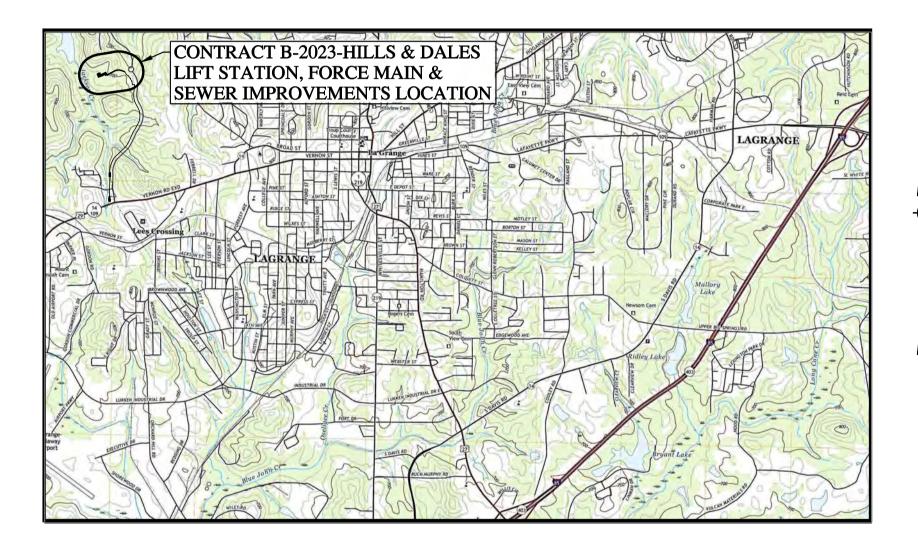
CITY OF LAGRANGE, GEORGIA CONTRACT B - 2023 HILLS & DALES LIFT STATION, FORCE MAIN & SEWER IMPROVEMENTS



VICINITY MAP

CONTRACT A - 2023 HILLS & DALES LIFT STATION, FORCE MAIN & SEWER IMPROVEMENTS

GPS LOCATIONS : BEGINNING POINT : N 33.047926 W 85.063685 ENDING POINT : N 33.048077 W 85.060144

CITY OF LAGRANGE 200 RIDLEY AVENUE LAGRANGE, GEORGIA 30240 TROUP COUNTY, GEORGIA MAYOR PRO TEM MARK MITCHELL

> <u>CITY MANAGER</u> MEG KELSEY

DIRECTOR OF UTILITIES PATRICK BOWIE

PREPARED BY:

RONALD L. ELLIS & ASSOCIATES, INC. P.O.BOX 1150 PELHAM, ALABAMA 35124 JANUARY 30, 2023

INDEX TO SHEETS

SHEET	TITLE
A-1.	COVER SHEET/INDEX
A-2.	GENERAL NOTES, CONSTRUCTION NOTES & LEGEND
B-1.	PROPOSED CLEARING & GRADING PLAN - LIFT STATION & ACCESS ROAD
B-2.	PROPOSED CLEARING & GRADING PLAN - ACCESS ROAD
B-3.	PROPOSED LIFT STATION SITE PLAN
B-4.	PROPOSED LIFT STATION ELEVATION VIEWS
B-5.	PROPOSED LIFT STATION PLAN VIEW & NOTES
B-6 .	PROPOSED FLOW METER & SURGE RELIEF VALVE, PIPING PLAN & SECTIONS
C-1.	8" & 10" PVC - SEWER A STA. 00+00.00 TO STA. 04+40.52 6" HDPE FORCE MAIN STA. 04+53.10 TO STA. 09+00.00
C-2.	6" HDPE FORCE MAIN STA. 09+00.00 TO STA. 17+63.41
E-01.	ELECTRICAL LEGEND, NOTES & FIXTURE SCHEDULE
E-02.	SINGLE LINE DIAGRAM & SCHEDULES
E-03.	LIFT STATION WIRING DIAGRAM AND SCADA SCHEDULE
E-11.	SITE MECHANICAL PLAN
E-21.	ELECTRICAL DETAILS
E-22.	ELECTRICAL DETAILS
E-23.	ELECTRICAL DETAILS
G-1.	PROPOSED EROSION CONTROL PLAN
G-2.	PROPOSED EROSION CONTROL PLAN
G-3.	EROSION CONTROL PLAN DETAILS
G-4.	EROSION CONTROL PLAN NOTES
G-5.	EROSION CONTROL PLAN NOTES
S-1.	CIVIL / SITEWORK DETAILS
S-2.	CIVIL / SITEWORK DETAILS
S-3.	CIVIL / SITEWORK DETAILS
S-4.	CIVIL / SITEWORK & MECHANICAL DETAILS



01/30/2023

	ABBREV	<u>IATIONS</u>		
AB @ ALUM APPROX	ANCHOR BOLTS AT ALUMINUM APPROXIMATE	MH MIN MISC MJ	MANHOLE MINIMUM MISCELLANEOUS MECHANICAL JOINT	UTI
AVE BFV	AVENUE BUTTERFLY VALVE	N NG	NORTH NATURAL GAS	EXISTING PROPOSED
BLDG BLK BM BOT	BUILDING BLOCK BENCHMARK BOTTOM	NIC NO.,* NOM NORM	NOT IN CONTRACT NUMBER NOMINAL NORMAL	PP PP
BS CB	BOTH SIDES CATCH BASIN	NPW NTS	NON-POTABLE WATER NOT TO SCALE	
CCP CI CISP	CONCRETE CULVERT PIPE CAST IRON CAST IRON SEWER PIPE	O.C. OD OF	ON CENTER OUTSIDE DIAMETER OUTSIDE FACE	
ୁ CM CMF CMP	CENTER LINE CONCRETE MONUMENT CONCRETE MONUMENT FOUND CORRUGATED METAL PIPE	OHCTV OHE OHT	OVERHEAD CABLE TELEVISION OVERHEAD ELECTRIC OVERHEAD TELEPHONE	-
CO CO CONC CONN	CLEANOUT CONCRETE CONNECTION	PE PEJ PG	PLAIN END PIPE EXPANSION JOINT PAGE	
CONT CY CV	CONTINUOUS CUBIC YARD CHECK VALVE	PI E PL	POINT OF INTERSECTION PROPERTY LINE PLACES	⊣∘⊢ ⊣∘⊢ ⊣∕≻⊢ ⊣∕≻⊢
DB DEG	DEED BOOK DEGREE	PO PP PRESS PROP	PUSH ON POWER POLE PRESSURE PROPOSED	o•
DIA DI DIP	DIAMETER DUCTILE IRON DUCTILE IRON PIPE	PRV PSI PV	PRESSURE REDUCING VALVE POUNDS PER SQUARE INCH PLUG VALVE	
E EA	EAST EACH	PVC RAD	POLYVINYL CHLORIDE RADIUS	R R
E.F. EL/ELEV EW E.W.	EACH FACE ELEVATION EFFLUENT WATER EACH WAY	RCP RED REINF REQ'D	REINFORCED CONCRETE PIPE REDUCER REINFORCING BEOLUBED	
EXIST FCA	EXISTING FLANGED COUPLING ADAPTER	REQ D RJ ROW RR	REQUIRED RESTRAINED JOINT RIGHT-OF-WAY RAILROAD	
FH FIN FL FIN GR	FIRE HYDRANT FINISHED FLOOR ELEVATION FINISHED GRADE ELEVATION	RT S	RIGHT SOUTH	 ⊗ ⊗ ● ●
ቺ FLG FM FOT	FLOW LINE FLANGED FORCE MAIN FIBER OPTIC TELEPHONE	SCH SECT SHT	SCHEDULE SECTION SHEET	ΘΘ
FT	FOOT	SL SPECS SQ SQ M	SURVEY LINE SPECIFICATIONS SQUARE SQUARE METERS	P P
GADOT GALV	GEORGIA DEPARTMENT OF TRANSPORTATION GALVANIZED	SS ST STA	SANITARY SEWER STREET STATION	S (S) 10 (D)
GL GPM GR GS	GAS LINE GALLONS PER MINUTE GRADE GRAVITY SEWER	STD STRUCT STL ST STL	STANDARD STRUCTURAL STEEL STAINLESS STEEL	⊕всм
GUY GV	GUY WIRE GATE VALVE	SWD T&B TBM	SIDE WATER DEPTH TOP AND BOTTOM TEMPORARY BENCHMARK	⊦ ^{∪тм} ⊧ ^{GM}
HGT HORIZ HWY	HEIGHT HORIZONTAL HIGHWAY	THK TOC TP	THICKNESS TOP OF CURB TELEPHONE POLE	□ ^{T.PED.}
HP ID IF	HIGH PRESSURE INSIDE DIAMETER INSIDE FACE	T/S T/W TYP	TOP OF SLAB TOP OF WALL TYPICAL	
INFL INV JT	INFLUENT INVERT JOINT	UGCTV UGE UGT	UNDERGROUND CABLE TELEVISION UNDERGROUND ELECTRIC UNDERGROUND TELEPHONE	F0
LF LIN LG	LINEAR FEET LINEAL, LINEAR LONG	V VCP VERT	VALVE VITRIFIED CLAY PIPE VERTICAL	CATV
LJ DIP L.M. LP LS	LOCK-JOINT DUCTILE IRON PIPE LINEAR METER LIGHT POLE LUMP SUM	W W/ W/O WL	WATER WITH WITHOUT WATER LINE	ттттт
LT	LEFT METER	WS WT WTM	WATERSTOP WALL THICKNESS WATER TRANSMISSION MAIN	Р G
mm MAX MC	MILLIMETER MAXIMUM MOTOR CONTROL	WV WWF	WATER VALVE WELDED WIRE FABRIC	
MGD	MILLION GALLONS PER DAY	YH	YARD HYDRANT	
	Before any excav	ation work l	pegins	
	or any work begins of overhead power lines notification must be	s of 750 vo	lts or more,	
	Protection Co			
				<u>SITE WOR</u>
		CODES		
	FC	DR LOCATING		× 700.00 ※ 700.00
	RED	ELECTRIC		699 700
	YELLOW	GAS-OIL		699
	ORANGE	TELEPHONE/C	ΑΤν	700
	BLUE	WATER		
	IF YOU DI	G GEORGIA		
	1-800-2	282-7411 e Law !		
	Utilities Protect		Inc.	

<u>LEGEND</u>

<u>UTILITIES</u>

GUY POLE

GUY WIRE

WATER METER

GAS METER

GAS LAMP

POWER MANHOLE

SEWER MANHOLE

TELEPHONE MANHOLE

BURIED CABLE MARKER

TELEPHONE PEDESTAL

FIBER OPTIC LINE

TELEPHONE LINE

POWER LINE

GAS LINE

WATER LINE

CABLE TELEVISION LINE

NON-CONNECTING PIPING

JUNCTION BOX (P-POWER

(LETTER DENOTES) C-CABLE TV

(UTILITY) (F-FIBER OPTIC

UNDERGROUND TELEPHONE LINE

UNDERGROUND POWER LINE

EXISTING GRAVITY SEWER

EXISTING FORCE MAIN

EXISTING PIPE

PROPOSED PIPE

PROPOSED FORCE MAIN

PROPOSED GRAVITY SEWER

UNDERGROUND GAS MARKER

UNDERGROUND TELEPHONE MARKER

AIR RELEASE VALVE

VALVE

SURVEYING SYMBOLS

	EXISTING	PROPOSED	
LIGHT POLE	IPF O	IPS ●	IRON PIN FOUND, SET
POWER POLE	CMF	CMS ■	CONC. MONUMENT FOUND, SET
TELEPHONE POLE	MON		R.O.W. MONUMENT
SERVICE		APKS	P.K. NAIL FOUND, SET
FIRE HYDRANT		A ^{CSS}	COTTON SPINDLE FOUND, SET
REDUCER/INCREASER		∠ H&TS	HUB & TACK FOUND, SET
GATE VALVE	2		LAND HOOK
INDICATOR POST VALVE	-	\$ -	TEMPORARY BENCHMARK
BUTTERFLY VALVE	-	ф	SECTION CORNER
ECCENTRIC PLUG VALVE -			PERMANENT EASEMENT
CLEANOUT —			PROP. OR TEMP. EASEMENT
CATCH BASIN —		ዊ	PROPERTY LINE
LIGHT POLE W/CONCRETE BASE -	·	· ·	LIMITS (TOWN OR CITY)
POWER POLE W/CONCRETE BASE -			SECTION LINE
TELEPHONE POLE W/CONCRETE BASE -			SURVEY BASE LINE

TOPOGRAPHICAL SYMBOLS

۲	SIGN
;	BILLBOAR
в	MAIL BOX
x x	WIRE FEN
o o	CHAIN LI
O O	WOOD FE
0 0 0 0 0 0 0 0 0	GUARD R
	RAILROAD
	TREE LIN
	DRAINAGE
	IMPROVE
	UNIMPRO
OR	CREEK
	LAKE OR
 * - *	MARSH
¥ _ ¥	
XXXX	BEAVER I
	HEDGERO

 \odot

BILLBOARD
MAIL BOX
WIRE FENCE
CHAIN LINK FENCE
WOOD FENCE
GUARD RAIL
RAILROAD TRACKS
TREE LINE
DRAINAGE DITCH
IMPROVED ROAD
UNIMPROVED ROAD
CREEK

POND

DAM

WC TREE

Ι.	EFFORTS HAVE BE
	CONTRACTOR SHA
	BEFORE INITIATING
	HYDRANTS, SIDEW
	OTHER OBSTRUCT
	BE REPLACED BY

- ADDITIONAL COST.

- TO SAFETY ISSUES.
- CONDITIONS OR BETTER.
- OF WORK.

- 5.
- MANHOLE COVER AND FRAME.

- COMPACTION EQUIPMENT.

- THE S PLANS.

SITE WORK SYMBOLS

	EXIST.	GRA
	PROP.	GRA
_	 EXIST.	1 0
-	 EXIST.	10 F
	 PROP.	1 OI
	 PROP.	10 F

ADE ELEVATION ADE ELEVATION OR 2 FT. CONTOURS FT. CONTOURS OR 2 FT. CONTOURS PROP. 10 FT. CONTOURS

GENERAL NOTES

BEEN MADE TO INDICATE LOCATIONS OF EXISTING STRUCTURES, PIPING AND UTILITIES. THE ALL BE RESPONSIBLE FOR VERIFYING EXACT SIZES AND LOCATIONS OF ALL EXISTING UTILITIES IG ANY CONSTRUCTION OPERATIONS. ANY EXISTING STRUCTURE, PIPING, FITTING, VALVES, YARD VALKS, ELECTRICAL & INSTRUMENTATION, CONDUIT & WIRING, LIGHT POLE FIXTURES, FENCING AND TIONS DISTURBED OR DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION OPERATIONS SHALL THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER AND/OR ENGINEER.

2. THE LIMITS OF CONSTRUCTION SHALL BE THE PROPERTY LINES OR EASEMENT LINES AS SHOWN ON THE PLANS. ANY ADDITIONAL EASEMENTS REQUIRED FOR CONSTRUCTION SHALL BE ACQUIRED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER AND/OR ENGINEER.

3. DIMENSIONS OF EXISTING STRUCTURES AND/OR SIZE RESTRICTIONS ARE APPROXIMATE. ALL NECESSARY DIMENSIONS AND ELEVATIONS OF EXISTING STRUCTURES & TOPOGRAPHY SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD PRIOR TO CONSTRUCTION OPERATIONS.

4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO WORK ALL APPLICABLE DRAWINGS AND THE APPROPRIATE SPECIFICATIONS AS A UNIT. ANY OMISSIONS, DELETIONS, OR CONFLICTS ARISING AS A RESULT OF FAILURE TO INCORPORATE ALL DRAWINGS AND SPECIFICATIONS WHICH APPLY SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER AND/OR ENGINEER.

5. ALL PROPERTY LINE MARKERS (IRON PINS, CONCRETE MONUMENTS, ETC.) DESTROYED DURING CONSTRUCTION SHALL BE REPLACED IN KIND BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL EMPLOY A LAND SURVEYOR REGISTERED IN THE STATE OF GEORGIA TO RESET PROPERTY MARKERS. 6. ALL EXCESS MATERIAL FROM THE PROJECT EXCAVATION SHALL BE DISPOSED OF BY THE CONTRACTOR AT NO

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TRAFFIC CONTROL WHICH SHALL BE IN ACCORDANCE WITH THE NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. THIS WILL BE CONSIDERED INCIDENTAL TO THE WORK AND NO SEPARATE PAYMENT WILL BE MADE FOR IT.

8. ALL EXCAVATION IS TO BE CONSIDERED UNCLASSIFIED. NO ADDITIONAL PAYMENT WILL BE MADE FOR ROCK EXCAVATION, UNLESS PAY ITEM IS INCLUDED ON BID FORM.

9. JOB SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR, INCLUDING COMPLIANCE WITH OSHA REQUIREMENTS. NEITHER THE OWNER, NOR THE ENGINEER, WILL SUPERVISE OR INSPECT THE JOB WITH REGARD

10. JOB SITE IS TO BE CLEANED UP ON A DAILY BASIS. THE CONTRACTOR SHALL RESTORE ALL AREAS, BOTH PUBLIC AND PRIVATE, WHICH HAVE BEEN DAMAGED BY THE CONSTRUCTION ACTIVITIES TO PRE-CONSTRUCTION

11. CONTRACTOR IS RESPONSIBLE FOR DOCUMENTATION OF ALL PRE-EXISTING CONDITIONS PRESENT ADJACENT TO THE CONSTRUCTION AREA. DOCUMENTATION SHALL CONSIST AT A MINIMUM OF VIDEOS, PHOTOGRAPHS AND WRITTEN DOCUMENTATION. DOCUMENTATION SHALL BE DELIVERED TO THE ENGINEER PRIOR TO COMMENCEMENT

12. THE TIME FOR COMPLETION OF THIS PROJECT IS BASED ON A STANDARD WEEKLY WORK SCHEDULE OF MONDAY THROUGH FRIDAY. EMERGENCY WORK MUST BE APPROVED BY THE ENGINEER. NO WORK SHALL BE SCHEDULED OR PERFORMED ON SATURDAY, SUNDAY OR HOLIDAYS, WITHOUT APPROVAL BY THE ENGINEER.

13. REFER TO SECTION 01152, 1.10 EXPLANATION OF BID ITEMS AND PAYMENT, FOR A DESCRIPTION OF THE BID ITEMS AND THE UNIT BID PRICE FOR EACH ITEM.

14. CONTRACTOR SHALL NOT BLAST ANY MORE DISTANCE THAN HE CAN LAY DURING THE SAME DAY. PRE-BLAST SURVEY & SEISMOGRAPH REQUIRED FOR ALL BLASTING EVENTS, AND CONTRACTOR IS FULLY RESPONSIBLE FOR DESIGNING HIS BLASTING OPERATIONS SO THERE IS NO DAMAGE TO SURROUNDING PROPERTY.

CONSTRUCTION NOTES

1. ALL HDPE PIPE SHALL BE DR 11 AND MEET THE DIPS SIZING SYSTEM, REFER TO SPECIFICATION SECTION 15105. 2. ALL DI FLANGED PIPE SHALL BE CLASS 350.

ALL FLANGED ACCESSORIES SHALL BE 316 STAINLESS STEEL.

ALL PIPE SUPPORTS AND ACCESSORIES SHALL BE 316 STAINLESS STEEL.

ALL DI MJ FITTINGS AS NOTED ON THE PLANS REQUIRE HEAVY DUTY RETAINER GLANDS AND ACCESSORIES, MEGALUG SERIES 1100, BY EBAA IRON, INC. OR APPROVED EQUAL.

6. ALL MANHOLES ARE STANDARD 48" DIAMETER, WITH MANHOLE JOINT STRAPS AND BOLT-DOWN WATER TIGHT

7. THE CONTRACTOR SHALL VERIFY THE TYPE AND DIAMETER OF EXISTING SEWER PIPE WHICH CONNECTS TO PROPOSED MANHOLES PRIOR TO SUBMITTING THE SHOP DRAWINGS.

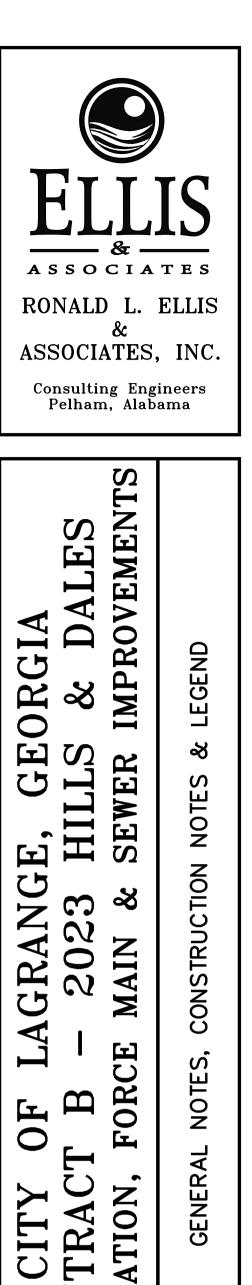
8. UTILIZE MANHOLE BRICK, PER ASTM C32, TO CONSTRUCT INLET AND/OR OUTLET PLUGS FOR EXISTING MANHOLES (MH) NOTED ON PLANS. PROVIDE A DOUBLE WALL OF MANHOLE BRICK FROM THE MANHOLE INVERT TO A MINIMUM OF 12" ABOVE THE TOP OF THE PIPE OPENING AND A MINIMUM OF 12" ON EACH SIDE OF THE PIPE OPENING BEING PLUGGED. USE #4 REBAR VERTICALLY ALONG PLUG WALL TO PROVIDE STRUCTURAL SUPPORT TO PLUG WALL. USE WALL TIES TO CONNECT THE FIRST AND SECOND ROW OF MANHOLE BRICK TO ADEQUATELY SECURE MANHOLE BRICK PLUG TO THE EXISTING STRUCTURE. USE NON-SHRINK GROUT TO COAT OUTSIDE FACE OF MANHOLE PLUG AND TO THE INTERFACE BETWEEN THE MANHOLE PLUG AND THE EXISTING STRUCTURE.

9. TRENCH BACKFILLING-SANITARY SEWER PIPELINE, SECTION 02201,1,08 SHALL BE MODIFIED TO REQUIRE THAT ALL SEWER AND FORCE MAIN PIPELINE TRENCHES FOR THIS PROJECT SHALL BE COMPACTED WITH VIBRATORY

10. ALL EXISTING ROADWAYS, DRIVES, SIDEWALKS, AND CONCRETE AREAS THAT ARE EXCAVATED IN ORDER TO PERFORM THE WORK ASSOCIATED WITH THE CONTRACT PLANS AND SPECIFICATIONS SHALL BE SAW CUT, BACKFILLED WITH COMPACTED CRUSHED STONE PER SD 315 PER THE PLANS AND SPECIFICATIONS.

11. THE PAVEMENT REPLACEMENT WIDTH FOR ALL TRENCH EXCAVATIONS SHALL BE THE TRENCH WIDTH PLUS 12" ON EACH SIDE OF TRENCH AND SHALL BE SAW CUT PRIOR TO REPLACEMENT. THE AREA BEING REPLACED WITH PAVEMENT REQUIRES A 12" BASE OF COMPACTED #8910 STONE OR CRUSHER RUN OVER THE TRENCH STONE BACKFILL, REFER TO SD 320 PER THE PLANS AND SPECIFICATIONS FOR ALL PAVEMENT REPLACEMENT.

12. IT IS THE REQUIREMENT OF THE CONTRACTOR TO REFER TO ALL CIVIL/SITEWORK STANDARD DETAILS, REFER TO



DRAWING NAME :	CONT-B_A-2
PROJECT NO. :	21.135
DRAWN BY :	RDE
DESIGNED BY :	RLE
APPROVED BY :	RLE
SCALE :	AS SHOWN
DATE :	01/30/2023

