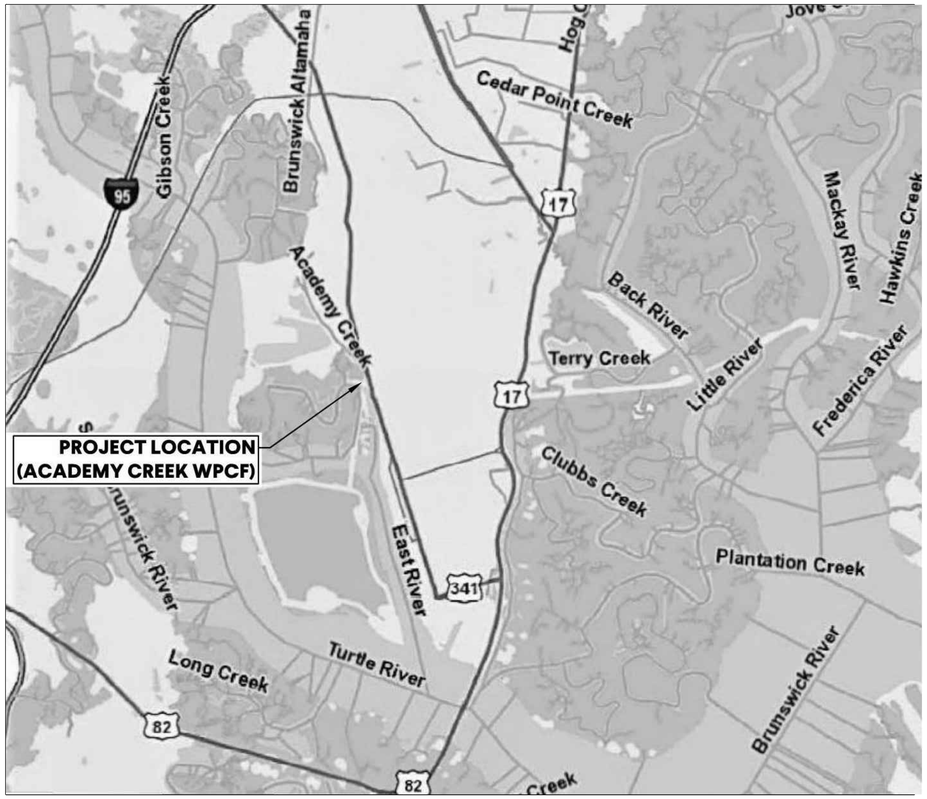
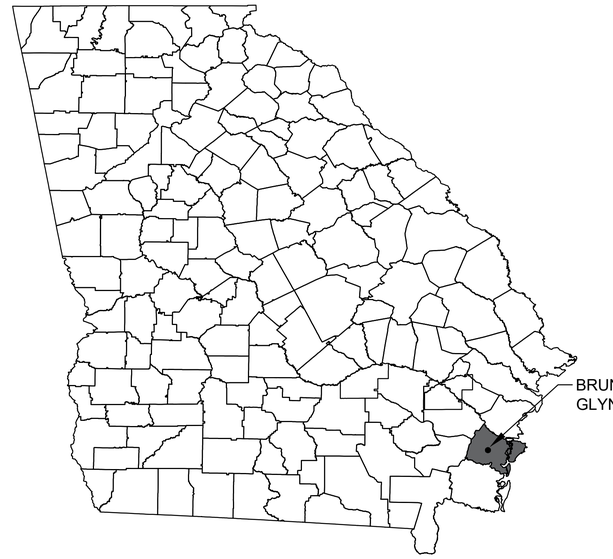


VICINITY MAP
NOT TO SCALE



LOCATION MAP
STATE OF GEORGIA

2019 WPCF REHABILITATION ACADEMY CREEK 100% DESIGN SUBMITTAL

BRUNSWICK-GLYNN JOINT WATER AND SEWER COMMISSION

CSAV190007

GOODWYN MILLS & CAWOOD, INC	ARCHITECTURE, CIVIL, PROCESS & INSTRUMENTATION
CHATHAM ENGINEERING CO., LLC.	ELECTRICAL ENGINEERING
WEATHERFORD & DAY ENGINEERS, INC.	STRUCTURAL ENGINEERING
PRUETT, FORD & ASSOCIATES, INC.	MECHANICAL & PLUMBING ENGINEERING

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 18174 PROFESSIONAL ENGINEER JAMES C. VAUGHAN, JR.

TITLE SHEET

G-001

INDEX TO DRAWINGS

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020

PROJECT MANAGER: JCV
ENGINEER: MEF
DESIGNER: GS
DRAWN BY: GS/AJ

1" .5" 0" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

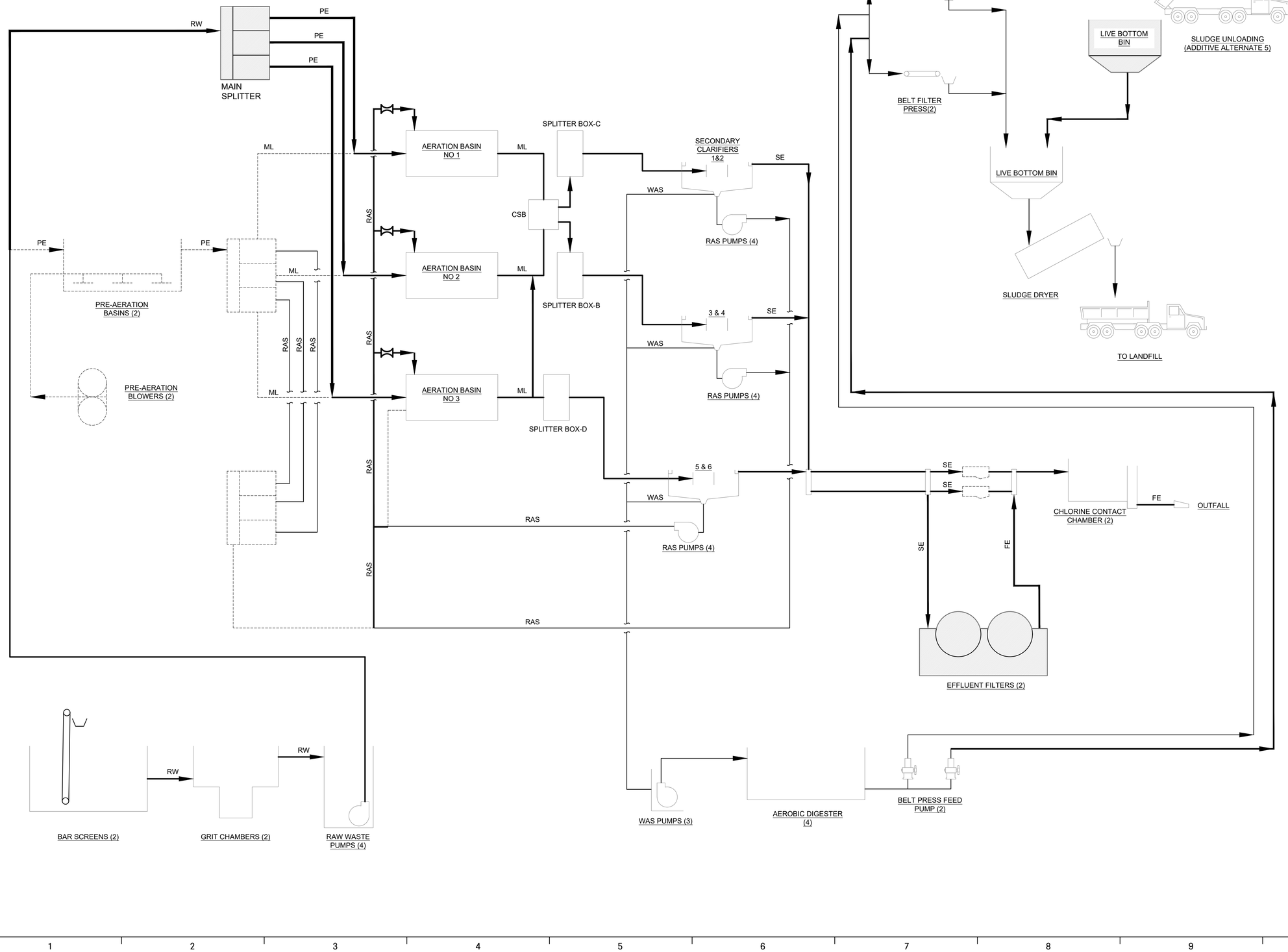
BG-JWSC Project No. 906
GMC Project #CSAV190007

GEORGIA
No. 18174
PROFESSIONAL ENGINEER
JAMES C. VAUGHN III

INDEX TO DRAWINGS

G-002

DRAWING FILE: W:\Civil\Non-Augusta Projects - Dwg\CSAV190007 BG-JWSC WPC Rehab\0 DWGs\+CAD\01 BID DRAWINGS\01 GENERAL\G-002 INDEX.dwg
PLOTTED: Jun 16, 2020 - 4:38pm



GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

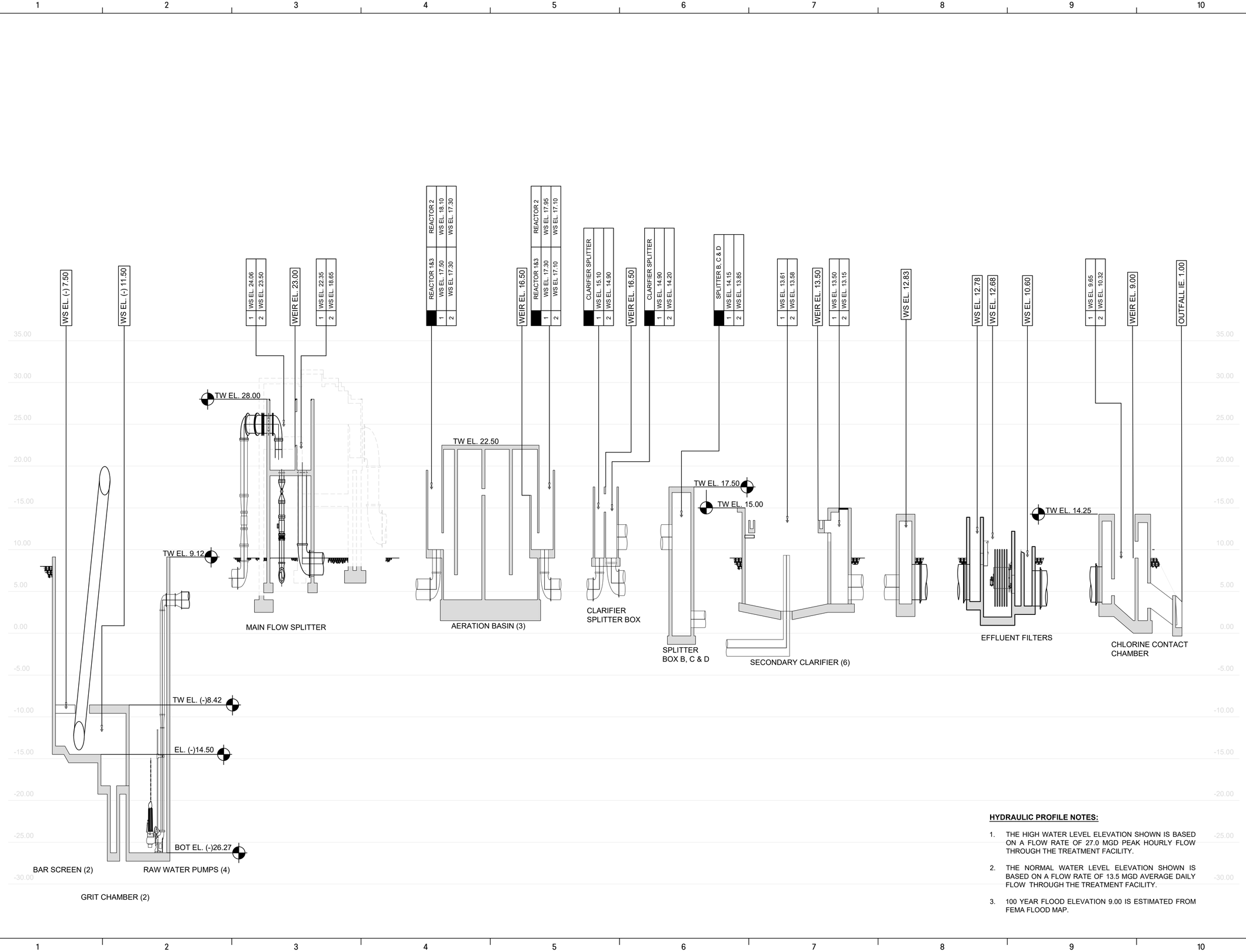
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER JAMES C. VAUGHN

PROCESS FLOW DIAGRAM

G-003

DRAWING FILE: W:\Civil\Non-Augusta Projects - Dwg\CSAV190007 BGJWSC WPC Rehab\0 DWGs\CAD\01 BID DRAWINGS\01 GENERAL\G-003 PROCESS FLOW DIAGRAM.dwg
PLOTTED: Jun 04, 2020 - 12:59pm



HYDRAULIC PROFILE NOTES:

1. THE HIGH WATER LEVEL ELEVATION SHOWN IS BASED ON A FLOW RATE OF 27.0 MGD PEAK HOURLY FLOW THROUGH THE TREATMENT FACILITY.
2. THE NORMAL WATER LEVEL ELEVATION SHOWN IS BASED ON A FLOW RATE OF 13.5 MGD AVERAGE DAILY FLOW THROUGH THE TREATMENT FACILITY.
3. 100 YEAR FLOOD ELEVATION 9.00 IS ESTIMATED FROM FEMA FLOOD MAP.

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER JAMES C. VAUGHN

HYDRAULIC PROFILE

G-004

DRAWING FILE: W:\Civil\Non-Augusta Projects - Dwg\CSAV190007 BGJWSC WPC Rehab\0 DWG\+CAD\01 BID DRAWINGS\01 GENERAL\G-004 HYDRAULIC PROFILE.dwg
PLOTTED: Jun 04, 2020 - 1:06pm

ABBREVIATIONS

A	AIR
AB	ANCHOR BOLT
AC	AIR CONDITIONING
ACP	ASPHALTIC CONCRETE PAVING
ADDL	ADDITIONAL
ADDM	ADDENDUM
ADJ	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AFS	AIR FLOW SWITCH
AHU	AIR HANDLING UNIT
AL	ALUMINUM
ALT	ALTERNATE
APPROX	APPROXIMATE
ARCH	ARCHITECT(URAL)
ARV	AIR RELIEF VALVE
ASME	AMERICAN SOCIETY MECHANICAL ENGINEERS
ASPH	ASPHALT
ASSY	ASSEMBLY
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
ATM	ATMOSPHERE
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AVS	AUTOMATIC VALVE STATION
AWG	AMERICAN WIRE GAGE
BE	BELL END
BF	BOTTOM FACE
BFD	BUTTERFLY DAMPER
BFV	BUTTERFLY VALVE
BLDG	BUILDING
BLK	BLOCK
BLM	BUREAU OF LAND MANAGEMENT
BM	BENCH MARK
BOD	BIOCHEMICAL OXYGEN DEMAND
BOT	BOTTOM
BU	BELL UP
BV	BALL VALVE
C/C	CENTER TO CENTER
CCP	CONCRETE CYLINDER PIPE
CCW	COUNTER CLOCKWISE
CFM	CUBIC FEET PER MINUTE
CHKV	CHECK VALVE
CIP	CAST IRON PIPE
CISP	CAST IRON SOIL PIPE
CJ	CONSTRUCTION JOINT
CL	CENTER LINE OR CHAIN LINK
CLR	CLEAR
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT
CONC	CONCRETE
CONN	CONNECTION
CONSTR	CONSTRUCTION
CONT	CONTINUOUS(ATION)
COR	CORNER
CPLG	COUPLING
CPVC	CHLORINATED POLYVINYL CHLORIDE
CTR	CENTER
CV	CHECK VALVE
CW	COLD WATER
CY	CUBIC YARDS
DBIO	DEWATERED BIOSOLIDS
DEMO	DEMOLITION
DIA	DIAMETER
DIM	DIMENSION
DIP	DUCTILE IRON PIPE
DISTR	DISTRIBUTION
DL	DEAD LOAD
DMJ	DUCTILE MECHANICAL JOINT
DN	DOWN
DWG	DRAWING
EA	EACH
ECC	ECCENTRIC
EF	EACH FACE OR ELECTRICAL FAN
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ENGR	ENGINEER
EOA	EDGE OF ASPHALT
EOP	EDGE OF PAVEMENT
EQ	EQUAL
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
ESMT	EASEMENT
EST	ESTIMATE
EUH	ELECTRIC UNIT HEATER
EW	EACH WAY
EWS	EQUIPMENT WATER STATION
EXP JT	EXPANSION JOINT
EXST	EXISTING
EXST GR	EXISTING GRADE
EXT	EXTERIOR
F/F	FACE TO FACE
FA	FOUL AIR
FAD	FOUL AIR DUCT
FCA	FLANGE COUPLING ADAPTER
FCS	FLUSH CONTROL STATION
FD	FLOOR DRAIN
FDN	FOUNDATION
FES	FLARED END SECTION
FF EL	FINISH FLOOR ELEVATION
FH	FIRE HYDRANT
FIN	FINISH
FIN FL	FINISH FLOOR
FIN GR	FINISH GRADE
FL	FLANGE
FLR	FLOOR
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FRP	FIBERGLASS REINFORCED PLASTIC
FT	FEET
FTG	FOOTING OR FITTING
G	GAS
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GND	GROUND
GPD	GALLONS PER DAY
GPM	GALONS PER MINUTE
GR	GRIT
GRC	GALVANIZED RIGID CONDUIT
GSP	GALVANIZED STEEL PIPE
GV	GATE VALVE
GW	GROUNDWATER
GWB	GYPSUM WALL BOARD
GYP	GYPSUM
HB	HOSE BIBB
HDWL	HEADWALL
HNDRL	HAND RAIL
HNDWL	HAND WHEEL
HORIZ	HORIZONTAL
HP	HORSEPOWER
HR	HOUR
HS	HIGH STRENGTH
HVAC	HEATING, VENTILATION, AIR CONDITIONING
HW	HOT WATER
HWL	HIGH WATER LEVEL
HWY	HIGHWAY
HYD	HYDRANT
ID	INSIDE DIAMETER
IF	INSIDE FACE
INCL	INCLUDED
INCR	INCREASER
INF	INFLUENT
INSTL	INSTALLATION
INSTR	INSTRUMENT
INSUL	INSULATION
INV	INVERT
INT	INTERIOR
INV EL	INVERT ELEVATION
ISA	INSTRUMENT SOCIETY OF AMERICA
JST	JOIST
JTS	JOINTS
KO	KNOCKOUT
KWY	KEYWAY
L	LEFT OR LITER
LAB	LABORATORY
LAV	LAVATORY
LB(S)	POUND(S)
LEL	LOW EXPLOSIVE LIMIT
LF	LINEAR FOOT
LL	LIVE LOAD OR LOOSE LINTEL
LOC	LOCATION
LP	LOW PRESSURE OR LIGHT POLE
LR	LONG RADIUS
LS	LICENSED SURVEYOR
LT	LIGHT
LT WT	LIGHTWEIGHT
LWL	LOW WATER LEVEL
MAINT	MAINTENANCE
MAN	MANUAL
MATL	MATERIAL
MAX	MAXIMUM
MCC	MOTOR CONTROL CENTER
MECH	MECHANICAL
MED	MEDIUM
MFM	MAGNETIC FLOW METER
MFR	MANUFACTURER
MG	MILLION GALLONS OR MILLIGRAMS
MGD	MILLION GALLONS PER DAY
MGMT	MANAGEMENT
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
MNPT	MALE NATIONAL PIPE THREAD
MO	MASONRY OPENING
MRGB	MOISTURE RESISTANT GYPSUM WALL BOARD
MTG	MOUNTING
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NPL	NAMEPLATE
NPT	NATIONAL PIPE THREAD
NRS	NON-RISING STEM
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE OR OVERFLOW
OPNG	OPENING
OPP	OPPOSITE
OPT	OPTIONAL
PC	POINT OF CURVE OF PORTLAND CEMENT
P&C	PIN AND CAP
PCO	PRESSURE CLEAN OUT
PCP	PROGRESSIVE CAVITY PUMP
PCR	POINT OF CURVE RETURN
PE	PLAIN END
PERM	PERMANENT
PERP	PERPENDICULAR
PI	POINT OF INTERSECTION
PL	PLATE OR PROPERTY LINE
PLBG	PLUMBING
PLYWD	PLYWOOD
PNT	PAINT
POC	POINT ON VERTICAL CURVE
POLY	POLYETHYLENE
PPM	PARTS PER MILLION
PREFAB	PREFABRICATED
PREFIN	PREFINISHED
PRELIM	PRELIMINARY
PREP	PREPARATION
PROJ	PROJECT
PROP	PROPERTY
PRS	PRESSURE REDUCING STATION
PRV	PRESSURE REDUCING VALVE OR PRESSURE RELIEF VALVE
PS	PIPE SUPPORT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PSIG	POUNDS PER SQUARE INCH GAGE
PSV	PRESSURE SUSTAINING VALVE
PT	POINT OR POINT OF TANGENCY
PV	PLUG VALVE
PVC	POLYVINYL CHLORIDE OR POINT OF VERTICAL CURVE
PVG	PAVING
PVI	POINT OF VERTICAL CURVE INTERSECTION
PVMT	PAVEMENT
Q_{AVG}	AVERAGE DAILY FLOW
Q_{MAX}	MAXIMUM DAILY FLOW
Q_{PEAK}	PEAK HOUR FLOW
QTR	QUARTER
QTY	QUANTITY
RAD	RADIUS
RC	REINFORCED CONCRETE
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
RECT	RECTANGULAR
RED	REDUCER
RE:	REFER TO
REF	REFERENCE
REHAB	REHABILITATION
REINF	REINFORCE (D) (ING) (MENT)
REQD	REQUIRED
RESIL	RESILIENT
RFCA	RESTRAINED FLANGED COUPLING ADAPTER
RH	RIGHT HAND
RM	ROOM
RO	ROUGH OPENING
ROW	RIGHT OF WAY
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
RPM	REVOLUTIONS PER MINUTE
RR	RAILROAD
RTN	RETURN
SALV	SALVAGE
SCFM	STANDARD CUBIC FEET PER MINUTE
SCH	SCHEDULE
SCN	SCREENINGS
SDR	STANDARD DIMENSION RATIO
SECT	SECTION
SHLDR	SHOULDER
SHT	SHEET
SIM	SIMILAR
SOTE	STANDARD OXYGEN TRANSFER EFFICIENCY
SP	SPACE (ING)
SPEC	SPECIFICATION
SQ	SQUARE
SQ FT	SQUARE FOOT
SQ IN	SQUARE INCH
SQ YD	SQUARE YARD
SRT	SOLIDS RETENTION TIME
SST	STAINLESS STEEL
SST BT	STAINLESS STEEL BOLT
ST	STREET
STA	STATION
STD	STANDARD
STL	STEEL
STL JST	STEEL JOIST
STL PL	STEEL PLATE
STRUCT	STRUCTURAL
SV	SOLENOID VALVE
SVC	SERVICE
SWD	SIDE WATER DEPTH
SYMM	SYMMETRICAL
SYS	SYSTEM
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
T&P	TEMPERATURE AND PRESSURE
T	TEE
TB	TOP OF BEAM
TBM	TEMPORARY BENCH MARK
TE	TOP ELEVATION
TEMP	TEMPORARY
TFA	TO FLOOR ABOVE
TFB	TO FLOOR BELOW
TFF	TOP OF FINISH FLOOW
TH	TEST HOLE
THD	THREAD (ED)
THK	THICK
TJ	TOP OF JOIST
TOA	TOP OF ASPHALT
TOC	TOP OF CONCRETE OR TOP OF CURB
TOE	THREADED ONE END
TOF	TOP OF FOOTING
TOS	TOP OF STEEL
TOW	TOP OF WALL
TP	TOP OF PAVEMENT
TSL	TOP OF SLAB
TSS	TOTAL SUSPENDED SOLIDS
TYP	TYPICAL
UBC	UNIFORM BUILDING CODE
UGE	UNDERGROUND ELECTRIC
ULT	ULTIMATE
UN	UNION
UNGD	UNDERGROUND
VB	VALVE BOX
VCP	VITRIFIED CLAY PIPE
VERT	VERTICAL
VP	VENT PIPE
VTR	VENT THROUGH ROOF
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET
WCO	WALL CLEANOUT
WD	WIDTH OR WOOD
WDW	WINDOW
WF	WIDE FLANGE
WH	WALL HYDRANT
WL	WIND LOAD
WP	WEIR PLATE
WS	WETTED SURFACE
WT	WEIGHT
WWF	WELDED WIRE FABRIC
WWTP	WASTEWATER TREATMENT PLANT
X SECT	CROSS SECTION
XMR	TRANSFORMER
YCO	YARD CLEANOUT
YH	YARD HYDRANT

DISCIPLINE DESIGNATORS

DISCIPLINE	DESIGNATOR
GENERAL	G
CIVIL	C
CIVIL UTILITIES	CU
DEMOLITION	DD
STRUCTURAL	S
ARCHITECTURAL	A
PLUMBING	P
MECHANICAL	M
INSTRUMENTATION	I
PROCESS	D
ELECTRICAL	E
ELEC. AUXILIARY	EA
ELEC. LIGHTING	EL
ELEC. MECHANICAL	EM
ELEC. POWER	ER

PROCESS DESIGNATORS

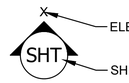
PROCESS	DESIGNATOR
OTHER	0
PRELIMINARY TREATMENT	100
PRIMARY TREATMENT	200
BIOLOGICAL TREATMENT	300
SECONDARY TREATMENT	400
TERTIARY TREATMENT	500
DISINFECTION / EFFLUENT PUMPING	600
SLUDGE STORAGE & PROCESSSING	700
MISCELLANEOUS SYSTEMS	800
DETAILS / SCHEDULES	900

HATCHING LEGEND

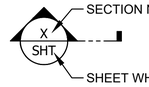
DESCRIPTION	EXISTING	PROPOSED
ASPHALT PAVING (PLAN)		
CONCRETE (ELEVATION)		
CONCRETE (PLAN)		
CONCRETE (SECTION)		
CRUSHED STONE (SECTION)		
EARTH OR BACKFILL (SECTION)		
GRAVEL DRIVE (PLAN)		
GROUT FILL (PLAN & SECTION)		
LAKE, RIVER OR POND (PLAN)		
REMOVAL OR DEMOLITION (PLAN & SECTION)		
UNPAVED DRIVE (PLAN)		

GRAPHICS LEGEND

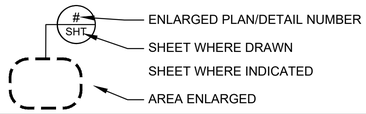
ELEVATION INDICATOR



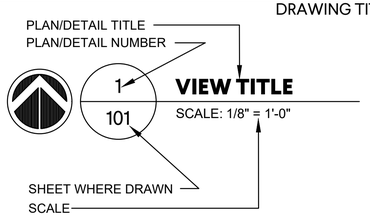
SECTION INDICATOR



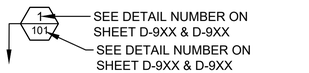
ENLARGED PLAN/DETAIL INDICATOR



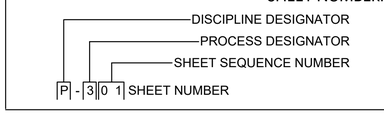
DRAWING TITLE



PIPE SUPPORT INDICATOR



SHEET NUMBERING



PIPE SYMBOLS

	DOUBLE LINE	SINGLE LINE
EXISTING BURIED PIPE		
EXISTING ABOVE GRADE PIPE		
NEW BURIED PIPE		
NEW ABOVE GRADE PIPE		
WELDED JOINT		
FLANGED JOINT		
FLANGED ADAPTOR		
FLANGED COUPLING		
MECHANICAL JOINT		
JOINT		
EXPANSION JOINT		

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	09.09.2019	GS
70% SUBMITTAL	12.16.2019	GS/AJ
100% SUBMITTAL	03.12.2020	
CONSTRUCTION SUBMITTAL	06.15.2020	
PROJECT MANAGER:		JCV
ENGINEER:		MEF
DESIGNER:		
DRAWN BY:		

1" 0" .5" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 18 PROFESSIONAL ENGINEER JAMES C. VAUGHN III

GENERAL ABBREVIATIONS & LEGENDS

G-005

DRAWING FILE: W:\Civil\Net-Augusta Projects - Dwg\CSAV190007 BGJWSC WPCF Rehab\10 DWGs\CADD\01 BID DRAWINGS\01 GENERAL\G-005 ABBREVIATIONS.dwg
PLOTTED: Jun 04, 2020 - 10:42am

SERVICE ABBREVIATION	DESCRIPTION (NOTE 1)	PIPE MATERIAL (SCHEDULED AT RIGHT) EXPOSED PIPING (NOTE 2) 3" DIA & SMALLER	EXPOSED PIPING (NOTE 2) 4" DIA & LARGER	BURIED PIPING (NOTE 3) 3" DIA & SMALLER	BURIED PIPING (NOTE 3) 4" DIA & LARGER	FIELD TESTING REQUIREMENTS (SEE NOTE 4 SEE DEVIATION TABLE) MIN TEST PRESSURE (PSI)	TESTING MEDIUM	LEAKAGE ALLOWANCE
A	AIR	1,8	3,5,8,11	1,8	3,5,11	25	AIR	NOTE 7,8
AL	ALUM	9	9	9	9	125	WATER	NOTE 7
		9	9	9	9	125	WATER	NOTE 7
BR	BRINE			-				
BW	BACKWASH	-	4,5	-	4,5	NOTE 9	WATER	NOTE 7
BWW	BACKWASH WASTE	-	4,5		4,5	75	WATER	NOTE 7
C	CARBON	NOTE 11	NOTE 11	NOTE 11	NOTE 11	125	-	NOTE 7,11
CD	CHEMICAL DRAIN	10	10	10	10	NOTE 10	-	
CEN	CENTRATE	-	4,5	-	4,5	75	WATER	NOTE 7
CL	CHLORINE	4	1	4	1	150	AIR	NOTE 7
CLS	CHLORINE SOLUTION	9	9	9	9	125	WATER	NOTE 7
CPA	COMPRESSED AIR	7,13	2	13	2	200	AIR	NOTE 7,8
CWR	COOLING WATER RETURN	8,13	4,8	2,9,13	4,5	125	WATER	NOTE 7
CWS	COOLING WATER SUPPLY	8,13	4,8	2,9,13	4,5	125	WATER	NOTE 7
D	DRAIN	6	6	6	6	NOTE 10	-	
FNE	FINAL EFFLUENT	-	4,5	-	4,5	125	WATER	NOTE 7
FE	FILTER EFFLUENT	2,7,13	4,5	2,13	4,5	25	WATER	NOTE 7
FG	FEED GAS	7	7	7	7	125	AIR	NOTE 7
FM	FORCE MAIN	-	5	-	5,12	125	WATER	NOTE 7
FOG	FOUL AIR GAS	11	11	11	11	125	AIR	NOTE 7
DS	DIGESTED SLUDGE	-	4,5	-	4,5	125	WATER	NOTE 7
GR	GRIT SLURRY	-	1	-	1	125	WATER	NOTE 10
HCl	HYDROCHLORIC ACID	9	9	9	9	125	WATER	NOTE 7
HOCL	SODIUM HYPOCHLORITE	9	9	9	9	125	WATER	NOTE 7
LSG	LOW PRESSURE SLUDGE GAS	7	7	7	7	125	AIR	NOTE 7
LS	LIME SYSTEM	NOTE 11	NOTE 11	NOTE 11	NOTE 11	125	-	NOTE 7
ML	MIXED LIQUOR	-	4,5	-	4,5	125	WATER	NOTE 7
NAOH	SODIUM HYDROXIDE (CAUSTIC)	1	1	1	1	125	WATER	NOTE 7
NG	NATURAL GAS	2,7,13	1	2,7,13	1	150	AIR	NOTE 7
NPW	NON-POTABLE WATER	2,7,13	4,5	2,9,13	4,5	125	WATER	NOTE 7
OF	OVERFLOW	4,5	4,5	4,5	4,5	NOTE 9	WATER	NOTE 7
OFG	OFF GAS	7	7	7	7	125	AIR	NOTE 7
PA	PLANT AIR	1	-	1	-	300	AIR	NOTE 7,8
PAC	POLY ALUMINUM CHLORIDE	9	9	9	9	125	WATER	NOTE 7
PD	PUMPED DRAIN	2,9	2,5	2,9	5,9	125	WATER	NOTE 7
PE	PRIMARY EFFLUENT	-	5	-	5	125	WATER	NOTE 7
		7	7	7	7	125	AIR	NOTE 7
POL	POLYMER SOLUTION	9	-	9	-	125	WATER	NOTE 7
PSC	PRIMARY SCUM	15	15	15	15	125	WATER	NOTE 7
PS	PRIMARY SLUDGE	-	5	-	5	125	WATER	NOTE 7
RAS	RETURN ACTIVATED SLUDGE	-	5	-	5	125	WATER	NOTE 7
RCS	RECIRCULATED SLUDGE	-	5	-	5	125	WATER	NOTE 7
RUW	REUSE WATER	-	5	-	5	125	WATER	NOTE 7
RW	RAW WASTE	-	16	-	16	125	WATER	NOTE 7
SA	SAMPLE WATER	8, 9,11,13	-	9,11,13	-	125	WATER	NOTE 7
SS	SANITARY SEWER	6	6	6	6	125	WATER	
SSL	SECONDARY SLUDGE	-	5	-	5	125	WATER	NOTE 7
SN	SUPERNATANT	9	4,5	9	4,5	75	WATER	NOTE 7
SE	SECONDARY EFFLUENT	-	4,5	-	4,5	125	WATER	NOTE 7
SP	SODIUM PERMANGANATE	9	-	9	-	125	WATER	NOTE 7
SSC	SECONDARY SCUM	15	15	15	15	125	WATER	NOTE 7
SSL	SECONDARY SLUDGE	-	5	-	5	125	WATER	NOTE 7
TD	TANK DRAIN	-	5	-	5	75	WATER	NOTE 7
TWAS	THICKENED WASTED ACTIVATED SLUDGE	-	5	-	5	125	WATER	NOTE 7
V	VENT	9	9	-	-	125	WATER	
VAC	VACUUM	2, 8	3,8	-	-	125	AIR	NOTE 7
W	WATER	2,7,13	4,5	2,9,13	4,5	125	WATER	NOTE 7
WAS	WASTE ACTIVATED SLUDGE	-	5	-	5	125	WATER	NOTE 7
WW	WASTE WASHWATER	-	4,5	-	4,5	125	WATER	NOTE 7

PROCESS PIPING MATERIAL SCHEDULE (NOTE 5, NOTE 6)

GROUP NO.	PIPE MATERIAL	SPECIFICATION SECTION	FITTINGS	COMMENTS
1	STEEL, ASTM A53, SCH 40, BLACK, WELDED	40 05 24	3" AND SMALLER, MALLEABLE IRON, ANSIB16.3, THREADED BLASK 150 PSI OR STEEL ANSIB16.9 BUTT-WELDED 4" AND LARGER, CAST IRON, ANSIB16.1, FLANGED OR MECH COUPLING	
2	STEEL, ASTM A53, SCH 40, GALVANIZED	40 05 24	3" AND SMALLER, MALLEABLE IRON, ANSIB16.3, THREADED GALVANIZED 150 PSI 4" AND LARGER, CAST IRON, ANSIB16.1, FLANGED OR MECH COUPLING	
3	WELDED STEEL,AWWA C200, UNLINED	40 05 24	WELDED STEEL, AWWA C200 FABRICATED, UNLINED	
4	WELDED STEEL,AWWA C200,	40 05 24	WELDED STEEL, AWWA C200 FABRICATED,	
5	DUCTILE IRON, AWWA C151, 150 PSI, PUSH-ON, MECHANICAL JOINT OR 125 PSI FLANGED, UNLINED FOR AIR LINES	40 05 19	DUCTILE IRON AWWA 110, PUSH-ON, MECHANICAL JOINT 250 PSI (PR), 12" AND SMALLER, 150 SSI (PR). FLANGED JOINTS 125PSI ANSI B16.1	
6	CAST IRON SOIL PIPE ASTM A74, SERVICE WEIGHT, BELL & SPIGOT OR NO-HUB, SYSTEM 5 MAY BE SUBSTITUTED	40 05 19	CAST IRON ASTM A74, SERVICE WEIGHT, BELL & SPIGOT OR NO-HUB, SYSTEM 5 MAY BE SUBSTITUTED	
7	STAINLESS STEEL, TYPE 316, ASTM A312, SCHEDULE 40	40 05 23	STAINLESS STEEL TYPE 316, ANSI B16.3, THREADED, 150 PSI, ANSIB16.9, BUTT-WELDED SCH 40 OR 150 PSI FLANGED	
8	STAINLESS STEEL, TYPE 304, ASTM A312, SCHEDULE 10S	40 05 23	STAINLESS STEEL TYPE 304, ANSIB16.9, BUTT-WELDED SCH 10S OR 150 PSI FLANGED	
9	POLYVINYL CHLORIDE (PVC), SCHEDULE 80, ASTM D1785	40 05 31	PVC SCHEDULE 80, ASTM D2467 SOCKET SOLVENT WELD JOINTS	
10	POLYPROPYLENE, ASTMD2146, SCHEDULE 40, HEAT FUSED JOINTS	40 05 31	POLYPROPYLENE, SCHEDULE 40, DRAINAGE TYPE WITH HEAT FUSED SOCKET JOINTS	
11	FIBERGLASS REINFORCED PLASTIC (FRP), ASTMD2996, FILAMENT WOUND SOCKET AND SPIGOT JOINTS, ADHESIVE BONDED	40 05 36	FRP, FILAMENT WOUND, SOCKET ENDS, ADHESIVE BONDED OR FIBERGLASS FLANGES	
12	POLYVINYL CHLORIDE (PVC) PRESSURE PIPE ASTM D2241, WITH BELL & SPIGOT JOINTS	40 05 31	DUCTILE IRON, AWWA C110, CEMENT LINED, AWWA C104	
13	COPPER, ASTM B88, TYPE K, SOFT TEMPERED WHERE BURIED, HARD TEMPERED WHERE EXPOSED	40 05 17	WROUGHT COPPER ANSIB16.22 SOLDER JOINT, 150 PSI OR COMPRESSION FITTINGS (FOR COMPRESSED AIR USE TIN-ANTIMONY SOLDER)	
14	HDPE DR 9 FOR PRESSURE RATING 150 PSI OR MORE, OTHERWISE DR17	40 05 33	HDPE FABRICATED OR MOLDED	
15	DUCTILE IRON(GLASS LINED), AWWA C151, 150 PSI, PUSH-ON, MECHANICAL JOINT OR 125 PSI FLANGED	40 05 19	DUCTILE IRON AWWA 110, PUSH-ON, MECHANICAL JOINT 250 PSI (PR), 12" AND SMALLER, 150 SSI (PR). FLANGED JOINTS 125PSI ANSI B16.1	
16	DUCTILE IRON(CERAMIC EPOXY LINED), AWWA C151, 150 PSI, PUSH-ON, MECHANICAL JOINT OR 125 PSI FLANGED	40 05 19	DUCTILE IRON AWWA 110, PUSH-ON, MECHANICAL JOINT 250 PSI (PR), 12" AND SMALLER, 150 SSI (PR). FLANGED JOINTS 125PSI ANSI B16.1	

RESERVED FOR FUTURE

NOTES:

1. THIS SCHEDULE INCLUDES SOME PROCESS DESIGNATIONS NOT USED IN THIS PROJECT.
2. EXPOSED PIPING SHALL BE COATED IN ACCORDANCE WITH THE SPECIFICATIONS. COLORS WILL BE SELECTED BY THE ENGINEER.
3. SEE SPECIFICATIONS FOR PIPE LINING AND COATING.
4. SEE SPECIFICATION SECTION 400513 FOR ADDITIONAL TESTING REQUIREMENTS.
5. DEVIATIONS FROM THIS SCHEDULE OF MATERIALS OR TESTING REQUIREMENTS ARE NOTED IN THE SPECIFICATIONS OR ADDITIONAL NOTATIONS ON THE DRAWINGS.
6. SEE VALVE SCHEDULE FOR VALVE TYPE FOR EACH SERVICE.
7. FOR PIPING NOT ABLE TO BE PRESSURE TESTED, NO LEAKAGE SHALL SHOW AT MAXIMUM TANK WATER SURFACE ELEVATIONS. FOR PIPING THAT IS ABLE TO BE PRESSURE TESTED, LEAKAGE SHALL BE NO MORE THAN 0.02 GALLONS PER HOUR PER INCH DIAMETER PER 100 FEET OF BURIED PIPE.
8. LOSS OF PRESSURE SHALL BE LESS THAN 5 PERCENT.
9. STATIC WATER TEST WITH SURFACE 5 FEET ABOVE HIGHEST POINT ON PIPE.
10. INSPECTION AND TESTING SHALL BE IN ACCORDANCE WITH THE APPLICABLE PLUMBING CODE.
11. PIPING MATERIAL SHALL BE ABRASION RESISTANT FLEXIBLE RUBBER HOSE & QUICK CONNECT COUPLINGS WITH SYSTEM 1 PIPING AT EQUIPMENT CONNECTIONS. PIPE SHALL SHOW ZERO LEAKAGE AT NORMAL OPERATING CONDITIONS.

DEVIATIONS FROM SCHEDULED TEST PRESSURES

LOCATION	OPERATING PRESSURE (PSI)	TEST PRESSURE (PSI)

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" 0" .5" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAVI90007

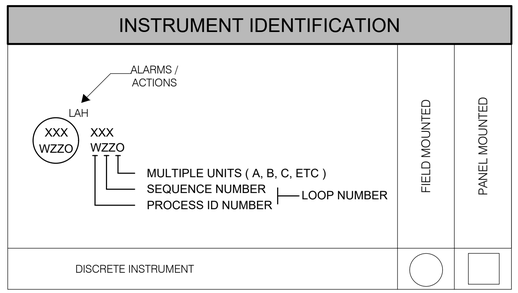
GEORGIA REGISTERED No. 18777 PROFESSIONAL ENGINEER JAMES C. VAUGHN

PROCESS PIPING SCHEDULE

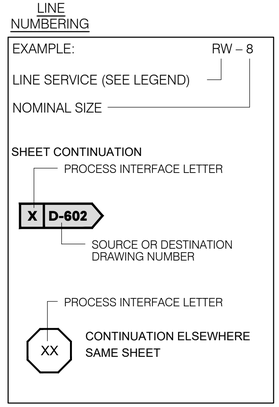
G-006

DRAWING FILE: W:\Civil\Non-Augusta Projects - Dwg\CSAVI90007 BGJWSC WPC Rehab\0 DWG\+CAD\01 BID DRAWINGS\01 GENERAL\G-006 PIPING SCHEDULE.dwg
PLOTTED: Jun 08, 2020 - 1:36pm

INSTRUMENT IDENTIFICATION



PROCESS LINE SYMBOLS



UNDEFINED INTERLOCK LOGIC

I

EXAMPLE ALARMS OR ACTIONS

HA- HIGH ALARM
LAH- LEVEL ALARM HIGH
LAHH- LEVEL ALARM HIGH HIGH
HOA- HAND / OFF / AUTO
LAL - LOW
LAU - LOW LOW
OO- ON / OFF

LINE LEGEND

- PRIMARY PROCESS LINE
- SECONDARY PROCESS LINE
- EXISTING
- ELECTRICAL SIGNAL
- ES 120/1 — ELECTRIC SUPPLY VOLTAGE/PHASE
- INSULATED
- HEAT TRACED
- E — ETHERNET
- PA — PLANT AIR SUPPLY
- IA — INSTRUMENT AIR SUPPLY
- NPW — NON-POTABLE WATER SUPPLY
- RUW — REUSE WATER SUPPLY
- BY VENDOR

VALVE SYMBOLS

GATE, GLOBE, CHECK, DIAPHRAGM, BALL, FLOAT, NEEDLE VALVE, BUTTERFLY, SAFETY RELIEF, PRESSURE REGULATING, PLUG, 3-WAY, AIR RELEASE VALVE, MUD OR FOOT VALVE, TELESCOPING VALVE

ACTUATORS

M — MOTOR OPERATOR
S — SOLENOID
PNEUMATIC ACTUATOR
SLIDE GATE

PROCESS INSTRUMENTS

FLOWMETER - MAG
FLOWMETER - PROPELLER
FLOWMETER - VENTURI
FLOWMETER ULTRASONIC CLAMP-ON
FLOWMETER THERMAL MASS
ROTAMETER
PARSHALL FLUME
LEVEL ELEMENT (ULTRASONIC) (OR RADAR)
FLOAT SWITCH
VIBRATING FORK LEVEL SWITCH
PRESSURE TRANSDUCER

GENERAL EQUIPMENT

CENTRIFUGAL
POSITIVE DISPLACEMENT PUMP
VERTICAL TURBINE PUMP
HORIZONTAL SPLITCASE PUMP
ROTARY SCREW COMPRESSOR
PROGRESSIVE CAVITY
GRINDER
DIAPHRAGM
EDUCTOR
CENTRIFUGAL FAN / BLOWER
BLOWER (POSITIVE DISPLACEMENT)
SPRAY NOZZLE
FILTER OR STRAINER
HEATER
HEAT EXCHANGER
PERISTALTIC
STATIC MIXER
MIXER
SILENCER
DRAIN
VENT
FLEXIBLE HOSE OR JOINT
DIAPHRAGM OR LOAD CELL
UNION
ANNULAR PRESSURE SEAL
SINGLE ARCH EXPANSION JOINT

GENERAL FITTINGS

REDUCER
FLANGE / BOLTED
END CAP
RESTRICTING ORIFICE

ABBREVIATIONS

CONC	CONCENTRIC
CP	CONTROL PANEL
DO	DISSOLVED OXYGEN
ECC	ECCENTRIC
EL	ELEVATION
ES	EMERGENCY STOP
FC	FAIL CLOSE
FCP	FACTORY CONTROL PANEL (FURNISHED BY EQUIPMENT MANUFACTURER)
FI	FAIL INTERMEDIATE
FL	FAIL LOCKED
FLG	FLANGE
FO	FAIL OPEN
FOR	FORWARD/OFF/REVERSE (MAINTAINED)
FSR	FORWARD/STOP/REVERSE (MAINTAINED)
FWE	FURNISHED WITH EQUIPMENT
GPM	GALLONS PER MINUTE
HMI	HUMAN MACHINE INTERFACE
HOA	HAND/OFF/AUTO
HP	HIGH PRESSURE
LC	LOCKED CLOSE
LCP	LOCAL CONTROL PANEL (FURNISHED BY SYSTEMS INTEGRATOR)
LO	LOCKED OPEN
LOR	LOCAL/OFF/REMOTE
LP	LOW PRESSURE
LR	LOCAL/REMOTE
LT	LOW TEMPERATURE
MA	MANUAL/AUTO
MAX	MAXIMUM
MCC	MOTOR CONTROL CENTER
MCP	MAIN CONTROL PANEL
MIN	MINIMUM
MW	MANWAY
NC	NORMALLY CLOSED
NLL	NORMALLY LIQUID LEVEL
NO	NORMALLY OPEN
OC	OPEN/CLOSE
OCA	OPEN/CLOSE/AUTO
OCR	OPEN/CLOSE/REMOTE
OO	ON/OFF
ORIF	ORIFICE
ORP	OXIDATION REDUCTION POTENTIAL
OS	OPERATION SWITCH
PC	PARTICLE COUNT
pH	HYDROGEN ION CONCENTRATION
R	RESET
RED	REDUCER
RS	RUN/STOP (AUTO RESET/RUN @ POWER INTERRUPTION)
RSJ	RUN/STOP/JOG
S	SILENCE
SCH	SCHEDULE
SCM	STREAMING CURRENT MONITOR
SCN	SAMPLE CONNECTION
SD	SHUTDOWN
SLBL	SLUDGE BLANKET LEVEL
SP	SAMPLE POINT
SR	SAFE/RUN
SST	STAINLESS STEEL
SSR	START/STOP (MANUAL RESET @ POWER INTERRUPTION)
STD	STANDARD
T	TEST
TOR	TORQUE
TURB	TURBIDITY
TYP	TYPICAL
UD	UP/DOWN

INSTRUMENT IDENTIFICATION LETTERS

	FIRST LETTER		SUCCEEDING LETTERS		
	MEASURED OR INITIATING VARIABLE		READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS		ALARM		
B	BURNER FLAME				
C	CONDUCTIVITY (ELECTRICAL)			CONTROL	CLOSE
D	DENSITY (MASS) OR SPECIFIC GRAVITY	DIFFERENTIAL	DELAY		
E	VOLTAGE (EMF)		PRIMARY ELEMENT		
F	FLOW RATE	RATIO (FRACTION)			
G	GAUGING		GLASS		
H	HAND (MANUALLY INITIATED)				HIGH
I	CURRENT (ELECTRICAL)		INDICATE		
J	POWER	SCAN			
K	TIME OR SCHEDULE			CONTROL STATION	
L	LEVEL		LIGHT (PILOT)		LOW
M	MOISTURE OR HUMIDITY	MOMENTARY			MIDDLE OR INTERMEDIATE
N	UNCLASSIFIED				
O	UNCLASSIFIED		ORIFICE (RESTRICTION)		OPEN
P	PRESSURE OR VACUUM		POINT (TEST CONNECTION)		
Q	QUANTITY OR EVENT	INTEGRATE OR TOTALIZE			
R	RADIOACTIVITY		RECORD OR PRINT		
S	SPEED OR FREQUENCY	SAFETY		SWITCH	
T	TEMPERATURE			TRANSMIT OR TRANSMITTER	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION
V	VIBRATION, MECHANICAL ANALYSIS			VALVE, DAMPER OR LOUVER	
W	WEIGHT OR FORCE		WELL		
X	EVENT			UNCLASSIFIED	
Y	UNCLASSIFIED			RELAY, COMPUTE OR CONVERT	
Z	POSITION			DRIVE, ACTUATE OR UNCLASSIFIED FINAL CONTROL ELEMENT	

NOTES:

1. THE PROCESS AND INSTRUMENTATION DIAGRAM IS BASED ON PROCESS EQUIPMENT SHOWN ON THE DRAWINGS, SELECTED BY ENGINEER AND INFORMATION AVAILABLE TO ENGINEER.
2. THE PROCESS AND INSTRUMENTATION DIAGRAM ARRANGEMENT IS BASED ON THE EQUIPMENT BASIS OF DESIGN AS SPECIFIED. CHANGES TO THE LISTED BASIS OF DESIGN RESULTING IN DIFFERENCES OF THE SHOWN ARRANGEMENT SHALL BE THE CONTRACTORS RESPONSIBILITY. NO ADDITIONAL PAYMENT WILL BE MADE TO THE CONTRACTOR FOR MODIFICATIONS.
3. THE MANUFACTURER MAY ELECT TO MAKE MODIFICATIONS TO THE PROCESS AND INSTRUMENTATION DIAGRAM TO IMPROVE SYSTEM FUNCTION BUT ONLY WHEN APPROVED BY THE ENGINEER.
4. SEE DRAWING G-003 FOR PROCESS PIPING SERVICE ABBREVIATIONS.

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE | DATE

- 30% SUBMITTAL — 09.09.2019
- 70% SUBMITTAL — 12.16.2019
- 100% SUBMITTAL — 03.12.2020
- CONSTRUCTION SUBMITTAL — 06.15.2020

PROJECT MANAGER: JCV
ENGINEER: MEF
DESIGNER: GS
DRAWN BY: GS/AJ

1" .5" 0" 1"

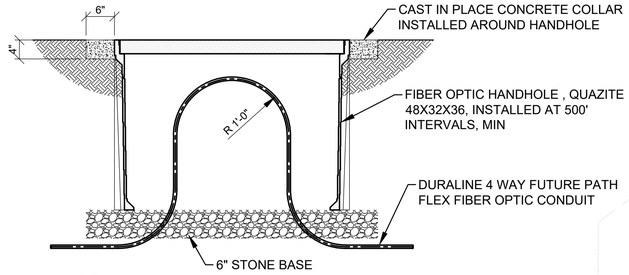
2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BG.JWSC Project No. 906
GMC Project #CSAVI90007

GEORGIA REGISTERED No. 31177 PROFESSIONAL ENGINEER JAMES C. VAUGHN III

P&ID LEGEND

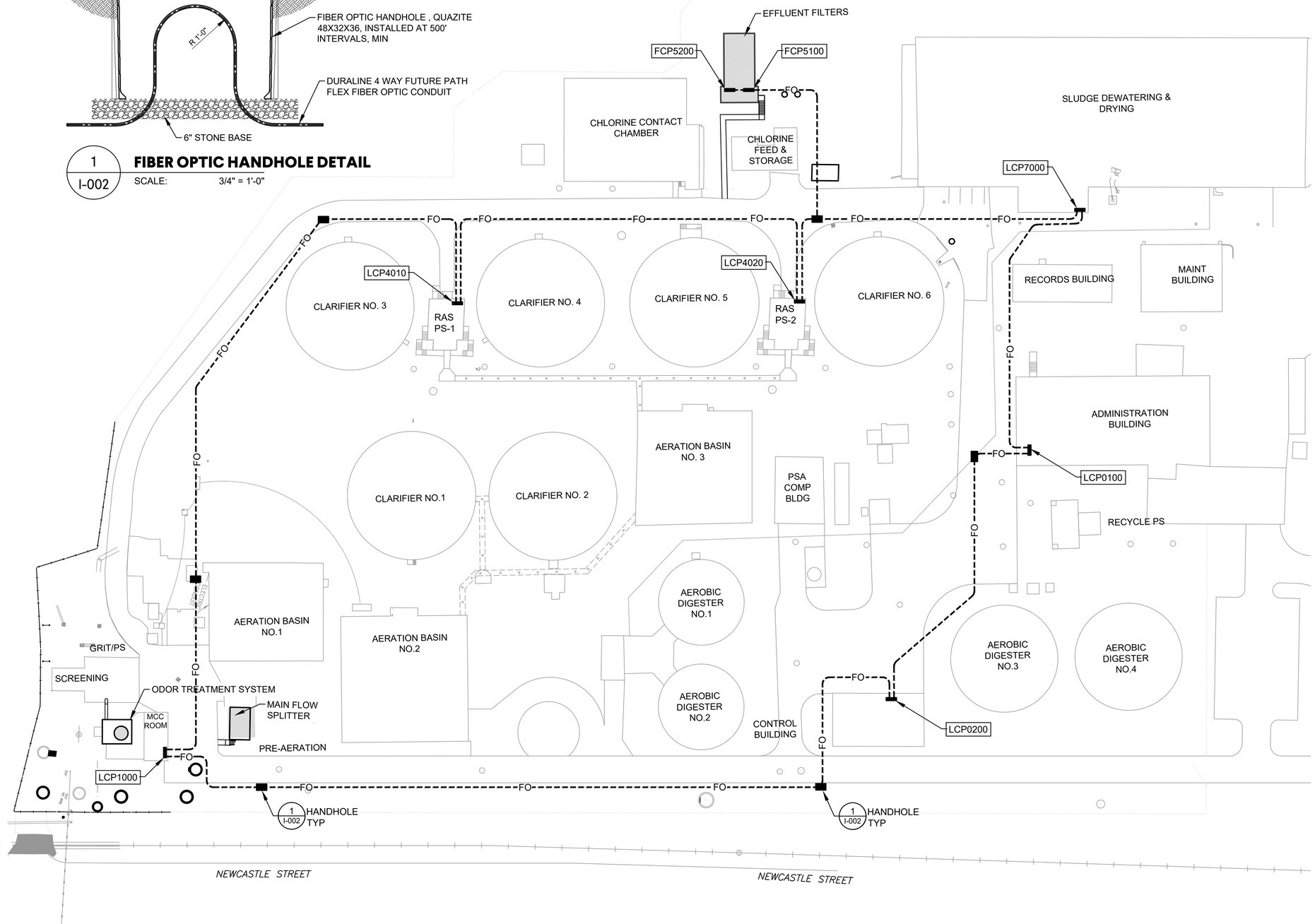
I-001



1 / I-002

FIBER OPTIC HANDHOLE DETAIL

SCALE: 3/4" = 1'-0"



1 / C-101

PROJECT SITE PLAN

SCALE: 1" = 50'

DRAWING FILE: W:\Civil\CAUG Dwg\CSAV190007 BG-JWSC WPC Rehab\0 DWG\+CAD\01BID DRAWINGS\02 INSTRUMENTATION\I-002.dwg
PLOTTED: Jun 08, 2020 - 3:58pm

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" 0" .5"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 18174 PROFESSIONAL ENGINEER JAMES C. VAUGHN, JR.

SITE PLAN
FIBER OPTIC NETWORK

I-002

SCADA WORKSTATION CONTROL

SCADA WORKSTATION OFFICE

MULTIFUNCTION PRINTER - OFFICE

ETHERNET SWITCH

FO PATCH

FTP1000
LCP1000
FTP1010
FCP1010 SCREEN CONTROL PANEL
FCP1040 WSH/CMPCT CONTROL PANEL
FCP8010 ODOR CONTROL PANEL
FCP8050 ODOR2 CONTROL PANEL
FCP1110 GRIT SYS CONTROL PANEL
VFD1210
VFD1220
VFD1230
VFD1240

FTP4010
LCP4010
VFD4111
VFD4112
VFD4311
VFD4312
VFD4211
VFD4212
VFD4411
VFD4412

FTP4020
LCP4020
FTP5100
FCP5100 FILTER 1 CONTROL PANEL
FCP5200 FILTER 2 CONTROL PANEL
VFD4511
VFD4512
VFD4611
VFD4612
FCP6000 DISINFECT CONTROL PANEL

FTP7000
LCP7000
FTP7050
FCP7065 LBB CONTROL PANEL
FCP7010 BELT PRESS CONTROL PANEL
FCP7060 LBB CONTROL PANEL
FCP7010 DRYER CONTROL PANEL
FCP8011 POLYMER FEED SYSTEM NO. 1 CONTROL PANEL
FCP8021 POLYMER FEED SYSTEM NO. 2 CONTROL PANEL

FTP0100
LCP0100

FTP0200
LCP0200
VFD7010
VFD7020

LEGEND

FTP8590	FIBER OPTIC TERMINATION PANEL
———	CAT 6
- - - - -	FIBER OPTIC

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 18787 PROFESSIONAL ENGINEER JAMES C. VAUGHN

P&ID - BLOCK DIAGRAM

I-003

DRAWING FILE: C:\Users\mcdonald\AppData\Local\Temp\AcPublish_17888\I-001.dwg
PLOTTED: Jun 04, 2020 - 1:47pm

BAR SCREEN NO.1

UPST LAH | RUN | FAULT | HS IN AUTO

LAH 1010A | XI 1010C | XA 1010D | XI 1010A

DNST LAH: LAH 1010B

BAR SCREEN NO.2

UPST LAH | RUN | FAULT | HS IN AUTO

LAH 1020A | XI 1020C | XA 1020D | XI 1020A

DNST LAH: LAH 1020B

SCREENINGS WASHER/COMPACTOR

SWC RUN: XI 1040 | SWC FAULT: XA 1040

SCADA

LCP1000

FCP1010 SCREEN CONTROL PANEL

LAH 1010A	LI 1010A	XI 1010C	XI 1010D	HS 1010A	HS 1010B
		RUN	FAULT	HOA	FOR

LI 1010B	LAH 1010B	HS 1010C	XI 1010E
		RESET	POWER ON

LAH 1020A	LI 1020A	XI 1020C	XI 1020D	HS 1020A	HS 1020B	TAH 1020
		RUN	FAULT	HOA	FOR	

LI 1020B	LAH 1020B	HS 1020C	XI 1020E	XC 1030
		RESET	POWER ON	SV1030 CALL TO OPEN

FCP1040 COMPACTOR CONTROL PANEL

HS 1040A	XC 1040	XI 1040	XA 1040	HS 1040C	HS 1040D
HOA CONV	SV-1040 CALL TO OPEN			E STOP	RESET

1 AI | 2 DI | 3 D0 | 5 AI | 6 AI | 8 D0 | 9 D0 | 10 AI | 12 AI | 13 D0 | 14 D0 | 15 D0

FCP1010A SCREEN CONTROL PANEL

HS 1010A	HS 1010B	HS 1010D
HOA	FOR	E-STOP

FCP1020A SCREEN CONTROL PANEL

HS 1010A	HS 1010B	HS 1010D
HOA	FOR	E-STOP

SCR1010 | SCR1020

ES 120/1 | LIT 1010A | LE 1010A

ES 120/1 | LIT 1020A | LE 1020A

ES 120/1 | LIT 1010B | LE 1010B

ES 120/1 | LIT 1020B | LE 1020B

SV1030 20 GPM @20PSI RUW

SV1040 RUW

SCREENINGS SLUICE

SWC1040

0 INFL 54" RW

4' W CHANNEL

SG1011 | SG1012 | SG1013 | SG1014 | SG1015

CHANNEL 1 I-102

CHANNEL 2 I-102

SCR1010
BAR SCREEN NO. 1
SPEC: 46 21 13
OPENING SIZE : 6 MM
CAP: 27 MGD (MAX)
HP: 2.0

SCR1020
BAR SCREEN NO. 2
SPEC: 46 21 13
OPENING SIZE : 6 MM
CAP: 27 MGD (MAX)
HP: 2.0

SWC1040
SCREENINGS WASHER & COMPACTOR
SPEC: 46 21 73
CAP: 40 CF/HR
HP (COMPACTOR): 5.0
HP (GRINDER): 10.0

DRAWING FILE: C:\Users\mmcdonald\AppData\Local\Temp\AcPublish_17888\I-001.dwg
PLOTTED: Jun 04, 2020 - 1:47pm

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020

PROJECT MANAGER: JCV
ENGINEER: MEF
DESIGNER: GS
DRAWN BY: GS/AJ

1" 0" .5" 1"

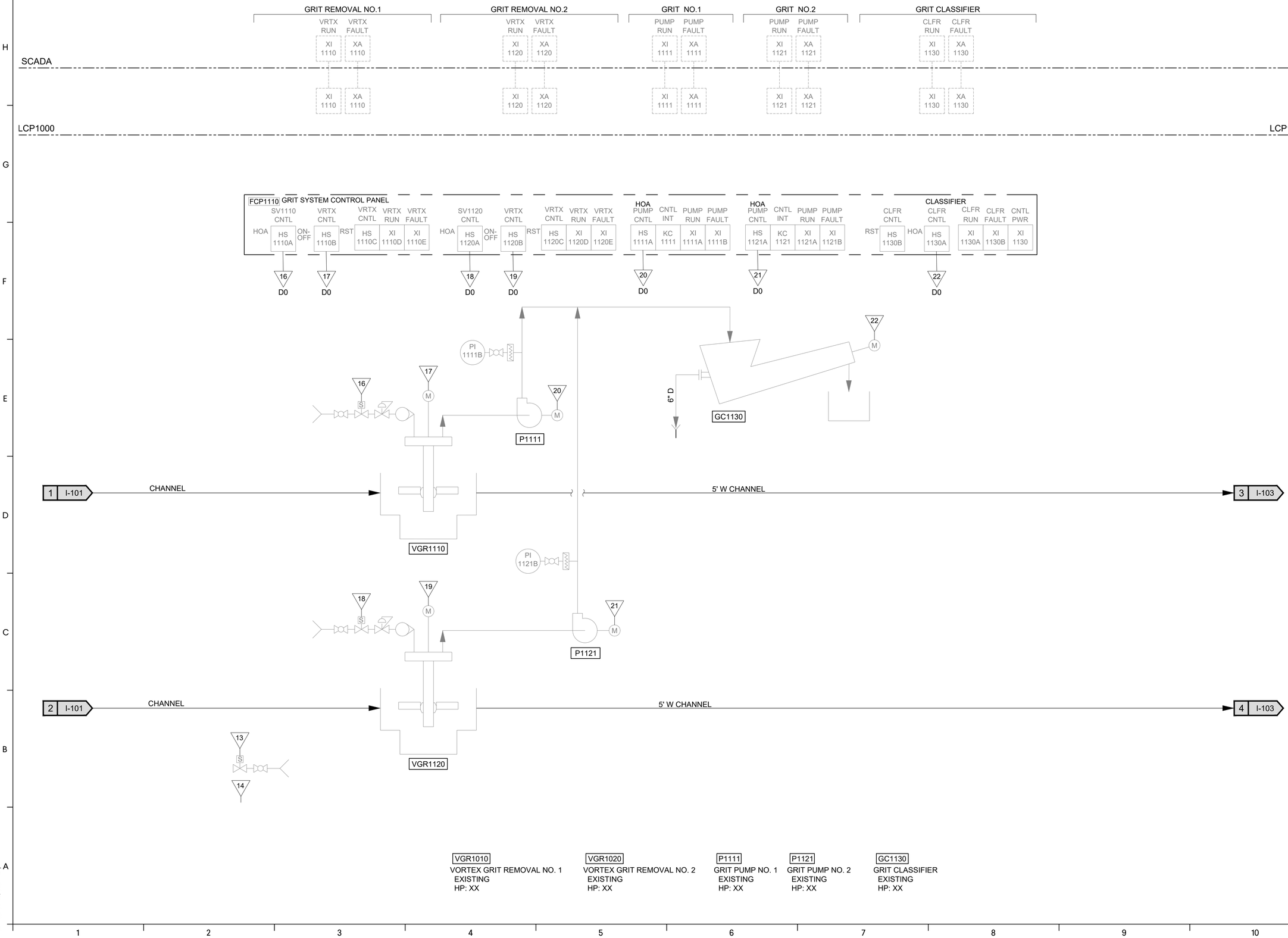
2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAVI90007

GEORGIA REGISTERED No. 18077 PROFESSIONAL JAMES C. VAUGHN

P&ID - SCREENING

I-101



VGR1010	VGR1020	P1111	P1121	GC1130
VORTEX GRIT REMOVAL NO. 1	VORTEX GRIT REMOVAL NO. 2	GRIT PUMP NO. 1	GRIT PUMP NO. 2	GRIT CLASSIFIER
EXISTING	EXISTING	EXISTING	EXISTING	EXISTING
HP: XX	HP: XX	HP: XX	HP: XX	HP: XX

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

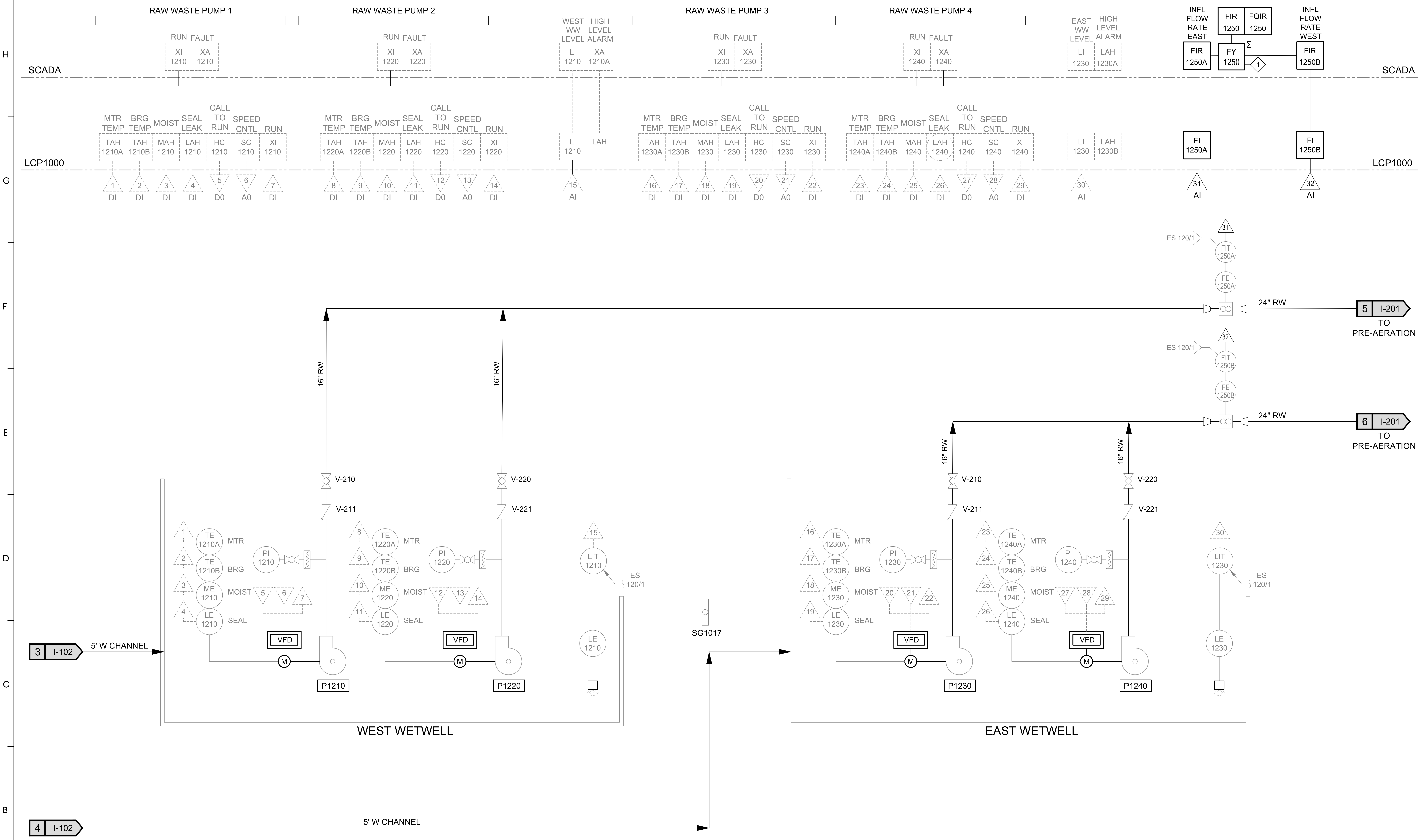
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 18127 PROFESSIONAL ENGINEER JAMES C. VAUGHN

P&ID - GRIT REMOVAL

I-102

DRAWING FILE: C:\Users\mcdonaldi\AppData\Local\Temp\AcPublish_7888\I-001.dwg
PLOTTED: Jun 04, 2020 - 1:47pm



P1210
RAW WASTE PUMP NO. 1
(EXISTING)
CAP: 5900 GPM
TDH: 57 FT
HP: 125

P1220
RAW WASTE PUMP NO. 2
(EXISTING)
CAP: 5900 GPM
TDH: 57 FT
HP: 125

P1230
RAW WASTE PUMP NO. 3
(EXISTING)
CAP: 5900 GPM
TDH: 57 FT
HP: 125

P1240
RAW WASTE PUMP NO. 4
(EXISTING)
CAP: 5900 GPM
TDH: 57 FT
HP: 125

NOTES:

1. SUM OF FLOW RATE FROM FIR 1250A, 1250B & 2034

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" .5" 0" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

No. 18174
06/08/2020
JAMES C. VAUGHN, JR.

P&ID - INFLUENT PUMP STATION

I-103

DRAWING FILE: C:\Users\nmcdonald\AppData\Local\Temp\AcPublish_17888\I-001.dwg
PLOTTED: Jun 04, 2020 - 1:47pm

SCADA

LCP1000

RUN STATUS XI 2010

HIGH MTR TEMP TAH 2010A — 1 DI

HIGH DISCH PRESS PAH 2010 — 2 DI

E STOP XA 2010 — 3 DI

DIFF PRESS HIGH DPA 2010 — 4 DI

RUN STATUS XI 2010 — 5 DI

RUN STATUS XI 2020

HIGH MTR TEMP TAH 2020A — 6 DI

HIGH DISCH PRESS PAH 2020 — 7 DI

E STOP XA 2020 — 8 DI

DIFF PRESS HIGH DPA 2020 — 9 DI

RUN STATUS XI 2020 — 10 DI

SPLITTER LEVEL: LI 2030 | LAH 2030 | LAL 2030

LI 2030 — 11 AI

AB #1 FLOW FIR 2031

ZI 2031B | FY 2031 — 12 AI, F2

AB #2 FLOW FIR 2032B

ZI 2032B | FY 2032 — 16 AI, F2

AB #3FLOW FIR 2033

ZI 2033 | FY 2033 — 20 AI, F2

INDUS WW FLOW FIR 2034 (1)

FY 2034 — 20 AI

F2 RAW WASTE FLOW

24" PE

24" PE

4" A

4" A

1 2 3 4 5 — LCP-402 VFD — PI PS PI M TE TI TS — BLWR2010

6 7 8 9 10 — LCP-401 VFD — PI PS PI M TE TI TS — BLWR2020

PRE-AERATION BLOWERS (DEMOLISH)

24" PE

24" PE

24" PE

24" PE

11 LIT 2030 / LE 2030

SG2032 — 16 ZT 2032B — 30" PE

SG2033 — 20 ZT 2033B — 30" PE

SG2031 — 12 ZT 2031B — 30" PE

MAIN FLOW SPLITTER

30" PE

30" PE

20 FIT 2034 — ES 120/1 — FE 2034

V2001

16" RW

16" RW

16" RAS (ABANDON)

5 I-103 — 24" RW

4" A

3" A 3" A 3" A

PRE-AERATION BASIN NO. 1 (DEMOLISH)

30x24

24" PE — 7 I-301 AERATION BASIN NO. 1

16" RAS (ABANDON)

30" PE — 8 I-301 AERATION BASIN NO. 3

30" PE — 9 I-301 AERATION BASIN NO.2

6 I-103 — 24" RW

4" A

3" A 3" A 3" A

PRE-AERATION BASIN NO. 2 (DEMOLISH)

16" RW

EXISTING MAIN SPLITTER (DEMOLISH)

16" RAS (ABANDON)

0 INFL — 16" RW

INDUSTRIAL WASTEWATER FORCE MAIN

NOTES:

1. FIR2034 TO FY1250 - SEE I-103

DRAWING FILE: C:\Users\mmcdonald\AppData\Local\Temp\AcPublish_17888\I-001.dwg
PLOTTED: Jun 04, 2020 - 1:47pm

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020

PROJECT MANAGER: JCV
ENGINEER: MEF
DESIGNER: GS
DRAWN BY: GS/AJ

1" 0" .5" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER JAMES C. VAUGHN

P&ID - PRE-AERATION & FLOW SPLIT

I-201

RAS FLOW CONTROL - AB 1

AUTO MANL	IN SVC MAINT	TRAVEL STATUS	% OPEN
HS 3010	HS 3010	ZI 3010	ZIM 3010

RAS FLOW CONTROL - AB 2

AUTO MANL	IN SVC MAINT	TRAVEL STATUS	% OPEN
HS 3020	HS 3020	ZI 3020	ZIM 3020

RAS FLOW CONTROL - AB 3

AUTO MANL	IN SVC MAINT	TRAVEL STATUS	% OPEN
HS 3030	HS 3030	ZI 3030	ZIM 3030

SCADA

FLOW CNTL	FLOW	REM LCL	OPEN	CLOSED
FIC 3010	FIR 3010	HS 3010	ZIO 3010	ZIC 3010
FC 3010		HS 3010	ZIO 3010	ZIC 3010
			1 AO	2 AI
			3 DI	4 DI
			5 DI	6 AI

LCP1000

FLOW CNTL	FLOW	REM LCL	OPEN	CLOSED
FIC 3020	FIR 3020	HS 3020	ZIO 3020	ZIC 3020
FI 3020		HS 3020	ZIO 3020	ZIC 3020
			7 AO	8 AI
			9 DI	10 DI
			11 DI	12 AI

LCP1000

SCADA

FLOW CNTL	FLOW	REM LCL	OPEN	CLOSED
FIC 3030	FIR 3030	HS 3030	ZIO 3030	ZIC 3030
FI 3030		HS 3030	ZIO 3030	ZIC 3030
			13 AO	14 AI
			15 DI	16 DI
			17 DI	18 AI

LCP4020

LCP4020

FROM GOX
8" GOX
16" RAS
7 I-201
FROM FLOW SPLITTER
24" PE
T3010
AERATION BASIN NO.1
30" ML
12" RAS
I-403 21
FROM RAS
ZSC 3010
ZSO 3010
ZIT 3010
HS 3010
M
ES 480/3
V3001
FIT 3010
ES 120/1
FE 3010
CLARIFIER SPLITTER BOX
36" ML
10 I-401
TO CLARIFIER SPLITTER BOX 'B'
36" ML
11 I-402
TO CLARIFIER SPLITTER BOX 'C'
30" ML

FROM GOX
8" GOX
16" RAS
9 I-201
FROM FLOW SPLITTER
30" PE
T3020
AERATION BASIN NO.2
30" ML
30" ML
ZSC 3020
ZSO 3020
ZIT 3020
HS 3020
M
ES 480/3
V3002
FIT 3020
ES 120/1
FE 3020
16" RAS
I-403 22
FROM RAS

FROM GOX
8" GOX
16" RAS
8 I-201
FROM FLOW SPLITTER
30" PE
T3030
AERATION BASIN NO.3
30" ML
12 I-403
TO CLARIFIER SPLITTER BOX 'D'
ZSC 3030
ZSO 3030
ZIT 3030
HS 3030
M
ES 480/3
V3003
FIT 3030
ES 120/1
FE 3030
16" RAS
I-403 23
FROM RAS

DRAWING FILE: M:\Civil\CSAV190007 BGJWSC WPCF Rehab\0 DWG\+CAD\01 BID DRAWINGS\02 INSTRUMENTATION\I-001.dwg
PLOTTED: Jun 15, 2020 - 4:07pm

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	09.09.2019	JCV
70% SUBMITTAL	12.16.2019	MEF
100% SUBMITTAL	03.12.2020	DT/SS
CONSTRUCTION SUBMITTAL	06.15.2020	PW
PROJECT MANAGER:	DT	GS
ENGINEER:	DT/SS	GS/AJ
DESIGNER:	PW	
DRAWN BY:	GS	

1" 0" .5" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA
No. 18174
PROFESSIONAL ENGINEER
JAMES C. VAUGHN

P&ID - AERATION BASINS 1,2 &3

I-301

CLARIFIER NO 1

RUN | FAULT | TORQ ALARM: XI 4110 | XA 4110 | NA 4110
RAS FLOW: FIR 4100
ENABLE: HS 4101 — 2

CLARIFIER NO 3

RUN | FAULT | TORQ ALARM: XI 4310 | XA 4310 | NA 4310
RAS FLOW: FIR 4300
ENABLE: HS 4301 — 3

SCADA

LCP4010

CALL TO RUN | RUN | FAULT | TORQ ALARM: HS 4110 | XC 4110 | XI 4110 | XA 4110 | NA 4110
1 DI
FI 4100 — 1 AI

CALL TO RUN | RUN | FAULT | TORQ ALARM: HS 4310 | XC 4310 | XI 4310 | XA 4310 | NA 4310
2 DI
FI 4300 — 2 AI

RAS PUMP NO. 1

START STOP | SPEED CNTRL | SPEED | RUN | PUMP IN REMOTE | FAULT | RUN TIME: HS 4111 | SC 4111 | SI 4111 | XI 4111A | XI 4111B | XA 4111 | KQI 4111
3 DO | 4 AO | 5 AI | 6 DI | 7 DI | 8 DI

RAS PUMP NO. 2

START STOP | SPEED CNTRL | SPEED | RUN | PUMP IN REMOTE | FAULT | RUN TIME: HS 4112 | SC 4112 | SI 4112 | XI 4112A | XI 4112B | XA 4112 | KQI 4112
9 DO | 10 AO | 11 AI | 12 DI | 13 DI | 14 DI

RAS PUMP NO. 3

START STOP | SPEED CNTRL | SPEED | RUN | PUMP IN REMOTE | FAULT | RUN TIME: HS 4311 | SC 4311 | SI 4311 | XI 4311A | XI 4311B | XA 4311 | KQI 4311
15 DO | 16 AO | 17 AI | 18 DI | 19 DI | 20 DI

RAS PUMP NO. 4

START STOP | SPEED CNTRL | SPEED | RUN | PUMP IN REMOTE | FAULT | RUN TIME: HS 4312 | SC 4312 | SI 4312 | XI 4312A | XI 4312B | XA 4312 | KQI 4312
15 DO | 16 AO | 17 AI | 18 DI | 19 DI | 20 DI

2 IF DISABLED P4111 AND D4112 ARE OUT OF SERVICE

3 IF DISABLED P4311 AND P4312 ARE OUT OF SERVICE

10 I-301 FROM CLARIFIER SPLITTER — 36" ML

SPLITTER BOX 'B'

SG4110

SG4120

24" ML

6" SSC

COL4100

6" WAS

8" WAS

TO DIGESTERS

12" RAS

6" RAS

30" SE

FIT 4100

FE 4100

(REMOVE)

COL4300

36" SE

13 I-403

24" ML

6" WAS

8" WAS

TO DIGESTERS

12" RAS

6" RAS

FIT 4300

FE 4300

(REMOVE)

12" RAS

VFD-4111 — RAS PUMP NO. 1 VFD (EXIST)

HS 4111 | SC 4111 | SI 4111 | XI 4111A | XI 4111B | XA 4111

PI 4011

TO FL.DR.

12" RAS

12" RAS — 6" — 6" — 12" RAS

S 1 — PSW — FO — 1/2" PSW — P4111

VFD-4112 — RAS PUMP NO. 2 VFD (EXIST)

HS 4112 | SC 4112 | SI 4112 | XI 4112A | XI 4112B | XA 4112

PI 4011

TO FL.DR.

12" RAS

12" RAS — 6" — 6" — 12" RAS

S 1 — PSW — FO — 1/2" PSW — P4112

VFD-4311 — RAS PUMP NO. 3 VFD (EXIST)

HS 4311 | SC 4311 | SI 4311 | XI 4311A | XI 4311B | XA 4311

PI 4011

TO FL.DR.

12" RAS

12" RAS — 6" — 6" — 12" RAS

S 1 — PSW — FO — 1/2" PSW — P4311

VFD-4312 — RAS PUMP NO. 4 VFD (EXIST)

HS 4312 | SC 4312 | SI 4312 | XI 4312A | XI 4312B | XA 4312

PI 4011

TO FL.DR.

12" RAS

12" RAS — 6" — 6" — 12" RAS

S 1 — PSW — FO — 1/2" PSW — P4312

12" RAS

19 I-402

INTERLOCKS:

1 SV INTERLOCKED WITH PUMP RUN

COL4100
SECONDARY CLARIFIER NO. 1
(EXISTING)
DIA: 90 FT.
SWD: 10 FT.
H.P.: 1.5

COL4300
SECONDARY CLARIFIER NO. 3
(EXISTING)
DIA: 90 FT.
SWD: 10 FT.
H.P.: 1.5

P4111
RAS NO. 1
(EXISTING)
FLOW: 800 GPM
TDH: 18 FT.
HP: 7.5

P4112
RAS NO. 2
(EXISTING)
FLOW: 800 GPM
TDH: 18 FT.
HP: 7.5

P4121
RAS NO. 3
(EXISTING)
FLOW: 800 GPM
TDH: 18 FT.
HP: 7.5

P4122
RAS NO. 4
(EXISTING)
FLOW: 800 GPM
TDH: 18 FT.
HP: 7.5

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	09.09.2019	DT
70% SUBMITTAL	12.16.2019	DT/SS
100% SUBMITTAL	03.12.2020	MEF
CONSTRUCTION SUBMITTAL	06.15.2020	JCV
PROJECT MANAGER:		FW
ENGINEER:		GS
DESIGNER:		GS
DRAWN BY:		GS/AJ

1" 0" .5" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 18174 PROFESSIONAL ENGINEER JAMES C. VAUGHN, III

P&ID - CLARIFIERS 1&2-RAS

I-401

DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPC Rehab\0 DWG\+CAD\01 BID DRAWINGS\02 INSTRUMENTATION\I-001.dwg
PLOTTED: Jun 12, 2020 - 11:22am

CLARIFIER NO 2

RUN	FAULT	TORQ ALARM	RAS FLOW	ENABLE
XI 4210	XA 4210	NA 4210	FIR 4200	HS 4201

CLARIFIER NO 4

RUN	FAULT	TORQ ALARM	RAS FLOW	ENABLE
XI 4410	XA 4410	NA 4410	FIR 4400	HS 4401

SCADA

LCP4010

CALL TO S/S	CALL TO RUN	RUN	FAULT	TORQ ALARM
HS 4210	XC 4210	XI 4210	XA 4210	NA 4210

1 DI — FI 4200 — 1 AI

CALL TO S/S	CALL TO RUN	RUN	FAULT	TORQ ALARM
HS 4410	XC 4410	XI 4410	XA 4410	NA 4410

2 DI — FI 4400 — 2 AI

RAS PUMP NO. 5

START STOP	SPEED CNTRL	SPEED	RUN	PUMP IN REMOTE	FAULT	RUN TIME
HS 4211	SC 4211	SI 4211	XI 4211A	XI 4211B	XA 4211	KQI 4211

3 DO — 4 AO — 5 AI — 6 DI — 7 DI — 8 DI

RAS PUMP NO. 6

START STOP	SPEED CNTRL	SPEED	RUN	PUMP IN REMOTE	FAULT	RUN TIME
HS 4212	SC 4212	SI 4212	XI 4212A	XI 4212B	XA 4212	KQI 4212

9 DO — 10 AO — 11 AI — 12 DI — 13 DI — 14 DI

RAS PUMP NO. 7

START STOP	SPEED CNTRL	SPEED	RUN	PUMP IN REMOTE	FAULT	RUN TIME
HS 4411	SC 4411	SI 4411	XI 4411A	XI 4411B	XA 4411	KQI 4311

15 DO — 16 AO — 17 AI — 18 DI — 19 DI — 20 DI

RAS PUMP NO. 8

START STOP	SPEED CNTRL	SPEED	RUN	PUMP IN REMOTE	FAULT	RUN TIME
HS 4412	SC 4412	SI 4412	XI 4412A	XI 4412B	XA 4412	KQI 4412

15 DO — 16 AO — 17 AI — 18 DI — 19 DI — 20 DI

4 IF DISABLED P4211 AND P4212 ARE OUT OF SERVICE

5 IF DISABLED P4411 AND P4412 ARE OUT OF SERVICE

11 I-301 FROM CLARIFIER SPLITTER — 36" ML — SPLITTER BOX 'C' — SG4210, SG4220

24" ML

COL4200

6" SSC

6" WAS — 8" WAS — TO DIGESTERS

12" RAS — 6" RAS — 30" SE

FIT 4200 — FE 4200

COL4400

6" SSC

36" SE — 14 I-403

24" ML

6" WAS — 8" WAS — TO DIGESTERS

12" RAS — 6" RAS

FIT 4400 — FE 4400

12" RAS

VFD-4211 — RAS PUMP NO. 5 VFD (EXIST) — PI 4011 — P4211

VFD-4212 — RAS PUMP NO. 6 VFD (EXIST) — PI 4011 — P4212

VFD-4411 — RAS PUMP NO. 7 VFD (EXIST) — PI 4011 — P4411

VFD-4412 — RAS PUMP NO. 8 VFD (EXIST) — PI 4011 — P4412

PSW — 1/2" PSW — FO — S 1

12" RAS — 6" — TO FL.DR.

16" RAS — 20 I-403

FROM CL1 19 I-401 — 12" RAS

INTERLOCKS:

1 SV INTERLOCKED WITH PUMP RUN

COL4200
SECONDARY CLARIFIER NO. 2
(EXISTING)
DIA: 90 FT.
SWD: 10 FT.
H.P.: 1.5

COL4400
SECONDARY CLARIFIER NO. 4
(EXISTING)
DIA: 90 FT.
SWD: 10 FT.
H.P.: 1.5

P4211
RAS NO. 5
(EXISTING)
FLOW: 800 GPM
TDH: 18 FT.
HP: 7.5

P4212
RAS NO. 6
(EXISTING)
FLOW: 800 GPM
TDH: 18 FT.
HP: 7.5

P4411
RAS NO. 7
(EXISTING)
FLOW: 800 GPM
TDH: 18 FT.
HP: 7.5

P4412
RAS NO. 8
(EXISTING)
FLOW: 800 GPM
TDH: 18 FT.
HP: 7.5

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	09.09.2019	MEF
70% SUBMITTAL	12.16.2019	GS
100% SUBMITTAL	03.12.2020	GS/AJ
CONSTRUCTION SUBMITTAL	06.15.2020	
PROJECT MANAGER:	DT	JCV
ENGINEER:	DT/SS	MEF
DESIGNER:	FW	GS
DRAWN BY:	GS	GS/AJ

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 18174 JAMES C. VAUGHN, JR.

P&ID - CLARIFIERS 3&4 - RAS

I-402

DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPC Rehab\0 DWGs-CAD\01 BID DRAWINGS\02 INSTRUMENTATION\I-001.dwg
PLOTTED: Jun 12, 2020 - 11:22am

CLARIFIER NO 5

RUN	FAULT	TORQ ALARM	RAS FLOW	ENABLE
XI 4510	XA 4510	NA 4510	FIR 4500	HS 4501

CLARIFIER NO 6

RUN	FAULT	TORQ ALARM	RAS FLOW	ENABLE
XI 4610	XA 4610	NA 4610	FIR 4600	HS 4601

RAS PUMP NO. 9

START STOP	SPEED CNTRL	SPEED	RUN	PUMP IN REMOTE	FAULT	RUN TIME
HS 4511	SC 4511	SI 4511	XI 4511A	XI 4511B	XA 4511	KQI 4511

RAS PUMP NO. 10

START STOP	SPEED CNTRL	SPEED	RUN	PUMP IN REMOTE	FAULT	RUN TIME
HS 4512	SC 4512	SI 4512	XI 4512A	XI 4512B	XA 4512	KQI 4512

RAS PUMP NO. 11

START STOP	SPEED CNTRL	SPEED	RUN	PUMP IN REMOTE	FAULT	RUN TIME
HS 4611	SC 4611	SI 4611	XI 4611A	XI 4611B	XA 4611	KQI 4311

RAS PUMP NO. 12

START STOP	SPEED CNTRL	SPEED	RUN	PUMP IN REMOTE	FAULT	RUN TIME
HS 4612	SC 4612	SI 4612	XI 4612A	XI 4612B	XA 4612	KQI 4612

SCADA

LCP4020

CALL TO S/S	RUN	FAULT	TORQ ALARM
HS 4510	XC 4510	XI 4510	XA 4510	NA 4510

FI 4500

CALL TO S/S	RUN	FAULT	TORQ ALARM
HS 4610	XC 4610	XI 4610	XA 4610	NA 4610

FI 4600

1 DI — 1 AI — 2 DI — 2 AI

HS 4511	SC 4511	SI 4511	XI 4511A	XI 4511B	XA 4511	
3 DO	4 AO	5 AI	6 DI	7 DI	8 DI	

HS 4512	SC 4512	SI 4512	XI 4512A	XI 4512B	XA 4512	
9 DO	10 AO	11 AI	12 DI	13 DI	14 DI	

HS 4611	SC 4611	SI 4611	XI 4611A	XI 4611B	XA 4611	
15 DO	16 AO	17 AI	18 DI	19 DI	20 DI	

HS 4612	SC 4612	SI 4612	XI 4612A	XI 4612B	XA 4612	
15 DO	16 AO	17 AI	18 DI	19 DI	20 DI	

6 IF DISABLED P4511 AND D4512 ARE OUT OF SERVICE

7 IF DISABLED P4611 AND P612 ARE OUT OF SERVICE

13 I-401 36" SE

14 I-402 36" SE

CL4500

36" SE

6" SSC

36" SE

30" SE

15 I-501

16 I-501

24" ML

6" WAS

8" WAS

TO DIGESTERS

12" RAS

6" RAS

12 I-301 36" ML FROM CLARIFIER SPLITTER

SG4310

SG4320

SPLITTER BOX 'D'

FIT 4500

FE 4500

30" SE

CL4600

6" SSC

24" ML

6" WAS

8" WAS

TO DIGESTERS

12" RAS

6" RAS

FIT 4600

FE 4600

12" RAS

VFD-4511 RAS PUMP NO. 9 VFD (EXIST)

VFD-4512 RAS PUMP NO. 10 VFD (EXIST)

VFD-4611 RAS PUMP NO. 11 VFD (EXIST)

VFD-4612 RAS PUMP NO. 12 VFD (EXIST)

PI 4011

TO FL.DR.

12" RAS

6"

4"

P4511

P4512

P4611

P4612

PSW

1/2" PSW

FO

16" RAS

21 I-301 TO AB1

20 I-402 16" RAS

TO AB2 I-301 22 16" RAS

TO AB3 I-301 23 16" RAS

PLUG

INTERLOCKS:

1 SV INTERLOCKED WITH PUMP RUN

CL4500
SECONDARY CLARIFIER NO. 5 (EXISTING)
DIA: 90 FT.
SWD: 10 FT.
H.P.: 1.5

CL4600
SECONDARY CLARIFIER NO. 6 (EXISTING)
DIA: 90 FT.
SWD: 10 FT.
H.P.: 1.5

P4511
RAS NO. 9 (EXISTING)
FLOW: 800 GPM
TDH: 18 FT.
HP: 7.5

P4512
RAS NO. 10 (EXISTING)
FLOW: 800 GPM
TDH: 18 FT.
HP: 7.5

P4611
RAS NO. 11 (EXISTING)
FLOW: 800 GPM
TDH: 18 FT.
HP: 7.5

P4612
RAS NO. 12 (EXISTING)
FLOW: 800 GPM
TDH: 18 FT.
HP: 7.5

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	DT JCV
ENGINEER:	DT/SS MEF
DESIGNER:	FW GS
DRAWN BY:	GS GS/AJ

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK

BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BG-JWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 18174 JAMES C. VAUGHN, JR.

P&ID - CLARIFIERS 5&6 - RAS

I-403

DRAWING FILE: W:\Civil\CSAV190007 BG-JWSC WPC Rehab\00 DWGs+CAD\01 BID DRAWINGS\02 INSTRUMENTATION\I-001.dwg
PLOTTED: Jun 12, 2020 - 11:22am

SCADA

LCP4020

GEN FAULT XA 5100 | DF-5100 RUN XI 5100A | P5100 RUN XI 5100B

GEN FAULT XA 5200 | DF-5200 RUN XI 5200A | P5200 RUN XI 5200B

FCP5100 FILTER #1 CONTROL PANEL

LAH 5110	HOA	CALL TO RUN DF-5100 DRIVE				VAH 5111	HOA	CALL TO RUN P-5100 DRIVE			CALL TO OPEN			CALL TO OPEN			CALL TO OPEN			CALL TO OPEN		XA 5112
LI 5110	HS 5110	XC 5110	XIR 5110	XA 5110	LAHH 5110	VI 5111	HS 5111	XC 5111	XIR 5111	XA 5111	ZIC 5112A	ZIO 5112A	XC 5112A	ZIC 5112B	ZIO 5112B	XC 5112B	ZIC 5112C	ZIO 5112C	XC 5112C	ZIC 5112D	ZIO 5112D	XC 5112D	FI 5112
1 AI	2 DO	3 DO	4 DI	5 DI	6 DI	7 AI	8 DO	9 DO	10 DI	11 DI	12 DI	13 DI	14 DO	15 DI	16 DI	17 DO	18 DI	19 DI	20 DO	21 DI	22 DI	23 DO	24 AI

FCP5200 FILTER #2 CONTROL PANEL

LAH 5210	HOA	CALL TO RUN DF-5200 DRIVE				VAH 5211	HOA	CALL TO RUN P-5200 DRIVE			CALL TO OPEN			CALL TO OPEN			CALL TO OPEN			CALL TO OPEN		XA 5212
LI 5210	HS 5210	XC 5210	XIR 5210	XA 5210	LAHH 5210	VI 5211	HS 5211	XC 5211	XIR 5211	XA 5211	ZIC 5212A	ZIO 5212A	XC 5212A	ZIC 5212B	ZIO 5212B	XC 5212B	ZIC 5212C	ZIO 5212C	XC 5212C	FI 5212			
25 AI	26 DO	27 DO	28 DI	29 DI	30 DI	31 AI	32 DO	33 DO	34 DI	35 DI	36 DI	37 DI	38 DO	39 DI	40 DI	41 DO	42 DI	43 DI	44 DO	48 AI			

WEIR OVERFLOW

BYPASS OVERFLOW (EXISTING FLUME CHANNEL) → 18 I-601

36" SE ← 15 I-403

30" SE ← 16 I-403

EXISTING JUNCTION BOX

48" SE

V5300 | SG5100

FILTER WEIR INFLUENT

FILTER INFLUENT CHANNEL

LT 5110 | LE 5110 | LS 5110

VFD

ZSC 5112D | ZSO 5112D

8" SC

V5102

FILTER EFFLUENT CHANNEL

LT 5210 | LE 5210 | LS 5210

V5104 | V5105 | V5106

ZSO 5112A | ZSC 5112A

ZSO 5112B | ZSC 5112B

ZSO 5112C | ZSC 5112C

6" BW

6" RECIRCULATION

VT 5111 | PI 5111 | FIT 5112 | FI 5112

V5107 | V5109 | V5108

P5100

FE5112

V5101

V5100

SG5200

V5204 | V5205 | V5206

ZSO 5212A | ZSC 5212A

ZSO 5212B | ZSC 5212B

ZSO 5212C | ZSC 5212C

6" SL

6" BWW

VT 5211 | PI 5211 | FIT 5212 | FE 5212

V5207 | V5209 | V5208

P5200

FE5212

V5201

V5200

48" FE → 17 I-601

6"X10"

10" BWW → TO DIGESTER

DF5100
DISC CLOTH FILTER #1
SPEC: 466141
CAPACITY: 14 MGD
HP: 5

P5100
BACKWASH #1
SPEC: 466141
CAPACITY: 782 GPM
HP: 20

DF5200
DISC CLOTH FILTER #2
SPEC: 466141
CAPACITY: 14 MGD
HP: 5

P5200
BACKWASH #2
SPEC: 466141
CAPACITY: 782 GPM
HP: 20

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" 0" .5" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 18174 JAMES C. VAUGHN

P&ID - TERTIARY FILTERS

I-501

SAMPLE PUMP P6010

SAMPLE PUMP P6010

SCADA

LCP4020

LCP4020

	START	STOP	RESET	E-STOP		
HS 8030A	HS 8030B	HS 8030C	HS 8030D	HS 8030E	XI 8030	XA 8030

RUN: XI 8030 — FAIL: XA 8030

1 DO

2 DO

1 DO

1 DO

SAMPLER

P6010

M

1 2

CLS

FROM CHIORINE BLDG 1

18 I-501 BYPASS OVERFLOW (EXISTING FLUME CHANNEL)

17 I-501 48" FE

V5301

T6010

T6020

36" FE

TO FINAL EFFLUENT

CLS

FROM CHIORINE BLDG

3 4

M

P6020

CHLORINE CONTACT CHAMBER

SAMPLER

P6010
SAMPLE
(EXISTING)
DIA: 90 FT.
SWD: 10 FT.
H.P.: 1.5

P6020
SAMPLE
(EXISTING)
DIA: 90 FT.
SWD: 10 FT.
H.P.: 1.5

PXXX
SAMPLE
(EXISTING)
DIA: 90 FT.
SWD: 10 FT.
H.P.: 1.5

DRAWING FILE: W:\Civil\CSAV\190007 BGJWSC WPCF Rehab\0 DWG\+CAD\101 BID DRAWINGS\02 INSTRUMENTATION\I-001.dwg
PLOTTED: Jun 15, 2020 - 4:07pm

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" 0" .5" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

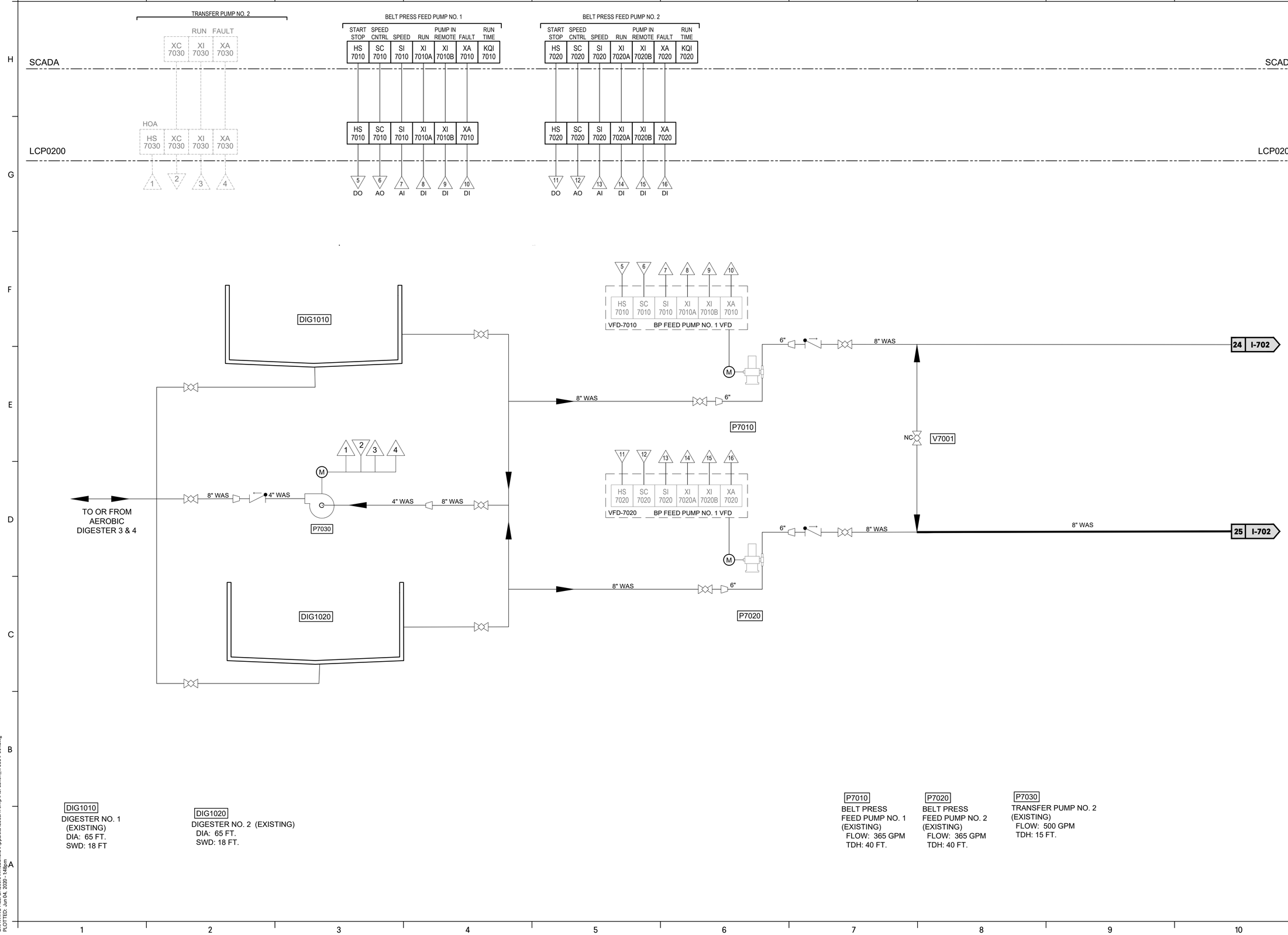
BGJWSC Project No. 906

GMC Project #CSAV190007

GEORGIA REGISTERED No. 18174 PROFESSIONAL ENGINEER JAMES C. VAUGHN

P&ID - CHLORINE CONTACT CHAMBERS

I-601



DIG1010
DIGESTER NO. 1
(EXISTING)
DIA: 65 FT.
SWD: 18 FT

DIG1020
DIGESTER NO. 2 (EXISTING)
DIA: 65 FT.
SWD: 18 FT.

P7010
BELT PRESS
FEED PUMP NO. 1
(EXISTING)
FLOW: 365 GPM
TDH: 40 FT.

P7020
BELT PRESS
FEED PUMP NO. 2
(EXISTING)
FLOW: 365 GPM
TDH: 40 FT.

P7030
TRANSFER PUMP NO. 2
(EXISTING)
FLOW: 500 GPM
TDH: 15 FT.

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" 0" .5" 1"

FOR CONSTRUCTION
FOR PERMIT
FOR BID
FOR GOVERNMENT REVIEW
FOR CLIENT REVIEW
NOT FOR CONSTRUCTION
PRELIMINARY
FOR COMMISSION

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAVI90007

GEORGIA
JEFFREY S. BROWN
No. 18017
PROFESSIONAL
JAMES C. VAUGHN III
PROFESSIONAL ENGINEER

P&ID - SLUDGE PUMPING

I-701

DRAWING FILE: C:\Users\vmcdonald\AppData\Local\Temp\AcPublish_17888\I-001.dwg
PLOTTED: Jun 04, 2020 - 1:48pm

BFP 7040

CALL TO RUN: XC 7040
RUN: XI 7040
VFD FAULT: XA 7040

HOA: HS 7040, XC 7040, XI 7040, XA 7040

BFP 7050

CALL TO RUN: XC 7050
RUN: XI 7050
VFD FAULT: XA 7050

HOA: HS 7050, XC 7050, XI 7050, XA 7050

SCADA

LCP7000

FLOW FIR 7040

FLOW FIR 7050

F4 — FIR 7040 — FY 7051 (F) Σ (NOTE 1) — FIR 7050 — F5

F — COMBINED DS FLOW RATE TO POLYMER FEED (I-802)

F4 — BFP7040 DS FLOW RATE TO POLYMER FEED (I-802)

F5 — BFP7050 DS FLOW RATE TO POLYMER FEED (I-802)

27 I-802 — 1" POL

4" PSW

24 I-701 — 8" DS

25 I-701 — 8" DS

4" PSW

28 I-802 — 1" POL

FIT 7040

FE 7040

6" DS — MIXING VALVE — 6" DS

BFP 7040

NC V7002

FIT 7050

FE 7050

MIXING VALVE — 6" DS — 6"DS

BFP7050

CONV7041

CONV7043

26 I-703

BFP1010
BELT FILTER PRESS (EXISTING)
SIZE: 2 M

BFP 1020
BELT FILTER PRESS (EXISTING)
SIZE: 2 M

NOTES:
1. SUM OF FLOW RATE FROM FIR 7040 & 7050

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	09.09.2019	MEF
70% SUBMITTAL	12.16.2019	GS
100% SUBMITTAL	03.12.2020	GS/AJ
CONSTRUCTION SUBMITTAL	06.15.2020	
PROJECT MANAGER:	JCV	
ENGINEER:	MEF	
DESIGNER:	GS	
DRAWN BY:	GS/AJ	

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BG-JWSC Project No. 906

GMC Project #CSAV190007

GEORGIA — REGISTERED — No. 18127 — PROFESSIONAL ENGINEER — JAMES C. VAUGHN

P&ID - BELT FILTER PRESSESS

I-702

DRAWING FILE: C:\Users\vmcdonald\AppData\Local\Temp\AcPublish_17888\I-001.dwg
PLOTTED: Jun 04, 2020 - 1:48pm

LBB7060

CALL TO RUN: XC 7060 | RUN: XI 7060 | VFD FAULT: XA 7060 | SPEED CNTL: SC 7060 | SPEED: SI 7060

HOA: HS 7060 | XC 7060 | XI 7060 | XA 7060 | SC 7060 | SI 7060

SCADA

LCP7000

LIVE BOTTOM BIN NO. 2

LBB POWER: XI 7065 | LBB FAULT: XA 7065

LBB LEVEL: LIR 7065 | LAH 7065

LBB WT: WIR 7065

FCP7065
LIVE BOTTOM BIN CONTROL PANEL

HOA START: HS 7065D | STOP: HS 7065E | FOR: HS 7065F | HS 7065G | RESET: XI 7065 | ACK: XA 7065 | HS 7065H | HS 7065J

LI 7065 | WI 7065

LBB AUGER 1 RUN: XI 7065A | LBB AUGER 2 RUN: XI 7065B | LBB AUGER 3 RUN: XI 7065C | LBB AUGER 4 RUN: XI 7065D

HOA: HS 7065A | HS 7065B | HS 7065C | HS 7065D

LBB CONVEYOR 1

RUN: XI 7071 | FAULT: XA 7071 | E-STOP: XA 7071 | ZERO SPEED FAULT: XA 7071

FCP7071
CONVEYOR CONTROL PANEL

LBB CONVEYOR 2

RUN: XI 7072 | FAULT: XA 7072 | E-STOP: XA 7072 | ZERO SPEED FAULT: XA 7072

FCP7072
CONVEYOR CONTROL PANEL

26 I-702

CONV7042

FCP7060
LBB CONTROL PANEL

ES 120/1 — LIT 7060 — LE 7060

ES 120/1 — WIT 7060 — WE 7060

LBB7065

4" D

CONV7071

ZS 7071A — E-STOP HS 7071A

CONV7072

LIT 1230 — LE 1230

LBB7060

ZS 7072

CONV7061

TO DRYER

LBB7060
LIVE BOTTOM BIN
(EXISTING)
.

LBB7060
LIVE BOTTOM BIN
SPEC: 41 13 13
CAP: 25 CY (MIN)

CONV7061
SCREENINGS CONVEYOR
SPEC: 41 13 12
CAP: 40 CF/HR
HP: 5.0

CONV7061
SCREENINGS CONVEYOR
SPEC: 41 13 12
CAP: 40 CF/HR
HP: 5.0

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020

PROJECT MANAGER: JCV
ENGINEER: MEF
DESIGNER: GS
DRAWN BY: GS/AJ

1" 0" .5" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

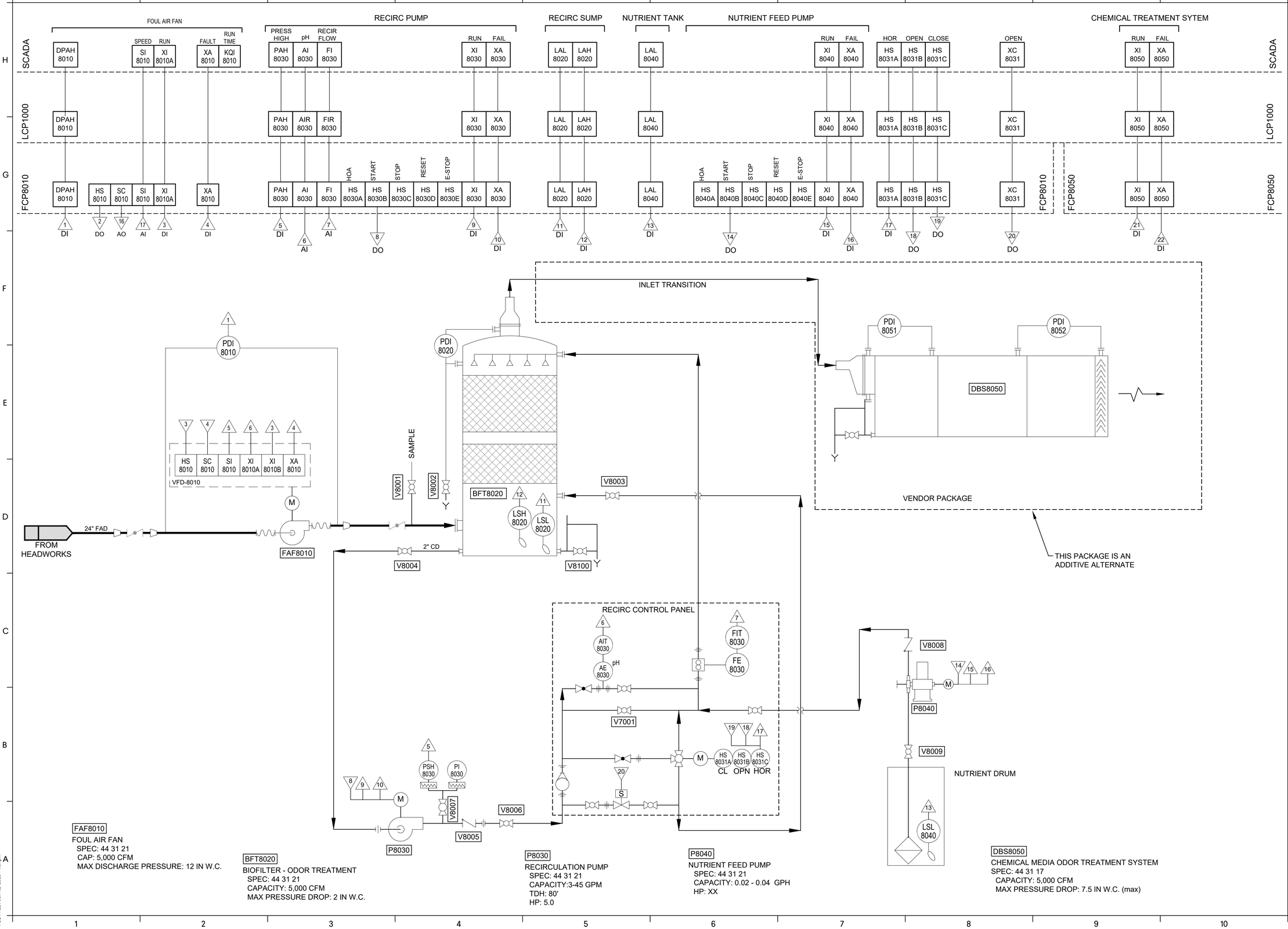
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 18777 PROFESSIONAL ENGINEER JAMES C. VAUGHN

P&ID - SLUDGE UNLOADING

I-703

DRAWING FILE:C:\Users\vmcdonald\AppData\Local\Temp\AcPublish_17888\I-001.dwg
PLOTTED: Jun 04, 2020 - 1:48pm



FAF8010
FOUL AIR FAN
SPEC: 44 31 21
CAP: 5,000 CFM
MAX DISCHARGE PRESSURE: 12 IN W.C.

BFT8020
BIOFILTER - ODOR TREATMENT
SPEC: 44 31 21
CAPACITY: 5,000 CFM
MAX PRESSURE DROP: 2 IN W.C.

P8030
RECIRCULATION PUMP
SPEC: 44 31 21
CAPACITY:3-45 GPM
TDH: 80'
HP: 5.0

P8040
NUTRIENT FEED PUMP
SPEC: 44 31 21
CAPACITY: 0.02 - 0.04 GPH
HP: XX

DBS8050
CHEMICAL MEDIA ODOR TREATMENT SYSTEM
SPEC: 44 31 17
CAPACITY: 5,000 CFM
MAX PRESSURE DROP: 7.5 IN W.C. (max)

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	09.09.2019	JCV
70% SUBMITTAL	12.16.2019	MEF
100% SUBMITTAL	03.12.2020	GS
CONSTRUCTION SUBMITTAL	06.15.2020	GS/AJ
PROJECT MANAGER:		
ENGINEER:		
DESIGNER:		
DRAWN BY:		

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

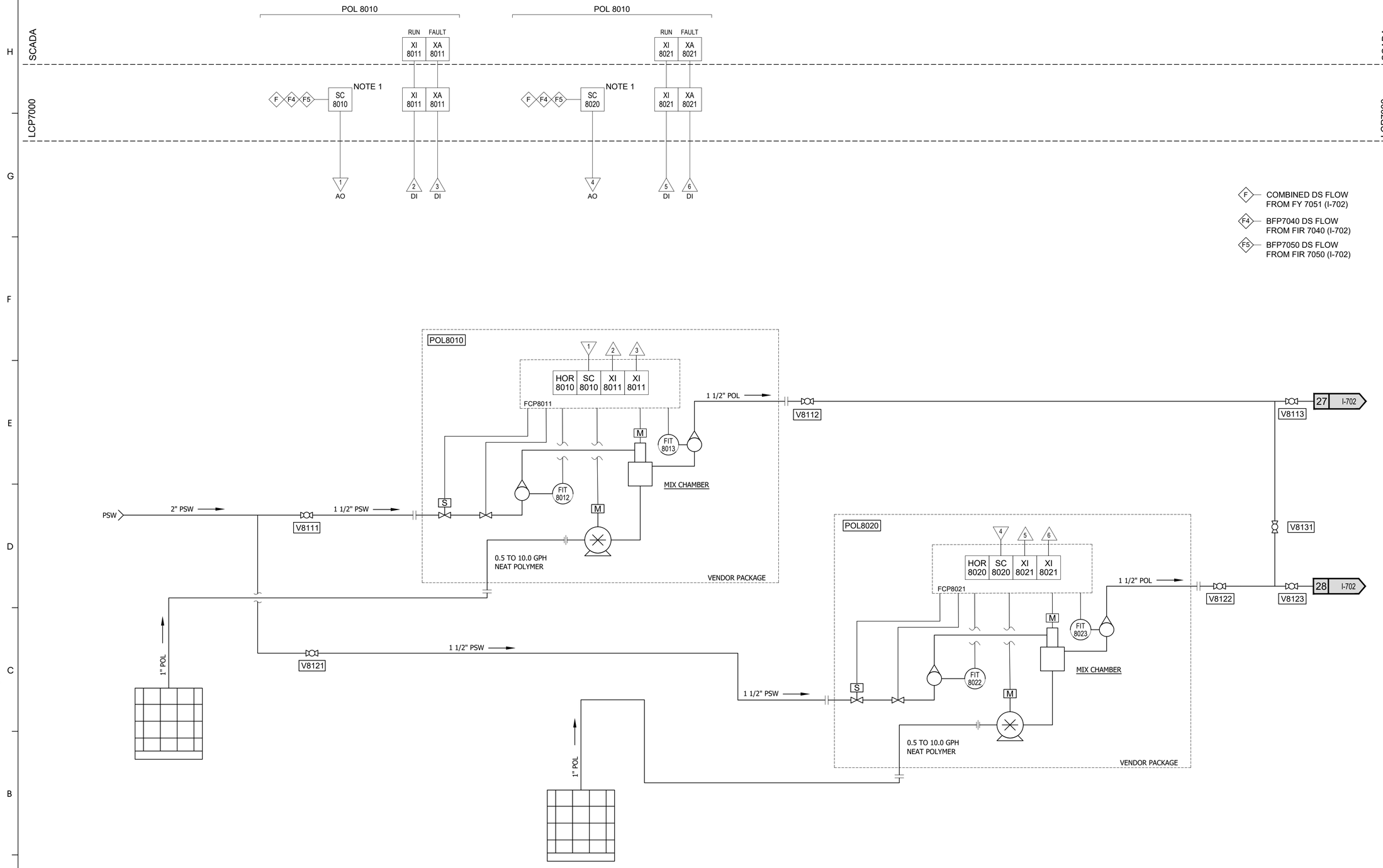
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 18174 PROFESSIONAL ENGINEER JAMES C. VAUGHN, JR.

P&ID - CHEMICAL FEED SYSTEM

I-801

DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPC Rehab\0 DWG\+CAD\01 BID DRAWINGS\02 INSTRUMENTATION\I-001.dwg
PLOTTED: Jun 15, 2020 - 4:07pm



POL8010
POLYMER FEED SYSTEM NO. 1
SPEC: 46 33 33
CAPACITY: 0.5 - 10.0 GPH NEAT POLYMER
180-1,800 GPH DILUTION WATER
MAX BACK PRESSURE: 40 PSIG

POL8020
POLYMER FEED SYSTEM NO. 2
SPEC: 46 33 33
CAPACITY: 0.5 - 10.0 GPH NEAT POLYMER
180-1,800 GPH DILUTION WATER
MAX BACK PRESSURE: 40 PSIG

NOTES:
1. ALLOW SELECTION OF FLOW PACING FROM FIR 7040, FIR 7050, OR FY 7051 FOR DOSAGE CONTROL. DOSE UNITS TO BE IN POUNDS PER DRY TON ASSUMING 2.5% SOLIDS CONCENTRATION & APPROXIMATELY 1.75 DRY TONS PER HOUR (0.875 DRY TONS PER HOUR FOR EACH BFP).

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	09.09.2019	JCV
70% SUBMITTAL	12.16.2019	MEF
100% SUBMITTAL	03.12.2020	GS
CONSTRUCTION SUBMITTAL	06.15.2020	GS/AJ

PROJECT MANAGER:
ENGINEER:
DESIGNER:
DRAWN BY:

1" 0" .5" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

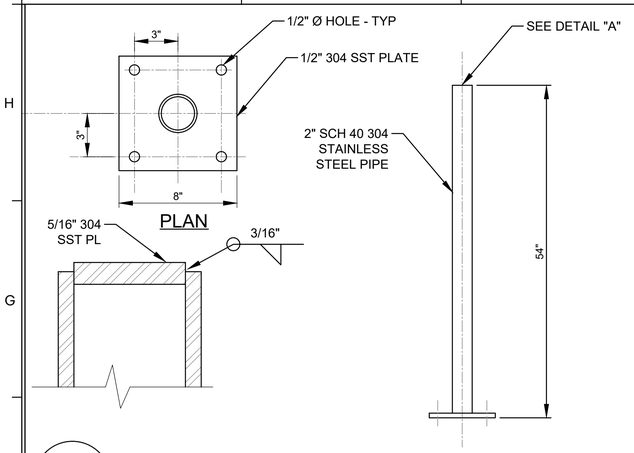
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 18174 JAMES C. WILSON JR.

P&ID - BFP
POLYMER FEED

I-802

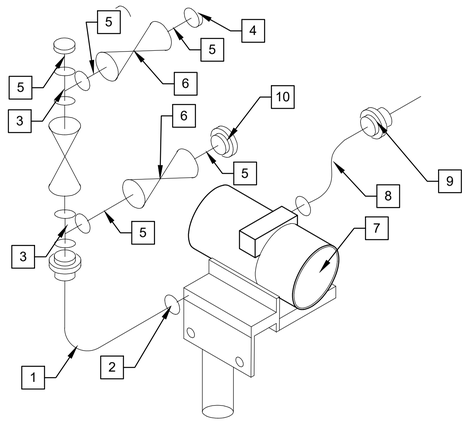
DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPC Rehab\0 DWG\=CAD\01 BID DRAWINGS\02 INSTRUMENTATION\I-001.dwg
PLOTTED: Jun 15, 2020 - 4:07pm



1 I-901

FLOOR MOUNT - SINGLE INSTRUMENT

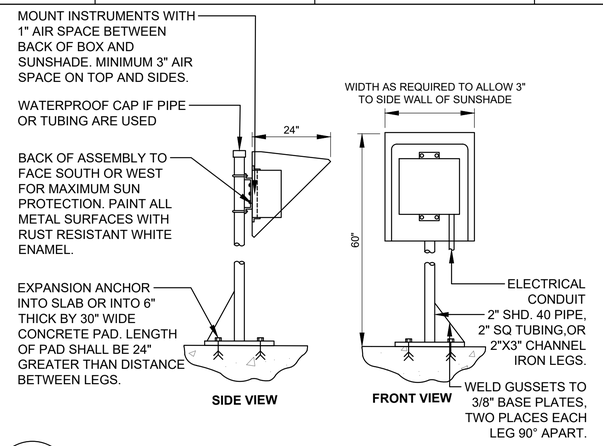
SCALE: NOT TO SCALE



2 I-901

PRESSURE TRANSMITTER

SCALE: NOT TO SCALE



3 I-901

OUTDOOR INSTRUMENT MOUNT

SCALE: NOT TO SCALE

EQUIPMENT NOTES [#]

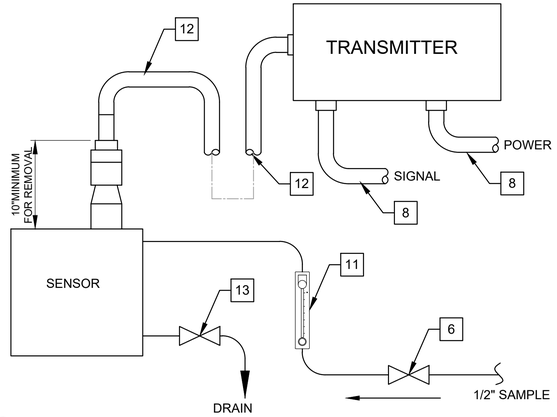
1. 3/8" INSTRUMENT TUBING
2. 3/8" TUBING TO 1/2" NPT ADAPTER
3. 1/2" TEE
4. 1/2" PLUG
5. 1/2" SCH 80 PIPE NIPPLE
6. 1/2" VALVE
7. PRESSURE TRANSMITTER
8. 3/4" FLEXIBLE CONDUIT WITH STRAIGHT CONNECTORS
9. 3/4" CONDUIT CONNECTOR
10. 1/2" NPT HALF COUPLING PROCESS CONNECTION
11. ROTAMETER
12. SENSOR CABLE BY INST VENDOR
13. NEEDLE VALVE
14. 3-VALVE MANIFOLD
15. GROUNDING RING ON ALL CONNECTING PIPE
16. #8 GROUNDING CONDUCTOR TO GROUND BUS
17. MAGNETIC FLOW METER - FLOW ELEMENT
18. MAGNETIC FLOW METER - FLOW TRANSMITTER
19. PRESSURE GAUGE
20. PRESSURE SWITCH
21. 1 1/4" NPT HALF COUPLING PROCESS CONNECTION
22. 1 " SST BALL VALVE
23. STAINLESS STEEL DIAPHRAGM SEAL W/ 1/4" STAINLESS STEEL BALL VALVE
24. 3/4" STAINLESS STEEL CONDUIT
25. BLIND FLANGE - MATCH TANK NOZZLE BOLT PATTERN. STAINLESS STEEL NUTS, BOLTS & WASHERS

RADAR/ ULTRASONIC LEVEL TRANSDUCER NOTES:

1. THIS DISTANCE MUST BE GREATER THAN THE TRANSDUCER BLANKING DISTANCE.
2. HORIZONTAL LOCATION PER MANUFACTURERS INSTRUCTIONS. AVOID OBSTRUCTIONS & MAXIMIZE RETURN SIGNAL.

PRESSURE TRANSMITTER NOTES:

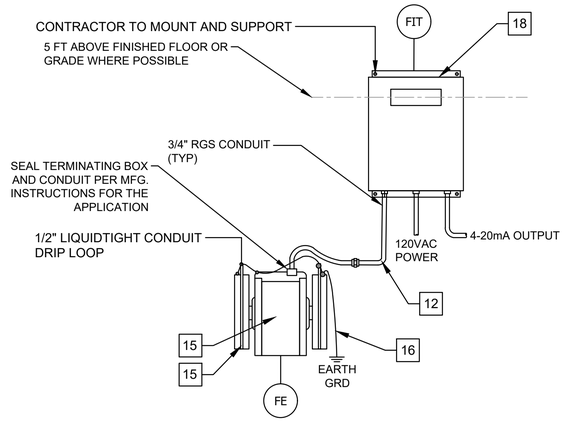
1. DETAIL SHOWN IS FOR LIQUID SERVICE. FOR PROCESS GAS/SERVICE THE TRANSMITTER WOULD BE MOUNTED ABOVE THE PROCESS PIPE.
2. DIFFERENTIAL PRESSURE TRANSMITTER MOUNTING IS SIMILAR EXCEPT FOR 3 VALVE MANIFOLD.



4 I-901

ANALYTIC INSTRUMENT SCHEMATIC

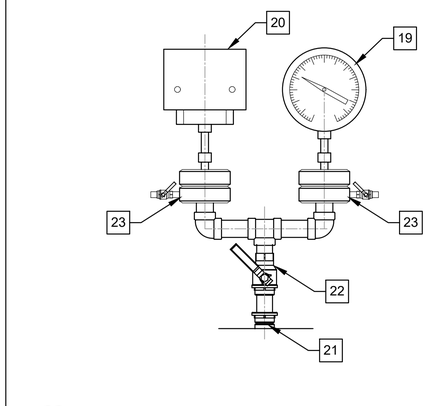
SCALE: NOT TO SCALE



5 I-901

MAGNETIC FLOWMETER

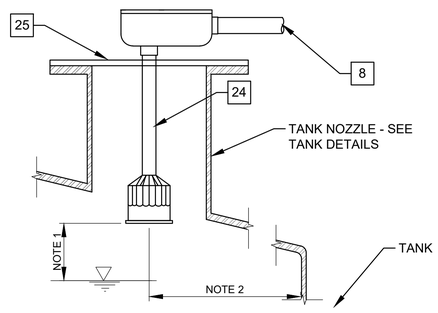
SCALE: NOT TO SCALE



6 I-901

PRESSURE GAUGE & SWITCH

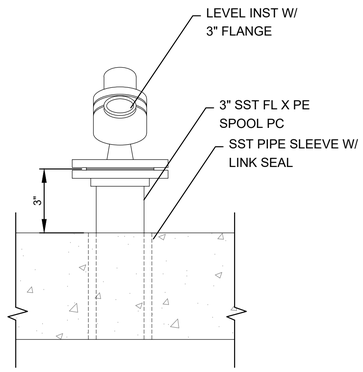
SCALE: NOT TO SCALE



7 I-901

TANK-MOUNTED LEVEL DEVICE

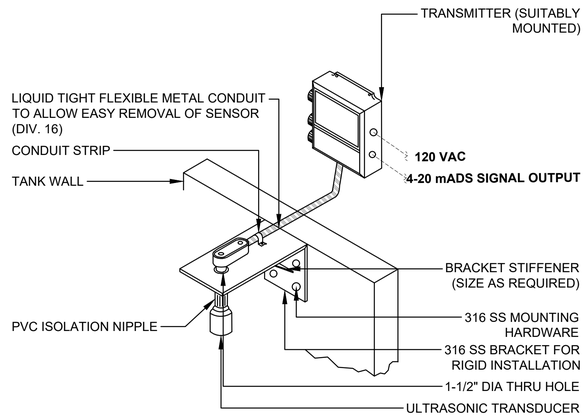
SCALE: NOT TO SCALE



8 I-901

SLAB-MOUNTED LEVEL DEVICE

SCALE: NOT TO SCALE



9 I-901

RADAR/ULTRASONIC LEVEL - OPEN CHANNEL/TANK

SCALE: NOT TO SCALE

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	09.09.2019	
70% SUBMITTAL	12.16.2019	
100% SUBMITTAL	03.12.2020	T
CONSTRUCTION SUBMITTAL	06.15.2020	
PROJECT MANAGER:		JCV
ENGINEER:		MEF
DESIGNER:		GS
DRAWN BY:		GS/AJ

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 18174 JAMES C. VAUGHN

INSTRUMENTATION DETAILS

I-901

Xref ..\..\02 CAD REFERENCE\CATL170020 22x34-Border.dwg

INSTRUMENT SCHEDULE (INTEGRATOR PROVIDED)

TAG NUMBER	SERVICE	DEVICE TYPE	DEVICE OUTPUT TYPE	RANGE/SETPOINT	P&ID	POWER TYPE	SPEC	COMMENTS
FE/FIT 2034	RW	Magnetic Flow Meter	AO	500-3500 gpm	I-201	120 VAC	40 71 13	
LE/LIT 2030	PE	Radar Level Transmitter	AO	0-10 ft	I-201	120 VAC	40 72 24	Input for flow calculation
ZT 2031B	PE	Optical Rotary Shaft Encoder	AO	0-4 ft	I-201		40 72 78	Input for flow calculation
ZT 2032B	PE	Optical Rotary Shaft Encoder	AO	0-4 ft	I-201		40 72 78	Input for flow calculation
ZT 2033B	PE	Optical Rotary Shaft Encoder	AO	0-4 ft	I-201		40 72 78	Input for flow calculation
FE/FIT 3010	RAS	Magnetic Flow Meter	AO	500-3500 gpm	I-301	120VAC	40 71 13	Aeration Basin No. 1 RAS flow rate
FE/FIT 3020	RAS	Magnetic Flow Meter	AO	500-3500 gpm	I-301	120VAC	40 71 13	Aeration Basin No. 2 RAS flow rate
FE/FIT 3030	RAS	Magnetic Flow Meter	AO	500-3500 gpm	I-301	120VAC	40 71 13	Aeration Basin No. 3 RAS flow rate
FE/FIT 4100	RAS	Ultrasonic Flow Meter (in-line)	AO	500-3500 gpm	I-401	120VAC		Match Existing Dynasonic MODEL: DDFXD2-A1NA-NN

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

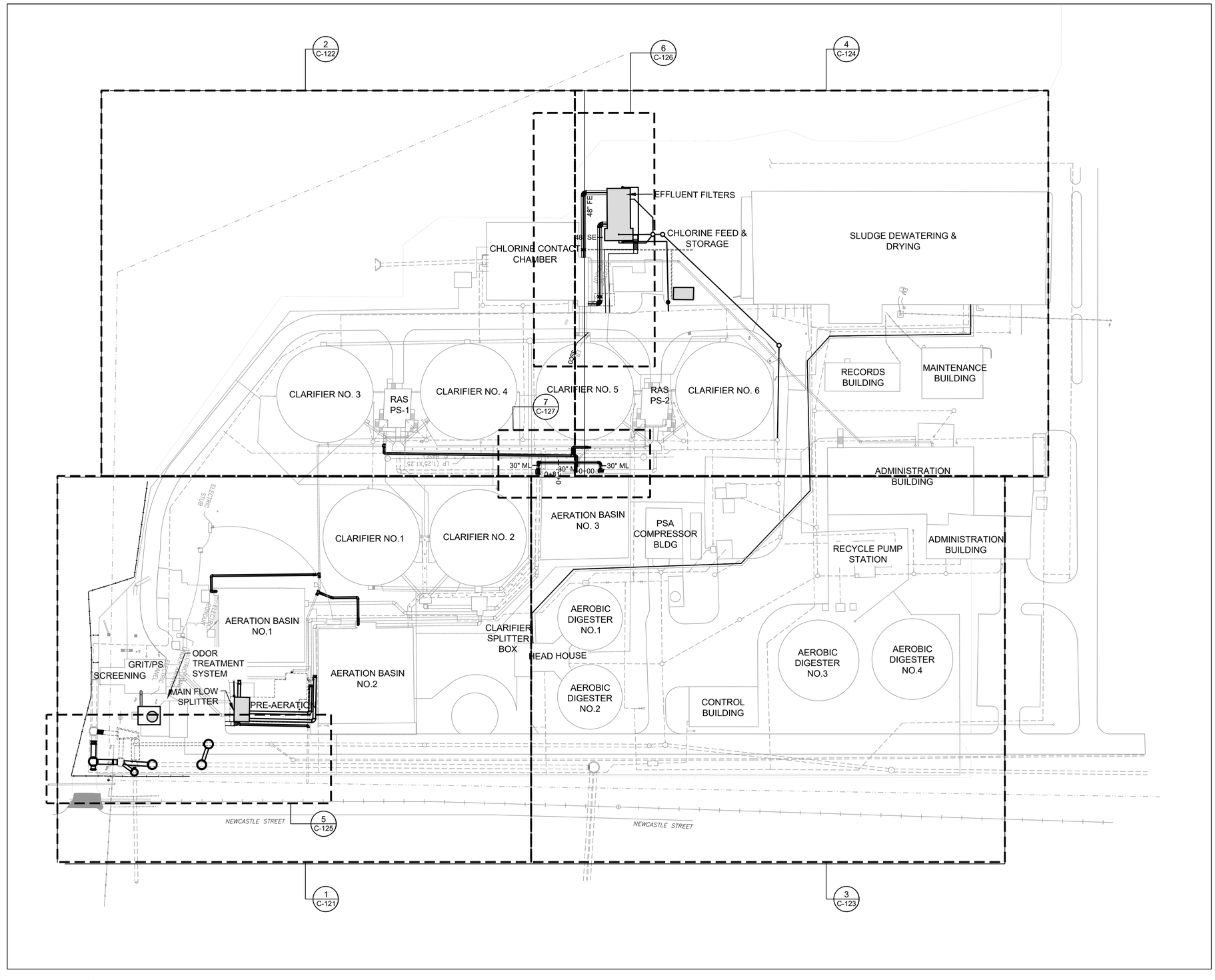
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA JAMES C. VAUGHN No. 18172 PROFESSIONAL ENGINEER

P&ID - INSTRUMENT SCHEDULE

I-902

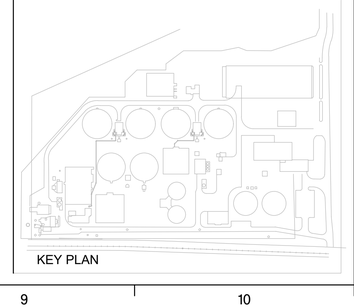
DRAWING FILE: C:\Users\vmcdonald\AppData\Local\Temp\AcPublish_17888\I-001.dwg
PLOTTED: Jun 04, 2020 - 1:48pm



1 C-101

PROJECT SITE PLAN

SCALE: 1" = 50'



GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" 0" .5"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 31127 PROFESSIONAL ENGINEER JAMES C. VAUGHN, JR.

