FAIRLEE, MARYLAND GMB FILE NO. 190065



FAIRLEE, MD

VIRGINIA

**VICINITY MAP** 

SCALE: 1" = 20 MILES

PENNSYLVANI

# FAIRLEE WTP

LOCATION MAP

SCALE: 1" = 2000'±

## LIST OF DRAWINGS

SHEET NO.	111LL
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Q1.2	DETAILS
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<u>STRUCTURAL</u>	
S1.1	PROPOSED FLOOR IMPROVEMENTS
S1.2	STRUCTURAL NOTES & DETAILS

ELECTRICAL DEMO PLAN ELECTRICAL DRAWINGS



**COVER SHEET** 

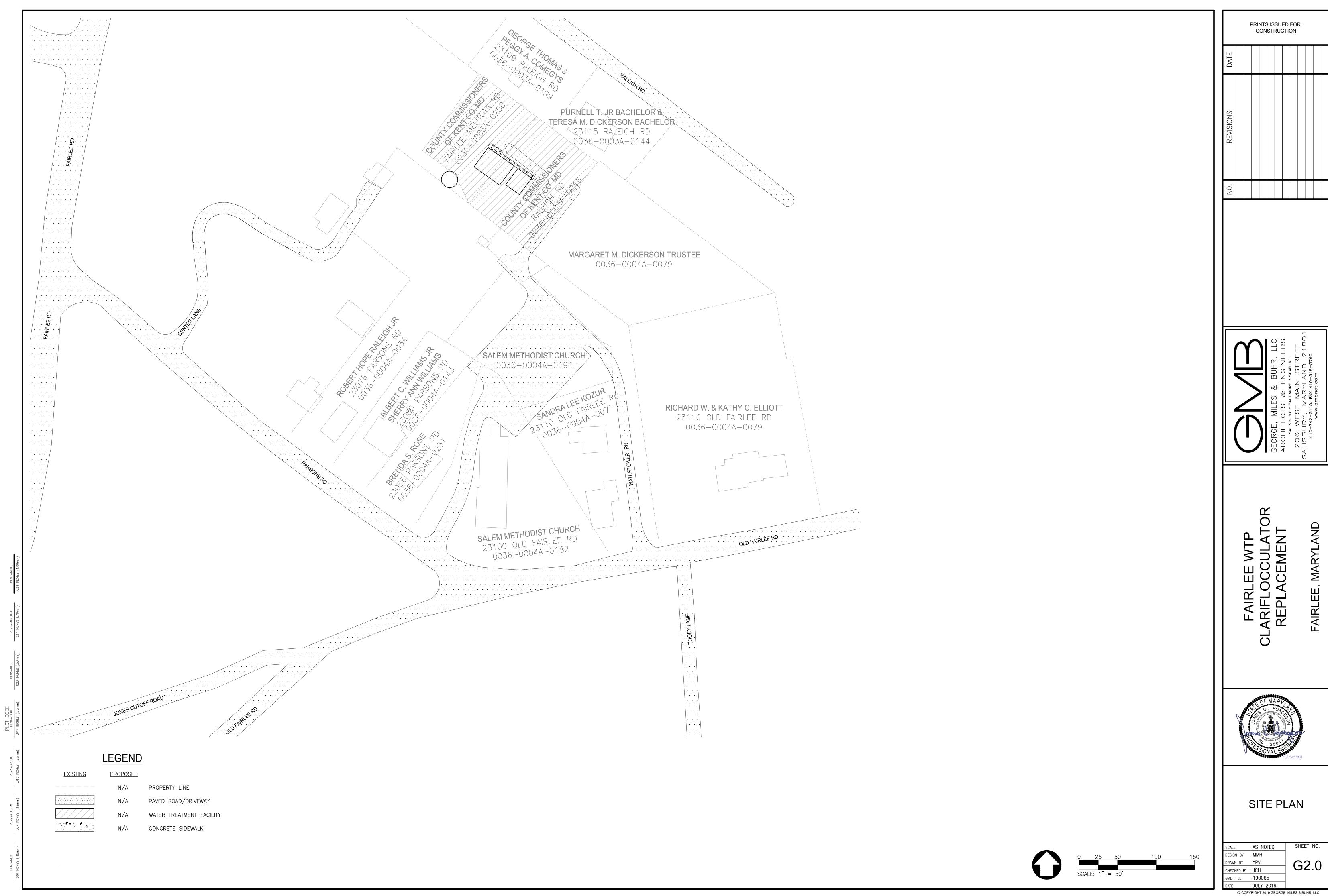
G1.0 CHECKED BY : JCH

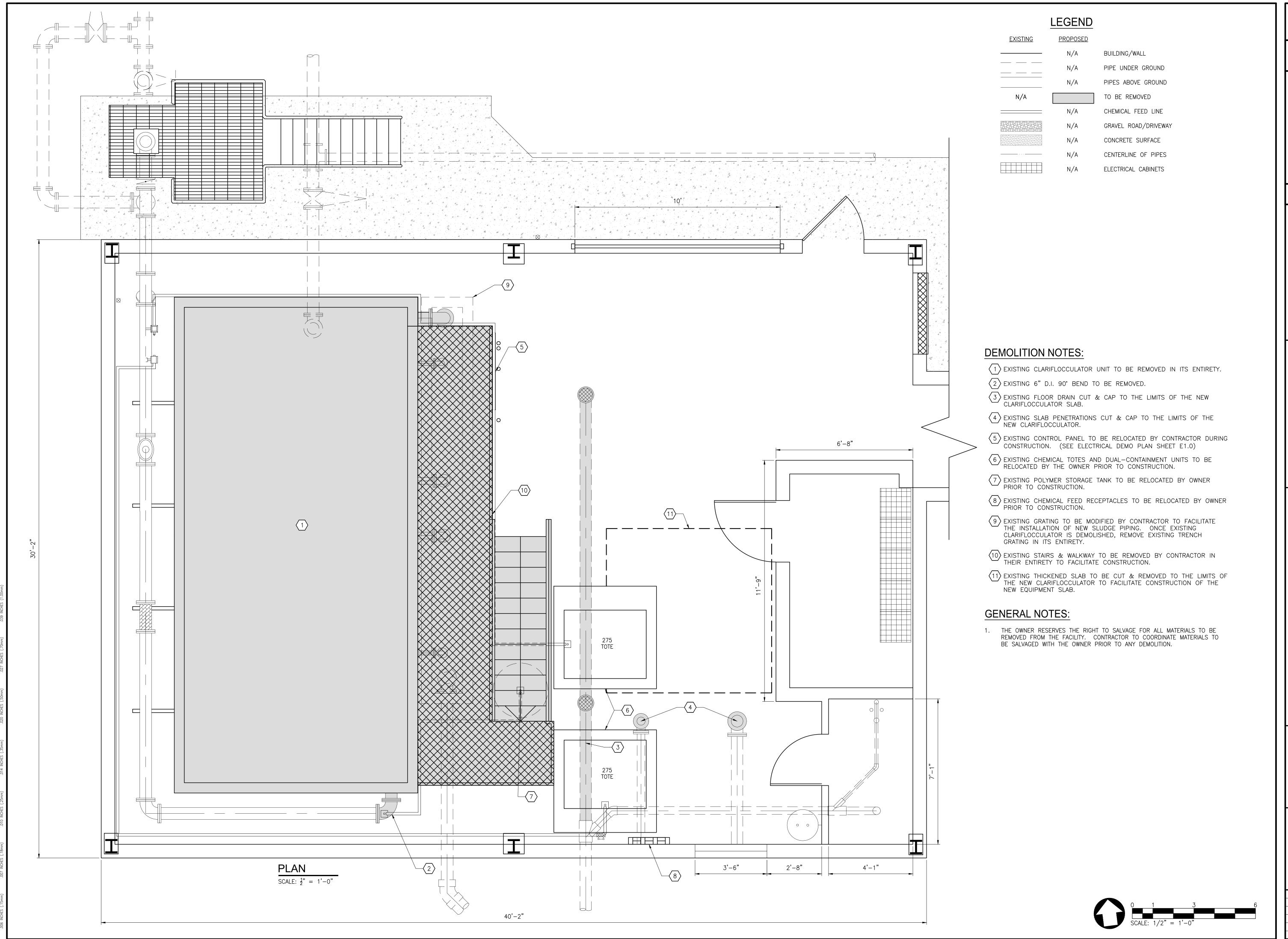
PLANS APPROVED BY THE KENT COUNTY DEPARTMENT OF PUBLIC WORKS

JULY 2019

ARCHITECTS & ENGINEERS SALISBURY · BALTIMORE · SEAFORD 206 WEST MAIN STREET SALISBURY, MARYLAND 21801 410-742-3115, FAX 410-548-5790 www.gmbnet.com

