.1.3 Density over 105%:** When a QC computed dry density results in a value greater than 105% of the applicable Proctor maximum dry density, the Engineer will perform an Independent Verification (IV) density test within 5 feet. If the IV density results in a value greater than 105%, the Engineer will investigate the compaction methods, examine the applicable Standard Proctor Maximum Density and material description. The Engineer may collect and test an IV Standard Proctor Maximum Density sample for acceptance in accordance with the criteria of 120-10.2.

**120-10.1.4 Quality Control (QC) Tests:**

**120-10.1.4.1 Standard Proctor Maximum Density Determination:** Determine the QC standard Proctor maximum density and optimum moisture content by sampling and testing the material in accordance with the specified test method listed in 120-10.2.

**120-10.1.4.2 Density Testing Requirements:** Ensure compliance to the requirements of 120-10.2 by Nuclear Density testing in accordance with FM 1-T238. Determine the in-place moisture content for each density test. Use FM 1-T238, FM 5-507 (Determination of Moisture Content by Means of a Calcium Carbide Gas Pressure Moisture Tester), or ASTM D4643 (Laboratory Determination of Moisture Content of Granular Soils by use of a Microwave Oven) for moisture determination.

**120-10.1.4.3 Soil Classification:** Perform soil classification tests on the sample collected in 120-10.1.4.1, in accordance with AASHTO T88, T89, T90, and FM 1-T267. Classify soils in accordance with AASHTO M145 in order to determine compliance with embankment utilization requirements as specified in Standard Plans, Index 120-001.

**120-10.1.5 Owner Verification:** The Engineer will conduct Verification tests in order to accept all materials and work associated with 120-10.1.4. The Engineer will verify the QC results if they meet the Verification Comparison Criteria, otherwise the Engineer will implement Resolution procedures.

The Engineer will select test locations, including Station, Offset, and Lift, using a random number generator, based on the LOTS under consideration. Each Verification test evaluates all work represented by the QC testing completed in those LOTS.

In addition to the Verification testing, the Engineer may perform additional Independent Verification (IV) testing. The Engineer will evaluate and act upon the IV test results in the same manner as Verification test results.

When the project requires less than four QC tests per material type, the Engineer reserves the right to accept the materials and work through visual inspection.

**120-10.1.6 Reduced Testing Frequency:** Obtain the Engineer’s written approval for the option to reduce density testing frequency to one test every two LOTs if Resolution testing was not required for 12 consecutive verified LOTs, or if Resolution testing was required, but the QC test data was upheld and all substantiating tests are recorded in the Earthwork Records System (ERS).

Generate random numbers based on the two LOTs under consideration. When QC test frequency is reduced to one every two LOTs, obtain the Engineer’s approval to place more than one LOT over an untested LOT. Assure similar compaction efforts for the untested LOTs. If the Verification test fails, and QC test data is not upheld by Resolution testing, the QC testing will revert to the original frequency of one QC test per LOT. Do not apply reduced testing frequency in construction of shoulder-only areas, shared use paths, sidewalks, and first and last lift.

**120-10.1.7 Payment for Resolution Tests:** If the Resolution laboratory results compare favorably with the QC results, the Owner will pay for Resolution testing. No additional compensation, either monetary or time, will be made for the impacts of any such testing.

If the Resolution laboratory results do not compare favorably with the QC results, the costs of the Resolution testing will be deducted from monthly estimates. No additional time will be granted for the impacts of any such testing.

**120-10.2 Acceptance Criteria:** Obtain a minimum QC density of 100% of the standard Proctor maximum density as determined by FM 1-T099, Method C, with the following exceptions: embankment constructed by the hydraulic method as specified in 120-8.3; material placed outside the standard minimum slope as specified in 120-8.2.4 except when a structure is supported on existing embankment; and, other areas specifically excluded herein.

**120-10.3 Additional Requirements:**

**120-10.3.1 Frequency:** Conduct QC sampling and testing at a minimum frequency listed in the table below. The Engineer will perform Verification sampling and tests at a minimum frequency listed in the table below.

Test Name	Quality Control	Verification	Verification of Shoulder-Only Areas, Shared Use Paths, and Sidewalks
Standard Proctor Maximum Density	One per soil type	One per soil type	One per soil type
Density	One per LOT	One per four LOTs and for wet conditions, the first lift not affected by water	One per two LOTs
Soil Classification and Organic Content	One per Standard Proctor Maximum Density	One per Standard Proctor Maximum Density	One per Standard Proctor Maximum Density

**120-10.3.2 Test Selection and Reporting:** Determine test locations including stations and offsets, using the random number generator approved by the Engineer. Do not use notepads or worksheets to record data for later transfer to the Density Log Book. Notify the Engineer upon successful completion of QC testing on each LOT prior to placing another lift on top.

**120-10.4 Verification Comparison Criteria and Resolution Procedures:**

**120-10.4.1 Standard Proctor Maximum Density Determination:** The Engineer will verify the QC results if the results compare within 4.5 lb/ft<sup>3</sup> of the Verification test result. Otherwise, the Engineer will take one additional sample of material from the soil type in question. The State Materials Office (SMO) or an AASHTO accredited laboratory designated by the SMO will perform Resolution testing. The material will be sampled and tested in accordance with FM 1-T099, Method C.

The Engineer will compare the Resolution test results with the QC test results. If all Resolution test results are within 4.5 lb/ft<sup>3</sup> of the corresponding QC test results, the Engineer will use the QC test results for material acceptance purposes for each LOT with that soil type. If the Resolution test result is not within 4.5 lb/ft<sup>3</sup> of the Contractor's QC test, the Verification test result will be used for material acceptance purposes.

**120-10.4.2 Density Testing:** When a Verification or IV density test fails the acceptance criteria, retest the site within a 5 foot radius and the following actions will be taken:

1. If the QC retest meets the acceptance criteria and meets the 12010.1.1 criteria when compared with the Verification or IV test, the Engineer will accept those LOTs.
2. If the QC retest does not meet the acceptance criteria and compares favorably with the Verification or IV test, rework and retest the LOT. The Engineer will re-verify those LOTs.
3. If the QC retest and the Verification or IV test do not compare favorably, complete a new comparison analysis as defined in 120-10.1.1. Once acceptable comparison is achieved, retest the LOTs. The Engineer will perform new verification testing. Acceptance testing will not begin on a new LOT until the Contractor has a gauge that meets the comparison requirements.

Record QC test results in the density logbook. Submit the original, completed density logbook to the Engineer at final acceptance.

**120-10.4.3 Soil Classification:** The Engineer will verify the QC test results if the Verification and the QC test results both match the soil utilization symbol listed in Standard Plans, Index 120-001. Otherwise, the Engineer will test the sample retained for Resolution testing. The SMO or an AASHTO accredited laboratory designated by the SMO will perform the Resolution testing. The material will be sampled and tested in accordance with AASHTO T88, T89, and T90, and classified in accordance with AASHTO M145.

The Engineer will compare the Resolution test results with the QC test results. If the Resolution test matches the QC soil utilization symbol, the Engineer will use the QC soil utilization symbol for material acceptance purposes. If the Resolution test result does not match the Contractor's QC soil utilization symbol, the Verification test results will be used for material acceptance purposes.

**120-10.4.4 Organic Content:** The Engineer will verify the QC test results if the Verification test results satisfy the organic content test criteria in Standard Plans, Index 120-001. Otherwise, the Engineer will test the sample retained for Resolution testing. The SMO or an AASHTO accredited laboratory designated by the SMO will perform Resolution testing. The material will be sampled

and tested in accordance with FM 1-T267. If the Resolution test results satisfy the required criteria, material of that soil type will be verified and accepted. If the Resolution test results do not meet the required criteria, reject the material and reconstruct with acceptable material.

**120-10.5 Disposition of Defective Materials:** Assume responsibility for removing and replacing all defective material, as defined in Section 6.

Alternately, submit an Engineering Analysis Scope in accordance with 6-4 to determine the disposition of the material.

**120-11 Maintenance and Protection of Work.**

While construction is in progress, maintain adequate drainage for the roadbed at all times. Maintain a shoulder at least 3 feet wide adjacent to all pavement or base construction in order to provide support for the edges.

Maintain all earthwork construction throughout the life of the Contract, and take all reasonable precautions to prevent loss of material from the roadway due to the action of wind or water. Repair, at no expense to the Owner except as otherwise provided herein, any slides, washouts, settlement, subsidence, or other mishap which may occur prior to final acceptance of the work. Perform maintenance and protection of earthwork construction in accordance with Section 104.

Maintain all channels excavated as a part of the Contract work against natural shoaling or other encroachments to the lines, grades, and cross-sections shown in the Plans, until final acceptance of the project.

**120-12 Construction.**

**120-12.1 Construction Tolerances:** Shape the surface of the earthwork to conform to the lines, grades, and cross-sections shown in the Plans. In final shaping of the surface of earthwork, maintain a tolerance of 0.3 foot above or below the cross-section with the following exceptions:

1. Shape the surface of shoulders to within 0.1 foot of the cross-section shown in the Plans.
2. Shape the earthwork to match adjacent pavement, curb, sidewalk, structures, etc.
3. Shape the bottom of conveyance ditches so that the ditch impounds no water.
4. When the work does not include construction of base or pavement, shape the entire roadbed (shoulder point to shoulder point) to within 0.1 foot above or below the Plan cross-section.
5. When the work includes permitted linear stormwater management facilities, shape the swales and ditch blocks to within 0.1 feet of the cross-section shown in the Plans.

Ensure that the shoulder lines do not vary horizontally more than 0.3 foot from the true lines shown in the Plans.

**120-12.2 Operations Adjacent to Pavement:** Carefully dress areas adjacent to pavement areas to avoid damage to such pavement. Complete grassing of shoulder areas prior to placing the final wearing course. Do not manipulate any embankment material on a pavement surface.

When shoulder dressing is underway adjacent to a pavement lane being used to maintain traffic, exercise extreme care to avoid interference with the safe movement of traffic.

**120-13 Method of Measurement.**

**120-13.1 General:** When payment for excavation is on a volumetric basis, the quantity to be paid for will be the volume, in cubic yards, calculated by the method of average end areas, unless the Engineer determines that another method of calculation will provide a more accurate result. The material will be measured in its original position by field survey or by photogrammetric means as designated by the Engineer, unless otherwise specified under the provisions for individual items.

Where subsoil excavation extends outside the lines shown in the Plans or authorized by the Engineer including allowable tolerances, and the space is backfilled with material obtained in additional authorized roadway or borrow excavation, the net fill, plus shrinkage allowance, will be deducted from the quantity of roadway excavation or borrow excavation to be paid for, as applicable.

The quantity of all material washed, blown, or placed beyond the authorized roadway cross-section will be determined by the Engineer and will be deducted from the quantity of roadway excavation or borrow excavation to be paid for, as applicable.

Subsoil excavation that extends outside the lines shown in the Plans or authorized by the Engineer including allowable tolerances will be deducted from the quantity to be paid for as subsoil excavation.

**120-13.2 Roadway Excavation:** The measurement will include only the net volume of material excavated between the original ground surface and the surface of the completed earthwork, except that the measurement will also include all unavoidable slides which may occur in connection with excavation classified as roadway excavation.

The pay quantity will be the plan quantity provided that the excavation was accomplished in substantial compliance with the plan dimensions and subject to the provisions of 9-3.2 and 9-3.4. On designated 3-R Projects, regular excavation will be paid for at the Contract lump sum price provided that the excavation was accomplished in substantial compliance with the plan dimension.

**120-13.3 Borrow Excavation:** Measurement will be made on a loose volume basis, measured in trucks or other hauling equipment at the point of dumping on the road. If measurement is made in vehicles, level the material to facilitate accurate measurement.

Unsuitable material excavated from borrow pits where truck measurement is provided for and from any borrow pits furnished by the Contractor, will not be included in the quantity of excavation to be paid for.

**120-13.4 Lateral Ditch Excavation:** The measurement will include only material excavated within the lines and grades indicated in the Plans or as directed by the Engineer. The measurement will include the full station-to-station length shown in the Plans or directed by the Engineer and acceptably completed. Excavation included for payment under Section 125 will not be included in this measurement.

The pay quantity will be the plan quantity provided that the excavation was accomplished in substantial compliance with the plan dimensions and subject to the provisions of 9-3.2 and 9-3.4.

**120-13.5 Channel Excavation:** The measurement will include only material excavated within the lines and grades indicated in the Plans or in accordance with authorized Plan changes. The measurement will include the full station-to-station length shown in the Plans including any authorized changes thereto.

If shoaling occurs subsequent to excavation of a channel and the Engineer authorized the shoaled material to remain in place, the volume of any such material remaining within the limits of channel excavation shown in the Plans will be deducted from the measured quantity of channel excavation.

**120-13.6 Subsoil Excavation:** The measurement will include only material excavated within the lines and grades indicated in the Plans (including the tolerance permitted therefore) or as directed by the Engineer.

When no item for subsoil excavation is shown in the Contract but subsoil excavation is subsequently determined to be necessary, such unanticipated subsoil excavation will be paid for as provided in 4-4.

**120-13.7 Embankment:** The quantity will be at the plan quantity. Where payment for embankment is not to be included in the payment for the excavation, and is to be paid for on a cubic yard basis for the item of embankment, the plan quantities to be paid for will be calculated by the method of average end areas unless the Engineer determines that another method of calculation will provide a more accurate result. The measurement will include only material actually placed above the original ground line, within the lines and grades indicated in the Plans or directed by the Engineer. The length used in the computations will be the station-to-station length actually constructed. The original ground line used in the computations will be as determined prior to placing of embankment subject to the provisions of 9-3.2, and no allowance will be made for subsidence of material below the surface of the original ground.

If there are authorized changes in plan dimensions or if errors in plan quantities are detected, plan quantity will be adjusted as provided in 9-3.2.

Where the work includes excavation of unsuitable material below the finished grading template or original ground line, whichever is lower as defined in 120-3.3, the original ground line is defined as the surface prior to beginning excavation, except that this surface is not outside the permissible tolerance of lines and grades for subsoil excavation as indicated in the Plans or as directed by the Engineer. Any overrun or underrun of plan quantity for subsoil excavation which results in a corresponding increase or decrease in embankment will be considered as an authorized plan change for adjustment purposes as defined in 9-3.2.2.

No payment will be made for embankment material used to replace unsuitable material excavated beyond the lines and grades shown in the Plans or ordered by the Engineer.

In no case will payment be made for material allowed to run out of the embankment on a flatter slope than indicated on the cross-section. The Contractor shall make his own estimate on the volume of material actually required to obtain the pay section.

**120-14 Basis of Payment.**

**120-14.1 General:** Prices and payments for the various work items included in this Section will be full compensation for all work described herein, including excavating, dredging, hauling, placing, and compacting; dressing the surface of the earthwork; maintaining and protecting the complete earthwork; and hauling.

The Owner will not allow extra compensation for any reworking of materials. The Owner will compensate for the cost of grassing or other permanent erosion control measures directed by the Engineer as provided in the Contract for similar items of roadway work.

**120-14.2 Excavation:**

**120-14.2.1 Items of Payment:** When no classification of material is indicated in the Plans, and bids are taken only on regular excavation, the total quantity of all excavation specified under this Section will be paid for at the Contract unit price for regular excavation.

When separate classifications of excavation are shown in the proposal, the quantities of each of the various classes of materials so shown will be paid for at the Contract unit prices per cubic yard for regular excavation, lateral ditch excavation, subsoil excavation, and channel excavation, as applicable, and any of such classifications not so shown will be included under the item of regular excavation (except that if there is a classification for lateral ditch excavation shown and there is no classification for channel excavation, any channel excavation will be included under the item of lateral ditch excavation). As an exception on designated projects, regular excavation will be paid for at the Contract lump sum price.

**120-14.2.2 Basic Work Included in Payments:** Prices and payments will be full compensation for all work described under this Section, except for any excavation, or embankment which is specified to be included for payment under other items. Such prices and payments will include hauling; any reworking that may be necessary to accomplish final disposal as shown in the Plans; the dressing of shoulders, ditches and slopes; removal of trash, vegetation, etc., from the previously graded roadway where no item for clearing and grubbing is shown in the Plans; and compacting as required.

**120-14.2.3 Additional Depth of Subsoil Excavation:** Where subsoil excavation is made to a depth of 0 to 5 feet below the depth shown in the Plans, such excavation will be paid for at the unit price bid.

Where subsoil excavation is made to a depth greater than 5 feet, and up to 15 feet, deeper than the depth shown in the Plans, such excavation will be paid for at the unit price bid plus 25% of such unit price. Additional extra depth, more than 15 feet below such plan depth, will be considered as a change in the character of the work and will be paid for as unforeseeable work.

Where no subsoil excavation is shown in a particular location on the original Plans, payment for extra depth of subsoil will begin 5 feet below the lowest elevation on the grading template.

**120-14.2.4 Borrow Excavation:** When the item of borrow excavation is included in the Contract, price and payment will also include the cost of furnishing the borrow areas and any necessary clearing and grubbing thereof, the removal of unsuitable material that it is necessary to excavate in order to obtain suitable borrow material, and also the costs incurred in complying with the provisions of 120-6.3.



**120-14.2.5 Materials Excluded from Payment for the Excavation:** No payment for excavation will be made for any excavation covered for payment under the item of embankment.

No payment will be made for the excavation of any materials which is used for purposes other than those shown in the Plans or designated by the Engineer. No payment will be made for materials excavated outside the lines and grades given by the Engineer, unless specifically authorized by the Engineer. As an exception, in operations of roadway excavation, all slides and falls of insecure masses of material beyond the regular slopes that are not due to lack of precaution on the part of the Contractor, will be paid for at the Contract unit price for the material involved. The removal of slides and falls of material classified as lateral ditch excavation or as subsoil excavation will not be paid for separately, but will be included in the Contract unit price for the pay quantity of these materials, measured as provided in 120-14.

**120-14.3 Embankment:**

**120-14.3.1 General:** Price and payment will be full compensation for all work specified in this Section, including all material for constructing the embankment, all excavating, dredging, pumping, placing and compacting of material for constructing the embankment complete, dressing of the surface of the roadway, maintenance and protection of the completed earthwork, and the removal of rubbish, vegetation, etc., from the roadway where no clearing and grubbing of the area is specified in the Plans. Also, such price and payment, in each case, will specifically include all costs of any roadway, lateral ditch, or channel excavation, unless such excavation is specifically shown to be paid for separately, regardless of whether the materials are utilized in the embankment.

**120-14.3.2 Excluded Material:** No payment will be made for the removal of muck or overburden from the dredging or borrow areas. No payment will be made for embankment material used to replace muck or other unsuitable material excavated beyond the lines and grades shown in the Plans or ordered by the Engineer.

**120-14.3.3 Clearing and Grubbing:** No payment will be made for any clearing and grubbing of the borrow or dredging areas. Where no clearing and grubbing of such areas is specified in the Plans, the cost of any necessary clearing and grubbing will be included in the Contract unit or lump sum price for Embankment.

**120-14.3.4 Cost of Permits, Rights, and Waivers:** Where the Contractor provides borrow or dredging areas of his own choosing, the cost of securing the necessary permits, rights or waivers will be included in the Contract price for embankment.

**120-14.3.5 Payment Items:** Payment will be made under:

<i>Item No. 120-1</i>	<i>Unclassified Excavation and Embankment</i>	<i>-per Cubic Yard (CY)</i>
-----------------------	---	-----------------------------

END OF SECTION 120

## SECTION 710

### STABILIZING

#### 160-1 Description.

Stabilize designated portions of the roadbed to provide a firm and unyielding subgrade, having the required bearing value specified in the Plans.

#### 160-2 Materials.

**160-2.1 Commercial Material:** Meet the requirements of Section 914-2.1.

**160-2.2 Local Material:** Submit test results to the Engineer at least 14 days prior to the stabilization operation.

**160-2.2.1 Local Stabilizing Material:** Sample and test material from each source and meet the requirements of Section 914. The Engineer will verify the Quality Control (QC) test results meet the requirements of Section 914. If the QC and Verification results do not compare, the Engineer will take one additional sample of material from the source in question and the State Materials Office (SMO) or an AASHTO accredited laboratory designated by the SMO will perform Resolution testing. If the Resolution test results satisfy the required criteria, material from that source will be verified and accepted. If the Resolution test results do not meet the required criteria, reject the material.

**160-2.2.2 Reclaimed Asphalt Pavement (RAP):** Obtain the Engineer's approval in writing for the option to use 100% RAP material. Material must be milled and stockpiled without blending or contaminating with any other material.

**160-2.2.3 Reclaimed Asphalt Pavement (RAP) Blended Material:** RAP blended material is defined as material meeting the requirements of 914-1 and 914-2.2 except for the limits for organic content. If the RAP blended material meets the requirements of 914-1 and 914-2, then the blended material will be classified as local stabilizing material. Provide test results to the Engineer and obtain their approval in writing before using RAP blended material. The Engineer will verify that the QC test results meet the acceptance criteria, otherwise the Engineer will perform Resolution testing procedures specified in 160-2.2.1.

**160-2.3 Existing Base:** Obtain the Engineer's approval in writing before using existing base. When the material from an existing base is used as all, or a portion, of the stabilizing additives, no further testing is required unless directed by the Engineer.

**160-2.4 Granular Subbase:** The Engineer may allow, at no additional cost to the Owner, the substitution of 6 inches of granular subbase meeting the requirements of 290-2 and 290-3, only when 12 inches of Type B stabilization requiring a Limerock Bearing Ratio (LBR) value of 40 is specified in accordance with Standard Plans, Index 120-001.

#### 160-3 Construction Methods.

**160-3.1 General:** Prior to the beginning of stabilizing operations, construct the area to be stabilized to an elevation such that, upon completion of stabilizing operations, the completed stabilized subgrade will conform to the lines, grades, and cross-section shown in the Plans. Prior to spreading

any additive stabilizing material, bring the surface of the roadbed to a plane approximately parallel to the plane of the proposed finished surface.

Construct mainline pavement lanes, turn lanes, ramps, parking lots, concrete box culverts, retaining wall systems, shoulder-only areas, sidewalk, and shared use path areas meeting the requirements of 120-8.1, except replace "embankment" with "subgrade".

Isolated mixing operations will be considered as separate LOTS. Curb pads and shoulders compacted separately shall be considered separate LOTS. Isolated compaction operations will be considered as separate LOTS. For multiple phase construction, a LOT shall not extend beyond the limits of the phase.

**160-3.2 Application and Acceptance of Stabilizing Material:** After completing the roadbed grading operations, determine the type and quantity (if any) of stabilizing material necessary for compliance with the bearing value requirements. Before using any Fossil Fuel Combustion Products (FFCPs), submit documentation, at the preconstruction meeting or no later than 30 days prior to delivery of FFCP's to the project, signed and sealed by the Specialty Engineer that these materials meet the requirements of 403.7047 F.S. Notify the Engineer of the approximate quantity to be added before spreading. When additive stabilizing materials are required, spread the material uniformly over the area to be stabilized.

The Engineer may perform Independent Verification (IV) sampling and testing if variability in the stabilizing material is observed during inspection after spreading on the roadway. If the IV test results do not meet the requirements of Section 914, then remove and replace the failing LOTS with acceptable material. The Engineer reserves the right to reject stabilizing material that contains excessive deleterious substances.

**160-3.3 Mixing:** Perform mixing using rotary tillers, a plant or other equipment meeting the approval of the Engineer. The subgrade may be mixed in one course if the equipment and method of construction provides the uniformity, particle size limitation, compaction and other desired results of 160-4. Thoroughly mix the area to be stabilized throughout the entire depth and width of the stabilizing limits.

Perform the mixing operations, as specified, (either in place or in a plant) regardless of whether the existing soil, or any select soils placed within the limits of the stabilized sections, have the required bearing value without the addition of stabilizing materials.

**160-3.4 Mixed Material Requirements:** At the completion of the mixing, ensure the gradation of the material within the limits of the area being stabilized is such that 97% will pass a 3-1/2 inch sieve. Break down or remove from the stabilized area materials, including clay lumps or lumps made of clay-size particles (any particle size 2 microns or less), not meeting the gradation requirements. After mixing, remove any existing lumps of clay or clay-sized particles greater than one inch that do not meet the requirements of 160-3.2 or this Section from the stabilized area. The final product must meet the acceptance requirements of 160-4.

**160-3.4.1 Classification and Bearing Value:** Meet the soil utilization and bearing value requirements for the subgrade in accordance with 160-4.

**160-3.4.2 Compaction:** After completing the mixing operations and satisfying the requirements for bearing value, uniformity, and particle size, compact the materials at a moisture content permitting the specified compaction in 160-4.2.3. If the moisture content of the material is improper for attaining the specified density, either add water or allow the material to dry until reaching the proper moisture content for the specified compaction.

**160-3.4.3 Finish Grading:** Shape the completed stabilized subgrade to conform with the finished lines, grades, and cross-section indicated in the Plans. Check the subgrade using elevation stakes or other means approved by the Engineer.

**160-3.4.4 Condition of Completed Subgrade:** After completing the stabilizing and compacting operations, ensure that the subgrade is firm and substantially unyielding to the extent that it will support construction equipment and will have the bearing value required by the Plans.

Remove all soft and yielding material, and any other portions of the subgrade which will not compact readily, and replace it with suitable material so that the whole subgrade is brought to line and grade, with proper allowance for subsequent compaction.

**160-3.4.5 Maintenance of Completed Subgrade:** After completing the subgrade as specified above, maintain it free from ruts, depressions, and any damage resulting from the hauling or handling of materials, equipment, tools, etc. The Contractor is responsible for maintaining the required density until the subsequent base or pavement is in place including any repairs, replacement, etc., of curb and gutter, sidewalk, etc., which might become necessary in order to recompact the subgrade in the event of underwash or other damage occurring to the previously compacted subgrade. Perform any such recompaction at no expense to the Owner. Construct and maintain ditches and drains along the completed subgrade section.

#### **160-4 Acceptance Program for Mixed Materials.**

##### **160-4.1 General Requirements:**

**160-4.1.1 Initial Equipment Comparison:** Meet the requirements of 120-10.1.1.

**160-4.1.2 Initial Production LOT:** Meet the requirements of 120-10.1.2.

**160-4.1.3 Density over 105%:** Meet the requirements of 120-10.1.3.

##### **160-4.1.4 Quality Control Tests:**

**160-4.1.4.1 Modified Proctor Maximum Density Determination:** Collect enough material to split and create three separate samples. Determine test locations, including stations and offsets, using the Random Number generator approved by the Engineer. Retain the Verification and Resolution samples for the Owner until the Engineer accepts the LOTs represented by the samples. Determine modified Proctor maximum density and optimum moisture content by sampling and testing the material in accordance FM 1-T180.

**160-4.1.4.2 Density Testing Requirements:** Meet the requirements of 120-10.1.4.2.

**160-4.1.4.3 Bearing Value Requirements:** Test the stabilized subgrade sample collected in 160-4.1.4.1 to determine the LBR in accordance with FM 5-515. Within the entire limits of the width and depth of the areas to be stabilized, obtain the required minimum bearing value at the frequency in 160-4.4.1. For any area where the bearing value obtained is

deficient from the value indicated in the Plans, in excess of the tolerances established herein, spread and mix additional stabilizing material in accordance with 160-3.3. Perform this reprocessing for the full width of the roadway being stabilized and longitudinally for a distance of 50 feet beyond the limits of the area in which the bearing value is deficient.

Determine the quantity of additional stabilizing material to be used in reprocessing.

**160-4.1.4.3.1 Under-tolerances in Bearing Value Requirements:** The under-tolerances are allowed for the following specified Bearing Values:

Specified Bearing Value	Under-tolerance
LBR 40	5.0
LBR 35	4.0
LBR 30 (and under)	2.5

**160-4.1.4.3.2 Unsoaked LBR Requirements:** If unsoaked LBR is desired, submit request for approval to the Engineer. Upon approval by the Engineer to consider the use of unsoaked LBR, randomly sample and test from three locations in the initial LOT for both soaked and unsoaked LBR in accordance with FM 5-515. Ensure all of the tests achieves the LBR value shown in the table below. Continue testing unsoaked LBR at the frequency shown in 160-4.4.1. Discontinue unsoaked LBR testing if any unsatisfactory QC LBR test result is obtained or resolution determines an unsatisfactory LBR.

The following unsoaked bearing value requirement is based on tests performed on samples obtained after completing mixing operations:

Specified Bearing Value	Unsoaked Bearing Value Required	Under-tolerance
LBR 40	LBR 43	0.0

**160-4.1.4.4 Soil Classification and Organic Content Testing:** Perform soil classification tests on the sample collected in 160-4.1.4.1, in accordance with AASHTO T88, AASHTO T89, AASHTO T90, and FM 1-T267. The Engineer may waive the soil classification and organic content testing requirements for existing base or granular subbase materials. Classify soils in accordance with AASHTO M145 to determine compliance with soil utilization requirements as specified in Standard Plans, Index 120-001. If the stabilizing material used is 100% RAP or RAP blended material, then replace FM 1-T267 with FM 5-563 (excluding gradation analysis). The following testing requirements must be met.

Test Method	Criteria
AASHTO M145	Soil Symbol = S
FM 1-T267	Average of 3 Organic Content $\leq$ 2.5%
	Individual Organic Content Result $\leq$ 4.0%
AASHTO T89	Liquid Limit $\leq$ 30
AASHTO T90	Plastic Index $\leq$ 8
FM 5-563*	Asphalt Content $\leq$ 4.0%
*Replace FM 1-T 267 with FM 5-563 (excluding gradation analysis) for 100% RAP or RAP blended material	

**160-4.1.5 Owner Verification:** Meet the requirements of 120-10.1.5 except the Engineer will conduct the Verification tests in order to accept all materials and work associated with 160-4.1.4.

**160-4.1.6 Reduced Testing Frequency:** Meet the requirements of 120-10.1.6.

**160-4.1.7 Payment for Resolution Tests:** Meet the requirements of 120-10.1.7.

**160-4.2 Mixing Depth Requirements:** Report depth requirements in the Earthwork Records System (ERS) measured to the nearest 0.25 inch. The difference between the individual measured depth thickness on the roadway and the plan target thickness must not exceed 2 inches. The difference between the LOT average (average of the three individual measured depth thickness) and the plan target thickness must not exceed 1 inch. No undertolerance of mixing depth is allowed.

As an exception to the above mixing requirements, where the subgrade is of rock, the Engineer may waive the mixing operations (and the work of stabilizing), and the Owner will not pay for stabilization for such sections of the roadway.

Meet the required Plan mixing-depths by measuring from the proposed final grade line. Determine test locations, including stations and offsets, using the Random Number generator approved by the Owner. Notify the Engineer a minimum of 24 hours before checking mixing depths. Record results on Owner approved forms.

**160-4.3 Density Acceptance Criteria:**

**160-4.3.1 General:** Within the entire limits of the width and depth of the areas to be stabilized, other than as provided in 160-4.3.2, obtain a minimum density at any location of 98% of the Modified Proctor maximum density as determined by FM 1-T 180.

**160-4.3.2 Exceptions to Density Requirements:** The Contractor need not obtain the minimum density specified in 160-4.3.1 in the upper 6 inches of areas to be grassed under the same Contract. Compact these areas to a reasonably firm condition as directed by the Engineer.

**160-4.4 Additional Requirements:**

**160-4.4.1 Frequency:** Conduct QC sampling and testing at a minimum frequency listed in the table below. The Engineer will perform Verification sampling and tests at a minimum frequency listed in the table below.

Test Name	Quality Control	Verification	Verification for Shoulder-Only, Shared Use Path and Sidewalk Construction
Modified Proctor Maximum Density	One per two consecutive LOTs	One per eight consecutive LOTs	One per four LOTs
LBR			
Gradation, LL/PI, and Soil Classification			
Organic Content			
Asphalt Content*			
Density	One per LOT	One per four LOTs	One per two LOTs
Stabilizing Mixing Depth	Three per 500 feet	Witness QC	Witness QC
*Replace Organic content with asphalt content for 100% RAP or RAP blended material only.			

**160-4.5 Verification Comparison Criteria and Resolution Procedures:**

**160-4.5.1 Bearing Value:** The Engineer will collect a sample at a location other than the location where the sample was collected in 160-4.1.4.1, and test the stabilized subgrade for determination of the LBR in accordance with FM 5-515. The Engineer will select test locations, including stations and offsets, using a Random Number generator, based on the LOTs under consideration.

**160-4.5.1.1 Unsoaked LBR:** The Engineer will sample and test the initial LOT for one soaked and one unsoaked LBR if consideration of the unsoaked LBR has been approved.

**160-4.5.1.2 Resolution Procedure:** If the Owner's Verification test meets the requirements of 160-4.1.4.3, the Engineer will accept the corresponding LOTs. Otherwise, the Engineer will collect an additional sample in the same LOT the Verification sample was obtained. SMO or an AASHTO accredited laboratory designated by SMO will perform Resolution testing on the additional sample. The material will be sampled and tested in accordance with FM 5-515.

If the resolution testing results meet the requirements of 160-4.1.4.3, then the Engineer will accept the LOTs in question. Otherwise reprocess the corresponding LOTs in accordance with 160-3 and retest in accordance with 160-4.1.4.3.

**160-4.5.2 Modified Proctor Maximum Density Determination:** Meet the requirements of 120-10.4.1 except replace FM 1-T099 with FM 1-T180.

**160-4.5.3 Density Testing:** Meet the requirement of 120-10.4.2

**160-4.5.4 Soil Classification:** Meet the requirements of 120-10.4.3 with the exception that the limits will be in accordance with 160-4.1.4.4.

**160-4.5.5 Organic Content:** Meet the requirements of 120-10.4.4 with the exception that the limits will be in accordance with 160-4.1.4.4.

**160-4.5.6 Asphalt Content:** If the material used to stabilize is 100% RAP or RAP blended material, meet the requirement of 120-10.4.4, except replace FM 1-T267 with FM 5-563 (exclude gradation analysis) and meet the limits of 160-4.1.4.4.

**160-4.5.7 Mixing Depth:** The Engineer will witness the Contractor's mixing depth checks to ensure compliance with 160-4.2. The Engineer will select test locations, including stations and offsets, using a Random Number generator. The Owner will witness the mixing depth checks.

1. If the depth checks meet the requirements of 160-4.2, the Engineer will accept that 500-foot section.
2. If the depth checks confirm shallow depth, re-mix the 500-foot section to an appropriate depth and re-measure in accordance with 160-4.2. The Engineer will repeat the witness process.
3. If the depth checks confirm extra deep mixing, conduct an additional QC density test after compaction for the bottom 12 inches of the subgrade for that 500-foot section in addition to a QC density test for the top 12 inches. The additional density test must meet the requirements of 160-4.3.

**160-4.6 Disposition of Defective Materials:** Meet the requirements of 120-10.5.

**160-5 Method of Measurement.**

The quantity to be paid for will be the plan quantity, in square yards, completed and accepted.

**160-6 Basis of Payment.**

Price and payment will constitute full compensation for all work and materials specified in this Section, including furnishing, spreading and mixing of all stabilizing material required and any reprocessing of stabilization areas necessary to attain the specified bearing value. The Owner will make full payment for any areas where the existing subgrade materials meet the design bearing value requirements without the addition of stabilizing additives, as well as areas where the Contractor may elect to place select high-bearing materials from other sources within the limits of the stabilizing.

If the item of borrow excavation is included in the Contract, any stabilizing materials obtained from designated borrow areas will be included in the pay quantity for borrow excavation.

Payment will be made under:

<i>Item No. 160-1</i>	<i>12" Stabilized Subbase (LBR 40)</i>	<i>-per Square Yard (SY)</i>
<i>Item No. 160-2</i>	<i>6" RAP Blended Subbase (12" Total Stabilized Subbase)</i>	<i>-per Square Yard (SY)</i>

END OF SECTION 160



**SECTION 285**

**OPTIONAL BASE COURSE**

**285-1 Description.**

Construct a base course composed of one of the optional materials shown on the typical cross-sections.

**285-2 Materials.**

Meet the material requirements as specified in the Section covering the particular type of base to be constructed.

Graded Aggregate .....	Section 204
Asphalt .....	Section 234
Reclaimed Asphalt Pavement (RAP)* .....	Section 283
Limerock.....	Section 911
Shell Base .....	Section 911
Shell-Rock.....	Section 911
Cemented Coquina .....	Section 911
Recycled Concrete Aggregate (RCA)** .....	Section 911

- \* Only for use on non-limited access paved shoulders, shared use paths, or other non-traffic bearing applications.
- \*\* Do not use on interstate roadways.

**285-3 Selection of Base Option.**

The Plans will include typical cross-sections indicating the various types of base construction (material and thickness) allowable. When base options are specified in the Plans, use only those options. When base options are not specified, select one base option as allowed for each typical cross-section shown in the Plans. Only one base option is permitted for each typical cross-section. See Tables 285-1 and 285-2 for optional base materials, thickness and additional restrictions. Notify the Engineer in writing of the base option selected for each typical cross-section at least 45 calendar days prior to beginning placement of base material. Construction Requirements.

Table 285-1 (Optional Base Groups 1-15)															
Base Materials	Base Group (Base Group Pay Item)														
	1 (701)	2 (702)	3 (703)	4 (704)	5 (705)	6 (706)	7 (707)	8 (708)	9 (709)	10 (710)	11 (711)	12 (712)	13 (713)	14 (714)	15 (715)
Limerock, LBR 100	4"	5"	5-1/2"	6"	7"	8"	8-1/2"	9-1/2"	10"	11"	12"	12-1/2"	13-1/2" <sup>(5)</sup>	14" <sup>(5)</sup>	-
Cemented Coquina, LBR 100	4"	5"	5-1/2"	6"	7"	8"	8-1/2"	9-1/2"	10"	11"	12"	12-1/2"	13-1/2" <sup>(5)</sup>	14" <sup>(5)</sup>	-
Shell Rock, LBR 100	4"	5"	5-1/2"	6"	7"	8"	8-1/2"	9-1/2"	10"	11"	12"	12-1/2"	13-1/2" <sup>(5)</sup>	14" <sup>(5)</sup>	-
Bank Run Shell, LBR 100	4"	5"	5-1/2"	6"	7"	8"	8-1/2"	9-1/2"	10"	11"	12"	12-1/2"	13-1/2" <sup>(5)</sup>	14" <sup>(5)</sup>	-
Recycled Concrete Aggregate, LBR 150 <sup>(1)</sup>	4"	5"	5-1/2"	6"	7"	8"	8-1/2"	9-1/2"	10"	11"	12"	12-1/2"	13-1/2" <sup>(5)</sup>	14" <sup>(5)</sup>	-
Graded Aggregate Base, LBR 100	4"	5"	6-1/2"	7-1/2"	8-1/2"	9"	10"	11"	12"	13"	14"	-	-	-	-
Type B-12.5	4" <sup>(3)</sup>	4" <sup>(3)</sup>	4" <sup>(3)</sup>	4" <sup>(3)</sup>	4-1/2"	5"	5-1/2"	5-1/2"	6"	6-1/2"	7"	7-1/2"	8"	8-1/2"	9"
B-12.5 and 4" Granular Subbase, LBR 100 <sup>(2)</sup>	-	-	-	-	-	-	-	-	4"	4-1/2"	5"	5-1/2"	6"	6-1/2"	7"
RAP Base <sup>(4)</sup>	5" <sup>(4)</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	-

<sup>(1)</sup> Do not use on interstate roadways

<sup>(2)</sup> The construction of both the subbase and Type B-12.5 will be bid and used as Optional Base. Granular subbases include limerock, Cemented coquina, shell rock, bank run shell, recycled concrete aggregate and graded aggregate base. All subbase thicknesses are 4" minimum prior to adding the required prime coat.

<sup>(3)</sup> Based on minimum practical thickness.

<sup>(4)</sup> Only for use on non-limited access paved shoulders, shared use paths, or other non-traffic bearing applications

<sup>(5)</sup> To be used for widening, three feet or less.

Table 285-2: Limited Use Optional Base Groups <sup>(1)</sup>								
Base Materials	Base Group (Base Group Pay Item)							
	101 (701)	102 (702)	103 (703)	104 (704)	105 (705)	106 (706)	107 (707)	108 (708)
Limerock Stabilized, LBR 70	5"	6-1/2"	8"	9"	10"	11"	12-1/2"	-
Shell, LBR 70	5"	6-1/2"	8"	9"	10"	11"	12-1/2"	-
Shell Stabilized, LBR 70	7"	8-1/2"	9-1/2"	10-1/2"	12"	-	-	-
Sand-Clay, LBR 75	5"	6-1/2"	8"	9"	10"	11"	12-1/2"	-
Soil Cement (300 psi) (Plant Mixed)	5"	5-1/2"	6-1/2"	7-1/2"	8-1/2"	9"	10"	11"
Soil Cement (300 psi) (Road Mixed)	5"	5-1/2"	6-1/2"	7-1/2"	8-1/2"	-	-	-
Soil Cement (500 psi) (Plant Mixed)	4" <sup>(2)</sup>	4"	5"	5-1/2"	6"	7"	7-1/2"	8-1/2"

<sup>(1)</sup> Use only when specified in the Plans.  
<sup>(2)</sup> Based on minimum practical thicknesses.

**285-4 Construction Requirements**

Construct the base in accordance with the Section covering the particular type of base to be constructed.

- Graded Aggregate .....Section 204
- Asphalt .....Section 234
- Reclaimed Asphalt Pavement (RAP)\* .....Section 283
- Limerock.....Section 200
- Shell Base .....Section 200
- Shell Rock .....Section 200
- Cemented Coquina .....Section 200
- Recycled Concrete Aggregate (RCA)\*\* .....Section 200

\* Only for use on non-limited access paved shoulders, shared use paths, or other non-traffic bearing applications.

\*\* Do not use on interstate roadways.

**285-5 Variation in Earthwork Quantities.**

The Plans will identify the optional materials used by the Owner for determining the earthwork quantities (Roadway Excavation, Borrow Excavation, Subsoil Excavation, Subsoil Earthwork, or Embankment). The Owner will not revise the quantities, for those items having final pay based on plan quantity, to reflect any volumetric change caused by the Contractor's selection of a different optional material.

**285-6 Thickness Requirements.**

**285-6.1 Measurements:** For non-asphalt bases, meet the requirements of 200-7.3.1.2.

For subbases, meet the thickness requirements of 290-4.

The Engineer will determine the thickness of asphalt base courses in accordance with 234-8.1.

**285-6.2 Correction of Deficient Areas:** For non-asphalt bases, correct all areas of the completed base having a deficiency in thickness in excess of 1/2 inch by scarifying and adding additional base material. As an exception, if authorized by the Engineer, such areas may be left in place without correction and with no payment.

For asphalt bases, correct all areas of deficient thickness in accordance with 234-8.

**285-7 Calculation of Average Thickness of Base.**

For bases that are not mixed in place, the Engineer will determine the average thickness from the measurements specified in 285-6.1, calculated as follows:

1. When the measured thickness is more than 1/2 inch greater than the design thickness shown on the typical cross-section in the Plans, it will be considered as the design thickness plus 1/2 inch.
2. Average thickness will be calculated per typical cross-section for the entire job as a unit.
3. Any areas of base left in place with no payment will not be included in the calculations.
4. Where it is not possible through borings to distinguish the base materials from the underlying materials, the thickness of the base used in the measurement will be the design thickness.
5. For Superpave asphalt base course, the average spread rate of each course shall be constructed in compliance with 234-8.

**285-8 Method of Measurement.**

The quantity to be paid for will be the plan quantity area in square yards, omitting any areas where under-thickness is in excess of the allowable tolerance as specified in 285-6. The pay area will be the surface area, determined as provided above, adjusted in accordance with the following formula:

$$\text{Pay Area} = \text{Surface Area} \left( \frac{\text{Calculated Average Thickness per 285 - 7}}{\text{Plan Thickness}} \right)$$

The pay area shall not exceed 105% of the surface area.

There will be no adjustment of the pay area on the basis of thickness for base courses constructed utilizing mixed-in-place operations.

For Superpave asphalt base course, the quantity to be paid for will be the plan quantity area in square yards. The pay area will be adjusted in accordance with 234-9.

**285-9 Basis of Payment.**

Price and payment will be full compensation for all work specified in this Section, including tack coat between base layers, prime coat, cover material for prime coat, bituminous material used in bituminous plant mix, and cement used in soil-cement.

For superpave asphalt base course, a pay adjustment based upon the quality of the material will be applied in accordance with 334-8.

Where the Plans include a typical cross-section which requires the construction of an asphalt base only, price adjustments for bituminous material provided for in 9-2.1.2 will apply to that typical cross-section. For typical cross-sections which permit the use of asphalt or other materials for construction of an optional base, price adjustments for bituminous material provided for in 9-2.1.2 will not apply.

Payment will be made under:

<i>Item No. 285-1</i>	<i>8" Limerock Base Course</i>	<i>-per Square Yard (SY)</i>
<i>Item No. 285-2</i>	<i>6" Limerock Base Course</i>	<i>-per Square Yard (SY)</i>

END OF SECTION 285

SECTION 334

SUPERPAVE ASPHALT CONCRETE

**334-1 Description.**

**334-1.1 General:** Construct a Superpave Asphalt Concrete pavement with the type of mixture specified in the Contract Documents, or when offered as alternates, as selected. Superpave mixes are identified as Type SP-9.5, Type SP-12.5 or Type SP-19.0.

Producers must meet the requirements of Section 320 for plant and equipment and the general construction requirements of Section 330.

**334-1.2 Traffic Levels:** The requirements for Type SP Asphalt Concrete mixtures are based on the design traffic level of the project. The traffic levels for the project are as specified in the Contract Documents.

**334-1.3 Gradation Classification:** The Superpave mixes are classified as fine and are defined in 334-3.2.2.

The equivalent AASHTO nominal maximum aggregate size Superpave mixes are as follows:

Type SP-9.5.....	9.5 mm
Type SP-12.5.....	12.5 mm
Type SP-19.0.....	19.0 mm

**334-1.4 Thickness:** The total thickness of the Type SP asphalt layers will be the plan thickness as shown in the Contract Documents. Before paving, propose a thickness for each individual layer meeting the requirements of this specification, which when combined with other layers (as applicable) will equal the plan thickness. For construction purposes, the plan thickness and individual layer thickness will be converted to spread rate based on the maximum specific gravity of the asphalt mix being used, as well as the minimum density level, as shown in the following equation:

$$\text{Spread rate (lbs/yd}^2\text{)} = t \times G_{mm} \times 43.3$$

Where:  $t$  = Thickness (in.) (plan thickness or individual layer thickness)  
 $G_{mm}$  = Maximum specific gravity from the verified mix design

The weight of the mixture shall be determined as provided in 320-3.2. For target purposes only, spread rate calculations should be rounded to the nearest whole number.

Note: Plan quantities are based on a  $G_{mm}$  of 2.540, corresponding to a spread rate of 110 lbs/yd<sup>2</sup>-in. Pay quantities will be based on the actual maximum specific gravity of the mix being used.

**334-1.4.1 Layer Thicknesses:** The allowable layer thicknesses for Type SP Asphalt Concrete mixtures are as follows:

Type SP-9.5 .....	1 to 1-1/2 inches
Type SP-12.5.....	1-1/2 to 2-1/2 inches

Type SP-19.0 ..... 2 to 4 inches

In addition to the minimum and maximum thickness requirements, the following restrictions are placed on mixes when used as a structural course:

Type SP-9.5 - Limited to the top two structural layers, two layers maximum.

Type SP-9.5 - Do not use on Traffic Level D and E applications.

Type SP-19.0 - Do not use in the final (top) structural layer below FC-5 mixtures. Type SP-19.0 mixtures are permissible in the layer directly below FC-9.5 and FC-12.5 mixtures. Do not use in the final (top) layer of shoulders.

**334-1.4.2 Additional Requirements:** The following requirements also apply to Type SP Asphalt Concrete mixtures:

1. A minimum 1-1/2 inch initial lift is required over an Asphalt Membrane Interlayer (AMI).
2. When construction includes the paving of adjacent shoulders (less than or equal to 5 feet wide), the layer thickness for the upper pavement layer and shoulder must be the same and paved in a single pass, unless called for differently in the Contract Documents.
3. All overbuild layers must be Type SP Asphalt Concrete designed at the traffic level as stated in the Contract Documents. Use the minimum and maximum layer thicknesses as specified above unless called for differently in the Contract Documents. On variable thickness overbuild layers, the minimum and maximum allowable thicknesses will be as specified below, unless called for differently in the Contract Documents.

Type SP-9.5 ..... 3/8 to 2 inches

Type SP-12.5 ..... 1/2 to 3 inches

Type SP-19.0 ..... 1-1/2 to 4 inches

4. Variable thickness overbuild layers constructed using a Type SP-9.5 or SP-12.5 mixtures may be tapered to zero thickness provided the contract documents require a minimum of 1-1/2 inches of dense-graded mix placed over the variable thickness overbuild layer.

