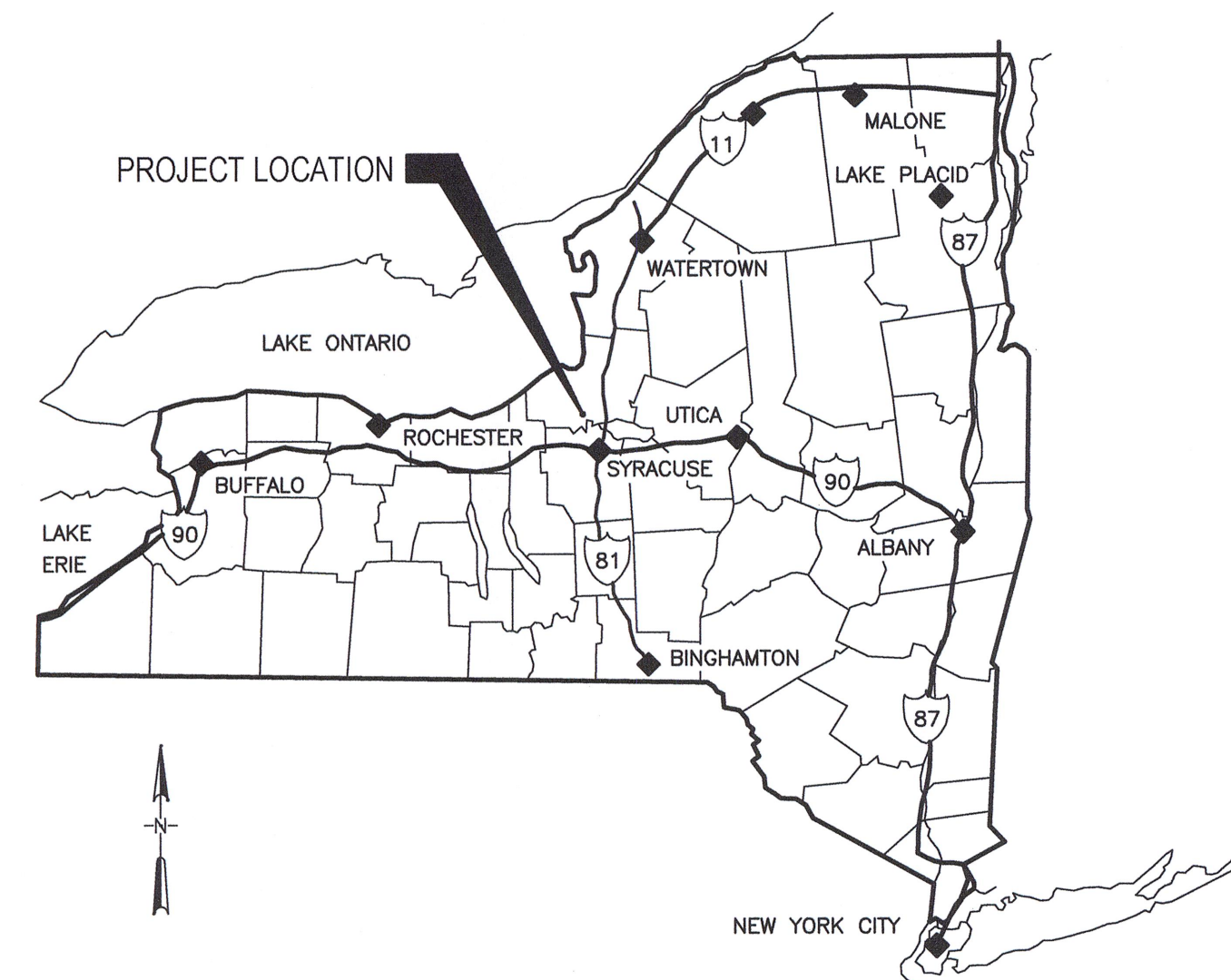


# ONONDAGA COUNTY DEPARTMENT OF WATER ENVIRONMENT PROTECTION ONONDAGA COUNTY, NEW YORK



## BALDWINSVILLE - SENECA KNOLLS WWTP IMMEDIATE IMPROVEMENTS

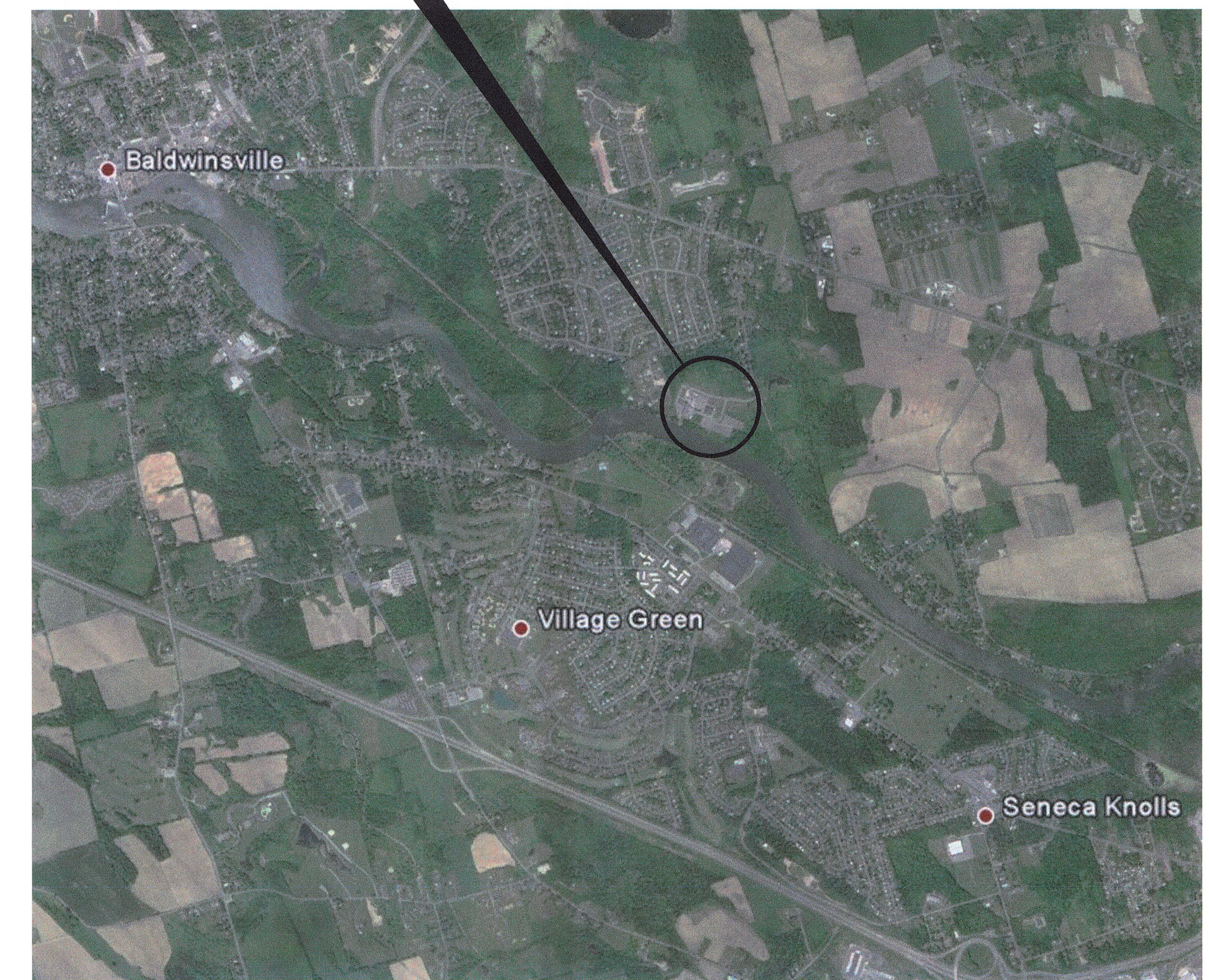


CONTRACT NO 1 - GENERAL  
CONTRACT NO 2 - ELECTRICAL

BID REFERENCE NO 8138  
PROJECT NO 587561

*[Signature]*  
N.Y.P.E. LICENSE NO. 61769-1

PROJECT LOCATION



LOCATION PLAN  
NOT TO SCALE

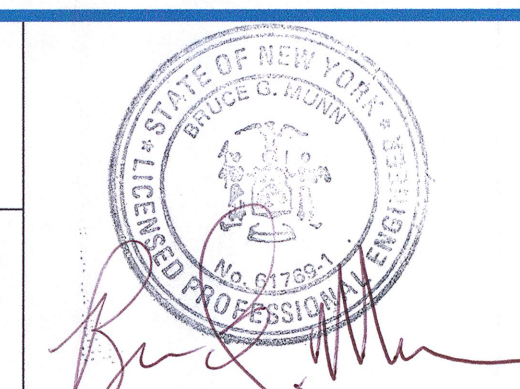
DEPARTMENT OF WATER ENVIRONMENT PROTECTION  
TOM RHOADS, P.E., COMMISSIONER

RECORD DRAWING  
THESE DRAWINGS HAVE BEEN REVISED TO REFLECT MAJOR CHANGES, IF ANY, WHICH OCCURRED DURING CONSTRUCTION. REVISIONS ARE BASED UPON INFORMATION SUPPLIED BY CONTRACTOR.  
DATE 10/11/16 PER BGM

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
1	FOR RECORD		TAW	RCF	BGM	06/16
0	FOR BID		SFB	RCF	BGM	08/2014

**NOTES:**  
UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.

IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



**GHD**  
GHD Consulting Services Inc.  
One Remington Park Drive  
Cazenovia NY 13035 USA  
T 1 315 679 5800 F 1 315 679 5801  
E cazmail@ghd.com W www.ghd.com

Drawn	SFB	Designer	SFB
Drafting Check	EJP	Design Check	EJP
Approved (Project Director)	Date		
Scale	NOT TO SCALE		

Client	ONONDAGA COUNTY DWEP		
Project	BSK WWTP IMMEDIATE IMPROVEMENTS		
Title	TITLE SHEET		
Contract No.	1, 2		
Original Size	Arch D		
Drawing No.	86-16538-G001		
Rev:	1		



ABBREVIATIONS

Table of abbreviations and their corresponding full names, including terms like ANCHOR BOLT, EFFLUENT, and various material and construction codes.

Table of abbreviations and their corresponding full names, including terms like MASONRY, MTL, MAX, and various material and construction codes.

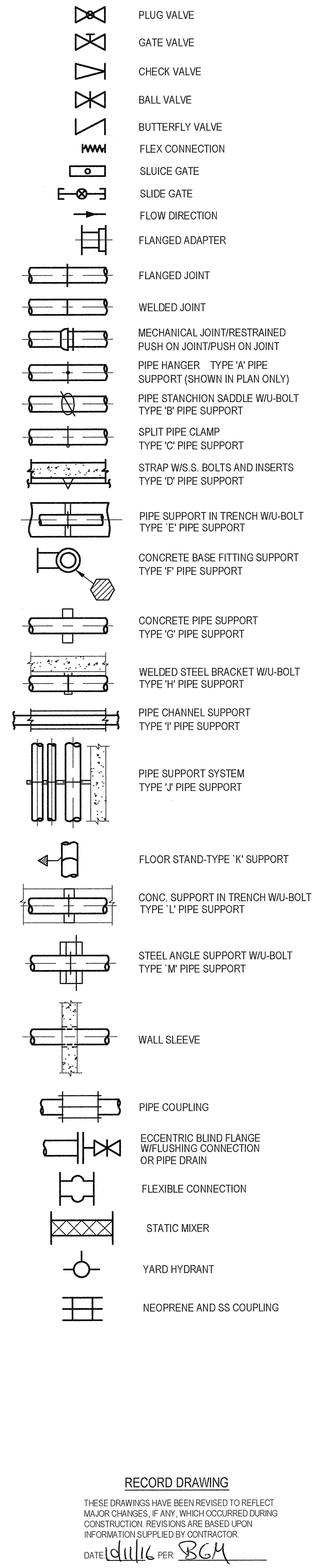
Table of abbreviations and their corresponding full names, including terms like SQUARE FOOT OR SILT FENCE, SLIDE GATE, and various material and construction codes.

Table of abbreviations and their corresponding full names, including terms like EFFLUENT, EFFLUENT WATER, and various material and construction codes.

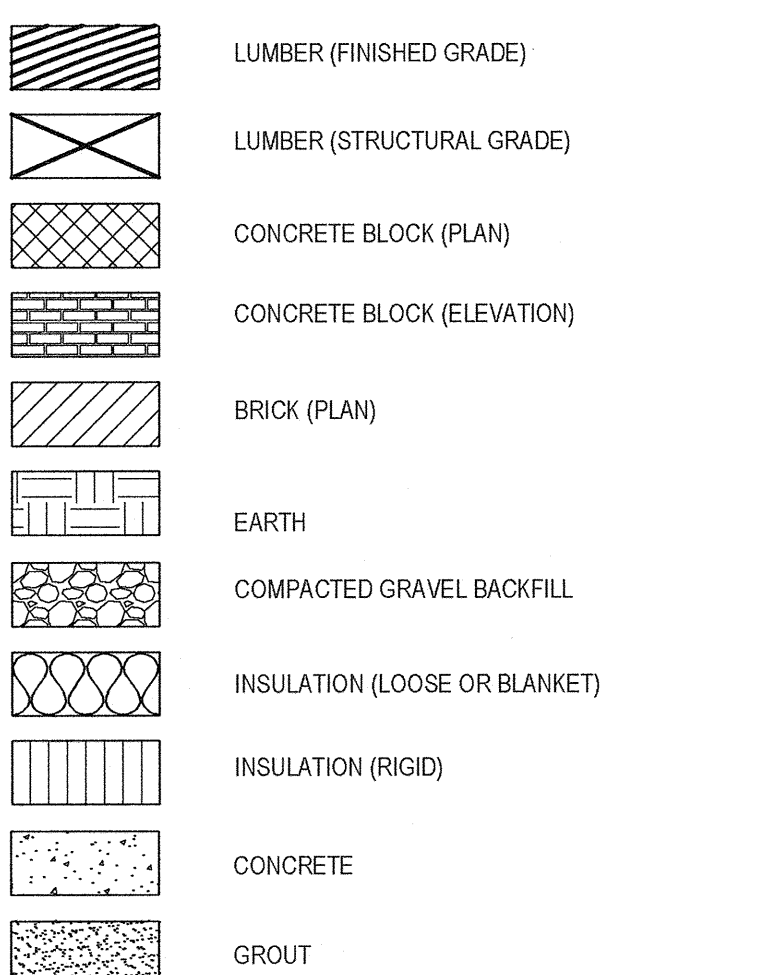
GENERAL NOTES:

- List of general notes detailing construction requirements, including material specifications, site drainage, and safety protocols.

SYMBOLS



STANDARD HATCH PATTERNS



RECORD DRAWING

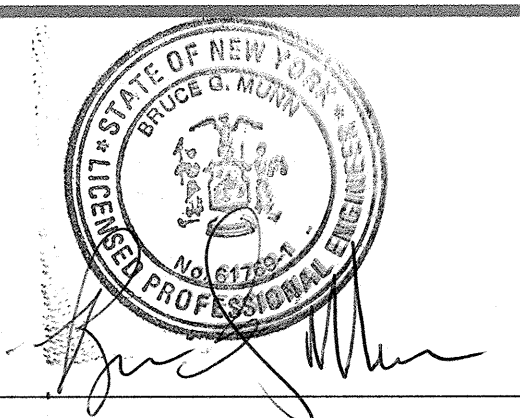
Text indicating the drawing is a record drawing, signed and dated by the engineer.

DRAWING LIST

Table listing drawing numbers and titles, such as 86-16538-G001 for the Title Sheet and 86-16538-E001 for Abbreviations, Symbols, Notes and Details.

Table with columns for Revision, Date, and Description, showing revisions for 'FOR RECORD' and 'FOR BID'.

NOTES: UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS...

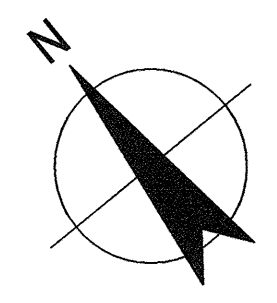


GHD Consulting Services Inc. logo and contact information, including address and phone numbers.

Table with columns for Drawn, Designer, Drafting Check, Design Check, Approved, and Date.

Client information for ONONDAGA COUNTY DWEP, project name BSK WWTP IMMEDIATE IMPROVEMENTS, and drawing title.

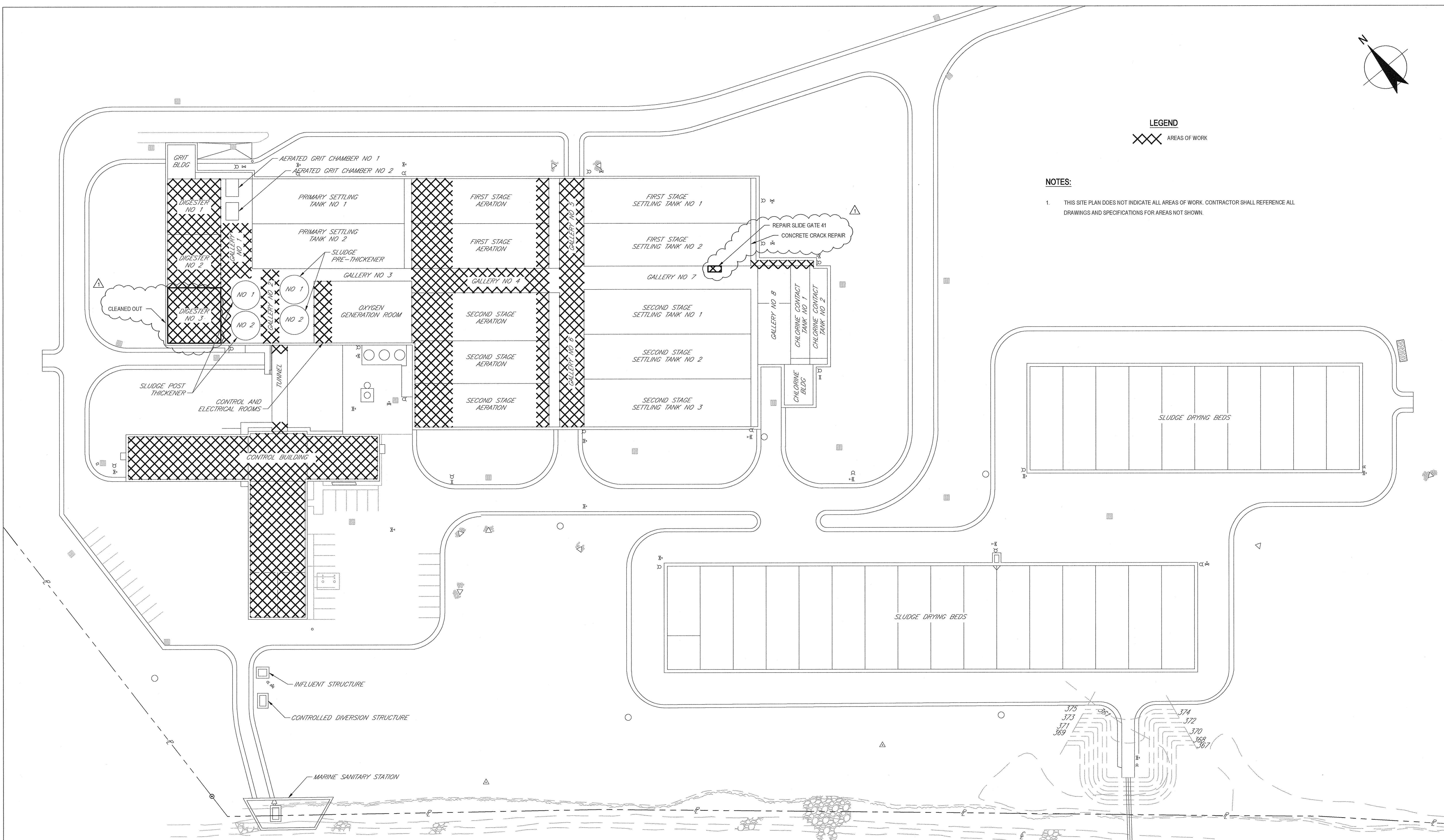




**LEGEND**  
 XXXX AREAS OF WORK

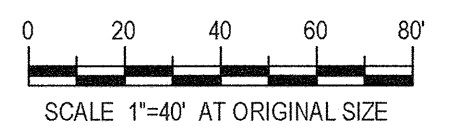
**NOTES:**

1. THIS SITE PLAN DOES NOT INDICATE ALL AREAS OF WORK. CONTRACTOR SHALL REFERENCE ALL DRAWINGS AND SPECIFICATIONS FOR AREAS NOT SHOWN.



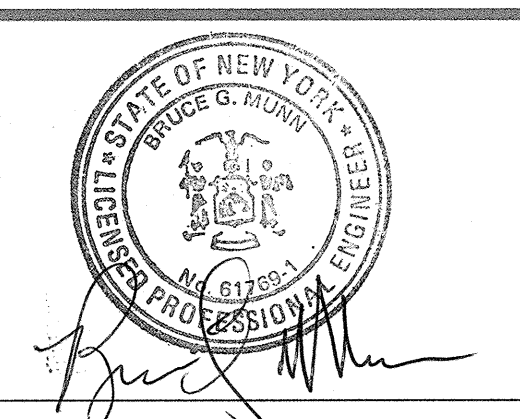
**SITE PLAN**  
 SCALE 1"=40'-0"

**RECORD DRAWING**  
 THESE DRAWINGS HAVE BEEN REVISED TO REFLECT MAJOR CHANGES, IF ANY, WHICH OCCURRED DURING CONSTRUCTION. REVISIONS ARE BASED UPON INFORMATION SUPPLIED BY CONTRACTOR.  
 DATE 10/11/16 PER BGM



No	Revision	Note	Drawn	Job Manager	Project Director	Date
2	FOR RECORD		TAW	RCF	BGM	06/16
1	REVISED DURING CONSTRUCTION		TAW	RCF	BGM	06/16
0	FOR BID		SFB	RCF	BGM	08/2014

**NOTES:**  
 UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.  
 IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



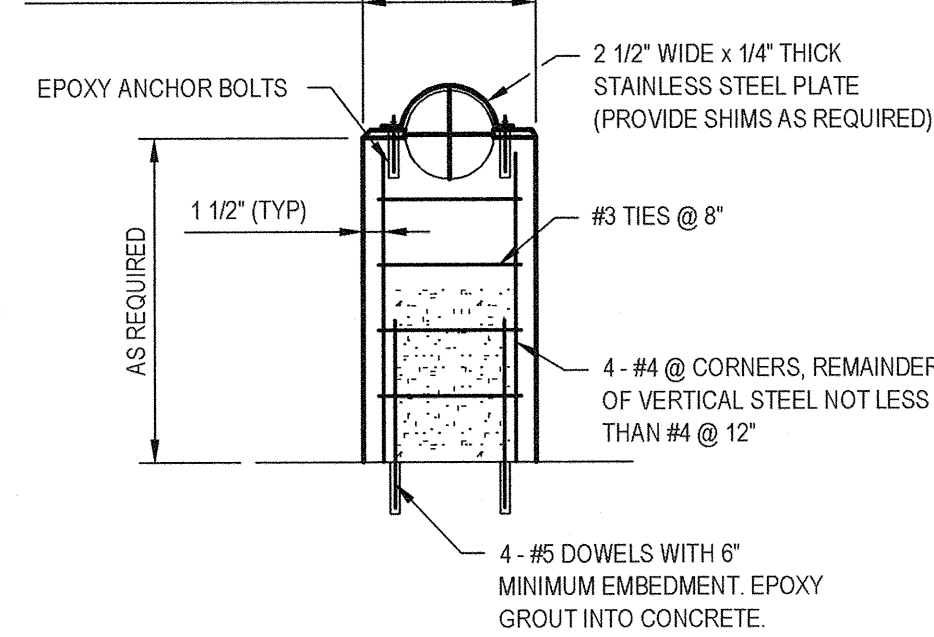
**GHD**  
 GHD Consulting Services Inc.  
 One Remington Park Drive  
 Cazenovia NY 13035 USA  
 T 1 315 679 5800 F 1 315 679 5801  
 E cazmail@ghd.com W www.ghd.com

Drawn	SFB	Designer	SFB
Drafting Check	SFB	Design Check	EJP
Approved (Project Director)	Date		
Scale	1"=40'-0"		

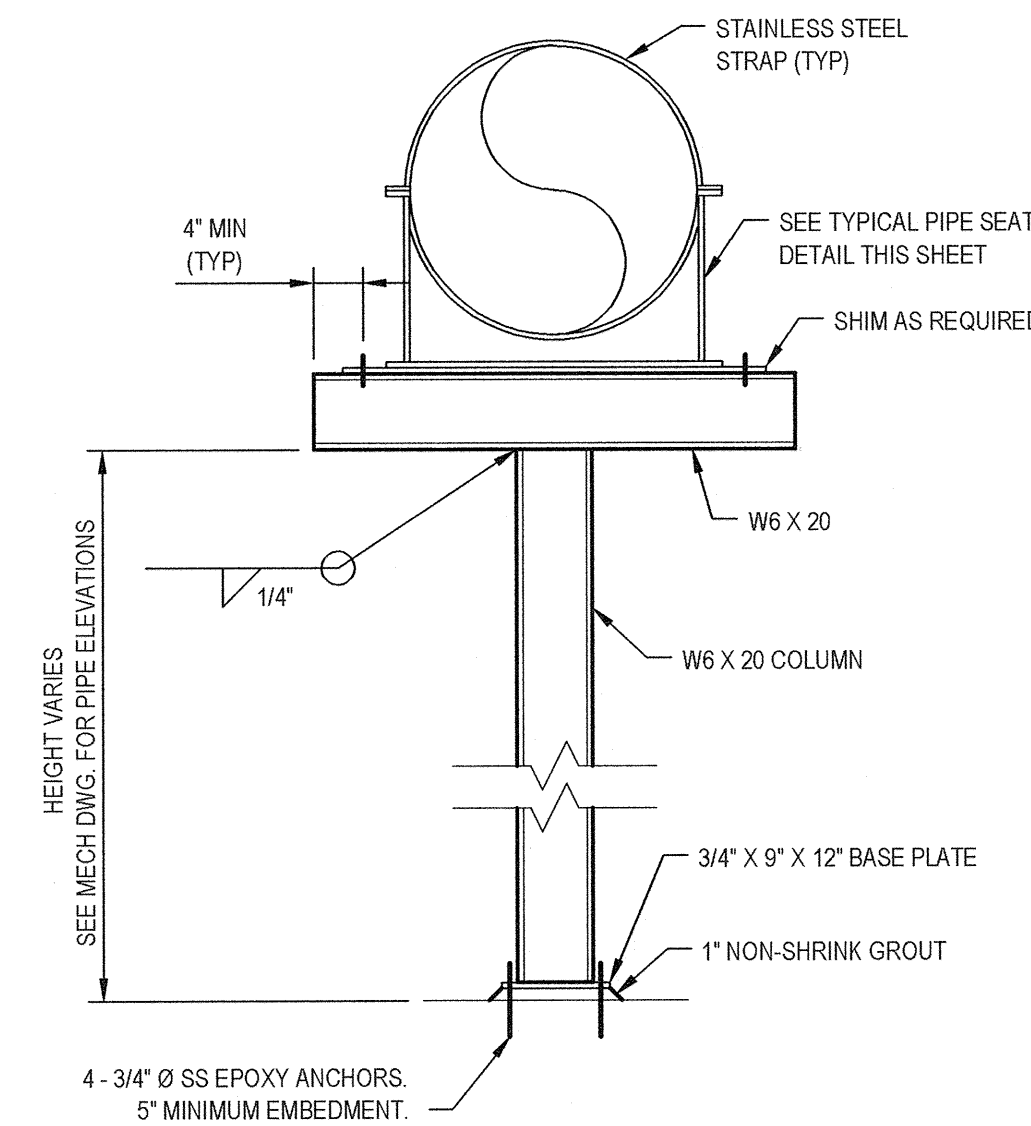
Client **ONONDAGA COUNTY DWEP**  
 Project **BSK WWTP IMMEDIATE IMPROVEMENTS**  
 Title **EXISTING SITE PLAN AND LOCATIONS OF WORK**  
 Contract No. 1, 2  
 Original Size  
**Arch D Drawing No: 86-16538-G003**  
 Rev: 2



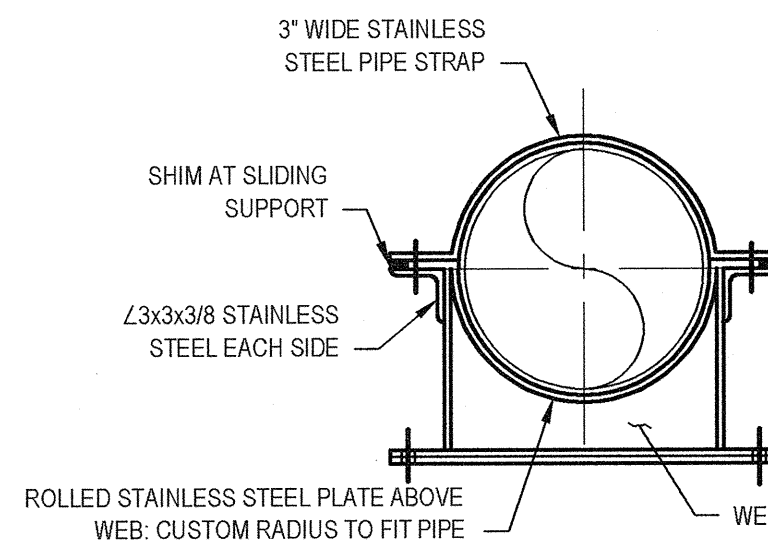
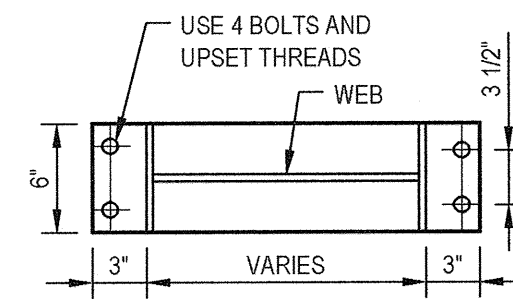
PIPES 12" Ø AND SMALLER =  
(PIPE Ø + 4" x 8" WIDE)  
PIPES OVER 12" Ø =  
(PIPE Ø + 8" x 8" WIDE)



**TYPE 'G' PIPE SUPPORT WITH STRAP**  
NOT TO SCALE



**TYPICAL PIPE SEAT DETAIL**  
NOT TO SCALE

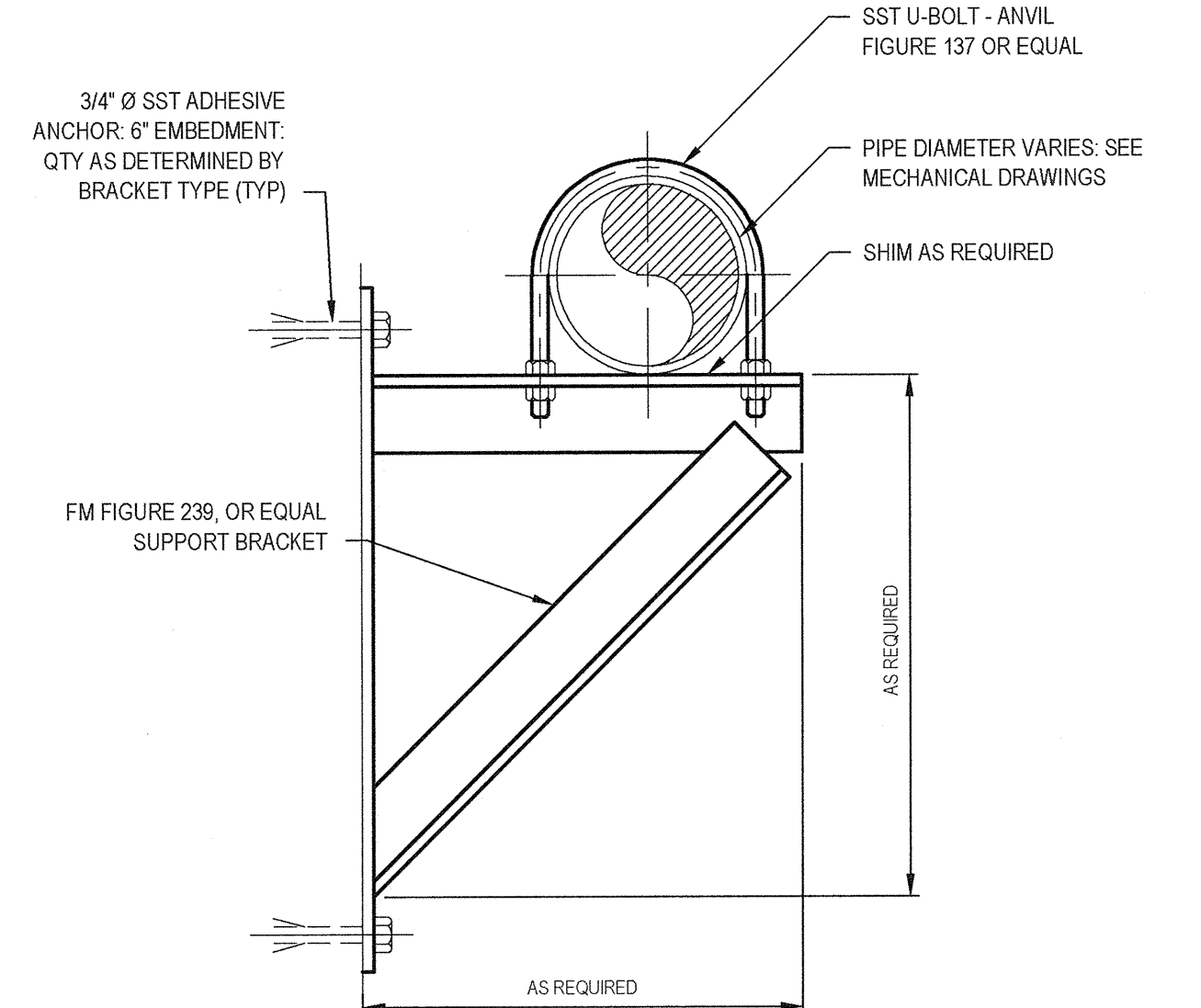


**NOTES:**

- ALL MATERIAL IS 316 STAINLESS STEEL.
- ALL BOLTS ARE 3/4" STAINLESS STEEL.
- ALL **SLIDING** SUPPORTS:
  - PROVIDE 1/2" SHIMS AND OVERSIZED PIPE STRAP TO PROVIDE 1/4" CLEARANCE AROUND TOP OF PIPE.
  - USE 3 - 1" WIDE TEFLON STRIPS. EPOXY TO PIPE SEAT.

**GENERAL PIPE SUPPORT NOTE:**

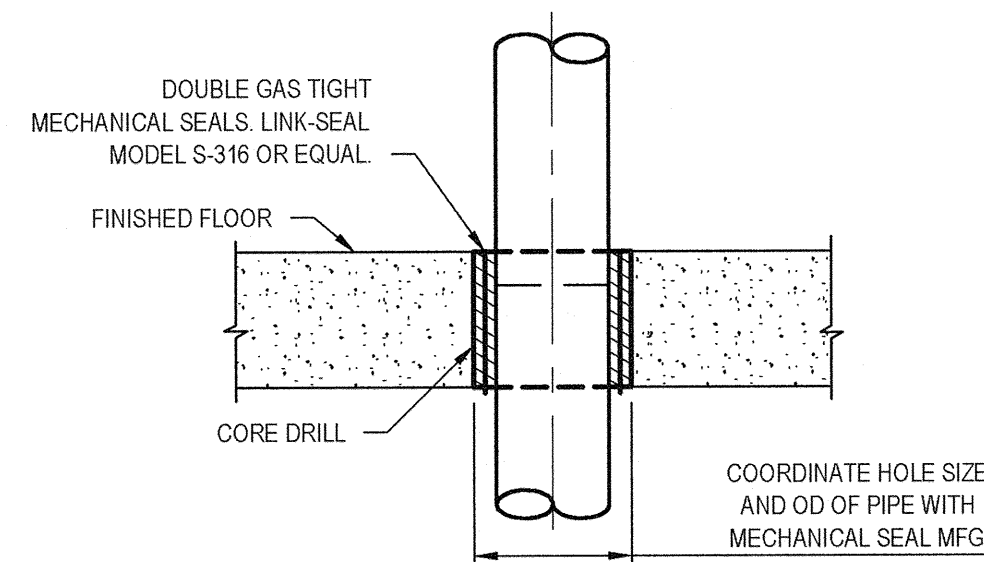
ALL INTERIOR PIPE SUPPORTS NOT EXPOSED TO A CORROSIVE ENVIRONMENT SHALL BE ZINC AND PAINTED TO MATCH PIPE SYSTEM, OR GALVANIZED.



**NOTES:**

FOR PIPES LARGER THAN 24" Ø SUPPORT SPACING MUST BE DECREASED SO AS NOT TO EXCEED MAX LOAD.

