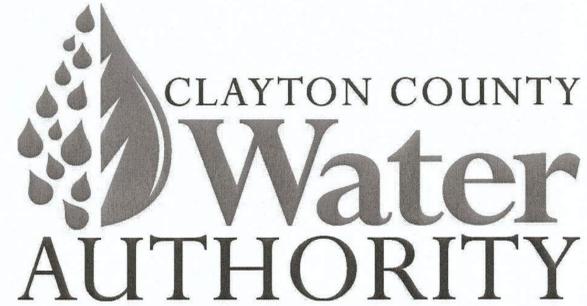


# CLAYTON COUNTY WATER AUTHORITY MORROW, GA

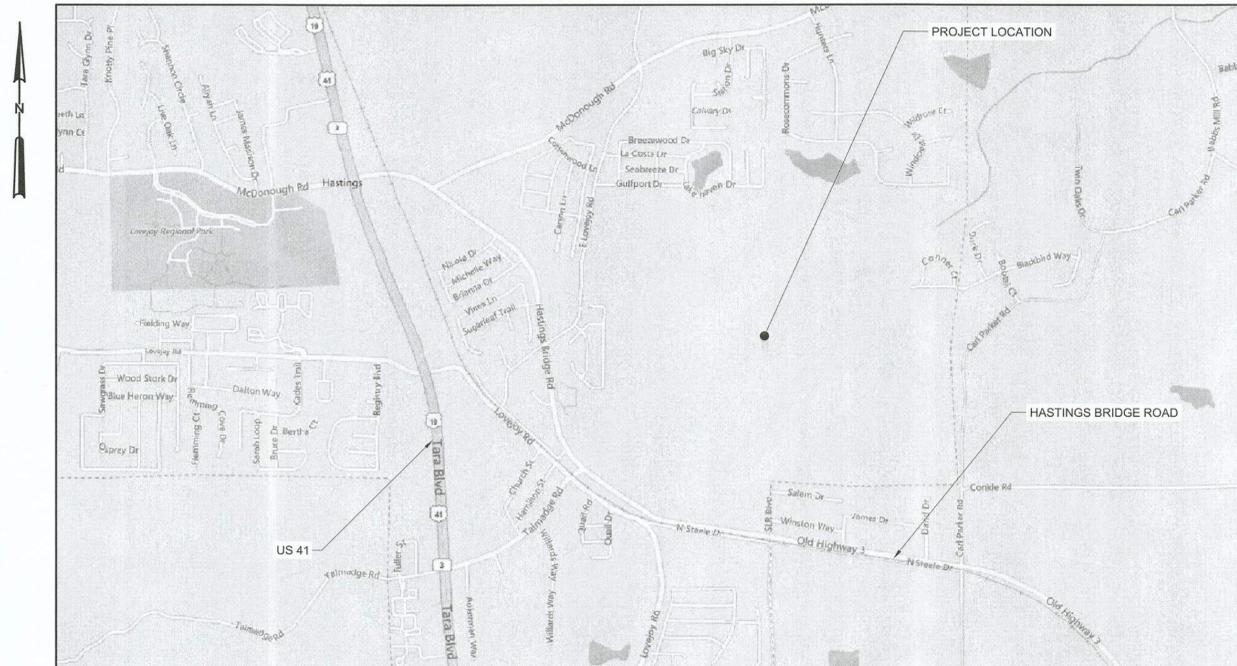


## WALNUT CREEK LIFT STATION

BID NUMBER: 2020-GS-08  
HAZEN NO.: 32457-008  
VOLUME 3 OF 3  
MAY 2020

**PROJECT GENERAL NOTES:**

1. THE PERSON ULTIMATELY RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL PRACTICES ON THIS SITE AND WHO IS TO BE CONTACTED IN THE EVENT OF A STOP WORK ORDER, IS: BRENT TAYLOR WITH PHONE # 470-303-9098.
2. AREAS USED AS BURIAL PITS DURING DEVELOPMENT MUST BE LOCATED OUTSIDE THE RIGHT-OF-WAY AND ARE TO BE LOCATED AND IDENTIFIED ON THE FINAL PLAT. GEORGIA DNR EPD REQUIREMENTS ARE TO BE MET. "NO PORTION OF WASTE DISPOSAL SHALL BE LOCATED WITHIN 100 LINEAR FEET OF ANY PROPERTY LINE OR ENCLOSED STRUCTURE".
3. ANY REVISION TO THE PLANS AFTER THE INITIAL SUBMITTAL, OTHER THAN THE RESPONSE TO THE PLAN REVIEW COMMENTS, WILL BE INDICATED ON REVISIONS AND SUBMITTED WITH A WRITTEN EXPLANATION OF THE REVISIONS AND THE REASONS.
4. ANY VARIATIONS FROM THE PERMITTED PLANS, CHANGES IN DESIGN RESULTING FROM FIELD CONDITIONS, OR SUBSTITUTION OF CONSTRUCTION MATERIALS ARE TO BE REVIEWED AND APPROVED BY THE RESPONSIBLE DESIGN ENGINEER AND CLAYTON COUNTY LAND DEVELOPMENT.
5. PLANS ARE REVIEWED IN GENERAL. SPECIFIC DETAILS AND CALCULATIONS MAY NOT BE CHECKED. THE ENGINEER'S STAMP AND SIGNATURE GUARANTEES THE ACCURACY OF THE CALCULATIONS AND DESIGN. PLAN APPROVAL DOES NOT OBLIGATE THE COUNTY TO ACCEPT THE WORK, NOR DOES IT RELIEVE THE DEVELOPER AND/OR ENGINEER FROM COMPLIANCE WITH ANY OTHER COUNTY, STATE OR FEDERAL ORDINANCES AND LAWS. PLAN APPROVAL DOES NOT RELIEVE THE DEVELOPER FROM THE RESPONSIBILITY FOR DAMAGES TO ADJACENT OR DOWNSTREAM PROPERTY RESULTING FROM THIS DEVELOPMENT.



LOCATION MAP  
NOT TO SCALE

# Hazen

HAZEN AND SAWYER  
5775 PEACHTREE DUNWOODY ROAD  
SUITE D-520  
ATLANTA, GEORGIA 30342



### INDEX OF DRAWINGS

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	C002	Site Layout
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<b>Details</b>		
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	D002	Standard Details
	D003	Standard Details
	D004	Standard Details
	D005	Standard Details
	D006	Standard Details
	D007	Standard Details



BEFORE YOU DIG!  
CONTACT ONE-CALL CENTER  
CALL 811

ISSUED FOR  
CONSTRUCTION

ABBREVIATIONS

AB	ANCHOR BOLT	E	EAST/EASEMENT	I	IRON	PAR	PARALLEL	T	TREAD
AC	ALTERNATING CURRENT or ASBESTOS CEMENT	EA	EACH	ID	INSIDE DIAMETER	PC	POINT OF CURVE/PIECE	T&B	TOP AND BOTTOM
AD	AREA DRAIN	ECC	ECCENTRIC	IF	INSIDE FACE	PCC	POINT OF COMPOUND CURVE	T&G	TONGUE AND GROOVE
ADDL	ADDITIONAL	EF	EACH FACE	IN	INCH	PCCP	PRESTRESSED CONCRETE	TAN	TANGENT
ADJ	ADJUSTABLE	EFF	EFFLUENT	INCL	INCLUDED	PCF	POUNDS PER CUBIC FOOT	TBM	TEMPORARY BENCH MARK TO BE UPGRADED
AFF	ABOVE FINISHED FLOOR	EIP	EXIST IRON PIPE	INF	INFLUENT	PCV	PRESSURE CONTROL VALVE	TBU	TOP OF CURB
AGGR	AGGREGATE	EL OR ELEV	ELEVATION	INS	INSULATION	PE LINING	POLYETHYLENE LINING	TDH	TOTAL DYNAMIC HEAD
AL	ALUMINUM	ELEC	ELECTRIC/ELECTRICAL	INT	INTERIOR	PERF	PERFORATED	TECH	TECHNICAL
ALLOW	ALLOWANCE/ALLOWABLE	ELL	ELBOW	INV	INVERT	PERP	PERPENDICULAR	TEL	TELEPHONE
ALT	ALTERNATE	ENGR	ENGINEER			PI	POINT OF INTERSECTION	TEMP	TEMPERATURE
APPROX	APPROXIMATE	ENT	ENTRANCE			PL	PROPERTY LINE/PLATE	THERMO	THERMOSTAT
ARCH	ARCHITECTURAL	EOG	EDGE OF GRAVEL	JB	JUNCTION BOX	PNL	PANEL	THRU	THROUGH
ARV	AIR RELEASE VALVE	EOP	EDGE OF PAVEMENT	JCT	JUNCTION	PP	POWER POLE	TOD	TOP OF DECK
ASPH	ASPHALT	EQ	EQUAL	JT	JOINT	PRV	PRESSURE RELIEF VALVE	TOF	TOP OF FOOTING
		EQPT	EQUIPMENT			PS	PUMPING STATION	TOG	TOP OF GRATING
		EW	EACH WAY			PSF	POUNDS PER SQUARE FOOT	TOM	TOP OF MASONRY/MANHOLE
B	BORING	EX	EXISTING	L	LENGTH/ANGLE	PSI	POUNDS PER SQUARE INCH	TOS	TOP OF SLAB/STEEL
BFE	BOTTOM OF FITTING ELEVATION	EXC	EXCAVATE	LAM	LABORATORY	PT	POINT OF TANGENT/POINT	TOW	TOP OF WALL
BFV	BUTTERFLY VALVE	EXH	EXHAUST	LAT	LAMINATED	PTN	PARTITION	TOL	TOLERANCE
BITUM	BITUMINOUS	EXP	EXPANSION	LB	LATERAL	PV	PLUG VALVE	TP	TOP OF WALL
BL	BASELINE	EXT	EXTERIOR	LF	POUND/LINE BACK	PVC	POLYVINYL CHLORIDE	TPS	TWISTED PAIR SHIELDED
BLDG	BUILDING			LG	LINEAR FEET	PVMT	PAVEMENT	TRANS	TRANSFORMER
BLK	BLOCK			LL	LONG	PW	POTABLE WATER	TW	TOP OF WALL
BM	BENCH MARK			LP	LIVE LOAD			TYP	TYPICAL
BMP	BEST MANAGEMENT PRACTICE	FA	FLAME ARRESTOR	LPT	LIGHT POLE				
BOC	BACK OF CURB	F&C	FRAME AND COVER	LR	LONG RADIUS				
BOP	BOTTOM OF PIPE	F&G	FRAME AND GRATE	LT	LIGHT	QTY	QUANTITY	UG	UNDERGROUND
BOT	BOTTOM	FC	FLUSHING CONNECTION	LTG	LIGHTING			UH	UNIT HEATER
BPV	BACK PRESSURE VALVE	FCA	FLANGED COUPLING ADAPTER	LTV	LOUVER			UNFIN	UNFINISHED
BRG	BEARING	FD	FLOOR DRAIN	LVR	LOUVER			UNK	UNKNOWN
BRK	BRICK	FDN	FOUNDATION	LWL	LOW WATER LEVEL			UNO	UNLESS NOTED OTHERWISE
BRZ	BRONZE	FE	FIRE EXTINGUISHER			RAS	RETURN ACTIVATED SLUDGE	UTIL	UTILITY
BT	BOLT	FEMA	FEDERAL EMERGENCY MANAGEMENT AGENCY	MAINT	MAINTENANCE	R	RADIUS/RISER		
BV	BALL VALVE			MANUF	MANUFACTURER	RBWC	REBAR WITH CAP		
BW	BOTTOM OF WALL			MATL	MATERIAL	RCP	REINFORCED CONCRETE PIPE		
		FF	FINISH FLOOR	MAX	MAXIMUM	RD	ROAD/ROOF DRAIN		
CAB	CABINET	FH	FIRE HYDRANT	MECH	MECHANICAL	RECIR	RECIRCULATION	VAC	VACUUM
CB	CATCH BASIN	FIN	FINISH	MEMB	MEMBRANE	RECP	RECEPTACLE	VEL	VELOCITY
C/C	CENTER TO CENTER	FIX	FIXTURE	MET	METAL	RECT	RECTANGULAR	VENT	VENTILATING/VENTILATION
CE	CONSTRUCTION EASEMENT	FL	FLASHING/FLOOR	MFR	MANUFACTURER	RED	REDUCER	VERT	VERTICAL
CEM	CEMENT	FLG	FLANGE	MG	MILLION GALLONS	REF	REFERENCE	VOL	VOLUME
CF	CUBIC FEET	FLUOR	FLUORESCENT	MGD	MILLION GALLONS PER DAY	REG	REGISTER	VP	VENT PIPE
CFM	CUBIC FEET PER MINUTE	FLXC	FLEXIBLE CONNECTION	MH	MANHOLE	REINF	REINFORCING	VTR	VENT THROUGH ROOF
C&G	CURB AND GUTTER	FM	FORCE MAIN	MIN	MINIMUM	REMO	REMOVE		
CI	CAST IRON/CUBIC INCHES	FPRF	FIREPROOF	MISC	MISCELLANEOUS	REQD	REQUIRED	WAS	WASTE ACTIVATED SLUDGE
CIP	CAST IRON PIPE	FRP	FIBERGLASS REINFORCED POLYESTER LAMINATE	MJ	MECHANICAL JOINT	REST	RESTRAINED	W	WEST/WIDTH
CL	CENTER LINE			MLDG	MOLDING	REV	REVISE	W/	WITH
CL <sub>2</sub>	CHLORINE	FST	FINAL SETTLING TANK	MO	MASONRY OPENING	RJ	RESTRAINED JOINT	WF	WIDE FLANGE
CLF	CHAIN LINK FENCE	FT	FEET	MOD	MODIFY/MODIFIED	RM	ROOM	WH	WALL HYDRANT
CLKG	CAULKING	FTG	FOOTING/FITTING	MON	MONUMENT	RND	ROUND	WI	WROUGHT IRON
CLR	CLEAR	FURR	FURRING/FURRED	MOT	MOTOR	RO	ROUGH OPENING	WL	WATER LEVEL
CMP	CORRUGATED METAL PIPE			MSE	MECHANICALLY STABILIZED EARTH	RPM	REVOLUTIONS PER MINUTE	WL	WATER LINE
CMU	CONCRETE MASONRY UNIT	G	GAS/GAS LINE	MTD	MOUNTED	RT	RIGHT	WO	WINDOW OPENING
CO	CLEANOUT	GA	GAUGE	MTG	MOUNTING	RTU	REMOTE TERMINAL UNIT	WO	WITHOUT
COE	U.S. ARMY CORPS OF ENGINEERS	GAC	GRANULAR ACTIVATED CARBON	MULT	MULTIPLE	RW	RIGHT OF WAY	WP	WATERPROOF
COL	COLUMN	GAL	GALLON			S	SOUTH/SLOPE	WPFG	WATER PROOFING
CONC	CONCRETE	GALV	GALVANIZED			SAN	SANITARY	WPT	WALL PENETRATING TYPE
CONST	CONSTRUCTION	GC	GENERAL CONTRACTOR	N	NORTH	SBL	SURVEY BASELINE	WS	WATERSTOP
CONT	CONTINUOUS	GEN	GENERATOR	NA	NOT APPLICABLE	SCH	SCHEDULE	WSE	WATER SURFACE ELEVATION
CONTR	CONTRACTOR	GI	GALVANIZED IRON	NF	NEAR FACE	SD	STORM/SITE DRAIN	WSP	WEATHERSTRIP
CORP	CORPORATION	GL	GLASS	NGS	NATURAL GAS	SECT	SECTION	WT	WEIGHT
CORR	CORRIDOR	GPM	GALLONS PER MINUTE	NIC	NOT IN CONTRACT	SERV	SERVICE	WT	WATERTIGHT
CP	CONCRETE PLANK	GR	GRADE	NO	NUMBER	SEW	SEWER	WV	WATER VALVE
CPVC	CHLORINATED POLYVINYL CHLORIDE	GW	GATE VALVE	NOM	NOMINAL	SF	SQUARE FEET	WWF	WELDED WIRE FABRIC
CRS	COURSE	GV	GUY WIRE	NPW	NON POTABLE WATER	SHT	SHEET		
CT	CERAMIC TILE	GYP	GYP SUM	NTS	NOT TO SCALE	SI	SQUARE INCH	YD	YARD
CTJ	CONTROL JOINT	GSE	GROUND SURFACE ELEVATION			SIM	SIMILAR	YR	YEAR
CU	COPPER			OC	ON CENTER	SJ	STEEL JOIST		
CV	CHECK VALVE	H	HEIGHT	OD	OUTSIDE DIAMETER	SO	SQUARE		
CW	COLD WATER	HB	HOSE BIBB	OF	OUTSIDE FACE	SS	SANITARY SEWER		
CY	CUBIC YARD	HDPE	HIGH-DENSITY POLYETHYLENE	OFF	OFFICE	SSMH	SANITARY SEWER MANHOLE		
		HDW	HARDWARE	OPER	OPERATOR	SST	STAINLESS STEEL		
DA	DETONATOR ARRESTOR	HEX	HEXAGONAL	OPNG	OPENING	ST	STREET		
DC	DIRECT CURRENT	HM	HOLLOW METAL	OPP	OPPOSITE	STA	STATION		
DET	DETAIL	HORZ	HORIZONTAL	ORIG	ORIGINAL	STD	STANDARD		
DI	DROP INLET	HP	HORSEPOWER	OT	OPEN TRUSS	STG	STORAGE		
DIA	DIAMETER	HPT	HIGH POINT	OVHD	OVERHEAD	STIR	STIRRUP		
DIAG	DIAGONAL	HTR	HEATER			STL	STEEL		
DIM	DIMENSION	HVAC	HEATING, VENTILATION AND AIR CONDITIONING			STR	STRUCTURAL		
DIP	DUCTILE IRON PIPE					STRU	STRUCTURAL		
DISCH	DISCHARGE	HW	HOT WATER			SUB	SUBSTITUTE		
DIST	DISTRIBUTION	HWL	HIGH WATER LEVEL			SUP	SUPPLY		
DJ	DOUBLE JOIST	HWY	HIGHWAY			SUPT	SUPERINTENDENT		
DL	DEAD LOAD	HYD	HYDRAULIC			SUR	SURFACE		
DN	DOWN					SUSP	SUSPENDED		
DOZ	DOZEN					SW	SWITCH		
DR	DOOR					SWBD	SWITCHBOARD		
DWG	DRAWING					SWD	SIDE WATER DEPTH		
DWGS	DRAWINGS								
DWL	DOWEL								

PROCESS PIPE DESIGNATIONS

AL	ALUM	BPF	BELT PRESS FILTRATE
BW	BACKWASH	BWD	BACKWASH DRAIN
BWR	BACKWASH RECLAIM	CLS	CHLORINE SOLUTION DRAIN
D	FINAL EFFLUENT	FCE	FINAL CLARIFIER EFFLUENT
FM	FORCE MAIN	FTE	FILTER EFFLUENT
FTI	FILTER INFLUENT	FTW	FILTER TO WASTE
HS	HEAVY SLUDGE	ML	MIXED LIQUOR
NaOCL	SODIUM HYPOCHLORITE	NG	NATURAL GAS
NPW	NON POTABLE WATER	OF	OVERFLOW
PA	PROCESS AIR	PD	PROCESS DRAIN
PE	PRIMARY EFFLUENT	PI	PRIMARY INFLUENT
PS	PRIMARY SLUDGE	POLY	POLYMER
PW	POTABLE WATER	RAS	RETURN ACTIVATED SLUDGE
RD	ROOF DRAIN	RT	RAW TREATED
RW	RAW WATER	TS	THICKENED SLUDGE
SAM	SAMPLE	SC	SCUM
SD	STORM DRAIN	SDO	SLUDGE DRAW-OFF
SHC	SODIUM HYPOCHLORITE	SL	SLUDGE
SPD	SUMP PUMP DRAIN	SS	SANITARY SEWER
TWAS	THICKENED WASTE ACTIVATED SLUDGE	V	VENT
WAS	WASTE ACTIVATED SLUDGE		

LINETYPES

	PROPOSED ITEMS
	EXISTING ITEMS
	HIDDEN ITEMS
	CONSTRUCTION LIMITS
	PROPOSED INDEX CONTOURS
	EXISTING INTERMEDIATE CONTOURS
	EXISTING INTERMEDIATE CONTOURS
	PROPOSED SILT FENCE
	PROPOSED STONE FILTER
	PROPOSED TEMPORARY SEDIMENT BASIN
	PROPOSED TEMPORARY DIVERSION SWALE
	PROPOSED CURB INLET SEDIMENT CONTROL
	NEW PAVEMENT/STRUCTURE
	EXISTING PAVEMENT TO BE RESURFACED
	DEMOLITION ITEMS
	CENTER LINE
	MATCH LINE

LEGEND

MATERIALS

	GRADE OR EARTH		ROCK
	ASPHALT PAVING		STEEL
	SAND		INSULATION
	GRAVEL		WATER SURFACE
	CONCRETE		GRATING
	CONC. FILL OR GROUT		CHECKERED PLATE
	CONC. MASONRY UNIT		GLASS
	BRICK		WOOD BLOCKING

SYMBOLS

	GATE VALVE		WALL PENETRATION
	BUTTERFLY VALVE		MECHANICAL COUPLING
	PLUG VALVE		WELDED JOINT
	SWING CHECK VALVE		FLANGED JOINT
	GLOBE VALVE		MECHANICAL, PUSH ON OR RESTRAINED JOINT
	PINCH VALVE		SLUICE GATE
	DIAPHRAGM VALVE		SLIDE GATE/STOP GATE
	BALL VALVE		FLUSHING CONNECTION
	BALL CHECK VALVE		HOSE BIBB
	HARNESSED FLANGED ADAPTER		QUICK DISCONNECT FITTING
	HARNESSED SLEEVE TYPE COUPLING		YARD HYDRANT
	SLEEVE TYPE COUPLING		FIRE HYDRANT
	HARNESSED FLEXIBLE COUPLING		SOIL BORING

SECTION AND DETAIL KEYING

DRAWINGS ARE CROSS REFERENCED IN THE FOLLOWING METHOD:  
 (A) A SECTION CUT ON DRAWING A3 IS IDENTIFIED AS FOLLOWS:  
  
 (B) THE SECTION SHOWN ON DRAWING A6 IS IDENTIFIED AS FOLLOWS:  
  
 DETAILS ARE CROSS REFERENCED IN A SIMILAR MANNER, EXCEPT DETAILS ARE IDENTIFIED BY A SQUARE WITH A NUMBER IN THE UPPER HALF.  
 STANDARD DETAILS ARE REFERENCED BY A UNIQUE SEVEN DIGIT NUMBER AND ARE SHOWN ON THE CONTRACT DRAWINGS BY ONE OF TWO METHODS:  
  
 OR:  
  
 STANDARD DETAILS ARE COMPILED IN APPROXIMATE NUMERICAL ORDER IN THE BACK OF THE CONTRACT DRAWINGS ON THE D\* DRAWINGS.

PROJECT ENGINEER:	B. JONES		
DESIGNED BY:	B. JONES		
DRAWN BY:	B. JONES		
CHECKED BY:	A. BOWLING		
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"		
REV	ISSUED FOR	DATE	BY
1	CONSTRUCTION	05/2020	BCJ
	ISSUED FOR		

ISSUED FOR CONSTRUCTION

GBPE LIC #: PE035647 EXP: 12/31/2020

**Hazen**

HAZEN AND SAWYER  
 5775 PEACHTREE DUNWOODY ROAD  
 SUITE D-520  
 ATLANTA, GEORGIA 30342

CLAYTON COUNTY WATER AUTHORITY  
 MORROW, GEORGIA

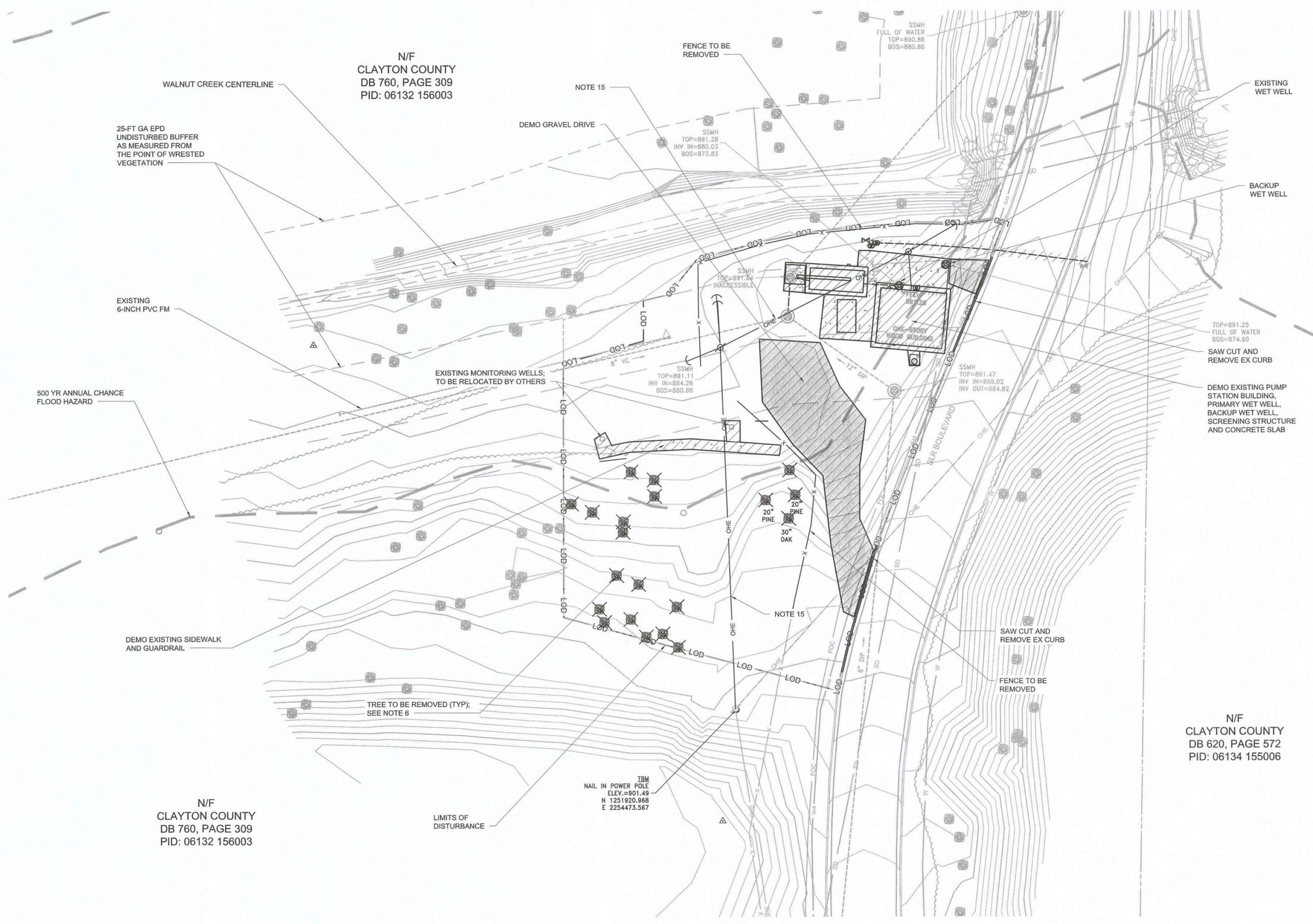
WALNUT CREEK LIFT STATION

GENERAL

ABBREVIATIONS, LEGENDS, AND SYMBOLS

DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	G001

File: O:\32457-ATL\32457-008\CAD\_BIM\GENERAL\G001 Saved by B.JONES Save date: 12/27/2019 9:29 AM  
 PLOT DATE: 4/30/2020 1:50 PM BY: B.JONES



- DEMOLITION NOTES:**
- DEMOLITION, ABANDONMENT OR REMOVAL OF THE EXISTING LIFT STATION AND/OR GRAVITY SANITARY SEWER MAIN AND/OR ASSOCIATED COMPONENTS SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 02 41 00 AND SHALL NOT OCCUR UNTIL THE PROPOSED LIFT STATION BECOMES FULLY OPERATIONAL AND HAS TEMPORARY STANDBY POWER. REFER TO SPECIFICATION SECTION 01 14 00 FOR ADDITIONAL CONSTRAINTS AND SEQUENCING REQUIREMENTS. ITEMS TO BE DEMOLISHED, ABANDONED IN-PLACE AND/OR REMOVED IDENTIFIED BY HATCHING.
1. PRIOR TO ANY LAND DISTURBANCE OR DEMOLITION, CONTRACTOR SHALL IDENTIFY BACKUP WET WELL AT EXISTING LIFT STATION, REMOVE AND DISPOSE OF ALL SOLIDS FROM BACKUP WET WELL, AND IDENTIFY ALL CONNECTED PIPES. THE NUMBER OF CONNECTED PIPES, THEIR SIZE, AND THEIR ALIGNMENT SHALL BE PROVIDED TO THE OWNER AND THE ENGINEER IMMEDIATELY IF FOUND TO BE DIFFERENT THAT WHAT IS SHOWN ON EXISTING CONDITIONS SHEET.
  2. PRIOR TO DEMOLITION OF EXISTING LIFT STATION, CONTRACTOR SHALL CONFIRM WITH OWNER ALL EQUIPMENT TO BE SALVAGED. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING SALVAGED EQUIPMENT AND DELIVERING EQUIPMENT TO A LOCATION IDENTIFIED BY THE OWNER. SEE SPECIFICATIONS SECTION 01 11 00, PARAGRAPH 1.15 FOR LIST OF EQUIPMENT TO SALVAGE.
  3. DE-ENERGIZE ALL EXISTING LIFT STATION COMPONENTS. COORDINATE WITH POWER COMPANY TO REMOVE OR RELOCATE EXISTING UTILITY POLE WITH TRANSFORMERS AND OVERHEAD SERVICE DROP WIRING.
  4. ABANDON IN-PLACE EXISTING 12-INCH GRAVITY SANITARY SEWER WHERE INDICATED ON SHEET C005. ALL PIPE ENDS SHALL BE SEALED WITH BRICK AND GROUT.
  5. ABANDON IN-PLACE EXISTING WET WELLS. DEMOLISH STRUCTURE TO A DEPTH OF FOUR (4) FEET BELOW EXISTING GRADE. ABANDON REMAINDER OF EXISTING MANHOLE BY FILLING WITH NO. 57 STONE. INSTALL GEO-FABRIC OVER NO. 57 STONE AND BACKFILL TO FINISH GRADE WITH SUITABLE SOIL.
  6. CLEAR ALL TREES WITHIN LIFT STATION SITE LIMITS OF DISTURBANCE.
  7. ABANDON IN-PLACE EXISTING 8-INCH SANITARY SEWER FORCE MAIN PIPING BY FILLING WITH FLOWABLE FILL AND SEALING ENDS WITH BRICK AND GROUT.
  8. REMOVE FROM GROUND EXISTING WATER SERVICE LINE PIPING. DISPOSE OF PIPING OFF PROJECT SITE. EXISTING WATER METER, VALVES AND VALVE BOXES ARE TO REMAIN. CONTRACTOR MAY INSTALL SHUT-OFF VALVE AND SPIGOT DOWNSTREAM OF CHECK VALVE FOR WATER SUPPLY DURING CONSTRUCTION.
  9. DEMOLISH EXISTING CHAIN-LINK FENCE, CONCRETE STAIRS AND CONCRETE WALLS. DISPOSE OF MATERIAL OFF PROJECT SITE.
  10. PUMP SANITARY SEWAGE FROM EXISTING WET WELL. SPRAY WET WELL WALLS CLEAN WITH FRESH WATER AND PUMP DRY WET WELL.
  11. DEMOLISH EXISTING ELECTRICAL STAND, YARD HYDRANT, CONCRETE SLAB, SUMP PUMP, DRAIN VALVE, AND SCADA TOWER BASE ENCASED IN CONCRETE. DISPOSE OF MATERIAL OFF PROJECT SITE.
  12. ABANDON IN-PLACE EXISTING SCREENING STRUCTURE, WET WELL AND EMERGENCY STORAGE MANHOLE. DEMOLISH STRUCTURES TO A DEPTH OF FOUR (4) FEET BELOW EXISTING GRADE. ABANDON REMAINDER OF EXISTING STRUCTURES BY FILLING WITH NO. 57 STONE. INSTALL GEO-FABRIC OVER NO. 57 STONE AND BACKFILL TO FINISH GRADE WITH SUITABLE SOIL.
  13. DEMOLISH AND REMOVE FROM SITE EXISTING BUILDING. DISPOSE OF MATERIAL OFF PROJECT SITE.
  14. REMOVE EXISTING GRAVEL DRIVEWAY AND SIDEWALK AS REQUIRED TO CONSTRUCT THE PROJECT.
  15. COORDINATE WITH THE ELECTRICAL UTILITY TO PROVIDE A TEMPORARY SERVICE TO THE EXISTING LIFT STATION AND TO DEMOLISH THE OVERHEAD DISTRIBUTION LINE THAT IS IN CONFLICT WITH THE CONSTRUCTION OF THE NEW FACILITIES.

N/F  
CLAYTON COUNTY  
DB 760, PAGE 309  
PID: 06132 156003

25-FT GA EPD  
UNDISTURBED BUFFER  
AS MEASURED FROM  
THE POINT OF WRESTED  
VEGETATION

EXISTING  
6-INCH PVC FM

500 YR ANNUAL CHANCE  
FLOOD HAZARD

DEMO EXISTING SIDEWALK  
AND GUARDRAIL

N/F  
CLAYTON COUNTY  
DB 760, PAGE 309  
PID: 06132 156003

TREE TO BE REMOVED (TYP);  
SEE NOTE 6

LIMITS OF  
DISTURBANCE

TRM  
NAIL IN POWER POLE  
ELEV.=801.49  
N 1251920.968  
E 2254473.567

N/F  
CLAYTON COUNTY  
DB 620, PAGE 572  
PID: 06134 155006

PLAN  
1" = 20'



File: C:\32457-ATL\32457-008\CAD\_EML\Civil\001.dwg Saved by: B.JONES Save date: 4/30/2020 2:43 PM  
PLOT DATE: 4/30/2020 3:03 PM BY: B.JONES

PROJECT ENGINEER:	B. JONES
DESIGNED BY:	B. JONES
DRAWN BY:	B. JONES
CHECKED BY:	A. BOWLING
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"
1 CONSTRUCTION	05/2020 BCJ
REV ISSUED FOR	DATE BY

ISSUED FOR CONSTRUCTION

GBPE LIC #: PE035647 EXP: 12/31/2020

**Hazen**

HAZEN AND SAWYER  
5775 PEACHTREE DUNWOODY ROAD  
SUITE D-520  
ATLANTA, GEORGIA 30342

CLAYTON COUNTY WATER AUTHORITY  
MORROW, GEORGIA

WALNUT CREEK LIFT STATION

SITE  
CIVIL

EXISTING CONDITIONS & DEMOLITION PLAN

DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	C001



GRAVEL AREA  
C-32-0560R

25-FT GA EPD UNDISTURBED BUFFER AS MEASURED FROM THE POINT OF WRESTED VEGETATION

500 YR ANNUAL CHANCE FLOOD HAZARD

50-FT CLAYTON COUNTY UNDISTURBED BUFFER AS MEASURED FROM WRESTED VEGETATION

75-FT CLAYTON COUNTY IMPERVIOUS SURFACE SETBACK

10" PVC FORCE MAIN, NOT IN THIS CONTRACT

PROPOSED SEWER, SEE C005

GRADED AGGREGATE BASE, TYP; SEE DETAIL C-32-0560R THIS SHEET

10-INCH BYPASS CONNECTION

ALTERNATIVE BID ITEM; SEE DRAWING M001

PROPOSED 10-INCH FORCE MAIN, SEE M001

4' ID, PRECAST VAULT

SCREENING STRUCTURE, SEE SHEET M200, M201, S200 AND S201

YARD HYDRANT, SEE DETAIL 26.1 ON SHEET D001

5' ID, PRECAST VAULT

POWER POLE

AIR VALVE VAULT; SEE SHEET M001

VALVE VAULT, SEE SHEET M001 AND S100

PREFABRICATED ELECTRICAL BUILDING, SEE SHEET S300, S301 AND E300

STANDBY GENERATOR, SEE STD DET S-03-0509

CONCRETE DRIVEWAY; 16' WIDTH, MIN

WRESTED VEGETATION

WALNUT CREEK

REMOVE AND REPLACE EX MH, RECONNECT SEWER MAINS TO REMAIN IN SERVICE

6-INCH CURB (TYP-OUTSIDE FENCE)

FENCE LINE, MINIMUM 2-FEET OUTSIDE 25-FOOT STREAM BUFFER

DUMPSTER PAD W/ DRAIN; SEE DETAIL M-22-0202 ON SHEET D003

WET WELL, SEE SHEETS M001 AND S100

2-INCH WATERLINE; TAP, 2-INCH WATERLINE FROM TAP TO METER AND METER TO BE INSTALLED BY CCWA; CONTRACTOR SHALL INSTALL REMAINING SCOPE

HIGH BACKED CURB (TYP-OUTSIDE FENCE), SEE DETAIL 101, SHEET D002

PROPERTY LINE

EX CURB & GUTTER

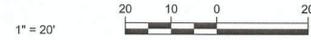
EX FIBER OPTIC CABLE

EX GAS

GENERAL NOTES:

- CONSTRUCTION OF THIS PROJECT SHALL CONFORM TO THE CONTRACT DOCUMENTS FOR THE WALNUT CREEK LIFT STATION.
- ALL WORK SHALL BE PERFORMED BY A GEORGIA LICENSED UTILITY CONTRACTOR.
- CONTRACTOR SHALL HAVE A CLAYTON COUNTY WATER AUTHORITY APPROVED SET OF PLANS ON THE JOB SITE AT ALL TIMES.
- CONTRACTOR SHALL NOTIFY CLAYTON COUNTY WATER AUTHORITY 48 HOURS PRIOR TO BEGINNING CONSTRUCTION. (770 960-5200)
- CONTRACTOR SHALL VERIFY LOCATION AND DEPTHS OF ALL EXISTING UTILITIES IN THE PROJECT AREA PRIOR TO BEGINNING CONSTRUCTION.
- CONTRACTOR SHALL OBTAIN ALL LAND DISTURBANCE ACTIVITY AND GRADING PERMITS.
- ALL PERMANENT EASEMENTS AND CONSTRUCTION EASEMENTS SHALL BE OBTAINED BY CCWA BEFORE CONSTRUCTION BEGINS.
- CONTRACTOR SHALL PROVIDE AND INSTALL MATERIAL UNLESS NOTED OTHERWISE INDICATED IN THE CONTRACT DOCUMENTS.
- CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY COMPANY FOR SECURING STABILIZING UTILITY POLES.
- ALL PETROLEUM PRODUCTS SHALL BE STORED AND USED IN AN AREA THAT PROVIDES A SECONDARY CONTAINMENT FEATURE, AND SHALL BE LOCATED IN AN AREA WITH THE LEAST FORESEEABLE IMPACT IF A CATASTROPHIC EVENT SHOULD OCCUR. EMERGENCY CONTACT NUMBERS AND PROCEDURES FOR SPILLS SHALL BE AVAILABLE ON-SITE.
- LOCATIONS OF EXISTING FACILITIES AND UTILITIES ARE TAKEN FROM THE SURVEY PERFORMED BY COLUMBIA ENGINEERING DATED SEPTEMBER 18, 2019. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL UNDERGROUND UTILITY LINES, VAULTS, OR BOXES PRIOR TO COMMENCING WORK.
- HORIZONTAL DATUM: NAD 83
- VERTICAL DATUM: NAVD 88
- EXISTING TOPOGRAPHY, STRUCTURES, AND SITE FEATURES ARE SHOWN SCREENED AND/OR LIGHT-LINED. NEW FINISH GRADE, STRUCTURES, AND SITE FEATURES ARE SHOWN HEAVY-LINED.
- CONTRACTOR SHALL VERIFY PROJECT LIMITS PRIOR TO COMMENCING WORK.
- ANY DAMAGE INCURRED TO ANY EXISTING UTILITY ELEMENTS SHALL BE REPAIRED PROPERLY AND IMMEDIATELY AT NO ADDITIONAL COST TO THE OWNER.
- ANY AND ALL DAMAGE TO EXISTING PLANT MATERIAL OR HARDSCAPE ELEMENTS THAT ARE TO REMAIN, I.E. CURBS, ROADS, WALLS, FENCES, TREES, SHRUBS, ETC., SHALL BE REPORTED TO THE CONTRACTOR AT NO EXPENSE TO THE OWNER.
- CONTRACTOR SHALL NOT WILLINGLY PROCEED WITH CONSTRUCTION WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS AND/OR DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE OWNER. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.
- CONTRACTOR SHALL BRING ANY DISCREPANCIES IN PLAN, SITE CONDITIONS AND PRIOR WORK TO THE OWNER'S ATTENTION BEFORE ANY ADDITIONAL WORK IS PERFORMED.
- STAGING SHALL BE FOR CONTRACTOR'S EMPLOYEE PARKING, CONTRACTOR'S TRAILERS, AND ON-SITE STORAGE OF MATERIALS.
- REPETITIVE FEATURES ARE NOT DRAWN IN THEIR ENTIRETY AND SHALL BE COMPLETELY PROVIDED AS IF DRAWN IN FULL.
- THE FLOODPLAIN LIMITS SHOWN ON THE DRAWINGS ARE FROM FEMA FIRM PANEL NO. 13063C0158F DATED JUNE 7, 2017.
- PROVIDE TEMPORARY FENCING AS NECESSARY TO MAINTAIN SECURITY AT ALL TIMES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING EROSION CONTROL DEVICES DURING CONSTRUCTION AS PER THE APPROVED EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLANS.
- THE NET CHANGE IN IMPERVIOUS AREA FOR THIS PROJECT IS APPROXIMATELY 3,000 SQ. FT.

PLAN  
SCALE: 1" = 20'



File: C:\32457-ATL\32457-008\CAD\_BIM\CIVIL\C002 Saved by BJONES Save date: 5/5/2020 11:54 AM PLOT DATE: 5/5/2020 12:54 PM BY: BJONES

PROJECT ENGINEER:	B. JONES		
DESIGNED BY:	B. JONES		
DRAWN BY:	B. JONES		
CHECKED BY:	A. BOWLING		
1	CONSTRUCTION	05/2020	BCJ
REV	ISSUED FOR	DATE	BY

ISSUED FOR CONSTRUCTION

GBPE LIC #: PE035647 EXP: 12/31/2020

**Hazen**

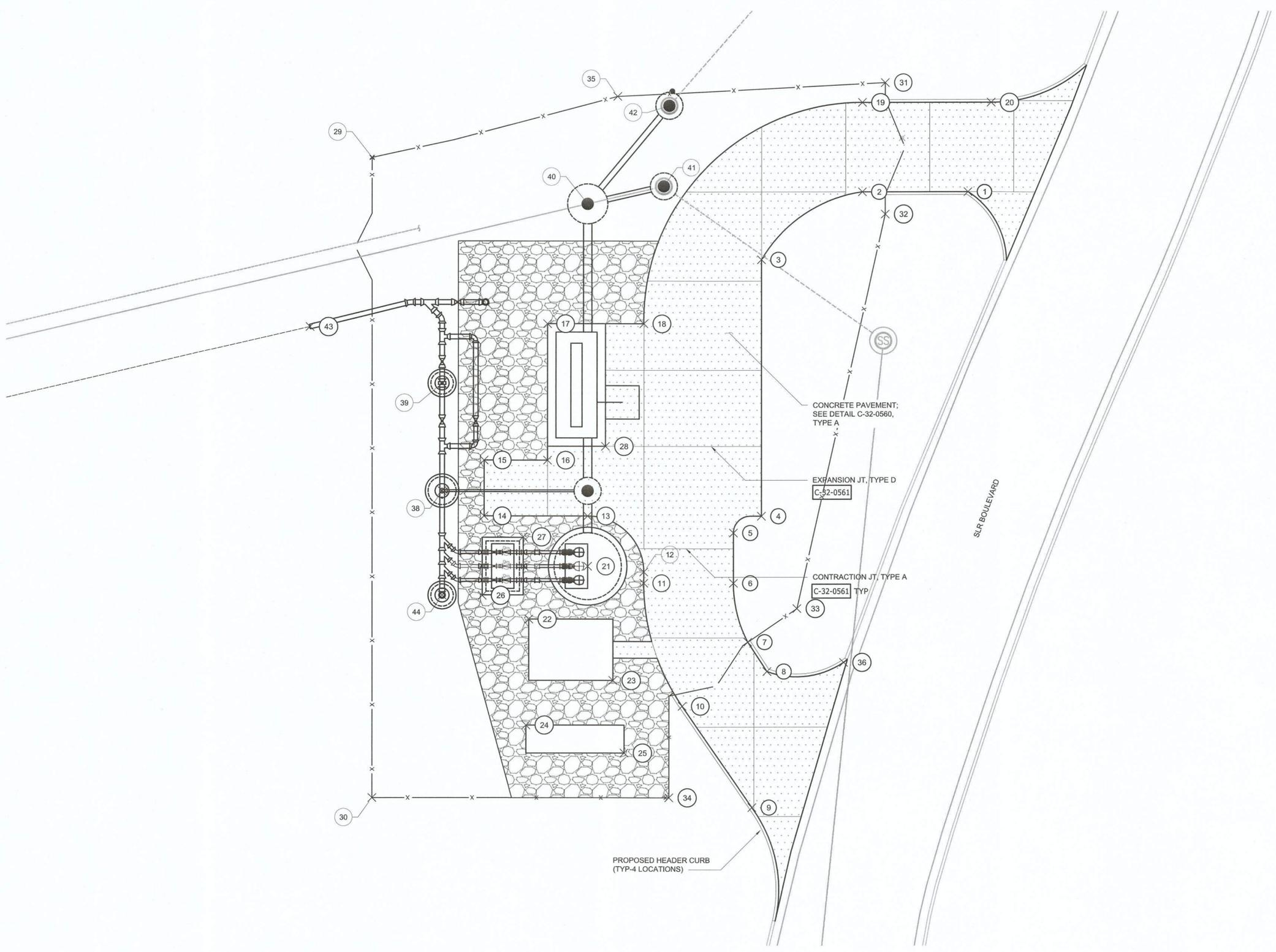
HAZEN AND SAWYER  
5775 PEACHTREE DUNWOODY ROAD  
SUITE D-520  
ATLANTA, GEORGIA 30342

CLAYTON COUNTY WATER AUTHORITY  
MORROW, GEORGIA

WALNUT CREEK LIFT STATION

SITE  
CIVIL  
SITE LAYOUT

DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	C002

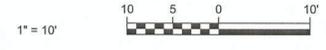


STAKING TABLE				
POINT #	NORTHING	EASTING	DESCRIPTION	ELEVATION
1	1252065.41	2254547.02	EOP	894.0
2	1252065.41	2254528.16	EOP	892.8
3	1252053.24	2254510.16	EOP	892.5
4	1252007.24	2254510.16	EOP	894.0
5	1252004.24	2254505.16	EOP	894.3
6	1251995.23	2254505.16	EOP	894.9
7	1251984.66	2254507.74	EOP	896.6
8	1251979.37	2254511.15	EOP	897.0
9	1251955.00	2254508.49	EOP	898.5
10	1251973.13	2254496.03	EOP	896.9
11	1251995.23	2254489.16	EOP	895.3
12	1251997.24	2254489.16	EOP	895.1
13	1252007.24	2254479.16	EOP	894.7
14	1252007.24	2254460.66	EOP	893.8
15	1252017.24	2254460.66	EOP	892.9
16	1252017.24	2254472.00	EOP	893.3
17	1252041.74	2254472.00	SCREENING STRUCTURE CORNER	892.0
18	1252041.74	2254489.16	EOP	892.2
19	1252081.41	2254528.16	EOP	892.1
20	1252081.41	2254551.14	EOP	893.1
21	1251988.24	2254479.16	WET WELL CENTER	895.1
22	1251988.75	2254468.66	E-BLDG SLAB CORNER	895.2
23	1251977.75	2254483.66	E-BLDG SLAB CORNER	896.0
24	1251969.75	2254468.16	GEN SLAB CORNER	896.3
25	1251964.75	2254485.66	GEN SLAB CORNER	897.0
26	1251992.99	2254460.33	VALVE VAULT CORNER	894.5
27	1252003.49	2254467.66	VALVE VAULT CORNER	894.4
28	1252019.74	2254482.33	SCREENING STRUCTURE CORNER	893.0
29	1252071.54	2254440.66	FENCE CORNER	889.2
30	1251956.75	2254440.66	FENCE CORNER	898.3
31	1252084.95	2254532.24	FENCE CORNER	891.7
32	1252061.41	2254532.24	FENCE CORNER	893.0
33	1251990.68	2254516.50	FENCE CORNER	896.3
34	1251956.75	2254493.67	FENCE CORNER	897.9
35	1252082.47	2254484.49	FENCE CORNER	891.0
36	1251981.00	2254524.83	EOP	897.6
38	1252011.74	2254453.16	SURGE RELIEF VAULT	892.6
39	1252031.08	2254453.16	METER VAULT	891.4
40	1252063.24	2254479.16	MH A2	890.7
41	1252066.42	2254492.72	MH B1	891.3
42	1252080.84	2254493.71	MH A3	890.5
43	1252041.18	2254429.60	FM TERMINATION	890.0
44	1251993.04	2254453.16	ARV VAULT	894.0

**STAKING AND PAVING NOTES:**

1. STAKING POINTS REFER TO GEORGIA WEST STATE PLANE NAD 83 COORDINATES.
2. BUILDING CORNERS REPRESENT BUILDING SLAB CORNERS.
3. THE SOUTHERN DRIVEWAY ENTRANCE SHALL BE ENTER ONLY; THE NORTHERN ENTRANCE SHALL BE EXIT ONLY.

**PLAN**  
1" = 10'



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PLOT DATE: 5/5/2020 12:54 PM BY: BJONES

PROJECT ENGINEER:	B. JONES
DESIGNED BY:	B. JONES
DRAWN BY:	B. JONES
CHECKED BY:	A. BOWLING
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"
1 CONSTRUCTION	05/2020 BCJ
REV ISSUED FOR	DATE BY

ISSUED FOR CONSTRUCTION

GBPE LIC #: PE035647 EXP: 12/31/2020

**Hazen**

HAZEN AND SAWYER  
5775 PEACHTREE DUNWOODY ROAD  
SUITE D-520  
ATLANTA, GEORGIA 30342

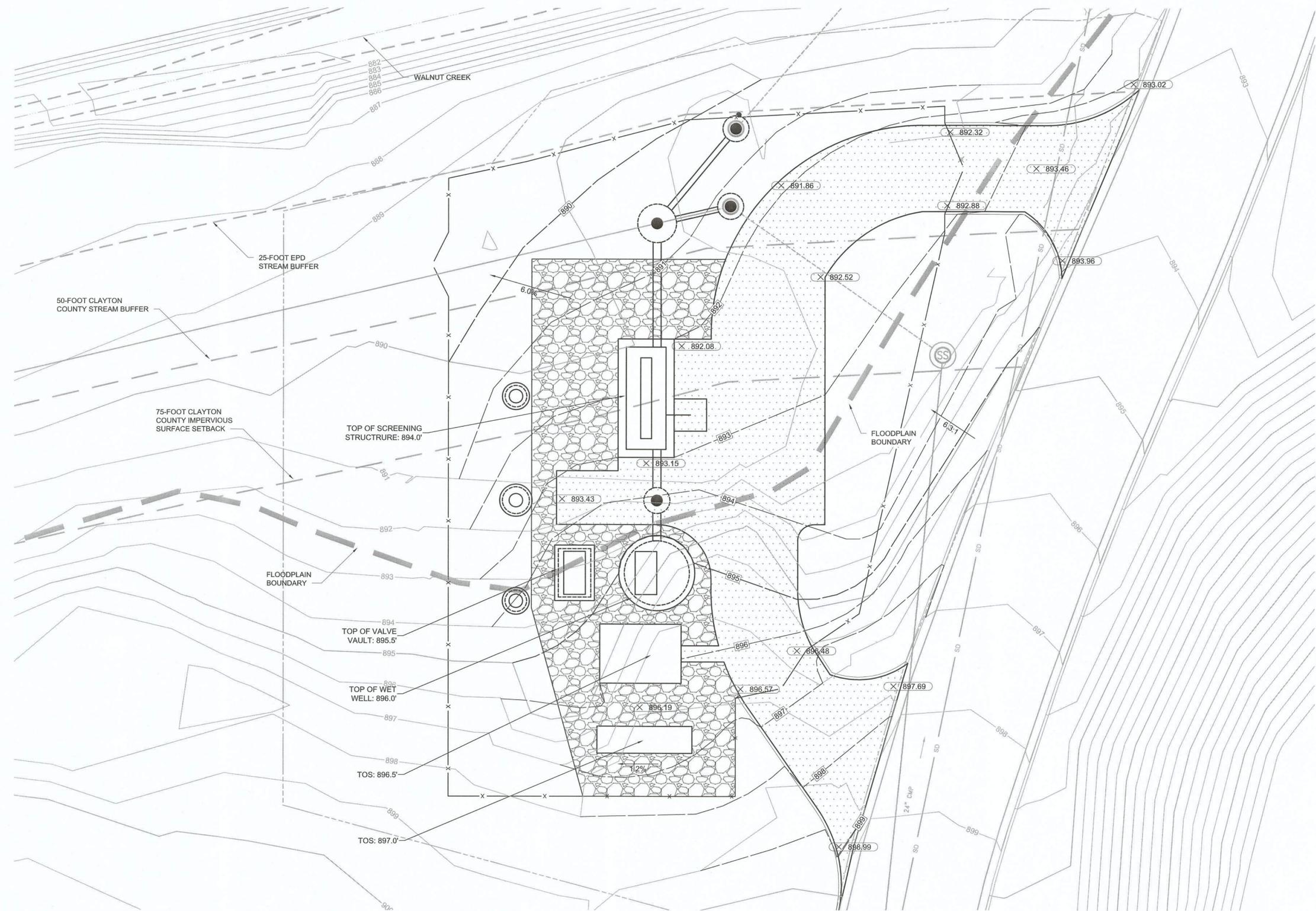
CLAYTON COUNTY WATER AUTHORITY  
MORROW, GEORGIA

WALNUT CREEK LIFT STATION

SITE  
CIVIL

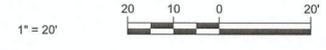
STAKING AND PAVING PLAN

DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	C003



- GRADING NOTES:**
1. TOS REFERS TO TOP OF SLAB ELEVATION.
  2. ESTIMATED FILL: 415 CY
  3. MAXIMUM SLOPES SHALL NOT EXCEED 3:1.
- DRAINAGE NOTES:**
1. TOPOGRAPHY IS FROM A FIELD SURVEY PERFORMED SEPTEMBER 18, 2019.
  2. PRE-DEVELOPMENT DRAINAGE AREA IS IDENTICAL TO POST-DEVELOPMENT DRAINAGE AREA.
  3. BASE FLOOD ELEVATION OF WALNUT CREEK AT THE LIFT STATION SITE IS 892.3 FT.
  4. SITE APPEARS ON FEMA FIRM PANEL MAP NUMBER 13063C0158F, EFFECTIVE JUNE 7, 2017.
  5. TOPS OF THE SCREENING STRUCTURE, WET WELL, VALVE VAULT, ELECTRICAL BUILDING FOUNDATION AND GENERATOR SLAB SHALL HAVE MINIMUM OF 6" CLEARANCE FROM GRADE. POSITIVE DRAINAGE FROM STRUCTURES AWAY FROM ALL SIDES SHALL BE ACHIEVED.