### 334-2 Materials.

**334-2.1 General Requirements:** Meet the material requirements specified in Division III. Specific references are as follows:

Superpave PG Asphalt Binder ..... Section 916

Coarse Aggregate ..... Section 901

Fine Aggregate ..... Section 902

**334-2.2 Superpave Asphalt Binder:** Unless specified otherwise in the Contract Documents, use an asphalt binder grade as determined from Table 334-1.

High polymer binder mixtures may be used in lieu of mixtures with other specified binders at no additional cost to the Owner, provided they meet the traffic level and mixture type requirements of the project.

High polymer binder may be substituted in a mixture at no additional cost to the Owner when the mix design contains a maximum of 20% RAP.

**334-2.3 Reclaimed Asphalt Pavement (RAP) Material:**

**334-2.3.1 General requirements:** RAP may be used as a component of the asphalt mixture subject to the following requirements:

1. When using a PG 76-22 asphalt binder, limit the amount of RAP material used in the mix to a maximum of 20% by weight of total aggregate. As an exception, amounts greater than 20% RAP by weight of total aggregate can be used if no more than 20% by weight of the total asphalt binder comes from the RAP material. RAP is not allowed in mixtures containing High Polymer asphalt binder. High Polymer asphalt is defined in Section 916.
2. Assume full responsibility for the design, production and construction of asphalt mixes which incorporate RAP as a component material.
3. Use RAP from a Owner approved stockpile or millings from a Owner project.
4. Provide stockpiled RAP material that is reasonably consistent in characteristics and contains no aggregate particles which are soft or conglomerates of fines.
5. Provide RAP material having a minimum average asphalt binder content of 4.0% by weight of RAP. As an exception, when using fractionated RAP, the minimum average asphalt binder content for the coarse portion of the RAP shall be 2.5% by weight of the coarse portion of the RAP. The coarse portion of the RAP shall be the portion of the RAP retained on the No. 4 sieve. The Engineer may sample the stockpiles to verify that this requirement is met.

**334-2.3.2 Material Characterization for Mix Design:** Assume responsibility for establishing the asphalt binder content, gradation, and bulk specific gravity ( $G_{sb}$ ) of the RAP material based on a representative sampling of the material by roadway cores or stockpile samples. For roadway core samples, assume responsibility for the degradation that will occur during the milling operation.

**334-2.3.3 RAP Stockpile Approval:** Prior to the incorporation of RAP into the asphalt mixture, stockpile the RAP material and obtain approval for the stockpile by one of the following methods:

1. Continuous stockpile: When RAP is obtained from one or multiple sources and is either processed, blended, or fractionated, and stockpiled in a continuous manner, assure an adequate number of test results are obtained for stockpile approval. Test the RAP material for gradation and asphalt content at a minimum frequency of one sample per 1000 tons with a minimum of six test results. Test the RAP material for  $G_{mm}$  (for  $G_{sb}$  determination) at a minimum frequency of one sample per 5000 tons with a minimum of two test results. Based on visual inspection and a review of the test data, the Engineer will determine the suitability



of the stockpiled material. In addition, address the details and specifics of the processing, sampling, testing and actions to be taken in the Producer Quality Control (QC) Plan.

2. Non-continuous single stockpile: When an individual stockpile is being constructed, obtain representative samples at random locations and test the RAP material for gradation and asphalt content at a minimum frequency of one sample per 1000 tons with a minimum of six test results. Test the RAP material for  $G_{mm}$  (for  $G_{sb}$  determination) at a minimum frequency of one sample per 5000 tons with a minimum of two test results. Based on visual inspection and a review of the test data, the Engineer will determine the suitability of the stockpiled material. Once the RAP stockpile has been approved, do not add additional material without prior approval of the Engineer.

Determine the asphalt binder content and gradation of the RAP material in accordance with FM 5-563 and FM 1-T 030, respectively. Establish the  $G_{sb}$  of the RAP material by using one of the following methods:

- a. Calculate the  $G_{sb}$  value based upon the effective specific gravity ( $G_{se}$ ) of the RAP material, determined on the basis of the asphalt binder content and maximum specific gravity ( $G_{mm}$ ) of the RAP material. The Engineer will approve the estimated asphalt binder absorption value used in the calculation.
- b. Measure the  $G_{sb}$  of the RAP aggregate, in accordance with FM 1-T 084 and FM 1-T 085. Obtain the aggregate by using a solvent extraction method.

**334-2.3.4 Pavement Coring Report:** When the Contract includes milling of the existing asphalt pavement, the Pavement Coring Report may be available on the FDOT's website.

**334-2.3.5 Asphalt Binder for Mixes with RAP:** Select the appropriate asphalt binder grade based on Table 334-1. The Engineer reserves the right to change the asphalt binder grade at design based on the characteristics of the RAP asphalt binder, and reserves the right to make changes during production.

Table 334-1 Asphalt Binder Grade for Mixes Containing Rap	
Percent RAP	Asphalt Binder Grade
0-15	PG 67-22
16-30	PG 58-22
>30	PG 53-22

**334-2.4 Recycled Crushed Glass:** Recycled crushed glass may be used as a component of the asphalt mixture subject to the following requirements:

1. Consider the recycled crushed glass a local material and meet all requirements specified in 902-6.
2. Limit the amount of recycled crushed glass to a maximum of 15% by weight of total aggregate.
3. Use an asphalt binder that contains an anti-stripping agent listed on the Approved Product List (APL). The anti-strip additive shall be introduced into the asphalt binder by the supplier during loading.

4. Do not use recycled crushed glass in friction course mixtures or in structural course mixtures which are to be used as the final wearing surface.

### 334-3 General Composition of Mixture.

**334-3.1 General:** Compose the asphalt mixture using a combination of aggregate (coarse, fine or mixtures thereof), mineral filler, if required, and asphalt binder material. Size, grade and combine the aggregate fractions to meet the grading and physical properties of the mix design. Aggregates from various sources may be combined.

#### 334-3.2 Mix Design:

**334-3.2.1 General:** Design the asphalt mixture in accordance with AASHTO R 35-12, except as noted herein. Prior to the production of any asphalt mixture, submit the proposed mix design with supporting test data indicating compliance with all mix design criteria to the Engineer. For all mix designs, include representative samples of all component materials, including asphalt binder. Allow the Director of the Office of Materials a maximum of four weeks to either conditionally verify or reject the mix as designed.

For a Traffic Level A mixture, meet the mix design criteria for a Traffic Level B mixture and for a Traffic Level D mixture meet the mix design criteria for a Traffic Level E mixture. In addition, a Type SP mix one traffic level higher than the traffic level specified in the Contract Documents may be substituted, at no cost to the Owner. Based on the previous conditions, the following substitutions are allowed:

- Traffic Level E can be substituted for Traffic Level D.
- Traffic Level D or E can be substituted for Traffic Level C.
- Traffic Level C can be substituted for Traffic Level B.
- Traffic Level B or C can be substituted for Traffic Level A.

The same traffic level and binder type that is used for the mainline traffic lanes may be placed in the shoulder at no additional cost to the Owner, even if the conditions stated above are not met for the shoulder.

Do not use more than four mix designs per nominal maximum aggregate size per traffic level per binder grade per year, where the year starts at the Notice to Proceed. Exceeding this limitation will result in a maximum Composite Pay Factor (CPF) of 1.00 as defined in 334-8.2 for all designs used beyond this limit.

Warm mix technologies (additives, foaming techniques, etc.) listed on the FDOT's website may be used in the production of the mix. The URL for obtaining this information, if available, is: <https://www.fdot.gov/materials/mac/production/warmmixasphalt/>.

When warm mix technologies are used, for mixtures containing a PG 5228, PG 58-22, or PG 67-22 binder, a mixture will be considered a warm mix asphalt design if the mixing temperature is 285°F or less. For mixtures containing a PG 76-22 or High Polymer binder, a mixture will be considered a warm mix asphalt design if the mixing temperature is 305°F or less.

The Engineer will consider any marked variations from original test data for a mix design or any evidence of inadequate field performance of a mix design as sufficient evidence that the

properties of the mix design have changed, and the Engineer will no longer allow the use of the mix design.

**334-3.2.2 Mixture Gradation Requirements:** Combine the coarse and fine aggregate in proportions that will produce an asphalt mixture meeting all of the requirements defined in this specification and conform to the gradation requirements at design as defined in AASHTO M 323-12, Table 3. Aggregates from various sources may be combined.

**334-3.2.2.1 Mixture Gradation Classification:** Plot the combined mixture gradation on an FHWA 0.45 Power Gradation Chart. Include the Control Points from AASHTO M 323-12, Table-3, as well as the Primary Control Sieve (PCS) Control Point from AASHTO M 323-12, Table 4. Fine mixes are defined as having a gradation that passes above the primary control sieve control point and above the maximum density line for all sieve sizes smaller than the primary control sieve and larger than the No. 100 sieve.

**334-3.2.3 Aggregate Consensus Properties:** For Traffic Level C through E mixtures, meet the following consensus properties at design for the aggregate blend. Aggregate consensus properties do not apply to Traffic Level A and B mixtures.

**334-3.2.3.1 Coarse Aggregate Angularity:** When tested in accordance with ASTM D 5821-01 (2006), meet the percentage of fractured faces requirements specified in AASHTO M 323-12, Table 5.

**334-3.2.3.2 Fine Aggregate Angularity:** When tested in accordance with AASHTO T 304-11, Method A, meet the uncompacted void content of fine aggregate specified in AASHTO M 323-12, Table 5.

**334-3.2.3.3 Flat and Elongated Particles:** When tested in accordance with ASTM D 4791-10, (with the exception that the material passing the 3/8 inch sieve and retained on the No. 4 sieve shall be included), meet the requirements specified in AASHTO M 323-12, Table 5. Measure the aggregate using the ratio of 5:1, comparing the length (longest dimension) to the thickness (shortest dimension) of the aggregate particles.

**334-3.2.3.4 Sand Equivalent:** When tested in accordance with AASHTO T 176-08, meet the sand equivalent requirements specified in AASHTO M 323-12, Table 5.

**334-3.2.4 Gyratory Compaction:** Compact the design mixture in accordance with AASHTO T 312-12, with the following exception: use the number of gyrations at  $N_{design}$  as defined in Table 334-2. Measure the inside diameter of gyratory molds in accordance with AASHTO T 312-12.

Traffic Level	$N_{design}$ Number of Gyration
A	50
B	65
C	75
D	100
E	100

**334-3.2.5 Design Criteria:** Meet the requirements for nominal maximum aggregate size as defined in AASHTO M 323-12, as well as for relative density, VMA, VFA, and dust-to-binder ratio as specified in AASHTO M 323-12, Table 6. N<sub>initial</sub> and N<sub>maximum</sub> requirements are not applicable.

**334-3.2.6 Moisture Susceptibility:** For all traffic levels, use a liquid anti-strip agent listed on the APL at the specified dosage rate. Hydrated lime may be used instead of the liquid anti-strip agent.

Provide a mixture having a retained tensile strength ratio of at least 0.80 and a minimum tensile strength (unconditioned) of 100 psi.

**334-3.2.7 Additional Information:** In addition to the requirements listed above, provide the following information with each proposed mix design submitted for verification:

1. The design traffic level and the design number of gyrations ( $N_{\text{design}}$ ).
2. The source and description of the materials to be used.
3. The source of the aggregate components.
4. The gradation and proportions of the raw materials as intended to be combined in the paving mixture. The gradation of the component materials shall be representative of the material at the time of use. Compensate for any change in aggregate gradation caused by handling and processing as necessary.
5. A single percentage of the combined mineral aggregate passing each specified sieve. Degradation of the aggregate due to processing (particularly material passing the No. 200 sieve) should be accounted for and identified.
6. The bulk specific gravity ( $G_{\text{sb}}$ ) value for each individual aggregate and RAP component.
7. A single percentage of asphalt binder by weight of total mix intended to be incorporated in the completed mixture, shown to the nearest 0.1%.
8. A target temperature for the mixture at the plant (mixing temperature) and a target temperature for the mixture at the roadway (compaction temperature) in accordance with 320-6.3. Do not exceed a target temperature of 340°F for High Polymer asphalt binder, 330°F for PG 76-22 asphalt binders, and 315°F for unmodified asphalt binders.
9. Provide the physical properties at the optimum asphalt content, which must conform to all specified requirements.
10. The name of the Construction Training Qualification Program (CTQP) Qualified Mix Designer.
11. The ignition oven calibration factor.
12. The warm mix technology, if used.

**334-3.3 Mix Design Revisions:** During production, the Contractor may request a target value revision to a mix design, subject to meeting the following requirements: the target change falls within the limits defined in Table 334-3, appropriate data exists demonstrating that the mix complies with production air voids specification criteria, and the mixture gradation meets the basic gradation requirements defined in 334-3.2.2.

Table 334-3 Limits for Potential Adjustments to Mix Design Target Values	
Characteristic	Limit from Original Mix Design
No. 8 sieve and Coarser	±5.0%
No. 16 sieve	±4.0%
No. 30 sieve	±4.0%
No. 50 sieve	±3.0%
No. 100 sieve	±3.0%
No. 200 sieve	±1.0%
Asphalt Binder Content <sup>(1)</sup>	±0.3%
Each Component of Aggregate Blend <sup>(2)</sup>	±5.0%
<sup>(1)</sup> Reductions to the asphalt binder content will not be permitted if the VMA during production is lower than 1.0% below the design criteria.	
<sup>(2)</sup> Revisions to FC-5 mixtures to be determined by the Engineer	

Submit all requests for revisions to mix designs, along with supporting documentation, to the Engineer. In order to expedite the revision process, the request for revision or discussions on the possibility of a revision may be made verbally, but must be followed up by a written request. The verified mix design will remain in effect until the Engineer authorizes a change. In no case will the effective date of the revision be established earlier than the date of the first communication between the Contractor and the Engineer regarding the revision.

A new design mix will be required if aggregate sources change, or for any substitution of an aggregate product with a different aggregate code, unless approved by the Engineer.

**334-4 Producer Process Control (PC).**

Assume full responsibility for controlling all operations and processes such that the requirements of these Specifications are met at all times. Perform any tests necessary at the plant and roadway for process control purposes. The Engineer will not use these test results in the acceptance payment decision.

Address in the Producer QC Plan how PC failures will be handled. When a PC failure occurs, investigate, at a minimum, the production process, testing equipment and/or sampling methods to determine the cause of the failure, and make any necessary changes to assure compliance with these Specifications. Obtain a follow up sample immediately after corrective actions are taken to assess the adequacy of the corrections. In the event the follow-up PC sample also fails to meet Specification requirements, cease production of the asphalt mixture until the problem is adequately resolved to the satisfaction of the QC Manager.

**334-5 Acceptance of the Mixture.**

**334-5.1 General:** The mixture will be accepted at the plant with respect to gradation ( $P_{-8}$  and  $P_{-200}$ ), asphalt content ( $P_b$ ), and volumetrics (volumetrics is defined as air voids at  $N_{design}$ ). The mixture will be accepted on the roadway with respect to density of roadway cores. Acceptance will be on a LOT

by LOT basis (for each mix design) based on tests of random samples obtained within each subplot taken at a frequency of one set of samples per subplot. A roadway LOT and a plant production LOT shall be the same. Acceptance of the mixture will be based on Contractor QC test results that have been verified by the Engineer.

**334-5.1.1 Sampling and Testing Requirements:** Obtain the samples in accordance with FM 1-T 168. Obtain samples at the plant of a sufficient quantity to be split into three smaller samples; one for QC, one for Verification testing and one for Resolution testing; each sample at approximately 35 pounds. The split samples for Verification testing and Resolution testing shall be reduced in size and stored in three boxes each. The approximate size of each box must be 12 inches x 8 inches x 4 inches. Provide, label and safely store sample boxes in a manner agreed upon by the Engineer for future testing.

The asphalt content of the mixture will be determined in accordance with FM 5-563. The gradation of the recovered aggregate will be determined in accordance with FM 1-T 030. Volumetric testing will be in accordance with AASHTO T 312-12 and FM 1-T 209. Prior to testing volumetric samples, condition the test-sized sample for one hour, plus or minus five minutes, at the target roadway compaction temperature in a shallow, flat pan, such that the mixture temperature at the end of the one hour conditioning period is within plus or minus 20°F of the roadway compaction temperature. Test for roadway density in accordance with FM 1-T 166.

**334-5.1.2 Acceptance Testing Exceptions:** When the total combined quantity of hot mix asphalt for the project, as indicated in the Plans for Type B-12.5, Type SP and Type FC mixtures only, is less than 2000 tons, the Engineer will accept the mix on the basis of visual inspection. The Engineer may require the Contractor to run process control tests for informational purposes, as defined in 334-4, or may run independent verification tests to determine the acceptability of the material.

Density testing for acceptance will not be performed on widening strips or shoulders with a width of 5 feet or less, open-graded friction courses, variable thickness overbuild courses, leveling courses, any asphalt layer placed on subgrade (regardless of type), miscellaneous asphalt pavement, shared use paths, crossovers, gore areas, or any course with a specified thickness less than 1 inch or a specified spread rate that converts to less than 1 inch as described in 334-1.4. Density testing for acceptance will not be performed on asphalt courses placed on bridge decks or approach slabs; compact these courses in static mode only per the requirements of 330-7.7. In addition, density testing for acceptance will not be performed on the following areas when they are less than 500 feet (continuous) in length: turning lanes, acceleration lanes, deceleration lanes, shoulders, parallel parking lanes or ramps. Do not perform density testing for acceptance in situations where the areas requiring density testing is less than 50 tons within a subplot.

Density testing for acceptance will not be performed in intersections. The limits of the intersection will be from stop bar to stop bar for both the mainline and side streets. A random core location that occurs within the intersection shall be moved forward or backward from the intersection at the direction of the Engineer.

Where density testing for acceptance is not required, compact these courses (with the exception of open-graded friction courses) in accordance with the rolling procedure (equipment and pattern) as approved by the Engineer or with Standard Rolling Procedure as specified in

330-7.2. In the event that the rolling procedure deviates from the procedure approved by the Engineer, or the Standard Rolling Procedure, placement of the mix shall be stopped.

The density pay factor (as defined in 334-8.2) for areas not requiring density testing for acceptance will be paid at the same density pay factor as for the areas requiring density testing within the same LOT. If the entire LOT does not require density testing for acceptance, the LOT will be paid at a density pay factor of 1.00.

**334-5.2 Full LOTs:** Each LOT will be defined (as selected by the Contractor prior to the start of the LOT) as either (1) 2,000 tons, with each LOT subdivided into four equal sublots of 500 tons each, or (2) 4,000 tons, with each LOT subdivided into four equal sublots of 1,000 tons each. As an exception to this, the initial LOT of all new mix designs shall be defined as 2,000 tons, subdivided into four equal sublots of 500 tons each. Before the beginning of a LOT, the Engineer will develop a random sampling plan for each subplot and direct the Contractor on sample points, based on tonnage, for each subplot during construction.

**334-5.3 Partial LOTs:** A partial LOT is defined as a LOT size that is less than a full LOT. A partial LOT may occur due to the following:

1. The completion of a given mix type or mix design on a project.
2. Closure of the LOT due to time. LOTs will be closed 30 calendar days after the start of the LOT. Time periods other than 30 calendar days may be used if agreed to by both the Engineer and the Contractor, but under no circumstances shall the LOT be left open longer than 90 days.
3. A LOT is terminated per 334-5.4.4.

All partial LOTs will be evaluated based on the number of tests available, and will not be redefined. If a LOT is closed before the first plant random sample is obtained, then the LOT will be visually accepted by the Engineer and the LOT pay factor will be 1.00.

**334-5.4 QC Sampling and Testing:** Obtain all samples randomly as directed by the Engineer. Should the Engineer determine that the QC requirements are not being met or that unsatisfactory results are being obtained, or should any instances of falsification of test data occur, acceptance of the Producer's QC Plan will be suspended and production will be stopped.

**334-5.4.1 Lost or Missing Verification/Resolution Samples:** In the event that any of the Verification and/or Resolution asphalt mixture samples that are in the custody of the Contractor are lost, damaged, destroyed, or are otherwise unavailable for testing, the minimum possible pay factor for each quality characteristic as described in 334-8.2 will be applied to the entire LOT in question, unless called for otherwise by the Engineer. Specifically, if the LOT in question has more than two sublots, the pay factor for each quality characteristic will be 0.55. If the LOT has two or less sublots, the pay factor for each quality characteristic will be 0.80. If only the roadway cores are lost, damaged, destroyed, or are otherwise unavailable for testing, then the minimum possible pay factor for density will be applied to the entire LOT in question. In either event, the material in question will also be evaluated in accordance with 334-5.9.5.

If any of the Verification and/or Resolution samples that are in the custody of the Owner are lost, damaged, destroyed or are otherwise unavailable for testing, the corresponding QC test result will be considered verified, and payment will be based upon the Contractor's data.

**334-5.4.2 Plant Sampling and Testing Requirements:** Obtain one random sample of mix per subplot in accordance with 334-5.1.1 as directed by the Engineer. Test the QC split sample for gradation, asphalt binder content and volumetrics in accordance with 334-5.1.1. Complete all QC testing within one working day from the time the samples were obtained.

**334-5.4.3 Roadway Sampling and Testing Requirements:** Obtain five 6 inch diameter roadway cores within 24 hours of placement at random locations as directed by the Engineer within each subplot. Test these QC samples for density ( $G_{mb}$ ) in accordance with 334-5.1.1. Obtain a minimum of three cores per subplot at random locations as identified by the Engineer in situations where the subplot/LOT was closed or terminated before the random numbers were reached or where it is impractical to cut five cores per subplot. Do not obtain cores any closer than 12 inches from an unsupported edge. The Engineer may adjust randomly generated core locations for safety purposes or as the Engineer deems necessary. Do not perform density testing for acceptance in a subplot if the plant random sample for that subplot has not been obtained. Maintain traffic during the coring operation; core the roadway, patch the core holes (within three days of coring); and trim the cores to the proper thickness prior to density testing.

Density for the subplot shall be based on the average value for the cores cut from the subplot with the target density being a percentage of the maximum specific gravity ( $G_{mm}$ ) of the subplot, as defined in the Contract. Once the average density of a subplot has been determined, do not retest the samples unless approved by the Engineer. Ensure proper handling and storage of all cores until the LOT in question has been accepted.

**334-5.4.4 Individual Test Tolerances for QC Testing:** Terminate the LOT if any of the following QC failures occur:

1. An individual test result of a subplot for air voids does not meet the requirements of Table 334-4,
2. The average subplot density does not meet the requirements of Table 334-4,
3. Two consecutive test results within the same LOT for gradation or asphalt binder content do not meet the requirements of Table 334-4,

When a LOT is terminated due to a QC failure, stop production of the mixture until the problem is resolved to the satisfaction of the QC Manager and/or Asphalt Plant Level II technician responsible for the decision to resume production after a QC failure, as identified in Section 105. In the event that it can be demonstrated that the problem can immediately be or already has been resolved, it will not be necessary to stop production. When a LOT is terminated, make all necessary changes to correct the problem. Do not resume production until appropriate corrections have been made. Prior to resuming production, inform the Engineer of the problem and corrections made to correct the problem. After resuming production, sample and test the material to verify that the changes have corrected the problem. Summarize this information and provide it to the Engineer prior to the end of the work shift when production resumes.



In the event that a QC failure is not addressed as defined above, the Engineer's approval will be required prior to resuming production after any future QC failures.

Address any material represented by a failing test result, as defined above in this subarticle, in accordance with 334-5.9.5. Any LOT terminated under this subarticle will be limited to a maximum Pay Factor of 1.00 (as defined in 334-8.2) for all quality characteristics and will include all material placed up to the point when the LOT was terminated.

In the event that a  $G_{mm}$  test result differs by more than 0.040 from the mix design  $G_{mm}$ , investigate the causes of the discrepancy and report the findings and proposed actions to the Engineer.

Table 334-4 Master Production Range	
Characteristic	Tolerance <sup>(1)</sup>
Asphalt Binder Content (%)	Target $\pm 0.55$
Passing No. 200 Sieve (%)	Target $\pm 1.50$
Air Voids (%)	2.30-6.00
Density (minimum % $G_{mm}$ ) <sup>(2)</sup>	89.50
<sup>(1)</sup> Tolerances for sample size of $n = 1$ from the verified mix design	
<sup>(2)</sup> Based on an average of 5 randomly located cores	

**334-5.5 Verification Testing:** In order to determine the validity of the Contractor's QC test results prior to their use in the Acceptance decision, the Engineer will run verification tests.

**334-5.5.1 Plant Testing:** At the completion of each LOT, the Engineer will test a minimum of one Verification split sample randomly selected from the LOT. Results of the testing and analysis for the LOT will be made available to the Contractor within one working day from the time the LOT is completed. Verification samples shall be reheated at the target roadway compaction temperature for 1-1/2 hours, plus or minus 5 minutes, reduced to the appropriate testing size, and conditioned and tested as described in 334-5.1.1. In lieu of the 1-1/2 hours reheating procedure, the mixture may be reheated to within plus or minus 20°F of the roadway compaction temperature using a microwave oven. Stir the mixture as necessary during the reheating process to maintain temperature uniformity. Subsequently, condition and test the mixture as described in 334-5.1.1.

The Verification test results will be compared with the QC test results based on the between-laboratory precision values shown in Table 334-5.

Table 334-5 Between-Laboratory Precision Values	
Property	Maximum Difference
$G_{mm}$	0.016
$G_{mb}$ (gyratory compacted samples)	0.022
$G_{mb}$ (roadway cores)	0.014
$P_b$	0.44%
$P_{-200}$	FM 1-T 030 (Figure 2)
$P_{-8}$	FM 1-T 030 (Figure 2)

If all of the specified mix characteristics compare favorably, then the LOT will be accepted, with payment based on the Contractor's QC test data for the LOT.

If any of the results do not compare favorably, then the Resolution samples from the LOT will be sent to the Resolution laboratory for testing, as described in 3345.6.

**334-5.5.2 Roadway Testing:** At the completion of each LOT, the Engineer will determine the density (Gmb) of each core (previously tested by QC) as described in 334-5.1.1 from the same subplot as the plant samples. For situations where roadway density is not required for the random subplot chosen, then another subplot shall be randomly chosen for roadway density cores only. Results of the testing and analysis for the LOT will be made available to the Contractor within one working day from the time the LOT is completed.

The individual Verification test results will be compared with individual QC test results by the Engineer based on the between-laboratory precision values given in Table 334-5.

If each of the core test results compare favorably, then the LOT will be accepted with respect to density, with payment based on the Contractor's QC test data for the LOT.

If any of the results do not compare favorably, then the core samples from the LOT will be sent to the Resolution laboratory for testing as specified in 334-5.6.

#### **334-5.6 Resolution System:**

**334-5.6.1 Plant Samples:** In the event of an unfavorable comparison between the Contractor's QC test results and the Engineer's Verification test results on any of the properties identified in Table 334-5, the Resolution laboratory will test all of the split samples from the LOT for only the property (or properties) in question. Resolution samples shall be reheated at the target roadway compaction temperature for 1-1/2 hours, plus or minus 5 minutes, reduced to the appropriate testing size, and conditioned and tested as described in 334-5.1.1. In lieu of the 1 1/2 hours reheating procedure, the mixture may be reheated to within plus or minus 20°F of the roadway compaction temperature using a microwave oven. Stir the mixture as necessary during the reheating process to maintain temperature uniformity. Subsequently, condition and test the mixture as described in 334-5.1.1.

**334-5.6.2 Roadway Samples:** In the event of an unfavorable comparison between the Contractor's QC test data and the Engineer's Verification test data on the density results, the Resolution laboratory will test all of the cores from the LOT. Testing will be as described in 3345.1.1.

**334-5.6.3 Resolution Determination:** The Resolution test results (for the property or properties in question) will be compared with the QC test results based on the between-laboratory precision values shown in Table 334-5.

If the Resolution test results compare favorably with all of the QC results, then acceptance and payment for the LOT will be based on the QC results, and the Owner will bear the costs associated with Resolution testing. No additional compensation, either monetary or time, will be made for the impacts of any such testing.

If the Resolution test results do not compare favorably with all of the QC results, then acceptance and payment for the LOT will be based on the Resolution test data for the LOT, and the costs of the Resolution testing will be deducted from monthly estimates. No additional time will be granted for the impacts of any such testing.

In addition, the material failure requirements of 334-5.4.4 apply to the Resolution test data. Address any material represented by the failing test results in accordance with 334-5.9.5. For this situation, the LOT will be limited to a maximum Pay Factor of 1.00 (as defined in 334-8.2) for all quality characteristics.

In the event of an unfavorable comparison between the Resolution test results and QC test results, make the necessary adjustments to assure that future comparisons are favorable.

### **334-5.7 Independent Verification (IV) Testing:**

**334-5.7.1 Plant:** The Contractor shall provide sample boxes and take samples as directed by the Engineer for IV testing. Obtain enough material for three complete sets of tests (two samples for IV testing by the Engineer and one sample for testing by the Contractor). If agreed upon by both the Engineer and the Contractor, only one sample for IV testing by the Engineer may be obtained. IV samples will be reheated at the target roadway compaction temperature for 1-1/2 hours, plus or minus 5 minutes, reduced to the appropriate testing size, and conditioned and tested as described in 334-5.1.1. The Contractor's split sample, if tested immediately after sampling, shall be reduced to the appropriate testing size, and conditioned and tested as described in 334-5.1.1. If the Contractor's sample is not tested immediately after sampling, then the sample shall be reheated at the target roadway compaction temperature for 1 1/2 hours, plus or minus 5 minutes, reduced to the appropriate testing size, and conditioned and tested as described in 334-5.1.1. For the IV and Contractor's samples, in lieu of the 1-1/2 hours reheating procedure, the mixture may be reheated to within plus or minus 20°F of the roadway compaction temperature using a microwave oven. Stir the mixture as necessary during the reheating process to maintain temperature uniformity. Subsequently, condition and test the mixture as described in 334-5.1.1. The Contractor's test results shall be provided to the Engineer within one working day from the time the sample was obtained.

If any of the IV test results do not meet the requirements of Table 334-4, then a comparison of the IV test results and the Contractor's test results, if available, will be made. If a comparison of the IV test results and the Contractor's test results meets the precision values of Table 334-5 for the material properties in question, or if the Contractor's test results are not available, then the IV test results are considered verified and the Contractor shall cease production of the asphalt mixture until the problem is adequately resolved (to the satisfaction of the Engineer), unless it can be demonstrated to the satisfaction of the Engineer that the problem can immediately be (or already has been) resolved. Address any material represented by the failing test results in accordance with 334-5.9.5.

If a comparison of the IV test results and the Contractor's test results does not meet the precision values of Table 334-5 for the material properties in question, then the second IV sample shall be tested by the Engineer for the material properties in question. If a comparison between the first and second IV test results does not meet the precision values of Table 334-5 for the material properties in question, then the first IV test results are considered unverified for the material properties in question and no action shall be taken.

If a comparison between the first and second IV test results meets the precision values of Table 334-5 for the material properties in question, then the first IV sample is considered verified and the Contractor shall cease production of the asphalt mixture until the problem is adequately resolved (to the satisfaction of the Engineer), unless it can be demonstrated to the satisfaction of the Engineer that the problem can immediately be (or already has been) resolved. Address any material represented by the failing test results in accordance with 334-5.9.5.

The Engineer has the option to use the IV sample for comparison testing as specified in 334-6.

**334-5.7.2 Roadway:** Obtain five 6 inch diameter roadway cores within 24 hours of placement, as directed by the Engineer, for IV testing. In situations where it is impractical to cut five cores per subplot, obtain a minimum of three cores per subplot at random locations, as identified by the Engineer. These independent cores will be obtained from the same LOTs and sublots as the Independent Verification Plant samples, or as directed by the Engineer. The density of these cores will be obtained as described in 334-5.1.1. If the average of the results for the subplot does not meet the requirements of Table 334-4 for density, then a comparison of the IV  $G_{mm}$  test results and the Contractor's  $G_{mm}$  test results, if available, will be made in accordance with the procedure provided in 334-5.7.1. Address any material represented by the failing test results in accordance with 334-5.9.5.

**334-5.8 Surface Tolerance:** The asphalt mixture will be accepted on the roadway with respect to surface tolerance in accordance with the applicable requirements of 330-9.

**334-5.9 Minimum Acceptable Quality Levels:**

**334-5.9.1 PFs Below 0.90:** In the event that an individual pay factor for any quality characteristic of a LOT falls below 0.90, take steps to correct the situation and report the actions to the Engineer. In the event that the pay factor for the same quality characteristic for two consecutive LOTs is below 0.90, cease production of the asphalt mixture until the problem is adequately resolved (to the satisfaction of the Engineer), unless it can be demonstrated to the satisfaction of the Engineer that the problem can immediately be (or already has been) resolved. Actions taken must be approved by the Engineer before production resumes.

**334-5.9.2 CPFs Less Than 0.90 and Greater Than or Equal to 0.80:** If the composite pay factor for the LOT is less than 0.90 and greater than or equal to 0.80, cease production of the asphalt mixture until the problem is adequately resolved (to the satisfaction of the Engineer), unless it can be demonstrated to the satisfaction of the Engineer that the problem can immediately be (or already has been) resolved. Actions taken must be approved by the Engineer before production resumes.

**334-5.9.3 CPFs Less Than 0.80 and Greater Than or Equal to 0.75:** If the CPF for the LOT is less than 0.80 and greater than or equal to 0.75, address the defective material in accordance with 334-5.9.5.

**334-5.9.4 CPFs Less Than 0.75:** If the CPF for the LOT is less than 0.75, remove and replace the defective LOT at no cost to the Owner, or as approved by the Engineer.

**334-5.9.5 Defective Material:** Assume responsibility for removing and replacing all defective material placed on the project, at no cost to the Owner.

As an exception to the above and upon approval of the Engineer, obtain an engineering analysis in accordance with Section 6 by an independent laboratory (as approved by the Engineer) to determine the disposition of the material. The engineering analysis must be signed and sealed by a Professional Engineer licensed in the State of Florida.

The Engineer may determine that an engineering analysis is not necessary or may perform an engineering analysis to determine the disposition of the material.

Any material that remains in place will be accepted with a CPF as determined by 334-8, or as determined by the Engineer.

If the defective material is due to a gradation, asphalt binder content or density failure, upon the approval of the Engineer the Contractor may perform delineation tests on roadway cores in lieu of an engineering analysis to determine the limits of the defective material that may require removal and replacement. Prior to any delineation testing, all sampling locations shall be approved by the Engineer. All delineation sampling and testing shall be monitored and verified by the Engineer. For materials that are defective due to air voids, an engineering analysis is required.

When evaluating defective material by engineering analysis or delineation testing, at a minimum, evaluate all material located between passing QC, PC or IV test results. Exceptions to this requirement shall be approved by the Engineer.

#### **334-6 Comparison Testing.**

At the start of the project (unless waived by the Engineer) and at other times as determined necessary by the Engineer, provide split samples for comparison testing with the Engineer. The purpose of these tests is to verify that the testing equipment is functioning properly and that the testing procedures are being performed correctly. In the event that the Engineer determines that there is a problem with the Contractor's testing equipment and/or testing procedures, immediately correct the problem to the Engineer's satisfaction. In the event that the problem is not immediately corrected, cease production of the asphalt mixture until the problem is adequately resolved to the satisfaction of the Engineer.

If so agreed to by both the Contractor and the Engineer, the split sample used for comparison testing may also be used for the QC sample. The split sample used for comparison testing must also meet the requirements for IV testing described in 334-5.7.

#### **334-7 Method of Measurement.**

For the work specified under this Section (including the pertinent provisions of Sections 320 and 330), the quantity to be paid for will be the weight of the mixture, in tons. For each pay item, excluding overbuild, the pay quantity will be based on the quantity placed on the project, limited to 105% of the adjusted plan quantity for the pay item. The adjusted plan quantity will be determined by dividing the pay item's original plan quantity (including any Engineer approved quantity revisions) by the design  $G_{mm}$  stated in 334-1.4, then multiplying it by the tonnage-weighted average  $G_{mm}$  of the mixes used for the pay item.

The bid price for the asphalt mix will include the cost of the liquid asphalt and the tack coat application as directed in 300-8. There will be no separate payment or unit price adjustment for the asphalt binder material in the asphalt mix. For the calculation of unit price adjustments of bituminous material, the

average asphalt content will be based on the percentage specified in 92.1.2. The weight will be determined as provided in 320-3.2 (including the provisions for the automatic recordation system).

Prepare and submit a Certification of Quantities to the Engineer in accordance with 92.1.2.

**334-8 Basis of Payment.**

**334-8.1 General:** Price and payment will be full compensation for all the work specified under this Section (including the applicable requirements of Sections 320 and 330).

For materials accepted in accordance with 334-5, based upon the quality of the material, a pay adjustment will be applied to the bid price of the material as determined on a LOT by LOT basis. The pay adjustment will be assessed by calculating a Pay Factor for the following individual quality characteristics: pavement density, air voids, asphalt binder content, and the percentage passing the No. 200 and No. 8 sieves. The pay adjustment will be computed by multiplying a Composite Pay Factor (CPF) for the LOT by the bid price per ton.

**334-8.2 Pay Factors:**

**334-8.2.1 Partial LOTs:** For Partial LOTs where no random sample is obtained due to insufficient tonnage, a CPF of 1.00 shall be applied.

**334-8.2.2 Two or Less Sublot Test Results:** In the event that two or less sublot test results are available for a LOT, Pay Factors will be determined based on Table 334-6, using the average of the accumulated deviations from the target value. (Except for density, deviations are absolute values with no plus or minus signs.) Use the 1-Test column when there is only one sublot test result and use the 2-Tests column when there are two sublots.

Table 334-6 Small Quantity Pay Table		
Pay Factor	1 Sublot Test Deviation	2 Sublot Test Average Deviation
Asphalt Binder Content		
1.05	0.00-0.23	0.00-0.16
1.00	0.24-0.45	0.17-0.32
0.90	0.46-0.55	0.33-0.39
0.80	>0.55	>0.39
No. 8 Sieve		
1.05	0.00-2.25	0.00-1.59
1.00	2.25-4.50	1.60-3.18
0.90	4.51-5.50	3.19-3.89
0.80	>5.50	>3.89
No. 200 Sieve		
1.05	0.00-0.55	0.00-0.39
1.00	0.56-1.10	0.40-0.78
0.90	1.11-1.50	0.79-1.06
0.80	>1.50	>1.06

Table 334-6 Small Quantity Pay Table		
Pay Factor	1 Sublot Test Deviation	2 Sublot Test Average Deviation
Air Voids		
1.05	0.00-0.50	0.00-0.35
1.00	0.51-1.00	0.36-0.71
0.90	1.01-1.70	0.72-1.20
0.80	1.71-2.00	1.21-1.41
0.70	2.01-2.50	1.42-1.77
0.55	>2.50	>1.77
Density <sup>(1)</sup>		
1.05	+(0.00-2.00), -(0.00-0.50)	+(0.00-1.40), -(0.00-0.35)
1.00	+(2.01-3.00), -(0.51-1.00)	+(1.41-2.10), -(0.36-0.71)
0.95	+(3.01-3.50), -(1.01-2.00)	+(2.11-2.80), -(0.72-1.41)
0.90	+(3.51-4.00), -(2.01-3.00)	+(2.81-3.50), -(1.42-2.12)
0.80	+(>4.00), -(>3.00)	+(>3.50), -(2.12)

<sup>(1)</sup> Each density test result is the average of five cores. The target density is 93.00 percent of  $G_{mm}$  (92.00 percent when compaction is limited to the static mode or for layers specified to be one inch thick). When compaction is limited to the static mode, no vibratory mode in the vertical direction will be allowed. Other vibratory modes will be allowed, if approved by the Engineer. In this case, the target density is 92.00 percent of  $G_{mm}$ .

**334-8.2.3 Three or More Sublot Test Results:** When three or more sublot test results are available for a LOT, the variability-unknown, standard deviation method will be used to determine the estimated percentage of the LOT that is within the specification limits. The number of significant figures used in the calculations will be in accordance with requirements of AASHTO R11-06, Absolute Method.

**334-8.2.3.1 Percent Within Limits:** The percent within limits (PWL) and Pay Factors for the LOT will be calculated as described below. Variables used in the calculations are as follows:

- x = individual test value (sublot)
- n = number of tests (sublots)
- s = sample standard deviation
- $\sum x^2$  = summation of squares of individual test values
- $(\sum x)^2$  = summation of individual test values squared
- $Q_U$  = upper quality index
- USL = upper specification limit (target value plus upper specification limit from Table 334-7)
- $Q_L$  = lower quality index
- LSL = lower specification limit (target value minus lower specification limit from Table 334-7)
- $P_U$  = estimated percentage below the USL
- $P_L$  = estimated percentage above the LSL

1. Calculate the arithmetic mean ( $\bar{X}$ ) of the test values:

$$\bar{X} = \frac{\sum x}{n}$$

2. Calculate the sample standard deviation (s):

$$s = \sqrt{\frac{n\sum(x^2) - (\sum x)^2}{n(n-1)}}$$

3. Calculate the upper quality index (QU):

$$Q_U = \frac{USL - \bar{X}}{s}$$

4. Calculate the lower quality index (QL):

$$Q_L = \frac{\bar{X} - LSL}{s}$$

5. From Table 334-8, determine the percentage of work below the USL (P<sub>U</sub>).
6. From Table 334-8, determine percentage of work above the LSL (P<sub>L</sub>) Note: If USL or LSL is not specified; percentages within (USL or LSL) will be 100.
7. If Q<sub>U</sub> or Q<sub>L</sub> is a negative number, then calculate the percent within limits for Q<sub>U</sub> or Q<sub>L</sub> as follows: enter Table 334-8 with the positive value of Q<sub>U</sub> or Q<sub>L</sub> and obtain the corresponding percent within limits for the proper sample size. Subtract this number from 100.00. The resulting number is the value to be used in the next step (Step 8) for the calculation of quality level.
8. Calculate the percent within limits (PWL) = (P<sub>U</sub> + P<sub>L</sub>) - 100
9. Calculate the Pay Factor (PF) for each quality characteristic using the equation given in 334-8.2.3.2.

Table 334-7 Specification Limits	
Quality Characteristic	Specification Limits
Passing No. 8 sieve (percent)	Target ±3.1
Passing No. 200 sieve (percent)	Target ±1.0
Asphalt Content (percent)	Target ±0.40
Air Voids (percent)	4.00±1.20
Density, vibratory mode (percent of G <sub>mm</sub> )	93.00 +3.00, -1.20
Density, static mode (percent of G <sub>mm</sub> )	32.00 +4.00, -1.50 <sup>(1)</sup>

<sup>(1)</sup>No vibratory mode in the vertical direction will be allowed. Other vibratory modes will be allowed, if approved by the Engineer.

Table 334-8 Percent Within Limits				
Quality Index	Percent within Limits for Selected Sample Size			
	n=3	n=4	n=5	n=6
0.00	50.00	50.00	50.00	50.00
0.05	51.38	51.67	51.78	51.84
0.10	52.76	53.33	53.56	53.67
0.15	54.15	55.00	55.33	55.50
0.20	55.54	56.67	57.10	57.32



Table 334-8 Percent Within Limits				
Quality Index	Percent within Limits for Selected Sample Size			
	n=3	n=4	n=5	n=6
0.25	56.95	58.33	58.87	59.14
0.30	58.37	60.00	60.63	60.94
0.35	59.80	61.67	62.38	62.73
0.40	61.26	63.33	64.12	64.51
0.45	62.74	65.00	65.84	66.27
0.50	64.25	66.67	67.56	68.00
0.55	65.80	68.33	69.26	69.72
0.60	67.39	70.00	70.95	71.41
0.65	69.03	71.67	72.61	73.08
0.70	70.73	73.33	74.26	74.71
0.75	72.50	75.00	75.89	76.32
0.80	74.36	76.67	77.49	77.89
0.85	76.33	78.33	79.07	79.43
0.90	78.45	80.00	80.62	80.93
0.95	80.75	81.67	82.14	82.39
1.00	83.33	83.33	83.64	83.80
1.05	86.34	85.00	85.09	85.18
1.10	90.16	86.67	86.52	86.50
1.15	97.13	88.33	87.90	87.78
1.20	100.00	90.00	89.24	89.01
1.25	100.00	91.67	90.54	90.19
1.30	100.00	93.33	91.79	91.31
1.35	100.00	95.00	92.98	92.37
1.40	100.00	96.67	94.12	93.37
1.45	100.00	98.33	95.19	94.32
1.50	100.00	100.00	96.20	95.19
1.55	100.00	100.00	97.13	96.00
1.60	100.00	100.00	97.97	96.75
1.65	100.00	100.00	98.72	97.42
1.70	100.00	100.00	99.34	98.02
1.75	100.00	100.00	99.81	98.55
1.80	100.00	100.00	100.00	98.99
1.85	100.00	100.00	100.00	99.36
1.90	100.00	100.00	100.00	99.65
1.95	100.00	100.00	100.00	99.85



**SECTION 347**

**PORTLAND CEMENT CONCRETE - CLASS NS**

**347-1 Description.**

The requirements of this Section are applicable to concrete designated as nonstructural portland cement concrete, (Class NS) hereinafter referred to as concrete. Use concrete composed of a mixture of portland cement, aggregates, water; and where specified chemical admixtures, slag, or supplementary cementitious materials. Deliver concrete to placement site in a freshly mixed, unhardened state. Ensure the concrete is placed and cured in a manner to ensure that the strength and durability of the concrete is maintained.

**347-2 Materials.**

**347-2.1 General:** Certify that all materials used in concrete are from Department approved sources, and free from detrimental matter.

Meet the following requirements:

Portland Cement .....	Section 921
Coarse Aggregate* .....	Section 901
Fine Aggregate* .....	Section 902
Water .....	Section 923
Chemical Admixtures .....	Section 924
Pozzolans and Slag .....	Section 929

\* Recycled Asphalt Pavement (RAP) may replace up to 20% of the total aggregate in the design mix. Use RAP from a Department approved stockpile.

**347-3 Production, Mixing and Delivery.**

**347-3.1 Concrete Production Requirements:** Provide concrete from a production facility certified by the National Ready-Mixed Concrete Association (NRMCA) or meets the requirements of Section 346.

When Volumetric Mixers are used, deliver concrete in accordance with the Volumetric Mixer Standards of the Volumetric Mixer Manufacturers Bureau (VMMB) VMMB 100-01. Ensure the batcher is qualified through the VMMB Volumetric Mixer Operator Certification Program and the mixer has a VMMB registered rating plate.

Substitution of structural concrete in lieu of non-structural concrete may be used if approved by the Engineer. If structural concrete is used in lieu of non-structural concrete, obtain the concrete from a production facility meeting the requirements of Section 346. Acceptance is based on the requirements of Section 347.

The Engineer may disqualify any concrete production facility for non-compliance with Specification requirements.

**347-3.2 Delivery:** The maximum allowable mixing, agitation, and placement time of concrete is 120 minutes.

**347-3.3 Small Quantities of Concrete:** With approval of the Engineer, small quantities of concrete, less than 3 cubic yards placed in one day and less than 0.5 cubic yards placed in a single placement may be accepted using a pre-bagged mixture.

**347-4 Certification and Acceptance.**

**347-4.1 General:** Furnish a delivery ticket with each batch of concrete before discharging concrete at the placement site. Ensure the delivery ticket includes material quantities incorporated into the batch, sources of materials, batch adjustments, batch size, time loaded, time discharged, and the allowable jobsite water addition.

Ensure the batcher responsible for producing the concrete signs the delivery ticket, certifying that the batch was produced in accordance with the Contract Documents.

Record water added at the jobsite. Sign the delivery ticket certifying that the concrete was placed in accordance with the Contract Documents.

Acceptance by the Department will be by certification on the delivery ticket signed by the batcher and the Contractor. Certify that the concrete meets a minimum compressive strength of 2,500 psi at 28 days. The Engineer may verify the strength of the concrete.

**347-4.2 Remedial Action:** Delineate, remove to the full depth and width, and replace, at no cost to the Department, concrete that has:

1. Any cracking greater than 1/4 inch in vertical displacement.
2. Any spalling or flaking off of the surface layer that exposes the rough, pitted aggregate surface in excess of 10 square inches.
3. Any intersecting cracks visible in the hardened concrete (regardless of size) in sidewalk, ditch pavement, slope pavement, traffic separator, or curb and gutter.
4. Any uncontrolled cracks that appear during the life of the Contract unacceptable to the Engineer.

**END OF SECTION 347**

SECTION 425

INLETS, MANHOLES, AND JUNCTION BOXES

**425-1 Description.**

Construct inlets, manholes, and junction boxes from reinforced concrete as shown in the Standard Plans and the Plans. Furnish and install the necessary metal frames and gratings. Construct yard drains from concrete meeting the requirements of Section 347. Adjust structures shown in the Plans to be adjusted or requiring adjustment for the satisfactory completion of the work.