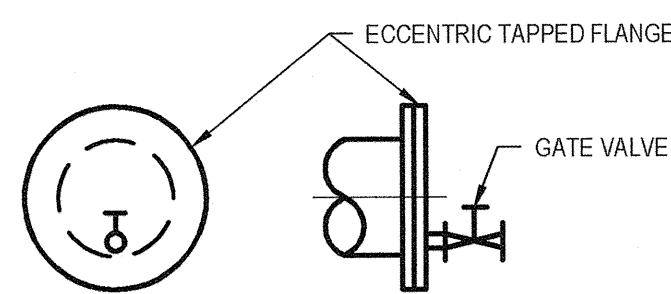
**TYPE 'H' PIPE SUPPORT DETAIL**  
NOT TO SCALE



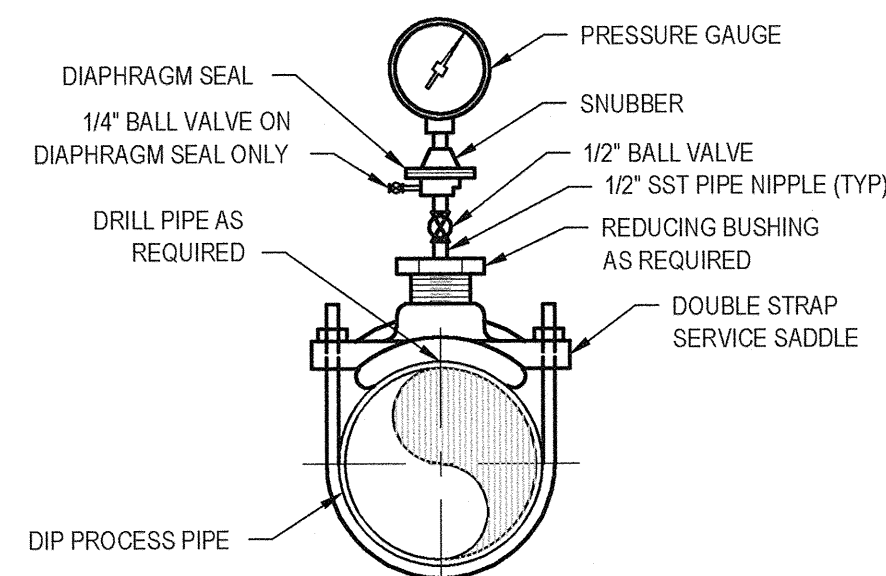
**TYPICAL FLOOR SLEEVE DETAIL EXISTING STRUCTURE**  
NOT TO SCALE

**NOTE:**  
ALL STRUCTURAL MEMBERS TO BE HOT DIP GALVANIZED. ALL BOLTS AND HARDWARE TO BE STAINLESS STEEL.

**TYPE 'T' PIPE SUPPORT DETAIL**  
NOT TO SCALE

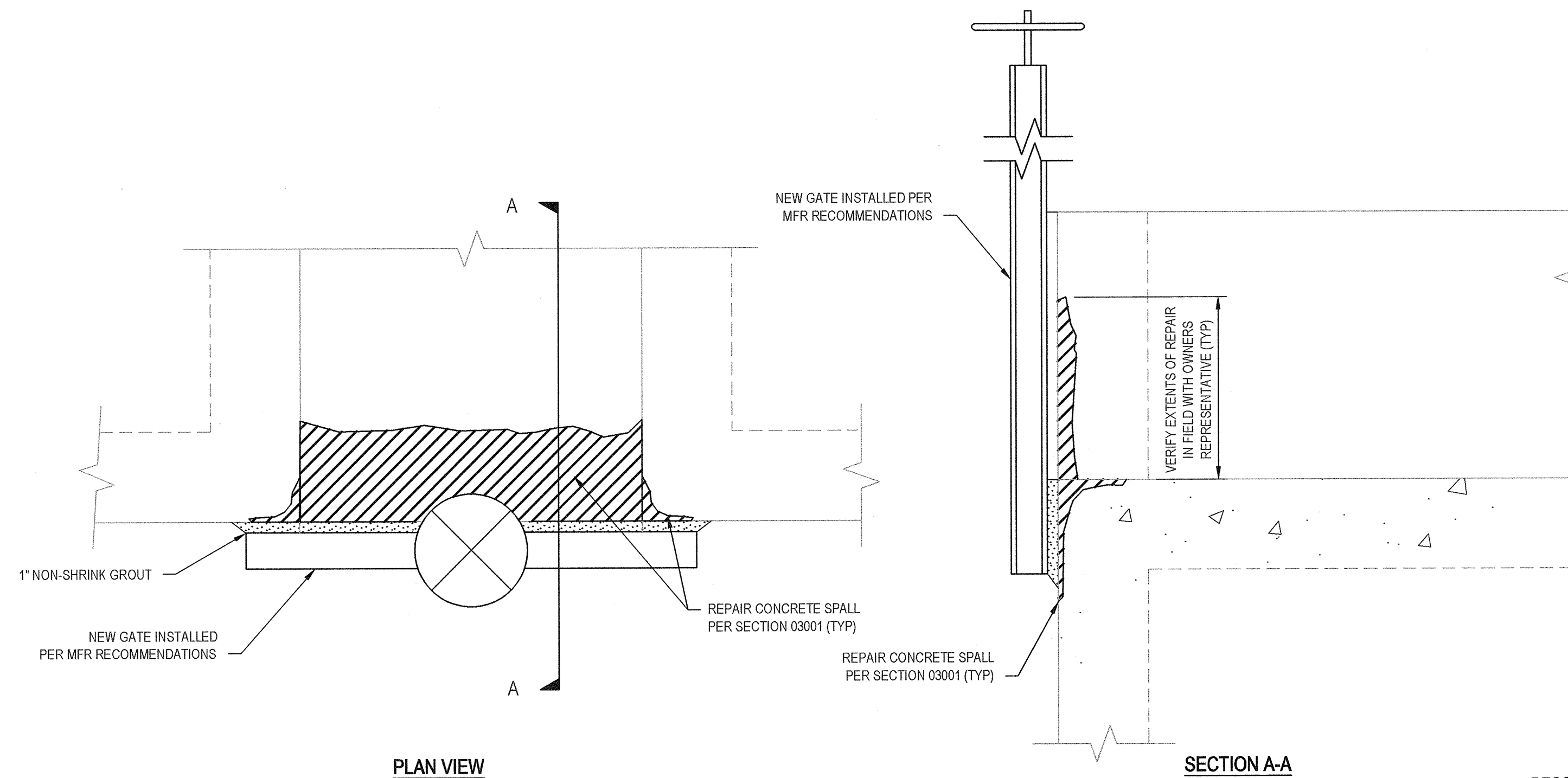


**FLUSHING CONNECTION DETAIL**  
NOT TO SCALE

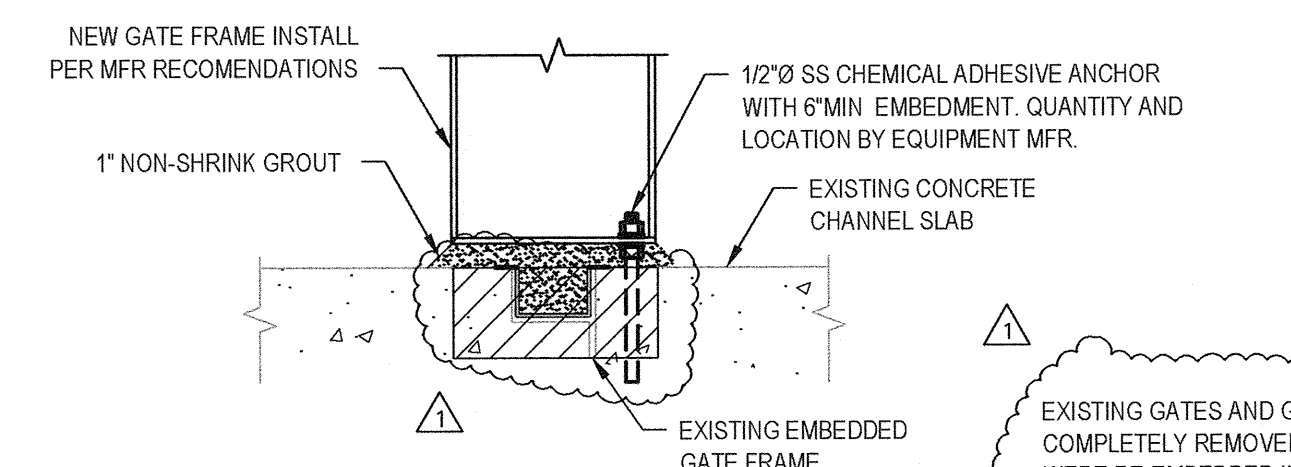
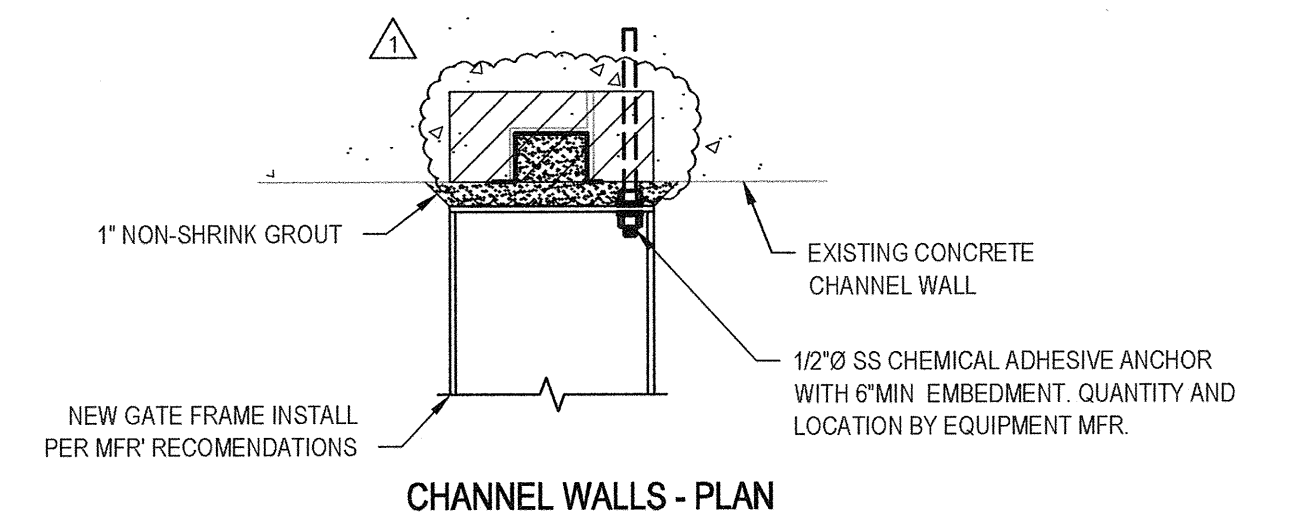


**PRESSURE GAUGE MOUNTING DETAIL**  
NOT TO SCALE

**NOTE:**  
FIELD THREADING (DRILL & TAP) IS NOT ACCEPTABLE.



**CONCRETE REPAIRS AT GATE REPLACEMENT INSTALLATIONS**  
NOT TO SCALE



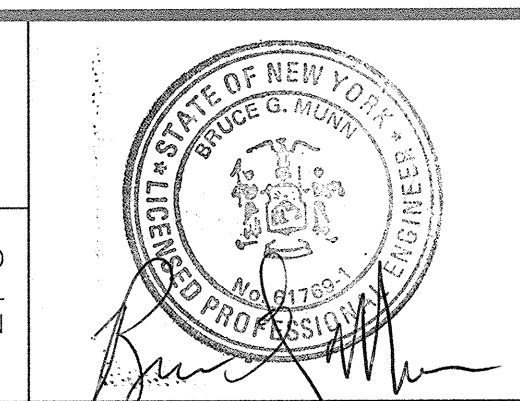
**IN-CHANNEL EMBEDDED GATE REPLACEMENT DETAIL**  
NOT TO SCALE

**NOTE:**  
APPLIES TO ALL SIDES OF GATE.

RECORD DRAWING  
THESE DRAWINGS HAVE BEEN REVISED TO REFLECT MAJOR CHANGES, IF ANY, WHICH OCCURRED DURING CONSTRUCTION. REVISIONS ARE BASED UPON INFORMATION SUPPLIED BY CONTRACTOR.  
DATE: 08/16/2016 PER: SFB

No	Revision	Note	Drawn	Job Manager	Project Director	Date
2	FOR RECORD		TAM	RCF	BGM	06/16
1	REVISED FOR CONSTRUCTION		TAW	RCF	BGM	06/16
0	FOR BID		SFB	RCF	BGM	08/2014

**NOTES:**  
UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.  
IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



**GHD**  
GHD Consulting Services Inc.  
One Remington Park Drive  
Cazenovia NY 13035 USA  
T 1 315 679 5800 F 1 315 679 5801  
E cza@mail@ghd.com W www.ghd.com

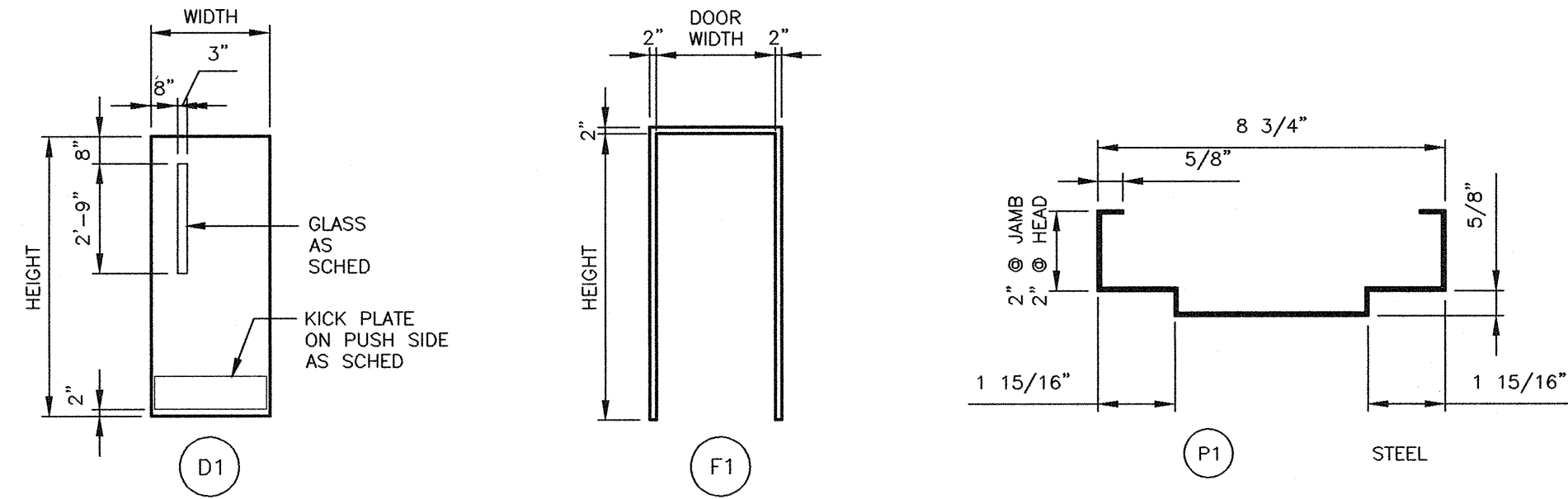
Drawn	SFB	Designer	SFB
Drafting Check	SFB	Design Check	EJP
Approved (Project Director)	Date		
Scale	NOT TO SCALE		

Client	<b>ONONDAGA COUNTY DWEP</b>		
Project	<b>BSK WWTP IMMEDIATE IMPROVEMENTS</b>		
Title	<b>MISCELLANEOUS DETAILS</b>		
Contract No.	1		
Original Size	Arch D		
Drawing No.	<b>86-16538-G004</b>		
Rev.	<b>1</b>		



\* SEE KEY PLAN FOR GENERAL DOOR LOCATION, PARTIAL PLANS FOR ADDITIONAL DOOR INFORMATION.

* DOOR NUMBER	DOOR							FRAME				DETAILS: SEE THIS DRAWING UNLESS NOTED OTHERWISE			LABEL	HARDWARE SET	NOTE NO.	NOTES
	SIZE			MATERIAL	TYPE	GLASS	FINISH	MATERIAL	TYPE	PROFILE	FINISH	HEAD	JAMB	SILL				
	WIDTH	HEIGHT	THICK															
F7	3'-0"	7'-2"	1-3/4"	HM	-	-	EXIST	HM	-	-	EXIST	EXIST	EXIST	EXIST	B	2	1	1. EXISTING DOOR AND FRAME TO REMAIN. PROVIDE AND INSTALL HARDWARE PER SCHEDULE IN SPEC SECTION 08710. 2. NEW DOOR, FRAME, AND HARDWARE IN EXISTING OPENING. FIELD VERIFY OPENING SIZE.
A202	3'-0"	7'-2"	1-3/4"	HM	D1	D-H-90	M-2	HM	F1	P1	M-2	DH1	DJ1	DS1	B	1	2	



**DOOR TYPES**  
NTS

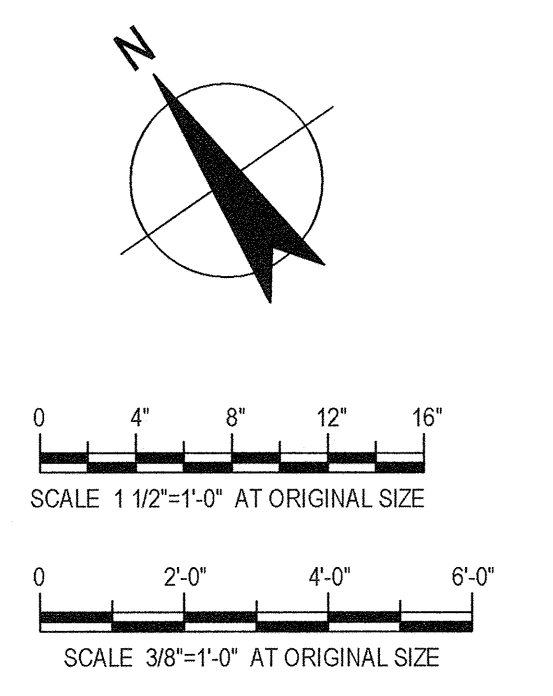
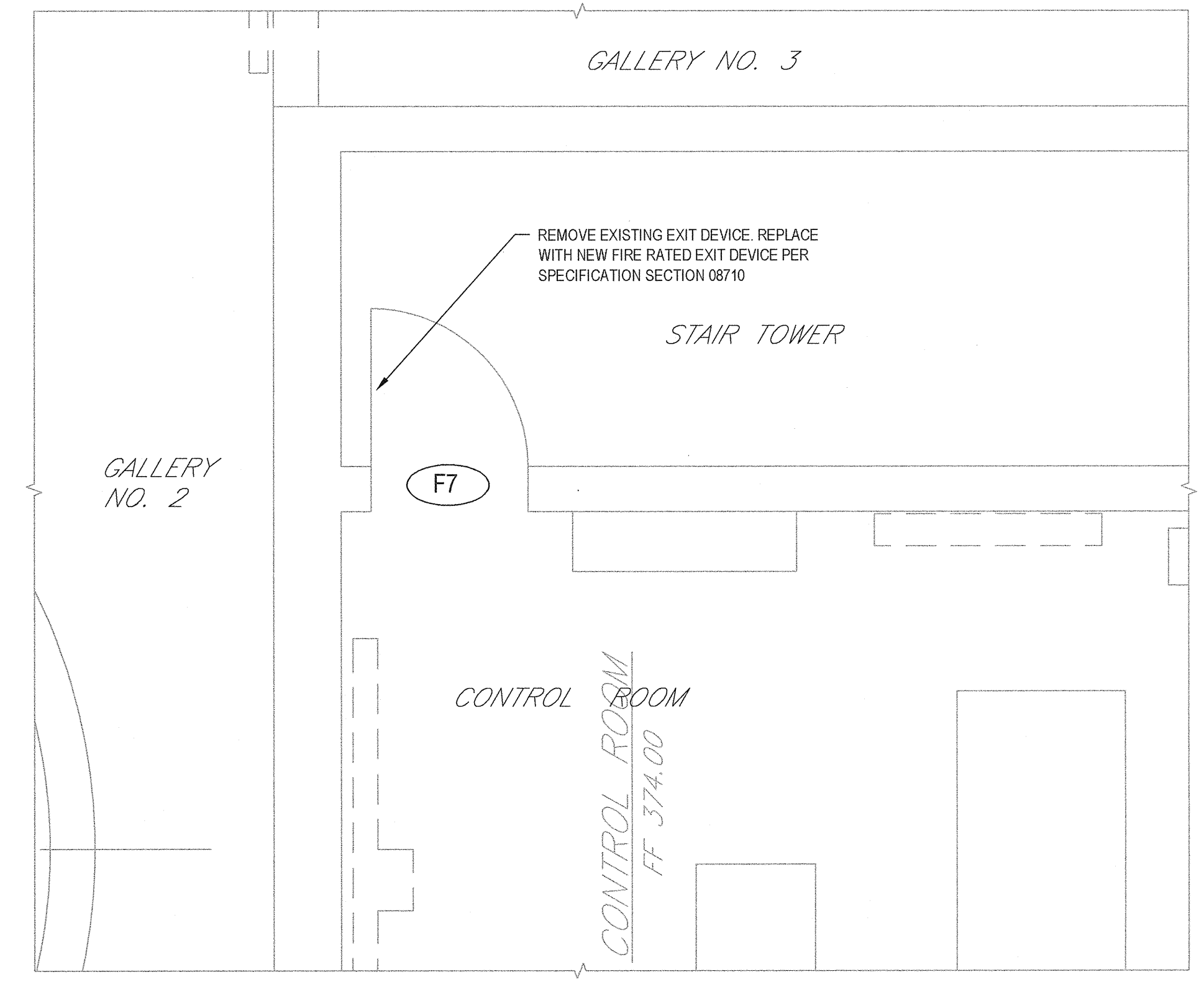
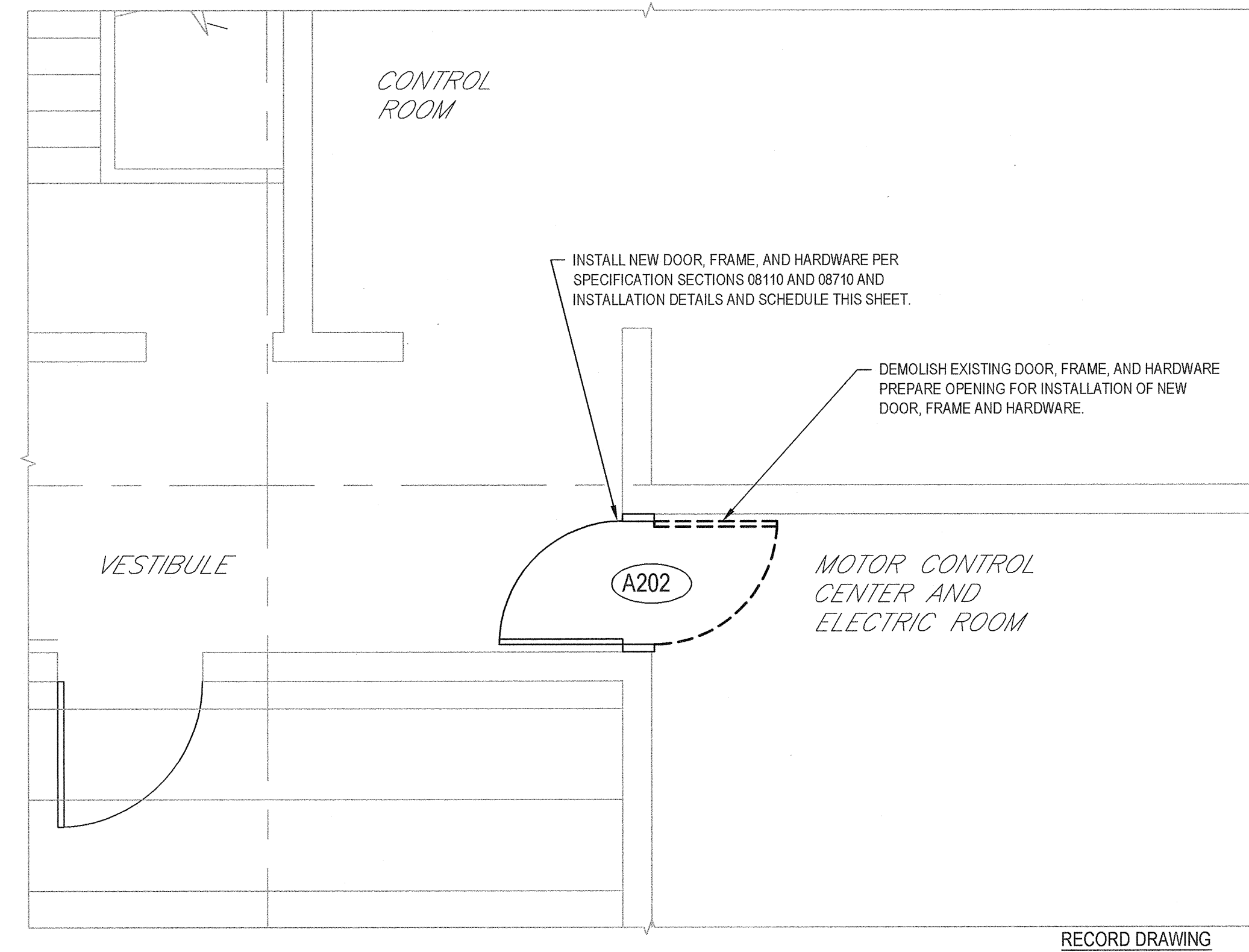
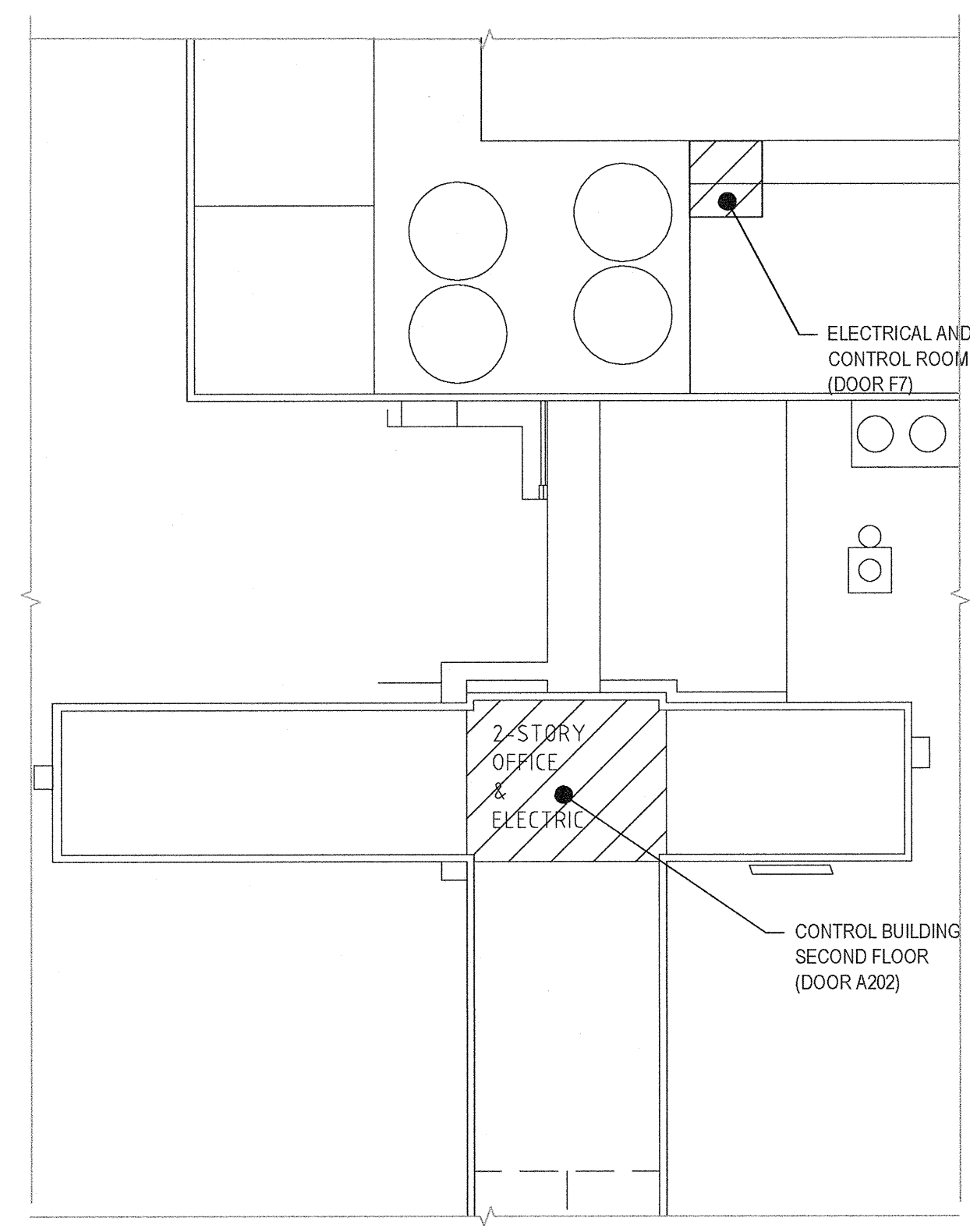
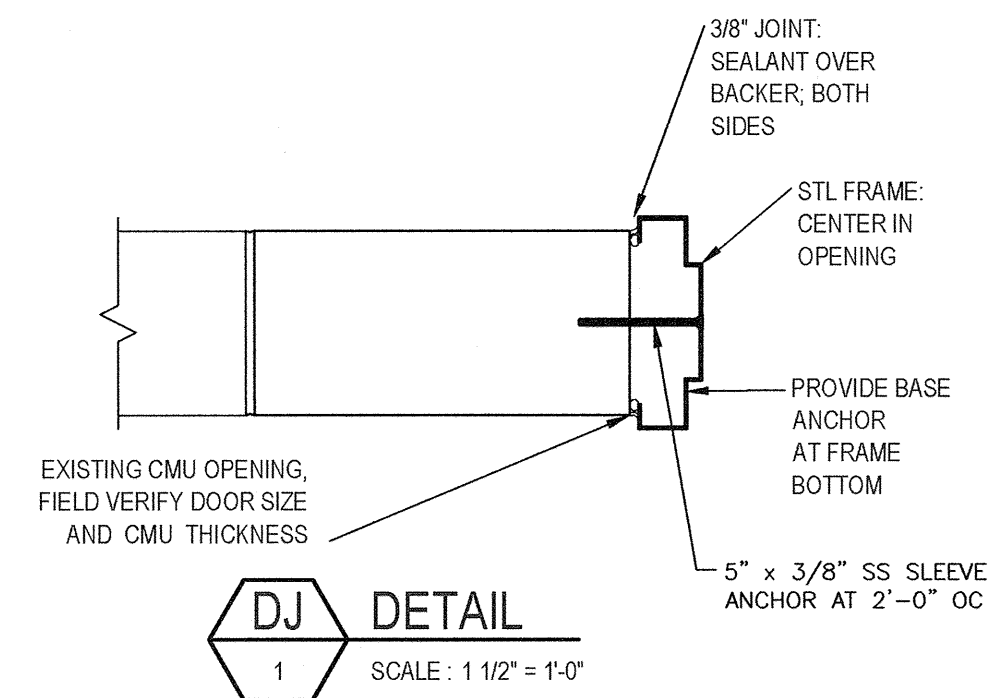
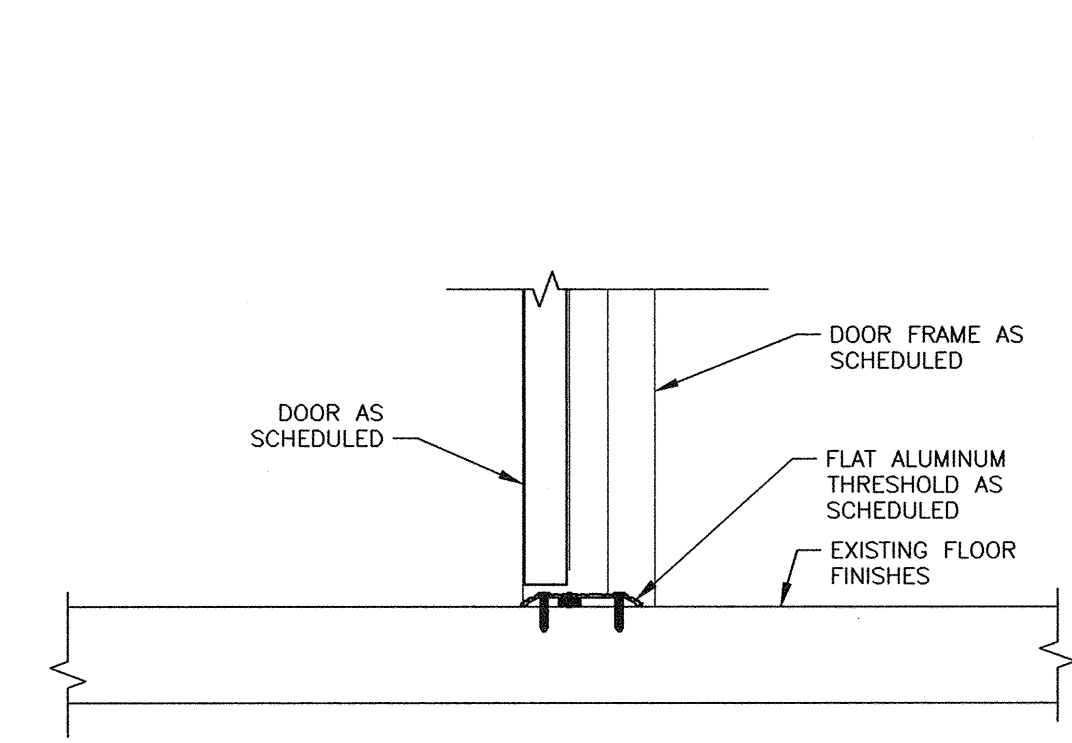
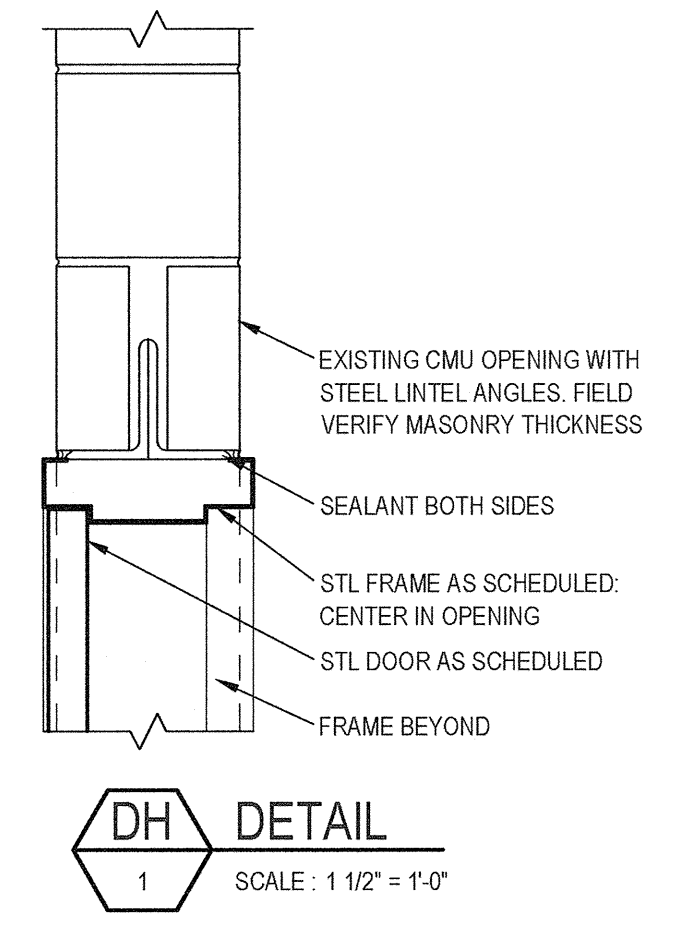
**FRAME TYPE**  
NTS

**FRAME PROFILES**  
NTS

**ABBREVIATIONS LEGEND FOR SCHEDULES:**

**KEY TO DOOR SCHEDULE:**  
 D-H-90 = FIRE RATED SAFETY GLASS PER SPEC SECTION 08110  
 EXIST = EXISTING COMPONENTS TO REMAIN  
 FCTY = FACTORY FINISH  
 HM = HOLLOW METAL (STEEL) DOOR AND FRAME COMPONENTS  
 N/A or - = NOT APPLICABLE  
 NO. = NUMBER  
 THICK. = THICKNESS

**KEY TO MATERIAL AND FINISH ABBREVIATIONS:**  
 CMU = CONCRETE MASONRY UNIT  
 CONC = CONCRETE (CAST-IN-PLACE)  
 EXP = EXPOSED STRUCTURE  
 M-# = PAINT SYSTEM PER SEC SECTION 09900  
 STL = STEEL  
 VIF = VERIFY IN FIELD



No	Revision	Note: * Indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
1	FOR RECORD		TAW	RCF	BGM	06/16
0	FOR BID		LEW	RCF	BGM	08/2014

**NOTES:**  
 UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.

IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

**RECORD DRAWING**

THESE DRAWINGS HAVE BEEN REVISED TO REFLECT MAJOR CHANGES, IF ANY, WHICH OCCURRED DURING CONSTRUCTION. REVISIONS ARE BASED UPON INFORMATION SUPPLIED BY CONTRACTOR.

DATE: *06/16/16* PER: *SM*

**GHD**  
 GHD Consulting Services Inc.  
 One Remington Park Drive  
 Cazenovia NY 13035 USA  
 T 1 315 679 5800 F 1 315 679 5801  
 E cazmail@ghd.com W www.ghd.com

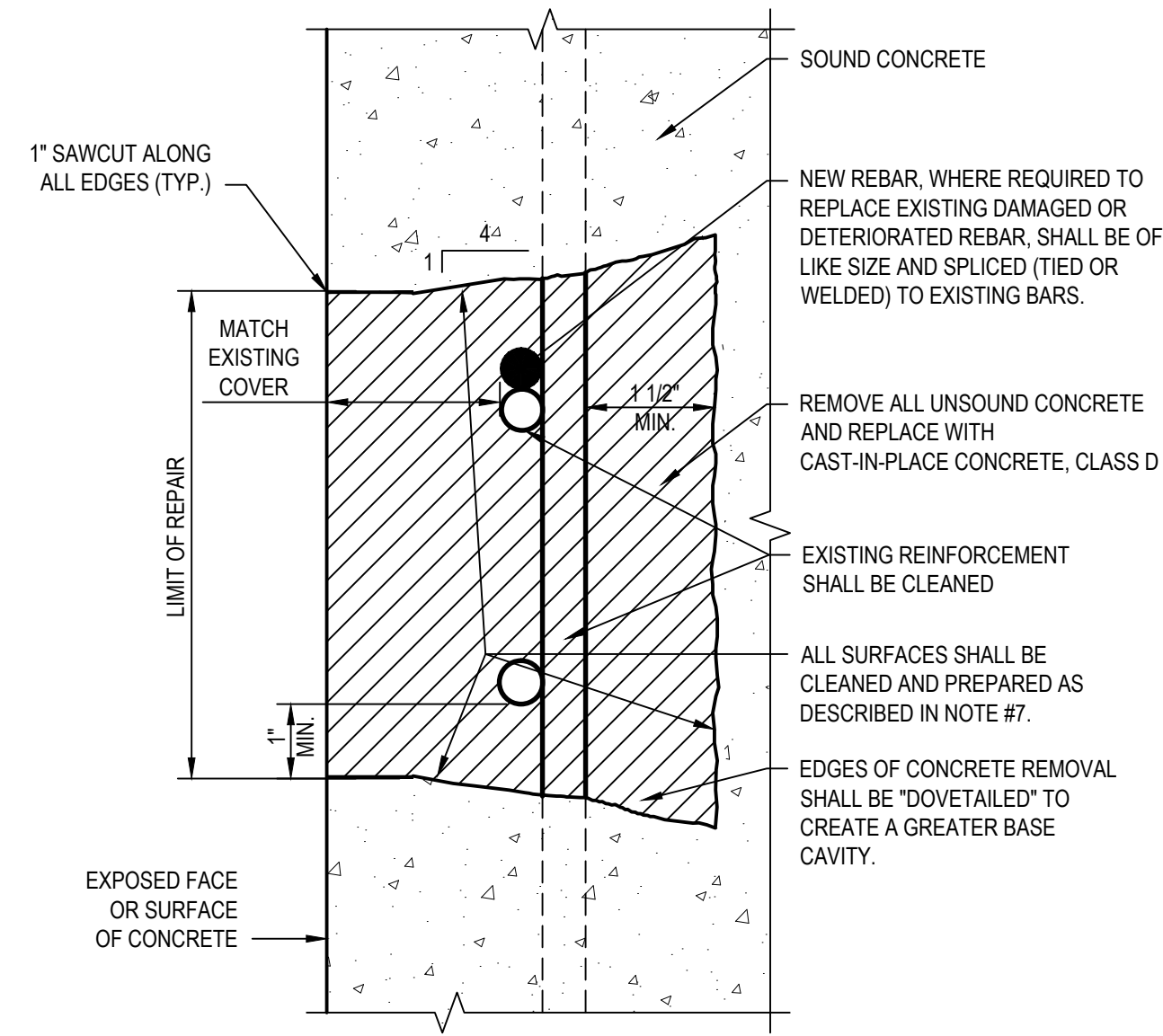
Drawn	LEW	Designer	LEW
Drafting Check	MJS	Design Check	MJS
Approved (Project Director)		Date	
Scale	AS NOTED	This Drawing shall not be used for Construction unless Signed and Sealed For Construction	

Client: **ONONDAGA COUNTY DWEP**  
 Project: **BSK WWTP IMMEDIATE IMPROVEMENTS**  
 Title: **CONTROL BUILDING - PART SECOND FLOOR PLAN, GALLERY 3 - PART PLAN, SCHEDULES & DETAILS**

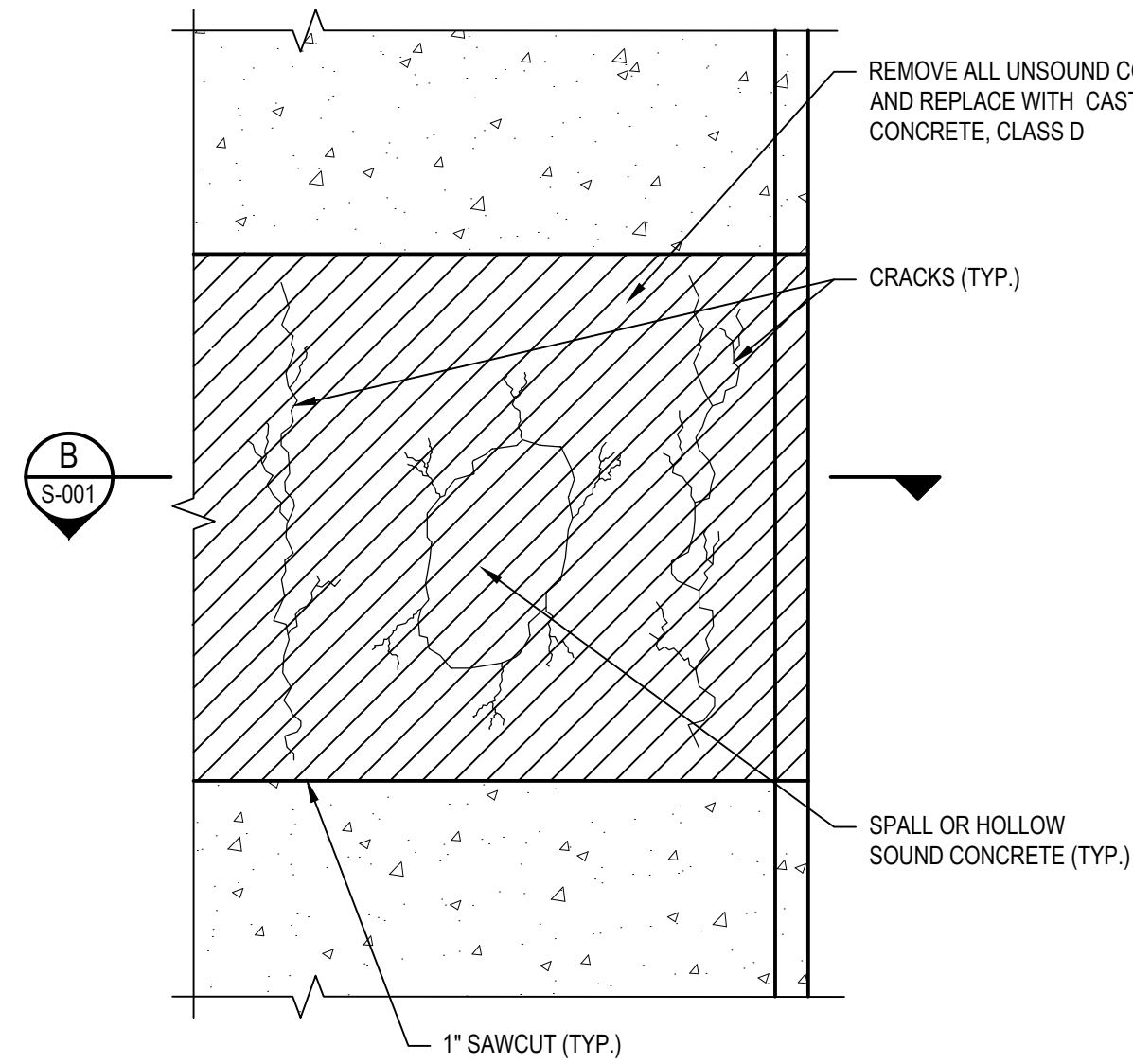
Contract No. 1  
 Original Size  
**Arch D Drawing No: 86-16538-A001**