PLAN  
1" = 10'



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 PLOT DATE: 5/6/2020 12:55 PM BY: BJONES

PROJECT ENGINEER:	B. JONES		
DESIGNED BY:	B. JONES		
DRAWN BY:	B. JONES		
CHECKED BY:	A. BOWLING		
1	CONSTRUCTION	05/2020	BCJ
REV	ISSUED FOR	DATE	BY

ISSUED FOR CONSTRUCTION

GBPE LIC #: PE035647 EXP: 12/31/2020

**Hazen**

HAZEN AND SAWYER  
5775 PEACHTREE DUNWOODY ROAD  
SUITE D-520  
ATLANTA, GEORGIA 30342

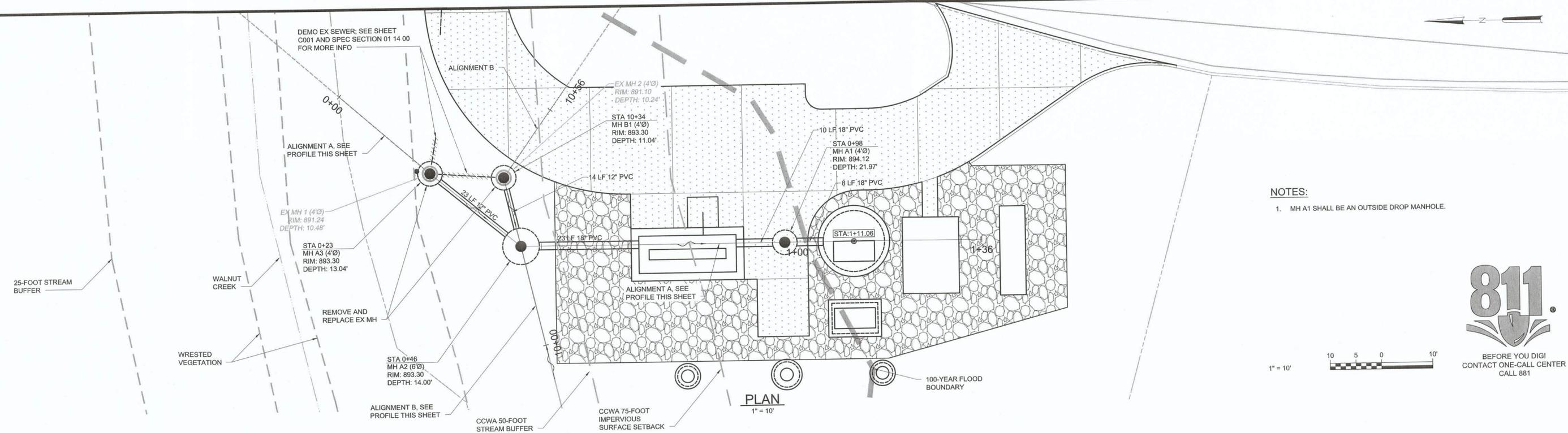
CLAYTON COUNTY WATER AUTHORITY  
MORROW, GEORGIA

WALNUT CREEK LIFT STATION

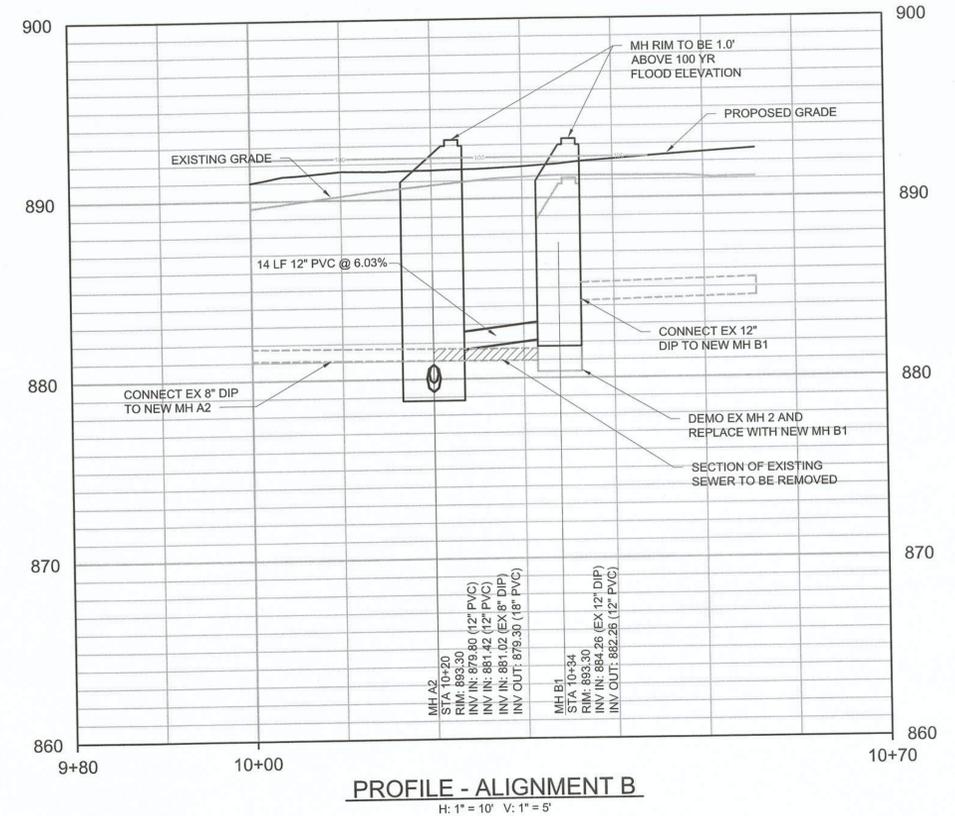
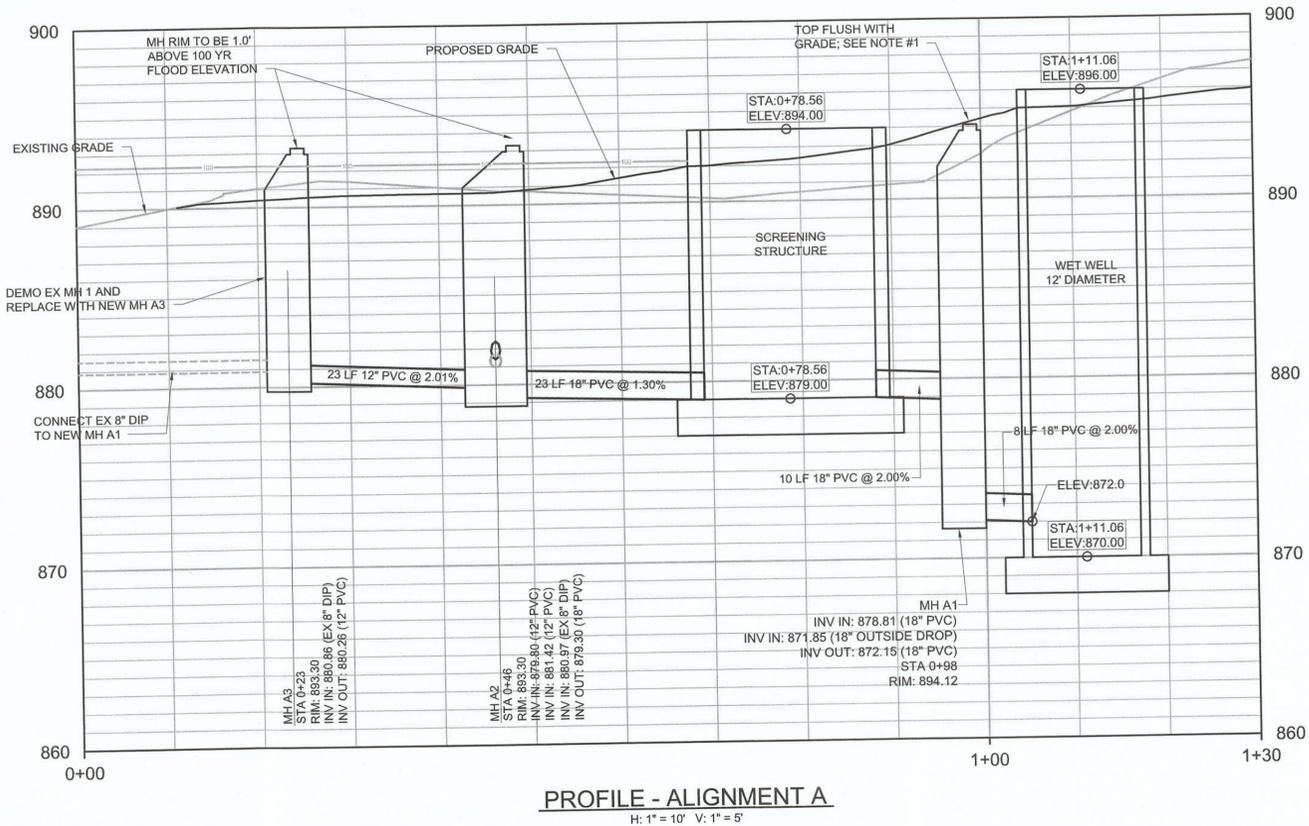
SITE  
CIVIL

GRADING AND DRAINAGE PLAN

DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	C004



**NOTES:**  
 1. MH A1 SHALL BE AN OUTSIDE DROP MANHOLE.



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 PLOT DATE: 05/20/20 12:55 PM BY: BJONES

PROJECT ENGINEER:	B. JONES	
DESIGNED BY:	B. JONES	
DRAWN BY:	B. JONES	
CHECKED BY:	A. BOWLING	
IF THIS BAR DOES NOT MEASURE 1\"/>		
0	1/2"	1"

ISSUED FOR CONSTRUCTION

GBPE LIC #: PE035647 EXP: 12/31/2020

# Hazen

HAZEN AND SAWYER  
 5775 PEACHTREE DUNWOODY ROAD  
 SUITE D-520  
 ATLANTA, GEORGIA 30342

CLAYTON COUNTY WATER AUTHORITY  
 MORROW, GEORGIA

WALNUT CREEK LIFT STATION

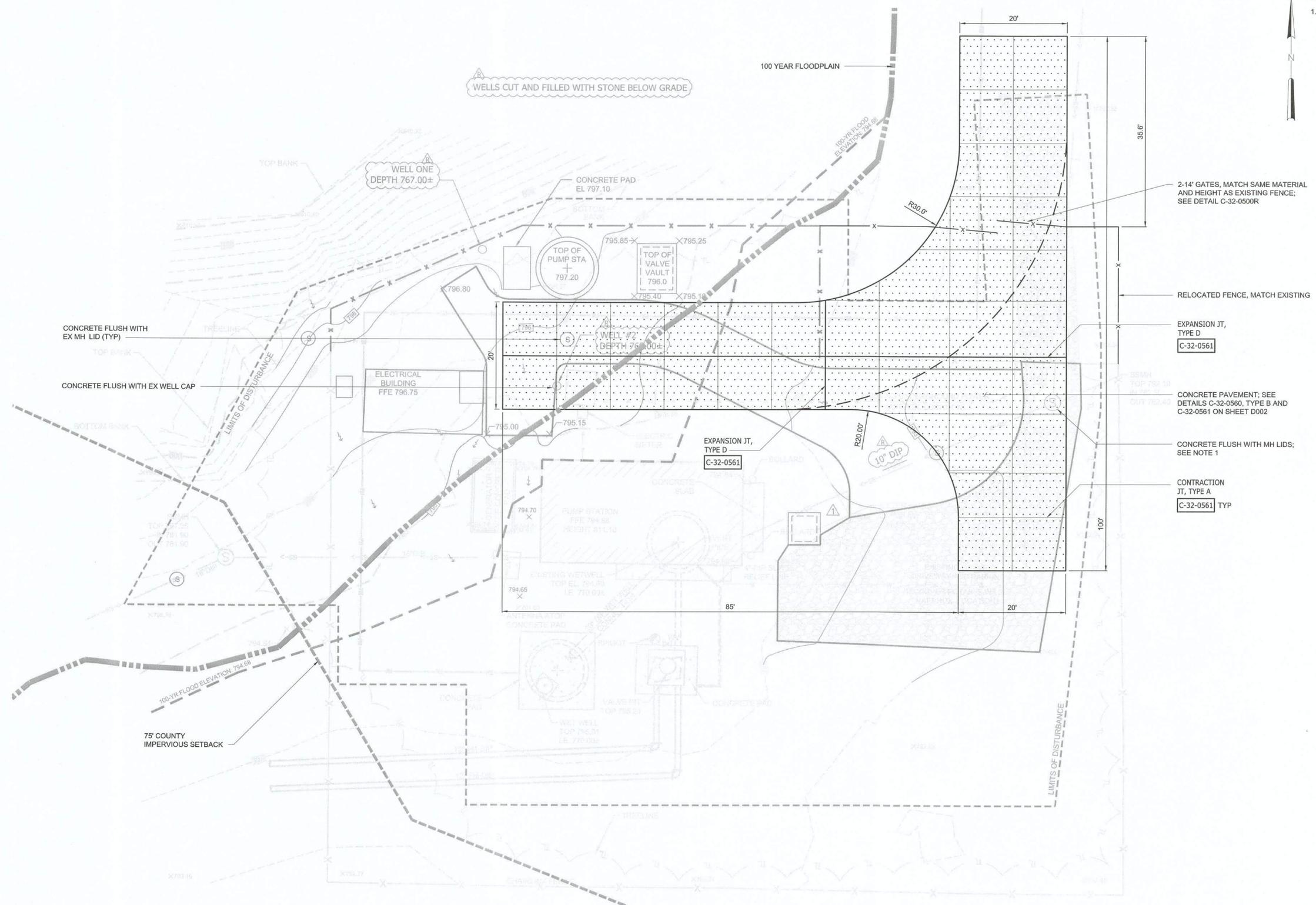
SITE  
 CIVIL

GRAVITY SEWER PLAN & PROFILE

DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	C005

**NOTES:**

1. CONCRETE PAVING SHALL BE INSTALLED FLUSH WITH EXISTING VALVE BOX COVERS AND MANHOLE LIDS. AT LOCATIONS WHERE THIS IS IMPRACTICAL, EXISTING VALVE BOX COVERS AND MANHOLE LIDS SHALL BE RAISED TO GRADE.



**PLAN**  
1" = 10'

File: O:\32457-ATL\32457-008\CAD\_BIM\CIVIL\C006 Saved by BLONES Save date: 4/29/2020 1:45 PM  
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REV	ISSUED FOR	DATE	BY
1	CONSTRUCTION	05/2020	BCJ

PROJECT ENGINEER:	B. JONES
DESIGNED BY:	B. JONES
DRAWN BY:	B. JONES
CHECKED BY:	A. BOWLING

ISSUED FOR CONSTRUCTION



GBPE LIC #: PE035647 EXP: 12/31/2020

**Hazen**  
HAZEN AND SAWYER  
5775 PEACHTREE DUNWOODY ROAD  
SUITE D-520  
ATLANTA, GEORGIA 30342

CLAYTON COUNTY WATER AUTHORITY  
MORROW, GEORGIA  
  
WALNUT CREEK LIFT STATION

SITE  
CIVIL  
RUM CREEK PAVING PLAN

DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	C006

NOTES:

- REFER TO NOTES ON DWGS C001, C002, AND C004.
- 100-YEAR FLOODPLAIN ELEV.: 691 - 692 (APPROX.)
- CONTOURS VERTICALLY SPACED AT ONE (1) FOOT INTERVALS, WITH FIVE (5) FOOT MAJOR AND ONE (1) FOOT MINOR CONTOURS, UNLESS NOTED OTHERWISE.
- REFER TO GEORGIA UNIFORM CODING SYSTEM ON DWG ESC010 FOR SYMBOLS LEGEND.
- REFER TO DWGS ESC012 FOR BMP DETAILS.
- NET CHANGE IN IMPERVIOUS AREA IS APPROXIMATELY 3,000 SQ. FT.

SOIL SERIES LEGEND

SYMBOL	NAME	HYDROLOGIC GROUP	SLOPE
CA*	CARTECAY LOAM	D	2%
CeB	CECIL SANDY LOAM	B	2%-6%

\* FREQUENTLY FLOODED

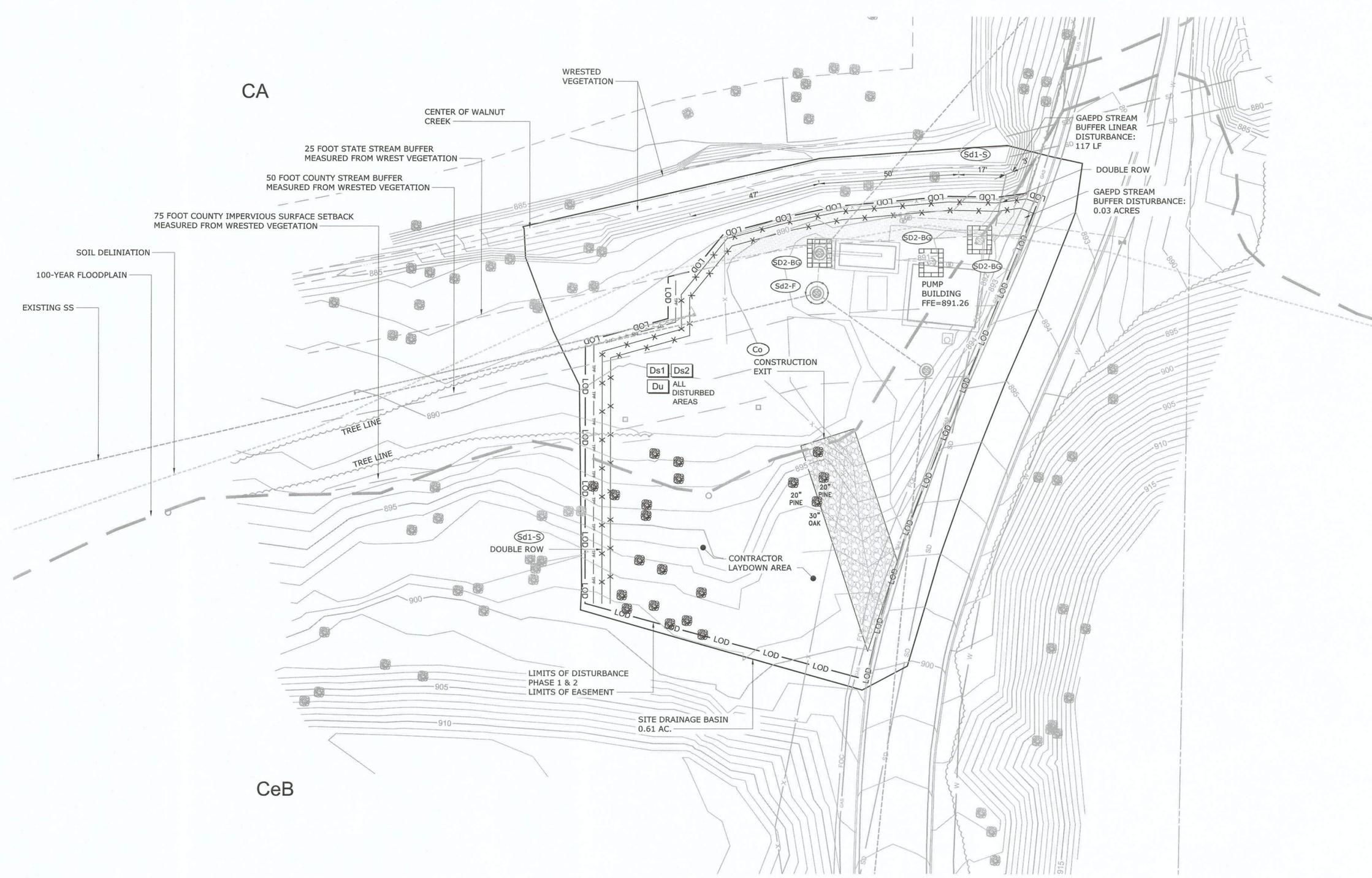
LEGEND:

- BUILDING (EXISTING)
- PAVED ROAD (EXISTING)
- FENCE (EXISTING)
- EXISTING CONTOURS (1-FOOT)
- EXISTING CONTOURS (5-FOOT)
- SILT FENCE, SENSITIVE TYPE C, Sd1-S
- TREE PROTECTION FENCE (Tr)
- LIMITS OF DISTURBANCE
- CONSTRUCTION EXIT, Co
- GAEPD STREAM BUFFER DISTURBANCE

SILT FENCE STORAGE CALCULATIONS:

TOTAL SILT FENCE TO BE INSTALLED = 292 LF  
 11.8 CY OF STORAGE PER 100 LF OF SILT FENCE  
 (270 LF/100 LF) \* 11.8 CY = 31.8 CY OF STORAGE  
 TOTAL DISTURBED AREA = 0.44 ACRES x 67 CY/AC  
 TOTAL STORAGE REQUIRED = 29.5 CY  
 TOTAL STORAGE PROVIDED = 31.8 CY, SITE COMPLIES WITH GEORGIA EROSION CONTROL CRITERIA.

**GSWCC** Georgia Soil and Water Conservation Commission  
**Brian C. Jones**  
 Level II Certified Design Professional  
 Certification Number: 0000021468 Expires: 01/10/2023  
 Issued: 01/10/2020



PLAN  
1" = 20'

File: C:\32457-ATL\32457-008\CAD\_BIM\CIVIL\ESC001 Saved by: BJONES Save date: 4/30/2020 2:52 PM  
 PLOT DATE: 4/30/2020 3:13 PM BY: BJONES

PROJECT ENGINEER:	B. JONES		
DESIGNED BY:	C. COFIELD		
DRAWN BY:	C. COFIELD		
CHECKED BY:	A. BOWLING		
1	CONSTRUCTION	05/2020	BCJ
REV	ISSUED FOR	DATE	BY

ISSUED FOR CONSTRUCTION

**GEORGIA REGISTERED ENGINEER**  
 No. 035647  
**BRIAN C. JONES**  
 5/6/2020  
 GBPE LIC #: PE035647 EXP: 12/31/2020

**Hazen**  
 HAZEN AND SAWYER  
 5775 PEACHTREE DUNWOODY ROAD  
 SUITE D-520  
 ATLANTA, GEORGIA 30342

CLAYTON COUNTY WATER AUTHORITY  
 MORROW, GEORGIA  
 WALNUT CREEK LIFT STATION

EROSION CONTROL  
 CIVIL  
 ESC PLAN - PHASE 1

DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	ESC001

NOTES:

- SEE NOTES ON ESC001

SOIL SERIES LEGEND			
SYMBOL	NAME	HYDROLOGIC GROUP	SLOPE
CA*	CARTECAY LOAM	D	2%
CeB	CECIL SANDY LOAM	B	2%-6%

\* FREQUENTLY FLOODED

LEGEND:

- BUILDING (EXISTING)
- PAVED ROAD (EXISTING)
- PROPOSED CONTOUR (1-FOOT)
- PROPOSED CONTOUR (5-FOOT)
- EXISTING CONTOURS (1-FOOT)
- EXISTING CONTOURS (5-FOOT)
- SILT FENCE, SENSITIVE TYPE C, Sd1-S
- TREE PROTECTION FENCE (Tr)
- LIMITS OF DISTURBANCE
- CONSTRUCTION EXIT, Co
- GAEPD STREAM BUFFER DISTURBANCE

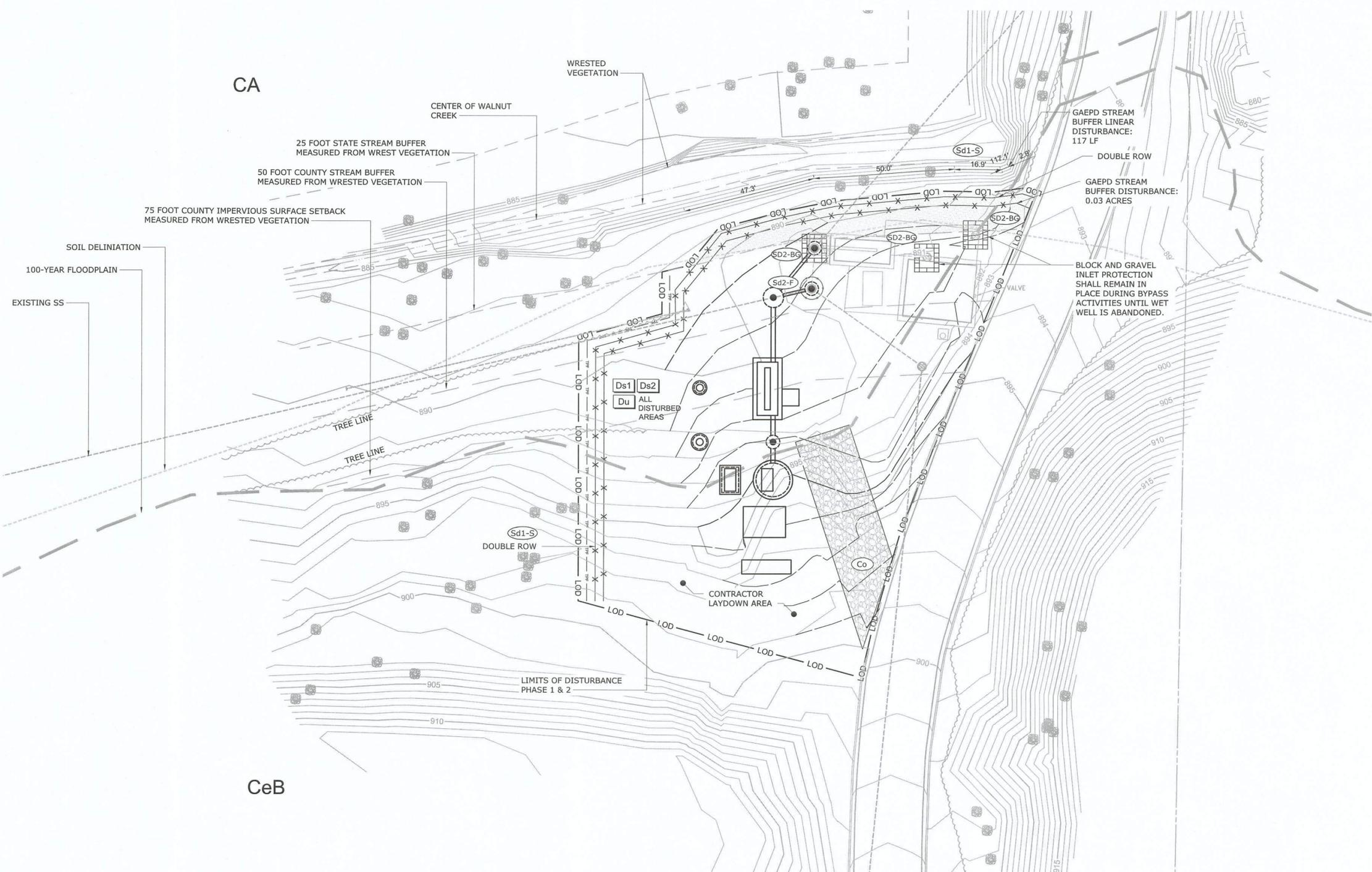
SILT FENCE STORAGE CALCULATIONS:

TOTAL SILT FENCE TO BE INSTALLED = 292 LF  
 11.8 CY OF STORAGE PER 100 LF OF SILT FENCE  
 (270 LF/100 LF) \* 11.8 CY = 31.8 CY OF STORAGE  
 TOTAL DISTURBED AREA = 0.44 ACRES x 67 CY/AC  
 TOTAL STORAGE REQUIRED = 29.5 CY  
 TOTAL STORAGE PROVIDED = 31.8 CY. SITE COMPLIES WITH GEORGIA EROSION CONTROL CRITERIA.

**GSWCC** Georgia Soil and Water Conservation Commission

**Brian C. Jones**  
 Level II Certified Design Professional

Certification Number: 0000021468 Expires: 01/10/2023  
 Issued: 01/10/2020



PLAN  
1" = 20'

File: O:\32457-ATL\32457-008\CAD\_BIM\CIVIL\ESC002 Saved by BJONES Save date: 4/30/2020 2:59 PM PLOT DATE: 4/30/2020 3:14 PM BY: BJONES

REV	ISSUED FOR	DATE	BY
1	CONSTRUCTION	05/2020	BCJ

PROJECT ENGINEER: B. JONES  
 DESIGNED BY: C. COFIELD  
 DRAWN BY: C. COFIELD  
 CHECKED BY: A. BOWLING

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

0 1/2" 1"

ISSUED FOR CONSTRUCTION



GBPE LIC #: PE035647 EXP: 12/31/2020

**Hazen**

HAZEN AND SAWYER  
 5775 PEACHTREE DUNWOODY ROAD  
 SUITE D-520  
 ATLANTA, GEORGIA 30342

CLAYTON COUNTY WATER AUTHORITY  
 MORROW, GEORGIA

WALNUT CREEK LIFT STATION

EROSION CONTROL  
 CIVIL  
 ESC PLAN - PHASE 2

DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	ESC002

NOTES:

1. SEE NOTES ON ESC001

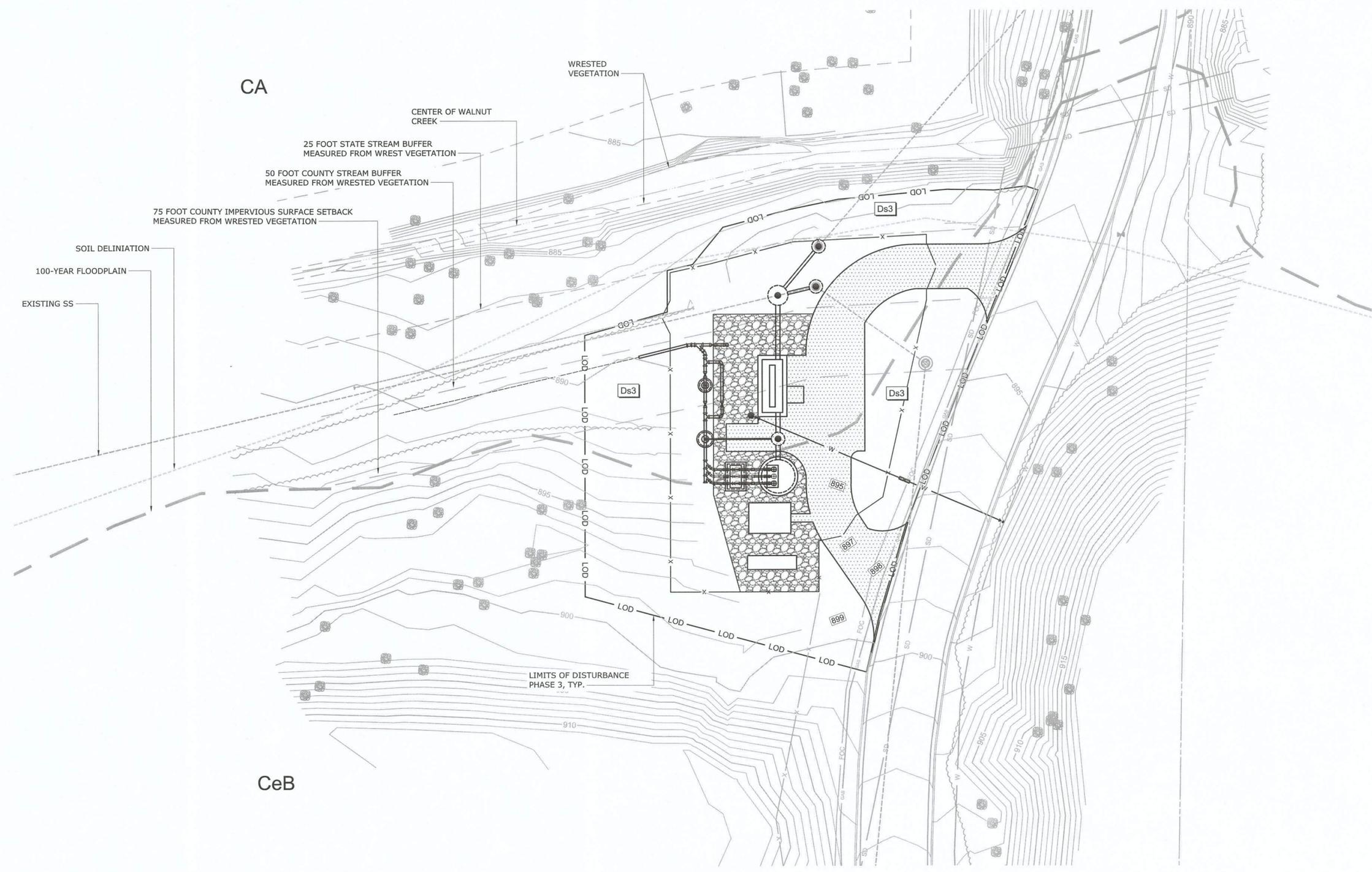


SOIL SERIES LEGEND			
SYMBOL	NAME	HYDROLOGIC GROUP	SLOPE
CA*	CARTECAY LOAM	D	2%
CeB	CECIL SANDY LOAM	B	2%-6%

\* FREQUENTLY FLOODED

LEGEND:

- STRUCTURE (NEW)
- PAVED ROAD (EXISTING)
- PROPOSED CONTOUR (1-FOOT)
- PROPOSED CONTOUR (5-FOOT)
- EXISTING CONTOURS (1-FOOT)
- EXISTING CONTOURS (5-FOOT)
- LIMITS OF DISTURBANCE



PLAN  
1" = 20'

**GSWCC** Georgia Soil and Water Conservation Commission

**Brian C. Jones**  
Level II Certified Design Professional

Certification Number: 0000021468 Expires: 01/10/2023  
Issued: 01/10/2020

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PLOT DATE: 4/30/2020 3:14 PM BY: BJONES

PROJECT ENGINEER:	B. JONES
DESIGNED BY:	C. COFIELD
DRAWN BY:	C. COFIELD
CHECKED BY:	A. BOWLING
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"
1	CONSTRUCTION 05/2020 BCJ
REV	ISSUED FOR DATE BY

ISSUED FOR CONSTRUCTION

GBPE LIC #: PE035647 EXP: 12/31/2020

**Hazen**

HAZEN AND SAWYER  
5775 PEACHTREE DUNWOODY ROAD  
SUITE D-520  
ATLANTA, GEORGIA 30342

CLAYTON COUNTY WATER AUTHORITY  
MORROW, GEORGIA

WALNUT CREEK LIFT STATION

EROSION CONTROL  
CIVIL  
ESC PLAN - PHASE 3

DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	ESC003

GEORGIA UNIFORM CODING SYSTEM  
FOR SOIL EROSION AND SEDIMENT CONTROL PRACTICES  
GEORGIA SOIL AND WATER CONSERVATION COMMISSION

STRUCTURAL PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Cd	CHECKDAM			A small temporary barrier or dam constructed across a swale, drainage ditch or area of concentrated flow.
Ch	CHANNEL STABILIZATION			Improving, constructing or stabilizing an open channel, existing stream, or ditch.
Co	CONSTRUCTION EXIT			A crushed stone pad located at the construction site exit to provide a place for removing mud from tires thereby protecting public streets.
Cr	CONSTRUCTION ROAD STABILIZATION			A travelpad constructed as part of a construction plan including access roads, subdivision roads, parking areas and other on-site vehicle transportation routes.
Dc	STREAM DIVERSION CHANNEL			A temporary channel constructed to convey flow around a construction site while a permanent structure is being constructed.
Di	DIVERSION			An earth channel or dike located above, below, or across a slope to divert runoff. This may be a temporary or permanent structure.
Dn1	TEMPORARY DOWNDRAIN STRUCTURE			A flexible conduit of heavy-duty fabric or other material designed to safely conduct surface runoff down a slope. This is temporary and inexpensive.
Dn2	PERMANENT DOWNDRAIN STRUCTURE			A paved chute, pipe, sectional conduit or similar material designed to safely conduct surface runoff down a slope.
Fr	FILTER RING			A temporary stone barrier constructed at storm drain inlets and pond outlets.
Ga	GABION			Rock filter baskets which are hand-placed into position forming soil stabilizing structures.
Gr	GRADE STABILIZATION STRUCTURE			Permanent structures installed to protect channels or waterways where otherwise the slope would be sufficient for the running water to form gullies.
LV	LEVEL SPREADER			A structure to convert concentrated flow of water into less erosive sheet flow. This should be constructed only on undisturbed soils.
Rd	ROCK FILTER DAM			A permanent or temporary stone filter dam installed across small streams or drainageways.
Re	RETAINING WALL			A wall installed to stabilize cut and fill slopes where maximum permissible slopes are not obtainable. Each situation will require special design.
Rt	RETRO FITTING			A device or structure placed in front of a permanent stormwater detention pond outlet structure to serve as a temporary sediment filter.
Sd1	SEDIMENT BARRIER			A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, brush, logs and poles, gravel, or a silt fence.
Sd2	INLET SEDIMENT TRAP			An impounding area created by excavating around a storm drain drop inlet. The excavated area will be filled and stabilized on completion of construction activities.
Sd3	TEMPORARY SEDIMENT BASIN			A basin created by excavation or a dam across a waterway. The surface water runoff is temporarily stored allowing the bulk of the sediment to drop out.
Sd4	TEMPORARY SEDIMENT TRAP			A small temporary pond that drains a disturbed area so that sediment can settle out. The principle feature distinguishing a temporary sediment trap from a temporary sediment basin is the lack of a pipe or riser.
Sk	FLOATING SURFACE SKIMMER			A buoyant device that releases/drains water from the surface of sediment ponds, traps, or basins at a controlled rate of flow.
Spb	SEEP BERM			Linear control device constructed as a diversion perpendicular to the direction of runoff to enhance dissipation and infiltration, while creating multiple sedimentation chambers with the employment of intermediate dikes.

STRUCTURAL PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Sr	TEMPORARY STREAM CROSSING			A temporary bridge or culvert-type structure protecting a stream or watercourse from damage by crossing construction equipment.
St	STORMDRAIN OUTLET PROTECTION			A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.
Su	SURFACE ROUGHENING			A rough soil surface with horizontal depressions on a contour or slopes left in a roughened condition after grading.
Tc	TURBIDITY CURTAIN			A floating or stacked barrier installed within the water (it may also be referred to as a floating boom, silt barrier, or silt curtain).
Tp	TOPSOILING			The practice of stripping off the more fertile soil, storing it, then spreading it over the disturbed area after completion of construction activities.
Tr	TREE PROTECTION			To protect desirable trees from injury during construction activity.
Wl	VEGETATED WATERWAY OR STORMWATER CONVEYANCE CHANNEL			Paved or vegetative water outlets for diversions, terraces, berms, dikes or similar structures.

VEGETATIVE PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Bf	BUFFER ZONE			Strip of undisturbed original vegetation, enhanced or restored existing vegetation or the reestablishment of vegetation surrounding an area of disturbance or bordering streams.
Cs	COASTAL DUNE STABILIZATION (WITH VEGETATION)			Planting vegetation on dunes that are denuded, artificially constructed, or re-nourished.
Ds1	DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)			Establishing temporary protection for disturbed areas where seedlings may not have a suitable growing season to produce an erosion retarding cover.
Ds2	DISTURBED AREA STABILIZATION (WITH TEMP SEEDING)			Establishing a temporary vegetative cover with fast growing seedlings on disturbed areas.
Ds3	DISTURBED AREA STABILIZATION (WITH PERM SEEDING)			Establishing a permanent vegetative cover such as trees, shrubs, vines, grasses, or legumes on disturbed areas.
Ds4	DISTURBED AREA STABILIZATION (SOODING)			A permanent vegetative cover using sods on highly erodible or critically eroded lands.
Du	DUST CONTROL ON DISTURBED AREAS			Controlling surface and air movement of dust on construction site, roadways and similar sites.
Fl-Co	FLOCCULANTS AND COAGULANTS			Substance formulated to assist in the solids/liquid separation of suspended particles in solution.
Sb	STREAMBANK STABILIZATION (USING PERM VEGETATION)			The use of readily available native plant materials to maintain and enhance streambanks, or to prevent, or restore and repair small streambank erosion problems.
Ss	SLOPE STABILIZATION			A protective covering used to prevent erosion and establish temporary or permanent vegetation on steep slopes, shore lines, or channels.
Tac	TACKIFIERS AND BINDERS			Substance used to anchor straw or hay mulch by causing the organic material to bind together.

OWNER, PERMITTEE, AND 24-HOUR CONTACT INFORMATION

CLAYTON COUNTY WATER AUTHORITY  
BRENT TAYLOR  
GENERAL SERVICES DIRECTOR  
PROGRAM MANAGEMENT & ENGINEERING  
1600 BATTLE CREEK ROAD  
MORROW, GA 30260  
PHONE: 770-302-1772  
EMAIL: BRENT.TAYLOR@CCWA.US

CONSTRUCTION SCHEDULE

ACTIVITY	MONTH							
	1	2	3	4	5	6	7	8
NOTICE TO PROCEED								
INSTALLATION OF EROSION CONTROL								
MAINTENANCE OF EROSION CONTROL								
INSTALLATION OF TREE PROTECTION DEVICES								
MAINTENANCE OF TREE PROTECTION DEVICES								
EARTHMOVING OPERATIONS								
TEMPORARY AND PERMANENT GRASSING								
CLEAN-UP								

CONSTRUCTION ACTIVITIES ARE EXPECTED TO BEGIN IN SEPTEMBER, 2020.

EROSION, SEDIMENTATION & POLLUTION CONTROL NOTES

GENERAL

- THIS PROJECT LIES WITHIN ZONE X, 0.2% ANNUAL CHANCE FLOOD HAZARD, PER FEMA FIRM PANEL 13063C0158F, DATED JUNE 7, 2017.
- EXISTING SITE INFORMATION SOURCED FROM SURVEY BY COLUMBIA ENGINEERING & SERVICES, INC. DATED SEPTEMBER 2019.
- ACCEPTANCE AND/OR SUBSEQUENT ACCEPTANCE OF THESE PLANS DOES NOT CONSTITUTE APPROVAL BY CLAYTON COUNTY OF ANY LAND DISTURBING ACTIVITIES WITHIN WETLAND AREAS, JURISDICTIONAL WATERS OF THE STATE, AREAS OF THREATENED/ENDANGERED SPECIES, OR AREAS OF HISTORICAL SIGNIFICANCE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE APPROPRIATE REGULATORY AGENCY FOR ANY REQUIRED APPROVALS.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL CONFORM WITH THE GUIDELINES OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL", LATEST EDITION.
- MAINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES, WHETHER TEMPORARY OR PERMANENT, SHALL BE AT ALL TIMES THE RESPONSIBILITY OF THE CONTRACTOR.
- PRIMARY PERMITTEE MUST SUBMIT NOTICE OF INTENT (NOI) AT LEAST 14 DAYS PRIOR TO BEGINNING OF LAND DISTURBANCE ACTIVITIES.
- EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION ACTIVITY AND MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT UNDER NO CIRCUMSTANCES ANY SEDIMENT, TRASH, OR DEBRIS BE ALLOWED ONTO ADJACENT PROPERTIES, PUBLIC LANDS, OR OUTSIDE OF THE CONSTRUCTION LIMITS.
- THE PRIMARY PERMITTEE AND TERTIARY PERMITTEES MUST RETAIN THE DESIGN PROFESSIONAL WHO PREPARED THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN (ES&PC), EXCEPT WHEN THE PERMITTEE HAS CONTRACTED IN WRITING AND EPD HAS AGREED TO AN ALTERNATE DESIGN PROFESSIONAL, TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMP'S WHICH THE DESIGN PROFESSIONAL DESIGNED WITHIN SEVEN (7) DAYS AFTER INSTALLATION. THE DESIGN PROFESSIONAL SHALL DETERMINE IF THESE BMP'S HAVE BEEN INSTALLED AND ARE BEING MAINTAINED AS DESIGNED. THE DESIGN PROFESSIONAL SHALL REPORT THE RESULTS OF THE INSPECTION TO THE PERMITTEE WITHIN SEVEN (7) DAYS AND THE PERMITTEE MUST CORRECT ALL DEFICIENCIES WITHIN TWO (2) BUSINESS DAYS OF RECEIPT OF THE INSPECTION REPORT FROM THE DESIGN PROFESSIONAL UNLESS WEATHER RELATED SITE CONDITIONS ARE SUCH THAT ADDITIONAL TIME IS REQUIRED.
- EROSION AND SEDIMENT CONTROL WILL BE PERFORMED IN ACCORDANCE WITH THE BMP'S SHOWN IN THESE PLANS.
- EROSION AND SEDIMENT CONTROL DEVICES SHOWN ARE THE MINIMUM REQUIRED. ADDITIONAL DEVICES MAY BE REQUIRED AS NECESSARY.
- FAILURE TO PROPERLY INSTALL AND MAINTAIN EROSION CONTROL PRACTICES SHALL RESULT IN CONSTRUCTION BEING HALTED.
- AND DISTURBANCE OF SOIL TO LIMIT EXPOSURE OF BARE SOIL TO EROSION ELEMENTS.
- CONSTRUCTION ROAD SHALL BE TOP DRESSED WITH ADDITIONAL GRAVEL PERIODICALLY TO MAINTAIN GRAVEL DEPTH OF 6 INCHES.
- A CLAYTON COUNTY LAND DISTURBANCE PERMIT MUST BE DISPLAYED ON-SITE AT ALL TIMES DURING CONSTRUCTION AND IN PLAIN VIEW FROM A COUNTY ROAD OR STREET.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT UNDER NO CIRCUMSTANCES ANY SEDIMENT, TRASH, OR DEBRIS BE ALLOWED ONTO ADJACENT PROPERTIES, PUBLIC LANDS, OR OUTSIDE OF THE CONSTRUCTION LIMITS.
- THE APPLICABLE PORTION OF THE ES&PC PLAN SHALL BE PROVIDED TO EACH SECONDARY PERMITTEE PRIOR TO THE SECONDARY PERMITTEE CONDUCTING ANY CONSTRUCTION ACTIVITY. EACH SECONDARY PERMITTEE SHALL SIGN THE PLAN OR ANY PORTION OF THE PLAN APPLICABLE TO THEIR SITE. A LIST OF NAMES AND ADDRESSES OF ANY SECONDARY PERMITTEES SHALL BE PROVIDED TO CLAYTON COUNTY PRIOR TO THE SECONDARY PERMITTEE CONDUCTING ANY CONSTRUCTION ACTIVITY.

POLLUTION CONTROL

- OFF-SITE VEHICLE TRACKING DIRT, SOILS, AND SEDIMENTS, AND THE GENERATION OF DUST SHALL BE MINIMIZED OR ELIMINATED TO THE MAXIMUM EXTENT PRACTICAL. THE FOLLOWING BMP'S SHALL BE IMPLEMENTED AS APPROPRIATE: CONSTRUCTION EXIT (Co), MULCH (Ds1), VEGETATIVE COVER (Ds2 / Ds3), TREE PROTECTION FENCE (Tr), SILT FENCE (Sd1), INLET PROTECTION (Sd2), CONSTRUCTION ROAD STABILIZATION (Cr).
- CONTRACTOR SHALL SELECT A DESIGNATED WASTE COLLECTION AREA AND PROVIDE LIDS FOR WASTE CONTAINMENT. SOLID WASTE SHALL BE REMOVED AND DISPOSED OFFSITE AT A REGULAR SCHEDULE.
- ALL WASTEWATER AND FROM CONSTRUCTION ACTIVITIES AND OR CLEANING OPERATIONS SHALL NOT BE DISCHARGED ON THE GROUND OR STORMWATER SYSTEM.
- OFF-SITE VEHICLE TRACKING OF SEDIMENT:
  - A STABILIZED STONE PAD WILL BE LOCATED AT THE CONSTRUCTION ENTRANCE TO REDUCE TRANSPORT OF MUD FROM THE CONSTRUCTION SITE.
  - THE STONE PAD WILL BE PERIODICALLY DRESSED. MUD AND DEBRIS TRACKED OR SPILLED ONTO ROADWAYS WILL BE REMOVED IMMEDIATELY.
  - CONTRACTOR WILL CONTROL SURFACE AND AIR MOVEMENT OF DUST BY SPRAYING WATER ONTO DISTURBED SOIL.
- MATERIALS HANDLING/STORAGE:
  - ALL BUILDING MATERIALS AND PRODUCTS STORED ON-SITE SHALL BE TIED DOWN AND/OR COVERED TO PROVIDE PROTECTION FROM UV DAMAGE, WIND, AND RAIN.
  - SANITARY WASTES:
    - ONE PORTABLE SANITARY UNIT WILL BE PROVIDED TO EVERY TEN (10) WORKERS ON THE SITE (MINIMUM). ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS ONE TIME PER WEEK (MINIMUM) BY A LICENSED PORTABLE FACILITY PROVIDER IN COMPLETE COMPLIANCE WITH LOCAL AND STATE REGULATIONS.
    - ALL SANITARY WASTE UNITS WILL BE LOCATED WHERE THE LIKELIHOOD OF THE UNIT CONTRIBUTING TO STORMWATER DISCHARGE IS NEGLIGIBLE. ADDITIONAL CONTAINMENT MEASURES SHALL BE IMPLEMENTED, SUCH AS GRAVEL BAGS OR SPECIALLY DESIGNED PLASTIC SKID CONTAINERS AROUND THE BASE, TO PREVENT WASTES FROM CONTRIBUTING TO STORM WATER DISCHARGES.

PHASE I - INITIAL PHASE: SITE PREPARATION AND PRE-CONSTRUCTION OPERATIONS

- INSTALL / CONSTRUCT ALL BMP'S AS PROVIDED ON SHEETS ESC001.
- THE FOLLOWING INITIAL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED PRIOR TO ANY OTHER CONSTRUCTION ACTIVITY:
    - CONSTRUCTION EXIT SHALL BE PLACED AS SHOWN ON THE PLANS.
    - IMMEDIATELY AFTER THE ESTABLISHMENT OF CONSTRUCTION EXIT, ALL PERIMETER EROSION CONTROL AND STORMWATER MANAGEMENT DEVICES SHALL BE INSTALLED AS SHOWN ON THE PLANS.
    - THREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO THE START OF ANY LAND DISTURBING ACTIVITY.
    - SEDIMENT INLET PROTECTIONS SHALL BE INSTALLED PRIOR TO THE START OF ANY LAND DISTURBANCE ACTIVITY.
  - WITHIN SEVEN (7) DAYS 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 PROFESSIONAL APPROVES THE INSTALLATION OF SAID EROSION CONTROL MEASURES. IF UNDESIRABLE CONDITIONS EXIST IN THE FIELD THAT WARRANT ADDITIONAL EROSION CONTROL MEASURES, THE CONTRACTOR MUST CONSTRUCT ANY ADDITIONAL EROSION CONTROL DEVICES DEEMED NECESSARY BY THE PROJECT PROFESSIONAL DURING THE SITE INSPECTION.
  - AFTER APPROVAL OF INITIAL EROSION CONTROL INSTALLATION, THE CONTRACTOR MAY PROCEED WITH CLEARING AND GRUBBING ACTIVITIES.
  - ALL SILT FENCES MUST MEET THE REQUIREMENTS OF SECTION 171-TEMPORARY SILT FENCE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF GEORGIA, STANDARD SPECIFICATIONS, 1983 EDITION.
  - MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 7 DAYS OF LAND DISTURBANCE. ALL DISTURBED AREAS LEFT MULCHED MORE THAN 30 DAYS SHALL BE STABILIZED WITH TEMPORARY VEGETATION.
  - SEDIMENT AND EROSION CONTROL MEASURES MUST BE CHECKED AFTER EACH RAIN EVENT. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED HALF THE CAPACITY OF THE DEVICE. ADDITIONAL DEVICES MUST BE INSTALLED IF NEW CHANNELS HAVE DEVELOPED.
  - 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 A VEHICLE ONTO PUBLIC ROADWAY OR INTO STORM DRAIN MUST BE REMOVED IMMEDIATELY.
  - CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE PROPER FUNCTIONING.