PROCESS PIPING SITE PLAN - KEY

C-101

DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPC Rehab\0 DWGs\+CAD\01 BID DRAWINGS\03 CIVIL\C-101-125 YARD PIPING 2.dwg
PLOTTED: Jun 05, 2020 - 10:33am

MATCH LINE SEE DWG NO. C-122

MATCH LINE SEE DWG NO. C-123

CLARIFIER NO.1

CLARIFIER NO. 2

AERATION BASIN NO.1

AERATION BASIN NO.2

PRE-AERATION

SCREENING

GRIT/PS

MCC ROOM

ODOR TREATMENT SYSTEM

24" FAD (OH)

MAIN FLOW SPLITTER

EXISTING BLOWER SHELTER

CLARIFIER SPLITTER BOX

CLARIFIER SPLITTER BOX B

ASPHALT

CSX RAILROAD

NEWCASTLE STREET

16" RAS

16" WW

30" PE

24" PE

36" ML

30" ML

24" ML

30" SE

36" SE

36" PE

30" PE

2" RUW

3" RUW

4" RUW

4" W

15" SD

36" SAN

48" SAN

16" SAN

6" D

12" RAS

16" RAS

24" RW

KEY NOTES: #

1. 16" MJ 90° BEND (RESTRAINED)
2. 30" MJ 90° BEND
3. 30" MJ 45° BEND
4. 16" MJ TEE (RESTRAINED)
5. 16" MJ SLEEVE
6. 30" MJ SLEEVE - CONNECT TO EXISTING
7. 30" X 24" MJ ECCENTRIC REDUCER - FLAT ON TOP
8. 16" MJ 22-1/2° BEND (RESTRAINED)
9. 24" MJ 90° BEND
10. 16" MJ PLUG - RESTRAINED
11. EXTEND 2" RUW TO MAIN SPLITTER

KEY PLAN

1 / C-101 **YARD PIPING PLAN**

SCALE: 1" = 20'

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	09.09.2019	GS/AJ
70% SUBMITTAL	12.16.2019	
100% SUBMITTAL	03.12.2020	
CONSTRUCTION SUBMITTAL	06.15.2020	
PROJECT MANAGER:	JCV	
ENGINEER:	MEF	
DESIGNER:	GS	
DRAWN BY:	GS/AJ	

1" 0" .5"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906

GMC Project #CSAV190007

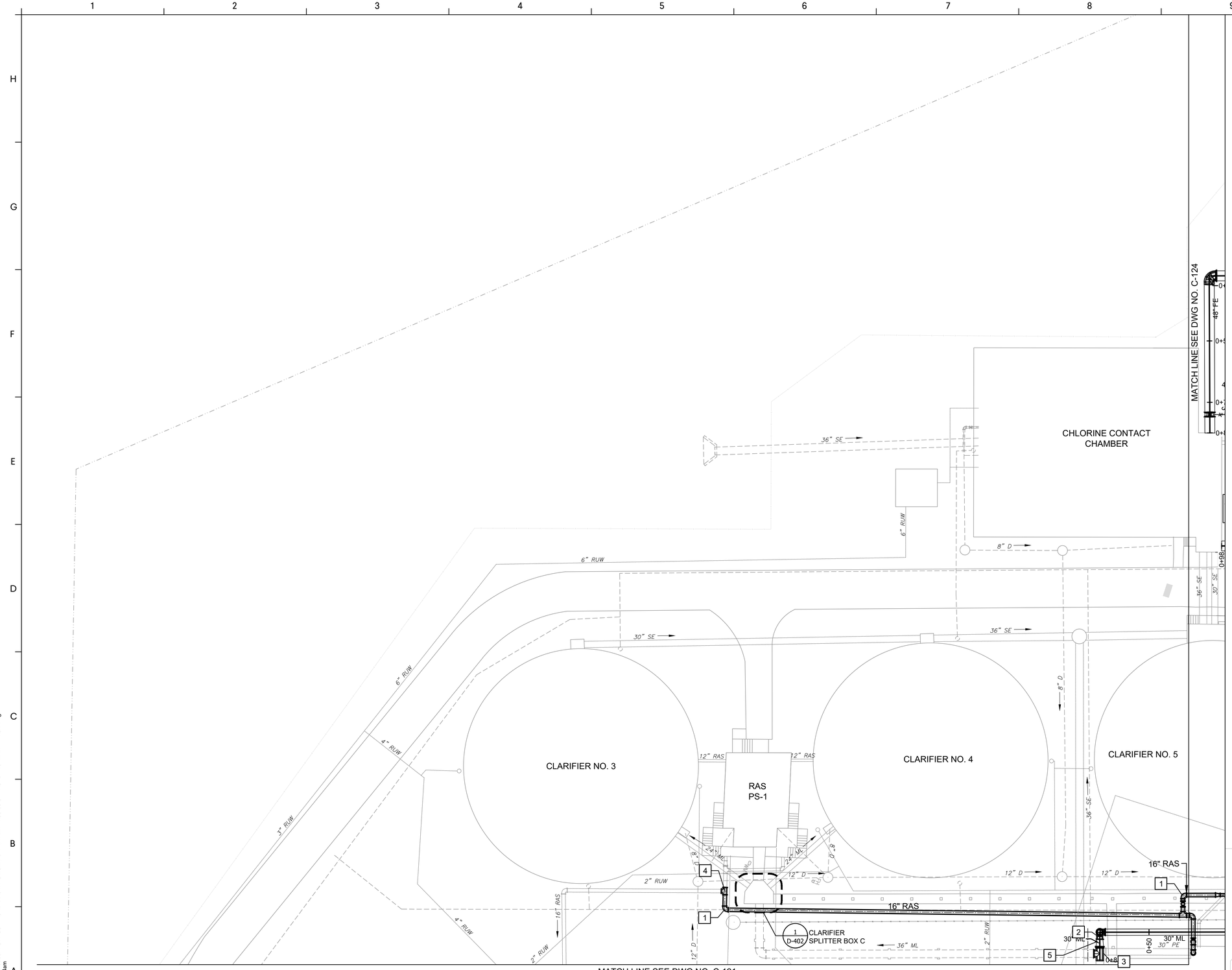
GEORGIA REGISTERED No. 18017 PROFESSIONAL JAMES C. VAUGHN, JR. PROFESSIONAL ENGINEER

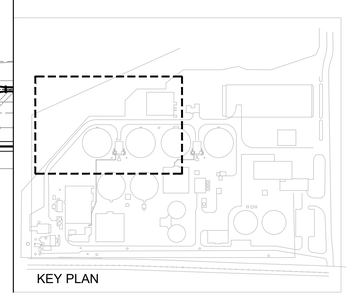
PROCESS PIPING
SITE PLAN - AREA 1

C-121

KEY NOTES: [#]

1. 16" MJ 90° BEND (RESTRAINED)
2. 30" M90° BEND
3. 36" MJ TEE
4. 16" MJ TEE (RESTRAINED)
5. 36" X 30" PE X PE REDUCER





1 / C-101 **YARD PIPING PLAN**

SCALE: 1" = 20'

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

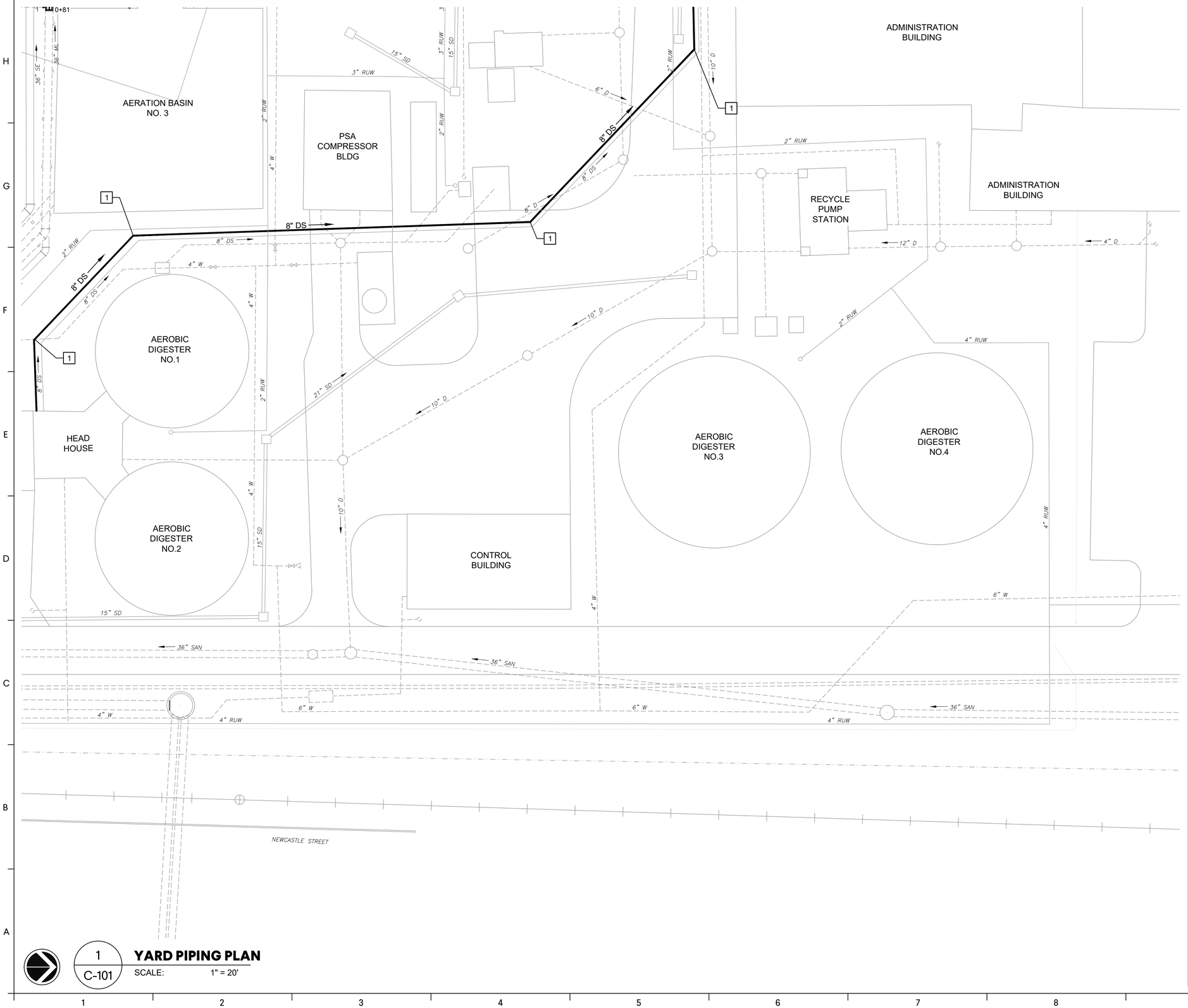
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 18727 PROFESSIONAL ENGINEER JAMES C. VAUGHN

PROCESS PIPING
SITE PLAN - AREA 2

C-122

DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPCF Rehab\0 DWG\+CAD\01 BID DRAWINGS\03 CIVIL\C-101-125 YARD PIPING 2.dwg
PLOTTED: Jun 05, 2020 - 10:34am

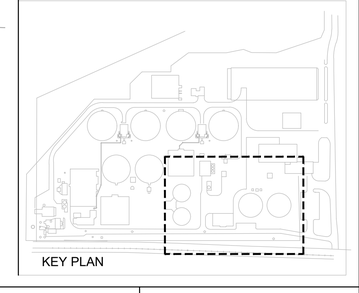


KEY NOTES: [#]

1. 8" MJ 45° BEND RESTRAINED

1 C-101 **YARD PIPING PLAN**

SCALE: 1" = 20'



KEY PLAN

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020

PROJECT MANAGER: JCV
ENGINEER: MEF
DESIGNER: GS
DRAWN BY: GS/AJ

1" 0" .5"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

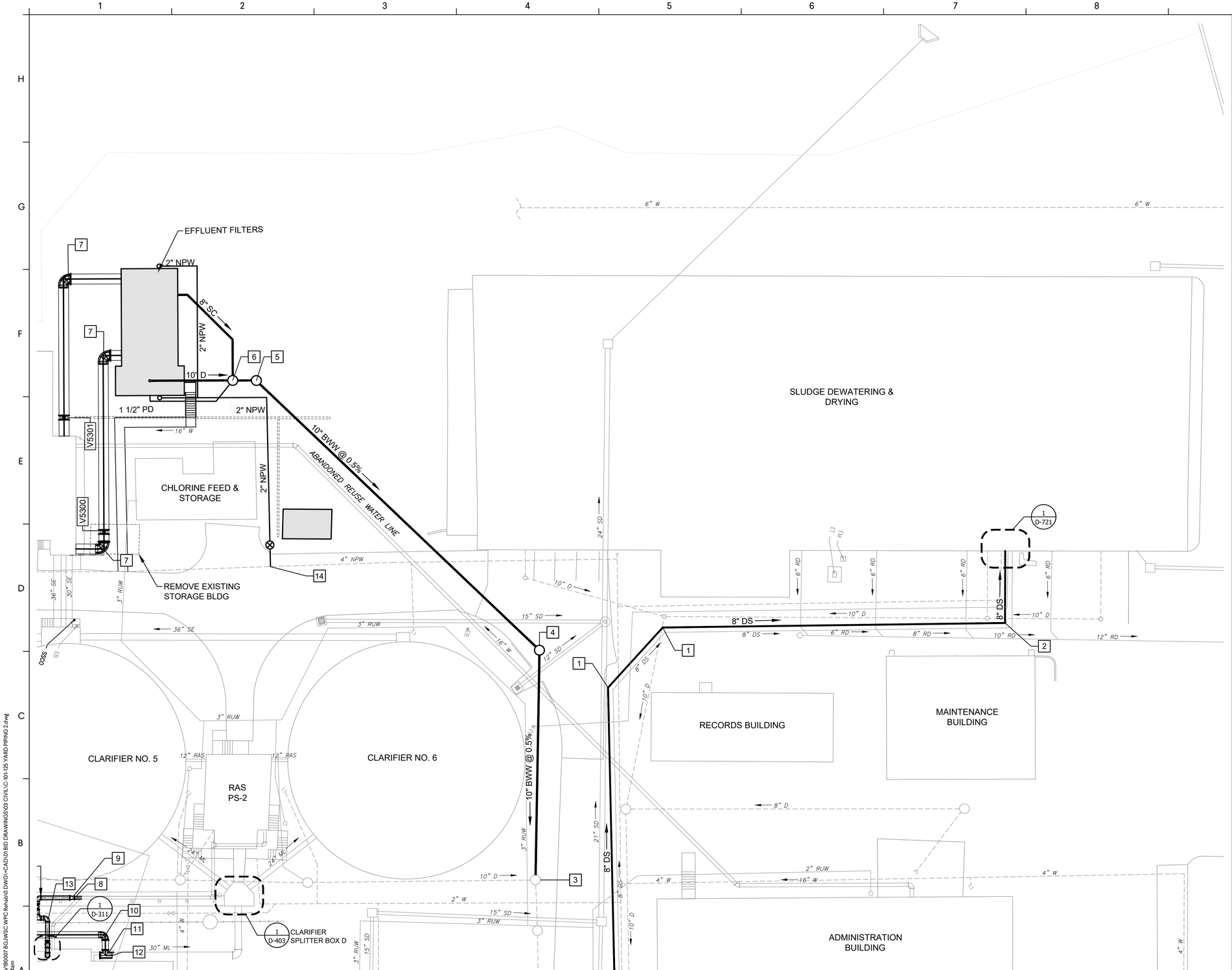
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 31975 PROFESSIONAL ENGINEER JAMES C. VAUGHN, JR.

PROCESS PIPING
SITE PLAN - AREA 3

C-123

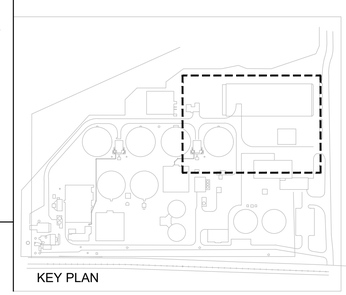
DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPC Rehab\0 DWG\+CAD\01 BID DRAWINGS\03 CIVIL\C-101-125 YARD PIPING 2.dwg
PLOTTED: Jun 05, 2020 - 10:34am



1 C-101 **YARD PIPING PLAN**
SCALE: 1" = 20'

KEY NOTES: #

1. 8" MJ 45° BEND (RESTRAINED)
2. 8" MJ 90° BEND (RESTRAINED)
3. CONNECT 10" BWW TO EXISTING MANHOLE @ I.E. 5.73
4. 4'-0"Ø MANHOLE, TOP EL. 9.54± (MATCH PAVEMENT), I.E. 10" BWW IN = 6.30, I.E. 10" BWW OUT = 6.20
5. 4'-0"Ø MANHOLE, TOP EL. 10.00, I.E. 10" BWW IN = 7.10, I.E. 10" BWW OUT = 7.00
6. 4'-0"Ø MANHOLE, TOP EL. 10.00, IE 10" BWW IN = 7.20, IE 10" BWW OUT = 7.10, 8" SC IN = 7.40
7. 48" MJ 90° BEND
8. CONNECT TO EXISTING 12" RAS LINE
9. 10" X 12" MJ INCREASER (RESTRAINED)
10. 30" MJ 90° BEND
11. 30" MJ TEE
12. 30" MJ SLEEVE
13. 16" MJ 90° BEND (RESTRAINED)
14. CONNECT TO EXISTING 4" NPW W/ 4X2 TAPPING SLEEV AND VALVE & EXTEWND 2" NPW TO FILTERS


KEY PLAN

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" .5" 0"

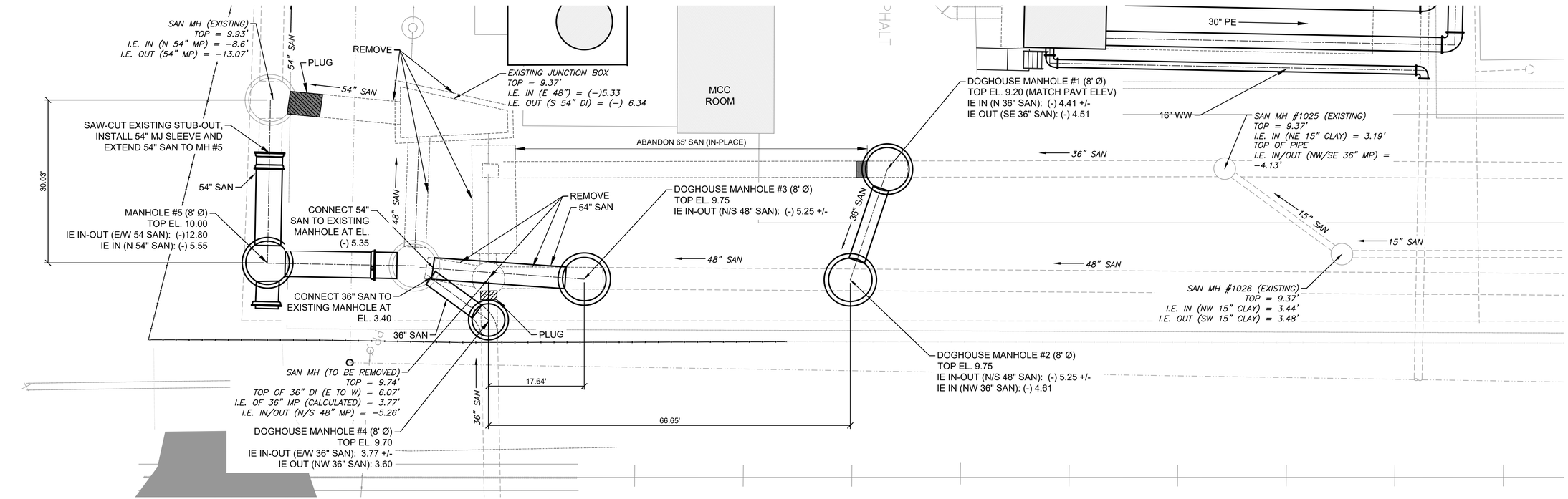
2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER JAMES C. VAUGHN 24975 06.15.2020

PROCESS PIPING
SITE PLAN - AREA 4

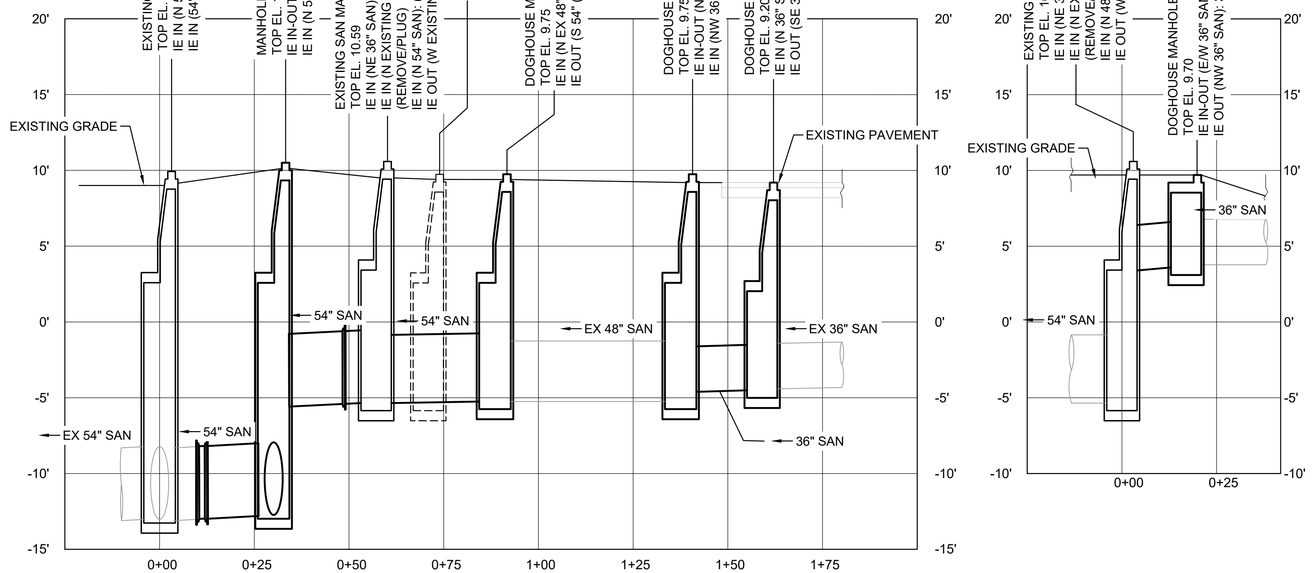
C-124



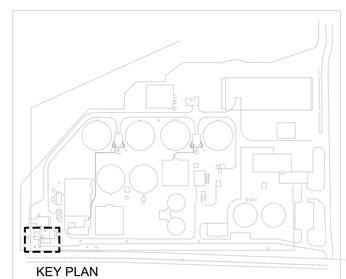
5 / C-101

ENLARGED PLAN

SCALE: 1" = 10'



PROFILES
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 5'



GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020

PROJECT MANAGER: JCV
ENGINEER: MEF
DESIGNER: GS
DRAWN BY: GS/AJ

1" 0" .5" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

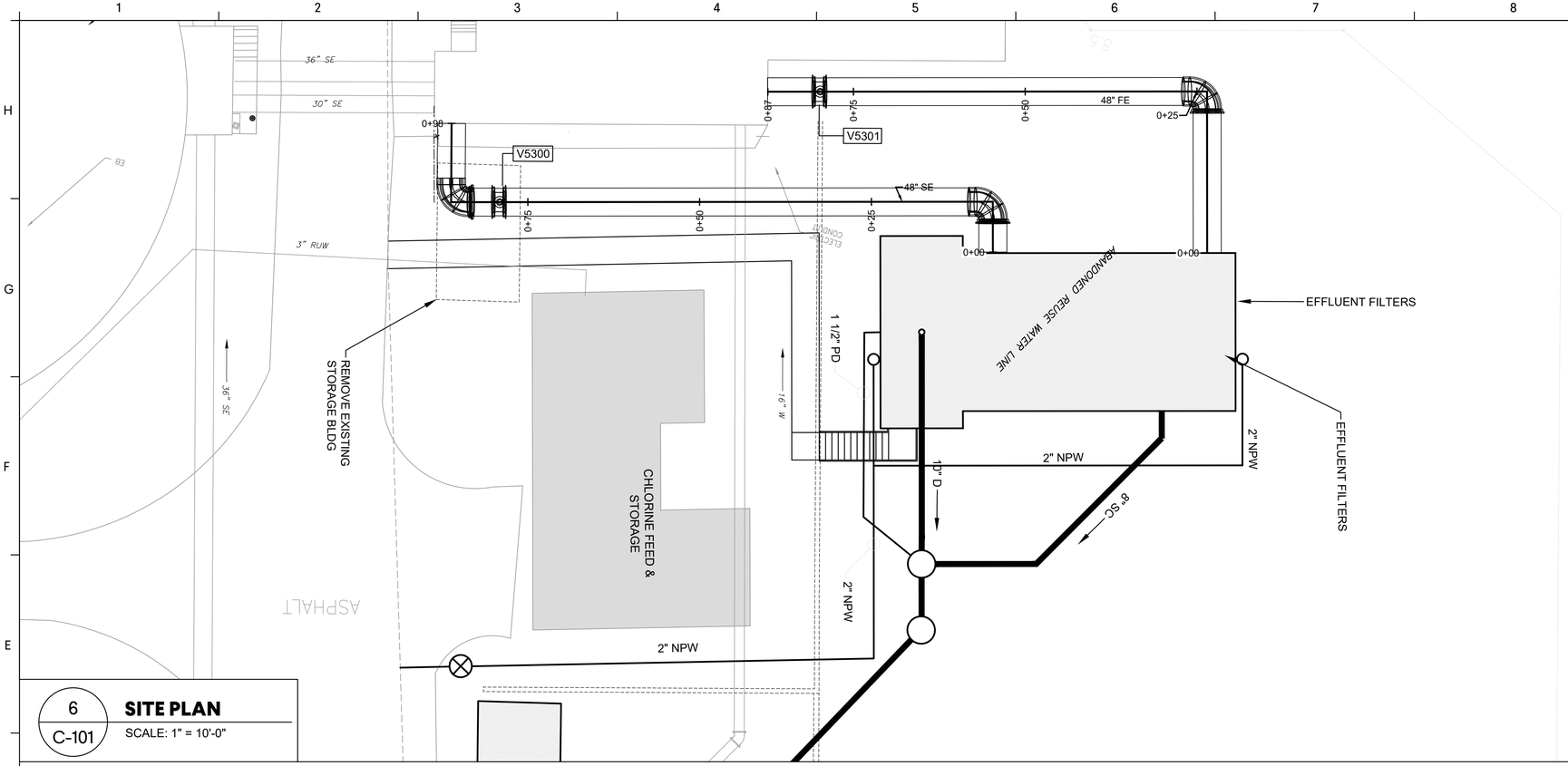
BG-JWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 18017 PROFESSIONAL JAMES C. VAUGHAN, III

ENLARGED PLAN
INFLUENT SEWER
MODIFICATIONS

C-125

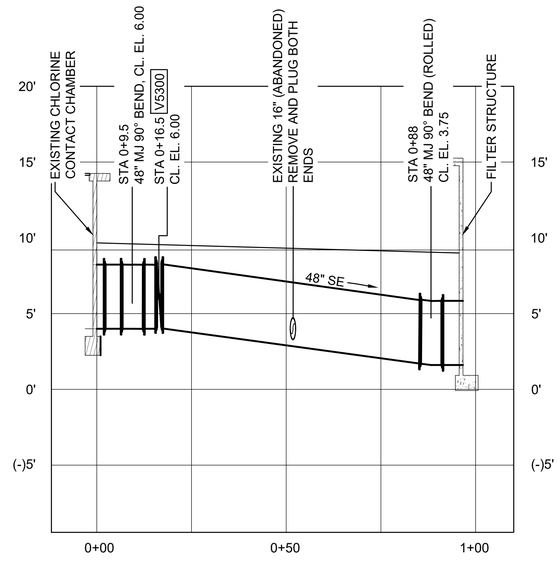
DRAWING FILE: W:\Civil\CSAV190007 BG-JWSC WPC Rehab\0 DWG\+CAD\01 BID DRAWINGS\03 CIVIL\C-101-125 YARD PIPING 2.dwg
PLOTTED: Jun 05, 2020 - 10:34am



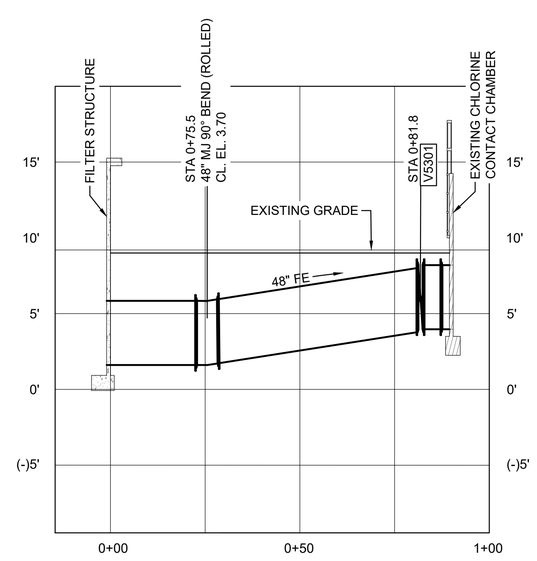
6
C-101

SITE PLAN

SCALE: 1" = 10'-0"



48" SE (FILTER INFLUENT)
CONNECTOR PROFILE
SCALE: 1" = 20' HORIZ
1" = 5' VERT

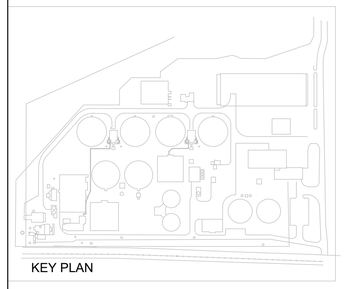


48" FE (FILTER EFFLUENT)
CONNECTOR PROFILE
SCALE: 1" = 20' HORIZ
1" = 5' VERT

A
C-126

PROFILE

SCALE: HORIZONTAL 1" = 20'-0" VERTICAL 1" = 5'-0"



KEY PLAN

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BG-JWSC Project No. 906

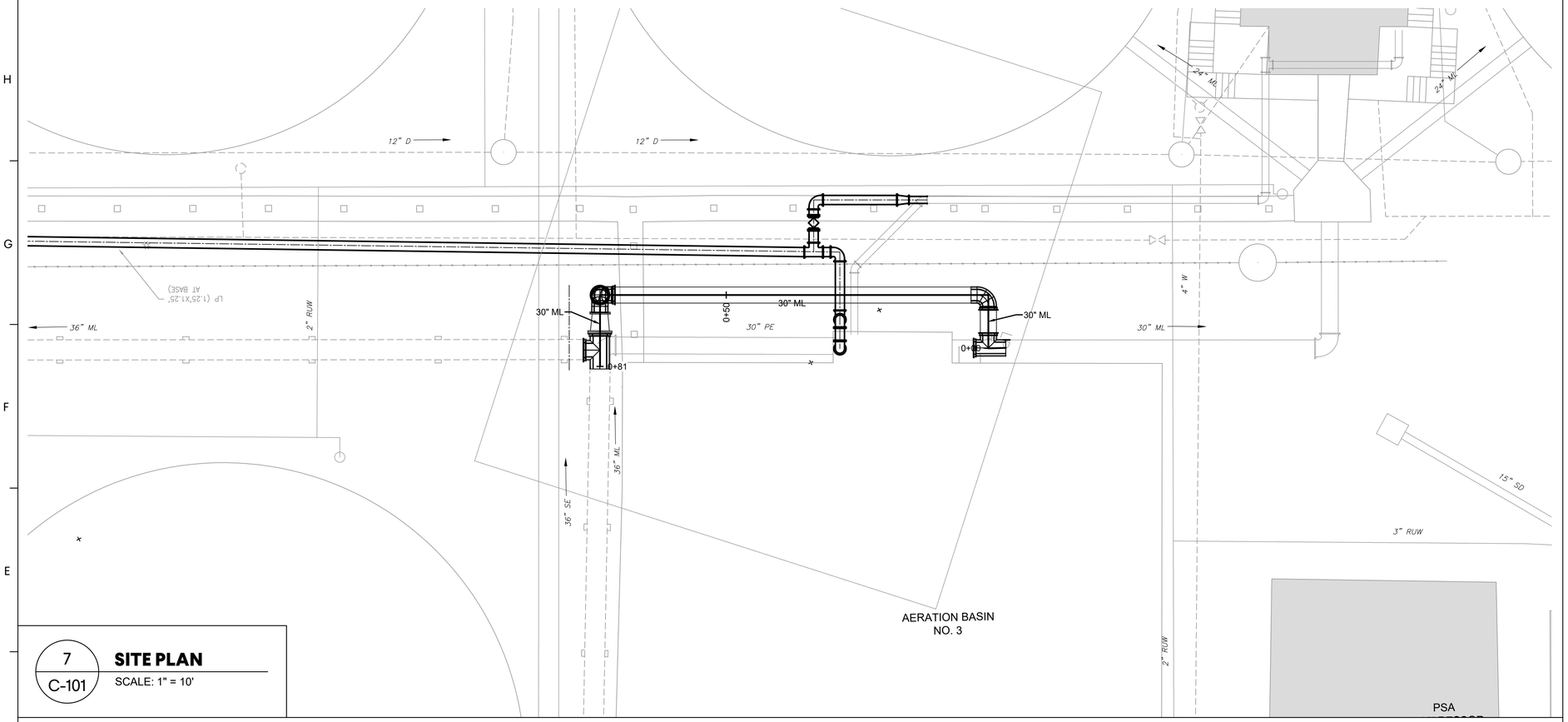
GMC Project #CSAV190007

GEORGIA
REGISTERED
No. 18172
PROFESSIONAL
JAMES C. VAUGHN, III

CIVIL SITE PLAN AND PROFILE

C-126

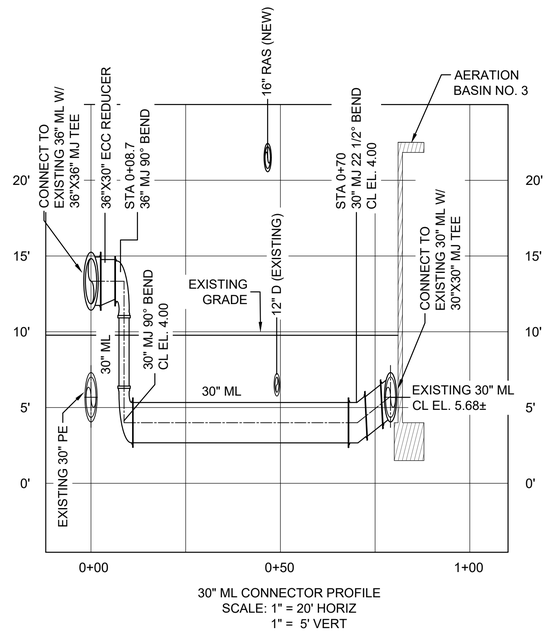
DRAWING FILE: W:\Civil\CSAV190007 BG-JWSC WPC Rehab\10 DWG\+CAD\01 BID DRAWINGS\03 CIVIL\C-101-125 YARD PIPING 2.dwg
PLOTTED: Jun 05, 2020 - 10:34am



7
C-101

SITE PLAN

SCALE: 1" = 10'

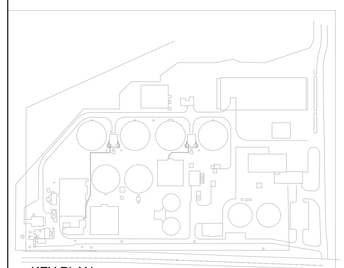


30" ML CONNECTOR PROFILE
SCALE: 1" = 20' HORIZ
1" = 5' VERT

A
C-127

PROFILE

SCALE: HORIZONTAL 1"=20'-0" VERTICAL 1"=5'-0"



KEY PLAN

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	09.09.2019	
70% SUBMITTAL	12.16.2019	
100% SUBMITTAL	03.12.2020	
CONSTRUCTION SUBMITTAL	06.15.2020	
PROJECT MANAGER:		JCV
ENGINEER:		MEF
DESIGNER:		GS
DRAWN BY:		GS/AJ

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 31077 PROFESSIONAL ENGINEER JAMES C. VAUGHN

CIVIL SITE PLAN AND PROFILE

C-127

DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPC Rehab\0 DWG\+CAD\01 BID DRAWINGS\03 CIVIL\C-101-125 YARD PIPING 2.dwg
PLOTTED: Jun 05, 2020 - 10:35am

SOIL EROSION AND SEDIMENTATION CONTROL NOTES:

1. THE PROJECT IS LOCATED WITHIN THE CITY LIMITS OF BRUNSWICK IN GLYNN COUNTY, GA AT THE ACADEMY CREEK WPCF. THE PROJECT INVOLVES UPGRADES TO THE ACADEMY CREEK WPCF. SEE VICINITY MAP LOCATION SHEET G-001.
2. THE MAIN UTILITY RESPONSIBLE FOR THE PROJECT IS THE BRUNSWICK - GLYNN COUNTY JOINT WATER AND SEWER COMMISSION
   1703 GLOUCESTER ST.
   BRUNSWICK, GA 31520
   PH. (912) 261-7100
   24 HR. CONTACT:
   MARK RYALS
   SUPERINTENDENT
   PH. (912) 261-7146
3. THE CONSTRUCTION PAD SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC STREETS.
4. SILT FENCES AND HAY BALE BARRIERS SHALL BE CLEANED OR REPLACED AND MAINTAINED IN FUNCTIONAL CONDITION UNTIL PERMANENT EROSION CONTROL MEASURES ARE ESTABLISHED.
5. SILT FENCE FABRIC SHALL BE COMPRISED OF GA. DOT QUALIFIED PRODUCTS LIST 36, FOR SILT FENCE FABRIC.
6. ALL GRASSING SHALL BE IN ACCORDANCE WITH CHAPTER 6, SECTION III "VEGETATIVE PRACTICES" OF THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA.
7. ALL OTHER WORK SHALL BE PERFORMED IN ACCORDANCE WITH THIS SAME MANUAL.
8. THE CONTRACTOR SHALL FURNISH APPROPRIATE AUTHORITY OR DEPT. WITH A SCHEDULE OF ANTICIPATED STARTING AND COMPLETION DATES FOR EACH SEQUENCE OF LAND DISTURBING ACTIVITY LISTED IN ITEMS FOUR THROUGH EIGHT ABOVE.
9. EROSION CONTROL DEVICES WILL BE IN PLACE BEFORE SITE DISTURBANCE AND WILL BE PERIODICALLY INSPECTED AND REPAIRED OR RESTORED AS NEEDED TO FUNCTION PROPERLY UNTIL PERMANENT MEASURES ARE ESTABLISHED AND PROJECT IS COMPLETE, I.E.: CONSTRUCTION EXITS AND SILT FENCES SHALL BE RETOPPED OR CLEANED AS SILT REDUCES THEIR EFFECTIVENESS.
10. ANY ADDITIONAL CONSTRUCTION OTHER THAN SHOWN ON THIS PLAN WILL REQUIRE SEPARATE AND ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES AND APPROVAL.
11. ALL DISTURBED AREAS WILL BE PERMANENTLY LANDSCAPED AND GRASSED AS SOON AS CONSTRUCTION PHASES PERMIT.
12. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATION OF THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA.
13. ADDITIONAL MEASURES MAY BE REQUIRED TO CONTROL EROSION AS DETERMINED NECESSARY BY INSPECTORS.
14. CUT AND FILL SLOPES NOT TO EXCEED 2H:1V.
15. NOTIFY WATER & SEWER INSPECTOR PRIOR TO START OF CONSTRUCTION.
16. SEDIMENTATION & EROSION CONTROL MEASURES TO BE INSPECTED DAILY.
17. 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. PRACTICES WILL BE CHECKED DAILY.
18. THERE ARE STATE WATERS LOCATED WITHIN 200 FEET OF THE PROJECT SITE. NO BUFFER ENCROACHMENTS ANTICIPATED.
19. THE PROJECT DOES NOT IMPACT/DISTURB STATE WATERS, OR STREAMS.
20. THE PROJECT DOES NOT IMPACT/DISTURB WETLAND AREAS.
21. ADJACENT PROPERTIES TO THE PROPOSED CONSTRUCTION ROUTE ARE COMPRISED OF COMMERCIAL PROPERTIES.
22. EXISTING LAND USE ALONG PROJECT LENGTH FALLS UNDER RESIDENTIAL COMMERCIAL ZONING, THE EXISTING AREA BETWEEN THE EDGE OF PAVEMENT AND THE RIGHT-OF-WAY CONSISTS TYPICALLY OF A GRASSED AREA COMPOSED OF DIFFERENT TYPES OF TREES, SHRUBS, AND ORNAMENTAL FEATURES ALONG THE RIGHT-OF-WAY LINE.
23. THE DRAINED AREA FOR THE PROJECT IS 191.9 ACRES. SILT STORAGE REQUIRED IS 1.30 AC. TIMES 67 CY/AC = 87.1 CY. ESTIMATED INSTALLATION OF 1,260 L.F. OF TYPE "S" AND "NS" SILT FENCE WILL CONTAIN 227.3 C.Y. OF SILT BASED ON A 4:1 SLOPE WHICH EXCEEDS REQUIRED MINIMUM.
24. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE EROSION CONTROL MEASURES FOR THE ENTIRE LENGTH OF THE PROJECT AND SHALL ADD ADDITIONAL MEASURES AS NECESSARY TO PREVENT EROSION AND SEDIMENTATION RUN-OFF FROM THE DISTURBED AREAS.
25. THE CONTRACTOR MUST COMPLY WITH NPDES GENERAL PERMIT NO. 100001 - EFFECTIVE AUGUST 1, 2018.
26. TOTAL PROJECT AREA = 7.04 ACRES (CONSTRUCTION LIMITS)
    TOTAL DISTURBED AREA = 1.30 ACRES
27. THE EROSION CONTROL MEASURES THAT WILL CONTROL POLLUTANTS AFTER CONSTRUCTION ARE SHOWN IN THE PLANS AND INCLUDE BUT ARE NOT LIMITED TO PERMANENT GRASSING. BEING MOSTLY A LINEAR UTILITY INSTALLATION PROJECT DETENTION/RETENTION STRUCTURES ARE NOT PRACTICAL THE POST-DEVELOPED FLOWS WILL BE EQUAL TO THE PRE-DEVELOPED FLOWS BECAUSE THERE ARE NO ADDITIONAL IMPERVIOUS SURFACES CREATED AND THE EXISTING GROUND WILL MAINTAIN THE EXISTING SLOPE AND MATERIAL WHICH WILL NOT CHANGE OR INCREASE THE FLOW PATTERNS.

GENERAL NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL SHRUBBERY, TREES, OR STRUCTURES WITHIN THE WORKING AREA THROUGHOUT THE COURSE OF CONSTRUCTION. ANY TREES, SHRUBS, OR STRUCTURES DAMAGED OR DISTURBED SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE
2. PORTIONS OF THE PROJECT ARE LOCATED IN ZONE FLOOD PLAIN PER FIRM FEMA FIRMETTE 13127C0217H DATED JANUARY 5, 2018.
3. DESIGN PROFESSIONAL QUALIFICATIONS: GSWCC LEVEL II CERTIFICATION #
4. THE DESIGN PROFESSIONAL WHO PREPARED THE ES&PC PLAN IS TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS, PERIMETER CONTROL BMPs, AND SEDIMENT BASINS IN ACCORDANCE WITH PART IV.A.5. WITHIN 7 DAYS AFTER INSTALLATION.
5. WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.
6. THE CONTRACTOR SHALL ALSO PREVENT POLLUTION OF THE ADJOINING STREAMS BY NOT CONDUCTING ANY ACTIVITIES IN THE BUFFER ZONE THAT ARE NOT ABSOLUTELY NECESSARY. FORBIDDEN ACTIVITIES IN THE BUFFER ZONE INCLUDED, BUT NOT LIMITED TO INCLUDE:

A. VEHICLE REFUELING AND MAINTENANCE
B. DEPOSITING OF TRASH, WASTE, CONSTRUCTION DEBRIS, EXTRA CONCRETE AND ASPHALT, AND RESIDUE FROM EQUIPMENT CLEANING.

7. CONTRACTOR SHALL NOT LEAVE THESE AND OTHER WASTE PRODUCTS ON THE GROUND, BUT SHALL REMOVE AND DISPOSE OF THEM PROMPTLY AND IN APPROVED LOCATIONS.
8. VEHICLE FUELING AND MAINTENANCE SHALL TAKE PLACE ONLY IN AREAS DESIGNATED BY THE OWNER.
9. 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.
10. WASHOUT OF CONCRETE DRUMS AND EQUIPMENT AT THE CONSTRUCTION SITE IS PROHIBITED.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL SERVICE AND UTILITY LINES ON THE SITE PRIOR TO BEGINNING EXCAVATION. ALL UTILITIES LOCATED WITHIN THE STRUCTURES FOOTPRINT SHALL BE RELOCATED UNLESS NOTED OTHERWISE AND THE COST OF RELOCATION SHALL BE PART OF THE CONTRACT.
12. ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS SHALL BE PROTECTED BY A TEMPORARY CONSTRUCTION ENTRANCE TO PREVENT TRACKING OF MUD ONTO PUBLIC RIGHT-OF-WAYS.
13. GRADE AREAS ADJACENT TO BUILDING LINES TO DRAIN AWAY FROM BUILDINGS TO PREVENT PONDING.
14. WHEN FINISHED GRADING MEET OR ABUTS CURBS, WALKS OR PAVEMENTS, UPHILL GRADES SHALL BE SLIGHTLY HIGHER THAN PAVEMENT TO PERMIT PROPER DRAINAGE.
15. FIELD ADJUSTMENTS IN GRADE MUST BE APPROVED BY THE ENGINEER.
16. PROPOSED SURFACE SHALL CLEANLY TRANSITION FROM EXISTING SURROUNDING SURFACES, PROVIDING POSITIVE DRAINAGE.
17. CONTAINMENT AREAS SHALL HAVE POSITIVE DRAINAGE TOWARDS THE INLET WITHIN THE CONTAINMENT AREA.
18. NO MORE THAN 100 FEET OF PIPELINE TRENCH IS TO BE OPEN AT ONE TIME. FOLLOWING INSTALLATION OF ANY PORTION OF THESE ITEMS, ALL DISTURBED AREAS SHALL BE STABILIZED THE SAME DAY.
19. NO FILL MATERIAL IS TO BE STORED ON CONCRETE OR ASPHALT ROADS WITHIN SITE. TEMPORARY STORAGE MAY BE ALLOWED IN DESIGNATED AREAS AND MUST BE COVERED WITH PLASTIC.
20. CONTRACTOR SHALL STORE AND PROTECT PRODUCTS IN ACCORDANCE WITH
21. MANUFACTURERS' INSTRUCTIONS. STORE WITH SEALS AND LABELS INTACT AND LEGIBLE. STORE SENSITIVE PRODUCTS IN WEATHER TIGHT, CLIMATE CONTROLLED, ENCLOSURES IN AN ENVIRONMENT FAVORABLE TO PRODUCT. FOR EXTERIOR STORAGE OF FABRICATED PRODUCTS, PLACE ON SLOPED SUPPORTS ABOVE GROUND. COVER PRODUCTS SUBJECT TO DETERIORATION WITH IMPERVIOUS SHEET COVERING. PROVIDE VENTILATION TO PREVENT CONDENSATION AND DEGRADATION OF PRODUCTS. PROVIDE EQUIPMENT AND PERSONNEL TO STORE PRODUCTS BY METHODS TO PREVENT SOILING, DISFIGUREMENT, OR DAMAGE. ARRANGE STORAGE OF PRODUCTS TO PERMIT ACCESS FOR INSPECTION. PERIODICALLY INSPECT TO VERIFY PRODUCTS ARE UNDAMAGED AND ARE MAINTAINED IN ACCEPTABLE CONDITION. CONTRACTOR SHALL NOT LEAVE ANY WASTE PRODUCTS ON THE GROUND, BUT SHALL REMOVE AND DISPOSE OF THEM PROMPTLY AND IN APPROVED LOCATIONS.
22. ALL SLABS SHALL BE OVER EXCAVATED BY 1' AND BACKFILLED WITH 1' OF NO.57 STONE

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.

Signed _____ Date 03/12/2020

I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM OF BEST MANAGEMENT PRACTICES REQUIRED BY THE GEORGIA WATER QUALITY CONTROL ACT AND THE DOCUMENT "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" (MANUAL) PUBLISHED BY THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION AS OF JANUARY 1 OF THE YEAR IN WHICH THE LAND-DISTURBING ACTIVITY WAS PERMITTED, PROVIDES FOR THE SAMPLING OF THE RECEIVING WATER(S) OR THE SAMPLING OF THE STORMWATER OUTFALLS AND THAT THE DESIGNED SYSTEM OF BEST MANAGEMENT PRACTICES AND SAMPLING METHODS IS EXPECTED TO MEET THE REQUIREMENTS CONTAINED IN THE GENERAL NPDES PERMIT NO. GAR100003.

CHRIS TOLLESON
LEVEL II CERTIFICATION #8059
EXPIRES 02/01/2021

I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN PROVIDES FOR THE MONITORING OF: (A) ALL PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES SHOWN ON THE USGS TOPOGRAPHIC MAP AND ALL OTHER FIELD VERIFIED PERENNIAL AND INTERMITTENT STEAMS AND OTHER WATER BODIES, OR (B) WHERE ANY SUCH SPECIFIC IDENTIFIED PERENNIAL OR INTERMITTENT STREAM AND OTHER WATER BODY IS NOT PROPOSED TO BE SAMPLED, I HAVE DETERMINED IN MY PROFESSIONAL JUDGMENT, UTILIZING THE FACTORS REQUIRED IN THE GENERAL NPDES PERMIT NO. GAR100003, THAT THE INCREASE IN THE TURBIDITY OF EACH SPECIFIC IDENTIFIED SAMPLED RECEIVING WATER WILL BE REPRESENTATIVE OF THE INCREASE IN THE TURBIDITY OF A SPECIFIC IDENTIFIED UN-SAMPLED RECEIVING WATER.

CHRIS TOLLESON
LEVEL II CERTIFICATION #8059
EXPIRES 02/01/2021

I CERTIFY UNDER PENALTY OF LAW THAT THIS REPORT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT CERTIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

Owner _____ Date 03/12/2020

ANTICIPATED ACTIVITY SCHEDULE

	MONTHS	START DATE 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	BEGIN PROJECT																		
2	INSTALL SEDIMENT CONTROLS																		
3	CLEARING																		
4	GRASS & MULCH (TEMP.) (PERM.)																		
5	UTILITY INSTALLATION																		
6	MAINTAIN EROSION CONTROL																		
7	CLEAN UP																		
8	FINAL STABILIZATION																		

NOTE: THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

811 Know what's below. Call before you dig.

INITIAL DATE OF PLAN SET: 12.04.2019

PLAN REVISIONS AND DESCRIPTION		
NO.	INT.	DESCRIPTION

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	09.09.2019	
70% SUBMITTAL	12.16.2019	
100% SUBMITTAL	03.12.2020	
CONSTRUCTION SUBMITTAL	06.15.2020	
PROJECT MANAGER:	JCV	
ENGINEER:	MEF	
DESIGNER:	GS	
DRAWN BY:	GS/AJ	

1" .5" 0" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 18017 PROFESSIONAL JAMES C. VAUGHN, III PROFESSIONAL ENGINEER

STORM WATER POLLUTION PREVENTION PLAN NOTES & ACTIVITY SCHEDULE

C-501

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

SWCD: Region 3

Project Name: 2019 WPCF Rehabilitation Academy Creek Address: 2909 Newcastle Street
City/County: City of Brunswick, Glynn County, GA Date on Plans: March 12, 2020
Name & email of person filling out checklist: richard.johnson@gmcnetwork.com

TO BE SHOWN ON ES&PC PLAN

Plan Page #	Included Y/N		
C-501	Y	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. **(The completed Checklist must be submitted with the ES&PC Plan or the Plan will not be reviewed)**
2-C-501-502#	Y	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	N	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.* **(A copy of the written approval by EPD must be attached to the plan for the Plan to be reviewed.)**
C-501	Y	4.	The name and phone number of the 24–hour local contact responsible for erosion, sedimentation and pollution controls.
C-501	Y	5.	Provide the name, address, email address, and phone number of primary permittee.
C-501	Y	6.	Note total and disturbed acreage of the project or phase under construction.
C-506-508	Y	7.	Provide the GPS location of the construction exit for the site. Give the Latitude and Longitude in decimal degrees.
C-501	Y	8.	Initial date of the Plan and the dates of any revisions made to the Plan including the entity who requested the revisions.
C-501	Y	9.	Description of the nature of construction activity.
C-501	Y	10.	Provide vicinity map showing site's relation to surrounding areas. Include designation of specific phase, if necessary.
C-505	Y	11.	Identify the project receiving waters and describe all sensitive adjacent areas including streams, lakes, residential areas, wetlands, marshlands, etc. which may be affected.
C-501	Y	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.
C-501	Y	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.*
C-501	Y	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.*
C-501	Y	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 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."
C-501	Y	16.	Provide a description of any buffer encroachments and indicate whether a buffer variance is required.
C-501	Y	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."*
C-501	Y	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."*
C-501	Y	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."
C-501	Y	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."
C-501	Y	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	N	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 Biota 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	N	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.*
C-510	Y	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.*
C-510	Y	25.	Provide BMPs for the remediation of all petroleum spills and leaks.
C-501	Y	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.*
C-501	Y	27.	Description of practices to provide cover for building materials and building products on site.*
C-501	Y	28.	Description of the practices that will be used to reduce the pollutants in storm water discharges.*
C-501	Y	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).
C-504	Y	30.	Provide complete requirements of inspections and record keeping by the primary permittee.*
C-504	Y	31.	Provide complete requirements of sampling frequency and reporting of sampling results.*
C-504	Y	32.	Provide complete details for retention of records as per Part IV.F. of the permit.*
C-505	Y	33.	Description of analytical methods to be used to collect and analyze the samples from each location.*
C-505	Y	34.	Appendix B rationale for NTU values at all outfall sampling points where applicable.*
C-505	Y	35.	Delineate all sampling locations, perennial and intermittent streams and other water bodies into which storm water is discharged.*
C-501	Y	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.*
C-506-508	Y	37.	Graphic scale and North arrow.
C-506-508	Y	38.	Existing and proposed contour lines with contour lines drawn at an interval in accordance with the following:

Map Scale	Ground Slope	Contour Intervals, ft.
1 inch = 100ft or larger scale	Flat 0 – 2%	0.5 or 1
	Rolling 2 – 8%	1 or 2
	Steep 8% +	2,5 or 10

N/A	N	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	N	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.*
C-501,505	Y	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.
C-501,505	Y	42.	Delineation of on-site wetlands and all state waters located on and within 200 feet of the project site.
C-505	Y	43.	Delineation and acreage of contributing drainage basins on the project site.
N/A	N	44.	Provide hydrology study and maps of drainage basins for both the pre- and post-developed conditions.*
C-505	Y	45.	An estimate of the runoff coefficient or peak discharge flow of the site prior to and after construction activities are completed.
N/A	N	46.	Storm-drain pipe and weir velocities with appropriate outlet protection to accommodate discharges without erosion. Identify/Delineate all storm water discharge points.
C-503	Y	47.	Soil series for the project site and their delineation.
C-506-508	Y	48.	The limits of disturbance for each phase of construction.
C-501	Y	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.
C-506-508	Y	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.
C-508-511	Y	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.
C-506-508	Y	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

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

REGISTERED No. 31727 PROFESSIONAL ENGINEER JAMES C. VAUGHN III GEORGIA

STORM WATER POLLUTION PREVENTION PLAN CHECKLIST

C-502

Camden and Glynn Counties, Georgia

Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H
BO—Bohicket-Capers association														
Bohicket	80	D	0-8	Stratified silty clay loam	CH, MH	A-7	0- 0- 0	0- 0- 0	100-100-100	99-100-100	90-95-100	80-90-100	60-80 - 100	15-38-60
			Aug-65	Silty clay, clay, sandy clay	CH, MH	A-7	0- 0- 0	0- 0- 0	100-100-100	99-100-100	80-90-100	70-83- 95	50-75 - 100	16-38-60
Capers	20	D	0-8	Silty clay	MH	A-7-5	0- 0- 0	0- 0- 0	100-100-100	100-100-100	85-93-100	75-88-100	50-66 -81	15-28-40
			Aug-60	Clay, silty clay	MH	A-7-5	0- 0- 0	0- 0- 0	100-100-100	100-100-100	85-93-100	75-88-100	52-66 -80	#########
Mb—Mandarin-Urban land complex														
Mandarin	55	C	0-19	Fine sand	SP, SP-SM	A-3	0- 0- 0	0- 0- 0	100-100-100	100-100-100	90-95-100	2/6/2010	—	NP
			19-34	Fine sand, sand, loamy fine sand	SM, SP-SM	A-2-4, A-3	0- 0- 0	0- 0- 0	100-100-100	100-100-100	90-95-100	#########	—	NP
			34-62	Fine sand, sand	SP, SP-SM	A-3	0- 0- 0	0- 0- 0	100-100-100	100-100-100	90-95-100	2/5/2007	—	NP
			62-80	Fine sand, sand, loamy fine sand	SP, SP-SM	A-2-4, A-3	0- 0- 0	0- 0- 0	100-100-100	100-100-100	90-95-100	3/8/2012	—	NP
Ru—Rutlege fine sand														
Rutlege	100	A/D	0-15	Sand	SP-SM	A-3	0- 0- 0	0- 0- 0	95-98-100	95-98-100	70-85-100	5/8/2010	0-7 -14	NP
			15-70	Sand, loamy sand, loamy fine sand	SM, SP, SP-SM	A-2, A-3	0- 0- 0	0- 0- 0	95-98-100	95-98-100	50-65- 80	#########	0-10 -20	NP

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" 0" .5" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER JAMES C. VAUGHN

EXISTING SOIL DELINEATIONS & PROPERTIES

C-503

CMP SAMPLING METHODS & PROCEDURES
GENERAL PERMIT No. GAR 100001 – EFFECTIVE AUGUST 1, 2018

REPRESENTATIVE SAMPLING ON STAND ALONE CONSTRUCTION PROJECT

Receiving water samples and storm water discharge samples will be collected by "grab samples", as specified in Part IV.D.6 of the GAR 100001 permit. All "grab samples" will be collected using the following methods and procedures.

SAMPLING REQUIREMENTS:

SAMPLING FREQUENCY:
(1). The primary permittee must sample in accordance with the Plan at least once for each rainfall event described below. For a qualifying event, the permittee shall sample at the beginning of any storm water discharge to a monitored receiving water and/or from a monitored outfall location within forty–five (45) minutes or as soon as possible.

(2). However, where manual and automatic sampling are impossible (as defined in this permit), or are beyond the permittee's control, the permittee shall take samples as soon as possible, but in no case more than twelve (12) hours after the beginning of the storm water discharge.

(3). Sampling by the permittee shall occur for the following qualifying events:

(a). For each area of the site that discharges to a receiving water or from an outfall, the first rain event that reaches or exceeds 0.5 inch with a storm water discharge that occurs during normal business hours as defined in this permit. after all clearing and grubbing operations have been completed, but prior to completion of mass grading operations, in the drainage area of the location selected as the representative sampling location;

(b). In addition to (a) above, for each area of the site that discharges to a receiving water or from an outfall, the first rain event that reaches or exceeds 0.5 inch with a storm water discharge that occurs during normal business hours as defined in this permit either 90 days after the first sampling event or after all mass grading operations have been completed, but prior to submittal of a NOT, in the drainage area of the location selected as the representative sampling location, whichever comes first;

(c). At the time of sampling performed pursuant to (a) and (b) above, if BMPs in any area of the site that discharges to a receiving water or from an outfall are not properly designed, installed and maintained, corrective action shall be defined and implemented within two (2) business days, and turbidity samples shall be taken from discharges from that area of the site for each subsequent rain event that reaches or exceeds 0.5 inch during normal business hours* until the selected turbidity standard is attained, or until post–storm event inspections determine that BMPs are properly designed, installed and maintained;

(d). Where sampling pursuant to (a), (b) or (c) above is required but not possible (or not required because there was no discharge), the permittee, in accordance with Part IV.D.4.a.(6), must include a written justification in the inspection report of why sampling was not performed. Providing this justification does not relieve the permittee of any subsequent sampling obligations under (a), (b) or (c) above.

*Note that the Permittee may choose to meet the requirements of (a) and (b) above by collecting turbidity samples from any rain event that reaches or exceeds 0.5 inch and allows for monitoring at any time of the day or week.

INSPECTIONS:
(1). Each day when any type of construction activity has taken place at a primary permittee's site, certified personnel provided by the primary permittee shall inspect: (a) all areas at the primary permittee's site where petroleum products are stored, used, or handled for spills and leaks from vehicles and equipment and (b) all locations at the primary permittee's site where vehicles enter or exit the site for evidence of off–site sediment tracking. These inspections must be conducted until a Notice of Termination is submitted.

(2). Measure rainfall once every 24 hours except any non–working Saturday, non–working Sunday and non–working Federal holiday until a Notice of Termination is submitted. Measurement of rainfall may be suspended if all areas of the site have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region.

(3). Certified personnel (provided by the primary permittee) shall inspect the following at least once every fourteen (14) calendar days and within 24 hours of the end of a storm that is 0.5 inches rainfall or greater (unless such storm ends after 5:00 PM on any Friday or on any nonworking Saturday, non–working Sunday or any non–working Federal holiday in which case the inspection shall be completed by the end of the next business day and/or working day, whichever occurs first): (a) disturbed areas of the primary permittee's construction site ; {b) areas used by the primary permittee for storage of materials that are exposed to precipitation ; and (c) structural control measures. Erosion and sediment control measures identified in the Plan applicable to the primary permittee's site shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s). For areas of a site that have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region, the permittee must comply with Part IV.D.4.a.(4). These inspections must be conducted until a Notice of Termination is submitted.

INSPECTIONS CONTINUED:
(4). Certified personnel (provided by the primary permittee) shall inspect at least once per month during the term of this permit (i.e., until a Notice of Termination is submitted to EPD) the areas of the site that have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region. These areas shall be inspected for evidence of, or the potential for, pollutants entering the drainage system and the receiving water(s). Erosion and sediment control measures identified in the Plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s).

(5). Based on the results of each inspection, the site description and the pollution prevention and control measures identified in the Erosion, Sedimentation and Pollution Control Plan, the Plan shall be revised as appropriate not later than seven (7) calendar days following each inspection. Implementation of such changes shall be made as soon as practical but in no case later than seven (7) calendar days following each inspection.

(6). A report of each inspection that includes the name(s) of certified personnel making each inspection, the date{s) of each inspection, construction phase (i.e., initial, intermediate or final), major observations relating to the implementation of the Erosion, Sedimentation and Pollution Control Plan, and actions taken in accordance with Part IV.D.4.a.(5). of the permit shall be made and retained at the site or be readily available at a designated alternate location until the entire site or that portion of a construction project that has been phased has undergone final stabilization and a Notice of Termination is submitted to EPD. Such reports shall be readily available by end of the second business day and/or working day and shall identify all incidents of best management practices that have not been properly installed and/or maintained as described in the Plan. Where the report does not identify any incidents, the inspection report shall contain a statement that the best management practices are in compliance with the Erosion, Sedimentation and Pollution Control Plan. The report shall be signed in accordance with Part V.G.2. of this permit.

REPORTING:
1. The applicable permittees are required to submit the sampling results to the EPD by the fifteenth day of the month following the reporting period. Reporting periods are months during which samples are taken in accordance with this permit. Sampling results shall be in a clearly legible format. Upon written notification, EPD may require the applicable permittee to submit the sampling results on a more frequent basis. Sampling and analysis of any stormwater discharge(s) or the receiving water(s) beyond the minimum frequency stated in this permit must be reported in a similar manner to the EPD. **Sampling reports must be submitted to EPD using the electronic submittal service provided by EPD.** Sampling reports must be submitted to EPD until such time as a NOT is submitted in accordance with Part VI.

2. All sampling reports shall include the following information:

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

3. All written correspondence required by this permit shall be submitted by return receipt certified mail (or similar service) to the appropriate District Office of the EPD according to the schedule in Appendix A of this permit. The permittee shall retain a copy of the proof of submittal at the construction site or the proof of submittal shall be readily available at a designated location from commencement of construction until such time as a NOT is submitted in accordance with Part VI.

RETENTION OF RECORDS:
1. The primary permittee shall retain the following records at the construction site or the records shall be readily available at a designated alternate location from commencement of construction until such time as a NOT is submitted in accordance with Part VI:

a. A copy of all Notices of Intent submitted to EPD;
b. A copy of the Erosion, Sedimentation and Pollution Control Plan required by this permit;
c. The design professional's report of the results of the inspection conducted in accordance with Part IV.A.5. of this permit;
d. A copy of all sampling information, results, and reports required by this permit;
e. A copy of all inspection reports generated in accordance with Part IV.D.4.a. of this permit;
f. A copy of all violation summaries and violation summary reports generated in accordance with Part III.D.2. of this permit; and
g. Daily rainfall information collected in accordance with Part IV.D.4.a.(2). of this permit.

Copies of all the above stated information and all other records required by this permit shall be retained for a period of at least three years from the date that the NOT is submitted.

LEVEL II CERTIFICATION #8059 – CHRIS TOLLESON – EXPIRES 02/01/2021

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" .5" 0" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 1977 PROFESSIONAL ENGINEER JAMES C. VAUGHN III

STORM WATER POLLUTION PREVENTION PLAN
SAMPLING METHODS

C-504

DESCRIPTION OF ANALYTICAL METHODS TO BE USED TO COLLECT AND ANALYZE THE SAMPLES:

The method used to collect and analyze the water samples shall be in accordance with the following procedures:

- All samples shall be grab samples.
- Analysis of samples must be conducted in accordance with methodology and test procedures established by 40 CFR Part 136 (unless other test procedures have been approved), the guidance document titled "NPDES Storm Water Sampling Guidance Document, EPA 833–B–92–001" and guidance documents that may be prepared by the EPD.
- Sample containers should be labeled prior to collecting the samples.
- Samples should be well mixed before transferring to a secondary container.
- Large mouth, well cleaned and rinsed glass or plastic jars should be used for collecting samples. The jars should be cleaned thoroughly to avoid contamination.
- Manual or automatic sampling may be utilized. Samples required by this permit should be analyzed immediately, but in no case later than 48 hours after collection. However, samples from automatic samplers must be collected no later than the next business day after their accumulation, unless flow through automated analysis is utilized. Samples are not required to be cooled. Dilution of samples is not required. Samples may be analyzed directly with a properly calibrated turbidimeter.
- Sampling and analysis of the receiving water(s) or outfalls beyond the minimum frequency stated in the permit must be reported to EPD as specified in Part IV.E of the permit.
- The upstream sample for each receiving water(s) must be taken immediately upstream of the confluence of the first storm water discharge from the permitted activity but downstream of any other storm water discharges not associated with the permitted activity.
- The downstream sample for each receiving water(s) must be taken downstream of the confluence of the last storm water discharge from the permitted activity but upstream of any other storm water discharge not associated with the permitted activity.
- Samples should be taken from the horizontal and vertical center of the receiving water(s) or the storm water outfall channel(s).
- Care should be taken to avoid stirring the bottom sediments in the receiving water(s) or in the outfall storm water channel.
- The sampling container should be held so that the opening faces upstream.
- The samples should be kept free from floating debris.

Deviations from these methods and procedures shall be documented by the primary permittee.

Sampling must be done in such a way as to accurately reflect whether storm water runoff from the site is in compliance with the standard set forth in the permit.

Measurement of rainfall must be recorded daily (once each twenty–four hour period) at the site.

The primary permittee must sample all perennial and intermittent streams and other water bodies or all outfalls into such streams and other water bodies as indicated on the map referenced in the permit.

For infrastructure construction projects, monitoring obligations shall cease for any phase of the project that has been stabilized in accordance with Part IV.D.6.c.(1).(g).

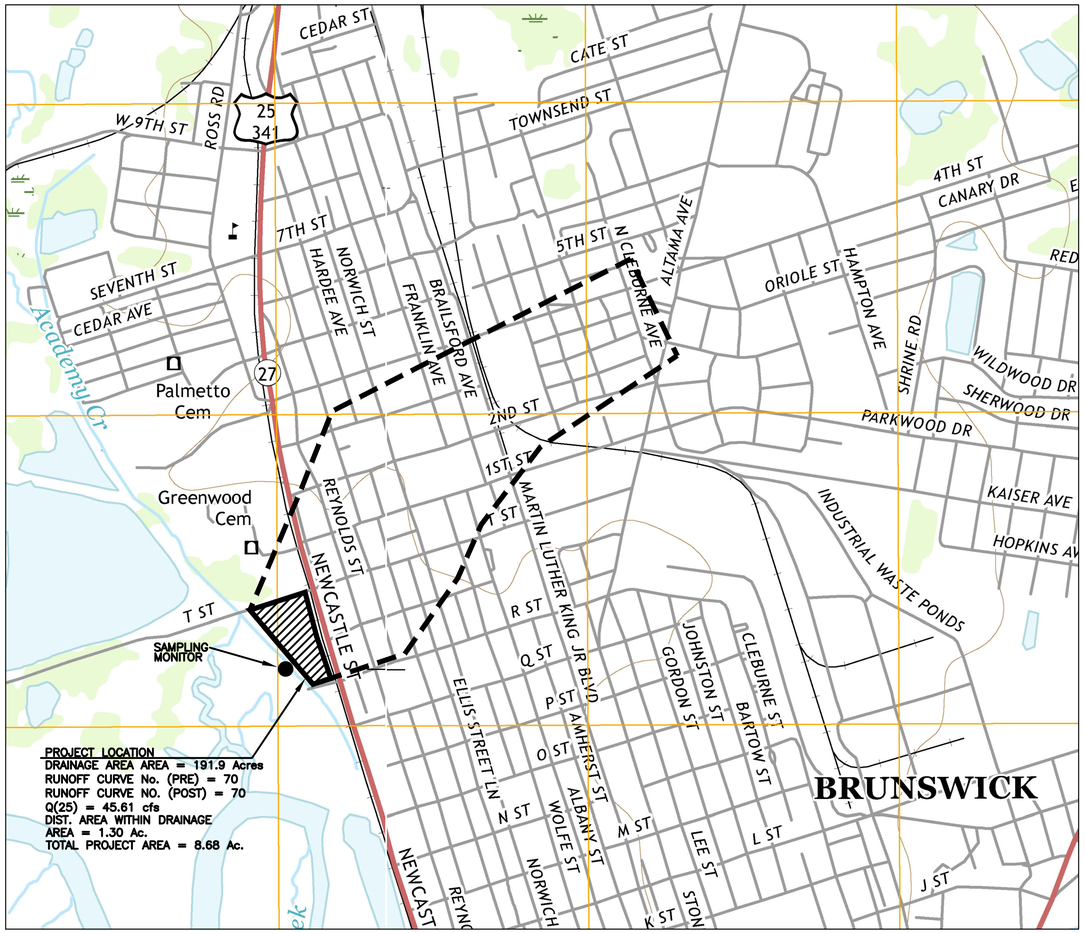
NTU MATRIX VALUE

The proposed development has a surface water drainage area of 0.30 sq.m which is between 0–4.99 square miles and a site size (7.04 ac.) between 1.0–10.00 acres. See table below.

Waters Supporting Warm Water Fisheries

Surface Water Drainage Area, square miles

Site Size, acres	0-4.99	5-9.99	10-24.99	25-49.99	50-99.99	100-249.99	250-499.99	500+
1.00-10	75	150	200	400	750	750	750	750
10.01-25	50	100	100	200	300	500	750	750
25.01-50	50	50	100	100	200	300	750	750
50.01-100	50	50	50	100	100	150	300	600
100.01+	50	50	50	50	50	100	200	100



WATERSHED, SITE MONITORING LOCATIONS AND DRAINAGE AREA MAP

SCALE: 1" = 800'

SAMPLING POINTS:

For this project a single representative outfall will be sampled for the Academy Creek WPCF Rehabilitation construction project in accordance with current NPDES General Permit No. GAR 100001.

The project is located in the City of Brunswick in Glynn County GA particularly at the southwest corner of the intersdction of T Street and Newcastle street (AKA US Highway 25) as indicated on the location map and plan sheets. There is (1) ONE outfall area for this project and it has a total drainage area of 191.9 acres. The runoff from the project drains to Academy Creek.

Drainage Basin (Ac)	Disturbed Area (Ac)	Monitoring Station location
191.9 (0.30 SQ. MI.)	1.30	AS SHOWN ON SHT. C–507

The aforementioned creek is a continuously flowing stream. The (1) ONE sampling location is representative for the project.

The sampling location for the disturbed drainage basin above shall be monitored concurrent with land disturbance/clearing. Sampling is required during construction and until all disturbed areas are stabilized. Stabilization shall mean at least 70% of the disturbed soil surface is uniformly covered in permanent vegetation or equivalent permanent stabilization measures (such as the use of rip rap, gabions, permanent mulches or geotextiles) have been employed.

Note: Monitors shall be located at the location called out on this plan or as directed by the engineer and/or Georgia EPD. A total of (1) ONE monitor shall be installed for this project. The NTU value for this project shall not exceed 75.

LEVEL II CERTIFICATION #8059 – CHRIS TOLLESON – EXPIRES 02/01/2021

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

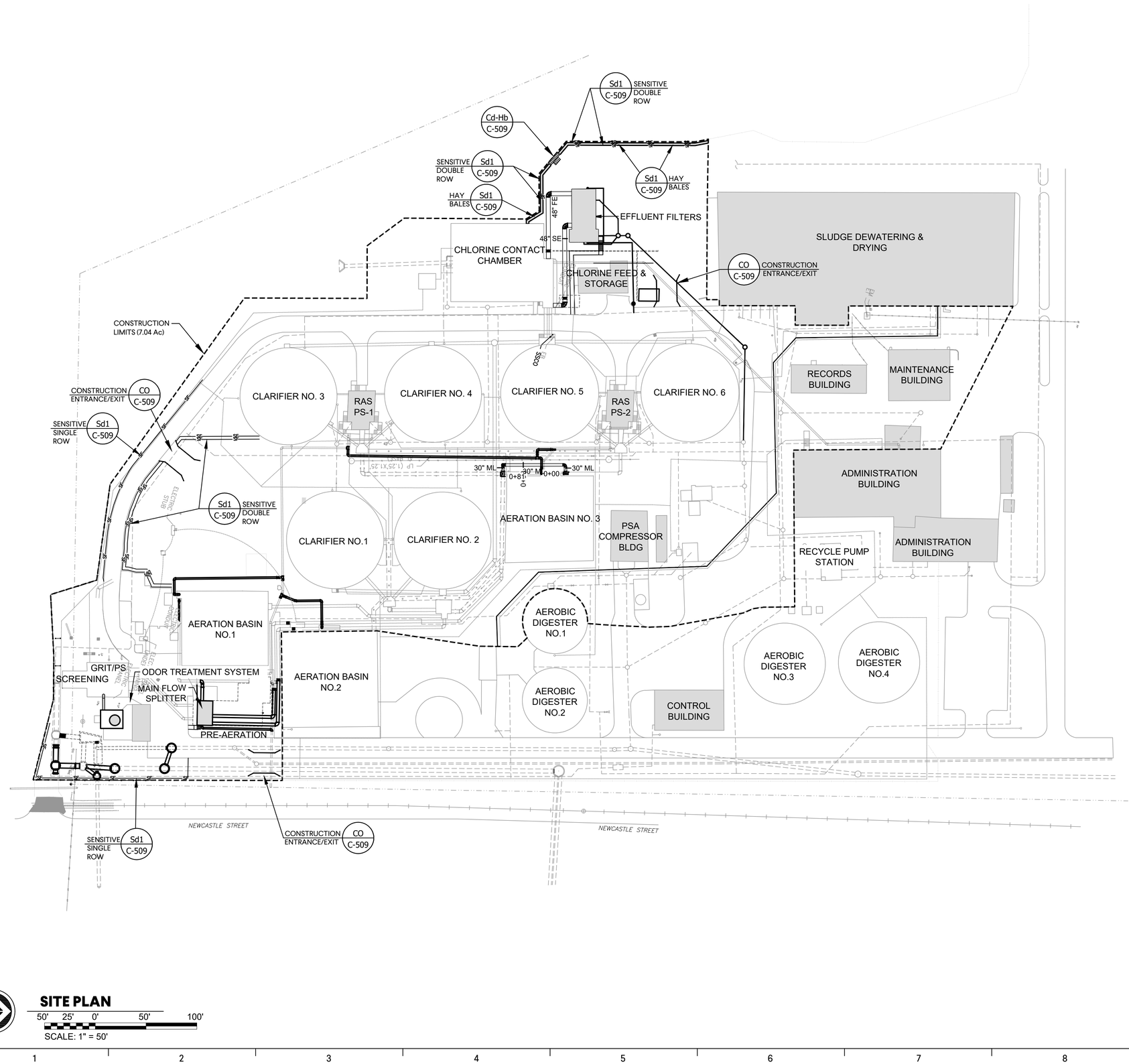
BGJWSC Project No. 906

GMC Project #CSAV190007

GEORGIA REGISTERED No. 18711 PROFESSIONAL ENGINEER JAMES V. VALENTINE

STORM WATER PREVENTION PLAN SITE LOCATION & SAMPLING ANALYTICAL METHODS

C-505



SITE PLAN

50' 25' 0' 50' 100'

SCALE: 1" = 50'

KEY PLAN

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER JAMES C. VAUGHN, JR.

STORM WATER POLLUTION PREVENTION PLAN PHASE 1

C-506

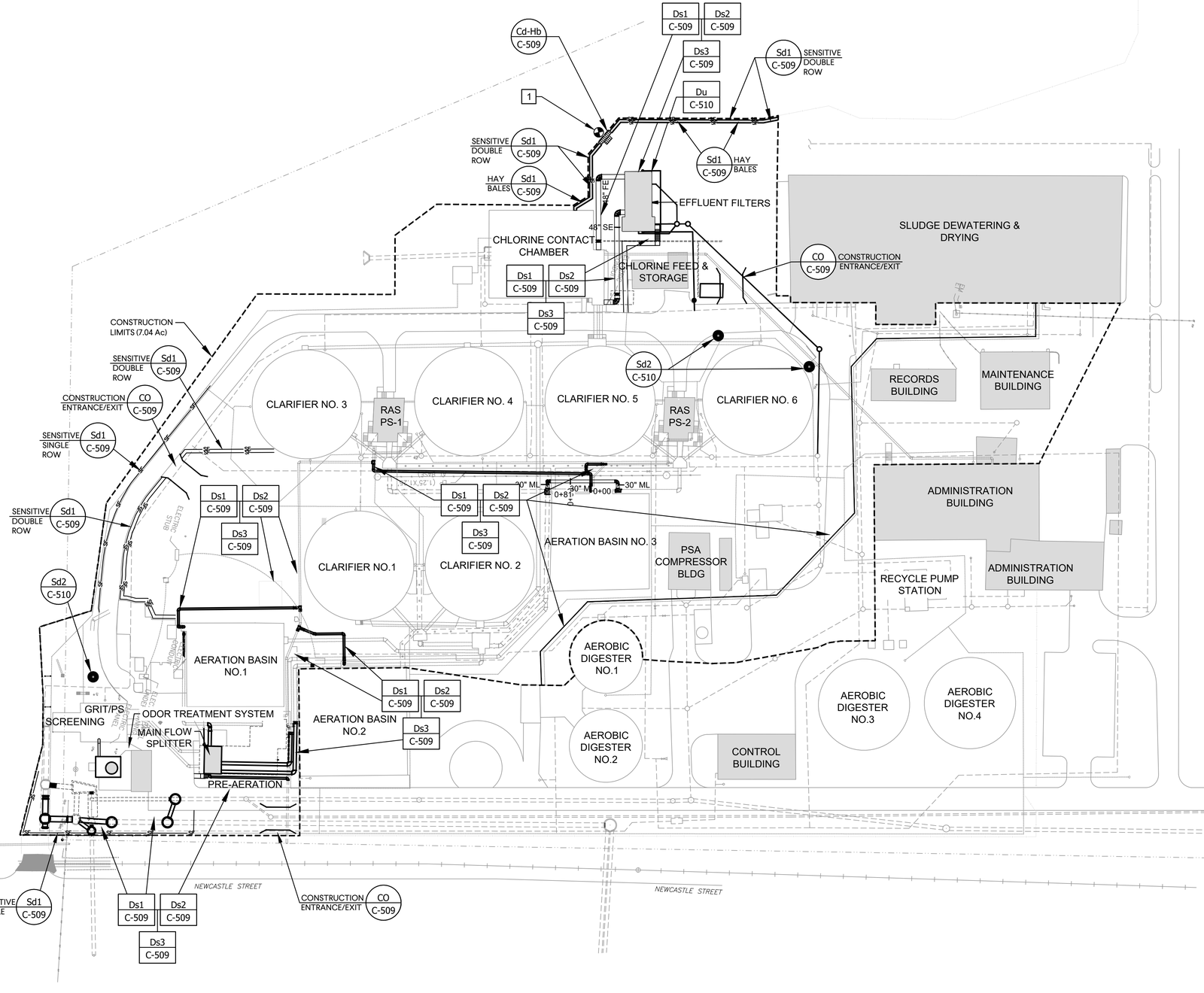
DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPC Rehab\0 DWGs\CAD\01 BID DRAWINGS\03 CIVIL\C-506-508 E&S DESIGN.dwg
PLOTTED: Jun 05, 2020 - 10:55am

KEYED NOTES: #

1. SAMPLE MONITORING LOCATION

NOTES:

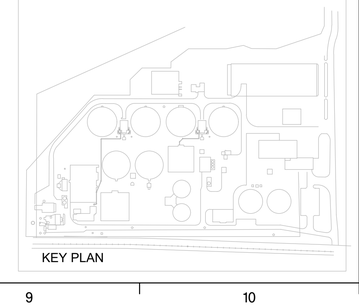
1. CONTRACTOR SHALL REFERENCE SPECIFICATION SECTION 312500 - EROSION AND SEDIMENTATION CONTROLS.



SITE PLAN

50' 25' 0' 50' 100'

SCALE: 1" = 50'



KEY PLAN

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	09.09.2019	
70% SUBMITTAL	12.16.2019	
100% SUBMITTAL	03.12.2020	
CONSTRUCTION SUBMITTAL	06.15.2020	
PROJECT MANAGER:		JCV
ENGINEER:		MEF
DESIGNER:		GS
DRAWN BY:		GS/AJ

1" 0" .5"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

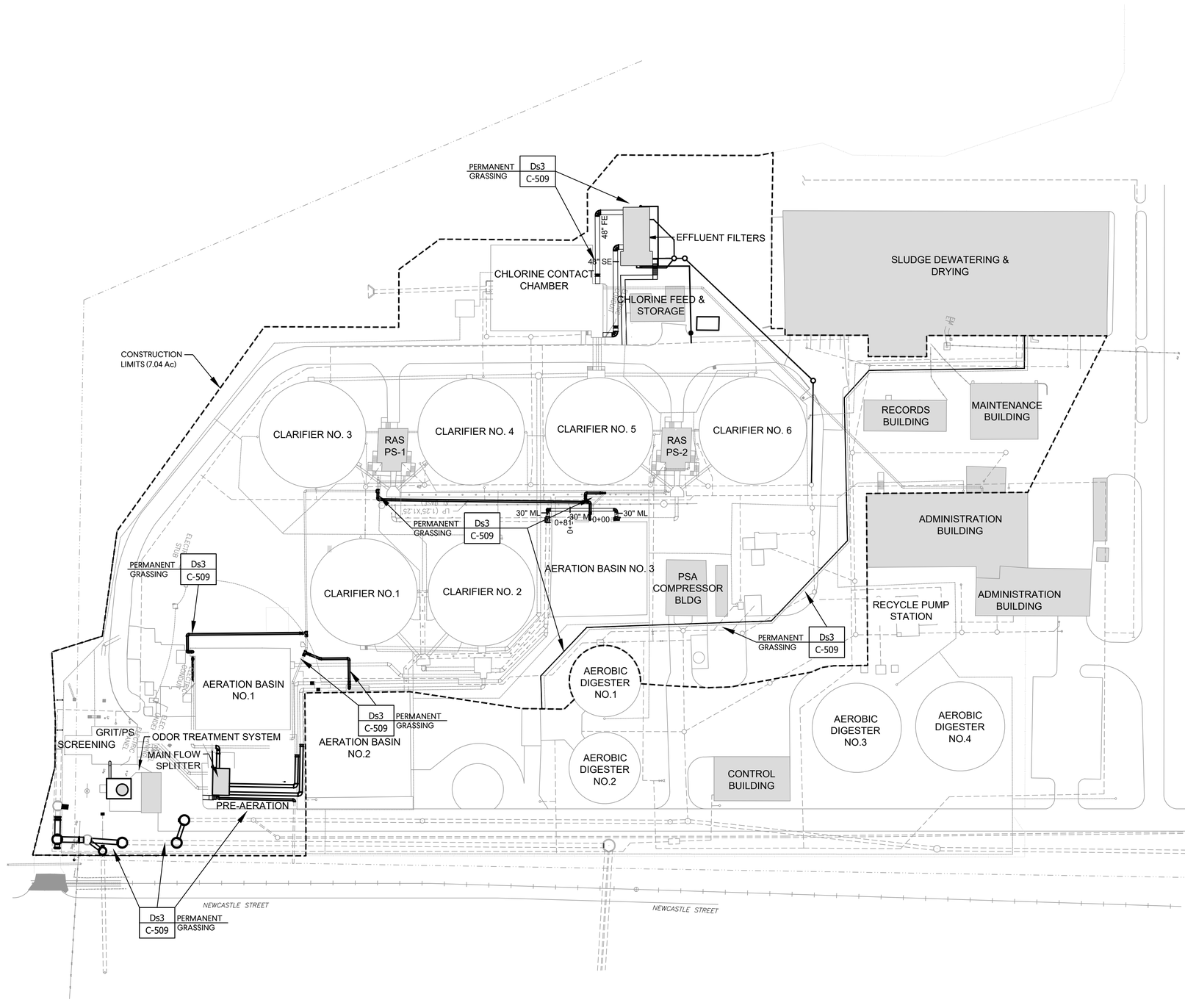
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER JAMES C. VAUGHN, JR. No. 31917

STORM WATER POLLUTION PREVENTION PLAN PHASE 2

C-507

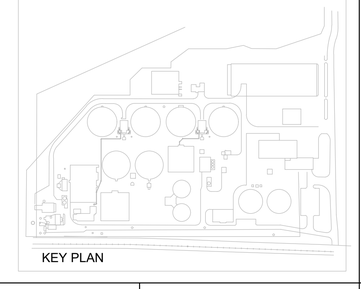
DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPC Rehab\0 DWGs\CAD\01 BID DRAWINGS\03 CIVIL\C-506-508 E&S DESIGN.dwg
PLOTTED: Jun 05, 2020 - 10:55am



SITE PLAN

50' 25' 0' 50' 100'

SCALE: 1" = 50'



GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" 0" .5"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

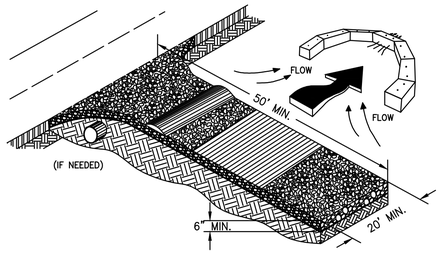
GEORGIA REGISTERED PROFESSIONAL ENGINEER JAMES C. VAUGHN No. 31917

STORM WATER POLLUTION PREVENTION PLAN PHASE 3

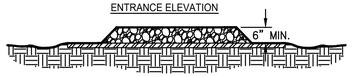
C-508

DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPC Rehab\0 DWGs\CAD\01 BID DRAWINGS\03 CIVIL\C-506-508 E&S DESIGN.dwg
PLOTTED: Jun 05, 2020 - 10:55am

EXIT DIAGRAM

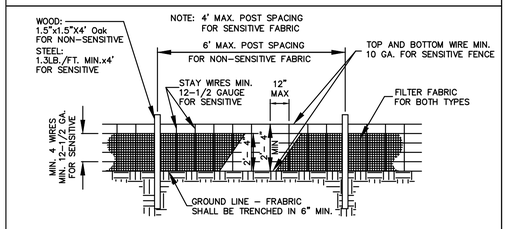


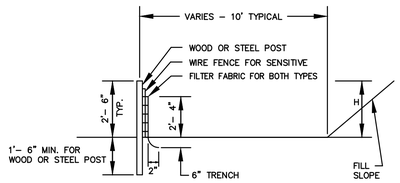
ENTRANCE ELEVATION



NOTES:
1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS.
2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
3. AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5"-3.5" STONE).
4. GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6".
5. PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'.
6. A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%..
7. INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES.
8. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN (DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE).
9. WASHRACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF NECESSARY, WASHRACK DESIGN MAY CONSIST OF ANY MATERIAL SUITABLE FOR TRUCK TRAFFIC THAT REMOVE MUD AND DIRT.
10. MAINTAIN AREA IN A WAY THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

Co TEMPORARY CONSTRUCTION EXIT

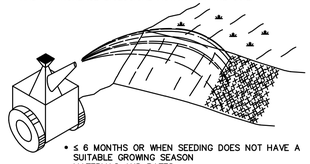




ALONG STREAM BUFFERS AND OTHER SENSITIVE AREAS, TWO ROWS OF SENSITIVE SILT FENCE OR ONE ROW OF SENSITIVE SILT FENCE BACKED BY HAYBALES SHALL BE USED.

Sd1 SEDIMENT BARRIER
(Sd1-NS) TYPE NON-SENITIVE
(Sd1-S) TYPE SENSITIVE

A TEMPORARY COVER OVER BASE AREAS TO PREVENT EROSION AND REDUCE RUNOFF; TO CONSERVE MOISTURE; TO PREVENT SURFACE COMPACTION OR CRUSTING; TO CONTROL UNDESIRABLE VEGETATION; TO MODIFY SOIL TEMPERATURE AND TO INCREASE BIOLOGICAL ACTIVITY IN THE SOIL.



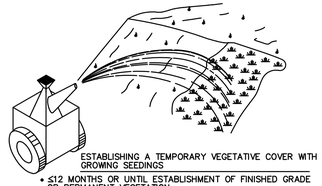
- ≤ 6 MONTHS OR WHEN SEEDING DOES NOT HAVE A SUITABLE GROWING SEASON

MATERIALS AND RATES:

MATERIAL	RATE
STRAW OR HAY	2" to 4" DEEP
WOOD WASTE, CHIPS, SAWDUST OR BARK	2"-3" DEEP (ABOUT 6 TO 9 TONS/ACRE)
POLYETHYLENE FILM	COMPLETELY COVER AREA

- MAY BE NECESSARY TO ANCHOR

Ds1 (Ds1) DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)



ESTABLISHING A TEMPORARY VEGETATIVE COVER WITH FAST GROWING SEEDINGS

- ≤12 MONTHS OR UNTIL ESTABLISHMENT OF FINISHED GRADE OR PERMANENT VEGETATION
- SITE PREPARATION
  - GRADING AND SHAPING
  - SEED BED PREPARATION
  - APPLY LIME AND FERTILIZER
  - PLANT SEEDING, SELECT SPECIES BY SEASON AND REGION
  - APPLY MULCHING MATERIAL IF NEEDED
  - IRRIGATE IF NEEDED BUT NOT AT A RATE TO CAUSE EROSION
- PLANTING DATES DEPEND ON SPECIES AND REGION (MOUNTAIN, PIEDMONT OR COASTAL)

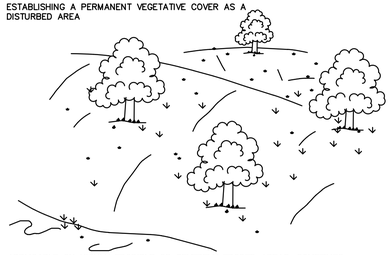
PLANTING RATES AND PLANTING DATES FOR TEMPORARY COVER

SPECIES	RATE PER 1,000 SQ. FT.	RATE PER ACRE	PLANTING DATES MOUNTAINS	PIEDMONT	COASTAL
RYE	3.9 LB.	3 BU. (168 LBS)	7/15-12/1	8/15-1/1	9/1-3/1
RYEGRASS ANNUAL	0.9 LB.	40 LBS.	8/1-5/1	8/1-4/15	8/15-4/1
ANNUAL LESPEDEZA	0.9 LB.	40 LBS.	2/1-5/1	2/15-5/1	1/15-3/15
WEEPING LOVEGRASS	0.1 LB.	4 LBS.	3/15-6/15	3/15-6/15	2/15-6/15
SUDANGRASS	1.4 LB.	60 LBS.	3/1-9/1	3/1-9/1	3/1-8/15
BROWNTOP MILLET	0.9 LB.	40 LBS.	4/1-7/1	4/1-7/15	4/1-7/15
WHEAT	4.1 LB.	3 BU. (180 LBS)	9/1-1/1	9/1-1/1	9/15-2/1

UNUSUAL SITE CONDITIONS MAY REQUIRE HEAVIER SEEDING RATES. SEEDING DATES MAY NEED TO BE ALTERED TO FIT TEMPERATURE VARIATIONS AND LOCAL CONDITIONS.

Ds2 (Ds2) DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDINGS)

ESTABLISHING A PERMANENT VEGETATIVE COVER AS A DISTURBED AREA



- APPLICABLE ON HIGHLY ERODIBLE OR SEVERELY ERODED AREAS, SOMETIMES CALLED "CRITICAL AREAS" INCLUDING:
  - CUT OR FILL SLOPES
  - EARTH SPILLWAYS
  - BORROW AREAS
  - CHANNEL BANKS
  - BERMS
  - ROADSIDES
  - SPOIL AREAS
  - GULLIED LANDS
- GRADING AND SHAPING REQUIRED WHERE FEASIBLE AND PRACTICAL
- SEED BED PREPARATION
  - NOT REQUIRED IF USING HYDRAULIC SEEDING AND FERTILIZING
  - WHEN REQUIRED

SLOPE	SEED BED
3:1 OR FLATTER	≥4" DEEP
2:1 TO 3:1	1" TO 4" DEEP
2:1 OR STEEPER	DEPRESSIONS EVERY 6" TO 8" APART WITH HAND TOOL

- HAVE SOIL ANALYZED FOR LIME AND FERTILIZER RATE
- MULCH ALL SLOPES STEEPER THAN 3% AND IN BOTTOM OF SPILLWAYS AND ON ROADBANKS
- ANCHOR MULCH IMMEDIATELY

PERMANENT GRASSING

GRASS SEED ON LEVEL OR SLIGHTLY SLOPING GROUND SHALL CONSIST OF THE FOLLOWING FOR THE PLANTING DATES SPECIFIED:

(A) MARCH 1 TO JUNE 30
- COMMON BERMUDA (HULLED) 10 LBS/ACRE
- TALL FESCUE 50 LBS/ACRE

(B) AUGUST 1 TO NOVEMBER 1
- TALL FESCUE 50 LBS/ACRE
- COMMON BERMUDA (UNHULLED) 10 LBS/ACRE

(C) NOVEMBER 1 TO MARCH 1
- COMMON BERMUDA (UNHULLED) 10 LBS/ACRE

PERMANENT GRASSING

GRASS SEED ON LEVEL OR SLOPES 3:1 OR STEEPER AND INFREQUENTLY MOWED AREAS SHALL CONSIST OF THE FOLLOWING FOR THE PLANTING DATES SPECIFIED:

(A) MARCH 1 TO JUNE 15
- WEEPING LOVEGRASS 5 LBS/ACRE
- SERICEA LESPEDEZA (SCARIFIED) 60 LBS/ACRE

(B) AUGUST 1 TO NOVEMBER 1
- TALL FESCUE 50 LBS/ACRE
- SERICEA LESPEDEZA (UNSCARIFIED) 75 LBS/ACRE

(C) NOVEMBER 1 TO MARCH 1
- COMMON BERMUDA (UNHULLED) 10 LBS/ACRE
- SERICEA LESPEDEZA (UNSCARIFIED) 75 LBS/ACRE

WHEN AS DIRECTED BY THE ENGINEER, SEED OF AN APPROVED QUICK GROWING SPECIES OF GRASS, SUCH AS RYE, ITALIAN RYE, MILLET OR OTHER CEREAL GRASS, SHALL BE APPLIED AT A RATE OF 30 LBS/ACRE IN CONJUNCTION WITH AND IN ADDITION TO THE SEED MIXTURE SPECIFIED ABOVE ABOVE.

FERTILIZER

COMMERCIAL FERTILIZER SHALL COMPLY WITH THE STATE FERTILIZER LAWS AND SHALL BE OF AN ACCEPTED AND APPROVED COMMERCIAL BRAND. FERTILIZER SHALL BE A READY MIXED MATERIAL CONTAINING THE SOIL NUTRIENTS AS SPECIFIED AND IN A SUITABLE FORM COMPATIBLE WITH THE EQUIPMENT USED TO ACHIEVE UNIFORM DISTRIBUTION OF THE FERTILIZER. THE FERTILIZER MIXTURE SHALL CONTAIN THE FOLLOWING NUTRIENTS EXPRESSED IN PERCENT OF THE TOTAL WEIGHT: 6% NITROGEN 12% AVAILABLE PHOSPHORIC ACID, AND 12% WATER SOLUBLE POTASH (6-12-12) ANALYSIS. CONTAINER TAGS SHALL HAVE THE NAME AND ADDRESS OF THE MANUFACTURER, THE BRAND NAME, NET WEIGHT, AND CHEMICAL COMPOSITION OF ANALYSIS. FERTILIZER SHALL BE APPLIED AT THE RATE OF 1,500 LBS PER ACRE AT THE TIME OF SEEDING.

LIME

AGRICULTURAL DOLOMETIC LIME SHALL BE A PULVERIZED LIMESTONE HAVING A CALCIUM CARBONATE EQUIVALENT CONTENT OF NOT LESS THAN 90% OF THE TOTAL MATERIAL SHALL PASS A 10-MESH SIEVE AND AT LEAST 25% SHALL PASS A 100-MESH SIEVE. LIME SHALL BE APPLIED AS INDICATED BY THE SOIL TEST. OR THE RATE OF 1 TO 2 TONS PER ACRE.

WATER

THE WATER USED IN THE GRASSING OPERATIONS MAY BE OBTAINED FROM ANY APPROVED SPRING, POND, LAKE, STREAM, OR MUNICIPAL WATER SYSTEM. THE WATER SHALL BE FREE OF EXCESS AND HARMFUL CHEMICALS, ACIDS, ALKALIZES, OR ANY SUBSTANCE WHICH MIGHT BE HARMFUL TO PLANT GROWTH.

WATERING MAINTENANCE AND RESEEDING

CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE PROPER MOISTURE CONTENT OF THE SOIL TO INSURE ADEQUATE PLANT GROWTH UNTIL A SATISFACTORY STAND OF GRASS IS OBTAINED. WATERING SHALL BE PERFORMED TO MAINTAIN AN ADEQUATE WATER CONTENT IN THE SOIL.

THE CONTRACTOR SHALL MOW AND MAINTAIN ALL SEEDED AREAS WITHOUT ADDITIONAL PAYMENT UNTIL FINAL ACCEPTANCE OF THE WORK BY THE OWNER, AND ANY REGRADING, REFERTILIZING, RELIMING, RESEEDING OR REMULCHING SHALL BE DONE AT HIS OWN EXPENSE. SEEDING WORK SHALL BE REPEATED ON DEFECTIVE AREAS UNTIL A SATISFACTORY UNIFORM STAND OF GRASS IS ACCOMPLISHED. DAMAGE RESULTING FROM EROSION, GULLIES, WASHOUTS, OR OTHER CAUSES SHALL BE REPAIRED BY FILLING WITH TOPSOIL, COMPACTING, AND PREPARING THE SEEDING WORK AT HIS EXPENSE.

EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. ADDITIONAL EROSION AND SEDIMENT CONTROL WILL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTION.

THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES SHALL BE INSTALLED PRIOR TO OR CONCURRENT WITH LAND DISTURBING ACTIVITIES.

Ds3 (Ds3) DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)

STRUCTURAL PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Cd	CHECK DAM			A small temporary barrier or dam constructed across a swale, drainage ditch, or area of concentrated flow.
Co	CONSTRUCTION EXIT			A crushed stone pad located at the construction exit to provide a place for removing mud from tires thereby protecting public streets.
Sd1	SEDIMENT BARRIER		(TYPE "S") or (TYPE "NS")	A barrier to prevent sediment from leaving a construction site. It may be sandbags, bales of straw or hay, brush, logs and poles, or a silt fence.
Sd2	SEDIMENT TRAP, TEMPORARY			An impounding area created by excavating around a storm drain inlet. The excavated area will be filled and stabilized on completion of construction activities.

VEGETATIVE PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Ds1	DISTURBED AREA STABILIZATION(W/ MULCHING ONLY)		Ds1	Establishing temporary protection for disturbed areas where seedings may not have a suitable growing season to produce an erosion retarding cover.
Ds2	DISTURBED AREA STABILIZATION(W/ TEMPORARY SEEDING)		Ds2	Establishing a temporary vegetative cover with fast growing seedings on disturbed areas.
Ds3	DISTURBED AREA STABILIZATION(W/ PERMANENT SEEDING)		Ds3	Establishing permanent vegetative cover such as trees, shrubs, vines, sod, grasses or legumes on disturbed areas.

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" .5" 0" 1"

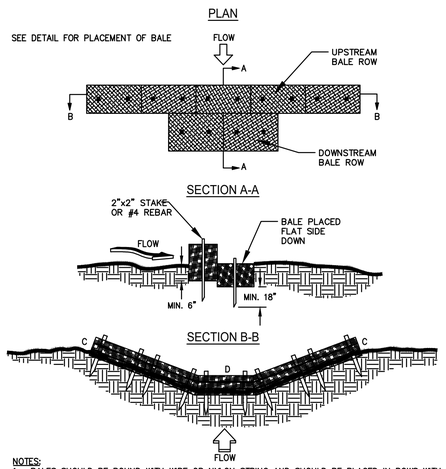
2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 18817 PROFESSIONAL ENGINEER JAMES C. VAUGHN

EROSION AND SEDIMENT CONTROL DETAILS

C-509



NOTES:
1. BALES SHOULD BE BOUND WITH WIRE OR NYLON STRING AND SHOULD BE PLACED IN ROWS WITH BALE ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. REMOVE #4 REBAR AFTER STRAW BALES ARE NO LONGER IN PLACE.
3. POINT C OF SECTION B-B SHOULD ALWAYS BE HIGHER THAN POINT D.

Cd-Hb HAY BALE CHECK DAM

PURPOSE: 1. TO PREVENT THE MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES

2. PREVENT THE MOVEMENT OF AIRBORNE SUBSTANCES THAT MAY BE HARMFUL TO HEALTH.

INSTALLATION: 1. APPLY ACCORDINGLY TO APPROVED PLAN, IF SHOWN.

2. MULCH DISTURBED AREAS AND TACKIFY WITH RESINS SUCH AS ASPHALT, CURASOL OR TERRATACK ACCORDING TO MANUFACTURERS RECOMMENDATIONS

3. STABILIZE DISTURBED AREAS WITH TEMPORARY OR PERMANENT VEGETATION.

4. IRRIGATE DISTURBED AREAS UNTIL SURFACE IS WET.

5. COVER SURFACES WITH CRUSHED STONE OR GRAVEL.

6. APPLY CALCIUM CHLORIDE AT A RATE TO KEEP SURFACE MOIST.

7. APPLY SPRAY-ON ADHESIVES TO MINERAL SOILS (NOT MUCK SOILS) AS DESCRIBED IN TABLE 1

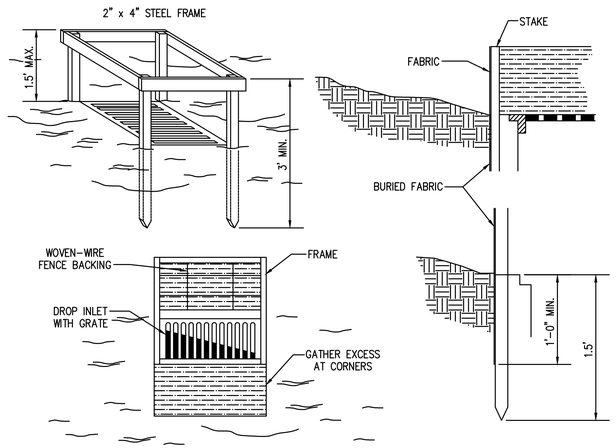
TABLE 1

ANIONIC ASPHALT EMULSION	7:1	COARSE SPRAY	1,200
LATEX EMULSION	12.5:1	FINE SPRAY	235
RESIN-IN-WATER EMULSION	4:1	FINE SPRAY	300

MAINTENANCE: 1. PROHIBIT TRAFFIC ON SURFACE AFTER SPRAYING.
2. SUPPLEMENTAL SURFACE COVERING AS NEEDED.

REFERENCES: 1. Ds1
2. Ds2
2. Ds3
2. Ds4

Du DUST CONTROL ON DISTURBED AREAS



CONSTRUCTION SPECIFICATIONS

This method of inlet protection is applicable where the inlet drains a relatively flat area (slope no greater than 5 %) and shall not apply to inlets receiving concentrated flows, such as in street or highway medians. Type C silt fence supported by steel posts shall be used. The stakes shall be spaced evenly around the perimeter of the inlet a maximum of 3 feet apart, and securely driven into the ground, approximately 18 inches deep. The fabric shall be entrenched 12 inches and backfilled with crushed stone or compacted soil. Fabric and wire shall be securely fastened to the posts, and fabric ends must be overlapped a minimum of 18 inches or wrapped together around a post to provide a continuous fabric barrier around the inlet.

MAINTENANCE

The trap shall be inspected daily and after each rain and repairs made as needed. Sediment shall be removed when the sediment has accumulated to one-half the height of the trap. Sediment shall be removed from curb inlet protection immediately. For excavated inlet sediment traps, sediment shall be removed when one-half of the sediment storage capacity has been lost to sediment accumulation. Sod inlet protection shall be maintained as specified in Ds4-Disturbed Area Stabilization (with sodding). Sediment shall not be washed into the inlet. It shall be removed from the sediment trap and disposed of and stabilized so that it will not enter the inlet, again. When the contributing drainage area has been permanently stabilized, all materials and any sediment shall be removed, and either salvaged or disposed of properly. The disturbed area shall be brought to proper grade, then smoothed and compacted. Appropriately stabilize all disturbed areas around the inlet.

Sd2-F INLET SEDIMENT TRAP FILTER FABRIC WITH SUPPORTING FRAME

VEHICLE FUELING

DESCRIPTION AND PURPOSE
VEHICLE FUELING EQUIPMENT PROCEDURES AND PRACTICES ARE DESIGNED TO PREVENT FUEL SPILLS AND LEAKS, AND REDUCE OR ELIMINATE CONTAMINATION OF STORMWATER. THIS CAN BE ACCOMPLISHED BY USING OFFSITE FACILITIES, FUELING IN DESIGNATED AREAS ONLY, ENCLOSING OR COVERING STORED FUEL, IMPLEMENTING SPILL CONTROLS, AND TRAINING EMPLOYEES AND SUBCONTRACTORS IN PROPER FUELING PROCEDURES.

SUITABLE APPLICATIONS
THESE PROCEDURES ARE SUITABLE ON ALL CONSTRUCTION SITES WHERE VEHICLE AND EQUIPMENT FUELING TAKES PLACE.

LIMITATIONS
ONSITE VEHICLE AND EQUIPMENT FUELING SHOULD ONLY BE USED WHERE IT IS IMPRACTICABLE TO SEND VEHICLES AND EQUIPMENT OFFSITE FOR FUELING. SENDING VEHICLES AND EQUIPMENT OFFSITE SHOULD BE DONE IN CONJUNCTION WITH CO, STABILIZED CONSTRUCTION ENTRANCE/EXIT.

IMPLEMENTATION
.. USE OFFSITE FUELING STATIONS AS MUCH AS POSSIBLE. THESE BUSINESSES ARE BETTER EQUIPPED TO HANDLE FUEL AND SPILLS PROPERLY. PERFORMING THIS WORK OFFSITE CAN ALSO BE ECONOMICAL BY ELIMINATING THE NEED FOR A SEPARATE FUELING AREA AT A SITE.
..DISCOURAGE "TOPPING-OFF" OF FUEL TANKS.

CONCRETE WASTE MANAGEMENT

DESCRIPTION AND PURPOSE
PREVENT OR REDUCE THE DISCHARGE OF POLLUTANTS TO STORM WATER FROM CONCRETE WASTE BY CONDUCTING WASHOUT OFF-SITE, PERFORMING ON-SITE WASHOUT IN A DESIGNATED AREA, AND TRAINING EMPLOYEES AND SUBCONTRACTORS.

SUITABLE APPLICATIONS
THESE PROCEDURES ARE SUITABLE ON ALL CONSTRUCTION SITES WHERE CONCRETE WORK TAKES PLACE.

IMPLEMENTATION
< STORE DRY AND WET MATERIALS UNDER COVER, AWAY FROM DRAINAGE AREAS.
< AVOID MIXING EXCESS AMOUNTS OF FRESH CONCRETE OR CEMENT ON-SITE.
< PERFORM WASHOUT OF CONCRETE TRUCKS OFF-SITE OR IN DESIGNATED AREAS ONLY.
< DO NOT WASH OUT CONCRETE TRUCKS INTO STORM DRAINS, OPEN DITCHES, STREETS, OR STREAMS.
< DO NOT ALLOW EXCESS CONCRETE TO BE DUMPED ON-SITE, EXCEPT IN DESIGNATED AREAS.
< WHEN WASHING CONCRETE TO REMOVE FINE PARTICLES AND EXPOSE THE AGGREGATE, AVOID CREATING RUNOFF BY DRAINING THE WATER WITHIN A BERMED OR LEVEL AREA.
< TRAIN EMPLOYEES AND SUBCONTRACTORS IN PROPER CONCRETE WASTE MANAGEMENT.
< WASHOUT OF THE DRUM AT THE CONSTRUCTION SITE IS PROHIBITED.

BEST MANAGEMENT PRACTICES (BMPs) HEAVY EQUIPMENT & EARTH-MOVING ACTIVITIES

HEAVY EQUIPMENT OPERATION PROBLEMS

SOIL EXCAVATION AND GRADING OPERATIONS OFTEN CONTRIBUTE TO URBAN RUNOFF POLLUTION. BY LOOSENING LARGE AMOUNTS OF SOIL AND SEDIMENT,EARTH-MOVING ACTIVITIES CAN CAUSE SEDIMENT TO FLOW INTO GUTTERS, STORM DRAINS AND STREAMS. SEDIMENT IS THE MOST COMMON POLLUTANT WASHED FROM WORK SITES, CREATING MULTIPLE PROBLEMS ONCE IT ENTERS THE STREAM. SEDIMENT CLOGS THE GILLS OF FISH, BLOCKS LIGHT TRANSMISSION AND INCREASES STREAM WATER TEMPERATURE, ALL OF WHICH HARM LIFE, DISTURBING THE FOOD CHAIN UPON WHICH BOTH FISH AND PEOPLE DEPEND UPON.

SEDIMENT ALSO CARRIES WITH IT OTHER WORK SITE POLLUTANTS SUCH AS PESTICIDES, CLEANING SOLVENTS, CEMENT WASH, ASPHALT AND CAR FLUIDS LIKE MOTOR OIL, GREASE AND FUEL.THUS, POORLY MAINTAINED VEHICLES AND HEAVY EQUIPMENT LEAKING FUEL AND OIL AT THE CONSTRUCTION SITE, ALSO CONTRIBUTE TO OCEAN POLLUTION.

SOLUTIONS
BEST MANAGEMENT PRACTICES (BMPs) SUCH AS HANDLING, STORING, AND DISPOSING OF MATERIALS PROPERLY CAN PREVENT POLLUTANTS FROM ENTERING THE STORM DRAINS.

GENERAL BUSINESS PRACTICES
SCHEDULE EXCAVATION AND GRADING WORK FOR DRY WEATHER.
USE AS LITTLE WATER POSSIBLE FOR DUST CONTROL.

CLEAN UP SPILLS
NEVER HOSE DOWN "DIRTY" PAVEMENRT OR IMPERMEABLE SURFACES WHERE FLUIDS HAVE SPILLED.
USE DRY CLEANUP METHODS
(SAWDUST, KITTY LITTER, AND/OR RAGS) AND DISPOSE OF PROPERLY.
SWEEP UP DRY SPILLED MATERIALS IMMEDIATELY. NEVER ATTEMPT TO BURY THEM OR "WASH THEM AWAY" WITH WATER.
CLEAN UP SPILLS ON DIRT AREAS BY DIGGING UP AND PROPERLY DISPOSING OF CONTAMINATED SOIL.
REPORT SIGNIFICANT SPILLS TO THE APPROPRIATE SPILL RESPONSE AGENCIES IMMEDIATELY.

VEHICLE AND EQUIPMENT MAINTENANCE

MAINTAIN ALL VEHICLE AND HEAVY EQUIPMENT IN GOOD WORKING ORDER AND INSPECT FREQUENTLY FOR LEAKS.
CONDUCT ALL VEHICLE/EQUIPMENT MAINTENANCE AND REFUELING AT ONE LOCATION-AWAY FROM STORM DRAINS.
PERFORM MAJOR MAINTENANCE, REPAIR JOBS AND VEHICLE/EQUIPMENT WASHING OFF-SITE. USE GRAVEL APPROACHES WHERE TRUCK TRAFFIC IS FREQUENT, TO REDUCE SOIL COMPACTION AND LIMIT THE TRACKING OF SEDIMENT INTO STREETS.
USE DRIP PANS OR DROP CLOTHS TO CATCH DRIPS AND SPILLS IF YOU DRAIN AND REPLACE MOTOR OIL, RADIATOR COOLANT OR OTHER FLUIDS ON SITE. COLLECT ALL USED FLUIDS, STORE IN SEPARATE CONTAINERS AND RECYCLE WHENEVER POSSIBLE; OTHERWISE MAKE CERTAIN THEY ARE DISPOSED OF PROPERLY. DO NOT USE DIESEL OIL TO LUBRICATE EQUIPMENT OR PARTS.
WASHOUT OF THE DRUM AT THE CONSTRUCTION SITE IS PROHIBITED.

EROSION PREVENTION
AFTER CLEARING, GRADING OR EXCAVATING, EXPOSED SOIL POSES A CLEAR AND IMMEDIATE DANGER FOR STORMWATER POLLUTION. REVEGETATION (PERMANENT OR TEMPORARY) IS AN EXCELLENT FORM OF EROSION CONTROL FOR ANY SITE.
AVOID EXCAVATION AND GRADING ACTIVITIES DURING WET WEATHER. CONSTRUCT DIVERSION DIKES TO CHANNEL RUNOFF AROUND THE SITE. LINE CHANNELS WITH GRASS OR ROUGHENED PAVEMENT TO REDUCE RUNOFF VELOCITY.
COVER STOCKPILES AND EXCAVATED SOIL WITH SECURED TARPS OR PLASTIC SHEETING. REMOVE EXISTING VEGETATION ONLY WHEN ABSOLUTELY NECESSARY. LARGE PROJECTS SHOULD BE CONDUCTED IN PHASES. CONSIDER PLANTING TEMPORARY VEGETATION FOR EROSION CONTROL ON SLOPES OR WHERE CONSTRUCTION IS NOT IMMEDIATELY PLANNED.
PLANT PERMANENT VEGETATION AS SOON AS POSSIBLE, ONCE EXCAVATION AND GRADING ACTIVITIES ARE COMPLETE.

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020

PROJECT MANAGER: JCV
ENGINEER: MEF
DESIGNER: GS
DRAWN BY: GS/AJ

1" .5" 0"

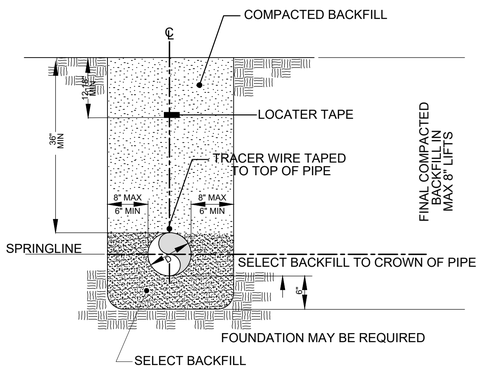
2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BG-JWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 18817 PROFESSIONAL ENGINEER JAMES C. VAUGHAN

EROSION AND SEDIMENT CONTROL DETAILS

C-510



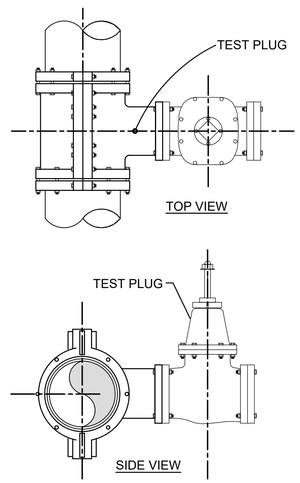
NOTES:

1. TRENCH EXCAVATION, BACKFILL AND COMPACTION SHALL BE IN STRICT CONFORMANCE BGJWSC STANDARD PROCEEDURES

3 / C-901 **DETAIL -PIPE TRENCH**

SCALE: NOT TO SCALE

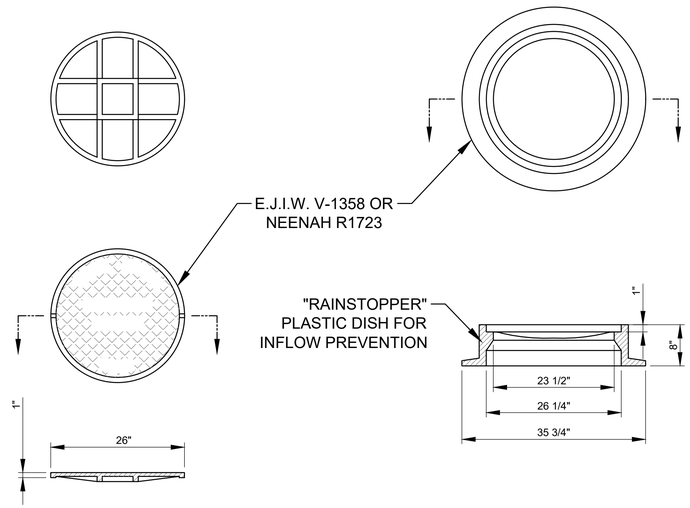
TAPPING VALVE - MUELLER A-2360-23 OR CLOW 6100, RESILIENT WEDGE-FL X MJ ENDS.
TAPPING SLEEVE - MUELLER H-304 SS OR SMITH BLAIR 665 .



TAPPING SLEEVE AND VALVE SHALL BE PRESSURE TESTED FOR 1 HOUR PRIOR TO TAPPING THE EXISTING MAIN. TESTING PRESSURE SHALL BE 200 PSIG.

4 / C-901 **DETAIL -TAPPING SLEEVE & VALVE**

SCALE: NOT TO SCALE



A / D-501 **DETAIL- MANHOLE COVER & RING**

NTS NTS 0' NTS NTS

SCALE: NOT TO SCALE

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" .5" 0"

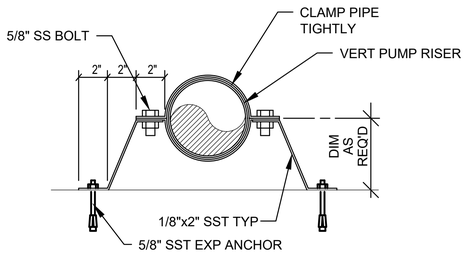
2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BG-JWSC Project No. 906
GMC Project #CSAV190007

GEORGIA — JAMES C. VAUGHN — No. 18127 — PROFESSIONAL ENGINEER

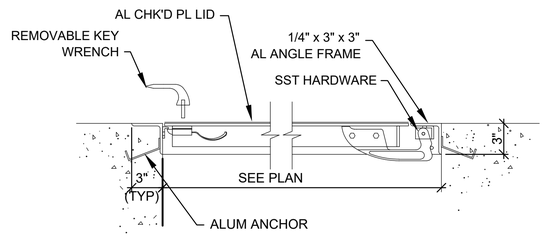
CIVIL / SITE DETAILS

C-901



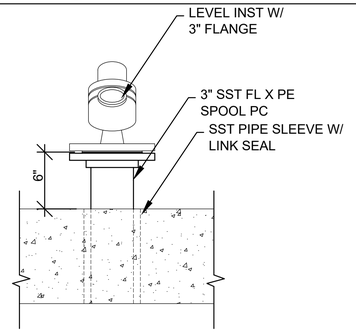
1 C-902 **DETAIL - PIPE SUPPORT**

SCALE: 1-1/2" = 1'-0"



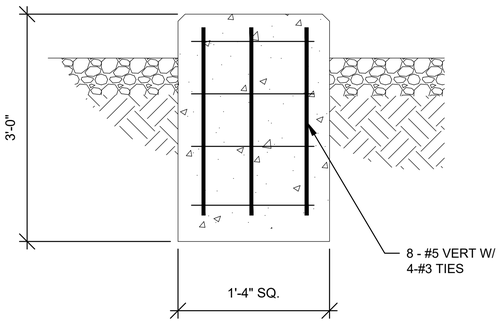
2 C-902 **DETAIL - ACCESS HATCH**

SCALE: 1-1/2" = 1'-0"



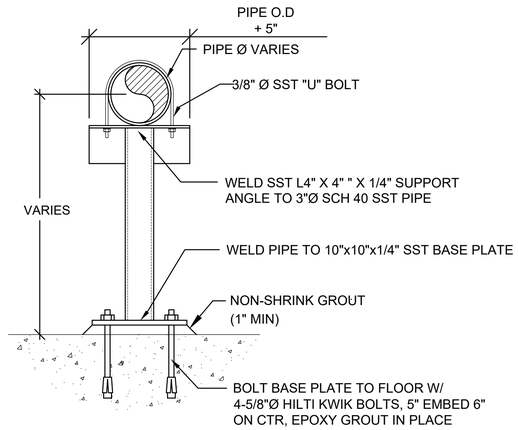
3 C-902 **DETAIL - LEVEL TRANSMITTER MOUNT**

SCALE: 1-1/2" = 1'-0"



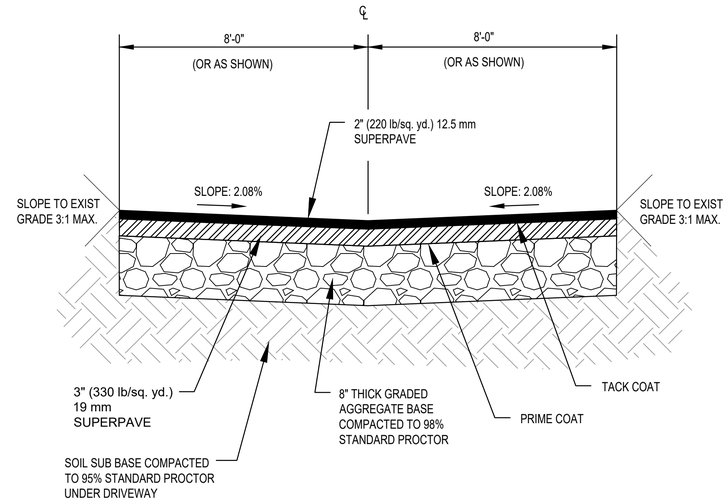
4 C-902 **DETAIL - PEDESTAL**

SCALE: 1-1/2" = 1'-0"



5 C-902 **DETAIL - PIPE SUPPORT**

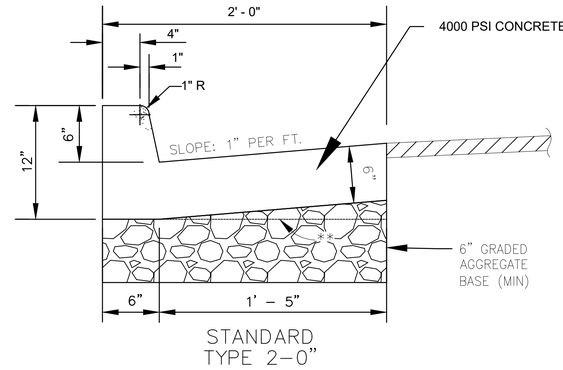
SCALE: 1-1/2" = 1'-0"



STA. 0+10 TO STA. 10+05

6 C-901 **DETAIL - ASPHALT PAVING**

SCALE: N.T.S.



STANDARD TYPE 2–0"

** AT CONTRACTOR'S OPTION THE GUTTER THICKNESS MAY BE INCREASED AT EDGE OF PAVEMENT TO MAKE BOTTOM OF GUTTER PARALLEL WITH PAVING OF BASE COURSE, BUT THE GUTTER THICKNESS MUST NOT BE LESS THAN THE SPECIFIED 6" OR 8" AT ANY POINT.

7 C-901 **DETAIL - CURB & GUTTER**

SCALE: N.T.S.

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	09.09.2019	JCV
70% SUBMITTAL	12.16.2019	MEF
100% SUBMITTAL	03.12.2020	GS
CONSTRUCTION SUBMITTAL	06.15.2020	GS/AJ

PROJECT MANAGER:
ENGINEER:
DESIGNER:
DRAWN BY:

1" .5" 0"

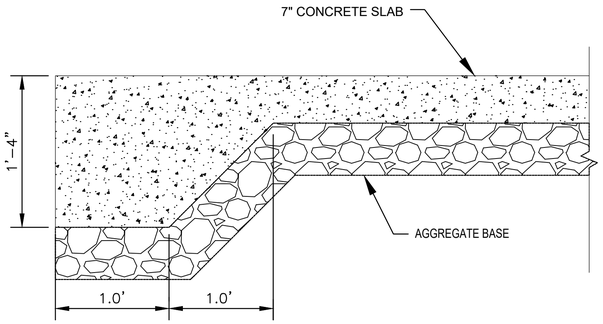
2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER JAMES C. VAUGHN 31577

CIVIL / SITE DETAILS

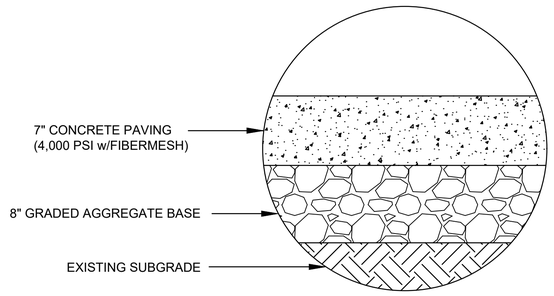
C-902



1
C-903

DETAIL - CONCRETE TURN DOWN

SCALE: N.T.S.



STA. 10+05 TO STA. 11+81

2
C-903

DETAIL - CONCRETE PAVING

SCALE: N.T.S.

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" .5" 0"

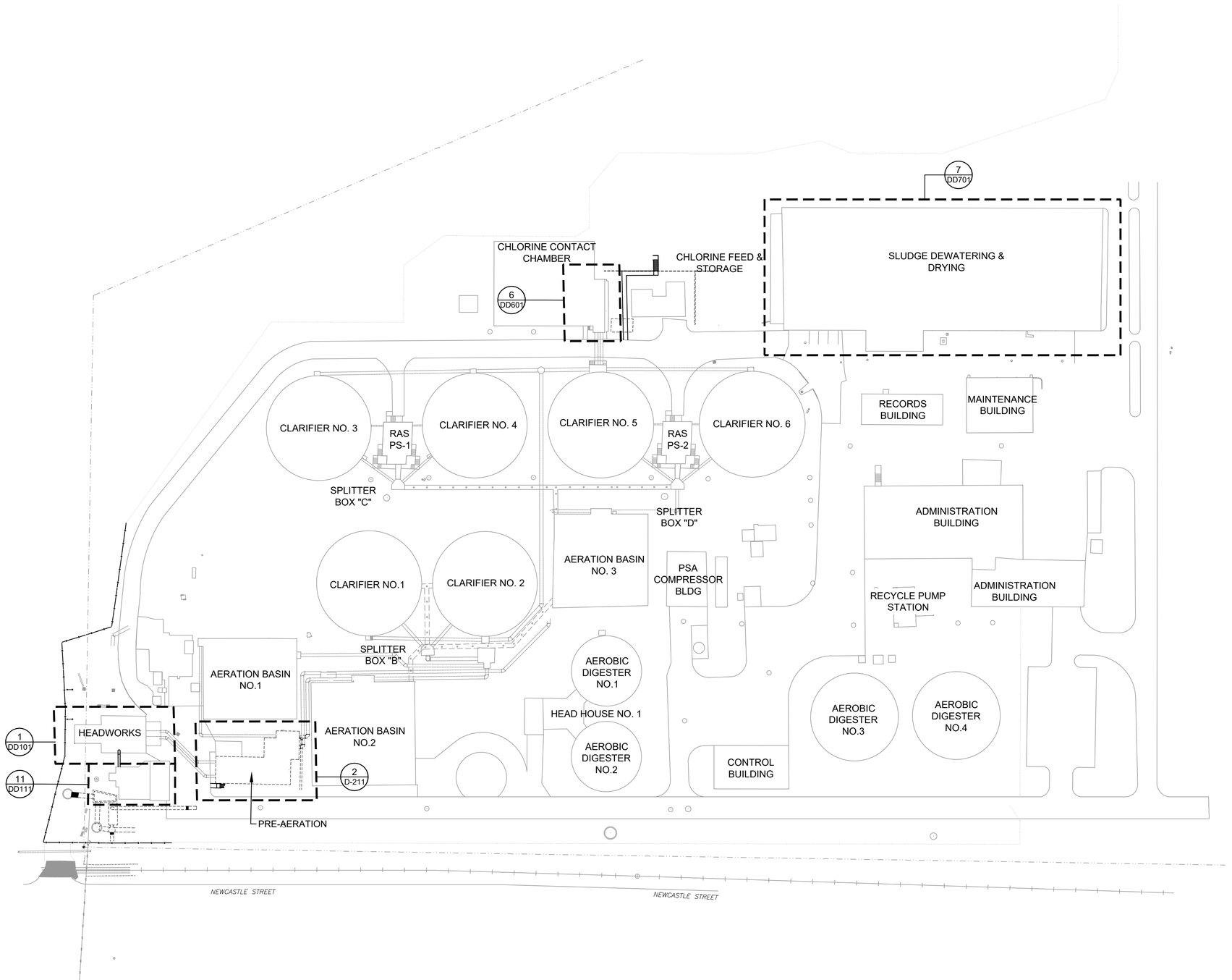
2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER JAMES C. VAUGHN

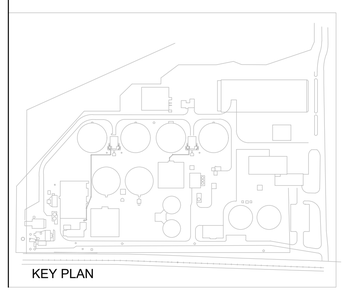
CIVIL / SITE DETAILS

C-903



1 DD001 **PROCESS SITE PLAN**

SCALE: 1" = 50'



GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" 0" .5"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

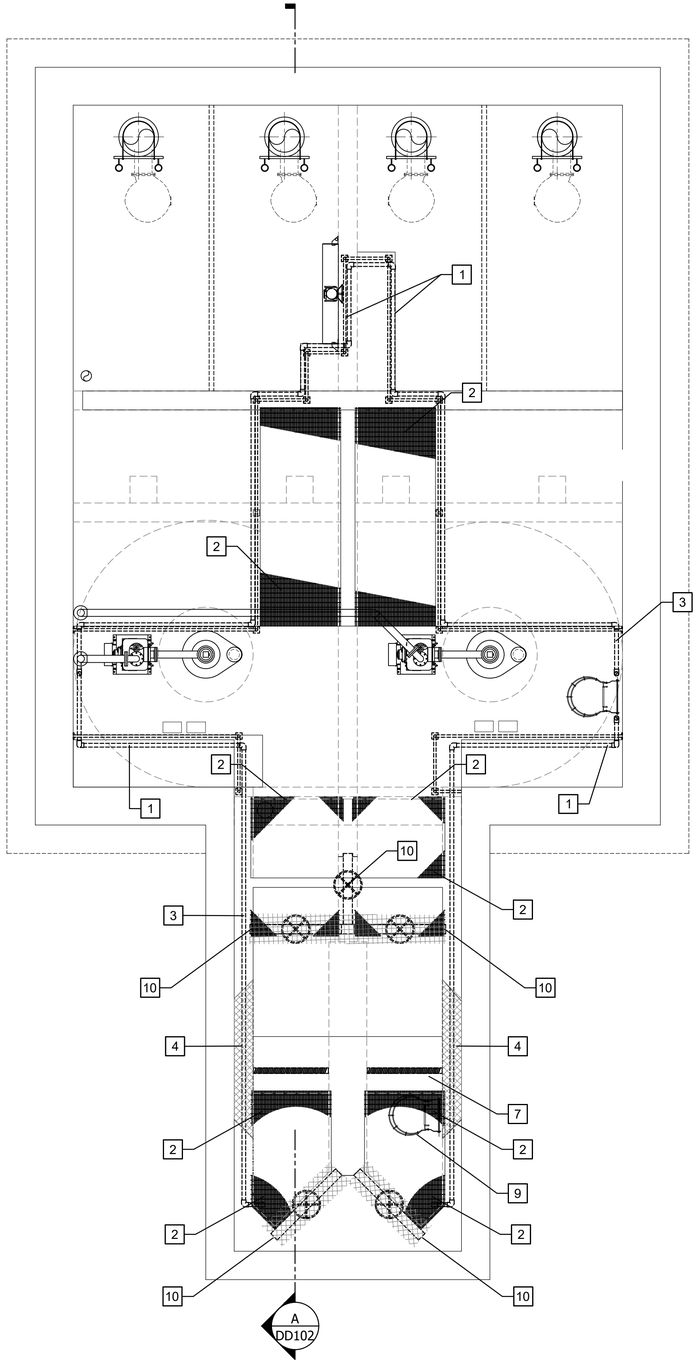
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER JAMES C. VAUGHN

DEMO SITE PLAN - KEY

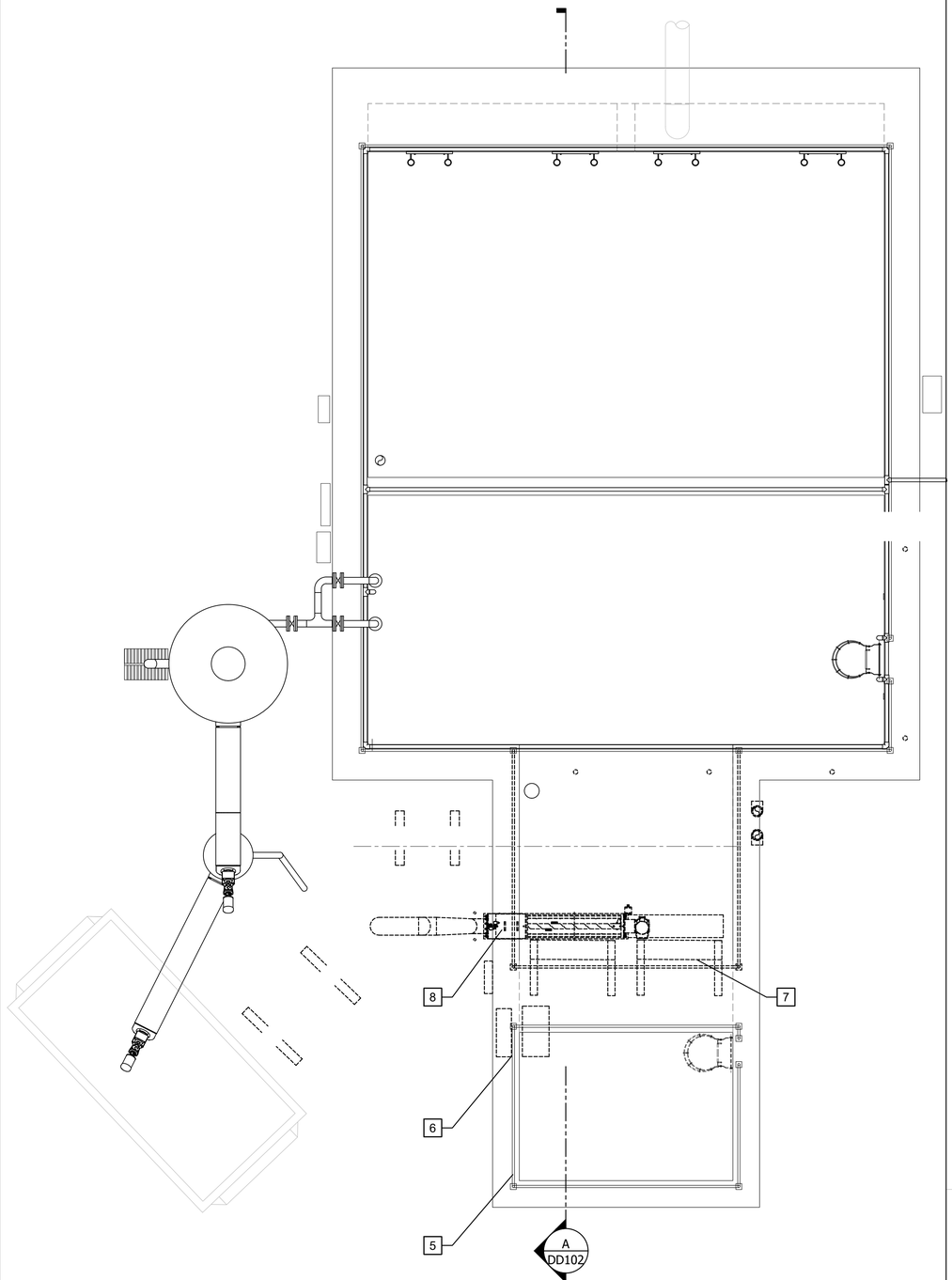
DD001

DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPCF Rehab\0 DWG\=CAD\01 BID DRAWINGS\06 DEMOLITION\D-001 DEMO KEY.dwg
PLOTTED: Jun 05, 2020 - 11:04am



1 DD001 **LOWER LEVEL DEMOLITION PLAN**

SCALE: 1/4" = 1'-0"

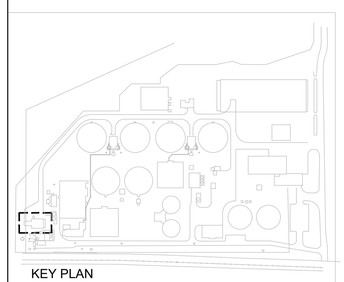


2 DD001 **UPPER LEVEL DEMOLITION PLAN**

SCALE: 1/4" = 1'-0"

KEY NOTES: #

1. REMOVE EXISTING HANDRAIL & PIPING
2. REMOVE EXISTING GRATING
3. REMOVE EXISTING PIPING
4. REMOVE CHANNEL IN-FILL TO LIMITS SHOWN
5. REMOVE EXISTING HANDRAIL
6. REMOVE EXISTING SCREEN CONTROLS
7. REMOVE EXISTING MECHANICAL BAR SCREENS
8. REMOVE EXISTING WASHER/COMPACTER & DISCHARGE PIPING
9. REMOVE PORTION OF EXISTING LADDER & CAGE TO CLEAR NEW COVER
10. REMOVE EXISTING SLIDE GATE



KEY PLAN

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

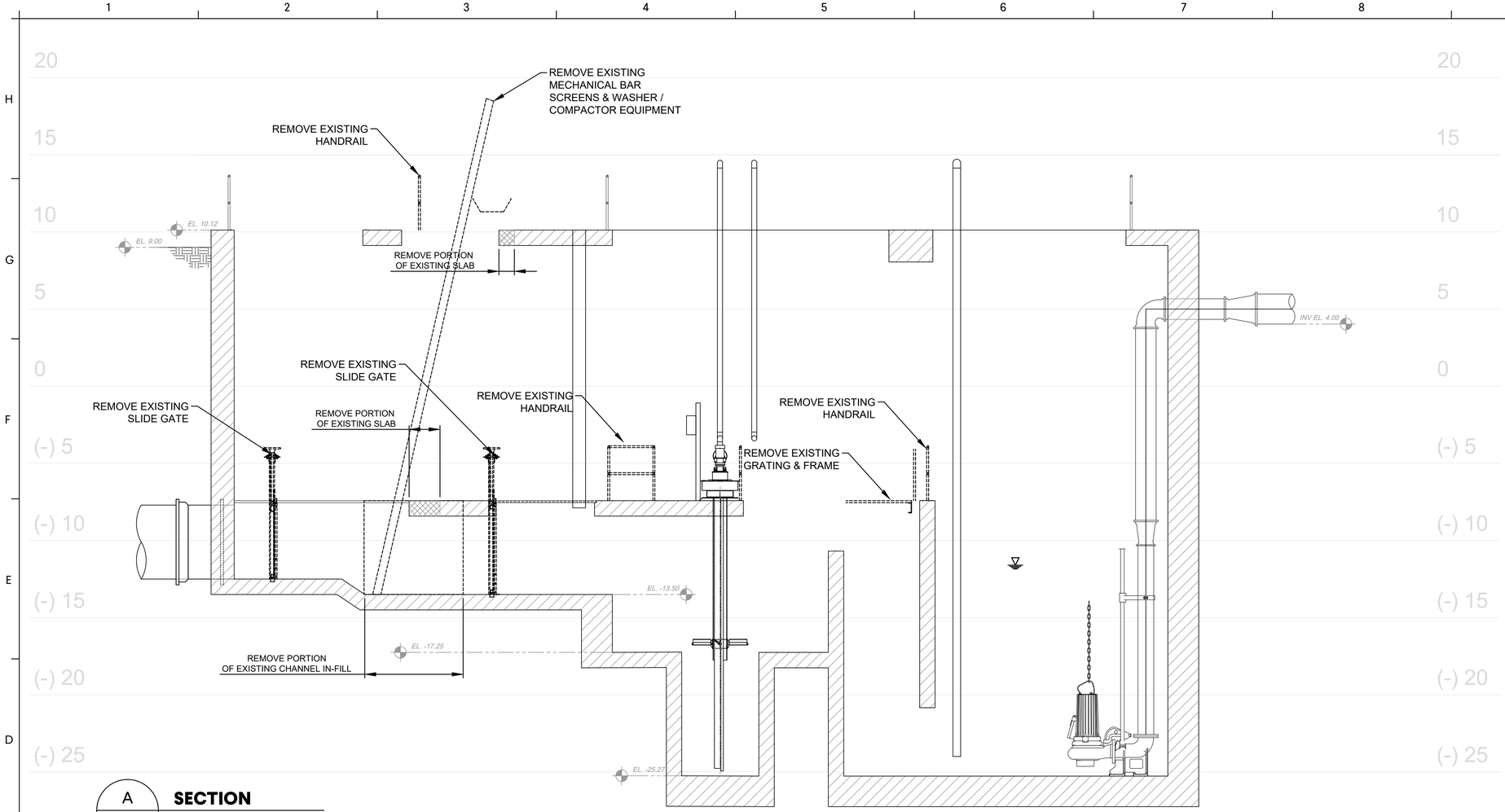
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 18174 PROFESSIONAL ENGINEER JAMES C. WALDRON

HEADWORKS
UPPER & LOWER LEVEL
DEMOLITION PLAN

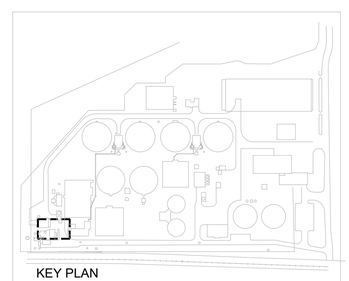
DD101

DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPCF Rehab\0 DWG\+CAD\01 BID DRAWINGS\06 DEMOLITION\DD101.dwg
PLOTTED: Jun 16, 2020 - 5:03pm



A D-101 **SECTION**

SCALE: 1/4" = 1'-0"



GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020

PROJECT MANAGER: JCV
ENGINEER: MEF
DESIGNER: GS
DRAWN BY: GS/AJ

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

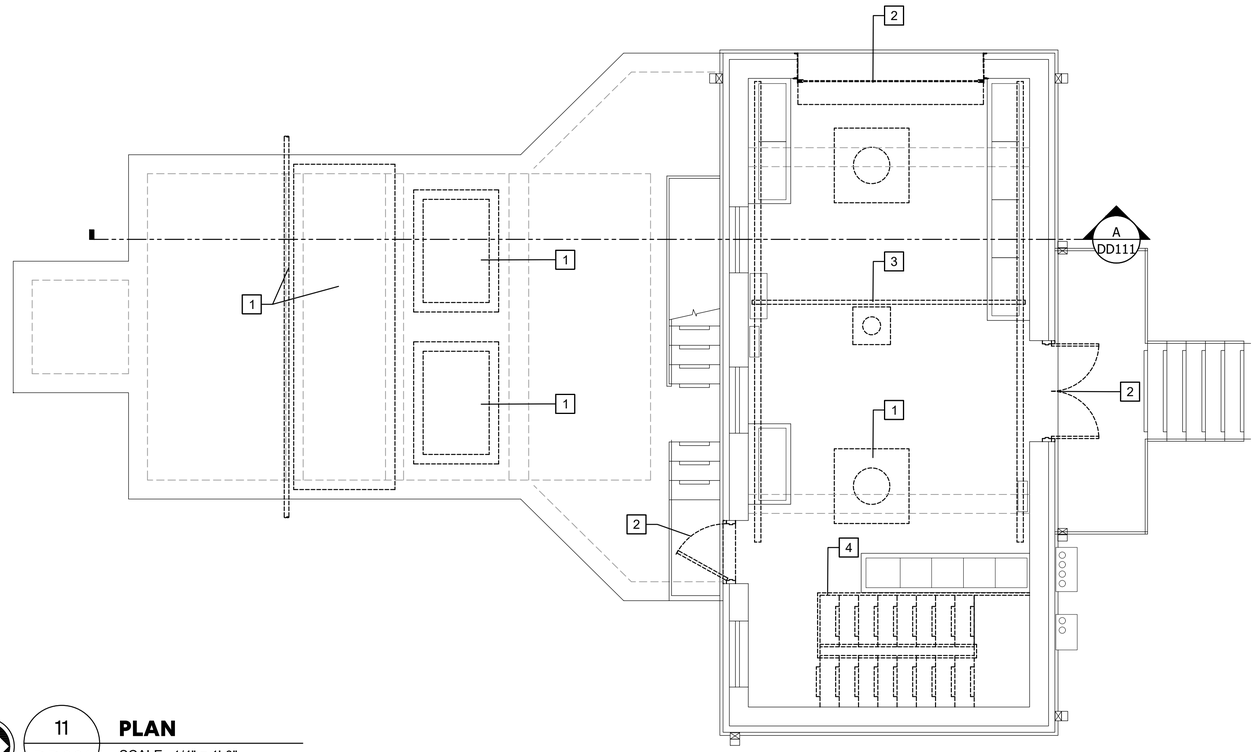
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL JAMES C. VAUGHN 24877

HEADWORKS DEMOLITION SECTION

DD102

DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPCF Rehab\10 DWG\+CAD\01 BID DRAWINGS\06 DEMOLITION\DD101.dwg
PLOTTED: Jun 05, 2020 - 11:04am



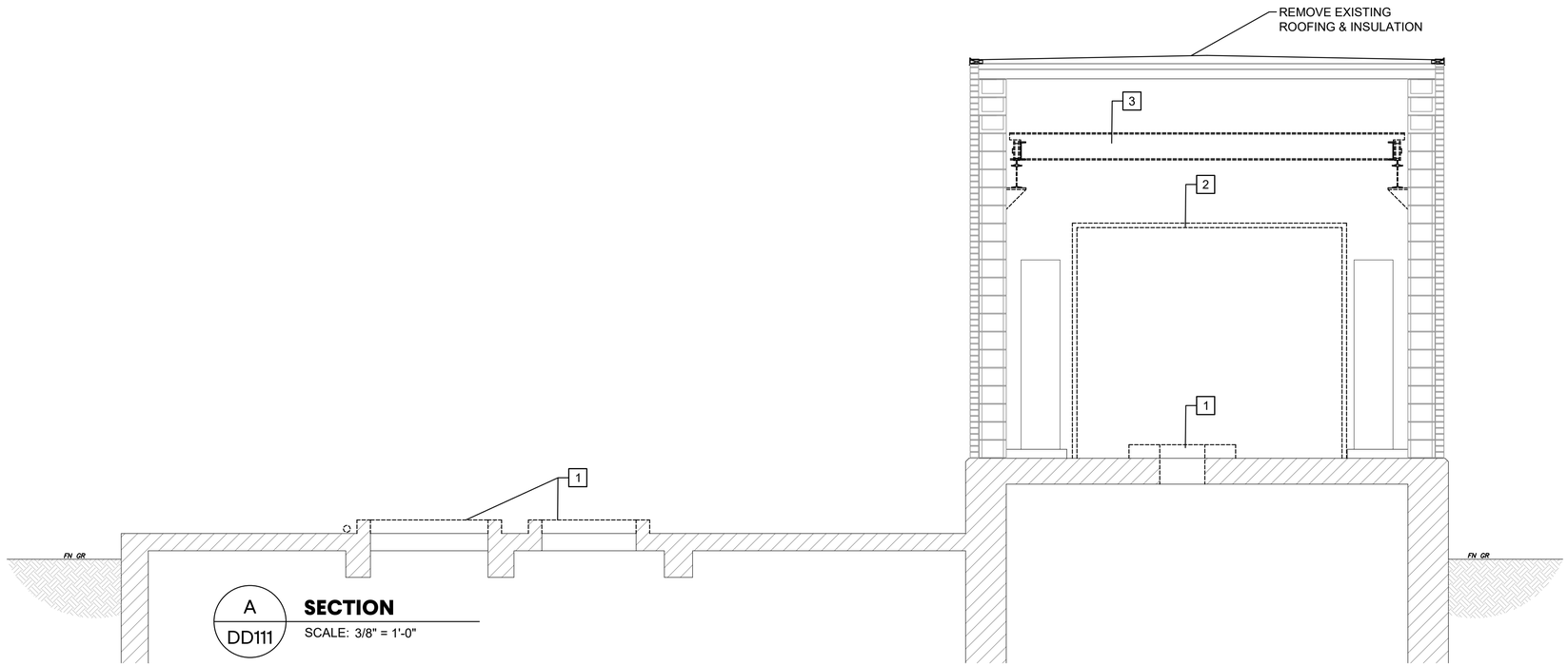
11
DD001

PLAN

SCALE: 1/4" = 1'-0"

KEY NOTES: #

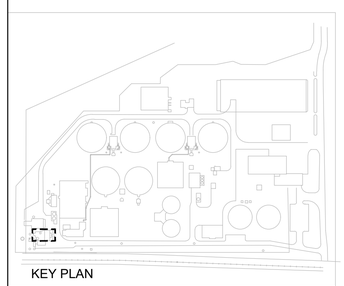
1. REMOVE EXISTING CURB AND COVER
2. REMOVE DOOR & FRAME
3. REMOVE EXISTING BRIDGE CRANE & CORBEL SUPPORT
4. REMOVE EXISTING HANDRAIL AND PORTION OF EXISTING STAIRWELL AS REQUIRED TO INSTALL SLAB OVER OPENING



A
DD111

SECTION

SCALE: 3/8" = 1'-0"



KEY PLAN

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" 0" .5" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

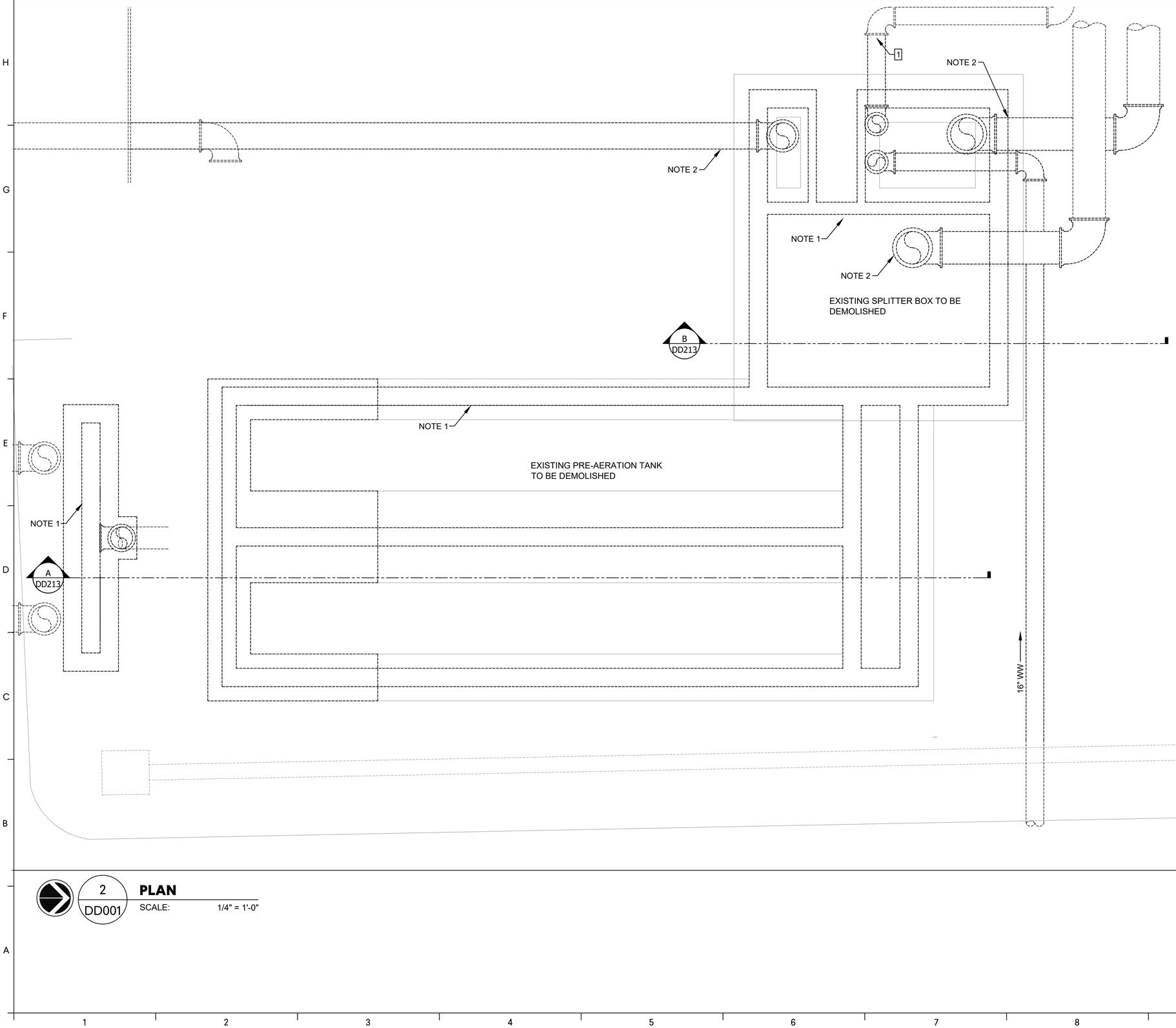
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER JAMES C. VAUGHN

MCC BUILDING DEMOLITION PLAN & SECTION

DD111

DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPC Rehab\0 DWG\+CAD\01 BID DRAWINGS\06 DEMOLITION\DD111.dwg
PLOTTED: Jun 05, 2020 - 11:05am



NOTES:

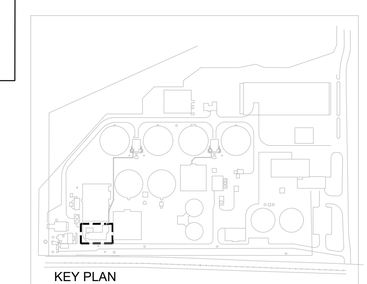
1. REMOVE EXISTING PRE-AERATION STRUCTURE AND FLOW-SPLIT STRUCTURE TO 2' BELOW EXISTING GRADE LINE. FRACTURE REMAINING STRUCTURE BOTTOMS TO PROVIDE DRAINAGE AND BACKFILL.
2. REMOVE ALL PIPING AND EQUIPMENT TO 2' BELOW EXISTING GRADE LINE WITHIN LIMITS OF DEMOLITION. CAP EXISTING PIPES AND UTILITIES WHICH REMAIN.
3. SEE SPECIFICATION 024119 FOR SELECTIVE DEMOLITION REQUIREMENTS.
4. EXISTING CONCRETE MATERIALS MAY BE USED IN BACKFILL IF SIZE OF DEMOLISHED MATERIAL IS REDUCED TO 3 INCHES NOMINAL. REMAINING MATERIALS SHALL BE DISPOSED OF BY CONTRACTOR OFF-SITE.

