

# CONSTRUCTION PLANS FOR CHERRY STREET DRAINAGE IMPROVEMENTS TASK 2 - GENEVIEVE DRAINAGE PIPING BIG OAK LANE CUL-DE-SAC TO CALLAWAY BAYOU

PREPARED FOR



CITY OF CALLAWAY

### CITY OFFICIALS

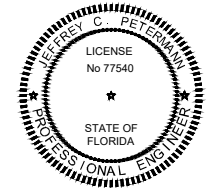
<p>PAMN HENDERSON SCOTT DAVIS DAVID GRIGGS BOB PELLEIER FRANK MANCINELLI</p>	<p>MAYOR WARD I COMMISSIONER WARD II COMMISSIONER WARD III COMMISSIONER WARD IV COMMISSIONER</p>
--	--

**BDI PROJECT No. 27655.01**  
JULY 2021

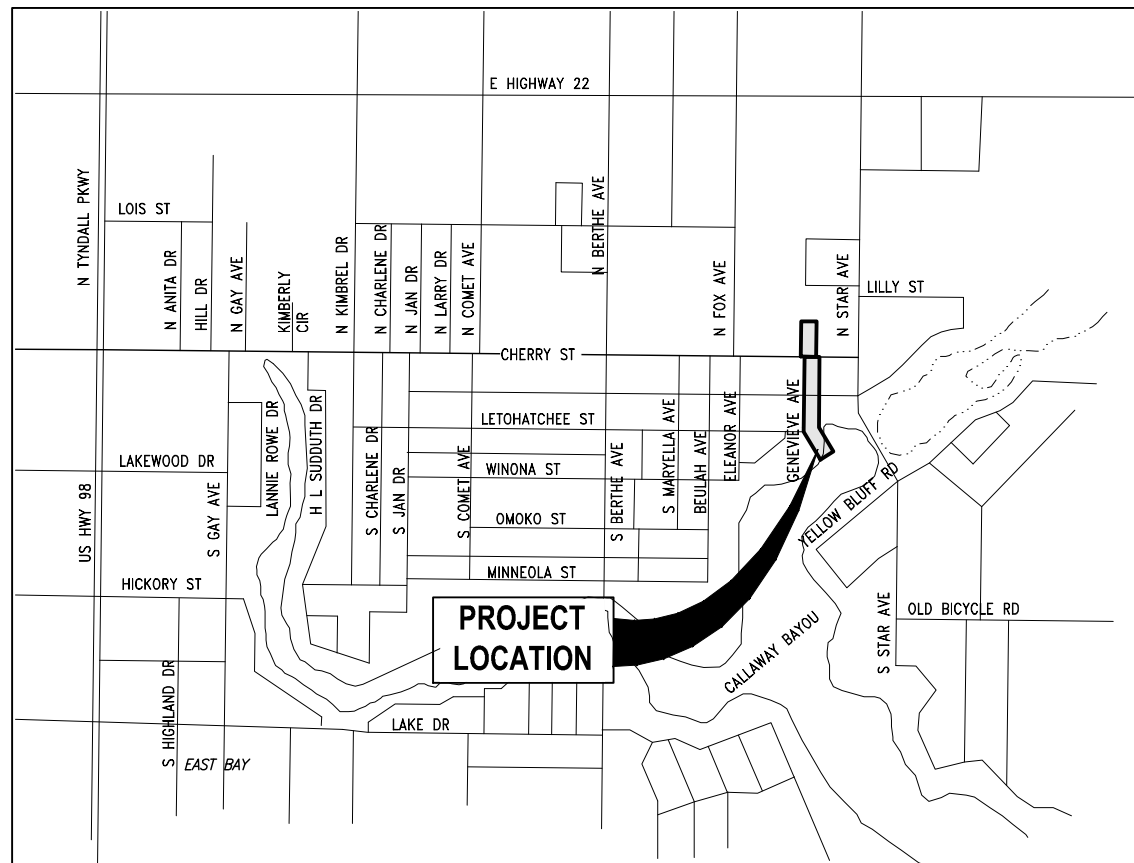
PREPARED BY:

**BASKERVILLE-DONOVAN, INC.**  
**ENGINEERING THE SOUTH SINCE 1927**

449 W. MAIN ST., PENSACOLA, FL 32502 (850)438-9661  
ENGINEERING BUSINESS: EB-000340  
Pensacola - Panama City Beach - Tallahassee - Mobile



THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY JEFFREY C. PETERMANN ON THE DATE ADJACENT TO THE SEAL. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.



VICINITY MAP  
NOT TO SCALE



### SHEET INDEX

- G-000 KEY SHEET
- G-001 GENERAL NOTES
- C-100 CONTROL PLAN
- C-101 - 102 EXISTING CONDITIONS, DEMOLITION & EROSION CONTROL PLAN
- C-103 - 105 PLAN & PROFILE
- C-106 - 107 CROSS-SECTIONS
- C-900 DETAILS
- FDOT DETAILS

100% COMPLETE  
RELEASED FOR CONSTRUCTION

GENERAL NOTES:

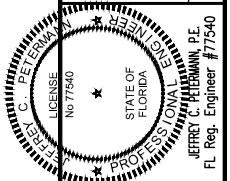
1. THE CONTRACTORS SHALL NOTIFY THE PROJECT ADMINISTRATOR 48 HOURS PRIOR TO CONSTRUCTION.
2. ALL CONDITIONS AND STIPULATIONS OF THE CONSTRUCTION PERMITS AND THE APPROVALS ISSUED BY THE CITY OF CALLAWAY SHALL BE COMPLIED WITHIN EVERY DETAIL.
3. ALL ROADS DAMAGED BY CONSTRUCTION OPERATIONS ARE TO BE PATCHED OR RECONSTRUCTED AS DIRECTED BY THE PROJECT ADMINISTRATOR OR DESIGNEE.
4. THE CONTRACTOR SHALL TAKE STEPS NECESSARY TO PREVENT EROSION AND ANY OFF SITE SEDIMENT TRANSPORT RESULTING FROM INCREASED RUNOFF DURING CONSTRUCTION BY PROVIDING SILT FENCE AND/OR STAKED HAY BALES AS REQUIRED BY THE FLORIDA STORMWATER, EROSION, AND SEDIMENT CONTROL INSPECTOR'S MANUAL, 2000 EDITION, OR AS INDICATED ON THE PLANS. ALL EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL ASSOCIATED DISTURBED AREAS ARE STABILIZED AS TO REDUCE SEDIMENT RUNOFF, UNLESS OTHERWISE DIRECTED BY THE PROJECT ADMINISTRATOR OR DESIGNEE.
5. ANY NECESSARY PERMITS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
6. THE CONTRACTOR IS CAUTIONED TO VISIT THE SITE AND FAMILIARIZE HIMSELF WITH THE PROJECT PRIOR TO BIDDING AND/OR CONSTRUCTION.
7. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO PRESERVE OR RELOCATE ALL BENCHMARKS (VERTICAL CONTROL) AS NEEDED DURING CONSTRUCTION. ALL PUBLIC OR PRIVATE CORNER MONUMENTATION SHALL BE PROTECTED. IF A PUBLIC OR PRIVATE CORNER MONUMENTATION IS IN DANGER OF BEING DESTROYED AND HAS NOT BEEN PROPERLY REFERENCED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR DESIGNEE IMMEDIATELY. ANY BAY COUNTY HARN/GPS NETWORK MONUMENTS OR BUREAU OF SURVEY AND MAPPING GPS NETWORK MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED. IF A HARN/GPS NETWORK MONUMENTS OR BUREAU OF SURVEY AND MAPPING GPS NETWORK MONUMENTS ARE DISTURBED OR DESTROYED THE CONTRACTOR SHALL BE RESPONSIBLE FOR RELACEMENT OF THE MONUMENTS AND HAVE THE MONUMENTS POSITION DETERMINED BY A FLORIDA LICENSED PROFESSIONAL SURVEYOR AND MAPPER USING GUIDELINES AS ESTABLISHED BY NATIONAL GEODETIC SURVEY FOR BLUE BOOKING AND APPROVAL.
8. EXISTING DRAINAGE FEATURES WITHIN CONSTRUCTION LIMITS SHALL REMAIN UNLESS OTHERWISE NOTED.
9. THE CONTRACTOR SHALL MATCH EXISTING CONDITIONS AT THE BEGINNING AND END OF CONSTRUCTION AS DIRECTED BY THE PROJECT ADMINISTRATOR DESIGNEE. PROVIDE A STRAIGHT-END TAPER WHERE DROP CURB MEETS EXISTING RURAL SECTIONS.
10. ACCESS TO EXISTING STREETS AND DRIVES SHALL BE MAINTAINED TO LOCAL TRAFFIC AND PROPERTY OWNERS.
11. ALL ROADWAY CONSTRUCTION SHALL COMPLY WITH THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, THE AMERICANS WITH DISABILITIES ACT (ADA), THE ADA COMPLIANCE HANDBOOK, LATEST EDITION, AND THE FLORIDA ACCESSIBILITY CODE.
12. EXISTING STREET AND ROAD NAME SIGNS ON THE PROJECT SHALL BE KEPT VISIBLE AT ALL TIMES FOR THE FACILITATION OF ACCESS BY EMERGENCY VEHICLES. ALL OTHER EXISTING SIGNS THAT CONFLICT WITH CONSTRUCTION OPERATIONS SHALL BE TAKEN DOWN AND STOCKPILED WITHIN THE R/W LIMITS BY THE CONTRACTOR AS DIRECTED BY THE PROJECT ADMINISTRATOR OR DESIGNEE. ANY EXISTING SIGNS THAT ARE TO BE RELOCATED AND ARE DAMAGED BEYOND USE BY THE CONTRACTOR SHALL BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE.
13. THE CONTRACTOR SHALL MAINTAIN AT LEAST ONE 10' OPEN LANE AT ALL TIMES. NO OPEN EXCAVATION SHALL REMAIN OVER NIGHT. CONTRACTOR SHALL RESTORE ROAD TO TWO LANES OF TRAFFIC AT THE END OF EACH WORK DAY.
14. CONTRACTOR SHALL COMPLY WITH ALL F.D.E.P. AND ARMY CORP. OF ENGINEERS REQUIREMENTS.
15. ONLY ACCESS TO THE ROAD R/W AND TEMPORARY WORK AGREEMENTS (TWA) AS SHOWN IS GUARANTEED BY THE CITY. PRIVATE R/W REQUIRED BY THE CONTRACTOR TO FACILITATE CONSTRUCTION SHALL BE ACQUIRED BY THE CONTRACTOR WITH NO ADDITIONAL COMPENSATION OR ASSISTANCE FROM THE CITY.
16. IN THE EVENT THAT SURVEY MONUMENTATION OR REFERENCE POINTS ARE MISSING OR HAVE BEEN DESTROYED, PLEASE CONTACT:  
  
ROBERT SCOTT MILLS, PLS FLORIDA  
REGISTRATION NO. 5509  
BASKERVILLE-DONOVAN, INC  
PHONE: 850-438-9661
17. VEGETATION ON R/W AND EASEMENTS SHALL BE RESTORED TO ORIGINAL CONDITION UNLESS OTHERWISE NOTED ON THE PLAN SHEETS. COST OF SAID RESTORATION SHALL BE CONSIDERED INCIDENTAL TO OTHER PAY ITEMS.
18. ALL TREES WITHIN LIMITS OF CONSTRUCTION SHALL REMAIN UNLESS OTHERWISE NOTED IN PLANS.
19. ALL COMPACTED FILL SHALL BE PLACED IN 4" LIFTS FOR HAND POWERED TAMPERS AND 8" LIFTS FOR HEAVY EQUIPMENT OPERATED TAMPERS.
20. MAINTENANCE OF TRAFFIC AS PER FDOT STANDARD PLANS INDEX 102 AND THE TRAFFIC CONTROL PLANS.
21. ALL EXISTING MAILBOXES INTERFERING WITH NEW CONSTRUCTION SHALL BE RELOCATED OR REPLACED BY THE CONTRACTOR IN ACCORDANCE WITH FDOT DESIGN STANDARDS AND UNITED POSTAL REQUIREMENTS. ALL EXISTING BRICK MAILBOXES WITHIN LIMITS OF CONSTRUCTION OR CITY RIGHT OF WAY SHALL BE REMOVED AND PLACED ON THE PROPERTY LINE OF THE OWNER. CONTRACTOR SHALL REPLACE EXISTING BRICK MAILBOX WITH APPROVED PLASTIC BREAK AWAY MAILBOX.
22. THE CONTRACTOR SHALL, AT A MINIMUM, MATCH EXISTING SIGNING AND PAVEMENT MARKINGS. ALL SIGNING AND PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH THE LATEST FDOT DESIGN STANDARDS. THE CONTRACTOR SHALL CONTACT THE PROJECT ADMINISTRATOR PRIOR TO INSTALLATION OF ANY SIGNING AND PAVEMENT MARKINGS.
23. WHERE UNSUITABLE MATERIAL IS ENCOUNTERED IN THE AREAS PROPOSED FOR PAVING, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ADMINISTRATOR PRIOR TO ANY EXCAVATION.
24. PIPE LENGTHS SHOWN IN THE PLANS DO NOT INCLUDE THE LENGTH OF PIPE THAT MUST BE INSTALLED WITH THE MITERED END SECTION. THEREFORE, ALL PIPES LENGTHS ASSOCIATED WITH MITERED END SECTIONS SHALL BE PAID FOR IN THE UNIT COST OF THE MITERED END SECTION.