For precast structures, meet the requirements in 449-1.

**425-2 Composition and Proportioning.**

**425-2.1 Concrete:** For inlets, manholes, and junction boxes, use Class II or IV concrete, as designated in the Plans and Standard Plans and as specified in Section 346. For yard drains use concrete as specified in Section 347.

**425-2.2 Mortar:** For brick masonry, make the mortar by mixing one part cement to three parts sand. Miami Oolitic rock screenings may be substituted for the sand, provided the screenings meet the requirements of 902 except for gradation requirements. Use materials passing the No. 8 sieve that are well graded from coarse to fine. Submit documentation, from a FDOT approved mine or a FDOT approved concrete plant, confirming the sand or sand substitute meets the requirements of 902-3.2.

Preblended masonry cement mortar may be used in lieu of the above-specified mortar. Deliver the product in original and unopened packages properly identified by brand name of manufacturer, net weight of package, and type. Store the material in full compliance with the manufacturer's recommendations. Material must be used within manufacturer's recommended shelf life.

**425-3 Materials.**

**425-3.1 General:** Meet the following requirements:

Sand (for mortar).....	Section 902
Portland Cement .....	Section 921
Water.....	Section 923
Reinforcing Steel .....	Sections 931 and 415
Liner Repair Systems .....	Section 948
Brick and Concrete Masonry Units .....	Section 949
Castings for Frames and Gratings .....	Section 962
Masonry Cement, Type M or S.....	ASTM C91
Preblended Dry Masonry Cement Mortar, Type M or S .....	ASTM C1714

**425-3.2 Gratings, Covers, and Frames:** Use gratings and frames fabricated from structural steel or cast iron as designated in the appropriate Standard Plans Index. When "Alt. G" grates are specified in the Plans, provide structural steel grates that are galvanized in accordance with the requirements of ASTM A123.

Use rigid frames and covers either 24 inches or 36 inches or optional three-piece adjustable frames and covers as indicated in Standard Plans, Index 425-001.

For three-piece adjustable frames, the inner frame may include replaceable resilient seats to support the cover. In addition, the inner frame shall indicate it is adjustable, by clearly having the word "adjustable" imprinted into the exposed portion of the inner frame so "adjustable" is visible from the roadway after installation.

**425-4 Forms.**

Design and construct wood or metal forms so that they may be removed without damaging the concrete. Build forms true to line and grade and brace them in a substantial and unyielding manner. Obtain the Engineer's approval before filling them with concrete.

**425-5 Precast Inlets, Manholes, and Junction Boxes.**

Precast inlets, manholes, and junction boxes, designed and fabricated in accordance with the Plans, the Standard Plans and Section 449 may be substituted for cast-in-place units.

**425-6 Construction Methods.**

**425-6.1 Excavation:** Excavate as specified in Section 125.

Where unsuitable material for foundations is encountered, excavate the unsuitable material and backfill with suitable material prior to constructing or setting inlets, manholes and junction boxes.

As an option to the above and with the Engineer's approval, the Contractor may carry the walls down to a depth required for a satisfactory foundation, backfill to 8 inches below the flowline with clean sand and cast a non-reinforced 8 inch floor.

**425-6.2 Placing and Curing Concrete:** Place the concrete in the forms, to the depth shown in the Plans, and thoroughly vibrate it. After the concrete has hardened sufficiently, cover it with suitable material and keep it moist for a period of three days. Finish the traffic surface in accordance with 522-7.2, or with a simulated broom finish approved by the Engineer.

**425-6.3 Setting Manhole Castings:** After curing the concrete as specified above, set the frame of the casting in a full mortar bed composed of one part portland cement to two parts of fine aggregate.

**425-6.3.1 Standard Castings:** Set manhole frames in a mortar bed and adjust to grade using brick or concrete grade rings, with a maximum 12 inch adjustment.

**425-6.3.2 Optional Adjustable Castings:** When using a three-piece adjustable frame and cover, install the frame and cover with brick or concrete grade rings to the base course height. Make adjustments using the inner frame in accordance with the manufacturer's installation recommendations so the inner frame and cover meet the grade and slope of the pavement surface opened to traffic.

**425-6.4 Reinforcing Steel:** Follow the construction methods for the steel reinforcement as specified in Section 415.

**425-6.5 Laying Brick:** Brick masonry may be used if the structure is circular and constructed in place, or for adjustments of rectangular risers up to a maximum 12 inches in height. Saturate all brick with water before laying. Bond the brick thoroughly into the mortar using the shove-joint method to lay the brick. Arrange headers and stretchers so as to bond the mass thoroughly. Finish the joints properly as the work progresses and ensure that they are not less than 1/4 inch or more than 3/4

inch in thickness. Do not use spalls or bats except for shaping around irregular openings or when unavoidable at corners.

**425-6.6 Backfilling:** Backfill as specified in Section 125, meeting the specific requirements for backfilling and compaction around inlets, manholes, and junction boxes detailed in 125-8.1 and 125-8.2. However; for outfall lines beyond the sidewalk or future sidewalk area, where no vehicular traffic will pass over the pipe, inlets, manholes, and junction boxes, compact backfill as required in 125-9.2.2.

**425-6.7 Adjusting Structures:** Adjust existing manholes, catch basins, inlets, valve boxes, etc., within the limits of the proposed work, to meet the finished grade of the proposed pavement, or if outside of the proposed pavement area, to the finished grade designated in the Plans for such structures. Adjust structures prior to placement of final asphalt pavement surface layer. Adjust structures to match final pavement surface cross-slope. Use materials and construction methods which meet the requirements specified above to adjust the existing structures.

The Contractor may extend manholes needing to be raised using adjustable extension rings of the type which do not require the removal of the existing manhole frame. Use an extension device that provides positive locking action and permits adjustment in height as well as diameter and meets the approval of the Engineer. When adjusting structures in flexible pavement, restore final road surface in accordance with Standard Plans, Index 125-001.

**425-7 Method of Measurement.**

The quantities to be paid for will be the number of inlets, manholes, junction boxes, and yard drains, completed and accepted; and the number of structures of these types (including also valve boxes) satisfactorily adjusted.

**425-8 Basis of Payment.**

**425-8.1 New Structures:** Price and payment will be full compensation for furnishing all materials and completing all work described herein or shown in the Plans, including all clearing and grubbing outside the limits of clearing and grubbing as shown in the Plans, all excavation except the volume included in the measurement designated to be paid for under the items for the grading work on the project, all backfilling around the structures, the disposal of surplus material, and the furnishing and placing of all gratings, frames, covers, and any other necessary fittings.

**425-8.2 Adjusted Structures:** When an item of payment for adjusting manholes, valve boxes, or inlets is provided in the proposal, price and payment will be full compensation for the number of such structures designated to be paid for under such separate items, and which are satisfactorily adjusted, at the Contract unit prices each for adjusting inlets, adjusting manholes, and adjusting valve boxes.

For any of such types of these structures required to be adjusted but for which no separate item of payment is shown in the proposal for the specific type, payment will be made under the item of adjusting miscellaneous structures.

**425-8.3 Payment Items:** Payment will be made under:

<i>Item 425-1</i>	<i>Type 5/6 Curb Inlet, Type P Bottom</i>	<i>-per Each (EA)</i>
-------------------	---	-----------------------

<i>Item 425-2</i>	<i>24" Mitered End Section</i>	<i>-per Each (EA)</i>
<i>Item 425-3</i>	<i>30" Mitered End Section</i>	<i>-per Each (EA)</i>

END OF SECTION 425



SECTION 430

INLETS, MANHOLES, AND JUNCTION BOXES

**430-1 Description.**

Furnish and install drainage pipe and end sections at the locations called for in the Plans. Furnish and construct joints and connections to existing pipes, catch basins, inlets, manholes, walls, etc., as may be required to complete the work.

At the beginning of each project, submit a notarized certification statement to the Engineer in accordance with Section 6. The Quality Control Manager's stamp or label on each product indicates certification that the product was fabricated in conformance with the Producer QC Plan, the Contract, and this Section. Ensure that each shipment of drainage products to the project site is accompanied with a QC signed or stamped delivery ticket providing the description and the list of the products.

When the Producer Quality Control Program is suspended by the Owner, accept responsibility of either obtaining products from a plant with an approved Quality Control Program, or await re-approval of the plant. The Engineer will not allow changes in Contract Time or completion dates as a result of the plant's loss of qualification. Accept responsibility for all delay costs or other costs associated with the loss of the plant's qualification.

Construct structural plate pipe culverts or underdrains in accordance with Sections 435 and 440.

For pipe culverts installed by jack & bore, install in accordance with Section 556.

**430-2 Materials.**

**430-2.1 Pipe:** Meet the following requirements:

Concrete Pipe .....	Section 449
Steel Pipe .....	556-2.1
Round Rubber Gaskets .....	Section 942
Resilient Connectors* .....	Section 942
Corrugated Steel Pipe and Pipe Arch.....	Section 943
Corrugated Aluminum Pipe and Pipe Arch .....	Section 945
Corrugated Polyethylene Pipe .....	Section 948
Steel Reinforced Polyethylene Ribbed Pipe .....	Section 948
Corrugated Polypropylene Pipe.....	Section 948
Corrugated Polyvinyl Chloride (PVC) Pipe .....	Section 948
Fiberglass Reinforced Polymer Pipe .....	Section 948
Liner Repair Systems .....	Section 948

\*Use resilient connector products listed on the FDOT's Approved Product List (APL).

**430-2.2 Joint Materials:** Use joint materials specified in 430-7 through 430-9 according to type of pipe and conditions of usage.

**430-2.3 Mortar:** Use mortar composed of one part Portland cement and two parts of clean, sharp sand, to which mixture the Contractor may add hydrated lime in an amount not to exceed 15% of the cement content. Use mortar within 30 minutes after its preparation.

#### 430-3 Type of Pipe to Be Used.

**430-3.1 General:** Prior to the preconstruction conference, submit to the Engineer which optional pipe material from the optional materials tabulation sheet will be used. Once a pipe material is selected, do not change pipe materials without approval of the Engineer.

When the Plans designate a type (or types) of pipe, use only the type (or choose from the types) designated. As an exception, when the Plans designate reinforced concrete pipe as Class S, Class I, Class II, Class III and Class IV, the Contractor may use non-reinforced concrete pipe up to and including 36 inch in diameter.

**430-3.2 Side Drain:** If the Plans do not designate a type (or types) of pipe, the Contractor may use either a minimum Class I concrete pipe, corrugated steel pipe, corrugated aluminum pipe, corrugated high-density polyethylene pipe, steel reinforced polyethylene ribbed pipe, polypropylene pipe, or PVC pipe. If one of the metal types is chosen, use the minimum gage specified in Section 943 for steel pipe or Section 945 for aluminum pipe. Alternatively, when metal pipe is allowed and no future maintenance concerns exist, the Contractor may propose the pipe gage based on the FDOT's Drainage Manual and Culvert Service Life Estimator for approval by the Engineer. When extending existing pipes, construct the pipe extensions of the same size and kind as the existing pipe. Extensions of existing pipes, whose materials are no longer produced, shall be extended with the most similar pipe material available.

Non-reinforced concrete pipe may also be substituted for concrete pipe in side drains, subject to the provisions of 430-3.1.

#### 430-4 Laying Pipe.

**430-4.1 General:** Lay all pipe, true to the lines and grades given, with hubs upgrade and tongue end fully entered into the hub. When pipe with quadrant reinforcement or circular pipe with elliptical reinforcement is used, install the pipe in a position such that the manufacturer's marks designating "top" and "bottom" of the pipe are not more than five degrees from the vertical plane through the longitudinal axis of the pipe. Do not allow departure from and return to plan alignment and grade to exceed 1/16 inch per foot of nominal pipe length, with a total of not more than 1 inch departure from theoretical line and grade. Take up and relay any pipe that is not in true alignment or which shows any settlement after laying at no additional expense to the Owner.

Do not use concrete pipe with lift holes except round pipe which has an inside diameter in excess of 54 inches or any elliptical pipe.

Repair lift holes, if present, with hand-placed, stiff, non-shrink, 1-to-1 mortar of cement and fine sand, after first washing out the hole with water. Completely fill the void created by the lift hole with mortar. Cover the repaired area with a 24 inch by 24 inch piece of filter fabric secured to the pipe. Use a Type D-3 filter fabric meeting the requirements specified in Section 985.

Secure the filter fabric to the pipe using a method that holds the fabric in place until the backfill is placed and compacted. Use grout mixtures, mastics, or strapping devices to secure the fabric to the pipe.

Do not cut or drill into or through the corrugations or ribs of plastic pipe except when necessary to meet the dimensional requirements shown in the Plans.

When installing pipes in structures, construct inlet and outlet pipes of the same size and kind as the connecting pipe shown in the Plans. Use the same pipe material within each continuous run of pipe. Extend the pipes through the walls for a distance beyond the outside surface sufficient for the intended connections, and construct the concrete around them neatly to prevent leakage along their outer surface as shown on Standard Plans, Index 425-001. Keep the inlet and outlet pipes flush with the inside of the wall. Resilient connectors as specified in 942-3 may be used in lieu of a masonry seal.

Furnish and install a filter fabric jacket around all pipe joints and the joint between the pipe and the structure in accordance with Standard Plans, Indexes 425-001 and 430001. Use fabric meeting the physical requirements of Type D-3 specified in Section 985. Extend the fabric a minimum of 12 inches beyond each side of the joint or both edges of the coupling band, if a coupling band is used. The fabric must have a minimum width of 24 inches, and a length sufficient to provide a minimum overlap of 24 inches. Secure the filter fabric jacket against the outside of the pipe by metal or plastic strapping or by other methods approved by the Engineer.

Meet the following minimum joint standards:

Pipe Application	Minimum Standard
Storm and Cross Drains	Water-tight
Gutter Drain	Water-tight
Side Drains	Soil-tight

When rubber gaskets are to be installed in the pipe joint, the gasket must be the sole element relied on to maintain a tight joint. Soil tight joints must be watertight to 2 psi. Water-tight joints must be water-tight to 5 psi unless a higher pressure rating is required in the Plans.

When laying pipes that pass through mechanically stabilized earth (MSE) reinforced fill, connect the portion of the pipe within the wall to the external portion of the pipe run only after the full height of the wall supported embankment is in place.

When Wall Zone Pipes are shown in the Plans, meet the following requirements:

1. Use resilient connectors on pipes entering and leaving drainage structures.
2. Provide a 2 to 4 inch pipe overhang beyond the drainage structure internal walls.
3. For pipes without welded joints, meet the following additional requirements:
  - a. Pipe joints must be watertight to 10.8 psi when pulled out 2 inches from the fully home joint alignment.
  - b. Do not allow the gap between sections of pipe to exceed 5/8 inch for all pipe diameters.

**430-4.2 Trench Excavation:** Excavate the trench for storm and cross drains, and side drains as specified in Section 125.

**430-4.3 Foundation:** Provide a suitable foundation, where the foundation material is of inadequate supporting value, as determined by the Engineer. Remove the unsuitable material and replace it

with suitable material, as specified in 125-8. Where in the Engineer's opinion, the removal and replacement of unsuitable material is not practicable, he may direct alternates in the design of the pipe line, as required to provide adequate support. Minor changes in the grade or alignment will not be considered as an adequate basis for extra compensation.

Do not lay pipe on blocks or timbers, or on other unyielding material, except where the use of such devices is called for in the Plans.

**430-4.4 Backfilling:** Backfill around the pipe as specified in 125-8 unless specific backfilling procedures are described in the Contract Documents.

**430-4.5 Plugging Pipe:** When existing pipe culverts are to be permanently placed out of service, fill them with flowable fill that is non-excavatable, contains a minimum 350 pounds per cubic yard of cementitious material and meets the requirements of Section 121 and/or plug them with masonry plugs as shown in the Plans. Install masonry plugs that are a minimum of 8 inches in thickness, in accordance with Standard Plans, Index 430-001.

When proposed or existing pipe culverts are to be temporarily placed out of service, plug them with prefabricated plugs as shown in the Plans. Install prefabricated plugs in accordance with the manufacturer's recommendations. Do not fill or construct masonry plugs in any pipe culvert intended for current or future service.

**430-4.6 End Treatment:** Place an end treatment at each storm and cross drain, and side drain as shown in the Plans. Refer to the Standard Plans for types of end treatment details. As an exception to the above, when concrete mitered end sections are permitted, the Contractor may use reinforced concrete U-endwalls, if shop drawings are submitted to the Engineer for approval prior to use.

Provide end treatments for corrugated polyethylene pipe, polypropylene pipe, and PVC pipe as specified in Section 948, or as detailed in the Plans.

**430-4.7 Metal Pipe Protection:** Apply a bituminous coating to the surface area of the pipe within and 12 inches beyond the concrete or mortar seal prior to sealing, to protect corrugated steel or aluminum pipe embedded in a concrete structure, such as an inlet, manhole, junction box, endwall, or concrete jacket.

Ensure that the surface preparation, application methods (dry film thickness and conditions during application), and equipment used are in accordance with the coating manufacturers' published specifications.

Obtain the Engineer's approval of the coating products used.

**430-4.8 Pipe Inspection:** For pipes installed under the roadway, inspection is to be conducted when backfill reaches 3 feet above the pipe crown or upon completion of placement of the stabilized subgrade. For pipe installed within fills, including embankments confined by walls, inspection is to be conducted when compacted embankment reaches 3 feet above the pipe crown or the finished earthwork grade as specified in the Plans. Prior to conducting the inspection, submit to the Engineer a video recording schedule for videoing, dewater installed pipe, and remove all silt, debris and obstructions. Submit pipe videoing and reports to the Owner for review prior to the continuation of paving.

For pipe 48 inches or less in diameter, submit to the Engineer the video files and reports using low barrel distortion video equipment with laser profile technology, non-contact video micrometer and associated software. For all pipe types, provide a Pipe Observation Summary Report for each pipe run that includes:

1. Actual recorded length and width measurements of all cracks within the pipe.
2. Actual recorded separation measurement of all rigid pipe joints.
3. Detailed written observations of leaks, debris, or other damage or defects.

For flexible pipe types, submit a Pipe Ovality Report for each pipe run that includes:

1. Representative diameter of the pipe.
2. Pipe deformation/deflections measurements with the 5% deflection limit clearly delineated.

Laser profiling and measurement technology must be certified by the company performing the work to be in compliance with the calibration criteria posted at: <https://www.fdot.gov/construction/Engineers/Environment/Laser.shtm>. Reports submitted in electronic media are preferred.

The Engineer may waive this requirement for side drains and cross drains which are short enough to inspect from each end of the pipe.

**430-4.8.1 Video Report:** Provide video files via digital media (DVD, flash drive, or other) or by online digital distribution with a minimum standard resolution of 720 x 480. Use a camera with lighting suitable to allow a clear picture of the entire periphery of the pipe. Center the camera in the pipe both vertically and horizontally and be able to pan and tilt to a 90 degree angle with the axis of the pipe and rotating 360 degrees. Use equipment to move the camera through the pipe that will not obstruct the camera's view or interfere with proper documentation of the pipe's condition.

The video image shall be clear, focused, and relatively free from roll, static, or other image distortion qualities that would prevent the reviewer from evaluating the condition of the pipe. The video will include identification before each section of pipe filmed. The identification will include the project number, the structure number corresponding to the structure number in the Plans for the project, size of pipe, the date and time, and indicate which pipe is being filmed if multiple pipes are connected to the structure. Notes should be taken during the video recording process. Submit these notes along with the video.

Move the camera through the pipe at a speed not greater than 30 feet per minute. Mark the video with the distance down the pipe. The distance shall have an accuracy of one foot per 100 feet. Film the entire circumference at each joint. Stop the camera and pan when necessary to document and measure defects. Position the camera head perpendicular to all defects requiring measurement by the video micrometer.

**430-4.8.2 Reinspection:** At any time after reviewing the submitted pipe inspection reports, the Engineer may direct additional inspections. If no defects are observed during the reinspection,

the Owner will pay for the cost of the reinspections in accordance with 4-3. If defects are observed, the reinspection and all work performed to correct the defects will be done at no cost to the Owner. Acceptance of all replacements or repairs will be based on video documentation of the completed work prior to Final Acceptance.

#### **430-5 Removing Existing Pipe.**

If the Plans indicate that existing pipe is to remain the property of the Owner, collect and stack along the right-of-way all existing pipe or pipe arch so indicated in the Plans to be removed, or that does not conform to the lines and grades of the proposed work and that is not to be re-laid, as directed by the Engineer. Take care to prevent damage to salvageable pipe during removal and stacking operations.

#### **430-6 Placing Pipe Under Railroad.**

**430-6.1 General:** Construct pipe culverts under railroad tracks in accordance with the requirements of the railroad company.

Perform all the shoring under the tracks, and sheeting and bracing of the trench, required by the railroad company or deemed necessary by the Engineer in order to ensure safe and uninterrupted movement of the railroad equipment, at no expense to the Owner.

**430-6.2 Requirements of the Railroad Company:** Install pipe using methods required by the railroad company and shown in the Contract Documents.

When the general method of installation required by the railroad company is indicated in the Plans, do not alter such method, or any other specific details of the installation which might be indicated in the Plans, without receiving approval or direction from the railroad, followed by written approval from the Engineer.

**430-6.3 Notification to Railroad Company:** Notify the railroad company and the Engineer at least ten days prior to the date on which pipe is to be placed under the railroad tracks.

**430-6.4 Placing Pipe by Jacking:** Obtain the Engineer's and the railroad company's approval of the details of the jacking method to be used, when placing pipe through the railroad embankment, before the work is started.

**430-6.5 Use of Tunnel Liner:** When the railroad company requires that a tunnel liner be used for placing the pipe in lieu of the jacking method, the Owner will pay for the tunnel liner material separately in cases where the Contract Documents do not require the use of a tunnel liner. For these cases the Owner will reimburse the Contractor for the actual cost of the liner, delivered at the site. The Owner will base such cost on a liner having the minimum gage acceptable to the railroad.

#### **430-7 Specific Requirements for Concrete Pipe.**

**430-7.1 Sealing Joints:** Seal the pipe joints with round rubber or profile gaskets meeting the requirements of Section 449. Ensure that the gasket and the surface of the pipe joint, including the gasket recess, are clean and free from grit, dirt and other foreign matter, at the time the joints are made. In order to facilitate closure of the joint, application of a vegetable soap lubricant immediately before closing of the joint will be permitted. Prelubricated gaskets may be used in lieu of a vegetable soap lubricant when the lubricating material is certified to be inert with respect to the rubber material.

**430-7.2 Laying Requirements for Concrete Pipe with Rubber Gasket Joints:** Do not allow the gap between sections of pipe to exceed 5/8 inch for pipe diameters of 12 inches through 18 inches, 7/8 inch for pipe diameters of 24 through 66 inches, and 1 inch for pipe diameters 72 inches and larger. Where minor imperfections in the manufacture of the pipe create an apparent gap in excess of the tabulated gap, the Engineer will accept the joint provided that the imperfection does not exceed 1/3 the circumference of the pipe, and the rubber gasket is 1/4 inch or more past the pipe joint entrance taper. Where concrete pipes are outside of these tolerances, replace them at no expense to the Owner. Do not apply mortar, joint compound, or other filler to the gap which would restrict the flexibility of the joint.

**430-7.3 Field Joints for Elliptical Concrete Pipe:** Use either a preformed plastic gasket material or an approved rubber gasket to make a field joint.

**430-7.3.1 Plastic Gasket:** Meet the following requirements when field joints are made from preformed plastic gasket material:

**430-7.3.1.1 General:** Install field joints in accordance with the manufacturer's instructions and the following:

**430-7.3.1.2 Material:** Meet the requirements of 942-2.

**430-7.3.1.3 Joint Design:** Ensure that the pipe manufacturer submits details to the Engineer regarding configuration of the joint and the amount of gasket material required to affect a satisfactory seal. Do not brush or wipe joint surfaces which are to be in contact with the gasket material with a cement slurry. Fill minor voids with cement slurry.

**430-7.3.1.4 Primer:** Apply a primer of the type recommended by the manufacturer of the gasket material to all joint surfaces which are to be in contact with the gasket material, prior to application of the gasket material. Thoroughly clean and dry the surface to be primed.

**430-7.3.1.5 Application of Gasket:** Apply gasket material to form a continuous gasket around the entire circumference of the leading edge of the tongue and the groove joint, in accordance with the detail shown on Standard Plans, Index 430-001. Do not remove the paper wrapper on the exterior surface of the gasket material until immediately prior to joining of sections. Apply plastic gasket material only to surfaces which are dry. When the atmospheric temperature is below 60°F, either store plastic joint seal gaskets in an area above 70°F, or artificially warm the gaskets to 70°F in a manner satisfactory to the Engineer.

**430-7.3.1.6 Installation of Pipe:** Remove and reposition or replace any displaced or contaminated gasket as directed by the Engineer. Install the pipe in a dry trench. Carefully shape the bottom of the trench to minimize the need for realignment of sections of pipe after they are placed in the trench. Hold to a minimum any realignment of a joint after the gaskets come into contact. Prior to joining the pipes, fill the entire joint with gasket material and ensure that when the pipes are joined there is evidence of squeeze-out of gasket material for the entire internal and external circumference of the joint. Trim excess material on the interior of the pipe to provide a smooth interior surface. If a joint is defective, remove the leading section of pipe and reseal the joint.

**430-7.3.2 Rubber Gasket:** Meet the following requirements when field joints are made with profile rubber gaskets:

**430-7.3.2.1 General:** Install field joints in accordance with the manufacturer's instructions and the following:

**430-7.3.2.2 Material:** Meet the requirements of 942-4.

**430-7.3.2.3 Joint Design:** Ensure that the pipe manufacturer submits details to the Engineer regarding configuration of the joint and gasket required to effect a satisfactory seal. Do not apply mortar, joint compound, or other filler which would restrict the flexibility of the gasket joint.

**430-7.4 Requirements for Concrete Radius Pipe:**

**430-7.4.1 Design:** Construct concrete radius pipe in segments not longer than 4 feet (along the pipe centerline), except where another length is called for in the Contract Documents. Join each segment using round rubber gaskets. Ensure that the pipe manufacturer submits details of the proposed joint, segment length and shape for approval by the Engineer, prior to manufacture.

**430-7.4.2 Pre-Assembly:** Ensure that the manufacturer pre-assembles the entire radius section in his yard, in the presence of the Engineer, to ensure a proper fit for all parts. At the option of the manufacturer, the Contractor may assemble the pipe without gaskets. Consecutively number the joints on both the interior and exterior surfaces of each joint, and make match marks showing proper position of joints. Install the pipe at the project site in the same order as pre-assembly.

**430-8 Specific Requirements for Corrugated Metal Pipe.**

**430-8.1 Field Joints:**

**430-8.1.1 General:** Make a field joint with locking bands, as specified in Article 9 of AASHTO M36 and AASHTO M196M for aluminum pipe. For aluminum pipe, fabricate bands from the same alloy as the culvert sheeting.

When existing pipe to be extended is helically fabricated, make a field joint between the existing pipe and the new pipe using one of the following methods:

1. Cut the new pipe to remove one of the re-rolled annular end sections required in Sections 943 or 945, or fabricate the pipe so that the re-rolled annular section is fabricated only on one end. Use either a spiral (helical) band with a gasket or a flat band with gaskets as required by 430-8.1.2 (2) to join the pipe sections.
2. The Contractor may construct a concrete jacket as shown on Standard Plans, Index 430-001.

**430-8.1.2 Side Drain, Storm and Cross Drain, and Gutter Drains:** Where corrugated metal pipe is used as side drain, storm and cross drain, or gutter drain, use a rubber or neoprene gasket of a design shown to provide a joint as specified in 430-4.

Use a gasket of one of the following dimensions:



1. For annular joints with 1/2 inch depth corrugation: either a single gasket a minimum of 7 inches by 3/8 inch or two gaskets a minimum of 3-1/2 inches by 3/8 inch; and for annular joints with 1 inch depth corrugations: either a single gasket a minimum of 7 inches by 7/8 inch or two gaskets a minimum of 3-1/2 inches by 7/8 inch.
2. For helical joints with 1/2 inch depth corrugation: either a single gasket a minimum of 5 inches by 1 inch or two gaskets a minimum of 3-1/2 inches by 1 inch; and for helical joints with 1 inch depth corrugations: either a single gasket a minimum of 5 inches by 1-1/2 inches or two gaskets a minimum of 3-1/2 inches by 1-1/2 inches.
3. Such other gasket designs as may be approved by the Engineer.

If, in lieu of a single gasket spanning the joint, two gaskets are used, place these individual gaskets approximately 2 inches from each pipe end at the joint. When two gaskets are used, seal the overlapping area on the coupling band between the gaskets consistent with the joint performance specified. The Contractor may tuck a strip of preformed gasket material over the bottom lip of the band for this purpose. Use coupling bands that provide a minimum circumferential overlap of 3 inches. As the end connections on the coupling band are tightened, ensure that there is no local bending of the band or the connection. Use precurved coupling bands on pipe diameters of 24 inches or less.

Use flat gaskets meeting the requirements of ASTM D1056, designation 2C2 or 2B3. In placing flat gaskets on pipe prior to placing the coupling band, do not stretch the gasket more than 15% of its original circumference. Use circular gaskets meeting the requirements of ASTM C361. Do not stretch the circular gasket more than 20% of its original circumference in placing the gasket on pipe. Use preformed plastic gasket material meeting the composition requirements of 942-2.2.

Apply an approved vegetable soap lubricant, as specified for concrete pipe in 430-7.1.1.

**430-8.1.3 Alternate Joint:** In lieu of the above-specified combination of locking bands and flat gaskets, the Contractor may make field joints for these pipe installations by the following combinations:

1. Use the metal bands as specified in Article 9 of AASHTO M36M that are at least 10-1/2 inches wide and consist of a flat central section with a corrugated section near each end, designed to match the annular corrugation in the pipe with which they are to be used. Connect the bands in a manner approved by the Engineer, with a suitable fastening device such as the use of two galvanized 1/2 inch diameter bolts through a galvanized bar and galvanized strap, suitably welded to the band. Use a strap that is the same gage as the band.

Where helically corrugated pipe is to be jointed by this alternate combination, ensure that at least the last two corrugations of each pipe section are annular, and designed such that the band will engage each pipe end with the next-to-outside annular corrugation.

2. For these bands, use a rubber gasket with a circular cross-section of the "O-ring" type conforming to ASTM C361. Use gaskets having the following cross-sectional diameter for the given size of pipe:

Non-SI Units	
Pipe Size	Gasket Diameter
12 inches through 36 inches (with ½ inch depth corrugations)	13/16 inch
42 inches through 96 inches (with ½ inch depth corrugations)	7/8 inch
36 inches through 120 inches (with 1 inch depth corrugations)	1-3/8 inches

Use preformed gasket material to seal the overlapping area on the coupling band between gaskets.

- Use channel band couplers in helical pipe with ends which have been reformed and flanged specifically to receive these bands. Use channel band couplers that are of a two piece design, are fabricated from galvanized steel stock conforming to AASHTO M36, have 2 inch by 2 inch by 3/16 inch angles fastened to the band ends to allow for proper tightening, and meet the following:

Non-SI Units	
Band Thickness	Pipe Wall Thickness
0.079 inch	0.109 inch or lighter
0.109 inch	0.138 inch or heavier
¾ inch wide	0.109 inch or lighter
1 inch wide	0.138 inch or heavier

Furnish two 1/2 inch diameter connection bolts with each band, that conform to ASTM A307, Grade A and are electroplated in accordance with ASTM B633.

Use a gasket with the joint that is a hydrocarbon blend of butyl rubber meeting the chemical composition and physical properties of 942-2.2. Use a 3/8 by 3/4 inch gasket for pipe fabricated from 0.109 inch or lighter material and a 3/8 by 1 inch gasket for pipe fabricated from 0.138 inch and heavier material.

The Contractor may use a flange band coupler without the gasket for all applications other than side drain, storm and cross drain, and gutter drain.

Do not use the flange band coupler to join dissimilar types of pipe.

The Contractor may join reformed flanged helical pipe to existing annular or reformed pipe having annular ends. On non-gasketed installations, use either an annular band or an alternate joint described in 430-8.1.3. On gasketed installations, use an annular band, minimum of five corrugations in width, in conjunction with two O-ring gaskets as specified in 430-8.1.3. Use mastic material to seal the area of band overlap.

The minimum joint performance standards specified in 430-4.1 apply.

**430-8.2 Laying and Shape Requirements for Corrugated Metal Pipe:** Install pipe using either a trench or open ditch procedure.

Check pipe shape regularly during backfilling to verify acceptability of the construction method used. Pipe deflected 5% or more of the certified actual mean diameter of the pipe at final inspection shall

be replaced at no cost to the Owner. Deflection measurements are taken at the point of smallest diameter on the corrugations.

**430-9 Specific Requirements for Steel Reinforced Polyethylene Ribbed Pipe, Corrugated High-Density Polyethylene Pipe, Polypropylene Pipe, and Polyvinyl Chloride (PVC) Pipe.**

**430-9.1 Sampling Requirements:** Submit a sample of each pipe material and diameter used on each project to the Engineer a minimum of two weeks prior to the installation, provided that the pipe meets all of the following:

1. Pipe material is PVC, HDPE, steel reinforced polyethylene, or polypropylene
2. Pipe is corrugated or ribbed
3. Pipe diameter is 12" or larger
4. Project quantity for a pipe diameter is more than 100 linear feet, unless intended for use as cross drain
5. Pipe is not perforated, unless the material is PVC or polypropylene
6. Pipe is intended for applications requiring 100 year design service life as defined in the Florida Department of Transportation Drainage Manual.

The length of each sample pipe section must comprise at least seven regular corrugations (not including the first three corrugations of the pipe on the bell or spigot ends).

**430-9.2 Field Joints:** Use gasketed joints to seal side drain, and storm and cross drain. Use gaskets meeting the requirements of Section 449. Ensure that the pipe manufacturer provides a joint design approved by the Engineer before use.

**430-9.3 Installation Requirements Including Trenching, Foundation and Backfilling Operations:** Check structure shape regularly during backfilling to verify acceptability of the construction method used.

Replace pipe deflected 5% or more of the certified actual mean diameter of the pipe at final inspection at no cost to the Owner.

**430-10 Desilting Pipe or Concrete Box Culvert.**

Desilt pipe culvert and concrete box culvert as designated in the Plans.

**430-11 Method of Measurement.**

**430-11.1 New Pipe Installed by Excavation or Trenching:** The quantity of storm and cross drain pipe, storm drain trench, side drain and gutter drain pipe, installed by pipe culvert optional material - excavation or trenching, to be paid for will be plan quantity, in place and accepted. The plan quantity will be determined from the inside wall of the structure as shown in the Plans, along the centerline of the pipe.

Adjustment to bid quantities, prices and payment will not be allowed for increases, decreases or changes in material or installation requirements due to the use of any optional pipe materials.

If adjustments are required due to Plan errors or omissions or authorized field changes, the plotted material and not the material elected would be used to establish new pay quantities.

Pipe sizes other than round (elliptical/arch) are summarized and paid for using equivalent round pipe diameter.

**430-11.2 New Pipe Installed by Jack & Bore:** The quantity of storm and cross drain pipe, storm drain trench, side drain and gutter drain pipe, installed by pipe culvert optional material - jack & bore, to be paid for will be the plan quantity, in place and accepted. The measurement and payment will be the plan quantity length of the casing or carrier pipe installed by jack & bore.

Carrier pipe installed through/inside the casing is paid for as pipe culvert optional material – excavation or trenching.

**430-11.3 Mitered End Section:** The quantity of mitered end sections to be paid for will be the number completed and accepted.

#### **430-12 Basis of Payment.**

**430-12.1 General:** Prices and payments will be full compensation for all work specified in this Section, including all excavation except the volume included in the items for the grading work on the project, and except for other items specified for separate payment in Section 125; all backfilling material and compaction; disposal of surplus material; and all clearing and grubbing outside of the required limits of clearing and grubbing as shown in the Plans.

No payment will be made for failed bore paths, injection of excavatable flowable fill, products taken out of service, or incomplete installations. Payment will include all work and materials necessary for jack & bore, including boring, backfilling, flowable fill, and restoration materials necessary for a complete and accepted installation.

No payment will be made for jack & bore until a Bore Path Report has been submitted to the Engineer.

**430-12.2 Removing Existing Pipe:** When existing pipe is removed and replaced with new pipe approximately at the same location, the cost of excavating and removing the old pipe and of its disposal will be included in the Contract unit price for clearing and grubbing.

**430-12.3 Site Restoration:** The cost of restoring the site, as specified in 125-11, that is disturbed, solely for the purpose of constructing pipe culvert, will be included in the Contract unit price for the pipe culvert, unless designated specifically to be paid for under other items.

**430-12.4 Plugging Pipes:** The cost of temporarily plugging a pipe culvert, either proposed or existing, will be incidental to the contract unit price for new pipe culvert.

The cost of filling and/or plugging an existing pipe culvert that is to be permanently placed out of service will be paid for at the contract unit price for filling and plugging pipe, per cubic yard. Price and payment will be full compensation for flowable fill, masonry, concrete, mortar, and all labor and materials necessary to complete the work.

When the project includes no quantities for new pipe culverts, and temporary plugs are required for existing pipe culverts, the cost will be considered as extra work, in accordance with 4-3.5.

**430-12.5 Desilting Pipe:** Desilting pipe will be paid for at the contract unit price per foot for each pipe desilted. Price and payment will be full compensation for furnishing all equipment, tools and labor, disposal of silt and debris, and all incidentals necessary for satisfactorily performing the work.

**430-12.6 Desilting Concrete Box Culverts:** Price and payment will be full compensation for all work required.

**430-12.7 Flared End Sections:** Price and payment will be full compensation for all work and materials required.

**430-12.8 Mitered End Sections:** Price and payment will be full compensation for all pipe, grates when required, fasteners, reinforcing, connectors, anchors, concrete, sealants, jackets and coupling bands, and all work required.

**430-12.9 Railroad Requirements:** Where pipe culvert is constructed under railroad tracks, the Contract unit price for the pipe culvert will include the costs of any jacking operations and the operation of placing the pipe by use of a tunnel liner, (except as specified for unanticipated tunnel liner, in 430-6.5, where reimbursement is to be made for such unanticipated liner), and all other work necessary to meet the requirements of the railroad company, excluding the costs of watchman or flagman services provided by the railroad company, except as provided below.

The Owner will reimburse the Contractor for the actual costs of any trestle bridge work which is performed by the railroad's forces, as billed to him by the railroad, less the value of any salvage materials derived there from, whether such salvage materials are retained by the railroad company or by the Contractor. When the work of shoring and bracing is to be performed by the railroad, such fact will be stipulated in the Contract Documents and the Contractor will be required to pay to the railroad the amount of such costs, which amount will be reimbursed to him by the Owner. The Contract unit price for the pipe culvert shall include the costs of all other work of shoring and bracing. 430-12.10 Payment Items: Payment will be made under:

<i>Item No. 430-1</i>	<i>24" ADS, N-12 Pipe</i>	<i>-per Linear Foot (LF)</i>
<i>Item No. 430-2</i>	<i>30" ADS, N-12 Pipe</i>	<i>-per Linear Foot (LF)</i>

END OF SECTION 430

## SECTION 520

### CONCRETE GUTTER, CURB ELEMENTS, AND TRAFFIC SEPARATOR

#### 520-1 Description.

Construct portland cement concrete curb. Curb will include concrete curb and gutter, concrete traffic separator, valley gutter, special concrete gutter, curb for sidewalk curb ramps and driveways, and any other types of concrete curb not specified in other Sections.

#### 520-2 Materials.

**520-2.1 Concrete:** Use concrete meeting the requirements of Section 347.

**520-2.2 Reinforcement:** For all steel reinforcement required by the Plans, meet the requirements of Section 415.

**520-2.3 Joint Materials:** Meet the requirements of Section 932.

#### 520-3 Forms.

**520-3.1 Form Materials:** Construct forms for this work of either wood or metal. Provide forms that are straight, free from warp or bends, and of sufficient strength, when staked, to resist the pressure of the concrete without deviation from line and grade. For all items constructed on a radius, use flexible forms.

**520-3.2 Depth of Forms:** Ensure that forms have a depth equal to the plan dimensions for the depth of concrete being deposited against them.

**520-3.3 Machine Placement:** The Contractor may place these items by machine methods with the approval of the Engineer provided that the Contractor consistently produces an acceptable finished product, true to line, grade, and cross section.

#### 520-4 Excavation.

Excavate to the required depth, and compact the foundation material upon which these items are to be placed as specified in 120-9.

#### 520-5 Placing Concrete.

Place the concrete in the forms, and tamp and spade it to prevent honeycombing, and until the top of the structure can be floated smooth and the edges rounded to the radius shown in the Plans.

#### 520-6 Joints.

**520-6.1 Contraction Joints:** Except for machine placed items, the Contractor may form joints by using dummy joints (either formed or sawed) or by using sheet metal templates. If using sheet metal templates, ensure that they are of the dimensions, and are set to the lines, shown in the Plans. Hold templates firmly while placing the concrete. Leave templates in place until the concrete has set sufficiently to hold its shape, but remove them while the forms are still in place.

Saw contraction joints, for machine placed items, unless the Engineer approves an alternate method. Saw the joints as soon as the concrete has hardened to the degree that excessive raveling will not occur and before uncontrolled shrinkage cracking begins.

Space contraction joints at intervals of 10 feet except where closure requires a lesser interval, but do not allow any section to be less than 4 feet in length.

**520-6.2 Expansion Joints:** Construct expansion joints at all inlets, at all radius points, and at other locations indicated in the Plans. Locate them at intervals of 500 feet between other expansion joints or ends of a run. Ensure that the joint is 1/2 inch in width.

#### **520-7 Finishing.**

**520-7.1 Repair of Minor Defects:** Remove the forms within 24 hours after placing the concrete, and then fill minor defects with mortar composed of one part portland cement and two parts fine aggregate. The Engineer will not allow plastering on the face of the curb. Remove and replace any rejected curb, curb and gutter, or valley gutter without additional compensation.

**520-7.2 Final Finish:** Finish all exposed surfaces while the concrete is still green. In general, the Engineer will only require a brush finish. For any surface areas, however, which are too rough or where other surface defects make additional finishing necessary, the Engineer may require the Contractor to rub the curb to a smooth surface with a soft brick or wood block, using water liberally. Also, if necessary to provide a suitable surface, the Engineer may require the Contractor to rub further, using thin grout or mortar.

**520-7.3 Imprinted Concrete:** Install imprinted concrete as shown in the Plans.

#### **520-8 Curing.**

**520-8.1 General:** Continuously cure the concrete for a period of at least 72 hours. Commence curing after completely finishing and as soon as the concrete has hardened sufficiently to permit application of the curing material without marring the surface. Immediately replace any curing material removed or damaged during the 72 hour period.

After removing the forms, cure the surfaces exposed by placing a berm of moist earth against them or by any of the methods described below, for the remainder of the 72 hour curing period.

**520-8.2 Wet Burlap Method:** Place burlap, as specified in 925-1, over the entire exposed surface of the concrete, with sufficient extension beyond each side to ensure complete coverage. Overlap adjacent strips a minimum of 6 inches. Hold the burlap securely in place such that it will be in continuous contact with the concrete at all times, and do not allow any earth between the burlap surfaces at laps or between the burlap and the concrete. Saturate the burlap with water before placing it, and keep it thoroughly wet throughout the curing period.

**520-8.3 Membrane Curing Compound Method:** Apply clear membrane curing compound or white pigmented curing compound, as specified in 925-2, by a hand sprayer meeting the requirements of 350-3.10, in a single coat continuous film at a uniform coverage of at least one gallon per 200 square feet. Immediately recoat any cracks, checks, or other defects appearing in the coating. Thoroughly agitate the curing compound in the drum prior to application, and during application as necessary to prevent settlement of the pigment.

**520-8.4 Polyethylene Sheeting Method:** Place polyethylene sheeting, as specified in 925-3, over the entire exposed surface of the concrete, with sufficient extension beyond each side to ensure complete coverage. Overlap adjacent strips a minimum of 6 inches. Hold the sheeting securely in place and in continuous contact with the concrete at all times.

**520-9 Backfilling and Compaction.**

After the concrete has set sufficiently, but not later than three days after pouring, refill the spaces in front and back of the curb to the required elevation with suitable material. Place and thoroughly compact the material in layers not thicker than 6 inches.

**520-10 Surface Requirements.**

Test the gutter section of curb and gutter with a 10 foot straightedge laid parallel to the centerline of the roadway and while the concrete is still plastic. Perform straightedging along the edge of the gutter adjacent to the pavement or along other lines on the gutter cross-section, as directed by the Engineer. Immediately correct irregularities in excess of 1/4 inch.

**520-11 Method of Measurement.**

For curb or curb and gutter, the quantity to be paid will be the plan quantity, in feet, measured along the face of the completed and accepted curb or curb and gutter. Curb for sidewalk curb ramps or driveways will be paid at the Contract unit price for the adjacent curb type.

For valley gutter or shoulder gutter, the quantity to be paid will be the plan quantity, in feet, measured along the gutter line of the completed and accepted valley gutter or shoulder gutter.

For concrete traffic separator of constant width, meeting the requirements of Standard Plans, Index 520-020, the quantity to be paid will be the plan quantity, in feet, measured along the center of its width, completed and accepted, including the length of the nose.

For concrete traffic separator of nonstandard or varying width, the quantity to be paid will be the plan quantity, in square yards, completed and accepted.

**520-12 Basis of Payment.**

**520-12.1 Concrete Gutter, Curb Elements, and Traffic Separator:** Price and payment will be full compensation for all work specified in this Section, including reinforcement steel, dowels, asphalt pavement and base under traffic separator, joint materials and asphalt curb pad.

**520-12.2 Excavation:** Excavation for new installations will be paid for as roadway excavation in accordance with 120-13.2.

**520-12.3 Payment Items:** Payment will be made under:

*Item No. 520-1      F-Curb*

*-per Linear Foot (LF)*

**END OF SECTION 520**



## SECTION 522

### CONCRETE SIDEWALK AND DRIVEWAYS

#### **522-1 Description.**

Construct concrete sidewalks and driveways in accordance with the Plans and the Standard Plans. Sidewalk will include curb ramps, landings, transition slopes, sidewalk curb, and edge beams.

#### **522-2 Materials.**

Meet the requirements specified in 520-2.

#### **522-3 Forms.**

Provide forms as specified in 520-3.

#### **522-4 Foundation.**

Shape and compact the foundation materials to a firm, even surface, true to grade and cross-slope. Compact areas that have been excavated more than 6 inches below the bottom of the concrete, to a minimum of 95% of AASHTO T99 density. The area to be compacted includes the area directly under and 1 foot beyond each side of the sidewalk or driveway, when right-of-way allows.

#### **522-5 Joints.**

Install expansion and contraction joints in accordance with the Plans and the Standard Plans.

#### **522-6 Placing Concrete.**

Place the concrete as specified in 520-5.

#### **522-7 Finishing.**

**522-7.1 Screeding:** Strike-off the concrete by means of a wood or metal screed, used perpendicular to the forms, to obtain the required grade and remove surplus water and laitance.

**522-7.2 Surface Requirements:** Imprint concrete as detailed in the Plans, otherwise provide a broom finish. Ensure that the surface variations are not more than 1/4 inch under a 10 foot straightedge or more than 1/8 inch on a 5 foot transverse section. Finish the outer edges of the concrete with an edging tool having a radius of 1/2 inch.

#### **522-8 Curing.**

Cure the concrete as specified in 520-8.

#### **522-9 Opening Sidewalk to Pedestrian Traffic.**

Install detectable warnings, when shown in the Plans, in accordance with Section 527 on completed sections of sidewalk before opening to pedestrian traffic.

#### **522-10 Method of Measurement.**

The quantity to be paid will be plan quantity, in square yards, completed and accepted.

#### **522-11 Basis of Payment.**

Price and payment will be full compensation for all work specified in this Section. Excavation for new installations will be paid for under the items for the grading work on the project.

Payment will be made under:

*Item No. 522-1*

*Concrete Sidewalk*

*-per Square Yard (SY)*

**END OF SECTION 522**

SECTION 524

CONCRETE DITCH AND SLOPE PAVEMENT

**524-1 Description.**

Construct concrete pavement in the flow channel of drainage ditches and on slopes in accordance with the notes and details shown in the Plans.

**524-2 Materials.**

Concrete.....Section 347

Preformed Expansion Joint Material and Hot Poured Sealer .....Section 932

Filter Fabric .....Section 985

Reinforcing Steel .....Section 415

**524-3 Forms.**

Provide forms as specified in 520-3.

**524-4 Foundation.**

Shape and compact the foundation materials, upon which the pavement is to be constructed, to a firm, even surface, true to grade and cross-section.

Dispose of surplus material.

