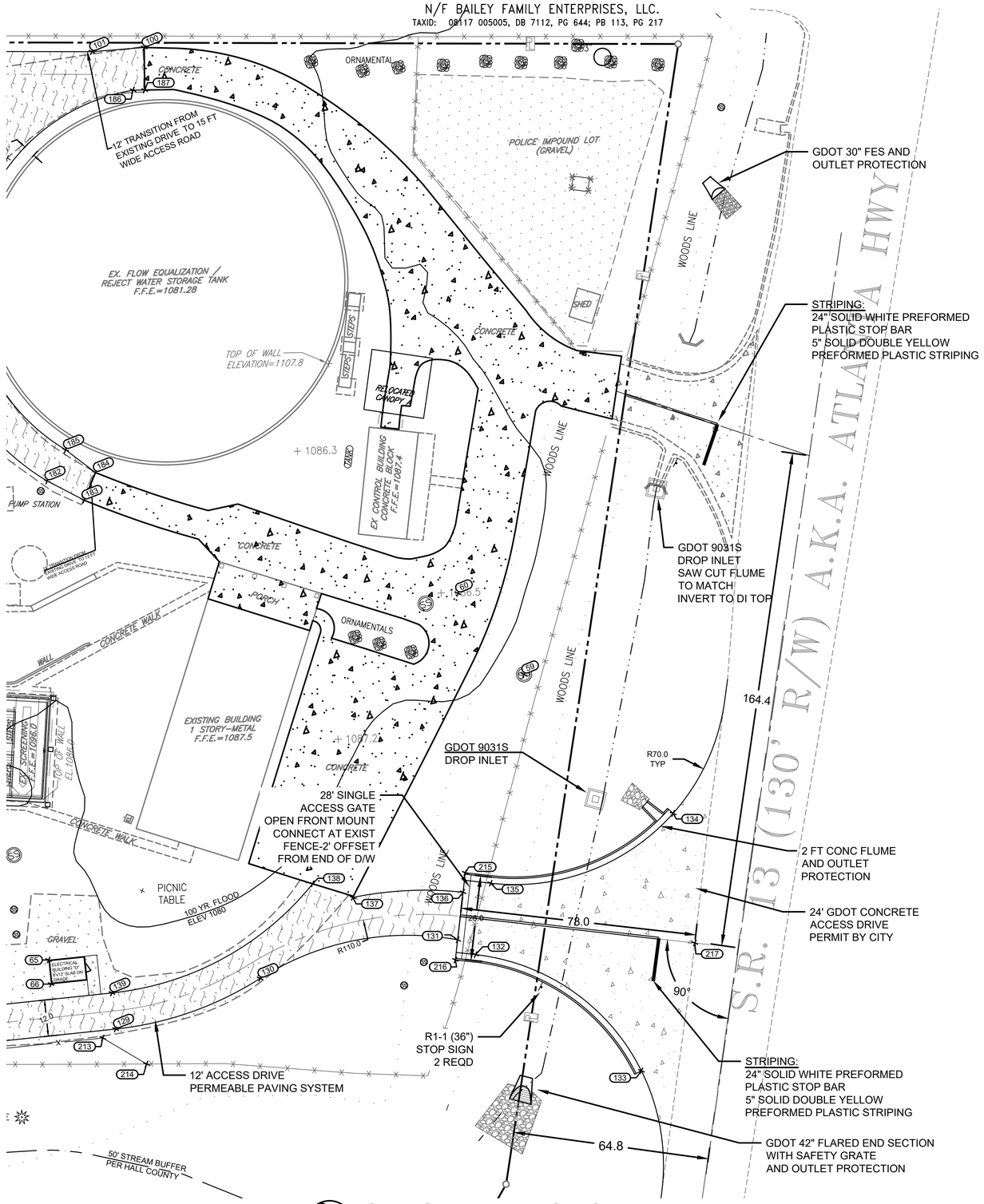


GA D.O.T. ENTRANCE- SITE PLAN
1"=20'

GA. D.O.T. LEGEND

- PROPOSED DRIVEWAY
- EXISTING EDGE OF PAVEMENT
- D.O.T. RIGHT-OF-WAY
- DRAINAGE FLOW
- 1820 — PROPOSED GRADE

45 M.P.H. IS POSTED SPEED LIMIT

GEORGIA D.O.T.NOTES

THE WORK AUTHORIZED MUST BEGIN WITHIN THREE MONTHS AND BE COMPLETED WITHIN TWELVE MONTHS ON A SCHEDULE SATISFACTORY TO THE DEPARTMENT FROM THE PERMIT APPROVAL DATE AND ALSO, BE COMPLETED BEFORE THIS FACILITY IS OPEN TO THE PUBLIC.

THE FOLLOWING WILL NOT BE ALLOWED ON DOT RIGHT-OF-WAY: (1) DIVERSION OF ADDITIONAL DRAINAGE AREA ONTO THE RIGHT-OF-WAY, OR INCREASE IN THE CFS OF CURRENT VOLUMES OF WATER (2) GRADING EXCEPT AT DRIVEWAY CONSTRUCTION LOCATION. (3) HEADWALLS, (4) SIGNS, DISPLAY DEVICES, AND OTHER STRUCTURES WHICH ARE DESIGNED, INTENDED, OR USED TO ADVERTISE OR INFORM. (5) LANDSCAPING WITHOUT PRIOR APPROVAL OF THE LANDSCAPE PLAN.

ALL EXISTING UTILITES WHICH WOULD BE UNDER NEW PAVEMENT OR IN ACCELERATION/DECELERATION LANES SHALL BE RELOCATED BEFORE FINAL GRADING OR PAVING AND AT NO COST TO THE DOT, OR AN APPROVED RETENTION LETTER FROM THE UTILITY OWNER.

CONSTRUCTION OF EROSION CONTROL BARRIERS PER GEORGIA DEPARTMENT OF NATURAL RESOURCES CODE 391-3-7 AND SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED.

APPLICANT SHALL RESTORE ALL EXISTING SIGNS AND REGRASS TO DOT SPECIFICATIONS ALL RIGHT OF WAY THAT IS DISTURBED DURING WORK AUTHORIZED HEREIN.

THE PERMIT APPLICANT IS RESPONSIBLE FOR REPLACEMENT OF ALL EXISTING PAVEMENT MARKINGS DAMAGED BY THE PERMIT CONSTRUCTION AND THE ADDITION OF NEW PAVEMENT MARKINGS AND OR SIGNS AS SHOWN ON THE APPROVED PLAN, OR CURRENT M.U.T.C.D. GUIDELINES.

ALL CURBED ISLANDS SHALL BE FILLED TO THE TOP OF CURB WITH TOP SOIL AND GRASSED. NOTE: THIS APPROVAL DOES NOT ALLOW ANY WORK ON STATE RIGHT-OF-WAY IN CONNECTION WITH UTILITY LINES (SANITARY SEWER, WATER, TELEPHONE, GAS, ETC.)

REQUIRED PAVEMENT SPECIFICATIONS
1 1/4"--------- 9.5 mm SUPERPAVE
2"-------19 mm SUPERPAVE
8"-------25mm SUPERPAVE
12"----------GRADED AGGREGATE BASE COURSE

NOTICE

THIS PERMIT IS APPROVED SUBJECT TO THE REVISIONS AND COMMENTS SHOWN IN RED ON THE ATTACHED PLAN COPY AND SHALL REMAIN DEPENDENT UPON COMPLIANCE WITH THESE.

NO WORK WILL BE ACCOMPLISHED UNDER THIS PERMIT WITHIN THE CONSTRUCTION LIMITS OF ANY DOT PROJECT WITHOUT WRITTEN APPROVAL OF THE PRIME CONTRACTOR.

THE MAINTENANCE OF THE DRIVEWAY FROM THE NORMAL EDGE OF PAVEMENT IS THE RESPONSIBILITY OF THE PERMITEE.

OVERLAY SHALL BE AS DIRECTED BY GDOT PERMIT INSPECTOR.

ALL SIDEWALKS, CROSSWALKS AND RAMPS SHALL MEET ADA STANDARDS GDOT DETAILS.

THE APPLICANT IS RESPONSIBLE TO OBTAIN ALL NECESSARY ENVIRONMENTAL APPROVALS PRIOR TO ANY WORK ON STATE R/W.

ALL WORK PERFORMED WITHIN GDOT R/W SHALL CONFORM TO GDOT STANDARDS AND DETAILS.

Sight Distance Certification:

I, the undersigned, hereby certify the sight distance for the project is designed with adequate distance. The regulated speed limit on the approaching thoroughfare is 45 mph. The designed sight distance provides visibility of 660 feet to the left, and 600 feet to the right. The sight distance shall be measured from a point of 15 feet from travel lane at an eye level of 3.5 feet and looking at an object 3.5 feet above the centerline.

Signed Charles K Hendrix Date 4/11/2022

OWNER INFORMATION

CITY OF FLOWERY BRANCH
WATER RECLAMATION FACILITY

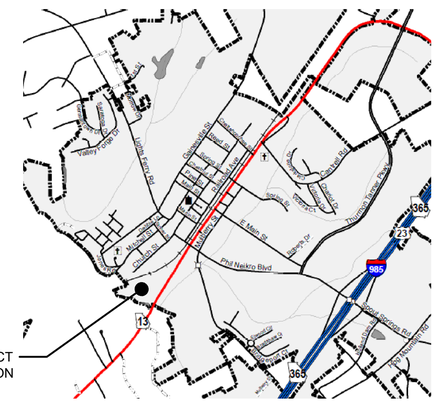
SITE LOCATION: 5572 ATLANTA HWY
FLOWERY BRANCH, GA 30542
HALL COUNTY

MILE POST: 3.9 ON SR 13 (ATLANTA HWY)

TOTAL ROAD FRONTAGE: 164'

24-HOUR CONTACT: JIMMY DEAN 678-776-1074

GEORGIA 811 Utilities Protection Center, Inc.
1-800-282-7411
Know what's below. Call before you dig.



LOCATION MAP
NTS

Graphic Scale
20 0 10 20 40 60
1 inch = 20 ft.

GEORGIA REGISTERED No. 39322 PROFESSIONAL ENGINEER CHARLES K. HENDRIX 4/21/2021

Infratec Consultants, Inc.