25. HORIZONTAL DATA SHOWN HEREON ARE GRID PROJECTED IN THE FLORIDA STATE PLANE COORDINATE SYSTEM, FLORIDA NORTH, ZONE 0903, RELATIVE TO THE NORTH AMERICAN DATUM 83/2007 (NAD 83/2007). VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM 1988 (NAVD 88).
26. ALL CONCRETE DRIVEWAY TURNOUTS ARE TO BE CONSTRUCTED AS TYPE G1 PER FDOT STANDARD PLANS INDEX 522-003 UNLESS OTHERWISE NOTED ON THE PLANS.
27. ALL RAMPS AND DRIVEWAYS MUST MEET ADA COMPLIANCE AND MUST BE BUILT TO CURRENT FLORIDA DESIGN STANDARDS.
28. TO FACILITATE EARTHWORK CALCULATIONS, PROPOSED DRAINAGE STRUCTURES AND PIPES ARE NOT SHOWN ON THE ROADWAY CROSS SECTIONS. REFER TO THE DRAINAGE STRUCTURE SHEETS FOR INFORMATION ABOUT THE PROPOSED STRUCTURES.
29. ALL ADA DETECTABLE WARNING MATS SHALL EXTEND THE FULL WIDTH OF THE CURB RAP AND EXTEND 2 FT. FROM THE TOE OF THE CURB RAMP. ALL DETECTABLE WARNINGS SHALL BE IN ACCORDANCE WITH FDOT STANDARD PLANS INDEX 522 AND FDOT SPECIFICATION 527. ALL ADA DETECTABLE WARNING SYSTEMS MUST BE ON THE FDOT APPROVED PRODUCTS LIST.
30. ALL FILL MATERIAL SHALL BE SELECT FILL.
31. CONTRACTOR SHALL NOTIFY ALL ADJACENT PROPERTY OWNERS IF THEIR LANDSCAPING IS TO BE REMOVED TO COORDINATE THE REMOVAL AND POSSIBLE RELOCATION.
32. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY METERS, VALVES, SERVICE LATERALS, FIRE HYDRANTS, MAINS, WATER, WASTEWATER, OR GAS FACILITIES DAMAGED DURING CONSTRUCTION AT NO ADDITIONAL COST TO THE CITY.
33. SWEEPING SHALL OCCUR IMMEDIATELY AFTER SUCH EVENTS THAT CAUSE TRACKING ONTO STREET.
34. ALL PROPOSED STRIPING AND MESSAGES SHALL BE THERMOPLASTIC. THERMOPLASTIC IS TO BE USED FOR FINAL STRIPING ONLY. INTERMEDIATE STRIPING SHALL BE PAINTED.

UTILITY NOTES:

1. THE LOCATION SHOWN FOR EXISTING UNDERGROUND UTILITIES IS APPROXIMATE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK IN EACH AREA. THE CONTRACTOR AGREES TO BE COMPLETELY RESPONSIBLE FOR ALL DAMAGES WHICH MIGHT OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ALL UTILITIES.
2. UTILITY OWNERS SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION SO THAT THE UTILITY OWNER CAN SPOT VERIFY AND/OR EXPOSE THEIR UTILITIES. KNOWN UTILITIES OWNERS INCLUDE:  
  

WATER - CITY OF CALLAWAY	SEWER - CITY OF CALLAWAY
ZACH MILLER	JOHN FRANKLIN
850-871-1033	850-215-7232
KNOLOGY	COMCAST
RANDALL HAIRSTON	JEFFREY SMITH
850-215-5719	850-770-8056
GULF POWER	AT&T DISTRIBUTION
SANDRA PERRY	AL RUDOLPH
850-872-3315	850-436-1488
TECO	
MIKE MCQUIRE	
850-914-6104	
3. ALL LOOP DETECTOR INSTALLATION SHALL BE DONE AS PER FDOT STANDARD PLANS INDEX 660-001.
4. CONTRACTOR IS TO USE CAUTION WHEN WORKING IN OR AROUND AREAS OF OVERHEAD TRANSMISSION LINES AND UNDERGROUND UTILITIES.
5. UTILITIES TO REMAIN AND BE PROTECTED DURING CONSTRUCTION. NECESSARY REPAIRS SHALL BE CONSIDERED INCIDENTAL TO OTHER PAY ITEMS AND SHALL BE TO THE SATISFACTION OF UTILITY OWNERS.



**BASKERVILLE-DONOVAN, INC.**  
ENGINEERING THE SOUTH SINCE 1927  
448 W. MAIN ST. PENSACOLA, FL 32502 (850) 438-9661  
ENGINEERING BUSINESS: EB-0000340  
Panama City Beach - Tallahassee - Mobile  
This drawing is the property of BASKERVILLE-DONOVAN, INC. and is not to be reproduced in whole or in part. It is not to be used on any other project and is to be returned upon request.

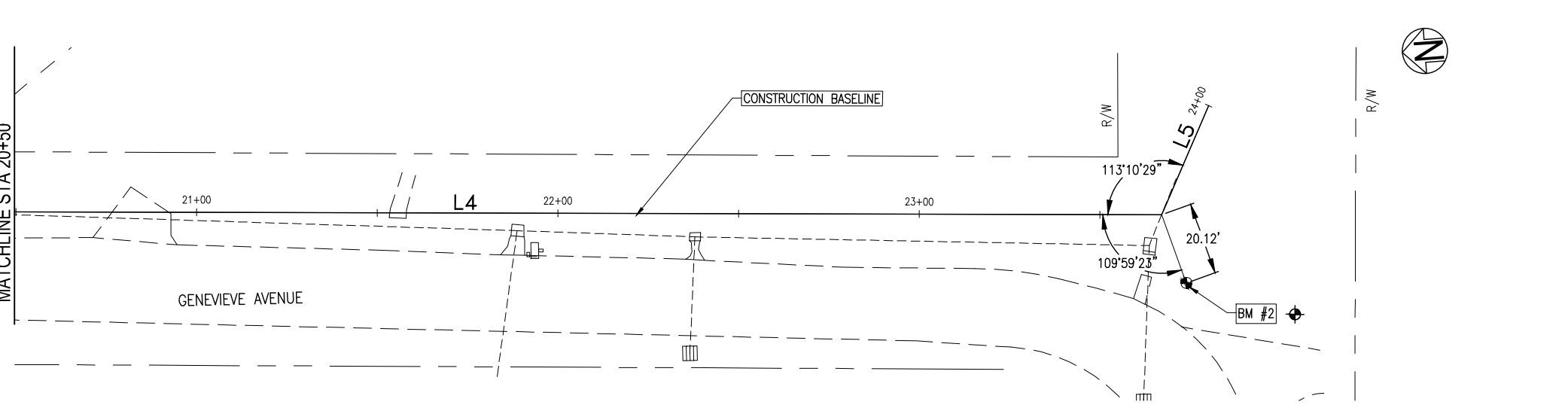
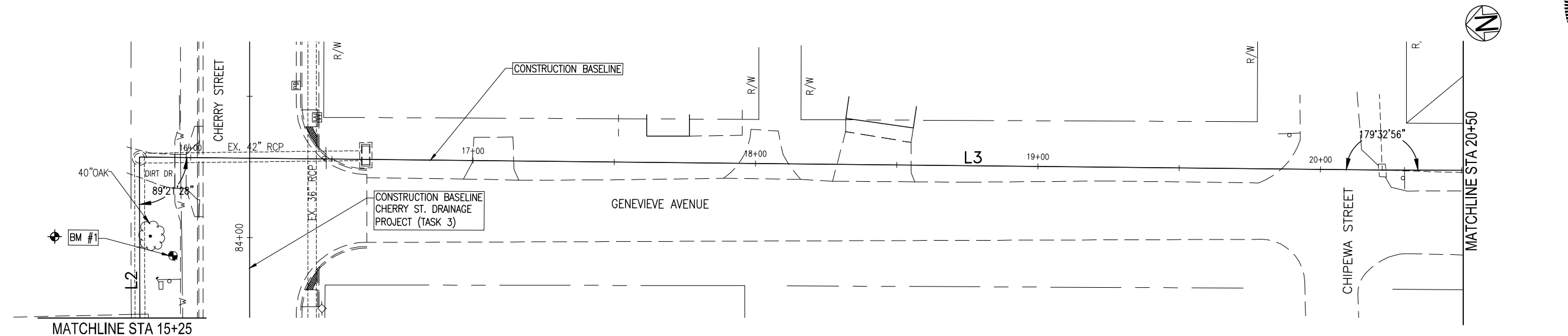
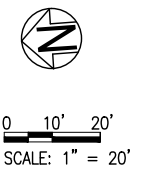
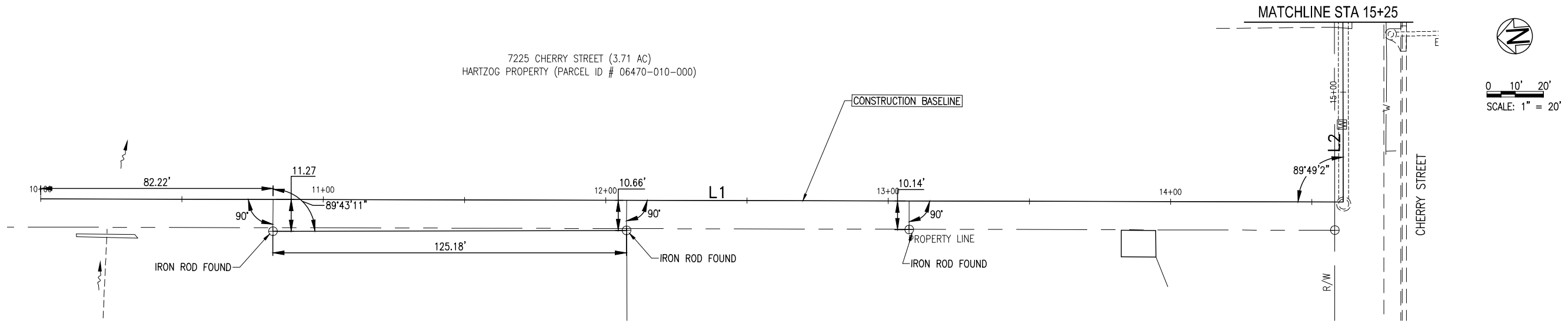
**GENIEVE DRAINAGE PIPING (TASK 2)**

PROJECT NO.	DESIGNED BY	DRAWN BY	CHK'D BY	PROJ. MGR.	DATE	REVISION/ACTION TAKEN	APPR.	DATE	NO.	NOT RELEASED FOR CONSTRUCTION BY	DATE
27655.01	JCP	RGG	GDM	JCP	JULY 2021						

**GENERAL NOTES**

E:\DWC\276\27655.01\Task 2 Genevieve Ditch\C-100 Control.dwg, Jul 15, 2021 - 8:13:20AM, rgeiger

7225 CHERRY STREET (3.71 AC)  
HARTZOG PROPERTY (PARCEL ID # 06470-010-000)

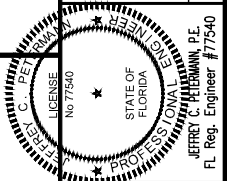


LINE TABLE		
LINE #	DISTANCE	BEARING
L1	461.08'	S1° 28' 21.73"W
L2	120.84'	S88° 42' 36.30"E
L3	439.94'	S1° 55' 56.02"W
L4	345.21'	S1° 28' 51.68"W
L5	32.93'	S65° 20' 39.76"E

**BENCH MARK DATA**

**BM #1**  
STA 15+46.95, OFFSET 29.94' RT  
SET CAPPED IRON ROD No. 0340  
ELEVATION= 27.53

**BM #2**  
SET CAPPED IRON ROD No. 0340  
ELEVATION= 16.23



**GENIEVIE DRAINAGE  
PIPING (TASK 2)**

PROJECT NO.	DESIGNED BY	DRAWN BY	CHK'D BY	PROJ. MGR.	DATE
27655.01	JCP	RCG	GDM	JCP	JULY 2021

NO.	DATE	REVISION/ACTION TAKEN

**CONTROL PLAN**

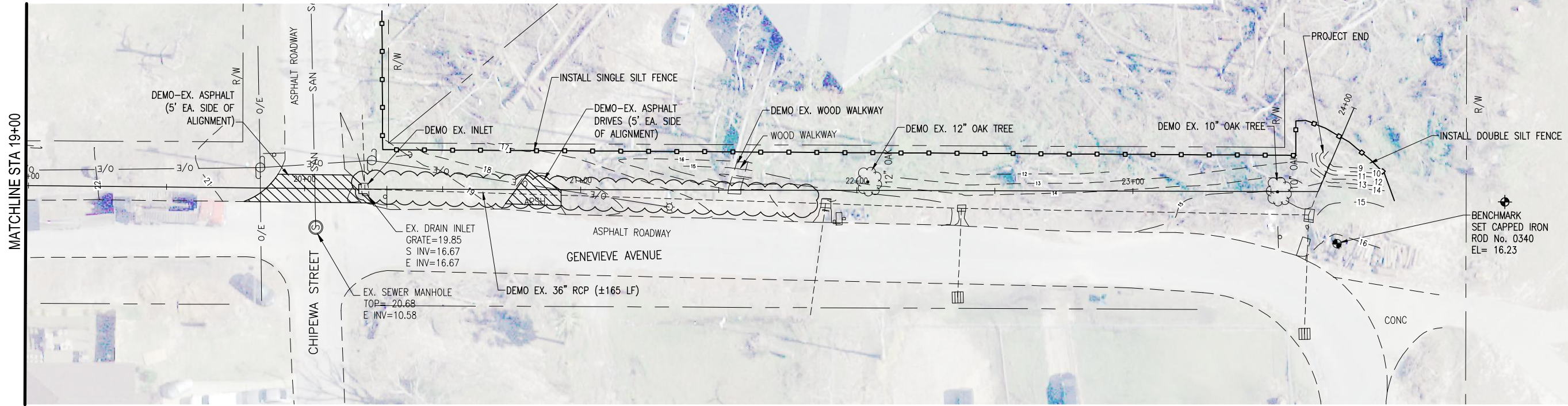
**BASKERVILLE-DONOVAN, INC.**  
ENGINEERING THE SOUTH SINCE 1927  
448 W. MAIN ST., PENSACOLA, FL 32502 (850)438-9661  
ENGINEERING BUSINESS: EB-0000340

Pensacola - Panama City Beach - Tallahassee - Mobile  
This drawing is the property of BASKERVILLE-DONOVAN, INC. and is not to be reproduced in whole or in part. It is not to be used on any other project and is to be returned upon request.