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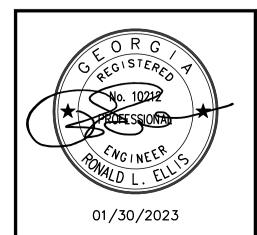
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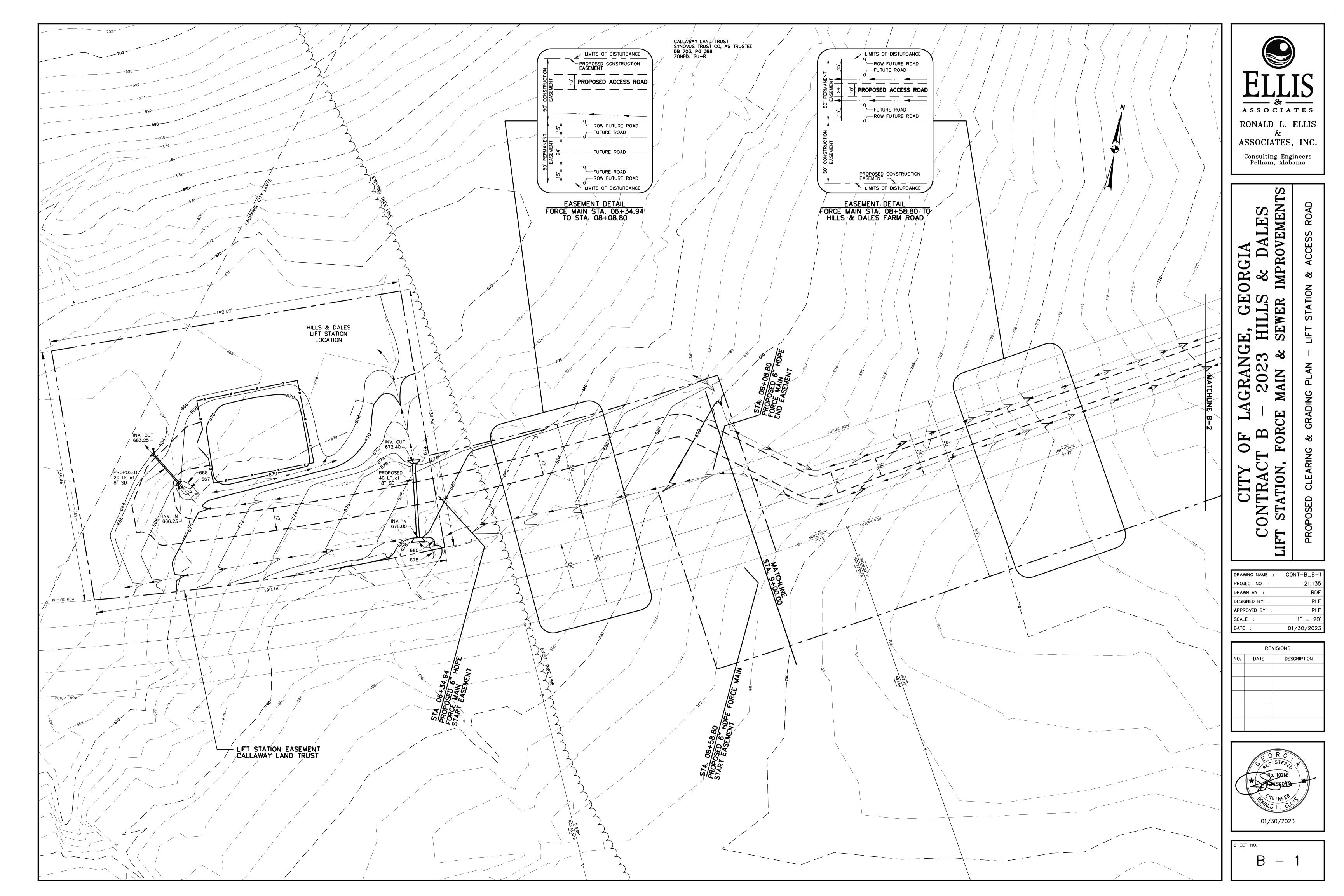
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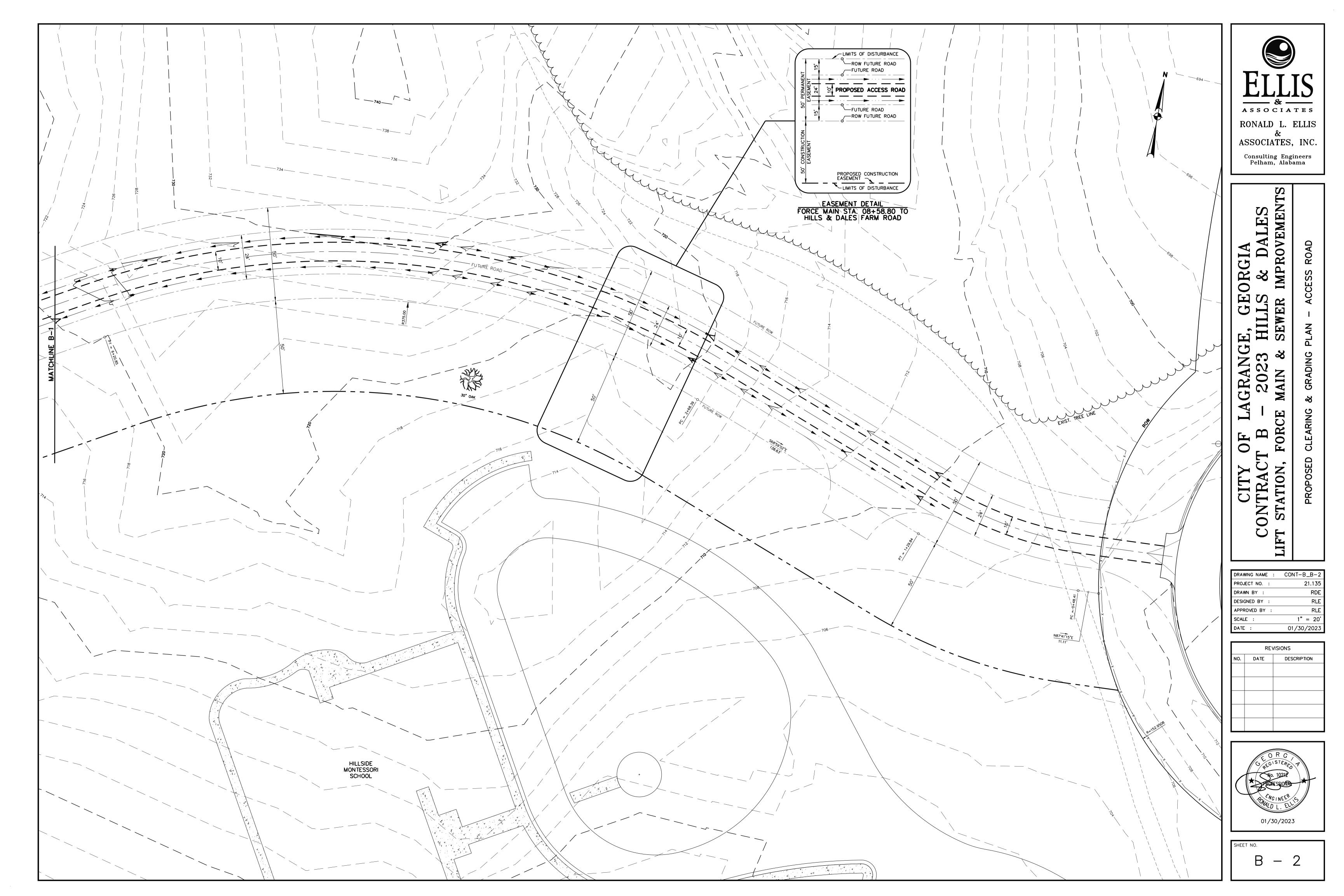
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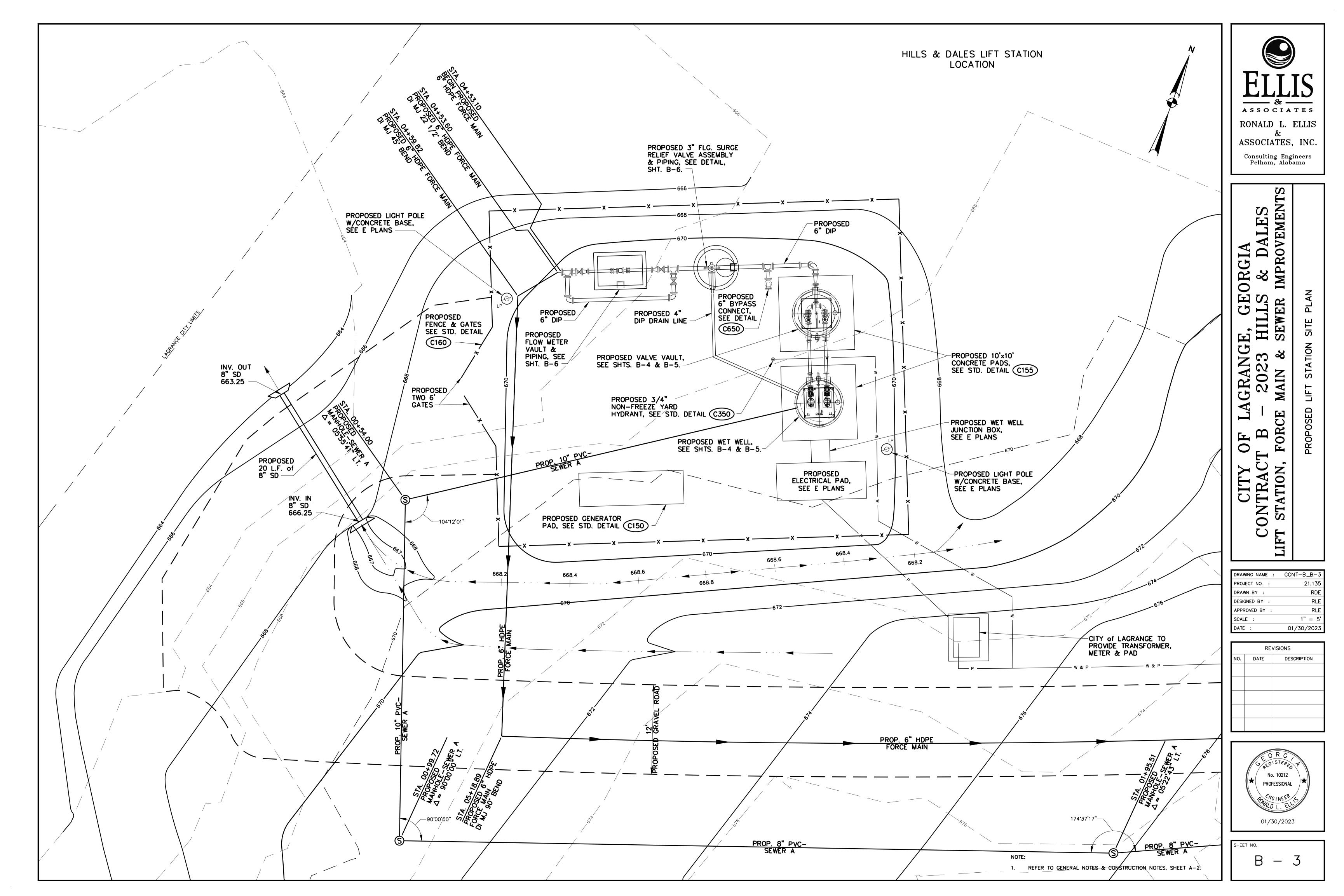
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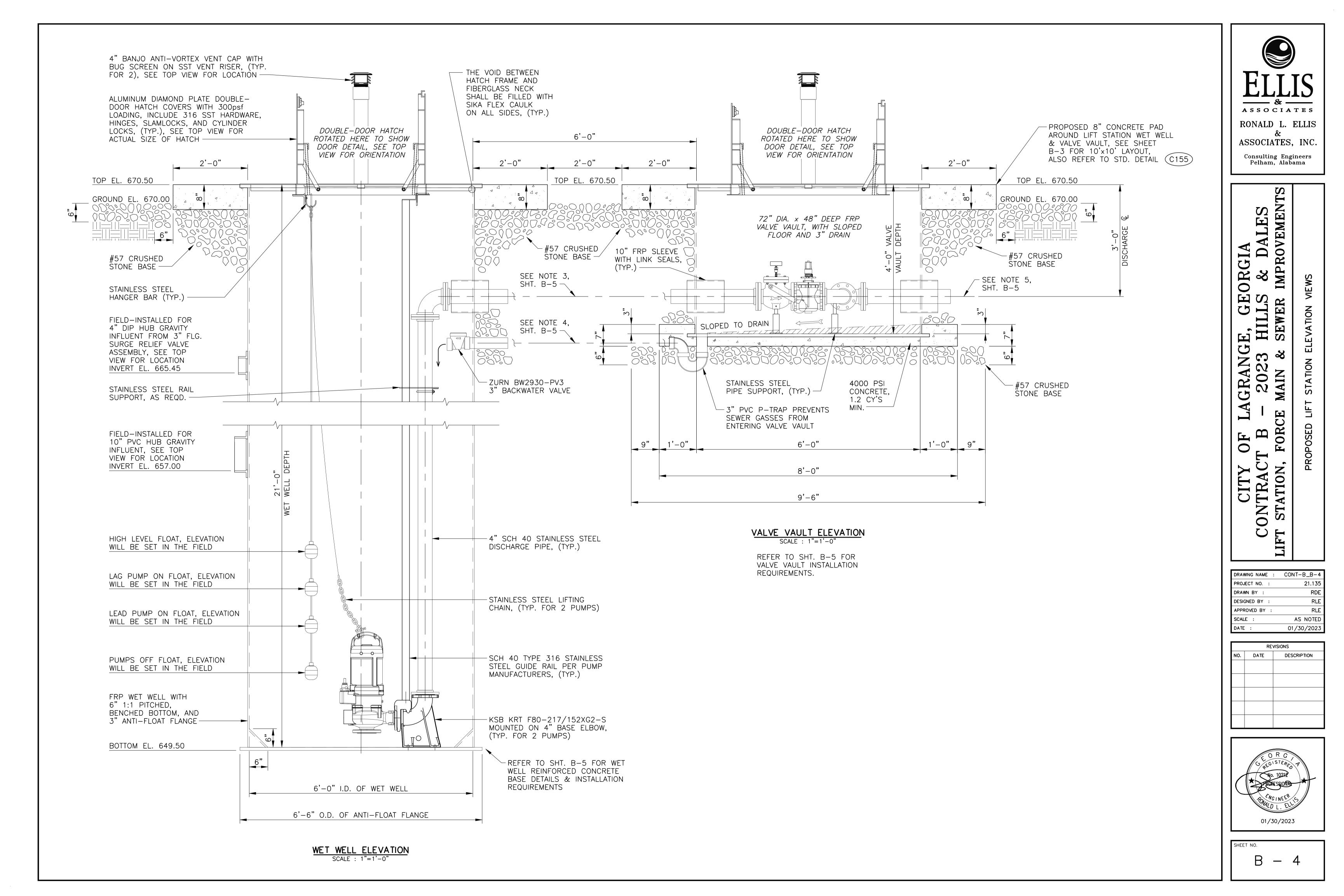


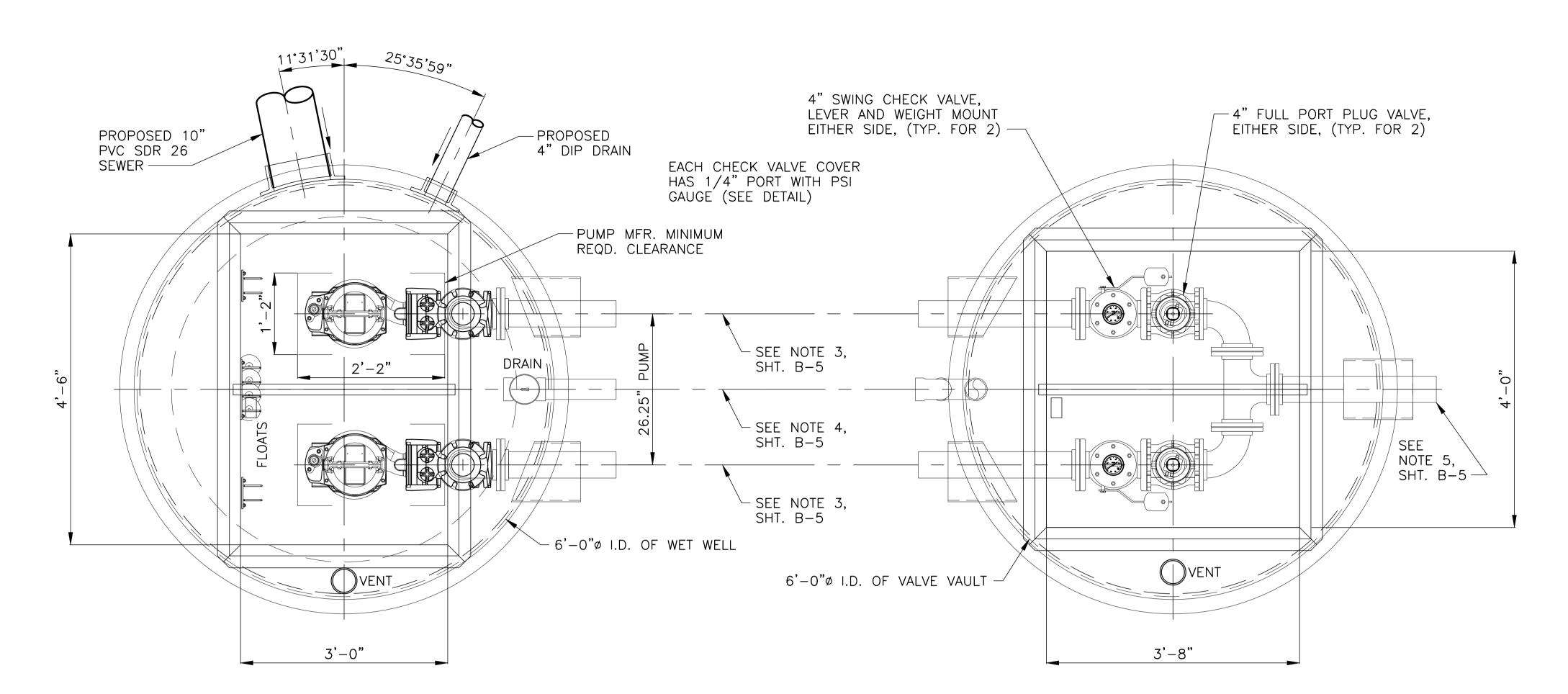
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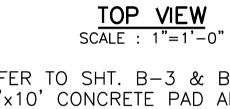


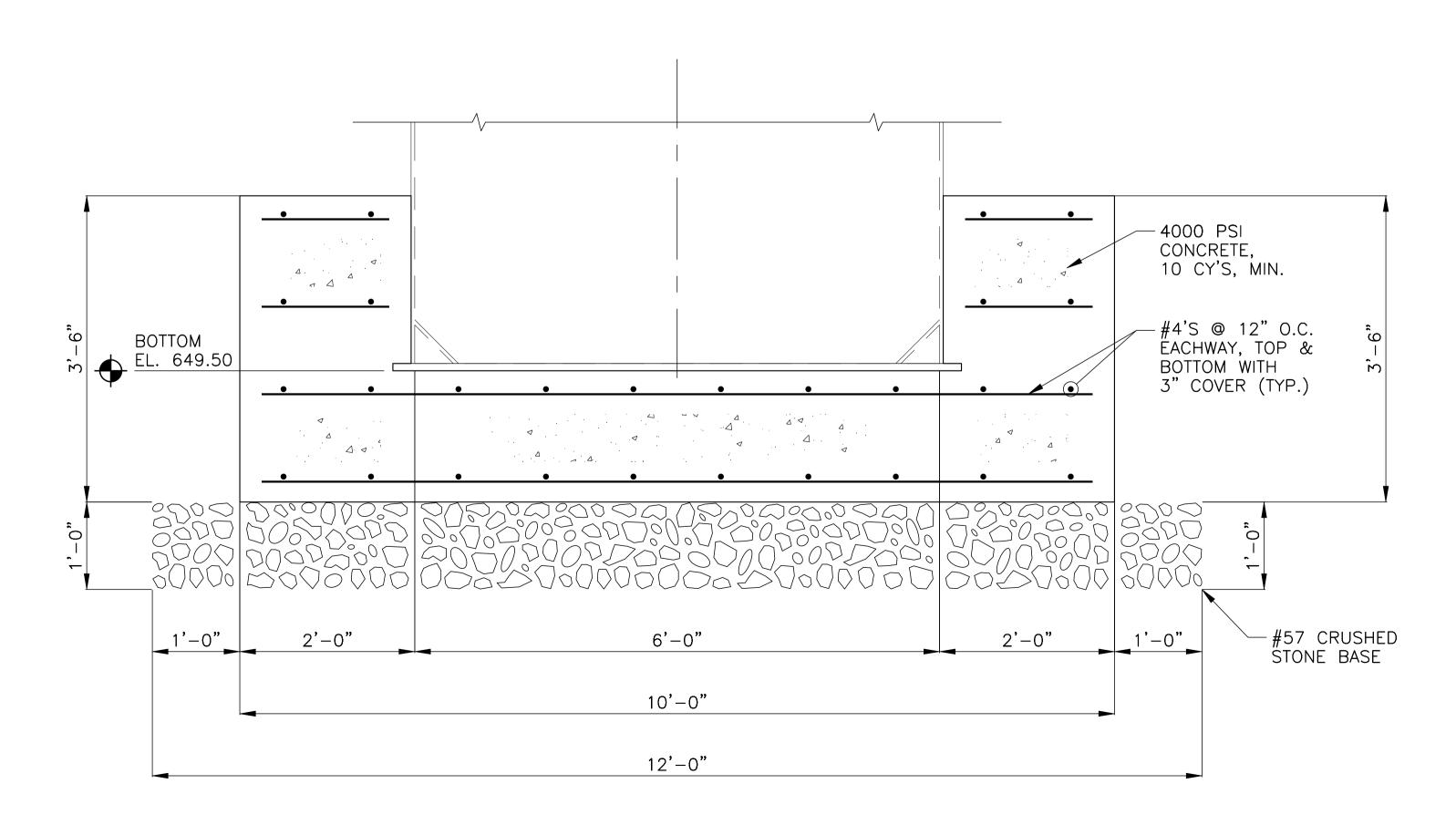












WET WELL ELEVATION

SCALE : 1"=1'-0"

REFER TO SHT. B-3 & B-4 FOR 10'x10' CONCRETE PAD AROUND THE WET WELL & THE VALVE VAULT.

NOTES:

- (2) ROMAC 501 COUPLING OR EQUAL.

WET WELL INSTALLATION REQUIREMENTS:

- PLUMB.
- THE TOP SLAB.
- ACTION AGAINST THE STRUCTURE.
- APPLY.

VALVE VAULT INSTALLATION REQUIREMENTS:

SST OIL-FILLED, BACK-MOUNT PRESSURE GAUGE (SEE NOTE 1)-~." SST DIAPHRAGM ASSEMBLY FOR GAUGE OPENING 1/4" SST BALL VALVE FOR GAUGE ISOLATION CHECK VALVE COVER

> PRESSURE GAUGE DETAIL SCALE : 1/2"=1'-0"

1. PRESSURE GAUGE TO BE SIZED TO READ NO MORE THAN 1-1/2 TIMES THE MAXIMUM PRESSURE PUMP PROVIDES AT DEAD HEAD.

2. FLOATS SHALL BE ANCHOR SCIENTIFIC ROTO FLOAT MERCURY SWITCH TYPE S (SUSPENDED) WITH INTERNAL WEIGHTS.

3. CONNECT TWO (2) 4" SS PIPES WITH 4" DIP OR APPROVED EQUAL AND TWO

4. COMPLETE INSTALLATION OF 3" PVC PIPE TO COMPLETE CONNECTION OF 3" PVC PIPE FROM WET WELL TO 3" PVC PIPE AT VALVE VAULT.

5. REFER TO PLAN SHTS. B-3 & B-6 for continuation of 4" force main.

1. PROVIDE A POURED REINFORCED CONCRETE BASE AS DEPICTED ON THIS SHEET. 2. THE WET WELL SHALL BE LOWERED INTO THE WET CONCRETE AND BROUGHT TO

3. CONTINUE TO POUR THE CONCRETE OVER AND AROUND THE ANTI-FLOTATION FLANGE UNTIL THE AREA REQUIRING CONCRETE IS COMPLETED.

4. COMPACTED CRUSHED STONE SHALL BE USED FOR BACKFILL AROUND THE WET WELL FOR A MINIMUM DISTANCE OF TWO (2) FEET FROM THE OUTSIDE SURFACE AND EXTENDING FROM THE BOTTOM OF THE EXCAVATION TO THE BOTTOM OF

5. BACKFILL SHALL BE PLACED IN SUCH A MANNER AS TO PREVENT ANY WEDGING

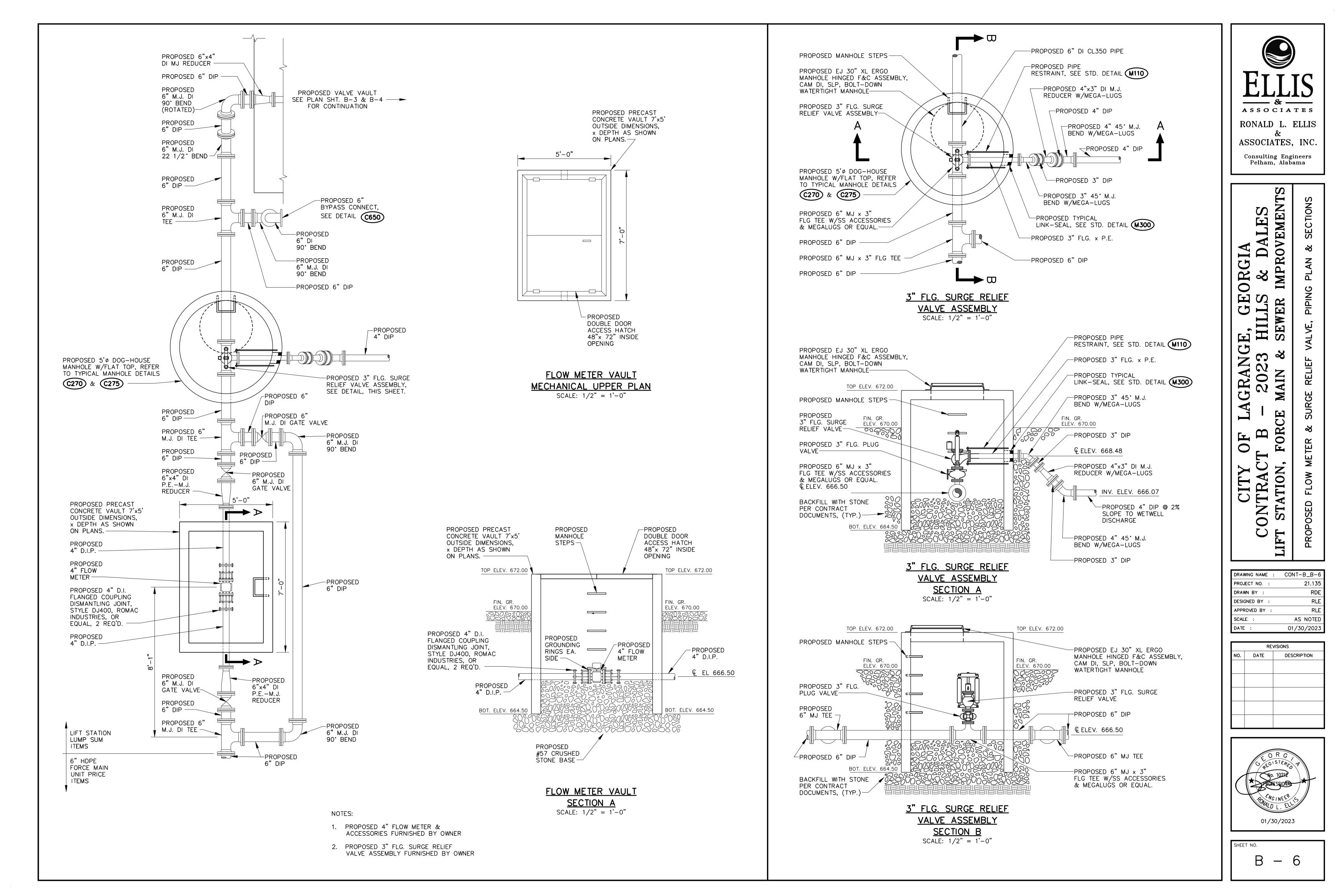
6. ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS FOR CONTRACT B-2023 HILLS & DALES LIFT STATION, FORCE MAIN & SEWER IMPROVEMENTS SHALL

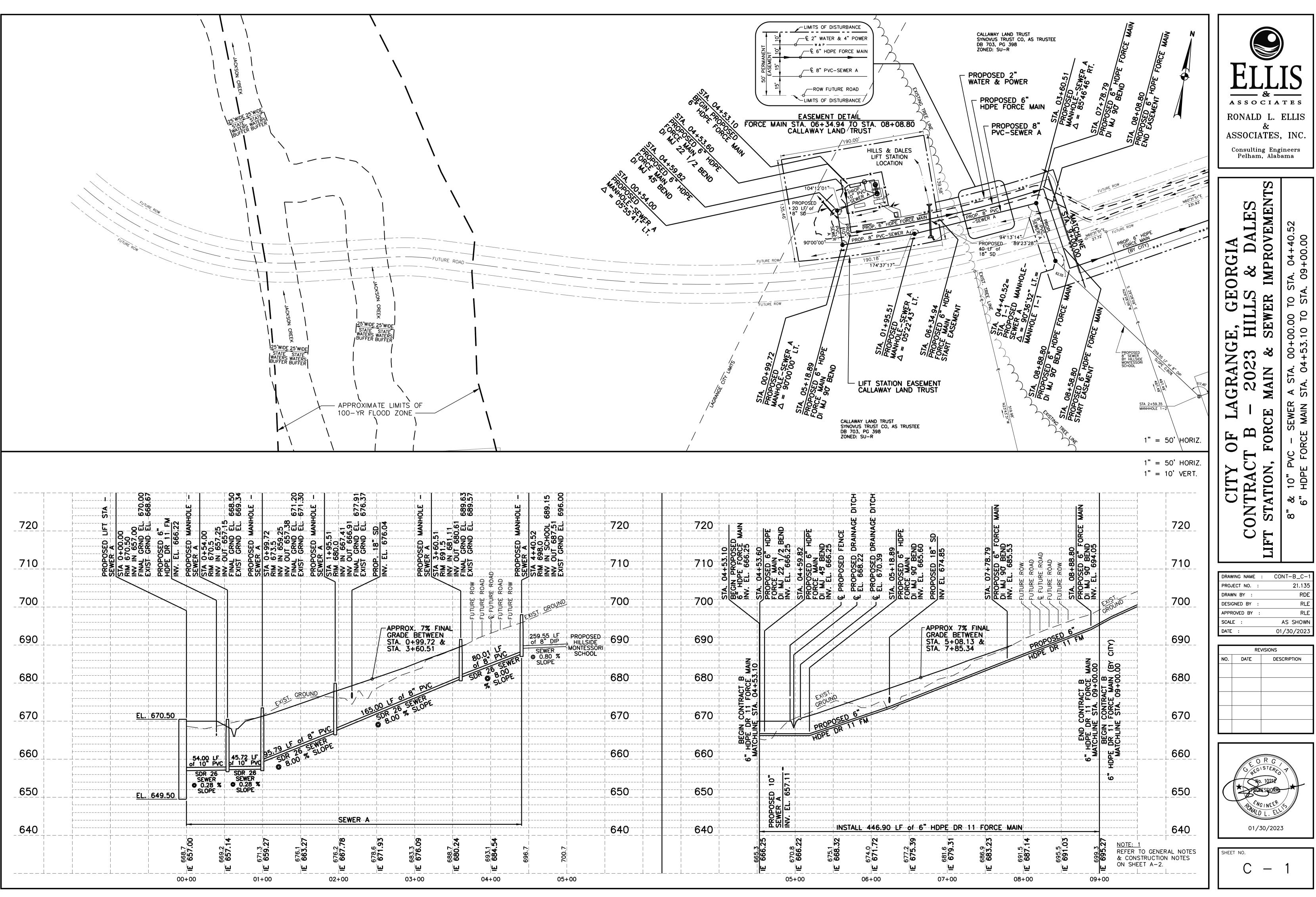
1. PROVIDE A POURED CONCRETE BASE AS DEPICTED ON SHT. B-4, 1.2 CY'S, MIN. 2. FOLLOW THE WET WELL REQUIREMENTS 2 THROUGH 6.