Civil Site Plans8-bid dwg - ANSI Full Bleed D (22.00 X 34.00 Inches) - 7/11/2022

DATE: 2/22/21
PROJECT NUMBER: 001

	REVISION	DATE
1	90% CITY REVIEW	7/30/21
2	EPD PERMITTING SUBMITTAL	3/18/22
3	ADDENDUM NO 2 GDOT ENTRANCE	7/1122

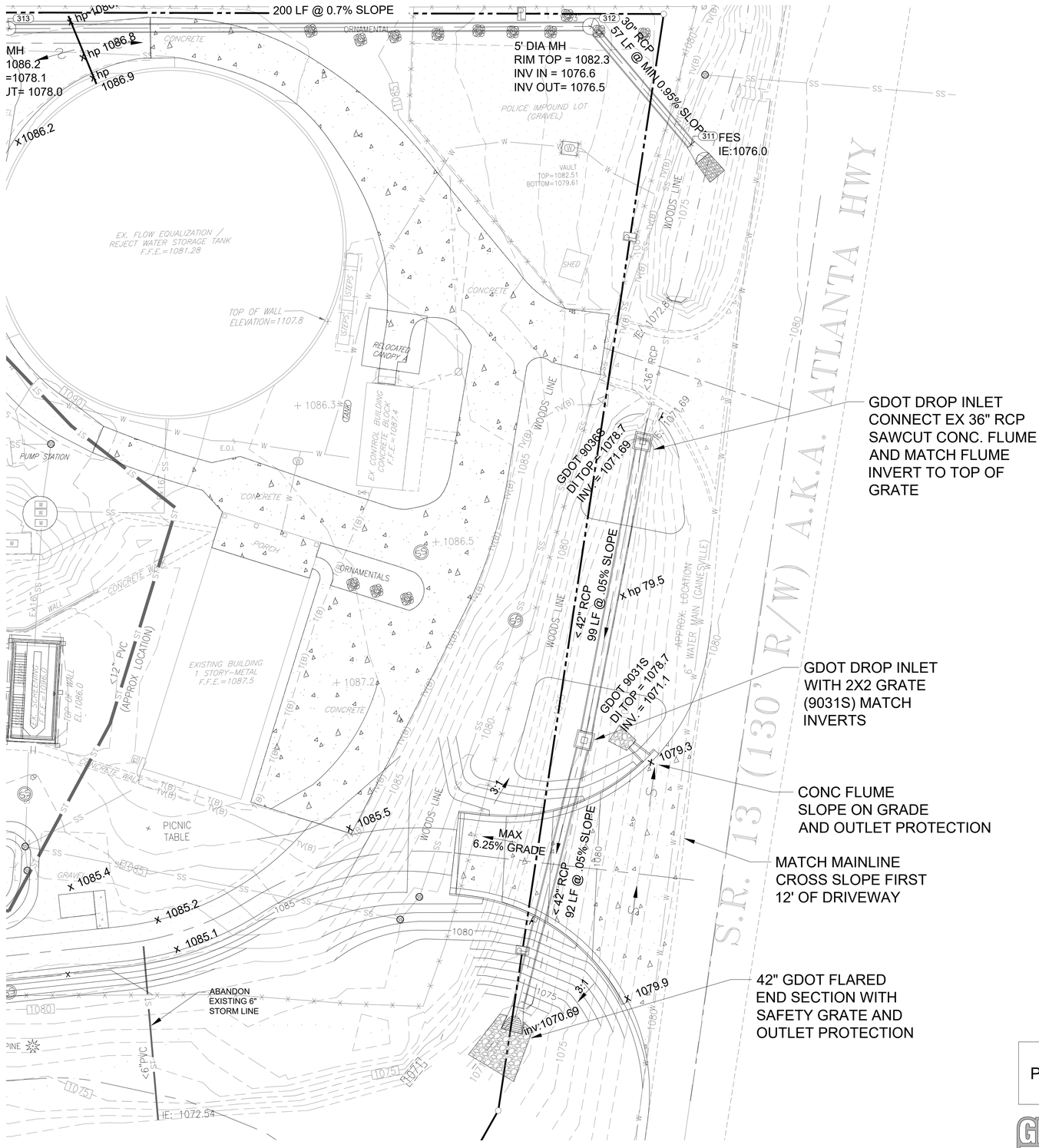
DSGN: SEP
DRWN: SEP
CHCK: KH

BAR BELOW IS 1" LONG FOR SCALES SHOWN ON SHEET. IF BAR IS NOT 1" LONG ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

FLOWERY BRANCH WRF EXPANSION
CITY OF FLOWERY BRANCH, GA

GA D.O.T. ENTRANCE
SITE PLAN AND STAKING

SHEET NO.
C-21



GRADING AND DRAINAGE NOTES

1. CONTRACTOR SHALL NOTIFY THE SUPERVISING CONSTRUCTION MANAGER AND ENGINEER IF ANY FOUNDATION, PAVEMENT OR UTILITY STAKE IS DISTURBED. CONTRACTOR TO UTILIZE EXISTING BENCHMARK TO ESTABLISH PERMANENT BENCHMARKS PRIOR TO CONSTRUCTION.
2. ALL DISTURBED AREAS SHALL BE GRASSED AND MULCHED IN ACCORDANCE WITH THE GEORGIA "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" LATEST EDITION, AND MAINTAINED UNTIL A SATISFACTORY STAND OF GRASS ACCEPTABLE TO THE ENGINEER AND OWNER HAS BEEN OBTAINED. ANY WASHOUTS, RE-GRADING, RE-SEEDING AND GRASSING WORK, AS WELL AS OTHER EROSION WORK REQUIRED WILL BE PERFORMED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
3. THE CONTRACTOR SHALL BACKFILL AND GRADE ALL AREAS TO WITHIN 0.1 FT OF SPECIFIED GRADE ELEVATIONS. THE GEOTECHNICAL ENGINEER SHALL APPROVE ALL SUBGRADE MATERIALS AND SHALL SUPERVISE AND APPROVE ALL MATERIALS AND COMPACTION IN FILL AREAS.
4. EROSION AND SEDIMENTATION CONTROL DEVICES MUST BE INSTALLED PRIOR TO ANY WORK AND MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
5. MAXIMUM CUT-FILL SLOPES SHALL BE 2H:1V EXCEPT WHERE NOTED ON PLANS.
6. WHEN UNSUITABLE MATERIAL IS ENCOUNTERED DURING THE COURSE OF CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ENGINEER AND SUCH AREAS STABILIZED ACCORDING TO THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. UNSUITABLE MATERIAL IS ANY ORGANIC OR INORGANIC MATERIAL 'M-ILCH BY ITS NATURE CANNOT SUPPORT THE IMPROVEMENTS SHOWN ON THE PLANS.
7. BACKFILL FOR CONCRETE OR ASPHALT AREAS SHALL BE SELECT MATERIAL COMPACTED TO MIN. 98% STANDARD PROCTOR MAXIMUM DRY DENSITY IN MAXIMUM 4-INCH LIFTS. AT LEAST TWO FIELD DENSITY TESTS SHALL BE PERFORMED FOR EVERY TWO FEET OF FILL PLACED TO CONFIRM REQUIRED DENSITY. ENGINEER SHALL BE NOTIFIED OF ANY UNSTABLE/UNSUITABLE SOILS PRIOR TO PLACEMENT OF GRADED AGGREGATE BASE OR FINISHED COURSE.
8. ROAD BACKFILL FOR THE PERVIOUS ACCESS ROAD SYSTEM SHALL MEET REQUIREMENTS OF MANUFACTURER FOR THAT PERVIOUS SYSTEM. SUBMITTAL SHALL BE MADE TO THE ENGINEER PRIOR TO INSTALLATION FOR THE PERVIOUS SYSTEM.
9. ALL PIPES TO BE INSTALLED WITH A MINIMUM 3'-0" OF COVER FROM EXISTING GRADE OR AS INDICATED ON THE PLAN AND PROFILES. INSTANCES WHERE THIS CANNOT BE ACHIEVED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR ALTERNATE METHODS SUCH AS ANTI FLOTATION OR ENCASEMENT.
10. ALL DRAINAGE STRUCTURES ARE PRECAST CONCRETE IN ACCORDANCE WITH GA DOT STANDARDS, UNLESS NOTED OTHERWISE. DROP INLETS TO BE IN ACCORDANCE WITH GA DOT STD. 10190 TYPE "A".
11. CONTRACTOR TO PROVIDE POSITIVE DRAINAGE AWAY FROM AND BETWEEN INDIVIDUAL STRUCTURES.
12. ALL DRAINAGE STRUCTURES SHALL HAVE A MINIMUM SOIL BEARING CAPACITY OF 2200 PSF.
13. CUT / FILL ESTIMATES DO NOT BALANCE. EXCESS SPOIL SHALL BE HAULED TO THE NEAREST LOCATION COORDINATED AND APPROVED BY THE OWNER.
14. SEE YARD PIPING CIVIL SHEETS FOR WATER, SEWER AND PROCESS LINES.
15. STORM SEWER SHALL BE RCP CLASS IV, WALL C, TYPE 2 BEDDING INSTALL AS SHOWN IN THE CIVIL DETAILS.
16. SEE CIVIL DETAIL SHEETS FOR STORM SEWER PROFILES.

45 M.P.H. IS POSTED SPEED LIMIT

GEORGIA811 Utilities Protection Center, Inc. 1-800-282-7411 Know what's below. Call before you dig.

GA D.O.T. ENTRANCE - GRADING AND DRAINAGE
SCALE: 1"=20'

Graphic Scale
20 0 10 20 40 60
1 inch = 20 ft.

GEORGE REGISTERED CHARLES K. HENDRIX No. 23322 PROFESSIONAL ENGINEER 7/21/2021

Infratec Consultants, Inc.

DATE: 2/22/21
PROJECT NUMBER: 001

	REVISION	DATE
1	90% CITY REVIEW	7/30/21
2	EPD PERMITTING SUBMITTAL	3/18/22
3	ADDENDUM NO 2 GDOT ENTRANCE	7/11/22

DSGN: SEP
DRWN: SEP
CHCK: KH

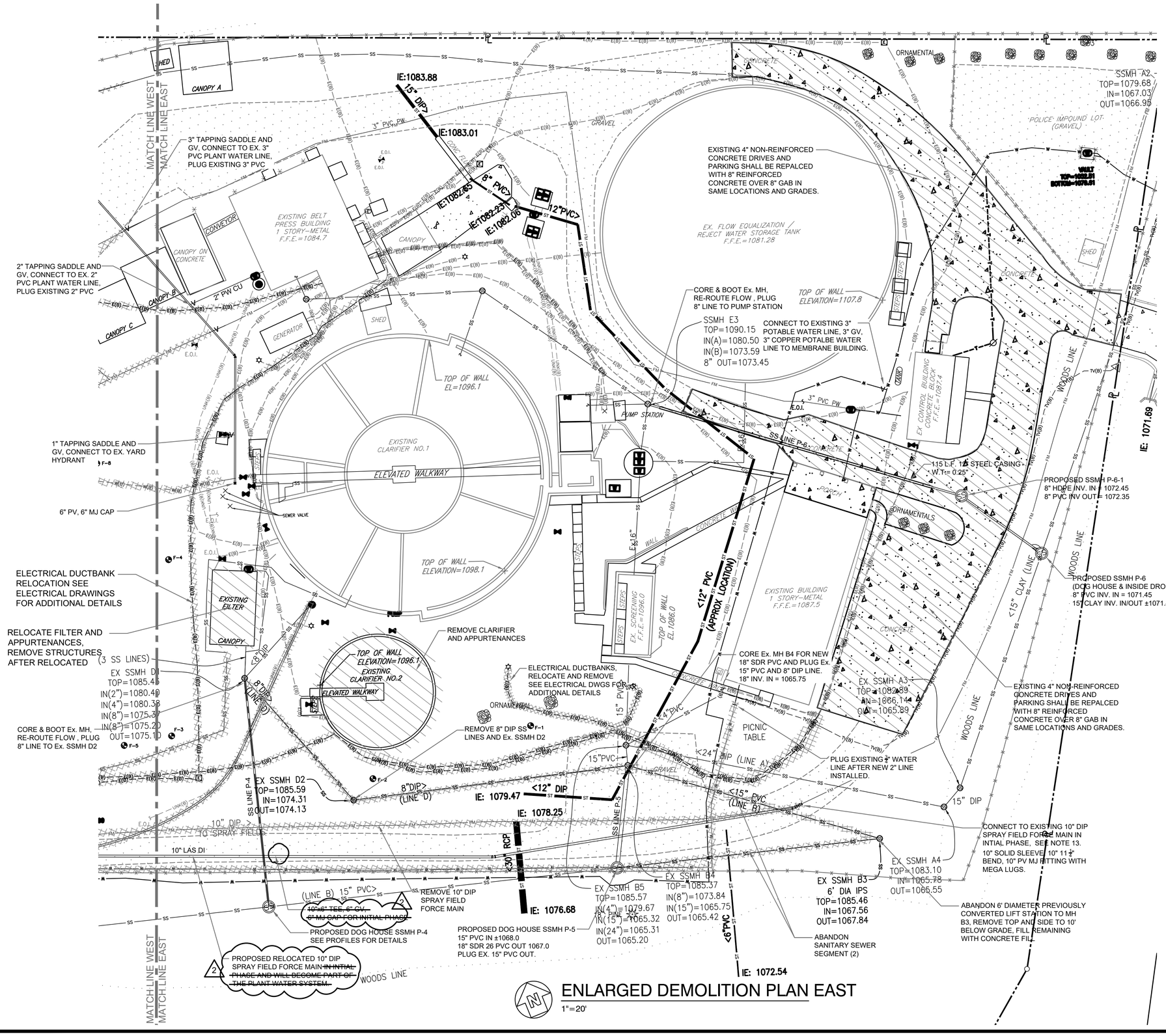
BAR BELOW IS 1" LONG FOR SCALES SHOWN ON THIS SHEET. IF NOT 1" LONG ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

FLOWERY BRANCH WRF EXPANSION
CITY OF FLOWERY BRANCH, GA

GA D.O.T. ENTRANCE
GRADING AND DRAINAGE

SHEET NO.
C-22

Civil Site Plans8-bid dwg - 7/11/2022 - ANSI Full Bleed D (22.00 X 34.00 Inches)



ENLARGED DEMOLITION PLAN EAST

1"=20'

NOTES:

1. EXISTING TREATMENT PLANT MUST REMAIN IN OPERATION AT ALL TIMES. NO EXISTING UTILITY OR PLANT PROCESS SHALL BE TAKEN OUT OF SERVICE AND DEMOLISHED UNTIL THE REPLACEMENT UTILITY OR PLANT PROCESS IS INSTALLED AND MADE OPERATIONAL. CONTRACTOR SHALL COORDINATE ALL TRANSFERS OF SERVICE WITH OWNER AND ENGINEER.
2. THE LOCATION OF EXISTING UTILITIES ARE NOT NECESSARILY ACCURATE AND ALL UTILITIES MAY NOT BE SHOWN, ESPECIALLY OLD ABANDONED LINES. CONTRACTOR SHALL EXPECT TO ENCOUNTER ADDITIONAL UTILITIES AND PROCESS STRUCTURES. IF UNKNOWN UTILITIES AND PROCESS STRUCTURES ARE ENCOUNTERED AND THEY INTERFERE WITH THE NEW CONSTRUCTION, THE CONTRACTOR SHALL REMOVE THE UTILITIES AND PROCESS STRUCTURES AND THE COST NEGOCIATED WITH THE OWNER.
3. THERE IS AN ABANDONED DIGESTER AND DRYING BED THAT WAS PREVIOUSLY PARTIALLY DEMOLISHED AND BURIED LOCATED IN THE AREAS OF THE NEW CONSTRICTION. DETAILS OF WHAT PORTIONS OF THE ABANDONED STRUCTURES THAT REMAIN ARE UNKNOWN. CONTRACTOR SHALL REMOVE REMAINING PORTIONS OF THE ABANDONED STRUCTURES, AND IT'S APPURTENANCES, FOR THE NEW CONSTRUCTION.
4. REFER TO SPECIFICATION 01041, COORDINATION OF WORK, FOR SUGGESTED WORK SEQUENCING TO ASSIST WITH SCHEDULING OF UTILITY RELOCATION AND DEMOLITION ACTIVITIES.

PIPING GENERAL NOTES:

1. ALL DUCTILE IRON (DI) FITTINGS AND BURIED VALVES SHALL BE MECHANICAL JOINT (MJ) AND RESTRAINED EQUAL TO MEGA LUGS (w/ML). PIPES ENTERING OR EXITING EACH VALVE OR FITTING SHALL BE RESTRAINED EQUAL TO GRIPPER GASKETS 40' EACH WAY.
2. ALL FITTINGS ARE NOT SHOWN. SEE EACH STRUCTURE FOR ADDITIONAL PIPE AND FITTINGS UNDER AND ADJACENT.
3. ALL BURIED VALVES SHALL BE FUSION BONDED EPOXY COATED INTERIOR AND EXTERIOR.
4. GRAVITY SEWER LINES SHALL BE SDR 26 PVC.
5. DH=DOG HOUSE MANHOLE
6. SSMH-SANITARY SEWER MANHOLE
7. CHEM-CHEMICAL PULL MANHOLE
8. BDC-BOLT DOWN COVER
9. PIPE AND FITTINGS ALREADY CALLED OUT ON PHASE ONE RELOCATION SHEETS ARE NOT CALLED OUT ON THIS SHEET.
10. PLANT WATER YARD HYDRANTS SHALL BE PAINTED PANTONE PURPLE AND POTABLE YARD HYDRANTS NAVY BLUE
11. CONTRACTOR SHALL INSTALL AN INSERTION TYPE GATE VALE ON THE INFLUENT, EFFLUENT, AND DRAIN LINES FOR THE EXISTING REUSE WATER STORAGE TANK. VALVES SHALL BE TEAM, INC INSERTION VALVE, OR EQUAL. VALVES SHALL BE LOCATED 10 TO 15 FEET FROM EXTERIOR OF TANK. CONTRACTOR SHALL PERFORM EXPLORATORY EXCAVATIONS TO LOCATE LINES, VERIFY LINE SIZES,AND VERIFY PIPE MATERIALS.
12. AFTER LAS PUMPS ARE REMOVED, CLOSE VALVE.

- 1 - 90° Bend
- 2 - 45° Bend
- 3 - 22½° Bend
- 4 - 11¼° Bend
- 5 - Reducer
- 6 - Solid Sleeve (SS)
- 7 - Tee
- 8 -WYE
- 9 -PLUG VALVE
- 10 -Tapping Saddle and GV, various sizes

YARD HYDRANT

SMALL PIPING GATE VALVE

INSERTION VALVE

UTILITIES TO BE RE-LOCATED AND REMOVED PRIOR TO OTHER EXCAVATION ACTIVITIES, SEE ELECTRICAL AND CIVIL PLANS ALONG WITH SPECIFICATIONS FOR ADDITIONAL PIPING DETAILS.

AREAS TO BE DEMOLISHED AND REMOVED. CONTRACTOR SHALL COORDINATE THE SEQUENCE OF WORK IN THEIR PROJECT SCHEDULE.

Graphic Scale

20' 0 10' 20' 40' 60'

1 inch = 20' ft.

GEORGE HOWARD HENDRIX
REGISTERED No. 23322 PROFESSIONAL ENGINEER
JAMES K. HENDRIX
4/21/2021

Infratec Consultants, Inc.

	REVISION	DATE
1	ADDENDUM NO 1	06/30/2022
2	ADDENDUM NO 2	07/11/2022
#		#
#		#

DATE:4/21/2021
PROJECT NUMBER: 001

DSGN: MTG
DRWN: SEP
CHCK: KH

BAR BELOW IS 1" LONG FOR SCALES SHOWN ON SHEET. IF IT'S NOT 1" LONG ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

C 02-03 PHASE ONE RELOCATE Addendum 2.dwg - ANSI Full Bleed D (22.00 X 34.00 Inches) - 7/10/2022

FLOWERY BRANCH WRF EXPANSION
CITY OF FLOWERY BRANCH, GA

UTILITY RELOCATION
& DEMOLITION PLAN EAST

SHEET NO.

C-4

PIPING GENERAL NOTES:

1. ALL DUCTILE IRON (DI) FITTINGS AND BURIED VALVES SHALL BE MECHANICAL JOINT (MJ) AND RESTRAINED EQUAL TO MEGA LUGS (w/ML). PIPES ENTERING OR EXITING EACH VALVE OR FITTING SHALL BE RESTRAINED EQUAL TO GRIPPER GASKETS 40' EACH WAY.
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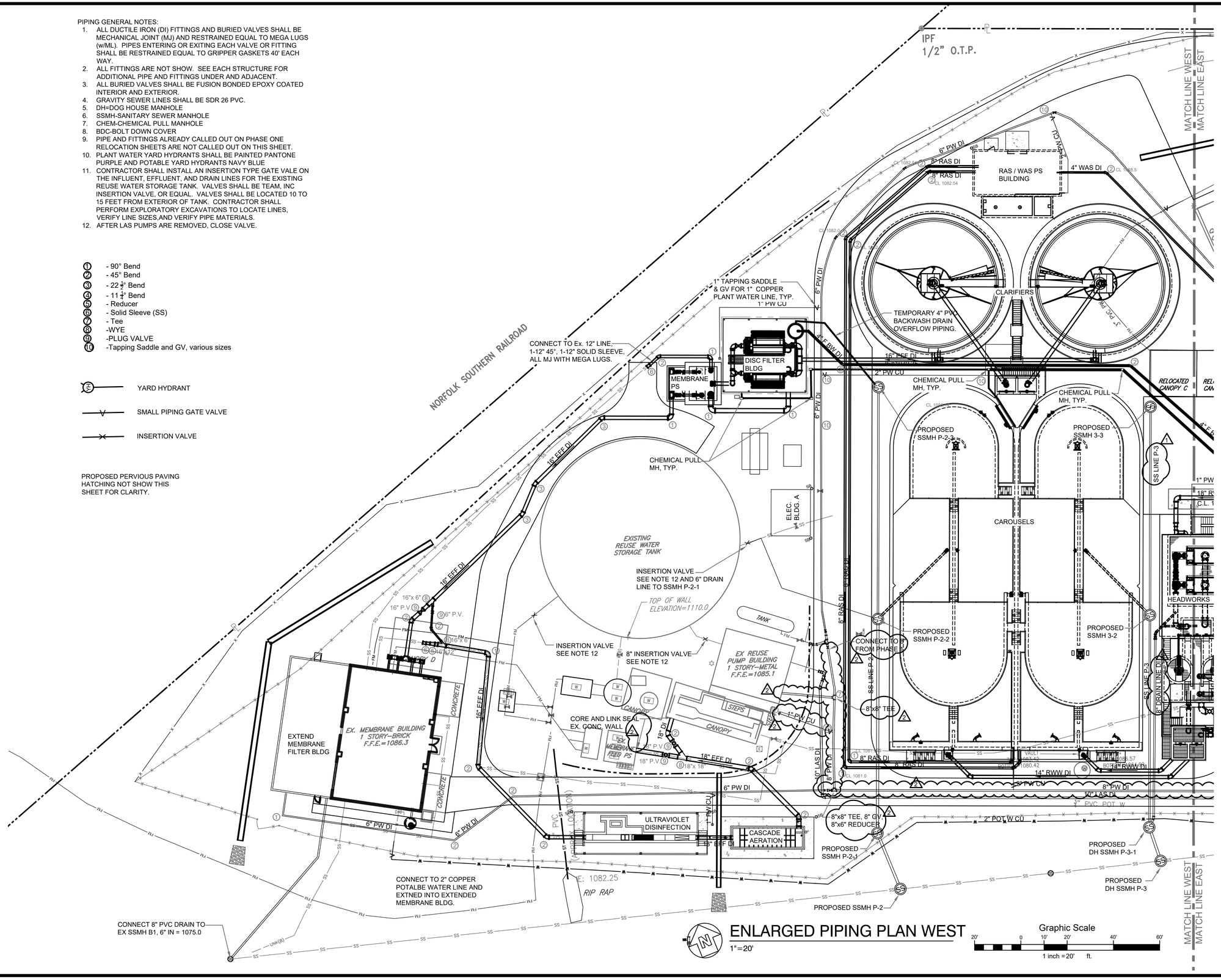
YARD HYDRANT

SMALL PIPING GATE VALVE

INSERTION VALVE

PROPOSED PERVIOUS PAVING HATCHING NOT SHOW THIS SHEET FOR CLARITY.



GEORGE HOWARD HENDRIX
REGISTERED No. 28322 PROFESSIONAL ENGINEER
JAMES K. HENDRIX
4/21/2021

Infratec Consultants, Inc.

#	REVISION	DATE
1	ADDENDUM NO 1	06/30/2022
2	ADDENDUM NO 2	07/11/2022

DATE:4/24/2021
PROJECT NUMBER: 001

DSGN: MTG
DRWN: SEP
CHCK: KH

BAR BELOW IS 1" LONG FOR SCALES ENCOUNTERED IN SHEET. IF NOT 1" LONG ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

FLOWERY BRANCH WRF EXPANSION
CITY OF FLOWERY BRANCH, GA

ENLARGED
PIPING PLAN WEST

SHEET NO.
C-14

C 14-15 PIPING PLANS EAST AND WEST Addendum 2.dwg - 7/10/2022 - ANSI Full Bleed D (22.00 X 34.00 Inches)

ENLARGED PIPING PLAN EAST

1"=20'

PIPING GENERAL NOTES:

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SMALL PIPING GATE VALVE

INSERTION VALVE

PROPOSED PERVIOUS PAVING HATCHING NOT SHOW THIS SHEET FOR CLARITY.

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GEORGE HOWARD HENDRIX
REGISTERED No. 28322 PROFESSIONAL ENGINEER
JAMES K. HENDRIX
4/21/2021

Infratec Consultants, Inc.

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#		#

DATE:4/21/2021
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C 14-15 PIPING PLANS EAST AND WEST Addendum 2.dwg - ANSI Full Bleed D (22.00 X 34.00 Inches) - 7/10/2022

FLOWERY BRANCH WRF EXPANSION
CITY OF FLOWERY BRANCH, GA

ENLARGED
PIPING PLAN EAST

SHEET NO.

C-15

NOTES:
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AREAS TO BE DEMOLISHED AND REMOVED. CONTRACTOR SHALL COORDINATE THE SEQUENCE OF WORK IN THEIR PROJECT SCHEDULE.