**524-5 Joints and Weep Holes.**

**524-5.1 Joints:** Form open or tooled (dummy) type joints as shown in the Plans. Form open joints by staking a metal bulkhead in place and placing the concrete on both sides of it. When the concrete has set sufficiently to preserve the width and shape of the joints, remove the bulkhead. Upon finishing the pavement over the joint, open and edge the slot with a tool having a 1/4 inch radius.

**524-5.2 Method of Placing Slope Pavement:** Place slope pavement in vertical strips, 4 feet, plus or minus 1 inch, wide, except taper radii strips from the 4 foot width at the bottom to a minimum width of 1 foot at the top. Score the strips horizontally at intervals of 2 feet, plus or minus 1 inch, with a tool having a double 1/4 inch radius. Edge construction joints between strips with a tool having a 1/4 inch radius. The Engineer will allow construction joints at horizontal scorings.

**524-5.3 Weep Holes:** Locate and construct weep holes as shown in the Plans. Construct weep holes at the toe of slope for all slope pavements.

**524-5.4 Filter Fabric:** Locate and construct filter fabric as shown in the Plans and Standard Plans.

**524-6 Placing Concrete.**

Place the concrete in the forms, tamp and spade it to prevent honeycombing, and until the top of the structure can be floated smooth and the edges rounded.

**524-7 Finishing.**

Roughen the surface of ditch pavement after screeding concrete, unless otherwise specified, to the approximate shape and grade by a rake or other suitable tool drawn perpendicular to the direction of flow. Ensure that the furrows are at least 1/4 inch deep.

Strike off slope pavement or smooth surfaced ditch pavement, when specified, true to line and cross-section, and remove all surplus water and laitance from the surface. Lightly broom the finish.

**524-8 Curing.**

Cure the concrete as specified in 520-8.

**524-9 Method of Measurement.**

**524-9.1 Concrete Ditch and Slope Pavement:** The quantities to be paid for Concrete Ditch Pavement and Concrete Slope Pavement will be per lump sum and will include the installation of bollards at the top of the slope and rip-rap around the pooling area at the bottom of the spillway.

**524-9.2 Concrete Core Ditch Blocks:** The quantity to be paid for Concrete Core Ditch Blocks will be the plan quantity of concrete, in cubic yards, completed and accepted. When steel reinforcement is called for in the Plans, payment will be included in the cubic yard pay item. The cubic yard pay item includes any ditch block within a grass or earth ditch, without other pavement on top.

**524-10 Basis of Payment.**

Prices and payments will be full compensation for all work specified in this Section, including all earthwork, skimmers, and incidental materials necessary to complete the work.

Payment will be made under:

<i>Item No. 524-1</i>	<i>Concrete Flume, Type A, with Bollards and Rip-Rap</i>	<i>-per Lump Sum (LS)</i>
-----------------------	--	---------------------------

**END OF SECTION 524**

## SECTION 550

### FENCING

#### 550-1 Description.

Furnish, erect and reset metal fence of the type and at the locations shown in the Plans.

#### 550-2 Types of Fence.

The types of fence are designated as follows:

Type A (Farm Fence).

Type B (Chain-Link Fence).

Type R (Chain-Link Fence for Pedestrian Overpass).

#### 550-3 Materials.

**550-3.1 Type A Fence (Farm Fence):** Meet the requirements of Section 954 for timber posts and braces. For metal posts and braces, and for recycled plastic fence posts, meet the requirements of the Standard Plans.

For the fabric and all other accessories, meet the requirements of the Standard Plans.

**550-3.2 Type B Fence (Chain-Link):** For the posts, braces, fabric and all accessories other than the concrete for bases, meet the requirements of the Standard Plans.

Use concrete as specified in Section 347, or a premix approved by the Engineer for bases. The requirements contained in 347-2.2, and 347-3 will not apply.

**550-3.3 Type R Fence (Chain-Link for Pedestrian Overpass):** Use the fabric and accessories specified in the Plans.

**550-3.4 Resetting Fence:** Use material from the existing fence. For any additional materials required, provide the same type of material as in the existing fence and as specified herein, including gates when applicable.

**550-3.5 Optional Use of Materials:** For Type A Fence, a combination of steel, aluminum, timber, recycled plastic or concrete posts may be used. Unless otherwise called for in the Plans, line posts of one material may be used with corner, pull and end post assemblies of a different material. The Engineer will permit the use of line posts of only one optional material and pull posts assemblies of only one optional material between corner and end post assemblies. Within individual corner and end post assemblies, the Engineer will allow the use of only one optional material.

For Type B Fence, a combination of zinc-coated steel fence members, aluminum coated fence members and aluminum alloy fence members may be used. Unless otherwise indicated in the Plans, the Engineer will allow the use of only one type of fabric material, one type of line post material and one type of pull assembly material between corner and end post assemblies.

**550-3.6 Certification:** Provide the Engineer with certified test reports from the manufacturer confirming that all materials (posts, braces, fabric and all other accessories) conform to the

requirements of this Section, Section 6 and the Standard Plans. Provide the Engineer a copy of the certification at least ten days prior to fence construction.

Also furnish the Engineer a Certificate of Compliance certifying that the fencing system, materials and construction practices comply with the applicable Standard Plans and Specifications.

Acceptance of furnished material will be based on the Certificate of Compliance, accompanying test reports and visual inspection by the Engineer.

#### **550-4 Construction Methods.**

**550-4.1 General:** Install the fence in accordance with the specific requirements of this Article and with the details shown on the Standard Plans for the particular type of fence called for, except for Type R Fence which shall be detailed in the Plans. Construct the fence in close proximity to the right of way line except as otherwise detailed in the Plans. Assume responsibility for obtaining satisfactory permits or permission from property owners for any encroachments required to perform the work, and for proper scheduling of the fence installation with the removal of existing fence where it is necessary to provide continuous security to adjacent areas already fenced. In order to meet this requirement, where necessary for maintaining security of livestock on adjacent property during construction of the new fence, the Engineer may require the erection and subsequent removal of temporary fencing.

**550-4.2 Spacing of Posts:** Space posts as shown in the Standard Plans, within a tolerance of 12 inches, except where definite spotting of corner posts is required. Ensure that in any line of fence, the over-spacings and the under-spacings shall approximately compensate. Set additional line posts at abrupt changes in grade.

**550-4.3 Clearing:** Where the clearing and grubbing for the project includes the area occupied by the fence, clear the area to the limits shown in the Plans. If the limits are not shown in the Plans, clear the area at least 2 feet wide on each side of the fence line. The Engineer may direct that desirable trees be left in place and may restrict clearing where permission from the property owners cannot be obtained.

#### **550-4.4 Construction Over Irregular Terrain and Other Obstructions:**

**550-4.4.1 Clearance of Bottom of Fence:** Install the fence such that the bottom of the fence, in general, follows the contour of the ground. The fence is detailed in the Plans at approximately 3 inches above ground line. Over irregular ground, however, the Engineer will permit a minimum clearance of 1 inch and a maximum of 6 inches for a length not to exceed 8 feet, and, for Type A fence, with the barbed wire spaced midway between ground and bottom of fabric.

**550-4.4.2 Grading:** Where necessary to secure proper vertical alignment and to meet the clearance requirements, fill depressions (except where filling would obstruct proper drainage) and cut down knolls and ridges. Provide a substantial and permanent foundation for the fence.

**550-4.4.3 Use of Extra-Length Posts.** At locations where it is impracticable to adjust the ground level, the Engineer may require that posts of additional length be set and that the opening at the bottom be closed by additional barbed wire, stretched taut between poles, with no vertical distance between wires greater than 3 inches. For all such posts requiring a concrete base, extend the concrete downward to the bottom of the extra-length post.

**550-4.5 Setting Posts:** If rock occurs within the required depth of the post hole, or pavement which is to remain in place exists at the location of a post, drill a hole of a diameter slightly larger than the greatest dimension of the post or footing and grout in the post or footing. Set timber posts either by digging or by driving. Set recycled plastic fence posts in accordance with the Standard Plans.

**550-4.6 Placing Fabric:** Do not place fabric and barbed wire until the posts have been permanently positioned and concrete foundations have attained adequate strength. Place the fabric by securing one end and applying sufficient tension to remove all slack before making permanent attachments at intermediate points. Fasten the fabric to all end, corner and pull posts by approved means. Fasten the fabric using tools designed for the purpose, in accordance with the manufacturer's recommendations. Apply the tension for stretching by mechanical fence stretchers or with single-wire stretchers designed for the purpose.

**550-4.7 Electrical Grounds:**

**550-4.7.1 Grounding for Overhead Lines:** Wherever an overhead power line crosses over the fence, install a ground rod directly below the point of crossing. Where an overhead power line runs parallel to, and within 100 feet of the fence, install a ground rod at each end of the fence and at intervals of no greater than 1,500 feet. Use copper-clad steel ground rods that are a minimum of 8 feet in length and 1/2 inch in diameter. Drive the rod vertically until the top of the rod is approximately 6 inches below the ground surface. Connect a conductor of No. 6 AWG solid copper wire to the ground rod and each metal fence element directly adjacent to the ground rod using non-corrosive ground rod clamps.

**550-4.7.2 Fences with Non-Metal Posts:** For all fences using non-metal posts, substitute a metal post for a non-metal post at intervals of no greater than 300 feet with at least one metal post in any length of fence. Tightly fasten a galvanized steel wire to the barbed wire, fence fabric, and metal post.

**550-5 Method of Measurement.**

**550-5.1 General:** The quantities to be paid for will be plan quantity for the number of gates and the length of each type of fence constructed and accepted. In addition, extra payment will be made, in accordance with 550-6.2, for additional lengths of post approved by the Engineer for the crossing of depressions in accordance with 550-4.4.3, muck areas, or other areas of inadequate support for a post of standard length.

**550-5.2 Measurement of Fence Length, and Payment:** The length of fence to be paid for will be plan quantity completed and accepted. Measurement for resetting fence will be the actual length of existing fence reset, including gates when applicable.

**550-6 Basis of Payment.**

**550-6.1 Basic Items of Fencing:** The Contract unit price per foot for the item of fencing, will be full compensation for all work and materials necessary for the complete installation, including line posts, corner, end, and pull posts. Such price and payment will include, but not be limited to, the following specific incidental work.

1. Any work required to level and prepare the terrain along the line of the fence.
2. Any additional clearing incidental to construction of the fence.

3. All preparation for post holes, in whatever type of material, as specified herein.
4. Any furnishing and installing of electrical grounds.
5. Any additional work or materials required for special construction over irregular terrain, or terrain of inadequate support for the posts, including the additional barbed wire, but not including the extra lengths of posts ordered by the Engineer.
6. Any cost of erection and removal of any temporary fencing, which may be necessary for maintaining security of livestock, etc., on adjacent property during construction of the new fence.

**550-6.2 Payment Rates for Extra-Length Posts:** Any extra length posts added to complete installation of the fence will require an invoice. The Contractor will be compensated for invoice price plus 10% as payment for any extra length posts.

The standard length of steel, recycled plastic and aluminum posts will be the required length as indicated in the Plans or Standard Plans for each type and case.

The payment for additional length of post will include the cost of additional concrete to extend concrete bases, as applicable.

**550-6.3 Gate Payment:** The quantities to be paid for will be full compensation for all labor, materials, posts, and associated hardware for the complete installation of the type gate specified in the Plans, and accepted by the Engineer.

**550-6.4 Payment Items:** Payment shall be made under:

<i>Item 550-1</i>	<i>7-Ft Chain Link Fence with Additional 1-Ft Barbed Wire Attachment and Rock Base</i>	<i>-per Linear Foot (LF)</i>
<i>Item 550-2</i>	<i>Temporary 7-Ft Chain Link Fence with Additional 1-Ft Barbed Wire Attachment</i>	<i>-per Linear Foot (LF)</i>
<i>Item 550-3</i>	<i>4-Ft Chain Link Fence with Rock Base</i>	<i>-per Linear Foot (LF)</i>

END OF SECTION 550



SECTION 570

PERFORMANCE TURF

**570-1 Description.**

Establish a growing, healthy turf over all areas designated in the Plans. Use sod in areas designated in the Plans to be sodded. Use seed, hydroseed, bonded fiber matrix, or sod in all other areas. Maintain performance turf areas until final acceptance of all Contract work in accordance with Section 5-11 and the establishment requirements of 570-4 have been met.

**570-2 Materials.**

Meet the following requirements:

Turf Materials.....	Section 981
Fertilizer .....	Section 982
Water .....	Section 983

**570-3 Construction Methods.**

**570-3.1 General:** Remove all construction debris in performance turf areas. Install performance turf at the earliest practical time for erosion control and establishment.

Shape the areas to be planted to the plan typical sections and lines and grade shown in the Plans.

Except in areas where the Contract Documents requires specific types of turf to match adjoining private property, any species of turf designated in Section 981 may be used. All of the permanent performance turf material shall be in place prior to final acceptance.

The Owner will only pay for replanting as necessary due to factors determined by the Engineer to be beyond control of the Contractor.

Install all performance turf on shoulder areas prior to the placement of the friction course on adjacent pavement.

**570-3.2 Seeding:** At the Contractor's option, wildflower seed may be included in the performance turf seeding operation or performed separately from the performance turf seeding. Seed must produce visible seedlings within 45 days of planting.

Use of compost meeting the requirements of Section 987 as mulch is acceptable unless otherwise specified.

**570-3.3 Sod:** Place the sod on the prepared surface, with edges in close contact. Do not use sod which has been cut for more than 48 hours.

Place the sod to the edge of all landscape areas as shown in the Plans and the Standard Plans.

Place rolled sod parallel with the roadway and cut any exposed netting even with the sod edge.

Monitor placed sod for growth of exotic or invasive pest plants and noxious weeds. If exotic or invasive pest plants and/or noxious weeds manifest themselves within 30 days of placement of the sod during the months April through October, within 60 days of placement of the sod during the months of November through March treat affected areas by means acceptable to the Owner at no expense to the Owner. If pest plants and/or noxious weeds manifest themselves after the time frames described above from date of placement of sod, the Engineer, at his sole option, will determine if treatment is required and whether or not the Contractor will be compensated for such treatment. If compensation is provided, payment will be made as Unforeseeable Work as described in 4-4.

Remove and replace any sod as directed by the Engineer.

**570-3.4 Hydroseeding:** Use equipment specifically designed for mixing the mulch, seed, fertilizer, tackifier and dye, and applying the slurry uniformly over the areas to be hydroseeded.

Use mulch that does not contain reprocessed wood or paper fibers. Ensure that 50% of the fibers will be retained on a twenty-five mesh screen.

Mix fertilizer as required into the hydroseeding slurry.

Ensure that the dye does not contain growth or germination inhibiting chemicals.

When polyacrylamide is used as part of hydroseeding mix, only anionic polymer formulation with free acrylamide monomer residual content of less than 0.05% is allowed. Cationic polyacrylamide shall not be used in any concentration. Do not spray polyacrylamide containing mixtures onto pavement. These may include tackifiers, flocculants or moistureholding compounds.

**570-3.5 Bonded Fiber Matrix (BFM):** Meet the minimum physical and performance criteria of this Specification for use of BFM in hydroseeding operations or temporary nonvegetative erosion and sediment control methods.

Provide evidence of product performance testing, manufacturer's certification of training and material samples to the Engineer at least 7 calendar days prior to installation.

Provide documentation to the Engineer of manufacturer's testing at an independent laboratory, demonstrating superior performance of BFM as measured by reduced water runoff, reduced soil loss and faster seed germination in comparison to erosion control blankets.

Use only BFMs that contain all components pre-packaged by the manufacturer to assure material performance. Deliver materials in UV and weather resistant factory labeled packaging. Store and handle products in strict compliance with the manufacturer's directions.

When polyacrylamide is used as part of hydroseeding mix, only anionic polymer formulation with free acrylamide monomer residual content of less than 0.05% is allowed. Cationic polyacrylamide shall not be used in any concentration. Do not spray polyacrylamide containing mixtures onto pavement. These may include tackifiers, flocculants or moistureholding compounds.

Meet the following requirements after application of the formed matrix:

Ensure that the tackifier does not dissolve or disperse upon re-wetting.

Ensure that the matrix has no gaps between the product and the soil and that it provides 100% coverage of all disturbed soil areas after application.

Ensure that the matrix has no germination or growth inhibiting properties and does not form a water-repelling crust.

Ensure that the matrix is comprised of materials which are 100% biodegradable and 100% beneficial to plant growth.

Mix and apply the BFM in strict compliance with the manufacturer's recommendations.

Apply the BFM to geotechnically stable slopes at the manufacturer's recommended rates.

Degradation of BFM will occur naturally as a result of chemical and biological hydrolysis, UV exposure and temperature fluctuations. Re-application, as determined by the Engineer, will be required if BFM-treated soils are disturbed or water quality or turbidity tests show the need for an additional application.

**570-3.6 Watering:** Water all performance turf areas as necessary to produce a healthy and vigorous stand of turf. Ensure that the water used for turf irrigation meets the requirements of Section 983.

**570-3.7 Fertilizing:** Fertilize as necessary to promote turf growth and establishment based on soil testing. Refer to Section 982 for fertilizer rates.

For bid purposes, base estimated quantities on an initial application of 265 lbs/acre and one subsequent application of 135 lbs/acre of 16-0-8.

**570-3.8 Shoulder Treatment:** Provide soil for shoulder treatment in accordance with Standard Plans, Index 570-010. Soil needed for these purposes will be included in the corresponding Pay Item.

#### **570-4 Turf Establishment.**

Perform all work necessary, including watering and fertilizing, to sustain an established turf, free of noxious weeds, at no additional expense to the Owner. Provide the filling, leveling, and repairing of any washed or eroded areas, as necessary.

Established turf is defined as follows:

1. An established root system (leaf blades break before seedlings or sod can be pulled from the soil by hand).
2. No bare spots larger than one square foot.
3. No continuous sod seams running perpendicular to the face of the slope.
4. No bare areas comprising more than 1% of any given 1,000 square foot area.
5. No deformation of the performance turf areas caused by mowing or other Contractor equipment.

6. No exposed sod netting.
7. No competing vegetation, exotic or invasive pest plants or noxious weeds.

Monitor turf areas and remove all competing vegetation, exotic or invasive pest plants, and noxious weeds (as listed by the Florida Exotic Pest Plant Council, Category I "List of Invasive Species", Current Edition, <https://www.fleppc.org>). Remove such vegetation regularly by manual, mechanical, or chemical control means, as necessary. When selecting herbicides, pay particular attention to ensure use of chemicals that will not harm desired turf or wildflower species. Use herbicides in accordance with 7-1.7.

If at the time that all other work on the project is completed, but all turf areas have not met the requirements for established turf set forth in 570-4, continuously maintain all turf areas until the requirements for established turf set forth in 570-4 have been met.

During establishment and until the performance turf is established in accordance with this Section, continue the inspection, maintenance, and documentation of erosion and sedimentation control items in accordance with Section 104. Remove and dispose of all erosion and sedimentation control items after the performance turf has been established.

Notify the Engineer, with a minimum of seven calendar days advance notice, to conduct inspections of the performance turf at approximate 90-day intervals during the establishment period to determine establishment. Results of such inspections will be made available to the Contractor within seven calendar days of the date of inspection. Determination of an established turf will be based on the entire project and not in sections.

Upon the determination by the Engineer that the requirements of 570-4 have been met and an established turf has been achieved and all erosion and sedimentation control items have been removed, the Engineer will release the Contractor from any further responsibility provided for in this Specification.

The Contractor's establishment obligations of this specification will not apply to deficiencies due to the following factors, if found by the Engineer to be beyond the control of the Contractor, his subcontractors, vendors or suppliers:

1. Determination that the deficiency was due to the failure of other features of the Contract.
2. Determination that the deficiency was the responsibility of a third party performing work not included in the Contract or its actions.

The Owner will only pay for replanting as necessary due to factors determined by the Owner to be beyond the control of the Contractor.

**570-5 Responsible Party.**

For the purposes of this Specification, the Contractor shall be the responsible party throughout construction and establishment periods.

Upon final acceptance of the Contract in accordance with 5-11, the Contractor's responsibility for maintenance of all the work or facilities within the project limits of the Contract will terminate in accordance with 5-11; with the sole exception that the facilities damaged due to lack of established turf

and the obligations set forth in this Specification for performance turf shall continue thereafter to be responsibility of the Contractor as otherwise provided in this Section.

**570-6 Disputes Resolution.**

The Contractor and the Owner acknowledge that use of the Statewide Disputes Review Board is required and the determinations of the Statewide Disputes Review Board for disputes arising out of the performance turf specification will be binding on both the Contractor and the Owner, with no right of appeal by either party, for the purposes of this Specification.

Any and all Statewide Disputes Review Board meetings after final acceptance of the Contract in accordance with 5-11 shall be requested and paid for by the Contractor. The Owner will reimburse the Contractor for all fees associated with meetings.

**570-7 Failure to Perform.**

Should the Contractor fail to timely submit any dispute to the Statewide Disputes Review Board, refuse to submit any dispute to the Statewide Disputes Review Board, fail to provide an established turf in accordance with 570-4 within six months of final acceptance of the Contract in accordance with 5-11, or fail to compensate the Owner for any remedial work performed by the Owner in establishing a turf and other remedial work associated with lack of an established turf, including but not limited to, repair of shoulder or other areas due to erosion and removal of sediments deposited in roadside ditches and streams, as determined by the Statewide Disputes Review Board to be the Contractor's responsibility, the Owner shall suspend, revoke or deny the Contractor's certificate of qualification under the terms of Section 337.16(d)(2), Florida Statutes, until the Contractor provides an established turf or makes full and complete payment for the remedial work performed by the Owner. In no case shall the period of suspension, revocation, or denial of the Contractor's certificate of qualification be less than six months. Should the Contractor choose to challenge the Owner's notification of intent for suspension, revocation or denial of qualification and the Owner's action is upheld, the Contractor shall have its qualification suspended for a minimum of six months or until the remedial action is satisfactorily performed, whichever is longer.

**570-8 Method of Measurement.**

The quantities to be paid for will be plan quantity in square yards based on the area shown in the Plans, completed and accepted.

**570-9 Basis of Payment.**

Prices and payments will be full compensation for all work and materials specified in this Section.

Payment will be made under:

<i>Item No. 570-1</i>	<i>Sodding</i>	<i>-per Square Yard (SY)</i>
<i>Item No. 570-2</i>	<i>Seeding</i>	<i>-per Square Yard (SY)</i>

**END OF SECTION 570**

## SECTION 700

### HIGHWAY SIGNING

#### 700-1 General Requirements.

**700-1.1 Description:** Furnish and erect roadway signs at the locations, and in accordance with the details, shown in the Plans.

The FDOT designates ground traffic signs as signs erected on the shoulders, slopes, or medians, but not extending over the traveled roadway, and may further classify these signs as single post or multi-column.

The FDOT designates signs erected partially or completely over the traveled roadway or mounted on bridges as overhead traffic signs, and may further classify these signs as overhead cantilever or span traffic signs.

Meet the requirements of Section 603.

#### 700-1.2 Materials:

**700-1.2.1 General:** Meet the materials requirements shown in the Specifications, Standard Plans, and any additional requirements identified in the Plans.

**700-1.2.2 Concrete:** Use concrete meeting the requirements of Section 346.

**700-1.2.3 Static Sign Assembly Requirements:** All sign panels shall be aluminum unless otherwise shown in the Plans. Sheets and plates for sign panels shall meet the requirements of ASTM B209, Aluminum Association Alloy 6061-T6, 5154-H38 or 5052-H38. Sign panels for single column ground mounted signs shall utilize aluminum plate with a minimum thickness of 0.08 inches. All other sign panels shall utilize aluminum plate with a minimum thickness of 0.125 inches. All panels shall have rounded corners.

**700-1.2.4 Retroreflective Sign Sheeting:** Use signs that meet the material and process requirements of Section 994.

Use Type XI sheeting for all regulatory, warning and overhead signs unless otherwise specified. The R1-1, R1-2, R5-1 and R5-1a signs must use a sheeting system that includes a colorless film overlay.

Type XI sheeting shall also be used for all limited access advance exit and exit guide signs.

Use Type IV yellow-green fluorescent sheeting for the following signs:

1. pedestrian: R1-6, R1-6a, R1-6b, R1-6c, R1-9, R1-9a, R10-15, W11-2,
2. shared use path (trail): W11-15, W11-15a,
3. supplemental panels used with signs in (1) through (4), above.

Do not mix signs having fluorescent yellow-green sheeting with signs having yellow retroreflective sheeting.

Roll-up signs shall meet the requirements of Type VI sheeting.

Use Type IV sheeting for all other signs. Use Type IV or Type XI sheeting for retroreflective strips on signs.

**700-1.3 Storage, Handling and Labeling:** If signs are stored prior to installation, store them in accordance with the manufacturer's recommendations. Properly package signs to protect them during storage, shipment and handling to prevent damage to the sign face and panel. In addition to the information required in Section 994, all permanent roadway signs must be labeled on the back bottom edge with the date of installation. Make the labels unobtrusive, but legible enough to be easily read by an observer on the ground when the sign is in its final position. Apply the label in a manner that is at least as durable as the sign face.

**700-1.4 Acceptance of Signs:**

**700-1.4.1 Sign Inspection:** Submit certification that the sign assembly meets the material and installation requirements of the Contract Documents. The Engineer will inspect the signs upon delivery to the storage or project site and again at the final construction inspection. Repair and replace signs deemed unacceptable by the Engineer at no expense to the Owner.

**700-1.4.2 Imperfections and Repairs:** Repair or replace signs containing imperfections or damage regardless of the kind, type, or cause of the imperfections or damage. For sign panels exceeding 30 square feet, the Contractor may make one patch, if necessary, to each sign panel not to exceed two square inches. Make repairs according to the manufacturer's recommendations and to the satisfaction of the Engineer. Ensure that completed repairs provide a level of quality necessary to maintain the service life of the sign and are satisfactory in appearance to the Engineer.

**700-2 Static Signs.**

**700-2.1 Ground Mounted Signs:** Ground mounted signs consist of both single column and multi-column static signs.

**700-2.1.1 Materials:** Use aluminum tubing materials meeting the general provisions of Section 965 for all single column ground signs. Multi-column signs must be galvanized steel W or S beams steel columns meeting the general provisions of Section 962. All materials must meet the requirements of the appropriate Standard Plans.

**700-2.1.2 Fabrication of Panel Messages:** Fabricate standard sign panel messages in accordance with details included in the Standard Highway Signs (SHS) manual published by the U.S. Department of Transportation. Submit shop drawings to the Owner for approval as specified in Section 5.

**700-2.1.3 Foundation:** Construct foundations in accordance with the applicable Standard Plans. The Contractor may use precast foundations in augured or excavated holes a minimum of 12 inches larger than each axis dimension of the precast foundation. Obtain precast foundations from a plant. The holes must be clean and without loose material. Temporary casing will be required if the soil is unstable. Fill the void around the precast foundation with flowable fill meeting the requirements of Section 121 or use clean sand placed using hydraulic methods.

**700-2.1.4 Breakaway Support Mechanisms for Ground Traffic Signs:**

**700-2.1.4.1 Frangible Supports:** Provide support posts for all frangible sign assemblies consisting of aluminum tubes up to 3 -1/2 inches outside diameter with 3/16 inch wall thickness in accordance with the requirements in the Standard Plans.

**700-2.1.4.2 Slip Bases:** Slip base assemblies for single column signs will use aluminum sleeves and base plates. Slip base assemblies for multi-column signs will use galvanized steel bases. All slip bases must be fabricated in accordance with the requirements of the Standard Plans.

**700-2.1.5 Installation:** Verify the length of the column supports in the field prior to fabrication to permit the appropriate sign mounting height. Fabricate the supports and wind beams in accordance with the Standard Plans. Columns must be plumb and panels must be level with the proper orientation.

**700-2.2 Method of Measurement:** For single post and multi post sign assemblies, an assembly consists of all the signs mounted on a single structure. The Contract unit price per assembly for ground mounted signs (single post and multi-post), furnished and installed, will include furnishing the sign panels, support structure, foundation, hardware, and labor necessary for a complete and accepted installation.

Relocation of signs will consist of removing the existing sign assembly and installing the sign on a new foundation at the location shown in the Plans.

When the Plans call for existing ground-mounted signs to be relocated or removed, after removing the sign panel from the assembly, remove supports and footings. Restore the area of the sign removal or relocation to the condition of the adjacent area.

**700-2.3 Basis of Payment:** Price and payment will be full compensation for all work specified in this Section.

Payment will be made under:

<i>Item No. 700-1</i>	<i>Traffic Control Signs</i>	<i>-per Lump Sum (LS)</i>
-----------------------	------------------------------	---------------------------

END OF SECTION 700



**SECTION 710**

**PAINTED PAVEMENT MARKINGS**

**710-1 Description.**

Apply painted pavement markings, in accordance with the Contract Documents.

**710-2 Materials.**

Use only materials listed meeting the following requirements:

Materials for Raised Pavement Markers (RPMs) and Bituminous Adhesive .....	Section 970
Standard Paint .....	971-1 and 971-3
Durable Paint .....	971-1 and 971-4
Glass Spheres.....	971-1 and 971-2

The Engineer will take random samples of all material in accordance with the FDOT's Sampling, Testing and Reporting Guide schedule.

**710-3 Equipment.**

Use equipment that will produce continuous uniform dimensions of pavement markings of varying widths and meet the following requirements:

1. Capable of traveling at a uniform, predetermined rate of speed, both uphill and downhill, in order to produce a uniform application of paint and capable of following straight lines and making normal curves in a true arc.
2. Capable of applying glass spheres to the surface of the completed line by an automatic sphere dispenser attached to the pavement marking machine such that the glass spheres are dispensed closely behind the installed line. Use a glass spheres dispenser equipped with an automatic cut-off control that is synchronized with the cut-off of the paint and applies the glass spheres in a manner such that the spheres appear uniform on the entire pavement markings surface.
3. Capable of spraying the paint to the required thickness and width without thinning of the paint. Equip the paint tank with nozzles equipped with cut-off valves, which will apply broken or skip lines automatically.

**710-4 Application.**

**710-4.1 General:** Remove existing pavement markings, such that scars or traces of removed markings will not conflict with new pavement markings, by a method approved by the Engineer.

Before applying pavement markings, remove any material that would adversely affect the bond of the pavement markings by a method approved by the Engineer.

Apply standard paint to dry surfaces only, and when the ambient air and surface temperature is at least 40°F and rising.

Apply durable paint to dry surfaces only. Do not apply durable paint when the ambient air and surface temperature is below 50°F, relative humidity is above 80% or when the dew point is within 5°F of the ambient air temperature.

Do not apply painted pavement markings when winds are sufficient to cause spray dust.

Apply painted pavement markings, having well defined edges, over existing pavement markings such that not more than 2 inches on either end and not more than 1 inch on either side is visible. When stencils are used to apply symbols and messages, the areas covered by the stencil reinforcing will not be required to be painted.

Mix the paint thoroughly prior to pouring into the painting machine. Apply paint to the pavement by spray or other means approved by the Engineer.

Conduct field testing in accordance with FM 5-541. Remove and replace painted pavement markings not meeting the requirements of this Section at no additional cost to the Owner.

Apply all pavement markings prior to opening the road to traffic.

**710-4.1.1 Painted Pavement Markings (Final Surface):** On concrete surfaces or newly constructed asphalt, the painted pavement markings (final surface) will include one application of standard paint and one application of Class B RPMs applied to the final surface.

For center line and edge line rumble strip installations where the pavement marking is placed within the grinding, apply a second application of standard paint within 24 hours of each day's grinding operation.

For center line rumble strip installations where RPMs are in conflict with the grinding, install Class D RPMs with the first application of standard paint. Remove Class D RPMs prior to grinding, then install Class B RPMs in an unground area after grinding.

Do not apply final surface paint for bicycle arrows or bicycle messages, 24 inch longitudinal bars in special emphasis crosswalks, or route shields where preformed thermoplastic will be applied.

Install all RPMs in accordance with Standard Plans, Indexes 706-001 and 711-003, prior to opening the road to traffic.

Temporary RPMs must meet the requirements of Section 102.

Permanent RPMs must meet the requirements of Section 706.

**710-4.2 Thickness:** Apply standard paint to attain a minimum wet film thickness in accordance with the manufacturer's recommendations. Apply durable paint to attain a minimum wet film thickness of 0.025 inches or 25 mils. Measure, record, certify and submit to the Engineer, the thickness of white and yellow durable paint pavement markings in accordance with FM 5-541.

**710-4.3 Retroreflectivity:** Apply white and yellow standard paint that will attain an initial retroreflectance of not less than 300 mcd/lx·m<sup>2</sup> and not less than 250 mcd/lx·m<sup>2</sup>, respectively. Apply white and yellow durable paint that will attain an initial retroreflectance of not less than 450 mcd/lx·m<sup>2</sup> and not less than 300 mcd/lx·m<sup>2</sup>, respectively.

Measure, record, certify and submit to the Engineer, the retroreflectivity of white and yellow pavement markings in accordance with FM 5541.

The Owner reserves the right to test the markings within three days of receipt of the Contractor's certification. Failure to afford the Owner opportunity to test the markings will result in non-payment. The test readings should be representative of the Contractor's pavement marking performance. If the retroreflectivity values measure below values shown above, reapply the pavement marking at no additional cost to the Owner.

For standard paint, ensure that the minimum retroreflectance of white and yellow pavement markings are not less than 150 mcd/lx m<sup>2</sup>. If the retroreflectivity values for standard paint fall below the 150 mcd/lx m<sup>2</sup> value within 180 days of initial application, the pavement marking will be reapplied at the Contractor's expense. If the retroreflectivity values for durable paint fall below the initial values of 450 mcd/lx m<sup>2</sup> value for white and 300 mcd/lx m<sup>2</sup> for yellow within 180 days of initial application, the pavement marking will be reapplied at the Contractor's expense.

**710-4.4 Color:** Use paint material that meets the requirements of 971-1.

**710-4.5 Glass Spheres:** Apply glass spheres on all pavement markings immediately and uniformly following the paint application. The rate of application shall be based on the manufacturer's recommendation.

For longitudinal durable paint markings, apply a double drop of Type 1 and Type 3 glass spheres. For transverse durable paint markings, apply a single drop of Type 3 glass spheres.

The rate of application shall be based on the manufacturer's recommendation.

#### **710-5 Tolerances in Dimensions and in Alignment.**

Establish tack points at appropriate intervals for use in aligning pavement markings, and set a stringline from such points to achieve accuracy.

##### **710-5.1 Dimensions:**

**710-5.1.1 Longitudinal Lines:** Apply painted skip line segments with no more than plus or minus 12 inches variance, so that over-tolerance and under-tolerance lengths between skip line and the gap will approximately balance. Apply longitudinal lines at least 2 inches from construction joints of portland cement concrete pavement.

**710-5.1.2 Transverse Markings, Gore Markings, Arrows, and Messages:** Apply paint in multiple passes when the marking cannot be completed in one pass, with an overall line width allowable tolerance of plus or minus 1 inch.

**710-5.1.3 Contrast Lines:** Use black paint to provide contrast on concrete or light asphalt pavement, when specified by the Engineer. Apply black paint in 10 foot segments following each longitudinal skip line.

**710-5.2 Alignment:** Apply painted pavement markings that will not deviate more than 1 inch from the stringline on tangents and curves one degree or less. Apply painted pavement markings that will not deviate more than 2 inches from the stringline on curves greater than one degree. Apply painted edge markings uniformly, not less than 2 inches or more than 4 inches from the edge of pavement, without noticeable breaks or deviations in alignment or width.

Remove and replace at no additional cost to the Owner, pavement markings that deviate more than the above stated requirements.

**710-5.3 Correction Rates:** Make corrections of variations in width at a maximum rate of 10 feet for each 0.5 inch of correction. Make corrections of variations in alignment at a maximum rate of 25 feet for each 1 inch of correction, to return to the stringline.

**710-6 Contractor's Responsibility for Notification.**

Notify the Engineer prior to the placement of the materials. At the time of notification, submit a certification to the Engineer with the APL number and the batch or Lot numbers of the paint and glass spheres to be used.

**710-7 Protection of Newly Applied Pavement Markings.**

Do not allow traffic onto or permit vehicles to cross newly applied pavement markings until they are sufficiently dry. Remove and replace any portion of the pavement markings damaged by passing traffic or from any other cause, at no additional cost to the Owner.

**710-8 Corrections for Deficiencies to Applied Painted Pavement Markings.**

Reapply a 1.0 mile section, centered around any deficiency, at no additional cost to the Owner.

**710-9 Submittals.**

**710-9.1 Submittal Instructions:** Prepare a certification of quantities. Submit the certification of quantities and daily worksheets to the Engineer. For Lump Sum pay item 710-1, document the quantity as an estimated percentage (in decimal form) of the total lump sum amount on the daily worksheet. The Owner will not pay for any disputed items until the Engineer approves the certification of quantities.

**710-9.2 Contractor's Certification of Quantities:** Request payment by submitting a certification of quantities no later than Twelve O'clock noon Monday after the estimate cut-off date or as directed by the Engineer, based on the amount of work done or completed. Ensure the certification of quantities consists of the following:

1. Contract Number, FPID Number, Certification Number, Certification Date and the period that the certification represents.
2. The basis for arriving at the amount of the progress certification, less payments previously made and less any amount previously retained or withheld. The basis will include a detailed breakdown provided on the certification of items of payment.

**710-10 Method of Measurement.**

The quantities, authorized and acceptably applied, under this Section will be paid as follows:

1. The length, in gross miles, of solid, 10'-30' skip, 3'-9' dotted, 6'-10' dotted, 2'2' dotted, and 2'-4' dotted lines.
2. The length, in linear feet, of transverse lines, diagonal lines, chevrons, and parking spaces.
3. The number of pavement messages, symbols, and arrows. Each arrow is paid as a complete marking, regardless of the number of "points" or directions.

4. Lump Sum, as specified in 710-4.1.1 (final surface) and 710-9.1.
5. The area, in square feet, for removal of existing markings acceptably removed. Payment for removal of conflicting markings will be in accordance with 102-5.8. Payment for removal of non-conflicting markings will be paid separately.

The gross mile measurement will be taken as the distance from the beginning of the painted line to the end of the painted line and will include the unmarked gaps for skip and dotted lines. The gross mile measurement will not include designated unmarked lengths at intersections, turn lanes, etc. Final measurement will be determined by plan dimensions or stations, subject to 9-1.3.1.

**710-11 Basis of Payment.**

**710-11.1 General:** Price and payment will be full compensation for all work specified in this Section, including, all cleaning and preparing of surfaces, furnishing of all materials, application, curing and protection of all items, protection of traffic, furnishing of all tools, machines and equipment, and all incidentals necessary to complete the work. Final payment will be withheld until all deficiencies are corrected.

**710-11.2 Painted Pavement Markings (Final Surface):** Price and payment for painted pavement markings (final surface) will be full compensation for all applications of painted pavement markings, and all applications and removal of RPMs in accordance with 710-4.1.1 and 710-9.1.

**710-11.3 Payment Items:** Payment will be made under:

<i>Item No. 710-1</i>	<i>Pavement Markings</i>	<i>-per Lump Sum (LS)</i>
-----------------------	--------------------------	---------------------------

END OF SECTION 710

## SECTION 981

### TURF MATERIALS

#### 981-1 General.

The types of seed and sod will be specified in the Contract Documents. All seed and sod shall meet the requirements of the Florida Department of Agriculture and Consumer Services and all applicable state laws, and shall be approved by the Engineer before installation.

All seed, sod and mulch shall be free of noxious weeds and exotic pest plants, plant parts or seed listed in the current Category I "List of Invasive Species" from the Florida Exotic Pest Plant Council (FLEPPC, <https://www.fleppc.org> ). Any plant officially listed as being noxious or undesirable by any Federal Agency, any agency of the State of Florida or any local jurisdiction in which the project is being constructed shall not be used. Any such noxious or invasive plant or plant part found to be delivered in seed, sod or mulch will be removed by the Contractor at his expense and in accordance with the law.

All materials shall meet plant quarantine and certification entry requirements of Florida Department of Agriculture & Consumer Services, Division of Plant Industry Rules.

#### 981-2 Seed.

The seed shall have been harvested from the previous year's crop. All seed bags shall have a label attached stating the date of harvest, LOT number, percent purity, percent germination, noxious weed certification and date of test.

Each of the species or varieties of seed shall be furnished and delivered in separate labeled bags. During handling and storing, the seed shall be cared for in such a manner that it will be protected from damage by heat, moisture, rodents and other causes.

All permanent and temporary turf seed shall have been tested within a period of six months of the date of planting.

All permanent and temporary turf seed shall have a minimum percent of purity and germination as follows:

1. All Bahia seed shall have a minimum pure live seed content of 95% with a minimum germination of 80%.
2. Bermuda seed shall be of common variety with a minimum pure live seed content of 95% with a minimum germination of 85%.
3. Annual Type Ryegrass seed shall have a minimum pure live seed content of 95% with a minimum germination of 90%.

#### 981-3 Sod.

**981-3.1 Types:** Unless a particular type of sod is called for in the Contract Documents, sod may be either centipede, bahia, or bermuda at the Contractor's option. It shall be well matted with roots. Where sodding will adjoin, or be in sufficiently close proximity to, private lawns, other types of sod may be used if desired by the affected property owners and approved by the Engineer.

**981-3.2 Dimensions:** The sod shall be taken up in commercial-size rectangles, or rolls, preferably 12 inches by 24 inches or larger, except where 6 inch strip sodding is called for, or as rolled sod at least 12 inches in width and length consistent with the equipment and methods used to handle the rolls and place the sod. Sod shall be a minimum of 1-1/4 inches thick including a 3/4 inch thick layer of roots and topsoil. Reducing the width of rolled sod is not permitted after the sod has been taken up from the initial growing location. Any netting contained within the sod shall be certified by the manufacturer to be degradable within three years.

**981-3.3 Condition:** The sod shall be sufficiently thick to secure a dense stand of live turf. The sod shall be live, fresh and uninjured, at the time of planting. It shall have a soil mat of sufficient thickness adhering firmly to the roots to withstand all necessary handling. It shall be planted within 48 hours after being cut and kept moist from the time it is cut until it is planted. No sod which has been cut for more than 48 hours may be used unless specifically authorized by the Engineer. A letter of certification from the turf Contractor as to when the sod was cut, and what type, shall be provided to the Engineer upon delivery of the sod to the job site.

The source of the sod may be inspected and approved by the Engineer prior to being cut for use in the work.

**981-4 Mulch.**

The mulch material shall be compost meeting the requirements of Section 987, hardwood barks, shavings or chips; or inorganic mulch materials as approved by the Engineer; or hydraulically applied wood fiber mulch or bonded fiber matrix (BFM) for the establishment of turf material.

**END OF SECTION 981**

**SECTION 26 05 00**  
**GENERAL ELECTRICAL REQUIREMENTS**

**PART 1 - GENERAL**

**1.1 Related Documents**

- A. Drawings and general provisions of the Contract, including Contractual Conditions and other Division 01 Specification sections apply to this section.

**1.2 Summary**

- A. This section includes Basic Electrical Requirements specifically applicable to Division 26 Sections.

**1.3 Description**

- A. Provide and install all equipment, labor, material and accessories, and mounting hardware for a complete and operating system as described within these Division 26 Specification Sections.
- B. Furnish, perform, or provide all labor including planning, purchasing, transporting, storing, installing, testing, cutting and patching, trenching, excavating, backfilling, coordination, field verification, equipment (installation and safety), supplies, and materials necessary for the installation of complete electrical systems (as described or implied by these specifications and the applicable drawings) in strict accordance with applicable codes, which may not be repeated in these specifications, but are expected to be common knowledge of qualified Bidders.
- C. All work shall comply with all applicable codes as a minimum and with the additional requirements called for in these Contract Documents.
- D. Only trained and licensed personnel shall perform work. No Work shall be performed which violates applicable Codes, even if called for in the Contract Documents.
- E. Coordinate requirements with Utility Company.
- F. Make connections of all items in the Work using electric power including wire, conduit, circuit protection, disconnects and accessories. Securing of roughing-in drawings and connection information for equipment involved shall also be included under this division. See other divisions for specifications for electrically operated equipment.

**1.4 Quality Assurance**

- A. Install Work in locations shown or described in the Contract Documents, unless prevented by Project conditions.
- B. Install all equipment so that all Code and Manufacturer recommended working and servicing clearances are maintained. Properly arrange and install all equipment within designated spaces. If a departure from the Contract Documents is necessary, submit to the Engineer for approval,



detailed drawings of the proposed changes with written reasons for the changes. No change shall be implemented without the issuance of a change order or other directive permitted by the General Conditions.

- C. The Contractor shall verify finish dimensions at the project site in preference to using dimensions noted on Contract Documents.

### 1.5 Investigation of Site

- A. Investigate the site and existing conditions thoroughly before bidding. Advise ENGINEER of discrepancies or questions noted.
- B. During the course of the site visit, electrical bidder shall become familiar with all aspects of the proposed work and existing field conditions of the work. No compensation or reimbursement for additional expenses for failure to investigate the existing facilities will be authorized. This shall include rerouting around existing obstructions.
- C. Submission of a proposal will be construed as evidence that such examination has been made and later claims for labor, equipment or materials required because of difficulties encountered will not be recognized.
- D. Existing conditions and utilities indicated are taken from existing construction documents, surveys, and field investigations. Unforeseen conditions probably exist, and existing conditions shown on drawings may differ from the actual existing installation with the result being that new work may not be field located exactly as shown on the drawings. Notify ENGINEER if deviations are found.
- E. All existing electrical is not shown. The Contractor shall become familiar with all existing conditions prior to bidding, and include in his bid the removal of all electrical equipment, wire, conduit, devices, fixtures, etc. that is abandoned due to renovation.
- F. Protect all existing electrical raceways within concrete slabs, below concrete slabs, overhead raceways, equipment, etc. from damage due to renovation. Repair or replacement of utilities or other property damaged by operations in conjunction with the work will be at no cost to the Owner.
- G. Remove existing power, lighting, systems, material and equipment which are made obsolete or which interfere with the construction of the project. Reinstall power, lighting, systems, materials and equipment which are required to remain active for the facility to be fully functional.
- H. Reroute conduit and wiring in area of construction remaining active. Include temporary connections necessary to maintain continuity of existing circuitry required to remain active during renovation. Existing conduits indicated in Contract Documents are approximate locations only. Determine routing of existing conduits and pipes prior to any excavation, cutting or demolition.

- I. Existing parking facilities must remain in operation while work is being performed. Schedule work for a minimum outage to Owner. Notify the ENGINEER appropriately for any shut-down of existing systems.
- J. Bid shall include all removal and relocation of all piping, fixtures or other items required for completion of alterations and new construction.

#### 1.6 Contract Documents

- A. The drawings are diagrammatic and are not intended to include every detail of construction, materials, methods, and equipment. They indicate the result to be achieved by an assemblage of various systems. Coordinate equipment locations with civil and other project drawings. Layout equipment before installation so that all trades may install equipment in spaces available. Coordinate installation in a neat and workmanlike manner.
- B. Wiring arrangements for equipment shown on the drawings are intended to be diagrammatic and do not show all required conductors and functional connections. All such items incidental to a complete and operating system shall be provided.
- C. Submit specific shop drawings and/or data sheets which indicate the fabrication, assembly, installation, and erection of particular systems' components. Drawings that are part of the Contract Documents shall not be considered a substitute for required shop drawings, field installation drawings, code requirements, or applicable standards.
- D. Locations indicated for equipment are approximate and shall be coordinated with the Contract Documents. Where instructions or notes are insufficient to locate the item, notify the ENGINEER.

#### 1.7 Materials and Equipment

- A. Unless otherwise noted, all material shall be new and UL listed or labeled. In lieu of UL listing or labeling, a statement or data demonstrating compliance with contract documents from a nationally recognized testing agency shall be submitted to the ENGINEER.
- B. Where Contract Documents list design selection, manufacturer or type, this model shall set the standard of quality and performance required. Where no brand name is specified, the source and quality shall be subject to Owner/ENGINEER review and approval. Where Contract Documents list approved substitutions, these items shall comply with Division 01 requirements for substitutions.
- C. When a product is specified to be in accordance with a trade association or government standard and at the request of Owner/ENGINEER the Contractor shall furnish a certificate that the product complies with the referenced standard and supporting test data to substantiate compliance.
- D. Where multiple items of the same equipment or materials are required, they shall be the product of the same Manufacturer.