ELLES A S S O C I A T E S RONALD L. ELLIS & ASSOCIATES, INC. Consulting Engineers Pelham, Alabama					
CITY OF LAGRANGE, GEORGIA CONTRACT B - 2023 HILLS & DALES LIFT STATION, FORCE MAIN & SEWER IMPROVEMENTS	PROPOSED LIFT STATION PLAN VIEW & NOTES				
DRAWING NAME : CC PROJECT NO. : DRAWN BY : DESIGNED BY : APPROVED BY :	DNT-B_B-5 21.135 RDE RLE RLE				
REVISIONS	AS NOTED 01/30/2023 SCRIPTION				
REGISTERED T No. 10212 BOLLEER S					

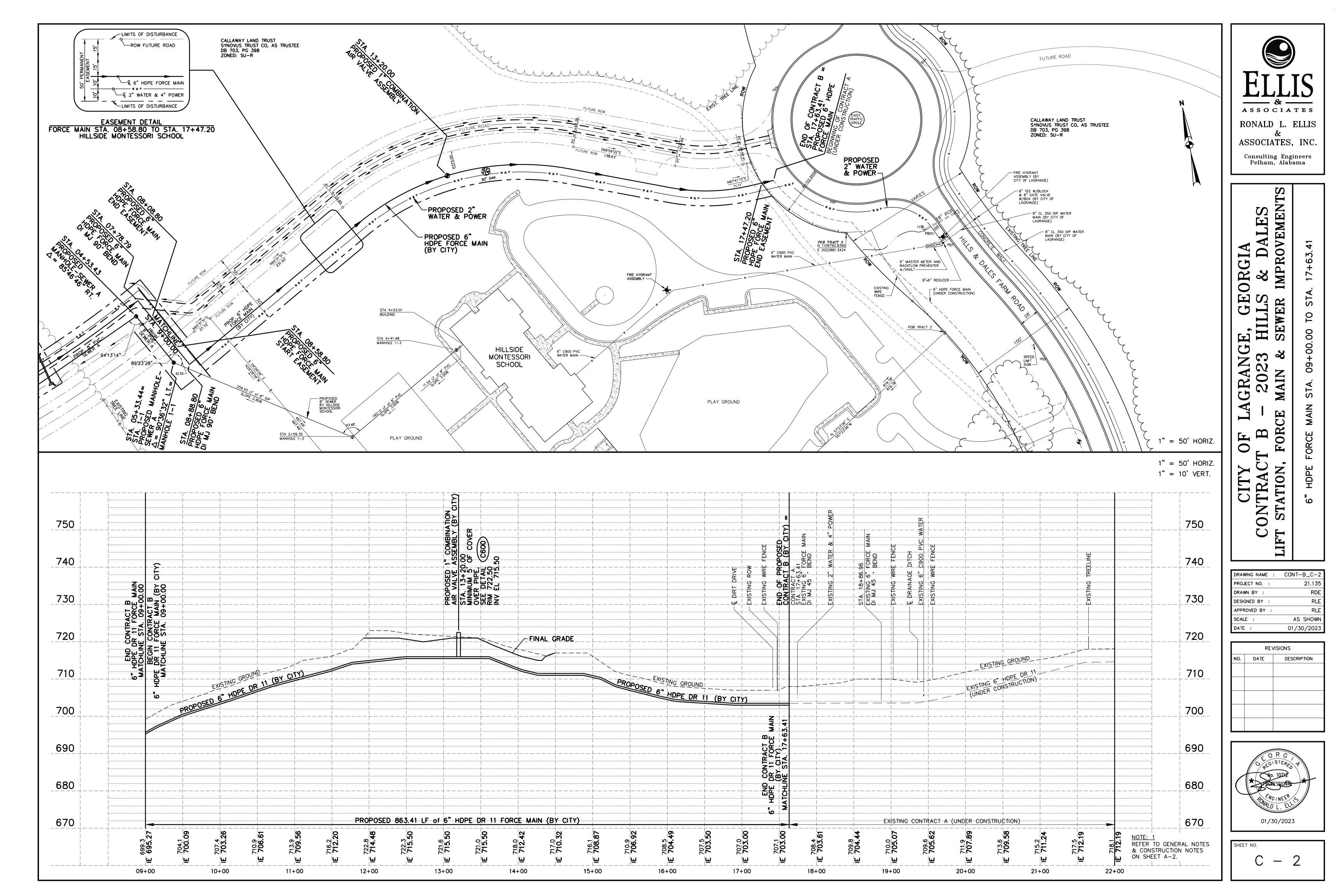
PONALD L. ELLIS 01/30/2023

SHEET NO. 5 В —





OLE - 689.57	689.15 696.00					DITCH
		720	720			AINAGE
PROPOSED	STA 4+40.52 RIM 698.0 INV IN SCHOOL INV OUT 687.51 EXIST GRND EL.		710	A. 04+53.10 GIN PROPOSED HDPE FORCE N /. EL. 666.25	PROPOSED 6" HDPE FORCE MAIN DI MJ 22 1/2 BEND INV. EL. 666.25 PROPOSED 6" HDPE FORCE MAIN DI MJ 45 BEND DI MJ 45 BEND DI MJ 45 BEND	E PROPOSED FEN E EL. 668.22 E EL. 670.39 STA. 05+18.89 PROPOSED 0R/ PROPOSED 6" HI FORCE MAIN DI MJ 90 BEND
੶੶੶੶੶ ੶ ੶ๅ੶੶੶ <u>ਲ਼</u> ੶੶ਸ਼ੵ੶੶ਲ਼੶੶ਸ਼੶੶	KIST. GROUND	700	700	STA. 0 BEGIN 6 HDF INV. EL		
	259.55 LF PROPOSED of 8" DIP HILLSIDE SEWER MONTESSORI © 0.80 % SCHOOL SLOPE	690	690			
80.01 PVC of 8 SEWER of 8 SEWER SDR 20 8.00 SDR 8.00 SDR 5LOPE % SLOPE		680	680	CONTRACT B R 11 FORCE MAIN STA. 04+53.10		
		670	670	BEGIN CONTRA HDPE DR 11 F	EXIST GROUT PROP	D OSED 6 OSED 1 DR I I I I I I I I I I I I I
		660	660	6" BE MATCH		
		650	650		PROPOSED 10" SEWER A INV. EL. 657.11	
		640	640	 + 		-INSTALL-446.90-LFof
E 688.7 E 680.24 E 683.1 E 684.54	<u>7.00</u> 2 -			1	IE 666.25 670.8 IE 666.22	IE 668.32 674.0 IE 671.72 IE 677.2 IE 677.2
<u>_</u>	⊥	I⊥	_ I		05+00	



	GENERAL ELEC	TRICAL LI	EGEND
-	FIXTURE OUTLET – POLELIGHT – SINGLE FIXTURE. FIXTURE DESIGNATIONS:	A E-1	DETAIL LOCAT
	A FIXTURE TYPE "A" – MAY BE USED WITH OTHER TYPES. 2 CIRCUIT NUMBER – MAY BE USED WITH OTHER NUMBERS.		GENER E
\$w	SWITCH OUTLET – WEATHERPROOF WITH PILOT LIGHT (CLEAR LIGHT ON WITH LOAD ON) – S.P.S.T. – 20A – 120–277VAC – HUBBELL #HBL1221PLC TOGGLE SWITCH WITH #HBL1795 CLEAR BUBBLE WEATHERPROOF PLATE – LABEL FUNCTION WITH ENGRAVED NAMEPLATE.		E
®	PHOTOELECTRIC CONTROL – S.P.S.T. – UTILITY GRADE TURN-LOCK TYPE WITH ASSOCIATED TURN-LOCK RECEPTACLE & MOUNTING BRACKET – 120VAC OR 277VAC – 1800VA – TORK 5001M FOR 120V CIRCUIT – MOUNT AT TOP OF EQUIPMENT STAND FACING NORTHWARD (IF POSSIBLE) AWAY FROM POTENTIAL TRAFFIC/HEADLIGHTS/LUMINAIRES FOR PROPER OPERATION.		E
•	WALL OUTLET — DUPLEX RECEPTACLE — 20A — 125V — 2P — 3W — GROUNDING — "GFI" TYPE — WEATHER RESISTANT — NEMA 5—20R.		ELECT
	OUTLET DESIGNATIONS (APPLY TO ALL OUTLETS, DEVICES & EQUIPMENT): CM OUTLET MOUNTED TO 5" STAINLESS STEEL CHANNEL BOLTED TO CONCRETE BASE. ES EQUIPMENT MOUNTED TO ALUMINUM SUPPORT FRAME – SEE DETAIL "E-ES". VL VERIFY EXACT OUTLET LOCATION WITH OWNER PRIOR TO ROUGH-IN. W WEATHER PROOF – OUTLET SHALL BE INSTALLED WITH WEATHERPROOF, IN-USE, CAST COVER.		A A A A A A C C C C C F F
	BRANCH/FEEDER CIRCUIT – EXPOSED ON WALLS OR CEILING.		C K K
	BRANCH/FEEDER CIRCUIT – CONCEALED IN FLOOR SLAB OR DIRT FILL.		L
	BRANCH/FEEDER CIRCUIT - CONCEALED IN WALLS OR CEILING.		
	BRANCH/FEEDER CIRCUIT – TO BE DEMOLISHED – MAY BE USED WITH OTHER LINE TYPES.		N
	BRANCH/FEEDER CIRCUIT - HOMERUN - CAN BE USED WITH OTHER BRANCH/FEEDER TYPES.		TYPIC
	BRANCH/FEEDER CIRCUIT MODIFIERS:		2
	: 2#12 & 1#12G UNLESS NOTED OTHERWISE.		
	SIZE CONDUIT PER N.E.C. UNLESS INDICATED OTHERWISE.		
— — UGP— —	UNDERGROUND PRIMARY POWER SERVICE - BY POWER CO.		MULTI-
	UNDERGROUND SECONDARY POWER SERVICE – SEE ASSOCIATED SINGLE LINE DIAGRAM – VERIFY EXACT SERVICE TRANSFORMER LOCATION(S) WITH UTILITY CO. PRIOR TO BID AND INCLUDE ALL COSTS IN BID.		(
	UNDERGROUND ELECTRICAL DUCT RUN — BURIED A MINIMUM OF 30" BELOW GRADE (TO TOP OF DUCT RUN) — WITH GRAVEL BACKFILL (CONCRETE ENCASEMENT NOT REQUIRED).		
	UNDERGROUND ELECTRICAL DUCT RUN – BURIED A MINIMUM OF 30" BELOW GRADE (TO TOP OF DUCT RUN) – WITH GRAVEL BACKFILL (CONCRETE ENCASEMENT NOT REQUIRED).		
	FLEXIBLE CONNECTION TO EQUIPMENT.		TWISTE
•	BRANCH CIRCUIT - RISER DOWN OR GENERAL CONDUIT STUB-OUT.		(
	LIGHTING PANEL – SURFACE MOUNTED.		
۲ ۲	DISCONNECT SWITCH – INTEGRAL TO EQUIPMENT.		
T	TRANSFORMER – POWER.		
_	GROUND CONNECTION.		
	MOTOR OUTLET - SIZE AS SHOWN.		
WWJB	WETWELL JUNCTION BOX(ES) - SEE DETAIL "E-WWJB".		
FE	FLOW ELEMENT.		
(FS) ^{×4}	FLOAT SWITCH(ES) – "x4" OR SIMILAR INDICATES QUANTITIES -SEE DETAILS "E-SUBC" & "E-WWJB".		
FIT	FLOW INDICATING TRANSMITTER.		
SC-****	TYPICAL CONTROL & INSTRUMENTATION WIRING MARK (WHERE "**" REPRESENTS A UNIQUE IDENTIFIER CONSISTING OF LETTERS AND NUMBERS) – SEE CONTROL & INSTRUMENTATION WIRING SCHEDULES.		

ND			
TAIL DESIGN CATED (TYP	IATOR – "A" INDICATED DETAIL MARK – "E ICAL).	-1" INDICAT	TED SHEET NUMBER WHERE DETAIL IS
NERAL ABB	REVIATIONS:		
EX	EXISTING TO REMAIN.		
EX-R	EXISTING TO BE REMOVED - REMOVE ALL CONDUIT AND WIRING CONNECTIONS TO OT	ASSOCIATEI HER ELECTE	D ELECTRICAL EQUIPMENT, DEVICES, RICAL ITEMS UNLESS SHOWN OTHERWISE.
EX-RL	EXISTING TO BE RELOCATED – REMOVE AL CONDUIT AND WIRING AT EXISTING LOCATIO ELECTRICAL PLANS. EXTEND AND RECONN LOCATION AS REQUIRED UNLESS SHOWN O	ON. RELOCA	ATE ITEM TO NEW LOCATION SHOWN ON
EX-RP	EXISTING TO BE REPLACED – EXTEND AND REPLACED ITEM.	RECONNEC	CT EXISTING CONDUIT AND WIRING TO
CTRICAL A	BREVIATIONS:		
A AIC	AMPERES. AMPERES INTERRUPTING CAPACITY.	NSV OC	NEW, SPARE OR VACATED. ON CENTER.
AIC AFF	ABOVE FINISHED FLOOR.	P PF	POLES.
AL ATS	ALUMINUM. AUTOMATIC TRANSFER SWITCH.	ø	POWER FACTOR. PHASE.
AWG C	AMERICAN WIRE GAUGE. CONDUIT.	PVC	POLYVINYL CHLORIDE.
ĊU	COPPER.	SLD	SINGLE LINE DIAGRAM.
EC	EMPTY CONDUIT. OR ELECTRICAL CONTRACTOR	SS UL	STAINLESS STEEL. UNDERWRITERS LABORATORY.
FPN G	FUSE PER NAMEPLATE. GROUND CONDUCTOR.	UNO V	UNLESS NOTED OTHERWISE. VOLTS.
KVA	KILOVOLT-AMPERES.	Ŵ	WIRES.
KW LV	KILOWATT. LOW VOLTAGE.	CFCI	CONTRACTOR FURNISHED,
MCM M∨	THOUSAND CIRCULAR MILS. MEDIUM VOLTAGE.	CFOI	CONTRACTOR INSTALLED. CONTRACTOR FURNISHED,
Ν	NEUTRAL.		OWNER INSTALLED.
NEC NEMA	NATIONAL ELECTRICAL CODE. NATIONAL ELECTRICAL MANUFACTURER	OFOI	OWNER FURNISHED, OWNER INSTALLED.
NIC	ASSOCIATION. NOT IN CONTRACT.	OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED.
	HTRY DESIGNATIONS: DF 4#3/0 & 1#3G - 2 1/2"C		
Ţ		ZE.	
	GROUND CC	NDUCTOR W	/IRE GAUGE.
	QUANTITY C	F GROUND	CONDUCTORS (PER SET)
		TRAL COND	UCTOR WIRE GAUGE.
			EUTRAL CONDUCTORS (PER SET).
	CONDUCTOR	S, GROUND	_ SETS OF THE PHASE/NEUTRAL CONDUCTOR AND CONDUIT SPECIFIED.
	CTOR CONTROL 600V TRAY CABLE DESIGNA	HONS:	
(2) 4C#1	4 W/G - 1 1/4"C		
	"W/G" = WITH ADDITION IN EACH	ONAL INTEG	RAL GROUND CONDUCTOR WITH GREEN
	WIRE GAUGE.		
	QUANTITY OF CONDUC GROUND).	TORS IN EA	CH CABLE SHEATH (NOT INCLUDING
	QUANTITY OF MULTI-O WITHIN THE SPECIFIED		CABLES OF THE TYPE SPECIFIED
STED, SHIEI	DED INSTRUMENTATION CABLE DESIGNATION	IS:	
(2) #16TS	SP – 1"C		
♦ ♦	CONDUIT SIZE.		
	"TSP" = TWISTED SHI	LULU PAIR.	
	WIRE GAUGE.		
	QUANTITY OF INSTRUM	IENTATION	CABLES IN THE SPECIFIED CONDUIT.

MARK	MANUFACTURER	CATALOG	VOLTAGE		LAMPS		MOUNTING	MOUNTING	REMARKS
		NUMBER		NUMBER	WATTS	TYPE	HEIGHT	TYPE	
	LITHONIA	DSX0-LED-P6-40K-T4M-MVOLT-RPA-	120	1	134	LED	MOUNT TO 18' LITH	IONIA ROUND	
Y1	COLUMBIA	HS-DDBXD			15,628		STRAIGHT STEEL PC		
	DAY-BRITE				LUMENS)		DM191AS-DDBXD - SE	E DETAIL "E-LP1"	

LIGHTING FIXTURE SCHEDULE GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE ALL FIXTURE MOUNTING PROVISIONS PRIOR TO ORDERING FIXTURES. 2. ALL FIXTURES AND BALLASTS/DRIVERS SHALL BE RATED FOR OPERATION IN AMBIENT TEMPERATURES UP TO 55 DEGREES CELSIUS.

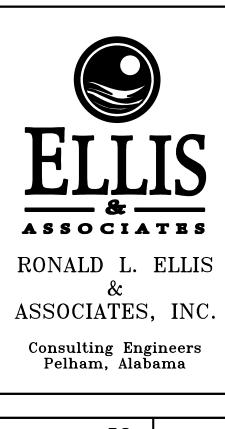
LIGHTING FIXTURE SCHEDULE KEYED NOTES:

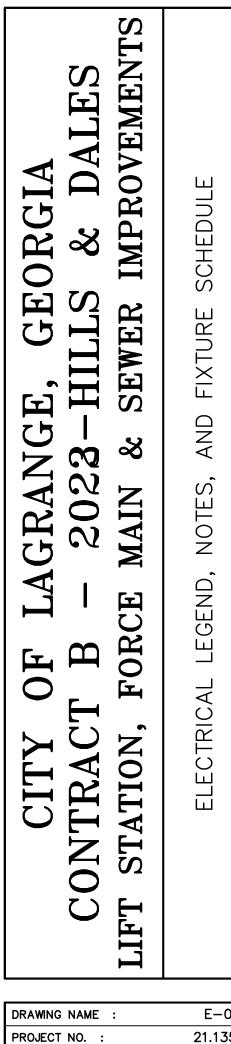
NOT USED

GENERAL ELECTRICAL NOTES

- 1. ALL EQUIPMENT SHALL BE GROUNDED AND BONDED IN ACCORDANCE WITH NEC.
- 2. CONTRACTOR SHALL VISIT THE SITE OF THE WORK PRIOR TO SUBMITTING BID TO EXAMINE CAREFULLY LOCAL CONDITIONS AND DIFFICULTIES TO BE ENCOUNTERED. ANY DISCREPANCY BETWEEN PLANS AND EXISTING CONDITIONS SHALL IMMEDIATELY BE CALLED TO THE ATTENTION OF THE ENGINEER.
- 3. ELECTRICAL PLANS & DETAILS INDICATE TYPICAL WIRING REQUIREMENTS FOR PROCESS EQUIPMENT BASED ON BASIS-OF-DESIGN SYSTEMS/EQUIPMENT. VERIFY EXACT WIRING REQUIREMENTS & ALL DEVICE LOCATIONS WITH APPROVED MANUFACTURERS SHOP DRAWINGS PRIOR TO ROUGH-IN. NO ADDITIONAL COMPENSATION WILL BE PAID FOR ADJUSTMENTS REQUIRED TO COMPLY WITH REQUIREMENTS OF NON BASIS-OF-DESIGN SYSTEMS/EQUIPMENT SUPPLIERS.
- 4. REFER TO DETAIL "E-HALS" FOR HAZARDOUS AREA CLASSIFICATION AND ASSOCIATED ELECTRICAL REQUIREMENTS.
- 5. CONTRACTOR SHALL VERIFY ALL REQUIREMENTS FOR POWER SERVICE WITH UTILITY COMPANY PRIOR TO SUBMITTING BID. IF THEIR REQUIREMENTS ARE AT A VARIANCE WITH THOSE SHOWN ON PLANS THE CONTRACTOR SHALL INFORM ENGINEER IMMEDIATELY. ALL COSTS INCURRED WITH THE UTILITY COMPANY FOR SERVICE SHALL BE INCLUDED IN BID PRICE. IF SUCH COSTS ARE NOT AVAILABLE AT BID TIME CONTRACTOR SHALL INCLUDE WITH BID A LETTER FROM A RESPONSIBLE PARTY WITH THE UTILITY COMPANY STATING SUCH, AND COSTS WILL THEN BE EXCLUDED FROM THE BID PRICE.

LIGHTING FIXTURE SCHEDULE





DRAWING NAME :	E-01
PROJECT NO. :	21.135
DRAWN BY :	ZJG
DESIGNED BY :	PDB
APPROVED BY :	PDB
SCALE :	AS NOTED
DATE :	1/30/2023

	REVISIONS								
NO.	NO. DATE DESCRIPTION								



E - 01

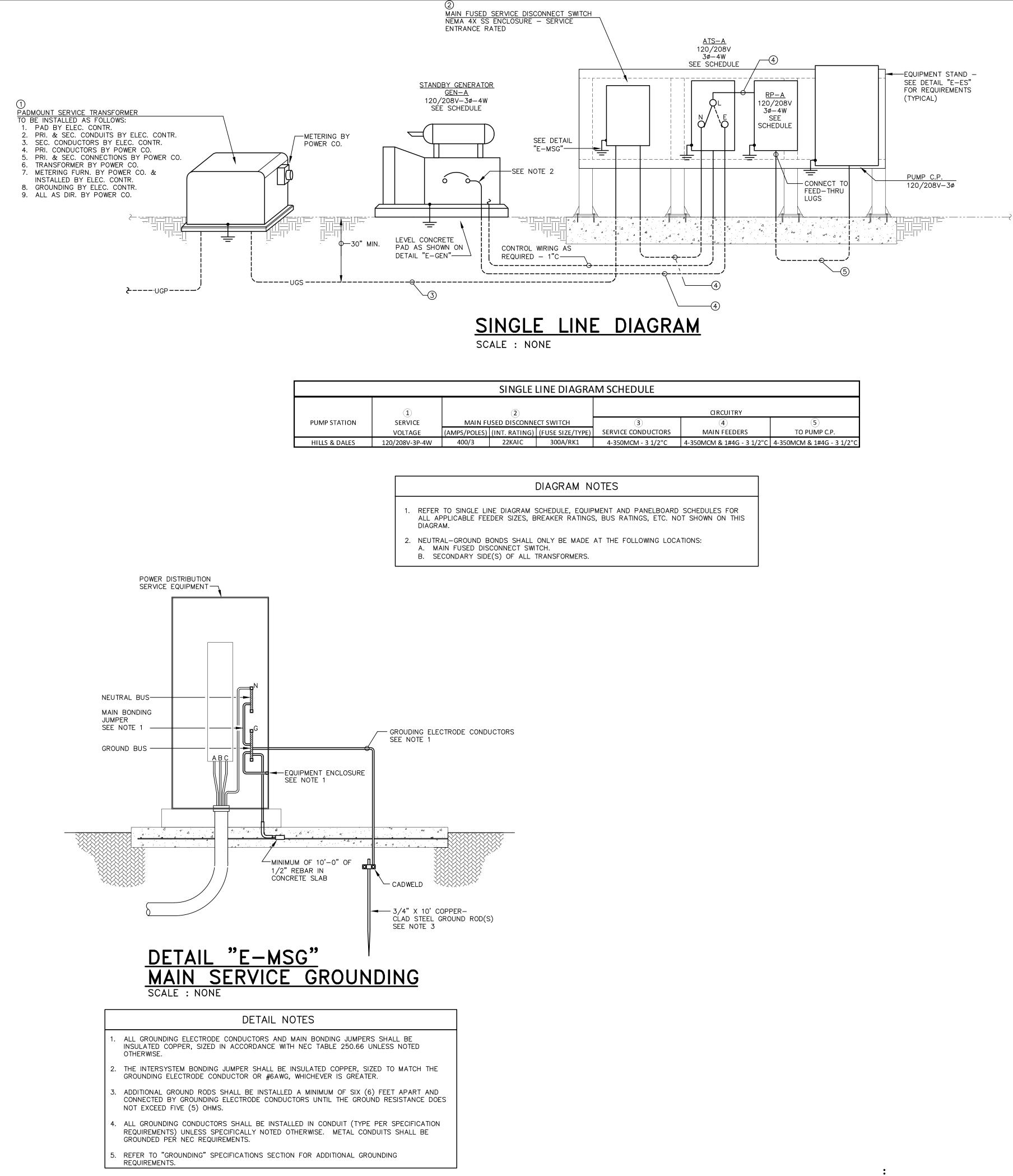
SHEET NO.

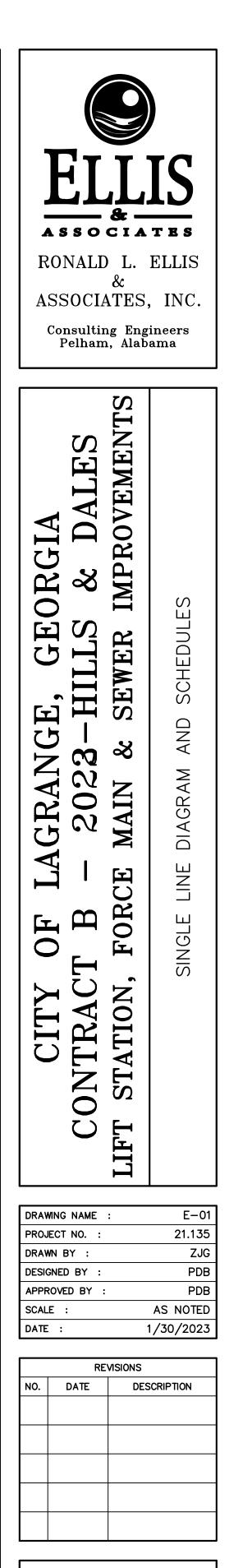


	GENERATOR SCHEDULE - GEN-A										
KW RATING: 80KW (MINIMUM) SKVA RATING (AT							IP):				
VOLTAGE: 120/208V-3P-4W SOUND ATTENU/						ATION:	CRITICAL	SILENCER			
FUEL	TYPE: DIESEL			LOCAT	ION:		EXTERIOR				
CIR.	DESCRIPTION	VOLTS	Р	HP	KW	AMPS	BKR	SWITCH	H SIZE	WIRE AND COND. SIZE	
NO.					OR		SIZE	SWITCH	F-TRON		
					KVA			AMPS	AMPS		
1	ATS-A(E)	120/208	3		45.3		300/3			SEE SINGLE LINE DIAGRAM	
		T	OTAL (CONNECT	ed load:	45.2	KVA	NOTES:			
						125.5	AMPS	1. GENEF	RATOR HAS	BEEN PRE-PURCHASED BY OWNER AND	
			TO	TAL DEMA	ND LOAD:	45.2	KVA	SHALL BE INSTALLED BY CONTRACTOR			
					125.5	AMPS					
		. COMPUT	ed load:	45.3	KVA	1					
						125.9	AMPS				

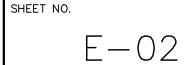
AUT		SCHE	DULE -	ATS-A						
KAIC / WCR RATING: 22KAIC (MINIM	JM)			NORMA		OM:	MAIN FUSE	ED DISCONNECT SWITCH		
VOLTAGE: 120/208V-3P-4	W			NORMA		ર :	SEE SINGL	E LINE DIAGRAM		
AMP RATING: 300 AMP				EMERG	GENCY FEE	D FROM:	GEN-A			
LOCATION: PUMP STATION		NT STAND		EMEGE	NCYFEED	DER:	SEE SINGL	E LINE DIAGRAM		
LOAD SIDE FEEDER DESCRIPTION		VOLTS	Р	HP	KW	AMPS	WIRE AN	ID COND. SIZE		
					OR					
					KVA					
RP-A		120/208	3		45.3		SEE SIN	GLE LINE DIAGRAM		
	EMERC	GENCY				NORMAL		NOTES:		
	45.2	KVA	FOTAL	CONNECTED LOAD		45.2 KVA		1. ATS HAS BEEN PRE-PURCHASED BY		
	125.5	AMPS				125.5	AMPS	OWNER AND SHALL BE INSTALLED		
	KVA	TOT	al deman	d load:	45.2	KVA	BYCONTRACTOR			
125.5		AMPS				125.5	AMPS			
	KVA	TOTAL	COMPUT	ED LOAD:	45.3	KVA	1			
	125.9	AMPS				125.9	AMPS			

PANEL TYPE: SQUARE 'D' TYPE NQOD						ATING:	22KAIC (MINIMUM)			
			120/208V-3P-4W		MOUN		SURFACE			
	S & TYPE		300/3 MAIN BKR		LOCA		PUMP STATION EQUIPMENT STAND			
	FROM:		ATS-A		FEED		SEE SINGLE LINE DIAGRAM			
	NOTES		DESCRIPTION						NOTES	CKT
	NOTES	BKK	DESCRIPTION	WATTS	PHASE	WAITS	DESCRIPTION	BKR	NOTES	
NO.		00/4		500						NO.
1	-	20/1	SCADA RTU	500				-/1	-	13
2	-	20/1	GENERATOR BATTERY CHARGER	500				-/1	-	14
3	-	20/1	GENERATOR ENGINE BLOCK HEATER	1,000				-/1	-	15
4	-	20/1	STATION FLOW TRANSMITTER	100	A			-/1	-	16
5	-	20/1	CONVENIENCE RECEPTACLE	200	_			-/1	-	17
6	-	20/1	SITE LIGHTING	89	С			-/1	-	18
7	-	20/1	SPARE		А			-/1	-	19
8	-	20/1	SPARE		В			-/1	-	20
9	-	20/1	SPARE		С			-/1	-	21
10	-	20/1	SPARE		А			-/1	-	22
11	-	20/1			В			-/1	-	23
12	-	20/1			С			-/1	-	24
NOT	ES:			PH. A:	PH. B:	PH. C:	TOTAL CONNECTE	D LOAD:	45.2	KVA
1. PROVIDE 240KA (PER PHASE) SURGE PROTECTION				600	700	1,089	125			AMPS
DEVICE - CONTRACTOR MAY PROVIDE INTEGRAL OR				UB-FEED		OL PANEL	TOTAL DEMAN	d load:	45.2	KVA
EXTERNALLY MOUNTED DEVICE (CONNECTED TO			42.8	KVA DE	MAND				AMPS	
30/3 BKR).							TOTAL COMPUTE	45.3	KVA	
	,	RE SH	ALL BE NEMA 4X STAINLESS STEEL.					125.9	AMPS	











PHILIP D. BLACK, PE phil@jraee.com (D) 205.536.7120 (P) 205.995.1078 JRA JOB NO. 222091 LECTRICAL ENGINEERING & DESIGN 1 VILLAGE STREET • SUITE 1 • BIRMINGHAM, ALABAMA • 35242

M ERUN							
MARK	то	EQUIPMENT DESCRIPTION	PARAMETER	POINT TYPE	WIRING	SHEET	REMARKS
SC-1	SCADA RTU	PUMP CONTROL PANEL	LOSS OF PHASE/POWER ALARM	DI	(3) 8C#14 - 1 1/2"C	E-03	
			LEVEL ALARM - HIGH	DI			
		PUMP NO. 1	ON/OFF STATUS	DI			
			ALARM	DI			
			H/O/A SWITCH POSITION INDICATION	DI			
		PUMP NO. 2	ON/OFF STATUS	DI			
			ALARM	DI			
			H/O/A SWITCH POSITION INDICATION	DI	—		
SC-2	SCADA RTU	GENERA TOR GEN-A	ON/OFF STATUS	DI	(1) 8C#14 - 1"C	E-03	
			MINOR A LA RM	DI	_		
			MAJOR ALARM	DI			
			LOW FUEL LEVEL ALARM	DI			
SC-3	SCADA RTU	ATS-A	UTILITY POWER AVAILABLE	DI	(1) 8C#14 - 1"C	E-03	
			EMERGENCY POWER AVAILABLE STATUS	DI			
			NORMAL/EMERGENCY SWITCH POSITION STATUS	DI			
			H/O/A SWITCH POSITION INDICATION	DI			
SC-4	SCADA RTU	STATION FLOW TRANSMITTER	FLOW INDICATION	AI	(1) #16TSP - 3/4"C	E-03	