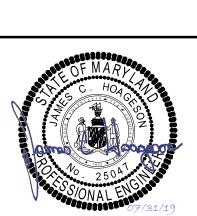
REVISED JULY 6, 2020





EORGE, MILES & BUHR, LLC

FAIRLEE WTP LARIFLOCCULATO REPLACEMENT



DEMOLITION PLAN

SCALE : AS NOTED

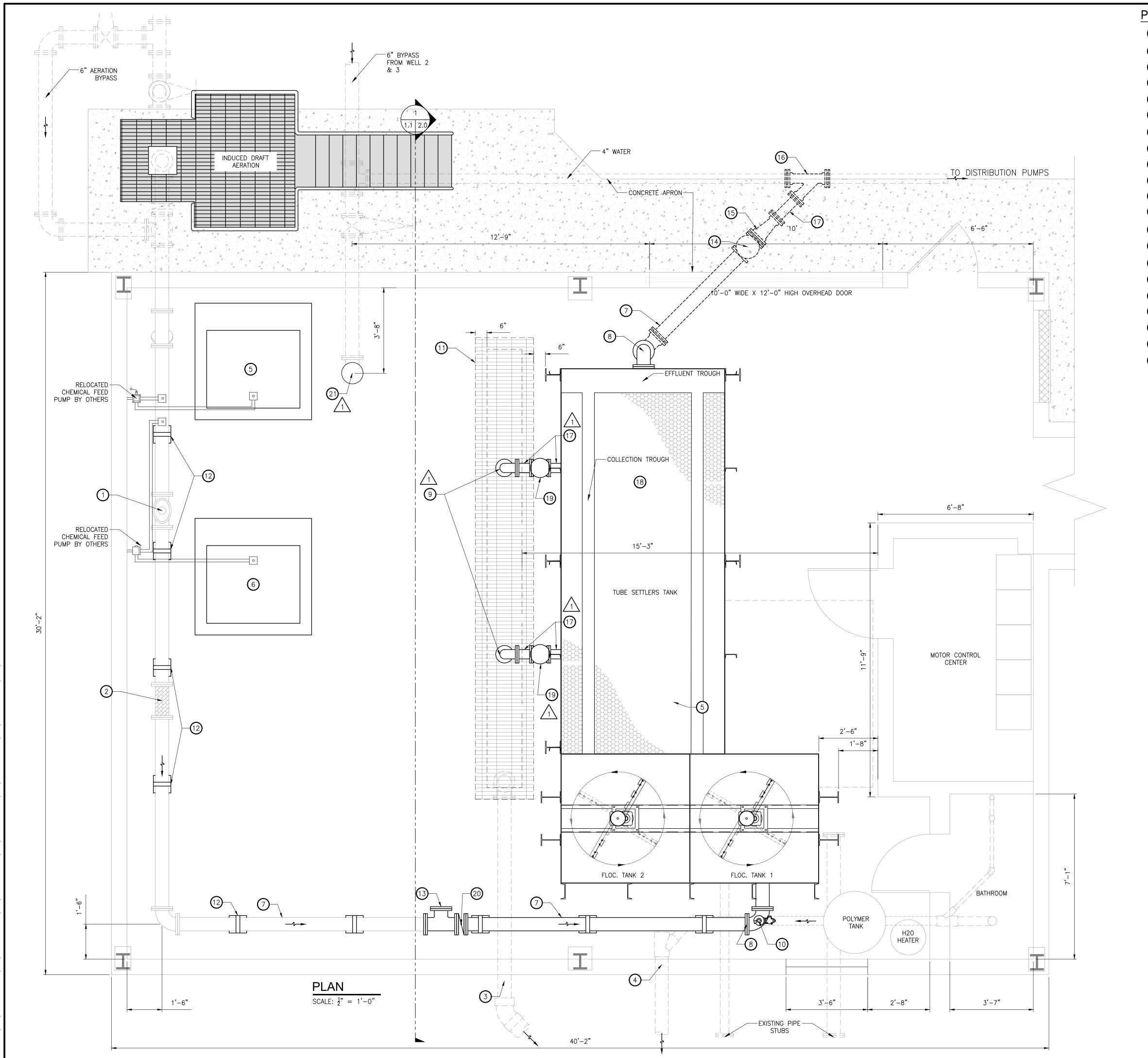
DESIGN BY : MMH

DRAWN BY : YPV

CHECKED BY : JCH

GMB FILE : 190065

: JULY 2019



PROPOSED PIPING AND EQUIPMENT

1) EXISTING 6" FLOW METER

(2) EXISTING 6" STATIC MIXER

(3) EXISTING 6" SLUDGE LINE

4 EXISTING 6" SEWER

5 SODIUM HYDROXIDE TOTE W/ SPILL CONTAINMENT

6 SODIUM HYPOCHLORITE TOTE W/ SPILL CONTAINMENT

7 FURNISH AND INSTALL 6" DUCTILE IRON FLANGED PIPE

(8) FURNISH AND INSTALL 6" DUCTILE IRON FLANGED 90° BEND

9 FURNISH AND INSTALL 4" SLUDGE DRAIN

10 FURNISH AND INSTALL NEW POLYMER INJECTION QUILL

11) FURNISH AND INSTALL NEW FRP GRATING

12 FURNISH AND INSTALL ADJUSTABLE PIPE STAND (TYP.)

(13) FURNISH AND INSTALL 6" DUCTILE IRON TEE W/ BLIND FLANGE

(14) FURNISH AND INSTALL 6" GATE VALVE

(15) FURNISH AND INSTALL 4"X6" M.J. REDUCER

(16) FURNISH AND INSTALL 4" M.J. WYE

(17) FURNISH AND INSTALL 4" DUCTILE IRON FLANGED PIPE

(18) PROPOSED PRETREATMENT UNIT

(19) 4" SLUDGE BLOWDOWN VALVE BY CLARIFLOCCULATOR MANUFACTURER

20 6" BUTTERFLY VALVE

21) FURNISH AND INSTALL 6" DUCTILE IRON BLIND FLANGE

#### **GENERAL NOTES:**

1. CONTRACTOR IS RESPONSIBLE FOR ALL INTERCONNECTING PIPING WITH THE PRETREATMENT SYSTEM.

2. ALL DIMENSIONS SHOWN ON PLANS ARE APPROXIMATE. CONTRACTOR TO VERIFY DIMENSIONS AND EXISTING PIPE LOCATIONS IN THE FIELD.

3. CONTRACTOR TO VERIFY ALL EQUIPMENT LOCATIONS IN THE FIELD.

4. ALL DUCTILE PIPING SHALL BE PAINTED IN THE FIELD PER THE CONTRACT DOCUMENTS BEFORE PLACING THE FACILITY INTO SERVICE.

5. THROUGH SLAB PIPING SHALL BE INSTALLED PER THE DETAIL ON SHEET Q1.2 WITH SLEEVES AS APPROPRIATE.

6. NOT ALL EXISTING SMALL DIAMETER PIPING HAS BEEN SHOWN IN THE CONTRACT DRAWINGS TO PRESERVE CLARITY. CONTRACTOR TO COORDINATE NEW WORK WITH EXISTING UTILITIES AS APPROPRIATE.

7. THE CONTRACTOR SHALL PROVIDE PIPE SUPPORTS TO ADEQUATELY SUPPORT ALL PIPING. NOT ALL PIPE SUPPORTS HAVE BEEN SHOWN.

. CONTRACTOR TO PROVIDE MOBILE ROLLING-LADDER FOR OWNER'S USE. UNIT SHALL BE FSI INDUSTRIES GATEWAY REAR-EXIT STEEL ROLLING LADDER PART NO. RWSR11424-XR OR APPROVED EQUAL.

9. CONTRACTOR TO TEST PIT FOR EXISTING UTILITIES & PIPING PRIOR TO ALL

10. OWNER TO RELOCATE THE SODIUM HYDROXIDE TOTE AND THE SODIUM

HYPOCHLORITE TOTE AS APPROPRIATE.

11. KENT COUNTY TO INSTALL A 2-INCH VENT PIPE ON THE SODIUM HYPOCHLORITE TANK AND VENT TO THE OUTSIDE ONCE THE TANK IS PERMANENTLY RELOCATED.

12. SLUDGE BLOW DOWN VALVES SHALL BE PROVIDED AS AN INTEGRAL PART OF THE CLARIFLOCCULATOR MANUFACTURER SYSTEM. VALVE CONTROLS SHALL HAVE THE ABILITY TO VARY THE DURATION THEY ARE OPEN FROM 0 TO 20 MINUTES.