PHASE II - INTERMEDIATE PHASE: CONSTRUCTION ACTIVITIES

- INSTALL / CONSTRUCT ALL BMP'S AS PROVIDED ON SHEETS ESC002
- 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 LIMITED DURATIONS BEFORE PERMANENT EROSION PROTECTION IS ESTABLISHED.
  - EARTHWORK NEAR STREAM BUFFERS SHALL BE CAREFULLY CONTROLLED TO AVOID DUMPING OR SLOUGHING INTO THE BUFFER AREAS.
  - EROSION CONTROL DEVICES SHALL BE INSTALLED IMMEDIATELY AFTER GROUND DISTURBANCE OCCURS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING CONSTRUCTION, AND ALTER THE LOCATION OF EROSION CONTROL DEVICES ACCORDINGLY.
  - THE CONTRACTOR SHALL ESTABLISH BARRIERS AT THE TOP OF ALL SLOPES UNDER CONSTRUCTION. CUT AND FILL SLOPES SHALL NOT EXCEED 2:1.
  - ALL DRAINAGE SWALES AND GRADED AREAS SHALL BE APPLIED WITH VEGETATIVE COVER AS SOON AS FINAL GRADE IS ACHIEVED. MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 7 DAYS OF LAND DISTURBANCE. ALL DISTURBED AREAS LEFT MULCHED FOR MORE THAN 30 DAYS SHALL BE STABILIZED WITH TEMPORARY GRASSING.
  - MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 7 DAYS OF LAND DISTURBANCE. ALL DISTURBED AREAS LEFT MULCHED FOR MORE THAN 30 DAYS SHALL BE STABILIZED WITH TEMPORARY GRASSING.
  - SEDIMENT AND EROSION CONTROL MEASURES MUST BE CHECKED AFTER EACH RAIN EVENT. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED HALF THE CAPACITY OF THE DEVICE. ADDITIONAL DEVICES MUST BE INSTALLED IF NEW CHANNELS HAVE DEVELOPED.
  - 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 A VEHICLE ONTO PUBLIC ROADWAY OR INTO STORM DRAIN MUST BE REMOVED IMMEDIATELY.
  - CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE PROPER FUNCTIONING.

PHASE III - FINAL PHASE: CONSTRUCTION COMPLETION AND FINAL STABILIZATION

- INSTALL / CONSTRUCT ALL BMP'S AS PROVIDED ON SHEETS ESC003.  
SUBMIT NOTICE OF TERMINATION.
- ALL DISTURBED AREAS TO RECEIVE PERMANENT GRASS SHOULD BE GRASSED AS SOON AS FINAL GRADE IS ACHIEVED.
  - A TEMPORARY COVER OF HEAVY MULCH, MULCH WITH TEMPORARY SEEDING, OR TEMPORARY SEEDING, SHALL BE PLACED ON ALL AREAS WHERE PERMANENT COVER CAN NOT IMMEDIATELY BE ESTABLISHED DUE TO SEASONAL LIMITATIONS.
  - WHEN HAND PLANTING, MULCH (HAY OR STRAW) SHOULD BE UNIFORMLY SPREAD OVER SEEDING AREAS WITHIN 24 HOURS OF SEEDING.
  - UPON COMPLETION OF THE PROJECT AND RECEIPT OF THE CERTIFICATE OF COMPLETION, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND DISPOSE OF THEM UNLESS NOTED OTHERWISE ON PLANS.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ESTABLISHMENT OF A STRONG STAND OF GRASS BEFORE BEING RELEASED FROM CONTRACTUAL OBLIGATIONS. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR A PERIOD OF TWELVE MONTHS AFTER ACCEPTANCE OF THE PROJECT TO REPAIR ANY WASHOUT AREAS OR AREAS OF VEGETATIVE COVER NOT CONSIDERED TO BE GOOD (<75% COVERAGE).

STORMWATER DISCHARGE POLLUTANT REDUCTION

- ALL POLLUTANTS FROM WASTE DISPOSAL PRACTICES, SOIL ADDITIVES, REMEDIATION OF SPILLS AND LEAKS OF PETROLEUM PRODUCTS, CONCRETE TRUCK WASHOUT, ETC., SHOULD ANY OF THESE OCCUR, WILL BE CONTROLLED BY THE IMPLEMENTATION OF APPROPRIATE BEST MANAGEMENT PRACTICES.
- THE SITE WILL BE IN COMPLIANCE WITH ALL APPLICABLE STATE AND LOCAL WASTE DISPOSAL, SANITARY SEWER OR SEPTIC SYSTEM REGULATIONS.
- PRODUCT SPECIFIC PRACTICES:
  - PETROLEUM BASED PRODUCTS - CONTAINERS FOR PRODUCTS SUCH AS FUELS, LUBRICANTS AND TARS WILL BE INSPECTED DAILY FOR LEAKS AND SPILLS. THIS INCLUDES ON-SITE VEHICLE AND MACHINERY DAILY INSPECTIONS AND REGULAR PREVENTIVE MAINTENANCE OF SUCH EQUIPMENT. EQUIPMENT MAINTENANCE AREAS WILL BE LOCATED AWAY FROM STORM WATER, NATURAL DRAINS AND STORMWATER 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.
  - PAINTS/FINISHES/SOLVENTS - ALL PRODUCTS WILL BE STORED IN TIGHTLY SEALED ORIGINAL CONTAINERS WHEN NOT IN USE. EXCESS PRODUCTS WILL NOT BE DISCHARGED TO THE STORMWATER COLLECTION SYSTEM. EXCESS PRODUCT MATERIALS USED WITH THESE PRODUCTS AND PRODUCT CONTAINERS WILL BE DISPOSED OF ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
  - CONCRETE TRUCK WASHING - NO CONCRETE TRUCKS WILL BE ALLOWED TO WASH OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ON-SITE.
  - FERTILIZER/HERBICIDES - THESE PRODUCTS WILL BE APPLIED AT RATES THAT DO NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS OR ABOVE THE GUIDELINES SET FORTH IN THE CROP ESTABLISHMENT OR IN THE GSWCC MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA. ANY STORAGE OF THESE MATERIALS WILL BE UNDER PROVISIONS OF THE GSWCC MANUAL.
  - BUILDING MATERIALS - NO BUILDING OR CONSTRUCTION MATERIALS WILL BE BURIED OR DISPOSED OF ON-SITE. ALL SUCH MATERIAL WILL BE DISPOSED OF IN 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, DUSTPANS, MOPS, BAGS, GOGGLES, CAT LITTER, 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 WITHIN 24 HOURS AT 1-800-424-8802.
  - FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-424-8802.
  - FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE GEORGIA EPD WILL BE CONTACTED WITHIN 24 HOURS.
  - FOR SPILLS LESS THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE SPILL WILL BE CLEANED UP AND LOCAL AGENCIES WILL BE CONTACTED AS REQUIRED.
- THE CONTRACTOR SHALL NOTIFY THE LICENSED PROFESSIONAL WHO PREPARED THIS PLAN IF MORE THAN 1,320 GALLONS OF PETROLEUM IS STORED ON-SITE (THIS INCLUDES CAPACITIES OF EQUIPMENT) OR IF ANY ONE PIECE OF EQUIPMENT HAS A CAPACITY GREATER THAN 660 GALLONS. THE CONTRACTOR WILL NEED A SPILL PREVENTION CONTAINMENT AND COUNTERMEASURES PLAN PREPARED BY THAT LICENSED PROFESSIONAL.

PROJECT NARRATIVE

THE PROJECT CONSISTS OF THE DEMOLITION OF AN EXISTING SEWER PUMP STATION AND CONSTRUCTION OF A NEW PUMP STATION WITH SCREENING SYSTEM, WET WELL, STANDBY GENERATOR, PREFABRICATED ELECTRICAL BUILDING, CONCRETE DRIVEWAY, AND IMPROVEMENTS TO SANITARY SEWER AND FORCEMAIN. THE PROJECT IS LOCATED IN CLAYTON COUNTY, GEORGIA IN THE TOWN OF LOVEJOY. THE PROJECT IS WITHIN 200 LF OF WALNUT CREEK. WORK SHALL BE PERFORMED WITHIN THE GAEPD 25-FT STREAM BUFFER WITH A TOTAL TEMPORARY DISTURBANCE OF 1,460 SQFT (0.03 AC) AND AN ASSOCIATED DISTURBANCE LENGTH OF 117 LF. GAEPD HAS APPROVED THE WORK UNDER SBV PERMIT #\*\*\*\*\*. AFTER DISTURBANCE IS COMPLETE, SITE WILL BE RESTORED USING PERMANENT VEGETATIVE PRACTICES.

THE PROJECT WILL INCLUDE DEMOLITION, CLEARING, AND GRADING OF THE SITE BEFORE PROPOSED STRUCTURES ARE CONSTRUCTED. FLOWS WILL TRAVEL VIA OVERLAND FLOW TO WALNUT CREEK AND WILL NOT BE CONCENTRATED.

- SEVEN (7) TYPES OF EROSION CONTROL MEASURES WILL BE UTILIZED IN THE CONSTRUCTION OF THE PROJECT.
  - SILT FENCE FOR SENSITIVE AREAS (Sd1-S) SHALL BE INSTALLED AT APPROPRIATE LOCATIONS TO PREVENT SEDIMENT FROM BEING WASHED OFF OF THE SITE. THESE LOCATIONS INCLUDE, BUT ARE NOT LIMITED TO, THE SITE PERIMETER.
  - MULCHING, TEMPORARY GRASSING, AND PERMANENT GRASSING (Ds1, Ds2 & Ds3) SHALL BE USED TO RE-ESTABLISH VEGETATION ON THE DISTURBED AREAS AS CONSTRUCTION PROCEEDS AND AT PROJECT COMPLETION.
  - CONSTRUCTION EXITS (Co) SHALL BE USED TO PREVENT SEDIMENT FROM LEAVING THE SITE VIA THE TIRES OF TRUCKS AND CONSTRUCTION EQUIPMENT.
  - TREE PROTECTION FENCING (Tr) SHALL BE INSTALLED ALONG TREE LINES ADJACENT TO CONSTRUCTION AREAS WHERE CONSTRUCTION ACTIVITIES MAY DAMAGE EXISTING TREES.
  - BLOCK AND GRAVEL DROP INLET PROTECTION (Sd2-Bg) SHALL BE USED TO PROTECT OPEN MANHOLES LOCATED ON IMPERVIOUS SURFACES DURING CONSTRUCTION.
  - FILTER FABRIC WITH SUPPORTING FRAME INLET PROTECTION (Sd2-F) SHALL BE USED TO PROTECT OPEN MANHOLES LOCATED ON GRASSED, DIRT, OR PERVIOUS SURFACES DURING CONSTRUCTION.
  - DUST CONTROL (Du) SHALL BE USED TO PREVENT SURFACE AND AIR MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, AND TO REDUCE THE PRESENCE OF AIRBORNE SUBSTANCES THAT MAY BE HARMFUL OR INJURIOUS TO HUMAN HEALTH, WELFARE OR SAFETY, OR TO ANIMALS OR PLANT LIFE.

EROSION CONTROL NOTES

- TOTAL PROJECT AREA: 0.44 ACRES  
DISTURBED AREA: 0.44 ACRES
- CONSTRUCTION EXIT COORDINATES:  
LATITUDE: 33.419°    LONGITUDE: -84.3045°
- SOILS TYPE: AS PER NRCS WEB SOIL SURVEY, SOIL TYPES FOR THIS PROJECT ARE DELINEATED ON SHEETS ESC001 - ESC003. A SOIL TYPE LEGEND, WITH DESCRIPTIONS, IS PROVIDED ON SHEET ESC001-ESC003.
- THERE ARE NO ON-SITE WETLANDS.
- ALL STATE WATERS LOCATED ON AND WITHIN 200 FEET OF THE PROJECT SITE HAVE BEEN IDENTIFIED AND WILL BE PROTECTED BY APPROPRIATE EROSION CONTROL MEASURES. SEE DWGS ESC001 - ESC003 FOR DELINEATION.
- BUFFER ENCROACHMENTS: CONSTRUCTION OF THIS PROJECT WILL OCCUR WITHIN THE 25-FOOT BUFFER. CONSTRUCTION HAS BEEN APPROVED IN VARIANCE XXXXXX.
- PRE-DEVELOPMENT CN=72  
POST-CONSTRUCTION DETENTION IS NOT REQUIRED AS LESS THAN 5,000 SF OF IMPERVIOUS SURFACE IS BEING ADDED TO SITE.
- CONTRIBUTING DRAINAGE AREA TO THE CULVERT UNDER SLR BLVD. FOR WALNUT CREEK IS 278 AC. RECEIVING WATERS AND SENSITIVE AREAS: THE RECEIVING WATERS OF THIS PROJECT ARE NOT CLASSIFIED AS IMPAIRED OR ONE LINEAR MILE UPSTREAM OF AN IMPAIRED BODY OF WATER.

NO SIGNIFICANT TOPOGRAPHIC CHANGES ARE EXPECTED FOR THE PROPOSED PROJECT. PROPOSED GRADING AND DRAINAGE WILL MAINTAIN THE EXISTING GENERAL DRAINAGE PATTERN. THE STORMWATER FACILITIES SHALL BE PROTECTED FROM SEDIMENT AND EROSION DURING CONSTRUCTION ACTIVITIES.

REQUIRED NOTES

- 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.
- AMENDMENTS/REVISIONS TO THE ES&PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMP'S WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL.
- WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.
- THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES.
- 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.
- ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.

CERTIFICATIONS

DESIGN PROFESSIONAL  
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 SUPERVISION.

*Brian C. Jones* 5/6/2020  
BRIAN JONES, PE  
LEVEL II CERTIFIED DESIGN PROFESSIONAL #000021468

PRIMARY PERMITTEE  
I CERTIFY THAT THE RECEIVING WATER(S) OR THE OUTFALL(S) OR A COMBINATION OF RECEIVING WATER(S) AND OUTFALL(S) WILL BE MONITORED IN ACCORDANCE WITH THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN.

OPERATOR'S PRINTED NAME: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

**GSWCC** Georgia Soil and Water Conservation Commission  
Brian C. Jones  
Level II Certified Design Professional  
Certification Number: 0000021468 Expires: 01/10/2023  
Issued: 01/10/2020

REV	ISSUED FOR	DATE	BY	PROJECT ENGINEER	DESIGNED BY	DRAWN BY	CHECKED BY
1	CONSTRUCTION	05/2020	BCJ	B. JONES	C. COFIELD	C. COFIELD	A. BOWLING
	ISSUED FOR						

**EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST  
STAND ALONE CONSTRUCTION PROJECTS**

SWCD: CLAYTON COUNTY

Project Name: Walnut Creek Lift Station Address: 12000 SLR BOULEVARD, LOVEJOY  
 City/County: Clayton County, GA Date on Plans: MARCH 2020  
 Name & email of person filling out checklist: Brian Jones BJones@HazenandSawyer.com

Plan Included  
 Page # Y/N  
**TO BE SHOWN ON ES&PC PLAN**

- |        |                          |  |
|--------|--------------------------|--|
| ESC012 | <input type="checkbox"/> | 1 The applicable Erosion, Sedimentation and Pollution Control Plan Checklist established by the Commission as of January 1 of the year in which the land-disturbing activity was permitted.<br>(The completed Checklist must be submitted with the ES&PC Plan or the Plan will not be reviewed)  |
| ESC001 | <input type="checkbox"/> | 2 Level II certification number issued by the Commission, signature and seal of the certified design professional. (Signature, seal and Level II number must be on each sheet pertaining to ES&PC plan or the Plan will not be reviewed)   |
| N/A    | <input type="checkbox"/> | 3 Limits of disturbance shall be no greater than 50 acres at any one time without prior written authorization from the EPD District Office. If EPD approves the request to disturb 50 acres or more at any one time, the Plan must include at least 4 of the BMPs listed in Appendix 1 of this checklist. *<br>(A copy of the written approval by EPD must be attached to the plan for the Plan to be reviewed.) |
| ESC010 | <input type="checkbox"/> | 4 The name and phone number of the 24-hour local contact responsible for erosion, sedimentation and pollution controls.  |
| ESC010 | <input type="checkbox"/> | 5 Provide the name, address, email address, and phone number of primary permittee.   |
| ESC010 | <input type="checkbox"/> | 6 Note total and disturbed acreage of the project or phase under construction.   |
| ESC010 | <input type="checkbox"/> | 7 Provide the GPS location of the construction exit for the site. Give the Latitude and Longitude in decimal degrees.  |
| ESC001 | <input type="checkbox"/> | 8 Initial date of the Plan and the dates of any revisions made to the Plan including the entity who requested the revisions.   |
| ESC010 | <input type="checkbox"/> | 9 Description of the nature of construction activity.  |
| COVER  | <input type="checkbox"/> | 10 Provide vicinity map showing site's relation to surrounding areas. Include designation of specific phase, if necessary.   |
| ESC010 | <input type="checkbox"/> | 11 Identify the project receiving waters and describe all sensitive adjacent areas including streams, lakes, residential areas, wetlands, marshlands, etc. which may be affected.  |
| ESC010 | <input type="checkbox"/> | 12 Design professional's certification statement and signature that the site was visited prior to development of the ES&PC Plan as stated on Part IV page 19 of the permit.  |
| N/A    | <input type="checkbox"/> | 13 Design professional's certification statement and signature that the permittee's ES&PC Plan provides for an appropriate and comprehensive system of BMPs and sampling to meet permit requirements as stated on Part IV page 19 of the permit. *   |
| N/A    | <input type="checkbox"/> | 14 Clearly note the statement that "The design professional who prepared the ES&PC Plan is to inspect the installation of the initial sediment storage requirements and perimeter control BMPs within 7 days after installation." in accordance with Part IV.A.5 page 25 of the permit. *  |
| ESC010 | <input type="checkbox"/> | 15 Clearly note the statement that "Non-exempt activities shall not be conducted within the 25 or 50-foot undisturbed stream buffers as measured from the point of wretched 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."  |
| ESC010 | <input type="checkbox"/> | 16 Provide a description of any buffer encroachments and indicate whether a buffer variance is required.   |
| ESC010 | <input type="checkbox"/> | 17 Clearly note the statement that "Amendments/revisions to the ES&PC Plan which have a significant effect on BMPs with a hydraulic component must be certified by the design professional." *   |

- |        |                          |  |
|--------|--------------------------|--|
| ESC010 | <input type="checkbox"/> | 18 Clearly note the statement that "Waste materials shall not be discharged to waters of the State, except as authorized by a Section 404 permit." *   |
| ESC010 | <input type="checkbox"/> | 19 Clearly note statement that "The escape of sediment from the site shall be prevented by the installation of erosion and sediment control measures and practices prior to land disturbing activities."   |
| ESC010 | <input type="checkbox"/> | 20 Clearly note statement that "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."  |
| ESC010 | <input type="checkbox"/> | 21 Clearly note the statement "Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding."   |
| N/A    | <input type="checkbox"/> | 22 Any construction activity which discharges storm water into an Impaired Stream Segment, or within 1 linear mile upstream of and within the same watershed as, any portion of an Impaired Stream Segment must comply with Part III. C. of the permit. Include the completed Appendix 1 listing all the BMPs that will be used for those areas of the site which discharge to the Impaired Stream Segment. *  |
| N/A    | <input type="checkbox"/> | 23 If a TMDL Implementation Plan for sediment has been finalized for the Impaired Stream Segment (identified in Item 22 above) at least six months prior to submittal of NOI, the ES&PC Plan must address any site-specific conditions or requirements included in the TMDL Implementation Plan. *   |
| N/A    | <input type="checkbox"/> | 24 BMPs for concrete washdown of tools, concrete mixer chutes, hoppers and the rear of the vehicles. Washout of the drum at the construction site is prohibited. *   |
| ESC010 | <input type="checkbox"/> | 25 Provide BMPs for the remediation of all petroleum spills and leaks.   |
| N/A    | <input type="checkbox"/> | 26 Description of the measures that will be installed during the construction process to control pollutants in storm water that will occur after construction operations have been completed. *  |
| ESC010 | <input type="checkbox"/> | 27 Description of practices to provide cover for building materials and building products on site. *   |
| ESC010 | <input type="checkbox"/> | 28 Description of the practices that will be used to reduce the pollutants in storm water discharges. *  |
| ESC010 | <input type="checkbox"/> | 29 Description and chart or timeline of the intended sequence of major activities which disturb soils for the major portions of the site (i.e., initial perimeter and sediment storage BMPs, clearing and grubbing activities, excavation activities, utility activities, temporary and final stabilization).  |
| N/A    | <input type="checkbox"/> | 30 Provide complete requirements of inspections and record keeping by the primary permittee. *   |
| N/A    | <input type="checkbox"/> | 31 Provide complete requirements of sampling frequency and reporting of sampling results. *  |
| N/A    | <input type="checkbox"/> | 32 Provide complete details for retention of records as per Part IV.F. of the permit. *  |
| N/A    | <input type="checkbox"/> | 33 Description of analytical methods to be used to collect and analyze the samples from each location. *   |
| N/A    | <input type="checkbox"/> | 34 Appendix B rationale for NTU values at all outfall sampling points where applicable. *  |
| N/A    | <input type="checkbox"/> | 35 Delineate all sampling locations, perennial and intermittent streams and other water bodies into which storm water is discharged. *   |
| ESC010 | <input type="checkbox"/> | 36 A description of appropriate controls and measures that will be implemented at the construction site including: (1) initial sediment storage requirements and perimeter control BMPs, (2) intermediate grading and drainage BMPs, and (3) final BMPs. For construction sites where there will be no mass grading and the initial perimeter control BMPs, intermediate grading and drainage BMPs, and final BMPs are the same, the Plan may combine all of the BMPs into a single phase. * |

- | ESC001                         | <input type="checkbox"/>                    | 37 Graphic scale and North arrow.   |           |              |                        |                                |   |                                 |
|--------------------------------|---|---|-----------|--------------|------------------------|--------------------------------|---|---------------------------------|
| ESC001                         | <input type="checkbox"/>                    | 38 Existing and proposed contour lines with contour lines drawn at an interval in accordance with the following:  |           |              |                        |                                |   |                                 |
|                                |   | <table border="1"> <thead> <tr> <th>Map Scale</th> <th>Ground Slope</th> <th>Contour Intervals, ft.</th> </tr> </thead> <tbody> <tr> <td>1 inch = 100ft or larger scale</td> <td>Flat 0 - 2%<br/>Rolling 2 - 8%<br/>Steep 8% +</td> <td>0.5 or 1<br/>1 or 2<br/>2.5 or 10</td> </tr> </tbody> </table>  | Map Scale | Ground Slope | Contour Intervals, ft. | 1 inch = 100ft or larger scale | Flat 0 - 2%<br>Rolling 2 - 8%<br>Steep 8% + | 0.5 or 1<br>1 or 2<br>2.5 or 10 |
| Map Scale                      | Ground Slope                                | Contour Intervals, ft.  |           |              |                        |                                |   |                                 |
| 1 inch = 100ft or larger scale | Flat 0 - 2%<br>Rolling 2 - 8%<br>Steep 8% + | 0.5 or 1<br>1 or 2<br>2.5 or 10   |           |              |                        |                                |   |                                 |
| N/A                            | <input type="checkbox"/>                    | 39 Use of alternative BMPs whose performance has been documented to be equivalent to or superior to conventional BMPs as certified by a Design Professional (unless disapproved by EPD or the Georgia Soil and Water Conservation Commission). Please refer to the Alternative BMP Guidance Document found at www.gaswcc.org.   |           |              |                        |                                |   |                                 |
| N/A                            | <input type="checkbox"/>                    | 40 Use of alternative BMP for application to the Equivalent BMP List. Please refer to Appendix A-2 of the Manual for Erosion & Sediment Control in Georgia 2016 Edition. *  |           |              |                        |                                |   |                                 |
| ESC001                         | <input type="checkbox"/>                    | 41 Delineation of the applicable 25-foot or 50-foot undisturbed buffers adjacent to state waters and any additional buffers required by the Local Issuing Authority. Clearly note and delineate all areas of impact.  |           |              |                        |                                |   |                                 |
| N/A                            | <input type="checkbox"/>                    | 42 Delineation of on-site wetlands and all state waters located on and within 200 feet of the project site.   |           |              |                        |                                |   |                                 |
| ESC011                         | <input type="checkbox"/>                    | 43 Delineation and acreage of contributing drainage basins on the project site.   |           |              |                        |                                |   |                                 |
| N/A                            | <input type="checkbox"/>                    | 44 Provide hydrology study and maps of drainage basins for both the pre- and post-developed conditions. *   |           |              |                        |                                |   |                                 |
| ESC010                         | <input type="checkbox"/>                    | 45 An estimate of the runoff coefficient or peak discharge flow of the site prior to and after construction activities are completed.   |           |              |                        |                                |   |                                 |
| N/A                            | <input type="checkbox"/>                    | 46 Storm-drain pipe and weir velocities with appropriate outlet protection to accommodate discharges without erosion. Identify/Delineate all storm water discharge points.  |           |              |                        |                                |   |                                 |
| ESC001                         | <input type="checkbox"/>                    | 47 Soil series for the project site and their delineation.  |           |              |                        |                                |   |                                 |
| ESC001                         | <input type="checkbox"/>                    | 48 The limits of disturbance for each phase of construction.  |           |              |                        |                                |   |                                 |
| ESC001                         | <input type="checkbox"/>                    | 49 Provide a minimum of 67 cubic yards of sediment storage per acre drained using a temporary sediment basin, retrofitted detention pond, and/or excavated inlet sediment traps for each common drainage location. Sediment storage volume must be in place prior to and during all land disturbance activities until final stabilization of the site has been achieved. A written justification explaining the decision to use equivalent controls when a sediment basin is not attainable must be included in the Plan for each common drainage location in which a sediment basin is not provided. A written justification as to why 67 cubic yards of storage is not attainable must also be given. Worksheets from the Manual included for structural BMPs and all calculations used by the storage design professional to obtain the required sediment when using equivalent controls. When discharging from sediment basins and impoundments, permittees are required to utilize outlet structures that withdraw water from the surface, unless infeasible. If outlet structures that withdraw water from the surface are not feasible, a written justification explaining this decision must be included in the Plan. |           |              |                        |                                |   |                                 |
| ESC001                         | <input type="checkbox"/>                    | 50 Location of Best Management Practices that are consistent with and no less stringent than the Manual for Erosion and Sediment Control in Georgia. Use uniform coding symbols from the Manual, Chapter 6, with legend.  |           |              |                        |                                |   |                                 |
| ESC013                         | <input type="checkbox"/>                    | 51 Provide detailed drawings for all structural practices. Specifications must, at a minimum, meet the guidelines set forth in the Manual for Erosion and Sediment Control in Georgia.  |           |              |                        |                                |   |                                 |
| ESC013                         | <input type="checkbox"/>                    | 52 Provide vegetative plan, noting all temporary and permanent vegetative practices. Include species, planting dates and seeding, fertilizer, lime and mulching rates. Vegetative plan shall be site specific for appropriate time of the year that seeding will take place and for the appropriate geographic region of Georgia.   |           |              |                        |                                |   |                                 |
- \* If using this checklist for a project that is less than 1 acre and not part of a common development but within 200 ft of a perennial stream, the \* checklist items would be N/A.

Effective January 1, 2020

	Georgia Soil and Water Conservation Commission
Brian C. Jones Level II Certified Design Professional	
Certification Number: 0000021468	Expires: 01/10/2023
Issued: 01/10/2020	

File: O:\32457-ATL\32457-008\CAD\_BM\CIVIL\ESC011 Saved by BJONES Save date: 3/26/2020 1:01 PM  
 PLOT DATE: 4/30/2020 3:14 PM BY: BJONES

REV	ISSUED FOR	DATE	BY
1	CONSTRUCTION	05/2020	BCJ

PROJECT ENGINEER:	B. JONES
DESIGNED BY:	C. COFIELD
DRAWN BY:	C. COFIELD
CHECKED BY:	A. BOWLING
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

ISSUED FOR CONSTRUCTION



GBPE LIC #: PE035647 EXP: 12/31/2020

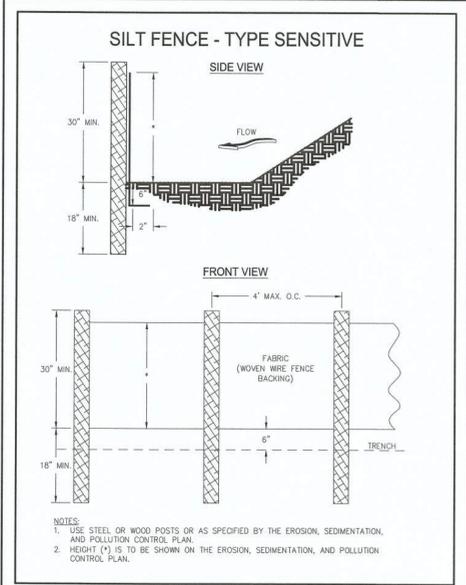
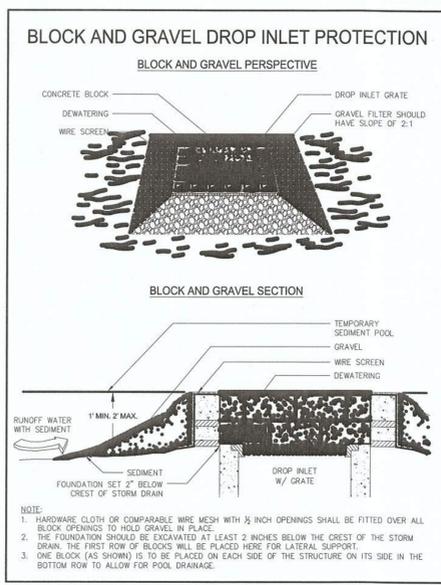
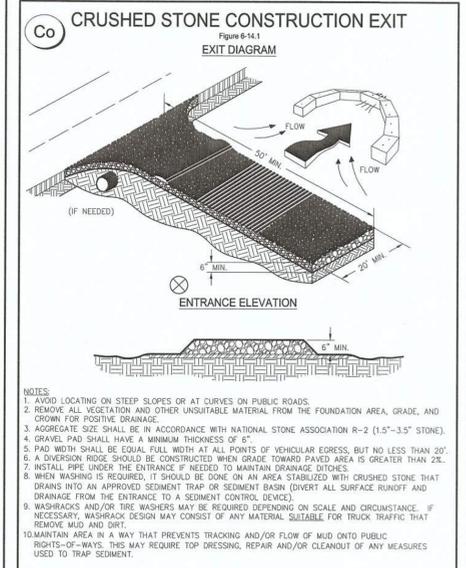
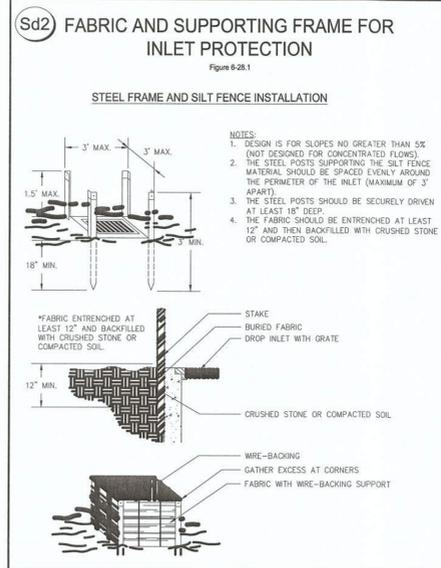
**Hazen**  
 HAZEN AND SAWYER  
 5775 PEACHTREE DUNWOODY ROAD  
 SUITE D-520  
 ATLANTA, GEORGIA 30342

CLAYTON COUNTY WATER AUTHORITY  
 MORROW, GEORGIA

WALNUT CREEK LIFT STATION

EROSION CONTROL  
 CIVIL  
 ESC CHECKLIST

DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	ESC011



MULCHING RATE		
Material	Rate	Depth
Straw or Hay	2-1/2 ton/ac	6"-10"
Wood waste, chips, sawdust, bark	6 to 9 ton/ac	2"-3"
Cutback asphalt	1200 gal/ac or 1/4 gal./sq. yd.	-
Polyethylene film	Secure w/ soil anchors, weight	-
Cutback asphalt	See manufacturer's recommendations	-
Geotextiles, jute matting, netting, etc.	See manufacturer's recommendations	-

MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 14 DAYS OF DISTURBANCE. MULCH CAN BE USED AS A SINGULAR CONTROL DEVICE FOR UP TO SIX MONTHS, BUT IT SHALL BE APPLIED AT THE APPROPRIATE DEPTH, DEPENDING ON THE MATERIAL USED, ANCHORED, AND HAVE CONTINUOUS 90% COVER OR GREATER OF THE SOIL SURFACE. MAINTENANCE SHALL BE REQUIRED TO MAINTAIN APPROPRIATE DEPTH AND 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 VEGETATION TECHNIQUES SHALL BE EMPLOYED.

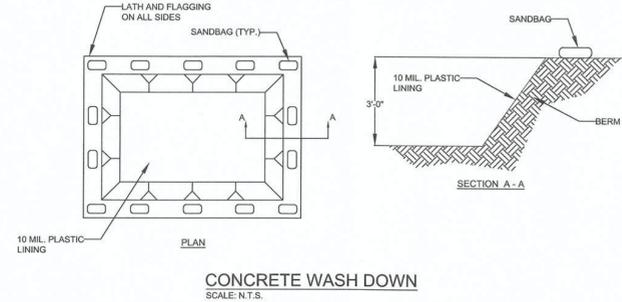
- SITE PREPARATION**
- GRADE TO PERMIT THE USE OF EQUIPMENT FOR APPLYING AND ANCHORING MULCH.
  - INSTALL NEEDED EROSION CONTROL MEASURES AS REQUIRED SUCH AS DIKES, DIVERSION BERMS, TERRACES, AND SEDIMENT BARRIERS.
  - LOOSEN COMPACT SOIL TO A MINIMUM DEPTH OF 3 INCHES.

- MULCHING MATERIALS**
- SELECT ONE OF THE FOLLOWING MATERIALS AND APPLY AT THE DEPTH INDICATED:
- DRY STRAW OR HAY SHALL BE APPLIED AT A DEPTH OF 2 TO 4 INCHES PROVIDING COMPLETE SOIL COVERAGE. ONE ADVANTAGE OF THIS MATERIAL IS EASY APPLICATION.
  - WOOD WASTE (CHIPS, SAWDUST OR BARK) SHALL BE APPLIED AT A DEPTH OF 2 TO 3 INCHES. ORGANIC MATERIAL FROM THE CLEARING STAGE OF DEVELOPMENT SHOULD REMAIN ON SITE, BE CHIPPED, AND APPLIED AS MULCH. THIS METHOD OF MULCHING CAN GREATLY REDUCE EROSION CONTROL COSTS.
  - POLYETHYLENE FILM SHALL BE SECURED OVER BANKS OR STOCKPILED SOIL MATERIAL FOR TEMPORARY PROTECTION. THIS MATERIAL CAN BE SALVAGED AND RE-USED.

- APPLYING MULCH**
- WHEN MULCH IS USED WITHOUT SEEDING, MULCH SHALL BE APPLIED TO PROVIDE FULL COVERAGE OF THE EXPOSED AREA.
- DRY STRAW OR HAY MULCH AND WOOD CHIPS SHALL BE APPLIED UNIFORMLY BY HAND OR BY MECHANICAL EQUIPMENT.
  - IF THE AREA WILL EVENTUALLY BE COVERED WITH PERENNIAL VEGETATION, 20-30 POUNDS OF NITROGEN PER ACRE IN ADDITION TO THE NORMAL AMOUNT SHALL BE APPLIED TO OFFSET THE UPTAKE OF NITROGEN CAUSED BY THE DECOMPOSITION OF THE ORGANIC MULCHES.
  - APPLY POLYETHYLENE FILM ON EXPOSED AREAS.

- ANCHORING MULCH**
- STRAW OR HAY MULCH CAN BE PRESSED INTO THE SOIL WITH A DISK HARROW WITH THE DISK SET STRAIGHT OR WITH A SPECIAL PACKER DISK. DISKS MAY BE SMOOTH OR SERRATED AND SHOULD BE 20 INCHES OR MORE IN DIAMETER AND 8 TO 12 INCHES APART. THE EDGES OF THE DISK SHOULD BE DULL ENOUGH NOT TO CUT THE MULCH BUT TO PRESS IT INTO THE SOIL LEAVING MUCH OF IT IN AN UPRIGHT POSITION. STRAW OR HAY MULCH SHALL BE ANCHORED IMMEDIATELY AFTER APPLICATION.
  - STRAW OR HAY SPREAD WITH SPECIAL BLOWER-TYPE EQUIPMENT MAY BE ANCHORED WITH EMULSIFIED ASPHALT (GRADE AE-5 OR SS-1). THE ASPHALT EMULSION SHALL BE SPRAYED ONTO THE MULCH AS IT IS EJECTED FROM THE MACHINE. USE 100 GALLONS OF EMULSIFIED ASPHALT AND 100 GALLONS OF WATER PER TON OF MULCH. TACKIFIERS AND BINDERS CAN BE SUBSTITUTED FOR EMULSIFIED ASPHALT. PLASTIC MESH OR NETTING WITH A MESH NO LARGER THAN ONE INCH BY ONE INCH SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
  - NETTING OF THE APPROPRIATE SIZE SHALL BE USED TO ANCHOR WOOD WASTE. OPENINGS OF THE NETTING SHALL NOT BE LARGER THAN THE AVERAGE SIZE OF THE WOOD WASTE CHIPS.
  - POLYETHYLENE FILM SHALL BE ANCHOR TRENCHED AT THE TOP AS WELL AS INCREMENTALLY AS NECESSARY.

- NOTES:**
- THE CONTRACTOR SHALL PROVIDE A DESIGNATED AREA FOR CONCRETE WASHDOWN OF TOOLS, CONCRETE MIXER DRUMS, HOPPERS, AND THE REAR OF THE VEHICLES. THIS AREA MUST HAVE A CONCRETE WASHOUT FACILITY AND SHALL BE CONSTRUCTED ACCORDING TO THE DETAIL SHOWN BELOW.
  - THE CONCRETE WASHOUT FACILITY SHALL BE LOCATED A MINIMUM OF 50 FEET FROM STORM DRAINS, OPEN DITCHES, OR WATER BODIES.
  - WASHOUT DISCHARGE FROM THE CLEANING OF CONCRETE TRUCKS, TOOLS, AND OTHER EQUIPMENT SHALL NOT BE DISCHARGED INTO STORM DRAINS, OPEN DITCHES, STREETS, OR STREAMS.
  - EXCESS CONCRETE SHALL NOT BE DISPOSED OF ON-SITE. ALL EXCESS CONCRETE SHALL BE TRANSPORTED OFF-SITE AND PROPERLY DISPOSED OF.
  - IT IS PROHIBITED TO WASH OUT THE MIXING DRUM OF CONCRETE TRUCKS ON-SITE.



Ds2 TEMPORARY SEEDING

**Georgia Soil & Water Conservation Commission**  
Manual for Erosion and Sediment Control in Georgia (amended 2016)  
Table 6-4.1 - Plants, planting rates and planting dates for TEMPORARY COVER or COMPANION CROPS

Major Land Resource Area (MLRA): Southern Piedmont (P), per Figure 6-4.1

Species	Broadcast Rates		Planting Dates*												Remarks	
	per acre (lbs.)	per 1000 sq. ft. (lbs.)	J	F	M	A	M	J	J	A	S	O	N	D		
Lovegrass, weeping ( <i>Eragrostis curvula</i> )																1,500,000 seed per pound. May last for several years. Mix with <i>Sericia lespedeza</i> .
alone	4	0.1				X	X									
in mixtures	2	0.05														
Millet, browntop ( <i>Panicum fasciculatum</i> )																137,000 seed per pound. Quick dense cover. Will provide too much competition in mixtures if seeded at high rates.
alone	40	0.9				X	X									
in mixtures	10	0.2														
Ryegrass, annual ( <i>Lolium temulentum</i> )													X	X	X	227,000 seed per pound. Dense cover. Very competitive and is not used in mixtures.
alone	40	0.9														

\* X are optimum dates; 1/2 are permissible but marginal dates

Ds2 Ds3 FERTILIZER RATES

**Georgia Soil & Water Conservation Commission**  
Manual for Erosion and Sediment Control in Georgia (amended 2000)  
Table 6-5.1 - Fertilizer Requirements

Species	Year	N-P-K	Rate (lbs./acre)	N Top-Dressing Rate (lbs./acre)
Cool season grasses	First	6-12-12	1500	50-100
	Second	6-12-12	1000	
	Maintenance	10-10-10	400	30
Cool season grasses & legumes	First	6-12-12	1500	0-50
	Second	0-10-10	1000	
	Maintenance	0-10-10	400	
Ground covers	First	10-10-10	1300	
	Second	10-10-10	1300	
	Maintenance	10-10-10	1100	
Pine Seedlings	First	20-10-5	*	
Shrub Lespedeza	First	0-10-10	700	
	Maintenance	0-10-10	700	
Temporary cover crops seeded alone	First	10-10-10	500	30
	First	6-12-12	1500	50-100
	Second	6-12-12	800	50-100
Warm season grasses	First	10-10-10	400	30
	Second	0-10-10	1000	
	Maintenance	0-10-10	400	
Warm season grasses and legumes	First	6-12-12	1500	50
	Second	0-10-10	1000	
	Maintenance	0-10-10	400	

\* one 21-grm pellet per seedling placed in the closing hole

Page 6-35 Lime Application for TEMPORARY COVER or COMPANION CROPS - Ds2  
Agricultural lime is required unless soil tests indicate otherwise. Apply agricultural lime at a rate of one ton per acre. Graded areas require lime application.

Page 6-42 Lime Application for PERMANENT COVER - Ds3  
Agricultural lime is required at the rate of one to two tons per acre unless soil tests indicate otherwise. Graded areas require lime application.

Ds3 PERMANENT SEEDING

**Georgia Soil & Water Conservation Commission**  
Manual for Erosion and Sediment Control in Georgia (amended 2000)  
Table 6-5.2 - Plants, planting rates and planting dates for PERMANENT COVER

Major Land Resource Area (MLRA): Southern Piedmont (P), per Figure 6-4.1

Species	Broadcast Rates		Planting Dates*												Remarks	
	per acre (lbs.)	per 1000 sq. ft. (lbs.)	J	F	M	A	M	J	J	A	S	O	N	D		
Bermuda, common ( <i>Cynodon dactylon</i> )																Plant with winter annuals. Plant with Tall fescue.
alone	10	0.2	X	X								X	X	X		
with other perennials	6	0.1														
Fescue, tall ( <i>Festuca arundinacea</i> )													X	X		227,000 seed per pound. Use alone only on better sites. Not for droughty soils. Mix with perennial lespedezas or Crownvetch. Apply topdressing in spring following fall plantings. Not for heavy use areas or athletic.
alone	50	1.1														
with other perennials	30	0.7														
Lovegrass, weeping ( <i>Eragrostis curvula</i> )																1,500,000 seed per pound. May last for several years. Grows well with <i>Sericia lespedeza</i> on road banks.
alone	4	0.1		X	X											
in mixtures	2	0.05														

\* X are optimum dates; 1/2 are permissible but marginal dates

**VEGETATIVE COVERS - RIPARIAN SEED MIXES - FOR SEEDING WITHIN STATE STREAM BUFFER**

Season	Ds2			Ds3		
	Temporary Seed	Rate/Acre	Fertilizer	Permanent Seed	Rate/Acre	Fertilizer
January - July	GDOT Approved Riparian Seed Mix; or Ernst Seeds Mix ERNMX-178; or Approved Equal	20 lbs/ac	Not Recommended	GDOT Approved Riparian Seed Mix; or Ernst Seeds Mix ERNMX-178; or Approved Equal	20 lbs/ac	Not Recommended
August - December	GDOT Approved Riparian Seed Mix; or Ernst Seeds Mix ERNMX-178; or Approved Equal	20 lbs/ac	Not Recommended	GDOT Approved Riparian Seed Mix; or Ernst Seeds Mix ERNMX-178; or Approved Equal	20 lbs/ac	Not Recommended

**GSWCC** Georgia Soil and Water Conservation Commission

**Brian C. Jones**  
Level II Certified Design Professional

Certification Number: 0000021468 Expires: 01/10/2023  
Issued: 01/10/2020

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PROJECT ENGINEER: B. JONES  
DESIGNED BY: B. JONES  
DRAWN BY: B. JONES  
CHECKED BY: A. BOWLING

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IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

0 1/2" 1"

GBPE LIC #: PE035647 EXP: 12/31/2020

**Hazen**  
HAZEN AND SAWYER  
5775 PEACHTREE DUNWOODY ROAD  
SUITE D-520  
ATLANTA, GEORGIA 30342

CLAYTON COUNTY WATER AUTHORITY  
MORROW, GEORGIA

WALNUT CREEK LIFT STATION

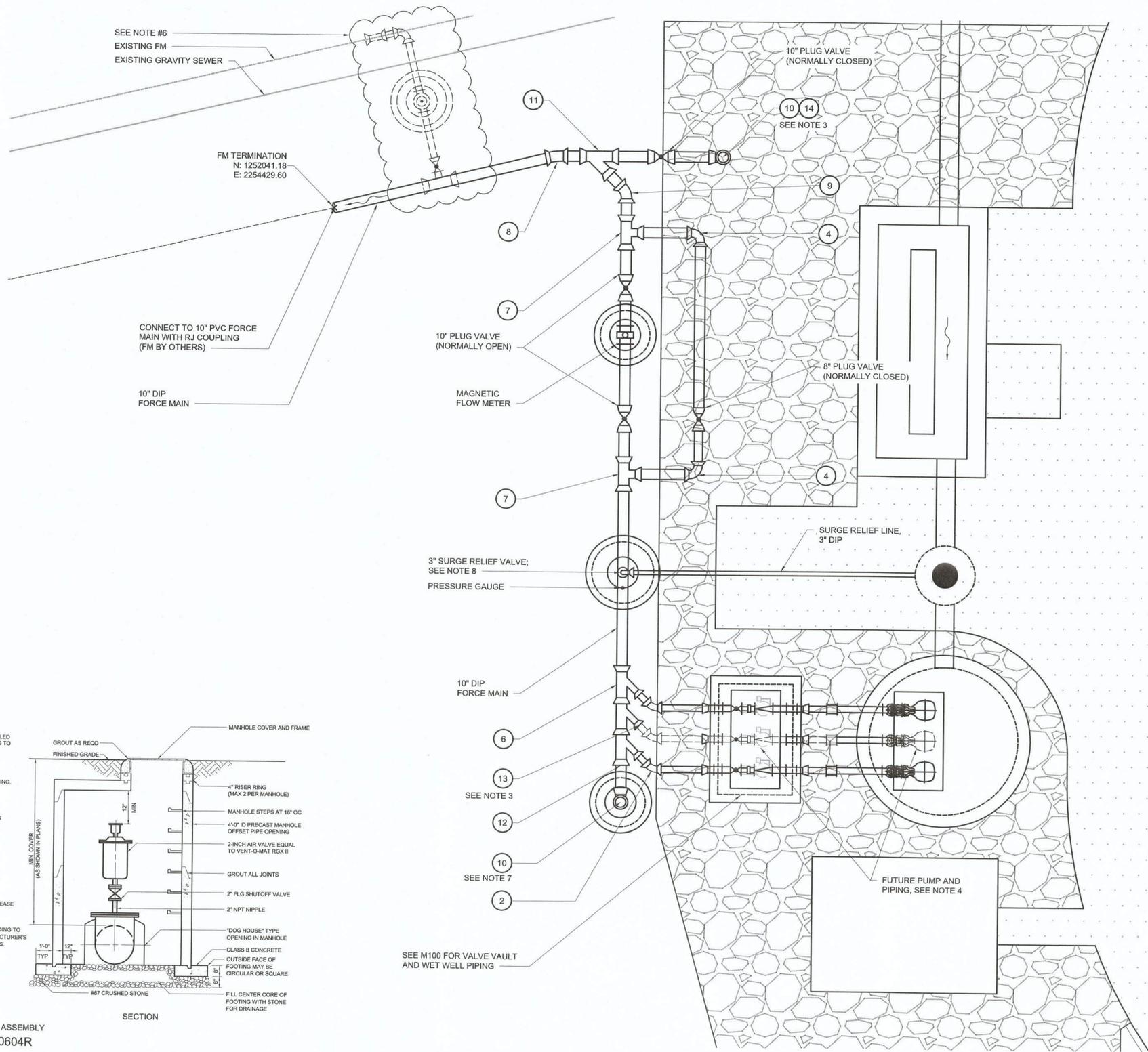
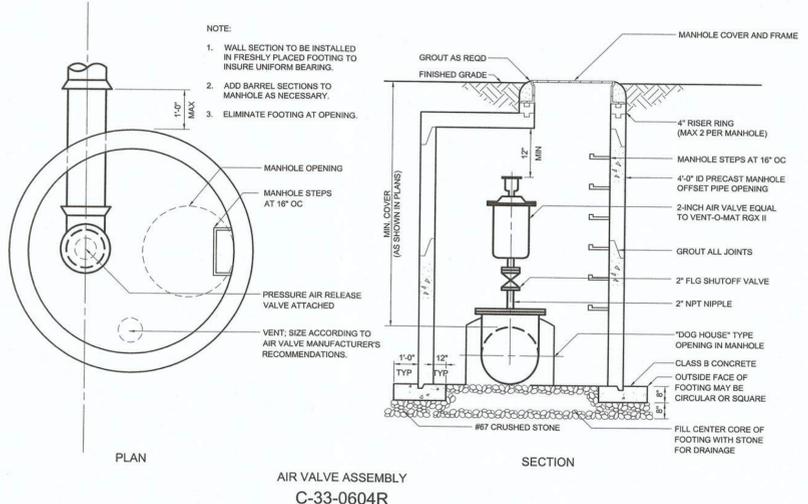
EROSION CONTROL

CIVIL

ESC DETAILS

DATE: MAY 2020  
HAZEN NO.: 32457-008  
CONTRACT NO.: 01  
DRAWING NUMBER: ESC013

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**PLAN**  
1" = 5'

- NOTES:**
1. ALL YARD PIPING SHALL BE PROTECTO 401 LINED DUCTILE IRON PIPE.
  2. ALL BENDS SHALL BE PROTECTO 401 LINED DUCTILE IRON WITH RESTRAINED JOINTS. ADDITIONAL RESTRAINT SHALL BE INSTALLED WHERE NECESSARY. ADDITIONAL RESTRAINT NOT SHOWN FOR CLARITY.
  3. INSTALL 10-INCH 90 DEGREE BEND, TURNED UP. EXTEND PIPE 2-FT ABOVE GRADE. TERMINATE WITH BLIND FLANGE.
  4. PUMP #2, CHECK VALVE AND PLUG VALVE WILL NOT BE INSTALLED UNDER THIS CONTRACT. INSTALL RESTRAINED JOINT PLUG ON 10" x 6" WYE FOR FUTURE CONNECTION. SEE SHEET M100 FOR MORE INFORMATION.
  5. BURIED VALVES SHALL BE EQUIPPED WITH NUT OPERATORS, EXTENDED STEMS, AND VALVE BOXES. WHERE THE DEPTH OF THE OPERATING NUT IS MORE THAN 4- FEET BELOW FINISHED GRADE, A VALVE OPERATOR EXTENSION SHALL BE PROVIDED TO BRING THE OPERATING NUT TO WITHIN 18-24 INCHES OF THE SURFACE.
  6. CLOUDED WORK CORRESPONDS TO ALTERNATIVE 1 IN THE BID FORM. SCOPE OF WORK INCLUDES INSTALLATION OF RJ FITTINGS, GATE VALVE, AND PRESSURE REDUCING VALVE IN VAULT NECESSARY TO CONNECT THE PROPOSED 10-INCH DUCTILE IRON FORCE MAIN TO THE EXISTING 6-INCH PVC FORCE MAIN.
  7. INSTALL 10-INCH FLANGE ADAPTER AND 10-INCH FLANGED 90-DEG BEND, TURNED UP WITH BLIND FLANGE. TAP BLIND FLANGE WITH 2-INCH TAP. INSTALL 2-INCH THREADED NIPPLE, 2-INCH THREADED FLANGE, 2-INCH FLANGED SHUTOFF VALVE, AND 2-INCH AIR VALVE EQUAL TO VENT-O-MAT RDX II. SEE DETAIL C-33-0604R THIS SHEET.
  8. SURGE RELIEF VALVE SHALL BE 3-INCH APCO SURGE RELIEF ANGLE VALVE OR EQUAL.