① - 90° Bend
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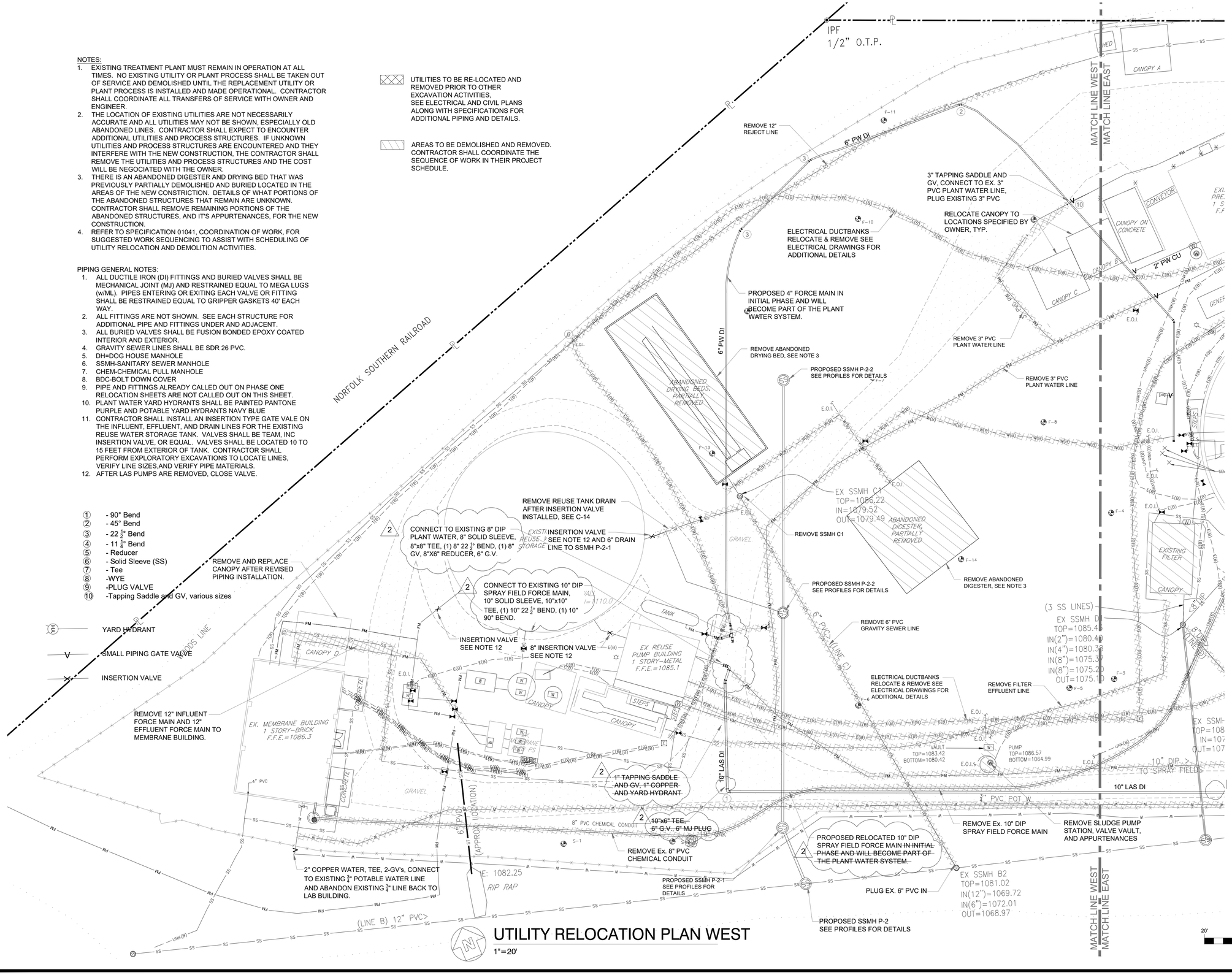
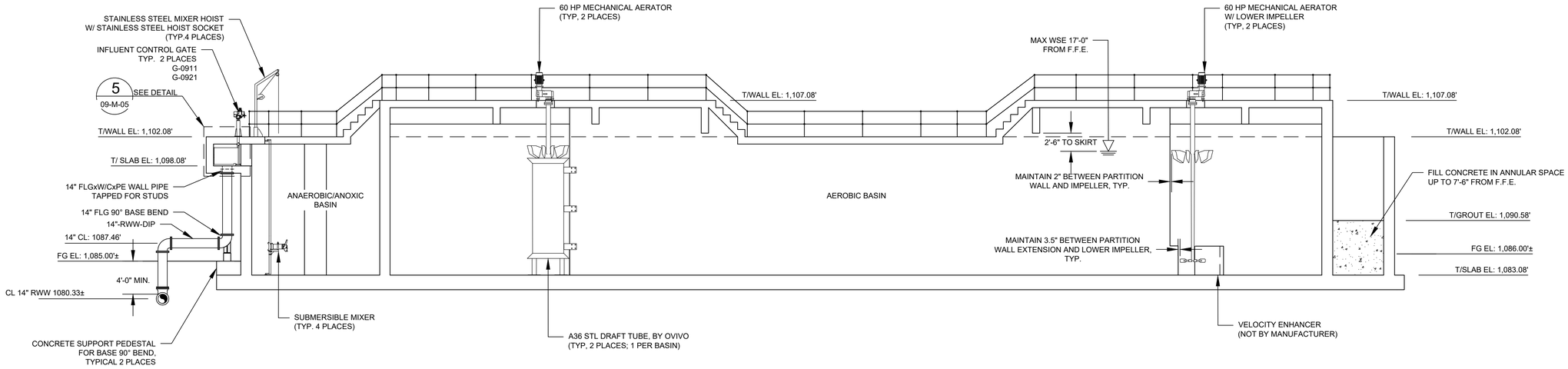
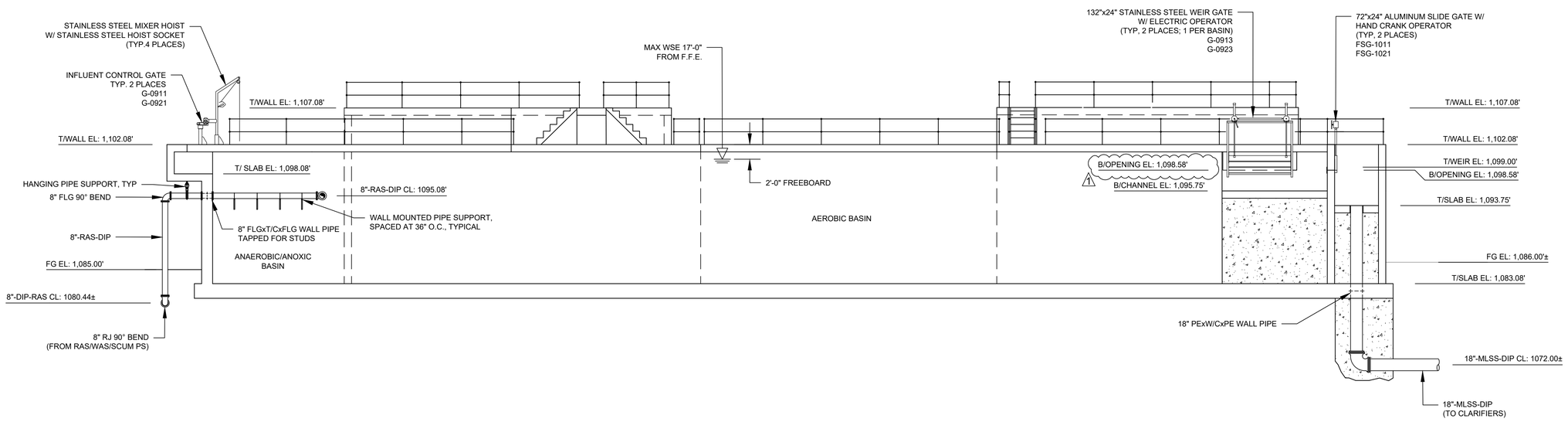
YARD HYDRANT
SMALL PIPING GATE VALVE
INSERTION VALVE


IPF
1/2" O.T.P.
NORFOLK SOUTHERN RAILROAD
MATCH LINE WEST
MATCH LINE EAST
REMOVE 12" REJECT LINE
6" PW DI
3" TAPPING SADDLE AND GV, CONNECT TO EX. 3" PVC PLANT WATER LINE, PLUG EXISTING 3" PVC
RELOCATE CANOPY TO LOCATIONS SPECIFIED BY OWNER, TYP.
ELECTRICAL DUCTBANKS RELOCATE & REMOVE SEE ELECTRICAL DRAWINGS FOR ADDITIONAL DETAILS
PROPOSED 4" FORCE MAIN IN INITIAL PHASE AND WILL BECOME PART OF THE PLANT WATER SYSTEM.
REMOVE ABANDONED DRYING BED, SEE NOTE 3
PROPOSED SSMH P-2-2 SEE PROFILES FOR DETAILS
REMOVE 3" PVC PLANT WATER LINE
REMOVE 3" PVC PLANT WATER LINE
ABANDONED DRYING BEDS, PARTIALLY REMOVED
EX SSMH C1
TOP=1086.22
IN=1079.52
OUT=1079.49
ABANDONED DIGESTER, PARTIALLY REMOVED
REMOVE SSMH C1
REMOVE ABANDONED DIGESTER, SEE NOTE 3
PROPOSED SSMH P-2-2 SEE PROFILES FOR DETAILS
REMOVE REUSE TANK DRAIN AFTER INSERTION VALVE INSTALLED, SEE C-14
CONNECT TO EXISTING 8" DIP PLANT WATER, 8" SOLID SLEEVE, 8"x8" TEE, (1) 8" 22 ½° BEND, (1) 8" GV, 8"X6" REDUCER, 6" G.V.
EXISTING REUSE WATER STORAGE TANK
INSERTION VALVE SEE NOTE 12 AND 6" DRAIN LINE TO SSMH P-2-1
CONNECT TO EXISTING 10" DIP SPRAY FIELD FORCE MAIN, 10" SOLID SLEEVE, 10"x10" TEE, (1) 10" 22 ½° BEND, (1) 10" 90° BEND.
INSERTION VALVE SEE NOTE 12
8" INSERTION VALVE SEE NOTE 12
EX REUSE PUMP BUILDING 1 STORY-METAL F.F.E.=1085.1
REMOVE 6" PVC GRAVITY SEWER LINE
(3 SS LINES)
EX SSMH D
TOP=1085.45
IN(2")=1080.49
IN(4")=1080.38
IN(8")=1075.37
IN(8")=1075.20
OUT=1075.10
ELECTRICAL DUCTBANKS RELOCATE & REMOVE SEE ELECTRICAL DRAWINGS FOR ADDITIONAL DETAILS
REMOVE FILTER EFFLUENT LINE
REMOVE 12" INFLUENT FORCE MAIN AND 12" EFFLUENT FORCE MAIN TO MEMBRANE BUILDING.
EX. MEMBRANE BUILDING 1 STORY-BRICK F.F.E.=1086.3
CANOPY A
CANOPY B
CANOPY C
CANOPY D
CANOPY ON CONCRETE
CONVEYOR
EXISTING FILTER
CANOPY
STEPS
GRAVEL
CONCRETE
2" PW CU
6" PVC (LINE C)
10" LAS DI
10" LAS DI
VAULT
TOP=1083.42
BOTTOM=1080.42
PUMP
TOP=1086.57
BOTTOM=1064.99
EX SSMH
TOP=108
IN=107
OUT=107
10" DIP
TO SPRAY FIELDS
3" PVC POT W
1" TAPPING SADDLE AND GV, 1" COPPER AND YARD HYDRANT
10"x6" TEE, 6" G.V., 6" MJ PLUG
8" PVC CHEMICAL CONDUIT
REMOVE Ex. 8" PVC CHEMICAL CONDUIT
REMOVE Ex. 10" DIP SPRAY FIELD FORCE MAIN
REMOVE SLUDGE PUMP STATION, VALVE VAULT, AND APPURTENANCES
PROPOSED RELOCATED 10" DIP SPRAY FIELD FORCE MAIN IN INITIAL PHASE AND WILL BECOME PART OF THE PLANT WATER SYSTEM.
PROPOSED SSMH P-2-1 SEE PROFILES FOR DETAILS
PLUG EX. 6" PVC IN
EX SSMH B2
TOP=1081.02
IN(12")=1069.72
IN(6")=1072.01
OUT=1068.97
PROPOSED SSMH P-2 SEE PROFILES FOR DETAILS
2" COPPER WATER, TEE, 2-GV's, CONNECT TO EXISTING ¾" POTABLE WATER LINE AND ABANDON EXISTING ¾" LINE BACK TO LAB BUILDING.
4" PVC
6" PVC (APPROX LOCATION)
TOE: 1082.25
RIP RAP
(LINE B) 12" PVC>
REMOVE AND REPLACE CANOPY AFTER REVISED PIPING INSTALLATION.
REMOVE EXISTING FILTER
REMOVE EXISTING CANOPY
REMOVE EXISTING CONCRETE
REMOVE EXISTING STEPS
REMOVE EXISTING CONCRETE
REMOVE EXISTING CANOPY



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

A
09-M-01



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

B
09-M-01

GEORGIA REGISTERED No. 25248 PROFESSIONAL ENGINEER W. SCOTT HENNESSEE

Infratec Consultants, Inc.