13. POLYMER TANK TO BE RELOCATED BY OWNER AS APPROPRIATE.

14. AFTER INSTALLATION, PAINTING AND CURING, THE NEW CLARIFYING FLOCCULATOR UNIT MUST BE DISINFECTED IN ACCORDANCE WITH THE LATEST VERSION OF AWWA STANDARD C653-13, DISINFECTION OF WATER TREATMENT PLANTS. SINCE THIS STANDARD REFERS TO AWWA C652, DISINFECTION OF WATER-STORAGE FACILITIES, PLEASE NOTE CHLORINATION METHOD 3 IS NOT ACCEPTABLE. ONLY METHOD 1 AND METHOD 2 ARE APPROVED FOR TANK DISINFECTION, AS METHOD 3 IS MORE LIKELY TO CONTRIBUTE TO DISINFECTION BY-PRODUCT FORMATION.

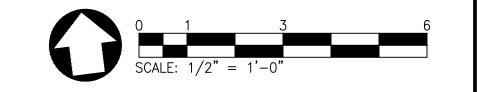
15. AFTER DISINFECTION, TWO (OR MORE) SUCCESSIVE TOTAL COLIFORM SAMPLES (COLLECTED AT 24—HOUR INTERVALS) AND ONE SAMPLE FOR VOLATILE ORGANIC COMPOUNDS (VOCs) ARE REQUIRED.

16. ALL BACTERIOLOGICAL AND VOC SAMPLES SHALL BE TAKEN BY A STATE—CERTIFIED SAMPLER AND ANALYZED BY A STATE—CERTIFIED LABORATORY.

17. ALL SAMPLE RESULTS SHALL BE SUBMITTED TO MDEs WATER SUPPLY PROGRAM, WHICH WILL GIVE AUTHORIZATION TO PLACE THE UNIT INTO SERVICE. SAMPLE RESULTS MAY BE FORWARDED TO THE CONTACT PERSON, DEE SETTAR — DEE.SETTAR@MARYLAND.GOV, OR SUBMITTED TO WATER.SUPPLY@MARYLAND.GOV.

18. IN ACCORDANCE WITH CODE OF MARYLAND REGULATIONS (COMAR) 26.04.01.33, DIRECT AND INDIRECT ADDITIVES, SUPPLIERS OF WATER SHALL ONLY USE PRODUCTS (ANY MATERIALS THAT COME IN CONTACT WITH WATER INTENDED FOR USE IN PUBLIC WATER SUPPLY) THAT MEET THE APPLICABLE AMERICAN NATIONAL STANDARDS INSTITUTE / NSF INTERNATIONAL (ANSI/NSF) STANDARDS FOR DIRECT OR INDIRECT DRINKING WATER ADDITIVES. THE PRODUCTS CAN ALSO BE CERTIFIED BY ANY ORGANIZATION ACCREDITED BY THE ANSI FOR SUCH TESTING (I.E., INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS RESEARCH AND TESTING, ONTARIO CA, UNDERWRITERS LABORATORY, NORTHBROOK IL, AND WATER QUALITY ASSOCIATION, LISLE IL).

19. IN COMPLIANCE WITH COMAR 09.20.01.03 AND THE SAFE DRINKING WATER ACT (SECTION 1417(a)(4)(8)). MATERIALS THAT COME IN CONTACT WITH WATER INTENDED FOR USE IN PUBLIC WATER SUPPLY SHALL COMPLY WITH THE REDUCTION OF LEAD IN DRINKING WATER ACT, WHICH WENT INTO EFFECT IN MARYLAND IN JANUARY 2012.



NO. REVISIONS

PER KENT COUNTY COMMENTS

O7/06/20

O7/06/20

GEORGE, MILES & BUHR, LLC

ARIFLOCCULATOF
REPLACEMENT



PROPOSED FLOOR PLAN

SCALE : AS NOTED

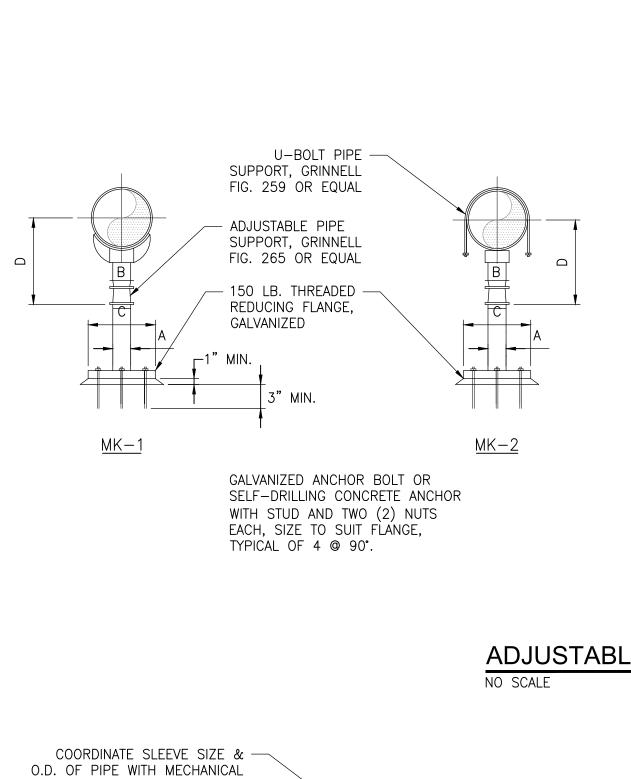
DESIGN BY : MMH

DRAWN BY : YPV

CHECKED BY : JCH

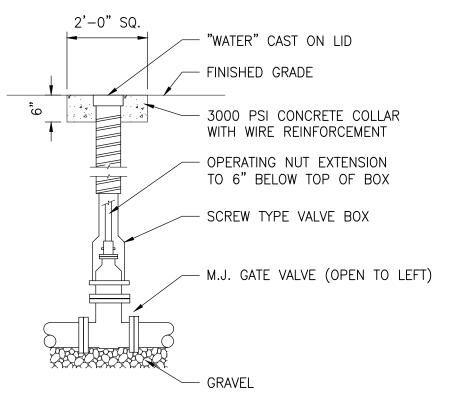
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		ADJUSTABLE 1	PIPE SUPPORT		
PIPE SIZE	А	В	С	D MINIMUM	E MINIMUM
2 1/2	2 1/2	1 1/2	9	8	11 1/2
3	2 1/2	1 1/2	9	8 1/4	11 3/4
3 1/2	2 1/2	1 1/2	9	8 1/2	12
4	3	2 1/2	9	10 1/2	14
6	3	2 1/2	9	11 5/8	15 1/4
8	3	2 1/2	9	13 5/8	16 1/2
10	3	2 1/2	9	14 5/8	18 1/4
12	3	2 1/2	9	15 5/8	19 3/4
14	4	3	11	18 7/8	20 3/4
16	4	3	11	19 7/8	22 1/4
18	6	3 1/2	13 1/2	21 1/4	24
20	6	3 1/2	13 1/2	23 1/4	25 1/2
24	6	4	13 1/2	26 1/2	28 1/4
30	6	4	13 1/2	29 5/8	31 1/2
32	6	4	13 1/2	30 5/8	32 3/4
36	6	4	13 1/2	32 5/8	34 3/4

\* SEE MANUFACTURER'S RECOMMENDATIONS

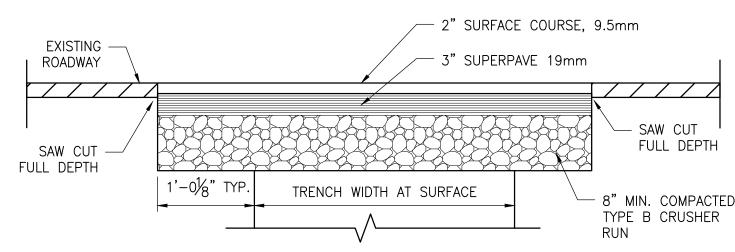


NOTE: IF VALVE IS LOCATED WITHIN PAVEMENT, CONCRETE COLLAR IS NOT REQUIRED.

COMPACTED OR

UNDISTURBED EARTH

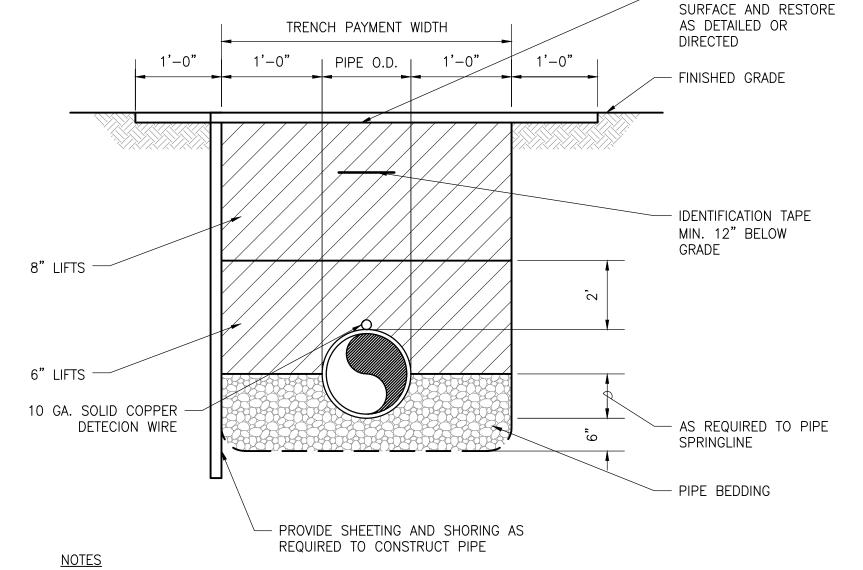
#### GATE VALVE DETAIL NO SCALE



NOTES:

1. FINAL PAVEMENT SECTION OVER TRENCH SHALL BE 3" SUPERPAVE 9.5mm, 2" SUPERPAVE 19mm AND 8" GRADED AGGREGATE BASE COURSE.