CONTROL & INSTRUMENTATION WIRING SCHEDULES LEGEND & NOTES

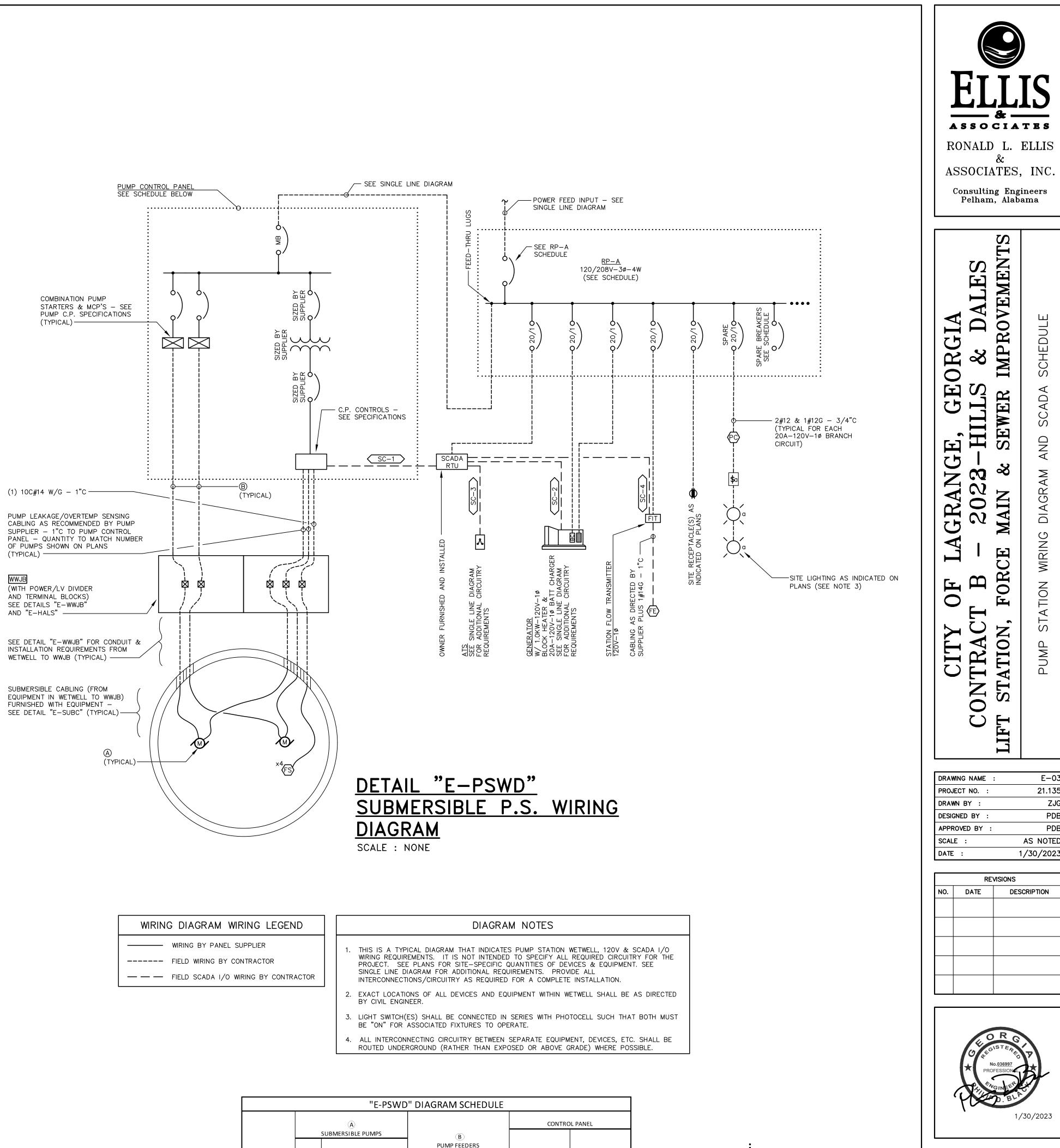
LEGEND "DI" - DISCRETE INPUT POINT

"DO" - DISCRETE OUTPUT POINT "A I" - A NA LOG INPUT POINT

"AO" - ANALOG OUTPUT POINT

NOTES: 1. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS & INFORMATION.

2. ALL CONTROL CABLING (IDENTIFIED WITH "*C#14" OR SIMILAR DESIGNATIONS) SHALL BE 600V MULTI-CONDUCTOR TRAY CABLE PER SPECIFICATION REQUIREMENTS. 3. ALL INSTRUMENTATION CABLING (IDENTIFIED WITH "TSP" OR "SHD" DESIGNATIONS) SHALL BE 300V TWISTED, OV ERALL-SHIELDED TRAY CABLE



Jackson,

Renfro

PHILIP D. BLACK, PE

(P) 205.995.1078 & ASSOCIATES, INC. JRA JOB NO. 222091 ELECTRICALENGINEERING & DESIGN 141 VILLAGE STREET • SUITE 1 • BIRMINGHAM. ALABAMA • 35242

phil@jraee.com (D) 205.536.7120

(P) 205.995.1078

WIRING DIAGRAM WIRING LEGEND
WIRING BY PANEL SUPPLIER
FIELD WIRING BY CONTRACTOR

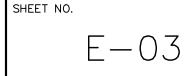
1.	THIS IS A TYPICAL DIAGRAM THAT INDICATES P WIRING REQUIREMENTS. IT IS NOT INTENDED TO PROJECT. SEE PLANS FOR SITE-SPECIFIC QUA SINGLE LINE DIAGRAM FOR ADDITIONAL REQUIRE INTERCONNECTIONS/CIRCUITRY AS REQUIRED FO
2.	EXACT LOCATIONS OF ALL DEVICES AND EQUIPM BY CIVIL ENGINEER.

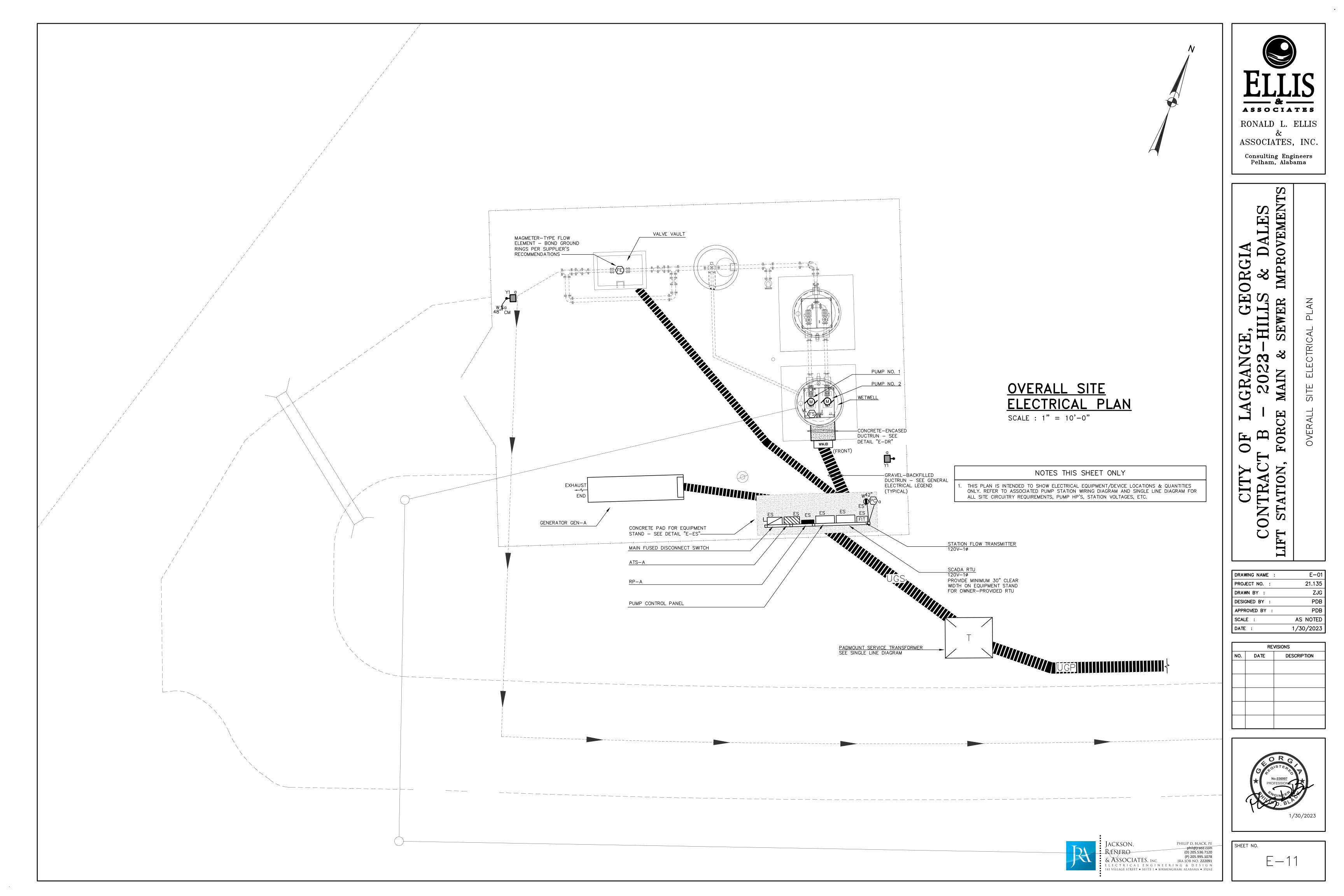
		"E-PSWD	" DIAGRAM SCHEDULE		
		A		CONTRO	DL PANEL
	SUBMERSIBLE PUMPS		B		
			PUMP FEEDERS		
PUMP STATION	QTY	RATING	(FROM STARTER TO WWJB)	VOLTAGE	ENCLOSURE RATING
HILLS & DALES	2	20HP-208V-3P	3#3 & 1#6G - 1 1/4"C	120/208V-3P-4W	NEMA 4X S.S.

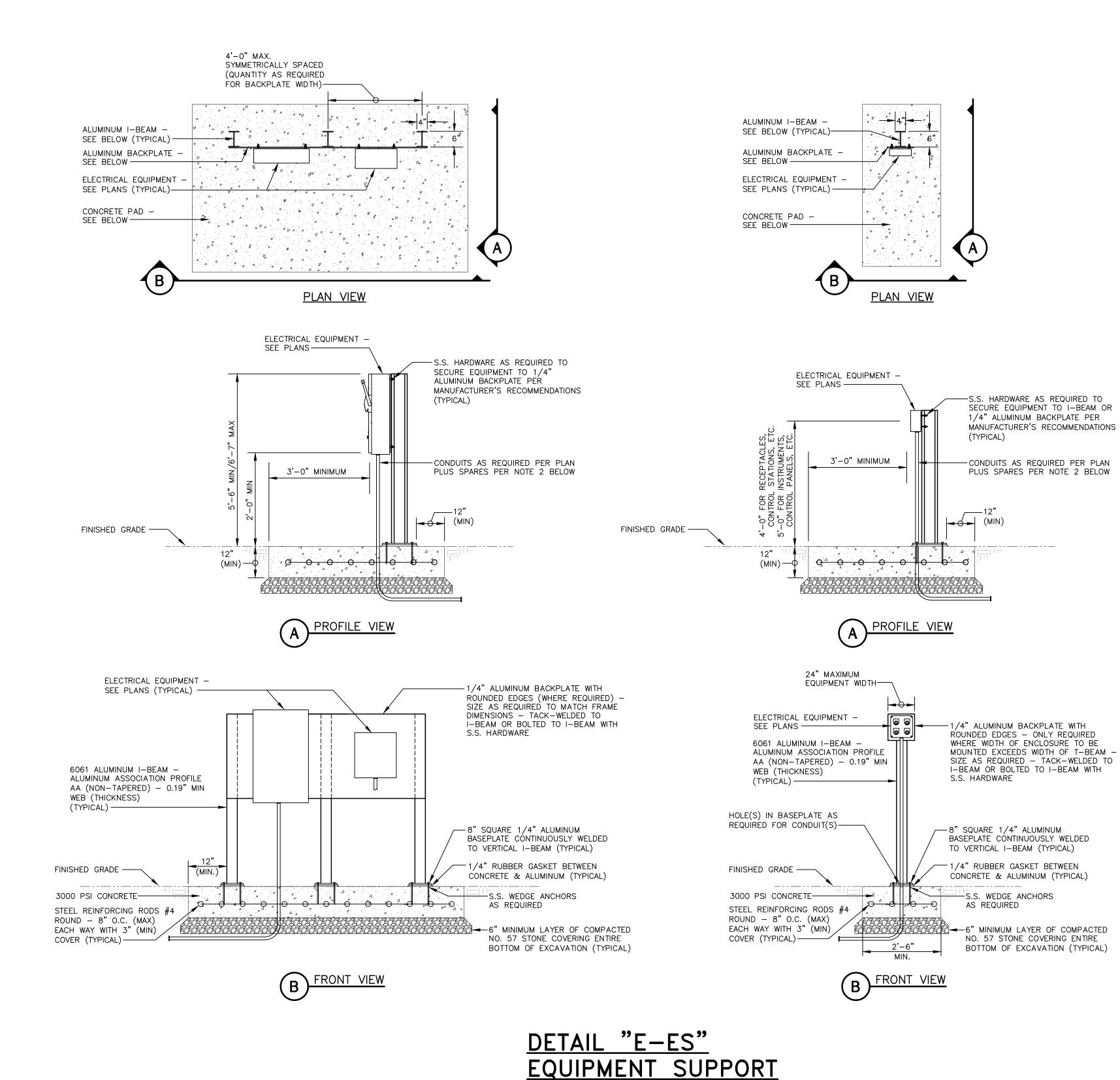
RO ASS Co	NALI SOCIA	&	ELLIS , INC. ineers
CITY OF LAGRANGE, GEORGIA	CONTRACT B - 2023-HILLS & DALES	LIFT STATION, FORCE MAIN & SEWER IMPROVEMENTS	PUMP STATION WIRING DIAGRAM AND SCADA SCHEDULE
DRAWING		:	E-03
PROJECT DRAWN			21.135 ZJG
			PDB
APPROV SCALE	ED BY		PDB AS NOTED
DATE :			1/30/2023

•

REVISIONS		
DATE	DESCRIPTION	



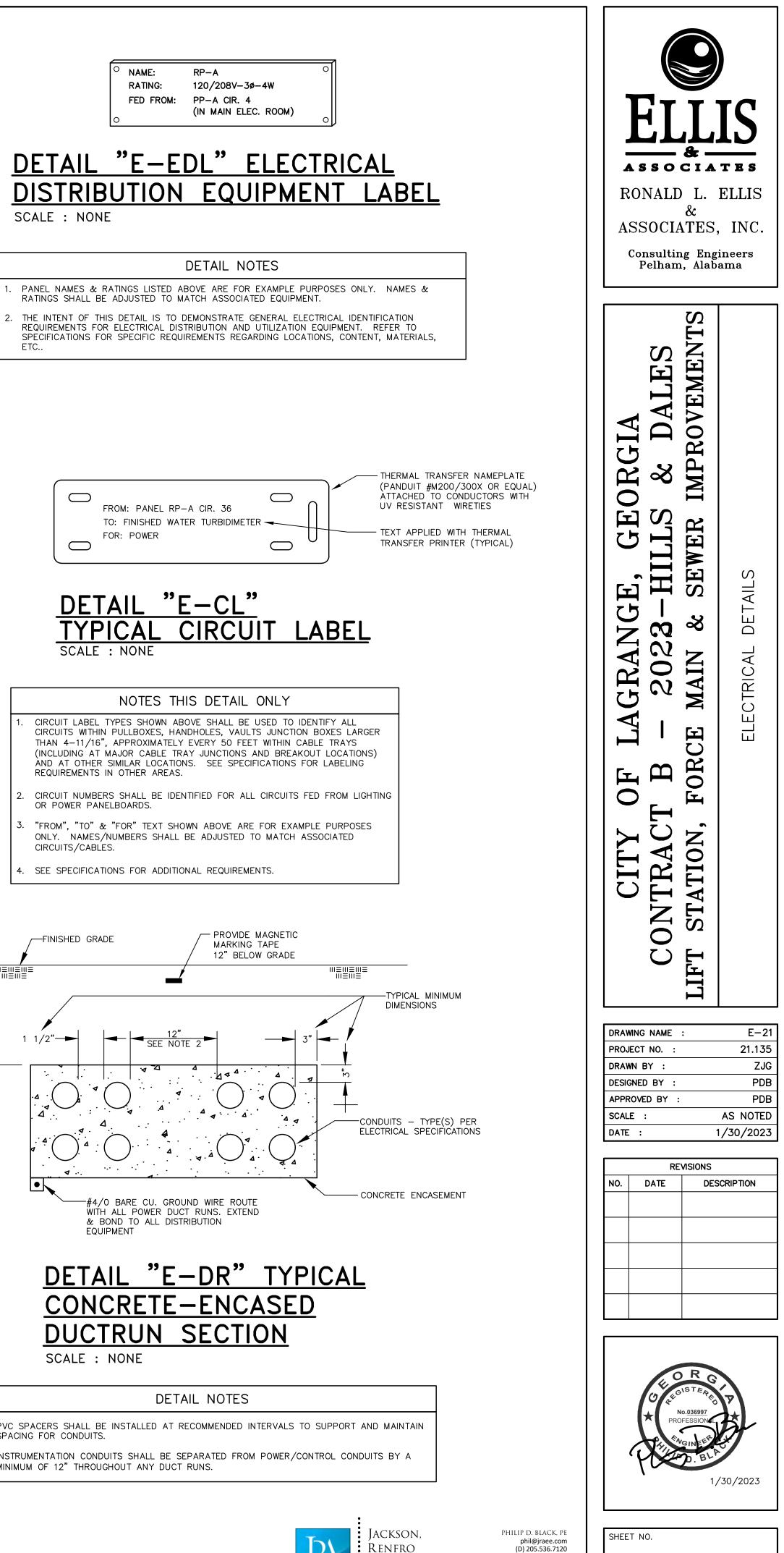


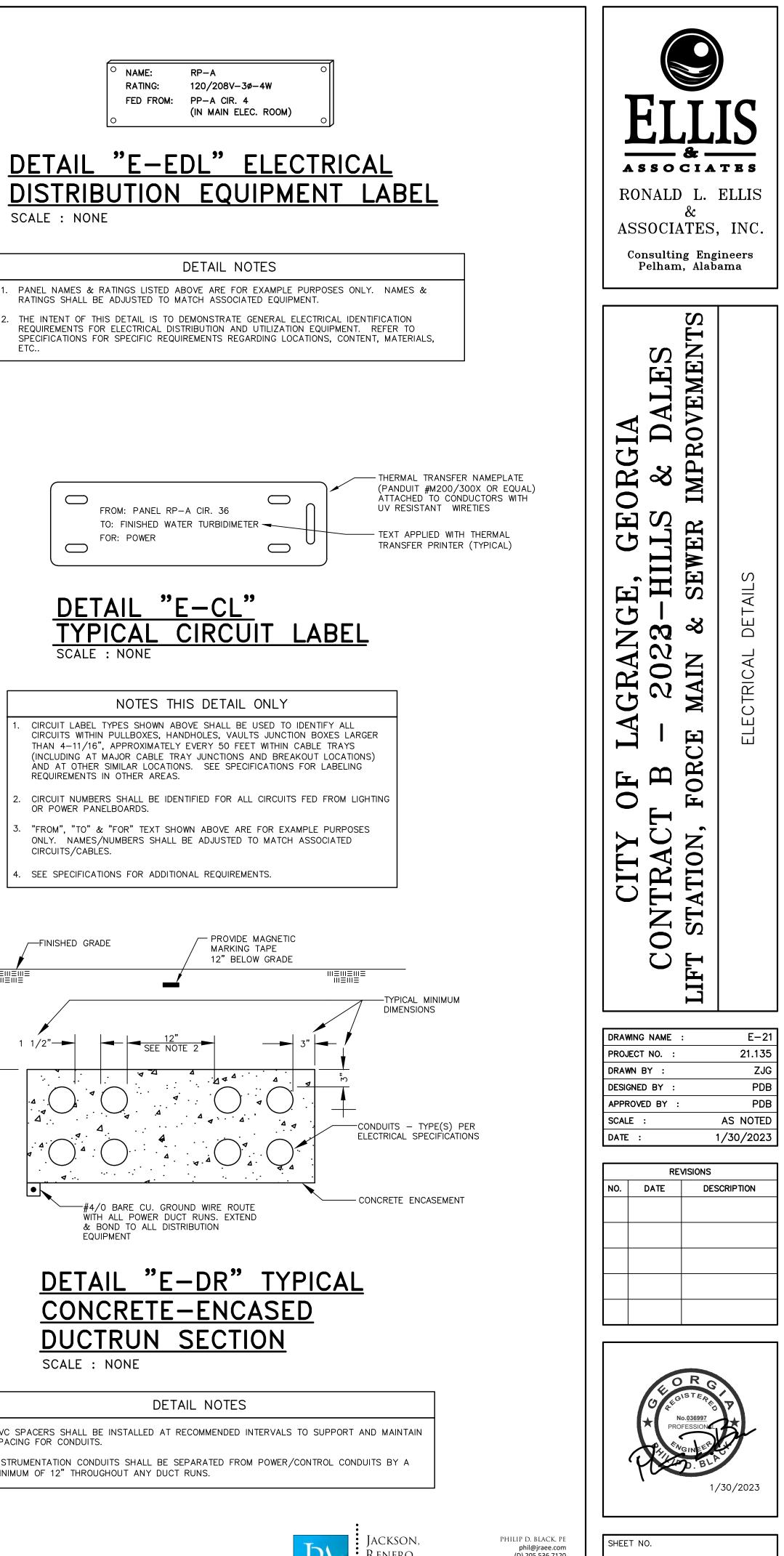


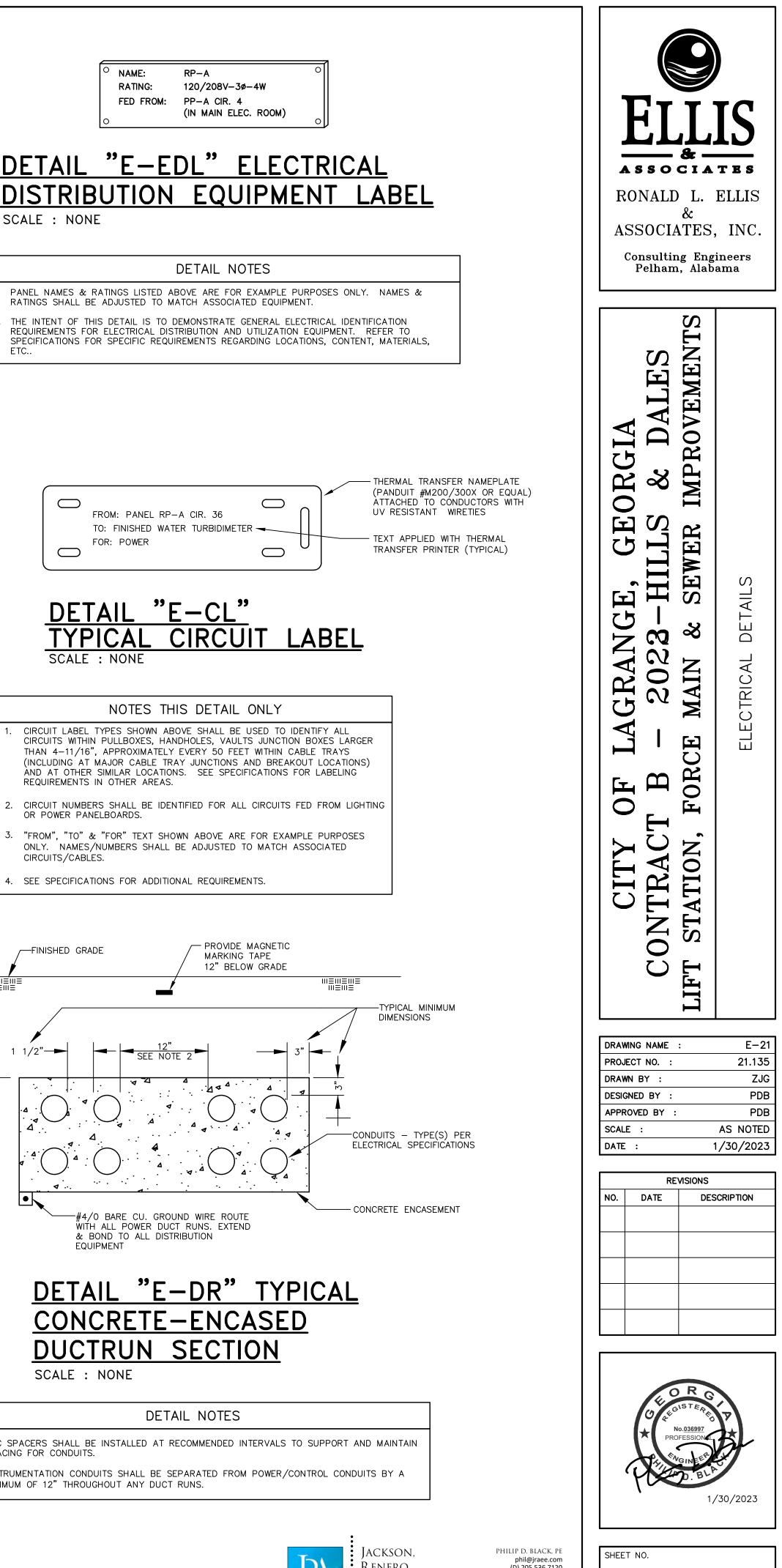
SCALE : NONE

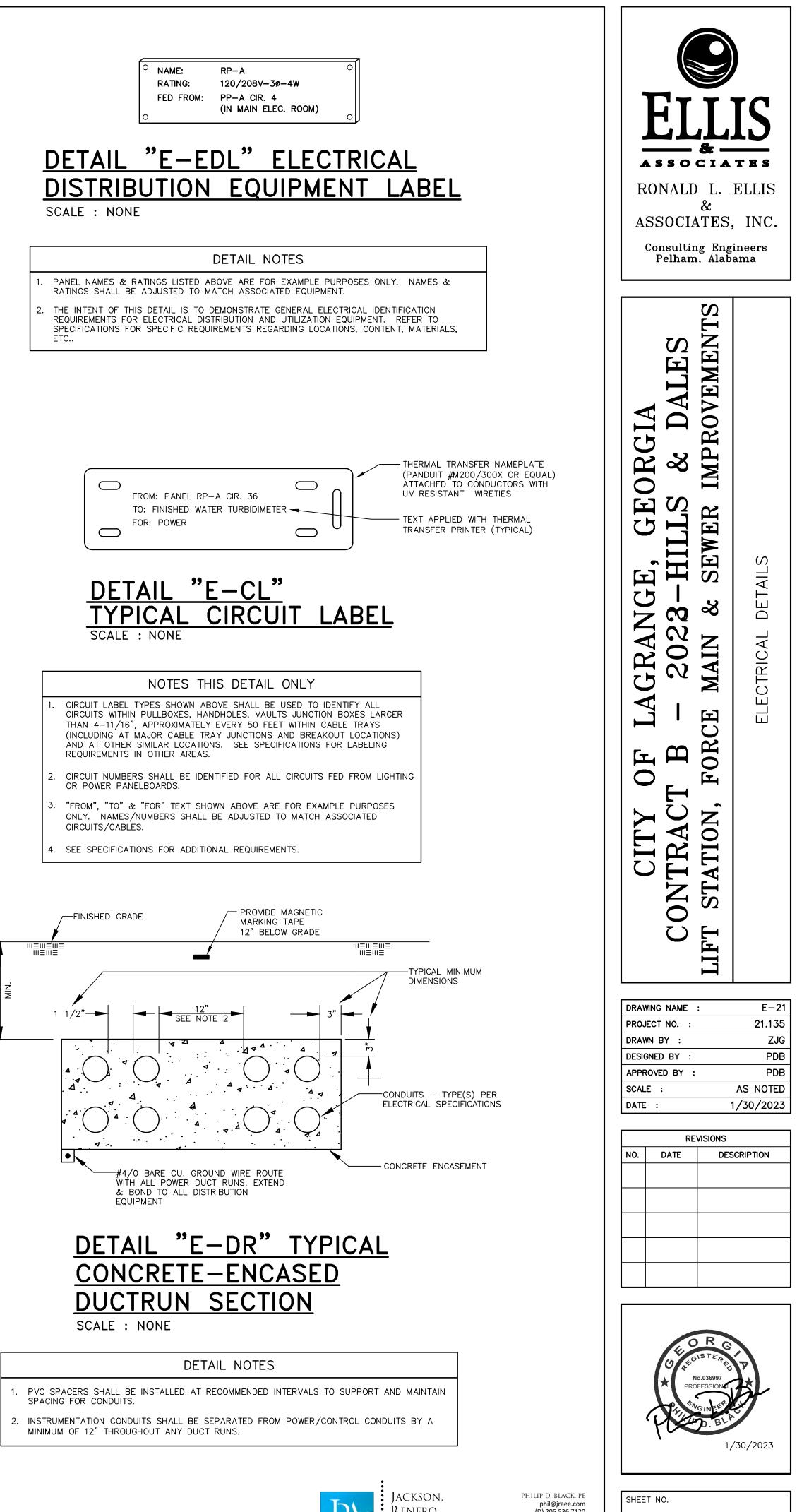
- DETAIL NOTES ALL DIMENSIONS SHOWN ARE TYPICAL. PROVIDE TWO (2) 1"E.C. FROM ALL DISTRIBUTION PANELS, LIGHTING PANELS, PLC'S AND
- OUT LOCATION (NOT UNDERNEATH CONCRETE/ROCK/STRUCTURE/ETC).