YARD PIPING - FITTING SCHEDULE		
#	QUANTITY	DESCRIPTION
1	0	4" 90 DEGREE BEND
2	3	6" 45 DEGREE BEND
3	0	8" X 4" REDUCER
4	2	8" 90 DEGREE BEND
5	0	8" TEE
6	3	10" X 6" WYE
7	2	10" X 8" TEE
8	1	10" 11.25 DEGREE BEND
9	1	10" 45 DEGREE BEND
10	2	10" 90 DEGREE BEND
11	1	10" WYE
12	1	10" PLUG
13	1	6" PLUG
14	1	10" BLIND FLANGE



REV	ISSUED FOR	DATE	BY
1	CONSTRUCTION	05/2020	BCJ
	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	B. JONES
DESIGNED BY:	B. JONES
DRAWN BY:	B. JONES
CHECKED BY:	A. BOWLING

ISSUED FOR CONSTRUCTION



**Hazen**  
HAZEN AND SAWYER  
5775 PEACHTREE DUNWOODY ROAD  
SUITE D-520  
ATLANTA, GEORGIA 30342

CLAYTON COUNTY WATER AUTHORITY  
MORROW, GEORGIA

WALNUT CREEK LIFT STATION

SITE  
MECHANICAL  
YARD PIPING

DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	M001

GBPE LIC #: PE035647 EXP: 12/31/2020

DOUBLE LEAF ACCESS DOOR FOR 3'-6" X 6'-0" OPENING

PIPE PENETRATION (TYP); SEE NOTE #3

HINGE THIS SIDE, TYP

**TOP PLAN**  
1/4" = 1'-0"

TRIPLE LEAF ACCESS DOOR FOR 3'-6" X 8'-6" OPENING; ALL DOORS SIMILAR DIMENSIONS

SINGLE LEAF ACCESS DOOR FOR 2'-0" X 2'-0" OPENING

10" VENT; SEE DETAIL M-40-0100R THIS SHEET

12" LONG SPOOL PIECE (TYP-2)

6" CHECK VALVE (TYP-2)

6" DISMANTLING JOINT, SEE NOTE #1 (TYP-2)

6" PLUG VALVE (TYP-2)

INSTALL BLIND FLANGE ON WALL PIPE (TYP-2)

INTEGRALLY CAST WALL PIPE (FLG X MJ OR FLG X PE); FLG JOINT TO BE ON INSIDE OF VAULT (TYP-6)

6" RESTRAINED MJ SOLID SLEEVE; SEE DETAIL M-40-0700 (TYP-2)

3" MJ PLUG VALVE W/ OPERATING NUT & VALVE BOX; (NORMALLY CLOSED)

PIPE PENETRATION; SEE DETAIL M-40-0111 (TYP-4)

FROM SCREENING STRUCTURE; SEE NOTE #4

WET WELL FOOTING

NOTCH OUT GROUT FOR LEVEL INDICATOR

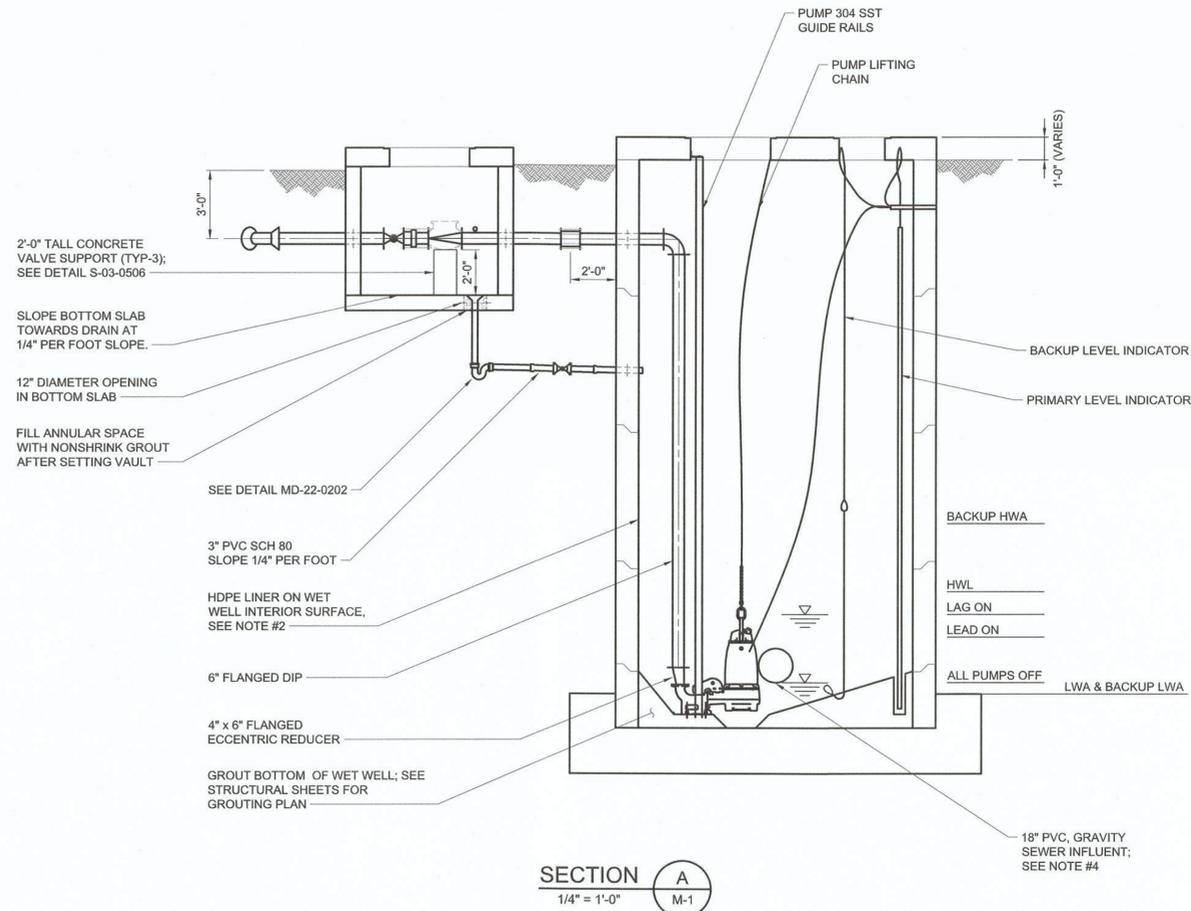
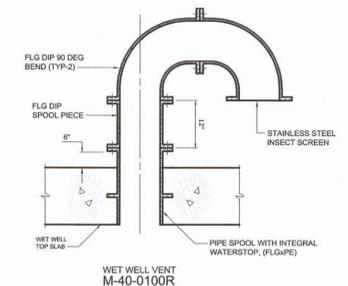
FUTURE PUMP; SEE NOTE #3

SUBMERSIBLE PUMP (TYP-2)

**BOTTOM PLAN**  
1/4" = 1'-0"

**NOTES:**

- SEE SPECIFICATION SECTION 40 05 00 - BASIC MECHANICAL REQUIREMENTS, PARAGRAPH 2.07 FOR DISMANTLING JOINT SPECIFICATIONS AND ACCEPTED PRODUCT MANUFACTURERS.
- PRECAST WET WELL SECTIONS SHALL BE LINED WITH A-LOK PRODUCTS, INC. DURAPLATE 100 PVC LINER OR AGRU AMERICA SURE GRIP HDPE LINER. ALL CAST-IN-PLACE CONCRETE SECTIONS OF THE WET WELL SHALL BE COATED WITH AN MIC COATING ACCORDING TO THE TECHNICAL SPECIFICATIONS.
- CONTRACTOR SHALL SUPPLY AND INSTALL DISCHARGE ELBOW, GUIDE RAILS, AND DISCHARGE PIPING TO 2-FEET OUTSIDE OF WET WELL. INSTALL MJ PLUG ON END OF DISCHARGE PIPING.
- INTEGRALLY CAST FLEXIBLE BOOT INTO WET WELL PRECAST SECTION. INSTALL PVC GRAVITY SEWER MAIN AT ELEVATION INDICATED IN TABLE BELOW. FLEXIBLE BOOT SHALL ALLOW MINIMUM OF 1.5-INCH OF VERTICAL DIFFERENTIAL SETTLEMENT BETWEEN WET WELL AND PVC SEWER MAIN. FLEXIBLE BOOT SHALL BE A-LOK Z-LOK CONNECTOR OR EQUAL.



2'-0" TALL CONCRETE VALVE SUPPORT (TYP-3); SEE DETAIL S-03-0506

SLOPE BOTTOM SLAB TOWARDS DRAIN AT 1/4" PER FOOT SLOPE.

12" DIAMETER OPENING IN BOTTOM SLAB

FILL ANNULAR SPACE WITH NONSHRINK GROUT AFTER SETTING VAULT

SEE DETAIL MD-22-0202

3" PVC SCH 80 SLOPE 1/4" PER FOOT

HDPE LINER ON WET WELL INTERIOR SURFACE, SEE NOTE #2

6" FLANGED DIP

4" x 6" FLANGED ECCENTRIC REDUCER

GROUT BOTTOM OF WET WELL; SEE STRUCTURAL SHEETS FOR GROUTING PLAN

PUMP 304 SST GUIDE RAILS

PUMP LIFTING CHAIN

1'-0" (VARIES)

BACKUP LEVEL INDICATOR

PRIMARY LEVEL INDICATOR

BACKUP HWA

HWL

LAG ON

LEAD ON

ALL PUMPS OFF

LWA & BACKUP LWA

18" PVC, GRAVITY SEWER INFLUENT; SEE NOTE #4

**SECTION A**  
1/4" = 1'-0"

**WET WELL ELEVATIONS**

LEVEL	ELEVATIONS
TOP OF SLAB	896.0'
BACKUP HIGH WATER ALARM	879.0'
HIGH WATER ALARM	876.0'
LAG PUMP ON	875.0'
LEAD PUMP ON	874.0'
ALL PUMPS OFF	872.0'
LOW WATER ALARM	871.5'
BACKUP LOW WATER ALARM	871.5'
WET WELL INVERT	870.0'

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CHECKED BY:	A. BOWLING		
1	CONSTRUCTION	05/2020	BCJ
REV	ISSUED FOR	DATE	BY

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GBPE LIC #: PE035647 EXP: 12/31/2020

**Hazen**

HAZEN AND SAWYER  
5775 PEACHTREE DUNWOODY ROAD  
SUITE D-520  
ATLANTA, GEORGIA 30342

CLAYTON COUNTY WATER AUTHORITY  
MORROW, GEORGIA

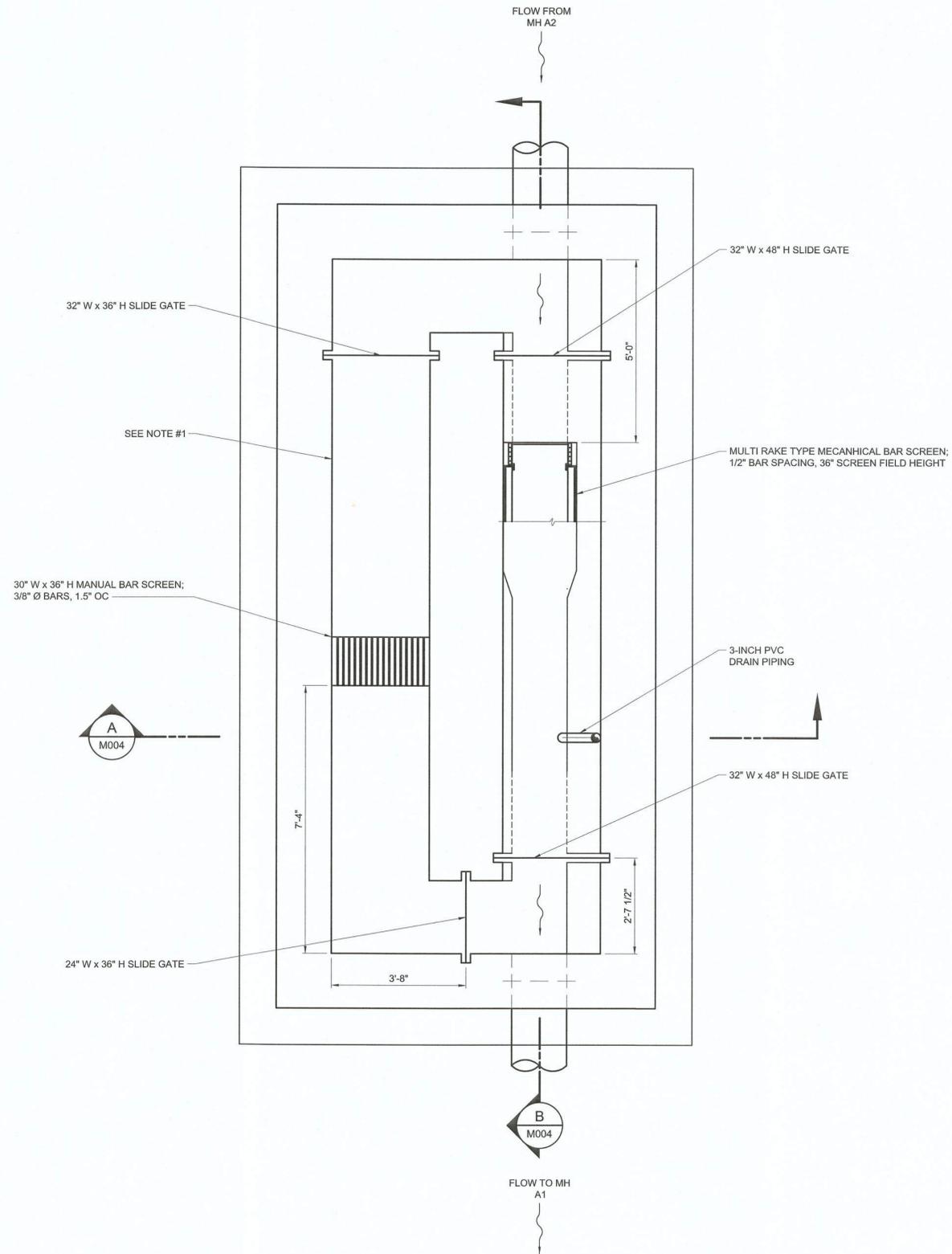
WALNUT CREEK LIFT STATION

LIFT STATION  
MECHANICAL  
PLAN & SECTIONS

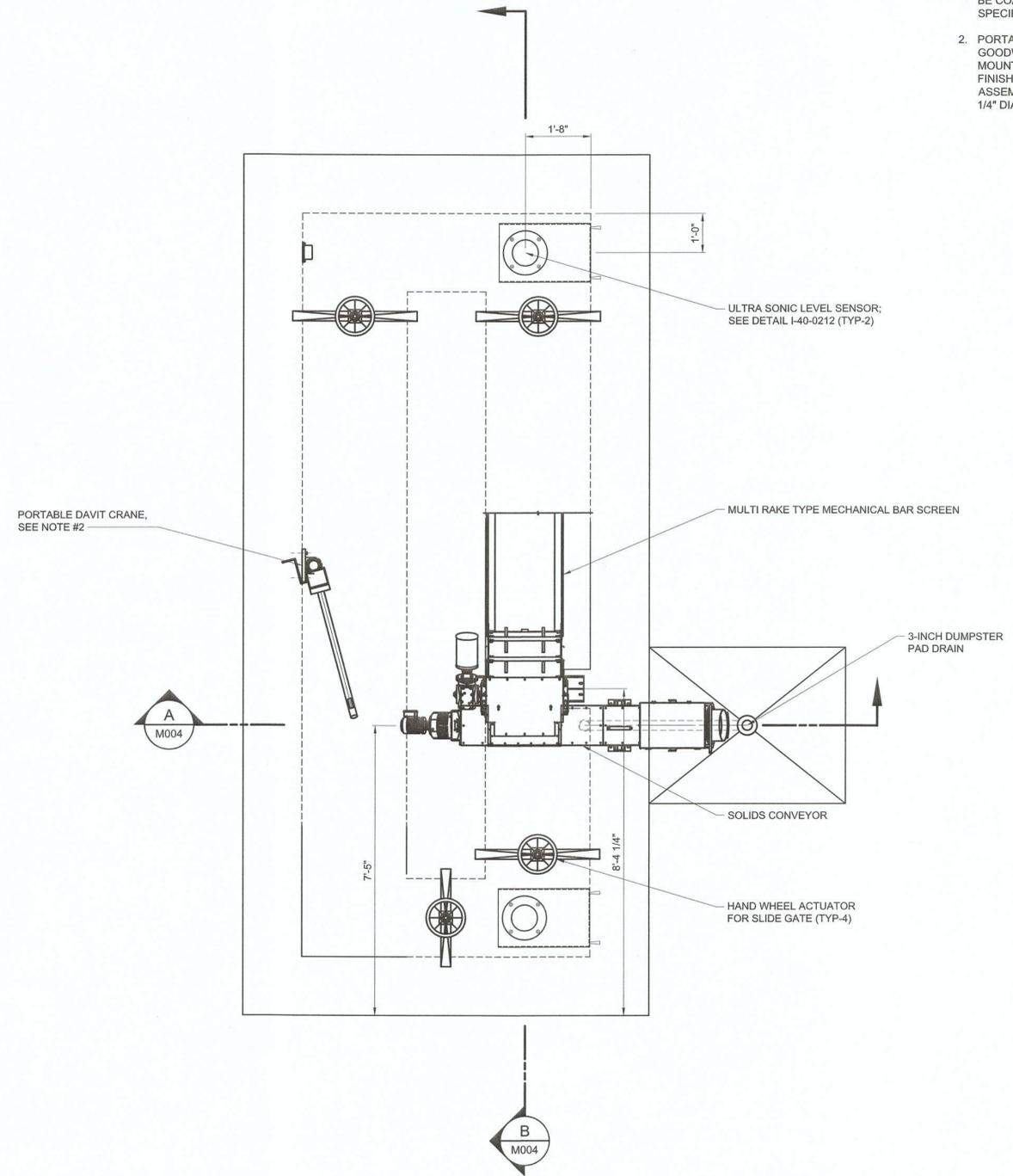
DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	M100

**NOTES:**

1. ALL CHANNEL FACING CONCRETE SURFACES SHALL BE COATED IN MIC COATING SPECIFIED IN SPECIFICATION SECTION 09 96 01.
2. PORTABLE DAVIT CRANE SHALL BE EQUAL TO L. K. GOODWIN CO. FIRST MATE 5PF5 SERIES WITH WALL MOUNT BASE, ELECTROSTATIC POWDER COATED FINISH, ROTATIONAL LOCK, AND WIRE ROPE ASSEMBLY. WIRE ROPE SHALL BE GALVANIZED AND 1/4" DIA X 20 FT LONG, MINIMUM.



**BOTTOM PLAN**  
1/2" = 1'-0"



**TOP PLAN**  
1/2" = 1'-0"

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GBPE LIC #: PE035647 EXP: 12/31/2020

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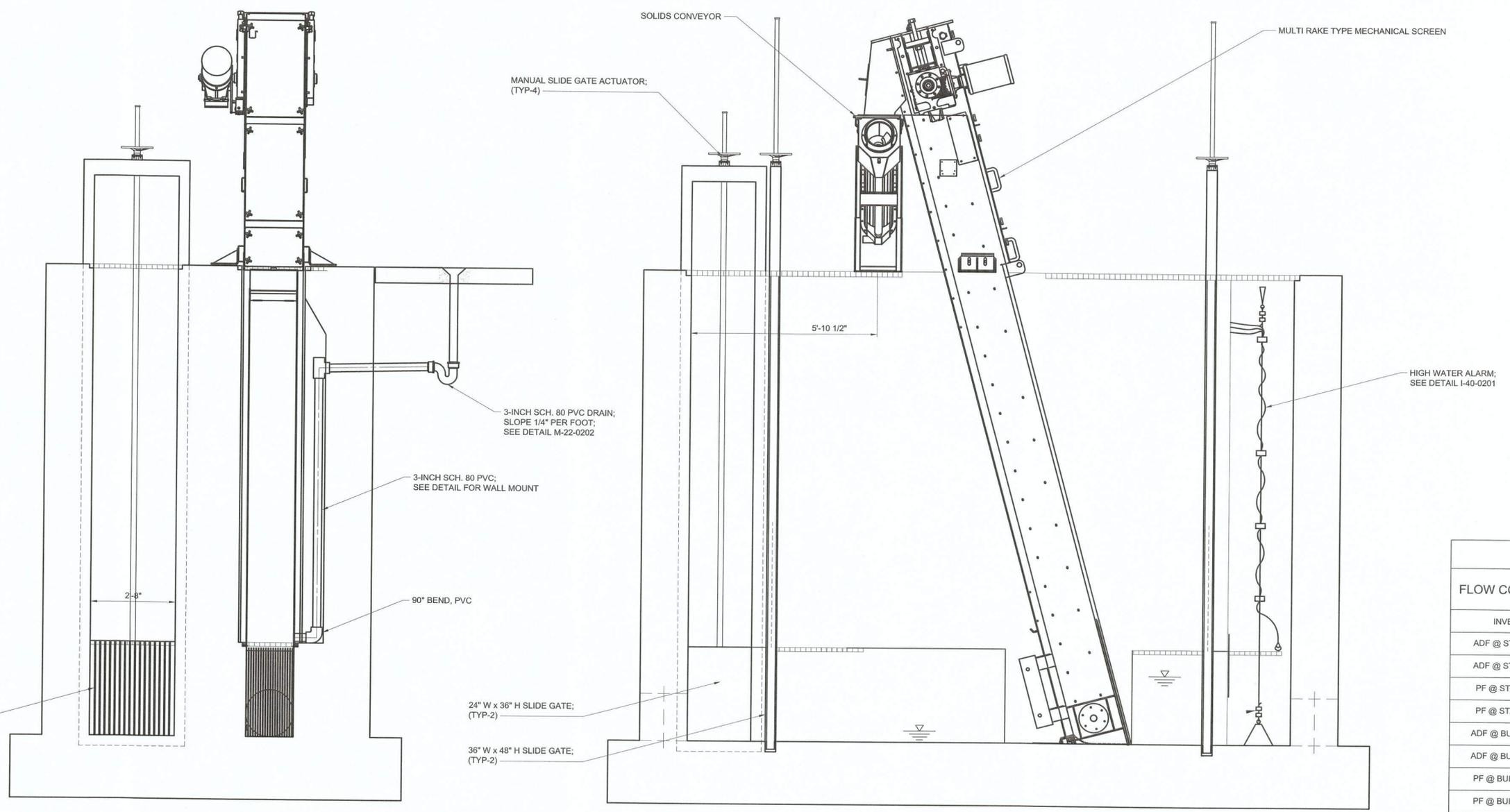
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MORROW, GEORGIA

WALNUT CREEK LIFT STATION

SCREENING STRUCTURE  
MECHANICAL  
PLAN VIEWS

DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	M200

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ELEVATIONS		
FLOW CONITION	BLINDING	ELEVATION (FT MSL)
INVERT	-	879.00
ADF @ START UP	0%	879.36
ADF @ START UP	50%	879.55
PF @ START UP	0%	879.86
PF @ START UP	50%	880.27
ADF @ BUILD OUT	0%	879.56
ADF @ BUILD OUT	50%	879.92
PF @ BUILD OUT	0%	880.18
PF @ BUILD OUT	50%	881.17

SECTION A  
1/2" = 1'-0" M004

SECTION B  
1/2" = 1'-0" M004

REV	ISSUED FOR	DATE	BY
1	CONSTRUCTION	05/2020	BCJ

PROJECT ENGINEER: B. JONES  
 DESIGNED BY: B. JONES  
 DRAWN BY: B. JONES  
 CHECKED BY: A. BOWLING  
 IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE  
 0 1/2" 1"

ISSUED FOR CONSTRUCTION  
  
 GBPE LIC #: PE035647 EXP: 12/31/2020

**Hazen**  
 HAZEN AND SAWYER  
 5775 PEACHTREE DUNWOODY ROAD  
 SUITE D-520  
 ATLANTA, GEORGIA 30342

CLAYTON COUNTY WATER AUTHORITY  
 MORROW, GEORGIA  
 WALNUT CREEK LIFT STATION

SCREENING STRUCTURE  
 MECHANICAL  
 SECTION VIEWS

DATE: MAY 2020  
 HAZEN NO.: 32457-008  
 CONTRACT NO.: 01  
 DRAWING NUMBER:  
 M201

**GENERAL STRUCTURAL NOTES**

- G-1 THESE NOTES ARE GENERAL AND SUPPLEMENT THE SPECIFICATIONS. THESE NOTES APPLY TO THE ENTIRE PROJECT UNLESS MODIFIED OR NOTED OTHERWISE IN THE CONTRACT DOCUMENTS.
- G-2 STANDARD DETAILS SHALL BE USED WHEN REFERRED TO OR WHEN NO MORE RESTRICTIVE OR DIFFERENT DETAILS ARE SHOWN ON THE DRAWINGS.
- G-3 DESIGN IS IN ACCORDANCE WITH AND CONSTRUCTION SHALL COMPLY WITH THE PROVISIONS OF THE GEORGIA STATE MINIMUM STANDARD BUILDING CODE WHICH IS THE 2018 INTERNATIONAL BUILDING CODE WITH 2020 GEORGIA AMENDMENTS. THE DESIGN LOADS AND OTHER DESIGN VALUES GIVEN IN NOTES G-4 THROUGH G-7 WERE USED FOR DESIGN OF STRUCTURES UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- G-4 LIVE LOADS:

STRUCTURE	LEVEL	ROOF	TOP / FIRST FLOOR
WET WELL		N/A	300 PSF
SCREENING STRUCTURE		N/A	150 PSF
ELECTRICAL BUILDING		35 PSF	150 PSF

-ALL STAIRWAYS, LANDINGS AND PLATFORMS ARE DESIGNED FOR A LIVE LOAD = 100 PSF UNLESS NOTED OTHERWISE.

- G-5 SNOW LOAD:  
GROUND SNOW LOAD (Pg) = 5 PSF  
SNOW EXPOSURE FACTOR (Ce) = 1.0  
SNOW LOAD IMPORTANCE FACTOR (Is) = 1.1  
THERMAL FACTOR (Ct) = 1.2
- G-6 WIND DESIGN CRITERIA:  
ULTIMATE DESIGN WIND SPEED (Vult) = 120 MPH  
NOMINAL DESIGN WIND SPEED (Vasd) = 72 MPH  
RISK CATEGORY = III  
WIND IMPORTANCE FACTOR (Iw) = 1.0  
WIND EXPOSURE = C

STRUCTURE	PARAMETER	PRESSURE COEFFICIENT Gcpi	WIND VELOCITY PRESSURE	COMPONENTS AND CLADDING	LATERAL LOAD RESISTING SYSTEM
WET WELL		N/A	N/A	N/A	CONC SHEAR WALL
SCREENING STRUCTURE		N/A	N/A	N/A	CONC SHEAR WALL
ELECTRICAL BUILDING		+/- 0.18	26.6 PSF	26.6 PSF	BY MFR

- G-7 SEISMIC LOAD:  
RISK CATEGORY = III  
SEISMIC IMPORTANCE FACTOR (Ie) = 1.25  
SITE CLASS = D  
MAPPED SPECTRAL RESPONSE ACCELERATIONS (Ss/S1) = 0.169/0.082  
SPECTRAL RESPONSE ACCELERATIONS (SMS/S1) = 0.271/0.198  
SPECTRAL RESPONSE COEFFICIENTS (SDS/SD1) = 0.181/0.132  
SEISMIC DESIGN CATEGORY = C

- G-8 ALL DIMENSIONS INDICATED FOR EXISTING STRUCTURES SHALL BE VERIFIED BY FIELD MEASUREMENT. ALL DIMENSIONS THAT ARE CONTROLLED BY OR RELATED TO EQUIPMENT SHALL BE VERIFIED BY THE CONTRACTOR WITH THE MANUFACTURER SHOP DRAWINGS PRIOR TO CONSTRUCTION.
- G-9 THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING INFORMATION IN THE FIELD AS REQUIRED FOR NEW WORK.
- G-10 IF A CONFLICT IS FOUND BETWEEN DIFFERENT PORTIONS OF THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY. CONTINUED CONSTRUCTION OF THE AREA IN CONFLICT SHALL BE AT THE CONTRACTOR'S OWN RISK UNTIL THE CONFLICT IS RESOLVED.
- G-11 EQUIPMENT ANCHOR SIZES, TYPES, EMBEDMENT AND PATTERNS SHALL BE VERIFIED WITH THE MANUFACTURER. ALL ANCHOR PATTERNS SHALL BE TEMPLATED TO INSURE ACCURACY OF PLACEMENT.
- G-12 STRUCTURAL DRAWINGS SHALL BE USED IN COORDINATION WITH THE DRAWINGS OF ALL OTHER DISCIPLINES AND MANUFACTURER'S SHOP DRAWINGS.
- G-13 STRUCTURES HAVE BEEN DESIGNED FOR OPERATIONAL LOADS ON THE COMPLETED STRUCTURE. DURING CONSTRUCTION, THE STRUCTURES SHALL BE PROTECTED BY BRACING AND TEMPORARY SUPPORTS WHEREVER EXCESSIVE CONSTRUCTION LOADS MAY OCCUR. OVERSTRESSING OF ANY STRUCTURAL ELEMENT IS PROHIBITED.
- G-14 IF CONTRACTOR DESIRES TO TEMPORARILY PLACE OR MOVE LOADS ON OR ADJACENT TO EXISTING STRUCTURES OR UTILITIES DURING CONSTRUCTION PROCESS, CONTRACTOR IS EXCLUSIVELY RESPONSIBLE FOR MAINTAINING STRUCTURAL INTEGRITY AND AVOIDING OVERSTRESSING AND DAMAGING EXISTING STRUCTURES AND UTILITIES. CONTRACTOR SHALL SUBMIT STRUCTURAL CALCULATIONS AND DRAWINGS VERIFYING PROPOSED CONSTRUCTION INCLUDING APPLICATION OF TEMPORARY CONSTRUCTION LOADS WILL NOT OVERSTRESS OR DAMAGE EXISTING STRUCTURES AND UTILITIES. DRAWINGS AND CALCULATIONS SHALL BE SEALED BY A PROFESSIONAL ENGINEER CURRENTLY REGISTERED IN THE STATE OF GEORGIA.
- G-15 NO BACKFILL SHALL BE PLACED AGAINST ANY SUBSTRUCTURE WALLS UNLESS ALL ADJACENT SUPPORTING ELEMENTS HAVE ACHIEVED DESIGN STRENGTH, OR WALLS HAVE BEEN PROPERLY BRACED, AND IN ANY CASE NOT SOONER THAN 28 DAYS AFTER THE PLACING OF CONCRETE UNLESS APPROVED BY THE ENGINEER. SUPPORTING ELEMENTS SHALL INCLUDE ADJACENT WALLS, SLABS, BEAMS AND COLUMNS.
- G-16 LEAKAGE TESTING OF HYDRAULIC STRUCTURES SHALL NOT BEGIN UNTIL ALL STRUCTURAL ELEMENTS HAVE REACHED THE SPECIFIED MINIMUM CONCRETE STRENGTH. BACKFILL SHALL NOT BE PLACED AROUND ANY HYDRAULIC STRUCTURE UNTIL THE LEAKAGE TEST HAS BEEN COMPLETED UNLESS APPROVED BY THE ENGINEER.

**STRUCTURAL METALS**

- M-1 DETAIL, FABRICATE, AND ERECT STRUCTURAL STEEL IN ACCORDANCE WITH AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, ALLOWABLE STRESS DESIGN AND PLASTIC DESIGN, LATEST EDITION.
- M-2 STEEL MATERIAL:  
A) STRUCTURAL HSS: ASTM A500, GRADE C (46/50 KSI) OR A1085 (50 KSI)  
B) STRUCTURAL PIPE: ASTM A53, GRADE B (35 KSI)  
C) PLATES, BARS AND ANGLES: ASTM A36 UNO (36 KSI)  
D) STRUCTURAL W SHAPES: ASTM A992 (50 KSI)  
E) STRUCTURAL S, M, C & MC SHAPES: ASTM A36 (36 KSI)  
F) STRUCTURAL HP: ASTM A572 GRADE 50 (50 KSI)  
G) RODS: ASTM F1554 GRADE 36 (36 KSI)
- M-3 PROVIDE MINIMUM 3/4" DIAMETER ASTM A325 HIGH STRENGTH BOLTS WITH SNUG TIGHTENED TYPE N CONNECTIONS FOR STRUCTURAL STEEL UNLESS NOTED OTHERWISE. HOLES FOR BOLTS SHALL BE STANDARD SIZE UNLESS NOTED OTHERWISE.
- M-4 PROVIDE TYPICAL STEEL BEAM CONNECTIONS FOR A CAPACITY OF NOT LESS THAN THE TOTAL UNIFORM LOAD CAPACITY TABULATED IN THE AISC TABLES FOR ALLOWABLE LOADS OF BEAMS UNLESS NOTED OTHERWISE.
- M-5 DO NOT PAINT STEEL SURFACES WHICH ARE TO BE WELDED OR ARE TO BE ENCASED IN CONCRETE.
- M-6 ALL STAINLESS STEEL FABRICATIONS EXPOSED TO UNDERWATER SERVICE SHALL BE TYPE 316. ALL OTHER STAINLESS STEEL FABRICATIONS SHALL BE TYPE 304 UNLESS NOTED OTHERWISE.
- M-7 ALUMINUM SHALL BE ALLOY 6061-T6 UNLESS NOTED OTHERWISE.
- M-8 ALL BOLTS, ANCHORS, AND CONCRETE ANCHORS CONNECTING ALUMINUM SHALL BE STAINLESS STEEL TYPE 316 FOR UNDERWATER APPLICATIONS AND TYPE 304 FOR ALL OTHER APPLICATIONS.
- M-9 DETAIL, FABRICATE, AND ERECT ALUMINUM IN ACCORDANCE WITH THE LATEST EDITION OF THE ALUMINUM ASSOCIATION ALUMINUM DESIGN MANUAL.
- M-10 ALUMINUM SHALL BE ISOLATED FROM CONTACT WITH CONCRETE AND DISSIMILAR METALS.
- M-11 ALL GROOVE AND BUTT WELDS SHALL BE FULL PENETRATION.
- M-12 FILLET WELD SIZES SHALL NOT BE LESS THAN THE MINIMUM SIZE REQUIRED BY AISC CODE FOR PLATE SIZES TO BE CONNECTED AND SHALL BE APPLIED TO THE ENTIRE JOINT CONTACT LENGTH, AND NOT LESS THAN 3/16".
- M-13 BOTTOM SURFACES OF BASE PLATES SHALL BE GROUTED TO ENSURE FULL BEARING CONTACT WITH CONCRETE SLAB.
- M-14 WHENEVER ONE MEMBER IS FASTENED TO ANOTHER WITH FASTENINGS (BOLTS, WELDS, ETC.) SET AT A UNIFORM SPACING, THERE SHALL BE A MINIMUM OF TWO FASTENINGS PER PIECE CONNECTED AND THE FIRST AND LAST FASTENINGS SHALL BE LOCATED NOT TO EXCEED 0.25 OF FASTENER SPACING FROM EACH END.
- M-15 BOLTED CONNECTIONS FOR STRUCTURAL STEEL SHALL BE ASSEMBLED AND INSPECTED IN ACCORDANCE WITH RCSC (SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR ASTM A490 BOLTS).
- M-16 STRUCTURAL WELDED JOINTS SHALL CONFORM TO THE PROVISIONS OF AWS D1.1, STRUCTURAL WELDING CODE BY AMERICAN WELDING SOCIETY. PROOF OF WELDER CERTIFICATION SHALL BE AVAILABLE AT THE JOB SITE DURING TIMES OF INSPECTION.

**FOUNDATIONS**

- F-1 CONCRETE (CAST-IN-PLACE) NOTES APPLY TO FOUNDATIONS.
- F-2 ALLOWABLE SOIL BEARING PRESSURE

STRUCTURE	PARAMETER	ALLOWABLE SOIL BEARING PRESSURE
WET WELL		2000 PSF
SCREENING STRUCTURE		1800 PSF
ELECTRICAL BUILDING		2000 PSF

- F-3 MINIMUM DEPTH FROM ADJACENT FINISHED GRADE TO BOTTOM OF FOUNDATION = 24 INCHES.

**PRECAST CONCRETE**

- PC-1 PRECAST STRUCTURES SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF GEORGIA. STRUCTURAL DRAWINGS SHALL INDICATE DESIGN IS IN COMPLIANCE WITH THE GEORGIA STATE MINIMUM STANDARD BUILDING CODE.

**CONCRETE (CAST-IN-PLACE)**

- C-1 DESIGN OF CONCRETE ELEMENTS INCLUDING WALLS, FORMED SLABS, BEAMS, AND COLUMNS IS IN ACCORDANCE WITH ACI 318 (CODE REQUIREMENTS FOR STRUCTURAL CONCRETE) AND 350 (CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES).
- C-2 FOR CONCRETE MIX DESIGN SEE SPECIFICATION SECTION 03 30 00.
- C-3 CONCRETE STRENGTH CLASSES (28-DAY COMPRESSIVE STRENGTH):  
A) CLASS A1 CONCRETE (4,500 PSI): NORMAL WEIGHT STRUCTURAL CONCRETE TO BE USED IN ALL STRUCTURES QUALIFYING AS ENVIRONMENTAL CONCRETE STRUCTURES THAT ARE DESIGNED IN ACCORDANCE WITH ACI 350 INCLUDING PUMP STATIONS, TANKS, BASINS, PROCESS STRUCTURES, AND ANY STRUCTURES CONTAINING FLUID OR PROCESS CHEMICALS OR OTHER MATERIALS USED IN TREATMENT PROCESS.  
B) CLASS A2 CONCRETE (4,000 PSI): NORMAL WEIGHT STRUCTURAL CONCRETE IN ALL STRUCTURES OTHER THAN STRUCTURES QUALIFYING AS ENVIRONMENTAL CONCRETE STRUCTURES AS DESCRIBED ABOVE, AND FOR ALL SIDEWALKS AND PAVEMENT.  
C) CLASS B CONCRETE (3,000 PSI): NORMAL WEIGHT STRUCTURAL CONCRETE USED FOR DUCT BANK ENCASUREMENTS, CATCH BASINS, FENCE AND GUARD POST EMBEDMENT, CONCRETE FILL, AND OTHER AREAS WHERE SPECIFICALLY NOTED ON CONTRACT DRAWINGS.
- C-4 ALL BAR REINFORCING SHALL CONFORM TO ASTM A615, GRADE 60. WHERE REINFORCEMENT IS TO BE WELDED IN ACCORDANCE WITH AWS D1.4, ASTM A706 GRADE 60 SHALL BE USED. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
- C-5 CONCRETE COVER FOR REINFORCING (UNLESS NOTED OTHERWISE ON THE DRAWINGS):  
A) CONCRETE DEPOSITED DIRECTLY AGAINST SOIL: 3"  
B) CONCRETE EXPOSED TO WEATHER (#5 OR SMALLER): 1 1/2"  
C) CONCRETE EXPOSED TO WEATHER (#6 OR LARGER): 2"  
C) SLABS: 1 1/2"  
AT SURFACES CONTACTING FLUID: 2"  
D) BEAMS AND COLUMNS (TO MAIN REINFORCEMENT): 2"  
BEAMS AND COLUMNS (TO COLUMN TIES OR STIRRUPS): 1 1/2"  
E) WALLS 12" OR MORE: 2"  
WALLS LESS THAN 12" (#5 OR SMALLER): 1 1/2"  
WALLS LESS THAN 12" (#6 OR LARGER): 2"  
F) FOR SURFACES EXPOSED TO FLUID IN BEAMS, COLUMNS AND WALLS: ADD 1/2" TO ABOVE VALUES
- C-6 SPLICES SHALL BE CLASS "B" CONFORMING TO THE PROVISIONS OF ACI 318 UNLESS NOTED OTHERWISE. SPLICE LENGTH FOR TWO DIFFERENT SIZED BARS TO BE LAP SPICED TOGETHER SHALL BE THE LENGTH OF THE LARGER BAR UNLESS NOTED OTHERWISE.
- C-7 CONSTRUCTION JOINTS SHALL BE LOCATED AS SHOWN ON THE DRAWINGS. CONSTRUCTION JOINTS NOT SHOWN SHALL BE SUBMITTED BY THE CONTRACTOR FOR THE APPROVAL OF THE ENGINEER PRIOR TO SUBMITTING REBAR SHOP DRAWINGS. VERTICAL CONSTRUCTION JOINTS IN WALLS AND HORIZONTAL JOINTS IN SLABS SHALL BE PROVIDED AT A SPACING NOT GREATER THAN 45 FEET ON CENTER. FOR EXPOSED WALLS WITH FLUID OR EARTH ON THE OPPOSITE SIDE, THE SPACING BETWEEN VERTICAL AND HORIZONTAL JOINTS SHALL BE A MAXIMUM OF 25 FEET.
- C-8 WHERE HORIZONTAL CONSTRUCTION JOINTS, LOCATED ABOVE THE FOUNDATION SLAB, EXTEND BEYOND WHERE NEEDED, THEY SHALL BE TERMINATED AT A VERTICAL CONSTRUCTION JOINT APPROVED BY THE ENGINEER.
- C-9 ALL JOINTS WHICH ARE IN MEMBERS IN CONTACT WITH LIQUID OR BELOW GRADE SHALL HAVE A WATERSTOP. CONSTRUCTION JOINTS SHALL HAVE A 6" PVC RIBBED WATERSTOP. EXPANSION JOINTS SHALL HAVE A 9" PVC CENTER BULB RIBBED WATERSTOP. IN VERTICAL JOINTS, WATERSTOPS SHALL TERMINATE NO LESS THAN 18" ABOVE THE MAXIMUM WATER SURFACE OR 18" ABOVE GRADE, WHICHEVER IS HIGHER.
- C-10 ALL EXPOSED CORNERS SHALL HAVE A 3/4" CHAMFER.
- C-11 EQUIPMENT SUPPORTS, ANCHORAGES, OPENINGS, RECESSES AND REVEALS NOT SHOWN ON THE STRUCTURAL DRAWINGS BUT REQUIRED BY OTHER CONTRACT DOCUMENTS, SHALL BE PROVIDED FOR PRIOR TO PLACING CONCRETE.
- C-12 REINFORCING BARS AND ACCESSORIES SHALL NOT BE IN CONTACT WITH ANY METAL PIPE, PIPE FLANGE, METAL CONDUIT, OR OTHER METAL PARTS EMBEDDED IN CONCRETE. A MINIMUM CLEARANCE OF 2" SHALL BE PROVIDED.
- C-13 DOWELS, ANCHOR BOLTS, PIPES, WATERSTOPS AND OTHER EMBEDDED ITEMS SHALL BE HELD SECURELY IN POSITION WHILE CONCRETE IS BEING PLACED.
- C-14 CONDUITS AND OTHER SIMILAR ITEMS EMBEDDED IN OR PENETRATING THROUGH CONCRETE SHALL BE SPACED ON CENTER NOT LESS THAN 3 TIMES THEIR OUTSIDE DIMENSION, BUT NOT LESS THAN 2 1/2" CLEAR. WHEN SUCH ITEMS ARE EMBEDDED IN WALLS OR SLABS, THEY SHALL NOT OCCUPY MORE THAN 1/3 OF THE MEMBER THICKNESS.
- C-15 AT ALL TYPICAL CURBS, EQUIPMENT PADS, AND PIPE SUPPORT PIERS, REINFORCING DOWELS SHOWN MAY BE REPLACED WITH MATCHING DOWELS SET IN EPOXY IN DRILLED HOLES AS SPECIFIED. DOWELS LOCATED CLOSER THAN 3" FROM ANY EDGE OF CONCRETE SHALL NOT BE REPLACED WITH DRILLED DOWELS.
- C-16 DRILLED ADHESIVE DOWELS AND CONCRETE ANCHORS (WHERE DOWELS OR ANCHORS ARE SHOWN TO BE PLACED INTO HARDENED CONCRETE):  
A) THE HOLE DIAMETER SHALL BE NO LARGER THAN 1/8" GREATER THAN THE DIAMETER OF THE REINFORCING BAR AT THE DEFORMATIONS FOR DOWELS. THE HOLE DIAMETER SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS FOR ANCHORS.  
B) THE DEPTH OF EMBEDMENT SHALL BE 12 BAR DIAMETERS, UNLESS NOTED OTHERWISE.  
C) ADJUST THE DOWEL OR ANCHOR LOCATIONS AS NEEDED TO AVOID DRILLING THROUGH ANY REINFORCING BARS. IF THE LOCATION NEEDS TO BE MODIFIED, CONTACT THE ENGINEER. CONTRACTOR SHALL USE NON-DESTRUCTIVE MEANS TO FIELD LOCATE REINFORCEMENT PRIOR TO DRILLING HOLES FOR DOWELS OR ANCHORS.
- C-17 CLEAR DISTANCE FROM ANCHOR RODS TO ANY CONCRETE EDGE SHALL BE 4" MINIMUM UNLESS NOTED OTHERWISE.
- C-18 CONCRETE COMPRESSIVE STRENGTH TESTS SHALL BE AVAILABLE ON THE JOB SITE FOR REVIEW BY THE ENGINEER.

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PROJECT ENGINEER:	B. JONES		
DESIGNED BY:	J. BURROUGHS		
DRAWN BY:	J. BURROUGHS		
CHECKED BY:	F. POWELL		
1	CONSTRUCTION	05/2020	BCJ
REV	ISSUED FOR	DATE	BY

ISSUED FOR CONSTRUCTION



0 1/2" 1"

GBPE LIC #: PE035647 EXP: 12/31/2020

**Hazen**

HAZEN AND SAWYER  
5775 PEACHTREE DUNWOODY ROAD  
SUITE D-520  
ATLANTA, GEORGIA 30342

CLAYTON COUNTY WATER AUTHORITY  
MORROW, GEORGIA

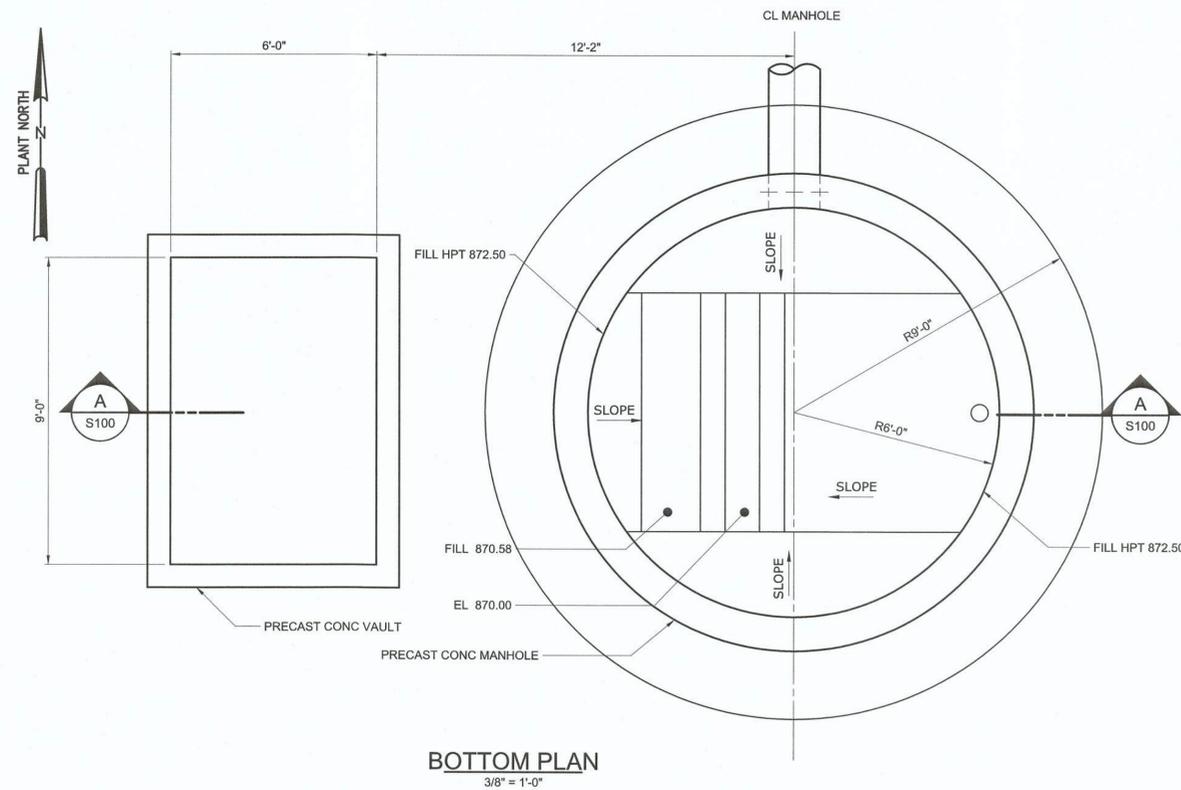
WALNUT CREEK LIFT STATION

STRUCTURAL NOTES

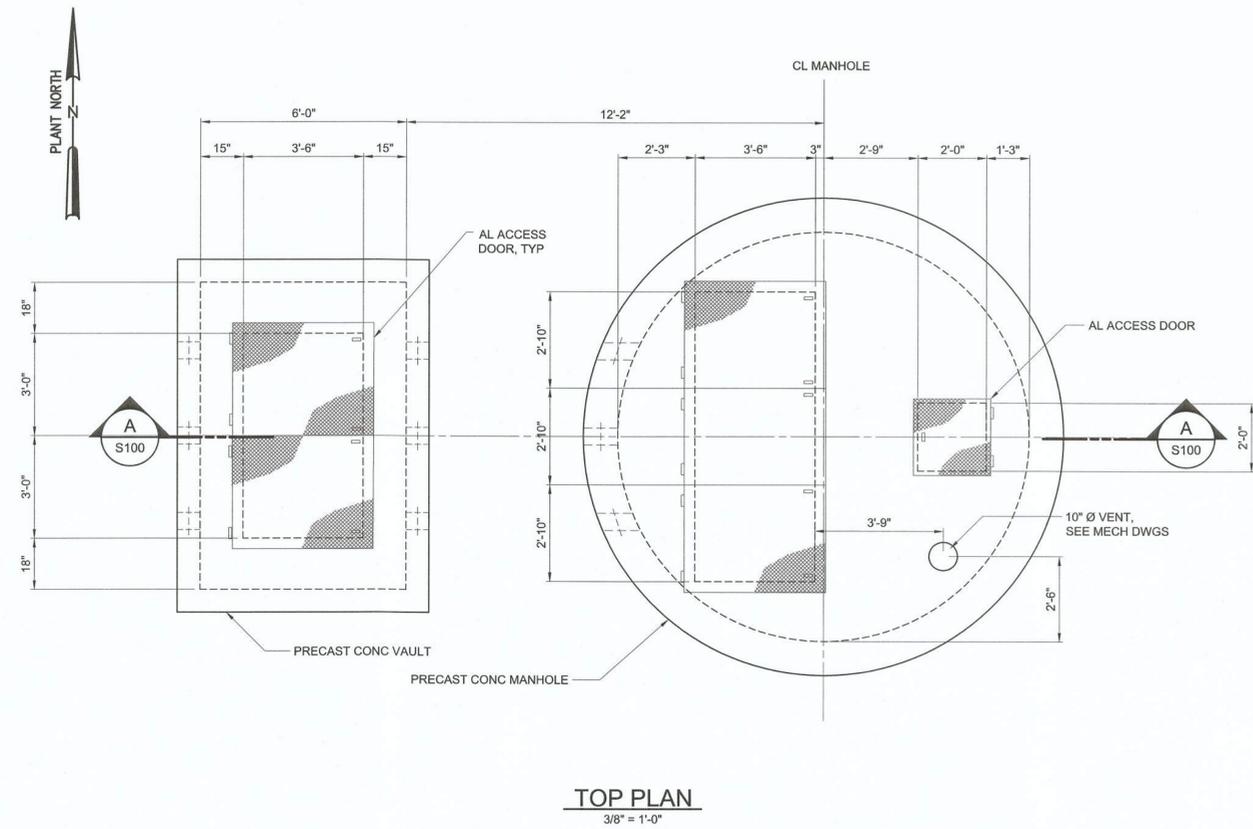
DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	S001

NOTES:

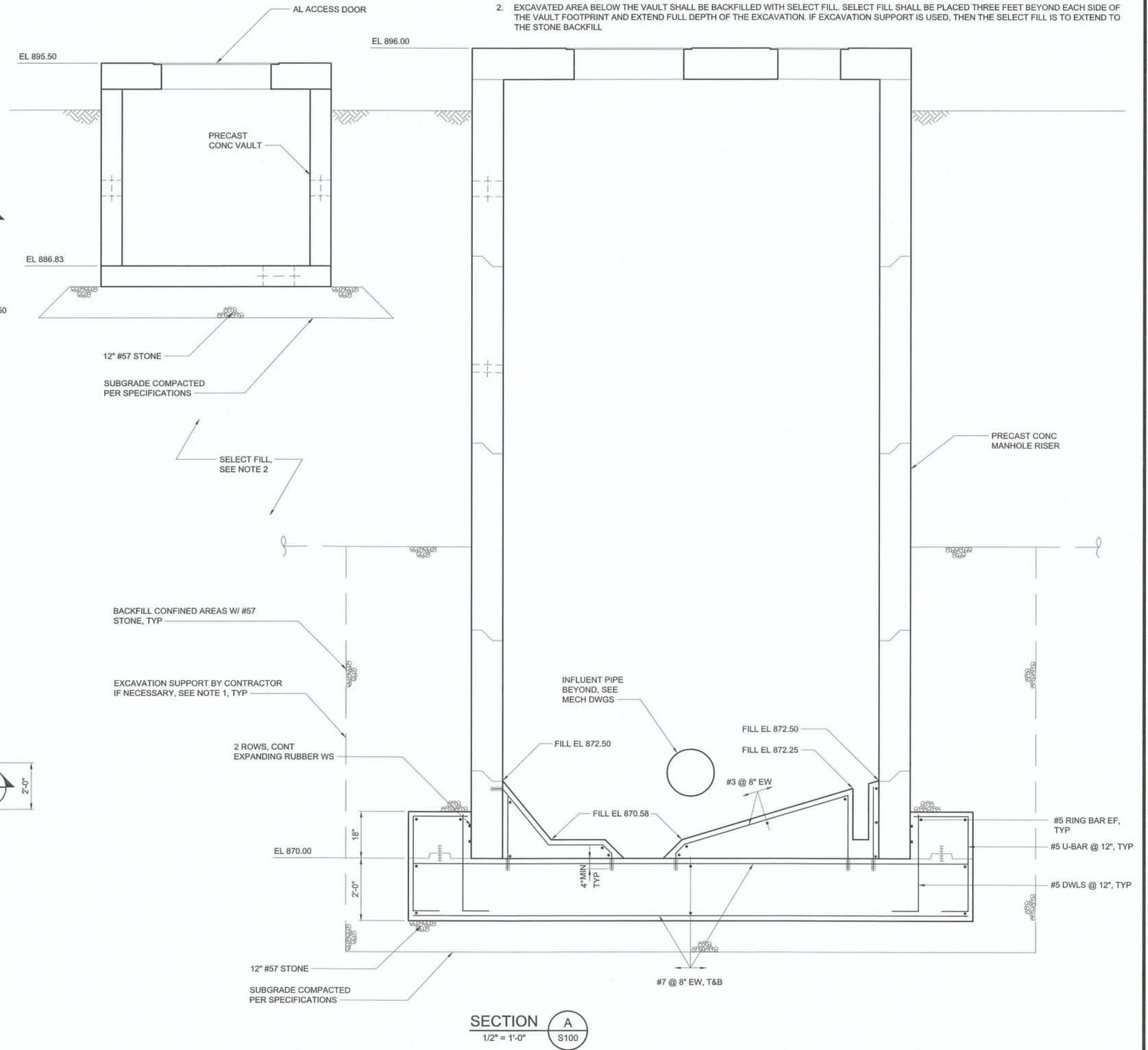
- EXCAVATION SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. CONTRACTOR IS EXCLUSIVELY RESPONSIBLE FOR DETERMINING MEANS FOR EXCAVATION AND SUPPORT. IF EXCAVATION SUPPORT SYSTEM IS NECESSARY FOR EXCAVATION, DESIGN OF SYSTEM IS EXCLUSIVELY THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL SUBMIT DESIGN DRAWINGS AND STRUCTURAL CALCULATIONS ON ANY EXCAVATION SUPPORT SYSTEM, BOTH SEALED BY A PROFESSIONAL ENGINEER CURRENTLY REGISTERED IN THE STATE OF GEORGIA, SEE SPECIFICATION SECTION 31 00 01 - EARTHWORK.
- EXCAVATED AREA BELOW THE VAULT SHALL BE BACKFILLED WITH SELECT FILL. SELECT FILL SHALL BE PLACED THREE FEET BEYOND EACH SIDE OF THE VAULT FOOTPRINT AND EXTEND FULL DEPTH OF THE EXCAVATION. IF EXCAVATION SUPPORT IS USED, THEN THE SELECT FILL IS TO EXTEND TO THE STONE BACKFILL.