- E. Prior to placing equipment orders, verify the physical size of specified equipment to fit spaces allotted on the drawings and with NEC working clearances. Internal access for proposed equipment substitutions shall be provided. Provide 1/4" scale drawings showing that this coordination has taken place.
- F. Electrical equipment shall be protected from the weather, during shipment, storage, and construction per manufacturer's recommendations. Should any apparatus be subjected to possible damage by water, it shall be thoroughly dried and put through a dielectric test, at the expense of the Contractor, to ascertain the suitability of the apparatus, or it shall be replaced without additional cost to the Owner.
- G. Inspect all electrical equipment and materials prior to installation. Damaged equipment and materials shall not be installed or placed in service. Replace or repair and test damaged equipment in compliance with industry standards at no additional cost to the Owner. Equipment required for the test shall be provided by the Contractor.
- H. Material and equipment shall be provided complete and shall function up to the specified capacity/function. Should any material or equipment as a part or as a whole fail to meet performance requirements, replacements shall be made to bring performance up to specified requirements. Damages to finish by such replacements, alterations, or repairs shall be restored to prior conditions, at no additional cost to the Owner.

#### **1.8 Supervision of the Work**

- A. Reference the General Conditions for additional requirements.
- B. Provide field superintendent who has had a minimum of four (4) years previous successful experience on projects of comparable sizes and complexity. Superintendent shall be present at all times that work under this Division is being installed or affected. All work performed by a non-licensed Journeyman shall be under the direct supervision (in the presence of) of a Licensed Journeyman. At least one member of the electrical contracting firm shall hold a State Master Certificate of Competency. Each Journeyman shall have possession of licensing documentation at all times during work. Display to designer/ENGINEER when requested.
- C. Superintendent shall be employed by a State Registered (Type "E.R." License) or State certified (Type "E.C." License) electrical contractor.

#### **1.9 Coordination**

- A. Provide all required coordination and supervision where work connects to or is affected by work of others, and comply with all requirements affecting this Division. Work required under other divisions, specifications or drawings to be performed by this Division shall be coordinated with the Contractor and such work performed at no additional cost to Owner.
- B. Provide electrical subcontractor a set of Contract Documents for all areas of Electrical Work.

- C. Installation studies shall be made to coordinate the electrical work with other trades. Work shall be preplanned. Unresolved conflicts shall be referred to the ENGINEER prior to installation of the equipment.
- D. Adjustments to contract value will not be considered due to lack of coordination.
- E. Damage from interference caused by inadequate coordination shall be corrected at no additional cost to the Owner.
- F. The Contract Documents describe specific sizes of breakers, conduits, conductors, and other items of wiring equipment. These sizes are based on specific items of power consuming equipment. Coordinate the requirements of each load with each load's respective circuitry shown and with each load's requirements as noted on its nameplate data and manufacturer's published electrical criteria. Adjust circuit breaker, conduit, and conductor sizes to meet the actual requirements of the equipment being provided and installed and change from single point to multiple points of connection (or vice versa) to meet equipment requirements. Changes shall be made at no additional cost to the Owner.

#### 1.10 Concrete Pads

- A. Furnish and install or extend reinforced concrete pads for new panelboard as needed. Pads shall be reinforced with W1.4 x 1.4 6 x 6 welded wire mesh. Chamfer top edges 1/2". Trowel all surfaces smooth. Provide 3000 psi concrete.

#### 1.11 Cutting and Patching

- A. Reference Division 01 - General Requirements.
- B. New Construction:
  - 1. Cutting of work in place shall be cut, drilled, patched and refinished by trade responsible for initial installation.
  - 2. Backfill new grades to match adjacent undisturbed surface.

#### 1.12 Installation

- A. Erect equipment to minimize interference and delays with the execution of the Work.
- B. Take care in erection and installation of equipment and materials to avoid marring finishes or surfaces. Any damage shall be repaired or replaced as determined by the Owner/ENGINEER at no additional cost to the Owner.
- C. Equipment requiring electrical service shall not be energized or placed in service until ENGINEER is notified and is present or have waived their right to be present. Where equipment to be placed in service involves service or connection from another Contractor or the ENGINEER, notify the ENGINEER in writing as appropriate when the equipment will be ready.

- D. Equipment supports shall be secured and supported from structural members unless written approval is granted by ENGINEER.
- E. Supports, and anchorage of electrical equipment shall be provided. Where items are to be set or embedded in concrete or masonry, the items shall be furnished and layout made for setting or embedment thereof so as to cause no delay.

### 1.13 As-Built Documents

- A. As-Built Documents: As-built Documents include Drawings, Shop Drawings, Specifications, Addenda, Change Orders, and other modifications permitted by the General Conditions.
- B. Comply with all requirements of Division 01
- C. Verify aspects of redlined as-builts for accuracy. As-Built Documents shall show all components including but not limited to:
  - 1. All site underground raceways and duct banks indicating burial depths and distances from fixed building lines or global tracking coordinates.
  - 2. Underground pull boxes and manholes including elevations. Detail manhole and pull boxes, conduit terminations (butterfly layout) including conduit sizes, designated systems and cabling description.
  - 3. Lighting: Diagrammatically show junction boxes that are located with conduit connections to luminaries.
  - 4. The first junction box within each homerun, regardless of size shall be shown in the installed location.
  - 5. Any combining of circuits (which is only allowed by specific permission) or change in homerun junction box shall be indicated.
  - 6. Any circuit number changes.
  - 7. All conductors and cables, conductors and cable sizes, raceway sizes, etc not shown on contract documents and any changes from the documents.
  - 8. All access panels.
  - 9. All existing conditions.
  - 10. Location of lighting control devices such as photocell controls, etc.
  - 11. Exact quantity of conductors and cables shall be shown for all raceway systems.
  - 12. Exact location of all driven grounding electrodes including burial depths and dimensions from fixed building lines. Location of all grounding system busbars.

13. Riser diagrams exactly as installed.
  14. Change the equipment schedules (i.e. symbol legends, light fixture schedule, etc) to agree with items actually furnished.
  15. Change plan notes to agree with items actually furnished, actual installation methods, etc. respectfully.
  16. Cross-out all items, circuitry, devices, etc. not applicable.
- D. As-Built red line information shall not compromise the clarity of the Contract Documents and Shop Drawings. Major components such as grouped raceway assemblies, larger conduits, duct banks, dimensions, etc. shall be shown on a clean architectural base plan(s) separate from the Contract Electrical Documents, as required to clearly delineate work. Obtain electronic base plan file from ENGINEER.

#### 1.14 "Observation of Work" Report

- A. Reference the General Conditions.
- B. Items noted by Owner/ENGINEER during construction and before final acceptance which do not comply with the Contract Documents will be listed in a "Observation of Work" report which will be sent to the Contractor for action. Correct all deficiencies in a prompt concise manner. After completion of the outstanding items, provide a written confirmation report for each item. The report shall indicate each item noted, and method of correction. Enter the date on which the item was corrected, and return the signed reports so items can be rechecked. Failure to correct the deficiencies in a prompt concise manner or failure to return the signed reports shall be cause for disallowing request for payments.
- C. The electrical project superintendent shall be present at all required observation of work reviews as project progresses. Provide the ENGINEER with equipment for access and review of all Work in place, as well as personnel fully familiar with all aspects of the work. Provide access to all electrical components such as junction boxes, panelboards, switchboards, devices and fixtures for their review by the Owner/ENGINEER.
- D. Prior to start of Substantial Completion inspection, provide access to and prepare all electrical equipment and related components complete and ready for review by ENGINEER/OAR including but not limited to the following:
  1. All panelboard covers removed
  2. Terminal cabinet covers open or removed.
  3. Underground pull boxes ready for immediate removal of cover(s)
  4. Access to all grounding/bonding terminations
  5. Access to electrical connection points, and control devices

6. Removal of access panels
  7. Each and every item deemed necessary by ENGINEER to perform a comprehensive review of the work as installed relative to the contract documents.
- E. Items noted after acceptance during one-year guarantee period shall be checked by the Contractor in the same manner as above. The signed reports are to be returned by him when the items have been corrected.

#### **1.15 Systems Warranty**

- A. Reference the General Conditions.
- B. Warranty shall be by the Contractor to the Owner and shall cover for a period of one year from the date of the Substantial Completion. Warranty shall not include light fixture lamps in service after one month from date of substantial completion of the System.
  1. Explain the provisions of warranty to the Owner at the "Demonstration of Completed System" meeting to be scheduled with the OAR upon project completion.
- C. Where items of equipment or materials carry a manufacturer's warranty for any period in excess of twelve (12) months, then the manufacturer's warranty shall apply for that particular piece of equipment or material.
- D. Where extended Guarantees are called for herein, furnish three copies to be inserted in Operation and Maintenance Manuals.
- E. All preventative maintenance and normal service will be performed by the Owner's maintenance personnel after final acceptance of the work which shall not alter the Contractor's warranty.

#### **1.16 Waste Materials Disposal**

- A. Include in base bid the transport and disposal or recycling of all waste materials generated by this project in accordance with all rules, regulations and guidelines applicable. Comply fully with Florida Statute 403.7186 regarding mercury containing devices and lamps. Lamps, ballasts and other materials shall be transported and disposed of in accordance with all DEP and EPA guidelines applicable at time of disposal.

**PART 2 - Products (Not Applicable)**

**PART 3 - Execution (Not Applicable)**

**END OF SECTION 26 05 00**

**SECTION 26 05 19**  
**POWER CONDUCTORS AND CABLES**

**PART 1 - GENERAL**

**1.1 Summary**

A. Section Includes:

1. Wires and cables rated 600 V and less.
2. Connectors, splices, and terminations rated 600 V and less.

**1.2 Action Submittals**

A. Product Data: For each type of product.

**1.3 Informational Submittals**

A. Field quality-control reports.

**PART 2 - PRODUCTS**

**2.1 Conductors and Cables**

- A. Copper Conductors: Comply with NEMA WC 70/ICEA S-95-658.
- B. Conductor Insulation: Comply with NEMA WC 70/ICEA S-95-658 for Type THHN-2-THWN-2.

**2.2 Connectors and Splices**

- A. Description: Factory-fabricated connectors and splices of size, ampacity rating, material, type, and class for application and service indicated.

**2.3 System Description**

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Comply with NFPA 70.

**PART 3 - EXECUTION**

**3.1 Conductor Material Applications**

- A. Feeders: Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.
- B. Branch Circuits: Copper. Solid for No. 14 AWG and smaller; stranded for No. 12 AWG and larger

**3.2 Conductor Insulation and Multiconductor Cable Applications and Wiring Methods**

- A. Service Entrance: Type THHN-2-THWN-2, single conductors in raceway
- B. Feeders Concealed in Ceilings, Walls, Partitions, and Crawlspace: Type THHN-2-THWN-2, single conductors in raceway
- C. Feeders Concealed in Concrete, below Slabs-on-Grade, and Underground: Type THHN-2-THWN-2, single conductors in raceway



- D. Branch Circuits Concealed in Ceilings, Walls, and Partitions: Type THHN-2-THWN-2, single conductors in raceway
- E. Branch Circuits Concealed in Concrete, below Slabs-on-Grade, and Underground: Type THHN-2-THWN-2, single conductors in raceway.

### **3.3 Installation of Conductors and Cables**

- A. Complete raceway installation between conductor and cable termination points.
- B. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.
- C. Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips, that will not damage cables or raceway.

### **3.4 Connections**

- A. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A-486B.
- B. Make splices, terminations, and taps that are compatible with conductor material and that possess equivalent or better mechanical strength and insulation ratings than un-spliced conductors.
  - 1. Use oxide inhibitor in each splice, termination, and tap for aluminum conductors.

### **3.5 Identification**

- A. Identify and color-code conductors and cables according to Section 26 05 53 "Identification."
- B. Identify each spare conductor at each end with identity number and location of other end of conductor and identify as spare conductor.

### **3.6 Field Quality Control**

- A. Perform the following tests and inspections:
  - 1. After installing conductors and cables and before electrical circuitry has been energized, test service entrance and feeder conductors for compliance with requirements.
  - 2. Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.
- B. Test and Inspection Reports: Prepare a written report to record the following:
  - 1. Procedures used.
  - 2. Results that comply with requirements.
  - 3. Results that do not comply with requirements and corrective action taken to achieve compliance with requirements.
- C. Cables will be considered defective if they do not pass tests and inspections.

**END OF SECTION 26 05 19**

**SECTION 26 05 26**  
**GROUNDING AND BONDING**

**PART 1 - GENERAL**

**1.1 Summary**

- A. Section includes grounding and bonding systems and equipment.

**1.2 Action Submittals**

- A. Product Data: For each type of product indicated.

**PART 2 - PRODUCTS**

**2.1 System Description**

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Comply with UL 467 for grounding and bonding materials and equipment.

**2.2 Conductors**

- A. Insulated Conductors: Copper wire or cable insulated for 600 V unless otherwise required by applicable Code or authorities having jurisdiction.
- B. Bare Copper Conductors:
  - 1. Solid Conductors: ASTM B 3.
  - 2. Stranded Conductors: ASTM B 8.
  - 3. Tinned Conductors: ASTM B 33.
  - 4. Bonding Cable: 28 kcmil, 14 strands of No. 17 AWG conductor, 1/4 inch in diameter.
  - 5. Bonding Conductor: No. 4 or No. 6 AWG, stranded conductor.
  - 6. Bonding Jumper: Copper tape, braided conductors terminated with copper ferrules; 1-5/8 inches wide and 1/16 inch thick.
  - 7. Tinned Bonding Jumper: Tinned-copper tape, braided conductors terminated with copper ferrules; 1-5/8 inches wide and 1/16 inch thick.

### 2.3 Connectors

- A. Listed and labeled by an NRTL acceptable to authorities having jurisdiction for applications in which used and for specific types, sizes, and combinations of conductors and other items connected.
- B. Bolted Connectors for Conductors: Copper or copper alloy.
- C. Welded Connectors: Exothermic-welding kits of types recommended by kit manufacturer for materials being joined and installation conditions.

### 2.4 Grounding Electrodes

- A. Ground Rods: Copper-clad steel; 3/4 inch by 10 feet

## PART 3 - EXECUTION

### 3.1 Applications

- A. Conductors: Install solid conductor for No. 14 AWG and smaller, and stranded conductors for No. 12 AWG and larger unless otherwise indicated.
- B. Underground Grounding Conductors: Install bare copper conductor, No. 2/0 AWG minimum.
  - 1. Bury at least 24 inches below grade.
- C. Conductor Terminations and Connections:
  - 1. Equipment Grounding Conductor Terminations: Bolted connectors.
  - 2. Underground Connections: Welded connectors except at test wells and as otherwise indicated.
  - 3. Connections to Ground Rods at Test Wells: Bolted connectors.

### 3.2 Grounding at The Service

- A. Equipment grounding conductors and grounding electrode conductors shall be connected to the ground bus. Install a main bonding jumper between the neutral and ground buses.

### 3.3 Grounding Underground Distribution System Components

- A. Comply with IEEE C2 grounding requirements.
- B. Grounding Handholes: Install a driven ground rod through handhole floor, close to wall, and set rod depth so 4 inches will extend above finished floor.

### 3.4 Equipment Grounding

- A. Install insulated equipment grounding conductors with all feeders and branch circuits.

- B. Install insulated equipment grounding conductors with the following items, in addition to those required by NFPA 70:
  - 1. Feeders and branch circuits.
  - 2. Lighting circuits.
- C. Poles Supporting Outdoor Lighting Fixtures: Install grounding electrode and a separate insulated equipment grounding conductor in addition to grounding conductor installed with branch-circuit conductors.
- D. Metallic Fences: Comply with requirements of IEEE C2.
  - 1. Grounding Conductor: Bare copper, not less than No. 8 AWG.
  - 2. Gates: Shall be bonded to the grounding conductor with a flexible bonding jumper.
  - 3. Barbed Wire: Strands shall be bonded to the grounding conductor.

### 3.5 Installation

- A. Grounding Conductors: Route along shortest and straightest paths possible unless otherwise indicated or required by Code. Avoid obstructing access or placing conductors where they may be subjected to strain, impact, or damage.
- B. Ground Bonding Common with Lightning Protection System: Comply with NFPA 780 and UL 96 when interconnecting with lightning protection system. Bond electrical power system ground directly to lightning protection system grounding conductor at closest point to electrical service grounding electrode. Use bonding conductor sized same as system grounding electrode conductor, and install in conduit.
- C. Ground Rods: Drive rods until tops are 2 inches below finished floor or final grade unless otherwise indicated.
  - 1. Interconnect ground rods with grounding electrode conductor below grade and as otherwise indicated. Make connections without exposing steel or damaging coating if any.
  - 2. For grounding electrode system, install at least three rods spaced at least one-rod length from each other and located at least the same distance from other grounding electrodes, and connect to the service grounding electrode conductor.
- D. Test Wells: Ground rod driven through drilled hole in bottom of handhole. Handholes are specified in Section 26 05 43 "Underground Ducts and Raceways" and shall be at least 12 inches deep, with cover.
  - 1. Test Wells: Install at least one test well for each service unless otherwise indicated. Install at the ground rod electrically closest to service entrance. Set top of test well flush with finished grade or floor.

- E. Bonding Straps and Jumpers: Install in locations accessible for inspection and maintenance except where routed through short lengths of conduit.
  - 1. Bonding to Structure: Bond straps directly to basic structure, taking care not to penetrate any adjacent parts.

### 3.6 Field Quality Control

- A. Perform tests and inspections. Inspect physical and mechanical condition. Verify tightness of accessible, bolted, electrical connections with a calibrated torque wrench according to manufacturer's written instructions.

**END OF SECTION 26 05 26**

**SECTION 26 05 43**  
**UNDERGROUND DUCTS AND RACEWAYS**

**PART 1 - GENERAL**

**1.1 Summary**

A. Section Includes:

1. Direct-buried conduit, ducts, and duct accessories.
2. Concrete-encased conduit, ducts, and duct accessories.
3. Handholes and boxes.

**1.2 Action Submittals**

A. Product Data: For ducts and conduits, duct-bank materials, handholes, and boxes, and their accessories.

B. Shop Drawings:

1. Factory-Fabricated Handholes and Boxes Other Than Precast Concrete:
  - a. Include dimensioned plans, sections, elevations, accessory locations, and fabrication and installation details.
  - b. Include duct entry provisions, including locations and duct sizes.

**1.3 Informational Submittals**

- A. Duct-Bank Coordination Drawings: Show duct profiles, locations of expansion fittings, and coordination with other utilities and underground structures on Drawings signed and sealed by a qualified professional engineer.
- B. Product Certificates: For concrete and steel used in precast concrete handholes, as required by ASTM C 858.
- C. Qualification Data: For professional engineer and testing agency responsible for testing nonconcrete handholes and boxes.
- D. Source quality-control reports.
- E. Field quality-control reports.

**1.4 Quality Assurance**

- A. Testing Agency Qualifications: Qualified according to ASTM E 329 for testing indicated.

### 1.5 Field Conditions

- A. Interruption of Existing Electrical Service: Do not interrupt electrical service to facilities occupied by Owner or others unless permitted by Owner and then only after arranging to provide temporary electrical service.
- B. Ground Water: Assume ground-water level is 24 inches below ground surface unless a higher water table is noted on Drawings.

## PART 2 - PRODUCTS

### 2.1 General Requirements for Ducts and Raceways

- A. Comply with ANSI C2.

### 2.2 Conduit

- A. RNC: NEMA TC 2, Type EPC-40-PVC UL 651, with matching fittings by same manufacturer as the conduit, complying with NEMA TC 3 and UL 514B.

### 2.3 Nonmetallic Ducts and Duct Accessories

- A. Underground Plastic Utilities Duct: NEMA TC 2, UL 651, ASTM F 512, Type EPC-40, with matching fittings complying with NEMA TC 3 by same manufacturer as the duct.
- B. Duct Accessories:
  - 1. Duct Separators: Factory-fabricated rigid PVC interlocking spacers.
  - 2. Warning Tape: Underground-line warning tape specified in Section 26 05 53 "Identification."
  - 3. Concrete Warning Planks: Nominal 12 by 24 by 3 inches in size, manufactured from 6000-psi red concrete and labeled "ELECTRIC."

### 2.4 Precast Concrete Handholes and Boxes

- A. Comply with ASTM C 858 for design and manufacturing processes.
- B. Description: Factory-fabricated, reinforced-concrete, monolithically poured walls and bottom unless open-bottom enclosures are indicated. Frame and cover shall form top of enclosure and shall have load rating consistent with that of handhole or box.
  - 1. Frame and Cover: Weatherproof cast-iron frame, with cast-iron cover with recessed cover hook eyes and tamper-resistant, captive, cover-securing bolts.
  - 2. Cover Finish: Nonskid finish shall have a minimum coefficient of friction of 0.50.
  - 3. Cover Legend: Molded lettering, "ELECTRIC."

4. Configuration: Units shall be designed for flush burial and have **open** bottom unless otherwise indicated.
5. Extensions and Slabs: Designed to mate with bottom of enclosure. Same material as enclosure.
  - a. Extension shall provide increased depth of 12 inches
  - b. Slab: Same dimensions as bottom of enclosure and arranged to provide closure.
6. Joint Sealant: Asphaltic-butyl material with adhesion, cohesion, flexibility, and durability properties necessary to withstand maximum hydrostatic pressures at the installation location with the ground-water level at grade.
7. Windows: Precast, reinforced openings in walls, arranged to match dimensions and elevations of approaching ducts and duct banks, plus an additional 12 inches vertically and horizontally to accommodate alignment variations.
8. Duct Entrances in Handhole Walls: Cast end-bell or duct-terminating fitting in wall for each entering duct.
9. Handholes 12 inches wide by 24 inches long and larger shall have inserts for cable racks and pulling-in irons installed before concrete is poured.

### **PART 3 - EXECUTION**

#### **3.1 Underground Duct Application**

- A. Ducts for Electrical Feeders 600 V and Less: RNC, NEMA Type EPC-40-PVC, in direct-buried duct bank unless otherwise indicated.
- B. Ducts for Electrical Branch Circuits: RNC, NEMA Type EPC-40-PVC, in direct-buried duct bank unless otherwise indicated.
- C. Underground Ducts Crossing Driveways and Roadways: RNC, NEMA Type EPC-40-PVC, encased in reinforced concrete.

#### **3.2 Underground Enclosure Application**

- A. Handholes and Boxes for 600 V and Less:
  1. Units in Roadways and Other Deliberate Traffic Paths: Precast concrete. AASHTO HB 17, H-10 structural load rating.
  2. Units in Driveway, Parking Lot, and Off-Roadway Locations, Subject to Occasional, Nondeliberate Loading by Heavy Vehicles: Polymer concrete, SCTE 77, Tier 15 structural load rating.
  3. Cover design load shall not exceed the design load of the handhole or box.



### 3.3 Earthwork

- A. Excavation and Backfill: Do not use heavy-duty, hydraulic-operated, compaction equipment.
- B. Restore areas disturbed by trenching, storing of dirt, cable laying, and other work. Restore vegetation and include necessary top-soiling, fertilizing, liming, seeding, sodding, sprigging, and mulching.

### 3.4 Duct Installation

- A. Install ducts according to NEMA TCB 2.
- B. Slope: Pitch ducts a minimum slope of 1:300 down toward manholes and handholes and away from buildings and equipment. Slope ducts from a high point in runs between two manholes, to drain in both directions.
- C. Curves and Bends: Use 5-degree angle couplings for small changes in direction. Use manufactured long sweep bends with a minimum radius of 48 inches both horizontally and vertically, at other locations unless otherwise indicated.
- D. Joints: Use solvent-cemented joints in ducts and fittings and make watertight according to manufacturer's written instructions. Stagger couplings so those of adjacent ducts do not lie in same plane.
- E. Installation Adjacent to High-Temperature Steam Lines: Where duct banks are installed parallel to underground steam lines, perform calculations showing the duct bank will not be subject to environmental temperatures above 40 deg C. Where environmental temperatures are calculated to rise above 40 deg C, and anywhere the duct bank crosses above an underground steam line, install insulation blankets listed for direct burial to isolate the duct bank from the steam line.
- F. Duct Entrances Concrete and Polymer Concrete Handholes: Use end bells, spaced approximately 10 inches o.c. for 5-inc ducts, and vary proportionately for other duct sizes.
  - 1. Begin change from regular spacing to end-bell spacing 10 feet from the end bell without reducing duct line slope and without forming a trap in the line.
  - 2. Direct-Buried Duct Banks: Install an expansion and deflection fitting in each conduit in the area of disturbed earth adjacent to manhole or handhole. Install an expansion fitting near the center of all straight line direct-buried duct banks with calculated expansion of more than 3/4 inch.
  - 3. Grout end bells into structure walls from both sides to provide watertight entrances.
- G. Pulling Cord: Install 100-lbf test nylon cord in empty ducts.
- H. Concrete-Encased Ducts: Support ducts on duct separators.

1. Excavate trench bottom to provide firm and uniform support for duct bank. Prepare trench bottoms for pipes less than 6 inches in nominal diameter.
  2. Depth: Install top of duct bank at least 24 inches below finished grade in areas not subject to deliberate traffic, and at least 30 inches below finished grade in deliberate traffic paths for vehicles unless otherwise indicated.
  3. Support ducts on duct separators coordinated with duct size, duct spacing, and outdoor temperature.
  4. Separator Installation: Space separators close enough to prevent sagging and deforming of ducts, with not less than four spacers per 20 feet of duct. Secure separators to earth and to ducts to prevent floating during concreting. Stagger separators approximately 6 inches between tiers. Tie entire assembly together using fabric straps; do not use tie wires or reinforcing steel that may form conductive or magnetic loops around ducts or duct groups.
  5. Minimum Space between Ducts: 3 inches between ducts and exterior envelope wall, 2 inches between ducts for like services, and 4 inches between power and signal ducts.
  6. Elbows: Use manufactured rigid steel conduit elbows for stub-ups at poles and equipment, and at changes of direction in duct run.
    - a. Couple steel conduits to ducts with adapters designed for this purpose and encase coupling with 3 inches of concrete.
    - b. Stub-Ups to Equipment: For equipment mounted on outdoor concrete bases, extend steel conduit horizontally a minimum of 60 inches from edge of base. Install insulated grounding bushings on terminations at equipment.
  7. Reinforcement: Reinforce concrete-encased duct banks where they cross disturbed earth and where indicated. Arrange reinforcing rods and ties without forming conductive or magnetic loops around ducts or duct groups.
  8. Forms: Use walls of trench to form side walls of duct bank where soil is self-supporting and concrete envelope can be poured without soil inclusions; otherwise, use forms.
  9. Concrete Cover: Install a minimum of 3 inches of concrete cover at top and bottom, and a minimum of 2 inches on each side of duct bank.
  10. Pouring Concrete: Place concrete carefully during pours to prevent voids under and between conduits and at exterior surface of envelope. Do not allow a heavy mass of concrete to fall directly onto ducts. Allow concrete to flow to center of bank and rise up in middle, uniformly filling all open spaces. Do not use power-driven agitating equipment unless specifically designed for duct-bank application.
- I. Direct-Buried Duct Banks:
1. Excavate trench bottom to provide firm and uniform support for duct bank.

2. Support ducts on duct separators coordinated with duct size, duct spacing, and outdoor temperature.
3. Space separators close enough to prevent sagging and deforming of ducts, with not less than four spacers per 20 feet of duct. Secure separators to earth and to ducts to prevent displacement during backfill and yet permit linear duct movement due to expansion and contraction as temperature changes. Stagger spacers approximately 6 inches between tiers.
4. Depth: Install top of duct bank at least 36 inches below finished grade unless otherwise indicated.
5. Set elevation of bottom of duct bank below frost line.
6. Install ducts with a minimum of 3 inches between ducts for like services and 6 inches between power and signal ducts.
7. Install manufactured rigid steel conduit elbows for stub-ups at poles and equipment, at building entrances through floor, and at changes of direction in duct run.
  - a. Couple steel conduits to ducts with adapters designed for this purpose and encase coupling with 3 inches of concrete.
  - b. For equipment mounted on outdoor concrete bases, extend steel conduit horizontally a minimum of 60 inches from edge of equipment pad or foundation. Install insulated grounding bushings on terminations at equipment.
8. After installing first tier of ducts, backfill and compact. Start at tie-in point and work toward end of duct run, leaving ducts at end of run free to move with expansion and contraction as temperature changes during this process. Repeat procedure after placing each tier. After placing last tier, hand place backfill to 4 inches over ducts and hand tamp. Firmly tamp backfill around ducts to provide maximum supporting strength. Use hand tamper only. After placing controlled backfill over final tier, make final duct connections at end of run and complete backfilling with normal compaction.
  - a. Place minimum 3 inches of sand as a bed for duct bank. Place sand to a minimum of 6 inches above top level of duct bank.
- J. Warning Tape: Bury warning tape approximately 12 inches above all concrete-encased ducts and duct banks. Align tape parallel to and within 3 inches of centerline of duct bank. Provide an additional warning tape for each 12-inch increment of duct-bank width over a nominal 18 inches. Space additional tapes 12 inches apart, horizontally.

### **3.5 Installation of Handholes and Boxes Other than Precast Concrete**

- A. Install handholes and boxes level and plumb and with orientation and depth coordinated with connecting ducts, to minimize bends and deflections required for proper entrances. Use box extension if required to match depths of ducts, and seal joint between box and extension as recommended by manufacturer.

- B. Unless otherwise indicated, support units on a level bed of crushed stone or gravel, graded from 1/2-inch sieve to No. 4 sieve and compacted to same density as adjacent undisturbed earth.
- C. Elevation: In paved areas and trafficways, set cover flush with finished grade. Set covers of other handholes 1 inch above finished grade.
- D. Install removable hardware, including pulling eyes, cable stanchions, cable arms, and insulators, as required for installation and support of cables and conductors and as indicated. Select arm lengths to be long enough to provide spare space for future cables, but short enough to preserve adequate working clearances in enclosure.
- E. Field cut openings for ducts and conduits according to enclosure manufacturer's written instructions. Cut wall of enclosure with a tool designed for material to be cut. Size holes for terminating fittings to be used, and seal around penetrations after fittings are installed.

### 3.6 Grounding

- A. Ground underground ducts and utility structures according to Section 26 05 26 "Grounding and Bonding."

### 3.7 Field Quality Control

- A. Perform the following tests and inspections and prepare test reports:
  - 1. Demonstrate capability and compliance with requirements on completion of installation of underground ducts and utility structures.
  - 2. Test handhold grounding to ensure electrical continuity of grounding and bonding connections. Measure and report ground resistance as specified in Section 26 05 26 "Grounding and Bonding."
- B. Correct deficiencies and retest as specified above to demonstrate compliance.

### 3.8 Cleaning

- A. Pull leather-washer-type duct cleaner, with graduated washer sizes, through full length of ducts. Follow with rubber duct swab for final cleaning and to assist in spreading lubricant throughout ducts.

END OF SECTION 26 05 43

PAGE INTENTIONALLY LEFT BLANK

**SECTION 26 05 53**  
**IDENTIFICATION**

**PART 1 - GENERAL**

**1.1 Summary**

A. Section Includes:

1. Identification for raceways.
2. Identification of power and control cables.
3. Identification for conductors.
4. Underground-line warning tape.
5. Warning labels and signs.
6. Instruction signs.
7. Equipment identification labels.
8. Miscellaneous identification products.

**1.2 Action Submittals**

- A. Product Data: For each electrical identification product indicated.

**1.3 Quality Assurance**

- A. Comply with ANSI A13.1.
- B. Comply with NFPA 70.
- C. Comply with 29 CFR 1910.144 and 29 CFR 1910.145.
- D. Comply with ANSI Z535.4 for safety signs and labels.
- E. Adhesive-attached labeling materials, including label stocks, laminating adhesives, and inks used by label printers, shall comply with UL 969.

**PART 2 - PRODUCTS**

**2.1 Power Raceway Identification Materials**

- A. Comply with ANSI A13.1 for minimum size of letters for legend and for minimum length of color field for each raceway size.

B. Colors for Raceways Carrying Circuits at 600 V or Less:

1. Black letters on an orange field.
2. Legend: Indicate voltage and system or service type.

C. Self-Adhesive Vinyl Labels for Raceways Carrying Circuits at 600 V or Less: Preprinted, flexible label laminated with a clear, weather- and chemical-resistant coating and matching wraparound adhesive tape for securing ends of legend label.

**2.2 Conductor Identification Materials**

A. Color-Coding Conductor Tape: Colored, self-adhesive vinyl tape not less than 3 mils thick by 1 to 2 inches wide.

**2.3 Underground-Line Warning Tape**

A. Tape:

1. Recommended by manufacturer for the method of installation and suitable to identify and locate underground electrical utility lines.
2. Printing on tape shall be permanent and shall not be damaged by burial operations.
3. Tape material and ink shall be chemically inert, and not subject to degrading when exposed to acids, alkalis, and other destructive substances commonly found in soils.

**2.4 Warning Labels and Signs**

A. Comply with NFPA 70 and 29 CFR 1910.145.

B. Self-Adhesive Warning Labels: Factory-printed, multicolor, pressure-sensitive adhesive labels, configured for display on front cover, door, or other access to equipment unless otherwise indicated.

**2.5 Instruction Signs**

A. Engraved, laminated acrylic or melamine plastic, minimum 1/16-inch-thick for signs up to 20 sq. inches and 1/8-inch-thick for larger sizes.

1. Engraved legend with black letters on white face.
2. Punched or drilled for mechanical fasteners.
3. Framed with mitered acrylic molding and arranged for attachment at applicable equipment.

## 2.6 Equipment Identification Labels

- A. Self-Adhesive, Engraved, Laminated Acrylic or Melamine Label: Adhesive backed, with white letters on a dark-gray background. Minimum letter height shall be 3/8 inch.

## 2.7 Miscellaneous Identification Products

- A. Paint: Comply with requirements in painting Sections for paint materials and application requirements. Select paint system applicable for surface material and location (exterior or interior).
- B. Fasteners for Labels and Signs: Self-tapping, stainless-steel screws or stainless-steel machine screws with nuts and flat and lock washers.

## PART 3 - EXECUTION

### 3.1 Installation

- A. Location: Install identification materials and devices at locations for most convenient viewing without interference with operation and maintenance of equipment.
- B. Apply identification devices to surfaces that require finish after completing finish work.
- C. Self-Adhesive Identification Products: Clean surfaces before application, using materials and methods recommended by manufacturer of identification device.
- D. Attach signs and plastic labels that are not self-adhesive type with mechanical fasteners appropriate to the location and substrate.
- E. System Identification Color-Coding Bands for Raceways and Cables: Each color-coding band shall completely encircle cable or conduit. Place adjacent bands of two-color markings in contact, side by side. Locate bands at changes in direction, at penetrations of walls and floors, at 50-foot maximum intervals in straight runs, and at 25-foot maximum intervals in congested areas.
- F. Underground-Line Warning Tape: During backfilling of trenches install continuous underground-line warning tape directly above line at 6 to 8 inches below finished grade. Use multiple tapes where width of multiple lines installed in a common trench or concrete envelope exceeds 16 inches overall.
- G. Painted Identification: Comply with requirements in painting Sections for surface preparation and paint application.

### 3.2 Identification Schedule

- A. Accessible Raceways 600 V or Less, for Service, Feeder, and Branch Circuits More Than 30A, and 120V to ground: Install labels at 30-foot maximum intervals.
- B. Power-Circuit Conductor Identification, 600 V or Less: For conductors in, pull and junction boxes, and handholes, use color-coding conductor tape to identify the phase.



1. Color-Coding for Phase and Voltage Level Identification, 600 V or Less: Use colors listed below for ungrounded service feeder and branch-circuit conductors.
  - a. Color shall be factory applied or field applied for sizes larger than No. 8 AWG, if authorities having jurisdiction permit
  - b. Colors for 208/120-V Circuits:
    - 1) Phase A: Black.
    - 2) Phase B: Red.
    - 3) Phase C: Blue.
  - c. Colors for 480/277-V Circuits:
    - 1) Phase A: Brown.
    - 2) Phase B: Orange.
    - 3) Phase C: Yellow.
  - d. Field-Applied, Color-Coding Conductor Tape: Apply in half-lapped turns for a minimum distance of 6 inches from terminal points and in boxes where splices or taps are made. Apply last two turns of tape with no tension to prevent possible unwinding. Locate bands to avoid obscuring factory cable markings.
- C. Install instructional sign including the color-code for grounded and ungrounded conductors using adhesive-film-type labels.
- D. Conductors to Be Extended in the Future: Attach write-on tags to conductors and list source.
- E. Locations of Underground Lines: Identify with underground-line warning tape for power, lighting, and control wiring and optical fiber cable.
  1. Limit use of underground-line warning tape to direct-buried cables.
  2. Install underground-line warning tape for both direct-buried cables and cables in raceway.
- F. Operating Instruction Signs: Install instruction signs to facilitate proper operation and maintenance of electrical systems and items to which they connect. Install instruction signs with approved legend where instructions are needed for system or equipment operation.
- G. Emergency Operating Instruction Signs: Install instruction signs with white legend on a red background with minimum 3/8-inch high letters for emergency instructions at equipment used for power transfer

H. Equipment Identification Labels: On each unit of equipment, install unique designation label that is consistent with wiring diagrams, schedules, and the Operation and Maintenance Manual.

1. Labeling Instructions:

- a. Outdoor Equipment: Engraved, laminated acrylic or melamine label
- b. Unless provided with self-adhesive means of attachment, fasten labels with appropriate mechanical fasteners that do not change the NEMA or NRTL rating of the enclosure.

**END OF SECTION 26 05 53**

**PAGE INTENTIONALLY LEFT BLANK**

## SECTION 26 24 16

### PANELBOARDS

#### PART 1 - GENERAL

##### 1.1 Summary

- A. Section includes distribution panelboards and lighting panelboards.

##### 1.2 Action Submittals

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: For each panelboard and related equipment.
  - 1. Include dimensioned plans, elevations, sections, and details. Show tabulations of installed devices, equipment features, and ratings.
  - 2. Detail enclosure types and details for types other than NEMA 250, Type 1.
  - 3. Detail bus configuration, current, and voltage ratings.
  - 4. Short-circuit current rating of panelboards and overcurrent protective devices.
  - 5. Include evidence of NRTL listing for series rating of installed devices.
  - 6. Detail features, characteristics, ratings, and factory settings of individual overcurrent protective devices and auxiliary components.
  - 7. Include wiring diagrams for power, signal, and control wiring.
  - 8. Include time-current coordination curves for each type and rating of overcurrent protective device included in panelboards.

##### 1.3 Informational Submittals

- A. Seismic Qualification Certificates: Submit certification that panelboards, overcurrent protective devices, accessories, and components will withstand seismic forces
- B. Field quality-control reports.
- C. Panelboard schedules for installation in panelboards.

##### 1.4 Closeout Submittals

- A. Operation and maintenance data.

### 1.5 Quality Assurance

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Comply with NEMA PB 1.
- C. Comply with NFPA 70.

### 1.6 Warranty

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace transient voltage suppression devices that fail in materials or workmanship within specified warranty period.
  - 1. Warranty Period: Five years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 General Requirements for Panelboards

- A. Fabricate and test panelboards according to IEEE 344 to withstand seismic forces
- B. Enclosures: Surface-mounted cabinets.
  - 1. Rated for environmental conditions at installed location.
    - a. Indoor Dry and Clean Locations: NEMA 250, Type 1
    - b. Outdoor Locations: NEMA 250, Type 3R or Type 4X stainless steel depending on the Owners Standards or requirements
  - 2. Front: Secured to box with concealed trim clamps. For surface-mounted fronts, match box dimensions; for flush-mounted fronts, overlap box.
  - 3. Hinged Front Cover: Entire front trim hinged to box and with standard door within hinged trim cover.
  - 4. Directory Card: Inside panelboard door, mounted in transparent card holder.
- C. Incoming Mains Location: Top and bottom.
- D. Phase, Neutral, and Ground Buses: Hard-drawn copper, 98 percent conductivity.
- E. Conductor Connectors: Suitable for use with conductor material and sizes.
  - 1. Material: Hard-drawn copper, 98 percent conductivity.
  - 2. Main and Neutral Lugs: Mechanical type.

3. Ground Lugs and Bus Configured Terminators: Mechanical type.

F. Service Equipment Label: NRTL labeled for use as service equipment for panelboards with one or more main service disconnecting and overcurrent protective devices.

G. Future Devices: Mounting brackets, bus connections, filler plates, and necessary appurtenances required for future installation of devices.

H. Panelboard Short-Circuit Current Rating: Fully rated to interrupt symmetrical short-circuit current available at terminals.

## 2.2 Performance Requirements

A. Seismic Performance: Panelboards shall withstand the effects of earthquake motions determined according to SEI/ASCE 7

1. The term "withstand" means "the unit will remain in place without separation of any parts from the device when subjected to the seismic forces specified and the unit will be fully operational after the seismic event."

## 2.3 Lighting Panelboards

A. Acceptable Manufacturers:

1. Eaton/Cutler Hammer
2. Square D
3. Siemens
4. General Electric

B. Panelboards: NEMA PB 1, lighting and appliance branch-circuit type.

C. Mains: Circuit breaker or lugs only as shown on contract drawings.

D. Branch Overcurrent Protective Devices: Bolt-on circuit breakers, replaceable without disturbing adjacent units.

E. Doors: Concealed hinges; secured with flush latch with tumbler lock; keyed alike.

F. Column-Type Panelboards: Narrow gutter extension, with cover, to overhead junction box equipped with ground and neutral terminal buses.

## 2.4 Overcurrent Protective Devices

A. Acceptable Manufacturers:

1. Eaton/Cutler Hammer

2. Square D
  3. Siemens
  4. General Electric
- B. Molded-Case Circuit Breaker (MCCB): Comply with UL 489, with interrupting capacity to meet available fault currents.
1. Thermal-Magnetic Circuit Breakers: Inverse time-current element for low-level overloads, and instantaneous magnetic trip element for short circuits. Adjustable magnetic trip setting for circuit-breaker frame sizes 250 A and larger.
  2. Molded-Case Circuit-Breaker (MCCB) Features and Accessories:
    - a. Standard frame sizes, trip ratings, and number of poles.
    - b. Lugs: Mechanical style, suitable for number, size, trip ratings, and conductor materials.

### **PART 3 - EXECUTION**

#### **3.1 Installation**

- A. Receive, inspect, handle, store and install panelboards and accessories according to NEMA PB 1.1.
- B. Comply with mounting and anchoring requirements recommended by the manufacturer.
- C. Mount top of trim 90 inches above finished grade unless otherwise indicated.
- D. Mount panelboard cabinet plumb and rigid without distortion of box.
- E. Install filler plates in unused spaces.
- F. Arrange conductors in gutters into groups and bundle and wrap with wire ties.
- G. Comply with NECA 1.

#### **3.2 Identification**

- A. Identify field-installed conductors, interconnecting wiring, and components; provide warning signs complying with Section 26 05 53 "Identification."
- B. Create a directory to indicate installed circuit loads. Obtain approval before installing. Use a computer or typewriter to create directory; handwritten directories are not acceptable.
- C. Panelboard Nameplates: Label each panelboard with a nameplate complying with requirements for identification specified in Section 26 05 53 "Identification."

### 3.3 Field Quality Control

- A. Perform tests and inspections.
- B. Acceptance Testing Preparation:
  - 1. Test insulation resistance for each panelboard bus, component, connecting supply, feeder, and control circuit.
  - 2. Test continuity of each circuit.
- C. Tests and Inspections:
  - 1. Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.
  - 2. Correct malfunctioning units on-site, where possible, and retest to demonstrate compliance; otherwise, replace with new units and retest.
- D. Panelboards will be considered defective if they do not pass tests and inspections.
- E. Prepare test and inspection reports, including a certified report that identifies panelboards included and that describes scanning results. Include notation of deficiencies detected, remedial action taken, and observations after remedial action.

**END OF SECTION 26 24 16**

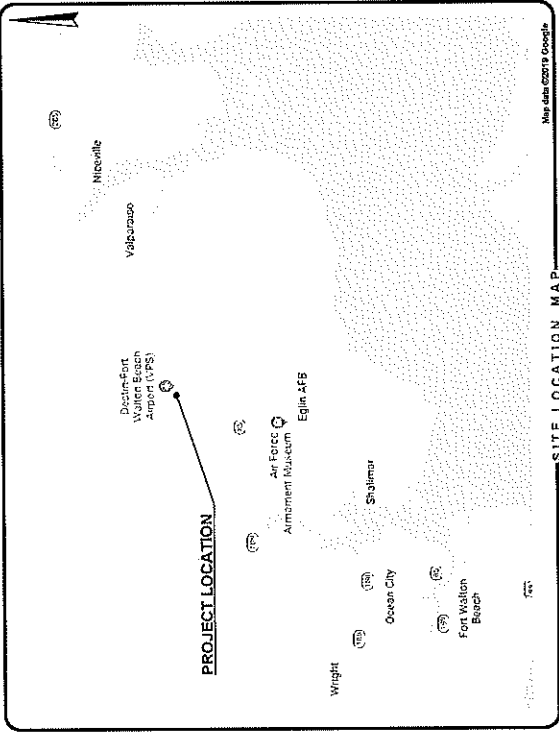
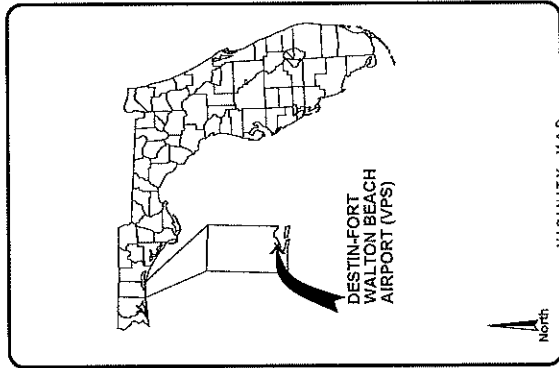


PAGE INTENTIONALLY LEFT BLANK

DESIGN DRAWINGS FOR:

# VPS PARKING LOT B EXPANSION

DESTIN-FORT WALTON BEACH AIRPORT (VPS)  
EGLIN AIR FORCE BASE, FLORIDA



**PREPARED FOR:**



OKALOOSA COUNTY AIRPORTS  
1701 STATE ROAD 85 NORTH  
EGLIN AIR FORCE BASE, FL 32542  
PHONE: (850) 651-7160  
FAX: (850) 651-7164

AIRPORTS DIRECTOR: TRACY STAGE, A.A.E.  
AIRPORTS DEPUTY DIRECTOR - PLANS AND PROGRAMS: CHAD ROGERS, P.E.