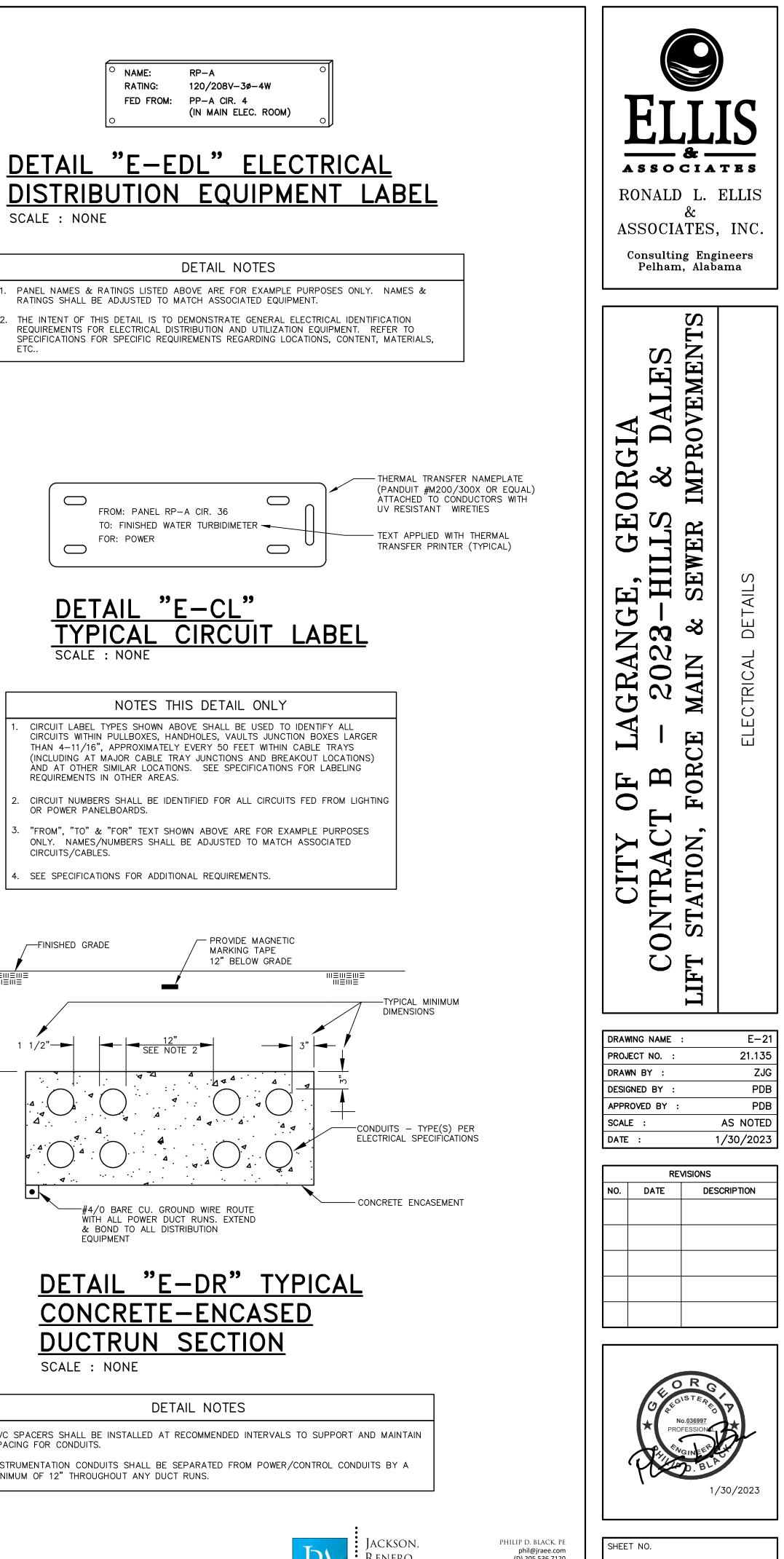
CONTROL PANÈLS ROUTED BELOW CONCRETE PAD TO NEÀREST PULLBOX OR ACCESSIBLE STUB





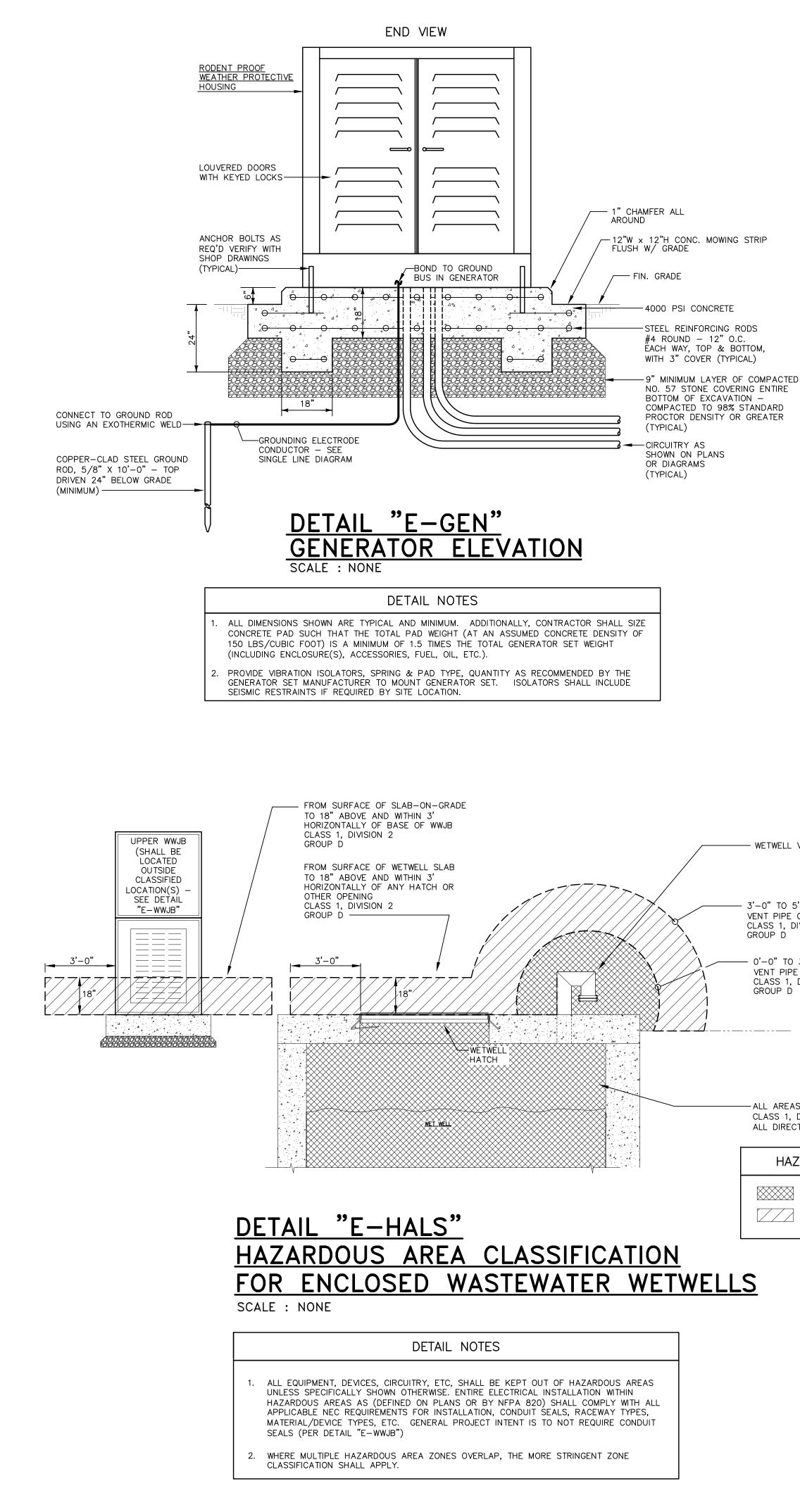






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E-21



WETWELL VENT PIPE

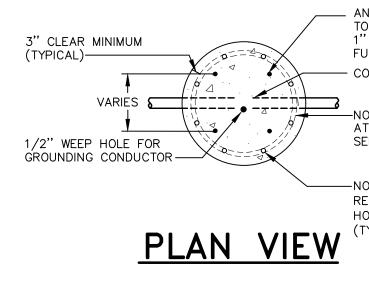
3'-0" TO 5'-0" RADIUS FROM WETWELL VENT PIPE OPENING (IN ALL DIRECTIONS) CLASS 1, DIVISION 2

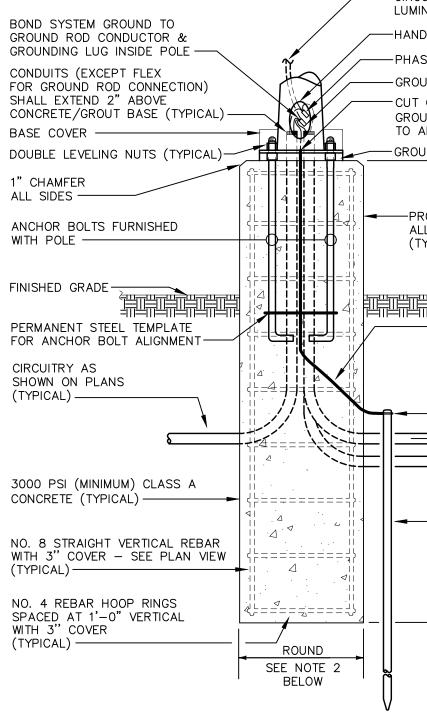
0'-0" TO 3'-0" RADIUS FROM WETWELL VENT PIPE OPENING (IN ALL DIRECTIONS) CLASS 1, DIVISION 1 GROUP D

-ALL AREAS WITHIN WETWELL CLASS 1, DIVISION 1 GROUP D (IN ALL DIRECTIONS)

HAZARDOUS AREA LEGEND

CLASS 1, DIVISION 1, GROUP D AREA
CLASS 1, DIVISION 2, GROUP D AREA





ELEVATION



DETAIL NOTES

- THIS CONTRACTOR SHALL CONFIRM SOIL CONDITIONS PRIOR TO BID OR INSTALLATION. IF SOIL CONDITIONS/TYPES ARE DIFFERENT THAN THE SPECIFIC TYPES INDICATED BELOW, OR THE POLE HEIGHTS ARE IN EXCESS OF THOSE LISTED BELOW, OR THE BASIC WIND SPEED FOR THE PROPOSED POLE LOCATION (PER ASCE 7 BASIC WIND SPEED MAPS) IS IN EXCESS OF 100MP, OR THE COMBINED E.P.A. OF ALL LUMINAIRES/ARMS/ACCESSORIES INSTALLED ON A POLE IS IN EXCESS OF 5.5 S.F., THE CONTRACTOR SHALL RETAIN A QUALIFIED STRUCTURAL ENGINEER (LICENCED IN THE STATE OF THE PROJECT) TO PROVIDE A PROJECT-SPECIFIC STRUCTURAL DESIGN FOR THE PROPOSED POLE BASE(S), AND SHALL
- INCLUDE ALL COSTS (FOR THE DESIGN AND THE REQUIRED POLE BASES) IN THE BID. 2. MINIMUM POLE BASE DIAMETER SHALL BE THE GREATER OF THE FOLLOWING: A. ANCHOR BOLT CIRCLE DIAMETER PLUS 8" (TO PROVIDE MINIMUM 4" COVER OVER ALL ANCHOR BOLTS).
- B. 20" DIAMETER. C. DIAMETER AS REQUIRED BY SOIL CONDITIONS OR BY POLE SUPPLIER.
- 3. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES OR OBSTRUCTIONS TO AVOID CONFLICTS PRIOR TO INSTALLATION OF LIGHT POLE BASE(S).
- 4. POLE SHALL BE RATED TO WITHSTAND THE WIND SPEED SPECIFIED FOR THE SPECIFIC PROJECT SITE LOCATION PER LATEST VERSION OF ASCE 7 BASIC WIND SPEED MAPS OR APPLICABLE LOCAL BUILDING CODE REQUIREMENTS (WHICHEVER IS MORE STRINGENT), WITH 1.3 GUST FACTOR WITH ALL LUMINAIRES & ACCESSORIES INSTALLED.

POLE BASE DIMENSIONS				
POLE HEIGHT	MININ	MINIMIMUM BASE DEPTH (BELOW GRADE) (SEE NOTE 1 ABOVE)		
	CLAYEY SOILS (CL, ML, CH, MH)	SANDY SOILS (SW, SP, SM, SC, GM, GC)	GRAVELY SOILS (GW, GP)	
0 - 15 FT. 16 - 20 FT. 21 - 25 FT. 26 - 30 FT. 31 - 35 FT. 36 - 40 FT. 41 - 45 FT. 46 - 50 FT.	6'-0'' 7'-0'' 8'-0'' 8'-6'' 9'-0'' 10'-0'' 10'-6'' 11'-0''	5'-0'' 5'-6'' 6'-0'' 7'-0'' 7'-6'' 8'-0'' 8'-6'' 9'-0''	4'-6'' 5'-0'' 5'-6'' 6'-6'' 7'-0'' 7'-6'' 8'-0'' 8'-6''	SEE NOTE 2 ABOVE SEE NOTE 2 ABOVE

ANCHOR BOLTS TO BE INSTALLED PERPENDICULAR TO ROADWAY OR AS SHOWN ON THE PLANS -1" DIAM. ANCHOR BOLTS - ANCHOR BOLT TEMPLATE FURNISHED BY POLE MANUFACTURER. · CONDUIT – SEE ELEVATION (TYPICAL)

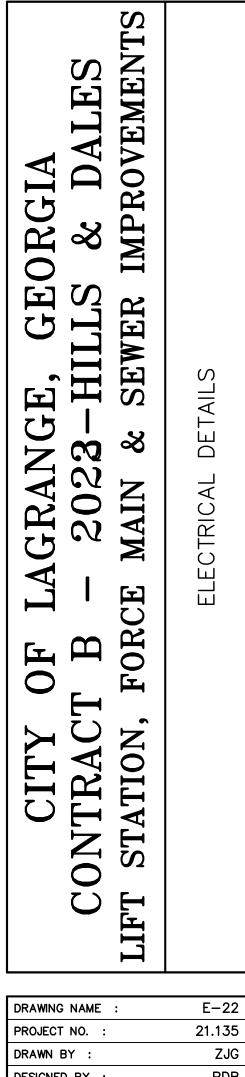
-NO. 4 REBAR HOOP RINGS SPACED AT 1'-0" VERTICAL WITH 3" COVER -SEE ELEVATION (TYPICAL)

-NO. 8 STRAIGHT VERTICAL REBAR SPACED AT 8" HORIZONTAL WITH 3" COVER (TYPICAL)

-CIRCUITRY UP POLE TO LUMINAIRES, ETC. (TYPICAL) -HAND HOLE AND COVER -CUT OFF 1/2" FLEXIBLE PVC WEEP HOLE (FOR GROUND CONDUCTOR) FLUSH WITH BOTTOM OF POLE TO ALLOW PROPER POLE DRAINAGE -GROUT UNDERNEATH BASE PLATE

OVIDE RUBBED FINISH ON _ EXPOSED CONCRETE 'PICAL)	24"	
WEEP HOLE – INSTALL 1/2" FLEXIBLE PVC CONDUIT WITH #6 AWG GROUND CONDUCTOR "*C CONNECT TO GROUND ROD USING AN EXOTHERMIC WELD. SPARE 1"E.C. STUBBED OUT OF POLE BASE WITH END CAP COPPER-CLAD STEEL GROUND ROD, 5/8" X 10'-C TOP DRIVEN 18" BELOW GRA (MINIMUM)	SEE_SCHEDU	

_ & _ ASSOCIATES RONALD L. ELLIS ASSOCIATES, INC **Consulting Engineers** Pelham, Alabama



DRAWING NAME :	E-22
PROJECT NO. :	21.135
DRAWN BY :	ZJG
DESIGNED BY :	PDB
APPROVED BY :	PDB
SCALE :	AS NOTED
DATE :	1/30/2023

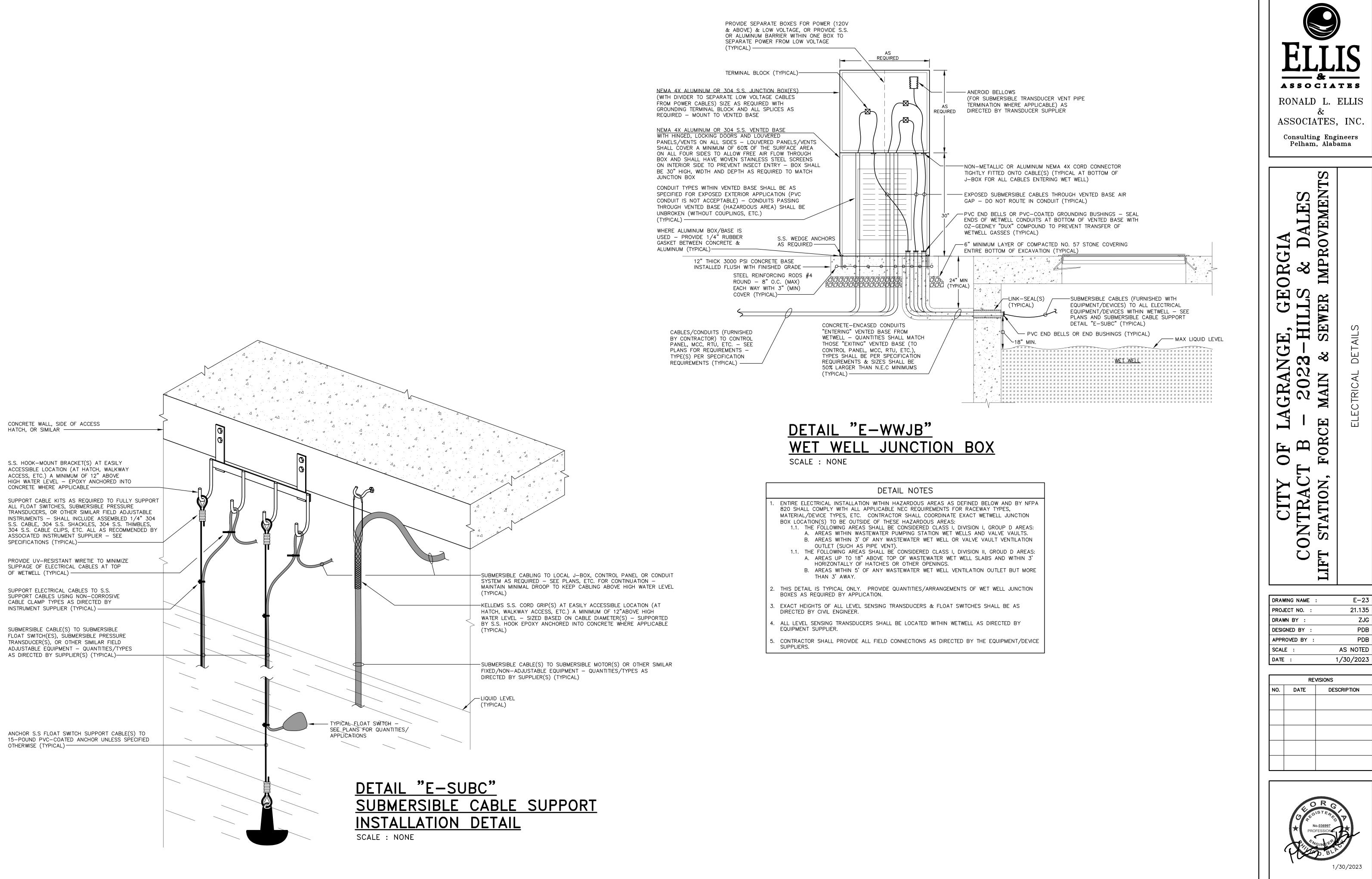
REVISIONS		
NO.	DATE	DESCRIPTION
	1	



E-22



SHEET NO.



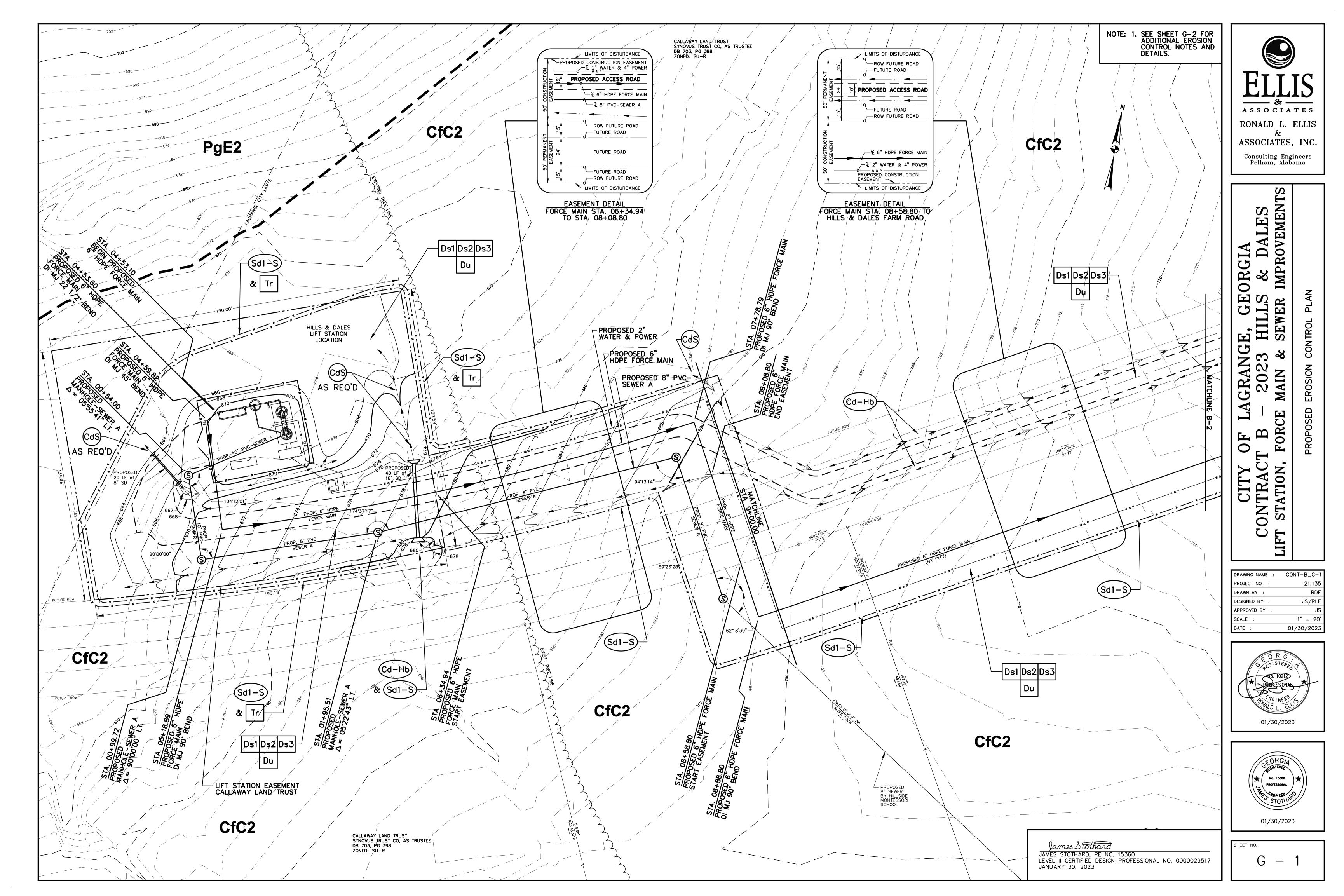
EAS AS DEFINED BELOW AND BY NFPA ENTS FOR RACEWAY TYPES, RDINATE EXACT WETWELL JUNCTION AREAS: LASS I, DIVISION I, GROUP D AREAS: N WET WELLS AND VALVE VAULTS. WELL OR VALVE VAULT VENTILATION
LASS I, DIVISION II, GROUD D AREAS: ER WET WELL SLABS AND WITHIN 3' INGS. WELL VENTILATION OUTLET BUT MORE
ANGEMENTS OF WET WELL JUNCTION
FLOAT SWITCHES SHALL BE AS
THIN WETWELL AS DIRECTED BY
DIRECTED BY THE FOUNDMENT /DEVICE

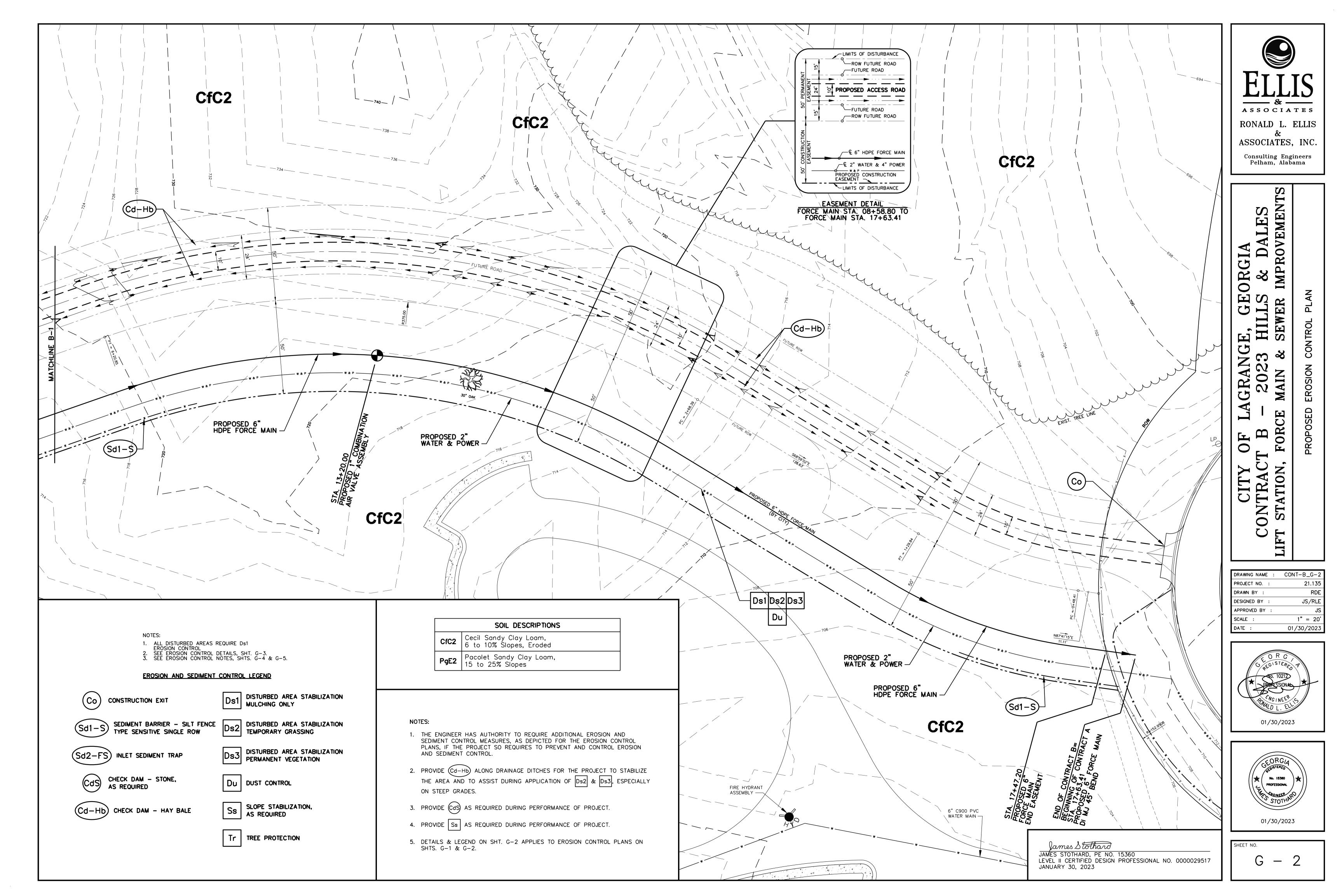
	REVISIONS		
NO.	DATE	DESCRIPTION	

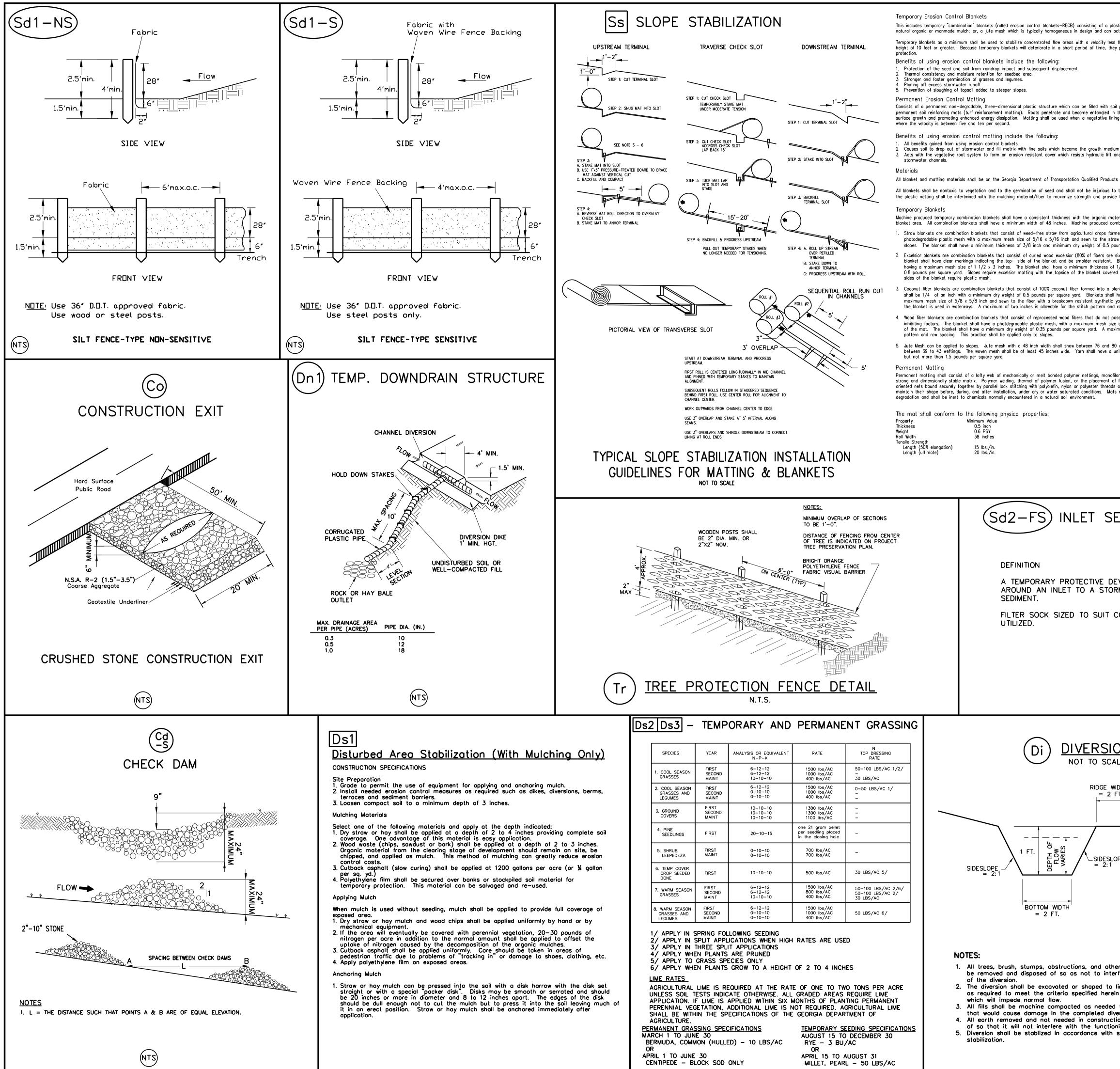
E-23



SHEET NO.