**BOTTOM PLAN**  
3/8" = 1'-0"



**TOP PLAN**  
3/8" = 1'-0"



**SECTION A**  
1/2" = 1'-0"  
S100

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PLOT DATE: 5/6/2020 12:48 PM BY: J.BURROUGHS

PROJECT ENGINEER:	B. JONES			
DESIGNED BY:	J. BURROUGHS			
DRAWN BY:	J. BURROUGHS			
CHECKED BY:	F. POWELL			
1	CONSTRUCTION	05/2020	BCJ	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE
REV	ISSUED FOR	DATE	BY	

ISSUED FOR CONSTRUCTION



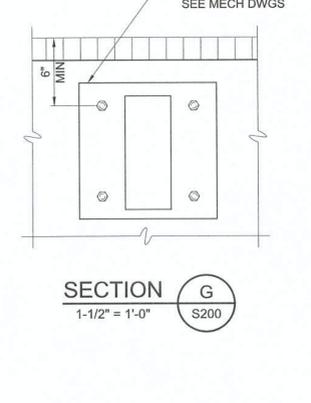
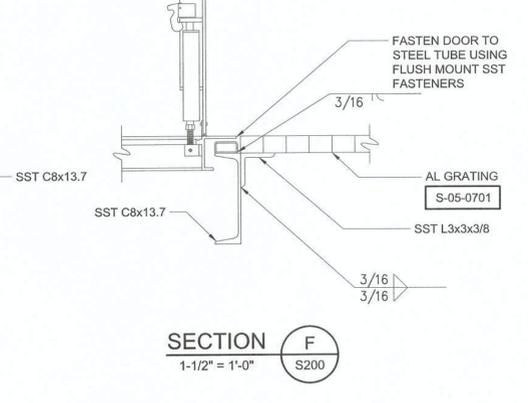
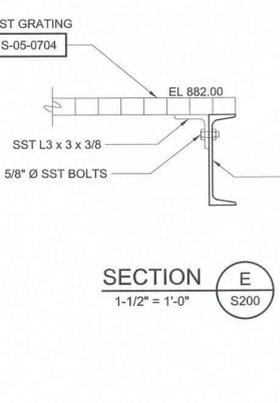
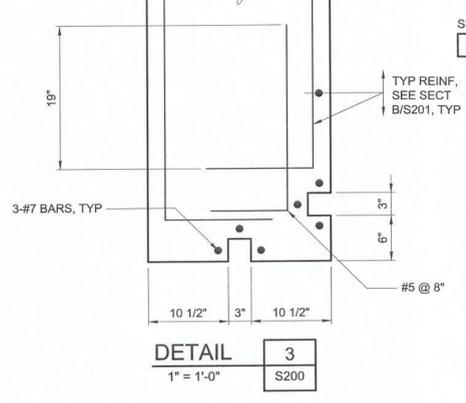
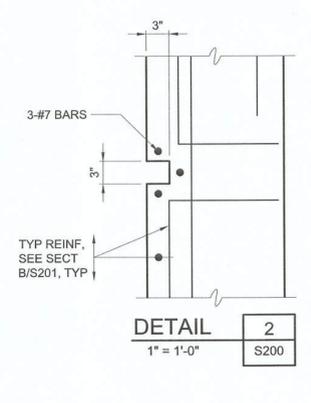
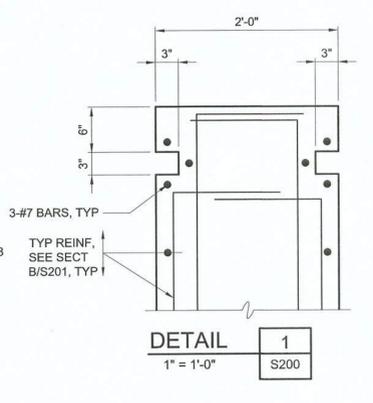
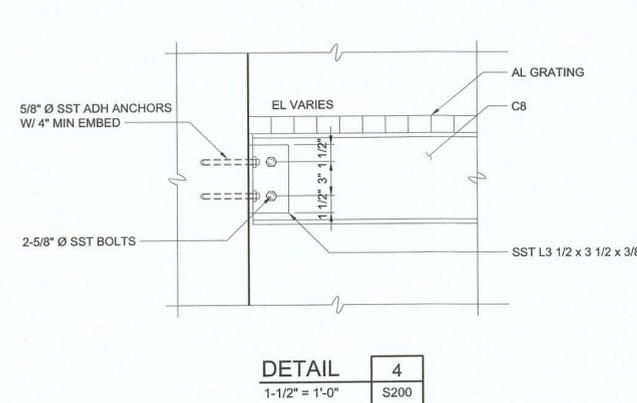
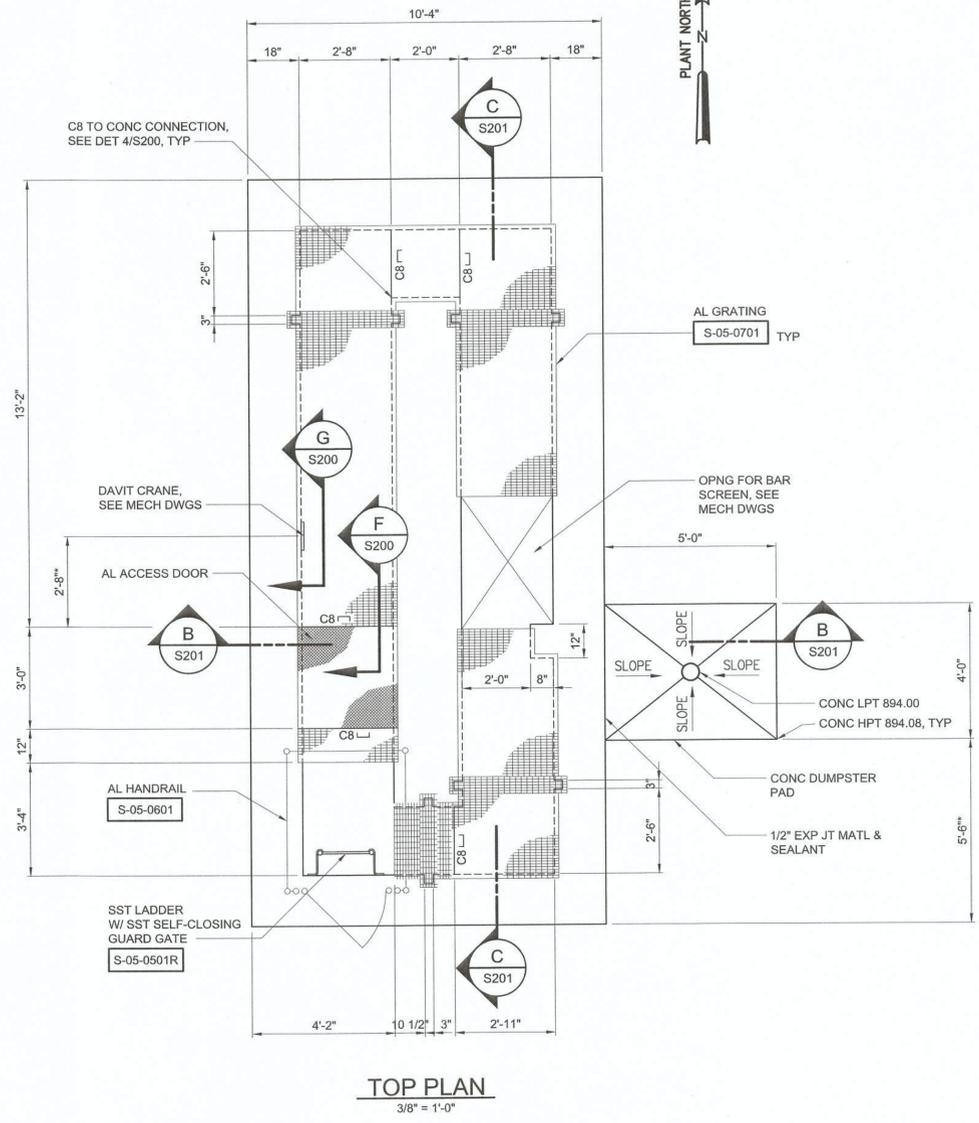
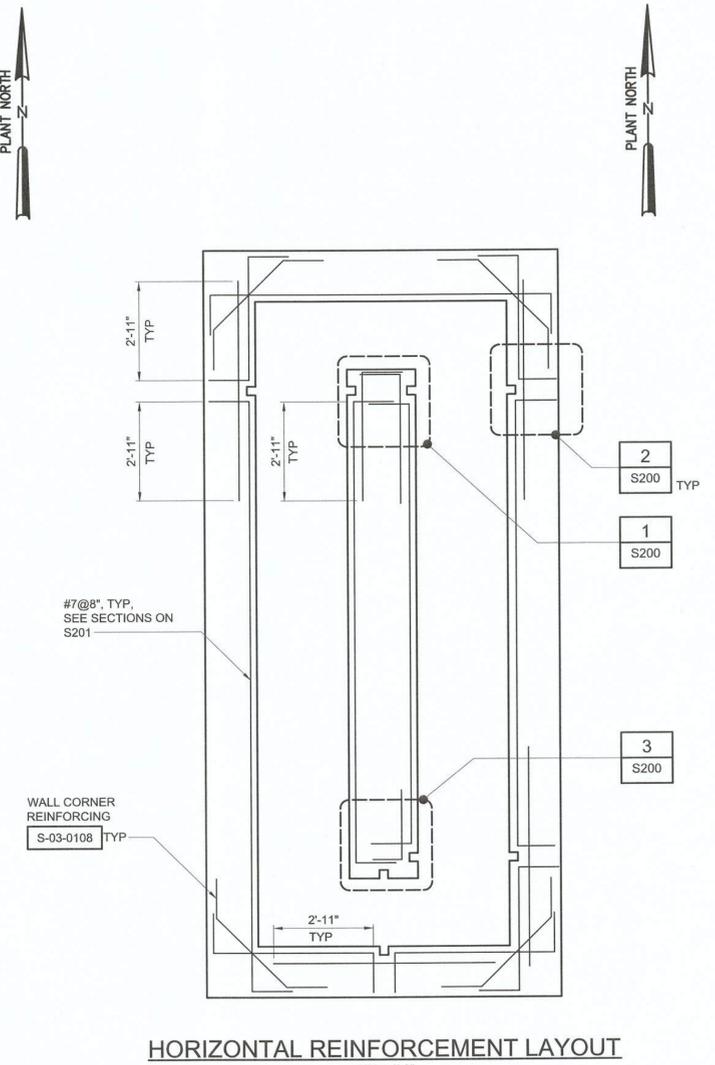
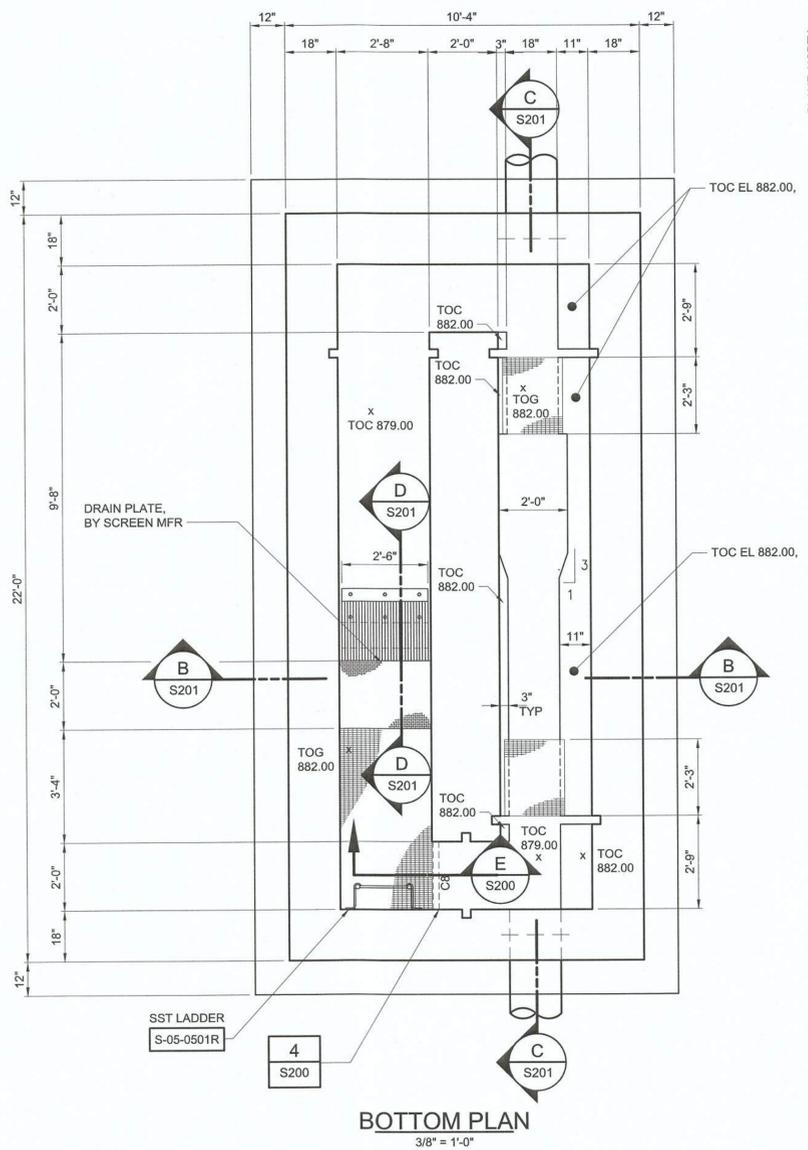
**Hazen**  
HAZEN AND SAWYER  
5775 PEACHTREE DUNWOODY ROAD  
SUITE D-520  
ATLANTA, GEORGIA 30342

CLAYTON COUNTY WATER AUTHORITY  
MORROW, GEORGIA  
WALNUT CREEK LIFT STATION

WET WELL  
STRUCTURAL  
PLANS AND SECTIONS

DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	S100

NOTES:  
1. C8 DENOTES SST C8x13.7



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REV	ISSUED FOR	DATE	BY
1	CONSTRUCTION	05/2020	BCJ
	ISSUED FOR		

PROJECT ENGINEER:	B. JONES
DESIGNED BY:	J. BURROUGHS
DRAWN BY:	J. BURROUGHS
CHECKED BY:	F. POWELL
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	
	0 1/2" 1"

ISSUED FOR CONSTRUCTION

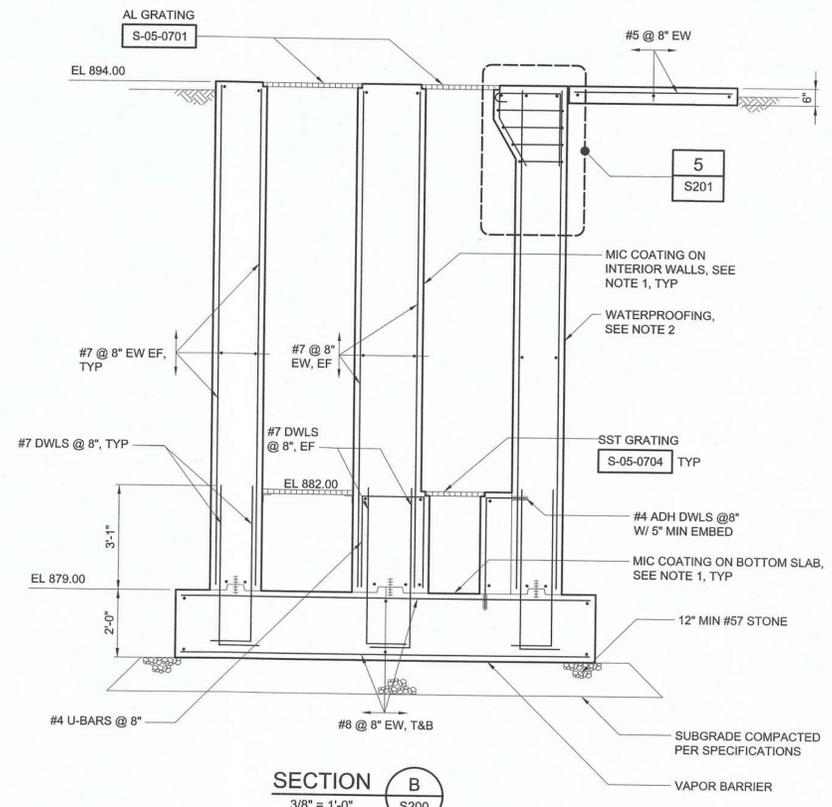
GBPE LIC #: PE035647 EXP: 12/31/2020

**Hazen**  
HAZEN AND SAWYER  
5775 PEACHTREE DUNWOODY ROAD  
SUITE D-520  
ATLANTA, GEORGIA 30342

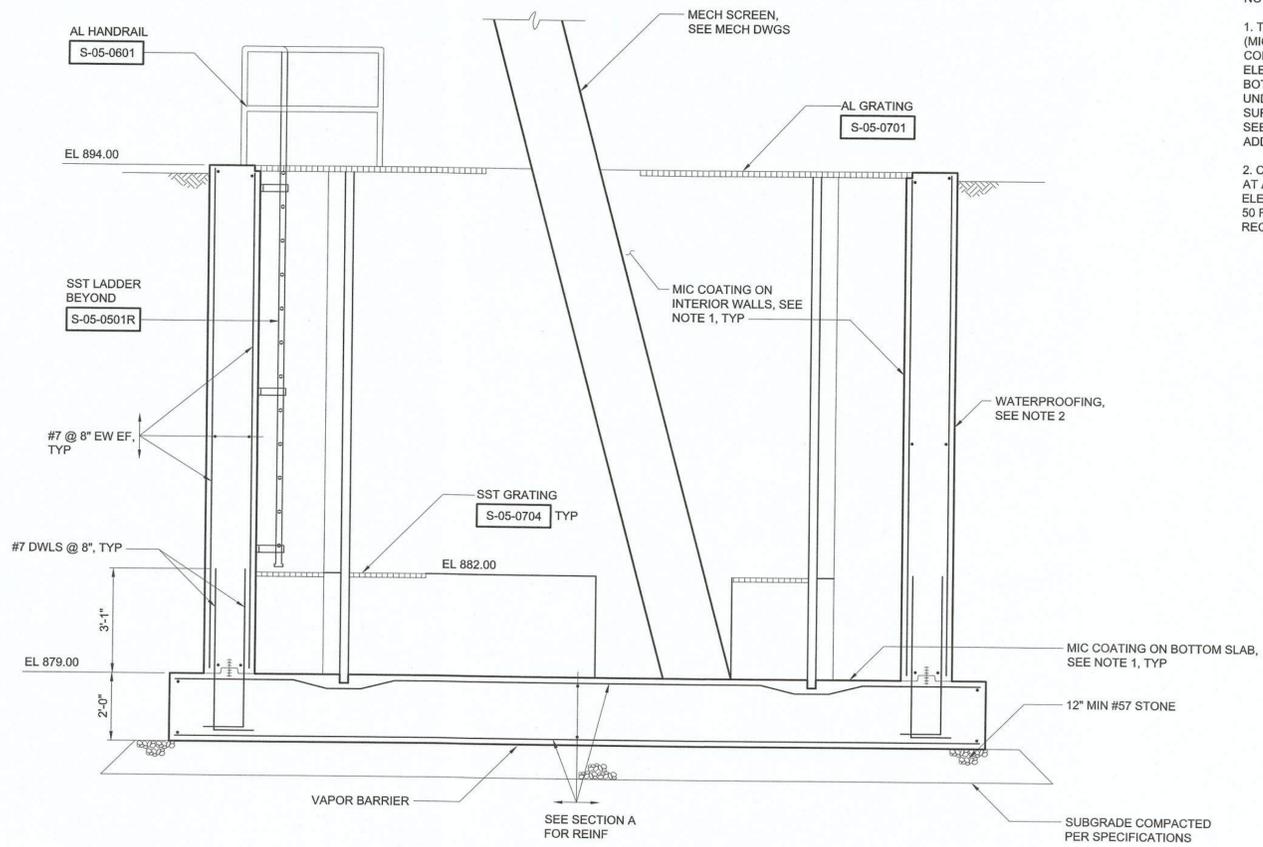
CLAYTON COUNTY WATER AUTHORITY  
MORROW, GEORGIA  
WALNUT CREEK LIFT STATION

SCREENING STRUCTURE  
STRUCTURAL  
PLANS AND DETAILS

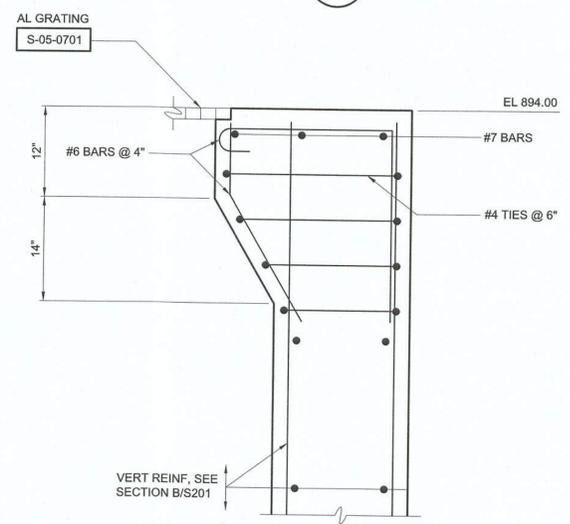
DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	S200



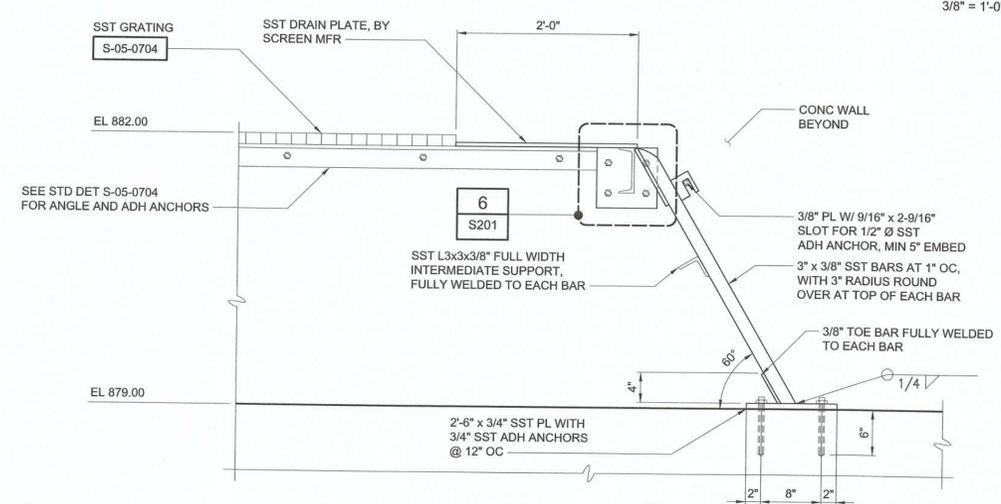
**SECTION B**  
3/8" = 1'-0"  
S200



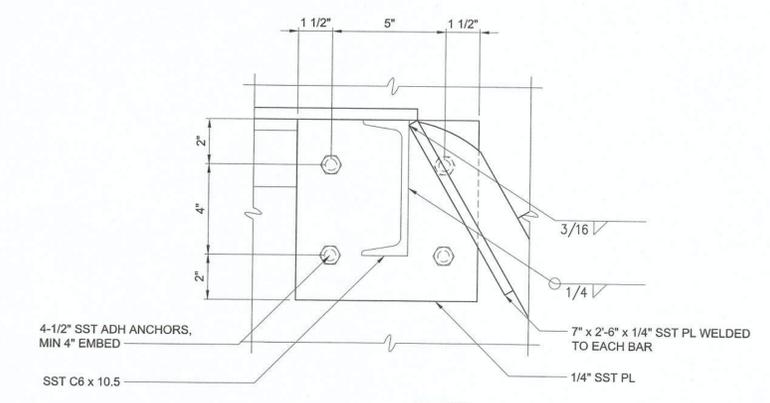
**SECTION C**  
3/8" = 1'-0"  
S200



**DETAIL 5**  
1" = 1'-0"  
S201



**SECTION D**  
1" = 1'-0"  
S200



**DETAIL 6**  
3" = 1'-0"  
S201

NOTE: SIMILAR CONNECTION ON OPPOSITE SIDE OF CHANNEL.

- NOTES:
1. THE MICROBIOLOGICALLY INFLUENCED CORROSION (MIC) COATING SHALL COVER ALL INTERIOR CONCRETE AND GROUT SURFACES AT AND ABOVE ELEVATION 879.00. COATING SHALL BE APPLIED TO BOTTOM SLAB, BEAMS, WALLS, OPENINGS, SLAB UNDERSIDES, SLAB TOPS AND ANY OTHER CONCRETE SURFACES THAT FALL WITHIN THE SPECIFIED LIMITS. SEE SPECIFICATION SECTION 09 96 59 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
  2. CONTRACTOR SHALL PROVIDE WATERPROOFING AT ALL EXTERIOR WALL SURFACES AT AND ABOVE ELEVATION 879.00. SEE SPECIFICATION SECTION 07 13 50 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

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PROJECT ENGINEER:	B. JONES
DESIGNED BY:	J. BURROUGHS
DRAWN BY:	J. BURROUGHS
CHECKED BY:	F. POWELL
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"
1 CONSTRUCTION 05/2020 BCJ	
REV ISSUED FOR DATE BY	

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GBPE LIC #: PE035647 EXP: 12/31/2020

**Hazen**

HAZEN AND SAWYER  
5775 PEACHTREE DUNWOODY ROAD  
SUITE D-520  
ATLANTA, GEORGIA 30342

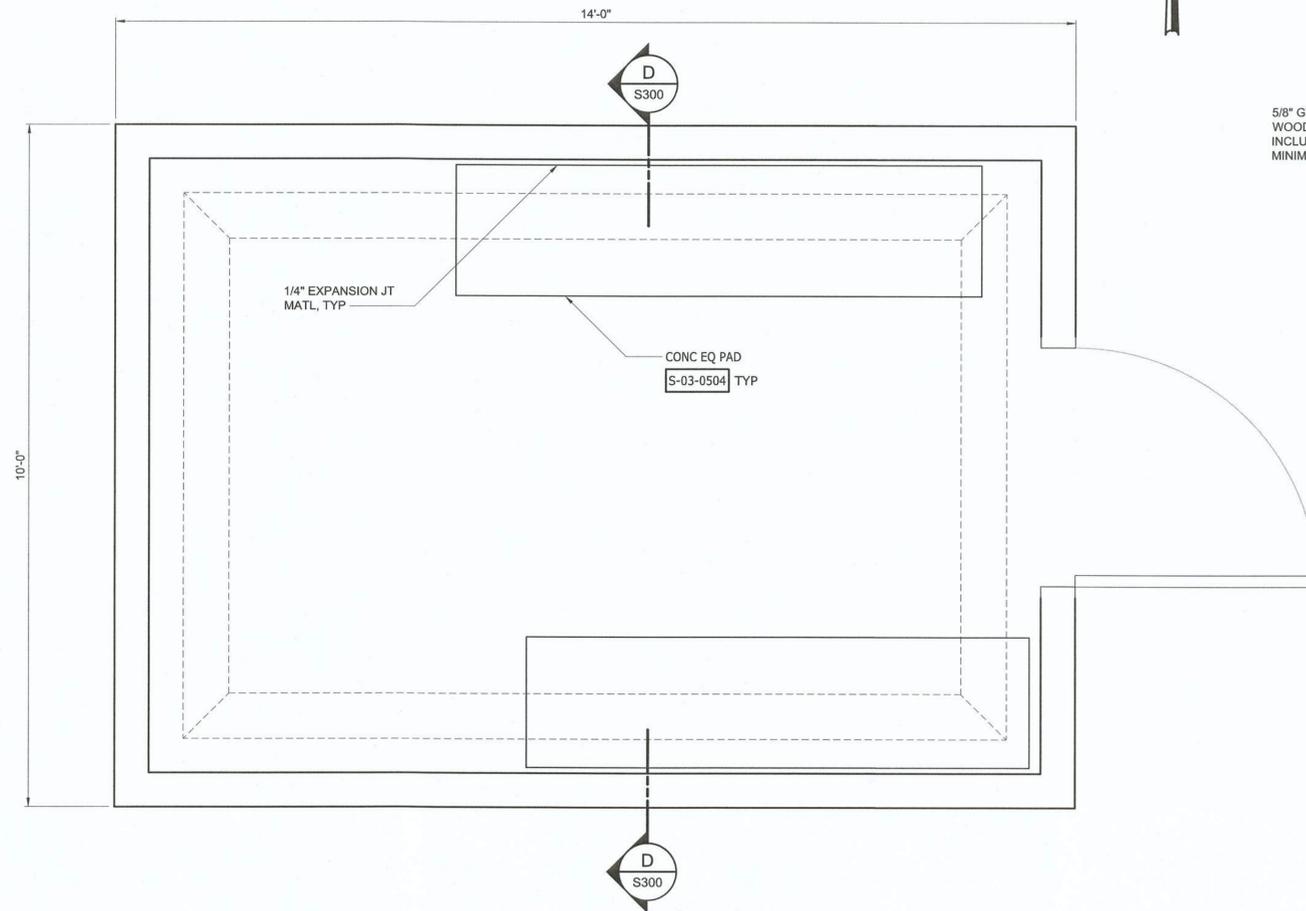
CLAYTON COUNTY WATER AUTHORITY  
MORROW, GEORGIA

WALNUT CREEK LIFT STATION

SCREENING STRUCTURE  
STRUCTURAL  
SECTIONS

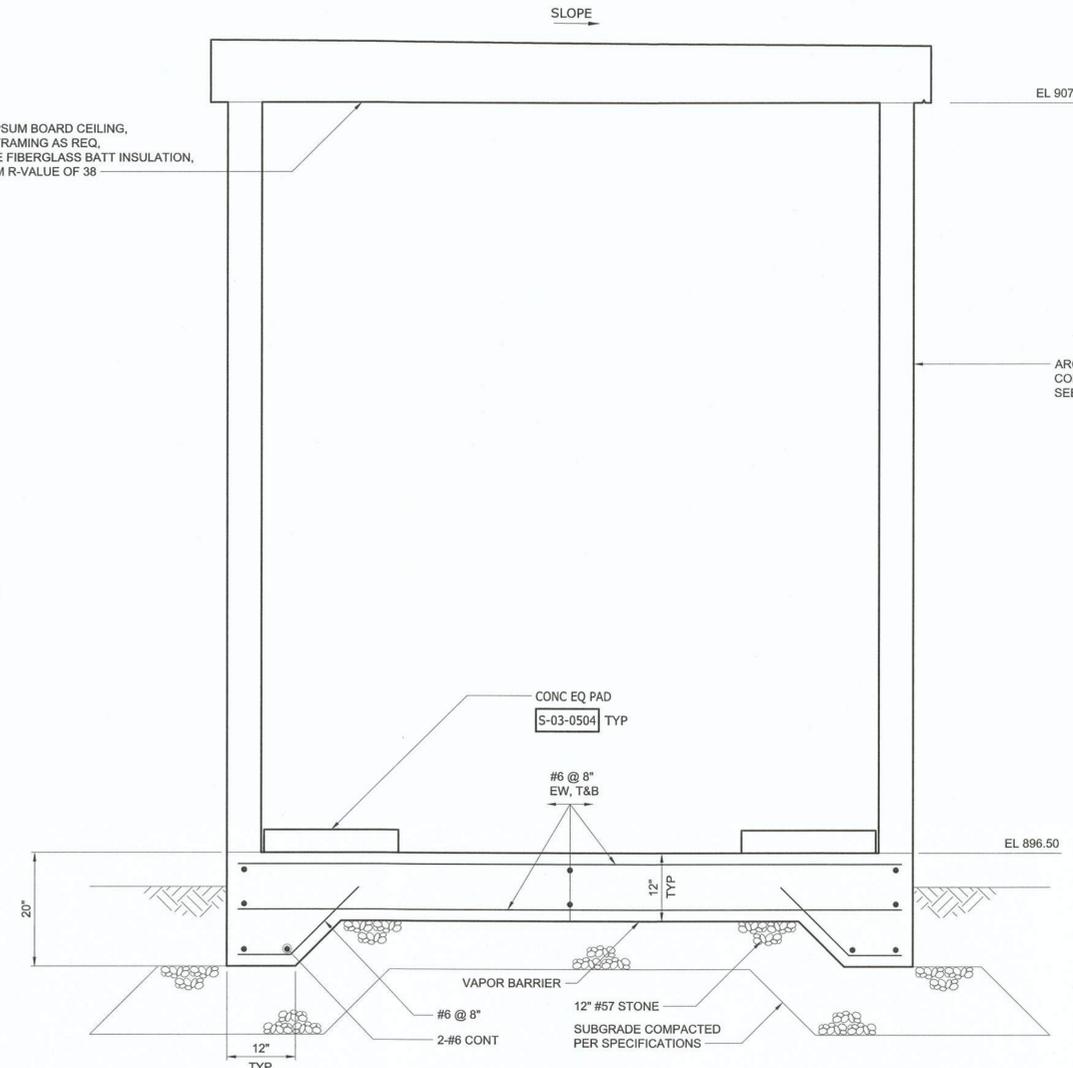
DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	S201

- NOTES:
1. THE ELECTRICAL BUILDING SHALL BE AN ARCHITECTURAL PRECAST CONCRETE UTILITY BUILDING COMPLETE WITH APPURTANCES, SEE SPECIFICATION SECTION 03 45 15.
  2. HVAC OPENING DIMENSIONS AND LOCATIONS SHALL BE VERIFIED WITH HVAC MANUFACTURER PRIOR TO FABRICATION OF ARCHITECTURAL PRECAST CONCRETE UTILITY BUILDING.
  3. LOCATIONS FOR FLOOR PENETRATIONS SHALL BE SHOWN IN ARCHITECTURAL PRECAST CONCRETE UTILITY BUILDING.
  4. DOORS SHALL BE HOLLOW METAL AND SHALL BE PROVIDED BY ARCHITECTURAL PRECAST CONCRETE UTILITY BUILDING MANUFACTURER. DOOR SIZE SHALL BE 3'-0" WIDE AND 8'-0" HIGH, 1 3/4" THICK. DOOR FRAME SHALL BE HOLLOW METAL WITH FACE FRAMES OF 2" WITH A DEPTH TO WRAP WALL THICKNESS. DOORS SHALL BE EQUIPPED WITH PANIC HARDWARE, HINGES, CLOSER, WEATHER STRIPPING, THRESHOLD, AND DOOR BOTTOM SEAL. ADDITIONALLY PROVIDE FLUSH BOLTS AND ASTRAGAL FOR DOUBLE DOOR. COORDINATE KEYING WITH OWNER.



**BOTTOM PLAN**  
3/4" = 1'-0"

5/8" GYPSUM BOARD CEILING,  
WOOD FRAMING AS REQ,  
INCLUDE FIBERGLASS BATT INSULATION,  
MINIMUM R-VALUE OF 38



**SECTION D**  
3/4" = 1'-0"

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PLOT DATE: 5/6/2020 1:29 PM BY: J.BURROUGHS

PROJECT ENGINEER:	B. JONES		
DESIGNED BY:	J. BURROUGHS		
DRAWN BY:	J. BURROUGHS		
CHECKED BY:	F. POWELL		
1	CONSTRUCTION	05/2020	BCJ
REV	ISSUED FOR	DATE	BY

ISSUED FOR CONSTRUCTION

GBPE LIC #: PE035647 EXP: 12/31/2020

**Hazen**

HAZEN AND SAWYER  
5775 PEACHTREE DUNWOODY ROAD  
SUITE D-520  
ATLANTA, GEORGIA 30342

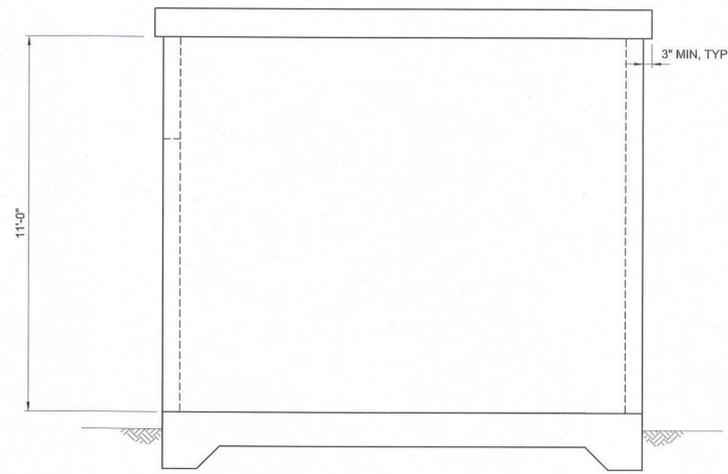
CLAYTON COUNTY WATER AUTHORITY  
MORROW, GEORGIA

WALNUT CREEK LIFT STATION

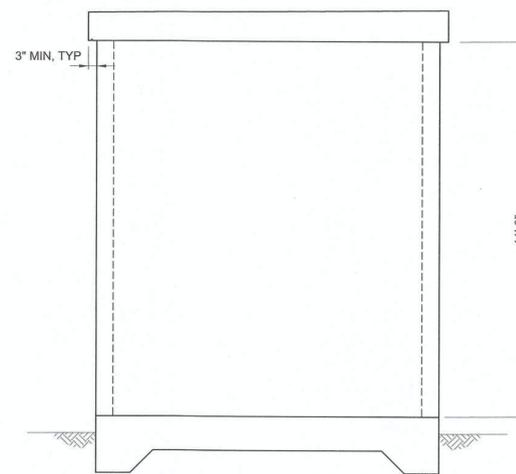
ELECTRICAL BUILDING  
STRUCTURAL  
PLANS AND SECTIONS

DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	S300

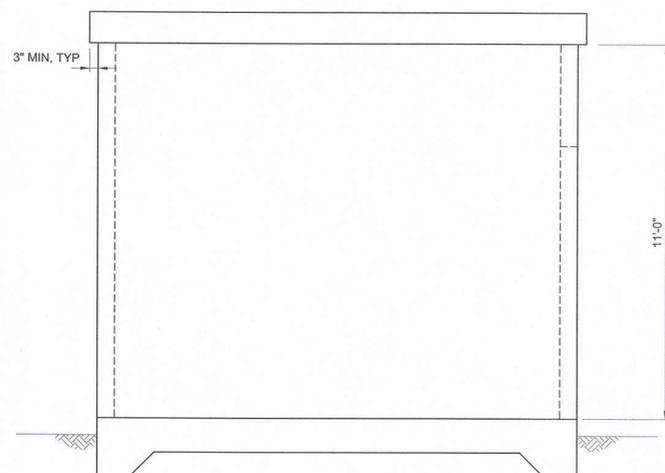
NOTES:  
 1. SEE NOTES ON DRAWING S300 FOR ELECTRICAL BUILDING.



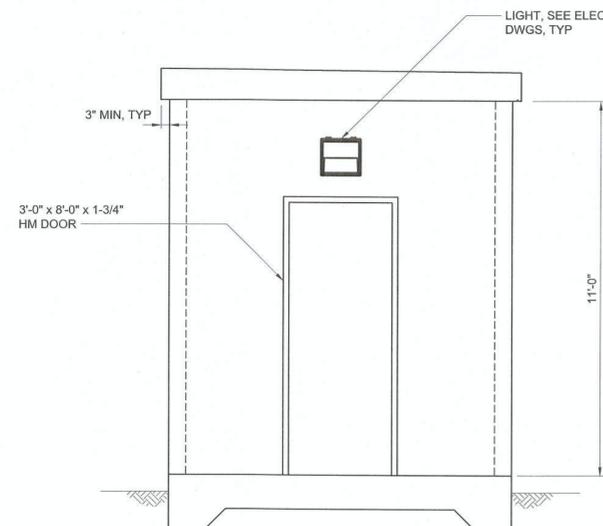
**NORTH ELEVATION**  
 3/8" = 1'-0"



**WEST ELEVATION**  
 3/8" = 1'-0"



**SOUTH ELEVATION**  
 3/8" = 1'-0"



**EAST ELEVATION**  
 3/8" = 1'-0"

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 PLOT DATE: 5/6/2020 12:58 PM BY: JBURROUGHS

PROJECT ENGINEER:	B. JONES				
DESIGNED BY:	J. BURROUGHS				
DRAWN BY:	J. BURROUGHS				
CHECKED BY:	F. POWELL				
1	CONSTRUCTION	05/2020	BCJ	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"
REV	ISSUED FOR	DATE	BY		

ISSUED FOR CONSTRUCTION



GBPE LIC #: PE035647 EXP: 12/31/2020

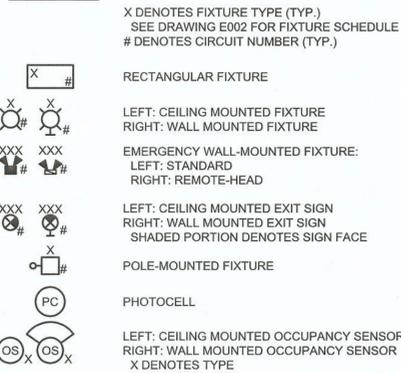
**Hazen**  
 HAZEN AND SAWYER  
 5775 PEACHTREE DUNWOODY ROAD  
 SUITE D-520  
 ATLANTA, GEORGIA 30342

CLAYTON COUNTY WATER AUTHORITY  
 MORROW, GEORGIA  
 WALNUT CREEK LIFT STATION

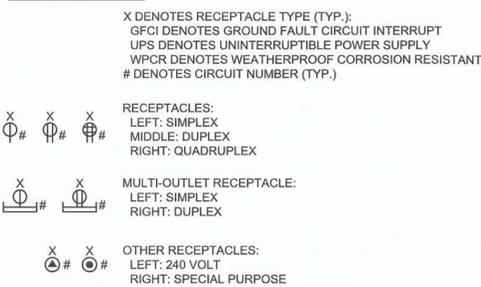
ELECTRICAL BUILDING  
 STRUCTURAL  
 ELEVATIONS

DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	S301

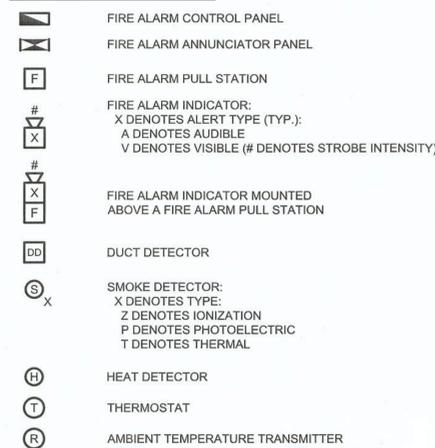
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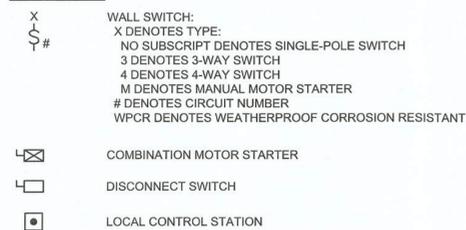
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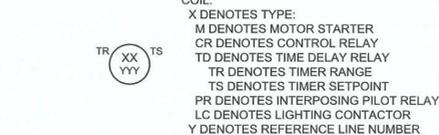
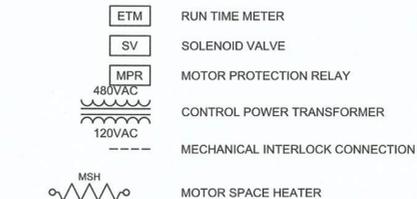
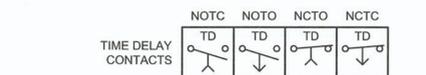
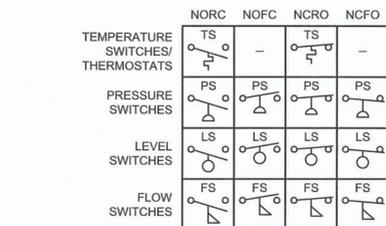
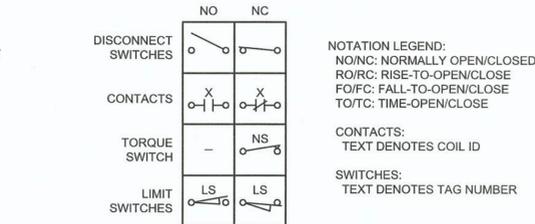
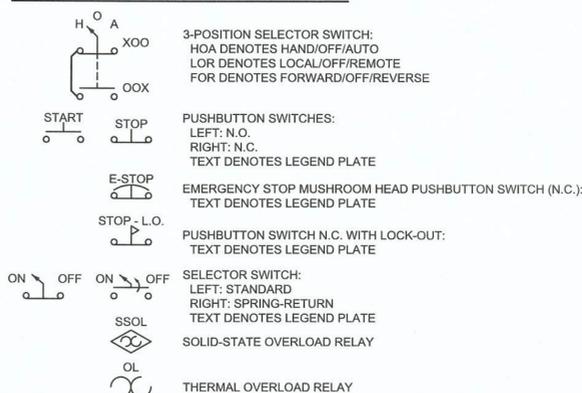
**HVAC AND FIRE ALARM**



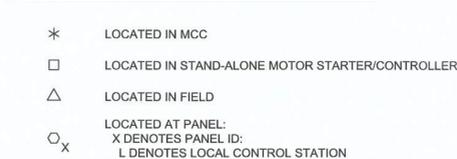
**SWITCHES**



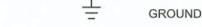
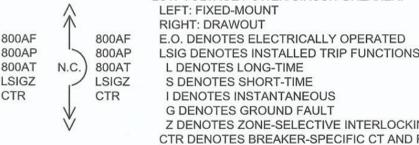
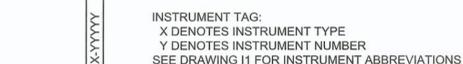
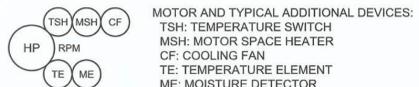
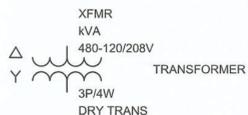
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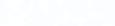
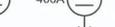
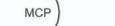
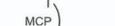
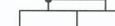
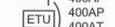
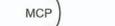
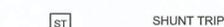
**EQUIPMENT/DEVICE LOCATION SYMBOLS**



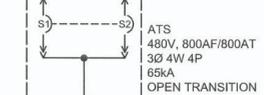
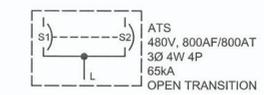
**SINGLE-LINE DIAGRAMS**



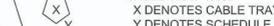
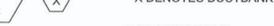
**SINGLE-LINE DIAGRAMS, CONT'D.**



**SINGLE-LINE DIAGRAMS, CONT'D.**



**MISC PLAN VIEW SYMBOLS**



File: O:\32457-ATL\32457-008\CAD\_BIN\ELECTRICAL\E001.dwg Saved by EBODNAR Save date: 2/20/2020 2:21 PM PLOT DATE: 4/30/2020 8:32 AM BY: NMEYER

PROJECT ENGINEER:	B. JONES
DESIGNED BY:	N. MEYER
DRAWN BY:	E. BODNAR
CHECKED BY:	W. HOWELL
1 CONSTRUCTION	05/2020 BJC
REV ISSUED FOR	DATE BY

PROJECT ENGINEER:	B. JONES
DESIGNED BY:	N. MEYER
DRAWN BY:	E. BODNAR
CHECKED BY:	W. HOWELL
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

ISSUED FOR CONSTRUCTION

GBPE LIC #: PE035647 EXP: 12/31/2020

**Hazen**

HAZEN AND SAWYER  
5775 PEACHTREE DUNWOODY ROAD  
SUITE D-520  
ATLANTA, GEORGIA 30342

CLAYTON COUNTY WATER AUTHORITY  
MORROW, GEORGIA

WALNUT CREEK LIFT STATION

ELECTRICAL  
LEGEND AND SYMBOLS

DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	E001

LUMINAIRE SCHEDULE

FIXTURE	LAMP/FIXTURE WATTAGE	DESCRIPTION	MFR. AND MODEL
LC1	30W (MAX)	CEILING-MOUNTED, 120-277VAC, LED LIGHT FIXTURE, COLOR TEMPERATURE OF 4000K, CLEAR DEEP FROSTED ACRYLIC LENS, MEDIUM DISTRIBUTION, GASKETED FIBERGLASS HOUSING, STAINLESS STEEL LATCHES, 4FT, 4000 LUMEN MINIMUM, AND WET LOCATION LISTED.	HOLOPHANE EMS LED SERIES, OR ENGINEER APPROVED EQUAL.
LW2	28W (MAX)	WALL-MOUNTED, 120-277VAC, LED LIGHT FIXTURE, COLOR TEMPERATURE OF 4000K, SYMMETRIC DISTRIBUTION, BRONZE A30-CAST ALUMINUM HOUSING, 5600 LUMEN MINIMUM, INTEGRAL PHOTOCELL, INTEGRAL BATTERY BACKUP WITH 90 MINUTES ILLUMINATION TIME, FULL CUTOFF FIXTURE, AND WET LOCATION LISTED.	HOLOPHANE HLWPC2 SERIES, OR ENGINEER APPROVED EQUAL.
LL1	83W (MAX)	POLE-MOUNTED, 120-277VAC, LED LIGHT FIXTURE, COLOR TEMPERATURE OF 4000K, IESNA ROADWAY TYPE 5 DISTRIBUTION, BRONZE DIE CAST ALUMINUM HOUSING, 11,200 LUMEN MINIMUM, FULL-CUTOFF OPTICS, INTEGRAL PHOTOCELL, WET LOCATION LISTED, SQUARE, BASE MOUNTED, STRAIGHT, 20FT. ANODIZED NATURAL ALUMINUM POLE.	AEL AUTOBAHN ATB0 SERIES, OR ENGINEER APPROVED EQUAL.