KEYED NOTES:

1. PROVIDE BLIND FLANGES OR PERMANENT PLUGS FOR PIPE LEAVING THE EXISTING STRUCTURE TO BE DEMOLISHED.

KEY NOTES: [#]

1. CORE EXISTING WALL FOR INSTALLATION OF 42" PIPE
2. CORE EXISTING WALL FOR INSTALLATION OF 16" PIPE



2 / DD001 **PLAN**

SCALE: 1/4" = 1'-0"

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	09.09.2019	JCV
70% SUBMITTAL	12.16.2019	MEF
100% SUBMITTAL	03.12.2020	GS
CONSTRUCTION SUBMITTAL	06.15.2020	GS/AJ
PROJECT MANAGER:		
ENGINEER:		
DESIGNER:		
DRAWN BY:		

1" 0" .5" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

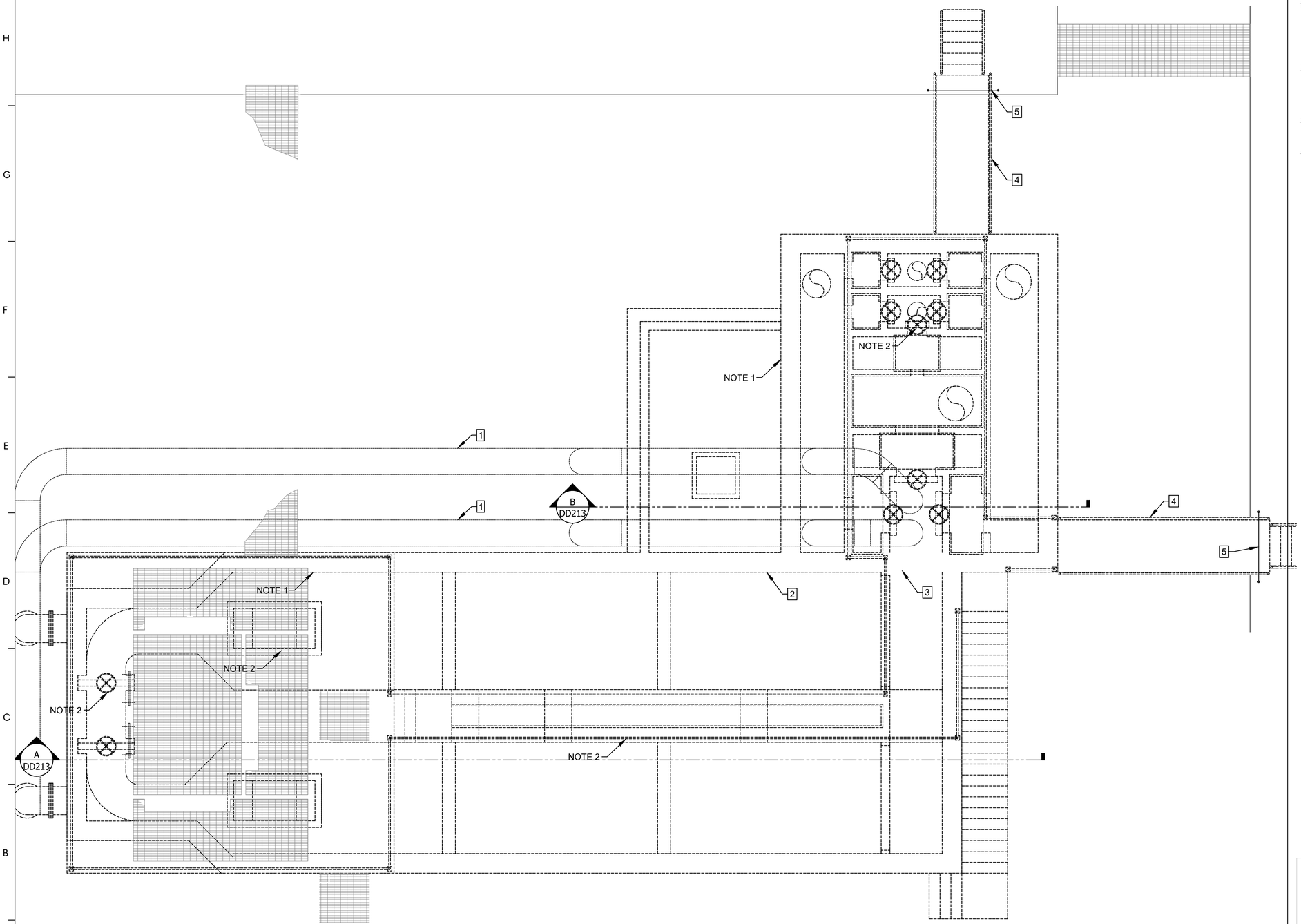
BG-JWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 18174 JAMES C. VAUGHN

PRE-AERATION TANK LOWER LEVEL DEMOLITION PLAN

DD211

DRAWING FILE: W:\Civil\CSAV190007 BG-JWSC WPC Rehab\0 DWGs\CAD\01 BID DRAWINGS\06 DEMOLITION\DD211 PRE-AERATION.dwg
PLOTTED: Jun 16, 2020 - 5:07pm

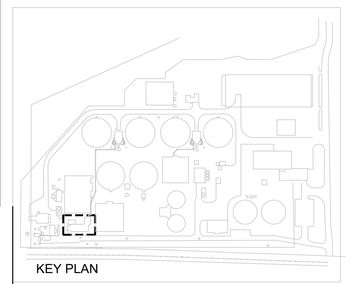


NOTES:

1. REMOVE EXISTING PREAERATION STRUCTURE AND EXISTING SPLITTER BOX STRUCTURE TO 2' BELOW EXISTING GRADE LINE. FRACTURE REMAINING STRUCTURE BOTTOMS TO PROVIDE DRAINAGE AND BACKFILL.
2. REMOVE ALL PIPING AND EQUIPMENT TO 2' BELOW EXISTING GRADE LINE WITHIN LIMITS OF DEMOLITION. CAP EXISTING PIPES AND UTILITIES WHICH REMAIN.
3. SEE SPECIFICATION 024119 FOR SELECTIVE DEMOLITION REQUIREMENTS.
4. EXISTING CONCRETE MATERIALS MAY BE USED IN BACKFILL IF SIZE OF DEMOLISHED MATERIAL IS REDUCED TO 3 INCHES NOMINAL. REMAINING MATERIALS SHALL BE DISPOSED OF BY CONTRACTOR OFF-SITE.

KEY NOTES: [#]

1. TEMPORARY BYPASSING PIPING AS REQUIRED
2. SAW CUT EXISTING WALL TO ALLOW EARLY DEMOLITION OF PRE-AERATION BASIN WHILE EXISTING SPLITTER BOX REMAINS
3. TEMPORARY BULKHEAD WALL FOR SPLITTER BOX INLET
4. REMOVE EXISTING ACCESS BRIDGES
5. PROVIDE HANDRAIL CLOSURES TO MATCH EXISTING HANDRAILS


KEY PLAN

2 DD001 **PLAN**
SCALE: 1/4" = 1'-0"

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020

PROJECT MANAGER: JCV
ENGINEER: MEF
DESIGNER: GS
DRAWN BY: GS/AJ

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

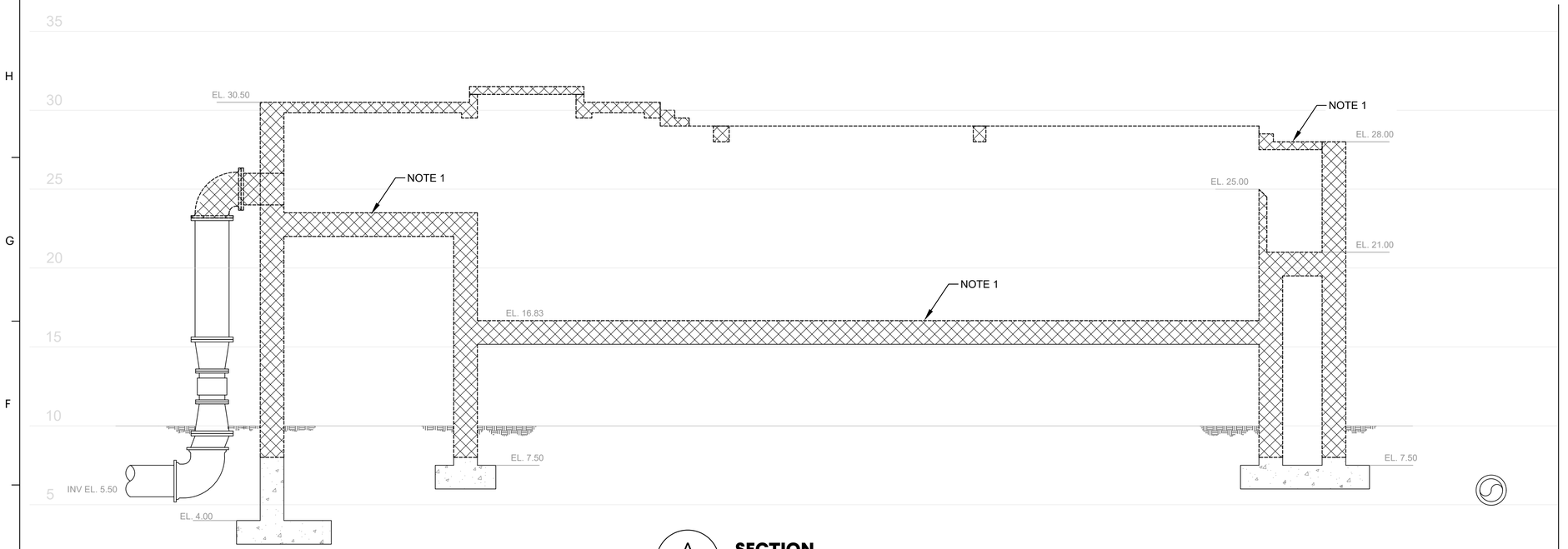
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 18777 PROFESSIONAL ENGINEER JAMES C. VAUGHN

PRE-AERATION TANK UPPER LEVEL DEMOLITION PLAN

DD212

DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPC Rehab\0 DWGs\CAD\01 BID DRAWINGS\06 DEMOLITION\DD211 PRE-AERATION.dwg
PLOTTED: Jun 05, 2020 - 11:05am

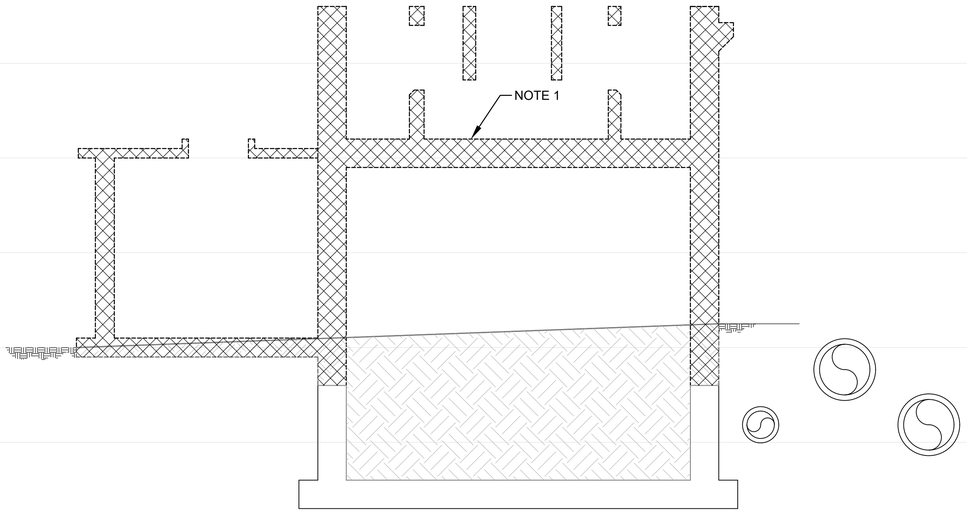


A DD211 **SECTION**

SCALE: 1/4" = 1'-0"

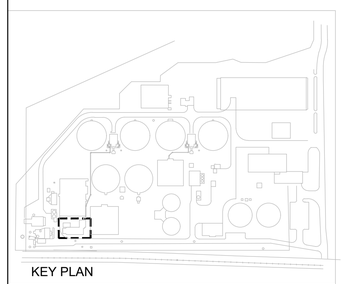
NOTES:

1. REMOVE EXISTING PREAERATION STRUCTURE AND EXISTING SPLITTER BOX STRUCTURE TO 2' BELOW EXISTING GRADE LINE. FRACTURE REMAINING STRUCTURE BOTTOMS TO PROVIDE DRAINAGE AND BACKFILL.
2. REMOVE ALL PIPING AND EQUIPMENT TO 2' BELOW EXISTING GRADE LINE WITHIN LIMITS OF DEMOLITION. CAP EXISTING PIPES AND UTILITIES WHICH REMAIN.
3. SEE SPECIFICATION 024119 FOR SELECTIVE DEMOLITION REQUIREMENTS.
4. EXISTING CONCRETE MATERIALS MAY BE USED IN BACKFILL IF SIZE OF DEMOLISHED MATERIAL IS REDUCED TO 3 INCHES NOMINAL. REMAINING MATERIALS SHALL BE DISPOSED OF BY CONTRACTOR OFF-SITE.



B DD211 **SECTION**

SCALE: 1/4" = 1'-0"



KEY PLAN

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020

PROJECT MANAGER: JCV
ENGINEER: MEF
DESIGNER: GS
DRAWN BY: GS/AJ

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

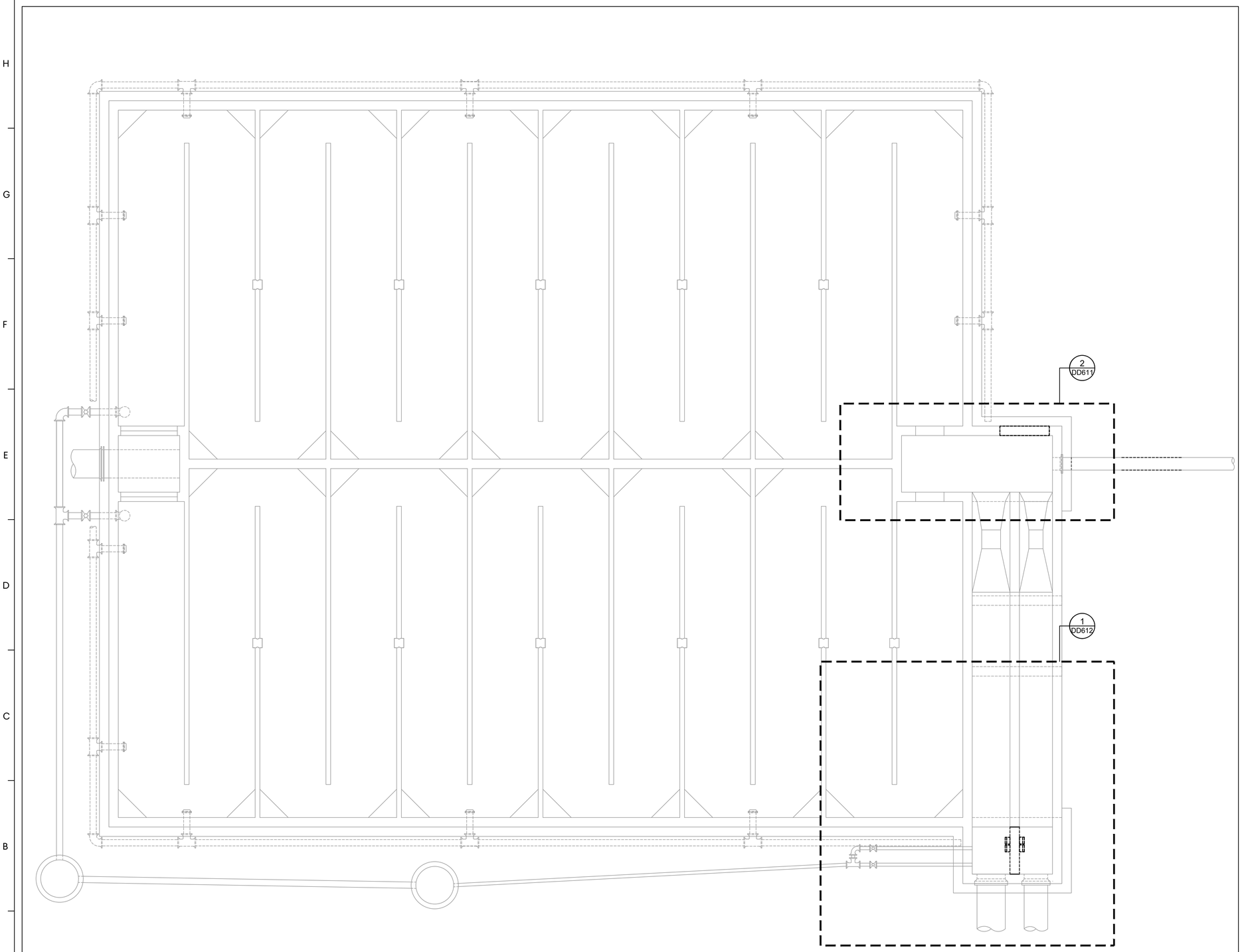
BG-JWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 18127 PROFESSIONAL JAMES C. VAUGHN

PRE-AERATION TANK DEMOLITION SECTIONS

DD213

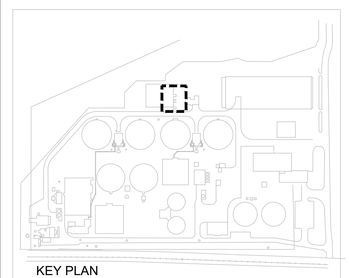
DRAWING FILE: W:\Civil\CSAV190007 BG-JWSC WPC Rehab\0 DWGs\CAD\01 BID DRAWINGS\06 DEMOLITION\DD211 PRE-AERATION.dwg
PLOTTED: Jun 05, 2020 - 11:05am



6
DD001

PLAN

SCALE: 3/16" = 1'-0"



KEY PLAN

GMC

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BG-JWSC Project No. 906

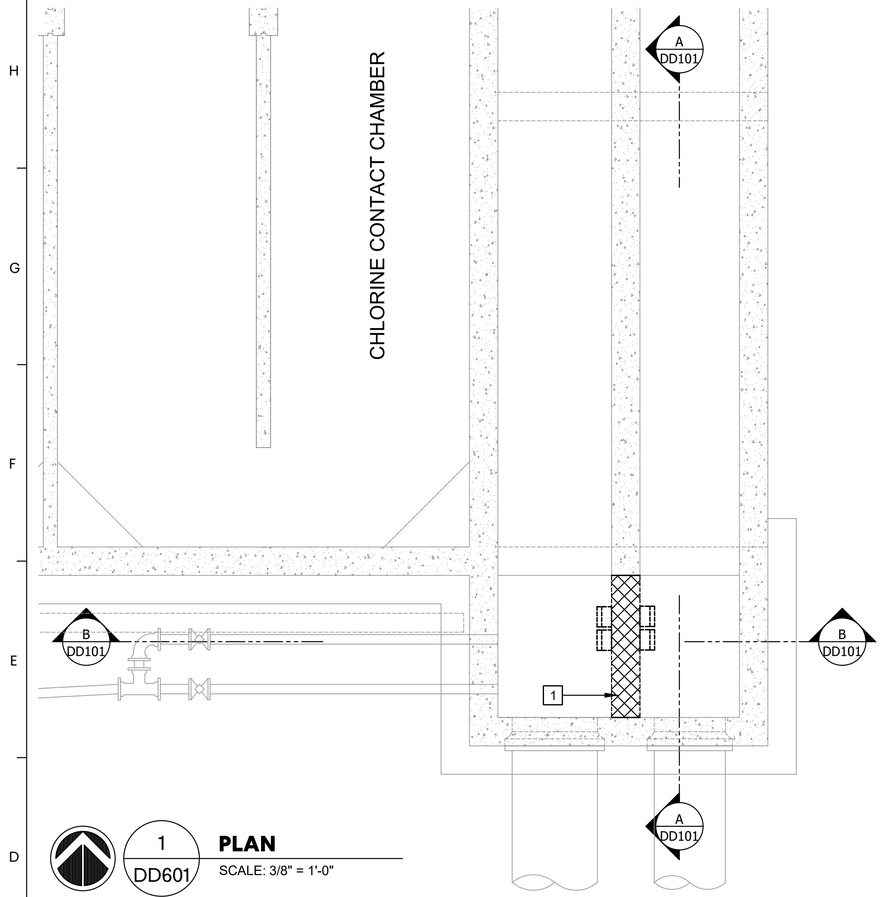
GMC Project #CSAV190007

GEORGIA REGISTERED No. 18017 PROFESSIONAL JAMES C. VAUGHN, III

CHLORINE CONTACT CHAMBER DEMO - KEY

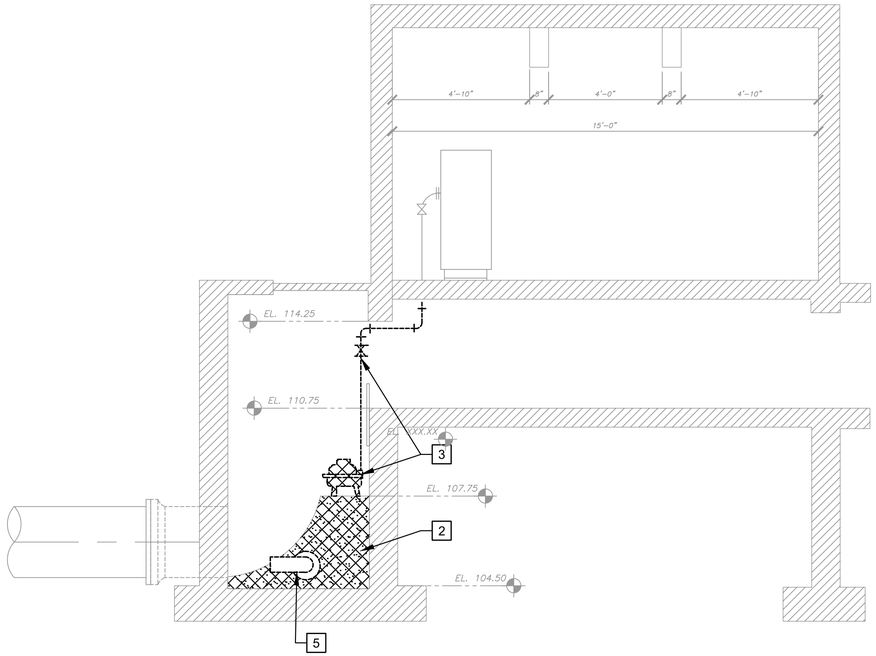
DD601

DRAWING FILE: W:\Civil\CSAV190007 BG-JWSC WPC Rehab\0 DWG+CAD\01 BID DRAWINGS\08 DEMOLITION\DD601 CHLORINE CONTACT TANK.dwg
PLOTTED: Jun 05, 2020 - 11:05am



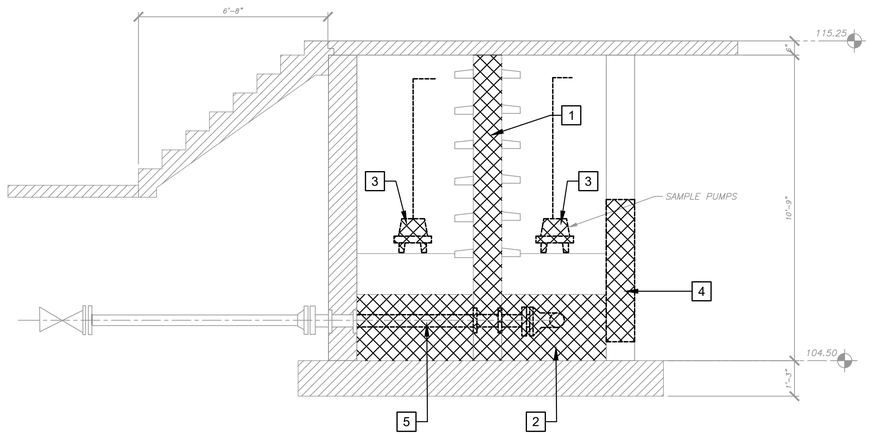
1 DD601 **PLAN**

SCALE: 3/8" = 1'-0"



A DD101 **SECTION**

SCALE: 3/8"=1'-0"

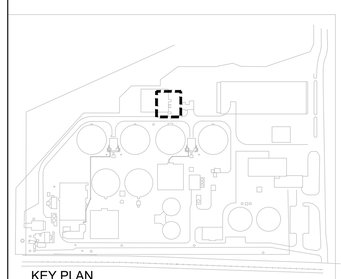


B DD101 **SECTION**

SCALE: 3/8"=1'-0"

KEY NOTES: #

1. SAW CUT AND REMOVE CONCRETE WALL
2. REMOVE GROUT FILL AREA
3. DISCONNECT AND REMOVE SAMPLE PUMP AND PIPING AS SHOWN
4. CORE DRILL EXISTING WALL FOR INSTALLATION OF 48" PIPE
5. REMOVE DRAIN PIPING


KEY PLAN

GMC

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" 0" .5" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

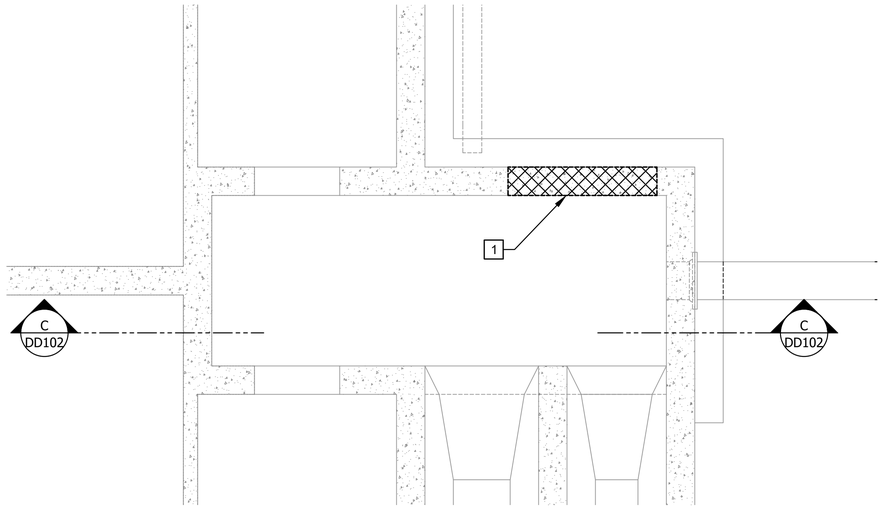
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER JAMES C. VAUGHN

CHLORINE CONTACT CHAMBER DEMO PLAN & SECTIONS

DD611

DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPCF Rehab\0 DWG's+CAD\01 BID DRAWINGS\06 DEMOLITION\DD601 CHLORINE CONTACT TANK.dwg
PLOTTED: Jun 05, 2020 - 11:05am

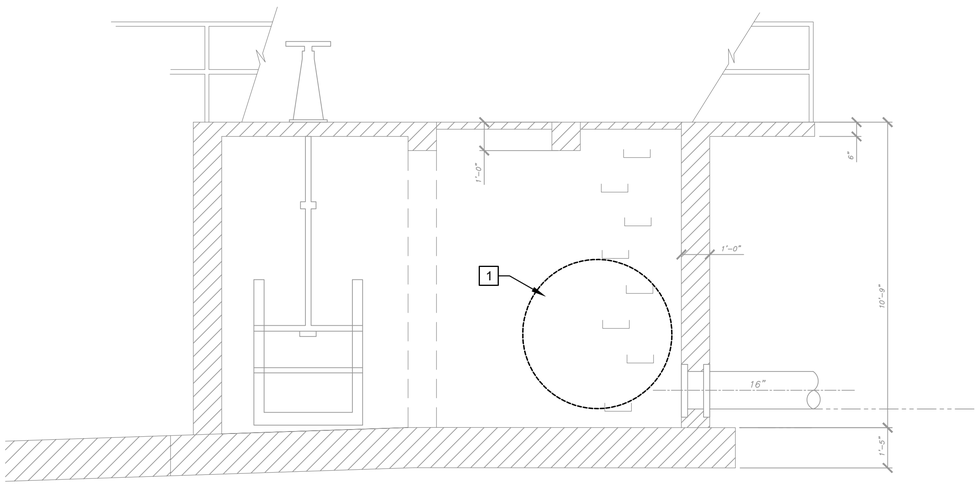


2 / DD601 **PLAN**

SCALE: 3/8" = 1'-0"

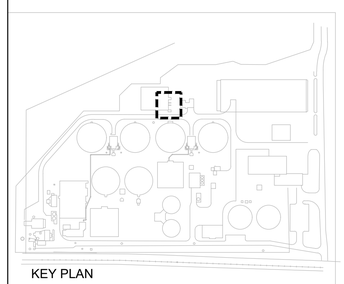
KEY NOTES: #

1. CORE DRILL EXISTING WALL FOR INSTALLATION OF 48" PIPE



C / DD102 **SECTION**

SCALE: 3/8"=1'-0"



KEY PLAN

GMC

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BG-JWSC Project No. 906

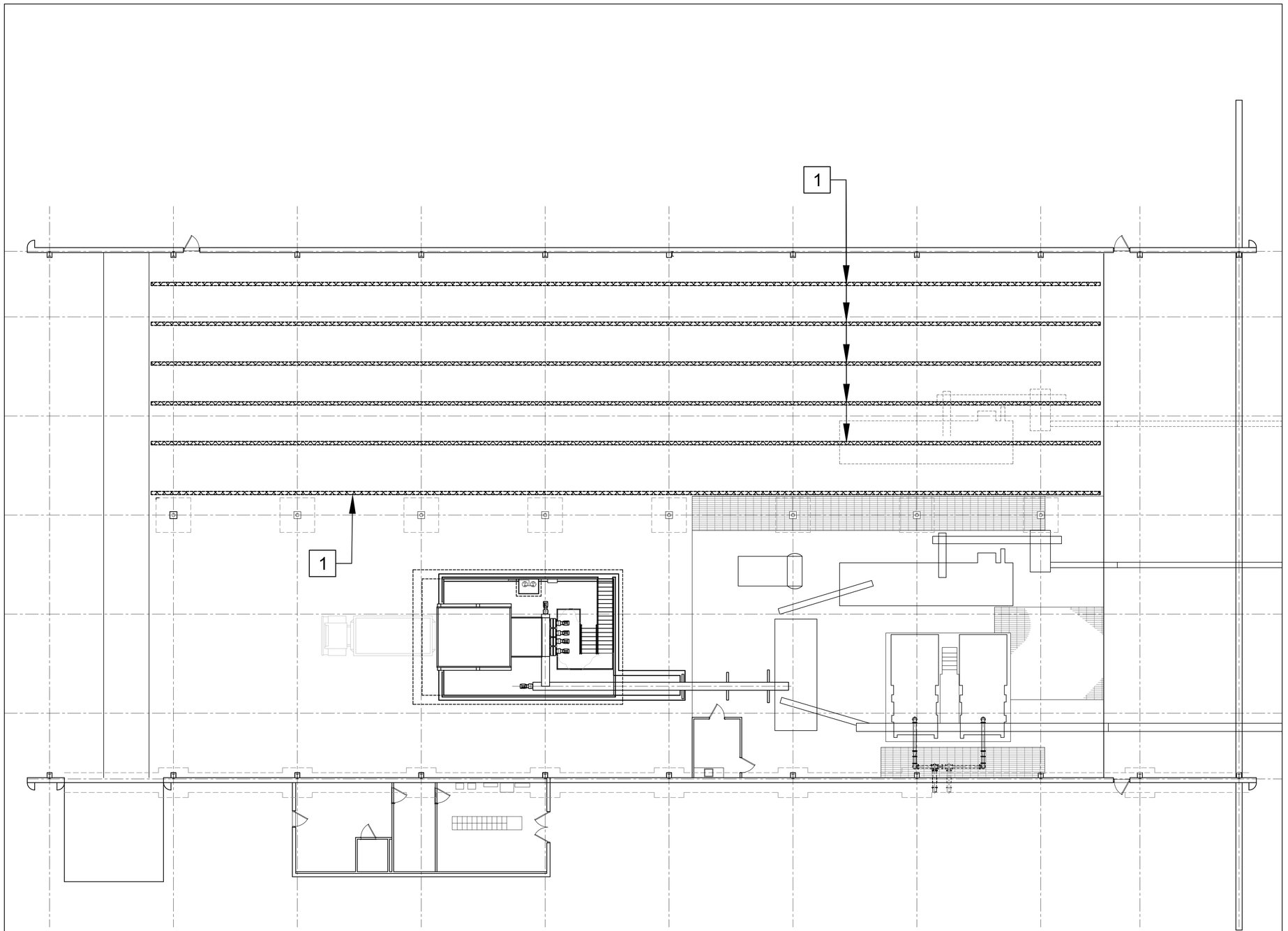
GMC Project #CSAV190007

GEORGIA REGISTERED No. 18017 PROFESSIONAL JAMES C. VAUGHN

CHLORINE CONTACT CHAMBER DEMO PLAN & SECTION

DD612

DRAWING FILE: W:\Civil\CSAV190007 BG-JWSC WPC Rehab\10 DWG+CAD\01 BID DRAWINGS\08 DEMOLITION\DD601 CHLORINE CONTACT TANK.dwg
PLOTTED: Jun 05, 2020 - 11:06am



KEY NOTES:

1. DEMOLISH EXISTING CONCRETE WALLS. FLOOR SHALL BE GROUND SMOOTH.

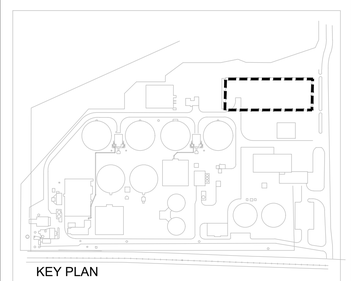
GENERAL NOTES:

1. ALL WORK ON THIS PLAN SHEET TO BE PERFORMED UNDER THE BASE BID.

7 / DD001

PLAN

SCALE: 3/32" = 1'-0"



KEY PLAN

GMC

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906

GMC Project #CSAV190007

GEORGIA REGISTERED No. 18077 PROFESSIONAL JAMES C. VAUGHN ENGINEER

SLUDGE DEWATERING AREA DEMOLITION PLAN

DD701

DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPC Rehab\0 DWG\+CAD\01 BID DRAWINGS\05 DEMOLITION\DD701 DEWATERING AREA DEMOLITION.dwg
PLOTTED: Jun 05, 2020 - 11:06am

NOTE:

FOUNDATIONS:
1. THE FOUNDATION SUBRADE SHALL BE PREPARED IN ACCORDANCE WITH REPORT OF GEOTECHNICAL EXPLORATION BY WHITAKER LABORATORY, INC. DATED OCTOBER 23, 2019 (WLI PROJECT NUMBER 10-23-19-5). FOR THE PURPOSE OF THESE STRUCTURAL DRAWINGS, SELECT INFORMATION HAS BEEN EXTRACTED FROM THE REFERENCED GEOTECHNICAL REPORT AND NOTED BELOW; HOWEVER, IT IS THE CONTRACTOR'S REPSONSIBILITIY TO OBTAIN, READ, AND FOLLOW ALL RECOMMENDATION CONTAINED IN THE REFERENCED GEOTECHNICAL REPORT.
2. THE "CONTROLLED AREA" SHALL EXTEND BENEATH AND 5 FEET BEYOND THE STRUCTURE AREA. THE "CONTROLLED AREA" SHALL BE COMPLETELY STRIPPED AND ALL SURFACE VEGETATION, ORGANIC FILL OR TOPSOIL, DEBRIS AND ANY OTHER DELETERIOUS MATERIALS REMOVED.
3. NEW FOOTINGS SHALL BEAR IN UNDISTURBED NATURAL EARTH. NOTIFY THE ENGINEER SHOULD ANY UNUSUAL SOIL CONDITIONS BE ENCOUNTERED.
4. STRUCTURAL FILL SHALL BE PLACED IN LIFTS NOT TO EXCEED 8" LOOSE MEASURE AND DENSIFIED TO 98% (MINIMUM) STANDARD PROCTOR DENSITY (ASTM D698).BELOW GRADE WALLS SHALL BE BACKFILLED WITH A MINIMUM OF 3' WIDE LAYER OF GRAVEL/SAND BACKFILL MATERIAL (USC GW,GP OR SP,SW). REMAINDER OF BACKFILL MAY BE ONSITE BORROW MATERIAL AS APPROVED BY GMC.
5. FOOTINGS HAVE BEEN SIZED FOR AN ALLOWABLE BEARING PRESSURE OF 2000 PSF.
6. ALL BELOW GRADE STRUCTURES SHALL BEAR ON A LAYER OF 12" MINIMUM #57 STONE OR APPROVED EQUAL. SEE GEOTECHNICAL REPORT FOR MORE INFORMATION.

CONCRETE:
1. SUBMITTALS PER SPECIFICATIONS.
2. COMPLY WITH ASTM C 94; ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", ACI 350 "CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES"; AND CRSI'S "MANUAL OF STANDARD PRACTICE."
3. DEFORMED REINFORCING BARS: ASTM A615, GRADE 60.
4. WELDED WIRE FABRIC: ASTM A 185, FLAT SHEETS.
5. PORTLAND CEMENT: ASTM C 150, TYPE I OR II.
6. CONCRETE SHALL HAVE THE FOLLOWING MINIMUM SPECIFIED 28 DAY COMPRESSIVE STRENGTH:
   A. SHALLOW FOUNDATIONS ,SLABS ON GRADE AND PIPE ENCASEMENT---------- 3000 PSI
   B. LIQUID RETAINING AND CONTAINMENT STRUCTURES, SUSPENDED STRUCTURES & COLUMNS ------- 4000 PSI
7. UNLESS OTHERWISE NOTED, ALL DETAILING, FABRICATION, AND PLACING OF REINFORCING STEEL SHALL CONFORM IN ACCORDANCE WITH "ACI DETAILING MANUAL", PUBLICATION SP-66, ACI 318-11, AND ACI 315-99, OR LATEST EDITIONS.
8. REINFORCEMENT SHALL BE FABRICATED TO SHAPES AND DIMENSIONS SHOWN AND SHALL CONFORM TO THE REQUIREMENTS OF CRSI AND ACI 318. REINFORCEMENT SHALL BE COLD BENT UNLESS OTHERWISE AUTHORIZED. BENDING MAY BE ACCOMPLISHED IN THE FIELD OR AT THE MILL. BARS NOT TO BE BENT AFTER EMBEDDED IN CONCRETE. REINFORCEMENT SHALL BE FREE FROM LOOSE RUST AND SCALE, DIRT, OIL, OR OTHER DELETERIOUS COATING THAT COULD REDUCE BOND WITH THE CONCRETE.
9. ALL REINFORCING BAR SPLICE LENGTHS AND LOCATIONS, EMBEDMENT LENGTHS, HOOKS, ETC. SHALL BE MADE AS SHOWN ON THE DRAWINGS, DEVIATIONS SHALL NOT BE MADE UNLESS OTHERWISE AUTHORIZED.
10. PROVIDE CLASS B LAP SPLICES IN ACCORDANCE WITH ACI 318 UNLESS NOTED OTHERWISE. PROVIDE ACCESSORIES NECESSARY TO PROPERLY SUPPORT REINFORCING AT POSITIONS SHOWN ON THE PLANS.
    TENSION AND COMPRESSION REINFORCEMENT SPLICES SHALL BE MADE AS FOLLOWS:

	>12" FRESH CONCRETE BELOW	OTHER BARS
#4 BARS	32 INCHES	25 INCHES
#5 BARS	40 INCHES	31 INCHES
#6 BARS	48 INCHES	37 INCHES
#7 BARS	70 INCHES	54 INCHES
#8 BARS	80 INCHES	63 INCHES
#9 BARS	91 INCHES	70 INCHES
#10 BARS	103 INCHES	80 INCHES

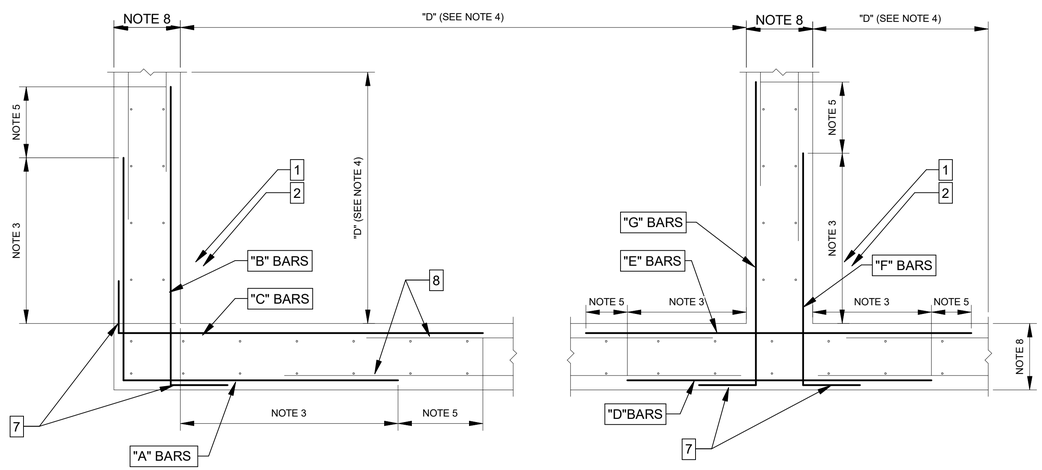
11. MINIMUM CONCRETE REINFORCING COVER REQUIREMENTS:
    CONCRETE CAST AGAINST EARTH ---------- 3"
    FORMED CONCRETE EXPOSED TO EARTH OR WEATHER:
    #6 BARS AND LARGER ---------- 2"
    #5 BARS AND SMALLER ---------- 1 1/2"
12. CONCRETE SLABS ON GRADE SHALL BE REINFORCED AS NOTED ON PLANS.
13. ALL REINFORCING STEEL AND EMBEDDED ITEMS SUCH AS ANCHOR BOLTS AND WELD PLATES SHALL BE ACCURATELY PLACED IN THE POSITIONS SHOWN AND ADEQUATELY TIED AND SUPPORTED BEFORE CONCRETE IS PLACED TO PREVENT DISPLACEMENT BEYOND PERMITTED TOLERANCES.
14. WELDED WIRE FABRIC SHALL BE LOCATED IN THE UPPER THIRD OF SLABS AND SHALL BE LAPPED A MINIMUM OF 8 INCHES AT ALL SPLICES.
15. REFER TO DRAWINGS OF OTHER TRADES FOR PENETRATIONS IN CONCRETE REQUIRING SLEEVES OR OTHER EMBEDDED ITEMS NOT SHOWN.
16. CONSTRUCTION JOINTS FOR CONTINUOUS WALLS / FOOTINGS SHALL CONSIST OF BULK-HEAD FORM WITH FOOTING REINFORCING PROJECTING THROUGH FORM 3 FEET OR CLASS B LAP SPLICE FOR LONGITUDINAL BARS, WHICHEVER IS GREATER.
17. CROSS REFERENCE ALL CONSTRUCTION DOCUMENTS FOR DIMENSIONS AND LOCATIONS NOT SPECIFICALLY SHOWN. INFORM THE RPR IN WRITING OF MISSING INFORMATION OR CONFLICTS.
18. DO NOT ADD WATER TO CONCRETE DURING DELIVERY, AT PROJECT SITE OR DURING PLACEMENT UNLESS APPROVED BY THE OWNER'S REPRESENTATIVE.
19. PROTECT CONCRETE FROM PHYSICAL DAMAGE OR REDUCED STRENGTH DUE TO WEATHER EXTREMES DURING MIXING, PLACING AND CURING.
20. FORM 1/8" WIDE CONTRACTION JOINTS WITH POWER SAWS WHEN CUTTING ACTION WILL NOT TEAR, ABRADE, OR OTHERWISE DAMAGE CONCRETE SURFACE AND BEFORE CONCRETE DEVELOPS RANDOM CONTRACTION JOINTS. SEE DETAILS FOR ADDITIONAL INFORMATION.
21. BEGIN CURING UNFORMED CONCRETE AFTER FINISHING. KEEP LIQUID RETAINING CONCRETE CONTINUOUSLY MOIST FOR AT LEAST 7 DAYS. MEMBRANE FORMING CURING COMPOUND MAY BE USED ON NON-LIQUID RETAINING CONCRETE. CONTRACTOR SHALL VERIFY COMPOUND IS COMPATIBLE WITH ALL FLOOR COVERINGS AND COATINGS.
22. PROTECT CONCRETE FROM DAMAGE. REPAIR CONCRETE SURFACE DEFECTS WITH METHODS AND MATERIALS APPROVED BY OWNER'S REPRESENTATIVE.
23. ANCHORING ADHESIVE SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. SUBMIT PRODUCT DATA FOR EACH APPLICATION FOR REVIEW. USE ONE OF THE FOLLOWING PRODUCTS OR APPROVED EQUAL:
    A. HILTI HY 150 INJECTION MAX ADHESIVE ANCHORING SYSTEM
    B. RAMSET / RED HEAD EPCON CERAMIC 6 EPOXY ANCHORING SYSTEM
    C. SIMPSON STRONG TIE "AT" OR "SET" DEPENDING ON APPLICATION
    D. ADDITIONALLY, PROVIDE SCREEN TUBE ANCHORS IN HOLLOW CORE MASONRY

STRUCTURAL ALUMINUM:
1. STRUCTURAL W SHAPES SHALL CONFORM TO ASTM 6061-T6 ALUMINUM.
2. STRUCTURAL TUBING COLUMNS SHALL CONFORM TO ASTM 6061-T6 ALUMINUM.
3. MISCELLANEOUS ITEMS SHALL CONFORM TO ASTM 6061-T6 ALUMINUM, BOLTS SHALL BE ASTM A325x WITH NUTS AND WASHERS.
4. DETAIL, FABRICATION AND ERECTION OF ALL STRUCTURAL ALUMINUM SHALL BE IN ACCORDANCE WITH LATEST ALUMINUM ASSOCIATION STANDARDS AND SPECIFICATIONS. ALL WELDING ON STRUCTURAL ALUMINUM SHALL BE IN ACCORDANCE WITH AWS SPECIFICATIONS AND ELECTRODES SHALL BE E70XX.
5. SUBMIT SHOP DRAWINGS OF FRAMING PLANS AND DETAILS OF ALL COMPONENTS OF THE METAL PORTION OF THE STRUCTURE. THE SHOP DRAWINGS SHALL INDICATE THE BOLT LAYOUT, BEAM SLOPES AND WELDS.
6. ANCHOR RODS SHALL CONFORM TO ASTM F 1554 GR. 36.
7. PROVIDE NON-CONDUCTIVE BARRIER BETWEEN ALL CONNECTIONS OF DISSIMILAR METALS.

DESIGN LOADS:
LIVE LOADS:
ELEVATED PLATFORMS ---------- 150 PSF
WIND LOADS:
BASIC WIND VELOCITY ---------- 120 MPH (ULT., 3-SEC. GUST)
OCCUPANCY CATEGORY ---------- III
WIND EXPOSURE ---------- B
INTERNAL PRESSURE COEFFICIENTS ---------- +/- 0.18
SEISMIC LOAD:
SEISMIC USE GROUP ---------- III
IMPORTANCE FACTOR ---------- 1.25
MAPPED SPECTRAL RESPONSE ACCELERATION:
SS ---------- 0.163
S1 ---------- 0.078
SITE CLASS ---------- D
SPECTRAL RESPONSE COEFFICIENTS:
SDS ---------- 0.174
SD1 ---------- 0.125
SEISMIC DESIGN CATEGORY ---------- B
ANALYSIS PROCEDURE USED ---------- ASCE 7 SECTION 15.7

APPLICABLE CODES AND SPECIFICATIONS:
INTERNATIONAL BUILDING CODE 2015
AMERICAN CONCRETE INSTITUTE - ACI 350
CONCRETE REINFORCING STEEL INSTITUTE
AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AMERICAN IRON AND STEEL INSTITUTE
AMERICAN SOCIETY OF TESTING AND MATERIALS
AMERICAN WELDING SOCIETY
NATIONAL CONCRETE MASONRY ASSOCIATION

REQUIRED NOTES: #
1. TYPICAL HORIZONTAL WALL CORNER AND INTERSECTION REINFORCEMENT LAYOUT IS SHOWN TO AVOID CONGESTION AND PERMIT PROPER PLACEMENT. FOR SIZE AND SPACING SEE PLANS. ALL HORIZONTAL REINFORCING AT CORNERS AND INTERSECTIONS SHALL BE FABRICATED AND INSTALLED WITH SPLICES LOCATED WHERE SHOWN REGARDLESS OF BAR SIZE AND SPACING.
2. WHERE THE CORNER OR INTERSECTION REINFORCING SIZE AND SPACING IS NOT SHOWN, NOTED OR TABULATED ON THE PLANS, THE SIZE AND SPACING SHALL BE THE SAME AS THE WALL HORIZONTAL REINFORCING SHOWN ON THE WALL SECTIONS OR AS NOTED FOR THE REINFORCING BETWEEN THE CORNERS OR INTERSECTIONS.
3. EXCEPT WHERE OTHERWISE SHOWN ON THE DRAWINGS, THE LENGTH INDICATED AS "NOTE 3" SHALL BE THE LESSER OF D/4, 10 FEET, OR 1.0 TIMES THE HEIGHT OF THE WALL, EXCEPT THAT IN NO CASE SHALL IT BE LESS THAN 2 FEET.
4. "D" - LENGTH OF WALL PARALLEL TO THE BAR LENGTH IN QUESTION
5. EXCEPT WHERE OTHERWISE SHOWN ON THE DRAWINGS, THE LENGTH INDICATED AS "NOTE 5" SHALL BE EQUAL TO ONE "LAP LENGTH" AS REQUIRED BY THE GENERAL STRUCTURAL NOTES. USE THE LAP LENGTH AS REQUIRED FOR THE SMALLER OF THE TWO REINFORCING BARS BEING SPLICED
6. UNLESS OTHERWISE NOTED, "B" AND "C" BARS ARE THE SAME SIZE AND SPACING AND "F" AND "G" BARS ARE THE SAME SIZE AND SPACING.
7. STANDARD ACI 90 DEGREE HOOK.
8. WALL THICKNESS



A
S-001

TYPICAL CORNER REINFORCEMENT

1'-4" 8" 0' 1'-4" 2'-8"

SCALE: 3/4" = 1'-0"

GMC
35 Abercorn Street, Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	10.01.2019	
60% SUBMITTAL	12.16.2019	
100% SUBMITTAL	03.12.2020	
FINAL	06.15.2020	
PROJECT MANAGER:		JDD
ENGINEER:		DPR
DESIGNER:		JDD
DRAWN BY:		JDD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

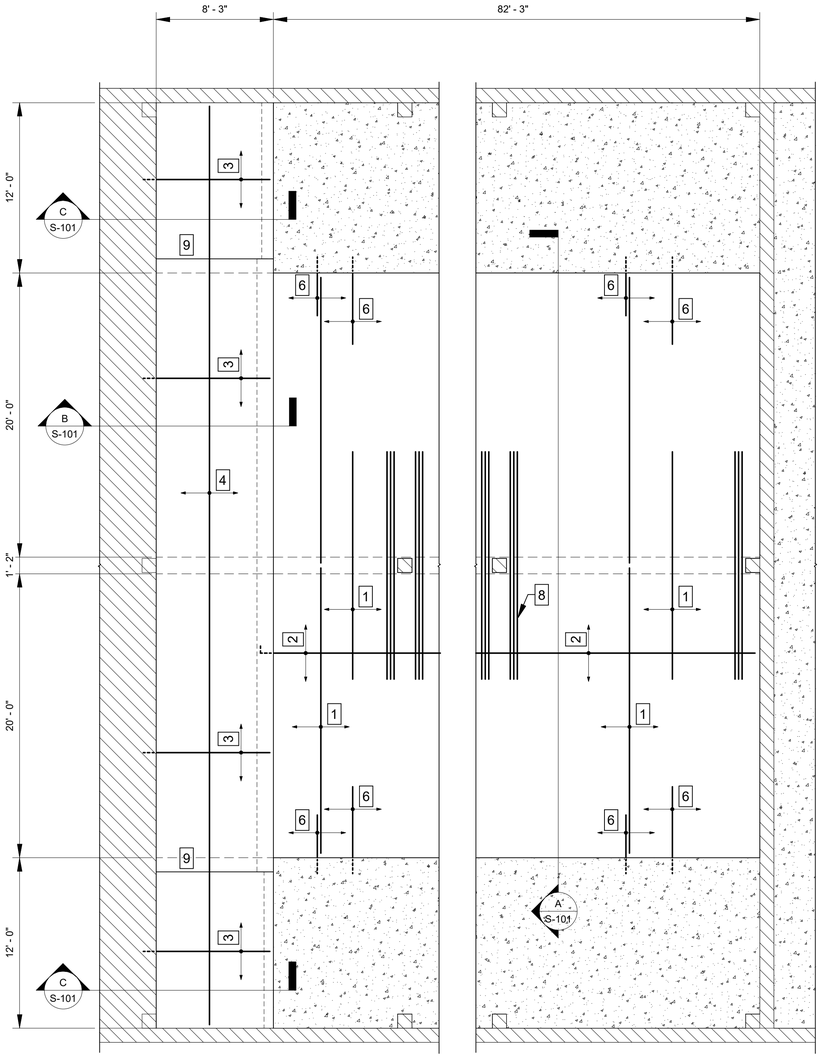
BGJWSC Project No. 906
GMC Project # CSAV190007

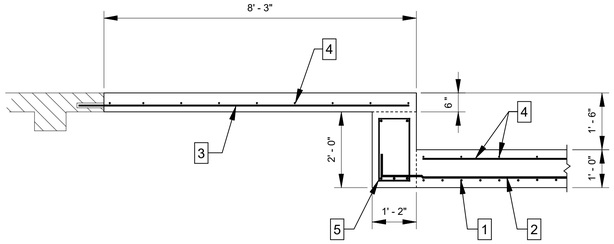
GEORGIA REGISTERED No. 19939 PROFESSIONAL ENGINEER JOSEPH D. WEATHERSBEE
6.15.2020

STRUCTURAL NOTES

S-001

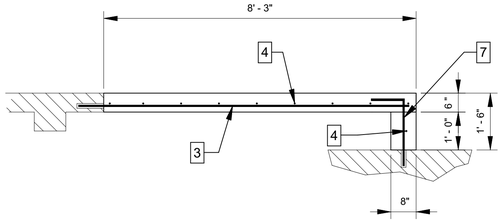
6/8/2020 1:51:56 PM





B S-101 **SECTION**

SCALE: 1/2" = 1'-0"

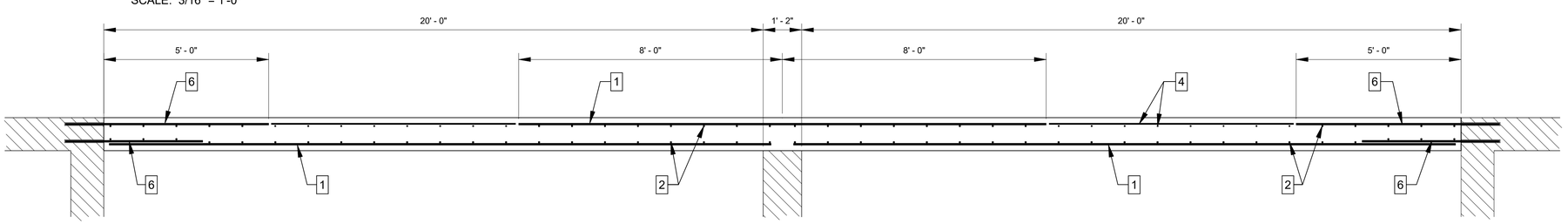


C S-101 **SECTION**

SCALE: 1/2" = 1'-0"

1 S-101 **PARTIAL PLAN**

SCALE: 3/16" = 1'-0"



A S-101 **SECTION**

SCALE: 1/2" = 1'-0"

REQUIRED NOTES: #

1. #5 @ 6" O.C. W/ 2" CL. BOTTOM
2. #5 @ 12" O.C. W/ 2" CL. BOTTOM
3. #4 @ 10" O.C.W/ 2" CL. BOTTOM (DRILL AND EPOXY INTO EXISTING CONCRETE MIN. 5")
4. #4 @ 12" O.C. W/ 2" CL. BOTTOM
5. (2) #6 TOP, (3) #6 BOTTOM, #3 TIES @ 8" O.C.
6. #5 DOWEL @ 6" O.C. (DRILL AND EPOXY INTO EXISTING CONCRETE MIN. 1'-2")
7. #5 VERTICAL DOWELS W/ STD. HOOK @ 12" O.C. (DRILL & EPOXY INTO EXISTING CONCRETE MIN. 5")
8. (3) @ 5 @ 3" O.C. (TYPICAL EACH SIDE OF EACH COLUMN)
9. CONTROL JOINT

NOTE: ALL PLAN DIMENSIONS ARE APPROXIMATE AND SHOULD BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION

GMC
35 Abercorn Street, Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	10.01.2019
60% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
FINAL	06.15.2020
PROJECT MANAGER:	JDD
ENGINEER:	DPR
DESIGNER:	JDD
DRAWN BY:	JDD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

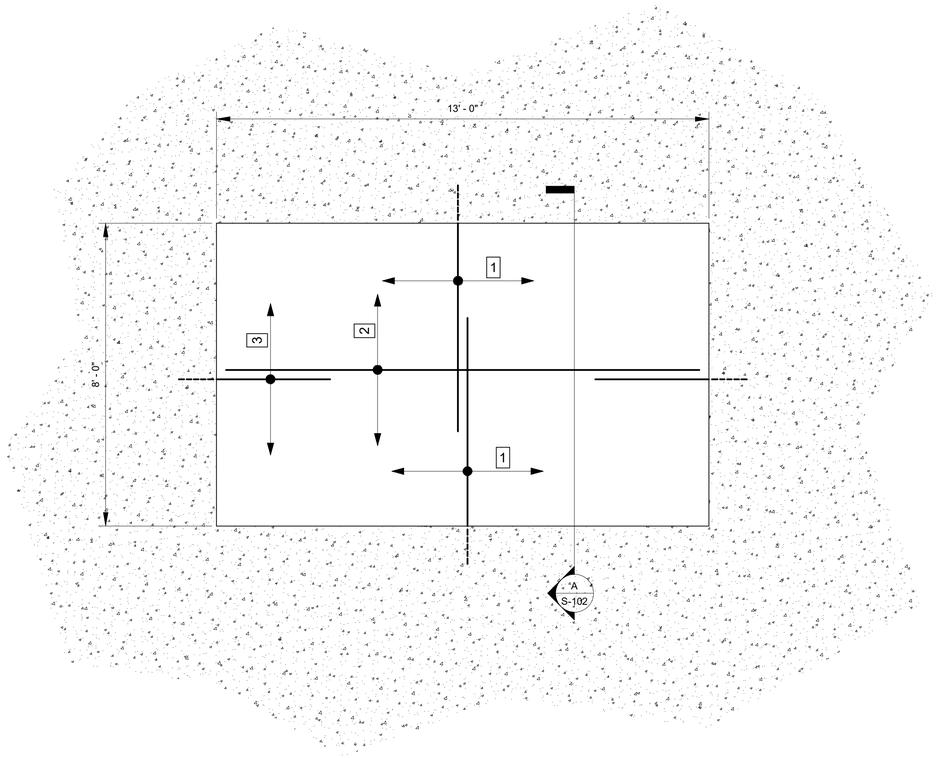
BGJWSC Project No. 906
GMC Project # CSAV190007

GEORGIA REGISTERED 6.15.2020 No. 19936 PROFESSIONAL ENGINEER JOSEPH W. WEATHERSBEE

DAF BUILDING - NEW STRUCTURAL SLAB

S-101

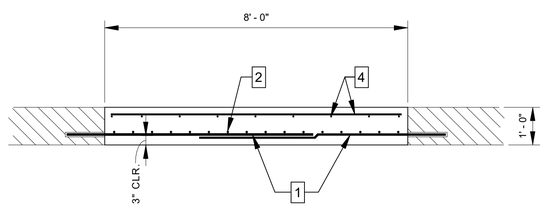
6/8/2020 1:51:57 PM



1 S-102 **PARTIAL PLAN**

2' 1 0' 2' 4'

SCALE: 1/2" = 1'-0"



A S-102 **SECTION**

2' 1 0' 2' 4'

SCALE: 1/2" = 1'-0"

REQUIRED NOTES: #

1. #5 x 6'-6" LONG @ 6" O.C. (DRILL AND EPOXY INTO EXISTING SLAB MIN. 1'-0")
2. #5 @ 6" O.C. (BOTTOM)
3. #5 x 4'-0" LONG @ 6" O.C. (DRILL AND EPOXY INTO EXISTING SLAB MIN. 1'-0")
4. #4 @ 12" O.C. EACH WAY W/ 2" CL. TOP

NOTE: ALL PLAN DIMENSIONS ARE APPROXIMATE AND SHOULD BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION

CONTRACTOR SHALL VERIFY THAT EXISTING SLAB THICKNESS IS 12" MIN.

GMC

35 Abercorn Street,
Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	10.01.2019
60% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
FINAL	06.15.2020
PROJECT MANAGER:	JDD
ENGINEER:	DPR
DESIGNER:	JDD
DRAWN BY:	JDD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

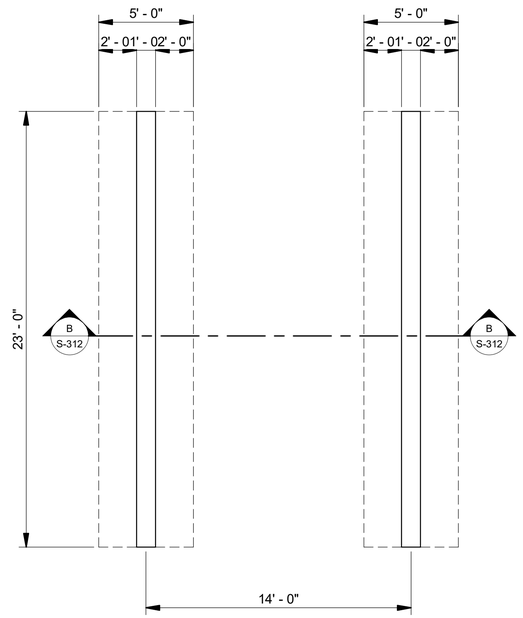
BGJWSC Project No. 906
GMC Project # CSAV190007

GEORGIA REGISTERED No. 19934 PROFESSIONAL ENGINEER JOSEPH W. WEATHERSBEE
6.15.2020

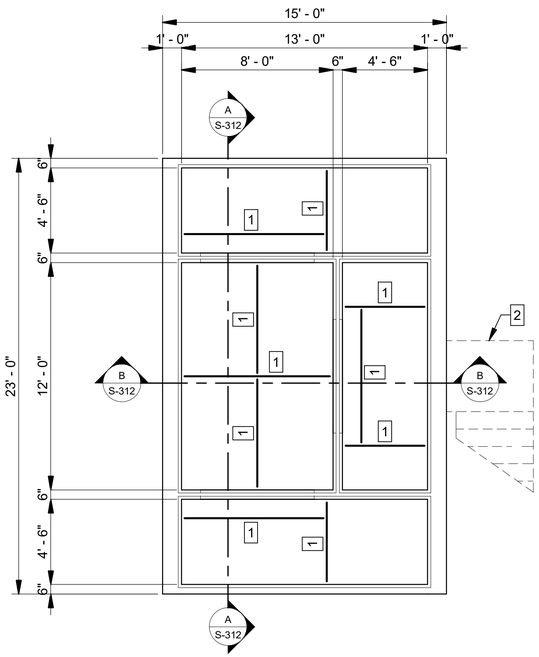
SLAB PATCH DETAILS

S-102

6/8/2020 1:51:57 PM



1 **LOWER PLAN** (S-311)
SCALE: 1/4" = 1'-0"



2 **UPPER PLAN** (S-311)
SCALE: 1/4" = 1'-0"

KEYED NOTES: #

1. W8x10 GALVANIZED GRATING SUPPORT BEAMS
2. PREFABRICATED STAIR BY OTHERS

GMC

35 Abercorn Street,
Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	10.01.2019	
60% SUBMITTAL	12.16.2019	
100% SUBMITTAL	03.12.2020	
FINAL	06.15.2020	
PROJECT MANAGER:		JDD
ENGINEER:		DPR
DESIGNER:		JDD
DRAWN BY:		JDD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

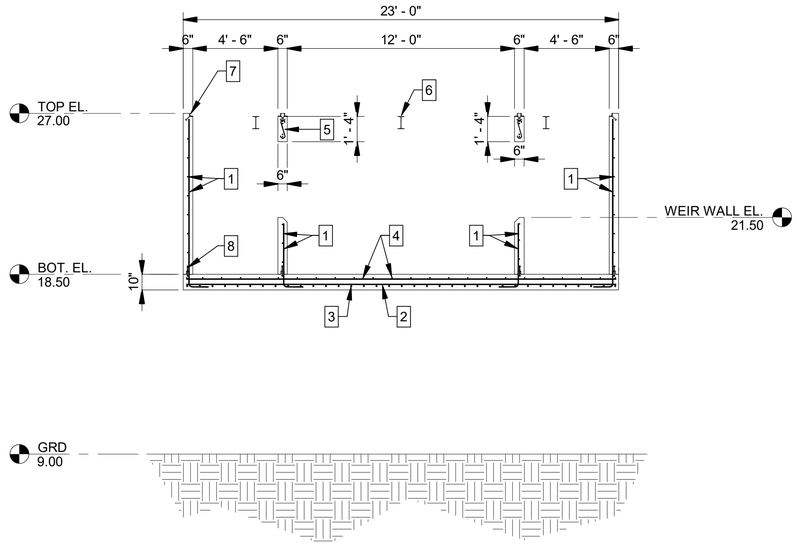
BGJWSC Project No. 906
GMC Project # CSAV190007

GEORGIA REGISTERED No. 19936 PROFESSIONAL ENGINEER JOSEPH W. WEATHERSBEE
6.15.2020

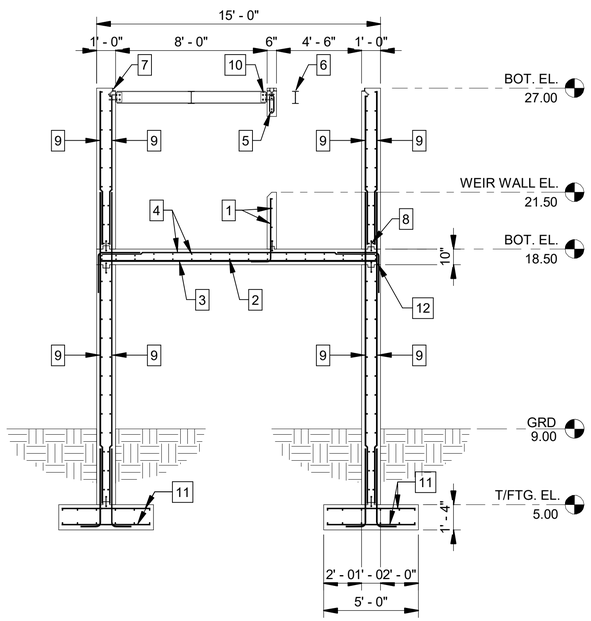
PRIMARY SPLITTER BOX - PLAN VIEWS

S-311

6/8/2020 1:52:47 PM



A
S-312
SECTION
SCALE: 1/4" = 1'-0"



B
S-312
SECTION
SCALE: 1/4" = 1'-0"

KEYED NOTES: #

1. #5 @ 12" O.C. EACH WAY (VERT. CENTERED IN WALL)
2. #5 @ 12" O.C. LONGITUDINAL
3. #8 @ 8" O.C. TRANSVERSE W/ 2" CL. BOTT. & SIDES
4. #5 @ 12" O.C. EACH WAY W/ 2" CL. TOP
5. (2) # 5 T&B w/ #3 "S" STIRRUPS @ 8" O.C.
6. W8x10 GRATING SUPPORT BEAM (TYP.)
7. PREFABRICATED GRATING SEAT EMBED (TYP.)
8. 6" PVC WATERSTOP (TYP.)
9. #6 @ 12" O.C. EACH WAY W/ VERT. 2" CL.
10. L4x4X3/8 w/ (2) 1/2" DIA. THRU-BOLTS & (2) 1/2" DIA. EXPANSION BOLTS (4" MIN. EMBEDMENT)
11. #6 @ 12" O.C. EA. WAY TOP & BOTT. W/ 2" CL. TOP & 3" CL. BOTT. & SIDES (TYP.)
12. #5 x 2'-0" x 2'-0" HOOK BARS @ 12" O.C.

GMC
35 Abercorn Street,
Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	10.01.2019
60% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
FINAL	06.15.2020
PROJECT MANAGER:	JDD
ENGINEER:	DPR
DESIGNER:	JDD
DRAWN BY:	JDD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project # CSAV190007

GEORGIA REGISTERED 6.15.2020 No. 19936 PROFESSIONAL ENGINEER JOSEPH W. WEATHERSBEE

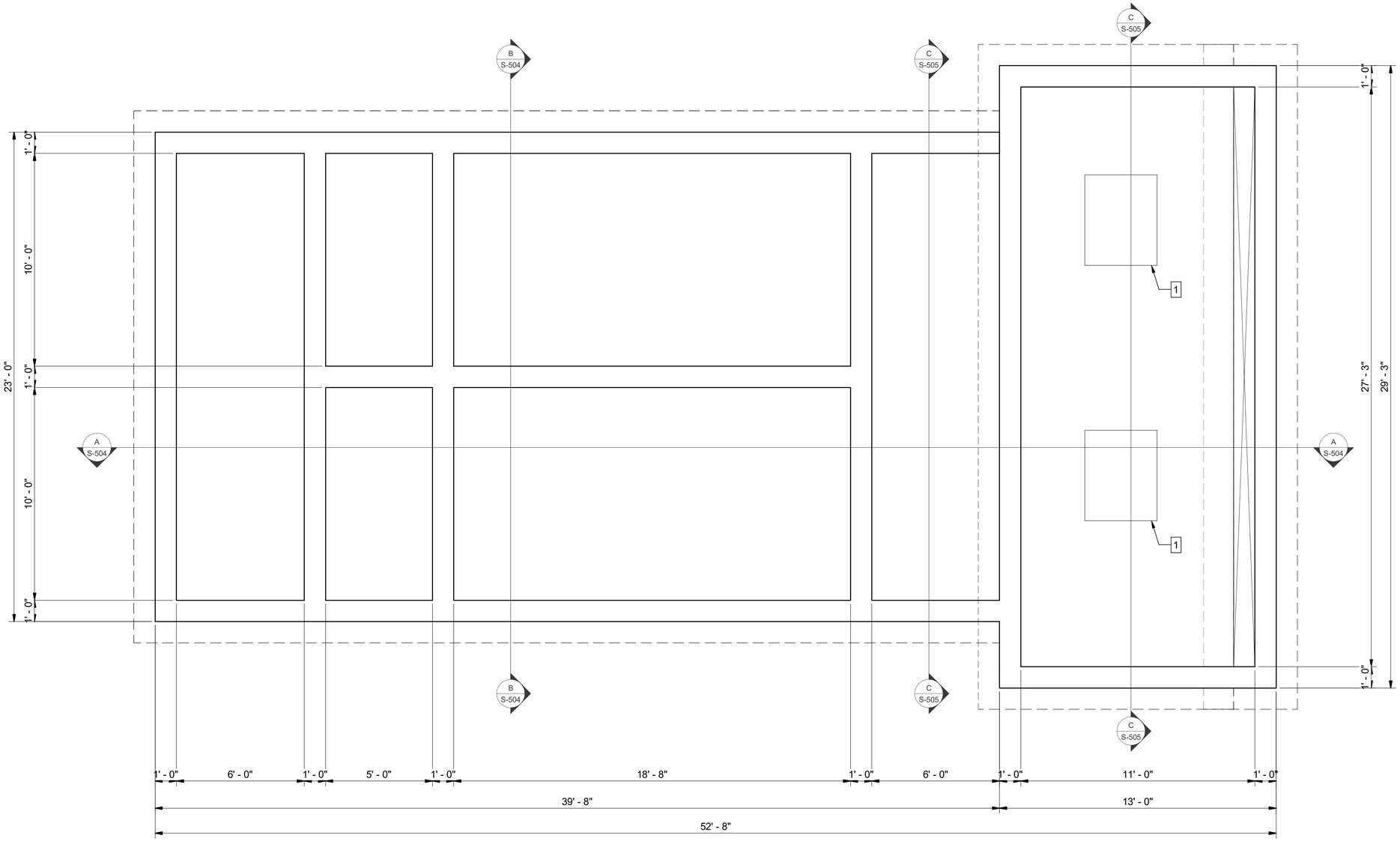
PRIMARY SPLITTER BOX - SECTIONS

S-312

6/8/2020 1:52:47 PM

KEYED NOTES: #

1. 6" EQUIPMENT PAD (SEE S-911)



1 S-501 **BOT LEVEL**
SCALE: 3/8" = 1'-0"

6/8/2020 1:53:21 PM

GMC

35 Abercorn Street,
Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	10.01.2019
60% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
FINAL	06.15.2020
PROJECT MANAGER:	JDD
ENGINEER:	DPR
DESIGNER:	JDD
DRAWN BY:	JDD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BG-JWSC Project No. 906
GMC Project # CSAV190007

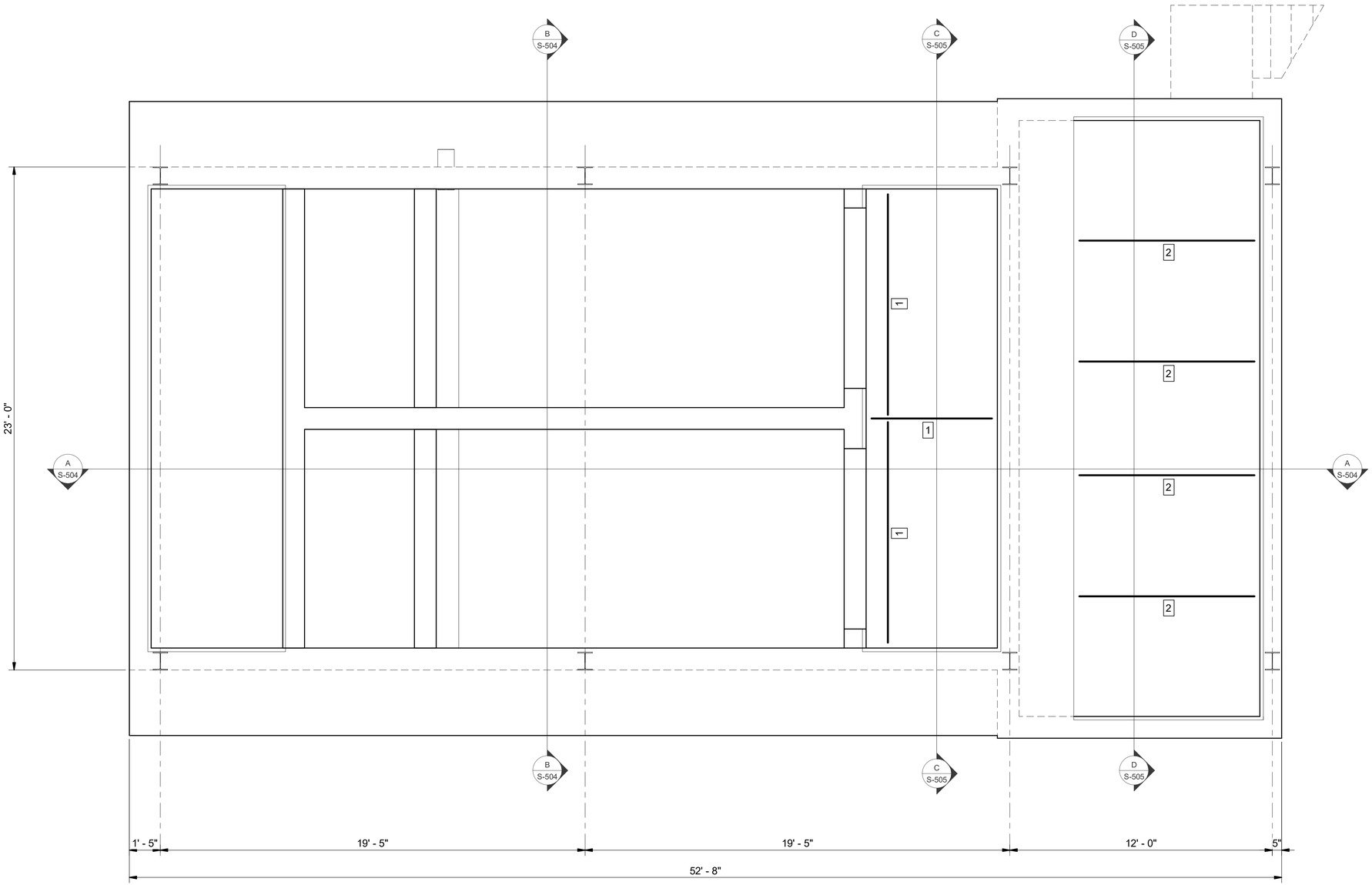
GEORGIA REGISTERED No. 19036 PROFESSIONAL ENGINEER JOSEPH D. WEATHERSBEE 6.15.2020

FILTER - LOWER PLAN

S-501

KEYED NOTES: #

1. W8x15 GALVANIZED GRATING SUPPORT BEAM
2. W10x15 GALVANIZED GRATING SUPPORT BEAM



1 **PLAN VIEW**
S-502 SCALE: 3/8" = 1'-0"

6/8/2020 1:53:21 PM

GMC
35 Abercorn Street, Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	10.01.2019
60% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
FINAL	06.15.2020
PROJECT MANAGER:	JDD
ENGINEER:	DPR
DESIGNER:	JDD
DRAWN BY:	JDD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project # CSAV190007

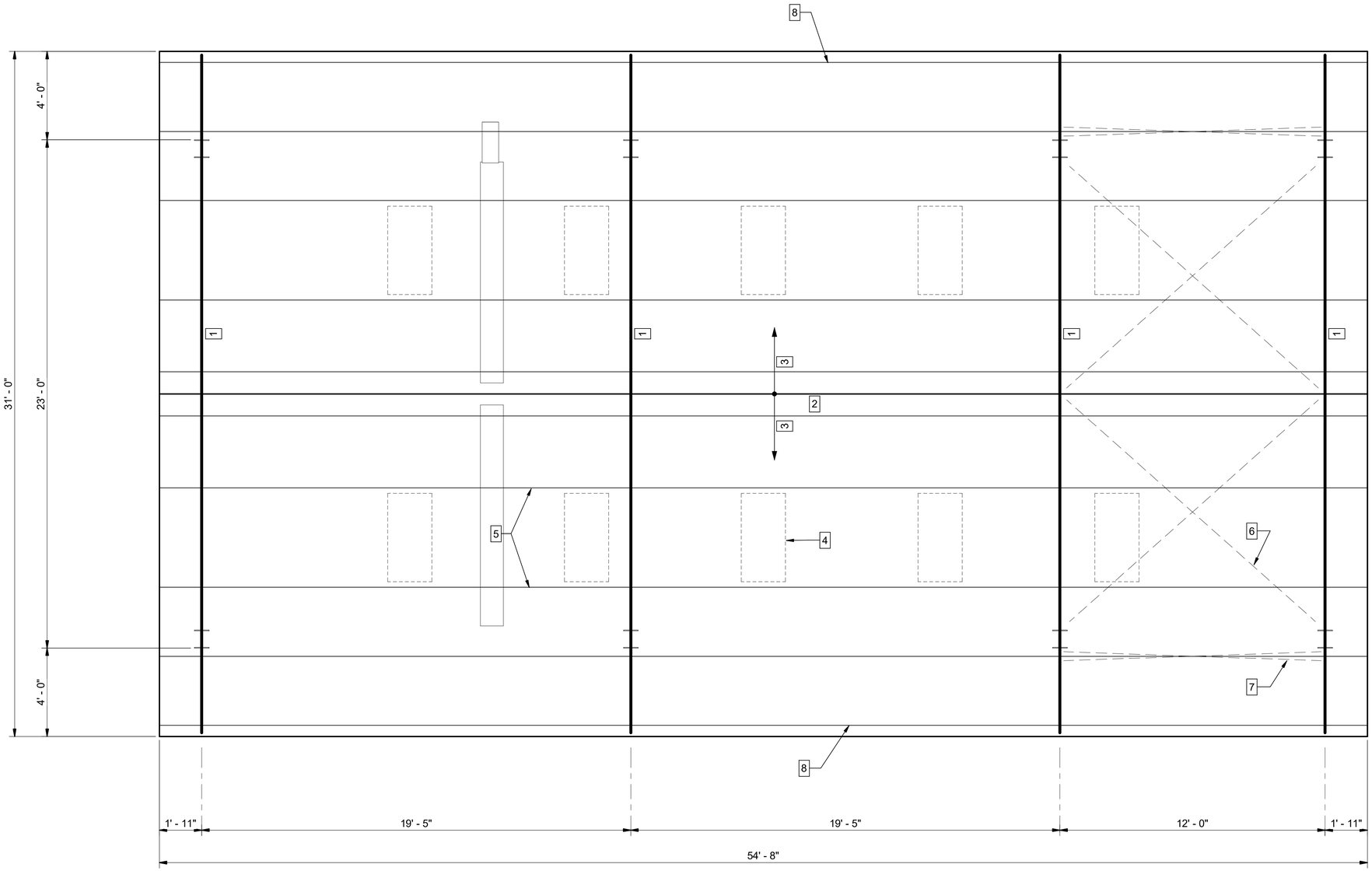
GEORGIA REGISTERED 6.15.2020 No. 19935 PROFESSIONAL ENGINEER JOSEPH B. WEATHERSBY

FILTER - UPPER PLAN

S-502

KEYED NOTES: #

1. PEMB RIGID FRAME
2. RIDGE
3. SLOPE = 2:12
4. SKYLIGHTS. PEMB SUPPLIER TO COORDINATE SIZE AND LOCATION w/ ARCH.
5. ROOF PURLINS BY PEMB SUPPLIER @ 5'-0" MAX. O.C.
6. DIAGONAL ROD ROOF DIAPHRAM BRACING AS NEEDED BY PEMB SUPPLIER
7. DIAGONAL ROD LATERAL BRACING AS NEEDED BY PEMB SUPPLIER
8. EAVE GIRT EL. = 29.26



1 S-503 **PLAN VIEW**
SCALE: 3/8" = 1'-0"

GMC

ISSUE	DATE
30% SUBMITTAL	10.01.2019
60% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
FINAL	06.15.2020
PROJECT MANAGER:	JDD
ENGINEER:	DPR
DESIGNER:	JDD
DRAWN BY:	JDD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

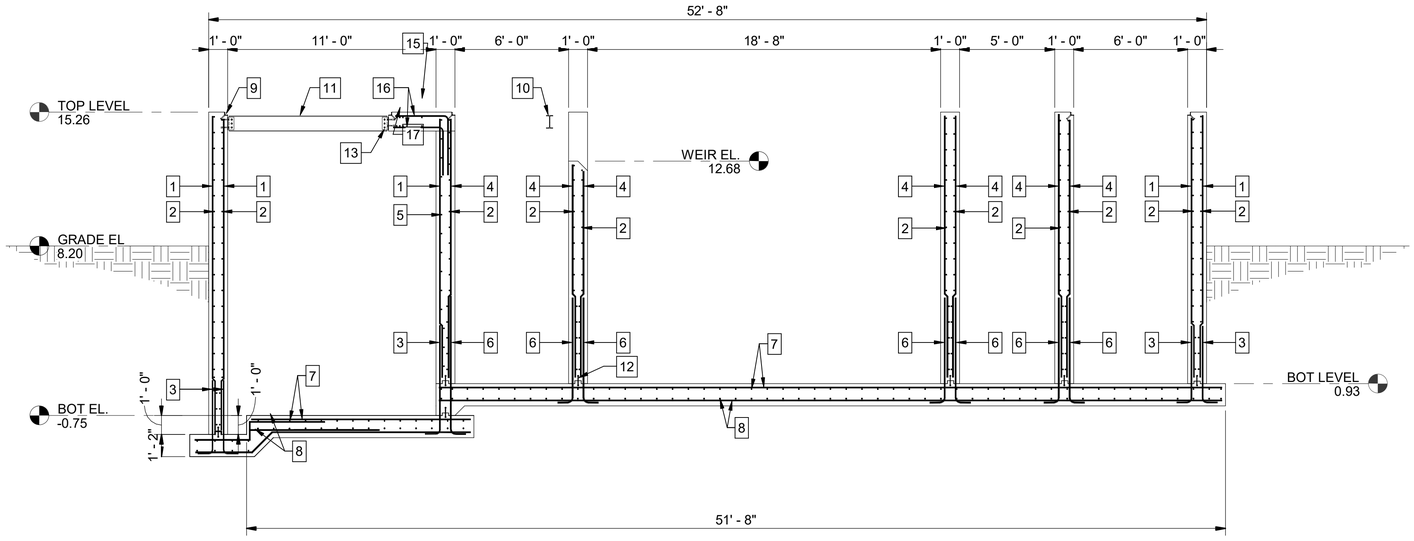
BGJWSC Project No. 906
GMC Project # CSAV190007

GEORGIA REGISTERED 6.15.2020 No. 19936 PROFESSIONAL ENGINEER JOSEPH D. WEATHERSBEE

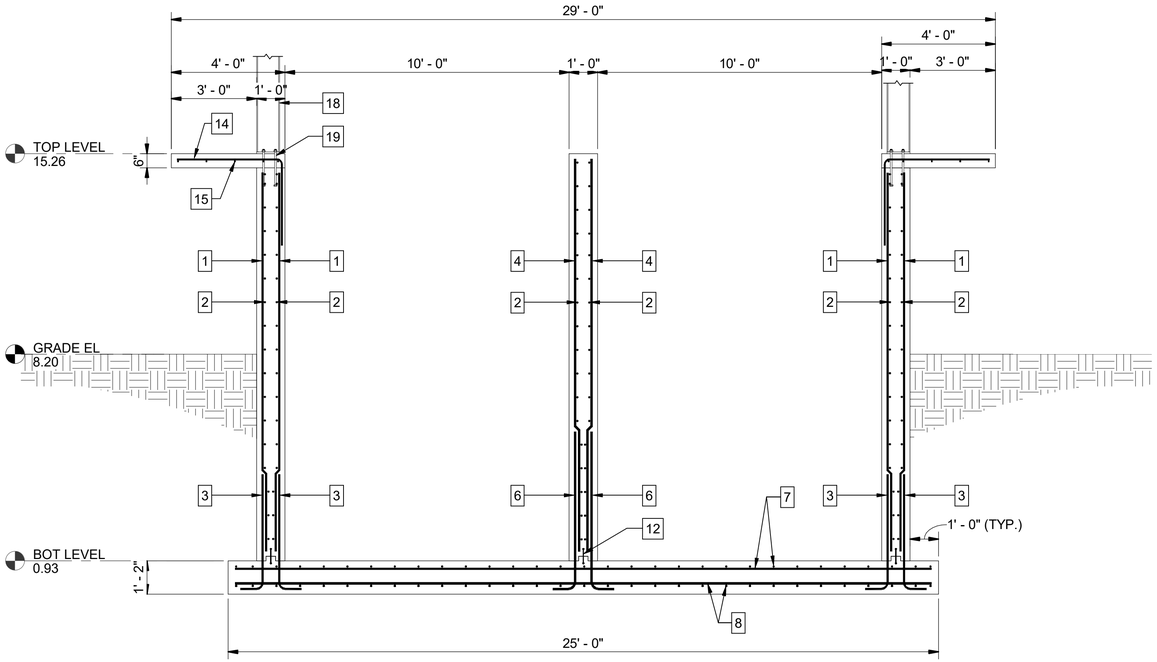
FILTER CANOPY ROOF FRAMING PLAN

S-503

6/8/2020 1:53:22 PM



A
S-501
SECTION
SCALE: 1/4" = 1'-0"



B
S-501
SECTION
SCALE: 3/8" = 1'-0"

KEYED NOTES: #

1. #6 VERTICAL @ 10" O.C. W/ 2" CL. (TYP.)
2. #6 HORIZONTAL @ 10" O.C.
3. #6 DOWEL @ EACH VERTICAL
4. #7 VERTICAL @ 10" O.C. W/ 2" CL. (TYP.)
5. #6 HORIZONTAL @ 12" O.C.
6. #7 DOWEL @ EACH VERTICAL
7. #6 @ 10" O.C. EACH WAY W/ 2" CL. (TYP.)
8. #7 @ 10" O.C. EACH WAY W/ 3" CL. BOTT. & SIDES (TYP.)
9. PREFABRICATED GRATING SEAT EMBED
10. W8x15 GALVANIZED GRATING SUPPORT BEAM
11. W10x15 GALVANIZED GRATING SUPPORT BEAM
12. 6" PVC WATERSTOP (TYP.)
13. L4x4X3/8 w/ (3) 1/2" DIA. THRU-BOLTS & (2) 1/2" DIA. EXPANSION BOLTS (4" MIN. EMBEDMENT)
14. #5 BENT BARS @ 8" O.C. W/ 2" CL. TOP
15. #5 CONTINUOUS @ 12" O.C.
16. #6 BENT BARS @ 10" O.C.
17. (3) #6 BARS CONT. T&B AT EDGE OF SLAB W/ 2" CL. TOP & BOTT.
18. PRE-ENGINEERED METAL BUILDING COLUMN
19. (4) 3/4" DIA. x 1'-2" H.S. ANCHORS AT EACH COL.

GMC
35 Abercorn Street, Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	10.01.2019
60% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
FINAL	06.15.2020
PROJECT MANAGER:	JDD
ENGINEER:	DPR
DESIGNER:	JDD
DRAWN BY:	JDD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

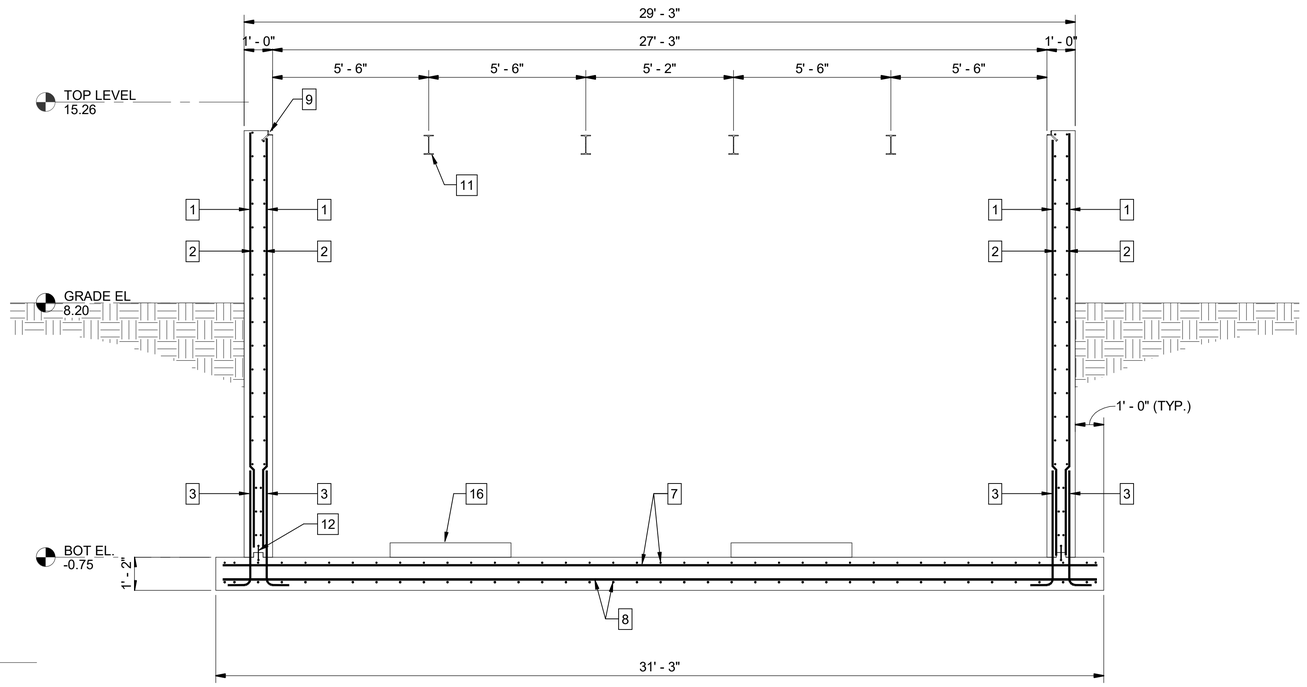
BGJWSC Project No. 906
GMC Project # CSAV190007

GEORGIA REGISTERED No. 19950 PROFESSIONAL ENGINEER JOSEPH B. WEATHERSBEE
6.15.2020

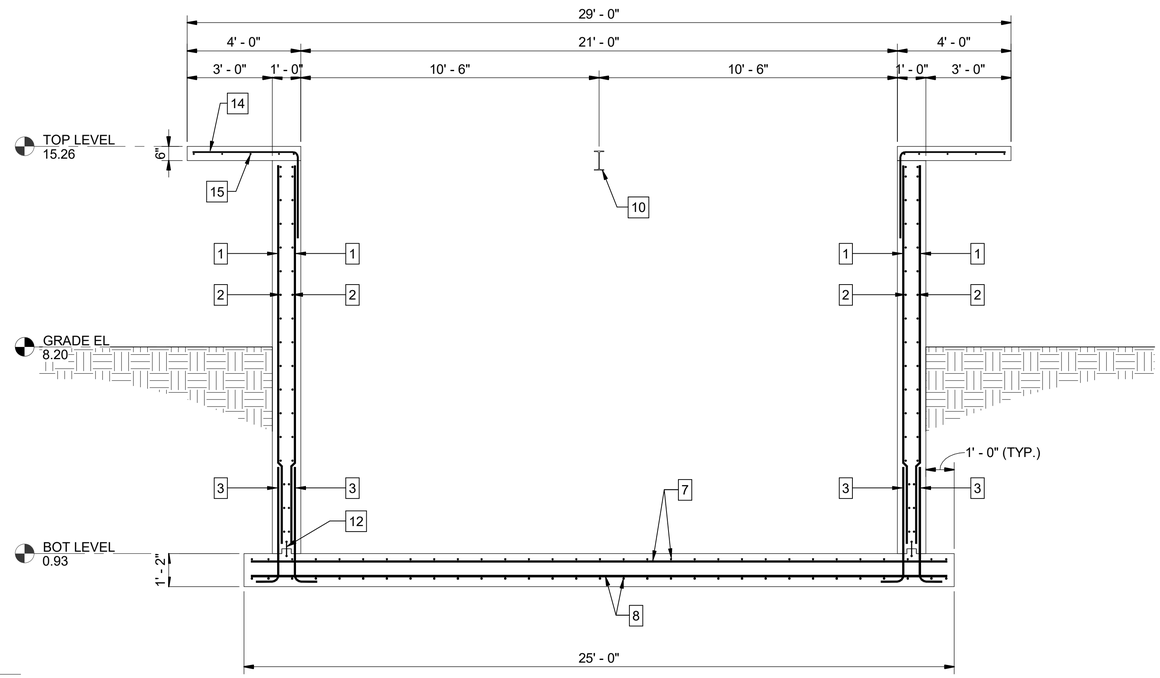
FILTER - SECTIONS

S-504

6/8/2020 1:53:23 PM



D
S-502
SECTION
SCALE: 3/8" = 1'-0"



C
S-501
SECTION
SCALE: 3/8" = 1'-0"

KEYED NOTES: #

1. #6 VERTICAL @ 10" O.C. W/ 2" CL. (TYP.)
2. #6 HORIZONTAL @ 10" O.C.
3. #6 DOWEL @ EACH VERTICAL
4. BLANK
5. BLANK
6. BLANK
7. #6 @ 10" O.C. EACH WAY W/ 2" CL. TOP (TYP.)
8. #7 @ 10" O.C. EACH WAY W/ 3" CL. BOTT. & SIDES (TYP.)
9. PREFABRICATED GRATING SEAT EMBED
10. W8x15 GALVANIZED GRATING SUPPORT BEAM
11. W10x15 GALVANIZED GRATING SUPPORT BEAM
12. 6" PVC WATERSTOP (TYP.)
13. BLANK
14. #5 BENT BARS @ 8" O.C. W/ 2" CL. TOP
15. #5 CONTINUOUS @ 12" O.C.
16. 6" EQUIPMENT PAD (SEE S-911)

GMC
35 Abercorn Street,
Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	10.01.2019	
60% SUBMITTAL	12.16.2019	
100% SUBMITTAL	03.12.2020	
FINAL	06.15.2020	
PROJECT MANAGER:		JDD
ENGINEER:		DPR
DESIGNER:		JDD
DRAWN BY:		JDD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

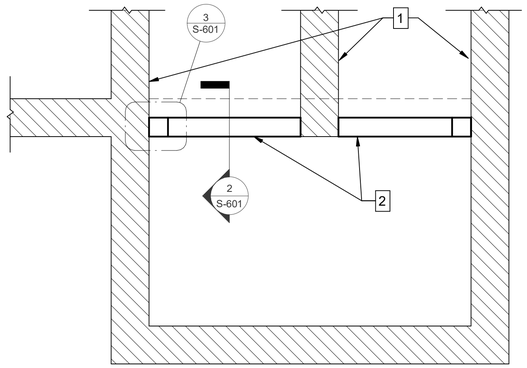
BGJWSC Project No. 906
GMC Project # CSAV190007

GEORGIA REGISTERED 6.15.2020 No. 19936 PROFESSIONAL ENGINEER JOSEPH D. WEATHERSBEE

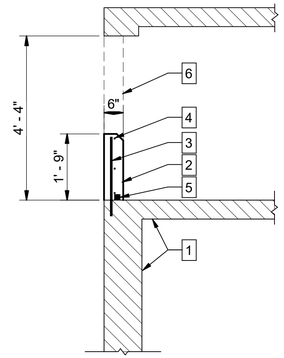
FILTER - SECTIONS

S-505

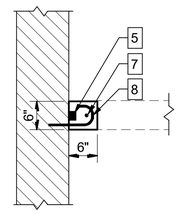
6/8/2020 1:53:24 PM



1 S-601 **CC WEIR WALL PLAN**
SCALE: 1/2" = 1'-0"



2 S-601 **CC WEIR WALL SECTION**
SCALE: 1/2" = 1'-0"



3 S-601 **CC WEIR WALL VERT. WAL**
SCALE: 3/4" = 1'-0"

KEYED NOTES: #

1. EXISTING CHANNEL WALLS
2. NEW WEIR WALL
3. #5 VERT. @ 12" O.C. CENTERED IN WALL DRILLED & EPOXIED INTO EXIST. WALL W/ 6" (MIN.) EMEDMENT
4. #4 HORZ. @ 12" O.C. w/ 2" CLEAR TOP DRILLED & EPOXIED INTO EXIST. WALL W/ 6" (MIN.) EMEDMENT
5. RETROFIT BITUMAN WATERSTOP (BOTTOM & SIDES)
6. 6"x6" WEIR WALL BEYOND
7. 1-#6 VERT. CENTERED IN CONCRETE
8. #4 HOOK @ 12" O.C. DRILLED & EPOXIED INTO EXIST. WALL W/ 6" (MIN.) EMEDMENT

GMC
35 Abercorn Street, Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	10.01.2019
60% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
FINAL	06.15.2020
PROJECT MANAGER:	JDD
ENGINEER:	DPR
DESIGNER:	JDD
DRAWN BY:	JDD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project # CSAV190007

GEORGIA REGISTERED No. 19936 PROFESSIONAL ENGINEER JOSEPH D. WEATHERSBEE
6.15.2020

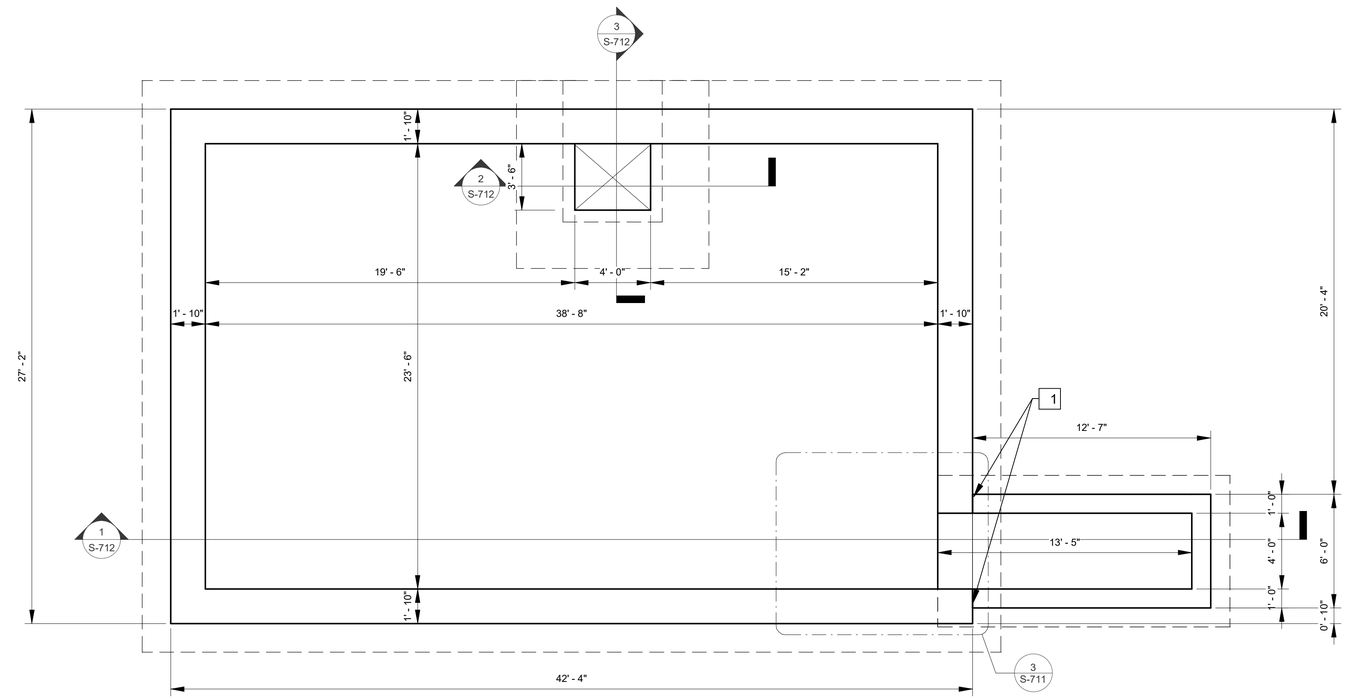
CHLORINE CONTACT TANK MODIFICATIONS

S-601

6/8/2020 1:53:24 PM

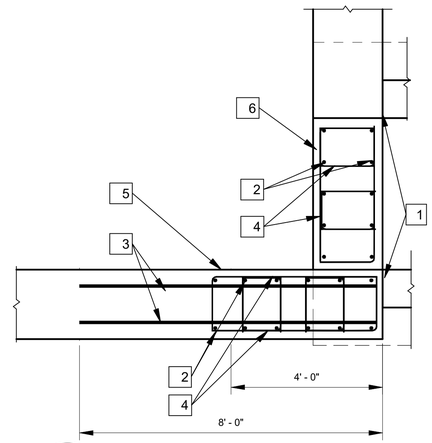
REQUIRED NOTES: #

1. PROVIDE TYPICAL EXPANSION JOINT BETWEEN TROUGH AND PRIMARY WALL
2. #9 @ 10" O.C. VERT. EA. FACE FOR 4'-0" (MIN.) FROM EACH CORNER (TYP.)
3. #8x8'-0" @ 5" O.C. EA. FACE W/ 2" CL. (TYP.)
4. #3 STIRRUPS @ 9" O.C. AS INDICATED W/ 2" CL. (TYP.)
5. EXTEND REINF. INDICATED IN THIS AREA FULL HEIGHT OF WALL
6. EXTEND REINF. INDICATED IN THIS AREA TO BOTTOM OF TROUGH SLAB
7. #6 @ 10" O.C. CORNER SLAB REINFORCMENET W/ 1 1/2" CL. TOP



1 S-711 LOWER PLAN
SCALE: 1/4" = 1'-0"

2 S-711 UPPER PLAN
SCALE: 1/4" = 1'-0"



3 S-711 TROUGH/PIT INTERSECTION
SCALE: 1/2" = 1'-0"

GMC
35 Abercorn Street, Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	10.01.2019	
60% SUBMITTAL	12.16.2019	
100% SUBMITTAL	03.12.2020	
FINAL	06.15.2020	
PROJECT MANAGER:		JDD
ENGINEER:		DPR
DESIGNER:		JDD
DRAWN BY:		JDD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project # CSAV190007

GEORGIA REGISTERED 6.15.2020 No. 19936 PROFESSIONAL ENGINEER JOSEPH W. WEATHERSBEE

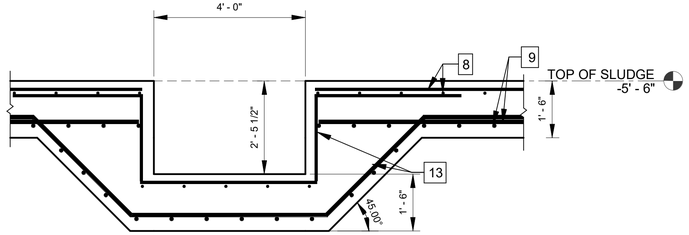
SLUDGE OFFLOADING AREA PLANS

S-711

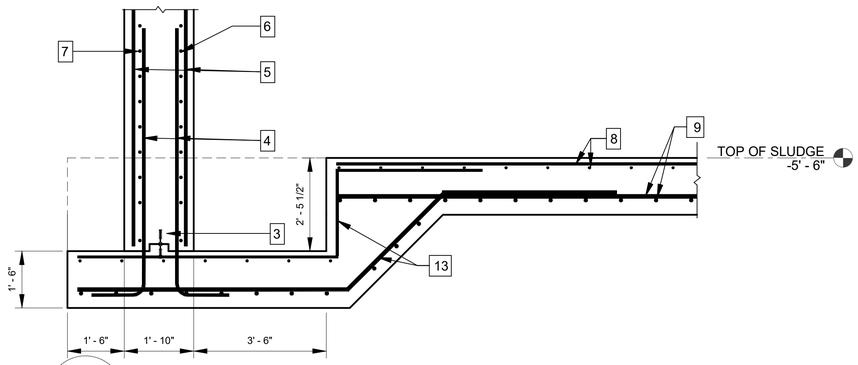
6/8/2020 1:53:48 PM

REQUIRED NOTES: #

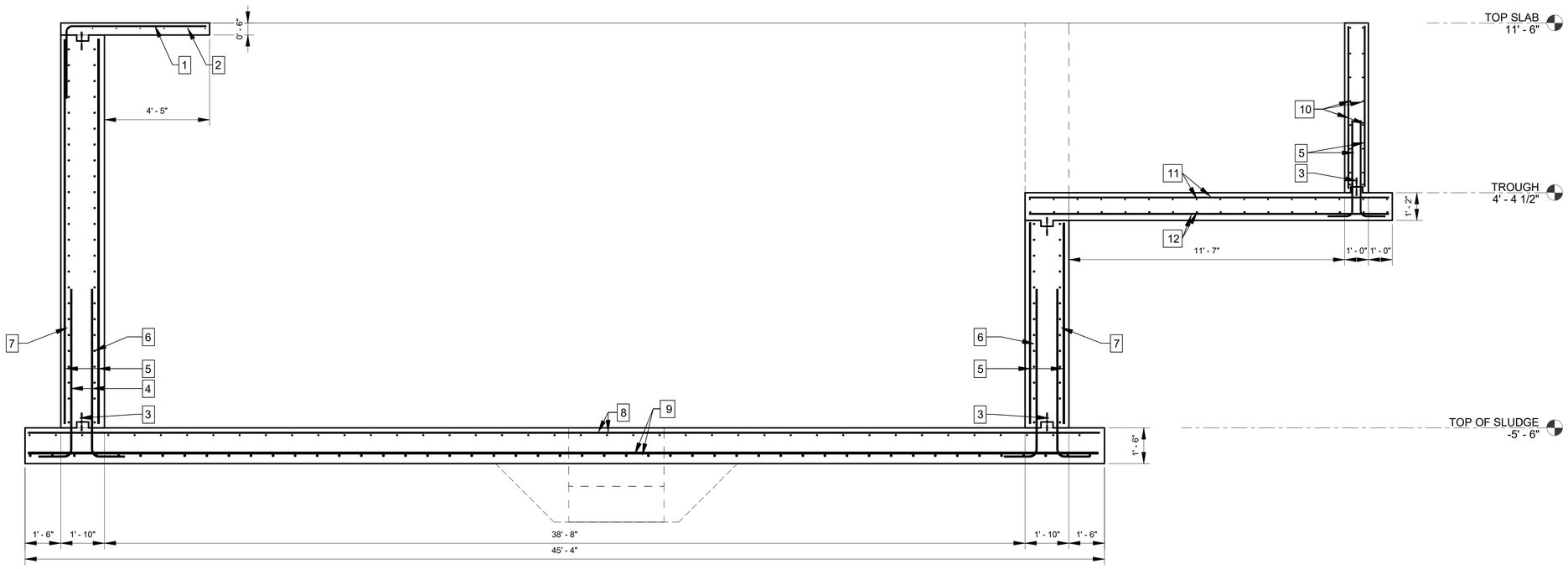
1. #6 HOOK BAR @ 10" O.C. W/ 2" CL. TOP
2. #4 CONT. @ 12" O.C. (TYP.)
3. 6" PVC WATERSTOP (TYP.)
4. VERTICAL DOWEL SAME SIZE AND SPACING AS VERT. REINF. U.N.O
5. #8 VERT. @ 10" O.C. EA. FACE W/ 2" CL. (TYP.)
6. #8 HORIZ. @ 10" O.C. I.S.F
7. #8 HORIZ. @ 10" O.C. W/ #6 @ 5" O.C. CORNERS O.S.F
8. #7 @ 12" O.C. EA. WAY TOP W/ 2" CL. TOP
9. #10 @ 10" O.C. EA. WAY BOTT W/ 3" CL. BOTT. & SIDES
10. #6 @ 12" O.C. EA. WAY, EA. FACE W/ 2" CL. (TYP.)
11. #6 @ 12" O.C. EA. WAY TOP W/ 2" CL.
12. #7 @ 12" O.C. EA. WAY BOTT. W/ 3" CL. BOTT. & SIDES
13. BENT BAR, SAME SIZE AND SPACING AS TYPICAL MAT (TYP.)



2 SECTION
S-712 SCALE: 1/2" = 1'-0"



3 SECTION
S-712 SCALE: 1/2" = 1'-0"



1 SECTION
S-712 SCALE: 3/8" = 1'-0"

6/8/2020 1:53:48 PM

GMC

35 Abercorn Street,
Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	10.01.2019	
60% SUBMITTAL	12.16.2019	
100% SUBMITTAL	03.12.2020	
FINAL	06.15.2020	
PROJECT MANAGER:		JDD
ENGINEER:		DPR
DESIGNER:		JDD
DRAWN BY:		JDD

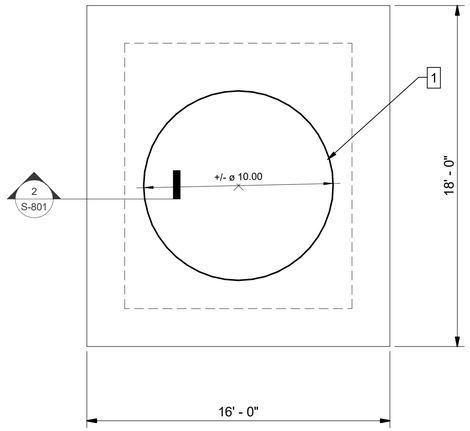
2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project # CSAV190007

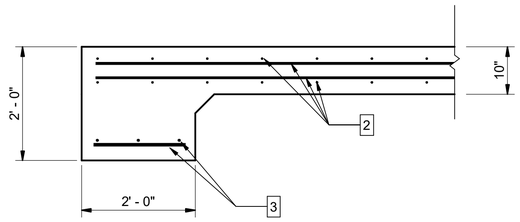
GEORGIA REGISTERED 06.15.2020 No. 19936 PROFESSIONAL ENGINEER JOSEPH D. WEATHERSBEE

SLUDGE OFFLOADING SECTIONS

S-712



1 / S-801 **BFT TANK EL**
SCALE: 1/4" = 1'-0"



2 / S-801 **SECTION**
SCALE: 3/4" = 1'-0"

KEYED NOTES: #

1. BFT8020 TANK - SEE PROCESS
2. #4 @ 12" O.C. EA. WAY TOP & BOTT. W/ 2" CL. TOP & 3" CL. BOTT. (TYP.)
3. 3-#5 CONT. W/ #5 TRANS. @ 24" O.C. 3" CL. BOTT. & SIDES (TYP.)

GMC

ISSUE	DATE
30% SUBMITTAL	10.01.2019
60% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
FINAL	06.15.2020
PROJECT MANAGER:	JDD
ENGINEER:	DPR
DESIGNER:	JDD
DRAWN BY:	JDD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

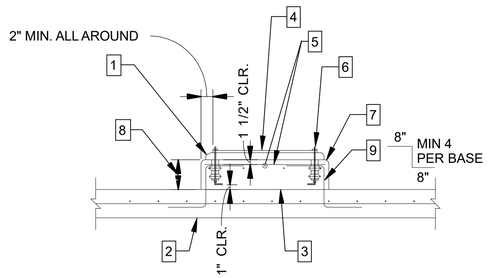
BGJWSC Project No. 906
GMC Project # CSAV190007

GEORGIA REGISTERED 6.15.2020 No. 19936 PROFESSIONAL ENGINEER JOSEPH W. WEATHERSBEE

ODOR TREATMENT SYSTEM PLAN & DETAILS

S-801

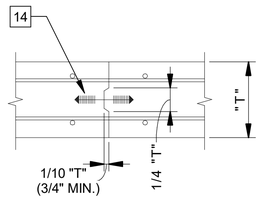
6/8/2020 1:53:25 PM



A S-911 **EQUIPMENT PAD TYPE A**

1'-4" 8" 0' 1'-4" 2'-8"

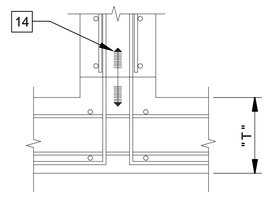
SCALE: 3/4" = 1'-0"



D S-911 **CONSTRUCTION JOINT**

1'-4" 8" 0' 1'-4" 2'-8"

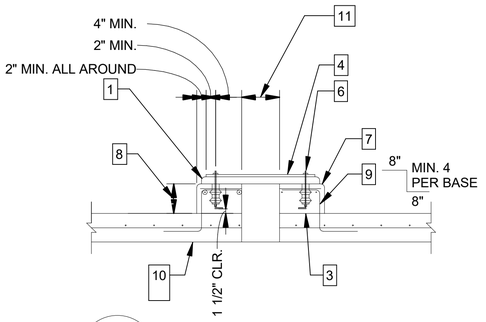
SCALE: 3/4" = 1'-0"



E S-911 **CONSTRUCTION JOINT**

1'-4" 8" 0' 1'-4" 2'-8"

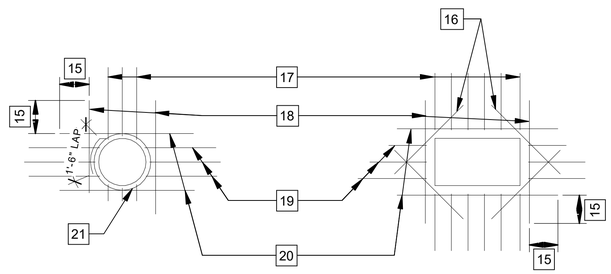
SCALE: 3/4" = 1'-0"



B S-911 **EQUIPMENT PAD TYPE C**

1'-4" 8" 0' 1'-4" 2'-8"

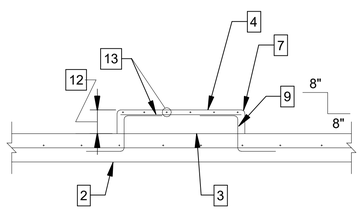
SCALE: 3/4" = 1'-0"



F S-911 **OPENING REINFORCEMENT**

1'-4" 8" 0' 1'-4" 2'-8"

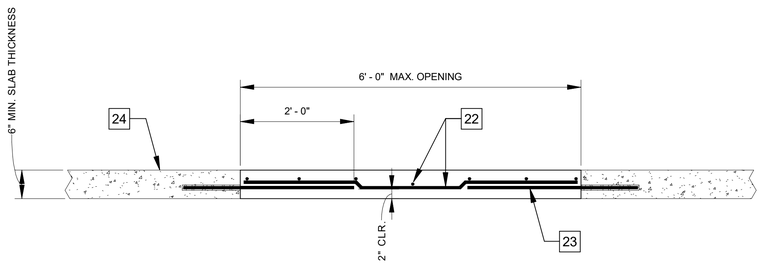
SCALE: 3/4" = 1'-0"



C S-911 **EQUIPMENT PAD TYPE F**

1'-4" 8" 0' 1'-4" 2'-8"

SCALE: 3/4" = 1'-0"



G S-911 **TYPICAL FLOOR PATCH**

1'-4" 8" 0' 1'-4" 2'-8"

SCALE: 3/4" = 1'-0"

REQUIRED NOTES: #

1. 1 1/2" FLOWABLE NON-SHRINK GROUT (TYP.)
2. SUSPENDED SLAB OR SLAB ON GRADE, FOR THICKNESS, SEE PLANS
3. CONSTRUCTION JOINT. LEAVE ROUGH & CLEAN
4. EQUIPMENT BASE
5. #4 @ 12" O.C. EACH WAY
6. MINIMUM ANCHOR BOLT DIMENSIONS, SEE NOTES AND ANCHOR BOLT DETAILS
7. TOOLED EDGES (3/4")
8. AS REQUIRED FOR EQUIPMENT, BOLTS AND PIPING (5 1/2" MINIMUM)
9. #4 @ 12" O.C.
10. SUSPENDED SLAB ONLY, SEE PLANS
11. OPENING SIZE, VERIFY w/ PLANS & EQUIPMENT MFR. FORM TO RETAIN GROUT
12. PAD HEIGHT AS REQ'D, 5" MAX.
13. #3 @ 12" O.C. EA. WAY, 1" CLR.
14. WATERSTOP (SEE SECTIONS FOR SIZE AND TYPE)
15. PROVIDE MIN LAP AS NOTED OR SHOWN ON PLANS (TYP.)
16. ADD 1-#5x4'-0" DIAG AT EA CORNER FOR EA LAYER OF REINF.
17. STEEL REINF. CUT BAND "B"
18. AREA OF BARS EQUAL BAND "B" BARS CUT
19. STEEL REINF. CUT BAND "A"
20. AREA OF BARS EQUAL BAND "A" BARS CUT
21. 1-#5 HOOP,DIA OF OPNG +8", IN EA LAYER OF REINF FOR OPNGS LARGER THAN 8"
22. #5 @ 12" O.C. EACH WAY
23. #5 x 3'-0" DOWELS @ 12" O.C. ALL AROUND EMBED 6" (MIN.) INTO EXISTING CONCRETE & EPOXY (LAP w/ SLAB REINFORCING)
24. EXISTING CONCRETE SLAB

EQUIPMENT PAD NOTES:

1. PAD SIZE SHALL BE MINIMUM INDICATED OR AS SHOWN ON THE PLANS OR AS INDICATED BY THE MANUFACTURER AND APPROVED BY THE ENGINEER.
2. THE SIZE, NUMBER, TYPE, LOCATION AND THREAD PROJECTION OF THE ANCHOR BOLTS SHALL BE DETERMINED BY THE EQUIPMENT MANUFACTURER, AND SHALL BE AS APPROVED BY THE ENGINEER. ANCHOR BOLTS SHALL BE HELD IN POSITION WITH A TEMPLATE WHILE PAD IS BEING POURED.
3. ANCHOR BOLT SLEEVES SHALL BE USED TO PROVIDE THE ANCHOR BOLT A MINIMUM MOVEMENT OF 1/2" IN ALL DIRECTIONS. THE MINIMUM SLEEVE LENGTH SHALL BE 8 TIMES THE BOLT DIAMETER. SLEEVES SHALL BE FILLED WITH NON-SHRINK GROUT.
4. ANCHOR BOLT SLEEVES SHALL HAVE A MINIMUM INTERNAL DIAMETER 1" GREATER THAN BOLT DIAMETER AND A MAXIMUM INTERNAL DIAMETER 3" GREATER THAN ANCHOR BOLT DIAMETER. SLEEVES SHALL BE FILLED WITH NON-SHRINK GROUT.
5. EQUIPMENT BASES SHALL BE INSTALLED LEVELUNLESS SPECIFIED OTHERWISE.
6. WEDGES OR SHIMS SHALL BE USED TO SUPPORT THE BASE WHILE THE NON-SHRINK GROUT IS PLACED. TEMPORARY LEVELING NUTS SHALL BE BACKED OFF. IF LEFT IN, THE WEDGES OR SHIMS SHALL NOT BE EXPOSED TO VIEW.

GMC
35 Abercorn Street, Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	10.01.2019
60% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
FINAL	06.15.2020
PROJECT MANAGER:	JDD
ENGINEER:	DPR
DESIGNER:	JDD
DRAWN BY:	JDD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project # CSAV190007

GEORGIA REGISTERED 6.15.2020 No. 19935 PROFESSIONAL ENGINEER JOSEPH B. WEATHERSBEE

STRUCTURAL STANDARD DETAILS

S-911

6/8/2020 1:51:58 PM

GENERAL NOTES

A DIVISION 1 - GENERAL REQUIREMENTS

1.01. COMPLETE CONTRACT DOCUMENTS: COMPLETE DRAWINGS, SPECIFICATIONS, ADDENDA, AND CLARIFICATIONS ISSUED BY FIELD ORDER OR SIMILAR INSTRUMENTS CONSTITUTE THE CONTRACT DOCUMENTS AND SHALL REMAIN INTACT. GENERAL CONTRACTOR IS FULLY RESPONSIBLE FOR COMPLIANCE WITH THE REQUIREMENTS INCLUDED, OR REASONABLY INFERRED THEREIN. CONSTRUCTION MANAGER OR GENERAL CONTRACTOR (AS APPLICABLE) MUST NOT ISSUE PARTIAL SETS OR OTHERWISE CAUSE INCOMPLETE CONTRACT INFORMATION TO BE PROVIDED TO PARTIES TO THE CONTRACT, INCLUDING ASSOCIATED SUB-CONTRACTORS, OR SUB-SUB-CONTRACTORS.

1.02. MULTI-TRADE COORDINATION: ALL WORK SHALL BE COORDINATED WITH THE WORK OF OTHER TRADES TO AVOID INTERFERENCES AND CONFLICTS. NO ALLOWANCES WILL BE MADE FOR CONTRACTOR'S FAILURE TO COORDINATE BETWEEN MULTIPLE DISCIPLINES, SYSTEMS OR EQUIPMENT. UNCOORDINATED WORK THAT RESULTS IN THE INEFFICIENT USE OF AVAILABLE SPACE AND/OR ENCROACHES ON THE WORK OF OTHER TRADES WILL BE SUBJECT TO REJECTION AND RE-INSTALLATION.

1.03. VERIFICATION: GENERAL CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, CONSTRUCTION, MATERIALS, METHODS OF CONSTRUCTION, GRADES AND ELEVATIONS. NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR CONFLICTS WITHIN THE DOCUMENTS PRIOR TO BID, CONSTRUCTION, AND/OR INSTALLATION OF ASSOCIATED WORK. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE THAT THE EXISTING CONDITIONS ARE CONSISTENT WITH THOSE OF THE CONTRACT DOCUMENTS. ANY CHANGE ORDER REQUEST ASSOCIATED WITH AN IDENTIFIABLE EXISTING CONDITION, WHETHER IN CONFLICT OR COMPLIANCE WITH THE CONTRACT DOCUMENTS, WILL NOT BE ACCEPTED. THIS PROVISION SHALL NOT APPLY TO WORK PERFORMED UNDER UNIT PRICE OR ALLOWANCE FEE STRUCTURES.

1.04. DISCREPANCIES: GENERAL CONTRACTOR SHALL NOTIFY THE ARCHITECT PROMPTLY UPON IDENTIFICATION OF ANY DISCREPANCIES OR CONFLICTS IN THE CONTRACT DOCUMENTS, WITH THE OBJECTIVE OF RESOLVING THE CONFLICT OR DISCREPANCY IN A TIMELY MANNER AND PRIOR TO ANY IMPACT TO CONTRACT TIME OR CONTRACT COST. GENERAL CONTRACTOR SHALL INCLUDE THE MORE EXPENSIVE, COMPLEX, AND TIME CONSUMING COMPONENTS OF ANY DISCREPANCIES IN THE BASE BID PRICE. FAILURE TO NOTIFY THE ARCHITECT PROMPTLY OF A KNOWN DISCREPANCY CONSTITUTES ACCEPTANCE OF FULL RESPONSIBILITY FOR THE ASSOCIATED COST AND SCHEDULE IMPACT.

1.05. DRAWING SCALE: REPROGRAPHIC TECHNIQUES MAY RENDER DRAWINGS DIFFERENTLY THAN THE INTENDED PRINTED SCALE. THEREFORE, DO NOT RELY UPON THE SCALE OF ANY PRINTED DRAWINGS. CONTACT THE ARCHITECT FOR REQUIRED DIMENSIONS THAT ARE NOT PROVIDED CLEARLY IN NUMERIC FORM HEREIN. FAILURE TO REQUEST CRITICAL DIMENSIONAL INFORMATION FROM THE ARCHITECT MAY RESULT IN THE REJECTION OF INSTALLED WORK.

1.06. DIMENSIONAL STANDARDS: STANDARD DIMENSION CONVENTIONS UTILIZED HEREIN CALL FOR DIMENSIONS TO FACE OF STUD (MASONRY) OF FINISHED PARTITION, FACE OF FINISH, OR CENTERLINE OF COLUMN LINE OR OTHER REFERENCE LINE, UNLESS OTHERWISE NOTED OR GRAPHICALLY ILLUSTRATED. DIMENSIONS NOTED AS "CLEAR", "MIN", OR "MAX" SHALL BE STRICTLY ENFORCED.

1.07. (PM SOFTWARE)

1.08. PERMITTING: THE GENERAL CONTRACTOR SHALL SECURE AND PAY FOR ALL NECESSARY AND REQUIRED PERMITS AND APPROVALS FROM JURISDICTIONAL AUTHORITIES, PRIOR TO COMMENCING THE WORK. THIS REQUIREMENT SHALL APPLY TO ON-SITE AND OFF-SITE WORK REQUIRED BY THE CONTRACT DOCUMENTS.