Rev: 1

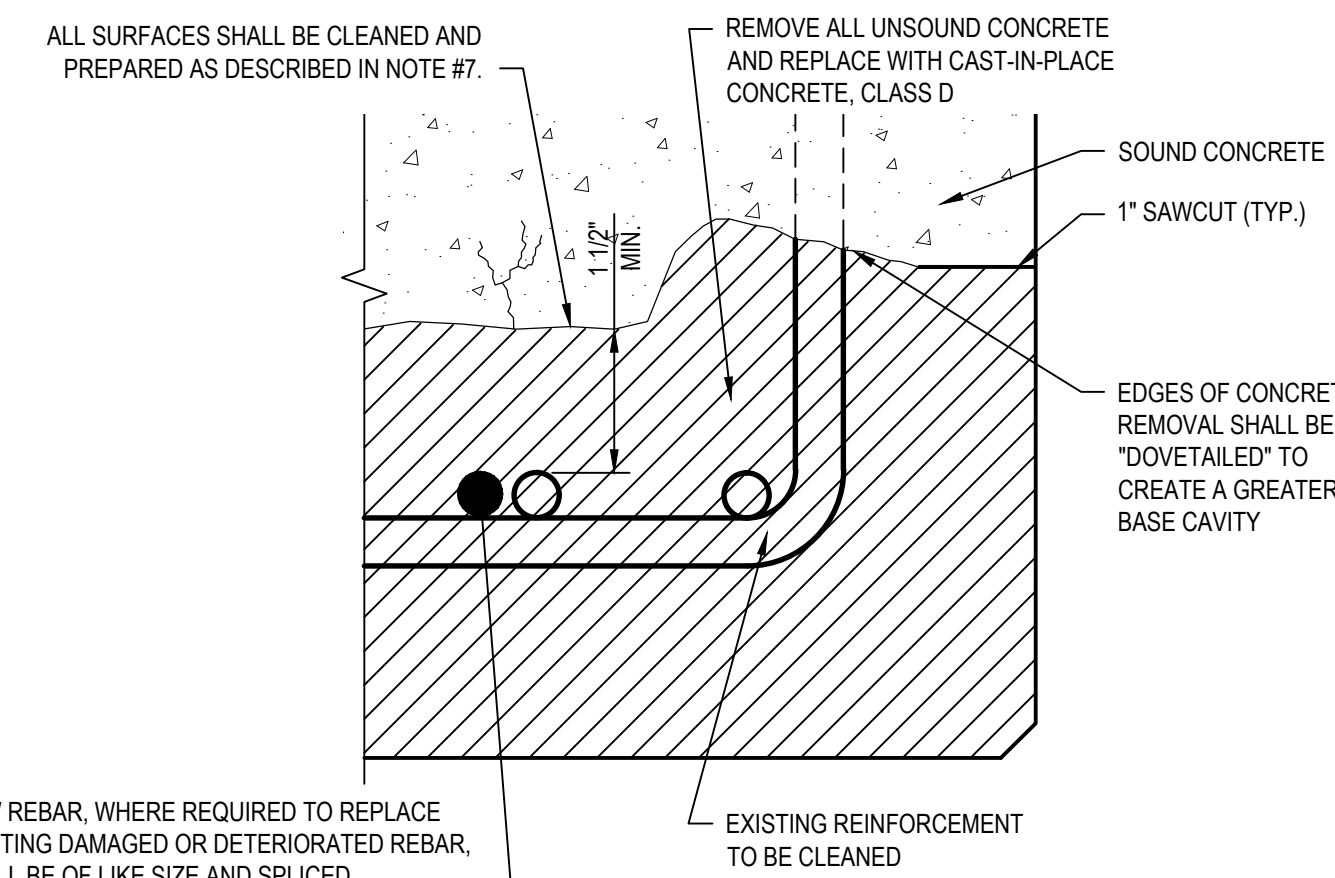




**TYPICAL SECTION**  
NOT TO SCALE



**CONCRETE DETERIORATION REPAIR**  
NOT TO SCALE



**B SECTION**  
SCALE: NOT TO SCALE

**CONCRETE REPAIR NOTES:**

- THE WORK SHALL CONSIST OF THE REMOVAL AND DISPOSAL OF UNSOUND STRUCTURAL CONCRETE FROM THE EXISTING STRUCTURE AND ITS REPLACEMENT WITH NEW STRUCTURAL CONCRETE AS INDICATED ON THE CONTRACT PLANS, OR AS ORDERED BY THE ENGINEER. ALL WORK SHALL BE DONE AT THE LOCATIONS INDICATED ON THE CONTRACT PLANS, OR WHERE ORDERED BY THE ENGINEER. ALL MISCELLANEOUS MATERIALS, NOT INCLUDING BAR REINFORCEMENT, ENCOUNTERED DURING THE REMOVAL OF UNSOUND STRUCTURAL CONCRETE, SHALL BE REMOVED AND DISPOSED OF UNLESS OTHERWISE INDICATED ON THE CONTRACT PLANS, OR ORDERED BY THE ENGINEER.
- ALL UNSOUND CONCRETE SHALL BE REMOVED TO A SOUND SURFACE AS DETERMINED BY THE ENGINEER. THE EXISTING CONCRETE SHALL BE SAW-CUT TO OBTAIN A STRAIGHT JOINT BETWEEN THE EXISTING CONCRETE AND THE NEW MATERIAL. CARE SHALL BE EXERCISED WHILE REMOVING THE UNSOUND CONCRETE SO AS NOT TO DAMAGE MATERIALS WHICH ARE TO REMAIN IN PLACE. EXPOSED REINFORCEMENT REMAINING IN PLACE SHALL BE BLAST CLEANED. CHIPPING HAMMERS SHALL WEIGH NO MORE THAN 45 LBS WITH THE BIT AND MUFFLER REMOVED. THE HAMMER SHALL DELIVER NO MORE THAN 1600 BLOWS PER MINUTE. THE CONTRACTOR SHALL PROVIDE THE ENGINEER INFORMATION FROM THE HAMMER MANUFACTURER THAT THESE REQUIREMENTS ARE NOT EXCEEDED. THE AIR PRESSURE USED TO POWER THE HAMMER SHALL NOT EXCEED 110 PSI MEASURED AT THE AIR COMPRESSOR. AN AIR PRESSURE GAUGE IN PROPER WORKING CONDITION SHALL BE PROVIDED. ONLY SHARP CHISEL POINT BITS, A MINIMUM OF 2 INCHES WIDE, SHALL BE USED. ALL BITS DETERMINED BY THE ENGINEER TO BE DULL SHALL BE SHARPENED OR REPLACED. IF THE ENGINEER DETERMINES THAT THE CONTRACTOR'S OPERATIONS ARE RESULTING IN DAMAGE TO CONCRETE THAT IS TO REMAIN, THE CONTRACTOR SHALL MAKE IMMEDIATE CORRECTIONS. THESE CORRECTIONS SHALL INCLUDE THE USE OF A LIGHTER CHIPPING HAMMER IF SO ORDERED BY THE ENGINEER.
- THE SIDES OF THE CAVITY SHALL BE MADE AT A SLIGHT ANGLE, SO THAT THE WIDTH OF THE BASE OF THE CAVITY IS GREATER THAN THE OPENING AT THE SURFACE, THEREBY PROVIDING A KEY.
- THE MINIMUM DEPTH OF REMOVAL SHALL BE THE GREATER OF THE FOLLOWING:
  - A DEPTH NO LESS THAN 1 1/2 INCHES FROM THE REAR MOST POINT OF REINFORCEMENT TO SOUND CONCRETE.
  - THE DEPTH NECESSARY TO REACH SOUND CONCRETE.
- SHOULD THE REMOVAL DEPTH EXCEED 6 INCHES, THE ENGINEER MAY ORDER SUPPLEMENTARY ANCHORING AS PART OF THE REPLACEMENT PROCEDURE. THE SIDES OF THE CAVITY SHALL BE MADE AT A SLIGHT ANGLE, SO THAT THE WIDTH OF THE BASE OF THE CAVITY IS GREATER THAN THE OPENING AT THE SURFACE, THEREBY PROVIDING A KEY.
- THE EXTENT OF CONCRETE REMOVAL FOR ANY COMPONENT SHALL NOT JEOPARDIZE ITS STRUCTURAL INTEGRITY.
- BLAST CLEAN ALL SURFACES TO BE IN CONTACT WITH NEW CONCRETE. REMOVE ALL GREASE AND DIRT. REMOVE ALL RUST AND MORTAR WHICH IS NOT FIRMLY BONDED TO THE SURFACE BEING CLEANED. RUST AND CONCRETE DEPOSITS WHICH ARE FIRMLY BONDED AND CANNOT BE REMOVED BY BLAST CLEANING MAY REMAIN. A LIGHT COATING OF ORANGE RUST, THAT FORMS ON STEEL SURFACES AFTER BLAST CLEANING, IS NOT CONSIDERED DETRIMENTAL TO BOND AND MAY REMAIN. REMOVE ALL DEBRIS CREATED BY BLAST CLEANING. APPLY BONDING AGENT AS SPECIFIED IN SECTION 03001.
- EXISTING REINFORCEMENT, WHICH HAS LOST SIGNIFICANT SECTION AS DETERMINED BY THE ENGINEER, SHALL BE REPLACED IN KIND.
- WHEN JOINING FRESH CONCRETE TO NEW CONCRETE WHICH HAS ALREADY SET, OR TO EXISTING CONCRETE, THE CONCRETE IN PLACE SHALL HAVE ITS SURFACE SCOURED OR ABRADED WITH A SUITABLE TOOL TO REMOVE ALL LOOSE AND FOREIGN MATERIALS. THIS SURFACE SHALL BE SCRUBBED WITH WIRE BROOMS AND AIR CLEANED. AFTER THE SURFACE PREPARATION HAS BEEN ACCEPTED, THIS SURFACE SHALL BE THOROUGHLY WET AND KEPT SO FOR A PERIOD OF 12 HOURS IMMEDIATELY PRIOR TO PLACING THE NEW CONCRETE. THIS MAY BE ACCOMPLISHED BY CONTINUOUS WETTING WITH SOAKER HOSES OR THE USE OF BURLAP/BURLENE/ETC. SO THAT MOISTURE CAN BE MAINTAINED. IF, IN THE OPINION OF THE ENGINEER, CONDITIONS OR THE SITUATION PROHIBITS THIS, THEN THE SURFACES SHALL BE WETTED FOR AS LONG AS POSSIBLE. THE CONTRACTOR SHALL REMOVE ANY PUDDLES OR FREE STANDING WATER WITH OIL-FREE COMPRESSED AIR, AND PROTECT THE SURFACES FROM DRYING, SO THAT THE EXISTING CONCRETE REMAINS IN A CLEAN, SATURATED SURFACE DRY CONDITION UNTIL PLACEMENT OF THE NEW CONCRETE. IMMEDIATELY BEFORE PLACING THE NEW CONCRETE, THE FORMS SHALL BE DRAWN TIGHT AGAINST THE CONCRETE ALREADY IN PLACE. NO MATERIAL SHALL BE PLACED IF THE AMBIENT AIR, OR CONCRETE SURFACE TEMPERATURE IS AT, OR BELOW 45°F.
- IF FORMWORK CONFIGURATION, OR CLEARANCES BETWEEN FORMWORK, STEEL

AND EXISTING CONCRETE ARE SUCH THAT CLASS D CONCRETE CANNOT BE PLACED WITHOUT Voids, OR HONEYCOMBING, THE CONTRACTOR MAY, WITH THE ENGINEER'S PERMISSION, USE AN APPROVED HIGH RANGE WATER REDUCER TO INCREASE THE CONCRETE'S WORKABILITY. THE HIGH RANGE WATER REDUCER SHALL BE ADDED AT THE WORK SITE ONLY AND SHALL BE DISPENSED UNIFORMLY THROUGHOUT THE PLASTIC CONCRETE. THE ENGINEER SHALL APPROVE THE CONTRACTOR'S DISPERSAL METHODS AND DEVICES PRIOR TO THEIR ACTUAL USE. THE HIGH RANGE WATER REDUCER SHALL BE ADDED ONLY AFTER THE CONCRETE HAS REACHED THE PROPER SLUMP AND CONTAINS THE REQUIRED QUANTITY OF AIR. NO MORE THAN TWO ADDITIONS OF THE ADMIXTURE SHALL BE MADE, AND THE MANUFACTURER'S MAXIMUM DOSAGE RATE SHALL NOT BE EXCEEDED. AFTER THE ADMIXTURE HAS BEEN ADDED, THE CONCRETE SHALL BE MIXED AN ADDITIONAL 30 REVOLUTIONS. THE SECOND ADMIXTURE ADDITION SHALL BE MADE ONLY AFTER THE 30 REVOLUTIONS REQUIRED FOR THE FIRST ADDITION HAVE BEEN COMPLETED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT CONCRETE SLUMP DOES NOT EXCEED 9 INCHES, AND AIR CONTENT REMAINS WITHIN SPECIFICATION REQUIREMENTS. PLASTIC CONCRETE MIXES FAILING TO MEET THE FOREGOING REQUIREMENTS WILL BE SUBJECT TO REJECTION. REPLACEMENT WILL BE DONE AT THE CONTRACTOR'S EXPENSE. THE ENGINEER MAY ALLOW HIGH RANGE WATER REDUCER TO BE ADDED AT THE CONCRETE BATCHING FACILITIES. CONSIDERATION FOR THIS PROCEDURE WILL BE UNDERTAKEN ONLY AFTER THE CONTRACTOR HAS CLEARLY DEMONSTRATED THE CAPABILITY OF PROVIDING CONCRETE WHICH MEETS THE REQUIREMENTS OF THIS SUBSECTION.

FORMS SHALL BE REMOVED FROM THIN CONCRETE PLACEMENTS 24 CURING HOURS AFTER PLACEMENT HAS BEEN COMPLETED UNLESS THE ENGINEER DETERMINES THE CONCRETE IS NOT STRONG ENOUGH TO WITHSTAND DAMAGE FOR PURPOSES OF THIS SUBSECTION. A THIN CONCRETE PLACEMENT BEGINS AT THE OUTERMOST SURFACE OF THE NEW CONCRETE AND GENERALLY TERMINATES AT, OR BEFORE, THE MIDPOINT OF THE MAIN REINFORCING STEEL. CONCRETE MAY BE REMOVED AND REPLACED COMPLETELY AROUND ONE OR TWO MAIN REINFORCING STEEL MEMBERS TO A DEPTH NO GREATER THAN 1 INCH FROM THE INNERMOST SURFACE OF THOSE MEMBERS AND STILL BE CONSIDERED A THIN CONCRETE PLACEMENT. MAIN REINFORCING STEEL MEMBERS INCLUDE REINFORCING BARS, BUT NOT SPIRAL REINFORCEMENT OR STIRRUPS. CURING PROCEDURES SHALL BE IMPLEMENTED IMMEDIATELY UPON FORM REMOVAL.

UNLESS OTHERWISE INDICATED ON THE PLANS, WORK TO BE PERFORMED UNDER THIS CONTRACT DOES NOT REQUIRE THE DISTURBING, DESTRUCTION OR REMOVAL OF ANY KNOWN MATERIALS CONTAINING ASBESTOS, UNLESS OTHERWISE INDICATED ON THE PLANS, IT IS THE EXPRESS INTENT OF THIS CONTRACT THAT THESE MATERIALS NOT BE DISTURBED IN ANY WAY. SHOULD THE CONTRACTOR BE FORCED TO DISTURB IN ANY WAY ANY SUCH MATERIALS, THE CONTRACTOR SHALL FIRST BE FAMILIAR WITH INDUSTRIAL CODE RULE 56 OF THE N.Y.S. DEPARTMENT OF LABOR.

THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT, DUE TO THE NATURE OF THIS PROJECT, THE EXACT EXTENT OF REPAIR WORK CANNOT ALWAYS BE ACCURATELY DETERMINED PRIOR TO THE COMMENCEMENT OF WORK. THESE CONTRACT DOCUMENTS HAVE BEEN PREPARED BASED ON FIELD INSPECTION AND OTHER INFORMATION AVAILABLE AT THE TIME. ACTUAL FIELD CONDITIONS MAY REQUIRE MODIFICATIONS TO CONSTRUCTION DETAILS AND WORK QUANTITIES. THE CONTRACTOR SHALL PERFORM THE WORK IN ACCORDANCE WITH FIELD CONDITIONS.

THE CONTRACTOR SHALL PERFORM ALL WORK WITH CARE SO THAT ANY MATERIALS WHICH ARE TO REMAIN IN PLACE, OR WHICH ARE TO REMAIN THE PROPERTY OF THE COUNTY, WILL NOT BE DAMAGED. IF THE CONTRACTOR DAMAGES ANY MATERIALS WHICH ARE TO REMAIN IN PLACE OR WHICH ARE TO REMAIN THE PROPERTY OF THE COUNTY, THE DAMAGED MATERIALS SHALL BE REPAIRED OR REPLACED IN A MANNER SATISFACTORY TO THE ENGINEER AT THE EXPENSE OF THE CONTRACTOR.

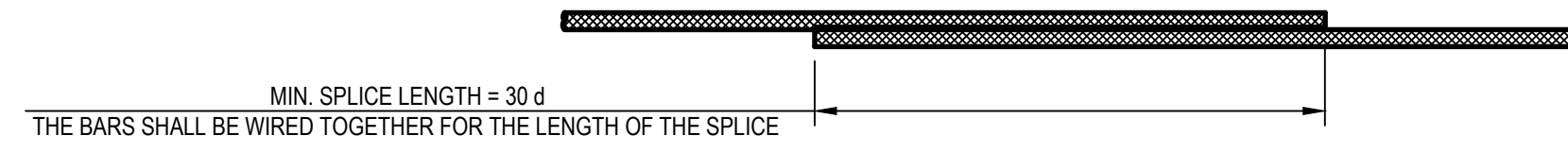
WHENEVER WORK IN THE CONTRACT REQUIRE MATERIALS TO BE REMOVED AND DISPOSED OF, THE COST OF SUPPLYING A DISPOSAL AREA AND TRANSPORTATION TO THAT AREA SHALL BE INCLUDED IN THAT WORK.

DURING REMOVAL OPERATIONS, THE CONTRACTOR SHALL NOT BE ALLOWED TO DROP WASTE CONCRETE, DEBRIS AND OTHER MATERIAL TO THE AREA BELOW THE WORK AREA EXCEPT WHERE THE PLANS SPECIFICALLY PERMIT THE DROPPING OF MATERIAL. PLATFORMS, NETS, SCREENS OR OTHER PROTECTIVE DEVICES SHALL BE USED TO CATCH THE MATERIAL. IF THE ENGINEER DETERMINES THAT ADEQUATE PROTECTIVE DEVICES ARE NOT BEING EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED.

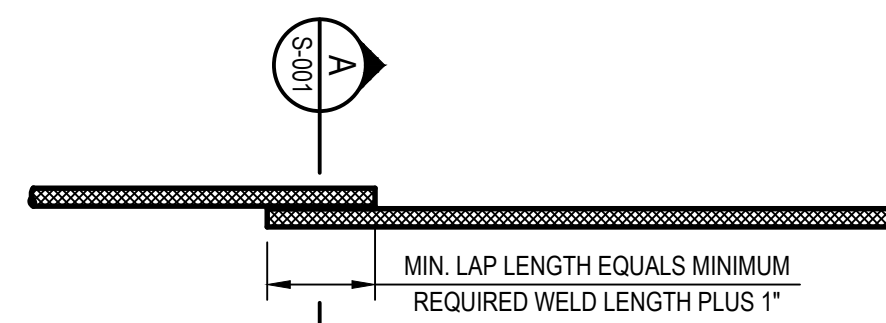
ALL MATERIAL FALLING ON THE AREA BELOW AND ADJACENT TO THE WORK AREA SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AT NO COST TO THE COUNTY.

THE COST OF FURNISHING, INSTALLING, MAINTAINING, REMOVING AND DISPOSING OF ALL PLATFORMS, NETS, SCREENS OR OTHER PROTECTIVE DEVICES SHALL BE INCLUDED IN THE PRICE BID FOR THE CONTRACT.

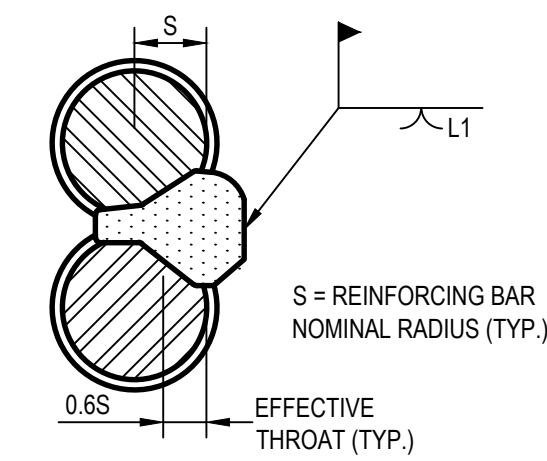
ALL CONCRETE REPAIR AREAS SHALL BE SEALED WITH A PENETRATING TYPE PROTECTIVE SEALER.



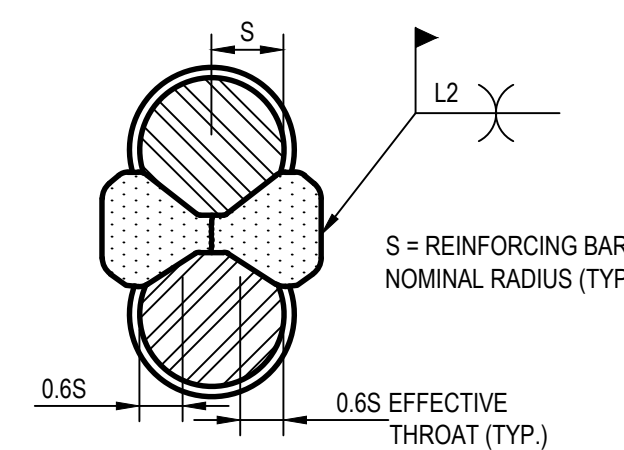
**PLAN LAPPED, TIED SPLICE**  
NOT TO SCALE



**PLAN WELDED SPLICE**  
NOT TO SCALE



**SINGLE FLARE V GROOVE WELD**



**DOUBLE FLARE V GROOVE WELD**

**A SECTION**  
SCALE: NOT TO SCALE

MINIMUM WELD LENGTHS		
BAR SIZE	SINGLE FLARE L1 V-GROOVE WELD	DOUBLE FLARE L2 V-GROOVE WELD
3	3"	2"
4	3 1/2"	2 1/4"
5	4"	2 1/2"
6	4 1/2"	2 3/4"
7	5"	3"
8	5 1/2"	3 1/4"
9	6"	3 1/2"

**NOTES:**  
UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.

IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



Drawn	JAD	Designer	WAF
Drafting Check	WAF	Design Check	WFK
Approved (Project Director) Date	8-12-14		
Scale	AS SHOWN		

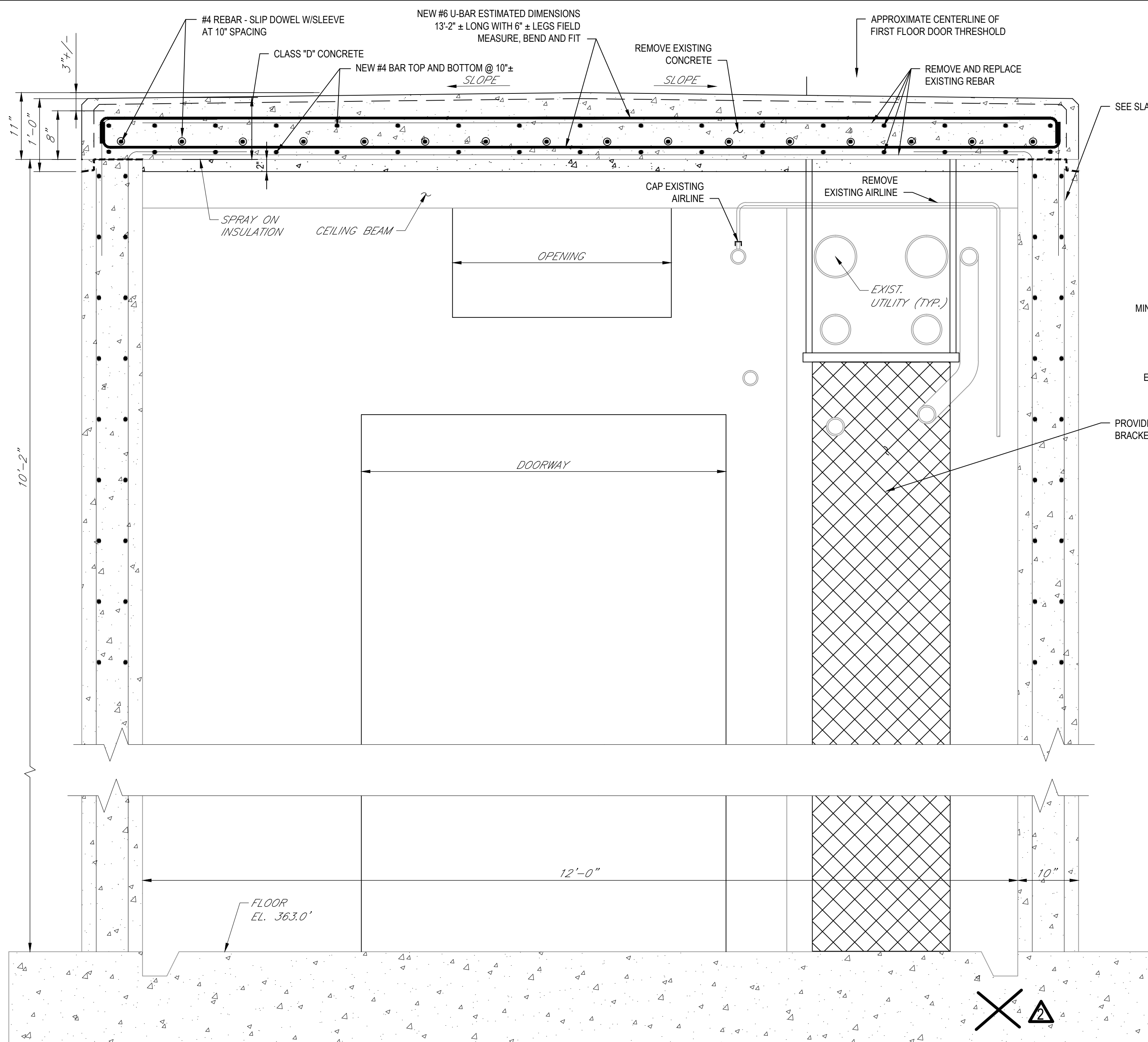
Client	<b>ONONDAGA COUNTY DWEP</b>		
Project	<b>BSK WWTP IMMEDIATE IMPROVEMENTS</b>		
Title	<b>CONCRETE REPAIR DETAILS</b>		
Contract No.	1, 2		
Original Size	Arch D		
Drawing No.	<b>86-16538-S001</b>		
Rev.	1		

**RECORD DRAWING**

THESE DRAWINGS HAVE BEEN REVISED TO REFLECT MAJOR CHANGES, IF ANY, WHICH OCCURRED DURING CONSTRUCTION. REVISIONS ARE BASED UPON INFORMATION SUPPLIED BY CONTRACTOR.

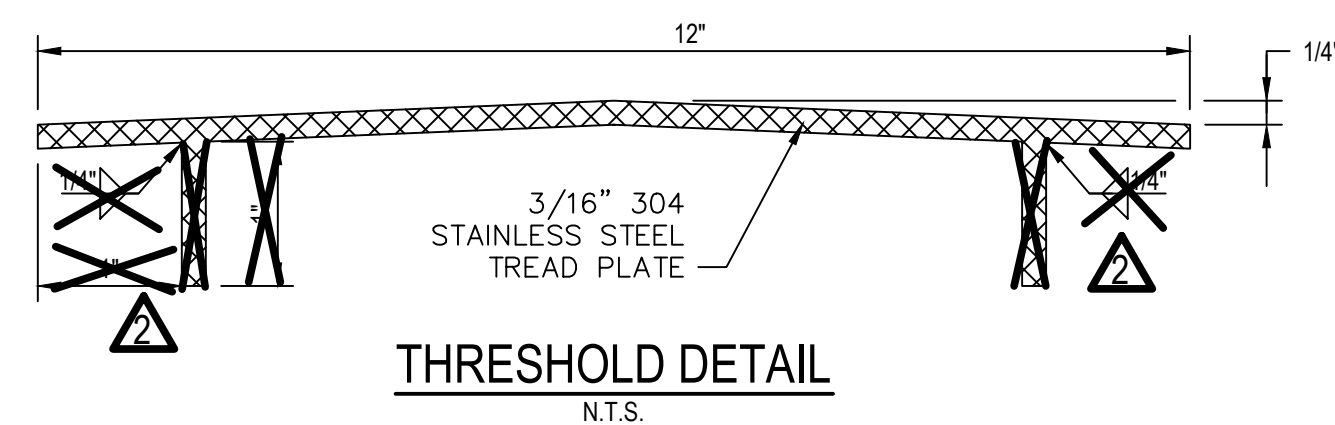
DATE: 10/5/2016 PER:



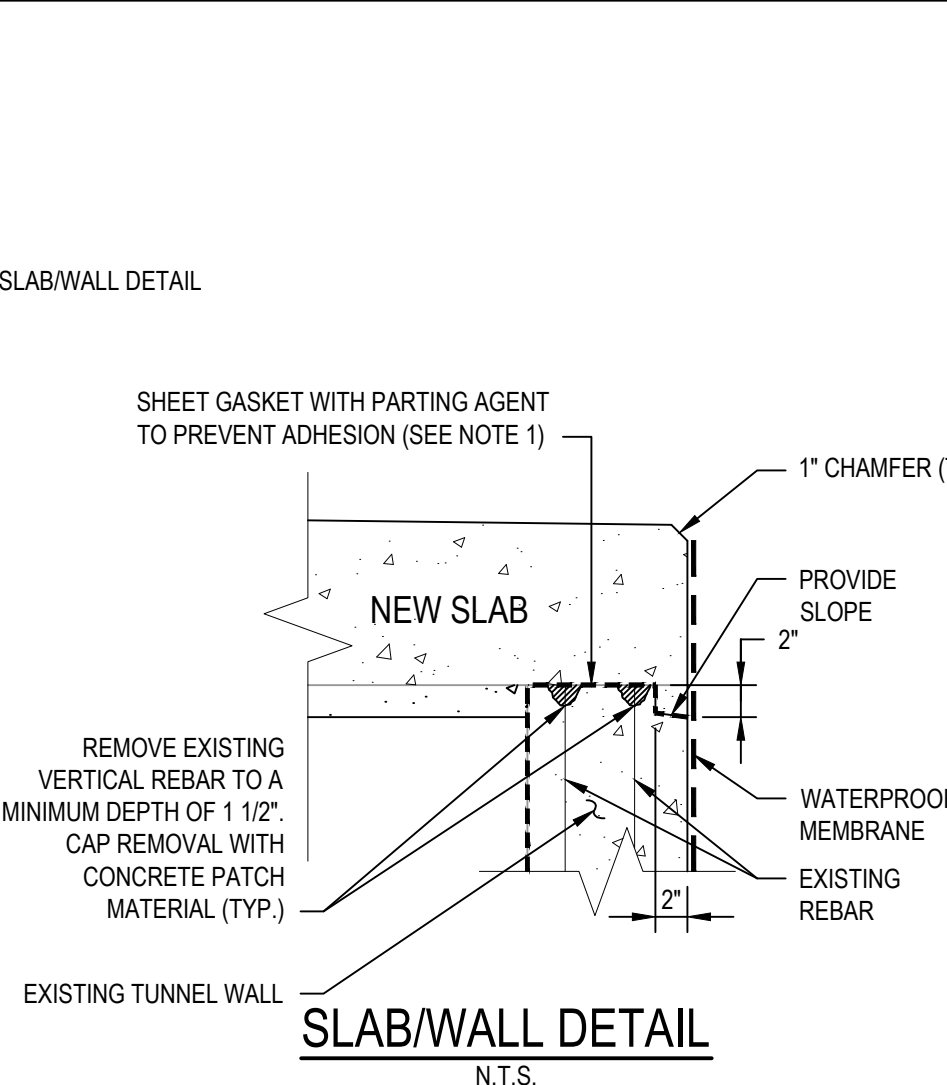


**TUNNEL CEILING BEAM ELEVATION**

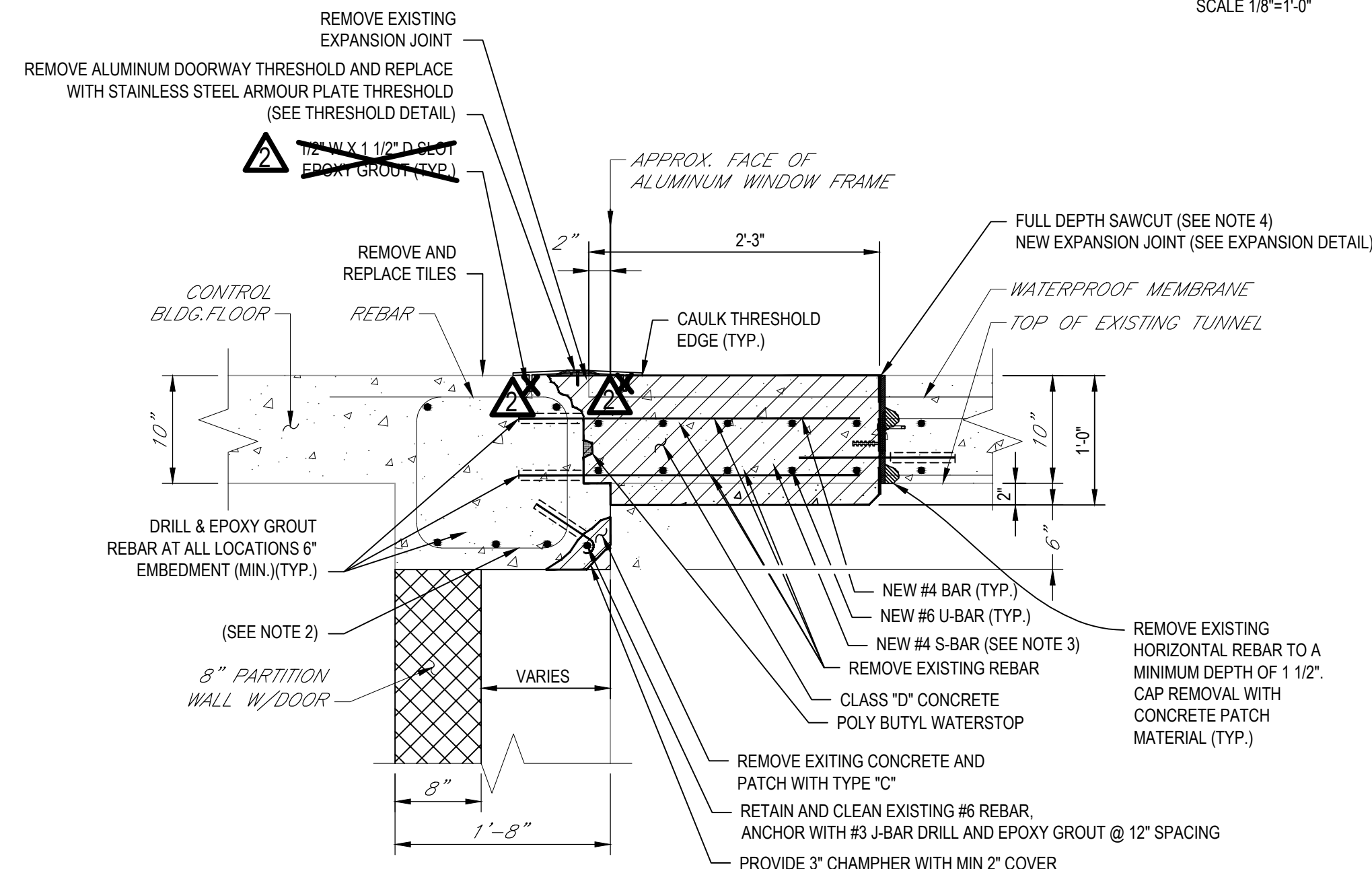
**2 SECTION**  
S-002 SCALE: 1"=1'-0"



**THRESHOLD DETAIL**  
N.T.S.

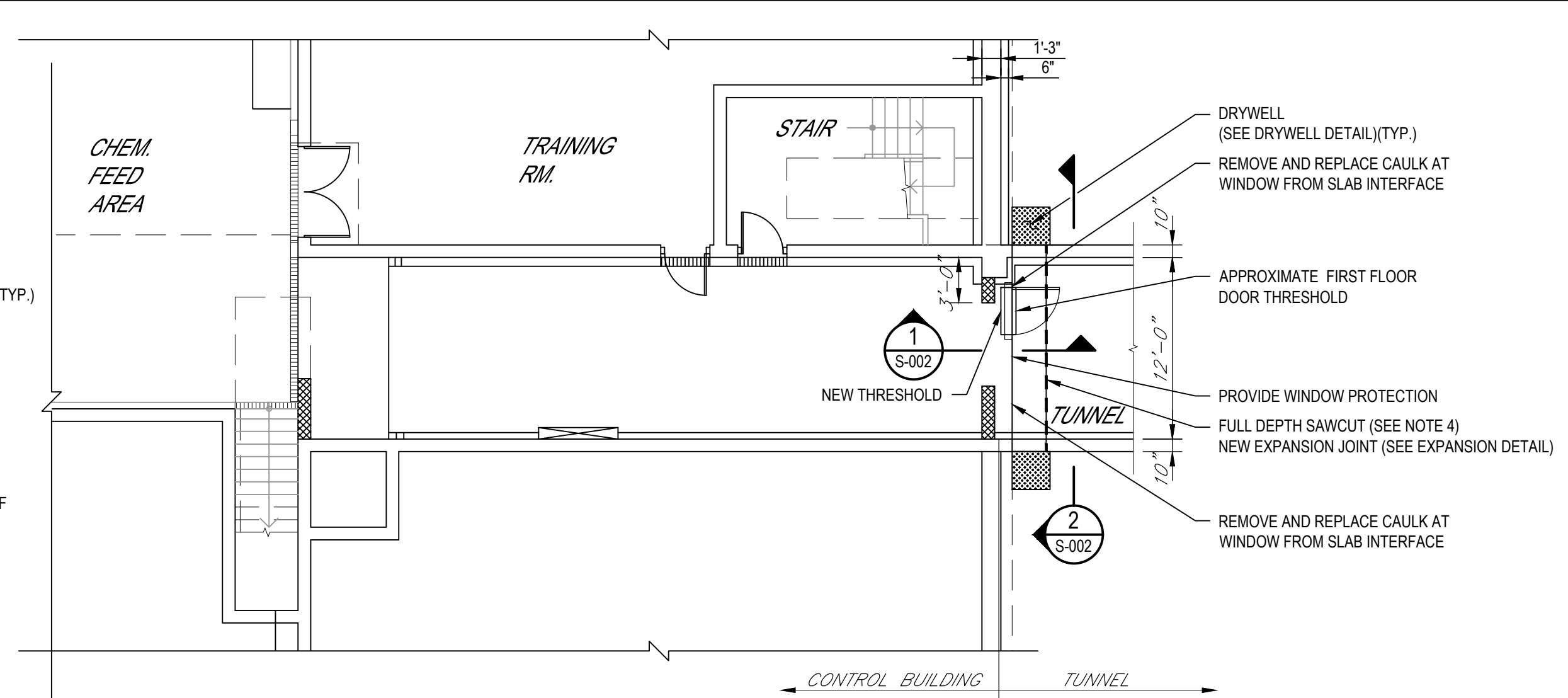


**SLAB/WALL DETAIL**  
N.T.S.



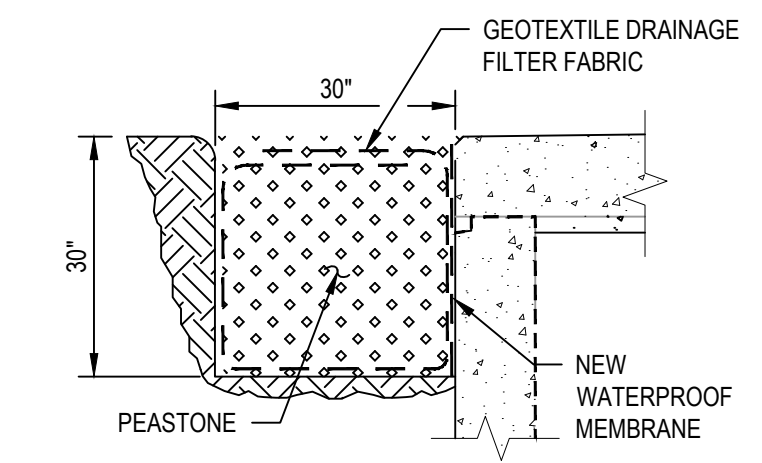
**TUNNEL CEILING BEAM SECTION**

**1 SECTION**  
S-002 SCALE: 1"=1'-0"

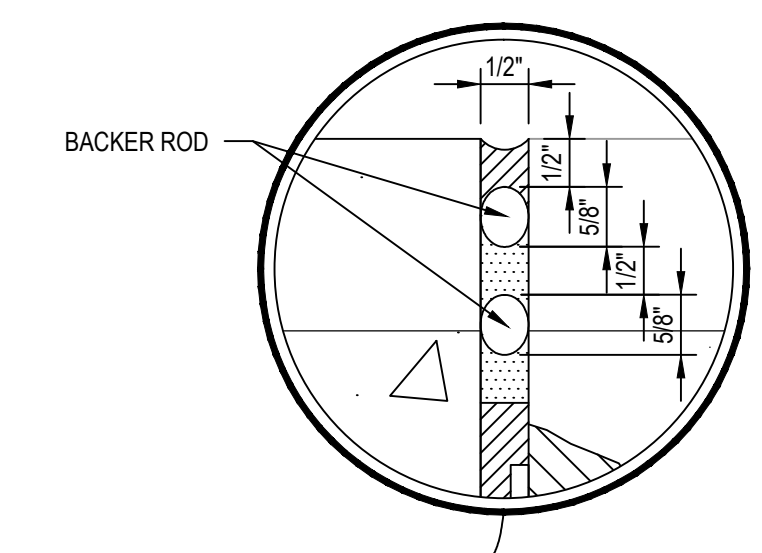


**CONTROL BUILDING/TUNNEL PLAN**

SCALE 1/8"=1'-0"



**DRYWELL DETAIL**  
N.T.S.



**EXPANSION DETAIL**  
N.T.S.

**WORK TO BE PERFORMED**

- GENERAL CONCRETE REMOVAL AND DISPOSAL
  - The contractor shall full depth sawcut the existing top of tunnel slab at the new expansion joint location and removal all concrete to the limits as shown on the attached revised details. The contractor shall removal all deteriorated wire mesh and rebar. The Contractor shall grind out existing rebar in the retained slab and patch with an approved contract patching material.
  - Contractor to provide window protection throughout construction
  - Contractor shall install new rebar and connect by Drilling and Grouting at locations ordered by the engineer.
  - Contractor shall clean and apply bonding agent to all concrete surface interfacing with new concrete.
  - Contractor shall removal concrete from existing pipe support bracket and prepare for casting into new concrete slab.
  - Contractor shall install a new watertight expansion joint a location of full depth sawcut.
  - Contractor shall install a retrofit water stop at new expansion joint location

**CAP AND REMOVE EXISTING AIR LINE - Coordinate with OGDWEP**

- UTILITY BRACKET SUPPORT
  - The contractor shall supply a temporary support for the utility bracket suspended by the slab to be removed. The support shall remain in place for a minimum of 7 days following the replacement and acceptance of the threshold beam and adjacent tunnel slab.
  - Existing utility brackets are to be cast into new slab.

- TUNNEL BEAM AND TUNNEL SLAB REPAIR
  - The Contractor shall provide forms, rebar and concrete necessary to repair the tunnel beam and slab. The new top slab shall be Class D concrete. The replacement reinforcing shall be the same size as removed, placed in the same general area (as conditions allow), and have the minimum cover as stated in the general specifications. A waterproofing (sheet) membrane shall be installed at expansion joint adjacent to drywells.
  - DRYWELL INSTALLATION

- THRESHOLD
  - The contractor shall furnish all necessary materials and install a new doorway threshold as detailed on the plans.
  - Remove and re-caulk windows frame at slab interface

**NOTIFICATIONS**

The Contractor shall notify the Engineer 24 hours in advance of the following milestones for inspection:

- Utility Support
- Concrete Demolition (Retain as much existing rebar as possible for engineer to evaluate suitable replacement and connection method)
- Completed Replacement and connection of new rebar
- Completed forms
- Concrete placement
- Threshold installation

**LEGEND:**

DENOTES APPROXIMATE LOCATION OF CONCRETE REMOVAL AND REPLACEMENT

**NOTE:**

- THIS MATERIAL IS USED AS A BOND BREAKER. MATERIAL SHALL BE "AXELA 728-06 SHEET GASKET" - AXELA SERVICES LLC; "CI SHEET GASKET" - CONSTRUCTION INNOVATIONS CO., INC.; "N-8090 SHEET GASKET" - ALLIED BUILDING PRODUCTS CORP.; OR "THERMOSEAL KLINGER SIL C-4201" - A.H. HARRIS & SONS, INC.
- REMOVE EXISTING CONCRETE MIN. 2" BEYOND EXPOSED REBAR AND APPLY BONDING AGENT.
- FIELD FIT AND BEND S-BAR AS NEEDED.
- 3" MIN. COVER ON ALL EXPOSED REBAR, 2" ON NON-EXPOSED

**RECORD DRAWING**

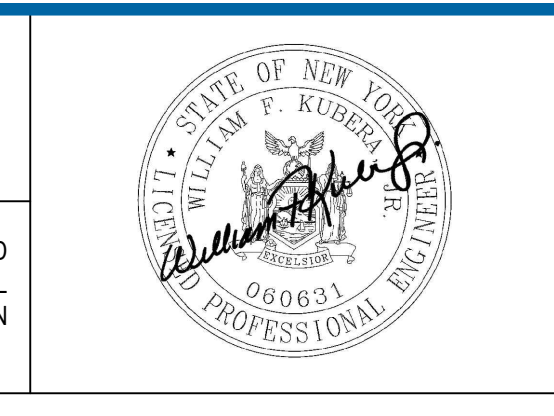
THESE DRAWINGS HAVE BEEN REVISED TO REFLECT MAJOR CHANGES, IF ANY, WHICH OCCURRED DURING CONSTRUCTION. REVISIONS ARE BASED UPON INFORMATION SUPPLIED BY CONTRACTOR.