ABBREVIATIONS

ACU	AIR CONDITIONER UNIT
AE	ANALYSIS ELEMENT
AHU	AIR HANDLING UNIT
AIC	AMPERE INTERRUPTING CAPACITY
AIT	ANALYSIS INDICATING TRANSMITTER
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
AF	AMPERE FRAME
AT	AMPERE TRIP
ATS	AUTOMATIC TRANSFER SWITCH
BC	BYPASS CONTACTOR
BKR	BREAKER
(L/V)CP	(LOCAL/VENDOR) CONTROL PANEL
CPT	CONTROL POWER TRANSFORMER
CT	CURRENT TRANSFORMER
DB	DUCTBANK
DSW	DISCONNECT SWITCH
(*HH)	HAND HOLE*
(*MH)	MANHOLE*
EO	ELECTRICALLY OPERATED
ETM	ELAPSED TIME METER
ETU	ELECTRONIC TRIP UNIT
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FS	FLOW SWITCH
FSL	FLOW SWITCH LOW
FVNR	FULL VOLTAGE NON-REVERSING
FVR	FULL VOLTAGE REVERSING
GFCL	GROUND FAULT CIRCUIT INTERRUPTER
GFCT	GROUND FAULT CURRENT TRANSFORMER
GNG	GO-NO GO
GND	GROUND
HOA	HAND-OFF-AUTO
HPU	HYDRAULIC POWER UNIT
IC	INPUT CONTACTOR
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
ISO	INTERNATIONAL ORGANIZATION FOR STANDARDIZATION
(*JB)	JUNCTION BOX*
LCS	LOCAL CONTROL STATION
LP	LIGHTING PANEL
LS	LEVEL SWITCH
LSL	LEVEL SWITCH LOW
LSLL	LEVEL SWITCH LOW-LOW
LSH	LEVEL SWITCH HIGH
LSHH	LEVEL SWITCH HIGH-HIGH
LT	LEVEL TRANSMITTER
MFR	MULTI-FUNCTION RELAY
MH	MANHOLE
MOD	MOTOR OPERATED DAMPER
MOG	MOTOR OPERATED GATE
MOL	MOTOR OPERATED LOUVER
MOV	MOTOR OPERATED VALVE
MPR	MOTOR PROTECTION RELAY
MSC	MANUFACTURER SUPPLIED CABLE
MTD	MOUNTED
MTS	MANUAL TRANSFER SWITCH
MWTS	MOTOR WINDING TEMPERATURE SWITCH
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSN
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OC	OUTPUT CONTACTOR
OL	OVERLOAD

ABBREVIATIONS, CONT.

(*PB)	PULLBOX*
PC	PHOTOCELL
PCC	POINT OF COMMON COUPLING
PE	PRESSURE ELEMENT
PIT	PRESSURE INDICATING TRANSMITTER
PLC	PROGRAMMABLE LOGIC CONTROLLER
PP	POWER PANEL
PST	PHASE SHIFTING TRANSFORMER
PT	POTENTIAL TRANSFORMER
PTT	PUSH TO TEST
RCS	REMOTE CONTROL STATION
RECP	RECEPTACLE
RIO	REMOTE I/O
RM	ROOM
RTD	RESISTANCE THERMAL DEVICE
RTU	REMOTE TELEMETRY UNIT
RVAT	REDUCED VOLTAGE AUTO TRANSFORMER
RVSS	REDUCED VOLTAGE SOLID STATE
SA	SUPPLY AIR
S.E.	SERVICE ENTRANCE
SP, C.	SPARE CONDUIT
SPD	SURGE PROTECTIVE DEVICE
SSOL	SOLID STATE OVERLOAD
SST	STAINLESS STEEL
TB	TEST BLOCK
TC	TIMED CLOSE
TJB	TERMINAL JUNCTION BOX
TO	TIMED OPEN
TSH	TWISTED SHIELDED
TX	TRANSFORMER
TYP	TYPICAL
UPS	UNINTERRUPTIBLE POWER SUPPLY
VFD	VARIABLE FREQUENCY DRIVE
WPCR	WEATHER PROOF CORROSION RESISTANT
WT	WALK THROUGH
XFMR	TRANSFORMER

\*DESIGNATED ABBREVIATIONS CAN HAVE THE FOLLOWING PREFIXES:

E	ELECTRIC
P	POWER
C	CONTROL
I	INSTRUMENTATION
F	FIBER

NOTES:

- UNLESS SPECIFICALLY NOTED OTHERWISE, ALL UNDERGROUND CONCRETE ENCASED ELECTRICAL CONDUITS SHALL BE PER STANDARD DETAIL E-33-0101.
- BOND ALL NEW CONCRETE ENCASED GROUND CONDUCTORS TO EXISTING GROUND CONDUCTORS IN ALL MANHOLES, PULL BOXES, CABLE TRAYS, AND SIMILAR LOCATIONS WHERE APPLICABLE.
- UNLESS OTHERWISE SPECIFIED OR NOTED, ALL WALL MOUNTED ELECTRICAL PANELS, ENCLOSURES, AND SIMILAR EQUIPMENT SHALL BE MOUNTED 6'-6" (MAX) FROM THE TOP OF THE PANEL TO FINISHED FLOOR OR GRADE.
- UNLESS OTHERWISE NOTED, ALL LIGHTING SWITCHES, CONTROL SWITCHES, AND SIMILAR EQUIPMENT SHALL BE MOUNTED WITH THEIR CENTERLINE APPROXIMATELY 4'-0" ABOVE FINISHED FLOOR, SLAB, OR GRADE.
- A SEPARATE EQUIPMENT GROUNDING CONDUCTOR SHALL BE PROVIDED FOR EACH CIRCUIT (SEPARATE CONDUCTOR IN THE CONDUIT). THE CONDUCTOR SHALL BE TERMINATED AT THE PROPER DEVICE, TERMINAL, OR LUG AT THE POWER SOURCE (MCC, GROUND BUS, PANELBOARD GROUND BUS, ETC.). GROUND CONDUCTOR SIZE SHALL BE PER THE LATEST EDITION OF THE NEC.
- ELECTRICAL SYSTEMS INSTALLED IN HAZARDOUS LOCATIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CHAPTER 5, ART. 500 OF THE LATEST EDITION OF THE NEC. CONTRACTOR SHALL SEAL ALL CONDUITS LEAVING HAZARDOUS AREAS. WALL AND FLOOR OPENINGS SHALL BE SEALED WITH FIREPROOF COMPOUND.
- ALL EQUIPMENT LOCATED IN HAZARDOUS AREAS SHALL BE SUITABLE FOR THE CLASS, DIVISION, AND GROUP RATING OF THE LOCATION.
- UNLESS SPECIFICALLY NOTED OTHERWISE, EXISTING PAVEMENT SHALL BE SAW CUT AND REMOVED TO ALLOW FOR THE INSTALLATION OF NEW ELECTRICAL DUCTBANKS. AFTER INSTALLATION, REPLACE PAVEMENT WITH NEW TO MATCH ORIGINAL CONDITIONS.
- REFERENCE SECTION 01 14 00 FOR CONSTRUCTION SEQUENCING REQUIREMENTS.
- CONDUIT HOMERUNS ARE NOT SHOWN ON THE DRAWINGS. CONTRACTOR SHALL REFER TO CONDUIT AND WIRE SCHEDULES, RISER DIAGRAMS, SINGLE LINE DIAGRAMS, AND OTHER DRAWINGS FOR CONDUIT AND WIRE REQUIREMENTS.
- ALL ELECTRICAL NON-STRUCTURAL COMPONENTS ARE SUBJECT TO SEISMIC DESIGN CATEGORY 'C'. COMPONENTS WITH AN IMPORTANCE FACTOR OF  $I_p = 1.0$  ARE EXEMPT FROM SEISMIC ANCHORAGE AND BRACING. ESSENTIAL COMPONENTS SHALL HAVE AN IMPORTANCE FACTOR OF  $I_p = 1.5$  AND SHALL BE DESIGNED, INSTALLED, ANCHORED, AND BRACED TO RESIST SEISMIC FORCES AS STIPULATED IN SECTION 01 73 23 - SEISMIC ANCHORAGE AND BRACING. ESSENTIAL COMPONENTS (WITH  $I_p = 1.5$ ) SHALL BE FURNISHED WITH A MANUFACTURER'S CERTIFICATE OF SEISMIC QUALIFICATION.

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PROJECT ENGINEER:	B. JONES			
DESIGNED BY:	N. MEYER			
DRAWN BY:	E. BODNAR			
CHECKED BY:	W. HOWELL			
1	CONSTRUCTION	05/2020	BCJ	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE
REV	ISSUED FOR	DATE	BY	

ISSUED FOR CONSTRUCTION



GBPE LIC #: PE035647 EXP: 12/31/2020

# Hazen

HAZEN AND SAWYER  
5775 PEACHTREE DUNWOODY ROAD  
SUITE D-520  
ATLANTA, GEORGIA 30342

CLAYTON COUNTY WATER AUTHORITY  
MORROW, GEORGIA

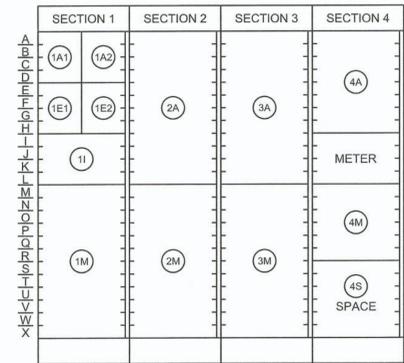
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WALNUT CREEK LIFT STATION

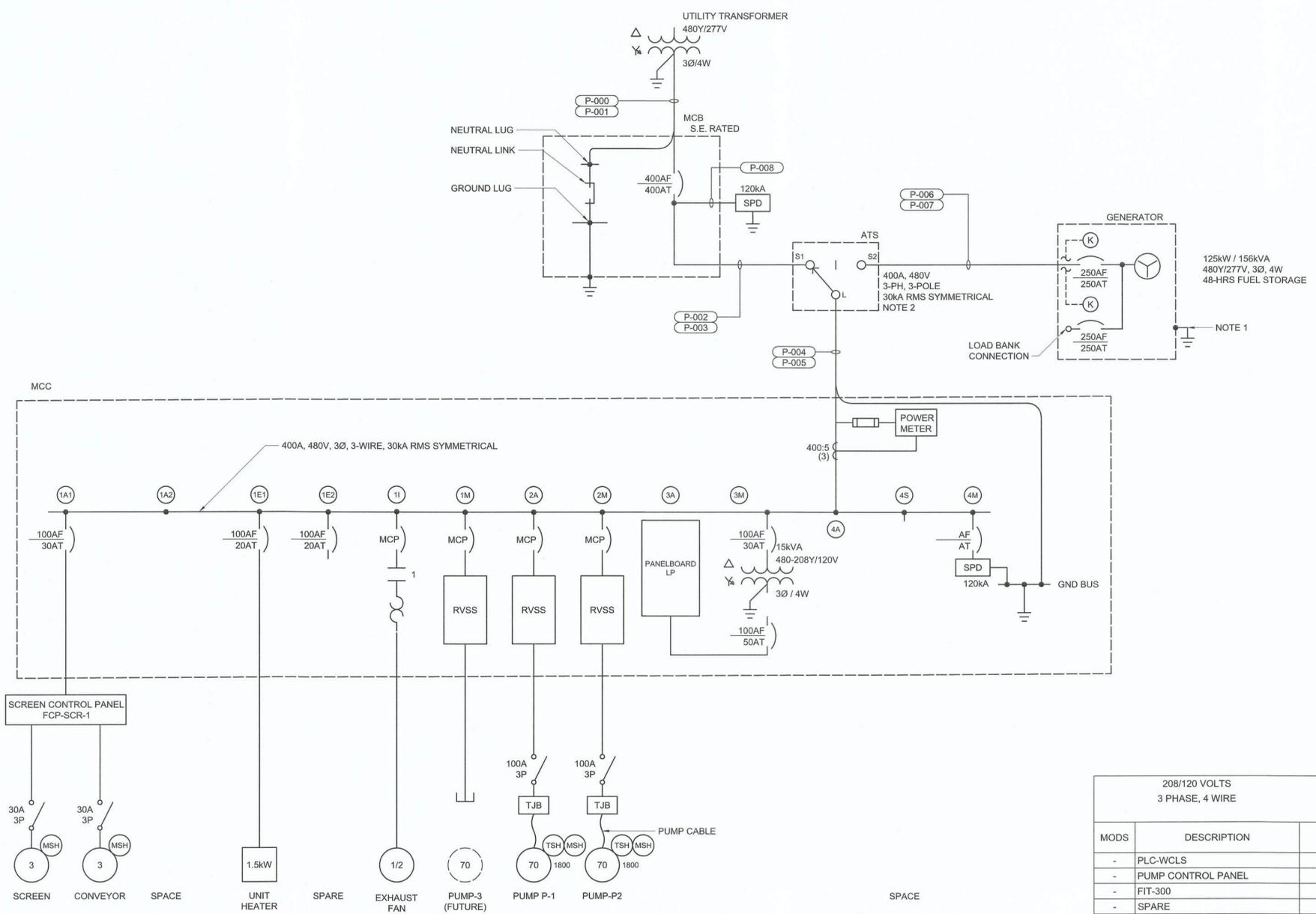
ELECTRICAL  
ABBREVIATIONS, NOTES, AND LUMINAIRE  
SCHEDULE

DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	E002

- NOTES:**
1. THIS GENERATOR INSTALLATION IS CONSIDERED AS A NON-SEPARATELY DERIVED SYSTEM. DO NOT BOND THE GENERATOR NEUTRAL TO GROUND AT THE GENERATOR.
  2. BOND TOGETHER NEUTRAL CONDUCTORS FROM GENERATOR AND UTILITY TRANSFORMER AT ATS NEUTRAL LUG.
  3. SEE DRAWING E006 FOR CONDUIT AND WIRE REQUIREMENTS FOR MCC AND PANELBOARD BRANCH CIRCUITS.



**MCC ELEVATION**  
NOT TO SCALE



208/120 VOLTS 3 PHASE, 4 WIRE						PANELBOARD LP MAIN BREAKER 50A 3P			TYPE: NEMA 1 MOUNT: INTEGRAL TO MCC								
MODS	DESCRIPTION	WIRE	TRIP	POLE	No.	VOLT-AMPERES			VOLT-AMPERES			No.	POLE	TRIP	WIRE	DESCRIPTION	MODS
						A	B	C	A	B	C						
-	PLC-WCLS	P-031	20	1	1				1,500			2	2	30	P-034	GEN JACKET HEATER	-
-	PUMP CONTROL PANEL	P-009	20	1	3		750			1,500		4					-
-	FIT-300	P-020	20	1	5			100			750	6	1	20	P-035	GEN BATTERY CHARGER	-
-	SPARE		20	1	7							8	2	20	P-040	RECEPT FOR FUTURE AIR CONDITIONER (ACU)	-
-	LDIT-201	P-029	20	1	9			100				10					-
-	AIT-250A/B	P-030	20	1	11			200			332	12	1	20	P-039	SITE LIGHTS	-
-	SPARE		20	1	13							14	1	20	P-036	ELEC BLDG LIGHTS	-
-	SPARE		20	1	15					900		16	1	20	P-037	ELEC BLDG RECEPT	-
-	SPARE		20	1	17							18	1	20		SPARE	-
-	SPARE		20	1	19							20	1	20		SPARE	-
-	SPARE		20	1	21							22	1	20		SPARE	-
-	SPARE		20	1	23							24	1	20		SPARE	-
-	SPARE		20	1	25							26	1	20		SPARE	-
-	SPARE		20	1	27							28	1	20		SPARE	-
-	SPARE		20	1	29							30	1	20		SPARE	-
<b>TOTAL</b>						750	850	300	1,500	2,400	1,082	<b>TOTAL</b>					
<b>PHASE TOTAL</b>						2,250	3,250	1,382	<b>TOTAL LOAD (VA)</b>								
									6,882								
									<b>TOTAL LOAD (A)</b>								
									19								

**MODIFICATION (MODS) LEGEND:**  
 EPD - GROUND FAULT CIRCUIT INTERRUPTER (30mA)  
 GFCCI - GROUND FAULT CIRCUIT INTERRUPTER (5mA)  
 LOD - LOCK-ON DEVICE  
 LFD - LOCK-OFF DEVICE

**NOTES:**  
 10K AIC  
 80kA SPD

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PROJECT ENGINEER:	B. JONES
DESIGNED BY:	N. MEYER
DRAWN BY:	E. BODNAR
CHECKED BY:	W. HOWELL
1 CONSTRUCTION	05/2020 BCJ
REV ISSUED FOR	DATE BY

ISSUED FOR CONSTRUCTION

GBPE LIC #: PE035647 EXP: 12/31/2020

**Hazen**  
 HAZEN AND SAWYER  
 5775 PEACHTREE DUNWOODY ROAD  
 SUITE D-520  
 ATLANTA, GEORGIA 30342

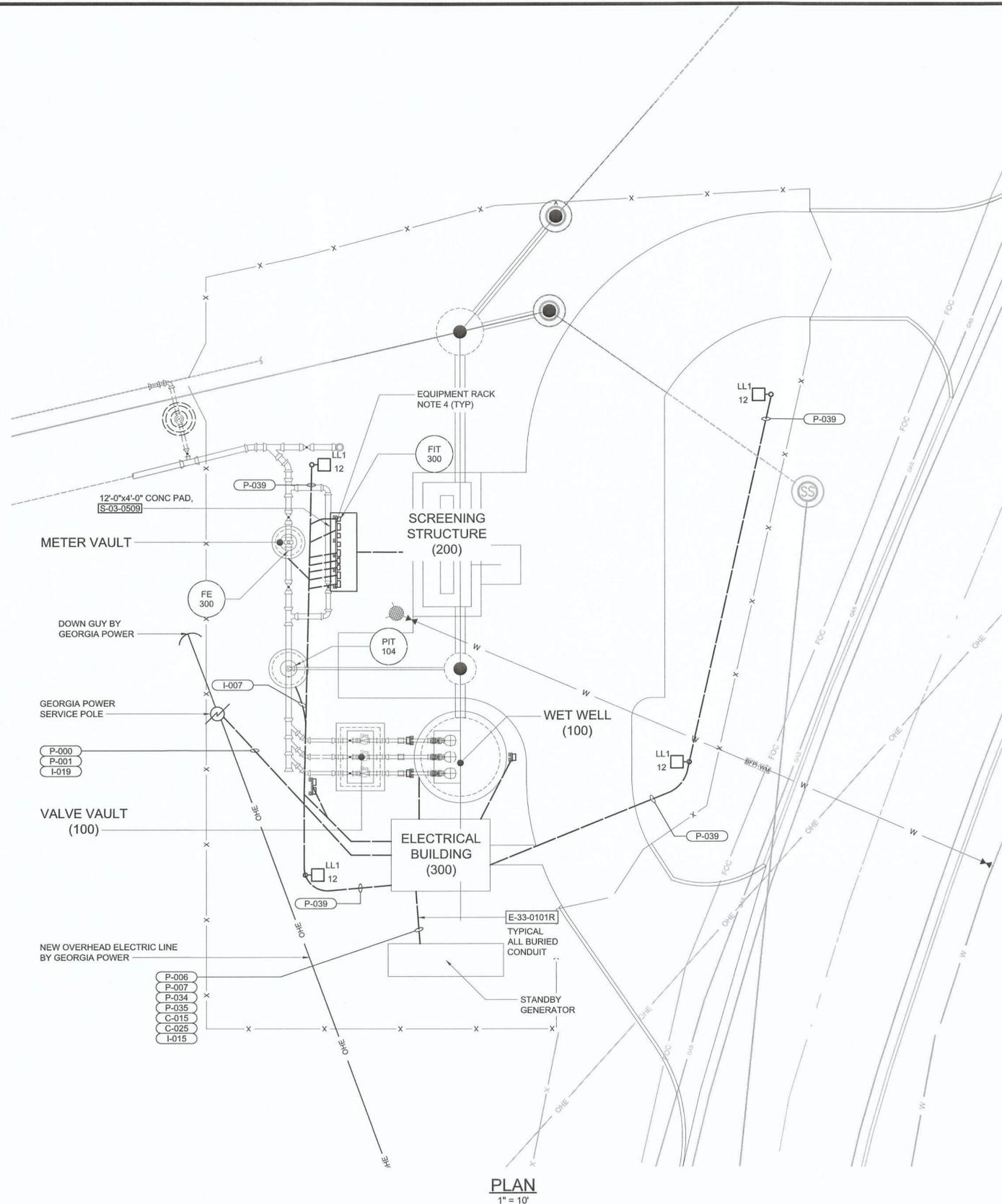
CLAYTON COUNTY WATER AUTHORITY  
 MORROW, GEORGIA  
 WALNUT CREEK LIFT STATION

ELECTRICAL  
 SINGLE LINE DIAGRAM

DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	E003

**NOTES:**

1. REFER TO SECTION 01 14 00 FOR CONSTRAINTS AND SEQUENCE OF WORK.
2. REFER TO CIVIL DEMOLITION PLAN FOR STRUCTURES BEING DEMOLISHED AND PROVIDE ELECTRICAL SUPPORT AS NEEDED. COORDINATE WITH THE ELECTRIC UTILITY THE PROVISION OF TEMPORARY SERVICES FOR THE OPERATION OF EXISTING LIFT STATION AND FOR CONSTRUCTION POWER REQUIREMENTS.
3. SEE THE BLOCK DIAGRAMS AND CONDUIT/WIRE SCHEDULES FOR CONTENTS OF THE BURIED CONDUITS WHICH ARE DEPICTED SCHEMATICALLY ON THIS PLAN.
4. FOR MORE DETAILS ABOUT THE EQUIPMENT RACKS SEE DWG E200
5. THE CONCRETE ENCASED CONDUITS DEPICTED ON THIS PLAN ARE A PARTIAL REPRESENTATION OF CONDUITS BURIED IN THE YARD. SEE THE FACILITY PLAN DRAWINGS FOR ADDITIONAL CONDUIT AND WIRE REQUIREMENTS.



**PLAN**  
1" = 10'



File: C:\32457\ATL\32457-008\CAD\_P\MELELECTRICAL\E004 Saved by NMEYER Save date: 4/24/2020 10:03 AM  
 PLOT DATE: 4/30/2020 8:32 AM BY: NMEYER

PROJECT ENGINEER:	B. JONES		
DESIGNED BY:	N. MEYER		
DRAWN BY:	E. BODNAR		
CHECKED BY:	W. HOWELL		
1	CONSTRUCTION	05/2020	BCJ
REV	ISSUED FOR	DATE	BY

ISSUED FOR CONSTRUCTION

GBPE LIC #: PE035647 EXP: 12/31/2020

**Hazen**

HAZEN AND SAWYER  
5775 PEACHTREE DUNWOODY ROAD  
SUITE D-520  
ATLANTA, GEORGIA 30342

CLAYTON COUNTY WATER AUTHORITY  
MORROW, GEORGIA

WALNUT CREEK LIFT STATION

ELECTRICAL  
SITE PLAN

DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	E004

AREA CLASSIFICATION LEGEND:

-  CLASS I, DIV. 1, GROUP D.
-  CLASS I, DIV. 2, GROUP D.

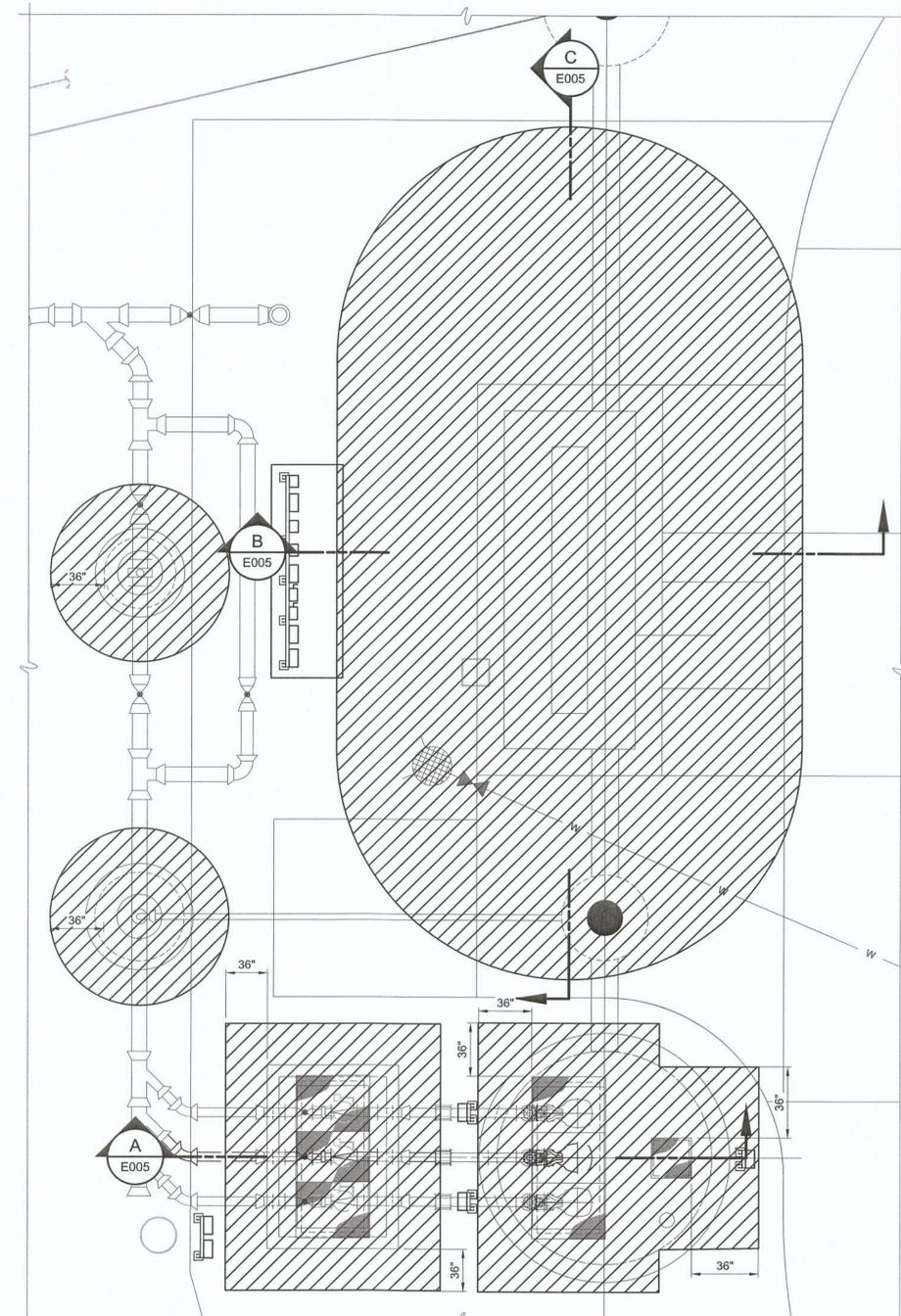
THE FOLLOWING SPACES ARE CLASSIFIED ACCORDING TO THE INDICATED TABLES OF NFPA 820 (2020). ALL ELECTRICAL EQUIPMENT AND DEVICES WITHIN THE HAZARDOUS AREAS SHALL BE RATED FOR USE IN CLASS I, GROUP D LOCATIONS OF THE INDICATED DIVISIONS. CABLES, CONDUITS, AND CONDUIT SEAL-OFF FITTINGS SHALL BE INSTALLED IN ACCORDANCE WITH NEC ARTICLE 500.

CLASS I, DIVISION 1 AREAS:

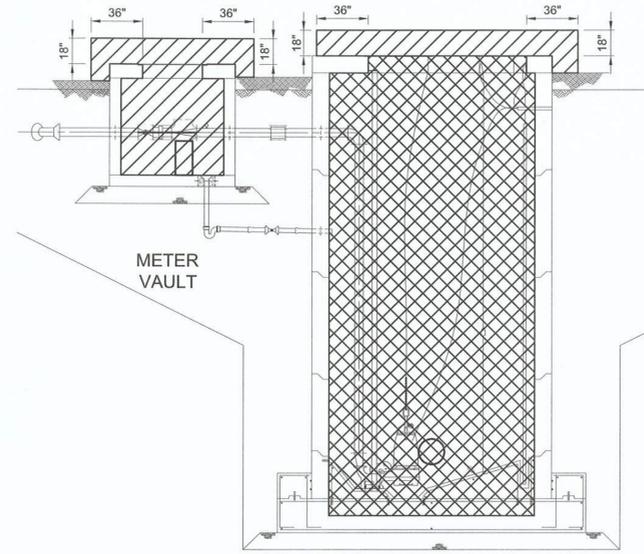
- WET WELL  
TABLE 4.2.2, ROW 14(a): CLASS I, DIVISION 1 INSIDE WET WELL.

CLASS I, DIVISION 2 AREAS:

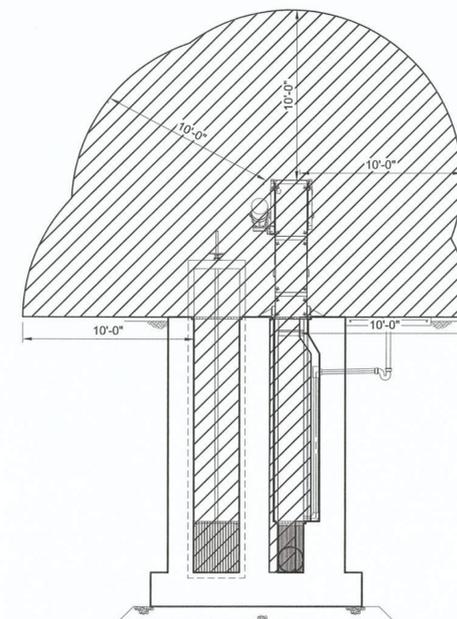
- SCREEN CHANNEL  
TABLE 5.2.2, ROW 2(c): CLASS I, DIVISION 2 WITHIN A 10-FT ENVELOPE AROUND THE EQUIPMENT AND OPEN CHANNEL.
- VALVE VAULT AND METER VAULT  
TABLE 4.2.2, ROW 15(b): CLASS I, DIVISION 2 INSIDE VAULT. CLASS I, DIVISION 2 ENVELOPE EXTENDING 18" ABOVE AND 36" LATERALLY FROM HATCHES.
- WET WELL  
TABLE 4.2.2, ROW 14(a): CLASS I, DIVISION 2 ENVELOPE EXTENDING 18" ABOVE AND 36" LATERALLY FROM HATCHES.



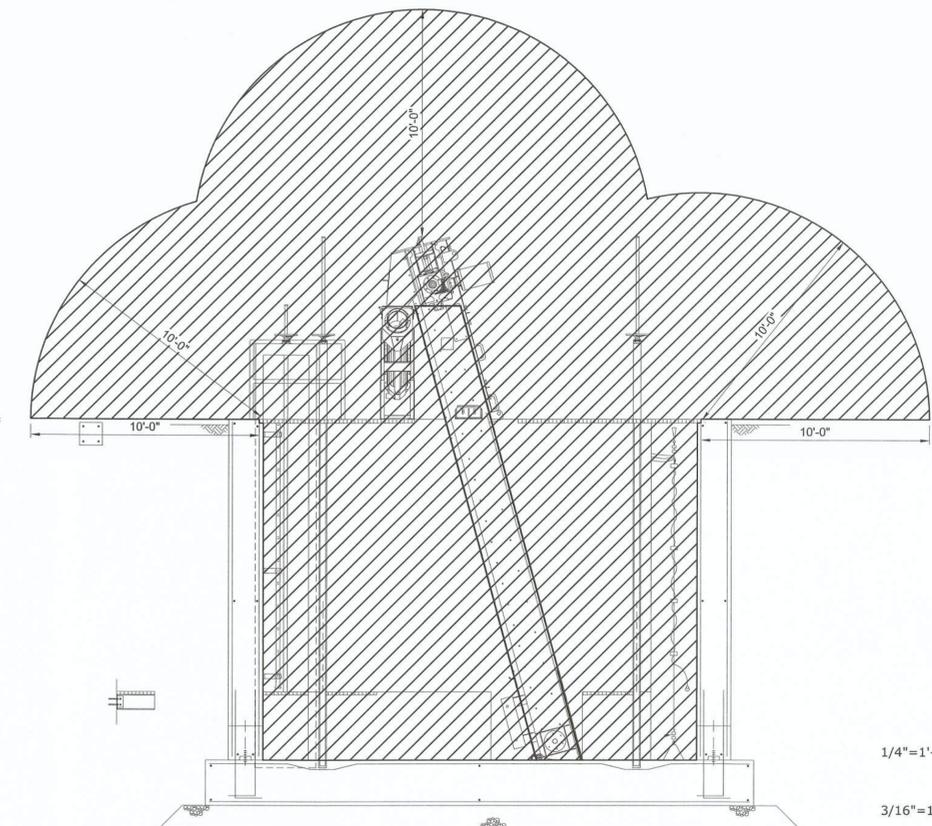
HAZARDOUS AREA PLAN  
1" = 5'



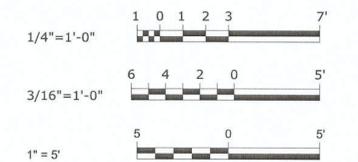
SECTION A  
3/16" = 1'-0"  
E005



SECTION B  
3/16" = 1'-0"  
E005



SECTION C  
1/4" = 1'-0"  
E005



File: 0\32457-ATL\32457-008\CAD\_BIM\ELECTRICAL\E005 Saved by RWINDER Save date: 4/22/2020 11:55 AM PLOT DATE: 4/30/2020 8:33 AM BY: NMEYER

PROJECT ENGINEER:	B. JONES				
DESIGNED BY:	N. MEYER				
DRAWN BY:	E. BODNAR				
CHECKED BY:	W. HOWELL				
1	CONSTRUCTION	05/2020	BCJ	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"
REV	ISSUED FOR	DATE	BY		

ISSUED FOR CONSTRUCTION



GBPE LIC #: PE035647 EXP: 12/31/2020

**Hazen**

HAZEN AND SAWYER  
5775 PEACHTREE DUNWOODY ROAD  
SUITE D-520  
ATLANTA, GEORGIA 30342

CLAYTON COUNTY WATER AUTHORITY  
MORROW, GEORGIA

WALNUT CREEK LIFT STATION

ELECTRICAL  
HAZARDOUS AREA PLAN

DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	E005

CIRCUIT ID	FROM	TO	CONDUCTORS	CONDUIT	REMARKS
P-000	UTILITY TRANSFORMER	MCB	4#3/0	2"	MAIN CIRCUIT BREAKER
P-001	UTILITY TRANSFORMER	MCB	4#3/0	2"	MAIN CIRCUIT BREAKER
P-002	MCB	ATS	4#3/0, 1#3 GND	2"	AUTOMATIC TRANSFER SWITCH
P-003	MCB	ATS	4#3/0, 1#3 GND	2"	AUTOMATIC TRANSFER SWITCH
P-004	ATS	MCC	3#3/0, 1#3 GND	2"	
P-005	ATS	MCC	3#3/0, 1#3 GND	2"	
P-006	GEN	ATS	4#3/0, 1#3 GND	2"	GENERATOR
P-007	GEN	ATS	4#3/0, 1#3 GND	2"	GENERATOR
P-008	MCB	SPD	SIZE BY MFR	1"	
P-009	PANELBOARD LP	FCP-INF-P-1	2#12, 1#12 GND	3/4"	
P-010	MCC	DSW-P1	3#1, 1#6 GND	2"	
P-011	DSW-P1	TJB-P1	3#1, 1#6 GND	2"	
P-012	TJB-P1	PUMP P-1	MFR SUPPLIED CABLE	-	SEE DETAIL
P-013	MCC	DSW-P2	3#1, 1#6 GND	2"	
P-014	DSW-P2	TJB-P2	3#1, 1#6 GND	2"	
P-015	TJB-P2	PUMP P-2	MFR SUPPLIED CABLE	-	SEE DETAIL
P-016	MCC	DSW-P3 (FUTURE)	EMPTY	2"	STUB OUT CONDUITS FOR FUTURE PUMP
P-017	DSW-P3 (FUTURE)	TJB-P3 (FUTURE)	EMPTY	2"	
P-018	TJB-P3 (FUTURE)	PUMP P-3 (FUTURE)	-	-	
P-019	NOT USED				
P-020	PANELBOARD LP	PJB-VV	2#12, 1#12 GND	1"	
P-021	PJB-VV	FIT-300	2#12, 1#12 GND	1"	
P-022	NOT USED				
P-023	FCP-SCR-1	DSW-SCREEN	3#12, 2#14, 1#12 GND	1"	
P-024	DSW-SCREEN	SCREEN	3#12, 2#14, 1#12 GND	1"	
P-025	FCP-SCR-1	DSW-CONVEYOR	3#12, 2#14, 1#12 GND	1"	
P-026	DSW-CONVEYOR	CONVEYOR	3#12, 2#14, 1#12 GND	1"	
P-027	MCC	FCP-SCR-1	3#10, 1#10 GND	3/4"	
P-028	PANELBOARD LP	PJB-SCREEN	4#12, 1#12 GND	1"	
P-029	PJB-SCREEN	LDIT-201	2#12, 1#12 GND	3/4"	
P-030	PJB-SCREEN	AIT-250A, -250B	2#12, 1#12 GND	3/4"	
P-031	PANELBOARD LP	PLC-WCLS	2#12, 1#12 GND	3/4"	
P-032	MCC	EXHAUST FAN EF-1	3#12, 1#12 GND	3/4"	
P-033	MCC	UNIT HEATER EUH-1	3#12, 1#12 GND	3/4"	
P-034	PANELBOARD LP	GEN JACKET WATER HEATER	3#10, 1#10 GND	1"	
P-035	PANELBOARD LP	GEN BATTERY CHARGER	2#12, 1#12 GND	1"	
P-036	PANELBOARD LP	LIGHTS - ELEC BLDG	2#12, 1#12 GND	3/4"	
P-037	PANELBOARD LP	RECEPT - ELEC BLDG	2#12, 1#12 GND	3/4"	
P-038	PANELBOARD LP	LIGHTING CONTACTOR LCT	2#12, 1#12 GND	3/4"	
P-039	LIGHTING CONTACTOR LCT	SITE LIGHTS	2#10, 1#10 GND	1"	
P-040	PANELBOARD LP	A/C RECEPT	2#12, 1#12 GND	3/4"	

CIRCUIT ID	FROM	TO	CONDUCTORS	CONDUIT	REMARKS
I-000	FCP-INF-P-1	TJB-P1	2-2/C#16 TSH	1"	
I-001	FCP-INF-P-1	TJB-P2	2-2/C#16 TSH	1"	
I-002	FCP-INF-P-1	TJB-P3 (FUTURE)	EMPTY	1"	
I-003	FCP-INF-P-1	TJB-WW-LEVEL	MFR SUPPLIED CABLE	1"	SEE NOTE ON PLAN SHEET
I-004	TJB-WW-LEVEL	LS-103	MFR SUPPLIED CABLE	1"	
I-005	NOT USED				
I-006	PLC-WCLS	IJB-VV	2-2/C#16 TSH	1"	
I-007	IJB-VV	PIT-104	1-2/C#16 TSH	1"	
I-008	IJB-VV	FIT-300	1-2/C#16 TSH	1"	
I-009	FIT-300	FE-300	MFR SUPPLIED CABLE	1"	
I-010	NOT USED				
I-011	AIT-250A	AE-250A	1-3/C#16 TSH	1"	
I-012	AIT-250B	AE-250B	1-3/C#16 TSH	1"	
I-013	PLC-WCLS	FCP-SCR-1	1-2/C#16 TSH	3/4"	
I-014	FCP-SCR-1	LDIT-201	1-2/C#16 TSH	1"	
I-015	PLC-WCLS	GEN	CAT-6	1"	
I-016	LDIT-201	LE-201A	MFR SUPPLIED CABLE	1"	
I-017	LDIT-201	LE-201B	MFR SUPPLIED CABLE	1"	
I-018	NOT USED				
I-019	TELEPHONE (MODEM)	PLC-WCLS	UTILITY POLE	1"	
I-020	PLC-WCLS	IJB-VV	EMPTY	1"	

CIRCUIT ID	FROM	TO	CONDUCTORS	CONDUIT	REMARKS
C-000	FCP-INF-P-1	TJB-WW-LEVEL	4#14, 1#14 GND	1"	
C-001	TJB-WW-LEVEL	LSLL-103	MFR SUPPLIED CABLE	-	
C-002	TJB-WW-LEVEL	LSHH-103	MFR SUPPLIED CABLE	-	
C-003	NOT USED				
C-004	FCP-INF-P-1	MCC	30#14, 1#14 GND	1"	10#14 TO EACH RVSS
C-005	NOT USED				
C-006	PLC-WCLS	CJB-SCREEN	6#14, 1#14 GND	1"	
C-007	CJB-SCREEN	AIT-250A	2#14, 1#14 GND	3/4"	
C-008	CJB-SCREEN	AIT-250B	2#14, 1#14 GND	3/4"	
C-009	CJB-SCREEN	TJB-SCREEN-LEVEL	2#14, 1#14 GND	3/4"	
C-010	TJB-SCREEN-LEVEL	LSHH-251	MFR SUPPLIED CABLE	1"	
C-011	PLC-WCLS	FCP-SCR-1	20#14, 1#14 GND	1"	
C-012	PLC-WCLS	FCP-INF-P-1	20#14, 1#14 GND	1"	
C-013	PLC-WCLS	ZS-900	2#14, 1#14 GND	3/4"	
C-014	PLC-WCLS	ATS	12#14, 1#14 GND	3/4"	
C-015	ATS	GEN	12#14, 1#14 GND	1"	
C-016	MCC	TSTAT	3#14, 1#14 GND	3/4"	EF-1
C-017	LIGHTING CONTACTOR LCT	PHOTOCELL	4#14, 1#14 GND	3/4"	
C-018	PLC-WCLS	TSH-903	2#14, 1#14 GND	3/4"	
C-019	CJB-SCREEN	HS-(ESTOP-201, LOR-201, LOR-202)	10#14, 1#14 GND	1"	
C-020	CJB-SCREEN	CJB-SCC1	6#14, 1#14 GND	1"	
C-021	CJB-SCC1	HS-202 (ESTOP)	2#14, 1#14 GND	3/4"	
C-022	CJB-SCC1	ZS-202 (COVER)	2#14, 1#14 GND	3/4"	
C-023	CJB-SCC1	ZS-202	2#14, 1#14 GND	3/4"	
C-024	FCP-SCR-1	CJB-SCC1	16#14, 1#14 GND	1"	
C-025	GEN	ATS	EMPTY	2"	GENERATOR
C-026	FCP-INF-P-1	TJB-WW-LEVEL	EMPTY	1"	
C-027	FCP-SCR-1	CJB-SCREEN	EMPTY	1"	
C-028	CJB-SCREEN	CJB-SCC1	EMPTY	1"	
C-029	PLC-WCLS	CJB-SCREEN	EMPTY	2"	

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PROJECT ENGINEER:	B. JONES
DESIGNED BY:	N. MEYER
DRAWN BY:	E. BODNAR
CHECKED BY:	W. HOWELL
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	
1 CONSTRUCTION	05/2020 BCJ
REV	ISSUED FOR

ISSUED FOR CONSTRUCTION

GBPE LIC #: PE035647 EXP: 12/31/2020

# Hazen

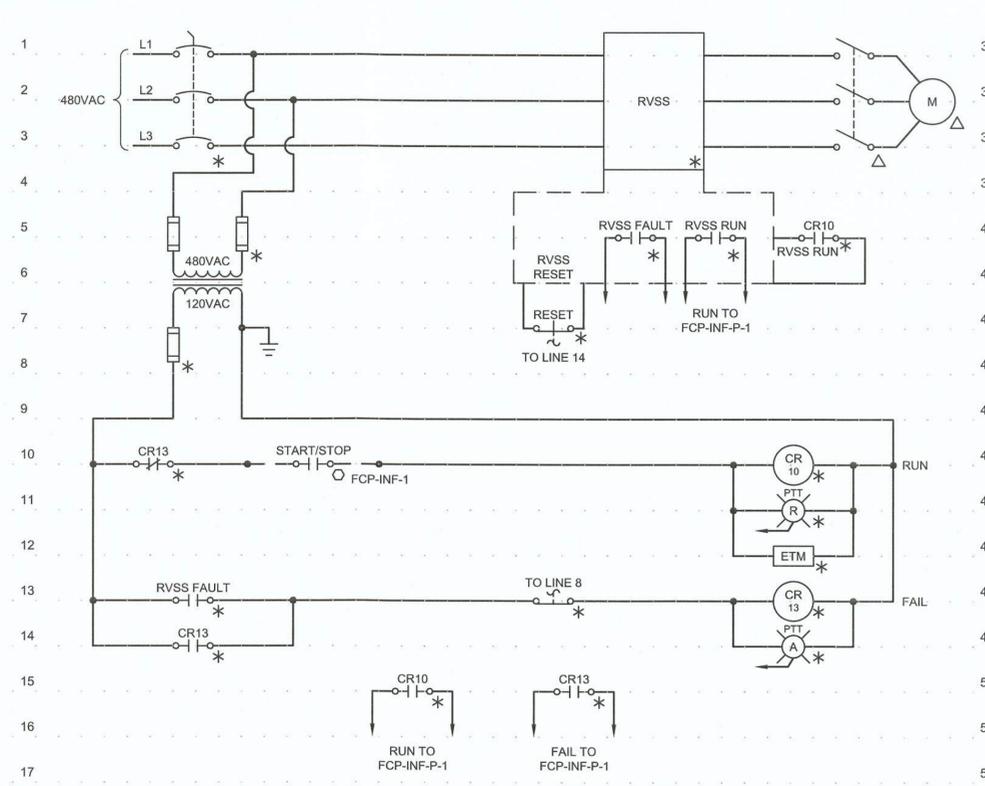
HAZEN AND SAWYER  
 5775 PEACHTREE DUNWOODY ROAD  
 SUITE D-520  
 ATLANTA, GEORGIA 30342

CLAYTON COUNTY WATER AUTHORITY  
 MORROW, GEORGIA

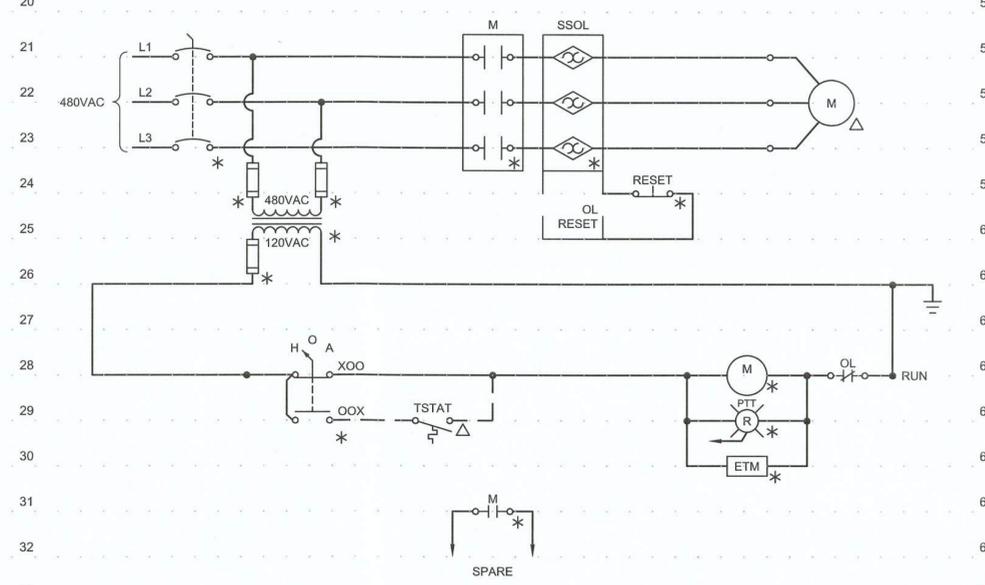
WALNUT CREEK LIFT STATION

ELECTRICAL  
 CONDUIT AND WIRE SCHEDULES

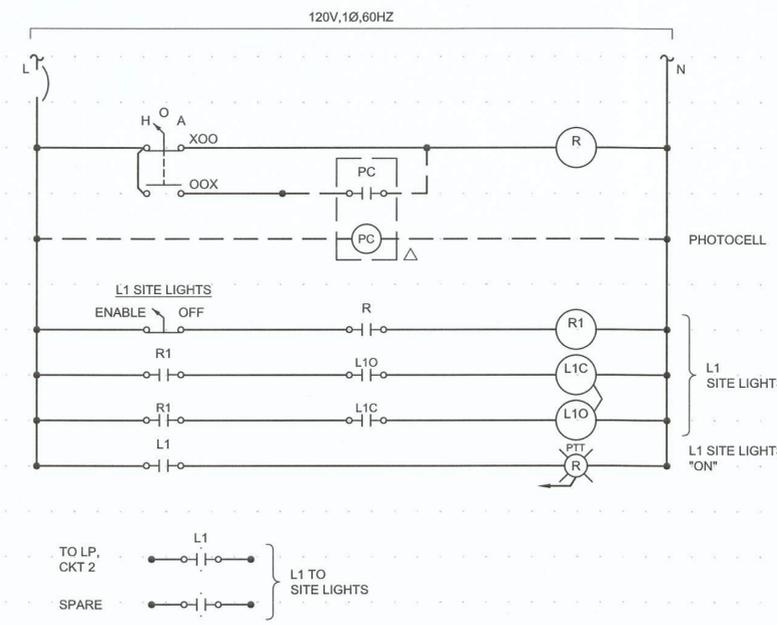
DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	E006



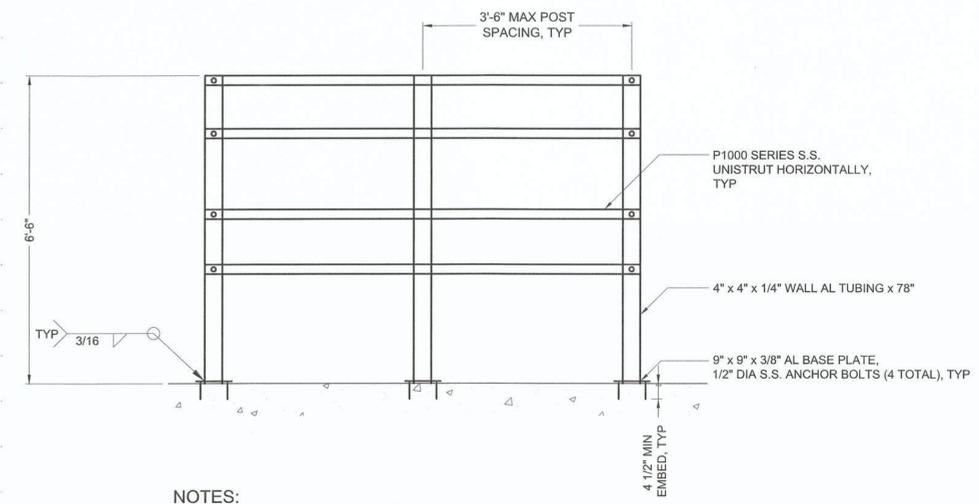
**PUMPS P-1, P-2**  
ELEMENTARY CONTROL SCHEMATIC



**EXHAUST FAN**  
ELEMENTARY CONTROL SCHEMATIC



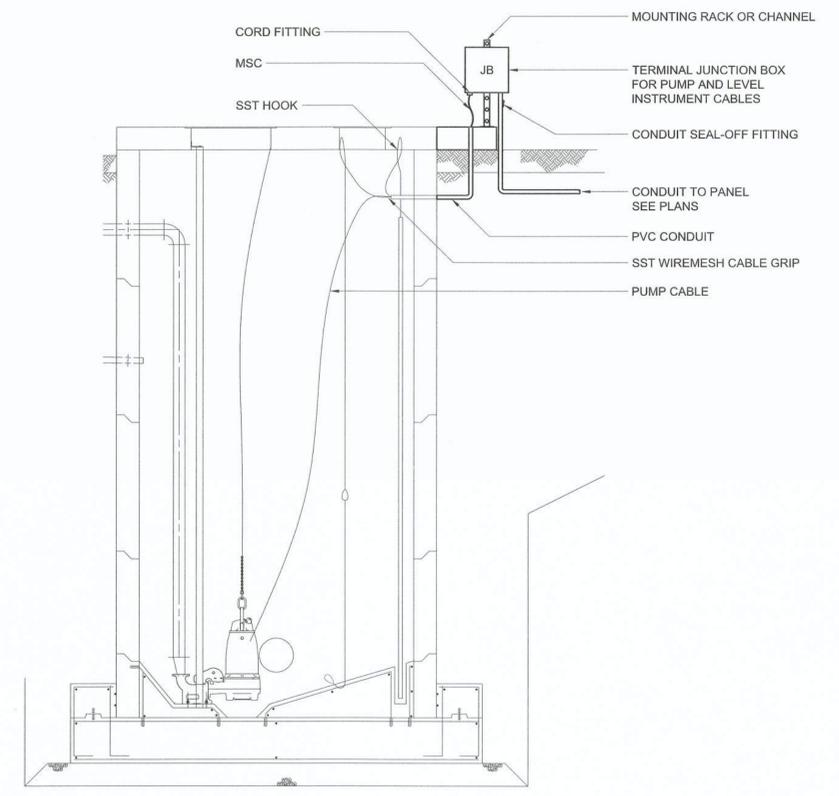
**LIGHTING CONTROLLER LCT**  
CONTROL SCHEMATIC DIAGRAM



NOTES:  
1. MAXIMUM LOADING IS 200 LBS BETWEEN EACH POST. EXTEND RACK WITH ADDITIONAL POSTS AS NECESSARY.