estic netting which covers and is intertwined with a lact alone as a soil stabilization blanket. than 5 ft/sec and slopes 2:5:1 or steeper with a y provide no enduring reduction in erosion il prior to planting. These mats are also known as the matrix, forming a continuous anchorage for ing is desired in stormwater conveyance channels and shear forces when embedded in the soil within as List (QPL #62 for blankets, QPL #49 for matting).	Cd-Hb STRAW BALE BARRIER BARRIER THE STRAW BALE BARRIER SHALL BE CONTINUOUS AND BE STAKED AND ENTRENCHED IN THE SOIL TO FORM A BARRIER TO CONTAIN SEDIMENT LADEN RUNOFF. SEE MANUAL FOR EROSION & SEDIMENT CONTROL.	ELLES ASSOCIATES, INC. Consulting Engineers Pelham, Alabama
e for ease of handling. terial evenly distributed over the entire miniation blankets include the following: ned into a blanket. Blankets with a top side of two with biodegradable thread is appropriate for usis inches or longer) formed into a blanket. The Blankets shall be photodegradable plastic mesh 1/4 of an inch and a minimum dry weight of d in the plastic mesh, and for waterways, both anket. The minimum thickness of the blanket have photodegradable plastic mesh, with a yar. Plastic mesh is required on both sides of row spacing. wasess or contain any growth or germination e of 5/8 x 3/4 inch, securely bonded to the top imum of two inches is allowable for the stitch and for the stitch or entangled to form a f fibers between two high strength, bioxially are all appropriate bonding methods. Mats shall s must be stabilized against ultraviolet EDIMENT TRAP EXICE FORMED AT OR RM DRAIN TO TRAP	Du DISTURBED AREAS	CITY OF LAGRANGE, GEORGIA CONTRACT B - 2023 HILLS & DALES LIFT STATION, FORCE MAIN & SEWER IMPROVEMENTS EROSION CONTROL PLAN DETAILS
Provide the proper functioning line, grade, and cross section n and free of irregularities to prevent unequal settlement ersion.		DRAWING NAME : CONT-B_G-3 PROJECT NO. : 21.135 DRAWN BY : RDE DESIGNED BY : JS/RLE APPROVED BY : JS SCALE : AS SHOWN DATE : 01/30/2023
ion shall be spread or disposed ning of the diversion. specification ch — channel	James Stothard JAMES STOTHARD, PE NO. 15360 LEVEL II CERTIFIED DESIGN PROFESSIONAL NO. 0000029517 JANUARY 30, 2023	sheet no. G — 3

<u>CLEARING PHASE</u> EROSION CONTROL NOTES:

Prior to the land disturbing constructions, the contractor shall schedule a pre-construction meeting with the area site development inspector.

The contractor shall observe the project sequence shown on the plans. The contractor shall maintain careful scheduling and performance to insure that land stripped of its natural cover is exposed only in small quantities.

The owner agrees to provide and maintain off-street parking on the subject property during the entire construction period.

No staging areas, material storage, concrete wash out areas, or debris burn and burial holed shall be located within 500 feet of designated tree protection areas.

A copy of the approved land disturbance plan and permit shall be present on the site at all times

The escape of sediment from the site shall be prevented by the installation of erosion and sediment control measures and practices prior to, or concurrent with, land-disturbing activities.

Prior to commencing land disturbance activity, the limits of land disturbance shall be clearly and accurately demarcated with stakes, ribbon, or other appropriate means. The location and extent of all authorized land disturbance activity shall be demarcated for the duration of the construction activity. No land disturbance shall occur outside the approved limits indicated on the approved plans.

Prior to any other construction, a stabilized construction entrance shall be constructed at each point of entry to or exit from the site or onto any public roadway.

The following initial erosion control measures shall be implemented prior to any other construction activity.

- 1. The construction exit, consisting of a minimum pad size of 20 feet by 50 feet with a minimum of 6" thick stone, shall be placed as shown on the plan. The stone size should consist of course aggregate between 1-1/2 and $3-1/2^*$ in diameter and overlaid on a geotextile underliner. The geotextile underliner shall meet the requirements of AASHTO M288-96, Section 7.3 separation requirements.
- 2. Immediately after the establishment of construction entrance/exits, all perimeter erosion control and storm water management devices shall be installed as shown on the clearing phase erosion control plan.
- 3. Type "S" silt fence should be installed at the perimeter of the disturbed area as shown on the plan. The silt fence should be placed in accordance with the Manual for Erosion Control in Georgia. The silt fence should be kept erect at all times and repaired when requested by the site inspector or the project design professional of record. Silt should be removed when accumulation reaches ½ height of the barrier. The perimeter silt fence should be inspected daily for any failures. Any failures of said fencing should be repaired immediately.
- 4. Stone check dams shall be installed in areas of concentrated flows as shown on the
- 5. Tree protection fencing should be installed prior to the start of any land disturbance activity and maintained until final landscape is installed. The tree protection fencing should be inspected daily. Any failures of said fencing should be repaired immediately.

After installation of initial erosion control measures the site contractor shall schedule an inspection by the project design professional. No other construction activities shall occur until the project design professional approves the installation of said erosion control measures. If unforeseen conditions exist in the field that warrant additional erosion control measures, the contractor must construct any additional erosion control devices deemed necessory by the site inspection.

After approval of the initial erosion control installation, the contractor may proceed with clearing and grubbing activities.

The contractor can utilize cleared trees as barrier brush sediment control in areas shown on plan where initial grading activities will not occur.

No burn or bury pits shall be permitted on the construction site without written permission by the owner and/or the engineer of record.

Additional silt barriers must be placed as shown on the plan as access is obtained during clearing. No grading shall take place until silt barrier installation and check dams are constructed as shown on the clearing phase erosion control plan.

All silt fence must meet the requirements of Section 171-Temporary Silt Fence for the Department of Transportation, State of Georaia, Standard Specifications, 1983 Edition,

All items in this section of the specifications shall meet the requirements as set forth in Sections 161, 162, 163 and 164 of the Georgia D.O.T. Standard Specifications for Roads and Bridges.

Mulch or temporary grassing shall be applied to all exposed areas within 7 days of land disturbance.

All disturbed areas left mulched after 30 days shall be stabilized with temporary vegetation.

Sediment and erosion control measures should be checked after each rain event. Each device is to be maintained or replaced if sediment accumulation has reached one half the copacity of the device. Additional devices must be installed if new channels have developed.

The construction exit shall be maintained in a condition which will prevent track or flow of mud onto public right-of-way. This may require periodic top dressing with 1-3" of stone, as conditions demand. All materials spilled, dropped, washed, or tracked from vehicle onto public roadway or into storm drain must be removed immediately.

Contractor shall inspect control measures at the end of each working day to ensure measures are functioning properly.

Erosion control measures will be maintained at all times. If full implementation of the approved plan does not provide for effective erosion control, additional erosion and sediment control measures shall be implemented to control or treat the sediment source as directed by the on site inspector or the design professional.

Failure to install, operate, or maintain all erosion control measures will result in all construction being stopped on the job until such measures are corrected back to the approved erosion control plans.

CONSTRUCTION PHASE EROSION CONTROL NOTES:

During construction, the contractor shall maintain careful scheduling and performance to ensure that land stripped of its natural ground cover is exposed only in small quantities and therefore limited durations, before permanent erosion protection is established.

Earthwork operations in the vicinity of stream buffers shall be carefully controlled to avoid dumping or sloughing into the buffer areas.

The following erosion control measures shall be implemented during the construction ohase.

Erosion control devices shall be installed immediately after ground disturbance occurs. The location of some of the erosion control devices may have to be altered from that shown on the approved plans if drainage patterns during construction are different from the proposed drainage patterns. It is the contractor's responsibility to accomplish erosion control for all drainage patterns created at various stages during construction. Any difficulty in controlling erosion during any phase of construction shall be reported to the design professional immediately.

Type "S" silt fence should be installed at the toe of all fill slopes 10 feet or greater in height. The silt fence should be placed in accordance with the manual for erosion control in Georgia. The silt fence shall be maintained until permanent ground cover is established on the slope. Silt shall be removed when accumulation reaches ½ height of the barrier. Additionally, diversion dikes shall be constructed along the top of all said fill slopes with the use of temporary down drains to control storm water run off as shown on the plans. See separate details for additional information.

The contractor shall be responsible for establishing barriers at the toe of slopes under construction. These barriers shall be as shown in the plans. These barriers may be relocated and reused after permanent slope stabilization becomes fully established. As they are relocated, any defective materials in the barrier shall be replaced. In addition, all debris and silt at the previous location shall be removed.

<u>FINAL PHASE</u> EROSION CONTROL NOTES:

<u>Permit Coverage:</u>

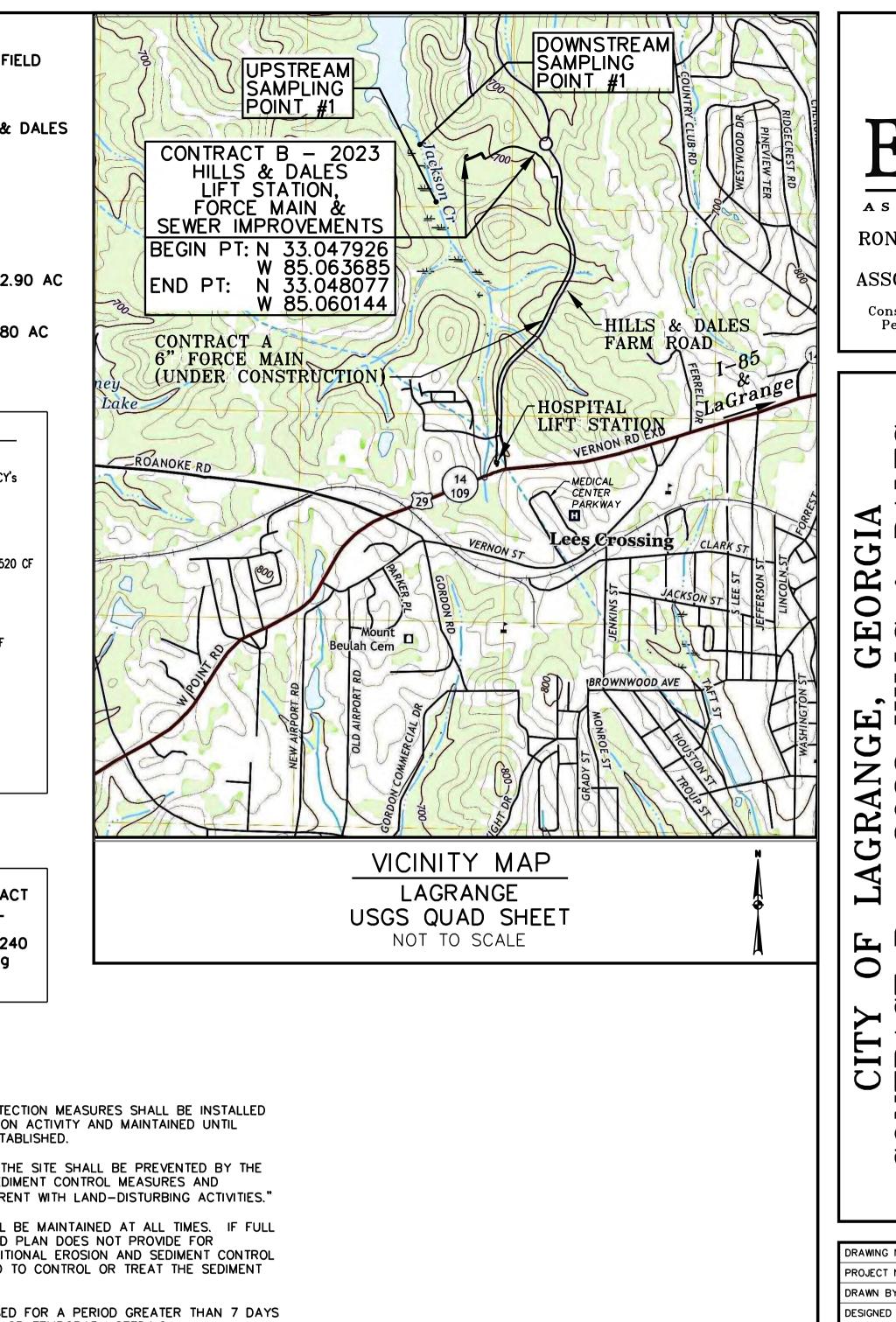
Authorized discharges

- 1. All discharges of stormwater associated with construction activity th land disturbance equal to or greater than one acre. Part 1.C.1.4.c
- 2. All discharges covered by this permit shall be composed entirely of except as provided in Part 1.C.2 and Part III.A.2 of the permit. Pa
- 3. Authorized mixed stormwater discharges: Part 1.C 2 A. The industrial source or activity other than construction is
 - some site as the construction activity and is an integral part construction activity.
 - B. The stormwater discharges associated with industrial activit of the site where construction activities are occurring are the terms of this permit.
 - C. Stormwater discharges associates with industrial activity from the site where industrial activity other than construction are covered by a different NPDES general permit or individual pe such discharges and the discharges are in compliance with NPDES permit.
- 4. Authorized Non-Stormwater Discharges: Part III.A.2
 - A. Fire fighting activities
 - B. Fire hydront flushing C. Potable water sources including water line flushing
 - D. Irrigation drainage
 - E. Air conditioning condensate F. Springs
 - G. Uncontaminated ground water H. Foundation or footing drains where flows are not contamina materials or pollutants
- Limitations on coverage Part 1.C.3
- this permit. A. Stormwater discharges associated with an industrial activity
- the site after construction activities have been completed an undergone final stabilization.
- B. Discharges that are mixed with sources of non-stormwater other than discharges which are identified in Part III.A.2 of this permit and which are in compliance with part IV.D.6 (Non-stormwater discharges) of this permit.

MAINTAIN EROSION & SEDIMENT CONTROL MEASURES

FINAL STABILIZATION

Cut and fill slopes are not to exceed "2H: 1V".	C. Stormwater discharges associated with industrial activity that are subject to	EXISTING LAND USE:	Sollin(C
All slopes steeper than 2.5:1 and with a height of ten feet or greater, and cuts and fills within stream buffers, shall be stabilized with appropriate erosion control matting or blankets. See separate details for additional information.	an existing NPDES individual or general permit. Such discharges may be authorized under this permit after an existing permit expires provided the existing permit did not establish numeric limitations for such discharges.	THIN WOODED AND GRASSED FIELD	Star Star
Type "S" silt fence shall be placed at the toe of all dirt stock pile areas. See separate details for additional information.	D. Stormwater discharges from construction sites that the direc or (EPD) has determined to be or may reasonably be expected to be contributing to a violation of a water quality standard.	PROPOSED LAND USE: CONTRACT B – 2023-HILLS & DALES LIFT STATION, FORCE MAIN &	
Storm drain outlet protection shall be placed at all existing outlet headwalls that discharge across the infrastructure linear project area. See separate details for additional information.	2. Where a release containing a hazardous substance in an amount equal to or in excess of a reporting quantity established under either Georgia's Oil or Hazardous Material Spills or Releases Act (O.C.G.A. 12–14–2, Et Seq.,) 40–CFR 117 or 40 CFR	SEWER IMPROVEMENTS	CONTRAC HILLS LIFT
Stone check dams shall be installed in areas of concentrated flows as shown on the plan. See separate detail for additional information.	302 occurs during a 24–hour period. The permittee is required to notify the following agencies in accordance with the above mentioned regulations as soon as he has knowledge of the discharge EPD at (404) 656–4863 or (800) 241–4113, or	TOTAL PROJECT DRAINAGE BASIN = 25.00 ACRES	
All drainage swales shall be applied with vegetative cover as soon as final grade is achieved.	The National Response Center (NRC) at (800) 424–8802. Part III.B.1. 3. This permit does not authorize the discharge of hazardous substances or oil	BASIN - 23.00 ACKES	BEGIN PT
All graded areas shall be applied with vegetative cover as soon as final grade is achieved.	resulting from an onsite spill. Part III.B.2. Water Quality Compliance Part 1.C.4	TOTAL AREA OF PROJECT = 2.90 AC	END PT:
Mulch or temporary grassing shall be applied to all exposed areas within 7 days of land disturbance.	All discharges authorized by this permit shall not cause violations of Georgia's in-stream		7400
All disturbed areas left mulched after 30 days shall be stabilized with temporary grassing.	water quality standards as provided by the Rules and Regulations for Water Quality Control, Chapter 391–3–6–03.	TOTAL DISTURBED AREA = 1.80 AC	CONTRACT 6" FORCE
Sediment and erosion control measures should be checked after each rain event. Each device is to be maintained or replaced if sediment accumulation has reached one half the capacity of the device. Additional devices must be installed if new channels have developed.	Sampling Methodology Part IV.D.5 All sampling shall be collected by "grab samples" and the analysis of these samples must be conducted in accordance with methodology and test procedures established by 40 CFR Part 136 (unless other test procedures have been approved), the guidance document titled "NPDES Stormwater Sampling Guidance Document, EPA	SEDIMENT CALCULATIONS	Lake (UNDER C
The construction exit shall be maintained in a condition which will prevent track or flow of mud onto public right–of–way. This may require periodic top dressing with 1–3" of stone, as conditions demand. All materials spilled, dropped, washed, or tracked from	833–B–92–001" and guidance documents that may be prepared by the EPD. 1. Sample container should be labeled prior to collecting the samples.	REQUIRED STORAGE ± 1.80 ACS. DISTURBED X 67 = ± 121 CY's	ROANOKE RD
vehicle onto public roadway or into storm drain must be removed immediately.	2. Large mouth, clean and rinsed glass or plastic jars with a minimum sample size of 200 milliliters should be used for collecting samples.	$\frac{1}{1.80} \text{ ACS. DISTURBED X 67} = \frac{1}{21} \text{ CTS}$ REQUIRED STORAGE = ± 120 CY's	12CT
Contractor shall inspect control measures at the end of each working day to ensure measures are functioning properly.	3. Samples should be taken from the horizontal and vertical center of the receiving	TOTAL STORAGE	the second
Erosion control measures will be maintained at all times. If full implementation of the approved plan does not provide for effective erosion	water(s) or the stormwater outfall channel(s). 4. Samples should be well mixed before transferring to a secondary container.	(1,880 LF) Sd1-S X 4 CF / LF = ±7,520 CF = ±7,520 CF / 27 = ±279 CY's	25 Jorr
control, additional erosion and sediment control measures shall be implemented to control or treat the sediment source as directed by the on site inspector or the design professional. Failure to install, operate, or maintain all erosion control measures will	5. Manual, automatic or rising stage sampling may be utilized. Samples required by this permit should be analyzed immediately, but in no case later than 48 hours after collection. However, samples from automatic samplers must be collected no later than the next business day after their accumulation, unless flow through	(4 EA) CdS X 4 CF / EA = ±16 CF = ±16 CF / 27 = ±1 CY's	BAN S
result in all construction being stopped on the job until such measures are corrected back to the approved erosion control plans.	automated analysis is utilized. 6. If manual sampling is employed, the sampling container should be held so that the opening faces upstream, the samples should be kept free from floating debris, and	(7 EA) Cd-Hb X 4 CF / EA = ± 28 CF = ± 28 CF / 27 = ± 1 CY's TOTAL STORAGE = ± 279 CY'S + ± 2 CY's	a de la contra de
<u>FINAL PHASE</u> EROSION CONTROL NOTES:	care should be taken to avoid stirring the bottom sediments in the receiving water(s) or in the outfall stormwater channel.	TOTAL STORAGE = ± 281 CY'S	+ m
The following erosion control measures shall be implemented during the final erosion control phase of construction.	7. The upstream sample for each receiving water(s) must be taken at the discharge farthest upstream at the site but downstream of any other stormwater discharges not associated with the permitted activity. Where appropriate, several upstream	TOTAL STORAGE > REQUIRED STORAGE	Yer
Sediment shall not be washed into inlets. It shall be removed from the sediment traps and disposed of and stabilized so that it will not enter the inlets again.	samples from across the receiving waters(s) may need to be taken and the arithmetic average of the turbidity of these samples used for the upstream turbidity value.	±281 CY's > ±121 CY's	RED-
Mulch or permanent grassing shall be applied to all exposed areas of land disturbance. All disturbed areas left mulched after 30 days shall be stabilized with permanent grassing.	volue. 8. The downstream sample for each receiving water(s) must be taken at the discharge farthest upstream at the site but downstream of any other stormwater discharges not associated wit the permitted activity. Where appropriate, several upstream		A
The contractor shall maintain all erosion control measures until permanent ground cover is established. Sediment shall be cleaned out of the erosion devices when it reaches the half way point on the device.	samples from across the receiving waters(s) may need to be taken and the arithmetic average of the turbidity of these samples used for the upstream turbidity value.	24 HR. EMERGENCY CONTACT	
Sediment and erosion control measures should be checked after each rain event. Each device is to be maintained or replaced if sediment accumulation has reached one half the capacity of the device. Additional devices must be installed if new channels have developed.	9. Permittees do not have to sample sheet flow that flows onto undisturbed natural areas or areas stabilized by the project. 10. Dilution of samples is not required.	MR. JAMES B. RUSSELL 200 Ridley Avenue City of LaGrange, Ga, 30240	
The construction exit shall be maintained in a condition which will prevent tract or flow	11. Samples may be analyzed using a direct reading, properly calibrated turbidimeter.	jrussell@lagrange-ga.org L (706) 883-2118	
of mud onto public right–of–way. This may require periodic top dressing with 1–3" of stone, as conditions demand. All materials spilled, dropped, washed, or tracked from vehicle onto public roadway or into storm drain must be removed immediately. Contractor shall inspect control measures at the end of each working day to ensure	12. Samples are not required to be cooled. 13. Sampling and analysis of the receiving water(s) or outfalls beyond the minimum frequency stated in the permit must be reported to EPD as specified in Part IV.E of		
measures are functioning properly.	the permit. 14. Turbidity results which exceed 1000 NTUI shall be reported as "exceeds 1000NTU".		
Erosion control measures will be maintained at all times. If full implementation of the approved plan does not provide for effective erosion control, additional erosion and sediment control measures shall be implemented to control or treat the sediment source as directed by the on site inspector or the design professional.	Sampling Frequency Part IV.D.5d 1. Sampling frequency shall occur in accordance with Part IV.D.5.d of the permit.	EROSION CONTROL NOTES: EROSION CONTROL AND TREE PROTECTION MEASU PRIOR TO ANY OTHER CONSTRUCTION ACTIVITY AN	
Failure to install, operate, or maintain all erosion control measures will result in all construction being stopped on the job until such measures are corrected back to the approved erosion control plans.	2. For a qualifying event, samples must be taken within forty-five (45) minutes of:	PERMANENT GROUND COVER IS ESTABLISHED. "THE ESCAPE OF SEDIMENT FROM THE SITE SHALL	BE PREVENTED BY T
Upon completion of the project and receipt of certificate of occupancy, the contractor shall remove all temporary erosion control measures and dispose of them unless noted on plans.	A. The accumulation of the minimum amount of rainfall for the qualifying event, if the stormwater discharge to a monitored receiving water or from a monitored outfall, if the discharge begins after the accumulation of the minimum amount of rainfall for the qualifying event.	INSTALLATION OF EROSION AND SEDIMENT CONTROPRACTICES PRIOR TO, OR CONCURRENT WITH LAN	DL MEASURES AND D-DISTURBING ACTIVITI
<u>Permit Coverage:</u>	B. The beginning of any stormwater discharge to a monitored receiving water or from a monitored outfall, if the discharge begins after the accumulation of the minimum amount of rainfall for the qualifying event.	"EROSION CONTROL MEASURES WILL BE MAINTAINE IMPLEMENTATION OF THE APPROVED PLAN DOES N EFFECTIVE EROSION CONTROL, ADDITIONAL EROSIO MEASURES SHALL BE IMPLEMENTED TO CONTROL	NOT PROVIDE FOR N AND SEDIMENT CON
This plan has been prepared to meet the requirements under the State of Georgia, Department of Natural Resources, Environmental Protection Division (ED, General Permit No. 100002 for authorization to discharge under the National Pollutant Discharge Elimination System (NPDES), stormwater discharges associated with construction activity	C. Where manual and automatic sampling are not impossible (as defined in the as soon as possible, but in no case more than twelve (12) hours after the	SOURCE."	
for infrastructure. Authorized discharges	beginning of the stormwater discharge.	SHALL BE STABILIZED WITH MULCH OR TEMPORAR	
1. All discharges of stormwater associated with construction activity that will result in	D. Normal business hours, as defined by the permit, are Monday through Friday, 8:00 a.m. to 5:00 p.m. and Saturday 8:00 a.m. to 5:00 p.m. when construction activity is being conducted by the primary permittee.	DESIGN PROFESSIONAL 7-DAY INSPECTION	
land disturbance equal to or greater than one acre. Part 1.C.1.4.c 2. All discharges covered by this permit shall be composed entirely of stormwater	3. Sampling shall occur for the following qualifying events for each area of the site that discharges to a receiving stream:	The Design Professional who prepared the ES & PC Plan within 7 days after the installation of all BMP Controls.	wiii inspect (ne instaliation
except as provided in Part 1.C.2 and Part III.A.2 of the permit. Part III.A.1. 3. Authorized mixed stormwater discharges: Part 1.C 2 A. The industrial source or activity other than construction is located on the same site as the construction activity and is an integral part of the	A. The first rain event that reaches or exceeds 0.5 inch and allows for monitoring during normal business hours that occurs after all clearing and grubbing operations have been completed in the drainage area of the location selected as the representative sampling location.		
construction activity. B. The stormwater discharges associated with industrial activity from the areas of the site where construction activities are occurring are in compliance with the terms of this permit.	B. The first rain event that reaches or exceeds 0.5 inch and allows for monitoring during normal business hours that occurs either 90 days after the first sampling event or after all mass grading operations have been competed in the drainage area of the location selected as the representative sampling location.		
C. Stormwater discharges associates with industrial activity from the areas of the site where industrial activity other than construction are occurring are covered by a different NPDES general permit or individual permit authorizing	 If BMPs in any area of the site that discharges to a receiving stream are not properly designed, installed and maintained, corrective action shall be defined and 		
such discharges and the discharges are in compliance with a different NPDES permit. 4. Authorized Non–Stormwater Discharges: Part III.A.2	implemented within 2 business days, and turbidity samples shall be taken from discharges from that area of the site for each subsequent rain event that reaches or exceeds 0.5 inch during normal business hours until the selected turbidity standard is attained, or until post—storm event inspections determine that		
A. Fire fighting activities B. Fire hydrant flushing C. Potable water sources including water line flushing D. Irrigation drainage E. Air conditioning condensate	BMPs are properly designed, installed and maintained. 5. The permittee may choose to meet the requirements of No. 5.1 and 5.2 by collecting turbidity samples from any rain event that reaches or exceeds 0.5 inch and allows for monitoring at any time of the day or week.		
F. Springs G. Uncontaminated ground water H. Foundation or footing drains where flows are not contaminated with process materials or pollutants	ALLOWABLE NTU VALUE BASED ON TABLE IN APPENDIX B OF GAR 100002 IS 75. CONTRACT B - 2023 HILLS & DALES LIET STATION, EORCE MAIN & SEWER IMPROVEMENTS		
Limitations on coverage Part 1.C.3	LIFT STATION, FORCE MAIN & SEWER IMPROVEMENTS		
1. The following stormwater discharges from construction sites are not authorized by this permit:	APPROXIMATE CONSTRUCTION SCHEDULE ACTIVITY TIME IN MONTHS I </td <td></td> <td></td>		
A. Stormwater discharges associated with an industrial activity that originates from the site after construction activities have been completed and the site has	TREE_PROTECTION Image: Crustering & Crus		
undergone final stabilization. B. Discharges that are mixed with sources of non-stormwater other than	EROSION CONTROL MEASURES CONSTRUCTION TEMPORARY & PERMANENT VEGETATION		
discharges which are identified in Part III.A.2 of this permit and which are in	EROSION CONTROL MEASURES		



EROSION CONTROL CERTIFICATION

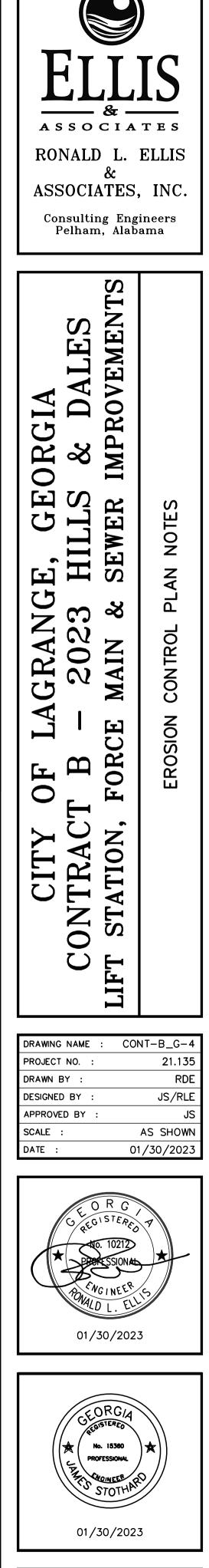
(1) I certify that the permitee's erosion, sedimentation and pollution control plan provides for an appropriate and comprehensive system of best management practices required by the Georgia Water Quality Control Act and the document "Manual for Erosion and Sediment Control in Georgia" (Manual) published by the Georgia Soil and Water Conservation Commission as of January 1 of the year in which land disturbing activity was permitted. The plan provides for the sampling of the receiving water(s) or the sampling of the storm water outfalls. The designed system of best management practices and sampling methods is expected to meet the requirements contained in the general NPDES Permit No. GAR 100002.