## PERMANENT PAVEMENT RESTORATION



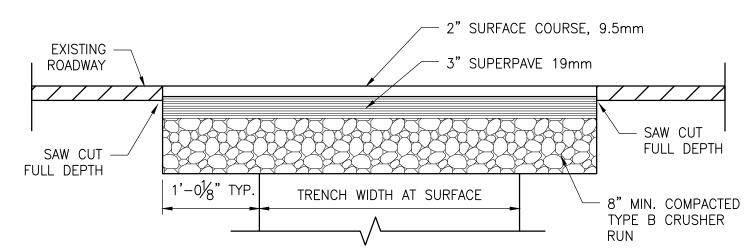
DISPOSE OF EXISTING

PRINTS ISSUED FOR:

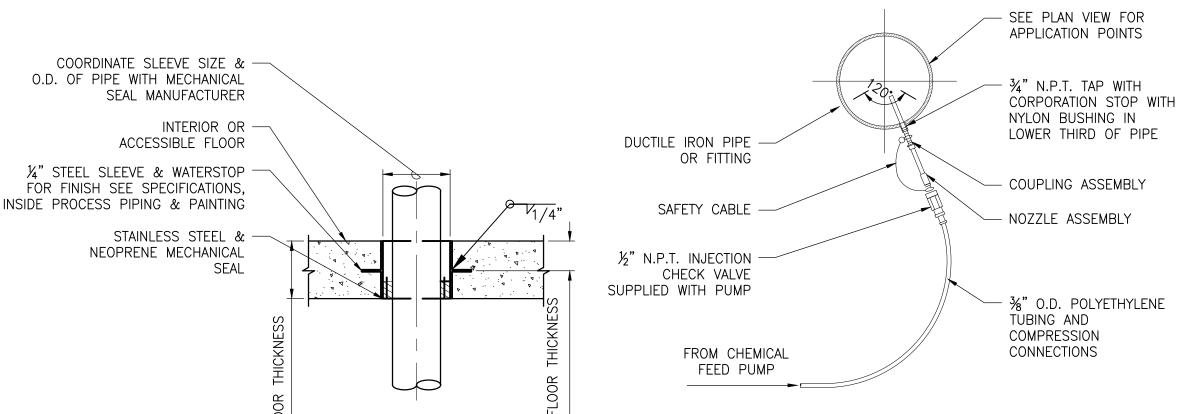
CONSTRUCTION

1. INSTALL 10 GA. SOLID COPPER DETECTION WIRE INSTALLED ON TOP OF WATER MAINS AND FORCE ,MAIN. WIRE TO BE LOOPED IN VALVE BOXES.

### PIPE BEDDING AND BACKFILL DETAIL NO SCALE







FLOOR SLEEVE DETAIL CHEMICAL INJECTION DETAIL



GREATER THAN 10 FEET.

4'-0"

- 6" THICK CONCRETE APRON

PROVIDE EXPANSION JOINTS AT INTERVALS NOT

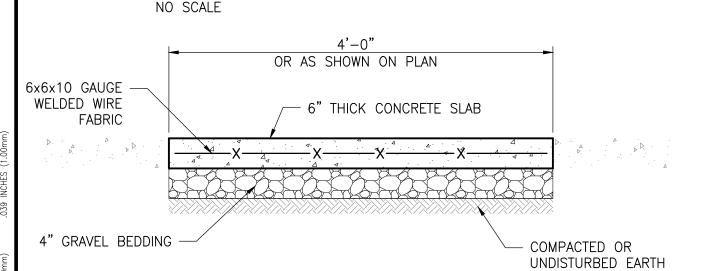
→ 2% SLOPE TOWARDS ROAD

6x6x10 GAUGE -

WELDED WIRE

**FABRIC** 

4" GRAVEL BEDDING



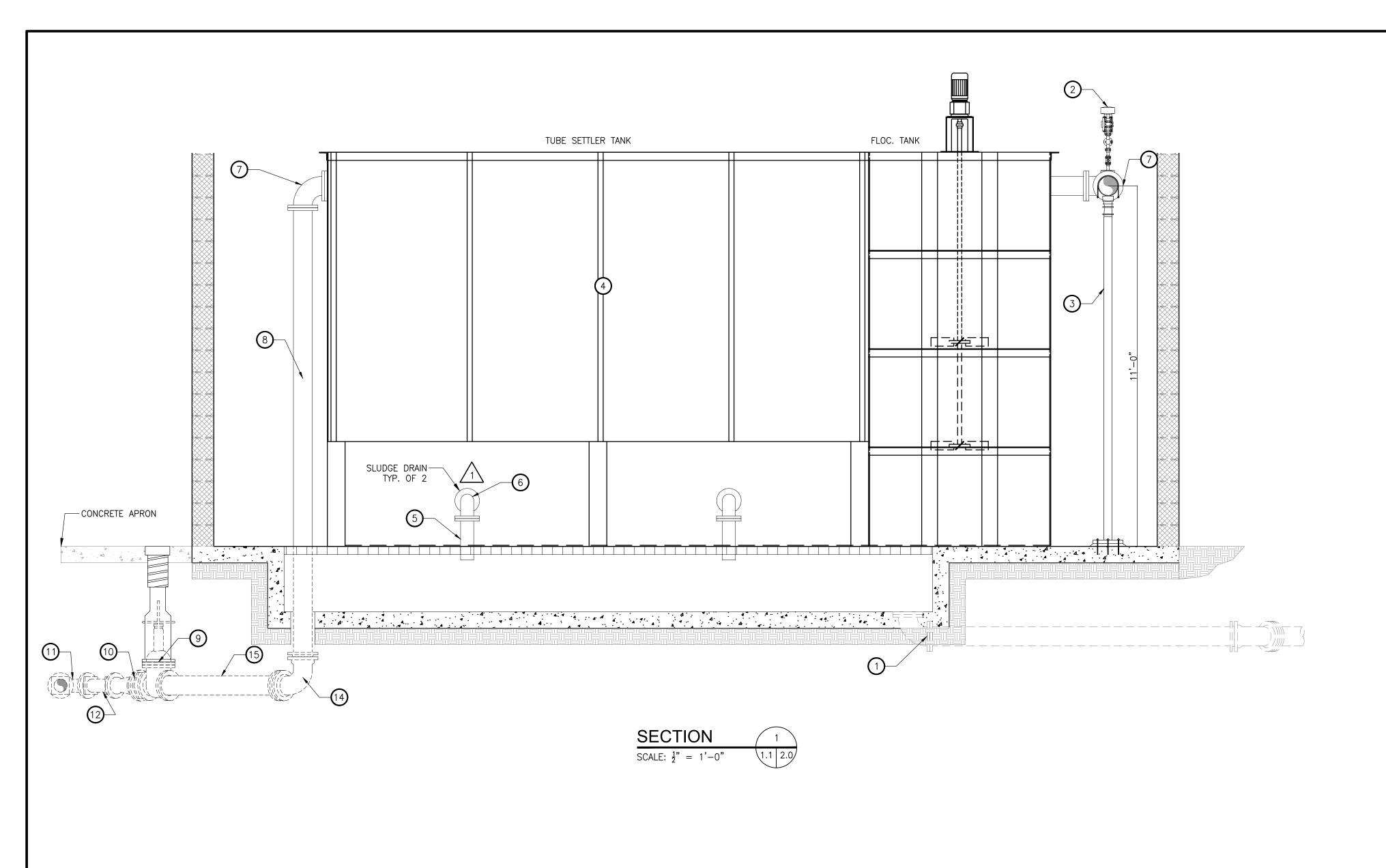
- 1. PROVIDE EXPANSION JOINTS AT INTERVALS NOT GREATER THAN 20 FEET.
- 2. WHEN JOINING NEW SLAB WITH EXISTING SLAB, MATCH EXISTING SLAB ELEVATION. SAWCUT EXISTING SLAB AND PROVIDE EXPANSION JOINT BETWEEN NEW AND EXISTING