ESI
ENGINEERING STRATEGIES, INC.

PROJECT NUMBER: -----
PROJECT DATE: JUNE 2022

	REVISION	DATE
1	ADDENDUM NO. 2	07/07/2022

DESIGNED BY: AHW
DRAWN BY: AHW
REVIEWED BY: WSH

BAR BELOW IS 1" LONG FOR SCALES SHOWN ON THIS SHEET. IF NOT 1" LONG ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

0 1"

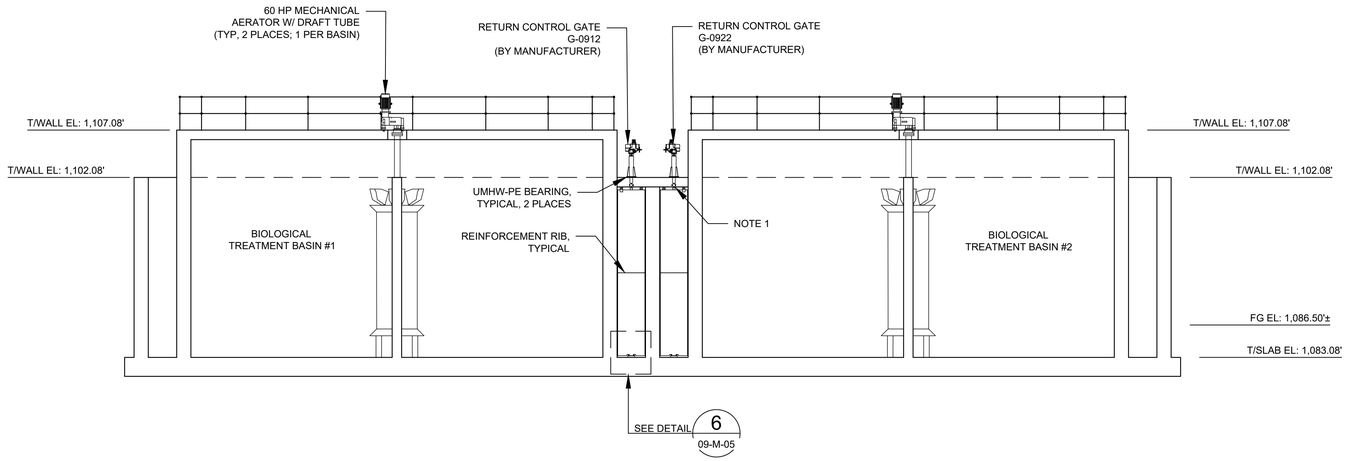
FLOWERY BRANCH WRF
UPGRADE TO 2.2 MGD

BIOLOGICAL TREATMENT - SECTIONS 1

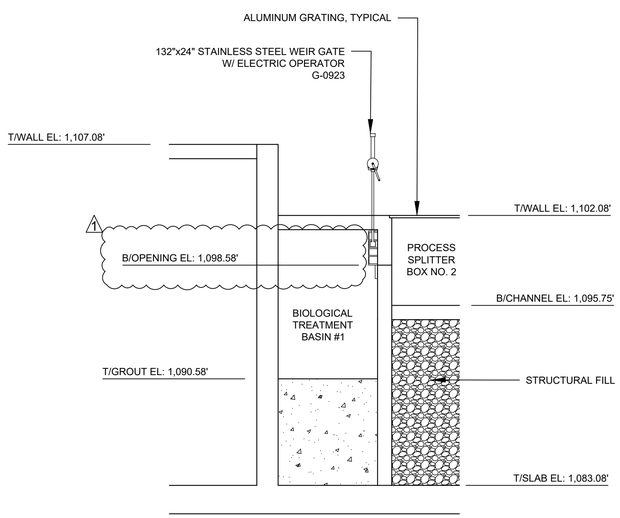
09-M-03

ISSUED FOR BID

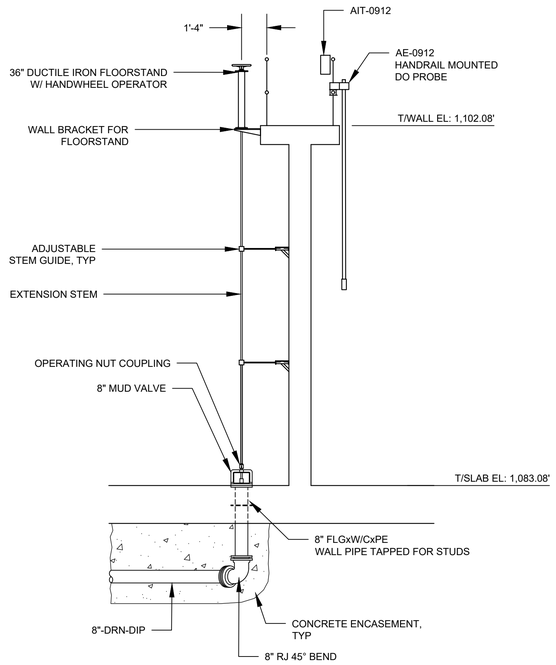
L:\Flowery Branch\WRF Expansion\Dwg\Sheets\MS-Carrousel.dwg - 7/7/2022 8:53 AM BY: AWATERS



SECTION C
SCALE: 1/8" = 1'-0"
09-M-01



SECTION D
SCALE: 3/16" = 1'-0"
09-M-02



SECTION E
SCALE: 1/4" = 1'-0"
09-M-02

NOTES:

1. JOINT ALLOWS ±2" OF VERTICAL ADJUSTMENT, JOINT REQUIRES FIELD DRILLING IN THREE (3) LOCATIONS

GEORGIA REGISTERED No. 25248 PROFESSIONAL ENGINEER W. Scott Hennessee SCOTT HENNESSEE

Infratec Consultants, Inc.

ESI ENGINEERING STRATEGIES, INC.

	REVISION	DATE
1	ADDENDUM NO. 2	07/07/2022

PROJECT NUMBER: -----
PROJECT DATE: JUNE 2022

DESIGNED BY: AHW
DRAWN BY: AHW
REVIEWED BY: WSH

BAR BELOW IS 1" LONG FOR SCALES SHOWN ON THIS SHEET. IF NOT 1" LONG ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

0 1"

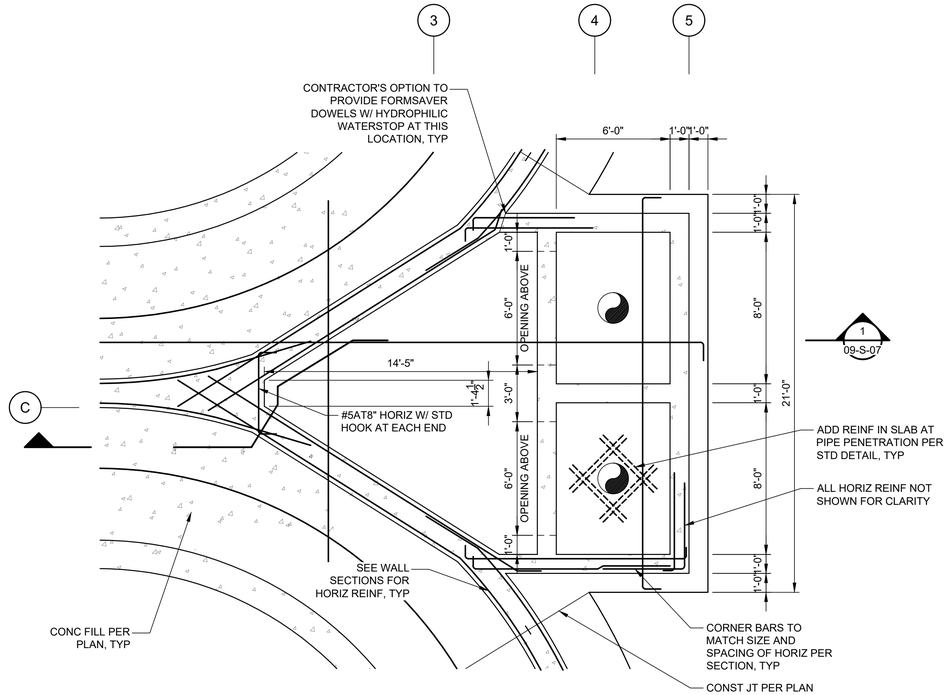
FLOWERY BRANCH WRF
UPGRADE TO 2.2 MGD

BIOLOGICAL TREATMENT - SECTIONS 2

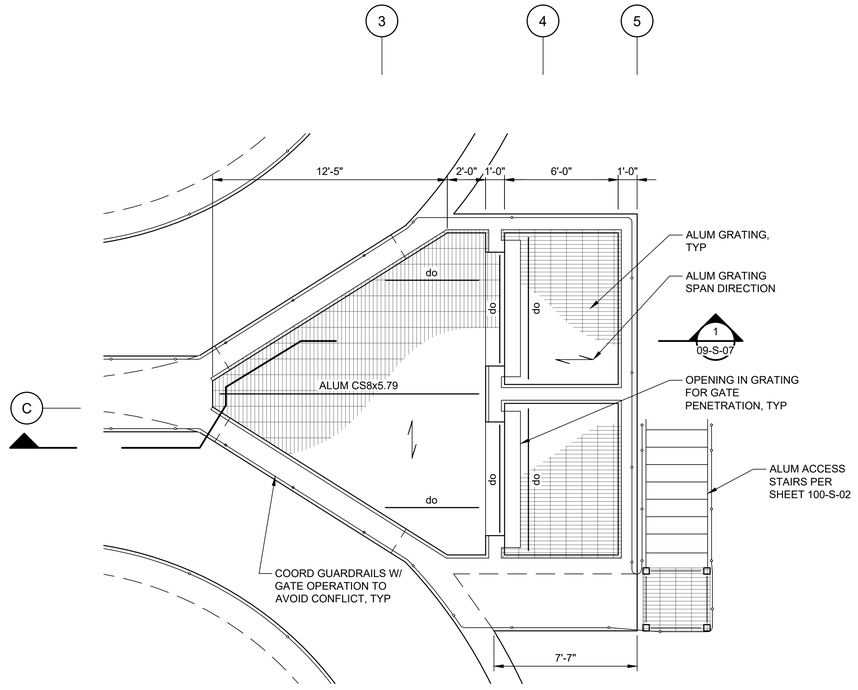
09-M-04

ISSUED FOR BID

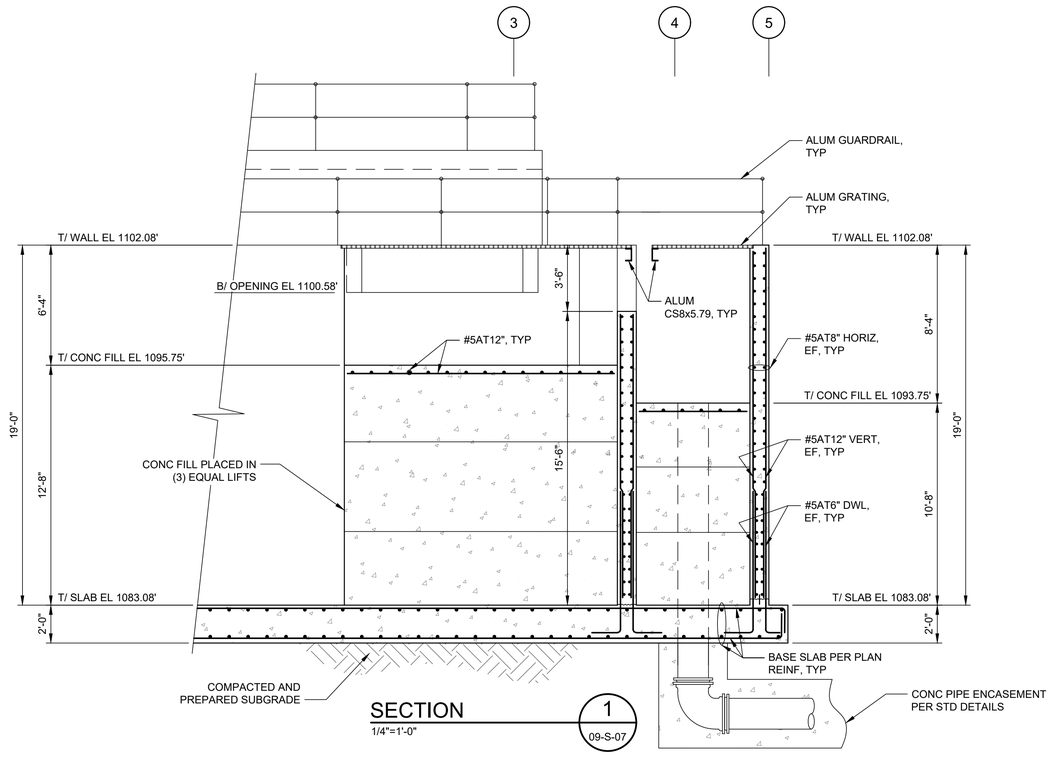
L:\Flowery Branch\WRF Expansion\Dwg\Sheets\MS-Carrousel.dwg - 7/7/2022 8:54 AM BY: AWATERS