(2) "I certify under penalty of law that this plan was prepared after a site visit to the locations described herein by myself or my authorized agent, under my direct supervision."

(3) "I certify that the permittee's Erosion, Sedimentation and Pollution Control Plan provides for the monitoring of: (a) all perennial and intermittent streams and other water bodies shown on the USGS topographic map and all other field verified perennial and intermittent streams and other water bodies, or (b) where any such specific identified perennial or intermittent stream and other water body is not proposed to be sampled, I have determined in my professional judgment, utilizing the factors required in the General NPDES Permit No. GAR 100002, that the increase in the turbidity of each specific identified sampled receiving water will be representative of the increase in the turbidity of a specific identified un-sampled receiving water."

(4) "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is. to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

James Stothard JAMES STOTHARD. PE NO. 15360 LEVEL II CERTIFIED DESIGN PROFESSIONAL NO. 0000029517 JANUARY 30, 2023



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EROSION, SEDIMENTATION, AND POLLUTION CONTROL NARRATIVE TO COMPLY WITH GENERAL PERMIT NO. GAR100002:

GENERAL NOTES

- 1. The ESPCP must be completed prior to the start of any land
- disturbance activity. 2. The Plan shall be based on and adhere to (at a minimum) the
- practices contained in the "Manual For Erosion and Sediment Control in Georgia'
- 3. A copy of the ESPCP shall be kept at the construction site at all times. 4. The ESPCP shall be revised to reflect any construction changes that could effect the potential for discharge of pollutants into adjacent state waters.
- 5. The ESPCP shall incorporate the erosion control plans which shall be referred to herein.

SITE DESCRIPTION

Existing Conditions:

The project site is currently grassed road row and open grassed ground cover. Site slopes vary from 2% to 15% along banks of streams. The water quality from this site meets expectations for this type of area, with water containing organic particulate from vegetation decomposition.

Proposed Conditions:

The proposed project will consist of the Contract A - 2022 Hills & Dales Force Main Improvements. Proposed slopes and drainage patterns will approximately match pre-construction conditions.

Construction Activity and Sequence:

- 1. Flag state water buffers to be protected from disturbance. No activity shall be conducted within the 25-foot stream buffer along the banks of all state waters.
- 2. Install construction entrance 3. Clear and grub construction area to be disturbed and install clearing silt barriers and check dams
- 4. Stabilize slopes with mats, temporary vegetation, and check dams. 5. Final grading for construction of improvements.
- 6. Stabilization of finish grade areas with temporary vegetation or mulch as needed to exceed 90% cover.
- 7. Final construction of improvements.
- 8. Remove accumulated sediment in silt fences and check dams. 9. Conduct final stabilization procedures installing permanent vegetation
- and/or gravel as needed to exceed 80% cover.

Total site area = 2.90 AC.

Total area disturbed by excavation and grading = 1.80 AC.

Pre-construction curve number = 61

Post-construction curve number = 74

<u>Soils:</u>

Soils for this area consist of sandy clay loams. Site runoff is conveyed into BMP's facilities.

<u>Site Maps:</u>

Refer to erosion control plans, for location of BMP's and drainage patterns and slopes.

Name of Receiving Waters:

Jackson Creek

<u>CON TROLS</u>

Erosion and Sediment Controls:

All perimeter silt fences and construction exits shall be in place prior to any land disturbing activities.

Existing vegetation shall be left in place until such time that land disturbing activities are to take place upon that portion of the site. When construction activities have ceased in an area, that area shall be stabilized within 14 days. If the area is not yet to final grade, it shall be mulched. If the area is to final grade and will eventually contain site improvements such as the manholes or sewers, it shall be temporary seeded. Areas brought to final grade that will remain pervious are to be permanently seeded. Allowable exceptions from the NPDES General Permit. GAR 100002. are noted below.

"Where the initiation of stabilization measures by the 14th day after construction activity temporary or permanently cease is precluded by snow cover or other adverse weather conditions, stabilization measures shall be initiated as soon as practicable."

"Where construction activity will resume on a portion of the site within 21 days from when activities ceased, (e.g. the total time period that construction activity is temporarily ceased is less than 21 days) then stabilization measures do not have to be initiated on that portion of the site by the 14th day after construction activity temporarily ceased."

Please refer to Detail Sheets for the land disturbance construction schedule and temporary and permanent grassing schedules.

Storm water from this development will be routed through the existing onsite BMP's and grass swales to the existing tributary, Blue John Creek.

NON-STORM WATER DISCHARGES

All non-storm water discharges will be routed through onsite BMP's and the storm water management system where possible. These discharges include flushing of water, ground water, dewatering of pits or trenches within the construction site and rinse off water of non-toxic materials.

<u>OTHER CONTROLS</u>

NO WASTE WILL BE DISPOSED OF INTO STORM WATER INLETS OR WATERS OF THE STATE.

Waste Materials:

All waste materials will be collected and stored in a securely lidded metal dumpster. The dumpster will meet all solid waste management regulations. All trash and construction debris from the site will be deposited in the dumpster. The dumpster will be emptied a minimum of once per week or more often if necessary and trash will be hauled as required by local regulations. No construction waste will be buried on site.

All personnel will be instructed on proper procedures for waste disposal. A notice stating these practices will be posted at the jobsite and the Contractor will be responsible for seeing that these procedures are followed.

Hazardous Wastes:

All hazardous waste materials will be disposed of in the manner specified by local, state, and/or federal regulations and by the manufacturer of such products. The jobsite superintendent, who will also be responsible for seeing that these practices are followed, will instruct site personnel in these practices. Material Safety Data Sheets (MSDS's) for each substance with hazardous properties that is used on the jobsite will be obtained and used for the proper management of potential wastes that may result from these products. An MSDS will be posted in the immediate area where such product is stored and/or used and another copy of each MSDS will be maintained in the ESPCP file at the jobsite construction trailer office. Each employee who must handle a substance with hazardous properties will be instructed on the use of MSDS sheets and the specific information in

2. Qualified personnel (provided by the primary permittee) shall inspect at the applicable MSDS for the product he/she is using, particularly regarding least once every seven (7) calendar days and within 24 hours of the end spill control techniques. of a storm that is 0.5 inches or greater the following: a) disturbed areas of the primary permittee's construction site that have not undergone final The contractor will implement the Spill Prevention Control and stabilization; b) areas used by the primary permittee for storage of Countermeasures (SPCC) Plan found within this ESPCP and will train all materials that are exposed to precipitation that have not undergone final personnel in the proper cleanup and handling of spilled materials. No stabilization; and c) structural control measures. Erosion and sediment spilled hazardous materials or hazardous wastes will be allowed to come in control measures identified in the Plan applicable to the primary contact with storm water discharges. If such contact occurs, the storm permittee's site shall be observed to ensure that they are operating water discharge will be contained on site until appropriate measures in correctly. Where discharge locations or points are accessible, they shall compliance with state and federal regulations are taken to dispose of such be inspected to ascertain whether erosion control measures are effective contaminated storm water. It shall be the responsibility of the jobsite superintendent to properly train all personnel in the use of the SPCC plan. in preventing significant impacts to receiving water(s). For areas of a site that have undergone final stabilization, the permittee must comply with Part IV.D.3.a(3). These inspections must be conducted until a Notice of <u>Sanitary Wastes:</u> Termination is submitted.

A minimum of one portable sanitary unit will be provided for every ten (10) workers on the site. All sanitary waste will be collected from the portable units a minimum of one time per week by a licensed portable facility provider in complete compliance with local and state regulations.

All sanitary waste units will be located in an area where the likelihood of the unit contributing to storm water discharge is negligible. Additional containment BMP's must be implemented, such as gravel bags or specially designed plastic skid containers around the base, to prevent wastes from contributing to storm water discharges. The location of sanitary units must be identified on the Erosion Control Plan Construction Plan by the contractor once the locations have been determined.

Offsite Vehicle Tracking:

Stabilized construction exits have been provided to help reduce vehicle tracking of sediment. The paved street adjacent to the site exit will be inspected daily for tracking of mud, dirt or rock. Dump trucks hauling material from the construction site will be covered with a tarpaulin.

INVENTORY FOR POLLUTION PREVENTION PLAN

The following materials are expected onsite during construction: Concrete products, petroleum based fuels and lubricants for equipment, soil stabilization materials, pesticides, fertilizers, herbicides, crushed stone, ductile iron pipes and precast concrete manholes.

SPILL PREVENTION

Practices such as good housekeeping, proper handling of hazardous products and proper spill control practices will be followed to reduce the risk of spills and spills from discharging into storm water runoff.

<u>Good Housekeeping:</u>

- 1. Quantities of products stored onsite will be limited to the amount needed for the job.
- 2. Products and materials will be stored in a neat, orderly manner in ropriate containers protected from rainfall, where possible 3. Products will be kept in their original containers with manufacturer
- labels legible and visible. 4. Product mixing, disposal and disposal of product containers will be
- according to the manufacturer's recommendations. 5. The Contractor will inspect such materials to ensure proper use,

<u>Product Specific Practices:</u>

storage and disposal.

Petroleum Based Products – Containers for products such as fuels, lubricants and tars will be inspected daily for leaks and spills. This includes onsite vehicle and machinery daily inspections and regular preventative maintenance of such equipment. Equipment maintenance areas will be located away from state water, natural drains and storm water drainage inlets. In addition, temporary fueling tanks shall have a secondary containment liner to prevent/minimize site contamination. Discharge of oils, fuels and lubricants is prohibited. Proper disposal methods will include collection in a suitable container and disposal as required by local and state regulations.

Concrete Truck Washing – NO concrete trucks will be allowed to wash out or discharge surplus concrete or drum wash water onsite.

Fertilizer/Herbicides – These products will be applied at rates that do not exceed the manufacturer's specifications or above the quidelines set forth Sediment shall be removed from silt fences once it has accumulated to ${}^{\prime\prime}_{\prime}$ in the crop establishment or in the GSWCC Manual for Erosion and the original height of the barrier. Filter fabric shall be replaced whenever Sediment Control in Georgia. Any storage of these materials will be under it has deteriorated to such an extent that the effectiveness of the fabric roof in sealed containers. is reduced (approximately six months).

Construction Materials – No construction materials will be buried or disposed of onsite. All such material will be disposed of according to proper waste disposal procedures. Spill Cleanup and Control Practices

* Local, state and manufacturer's recommended methods for spill cleanup will be clearly posted and procedures will be made available to site personnel.

* Material and equipment necessary for spill cleanup will be kept in the material storage areas. Typical materials and equipment includes, but is not limited to, brooms, rags, gloves, goggles, sand, sawdust and properly labeled plastic and metal waste containers.

* Spill prevention practices and procedures will be reviewed after a spill and adjusted as necessary to prevent future spills. * All spills will be cleaned up immediately upon discovery. All spills will be

reported as required by local, state and federal regulations. * FOR SPILLS THAT IMPACT SURFACE WATER (LEAVE A SHEEN ON SURFACE

WATER), THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED Repair all damages caused to temporary sediment basins by soil erosion WITHIN 24 HOURS AT 1- 800-426-2675. or construction equipment at or before the end of each working day. * FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL RESPONSE CENTER Sediment shall be removed from the basin when it reaches the specified (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-426-2675. distance below the top of the riser. Sediment shall not enter adjacent * FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER streams or drainage ways during sediment removal or disposal. The sediment shall not be deposited downstream from the embankment, IMPACTS. THE GEORGIA EPD WILL BE CONTACTED WITHIN 24 HOURS. * FOR SPILLS LESS THAN 25 GALLONS AND NO SURFACE WATER IMPACTS. adjacent to a stream or floodplain. THE SPILL WILL BE CLEANED UP AND LOCAL AGENCIES WILL BE CONTACTED Inspect riprop outlet structures after heavy rains to see if any erosion AS REQUIRED. around or below the riprap has taken place or if stones have been The Contractor shall notify the licensed professional who prepared this plan dislodged. Immediately make all needed repairs to prevent further damage.

if more than 1320 gallons of petroleum is stored onsite (this includes Roughened areas shall be seeded and mulched as soon as possible to capacities of eauipment) or if any one piece of eauipment has a capacity obtain optimum seed germination and seeding growth. greater than 660 gallons. The Contractor will need a Spill Prevention Containment and Countermeasures Plan prepared by that licensed professional.

INSPECTIONS

Primary Permittee 1. Each day when any type of construction activity has taken place at a primary permittee's site, qualified personnel provided by the primary permittee shall inspect: a) all areas at the primary permittee's site where petroleum products are stored, used, or handled for spills and leaks from vehicles and equipment; b) all locations at the primary permittee's site where vehicles enter or exit the site for evidence of offsite sediment trackina: and c) measure rainfall once each twenty-four hour period at the site. These inspections must be conducted until a Notice of Termination is submitted.

3. Qualified personnel (provided by the primary permittee) shall inspect at least once per month during the term of this permit (i.e. until a Notice of Termination is received by EPD) the areas of the site that have undergone final stabilization. These areas shall be inspected for evidence of, or the potential for, pollutants entering the drainage system and the receiving water(s). Frosion and sediment control measures identified in the Plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s).

4. Based on the results of each inspection, the site description and the pollution prevention and control measures identified in the Erosion. Sedimentation and Pollution Control Plan, the Plan shall be revised as appropriate not later than seven (7) calendar days following each inspection. Implementation of such changes shall be made as soon as practical but in no case later than seven (7) calendar days following each inspection. 5. A report (i.e. not individual inspection form(s) summarizing the scope of each inspection and the name(s) of personnel making each inspection, the date(s) of each inspection, major observations relating to the implementation of the Erosion, Sedimentation and Pollution Control Plan and actions taken in accordance with Part V.A.5.a(4) of the permit shall be made and retained at the site or be readily available at a designated alternate location until the entire site or that portion of a construction project that has been phased has undergone final stabilization and a Notice of Termination is submitted to EPD. Such reports shall identify any incidents of noncompliance. Where the report does not identify any incidents of non-compliance, the report shall contain a certification that the facility is in compliance with the Erosion, Sedimentation and Pollution Control Plan and this permit. The report sha be signed in accordance with Part V.G. of this permit. Should the inspection reveal any deficiencies, a copy of the "Erosion and Sedimentation Inspection and Maintenance Report" shall be sent to:

OWNER:	ENGINEER:
Mr. Patrick Bowie	Mr. Ronald L. Ellis
City of LaGrange	Ronald L. Ellis & Associates,Inc.
200 Ridley Avenue	P. O. Box 1150
LaGrange, GA 30240	Pelham, AL 35124
obowie@lagrange.net	ron@rlellisco.com
(706)883-2065	(205)966-8191

MAINTENANCE & INSPECTION OF EROSION & SEDIMENT CONTROLS

<u>Maintenance:</u>

The following best management practice maintenance criteria are taken from the "Manual for Erosion and Sediment Control in Georgia", Sixth Edition.

Construction exits shall be maintained in a condition that will prevent tracking or flow of mud onto public rights-of-way. This may require periodic top dressing with 1.5 - 3.5 inch stone, as conditions demand, and repair and/or clean cut of any structures to trap sediment. All materials spilled, dropped, washed, or tracked from vehicles or site onto roadways or into storm drains must be removed immediately.

Retrofit structures shall be kept clear of trash and debris. This will require continuous monitoring and maintenance, which includes sediment removed when one-third of the sediment storage capacity has been lost.

Sediment shall be removed from sediment traps when the sediment has accumulated to ½ the height of the trap. Sediment shall be removed from curb inlet protection immediately. For excavated inlet sediment traps, sediment shall be removed when one-half of the sediment storage capacity has been lost to sediment accumulation.

Sediment shall not be washed into the inlet. It shall be removed from the sediment trap and disposed of and stabilized so that it will not enter the inlet, again.

When the contributing drainage area has been permanently stabilized, oil materials and any sediment shall be removed, and either salvaged or disposed of properly. The disturbed area shall be brought to proper grade, then smoothed and compacted. Appropriately stabilize all disturbed areas around the inlet.

Mulch or temporary grassing shall be applied to all exposed areas within 14 days of disturbance. Mulch can be used as a singular erosion control device for up to six months, but it shall be applied at the appropriate depth. depending on the material used, anchored, and have a continuous 90% cover. Temporary vegetation may be employed instead of mulch if the area will remain undisturbed for less than six months. If an area will remain undisturbed for greater than six months, permanent vegetative techniques shall be employed.

Permanent vegetation shall be applied immediately to rough graded areas that will be undisturbed for longer than six months. This practice shall be applied immediately to all areas at final arade. Final Stabilization means that all soil disturbing activities at the site have been completed, and that for unpaved areas and areas not covered by permanent structures, at least 70% of the soil surface is uniformly covered in permanent vegetation or equivalent permanent stabilization measures (such as the use of riprop, gabions, permanent mulches or geotextiles) have been employed. Permanent vegetation shall consist of a crop of perennial vegetation appropriate for the region, such that within the growing season a 70% coverage by perennial vegetation shall be achieved. Final stabilization applies to each phase of construction. Until this standard is satisfied and permanent control measures and facilities are operational, interim stabilization measures and temporary erosion and sedimentation control measures shall not be removed.

<u>STORM WATER SAMPLING</u>

SAMPLE ANALYSIS

Storm water samples are to be analyzed in accordance with methodology and test procedures established by 40 CFR Part 136 and the guidance document titled "NPDES Storm Water Sampling Guidance document, EPA 833-B-92-001. "

Storm water is to be sampled for nephelometric turbidity units (NTU) at the outfall location. A discharge of storm water runoff from disturbed areas where best management practices have not been properly designed, installed, and maintained shall constitute a separate violation for each day on which such condition results in the turbidity of the discharge exceeding 75. the value that was selected from Appendix B. in Permit No. GAR 100002. The NTU is based upon the disturbed acreage of 0.50 acres for the project site, the surface water drainage area of 0.60 square miles, and receiving water which supports warm water fisheries.

<u>Sample Type:</u>

All sampling shall be collected by "grab samples" and the analysis of these samples must be conducted in accordance with methodology and test procedures established by 40 CFR Part 136 (unless other test procedures have been approved); the guidance document titled "NPDES Storm Water Sampling Guidance Document, EPA 833-8-92-001" and guidance documents that may be prepared by the EPD.

Per NPDES Permit, GAR 100002, "sample containers should be labeled prior to collecting the samples. Samples should be well mixed before transferring to a secondary container. Large mouth, well-cleaned and rinsed glass or plastic jars should be used for collecting samples. The jars should be cleansed thoroughly to avoid contamination. Manual, automatic or rising stage sampling may be utilized."

Sampling Points:

There will be 2 storm water sampling locations. Sampling locations numbered 1 will be the upstream sampling point. Sampling location number 2 will be the downstream location. Per NPDES Permit GAR 100002, for construction activities, the Primary Permittee must complete all sampling.

Appendix B was used to determine the NTU units allowable and upstream and downstream sampling will be performed for this project.

* Care should be taken to avoid stirring the bottom sediments in the receiving water(s) or in the outfall storm water channel. * The sampling container should be held so that the opening faces

upstream. * The samples should be kept free from floating debris. * The Primary Permittee does not have to sample sheet flow onto undisturbed natural areas or areas stabilized by the project.

Sampling Frequency:

Storm water samples shall be taken for the following storm events:

A) For each area of the site that discharges to a receiving stream, the first rain event that reached or exceeds 0.5 inch and allows for monitoring during normal business hours. (Monday through Friday, 8:00 am to 5:00 pm and Saturday 8:00 am to 5:00 pm when construction activity is being conducted by the Primary Permittee) that occurs after all clearing and grubbing operation.

SOIL EROSION AND SEDIMENTATION CONTROL NOTES:

- 1. This project does not include critical work zones.
- 2. The construction limits shall be maintained in a condition that will prevent the tracking of mud onto public streets.
- 3. This project does not propose to encroach into stream buffers.
- 4. No clearing activities will be allowed outside the limits of construction or disturbance and also within any tree save area.
- All state waters that are located on or within 200 feet of the project have been delineated.
- 6. The project site does contain wetlands that have been delineated.
- The soil types were provided by the U.S. Department of Agriculture Natural Resources Conservation Service.
- 8 The contractor shall furnish the Owner with a schedule and sequence of activities to accomplish the soil erosion and sediment control plan.
- Silt fence barriers and check dams shall be cleaned and maintained to operate until permanent erosion control measures are established. All erosion and sediment devices must be maintained in a satisfactory condition 24 hours a day, 7 days a week.
- 10. All temporary and permanent grassing shall comply with the manual for erosion and sediment control in Georgia. The grassing shall be performed for the appropriate season. Additional grassing will be necessary if sufficient stand of grass fails to grow.
- 11. All erosion control devices shall be installed before the site is disturbed and must be inspected daily and repaired or restored as needed to function properly until permanent measures are established and the project is complete. All construction exits, silt fences and check dams shall be cleaned and restored as silt reduces the effectiveness of the device.

- 12. All disturbed areas left exposed for a period greater than 14 days shall be stabilized with mulch or temporary grassing.
- 13. All disturbed areas require permanent vegetation as quickly as possible.
- 14. Rip rap shall be placed as required to control erosion.
- 15. All slopes steeper than 3:1 require surfacing roughening.
- 16. All construction debris resulting from clearing and grubbing activities shall be hauled to an off-site location.
- 17. Notice is hereby given that all erosion and sediment devices must be installed and maintained at all times. No further notice will be given
- 18. It is the responsibility of the contractor to obtain a aualified professional advice when questions arise concerning design and effectiveness of erosion control devices.
- 19. Any amendment to the erosion control plans which have a significant effect on BMPs with a hydraulic component must be certified by the design professional.
- 20. The escape of sediment from the site shall be prevented by the installation of erosion and sediment control measures and practices prior to, or concurrent with, land disturbing activities.
- 21. Erosion control measures will be maintained at all times. If full implementation of the approved plan does not provide for effective erosion control, additional erosion and sediment control measures shall be implemented to control or treat the sediment source.
- 22. All disturbed areas left exposed for a period greater than 7 days shall be stabilized with mulch or temporary grassing.
- 23. Non-exempt activities shall not be conducted within the 25 or 50-foot undisturbed stream buffers as measured from the point of wrested vegetation or within 25-feet of the coastal marshland buffer as measured from the Jurisdictional Determination Line without first acquiring the necessary variances and permits.
- 24. Waste materials shall not be discharged to waters of the State, except as authorized by a Section 404 permit.
- RECORD KEEPING AND REPORTING REQUIREMENTS

1. The applicable permittees are required to submit the sampling results to the EPD by the fifteenth day of the month following the reporting period. Reporting periods are months during which samples are taken in accordance with this permit. Sampling results shall be in a clearly legible format. Upon written notification, EPD may require the applicable permittee to submit the sampling results on a more frequent basis. Sampling and analysis of any stormwater discharge(s) or the receiving water(s) beyond the minimum frequency stated in this permit must be reported in a similar manner to the EPD. The sampling reports must be signed. Sampling reports must be submitted to EPD using the electronic submittal service provided by EPD. Sampling reports must be submitted to EPD until such time as a "N.O.T." is submitted. 2. All sampling reports shall include the following information: a. The rainfall amount, date, exact place and time of sampling or

- measurements b. The name(s) of the certified personnel who performed the sampling and measurements.
- The date(s) analyses were performed.
- The time(s) analyses were initiated. e. The name(s) of the certified personnel who performed the
- References and written procedures, when available, for the analytical techniques or methods used. The results of such analyses, including the bench sheets,
- instrument readouts, computer disks or tapes, etc., used to determine these results. Results which exceed 1000 NTU shall be reported as "exceeds
- 1000 NTU". Certification statement that sampling was conducted as per the

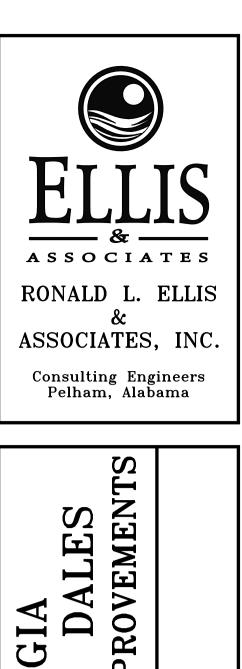
3. All written correspondence required by this permit shall be submitted by return receipt certified mail to the appropriate District Office of the EPD. The permittee shall retain a copy of the proof of submittal at the construction site or the proof of submittal shall be readily available at a designated location from commencement of construction until such time as a "N.O.T." is submitted.

<u>RETENTION OF RECORDS</u>

- The primary permittee shall retain the following records as required by this permit at the construction site or the records shall be readily available at a designated alternate location from commencement of construction until such time as a "N.O.T." is submitted. (A) All notices of intent submitted to EPD;
 - (B) The erosion, sedimentation and pollution control plan;
 - (C) The design professional's report of the results, and reports; (D) A copy of all monitoring information, results, and reports;
 - (E) A copy of all inspection reports;
 - (F) A copy of all violation summaries and violation summary reports; (G) Daily rainfall information collected.

All records shall be retained by the permittee who either produced or used it for a period of at least three years from the date that the "N.O.T." is submitted in accordance with this permit. This period may be extended by request of the EPD at any time upon written notification to the permittee.