DATE: 10/5/2016 PER:

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
AS-BUILT REVISIONS			PJG	SMB	JCB	10/2016
1	REVISED SECTIONS AND DETAILS		JAD	SMB	WFK	06/2015
0	FOR BID		JAD	WAF	WFK	08/2014

**NOTES:**  
UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.

IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

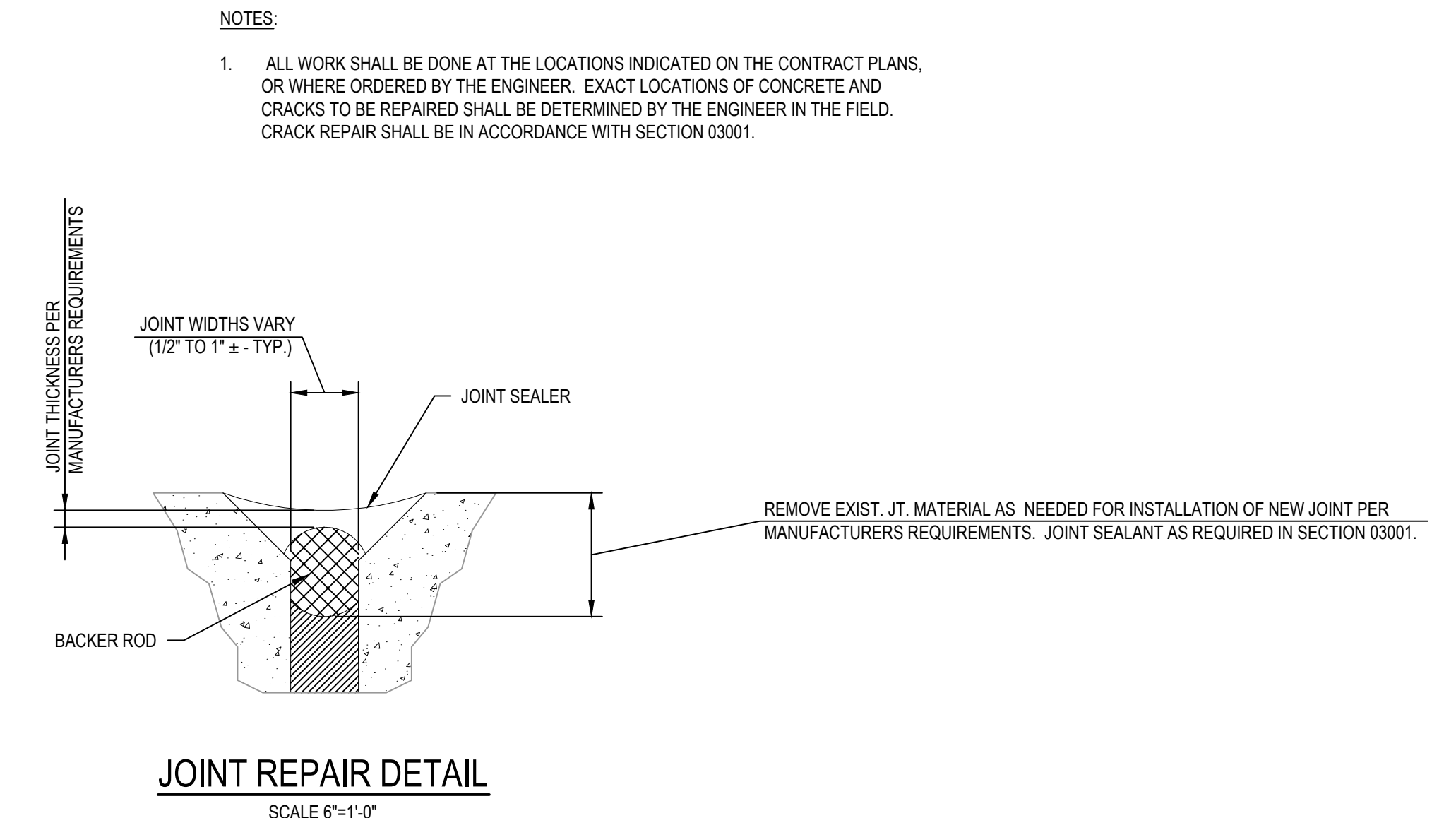
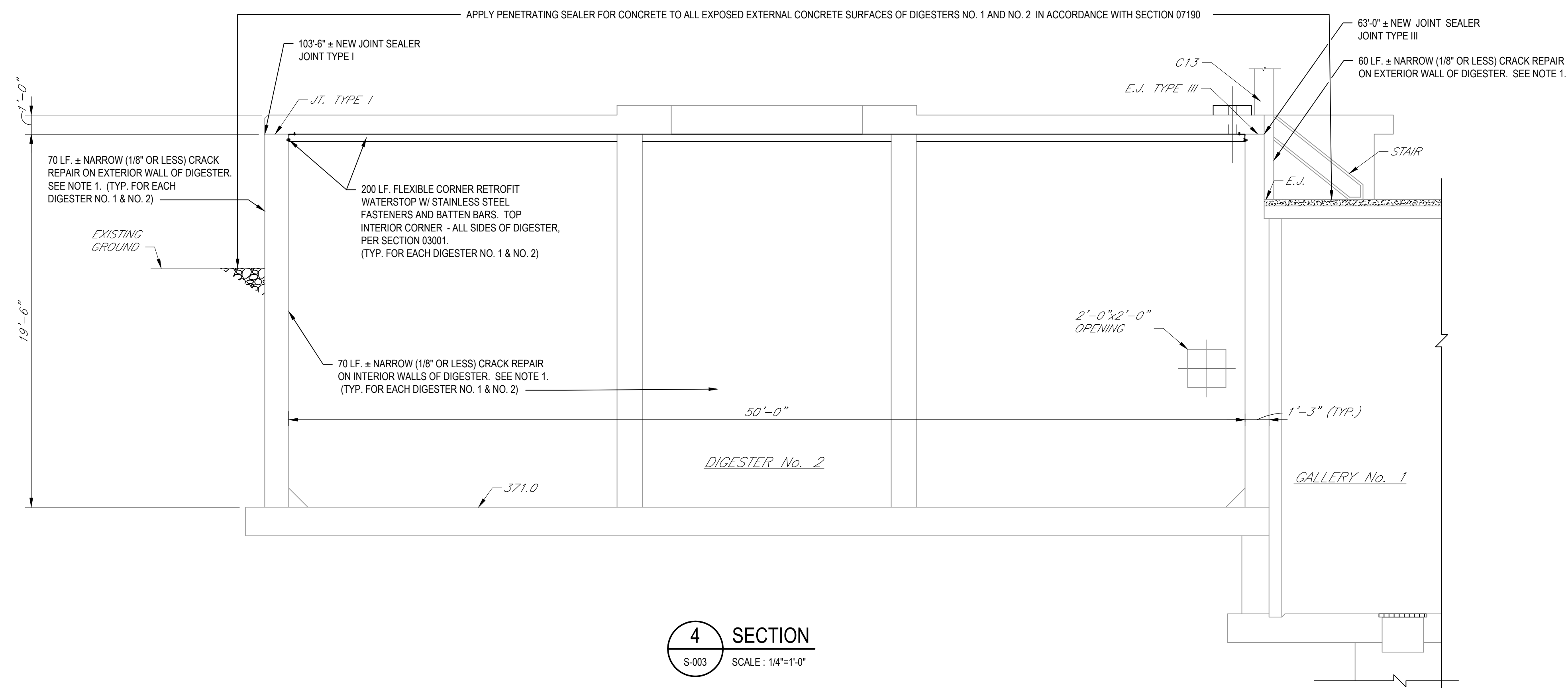
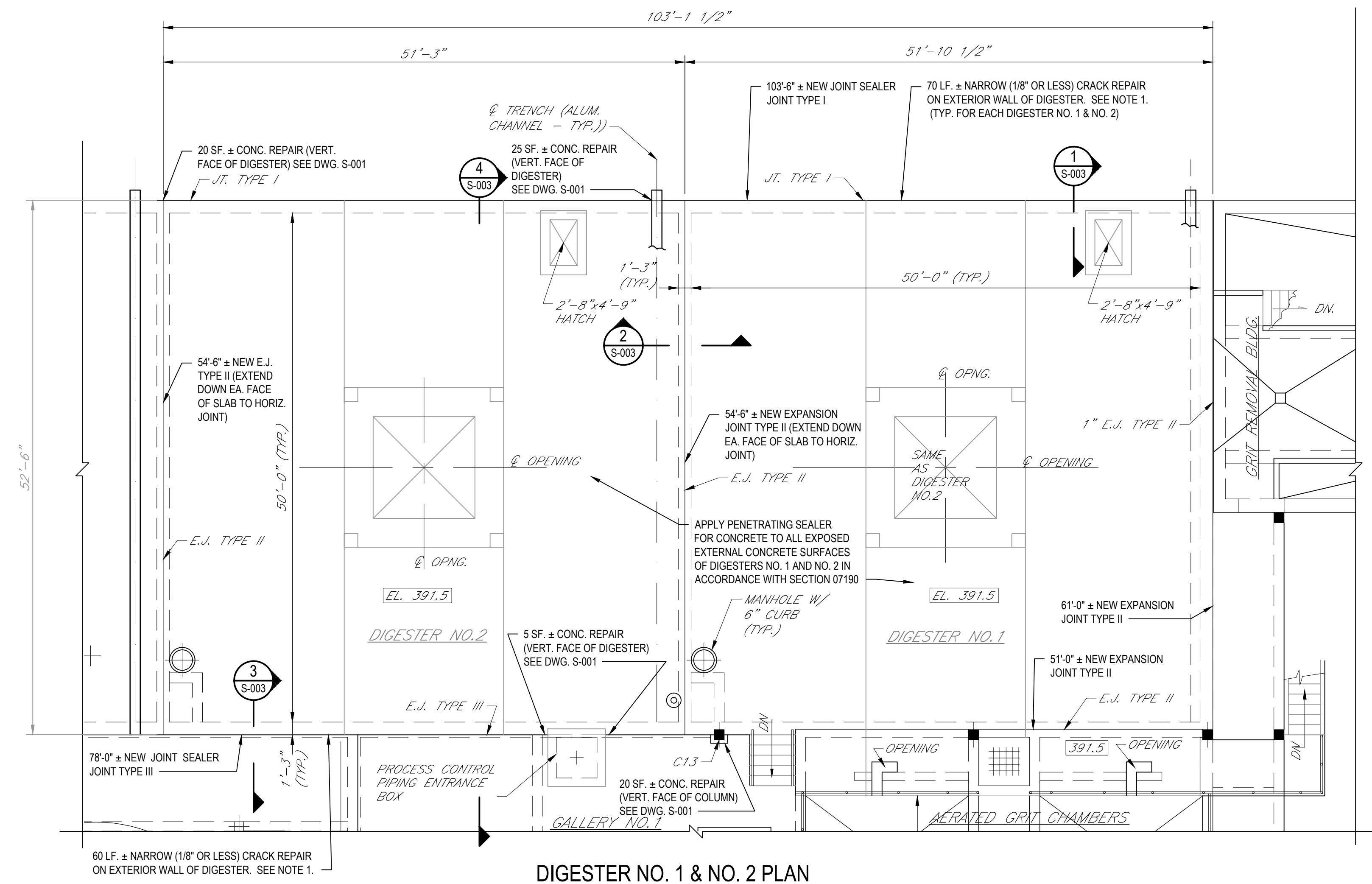
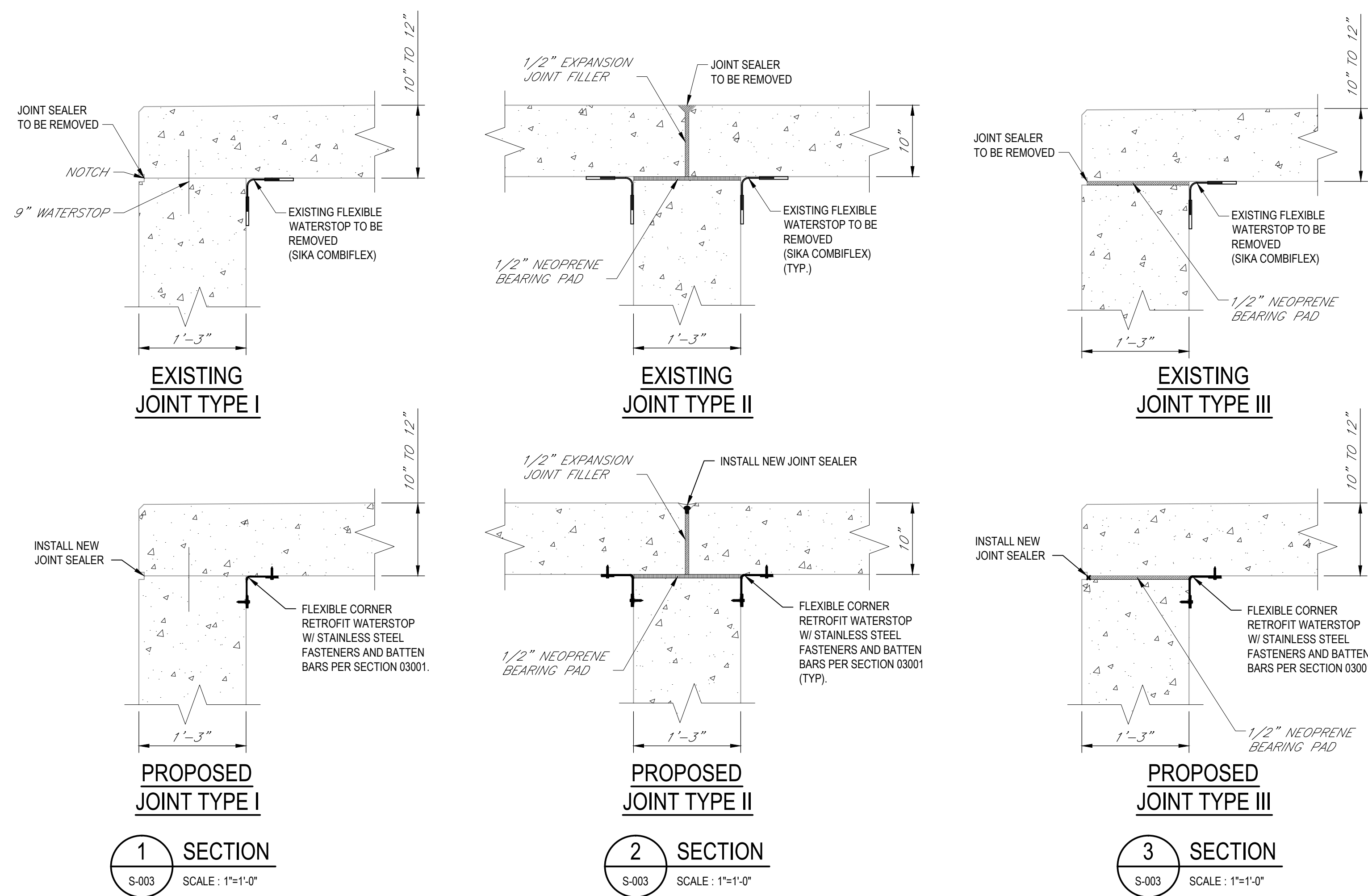


**BRYANT ASSOCIATES**  
Engineers • Surveyors • Construction Managers  
108 W. JEFFERSON ST., SUITE 400, SYRACUSE, NEW YORK 13202

Drawn	JAD	Designer	WAF
Drafting Check	WAF	Design Check	WFK
Approved (Project Director)			
Date	8-12-14		
Scale	AS SHOWN		

Client	<b>ONONDAGA COUNTY DWEP</b>		
Project	<b>BSK WWTP IMMEDIATE IMPROVEMENTS</b>		
Title	<b>CONTROL BUILDING/ TUNNEL CEILING BEAM REPAIR</b>		
Contract No.	1, 2		
Original Size	Arch D		
Drawing No.	<b>86-16538-S002</b>		
Rev.	1		





**RECORD DRAWING**

THESE DRAWINGS HAVE BEEN REVISED TO REFLECT MAJOR CHANGES, IF ANY, WHICH OCCURRED DURING CONSTRUCTION. REVISIONS ARE BASED UPON INFORMATION SUPPLIED BY CONTRACTOR.

DATE: 10/5/2016 PER: *[Signature]*

1	REVISED SECTIONS AND DETAILS	JAD	SMB	WFK	06/2015	
0	FOR BID	JAD	WAF	WFK	08/2014	
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

NOTES:  
UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.

IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

**BRYANT ASSOCIATES**  
Engineers • Surveyors • Construction Managers  
108 W. JEFFERSON ST., SUITE 400, SYRACUSE, NEW YORK 13202

Drawn JAD Designer WAF  
Drafting Check WAF Design Check WFK

Approved (Project Director) *[Signature]* 8-12-14  
Date

Scale AS SHOWN

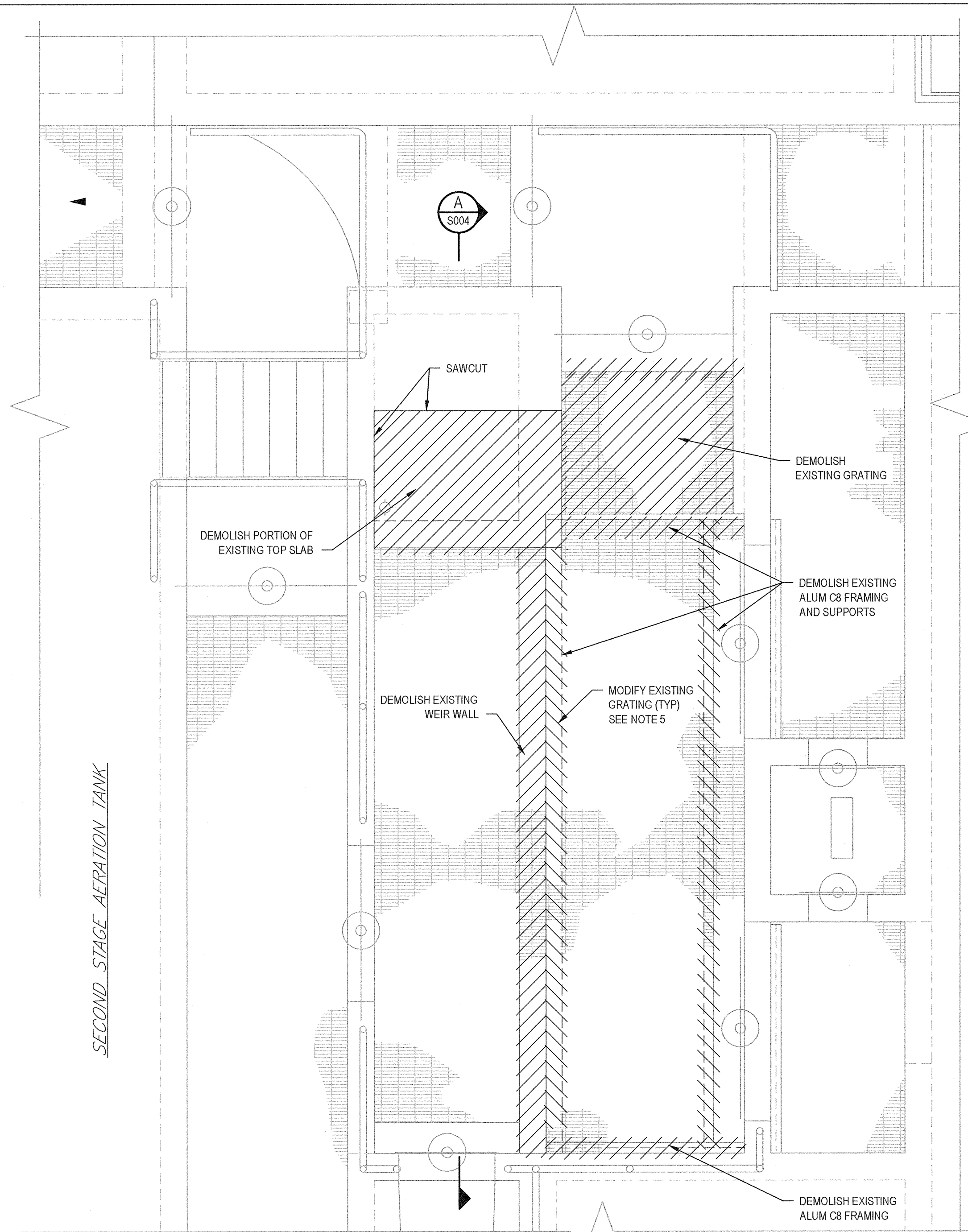
Client **ONONDAGA COUNTY DWEP**  
Project **BSK WWTP IMMEDIATE IMPROVEMENTS**  
Title **DIGESTER NO. 1 & NO. 2 REHABILITATION**

Contract No. 1, 2  
Original Size  
Arch D Drawing No: **86-16538-S003**

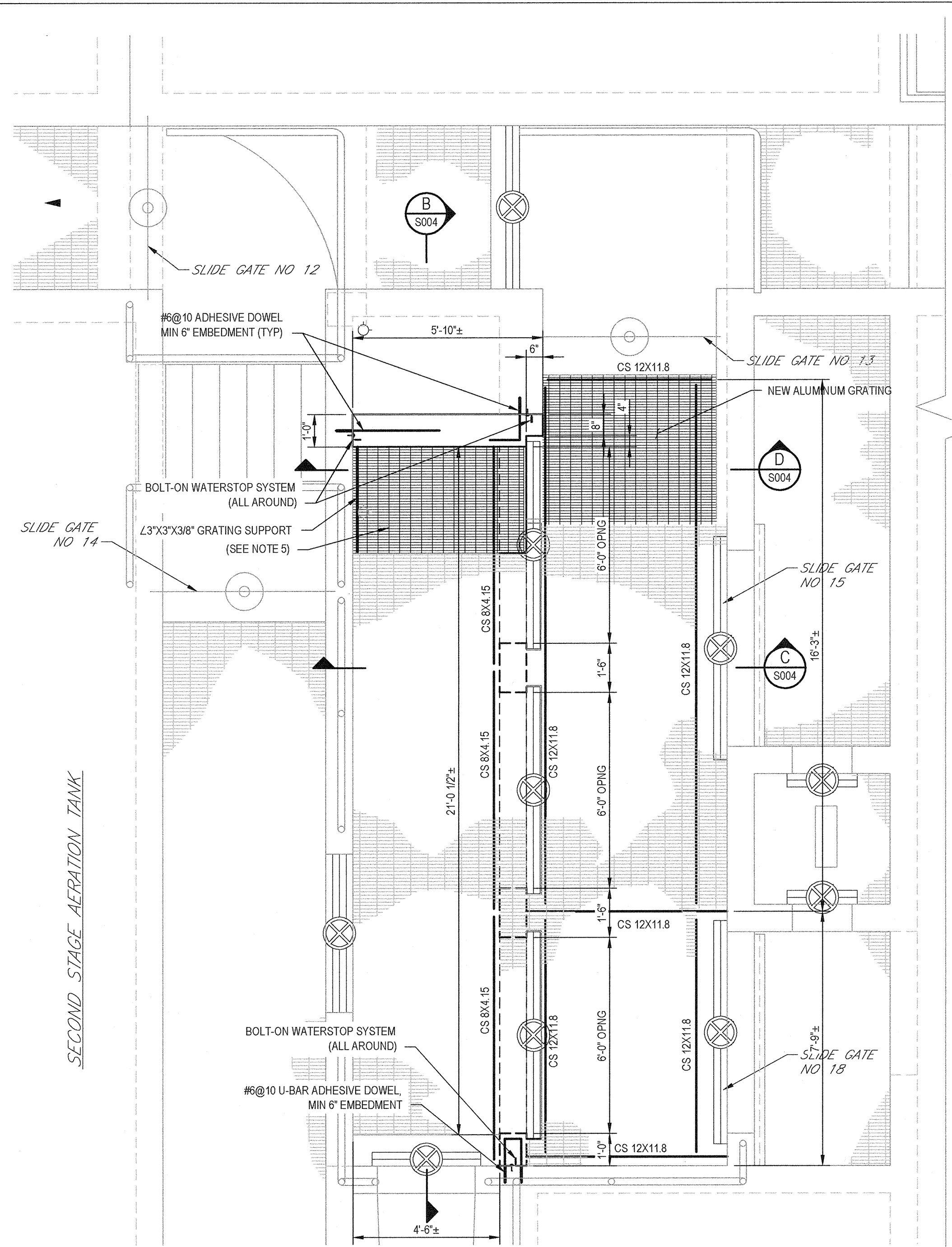
Rev: 1

Plot Date: 5 October 2016 - 5:34 PM Plotted by: Pete Gosbee  
Cad File No: J:\PROJECTS\BA21405 - BSK\winville-seneca-knox\WWTP Immediate Improvements\DWG\RECORD DRAWING SETS-003\_BA021405\_DIGESTER\_NO\_1\_AND\_NO\_2\_REHABILITATION.dwg

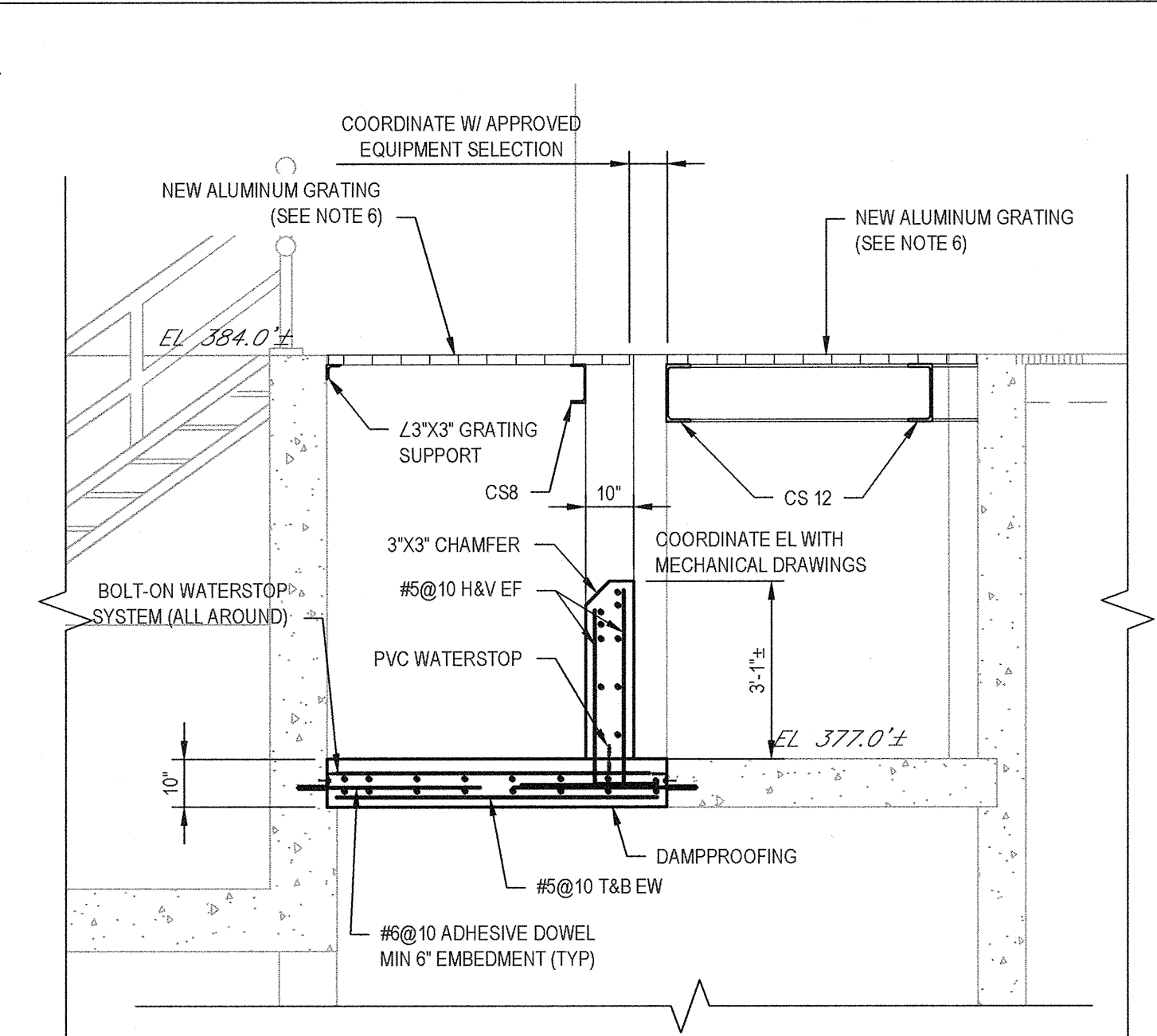




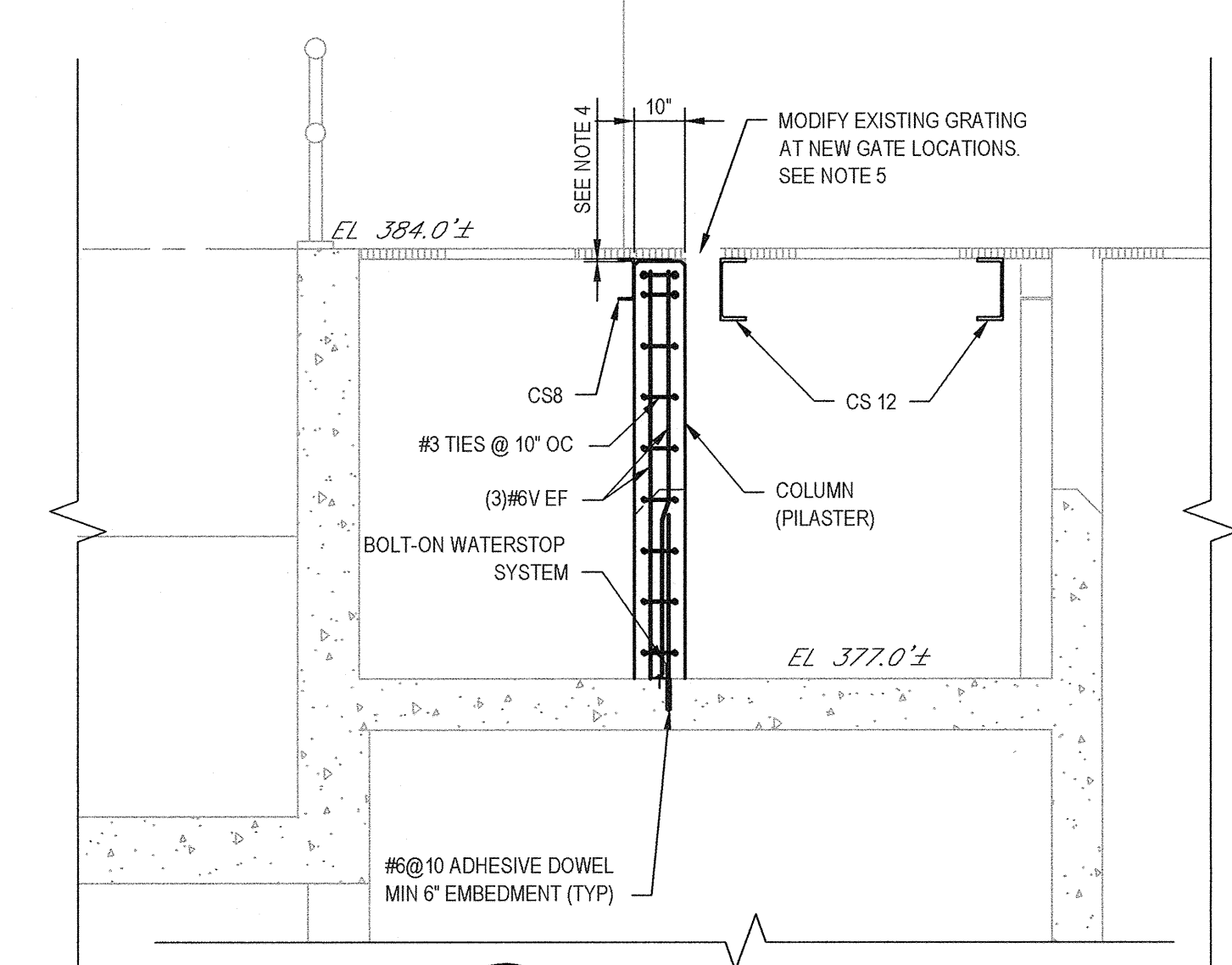
**DEMOLITION PLAN**  
SCALE: 3/8"=1'-0"



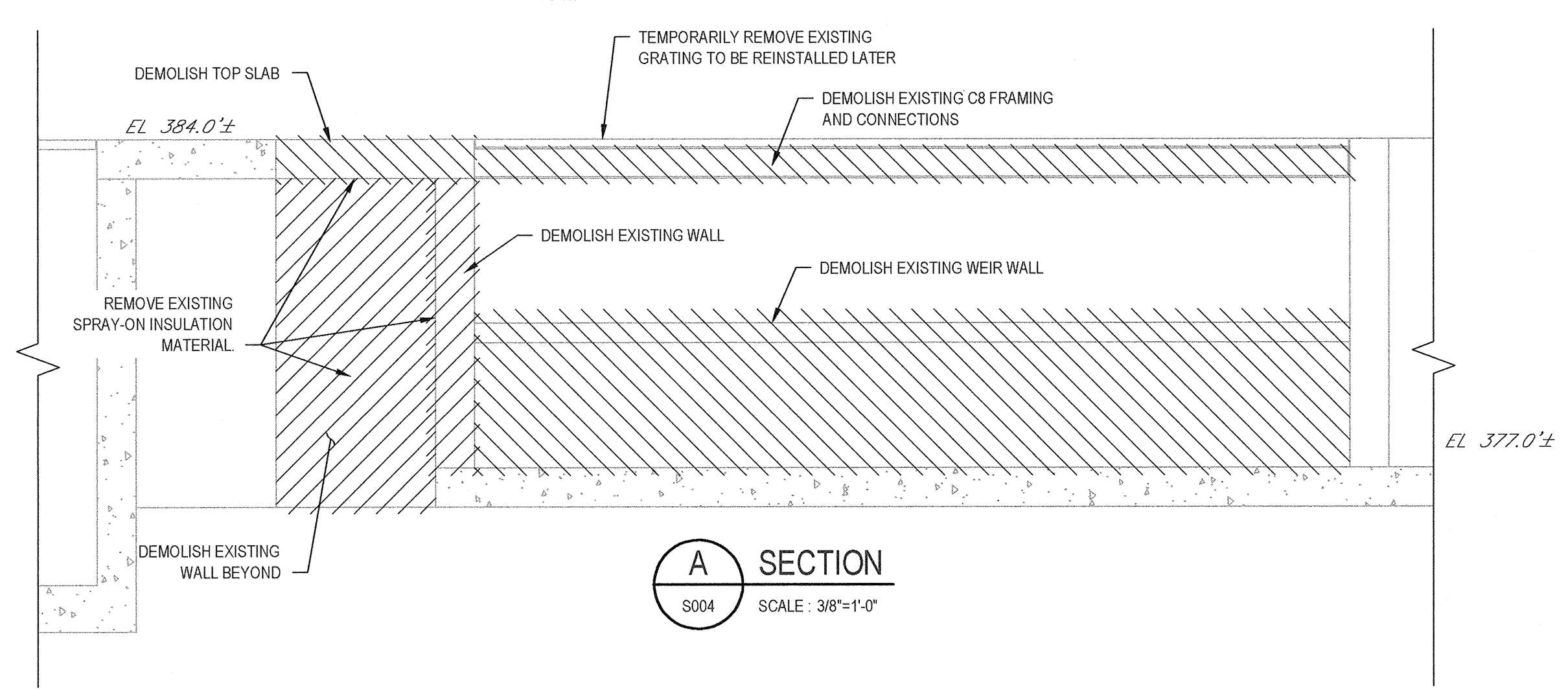
**PARTIAL PLAN**  
SCALE: 3/8"=1'-0"



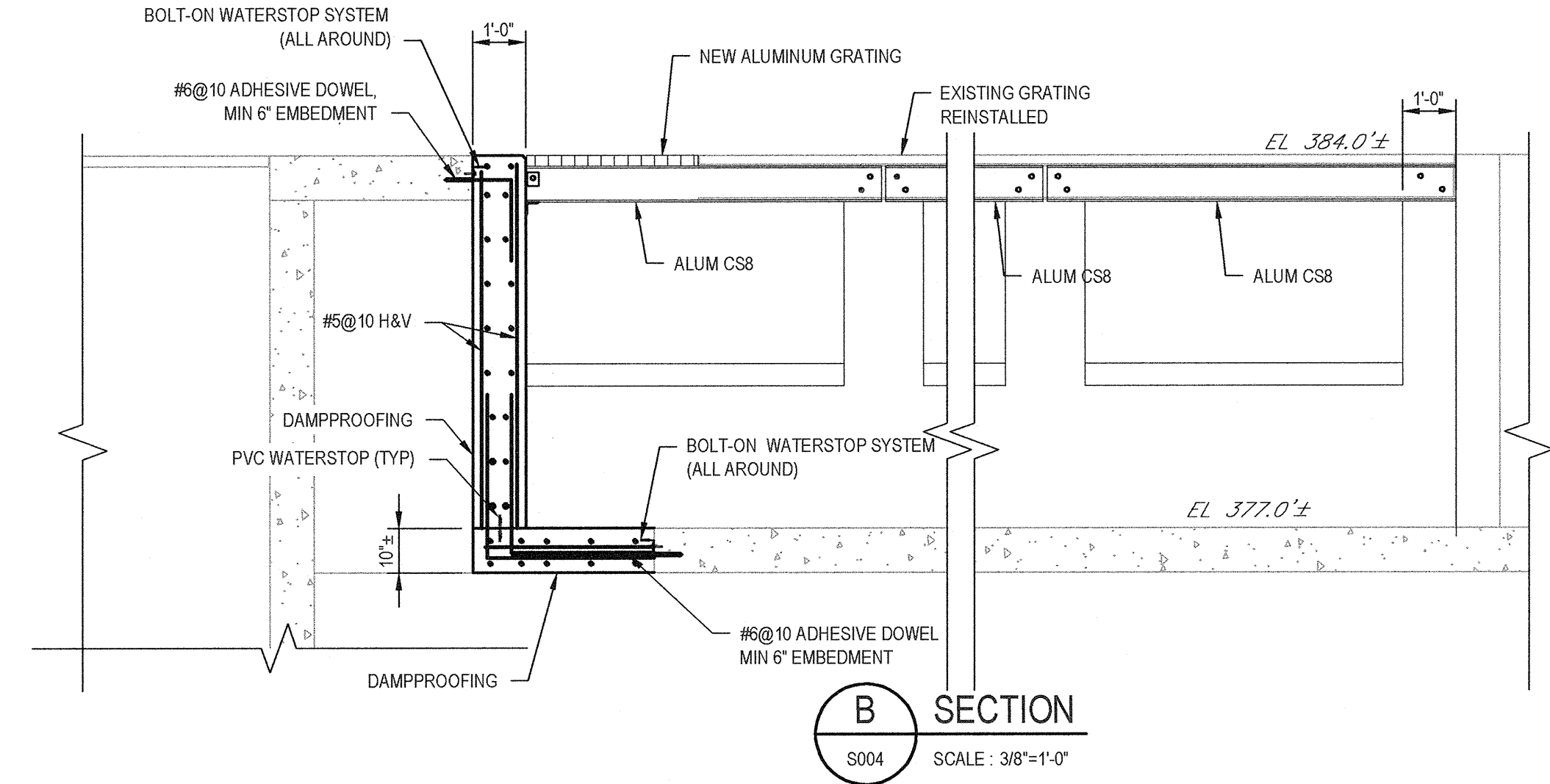
**D SECTION**  
S004 SCALE: 3/8"=1'-0"



**C SECTION**  
S004 SCALE: 3/8"=1'-0"



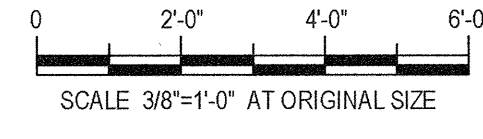
**A SECTION**  
S004 SCALE: 3/8"=1'-0"



**B SECTION**  
S004 SCALE: 3/8"=1'-0"

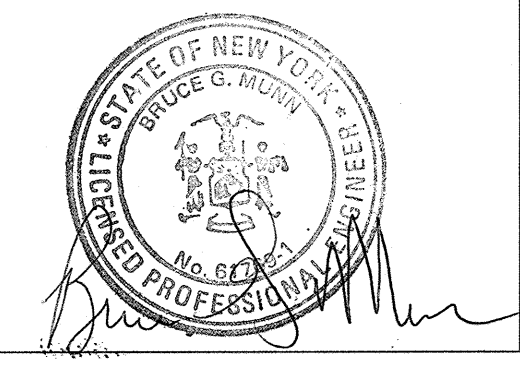
- NOTES:
1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FILED PRIOR TO SUBMITTING SHOP DRAWINGS.
  2. SEE SHEET S005 FOR CONNECTION DETAILS OF ALUMINUM FRAMING.
  3. BACKPAINT ALL ALUMINUM IN CONTACT WITH CONCRETE WITH A BITUMINOUS PAINT.
  4. TERMINATE TOP OF COLUMNS (PILASTERS) 1/2" BELOW THE BOTTOM OF GRATING.
  5. MODIFY EXISTING ALUMINUM I-BAR GRATING TO FIT AROUND APPROVED GATES. PROVIDE WELDED ALUMINUM EDGE BANDING AT ALL CUT LOCATIONS.
  6. NEW GRATING SHALL MATCH DEPTH OF EXISTING GRATING.
  7. CONTRACTOR SHALL REMOVE THE EXISTING GRATING AND STORE IN A PROTECTIVE MANNER. ANY EXISTING GRATING THAT BECOMES DAMAGED SHALL BE REPLACED AT THE CONTRACTORS EXPENSE.