**COMMISSIONERS**

- DISTRICT 4: TREY GOODWIN, CHAIR
- DISTRICT 2: CAROLYN KETCHEL, VICE CHAIR
- DISTRICT 1: GRAHAM FOUNTAIN
- DISTRICT 3: NATHAN BOYLES
- DISTRICT 5: KELLY WINDES

## RELEASE FOR BID

**ENGINEER:**



AYCON, INC.  
ENGINEERS & PLANNERS  
320 BAYSHORE DRIVE, SUITE A - NICEVILLE, FL  
32578-2425 OFFICE: (850) 678-0050  
CORPORATE CERTIFICATE OF AUTHORIZATION  
NUMBER: 5057 www.ayconinc.com

NOT FOR CONSTRUCTION

AYCON, INC.  
ENGINEERS & PLANNERS  
120 BAYSHORE DRIVE, SUITE A  
NICEVILLE, FL 32578-2425  
OFFICE: (850) 678-0050  
FAX: (850) 678-0049  
CORPORATE CERTIFICATE OF  
AUTHORIZATION NUMBER: 5057  
www.ayconinc.com



TRANSFORMING TODAY'S IDEAS  
INTO TOMORROW'S REALITY

SHEET NO.	INDEX OF DRAWINGS SHEET TITLE
G-1	COVER SHEET
G-2	SUMMARY OF QUANTITIES
G-3	GENERAL NOTES
G-4	SAFETY & SECURITY NOTES
G-5	CONSTRUCTION SAFETY & PHASING PLAN
D-1	OVERALL SITE PLAN
D-2	EXISTING CONDITIONS, DEMO, & EROSION CONTROL PLAN, SHEET 1 OF 2
D-3	EXISTING CONDITIONS, DEMO, & EROSION CONTROL PLAN, SHEET 2 OF 2
D-4	SITE & GEOMETRY PLAN, SHEET 1 OF 2
D-5	SITE & GEOMETRY PLAN, SHEET 2 OF 2
C-1	GRADING & DRAINAGE PLAN, SHEET 1 OF 2
C-2	GRADING & DRAINAGE PLAN, SHEET 2 OF 2
C-3	IRIGATION & DRAINAGE PLAN, SHEET 1 OF 2
C-4	IRIGATION & DRAINAGE PLAN, SHEET 2 OF 2
C-5	IRIGATION & DRAINAGE PLAN, SHEET 3 OF 2
C-6	IRIGATION & DRAINAGE PLAN, SHEET 4 OF 2
C-7	IRIGATION & DRAINAGE PLAN, SHEET 5 OF 2
C-8	IRIGATION & DRAINAGE PLAN, SHEET 6 OF 2
C-9	IRIGATION & DRAINAGE PLAN, SHEET 7 OF 2
C-10	IRIGATION & DRAINAGE PLAN, SHEET 8 OF 2
C-11	IRIGATION & DRAINAGE PLAN, SHEET 9 OF 2
C-12	IRIGATION & DRAINAGE PLAN, SHEET 10 OF 2
E001	ELECTRICAL GENERAL NOTES
E002	ELECTRICAL SYMBOL LEGEND
E003	VPS PARKING LOT LUMINAIRE SCHEDULE & CUTSHEETS
E101	VPS PARKING LOT B EXPANSION SITE LAYOUT
E102	VPS PARKING LOT B AREA 01 LIGHTING LAYOUT
E103	VPS PARKING LOT B AREA 02 & 03 LIGHTING LAYOUT
E104	VPS PARKING LOT B AREA 04 LIGHTING LAYOUT
E105	VPS PARKING LOT D LIGHTING LAYOUT
E106	ELECTRICAL LOAD CALCULATIONS AND PANEL SCHEDULE
E107	LIGHTING DETAILS
E108	SECURITY CAMERA DETAILS

COVER SHEET

VPS PARKING  
LOT B EXPANSION  
PREPARED FOR  
DESTIN-FORT WALTON  
BEACH AIRPORT

DESIGNED BY: JAC  
DRAWN BY: BVA  
CHECKED BY: JAC  
APPROVED BY: V.C.L.  
PROJECT NUMBER: 2009.025  
DATE: JANUARY 2009  
SHEET NUMBER

G-1





**SAFETY & SECURITY NOTES:**

1. SAFETY GUIDELINES - IN THE INTEREST OF SAFETY, THE CONTRACTOR IS ALSO DIRECTED TO ACQUAINT HIM/HER EMPLOYEES WITH THE PROVISIONS OF THE CURRENT EDITION OF THE FOLLOWING FEDERAL AVIATION ADMINISTRATION AIRPORT CIRCLARS:
  - AC 150/3370-2 - OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION
  - AC 150/3370-1 - SAFETY OF VEHICLES USED ON AN AIRPORT
  - AC 150/3400-18 - AIRPORT SAFETY SELF-INSPECTION
2. VEHICLE IDENTIFICATION - THE CONTRACTOR, THROUGH THE CONTRACTOR SECURITY OFFICER, SHALL ESTABLISH AND MAINTAIN A LIST OF CONTRACTOR AND SUBCONTRACTOR VEHICLES AUTHORIZED TO OPERATE ON THE SITE. THE CONTRACTOR SECURITY OFFICER WILL REQUIRE EACH VEHICLE TO DISPLAY A SIGNAGE IDENTIFYING THE CONTRACTOR AND THE VEHICLE. THE CONTRACTOR SECURITY OFFICER SHALL PROVIDE A CURRENT LISTING OF ALL VEHICLES AND OPERATORS AUTHORIZED TO ENTER AND CONDUCT WORK ON THE AIRPORT. THE CONTRACTOR SECURITY OFFICER SHALL REQUIRE ALL CONTRACTOR PERSONNEL TO WEAR IDENTIFICATION TAGS AND TO WEAR IDENTIFICATION TAGS AT ALL TIMES. THE CONTRACTOR SECURITY OFFICER SHALL REQUIRE ALL CONTRACTOR PERSONNEL TO WEAR IDENTIFICATION TAGS AT ALL TIMES.
3. OPEN FLAME - OPEN FLAME WELDING AND OTHER PROCESSES APPROVED BY AIRPORT OPERATIONS, AIRCRAFT FIRE AND SAFETY PROCEDURES HAVE BEEN REVIEWED AND APPROVED BY AIRPORT OPERATIONS.
4. SMOKE - SMOKE TO PRODUCE HAZARDOUS MATERIAL AND OTHER EXHAUSTIONS SHALL BE TREATED IN SUCH A MANNER AS TO PREVENT HAZARD RESULTING FROM AIRCRAFT BLAST OR WIND CONDITIONS IN EXCESS OF 10 KNOTS. STOCKPILED MATERIALS SHALL NOT BE PERMITTED WITHIN 250' OF AN ACTIVE RUNWAY CONTIGUOUS OR 62.5' FROM AN ACTIVE TOWAY CONTIGUOUS.
5. NO SMOKING SHALL BE ALLOWED WITHIN THE WORK AREA.
6. DESIGNATED AIRPORT REPRESENTATIVE SHALL HAVE THE AUTHORITY TO DISCONTINUE CONSTRUCTION OPERATIONS AT ANY TIME FOR ANY REASON. THE AIRPORT REPRESENTATIVE SHALL BE NOTIFIED IMMEDIATELY BY THE CONTRACTOR AND/OR AIRPORT PROPERTY AND SECURITY OFFICERS OF THE WORK AREA WITHIN THIRTY (30) MINUTES AFTER RECEIVING NOTICE.
7. ALL WORK SHALL BE COMPLETED BY THE END OF EACH DAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER CLEANUP OF THE WORK AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER STORAGE OF ALL MATERIALS AND THE SPACING FOR BARRICADES SHALL BE ADEQUATE TO DELINEATE THE WORK AREA AND AT NO TIME SHALL THE CONTRACTOR OPERATIONS BE CONDUCTED IN SUCH A MANNER AS TO OBSTRUCT THE VIEW OF THE AIRPORT OPERATIONS OFFICER. EXCESSIVE LIGHTS BE INOPERABLE. THE CONTRACTOR SHALL IMMEDIATELY REPLACE ANY BARRICADES, LIGHTS OR PLACES WHICH IN THE OPINION OF THE FIELD REPRESENTATIVE OR AIRPORT OPERATIONS ARE NOT ADEQUATE.
8. CONTRACTOR SHALL COORDINATE WITH THE OWNER AND DESIGNATED AIRPORT REPRESENTATIVES FOR THE ISSUANCE OF NOTICES BEFORE CONSTRUCTION BEGINS.
9. EQUIPMENT OR MATERIALS SHALL NOT EXCEED A HEIGHT OF 70 FT WITHOUT PRIOR APPROVAL FROM ENGINEER.
10. GENERAL - THE CONTRACTOR SHALL COMPLY WITH ALL SECURITY REQUIREMENTS SPECIFIED IN THE CONTRACT MANUAL. THE CONTRACTOR SHALL DESIGNATE IN WRITING TO THE FIELD REPRESENTATIVE, THE NAME OF THE SECURITY REPRESENTATIVE AND THE SECURITY REPRESENTATIVE SHALL REPRESENT THE CONTRACTOR ON THE SECURITY REQUIREMENTS OF THE CONTRACT.
11. CONSTRUCTION SECURITY COMMITTEE - A COMMITTEE SHALL BE ESTABLISHED CONCURRENT WITH THE LIFE OF THIS CONTRACT TO MONITOR AND COORDINATE SECURITY PROVISIONS. AIRPORT SECURITY PROVISIONS IF REQUIRED AND SECURITY AND AIRPORT REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE SECURITY COMMITTEE. THE CONTRACTOR SECURITY OFFICER, FIELD REPRESENTATIVE AND AIRPORT OPERATIONS SHALL INCLUDE THE CONTRACTOR SECURITY REPRESENTATIVE AND AIRPORT OPERATIONS.
12. CONTRACTOR PERSONNEL SECURITY ORIENTATION - THE CONTRACTOR SECURITY OFFICER SHALL BE RESPONSIBLE FOR BRIEFING ALL CONTRACTOR PERSONNEL ON SECURITY COMMITTEE AND SECURITY REQUIREMENTS. ALL NEW CONTRACTOR EMPLOYEES SHALL BE BRIEFED ON THESE REQUIREMENTS PRIOR TO WORKING IN THE CONSTRUCTION AREA.
13. ACCESS TO THE SITE - CONTRACTOR'S ACCESS TO THE SITE SHALL BE VIA ACCESS ROUTE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD REPRESENTATIVE. THE CONTRACTOR SHALL NOT PERMIT ANY UNAUTHORIZED PERSONNEL OR UNAUTHORIZED VEHICLES ON THE SITE. THE CONTRACTOR IS RESPONSIBLE FOR THE IMMEDIATE CLEANUP OF ANY DEBRIS DEPOSITED ALONG ANY ACCESS ROAD AS A RESULT OF THE CONSTRUCTION TRAFFIC. ALL TRAFFIC SHALL BE PERMITTED TO THE ACCESS DATE AND ALONG THE DESIGNATED ROUTE TO THE STORAGE AREA OR WORK SITE. ALL TRAFFIC SHALL USE THE ACCESS ROUTE TO THE SITE - ALL CONTRACTOR'S MATERIALS FOR DELIVERY TO THE SITE SHALL USE THE ACCESS ROUTE TO THE SITE. ALL CONTRACTOR'S MATERIALS FOR DELIVERY TO THE SITE SHALL USE THE ACCESS ROUTE TO THE SITE. ALL CONTRACTOR'S MATERIALS FOR DELIVERY TO THE SITE SHALL USE THE ACCESS ROUTE TO THE SITE. ALL CONTRACTOR'S MATERIALS FOR DELIVERY TO THE SITE SHALL USE THE ACCESS ROUTE TO THE SITE.
14. MATERIALS DELIVERY TO THE SITE - ALL CONTRACTOR'S MATERIALS FOR DELIVERY TO THE SITE SHALL USE THE ACCESS ROUTE TO THE SITE. ALL CONTRACTOR'S MATERIALS FOR DELIVERY TO THE SITE SHALL USE THE ACCESS ROUTE TO THE SITE. ALL CONTRACTOR'S MATERIALS FOR DELIVERY TO THE SITE SHALL USE THE ACCESS ROUTE TO THE SITE.
15. CONSTRUCTION AREA LIGHTS - THE LIMITS OF CONSTRUCTION, MATERIAL STORAGE AREAS, EQUIPMENT STORAGE AREA, PARKING AREA AND OTHER AREAS REQUIRED FOR THE CONTRACTOR'S EXCLUSIVE USE DURING CONSTRUCTION SHALL BE MARKED BY THE CONTRACTOR AND APPROVED BY THE FIELD REPRESENTATIVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PERIMETER OF ALL SUCH AREAS.
16. OPERATORS OF VEHICLES MUST POSSESS A VALID DRIVER'S LICENSE FOR THE VEHICLE BEING OPERATED. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EMPLOYEES DRIVING WITHIN THE AOA, AND SHALL LIMIT ACTIVITIES TO THE IMMEDIATE WORK AREA.
17. ALL ACCESS GATES SHALL REMAIN LOCKED OR MONITORED AT ALL TIMES. THE COST OF PROVIDING GUARDS AND SECURITY GUARDS SHALL BE PROVIDED AND INCLUDED IN THE VARIOUS CONTRACT ITEMS.

NOT FOR CONSTRUCTION

AVCON, INC.  
ENGINEERS & PLANNERS  
238 AVENUE DRIVE, SUITE A  
MIAMI, FL 33129-2425  
PHONE: (305) 878-0018  
FAX: (305) 878-0018  
OFFICE: (305) 878-0018  
CORPORATE CENTER SUITE 600  
1175 TOWNWAY DRIVE, SUITE 600  
MIAMI, FL 33131-1303



TRAINING TODAY'S IDEAS  
FOR TOMORROW'S REALITY

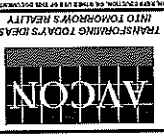
NO.	DATE	REVISION

SAFETY & SECURITY NOTES  
NOT FOR CONSTRUCTION  
RELATES FORM NO.

VPS PARKING  
LOT B EXPANSION  
PREPARED FOR  
DESTIN - FORT WALTON  
BEACH AIRPORT

DESIGNED BY: J.L.C.  
DRAWN BY: B.V.C.  
CHECKED BY: J.L.C.  
APPROVED BY: V.C.L.  
PROJECT NO: 014-050203  
DATE: JANUARY 2003

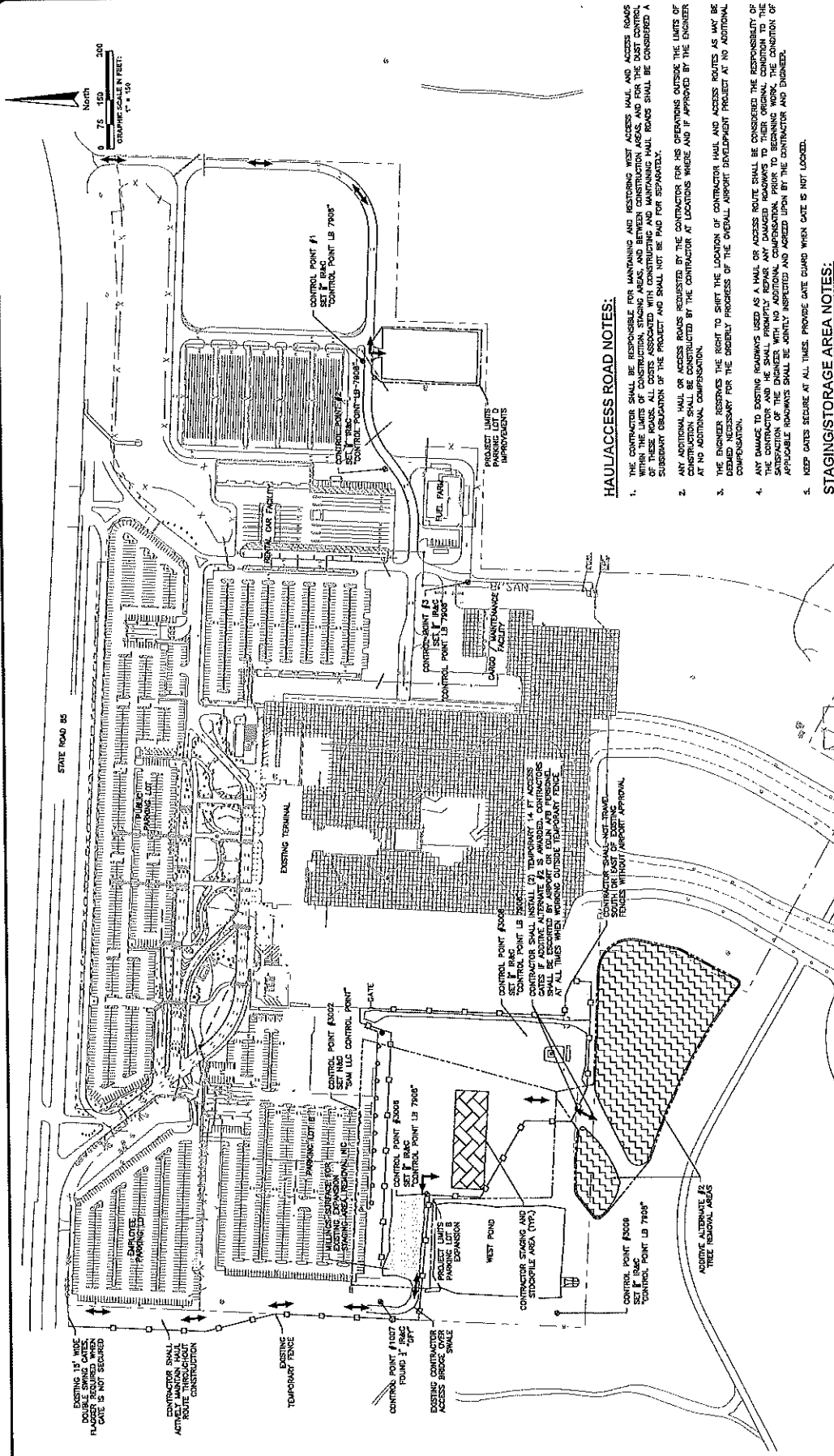
SHEET NUMBER  
**G-4**



NO.	DATE	REVISION

**CONSTRUCTION SAFETY & PHASING PLAN**  
 FOR CONSTRUCTION OF  
 VPS PARKING LOT B EXPANSION  
 AT  
 REARLAND - FORT WALTON BEACH AIRPORT

DESIGNED BY: J.B.C.  
 DRAWN BY: J.B.C.  
 CHECKED BY: J.B.C.  
 APPROVED BY: J.B.C.  
 PROJECT NO: 2010/01/0002  
 DATE: JANUARY 2010  
**SHEET NUMBER G-5**



**HAUL/ACCESS ROAD NOTES:**

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND RESTORING WEST ACCESS HALL AND ACCESS ROADS WITHIN THE LIMITS OF CONSTRUCTION STAGING AREAS, AND FOR THE DUST CONTROL OF THESE ROADS. ALL COSTS ASSOCIATED WITH CONSTRUCTION AND MAINTENANCE OF WEST ACCESS HALL ROADS SHALL BE CONSIDERED A SUBSIDIARY OBLIGATION OF THE PROJECT AND SHALL NOT BE PAID FOR SEPARATELY.
- ANY ADDITIONAL HALL OR ACCESS ROADS REQUESTED BY THE CONTRACTOR FOR HIS OPERATIONS OUTSIDE THE LIMITS OF CONSTRUCTION SHALL BE CONSTRUCTED BY THE CONTRACTOR AT LOCATIONS WISE AND IF APPROVED BY THE ENGINEER AT NO ADDITIONAL COMPENSATION.
- THE ENGINEER RESERVES THE RIGHT TO SHIFT THE LOCATION OF CONTRACTOR HALL AND ACCESS ROUTES AS MAY BE DEEMED NECESSARY FOR THE ORDERLY PROGRESS OF THE OVERALL AIRPORT DEVELOPMENT PROJECT AT NO ADDITIONAL COMPENSATION.
- ANY DAMAGE TO EXISTING ROADS USED AS A HALL OR ACCESS ROUTE SHALL BE CONSIDERED THE RESPONSIBILITY OF THE CONTRACTOR AND HE SHALL PROMPTLY REPAIR AND RESTORE SUCH DAMAGE TO ORIGINAL CONDITION PRIOR TO BEGINNING WORK. THE CONDITION OF APPLICABLE ROADS SHALL BE JOINTLY INSPECTED AND AGREED UPON BY THE CONTRACTOR AND ENGINEER.
- KEEP DATES SECURE AT ALL TIMES. PROVIDE DATE GUARD WHEN DATE IS NOT LOCKED.

**STAGING/STORAGE AREA NOTES:**

- THE EXACT LIMITS OF THE CONTRACTOR'S STAGING AND STORAGE AREA SHALL BE ESTABLISHED BY THE CONTRACTOR WITH THE APPROVAL OF THE ENGINEER IN THE AREA GENERALLY SHOWN ON THE PLANS. ANY AND ALL REQUIRED LIMITS FOR THE CONTRACTOR'S OPERATIONS SHALL BE AGREED FOR AND PAID FOR BY THE CONTRACTOR. THE CONTRACTOR SHALL MAINTAIN APPROPRIATE UTILITY ACCESSIBLE UTILITIES AT ALL TIMES. THE CONTRACTOR SHALL PROVIDE PROPER AND SANITARY TOILET FACILITIES FOR HIS EMPLOYEES.
- UPON COMPLETION OF THE PROJECT THE CONTRACTOR SHALL RESTORE ALL GRAVELLED AND PAVED AREAS USED FOR STAGING AND STORAGE TO ORIGINAL CONDITION INCLUDING THE REFINISHING OF ANY RUTS, HOLES, OR OTHER DEPRESSIONS OR THE LAYING OF BANKS OR OTHER SIMILAR IMPROVEMENTS AS MAY BE APPLICABLE. UPON ACCEPTANCE OF THE RESTORED STAGING OR STORAGE AREAS, THE CONTRACTOR SHALL SOO THESE AREAS IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND SCHEDULING OF STAGING AND STORAGE AREAS. CONSTRUCTION, MAINTENANCE, RESTORATION, REPAIR AND SCHEDULING OF STAGING AND STORAGE AREAS. CONTRACTOR SHALL USE NON-GRAVEL STABILIZATION TO MINIMIZE FOREIGN OBJECT DURING CONSTRUCTION ACTIVITIES AND PREVENT ALL OPEN SEDIMENT TRACKING. CONTRACTOR SHALL INSTALL THE 1/4" SET FENCE 6' OUTSIDE THE PERIMETER OF THE STAGING AREA.

**SURVEY REPORT:**

- THE BEARINGS AND COORDINATES SHOWN HEREON ARE GRID, REFERENCED TO A LINE BETWEEN CONTROL POINTS 1037 AND 3009 AS BEING SOUTH 88 DEGREES 00 MINUTES 12 SECONDS EAST AND MONUMENT COORDINATES BASED ON THE FLORIDA NORTH ZONE STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM OF 1983.
- ELEVATIONS SHOWN HEREON ARE BASED ON A GEORGE F. YOUNG, INC. CONTROL POINT HAVING AN ELEVATION OF 81.57 FEET, AS SHOWN ON GEORGE F. YOUNG, INC. TOPOGRAPHIC SURVEY JOB NUMBER 103328030, DATED AUGUST 20, 2010.
- UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON ABOVEGROUND MARKING, PAINTING, FLAGGING AND/OR OTHER VISIBLE EVIDENCE AS MARKED BY OTHERS, EXISTING AT THE TIME OF FIELD SURVEY.
- THERE MAY BE ADDITIONAL RIGHTS OF WAY, EASEMENTS, EGRESS SETBACKS, OR OTHER RESTRICTIONS OF RECORD THAT ALL RESTRICTIONS OF RECORD ARE SHOWN, ALSO, NO CERTIFICATION IS GIVEN THAT USED OVERLAP AND UNDERGROUND IMPROVEMENTS OR ENDEAVORS DO NOT EXIST.
- THIS IS NOT A BOUNDARY SURVEY.

**BENCHMARK INFORMATION**

CONTROL POINT #1007	N: 544834.41 E: 121714.11 ELEV: 81.57'	CONTROL POINT #1	N: 544834.41 E: 121714.11 ELEV: 81.57'
CONTROL POINT #1002	N: 548202.72 E: 1232206.07 ELEV: 84.15'	CONTROL POINT #2	N: 542391.50 E: 1234182.12 ELEV: 83.38'
CONTROL POINT #1005	N: 546284.74 E: 121742.57 ELEV: 82.33'	CONTROL POINT #3	N: 548140.83 E: 1232313.54 ELEV: 81.98'
CONTROL POINT #1008	N: 546874.41 E: 123242.54 ELEV: 81.81'	CONTROL POINT #4	N: 548140.83 E: 1232313.54 ELEV: 81.98'
CONTROL POINT #1006	N: 549801.15 E: 121571.57 ELEV: 81.57'	CONTROL POINT #5	N: 544834.41 E: 121714.11 ELEV: 81.57'

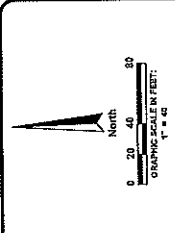
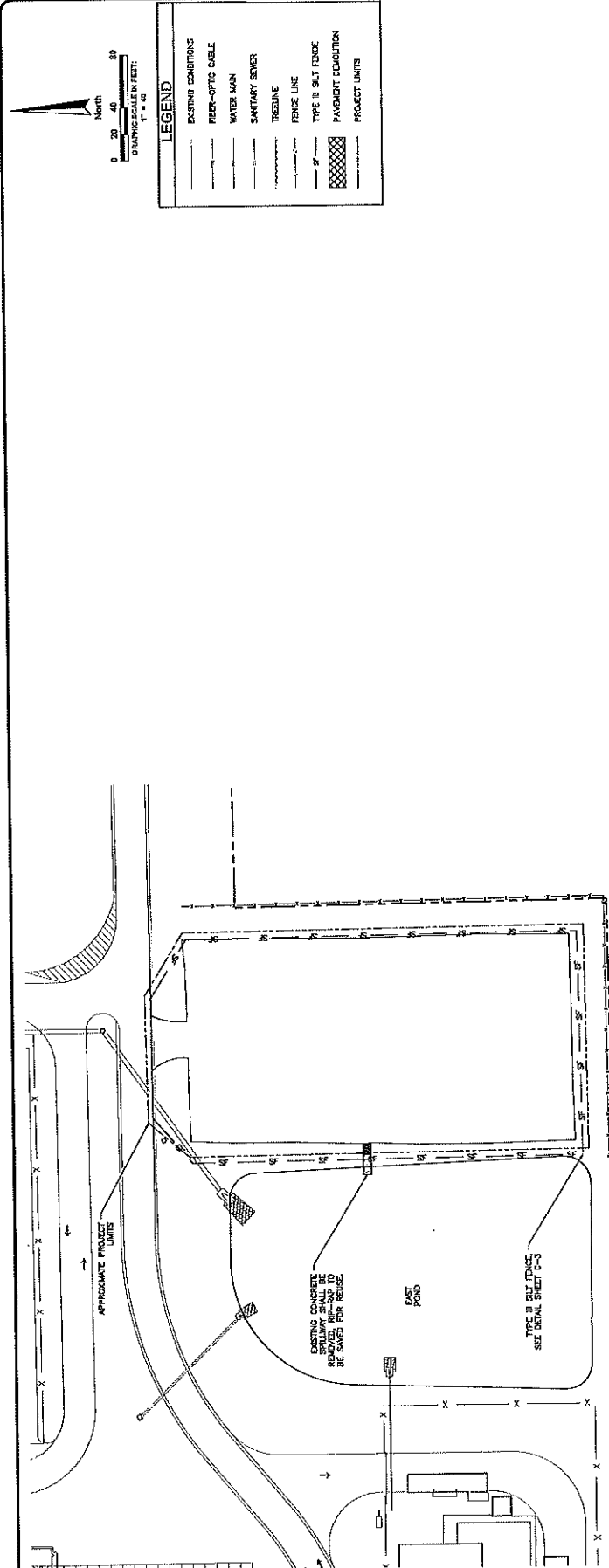
NOT FOR CONSTRUCTION







NO.	DATE	REVISION
1		



**LEGEND**

SYMBOL	DESCRIPTION
---	EXISTING CONDITIONS
---	FIBER-OPTIC CABLE
---	WATER MAIN
---	SANITARY SEWER
---	TREELINE
---	FENCE LINE
---	TYPE III SILT FENCE
---	PAVEMENT DEMOLITION
---	PROJECT LIMITS

**GENERAL NOTES:**

1. ALL SEDIMENT CONTROL MEASURES SHOWN ON THESE PLANS ARE TO BE INSTALLED TO PREVENT EROSION AND SEDIMENTATION FROM OCCURRING PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL ON THE BALANCE OF THE SITE.
2. PERIODIC INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL DEVICES MUST BE PROVIDED TO ENSURE INTENDED PURPOSE IS ACCOMPLISHED AT NO ADDITIONAL COST TO THE OWNER.
3. ALL TEMPORARY EARTH RETENTION AND DIMENSIONS ARE TO BE MAINTAINED UNLESS OTHERWISE NOTED OTHERWISE OTHER THAN 10 DAYS AFTER FINISHING AND SOILED FOR TEMPORARY RETENTION OTHER THAN 10 DAYS AFTER FINISHING.
4. AFTER ANY SIGNIFICANT RAINFALL, SEDIMENT CONTROL STRUCTURES WILL BE INSPECTED FOR ANY DAMAGE OR OBSTRUCTION. REPAIRS SHALL BE COMPLETED IMMEDIATELY AT NO ADDITIONAL COST TO THE OWNER.
5. THE IN PLACE SEDIMENT CONTROL MEASURES WILL BE MAINTAINED ON A CONTINUING BASIS UNTIL THE SITE IS PERMANENTLY STABILIZED AND ALL PERMIT REQUIREMENTS ARE MET.
6. THE CONSTRUCTION OF STORMWATER IMPROVEMENTS SHALL BE PERFORMED PRIOR TO THE CONSTRUCTION OF IMPROVEMENTS.
7. EXISTING AND PROPOSED INLET OPENINGS IN THE PROJECT SHALL BE COVERED WITH FILTER FABRIC AND SURROUNDED BY TYPE III SILT FENCE ALONG WITH HAY BALES.
8. THE CONTRACTOR SHALL MINIMIZE THE EXTENT OF EXPOSED EARTH AT ONE TIME DURING CONSTRUCTION AND UTILIZE WATERING TRUCKS TO WET THE EARTH DURING DRY MONTHS TO MINIMIZE EROSION DUE TO WIND.
9. CONTRACTOR SHALL NOTIFY THE ENGINEER IF EROSION CONTROL ISSUES DEVELOP ON-SITE.
10. SAW-CUT CLEAN EDGES AND MATCH EXISTING GRADE FOR ALL DEMOLITION, TE-IN LOCATIONS. APPLY TACK COAT ON ALL EXPOS PER FOOT 100L.
11. STRIPINGS (6" DEPTH) INTENDED FOR USE AS TOPSOIL PER FOOT 100L.
12. SAW CUT AND 1" FOOT BACK ON PER LAY MUST JOIN DETAIL TYPICAL PAVEMENT SECTION AND DETAILS SHEETS), WHEREVER IS GREATER. BUTT JOINT REQUIRES TACK AND CLEAN SAW CUT FOR THE FULL LENGTH OF THE TE-IN.
13. CONTRACTOR SHALL PROTECT EXISTING SIGNS TO ENSURE THEY ARE NOT DAMAGED DURING CONSTRUCTION. IF SIGNS ARE DAMAGED THEY SHALL BE REPLACED BY CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
14. CONTRACTOR SHALL BE REQUIRED TO CLEAN EXISTING DRAINS AND PIPES - ALL PIPES AND DRAINS SHALL BE FREE FROM DIRT AND DEBRIS PRIOR TO OWNER ACCEPTING THE PROJECT.

**STRAW BALE DROP INLET SEDIMENT FILTER DETAIL**

N.T.S.

1. THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RETAINED PAVED AREA (NOT PAVED OLD C&G) ARE TYPICAL. THIS METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY MEDIAN.

2. CONTRACTOR SHALL UTILIZE HAY BALES TO PROTECT EXISTING OR PROPOSED INLETS WITHIN THE CONSTRUCTION AREA.

**TYPE III SILT FENCE DETAIL**

N.T.S.

1. EROSION PROTECTION: SOIL EROSION SEDIMENTATION MUST BE CONTROLLED AND PREVENTED ON SITE. SOIL BARRIERS AS STAKED BUILT HAY AND SILT FENCE BARRIERS, MUST BE INSTALLED PRIOR TO START OF CONSTRUCTION.

2. SILT FENCE BARRIER SHALL BE INSTALLED AS SHOWN ON PLANS, AND IN ALL AREAS SUSCEPTIBLE TO SOIL EROSION SEDIMENTATION.

**TYPE III SILT FENCE DETAIL**

N.T.S.

NOTE: SILT FENCE TO BE CONSTRUCTED WITH 12" HAY BALES AS STAKED BUILT HAY AND SILT FENCE BARRIERS, MUST BE INSTALLED PRIOR TO START OF CONSTRUCTION.

1. SILT FENCE BARRIER SHALL BE INSTALLED AS SHOWN ON PLANS, AND IN ALL AREAS SUSCEPTIBLE TO SOIL EROSION SEDIMENTATION.

**STRAW BALE DROP INLET SEDIMENT FILTER DETAIL**

N.T.S.

1. THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RETAINED PAVED AREA (NOT PAVED OLD C&G) ARE TYPICAL. THIS METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY MEDIAN.

2. CONTRACTOR SHALL UTILIZE HAY BALES TO PROTECT EXISTING OR PROPOSED INLETS WITHIN THE CONSTRUCTION AREA.

**STRAW BALE DROP INLET SEDIMENT FILTER DETAIL**

N.T.S.

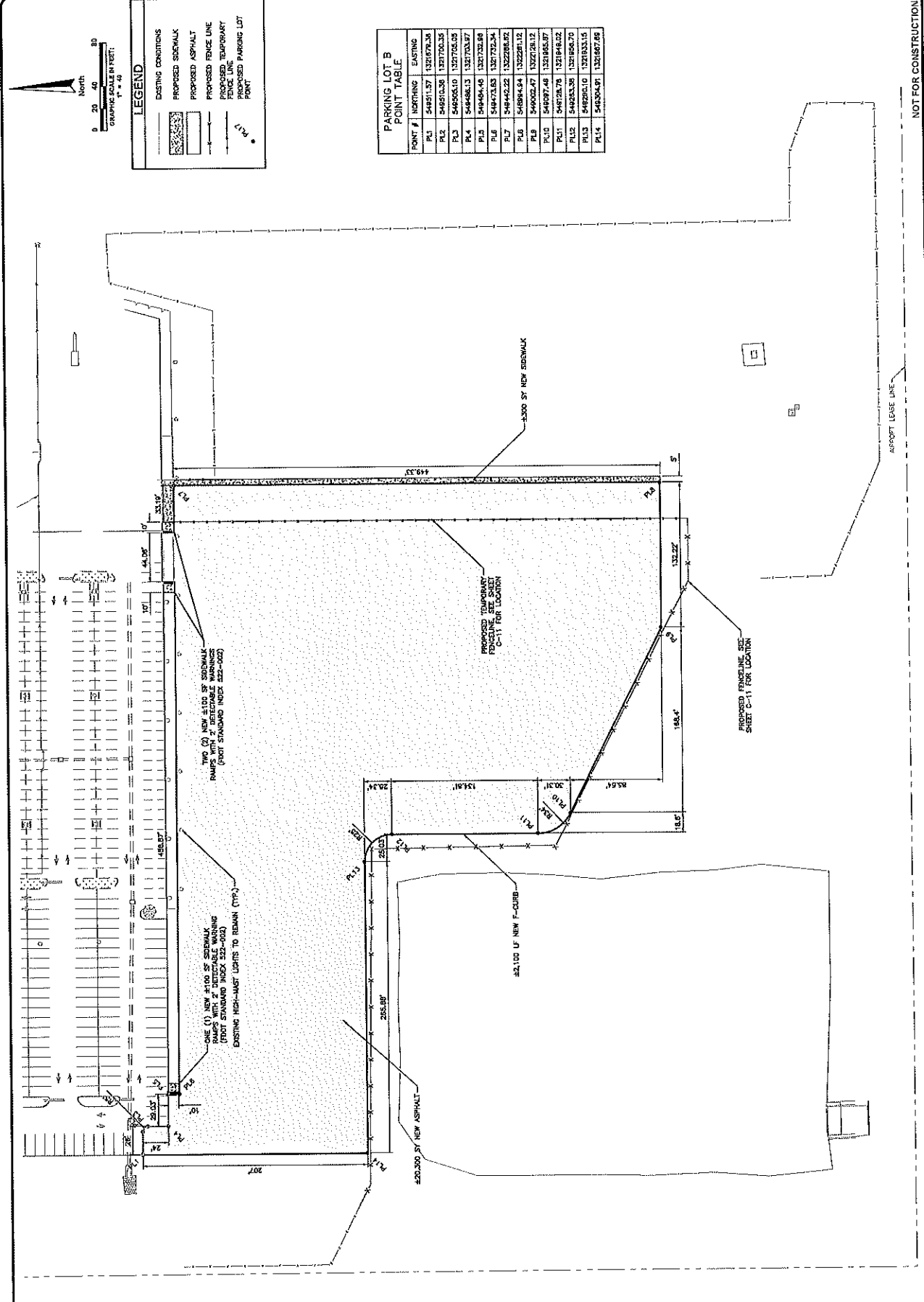
1. THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RETAINED PAVED AREA (NOT PAVED OLD C&G) ARE TYPICAL. THIS METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY MEDIAN.

2. CONTRACTOR SHALL UTILIZE HAY BALES TO PROTECT EXISTING OR PROPOSED INLETS WITHIN THE CONSTRUCTION AREA.

NOT FOR CONSTRUCTION



NO.	REVISION



AVCON, INC. ENGINEERS & PLANNERS 333 BAYSHORE DRIVE, SUITE A, HERNANDO, FL 32719-2425. PHONE: (850) 818-0948. FAX: (850) 818-0948. CONTRACT CERTIFICATE OF AUTHORIZATION NUMBER: 59057. JOHN R. COLLINS, P.L. LICENSE NO. 75619, REGISTERED PROFESSIONAL SURVEYOR, AUTHORIZATION NO. 5057. RELEASE FOR BID, NOT FOR CONSTRUCTION. VPS PARKING LOT B EXPANSION PLAN, SHEET 1 OF 2. DESIGNED BY: JAC, DRAWN BY: BJA, CHECKED BY: JAC, APPROVED BY: JAC. PROJECT NO: 2010000000, DATE: JANUARY 2010. SHEET NUMBER C-4.

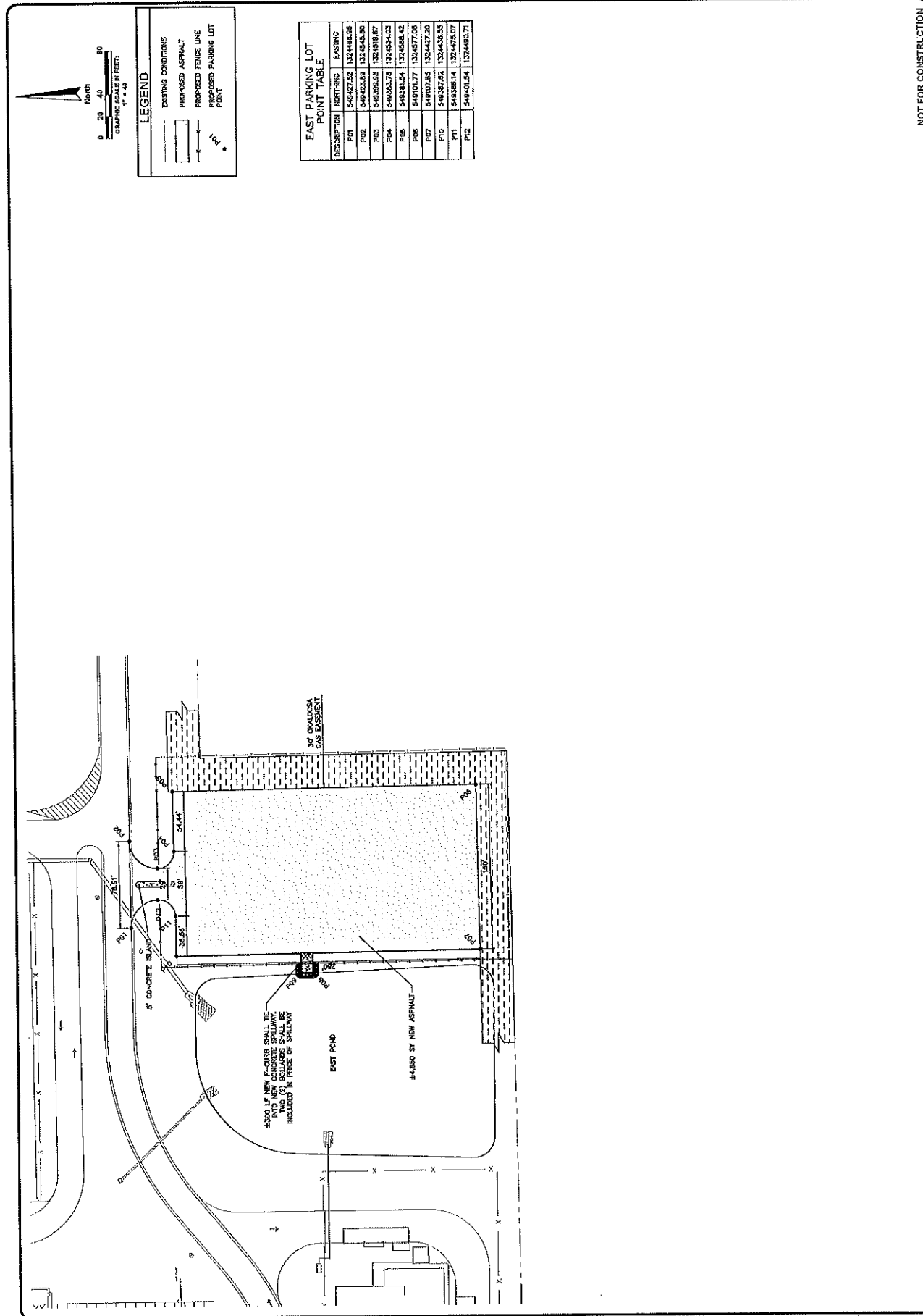
**AVCON, INC.**  
 ENGINEERS & PLANNERS  
 320 BAYSHORE DRIVE, SUITE A  
 MIAMI BEACH, FL 33149-2423  
 PHONE: (305) 874-9250  
 FAX: (305) 874-9040  
 CONFORMANT CERTIFICATE OF  
 AUTHORIZATION NUMBER: 1057  
 TRANSFORMING TODAY'S IDEAS  
 INTO TOMORROW'S REALITY  
 WWW.AVCON.COM

JOHN R. COLLINS  
 FL LICENSE NO.: 73418  
 PROFESSIONAL ENGINEER  
 CIVIL ENGINEERING AND SURVEYING

RELEASE FOR THE  
 LOT FOR CONSTRUCTION

**VPS PARKING  
 LOT B EXPANSION**  
 PREPARED FOR  
 DESTIN - FORT WALTON  
 BEACH AIRPORT

DESIGNED BY: J.L.C.  
 DRAWN BY: B.V.L.  
 CHECKED BY: J.L.C.  
 APPROVED BY: Y.C.L.  
 PROJECT NUMBER: 09019/09/05/06  
 DATE: JANUARY 2009  
**SHEET NUMBER  
 C-5**



AREA OF NEW FENCES SHALL BE  
 AND NEW CONCRETE SPALLWAY  
 TWO (2) BOLLARDS SHALL BE  
 INCLUDED IN PRICE OF SPALLWAY



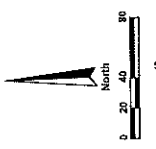
JOHN R. COLLINS  
FL LICENSE NO. 71419  
REGISTERED PROFESSIONAL ENGINEER  
EXPIRES 12/31/2025  
ADDITIONAL LICENSE NO. 505

RELEASE FOR BID  
NOT FOR CONSTRUCTION  
GRADING &  
DRAINAGE PLAN,  
SHEET 1 OF 2

PREPARED FOR  
**VPS PARKING**  
**LOT B EXPANSION**  
**DESTIN - FORT WALTON**  
**BEACH AIRPORT**

DESIGNED BY: J.R.C.  
DRAWN BY: B.V.J.  
CHECKED BY: J.C.C.  
APPROVED BY: V.C.L.  
PROJECT NO: 2018/09/026  
DATE: JANUARY 2020

SHEET NUMBER  
**C-6**



**LEGEND**

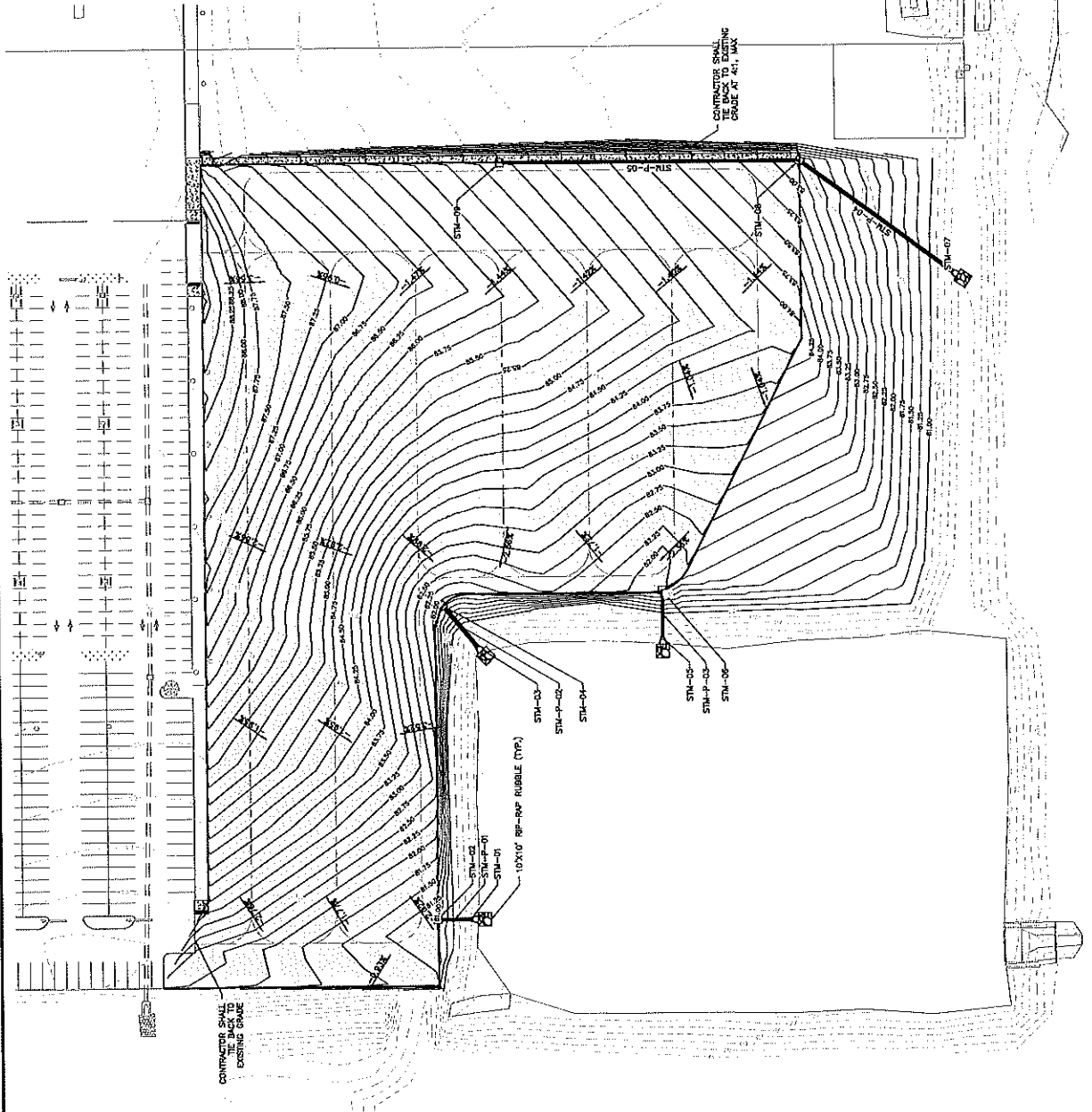
- EXISTING CONTOUR
- PROPOSED MAJOR CONTOUR
- 84.00
- 84.25
- PROPOSED MINOR CONTOUR
- X04.40
- PROPOSED SPOT ELEVATION
- PROPOSED DRIVE ASLE
- CONTOUR

**STORMWATER STRUCTURE TABLE**

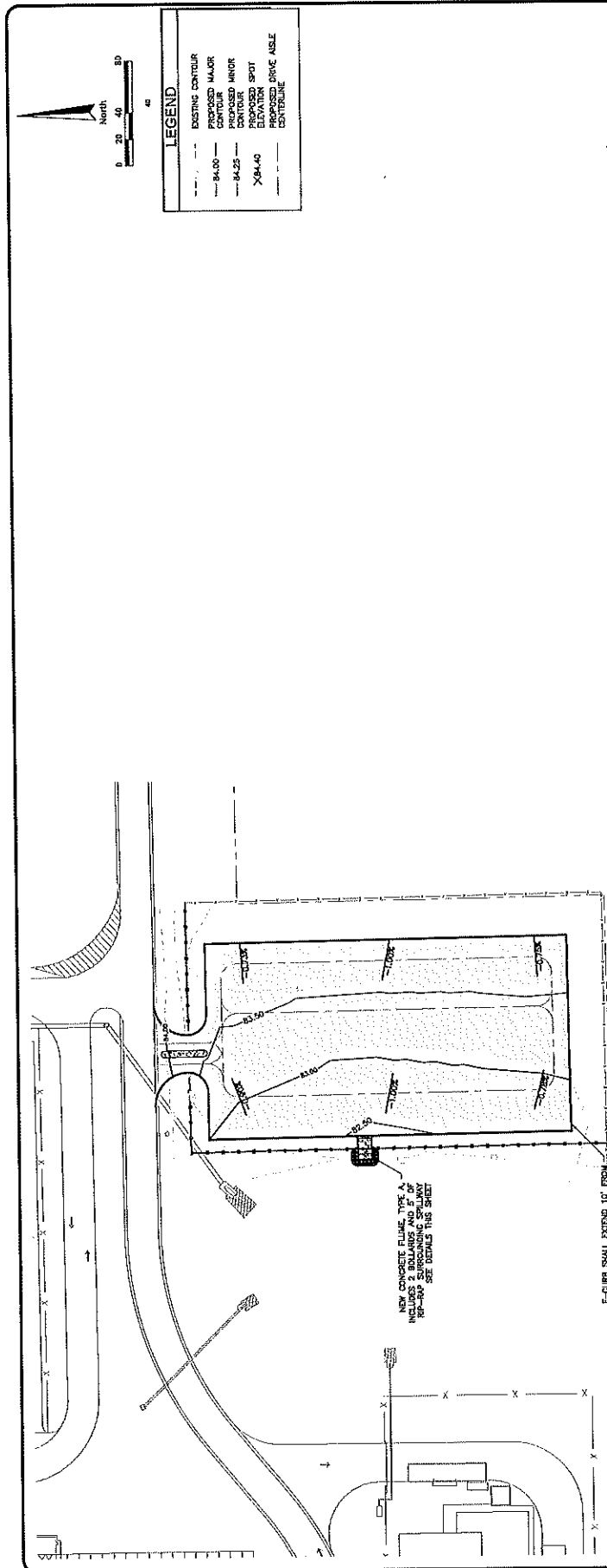
STRUCTURE NAME	STRUCTURE TYPE	DETAILS	NORTHING/EASTING
STM-01	24" MES	RM = 60.10 STM-P-01 INV IN = 77.00 STM-P-01 INV OUT = 77.04	N:548277.47 E:132715.1072
STM-02	TYPE 2 1/8 CURB INLET TYPE P BOT	RM = 60.89 STM-P-02 INV IN = 77.00 STM-P-02 INV OUT = 77.04	N:548302.23 E:132710.5566
STM-03	30" MES	RM = 78.08 STM-P-03 INV IN = 77.00 STM-P-03 INV OUT = 77.04	N:548259.80 E:132715.1072
STM-04	TYPE 2 1/8 CURB INLET TYPE P BOT	RM = 78.58 STM-P-04 INV IN = 77.50 STM-P-04 INV OUT = 77.54	N:548194.8219 E:132714.8219
STM-05	24" MES	RM = 61.64 STM-P-05 INV IN = 77.45 STM-P-05 INV OUT = 77.49	N:548183.55 E:132715.0372
STM-06	30" MES	RM = 60.10 STM-P-06 INV IN = 77.00 STM-P-06 INV OUT = 77.04	N:548666.04 E:132712.2882
STM-07	TYPE 2 1/8 CURB INLET TYPE P BOT	RM = 63.18 STM-P-07 INV IN = 77.14 STM-P-07 INV OUT = 77.18	N:548694.94 E:132251.1154
STM-08	TYPE 2 1/8 CURB INLET TYPE P BOT	RM = 63.47 STM-P-08 INV IN = 77.48 STM-P-08 INV OUT = 77.52	N:548215.58 E:132257.6804

**STORMWATER PIPE TABLE**

NAME	DESCRIPTION	LENGTH	SLOPE
STM-P-01	24" AOS, N-12	24.75'	0.19%
STM-P-02	30" AOS, N-12	39.27'	0.19%
STM-P-03	24" AOS, N-12	35.27'	0.19%
STM-P-04	30" AOS, N-12	140.08'	0.19%
STM-P-05	24" AOS, N-12	224.00'	0.19%



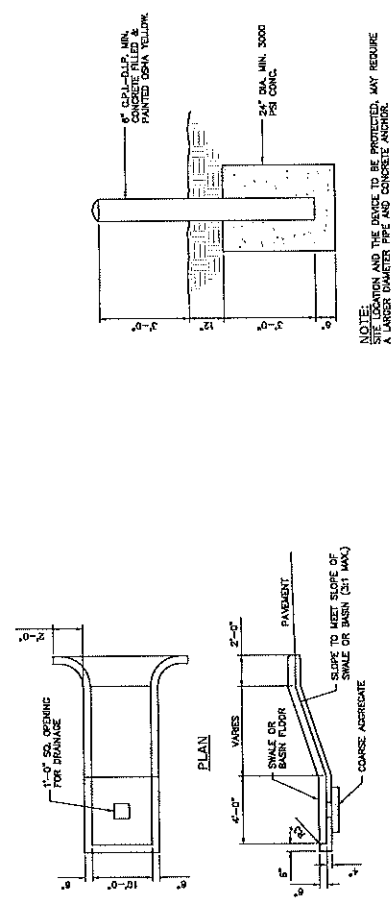
NOT FOR CONSTRUCTION



**GRADING AND DRAINAGE NOTES:**

1. SIDE SLOPES OF ALL SWALES AND PONDS SHALL BE NO STEEPER THAN 4:1, (MAX) EXCEPT WHERE NOTED.
2. CONTRACTOR SHALL INSTALL SILT FENCE PRIOR TO COMMENCING IN ANY CONSTRUCTION ACTIVITIES AND MAINTAIN SILT FENCE THROUGHOUT CONSTRUCTION.
3. CONTRACTOR SHALL NOTIFY THE ENGINEER IF EROSION CONTROL ISSUES DEVELOP ON SITE.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR EROSION CONTROL MEASURES ON SITE 24 HOURS A DAY THROUGHOUT CONSTRUCTION.
5. CONTRACTOR SHALL PROVIDE AND MAINTAIN INLET PROTECTION THROUGHOUT CONSTRUCTION SEE SHEET C-3 FOR DETAIL.
6. ALL DISTURBED AREAS (INCLUDING RE-GRADED AREA) SHALL BE RETURNED TO ORIGINAL CONDITION.
7. ALL SUITABLE MATERIAL EXCAVATED SHALL BE USED IN THE FORMATION OF EMBANKMENTS OR PLACED IN STOCKPILES FOR FUTURE USE. ALL EXCAVATED MATERIAL SHALL BE STOCKPILED IN AREAS DESIGNATED BY THE ENGINEER. ALL STOCKPILES SHALL BE COVERED BY THE CONTRACTOR AT LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
8. UNSUITABLE OR UNDESIRABLE MATERIALS ENCOUNTERED IN THE SUBGRADE PREPARATION SHALL BE UNDERCUT AND STABILIZED AS DESCRIBED IN THE PROJECT SPECIFICATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING UTILITIES AND STRUCTURES PRIOR TO BEGINNING ANY UNDERCUT OPERATIONS. UPON COMPLETION OF THE UNDERCUT AND ACCEPTANCE OF THE RESULTING STABLE SUBGRADE BY THE ENGINEER, THE CONTRACTOR SHALL ESTABLISH PAVEMENT QUANTITIES.
9. OPERATIONS UNLIKELY TO PRODUCE DAMAGE OR WEAR THE STRENGTH OF OTHER STRUCTURES ALREADY IN PLACE SHALL BE DONE ONLY AFTER ADEQUATE PROTECTION HAS BEEN PROVIDED FOR THE IN-PLACE STRUCTURES.
10. CONTRACTOR SHALL GRADE ALL AREAS AS INDICATED OR DIRECTED BY OWNER. FILL SHALL BE BROUGHT TO FINISH GRADES AS SHOWN AND SHALL BE GRADED TO DRAIN WATER AWAY FROM STRUCTURES.
11. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE TOWARDS INLETS OR SWALES. NO "BIRD BANS" OR POODING SHALL BE ACCEPTED. ANY AREAS OF POODING SHALL BE CORRECTED BY THE CONTRACTOR. ALL AREAS OF POODING SHALL BE CORRECTED AND RESURFACED. NO FILING OF LOW AREAS WITH SAND WILL BE ACCEPTED.
12. UNPAVED AREAS SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE TO THE STORMWATER DETENTION AREA OR ASSOCIATED INLET.