**EQUIPMENT MOUNTING RACK**

DETAIL	1
NTS	E200



**WET WELL CABLE TERMINATION**

DETAIL	2
NTS	E004

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1	CONSTRUCTION	05/2020	BCJ
REV	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	B. JONES	
DESIGNED BY:	N. MEYER	
DRAWN BY:	E. BODNAR	
CHECKED BY:	W. HOWELL	
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE		
0	1/2"	1"

ISSUED FOR CONSTRUCTION



GBPE LIC #: PE035647 EXP: 12/31/2020

**Hazen**  
HAZEN AND SAWYER  
5775 PEACHTREE DUNWOODY ROAD  
SUITE D-520  
ATLANTA, GEORGIA 30342

CLAYTON COUNTY WATER AUTHORITY  
MORROW, GEORGIA

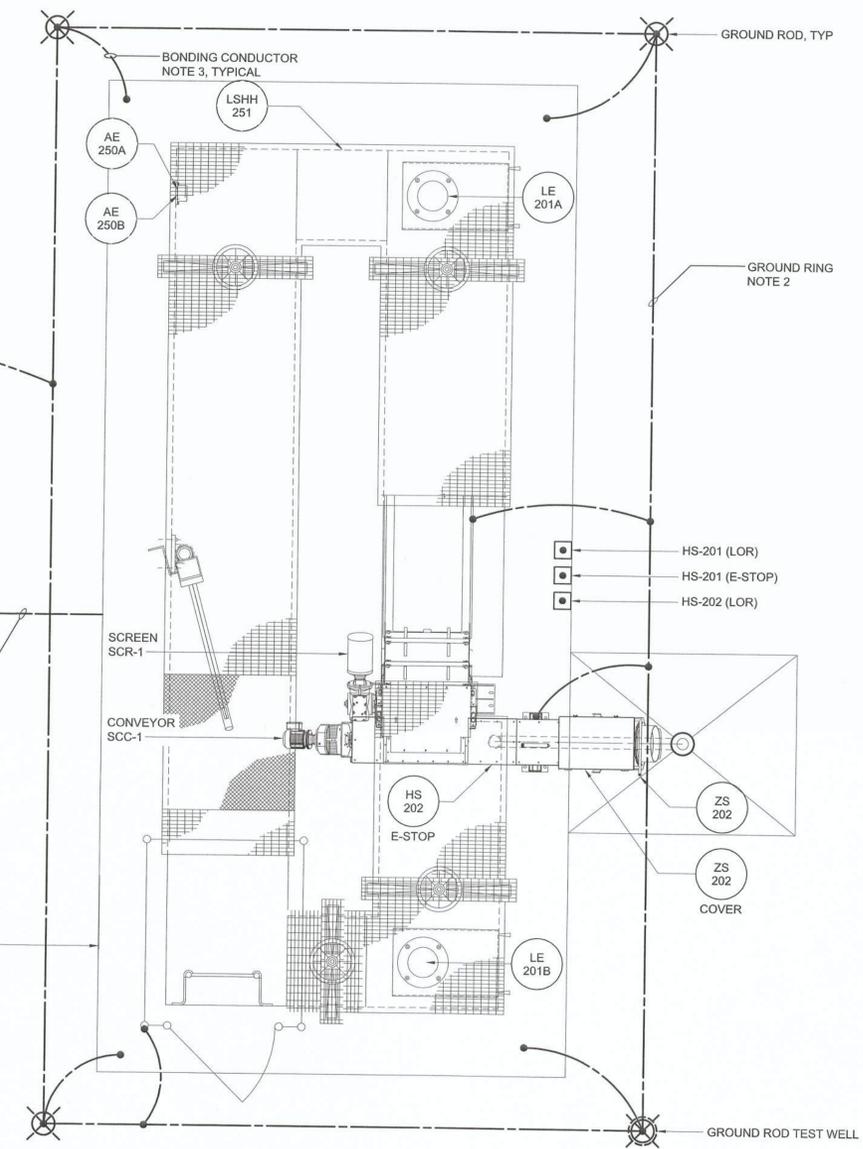
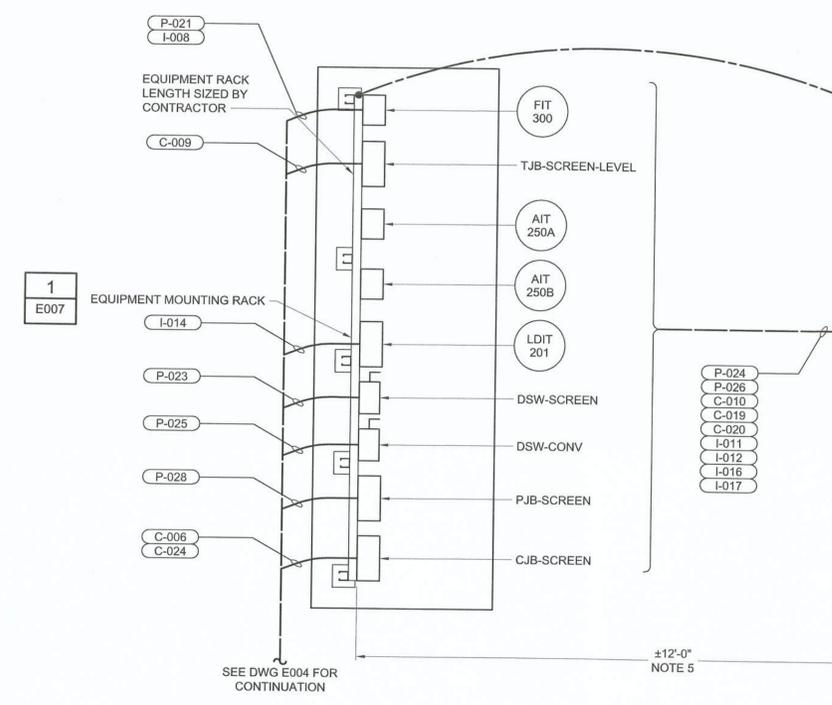
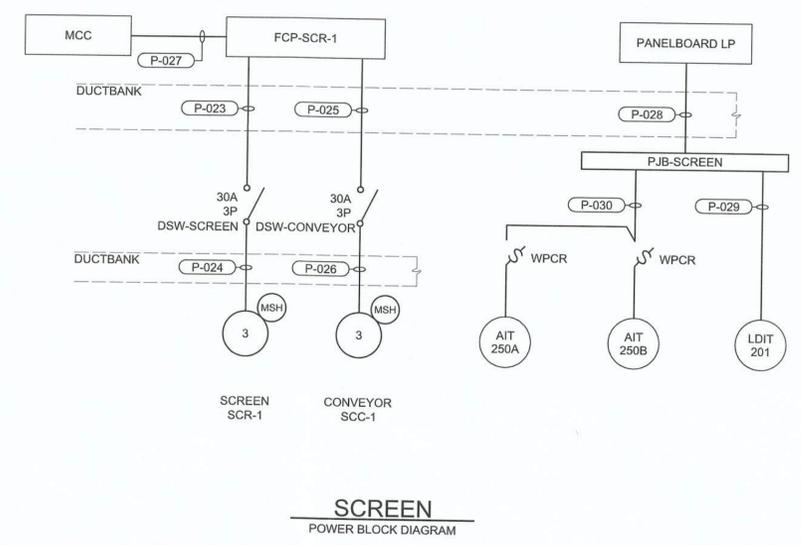
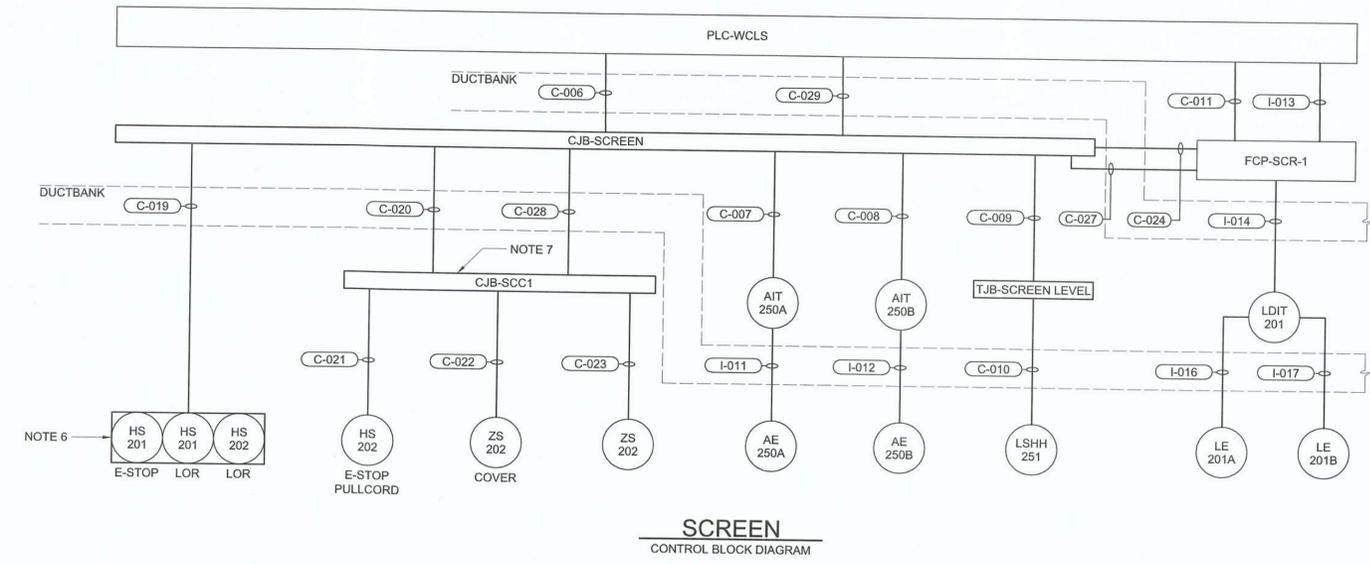
WALNUT CREEK LIFT STATION

ELECTRICAL  
SCHEMATIC DIAGRAMS  
AND DETAILS

DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	E007



- NOTES:**
- REFER TO N.E.C. ARTICLE 250.52(A)(3) FOR BONDING OF GROUND RING TO STRUCTURAL FOUNDATION REBAR.
  - PROVIDE #4/0 BARE COPPER WIRE GROUND RING CONDUCTOR BURIED 30" MINIMUM BELOW FINISHED GRADE.
  - UNLESS INDICATED OTHERWISE PROVIDE #2 BARE COPPER WIRE FOR BONDING CONDUCTORS.
  - EXOTHERMICALLY WELD EACH DUCT BANK GROUND CONDUCTOR TO THE GROUND RING CONDUCTOR
  - LOCATE THE EQUIPMENT RACK OUTSIDE THE EXTENDS OF THE HAZARDOUS ZONE
  - GANG TOGETHER THE HANDSWITCH BOXES.
  - FIELD LOCATE CJB-SCC1 AT THE CONVEYOR.



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 PLOT DATE: 4/30/2020 8:33 AM BY: NIEMEYER

PROJECT ENGINEER:	B. JONES			
DESIGNED BY:	N. MEYER			
DRAWN BY:	E. BODNAR			
CHECKED BY:	W. HOWELL			
DATE:	05/2020			
BY:	BCJ			
REV	ISSUED FOR	DATE	BY	SCALE
1	CONSTRUCTION	05/2020	BCJ	0 1/2" 1"
	ISSUED FOR	DATE	BY	

ISSUED FOR CONSTRUCTION

GBPE LIC #: PE035647 EXP: 12/31/2020

**Hazen**

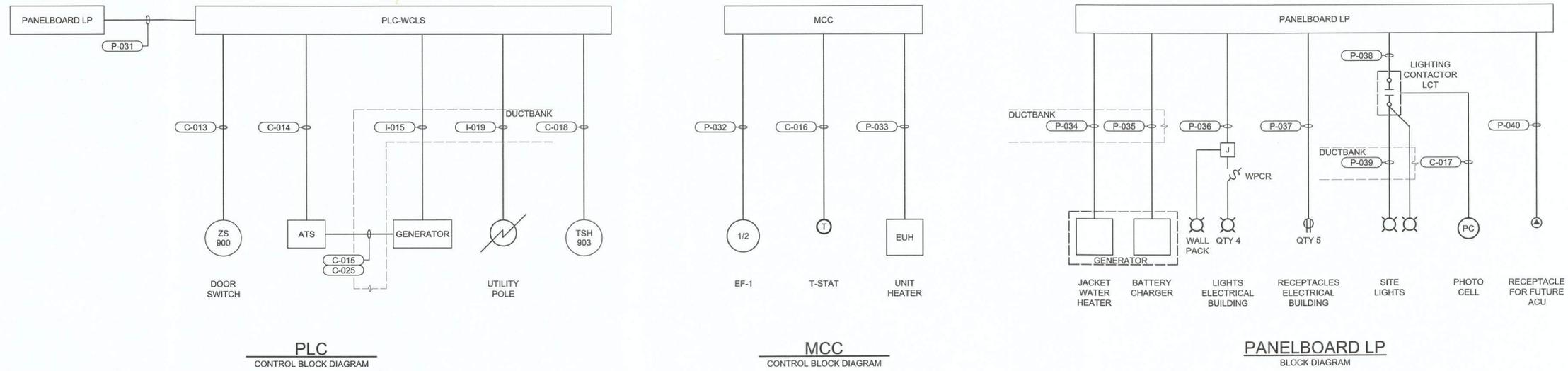
HAZEN AND SAWYER  
5775 PEACHTREE DUNWOODY ROAD  
SUITE D-520  
ATLANTA, GEORGIA 30342

CLAYTON COUNTY WATER AUTHORITY  
MORROW, GEORGIA

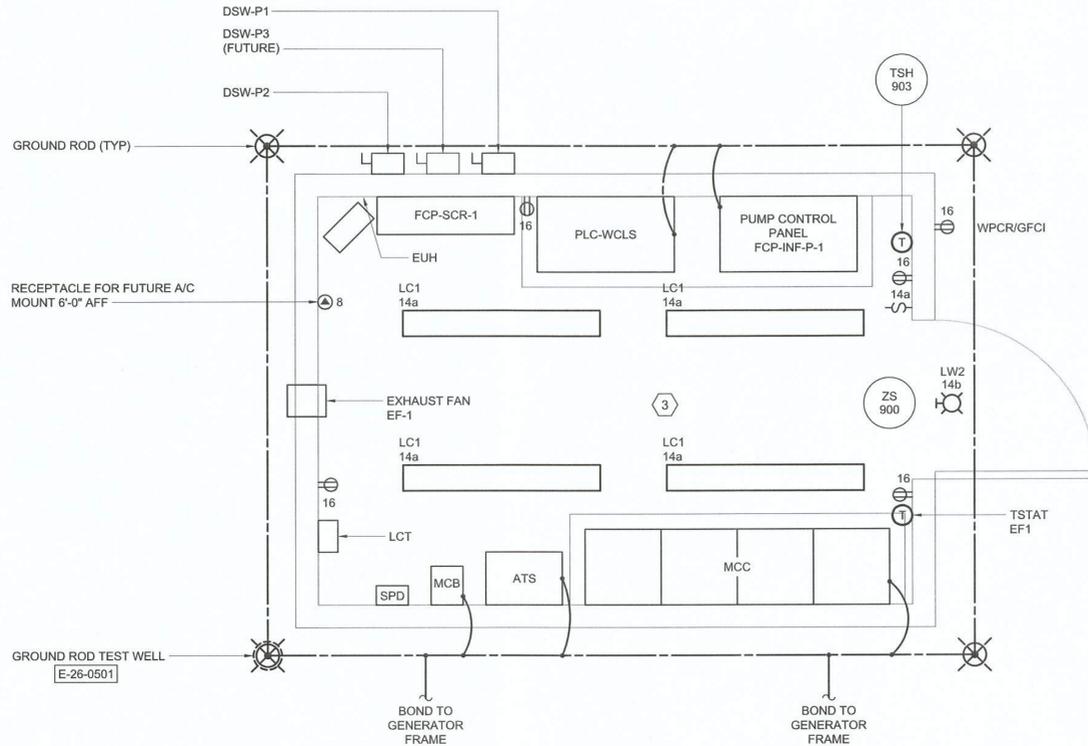
WALNUT CREEK LIFT STATION

SCREENING STRUCTURE  
ELECTRICAL  
PLAN AND BLOCK DIAGRAMS

DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	E200



- NOTES:**
- REFER TO N.E.C ARTICLE 250.52(A)(3) FOR BONDING OF GROUND RING TO STRUCTURAL FOUNDATION REBAR
  - PROVIDE #4/0 BARE COPPER WIRE GROUND RING CONDUCTOR BURIED 30" MINIMUM BELOW FINISHED GRADE
  - UNLESS INDICATED OTHERWISE PROVIDE #2 BARE COPPER WIRE FOR BONDING CONDUCTORS
  - EXOTHERMICALLY WELD EACH DUCT BANK GROUND CONDUCTOR TO THE GROUND RING CONDUCTOR
  - BOND TO THE GROUND RING CONDUCTOR ALL TRANSFORMERS, MOTOR CONTROL CENTERS, SWITCHBOARDS, AND PANELBOARDS
  - MOUNT FIXTURE TYPE LW2 6" ABOVE DOOR FRAME
  - LIGHTS AND RECEPTACLES ARE POWERED FROM THE INDICATED CIRCUITS IN PANELBOARD LP. PROVIDE #12 WIRE WITH A #12 GROUND IN 3/4" CONDUIT.
  - SEE SITE PLAN AND DWGS E100 AND E200 FOR DUCT BANK CONDUITS ENTERING THE ELECTRICAL BUILDING



- AREA DESIGNATIONS:**
- ① INDOOR WET PROCESS AREA
  - ② INDOOR DRY PROCESS AREA
  - ③ INDOOR DRY NON-PROCESS AREA

**POWER AND LIGHTING PLAN**  
1/2" = 1'-0"

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PROJECT ENGINEER:	B. JONES		
DESIGNED BY:	N. MEYER		
DRAWN BY:	E. BODNAR		
CHECKED BY:	W. HOWELL		
1	CONSTRUCTION	05/2020	BCJ
REV	ISSUED FOR	DATE	BY

ISSUED FOR CONSTRUCTION

GBPE LIC #: PE035647 EXP: 12/31/2020

**Hazen**

HAZEN AND SAWYER  
5775 PEACHTREE DUNWOODY ROAD  
SUITE D-520  
ATLANTA, GEORGIA 30342

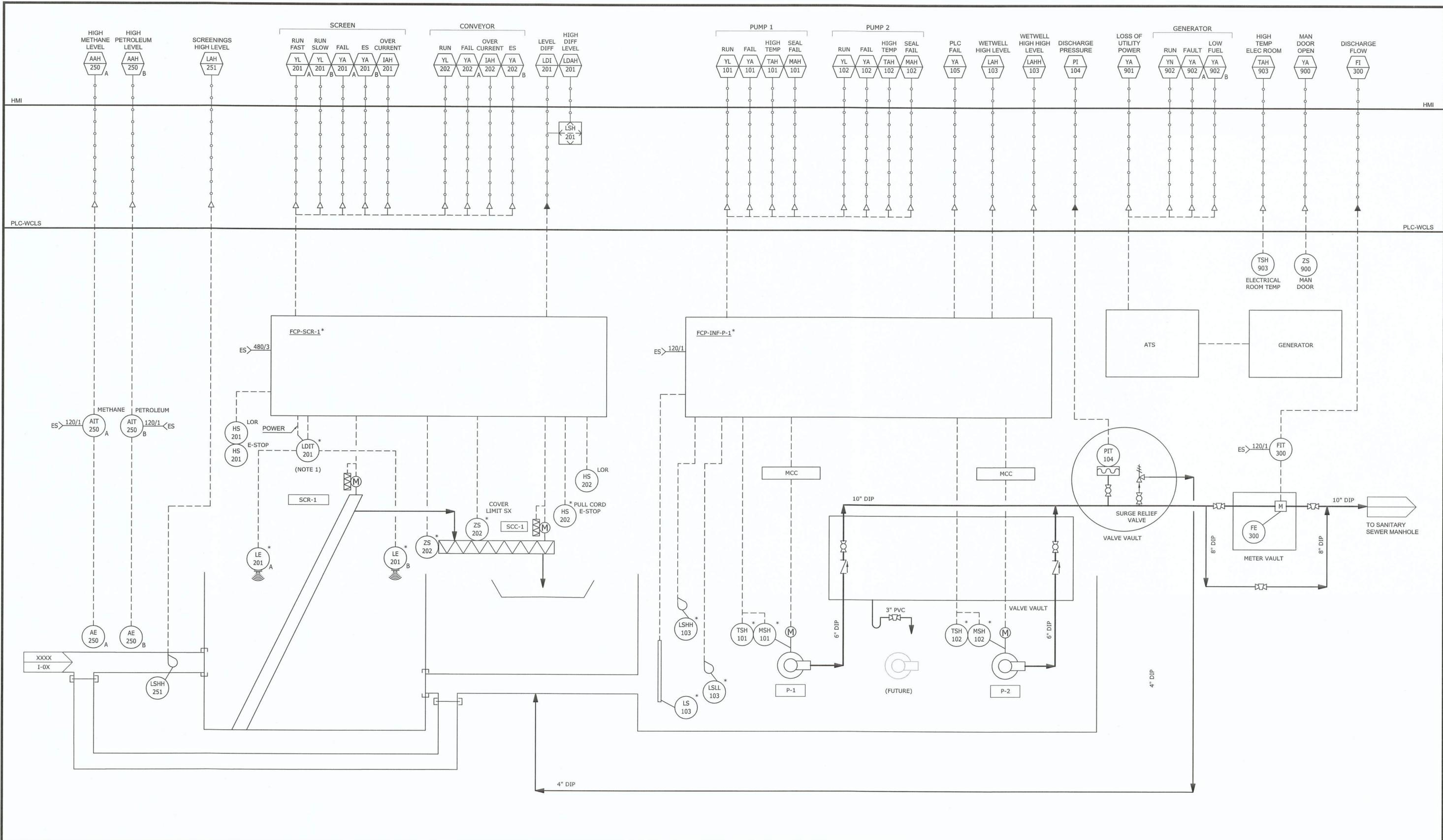
CLAYTON COUNTY WATER AUTHORITY  
MORROW, GEORGIA

WALNUT CREEK LIFT STATION

ELECTRICAL BUILDING  
ELECTRICAL  
PLAN AND BLOCK DIAGRAMS

DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	E300





File: C:\32457-ATL\32457-008\CAD\_BIM\INSTRUMENTATION\101 Saved by: MMCCANN Save date: 4/17/2020 10:21 AM  
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REV	ISSUED FOR	DATE	BY
1	CONSTRUCTION	05/2020	BCJ
	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	B. JONES
DESIGNED BY:	M. MCCANN
DRAWN BY:	M. MCCANN
CHECKED BY:	R. SHERMAN
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	

ISSUED FOR CONSTRUCTION

GBPE LIC #: PE035647 EXP: 12/31/2020

HAZEN AND SAWYER  
5775 PEACHTREE DUNWOODY ROAD  
SUITE D-520  
ATLANTA, GEORGIA 30342

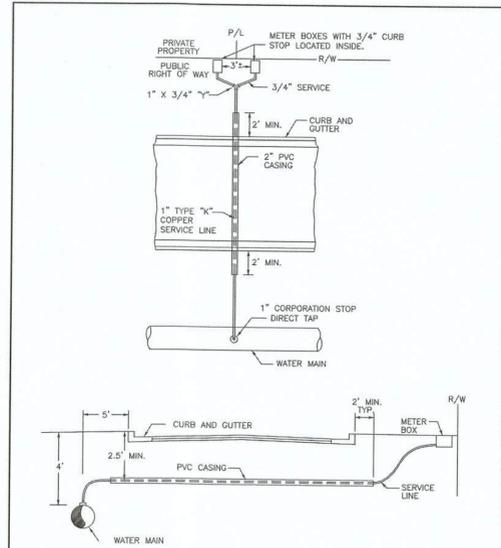
CLAYTON COUNTY WATER AUTHORITY  
MORROW, GEORGIA

WALNUT CREEK LIFT STATION

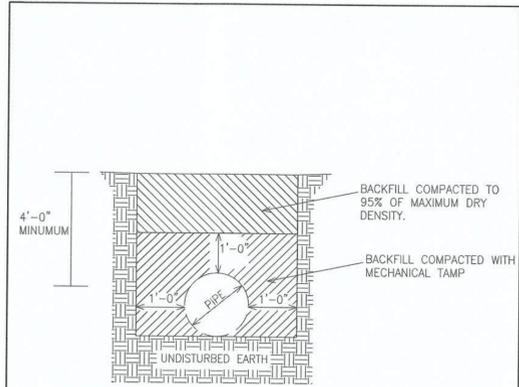
PROCESS AND INSTRUMENTATION DIAGRAM

INFLUENT SCREENING AND PUMP STATION

DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	1101

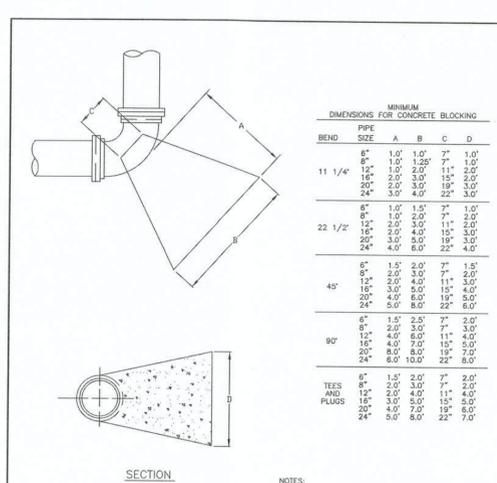


CLAYTON COUNTY WATER AUTHORITY		
DATE:	12 FEBRUARY 2002	DETAIL TITLE:
SCALE:	N.T.S.	DETAIL NO.:
DRAWN BY:	SRD	LONG SIDE SERVICE
		2.1



NOTES: UNSUITABLE SOILS ENCOUNTERED IN BOTTOM OF EXCAVATED TRENCH SHALL BE EXCAVATED & REPLACED WITH NO. 57 STONE.  
ONLY SUITABLE SOIL SHALL BE USED AS BACKFILL.

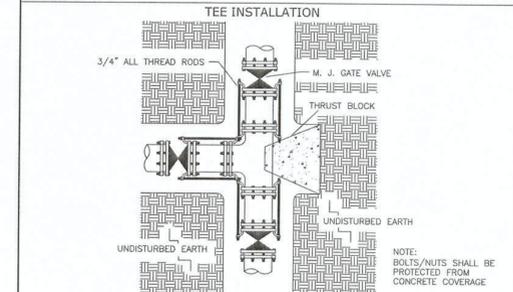
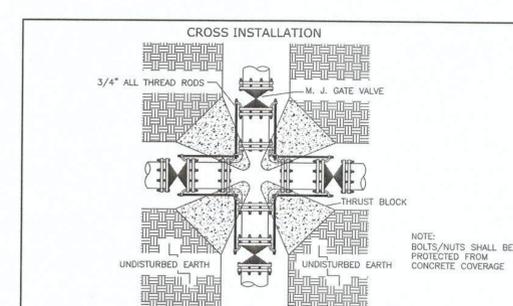
CLAYTON COUNTY WATER AUTHORITY		
DATE:	12 FEBRUARY 2002	DETAIL TITLE:
SCALE:	N.T.S.	DETAIL NO.:
DRAWN BY:	SRD	TYPICAL DUCTILE IRON PIPE BEDDING
		8.1



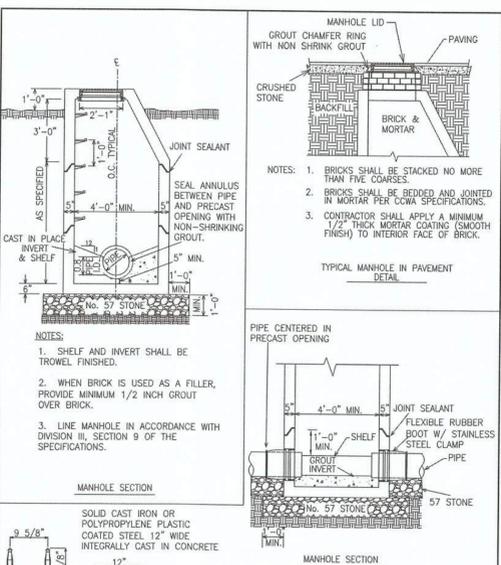
BEND	PIPE SIZE	MINIMUM DIMENSIONS FOR CONCRETE BLOCKING			
		A	B	C	D
11	8"	1.0'	1.0'	7"	1.0'
	12"	1.0'	1.50'	7"	1.0'
	16"	1.0'	2.0'	11"	2.0'
	20"	2.0'	3.0'	19"	3.0'
22	8"	1.0'	1.5'	7"	1.0'
	12"	1.0'	2.0'	7"	2.0'
	16"	2.0'	4.0'	15"	3.0'
	20"	3.0'	5.0'	19"	3.0'
45	8"	1.5'	2.0'	7"	1.5'
	12"	2.0'	4.0'	11"	3.0'
	16"	3.0'	5.0'	15"	4.0'
	20"	4.0'	6.0'	19"	5.0'
90	8"	1.5'	2.5'	7"	2.0'
	12"	2.0'	3.0'	7"	3.0'
	16"	4.0'	7.0'	15"	5.0'
	20"	5.0'	8.0'	19"	7.0'
TEES AND FLUGS	8"	1.5'	2.0'	7"	2.0'
	12"	2.0'	3.0'	7"	3.0'
	16"	4.0'	7.0'	15"	4.0'
	20"	4.0'	7.0'	19"	6.0'

NOTES:  
1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS.  
2. THRUST BLOCK SHALL BE POURED AGAINST UNDISTURBED SOIL.  
3. BOLTS/NUTS SHALL BE PROTECTED FROM CONCRETE COVERAGE.

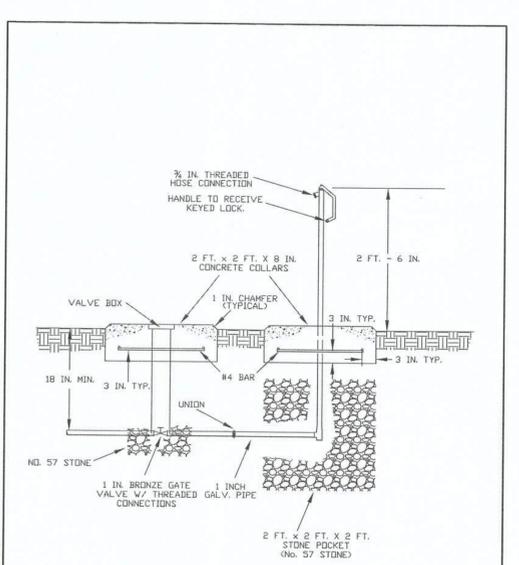
CLAYTON COUNTY WATER AUTHORITY		
DATE:	12 FEBRUARY 2002	DETAIL TITLE:
SCALE:	N.T.S.	DETAIL NO.:
DRAWN BY:	SRD	THRUST BLOCK DIMENSIONS
		9.1



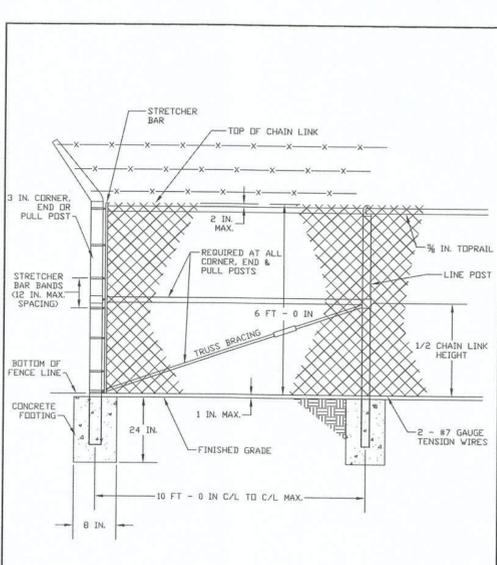
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DATE:	12 FEBRUARY 2002	DETAIL TITLE:
SCALE:	N.T.S.	DETAIL NO.:
DRAWN BY:	SRD	THRUST RESTRAINT AT FITTING
		10.1



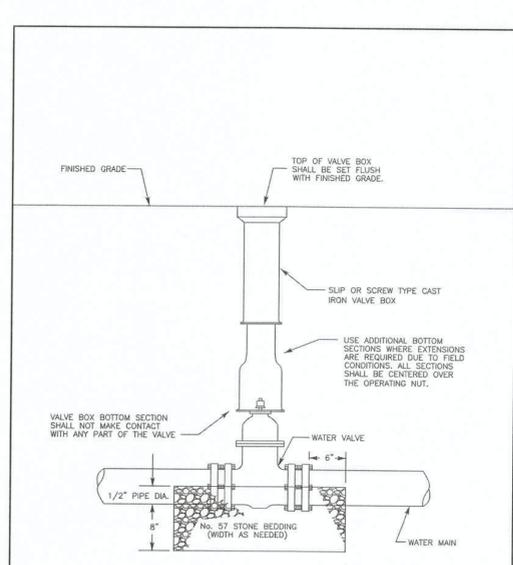
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DATE:	12 FEBRUARY 2002	DETAIL TITLE:
DATE MODIFIED:	5 JANUARY 2004	DETAIL NO.:
SCALE:	N.T.S.	DETAIL NO.:
DRAWN BY:	SRD	MANHOLE SECTIONS
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CLAYTON COUNTY WATER AUTHORITY		
DATE:	12 FEBRUARY 2002	DETAIL TITLE:
SCALE:	N.T.S.	DETAIL NO.:
DRAWN BY:	SRD	YARD HYDRANT
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CLAYTON COUNTY WATER AUTHORITY		
DATE:	12 FEBRUARY 2002	DETAIL TITLE:
SCALE:	N.T.S.	DETAIL NO.:
DRAWN BY:	SRD	CHAIN LINK FENCE
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CLAYTON COUNTY WATER AUTHORITY		
DATE:	12 FEBRUARY 2002	DETAIL TITLE:
SCALE:	N.T.S.	DETAIL NO.:
DRAWN BY:	SRD	VALVE BOX
		6.1

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PROJECT ENGINEER:	B. JONES
DESIGNED BY:	B. JONES
DRAWN BY:	B. JONES
CHECKED BY:	A. BOWLING
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

ISSUED FOR CONSTRUCTION



**Hazen**  
HAZEN AND SAWYER  
5775 PEACHTREE DUNWOODY ROAD  
SUITE D-520  
ATLANTA, GEORGIA 30342

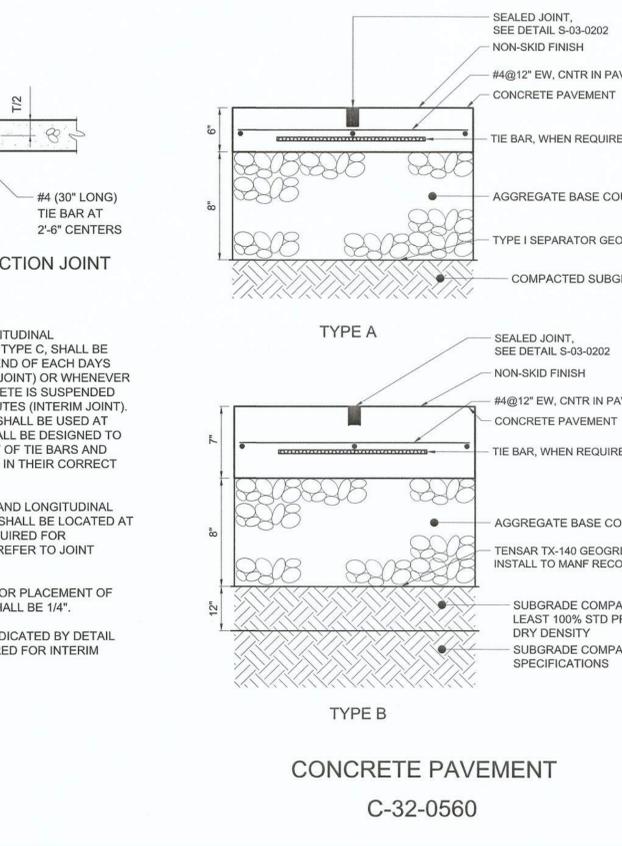
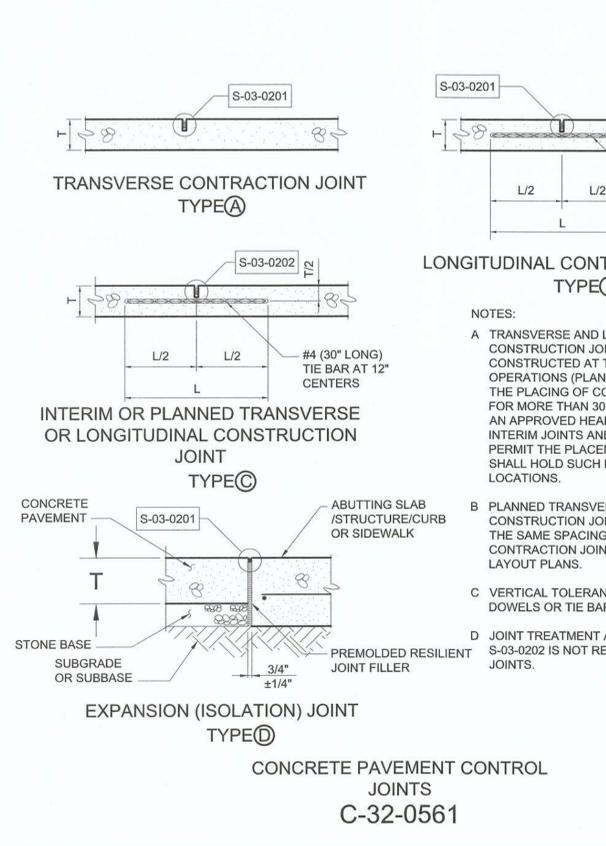
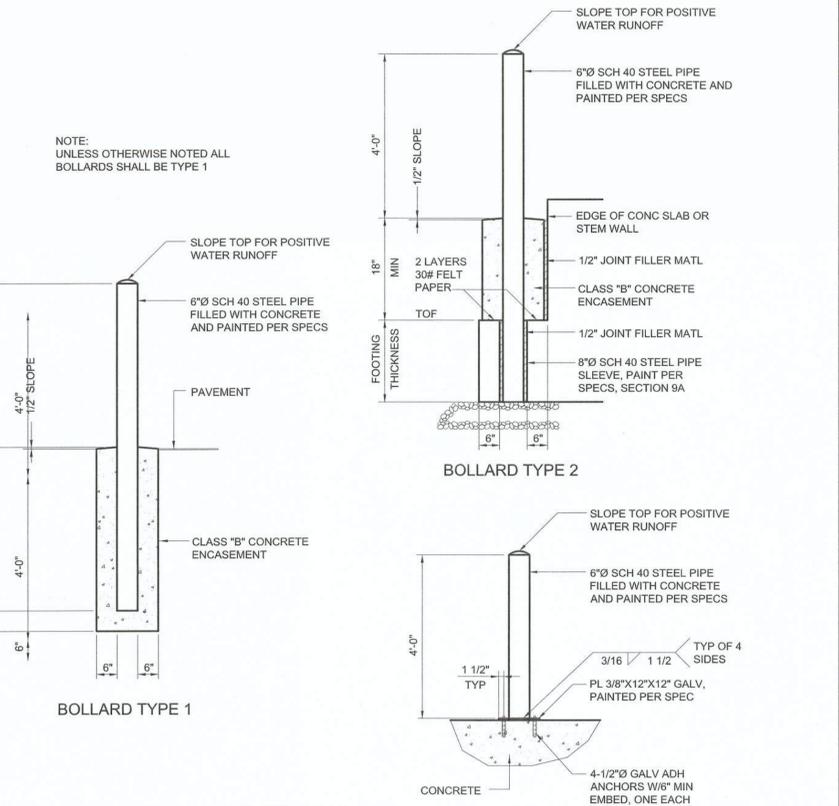
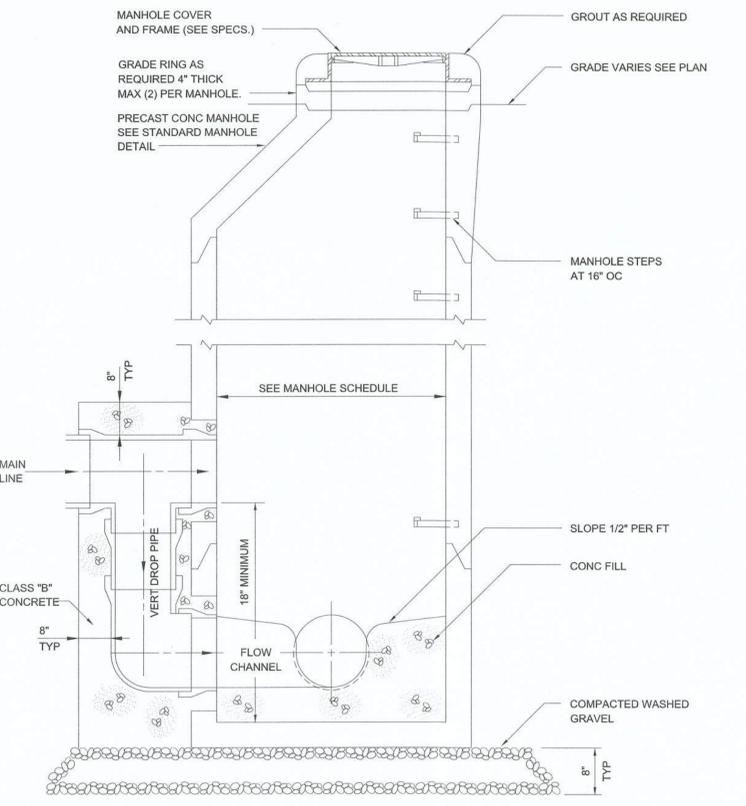
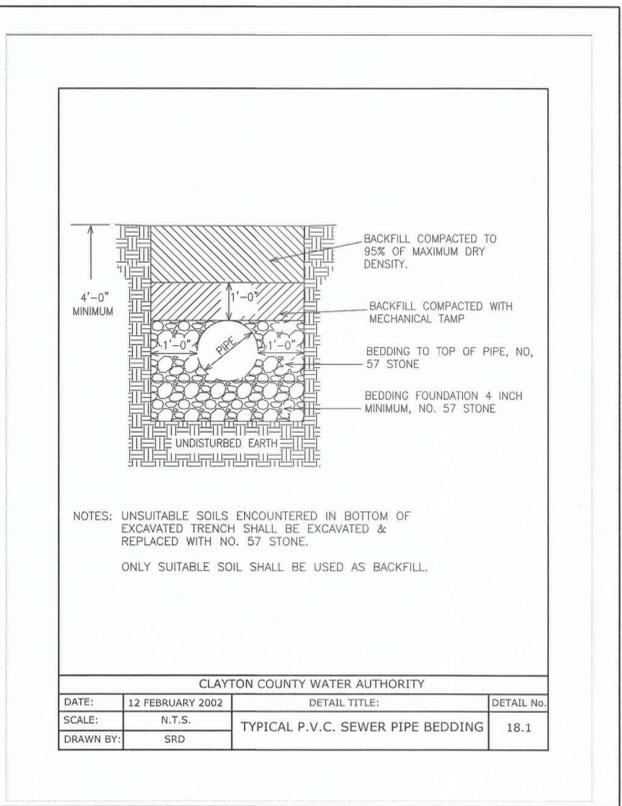
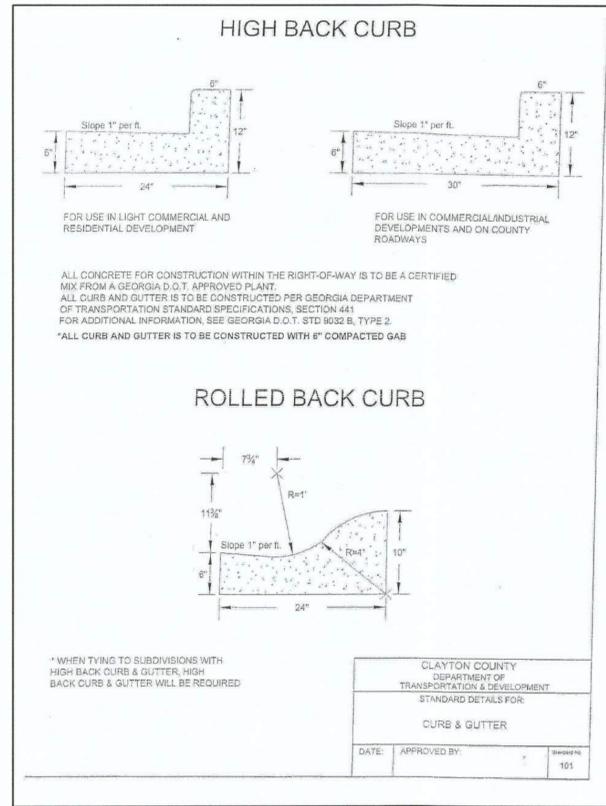
CLAYTON COUNTY WATER AUTHORITY  
MORROW, GEORGIA

WALNUT CREEK LIFT STATION

STANDARD DETAILS

SHEET 1

DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	D001



1	CONSTRUCTION	05/2020	BCJ	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"
REV	ISSUED FOR	DATE	BY		

ISSUED FOR CONSTRUCTION

GBPE LIC #: PE035647 EXP: 12/31/2020

# Hazen

HAZEN AND SAWYER  
5775 PEACHTREE DUNWOODY ROAD  
SUITE D-520  
ATLANTA, GEORGIA 30342

CLAYTON COUNTY WATER AUTHORITY  
MORROW, GEORGIA

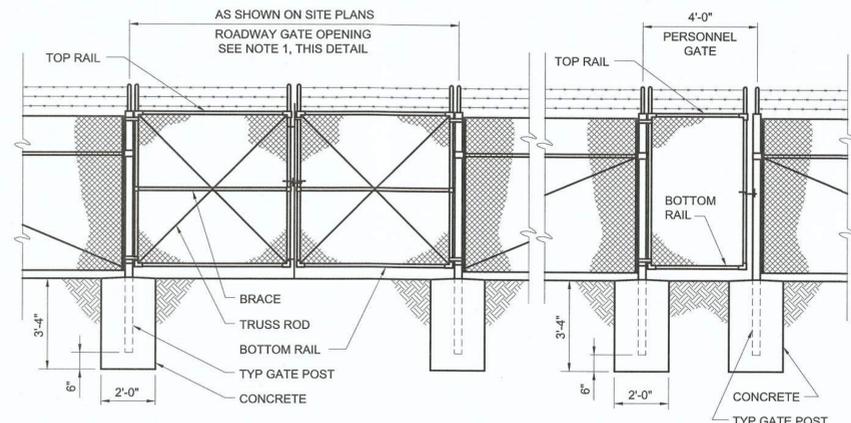
WALNUT CREEK LIFT STATION

STANDARD DETAILS

SHEET 2

DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	D002

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ROADWAY GATE

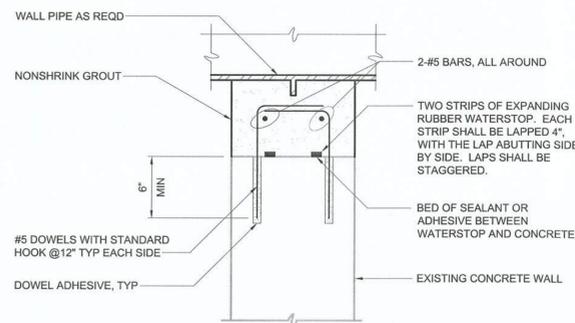
PERSONNEL GATE

CHAIN LINK FENCE GATES

C-32-0500R

NOTES:

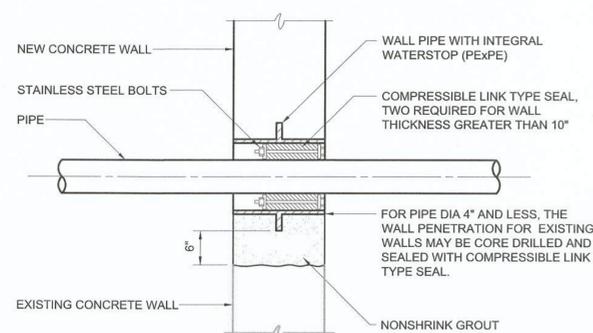
1. PROVIDE LATCHING DEVICES TO HOLD GATES IN OPEN POSITION.
2. IF ROCK IS ENCOUNTERED WHEN SETTING POSTS, DRILL HOLES 4 INCHES LARGER IN DIAMETER THAN POSTS AND BACKFILL TO GRADE WITH CLASS "B" CONCRETE.



NOTES:  
ALL OPENINGS SHALL BE SAWCUT OR (SINGLE) CORE DRILLED AS REQUIRED. USE OF JACKHAMMERS OR STITCH DRILLING IS NOT PERMITTED. THE PERIMETER SURFACE OF THE OPENING SHALL BE SMOOTH.

WATERSTOP

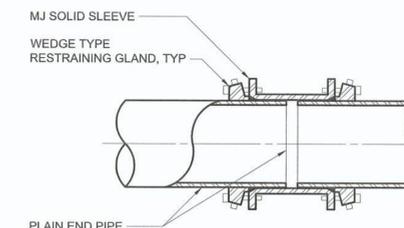
M-40-0208



M-40-0111

NOTES:

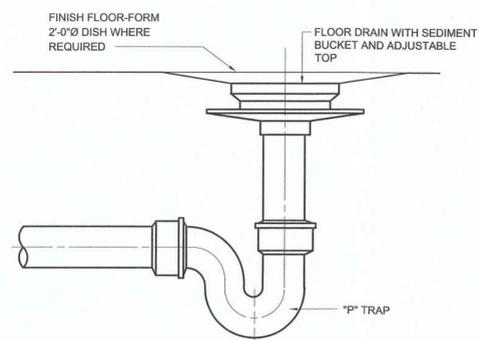
1. ALL WALL PIPES SHALL BE CAST UNLESS OTHERWISE NOTED.
2. PROVIDE PIPE JOINT WITHIN TWO (2) FEET OF EXTERIOR FACE OF WALL AT CONNECTION TO ALL NEW AND EXISTING STRUCTURES OR MANHOLES.
3. COMBINATION WATERSTOP SHALL BE REQUIRED AT ALL NEW PIPE PENETRATIONS THROUGH EXISTING CONCRETE WALLS UNLESS OTHERWISE INDICATED ON THE CONTRACT DRAWINGS. SEE COMBINATION WATERSTOP DETAIL M-40-0208.
4. ALL NEW OPENINGS IN EXISTING CONCRETE WALLS SHALL BE ACCOMPLISHED WITH A CLEAN SAW-CUT. SURFACES SHALL BE ROUGHENED BY APPROVED METHODS.



NOTE:  
CONTRACTOR MAY USE EBAA IRON 3800 MEGA-COUPLING IN LIEU OF COMPONENTS SHOWN. ALL RODS AND RESTRAINING HARDWARE SHALL BE PAINTED WITH TWO COATS COAL TAR (MIN 28 DRY MIL THICKNESS) TNEC 46-465 HI-BUILD OR EQUAL.