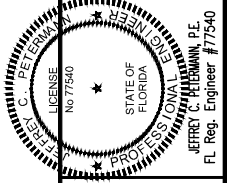








0 10' 20'  
SCALE: 1" = 20'



**GENIEVIEE DRAINAGE  
PIPING (TASK 2)**

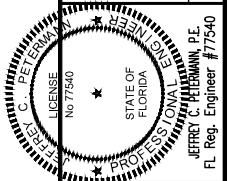
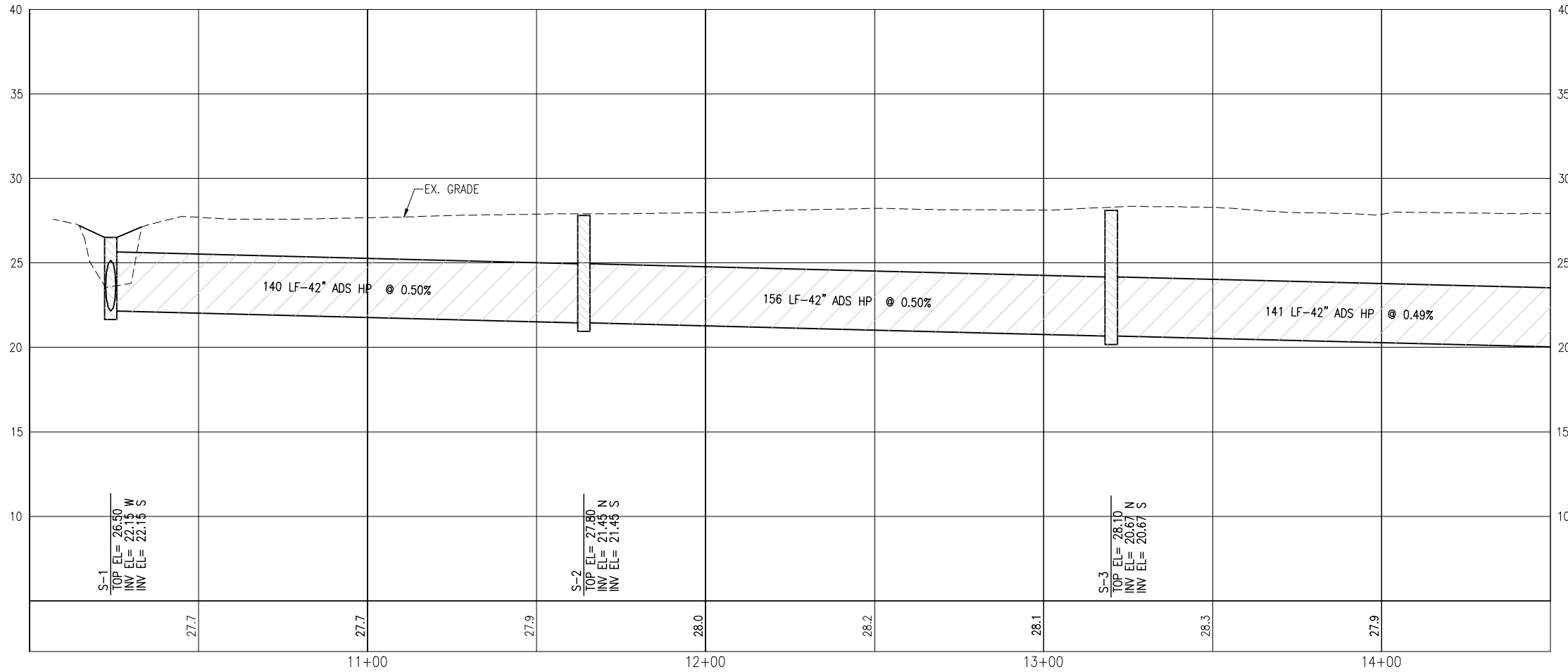
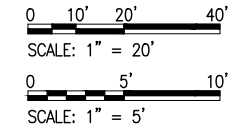
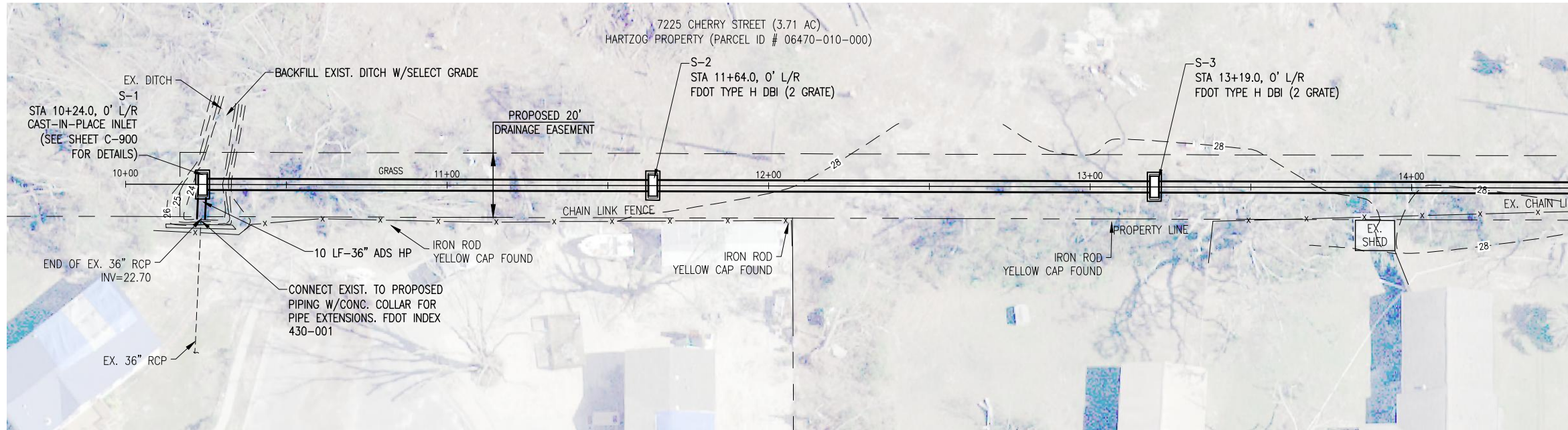
PROJECT NO:	NO.	DATE	APPR.	REVISION/ACTION TAKEN
27655.01				
DESIGNED BY: JCP				
DRAWN BY: RGC				
CHK'D BY: GDM				
PROJ. MGR: JCP				
DATE: JULY 2021				

**EXISTING CONDITIONS,  
DEMOLITION & EROSION  
CONTROL PLAN**

**C-102**

**BASKERVILLE-DONOVAN, INC.**  
ENGINEERING THE SOUTH SINCE 1927  
448 W. MAIN ST., PENSACOLA, FL 32502 (850)438-9661  
ENGINEERING BUSINESS: EB-0000340  
Pensacola - Panama City Beach - Tallahassee - Mobile  
This drawing is the property of BASKERVILLE-DONOVAN, INC. and is not to be reproduced in whole or in part. It is not to be used on any other project and is to be returned upon request.





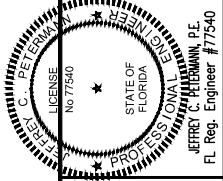
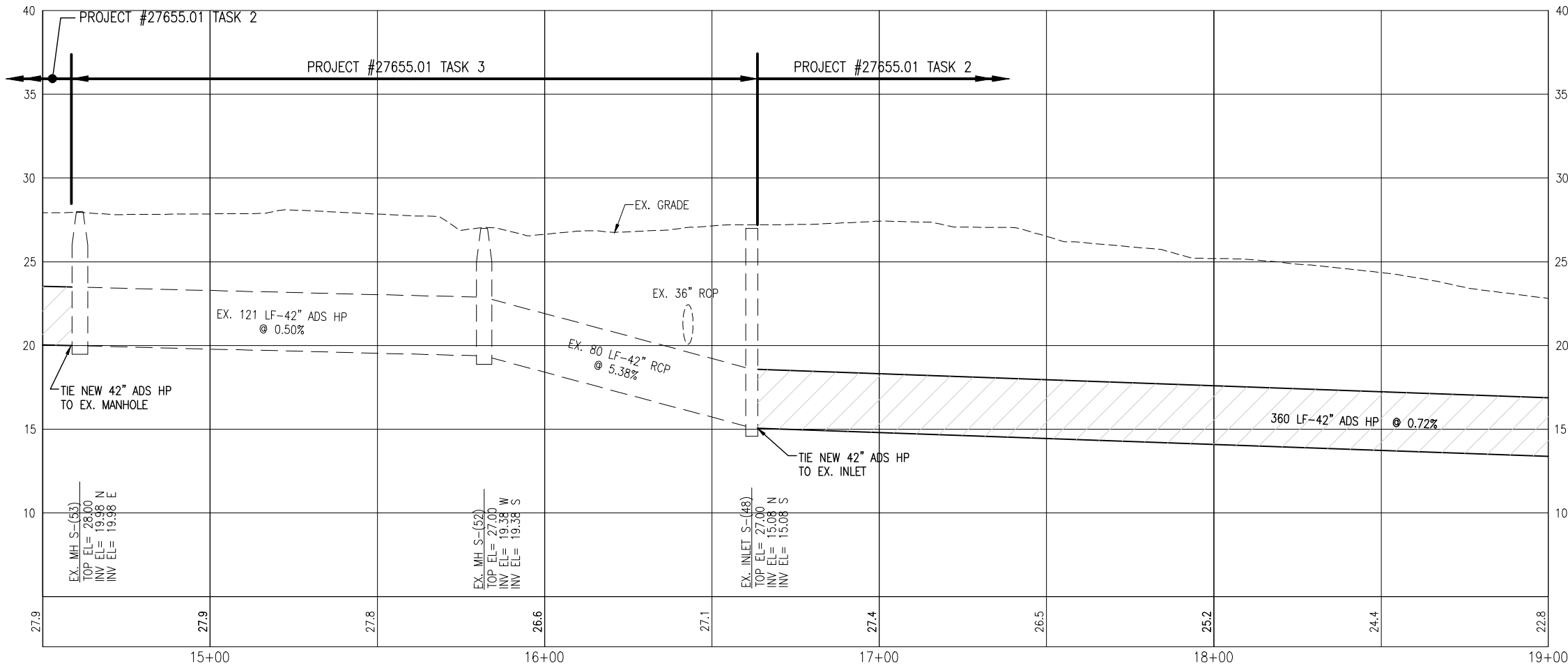
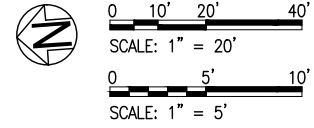
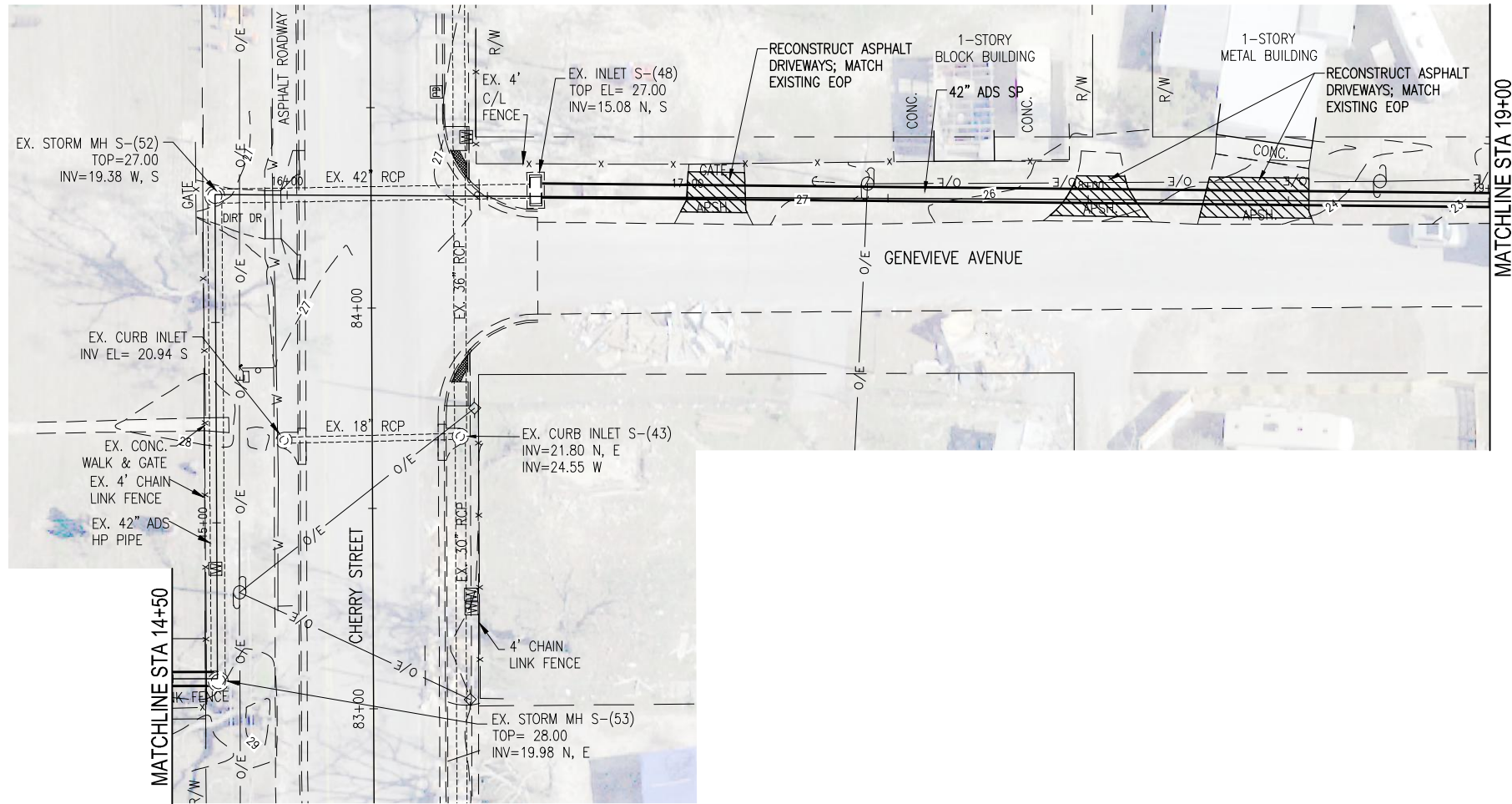
**GENIEVIE DRAINAGE PIPING (TASK 2)**

PROJECT NO.	NO.	DATE	APPR.	REVISION/ACTION TAKEN
27655.01				
DESIGNED BY: GDM				
DRAWN BY: RGC				
CHK'D BY: JCP				
PROJ. MGR: JCP				
DATE: JULY 2021				

**PLAN & PROFILE**

**BASKERVILLE-DONOVAN, INC.**  
 ENGINEERING THE SOUTH SINCE 1927  
 448 W. MAIN ST., PENSACOLA, FL 32502 (850)438-9661  
 ENGINEERING BUSINESS: EB-0000340  
 Penacola - Panama City Beach - Tallahassee - Mobile  
 This drawing is the property of BASKERVILLE-DONOVAN, INC. and is not to be reproduced in whole or in part. It is not to be used on any other project and is to be returned upon request.