NOT FOR CONSTRUCTION



**AVCON, INC.**  
ENGINEERS & PLANNERS

TRANSFORMING TODAY'S IDEAS  
INTO TOMORROW'S REALITY

318 ROYAL PALM DRIVE, SUITE A  
HIGHLAND, FL 32718-2425  
TEL: (407) 876-0018  
OFFICE: (407) 876-0020  
FAX: (407) 876-0018  
CORPORATE CERTIFICATE OF  
AUTHORIZATION NUMBER: 5957  
WWW.AVCON.COM

JOHN R. COLLINS  
P.L. LICENSE NO. 75419  
P.L. EXPIRES 12/31/2011  
AUTHORIZATION NO. 507

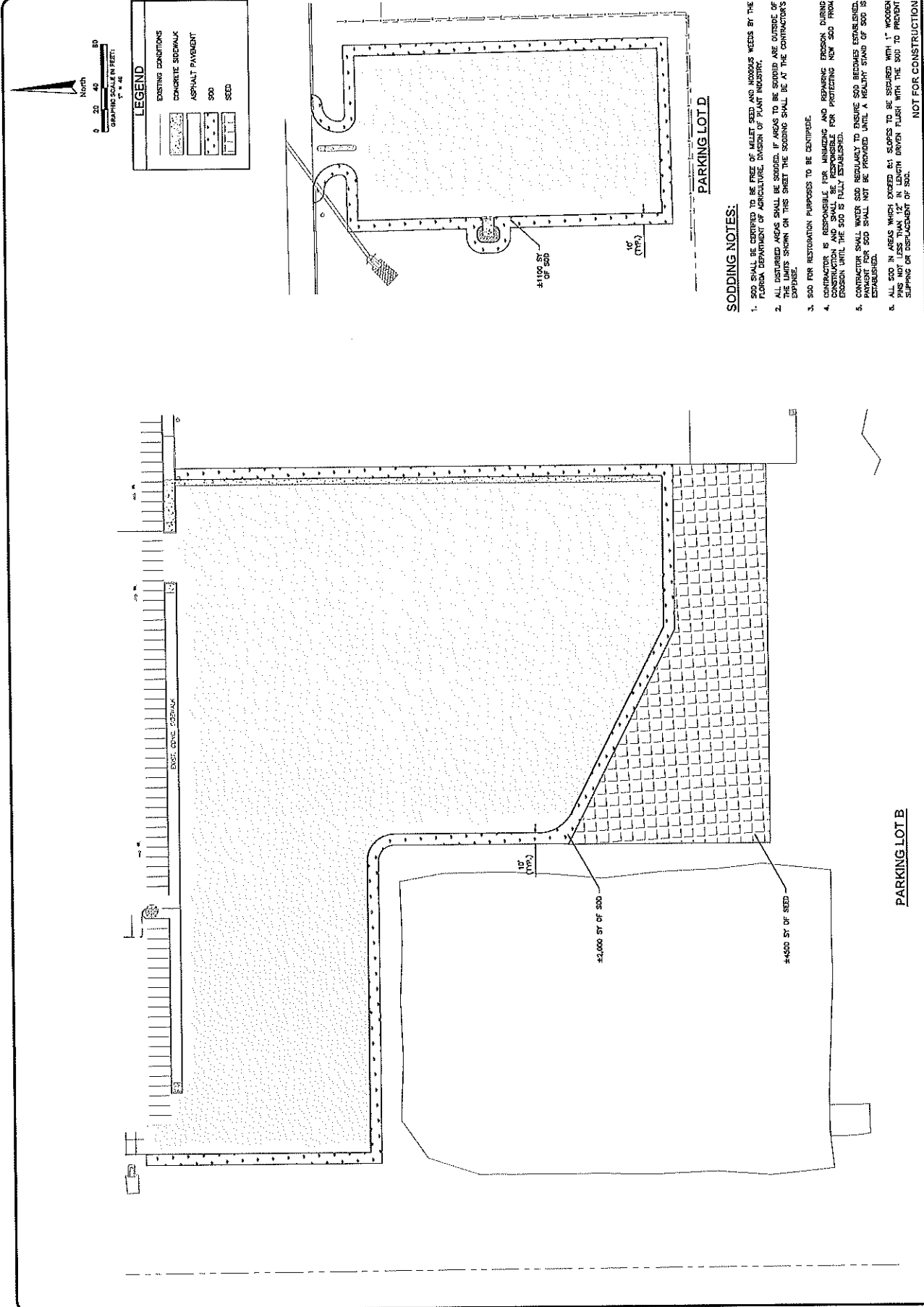
NO.	DATE	REVISION

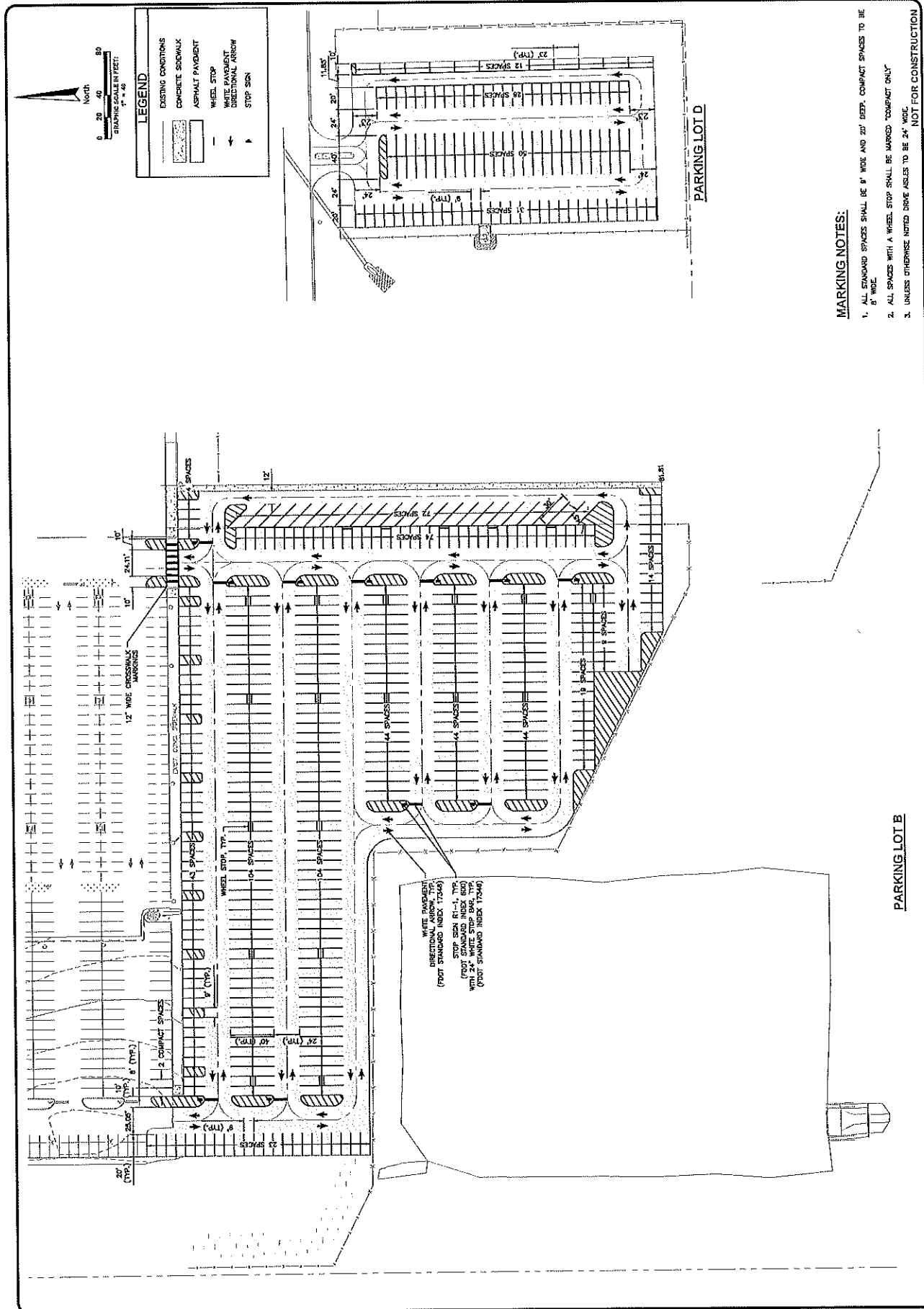
RELAXED FOR BID  
NOT FOR CONSTRUCTION

PREPARED FOR  
DESTIN - FORT WALTON  
BEACH AIRPORT

DESIGNED BY: J.C.C.  
DRAWN BY: J.C.C.  
CHECKED BY: J.C.C.  
APPROVED BY: Y.C.C.  
PROJECT NO: 0809-000008  
DATE: JANUARY 2009

**C-8**  
SHEET NUMBER





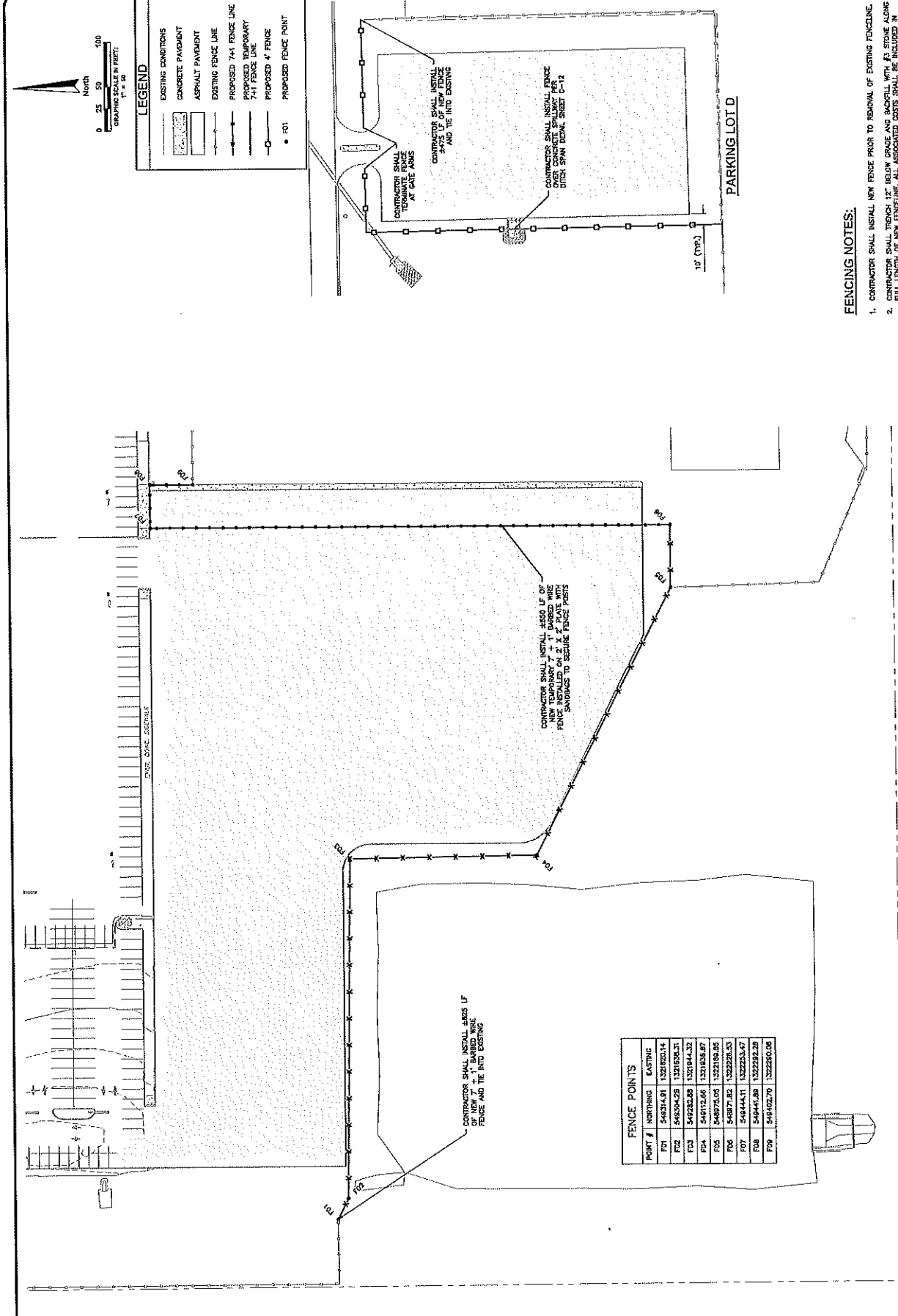




NO.	DATE	REVISION

PREPARED FOR  
**VPS PARKING**  
**LOT B EXPANSION**  
 DESTIN - FORT WALTON  
 BEACH AIRPORT  
 RELEASE FOR MR.  
 NOT FOR CONSTRUCTION

DESIGNED BY: J.A.C.  
 DRAWN BY: J.A.C.  
 CHECKED BY: J.A.C.  
 APPROVED BY: V.C.L.  
 PROJECT NUMBER: 050504  
 DATE: JANUARY 2020  
**SHEET NUMBER**  
**C-11**



FENCE POINTS	
POINT #	NORTHING
FP1	549314.51
FP2	549304.26
FP3	549282.68
FP4	549172.66
FP5	548975.05
FP6	548871.82
FP7	548444.11
FP8	548441.38
FP9	549402.70
EXISTING	5321620.14
EXISTING	5311636.31
EXISTING	5307844.32
EXISTING	531833.87
EXISTING	5321616.05
EXISTING	532228.53
EXISTING	532225.47
EXISTING	532222.28
EXISTING	532220.08

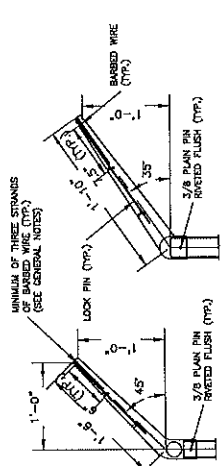
**FENCING NOTES:**  
 1. CONTRACTOR SHALL INSTALL NEW FENCE PRIOR TO REMOVAL OF EXISTING FENCING.  
 2. CONTRACTOR SHALL TROUGH 12" BELOW GRADE AND BACKFILL WITH #3 STONE ALONG FULL LENGTH OF NEW FENCING. ALL ASSOCIATED COSTS SHALL BE INCLUDED IN UNDER FOOT PRICE FOR FENCING.  
 3. SEE SHEET C-12 FOR FENCE DETAILS.

**PARKING LOT B**

NOT FOR CONSTRUCTION

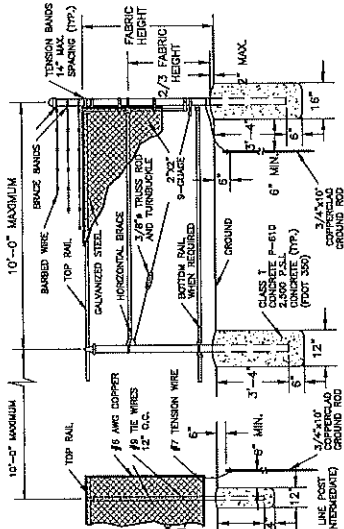
**FENCE NOTES:**

1. ALL PIPE FRAMEWORK AND OTHER FERROUS MATERIALS SHALL BE NOT GALVANIZED, UNLESS OTHERWISE NOTED.
2. BOTTOM TENSION WIRE SHALL BE STRETCHED 1/4" FROM TERMINAL POST TO TERMINAL POST AND SECURELY FASTENED TO EACH INTERMEDIATE POST 8 INCHES ABOVE GROUND LINE AND TO THE FRAME OVER LINE.
3. PULL POSTS SHALL BE INSTALLED AT 500 FOOT INTERVALS ON STRAIGHT RUNS.
4. GATE POST ASSEMBLIES SHALL CONSIST OF A BRACE POST AND CORNER, END, OR PULL POST WITH BRACE AND TRUSS POST ON EACH SIDE OF THE GATE.
5. CONNECTIONS TO EXISTING FENCES OR BUILDINGS SHALL BE MADE BY SETTING A NEW ANCHOR POST WITH BRACE ASSEMBLY AT JUNCTION POINT.
6. ALL FENCE AND GATES TO BE GROUNDING IN ACCORDANCE WITH THE SPECIFICATIONS.
7. DIMENSIONS, ALL DIMENSIONS, SIZES, GAUGES, WEIGHTS OR THICKNESS SHOWN ARE THE MINIMUM ACCEPTABLE UNLESS OTHERWISE INDICATED.
8. SPECIFICATIONS, MATERIALS AND CONSTRUCTION METHODS NOT DETAILED HEREIN SHALL BE IN ACCORDANCE WITH THE FEDERAL AVIATION ADMINISTRATION STANDARDS SPECIFICATIONS FOR CONSTRUCTION OF AIRPORTS. THE FEDERAL SPECIFICATION 7-112 SHALL BE INTERPRETED TO MEAN THE LATEST ISSUE OR AMENDMENT OF SUCH SPECIFICATION IN EFFECT ON THE DATE OF PLAN APPROVAL.
9. MEASUREMENTS, DIMENSIONS AND DISTANCES ARE MEASURED IN PLACE, FROM CENTER TO CENTER OF END, CORNER OR GATE POSTS. MEASUREMENT DOES NOT INCLUDE GATE OPENINGS, GATES ARE MEASURED IN UNITS FOR EACH TYPE AND SEE REVISIONS.
10. FABRIC INSTALLATION, WIRE OR FABRIC ON BOUNDARY AND SECURITY FENCES AND GATES SHALL BE ON THE SIDE OF POSTS AWAY FROM PARK.
11. PVC COATING: (NOT APPLICABLE)
12. CONCRETE SHALL BE OF A COMMERCIAL GRADE WITH A MINIMUM 28 DAY STRENGTH OF 2500 P.S.I. FOOTING THIS SHALL BE 7-INCH MINIMUM ABOVE GROUND AT ALL THE POSTS AND TRAVEL FINISHED TO SLOPE AWAY FROM THE POST.
13. OPENINGS UNDER FENCES, ANY OPENING UNDER FENCES, WHEN THE BOTTOM FENCE WIRE IS LESS THAN 18 INCHES ABOVE GROUND LINE FOR SPANNING UNITS OR APPROVED EQUAL OPENINGS LESS THAN 18 INCHES HIGH SHALL BE CLOSED BY INSTALLING ONE OR MORE ADDITIONAL LINE POSTS BETWEEN THE OPENING CENTER AND ADJACENT LINE POSTS AT A 5-FOOT MAXIMUM VERTICAL SPACING. THIS WORK SHALL BE INCIDENTAL TO FENCE INSTALLATION WORK.
14. GROUNDING AND LIGHTNING PROTECTION: CHAIN LINK FENCE ONLY EACH GATE LEAF FRAME SHALL BE CONNECTED TO THE LINE POST BY A 1/2" COPPER Braid. GROUND CABLE SHALL BE NO. 2 AWG COPPER MINIMUM BASE STANDED COPPER WIRE. CONNECTIONS TO GATE, FENCE, ETC. ABOVE GROUND SHALL BE MADE WITH SUITABLE NON-CORROSIVE METAL CLAMP, CLIPS OR CONNECTORS. CONNECTIONS TO GROUND SHALL BE MADE WITH SUITABLE NON-CORROSIVE METAL APPROXIMATE WITH F-12.
15. FENCE LINE AND ALIGNMENT, FENCE LINES SHALL BE CLEARED OF ALL OBSTRUCTIONS AND SMOOTH GRADED TO THE GENERAL CONTOUR OF THE ADJACENT GROUND, STUMPS AND ROOTS NOT INTERFERING WITH FENCE CONSTRUCTION, MAY BE CHIPPED TO GROUND LEVEL. ALL FENCES SHALL BE INSTALLED TO THE CENTER LINE OF THE ROAD. CONTRACTOR SHALL LAY OUT THE FENCE ALIGNMENT AS SHOWN ON THE CONSTRUCTION PLANS. THE ENGINEER SHALL APPROVE THE ALIGNMENT, LINE AND GRADE OF THE FENCE AND THE GATE LOCATIONS PRIOR TO CONSTRUCTION.
16. AIRPORT SECURITY FENCES AND GATES SHALL BE DESIGNED TO PROVIDE A DRIVE FIT OVER THE TOP OF POSTS AND TO EXCLUDE MOISTURE IN POSTS WITH TUBULAR SECTIONS.
17. THE CAP ARM SHALL BE INSTALLED PLUMB, LEVEL, AND SECURE, WITH FULL OPENING WITHOUT INTERFERENCE. GROUND-SET FEAS SHALL BE INSTALLED IN CONCRETE FOR ANCHORAGE. HARDWARE SHALL BE ADJUSTED FOR SMOOTH OPERATION.
18. PRECASTER GATE FRAMES SHALL BE FABRICATED OF TUBULAR MEMBERS. ADDITIONAL, HORIZONTAL, AND VERTICAL MEMBERS SHALL BE PROVIDED AS REQUIRED TO ENSURE PROPER GATE OPERATION AND FOR ATTACHMENT OF FABRIC AND HARDWARE. SIZES OF FRAME MEMBERS LISTED ARE MINIMUM LARGER SIZES SHALL BE PROVIDED AS REQUIRED.
19. GATE FRAME ASSEMBLY SHALL BE WELDED OR ASSURED WITH SPECIAL WALKABLE OR PRESSED STEEL FITTINGS AND RIGID TO PROVIDE SMOOTH OPERATION AT THE TOP AND BOTTOM EDGES. STRECHER BARS AND FABRIC SHALL BE ATTACHED TO GATE FRAMES ON ALL SIDES AT INTERVALS NOT EXCEEDING 15 INCHES. HARDWARE SHALL BE ATTACHED WITH RIVETS OR BY OTHER MEANS THAT WILL PROVIDE EQUAL SECURITY AGAINST BREAKAGE OR REMOVAL.
20. WHERE BARRED WIRE IS INDICATED ABOVE GATES, THE END MEMBERS OF GATE FRAMES SHALL 21. BE EXTENDED APPROXIMATELY ONE (1) FOOT ABOVE THE TOP MEMBER WITH PROVISION FOR ATTACHING THE WIRE. SUPPORT ANCHORS SHALL BE PROVIDED AT INTERMEDIATE POINTS, WITH SPACING TO MATCH THE SPACING OF THE LINE FENCE.
22. DIAGONAL CROSS-BRACING SHALL BE PROVIDED, CONSISTING OF 3/8 INCH DIAMETER ADJUSTABLE LENGTH TRUSS RODS ON WELDED GATE FRAMES WHERE NECESSARY TO OBTAIN FRAME RIGIDITY WITHOUT SAG OR TWIST. NON-WELDED GATE FRAMES SHALL HAVE DIAGONAL BRACING.
23. PROPOSED 4 WIRE MESH FENCE SURROUNDING PARKING LOT B SHALL MEET ALL CRITERIA FOR 7.1.1 WIRE MESH SECURITY FENCE BUT SHALL BE LIMITED IN HEIGHT TO 4' AND SHALL INCLUDE BARRED WIRE EXTENSION ANCHORS.



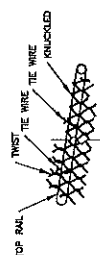
**NOTE:**  
FENCE POST SHALL BE SET BACK SO BARBED WIRE DOES NOT EXTEND OVER PROPERTY LINES. BARRED WIRE ANCHORS SHALL BE INSTALLED ON SIDE AWAY FROM AIRPORT PROPERTY OR AIRCRAFT OPERATIONS ROAD.

**BARBED WIRE EXTENSION ARM DETAILS**  
N.T.S.



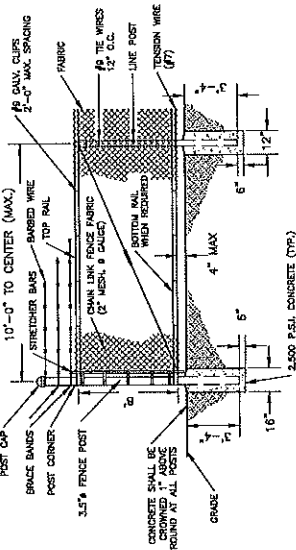
**NOTE:**  
WHEN CONNECTING TO EXISTING FENCE, CONTRACTOR SHALL INSTALL A CORNER POST.

**BRACE SECTION CHAIN LINK FENCE**  
N.T.S.

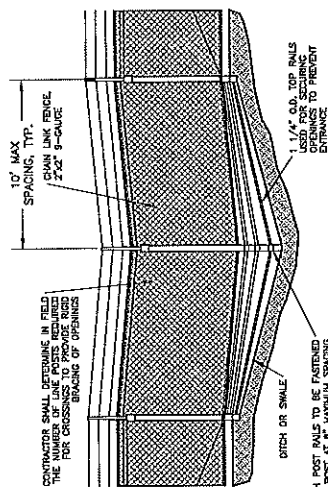


**NOTE:**  
CONTRACTOR SHALL USE THE KNUCKLED SYSTEM FOR FABRIC SELVAGE.

**FABRIC SELVAGE**  
N.T.S.

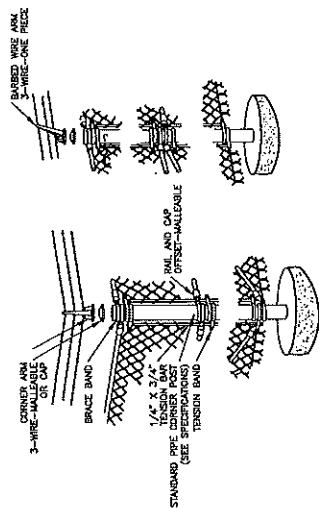


**7' WIRE MESH SECURITY FENCE, TYPE II**  
N.T.S.



**NOTE:**  
1. GALVANIZED STEEL LINE FENCE POST SHALL BE 2.25\"/>

**DITCH SPAN**  
N.T.S.



**CHAIN LINK FENCE ASSEMBLY**  
N.T.S.



LEGEND NOTE: THESE ARE STANDARD SYMBOLS AND ALL MAY NOT APPEAR ON THE PROJECT DRAWINGS. REFER TO DETAIL AND SPECIFICATIONS FOR MOUNTING HEIGHTS.

## ELECTRICAL SYMBOL LEGEND

### POWER EQUIPMENT

- Ⓢ CEILING MOUNTED JUNCTION BOX SIZED PER N.E.C. UNLESS NOTED
- Ⓢ CONNECTION FOR HVAC EQUIPMENT ABOVE CEILING
- Ⓢ ELECTRICAL CONNECTION FOR HVAC EQUIPMENT ABOVE CEILING
- Ⓢ ELECTRICAL CONNECTION FOR HVAC EQUIPMENT ABOVE CEILING
- Ⓢ FLOOR JUNCTION BOX SIZED PER N.E.C. UNLESS NOTED
- Ⓢ MOTOR RATED SWITCH
  - (1) 2 POLE DISPOSAL SWITCH WITH E-STOP
  - (2) SINGLE POLE SWITCH WITH E-STOP
  - (3) SINGLE POLE SWITCH WITH E-STOP AND 1/2" TRIP
  - (4) SINGLE POLE SWITCH
  - (5) 2 POLE SWITCH
  - (6) 3 POLE SWITCH
  - (7) ELECTRIC MAGNETIC SWITCH
- Ⓢ ELECTRIC MOTOR, ID MARK WILL IDENTIFY MOTOR, I.P.T.
  - (1) SINGLE POLE MOTOR
  - (2) 2 POLE MOTOR
  - (3) 3 POLE MOTOR
- Ⓢ NON-FUSIBLE, HEAVY DUTY SAFETY SWITCH (SIZE AND NUMBER OF POLES ARE INDICATED)
  - Ⓢ DISCONNECT SIZE, AMPS, NUMBER OF POLES AND FUSE SIZE
  - Ⓢ ENCLASURE NEMA RATING
  - Ⓢ FUSED, HEAVY DUTY SAFETY SWITCH (SIZE AND NUMBER OF POLES ARE INDICATED)
  - Ⓢ ENCLASURE NEMA RATING
  - Ⓢ DISCONNECTS SEE IN AMPS / NUMBER OF POLES (FUSE SIZE)
  - Ⓢ COMBINATION MAGNETIC STARTER WITH FUSED, HEAVY DUTY SAFETY SWITCH
  - Ⓢ DRIVE CONTROLLER COMPATIBLE WITH VARIABLE FREQUENCY DRIVE
  - Ⓢ ENCLASURE NEMA RATING
  - Ⓢ DISCONNECT SIZE IN AMPS / NUMBER OF POLES (FUSE SIZE)
  - Ⓢ NEMA STARTER SIZE
  - Ⓢ MAGNETIC STARTER WITH VARIABLE FREQUENCY DRIVE CONTROLLER COMPATIBLE WITH VARIABLE FREQUENCY DRIVE
  - Ⓢ COMBINATION MAGNETIC STARTER / CIRCUIT BREAKER
  - Ⓢ (VFD) PROVIDE WITH VARIABLE FREQUENCY DRIVE CONTROLLER COMPATIBLE WITH VARIABLE FREQUENCY DRIVE
  - Ⓢ ENCLOSED CIRCUIT BREAKER

### POWER EQUIPMENT, CONT.

- Ⓢ AUTOMATIC TRANSFER SWITCH - SEE RISER DIAGRAM
- Ⓢ PANELBOARD, LOW VOLTAGE (2000V) - SEE PANEL SCHEDULES AND RISER DIAGRAM FOR DETAILS
- Ⓢ PANELBOARD, HIGH VOLTAGE (277/480V) - SEE PANEL SCHEDULES AND RISER DIAGRAM FOR DETAILS
- Ⓢ DISTRIBUTION PANELBOARD, HIGH OR LOW VOLTAGE - SEE PANEL SCHEDULES AND RISER DIAGRAM FOR DETAILS
- Ⓢ DRY-TYPE TRANSFORMER, SEE RISER DIAGRAM FOR DETAILS
- Ⓢ POWER COMPANY METER, SEE RISER DIAGRAM FOR DETAILS
- Ⓢ UTILITY POWER POLE, SEE RISER DIAGRAM FOR DETAILS
- Ⓢ PUSH BUTTON STATION, MOUNT 7'-0" AFF FOR OUTDOOR USE AND 4'-0" AFF FOR INDOOR USE UNLESS OTHERWISE NOTED
- Ⓢ EMERGENCY SHUNT TRIP STATION, MOUNT 7'-0" AFF FOR OUTDOOR USE AND 4'-0" AFF FOR INDOOR USE UNLESS OTHERWISE NOTED
- Ⓢ ELECTRIC WATER HEATER
- Ⓢ LOW VOLTAGE PHOTO-ELECTRIC CELL
- Ⓢ INSTANTANEOUS WATER HEATER, ELECTRIC OR GAS
- Ⓢ ELECTRIC HAND DRYER
- Ⓢ ELECTRIC MOTORIZED DOOR OPENER
- Ⓢ ELECTRIC MAGNETIC DOOR LOCK
- Ⓢ ELECTRIC MAGNETIC DOOR LOCK BATTERY BOX
- Ⓢ MICROPHONE / SPEAKER FOR TWO WAY COMMUNICATION

### LIGHTING EQUIPMENT

- Ⓢ NEW / EXISTING 2X2 LED FIXTURE
- Ⓢ NEW / EXISTING 2X4 LED OR FLUORESCENT FIXTURE
- Ⓢ NEW / EXISTING 2X4 LED OR FLUORESCENT FIXTURE
- Ⓢ EXISTING 4X4 LED OR FLUORESCENT FIXTURE
- Ⓢ NEW / EXISTING LED RECESSED CAN FIXTURE
- Ⓢ NEW LED UNDER CABINET STRIP LIGHT
- Ⓢ NEW LED UNDER RACK MOUNTED LED LIGHT
- Ⓢ NEW LED EXIT LIGHTS, UNIVERSAL MOUNTING, ON FLOOR PLANS FOR DIRECTION

### RECEPTACLES

- Ⓢ DUPLEX RECEPTACLE, MOUNTED 1'-6" AFF UNLESS OTHERWISE NOTED
  - (GF) GROUND FAULT CIRCUIT INTERRUPTER
  - (I) ISOLATED GROUND FAULT RECEPTACLE
  - (C) OUTLET CONTROLLED VIA LIGHTING CONTROL DUPLEX PER THE FOLLOWING:
    - (1) WALL OR EQUIPMENT MOUNTED JUNCTION BOX WITH RECEPTACLE
    - (2) DEDICATED GFI RECEPTACLE FOR ELECTRIC FLUSH VALVE AND ELECTRIC FAUCET
    - (3) DEDICATED RECEPTACLE FOR MICROWAVE
    - (4) DEDICATED RECEPTACLE FOR REFRIGERATOR
    - (5) DEDICATED RECEPTACLE FOR REFRIGERATOR COOLER
    - (6) DEDICATED RECEPTACLE FOR REFRIGERATOR COORDINATE WITH PLUMBING CONTRACTOR FOR LOCATION
  - (4) WALL OR EQUIPMENT MOUNTED JUNCTION BOX WITH RECEPTACLE
  - (5) DEDICATED RECEPTACLE FOR ELECTRIC FLUSH VALVE AND ELECTRIC FAUCET
  - (6) DEDICATED RECEPTACLE FOR MICROWAVE
  - (7) DEDICATED RECEPTACLE FOR REFRIGERATOR
  - (8) DEDICATED RECEPTACLE FOR REFRIGERATOR COOLER
  - (9) DEDICATED RECEPTACLE FOR REFRIGERATOR COORDINATE WITH PLUMBING CONTRACTOR FOR LOCATION
- Ⓢ DUPLEX RECEPTACLE, MOUNTED 3'-6" AFF UNLESS OTHERWISE NOTED, MAX 48" TO CENTER
- Ⓢ QUADRAPLEX RECEPTACLE, MOUNTED 1'-6" AFF UNLESS OTHERWISE NOTED, IN TWO GANG BOX
- Ⓢ DUPLEX RECEPTACLE, TOP HALF SWITCHED
- Ⓢ DUPLEX RECEPTACLE, FLUSH MOUNTED IN CEILING
- Ⓢ DUPLEX RECEPTACLE, FLOOR MOUNTED
- Ⓢ QUADRAPLEX RECEPTACLE, MOUNTED 1'-6" AFF UNLESS OTHERWISE NOTED, IN TWO GANG BOX
- Ⓢ QUADRAPLEX RECEPTACLE, MOUNTED 3'-6" AFF UNLESS OTHERWISE NOTED, MAX 48" TO CENTER
- Ⓢ SIMPLEX RECEPTACLE, MOUNTED 1'-6" AFF UNLESS OTHERWISE NOTED
- Ⓢ WALL MOUNTED DUPLEX RECEPTACLE WITH DATA CAT 5A CONNECTOR AND HDMI CONNECTOR, MOUNTED 7'-0" AFF UNLESS OTHERWISE NOTED
- Ⓢ CEILING MOUNTED DUPLEX RECEPTACLE WITH DATA CAT 5A CONNECTOR AND HDMI CONNECTOR
- Ⓢ FLOOR MOUNTED COMBINATION DUPLEX RECEPTACLE AND PHONE / DATA CONNECTOR, 2 PORT INDICATED NEMA CONFIGURATION AND TYPE SPECIFICATIONS FOR EXACT TYPE
- Ⓢ EMERGENCY DUPLEX RECEPTACLE, MOUNTED 1'-2" AFF UNLESS OTHERWISE NOTED
- Ⓢ SPECIAL RECEPTACLE, MOUNTED 4'-0" AFF UNLESS OTHERWISE NOTED, SUBSCRIPT INDICATED NEMA CONFIGURATION AND TYPE
- Ⓢ FLOOR MOUNTED VERTICAL OR HORIZONTAL 1D RECEPTACLE
- Ⓢ (CF) GROUND FAULT CIRCUIT INTERRUPTER

### LIGHTING CONTROLS

- Ⓢ SINGLE POLE SWITCH
  - (1) 1-BUTTON SWITCH, S1
  - (2) 2-BUTTON SWITCH, S2
  - (3) 3-BUTTON SWITCH, S3
  - (4) 4-BUTTON SWITCH, S4
  - (5) 5-BUTTON SWITCH, S5
  - (6) 6-BUTTON SWITCH, S6
  - (7) 7-BUTTON SWITCH, S7
  - (8) 8-BUTTON SWITCH, S8
  - (9) 9-BUTTON SWITCH, S9
  - (10) 10-BUTTON SWITCH, S10
  - (11) 11-BUTTON SWITCH, S11
  - (12) 12-BUTTON SWITCH, S12
  - (13) 13-BUTTON SWITCH, S13
  - (14) 14-BUTTON SWITCH, S14
  - (15) 15-BUTTON SWITCH, S15
  - (16) 16-BUTTON SWITCH, S16
  - (17) 17-BUTTON SWITCH, S17
  - (18) 18-BUTTON SWITCH, S18
  - (19) 19-BUTTON SWITCH, S19
  - (20) 20-BUTTON SWITCH, S20
  - (21) 21-BUTTON SWITCH, S21
  - (22) 22-BUTTON SWITCH, S22
  - (23) 23-BUTTON SWITCH, S23
  - (24) 24-BUTTON SWITCH, S24
  - (25) 25-BUTTON SWITCH, S25
  - (26) 26-BUTTON SWITCH, S26
  - (27) 27-BUTTON SWITCH, S27
  - (28) 28-BUTTON SWITCH, S28
  - (29) 29-BUTTON SWITCH, S29
  - (30) 30-BUTTON SWITCH, S30
  - (31) 31-BUTTON SWITCH, S31
  - (32) 32-BUTTON SWITCH, S32
  - (33) 33-BUTTON SWITCH, S33
  - (34) 34-BUTTON SWITCH, S34
  - (35) 35-BUTTON SWITCH, S35
  - (36) 36-BUTTON SWITCH, S36
  - (37) 37-BUTTON SWITCH, S37
  - (38) 38-BUTTON SWITCH, S38
  - (39) 39-BUTTON SWITCH, S39
  - (40) 40-BUTTON SWITCH, S40
  - (41) 41-BUTTON SWITCH, S41
  - (42) 42-BUTTON SWITCH, S42
  - (43) 43-BUTTON SWITCH, S43
  - (44) 44-BUTTON SWITCH, S44
  - (45) 45-BUTTON SWITCH, S45
  - (46) 46-BUTTON SWITCH, S46
  - (47) 47-BUTTON SWITCH, S47
  - (48) 48-BUTTON SWITCH, S48
  - (49) 49-BUTTON SWITCH, S49
  - (50) 50-BUTTON SWITCH, S50
  - (51) 51-BUTTON SWITCH, S51
  - (52) 52-BUTTON SWITCH, S52
  - (53) 53-BUTTON SWITCH, S53
  - (54) 54-BUTTON SWITCH, S54
  - (55) 55-BUTTON SWITCH, S55
  - (56) 56-BUTTON SWITCH, S56
  - (57) 57-BUTTON SWITCH, S57
  - (58) 58-BUTTON SWITCH, S58
  - (59) 59-BUTTON SWITCH, S59
  - (60) 60-BUTTON SWITCH, S60
  - (61) 61-BUTTON SWITCH, S61
  - (62) 62-BUTTON SWITCH, S62
  - (63) 63-BUTTON SWITCH, S63
  - (64) 64-BUTTON SWITCH, S64
  - (65) 65-BUTTON SWITCH, S65
  - (66) 66-BUTTON SWITCH, S66
  - (67) 67-BUTTON SWITCH, S67
  - (68) 68-BUTTON SWITCH, S68
  - (69) 69-BUTTON SWITCH, S69
  - (70) 70-BUTTON SWITCH, S70
  - (71) 71-BUTTON SWITCH, S71
  - (72) 72-BUTTON SWITCH, S72
  - (73) 73-BUTTON SWITCH, S73
  - (74) 74-BUTTON SWITCH, S74
  - (75) 75-BUTTON SWITCH, S75
  - (76) 76-BUTTON SWITCH, S76
  - (77) 77-BUTTON SWITCH, S77
  - (78) 78-BUTTON SWITCH, S78
  - (79) 79-BUTTON SWITCH, S79
  - (80) 80-BUTTON SWITCH, S80
  - (81) 81-BUTTON SWITCH, S81
  - (82) 82-BUTTON SWITCH, S82
  - (83) 83-BUTTON SWITCH, S83
  - (84) 84-BUTTON SWITCH, S84
  - (85) 85-BUTTON SWITCH, S85
  - (86) 86-BUTTON SWITCH, S86
  - (87) 87-BUTTON SWITCH, S87
  - (88) 88-BUTTON SWITCH, S88
  - (89) 89-BUTTON SWITCH, S89
  - (90) 90-BUTTON SWITCH, S90
  - (91) 91-BUTTON SWITCH, S91
  - (92) 92-BUTTON SWITCH, S92
  - (93) 93-BUTTON SWITCH, S93
  - (94) 94-BUTTON SWITCH, S94
  - (95) 95-BUTTON SWITCH, S95
  - (96) 96-BUTTON SWITCH, S96
  - (97) 97-BUTTON SWITCH, S97
  - (98) 98-BUTTON SWITCH, S98
  - (99) 99-BUTTON SWITCH, S99
  - (100) 100-BUTTON SWITCH, S100
- Ⓢ SINGLE POLE DIMMING SWITCH
  - (1) 1-BUTTON DIMMING SWITCH, D1
  - (2) 2-BUTTON DIMMING SWITCH, D2
  - (3) 3-BUTTON DIMMING SWITCH, D3
  - (4) 4-BUTTON DIMMING SWITCH, D4
  - (5) 5-BUTTON DIMMING SWITCH, D5
  - (6) 6-BUTTON DIMMING SWITCH, D6
  - (7) 7-BUTTON DIMMING SWITCH, D7
  - (8) 8-BUTTON DIMMING SWITCH, D8
  - (9) 9-BUTTON DIMMING SWITCH, D9
  - (10) 10-BUTTON DIMMING SWITCH, D10
  - (11) 11-BUTTON DIMMING SWITCH, D11
  - (12) 12-BUTTON DIMMING SWITCH, D12
  - (13) 13-BUTTON DIMMING SWITCH, D13
  - (14) 14-BUTTON DIMMING SWITCH, D14
  - (15) 15-BUTTON DIMMING SWITCH, D15
  - (16) 16-BUTTON DIMMING SWITCH, D16
  - (17) 17-BUTTON DIMMING SWITCH, D17
  - (18) 18-BUTTON DIMMING SWITCH, D18
  - (19) 19-BUTTON DIMMING SWITCH, D19
  - (20) 20-BUTTON DIMMING SWITCH, D20
  - (21) 21-BUTTON DIMMING SWITCH, D21
  - (22) 22-BUTTON DIMMING SWITCH, D22
  - (23) 23-BUTTON DIMMING SWITCH, D23
  - (24) 24-BUTTON DIMMING SWITCH, D24
  - (25) 25-BUTTON DIMMING SWITCH, D25
  - (26) 26-BUTTON DIMMING SWITCH, D26
  - (27) 27-BUTTON DIMMING SWITCH, D27
  - (28) 28-BUTTON DIMMING SWITCH, D28
  - (29) 29-BUTTON DIMMING SWITCH, D29
  - (30) 30-BUTTON DIMMING SWITCH, D30
  - (31) 31-BUTTON DIMMING SWITCH, D31
  - (32) 32-BUTTON DIMMING SWITCH, D32
  - (33) 33-BUTTON DIMMING SWITCH, D33
  - (34) 34-BUTTON DIMMING SWITCH, D34
  - (35) 35-BUTTON DIMMING SWITCH, D35
  - (36) 36-BUTTON DIMMING SWITCH, D36
  - (37) 37-BUTTON DIMMING SWITCH, D37
  - (38) 38-BUTTON DIMMING SWITCH, D38
  - (39) 39-BUTTON DIMMING SWITCH, D39
  - (40) 40-BUTTON DIMMING SWITCH, D40
  - (41) 41-BUTTON DIMMING SWITCH, D41
  - (42) 42-BUTTON DIMMING SWITCH, D42
  - (43) 43-BUTTON DIMMING SWITCH, D43
  - (44) 44-BUTTON DIMMING SWITCH, D44
  - (45) 45-BUTTON DIMMING SWITCH, D45
  - (46) 46-BUTTON DIMMING SWITCH, D46
  - (47) 47-BUTTON DIMMING SWITCH, D47
  - (48) 48-BUTTON DIMMING SWITCH, D48
  - (49) 49-BUTTON DIMMING SWITCH, D49
  - (50) 50-BUTTON DIMMING SWITCH, D50
  - (51) 51-BUTTON DIMMING SWITCH, D51
  - (52) 52-BUTTON DIMMING SWITCH, D52
  - (53) 53-BUTTON DIMMING SWITCH, D53
  - (54) 54-BUTTON DIMMING SWITCH, D54
  - (55) 55-BUTTON DIMMING SWITCH, D55
  - (56) 56-BUTTON DIMMING SWITCH, D56
  - (57) 57-BUTTON DIMMING SWITCH, D57
  - (58) 58-BUTTON DIMMING SWITCH, D58
  - (59) 59-BUTTON DIMMING SWITCH, D59
  - (60) 60-BUTTON DIMMING SWITCH, D60
  - (61) 61-BUTTON DIMMING SWITCH, D61
  - (62) 62-BUTTON DIMMING SWITCH, D62
  - (63) 63-BUTTON DIMMING SWITCH, D63
  - (64) 64-BUTTON DIMMING SWITCH, D64
  - (65) 65-BUTTON DIMMING SWITCH, D65
  - (66) 66-BUTTON DIMMING SWITCH, D66
  - (67) 67-BUTTON DIMMING SWITCH, D67
  - (68) 68-BUTTON DIMMING SWITCH, D68
  - (69) 69-BUTTON DIMMING SWITCH, D69
  - (70) 70-BUTTON DIMMING SWITCH, D70
  - (71) 71-BUTTON DIMMING SWITCH, D71
  - (72) 72-BUTTON DIMMING SWITCH, D72
  - (73) 73-BUTTON DIMMING SWITCH, D73
  - (74) 74-BUTTON DIMMING SWITCH, D74
  - (75) 75-BUTTON DIMMING SWITCH, D75
  - (76) 76-BUTTON DIMMING SWITCH, D76
  - (77) 77-BUTTON DIMMING SWITCH, D77
  - (78) 78-BUTTON DIMMING SWITCH, D78
  - (79) 79-BUTTON DIMMING SWITCH, D79
  - (80) 80-BUTTON DIMMING SWITCH, D80
  - (81) 81-BUTTON DIMMING SWITCH, D81
  - (82) 82-BUTTON DIMMING SWITCH, D82
  - (83) 83-BUTTON DIMMING SWITCH, D83
  - (84) 84-BUTTON DIMMING SWITCH, D84
  - (85) 85-BUTTON DIMMING SWITCH, D85
  - (86) 86-BUTTON DIMMING SWITCH, D86
  - (87) 87-BUTTON DIMMING SWITCH, D87
  - (88) 88-BUTTON DIMMING SWITCH, D88
  - (89) 89-BUTTON DIMMING SWITCH, D89
  - (90) 90-BUTTON DIMMING SWITCH, D90
  - (91) 91-BUTTON DIMMING SWITCH, D91
  - (92) 92-BUTTON DIMMING SWITCH, D92
  - (93) 93-BUTTON DIMMING SWITCH, D93
  - (94) 94-BUTTON DIMMING SWITCH, D94
  - (95) 95-BUTTON DIMMING SWITCH, D95
  - (96) 96-BUTTON DIMMING SWITCH, D96
  - (97) 97-BUTTON DIMMING SWITCH, D97
  - (98) 98-BUTTON DIMMING SWITCH, D98
  - (99) 99-BUTTON DIMMING SWITCH, D99
  - (100) 100-BUTTON DIMMING SWITCH, D100
- Ⓢ DIGITAL LIGHTING CONTROL, RELAY PANEL MODEL HUN4-N, HUN4-N2, HUN4-N4, HUN4-N8
- Ⓢ GATEWAY DEVICE
- Ⓢ PLUG LOAD CONTROLLER
- Ⓢ NETWORK BRIDGE
- Ⓢ NETWORK HUB
- Ⓢ NETWORK NODE
- Ⓢ NETWORK ROUTER
- Ⓢ NETWORK SWITCH
- Ⓢ ROOM CONTROLLER
- Ⓢ ZONE CONTROLLER
- Ⓢ OCCUPANCY SENSOR, CEILING MOUNT
- Ⓢ OCCUPANCY SENSOR, CORNER MOUNT
- Ⓢ PHOTOELECTRIC CELL, OUTDOOR
- Ⓢ ON/OFF AND DIMMING DAYLIGHT PHOTOSENSOR, INDOOR