RECORD DRAWING  
THESE DRAWINGS HAVE BEEN REVISED TO REFLECT MAJOR CHANGES, IF ANY, WHICH OCCURRED DURING CONSTRUCTION. REVISIONS ARE BASED UPON INFORMATION SUPPLIED BY CONTRACTOR.  
DATE 10/11/16 PER [Signature]



1	FOR RECORD	TAW	RCF	BGM	06/16	
0	FOR BID	MJL	RCF	BGM	08/2014	
No	Revision	Note: * Indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

**NOTES:**  
UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.  
IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

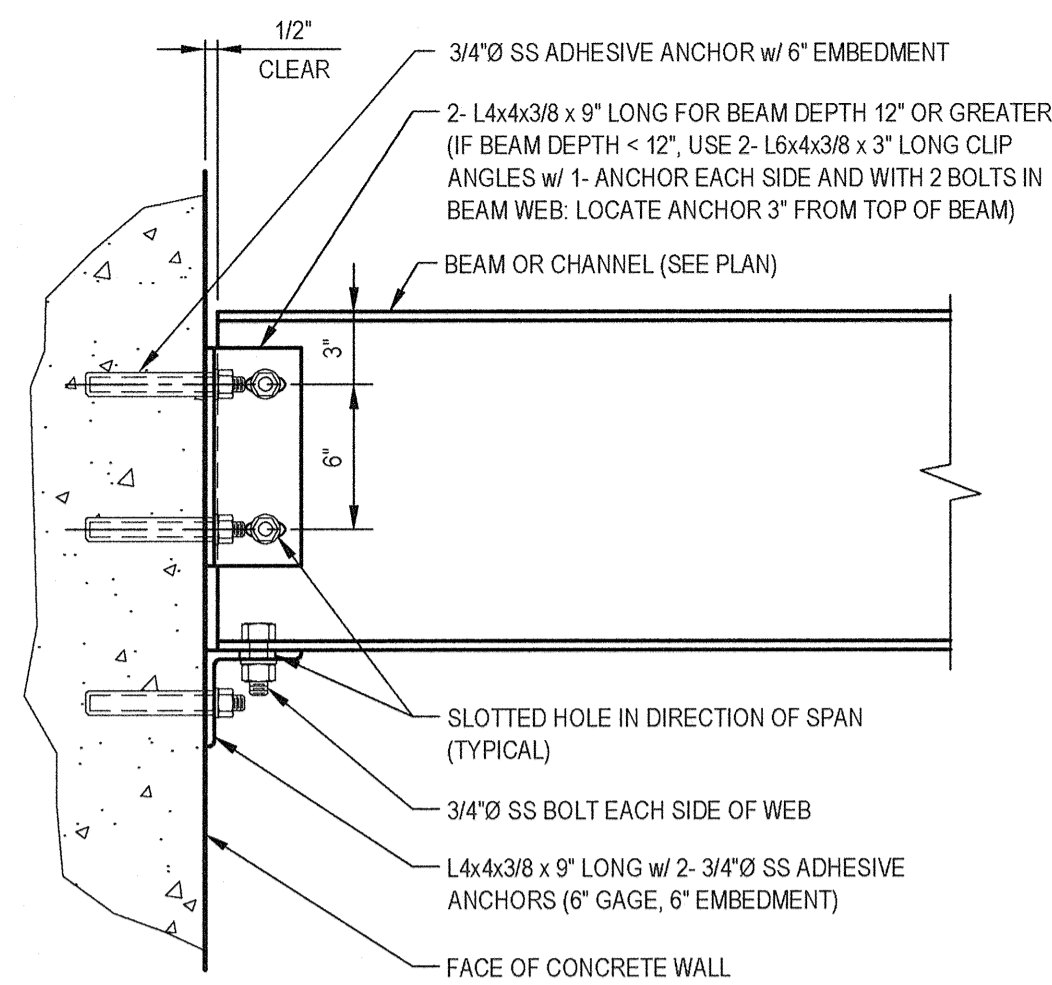


**GHD**  
GHD Consulting Services Inc.  
One Remington Park Drive  
Cazenovia NY 13035 USA  
T 1 315 679 5800 F 1 315 679 5801  
E cza@mail@ghd.com W www.ghd.com

Drawn	MJL	Designer	BTM
Drafting Check	BTM	Design Check	CMK
Approved (Project Director)	[Signature]		
Date	10/11/16		
Scale	AS SHOWN		

Client **ONONDAGA COUNTY DWEP**  
Project **BSK WWTP IMMEDIATE IMPROVEMENTS**  
Title **AERATION TANKS DISTRIBUTION CHANNELS PLAN AND SECTIONS**  
Contract No. 1  
Arch D Drawing No: **86-16538-S004**  
Rev: 1



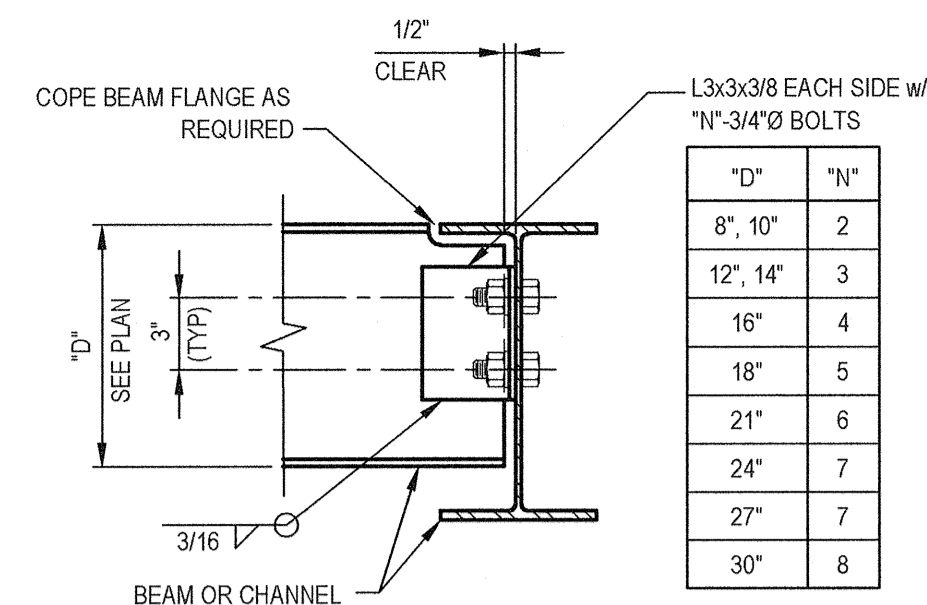


**NOTES:**

- CLIP ANGLE MATERIAL TO MATCH BEAM MATERIAL.
- SEE PLANS FOR BEAM SIZE AND MATERIAL.

**BEAM AND CHANNEL CONNECTION TO CONCRETE WALL**

NOT TO SCALE

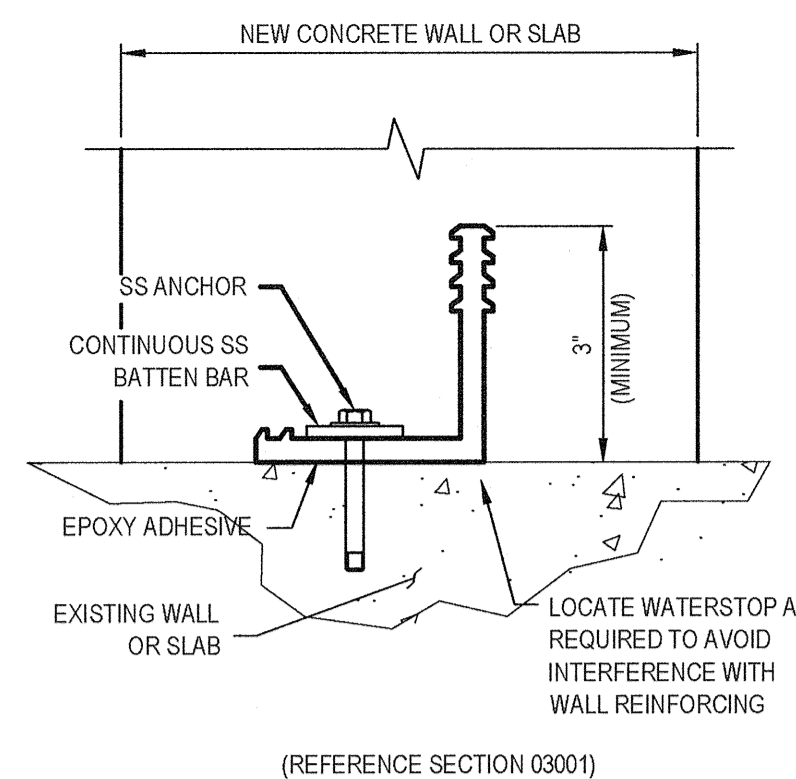


**NOTES:**

- CLIP ANGLE MATERIAL TO MATCH BEAM MATERIAL.
- PROVIDE SINGLE SIDED CONNECTION AT CHANNELS. PROVIDE DOUBLE SIDED CONNECTION AT WIDE FLANGE BEAMS.
- FOR 6\"/>

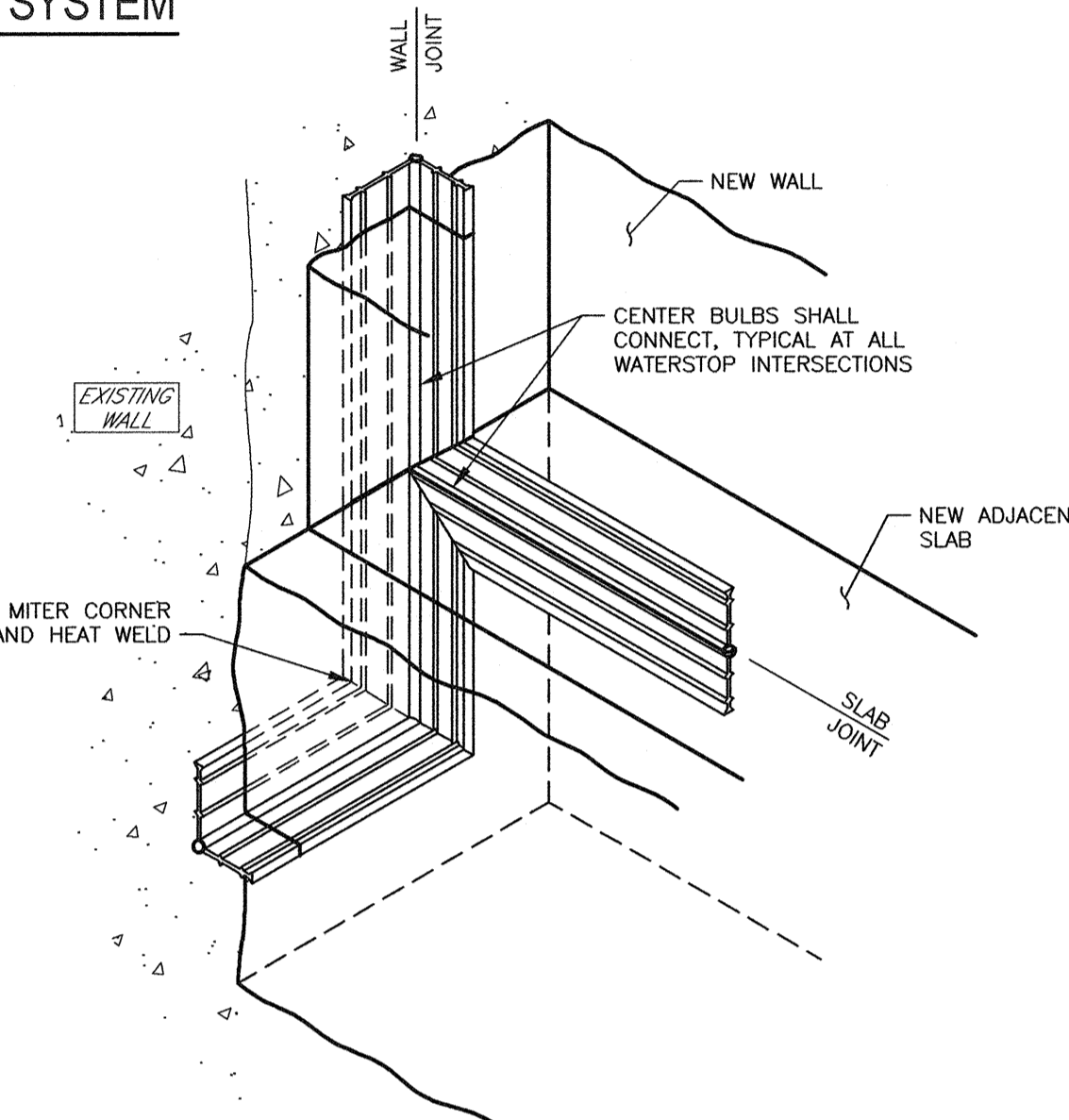
**BEAM AND CHANNEL CONNECTION**

NOT TO SCALE



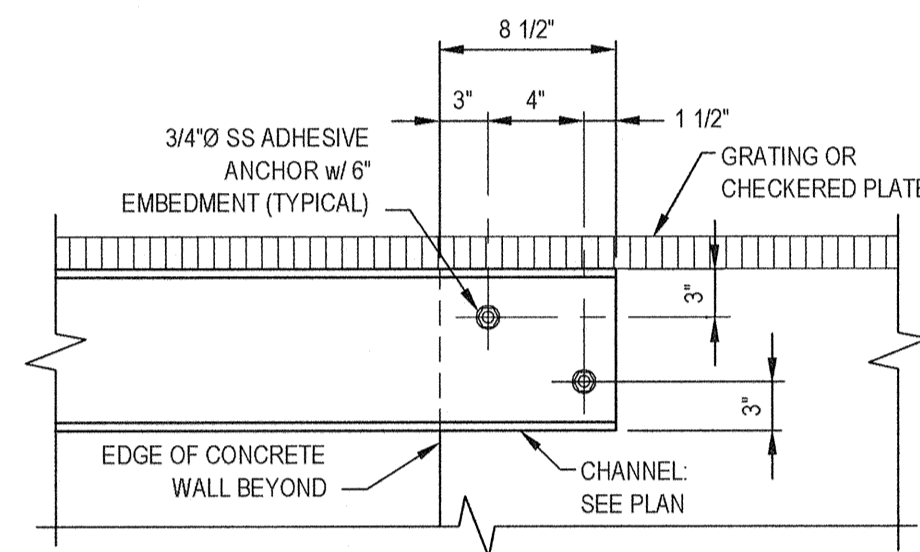
**BOLT-ON WATERSTOP SYSTEM (L-SHAPED)**

NOT TO SCALE



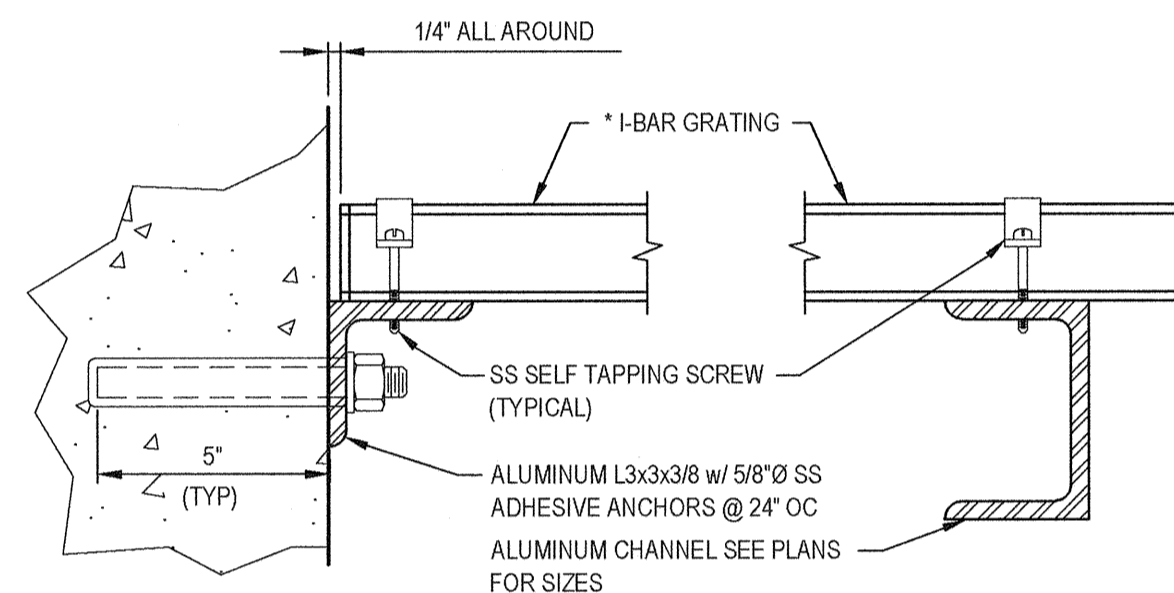
**BOLT-ON WATERSTOP INSTALLATION DETAIL**

NOT TO SCALE



**SIDE-MOUNTED CHANNEL FOR SUPPORT OF GRATING**

NOT TO SCALE



**CONCRETE WALL**

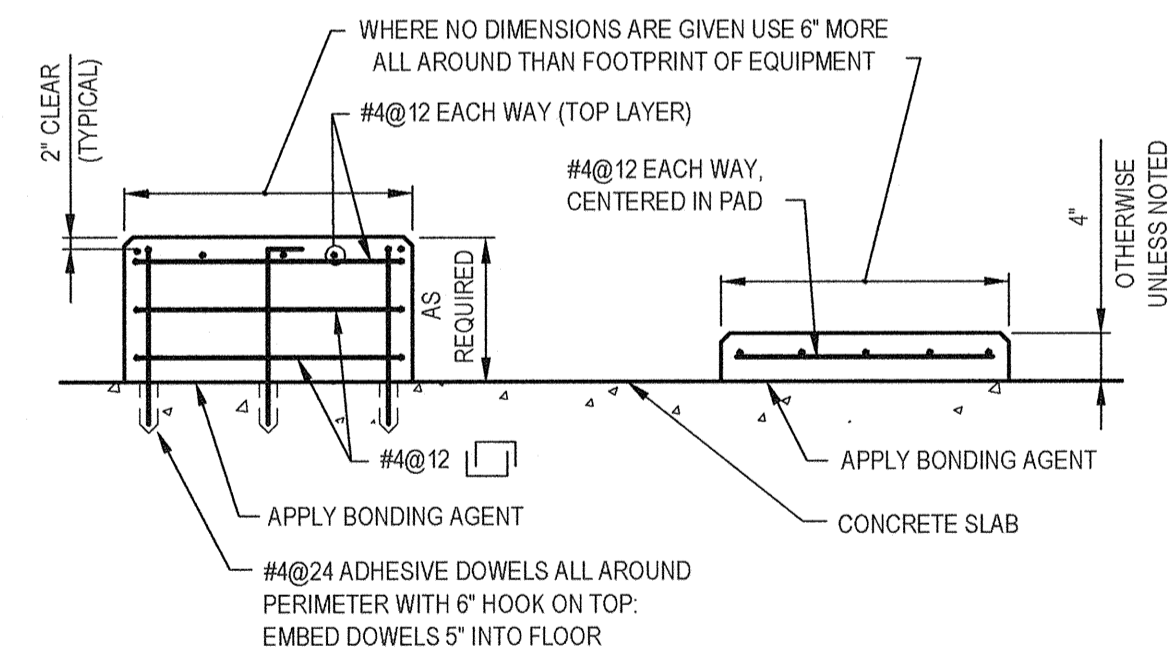
(OR WHERE INDICATED)

**SUPPORT CHANNEL**

**\*NOTE:** GRATING TYPE AND DEPTH SHALL MATCH EXISTING GRATING.

**GRATING**

NOT TO SCALE  
(REFERENCE SECTION 05500)



**TYPICAL EQUIPMENT/PUMP PAD**

**HOUSEKEEPING PAD**

**REINFORCEMENT FOR CONCRETE PADS**

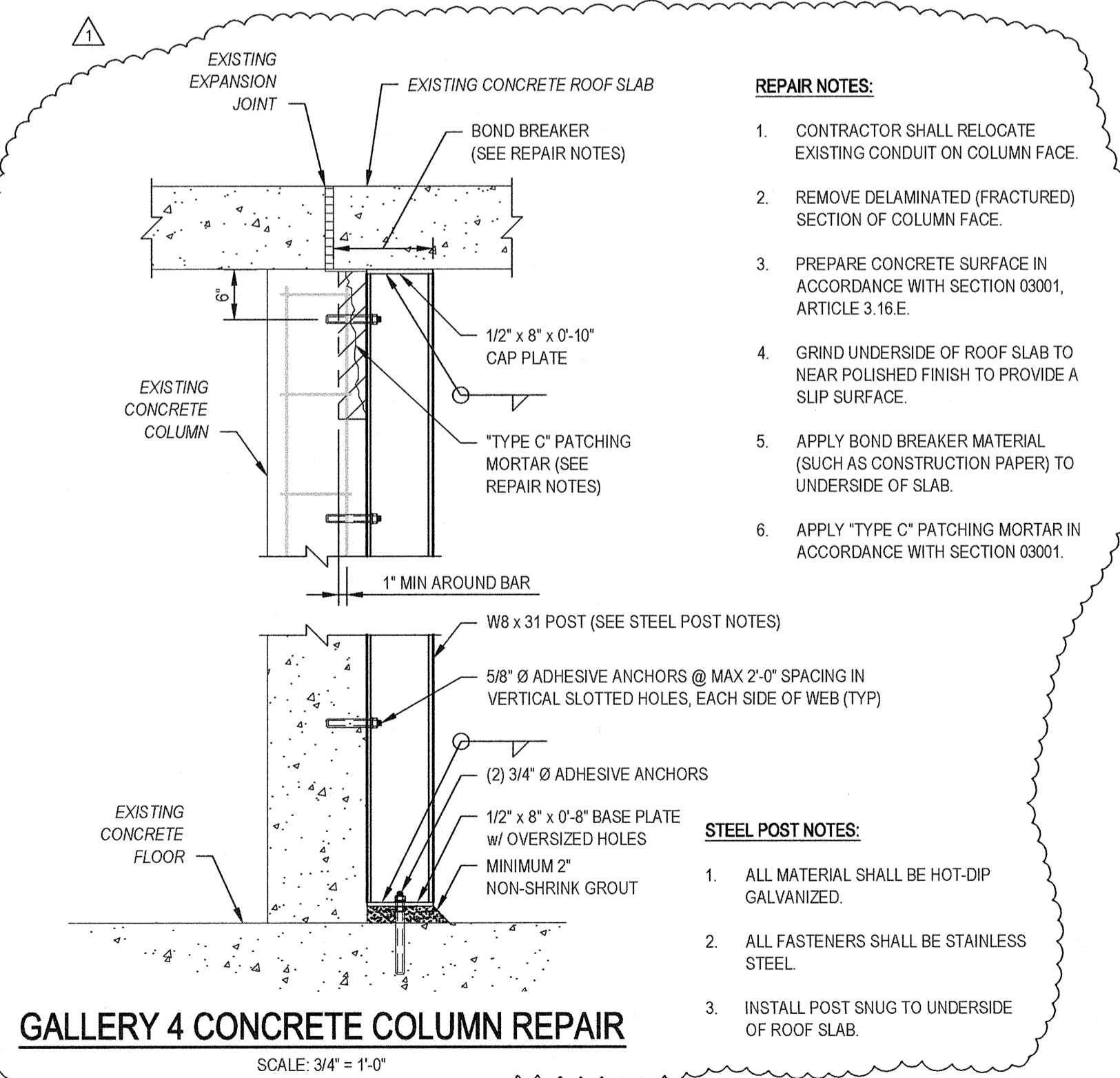
NOT TO SCALE

**CONCRETE REINFORCEMENT LAP SPLICE LENGTHS**  
(FOR DEVELOPMENT AND LAP SPLICES)

SIZE	HORIZONTAL BARS *	OTHER BARS
#4	24" (2'-0")	18" (1'-6")
#5	30" (2'-6")	21" (1'-9")
#6	36" (3'-0")	24" (2'-0")
#7	48" (4'-0")	33" (2'-9")
#8	54" (4'-6")	39" (3'-3")
#9	60" (5'-0")	42" (3'-6")
#10	66" (5'-6")	48" (4'-0")

\* HORIZONTAL BARS INCLUDE:

- HORIZONTAL WALL REINFORCING BARS.
- REINFORCING BARS FOR SLABS AND WALL FOOTINGS GREATER THAN 12" THICK.



**GALLERY 4 CONCRETE COLUMN REPAIR**

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

**REPAIR NOTES:**

- CONTRACTOR SHALL RELOCATE EXISTING CONDUIT ON COLUMN FACE.
- REMOVE DELAMINATED (FRACTURED) SECTION OF COLUMN FACE.
- PREPARE CONCRETE SURFACE IN ACCORDANCE WITH SECTION 03001, ARTICLE 3.16.E.
- GRIND UNDERSIDE OF ROOF SLAB TO NEAR POLISHED FINISH TO PROVIDE A SLP SURFACE.
- APPLY BOND BREAKER MATERIAL (SUCH AS CONSTRUCTION PAPER) TO UNDERSIDE OF SLAB.
- APPLY "TYPE C" PATCHING MORTAR IN ACCORDANCE WITH SECTION 03001.

**STEEL POST NOTES:**

- ALL MATERIAL SHALL BE HOT-DIP GALVANIZED.
- ALL FASTENERS SHALL BE STAINLESS STEEL.
- INSTALL POST SNUG TO UNDERSIDE OF ROOF SLAB.

**GENERAL STRUCTURAL NOTES**

- STRUCTURAL DRAWINGS SHALL BE COORDINATED AND USED IN CONJUNCTION WITH OTHER CONTRACT DRAWINGS. ANY APPARENT DISCREPANCIES SHALL BE BROUGHT TO ENGINEER'S ATTENTION FOR CLARIFICATION PRIOR TO PROCEEDING ON SUCH WORK.
- NO CHANGES OF THE STRUCTURAL SYSTEM AS INDICATED ON THESE STRUCTURAL DRAWINGS SHALL BE DONE PRIOR TO RECEIVING WRITTEN APPROVAL FROM THE ENGINEER.
- THESE STRUCTURAL DRAWINGS DO NOT IDENTIFY COMPONENTS REQUIRED FOR CONSTRUCTION SAFETY. THE CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY AND PROVIDE COMPONENTS REQUIRED FOR CONSTRUCTION SAFETY.
- THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND SITE CONDITIONS PRIOR TO STARTING CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARILY BRACING AND MAINTAINING THE STABILITY OF THE STRUCTURES DURING CONSTRUCTION AND PORTIONS OF STRUCTURES BEING RECONSTRUCTED. THE STRUCTURES SHALL BE ASSUMED UNSTABLE UNTIL ALL OF THE WALLS, CONNECTIONS, AND ROOF (IF APPLICABLE) ARE FULLY INSTALLED.
- SECTIONS AND DETAILS ON THE STRUCTURAL DRAWINGS ARE TO BE CONSIDERED TYPICAL FOR SIMILAR CONSTRUCTION NOT FULLY DETAILED.
- CHEMICAL ADHESIVE SYSTEMS SHALL BE USED TO INSTALL ALL COMPONENTS AND ACCESSORIES (BOLTS, DOWELS, ETC.) INTO HARDENED CONCRETE AND MASONRY, U.N.O.
- THE NOTES ON THIS SHEET ARE ONLY INTENDED TO SUPPLEMENT THE SPECIFICATIONS. REFER TO THE APPLICABLE SPECIFICATIONS FOR ALL REQUIREMENTS AND ADDITIONAL INFORMATION.

**CONCRETE NOTES (REFERENCE DIVISION 3 SPECIFICATIONS):**

- ALL CONCRETE SHALL BE MIXED, CONVEYED, PLACED, CURED, AND TESTED IN ACCORDANCE WITH ACI 301, ACI 318, ACI 350, AND CHAPTER 19 OF THE BUILDING CODE REFERENCED IN THE "STRUCTURAL DESIGN CRITERIA". REFER TO DIVISION 3 SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- CONCRETE CLASSES AND THEIR USE AS SPECIFIED IN SECTION 03001:  
MIX A - ALL GENERAL USES NOT OTHERWISE SPECIFIED OR PROVIDED FOR BELOW.  
MIX D - CONCRETE REPAIRS (NYS DOT CLASS D CONCRETE)
- AIR ENTRAINMENT IS REQUIRED FOR ALL EXTERIOR EXPOSED CONCRETE AND FOR ALL LIQUID CONTAINMENT STRUCTURES.
- CLEAR COVER SHALL CONFORM TO ACI 318 AND ACI 350 AS FOLLOWS:  
CONCRETE CAST AGAINST EARTH = 3"  
TOP OF BASE SLABS WITH PVC WATERSTOPS = 3"  
CONCRETE EXPOSED TO EARTH, WEATHER, AND WATER = 2"  
BEAMS AND COLUMNS (TIES AND STIRRUPS) = 1 1/2"  
BEAMS AND COLUMNS (PRIMARY REINFORCEMENT) = 2"
- ALL REINFORCING STEEL BARS SHALL BE ASTM A615, GRADE 60, DEFORMED BARS.
- TYPICAL STRUCTURE REINFORCING BAR LAP LENGTHS (SPLICES) SHALL BE AS SHOWN IN THE "REINFORCEMENT SPLICE LENGTHS" TABLE ON THIS SHEET, UNLESS NOTED OTHERWISE ON THE CONTRACT DRAWINGS.
- WELDED WIRE REINFORCEMENT SHALL CONFORM TO ASTM A185. THE MINIMUM LAP SPLICE SHALL BE 6 INCHES.
- ALL EXPOSED EDGES OF CONCRETE SHALL HAVE A 3/8" BY 3/8" CHAMFER (INCLUDING TOPS AND OUTSIDE CORNERS OF WALLS AND SLABS), U.N.O.
- PROVIDE WATERSTOPS IN ALL STRUCTURES THAT ARE INTENDED TO BE DRY SPACES BELOW GRADE.
  - WATERSTOPS SHALL BE INSTALLED AS A CONTINUOUS LOOP, INTERCONNECTING ALL CONCRETE JOINTS.
  - ALL PVC WATERSTOPS SHOWN ON THE DRAWINGS SHALL BE 6 INCHES, UNLESS NOTED OTHERWISE.
  - PVC WATERSTOPS SHALL BE HEAT-WELDED/GLUED AT ALL SEAMS, IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
  - WATERSTOP SHALL BE TERMINATED 3 INCHES BELOW THE TOP OF WALLS.
- VERTICAL JOINTS IN FOUNDATION FROST WALLS SHALL LINE UP WITH MASONRY BLOCK (CMU) CONTROL JOINTS.
- EXTERIOR SLABS (PADS) SHALL BE A MINIMUM 10" THICK WITH #4@12" T&B EW, OR AS SHOWN ON THE DRAWING.
- ALL EXTERIOR SLABS SHALL HAVE A 1/8" PER FOOT SLOPE (1/4" PER FOOT MINIMUM) IN ORDER TO PROVIDE POSITIVE DRAINAGE.
- THE CONTRACTOR SHALL PROPOSE ADDITIONAL CONSTRUCTION JOINTS AS NEEDED TO FACILITATE CONSTRUCTION. ALL PROPOSED CONSTRUCTION JOINTS SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTING.
- THE CONTRACTOR SHALL COORDINATE ALL OPENINGS AND PENETRATIONS IN CONCRETE WITH ALL ARCHITECTURAL, MECHANICAL, HVAC, PLUMBING, AND ELECTRICAL WORK. NOTE THAT NOT ALL OPENINGS AND PENETRATIONS ARE SHOWN ON THE STRUCTURAL DRAWINGS.
- COORDINATE AND CAST IN ALL EMBEDDED CONCRETE ACCESSORIES REQUIRED FOR STRUCTURAL AND MECHANICAL ACCESSORIES AND EQUIPMENT. POST INSTALLATION OF EMBEDDED ITEMS IS NOT ACCEPTABLE.
- COORDINATE SIZE OF ALL EQUIPMENT PADS WITH APPROVED EQUIPMENT MANUFACTURER.
- REFER TO DIVISION 3 OF THE SPECIFICATIONS FOR ALL OTHER REQUIREMENTS.

**METAL AND MISCELLANEOUS FABRICATIONS (REFERENCE DIVISION 5 SPECIFICATIONS):**

- ALL ALUMINUM TO BE IN CONTACT WITH, CAST-IN OR EMBEDDED INTO MASONRY OR CONCRETE SHALL BE BACKPAINTED WITH A BITUMINOUS COATING.
- ALL FASTENERS USED TO FASTEN ALUMINUM SHALL BE TYPE 316, STAINLESS STEEL.
- ALL FASTENERS USED TO FASTEN FIBERGLASS SHALL BE TYPE 316, STAINLESS STEEL.
- ALL GRATING SHALL HAVE A NON-SLIP SURFACE AND SHALL BE EDGE BANDED.
- ALL NEW AND EXISTING (REINSTALLED) GRATING SHALL BE INSTALLED WITH STAINLESS STEEL HOLD DOWN CLIPS.

**RECORD DRAWING**

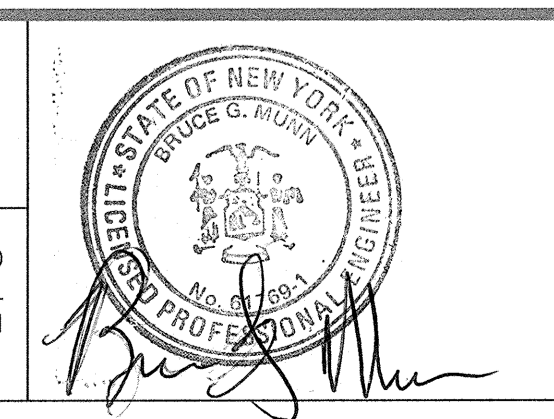
THESE DRAWINGS HAVE BEEN REVISED TO REFLECT MAJOR CHANGES, IF ANY, WHICH OCCURRED DURING CONSTRUCTION. REVISIONS ARE BASED UPON INFORMATION SUPPLIED BY CONTRACTOR.

DATE: 10/11/16 PER: BCL

2	FOR RECORD	TAM	RCF	BGM	08/16	
1	REVISED DURING CONSTRUCTION	TAW	RCF	BGM	06/16	
0	FOR BID	MJL	RCF	BGM	08/2014	
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

**NOTES:**  
UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.

IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

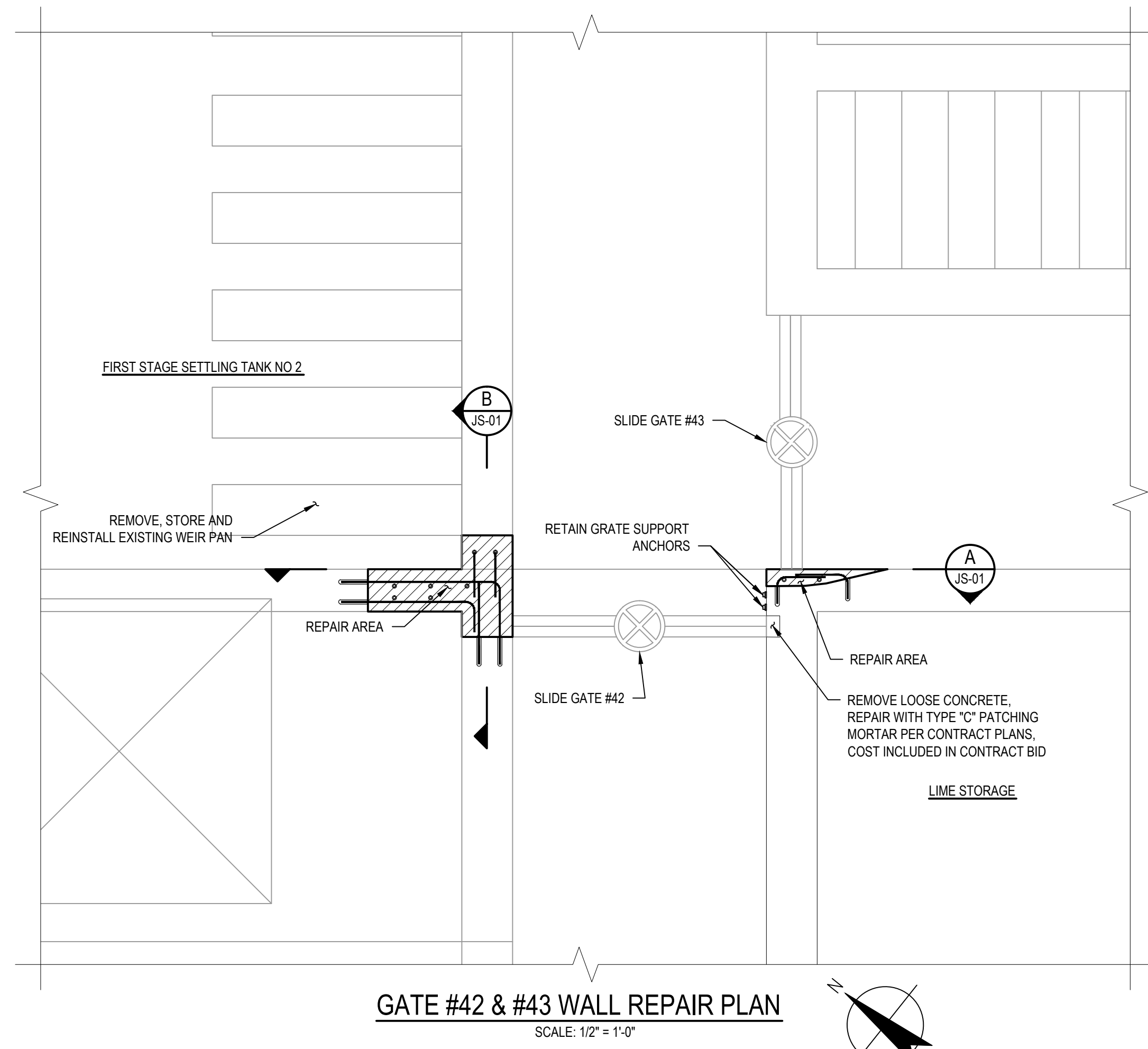


**GHD**  
GHD Consulting Services Inc.  
One Remington Park Drive  
Cazenovia NY 13035 USA  
T 1 315 679 5800 F 1 315 679 5801  
E cza@mail@ghd.com W www.ghd.com

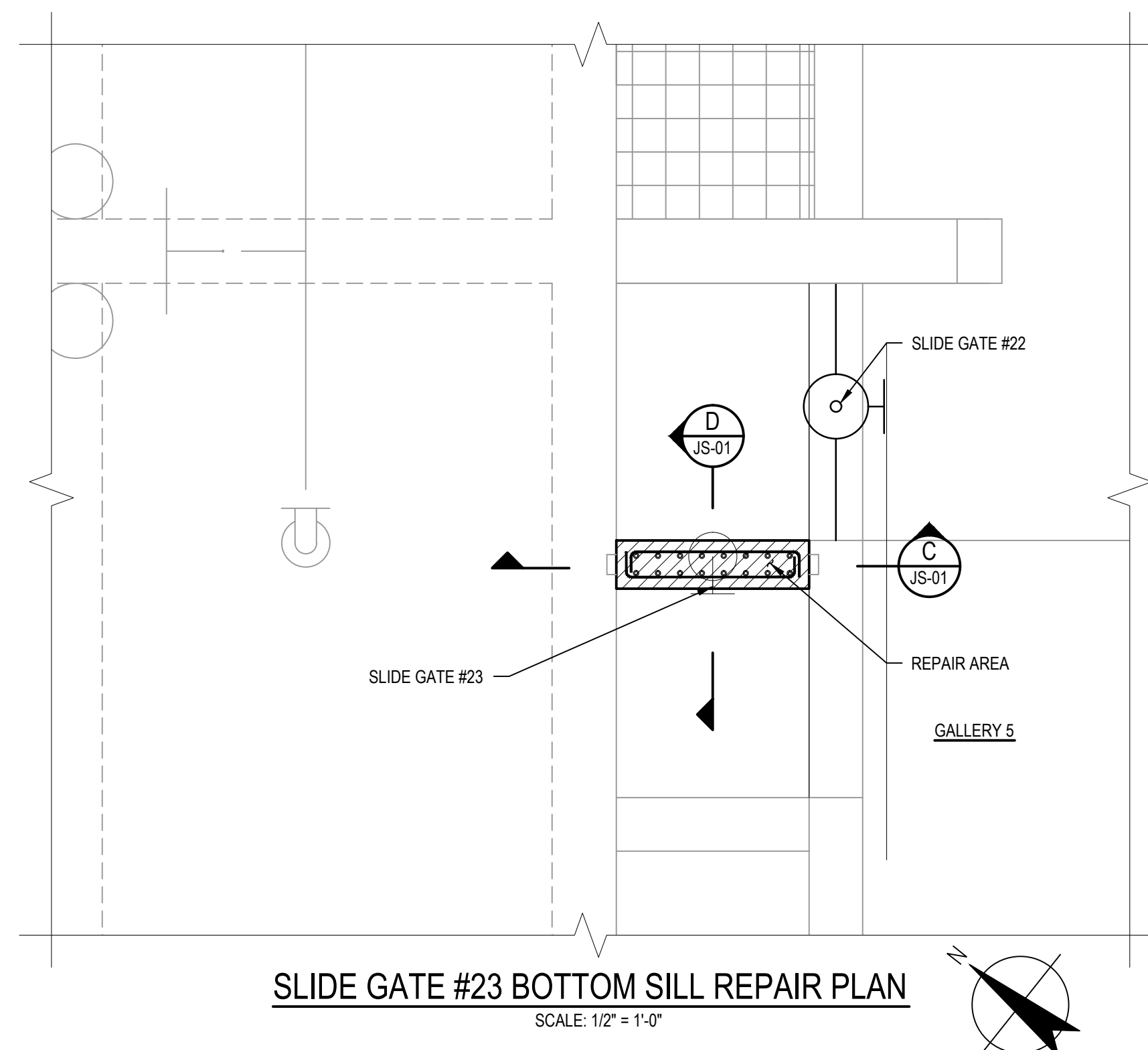
Drawn	MJL	Designer	BTM
Drafting	BTM	Design	CMK
Approved (Project Director)			
Date			
Scale	AS SHOWN	This Drawing shall not be used for Construction unless Signed and Sealed For Construction	

Client: **ONONDAGA COUNTY DWEP**  
Project: **BSK WWTP IMMEDIATE IMPROVEMENTS**  
Title: **AERATION TANKS DISTRIBUTION CHANNELS DETAILS**  
Contract No.: 1  
Original Size: Arch D  
Drawing No.: **86-16538-S005**  
Rev: 2