> James Stothard JAMES STOTHARD, PE NO. 15360 LEVEL II CERTIFIED DESIGN PROFESSIONAL NO. 0000029517 JANUARY 30, 2023



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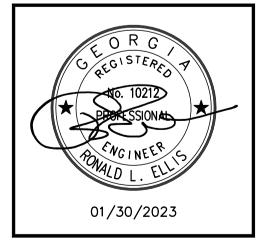
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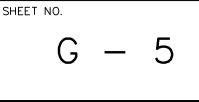
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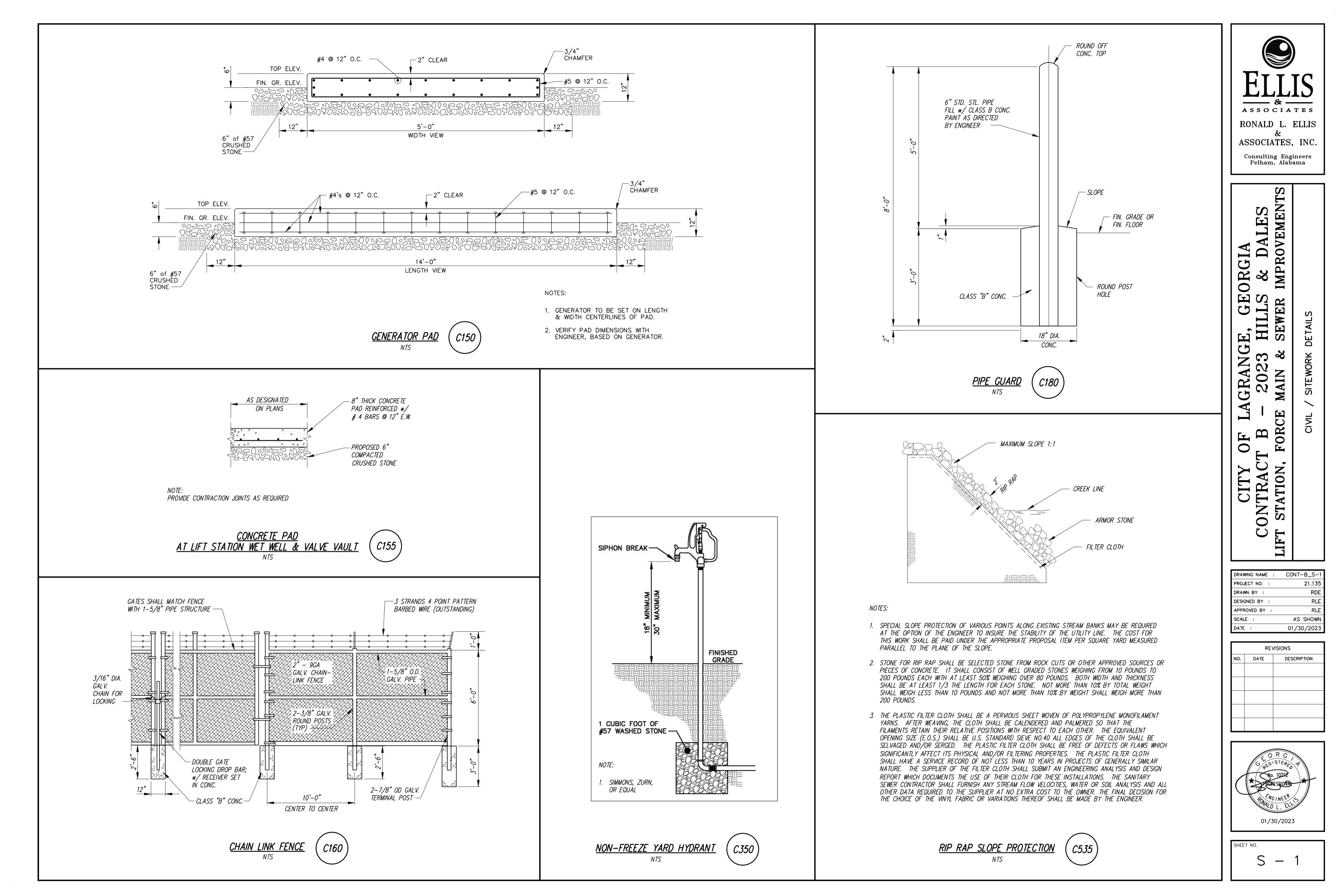
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PROJECT NO. :	21.135
DRAWN BY :	RDE
DESIGNED BY :	JS/RLE
APPROVED BY :	JS
SCALE :	AS SHOWN
DATE :	01/30/2023

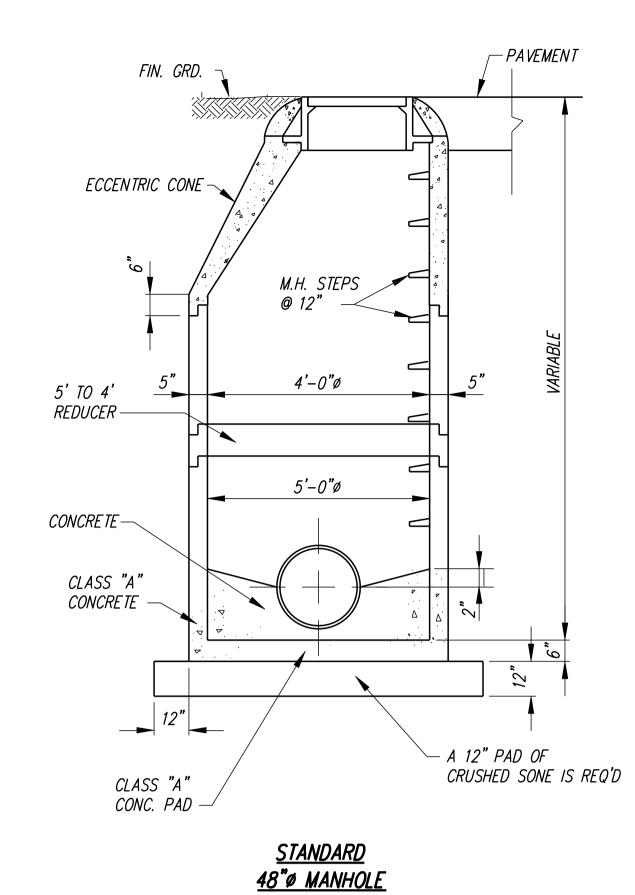


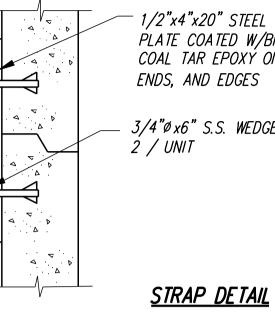


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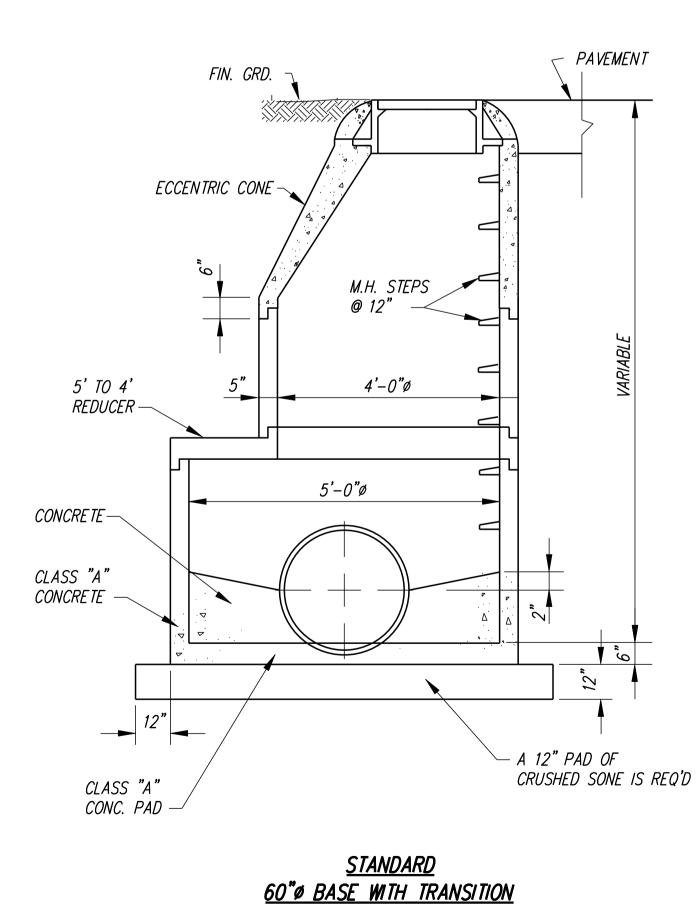








3 STRAPS PER JOINT REQ'D (W/ BOLT-DOWN LIDS)



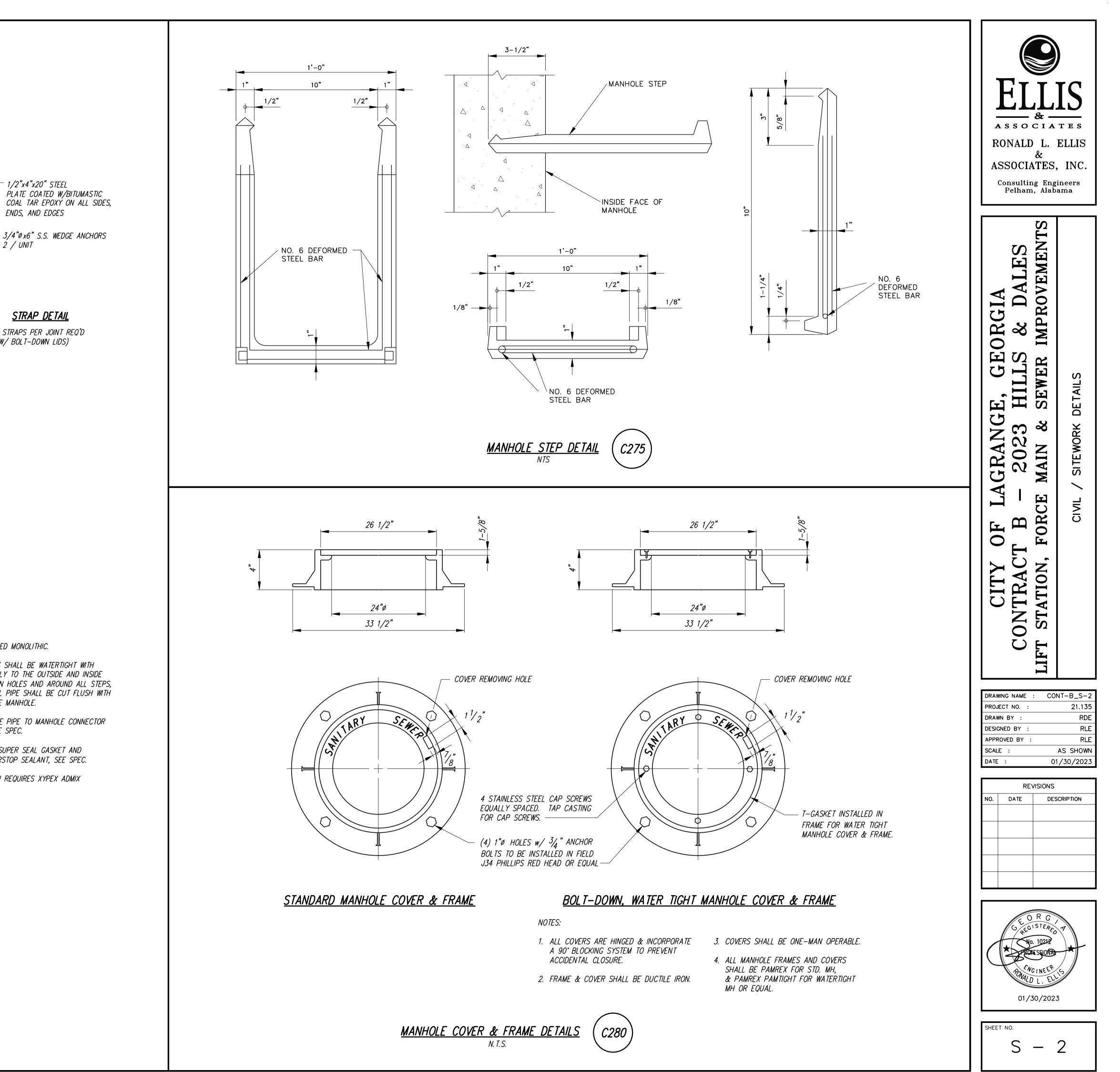
<u>TO 48" RISER/CONE</u>

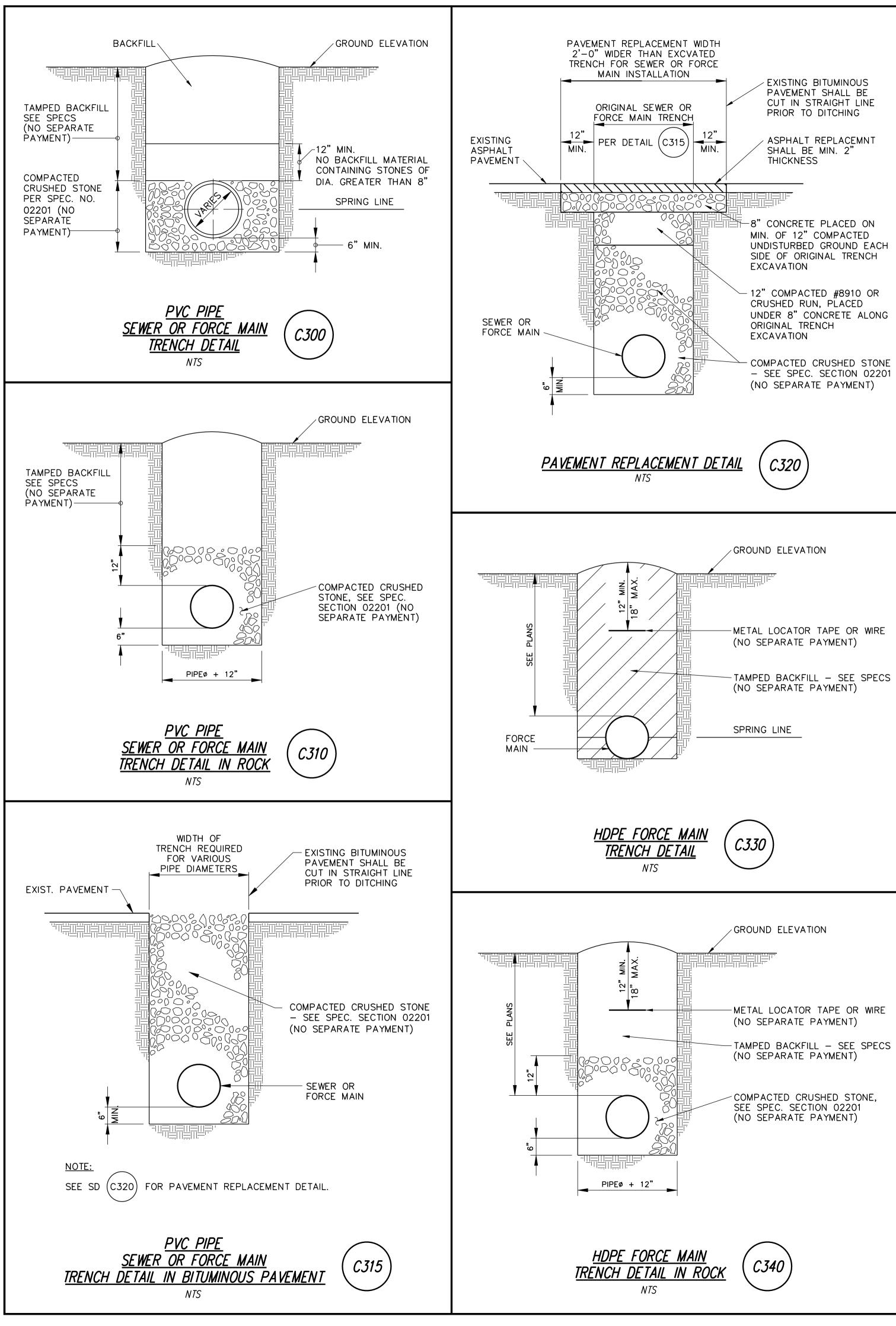
NOTES:

- 1. ALL BASES TO BE POURED MONOLITHIC.
- 2. ALL PRECAST MANHOLES SHALL BE WATERTIGHT WITH GROUT APPLIED SMOOTHLY TO THE OUTSIDE AND INSIDE FACE OF ALL JOINTS, PIN HOLES AND AROUND ALL STEPS, FRAME AND COVER. ALL PIPE SHALL BE CUT FLUSH WITH THE INSIDE FACE OF THE MANHOLE.
- 3. PROVIDE A-LOK FLEXIBLE PIPE TO MANHOLE CONNECTOR FOR ALL MANHOLES, SEE SPEC.
- 4. JOINTS REQUIRE TYLOX SUPER SEAL GASKET AND CONSEAL CS-231 WATERSTOP SEALANT, SEE SPEC.
- 5. MANHOLE CONSTRUCTION REQUIRES XYPEX ADMIX C-1000, SEE SPEC.

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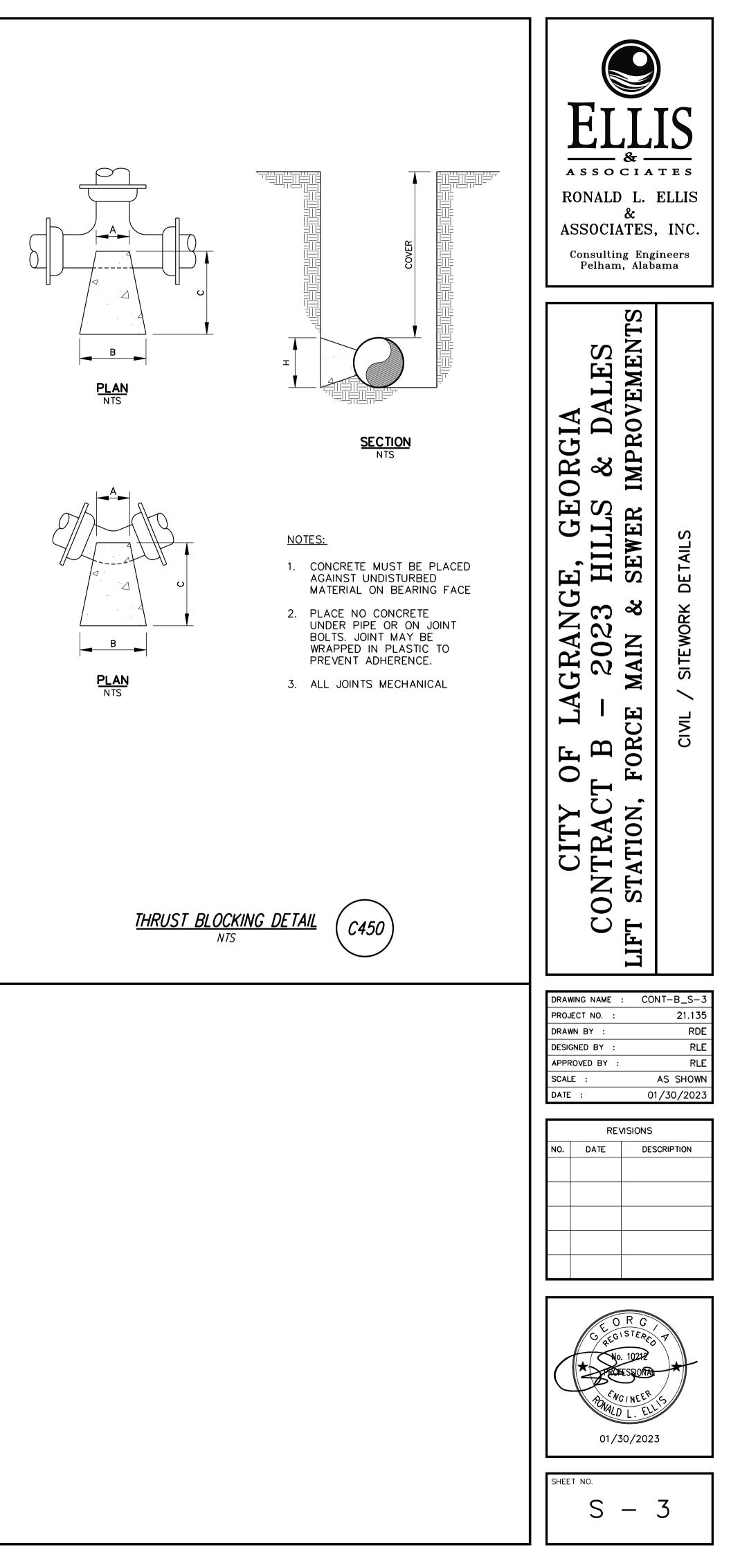


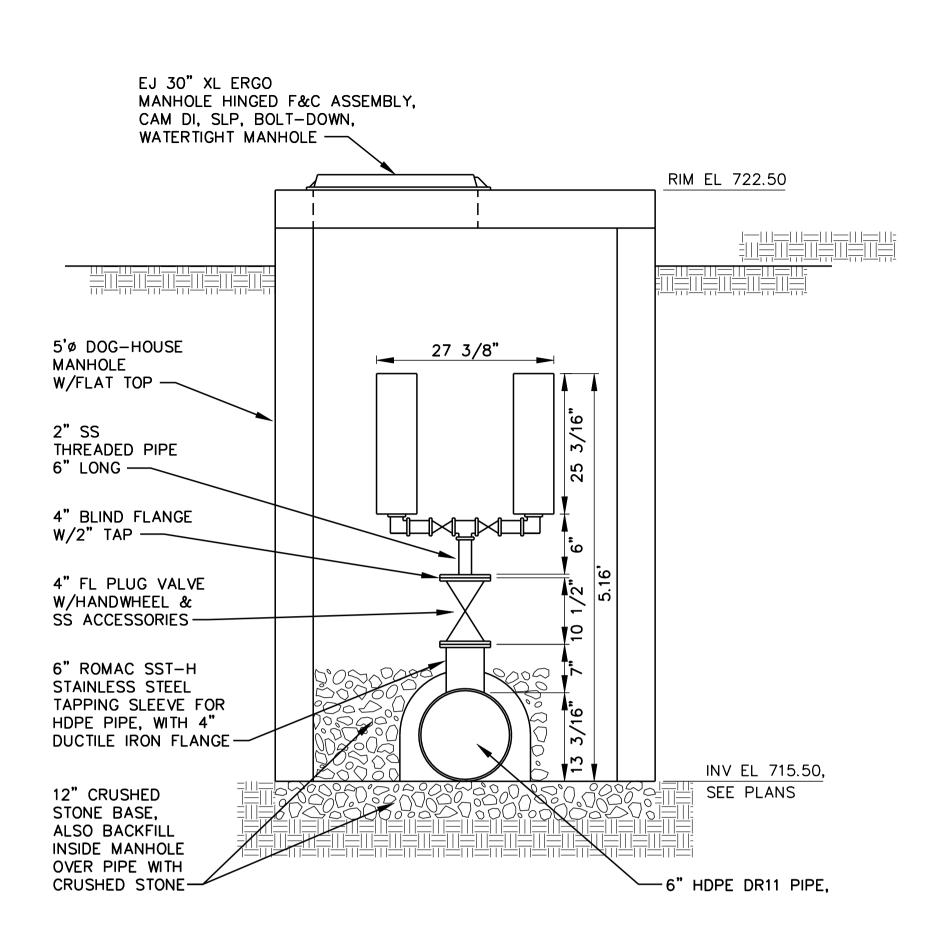




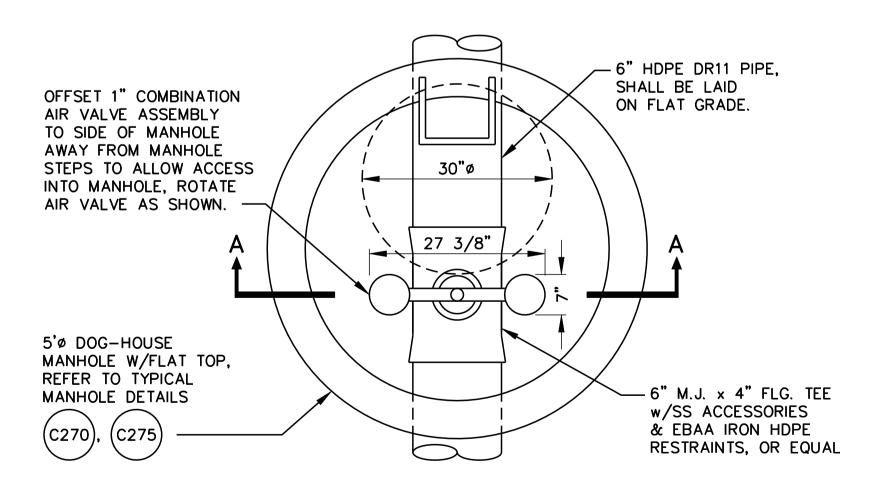
<u>E MAIN</u> D <u>E TAIL</u>	(C330

PIPE Ø	A	В	C	Н	MIN.COVER	
3"& 4"	4"	1'-0"	1'-10"	1'-0"	2'-6"	
6"	6"	2'-0"	1'-9"	1'-6"	2'-6"	
8"	8"	2'-8"	1'-9"	2'-0"	3'-0"	
10"	10"	4'-2"	1'-11"	2'-6"	3'-0"	
12"	1'-2"	5'-0"	1'-11"	3'-0"	5'-0"	
14"	1'-2"	5'-0"	2'-0"	3'-6"	5'-0"	90° BEND
16"	1'-4"	5'-10"	2'-1"	4'-0"	5'-0"	
18"	1'-6"	6'-8"	2'-2"	4'-6"	5'-0"	
20"	1'-8"	7'-0"	2'-3"	5'-0"	5'-0"	
24"&36"	2'-6"	8'-6"	2'-5"	6'-0"	5'-0"	
42"&48"	3'-4"	10'-0"	2'-7"	7'-0"	5'-0"	
3"-4"	4"	7"	1'-1"	1'-0"	2'-6"	
6"	6"	1'-1"	1'-2"	1'-6"	2'-6"	
8"	8"	1'-8"	1'-2"	2'-0"	3'-0"	
10"	10"	2'-3"	1'-4"	2'-6"	3'-0"	
12"	1'-2"	2'-9"	1'-8"	3'-0"	5'-0"	
14"	1'-2"	2'-9"	1'-8"	3'-6"	5'-0"	45° BEND
16"	1'-2"	3'-2"	1'-10"	4'-0"	5'-0"	
18"	1'-4"	3'-7"	2'-4"	4'-6"	5'-0"	
20"	1'-4"	4'-0"	2'-10"	5'-0"	5'-0"	
24"&36"	1'-6"	4'-6"	3'-0"	6'-0"	5'-0"	
42"&48"	1'-8"	5'-6"	3'-6"	7'-0"	5'-0"	
3"_1"	4"	4"	1'-1"	8"	2'-6"	
<u> </u>	6"	8"	1'-0"	<u> </u>	2'-6"	
8"	8"	<u> 1'–0" </u>	1'-0"	1'-4"	3'-0"	
10"	10"	1'-4"	1'-1"	1'-8"	3'-0"	22-1/2° BEND
12"	1'-2"	1'-9"	1'-7"	2'-0"	5'-0"	
14"	1'-2"	1'-11"	2'-1"	2'-4"	5'-0"	
16"	1'-2"	2'-2"	2'-5"	<u> </u>	<u> </u>	
18"	1'-4"	2'-0"	2'-1"	<u> </u>	<u> </u>	
20"	1'-4"	2'-4"	2'-1"	3'-8" 4'-2"	5'-0"	
24"&36"	1'-6"	2'-4" 3'-0"	2'-1" 3'-0"	4'-10"	5'-0"	
42"&48"	1'-8"	3'-8"	3'-8"	5'-10"	5'-0"	
3"-4"		10"	6"	<u> </u>	2'-6"	
<u> </u>	5" 6"	1'-4"	6"	<u>1'-0</u> 1'-6"	2'-6"	
		$\frac{1-4}{4'-0''}$	6"	$\frac{1-6}{2'}$	<u>2-6</u> <u>3</u> '-0"	TEE RUN
8" 10"	9"	$\frac{4-0}{3'-0''}$	6"	2'-0" 2'-6"	3'-0"	
12"	10"	<u> </u>	6"	$\frac{2-6}{3'0"}$	5'-0"	
14"	11-1/2"	<u> </u>	7"	3'-0" 3'-6"	5'-0"	
	1'-0 1/2"	<u> </u>	8"	<u> </u>	5'-0"	
18"	1'-2"	<u>4'-0</u> 4'-8"	9"	$\frac{4-0}{4'-6''}$	5'-0"	
20"	1'-3 1/2"	<u> </u>	10"	<u> </u>	5'-0"	
	2'-3"	<u> </u>	12"/18"	<u> </u>	5'-0"	
42"&48"	<u> </u>	<u> </u>	21"/24"	<u> </u>	5'-0"	
3"-4"	4" 4"	4"	1'-0"	<u>6"</u>	2'-6"	11–1/4° BEND
6"	4	4"	1'-0"	8"	2'-6"	
8" 10"	6" 8"	8" 10"	1'-0"	<u> 10" </u> 1'–0"	2'-6" 3'-0" 3'-0"	
10"	8" 10"	10"	1'-0"			
12"	10"	12"	1'-0"	$\frac{1'-2''}{1'-4''}$	5'-0"	
14"	<u>1'-0"</u>	1'-4"	1'-0"	1'-4"	5'-0"	
16"	1'-0"	<u>1'-8"</u>	1'-0"	1'-6"	5'-0"	
18"		2'-0"	1'-0"	1'-8"	5'-0"	
20"	1'-2"	2-6	1'-0"	2'-6"	5'-0"	
24"&36"	1'-9"	2'-6" 3'-0" 3'-3"	1'-0"	3'-9"	5'-0"	
42"&48"	2'-7"	4'-0"	1'-0"	5'-0"	5'-0"	





<u>SECTION A-A</u>



NOTE:

1. ARV TO BE INSTALLED BY OWNER.

<u>1" COMBINATION AIR VALVE ASSEMBLY</u>

NTS