CONCRETE SLAB RESTORATION DETAIL

**DETAILS** 

: AS NOTED DESIGN BY : MMH DRAWN BY : YPV CHECKED BY : JCH GMB FILE : 190065

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PROPOSED PIPING AND EQUIPMENT

1 EXISTING 6" SLUDGE LINE

2 FURNISH AND INSTALL NEW POLYMER INJECTION QUILL

3 FURNISH AND INSTALL ADJUSTABLE PIPE SUPPORT

4 PROPOSED PRETREATMENT UNIT

5 4" DUCTILE IRON FLANGED PIPE

6 4" DUCTILE IRON FLANGED 90° BEND

7 6" DUCTILE IRON 90° BEND

8 6" DUCTILE IRON PIPE

9 6" GATE VALVE AND VALVE BOX

10 6"X4" M.J. REDUCER

11) 4"X4"X4" M.J. WYE

12 4" M.J. PIPE

13 4" M.J. 90° BEND

14 6" M.J. 90° BEND

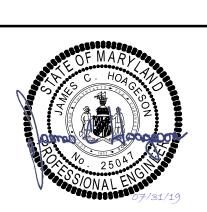
(15) 6" M.J. PIPE

### CONSTRUCTION NOTES:

1 NEW INJECTION QUILL SHALL BE DIRECT TAPPED INTO NEW PIPING AND INSTALLED PER THE INJECTION QUILL SYSTEM'S MANUFACTURER'S RECOMMENDATIONS.

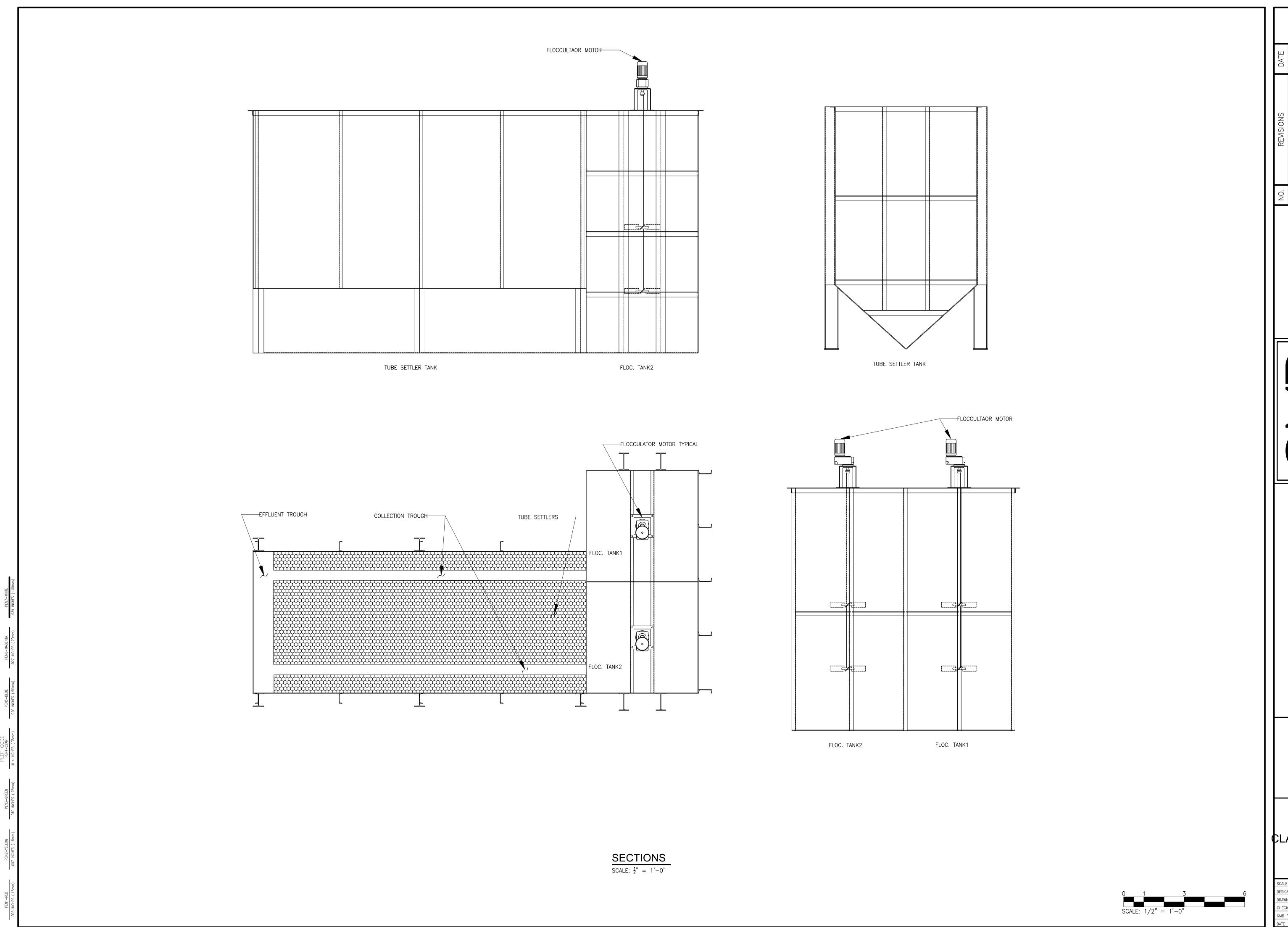
PRINTS ISSUED FOR: CONSTRUCTION										
DATE	07/06/20									
REVISIONS	PER KENT COUNTY COMMENTS									
NO.	$\forall$									





SECTION

: JULY 2019



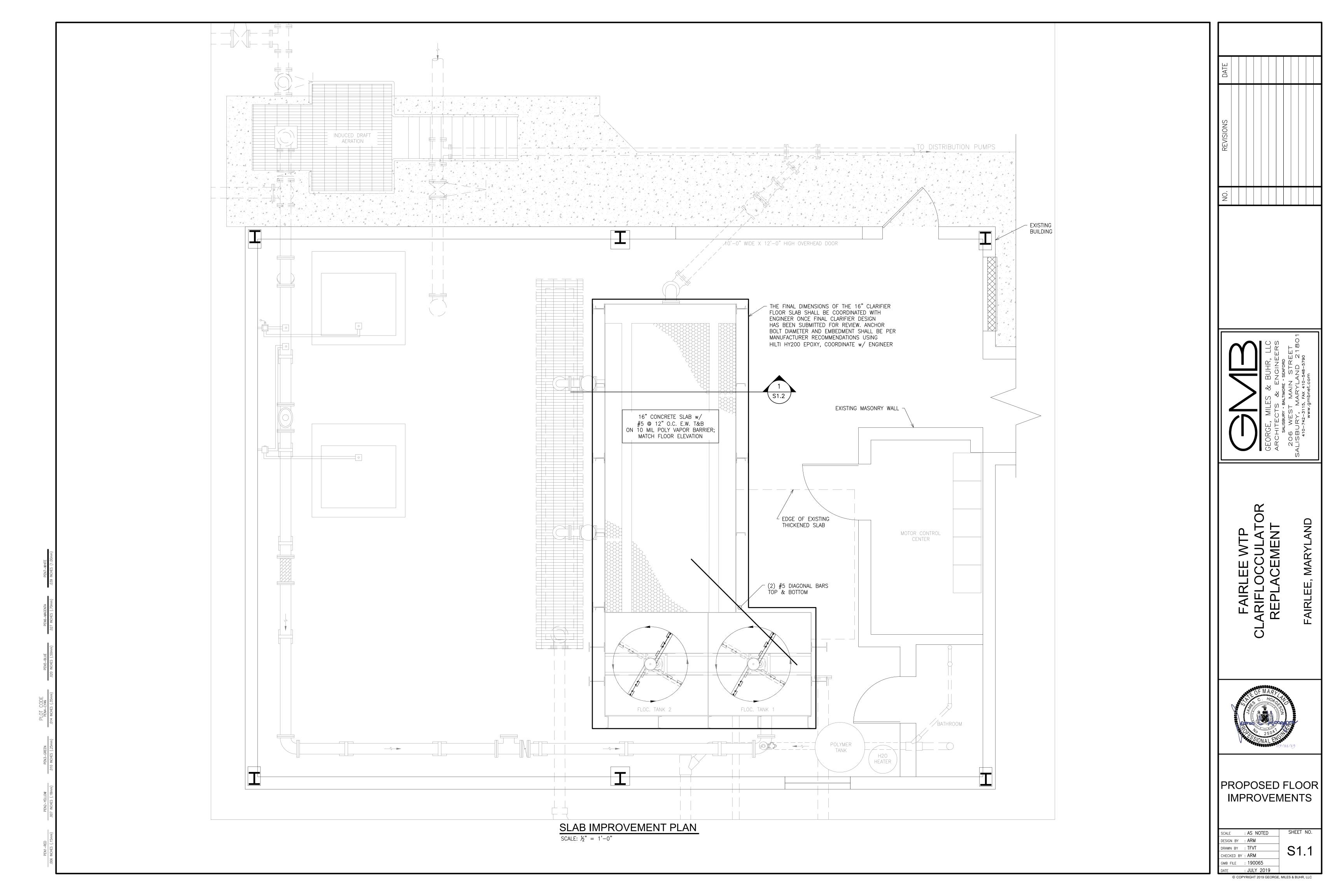
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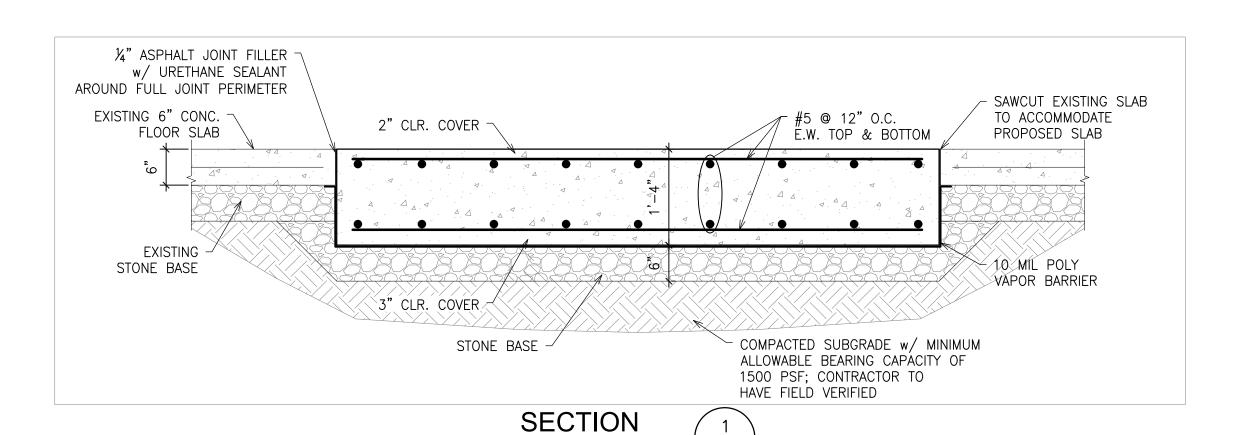