1.09. CODE COMPLIANCE: THE WORK SHALL BE PERFORMED IN STRICT COMPLIANCE WITH ALL APPLICABLE LAWS, CODES, AND ORDINANCE. THE GENERAL CONTRACTOR AND SUB-CONTRACTORS SHALL PERFORM THEIR WORK IN COMPLIANCE WITH ALL APPLICABLE BUILDING CODES, LAWS, REGULATIONS, AND ORDINANCES. GENERAL CONTRACTOR AND ALL SUB-CONTRACTORS SHALL CAREFULLY READ AND FAMILIARIZE THEMSELVES WITH THE CODE COMPLIANCE DATA INCLUDED IN THE DRAWINGS AND SPECIFICATIONS.

1.10. NON-COMBUSTIBLE CONSTRUCTION TYPES: THE PROPOSED BUILDING STRUCTURE IS NON-COMBUSTIBLE IN ACCORDANCE WITH APPLICABLE CODES, AND THEREFORE REQUIRES NON-COMBUSTIBLE CONSTRUCTION TECHNIQUES. ALL NEW CONSTRUCTION SHALL BE IN COMPLIANCE WITH APPLICABLE REQUIREMENTS, INCLUDING WOOD BLOCKING, FURRING, FRAMING, SHEATHING, BACK-BOARDS, AND RELATED WORK. FIRE RETARDANT TREATED (FRT) IS PERMITTED WHERE ALLOWED BY CODE. SEE CODE COMPLIANCE DRAWINGS FOR DETAILED INFORMATION AND REQUIREMENTS.

1.11. TEMPORARY GUARDS: THE GENERAL CONTRACTOR SHALL INSTALL AND MAINTAIN TEMPORARY GUARDS AT ALL SLAB EDGES, PIT EDGES, ELEVATED PLATFORM EDGES, AND SIMILAR CONDITIONS WHERE REQUIRED BY OSHA, ANY APPLICABLE CODE OR ORDINANCE, AND AT MINIMUM ALL CHANGES IN ELEVATION IN EXCESS OF THIRTY INCHES (30") INCLUDING BOTH SIDES OF STAIRS AND LADDERS. TEMPORARY GUARDS MUST BE MAINTAINED UNTIL THE PERMANENT GUARDS ARE INSTALLED.

1.12. LIFE-SAFETY MEASURES DURING CONSTRUCTION: THE GENERAL CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS REQUIRED BY OSHA, CODE, AND OTHER APPLICABLE REGULATORY AUTHORITIES.

1.13. MEANS OF EGRESS: THE GENERAL CONTRACTOR SHALL MAINTAIN CLEAR AND UNOBSTRUCTED MEANS OF EGRESS AT ALL TIMES DURING CONSTRUCTION, WITHOUT EXCEPTION.

1.14. CONSTRUCTION LOADS: THE GENERAL CONTRACTOR SHALL NEVER LOAD NEW OR EXISTING CONSTRUCTION BEYOND ITS DESIGN CAPACITY WITH STORED MATERIAL, CONSTRUCTION EQUIPMENT, TEMPORARY LOADS ASSOCIATED WITH MATERIAL MOVEMENT, HOISTING, STORAGE, OR SIMILAR CONDITIONS.

1.15. GENERAL CLEAN-UP: THE GENERAL CONTRACTOR SHALL INCLUDE ONGOING CLEAN-UP OF THE PROPERTY AND BUILDING, INCLUDING REMOVAL OF TRASH AND WASTE MATERIALS, ON A REGULAR BASIS DURING CONSTRUCTION. RECYCLING OF CONSTRUCTION WASTE IS ENCOURAGED.

1.16. OWNER FURNISHED EQUIPMENT: LOOSE FURNISHINGS, WORKSTATIONS, OFFICE EQUIPMENT, COPIERS, VENDING MACHINES, KITCHEN EQUIPMENT, AND SIMILAR ITEMS THAT ARE BOTH LABELED "OWNER FURNISHED" OR "OFOI", AND SHOWN DASHED OR IN GRAY-TONE SHALL BE CONSIDERED OWNER-FURNISHED EQUIPMENT. OWNER-FURNISHED EQUIPMENT IS SHOWN FOR THE GENERAL CONTRACTOR'S KNOWLEDGE AND UNDERSTANDING TO FACILITATE COORDINATION WITH THE OWNER'S WORK. THE GENERAL CONTRACTOR SHALL CAREFULLY REVIEW THE SCOPE OF WORK, AND REQUEST CLARIFICATION FROM THE ARCHITECT IN THE EVENT OF ANY UNCERTAINTY ABOUT THE DEFINITION OF OWNER FURNISHED WORK.

1.17. PARTITION DESIGNATION: EXISTING PARTITIONS SCHEDULED TO BE REMOVED ARE ILLUSTRATED AS DASHED LINES ON THE PLANS LABELED "DEMOLITION PLAN(S)". EXISTING PARTITIONS TO REMAIN ARE ILLUSTRATED IN GRAY-TONE (SCREENED). NEW WORK IS ILLUSTRATED IN BLACK-LINE.

1.18. PROTECTION: EXISTING OCCUPIED AREAS, AND WORK TO REMAIN AFTER CONSTRUCTION, SHALL BE PROTECTED DURING CONSTRUCTION ACTIVITIES. PROTECTION SHALL ENCOMPASS CONSTRUCTION OF TEMPORARY BARRIERS, MAINTENANCE OF EXISTING MECHANICAL, FIRE PROTECTION, AND ELECTRICAL SYSTEMS, AND PHYSICAL PROTECTION OF WORK TO REMAIN THAT IS SUBJECT TO DAMAGE FROM CONSTRUCTION ACTIVITIES. THE GENERAL CONTRACTOR SHALL REPAIR OR REPLACE EXISTING WORK SCHEDULED TO REMAIN, THAT IS DAMAGED DURING CONSTRUCTION DUE TO INSUFFICIENT PROTECTION.

1.19. PROTECTION: EXISTING OCCUPIED AREAS OF THE BUILDING SHALL BE PROTECTED FROM CONSTRUCTION OPERATIONS FOR THE DURATION OF THE WORK. THESE PROVISIONS INCLUDE BUT ARE NOT LIMITED TO: INFECTION CONTROL REQUIREMENTS SPECIFIED ELSEWHERE, CONSTRUCTION OF TEMPORARY BARRIERS, PROVISIONS FOR SEALING OF EXISTING DUCTWORK, TEMPORARY VENTILATION INCLUDING HEPA FILTRATION, SOUND ISOLATION, AND PREVENTION OF CONDITIONED AIR LOSS.

1.20. SERVICE INTERRUPTION: ANY SERVICE INTERRUPTION MUST BE SCHEDULED IN ADVANCE WITH THE OWNERS AUTHORIZED REPRESENTATIVE. WHETHER SUCH INTERRUPTION IS FOR ADDITION, MODIFICATION, OR TESTING OF ANY EXISTING SERVICE, THE CONTRACTOR SHALL TAKE EVERY PRECAUTION TO MINIMIZE INTERRUPTION TO THE EXISTING FACILITY.

1.21. TEMPORARY BRACING: PRIOR TO REMOVAL OF ANY EXISTING STRUCTURAL ELEMENTS, THE GENERAL CONTRACTOR SHALL TEMPORARILY SHORE AND/OR BRACE EXISTING CONSTRUCTION TO REMAIN AS REQUIRED TO SUPPORT EXISTING LOADS AND/OR LOADS IMPOSED DURING CONSTRUCTION. FURTHER, THE GENERAL CONTRACTOR SHALL DESIGN, INSTALL AND MAINTAIN ANY TEMPORARY BRACING OR SUPPORT FRAMING REQUIRED TO SUPPORT NEW CONSTRUCTION COMPONENTS WHICH ARE NOT FULLY SECURED IN A COMPLETE STRUCTURAL ASSEMBLY, OR ARE OTHERWISE SUBJECTED TO LOADS IN EXCESS OF THE POST-CONSTRUCTION LOADS FOR WHICH THE ELEMENT IS DESIGNED.

B DIVISION 2 - EXISTING CONDITIONS

2.01. POSITIVE DRAINAGE AT BUILDING: SLOPE EXTERIOR GRADE AWAY FROM THE BUILDING IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE.

2.02. SITE PAVING EXPANSION AND CONTROL JOINTS: WHETHER SPECIFICALLY INDICATED OR NOT, PROVIDE CONTROL JOINTS IN ALL SITE CONCRETE PAVING FOR PEDESTRIAN TRAFFIC AT AN INTERVAL OF NO MORE THAN FIVE FEET (5') EACH WAY. IN ADDITION, PROVIDE CONTROL JOINTS AT NO MORE THAN THIRTY FOOT (30') INTERVAL, EACH WAY. ALL EXPANSION JOINTS, INCLUDING THOSE BETWEEN HORIZONTAL PAVING AND VERTICAL ABUTMENTS, SHALL RECEIVE SPECIFIED JOINT FILLER, AS SPECIFIED IN SECTION 079000.

C DIVISION 3 - CONCRETE

3.01. SLAB-ON-GRADE: SEE SPECIFICATION SECTION 033000 FOR DETAILED REQUIREMENTS OF SLAB-ON-GRADE CONSTRUCTION, INCLUDING REQUIREMENTS FOR REINFORCING, CONCRETE ADMIXTURES, VAPOR BARRIER, AND SURFACE TREATMENTS (IF ANY). ALL SLAB-ON-GRADE CONSTRUCTION SHALL BE INSTALLED OVER MINIMUM FOUR INCH (4") THICK COMPACTED POROUS DRAINAGE LAYER UNLESS NOTED OTHERWISE.

3.02. SLAB EXPANSION AND CONTROL JOINTS: SEE STRUCTURAL DRAWINGS FOR REQUIRED SLAB EXPANSION AND CONTROL JOINTS. ALL EXPANSION JOINTS AND CONTROL JOINTS IN FLOOR SLABS, AND BETWEEN FLOOR SLABS AND VERTICAL ABUTMENTS SHALL RECEIVE TRAFFIC BEARING SEALANT JOINT MATERIAL.

3.03. CORE DRILLING - FLOOR SLABS: THE GENERAL CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING OF THE LOCATION AND DIMENSION OF ANY PROPOSED CORES THROUGH STRUCTURAL FLOOR SLABS, PRIOR TO COMMENCING CORING ACTIVITIES. CORE DRILLING IS STRICTLY PROHIBITED (SLEEVES ONLY) IN ANY POST-TENSIONED STRUCTURED FLOOR SLAB ASSEMBLIES.

E DIVISION 5 - METALS

5.01. EMBEDDED STEEL: ALL MISCELLANEOUS STEEL ITEMS INCLUDING STEEL EDGE ANGLES, EMBEDDED PLATE, AND SIMILAR WORK SHALL BE HOT-DIPPED GALVANIZED. THIS PROVISION DOES NOT APPLY TO REINFORCING STEEL, WHICH SHALL COMPLY WITH SPECIFICATION DIVISION 033000.

F DIVISION 6 - WOOD,PLASTICS & COMPOSITES

6.01. WOOD IN CONTACT WITH CONCRETE/ MASONRY: ALL WOOD IN CONTACT WITH CONCRETE OR MASONRY CONSTRUCTION SHALL BE PRESSURE TREATED (PT) UNLESS OTHERWISE NOTED TO BE FIRE RETARDANT TREATED (FRT).

6.02. FIELD VERIFICATION: THE CASEWORK OR MILLWORK CONTRACTOR SHALL OBTAIN AND VERIFY ALL FIELD MEASUREMENTS AND CONDITIONS AFFECTING HIS WORK AND SHALL BE RESPONSIBLE FOR ALL DETAILS AND DIMENSIONS ASSURING PRECISION AND PROPER ASSEMBLY OF HIS PRODUCTS.

6.03. MILLWORK BASE: PROVIDE FINISHED BASE TO MATCH MATERIAL AND FINISH OF ADJACENT SCHEDULED WALL BASE, AT TOE-KICK AT ALL EXPOSED FRONT, SIDE, AND REAR FACES OF MILLWORK OR CASEWORK.

6.04. MILLWORK SPLASH: PROVIDE BACKSPLASH AT ALL COUNTERTOPS UNLESS OTHERWISE INDICATED ON PLAN. PROVIDE SIDESPLASH OF SAME MATERIAL, DIMENSION, AND FINISH EVERYWHERE A COUNTERTOP BACKSPLASH ABUTS A VERTICAL WALL SURFACE AT ONE OR MORE OF ITS SIDES UNLESS OTHERWISE INDICATED ON PLAN.

G DIVISION 7 - THERMAL & MOISTURE PROTECTION

7.01. GENERAL SEALANTS: CONTINUOUSLY SEAL PERIMETER OF ALL DOOR AND WINDOW FRAMES, MILLWORK AND CASEWORK, TRIM, CABINETS, AND SIMILAR FIXED CONSTRUCTION WITH PAINTABLE, SILICONIZED LATEX SEALANT. ALL VERTICAL SURFACE CONTROL AND EXPANSION JOINTS AT MASONRY WALLS SHALL BE CONTINUOUSLY SEALED, BOTH SIDES OF JOINT.

7.02. SLOPE TO DRAIN: ALL ROOF SURFACES SHALL BE SLOPED TO DRAIN, WITH MINIMUM PITCH OF ¼" PER LINEAR FOOT. PROVIDE TAPERED INSULATION, CRICKETS AS NECESSARY TO ASSURE THE MINIMUM SLOPE IS ACHIEVED.

7.03. WALK-PADS: FURNISH AND INSTALL COMPATIBLE ROOF WALK-PADS AT ALL MEMBRANE ROOF SURFACES THAT ARE TRAVELED TO ACCESS SERVICEABLE ROOFTOP EQUIPMENT SUCH AS HVAC UNITS, FANS, ELECTRICAL EQUIPMENT, AND SIMILAR EQUIPMENT REQUIRING SERVICE ACCESS.

7.04. EXPANSION JOINTS COVERS: ALL BUILDING EXPANSION JOINTS EXPOSED TO VIEW IN FLOOR, PARTITION, AND/ OR CEILING ASSEMBLIES SHALL RECEIVE COLOR-COORDINATED PRE-FABRICATED EXPANSION JOINT COVER ASSEMBLY DESIGNED TO ALLOW THE REQUIRED MOVEMENT, AND TO PROVIDE UL APPROVED FIRE RATED ASSEMBLY WHERE REQUIRED.

H DIVISION 8 - OPENINGS

8.01. FIRE DOORS AND FRAMES: ALL FIRE DOORS AND FRAMES SHALL BE LABELED BY AN APPROVED AGENCY PER NFPA 80, AND SHALL BE PERMANENTLY AFFIXED THERETO, AND THE LIFE OF THE LABEL AND THE ATTACHMENT THEREOF CAN REASONABLY BE EXPECTED TO EQUAL THE LIFE OF THE COMPONENT TO WHICH IT IS ATTACHED. LABELS MUST BE PROVIDED BY A MANUFACTURER THAT HAS BEEN APPROVED BY A LABORATORY OR ORGANIZATION TO PROVIDE TESTING AND FOLLOW-UP SERVICES FOR FIRE-RATED OPENING ASSEMBLIES. LABELS SHALL BE RAISED OR EMBOSSED ON METAL LABELS OR STAMPED INTO METAL FRAMES. PLASTIC OR PAPER LABELS ARE UNACCEPTABLE. THE LABEL MUST BE VISIBLE AND LEGIBLE AT ALL TIMES AND SHALL NOT BE PAINTED. FAILURE TO COMPLY WITH THIS REQUIREMENT WILL REQUIRE PAINTER TO REIMBURSE OWNER FOR COSTS OF RE-LABELING RATED DOORS AND FRAMES. ALL LABELS SHALL INCLUDE THE FIRE RESISTANCE RATING IN HOURS AND/OR MINUTES. LABELS ON FRAMES WITH TRANSOMS AND/OR SIDELIGHTS MUST IDENTIFY THAT THE OPENING ASSEMBLY INCLUDES SAME.

8.02. TEMPERED GLASS: PROVIDE TEMPERED SAFETY GLASS EVERYWHERE REQUIRED BY APPLICABLE CODE, INCLUDING ANY GLASS IN DOORS, OPERABLE WINDOWS, ADJACENT TO DOORS OR OPERABLE WINDOWS, WITHIN 36" OF THE ADJACENT FLOOR OR GRADE LEVEL, OR OTHERWISE WHERE REQUIRED BY CODE.

8.03. BLOCKING: FURNISH AND INSTALL BLOCKING IN METAL STUD FRAMED WALLS AND PARTITIONS THAT ARE SCHEDULED TO RECEIVE DOOR BUMPERS/ STOPS, MAGNETIC LOCK DEVICES, AND SIMILAR DOOR RELATED DEVICES THAT WILL SUBJECT THE PARTITION TO DOOR MOVEMENT LOADS AND IMPACT.

8.04. HOLLOW METAL FRAMES: COORDINATE THE THROAT DEPTH OF ALL HOLLOW METAL FRAMES WITH THE DEPTH OF THE PARTITION SCHEDULED TO RECEIVE THE DOOR OR WINDOW FRAME.

I DIVISION 9 - FINISHES

9.01. INDOOR ENVIRONMENTAL CONDITIONS: NO INTERIOR SOFT CONSTRUCTION (IE. DRYWALL, CEILINGS, CARPET, MILLWORK, OR SIMILAR WORK THAT IS SUBJECT TO TEMPERATURE AND HUMIDITY INSTABILITY) SHALL COMMENCE, NOR SHALL MATERIALS BE STORED ON SITE, UNTIL STABLE INTERIOR ENVIRONMENTAL CONDITIONS ACCEPTABLE TO THE PRODUCT MANUFACTURER ARE PROVIDED AND IN PLACE FOR A DURATION SUFFICIENT TO ESTABLISH CONSISTENT AND ACCEPTABLE INDOOR TEMPERATURE AND HUMIDITY LEVELS. FAILURE TO PROVIDE AN INDOOR ENVIRONMENT IN STRICT COMPLIANCE WITH THE PRODUCT MANUFACTURERS PRINTED REQUIREMENTS WILL SUBJECT THE INSTALLING CONTRACTOR TO FULL RESPONSIBILITY FOR ANY COSTS ASSOCIATED WITH RE-WORK DUE TO MOLD OR MILDEW GROWTH , WARPING, CUPPING, DE-LAMINATION, OR SIMILAR DETERIORATION OF THE STORED OR INSTALLED CONSTRUCTION.

9.02. FLOOR & WALL TILE: INSTALL FLOOR AND WALL TILE IN ALL SCHEDULED AREAS IN ACCORDANCE WITH APPLICABLE TILE COUNCIL OF AMERICA (TCA)METHOD.

9.03. FLOOR FINISH TRANSITIONS: UNLESS OTHERWISE INDICATED, TRANSITION FLOOR FINISHES AT CENTERLINE OF DOOR IN CLOSED LOCATION. TRANSITION FLOOR MATERIAL UNDER CENTER OF DOORS # WHERE NOTED. PROVIDE SCHEDULED TRANSITION MATERIALS AT CHANGES IN FLOOR MATERIAL TYPE.

9.04. PARTITIONS: SEE PARTITION NOTES AND SPECIFICATIONS FOR REQUIREMENTS OF PARTITION CONSTRUCTION.

9.05. EQUIPMENT ACCESS DOORS: THE GENERAL CONTRACTOR SHALL PROVIDE PROPOSED LOCATION OF CEILING ACCESS DOORS TO THE ARCHITECT FOR APPROVAL. ACCESS DOORS SHALL BE PAINTED TO MATCH ADJACENT FINISH.

9.06. CASEWORK AND MILLWORK ANCHORAGE: COORDINATE INSTALLATION OF IN-WALL STEEL ANCHORAGE, GROUNDS, AND REQUIRED BLOCKING WITH OTHER TRADES FOR PRECISE LOCATION.

9.07. PARTITION COORDINATION WITH OTHER TRADES:
(A) COORDINATE BETWEEN TRADES BEFORE FRAMING PARTITIONS. PARTITION FRAMING SHALL BE LAID OUT SO AS TO PERMIT THE INSTALLATION OF PIPING, CONDUITS, AND DUCTWORK WITH A MINIMUM OF CUTTING BY OTHER TRADES.
(B) EXCEPT FOR PIPING LOCATED IN EQUIPMENT ROOMS, ALL PIPING INSIDE THE BUILDING SHALL BE CONCEALED WITHIN PARTITIONS AND FURRED SPACES. WHERE IT OCCURS THAT PIPING CANNOT BE EASILY CONCEALED, NOTIFY THE ARCHITECT IN WRITING FOR CLARIFICATION. IN ANY CASE, SUCH PIPING SHALL BE CONCEALED AT NO ADDITIONAL COST.
(C) COORDINATE WITH OTHER TRADES AND OWNERS' SCHEDULED EQUIPMENT VENDORS FOR SUPPORT REQUIREMENTS OF WALL- MOUNTED AND SUSPENDED ITEMS. SIZE STUD GAUGE AND SPACING TO SUPPORT ANY ADDITIONAL LOADS IMPOSED BY THESE ITEMS. MAX. DEFLECTION L/360 @ 5 PSF HORIZ. LOAD.
(D) PROVIDE AND INSTALL ALL BLOCKING, STIFFENERS, BRACES, BACK-UP PLATES, AND SUPPORTING BRACKETS AS REQUIRED FOR THE INSTALLATION OF WALL-MOUNTED OR SUSPENDED MECHANICAL ELECTRICAL, CASEWORK, MILLWORK AND ANY OTHER MISCELLANEOUS EQUIPMENT OR WALL-MOUNTED ACCESSORIES.
(E) FIRE-RATED PARTITIONS AND FIRE-RATED SMOKE BARRIERS SHALL BE PERMANENTLY LABELED IN RED STENCILED LETTERING ABOVE FINISHED CEILING AT 1'-0" ABOVE CEILING AND/OR IN ACCORDANCE WITH LOCAL JURISDICTION.

9.08 TIE-INS AT EXISTING WORK: WHERE NEW GYPSUM BOARD PARTITIONS ARE A CONTINUATION OF AN EXISTING PARTITION OR COLUMN ENCASEMENT, THE FACE OF THE NEW GYPSUM BOARD SHALL BE ALIGNED WITH THE FACE OF THE EXISTING SURFACE. WHERE A ONE HOUR PARTITION IS SHOWN AS A CONTINUATION OF A TWO-HOUR PARTITION OR COLUMN ENCASEMENT, THE FACE OF THE GYPSUM BOARD SHALL BE ALIGNED. STUDS SHALL BE OFFSET AS REQUIRED TO PROVIDE FACE ALIGNMENT OF GYPSUM BOARD.

L DIVISION 12 - FURNISHINGS

12.01. LOCKABLE CASEWORK: ALL CABINETS TO BE LOCKABLE WITH THE EXCEPTION OF UPPER & LOWER TYPICAL CLASSROOM & BREAK ROOM CABINETS. ALL TALL CABINETS & FILE DRAWERS TO BE LOCKABLE.

12.02. CASEWORK BASE: PROVIDE FINISHED BASE TO MATCH MATERIAL & FINISH OF ADJACENT WALL BASE, AT TOE KICK, AT ALL EXPOSED FRONT, SIDE, & REAR FACES OF CASEWORK.

12.03. CASEWORK SPLASH: PROVIDE BACKSPLASH AT ALL COUNTERTOPS UNLESS OTHERWISE INDICATED ON PLAN. PROVIDE SIDESPLASH OF SAME MATERIAL, DIMENSION, AND FINISH EVERYWHERE A COUNTERTOP BACKSPLASH ABUTS A VERTICAL WALL SURFACE AT ONE OR MORE OF ITS SIDES UNLESS OTHERWISE INDICATED ON PLAN.

P DIVISION 22 - PLUMBING

22.01. CONCEALED PIPING: ALL PIPING, DUCTWORK, ELECTRICAL RACEWAYS & CONDUITS SHALL BE CONCEALED IN THE BUILDING CONSTRUCTION. THE GENERAL CONTRACTOR SHALL INCLUDE, IN THE BASE BID, REQUIRED FURRING TO CONCEAL THESE SYSTEMS WHETHER OR NOT THE FRAMING AND FURRING IS ILLUSTRATED IN THE DRAWINGS.

22.02. SECURE PIPING: TIE ALL PIPING "HARD" TO STRUCTURE.

22.03. GAS PIPING EXPOSED ON ROOF: WHERE GAS PIPING IS EXPOSED ON THE ROOF, PAINT GAS PIPING "YELLOW".

22.04. PLUMBING FIXTURES: CAREFULLY REVIEW THE DIMENSIONAL STANDARDS FOR INSTALLED PLUMBING FIXTURES, AND PLAN THE WORK TO ASSURE FULL COMPLIANCE OF CODE REQUIRED FIXTURE CLEARANCES.

Q DIVISION 23 - HVAC

23.01. MEP DEVICE/ FIXTURE COORDINATION: COORDINATE LOCATIONS FOR DIFFUSERS, AND RETURN AIR GRILLES TO THE GREATEST EXTENT POSSIBLE IN ORDER TO MAINTAIN LIGHTING LAYOUT INDICATED IN THE DRAWINGS. MEP&FP CONTRACTORS SHALL COORDINATE WORK WITH OTHER TRADES PRIOR TO INSTALLATION.

R DIVISION 26 - ELECTRICAL

26.01. MEP DEVICE/ FIXTURE COORDINATION: COORDINATE LOCATIONS FOR DIFFUSERS, AND RETURN AIR GRILLES TO THE GREATEST EXTENT POSSIBLE IN ORDER TO MAINTAIN LIGHTING LAYOUT INDICATED IN THE DRAWINGS. MEP&FP CONTRACTORS SHALL COORDINATE WORK WITH OTHER DISCIPLINES PRIOR TO INSTALLATION. ALL ELECTRICAL ITEMS INDICATED IN OR ON CABINETRY OR MILLWORK SHALL BE SUPPLIED, INSTALLED AND COORDINATED BY THE ELECTRICAL CONTRACTOR, UNLESS OTHERWISE NOTED.

26.02. CENTER CEILING DEVICES: CENTER LIGHTS, SUPPLY DIFFUSERS, RETURN GRILLES, SPRINKLER HEADS, ETC. IN CEILING PANELS IF NOT OTHERWISE INDICATED.

26.03. ELECTRICAL BOXES IN RATED PARTITIONS: WHERE ELECTRICAL BOXED ARE INSTALLED IN FIRE-RATED METAL STUD PARTITIONS, INSTALL BOXES NO LARGER THAN SIXTEEN SQUARE INCHES (1 6 SI) IN AREA, AND DO NOT EXCEED ONE-HUNDRED SQUARE INCHES (1 00 SI) OF METALLIC BOX PER ONE-HUNDRED SQUARE FEET (1 00 SF) OF FIRE-RATED WALL AREA. WHERE ELECTRICAL REQUIREMENTS DICTATE A HIGHER RATION, TREAT THE ELECTRICAL BOXES WITH CODE APPROVED METHOD TO ASSURE CONTINUOUS RATING. FURTHER, DO NOT INSTALL ELECTRICAL BOXES BACK-TO-BACK IN THE SAME STUD CAVITY WITHOUT APPROVED FIRE-RATED TREATMENT.

26.04. ELECTRICAL DEVICES IN OR NEAR MILLWORK: CAREFULLY LOCATE ELECTRICAL BOXES FOR DEVICES IN OR NEAR MILLWORK AND/OR CASEWORK TO ASSURE COORDINATED INSTALLATION. LOCATE ELECTRICAL DEVICES ABOVE COUNTERTOP SUCH THAT THE DEVICE COVER PLATE WILL NOT INTERFERE WITH SCHEDULED BACKSPLASH OR SIDESPLASH.

GMC
35 Abercorn Street,
Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	08.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	FN/HKD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project # CSAV190007

STATE OF GEORGIA
AMY R. H. BELL
RA014416
REGISTERED ARCHITECT

GENERAL NOTES

A0.01

6/8/2020 12:37:39 PM

MOUNTING HEIGHT NOTES

01. **TYPICAL HEIGHTS:** MOUNTING HEIGHTS INDICATED HEREIN ARE TYPICAL MOUNTING HEIGHTS FOR DEVICE INDICATED. MOUNTING HEIGHTS FOR SUBMITTED PRODUCTS MAY VARY BY MANUFACTURER. THE GENERAL CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCY BETWEEN THE INDICATED MOUNTING HEIGHT AND THE MANUFACTURERS RECOMMENDED MOUNTING HEIGHT, PRIOR TO INSTALLATION OF THE DEVICE.

02. THE GENERAL CONTRACTOR SHALL REFER TO PLANS FOR LOCATIONS OF DEVICES SHOWN HEREIN.

03. **ADA DEVICES:** ALL DEVICES AND FIXTURES NOTED AS "ADA" OR "ACCESSIBLE" SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT AND APPLICABLE BUILDING CODES.

04. **ELECTRICAL DEVICES:** SEE ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR REQUIRED MOUNTING HEIGHT OF ELECTRICAL DEVICES AND FIXTURES. WHERE CONFLICTS EXIST BETWEEN MOUNTING HEIGHTS INDICATED HEREIN AND THE REQUIREMENTS OF THE ELECTRICAL ENGINEER, THE GENERAL CONTRACTOR SHALL NOTIFY THE ARCHITECT PRIOR TO ROUGH-IN.

05. **MECHANICAL/PLUMBING DEVICES:** SEE MECHANICAL AND PLUMBING DRAWINGS AND SPECIFICATIONS FOR REQUIRED MOUNTING HEIGHT OF MECHANICAL AND PLUMBING DEVICES AND FIXTURES. WHERE CONFLICTS EXIST BETWEEN MOUNTING HEIGHTS INDICATED HEREIN AND THE REQUIREMENTS OF THE MECHANICAL ENGINEER, THE GENERAL CONTRACTOR SHALL NOTIFY THE ARCHITECT PRIOR TO ROUGH-IN.

06. INSTALL ADA / ANSI COMPLIANT UNDER LAVATORY GUARDS ON ALL EXPOSED SINK PIPING.

07. CONTRACTOR MUST MAINTAIN ON THE JOB SITE A COPY OF THE CURRENT ADAAG STANDARDS AND THE IBC CHAPTER 11 ACCESSIBILITY REQUIREMENTS.

08. DIMENSIONAL DESIGNATIONS OF +/- TO HAVE +/-1/2" TOLERANCE UNLESS OTHERWISE NOTED.

09. DESIGNATION FOR FINISHED FACE OF WALL (FFW) TO BE TAKEN FROM NEAREST CONTINUOUS SURFACE IN THE PLANE OF THE WALL [I.E. FACE OF FLOOR BASE IF FACE OF BASE EXTENDS BEYOND FACE OF WALL].

ABBREVIATIONS & ACRONYMS

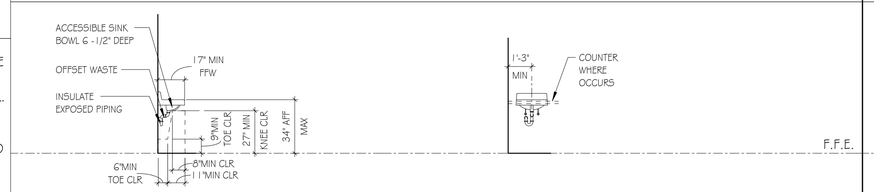
AFF	ABOVE FINISHED FLOOR
BOGB	BOTTOM OF GRAB BAR
FFE	FINISHED FLOOR ELEVATION
FFW	FINISH FACE OF WALL
GB	GRAB BAR
HOD	HIGHEST OPERABLE DEVICE
MAX	MAXIMUM
MIN	MINIMUM
TOGB	TOP OF GRAB BAR
WC	WATER CLOSET
W/	WITH
W/O	WITHOUT

TYP. TOILET LAYOUTS

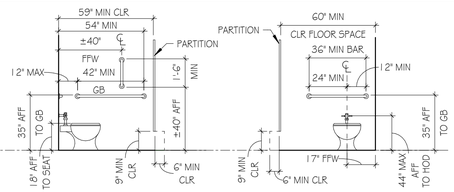
NOTES:
1. LOCATE FLUSH ACTIVATION ON WIDE SIDE AT ALL TOILETS - LOCATE FLUSH VALVE BENEATH ADJACENT GRAB BARS.
2. SANITARY NAPKIN DISPENSERS TO BE LOCATED AT ALL FEMALE, UNISEX, & FAMILY TOILETS

TYPICAL ACCESSIBLE PLUMBING DETAILS - ELEVATION

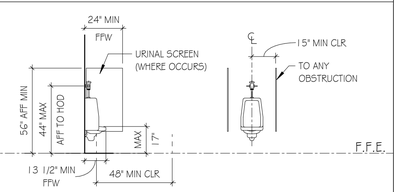
LAVATORY OR VANITY SINK



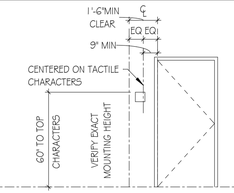
WATER CLOSET



URINAL

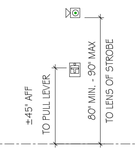


ADA INTERIOR SIGNAGE



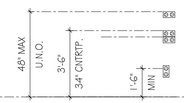
LATCH SIDE OR NEAREST ADJACENT WALL

FIRE ALARM W/ STROBE



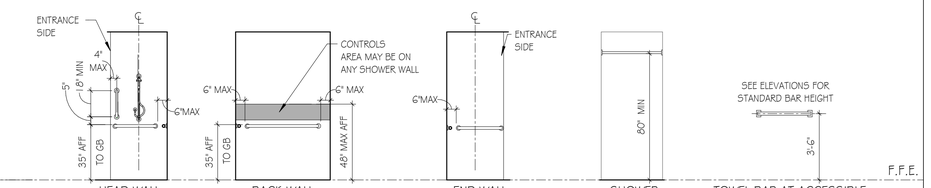
IF CEILING DOES NOT PERMIT 80" VERIFY HEIGHT W / ARCH

ELECTRICAL DEVICES



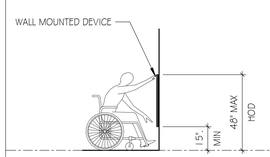
*NOTE: ROTATE ELECTRICAL COVER PLATES HORIZONTAL IF COUNTERTOP IS ABOVE 42" HIGH

ACCESSIBLE ROLL-IN SHOWER (WITHOUT FOLDING SEAT)

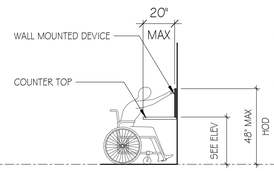


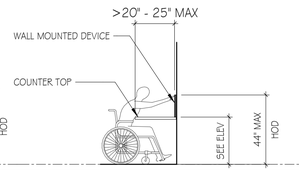
TYPICAL REACH RANGES

UNOBSTRUCTED FORWARD REACH

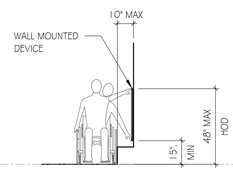


OBSTRUCTED HIGH FORWARD REACH

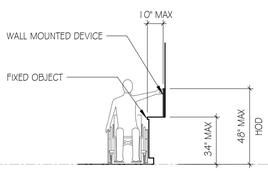


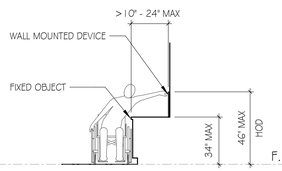


UNOBSTRUCTED SIDE REACH

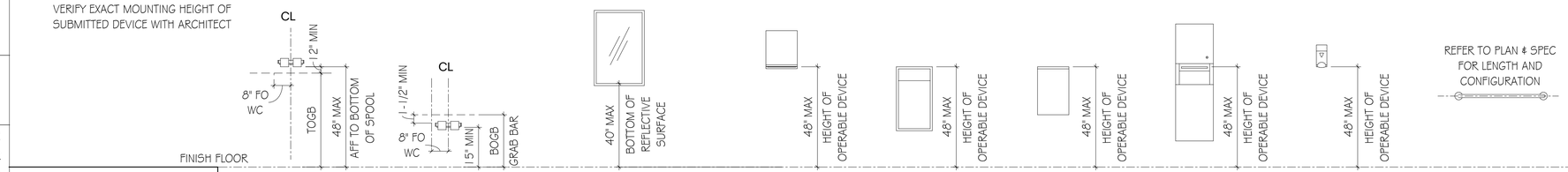


OBSTRUCTED HIGH SIDE REACH

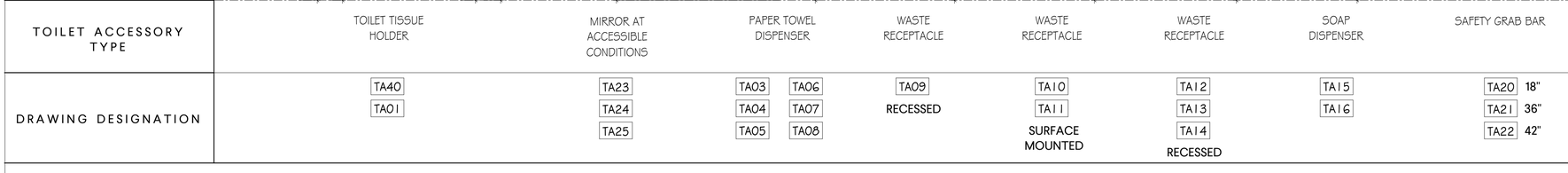




TYPICAL ACCESSIBLE MOUNTING HEIGHTS



TOILET ACCESSORY TYPE	TOILET TISSUE HOLDER	MIRROR AT ACCESSIBLE CONDITIONS	PAPER TOWEL DISPENSER		WASTE RECEPTACLE	WASTE RECEPTACLE	WASTE RECEPTACLE	SOAP DISPENSER	SAFETY GRAB BAR	
DRAWING DESIGNATION	TA40 TA01	TA23 TA24 TA25	TA03 TA04 TA05	TA06 TA07 TA08	TA09 RECESSED	TA10 TA11 SURFACE MOUNTED	TA12 TA13 TA14 RECESSED	TA15 TA16	TA20 TA21 TA22	18" 36" 42"



TOILET ACCESSORY TYPE	ROBE/COAT HOOK AT ACCESSIBLE LOCATIONS (SEE ELEVATIONS FOR STANDARD HOOK HT)	TOILET SEAT COVER DISPENSER	TOILETRY SHELF	HAND DRYER	MOP AND BROOM HOLDER	FIRE EXTINGUISHER	FIRE EXTINGUISHER CABINET	E.W.C. (ACCESSIBLE)	E.W.C. (STANDARD)
DRAWING DESIGNATION	TA26	TA30	TA44	TA50	TA60	FE	FEC		

GMC
35 Abercorn Street, Suite 200 Savannah, GA 31401 T 912.655.6790 GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	08.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	FN/HKD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project # CSAV190007

AMY K. H. BELL
STATE OF GEORGIA
RA014416
REGISTERED ARCHITECT

ACCESSIBILITY INFORMATION

A0.02

6/8/2020 12:37:42 PM

GENERAL NOTES - PARTITIONS

1. UL LISTED ASSEMBLIES
A. WHERE UL ASSEMBLY NUMBERS ARE REFERENCED ABOVE, PARTITIONS SHALL BE CONSTRUCTED IN STRICT COMPLIANCE WITH REQUIREMENTS SET FORTH BY THE UL FIRE RESISTANCE DIRECTORY. NO DEVIATION SHALL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL BY THE ARCHITECT AND/OR BUILDING OFFICIAL.

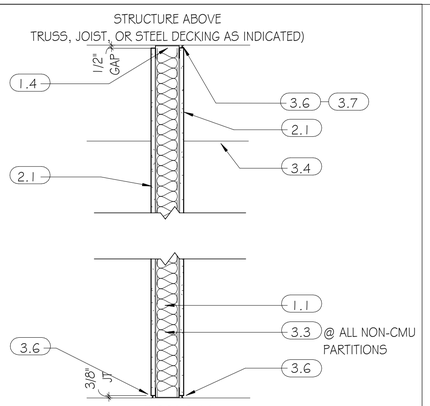
2. FIRE BARRIERS, FIRE PARTITIONS, & SMOKE BARRIERS [FIRE-RATED]
A. ALL PERIMETER JOINTS MUST BE PROTECTED BY UL LISTED FIRE-RESISTANT JOINT SYSTEMS.
B. ALL PENETRATIONS OF RATED ASSEMBLIES MUST BE PROTECTED BY UL LISTED THROUGH-PENETRATION FIRESTOPPING ASSEMBLIES.
C. FIRE DAMPERS MUST PROTECT HVAC DUCT PENETRATIONS.
D. IDENTIFY FIRE WALLS, SMOKE BARRIERS, ETC., IN ACCESSIBLE CONCEALED FLOOR, FLOOR-CEILING OR ATTIC SPACES, BY STENCILING "X-HOUR FIRE AND /OR SMOKE BARRIER" IN 3-INCH HIGH CONTRASTING LETTERS, 3/8-INCH MINIMUM STROKE. LOCATE WITHIN 15 FEET OF END OF WALL, AND AT INTERVALS NOT EXCEEDING 30 FEET MEASURED HORIZONTALLY ALONG THE WALL OR PARTITION.

3. SMOKE PARTITIONS [NON-RATED]
A. ALL PERIMETER JOINTS MUST BE SEALED WITH AIRTIGHT SEALANT APPLICATION.
B. ALL PIPING, ELECTRICAL, AND DUCT PENETRATIONS MUST BE SEALED WITH AIRTIGHT SEALANT APPLICATION.

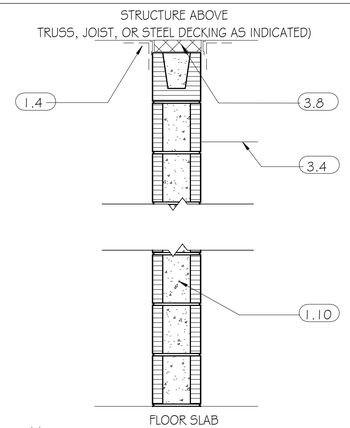
4. SOUND INSULATION
A. INSULATION THICKNESS SHALL MATCH CAVITY DEPTH UNLESS NOTED OTHERWISE.
B. INSULATE BEHIND RECESSED ITEMS IN ANY SCHEDULED ACOUSTIC PARTITIONS.
C. INSULATION MAY BE OMITTED AT CHASES NOT EXCEEDING 10 S.F. IN AREA.

5. ACOUSTICAL SEALANT
A. AT ALL GYP BOARD AND METAL STUD PARTITIONS: REQUIRED AT BOTTOM AND TOP RUNNERS AND AT WALL ANGLES WHERE DISSIMILAR MATERIALS MEET (SEE DETAILS).
B. AT SCHEDULED ACOUSTIC PARTITIONS: AIRTIGHT SEAL IS REQUIRED AT ALL PENETRATIONS.
C. ELECTRICAL AND OTHER BOXES TO BE WRAP-SEALED (SEE DETAILS).

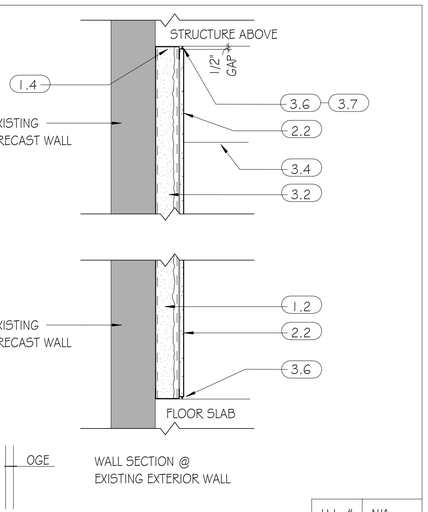
6. PARTITION COORDINATION
A. COMPLY WITH "PARTITION COORDINATION WITH OTHER TRADES" REQUIREMENTS LOCATED UNDER "GENERAL NOTES" ON PROJECT INFORMATION DRAWING G1.00.



DRAWING MARK	DESCRIPTION	U.L. #	N/A
OG	0 HR. - GYPSUM	STC	47
OGS	0 HR. - GYPSUM - SMOKE TIGHT		



DRAWING MARK	DESCRIPTION	U.L. #	U905
0M	0 HR. - CMU	STC	50
2M	2 HR. - CMU		



DRAWING MARK	DESCRIPTION	U.L. #	N/A
OGE	WALL SECTION @ EXISTING EXTERIOR WALL	STC	

NUMBERED NOTES

1.1 METAL STUDS 16" OC. DOUBLE-STUD JAMBS FULL HT. AT DOOR OPENINGS

1.2 3 5/8" METAL STUDS 24" OC.

1.3 PLUMBING CHASE. 1-5/8" METAL STUDS 16" OC IN TWO ROWS. WIDTH VARIES

1.4 DEFLECTION TRACK (0.0329" MTL. THICKNESS). MAINTAIN MIN. 1/2" STUD GAP

1.5 CONTINUOUS TOP TRACK (0.0329" METAL THICKNESS)

1.6 RESILIENT CHANNELS 24" OC VERTICAL

1.7 STUD BRACING MIN. 48 IN. OC (24" OC AT WALL-HUNG CABINETS)

1.8 STEEL STUD OR RUNNER BRACING, FULL WIDTH OF CAVITY, 48" OC VERT. MAX

1.9 NEW OR EXISTING SUBSTRATE

1.10 CMU (UL LISTED WHERE APPLICABLE). SEE STRUCTURAL FOR REINFORCING, LINTEL, AND TOP BRACING REQUIREMENTS

1.11 AT INTERIOR FURRING: PROVIDE 7/8 IN. HAT-SHAPED METAL FURRING

1.12 AT EXTERIOR (PERIMETER) FURRING: PROVIDE 2 IN. Z-SHAPED METAL FURRING W/ MIN. R-8 BOARD INSULATION

2.1 ONE LAYER 5/8 IN. GYP. BD

2.2 ONE LAYER 5/8 IN. TYPE 'X' GYP. BD

2.3 TWO LAYERS 5/8 IN. TYPE 'X' GYP. BD

2.6 1 IN. THICK GYPSUM LINER PANEL

2.7 ONE LAYER 5/8 IN. TYPE 'X' GYP. BD. EACH SIDE (ABOVE CEILING)

2.8 TWO LAYERS 5/8 IN. TYPE 'X' GYP. BD. EACH SIDE (ABOVE CEILING)

2.9 ONE LAYER 1/2 IN. TILE BACKER BOARD WITH 1/4 IN. THIN-SET TILE. (UP TO INTERSECTION WITH CEILING PLANE)

2.10 ONE LAYER TYPE 'X' GYP. BD. AND ONE LAYER 1/2 IN. TILE BACKER BOARD WITH 1/4 IN. THICK THIN-SET CERAMIC TILE (UP TO INTERSECTION W/ CEILING PLANE).

2.11 ONE LAYER 5/8" TYPE 'X' GYP. BD. (GOLD BOND MR BOARD) [SEE FINISH SCHEDULE FOR CERAMIC TILE LOCATIONS]

2.12 TWO LAYERS 5/8" TYPE 'X' GYP. BD. (GOLD BOND MR BOARD) [SEE FINISH SCHEDULE FOR CERAMIC TILE LOCATIONS]

3.1 SOUND ATTENUATION BATT INSULATION. 3.5" THICK

3.2 3" CLOSED CELL POLYURETHANE SPRAY FORAM INSULATION

3.3 SOUND ATTENUATION BATT INSULATION. 3.5" THICK. DRAPE OVER & EXTEND 4 FT. EACH SIDE OF PARTITION

3.4 CEILING. SEE CEILING PLAN FOR TYPES / LOCATIONS

3.5 ACOUSTICAL CEILING PANELS. WHERE PANELS W/ COMBINED NRC/CAC RATINGS OF 0.70/35 (OR BETTER) ARE USED, DRAPED INSULATION MAY BE OMITTED

3.6 ACOUSTICAL SEALANT JOINT. PROVIDE CONT. BEAD UNDER EACH LAYER GYP BD

3.7 ACOUSTICAL SEALANT JOINT. AT FLUTED DECKS, COPE GYP. BD. TO UNDERSIDE OF DECK. FILL VOIDS W/ INSULATION. APPLY ACOUSTICAL SEALANT CONT. AT JOINT

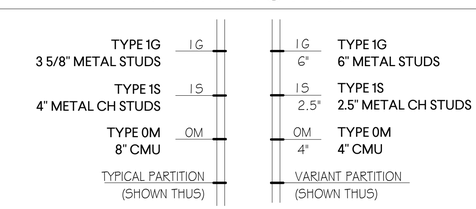
3.8 UL LISTED FIRE-RESISTANCE RATED HW (HEAD OF WALL) JOINT

3.9 UL LISTED FIRE-RESISTANCE RATED BW (BOTTOM OF WALL) JOINT

3.10 EXTEND GYP BOARD TO TOP OF TRACK TO ESTABLISH A DRAFT STOP ASSEMBLY. CONDUIT TURNOUTS AND ELECTRICAL BOXES MUST STAND CLEAR OF MET. STUDS TO ALLOW FOR APPLICATION OF UNINTERRUPTED GYPSUM MEMBRANE

3.11 STRUCTURAL BRACE AT UNSUPPORTED END WALL CONDITIONS. SEE DETAIL

PARTITION KEY



STANDARD FRAMING
3 5/8" METAL STUDS •
4" METAL CH STUDS •
8" CMU •

PARTITIONS USE STANDARD FRAMING EXCEPT WHERE VARIANT FRAMING SIZE IS INDICATED

VARIANT FRAMING
• WHERE APPLICABLE, SIZE IS SHOWN IN INCHES BELOW PARTITION TYPE

GMC
35 Abercorn Street, Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	08.09.2019	MEF
70% SUBMITTAL	12.16.2019	GS
100% SUBMITTAL	03.12.2020	FN/HKD
CONSTRUCTION SUBMITTAL	06.15.2020	
PROJECT MANAGER:		JCV
ENGINEER:		
DESIGNER:		
DRAWN BY:		

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

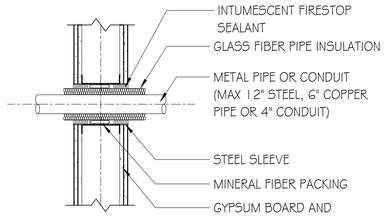
BG-JWSC Project No. 906
GMC Project # CSAV190007

STATE OF GEORGIA
AMY K. H. BELL
RA014416
REGISTERED ARCHITECT

PARTITION TYPES - INTERIOR

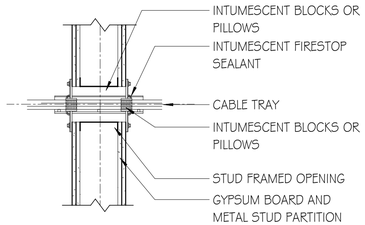
A0.03

6/8/2020 12:37:43 PM



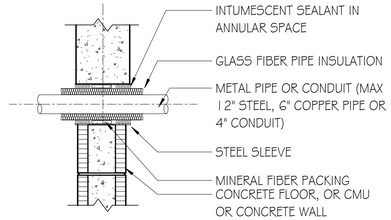
INSULATED METAL PIPE THRU GYPSUM PARTITION

A	W-L-5040
B	W-L-5029
C	W-L-5014



CABLE TRAY THRU GYPSUM PARTITION

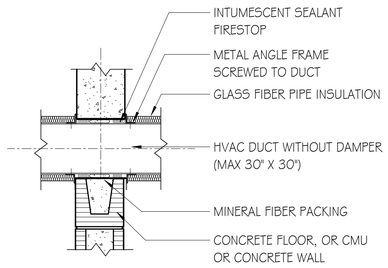
A	W-L-4037
B	W-L-4011
C	W-L-4008



NOTE: FIRESTOP BOTH SIDES AT WALLS; FIRESTOP ONE SIDE AT FLOORS

INSULATED METAL PIPE THRU CMU / CONC WALL OR FLOOR

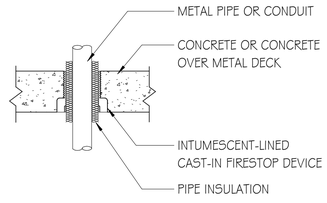
A	C-AJ-5024
B	C-AJ-5096
C	C-AJ-5087



NOTE: FIRESTOP BOTH SIDES AT WALLS; FIRESTOP ONE SIDE AT FLOORS

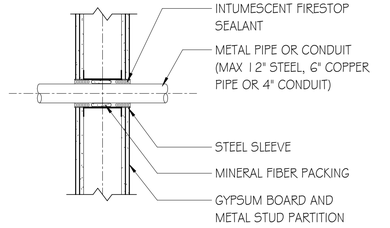
INSULATED HVAC DUCT THRU CMU / CONC WALL OR FLOOR

A	C-AJ-7115
B	WL-7059
C	C-AJ-7143



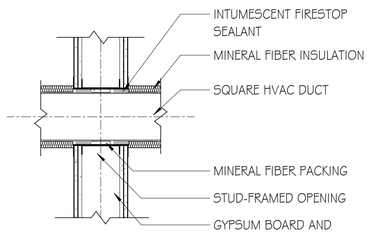
INSULATED METAL PIPE THRU CONC, OR CONC ON METAL DECK

A	F-A-5029
B	F-A-5015
C	F-A-5041



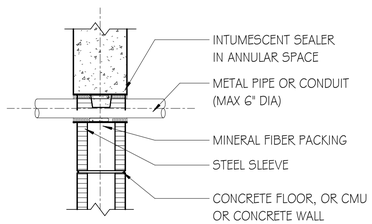
SINGLE UNINSULATED METAL PIPE THRU GYPSUM BOARD PARTITION

A	W-L-1001
B	W-L-1054
C	W-L-1088



INSULATED HVAC DUCT THRU GYPSUM BOARD PARTITION

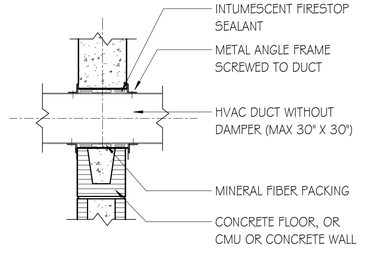
A	W-L-7195
B	W-L-7059
C	W-L-7178



NOTE: FIRESTOP BOTH SIDES AT WALLS; FIRESTOP ONE SIDE AT FLOORS

SINGLE UNINSULATED METAL PIPE THRU CONC FLOOR / WALL OR CMU WALL

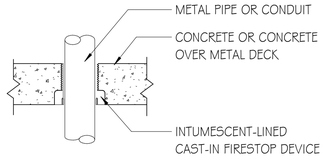
A	C-AJ-1044
B	C-AJ-1226
C	C-AJ-1080



NOTE: FIRESTOP BOTH SIDES AT WALLS; FIRESTOP ONE SIDE AT FLOORS

UNINSULATED HVAC DUCT THRU CONC FLOOR / WALL OR CMU WALL

A	C-AJ-7016
B	WL-7109
C	C-AJ-7027



SINGLE UNINSULATED METAL PIPE THRU CONC OVER METAL FLOOR

A	F-A-1067
B	F-A-1017
C	F-A-1110

PRODUCT / MANUFACTURER LEGEND

KEY TO MANUFACTURERS		
	A	3M
	B	HILTI
	C	STI

1. THE ILLUSTRATIONS ON THIS DRAWING REPRESENT FREQUENTLY ENCOUNTERED FIRESTOPPING PENETRATION CONDITIONS THROUGH FIRE-RATED FLOOR AND WALL ASSEMBLIES.
2. THE NUMBERS SHOWN BELOW ARE MANUFACTURERS' UL-TEST NUMBERS FOR EACH CONDITION.
3. THE KEY TO MANUFACTURERS (A, B, OR C) IS AS INDICATED BELOW.

GENERAL THRU-PENETRATION NOTES

1. GENERAL

A. ALL THROUGH-PENETRATION FIRESTOP WORK SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 078413 – PENETRATION FIRESTOP SYSTEMS.
B. THE DETAILS SHOWN HEREIN ILLUSTRATE FREQUENTLY ENCOUNTERED THROUGH-PENETRATION FIRESTOP CONDITIONS. THEY ARE GENERIC REPRESENTATIONS OF SYSTEMS AVAILABLE FROM SEVERAL MANUFACTURERS.
C. SELECTION OF APPROPRIATE SYSTEMS SHALL BE THE RESPONSIBILITY OF THE FIRESTOP CONTRACTOR, AND MUST BE SUBMITTED FOR ARCHITECT'S APPROVAL. EACH SELECTION SHALL BE APPROPRIATE FOR THE PENETRATING ITEM AND SUBSTRATE, AND SHALL COMPLY WITH THE SPECIFIC REQUIREMENTS OF A UL LISTED SYSTEM DESIGN.
D. WHERE NO APPLICABLE UL DESIGN IS AVAILABLE FOR A PARTICULAR FIRESTOP CONFIGURATION, SUBMIT AN ENGINEERING JUDGMENT (EJ), OR EQUIVALENT FIRE RESISTANCE RATED ASSEMBLY (EFRRA), PREPARED BY THE FIRESTOP MANUFACTURER.

2. APPLICABILITY

A. PROVIDE THROUGH-PENETRATION FIRESTOP SYSTEMS FOR ALL PENETRATIONS (INCLUDING SINGLE-SIDED MEMBRANE PENETRATIONS) OF FIRE RESISTANCE RATED CONSTRUCTION, WHETHER OR NOT SPECIFICALLY DETAILED ON THE DRAWINGS (APPLICABLE TO BOTH EMPTY OPENINGS AND OPENINGS CONTAINING PENETRATING ITEMS).
B. ALL PIPING AND DUCTWORK SUBJECT TO MOVEMENT SHALL BE FIRESTOPPED WITH FLEXIBLE FIRE RATED SEALANT.
C. TO EXTENT THAT APPROPRIATE UL DESIGNS ARE AVAILABLE FOR SUBSTRATE REQUIRED, USE THE FOLLOWING APPROACH TO SELECTION OF SYSTEMS:
   1. FOR SIMPLE PENETRATIONS: ONE-PART FIRESTOP SEALANT
   2. FOR COMPLEX PENETRATIONS: FOAMED-IN-PLACE FIRESTOP SEALANT
   3. FOR INSULATED METAL PIPE: INTUMESCENT WRAP STRIP AND ONE-PART FIRESTOP SEALANT.
   4. FOR DUCTS OR VENTS:
   5. FOR CABLE TRAYS OR RACEWAYS:

3. SLEEVING

A. THE FOLLOWING PENETRATIONS MUST BE SLEEVED:
   1. SINGLE ROUND PENETRATIONS IN RATED CMU WALLS
   2. INSULATED PIPE PENETRATIONS IN RATED GYPSUM BOARD WALLS
   3. BUNDLED CABLE PENETRATIONS IN RATED GYPSUM BOARD WALLS
   4. ALL PENETRATIONS IN ELEVATED CONCRETE SLABS.
B. ALL SLEEVES SHALL BE METAL. PLASTIC IS NOT PERMITTED. THE JUNCTURE OF STEEL SLEEVES AND WALL SHALL BE SEALED WITH FLEXIBLE FIRE RATED SEALANT.

4. QUALITY ASSURANCE

A. COMPLY WITH "INSTALLER QUALIFICATIONS" AND "ON-SITE RESPONSIBLE PARTY" PROVISIONS OF SPECIFICATION SECTION 078413 – THROUGH-PENETRATION FIRESTOP SYSTEMS.
B. OBTAIN THROUGH-PENETRATION FIRESTOP SYSTEMS THROUGH ONE SOURCE FROM A SINGLE MANUFACTURER.
C. COMMENCE FIRESTOPPING WORK ONLY AFTER SUBMITTALS (INCLUDING MOCKUPS WHERE APPLICABLE) ARE APPROVED, AND PRE-INSTALLATION CONFERENCE IS SUCCESSFULLY CONCLUDED.

5. INSTALLATION - GENERAL

A. COMPLY WITH UL SYSTEM REQUIREMENTS AND FIRESTOPPING MANUFACTURERS' PRINTED INSTALLATION INSTRUCTIONS.
B. INSTALL FORMING /DAMMING /BACKING MATERIALS AND OTHER ACCESSORIES OF TYPES REQUIRED TO SUPPORT FILL MATERIALS DURING THEIR APPLICATION AND IN THE POSITION NEEDED TO PRODUCE CROSS-SECTIONAL SHAPES AND DEPTHS REQUIRED TO ACHIEVE FIRE RATINGS INDICATED.
C. INSTALL FILL MATERIALS BY PROVEN TECHNIQUES TO PRODUCE THE FOLLOWING RESULTS:
   1. FILL VOIDS AND CAVITIES FORMED BY OPENINGS, FORMING MATERIALS, ACCESSORIES, AND PENETRATING ITEMS AS REQUIRED TO ACHIEVE FIRE-RESISTANCE RATINGS INDICATED,
   2. APPLY MATERIALS SO THEY CONTACT AND ADHERE TO SUBSTRATES FORMED BY OPENINGS AND PENETRATING ITEMS,
D. FOR FILL MATERIALS THAT WILL REMAIN EXPOSED AFTER COMPLETING WORK, FINISH TO PRODUCE SMOOTH UNIFORM SURFACES THAT ARE FLUSH WITH ADJOINING FINISHES.
E. REMOVE COMBUSTIBLE FORMING MATERIALS, AND OTHER ACCESSORIES, THAT ARE NOT INDICATED AS PERMANENT COMPONENTS OF FIRESTOP SYSTEMS. REMOVE EXCESS SEALANT FROM ADJOINING SURFACES.
F. IDENTIFY THROUGH PENETRATION FIRESTOP SYSTEMS WITH PERMANENTLY ATTACHED,PREPRINTED METAL OR PLASTIC LABELS, AS SPECIFIED.
G. INSPECT FILL MATERIALS AFTER 48 HOURS FOR COMPLETE ADHESION AND SEAL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. CORRECT DEFICIENCIES AND RE-INSPECT

GMC
35 Abercorn Street, Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	FN/HKD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

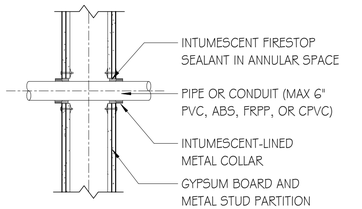
BGJWSC Project No. 906
GMC Project # CSAV190007

STATE OF GEORGIA · AMY K. H. BELL · RA014416 · REGISTERED ARCHITECT

FIRESTOPPING - THRU-PENETRATION SYSTEMS

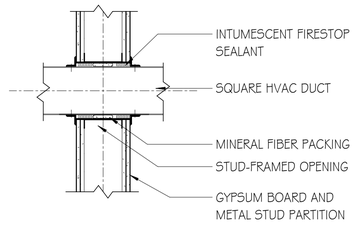
A0.04

6/8/2020 12:37:44 PM



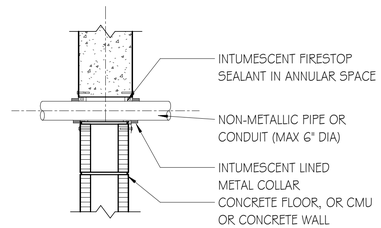
SINGLE NONMETALLIC METAL PIPE THRU GYPSUM BOARD PARTITION

A	W-L-2073
B	W-L-2078
C	W-L-2029



UNINSULATED HVAC DUCT THRU GYPSUM BOARD PARTITION

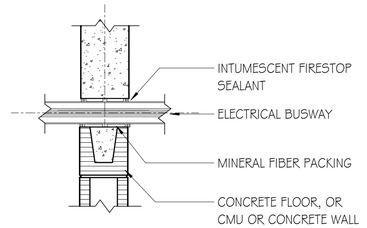
A	W-J-7169
B	W-L-7040
C	W-L-7056



NOTE: FIRESTOP BOTH SIDES AT WALLS; FIRESTOP ONE SIDE AT FLOORS

SINGLE NONMETALLIC PIPE THRU CONC FLOOR/WALL OR CMU WALL

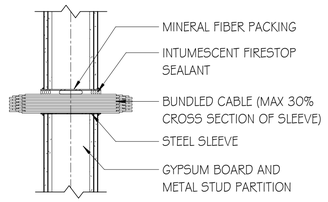
A	C-AJ-2005
B	C-AJ-2109
C	C-AJ-2038



NOTE: FIRESTOP BOTH SIDES AT WALLS; FIRESTOP ONE SIDE AT FLOORS

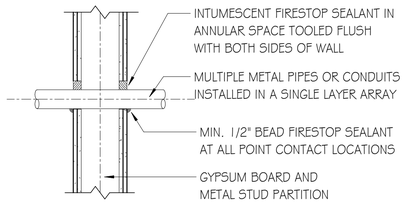
BUSWAY THRU CONC FLOOR/WALL OR CMU WALL

A	C-AJ-6002
B	C-AJ-6017
C	C-AJ-6008



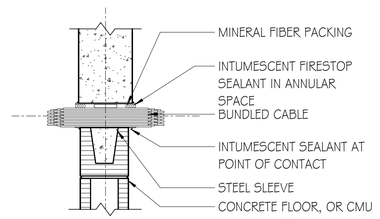
SINGLE OR BUNDLED CABLE THRU GYPSUM BOARD PARTITION

A	W-L-3031
B	W-L-3065
C	W-L-3133



MULTIPLE PENETRATIONS THRU GYPSUM BOARD PARTITION

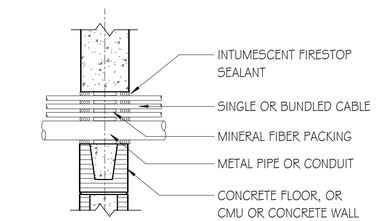
A	W-L-1389
B	W-L-1228
C	W-L-1168



NOTE: FIRESTOP BOTH SIDES AT WALLS; FIRESTOP ONE SIDE AT FLOORS

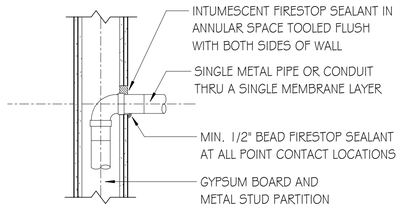
BUNDLED CABLE THRU CONC FLOOR/WALL OR CMU WALL

A	C-AJ-3021
B	C-AJ-3095
C	C-AJ-3043



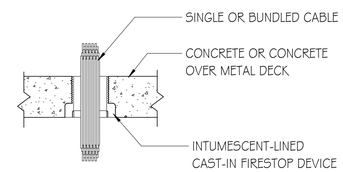
MULTIPLE PENETRATIONS THRU CONC FLOOR/WALL OR CMU WALL

A	C-AJ-8003
B	C-AJ-8143
C	C-AJ-8053



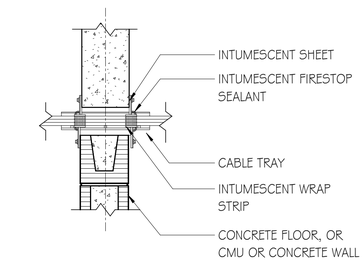
MEMBRANE PENETRATIONS THRU GYPSUM BOARD PARTITION

A	W-L-1410
B	W-L-1353
C	--------



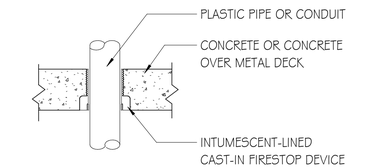
SINGLE OR BUNDLED CABLE THRU CONC OVER METAL FLOOR

A	F-A-3017
B	F-A-3007
C	F-A-3055



CABLE TRAY THRU CONC FLOOR/WALL OR CMU WALL

A	C-AJ-4003
B	C-AJ-4035
C	C-AJ-4022



SINGLE NONMETALLIC PIPE THRU CONCRETE OVER METAL FLOOR

A	F-A-2097
B	F-A-2054
C	F-A-2192

GMC

35 Abercorn Street, Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	08.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020

PROJECT MANAGER: JCV
ENGINEER: MEF
DESIGNER: GS
DRAWN BY: FN/HKD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project # CSAV190007

STATE OF GEORGIA
AMY K. H. BELL
RA014416
REGISTERED ARCHITECT

FIRESTOPPING - THRU-PENETRATION SYSTEMS

A0.05

6/8/2020 12:37:45 PM

OVERALL BUILDING AREA

LEVEL	AREA (GROSS SQUARE FEET)
BASEMENT	2,548 SF
I	13,751 SF
II	9,540 SF
TOTAL	25,839 SF

APPLICABLE CODES & REGULATIONS

2018	INTERNATIONAL BUILDING CODE (IBC) W/ GEORGIA AMENDMENTS
2012	LIFE SAFETY CODE (NFPA) W/ GEORGIA AMENDMENTS
2018	INTERNATIONAL FUEL GAS CODE (IFGC) W/ GEORGIA AMENDMENTS
2018	INTERNATIONAL MECHANICAL CODE (IMC) W/ GEORGIA AMENDMENTS
2018	INTERNATIONAL PLUMBING CODE (IPC) W/ GEORGIA AMENDMENTS
2018	INTERNATIONAL FIRE CODE (IFC)
2017	NATIONAL ELECTRICAL CODE (NEC)
2015	INTERNATIONAL ENERGY CONSERVATION CODE (IECC) W/ GEORGIA AMENDMENTS
2013	ANSI/ASHRAE/IESNA STANDARD 90.1
2010	STANDARDS FOR ACCESSIBLE DESIGN

OCCUPANCY CLASSIFICATION — IBC CH 3

OCCUPANCY	PRIMARY : BUSINESS (B) - 18,342 SF SECONDARY : STORAGE (S-2) - 7,497 SF

SPECIAL REQUIREMENTS — IBC CH 4

N/A

CONSTRUCTION CLASSIFICATION — IBC CH 5

CONSTRUCTION TYPE	TYPE IIB	
HEIGHT	ALLOWABLE: 55 FEET	ACTUAL: 32 FEET
# OF STORIES	ALLOWABLE: 3	ACTUAL: 3
HEIGHT MODIFICATIONS	N/A	
AREA PER FLOOR	ALLOWABLE: 23,000 SF/STORY	ACTUAL: BASEMENT - 2,548 SF LEVEL I - 13,751 SF LEVEL II - 9,540 SF TOTAL - 25,839 SF

AREA MODIFICATIONS : PER IBC CH 5, BUILDING AREAS LIMITED BY TABLE 503 SHALL BE PERMITTED TO BE INCREASED DUE TO FRONTAGE AND AUTOMATIC SPRINKLER SYSTEM PROTECTION

FRONTAGE INCREASE (IF)	NOT REQUIRED
AUTOMATIC SPRINKLER INCREASE (AA)	NOT REQUIRED

FIRE RESISTANCE - STRUCT. ELEMENTS — IBC CH 6

RESISTANCE REQUIRED BY IBC TYPE TABLE 601

CONSTRUCTION TYPE : IIB

	RESISTANCE REQUIRED	RESISTANCE PROVIDED	
		RATING	ACHIEVED BY
BUILDING ELEMENT - STRUCTURAL			
PRIMARY STRUCTURAL FRAME (PER CH 2 WITH RATING NOT LESS THAN CH 7)			
COLUMNS STRUCTURAL MEMBERS HAVING DIRECT CONNECTION TO COLUMNS - BEAMS, GIRDERS, TRUSSES, AND SPANDRELS	0 HR	0	N/A
BEARING WALLS			
EXTERIOR WALLS (RATING NOT LESS THAN CH 6 OR CH 7)	0 HR	0	N/A
INTERIOR WALLS	0 HR	0	N/A
NON BEARING WALLS AND PARTITIONS			
EXTERIOR WALLS (BASED ON FIRE SEPARATION DISTANCE PER CH 6)	0 HR	0	N/A
NON BEARING WALLS AND PARTITIONS			
INTERIOR WALLS (RATING NOT LESS THAN REQUIRED BY SECTIONS OTHER THAN SECTION 6)	0 HR	0	N/A
FLOOR CONSTRUCTION AND SECONDARY MEMBERS (PER CH 2)			
FLOOR CONSTRUCTION HAVING DIRECT CONNECTIONS TO THE COLUMNS	0 HR	0	N/A
ROOF CONSTRUCTION AND SECONDARY MEMBERS (PER CH 2)			
ROOF CONSTRUCTION HAVING DIRECT CONNECTIONS TO THE COLUMNS	0 HR	0	N/A

MEANS OF EGRESS

MAXIMUM ALLOWABLE	B	
TRAVEL DISTANCE TO EXIT	200 FT	
COMMON PATH OF TRAVEL	75 FT	
DEAD END LENGTH	20 FT	
EGRESS OCCUPANTS (DESIGN LOAD)	LEVEL I : CALCULATION VALUES — OCCUPANCY COUNT OCC TYPE : BUSINESS — 123 OCC TYPE : STORAGE — 25 BASEMENT TOTAL OCCUPANTS = 9 OCCUPANTS LEVEL I TOTAL OCCUPANTS = 75 OCCUPANTS LEVEL II TOTAL OCCUPANTS = 64 OCCUPANTS AGGREGATE OCCUPANT LOAD = 148 OCCUPANTS	
STAIRWAY WIDTH	REQUIRED: 0.3" PER OCCUPANT X 64 OCCUPANTS = 20"	PROVIDED: 152"
EGRESS WIDTH	REQUIRED: 0.2" PER OCCUPANT X 148 OCCUPANTS = 30"	PROVIDED: 102"

PLUMBING FIXTURE TABULATIONS

	OCCUPANCY	OCCUPANT LOAD (ACTUAL)	ACTUAL LOAD CALCULATIONS								
			WC			LAV			BATH/ SHOWER	DRINKING FOUNTAIN	SVC SINKS
			M	F	USX	M	F	USX			
	B (BUSINESS)	123 OCC 1/25 TO 50, 1/50 ABOVE	3	3	-	2	2	-	-	2	1
	S (STORAGE)	25 OCC 1/40	1	1	-	1	1	-	-	1	1
TOTAL	REQUIRED		4	4	-	3	3	-	-	3	1
TOTAL	PROVIDED		8	5	-	6	4	-	-	3	1

GMC
35 Abercorn Street, Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	09.09.2019	MEF
70% SUBMITTAL	12.16.2019	GS
100% SUBMITTAL	03.12.2020	FN/HKD
CONSTRUCTION SUBMITTAL	06.15.2020	
PROJECT MANAGER:		JCV
ENGINEER:		
DESIGNER:		
DRAWN BY:		

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

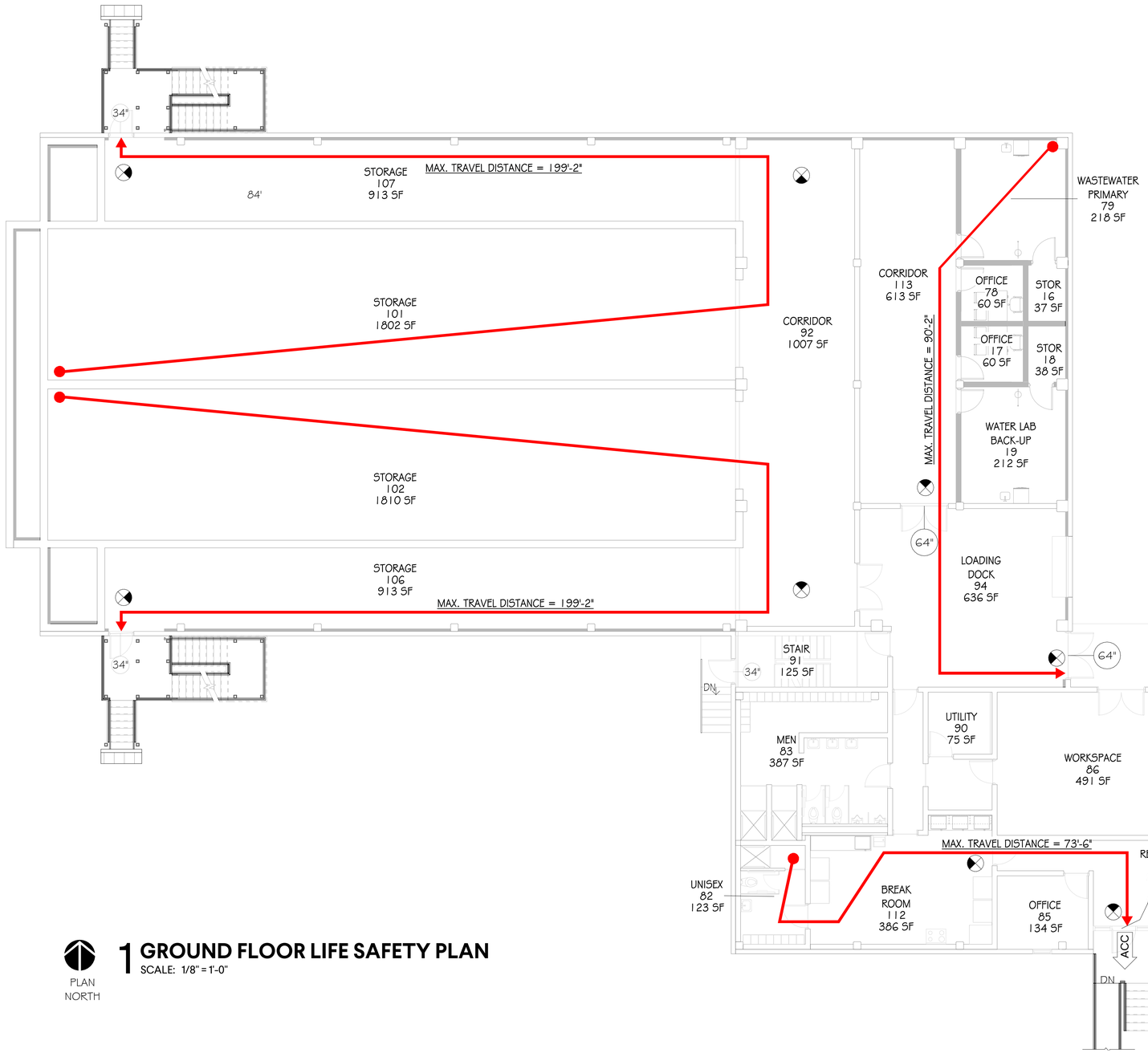
BGJWSC Project No. 906
GMC Project # CSAV190007

STATE OF GEORGIA
AMY R. H. BELL
RA014416
REGISTERED ARCHITECT

LIFE SAFETY - CODE STUDY

A0.06

6/8/2020 12:37:46 PM



PLAN NORTH

1 GROUND FLOOR LIFE SAFETY PLAN

SCALE: 1/8" = 1'-0"

LIFE SAFETY PLAN LEGEND

- NON-RATED PARTITION
- 0 HR SMOKE PARTITION
- 1 HR RATED PARTITION
- 2 HR RATED PARTITION / FIRE BARRIER
- 3 HR RATED PARTITION
- 4 HR RATED PARTITION
- SMOKE TIGHT BARRIER
- FE — FIRE EXTINGUISHER
- FEC — FIRE EXTINGUISHER CABINET
- SN1 — EMERGENCY EVACUATION MAP SIGNAGE
- SN2 — DOOR WITH MANUAL CLOSURE SIGNAGE
- SN5 — STORM SHELTER ACCESS SIGNAGE
- SN6 — STORM SHELTER ENTRANCE SIGNAGE
- AID — FIRST AID KIT
- H/O — MAGNETIC HOLD-OPEN DEVICE
- EXIT SIGN
- 65' — PATH OF TRAVEL
- X — CLEAR EXIT WIDTH IN INCHES
- ACC — ADA ACCESSIBLE ROUTE

GMC

35 Abercorn Street, Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	09.09.2019	
70% SUBMITTAL	12.16.2019	
100% SUBMITTAL	03.12.2020	
CONSTRUCTION SUBMITTAL	06.15.2020	
PROJECT MANAGER:		JCV
ENGINEER:		MEF
DESIGNER:		GS
DRAWN BY:		FN/HKD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

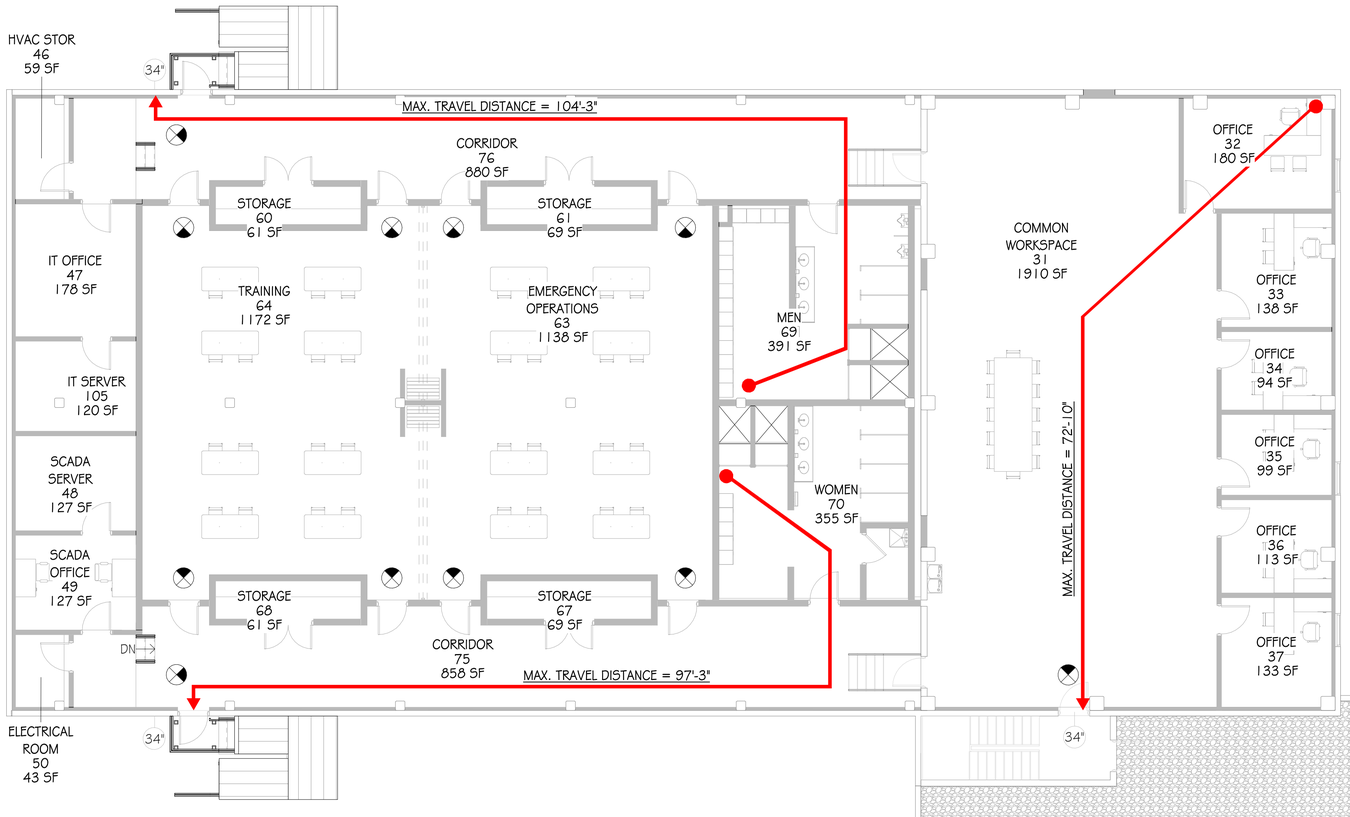
BGJWSC Project No. 906
GMC Project # CSAV190007

STATE OF GEORGIA
AMY R. H. BELL
RA014416
REGISTERED ARCHITECT

LIFE SAFETY PLAN FIRST FLOOR

A0.07

6/8/2020 12:37:49 PM



PLAN NORTH

1 SECOND FLOOR LIFE SAFETY PLAN

SCALE: 1/8" = 1'-0"

LIFE SAFETY PLAN LEGEND

- NON-RATED PARTITION
- 0 HR SMOKE PARTITION
- 1 HR RATED PARTITION
- 2 HR RATED PARTITION / FIRE BARRIER
- 3 HR RATED PARTITION
- 4 HR RATED PARTITION
- SMOKE TIGHT BARRIER
- FE — FIRE EXTINGUISHER
- FEC — FIRE EXTINGUISHER CABINET
- SN1 — EMERGENCY EVACUATION MAP SIGNAGE
- SN2 — DOOR WITH MANUAL CLOSURE SIGNAGE
- SN5 — STORM SHELTER ACCESS SIGNAGE
- SN6 — STORM SHELTER ENTRANCE SIGNAGE
- AID — FIRST AID KIT
- H/O — MAGNETIC HOLD-OPEN DEVICE
- EXIT SIGN
- 65' — PATH OF TRAVEL
- X — CLEAR EXIT WIDTH IN INCHES
- ACC — ADA ACCESSIBLE ROUTE

GMC

35 Abercorn Street,
Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	08.09.2019	
70% SUBMITTAL	12.16.2019	
100% SUBMITTAL	03.12.2020	
CONSTRUCTION SUBMITTAL	06.15.2020	
PROJECT MANAGER:		JCV
ENGINEER:		MEF
DESIGNER:		GS
DRAWN BY:		FN/HKD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906

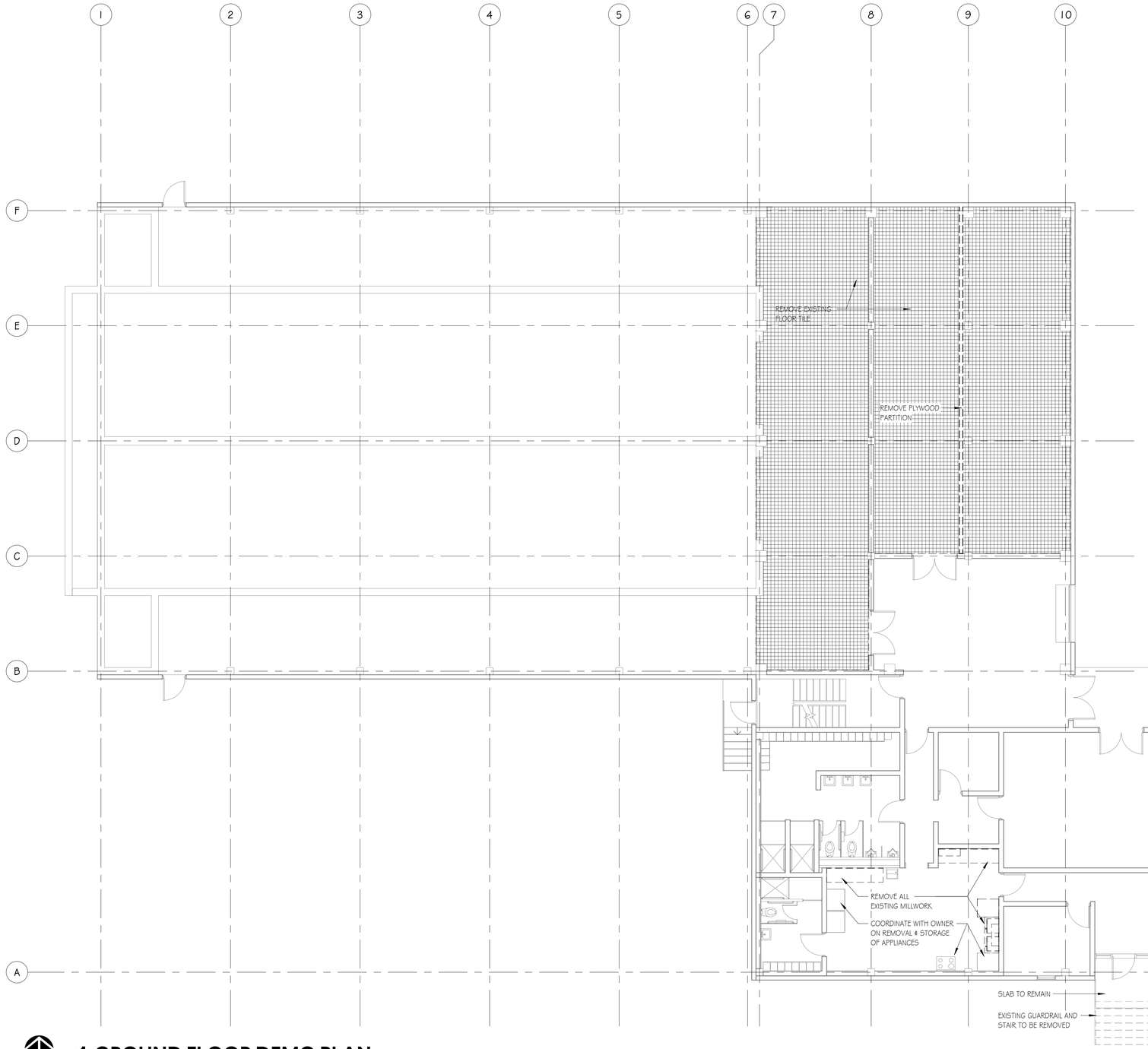
GMC Project # CSAV190007

STATE OF GEORGIA
AMY K. H. BELL
RA014416
REGISTERED ARCHITECT

LIFE SAFETY PLAN
SECOND FLOOR

A0.08

6/8/2020 12:37:53 PM



LEGEND

EXISTING TILE TO BE REMOVED

PLAN NORTH

1 GROUND FLOOR DEMO PLAN

SCALE: 1/8" = 1'-0"

6/8/2020 12:37:54 PM

GMC

35 Abercorn Street,
Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	FN/HKD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

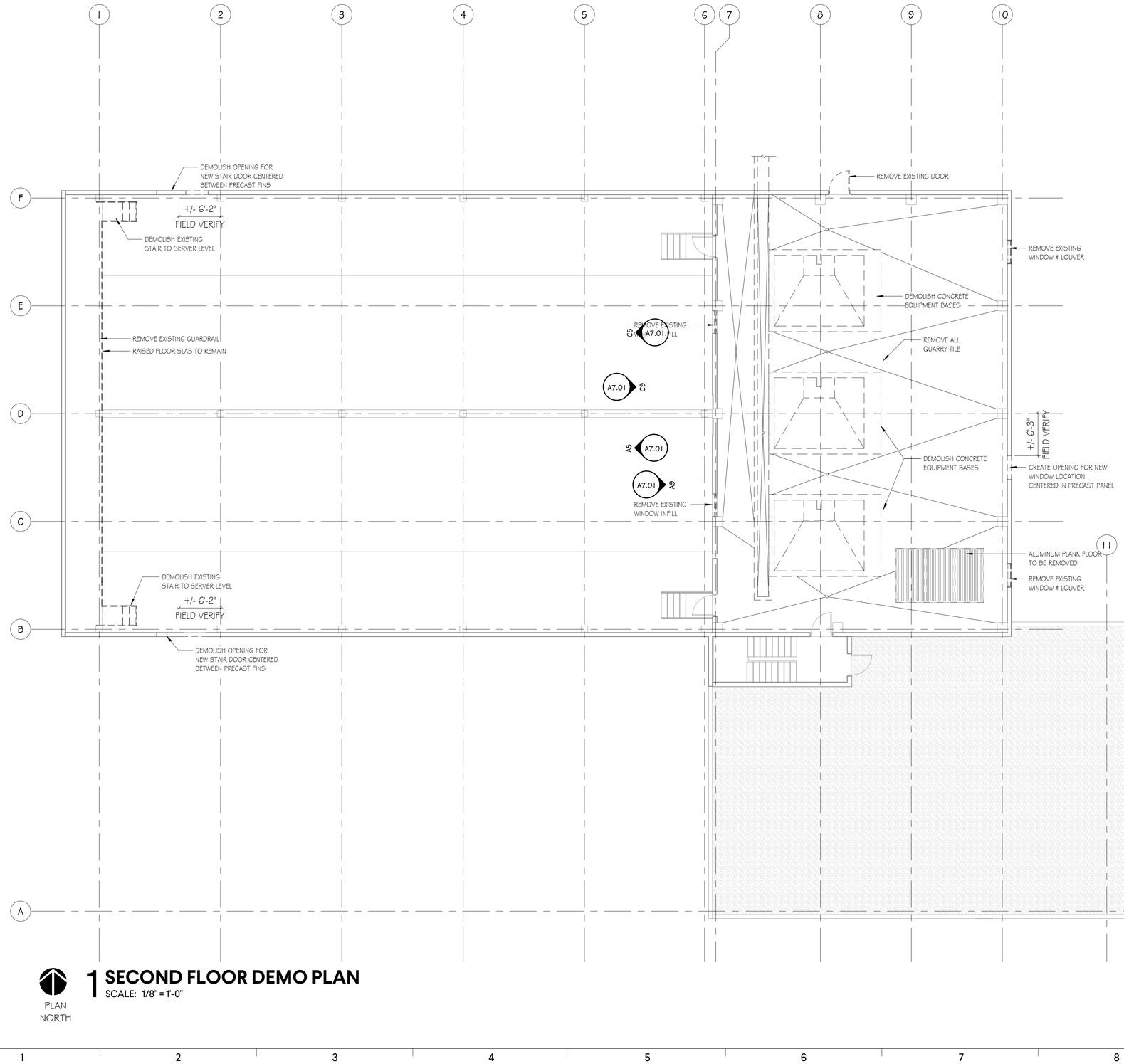
BGJWSC Project No. 906

GMC Project # CSAV190007

STATE OF GEORGIA
AMY K. H. BELL
RA014416
REGISTERED ARCHITECT

GROUND FLOOR DEMOLITION PLAN

A1.00A



PLAN NORTH

1 SECOND FLOOR DEMO PLAN
SCALE: 1/8" = 1'-0"

6/8/2020 12:37:56 PM

GMC

35 Abercorn Street,
Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	FN/HKD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906

GMC Project # CSAV190007

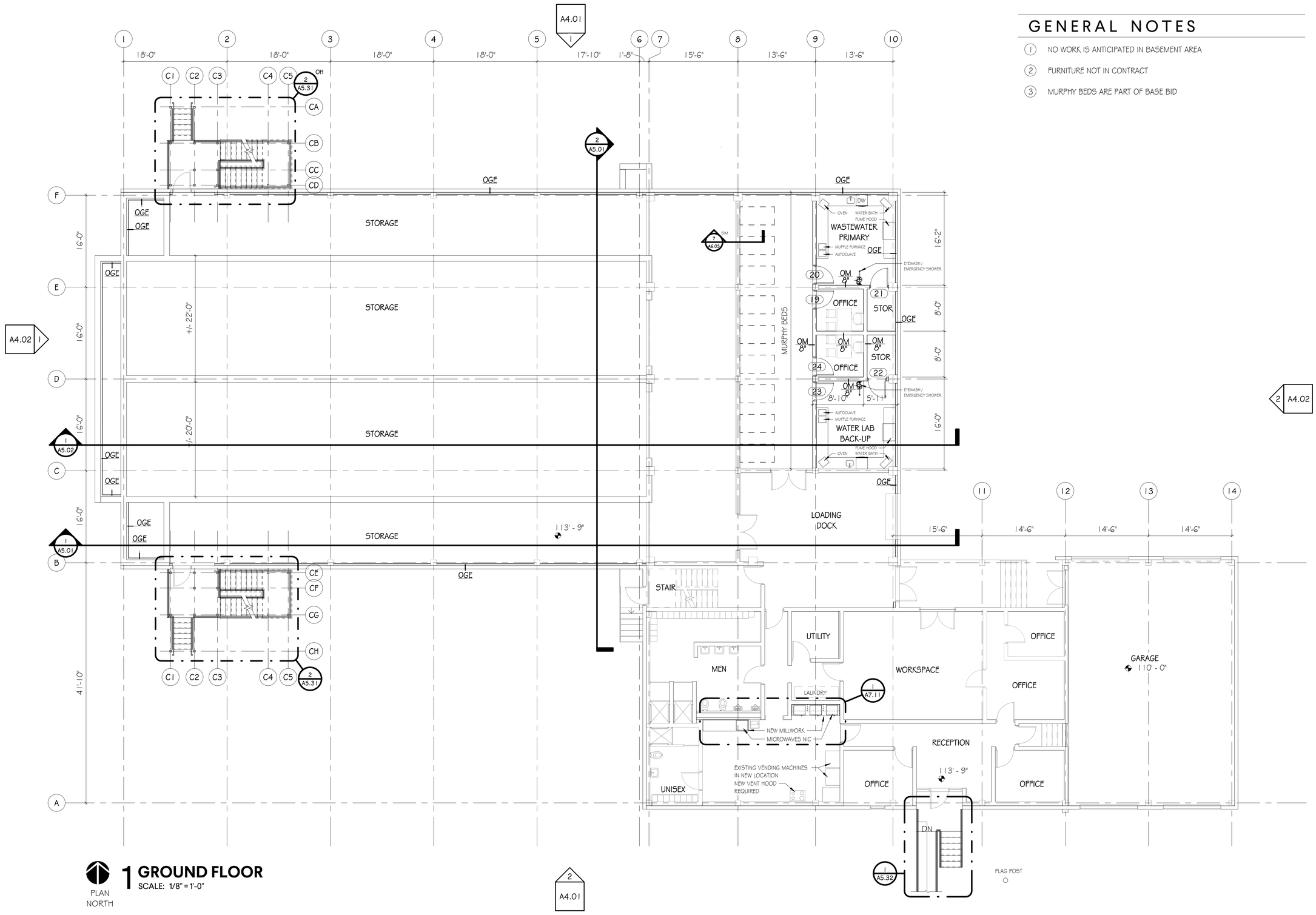
STATE OF GEORGIA
AMY K. H. BELL
RA014416
REGISTERED ARCHITECT

SECOND FLOOR DEMOLITION PLAN

A1.00B

GENERAL NOTES

1. NO WORK IS ANTICIPATED IN BASEMENT AREA
2. FURNITURE NOT IN CONTRACT
3. MURPHY BEDS ARE PART OF BASE BID



PLAN NORTH

1 GROUND FLOOR
SCALE: 1/8" = 1'-0"

6/8/2020 12:37:59 PM

GMC

35 Abercorn Street,
Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	09.09.2019	
70% SUBMITTAL	12.16.2019	
100% SUBMITTAL	03.12.2020	
CONSTRUCTION SUBMITTAL	06.15.2020	
PROJECT MANAGER:		JCV
ENGINEER:		MEF
DESIGNER:		GS
DRAWN BY:		FN/HKD

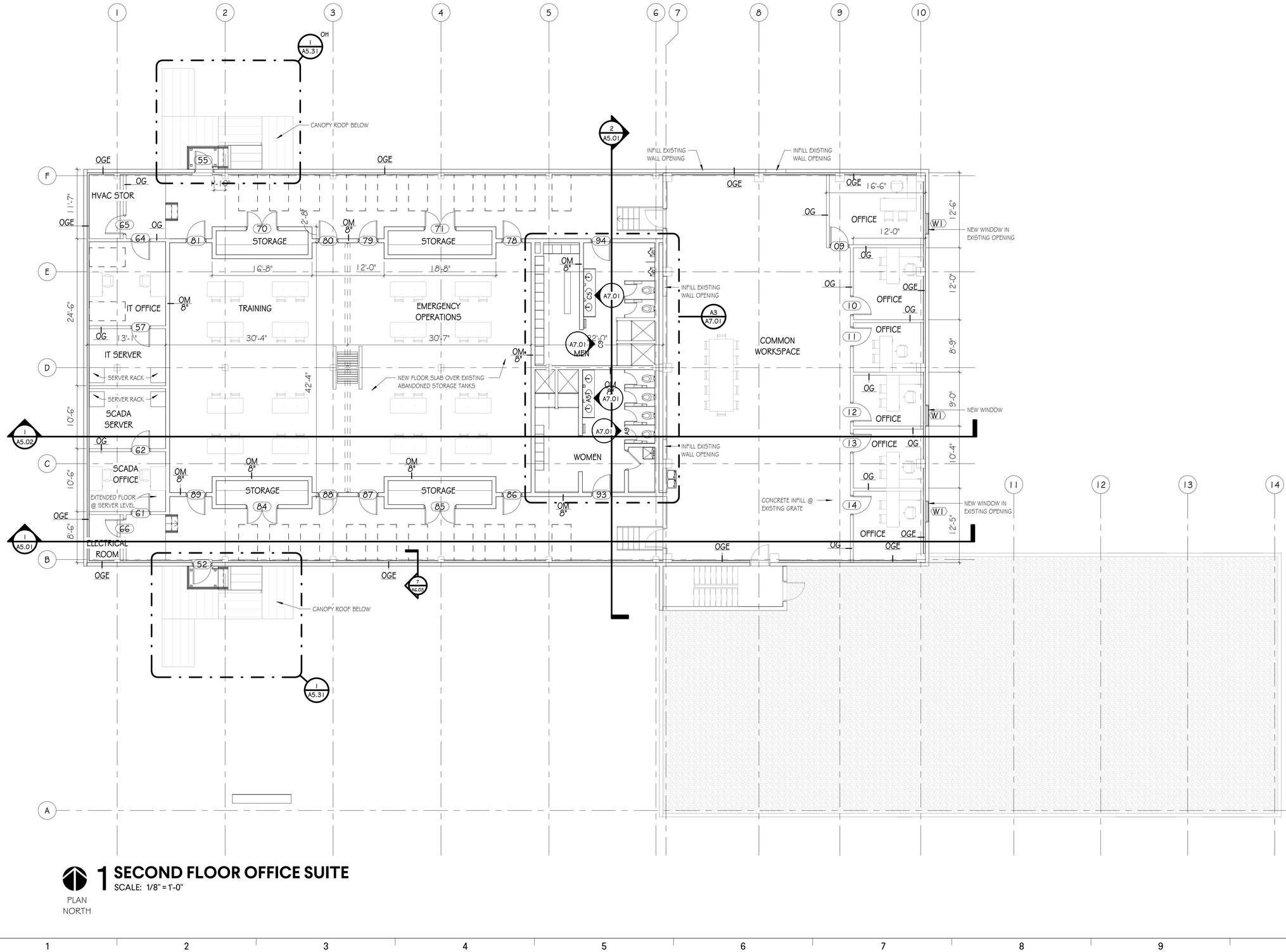
2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project # CSAV190007

STATE OF GEORGIA
AMY K. H. BELL
RA014416
REGISTERED ARCHITECT

GROUND FLOOR PLAN

A1.01



1 SECOND FLOOR OFFICE SUITE

SCALE: 1/8" = 1'-0"

PLAN NORTH

6/8/2020 12:38:04 PM

GMC

35 Abercorn Street, Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	FN/HKD

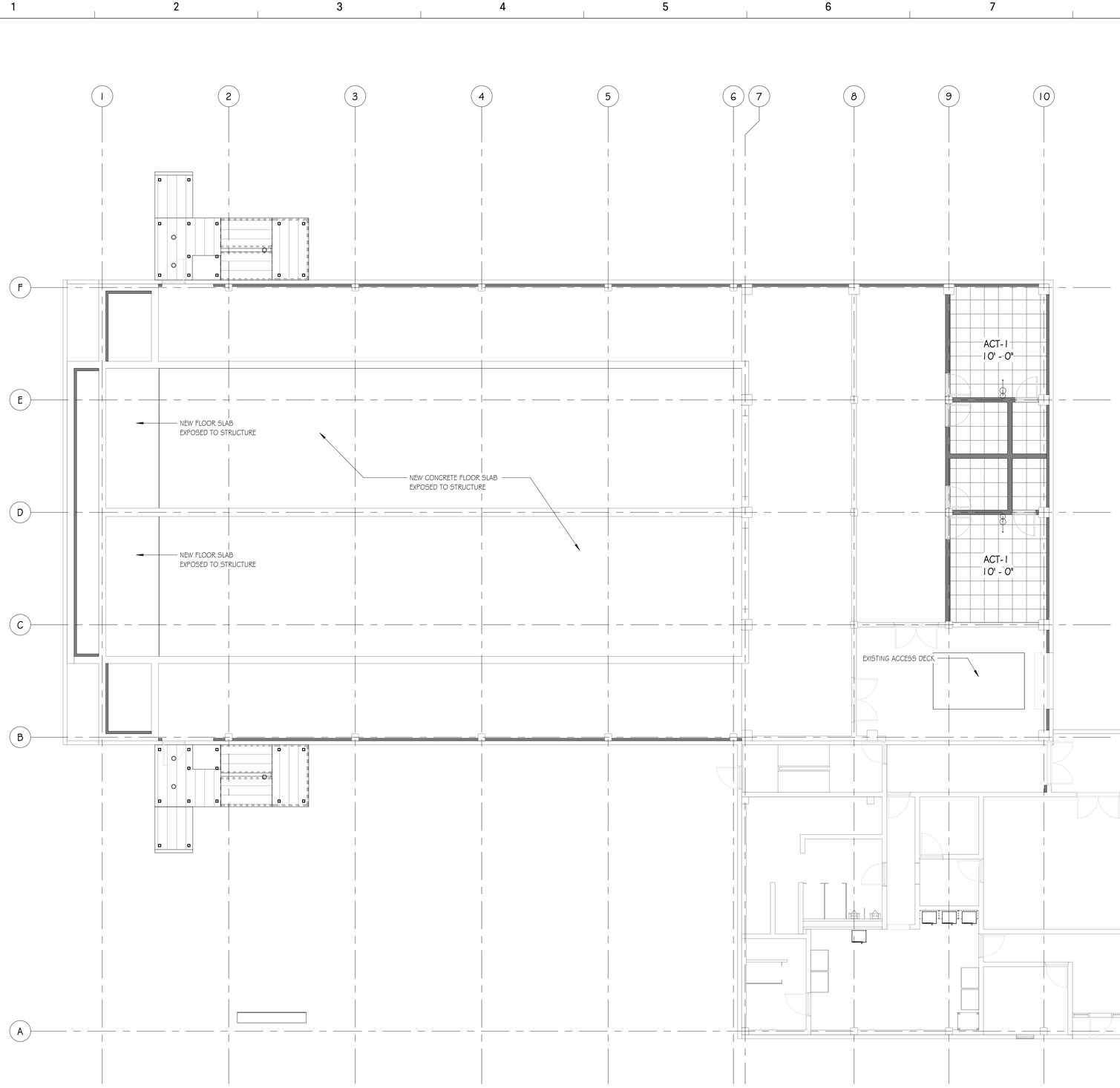
2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project # CSAV190007

STATE OF GEORGIA
AMY K. H. BELL
RA014416
REGISTERED ARCHITECT

SECOND FLOOR PLAN

A1.02



REFLECTED CEILING PLAN LEGEND

CEILING FINISHES:

- 2'X2' LAY-IN ACOUSTICAL CEILING & GRID SYSTEM
- GYPSUM BOARD - INTERIOR EIFS SOFFIT - EXTERIOR
- EXPOSED STRUCTURE
- 2X2 LAY-IN METAL CEILING & GRID SYSTEM

MECHANICAL:

- SUPPLY DIFFUSER
- SUPPLY DIFFUSER
- RETURN AIR GRILLE
- EXHAUST FAN

LIGHTING:

- FIRE ALARM
- EXIT SIGN

LIGHTING:

- 2X4 RECESSED FIXTURE
- 2X2 RECESSED FIXTURE
- LINEAR SURFACE MOUNTED FIXTURE
- LINEAR SUSPENDED FIXTURE
- LINEAR RECESSED FIXTURE
- CIRCULAR SURFACE MOUNTED FIXTURE
- CIRCULAR PENDANT FIXTURE
- CIRCULAR RECESSED FIXTURE
- CIRCULAR WALL MOUNTED FIXTURE
- LINEAR WALL MOUNTED FIXTURE

REFLECTED CEILING PLAN NOTES

INTERIOR CEILING HEIGHTS AS INDICATED ON THE REFLECTED CEILING PLANS.
REFER TO CONSTRUCTION FLOOR PLANS FOR REQUIRED COMPOSITION OF WALL CONSTRUCTION.
LOCATION OF LIGHTS, DIFFUSERS, AND RETURN AIR GRILLES TO BE COORDINATED BETWEEN REFLECTED CEILING PLANS, LIGHTING PLANS, AND HVAC PLANS. FINAL LOCATION TO BE APPROVED BY ARCHITECT.

COORDINATE WITH OWNER'S A/V CONSULTANT FOR PROJECTION SCREEN AND PROJECTOR LOCATION.
SEE SPECIFICATIONS FOR ADDITIONAL CEILING FINISH INFORMATION AND REQUIREMENTS. NOTIFY ARCHITECT WITH ANY DISCREPANCIES BETWEEN SPECIFICATION AND DRAWINGS.
WHERE EXIT SIGNS ARE LOCATED ABOVE DOORWAYS, CENTER ABOUT DOOR.

PLAN NORTH

1 GROUND FLOOR RCP
SCALE: 1/8" = 1'-0"

GMC
35 Abercorn Street,
Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	FN/HKD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

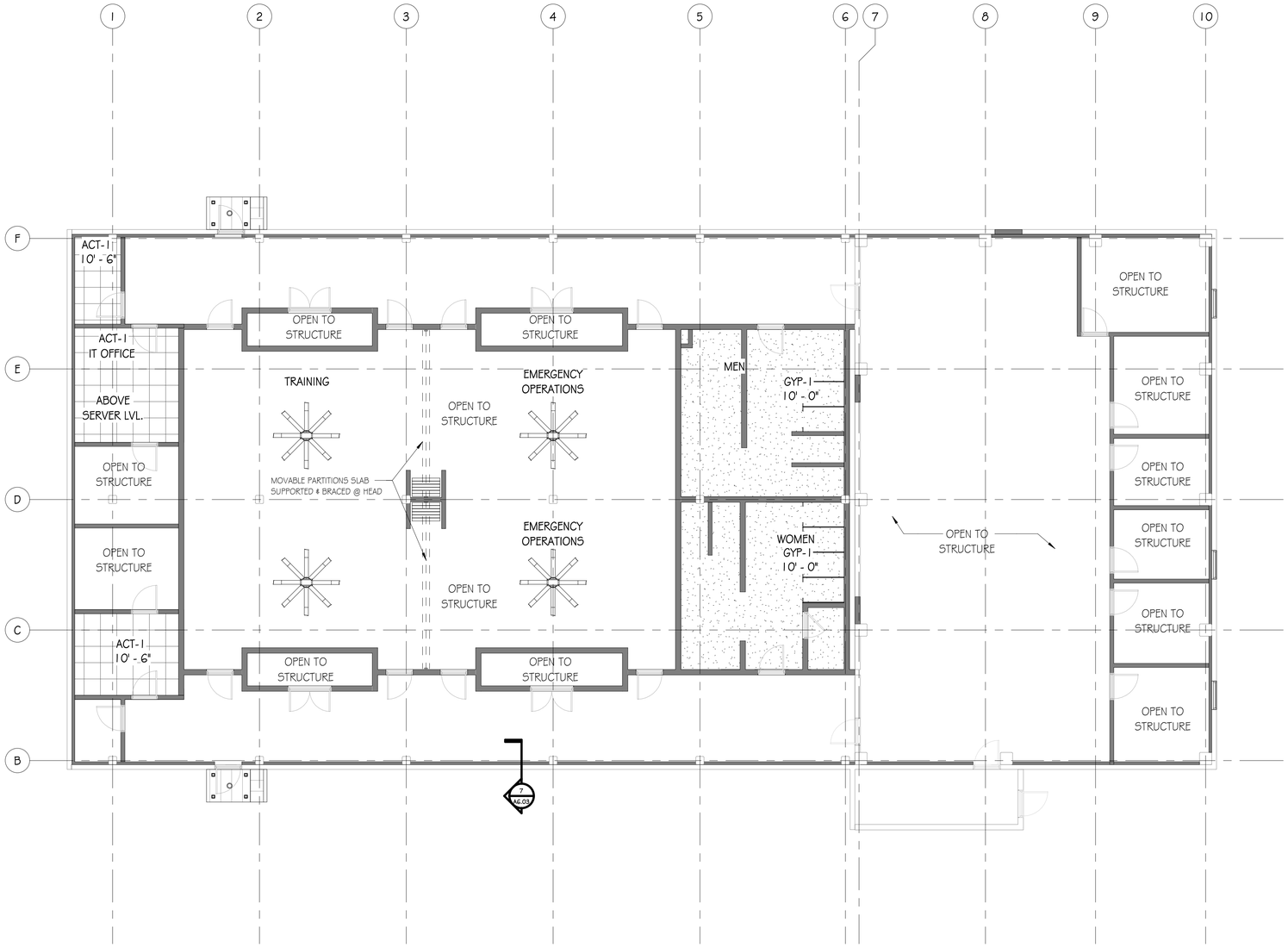
BGJWSC Project No. 906
GMC Project # CSAV190007

STATE OF GEORGIA
AMY K. H. BELL
RA014416
REGISTERED ARCHITECT

GROUND FLOOR REFLECTED CEILING PLAN

A2.01

6/8/2020 12:38:06 PM



CEILING FINISH LEGEND

NUMBER	TYPE	DETAIL DESCRIPTION
ACT-1	ACOUSTICAL CEILING TILE SYSTEM	PRODUCT EQUAL TO: MANUFACTURER: STYLE: COLOR: SIZE: 24" X 24" X THK" SUSPENSION SYSTEM:
ACT-2	ACOUSTICAL CEILING TILE SYSTEM	PRODUCT EQUAL TO: MANUFACTURER: STYLE: COLOR: SIZE: 24" X 24" X THK" SUSPENSION SYSTEM:
ACT-3	ACOUSTICAL CEILING TILE SYSTEM	PRODUCT EQUAL TO: MANUFACTURER: STYLE: COLOR: SIZE: 24" X 24" X THK" SUSPENSION SYSTEM:
MGB-1	MOISTURE RESISTANT GYP BOARD CEILING	PRODUCT EQUAL TO: PAINTED GYP BOARD CEILING - MOISTURE RESISTANT COLOR: PNT-XXX (U.N.O. ON RCP)
GYP-1	GYP BOARD CEILING	PRODUCT EQUAL TO PAINTED GYP BOARD CEILING COLOR: PNT-XXX (U.N.O. ON RCP)
GYP-2	GYP BOARD CEILING	PRODUCT EQUAL TO TYPE X GYP BOARD CEILING - 1 HOUR FIRE RATED COLOR: PNT-XXX (U.N.O. ON RCP)
EXP-1	EXPOSED TO STRUCTURE	EXPOSED TO STRUCTURE - WITH NO FINISH
EXP-2	EXPOSED TO STRUCTURE	EQUAL TO: EXPOSED TO STRUCTURE - WITH FINISH. PAINT ALL EXPOSED ELEMENTS COLOR: XXX SEE RCP NOTES
EGB-1	EXTERIOR GYP BOARD CEILING	EQUAL TO: EXTERIOR GYP BOARD CEILING WITH SKIM COAT FINISH COLOR: XXX

PLAN NORTH

1 SECOND FLOOR RCP
SCALE: 1/8" = 1'-0"

6/8/2020 12:38:08 PM

GMC
35 Abercorn Street,
Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	08.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	FN/HKD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project # CSAV190007

RA014416
STATE OF GEORGIA · AMY K. H. BELL · REGISTERED ARCHITECT

SECOND FLOOR REFLECTED CEILING PLAN

A2.02

PLAN NORTH

1 ROOF PLAN
SCALE: 1/8" = 1'-0"

6/8/2020 12:38:12 PM

GMC

35 Abercorn Street,
Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	FN/HKD

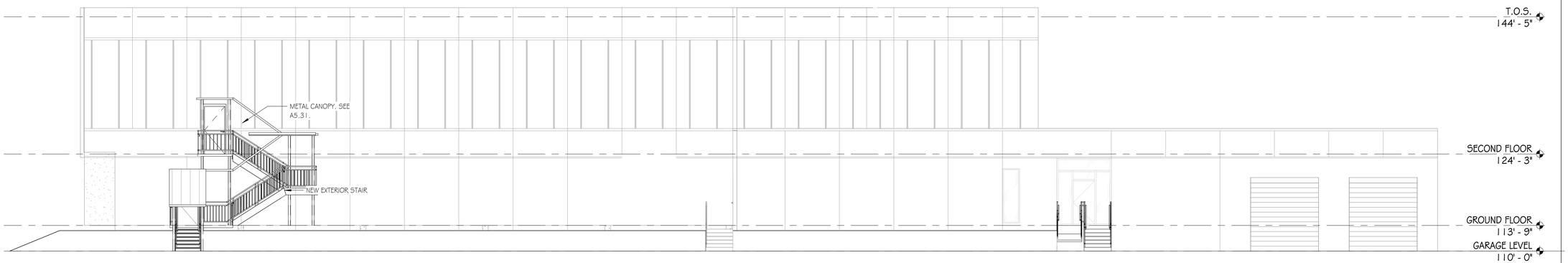
2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project # CSAV190007

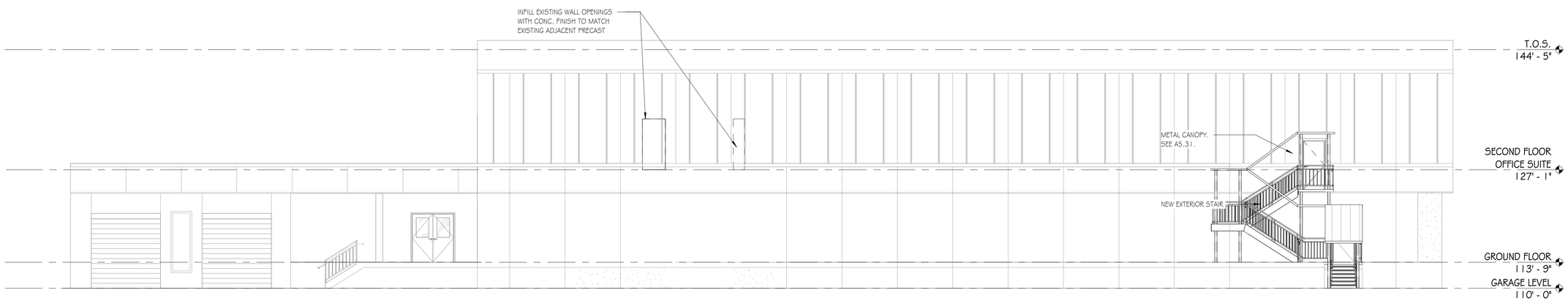
STATE OF GEORGIA
AMY K. H. BELL
RA014416
REGISTERED ARCHITECT

ROOF PLAN

A3.01



2 EAST ELEVATION
SCALE: 1/8" = 1'-0"



1 WEST ELEVATION
SCALE: 1/8" = 1'-0"

6/8/2020 12:38:15 PM

GMC

35 Abercorn Street,
Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	08.09.2019	
70% SUBMITTAL	12.16.2019	
100% SUBMITTAL	03.12.2020	
CONSTRUCTION SUBMITTAL	06.15.2020	
PROJECT MANAGER:		JCV
ENGINEER:		MEF
DESIGNER:		GS
DRAWN BY:		FN/HKD

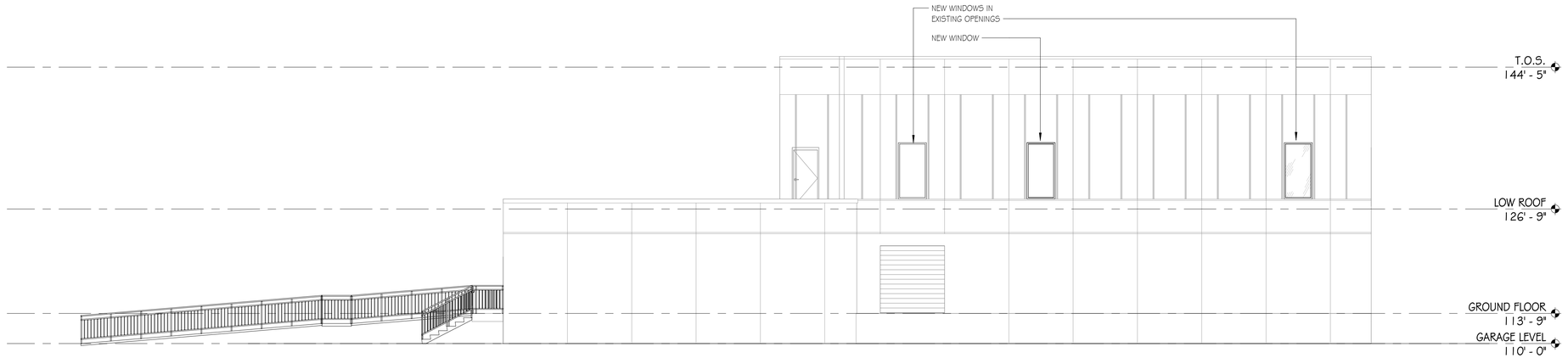
2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project # CSAV190007

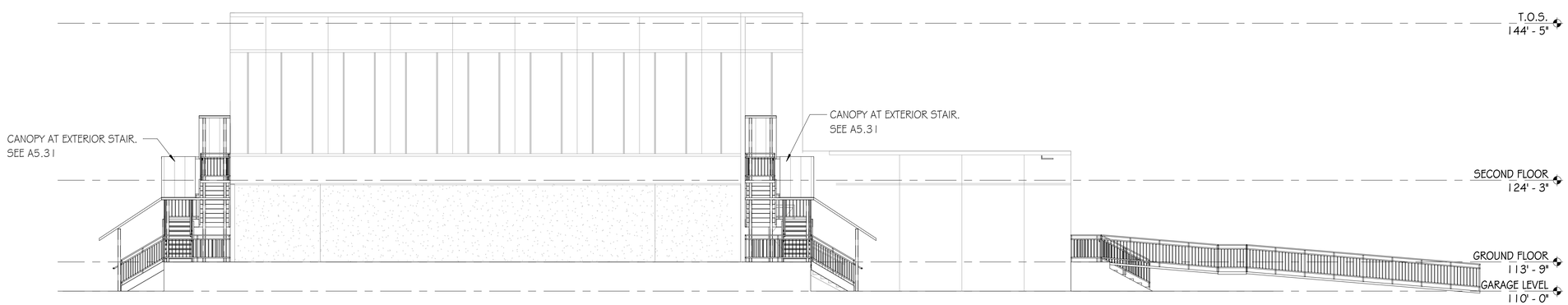
STATE OF GEORGIA
AMY R. H. BELL
RA014416
REGISTERED ARCHITECT

EXTERIOR ELEVATIONS

A4.01



2 NORTH ELEVATION
SCALE: 1/8" = 1'-0"



1 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"

6/8/2020 12:38:18 PM

GMC

35 Abercorn Street,
Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	09.09.2019	
70% SUBMITTAL	12.16.2019	
100% SUBMITTAL	03.12.2020	
CONSTRUCTION SUBMITTAL	06.15.2020	
PROJECT MANAGER:		JCV
ENGINEER:		MEF
DESIGNER:		GS
DRAWN BY:		FN/HKD

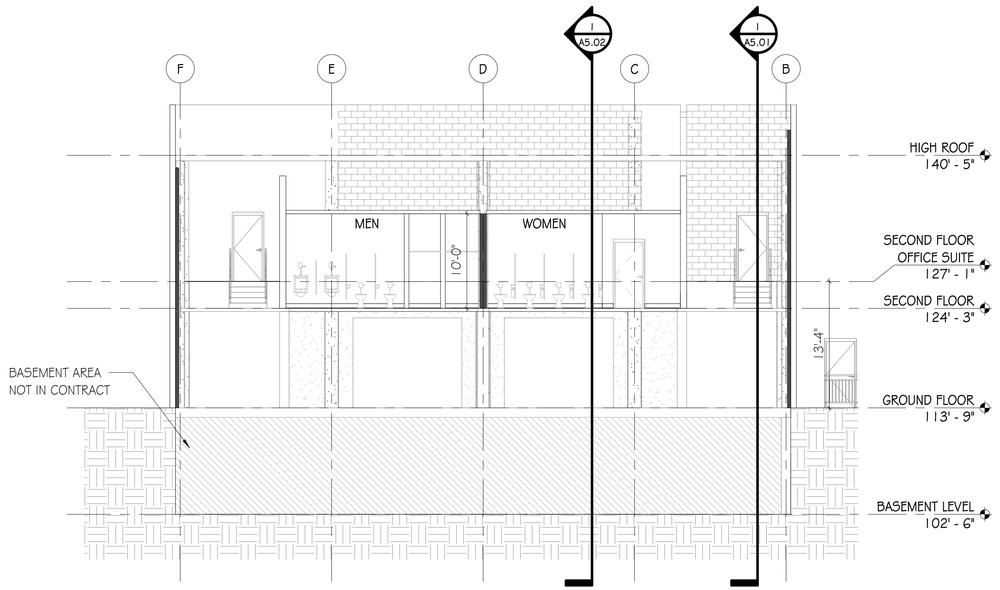
2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project # CSAV190007

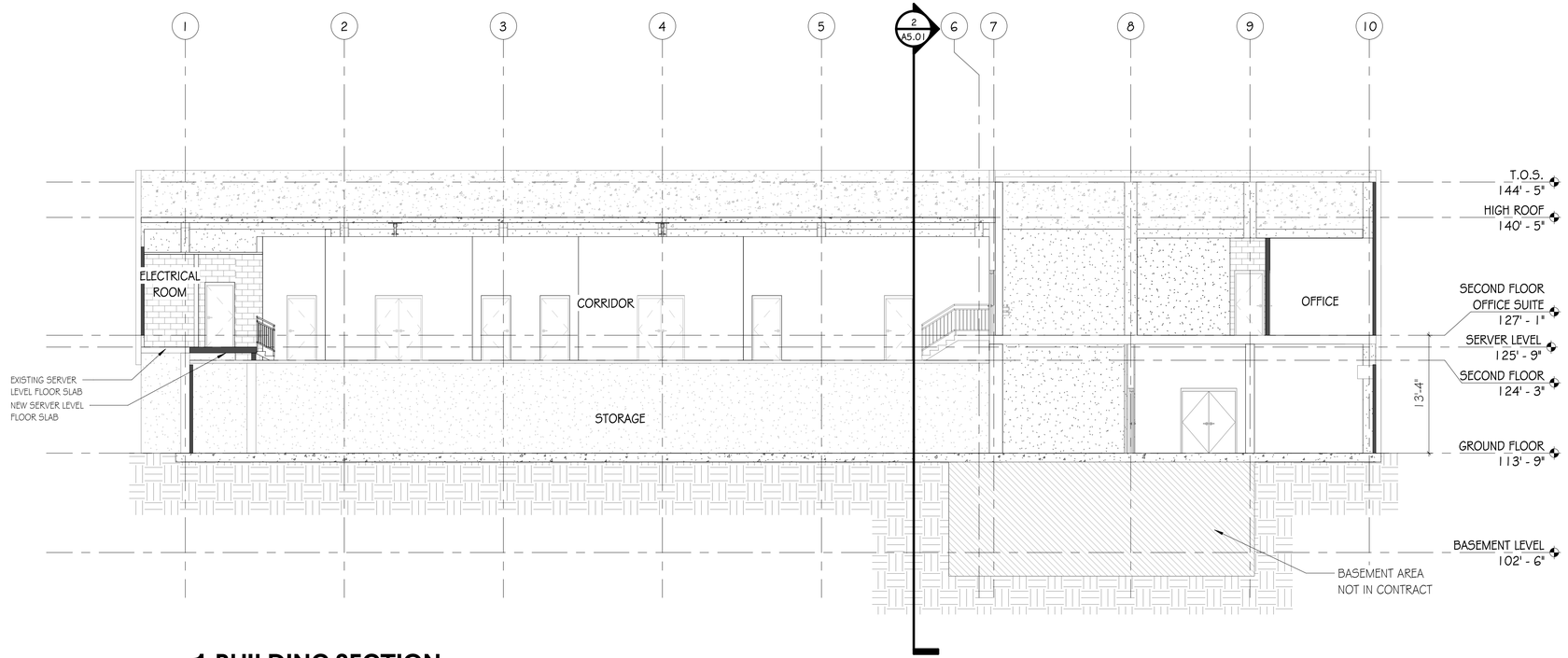
STATE OF GEORGIA
AMY F. H. BELL
RA014416
REGISTERED ARCHITECT

EXTERIOR ELEVATIONS

A4.02



2 BUILDING SECTION
SCALE: 1/8" = 1'-0"



1 BUILDING SECTION
SCALE: 1/8" = 1'-0"

GMC
35 Abercorn Street,
Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	08.09.2019	
70% SUBMITTAL	12.16.2019	
100% SUBMITTAL	03.12.2020	
CONSTRUCTION SUBMITTAL	06.15.2020	
PROJECT MANAGER:		JCV
ENGINEER:		MEF
DESIGNER:		GS
DRAWN BY:		FN/HKD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

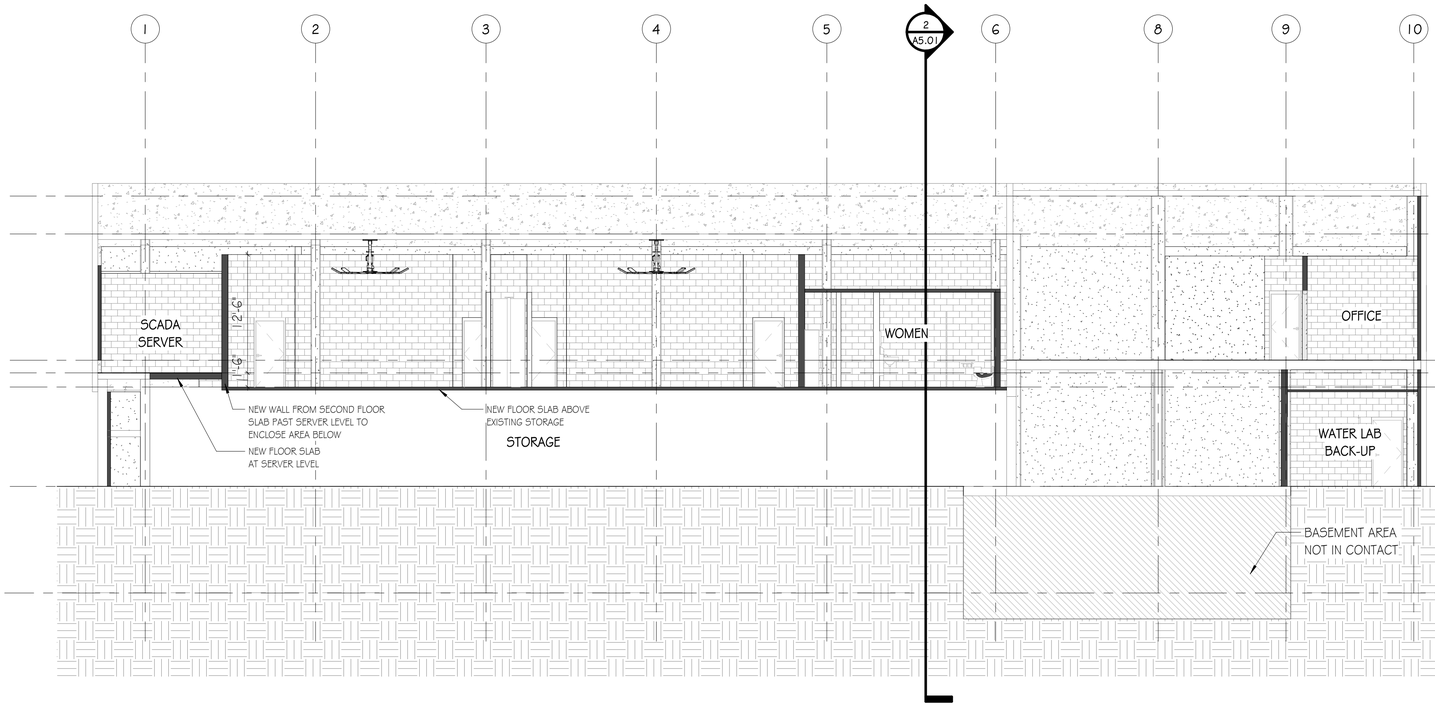
BGJWSC Project No. 906
GMC Project # CSAV190007

STATE OF GEORGIA
AMY K. H. BELL
RA014416
REGISTERED ARCHITECT

BUILDING SECTIONS

A5.01

6/8/2020 12:38:20 PM



1 BUILDING SECTION

SCALE: 1/8" = 1'-0"

GMC

35 Abercorn Street,
Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	FN/HKD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

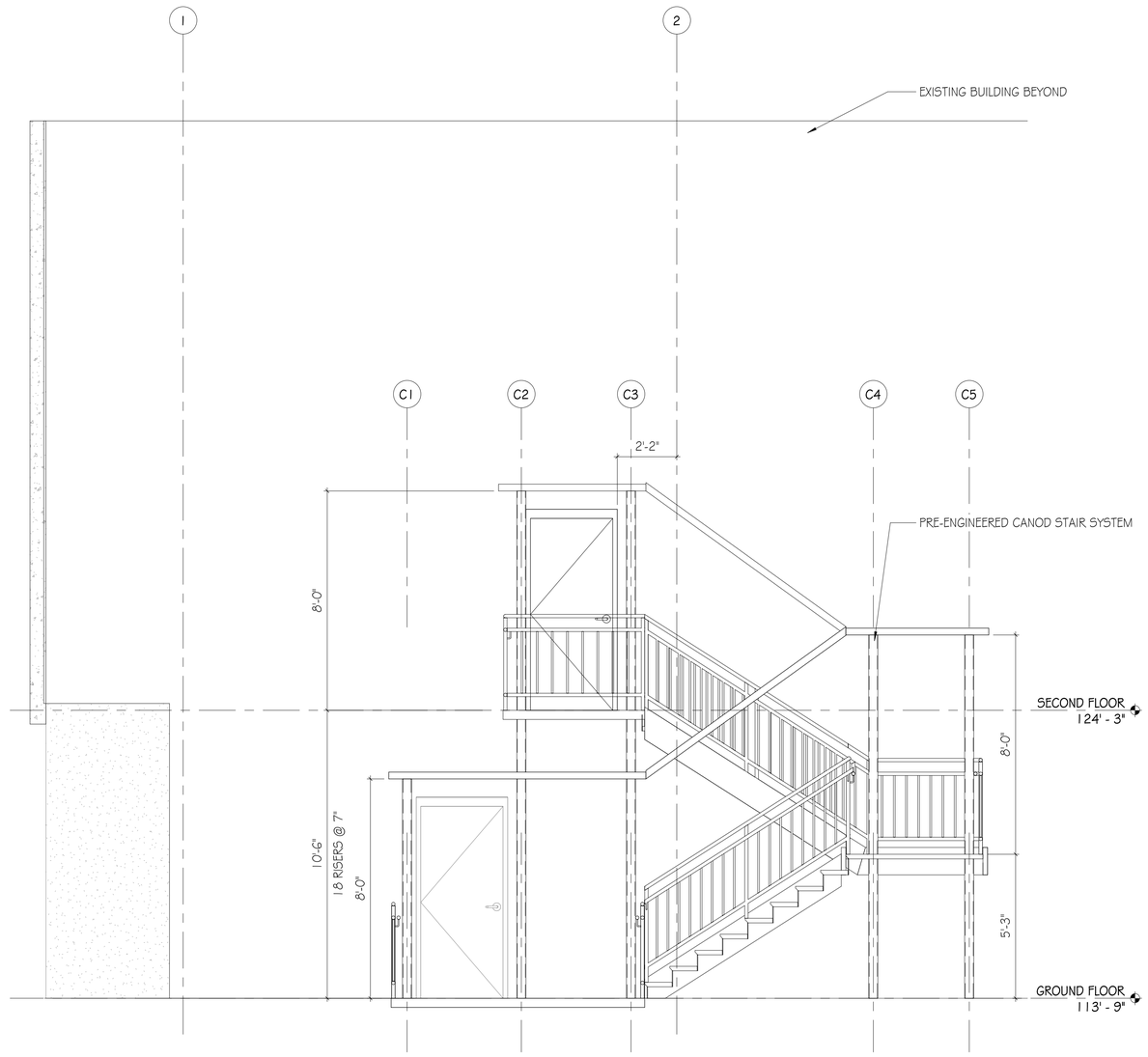
BGJWSC Project No. 906
GMC Project # CSAV190007

STATE OF GEORGIA
AMY E. H. BELL
RA014416
REGISTERED ARCHITECT

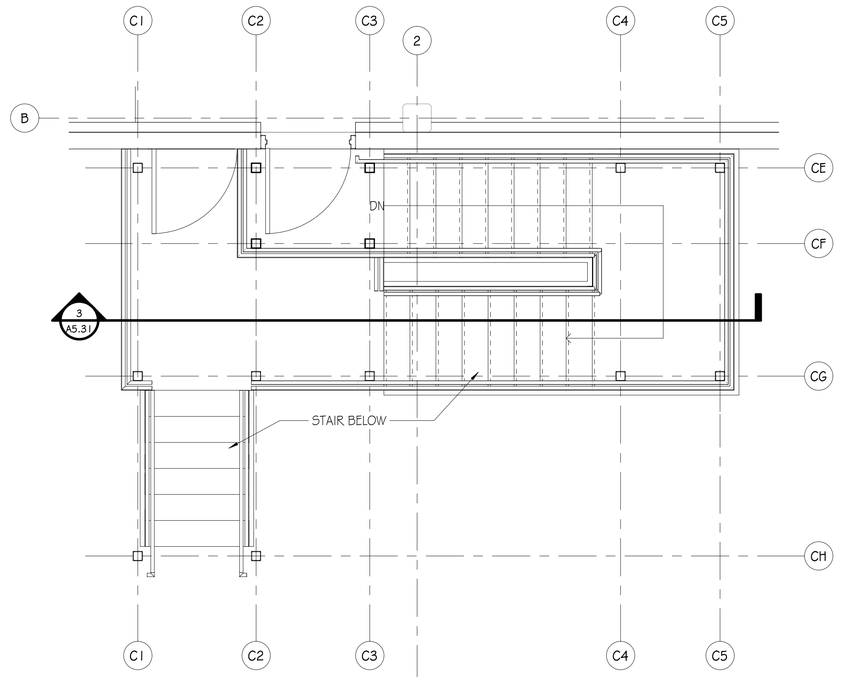
BUILDING SECTIONS

A5.02

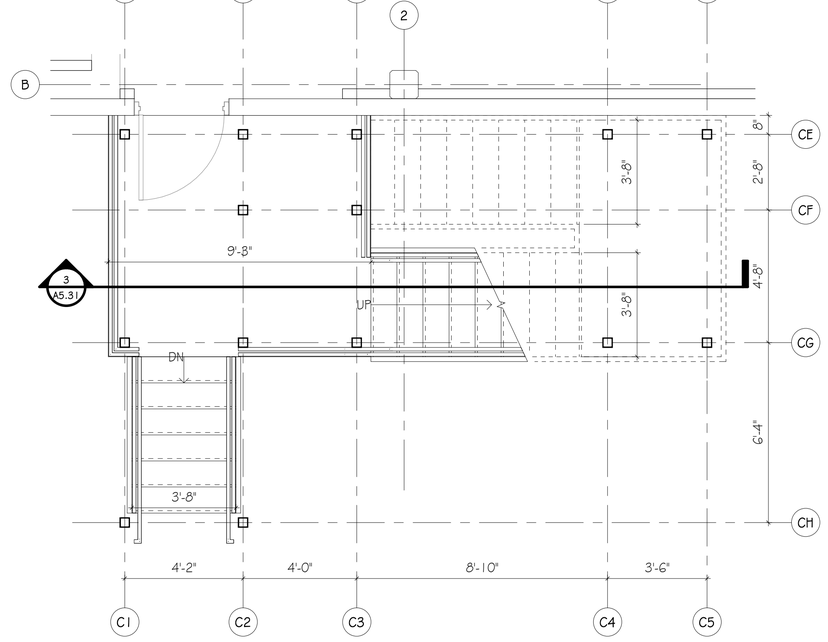
6/8/2020 12:38:21 PM



3 STAIR SECTION
SCALE: 3/8" = 1'-0"



1 SECOND FLOOR STAIR PLAN
SCALE: 3/8" = 1'-0"



2 FIRST FLOOR STAIR PLAN
SCALE: 3/8" = 1'-0"

GMC

35 Abercorn Street,
Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	09.09.2019	
70% SUBMITTAL	12.16.2019	
100% SUBMITTAL	03.12.2020	
CONSTRUCTION SUBMITTAL	06.15.2020	
PROJECT MANAGER:		JCV
ENGINEER:		MEF
DESIGNER:		GS
DRAWN BY:		FN/HKD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

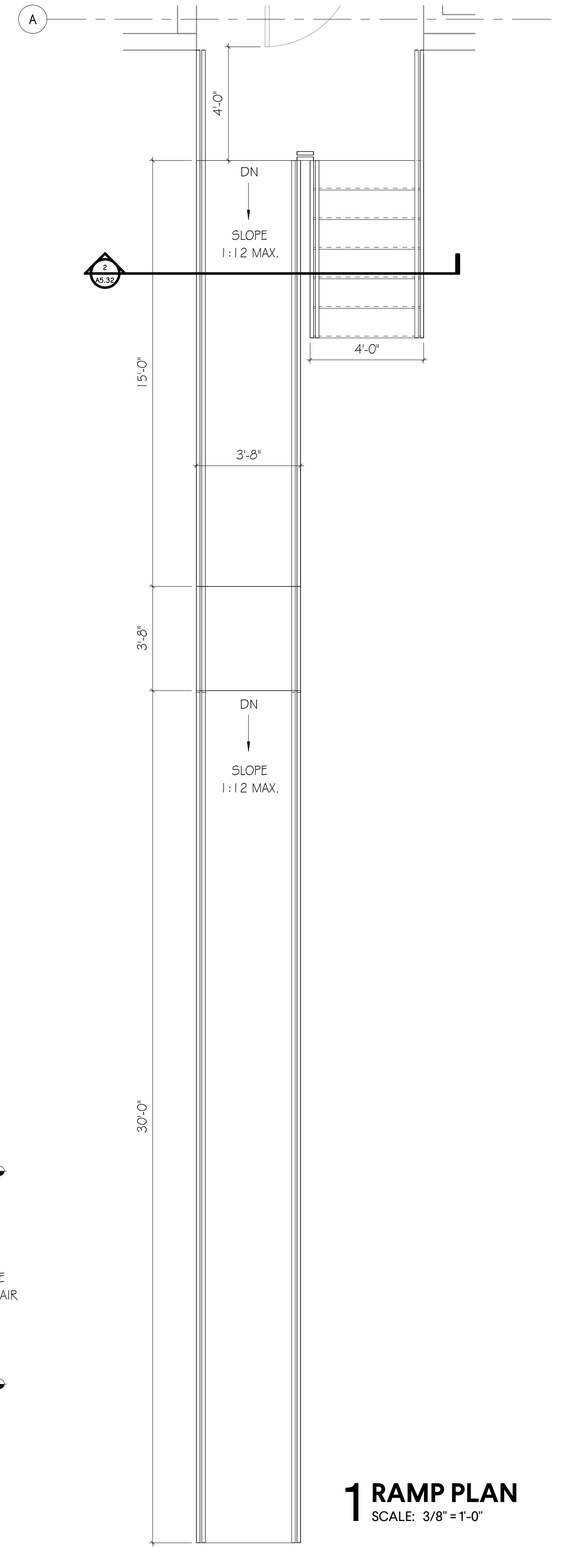
BGJWSC Project No. 906
GMC Project # CSAV190007

STATE OF GEORGIA
AMY K. H. BELL
RA014416
REGISTERED ARCHITECT

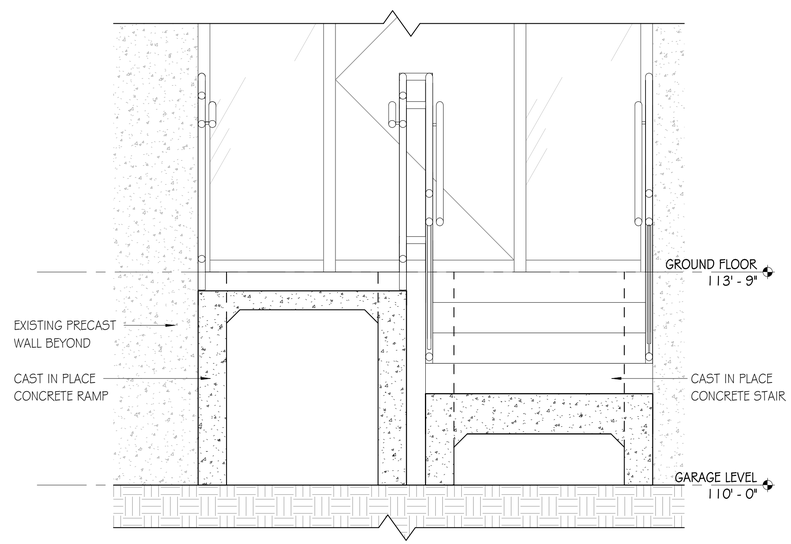
VERTICAL CIRCULATION

A5.31

6/8/2020 12:38:24 PM



1 RAMP PLAN
SCALE: 3/8" = 1'-0"



2 RAMP SECTION @ STAIR
SCALE: 3/4" = 1'-0"

GMC

35 Abercorn Street,
Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	FN/HKD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

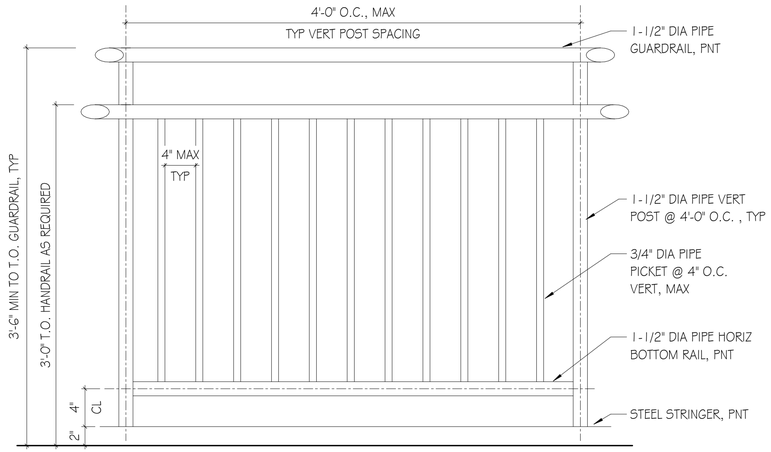
BGJWSC Project No. 906
GMC Project # CSAV190007

STATE OF GEORGIA
AMY R. H. BELL
RA014416
REGISTERED ARCHITECT

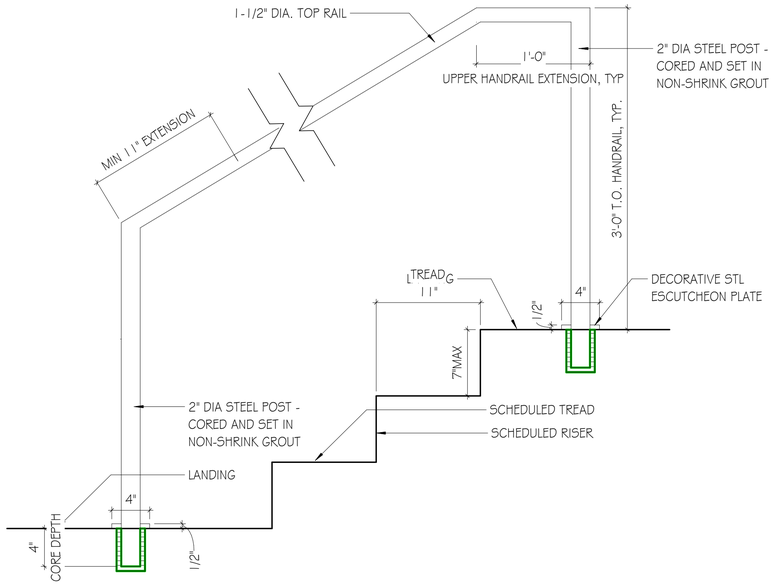
VERTICAL CIRCULATION

A5.32

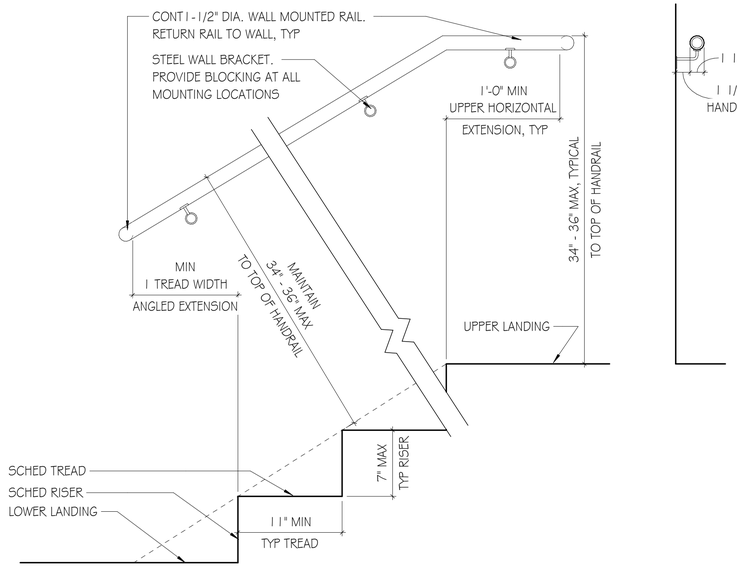
6/8/2020 12:38:25 PM



4 TYPICAL GUARDRAIL ELEVATION
SCALE: 1 1/2" = 1'-0"



2 TYPICAL FLOOR MOUNTED HANDRAIL
SCALE: 1 1/2" = 1'-0"



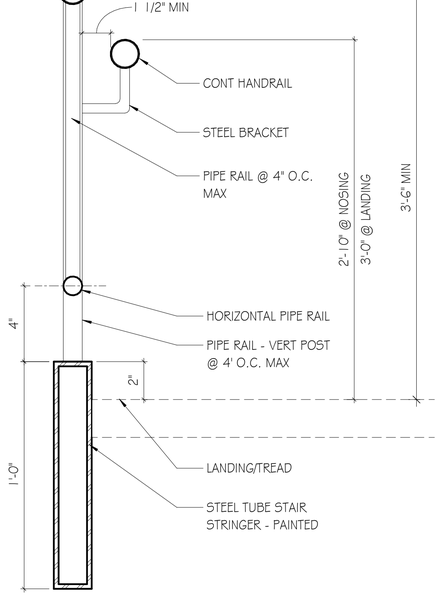
3 TYPICAL WALL MOUNTED HANDRAIL
SCALE: 1 1/2" = 1'-0"

RAILING ABBREVIATIONS

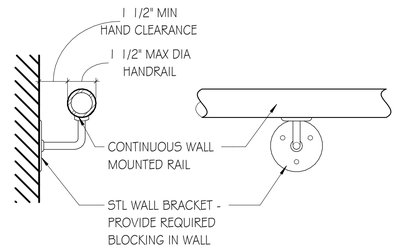
WM - WALL MOUNTED
FMW - FLOOR MOUNTED/WELDED TO EMBED
FMC - FLOOR (TREAD/LANDING) MOUNTED/CORED
PF - PREFINISHED
PNT - PAINTED FINISH
SST - STAINLESS STEEL
STL - STEEL
G - GLASS RAILING INFILL
HR-1 - HANDRAIL
HR-2 - DOUBLE SIDED HANDRAIL
GR - GUARDRAIL
SMW - STRINGER MOUNTED/WELDED
ALUM - ALUMINUM
STN - STAINED FINISH
SL - SEALED FINISH
SSM - SIDE STRINGER MOUNTED

RAILING GENERAL NOTES

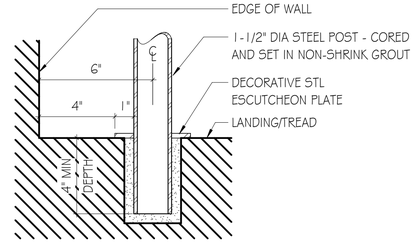
R.01. **CODE COMPLIANCE:** SEE GENERAL NOTES DIVISION 1 GENERAL REQUIREMENTS ITEM 1.09 FOR CODE COMPLIANCE.
R.02. **MULTI-TRADE COORDINATION:** SEE GENERAL NOTES DIVISION 1 GENERAL REQUIREMENTS ITEM 1.02 FOR MULTI-TRADE COORDINATION.
R.03. **HANDRAIL DIMENSIONS:** DIMENSIONS FOR HAND RAILINGS AS INDICATED IN CONTRACT DOCUMENTS. WIDTH BETWEEN HANDRAILS AT STAIRS AS INDICATED IN CONTRACT DOCUMENTS BUT SHALL NOT BE LESS THAN 44 INCHES CLEAR. WIDTH BETWEEN HANDRAILS AT RAMPS AS INDICATED IN CONTRACT DOCUMENTS BUT SHALL NOT BE LESS THAN 36 INCHES. HEIGHT OF HANDRAILS ABOVE STAIR TREAD NOSING OR FINISH SURFACES OF RAMPS AS INDICATED IN CONTRACT DOCUMENTS BUT SHALL BE UNIFORM AND NOT LESS THAN 24 INCHES AND NOT MORE THAN 38 INCHES. DIAMETER OF HANDRAILS AS INDICATED IN CONTRACT DOCUMENTS BUT SHALL NOT HAVE AN OUTSIDE DIAMETER OF LESS THAN 1-1/4 INCHES AND NOT GREATER THAN 2 INCHES. NON CIRCULAR HANDRAILS AS INDICATED IN CONTRACT DOCUMENTS BUT SHALL HAVE A PERIMETER DIMENSION OF AT LEAST 4 INCHES AND NOT GREATER THAN 6-1/4 INCHES WITH A MAXIMUM CROSS-SECTION DIMENSION OF 2-1/4 INCHES. EDGES SHALL HAVE A MINIMUM RADIUS OF 0.01 INCHES. HANDRAIL EXTENSIONS AS INDICATED IN CONTRACT DOCUMENTS, BUT WHERE HANDRAILS ARE NOT CONTINUOUS BETWEEN FLIGHTS, THE HANDRAILS SHALL EXTEND HORIZONTALLY AT LEAST 12 INCHES BEYOND THE TOP RISER AND CONTINUE TO SLOPE FOR THE DEPTH OF ONE TREAD BEYOND THE BOTTOM RISER. AT RAMPS WHERE HANDRAILS ARE NOT CONTINUOUS BETWEEN RUNS, THE HANDRAILS SHALL EXTEND HORIZONTALLY ABOVE THE LANDING 12 INCHES MINIMUM BEYOND THE TOP AND BOTTOM OF RAMP RUNS. THE EXTENSIONS OF HANDRAILS SHALL BE IN THE SAME DIRECTION OF THE STAIR FLIGHT AS STAIRWAYS AND RAMP RUNS AT RAMPS. CLEAR SPACE BETWEEN HANDRAIL AND WALL OR OTHER SURFACE AS INDICATED IN CONTRACT DOCUMENTS BUT SHALL BE A MINIMUM OF 1-1/2 INCHES.
R.04. **GUARDRAIL DIMENSIONS:** DIMENSIONS FOR GUARDRAILS AS INDICATED IN CONTRACT DOCUMENTS. HEIGHT OF GUARDRAILS ABOVE ADJACENT WALKING SURFACES, ADJACENT FIXED SEATING, OR THE LINE CONNECTING THE LEADING EDGE OF TREADS AS INDICATED IN CONTRACT DOCUMENTS BUT SHALL NOT BE LESS THAN 42 INCHES. OPENINGS IN GUARDRAILS AS INDICATED IN CONTRACT DOCUMENTS BUT SHALL NOT ALLOW THE PASSAGE OF A SPHERE 4 INCHES IN DIAMETER FROM THE WALKING SURFACE TO THE REQUIRED GUARD HEIGHT (FOR ROOF ACCESS SHALL PREVENT THE PASSAGE OF A SPHERE 21 INCHES IN DIAMETER). FROM A HEIGHT OF 36 INCHES TO 42 INCHES GUARDS SHALL NOT HAVE OPENINGS WHICH ALLOW PASSAGE OF A SPHERE 4-3/8 INCHES IN DIAMETER. THE TRIANGULAR OPENINGS AT THE OPEN SIDES OF A STAIR FORMED BY THE RISER, TREAD, AND BOTTOM RAIL SHALL NOT ALLOW PASSAGE OF A SPHERE 6 INCHES IN DIAMETER.