### CONDUIT AND WIRE

- Ⓢ ELECTRICAL CONDUCTOR HOMERUN, CONDUCTORS ARE #12AWG CU WIRE UNLESS OTHERWISE NOTED. CONDUCTOR SIZE AND RISES DIAGRAM DETAILS. (CONDUCTOR SIZE, NUMBER OF CONDUCTORS, VOLTAGE DROP AND CONDUIT SIZE)

### VPS PARKING LOT LIGHTING SHEET LIST

- Ⓢ ELECTRICAL GENERAL NOTES
- Ⓢ ELECTRICAL SYMBOL LEGEND
- Ⓢ VPS PARKING LOT LUMINAIRE SCHEDULE & CUTSHEETS
- Ⓢ VPS PARKING LOT B EXPANSION SITE LAYOUT
- Ⓢ VPS PARKING LOT B AREA 01 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 02 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 03 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 04 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 05 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 06 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 07 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 08 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 09 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 10 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 11 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 12 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 13 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 14 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 15 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 16 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 17 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 18 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 19 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 20 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 21 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 22 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 23 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 24 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 25 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 26 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 27 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 28 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 29 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 30 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 31 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 32 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 33 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 34 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 35 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 36 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 37 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 38 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 39 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 40 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 41 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 42 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 43 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 44 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 45 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 46 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 47 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 48 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 49 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 50 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 51 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 52 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 53 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 54 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 55 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 56 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 57 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 58 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 59 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 60 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 61 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 62 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 63 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 64 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 65 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 66 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 67 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 68 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 69 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 70 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 71 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 72 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 73 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 74 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 75 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 76 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 77 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 78 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 79 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 80 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 81 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 82 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 83 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 84 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 85 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 86 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 87 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 88 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 89 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 90 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 91 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 92 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 93 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 94 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 95 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 96 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 97 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 98 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 99 LIGHTING LAYOUT
- Ⓢ VPS PARKING LOT B AREA 100 LIGHTING LAYOUT

**AVCON, INC.**  
ENGINEERS & PLANNERS  
120 BAYSHORE DRIVE SUITE A  
ROSELLE, IL 60068-1599  
TEL: (815) 616-9400  
FAX: (815) 616-9400  
CORPORATE CERTIFICATE  
OF INCORPORATION NUMBER 0287

**AVCON**  
TRANSPORTATION TODAY'S IDEAS  
INTO TOMORROW'S REALITY

**E002**  
SHEET NUMBER

**LEGEND**  
ELECTRICAL SYMBOL

**VPS EXPANSION**  
REPREPARED FOR  
DESTIN - PORT WALTON  
BEACH AIRPORT

DESIGNED BY: [ ]  
DRAWN BY: [ ]  
CHECKED BY: [ ]  
APPROVED BY: [ ]  
PROJECT NO.: 2018-002-03  
DATE: JANUARY 2020

DESTIN-FORT WALTON BEACH AIRPORT P1

**VIPER L STRIKE**

BEACON

BEACON

DESTIN-FORT WALTON BEACH AIRPORT P1

**VIPER L STRIKE**

BEACON

BEACON

DESTIN-FORT WALTON BEACH AIRPORT P1

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	MANUFACTURER
1	Viper L Strike Luminaire	100	EA	BEACON
2	Mounting Hardware	100	EA	BEACON
3	LED Array	100	EA	BEACON
4	Heat Sink	100	EA	BEACON
5	Driver	100	EA	BEACON
6	Optic	100	EA	BEACON
7	Wiring	100	EA	BEACON
8	Accessories	100	EA	BEACON

DESTIN-FORT WALTON BEACH AIRPORT P1

**VIPER L STRIKE**

BEACON

BEACON

DESTIN-FORT WALTON BEACH AIRPORT P1

**VIPER L STRIKE**

BEACON

BEACON

DESTIN-FORT WALTON BEACH AIRPORT P1

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	MANUFACTURER
1	Viper L Strike Luminaire	100	EA	BEACON
2	Mounting Hardware	100	EA	BEACON
3	LED Array	100	EA	BEACON
4	Heat Sink	100	EA	BEACON
5	Driver	100	EA	BEACON
6	Optic	100	EA	BEACON
7	Wiring	100	EA	BEACON
8	Accessories	100	EA	BEACON

DESTIN-FORT WALTON BEACH AIRPORT P1

COUNT	ITEM ID	DESCRIPTION	MODEL #	LAMP TYPE	FIXTURE WALL MOUNTING	FIXTURE HEIGHT	FIXTURE WIDTH	FIXTURE DEPTH	MANUFACTURER
100	P1	VIPER L STRIKE LUMINAIRE, TYPE EN, 100W	VP-L00-100-WT-AV-00000001	LED	100.0	10.0	10.0	10.0	BEACON
100	P1	COUNTDOWN LIGHT FIXTURE TO REMAIN							
100	P1	COUNTDOWN LIGHT FIXTURE TO REMAIN							

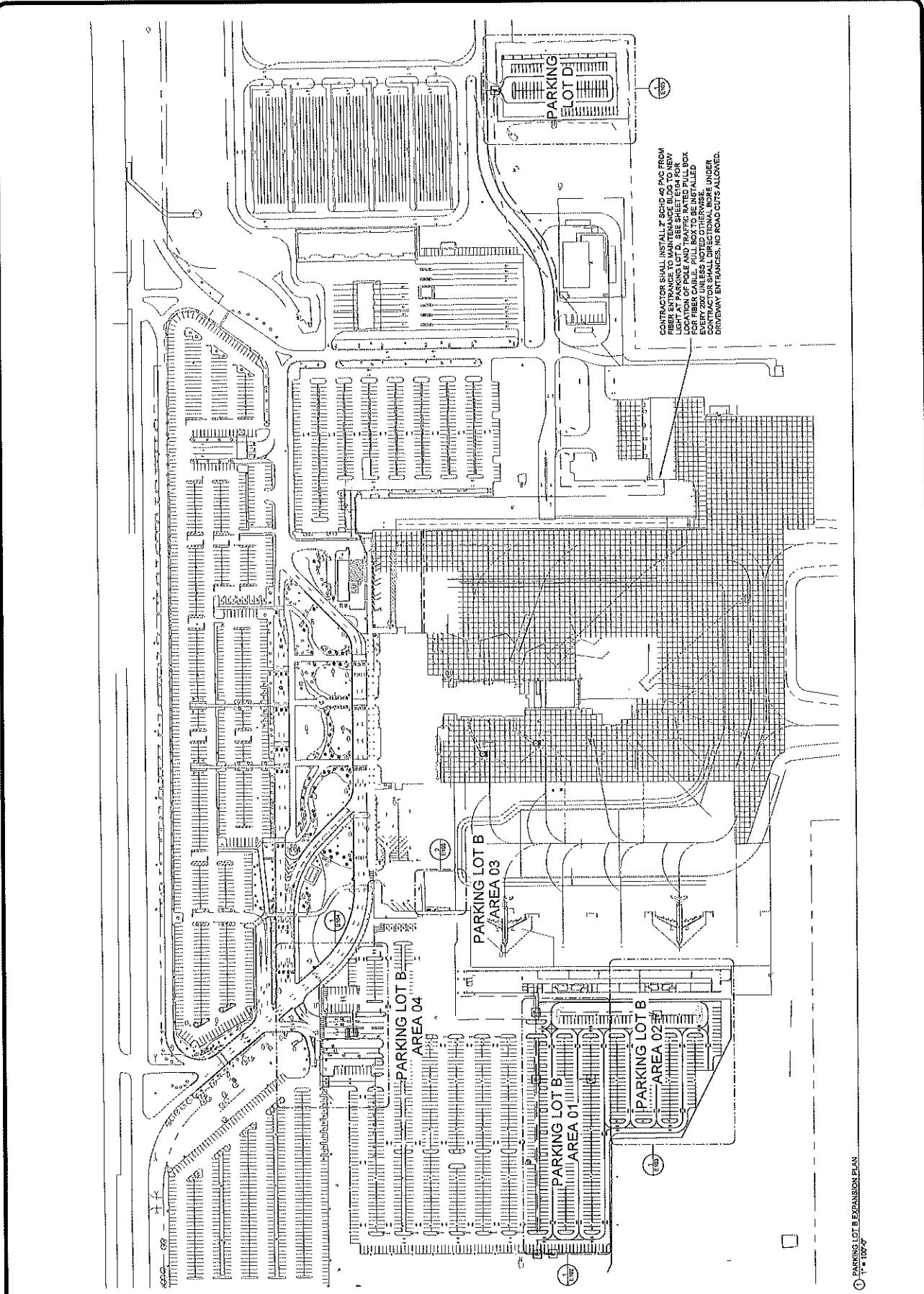
NO.	DATE	REVISION DESCRIPTION

RELEASE FOR THE  
 BEACH AIRPORT  
**VPS PARKING LOT B  
 EXPANSION SITE  
 LAYOUT**

**VPS PARKING LOT B  
 EXPANSION**  
 BEACH AIRPORT  
 DESTIN - FORT WALTON

PREPARED FOR:  
 PROJECT NO.: 201400043  
 DATE: JANUARY 2018  
 SCALE: FOURTEEN

**E101**



① PARKING LOT B EXPANSION PLAN  
 1" = 100'-0"

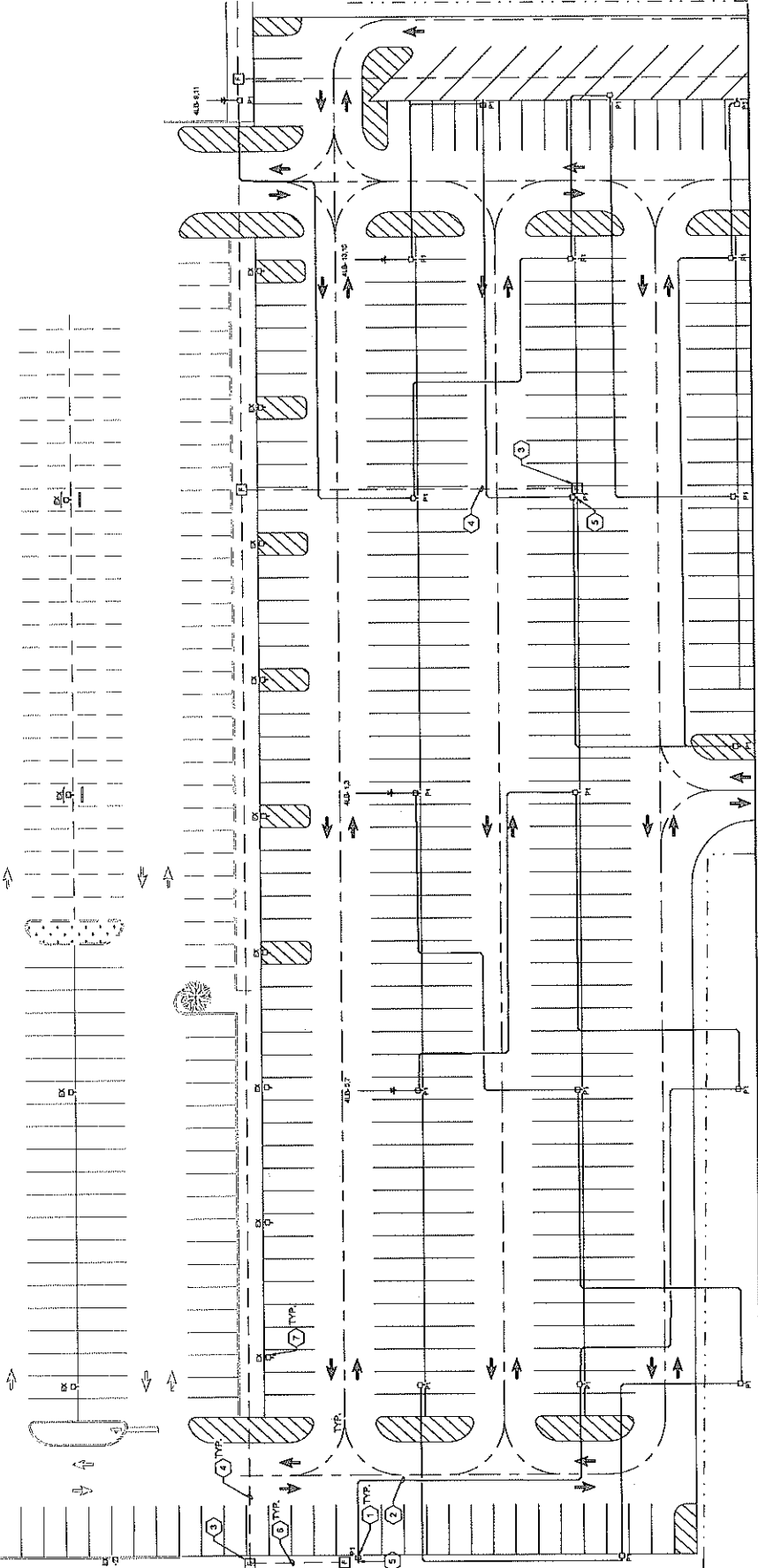
NO.	REVISION	DATE

PREPARED FOR  
**VPS PARKING LOT B**  
 EXPANSION  
 DESTIN - FORT WALTON  
 BEACH AIRPORT  
 LAYOUT  
 AREA 01 LIGHTING

DESIGNED BY: [ ]  
 DRAWN BY: [ ]  
 CHECKED BY: [ ]  
 PROJECT NO.: 2014.001.01  
 DATE: JANUARY 2015

**E102**  
 SHEET NUMBER

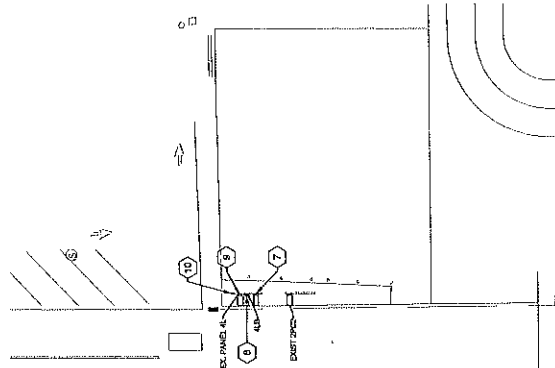
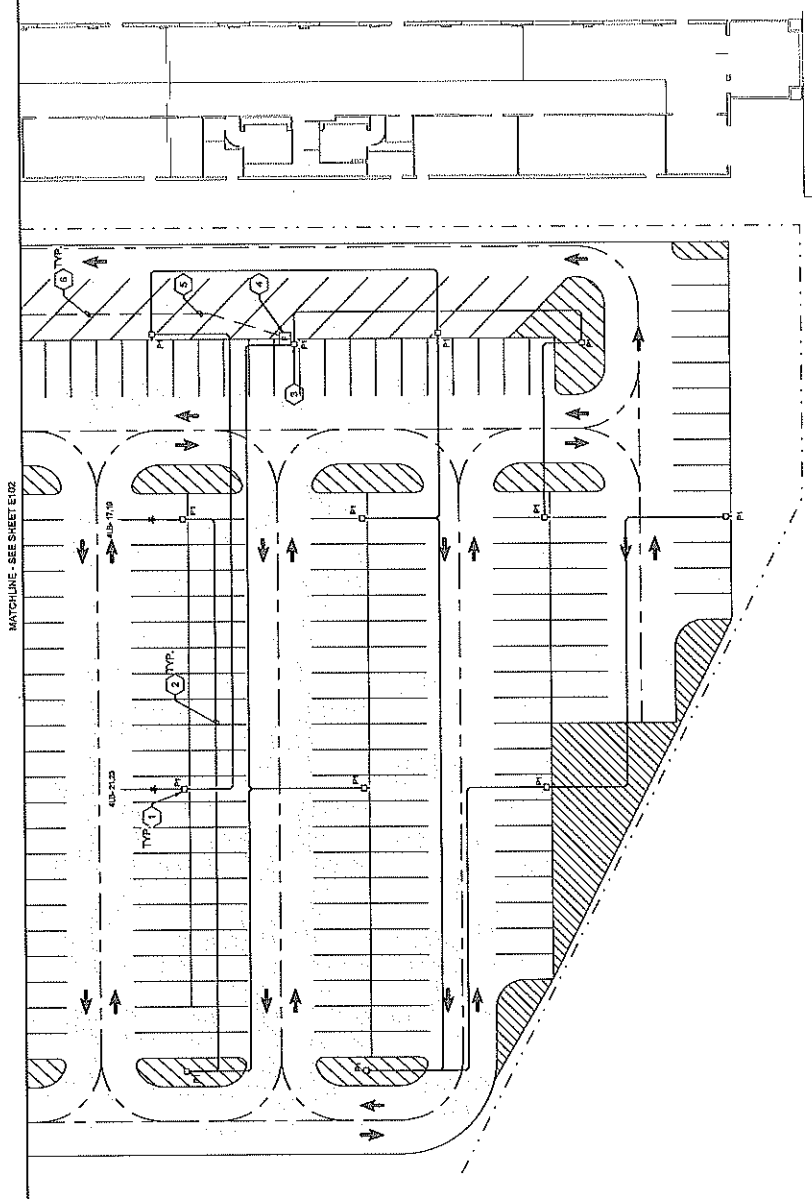
- ELECTRICAL KEY NOTES**
- 1 REFER TO INSTALLATION DETAILS FOR LIGHT POLE INSTALLATION AND REQUIREMENTS.
  - 2 (1) 3/4" SCHED. 40 PVC. REFER TO INSTALLATION DETAILS FOR UNDERGROUND CONDUIT INSTALLATION.
  - 3 (1) 1/2" SCHED. 40 PVC. REFER TO INSTALLATION DETAILS FOR UNDERGROUND CONDUIT INSTALLATION. STUB UP.
  - 4 (1) 2" SCHED. 40 PVC. REFER TO INSTALLATION DETAILS FOR UNDERGROUND CONDUIT INSTALLATION. STUB UP.
  - 5 PROVIDE 2" x 2" x 1/2" NEMA 4X ENCLOSURE WITH LOCK HASP AND KEY FOR NETWORK COMPONENTS TO BE PROVIDED BY OTHERS.
  - 6 FIBER OPTIC CABLE TO BE PROVIDED AND INSTALLED BY OTHERS.
  - 7 EXISTING LIGHT POLE AND CONCRETE BASE. EXISTING LIGHT FIXTURE TO REMAIN.



① PARKING LOT B LIGHTING LAYOUT - AREA 01  
 11-2015

**ELECTRICAL KEY NOTES**

- 1 REFER TO INSTALLATION DETAILS FOR LIGHT POLE INSTALLATION AND REQUIREMENTS.
- 2 (1) 3M<sup>®</sup> SCHED. 40 PVC REFER TO INSTALLATION DETAILS FOR INSTALLATION AND REQUIREMENTS.
- 3 PROVIDE 2" X 2" NEMA 4X ENCLOSURE WITH LOCK HASP FOR HOUSING CAMERA NETWORK COMPONENTS TO BE PROVIDED BY OTHERS.
- 4 1" WOOD LAMP TRAFFIC LIGHTS SHALL BE FOR FIBER OPTIC CABLE. REFER TO INSTALLATION DETAILS FOR INSTALLATION AND REQUIREMENTS.
- 5 PROVIDE FULL STRING CONTRACTOR SHALL DIRECTIONAL BORE UNDER DRIVEWAY TO BE PROVIDED AND INSTALLED BY OTHERS. REFER TO INSTALLATION DETAILS FOR INSTALLATION AND REQUIREMENTS.
- 6 EXISTING MAIN DISTRIBUTION PANEL (MDP SITE), SEE PANEL SCHEDULES FOR DETAILS.
- 7 NEW POWER PANEL (4LN), NEMA 4X, SEE PANEL SCHEDULES FOR DETAILS.
- 8 EXISTING MAIN DISTRIBUTION PANEL (MDP SITE), SEE PANEL SCHEDULES FOR DETAILS.
- 9 EXISTING LOCATION FOR POWER DISTRIBUTION RACK.
- 10



**AVCON, INC.**  
ENGINEERS & PLANNERS  
220 BARKER DRIVE, SUITE A  
MAYFIELD, OH 43074-1420  
PHONE: (513) 835-1420 FAX: (513) 835-1420  
WWW.AVCON.COM  
AVCON PROJECT NUMBER: 001  
AVCON PROJECT NUMBER: 001  
AVCON PROJECT NUMBER: 001

**AVCON**  
TRANSFORMING TODAY'S REALITY INTO TOMORROW'S HEALTH.

NO.	REVISION DESCRIPTION

**VPS PARKING LOT B LIGHTING LAYOUT**  
AREA 02 & 03  
DATE: 01/20/09

**VPS PARKING LOT B EXPANSION**  
PREPARED FOR  
DESTIN - FORT WALTON BEACH AIRPORT

DESIGNED BY: [blank]  
DRAWN BY: [blank]  
CHECKED BY: [blank]  
PROJECT NO: 001-0001  
DATE: JANUARY 2009

**E103**  
SHEET NUMBER

① PARKING LOT B LIGHTING LAYOUT, AREA 02  
1" = 20'-0"

② PARKING LOT B LIGHTING LAYOUT, AREA 03  
1" = 20'-0"



NO.	REVISION DESCRIPTION

TRANSPORTATION TODAY'S IDEAS  
 AND TOMORROW'S REALITY

**AVCON**

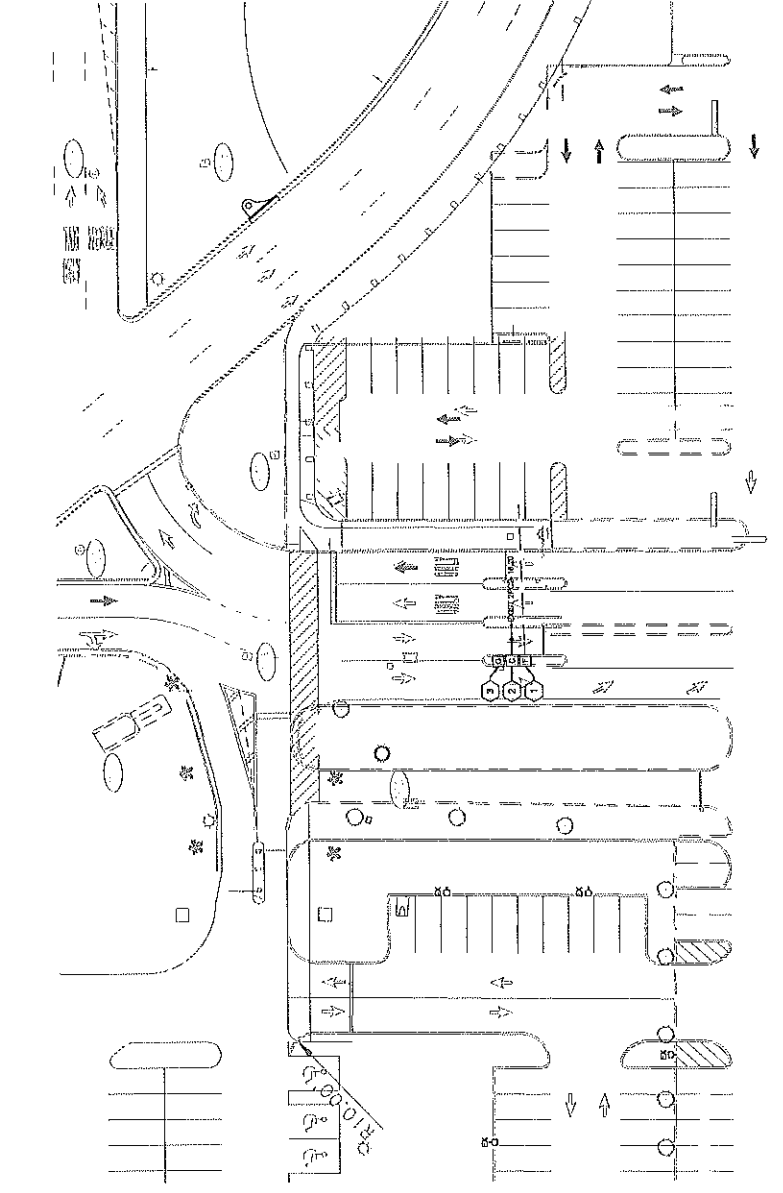
ENGINEERS & PLANNERS

200 EASTWING DRIVE, SUITE A  
 FORT WORTH, TEXAS 76102  
 PHONE: (817) 335-1000  
 FACSIMILE: (817) 335-1005  
 WWW.AVCON.COM

AVCON, INC.  
 ENGINEERS & PLANNERS

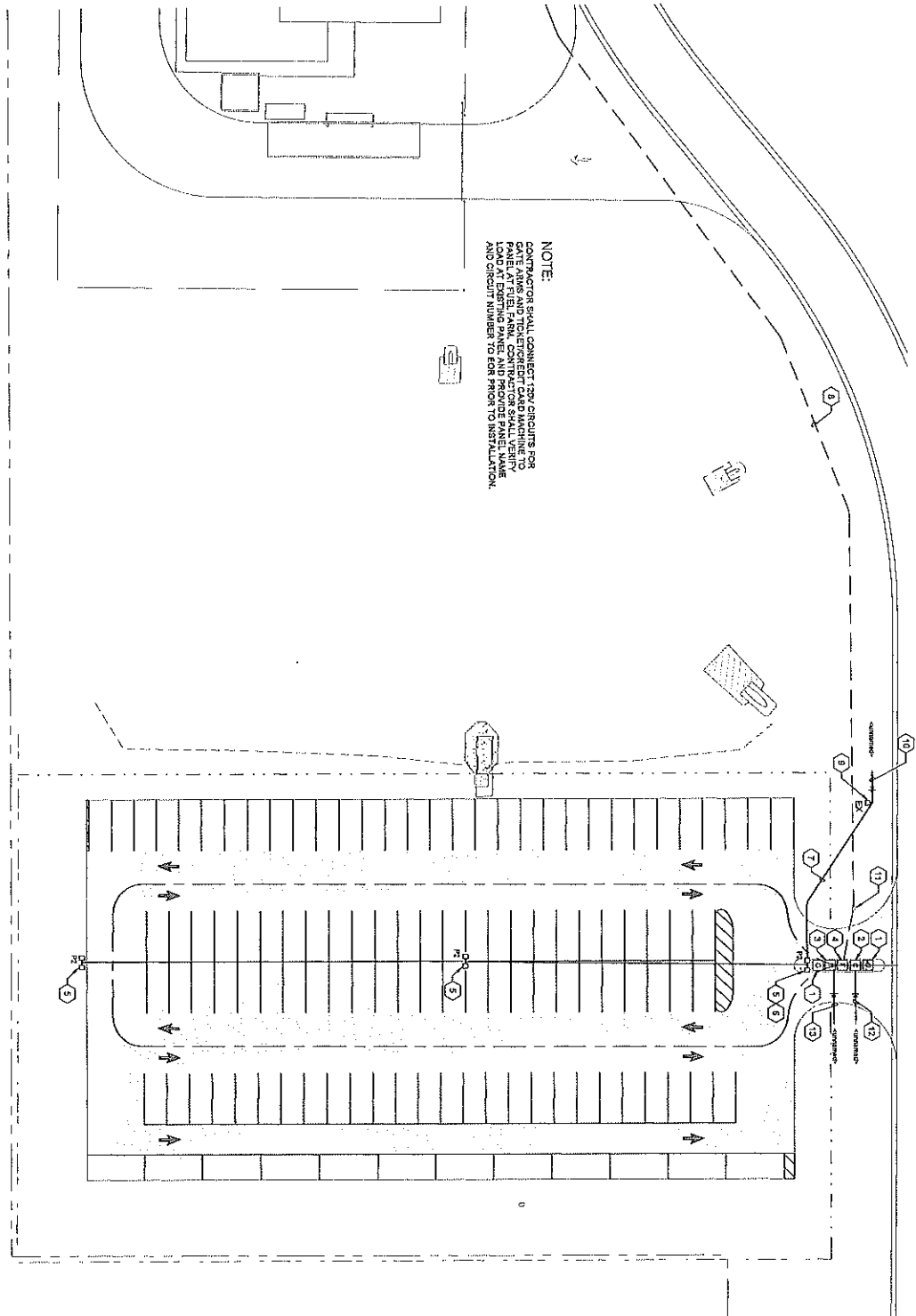
300 EASTWING DRIVE, SUITE A  
 FORT WORTH, TEXAS 76102  
 PHONE: (817) 335-1000  
 FACSIMILE: (817) 335-1005  
 WWW.AVCON.COM

- ELECTRICAL KEY NOTES**
- 1. 100W/250V/500VA TRAFFIC RATED PULL BOX
  - 2. 100W/250V/500VA TRAFFIC RATED PULL BOX FOR CREDIT CARD MACHINE (CREDIT CARD MACHINE TO BE PROVIDED BY PARKING VENDOR)
  - 3. 100W/250V/500VA TRAFFIC RATED PULL BOX FOR GATE ARM (GATE ARM TO BE PROVIDED BY PARKING VENDOR)



① PARKING LOT B LIGHTING LAYOUT, AREA 04  
 1" = 20'-0"

**PARKING LOT B LIGHTING LAYOUT**



**NOTE:**  
CONTRACTORS SHALL CONNECT TRM CIRCUITS FOR GATE ARMS AND TICKET/CREDIT CARD MACHINE TO PANEL AT FUEL PUMP. CONTRACTOR SHALL VERIFY AND IDENTIFY ALL TRM CIRCUITS AND TRM CIRCUIT NUMBERS TO ERM PRIOR TO INSTALLATION.

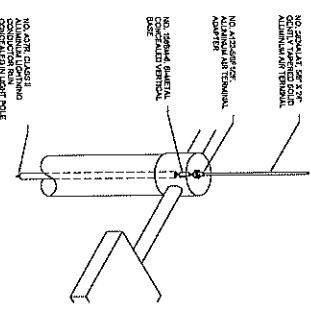
**ELECTRICAL KEY NOTES**

1. 1500W TRAFFIC BATED PULL BOX FOR GATE ARM (GATE ARM TO BE PROVIDED BY PARKING VENDOR)
2. 1500W TRAFFIC BATED PULL BOX FOR CREDIT CARD MACHINE (CREDIT CARD MACHINE TO BE PROVIDED BY PARKING VENDOR)
3. 1500W TRAFFIC BATED PULL BOX FOR TICKET MACHINE (TICKET MACHINE TO BE PROVIDED BY PARKING VENDOR)
4. 1500W TRAFFIC BATED PULL BOX FOR FIBER OPTIC CABLE
5. REFER TO INSTALLATION DETAILS FOR LIGHT POLE INSTALLATION AND DETAILS FOR LIGHT POLE HOUSING CABLEMAN NETWORK COMPONENTS TO BE PROVIDED BY OTHERS.
6. 1/2" SCHED. 40 PVC REFER TO INSTALLATION DETAILS FOR UNDERGROUND CONDUIT INSTALLATION. INSTALL NEW 3/4" (1) 3/4" CONDUIT WIRE IN NEW 3/4" TO EXTEND CIRCUIT TO NEW LIGHT POLE LOCATION.
7. REFER TO UNDERGROUND CONDUIT INSTALLATION. STIR UP GAPS AND PROVIDE DIRECTIONAL SIGHT UNDER DRIVEWAY ENTRANCES, NO ROAD CUTS ALLOWED.
8. EXISTING LIGHT POLE AND CONCRETE BASE. CONTRACTOR TO REMOVE EXISTING LIGHT POLE AND CONCRETE BASE.
9. NEW TRAFFIC BATED FIBER MANHOLE.
10. CREDIT CARD MACHINE CAT 7, 14150 AND GATE ARM CAT 7, 14120 IN SAME CONDUIT. (1) 3/4" CONDUIT, 14120 IN SAME CONDUIT. (1) 3/4"

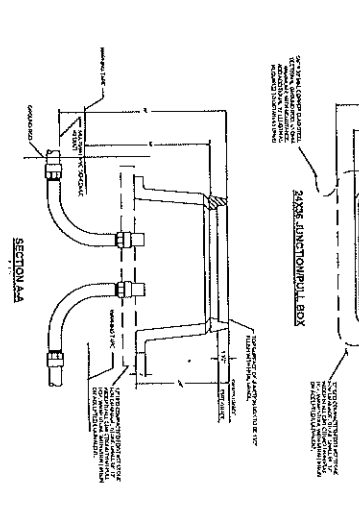
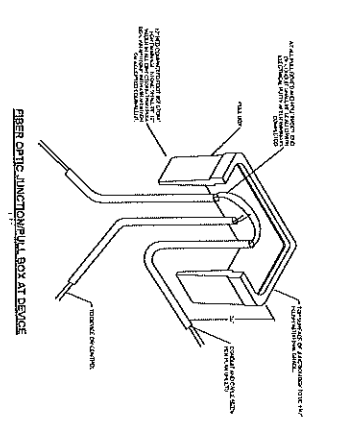
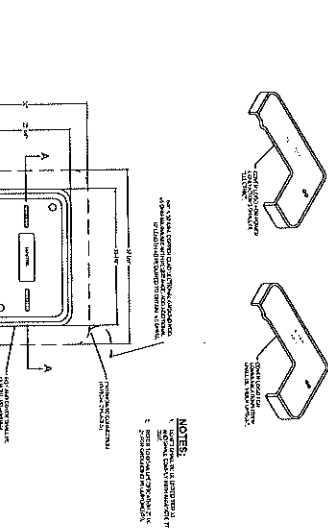
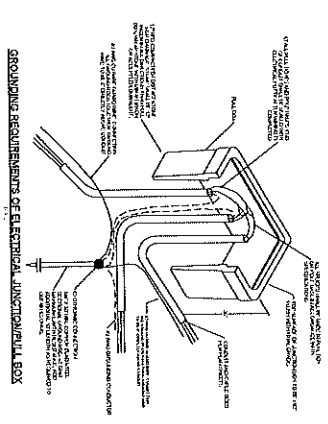
<p><b>E105</b></p>	<p><b>VPS PARKING LOT B EXPANSION</b></p> <p>PREPARED FOR</p> <p><b>DESTIN - FORT WALTON BEACH AIRPORT</b></p>	<p><b>VPS PARKING LOT D LIGHTING LAYOUT</b></p>	<p><b>AVCON, INC.</b> ENGINEERS &amp; PLANNERS</p> <p>308 BAYSHORE DRIVE, SUITE A ACEVILLE, FL 32512-2122 OFFICE: (850) 478-0200 - FAX: (850) 474-0540 350 CORPORATE CENTER DRIVE, SUITE 200 TALLAHASSEE, FL 32310 AUTHORIZATION NUMBER: 0687</p>
<p>DATE: JANUARY 2003</p>	<p>DESIGNED BY: [ ]</p> <p>DRAWN BY: [ ]</p> <p>CHECKED BY: [ ]</p> <p>APPROVED BY: [ ]</p> <p>PROJECT NO.: 0101000003</p>	<p>RELEASE FOR BID (NOT FOR CONSTRUCTION)</p>	<p>TRANSFORMING TODAY'S IDEAS INTO TOMORROW'S REALITY</p>

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION. ALL RIGHTS RESERVED. THIS DOCUMENT IS THE PROPERTY OF AVCON, INC. AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE EXPRESS WRITTEN PERMISSION OF AVCON, INC.





④ AIR TERMINAL DETAIL "D"  
SCALE: NONE



③ ELECTRICAL PULL BOX  
SCALE: NONE

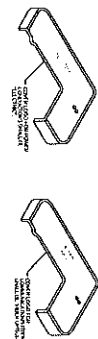
NO SQUARE CORNERS OR FLAT WELDED JOINTS  
MINIMUM 1/8" RADIUS  
NO SQUARE FLANGES  
NO SQUARE FLANGES  
NO SQUARE FLANGES

GROUNDING REQUIREMENTS OF ELECTRICAL JUNCTIONAL BOX

ALL ELECTRICAL WIRING SHALL BE GROUNDED TO THE SAME GROUNDING POINT AS THE JUNCTIONAL BOX

FIBER OPTIC JUNCTIONAL BOX AT DEVICE

ALL ELECTRICAL WIRING SHALL BE GROUNDED TO THE SAME GROUNDING POINT AS THE JUNCTIONAL BOX



NOTES:  
1. ALL ELECTRICAL WIRING SHALL BE GROUNDED TO THE SAME GROUNDING POINT AS THE JUNCTIONAL BOX  
2. ALL ELECTRICAL WIRING SHALL BE GROUNDED TO THE SAME GROUNDING POINT AS THE JUNCTIONAL BOX  
3. ALL ELECTRICAL WIRING SHALL BE GROUNDED TO THE SAME GROUNDING POINT AS THE JUNCTIONAL BOX

**VPS PARKING LOT B EXPANSION**  
PREPARED FOR  
**DESTIN - FORT WORTH BEACH AIRPORT**

DESIGNED BY: [Name]  
DRAWN BY: [Name]  
CHECKED BY: [Name]  
APPROVED BY: [Name]  
DATE: JANUARY 2003

**E107**

NO.	DATE	REVISION DESCRIPTION

**AVCON, INC.**  
ENGINEERS & PLANNERS

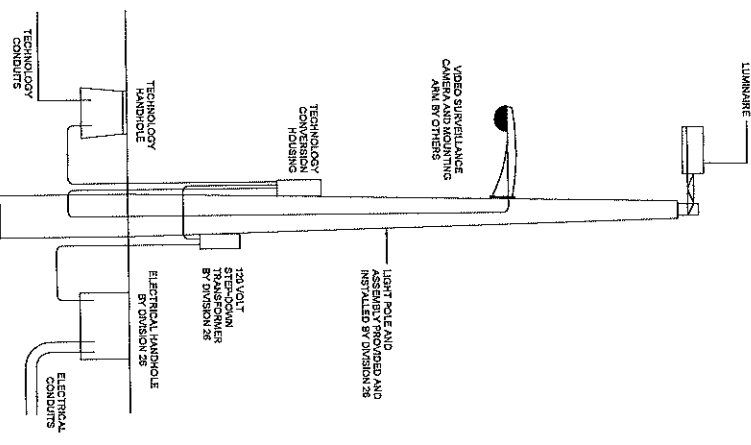
330 BALDWIN DRIVE, SUITE A  
INVERVILLE, FL 33578-2425  
OFFICE (404) 818-0050 - FAX (404) 874-0043

TRANSFORMING TODAY'S IDEAS INTO TOMORROW'S REALITY

CORPORATE CERTIFICATE OF AUTHORIZATION NUMBER 0057

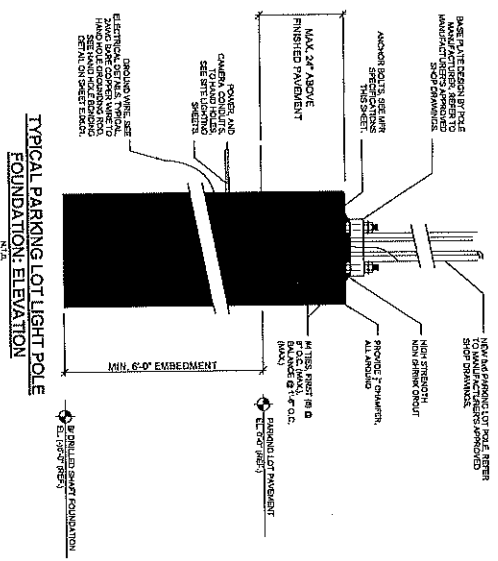
THIS DOCUMENT CONTAINS TRADE NAMES AND PROPRIETARY INFORMATION ALL OF WHICH ARE HEREBY PROTECTED BY PATENT, TRADE NAME, COPYRIGHT, AND/OR A PROPRIETARY DESIGN. WITHOUT THE EXPRESS WRITTEN CONSENT OF AVCON, INC. NO REPRODUCTION, REPRESENTATION, OR OTHER USE OF THIS EQUIPMENT, IN WHOLE OR IN PART, IS PERMITTED WITHOUT THE WRITTEN CONSENT OF AVCON, INC.

① SECURITY CAMERA MOUNTED ON LIGHT POLE  
12" x 14"



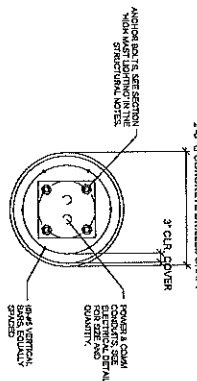
**GENERAL NOTES:**  
ALL CCTV CAMERAS, CAMERA CONTROL CABINETS, FIBER OPTIC CABLE SHALL BE PROVIDED AND INSTALLED BY OTHERS

② LIGHT POLE FOUNDATION DETAILS  
12" x 14"



TYPICAL PARKING LOT LIGHT POLE FOUNDATION - ELEVATION  
N/A

TYPICAL PARKING LOT LIGHT POLE FOUNDATION - PLAN VIEW  
N/A



**FOUNDATION NOTES**

1. PROVIDE 2" OF CONCRETE PROTECT FOUNDATIONS WITH 10" MINIMUM EMBEDMENT AND REINFORCED WITH 10 # VERTICAL BARS (EACH SIDE) FOR 10' MINIMUM EMBEDMENT AT 18" OC MAX.
2. THE MINIMUM BAR CLEAR COVER SHALL BE 2" AND ALL EXPOSED BARS SHALL HAVE A 3" CHAIR.
3. PROVIDE 4" MIN. DIRT FILL OR W/PA APPROVED ANCHOR RODS WITH DIAMETER MEETING THE REQUIREMENTS OF THE APPROVED POLYMER BASE INSUL.
4. TERMINATE ANCHOR RODS EMBEDDED BARS WITH NOT OR MAX. 1" OF BARS.
5. REFER TO ANY DETAILS FOR HEIGHT OF FOUNDATION ABOVE FINISHED GRAD/PAVEMENT FOR TOTAL LENGTH OF PRECAST FOUNDATION.
6. FOLLOWING THE INSTALLATION OF THE FOUNDATION, CONTRACTOR SHALL COMPACT THE SUBGRADE SOILS TO 95% OF STANDARD PROCTOR.
7. LIGHT POLES WITH CONCRETE TO BE PROVIDED WITH CAMERA MOUNTING PLATE (CMP) AND SIGNALING CABINET (SC) PROVIDED.

E108

VPS PARKING LOT B EXPANSION  
PREPARED FOR  
DESTIN - FORT WALTON BEACH AIRPORT

SECURITY CAMERA DETAILS  
RELEASE FOR BID  
NOT FOR CONSTRUCTION

NO.	DATE	REVISION DESCRIPTION

**AVCON, INC.**  
ENGINEERS & PLANNERS

120 BAYVIEW DRIVE SUITE A  
MCCALLIE, FL 32578-2428  
OFFICE (904) 314-0500 FAX (904) 314-0000  
CORPORATE CREDIT/DATE OF AUTHORIZATION NUMBER 0067