PROPOSED CLARIFLOCCULATOR PLAN SECTION

:ALE	: AS NOTED	SHEET NO.
SIGN BY	: MMH	
AWN BY	: YPV	$\Omega$ 2 1
IECKED BY	: JCH	Q2.1
IB FILE	: 190065	

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**GOVERNING CODES** 

THE FOLLOWING CODES AND STANDARDS, INCLUDING ALL SPECIFICATIONS REFERENCED WITHIN, SHALL APPLY TO THE DESIGN. CONSTRUCTION, QUALITY CONTROL AND SAFETY OF ALL WORK PERFORMED ON THE PROJECT. USE THE LATEST EDITIONS UNLESS

A. "INTERNATIONAL BUILDING CODE", INTERNATIONAL CODE COUNCIL, INC., 2015 B. "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES" (ANSI/ASCE 7-10), AMERICAN SOCIETY

OF CIVIL FNGINFFRS

C. "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, ACI 318-14", AMERICAN CONCRETE INSTITUTE. D. "ACI MANUAL OF CONCRETE PRACTICE - PARTS 1 THROUGH 5 - 2011"

E. "MANUAL OF STANDARD PRACTICE", CONCRETE REINFORCING STEEL INSTITUTE.

F. "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530-11/ASCE 5-11/TMS 402-11) & SPECIFICATIONS FOR MASONRY STRUCTURES (ACI 530.1-11/ASCE 6-11/TMS 602-11)."

J. "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION 2012, AMERICAN FOREST & PAPER ASSOCIATION.

<u>DESIGN LOADS</u>

CLARIFIER SLAB 200,000 LBS

THE STRUCTURAL INTEGRITY OF THE BUILDING IS DEPENDANT UPON COMPLETION ACCORDING TO PLANS AND SPECIFICATIONS. THE STRUCTURAL ENGINEER ASSUMES NO LIABILITY FOR THE STRUCTURE DURING CONSTRUCTION. THE METHOD OF CONSTRUCTION AND SEQUENCE OF OPERATIONS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL SUPPLY ANY NECESSARY SHORING, BRACING, GUYS, ETC., TO PROPERLY BRACE THE STRUCTURE AGAINST WIND, DEAD AND LIVE LOADS UNTIL THE BUILDING IS COMPLETED ACCORDING TO THE PLANS AND SPECIFICATIONS. CONTRACTOR SHALL NOT PLACE BACK FILL AGAINST BASEMENT WALLS UNTIL THE FLOOR SYSTEM IS COMPLETELY INSTALLED OR CONTRACTOR HAS PROVIDED ADEQUATE SHORING AND BRACING. ANY QUESTIONS REGARDING TEMPORARY SHORING REQUIREMENTS SHOULD BE FORWARDED TO THE STRUCTURAL ENGINEER FOR REVIEW.

MECHANICAL UNITS AND ANY OTHER EQUIPMENT SUPPORTED BY THE STRUCTURE WITH WEIGHTS IN EXCESS OF 200 LBS. SHALL BE

CAST-IN-PLACE CONCRETE

ALL CONCRETE SHALL BE MADE IN ACCORDANCE WITH DESIGN MIXES WHICH ARE TO BE APPROVED BY THE ARCHITECT OR ENGINEER PRIOR TO CASTING ANY CONCRETE. MIXES SHALL BE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTION ACI 318. ALL PLAIN CONCRETE TO CONFORM TO ACI 318.1

MINIMUM SPECIFIED COMPRESSIVE STRENGTH f'c @ 28 DAYS.

**LOCATION** MIN. COMP. (F'C) SLUMP (IN.) CLARIFIER SLAB 4000 PSI 4" +/- 1"

BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER PRIOR TO INSTALLATION.

CONCRETE MATERIALS SHALL CONFORM TO ASTM CI50, TYPE I FOR PORTLAND CEMENT AND ASTM C33 FOR AGGREGATES. WATER-REDUCING ADMIXTURES SHALL CONFORM TO ASTM C494. TYPE A (FREE OF CALCIUM CHLORIDES). AIR-ENTRAINING ADMIXTURES SHALL CONFORM TO ASTM C260, AND HIGH-RANGE WATER REDUCERS (SUPER-PLASTICIZERS) SHALL CONFORM TO ASTM C494, TYPE F. FLY ASH SHALL COMPLY WITH ASTM C619 FOR CLASS F AND SHALL NOT BE PROPORTIONED IN MIXES WITH MORE THAN 20% CEMENT BY WEIGHT. LIQUID-MEMBRANE CURING COMPOUNDS SHALL BE HIGH-SOLIDS, WATER AND ACRYLIC-BASED, COMPLYING WITH ASTM C309 AS TESTED UNDER ASTM C156. SLUMP OF THE CONCRETE SHALL BE A MINIMUM OF 4-INCHES AND A MAXIMUM OF 6-INCHES. SEE THE PROJECT SPECIFICATIONS.

ADDITION OF WATER TO THE CONCRETE AT THE JOB SITE FOR THE PURPOSE OF INCREASING THE SLUMP OR FOR RETEMPERING THE CONCRETE WHICH HAS BEGUN TO SET IS STRICTLY PROHIBITED. SEE THE PROJECT SPECIFICATIONS FOR REQUIREMENTS OF WATER ADDITION TO CONCRETE AT THE JOBSITE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING ANCHOR BOLTS, CLIPS, INSERTS, CONNECTION PLATES, SLEEVES, SLOTS AND OTHER REQUIRED ITEMS IN ACCORDANCE WITH THE CONTRACT DRAWINGS, AND IN COOPERATION WITH OTHER TRADES PRIOR TO PLACING CONCRETE.

REINFORCING STEEL SHALL BE HIGH STRENGTH NEW BILLET STEEL CONFORMING TO ASTM A-615, GRADE 60 (60,000 PSI). WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A-185. ALL REINFORCING SHALL BE DETAILED, FABRICATED, AND PLACED IN ACCORDANCE WITH ACI'S MANUAL OF STANDARD PRACTICE FOR DETAILING CONCRETE STRUCTURES, (ACI-315). DETAILS OF REINFORCEMENT SHALL CONFORM TO ACI 318, ACI 315, AND CRSI STANDARDS.

ALL REINFORCING STEEL (INCLUDING WELDED WIRE FABRIC) SHALL BE SECURELY TIED AND ANCHORED IN PLACE TO PREVENT DISLOCATION DURING THE PLACING OPERATION.