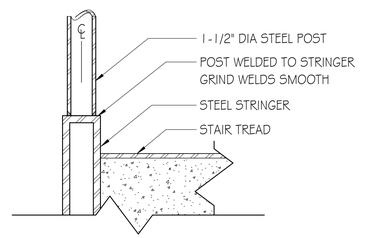
1 TYPICAL RAIL MOUNT - STRINGER
SCALE: 3" = 1'-0"



TYPICAL WALL MOUNTING



TYPICAL CORED LANDING/TREAD MOUNTING



TYPICAL INSIDE STRINGER MOUNTING

GMC
GMCNETWORK.COM
35 Abercorn Street, Suite 200 Savannah, GA 31401 T 912.655.6790

ISSUE	DATE
30% SUBMITTAL	08.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	FN/HKD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION
BGJWSC Project No. 906
GMC Project # CSAV190007

STATE OF GEORGIA
AMY R. H. BELL
RA014416
REGISTERED ARCHITECT

RAILING SCHEDULE & DETAILS

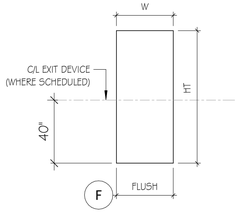
A5.41

6/8/2020 12:38:26 PM

DOOR SCHEDULE

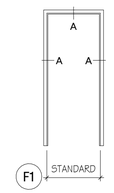
DOOR NUMBER	ROOM NAME	DOOR SIZE				DOOR DESCRIPTION			FRAME DESCRIPTION			FIRE RATING	DOOR HARDWARE				HEAD	JAMB	SILL	NUMBERED NOTES
		PAIR	W	H	THK	DOOR TYPE	MAT'L	GLASS OR LOUVER TYPE	FRAME TYPE	MAT'L	GLASS TYPE		HARDWARE SET	HOLD OPEN	ACCESS CTRL	FIRE ALARM				
09	OFFICE		3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
10	OFFICE		3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
11	OFFICE		3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
12	OFFICE		3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
13	OFFICE		3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
14	OFFICE		3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
19	OFFICE		3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
20	WASTEWATER PRIMARY		3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
21	STOR		3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
22	STOR		3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
23	WATER LAB BACK-UP		3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
24	OFFICE		3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
52			3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
55			3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
57	IT OFFICE		3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
58	WORKSPACE		3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
59	OFFICE		3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
61	SCADA OFFICE		3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
62	SCADA SERVER		3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
64	CORRIDOR		3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
65	HVAC STOR		3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
66	ELECTRICAL ROOM		3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
69	WOMEN		3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
70	STORAGE	■	2' - 6"	7' - 0"	1 3/4"	F	HM		F1	HM										
71	STORAGE	■	2' - 6"	7' - 0"	1 3/4"	F	HM		F1	HM										
78	EMERGENCY OPERATIONS		3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
79	EMERGENCY OPERATIONS		3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
80	TRAINING		3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
81	TRAINING		3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
84	STORAGE	■	2' - 6"	7' - 0"	1 3/4"	F	HM		F1	HM										
85	STORAGE	■	2' - 6"	7' - 0"	1 3/4"	F	HM		F1	HM										
86	EMERGENCY OPERATIONS		3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
87	EMERGENCY OPERATIONS		3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
88	TRAINING		3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
89	TRAINING		3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
93	WOMEN		3' - 0"	7' - 0"	1 3/4"	F	HM			HM										
94	MEN		3' - 0"	7' - 0"	1 3/4"	F	HM			HM										

SWING DOORS



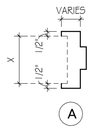
FRAME TYPES - HOLLOW METAL

NOTE: ALL FRAMES TO BE FACE-WELDED EXCEPT WHERE NOTED "KD"

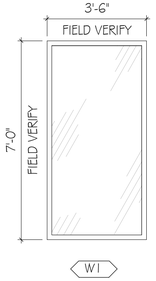


FRAME PROFILES

NOTE: X = THROAT DIMENSION /PARTITION THICKNESS



WINDOW ELEVATION



DOOR COMMENTS LEGEND

01 MAGNETIC HOLD-OPEN DEVICES
02 ALUMINUM-FRAME ICU/CCU DOOR, SEE GLAZING SCHEDULE FOR CONFIGURATION
03 THERMAL RATED [INSULATED] ASSEMBLY
04 DOOR EDGE CONSTRUCTION: SEAMLESS
05 LEVEL 3 AND PHYSICAL PERFORMANCE LEVEL A [EXTRA HEAVY-DUTY]
06 EGRESS - EXIT ONLY DOOR
07 EXISTING DOOR AND FRAME TO REMAIN
08 EXISTING FRAME TO REMAIN
09 INSTALL NEW DOOR HARDWARE AS SCHED. MODIFY EXIST. DOOR/FRAME AS REQ'D
10 MECHANICAL KEYPAD LOCK. SEE SPECIFICATIONS

DOOR GENERAL NOTES

1) GENERAL:
A. DOOR AND/OR FRAME CONSTRUCTION SHALL BE AS SPECIFIED UNLESS NOTED OTHERWISE.

B. ALL TYPES OF DOORS ARE REPRESENTED IN THIS SCHEDULE FOR CONVENIENCE. WHERE MORE DESCRIPTIVE INFORMATION MAY BE LOCATED ELSEWHERE, NOTATION IS MADE IN THE NUMBERED NOTES COLUMN. (E.G. ALUMINUM FRAMED ENTRANCE DOORS. SEE GLAZING SCHEDULE FOR CONFIGURATION.)

2) MATERIAL AND FINISH:
A. MATERIALS AND FINISHES INDICATED ON THE SCHEDULE ARE AS FOLLOWS:

HM	HOLLOW METAL
ST	STEEL
ST/S	STEEL / STAINLESS OR STAINLESS CLAD
WD	SOLID CORE WOOD
WD/PL	WOOD / PLASTIC LAMINATE FACED
WD/IR	WOOD / IMPACT-RESISTANT VINYL-FACED
AL	ALUMINUM
GL	GLAZING/GLASS

3) GLASS:
A. GLASS TYPES INDICATED ON THE SCHEDULE ARE AS FOLLOWS (SEE SPECIFICATION SECTIONS 088000 "GLAZING" & 134900 "RADIATION PROTECTION"):

G1	6.0mm	CLEAR, TEMPERED
G2	7.5mm	CLEAR, LAMINATED, INTERLAYER COLOR: CLEAR
G3	7.5mm	CLEAR, LAMINATED, INTERLAYER COLOR: ARCTIC SNOW
G4	8.0mm	FIRELITE PLUS - FIRE-RATED CERAMIC GLAZING
G5	12.5mm	SAFETY, LEAD BORATE GLASS, SEE SPECIFICATIONS
G6	12.5mm	SAFETY, LASER RATED, SEE SPECIFICATIONS

4) LOUVER:
A. DOOR LOUVER TYPES INDICATION ON THE SCHEDULE ARE AS FOLLOWS:

L1	A" X B", SIGHT PROOF
L2	C" X D", SIGHT PROOF
L3	E" X F", LIGHT PROOF

5) DOOR HARDWARE:
A. "HARDWARE SET NUMBER" REFERS TO HARDWARE SETS SPECIFIED IN SPECIFICATION SECTION 087100 "DOOR HARDWARE".

GMC
35 Abercorn Street, Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	08.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020

PROJECT MANAGER: JCV
ENGINEER: MEF
DESIGNER: GS
DRAWN BY: FN/HKD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

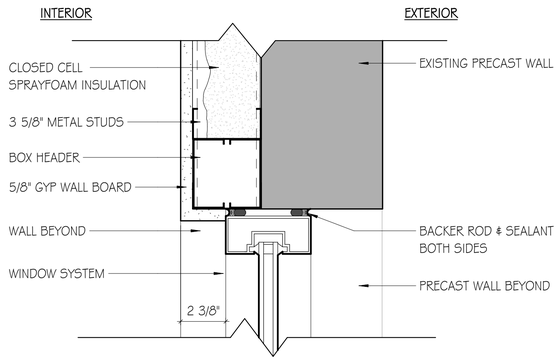
BGJWSC Project No. 906
GMC Project # CSAV190007

STATE OF GEORGIA
AMY K. H. BELL
RA014416
REGISTERED ARCHITECT

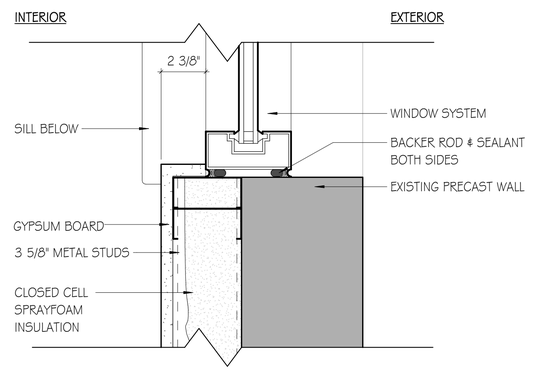
DOOR SCHEDULE, LEGEND, & DETAILS

A6.01

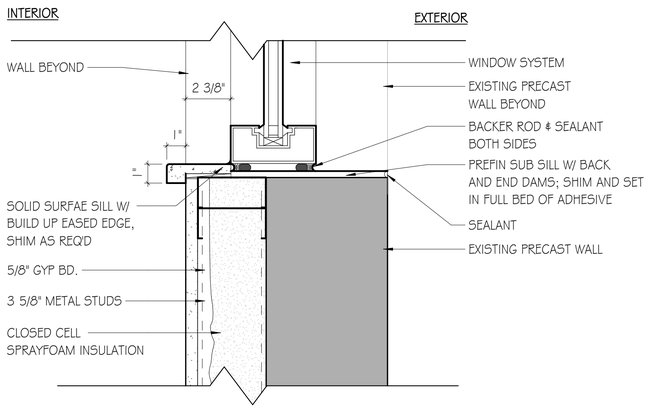
6/8/2020 12:38:28 PM



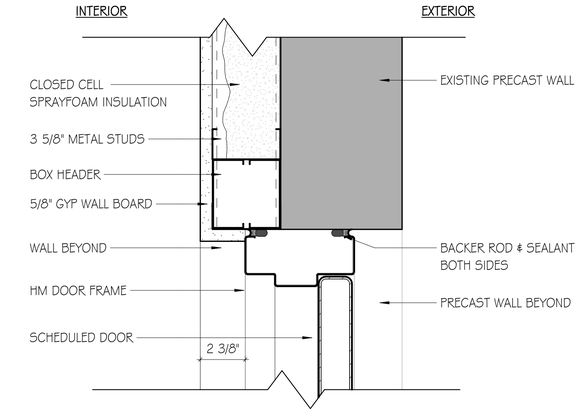
6 EXTERIOR WINDOW HEAD
SCALE: 3" = 1'-0"



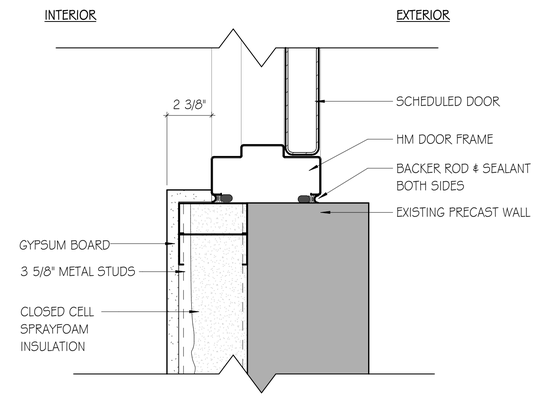
5 EXTERIOR WINDOW JAMB
SCALE: 3" = 1'-0"



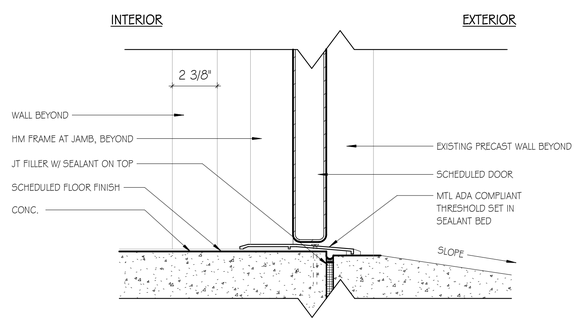
4 EXTERIOR WINDOW SILL
SCALE: 3" = 1'-0"



3 EXTERIOR DOOR HEAD
SCALE: 3" = 1'-0"



2 EXTERIOR DOOR JAMB
SCALE: 3" = 1'-0"



1 EXTERIOR DOOR SILL
SCALE: 3" = 1'-0"

GMC
35 Abercorn Street,
Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	09.09.2019	GS
70% SUBMITTAL	12.16.2019	GS
100% SUBMITTAL	03.12.2020	MEF
CONSTRUCTION SUBMITTAL	06.15.2020	JCV
PROJECT MANAGER:		MEF
ENGINEER:		GS
DESIGNER:		GS
DRAWN BY:		FN/HKD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

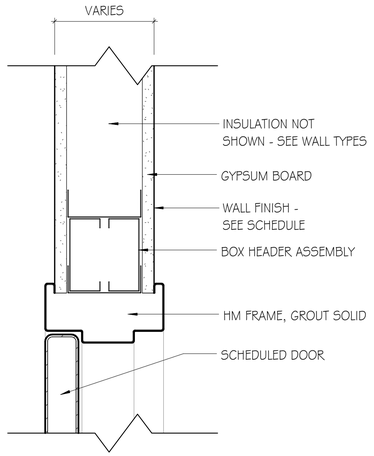
BGJWSC Project No. 906
GMC Project # CSAV190007

STATE OF GEORGIA
AMY K. H. BELL
RA014416
REGISTERED ARCHITECT

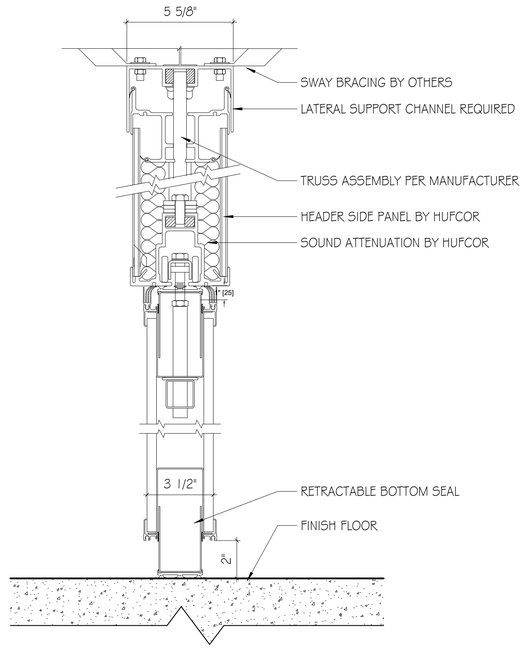
WINDOW & DOOR DETAILS

A6.02

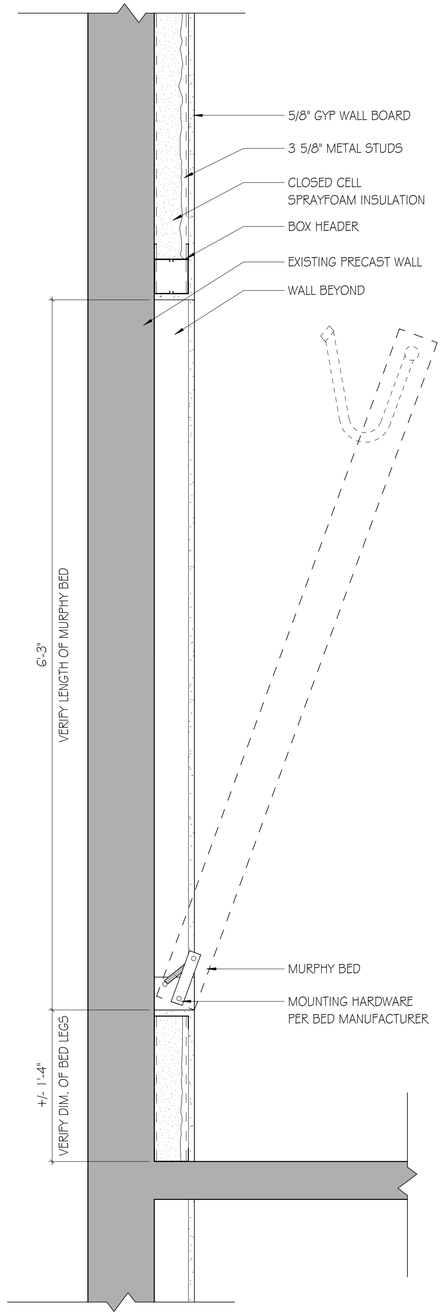
6/8/2020 12:38:29 PM



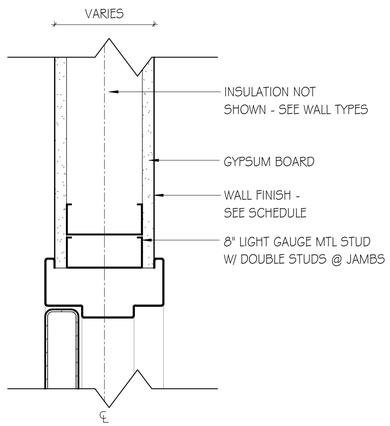
1 INTERIOR DOOR HEAD @ GYP
SCALE: 3" = 1'-0"



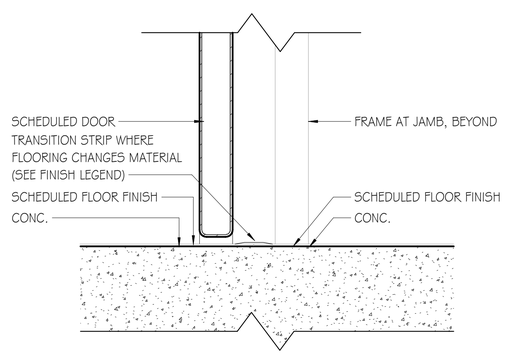
6 PARTITION DETAIL
SCALE: 3" = 1'-0"



7 MURPHY BED DETAIL
SCALE: 1 1/2" = 1'-0"



3 INTERIOR DOOR JAMB @ GYP
SCALE: 3" = 1'-0"



5 INTERIOR DOOR SILL
SCALE: 3" = 1'-0"

GMC

35 Abercorn Street, Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	FN/HKD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

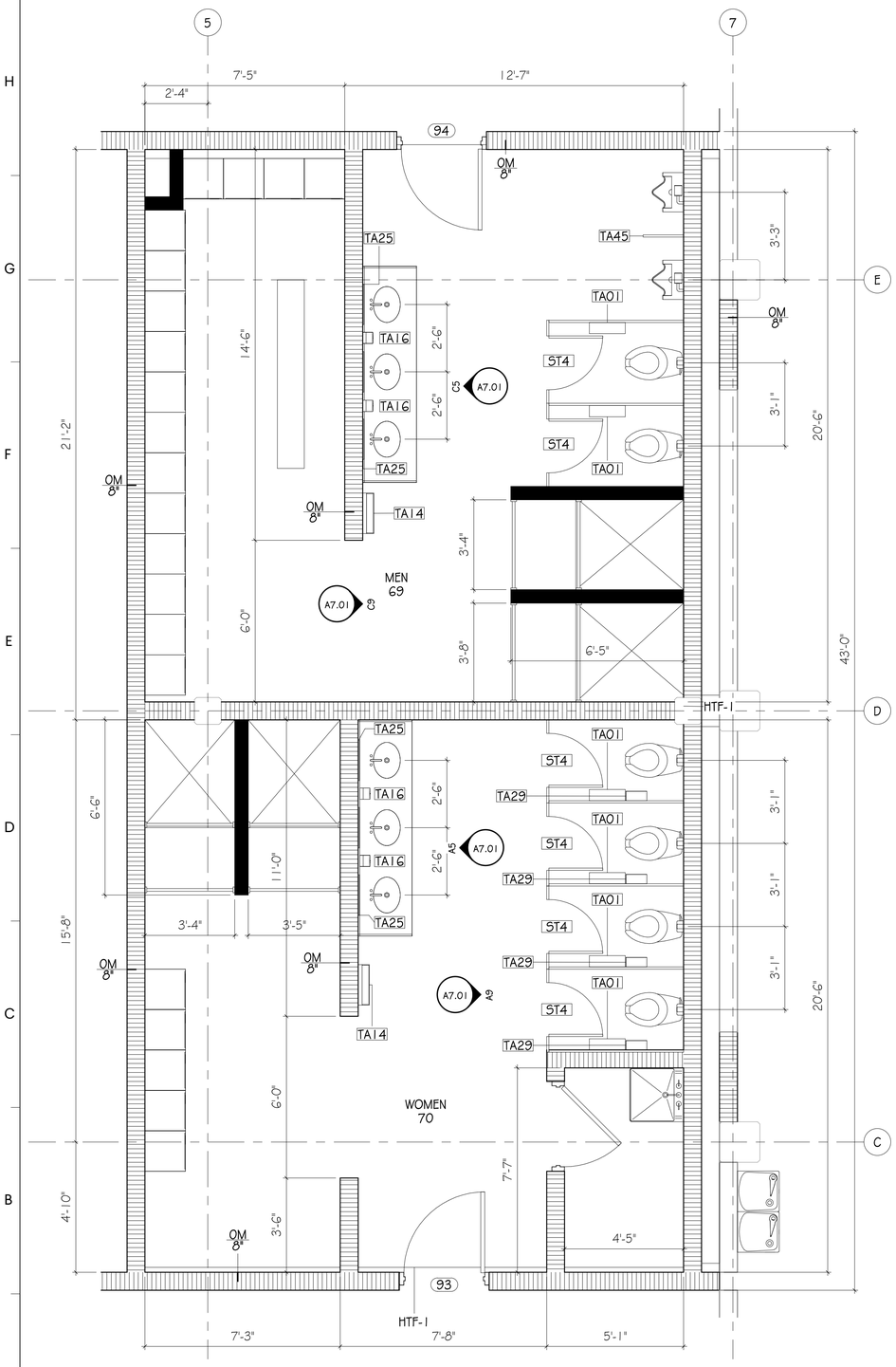
BGJWSC Project No. 906
GMC Project # CSAV190007

STATE OF GEORGIA
AMY K. H. BELL
RA014416
REGISTERED ARCHITECT

INTERIOR DETAILS

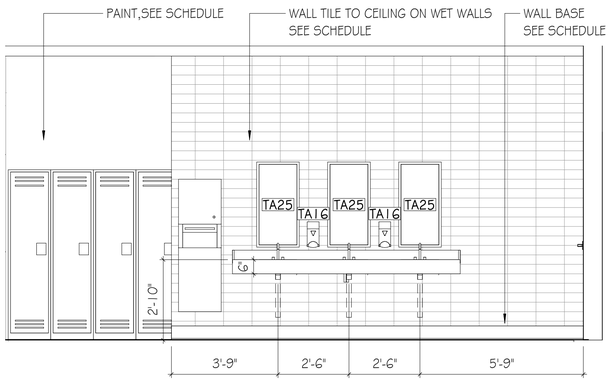
A6.03

6/8/2020 12:38:31 PM

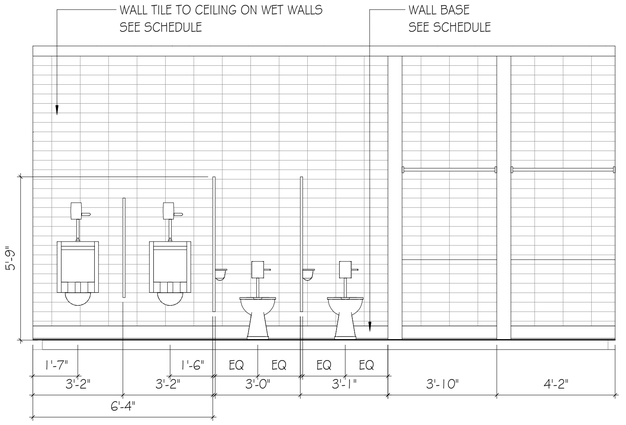


A3 ENLARGED RESTROOM PLAN
SCALE: 3/8" = 1'-0"

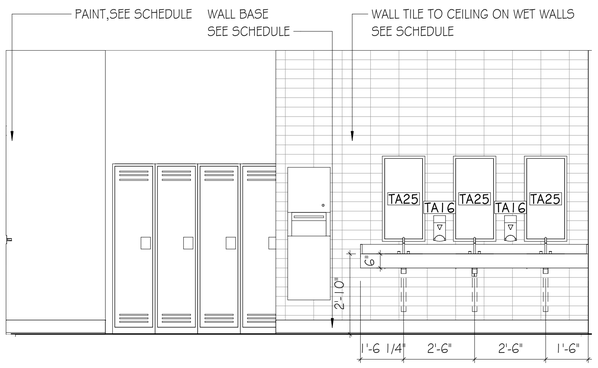
TOILET ACCESSORIES SCHEDULE	
ACCESSORY	DESCRIPTION
TA01	DOUBLE TOILET TISSUE DISPENSER
TA14	DISPENSER RECEPTACLE COMBINATION UNIT
TA16	WALL MOUNTED SOAP DISPENSER - AUTOMATIC
TA22	42" HORIZONTAL GRAB BAR
TA25	FRAMED MIRROR
TA29	SANITARY NAPKIN RECEPTACLE
TA33	EXTRA HEAVY DUTY SHOWER CURTAIN ROD
TA45	URINAL PARTITION SCREEN
TA58	UNDERLAVATORY GUARD



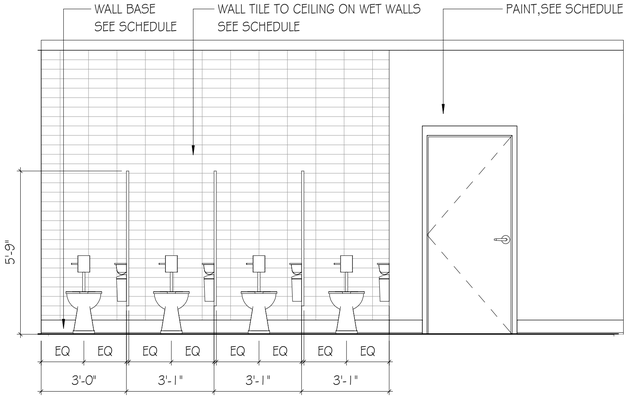
C5 MEN RESTROOM
SCALE: 3/8" = 1'-0"



C9 MEN RESTROOM
SCALE: 3/8" = 1'-0"



A5 WOMEN RESTROOM
SCALE: 3/8" = 1'-0"



A9 WOMEN RESTROOM
SCALE: 3/8" = 1'-0"

GMC

35 Abercorn Street, Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	FN/HKD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

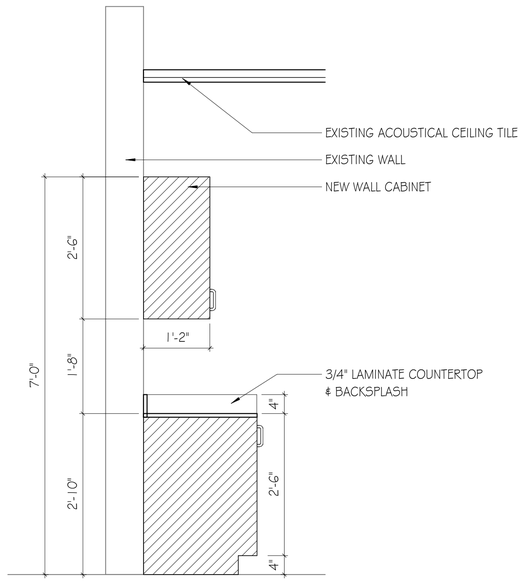
BGJWSC Project No. 906
GMC Project # CSAV190007

STATE OF GEORGIA
AMY K. H. BELL
RA014416
REGISTERED ARCHITECT

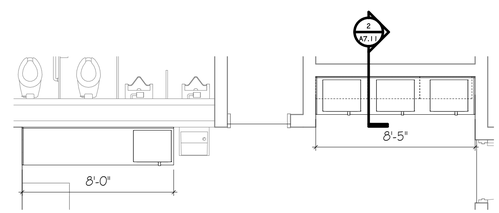
INTERIOR ELEVATIONS

A7.01

6/8/2020 12:38:34 PM



2 MILLWORK SECTION
SCALE: 3/4" = 1'-0"



1 KITCHEN PLAN
SCALE: 1/4" = 1'-0"

6/8/2020 12:38:35 PM

GMC

35 Abercorn Street,
Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	FN/HKD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project # CSAV190007

STATE OF GEORGIA
AMY H. BELL
RA014416
REGISTERED ARCHITECT

MILLWORK DETAILS

A7.11

ROOM FINISH SCHEDULE

ROOM #	ROOM NAME	FLOOR	BASE	WALL	COMMENTS
16	STOR	QT-1	QTB-1	PT-1	
17	OFFICE	CPT-1	RB-1	PT-1	
18	STOR	QT-1	QTB-1	PT-1	
19	WATER LAB BACK-UP	QT-1	QTB-1	PT-1	
31	COMMON WORKSPACE	SC-1		PT-1	
32	OFFICE	CPT-1	RB-1	PT-1	
33	OFFICE	CPT-1	RB-1	PT-1	
34	OFFICE	CPT-1	RB-1	PT-1	
35	OFFICE	CPT-1	RB-1	PT-1	
36	OFFICE	CPT-1	RB-1	PT-1	
37	OFFICE	CPT-1	RB-1	PT-1	
46	HVAC STOR	SC-1		PT-1	
47	IT OFFICE	ADT-1	RB-2	PT-1	
48	SCADA SERVER	ADT-1	RB-2	PT-1	
49	SCADA OFFICE	ADT-1	RB-2	PT-1	
50	ELECTRICAL ROOM	SC-1		PT-1	
60	STORAGE	SC-1		PT-1	
61	STORAGE	SC-1		PT-1	
63	EMERGENCY OPERATIONS	CPT-1	RB-1	PT-1	
64	TRAINING	CPT-1	RB-1	PT-1	
67	STORAGE	SC-1		PT-1	
68	STORAGE	SC-1		PT-1	
69	MEN	HFT-1	HTB-1	PT-1	
70	WOMEN	HFT-1	HTB-1	PT-1	
75	CORRIDOR	EX-1			
76	CORRIDOR	EX-1			
78	OFFICE	CPT-1	RB-1	PT-1	
79	WASTEWATER PRIMARY	QT-1	QTB-1	PT-1	
82	UNISEX	EX-1			

ROOM FINISH SCHEDULE

ROOM #	ROOM NAME	FLOOR	BASE	WALL	COMMENTS
83	MEN	EX-1			
85	OFFICE	EX-1			
86	WORKSPACE	EX-1			
87	OFFICE	EX-1			
90	UTILITY	EX-1			
91	STAIR	EX-1			
92	CORRIDOR	SC-1		PT-1	
93	RECEPTION	EX-1			
94	LOADING DOCK	EX-1			
98	GARAGE	EX-1			
101	STORAGE	EX-1			
102	STORAGE	EX-1			
105	IT SERVER	ADT-1	RB-2	PT-1	
106	STORAGE	EX-1			
107	STORAGE	EX-1			
108	OFFICE	EX-1			
109	OFFICE	EX-1			
112	BREAK ROOM	EX-1			
113	CORRIDOR	SC-1		PT-1	

FINISH NOTES

GENERAL:
REFER TO FINISH PLANS AND ELEVATIONS FOR LOCATION OF ACCENT PAINT COLORS.

REFER TO INTERIOR FLOOR PATTERN AND FINISH PLANS FOR FLOOR PATTERNS. CONTRACTOR TO NOTIFY INTERIOR DESIGNER BEFORE INSTALLATION OF FLOORING TO REVIEW DESIGN INTENT OF FLOOR PATTERN PLAN.

ALL HOLLOW METAL DOOR AND WINDOW FRAMES TO BE PAINTED XXX, UNLESS OTHERWISE NOTED.

ALL RESILIENT TRANSITION STRIPS, SHALL BE COLOR XXX, UNLESS OTHERWISE NOTED ON DETAIL.

REFER TO RCP FOR ACCENT PAINT COLOR LOCATIONS.

WHERE HARD FLOOR TILE IS USED, CENTER PATTERN IN ROOM. ALIGN VERTICAL GROUT LINES OF WALL TILE THOSE IN FLOOR TILE.

GROUT COLORS TO BE DETERMINED DURING CONSTRUCTION.

INSTALL 3MM EDGE BAND ON ALL PLASTIC LAMINATE COUNTERTOPS TO MATCH COUNTERTOP LAMINATE COLOR. GC TO ALLOW ADEQUATE TIME FOR SPECIAL PRODUCTION RUN.

ALL ACCESS PANELS AND GRILLES TO BE PAINTED WALL OR CEILING COLOR, UNLESS OTHERWISE NOTED.

ALL WINDOWS TO HAVE XXX SILL, UNLESS OTHERWISE NOTED.

FINISH LEGEND

FLOOR

NUMBER	TYPE	DETAIL DESCRIPTION
CPT-1	CARPET	MANUFACTURER: STYLE NAME: COLOR: SIZE: INSTALLATION: LOCATION:
EX-1	EXISTING TO REMAIN	MANUFACTURER: STYLE NAME: COLOR: SIZE: LOCATION:
HTF-1	HARD FLOOR TILE	MANUFACTURER: STYLE NAME: COLOR: SIZE: INSTALLATION: GROUT: LOCATION:
QT-1	QUARRY TILE	MANUFACTURER: STYLE NAME: COLOR: SIZE: INSTALLATION: LOCATION:
PC-#	POLISHED CONCRETE	MANUFACTURER: STYLE NAME: COLOR: LOCATION:

FLOOR

NUMBER	TYPE	DETAIL DESCRIPTION
ADT-1	ANTI-DISSIPATING TILE	MANUFACTURER: STYLE NAME: COLOR: SIZE: LOCATION:
RST-#	RUBBER STAIR TREAD & RISERS	MANUFACTURER: STYLE NAME: COLOR: LOCATION:
SC-1	SEALED CONCRETE	MANUFACTURER: STYLE NAME: COLOR: LOCATION:
STC-#	STAINED CONCRETE	MANUFACTURER: STYLE NAME: COLOR: INSTALLATION: LOCATION: UNITS
VCT-#	VINYL COMPOSITION TILE	MANUFACTURER: STYLE NAME: COLOR: SIZE: INSTALLATION: LOCATION:

BASE

NUMBER	TYPE	DETAIL DESCRIPTION
QTB-1	QUARRY TILE BASE	MANUFACTURER: STYLE NAME: COLOR: SIZE: LOCATION:
HTB-1	HARD TILE BASE	MANUFACTURER: STYLE NAME: COLOR: SIZE: LOCATION:
RB-1	RUBBER BASE	MANUFACTURER: STYLE NAME: COLOR: SIZE: INSTALLATION: LOCATION: UNITS
RB-2	RUBBER BASE	MANUFACTURER: STYLE NAME: COLOR: SIZE: LOCATION:

WALL

NUMBER	TYPE	DETAIL DESCRIPTION
HTW-#	HARD WALL TILE	MANUFACTURER: STYLE NAME: COLOR: INSTALLATION: GROUT: LOCATION:
PNT-1	[GENERAL/MAIN PAINT]	MANUFACTURER: COLOR: LOCATION:
PNT-2	[TRIM PAINT]	MANUFACTURER: COLOR: LOCATION:
PNT-3	[MAIN CEILING/SOFFIT PAINT]	MANUFACTURER: COLOR: LOCATION:
WC-1	WALL COVERING	MANUFACTURER: STYLE NAME: COLOR: LOCATION:

MISC

NUMBER	TYPE	DETAIL DESCRIPTION
PL-#	PLASTIC LAMINATE [TYP. FACE]	MANUFACTURER: STYLE NAME: COLOR: LOCATION:
PL-#	PLASTIC LAMINATE [TYP TOP]	MANUFACTURER: STYLE NAME: COLOR: LOCATION:
SS-#	SOLID SURFACE	MANUFACTURER: COLOR: THICKNESS: LOCATION:
TP-#	TOILET PARTITIONS	MANUFACTURER: STYLE NAME: COLOR: LOCATION:
WD-#	WOOD	MANUFACTURER: STYLE NAME: COLOR: LOCATION:
WF-#	WINDOW FILM	MANUFACTURER: STYLE NAME: COLOR: LOCATION:

GMC
35 Abercorn Street,
Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	08.09.2019	
70% SUBMITTAL	12.16.2019	
100% SUBMITTAL	03.12.2020	
CONSTRUCTION SUBMITTAL	06.15.2020	
PROJECT MANAGER:		JCV
ENGINEER:		MEF
DESIGNER:		GS
DRAWN BY:		FN/HKD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

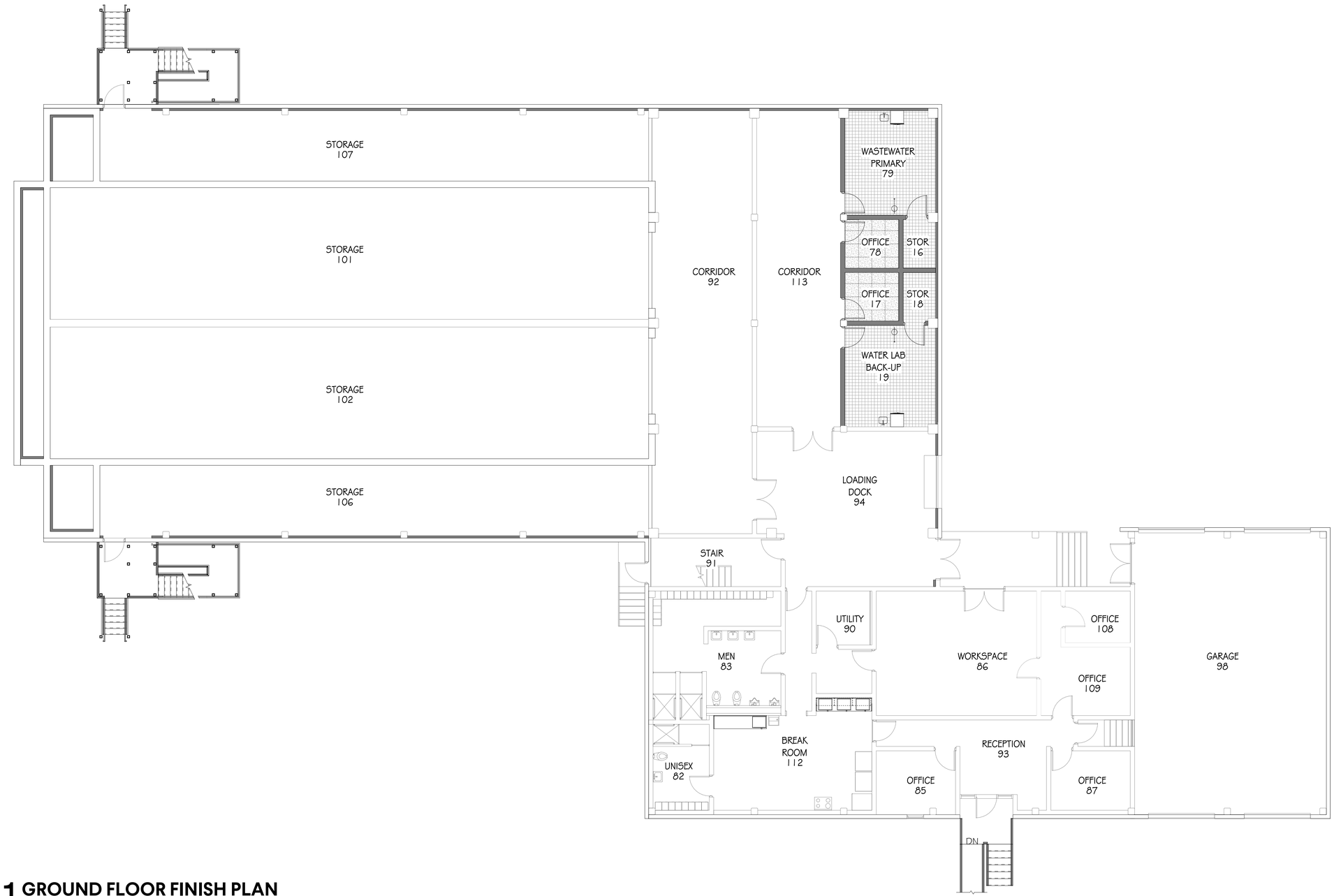
BGJWSC Project No. 906
GMC Project # CSAV190007

STATE OF GEORGIA
AMY L. H. BELL
RA014416
REGISTERED ARCHITECT

FINISH LEGEND AND SCHEDULE

A8.01

6/8/2020 12:38:37 PM



1 GROUND FLOOR FINISH PLAN
SCALE: 1/8" = 1'-0"

6/8/2020 12:38:39 PM

GMC

35 Abercorn Street,
Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	FN/HKD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

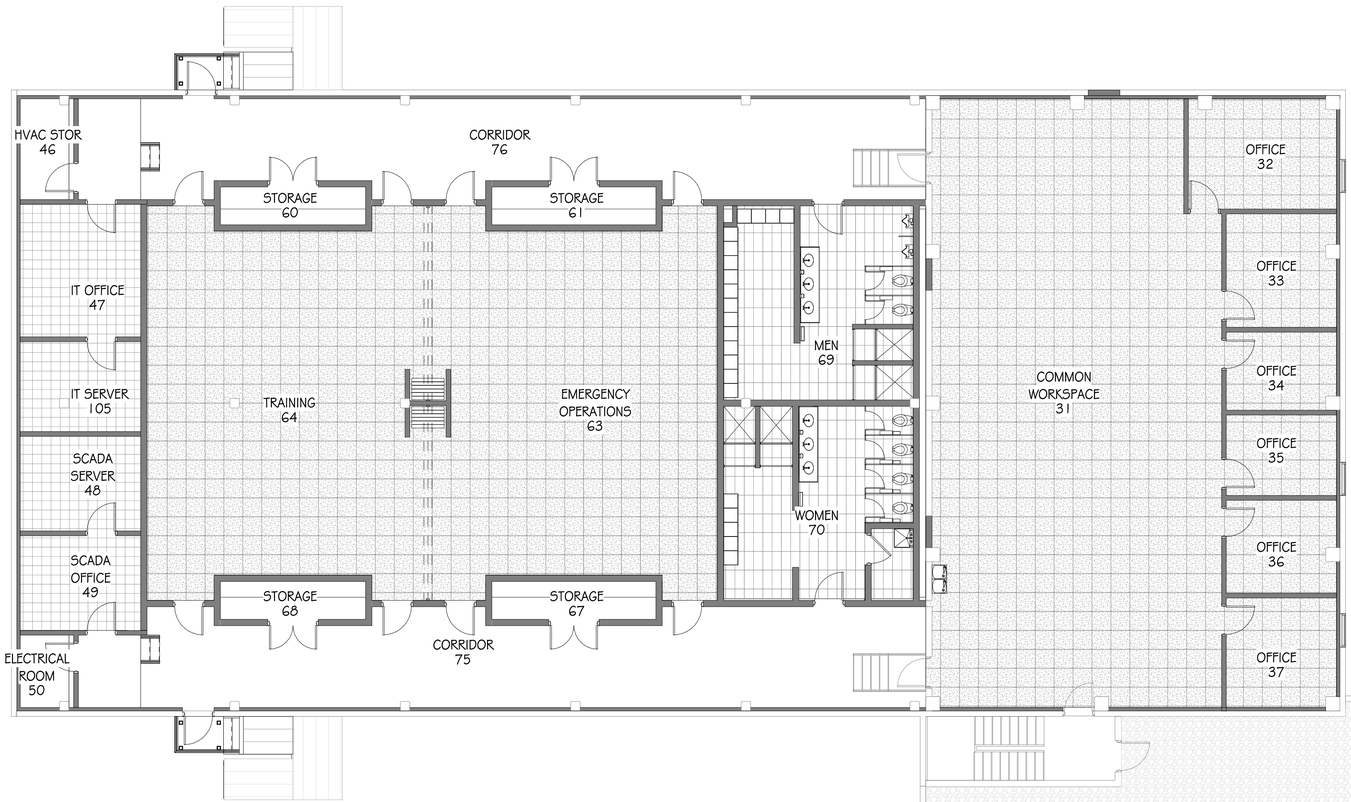
BGJWSC Project No. 906

GMC Project # CSAV190007

STATE OF GEORGIA
AMY K. H. BELL
RA014416
REGISTERED ARCHITECT

GROUND FLOOR FINISH PLAN

A8.02



1 SECOND FLOOR FINISH PLAN

SCALE: 1/8" = 1'-0"

6/8/2020 12:38:43 PM

GMC

35 Abercorn Street,
Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	08.09.2019	
70% SUBMITTAL	12.16.2019	
100% SUBMITTAL	03.12.2020	
CONSTRUCTION SUBMITTAL	06.15.2020	
PROJECT MANAGER:		JCV
ENGINEER:		MEF
DESIGNER:		GS
DRAWN BY:		FN/HKD

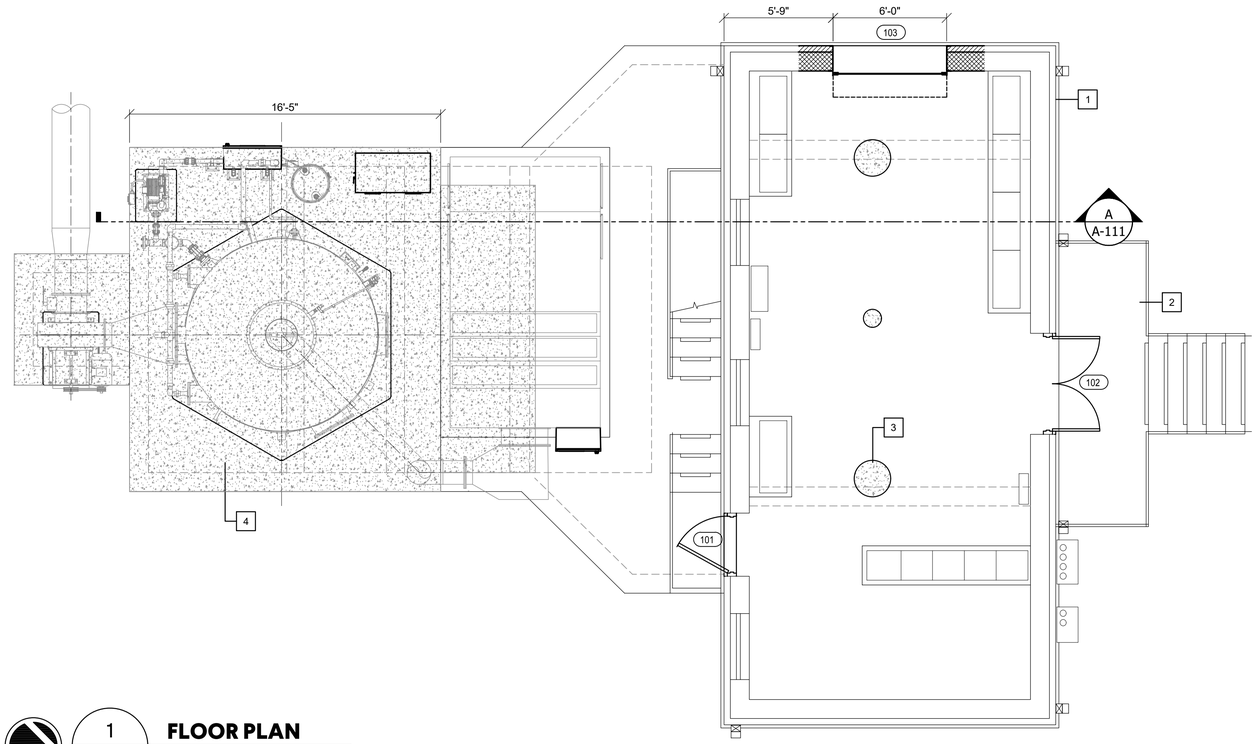
2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project # CSAV190007

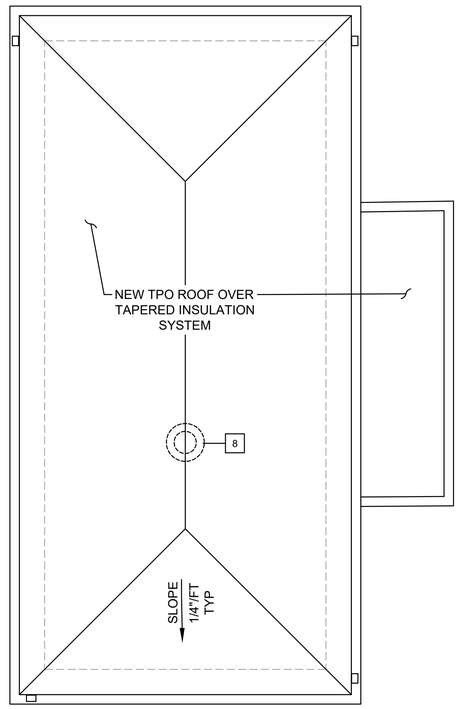
STATE OF GEORGIA
AMY K. H. BELL
RA014416
REGISTERED ARCHITECT

SECOND FLOOR FINISH PLAN

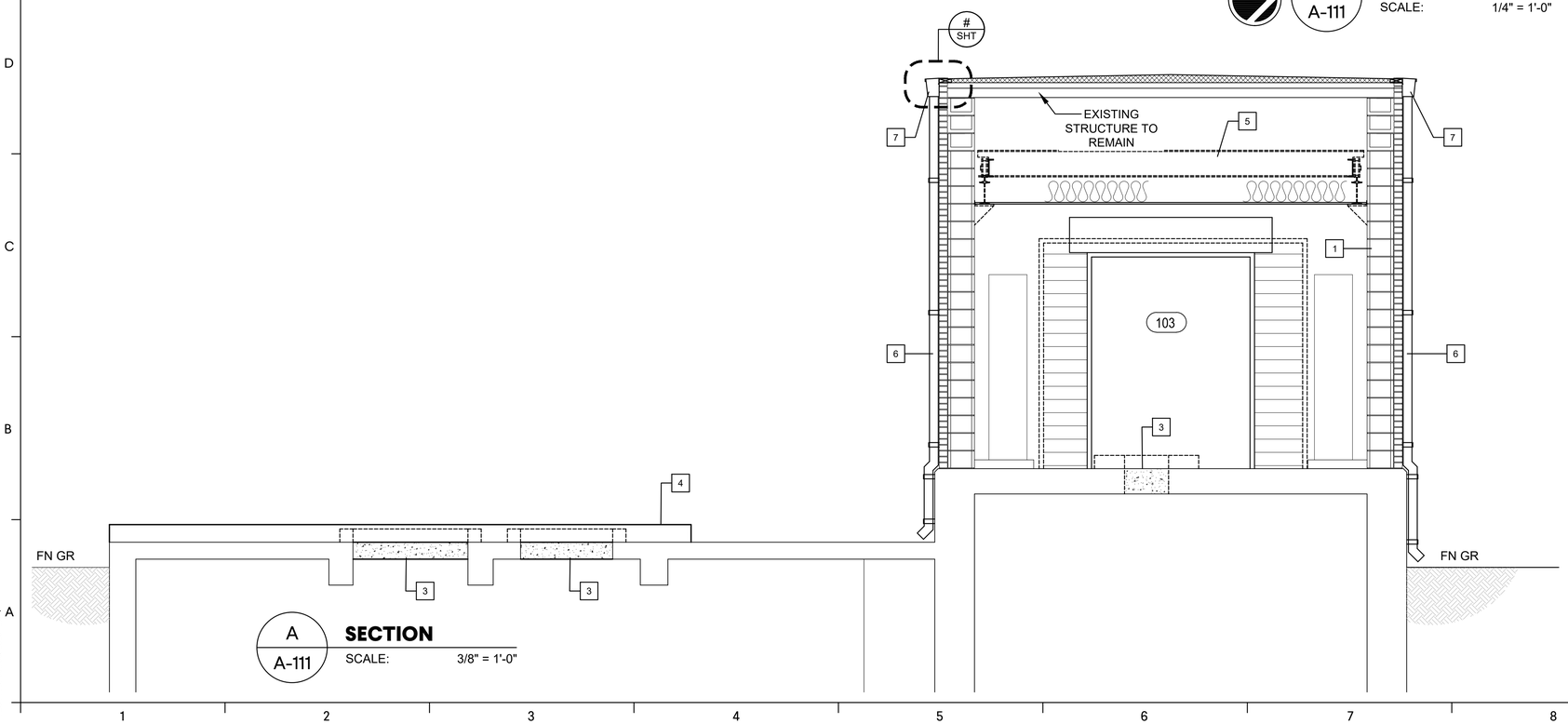
A8.03



1 / A-111 **FLOOR PLAN**
SCALE: 1/4" = 1'-0"



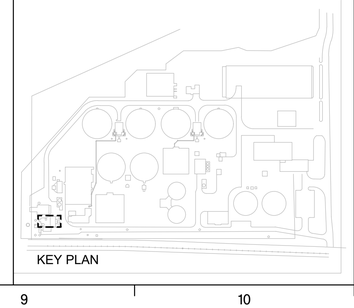
1 / A-111 **ROOF PLAN**
SCALE: 1/4" = 1'-0"



A / A-111 **SECTION**
SCALE: 3/8" = 1'-0"

KEY NOTES: #

1. WATER BLAST CLEAN EXTERIOR MASONRY & CONCRETE BUILDING EXTERIOR AND INTERIOR.
2. BLAST CLEAN AND PAINT EXTERIOR AND INTERIOR FERROUS METAL.
3. REPAIR FLOOR OPENINGS - SEE STRUCTURAL DRAWINGS.
4. EQUIPMENT PAD FOR PROCESS EQUIPMENT - SEE STRUCTURAL DRAWINGS.
5. REMOVE BRIDGE CRANE AND SUPPORT GUSSETS. GRIND SMOOTH W/ WALL.
6. REMOVE AND REPLACE EXISTING DOWNSPOUTS W/ 4"X6" ALUMINUM DOWNSPOUTS. SECURE WITH STRAPS @ 5'-0" O.C.
7. NEW 6"X8" ALUMINUM GUTTER.
8. REMOVE EXISTING FAN & CURB.


KEY PLAN

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" .5" 0"

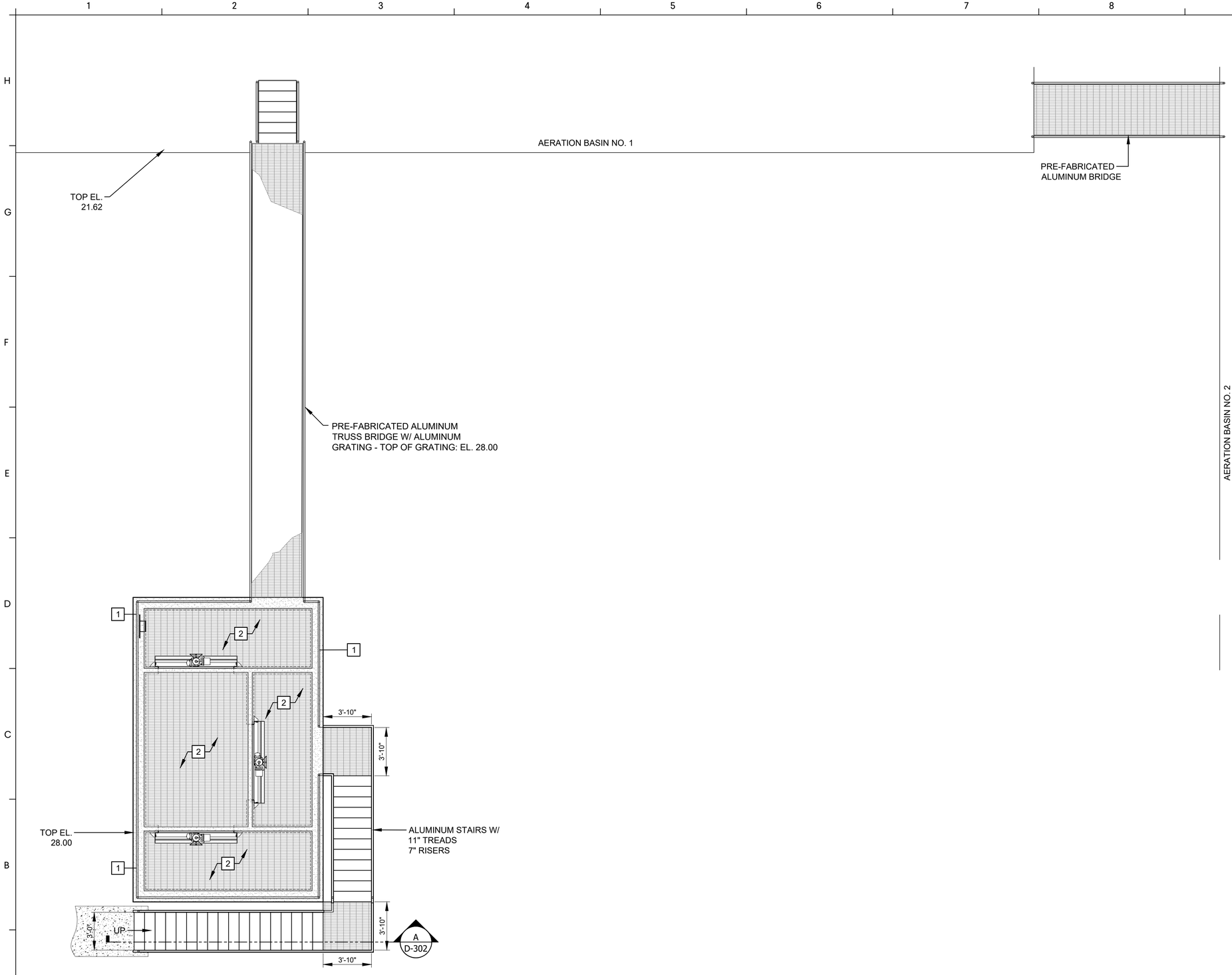
2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BG-JWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 18171 PROFESSIONAL ENGINEER JAMES E. VAUGHN, III

MCC BUILDING MODIFICATION PLAN & SECTION

A-111

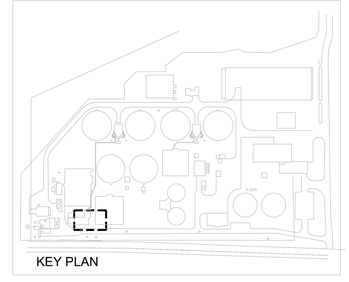


KEY NOTES: #

1. 3'-6" DOUBLE ALUMINUM HANDRAIL W/ TOEPLATE
2. ALUMINUM GRATING & SUPPORTS

3 / A-001 **LOWER LEVEL PLAN**

SCALE: 1/4" = 1'-0"



GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" 0" .5" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER JAMES C. VAUGHN

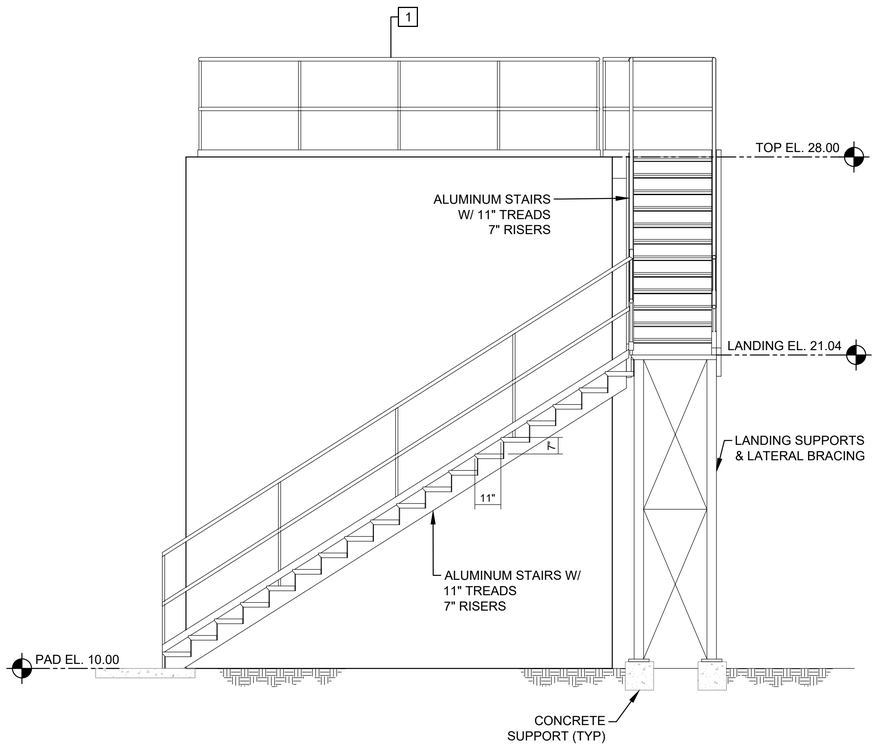
MAIN SPLITTER
UPPER LEVEL PLAN

A-301

DRAWING FILE: W:\Civil\Non-Augusta Projects - Dwg\CSAV190007 BGJWSC WPCF Rehab\0 DWG\=CAD\01 BID DRAWINGS\08 ARCHITECTURAL\A-301.dwg
PLOTTED: Jun 05, 2020 - 2:04pm

KEY NOTES: [#]

1. 3'-6" DOUBLE ALUMINUM HANDRAIL W/ TOEPLATE



A
A-301

SECTION

SCALE: 3/8" = 1'-0"

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" 0" .5" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER JAMES C. VAUGHN

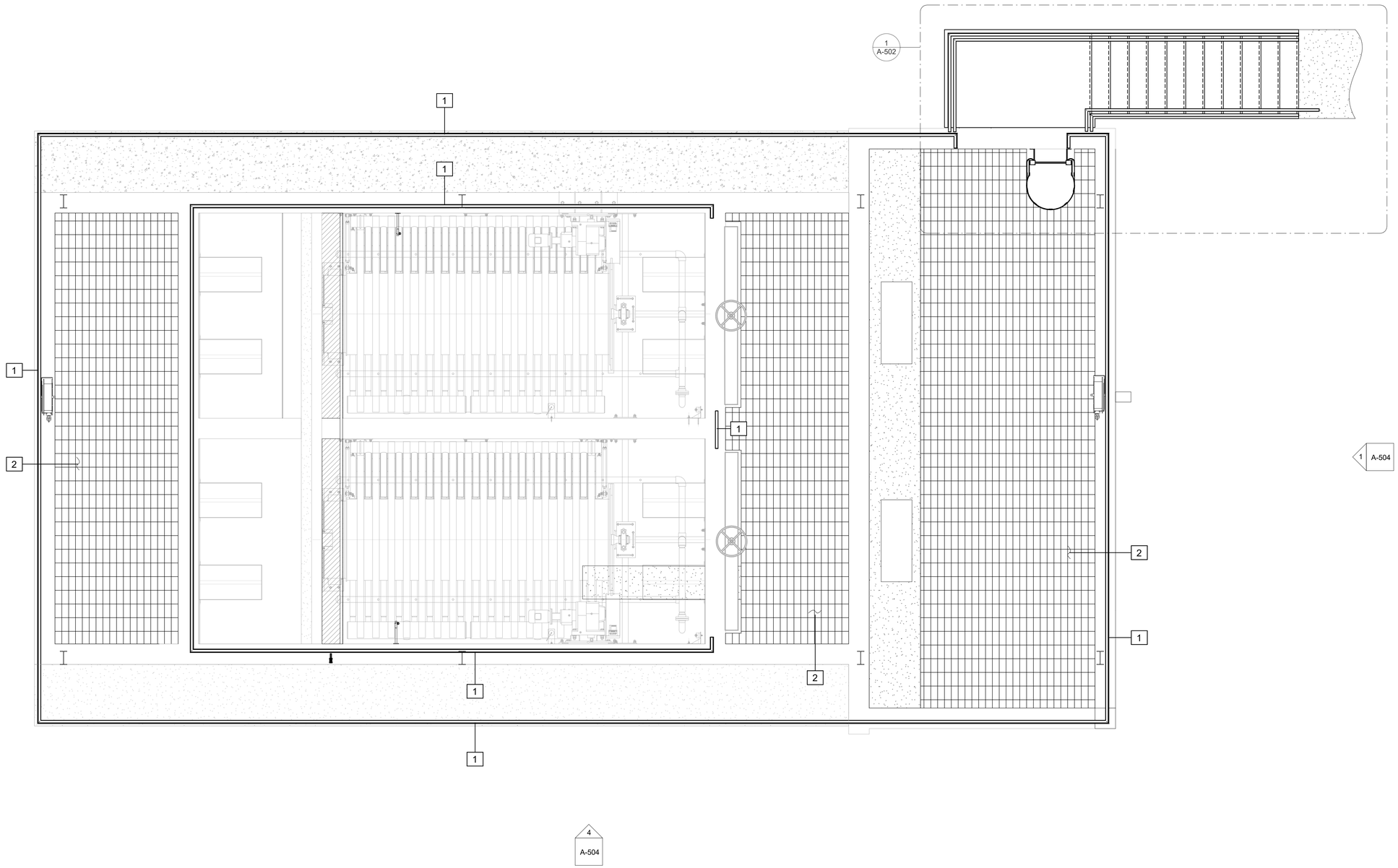
MAIN SPLITTER SECTIONS

A-302

DRAWING FILE: W:\Civil\Non-Augusta Projects - Dwg\CSAV190007 BGJWSC WPCF Rehab\0 DWG\+CAD\01 BID DRAWINGS\08 ARCHITECTURAL\A-301.dwg
PLOTTED: Jun 05, 2020 - 2:04pm

KEYED NOTES: #

1. 3'-6" DOUBLE ALUMINUM HANDRAIL WITH TOEPLATE
2. ALUMINUM GRATING



1 A-501
PLAN VIEW
SCALE: 3/8" = 1'-0"

6/5/2020 10:27:38 AM

GMC

35 Abercorn Street,
Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	10.01.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	06.15.2020

PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	FN/HKD

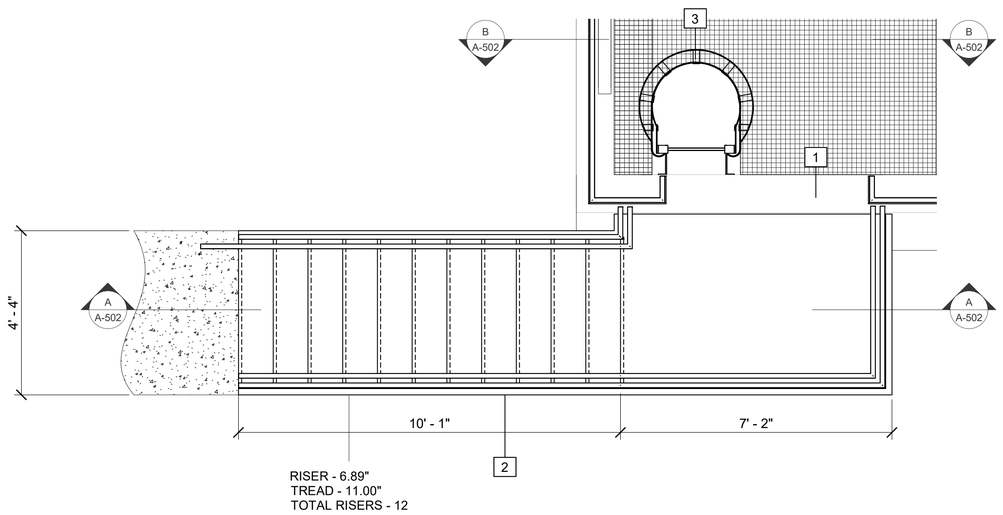
2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project # CSAV190007

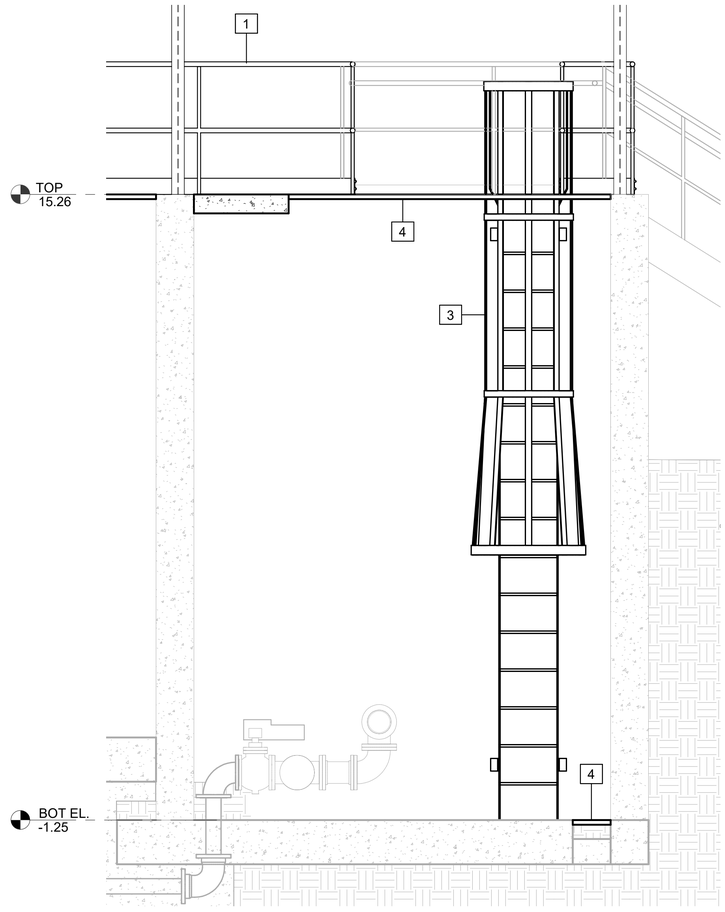
GEORGIA REGISTERED No. 18777 PROFESSIONAL ENGINEER JAMES C. VAUGHN

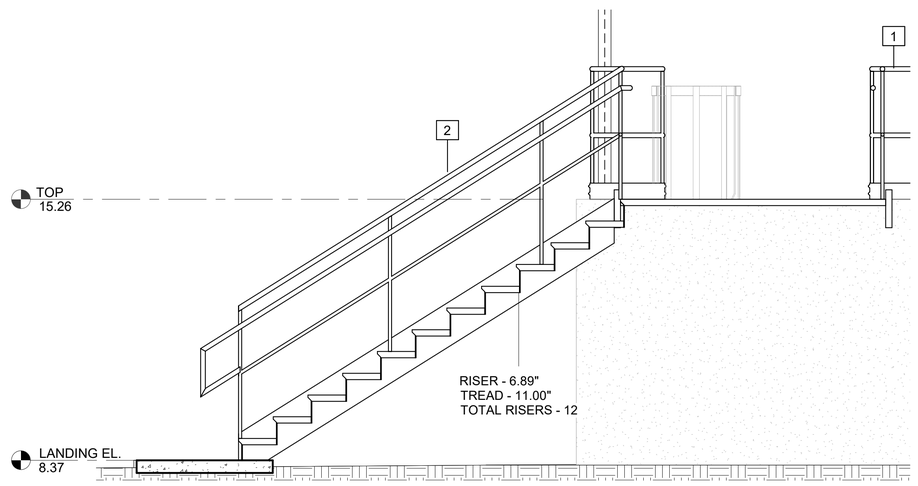
FILTER - HANDRAIL & GRATING

A-501



1 / A-501 **STAIR - ENLARGED PLAN**
SCALE: 1/2" = 1'-0"





A / A-502 **SECTION**
SCALE: 1/2" = 1'-0"

B / A-502 **SECTION**
SCALE: 1/2" = 1'-0"

KEYED NOTES: #

1. 3'-6" DOUBLE ALUMINUM HANDRAIL
2. STAIR RAILING
3. FIXED LADDER W/ SAFETY CAGE
4. ALUMINUM GRATING

GMC

35 Abercorn Street,
Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	10.01.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	06.15.2020

PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	FN/HKD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

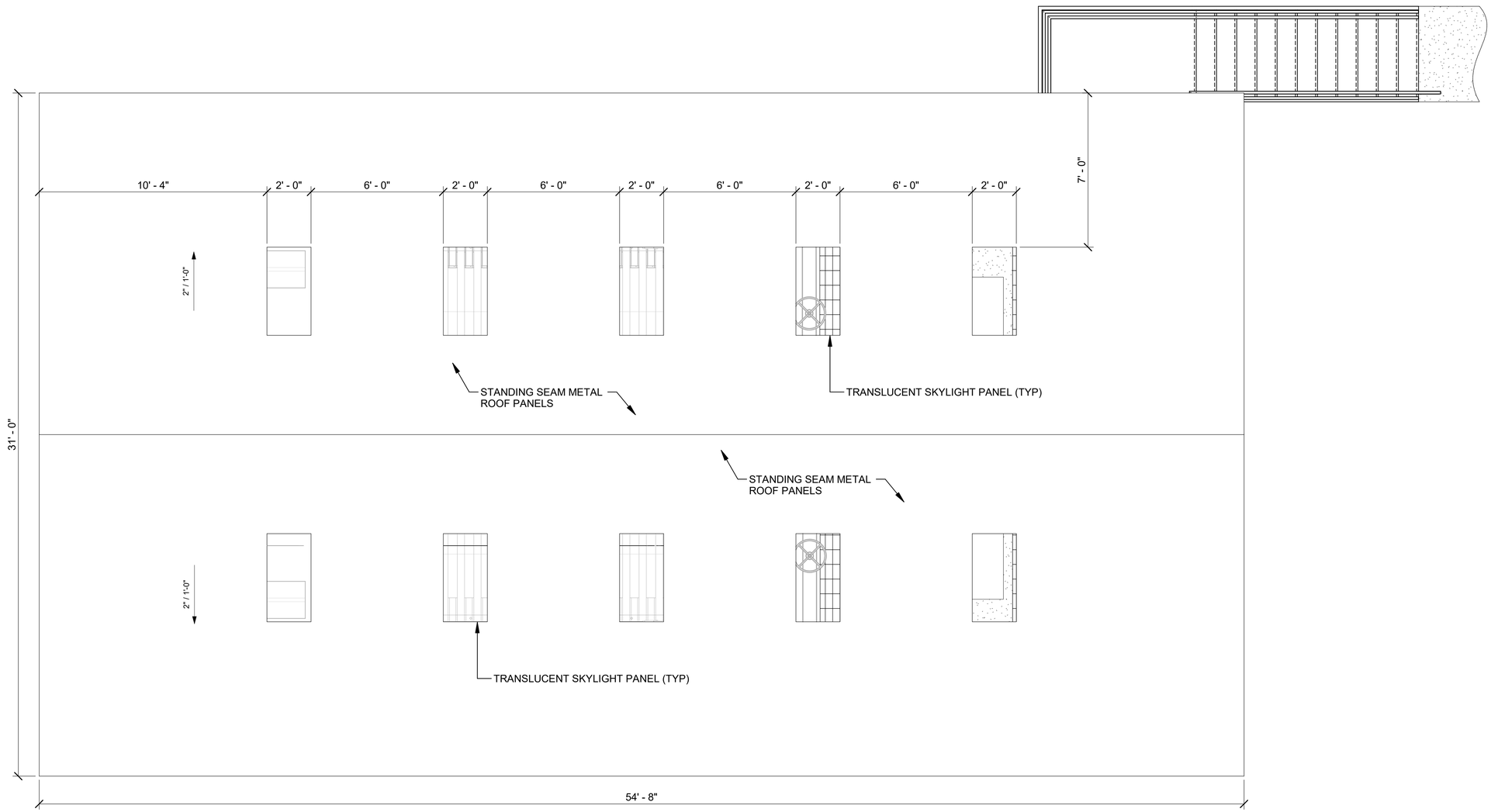
BGJWSC Project No. 906
GMC Project # CSAV190007

GEORGIA REGISTERED No. 18174 PROFESSIONAL ENGINEER JAMES C. VAUGHAN

FILTER - ENLARGED PLAN & SECTIONS

A-502

6/5/2020 10:27:39 AM



1 / A-503 **PLAN VIEW**
SCALE: 3/8" = 1'-0"

6/5/2020 10:27:40 AM

GMC

ISSUE	DATE
30% SUBMITTAL	10.01.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	06.15.2020

PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	FN/HKD

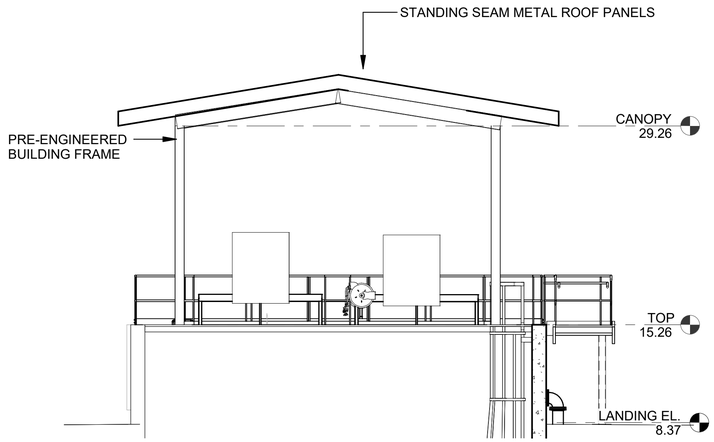
2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BG JWSC Project No. 906
GMC Project # CSAV190007

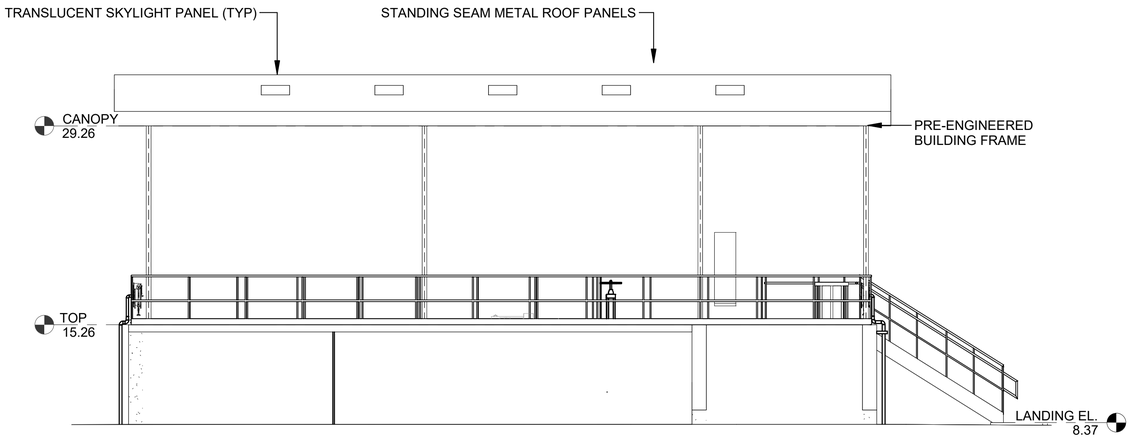
GEORGIA REGISTERED No. 19137 PROFESSIONAL ENGINEER JAMES C. VAUGHAN, JR.

FILTER - CANOPY ROOF PLAN

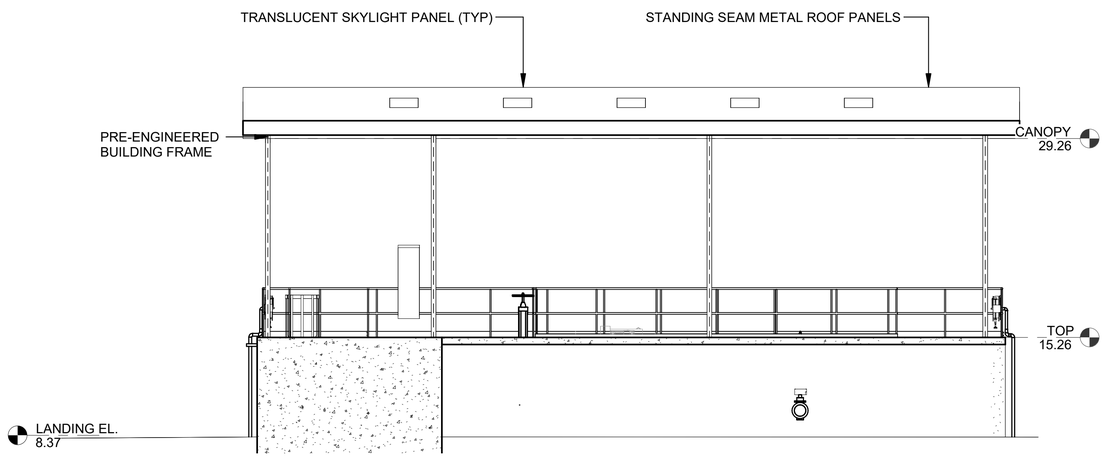
A-503



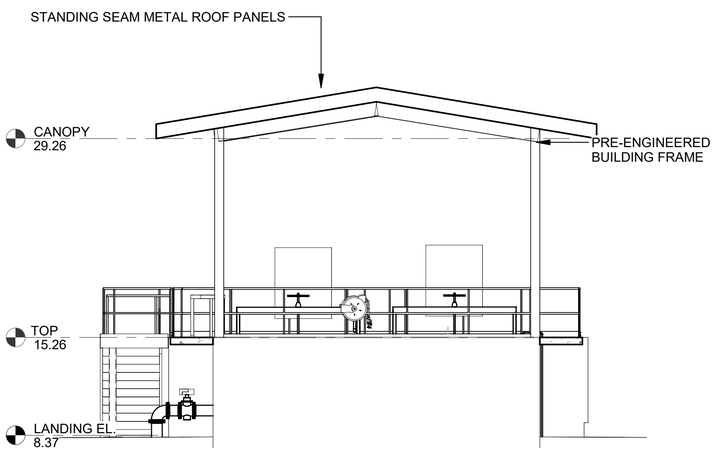
1 / A-501 East
SCALE: 3/16" = 1'-0"



4 / A-501 South
SCALE: 3/16" = 1'-0"



3 / A-501 North
SCALE: 3/16" = 1'-0"



2 / A-501 West
SCALE: 3/16" = 1'-0"

GMC

ISSUE	DATE
30% SUBMITTAL	10.01.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	06.15.2020

PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	FN/HKD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project # CSAV190007

GEORGIA REGISTERED No. 18127 PROFESSIONAL JAMES C. VAUGHN, III

FILTER - EXTERIOR ELEVATIONS

A-504

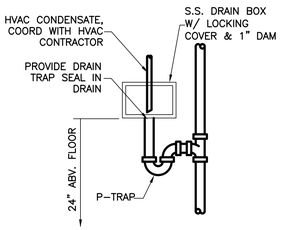
6/5/2020 10:27:41 AM

GENERAL NOTES:

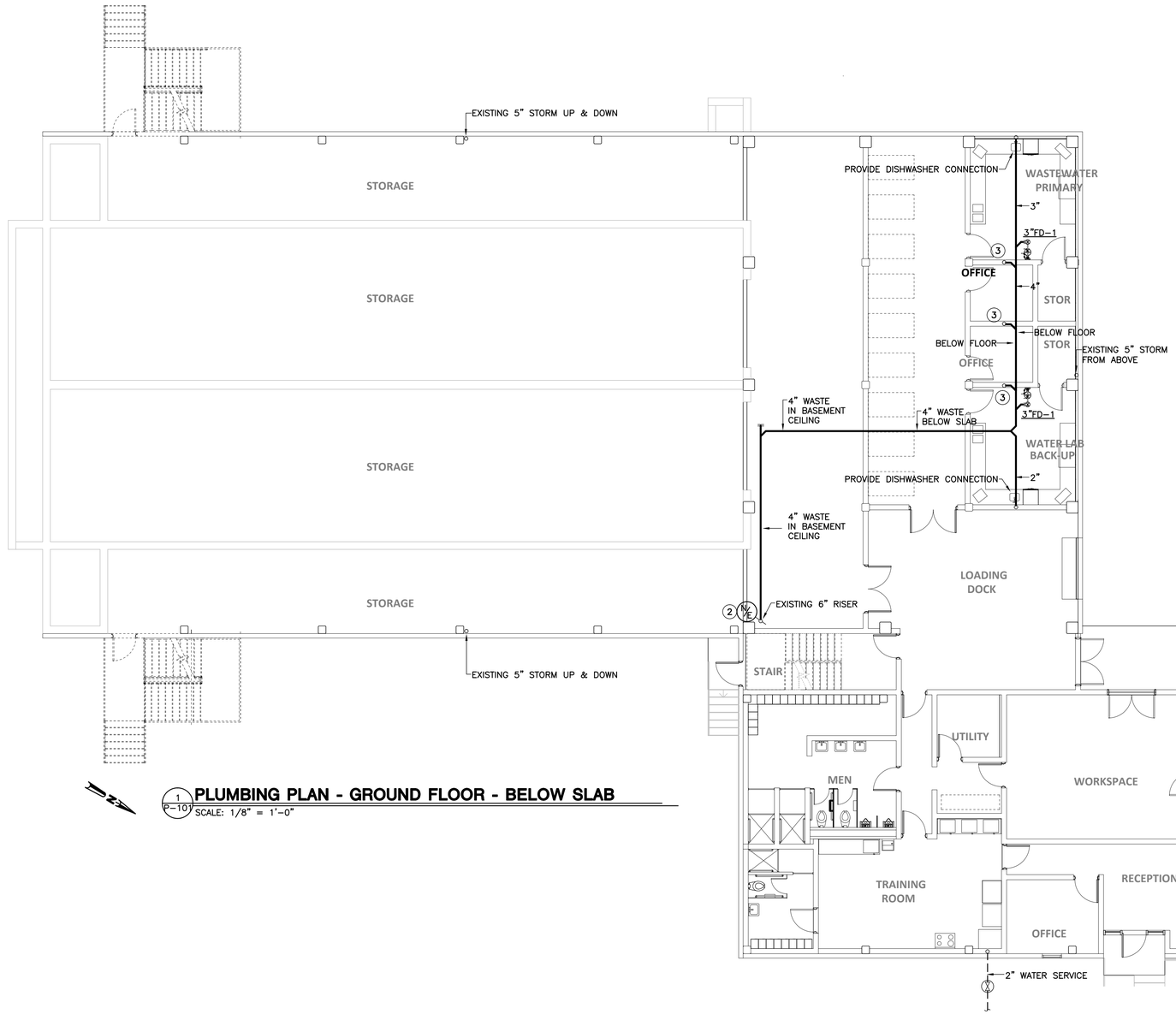
SAWCUT AND PATCH FLOOR SLAB AS NECESSARY FOR INSTALLATION OF NEW PIPING. PATCH FLOOR WITH 3000 PSI CONCRETE AND TROWEL TO MATCH EXISTING FINISH.

KEYNOTES: (THIS SHEET ONLY)

1. CONNECT NEW WASTE PIPING TO EXISTING WASTE MAIN. FIELD VERIFY EXACT SIZE, LOCATION AND INVERT.
2. CONNECT NEW WASTE PIPING TO EXISTING WASTE RISER. FIELD VERIFY EXACT SIZE AND LOCATION.
3. 2" CONDENSATE FROM CONDENSATE DRAIN BOX. SEE CONDENSATE DRAIN BOX DETAIL 2/P-101.



2 / P-101 **CONDENSATE DRAIN BOX DETAIL**
SCHEMATIC ONLY



1 / P-101 **PLUMBING PLAN - GROUND FLOOR - BELOW SLAB**
SCALE: 1/8" = 1'-0"

PFA ENGINEERING
PRUETT, FORD & ASSOCIATES, INC.
LIC. NO. PEF000760 EXP. 06/30/2020
1201 BROAD STREET, SUITE 3A
AUGUSTA, GEORGIA 30901
706/722-3959 • FAX 706/724-5127
WWW.PRUETTFORD.COM

1/4 1/2 3/4 1" REFERENCE SCALE

PLOT DATE: 05/13/20
FILENAME: 19087 P1
BASESHT: 19087BDR.BSA
PLOT SCALE: 1 = 96
MFJ

GMC

35 Abercorn Street, Suite 200
Savannah, GA 31401
T 912.226.1667
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020

PROJECT MANAGER:
ENGINEER:
DESIGNER:
DRAWN BY:

IF THIS BAR DOES NOT MEASURE ONE INCH DRAWING IS NOT LABELED TO SCALE

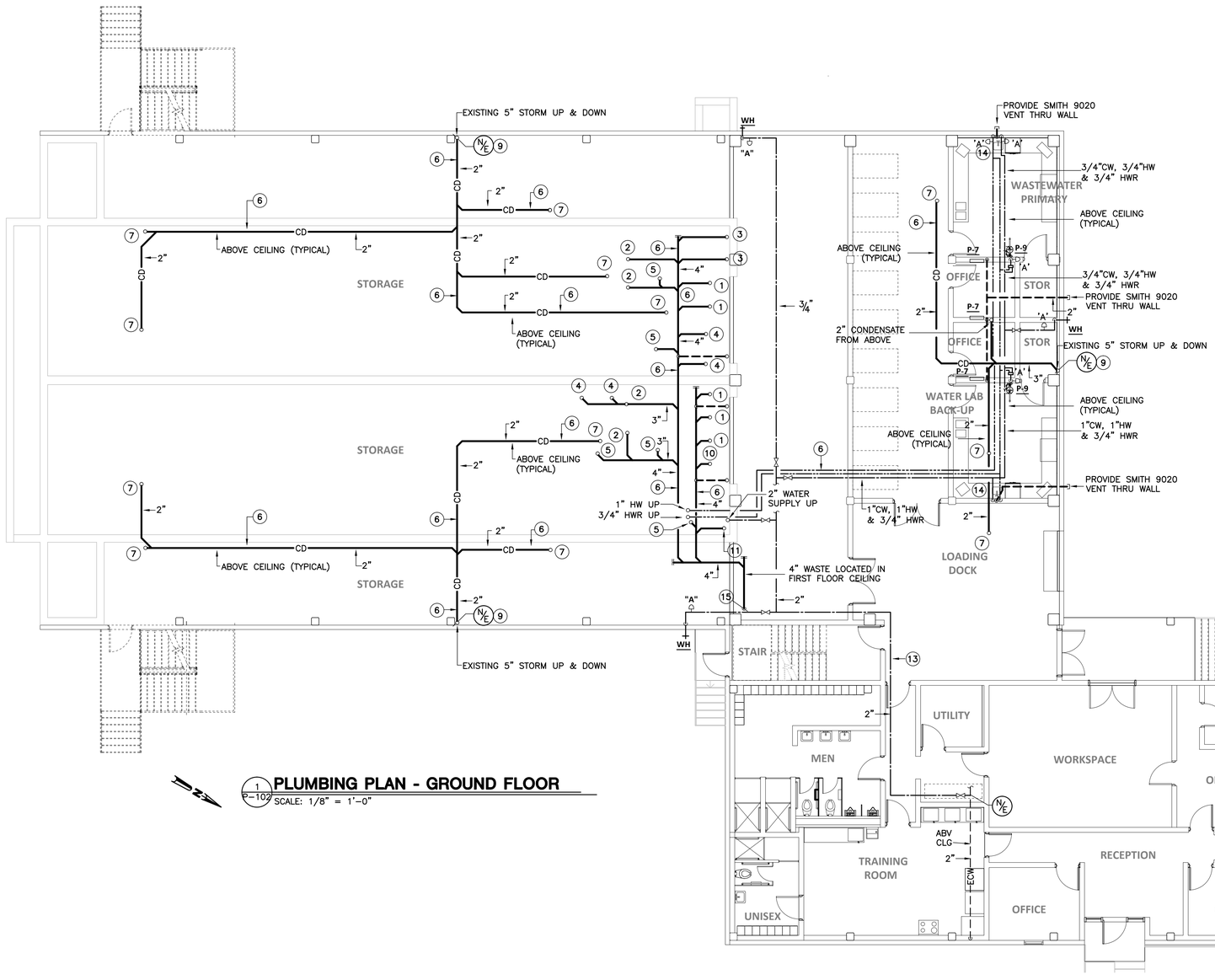
2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project # CSAV190007

GEORGIA REGISTERED No. 22583 PROFESSIONAL ENGINEER JOE C. POWELL 5/13/20

PLUMBING PLAN - GROUND FLOOR - BELOW SLAB

P-101



1 P-102 **PLUMBING PLAN - GROUND FLOOR**
SCALE: 1/8" = 1'-0"

KEYNOTES: (THIS SHEET ONLY)

1. 3" WASTE FROM WATER CLOSET ABOVE.
2. 2" WASTE FROM LAVATORY ABOVE.
3. 2" WASTE FROM URINAL ABOVE.
4. 3" WASTE FROM SHOWER DRAIN ABOVE.
5. 3" WASTE FROM FLOOR DRAIN ABOVE.
6. PIPING LOCATED IN CEILING SPACE.
7. 2" CONDENSATE FROM ABOVE.
8. 2" CONDENSATE DOWN.
9. CONNECT NEW CONDENSATE DRAIN PIPING TO EXISTING STORM PIPING. FIELD VERIFY EXACT SIZE AND LOCATION.
10. 3" WASTE FROM MOP SINK ABOVE.
11. 2' WASTE FROM WATER COOLER ABOVE.
12. PROVIDE CLEANOUT TEE AT 12" ABOVE FLOOR.
13. PROTECT PIPING IN LOADING DOCK WITH HEAT TRACE. COORDINATE POWER WITH ELECTRICAL DIVISION. PROVIDE ALUMINUM PIPE INSULATION AT LOADING DOCK.
14. PROVIDE 1/2" CW, 1/2" HW, 2" WASTE & 1-1/2" VENT TO LAB SINK. LAB SINK BY OTHER DIVISION.
15. ROUTE NEW 4" WASTE MAIN DOWN TO EXISTING 6" RISER LOCATED IN BASEMENT

PFA ENGINEERING
PRUETT, FORD & ASSOCIATES, INC.
LIC. NO. PEF000760 EXP. 06/30/2020
1201 BROAD STREET, SUITE 3A
AUGUSTA, GEORGIA 30901
706/722-3959 • FAX 706/724-3127
WWW.PRUETTFORD.COM

PLOT DATE: 05/13/20
FILENAME: 19087 P1
BASESHT: 19087BDR,BSA
PLOT SCALE: 1 = 96
MFJ

GMC

35 Abercorn Street, Suite 200
Savannah, GA 31401
T 912.226.1667
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020

PROJECT MANAGER:
ENGINEER:
DESIGNER:
DRAWN BY:

1" 0" 1"
IF THIS BAR DOES NOT MEASURE ONE INCH DRAWING IS NOT LABELED TO SCALE

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project # CSAV190007

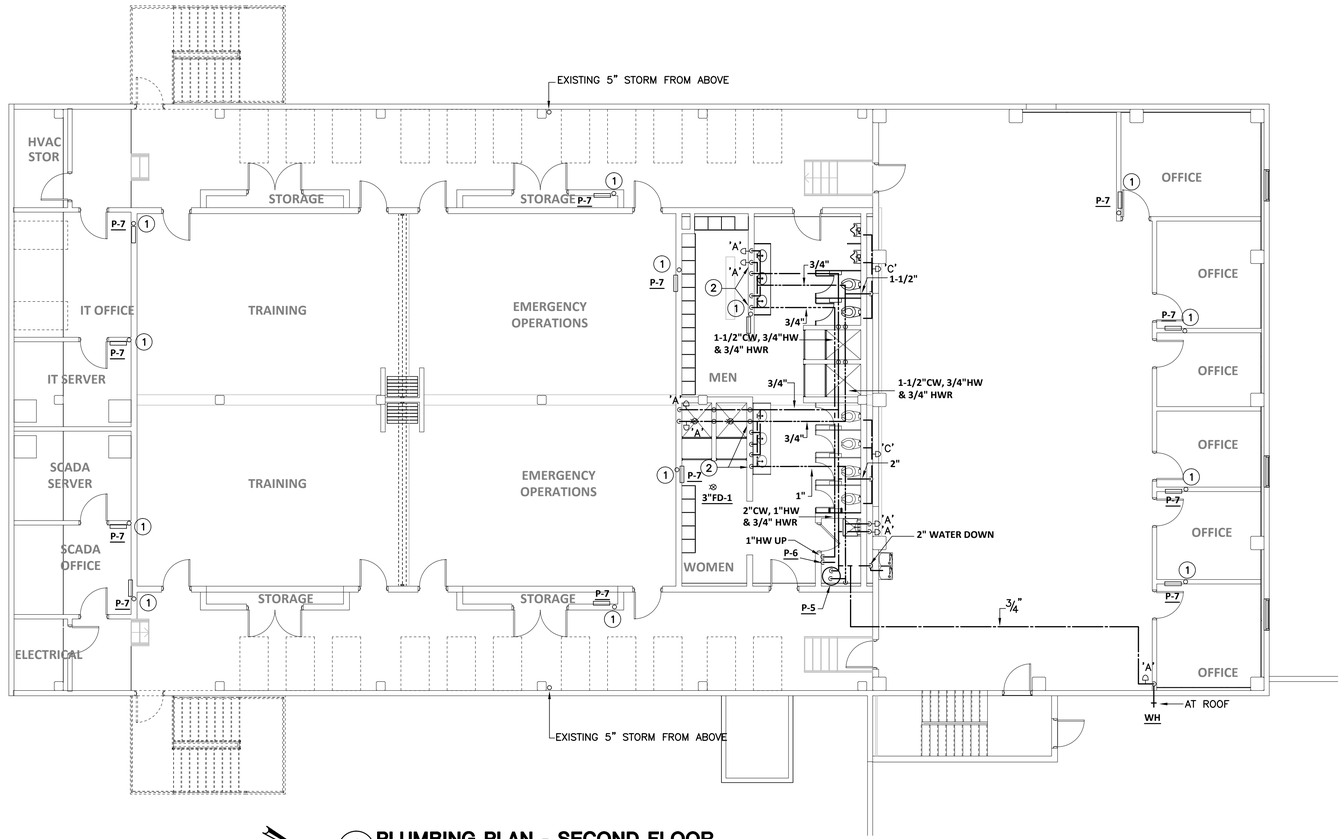
GEORGIA REGISTERED No. 22583 PROFESSIONAL ENGINEER JOE C. POWELL 5/13/20

PLUMBING GROUND FLOOR PLAN

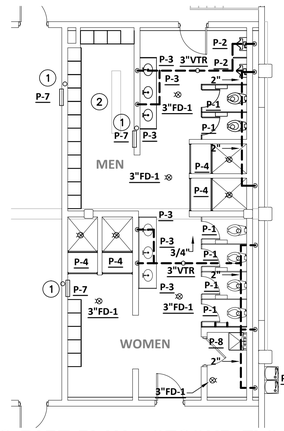
P-102

KEYNOTES: (THIS SHEET ONLY)

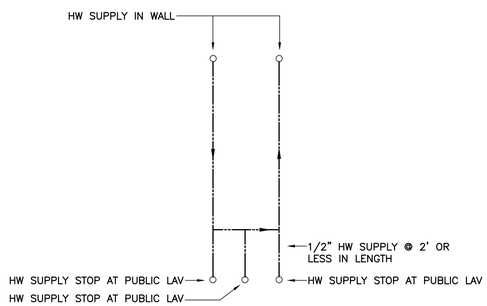
1. 2" CONDENSATE DOWN.
2. SEE WATER ROUTING DETAIL 3/P1.03.



1 P-103 **PLUMBING PLAN - SECOND FLOOR**
SCALE: 1/8" = 1'-0"



2 P-103 **PLUMBING PART PLAN - SECOND FLOOR - WASTE & VENT**
SCALE: 1/8" = 1'-0"



3 P-103 **HW SUPPLY IN WALL SCHEMATIC**
NOT TO SCALE

PFA ENGINEERING
PRUETT, FORD & ASSOCIATES, INC.
LIC. NO. PEF000760 EXP. 06/30/2020
1201 BROAD STREET, SUITE 3A
AUGUSTA, GEORGIA 30901
706/722-3959 • FAX 706/724-927
WWW.PRUETTFORD.COM

1/4 1/2 3/4 1" REFERENCE SCALE

PLOT DATE: 05/13/20
FILENAME: 19087 P1
BASESHT: 19087BDR,BSA
PLOT SCALE: 1 = 96
MFJ

GMC

35 Abercorn Street, Suite 200
Savannah, GA 31401
T 912.226.1667
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020

PROJECT MANAGER:
ENGINEER:
DESIGNER:
DRAWN BY:

1" 0" 1" 2" 3"
IF THIS BAR DOES NOT MEASURE ONE INCH DRAWING IS NOT LABELED TO SCALE

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project # CSAV190007

GEORGIA REGISTERED No. 22581 PROFESSIONAL ENGINEER JOE C. POWELL
5/13/20

PLUMBING - SECOND FLOOR PLAN

P-103

PLUMBING LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
———	WASTE OR SANITARY SEWER	—⋈—	SHUTOFF VALVE
– – – –	VENT	———	COLD WATER
ECO ○—	EXISTING CLEANOUT	———	HOT WATER
VTR	VENT THRU ROOF	———	HOT WATER CIRCULATING
N/E	NEW WORK CONNECTION TO EXISTING	WH —+—	WALL HYDRANT
—CD—	CONDENSATE DRAIN LINE	CO —○—	CLEANOUT
		FD —⊕—	FLOOR DRAIN
		PDI'X' —○—	WATER HAMMER ARRESTOR

GENERAL PLUMBING NOTES

EXACT LOCATIONS AND ROUGHING REQUIREMENTS FOR ALL FIXTURES AND EQUIPMENT SHALL BE DETERMINED FROM ARCHITECTURAL DRAWINGS, LARGE SCALE ARCHITECTURAL DETAILS AND APPROVED MANUFACTURER'S SHOP DRAWINGS. PARTICULAR ATTENTION SHALL BE DIRECTED TO FIXTURES OR EQUIPMENT FURNISHED UNDER OTHER DIVISIONS.

INVERT ELEVATIONS SHOWN SHALL BE VERIFIED ON THE JOB BEFORE INSTALLING ANY NEW PIPE.

INSTALL TEST–TEES WHEN THE SANITARY SEWER SYSTEM IS TO BE TESTED IN SECTIONS.

PIPING IS SHOWN IN ITS GENERAL LOCATION (UNLESS DIMENSIONED). EXACT LOCATION SHALL BE DETERMINED BY JOB CONDITIONS. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF HIS WORK WITH THAT OF OTHER TRADES AND ARRANGE PIPING TO CLEAR STRUCTURAL MEMBERS AND DUCTWORK.

RISERS FOR FIXTURES, UNLESS OTHERWISE NOTED, SHALL BE CONCEALED IN WALLS OR PIPE CHASES.

REFER TO ARCHITECTURAL FINISH SCHEDULE AND ELEVATIONS FOR DETAILS OF FLOORS WHERE FLOOR DRAINS AND CLEANOUTS ARE LOCATED.

INSTALL EXTERIOR WALL HYDRANTS 18" ABOVE FINISH GRADE, EXCEPT AS NOTED OTHERWISE.

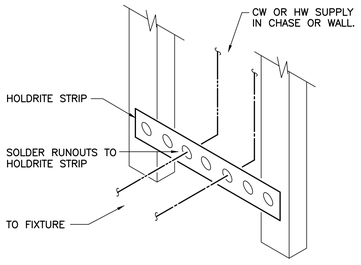
PROVIDE SLEEVES FOR PIPES PASSING THRU FLOORS, MASONRY WALLS AND FIRE OR SMOKE PARTITIONS. PACK ANNULAR SPACE BETWEEN PIPE WITH MATERIAL APPROVED IN U.L. BUILDING DIRECTORY.

PLUMBING FIXTURE SCHEDULE

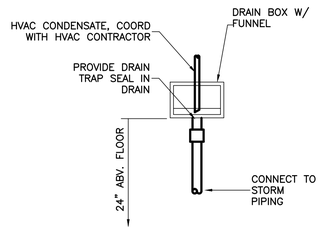
SYMBOL	FIXTURE	WASTE CONN.	WASTE BRANCH	VENT	COLD WATER	HOT WATER	RIM HGT. (1)	BASIS OF DESIGN
P–1	WATER CLOSET	4"	4"	2"	1"	–	15"	KOHLER K–96053, SLOAN 111–1.28 F.V., BENEKE 527–SS WHITE SEAT
P–2	URINAL	2"	2"	1–1/2"	1"	–	24"	K–5016–ET, SLOAN 186–0.5 FLUSH VALVE
P–3	LAVATORY (DECK MOUNT)	1–1/4"	2"	1–1/2"	1/2"	1/2" (8)	DECK	K–2905–4 (20x16), CHICAGO 802A FAUCETS McGUIRE 155A GRID DRAIN (3)
P–4	SHOWER	2"	2"	1–1/2"	1/2"	1/2"	– (2)	SYMMONS 1–100–X (MIXING VALVE, SHOWER ARM & HEAD) SMITH 2005–94 DRAIN
P–5	WATER HEATER (80 GALLON)	–	–	–	3/4"	3/4"	–	AO SMITH DRE–80–36, 80 GAL STORAGE, 36 KW INPUT (6)
P–6	RECIRCULATING PUMP	–	–	–	–	3/4"	48"	B&G NBF–22, 2 GPM @ 14 FT. HEAD
P–7	CONDENSATE DRAIN BOX	1–1/2"	2"	1–1/2"	–	–	–	ACORN M8200–E510 BOX WITH 1" DAM & LOCKING COVER
P–8	MOP SINK	3"	3"	2"	1/2"	1/2"	FAUCET @ 36" A.F.	FIAT TSBC–1610, 832–AA, 889–CC, CHICAGO 897–RCF FAUCET,
P–9	EMERG. EYEWASH/SHWR	1–1/2"	2"	2"	3/4"	3/4"	–	GUARDIAN GBF1994–TMV W/ THERMOSTATIC MIXING VALVE
P–10	ELECTRIC WATER COOLER HI–LO	1–1/4"	2"	1–1/2"	1/2"	–	APRON BOTTOM 27"	ELKAY EZSTL8WSLK W/ BOTTLE FILLER STAINLESS STEEL FINISH
CO–1	CLEANOUT (EXTERIOR)	–	–	–	–	–	–	SMITH 4291 (UNPAVED AREA)
FD–1	FLOOR DRAIN (GENERAL)	–	–	–	–	–	–	SMITH 2005L (4) (7)
WH	WALL HYDRANT	–	–	–	3/4"	–	–	SMITH 5519 SERIES (BOX)

PLUMBING FIXTURE SCHEDULE KEYNOTES

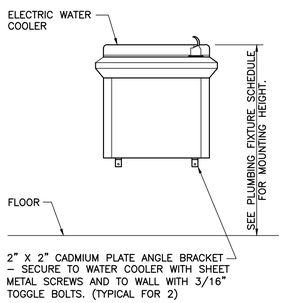
1. RIM HEIGHT FOR GUIDANCE ONLY. SEE ARCHITECTS DRAWINGS FOR EXACT MOUNTING HEIGHT. ROUGH WATER AND SANITARY CONNECTION AS REQUIRED. RIM HEIGHT INCLUDES SPECIFIED SEAT ON WATER CLOSETS.
2. MOUNT SHOWER HEAD AT 72" A.F.
3. PROVIDE "TRUEBRO LAV GUARD" PROTECTIVE PIPE COVERS ON WASTE AND SUPPLY PIPING.
4. PROVIDE 7" STRAINER ON 3" DRAINS AND 9" STRAINER ON 4" DRAINS. PROVIDE ROUND TOP FOR ALL FLOOR DRAINS.
5. RIM FLUSH WITH FINISHED FLOOR.
6. PROVIDE AMTROL ST–12 EXPANSION TANK.
7. PROVIDE PROSET TRAP GUARD.