**GENIEVIE DRAINAGE PIPING (TASK 2)**

PROJECT NO.	NO.	DATE	APPR.	REVISION/ACTION TAKEN
27655.01				

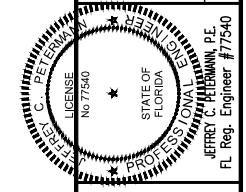
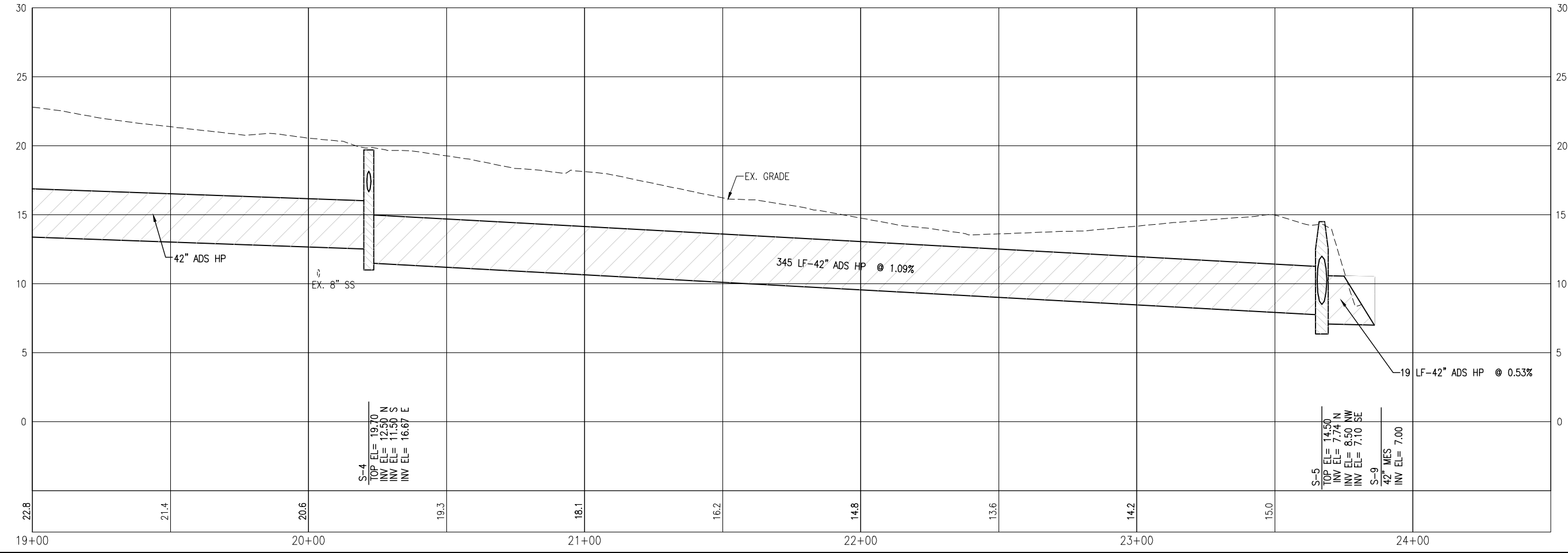
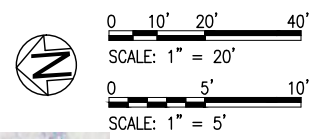
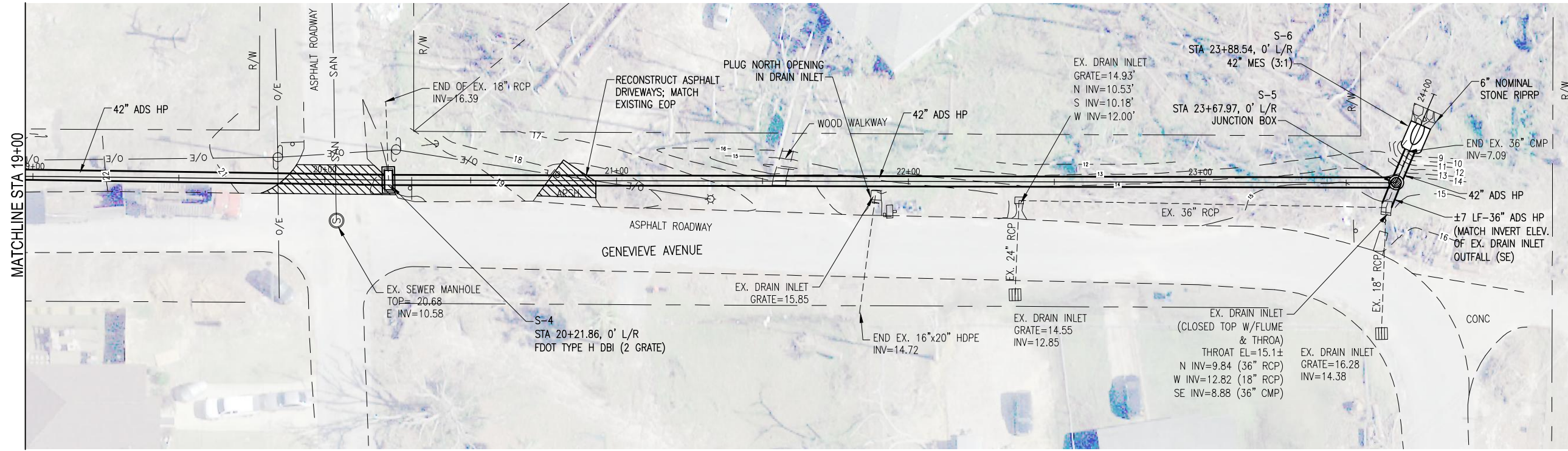
DESIGNED BY: GDM
DRAWN BY: RGC
CHK'D BY: JCP
PROJ. MGR: JCP
DATE: JULY 2021

**PLAN & PROFILE**

**C-104**

**BASKERVILLE-DONOVAN, INC.**  
 ENGINEERING THE SOUTH SINCE 1927  
 448 W. MAIN ST., PENSACOLA, FL 32502 (850)438-9861  
 ENGINEERING BUSINESS: EB-0000340  
 Pensacola - Panama City Beach - Tallahassee - Mobile  
 This drawing is the property of BASKERVILLE-DONOVAN, INC. and is not to be reproduced in whole or in part. It is not to be used on any other project and is to be returned upon request.

JEFFREY P. DONOVAN, P.E.  
 License No. 77540  
 State of Florida  
 Professional Engineering in Civil Engineering



**GENIEVIE DRAINAGE PIPING (TASK 2)**

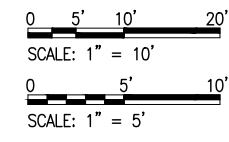
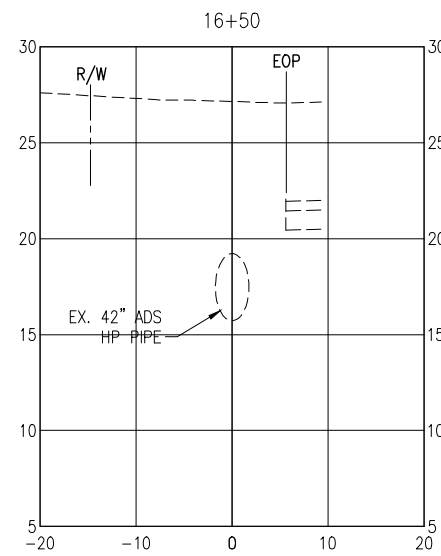
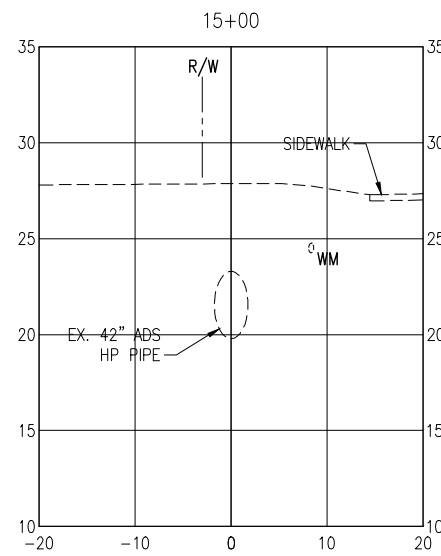
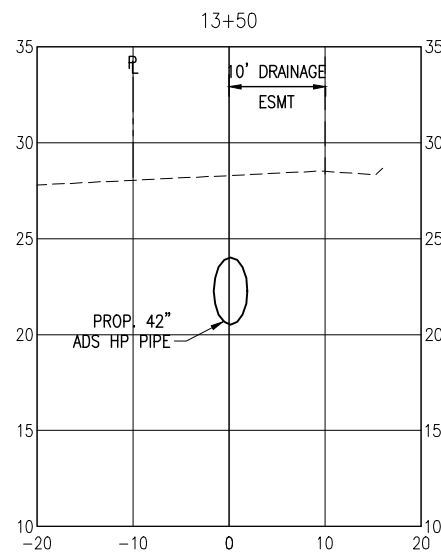
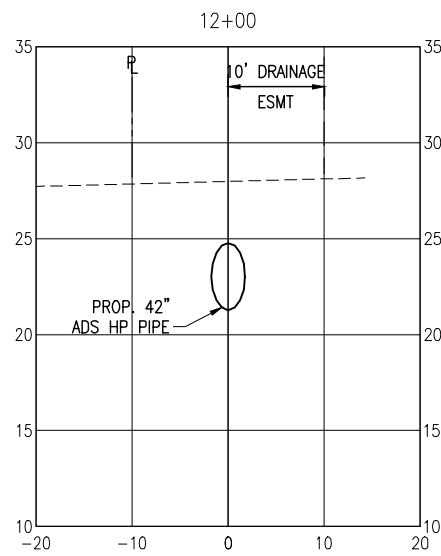
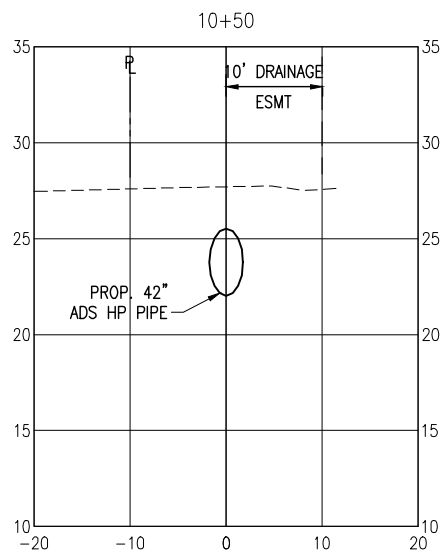
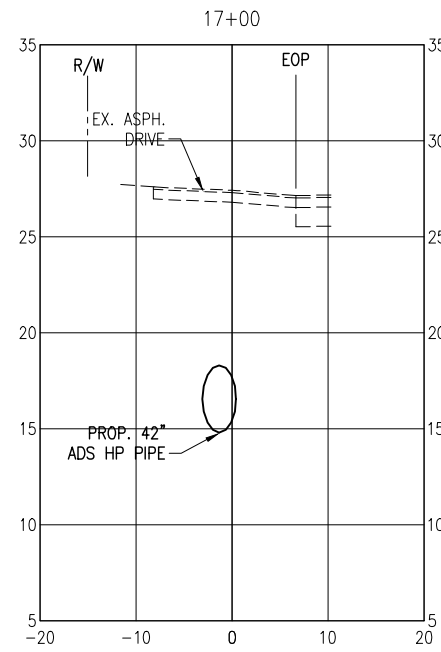
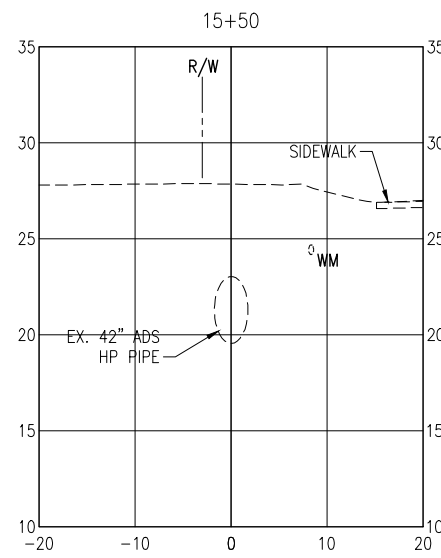
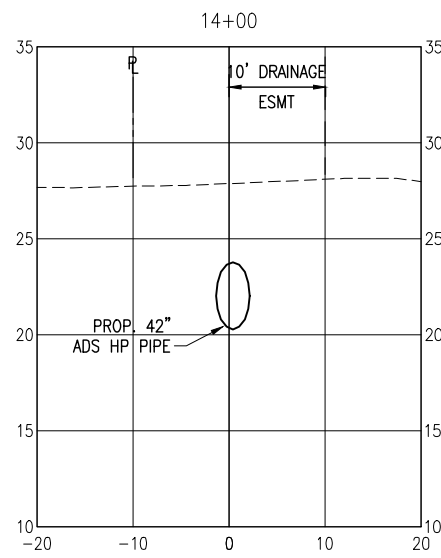
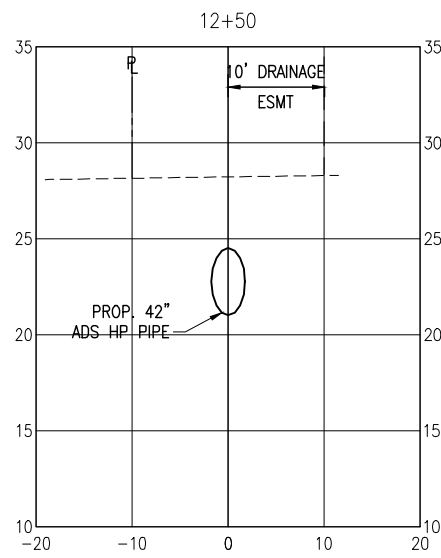
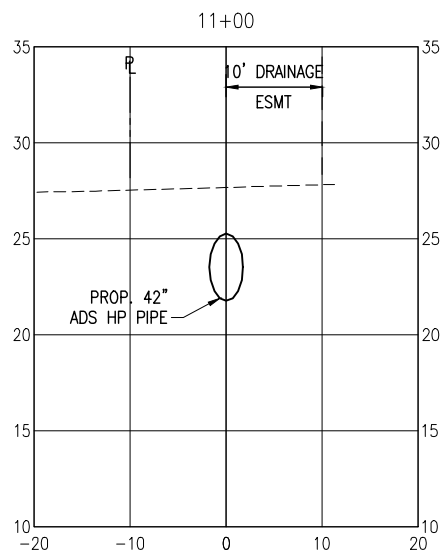
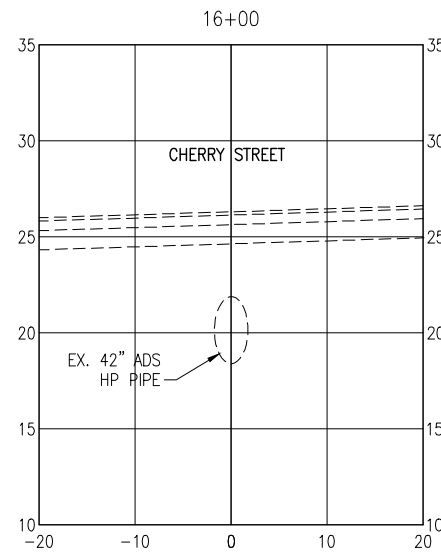
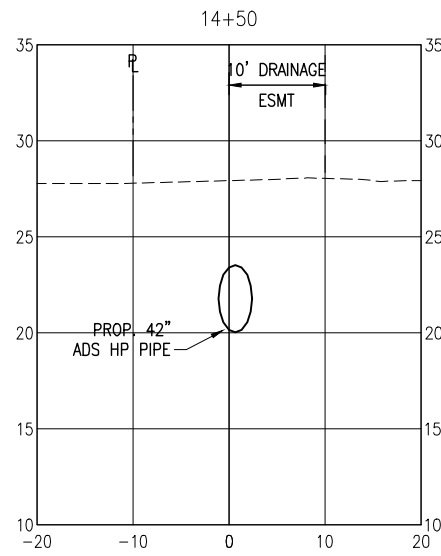
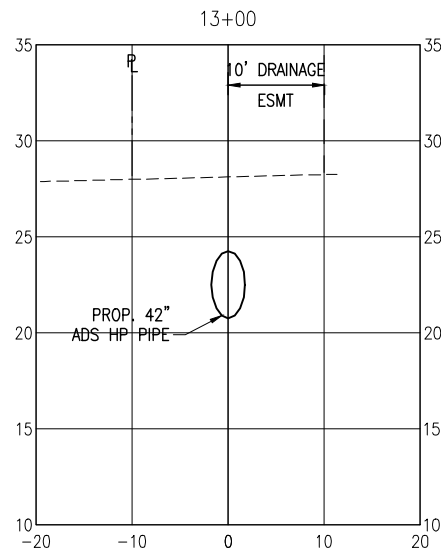
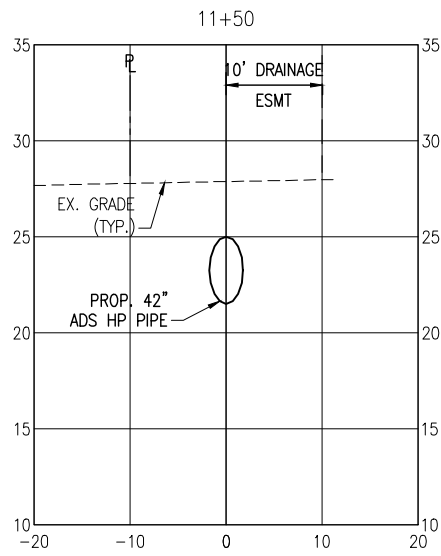
PROJECT NO.	NO.	DATE	APPR.	REVISION/ACTION TAKEN
27655.01				
DESIGNED BY: GDM				
DRAWN BY: RGC				
CHK'D BY: JCP				
PROJ. MGR: JCP				
DATE: JULY 2021				