REINFORCING STEEL SHALL BE CLEAN OF MUD, DEBRIS, LOOSE RUST, CEMENT, GROUT, OR ANY OTHER MATERIAL WHICH MAY INHIBIT THE BOND BETWEEN THE STEEL AND CONCRETE.

DRY PACK SHALL CONSIST OF SIKA GROUT 212 OR APPROVED SUBSTITUTE. INSTALL PER MANUFACTURERS RECOMMENDATIONS.

CONDITION CASES							
DAD 017E	TOP	BARS	OTHER	OTHER BARS			
BAR SIZE	CASE 1	CASE 2	CASE 1	CASE 2			
#3	24"	36"	19"	28"			
#4	32"	48"	25"	37"			
#5	40"	60"	31"	46"			
#6	48"	72"	37"	56"			
#7	70"	105"	54"	81"			
#8	80"	120"	62"	93"			
#9	90"	135"	69"	104"			
#10	100"	150"	77"	116"			

#### CLASS "B" LAP SPLICES (f'c=4000 psi)

NON EPOXY COATED

TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12 INCHES OF CONCRETE CAST BELOW THE SPLICE.

CASE 1 - OTHER CASES CASE 2 – <u>COLUMNS & BEAMS:</u> COVER < BAR DIA. OR

CENTER TO CENTER SPACING < 2 BAR DIA. ALL OTHER ELEMENTS: COVER < BAR DIA. OR CENTER TO CENTER SPACING < 3 BAR DIA.

**FOUNDATION** 

THE TOP OF ALL EXTERIOR FOOTINGS SHALL BE PLACED A MINIMUM OF 2'-0" BELOW FINISH GRADE, UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL VERIFY THE BEARING CAPACITY OF THE BEARING SOILS IN THE FOOTING EXCAVATION PRIOR TO CASTING ANY FOOTINGS. WRITTEN VERIFICATION SHALL BE SUBMITTED TO THE ARCHITECT

PLACE FOOTINGS ON FIRM, DRY, NON-FROZEN SUBGRADE. REMOVE SOFT SOILS ENCOUNTERED DURING EXCAVATION. BACKFILL EXCAVATIONS AND AREAS REQUIRING STRUCTURAL FILL WITH CLEAN, MOIST, GRANULAR SELECT BORROW (TYPE "G", GRADE V OR BETTER IN ACCORDANCE WITH DELDOT STD. SPECS). ALL BACKFILL SHALL BE PLACED IN LIFTS NOT TO EXCEED 8-INCHES IN LOOSE THICKNESS. PROPER EQUIPMENT SHALL BE SELECTED AND USED FOR COMPACTION ACCORDING TO THE TYPE A BACKFILL MATERIAL USED. COMPACTION RATIO SHALL BE 95% MINIMUM.

FOOTING EXCAVATION SHALL BE INSPECTED BY THE BUILDING OFFICIAL PRIOR TO POURING CONCRETE.

#### MISCELLANEOUS ITEMS

AND ENGINEER.

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL SAFETY REGULATIONS, PROGRAMS AND PRECAUTIONS RELATED TO ALL WORK ON THIS PROJECT AND FOR THE PROTECTION OF PERSONS AND PROPERTY EITHER ON OR ADJACENT TO THE PROJECT AND SHALL PROTECT SAME AGAINST INJURY, DAMAGE OR LOSS.

THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED ON THE STRUCTURE. SUCH LOADS SHALL NOT EXCEED THE CAPACITY OF THE STRUCTURE AT ANY TIME.

THE STRUCTURE IS DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION, AND ANY TEMPORARY BRACING OR SUPPORT REQUIRED TO ACCOMMODATE THE CONTRACTOR'S MEANS AND METHODS ARE THE RESPONSIBILITY OF THE CONTRACTOR.

FABRICATION AND ERECTION. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING

DRAWINGS, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEEING THAT THE WORK OF ALL TRADES IS COORDINATED WITH ADJACENT WORK. EARTH RETAINING WALLS, OTHER THAN CANTILEVERED TYPE WALLS, SHALL BE ADEQUATELY BRACED UNTIL CONCRETE FOR

THE CONTRACTOR IS TO VERIFY ALL OPENING SIZES AND LOCATIONS WITH THE REQUIREMENTS OF OTHER TRADES PRIOR TO

SUPPORTING SLABS HAS BEEN PLACED AND ALL CONCRETE HAS CURED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGNING, FURNISHING, ERECTING AND REMOVING ANY TEMPORARY SHORING AND

BRACING DURING CONSTRUCTION

THE ARCHITECT AND ENGINEER SHALL BE NOTIFIED AT THE PROPER TIME WHEN ALL ITEMS ARE READY FOR OBSERVATION. SUFFICIENT NOTICE SHALL BE GIVEN BY THE CONTRACTOR TO ALLOW FOR SCHEDULING OF OBSERVATIONS.

SAFETY REGULATIONS SHALL BE STRICTLY FOLLOWED BY THE CONTRACTOR OR SUBCONTRACTOR DURING ALL TIMES OF WORK ON THIS PROJECT. THE ARCHITECT OR ENGINEER SHALL NOT HAVE CONTROL OR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR ACTS OF OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

ALL SPECIALTY BOLTS, INCLUDING EXPANSION TYPE AND EPOXY TYPE ANCHORS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS.

THE CONTRACTOR SHALL PROTECT FROM DAMAGES EXISTING BUILDING(S), OWNER EQUIPMENT, ROADS, WALKS AND UTILITIES. THE CONTRACTOR SHALL MAINTAIN THESE DURING THE COURSE OF THE WORK, AND SHALL REPAIR ALL DAMAGES AT NO ADDITIONAL EXPENSE TO THE OWNER.

IN AREAS WHERE THE DRAWINGS DO NOT ADDRESS METHODOLOGY, THE CONTRACTOR SHALL BE BOUND TO PERFORM IN STRICT COMPLIANCE WITH MANUFACTURER'S SPECIFICATIONS AND/OR RECOMMENDATIONS.

ON-SITE VERIFICATION OF ALL DIMENSIONS AND CONDITIONS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND HIS SUBCONTRACTORS. NOTED DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE.

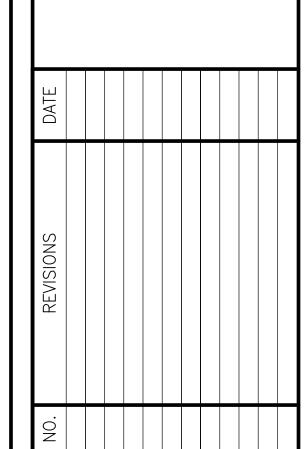
THE GENERAL NOTES AND TYPICAL DETAILS APPLY THROUGHOUT THE JOB UNLESS OTHERWISE NOTED OR SHOWN.

THE CONTRACTOR SHALL COMPARE AND COORDINATE ALL DRAWINGS. IF A DISCREPANCY EXISTS, HE SHALL PROMPTLY REPORT IT FOR PROPER ADJUSTMENT BEFORE PROCEEDING WITH THE WORK.

IN THE EVENT THAT CERTAIN FEATURES OF THE CONSTRUCTION ARE NOT FULLY SHOWN ON THE DRAWINGS, THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS SIMILAR CONDITIONS THAT ARE SHOWN OR NOTED.

#### SHOP DRAWINGS

THE GENERAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL STRUCTURAL ELEMENTS SHOWN ON THE CONTRACT DOCUMENTS FOR APPROVAL. THE STRUCTURAL ENGINEER WILL NOT BE RESPONSIBLE FOR THE STRUCTURAL CERTIFICATION AND DESIGN OF THE PROJECT IF THE GENERAL CONTRACTOR FAILS TO OBTAIN APPROVAL OF THE SHOP DRAWINGS. THE GENERAL CONTRACTOR SHALL INFORM THE STRUCTURAL ENGINEER IN WRITING CONCERNING DEVIATIONS AND/OR OMISSIONS FROM THE CONTRACT DOCUMENTS AT THE TIME OF SHOP DRAWING SUBMISSION. THE GENERAL CONTRACTOR SHALL REVIEW ALL SHOP DRAWINGS AND SHALL MAKE ALL CORRECTIONS HE DEEMS NECESSARY BEFORE SUBMISSION. THE GENERAL CONTRACTOR SHALL STATE ON THE SHOP DRAWINGS THAT CONTRACT DOCUMENT REQUIREMENTS HAVE BEEN MET AND THAT ALL DIMENSIONS, CONDITIONS AND QUANTITIES HAVE BEEN REVIEWED AND VERIFIED AS SHOWN AND/OR CORRECTED ON THE SHOP DRAWINGS.