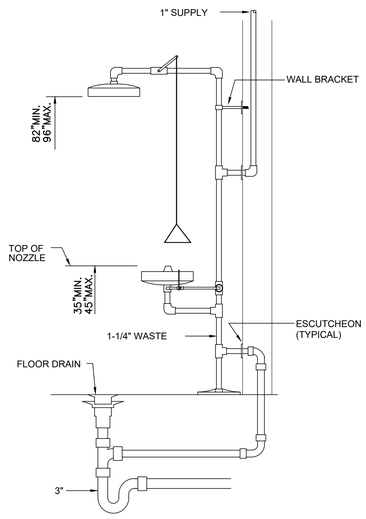
1/P–201 RUNOUT ANCHOR DETAILS
SCHEMATIC



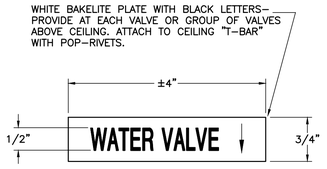
2/P–201 CONDENSATE DRAIN BOX DETAIL
SCHEMATIC



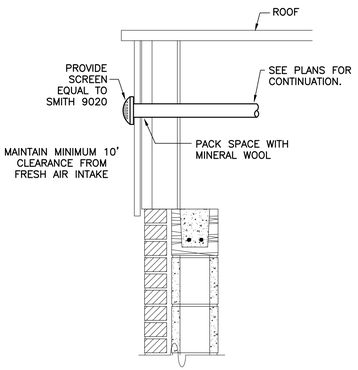
3/P–201 WATER COOLER DETAIL
NOT TO SCALE



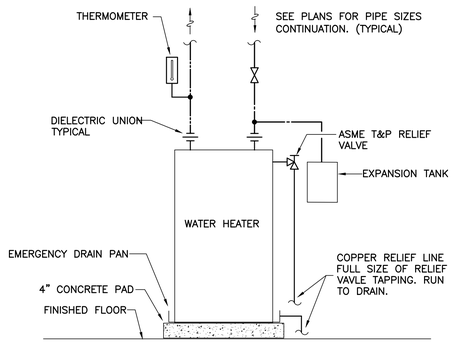
4/P–201 EMERGENCY COMBINATION SHOWER/EYE WASH UNIT
SCHEMATIC ONLY



5/P–201 WATER VALVE LOCATOR TAG
NOT TO SCALE



6/P–201 VENT THRU WALL DETAIL
NOT TO SCALE



7/P–201 WATER HEATER PIPING DETAIL
NOT TO SCALE

PFA ENGINEERING
PRUETT, FORD & ASSOCIATES, INC.
LIC. NO. PEF000760 EXP. 06/30/2020
1201 BROAD STREET, SUITE 3A
AUGUSTA, GEORGIA 30901
706/722-369 • FAX 706/724-5127
WWW.PRUETTFORD.COM

1/4 1/2 3/4 1" REFERENCE SCALE

PLOT DATE: 05/13/20
FILENAME: 19087 P1
BASESHT: 19087BDR.BSA
PLOT SCALE: 1 = 96
MFJ

GMC

35 Abercorn Street, Suite 200
Savannah, GA 31401
T 912.226.1667
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020

PROJECT MANAGER:
ENGINEER:
DESIGNER:
DRAWN BY:

1" 0" 1" 2" IF THIS BAR DOES NOT MEASURE ONE INCH DRAWING IS NOT LABELED TO SCALE

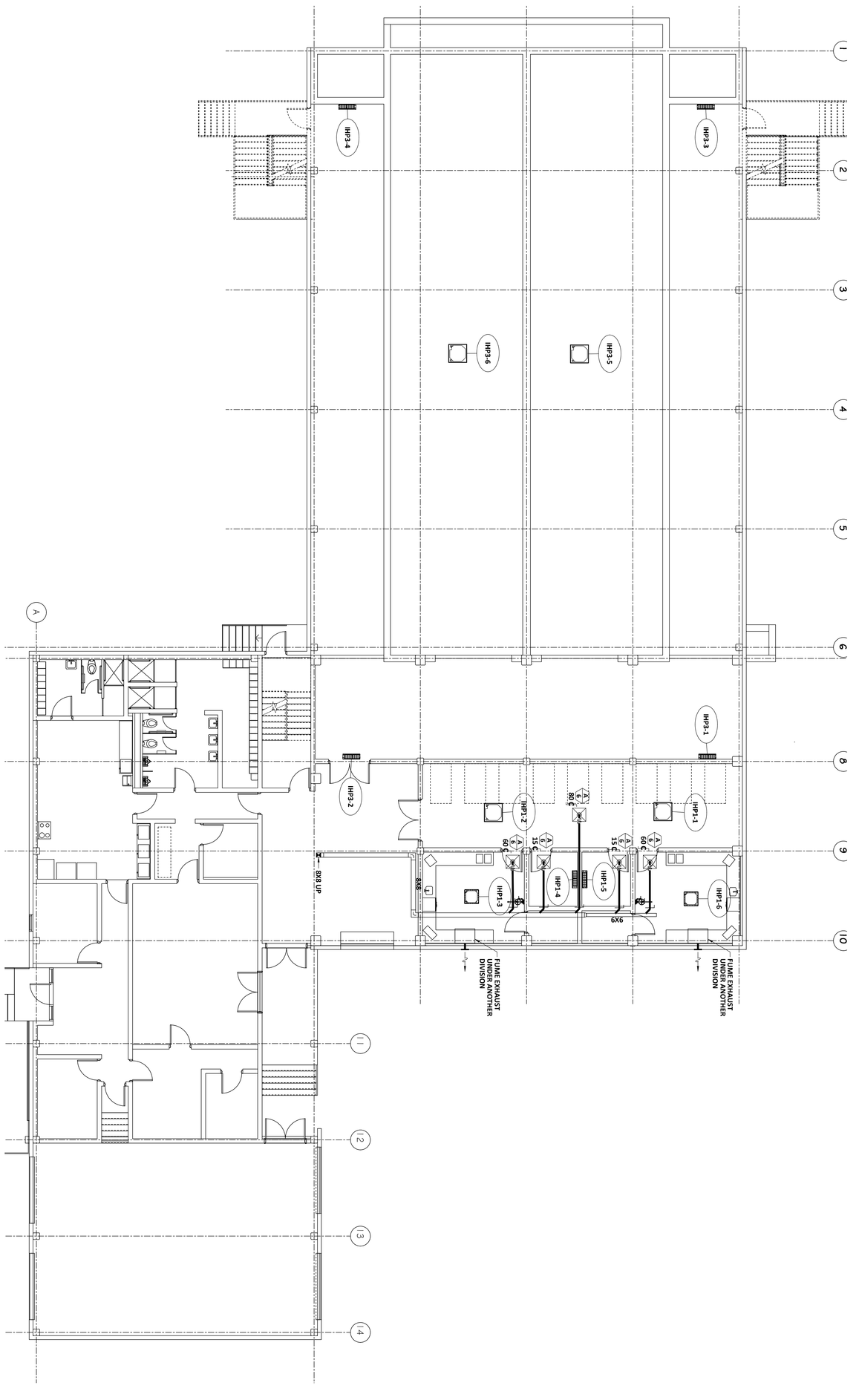
2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project # CSAV190007

GEORGIA REGISTERED No. 22583 PROFESSIONAL ENGINEER JOE C. POWELL 5/13/20

PLUMBING - SCHEDULE, NOTES & DETAILS

P-201



1 M1.01 SCALE: 1/8" = 1'-0"

HVAC NEW WORK PLAN - FIRST FLOOR

PFA ENGINEERING
PRUETT, FORD & ASSOCIATES, INC.
LAURA WARD FORD, PE, LEED AP BD+C
1201 BROAD STREET, SUITE 2A
AUGUSTA, GEORGIA 30904
706.722.3959 FAX 706.722.3961
WWW.PRUETTFORD.COM

PLOT DATE: 05/13/20
FILENAME: 1908 M1
PLOT SCALE: 1 = 96
WGC

1/4 1/2 3/4 1" REFERENCE SCALE

GROUND FLOOR PLAN

M-101

GEORGIA REGISTERED PROFESSIONAL No. 19942 LAURA WARD FORD 5.13.2020

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

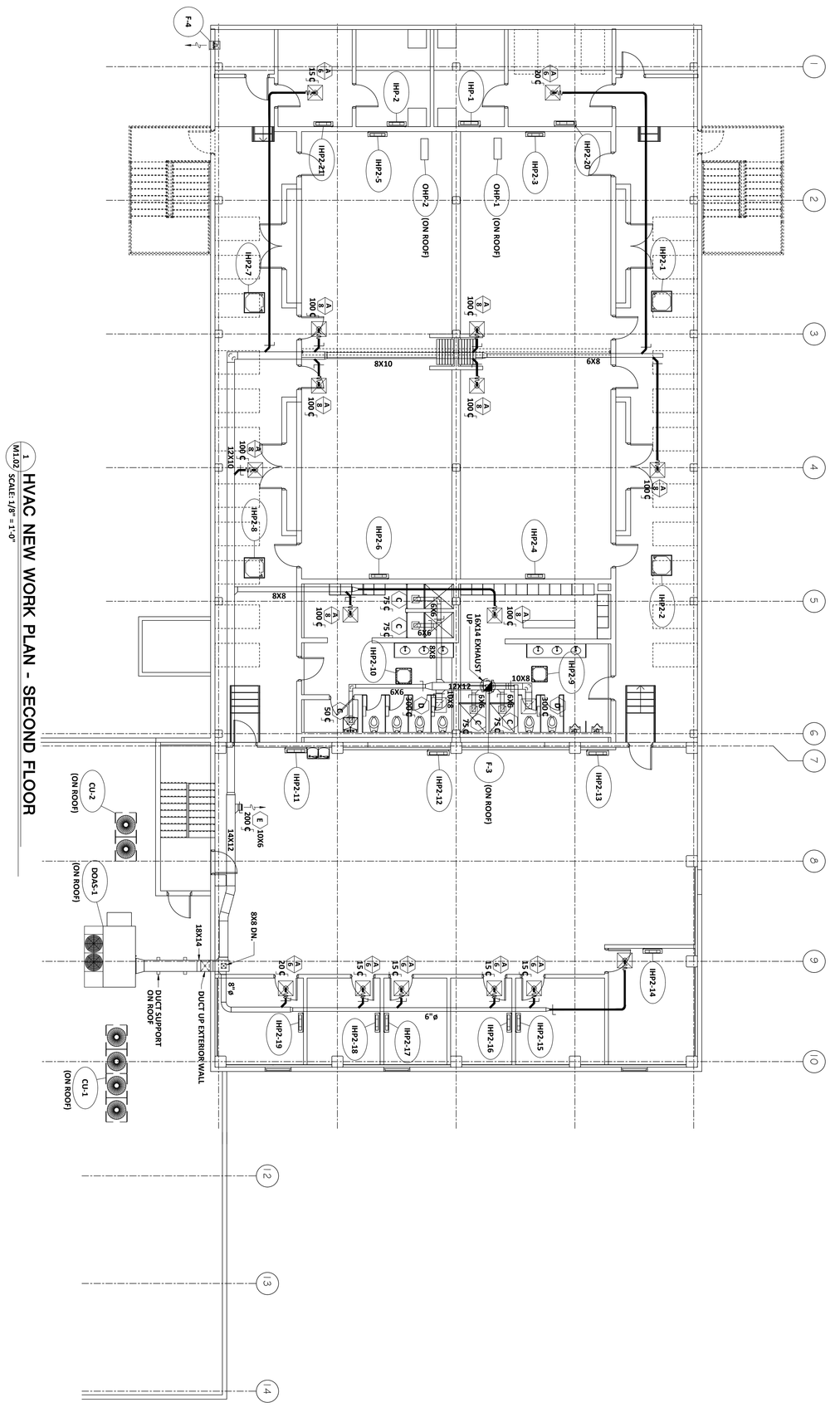
BGJWSC Project No. 906
GMC Project # CSAV190007

ISSUE	DATE
30% SUBMITTAL	10/25/2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

35 Abercorn Street, Suite 200
Savannah, GA 31401
T 912.226.1667
GMCNETWORK.COM

1" 0" 1"
IF THIS BAR DOES NOT MEASURE ONE INCH DRAWING IS NOT LABELED TO SCALE

GMC



1 M1.02 SCALE: 1/8" = 1'-0"

HVAC NEW WORK PLAN - SECOND FLOOR

PFA ENGINEERING
PRUETT, FORD & ASSOCIATES, INC.
LAW ENGINEERING AND TESTING COMPANY
1201 BROAD STREET, SUITE 2A
AUGUSTA, GEORGIA 30904
706.722.3959 FAX 706.722.3959
WWW.PRUETTFORD.COM

PLOT DATE: 05/13/20
FILENAME: 1908 M1
PLOT SCALE: 1 = 96
WGC

1/4" 1/2" 3/4" 1" REFERENCE SCALE

FIRST FLOOR PLAN

M-102

GEORGIA REGISTERED PROFESSIONAL No. 19942 Edward L. Ford, III 5-13-2020

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

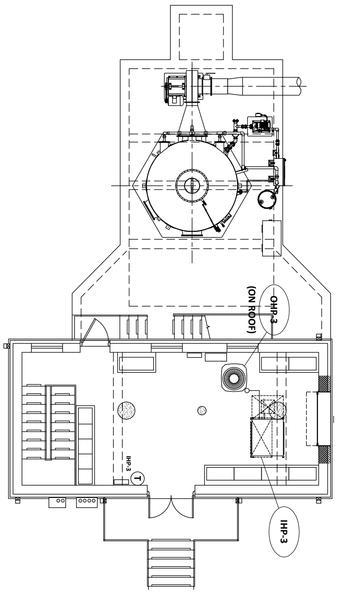
BGJWSC Project No. 906
GMC Project # CSAV190007

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020
PROJECT MANAGER:	
ENGINEER:	
DESIGNER:	
DRAWN BY:	

35 Abercorn Street, Suite 200
Savannah, GA 31401
T 912.226.1667
GMCNETWORK.COM

1" 0" 1"
IF THIS BAR DOES NOT MEASURE ONE INCH DRAWING IS NOT LABELED TO SCALE

GMC



1 M1.03 SCALE: 1/8" = 1'-0"

HVAC NEW WORK PLAN - OUT BUILDING

PFA ENGINEERING
PRUETT, FORD & ASSOCIATES, INC.
LEE W. PRUETT, PE, RCDD, LEED AP
JON BRIAND STREET, SUITE 3A
AUGUSTA, GEORGIA 30909
706.722.3959 FAX 706.722.3959
WWW.PRUETTFORD.COM

PLOT DATE: 05/13/20
FILENAME: 1906 M1
PLOT SCALE: 1 = 96
WGC

1/4" 1/2" 3/4" 1" REFERENCE SCALE

MCC BUILDING PLAN

M-103

GEORGIA REGISTERED PROFESSIONAL No. 19942 LEE W. PRUETT FORD
5.13.2020

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

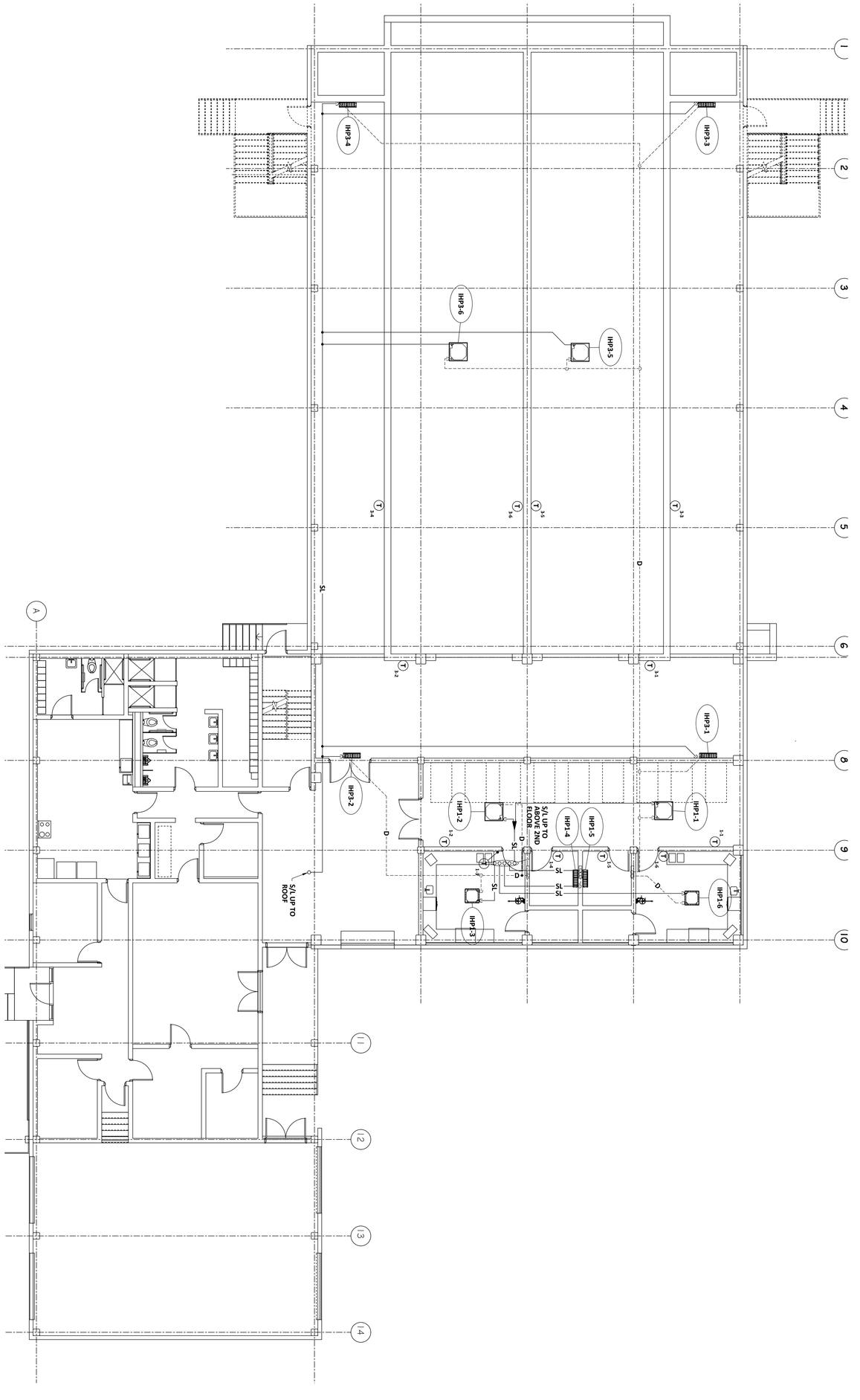
BGJWSC Project No. 906
GMC Project # CSAV190007

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020
PROJECT MANAGER:	
ENGINEER:	
DESIGNER:	
DRAWN BY:	

35 Abercorn Street, Suite 200
Savannah, GA 31401
T 912.226.1667
GMCNETWORK.COM

1" 0" 1"
IF THIS BAR DOES NOT MEASURE ONE INCH DRAWING IS NOT LABELED TO SCALE

GMC



1 M2.01 SCALE: 1/8" = 1'-0"

HVAC PIPING PLAN - FIRST FLOOR

PFA ENGINEERING
PRUETT, FORD & ASSOCIATES, INC.
LAUREN M. FORD, PE, LEED AP BD+C
1708 BROAD STREET, SUITE 3A
AUGUSTA, GEORGIA 30904
706.722.3959
WWW.PRUETTFORD.COM

PLOT DATE: 05/13/20
FILENAME: 1908 M1
PLOT SCALE: 1 = 96
WGC

1/4" 1/2" 1/4" 1" REFERENCE SCALE

GROUND FLOOR PLAN

M-201

GEORGIA REGISTERED PROFESSIONAL No. 19942 LAUREN M. FORD ENGINEER 5.13.2020

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

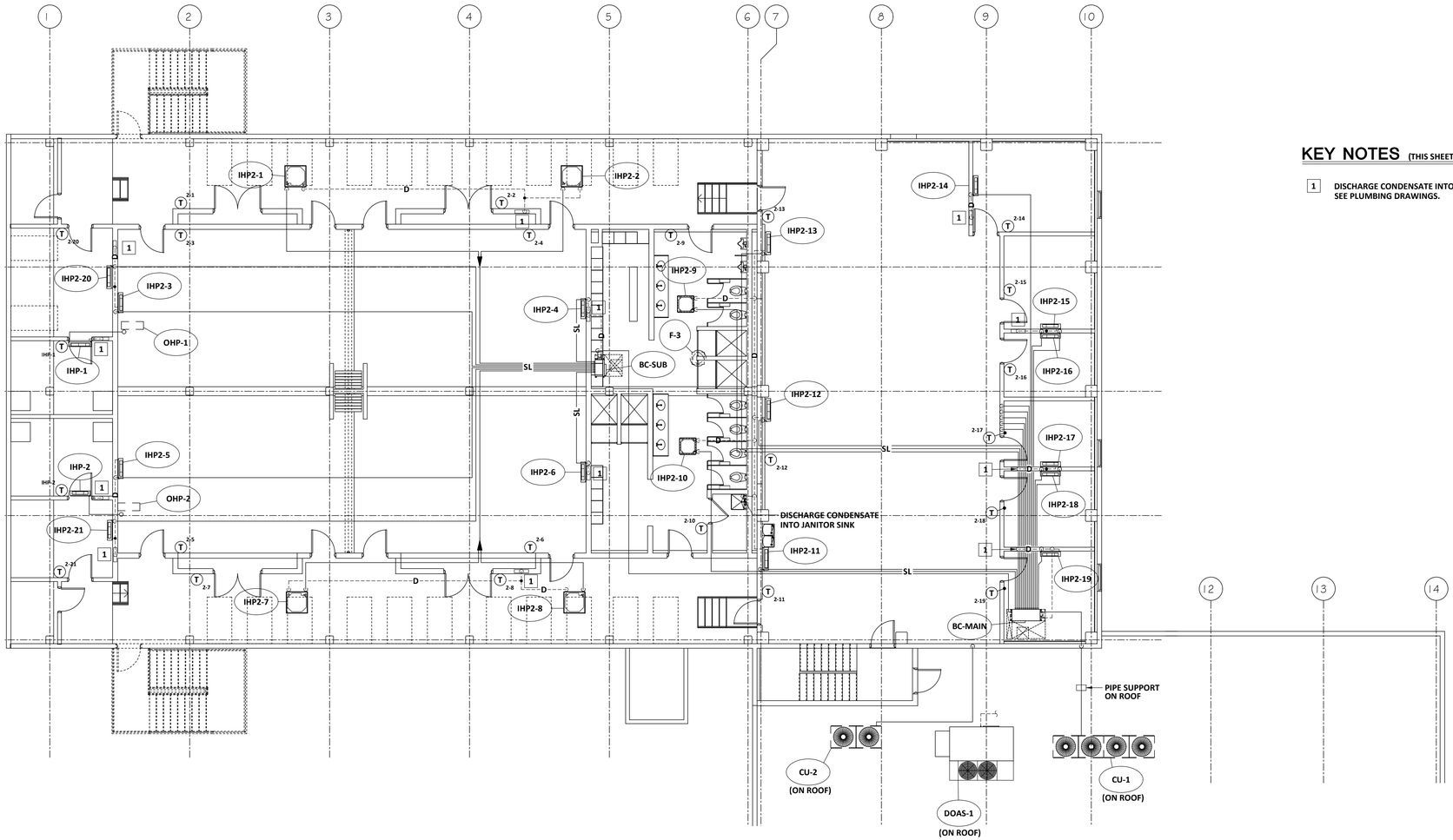
BGJWSC Project No. 906
GMC Project # CSAV190007

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

IF THIS BAR DOES NOT MEASURE ONE INCH DRAWING IS NOT LABELED TO SCALE

35 Abercorn Street, Suite 200
Savannah, GA 31401
T 912.226.1667
GMCNETWORK.COM

GMC



KEY NOTES (THIS SHEET ONLY):

1 DISCHARGE CONDENSATE INTO WALL BOX BY PLUMBING. SEE PLUMBING DRAWINGS.

1 M2.02 HVAC PIPING PLAN - SECOND FLOOR
SCALE: 1/8" = 1'-0"

PFA ENGINEERING
PRUETT, FORD & ASSOCIATES, INC.
LIC. NO. PEF000760 EXP. 06/30/2020
1201 BROAD STREET, SUITE 3A
AUGUSTA, GEORGIA 30901
706/722-3959 • FAX 706/724-3527
WWW.PRUETTFORD.COM

PLOT DATE: 05/13/20
FILENAME: 19087 M1
PLOT SCALE: 1 = 96
WGC

GMC

35 Abercorn Street, Suite 200
Savannah, GA 31401
T 912.226.1667
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020

PROJECT MANAGER:
ENGINEER:
DESIGNER:
DRAWN BY:

IF THIS BAR DOES NOT MEASURE ONE INCH THE DRAWING IS NOT LABELED TO SCALE
0" 1" 2" 3" 4" 5" 1"

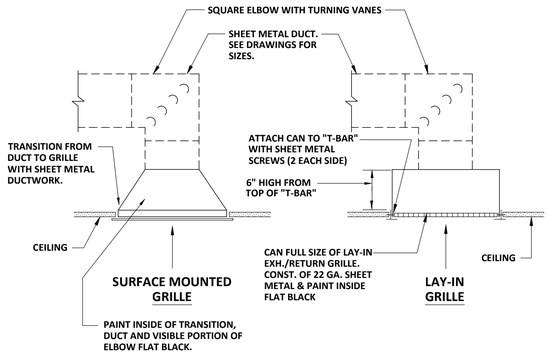
2019 WPCF REHABILITATION — ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project # CSAV190007

GEORGIA REGISTERED No.19647 PROFESSIONAL ENGINEER J. MARTIN FORD 5.13.2020

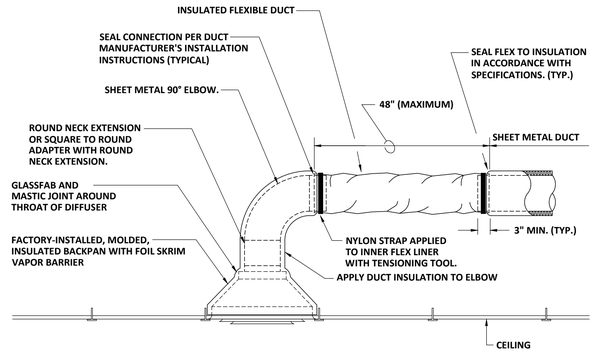
FIRST FLOOR PLAN

M-202



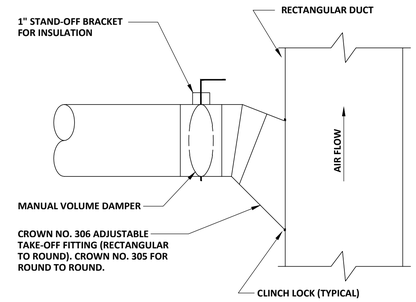
1 M3.01 EXHAUST/RETURN GRILLE CONNECTION DETAILS

NOT TO SCALE



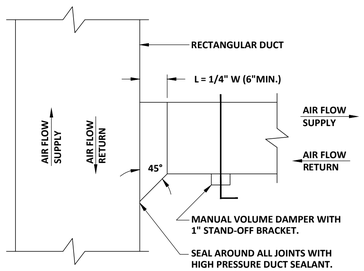
2 M3.01 FLEXIBLE ROUND DUCT CONNECTION DETAIL

NOT TO SCALE



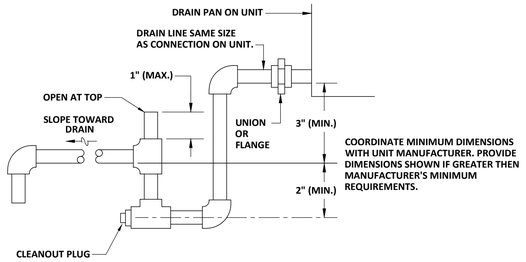
3 M3.01 SUPPLY DUCT TAKE-OFF FITTING DETAIL

NOT TO SCALE



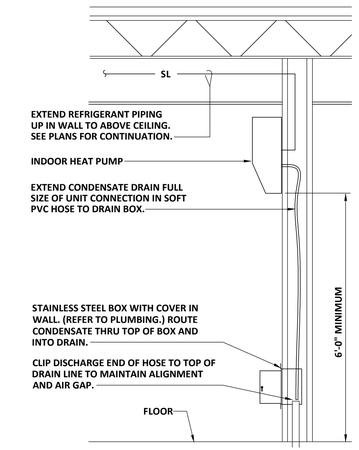
4 M3.01 RECTANGULAR SUPPLY AND RETURN DUCT TAKE-OFF DETAIL

NOT TO SCALE



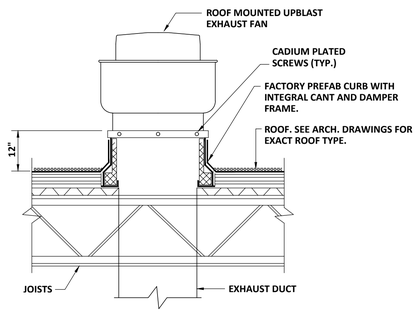
5 M3.01 CONDENSATE DRAIN TRAP DETAIL

NOT TO SCALE



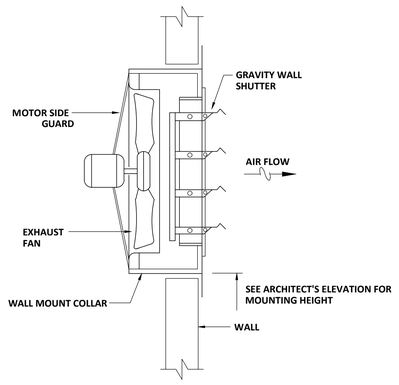
6 M3.01 SECTION @ INDOOR HEAT PUMP

NOT TO SCALE



7 M3.01 ROOF MOUNTED UPBLAST EXHAUST FAN DETAIL

NOT TO SCALE



8 M3.01 WALL MOUNTED EXHAUST FAN DETAIL

NOT TO SCALE

PFA ENGINEERING
PRUETT, FORD & ASSOCIATES, INC.
LIC. NO. PEF000760 EXP. 06/30/2020
1201 BROAD STREET, SUITE 3A
AUGUSTA, GEORGIA 30901
706/722-3959 • FAX 706/724-3127
WWW.PRUETTFORD.COM

1/4 1/2 3/4 1" REFERENCE SCALE

PLOT DATE: 05/13/20
FILENAME: 19087 M1
PLOT SCALE: 1 = 96
WGC

GMC

35 Abercorn Street, Suite 200
Savannah, GA 31401
T 912.226.1667
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	10/08/2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" 0" 1" 2" 3" 4" 5"
IF THIS BAR DOES NOT MEASURE ONE INCH THEN DRAWING IS NOT LABELED TO SCALE

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BG.JWSC Project No. 906
GMC Project # CSAV190007

GEORGIA REGISTERED No.19647 PROFESSIONAL ENGINEER U. MART IN FORD 5-13-2020

HVAC DETAILS

M-301

-- INDOOR HEAT PUMP SCHEDULE --

ITEM	SUPPLY C.F.M.	EXT. S.P. (IN.) W.C.	O.A. C.F.M.	FAN HP.	DRIVE	COOLING CAP. BTUH (1)		AUX. HEAT		MITSUBISHI MODEL NO.	REMARKS
						SENSIBLE	TOTAL	K.W.	STGS.		
IHP-1	700	--	--	1.0 A	DIRECT	--	34,200	--	--	MITSUBISHI PKA-A36KA	--
IHP-2	700	--	--	1.0 A	DIRECT	--	34,200	--	--	MITSUBISHI PKA-A36KA	--
IHP-3	2541	--	--	--	DIRECT	--	96,000	--	--	MITSUBISHI PEFY-P96	--
IHP1-1	335	--	--	1.0 A	DIRECT	--	12,000	--	--	MITSUBISHI PLFY-P12	--
IHP1-2	335	--	--	1.0 A	DIRECT	--	12,000	--	--	MITSUBISHI PLFY-P12	--
IHP1-3	335	--	--	1.0 A	DIRECT	--	12,000	--	--	MITSUBISHI PLFY-P12	--
IHP1-4	210	--	--	1.0 A	DIRECT	--	6,000	--	--	MITSUBISHI PKFY-P06	--
IHP1-5	210	--	--	1.0 A	DIRECT	--	6,000	--	--	MITSUBISHI PKFY-P06	--
IHP1-6	335	--	--	1.0 A	DIRECT	--	12,000	--	--	MITSUBISHI PLFY-P12	--
IHP2-1	812	--	--	1.0 A	DIRECT	--	24,000	--	--	MITSUBISHI PLFY-EP24	--
IHP2-2	812	--	--	1.0 A	DIRECT	--	24,000	--	--	MITSUBISHI PLFY-EP24	--
IHP2-3	812	--	--	1.0 A	DIRECT	--	24,000	--	--	MITSUBISHI PLFY-EP24	--
IHP2-4	812	--	--	1.0 A	DIRECT	--	24,000	--	--	MITSUBISHI PLFY-EP24	--
IHP2-5	812	--	--	1.0 A	DIRECT	--	24,000	--	--	MITSUBISHI PLFY-EP24	--
IHP2-6	812	--	--	1.0 A	DIRECT	--	24,000	--	--	MITSUBISHI PLFY-EP24	--
IHP2-7	812	--	--	1.0 A	DIRECT	--	24,000	--	--	MITSUBISHI PLFY-EP24	--
IHP2-8	812	--	--	1.0 A	DIRECT	--	24,000	--	--	MITSUBISHI PLFY-EP24	--
IHP2-9	335	--	--	1.0 A	DIRECT	--	12,000	--	--	MITSUBISHI PLFY-P12	--
IHP2-10	335	--	--	1.0 A	DIRECT	--	12,000	--	--	MITSUBISHI PLFY-P12	--
IHP2-11	920	--	--	1.0 A	DIRECT	--	30,000	--	--	MITSUBISHI PKFY-P30	--
IHP2-12	920	--	--	1.0 A	DIRECT	--	30,000	--	--	MITSUBISHI PKFY-P30	--
IHP2-13	920	--	--	1.0 A	DIRECT	--	30,000	--	--	MITSUBISHI PKFY-P30	--
IHP2-14	413	--	--	1.0 A	DIRECT	--	8,000	--	--	MITSUBISHI PKFY-P08	--
IHP2-15	210	--	--	1.0 A	DIRECT	--	6,000	--	--	MITSUBISHI PKFY-P06	--
IHP2-16	210	--	--	1.0 A	DIRECT	--	6,000	--	--	MITSUBISHI PKFY-P06	--
IHP2-17	210	--	--	1.0 A	DIRECT	--	6,000	--	--	MITSUBISHI PKFY-P06	--
IHP2-18	210	--	--	1.0 A	DIRECT	--	6,000	--	--	MITSUBISHI PKFY-P06	--
IHP2-19	210	--	--	1.0 A	DIRECT	--	6,000	--	--	MITSUBISHI PKFY-P06	--
IHP2-20	413	--	--	1.0 A	DIRECT	--	12,000	--	--	MITSUBISHI PKFY-P12	--
IHP2-21	210	--	--	1.0 A	DIRECT	--	6,000	--	--	MITSUBISHI PKFY-P06	--
IHP3-1	920	--	--	1.0 A	DIRECT	--	24,000	--	--	MITSUBISHI PKFY-P24	(6)
IHP3-2	920	--	--	1.0 A	DIRECT	--	24,000	--	--	MITSUBISHI PKFY-P24	(6)
IHP3-3	920	--	--	1.0 A	DIRECT	--	24,000	--	--	MITSUBISHI PKFY-P24	(6)
IHP3-4	920	--	--	1.0 A	DIRECT	--	24,000	--	--	MITSUBISHI PKFY-P24	(6)
IHP3-5	1095	--	--	1.0 A	DIRECT	--	36,000	--	--	MITSUBISHI PLFY-EP36	--
IHP3-6	1095	--	--	1.0 A	DIRECT	--	36,000	--	--	MITSUBISHI PLFY-EP36	--

(1) RATINGS IN ACCORDANCE WITH A.R.I. STANDARD 240.
(2) FURNISH DUAL-CIRCUIT SPLIT FACE COIL.
(3) UNIT TO HAVE CO2 CONTROLS. OUTSIDE AIR VALUES NOTED ARE MINIMUM/MAXIMUM.
(4) UNIT TO HAVE ECONOMIZER CONTROLS. REFER TO PLAN FOR DAMPER LOCATIONS.
(5) HORIZONTAL DRAW THRU UNIT WITH FAN SECTION, LARGE ACCESS SECTION (FOR AUX. HEATER), COIL SECTION AND FILTER MIXING BOX SECTION WITH ECONOMIZER CONTROLS.
(6) FURNISH UNIT WITH RECTORSEAL MINI WHITE CONDENSATE PUMP.

-- OUTDOOR HEAT PUMP SCHEDULE --

ITEM	COOLING CAP. BTUH (1)	E.E.R. MIN.	HEATING CAP. M.B.H. (1)		C.O.P. (1)		MITSUBISHI MODEL NO.
			HI	LO	HI	LO	
OHP-1	34,200	14.0	-	-	-	--	MITSUBISHI PUY-A36
OHP-2	34,200	14.0	-	-	-	--	MITSUBISHI PUY-A36
OHP-3	96,000	13.4 EER	108.0	-	--	--	MITSUBISHI PUHY-P96

(1) RATINGS IN ACCORDANCE WITH A.R.I. STANDARD 240.
(2) FURNISH DUAL COMPRESSOR UNIT WITH INDEPENDENT REFRIGERATION CIRCUITS. IF NOT AVAILABLE, FURNISH TWO SINGLE COMPRESSOR UNITS AND ASSOCIATED ELECTRICAL MODIFICATIONS.
(3) COOLING AND HEATING CAPACITY IS TOTAL NET CAPACITY FOR TWO UNITS.

-- CONDENSING UNIT SCHEDULE --

ITEM	SERVES	CAPACITY M.B.H.	E.E.R.	MANUF. MODEL NO.
CU-1	VRF	336.0	9.9	PURY-P336
CU-2	VRF	168.0	12.4	PUHY-EP168

-- BRANCH CONTROLLER SCHEDULE --

ITEM	# OF PORT SETS	SERVED FROM	MITSUBISHI MODEL NO.
BC-MAIN	16	CU-1	CMB-P1016
BC-SUB	8	BC-MAIN	CMB-P108
HEADER	10	CU-2	CMY-Y1010

(1) REFRIGERANT PIPE SIZES AND ACCESSORIES REQUIRED SHALL BE DETERMINED BY EQUIPMENT MANUFACTURER FROM FIELD OBTAINED DIMENSIONS.

-- FAN SCHEDULE --

ITEM	LOCATION	C.F.M.	S.P.	HP.	R.P.M.	MAX R.P.M.	MAX SONES	GREENHECK MODEL NO.	REMARKS
F-1	NOT USED	-	-	-	-	-	-	-	-
F-2	NOT USED	-	-	-	-	-	-	-	-
F-3	ROOF	950	0.5	1/6	1140	--	8.0	G-123-B	(1)(4)
F-4	ELECTRICAL	120	0.25	1/30	1550	--	5.0	SE1-8-440-D	(3)

(1) COMPLETE WITH BACKDRAFT DAMPER, ROOF CURB, BIRDSCREEN AND DISCONNECT MEANS.
(2) COMPLETE WITH BACKDRAFT DAMPER, ISOLATION HANGERS AND DISCONNECT MEANS.
(3) CONTROL WITH THERMOSTAT SET AT 85° (ADJ.).
(4) CONTROL WITH WALL SWITCH.

-- DEDICATED OUTDOOR AIR UNIT SCHEDULE --

ITEM	SUPPLY			COOLING COIL LAT (°F) DB/WB	HOT GAS REHEAT CAP. (MBH)	ELECTRIC HEAT		GREENHECK MODEL NO.	REMARKS (1)(2)
	CFM	ESP (IN. WG)	FAN HP			TOTAL KW	STAGES		
DOAS-1	1,400	0.5	3.0	54.4/54.2	51.1	30.0	SCR	RV-25-10S	--

(1) PACKAGED DEDICATED OUTDOOR AIR UNIT COMPLETE WITH DIRECT DRIVE PLENUM SUPPLY FAN WITH FACTORY-MOUNTED VARIABLE FREQUENCY DRIVE, ELECTRIC HEATING COIL, (DIGITAL)(INVERTER)(STANDARD) SCROLL COMPRESSOR(S), MODULATING HOT GAS REHEAT, E.C. LEAD CONDENSER FAN, AND 2" PLEATED MERV 8 FILTERS.

-- REFRIGERATION PIPE SCHEDULE --

ITEM	SUCTION LINE O.D.	LIQUID LINE O.D.	REMARKS
IHP/OHP-1	5/8"	3/8"	(1)
IHP/OHP-2	5/8"	3/8"	(1)
IHP/OHP-3	7/8"	3/8"	(1)

(1) REFRIGERANT PIPE SIZES INDICATED ARE FOR ESTIMATING PURPOSES ONLY. EXACT SIZES AND ACCESSORIES REQUIRED SHALL BE DETERMINED BY EQUIPMENT MANUFACTURER FROM FIELD OBTAINED DIMENSIONS.

H.V.A.C. LEGEND

SYMBOL	DESCRIPTION
SL	REFRIGERANT SUCTION / LIQUID
D	CONDENSATE DRAIN
T	THERMOSTAT 4'-6" A.F.
Ç or C.F.M.	CUBIC FEET PER MINUTE
1 / M-1	DETAIL NO 1/M-1, SHEET NO.
	SUPPLY DIFFUSER
	RETURN OR EXHAUST GRILLE
or MVD	MANUAL VOLUME DAMPER
	FLEXIBLE DUCT CONNECTION
	LINED DUCT (SIZE SHOWN IS METAL SIZE)
	SQUARE ELL WITH SINGLE THICK TURNING VANES
A / 8	AIR DEVICE, NECK CONNECTION SIZE
ø	DIAMETER
TYP.	TYPICAL

HVAC NOTES:

NOT ALL EXISTING WORK IS SHOWN, AND THAT SHOWN IS IN ITS APPROXIMATE LOCATION AND ARRANGEMENT. EXACT LOCATION, ARRANGEMENT, AND SIZES SHALL BE VERIFIED ON THE JOB BEFORE STARTING ANY NEW WORK.

INSTALL PIPING AND DUCTWORK IN EQUIPMENT ROOMS ADJACENT TO WALLS AND CEILINGS WHERE POSSIBLE TO PROVIDE MAXIMUM ROOM CLEARANCE.

COORDINATE THE INSTALLATION OF WORK UNDER THIS DIVISION WITH THAT OF OTHER TRADES TO PROVIDE THE BEST ARRANGEMENT OF PIPING, DUCTWORK, AND EQUIPMENT.

PIPING, DUCTWORK, AND EQUIPMENT IS SHOWN IN ITS GENERAL LOCATION UNLESS DIMENSIONED.

ARRANGE PIPING AND DUCTWORK TO CLEAR STRUCTURAL MEMBERS, PIPING AND LIGHT FIXTURES.

EXACT LOCATION OF GRILLES AND CEILING OUTLETS SHALL BE DETERMINED ON THE JOBSITE. COORDINATE WITH LIGHTS, SPRINKLER HEADS, AND OTHER CEILING APPURTENANCES TO PROVIDE A UNIFORM AND SYMMETRICAL APPEARANCE. REFER TO ARCHITECTURAL AND ELECTRICAL DRAWINGS AND DETAILS.

ALL PIPING SHALL BE CONCEALED, UNLESS NOTED OTHERWISE.

PROVIDE FLEXIBLE DUCT CONNECTIONS TO ALL AIR HANDLING EQUIPMENT.

PROVIDE ACCESS DOORS IN DUCTWORK FOR ALL FIRE AND SMOKE DAMPERS, DUCT-MOUNTED COILS, AND CONTROL DEVICES.

SLOPE DRAIN LINES TOWARD DRAIN WITH A MINIMUM SLOPE OF 1/4" PER FOOT.

PFA ENGINEERING
PRUETT, FORD & ASSOCIATES, INC.
LIC. NO. PEF000760 EXP. 06/20/2020
1201 BROAD STREET, SUITE 3A
AUGUSTA, GEORGIA 30901
706/722-3959 • FAX 706/724-3027
WWW.PRUETTFORD.COM

1/4 1/2 3/4 1" REFERENCE SCALE

PLOT DATE: 05/13/20
FILENAME: 19087 M1
PLOT SCALE: 1 = 96
WGC

GMC

35 Abercorn Street, Suite 200
Savannah, GA 31401
T 912.226.1667
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020

PROJECT MANAGER:
ENGINEER:
DESIGNER:
DRAWN BY:

1" 0" 1"
IF THIS BAR DOES NOT MEASURE ONE INCH ON DRAWING IS NOT LABELED TO SCALE

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

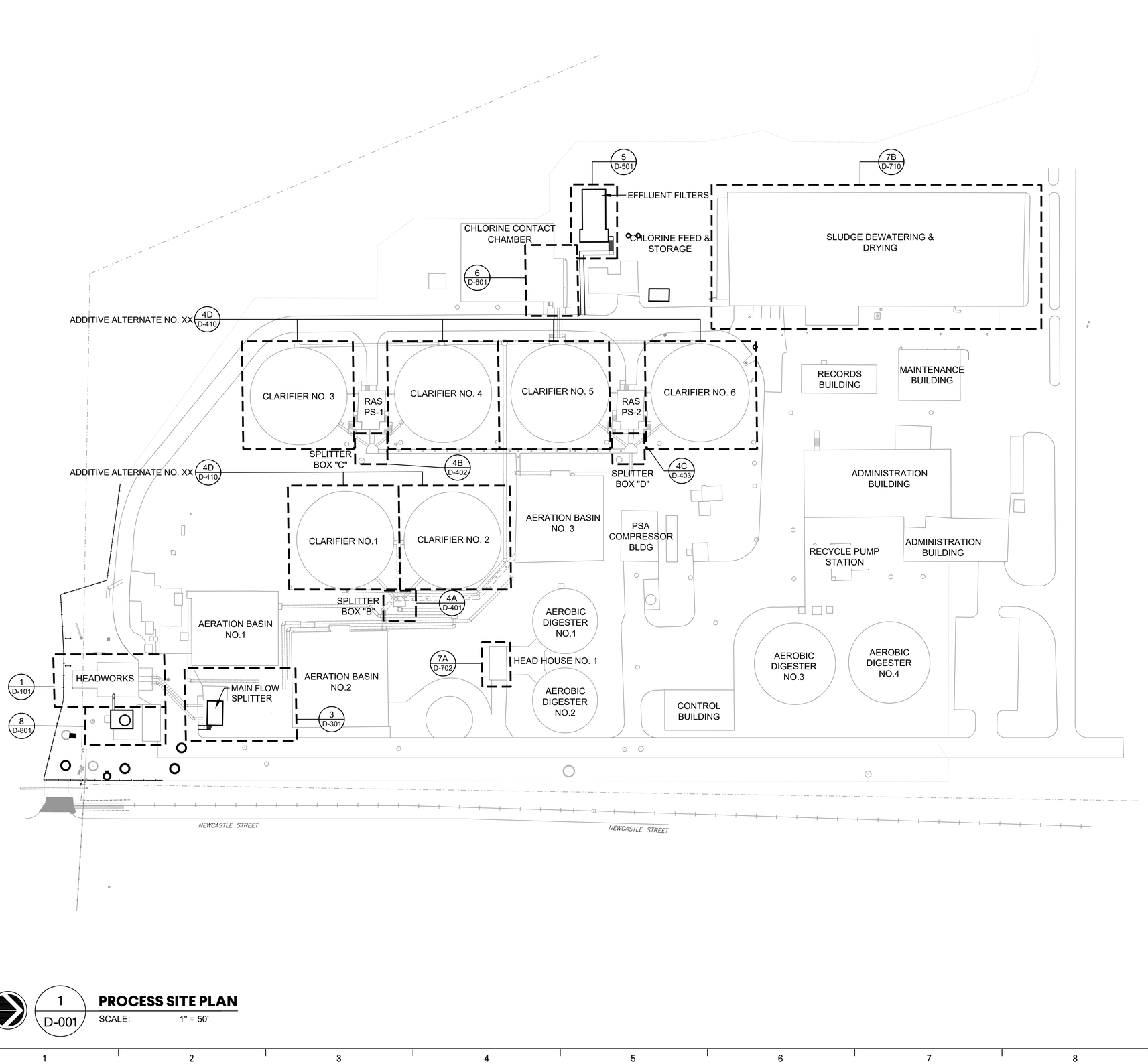
30% SUBMITTAL
70% SUBMITTAL
100% SUBMITTAL
CONSTRUCTION SUBMITTAL

BGJWSC Project No. 906
GMC Project # CSAV190007

GEORGIA REGISTERED No.19647 PROFESSIONAL ENGINEER Mark L. MART IN FORD 5-15-2020

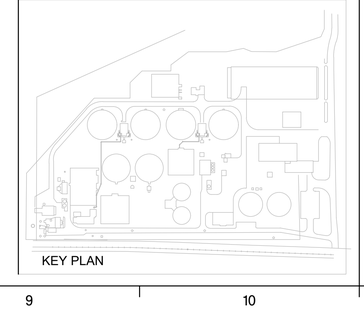
HVAC SCHEDULES, NOTES AND LEGEND

M-401



1 / D-001 **PROCESS SITE PLAN**

SCALE: 1" = 50'



GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" 0" .5"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

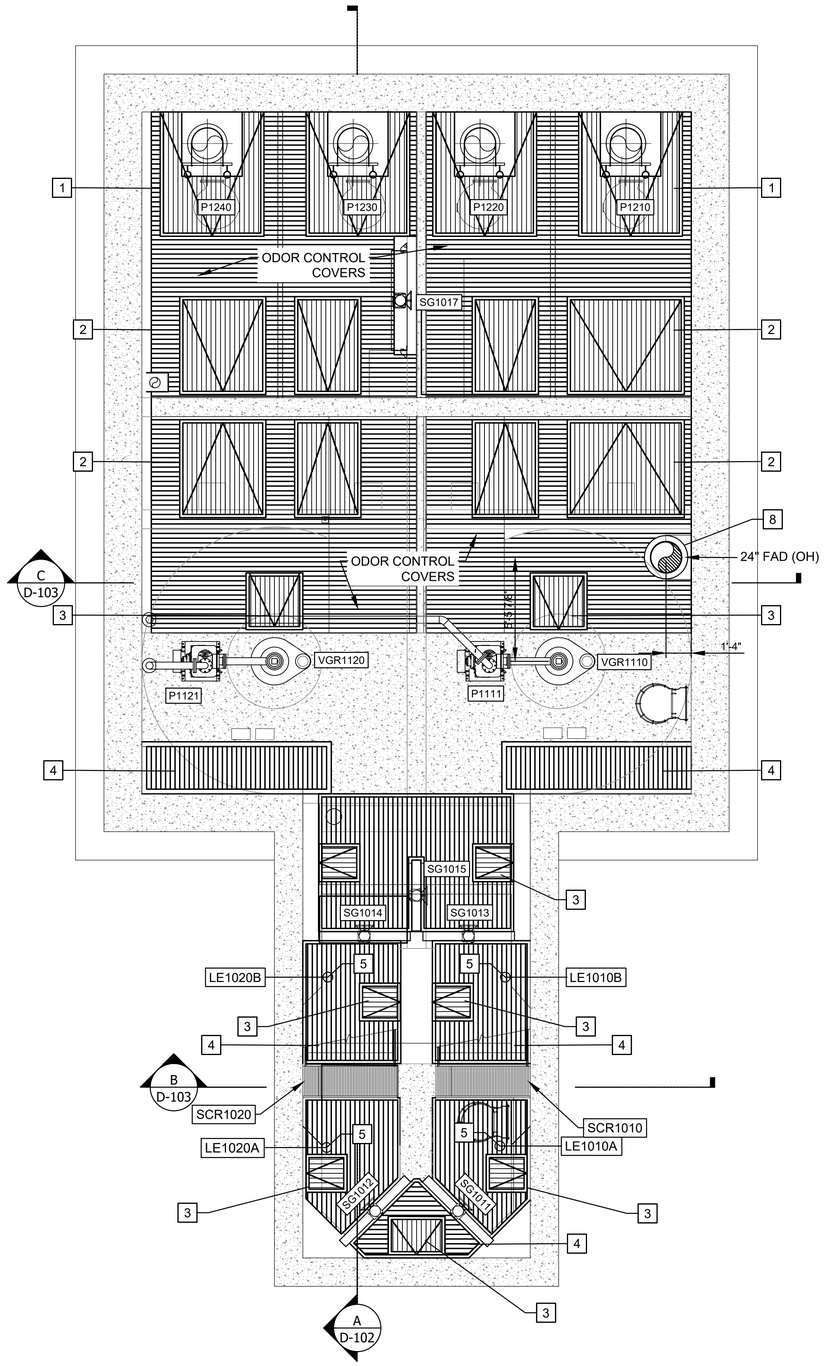
BG JWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 18777 PROFESSIONAL ENGINEER JAMES C. VAUGHN III

PROCESS SITE PLAN - KEY

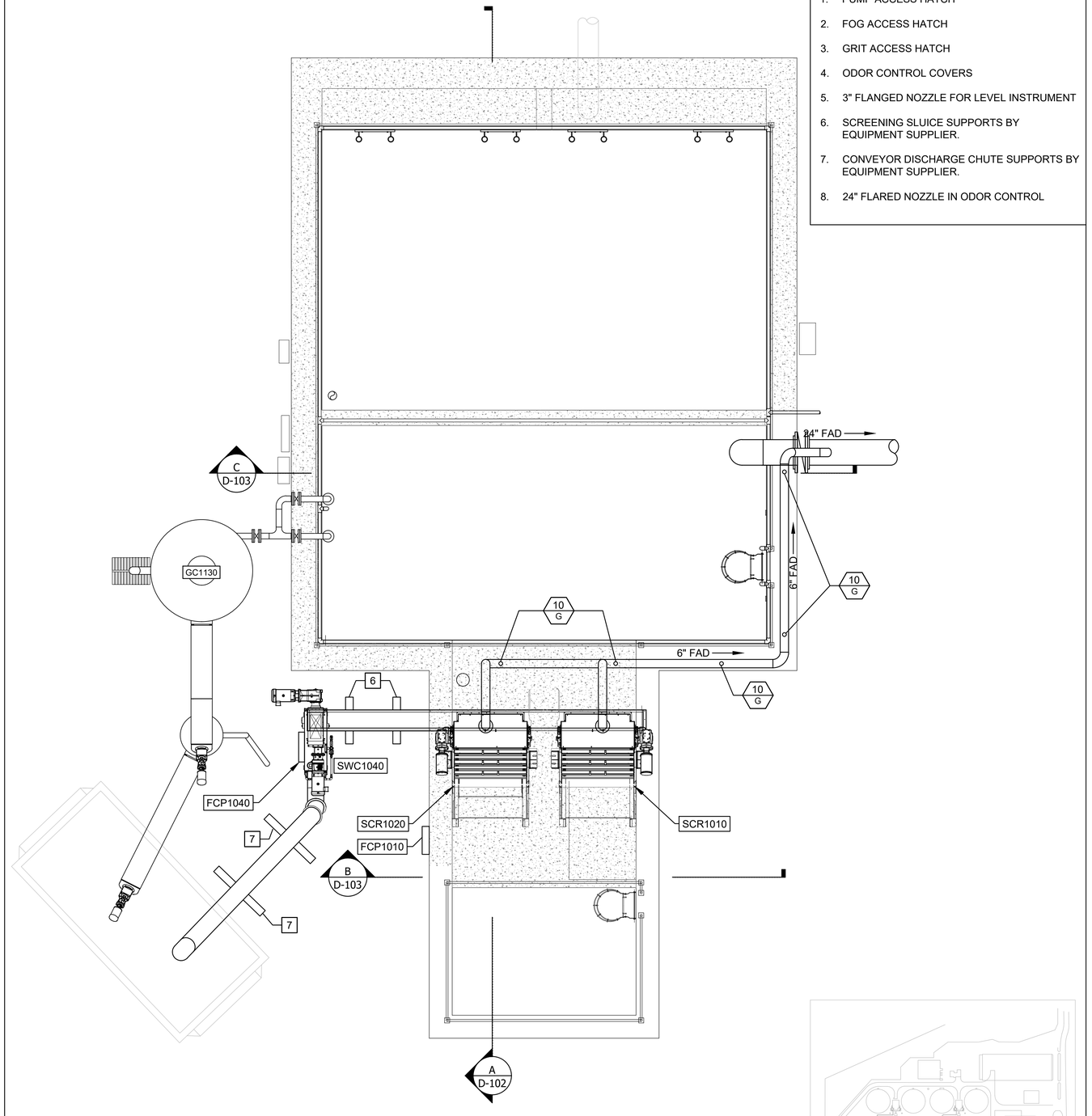
D-001

DRAWING FILE: W:\Civil\CSAV190007 BG JWSC WPCF Rehab\0 DWG\+CAD\01 BID DRAWINGS\11 PROCESS\D-101 PROCESS KEY.dwg
PLOTTED: Jun 05, 2020 - 11:53am



1 D-001 **LOWER LEVEL PLAN**

SCALE: 1/4" = 1'-0"

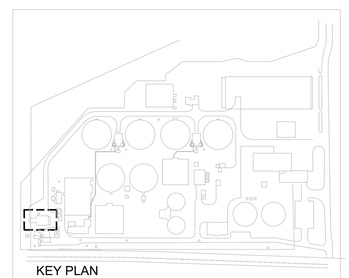


2 D-001 **UPPER LEVEL PLAN**

SCALE: 1/4" = 1'-0"

KEY NOTES: #

1. PUMP ACCESS HATCH
2. FOG ACCESS HATCH
3. GRIT ACCESS HATCH
4. ODOR CONTROL COVERS
5. 3" FLANGED NOZZLE FOR LEVEL INSTRUMENT
6. SCREENING SLUICE SUPPORTS BY EQUIPMENT SUPPLIER.
7. CONVEYOR DISCHARGE CHUTE SUPPORTS BY EQUIPMENT SUPPLIER.
8. 24" FLARED NOZZLE IN ODOR CONTROL



KEY PLAN

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" .5" 0"

SUBMISSION

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

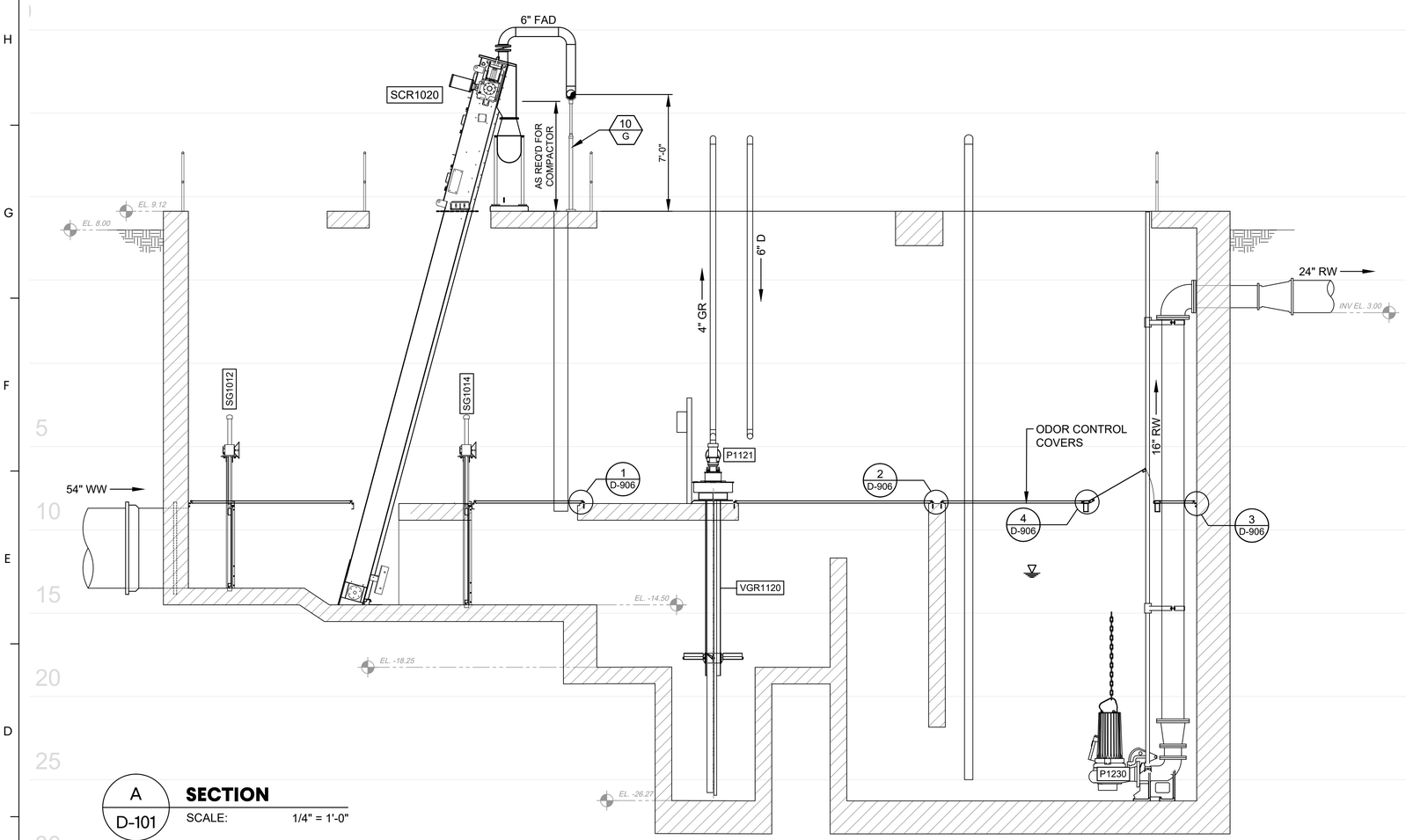
BG-JWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 18017 PROFESSIONAL JAMES C. VAUGHN

HEADWORKS UPPER & LOWER LEVEL PLAN

D-101

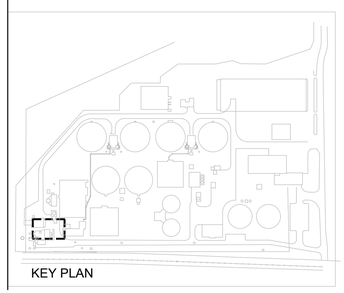
DRAWING FILE: W:\Civil\CSAV190007 BG-JWSC WPC Rehab\0 DWG\+CAD\101 BID DRAWINGS\11 PROCESS\D-101.dwg
PLOTTED: Jun 05, 2020 - 11:53am



A
D-101

SECTION

SCALE: 1/4" = 1'-0"



KEY PLAN

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" 0" .5" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

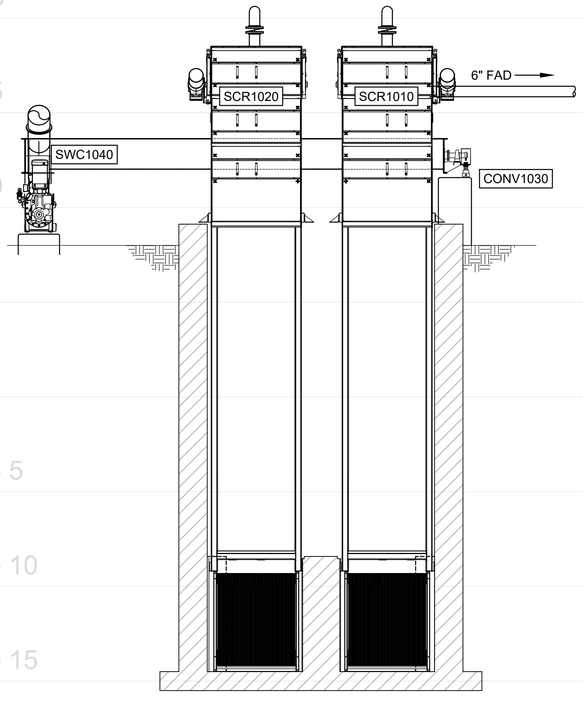
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 31727 PROFESSIONAL ENGINEER JAMES C. VAUGHAN

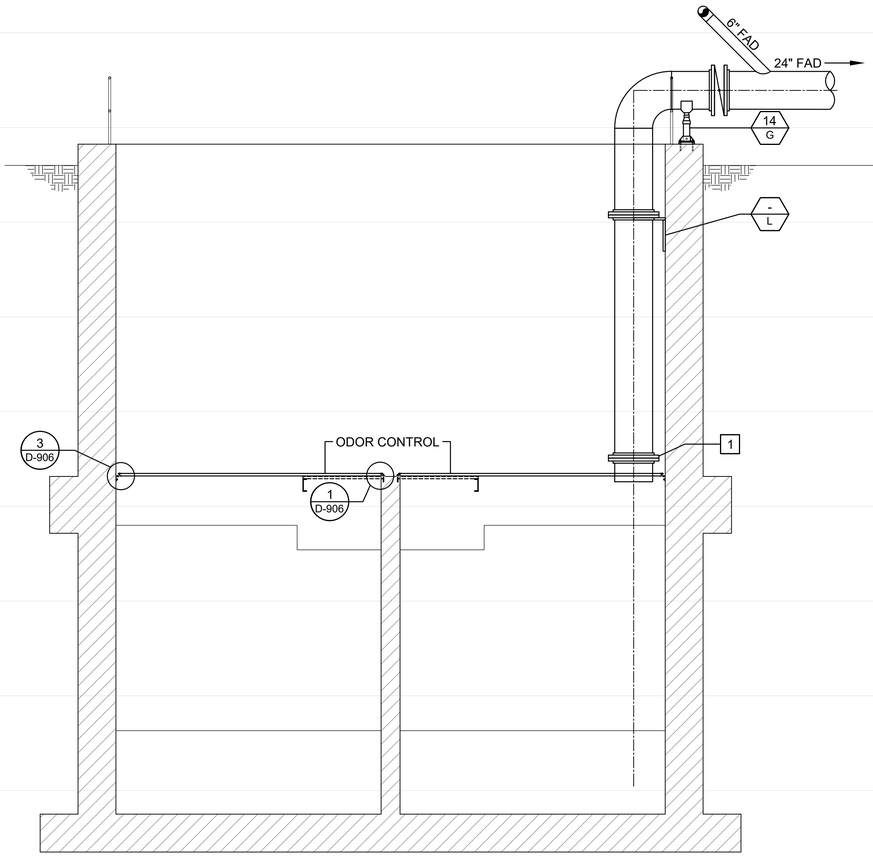
HEADWORKS SECTIONS

D-102

DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPC Rehab\0 DWGs\CAD\01 BID DRAWINGS\11 PROCESS\D-101.dwg
PLOTTED: Jun 05, 2020 - 11:53am



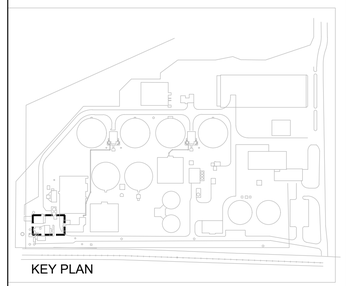
B
D-101
SECTION
SCALE: 1/4" = 1'-0"



C
D-101
SECTION
SCALE: 1/4" = 1'-0"

KEY NOTES: #

1. 24" FL NOZZLE IN ODOR COVER


KEY PLAN

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020

PROJECT MANAGER: JCV
ENGINEER: MEF
DESIGNER: GS
DRAWN BY: GS/AJ

1" 0" .5" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

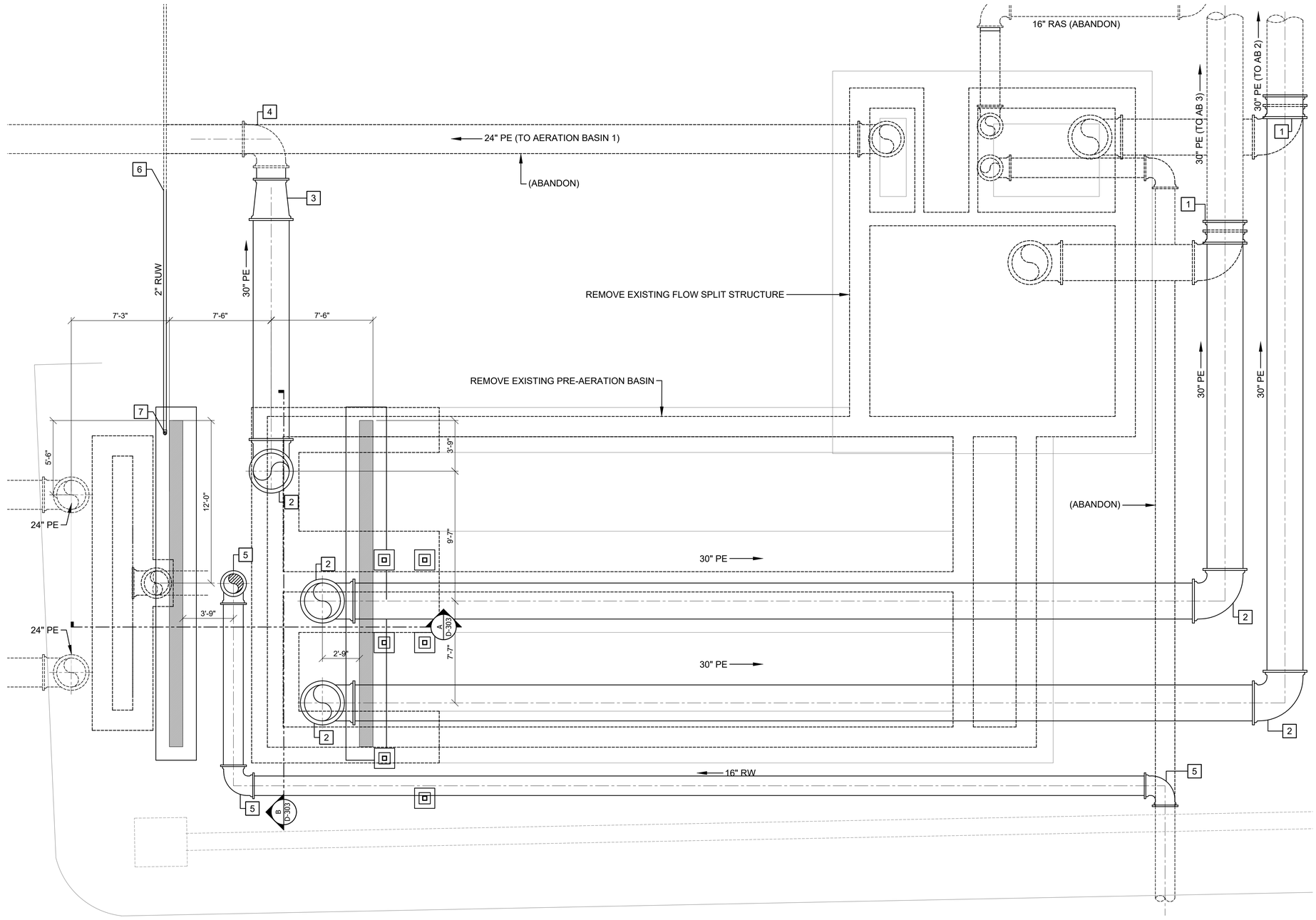
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA
REGISTERED
No. 18174
PROFESSIONAL
ENGINEER
JAMES C. VAUGHN, III

HEADWORKS SECTIONS

D-103

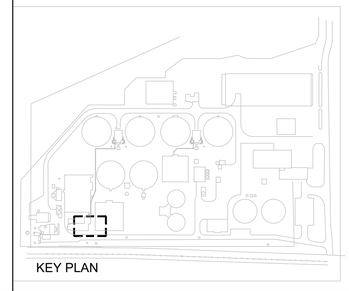
DRAWING FILE: W:\Civil\CSAV190007 BG-JWSC WPC Rehab\0 DWGs+CAD\01 BID DRAWINGS\11 PROCESS\D-101.dwg
PLOTTED: Jun 15, 2020 - 4:29pm



KEY NOTES: #

1. 30" MJ SLEEVE - CONNECT TO EXISTING
2. 30" MJ 90° BEND
3. 30" x 24" MJ ECCENTRIC REDUCER FLAT ON TOP
4. 24" MJ 90° BEND - CONNECT TO EXISTING
5. 16" MJ 90° BEND (RESTRAINED)
6. CONNECT TO AND EXTEND 2" RUW
7. 2" RUW VERT, SECURE TO WALL WITH 2" 304 SST PIPE STRAPS @ 5' O.C. INSULATE AND HEAT TRACE ABOVE GROUND PORTION OF PIPE

3 / D-001 **LOWER LEVEL PLAN**
SCALE: 1/4" = 1'-0"



GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020

PROJECT MANAGER: JCV
ENGINEER: MEF
DESIGNER: GS
DRAWN BY: GS/AJ

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

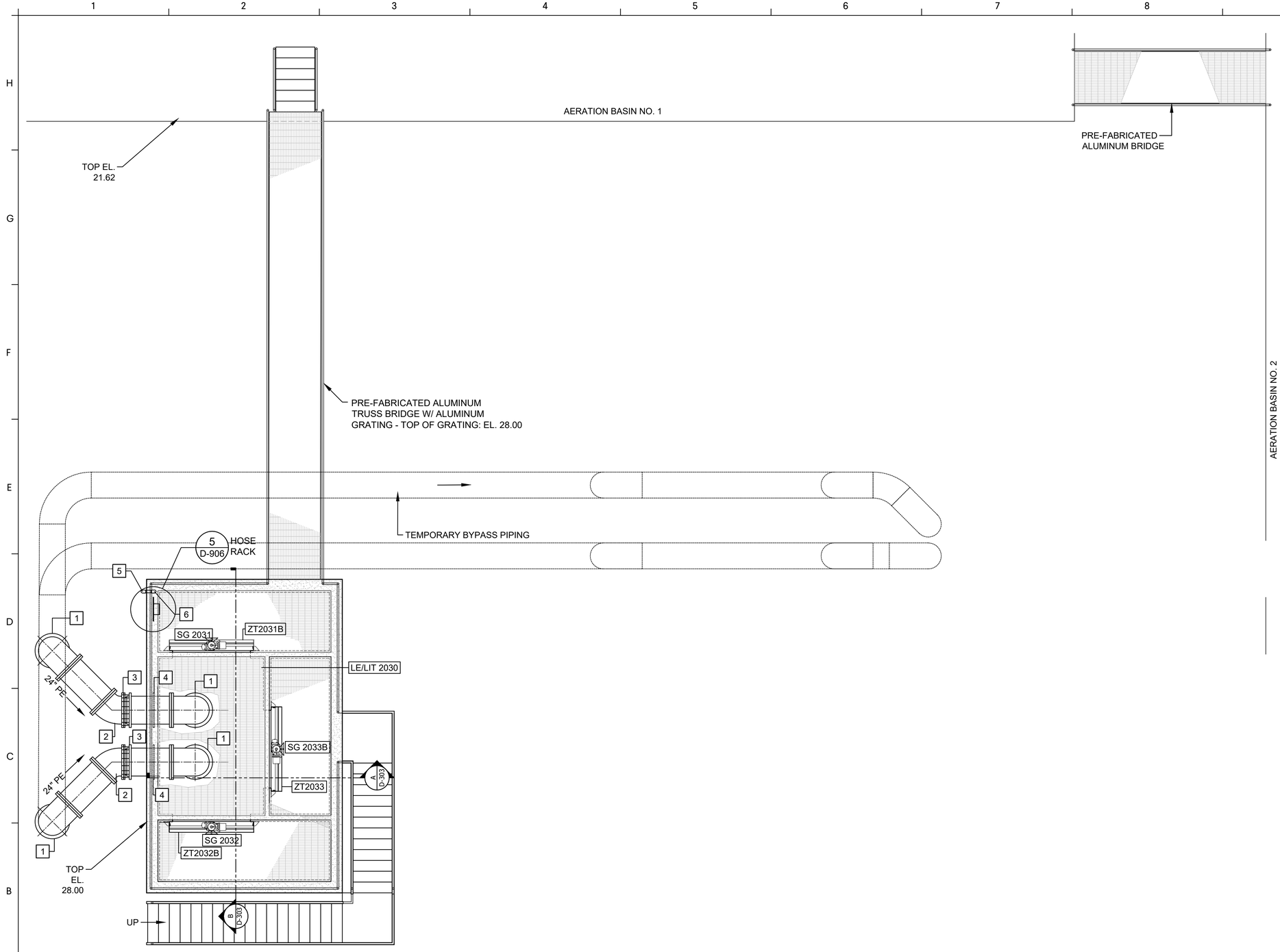
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 31737 PROFESSIONAL ENGINEER JAMES C. VAUGHN JR.

MAIN SPLITTER
LOWER LEVEL PLAN

D-301

DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPC Rehab\10 DWG\+CAD\01 BID DRAWINGS\11 PROCESS\D-301.dwg
PLOTTED: Jun 05, 2020 - 11:14am

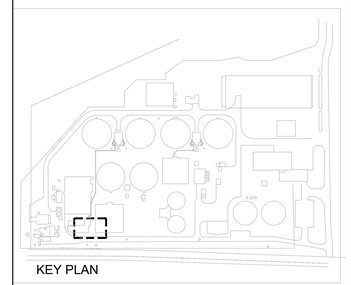


KEY NOTES: [#]

1. 24" FL x FL 90° BEND
2. 24" FL x FL 45° BEND
3. 24" FLANGE COUPLING ADAPTER
4. 24" TYPE 'G' PIPE PENETRATION
5. 2" RUW, DN
6. 1-1/2" HOSE BIBB WITH 50' HOSE & ADJUSTABLE NOZZLE

3 D-001 **LOWER LEVEL PLAN**

SCALE: 1/4" = 1'-0"



GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

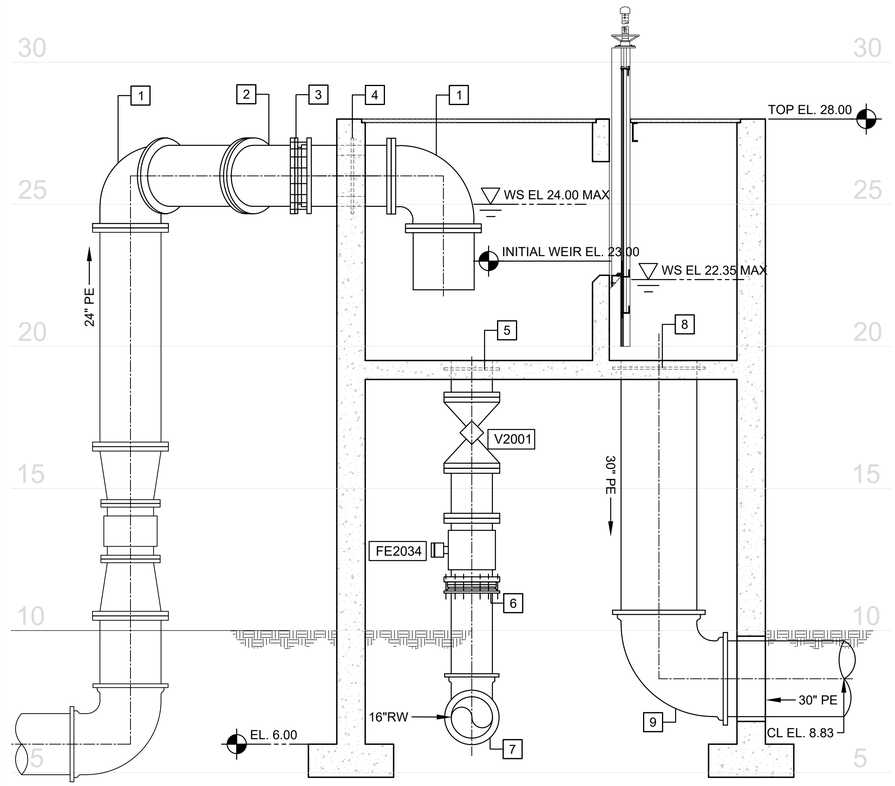
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 18727 PROFESSIONAL ENGINEER JAMES C. VAUGHN

MAIN SPLITTER UPPER LEVEL PLAN

D-302

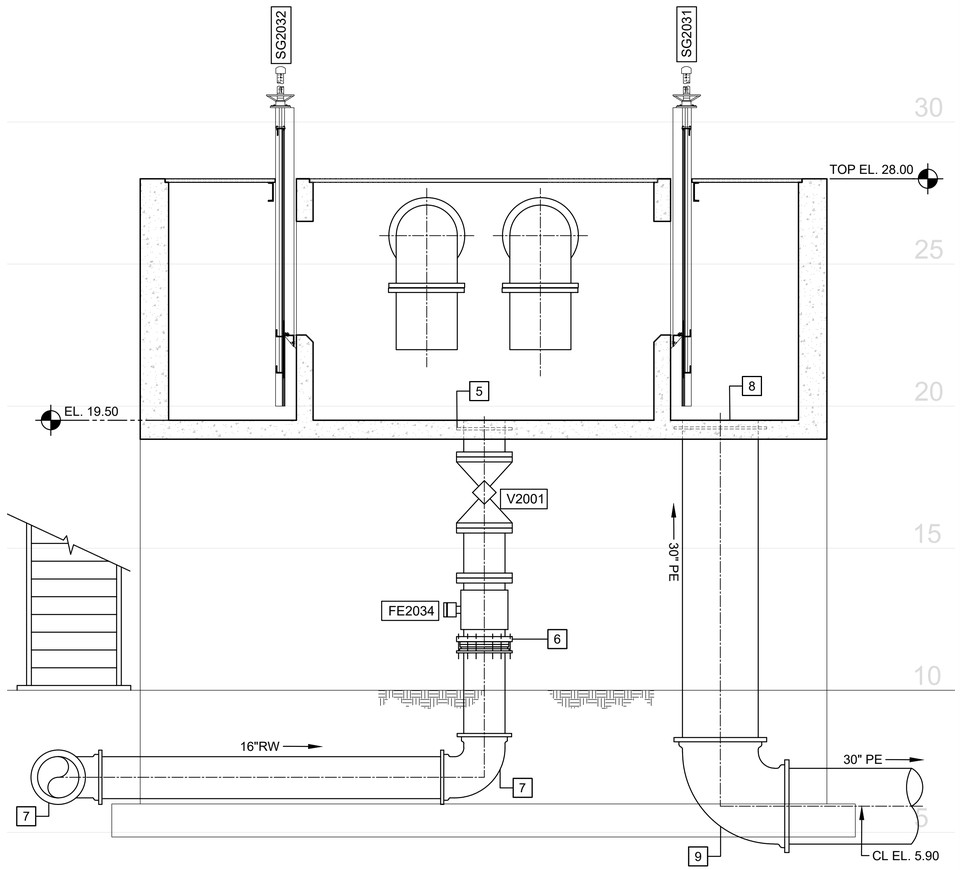
DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPC Rehab\0 DWG\+CAD\01 BID DRAWINGS\11 PROCESS\D-301.dwg
PLOTTED: Jun 05, 2020 - 11:14am



A
D-301

SECTION

SCALE: 3/8" = 1'-0"



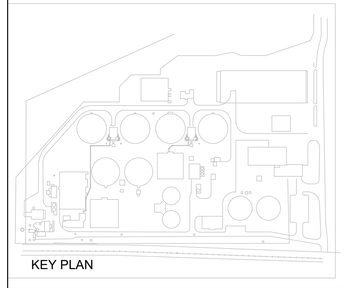
B
D-301

SECTION

SCALE: 3/8" = 1'-0"

KEY NOTES: #

1. 24" FL x FL 90° BEND
2. 24" FL x FL 45° BEND
3. 24" FLANGE COUPLING ADAPTER
4. 24" TYPE 'G' PIPE PENETRATION
5. 16" TYPE 'H' PIPE PENETRATION
6. 16" FLANGE COUPLING ADAPTER
7. 16" MJ 90° BEND (RESTRAINED)
8. 30" TYPE 'H' PIPE PENETRATION
9. 30" MJ 90° BEND



KEY PLAN

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

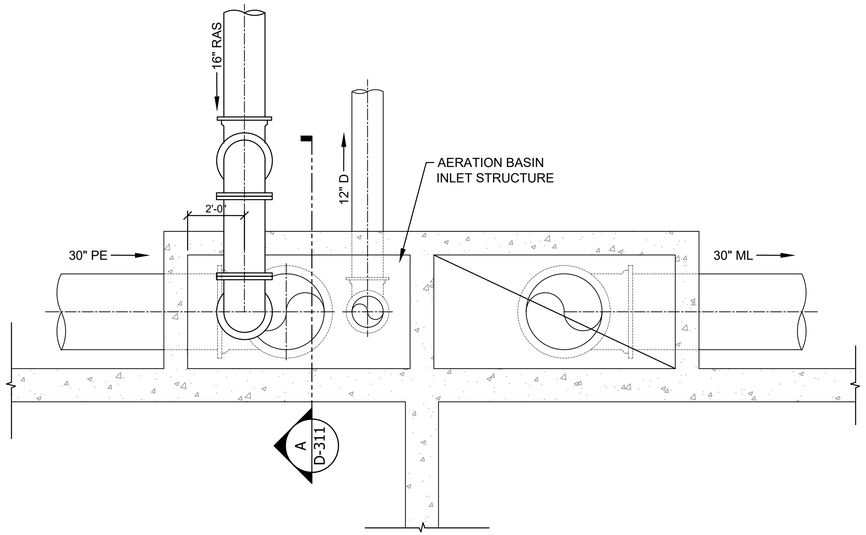
BG-JWSC Project No. 906
GMC Project #CSAV190007

GEORGIA
No. 18017
REGISTERED PROFESSIONAL ENGINEER
JAMES E. VAUGHAN

MAIN SPLITTER SECTIONS

D-303

DRAWING FILE: W:\Civil\CSAV190007 BG-JWSC WPC Rehab\0 DWG\+CAD\01 BID DRAWINGS\11 PROCESS\D-301.dwg
PLOTTED: Jun 05, 2020 - 11:14am

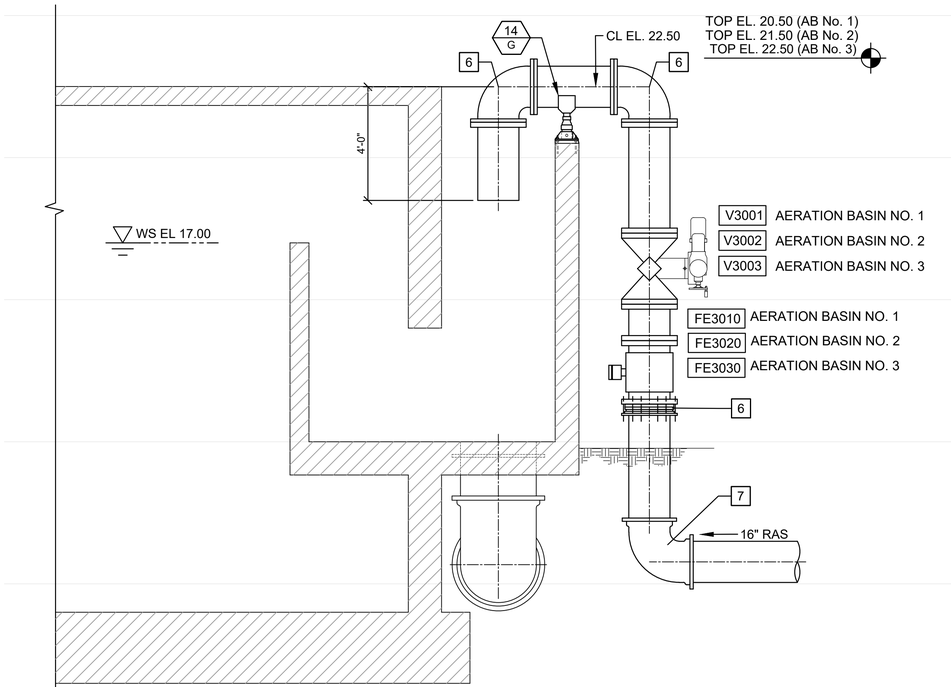


1
D-311

RAS FEED MODIFICATIONS AERATION BASIN 3

SCALE: 3/8" = 1'-0"

(AERATION BASIN 1 & 2 SIMILAR)



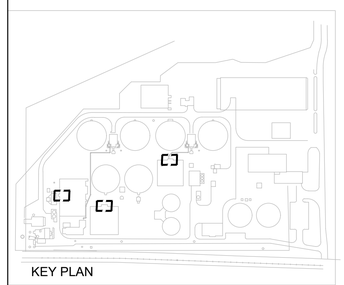
A
D-311

SECTION

SCALE: 3/8" = 1'-0"

KEY NOTES: #

1. 24" FL x FL 90° BEND
2. 24" FL x FL 45° BEND
3. 24" FLANGE COUPLING ADAPTER
4. 24" TYPE 'G' PIPE PENETRATION
5. 16" TYPE 'H' PIPE PENETRATION
6. 16" FLANGE COUPLING ADAPTER
7. 16" MJ 90° BEND (RESTRAINED)
8. 30" TYPE 'H' PIPE PENETRATION
9. 30" MJ 90° BEND



KEY PLAN

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020

PROJECT MANAGER: JCV
ENGINEER: MEF
DESIGNER: GS
DRAWN BY: GS/AJ

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

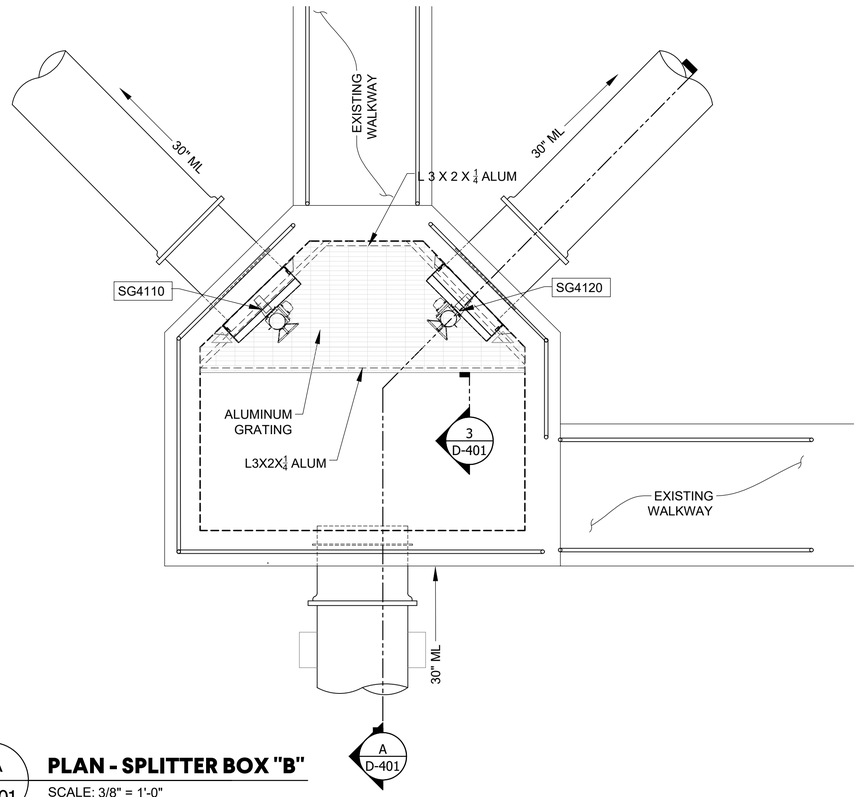
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER JAMES C. VAUGHN

RAS MODIFICATION PLAN & SECTION

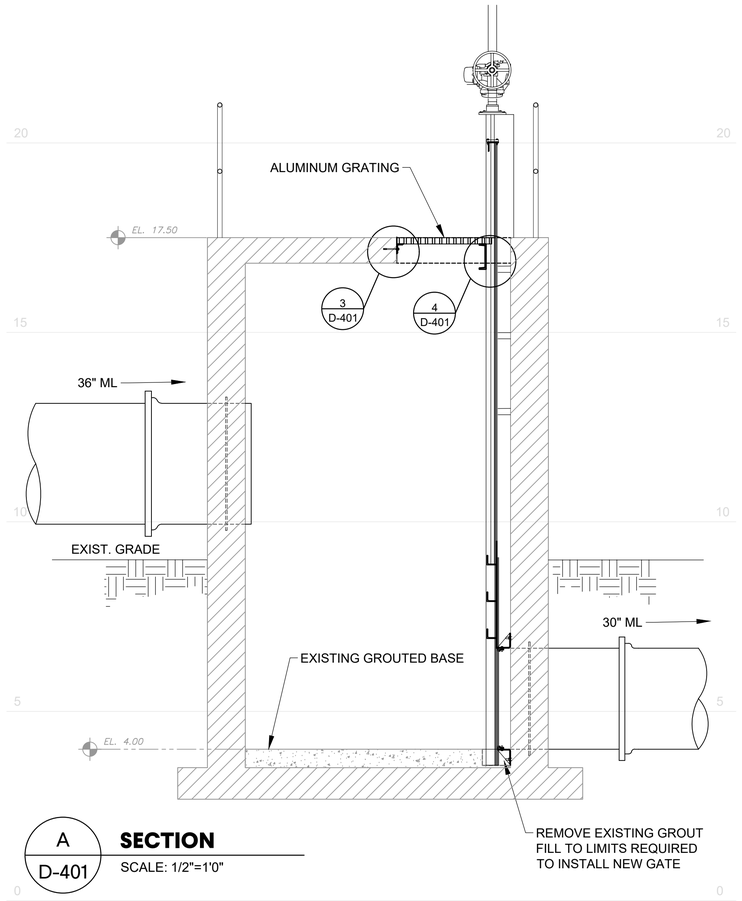
D-311

DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPC Rehab\0 DWG\+CAD\01 BID DRAWINGS\11 PROCESS\D-301.dwg
PLOTTED: Jun 05, 2020 - 11:14am



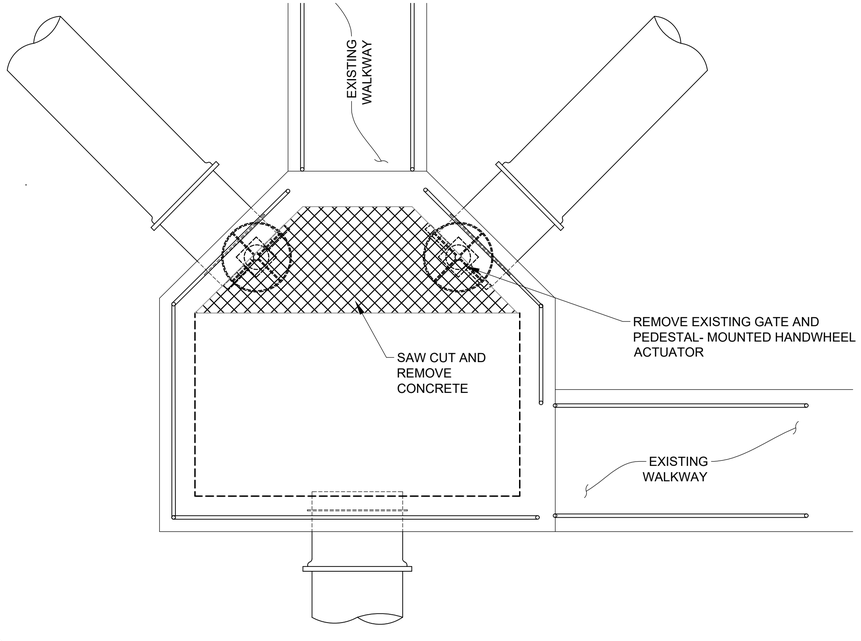
4A / D-001 **PLAN - SPLITTER BOX "B"**

SCALE: 3/8" = 1'-0"



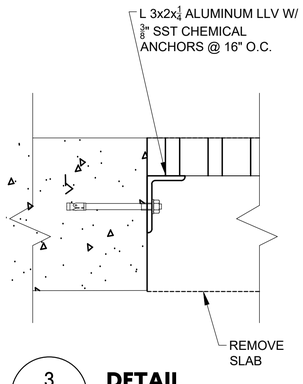
A / D-401 **SECTION**

SCALE: 1/2"=1'0"



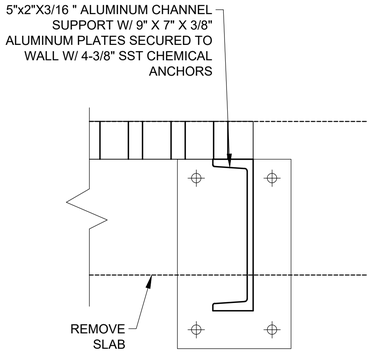
4A / D-001 **DEMOLITION PLAN - SPLITTER BOX "B"**

SCALE: 3/8" = 1'-0"



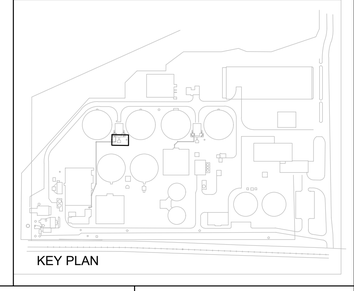
3 / D-401 **DETAIL**

SCALE: 3" = 1'-0"



4 / D-401 **DETAIL**

SCALE: 3" = 1'-0"



KEY PLAN

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" 0" .5" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906

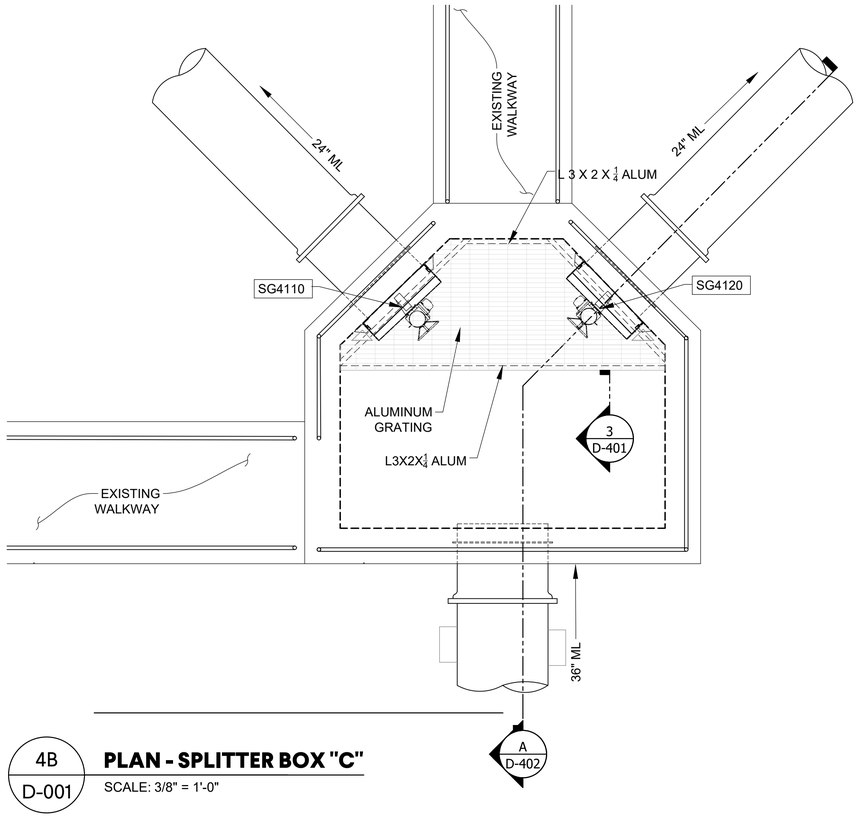
GMC Project #CSAV190007

GEORGIA — JEFFREY E. BROWN — No. 18172 — PROFESSIONAL ENGINEER — JAMES C. VAUGHN — PROFESSIONAL ENGINEER

CLARIFIER PLAN
BOX B

D-401

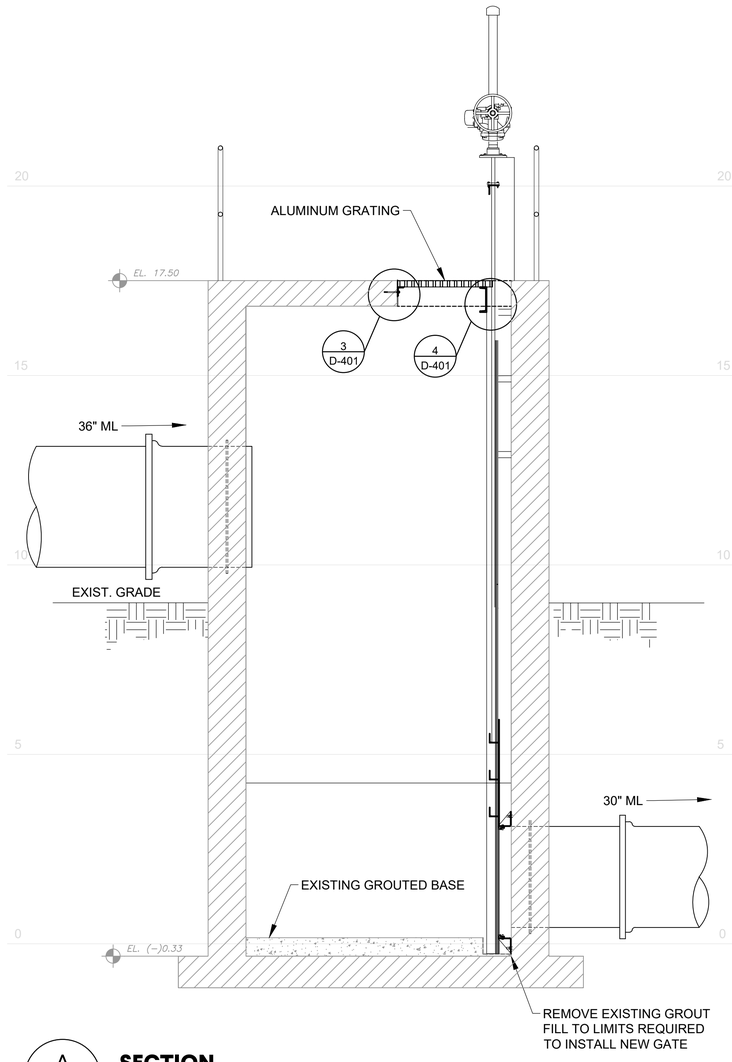
DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPC Rehab\10 DWGS+CAD\01 BID DRAWINGS\11 PROCESS\D-401 CLARIFIER GATE REPLACEMENT.dwg
PLOTTED: Jun 05, 2020 - 11:14am



4B / D-001

PLAN - SPLITTER BOX "C"

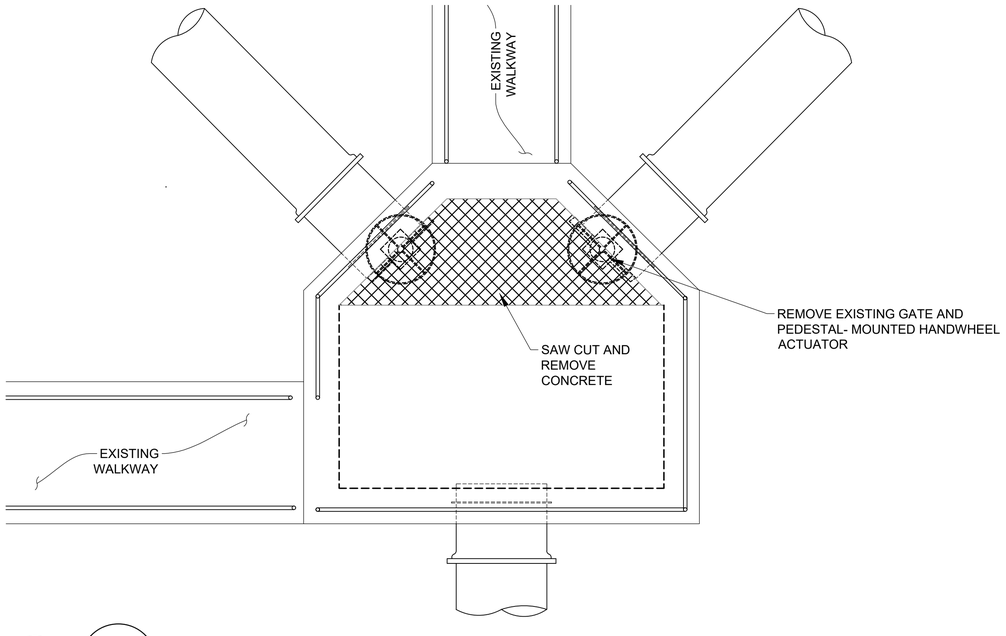
SCALE: 3/8" = 1'-0"



A / D-402

SECTION

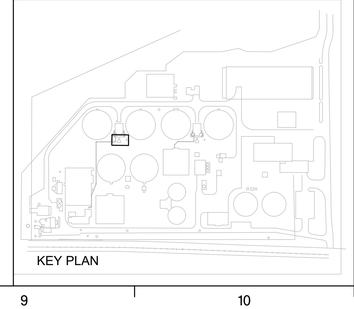
SCALE: 1/2"=1'0"



4B / D-001

DEMOLITION PLAN - SPLITTER BOX "C"

SCALE: 3/8" = 1'-0"



KEY PLAN

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" 0" .5" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

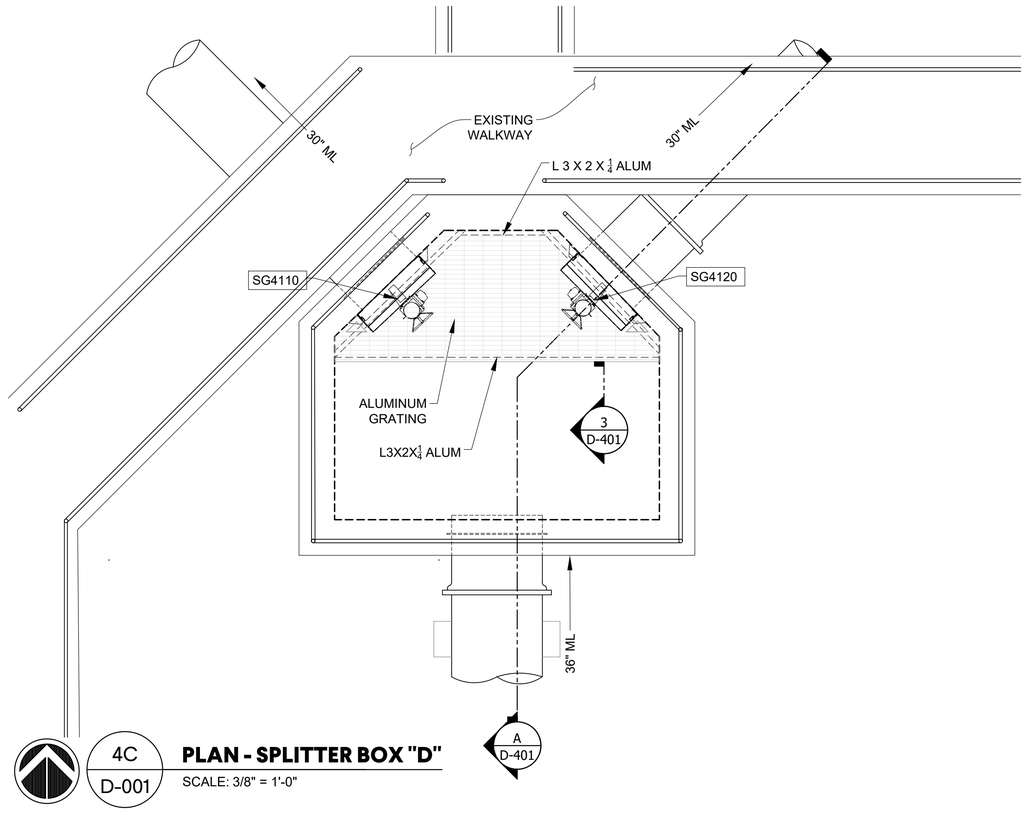
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 18... PROFESSIONAL ENGINEER JAMES C. VAUGHAN

CLARIFIER PLAN
BOX C

D-402

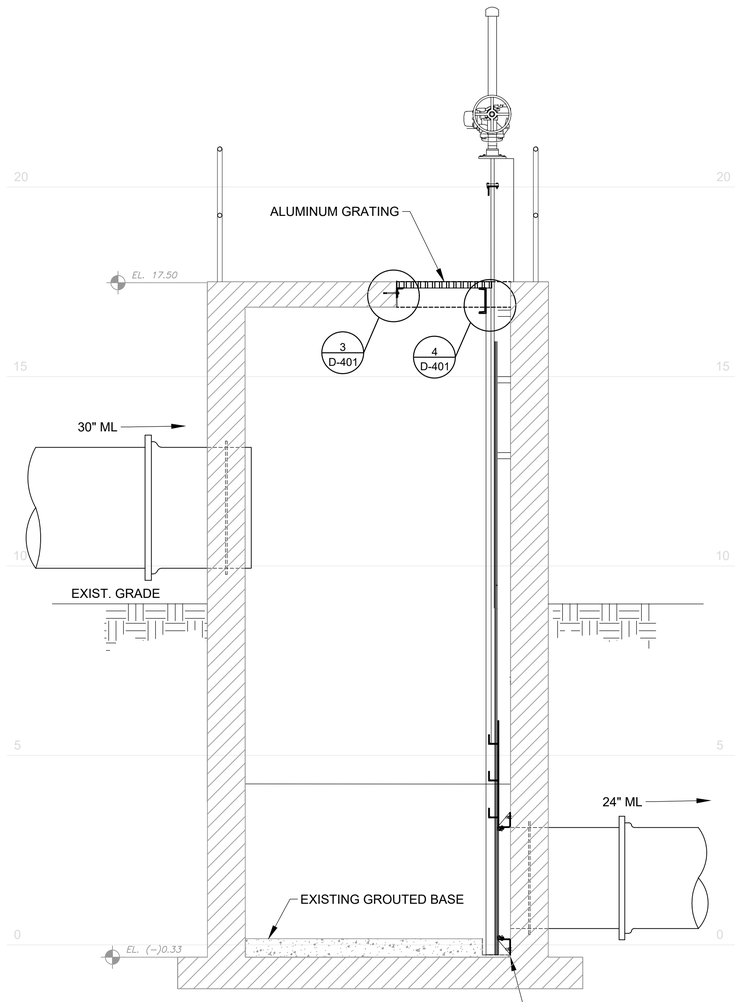
DRAWING FILE: W:\civil\CSAV190007 BGJWSC WPC Rehab\0 DWG\+CAD\01 BID DRAWINGS\11 PROCESS\D-401 CLARIFIER GATE REPLACEMENT.dwg
PLOTTED: Jun 05, 2020 - 11:14am



4C
D-001

PLAN - SPLITTER BOX "D"

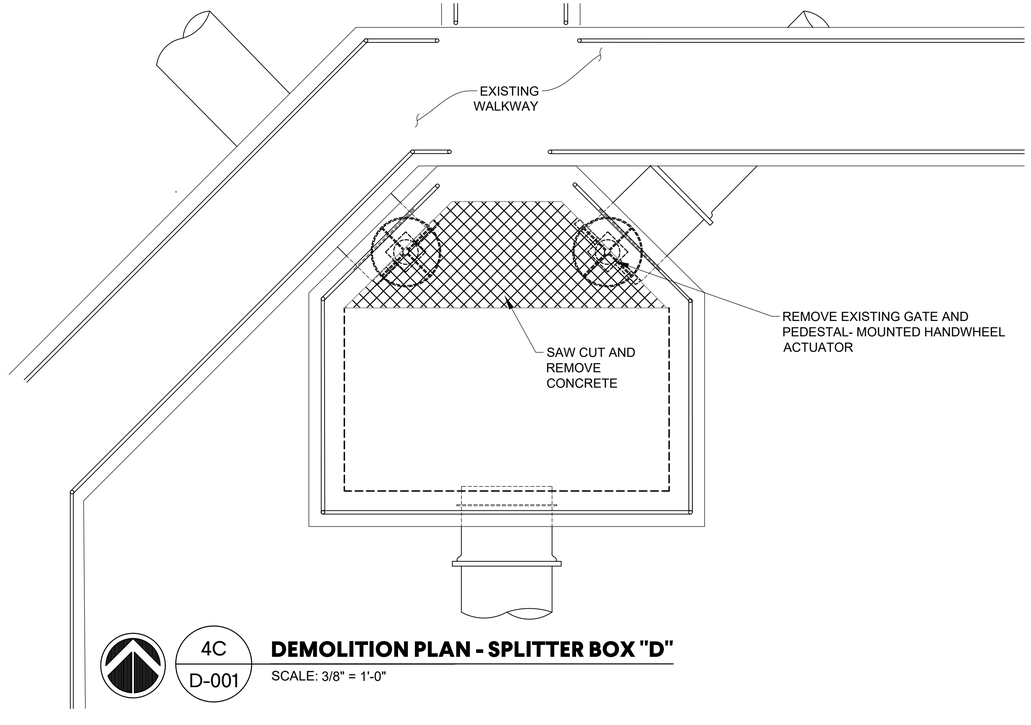
SCALE: 3/8" = 1'-0"



A
D-403

SECTION

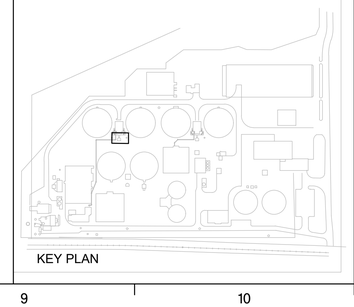
SCALE: 1/2"=1'0"



4C
D-001

DEMOLITION PLAN - SPLITTER BOX "D"

SCALE: 3/8" = 1'-0"



KEY PLAN

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" 0" .5" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906

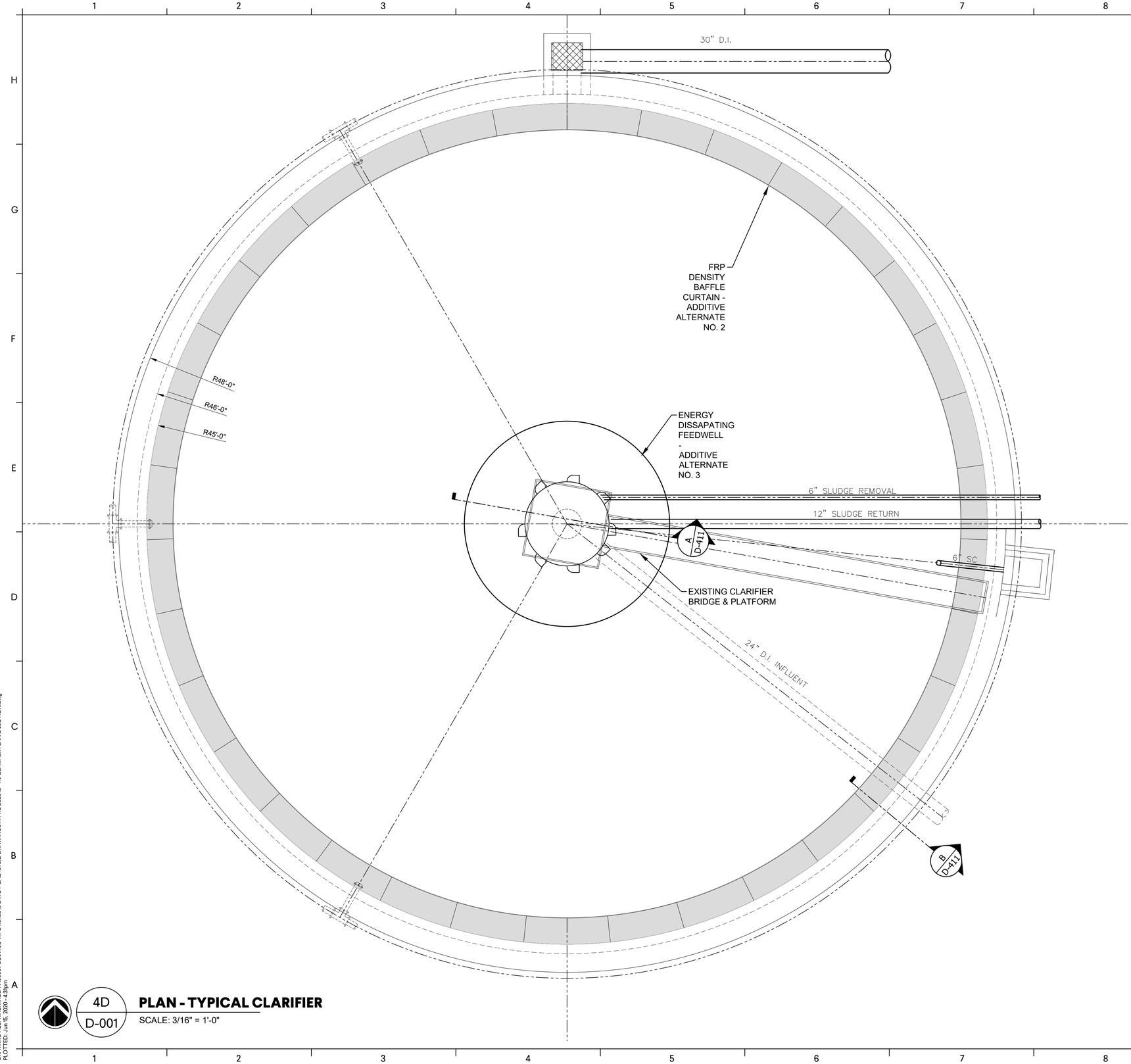
GMC Project #CSAVI90007

GEORGIA
REGISTERED
No. 18127
PROFESSIONAL
ENGINEER
JAMES C. VAUGHN, III

CLARIFIER PLAN
BOX D

D-403

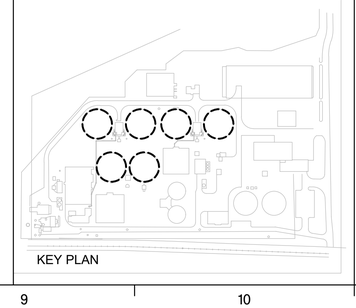
DRAWING FILE: W:\Civil\CSAVI90007 BGJWSC WPC Rehab\10 DWGS+CAD\01 BID DRAWINGS\11 PROCESS\D-401 CLARIFIER GATE REPLACEMENT.dwg
PLOTTED: Jun 05, 2020 - 11:14am



4D
D-001

PLAN - TYPICAL CLARIFIER

SCALE: 3/16" = 1'-0"



GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" 0" .5" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK

BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

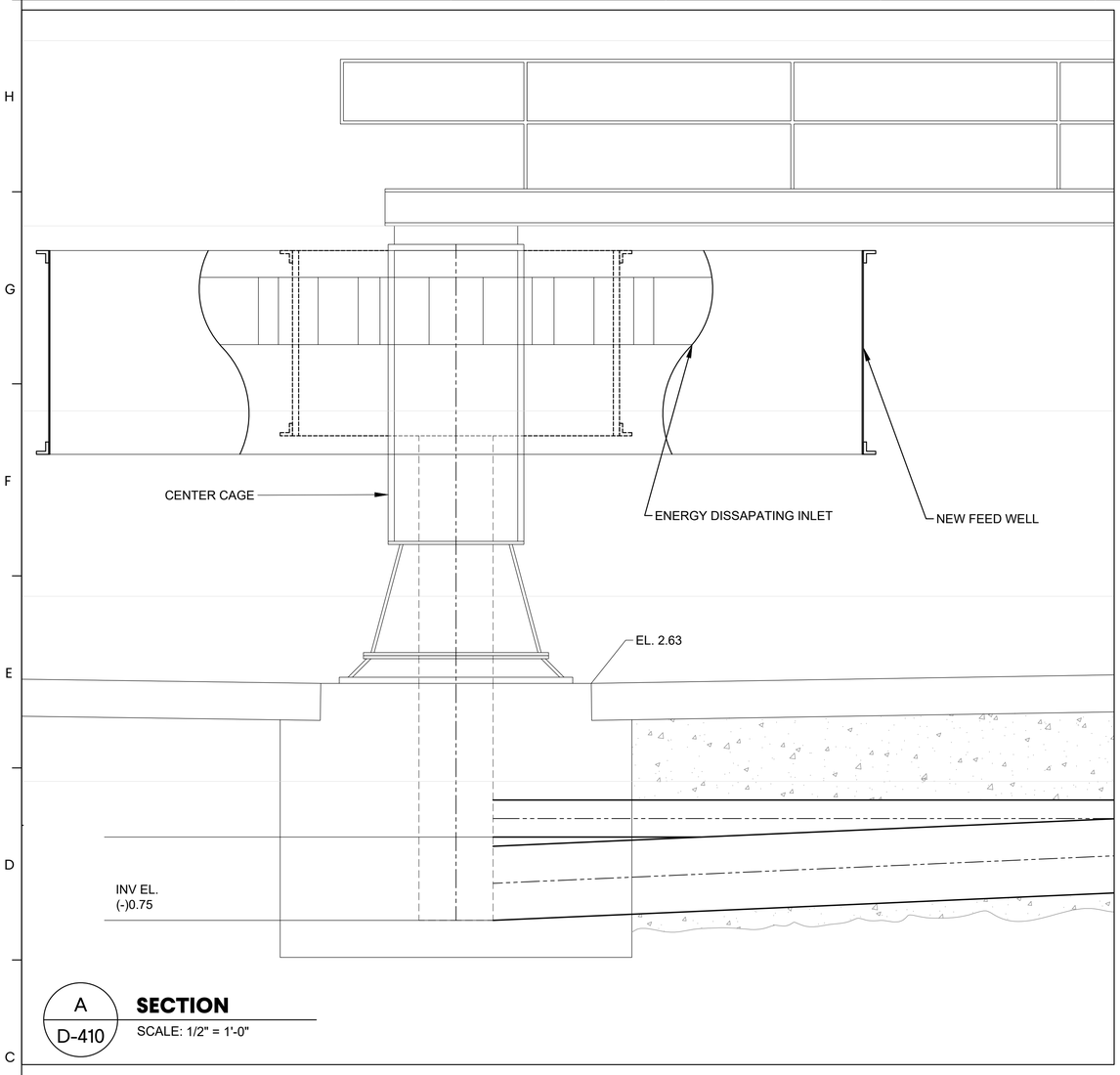
BGJWSC Project No. 906

GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 18174 JAMES C. VAUGHN, JR.

CLARIFIER PLAN

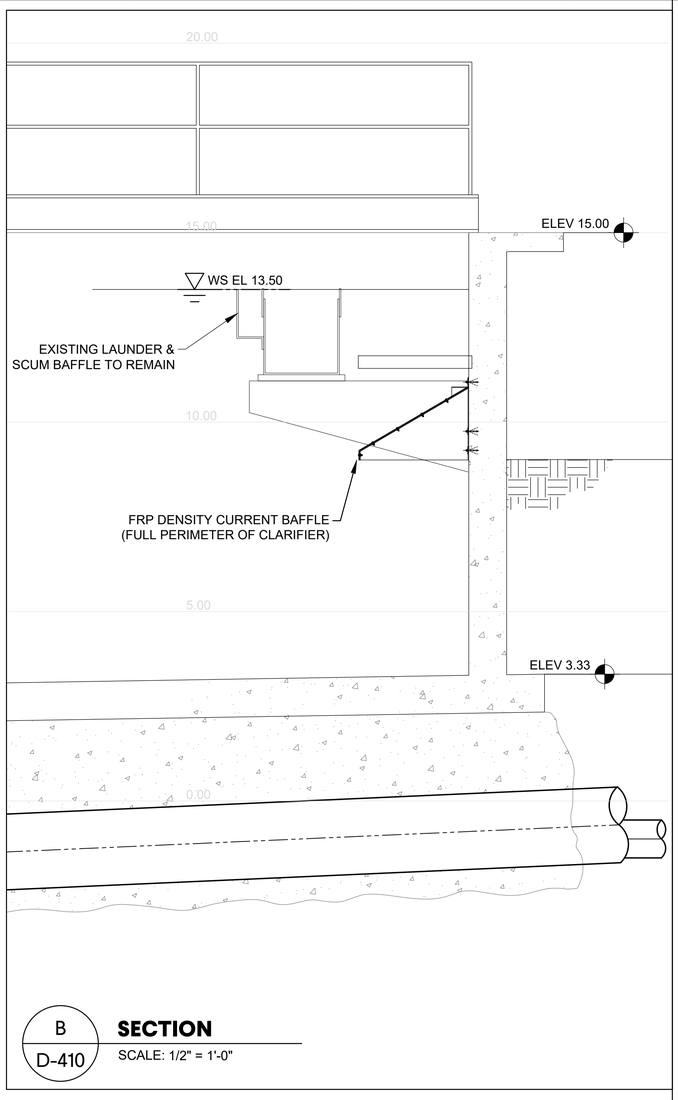
D-410



A
D-410

SECTION

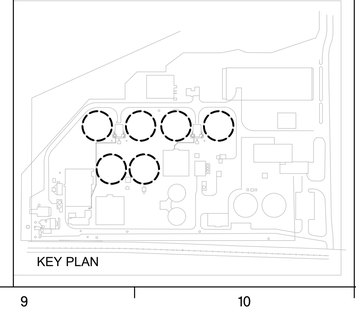
SCALE: 1/2" = 1'-0"



B
D-410

SECTION

SCALE: 1/2" = 1'-0"



KEY PLAN

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

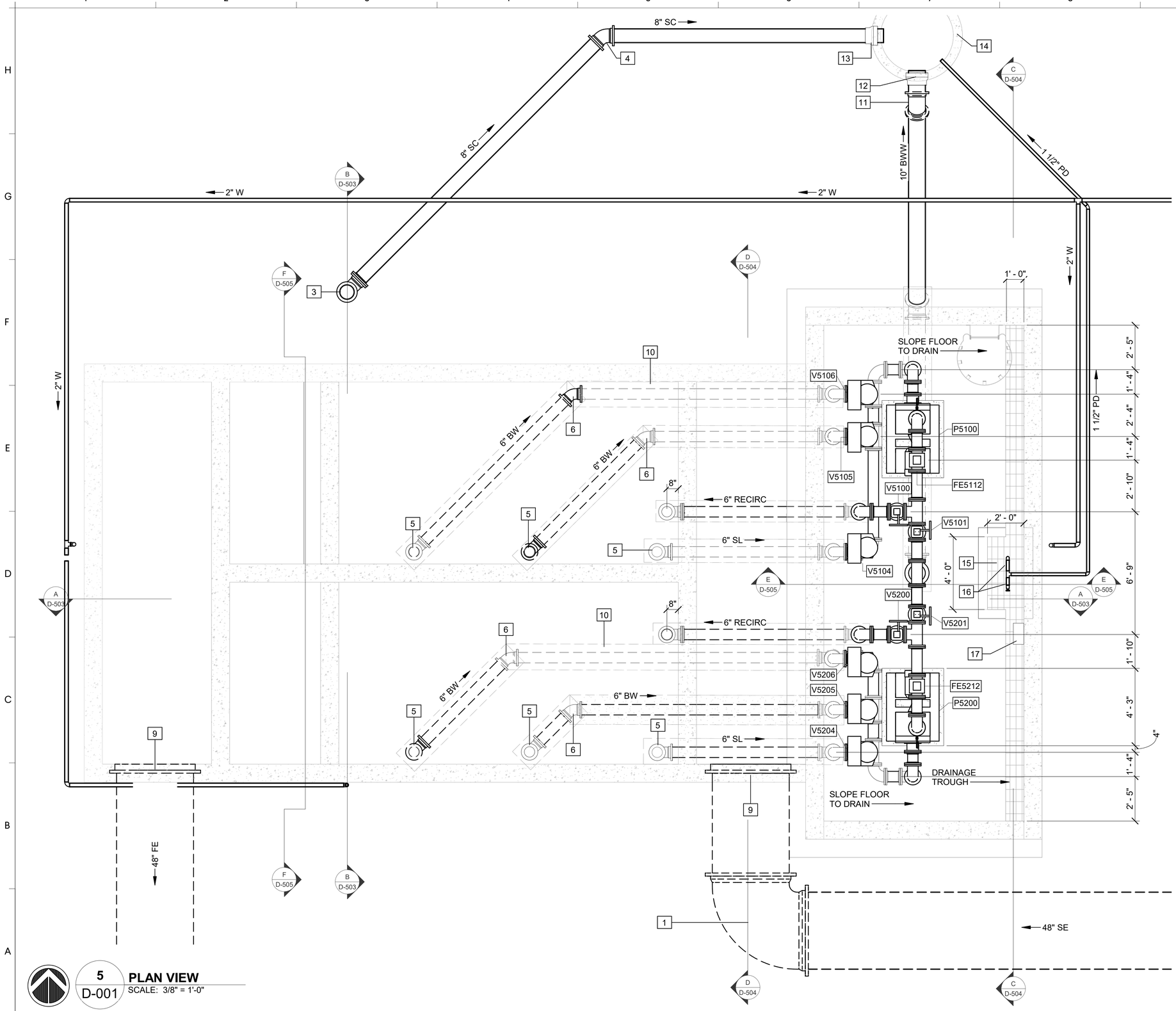
BG-JWSC Project No. 906
GMC Project #CSAV190007

GEORGIA
BRADLEY FRED STEPHENS
No. 18171
PROFESSIONAL ENGINEER
JAMES E. VAUGHAN III

CLARIFIER SECTIONS

D-411

DRAWING FILE: W:\Civil\CSAV190007 BG-JWSC WPC Rehab\10 DWG\+CAD\01 BID DRAWINGS\11 PROCESS\D-410 CLARIFIER PLAN & SECTION.dwg
PLOTTED: Jun 05, 2020 - 11:15am



KEYED NOTES: #

1. 48" MJ 90° BEND
2. 48" MJ 22.5° BEND
3. 8" MJ 90° BEND
4. 8" MJ 45° BEND
5. 6" MJ 90° BEND
6. 6" MJ 45° BEND
7. 6" MJ WYE
8. 4" MJ 90° BEND
9. 48" TYPE 'G' PIPE PENETRATION
10. CONCRETE ENCASE ALL PIPING UNDER STRUCTURE
11. 10" MJ 45° BEND
12. 10" TYPE 'D' PIPE PENETRATION - I.E. 7.20
13. 8" TYPE 'D' PIPE PENETRATION - I.E. 7.40
14. 4' MANHOLE - SEE DEG C-124 FOR CONTINUATION
15. 2'X4'X2' SUMP
16. DUPLEX ZOELLER MODEL 98 OR EQUAL, 20 GPM @ 20' TDH SUMP PUMPS
17. DUPLEX ALTERNATOR SUMP PUMP CONTROL PANEL W/ FLOAT SWITCH AND REMOTE INDICATOR OF HIGH LEVEL ALARM. CONTROL PANEL PROVIDED BY SUMP PUMP SUPPLIER.

5 D-001 **PLAN VIEW**
SCALE: 3/8" = 1'-0"

GMC

35 Abercorn Street,
Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	10.01.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	06.15.2020

PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	FN/HKD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

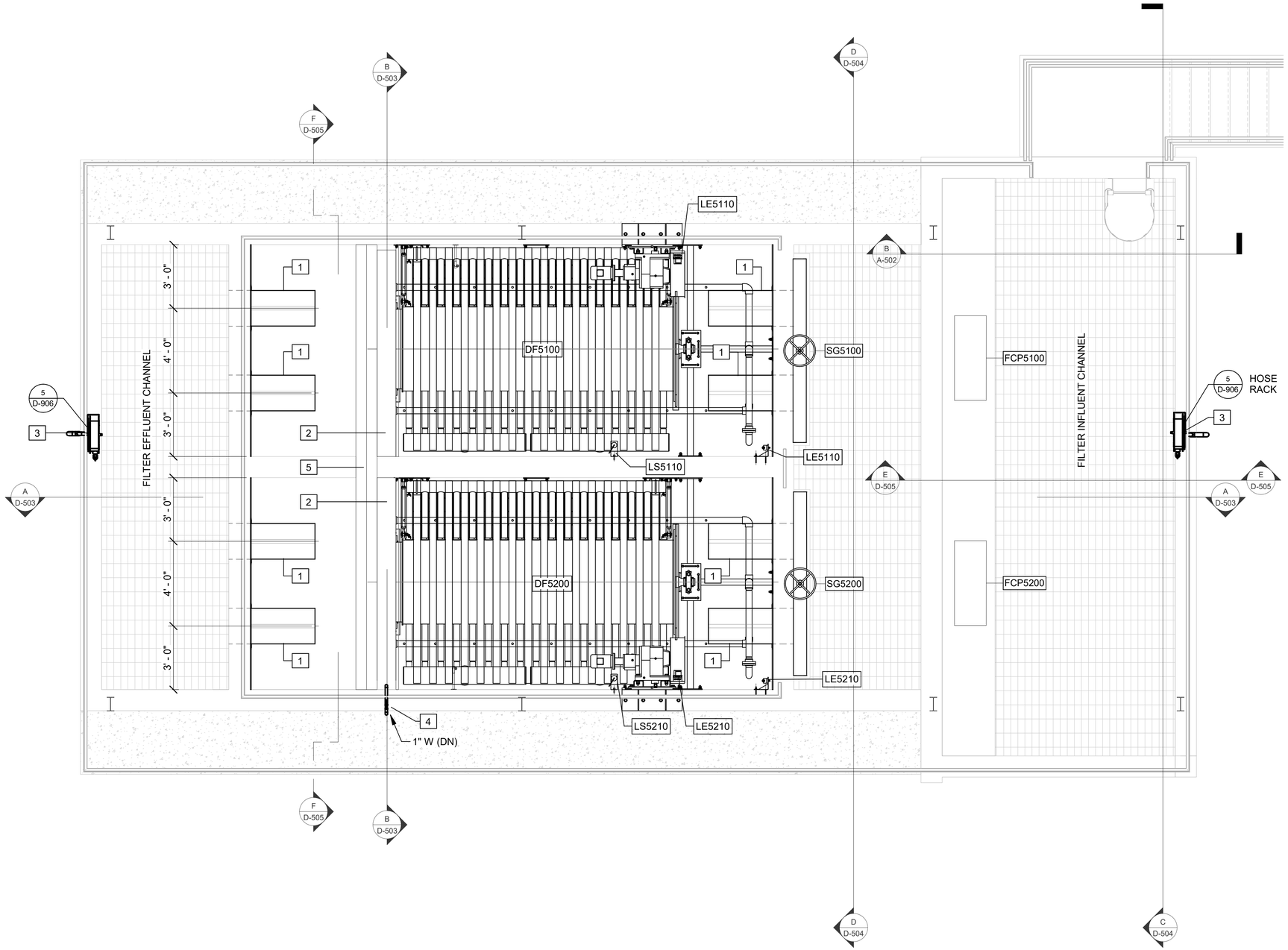
BGJWSC Project No. 906
GMC Project # CSAV190007

GEORGIA REGISTERED No. 18777 PROFESSIONAL JAMES C. VAUGHN, JR. ENGINEER

FILTER - LOWER PLAN

D-501

6/5/2020 10:27:43 AM



KEYED NOTES: #

1. FINGER WEIRS FURNISHED BY FILTER EQUIPMENT SUPPLIER
2. SCUM TROUGH FURNISHED BY FILTER EQUIPMENT SUPPLIER
3. 1 1/2" HOSE BIB WITH 50' HOSE & ADJUSTABLE NOZZLE
4. SLUICE WATER FOR SCUM TROUGH W/ MANUAL BALL VALVE
5. OPENING IN FILTER WALL FOR SCUM TROUGH. VERIFY SIZE AND POSITION W/ FILTER EQUIPMENT SUPPLIER.

5 D-001 **PLAN VIEW**
SCALE: 3/8" = 1'-0"

6/5/2020 10:27:44 AM

GMC
35 Abercorn Street, Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	10.01.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	06.15.2020

PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	FN/HKD

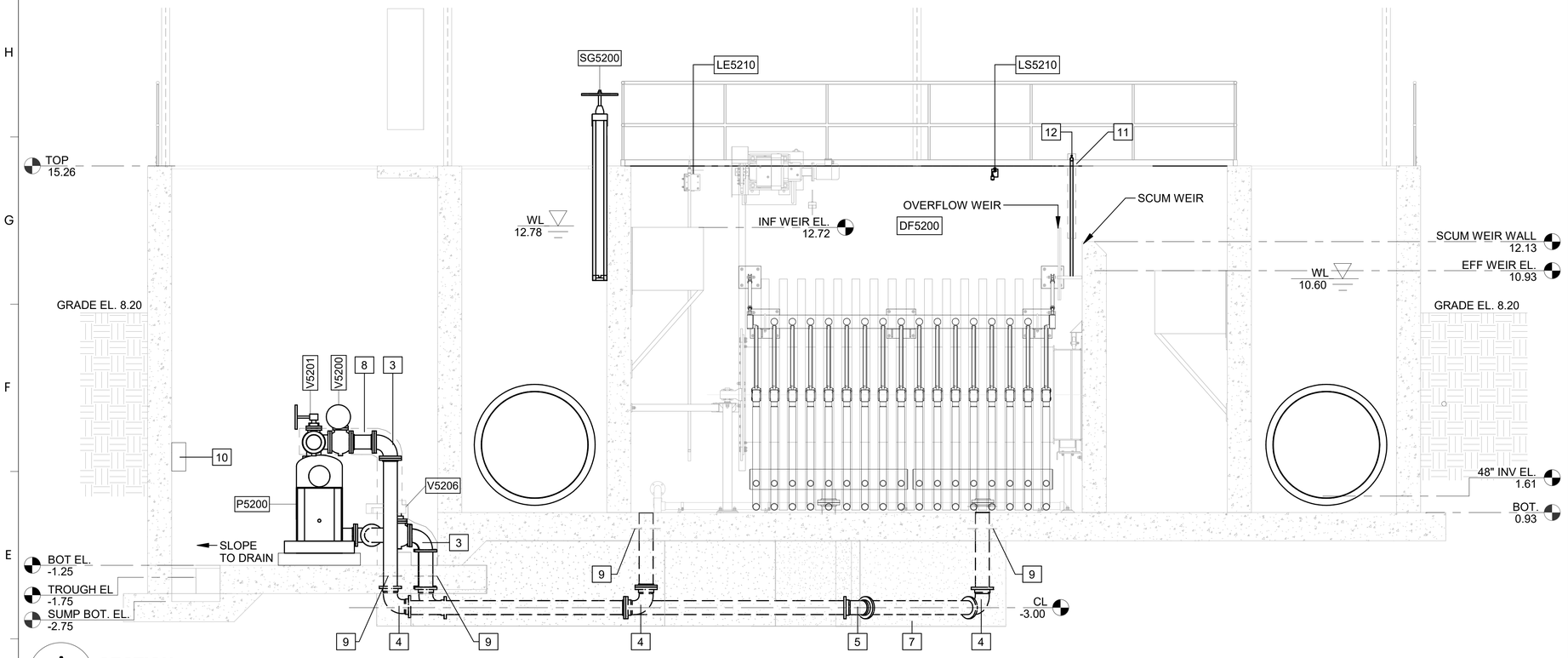
2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BG-JWSC Project No. 906
GMC Project # CSAV190007

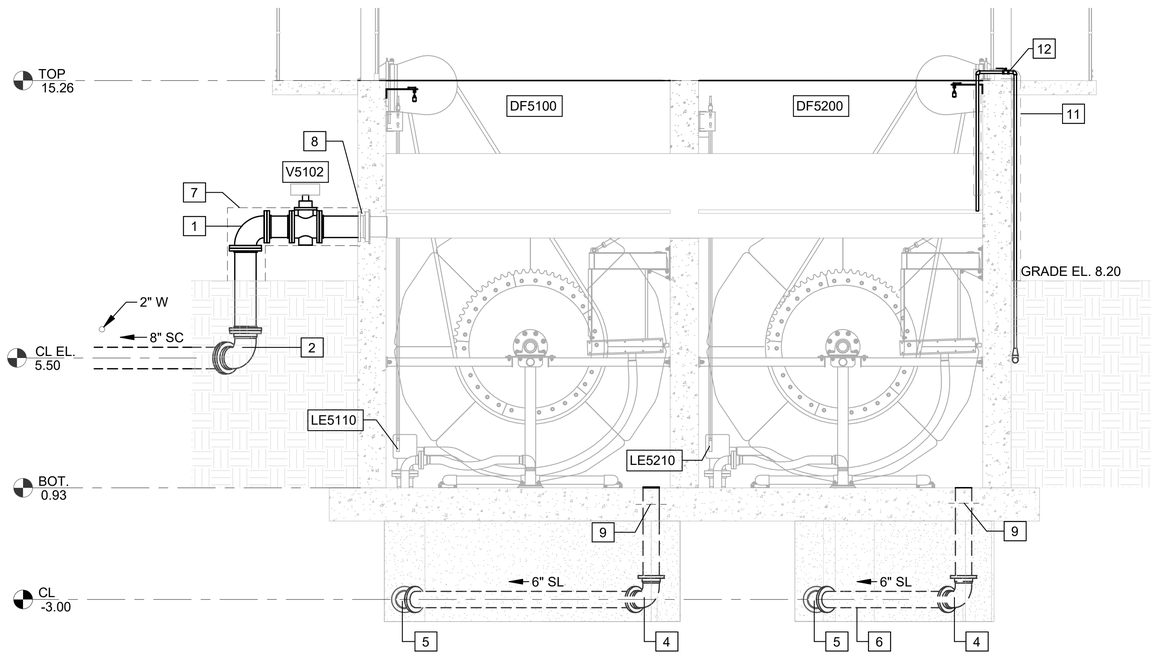
GEORGIA REGISTERED No. 18777 PROFESSIONAL ENGINEER JAMES C. VAUGHN

FILTER - UPPER PLAN

D-502



A **SECTION**
D-501 SCALE: 3/8" = 1'-0"



B **SECTION**
D-501 SCALE: 3/8" = 1'-0"

KEYED NOTES: #

1. 8" FL 90º BEND
2. 8" MJ 90º BEND
3. 6" FL 90º BEND
4. 6" MJ 90º BEND
5. 6" MJ 45º BEND
6. CONCRETE ENCASE PIPING UNDERNEATH STRUCTURE
7. INSULATE AND HEAT TRACE
8. 8" TYPE 'G' PIPE PENETRATION
9. 6" TYPE 'H' PIPE PENETRATION
10. DUPLEX ALTERNATOR SUMP PUMP CONTROL PANEL W/ FLOAT SWITCH & REMOTE INDICATOR OF HIGH LEVEL ALARM. CONTROL PANEL PROVIDED BY SUMP PUMP SUPPLIER.
11. INSULATE AND HEAT TRACE ABOVE GROUND SEGMENTS OF WATER LINE.
12. SLUICE WATER FOR SCUM TROUGH W/ 1" BALL VALVE.

GMC
35 Abercorn Street,
Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	10.01.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	06.15.2020

PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	FN/HKD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

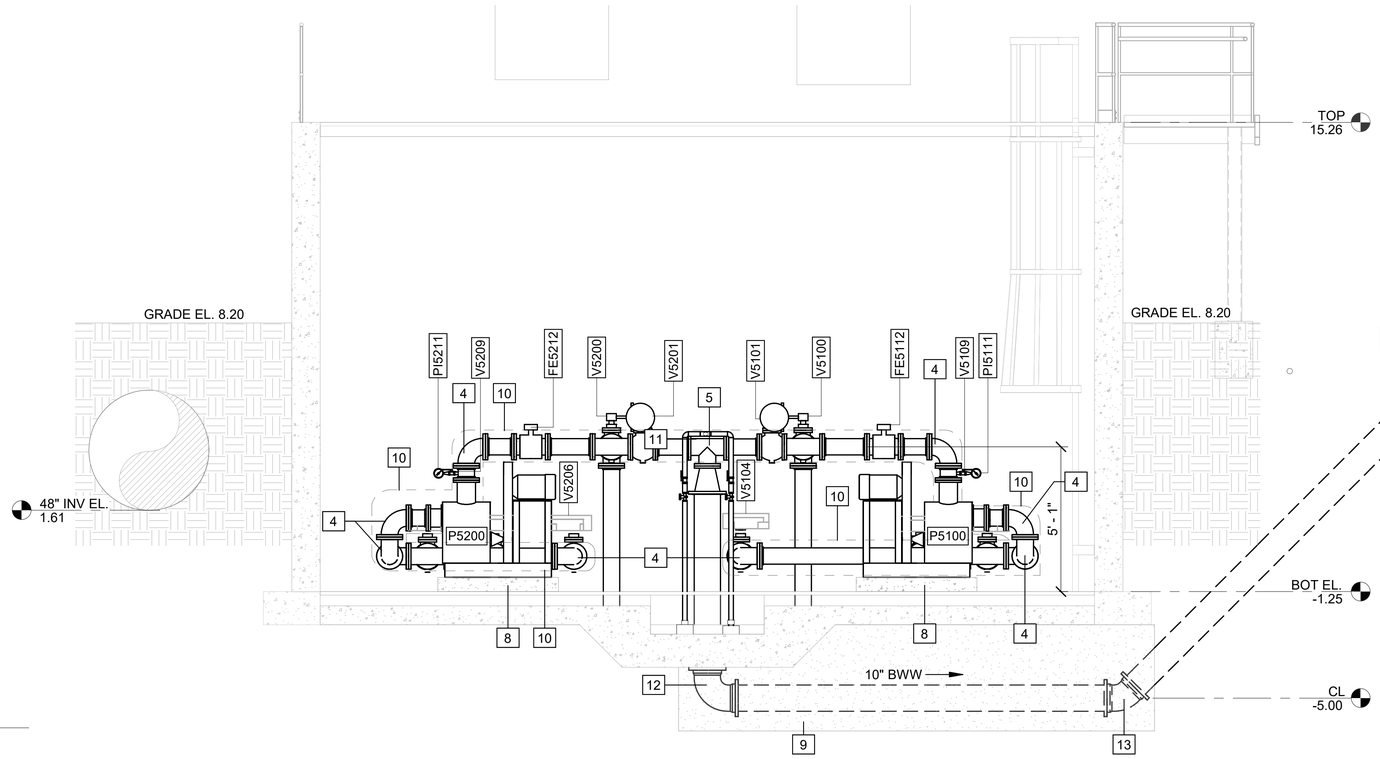
BGJWSC Project No. 906
GMC Project # CSAV190007

GEORGIA REGISTERED No. 18172 PROFESSIONAL ENGINEER JAMES C. VAUGHN

FILTER - SECTIONS

D-503

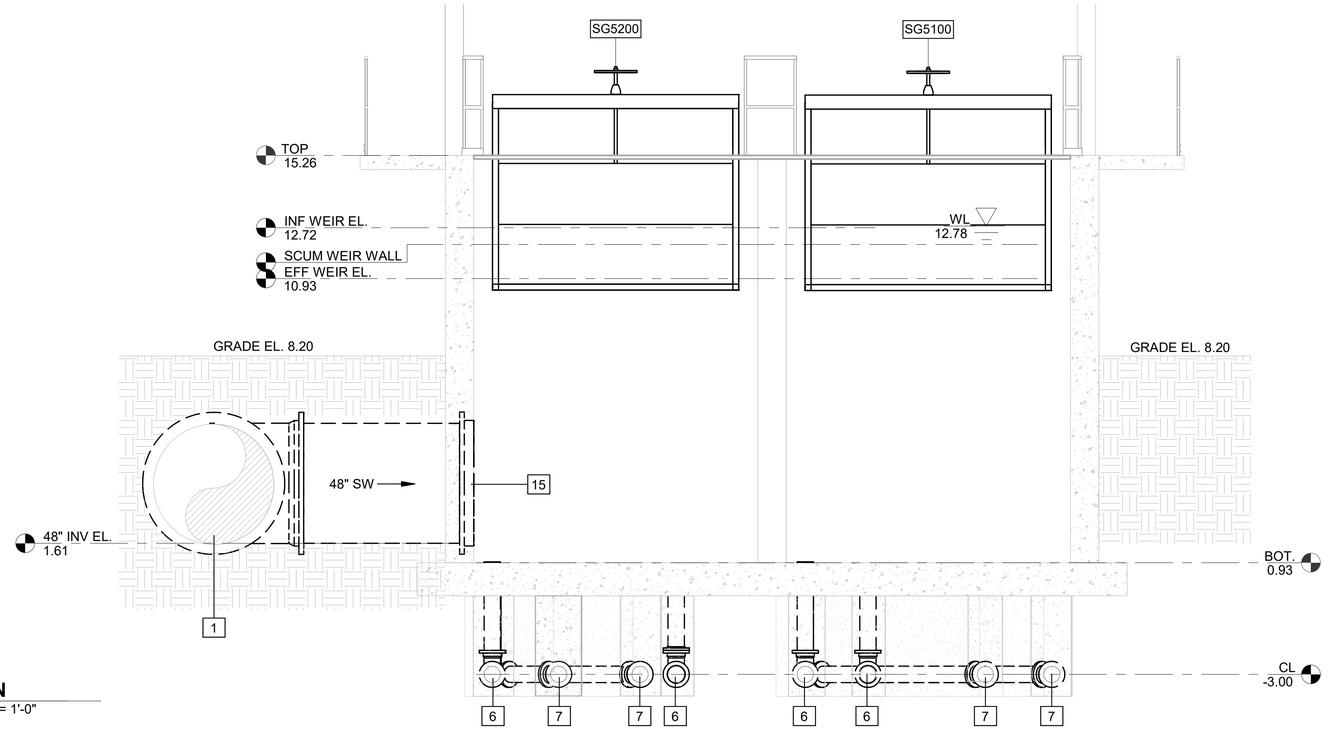
6/5/2020 10:27:45 AM



C
D-501
SECTION
SCALE: 3/8" = 1'-0"

KEYED NOTES: #

1. 48" MJ 90º BEND
2. 8" FL 90º BEND
3. 8" MJ 90º BEND
4. 6" FL 90º BEND
5. 6" FL TEE
6. 6" MJ 90º BEND
7. 6" MJ 45º BEND
8. CONCRETE HOUSE KEEPING PAD - SEE STRUCTURAL
9. CONCRETE ENCASE ALL PIPING BELOW STRUCTURE
10. INSULATE AND HEAT TRACE
11. 6"X10" FL INCREASER
12. 10" MJ 90º BEND (RESTRAINED)
13. 10" MJ 45º BEND (RESTRAINED)
14. 10" TYPE 'D' PIPE PENETRATION
15. 48" TYPE 'G' PIPE PENETRATION



D
D-501
SECTION
SCALE: 3/8" = 1'-0"

GMC

35 Abercorn Street, Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	10.01.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	06.15.2020

PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	FN/HKD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

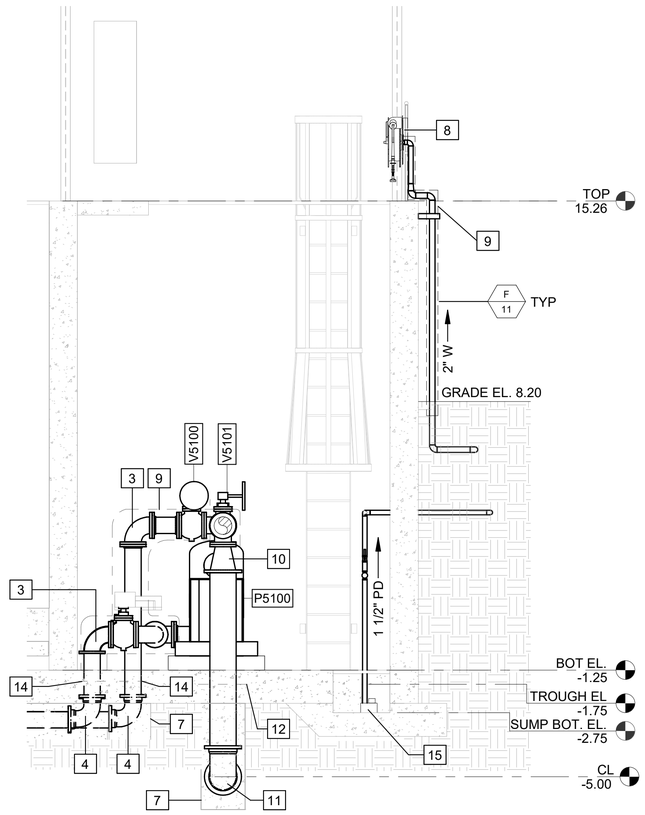
BGJWSC Project No. 906
GMC Project # CSAV190007

GEORGIA — JAMES C. VAUGHN — No. 18017 — PROFESSIONAL ENGINEER

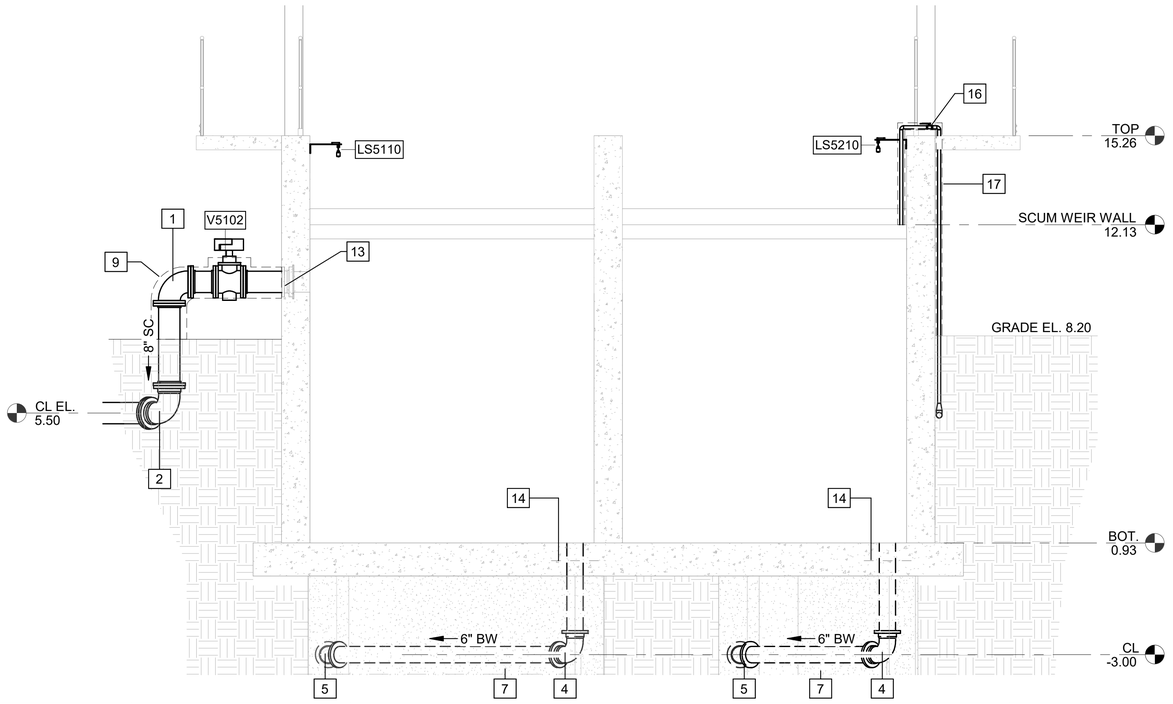
FILTER - SECTIONS

D-504

6/5/2020 10:27:47 AM



E **SECTION**
D-505 SCALE: 3/8" = 1'-0"



F **SECTION**
D-505 SCALE: 3/8" = 1'-0"

KEYED NOTES: #

1. 8" FL 90º BEND
2. 8" MJ 90º BEND
3. 6" FL 90º BEND
4. 6" MJ 90º BEND
5. 6" MJ 45º BEND
6. 4" MJ 90º BEND
7. CONCRETE ENCASE ALL PIPING UNDERNEATH STRUCTURE
8. 1 1/2" HOSE BIB WITH 50' HOSE & ADJUSTABLE NOZZLE
9. INSULATE AND HEAT TRACE
10. 6"X10" FL INCREASER
11. 10" MJ 90º BEND
12. 10" TYPE 'H' PIPE PENETRATION
13. 8" TYPE 'G' PIPE PENETRATION
14. 6" TYPE 'H' PIPE PENETRATION
15. SUMP PUMP W/ 1 1/2" CHECK VALVE & 1 1/2" BALL VALVE.
16. SLUICE WATER FOR SCUM TROUGH W/ 1" BALL VALVE.
17. INSULATE AND HEAT TRACE ABOVE GROUND SEGMENTS OF WATER LINE.