**PLAN & PROFILE**

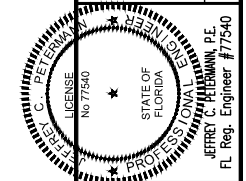
**BASKERVILLE-DONOVAN, INC.**  
**ENGINEERING THE SOUTH SINCE 1927**  
 448 W. MAIN ST., PENSACOLA, FL 32502 (850) 438-9661  
 ENGINEERING BUSINESS: EB-00000340  
 Penacola - Panama City Beach - Tallahassee - Mobile  
 This drawing is the property of BASKERVILLE-DONOVAN, INC. and is not to be reproduced in whole or in part. It is not to be used on any other project and is to be returned upon request.



E:\DWG\276\27655.01\Task 2 Genevieve Ditch\C-106-107 Xsec.dwg, Jul 15, 2021 - 8:13:50AM, rgsiger



EOP = EDGE OF PAVEMENT



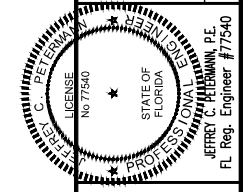
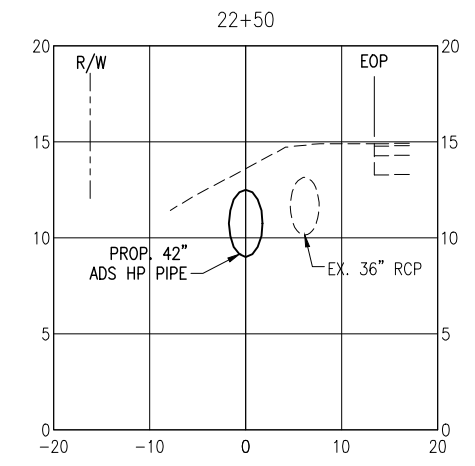
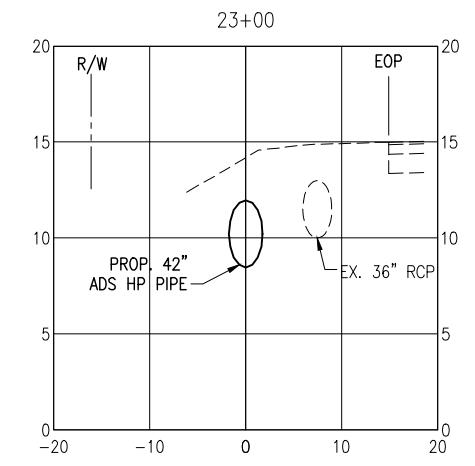
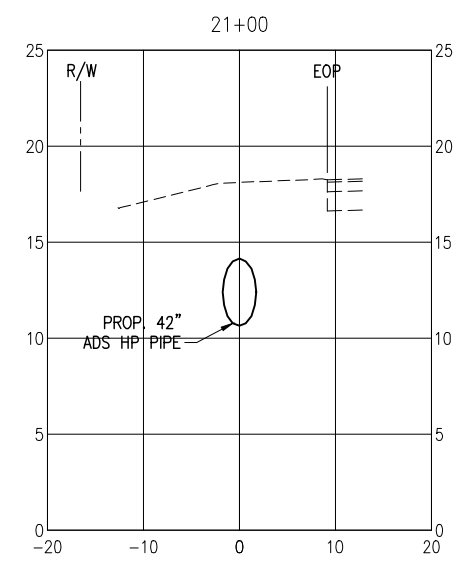
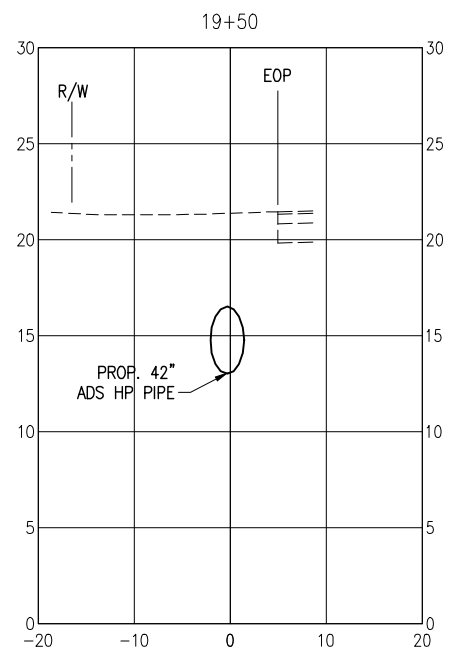
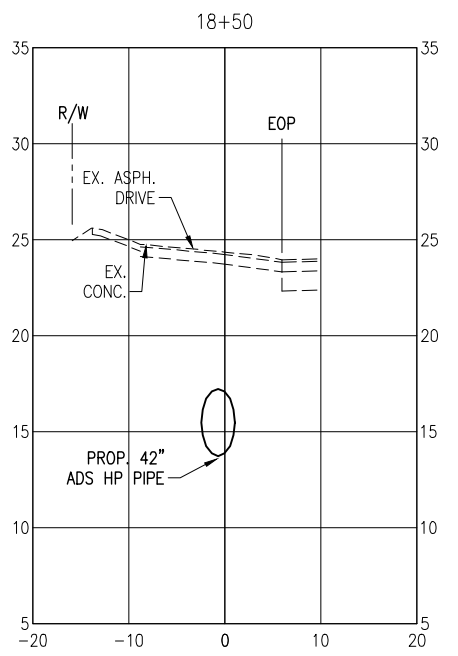
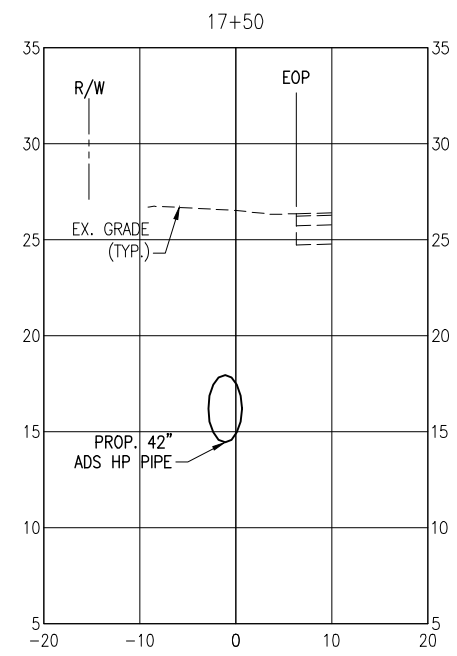
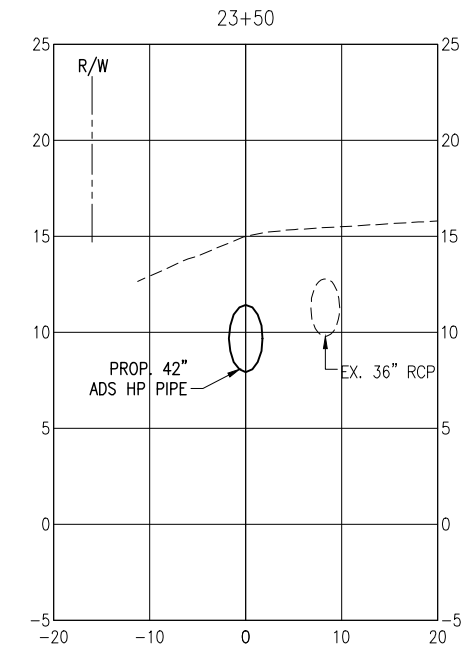
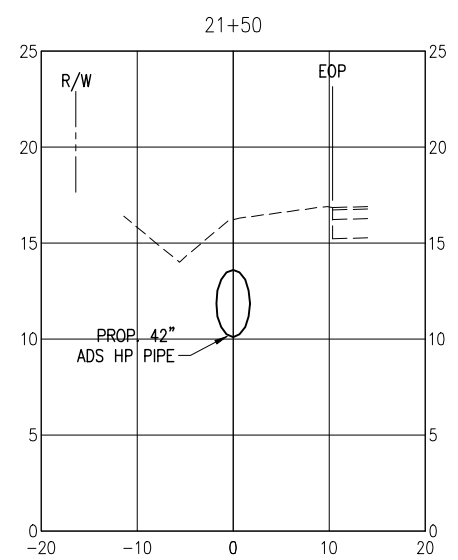
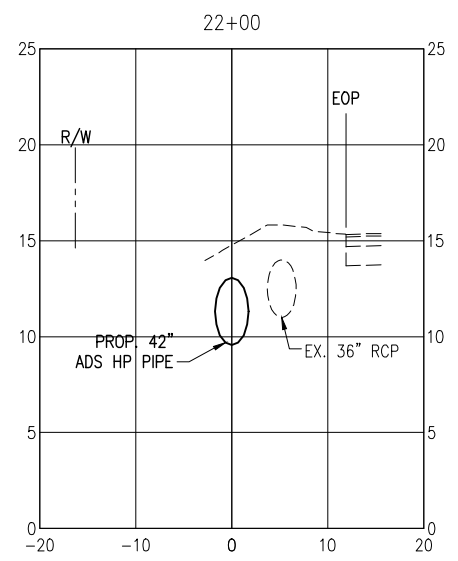
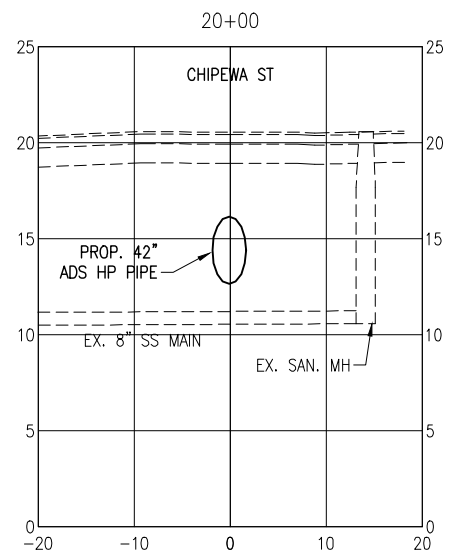
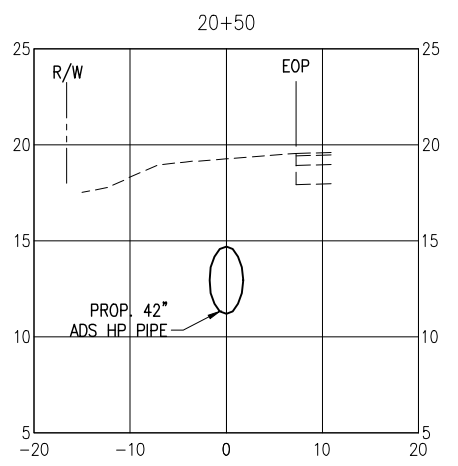
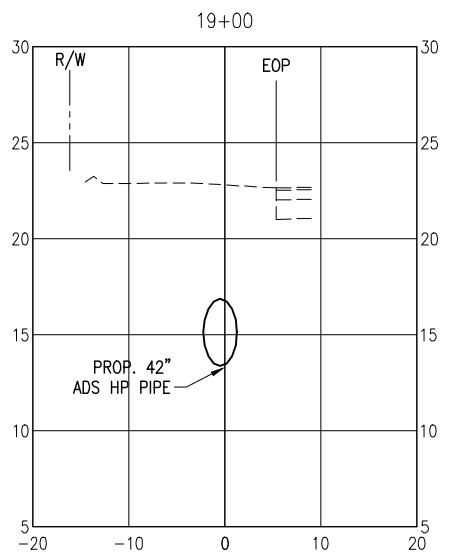
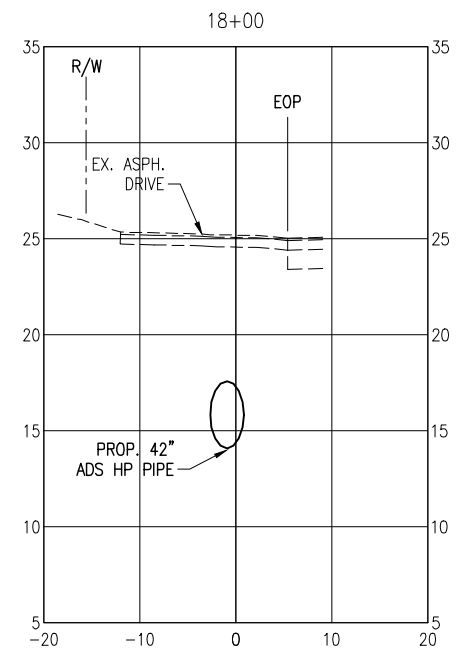
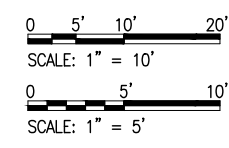
**GENIEVE DRAINAGE PIPING (TASK 2)**