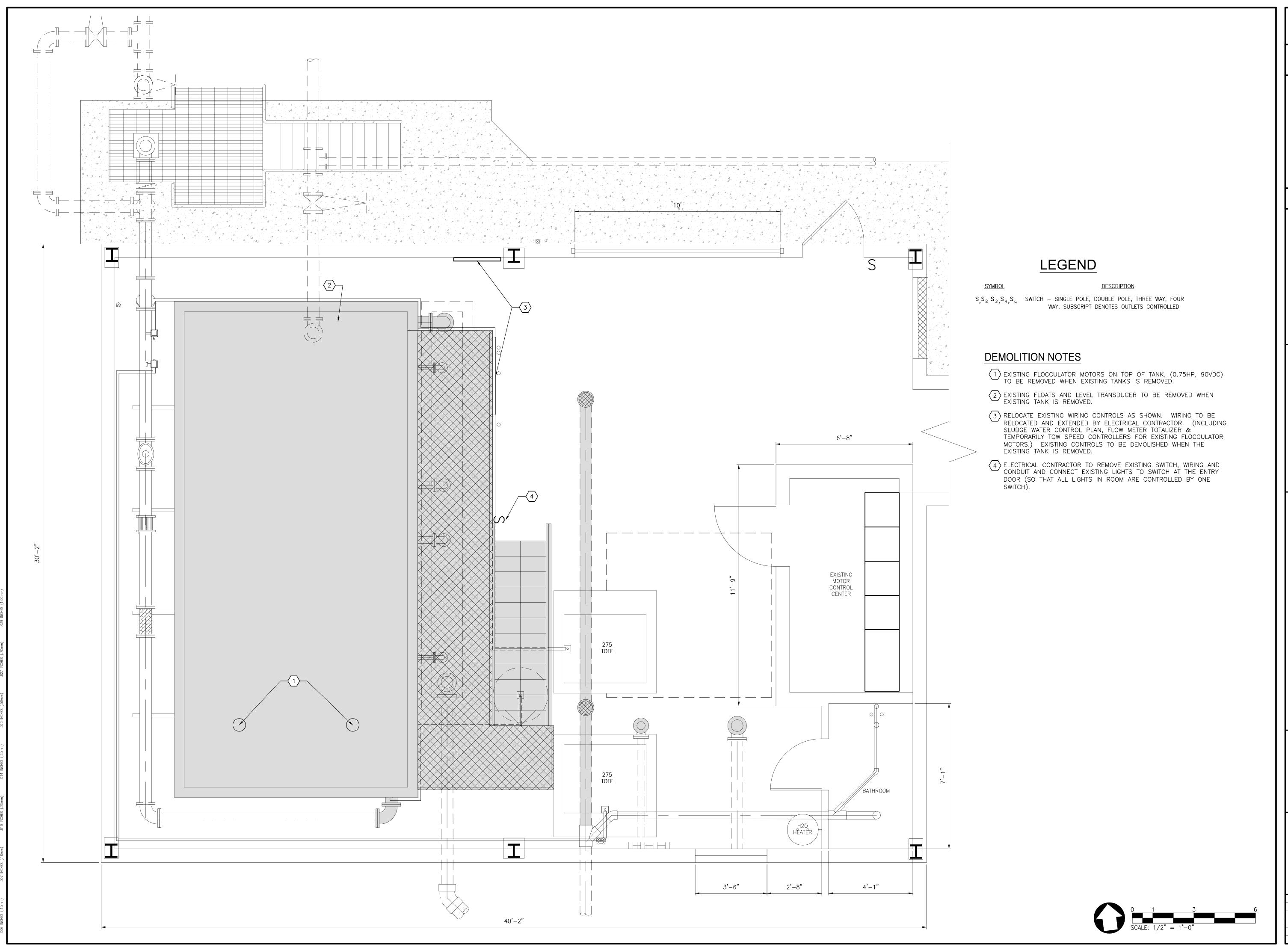


STRUCTURAL NOTES & DETAILS

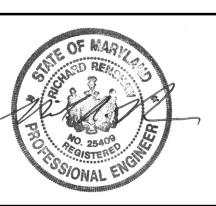
: AS NOTED DESIGN BY : ARM DRAWN BY : TFVT CHECKED BY : ARM GMB FILE : 190065

: JULY 2019

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> FAIRLEE WTP ARIFLOCCULATOF REPLACEMENT



ELECTRICAL DEMO PLAN

SCALE : AS NOTED SHEET NO.

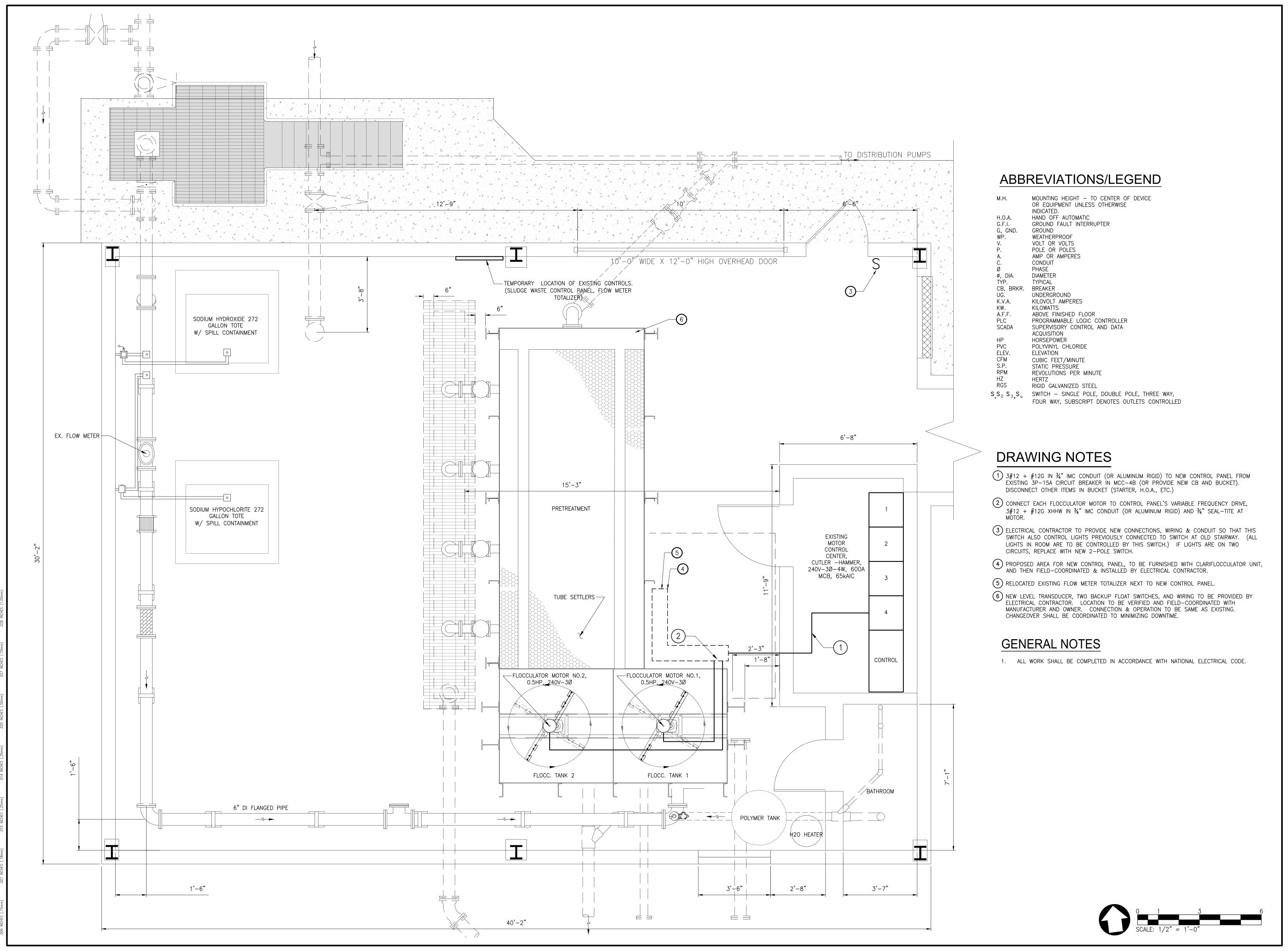
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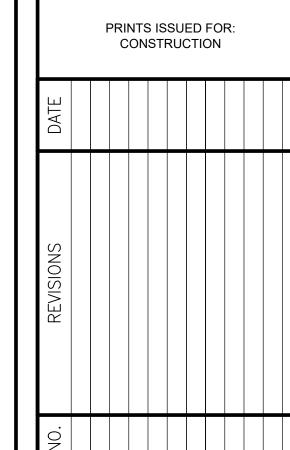
DRAWN BY : YPV

CHECKED BY : JCH

GMB FILE : 190065

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REPLACEMENT



ELECTRICAL DRAWINGS

SCALE : AS NOTED

DESIGN BY : MMH

DRAWN BY : YPV

CHECKED BY : JCH

GMB FILE : 190065

DATE : JULY 2019

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