GMC
35 Abercorn Street, Suite 200
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	10.01.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	06.15.2020

PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	FN/HKD

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

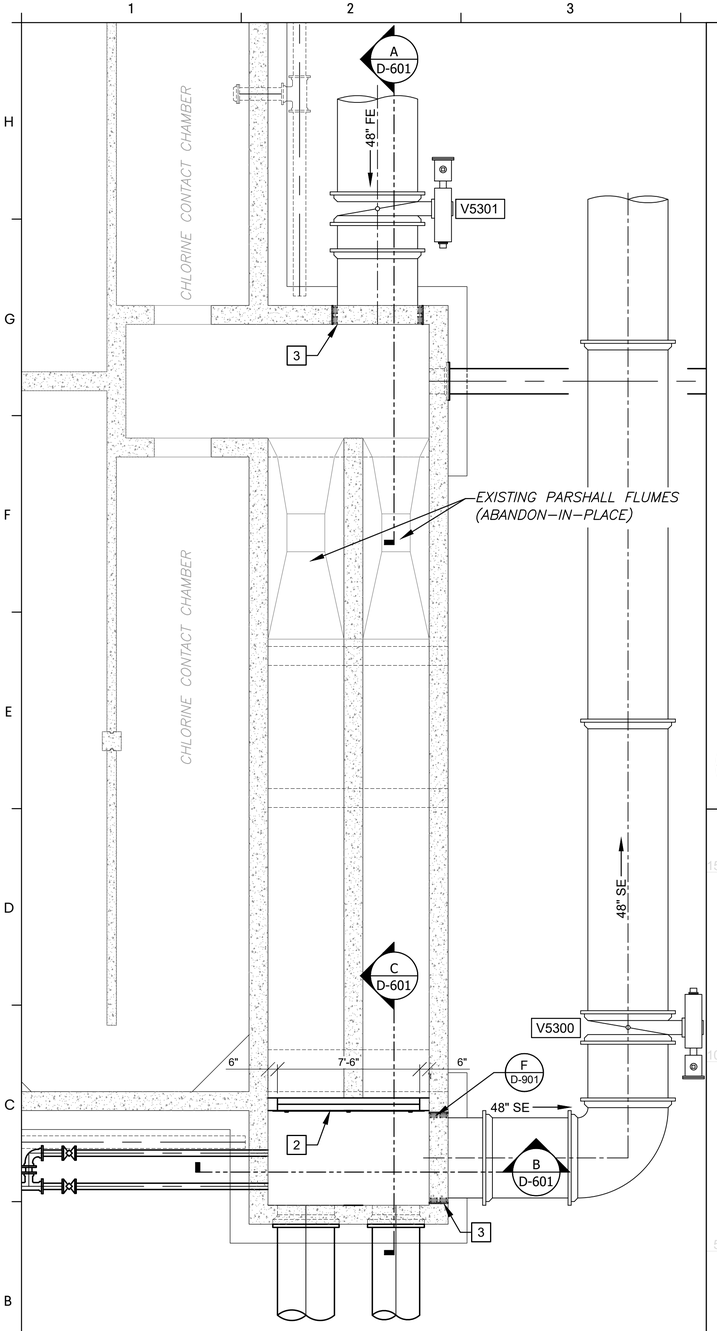
BGJWSC Project No. 906
GMC Project # CSAV190007

GEORGIA REGISTERED No. 18107 PROFESSIONAL ENGINEER JAMES C. VAUGHAN, III

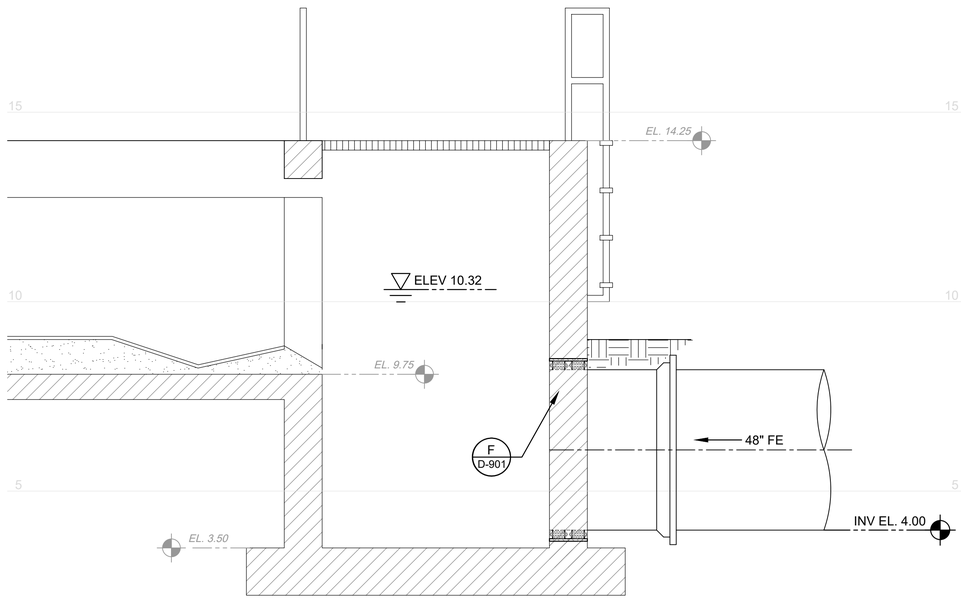
FILTER - SECTIONS

D-505

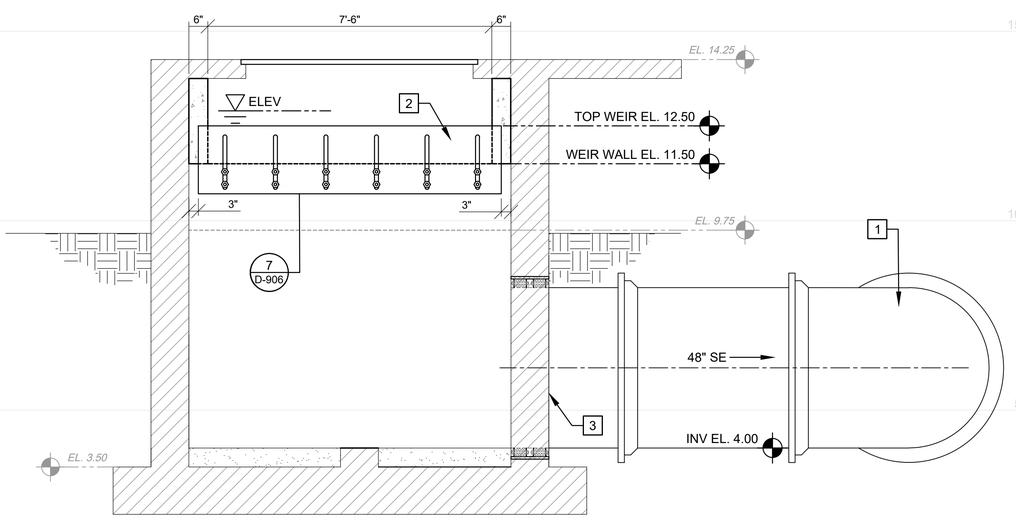
6/5/2020 10:27:48 AM



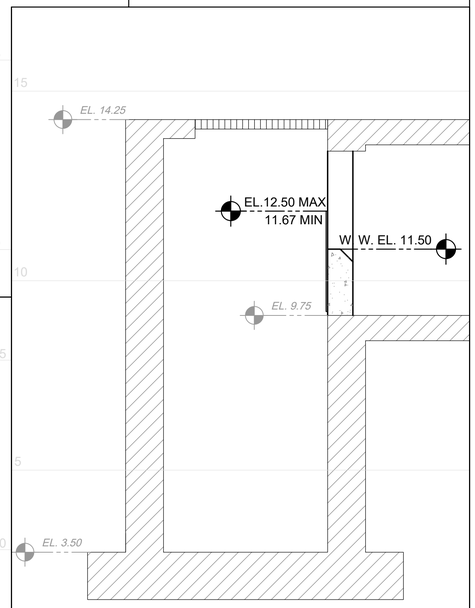
6 D-001 **PARTIAL PLAN**
SCALE: 1/4" = 1'-0"



A D-601 **SECTION**
SCALE: 1/2" = 1'-0"



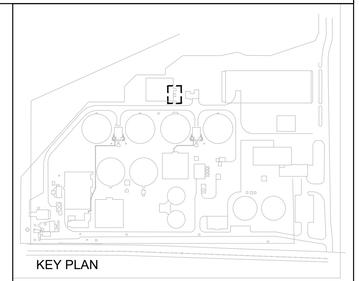
B D-601 **SECTION**
SCALE: 1/2" = 1'-0"



C D-601 **SECTION**
SCALE: 1/2" = 1'-0"

KEY NOTES: #

1. 48" MJ 90° BEND
2. ADJUSTABLE STAINLESS STEEL WEIR PLATE. WEIR PLATE ADJUSTABLE FROM 12.67 TO 13.50.
3. CORE DRILL HOLE IN EXISTING WALL & PROVIDE TYPE 'F' WALL PENETRATION


KEY PLAN

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" 0" .5" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

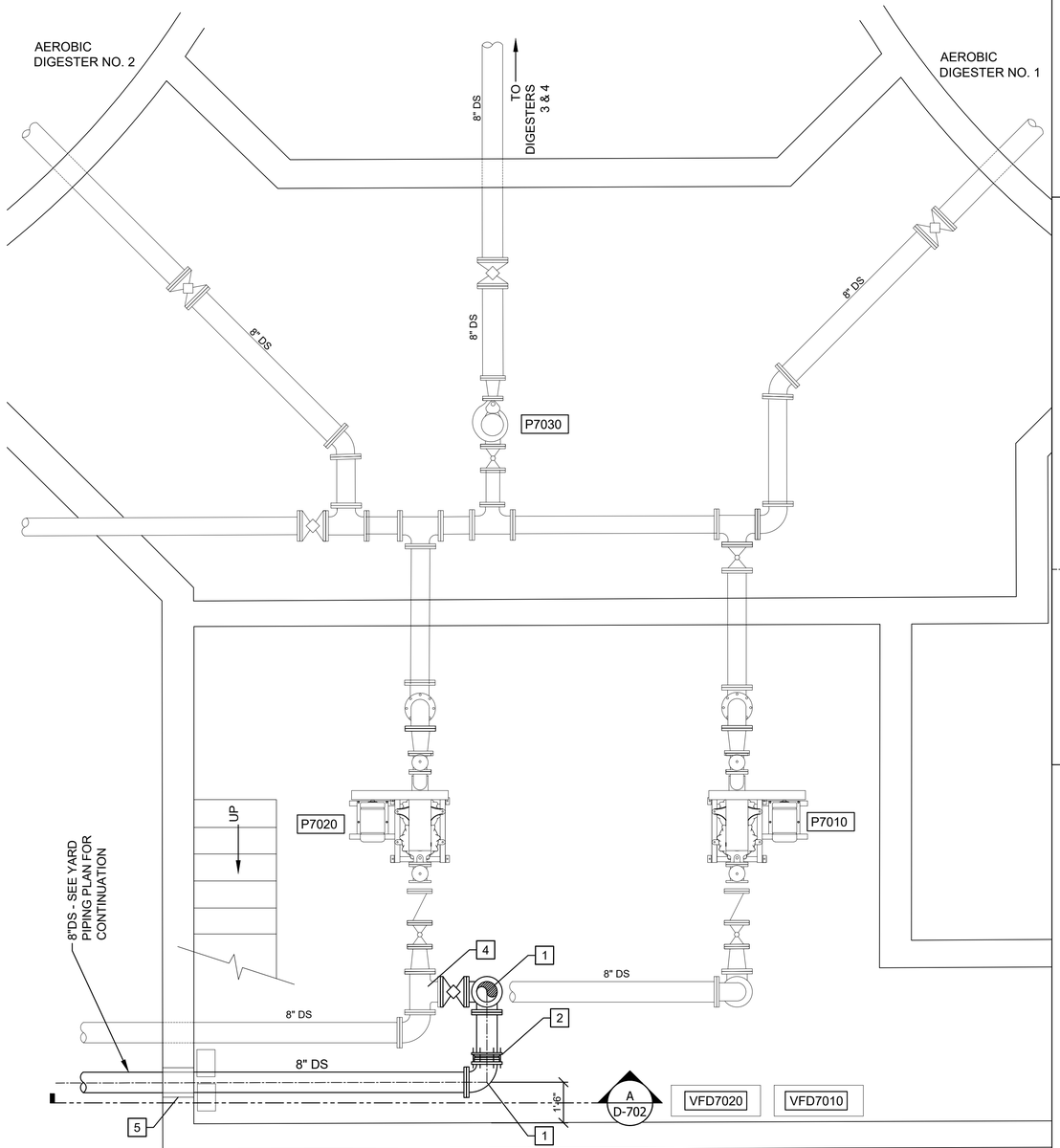
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 18727 PROFESSIONAL JAMES C. VAUGHN ENGINEER

CHLORINE CONTACT TANK MODIFICATIONS

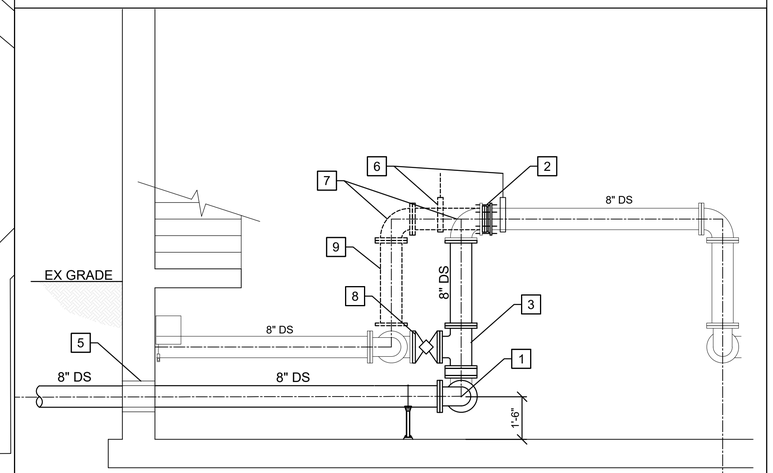
D-601

DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPC Rehab\0 DWGs\CAD\01 BID DRAWINGS\11 PROCESS\D-601 CHLORINE CC PLAN.dwg
PLOTTED: Jun 05, 2020 - 11:15am



7A / D-001 **HEADHOUSE NO. 1 FLOOR PLAN**

SCALE: 3/8" = 1'-0"

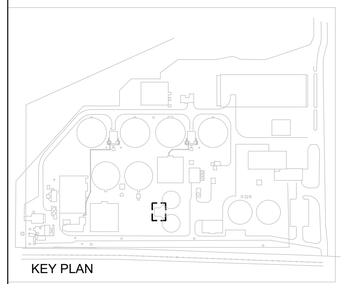


A / D-702 **SECTION**

SCALE: 3/8" = 1'-0"

KEY NOTES: #

1. 8" 90° BEND
2. 8" FLANGE COUPLING ADAPTER (RESTRAINED)
3. 8" FL TEE
4. ROLL EXISTING TEE 90°
5. CORE DRILL EXISTING WALL BELOW EXISTING ELECTRICAL JUNCTION BOX AND SEAL WITH 2 ROWS OF MODULAR EXPANDING RUBBER SEALS.
6. RELOCATE EXISTING PIPE SUPPORT AND REUSE
7. RELOCATE AND REUSE EXISTING 8" 90° BEND.
8. 8" FL PLUG VALVE WITH MANUAL HANDWHEEL ACTUATOR
9. REUSE EXISTING 8" DS PIPING TO LIMITS SHOWN



GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020

PROJECT MANAGER: JCV
ENGINEER: MEF
DESIGNER: GS
DRAWN BY: GS/AJ

1" .5" 0"

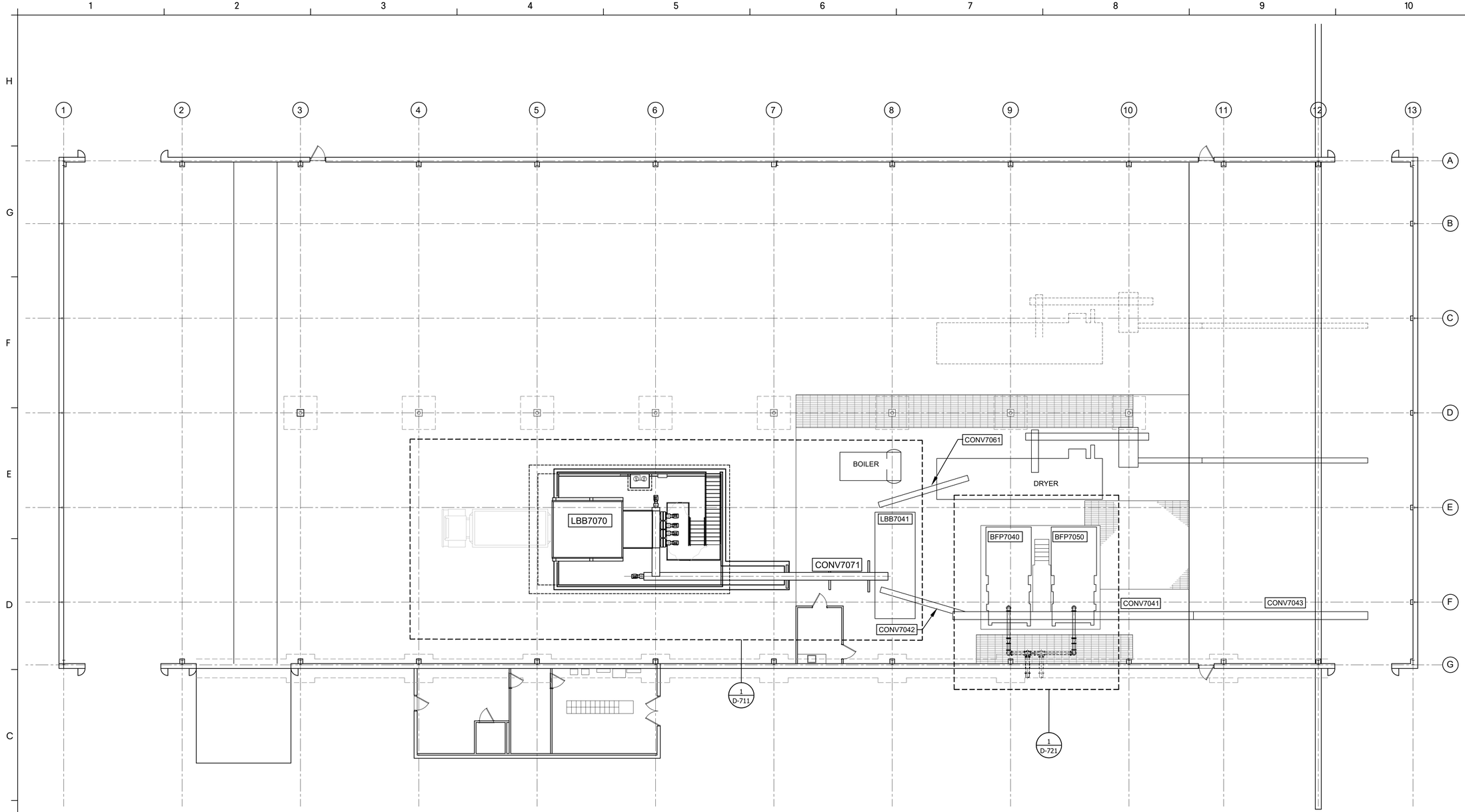
2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL JAMES C. VAUGHN 31517

MODIFICATIONS TO HEADHOUSE NO. 1

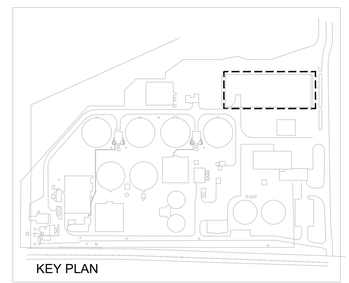
D-702



7B
D-001

SOLIDS PROCESSING - KEY PLAN

SCALE: 3/32" = 1'-0"



KEY PLAN

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

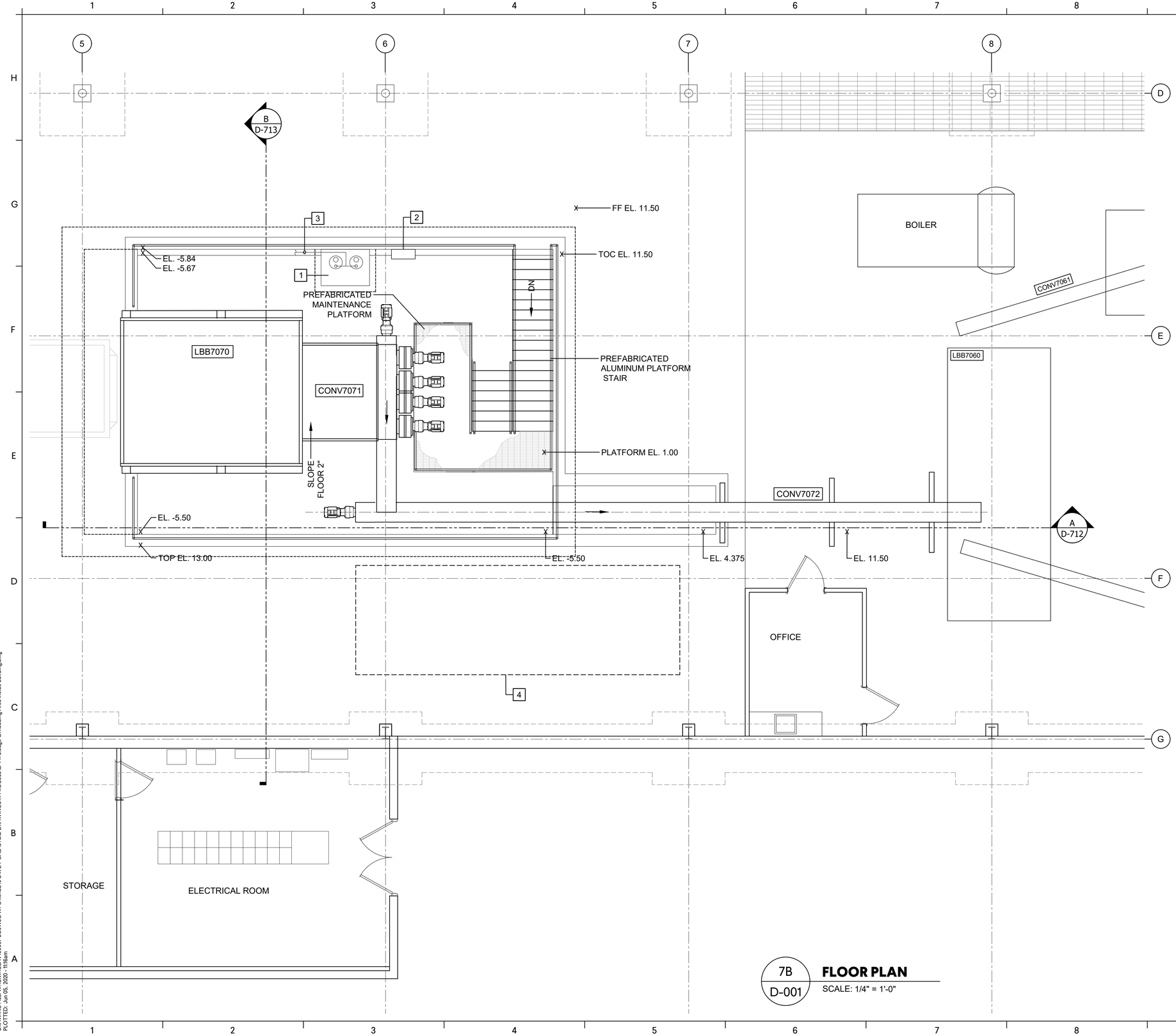
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER JAMES C. VAUGHN

SOLIDS PROCESSING
AREA KEY PLAN

D-710

DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPC Rehab\0 DWG\+CAD\001 BID DRAWINGS\11 PROCESS\D-710 Solids Processing Key Plan.dwg
PLOTTED: Jun 05, 2020 - 11:15am



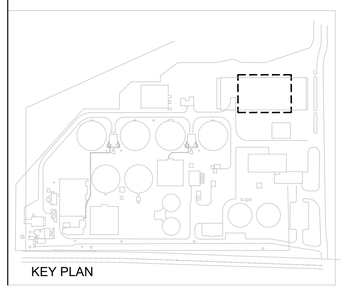
7B
D-001

FLOOR PLAN

SCALE: 1/4" = 1'-0"

KEY NOTES: #

1. 3'X4'X2' SUMP W/ DUPLEX LIBERTY SERIES 280, 120V, 1Ø, 1/2 HP PUMPS, 120 GPM @ 32' TDH.
2. NEMA 1, DUPLEX PUMP CONTROL PANEL BY PUMP VENDOR W/ 3 FLOATS AND HIGH LEVEL ALARM.
3. 1 1/2" PUMP DRAIN, DIRECT TO NEAREST PLANT DRAIN MANHOLE & PROVIDE 1 1/2" DUCKBILL CHECK VALVE AT OUTLET.
4. TEMPORARY RELOCATE EXISTING MODULAR OFFICE W/ TEMPORARY POWER CONNECTION. AT COMPLETION OF LBB CONSTRUCTION, RETURN MODULAR OFFICE TO PREVIOUS LOCATION AND RECONNECT POWER.



GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	09.09.2019	JCV
70% SUBMITTAL	12.16.2019	MEF
100% SUBMITTAL	03.12.2020	GS
CONSTRUCTION SUBMITTAL	06.15.2020	GS/AJ
PROJECT MANAGER:		
ENGINEER:		
DESIGNER:		
DRAWN BY:		

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

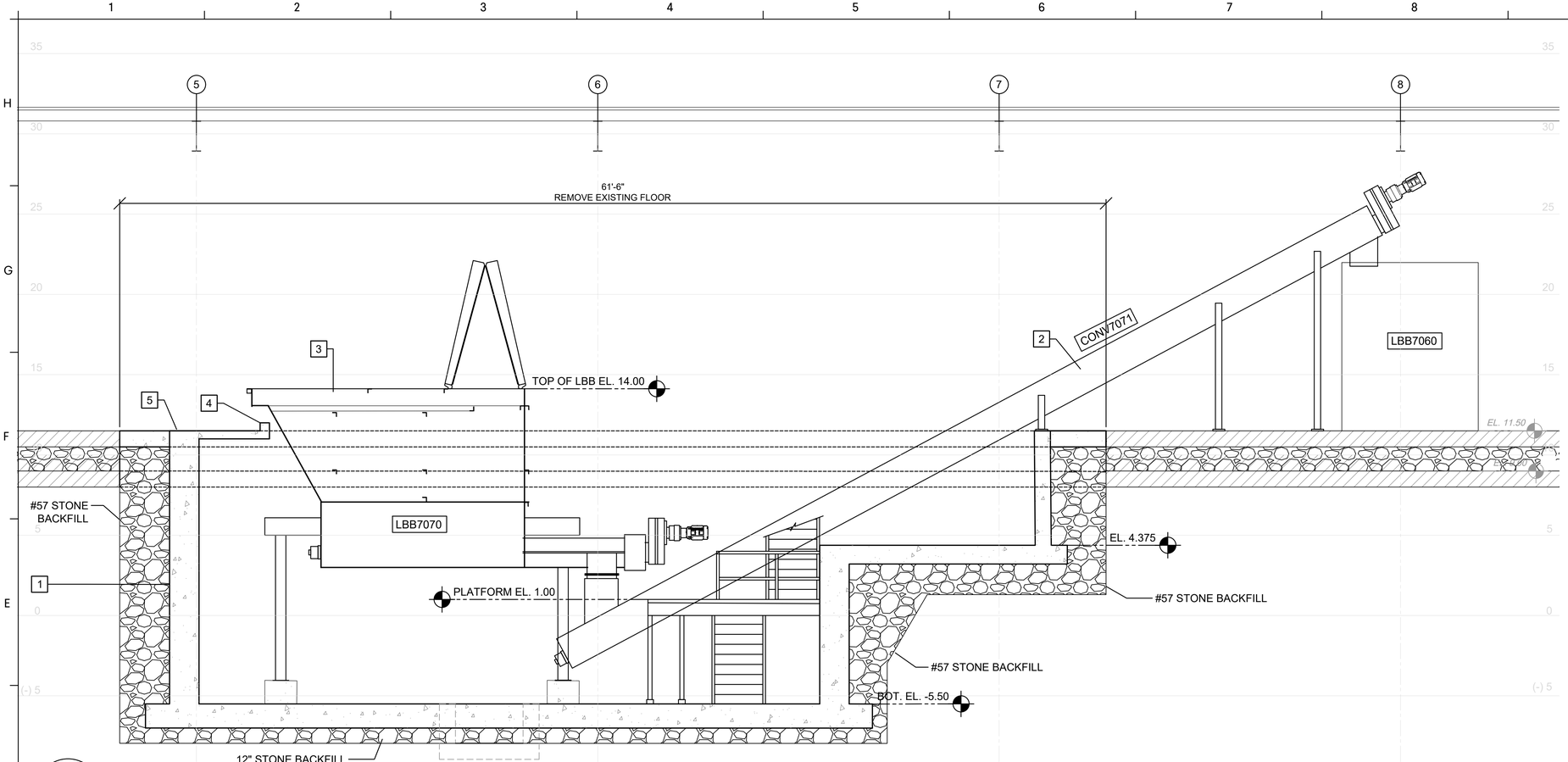
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER JAMES C. VAUGHN

SLUDGE OFFLOADING AREA

D-711

DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPC Rehab\0 DWG\+CAD\001 BID DRAWINGS\11 PROCESS\D-711 Sludge Offloading Area Inside Building.dwg
PLOTTED: Jun 05, 2020 - 11:18am



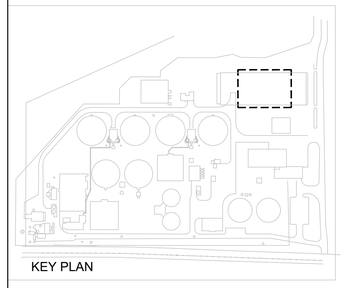
A
D-711

SECTION

SCALE: 1/4" = 1'-0"

KEY NOTES: #

1. SEALED VAULT WITH WATER TIGHT ACCESS COVER.
2. SHATLESS SCREW CONVEYOR
3. ACTIVATED SLUDGE BIN
4. 6" CURBING
5. 1/4" PLATE STEEL GAP COVER



KEY PLAN

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

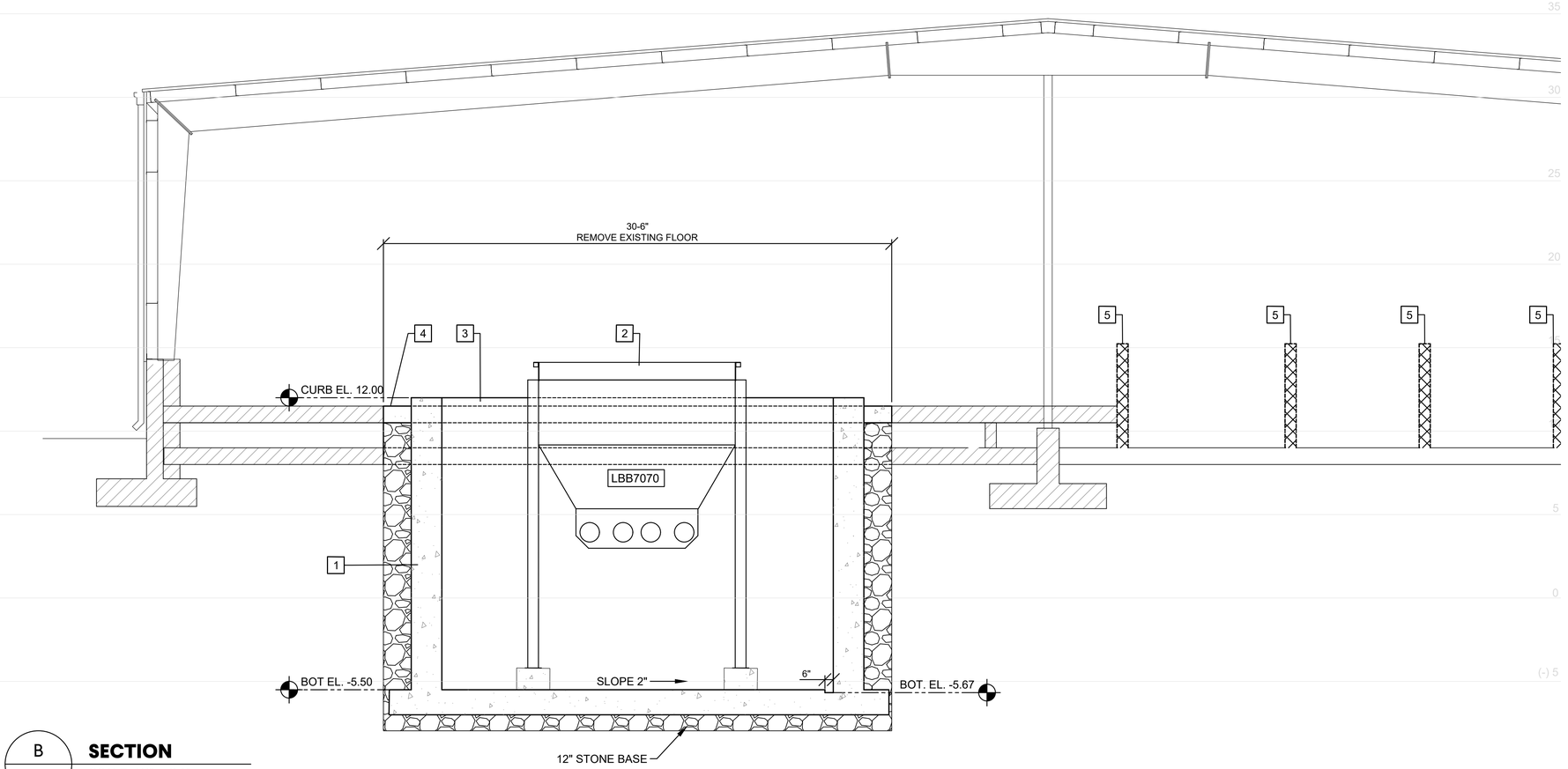
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA
REGISTERED
No. 18774
PROFESSIONAL
ENGINEER
JAMES C. VAUGHN, III

SLUDGE OFFLOADING AREA - SECTIONS

D-712

DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPC Rehab\0 DWG\+CAD\101 BID DRAWINGS\11 PROCESS\D-711 Sludge Offloading Area inside Building.dwg
PLOTTED: Jun 05, 2020 - 11:18am



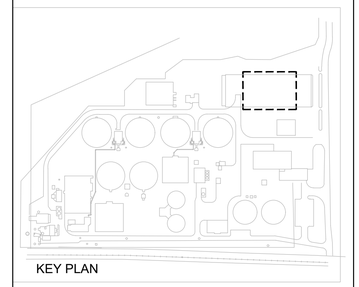
B
D-711

SECTION

SCALE: 1/4" = 1'-0"

KEY NOTES: #

1. SEALED VAULT WITH WATER TIGHT ACCESS COVER.
2. ACTIVATED SLUDGE BIN
3. 6" CURBING
4. 1/4" PLATE STEEL GAP COVER
5. SAW CUT AND REMOVE EXISTING WALLS FLUSH W/ SLAB THIS SIDE OF BUILDING. (ALL WALLS NOT SHOWN IN THIS VIEW)


KEY PLAN

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

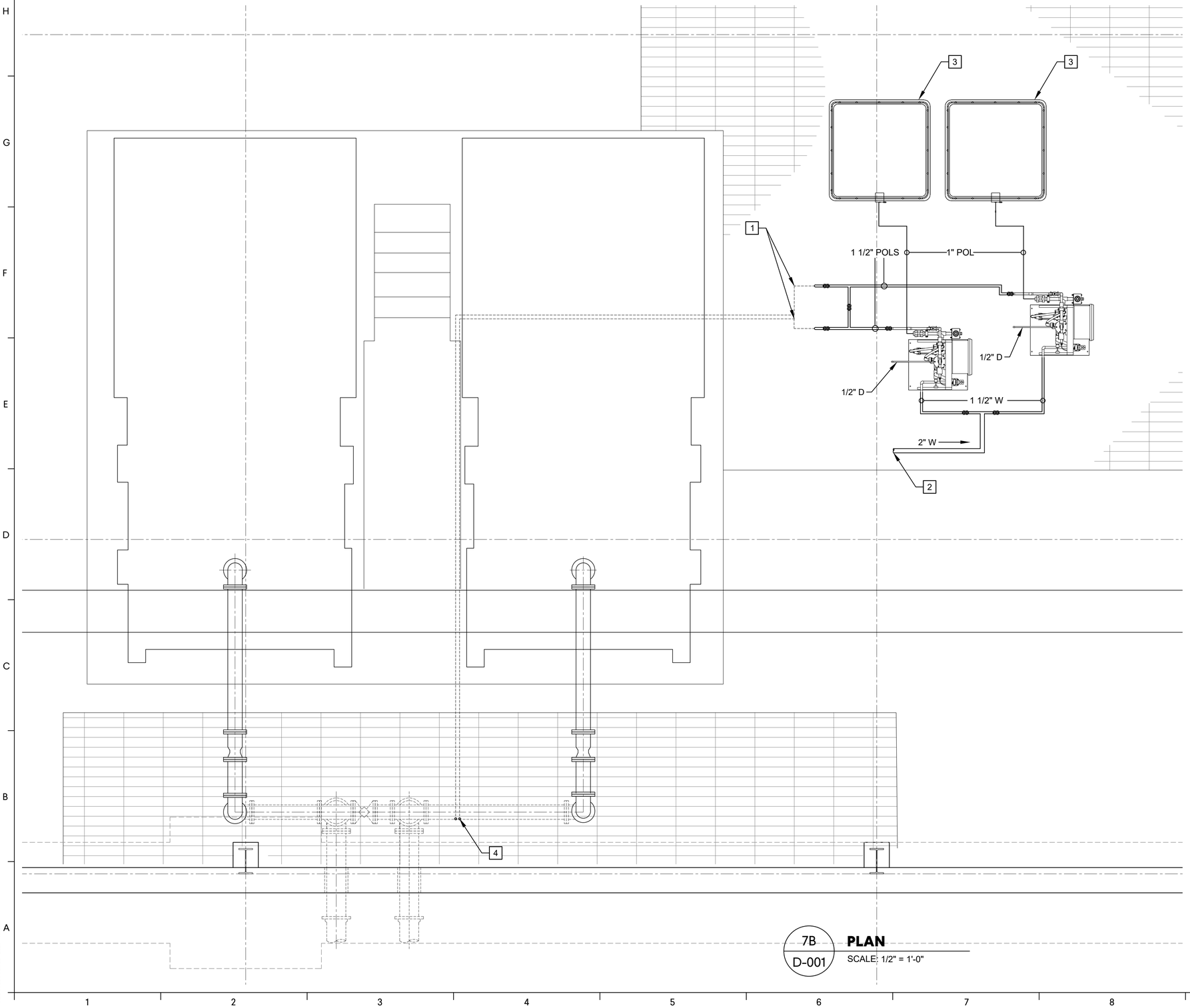
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 18727 PROFESSIONAL ENGINEER JAMES C. VAUGHN

SLUDGE OFFLOADING AREA - SECTIONS

D-713

DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPCF Rehab\0 DWG's+CAD\01 BID DRAWINGS\11 PROCESS\D-711 Sludge Offloading Area Inside Building.dwg
PLOTTED: Jun 05, 2020 - 11:16am



7B / D-001 **PLAN**

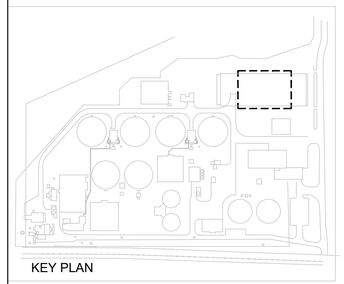
SCALE: 1/2" = 1'-0"

KEY NOTES: #

1. PARALLEL EXISTING POLYMER SOLUTION LINE WITH TWO (2) NEW 1 1/2" POLYMER SOLUTION LINES. DEMO EXISTING POLYMER SOLUTION LINE.
2. CONNECT TO EXISTING 2" POTABLE WATER LINE.
3. EXISTING NEAT POLYMER TOTES
4. CONNECT TO EXISTING POLYMER INJECTION COLLARS.

NOTES:

1. DEMO EXISTING POLYMER MIXING SYSTEM.



KEY PLAN

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" 0" .5" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

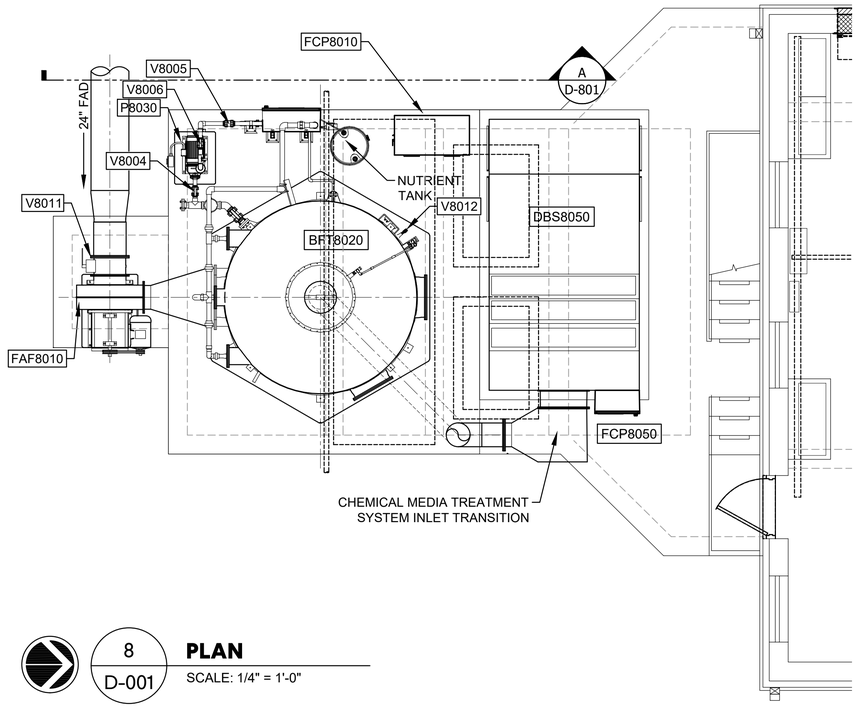
BG-JWSC Project No. 906
GMC Project #CSAV190007

GEORGIA — JEFFREY S. BROWN — No. 18172 — PROFESSIONAL ENGINEER — JAMES C. VAUGHN III — PROFESSIONAL ENGINEER

POLYMER SYSTEM AND SLUDGE FEED PIPING

D-714

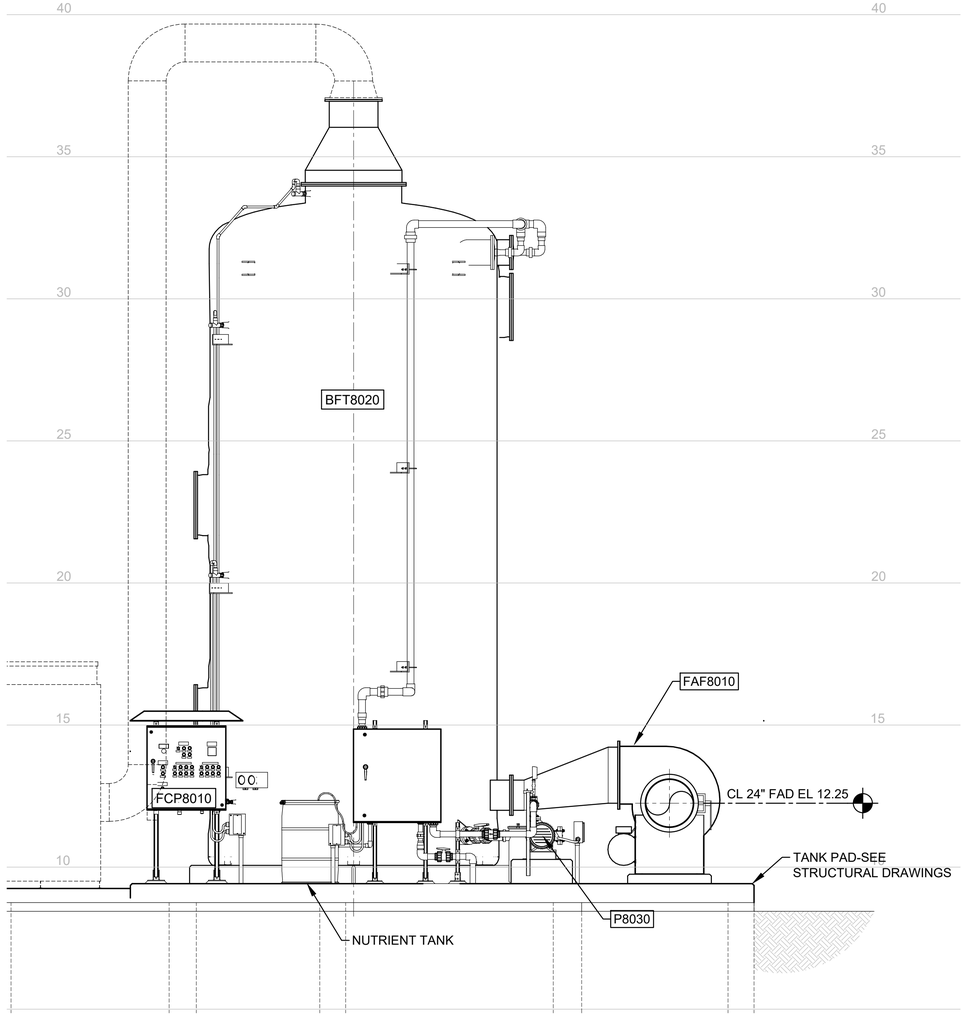
DRAWING FILE: W:\Civil\CSAV190007 BG-JWSC WPC Rehab\0 DWGs\CAD\01 BID DRAWINGS\11 PROCESS\D-711 Sludge Offloading Area Inside Building.dwg
PLOTTED: Jun 05, 2020 - 11:16am



8
D-001

PLAN

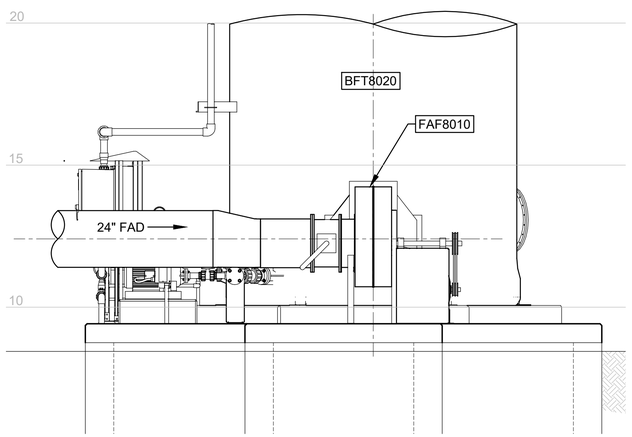
SCALE: 1/4" = 1'-0"



A
D-801

ELEVATION

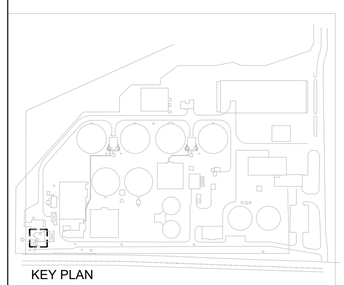
SCALE: 3/8" = 1'-0"



B
D-801

ELEVATION

SCALE: 3/8" = 1'-0"



KEY PLAN

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	09.09.2019	JCV
70% SUBMITTAL	12.16.2019	MEF
100% SUBMITTAL	03.12.2020	GS
CONSTRUCTION SUBMITTAL	06.15.2020	GS/AJ

PROJECT MANAGER:
ENGINEER:
DESIGNER:
DRAWN BY:

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

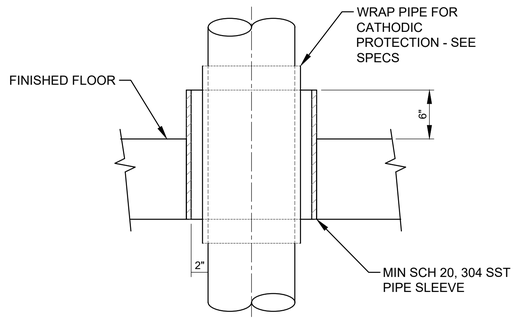
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER JAMES C. VAUGHN

ODOR TREATMENT SYSTEM PLAN & DETAILS

D-801

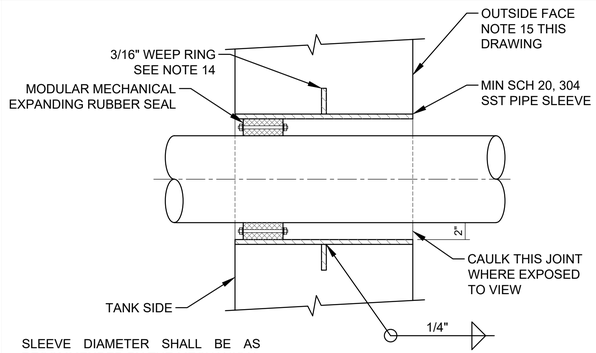
DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPCF Rehab\0 DWG\+CAD\01 BID DRAWINGS\11 PROCESS\D-801 ODOR TREATMENT SYSTEM.dwg
PLOTTED: Jun 05, 2020 - 11:18am



FOR FLOORS

A D-901 **DETAIL - TYPE 'A' PIPE PENETRATION**

SCALE: NOT TO SCALE

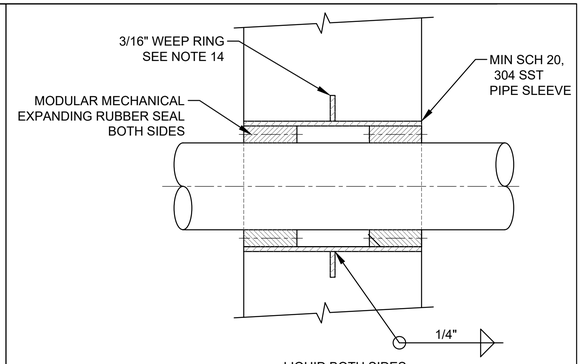


SLEEVE DIAMETER SHALL BE AS RECOMMENDED BY THE MECHANICAL SEAL MANUFACTURER.

FOR WALLS OR FLOORS

B D-901 **DETAIL - TYPE 'B' PIPE PENETRATION**

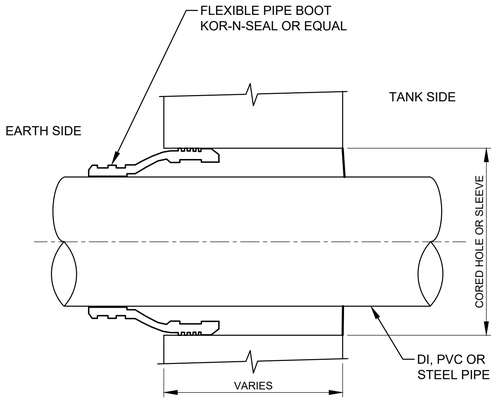
SCALE: NOT TO SCALE



LIQUID BOTH SIDES FOR WALLS

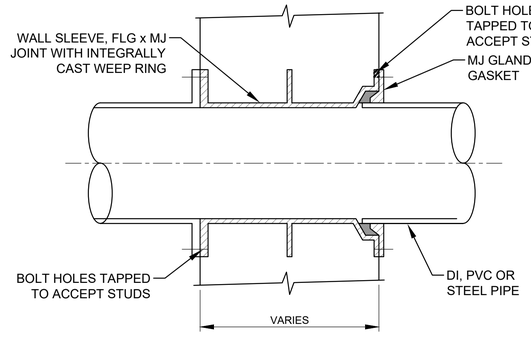
C D-901 **DETAIL - TYPE 'C' PIPE PENETRATION**

SCALE: NOT TO SCALE



D D-901 **DETAIL - TYPE 'D' PIPE PENETRATION**

SCALE: NOT TO SCALE

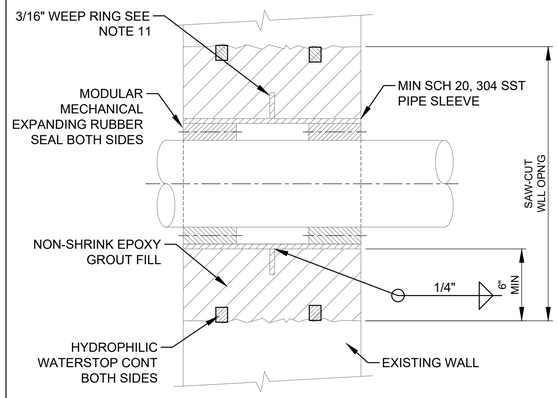


FLGxMJ

FOR WALLS

E D-901 **DETAIL - TYPE 'E' PIPE PENETRATION**

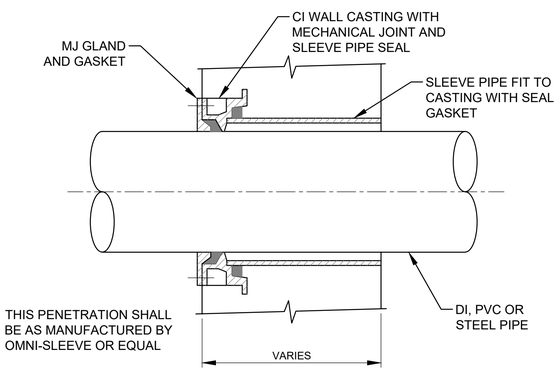
SCALE: NOT TO SCALE



FOR EXISTING WALLS

F D-901 **DETAIL - TYPE 'F' PIPE PENETRATION**

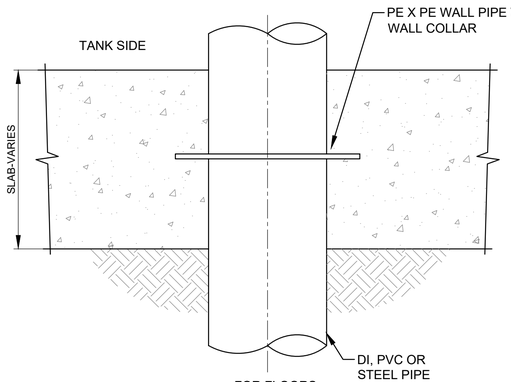
SCALE: NOT TO SCALE



FOR WALLS

G D-901 **DETAIL - TYPE 'G' PIPE PENETRATION**

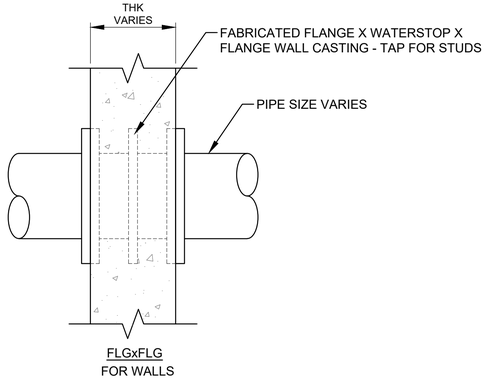
SCALE: NOT TO SCALE



FOR FLOORS

H D-901 **DETAIL - TYPE 'H' PIPE PENETRATION**

SCALE: NOT TO SCALE



FLGxFLG

FOR WALLS

I D-901 **DETAIL - TYPE 'I' PIPE PENETRATION**

SCALE: NOT TO SCALE

PIPE PENETRATION NOTES:

1. WHERE PIPES PASS THROUGH WALLS, FLOORS OR CEILINGS, PENETRATIONS SHALL CONFORM TO TABLE, EXCEPT AS OTHERWISE SPECIFIED.
2. IN TABLE, "TANK" SHALL MEAN ANY PART OF A STRUCTURE CONTAINING LIQUID OR IN CONTACT WITH THE EARTH.
3. IN TABLE, "PASSAGE" SHALL MEAN ROOM, GALLERY, TUNNEL OR SIMILAR ENCLOSURE.
4. IN CONDITION 5, TYPE B OR C SHALL BE USED WHERE ONE SIDE CONTAINS EXPLOSION PROOF EQUIPMENT, WHERE FLOODING IS POSSIBLE OR WHERE SPECIFIED.
5. SEAL FLANGES SHALL BE DRILLED TO 150 POUND STANDARD. EACH JOINT SHALL BE GASKETED.
6. PROVIDE CURB WHERE PENETRATING FLOOR EXCEPT FOR PENETRATION TYPE A. CURB SHALL BE 4" HIGH AND 3" WIDE.
7. PROVIDE A MINIMUM OF 3" CLEARANCE BETWEEN REINFORCING STEEL AND FERROUS METAL PENETRATIONS.
8. FLEXIBLE JOINTS SHALL BE PROVIDED FOR UNDERGROUND PIPING AS SPECIFIED.
9. RESTRAINED FLEXIBLE COUPLINGS FOR STEEL PIPE SHALL BE DESIGNED FOR 100 PSI LINE PRESSURE IN ACCORDANCE WITH AWWA MANUAL M11. FIGURES 19.15 AND 19.16 AND TABLE 19.17 SHALL BE UTILIZED.
10. INSULATION SHALL NOT EXTEND THROUGH SLEEVES UNLESS OTHERWISE SPECIFIED.
11. WEEP RINGS SHALL HAVE A MINIMUM DIAMETER EQUAL TO THE PIPE DIAMETER PLUS 3 INCHES.
12. "TANK SIDE OF WALL" SHALL MEAN SIDE OF WALL NORMALLY EXPOSED TO LIQUID, EARTH OR OUTSIDE ATMOSPHERE.

PIPE PENETRATION TYPES

	DESCRIPTION		TYPE		
	FROM	TO	STEEL OR SST PIPE	DUCTILE IRON PIPE	PLASTIC PIPE
1	TANK	TANK BELOW W.S.	C or I	C, E or I	C
2	TANK	TANK ABOVE W.S.	B	B-I	B-I
3	PASSAGE	TANK BELOW W.S.	C or I	C or I	C
4	PASSAGE	TANK ABOVE W.S.	A, B or C	A, B or C	A, B or C
5	PASSAGE	PASSAGE	A, Note 4	A, Note 4	A, Note 4
6	PASSAGE	OUTSIDE WALL	B or C	B or C	B or C
7	PASSAGE	ROOF	AS SHOWN		
	Use this Table unless noted otherwise in Drawings				

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020

PROJECT MANAGER: JCV
ENGINEER: MEF
DESIGNER: GS
DRAWN BY: GS/AJ

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 31917 PROFESSIONAL ENGINEER JAMES C. VAUGHN, JR.

PIPE PENETRATIONS DETAIL

D-901

DRAWING FILE: W:\C\civil\CSAV190007 BGJWSC WPCF Rehab\10 DWG\+CAD\01 BID DRAWINGS\11 PROCESS\D-901 PIPE PENETRATIONS.dwg
PLOTTED: Jun 05, 2020 - 1:49pm

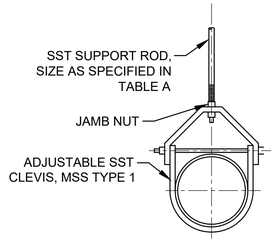
TABLE A								
NOMINAL PIPE SIZE (INCHES)	SUPPORT ROD SIZE AND MAXIMUM LOAD PER ROD SEE NOTES 2 AND 3				MAXIMUM PIPE SPAN (FEET) SEE NOTE 4			
	ONE ROD SUPPORT SYSTEM		TWO ROD SUPPORT SYSTEM					
	ROD SIZE (INCHES)	MAX LOAD (POUNDS)	ROD SIZE (INCHES)	MAX LOAD (POUNDS)	STEEL SEE NOTE 3	COPPER	PLASTIC SEE NOTE 5	CAST IRON SEE NOTE 6
3/8 TO 3/4	3/8	610	3/8	610	5	5	CONTINUOUS	- - -
1	3/8	610	3/8	610	5	5	5	- - -
1 1/4	3/8	610	3/8	610	5	5	5	- - -
1 1/2	3/8	610	3/8	610	5	5	5	- - -
2	3/8	610	3/8	610	10	5	5	
2 1/2	3/8	610	3/8	610	10	10	5	
3	3/8	610	3/8	610	10	20	5	
4	1/2	1130	3/8	610	10	20	10	
6	5/8	1810	1/2	1130	15	20	20	12 FEET FOR DUCTILE IRON
8	3/4	2710	1/2 (5/8)	1130 (1810)	15	20	20	10 FEET FOR CAST IRON
10	3/4 (1)	2710 (4960)	5/8 (3/4)	1810 (2710)	20	- - -	20	
12	7/8 (1 1/4)	3770 (8000)	3/4 (7/8)	2710 (3370)	20	- - -	20	
14	1	4960			20	- - -	- - -	
16	1	4960			20	- - -	- - -	
18	1	4960			20	- - -	- - -	
20	1 1/4	8000			20	- - -	- - -	
24	1 1/4	8000			20	- - -	- - -	
30	1 1/2	12,000	1 1/2	24,000	20	- - -	- - -	

TABLE A NOTES:

1. DESIGN WEIGHT SHALL BE TWICE THE WEIGHT OF THE PIPE FULL OF WATER PLUS THE WEIGHT OF VALVES, FITTINGS, INSULATING MATERIALS, AND SUSPENDED HANGER COMPONENTS ON THE RUN OF PIPE BEING SUPPORTED.
2. ROD SIZES SHOWN ARE FOR THE SUPPORT OF A SINGLE PIPE. WHEN SUPPORTING MORE THAN ONE PIPE, ROD SHALL BE SIZED USING THE DESIGN WEIGHTS (SEE NOTE 1) TO DETERMINE THE TOTAL DESIGN LOAD. THE TOTAL DESIGN LOAD SHALL NOT EXCEED THE MAXIMUM LOADS IN THE TABLE ABOVE.
3. ROD SIZES AND MAXIMUM LOADS IN PARENTHESIS ARE FOR 8", 10" OR 12" STEEL PIPE ONLY, AT SPANS SHOWN.
4. PIPE SHALL NOT HAVE POCKETS FORMED IN THE SPAN DUE TO SAGGING OF THE PIPE BETWEEN SUPPORTS CAUSED BY THE WEIGHT OF THE PIPE, MEDIUM IN THE PIPE, INSULATION, VALVES AND FITTINGS.
5. SPAN SHOWN IS FOR SCHEDULE 80 PVC PIPE AT 100 DEGREES F. SPANS FOR OTHER PLASTICS, OTHER PVC PIPE SCHEDULES, AND PIPES AT HIGHER TEMPERATURES, SHALL BE SHORTENED IN ACCORDANCE WITH THE PIPE MANUFACTURER'S RECOMMENDATIONS. CONTINUOUS MEANS PIPE SHALL BE IN UNISTRUT OR SIMILAR CHANNEL.
6. PROVIDE A MINIMUM OF ONE PIPE HANGER PER PIPE LENGTH, WITHIN 4 INCHES OF THE BELL.
7. PIPE HANGER AND SUPPORT SELECTION SHALL BE IN ACCORDANCE WITH TABLE B.

TABLE B							
X INDICATES PIPE HANGERS SUITABLE FOR CONDITIONS LISTED BELOW:	PIPE HANGER TYPE						
	1	2	3	4	5	6	7
SERVICE TEMPERATURE							
33° F - 59° F INSULATED			X	X	X		
120° F - 450° F OR UNINSULATED	X	X	X	X	X	X	X
60° F - 119° F	X	X	X			X	X
PIPING MATERIALS							
STEEL	X	X	X	X	X	X	X
COPPER		X		X		X	X
PLASTIC	X	X		X	X	X	X
CAST IRON	X	X		X	X	X	X

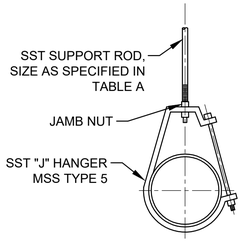
NOTE: FOR SERVICES OTHER THAN THOSE SHOWN IN TABLE "B", PIPE ATTACHMENTS SHALL BE THOSE SPECIFIED IN THE PIPE SPECS.



1/2" THROUGH 12" PIPE

1 D-902 **DETAIL - TYPE 1 PIPE HANGER**

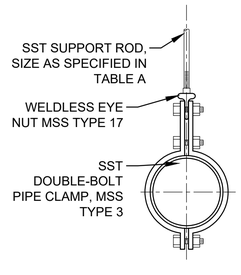
SCALE: NOT TO SCALE



1/2" THROUGH 8" PIPE

2 D-902 **DETAIL - TYPE 2 PIPE HANGER**

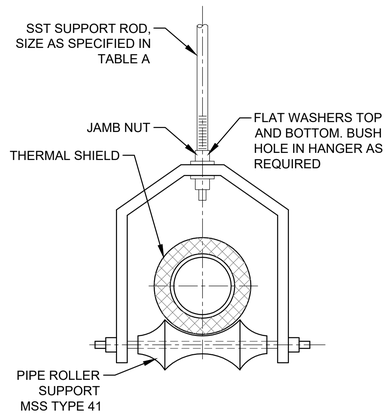
SCALE: NOT TO SCALE



3/4" THROUGH 12" PIPE

3 D-902 **DETAIL - TYPE 3 PIPE HANGER**

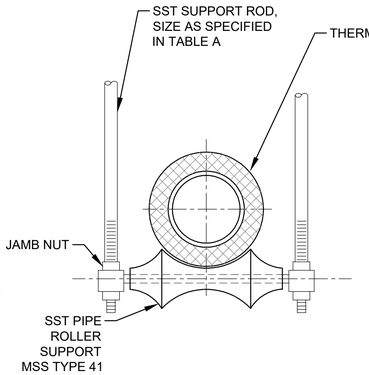
SCALE: NOT TO SCALE



3/8" THROUGH 12" PIPE

4 D-902 **DETAIL - TYPE 4 PIPE HANGER**

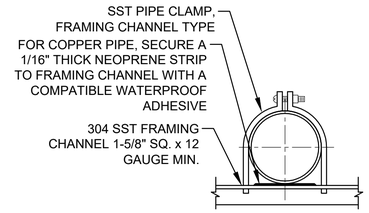
SCALE: NOT TO SCALE



3/8" THROUGH 12" PIPE

5 D-902 **DETAIL - TYPE 5 PIPE HANGER**

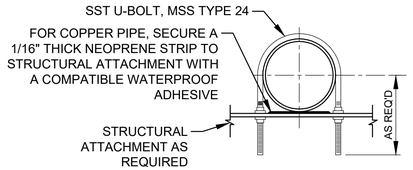
SCALE: NOT TO SCALE



3/8" THROUGH 8" PIPE

6 D-902 **DETAIL - TYPE 6 PIPE HANGER**

SCALE: NOT TO SCALE



1/2" THROUGH 12" PIPE

7 D-902 **DETAIL - TYPE 7 PIPE HANGER**

SCALE: NOT TO SCALE

GENERAL NOTES:

1. WHERE NO REFERENCE TO PIPE SUPPORT SYSTEMS ARE GIVEN ON THE DRAWINGS. THE CONTRACTOR SHALL USE AN APPROPRIATE SYSTEM. SEE TABLE "B". PIPE AND CONDUIT SUPPORT SYSTEMS SHALL BE UNISTRUT, ELCEN, OR EQUAL, AND SHALL BE DESIGNED BY THE CONTRACTOR TO MEET THE MINIMUM LOAD AND SPAN REQUIREMENTS AS SPECIFIED.
2. MATERIALS FOR HANGERS, SUPPORTS AND ASSOCIATED HARDWARE SHALL BE 304 OR 316 SST.
3. UNLESS OTHERWISE SPECIFIED, EXPANSION ANCHORS SHALL NOT BE USED.
4. MSS REFERS TO THE MANUFACTURERS STANDARDIZATION SOCIETY OF THE VALVE AND FITTINGS INDUSTRY, STANDARD PRACTICE SP58 AND SP69.
5. HANGER BRACKETS AND SUPPORT COMPONENTS MAY BE INTERCHANGED.
6. CONCRETE INSERTS IN AREA BELOW WATER SURFACE OR NORMALLY SUBJECT TO SUBMERGING SHALL BE EMBEDDED ANCHOR BOLTS OR EQUAL.
7. PROVIDE PLASTIC OR RUBBER CHANNEL END CAPS AT EXPOSED ENDS OF CHANNELS 7'-0" ABOVE FLOOR AND BELOW.
8. MAXIMUM DESIGN WEIGHTS AND LOADS SHALL BE AS SHOWN IN TABLE "A" OR AS SHOWN IN THE DETAILS ON THIS DRAWING.
9. WHEN SUPPORT PIPING REQUIRES HORIZONTAL FLEXIBILITY NORMAL TO A STEEL BEAM AXIS, USE STRUCTURAL ATTACHMENTS C AND D AS SHOWN ON DRAWING D-504.
10. ALL PIPING SUPPORTED BY HANGERS AND/OR STRUCTURAL ATTACHMENTS SHALL BE BRACED AGAINST HORIZONTAL, VERTICAL, AXIAL, AND LONGITUDINAL SWAY. BRACINGS SHALL BE CALCULATED TO RESIST SEISMIC LOADINGS AS SPECIFIED BY SMACNA AND AS INDICATED IN THE SPECIFICATIONS.
11. FITTINGS SHALL NOT BE LESS THAN MSS CL B.
12. UNLESS OTHERWISE SPECIFIED, TRAPEZE AND PIPE RACK COMPONENTS SHALL HAVE A MINIMUM THICKNESS OF 12 GAGE WITH A MAXIMUM DEFLECTION 1/240 OF THE SPAN. MINIMUM CHANNEL COMPONENT SIZE SHALL BE 1 5/8" SQUARE 316 SST AS MANUFACTURED BY SUPER STRUT, UNISTRUT, ELCEN, OR EQUAL.

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" .5" 0"

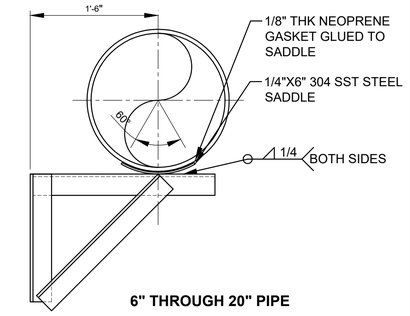
2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 18787 PROFESSIONAL ENGINEER JAMES C. VAUGHN, III

PROCESS PIPE SUPPORT DETAILS

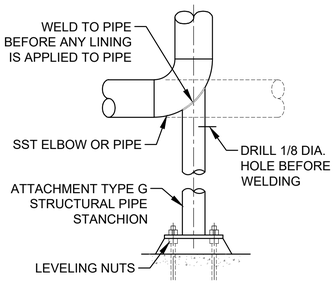
D-902



6" THROUGH 20" PIPE

8 D-903 **DETAIL - TYPE 8 PIPE HANGER**

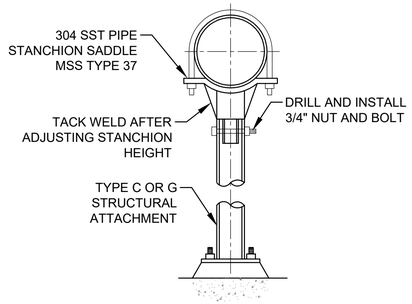
SCALE: NOT TO SCALE



2-1/2" THROUGH 14" PIPE

9 D-903 **DETAIL - TYPE 9 PIPE HANGER**

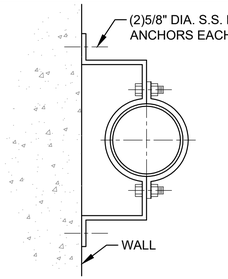
SCALE: NOT TO SCALE



4" THROUGH 12" PIPE

10 D-903 **DETAIL - TYPE 10 PIPE HANGER**

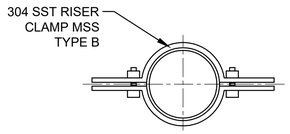
SCALE: NOT TO SCALE



FOR VERTICAL PIPE ONLY
3/4" THROUGH 8" PIPE

11 D-903 **DETAIL - TYPE 11 PIPE HANGER**

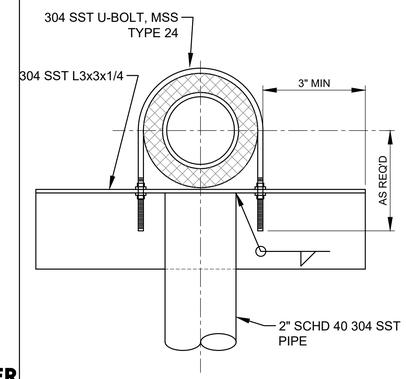
SCALE: NOT TO SCALE



FOR VERTICAL PIPE ONLY
1/2" THROUGH 12" PIPE

12 D-903 **DETAIL - TYPE 12 PIPE HANGER**

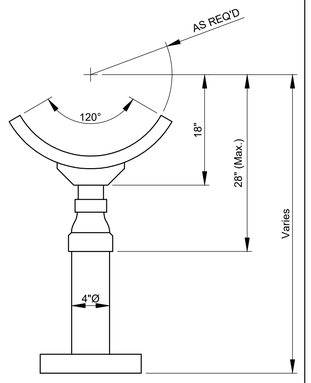
SCALE: NOT TO SCALE



1/2" THROUGH 3" PIPE

13 D-903 **DETAIL - TYPE 13 PIPE HANGER**

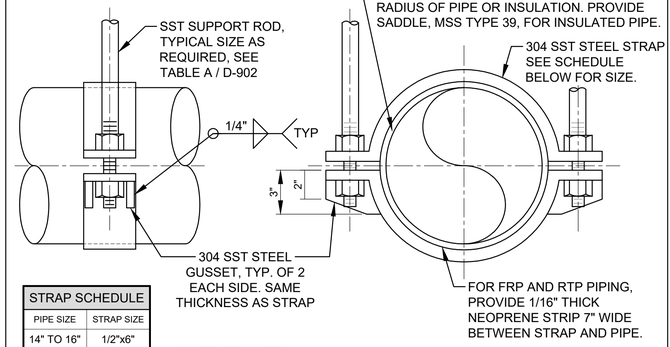
SCALE: NOT TO SCALE



16" THROUGH 30" PIPE

14 D-903 **DETAIL - TYPE 14 PIPE HANGER**

SCALE: NOT TO SCALE



STRAP SCHEDULE	
PIPE SIZE	STRAP SIZE
14" TO 16"	1/2"x6"
18" TO 20"	5/8"x6"
24" TO 30"	3/4"x6"

SUPPORT NOTES:

1. SPACING SHALL BE AS SPECIFIED IN TABLE A / D-902.
2. TOTAL LOADS ON END CONNECTIONS SHALL NOT EXCEED 1/2 THE MAXIMUM ALLOWABLE LOAD AT MID-POINT.

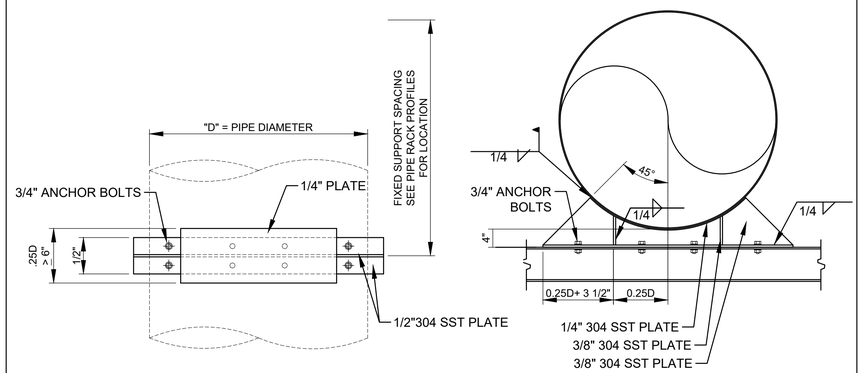
14" THROUGH 30" PIPE

15 D-903 **DETAIL - TYPE 15 PIPE HANGER**

SCALE: NOT TO SCALE

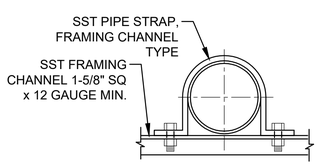
GENERAL NOTES:

1. WHERE NO REFERENCE TO PIPE SUPPORT SYSTEMS ARE GIVEN ON THE DRAWINGS. THE CONTRACTOR SHALL USE AN APPROPRIATE SYSTEM. SEE TABLE "B". PIPE AND CONDUIT SUPPORT SYSTEMS SHALL BE UNISTRUT, ELCEN, OR EQUAL, AND SHALL BE DESIGNED BY THE CONTRACTOR TO MEET THE MINIMUM LOAD AND SPAN REQUIREMENTS AS SPECIFIED.
2. MATERIALS FOR HANGERS, SUPPORTS AND ASSOCIATED HARDWARE SHALL BE 316 SST.
3. UNLESS OTHERWISE SPECIFIED, EXPANSION ANCHORS SHALL NOT BE USED.
4. MSS REFERS TO THE MANUFACTURERS STANDARDIZATION SOCIETY OF THE VALVE AND FITTINGS INDUSTRY, STANDARD PRACTICE SP58 AND SP69.
5. HANGER BRACKETS AND SUPPORT COMPONENTS MAY BE INTERCHANGED.
6. CONCRETE INSERTS IN AREA BELOW WATER SURFACE OR NORMALLY SUBJECT TO SUBMERGING SHALL BE EMBEDDED ANCHOR BOLTS OR EQUAL.
7. PROVIDE PLASTIC OR RUBBER CHANNEL END CAPS AT EXPOSED ENDS OF CHANNELS 7'-0" ABOVE FLOOR AND BELOW.
8. MAXIMUM DESIGN WEIGHTS AND LOADS SHALL BE AS SHOWN IN TABLE "A" OR AS SHOWN IN THE DETAILS ON THIS DRAWING.
9. WHEN SUPPORT PIPING REQUIRES HORIZONTAL FLEXIBILITY NORMAL TO A STEEL BEAM AXIS, USE STRUCTURAL ATTACHMENTS C AND D AS SHOWN.
10. ALL PIPING SUPPORTED BY HANGERS AND/OR STRUCTURAL ATTACHMENTS SHALL BE BRACED AGAINST HORIZONTAL, VERTICAL, AXIAL, AND LONGITUDINAL SWAY. BRACINGS SHALL BE CALCULATED TO RESIST SEISMIC LOADINGS AS SPECIFIED BY SMACNA AND AS INDICATED IN THE SPECIFICATIONS.
11. FITTINGS SHALL NOT BE LESS THAN MSS CL B.
12. UNLESS OTHERWISE SPECIFIED, TRAPEZE AND PIPE RACK COMPONENTS SHALL HAVE A MINIMUM THICKNESS OF 12 GAGE WITH A MAXIMUM DEFLECTION 1/240 OF THE SPAN. MINIMUM CHANNEL COMPONENT SIZE SHALL BE 1 5/8" SQUARE 316 SST AS MANUFACTURED BY SUPER STRUT, UNISTRUT, ELCEN, OR EQUAL.



16 D-903 **FIXED PIPE SUPPORT - 14"-48" Ø PIPE**

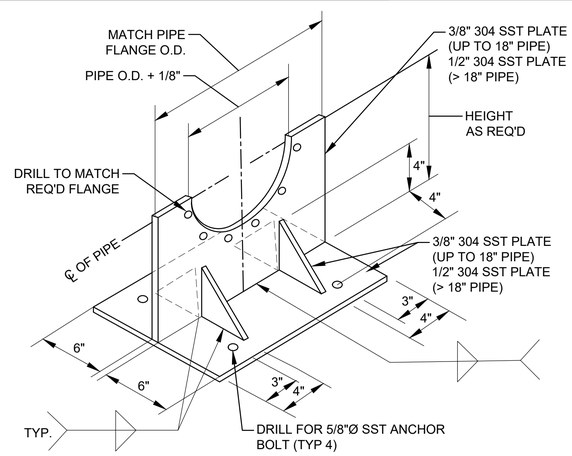
SCALE: NOT TO SCALE



1/2" THROUGH 6" PIPE

17 D-903 **DETAIL - TYPE 17 PIPE HANGER**

SCALE: NOT TO SCALE



19 D-903 **DETAIL - TYPE 19 PIPE SUPPORT**

SCALE: NOT TO SCALE

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	09.09.2019	JCV
70% SUBMITTAL	12.16.2019	MEF
100% SUBMITTAL	03.12.2020	GS
CONSTRUCTION SUBMITTAL	06.15.2020	GS/AJ
PROJECT MANAGER:		
ENGINEER:		
DESIGNER:		
DRAWN BY:		

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

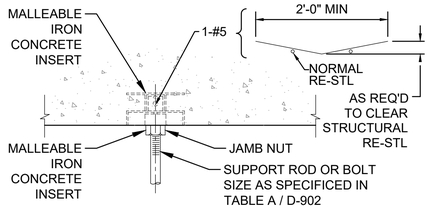
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED No. 18174 PROFESSIONAL ENGINEER JAMES C. VAUGHN III

PROCESS PIPE SUPPORT DETAILS

D-903

DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPCF Rehab\01 DWG\+C4D\01 BID DRAWINGS\11 PROCESS\D-902-904 PIPE SUPPORTS.dwg
PLOTTED: Jun 08, 2020 - 3:26pm



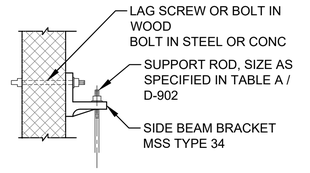
MAXIMUM ALLOWABLE LOAD:

ROD SIZE	LOAD
3/8"	610 LBS
1/2"	1130 LBS
5/8" - 7/8"	1140 LBS

SPACING SHALL BE AS REQUIRED BUT SHALL NOT EXCEED THOSE SPANS SHOWN IN TABLE A / D-902

A D-904 **DETAIL - TYPE A ATTACHMENT**

SCALE: NOT TO SCALE



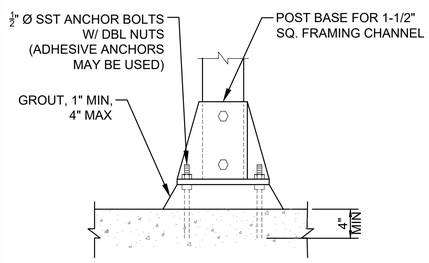
MAXIMUM ALLOWABLE LOAD:

ROD SIZE	LOAD WOOD	LOAD CONCRETE/STEEL
3/8"	390 LBS	610 LBS
1/2"	640 LBS	1130 LBS
5/8"	760 LBS	1810 LBS
3/4"	830 LBS	2710 LBS
7/8"	830 LBS	3770 LBS

SPACING SHALL BE AS REQUIRED, BUT SHALL NOT EXCEED SPANS SHOWN IN TABLE A / D-902

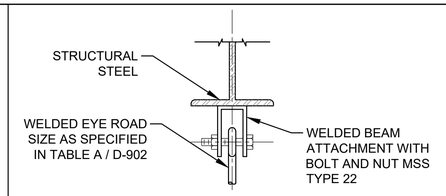
B D-904 **DETAIL - TYPE B ATTACHMENT**

SCALE: NOT TO SCALE



C D-904 **DETAIL - TYPE C ATTACHMENT**

SCALE: NOT TO SCALE



MAXIMUM ALLOWABLE LOAD:

ROD SIZE	LOAD
3/8"	610 LBS
1/2"	1130 LBS
5/8"	1810 LBS
3/4"	2710 LBS
7/8"	3770 LBS
1"	4960 LBS

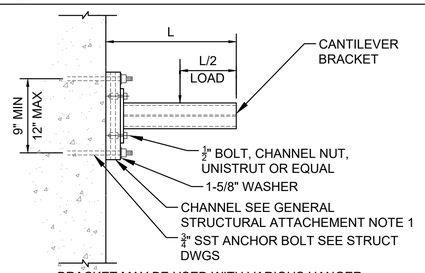
SPACING SHALL BE AS REQUIRED BUT SHALL NOT EXCEED THOSE SPANS SHOWN IN TABLE A / D-902

D D-904 **DETAIL - TYPE D ATTACHMENT**

SCALE: NOT TO SCALE

GENERAL NOTES:

1. FOR EXISITNG CONCRETE, NEW PRECAST CONCRETE OR NEW CONCRETE MASONRY UNITS USE SURFACE MOUNT CHANNEL UNISTRUT P-1000 OR EQUAL. FOR ALL POURED-IN-PLACE CONCRETE, USED EMBEDDED CONCRETE INSERT CHANNELS, UNISTRUT P3200 OR EQUAL AND DELETE THE SURFACE MOUNT ANCHOR BOLTS.



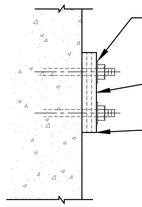
BRACKET MAY BE USED WITH VARIOUS HANGER, ROLLER, GUIDE AND CLAMP ASSEMBLIES

CAPACITY AT MID-POINT:

L	LOAD
12"	2000 LBS
18"	1300 LBS
24"	1000 LBS
30"	800 LBS

E D-904 **DETAIL - TYPE E ATTACHMENT**

SCALE: NOT TO SCALE



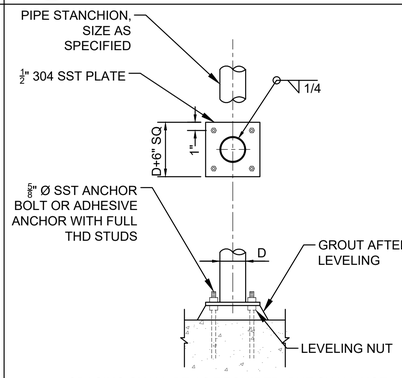
BRACKET MAY BE WALL OR CEILING MOUNTED, AND MAY BE USED WITH VARIOUS HANGER, GUIDE, RACK, OR ANCHOR, AND SWAY BRACE ASSEMBLIES

MAXIMUM LOAD CAPACITY SHALL BE AS RECOMMENDED BY THE CHANNEL MANUFACTURER.

SPACING SHALL BE AS REQUIRED, BUT SHALL NOT EXCEED SPANS SHOWN IN TABLE A / D-902

F D-904 **DETAIL - TYPE F ATTACHMENT**

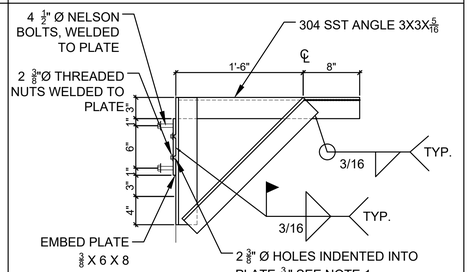
SCALE: NOT TO SCALE



SPACING SHALL BE AS REQUIRED, BUT SHALL NOT EXCEED SPANS SHOWN IN TABLE A / D-902

G D-904 **DETAIL - TYPE G ATTACHMENT**

SCALE: NOT TO SCALE



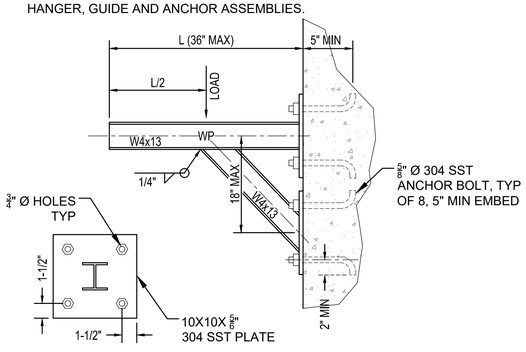
NOTES:

1. PROVIDE FLAT HEADED BOLTS 3/8"Øx1-1/2"L SCREWED IN PLACE TO CREATE FLUSH SURFACE WITH PLATE, PRIOR TO POURING CONCRETE. THESE BOLTS ARE TO BE REMOVED AND REPLACED WITH 2" L BOLTS AFTER CURING FOR SUPPORT ATTACHMENT.

H D-904 **DETAIL - TYPE H ATTACHMENT**

SCALE: NOT TO SCALE

STRUCTURAL ATTACHMENTS MAY BE USED WITH VARIOUS HANGER, GUIDE AND ANCHOR ASSEMBLIES.

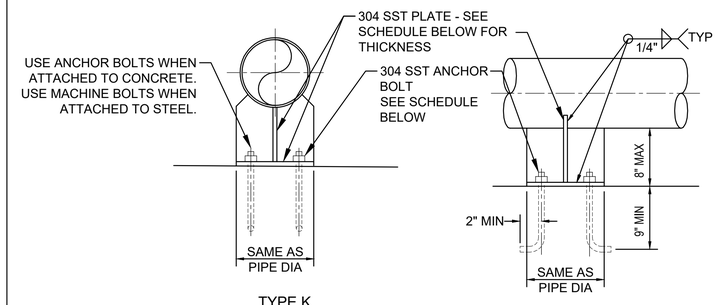


WALL PLATE ELEVATION

SPACING SHALL BE AS REQUIRED BUT SHALL NOT EXCEED SPANS SHOWN IN TABLE A / D-902

J D-904 **DETAIL - TYPE J ATTACHMENT**

SCALE: NOT TO SCALE



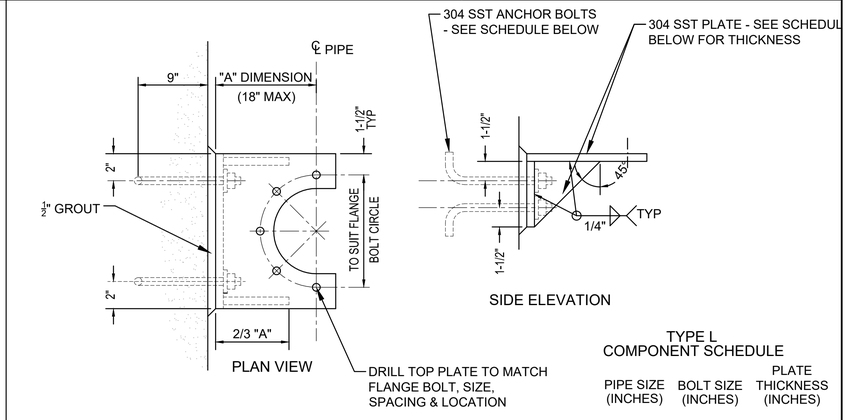
TYPE K
STRUCTURAL ATTACHMENT
COMPONENT SCHEDULE

PIPE SIZE (INCHES)	BOLT SIZE (INCHES)	PL THK (INCHES)
2 & 2-1/2	3/8	1/4
3 TO 6	1/2	3/8
8 TO 12	5/8	3/8
14 TO 16	3/4	1/2
18 TO 20	7/8	5/8

SPACING SHALL BE AS REQUIRED BUT SHALL NOT EXCEED SPANS SHOWN IN TABLE A / D-902

K D-904 **DETAIL - TYPE K ATTACHMENT**

SCALE: NOT TO SCALE



TYPE L
COMPONENT SCHEDULE

PIPE SIZE (INCHES)	BOLT SIZE (INCHES)	PLATE THICKNESS (INCHES)
2 & 2-1/2	3/8	1/4
3 TO 6	1/2	3/8
8 TO 12	5/8	3/8
14 TO 16	3/4	1/2
18 TO 20	7/8	5/8
24 TO 30	1	3/4

SPACING SHALL BE AS REQUIRED BUT SHALL NOT EXCEED SPANS SHOWN IN TABLE A / D-902

L D-904 **DETAIL - TYPE L ATTACHMENT**

SCALE: NOT TO SCALE

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	09.09.2019	GS/AJ
70% SUBMITTAL	12.16.2019	GS
100% SUBMITTAL	03.12.2020	MEF
CONSTRUCTION SUBMITTAL	06.15.2020	JCV

PROJECT MANAGER:
ENGINEER:
DESIGNER:
DRAWN BY:

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

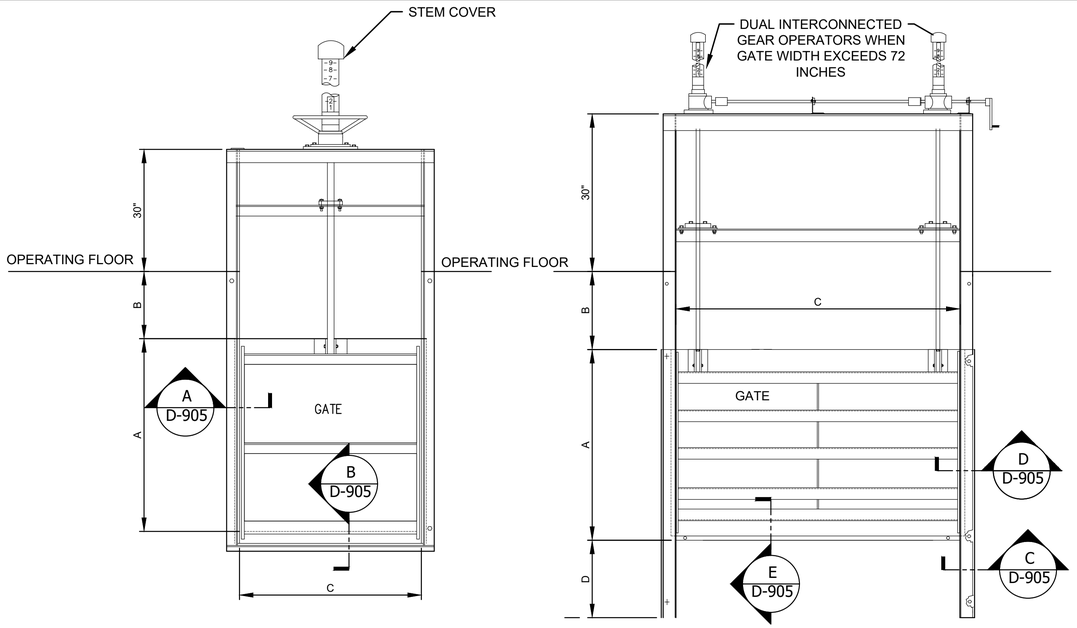
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA JAMES C. VALIGHT No. 19174 PROFESSIONAL ENGINEER

PROCESS PIPE STRUCTURAL ATTACHMENTS

D-904

DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPC Rehab\0 DWG\+CAD\01 BID DRAWINGS\11 PROCESS\D-902-904 PIPE SUPPORTS.dwg
PLOTTED: Jun 08, 2020 - 3:26pm



1 / D-905 **ELEVATION - UPWARD OPENING SLIDE GATE**

SCALE: NOT TO SCALE

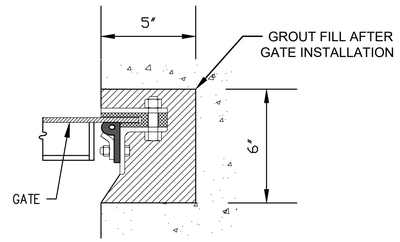
2 / D-905 **ELEVATION - DOWNWARD OPENING WEIR GATE**

SCALE: NOT TO SCALE

FABRICATED SLIDE GATE SCHEDULE									
GATE ID	TYPE	LOCATION	MOUNT	OPERATOR	HEIGHT A (INCHES)	HEIGHT B (INCHES)	WIDTH C (INCHES)	HEIGHT D (INCHES)	DESIGN SEATING HEAD (FEET)	DESIGN UNSEATING HEAD (FEET)
SG1011	RISING STEM, SELF-CONTAINED, UPWARD OPENING GATE	HEADWORKS INLET CHANNEL - (NOTE 1)	EMBEDDED FRAME GROUTED IN PLACE	GEAR-ASSISTED CRANK	48	12	48	-	4	4
SG1012	RISING STEM, SELF-CONTAINED, UPWARD OPENING GATE	HEADWORKS INLET CHANNEL - (NOTE 1)	EMBEDDED FRAME GROUTED IN PLACE	GEAR-ASSISTED CRANK	48	12	48	-	4	4
SG1013	RISING STEM, SELF-CONTAINED, UPWARD OPENING GATE	HEADWORKS INLET CHANNEL - (NOTE 1)	EMBEDDED FRAME GROUTED IN PLACE	GEAR-ASSISTED CRANK	48	12	48	-	4	4
SG1014	RISING STEM, SELF-CONTAINED, UPWARD OPENING GATE	HEADWORKS INLET CHANNEL - (NOTE 1)	EMBEDDED FRAME GROUTED IN PLACE	GEAR-ASSISTED CRANK	48	12	48	-	4	4
SG1015	RISING STEM, SELF-CONTAINED, UPWARD OPENING GATE	HEADWORKS INLET CHANNEL - (NOTE 1)	EMBEDDED FRAME GROUTED IN PLACE	GEAR-ASSISTED CRANK	48	12	48	-	4	4
SG2031	RISING STEM, SELF-CONTAINED, DOWNWARD OPENING GATE	MAIN SPLITTER - AB1 FEED	SURFACE MOUNTED CONCRETE WALL	GEAR-ASSISTED CRANK	24	18	72	30	2	1.5
SG2032	RISING STEM, SELF-CONTAINED, DOWNWARD OPENING GATE	MAIN SPLITTER - AB2 FEED	SURFACE MOUNTED CONCRETE WALL	GEAR-ASSISTED CRANK	24	18	72	30	2	1.5
SG2033	RISING STEM, SELF-CONTAINED, DOWNWARD OPENING GATE	MAIN SPLITTER - AB3 FEED	SURFACE MOUNTED CONCRETE WALL	GEAR-ASSISTED CRANK	24	18	72	30	2	1.5
SG4110	RISING STEM, SELF-CONTAINED, UPWARD OPENING GATE	CLARIFIER NO. 1 - INLET (NOTE 2)	SURFACE MOUNTED CONCRETE WALL	GEAR-ASSISTED CRANK	30	132	30	-	12	3
SG4120	RISING STEM, SELF-CONTAINED, UPWARD OPENING GATE	CLARIFIER NO. 2 - INLET (NOTE 2)	SURFACE MOUNTED CONCRETE WALL	GEAR-ASSISTED CRANK	30	132	30	-	12	3
SG4210	RISING STEM, SELF-CONTAINED, UPWARD OPENING GATE	CLARIFIER NO. 2 - INLET (NOTE 2)	SURFACE MOUNTED CONCRETE WALL	GEAR-ASSISTED CRANK	30	132	30	-	12	3
SG4220	RISING STEM, SELF-CONTAINED, UPWARD OPENING GATE	CLARIFIER NO. 2 - INLET (NOTE 2)	SURFACE MOUNTED CONCRETE WALL	GEAR-ASSISTED CRANK	30	132	30	-	12	3
SG4310	RISING STEM, SELF-CONTAINED, UPWARD OPENING GATE	CLARIFIER NO. 2 - INLET (NOTE 2)	SURFACE MOUNTED CONCRETE WALL	GEAR-ASSISTED CRANK	30	132	30	-	12	3
SG4320	RISING STEM, SELF-CONTAINED, UPWARD OPENING GATE	CLARIFIER NO. 2 - INLET (NOTE 2)	SURFACE MOUNTED CONCRETE WALL	GEAR-ASSISTED CRANK	30	132	30	-	12	3
SG5100	RISING STEM, SELF-CONTAINED, DOWNWARD OPENING GATE	FILTER INLET	SURFACE MOUNTED CONCRETE WALL	GEAR-ASSISTED CRANK	44	26	96	44	2	-
SG5200	RISING STEM, SELF-CONTAINED, DOWNWARD OPENING GATE	FILTER INLET	SURFACE MOUNTED CONCRETE WALL	GEAR-ASSISTED CRANK	44	26	96	44	2	-

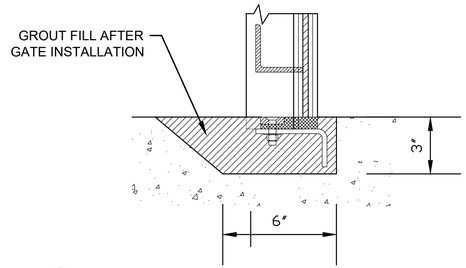
NOTES:

1. REMOVE EXISTING GATES & REPLACE WITH NEW GATES. FIELD VERIFY EXISTING GATE DIMENSIONS PRIOR TO FABRICATION.
2. REMOVE EXISTING GATES & REPLACE WITH NEW GATES. FIELD VERIFY EXISTING GATE DIMENSIONS PRIOR TO FABRICATION. GATE BOTTOMS ARE DETAIL B AS SHOWN ON THIS SHEET.



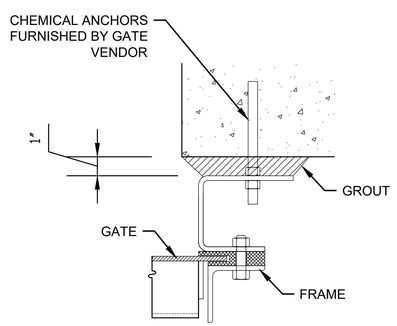
A / D-905 **DETAIL**

SCALE: NOT TO SCALE



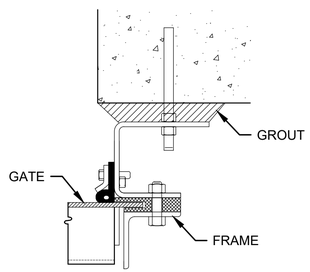
B / D-905 **DETAIL**

SCALE: NOT TO SCALE



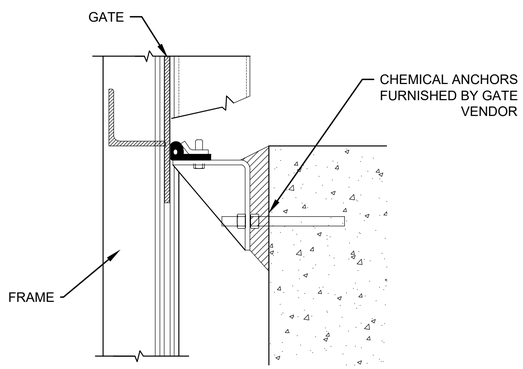
C / D-905 **DETAIL**

SCALE: NOT TO SCALE



D / D-905 **DETAIL**

SCALE: NOT TO SCALE



E / D-905 **DETAIL**

SCALE: NOT TO SCALE

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" 0" .5" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

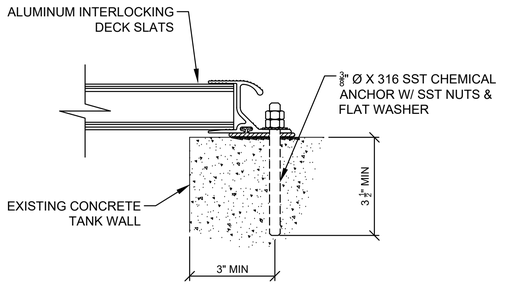
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER JAMES C. VAUGHN

GATE SCHEDULE & DETAILS

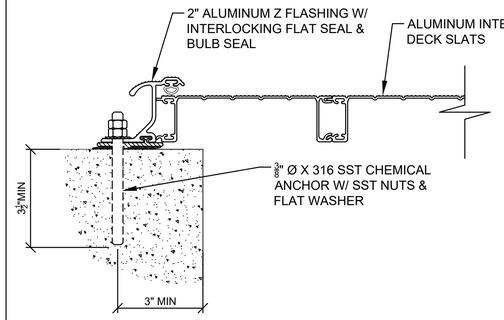
D-905

DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPCF Rehab\0 DWG\+CAD\01 BID DRAWINGS\11 PROCESS\D-905 GATE SCHEDULE & DETAILS.dwg
PLOTTED: Jun 05, 2020 - 11:16am



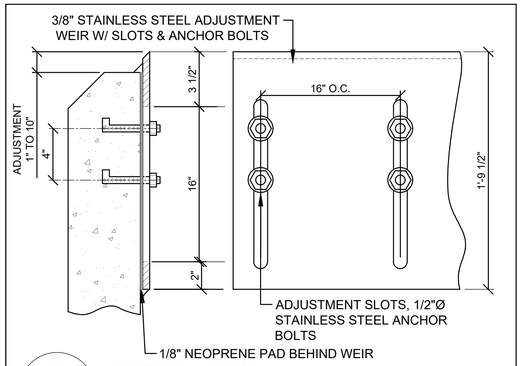
1 D-101 **ODOR CONTROL COVER EDGE**

SCALE:3" = 1'-0"



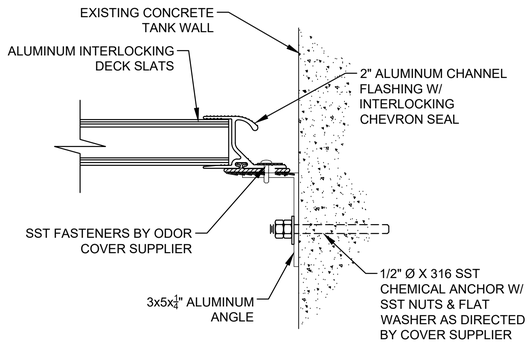
2 D-101 **ODOR CONTROL COVER END**

SCALE:3" = 1'-0"



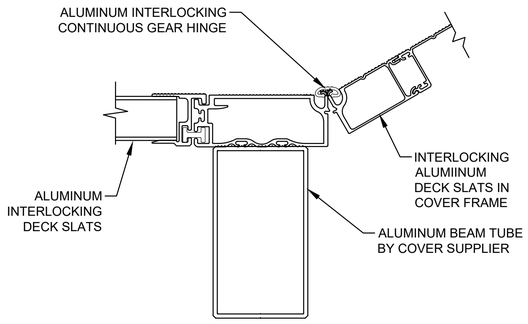
7 D-601 **DETAIL - WEIR**

SCALE:NOT TO SCALE



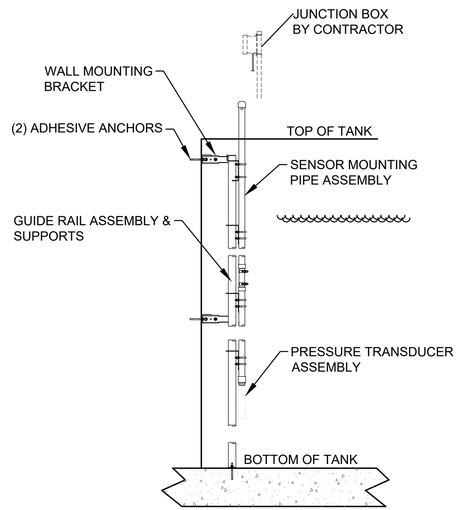
3 D-101 **COVER EDGE @ VERT WALL**

SCALE:3" = 1'-0"



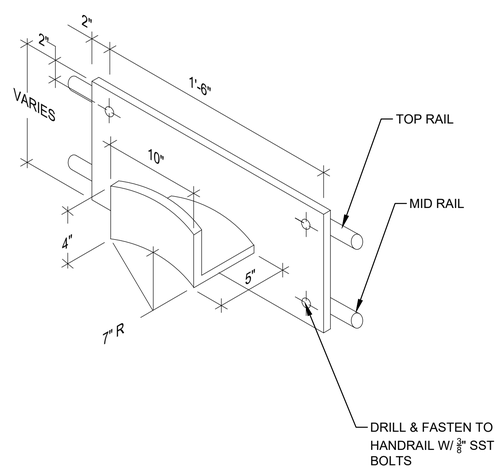
4 D-101 **COVER EDGE @ PUMP HATCH**

SCALE:3" = 1'-0"



6 D-906 **LEVEL TRANSDUCER MOUNT**

SCALE:NOT TO SCALE



5 D-906 **RAIL-MOUNTED HOSE RACK DEATIL**

SCALE:NOT TO SCALE

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020
PROJECT MANAGER:	JCV
ENGINEER:	MEF
DESIGNER:	GS
DRAWN BY:	GS/AJ

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER JAMES C. VAUGHN

PROCESS DETAILS

D-906

DRAWING FILE: W:\Civil\CSAV190007 BGJWSC WPC Rehab\0 DWG\+CAD\01 BID DRAWINGS\11 PROCESS\D-906 PROCESS DETAILS.dwg
PLOTTED: Jun 05, 2020 - 11:17am

Mark	Type	Size (inches)	Service	Connection	Operator	Comments
V 2001	Plug Valve	16	RAS	MJ	MH	
V 3001	Plug Valve	16	RAS	MJ	N/A	
V 3002	Plug Valve	16	RAS	MJ	N/A	
V 3003	Plug Valve	16	RAS	MJ	N/A	
V 5100	Plug Valve	6	BWW	MJ	Manual Nut	Tertiary Filter package
V 5101	Plug Valve	6	BW	FL	MH	Tertiary Filter package
V 5102	Plug Valve	8	D	FL	N/A	Tertiary Filter package
V 5103	Plug Valve	6	D	MJ	Manual Nut	Tertiary Filter package
V 5104	Plug Valve	6	BW	MJ	N/A	
V 5105	Plug Valve	6	BW	MJ	N/A	Tertiary Filter package
V 5106	Plug Valve	6	BW	MJ	N/A	Tertiary Filter package
V 5107	Ball Valve	1/2	BW	THD	Lever	Tertiary Filter package
V 5108	Ball Valve	1/2	BW	THD	Lever	Tertiary Filter package
V 5109	Ball Valve	1/2	BW	THD	Lever	Tertiary Filter package
V 5200	Plug Valve	6	BWW	MJ	Manual Nut	Tertiary Filter package
V 5201	Plug Valve	6	BW	FL	MH	Tertiary Filter package
V 5202	Plug Valve	8	D	FL	N/A	Tertiary Filter package
V 5203	Plug Valve	6	D	MJ	Nut	
V 5204	Plug Valve	6	BW	MJ	N/A	Tertiary Filter package
V 5205	Plug Valve	6	BW	MJ	N/A	Tertiary Filter package
V 5206	Plug Valve	6	BW	MJ	N/A	Tertiary Filter package
V 5207	Ball Valve	1/2	BW	THD	Lever	Tertiary Filter package
V 5208	Ball Valve	1/2	BW	THD	Lever	Tertiary Filter package
V 5209	Ball Valve	1/2	BW	THD	Lever	Tertiary Filter package
V 5300	Butterfly Valve	48	SE	MJ	Manual Nut	Buried Service Operator
V 5301	Butterfly Valve	48	FE	MJ	Manual Nut	Buried Service Operator
V 7001	Plug Valves	8	DS	FL	MH	
V 7002	Plug Valves	8	DS	FL	MH	
V 8001	Ball Valve	1	FAD	FL	Lever	
V 8002	Ball Valve	1	V	THD	Lever	
V 8003	Ball Valve	2	CD	THD	Lever	
V 8004	Ball Valve	2	CD	THD	Lever	
V 8005	Check Valve	2	CD	THD	N/A	
V 8006	Ball Valve	2	CD	THD	Lever	
V 8007	Ball Valve	1/2	CD	THD	Lever	
V 8008	Check Valve	1/1	C	THD	N/A	
V 8009	Ball Valve	1/2	C	THD	N/A	
V 8010	Ball Valve	1/2	C	THD	N/A	
V 8011	Butterfly	20	FAD	FL	Lever	
V 8012	Ball Valve	1	D	THD	Lever	
V 8111	Ball Valve	1 1/2	W	THD	Lever	
V 8112	Ball Valve	1 1/2	POLS	THD	Lever	
V 8113	Ball Valve	1 1/2	POLS	THD	Lever	
V 8121	Ball Valve	1 1/2	W	THD	Lever	
V 8122	Ball Valve	1 1/2	POLS	THD	Lever	
V 8123	Ball Valve	1 1/2	POLS	THD	Lever	
V 8131	Ball Valve	1 1/2	POLS	THD	Lever	

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE | DATE

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.15.2020

PROJECT MANAGER: JCV
ENGINEER: MEF
DESIGNER: GS
DRAWN BY: GS/AJ

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BG-JWSC Project No. 906
GMC Project #CSAV190007

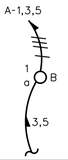
GEORGIA — JAMES C. VAUGHN — No. 18017 — PROFESSIONAL ENGINEER

VALVE SCHEDULE-1

D-910

DRAWING FILE: W:\Civil\CSAV\B0007 BG-JWSC WPC Rehab\10 DWGs\CAD\101 BID DRAWINGS\11 PROCESS\D-910 VALVE SCHEDULE.dwg
PLOTTED: Jun 05, 2020 - 11:17am

LEGEND

SYMBOL	DESCRIPTION
	A-1,3,5 ADJACENT TO ARROW INDICATES HOME-RUN OF CIRCUITS 1,3,5 TO PANEL A. 3,5 OR A-3,5 ADJACENT TO ARROW INDICATES CIRCUIT CONTINUATION. MARKS ACROSS RACEWAY RUNS INDICATE THE NUMBER OF NO. 12 CONDUCTORS. UNLESS NOTED, NO MARKS INDICATES TWO NO. 12 CONDUCTORS. EQUIPMENT GROUNDING CONDUCTORS ARE NOT SHOWN, SEE GENERAL NOTES. IF INDICATED ADJACENT TO OUTLET, NUMERAL AND LOWER CASE LETTER INDICATES CIRCUIT CONNECTION AND SWITCHLEG DESIGNATION RESPECTIVELY. TYPE B OR CAPITAL LETTER B INDICATES LIGHT FIXTURE TYPE. UNLESS NOTED, DIMENSIONS INDICATED IN LEGEND AND ON PLANS ARE TO BOTTOM OF OUTLET OR DEVICE. ALL SYMBOLS INDICATED HEREIN MAY NOT NECESSARILY BE USED ON THE PLANS.
	CEILING OUTLET AND FLUORESCENT FIXTURE
	WALL OUTLET AND FLUORESCENT OR H.I.D. FIXTURE
	WALL OUTLET AND FLUORESCENT OR H.I.D. FIXTURE - EGRESS/EMERGENCY LIGHTING
XA	OUTLET AND EXIT LIGHT - LETTERS INDICATE FIXTURE TYPE. PROVIDE ARROWS INDICATED
	WALL MOUNTED TWO HEAD EMERGENCY FIXTURE
PC	PHOTOCELL, TORK MODEL 2107, FAILED CLOSED. MOUNT 8' AFG. AIM AWAY FROM LIGHTS.
J J	WEATHERPROOF JUNCTION BOX MOUNTED TO CONCRETE STRUCTURE
J	POLYMER CONCRETE JUNCTION BOX MOUNTED FLUSH IN GRADE
6	DUPLEX RECEPTACLE- MT. 16" AFF, NUMBER DESIGNATES LOCAL BRANCH CIRCUIT SERVING OUTLET
	DUPLEX RECEPTACLE- MT. 48" AFF AND/OR ABOVE COUNTER TOP
WP	WEATHERPROOF DUPLEX RECEPTACLE, MT. 16" ABOVE FLOOR AND 36" ABOVE EARTH W/ IN-USE COVER, TYPE 'WR' RECEPTACLE
A	SPECIAL PURPOSE RECEPTACLE, CAPITAL LETTER INDICATES TYPE- REFER TO SPECS OR SCHEDULE
GF	GROUND FAULT INTERRUPTER DUPLEX RECEPTACLE- MT. 48" AFF AND/OR ABOVE COUNTER TOP OR AS INDICATED
	DOUBLE DUPLEX RECEPTACLE- MT. 16" AFF
20A	DUPLEX RECEPTACLE, NEMA 5-20R- MT. 16" AFF
	DATA/TELEPHONE OUTLET- MT. 16" AFF U.N.O. EXTEND 1"C TO ABOVE ACCESSIBLE CEILING
S	SINGLE POLE TOGGLE SWITCH- MT. 48" UP
S^3	THREE-WAY TOGGLE SWITCH- MT. 48" UP
S^4	FOUR-WAY TOGGLE SWITCH - MT. 48" UP
S_S	MOTOR RATED SWITCH WITH OVERLOAD PROTECTION - MT. 48" UP.
S_M	MOTOR RATED DISCONNECT SWITCH, SINGLE PHASE - MT. 48" UP.
S_O	WALL OCCUPANCY SENSOR, 48" AFF
US	CEILING MOUNTED ULTRASONIC OCCUPANCY SENSOR
S	LED 1% DIMMER, 48" AFF, COMPATIBLE WITH FIXTURES PROVIDED
	PUSH-BUTTON START/STOP SWITCH
EPO	EMERGENCY POWER-OFF PUSHBUTTON STATION
	PANELBOARD, SURFACE MOUNTED
	TELEPHONE OR SIGNAL BACKBOARD, 3/4"X 4'X 8' UNLESS NOTED
T	DRY-TYPE TRANSFORMER - VOLTAGE, PHASE, AND KVA AS INDICATED
	EQUIPMENT AS NOTED
M	ELECTRIC METER
	MOTOR, HORSEPOWER AS INDICATED
	NON-FUSIBLE DISCONNECT SWITCH, RATING/POLES/ENCLOSURE AS INDICATED
	FUSIBLE DISCONNECT SWITCH, RATING/POLES/ENCLOSURE/FUSE RATING AS INDICATED
	MAGNETIC STARTER
	COMBINATION MAGNETIC STARTER/NON-FUSIBLE DISCONNECT SWITCH
T	ELECTRIC THERMOSTAT- MT. 54" A.F.F.
	RACEWAY INSTALLED CONCEALED IN WALLS AND/OR ABOVE CEILING
	RACEWAY INSTALLED CONCEALED IN/OR BELOW FLOOR SLAB OR BELOW GRADE
	RACEWAY INSTALLED EXPOSED
	SURFACE RACEWAY - SEE NOTE G9
	FLEXIBLE METALLIC RACEWAY
	CONDUIT STUB-UP AND HOMERUN
	CONDUIT UP/CONDUIT DOWN
	CONDUIT TERMINATION, STUB-OUT
	GROUND
	GROUND ROD LOCATION
FM	FLOW METER, ULTRASONIC TYPE, PROVIDED BY OTHERS
SV	SOLENOID VALVE, PROVIDED WITH EQUIPMENT, FIELD INSTALLED AND WIRED.
PS	PRESSURE SWITCH, PROVIDED WITH EQUIPMENT, FIELD INSTALLED AND WIRED
SD	STANDALONE 120V PHOTOELECTRIC SMOKE DETECTORS WITH INTEGRAL AUDIBLE SIGNAL
W	WATER COOLER CONNECTION - NOTE G8
SP	POSITION SWITCH FOR SLIDE GATE VALVES. FURNISHED BY OTHERS.

ABBREVIATIONS

A OR AMP	AMPERES	MCB OR MB	MAIN CIRCUIT BREAKER
AFF	ABOVE FINISHED FLOOR	MH OR MTG	MOUNTING HEIGHT
AIC	AMPERE INTERRUPTING CAPACITY	MLO	MAIN LUGS ONLY
AM	AMMETER	MT OR MTD	MOUNT OR MOUNTED
AS	AMMETER SELECTOR SWITCH	NEC	NATIONAL ELECTRICAL CODE
ASYM	ASYMMETRICAL	NFPA	NATIONAL FIRE PROTECTION ASSOC.
ATS	AUTOMATIC TRANSFER SWITCH	NTS	NOT TO SCALE
C	CONDUIT	P	POLE
CB	CIRCUIT BREAKER	PMT	PAD MOUNT TRANSFORMER
CKT	CIRCUIT	PNL	PANELBOARD
CLF	CURRENT LIMITING FUSE	RC	REMOTE CONTROL SWITCH
CNTL	CONTROL	RECEPT	RECEPTACLE
CT	CURRENT TRANSFORMER	RMS	ROOT MEAN SQUARE
D	DEPTH	SW	SWITCH
DISC	DISCONNECT SWITCH	SWBD	SWITCHBOARD
DISC SW	DISCONNECT SWITCH	SYM	SYMMETRICAL
EXP	EXPLOSION PROOF	TBB	TELEPHONE BACKBOARD
	FUSE	TYP	TYPICAL
FA	FIRE ALARM	UG	UNDERGROUND
FACP	FIRE ALARM CONTROL PANEL	UL	UNDERWRITERS LABORATORIES
FMPX	FIRE ALARM MULTIPLEX PANEL	UNO	UNLESS NOTED OTHERWISE
G OR GND	GROUND	V	VOLTS
	HEIGHT	VM	VOLTMETER
HP	HORSEPOWER	VS	VOLTMETER SELECTOR SWITCH
JB OR J	JUNCTION BOX	W	WIDTH
KVA	KILOVOLT - AMPS	W/	WITH
KW	KILOWATTS	WHDM	WATT HOUR DEMAND METER
	LENGTH	WM	WATTMETER
LA	LIGHTNING ARRESTOR	WP	WEATHER PROOF
		XFMR	TRANSFORMER

DEMOLITION NOTES:

D1. REMOVE ALL ELECTRICAL EQUIPMENT FROM AREAS FOR NEW STORAGE AND OFFICES SHOWN ON SHEETS E-301, 302, 303 AND 304.

GENERAL NOTES: (FOR ALL DRAWINGS WHERE APPLICABLE)

G1. WHEN CONDUCTOR SIZE IS INDICATED FOR BRANCH CIRCUIT HOME RUN, THE CONDUCTOR SIZE INDICATED SHALL BE USED FOR THE COMPLETE CIRCUIT.

G2. ALL EQUIPMENT SUPPORTS AND HANGERS SHALL BE COORDINATED WITH STRUCTURAL DRAWINGS TO INSURE THAT LOCATION OF SUPPORTS AND HANGERS OCCUR WITHIN 4" OF PANEL POINT.

G3. PIPING HEAT TAPE CONNECTIONS SHALL BE DIRECT CONNECTIONS.

G4. GROUNDING CONDUCTORS SHALL BE PROVIDED FOR ALL BRANCH CIRCUITS. REFER TO SECONDARY GROUNDING SPECIFICATION SECTION.

G5. THE CONTRACTOR SHALL COORDINATE THE ELECTRICAL REQUIREMENTS OF THE EQUIPMENT PROVIDED WITH THE DRAWINGS. ANY DISCREPANCIES SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER. ANY REQUIRED ADJUSTMENTS IN BREAKER RATINGS, MOTOR CONTROLLERS, FEEDERS, ETC. SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER. ALL REQUIRED ADJUSTMENTS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER BEFORE PROCEEDING.

G6. THE AUTOMATIC TRANSFER SWITCH SHALL PROVIDE A PRE TRANSFER AND POST TRANSFER SIGNAL TO THE IN-PLANT SCADA SYSTEM. THE SCADA PANEL SHALL PROVIDE THE LOAD STEP SEQUENCE REQUIRED IN SPECIFICATION SECTION 263213.

G7. THE GENERATOR REMOTE ANNUNCIATOR SHALL BE LOCATED IN THE CONTROL BUILDING. COORDINATE TRANSMISSION OF SIGNAL FROM THE GENERATOR TO THE CONTROL ROOM.

G8. PROVIDE GFI RECEPTACLE IN ACCESSIBLE LOCATION IN WATER COOLER HOUSING.

G9. SURFACE RACEWAYS MOUNTED ABOVE LAB COUNTERS ARE TO BE TWO COMPARTMENT. ALUMINUM SIMILAR TO WIREMOLD AL 4000 WITH ALL MOUNTING ACCESSORIES. MOUNT OUTLET BOXES FLUSH IN WALL TO CIRCUITS WIRING INTO RACEWAY. PROVIDE ONE BOX FOR EVERY 2 CIRCUITS SHOWN PER SECTION. COORDINATE WITH DATA OUTLET BOXES TO BE CONCEALED IN WALL. PROVIDE WIREWAY COVERS FOR DATA JACKS BY OWNER.

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE DATE

30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020
PROJECT MANAGER:	
ENGINEER:	
DESIGNER:	CC
DRAWN BY:	LC

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

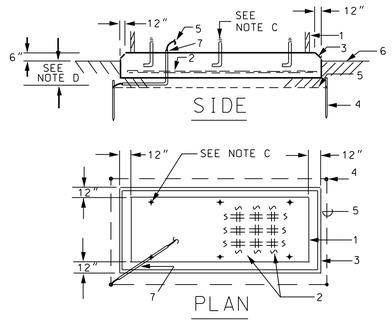
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA PROFESSIONAL ENGINEER No. 032192 CHARLES B. GOODWYN 14May2020

LEGEND SHEET

E-001

CADD PLOT
14-MAY-2020
11:24
ALAWSON



1 – GENERATOR SET ENCLOSURE OUTLINE
2 – REINFORCING STEEL, NOTE A
3 – 1" CHAMFER
4 – ¾" X 10' COPPERCLAD GROUND ROD AND
5 – #1/0 CU BARE GROUND CONDUCTOR
6 – FINISHED GRADE
7 – ¾" PVC, SEE NOTE B
8 – SILICONE CAULK WATERTIGHT SEAL

NOTES: GENERATOR FOUNDATION DETAIL

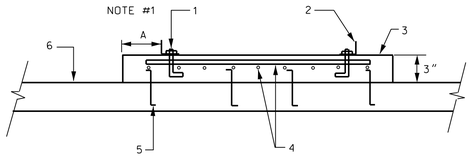
A. #8 GA. STEEL WIRE MESH, 6" O.C. OR #6 REBAR, 12" O.C., HORIZ. & VERTICALLY.

B. CONNECT TO GENERATOR GROUND CONNECTION LUG. VERIFY STUB UP LOCATION WITH MANUFACTURERS SHOP DRAWINGS. WATERPROOF CONDUIT END WITH SEALING COMPOUND.

C. ANCHOR BOLTS FURNISHED WITH GENERATOR SET. PROVIDE SIX MINIMUM. TIE TO REINFORCING STEEL.

D. DIMENSION SHALL BE 6" (12" OVERALL DEPTH) UP TO & INCLUDING 600 KW, 12" (18" OVERALL DEPTH) LARGER THAN 600 KW.

1 GENERATOR FOUNDATION DETAIL
E0.2 N. T. S.



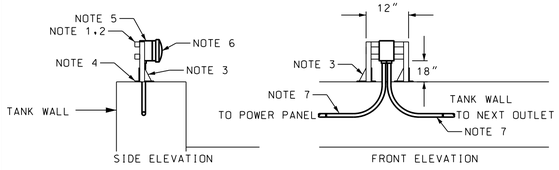
1. ½" GALV. ANCHOR BOLTS – 24" O.C. MIN.
2. ELECTRICAL EQUIPMENT MOUNTING FRAME
3. HOUSEKEEPING BASE
4. REINFORCING #4 BAR 12" O.C. BOTH DIRECTIONS
5. #4 Z BAR DOWELLS – 12" O.C. BOTH DIRECTIONS
6. FLOOR SLAB

NOTES: ELECTRICAL EQUIPMENT HOUSEKEEPING BASE

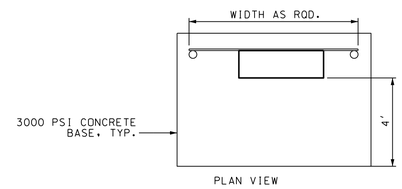
1. DIMENSION "A" SHALL EXCEED DIMENSIONS OF EQUIPMENT BASE BY NOT LESS THAN THREE INCHES IN ALL DIMENSIONS.

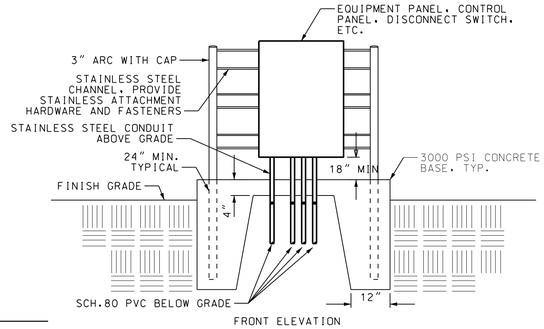
2. THIS DETAIL SHALL BE APPLICABLE TO MAIN SWITCHBOARD, FLOOR MOUNTED DRY TYPE TRANSFORMER, FLOOR MOUNTED AUTOMATIC TRANSFER SWITCHES, COMMUNICATION EQUIPMENT RACKS AND OTHER FLOOR MOUNTED ELECTRICAL EQUIPMENT EXCEEDING 200 LBS IN WEIGHT.

5 ELECTRICAL EQUIPMENT HOUSEKEEPING BASE
E0.2 N. T. S.

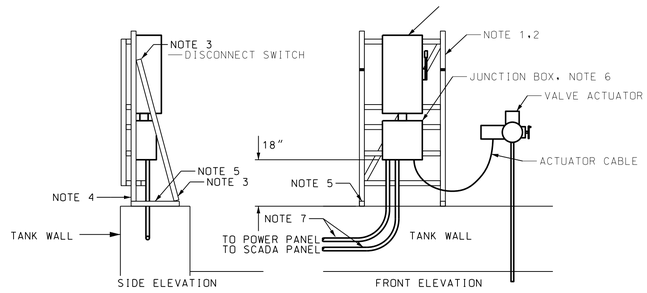


8 RECEPTACLE DETAIL
E0.2 N. T. S.





2 EQUIPMENT RACK
E0.2 N. T. S.



NOTES: 480V VALVE ACTUATOR DISCONNECT DETAIL

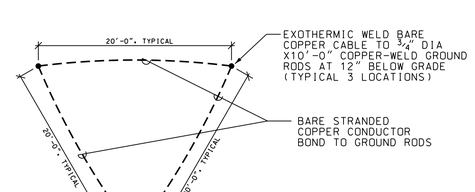
1. ALL CHANNEL, FASTENERS, ACCESSORIES, ETC. SHALL BE 304 STAINLESS STEEL, MINIMUM. PROVIDE PRODUCTS OF B-LINE, UNISTRUT OR POWERSTRUT.
2. 12GA, 304 STAINLESS STEEL CHANNEL, 1⅝" X 1⅝", B-LINE B22 SERIES OR EQUAL.
3. B-LINE B335 FOUR-HOLE ADJUSTABLE HINGE, FOUR LOCATIONS.
4. B-LINE B104 FOUR-HOLE CORNER ANGLE.
5. PROVIDE FOUR RED HEAD TRUBOLT TYPE 316 ANCHORS TO SECURE FRAME TO STRUCTURE, PROVIDE SWW1236, ½"X3¾" ANCHOR.
6. JUNCTION BOX SHALL HAVE POWER TERMINAL BLOCK AND TERMINAL STRIP AS REQUIRED FOR TERMINATION OF ACTUATOR CABLE CONDUCTORS. A CORD GRIP AND KELLUM GRIP CABLE SUPPORT SHALL BE PROVIDED FOR THE MOTOR CABLE. FIELD COORDINATE REQUIRED TERMINAL WITH EQUIPMENT PROVIDED. PROVIDE SINGLE EYE, CLOSED MESH KELLUM, FIELD COORDINATE WITH CABLE FURNISHED BY OTHERS.
7. STAINLESS STEEL CONDUIT FROM WITHIN CONCRETE TO JUNCTION BOX. PVC WITHIN CONCRETE. NO FITTINGS ALLOWED 18" OR LESS ABOVE TANK WALL.

6 480V VALVE ACTUATOR DISCONNECT DETAIL
E0.2 N. T. S.

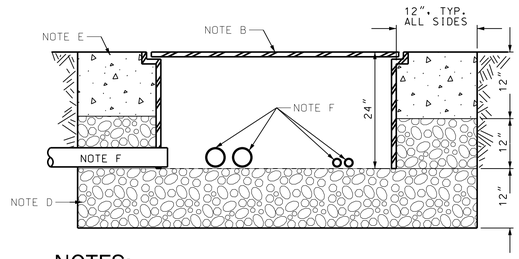
NOTES: RECEPTACLE DETAIL

1. ALL CHANNEL, FASTENERS, ACCESSORIES, ETC. SHALL BE 304 STAINLESS STEEL, MINIMUM. PROVIDE PRODUCTS OF B-LINE, UNISTRUT OR POWERSTRUT.
2. 12GA, 304 STAINLESS STEEL CHANNEL, 1⅝" X 1⅝", B-LINE B22 SERIES OR EQUAL.
3. B-LINE B278 STAINLESS STEEL POST BASE FOR B22, TWO PER ASSEMBLY.
4. PROVIDE SIX RED HEAD TRUBOLT TYPE 316 ANCHORS TO SECURE FRAME TO STRUCTURE, PROVIDE SWW1236, ½"X3¾" ANCHOR.
5. RECEPTACLE OUTLET BOX SHALL BE A CROUSE-HINDS FDS2SS, STAINLESS STEEL DEVICE BOX WITH TWO ¾" CONDUIT HUBS.
6. RECEPTACLE OUTLET WEATHERPROOF COVER SHALL BE A CALBRITE STAINLESS STEEL 1-GANG DEEP LID WEATHERPROOF COVER, S60000FVCD.
7. STAINLESS STEEL CONDUIT FROM WITHIN CONCRETE TO OUTLET BOX, PVC WITHIN CONCRETE. NO FITTINGS ALLOWED 18" OR LESS ABOVE TANK WALL.

8 RECEPTACLE DETAIL
E0.2 N. T. S.



3 SECONDARY ELECTRICAL GROUNDING
E0.2 N. T. S.



NOTES: JUNCTION BOX – FLUSH WITH FINISHED GRADE

A. JUNCTION BOXES SHALL BE QUAZITE POLYMER CONCRETE TYPE "PG" OPEN BOTTOM, OR EQUIVALENT BY OLD CASTLE OR PENCEL.

B. THE COVER SHALL BE TIER 22 RATED. LOGO – "ELECTRIC".

C. BOX DIMENSIONS SHALL BE AS NOTED ON THE DRAWINGS.

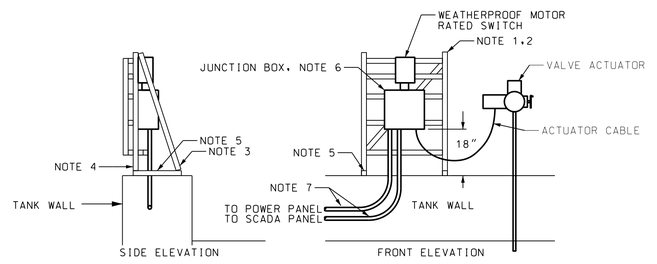
D. PROVIDE A BASE OF CRUSHED STONE, 12" DEEP AND EXTENDING 12" BEYOND THE BOX ON ALL SIDES.

E. PROVIDE A CONCRETE SUPPORT AROUND THE BOX, 12" WIDE AND 12" DEEP, ALL SIDES.

F. CONDUIT ENTRY SHALL BE THROUGH THE SIDE WALL AT THE BOTTOM BELOW THE CONCRETE OR UP THROUGH THE BOTTOM.

G. FOR ALL CONDUCTORS: PROVIDE PERMANENT TAGS IDENTIFYING ALL CABLES.

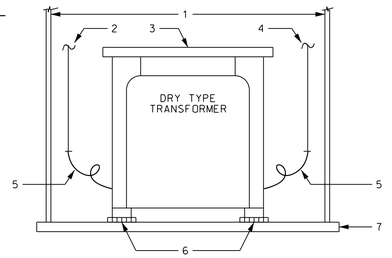
4 JUNCTION BOX - FLUSH WITH FINISHED GRADE
E0.2 N. T. S.



NOTES: 120V VALVE ACTUATOR DISCONNECT DETAIL

1. ALL CHANNEL, FASTENERS, ACCESSORIES, ETC. SHALL BE 304 STAINLESS STEEL, MINIMUM. PROVIDE PRODUCTS OF B-LINE, UNISTRUT OR POWERSTRUT.
2. 12GA, 304 STAINLESS STEEL CHANNEL, 1⅝" X 1⅝", B-LINE B22 SERIES OR EQUAL.
3. B-LINE B335 FOUR-HOLE ADJUSTABLE HINGE, FOUR LOCATIONS.
4. B-LINE B104 FOUR-HOLE CORNER ANGLE.
5. PROVIDE FOUR RED HEAD TRUBOLT TYPE 316 ANCHORS TO SECURE FRAME TO STRUCTURE, PROVIDE SWW1236, ½"X3¾" ANCHOR.
6. JUNCTION BOX SHALL HAVE POWER TERMINAL BLOCK AND TERMINAL STRIP AS REQUIRED FOR TERMINATION OF ACTUATOR CABLE CONDUCTORS. A CORD GRIP AND KELLUM GRIP CABLE SUPPORT SHALL BE PROVIDED FOR THE MOTOR CABLE. FIELD COORDINATE REQUIRED TERMINAL WITH EQUIPMENT PROVIDED. PROVIDE SINGLE EYE, CLOSED MESH KELLUM, FIELD COORDINATE WITH CABLE FURNISHED BY OTHERS.
7. STAINLESS STEEL CONDUIT FROM WITHIN CONCRETE TO JUNCTION BOX. PVC WITHIN CONCRETE. NO FITTINGS ALLOWED 18" OR LESS ABOVE TANK WALL.

7 120V VALVE ACTUATOR DISCONNECT DETAIL
E0.2 N. T. S.



1. ⅜" THREADED RODS – FOUR REQUIRED.
2. PRIMARY (CONDUIT ATTACHED TO WALL).
3. MAINTAIN 12" CLEARANCE BETWEEN TOP OF TRANSFORMER AND CEILING OR OTHER OBSTRUCTION. BOLT TRANSFORMER TO CHANNEL.
4. SECONDARY (CONDUIT ATTACHED TO WALL).
5. FLEXIBLE CONDUIT MAX. LENGTH – 18".
6. 1" THICK LAMINATED CORK & NEOPRENE VIBRATION ISOLATING PAD.
7. 3"x1½", 12 GAUGE CHANNEL, OPEN UP.

9 SUSPENDED TRANSFORMER INSTALLATION DETAIL
E0.2 N. T. S.

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	09.09.2019	CC
70% SUBMITTAL	12.16.2019	
100% SUBMITTAL	03.12.2020	LC
CONSTRUCTION SUBMITTAL	06.01.2020	

PROJECT MANAGER:
ENGINEER:
DESIGNER:
DRAWN BY:

1" 0" .5" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER CHARLES B. LEWIS No. 032192 PROFESSIONAL 14May2020

DETAIL SHEETS

E-002

CADD PLOT
14-MAY-2020
11:28
ALAWSON

E:\BGJWSC 2019 Water Pollution Control Facilities Rehab Academy Creek - 19069.00\CADD\E-002.dgn

LIGHTING FIXTURE SCHEDULE - NOTE LF-1,2,5

NOTE:
LAMPS ARE SPECIFIED BY LAMP ORDERING CODE NOT ANSI CODE NUMBER. SINGLE NUMERAL PREFIX INDICATES NUMBER OF LAMPS IN FIXTURE (ex: 3-F40WW). IF NO PREFIX IS INDICATED, THE FIXTURE HAS ONE LAMP (ex: 150A-19). STEM LENGTH FOR FIXTURES AND MOUNTING HEIGHTS FOR WALL FIXTURES ARE INDICATED IN THE LIGHTING FIXTURE NOTES. MOUNTING ABBREVIATIONS: R - RECESSED, S - SURFACE, W - WALL, P - PENDANT, C - SUSPENDED.

TYPE	DESCRIPTION	LED	MOUNTING	NOTES
A	2 X 4 LED FLAT PANEL FIXTURE			
	METALUX 24FP6440C-FPEQ	6800L LED	R	LF-2.6
		4000K 62W		
B	SURFACE MOUNTED WRAPAROUND FIXTURE 10% DIMMING DRIVER			
	METALUX 4WSNLEDLD464HLUNVCDL840SCS	6400L LED	P	LF-2.6
		4000K 73W		
C	4 FT LED STRIP FIXTURE			
	METALUX 4SNLEDLD549LNL840CD1	4900L LED	S	LF-2
		4000K 28W		
F	EXTERIOR WALL PACK W/ INTEGRAL BATTERIES			
	LUMARK AXCS4ARLPC	5800L LED	W	LF-2.8
		4000K 44W		
H	LED SURFACE MOUNTED FIXTURE			
	LUMARK CLCSLED86SMUNV	11,500L LED	S	LF-2
		4000K 92W		
K	RECESSED LED SHOWER LIGHT			
	PORTFOLIO LDS4B15D010EU4B1020404LBSOL1	1500L LED	R	LF-2.7
		4000K 15W		
L	SURFACE MTD LED WRAPAROUND FIXTURE			
	METALUX 4NLW4040C	4600L LED	S/P	LF-2.6
		4000K 38W		
M	LED ROUND HIGH BAY			
	METALUX UHB-18-UNV-L840-CD	4000K LED	P (HOOK)	LF-9
		153W		
N	LED VAPORTITE			
	METALUX 4VT2-LD5-6-DR100-W-UNV-L840-CD1-WL-SSL-VT2-SS-MBK	LED	WALL	LF-10
			SURFACE	
XA	SINGLE FACE EXIT LIGHT			
	SURELITES APC71R	LED	W/C	LF-3.4
XB	DOUBLE FACE EXIT LIGHT			
	SURELITES APC72R	LED	W/C	LF-3.4

NOTES: LIGHTING FIXTURE SCHEDULE

LF-1. FIXTURES SPECIFIED INDICATE LEVEL OF QUALITY OF FIXTURES. SIMILAR FIXTURES ARE ACCEPTABLE AFTER REVIEW AND APPROVED BY ARCHITECT.

LF-2. ALL LED LIGHTS TO BE RATED FOR 4000° K COLOR.

LF-3. PROVIDE BATTERY CAPACITY IN EXIT LIGHT FOR INTEGRAL LIGHTS PLUS REMOTE HEADS SHOWN.

LF-4. PROVIDE ARROWS AS SHOWN ON DRAWINGS.

LF-5. PROVIDE ALL DLC RATED FIXTURES CAPABLE OF OBTAINING GA POWER REBATES.

LF-6. PROVIDE FIXTURES WITH INTEGRAL BATTERY PACKS WHERE INDICATED ON DRAWINGS.

LF-7. FIXTURES TO HAVE DAMP LABEL.

LF-8. PROVIDE INTEGRAL PHOTOCELL AND EMERGENCY BATTERY PACK.

LF-9. NINE TYPE M FIXTURES SHALL BE INSTALLED IN THE COMPOSTING BUILDING AROUND THE NEW SOLIDS HANDLING EQUIPMENT. INSTALL AT EXISTING FIXTURE LOCATIONS; MODIFY EXISTING OUTLET FOR CLOSE TO CEILING INSTALLATION USING FIXTURE HOOK. BOTTOM OF FIXTURE SHALL NOT EXCEED 12" FROM BOX.