NO.	DATE	APPR.	REVISION/ACTION TAKEN

PROJECT NO:	27655.01
DESIGNED BY:	GM
DRAWN BY:	RCG
CHK'D BY:	JCP
PROJ. MGR:	JCP
DATE:	JULY 2021

**BASKERVILLE-DONOVAN, INC.**  
 ENGINEERING THE SOUTH SINCE 1927  
 448 W. MAIN ST., PENSACOLA, FL 32502 (850)438-9861  
 ENGINEERING BUSINESS: EB-0000340  
 Panama City Beach - Tallahassee - Mobile  
 This drawing is the property of BASKERVILLE-DONOVAN, INC. and is not to be reproduced in whole or in part. It is not to be used on any other project and is to be returned upon request.

E:\DWG\276\27655.01\Task 2 Genevieve Ditch\C-106-107 Xsec.dwg, Jul 15, 2021 - 8:13:51AM, rgsaiger



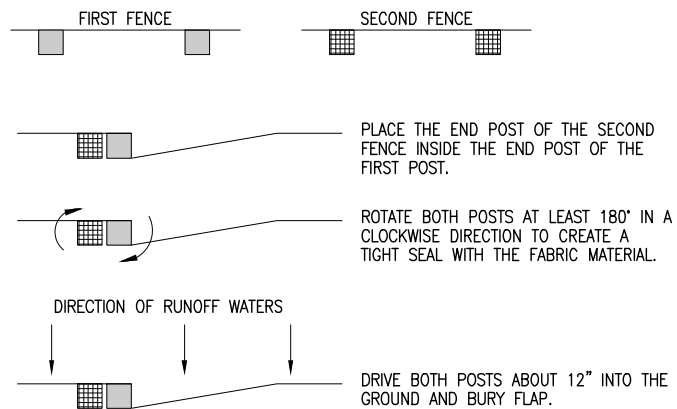
**GENIEVE DRAINAGE  
PIPING (TASK 2)**

NO.	DATE	APPR.	REVISION/ACTION TAKEN

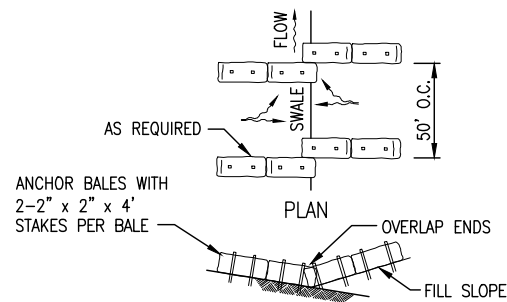
PROJECT NO: 27655.01  
DESIGNED BY: GM  
DRAWN BY: RGC  
CHK'D BY: JCP  
PROJ. MGR: JCP  
DATE: JULY 2021

**CROSS-SECTIONS**

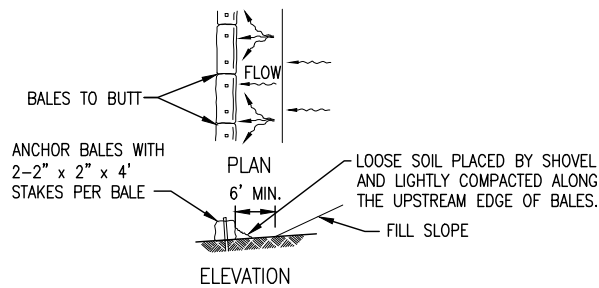




**BUTTING SILT FENCE DETAIL**  
NOT TO SCALE



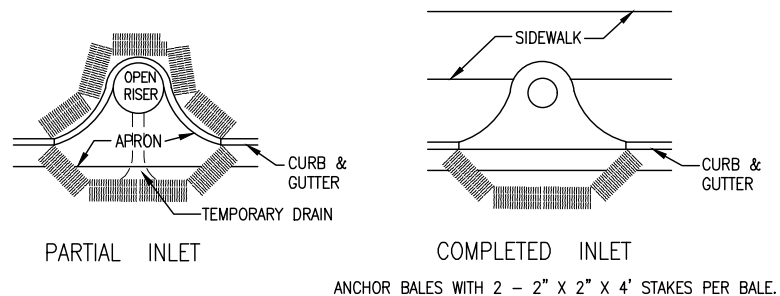
TO BE USED AT SELECTED SITES WHERE THE NATURAL GROUND SLOPES TOWARD THE TOE OF SLOPE



TO BE USED AT SELECTED SITES WHERE THE NATURAL GROUND SLOPES TOWARD THE TOE OF SLOPE

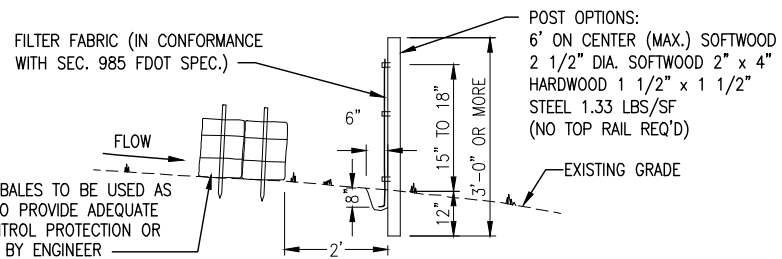
**BARRIERS FOR FILL SLOPES**

NOT TO SCALE



**PROTECTION AROUND INLETS OR SIMILAR STRUCTURES**

NOT TO SCALE

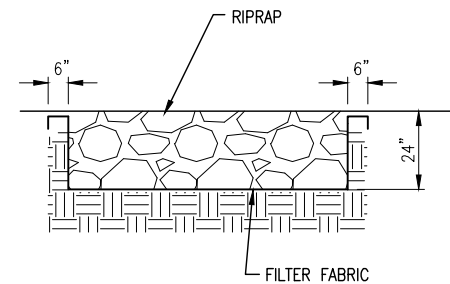
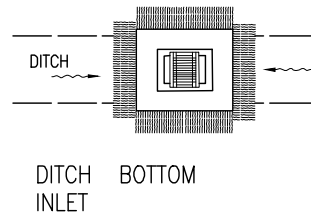


**SILT FENCE NOTES:**

1. FABRIC TO BE PLACED FACING DRAINAGE FLOW
2. FABRIC TO BE PLACED IN A 6" WIDE x 8" DEEP CONTINUOUS TRENCH, THEN BACKFILLED
3. ALL LUMBER TO BE PRESSURE/PRESERVATIVE TREATED
4. SILT FENCE TO BE INSTALLED PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. SILT FENCE TO REMAIN UNTIL 100% PROJECT GRASSING (STABILIZATION) IS ACHIEVED
5. PREFABRICATED SILT FENCES ARE PERMITTED AS LONG AS THEY MEET OR EXCEED FDOT SPECIFICATIONS.

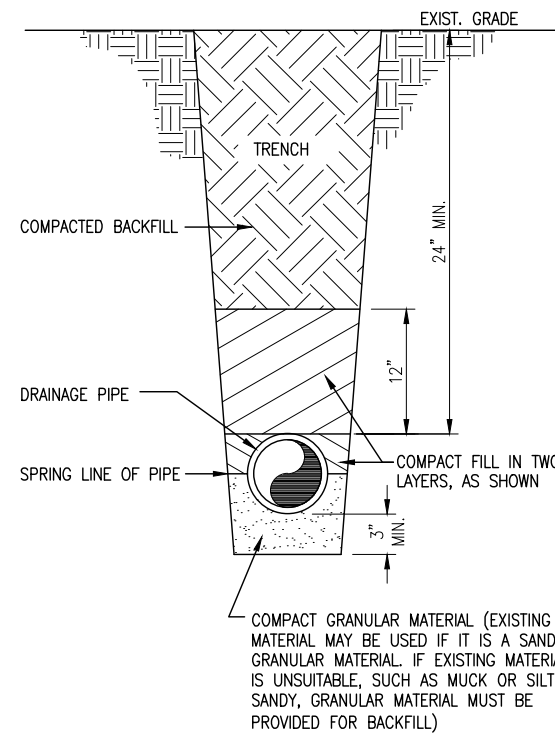
**TYPE III SILT FENCE DETAIL**

NOT TO SCALE



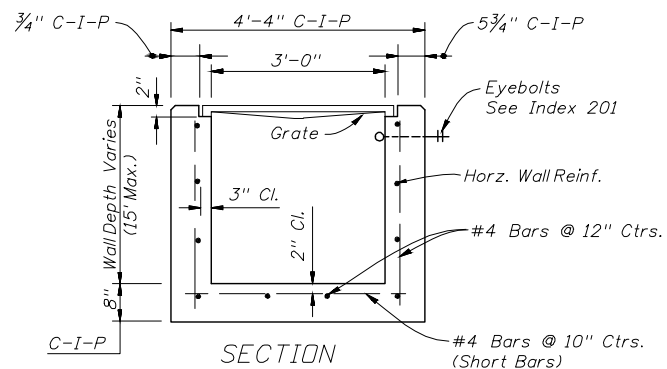
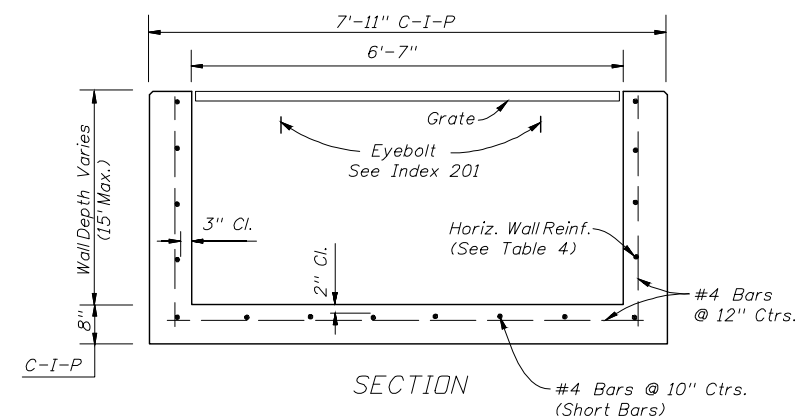
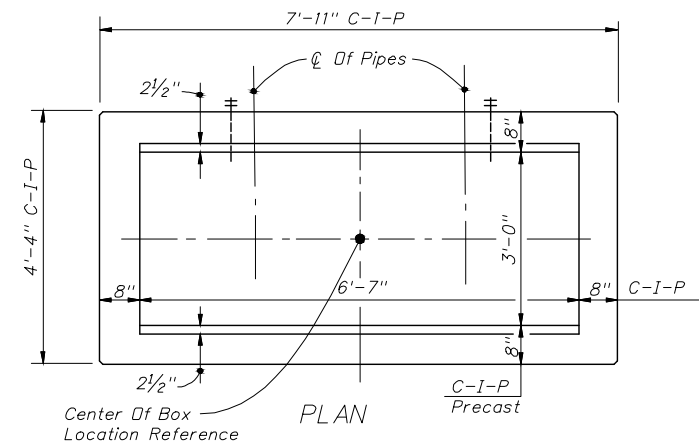
**RIP RAP DETAIL**

NOT TO SCALE



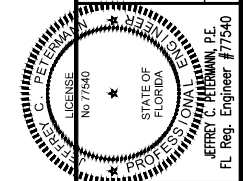
**TYPICAL DRAINAGE PIPE BEDDING**

NOT TO SCALE



**S-1 C.I.P. INLET DETAILS**

NOT TO SCALE



**GENIEVE DRAINAGE PIPING (TASK 2)**

NO.	DATE	APPR.	REVISION/ACTION TAKEN

PROJECT NO:	27655.01
DESIGNED BY:	JCP
DRAWN BY:	RCG
CHK'D BY:	GDM
PROJ. MGR:	JCP
DATE:	JULY 2021

**DETAILS**





**PICTORIAL VIEW**

**PLAN VIEW FOR SKEWS ≤ 45° (Not Centered)**

**PLAN VIEW FOR SKEWS > 45° (Not Centered)**

**RECTANGULAR SEGMENT WITH PIPE OPENING AT CORNER**

**SECTION AA (Pipes Not Shown For Clarity)**

**DETAILS FOR SKEWED PIPES IN RECTANGULAR STRUCTURES**

DESIGNER NOTE: Use only when round structures are not practical, engineer of record approval required.