FOUNDATION
PLAN
1/4"=1'-0"



T/ STRUCTURE
PLAN
1/4"=1'-0"



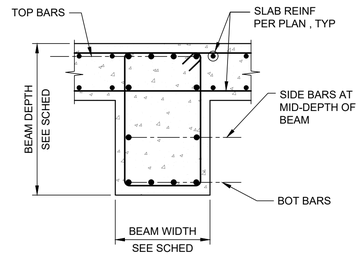
SECTION
1/4"=1'-0"
1
09-S-07

BEAM SCHEDULE

MARK	T/ BEAM EL.	SIZE	BOT BARS	TOP BARS	SIDE BARS	STIRRUPS			REMARKS
						SIZE	TYPE	SPACING	
B1	EL 1107.08'	16" x 32"	(4) #8	(5) #8	#6 EF	#4	□	8" OC	
B2	EL 1107.08'	22" x 39"	(5) #9	(5) #10	#6 EF	#4	□	10" OC	
B3	EL 1107.08'	18" x 72"	(4) #8	(4) #8	#6 EF	#4	□	12" OC	

BEAM SCHEDULE NOTES:

1. PROVIDE TOP BAR SPLICE WHEN NEEDED AT CENTER OF EACH SPAN.
2. TOP OF BEAM TO MATCH SLOPE OF SLAB AS INDICATED ON PLANS. BARS MAY BE PLACED LEVEL AND SLOPE SHALL BE ACHIEVED BY INCREASING BAR COVER BY 1" MAXIMUM.



BEAM "B1"

GEORGIA REGISTERED No. 41721 PROFESSIONAL ENGINEER JOHN SOBCZAK
4-21-22

Infratec Consultants, Inc.

711 N ORANGE AVE, SUITE A
WINTER PARK, FL 32789
P: 321.972.4989 CA Lic. No: 31920
WEKIVA PROJECT #19-283

WEKIVA ENGINEERING

REVISION	DATE
1 ADDENDUM NO. 2	07/06/2022

PROJECT NUMBER:
PROJECT DATE: APRIL 2022

DESIGNED BY: JWS
DRAWN BY: JM
REVIEWED BY: DSM

BAR BELOW IS 1" LONG FOR SCALES SHOWN ON THIS SHEET. IF NOT 1" LONG ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

0 1"

FLOWERY BRANCH WRF
UPGRADE

BIOLOGICAL TREATMENT
WALL SECTIONS

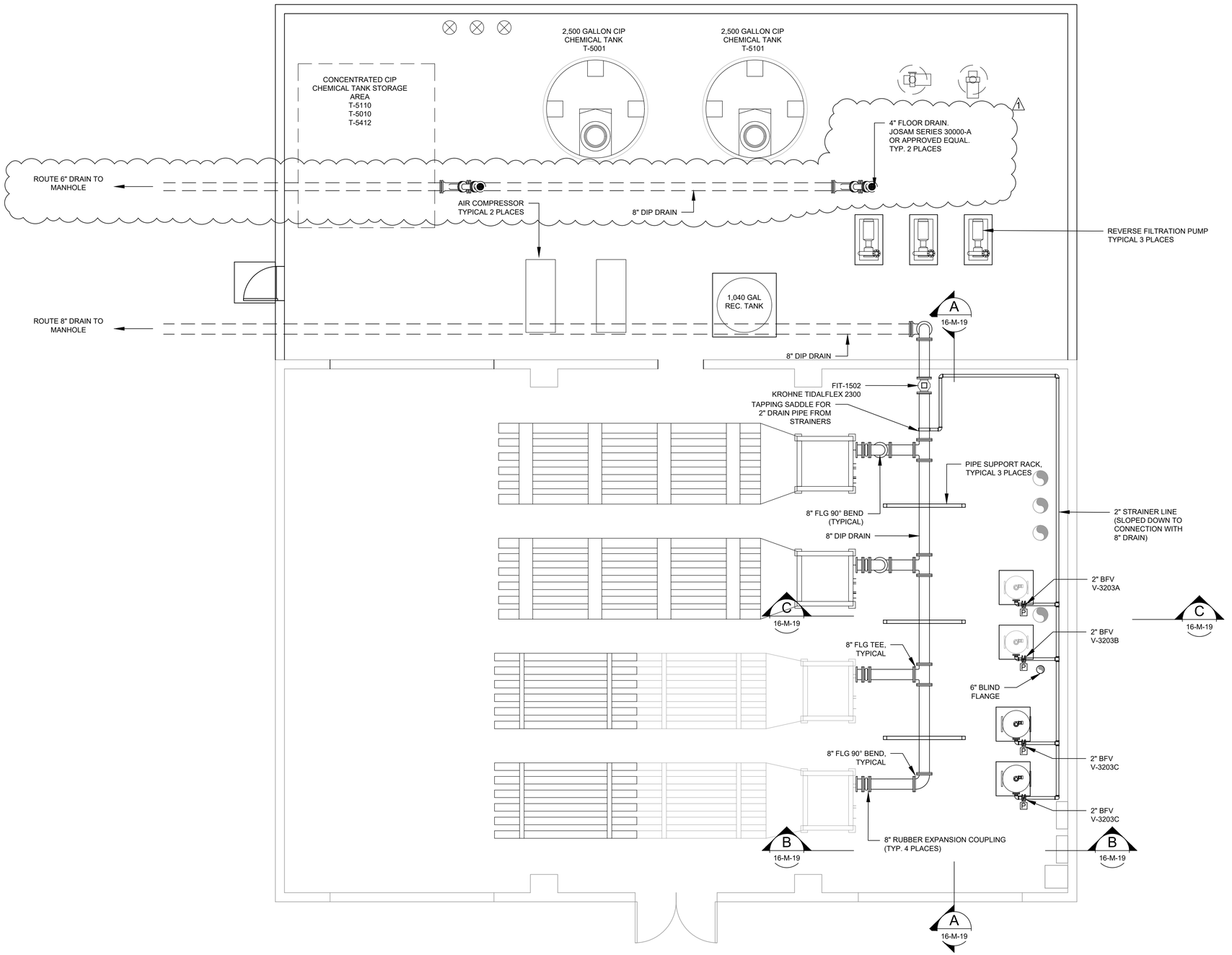
09-S-07

ISSUED FOR BID

Z:\ES\119-283 Flowery Branch WWTF\Drawings\Structural\09-S-01 Carrousel Basin.dwg - 7/5/2022 8:25 AM BY: JOHN

NOTES:

1. THE 2" CARBON STEEL DRAIN LINES EMANATING FROM THE NEW MEMBRANE FEED STRAINERS SHALL BE ROUTED IN A SIMILAR FASHION AS THE EXISTING STRAINERS. A NEW 2" TAPPING SADDLE ASSEMBLY WILL BE REQUIRED TO CONNECT TO THE EXISTING 6" DRAIN LINE UPSTREAM OF WHERE IT LEAVES THE MEMBRANE BUILDING.
2. SLOPE FLOOR TO FLOOR DRAINS INSIDE OF NEW MEMBRANE BUILDING ADDITION.



MEMBRANE DRAIN SYSTEM PIPING PLAN

1/4" = 1'-0"

GEORGIA REGISTERED No. 25248 PROFESSIONAL ENGINEER W. SCOTT HENNESSEE

Infratec Consultants, Inc.

ESI ENGINEERING STRATEGIES, INC.

REVISION		DATE
1	ADDENDUM NO. 2	07/10/2022

PROJECT NUMBER: ----

PROJECT DATE: JUNE 2022

DESIGNED BY: AHW
DRAWN BY: AHW
REVIEWED BY: WSH

BAR BELOW IS 1" LONG FOR SCALES SHOWN ON THIS SHEET. IF NOT 1" LONG ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

0 1"

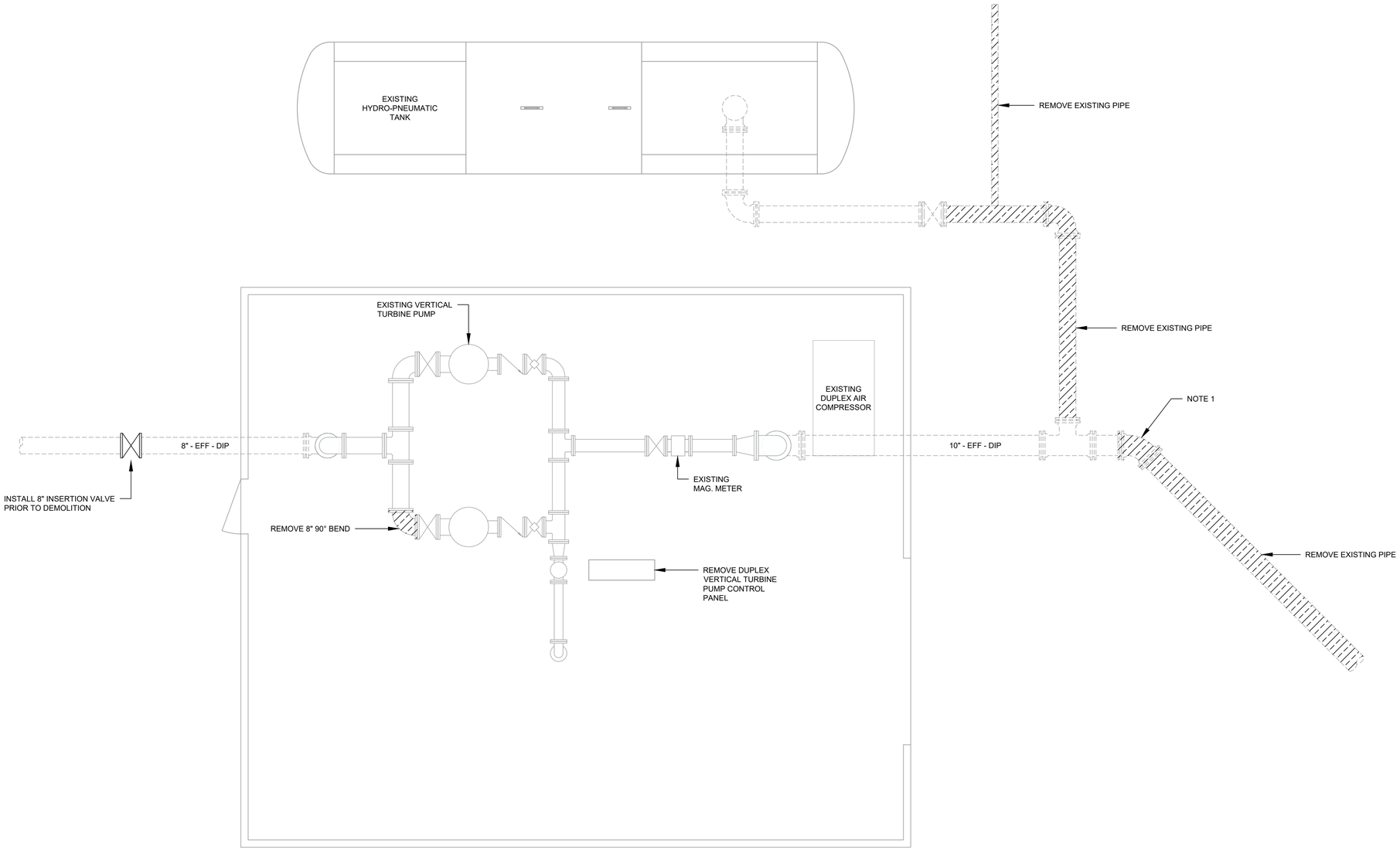
FLOWERY BRANCH WRF
UPGRADE TO 2.2 MGD

MEMBRANE BUILDING - DRAIN PIPING

16-M-18

ISSUED FOR BID

L:\Flowery Branch\WRF Expansion\Dwg\Sheets\MS-Membrane Building.dwg - 7/12/2022 7:46 AM BY: AWATERS



PACKAGED BOOSTER PUMP STATION DEMOLITION PLAN

3/8" = 1'-0"

NOTES:

1. ACTUAL PIPING ARRANGEMENT IS UNKNOWN. CONTRACTOR SHALL PERFORM AN EXPLORATORY EXCAVATION TO VERIFY PIPING ARRANGEMENT AND SIZE AND PROVIDE FITTINGS AND APPURTENANCES, AS REQUIRED, TO RECONFIGURE AND REROUTE PIPING.
2. CONTRACTOR SHALL REMOVE SHELVING AND APPURTENANCES, AS REQUIRED FOR NEW BOOSTER PUMP STATION AND PIPING.