LF10. WALL MOUNT FIXTURE TO DISK FILTER PIT BELOW UPPER GRATING.

SCHEDULE PANELBOARD AA (SECTION 1)

	MAINS		VOLTAGE	PHASE	WIRE		MOUNTING			
	225	MLO	120/208	3	4		SURFACE			
CIR. #	TRIP/ POLE	KVA	DESCRIPTION	CONNECTED LOAD KVA PH. A	PH. B	PH. C	DESCRIPTION	KVA	TRIP/ POLE	CIR. #
1	20/1	0.20	RECEPTACLES	0.4			RECEPTACLES	0.20	20/1	2
3	20/1	0.60	RECEPTACLES		1.4		OFFICE	0.80	20/1	4
5	20/1	0.90	RECEPTACLES			1.7	OFFICE	0.80	20/1	6
7	20/1	0.40	RECEPTACLES	0.6			OFFICE	0.20	20/1	8
9	20/1	0.60	RECEPTACLES		0.6		SPARE		20/1	10
11	20/1	0.60	RECEPTACLES			0.6	SPARE		20/1	12
13	20/1	0.60	RECEPTACLES	0.6			SPARE		20/1	14
15	20/1	0.40	RECEPTACLES		0.4		SPARE		20/1	16
17	20/1	0.60	RECEPTACLES			0.6	SPARE		20/1	18
19	20/1	0.90	RECEPTACLES	0.9			SPARE		20/1	20
21	20/1		SPARE		0.0		SPARE		20/1	22
23	20/1		SPARE			0.0	SPARE		20/1	24
25	20/1	1.20	FUME HOOD - 6	1.2			SPARE		20/1	26
27	20/1	1.60	WATER BATH - 5		1.6		SPARE		20/1	28
29	20/1/GF	1.20	DISHWASHER - 4			1.2	SPARE		20/1	30
31	20/2	1.00	OVEN - 3	1.0			SPARE		20/1	32
33	-	1.00			1.0		SPARE		20/1	34
35	30/2	2.00	MUFFLE FURNACE - 2			2.0	SPARE		20/1	36
37	-	2.00		2.9			LAB RECEPTACLES	0.90	20/1	38
39	20/2	1.20	AUTOCLAVE - 1		1.8		LAB RECEPTACLES	0.60	20/1	40
41	-	1.20				1.8	LAB RECEPTACLES	0.60	20/1	42
MIN. BREAKER AIC:			10,000 AIC	7.6	6.8	7.9	TOTAL CONNECTED LOAD	22.3		
NOTES :				7.6	6.8	7.9	TOTAL DEMAND LOAD	22.3		

SCHEDULE PANELBOARD AA (SECTION 2)

	MAINS		VOLTAGE	PHASE	WIRE		MOUNTING			
	225	MLO	120/208	3	4		SURFACE			
CIR. #	TRIP/ POLE	KVA	DESCRIPTION	CONNECTED LOAD KVA PH. A	PH. B	PH. C	DESCRIPTION	KVA	TRIP/ POLE	CIR. #
43	20/1	0.80	RECEPTACLES	1.7			LAB RECEPTACLES	0.90	20/1	44
45	20/1	0.80	RECEPTACLES		1.4		LAB RECEPTACLES	0.60	20/1	46
47	20/1		SPARE			0.6	LAB RECEPTACLES	0.60	20/1	48
49	20/1		SPARE	0.0			SPARE		20/1	50
51	20/1		SPARE		0.0		SPARE		20/1	52
53	20/1		SPARE			0.0	SPARE		20/1	54
55	15/2	0.10	HEADER	0.1			SPARE		20/1	56
57	-	0.10			0.1		SPARE		20/1	58
59	15/2	0.40	IHP1-1, 2, 3, 4, 5, 6			0.4	SPARE		20/1	60
61	-	0.40		1.6			FUME HOOD - 6	1.20	20/1	62
63	15/2	0.40	IHP3-1, 3. 5		2.0		WATER BATH - 5	1.60	20/1	64
65	-	0.40				1.6	DISHWASHER - 4	1.20	20/1/GF	66
67	15/2	0.40	IHP3-2, 4, 6	1.4			OVEN - 3	1.00	20/2	68
69	-	0.40			1.4			1.00	-	70
71	20/2		SPARE			2.0	MUFFLE FURNACE - 2	2.00	30/2	72
73	-			2.0				2.00	-	74
75	30/2		SPARE		1.2		AUTOCLAVE - 1	1.20	20/2	76
77	-					1.2		1.20	-	78
79	/3		SPACE	0.0			SPACE		/3	80
81	-				0.0				-	82
83	-					0.0			-	84
MIN. BREAKER AIC:			10,000 AIC	14.4	12.9	13.7	TOTAL CONNECTED LOAD	41		
NOTES :				14.2	12.7	13.7	TOTAL DEMAND LOAD	40.52		

SCHEDULE PANELBOARD AB

	MAINS		VOLTAGE	PHASE	WIRE		MOUNTING			
	100	MLO	120/208	3	4		SURFACE			
CIR. #	TRIP/ POLE	KVA	DESCRIPTION	CONNECTED LOAD KVA PH. A	PH. B	PH. C	DESCRIPTION	KVA	TRIP/ POLE	CIR. #
1	20/1	0.60	RECEPTACLES	1.4			RECEPTACLES	0.80	20/1	2
3	20/1	0.60	RECEPTACLES		1.4		RECEPTACLES	0.80	20/1	4
5	20/1	0.80	RECEPTACLES			1.6	RECEPTACLES	0.80	20/1	6
7	20/1	0.80	RECEPTACLES	1.6			RECEPTACLES	0.80	20/1	8
9	20/1	0.90	RECEPTACLES		1.7		RECEPTACLES	0.80	20/1	10
11	20/1	0.90	RECEPTACLES			1.7	WATER COOLER	0.80	20/1	12
13	20/1	1.50	RECEPTACLES	2.5			FAN	1.00	20/1	14
15	20/1	1.50	RECEPTACLES		1.6		F-4	0.10	20/1	16
17	20/1	0.20	RECEPTACLES			0.2	SPARE		20/1	18
19	20/1	0.80	RECEPTACLES	0.8			SPARE		20/1	20
21	20/1	0.40	EXT. RECEPTACLES		0.4		SPARE		20/1	22
23	20/1	0.40	EXT. RECEPTACLES			0.4	SPARE		20/1	24
25	20/1		SPARE	0.0			SPARE		20/1	26
27	20/1		SPARE		0.0		SPARE		20/1	28
29	20/1		SPARE			0.0	SPARE		20/1	30
31	20/1		SPARE	0.0			SPARE		20/1	32
33	20/1		SPARE		0.0		SPARE		20/1	34
35	40/2	2.40	OHP-2			2.4	SPARE		20/1	36
37	-	2.40		2.4			SPARE		20/1	38
39	15/2	0.50	IHP-2-5, 6, 7, 10, 11, 12,		0.5		SPARE		20/1	40
41	-	0.50	17, 18, 19, 21			0.5	SPARE		20/1	42
MIN. BREAKER AIC:			10,000 AIC	8.7	5.6	6.8	TOTAL CONNECTED LOAD	21.1		
NOTES:				6.8	4.1	5.6	TOTAL DEMAND LOAD	16.51		

SCHEDULE PANELBOARD AC

	MAINS		VOLTAGE	PHASE	WIRE		MOUNTING			
	100	MLO	120/208	3	4		SURFACE			
CIR. #	TRIP/ POLE	KVA	DESCRIPTION	CONNECTED LOAD KVA PH. A	PH. B	PH. C	DESCRIPTION	KVA	TRIP/ POLE	CIR. #
1	20/1	0.60	RECEPTACLES	1.4			RECEPTACLES	0.80	20/1	2
3	20/1	0.60	RECEPTACLES		1.4		RECEPTACLES	0.80	20/1	4
5	20/1	0.80	RECEPTACLES			1.6	RECEPTACLES	0.80	20/1	6
7	20/1	0.60	RECEPTACLES	1.4			RECEPTACLES	0.80	20/1	8
9	20/1	0.90	RECEPTACLES		1.7		RECEPTACLES	0.80	20/1	10
11	20/1	0.90	RECEPTACLES			1.7	RECEPTACLES	0.80	20/1	12
13	20/1	1.50	RECEPTACLES	2.5			FANS	1.00	20/1	14
15	20/1	1.50	RECEPTACLES		2.1		EF F-3	0.60	20/1	16
17	20/1		SPARE			0.0	SPARE		20/1	18
19	20/1	0.80	RECEPTACLES	0.8			SPARE		20/1	20
21	20/1		SPARE		0.0		SPARE		20/1	22
23	20/1		SPARE			0.0	SPARE		20/1	24
25	20/1		SPARE	0.0			SPARE		20/1	26
27	20/1		SPARE		0.0		SPARE		20/1	28
29	20/1		SPARE			0.0	SPARE		20/1	30
31	20/1		SPARE	0.0			SPARE		20/1	32
33	20/1		SPARE		0.0		SPARE		20/1	34
35	40/2	2.40	OHP-1			2.4	SPARE		20/1	36
37	-	2.40		2.4			SPARE		20/1	38
39	15/2	0.50	IHP-2-1, 2, 3, 4, 9, 13, 14,		0.5		SPARE		20/1	40
41	-	0.50	15, 16, 20			0.5	SPARE		20/1	42
MIN. BREAKER AIC:			10,000 AIC	8.5	5.7	6.2	TOTAL CONNECTED LOAD	20.4		
NOTES:				6.0	4.0	4.3	TOTAL DEMAND LOAD	14.28		

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE DATE

30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020
PROJECT MANAGER:	
ENGINEER:	PM
DESIGNER:	LC
DRAWN BY:	

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 032192 — 14 May 2020 — GOODWYN, MILLS AND CAWOOD, INC. CERTIFICATE OF AUTHORIZATION NO. PEC000809

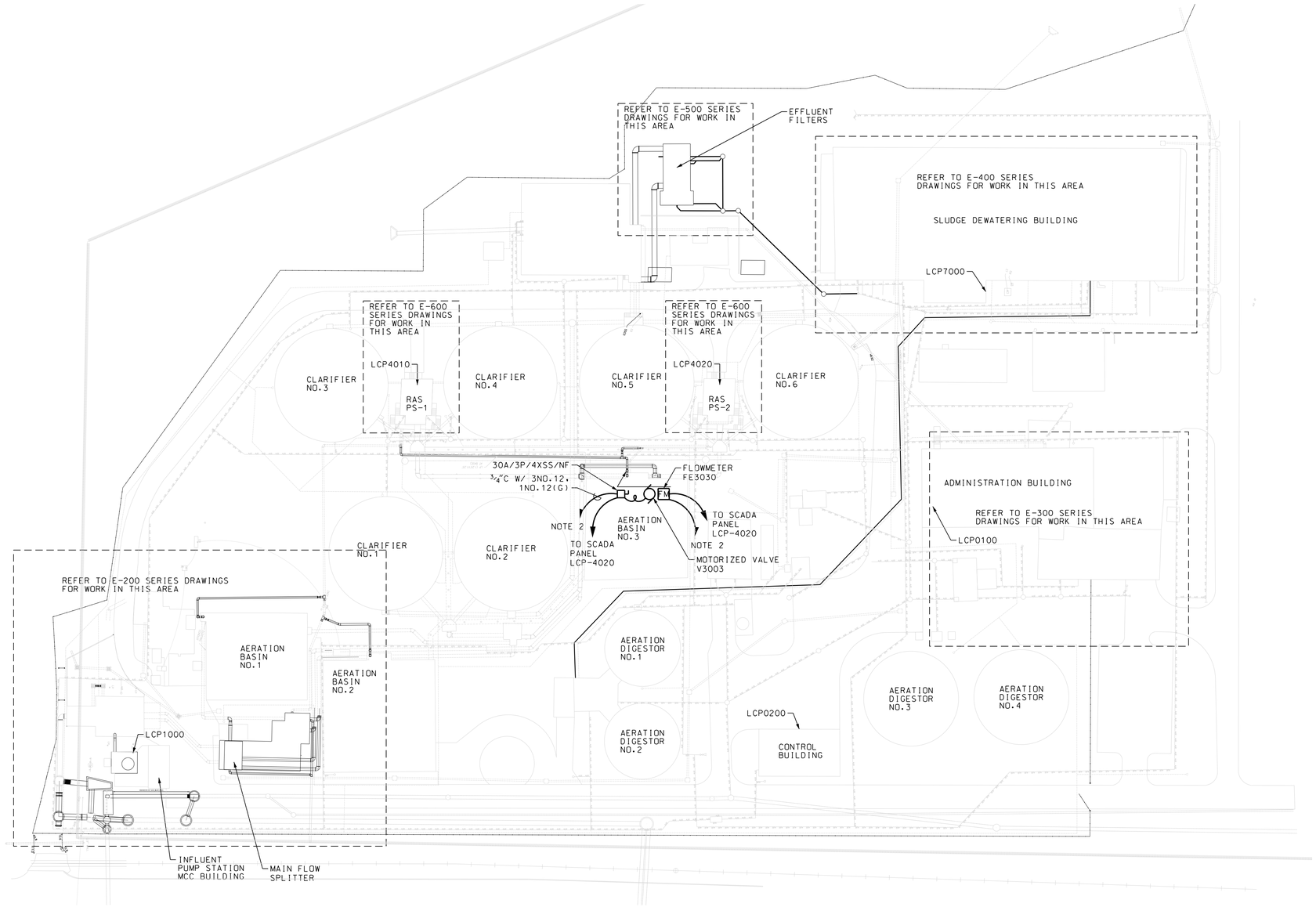
LIGHTING FIXTURE & PANEL SCHEDULES

E-003

CADD PLOT
14-MAY-2020
11:29
ALAWSON

NOTE

1. REFER TO SHEET I-100 FOR DIAGRAMMATICAL ROUTE OF OPTICAL FIBER CABLE
2. FEED FROM RAS-2 PUMP STATION MCC & PANEL. REFER TO DRAWING E-601



1 E-100 OVERALL SITE PLAN
SCALE: 1" = 50' - 0"

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE	
30% SUBMITTAL	09.09.2019	
70% SUBMITTAL	12.16.2019	
100% SUBMITTAL	03.12.2020	
CONSTRUCTION SUBMITTAL	06.01.2020	
PROJECT MANAGER:		
ENGINEER:		CC
DESIGNER:		LC
DRAWN BY:		

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

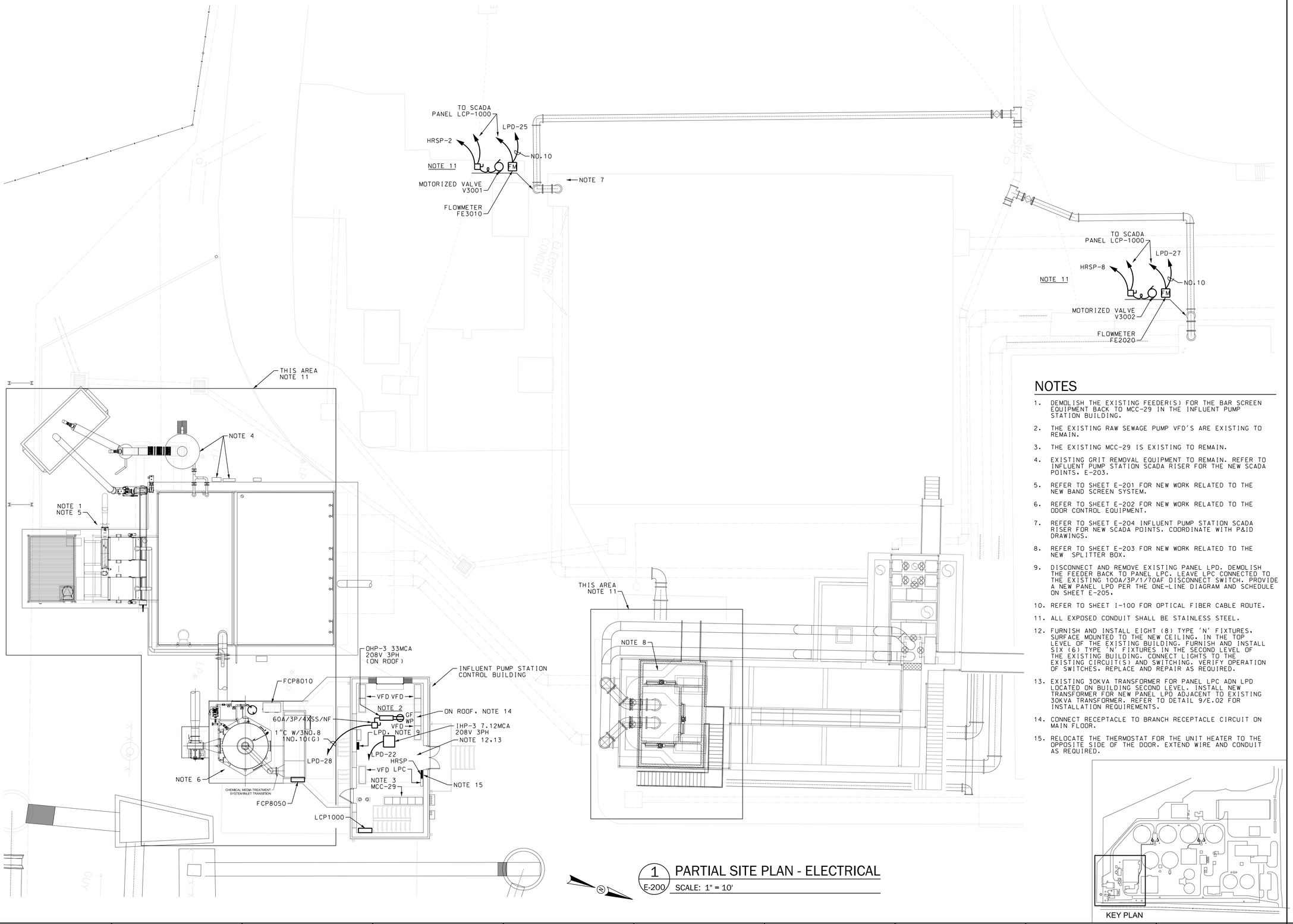
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA PROFESSIONAL ENGINEER No. 032192 CHARLES B. CROSS 14May2020

OVERALL SITE PLAN

E-100

CADD PLOT
14-MAY-2020
11:33
ALAWSON



NOTES

1. DEMOLISH THE EXISTING FEEDER(S) FOR THE BAR SCREEN EQUIPMENT BACK TO MCC-29 IN THE INFLUENT PUMP STATION BUILDING.
2. THE EXISTING RAW SEWAGE PUMP VFD'S ARE EXISTING TO REMAIN.
3. THE EXISTING MCC-29 IS EXISTING TO REMAIN.
4. EXISTING GRIT REMOVAL EQUIPMENT TO REMAIN. REFER TO INFLUENT PUMP STATION SCADA RISER FOR THE NEW SCADA POINTS. E-203.
5. REFER TO SHEET E-201 FOR NEW WORK RELATED TO THE NEW BAND SCREEN SYSTEM.
6. REFER TO SHEET E-202 FOR NEW WORK RELATED TO THE ODOR CONTROL EQUIPMENT.
7. REFER TO SHEET E-204 INFLUENT PUMP STATION SCADA RISER FOR NEW SCADA POINTS. COORDINATE WITH P&ID DRAWINGS.
8. REFER TO SHEET E-203 FOR NEW WORK RELATED TO THE NEW SPLITTER BOX.
9. DISCONNECT AND REMOVE EXISTING PANEL LPD. DEMOLISH THE FEEDER BACK TO PANEL LPC. LEAVE LPC CONNECTED TO THE EXISTING 100A/3P/1,70AF DISCONNECT SWITCH. PROVIDE A NEW PANEL LPD PER THE ONE-LINE DIAGRAM AND SCHEDULE ON SHEET E-205.
10. REFER TO SHEET I-100 FOR OPTICAL FIBER CABLE ROUTE.
11. ALL EXPOSED CONDUIT SHALL BE STAINLESS STEEL.
12. FURNISH AND INSTALL EIGHT (8) TYPE 'N' FIXTURES, SURFACE MOUNTED TO THE NEW CEILING, IN THE TOP LEVEL OF THE EXISTING BUILDING. FURNISH AND INSTALL SIX (6) TYPE 'N' FIXTURES IN THE SECOND LEVEL OF THE EXISTING BUILDING. CONNECT LIGHTS TO THE EXISTING CIRCUIT(S) AND SWITCHING. VERIFY OPERATION OF SWITCHES, REPLACE AND REPAIR AS REQUIRED.
13. EXISTING 30KVA TRANSFORMER FOR PANEL LPC ADN LPD LOCATED ON BUILDING SECOND LEVEL. INSTALL NEW TRANSFORMER FOR NEW PANEL LPD ADJACENT TO EXISTING 30KVA TRANSFORMER. REFER TO DETAIL 9/E.02 FOR INSTALLATION REQUIREMENTS.
14. CONNECT RECEPTACLE TO BRANCH RECEPTACLE CIRCUIT ON MAIN FLOOR.
15. RELOCATE THE THERMOSTAT FOR THE UNIT HEATER TO THE OPPOSITE SIDE OF THE DOOR. EXTEND WIRE AND CONDUIT AS REQUIRED.

1 E-200 PARTIAL SITE PLAN - ELECTRICAL
SCALE: 1" = 10'

CADD PLOT
14-MAY-2020
15:43
CCOBB

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020
PROJECT MANAGER:	CC
ENGINEER:	CC
DESIGNER:	AL
DRAWN BY:	CC/AL

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

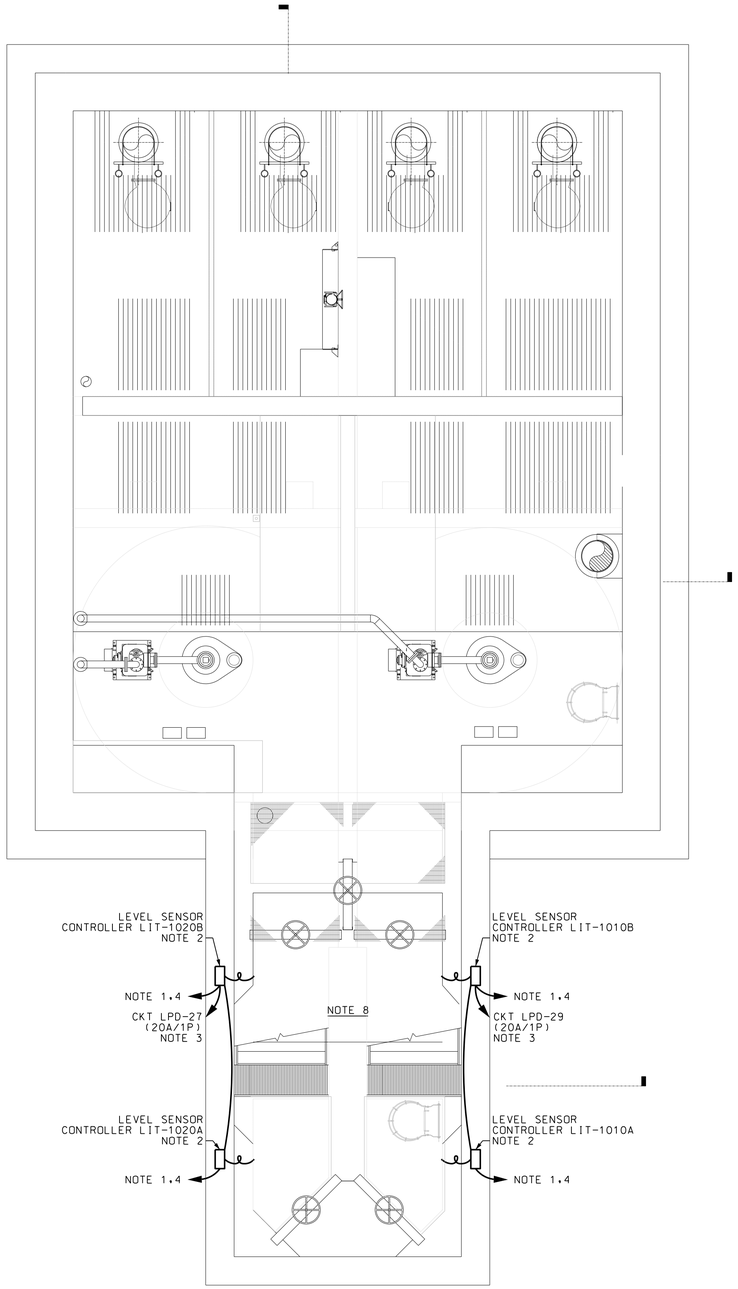
RECORD DRAWING AS-BUILT
PROFESSIONAL ENGINEER
No. 032192
CHARLES B. COBB
14 May 2020

HEADWORKS PARTIAL
SITE PLAN - ELECTRICAL

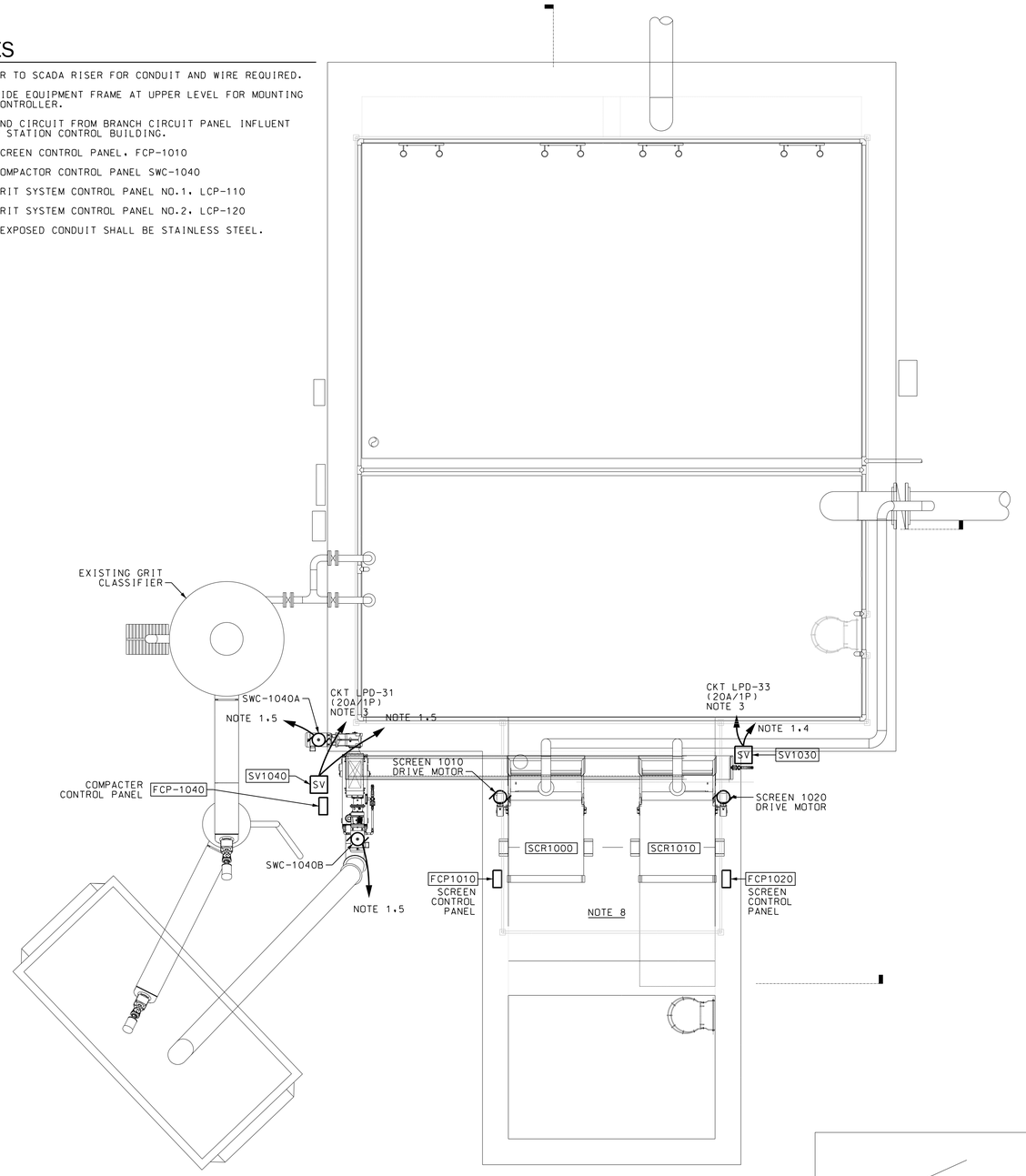
E-200

NOTES

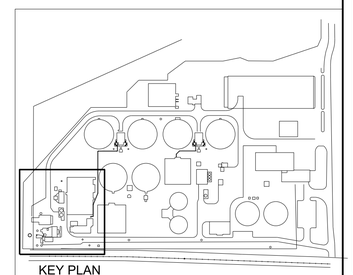
1. REFER TO SCADA RISER FOR CONDUIT AND WIRE REQUIRED.
2. PROVIDE EQUIPMENT FRAME AT UPPER LEVEL FOR MOUNTING OF CONTROLLER.
3. EXTEND CIRCUIT FROM BRANCH CIRCUIT PANEL INFLUENT PUMP STATION CONTROL BUILDING.
4. TO SCREEN CONTROL PANEL, FCP-1010
5. TO COMPACTOR CONTROL PANEL SWC-1040
6. TO GRIT SYSTEM CONTROL PANEL NO.1, LCP-110
7. TO GRIT SYSTEM CONTROL PANEL NO.2, LCP-120
8. ALL EXPOSED CONDUIT SHALL BE STAINLESS STEEL.



1 E-201 LOWER LEVEL PLAN - ELECTRICAL
SCALE: 1/4 " = 1' - 0"



2 E-201 UPPER LEVEL PLAN - ELECTRICAL
SCALE: 1/4 " = 1' - 0"


KEY PLAN

CADD PLOT
14-MAY-2020
11:39
ALAWSON

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020
PROJECT MANAGER:	CC
ENGINEER:	CC
DESIGNER:	AL
DRAWN BY:	CC/AL

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

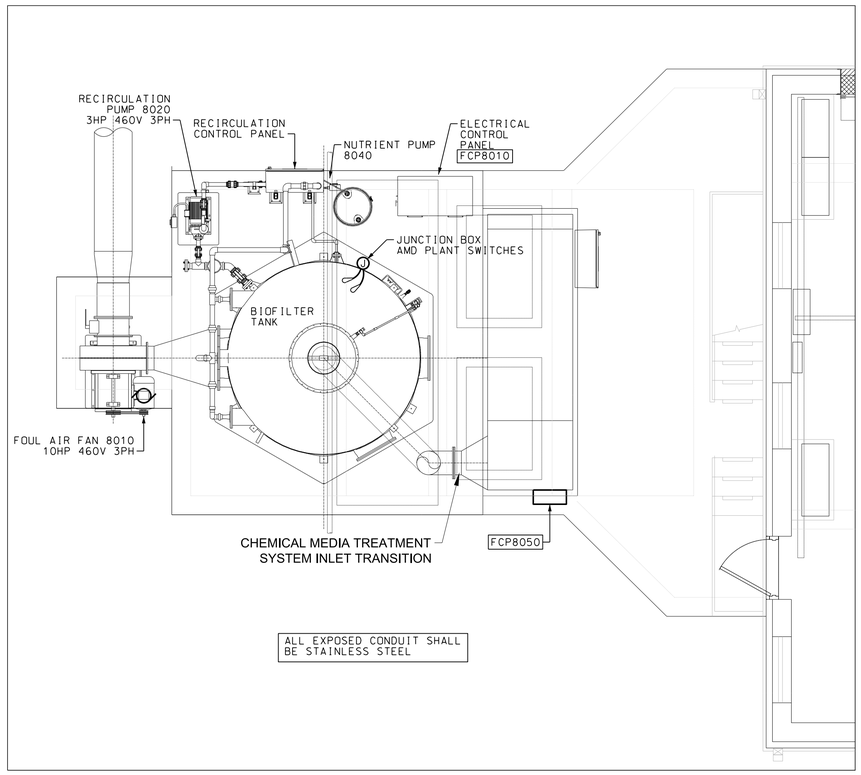
BGJWSC Project No. 906
GMC Project #CSAV190007

REGISTERED PROFESSIONAL ENGINEER No. 032192 CHARLES B. ALAWSON 14May2020

SCREEN UPPER & LOWER
LEVEL PLANS - ELECTRICAL

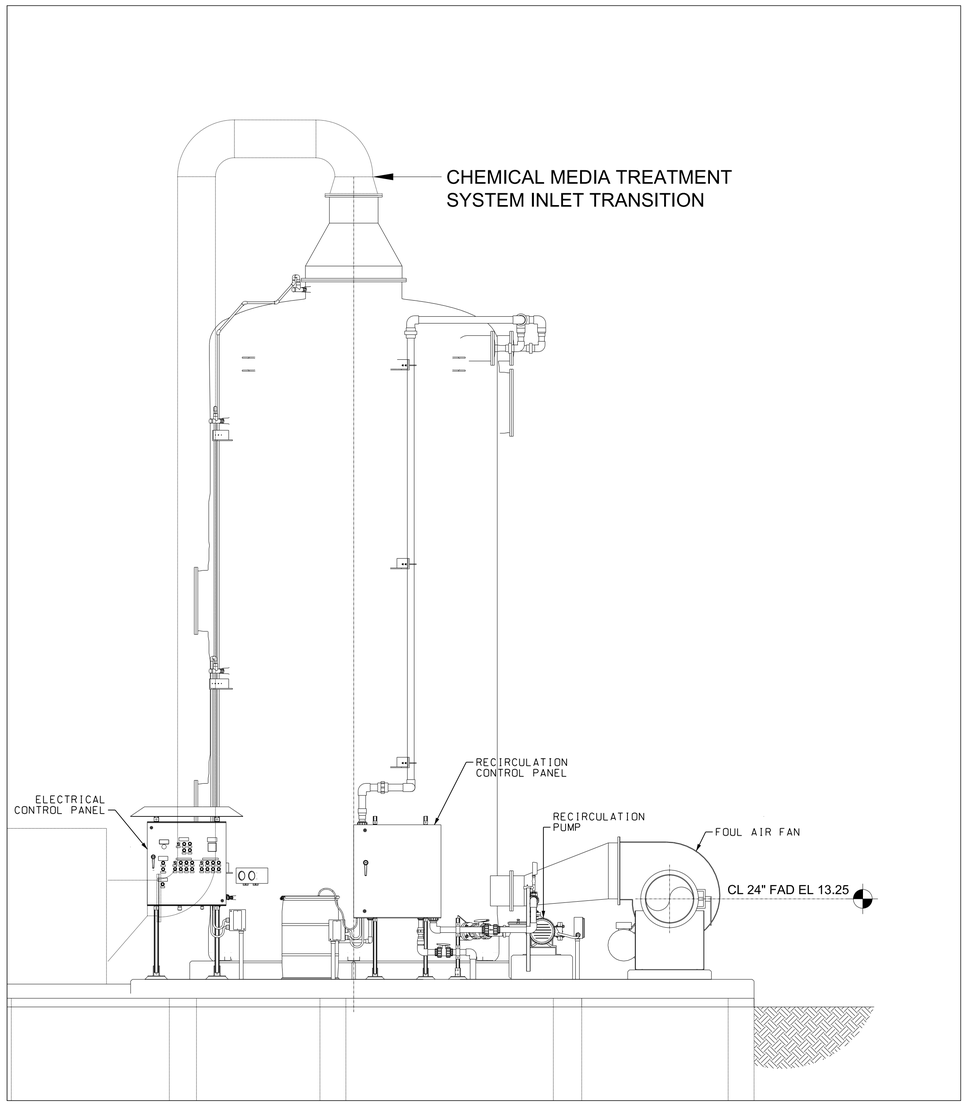
E-201

E:\BGJWSC 2019 Water Pollution Control Facilities Rehab Academy Creek - 19069.00\CADD\E-201.dgn



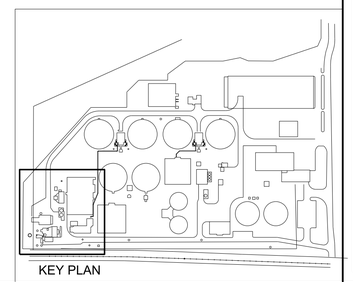
1 E-202 ODOR CONTROL SYSTEM PLAN - ELECTRICAL

SCALE: 1/4 " = 1' - 0"



2 E-202 ODOR CONTROL SYSTEM PLAN - ELEVATION

SCALE: 1/4 " = 1' - 0"



GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020
PROJECT MANAGER:	CC
ENGINEER:	CC
DESIGNER:	AL
DRAWN BY:	CC/AL

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA CHARLES B. CAWOOD 26802 PROFESSIONAL ENGINEER 14 May 2020

ODOR CONTROL SYSTEM - ELECTRICAL

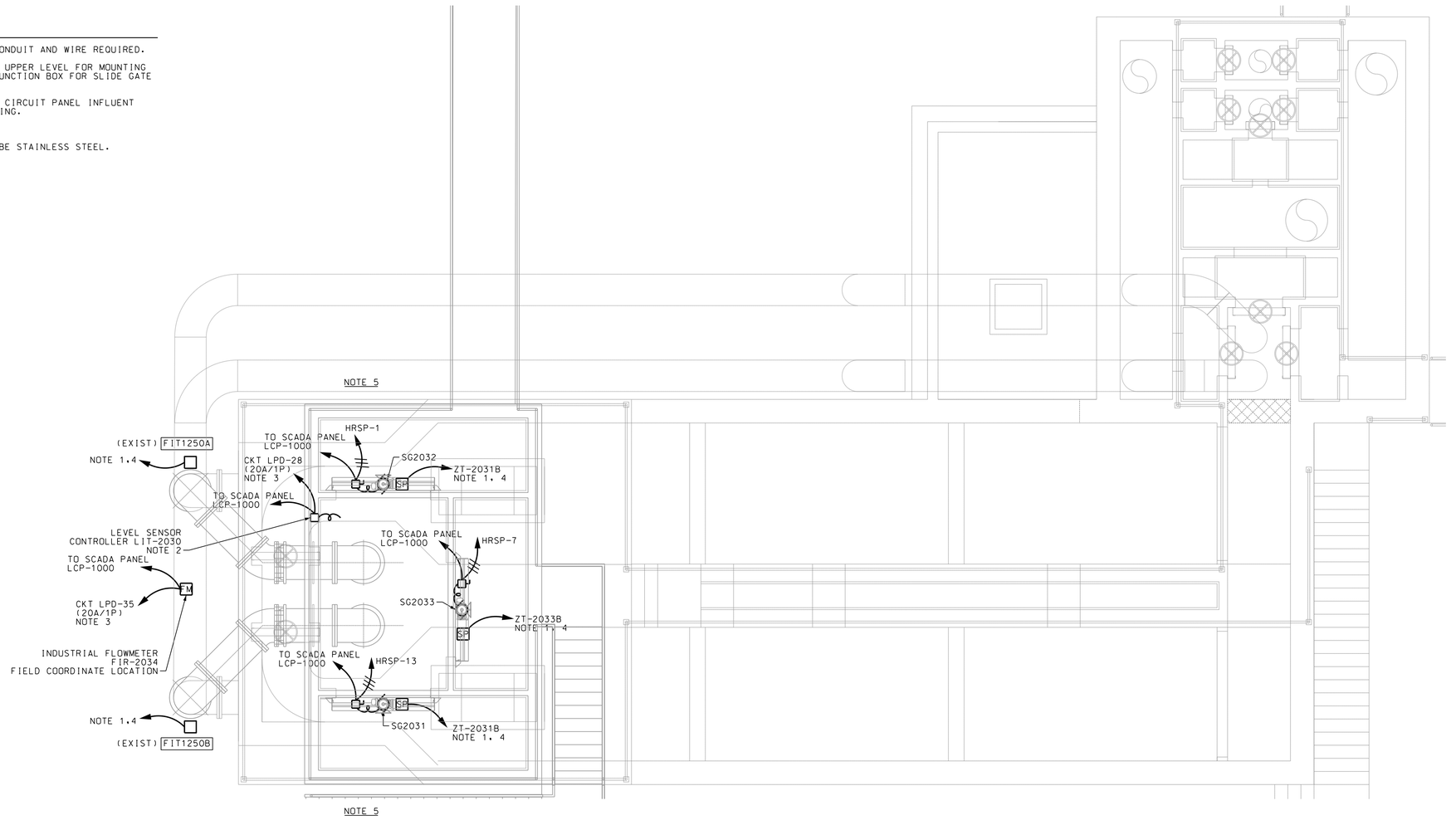
E-202

CADD PLOT
14-MAY-2020
11:41
ALAWSON

E:\BGJWSC 2019 Water Pollution Control Facilities Rehab Academy Creek - 19069.00\CADD\E-202.dgn

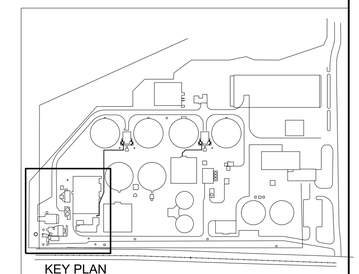
NOTES

1. REFER TO SCADA RISER FOR CONDUIT AND WIRE REQUIRED.
2. PROVIDE EQUIPMENT FRAME AT UPPER LEVEL FOR MOUNTING OF DISCONNECT SWITCH AND JUNCTION BOX FOR SLIDE GATE ACTUATOR.
3. EXTEND CIRCUIT FROM BRANCH CIRCUIT PANEL INFLUENT PUMP STATION CONTROL BUILDING.
4. TO SCADA PANEL LCP-1000.
5. ALL EXPOSED CONDUIT SHALL BE STAINLESS STEEL.



1 E-203 MAINFLOW SPLITTER BOX UPPER PLAN - ELECTRICAL

SCALE: 1/4 " = 1' - 0"



KEY PLAN

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020
PROJECT MANAGER:	CC
ENGINEER:	CC
DESIGNER:	AL
DRAWN BY:	CC/AL

1" .5" 0" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 032192 CHARLES B. CRAWFORD 14May2020

MAINFLOW SPLITTER BOX - ELECTRICAL

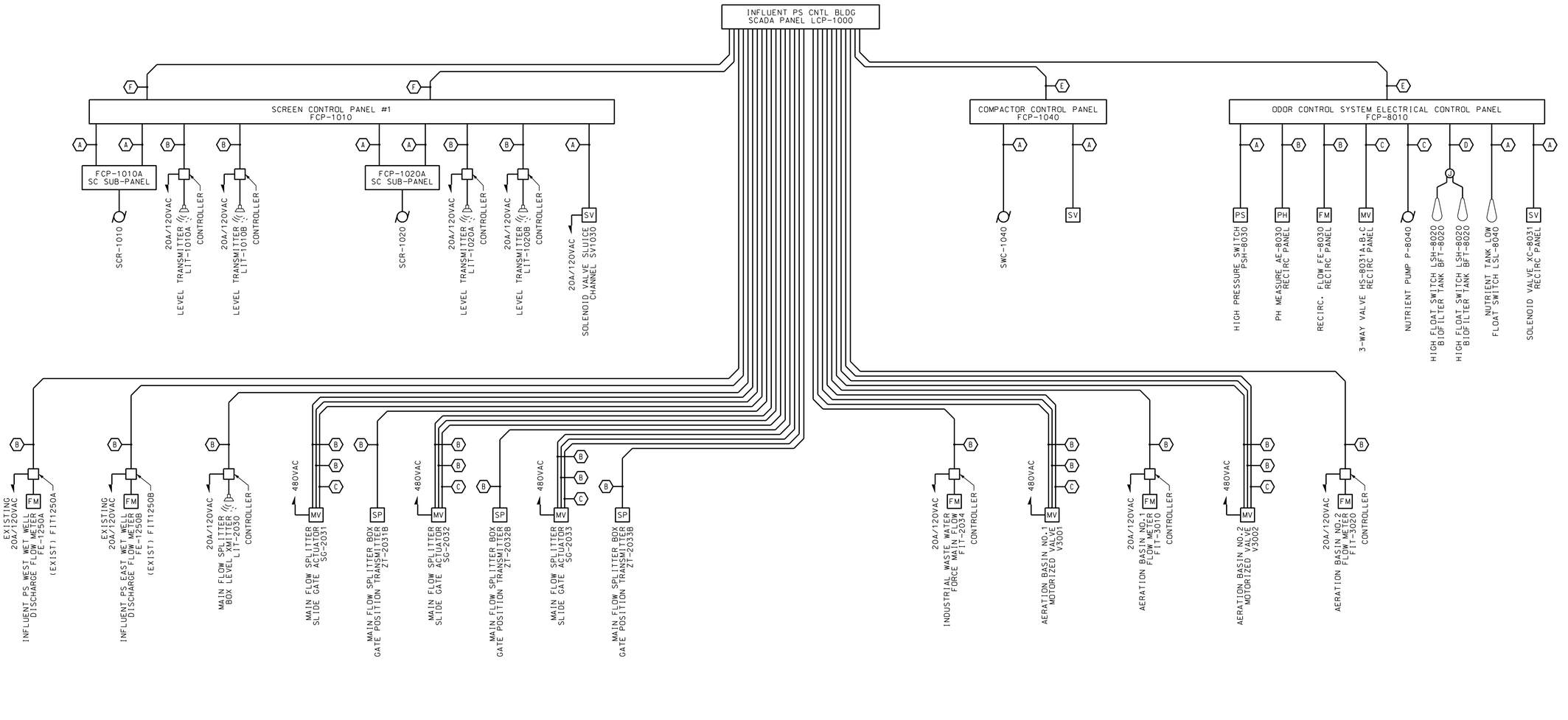
E-203

CADD PLOT
14-MAY-2020
11:44
ALAWSON

E:\BGJWSC 2019 Water Pollution Control Facilities Rehab Academy Creek - 19069.00\CADD\E-203.dgn

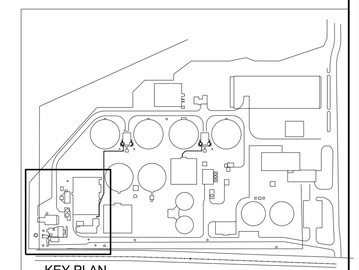
KEYED NOTES

- (A) 3/4"C W/2NO.14, 1NO.14(G)
- (B) 3/4"C W/2 16AWG T.S. PAIR BELDEN 5240F1
- (C) 3/4"C W/6NO.14, 1NO.14(G)
- (D) 3/4"C W/4NO.14, 1NO.14(G)
- (E) 3/4"C W/ONE CAT6 CABLE
- (F) 3/4"C W/TWO CAT6 CABLES



1 E-204 SCADA RISER DIAGRAM

SCALE: NONE



GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020
PROJECT MANAGER:	CC
ENGINEER:	CC
DESIGNER:	AL
DRAWN BY:	CC/AL

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

REGISTERED PROFESSIONAL ENGINEER CHARLES B. CRAWFORD No. 032192 14May2020

HEADWORKS CONTROL & SCADA RISER

E-204

CADD PLOT
14-MAY-2020
11:45
ALAWSON

SCHEDULE OF PANEL 'LPD'

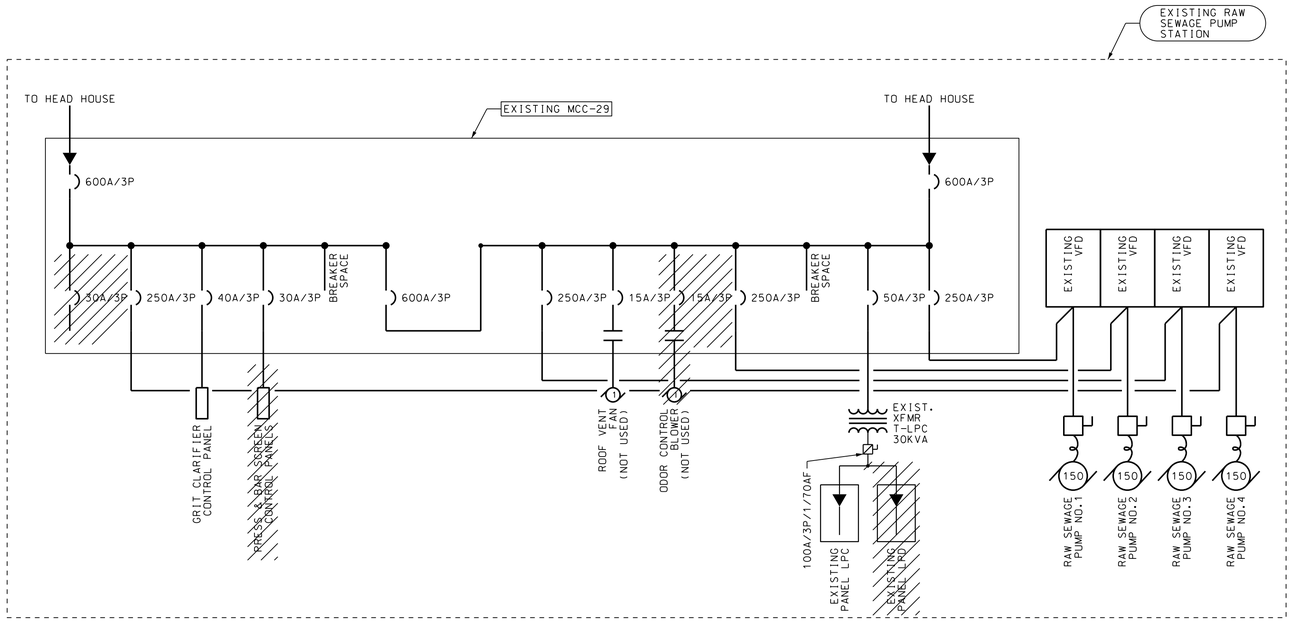
VOLTAGE: 208 / 120 | **PHASE: 3** | **WIRE: 4**
BUS AMPS: 225 A | **DEVICE AMPS: 200 A** | **MLO** | **1**
A.I.C RATING: 10,000 A | **MOUNTING: SURFACE**

LOCATION DESCRIPTION	LOAD (KVA)	LOAD TYPE	TRIP POLE	#	PH	#	TRIP POLE	LOAD TYPE	LOAD (KVA)	LOCATION DESCRIPTION
HEATER NO.1	1.5	E	20A/2P	1	A	2	20A/2P	E	1.5	HEATER NO.3
-	1.5	E	-	3	B	4	-	E	1.5	-
HEATER NO.2	1.5	E	20A/2P	5	C	6	20A/2P	E	1.5	HEATER NO.4
-	1.5	E	-	7	A	8	-	E	1.5	-
CPI - CONTROL POWER	1.0	H	20A/1P	9	B	10	20A/1P	B	1.0	RCPT TOP FLOOR
EXISTING LOAD	1.0	H	20A/1P	11	C	12	20A/1P	B	1.2	PUMP RCPT
BOTTOM FLOOR LIGHTS	0.5	A	20A/1P	13	A	14	20A/1P			SPARE
TOP FLOOR LIGHTS	0.5	A	20A/1P	15	B	16	20A/1P			SPARE
LIGHTS OUTSIDE	0.5	A	20A/1P	17	C	18	20A/1P	B	1.0	2&3 FLOOR RCPT
EXISTING LOAD	1.0	H	20A/1P	19	A	20	20A/1P	A	0.5	WET WELL & 2NC FLOOR LIGHTS
EXISTING LOAD	2.5	H	40A/2P	21	B	22	15A/3P	D	0.7	IHP-3
-	2.5	H	-	23	C	24	-	D	0.7	7.12MCA 208V 3PH
FLOWMETER FE3030	0.1	H	20A/1P	25	A	26	-	D	0.7	-
LEVEL SENSOR LIT-1020A & 1020B	0.2	H	20A/1P	27	B	28	50A/3P	D	3.2	OHP-3
LEVEL SENSOR LIT-1010A & 1010B	0.2	H	20A/1P	29	C	30	-	D	3.2	33MCA 208V 3PH
SOLENOID VALVE SV1040	0.1	H	20A/1P	31	A	32	-	D	3.2	-
SOLENOID VALVE SV1030	0.1	H	20A/1P	33	B	34	20A/1P			SPARE
FLOWMETER FIR-2034	0.1	H	20A/1P	35	C	36	20A/1P			SPARE
SPARE			20A/1P	37	A	38	20A/1P			SPARE
SPARE			20A/1P	39	B	40	20A/1P			SPARE
SPARE			20A/1P	41	C	42	20A/1P			SPARE

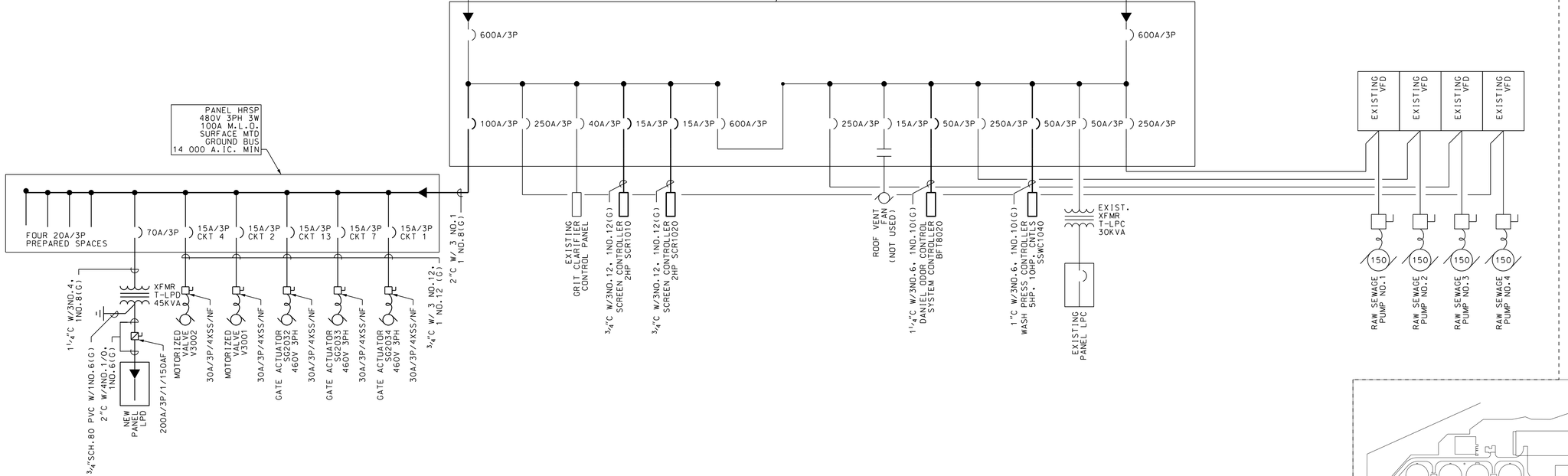
PANEL LOAD ANALYSIS

Load Type	DESCRIPTION	Conn. KVA	Demand KVA	2017 NEC Reference	Load Type	DESCRIPTION	Conn. KVA	Demand KVA	2017 NEC Reference
A	Lighting	2.0	2.5	NEC Article 215.3	E	Heating	12.0	12.0	NEC Article 220.60
B	Receptacles	3.2	3.2	NEC Table 220.44	F	Largest Motor	0.0	0.0	NEC Article 440.7
C	Kitchen Equipment	0.0	0.0	NEC Table 220.56	G	Other Motors	0.0	0.0	NEC Article 440.7
D	Air-Conditioning	11.6	0.0	NEC Article 220.60	H	Other Loads	8.8	8.8	

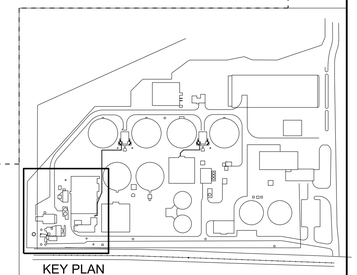
Phase A Connected Load	12.1 KVA	**Notes:**	TOTAL CONNECTED LOAD	37.6 KVA	104.2 AMPS
Phase B Connected Load	12.2 KVA		TOTAL DEMAND LOAD	26.5 KVA	73.6 AMPS
Phase C Connected Load	13.4 KVA		MINIMUM SIZING AMPS	41.4 KVA	114.9 AMPS



1 E-205 MCC-29 ONE-LINE DIAGRAM - DEMOLITION
SCALE: NONE



1 E-205 MCC-29 ONE-LINE DIAGRAM - RENOVATION
SCALE: NONE



GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020
PROJECT MANAGER:	CC
ENGINEER:	CC
DESIGNER:	AL
DRAWN BY:	CC/AL

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

RECORDS OF CHARLES B. GOODWYN No. 032192 PROFESSIONAL ENGINEER

RAW SEWAGE PUMP STATION
ONE-LINE DIAGRAM

E-205

CADD PLOT
14-MAY-2020
15:39
CCOBB

ASPHALT

ASPHALT

STORAGE

STORAGE

STORAGE

STORAGE

ADMINISTRATION BUILDING

OGE

OM

DW

OVEN

WATER BATH

FUME HOOD

WASTEWATER PRIMARY

MUFFLE FURNACE

AUTOCLAVE

EYEWASH / EMERGENCY SHOWER

OFFICE

STOR

WATER LAB BACK-UP

LOADING DOCK

13' - 9"

FFE=12.5

STAIR

NEW ELECTRICAL ROOM

MEN

UTILITY

LAUNDRY

WORKSPACE

OFFICE

GARAGE

110' - 0"

NEW MILLWORK

MICROWAVES NIC

RECEPTION

EXISTING VENDING MACHINES IN NEW LOCATION

NEW VENT HOOD REQUIRED

UNISEX

OFFICE

13' - 9"

OFFICE

FLAG POST

FFE=7.98 (1ST FLOOR)

CONCRETE BUILDING

DISTRIBUTION PANEL DHA

ATS

UTILITY BREAKER

GENERATOR BREAKER

NEW GENERATOR

LOCATE GROUND RODS IN THIS AREA

SERVICE PLATFORM (BOTH SIDES)

CONCRETE PAD

EXISTING PAD MOUNTED TRANSFORMER

EXISTING SWITCHBOARD

PP

GUY

6' CHAIN LINK

1 E-300 PARTIAL SITE PLAN - ELECTRICAL

SCALE: 1" = 10'

GENERAL NOTES

1 NO WORK IS ANTICIPATED IN BASEMENT AREA

2 FURNITURE NOT IN CONTRACT

3 MURPHY BEDS ARE PART OF BASE BID

KEY PLAN

GMC

7 Congress Street, Suite 304
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020
PROJECT MANAGER:	CC
ENGINEER:	CC
DESIGNER:	AL
DRAWN BY:	CC/AL

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

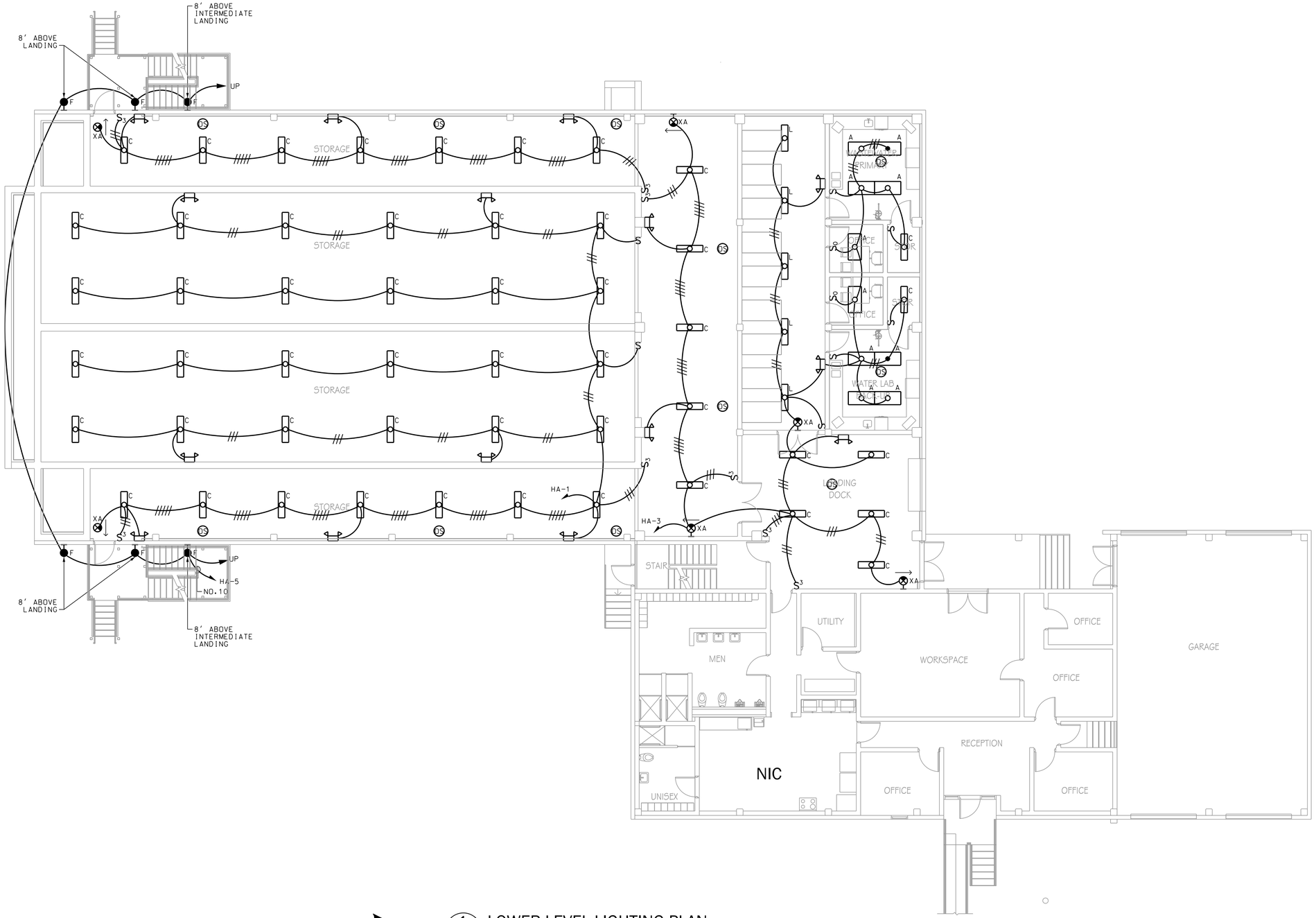
REGISTERED PROFESSIONAL ENGINEER No. 032192 CHARLES B. GOODWYN 14May2020

DAF BUILDING
PARTIAL SITE PLAN
ELECTRICAL

E-300

CADD PLOT
14-MAY-2020
11:49
ALAWSON

E:\BGJWSC 2019 Water Pollution Control Facilities Rehab Academy Creek - 19069.00\CADD\E-300.dgn



1 E-301 LOWER LEVEL LIGHTING PLAN

SCALE: 1/8" = 1' - 0"

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020
PROJECT MANAGER:	
ENGINEER:	
DESIGNER:	CC
DRAWN BY:	LC

1" .5" 0"

2019 WPCF REHABILITATION ACADEMY CREEK

BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906

GMC Project #CSAV1900007

GEORGIA PROFESSIONAL ENGINEER No. 032192 CHARLES B. LEWIS 14 May 2020

DAF BUILDING - LOWER LEVEL LIGHTING PLAN

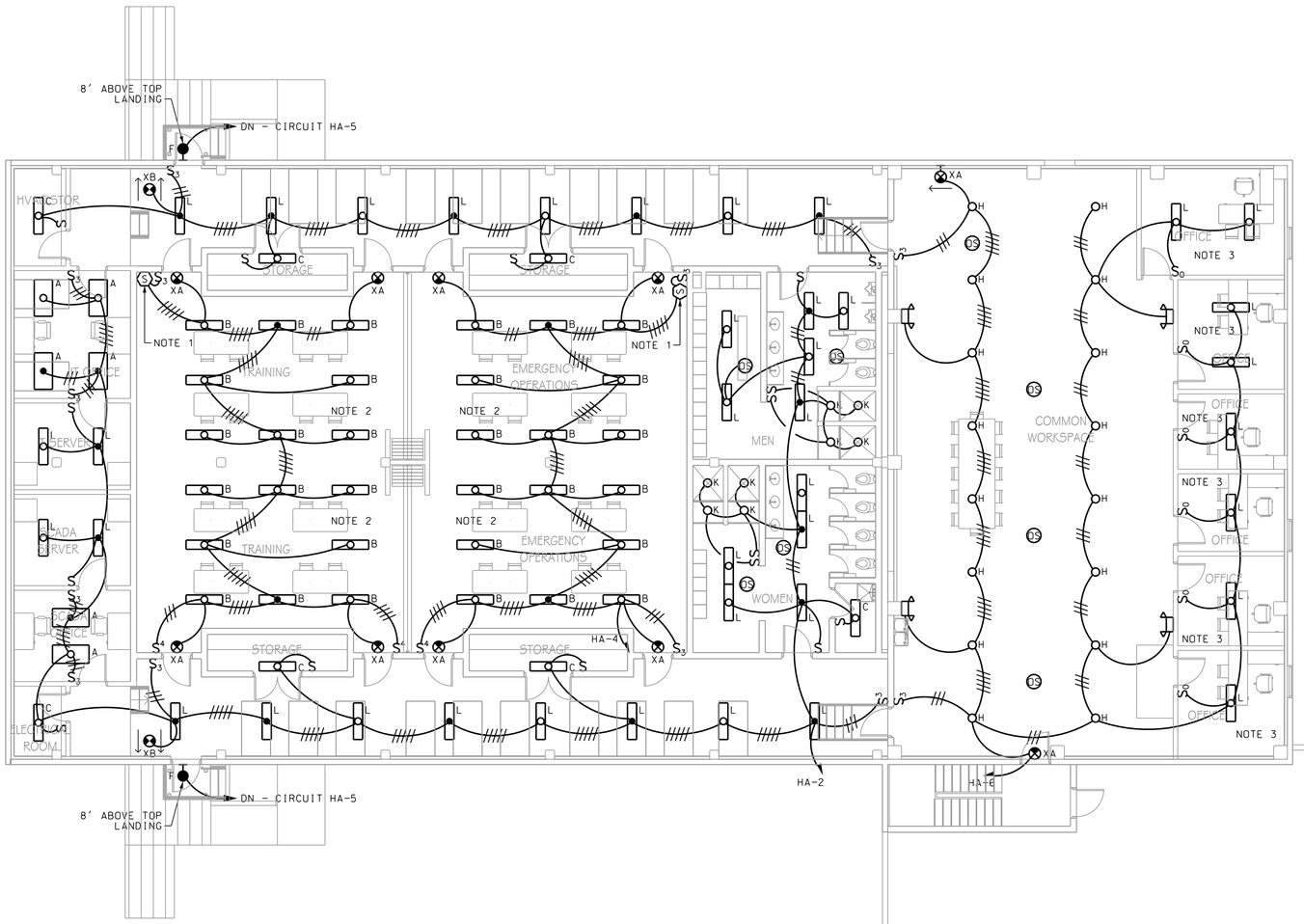
E-301

CADD PLOT
14-MAY-2020
11:52
ALAWSON

E:\BGJWSC 2019 Water Pollution Control Facilities Rehab Academy Creek - 19069.00\CADD\E-301.dgn

NOTES:

1. CONNECT DIMMER ON SWITCH LEG OF THREE WAY SWITCHES.
2. PENDANT MOUNT FIXTURES 9 FT AFF. COORDINATE FIXTURE STEM LENGTH AS REQUIRED. LOCATE FIXTURES TO NOT BE ABOVE CEILING FANS.
3. PENDANT FIXTURES 9 FT AFF IN OFFICES.



1 E-302 UPPER LEVEL LIGHTING PLAN

SCALE: 1/8" = 1' - 0"

CADD PLOT
14-MAY-2020
11:52
ALAWSON

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020
PROJECT MANAGER:	
ENGINEER:	
DESIGNER:	CC
DRAWN BY:	LC

1" .5" 0"

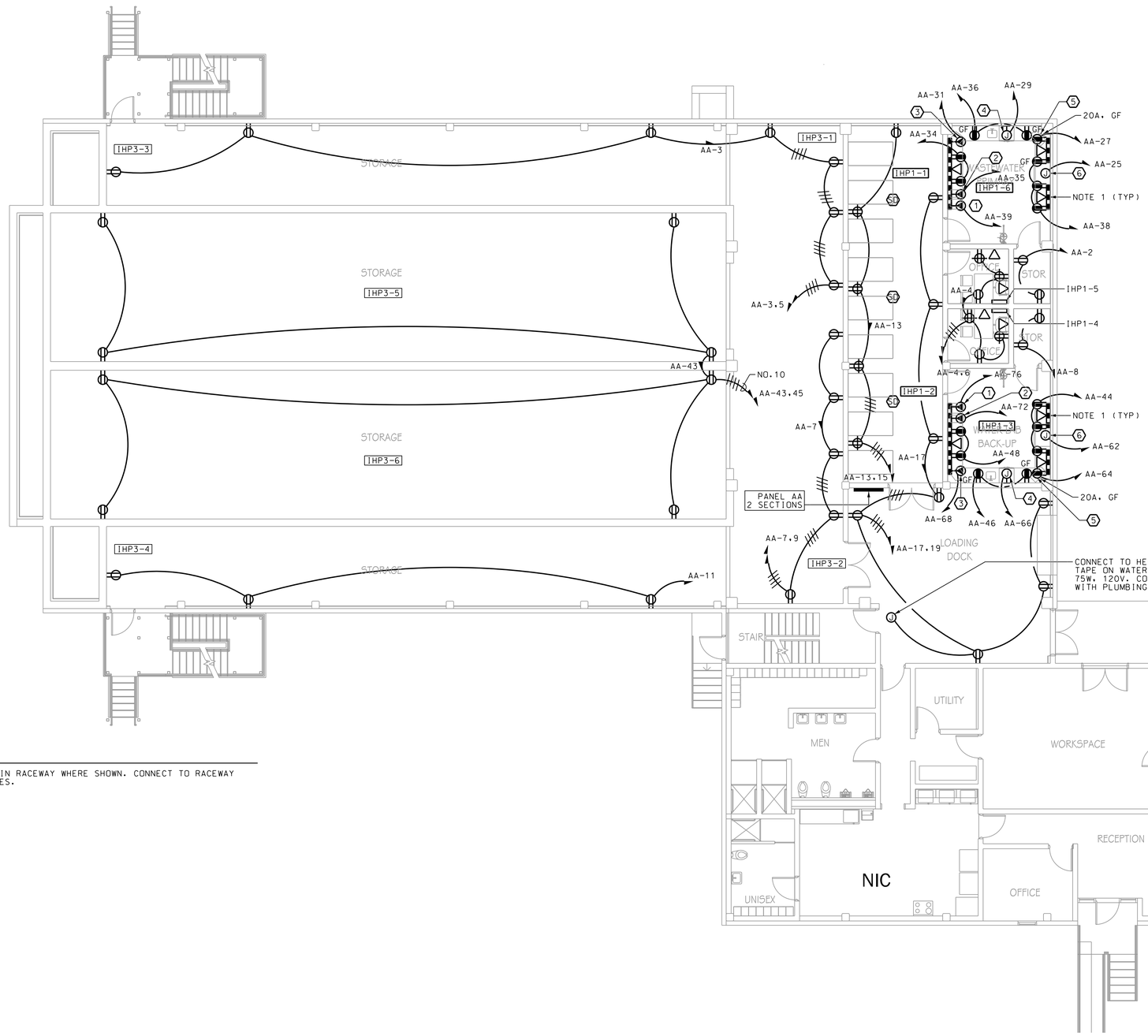
2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 032192 CHARLES B. LAWSON 14 May 2020

DAF BUILDING - UPPER LEVEL LIGHTING PLAN

E-302



LAB EQUIPMENT SCHEDULE - NOTE A

EQUIPMENT NUMBER	DESCRIPTION	DESIGN RATING	CIRCUIT	NOTES
1	AUTOCLAVE	2300W, 1PH, 208V	3/4" C W/ 3 NO.10, 1 NO.10(G)	B
2	MUFFLE FURNACE	4000W, 1PH, 208V	3/4" C W/ 3 NO.10, 1 NO.10(G)	B
3	OVEN	2000W, 1PH, 208V	3/4" C W/ 3 NO.10, 1 NO.10(G)	B
4	DISHWASHER	10A, 120V	3/4" C W/ 3 NO.12, 1 NO.12(G)	C
5	WATER BATH	1000W, 120V	3/4" C W/ 3 NO.12, 1 NO.12(G)	B
6	FUME HOOD	10A, 120V	3/4" C W/ 3 NO.12, 1 NO.12(G)	D

NOTES:

A. LOAD INFORMATION SHOWN IS DESIGN CHARACTERISTICS OF EQUIPMENT. VERIFY EXACT INFORMATION WITH OWNER PRIOR TO INSTALLATION.

B. PROVIDE RECEPTACLE TO MATCH EQUIPMENT PLUG. LOCATE RECEPTACLE IN RACEWAY.

C. CONNECT FROM JUNCTION BOX LOCATED BELOW COUNTER IN ACCESSIBLE LOCATION.

D. CONNECT FROM JUNCTION BOX LOCATED ABOVE CEILING.

REFER TO MECHANICAL EQUIPMENT SCHEDULE FOR CIRCUITS TO EQUIPMENT

NOTES:

1. MOUNT DEVICES IN RACEWAY WHERE SHOWN. CONNECT TO RACEWAY FROM FLUSH BOXES.

1 E-303 LOWER LEVEL POWER PLAN

SCALE: 1/8" = 1' - 0"

GMC
7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020
PROJECT MANAGER:	
ENGINEER:	
DESIGNER:	CC
DRAWN BY:	LC

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV1900007

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 032192 14May2020 CHARLES E. MILLS

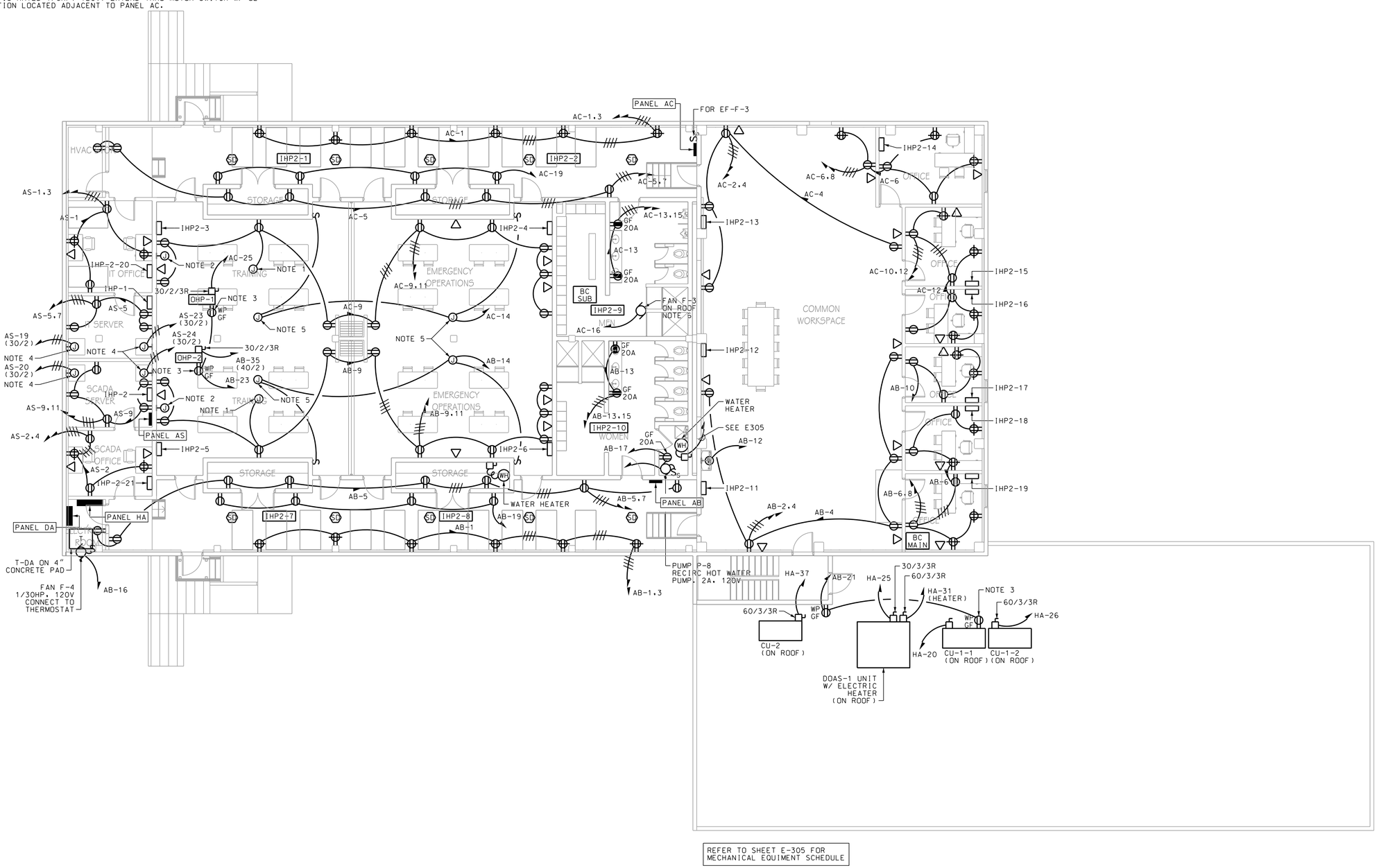
DAF BUILDING - LOWER LEVEL POWER PLAN

E-303

CADD PLOT
14-MAY-2020
11:53
ALAWSON

NOTES:

1. PROVIDE RECEPTACLE ABOVE CEILING FOR O/H PROJECTOR.
2. PROVIDE 4 11/16" DEEP SQUARE BOX 16" AFF AND EXTEND 1 1/4"C TO ABOVE CEILING FOR OH PROJECTOR CABLE.
3. MOUNT RECEPTACLE ON ROOF ADJACENT TO HVAC EQUIPMENT.
4. FOR RACK. CONNECT AS REQUIRED CIRCUITS TO BE 3/4"C W/ 3 NO.10, 1 NO.10(G).
5. CONNECT TO CEILING FANS, DESIGN LOAD 4A, 120V EACH.
6. EF F-3 IS RATED 1/6HP, 120V. EXTEND THRU MOTOR SWITCH W/ OL PROTECTION LOCATED ADJACENT TO PANEL AC.



REFER TO SHEET E-305 FOR MECHANICAL EQUIMENT SCHEDULE

1 E-304 UPPER LEVEL POWER PLAN

SCALE: 1/8" = 1'-0"

CADD PLOT
14-MAY-2020
11:54
ALAWSON

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020
PROJECT MANAGER:	
ENGINEER:	
DESIGNER:	CC
DRAWN BY:	LC

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 032192 CHARLES B. ALAWSON 14May2020

DAF BUILDING - UPPER LEVEL POWER PLAN

E-304

E:\BGJWSC 2019 Water Pollution Control Facilities Rehab Academy Creek - 19069.00\CADD\E-304.dgn

MECHANICAL EQUIPMENT SCHEDULE

ID	ELECTRICAL RATING	CIRCUIT BREAKER	CIRCUIT	NOTES
OHP-1	25MCA, 1PH, 208V	AC-35 (40/2)	3/4"C W/ 2 NO.10, 1 NO.10(G)	A, C
OHP-2	25MCA, 1PH, 208V	AB-35 (40/2)	3/4"C W/ 2 NO.10, 1 NO.10(G)	A, C
CU-1-1	28MCA, 3PH, 460V	HA-20 (40/3)	1"C W/ 3 NO.8, 1 NO.10(G)	A
CU-1-2	28MCA, 3PH, 460V	HA-26 (40/3)	1"C W/ 3 NO.8, 1 NO.10(G)	A
CU-2	25MCA, 3PH, 460V	HA-37 (40/3)	1"C W/ 3 NO.8, 1 NO.10(G)	A
IHP1-1	0.3MCA, 1PH, 208V	AA-59 (15/2)	1/2"C W/ 2 NO.12, 1 NO.12(G)	B
IHP1-2	0.3MCA, 1PH, 208V	AA-59 (15/2)	1/2"C W/ 2 NO.12, 1 NO.12(G)	B
IHP1-3	0.3MCA, 1PH, 208V	AA-59 (15/2)	1/2"C W/ 2 NO.12, 1 NO.12(G)	B
IHP1-4	0.2MCA, 1PH, 208V	AA-59 (15/2)	1/2"C W/ 2 NO.12, 1 NO.12(G)	B
IHP1-5	0.2MCA, 1PH, 208V	AA-59 (15/2)	1/2"C W/ 2 NO.12, 1 NO.12(G)	B
IHP1-6	0.3MCA, 1PH, 208V	AA-59 (15/2)	1/2"C W/ 2 NO.12, 1 NO.12(G)	B
IHP2-1	0.54MCA, 1PH, 208V	AC-39 (15/2)	1/2"C W/ 2 NO.12, 1 NO.12(G)	B
IHP2-2	0.54MCA, 1PH, 208V	AC-39 (15/2)	1/2"C W/ 2 NO.12, 1 NO.12(G)	B
IHP2-3	0.54MCA, 1PH, 208V	AC-39 (15/2)	1/2"C W/ 2 NO.12, 1 NO.12(G)	B
IHP2-4	0.54MCA, 1PH, 208V	AC-39 (15/2)	1/2"C W/ 2 NO.12, 1 NO.12(G)	B
IHP2-5	0.54MCA, 1PH, 208V	AB-39 (15/2)	1/2"C W/ 2 NO.12, 1 NO.12(G)	B
IHP2-6	0.54MCA, 1PH, 208V	AB-39 (15/2)	1/2"C W/ 2 NO.12, 1 NO.12(G)	B
IHP2-7	0.54MCA, 1PH, 208V	AB-39 (15/2)	1/2"C W/ 2 NO.12, 1 NO.12(G)	B
IHP2-8	0.54MCA, 1PH, 208V	AB-39 (15/2)	1/2"C W/ 2 NO.12, 1 NO.12(G)	B
IHP2-9	0.3MCA, 1PH, 208V	AC-39 (15/2)	1/2"C W/ 2 NO.12, 1 NO.12(G)	B
IHP2-10	0.3MCA, 1PH, 208V	AB-39 (15/2)	1/2"C W/ 2 NO.12, 1 NO.12(G)	B
IHP2-11	0.63MCA, 1PH, 208V	AB-39 (15/2)	1/2"C W/ 2 NO.12, 1 NO.12(G)	B
IHP2-12	0.63MCA, 1PH, 208V	AB-39 (15/2)	1/2"C W/ 2 NO.12, 1 NO.12(G)	B
IHP2-13	0.63MCA, 1PH, 208V	AC-39 (15/2)	1/2"C W/ 2 NO.12, 1 NO.12(G)	B
IHP2-14	0.4MCA, 1PH, 208V	AC-39 (15/2)	1/2"C W/ 2 NO.12, 1 NO.12(G)	B
IHP2-15	0.2MCA, 1PH, 208V	AC-39 (15/2)	1/2"C W/ 2 NO.12, 1 NO.12(G)	B
IHP2-16	0.2MCA, 1PH, 208V	AC-39 (15/2)	1/2"C W/ 2 NO.12, 1 NO.12(G)	B
IHP2-17	0.2MCA, 1PH, 208V	AB-39 (15/2)	1/2"C W/ 2 NO.12, 1 NO.12(G)	B
IHP2-18	0.2MCA, 1PH, 208V	AB-39 (15/2)	1/2"C W/ 2 NO.12, 1 NO.12(G)	B
IHP2-19	0.2MCA, 1PH, 208V	AB-39 (15/2)	1/2"C W/ 2 NO.12, 1 NO.12(G)	B
IHP2-20	0.4MCA, 1PH, 208V	AC-39 (15/2)	1/2"C W/ 2 NO.12, 1 NO.12(G)	B
IHP2-21	0.2MCA, 1PH, 208V	AB-39 (15/2)	1/2"C W/ 2 NO.12, 1 NO.12(G)	B
IHP3-1	0.54MCA, 1PH, 208V	AA-63 (15/2)	1/2"C W/ 2 NO.10, 1 NO.10(G)	B
IHP3-2	0.54MCA, 1PH, 208V	AA-67 (15/2)	1/2"C W/ 2 NO.10, 1 NO.10(G)	B
IHP3-3	0.54MCA, 1PH, 208V	AA-63 (15/2)	1/2"C W/ 2 NO.10, 1 NO.10(G)	B
IHP3-4	0.54MCA, 1PH, 208V	AA-67 (15/2)	1/2"C W/ 2 NO.10, 1 NO.10(G)	B
IHP3-5	0.54MCA, 1PH, 208V	AA-63 (15/2)	1/2"C W/ 2 NO.10, 1 NO.10(G)	B
IHP3-6	0.54MCA, 1PH, 208V	AA-67 (15/2)	1/2"C W/ 2 NO.10, 1 NO.10(G)	B
BC-MAIN	1.6MCA, 1PH, 208V	AB-39 (15/2)	1/2"C W/ 2 NO.12, 1 NO.12(G)	B
BC-SUB	0.7MCA, 1PH, 208V	AC-39 (15/2)	1/2"C W/ 2 NO.12, 1 NO.12(G)	B
HEADER	1.6MCA, 1PH, 208V	AA-55 (15/2)	1/2"C W/ 2 NO.12, 1 NO.12(G)	B
DOAS-1	25MCA, 3PH, 460V	HA-25 (30/3)	3/4"C W/ 3 NO.10, 1 NO.10(G)	A
DOAS HEAT	30KW, 3PH, 460V	HA-31 (50/3)	1 1/4"C W/ 3 NO.6, 1 NO.10(G)	A

NOTES:

A. MOUNT DISCONNECT ON CHANNEL RACK ADJACENT TO UNIT'S CONNECTION POINT.

B. MOUNT 15A/2P DISCONNECT ADJACENT TO UNIT.

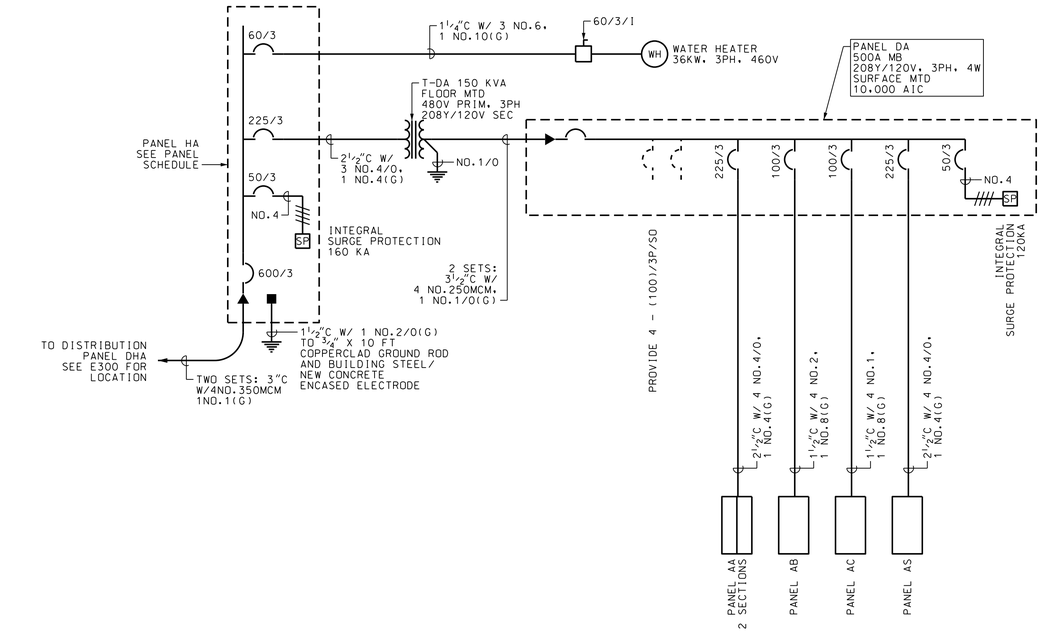
C. PROVIDE PAD LOCKABLE DISCONNECT SWITCH FOR OHP ON ROOF. INDOOR UNIT FED FROM OUTDOOR UNIT.

SCHEDULE PANELBOARD HA

		MAINS		VOLTAGE	PHASE	WIRE		MOUNTING			
		600	MB	277/480	3	4		SURFACE			
CIR.	TRIP/				CONNECTED LOAD KVA					TRIP/	CIR.
#	POLE	KVA		DESCRIPTION	PH. A	PH. B	PH. C	DESCRIPTION	KVA	POLE	#
1	20/1	1.60		LIGHTING	4.0			LIGHTING	2.40	20/1	2
3	20/1	1.20		LIGHTING		3.9		LIGHTING	2.70	20/1	4
5	20/1	0.90		LIGHTING			3.0	LIGHTING	2.10	20/1	6
7	20/1			SPARE	0.0			SPARE		20/1	8
9	20/1			SPARE		0.0		SPARE		20/1	10
11	20/1			SPARE			0.0	SPARE		20/1	12
13	20/1			SPARE	0.0			SPARE		20/1	14
15	20/1			SPARE		0.0		SPARE		20/1	16
17	20/1			SPARE			0.0	SPARE		20/1	18
19	225/3	43.80		TRANSFORMER T-DA	50.0			CU-1-1	6.20	40/3	20
21	-	37.60				43.8			6.20	-	22
23	-	35.30					41.5		6.20	-	24
25	30/3	5.50		DOAS-1	11.7			CU-1-2	6.20	40/3	26
27	-	5.50				11.7			6.20	-	28
29	-	5.50					11.7		6.20	-	30
31	50/3	10.00		DOAS HEATER	22.0			WATER HEATER	12.00	60/3	32
33	-	10.00				22.0			12.00	-	34
35	-	10.00					22.0		12.00	-	36
37	40/3	5.50		CU-2	5.5			SURGE PROTECTION		50/3	38
39	-	5.50				5.5				-	40
41	-	5.50					5.5			-	42
43	3P/SO			SPACE	0.0			SPACE		3P/SO	44
45	-					0.0				-	46
47	-						0.0			-	48
49	3P/SO			SPACE	0.0			SPACE		3P/SO	50
51	-					0.0				-	52
53	-						0.0			-	54
MIN. BREAKER AIC:				25,000 AIC	93.2	86.9	83.7	TOTAL CONNECTED LOAD	263.8		
NOTES:					93.2	86.9	83.7	TOTAL DEMAND LOAD	263.8		

SCHEDULE PANELBOARD AS

		MAINS		VOLTAGE	PHASE	WIRE		MOUNTING			
		225	MLO	120/208	3	4		SURFACE			
CIR.	TRIP/				CONNECTED LOAD KVA					TRIP/	CIR.
#	POLE	KVA		DESCRIPTION	PH. A	PH. B	PH. C	DESCRIPTION	KVA	POLE	#
1	20/1	0.60		IT OFFICE	1.2			SCADA OFFICE	0.60	20/1	2
3	20/1	0.60		IT OFFICE		1.2		SCADA OFFICE	0.60	20/1	4
5	20/1	0.60		SERVER ROOM			0.6	SPARE		20/1	6
7	20/1	0.60		SERVER ROOM	0.6			SPARE		20/1	8
9	20/1	0.60		SCADA ROOM		0.6		SPARE		20/1	10
11	20/1	0.60		SCADA ROOM			0.6	SPARE		20/1	12
13	20/1			SPARE	0.0			SPARE		20/1	14
15	20/1			SPARE		0.0		SPARE		20/1	16
17	20/1			SPARE			0.0	SPARE		20/1	18
19	30/2	2.50		SERVER RACK	5.0			SCADA RACK	2.50	30/2	20
21	-	2.50		SERVER RACK		5.0		SCADA RACK	2.50	-	22
23	30/2	2.50		SERVER RACK			5.0	SCADA RACK	2.50	30/2	24
25	-	2.50		SERVER RACK	5.0			SCADA RACK	2.50	-	26
27	30/2	2.50		SERVER RACK - FUT		5.0		SCADA RACK - FUT	2.50	30/2	28
29	-	2.50		SERVER RACK - FUT			5.0	SCADA RACK - FUT	2.50	-	30
31	30/2	2.50		SERVER RACK - FUT	5.0			SCADA RACK - FUT	2.50	30/2	32
33	-	2.50		SERVER RACK - FUT		5.0		SCADA RACK - FUT	2.50	-	34
35	/1			SPACE			0.0	SPACE		/1	36
37	/1			SPACE	0.0			SPACE		/1	38
39	/1			SPACE		0.0		SPACE		/1	40
41	/1			SPACE			0.0	SPACE		/1	42
MIN. BREAKER AIC:				10,000 AIC	16.8	16.8	11.2	TOTAL CONNECTED LOAD	44.8		
NOTES:					16.8	16.8	11.2	TOTAL DEMAND LOAD	44.8		



1 ONE-LINE DIAGRAM - ADMINISTRATION BLDG.
E-305 SCALE: NONE

CADD PLOT
14-MAY-2020
11:56
ALAWSON

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020
PROJECT MANAGER:	
ENGINEER:	PM
DESIGNER:	LC
DRAWN BY:	

1" .5" 0"

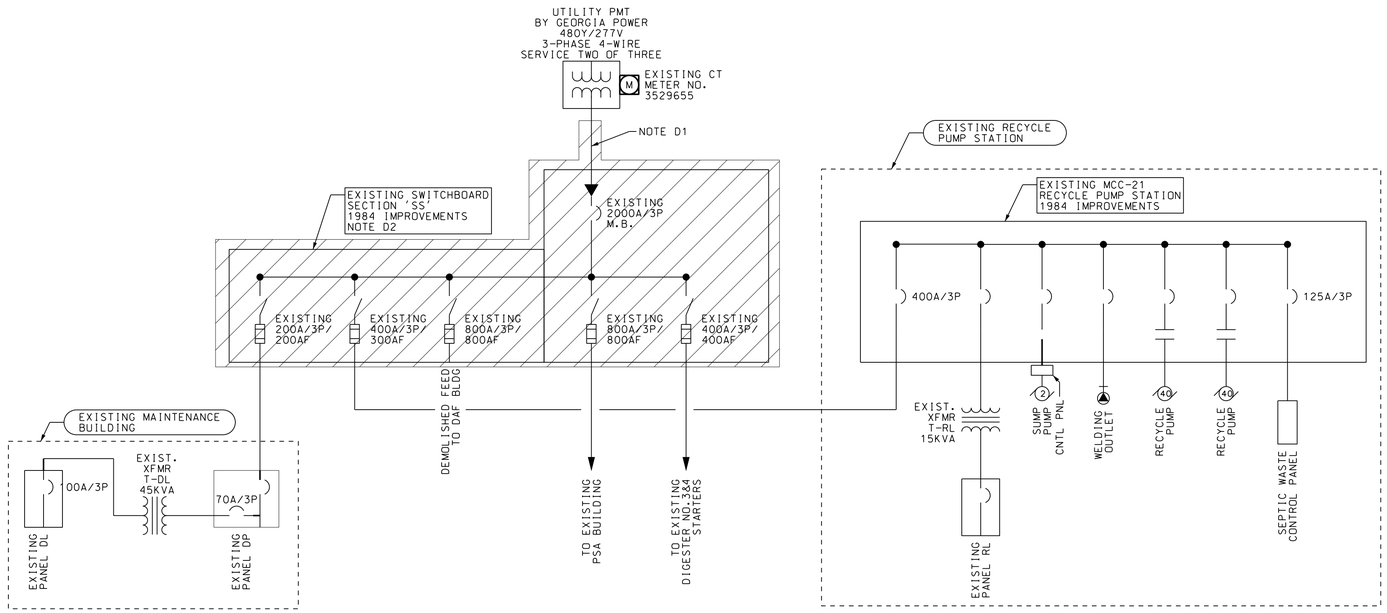
2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER CHARLES B. GIBBS No. 032192 14 May 2020

DAF BUILDING - MECHANICAL EQUIPMENT SHEDULE

E-305



1 SERVICE 'SS' DEMOLITION ONE-LINE DIAGRAM

E-306 SCALE: NONE

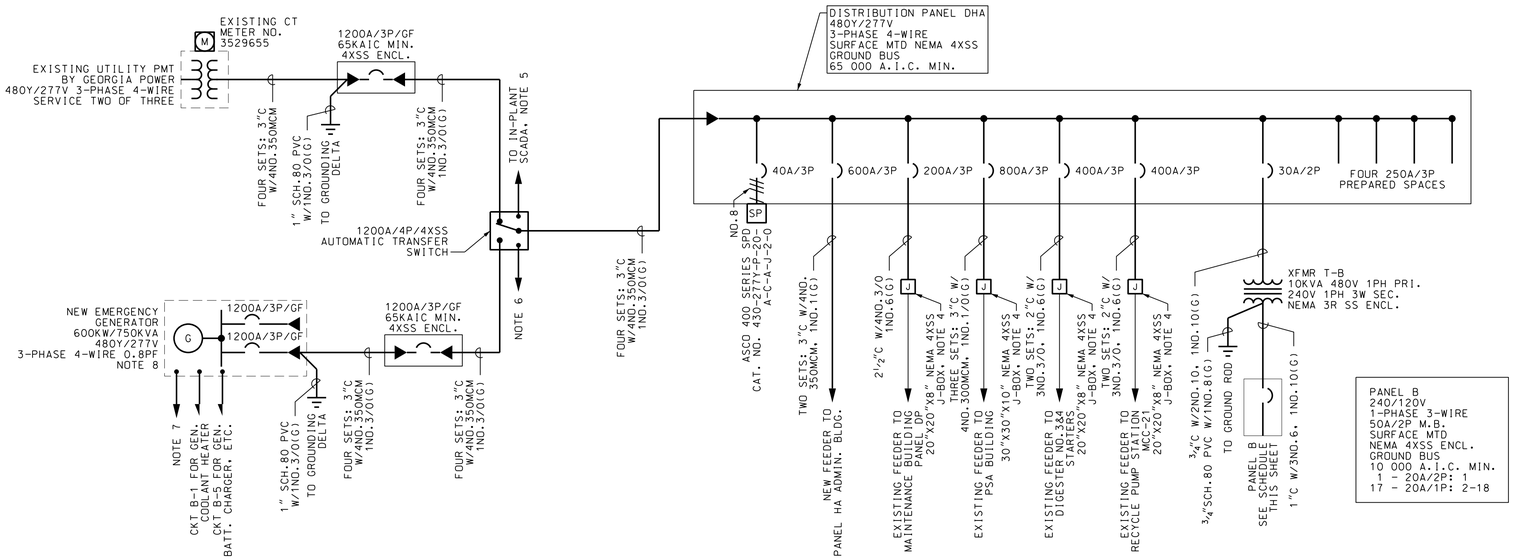
DEMOLITION NOTES:

D1. DISCONNECT AND REMOVE THE EXISTING SERVICE FROM THE PAD MOUNTED TRANSFORMER TO SWITCHBOARD SS.

D2. DISCONNECT SWITCHBOARD SS, RETAIN THE BRANCH FEEDERS FOR RECONNECTION.

RENOVATION NOTES:

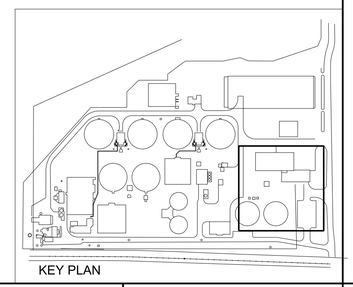
1. REFER TO THE SITE PLAN FOR CONSTRUCTION REQUIREMENTS CONCERNING THE GENERATOR FOUNDATION.
2. ALL EQUIPMENT SHALL BE INSTALLED ABOVE THE 100YR FLOOD ELEVATION. COORDINATE WITH THE CIVIL ENGINEERING DRAWINGS FOR ELEVATION DATUM.
3. THE EXISTING FEEDERS IN SWITCHBOARD 'SS' SHALL BE CONNECTED TO NEW BRANCH FEEDERS FROM PANEL DHA.
4. THE JUNCTION BOXES FOR THE EXISTING FEEDERS SHALL BE FURNISHED WITH QUARTER TURN LATCHES, ALUMINUM BACKPLATES MOUNTING STUDS AND GROUND LUGS. THE JUNCTION BOXES SHALL BE HAMMOND MANUFACTURING ECLIPSE SERIES OR HOFFMAN CONCEPT SERIES. FURNISH POWER TERMINAL BLOCKS MOUNTED TO THE BACKPLATES FOR ALL CABLE TERMINATIONS.
5. EXTEND GENERATOR ALARM AND STATUS TO THE IN-PLANT SCADA SYSTEM. FIELD COORDINATE WITH THE SCADA VENDOR FOR METHOD OF COMMUNICATIONS. CONDUCTORS, OPTICAL FIBER, ETC. FURNISH CONDUIT AS REQUIRED.
6. THREE 1"C W/CONDUCTORS AS REQUIRED FOR ALARMS AND STATUS OF THE GENERATOR. EXTEND TO GENERATOR CONTROLLER.
7. TO ATS. REFER TO NOTE 6.
8. THE GENERATOR SHALL BE FURNISHED WITH AN AUXILIARY BREAKER FOR TESTING, LOAD BANK AND MAINTENANCE. THE BREAKER SHALL BE IDENTICAL TO THE GENERATOR MAIN LINE BREAKER.



PANEL B
240/120V
1-PHASE 3-WIRE
50A/2P M.B.
SURFACE MTD
NEMA 4XSS ENCL.
GROUND BUS
10 000 A.I.C. MIN.
1 - 20A/2P: 1
17 - 20A/1P: 2-18

2 SERVICE DHA RENOVATION ONE-LINE DIAGRAM

E-306 SCALE: NONE



KEY PLAN

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020
PROJECT MANAGER:	
ENGINEER:	PM
DESIGNER:	LC
DRAWN BY:	

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

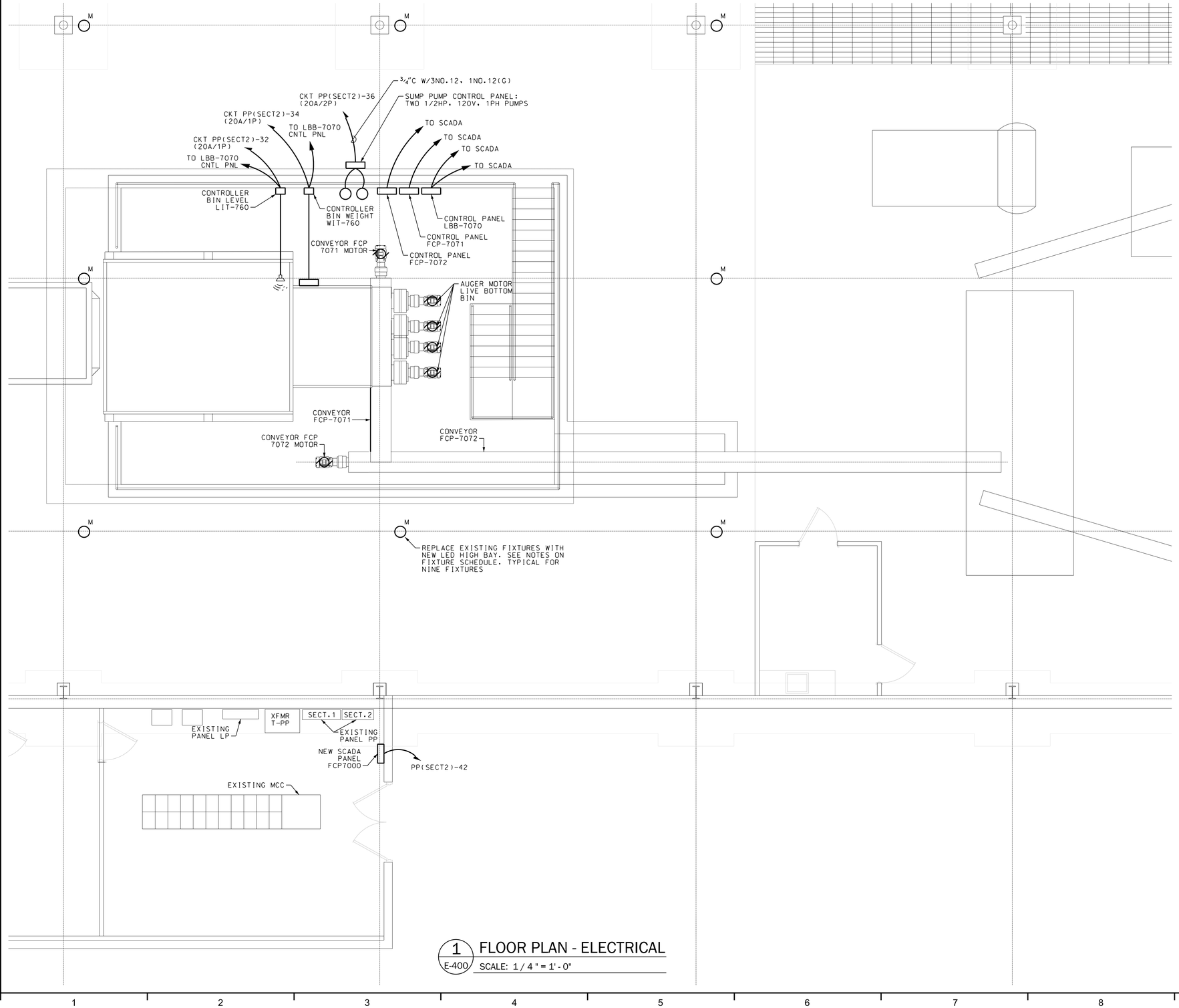
BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA PROFESSIONAL ENGINEER No. 032192 CHARLES B. MYERS

DAF BUILDING
ONE-LINE DIAGRAM

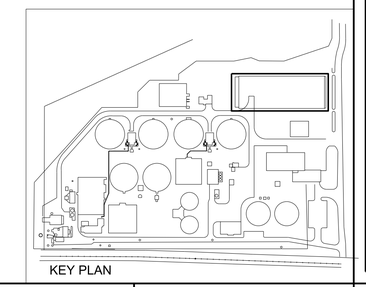
E-306

CADD PLOT
14-MAY-2020
11:59
ALAWSON



1 E-400 FLOOR PLAN - ELECTRICAL

SCALE: 1/4" = 1'-0"



KEY PLAN

CADD PLOT
14-MAY-2020
16:00
CCOBB

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020
PROJECT MANAGER:	
ENGINEER:	CC
DESIGNER:	LC
DRAWN BY:	

1" .5" 0"

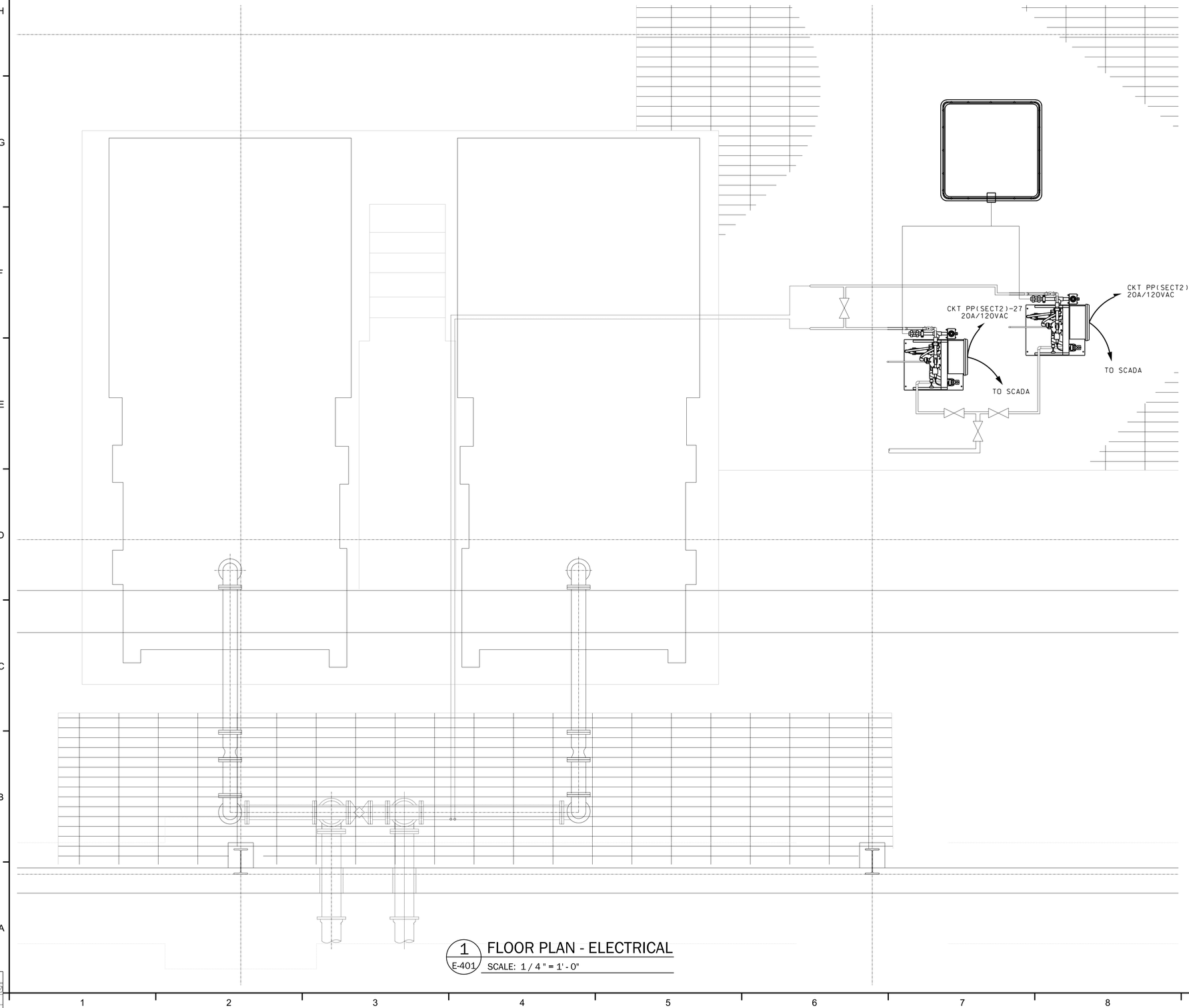
2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER
& SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 032192 CHARLES B. MILLS 14May2020

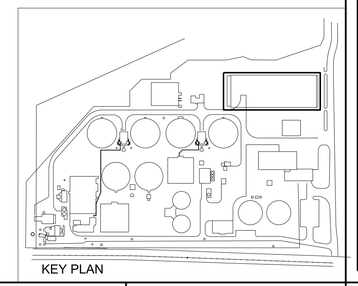
DEWATERING BUILDING
SOLIDS HANDLING PLAN -
ELECTRICAL

E-400



1 E-401 FLOOR PLAN - ELECTRICAL

SCALE: 1 / 4 " = 1' - 0"



KEY PLAN

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE DATE

30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020
PROJECT MANAGER:	
ENGINEER:	
DESIGNER:	CC
DRAWN BY:	LC

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 032192 CHARLES B. COBB 14May2020

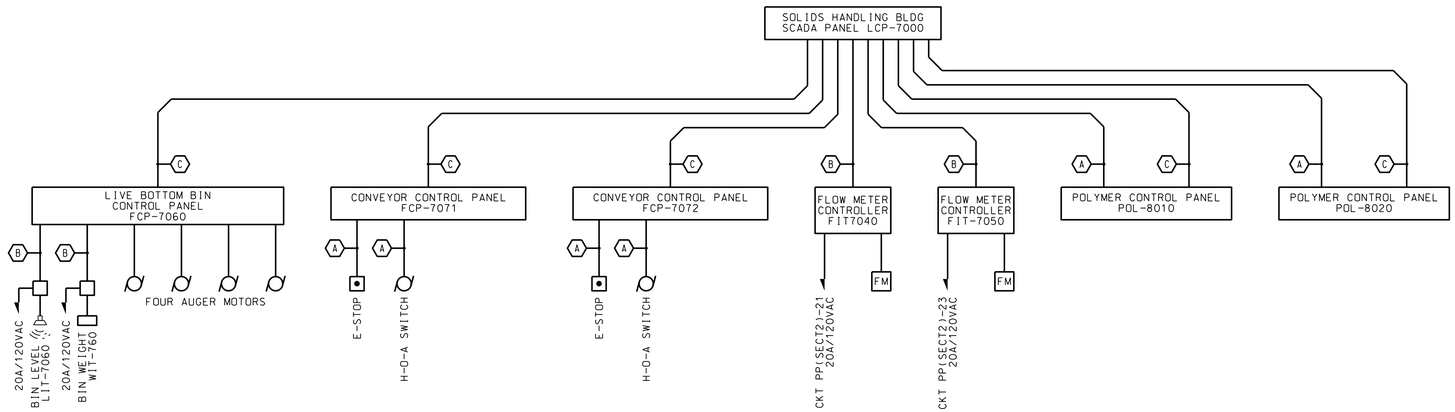
DEWATERING BUILDING
POLYMER SYSTEM PLAN - ELECTRICAL

E-401

CADD PLOT
14-MAY-2020
16:02
CCOBB

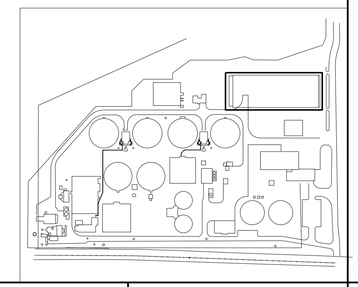
KEYED NOTES

- (A) 3/4"C W/2NO.14, 1NO.14(G)
- (B) 3/4"C W/2 16AWG T.S. PAIR BELDEN 5240F1
- (C) 3/4"C W/ONE CAT6 CABLE



1 E-402 SCADA RISER DIAGRAM

SCALE: NONE



GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020
PROJECT MANAGER:	
ENGINEER:	CC
DESIGNER:	LC
DRAWN BY:	

1" 0" .5" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK

BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906

GMC Project #CSAV190007

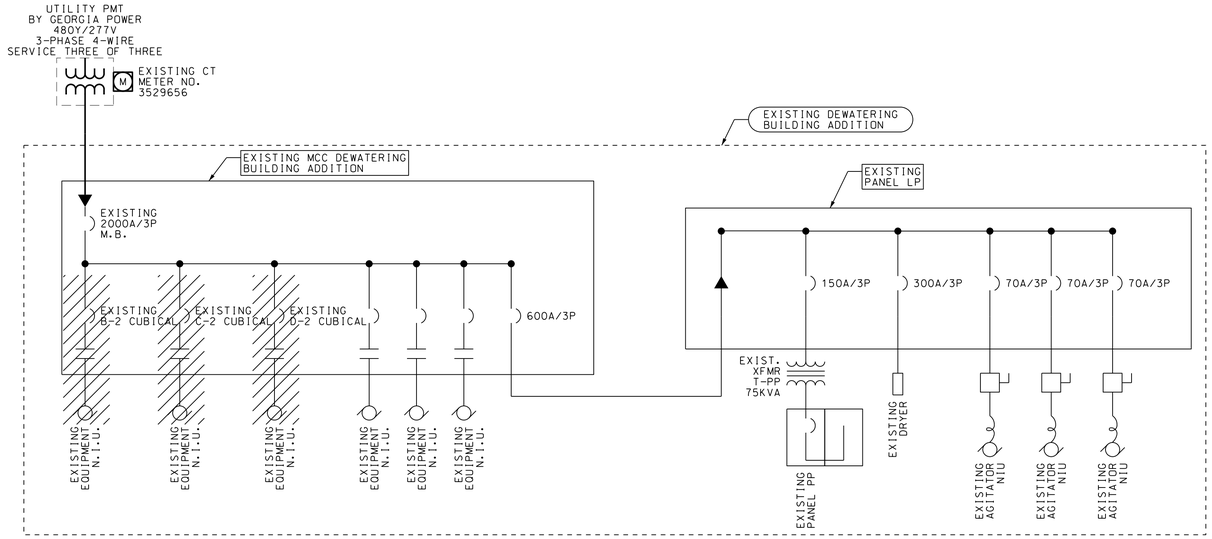
GEORGIA REGISTERED PROFESSIONAL No. 032192 ENGINEER 4 May 2020 CHARLES B. CRAWLEY

DEWATERING BUILDING CONTROL AND SCADA RISER

E-402

CADD PLOT
03-JUN-2020
10:39
ALAWSON

E:\BGJWSC 2019 Water Pollution Control Facilities Rehab Academy Creek - 19069.00\CADD\E-402.dgn

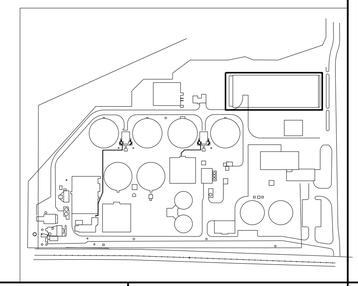


1 DEWATERING BUILDING ONE-LINE DIAGRAM - DEMOLITION
E-403 SCALE: NONE

NOTES:

D1. DISCONNECT AND REMOVE THE EXISTING SERVICE FROM THE PAD MOUNTED TRANSFORMER TO SWITCHBOARD SS.

D2. DISCONNECT AND REMOVE THE EXISTING NEUTRAL BONDING JUMPER AT SWITCHBOARD SS.



GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020
PROJECT MANAGER:	
ENGINEER:	
DESIGNER:	CC
DRAWN BY:	LC

1" .5" 0" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK

BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906

GMC Project #CSAV190007

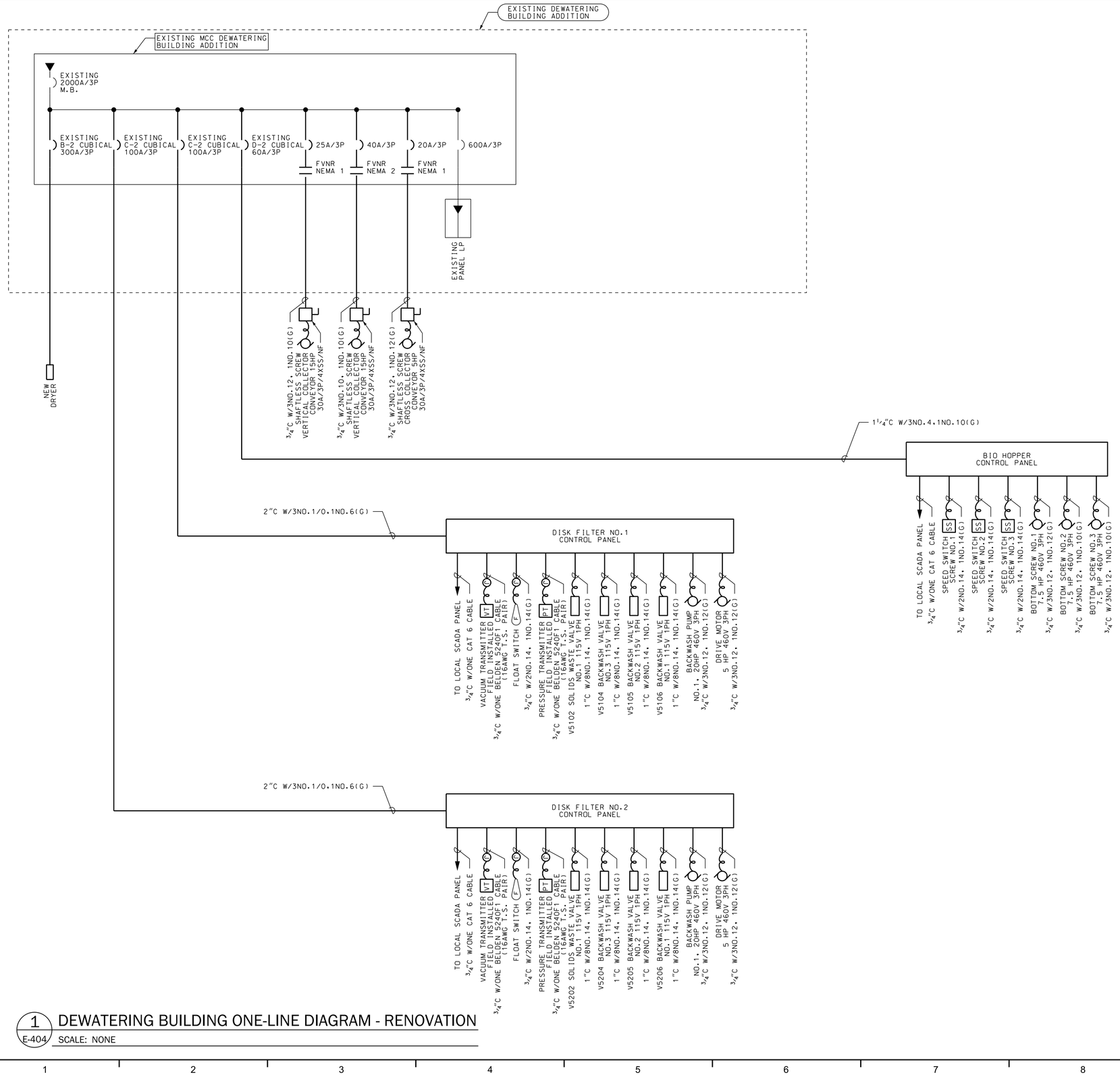
GEORGIA PROFESSIONAL ENGINEER No. 032192 14May2020 CHARLES B. CROSS

DEWATERING BUILDING ONE-LINE DIAGRAM

E-403

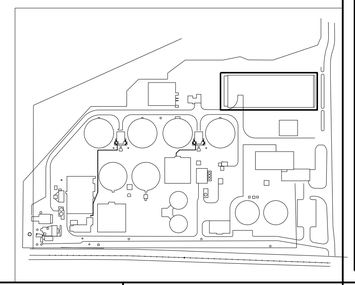
CADD PLOT
14-MAY-2020
12:15
ALAWSON

E:\BGJWSC 2019 Water Pollution Control Facilities Rehab Academy Creek - 19069.00\CADD\E-403.dgn



1 DEWATERING BUILDING ONE-LINE DIAGRAM - RENOVATION

E-404 SCALE: NONE



GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020
PROJECT MANAGER:	
ENGINEER:	CC
DESIGNER:	LC
DRAWN BY:	

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

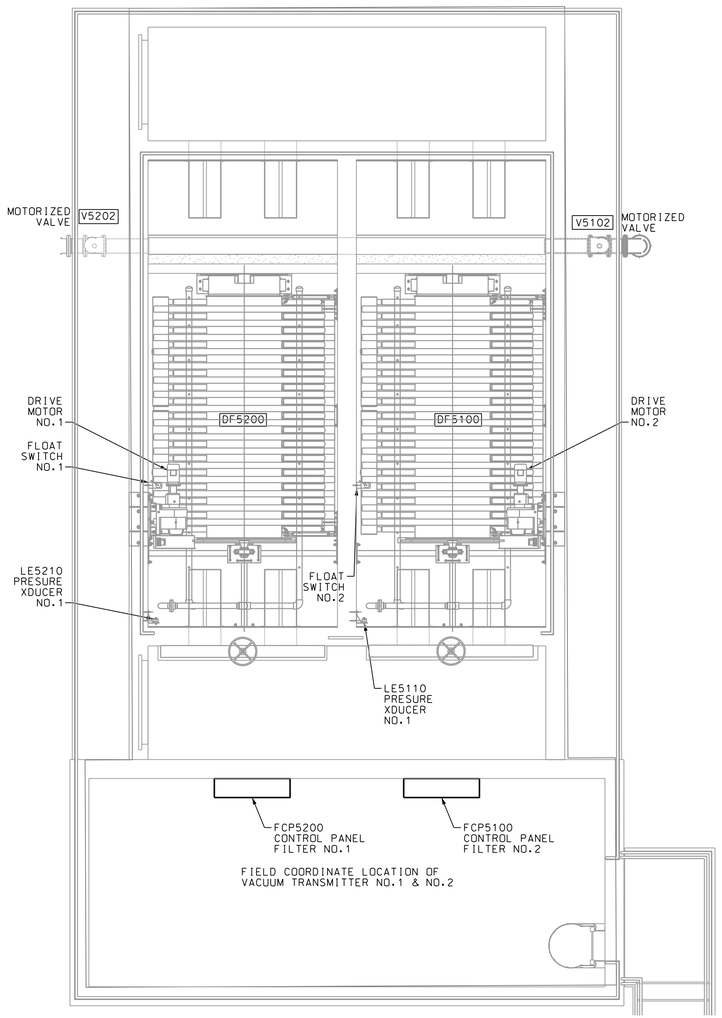
GEORGIA REGISTERED CHARLES B. CRAWFORD 26802 PROFESSIONAL ENGINEER NO. 032192 14May2020

DEWATERING BUILDING
ONE-LINE DIAGRAM

E-404

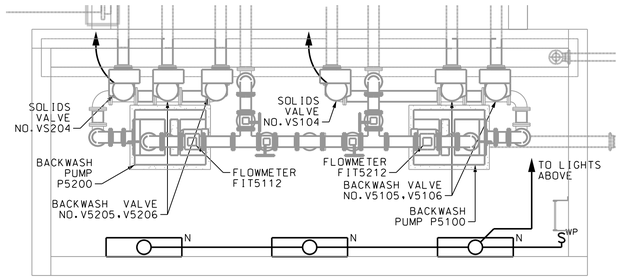
CADD PLOT
14-MAY-2020
16:08
CCOBB

E:\BGJWSC 2019 Water Pollution Control Facilities Rehab Academy Creek - 19069.00\CADD\E-404.dgn



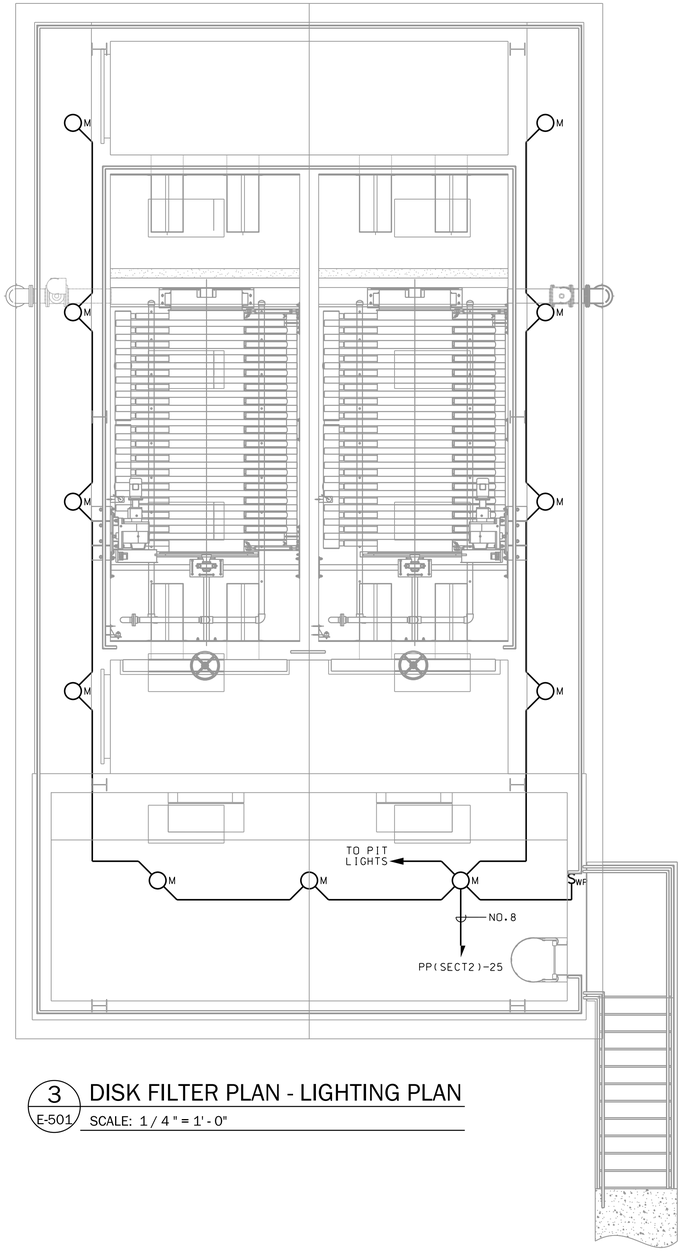
1 E-501 DISK FILTER PLAN - ELECTRICAL - UPPER LEVEL

SCALE: 1 / 4 " = 1' - 0"



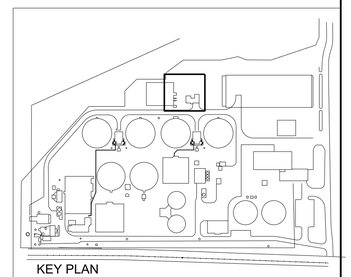
2 E-501 DISK FILTER PLAN - ELECTRICAL - LOWER LEVEL

SCALE: 1 / 4 " = 1' - 0"



3 E-501 DISK FILTER PLAN - LIGHTING PLAN

SCALE: 1 / 4 " = 1' - 0"



GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020
PROJECT MANAGER:	
ENGINEER:	
DESIGNER:	CC
DRAWN BY:	LC

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

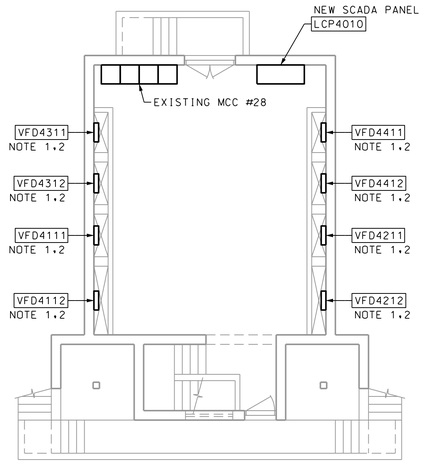
GEORGIA REGISTERED PROFESSIONAL ENGINEER CHARLES B. CAMPBELL 26802 PROFESSIONAL NO. 032192

DISK FILTERS - ELECTRICAL

E-501

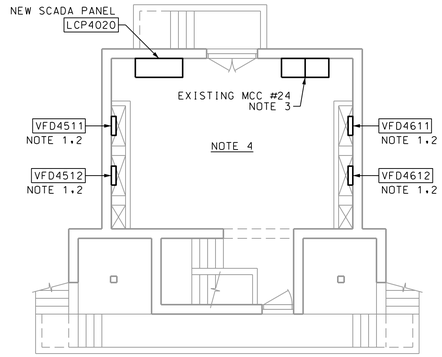
CADD PLOT
14-MAY-2020
12:20
ALAWSON

E:\BGJWSC 2019 Water Pollution Control Facilities Rehab Academy Creek - 19069.00\CADD\E-501.dgn



1 E-601 RAS BUILDING NO.1 FLOOR PLAN

SCALE: 1/8" = 1' - 0"



2 E-601 RAS BUILDING NO.2 FLOOR PLAN

SCALE: 1/8" = 1' - 0"

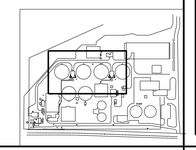
NOTES:

1. DISCONNECT AND REMOVE THE EXISTING RAS PUMP (7.5) VFD. FURNISH AND INSTALL A NEW VFD (7.5HP 460V 3PH). THE NEW DRIVE SHALL HAVE FRONT MOUNTED H-O-A AND SPEED CONTROL AS WELL AS PROGRAMMING LCD SCREEN. FURNISH DRIVE WITH ETHERNET CAT6 CABLE CONNECTION. THE DRIVE SHALL INTERFACE WITH THE NEW IN-PLANT SCADA SYSTEM.

2. EXTEND ¾"C W/ ONE CAT 6 CABLE FROM EACH VFD TO THE NEW SCADA PANEL.

3. REMOVE THE STARTER CUBICAL SERVING VFD4611.
   A. FURNISH NEW 12" CUBICAL WITH TWO NEW BREAKERS, DOOR MOUNTED OPERATORS AND ALL NECCESSARY HARDWARE FOR BREAKER OPERATION AND INTERLOCKS.
   B. PROVIDE A 25A/3P BREAKER FOR VFD4611.
   C. PROVIDE A 15A/3P BREAKER FOR MOTORIZED VALVE V3003. REFER TO SHEET E-100 FOR LOCATION.

4. IN THE BRANCH CIRCUIT PANEL, PROVIDE A 20A/1P CIRCUIT BREAKER.
   A. EXTEND ¾"C W/ 2NO.12, 1NO.12(G) FROM THE PANEL TO FLOWMETER FE3030. REFER TO SHEET E-100 FOR LOCATION.



GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020
PROJECT MANAGER:	CC
ENGINEER:	CC
DESIGNER:	CC
DRAWN BY:	LC

1" .5" 0"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA PROFESSIONAL ENGINEER No. 032192 CHARLES B. COBB 14 May 2020

RAS BUILDINGS
ELECTRICAL PLAN

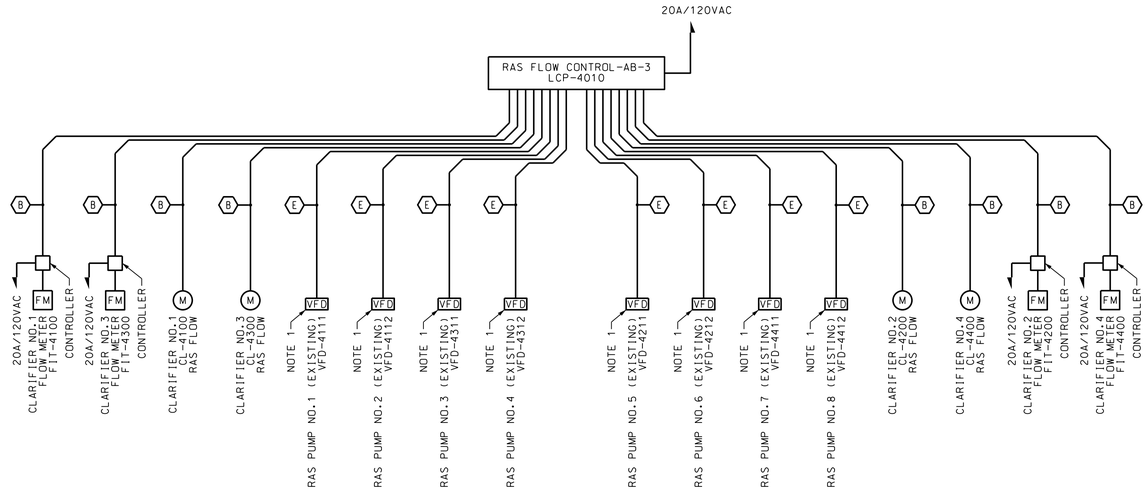
E-601

CADD PLOT
14-MAY-2020
16:12
CCOBB

E:\BGJWSC 2019 Water Pollution Control Facilities Rehab Academy Creek - 19069.00\CADD\E-601.dgn

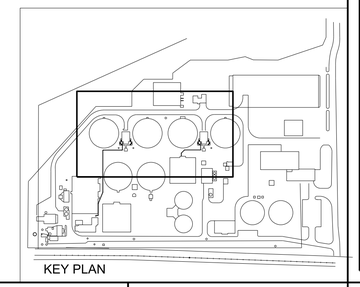
KEYED NOTES

- (A) 3/4"C W/2NO.14, 1NO.14(G)
- (B) 3/4"C W/2 16AWG T.S. PAIR BELDEN 5240F1
- (C) 3/4"C W/6NO.14, 1NO.14(G)
- (D) 3/4"C W/4NO.14, 1NO.14(G)
- (E) 3/4"C W/ONE CAT6 CABLE



1 E-602 SCADA RISER DIAGRAM

SCALE: NONE



KEY PLAN

GMC

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020
PROJECT MANAGER:	CC
ENGINEER:	CC
DESIGNER:	AL
DRAWN BY:	CC/AL

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

1" .5" 0" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

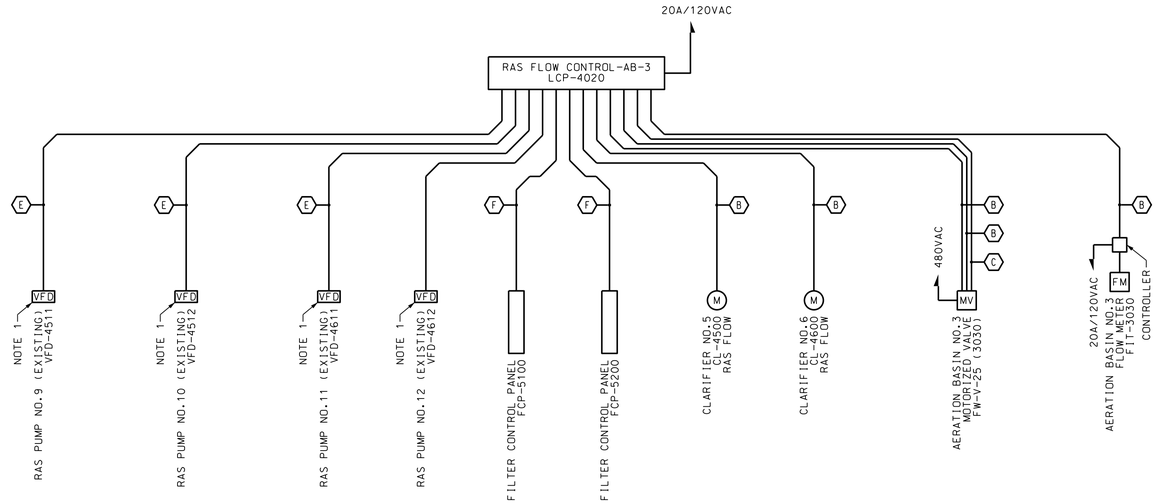
GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 032192 14 May 2020 CHARLES B. CRAWLEY

RAS FLOW CONTROL
LCP-4010 SCADA RISER

E-602

CADD PLOT
14-MAY-2020
12:24
ALAWSON

E:\BGJWSC 2019 Water Pollution Control Facilities Rehab Academy Creek - 19069.00\CADD\E-602.dgn



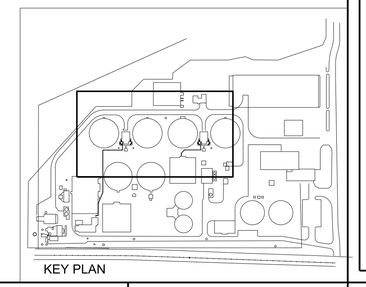
1 SCADA RISER DIAGRAM
E-603 SCALE: NONE

KEYED NOTES

- (A) 3/4"C W/2NO.14, 1NO.14(G)
- (B) 3/4"C W/2 16AWG T.S. PAIR BELDEN 5240F1
- (C) 3/4"C W/6NO.14, 1NO.14(G)
- (D) 3/4"C W/4NO.14, 1NO.14(G)
- (E) 3/4"C W/ONE CAT6 CABLE
- (F) OPTICAL FIBER CABLE IN DURALINE 4-WAY CONDUIT

NOTES:

1. DISCONNECT AND REMOVE THE EXISTING RAS PUMP (7.5HP) VFD. FURNISH AND INSTALL A NEW VFD (7.5HP 460V 3PH). THE NEW DRIVE SHALL HAVE FRONT MOUNTED H-O-A AND SPEED CONTROL AS WELL AS PROGRAMMING LCD SCREEN. FURNISH DRIVE WITH ETHERNET CAT6 CABLE CONNECTION. THE DRIVE SHALL INTERFACE WITH THE NEW IN-PLANT SCADA SYSTEM.


KEY PLAN

GMC

7 Congress Street, Suite 504
Savannah, GA 31401
T 912.655.6790
GMCNETWORK.COM

ISSUE	DATE
30% SUBMITTAL	09.09.2019
70% SUBMITTAL	12.16.2019
100% SUBMITTAL	03.12.2020
CONSTRUCTION SUBMITTAL	06.01.2020
PROJECT MANAGER:	CC
ENGINEER:	CC
DESIGNER:	AL
DRAWN BY:	CC/AL

1" .5" 0" 1"

2019 WPCF REHABILITATION
ACADEMY CREEK
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION

BGJWSC Project No. 906
GMC Project #CSAV190007

GEORGIA REGISTERED PROFESSIONAL No. 032192 ENGINEER 14May2020 CHARLES B. CRAWLEY

RAS FLOW CONTROL
LCP-4020 SCADA RISER

E-603

CADD PLOT
14-MAY-2020
12:25
ALAWSON