NOTE: 1. Submit Shop Drawings of corner openings for approval by the Engineer of Record.  
2.  $h_2$  may be less than 1'-0" when a minimum 1'-0" deep segment, 8" slab or curb inlet is provided above the corner opening.  
3. For inlet segments at finish grade elevation substitute a #8 Bar for the top corner bar when 1'-0"  $h_2$  < 2'-0".

LAST REVISION	DESCRIPTION	FY 2020-21	INDEX	SHEET
11/01/17		STANDARD PLANS	425-001	5 of 5

**TOP SLAB REINFORCING STEEL DIAGRAM (ALTERNATE A)**

**SQUARE OPENING WITH CORNER FILLETS TOP SLAB REINFORCING STEEL DIAGRAM (ALTERNATE B)**

**ROUND RISER OPENING**

**SECTION C-C SPECIAL TOP SLAB**

**SECTION A-A (ALTERNATE A)**

**SECTION B-B (ALTERNATE B)**

**TYPICAL SLAB TO WALL DETAILS FOR PRECAST STRUCTURES**

NOTE: Not Applicable for Type A, B, C, D, E & E Ditch Bottom Inlets or Type S & Y Sutter Inlets. See Index 425-001, 425-002, 425-003, and 425-004.

NOTE: When the inside diameter of a round structure is not more than 3'-0" larger than the opening in the riser or top slab, the top of the structure or riser shall be constructed according to the "Special Top Slab" details on this sheet.

NOTE: Provide one extra #4 bar reinforcement each side of each opening and two extra #4 bars at 3" min. spacing above each opening.

LAST REVISION	DESCRIPTION	FY 2020-21	INDEX	SHEET
11/01/19		STANDARD PLANS	425-010	1 of 5

**ROUND STRUCTURE BOTTOMS (ALTERNATE A) & ROUND RISERS—TABLE 1**  
Wall Thickness (t) & Vertical & Horizontal Areas of Reinforcement (A<sub>v</sub>)

Type	Structure/Riser Diameter (ft)	Cast-In-Place Items Class II Concrete			Precast Items Class II Concrete			ASTM C478	
		t <sub>1</sub>	t <sub>2</sub>	A <sub>v</sub>	t <sub>1</sub>	t <sub>2</sub>	A <sub>v</sub>	t <sub>1</sub> or t <sub>2</sub>	A <sub>v</sub> ***
P	3'-0"	8	8	0.20	8	8	0.20	4**	0.105
P	4'-0"	8	8	0.20	8	8	0.20	5**	0.129
J	5'-0"	8	8	0.20	8	8	0.20	6**	0.150
J	6'-0"	8	8	0.20	8	8	0.20	6	0.180
J	7'-0"	8	8	0.20	8	8	0.20	7	0.210
J	8'-0"	8	8	0.20	8	8	0.20	8	0.240
J	10'-0"	10	10	0.40#8	10	10	0.40#8	10	0.300
J	12'-0"	10	10	0.40#8	12	12	0.40#8	12	0.360

**TABLE 1 NOTES:**  
#8 provides 0.20 sq. in./ft. at each face, 12" max. bar spacing.  
\*\*Modified minimum wall thickness.  
\*\*\*Total circular reinforcement for continuous steel hoops.  
A<sub>v</sub> = 0.40 sq. in. for riser section height equal or less than 2'-0" (2 hoop min.)  
A<sub>v</sub> = 0.50 sq. in. for riser section height more than 2'-0" up to 4'-0" (3 hoop min.)  
Areas of reinforcing for precast items are based on Grade 60 reinforcing.  
No reduction in the area of reinforcement is allowed for welded wire fabric in Table 1.  
Area of vertical reinforcing may be reduced in accordance with ASTM C478.

**SQUARE & RECTANGULAR STRUCTURES (ALTERNATE B) — TABLE 2**

Type	Wall Length (ft)	Max. Depth (ft)	Wall Thickness (in.)	Precast (in.)
P	≤ 3'-0"	40	6 Riser	6
J	4'-0"	40	8 Bottom	8
J	5'-0"	22	-	6
J	6'-0"	15	-	6
J	8'-0" to 9'-0"	40	8	8
J	10'-0"	26	8	8
J	10'-0" to 12'-0"	40	10	9
J	16'-0"	25	-	9
J	18'-0"	40	10	10
J	20'-0"	25	-	9
J	20'-0"	30	10	10

**TABLE 2 NOTES:**  
See Table 8 for Reinforcing Schedule.

**GENERAL NOTES**

- Standard structure bottoms 4'-0" diameter and smaller (AR, A) and 3'-0" square (AR, B) are designated Type P. Larger standard structure bottoms are designated Type J. Risers are permitted for all structures. Round risers are designated Type A. Square risers are designated Type B.
- Walls of circular structures (AR, A) constructed in place may be of brick or reinforced concrete. Precast and rectangular structures (AR, B) shall be constructed of reinforced concrete only.
- Wall thickness and reinforcement are for either reinforced cast-in-place or precast concrete units except that precast circular units may be furnished with walls in accordance with ASTM C478 (see modified wall thicknesses in Table 1).
- Top and bottom slab thickness and reinforcement are for precast and cast-in-place construction. All concrete shall be of Class II concrete, except use Class IV concrete when shown in the plans. For special applications of structures located in extremely aggressive environments, concrete as specified in ASTM C478 (4000 psi) may be used in lieu of Class II concrete for precast items manufactured in accordance with Specifications Section 415.
- All reinforcement shown is Grade 60 steel, deformed bar. Equivalent area Grade 40 steel or equivalent area smooth or deformed welded wire reinforcement in accordance with Specification Section 931 may be substituted according to Index 425-001, unless otherwise noted.
- AR, A or AR, B structure bottoms may be used in conjunction with curb inlet tops Types 1, 2, 3, 4, 5, 6, 8, and 10, and any manhole or junction box unless otherwise shown in the plans or other standard drawings. All structure bottoms may be used in conjunction with curb inlet Types 7 & 8, or any ditch bottom inlet unless otherwise shown in the plans or other standard drawings.
- Rectangular structures may be rotated as directed by the Engineer in order to facilitate connections between the structure walls and storm sewer pipes.
- Except when ACI hooks are specifically required, reinforcement in top and bottom slab shall be straight embedment.
- All reinforcement must have 2" minimum cover except for 3'-0" diameter precast circular units manufactured under ASTM C478, layout construction otherwise shown. Additional bars used to reinforce hole formers for precast structures with grouted pipe connections may be left flush with the hole surface. Cut or bend reinforcement at pipe openings to maintain cover. Exposed ends of reinforcing at precast pipe openings and grouted joints must be removed to 1" below the concrete surface and sealed with Type 1 epoxy in accordance with Specification Section 926. Horizontal steel in rectangular structures shall be lapped a minimum of 30 bar diameters or by standard hooks at corners.
- The corner fillets shown are necessary for rectangular structures used with circular risers and inlet throats and when used on steep with rectangular risers, inlets and joint throats. Fillets will be required in the top slab of the AR, A structure bottoms when used with the AR, B risers. Each fillet shall be reinforced with two #5 bars.
- Inlet walls, throats, risers or manhole tops shall be secured to structures as shown on Index 425-001 Optional Construction Joints.
- Structures with depths over 14 below the mean high water table are to be checked for flotation by the designer of the drainage project.
- Units larger than specified standards may be substituted at the contractor's option when these units will not cause or increase the severity of utility conflicts. Such larger units shall be furnished at no additional cost to the Department. Larger AR, A units cannot replace AR, B units without approval of the Engineer. This note applies to this index only.
- For manhole and junction box tops, for frames and covers, and, for supplementary details and notes see Index 425-001.
- Type J structure bottoms must have a minimum 6'-0" wall height when possible, for maintenance access.

LAST REVISION	DESCRIPTION	FY 2020-21	INDEX	SHEET
11/01/17		STANDARD PLANS	425-010	2 of 5

**TABLE 3—MINIMUM STRUCTURE SIZES FOR SINGLE PIPE CONNECTION PER SIDE**

PIPE SIZE	RECTANGULAR (L)		ROUND	
	Single Pipe	Two Pipes	Single Pipe	Two Pipes
18"	2'-0"	2'-0"	2'-0"	2'-0"
24"	2'-6"	2'-6"	2'-6"	2'-6"
30"	3'-0"	3'-0"	3'-0"	3'-0"
36"	3'-6"	3'-6"	3'-6"	3'-6"
42"	4'-0"	4'-0"	4'-0"	4'-0"
48"	4'-6"	4'-6"	4'-6"	4'-6"
54"	5'-0"	5'-0"	5'-0"	5'-0"
60"	5'-6"	5'-6"	5'-6"	5'-6"
72"	6'-0"	6'-0"	6'-0"	6'-0"
78"	6'-6"	6'-6"	6'-6"	6'-6"
84"	7'-0"	7'-0"	7'-0"	7'-0"

**TABLE 3 NOTES:**  
1. For Round Structures sizes with variable angles between pipes and variable pipe sizes, refer to the FDOT Storm Drain Handbook.  
2. For 3'-0" Precast Square Structure Bottoms, 30" Pipes with similar inlet elevations are not permitted in adjacent walls. Use 4'-0" Side Dimensions when 30" pipe openings are required on adjacent walls and the difference in flow lines is less than 3'-0".  
3. For 4'-0" Precast Square Structure Bottoms, 36" Pipes with similar inlet elevations are not permitted in adjacent walls. Use 5'-0" Side Dimensions when 36" pipe openings are required on adjacent walls and the difference in flow lines is less than 3'-0".  
4. For 7'-0" Precast Square Structure Bottoms, 60" Pipes with similar inlet elevations are not permitted in adjacent walls. Use 8'-0" Side Dimensions when 60" pipe openings are required on adjacent walls and the difference in flow lines is less than 4'-0".

**TABLE 4—MINIMUM SIZES FOR MULTIPLE PARALLEL PIPE CONNECTIONS FOR RECTANGULAR STRUCTURE BOTTOMS**

PIPE SIZE	SPACING (ft)	MINIMUM WALL LENGTH (ft) FOR NUMBER OF PARALLEL PIPES	
		2	3
18"	2'-10"	8'-0"	12'-0"
24"	2'-2"	8'-0"	12'-0"
30"	2'-2"	8'-0"	12'-0"
36"	2'-2"	8'-0"	12'-0"
42"	2'-2"	8'-0"	12'-0"
48"	2'-2"	8'-0"	12'-0"
54"	2'-2"	8'-0"	12'-0"
60"	2'-2"	8'-0"	12'-0"
66"	2'-2"	8'-0"	12'-0"
72"	2'-2"	8'-0"	12'-0"
78"	2'-2"	8'-0"	12'-0"
84"	2'-2"	8'-0"	12'-0"

**TABLE 4 NOTES:**  
1. Minimum wall lengths based on precast structures, using concrete pipes with maximum stem angles per Table 5.  
2. Wall lengths exceeding 30'-0" require special designs.

**TABLE 5 - MAXIMUM PIPE SKEW FOR PRECAST ROUND OPENINGS**

WALL THICKNESS	PIPE SIZE											
	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	78"	84"
6"	15°	15°	15°	15°	15°	15°	15°	15°	15°	15°	15°	15°
8"	21°	20°	19°	18°	17°	16°	15°	14°	13°	12°	11°	10°

**TABLE 5 NOTES:**  
These values are based on 2" clearance for precast structures. Larger skews are possible for Cast-In-Place Structures or elliptical pipe openings when approved by the Engineer.