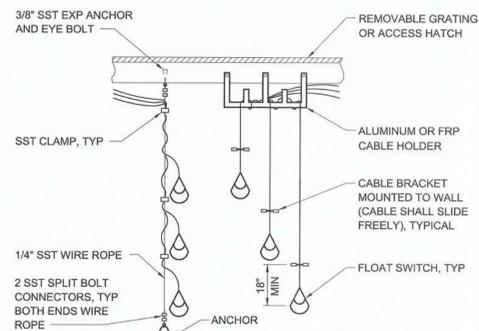
RESTRAINED MJ SOLID SLEEVE

M-40-0700



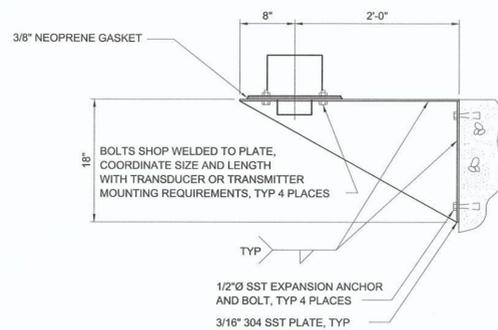
FLOOR DRAIN

M-22-0202



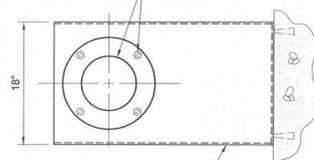
TYPICAL LEVEL SWITCH MOUNTING DETAILS

I-40-0201



SECTION

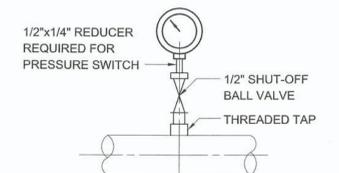
COORDINATE HOLE LOCATIONS AND SIZES WITH TRANSDUCER OR TRANSMITTER MOUNTING REQUIREMENTS



PLAN VIEW

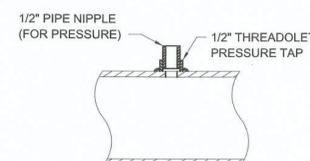
ULTRASONIC LEVEL TRANSDUCER WALL MOUNTING DETAIL

I-40-0212



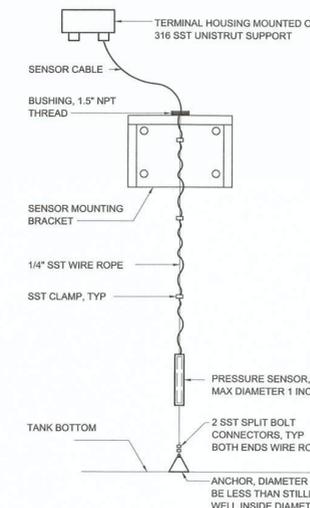
PRESSURE GAUGE OR SWITCH INSTALLATION WITH THREADED TAP (SHOWN WITHOUT DIAPHRAGM SEAL) USED FOR PIPES 2" AND LARGER

I-40-0302



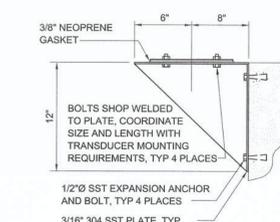
PRESSURE TAP

I-40-0301

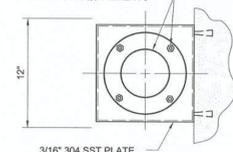


SUBMERSIBLE LEVEL (PRESSURE) TRANSMITTER OPEN TANK WALL MOUNTING DETAIL

I-40-0219



COORDINATE HOLE LOCATIONS AND SIZES WITH TRANSDUCER OR TRANSMITTER MOUNTING REQUIREMENTS



STILLING WELL MOUNTING BRACKET

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REV	ISSUED FOR	DATE	BY
1	CONSTRUCTION	05/2020	BCJ
	ISSUED FOR	DATE	BY

PROJECT ENGINEER:	B. JONES
DESIGNED BY:	B. JONES
DRAWN BY:	B. JONES
CHECKED BY:	A. BOWLING
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

ISSUED FOR CONSTRUCTION

GBPE LIC #: PE035647 EXP: 12/31/2020

**Hazen**

HAZEN AND SAWYER  
5775 PEACHTREE DUNWOODY ROAD  
SUITE D-520  
ATLANTA, GEORGIA 30342

CLAYTON COUNTY WATER AUTHORITY  
MORROW, GEORGIA

WALNUT CREEK LIFT STATION

STANDARD DETAILS

SHEET 3

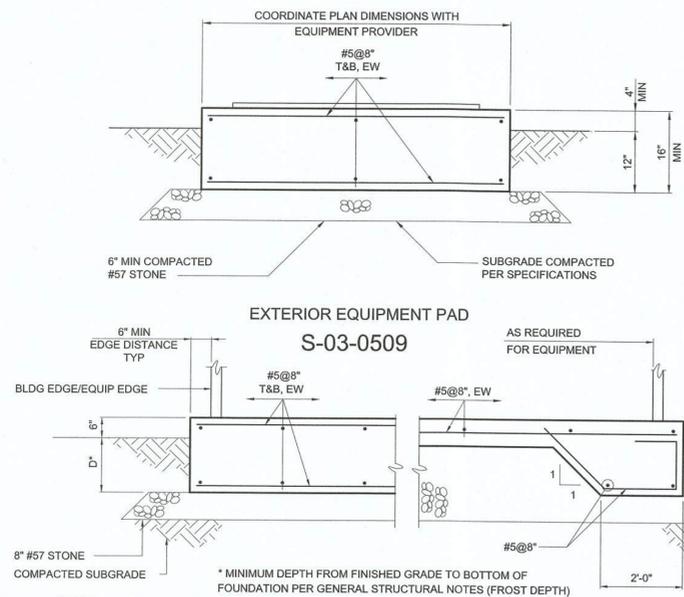
DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	D003

BASIC DEVELOPMENT LENGTH AND SPLICE LENGTH FOR UNCOATED BARS IN TENSION							
** BASED ON MATERIALS AND CONDITIONS AS FOLLOWS: fy = 60,000 psi CLEAR COVER ≥ 1.5 INCHES      fc' = 4000 psi OR GREATER NORMAL WEIGHT CONCRETE							
BASIC DEVELOPMENT LENGTH ld				BAR SIZE	CLASS B SPLICE LENGTH 1.3 x ld		
CLEAR SPACING ≥ 3"		CLEAR SPACING < 3"			CLEAR SPACING ≥ 3"		CLEAR SPACING < 3"
BASIC	TOP *	BASIC	TOP *	BASIC	TOP *	BASIC	TOP *
1'-0"	1'-0"	1'-0"	1'-4"	# 3	1'-0"	1'-4"	1'-8"
1'-0"	1'-3"	1'-7"	2'-1"	# 4	1'-3"	1'-8"	2'-9"
1'-3"	1'-7"	2'-4"	3'-0"	# 5	1'-7"	2'-0"	3'-11"
1'-6"	1'-11"	3'-1"	4'-0"	# 6	1'-11"	2'-5"	5'-2"
2'-5"	3'-1"	4'-11"	6'-4"	# 7	3'-1"	4'-0"	8'-3"
3'-0"	3'-11"	6'-0"	7'-9"	# 8	3'-11"	5'-1"	7'-9"
3'-8"	4'-9"	6'-9"	8'-9"	# 9	4'-9"	6'-3"	11'-4"
4'-6"	5'-10"	7'-7"	9'-10"	# 10	5'-10"	7'-7"	12'-8"
5'-5"	7'-0"	8'-5"	10'-11"	# 11	7'-0"	9'-1"	14'-2"

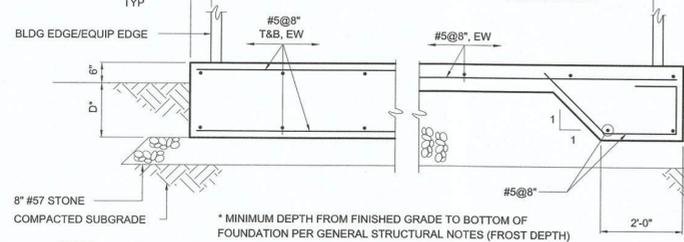
\* TOP REINFORCEMENT IS ANY HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE REINFORCEMENT.

\*\* FOR MATERIALS OR CONDITIONS DIFFERENT FROM THOSE STATED, LENGTHS SHOWN IN CHART SHALL BE MODIFIED TO CONFORM TO THE PROVISIONS OF ACI 318-14, SECTION 25.3.

S-03-0103



S-03-0509

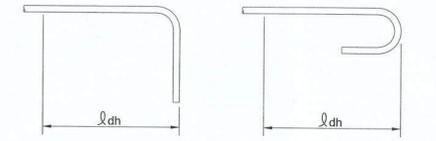


S-03-0508

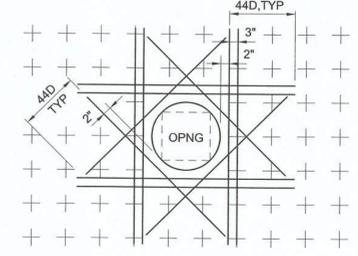


DEVELOPMENT LENGTH OF STANDARD HOOKS FOR UNCOATED BARS IN TENSION		
fy = 60,000 psi      fc' = 4000 psi OR GREATER		
BAR SIZE	DEVELOPMENT LENGTH, ldh	
	BASIC	W/ CONC COVER *
#3	8"	6"
#4	10"	7"
#5	1'-0"	9"
#6	1'-3"	11"
#7	1'-5"	11'-0"
#8	1'-7"	1'-2"
#9	1'-10"	1'-4"
#10	2'-1"	1'-6"
#11	2'-3"	1'-7"

\* SIDE COVER NORMAL TO PLANE OF HOOK AT LEAST 2 1/2"; AND FOR 90° HOOK, END COVER BEYOND OUTSIDE END OF HOOK AT LEAST 2".

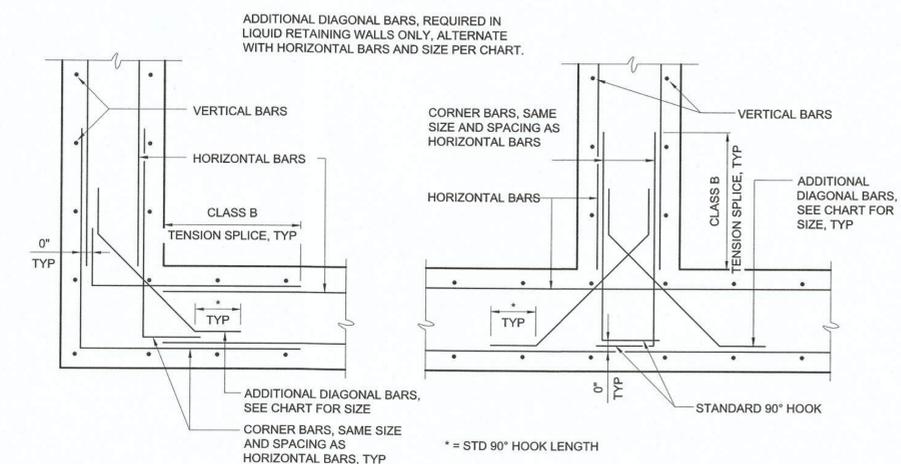


S-03-0102

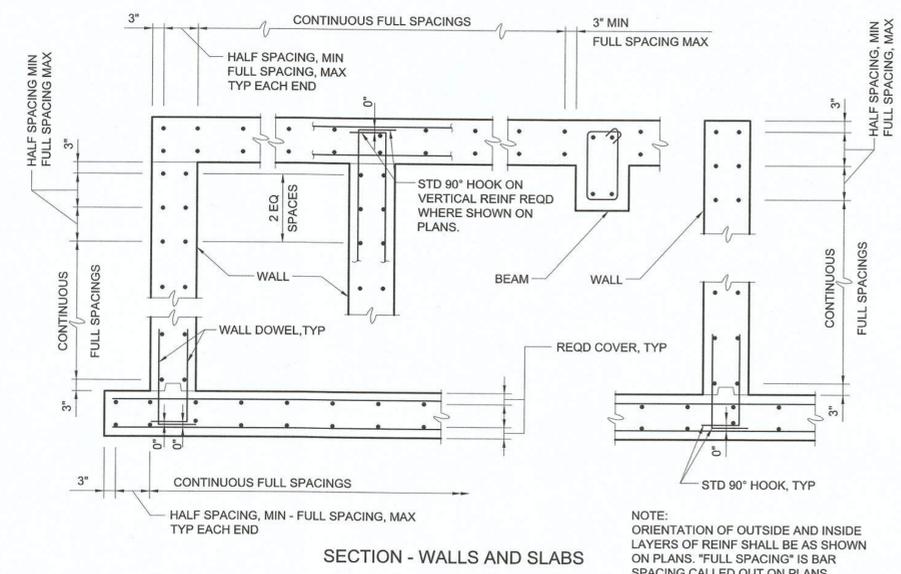


- NOTES:
- THIS DETAIL APPLIES FOR OPENINGS 8"Ø AND LARGER. FOR SMALLER OPENINGS, BEND BARS OR ADJUST SPACING OF REINFORCEMENT TO AVOID OPENING.
  - PLACE EXTRA BARS OF THE SAME SIZE AS THE INTERRUPTED BARS AT EACH SIDE OF OPENING. QUANTITY OF EXTRA BARS AT EACH SIDE SHALL EQUAL HALF THE QUANTITY OF INTERRUPTED BARS EXCEPT WHERE NOTED OTHERWISE.
  - PROVIDE ONE DIAGONAL BAR EACH SIDE OF OPENING WITH SIZE EQUAL TO MAIN REINFORCEMENT, TYPICAL EACH FACE.
  - WHERE INVERT OF OPENING IN WALL IS LESS THAN 44 BAR DIAMETERS FROM TOP OF SLAB, EXTRA REINFORCEMENT ON EACH SIDE SHALL INCLUDE DOWELS EMBEDDED INTO SLAB WITH STANDARD 90 DEGREE HOOKS TO SPLICE WITH EXTRA VERTICAL REINFORCEMENT. DOWELS SHALL ALSO STILL BE PROVIDED BELOW OPENING.
  - WHERE INVERT OF OPENING IN WALL OR SLAB IS CLOSER THAN 44 BAR DIAMETERS TO EDGE OF SLAB OR BOTTOM OF WALL, EXTRA DIAGONAL BARS MAY BE TERMINATED TWO INCHES FROM EDGE OF SLAB OR BOTTOM OF WALL. DOWELS DO NOT HAVE TO BE PROVIDED TO SPLICE WITH DIAGONAL BARS.

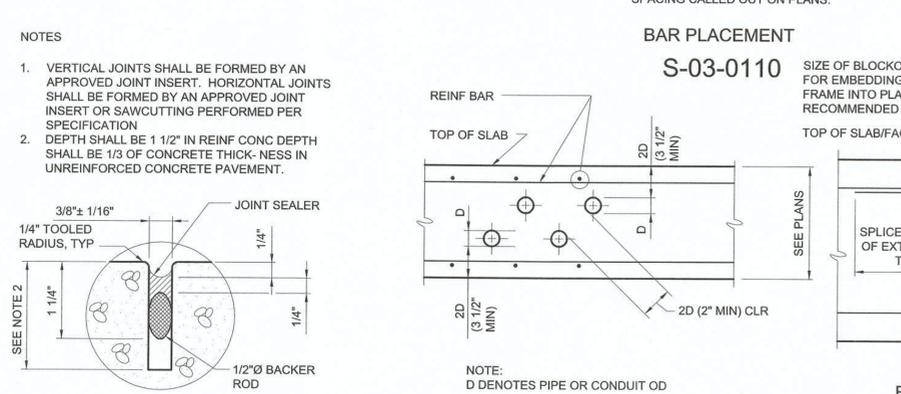
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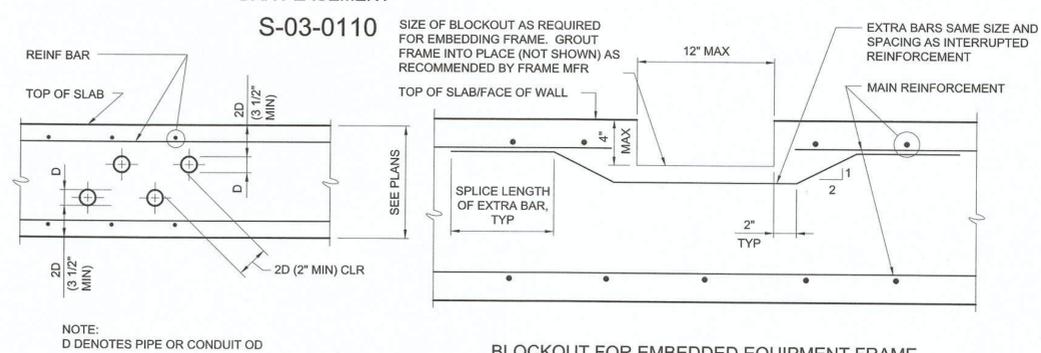
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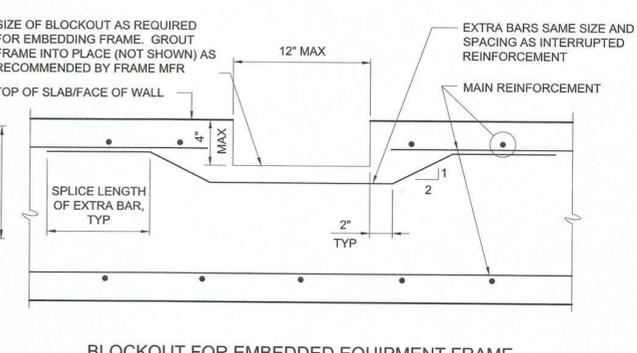
S-03-0110



S-03-0202



S-03-0403



S-03-0902

DIAGONAL BAR SIZE CHART	
BAR SIZE - HORIZONTAL REINFORCEMENT	BAR SIZE - DIAGONAL REINFORCEMENT
# 3	# 3
# 4	# 3
# 5	# 4
# 6	# 5
# 7	# 5
# 8	# 6
# 9	# 7
# 10	# 8
# 11	# 9

AT LOCATIONS WHERE DIFFERENT SIZE HORIZONTAL BARS CONVERGE, THE LARGER BAR SIZE SHALL CONTROL

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 Plot Date: 5/6/2020 12:15 PM by: JBURROUGHS

PROJECT ENGINEER:	B. JONES
DESIGNED BY:	B. JONES
DRAWN BY:	B. JONES
CHECKED BY:	A. BOWLING
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"

ISSUED FOR CONSTRUCTION

5/6/2020  
GBPE LIC #: PE035647 EXP: 12/31/2020

**Hazen**  
HAZEN AND SAWYER  
5775 PEACHTREE DUNWOODY ROAD  
SUITE D-520  
ATLANTA, GEORGIA 30342

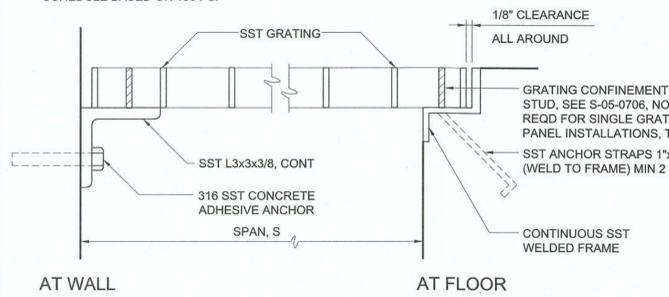
CLAYTON COUNTY WATER AUTHORITY  
MORROW, GEORGIA  
WALNUT CREEK LIFT STATION

STANDARD DETAILS  
SHEET 4

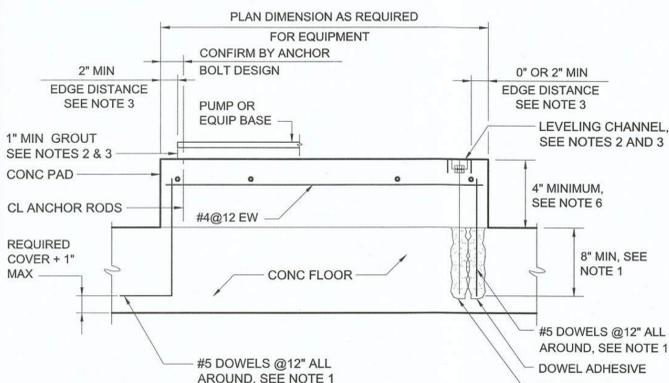
DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	D004

SPAN, S	DEPTH (MIN)	CONCRETE ANCHOR (SIZE AND SPACING)
0'-0" < S ≤ 4'-0"	1 1/2"	5/8"Øx6" @ 18"
4'-0" < S ≤ 5'-0"	1 3/4"	
5'-0" < S ≤ 5'-6"	2"	
5'-6" < S ≤ 6'-0"	2 1/4"	
6'-0" < S ≤ 6'-6"	2 1/2"	

SCHEDULE BASED ON 150 PSF



SST GRATING  
S-05-0704

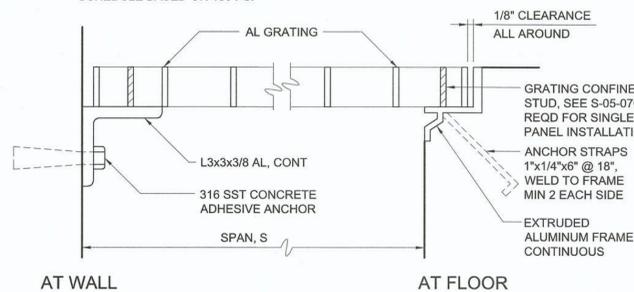


TYPICAL EQUIPMENT PAD  
S-03-0504

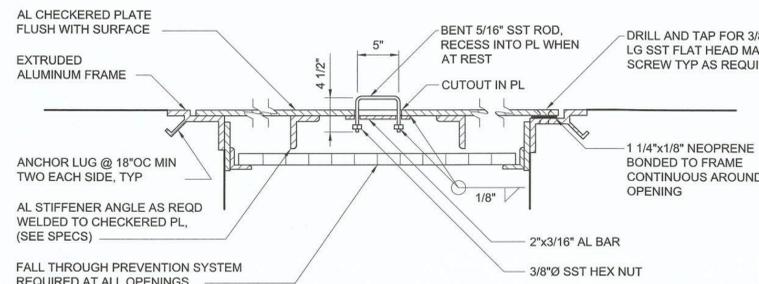
- NOTES:
- DOWELS MAY BE CAST IN WITH 90° HOOK OR ANCHORED WITH DOWEL ADHESIVE AT CONTRACTORS OPTION. WHERE FLOOR IS 8" THICK OR LESS, USE #4 DOWELS EMBEDDED TO WITHIN 2" OF BOTTOM OF FLOOR SLAB.
  - THE CONTRACTOR SHALL PROVIDE LEVELING CHANNELS AND LEVELING CHANNEL ANCHORS FOR SWITCHGEAR, SWITCHBOARDS, MOTOR CONTROL CENTERS, AND SIMILAR EQUIPMENT WHEN REQUIRED TO MEET EQUIPMENT MANUFACTURER'S LEVELING TOLERANCES. THE CONTRACTOR SHALL PROVIDE 1" MINIMUM GROUT FOR PUMPS AND SIMILAR EQUIPMENT WHEN REQUIRED TO MEET EQUIPMENT MANUFACTURER'S UNIFORM BEARING AND LEVELING REQUIREMENTS.
  - PRIOR TO PLACING CONCRETE PAD, LEVELING CHANNEL SIZE AND MEANS OF INSTALLATION, ANCHORAGE, GROUT, CONCRETE EDGE DISTANCE, AND CONCRETE BLOCKOUTS REQUIREMENTS SHALL BE COORDINATED WITH EQUIPMENT MANUFACTURER.
  - COAT DISSIMILAR MATERIALS PER THE CONTRACT DOCUMENTS.
  - STAGGER CHANNEL ANCHORS AND PAD DOWELS.
  - FOR PADS 24" OR GREATER IN DEPTH, PROVIDE #4@8" HORIZONTAL SKIN REINFORCING AROUND PERIMETER OF PAD.

SPAN, S	DEPTH (MIN)	CONCRETE ANCHOR (SIZE AND SPACING)
0'-0" < S ≤ 4'-0"	1 1/2"	1/2"Øx5 1/2" @ 18"
4'-0" < S ≤ 5'-0"	1 3/4"	5/8"Øx6" @ 18"
5'-0" < S ≤ 5'-6"	2"	
5'-6" < S ≤ 6'-0"	2 1/4"	
6'-0" < S ≤ 6'-6"	2 1/2"	

SCHEDULE BASED ON 150 PSF

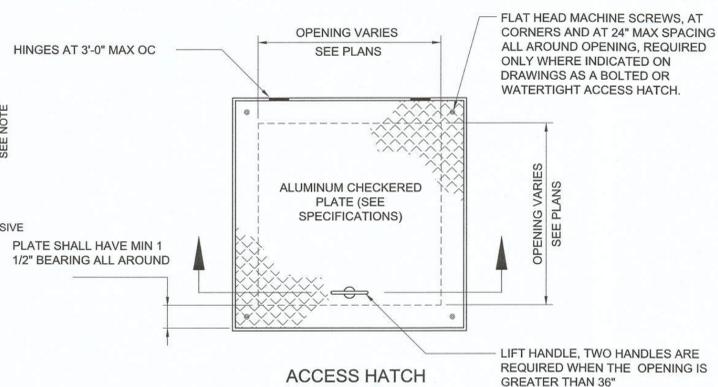


ALUMINUM GRATING  
S-05-0701



STANDARD

SECTION  
ACCESS HATCH



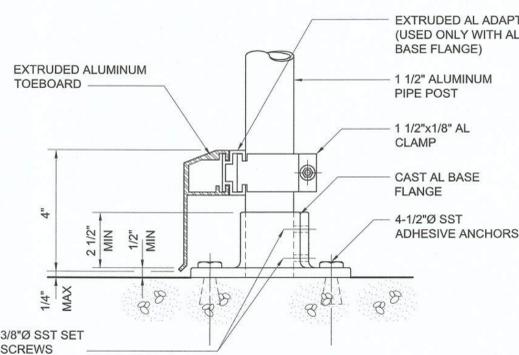
WATERTIGHT

ACCESS HATCH

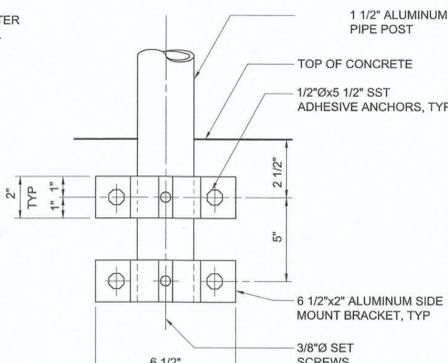
S-05-0801

- NOTES:
- DOWELS MAY BE CAST IN WITH 90° HOOK OR ANCHORED WITH DOWEL ADHESIVE AT CONTRACTORS OPTION. WHERE FLOOR IS 8" THICK OR LESS, USE #4 DOWELS EMBEDDED TO WITHIN 2" OF BOTTOM OF FLOOR SLAB.
  - PIER SHALL BE MINIMUM 12" THICK EACH WAY HORIZONTALLY, AND SHALL BE SQUARE UNDER LARGE VALVE BODIES SUCH AS CHECK VALVES

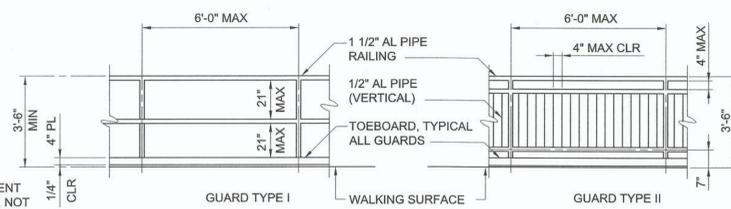
PIER  
PIPE SUPPORT  
S-03-0506



SURFACE MOUNTED  
TO CONCRETE

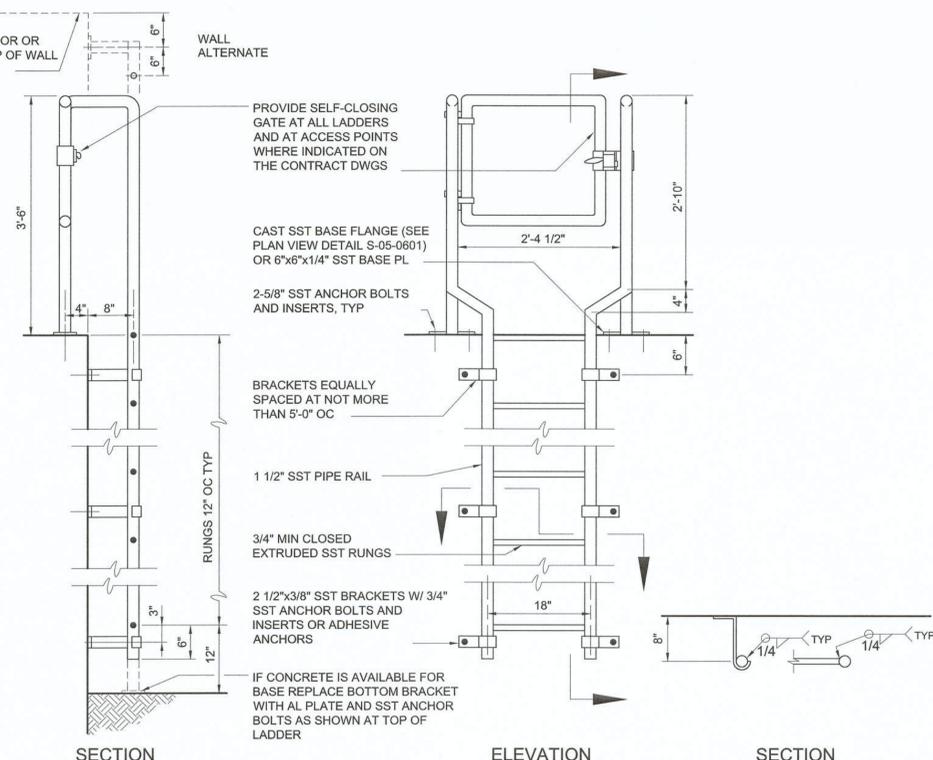


SIDE MOUNT  
TO CONCRETE

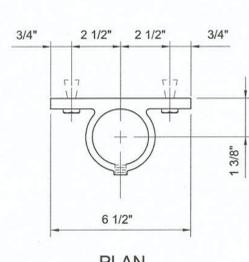


ELEVATION

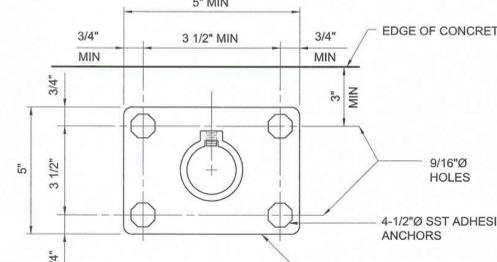
ALUMINUM GUARDS AND HANDRAILS  
S-05-0601



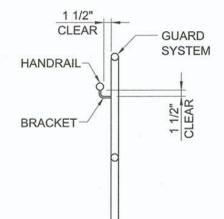
SST LADDER  
S-05-0501R



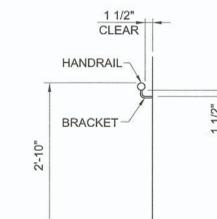
PLAN



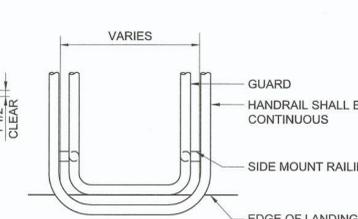
PLAN



STAIR GUARD SECTION



WALL HANDRAIL



TYPICAL STAIR  
HANDRAIL TURN

File: C:\32457-ATL\32457-008\CAD\_BIM\DETAILS\D005 Saved by JBURROUGHS Save date: 5/6/2020 12:09 PM  
PLOT DATE: 5/6/2020 12:20 PM BY: JBURROUGHS

PROJECT ENGINEER:	B. JONES
DESIGNED BY:	B. JONES
DRAWN BY:	B. JONES
CHECKED BY:	A. BOWLING
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE	0 1/2" 1"
1 CONSTRUCTION	05/2020 BJC
REV ISSUED FOR	DATE BY

ISSUED FOR CONSTRUCTION

GBPE LIC #: PE035647 EXP: 12/31/2020

**Hazen**

HAZEN AND SAWYER  
5775 PEACHTREE DUNWOODY ROAD  
SUITE D-520  
ATLANTA, GEORGIA 30342

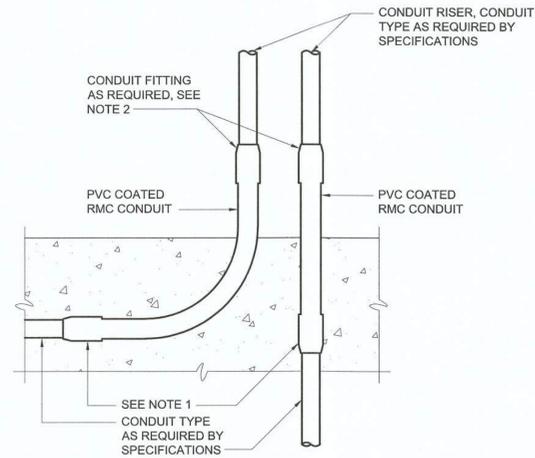
CLAYTON COUNTY WATER AUTHORITY  
MORROW, GEORGIA

WALNUT CREEK LIFT STATION

STANDARD DETAILS

SHEET 5

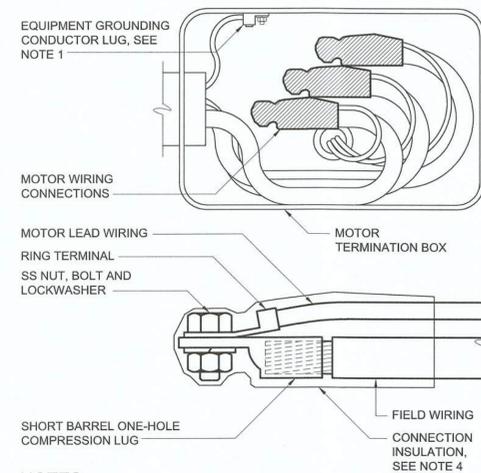
DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	D005



**NOTES:**

- FOR ENCASED PVC CONDUIT USE PVC TERMINAL ADAPTER. FOR ALL OTHER CONDUIT TYPES, USE PVC COATED RMC COUPLINGS.
- IF ANY THREADS OF THE PVC COATED RMC CONDUIT ARE EXPOSED AFTER INSTALLATION OF THE CONDUIT FITTING, THE CONDUIT FITTING SHALL BE PVC COATED TYPE WITH APPROPRIATE PVC SKIRTS. IF THE THREADS OF THE PVC COATED RMC CONDUIT ARE PROPERLY CUT SO THAT THEY ARE NOT EXPOSED AFTER INSTALLATION OF THE CONDUIT FITTING, THE CONDUIT MATERIAL SHALL BE AS REQUIRED BY THE SPECIFICATIONS, BASED ON THE MATERIAL OF THE CONDUIT RISER.

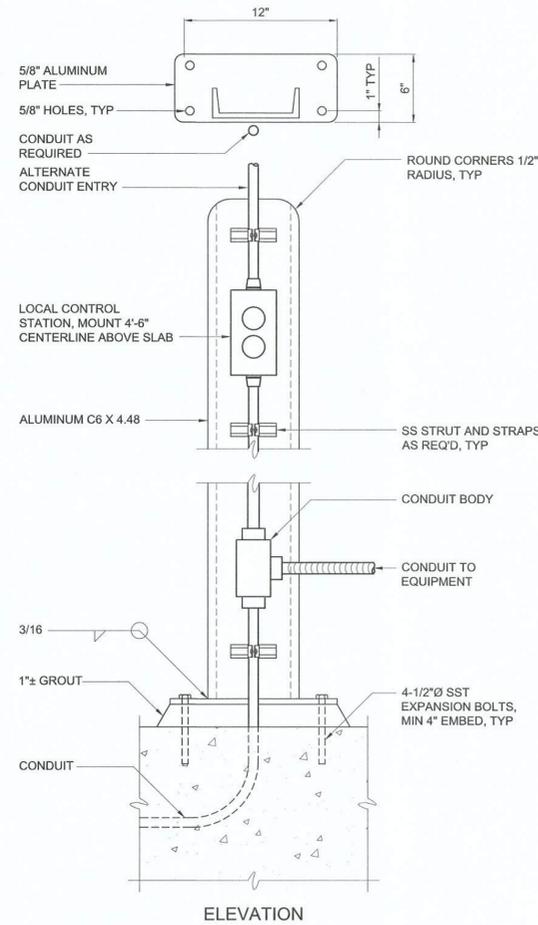
**CONDUIT EXITING CONCRETE ENCASEMENT  
E-26-0102**



**NOTES:**

- EQUIPMENT GROUNDING CONDUCTOR LUG SHALL BE ATTACHED WITH NUT AND LOCKWASHER TO THE MOTOR GROUNDING STUD. WHERE PROVIDED, FACTORY INSTALLED EQUIPMENT GROUNDING CONDUCTOR LUGS ARE ACCEPTABLE IN LIEU OF THE FIELD INSTALLED EQUIPMENT GROUNDING CONDUCTOR LUG.
- RING TERMINALS ON MOTOR LEADS SHALL BE FACTORY INSTALLED BY THE MOTOR MANUFACTURER.
- INSTALL SHORT BARREL COMPRESSION CONNECTOR ON FIELD WIRING WITH MANUFACTURER'S RECOMMENDED COMPRESSION TOOL AND CRIMPING DIE. CONNECTORS SHALL HAVE SMOOTHLY ROUNDED EDGES.
- HEAT SHRINK OR COLD APPLIED CONNECTOR INSULATION LISTED FOR THE PURPOSE AND AS SPECIFIED.

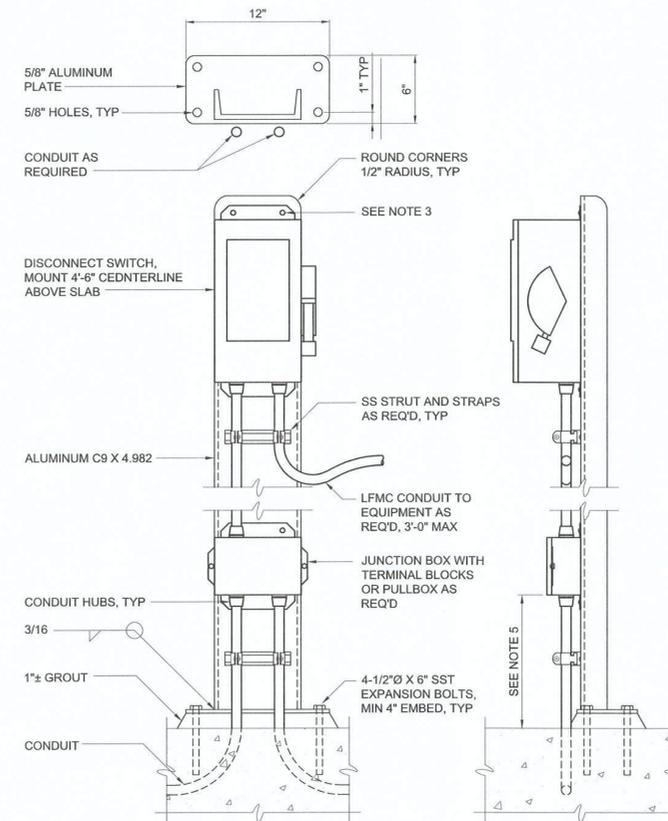
**LOW VOLTAGE MOTOR TERMINATION  
E-26-0301**



**NOTES:**

- COAT ALUMINUM SURFACES IN CONTACT WITH CONCRETE PER SPECIFICATIONS.
- CONSTRUCT 1'-2" DIAMETER X 2'-6" DEEP FOUNDATION WHERE MOUNTING SURFACE IS NOT AVAILABLE.
- USE SST WASHERS, NUTS AND BOLTS FOR MOUNTING DEVICES.

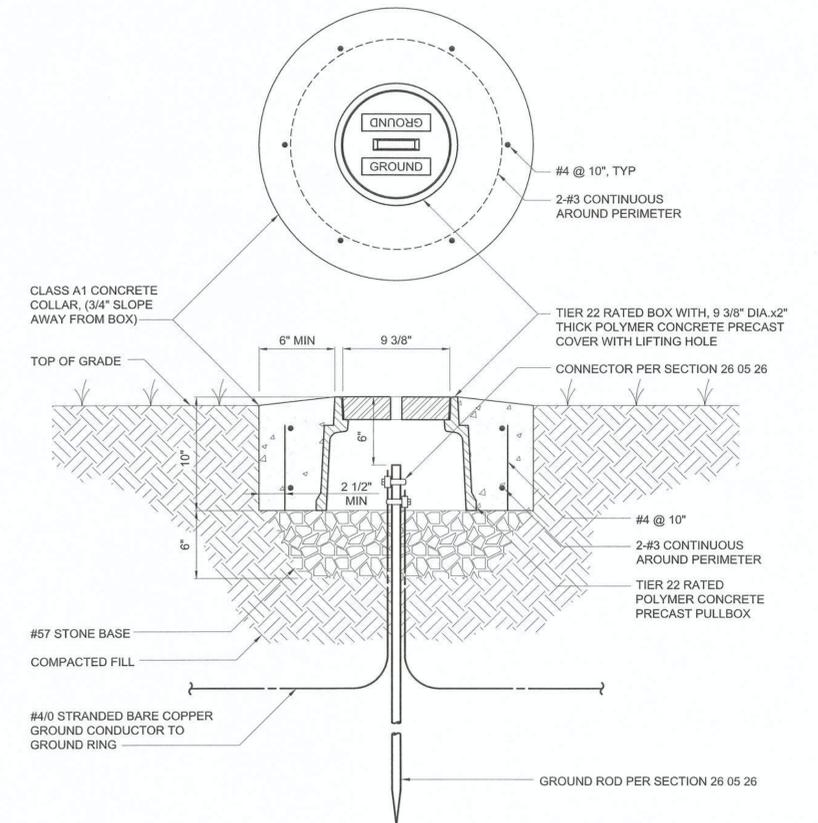
**TYPICAL LOCAL CONTROL STATION  
E-26-0401**



**NOTES:**

- COAT ALUMINUM SURFACES IN CONTACT WITH CONCRETE PER SPECIFICATIONS.
- CONSTRUCT 1'-2" DIAMETER X 2'-6" DEEP FOUNDATION WHERE MOUNTING SURFACE IS NOT AVAILABLE.
- USE SST WASHERS, LOCKWASHERS, NUTS AND BOLTS FOR MOUNTING EQUIPMENT AND STRUT SUPPORTS TO CHANNEL. DRILL EQUIPMENT MOUNTING TABS AS NECESSARY TO COORDINATE WITH CHANNEL WIDTH.
- REFERENCE STANDARD DETAIL E-26-0102 WHERE CONDUIT EMERGES FROM CONCRETE.
- COORDINATE MOUNTING HEIGHT ABOVE CONCRETE WITH AREA CLASSIFICATION REQUIREMENTS.

**30 AND 60 AMP DISCONNECT SWITCH  
E-26-0403**



**NOTES:**

- PRECAST PULLBOX AND COVER SHALL BE OLDCASTLE PART NUMBER 09101187, OR APPROVED EQUAL.

**GROUND ROD TEST WELL  
E-26-0501**

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PLOT DATE: 4/30/2020 3:48 PM BY: BUONES

PROJECT ENGINEER:	B. JONES		
DESIGNED BY:	HAZEN		
DRAWN BY:	HAZEN		
CHECKED BY:	N. MEYER		
1	CONSTRUCTION	05/2020	BCJ
REV	ISSUED FOR	DATE	BY

ISSUED FOR CONSTRUCTION

GBPE LIC #: PE035647 EXP: 12/31/2020

**Hazen**

HAZEN AND SAWYER  
5775 PEACHTREE DUNWOODY ROAD  
SUITE D-520  
ATLANTA, GEORGIA 30342

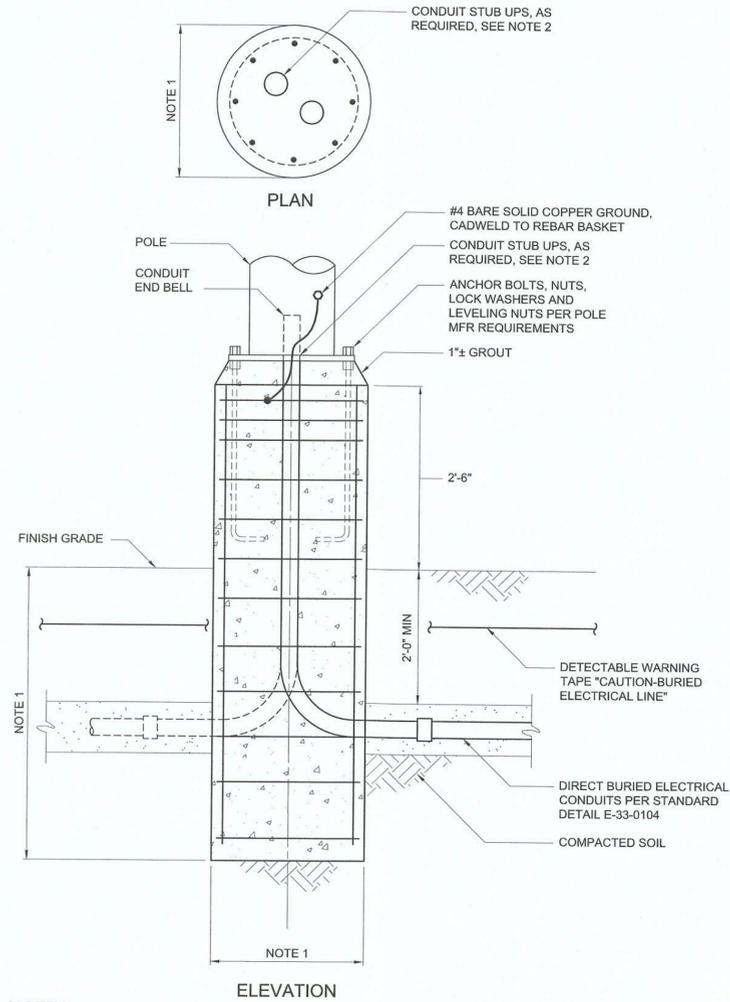
CLAYTON COUNTY WATER AUTHORITY  
MORROW, GEORGIA

WALNUT CREEK LIFT STATION

STANDARD DETAILS

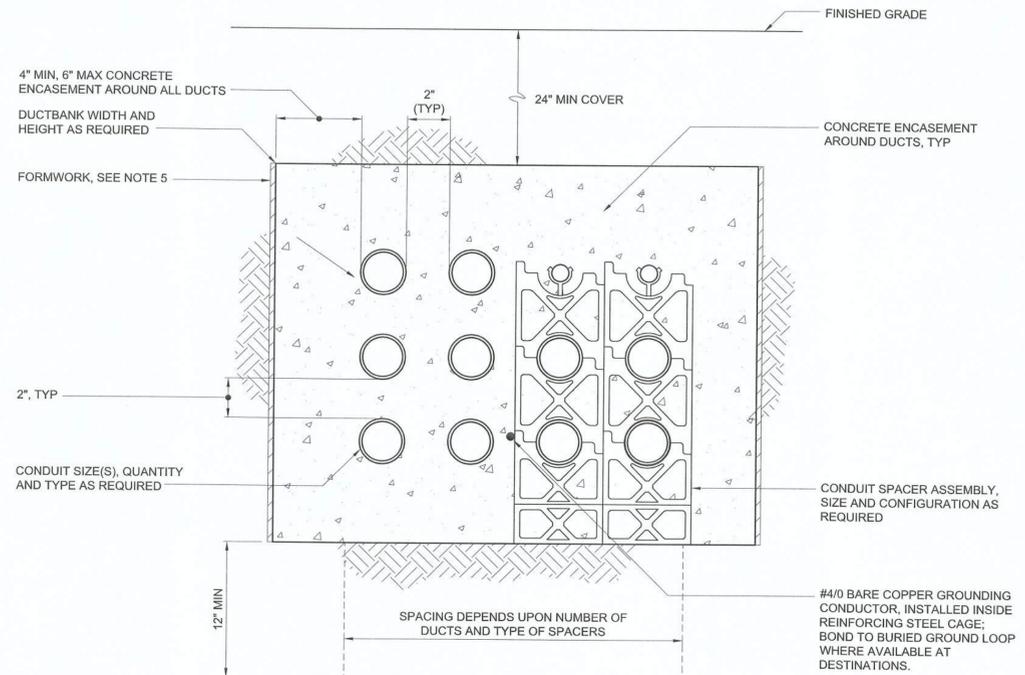
SHEET 6

DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	DD06



- NOTES:**
- DIAMETER, DEPTH AND REINFORCEMENT SHALL BE DETERMINED BY POLE MANUFACTURER IN ACCORDANCE WITH SECTION 26 50 00. LOADING SHALL BE IN ACCORDANCE WITH SECTION 26 50 00.
  - CONTRACTOR SHALL CAREFULLY COORDINATE LOCATION AND QUANTITY OF CONDUITS IN THE BASE SO THAT WHEN POLE IS INSTALLED, IT WILL FIT OVER THE CONDUITS.

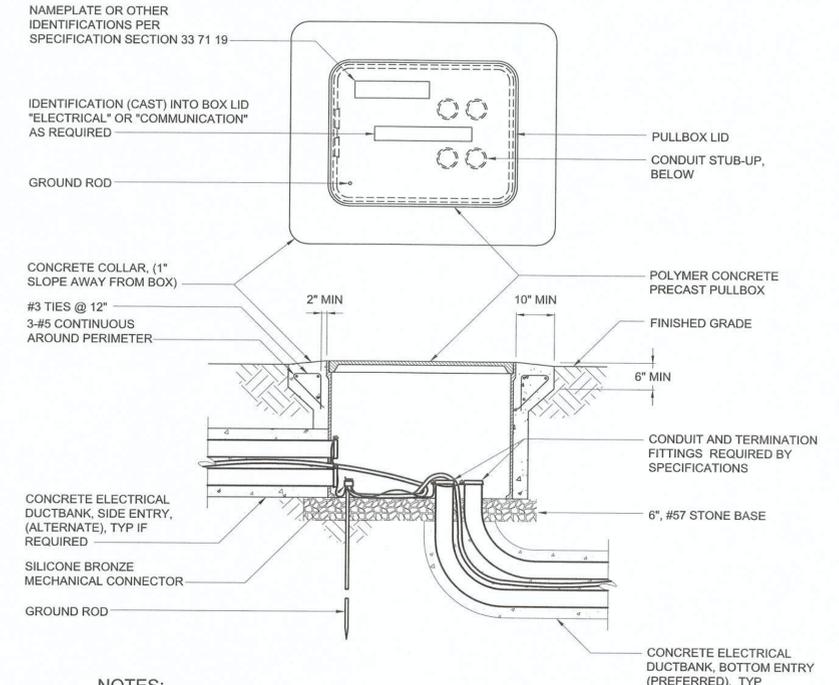
POLE-MOUNTED LIGHTING FIXTURE BASE  
E-26-0601-R



- NOTES:**
- CONCRETE SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH SPECIFICATION SECTION 03 30 00.
  - REINFORCING STEEL IS NOT REQUIRED.
  - CONDUIT SPACERS ARE REQUIRED IN ACCORDANCE WITH SPECIFICATION SECTION 33 71 19. HORIZONTAL SPACING OF CONDUIT SPACER ASSEMBLIES ALONG LENGTH OF DUCTBANK SHALL BE AS SHOWN IN THE TABLE.
  - NOT USED.
  - IN POOR SOIL CONDITIONS, DUCTBANKS SHALL BE FORMED WITH FORMING MATERIALS TO MAINTAIN 4\"/>

MAX SPACING BETWEEN CONDUIT SPACER ASSEMBLIES	
CONDUIT SIZE	SPACING
1"	3 FT
1 1/4-2"	5 FT
2 1/2-3"	6 FT
3 1/2-5"	7 FT
6"	8 FT

TYPICAL DUCTBANK SECTION  
E-33-0101R



- NOTES:**
- FOR SIDE ENTRY, CONDUIT DUCTBANK SHALL ENTER PULLBOX AT LOWEST POINT.
  - GROUND CONDUCTORS WITHIN DUCTBANK SHALL BE BOLTED TOGETHER AND TO GROUND ROD.
  - CONDUIT BONDING BUSHINGS (IF REQUIRED) SHALL BE BONDED TO GROUND ROD.
  - FOR SIDE ENTRY, CONDUIT SHALL ENTER IN INDIVIDUAL CIRCULAR HOLES APPROPRIATELY SIZED FOR THE CONDUIT. LARGE SINGLE RECTANGULAR OPENINGS FOR MULTIPLE CONDUITS ARE NOT ACCEPTABLE.
  - DUCTBANK REINFORCING REBAR SHALL PENETRATE THE SIDEWALLS OF THE BOX NO LONGER THAN 1\"/>

POLYMER CONCRETE ELECTRICAL HANDHOLE  
E-33-0103

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REV	ISSUED FOR	DATE	BY
1	CONSTRUCTION	05/2020	BCJ

PROJECT ENGINEER:	B. JONES
DESIGNED BY:	HAZEN
DRAWN BY:	HAZEN
CHECKED BY:	N. MEYER

ISSUED FOR CONSTRUCTION

GBPE LIC #: PE035647 EXP: 12/31/2020

HAZEN AND SAWYER  
5775 PEACHTREE DUNWOODY ROAD  
SUITE D-520  
ATLANTA, GEORGIA 30342

CLAYTON COUNTY WATER AUTHORITY  
MORROW, GEORGIA

WALNUT CREEK LIFT STATION

STANDARD DETAILS  
SHEET 7

DATE:	MAY 2020
HAZEN NO.:	32457-008
CONTRACT NO.:	01
DRAWING NUMBER:	D007