GEORGIA REGISTERED No. 25248 PROFESSIONAL ENGINEER W. SCOTT HENNESSEE

ESI ENGINEERING STRATEGIES, INC.

PROJECT NUMBER: ----

PROJECT DATE: JUNE 2022

REVISION	DATE

DESIGNED BY: BW
DRAWN BY: BW
REVIEWED BY: WSH

BAR BELOW IS 1" LONG FOR SCALES SHOWN ON THIS SHEET. IF NOT 1" LONG ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

0 1"

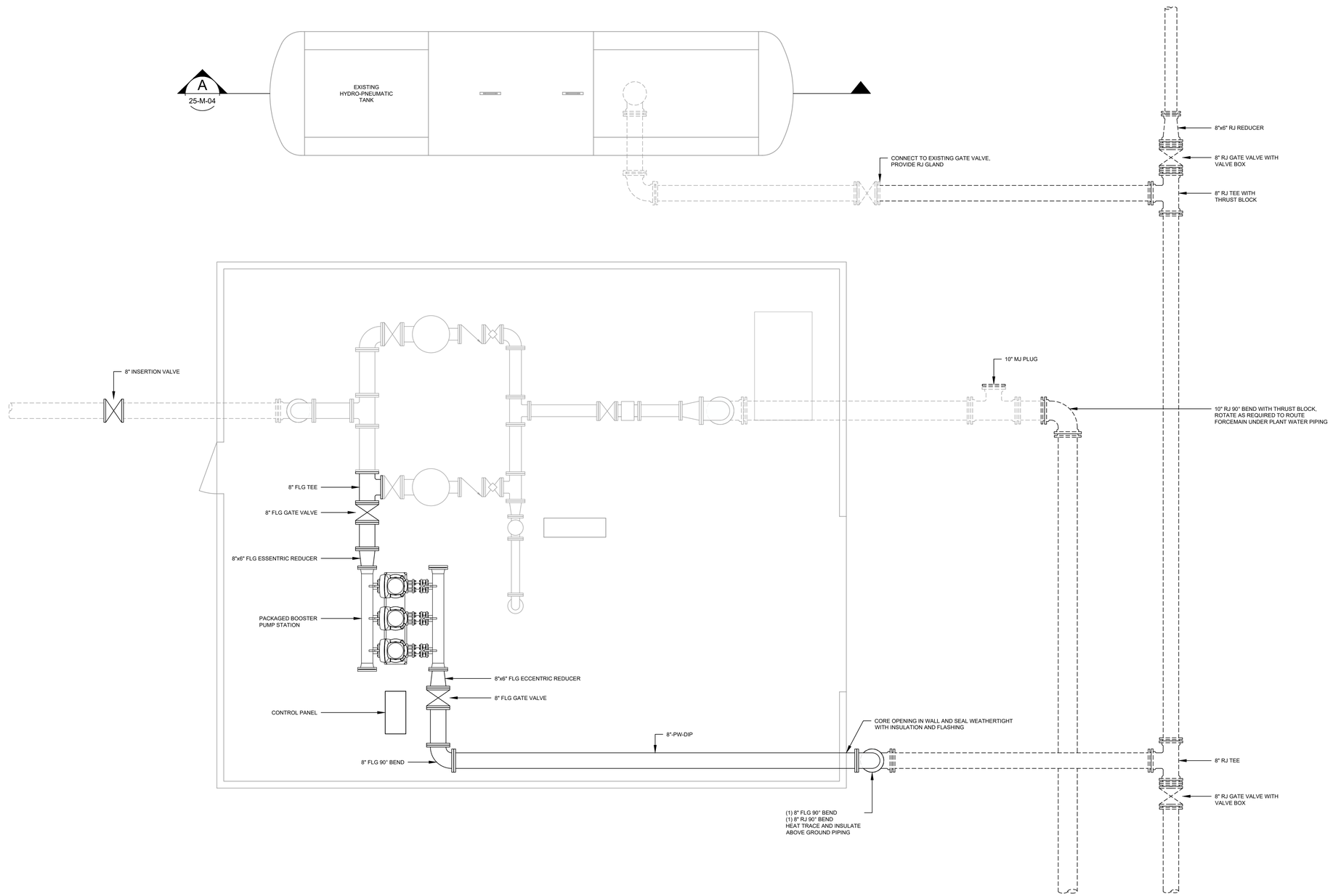
FLOWERY BRANCH WRF
UPGRADE TO 2.2 MGD

PACKAGE BOOSTER PUMP STATION DEMOLITION PLAN

25-M-01

ISSUED FOR BID

L:\Flowery Branch\WRF Expansion\Dwg\Sheets\MS-Packaged Water Booster System - Rev 1.dwg - 7/11/2022 4:44 PM BY: AWATERS



PACKAGED BOOSTER PUMP STATION PLAN

3/8" = 1'-0"

GEORGIA REGISTERED No. 25248 PROFESSIONAL ENGINEER W. SCOTT HENNESSEE

ESI
ENGINEERING STRATEGIES, INC.

PROJECT NUMBER: ----
PROJECT DATE: JUNE 2022

REVISION	DATE

DESIGNED BY: BW
DRAWN BY: BW
REVIEWED BY: WSH

BAR BELOW IS 1" LONG FOR SCALES SHOWN ON THIS SHEET. IF NOT 1" LONG ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

0 1"

FLOWERY BRANCH WRF
UPGRADE TO 2.2 MGD

PACKAGE BOOSTER PUMP STATION FINAL PLAN

25-M-03

ISSUED FOR BID

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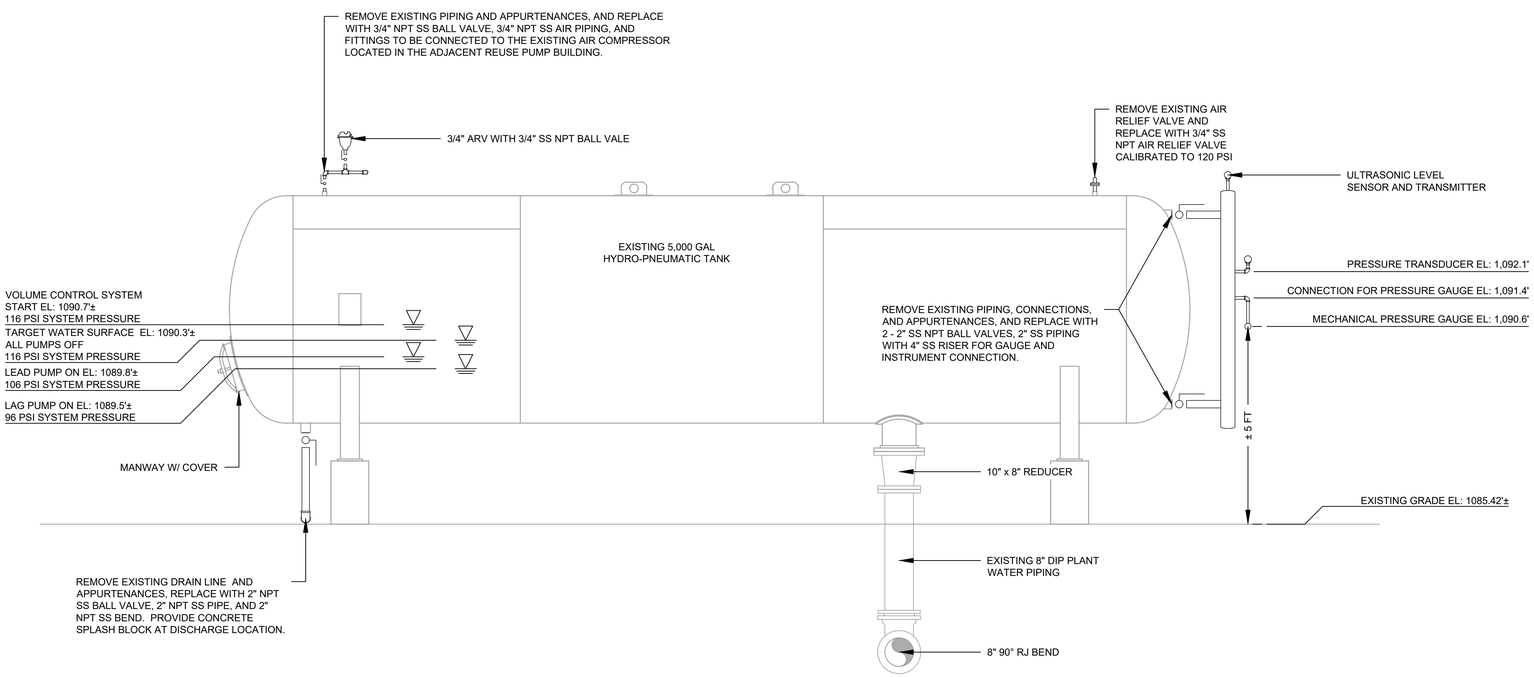

EXISTING 5,000 GAL. PNEUMATIC TANK (A / 25-M-03)

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

GEORGIA REGISTERED No. 25248 PROFESSIONAL ENGINEER W. SCOTT HENNESSEE

ESI ENGINEERING STRATEGIES, INC.

PROJECT NUMBER: ----

PROJECT DATE: JUNE 2022

REVISION	DATE

DESIGNED BY: WSH
DRAWN BY: AHW
REVIEWED BY: WSH

BAR BELOW IS 1" LONG FOR SCALES SHOWN ON THIS SHEET. IF NOT 1" LONG ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

0 1"

FLOWERY BRANCH WRF
UPGRADE TO 2.2 MGD

PACKAGE BOOSTER PUMP STATION FINAL SECTION

25-M-04

ISSUED FOR BID

L:\Flowery Branch\WRF Expansion\Dwg\Sheets\MS-Packaged Water Booster System.dwg - 7/11/2022 4:44 PM BY: AWATERS

SECTION 11360
DISC FILTRATION

1 GENERAL

1.1 SCOPE OF WORK

A. The work covered by this section includes furnishing all labor, materials, and equipment required to install, test, and place into satisfactory operation the Disc Filtration system and appurtenances as specified herein and as shown on the drawings.

1.2 SUBMITTALS

A. The Contractor shall submit shop drawings and product data to the Engineer in accordance with the requirements of Section 01300, Submittals.

B. At a minimum, the submittals shall contain, but not be limited to, the following information to establish compliance with these specifications.

1. Drawings showing plan, elevation, and appropriate cross sections of the equipment being provided.
2. Complete engineering data including, but not limited to, descriptive data, material specifications, motor performance data, piping diagrams, and wiring diagrams, as appropriate, to support the design of the equipment being provided.
3. Calculations that provide a basis of design for each piece of equipment. Calculations shall justify the capacity and the horsepower requirements for each type of equipment provided and shall be sealed by a registered professional engineer.
4. Submit control panel schematics and layout drawings and submit manufacturer's catalog information for all components used.
5. Printed warranty.