LAST REVISION	DESCRIPTION	FY 2020-21	INDEX	SHEET
11/01/17		STANDARD PLANS	425-010	3 of 5

SLAB DESIGNS - SQUARE AND RECTANGULAR STRUCTURES (TABLE 6)  
(ALL SLABS 8" THICK EXCEPT AS NOTED - REINFORCING PARALLEL TO SHORT WAY AND LONG WAY)

SHORTWAY				LONGWAY			
SLAB DEPTH	SCHEDULE (Bars A)	SLAB DEPTH	SCHEDULE (Bars B)	SLAB DEPTH	SCHEDULE (Bars A)	SLAB DEPTH	SCHEDULE (Bars B)
SIZE: 8" x UNLIMITED							
8" < 10"	C6.5	10" < 12"	B10	8" < 10"	C6.5	10" < 12"	B10
10" < 12"	C6.5	12" < 14"	B10	10" < 12"	C6.5	12" < 14"	B10
12" < 14"	C6.5	14" < 16"	B10	12" < 14"	C6.5	14" < 16"	B10
14" < 16"	C6.5	16" < 18"	B10	14" < 16"	C6.5	16" < 18"	B10
16" < 18"	C6.5	18" < 20"	B10	16" < 18"	C6.5	18" < 20"	B10
18" < 20"	C6.5	20" < 22"	B10	18" < 20"	C6.5	20" < 22"	B10
20" < 22"	C6.5	22" < 24"	B10	20" < 22"	C6.5	22" < 24"	B10
22" < 24"	C6.5	24" < 26"	B10	22" < 24"	C6.5	24" < 26"	B10
24" < 26"	C6.5	26" < 28"	B10	24" < 26"	C6.5	26" < 28"	B10
26" < 28"	C6.5	28" < 30"	B10	26" < 28"	C6.5	28" < 30"	B10
28" < 30"	C6.5	30" < 32"	B10	28" < 30"	C6.5	30" < 32"	B10
30" < 32"	C6.5	32" < 34"	B10	30" < 32"	C6.5	32" < 34"	B10
32" < 34"	C6.5	34" < 36"	B10	32" < 34"	C6.5	34" < 36"	B10
34" < 36"	C6.5	36" < 38"	B10	34" < 36"	C6.5	36" < 38"	B10
36" < 38"	C6.5	38" < 40"	B10	36" < 38"	C6.5	38" < 40"	B10
38" < 40"	C6.5	40" < 42"	B10	38" < 40"	C6.5	40" < 42"	B10
40" < 42"	C6.5	42" < 44"	B10	40" < 42"	C6.5	42" < 44"	B10
42" < 44"	C6.5	44" < 46"	B10	42" < 44"	C6.5	44" < 46"	B10
44" < 46"	C6.5	46" < 48"	B10	44" < 46"	C6.5	46" < 48"	B10
46" < 48"	C6.5	48" < 50"	B10	46" < 48"	C6.5	48" < 50"	B10
48" < 50"	C6.5	50" < 52"	B10	48" < 50"	C6.5	50" < 52"	B10
50" < 52"	C6.5	52" < 54"	B10	50" < 52"	C6.5	52" < 54"	B10
52" < 54"	C6.5	54" < 56"	B10	52" < 54"	C6.5	54" < 56"	B10
54" < 56"	C6.5	56" < 58"	B10	54" < 56"	C6.5	56" < 58"	B10
56" < 58"	C6.5	58" < 60"	B10	56" < 58"	C6.5	58" < 60"	B10
58" < 60"	C6.5	60" < 62"	B10	58" < 60"	C6.5	60" < 62"	B10
60" < 62"	C6.5	62" < 64"	B10	60" < 62"	C6.5	62" < 64"	B10
62" < 64"	C6.5	64" < 66"	B10	62" < 64"	C6.5	64" < 66"	B10
64" < 66"	C6.5	66" < 68"	B10	64" < 66"	C6.5	66" < 68"	B10
66" < 68"	C6.5	68" < 70"	B10	66" < 68"	C6.5	68" < 70"	B10
68" < 70"	C6.5	70" < 72"	B10	68" < 70"	C6.5	70" < 72"	B10
70" < 72"	C6.5	72" < 74"	B10	70" < 72"	C6.5	72" < 74"	B10
72" < 74"	C6.5	74" < 76"	B10	72" < 74"	C6.5	74" < 76"	B10
74" < 76"	C6.5	76" < 78"	B10	74" < 76"	C6.5	76" < 78"	B10
76" < 78"	C6.5	78" < 80"	B10	76" < 78"	C6.5	78" < 80"	B10
78" < 80"	C6.5	80" < 82"	B10	78" < 80"	C6.5	80" < 82"	B10
80" < 82"	C6.5	82" < 84"	B10	80" < 82"	C6.5	82" < 84"	B10
82" < 84"	C6.5	84" < 86"	B10	82" < 84"	C6.5	84" < 86"	B10
84" < 86"	C6.5	86" < 88"	B10	84" < 86"	C6.5	86" < 88"	B10
86" < 88"	C6.5	88" < 90"	B10	86" < 88"	C6.5	88" < 90"	B10
88" < 90"	C6.5	90" < 92"	B10	88" < 90"	C6.5	90" < 92"	B10
90" < 92"	C6.5	92" < 94"	B10	90" < 92"	C6.5	92" < 94"	B10
92" < 94"	C6.5	94" < 96"	B10	92" < 94"	C6.5	94" < 96"	B10
94" < 96"	C6.5	96" < 98"	B10	94" < 96"	C6.5	96" < 98"	B10
96" < 98"	C6.5	98" < 100"	B10	96" < 98"	C6.5	98" < 100"	B10

**SLAB AND WALL DESIGN TABLE NOTES**

- Size is the inside dimension(s) of a structure.
- Slab reinforcement is appropriate for top, intermediate, and bottom slabs.
- Bottom Slabs for Precast 3'-0" x 3'-0" rectangular structures at 19 depth or less, may be  $\phi$  thick.
- Slab depth is measured from finished grade to top of slab.
- Wall depth is measured to the top of the bottom slab for boxes and to the top of the intermediate slab for risers.
- Wall height is the distance between top of lower slab to bottom of upper slab. Maximum wall height is 12' for wall lengths exceeding 5', or 10' for wall lengths exceeding 12'.

SLAB DESIGNS - ROUND STRUCTURES (TABLE 7)

SHORTWAY				LONGWAY			
SLAB DEPTH	SCHEDULE (Bars A)	SLAB DEPTH	SCHEDULE (Bars B)	SLAB DEPTH	SCHEDULE (Bars A)	SLAB DEPTH	SCHEDULE (Bars B)
SIZE: $\phi$ x $\phi$							
8" < 10"	C6.5	10" < 12"	B10	8" < 10"	C6.5	10" < 12"	B10
10" < 12"	C6.5	12" < 14"	B10	10" < 12"	C6.5	12" < 14"	B10
12" < 14"	C6.5	14" < 16"	B10	12" < 14"	C6.5	14" < 16"	B10
14" < 16"	C6.5	16" < 18"	B10	14" < 16"	C6.5	16" < 18"	B10
16" < 18"	C6.5	18" < 20"	B10	16" < 18"	C6.5	18" < 20"	B10
18" < 20"	C6.5	20" < 22"	B10	18" < 20"	C6.5	20" < 22"	B10
20" < 22"	C6.5	22" < 24"	B10	20" < 22"	C6.5	22" < 24"	B10
22" < 24"	C6.5	24" < 26"	B10	22" < 24"	C6.5	24" < 26"	B10
24" < 26"	C6.5	26" < 28"	B10	24" < 26"	C6.5	26" < 28"	B10
26" < 28"	C6.5	28" < 30"	B10	26" < 28"	C6.5	28" < 30"	B10
28" < 30"	C6.5	30" < 32"	B10	28" < 30"	C6.5	30" < 32"	B10
30" < 32"	C6.5	32" < 34"	B10	30" < 32"	C6.5	32" < 34"	B10
32" < 34"	C6.5	34" < 36"	B10	32" < 34"	C6.5	34" < 36"	B10
34" < 36"	C6.5	36" < 38"	B10	34" < 36"	C6.5	36" < 38"	B10
36" < 38"	C6.5	38" < 40"	B10	36" < 38"	C6.5	38" < 40"	B10
38" < 40"	C6.5	40" < 42"	B10	38" < 40"	C6.5	40" < 42"	B10
40" < 42"	C6.5	42" < 44"	B10	40" < 42"	C6.5	42" < 44"	B10
42" < 44"	C6.5	44" < 46"	B10	42" < 44"	C6.5	44" < 46"	B10
44" < 46"	C6.5	46" < 48"	B10	44" < 46"	C6.5	46" < 48"	B10
46" < 48"	C6.5	48" < 50"	B10	46" < 48"	C6.5	48" < 50"	B10
48" < 50"	C6.5	50" < 52"	B10	48" < 50"	C6.5	50" < 52"	B10
50" < 52"	C6.5	52" < 54"	B10	50" < 52"	C6.5	52" < 54"	B10
52" < 54"	C6.5	54" < 56"	B10	52" < 54"	C6.5	54" < 56"	B10
54" < 56"	C6.5	56" < 58"	B10	54" < 56"	C6.5	56" < 58"	B10
56" < 58"	C6.5	58" < 60"	B10	56" < 58"	C6.5	58" < 60"	B10
58" < 60"	C6.5	60" < 62"	B10	58" < 60"	C6.5	60" < 62"	B10
60" < 62"	C6.5	62" < 64"	B10	60" < 62"	C6.5	62" < 64"	B10
62" < 64"	C6.5	64" < 66"	B10	62" < 64"	C6.5	64" < 66"	B10
64" < 66"	C6.5	66" < 68"	B10	64" < 66"	C6.5	66" < 68"	B10
66" < 68"	C6.5	68" < 70"	B10	66" < 68"	C6.5	68" < 70"	B10
68" < 70"	C6.5	70" < 72"	B10	68" < 70"	C6.5	70" < 72"	B10
70" < 72"	C6.5	72" < 74"	B10	70" < 72"	C6.5	72" < 74"	B10
72" < 74"	C6.5	74" < 76"	B10	72" < 74"	C6.5	74" < 76"	B10
74" < 76"	C6.5	76" < 78"	B10	74" < 76"	C6.5	76" < 78"	B10
76" < 78"	C6.5	78" < 80"	B10	76" < 78"	C6.5	78" < 80"	B10
78" < 80"	C6.5	80" < 82"	B10	78" < 80"	C6.5	80" < 82"	B10
80" < 82"	C6.5	82" < 84"	B10	80" < 82"	C6.5	82" < 84"	B10
82" < 84"	C6.5	84" < 86"	B10	82" < 84"	C6.5	84" < 86"	B10
84" < 86"	C6.5	86" < 88"	B10	84" < 86"	C6.5	86" < 88"	B10
86" < 88"	C6.5	88" < 90"	B10	86" < 88"	C6.5	88" < 90"	B10
88" < 90"	C6.5	90" < 92"	B10	88" < 90"	C6.5	90" < 92"	B10
90" < 92"	C6.5	92" < 94"	B10	90" < 92"	C6.5	92" < 94"	B10
92" < 94"	C6.5	94" < 96"	B10	92" < 94"	C6.5	94" < 96"	B10
94" < 96"	C6.5	96" < 98"	B10	94" < 96"	C6.5	96" < 98"	B10
96" < 98"	C6.5	98" < 100"	B10	96" < 98"	C6.5	98" < 100"	B10

WALL DESIGNS - RECTANGULAR STRUCTURES (TABLE 8)

WALL DEPTH	SCHEDULE	HORIZONTAL REINFORCING		WALL THICKNESS
		WALL DEPTH	SCHEDULE	
SIZE: 3'-0" & RISERS				
3'-0"	A12	3'-0"	B10	8" $\phi$
3'-0"	A12	3'-0"	B10	8" $\phi$
3'-0"	A12	3'-0"	B10	8" $\phi$
SIZE: 3'-0" DIAMETER				
3'-0"	A12	3'-0"	B10	8" $\phi$
3'-0"	A12	3'-0"	B10	8" $\phi$
3'-0"	A12	3'-0"	B10	8" $\phi$
SIZE: 4'-0" DIAMETER				
4'-0"	A12	4'-0"	B10	8" $\phi$
4'-0"	A12	4'-0"	B10	8" $\phi$
4'-0"	A12	4'-0"	B10	8" $\phi$
SIZE: 5'-0" DIAMETER				
5'-0"	A12	5'-0"	B10	8" $\phi$
5'-0"	A12	5'-0"	B10	8" $\phi$
5'-0"	A12	5'-0"	B10	8" $\phi$
SIZE: 6'-0" DIAMETER				
6'-0"	A12	6'-0"	B10	8" $\phi$
6'-0"	A12	6'-0"	B10	8" $\phi$
6'-0"	A12	6'-0"	B10	8" $\phi$
SIZE: 7'-0" DIAMETER				
7'-0"	A12	7'-0"	B10	8" $\phi$
7'-0"	A12	7'-0"	B10	8" $\phi$
7'-0"	A12	7'-0"	B10	8" $\phi$
SIZE: 8'-0" DIAMETER				
8'-0"	A12	8'-0"	B10	8" $\phi$
8'-0"	A12	8'-0"	B10	8" $\phi$
8'-0"	A12	8'-0"	B10	8" $\phi$
SIZE: 9'-0" DIAMETER				
9'-0"	A12	9'-0"	B10	8" $\phi$
9'-0"	A12	9'-0"	B10	8" $\phi$
9'-0"	A12	9'-0"	B10	8" $\phi$
SIZE: 10'-0" DIAMETER				
10'-0"	A12	10'-0"	B10	8" $\phi$
10'-0"	A12	10'-0"	B10	8" $\phi$
10'-0"	A12	10'-0"	B10	8" $\phi$
SIZE: 11'-0" DIAMETER				
11'-0"	A12	11'-0"	B10	8" $\phi$
11'-0"	A12	11'-0"	B10	8" $\phi$
11'-0"	A12	11'-0"	B10	8" $\phi$
SIZE: 12'-0" DIAMETER				
12'-0"	A12	12'-0"	B10	8" $\phi$
12'-0"	A12	12'-0"	B10	8" $\phi$
12'-0"	A12	12'-0"	B10	8" $\phi$

REINFORCING SCHEDULE

SCHEDULE	GRADE 60 BARS OR 65 KSI 70 KSI WELDED WIRE REINFORCING		
	GRADE 60 AREA (in <sup>2</sup> /ft.)	65 KSI WWR EQUIV. AREA	70 KSI (in <sup>2</sup> /ft.)
A12			