1.3 OPERATION AND MAINTENANCE DATA

A. The Contractor shall provide operation and maintenance data in accordance with the requirements of Section 01730, Operating and Maintenance Data.

1.4 STORAGE AND PROTECTION

A. Equipment shall be stored and protected in accordance with the requirements of the manufacturer and Section 01620, Storage and Protection.

1.5 WARRANTIES AND BONDS

A. The Contractor shall provide a warranty against defective or deficient materials and workmanship in accordance with the requirements of Section 01740, Warranties and Bonds.

B. The equipment manufacturer shall provide a warranty against defective or deficient equipment, workmanship and materials under normal use, operation and service. The warranty shall be for one (1) year from the date of Engineer's acceptance of the work. The warranty shall be in printed form and apply to all similar units.

2 PRODUCTS

2.1 MANUFACTURER

A. The Disc Filtration system shall be Hydrotech Model HSF2214-1F disc filters as manufactured by Kruger.

2.2 DESIGN CRITERIA

A. Provide one (1) disc filtration system unit that meets the following design criteria:

Parameter	Value
Influent Source	Secondary Clarified Influent
Average Day Flow (per unit)	2.2 MGD
Peak Day Flow (per unit)	4 MGD
Influent TSS	≤20 mg/l
Effluent TSS	≤5 mg/l

1) ***Average TSS concentrations are based on analysis of 24 hr flow proportional composite samples.***
2) ***Filter Effluent TSS is based on Maximum Monthly Average***
3) ***Meeting the performance requirements is contingent on the upstream process providing influent to the filters with characteristics suitable for filtration, i.e., particles of sufficient size and strength to allow retention on the specified 10 µm media surface. [Addendum No. 2]***

2.3 SYSTEM REQUIREMENTS

A. Manufacturer, Kruger, shall be responsible for providing a complete and operational system.

B. In general, the complete disc filtration system shall consist of the following:

1. Two (2) disc filtration units, one (1) existing, relocated unit and one (1) new unit. New disc filter shall be equal to the existing disc filter except that pipe attachment locations shall be mirrored to facilitate side-by-side plumbing as shown on the Drawings.
2. A new control panel shall be provided for Disc Filter No. 2.
3. Relocated metal stairs and access platform (located outside the disc filter units).
4. New metal ladder and access platform (located centrally between the disc filter units).
5. New submersible backwash waste pump and ***relocated*** backwash waste day tank, including all operational floats, conduit and wiring, mounting hardware, and all appurtenances required for a functional backwash waste pumping system. **Existing backwash waste pump shall be returned to the Owner as a shelf spare.** ***[Addendum No. 2]***

C. The Contractor shall be responsible for coordination with the Manufacturer in order to provide all required conduit and wiring to ensure a complete and operational system

2.4 MATERIALS

A. Filter Unit

1. Disc Diameter: 2.2 meters
2. Peak Hydraulic Loading Rate: 5.0 gpm/ft²
3. Total Filter Area per Unit: 845 ft²
4. Submerged Filter Area per Unit: 549 ft²
5. Media Pore Size: 10 µm
6. Filter Cloth Material Polyester
7. Number of Discs per unit: 14
8. Chassis Material: 304 SS
9. Cover Material: GRP
10. Tank Material: 304 SS

11. Influent/Effluent Flange: ANSI 20”
12. Bypass Flange: ANSI 20”
13. Backwash Waste Flange: ANSI 6”

B. Filter Drive Unit
1. Drive Motor Horsepower: 1.5 hp
2. Drive Assembly: Chain and Sprocket

C. Backwash Cleaning System
1. Backwash Water Pump Horsepower: 15 hp
2. Backwash Pressure: 110 psi
3. Backwash Pump Rated Flow: 96 gpm

D. Backwash Waste System
1. Existing Backwash Waste Holding Tank Size: 6’-0” dia. X 5’-0” tall
2. Existing Backwash Waste Holding Tank Material: 304 SS
3. Backwash Waste Pump Type: Submersible
4. Backwash Waste Pump Horsepower: 5 hp
5. Backwash Waste Pump Duty Point: 160 GPM @ 17 feet
6. Backwash waste pump shall conform to Section 11245, Submersible Pumps.

2.5 DISC FILTER CONTROL PANEL

A. Manufacturer, Kruger, shall provide one (1) filter control system including panels and accessories for Disc Filter No. 2. The existing relocated filter shall have the existing control panel relocated including all associated equipment, alarms, and accessories.

B. The automatic and manual controls for operation of the Disk Filter system shall be furnished fully assembled, wired and pre-programmed in a UL 508A Certified Industrial Control Panel. Controls shall be provided to control or monitor equipment as described in the contract drawings. The control panel shall include as a minimum the following components:
1. NEMA 4X Stainless Steel enclosure. A 304 10-gauge stainless steel sun shield shall be included. Sunshield shall overhang the front of the panel a minimum of 10”.
2. Main breaker with external lockable handle
3. All required combination type motor starters
4. 480/120V control power transformer
5. Operator devices (pushbuttons and selector switches) mounted through the control enclosure door for manual operation of the filter. Transformer type pilot lights and illuminated pushbuttons shall be provided for indication of an operation status. Lights shall be a 6 VAC incandescent type lamp. Color coding shall be applied as required and is as follows:

Amber – Alarm active, caution
Green – Valve open, motor running
Red – Valve closed
White – Information

All operator devices shall be UL Listed, 30.5mm style, NEMA Type 4X rated, oil and water tight with finger safe guards located on the contact blocks to prevent accidental contact with wire connections. Operator device function shall be identified with an engraved white Gravoply nameplate with black letters. Operator devices shall be Allen-Bradley 800H, Square D 9001, or approved equal.

6. A UL listed active tracking filter shall be provided to protect the PLC and HMI power feeds from high-frequency noise and low-energy transients. It shall be designed for a single-phase input voltage of 120/240VAC operating at 47 to 63 Hz. The unit shall reduce normal mode transients to plus or minus 2 volts, provide surge capacity of 45,000 amps and protect in all modes (Line to neutral, line to ground and neutral to ground).
7. Automatic operation of the Filter shall be controlled through a Allen Bradley MicroLogix 1400 programmable logic controller (PLC) mounted inside the control panel. The PLC components shall consist of a base unit, expansion I/O modules, and memory module. All input and output points supplied (including unused) shall be wired to terminal blocks. The PLC user memory shall consist of a minimum of 20K words of program and data. All PLC hardware shall be UL listed and operate at an ambient temperature of -4° to 140° F (-20° to 60° C). The PLC shall include all required I/O modules.
8. An Ethernet switch shall be provided inside the control enclosure to provide connectivity between the PLC, operator interface and plant networking. The switch shall support both 10 and 100 Mbit/s operation and provide for store and forward switching mode. The switch shall have five (5) 10/100Base-T ports with RJ-45 sockets and shall support auto-crossing, auto-negotiation and auto-polarity. Maximum distance between devices shall be 100m. One of the EtherNet/IP ports shall be dedicated to communication link to plant SCADA system.
9. The control system shall be equipped with a UL listed operator interface that provides control display screens with screen sun protection cover. These screens shall be used by the operator to monitor and control filter status, setpoint and alarm information.
10. The Interface shall allow the Operator access to adjust the following operating parameters:
    a. Backwash interval, Backwash duration, Solids Waste interval, Solids Waste duration, Number of Backwashes between Solids Waste interval.
11. The operator interface shall provide information to assist the Operator in assessing the status of the filter system. The interface screen shall display, at minimum, the following parameters:
    a. Water level in the filter, Time since last Backwash, Time since last Solids Waste withdrawal, Elapsed time on the Drive Motor, Elapsed time on the Backwash/Waste Pump(s), Total Backwash time and cycles, Total Solids Waste withdrawal time and cycles.
12. The operator interface shall allow the Operator to:
    a. Initiate Backwash
    b. Control all electric actuated valves
13. The interface shall display the alarm history. The alarm history shall include the time and date of the most recent 25 alarms along with the description of the alarm.
14. The interface shall also display current alarms, including the date, time and a description of the alarm.
15. As a diagnostic aid to the Operator, the interface shall display the time between Backwashes for the most recent 40 Backwashes.

C. Control panel shall include all required components for Disc Filter system safe and proper operation. See Electrical Drawings for additional information and requirements.

2.6 INSTRUMENTATION

A. Manufacturer, Kruger, shall provide three (3) liquid level probes. Manufacturer shall be responsible for calibration and start-up of the instruments supplied by Manufacturer. Manufacturer shall be responsible for verifying the suitability of the instruments associated with the existing disc filter unit, prior to its relocation. Manufacturer shall be responsible for providing any replacement control panels and/or instrumentation associated with the

relocation of the existing disc filter unit.

B. The Contractor shall be responsible for the following:

1. Installation of the disc filter control panels.
2. All interconnecting wiring and/or conduit between the supplied control panels and disc filter equipment.
3. Any junction or pull boxes or any other like device needed to supply the interconnecting wiring.
4. All field connections/terminations to the supplied control panels, the disc filter equipment and between the disc filter equipment and supplied control panels.
5. All supports and anchoring required for installation of the disc filter units.
6. Plumbing/interconnecting piping, electrical connections, and instrument installation.

2.7 ACCESS PLATFORMS, GRATING AND HANDRAILS

A. Contractor shall be responsible for the relocation of the existing access platforms located at the existing disc filter area. The two (2) existing metal access platforms, access ladders, handrails, and all mounting hardware shall be relocated and installed on the outer sides of the new disc filter facility.

B. Contractor shall be responsible for providing all required mounting hardware and accessories required for installation of the relocated access platform, ladders and handrails.

C. Contractor shall coordinate with the disc filter Manufacturer to ensure proper access is provided by the relocated access platforms.

D. Contractor shall provide a new access platform, ladder, handrails and required mounting hardware as shown on the Drawings to be installed between the disc filter units.

E. Contractor shall coordinate with the disc filter Manufacturer to ensure proper access is provided by the new access platform.

3 EXECUTION

3.1 INSTALLATION

A. Disc Filtration system and appurtenances, all required access platforms, and backwash waste system shall be installed in accordance with the Manufacturers requirements to produce a finished product that is clean and demonstrates true craftsmanship.

B. Manufacturer shall allow for a minimum of one (1) trip to the project site to assist the contractor with the installation of the equipment. If additional trips are required, they shall be the responsibility of the Contractor and there shall be no additional cost to the Owner.

3.2 STARTUP AND TESTING

A. The complete disc filtration system and all appurtenances shall be field tested after installation to demonstrate proper operation to the satisfaction of the Engineer. Field tests shall be conducted by the Manufacturer or his Authorized Representative. All tests shall be performed in the presence of the Engineer. Test results shall be in printed form and signed by the Manufacturer or his Representative and supplied to the Owner.

B. Manufacturer shall allow for a minimum of one (1) trip to the project site for startup and testing of the equipment. If additional trips are required, they shall be the responsibility of the Contractor and there shall be no additional cost to the Owner.

C. ***Manufacturer will provide one (1) 8-hour performance test in accordance with their standard procedures. Manufacturer shall submit performance testing protocol at the submittal phase. [Addendum No. 2]***

3.3 CERTIFICATION

A. A Manufacturer's representative that is qualified in the particular equipment requirements

shall fully inspect and certify the equipment installation. Written certifications shall be provided that state the equipment is installed properly, is operating within the design parameters, and will be warranted as required by the specifications.

3.4 TRAINING

A. Training shall be conducted in accordance with Section 01790, Demonstration and Training.

B. The Manufacturer shall conduct two (2) training classes for the Owner's personnel. The training classes shall be conducted on two consecutive days.

C. Training classes shall not be conducted concurrently with startup and testing; therefore, Manufacturer shall allow for one (1) additional trip to the project site.

D. Training classes shall not be conducted until the Manufacturer has certified that the equipment is properly installed and operational.

E. Training classes shall be scheduled with the Owner a minimum of one (1) week prior to conducting the class.

3.5 ACCEPTANCE

A. Acceptance of equipment will not be made until all equipment has been installed and tested, the Manufacturer has certified the installation, the manufacturer has conducted the required training classes, final operation and maintenance manuals have been submitted to the engineer, and all spare parts have been turned over to the Owner.

** END OF SECTION **