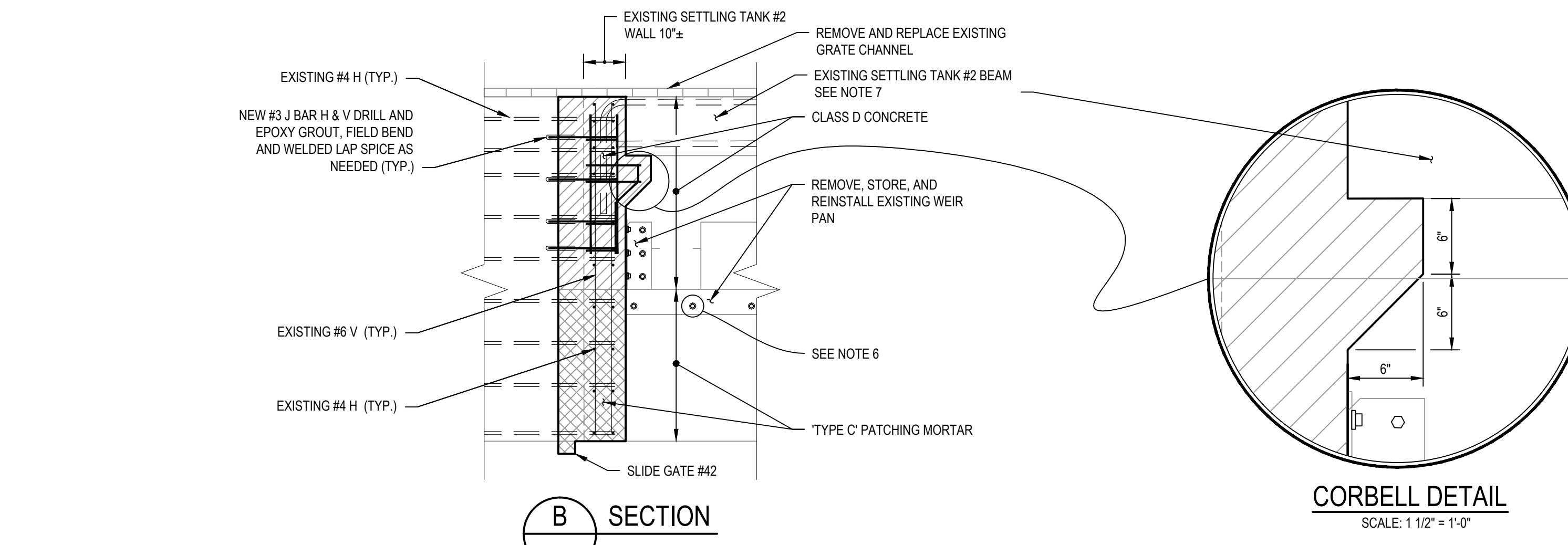




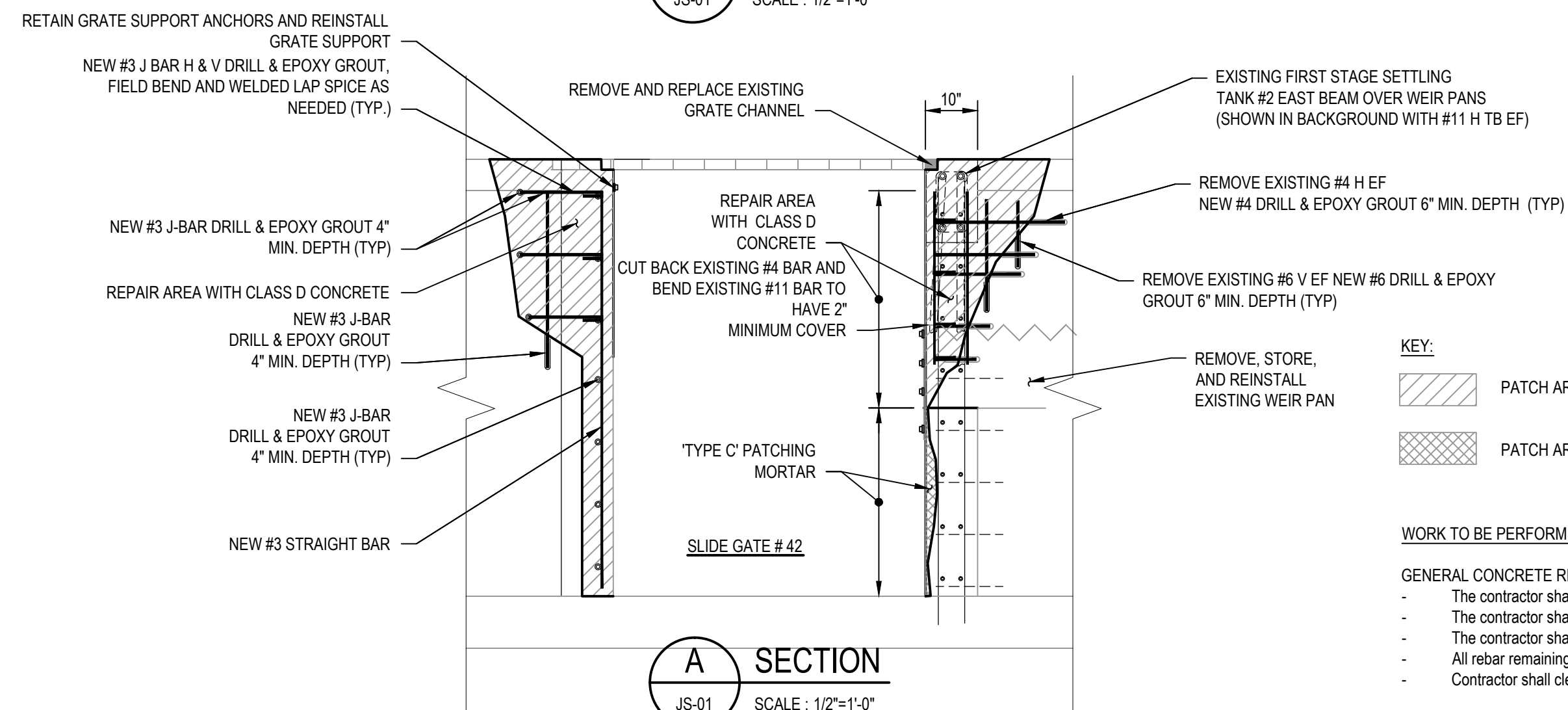
**GATE #42 & #43 WALL REPAIR PLAN**  
SCALE: 1/2" = 1'-0"



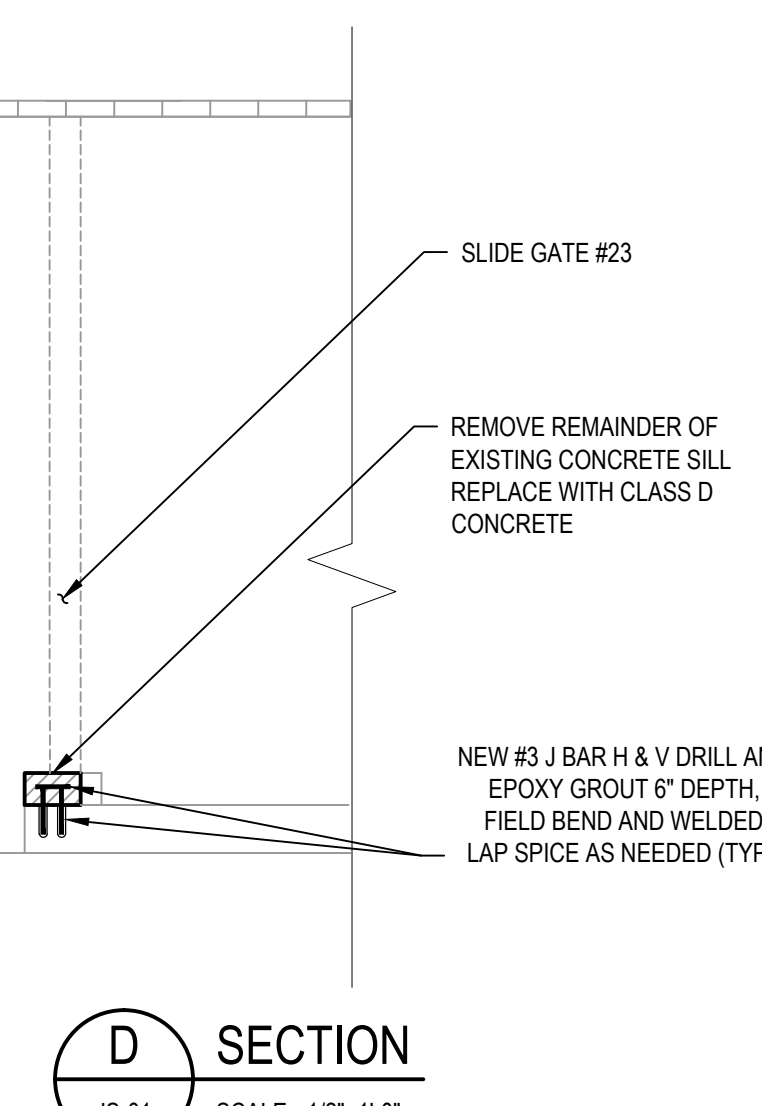
**SLIDE GATE #23 BOTTOM SILL REPAIR PLAN**  
SCALE: 1/2" = 1'-0"



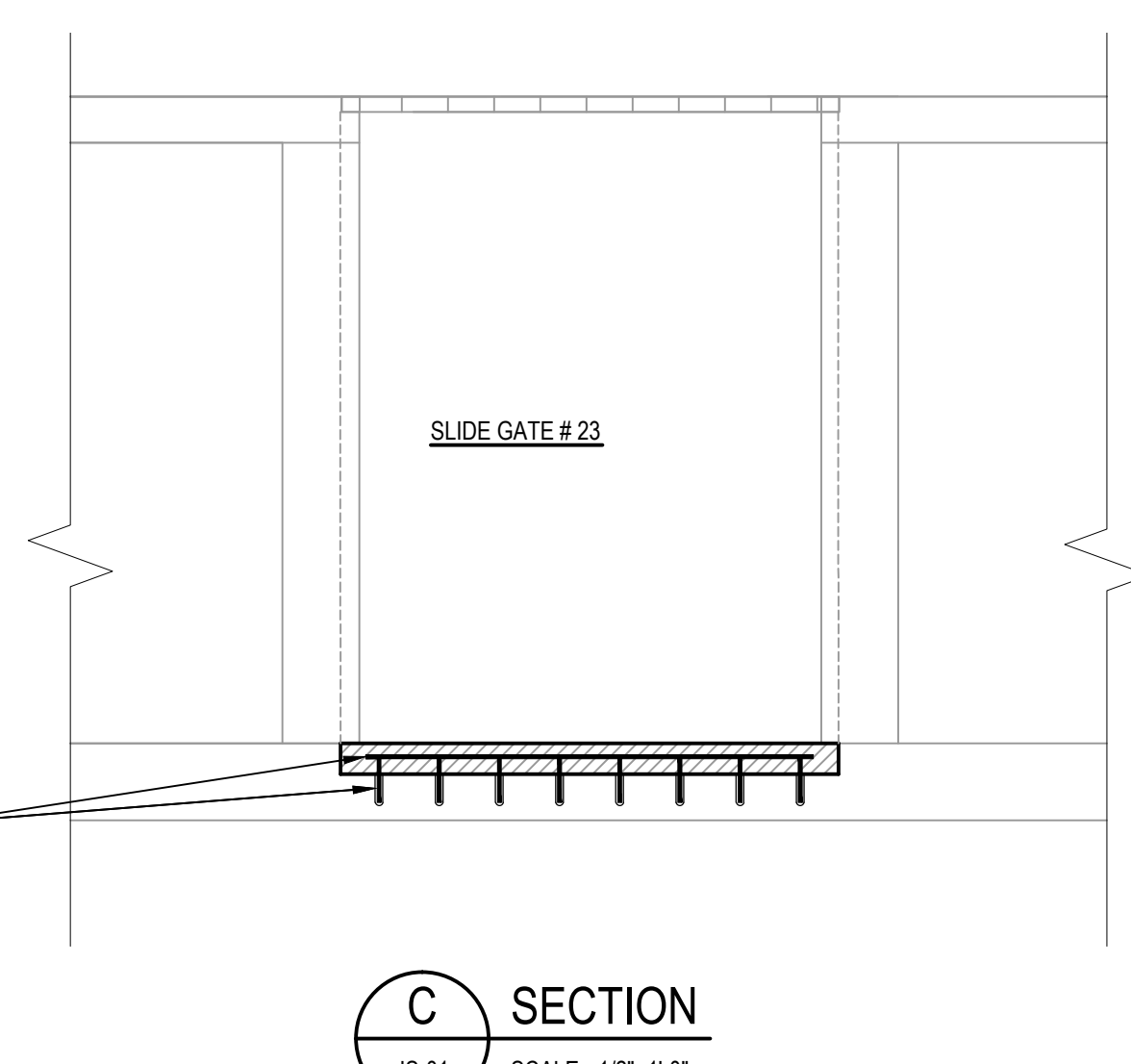
**B SECTION**  
SCALE: 1/2" = 1'-0"



**A SECTION**  
SCALE: 1/2" = 1'-0"



**D SECTION**  
SCALE: 1/2" = 1'-0"



**C SECTION**  
SCALE: 1/2" = 1'-0"

- KEY:**
- PATCH AREA WITH CLASS D CONCRETE (MINIMUM 3" DEEP REPAIR)
  - PATCH AREA WITH TYPE 'C' PATCHING MORTAR
- WORK TO BE PERFORMED**
- GENERAL CONCRETE REMOVAL AND DISPOSAL**
- The contractor shall remove all concrete to the limits ordered by the engineer.
  - The contractor shall remove all deteriorated wire mesh, reinforcement bar and supports.
  - The contractor shall remove all concrete surrounding exposed rebar to a minimum depth of 1 1/2" beyond the rebar.
  - All rebar remaining in-place shall be cleaned to except connection by either tied or welded lap-splice.
  - Contractor shall clean and apply bonding agent to all concrete surfaces interfacing with new concrete.
- WEIR REMOVAL AND REPLACEMENT**
- The Contractor shall remove and store the existing Weir Pan adjacent to Slide Gate #42. The contractor shall retain all hardware and necessary components for reinstallation. The contractor shall document all parts and anchors not re-usable for installation and furnish and install new hardware and anchors. The contractor shall remove all debris from the Weir Pan and prepare it for re-installation.
- EXISTING SETTLING TANK #2 BEAM SUPPORT**
- The contractor shall supply a temporary beam support for the beam in the area of the removed Weir Pan. The support shall remain in place for a minimum of 7 days following the accepted repair of the adjacent beam support wall.
- EXISTING SETTLING TANK #2 BEAM JACKING**
- The Contractor shall supply all necessary labor and equipment to perform this operation without damage to the existing beam.
- SUPPORT WALL REPAIR**
- The Contractor shall provide forms, rebar and concrete necessary to repair the support beam wall. The replacement reinforcing shall be the same size as removed, placed in the same general area (as conditions allow), and have the minimum cover as stated in the general specifications. Rebar lap and weld splices shall be no less than the minimum as stated in the contract specifications.
- NOTIFICATIONS**
- The Contractor shall notify the Representative Engineer 24 hours in advance of the following milestones for inspection:
- Removal of Weir Pan and Temporary Beam Support
  - Concrete Demolition (Retain as much existing rebar as possible for engineer to evaluate suitable replacement and connection method)
  - Completed Replacement and connection of new rebar
  - Completed forms
  - Concrete placement
  - Temporary Beam Support Removal (Note: 7 days minimum following concrete placement and acceptance)
  - Weir Replacement
- NOTES:**
- ALL REINFORCEMENT SHALL BE GALVANIZED.
  - REPAIR AREAS SHOWN ARE APPROXIMATE. CONTRACTOR TO REMOVE EXISTING CONCRETE TO SOLID CONCRETE. REMOVE TO 1- 1/2" BEYOND ALL EXPOSED REBAR.
  - CONTRACTOR SHALL NOTIFY ENGINEER OF ANY ADJUSTMENTS NEEDED IN DRILL AND EPOXY DEPTHS PRIOR TO INSTALLATION OF REBAR.
  - FIELD BENDING OF BAR WILL BE ALLOWED, HEATING OF BARS TO ACHIEVE BENDS IS NOT ALLOWED.
  - WELDED LAP SPLICES MAYBE REQUIRED, ONE SIDED LAP SPLICES SHALL HAVE A MINIMUM WELD LENGTH OF 10 TIMES THE DIAMETER OF THE SMALLEST REBAR BEING WELDED (I.E. #4 BAR BEING WELDED TO A #6 BAR - #4 = 1/2" X 10 = 5" MINIMUM). TWO SIDED WELDS SHALL BE WELDED ON BOTH SIDES AND HAVE A MINIMUM LENGTH OF 6 TIMES THE SMALLEST DIAMETER REBAR, THE MINIMUM WELD LENGTH IS 2 1/2" REGARDLESS OF REBAR SIZE.
  - CONTRACTOR SHALL REMOVE THE EXISTING GRATING AND STORE IN A PROTECTIVE MANNER. ANY EXISTING GRATING THAT BECOMES DAMAGED SHALL BE REPLACED AT THE CONTRACTORS EXPENSE
  - CONTRACTOR TO REMOVE, STORE, AND REPLACE WEIR PAN ANCHORS. REPLACE WITH NEW AS NEEDED.
  - EXISTING SETTLING TANK #2 BEAM TO BE JACKED UP 1/2" ±. CONTACT REPRESENTATIVE ENGINEER PRIOR TO SHORING UP BEAM.

**RECORD DRAWING**

THESE DRAWINGS HAVE BEEN REVISED TO REFLECT MAJOR CHANGES, IF ANY, WHICH OCCURRED DURING CONSTRUCTION. REVISIONS ARE BASED UPON INFORMATION SUPPLIED BY CONTRACTOR.

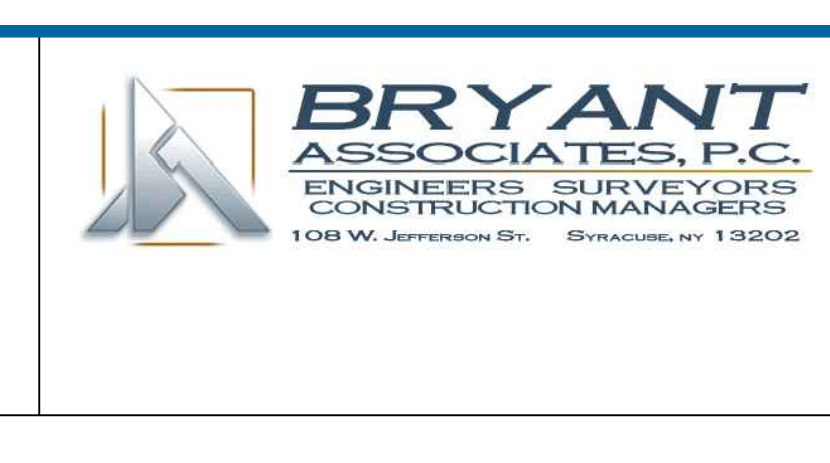
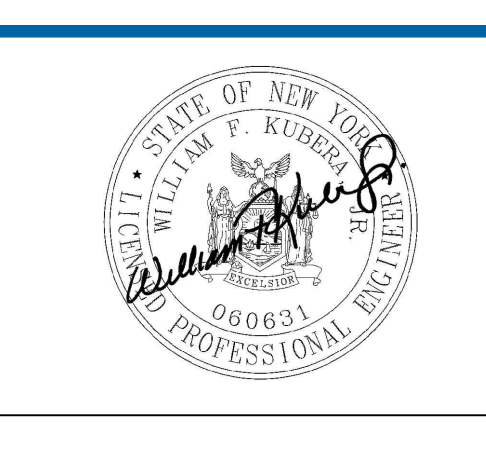
DATE: 10/5/2016 PER: *Steve Babin*

No	Revision	Note: * Indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

**NOTES:**

UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.

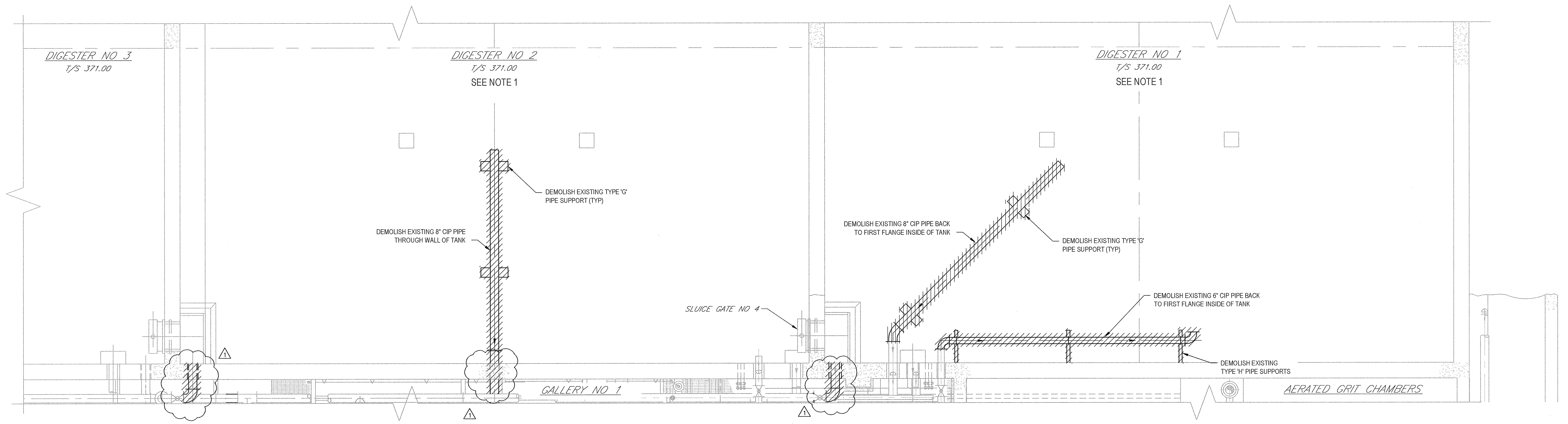
IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



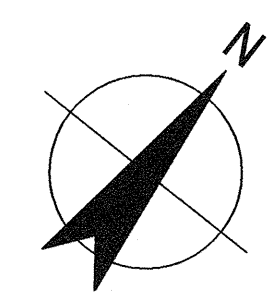
Drawn	<b>SMB</b>	Designer	<b>SMB</b>
Drafting Check	<b>WFK</b>	Design Check	<b>WFK</b>
Approved (Project Director) Date	<i>William F. Kobler</i> 8-12-14		
Scale	<b>AS SHOWN</b>		

Client	<b>ONONDAGA COUNTY DWEP</b>
Project	<b>BSK WWTP IMMEDIATE IMPROVEMENTS</b>
Title	<b>MISC. GATE REPAIRS-SLIDE GATES 23, 42, &amp; 43</b>
Contract No.	<b>1, 2</b>
Original Size	<b>Arch D Drawing No: 86-16538-S006</b>

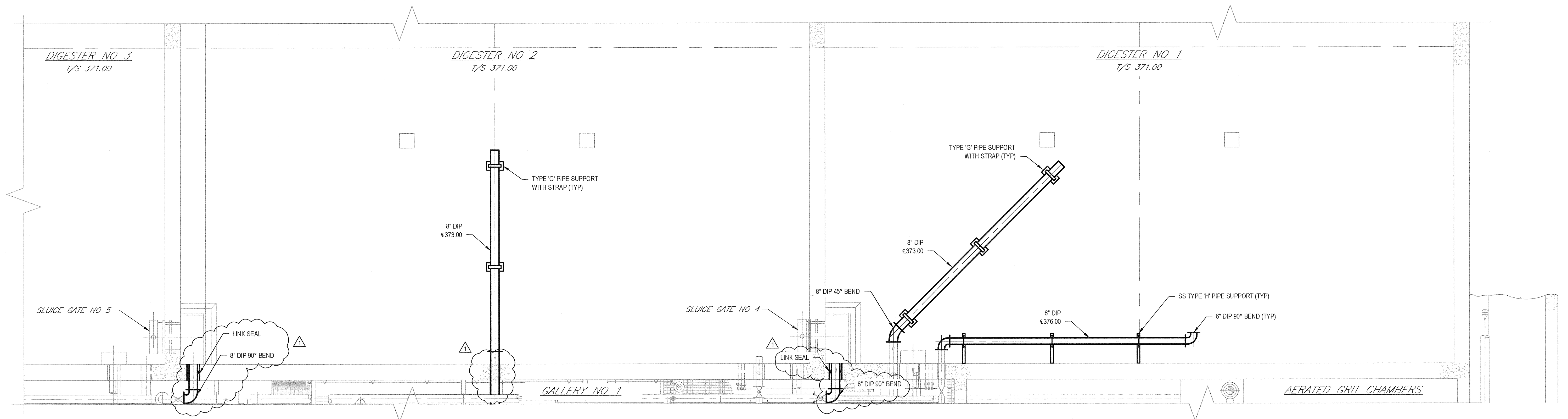




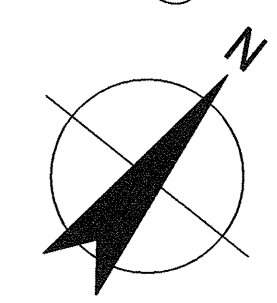
**DEMOLITION PARTIAL PLAN**  
SCALE 1/4" = 1'-0"



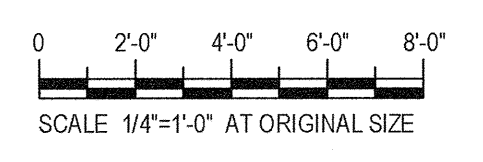
- NOTES:**
- DIGESTERS NUMBERS 1 AND 2 TO BE CLEANED PER SPECIFICATIONS.



**PARTIAL PLAN**  
SCALE 1/4" = 1'-0"



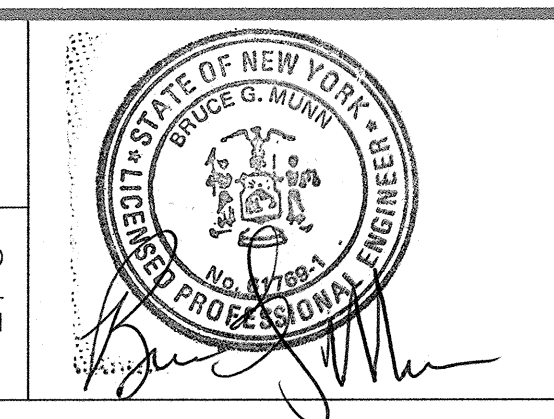
**RECORD DRAWING**  
THESE DRAWINGS HAVE BEEN REVISED TO REFLECT MAJOR CHANGES, IF ANY, WHICH OCCURRED DURING CONSTRUCTION. REVISIONS ARE BASED UPON INFORMATION SUPPLIED BY CONTRACTOR.  
DATE: 10/11/16 PER: BGM



No	Revision	Note	Drawn	Job Manager	Project Director	Date
2	FOR RECORD		TAW	RCF	BGM	06/16
1	REVISED DURING CONSTRUCTION		TAW	RCF	BGM	06/16
0	FOR BID		SFB	RCF	BGM	08/2014

**NOTES:**  
UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.

IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

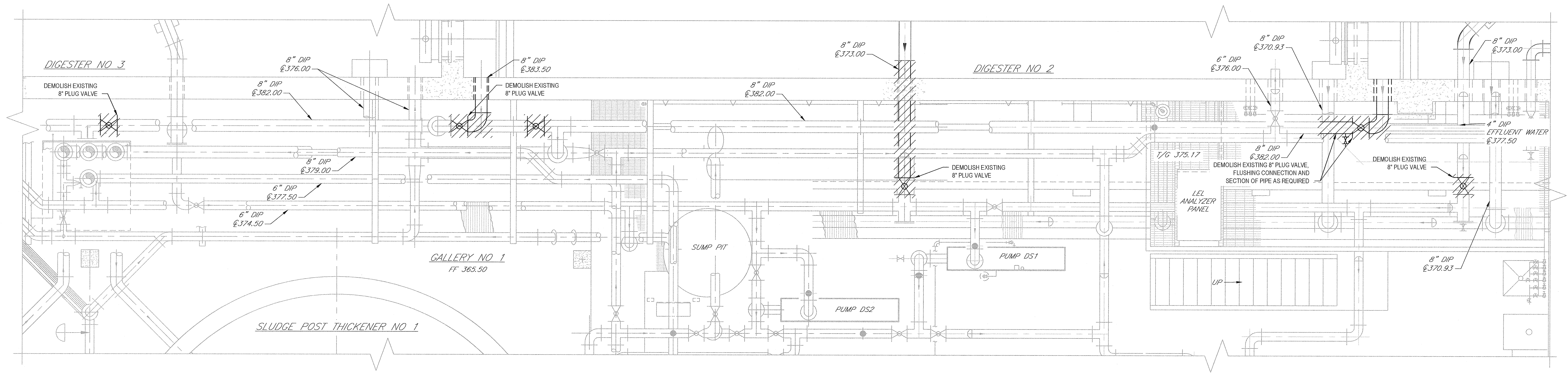


**GHD**  
GHD Consulting Services Inc.  
One Remington Park Drive  
Cazenovia NY 13035 USA  
T 1 315 679 5800 F 1 315 679 5801  
E czm@mail@ghd.com W www.ghd.com

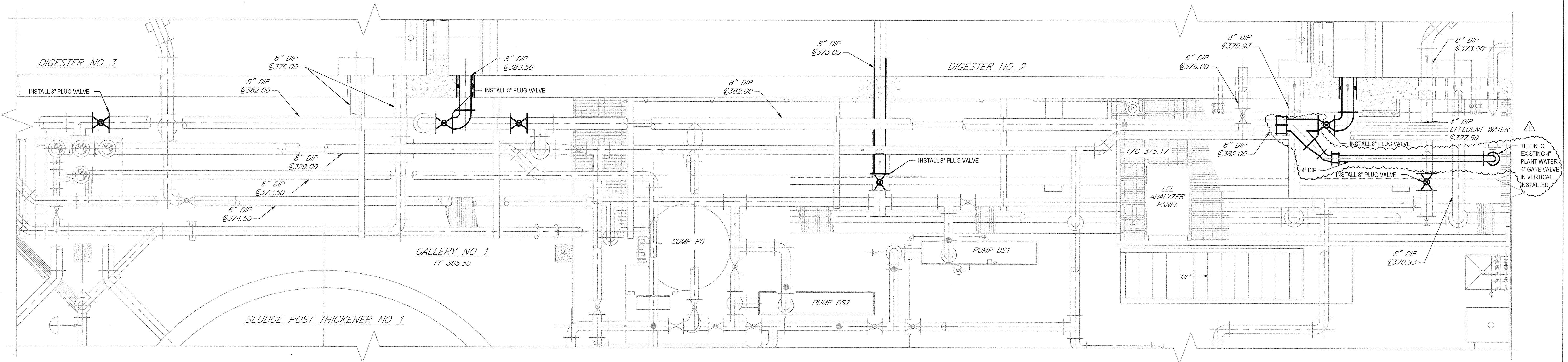
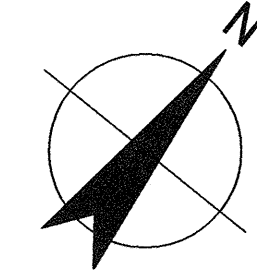
Drawn	SFB	Designer	SFB
Drafting Check	SFB	Design Check	EJP
Approved (Project Director)	Date		
Scale	1/4" = 1'-0"		

Client: **ONONDAGA COUNTY DWEP**  
Project: **BSK WWTP IMMEDIATE IMPROVEMENTS**  
Title: **DIGESTERS NOS 1 AND 2 PARTIAL LOWER PLANS**  
Contract No. 1  
Original Size  
**Arch D Drawing No: 86-16538-M001**  
Rev: 2

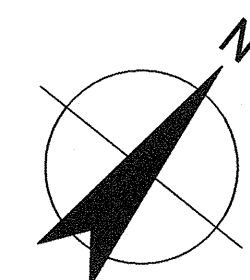




**DEMOLITION  
PARTIAL PLAN**  
SCALE: 3/8" = 1'-0"



**PARTIAL PLAN**  
SCALE: 3/8" = 1'-0"



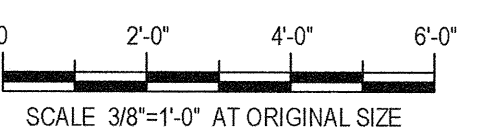
**NOTES:**

1. ALL PLUG VALVES INSTALLED SHALL HAVE CHAIN OPERATORS PER SPECIFICATIONS.
2. ALL PLUG VALVES SHALL BE INSTALLED SO THAT WHEN CLOSED THE PLUG IS IN THE UPSTREAM END OF THE VALVE.
3. IN HORIZONTAL PIPING, PLUG VALVES SHALL BE INSTALLED SO THAT WHEN OPEN THE PLUG IS IN THE UPPER PART OF THE VALVE BODY.
4. IN HORIZONTAL PIPING, PLUG VALVES SHALL BE INSTALLED SO THAT THE PLUG SHAFT IS IN THE HORIZONTAL POSITION.

**RECORD DRAWING**

THESE DRAWINGS HAVE BEEN REVISED TO REFLECT MAJOR CHANGES, IF ANY, WHICH OCCURRED DURING CONSTRUCTION. REVISIONS ARE BASED UPON INFORMATION SUPPLIED BY CONTRACTOR.

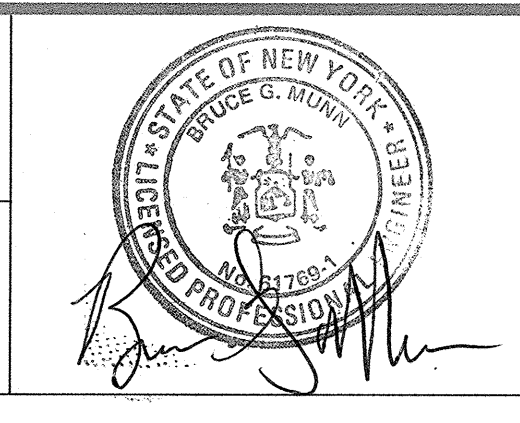
DATE: 10/11/16 PER: BGM



No	Revision	Note	Drawn	Job Manager	Project Director	Date
2	FOR RECORD		TAW	RCF	BGM	06/16
1	REVISED DURING CONSTRUCTION		TAW	RCF	BGM	06/16
0	FOR BID		SFB	RCF	BGM	08/2014

**NOTES:**  
UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.

IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

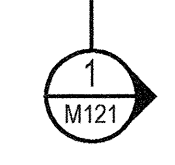
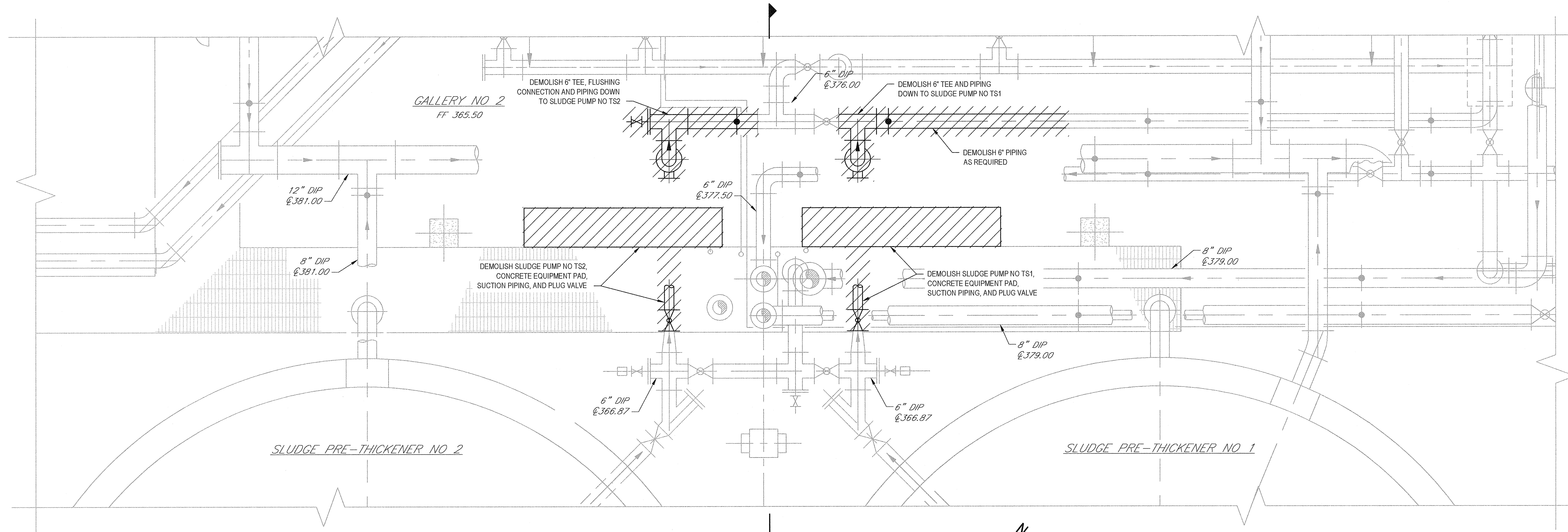


**GHD**  
GHD Consulting Services Inc.  
One Remington Park Drive  
Cazenovia NY 13035 USA  
T 1 315 679 5800 F 1 315 679 5801  
E caze@mail@ghd.com W www.ghd.com

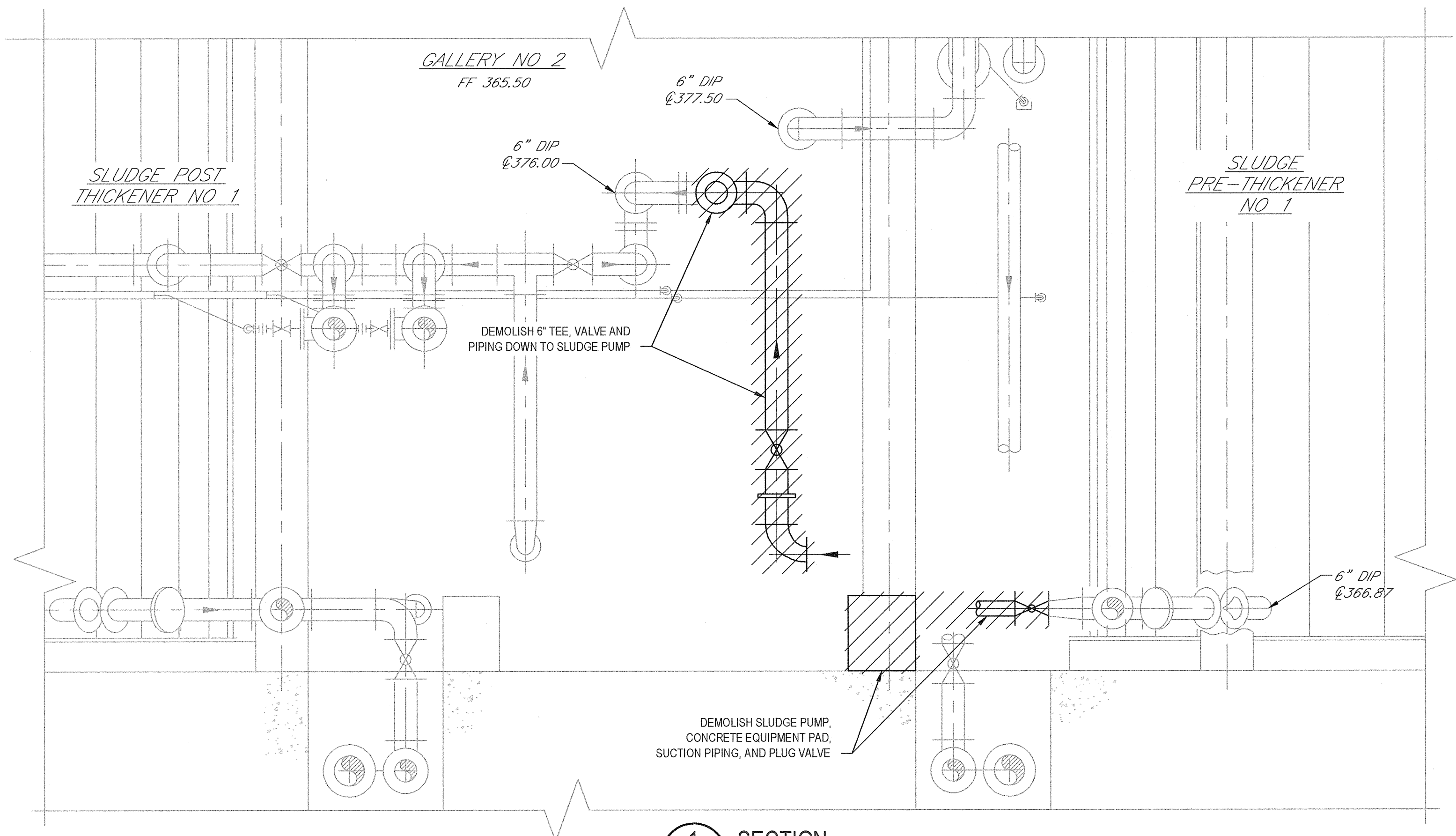
Drawn	SFB	Designer	SFB
Drafting Check	SFB	Design Check	EJP
Approved (Project Director)	Date		
Scale	3/8"=1'-0"		

Client **ONONDAGA COUNTY DWEP**  
Project **BSK WWTP IMMEDIATE IMPROVEMENTS**  
Title **GALLERY NO 1 PARTIAL LOWER PLANS**  
Contract No. **1**  
Original Size  
Arch D Drawing No: **86-16538-M002** Rev: **2**





**PARTIAL PLAN**  
SCALE 1/2" = 1'-0"



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

**NOTES:**

1. ALL WORK SHOWN ON THIS SHEET IS PART OF ALTERNATE PAYMENT ITEM 1-3.2. SEE ALSO SHEET M004.

**RECORD DRAWING**

THESE DRAWINGS HAVE BEEN REVISED TO REFLECT MAJOR CHANGES, IF ANY, WHICH OCCURRED DURING CONSTRUCTION. REVISIONS ARE BASED UPON INFORMATION SUPPLIED BY CONTRACTOR.



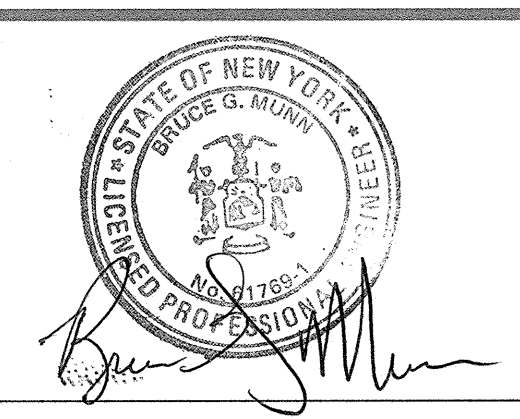
DATE: 01/16 PER: BGM

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
1	FOR RECORD		TAW	RCF	BGM	06/16
0	FOR BID		SFB	RCF	BGM	08/2014

**NOTES:**

UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.

IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



**GHD**  
GHD Consulting Services Inc.  
One Remington Park Drive  
Cazenovia NY 13035 USA  
T 1 315 679 5800 F 1 315 679 5801  
E cazmail@ghd.com W www.ghd.com

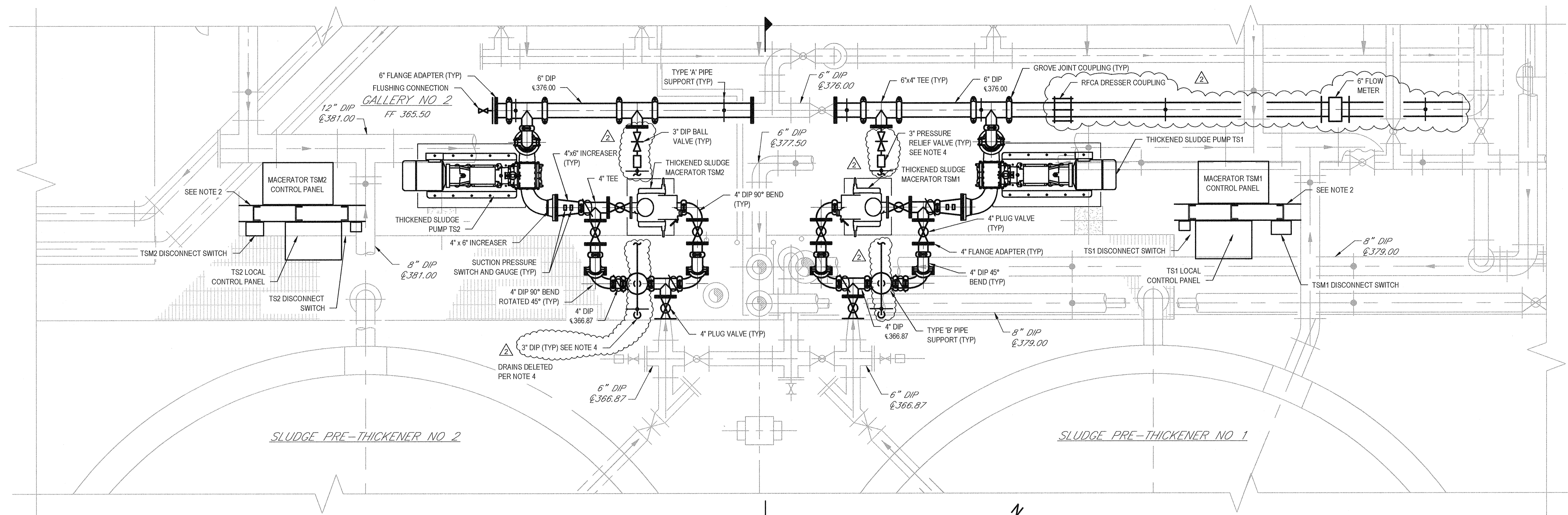
Drawn	SFB	Designer	SFB
Drafting Check	SFB	Design Check	EJP
Approved (Project Director)	Date		
Scale	1/2" = 1'-0"		

Client: **ONONDAGA COUNTY DWEP**  
Project: **BSK WWTP IMMEDIATE IMPROVEMENTS**  
Title: **GALLERY NO 2 DEMOLITION PARTIAL LOWER PLAN AND SECTION**  
Contract No. 1

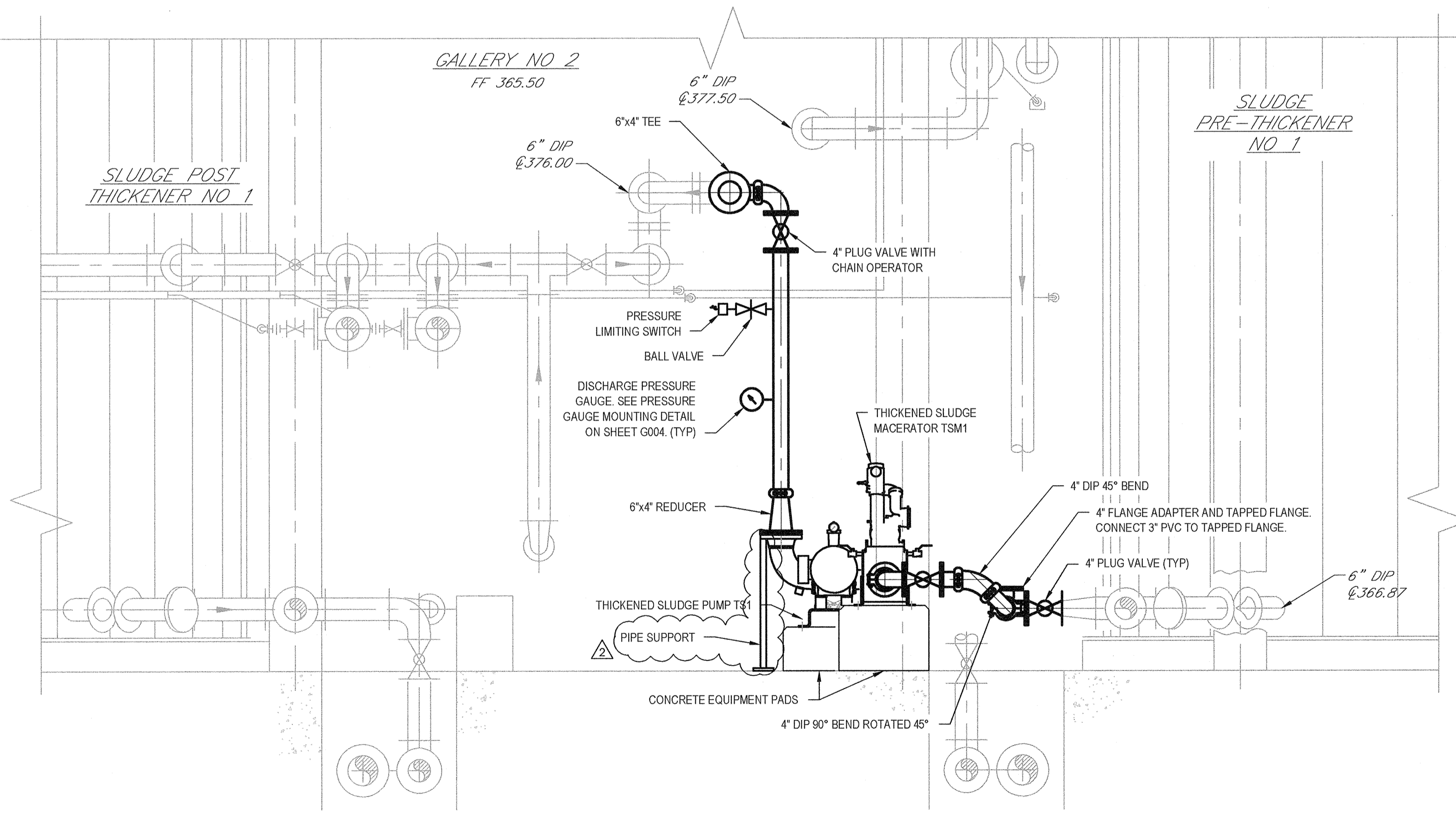
Arch D Drawing No: **86-16538-M003**

Rev: 1



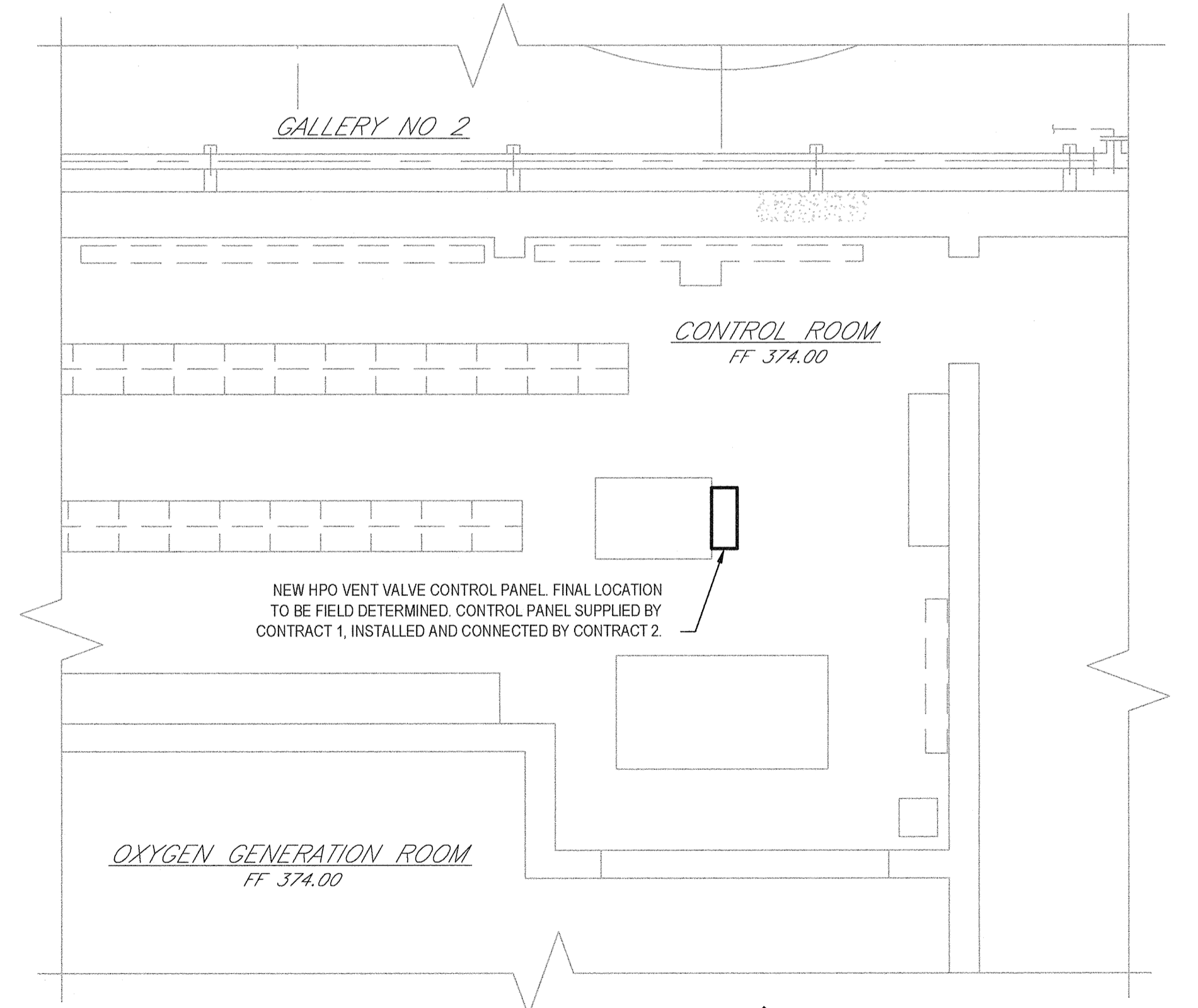


**GALLERY NUMBER 2  
PARTIAL PLAN**  
SCALE 1/2" = 1'-0"

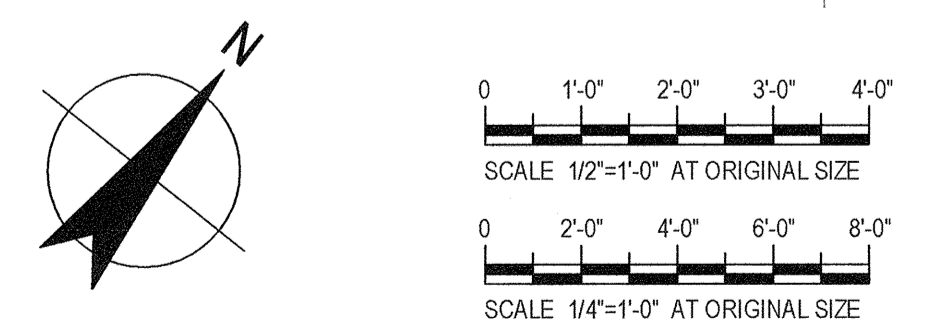


**SECTION**  
SCALE: 1/2" = 1'-0"

- NOTES:**
- EQUIPMENT LAYOUT SHOWN IS BASED ON ONE OF THE SPECIFIED MANUFACTURERS. FINAL EQUIPMENT LAYOUT AND PAD DIMENSIONS IS TO BE BASED ON EQUIPMENT SELECTED. EQUIPMENT AND PIPING LAYOUT DRAWINGS SHALL BE SUBMITTED TO ENGINEER FOR REVIEW AND APPROVAL.
  - PUMP AND MACERATOR CONTROL PANELS TO BE FIELD LOCATED. PUMP CONTROL PANELS TO BE PROVIDED BY CONTRACT NO. 2. WIRE, CONDUIT, MOUNTING STAND, MOUNTING AND CONNECTIONS PROVIDED BY CONTRACT NO. 2. MACERATOR CONTROL PANELS FURNISHED BY CONTRACT NO. 1. WIRE, CONDUIT, MOUNTING STAND, MOUNTING AND CONNECTIONS FOR MACERATOR CONTROL PANEL BY CONTRACT NO. 2.
  - ALL NEW PIPE AND FITTINGS IN GALLERY NO 2 SHALL BE GROOVED JOINT. GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL PIPE, FITTINGS AND CONNECTIONS REQUIRED.
  - PRESSURE RELIEF VALVE ASSEMBLY AND DRAIN LINE ARE ONLY REQUIRED IF CONTRACTOR IS PROVIDING PUMPS WITHOUT AN INTEGRAL PRESSURE RELIEF SYSTEM.
  - "GALLERY NUMBER 2 PARTIAL PLAN" AND "SECTION 1" INDICATE WORK OF ALTERNATE PAYMENT ITEM 1-32.



**OXYGEN GEN. CONTROL ROOM  
PARTIAL PLAN**  
SCALE 1/4" = 1'-0"

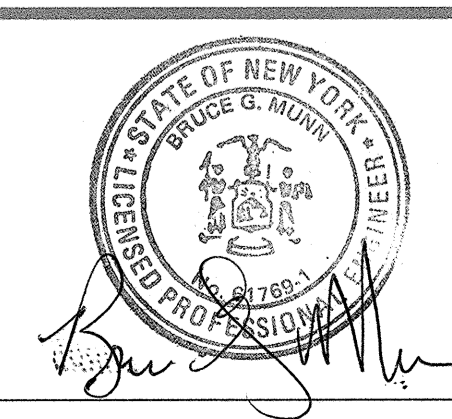


No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
3	FOR RECORD		TAW	RCF	BGM	06/16
2	REVISED DURING CONSTRUCTION		TAW	RCF	BGM	06/16
1	FOR ADDENDUM NO. 1		TAW	RCF	BGM	06/16
0	FOR BID		SFB	RCF	BGM	08/2014

**NOTES:**

UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.

IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

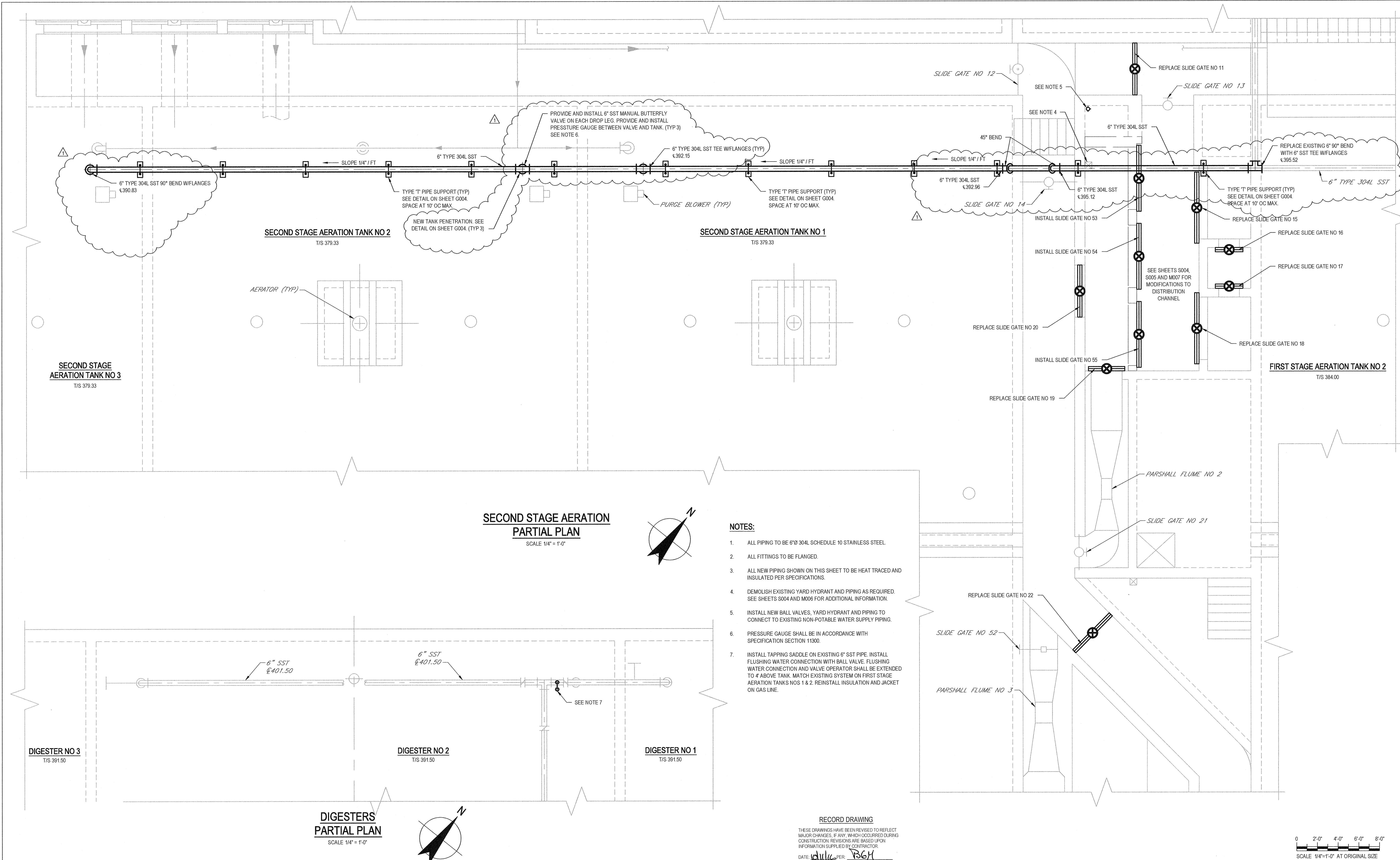


**GHD**  
GHD Consulting Services Inc.  
One Remington Park Drive  
Cazenovia NY 13035 USA  
T 1 315 679 5800 F 1 315 679 5801  
E cza@mail@ghd.com W www.ghd.com

Drawn	SFB	Designer	SFB
Drafting Check	SFB	Design Check	EJP
Approved (Project Director)	Date		
Scale	AS SHOWN	This Drawing shall not be used for Construction unless Signed and Sealed For Construction	

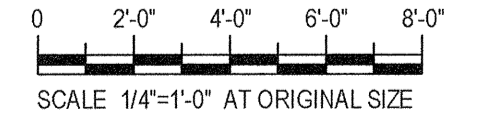
Client: **ONONDAGA COUNTY DWEP**  
Project: **BSK WWTP IMMEDIATE IMPROVEMENTS**  
Title: **GALLERY NO 2 - PARTIAL PLAN AND SECTION OXYGEN GEN. CONTROL ROOM - PARTIAL PLAN**  
Contract No. 1  
Arch D Drawing No: **86-16538-M004**  
Rev: 3





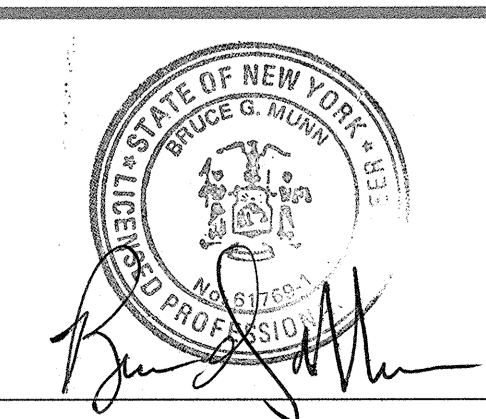
- NOTES:**
1. ALL PIPING TO BE 6"Ø 304L SCHEDULE 10 STAINLESS STEEL.
  2. ALL FITTINGS TO BE FLANGED.
  3. ALL NEW PIPING SHOWN ON THIS SHEET TO BE HEAT TRACED AND INSULATED PER SPECIFICATIONS.
  4. DEMOLISH EXISTING YARD HYDRANT AND PIPING AS REQUIRED. SEE SHEETS S004 AND M006 FOR ADDITIONAL INFORMATION.
  5. INSTALL NEW BALL VALVES, YARD HYDRANT AND PIPING TO CONNECT TO EXISTING NON-POTABLE WATER SUPPLY PIPING.
  6. PRESSURE GAUGE SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 11300.
  7. INSTALL TAPPING SADDLE ON EXISTING 6" SST PIPE. INSTALL FLUSHING WATER CONNECTION WITH BALL VALVE. FLUSHING WATER CONNECTION AND VALVE OPERATOR SHALL BE EXTENDED TO 4' ABOVE TANK. MATCH EXISTING SYSTEM ON FIRST STAGE AERATION TANKS NOS 1 & 2. REINSTALL INSULATION AND JACKET ON GAS LINE.

**RECORD DRAWING**  
 THESE DRAWINGS HAVE BEEN REVISED TO REFLECT MAJOR CHANGES, IF ANY, WHICH OCCURRED DURING CONSTRUCTION. REVISIONS ARE BASED UPON INFORMATION SUPPLIED BY CONTRACTOR.  
 DATE: 10/11/16 PER: P364



No	Revision	Note	Drawn	Job Manager	Project Director	Date
2	FOR RECORD		TAW	RCF	BGM	06/16
1	REVISED DURING CONSTRUCTION		TAW	RCF	BGM	06/16
0	FOR BID		SFB	RCF	BGM	08/2014

**NOTES:**  
 UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.  
 IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

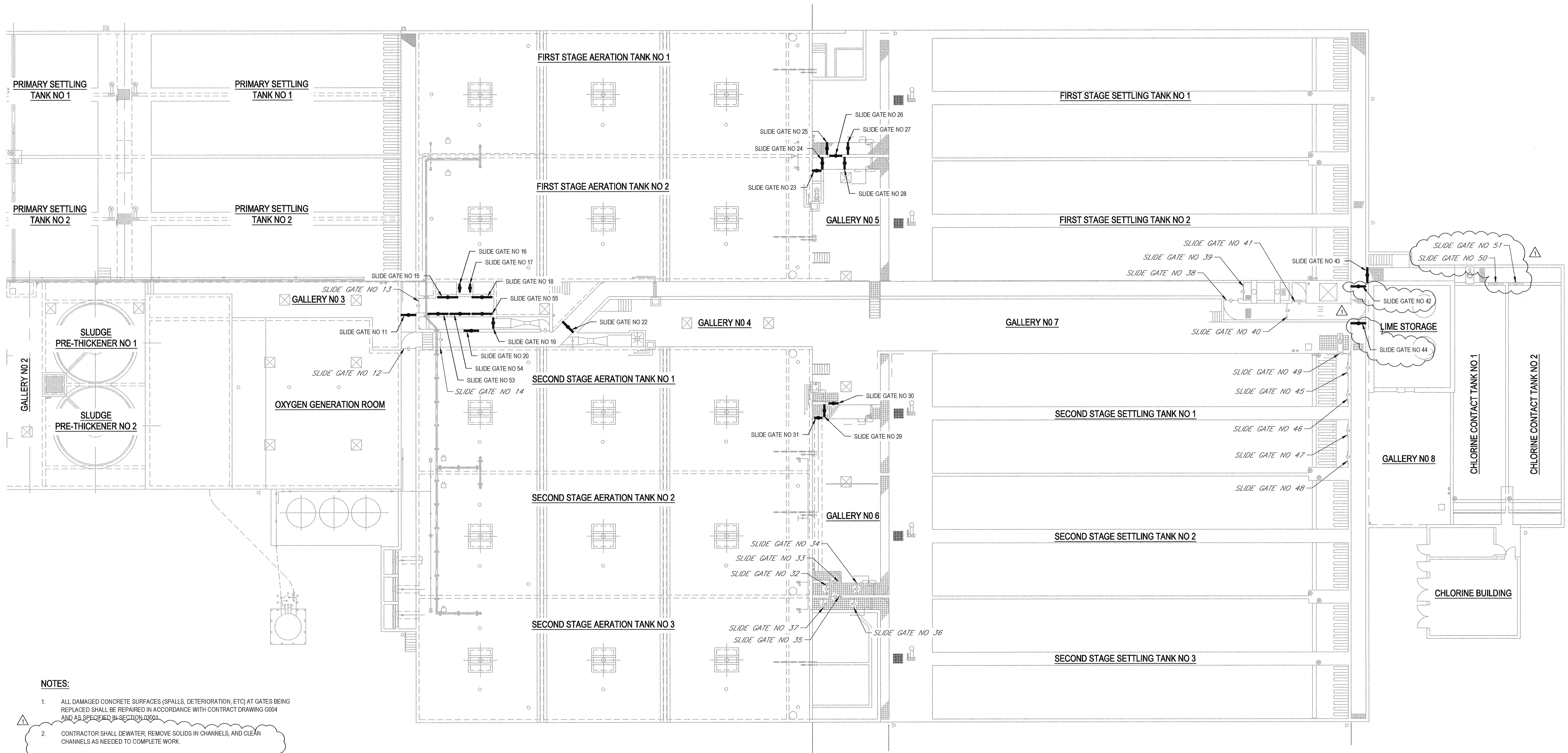


**GHD**  
 GHD Consulting Services Inc.  
 One Remington Park Drive  
 Cazenovia NY 13035 USA  
 T 1 315 679 5800 F 1 315 679 5801  
 E cazmail@ghd.com W www.ghd.com

Drawn	SFB	Designer	SFB
Drafting Check	SFB	Design Check	EJP
Approved (Project Director)	Date		
Scale	1/4"=1'-0"		

**ONONDAGA COUNTY DWEP**  
**BSK WWTP IMMEDIATE IMPROVEMENTS**  
**DIGESTERS AND SECOND STAGE AERATION TANKS**  
**PARTIAL UPPER PLANS**  
 Contract No. 1  
 Original Size  
**Arch D Drawing No: 86-16538-M005**  
 Rev: 2

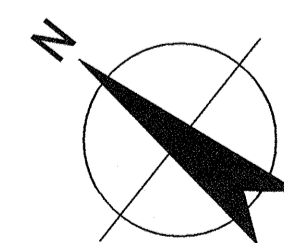




**NOTES:**

1. ALL DAMAGED CONCRETE SURFACES (SPALLS, DETERIORATION, ETC) AT GATES BEING REPLACED SHALL BE REPAIRED IN ACCORDANCE WITH CONTRACT DRAWING G004 AND AS SPECIFIED IN SECTION 03011
2. CONTRACTOR SHALL DEWATER, REMOVE SOLIDS IN CHANNELS, AND CLEAN CHANNELS AS NEEDED TO COMPLETE WORK.
3. COORDINATE WITH OWNER REGARDING USING EXISTING GATES TO ISOLATE CHANNELS. EXISTING GATES MAY NOT BE OPERABLE OR PROVIDE ADEQUATE ISOLATION TO PERFORM WORK. CONTRACTOR SHALL PROVIDE BULKHEADING/DAMMING AS NEEDED TO COMPLETE THE WORK.

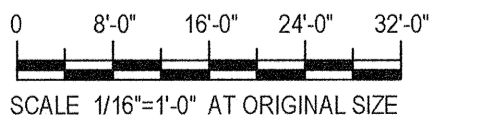
**LOCATION PLAN**  
SCALE 1/16" = 1'-0"



**RECORD DRAWING**

THESE DRAWINGS HAVE BEEN REVISED TO REFLECT MAJOR CHANGES, IF ANY, WHICH OCCURRED DURING CONSTRUCTION. REVISIONS ARE BASED UPON INFORMATION SUPPLIED BY CONTRACTOR.

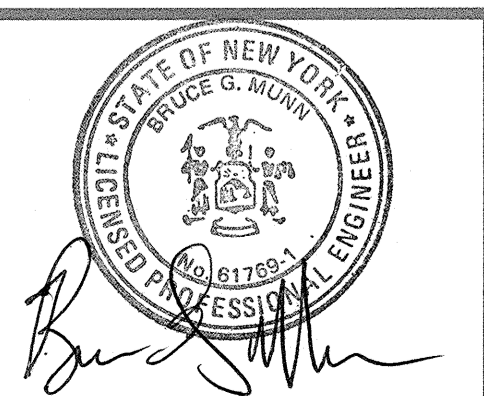
DATE: 10/16/16 PER: BGM



No	Revision	Note	Drawn	Job Manager	Project Director	Date
2	FOR RECORD		TAW	RCF	BGM	06/16
1	FOR ADDENDUM NO. 1		TAW	RCF	BGM	06/16
0	FOR BID		SFB	RCF	BGM	08/2014

**NOTES:**  
UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.

IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

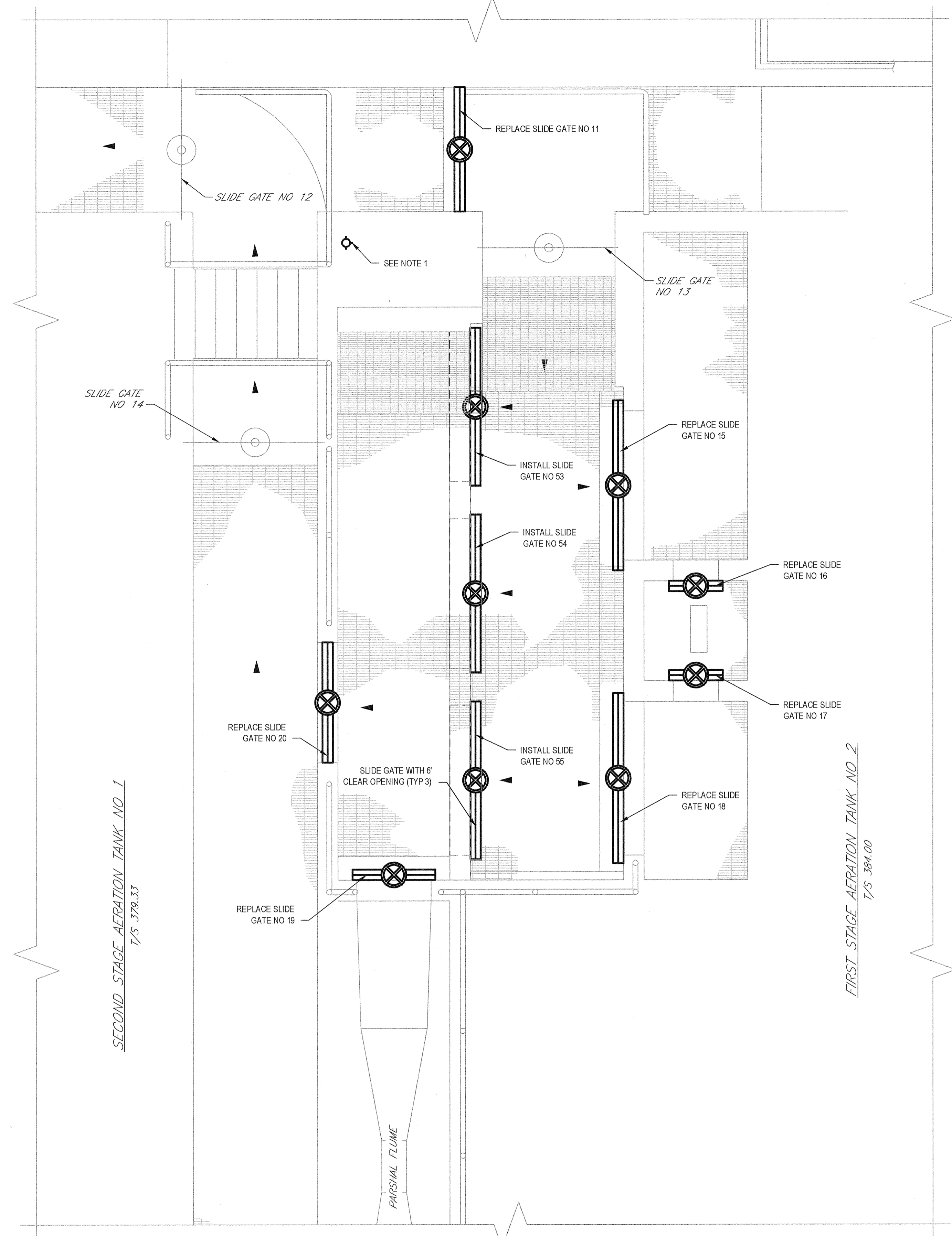


**GHD**  
GHD Consulting Services Inc.  
One Remington Park Drive  
Cazenovia NY 13035 USA  
T 1 315 679 5800 F 1 315 679 5801  
E cazmail@ghd.com W www.ghd.com

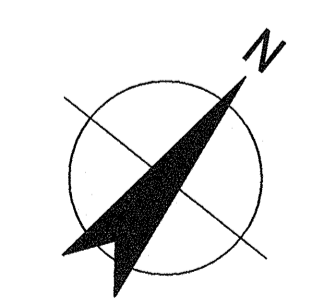
Drawn	SFB	Designer	SFB
Drafting Check	SFB	Design Check	EJP
Approved (Project Director)	Date		
Scale	1/16"=1'-0"		

Client: **ONONDAGA COUNTY DWEP**  
Project: **BSK WWTP IMMEDIATE IMPROVEMENTS**  
Title: **PARTIAL UPPER PLAN GATE REPLACEMENT LOCATIONS**  
Contract No. 1  
Arch D Drawing No: **86-16538-M006**  
Rev: 2



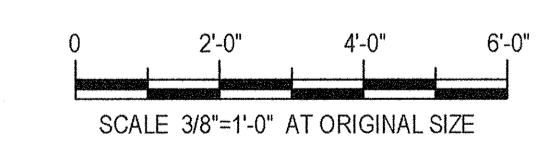


**PARTIAL PLAN**  
SCALE: 3/8"=1'-0"



**RECORD DRAWING**  
THESE DRAWINGS HAVE BEEN REVISED TO REFLECT MAJOR CHANGES, IF ANY, WHICH OCCURRED DURING CONSTRUCTION. REVISIONS ARE BASED UPON INFORMATION SUPPLIED BY CONTRACTOR.  
DATE 06/16/16 PER BGM

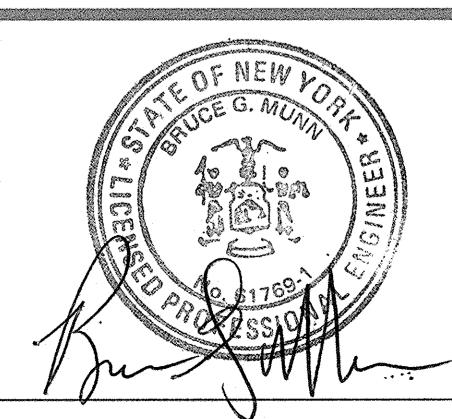
- NOTES:**
1. INSTALL NEW BALL VALVE, YARD HYDRANT AND PIPING TO CONNECT TO EXISTING NON-POTABLE WATER SUPPLY PIPING.
  2. SEE SHEET S004 FOR STRUCTURAL MODIFICATIONS TO CHANNEL.



No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
1	FOR RECORD		TAW	RCF	BGM	06/16
0	FOR BID		SFB	RCF	BGM	08/2014

**NOTES:**  
UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.

IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



**GHD**  
GHD Consulting Services Inc.  
One Remington Park Drive  
Cazenovia NY 13035 USA  
T 1 315 679 5800 F 1 315 679 5801  
E cazmail@ghd.com W www.ghd.com

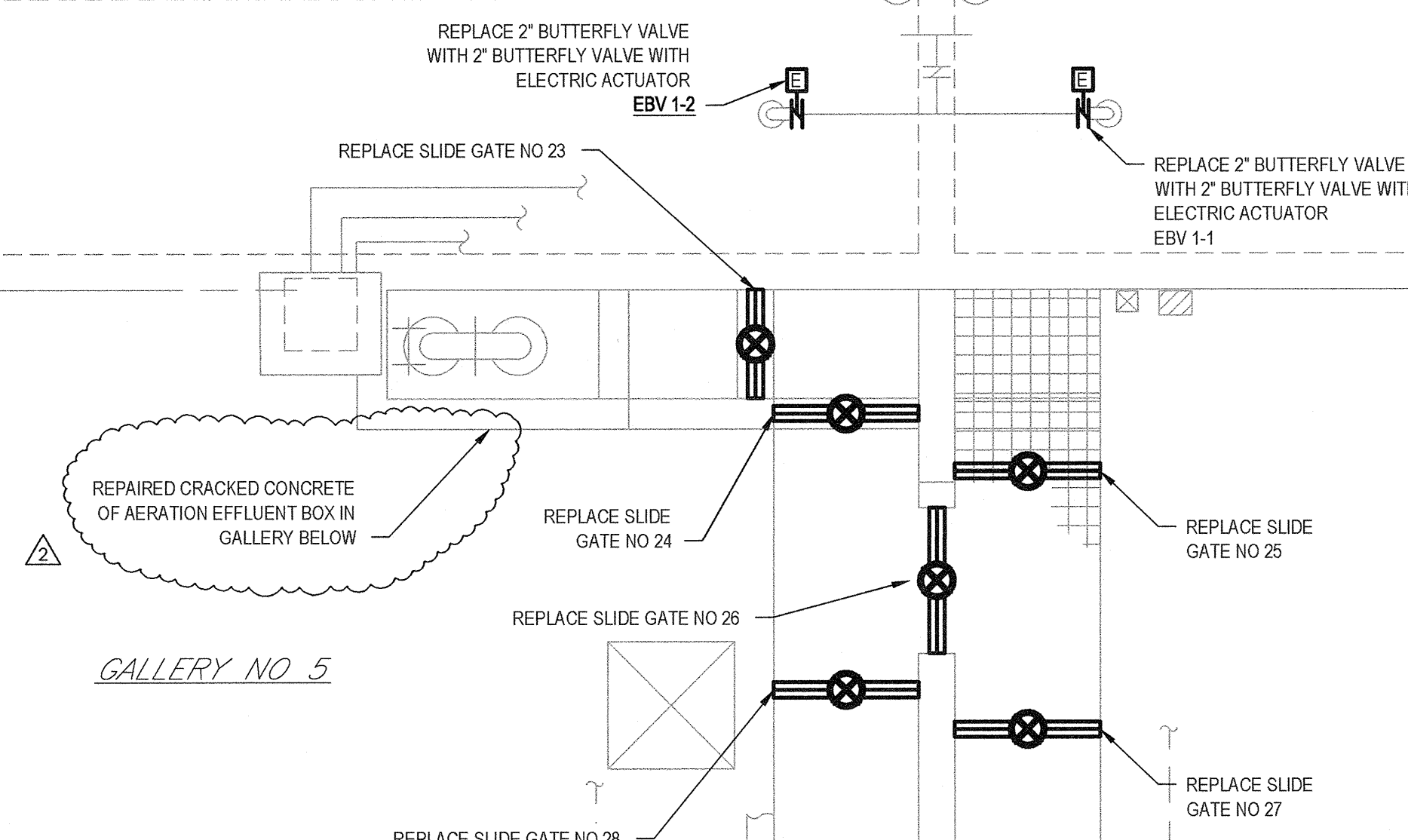
Drawn	SFB	Designer	SFB
Drafting Check	SFB	Design Check	EJP
Approved (Project Director)	Date		
Scale	3/8"=1'-0"		

Client **ONONDAGA COUNTY DWEP**  
Project **BSK WWTP IMMEDIATE IMPROVEMENTS**  
Title **AERATION TANKS DISTRIBUTION CHANNELS PLAN**  
Contract No. 1  
Original Size  
Arch D Drawing No: **86-16538-M007**  
Rev: 1



SEE BELOW FOR CONTINUATION

FIRST STAGE AERATION TANKS



NOTES:

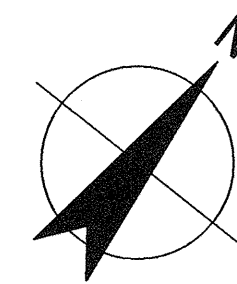
1. CONTROL PANEL FOR NEW HPO ELECTRIC ACTUATED BUTTERFLY VALVES SHOWN ON SHEET M004.

2. INSULATION AND JACKETING TO BE REPAIRED / REPLACED AFTER REPLACEMENT OF VALVES. MATCH EXISTING

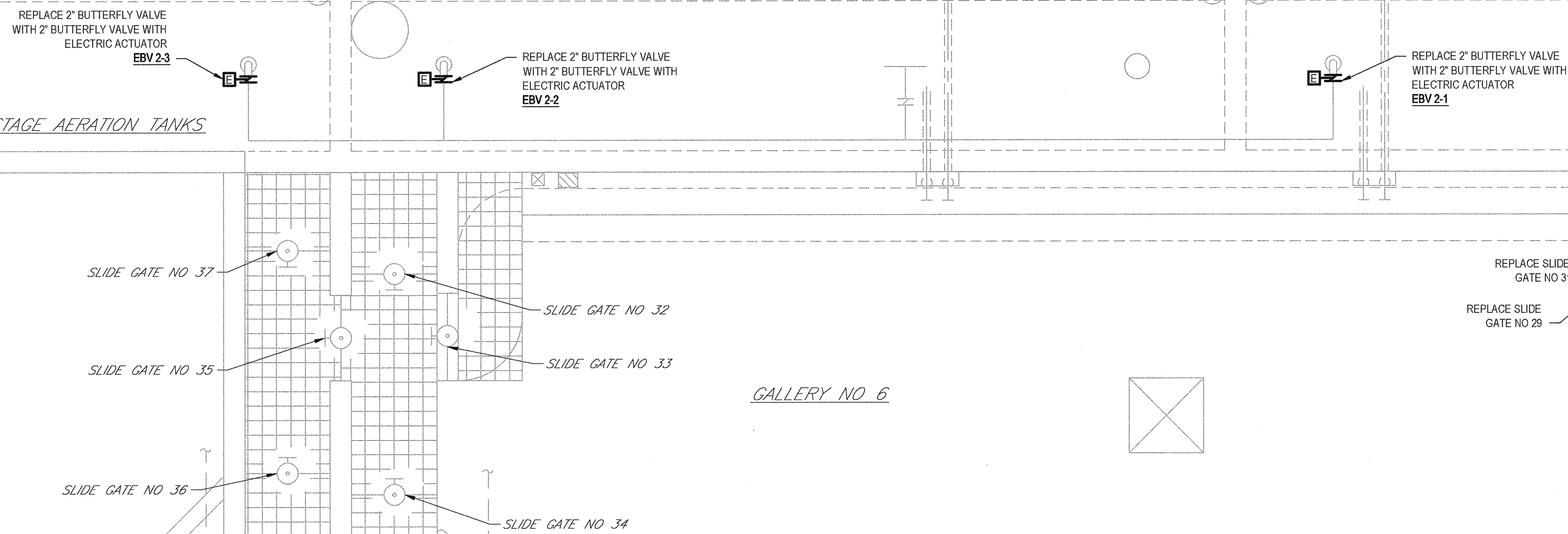
3. EXISTING HEAT TRACING ON HPO VENT LINE TO REMAIN INTACT. CONTRACTOR SHALL REPLACE/REPAIR/RETURN HEAT TRACING TO ORIGINAL CONDITIONS IF DISTURBED DURING WORK.

PARTIAL PLAN

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

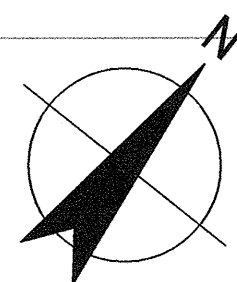


SECOND STAGE AERATION TANKS



PARTIAL PLAN

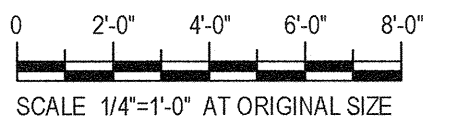
SCALE: 1/4" = 1'-0"



RECORD DRAWING

THESE DRAWINGS HAVE BEEN REVISED TO REFLECT MAJOR CHANGES, IF ANY, WHICH OCCURRED DURING CONSTRUCTION. REVISIONS ARE BASED UPON INFORMATION SUPPLIED BY CONTRACTOR.

DATE: 06/16/16 PER: SFB



SCALE: 1/4" = 1'-0" AT ORIGINAL SIZE

SEE ABOVE FOR CONTINUATION

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
3	FOR RECORD		TAM	RCF	BGM	06/16
2	REVISED DURING CONSTRUCTION		TAM	RCF	BGM	06/16
1	FOR ADDENDUM NO. 1		TAW	RCF	BGM	06/16
0	FOR BID		SFB	RCF	BGM	08/2014

**NOTES:**

UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.

IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

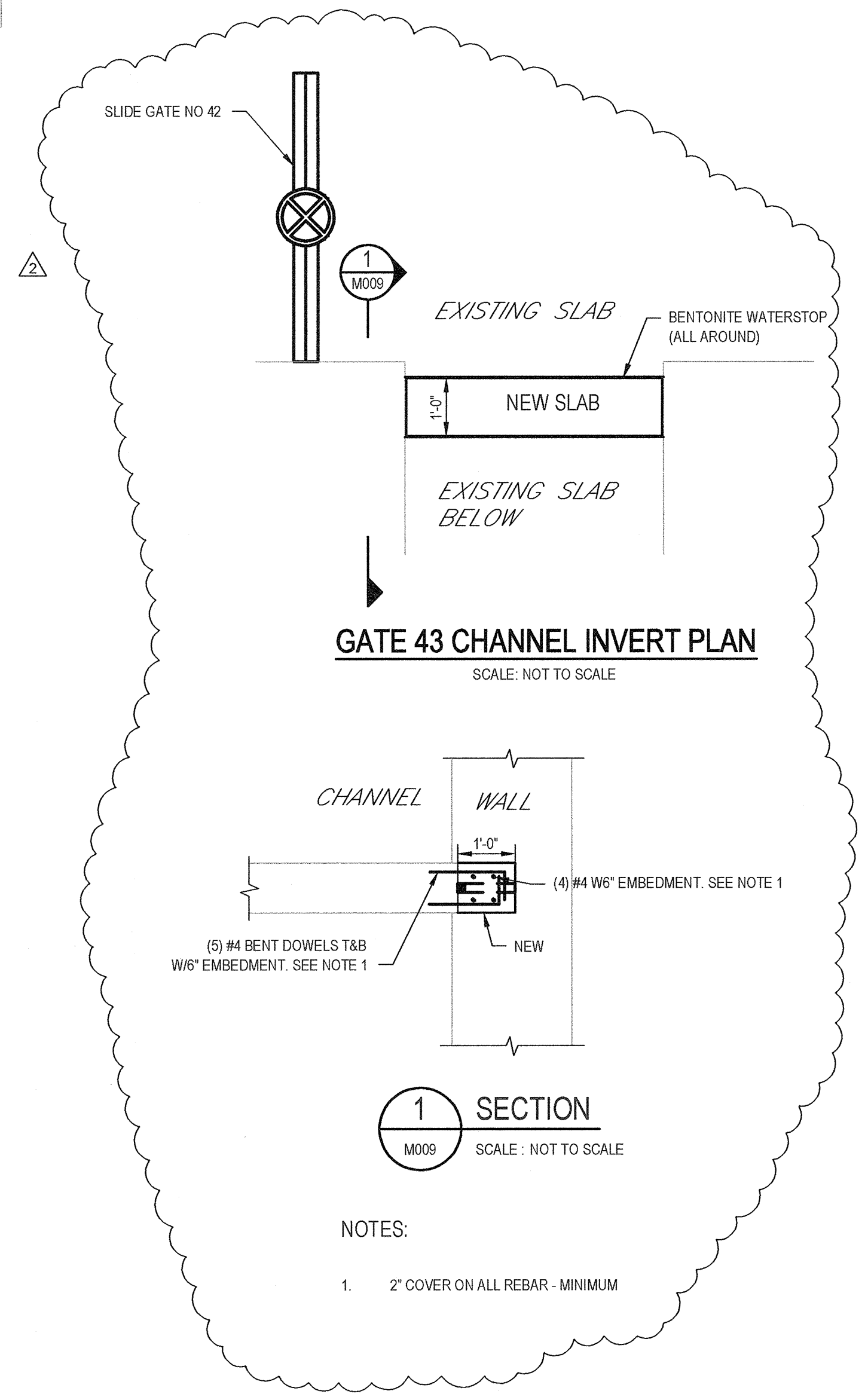
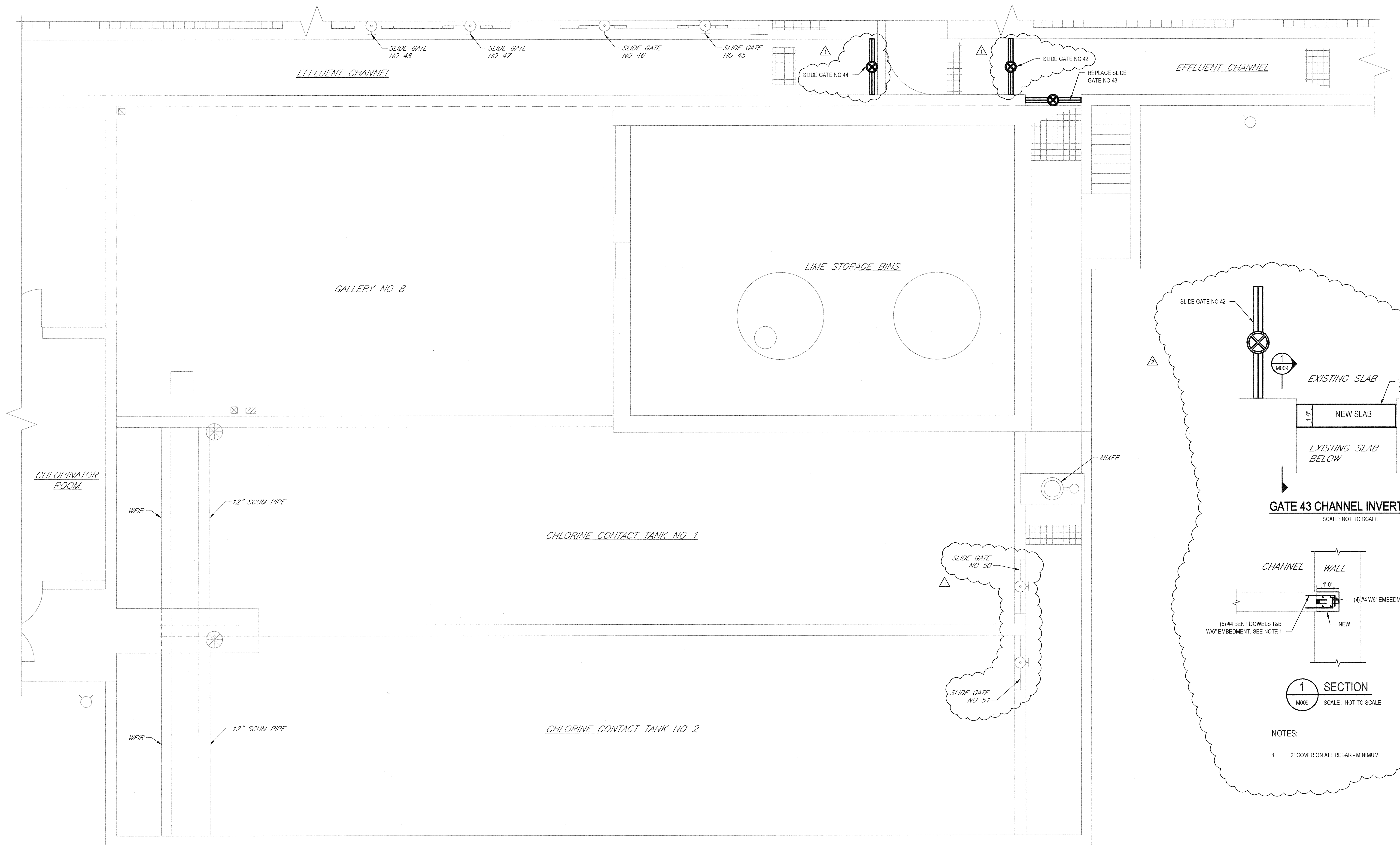


**GHD**  
 GHD Consulting Services Inc.  
 One Remington Park Drive  
 Cazenovia NY 13035 USA  
 T 1 315 679 5800 F 1 315 679 5801  
 E cazmail@ghd.com W www.ghd.com

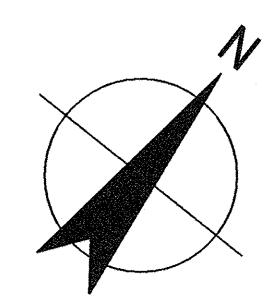
Drawn	SFB	Designer	SFB
Drafting Check	SFB	Design Check	EJP
Approved (Project Director)	Date		
Scale	1/4" = 1'-0"		

Client: **ONONDAGA COUNTY DWEP**  
 Project: **BSK WWTP IMMEDIATE IMPROVEMENTS**  
 Title: **GALLERY NOS 5 AND 6 PARTIAL UPPER PLANS**  
 Contract No.: 1  
 Arch D Drawing No: **86-16538-M008**  
 Rev: 3

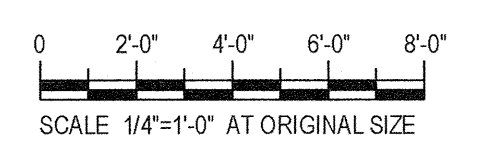




**PARTIAL PLAN**  
SCALE: 1/4" = 1'-0"

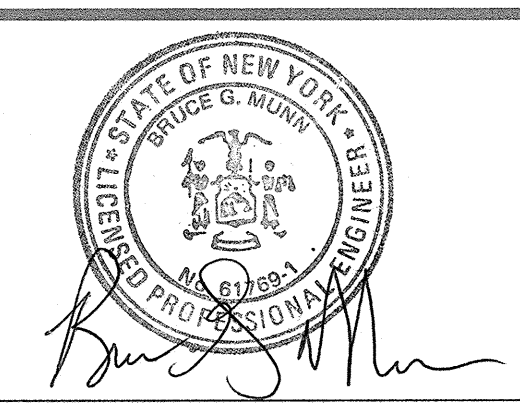


**RECORD DRAWING**  
THESE DRAWINGS HAVE BEEN REVISED TO REFLECT MAJOR CHANGES, IF ANY, WHICH OCCURRED DURING CONSTRUCTION. REVISIONS ARE BASED UPON INFORMATION SUPPLIED BY CONTRACTOR.  
DATE: 06/16 PER: REM



No	Revision	Note	Drawn	Job Manager	Project Director	Date
3	FOR RECORD		TAW	RCF	BGM	06/16
2	REVISED FOR CONSTRUCTION		TAW	RCF	BGM	06/16
1	FOR ADDENDUM NO. 1		TAW	RCF	BGM	06/16
0	FOR BID		SFB	RCF	BGM	08/2014

**NOTES:**  
UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.  
IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



**GHD**  
GHD Consulting Services Inc.  
One Remington Park Drive  
Cazenovia NY 13035 USA  
T 1 315 679 5800 F 1 315 679 5801  
E cazmail@ghd.com W www.ghd.com

Drawn	SFB	Designer	SFB
Drafting Check	SFB	Design Check	EJP
Approved (Project Director)	Date		
Scale	1/4"=1'-0"		

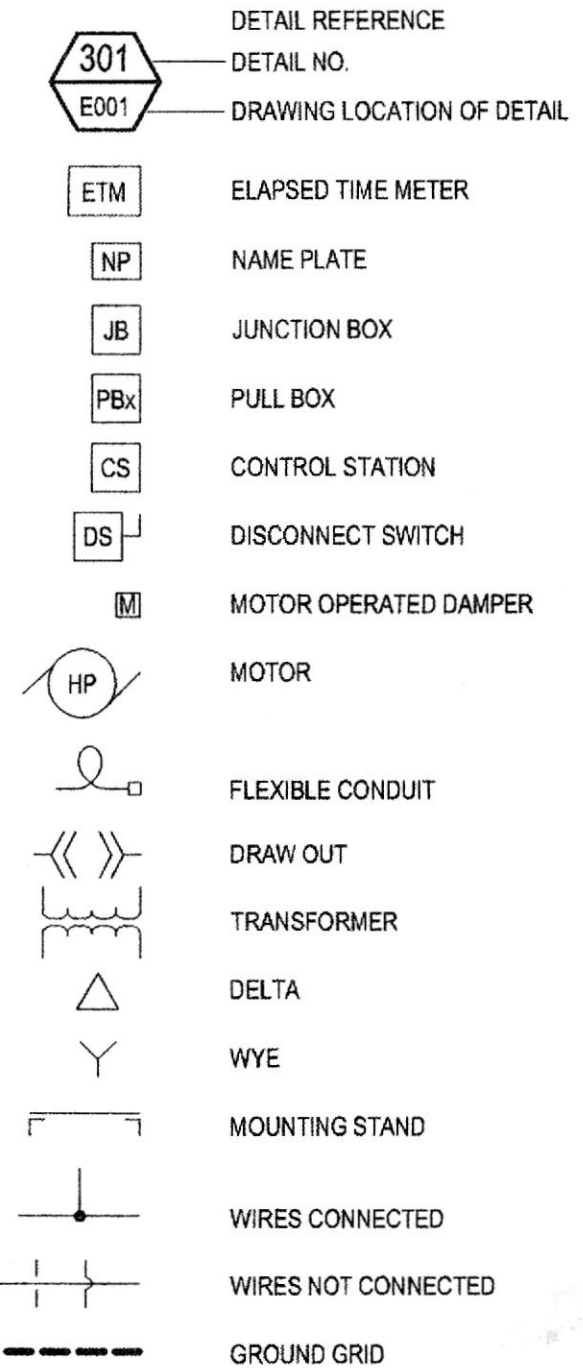
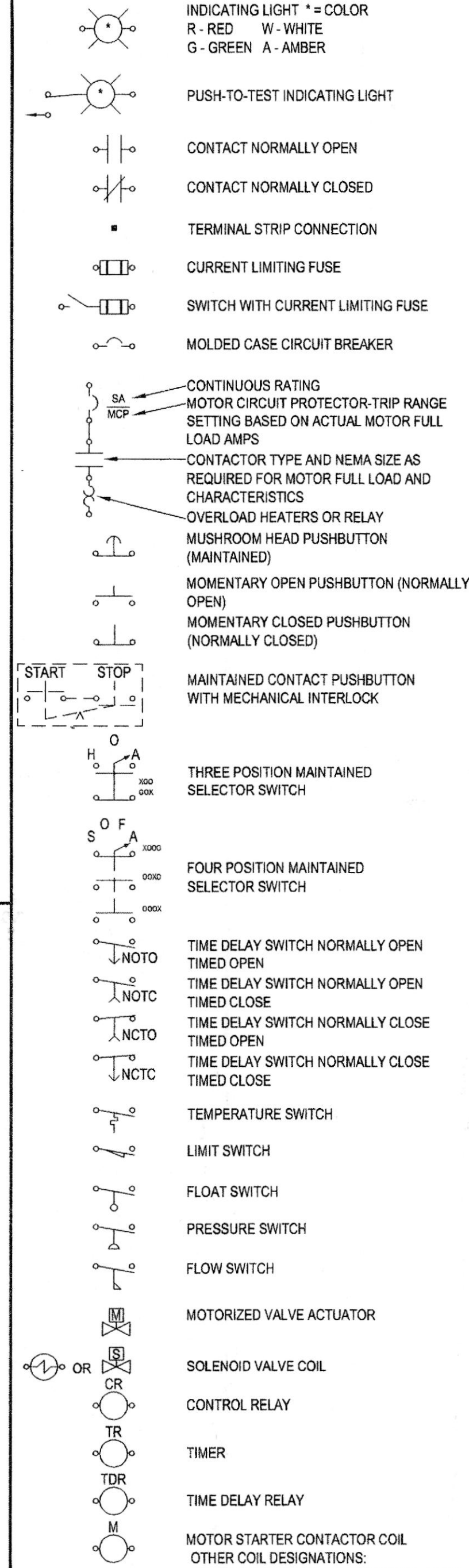
Client: **ONONDAGA COUNTY DWEP**  
Project: **BSK WWTP IMMEDIATE IMPROVEMENTS**  
Title: **CHLORINE CONTACT TANKS PLAN**  
Contract No. 1  
Original Size: Arch D  
Drawing No: **86-16538-M009**  
Rev: 3



ABBREVIATIONS

Table of electrical abbreviations including AC (AMPERE), AF (ALTERNATING CURRENT), AFG (AMPERE FRAME SIZE), etc.

SYMBOLS



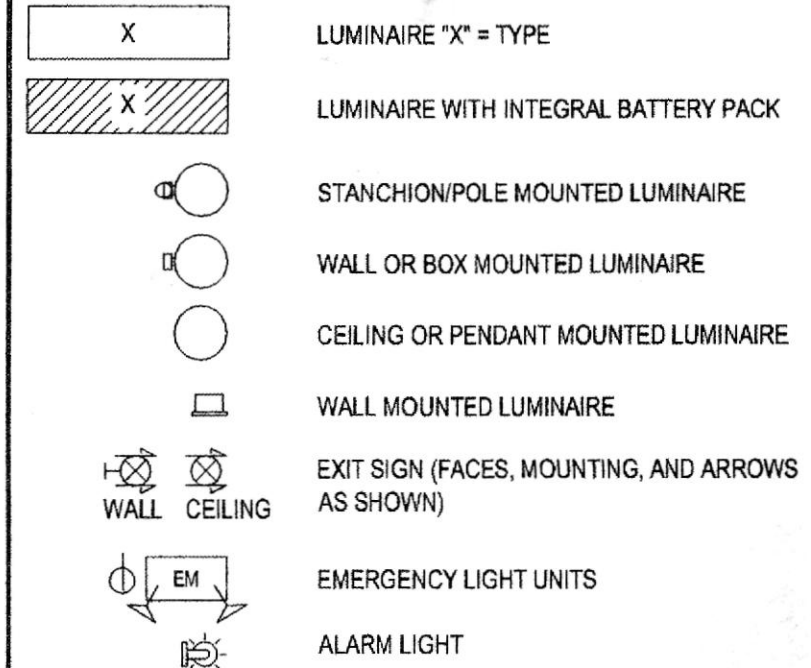
LIGHTING NOTES

- 1. INSTALL LIGHTING FIXTURES IN LOCATIONS AS SHOWN OR AS NOTED... 2. CONNECT FIXTURES ON CIRCUITS AS SHOWN ON DRAWINGS... 3. CLEAN EACH FIXTURE AT TIME OF SUBSTANTIAL COMPLETION...

CONDUIT LABELING LEGEND

- 1. POWER CONDUIT (EXAMPLE: P-101-01 480V POWER FROM MCC-1, EQUIPMENT NO. 101, CONDUIT NO. 1) 2. PANELBOARD POWER CIRCUIT (EXAMPLE: P-EPA-10-0123 480V POWER FROM PANELBOARD EPA, CIRCUITS 10,12,14, COND # 123) 3. CONTROL POWER CIRCUIT (EXAMPLE: C-01-0030 CONTROL FROM PLC NO. 1, CONDUIT NO. 30) 4. TELEPHONE SYSTEM TELEPHONE.

LIGHTING SYMBOLS



GROUNDING NOTES

- 1. THE GROUNDING SYSTEM IS SHOWN DIAGRAMMATICALLY. EXACT LOCATION OF CABLE GROUND RODS AND CONNECTIONS SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD. 2. ALL BURIED GROUNDING CABLE CONNECTIONS SHALL BE CADCWELDED OR THERMOWELDED...

NEW / EXISTING TEXT IDENTIFIER

- NEW WORK, EQUIPMENT AND STRUCTURES ARE SHOWN IN THIS TEXT FORMAT. EXISTING EQUIPMENT, CONNECTIONS AND STRUCTURES ARE SHOWN IN THIS TEXT FORMAT.

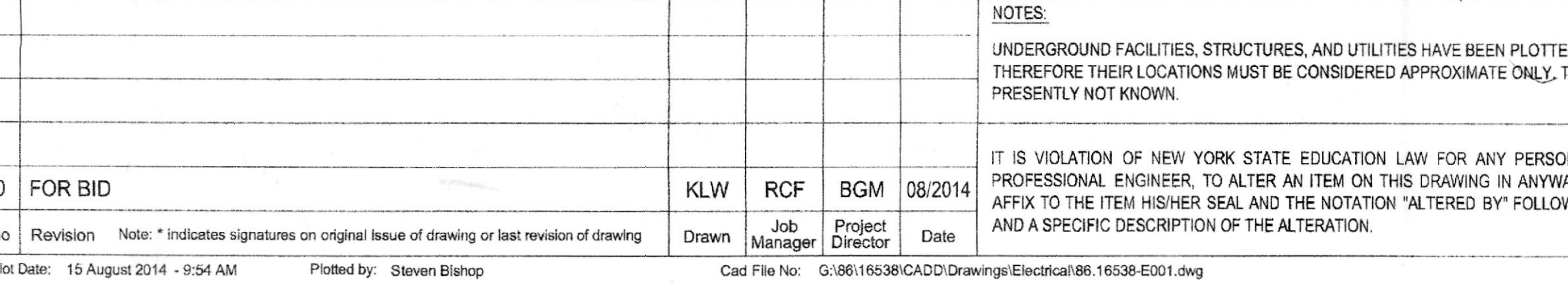
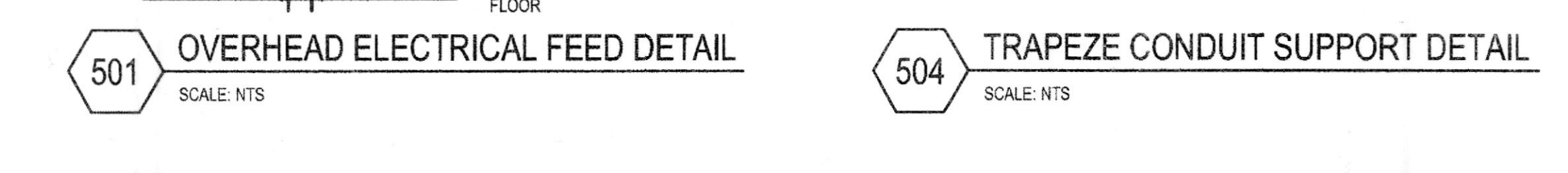
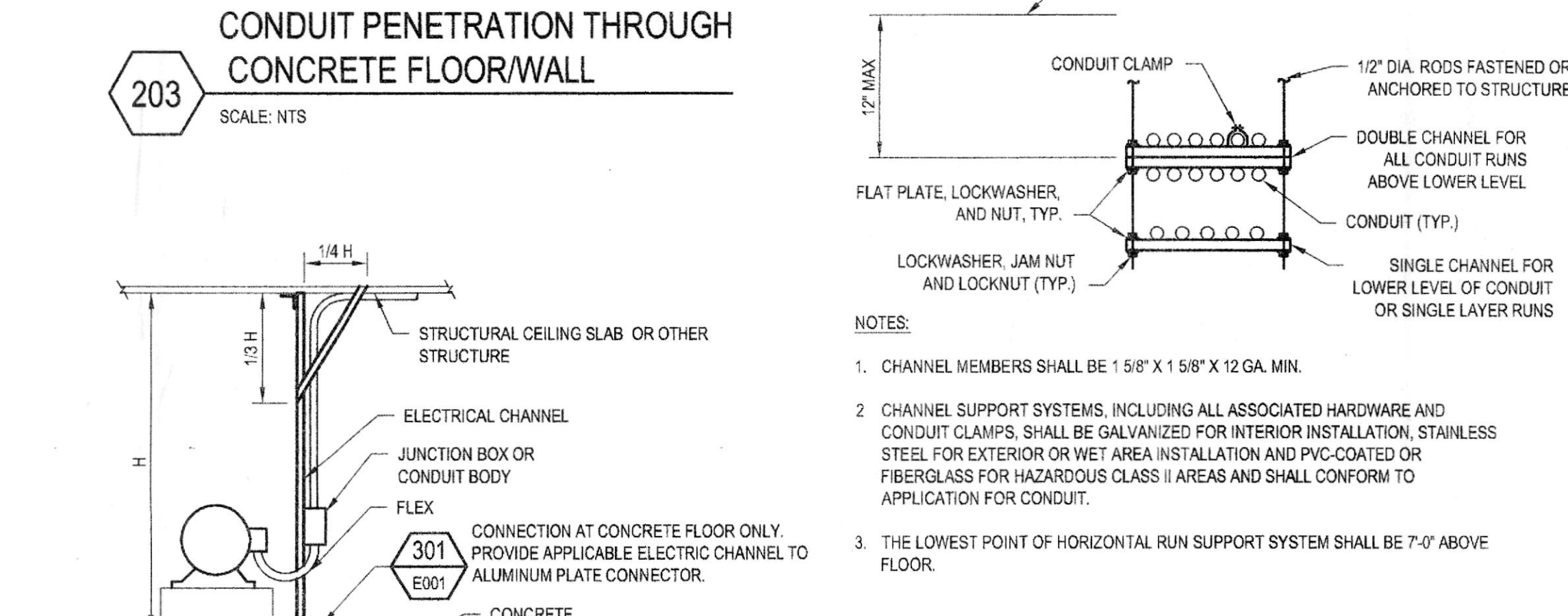
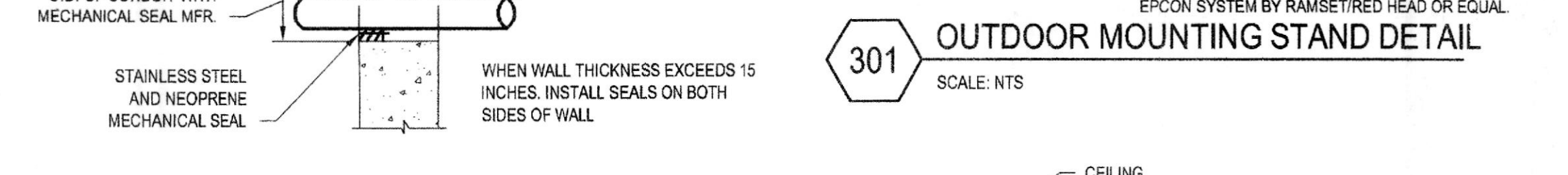
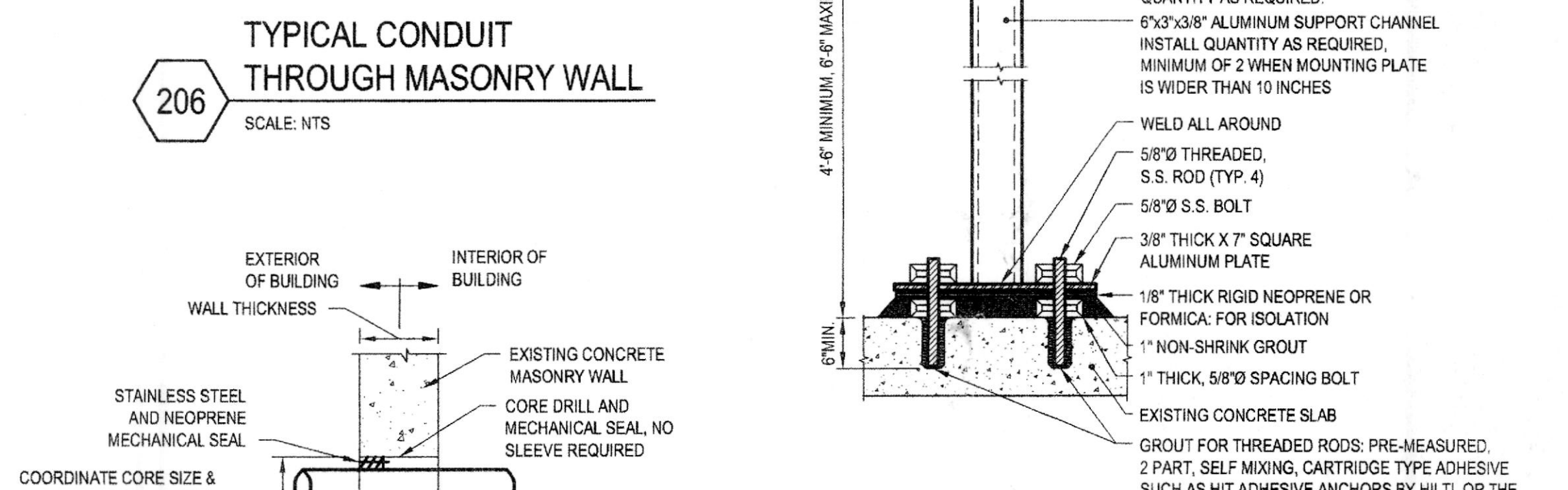
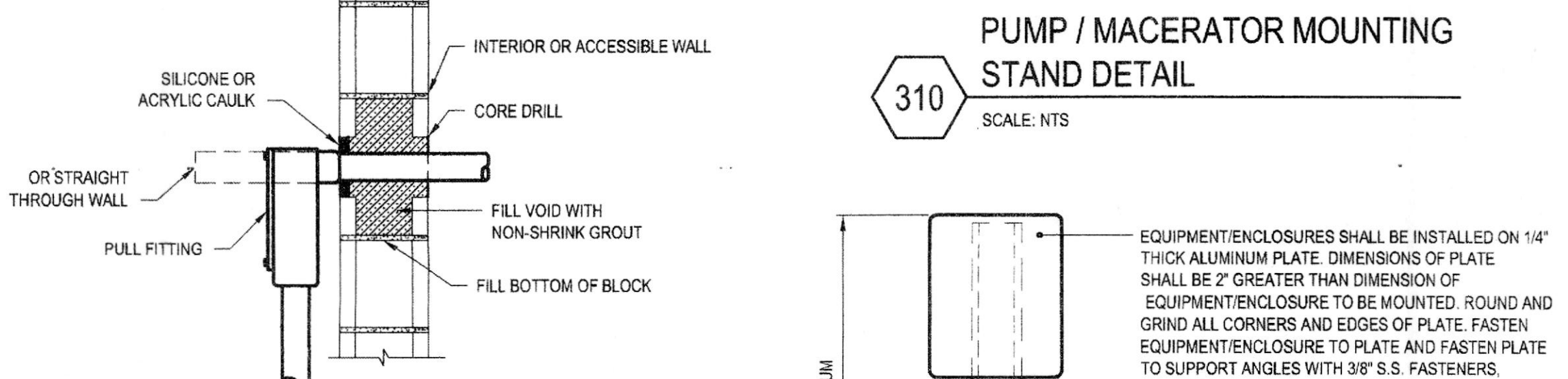
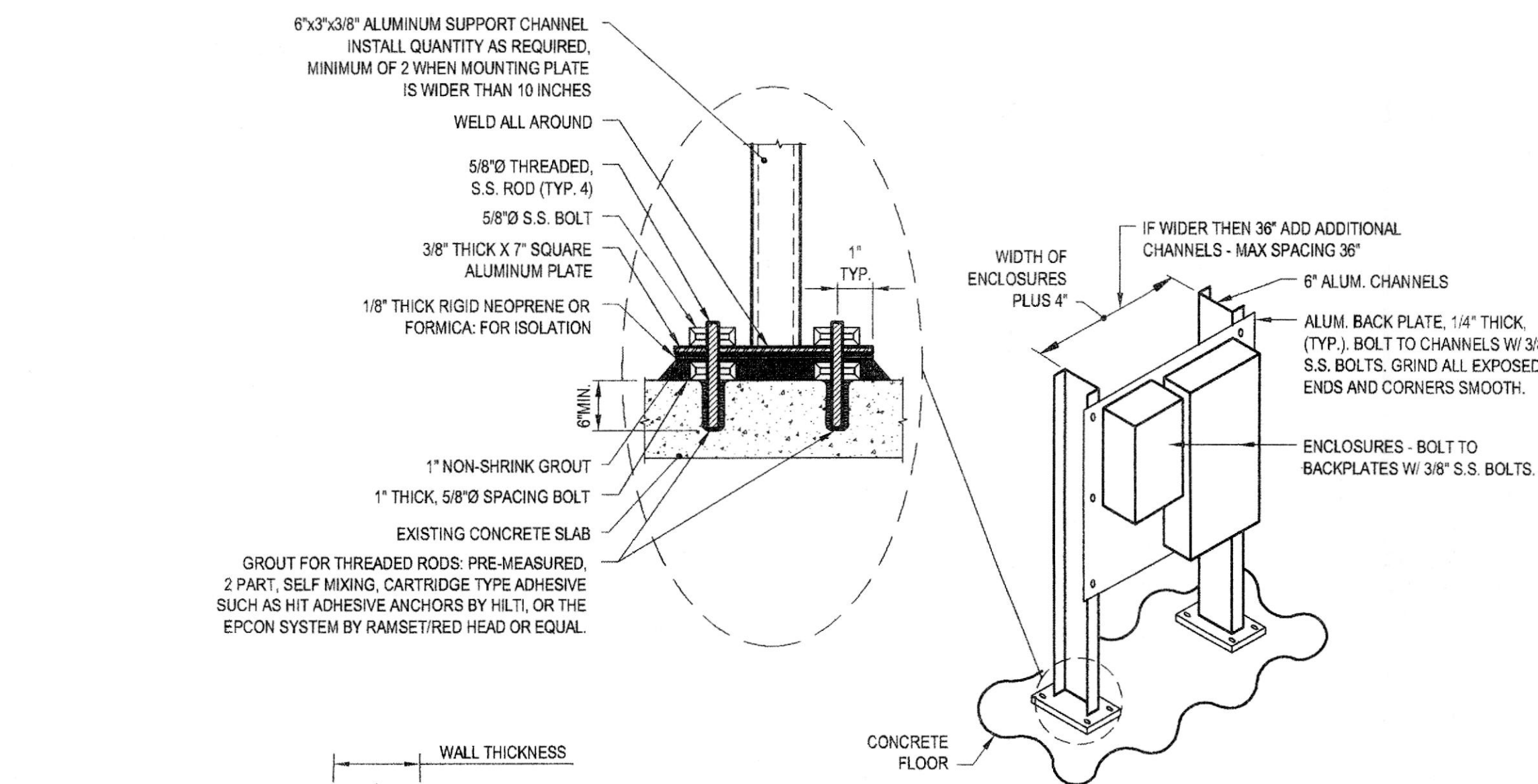


Table with columns: No., Revision, Date, Drawn, Job Manager, Project Director, Date. Includes notes about underground facilities and professional engineer requirements.

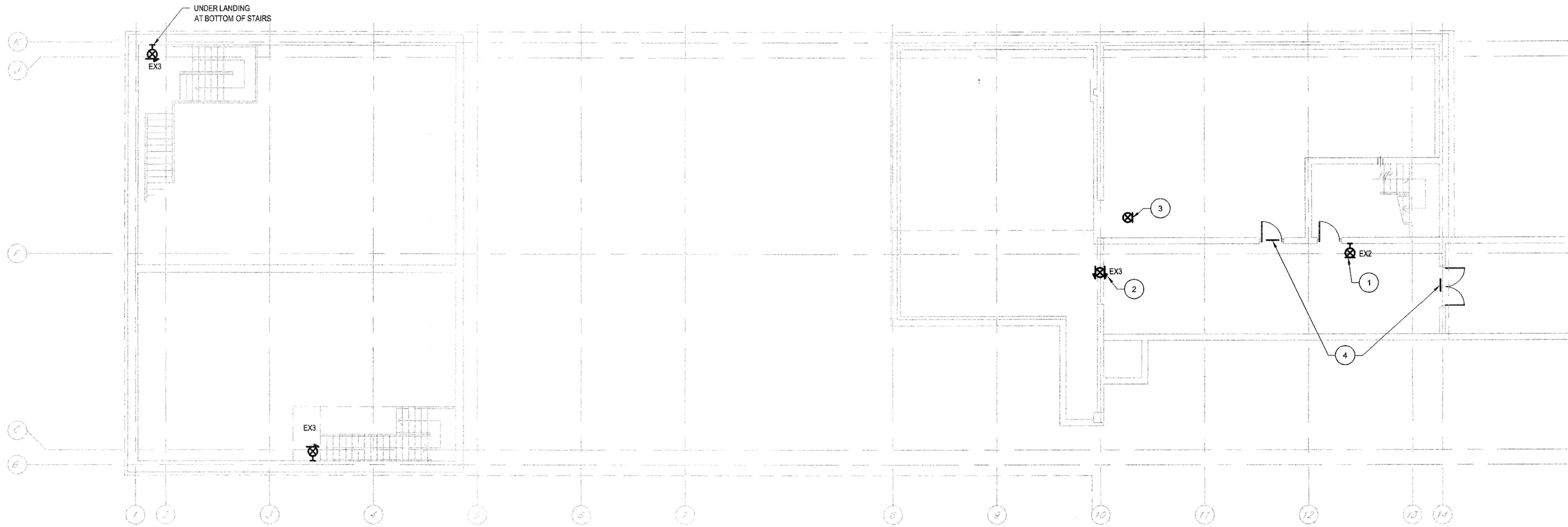


GHD Consulting Services Inc. One Remington Park Drive, Casanovia NY 13036 USA. T 1 315 679 5800. F 1 315 679 5801. E czamzli@ghd.com W www.ghd.com

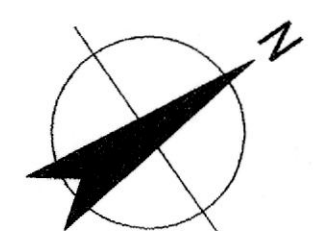
Table with columns: Drawn (KLW), Designer (WPH), Drafting Check (TSA), Design Check (WPH), Approved (Project Director), Date (9/12/14), Scale (AS SHOWN).

Table with columns: Client (ONONDAGA COUNTY DWEP), Project (BSK WWTP IMMEDIATE IMPROVEMENTS), Title (ABBREVIATIONS, SYMBOLS, NOTES AND DETAILS), Contract No. (2), Drawing No. (86-16538-E001), Rev. (0).

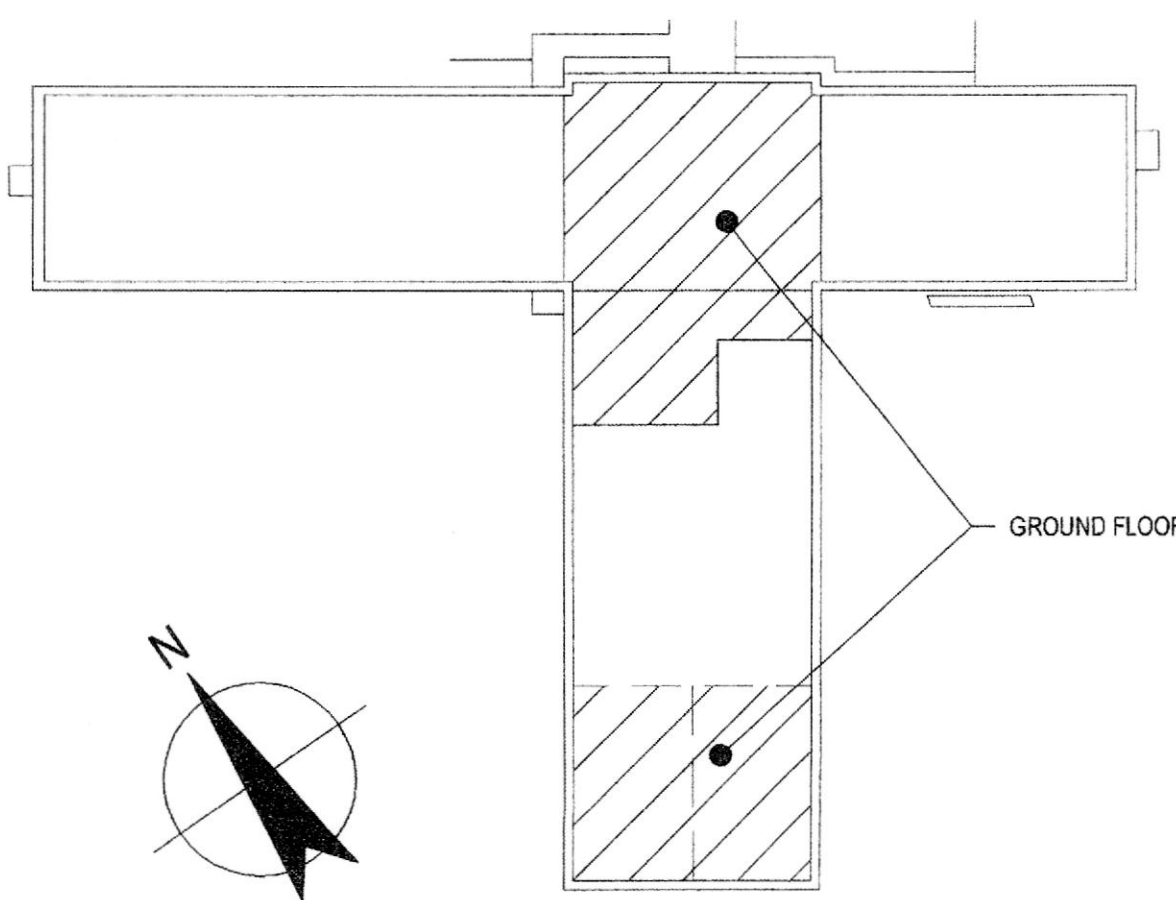




**GROUND FLOOR LIGHTING PLAN**  
SCALE 1/8" = 1'-0"



- GENERAL NOTES:**
- A. BACKGROUNDS MAY NOT REFLECT EXACT EXISTING CONDITIONS. CONTRACTOR SHALL FIELD VERIFY.
- KEYED NOTES:**
- 1 REPLACE EXISTING EXIT SIGN WITH TYPE NOTED. RELOCATE POWER CONNECTION SO NEW EXIT SIGN IS ~12' CLOSER TO THE DOOR THAN THE EXISTING (TO THE OTHER SIDE OF PIPE SUPPORT). EXTEND CONDUIT AND WIRE (3/4" W/ 2#12, #12 GND).
  - 2 PENDANT MOUNT EXIT SIGN 8' ABOVE FLOOR BELOW DRAIN PIPE.
  - 3 CEILING-MOUNT EXIT SIGN AWAY FROM DOOR TO AVOID DOOR SWING.
  - 4 PROVIDE NON-LUMINOUS SIGN READING "NOT AN EXIT" ABOVE DOOR. PROVIDE DOOR OR PENDANT MOUNTING AS APPLICABLE.



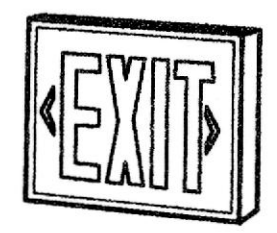
**KEY PLAN**  
NOT TO SCALE

1. SELF-LUMINOUS TRITIUM EXIT SIGN.
2. REQUIRES NO AC POWER.
3. TOP BACK OR END MOUNT.
4. COMPLETELY SEALED TRITIUM-FILLED GAS TUBES.
5. UL LISTED WET LOCATION / EXPLOSION PROOF.
6. SIX INCH LETTERS
7. MOUNTING, FACES AND ARROWS AS SHOWN ON DRAWING
8. RED LED FACE, WHITE HOUSING COLOR
9. 20-YEAR LUMINOUS LIFE



**LUMINAIRE 'EX3' SPECIFICATION**  
NOT TO SCALE

1. EXIT SIGN.
2. TOP BACK OR END MOUNT.
3. IMPACT-RESISTANT, DIE-CAST ALUMINIUM HOUSING.
4. SIX INCH LETTERS
5. MOUNTING, FACES AND ARROWS AS SHOWN ON DRAWING
6. UNIVERSAL CHEVRON ARROWS
7. RED LED FACE
8. DUAL VOLTAGE 120/277VOLT.
9. SELF CONTAINED EMERGENCY SEALED NICKEL-CADMIUM BATTERY BACKUP POWER TO PROVIDE A MINIMUM OF 90 MINUTES OF ILLUMINATION. SOLID STATE BATTERY CHARGING CIRCUIT WITH SELF DIAGNOSTIC AND TEST SWITCH.



**MANUFACTURERS:**  
LITHONIA: LQC SERIES  
MCPHILBEN DAY-BRITE  
SURE-LITES  
OR APPROVED EQUAL

**LUMINAIRE 'EX2' SPECIFICATION**  
NOT TO SCALE

1. EXIT SIGN.
2. TOP BACK OR END MOUNT.
3. IMPACT-RESISTANT, THERMOPLASTIC HOUSING.
4. SIX INCH LETTERS
5. MOUNTING, FACES AND ARROWS AS SHOWN ON DRAWING
6. UNIVERSAL CHEVRON ARROWS
7. RED LED FACE
8. DUAL VOLTAGE 120/277VOLT.
9. SELF CONTAINED EMERGENCY SEALED NICKEL-CADMIUM BATTERY BACKUP POWER TO PROVIDE A MINIMUM OF 90 MINUTES OF ILLUMINATION. SOLID STATE BATTERY CHARGING CIRCUIT WITH SELF DIAGNOSTIC AND TEST SWITCH.



**MANUFACTURERS:**  
LITHONIA: LQM SERIES  
MCPHILBEN DAY-BRITE: CXX SERIES  
OR APPROVED EQUAL

**LUMINAIRE 'EX1' SPECIFICATION**  
NOT TO SCALE

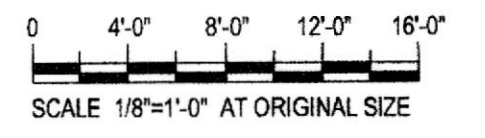
**NOTES:**  
UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.

IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



Drawn	TSA	Designer	TSA
Drafting Check	TSA	Design Check	WFH
Approved (Project Director)	<i>[Signature]</i>		
Date	9/12/14		
Scale	AS NOTED		

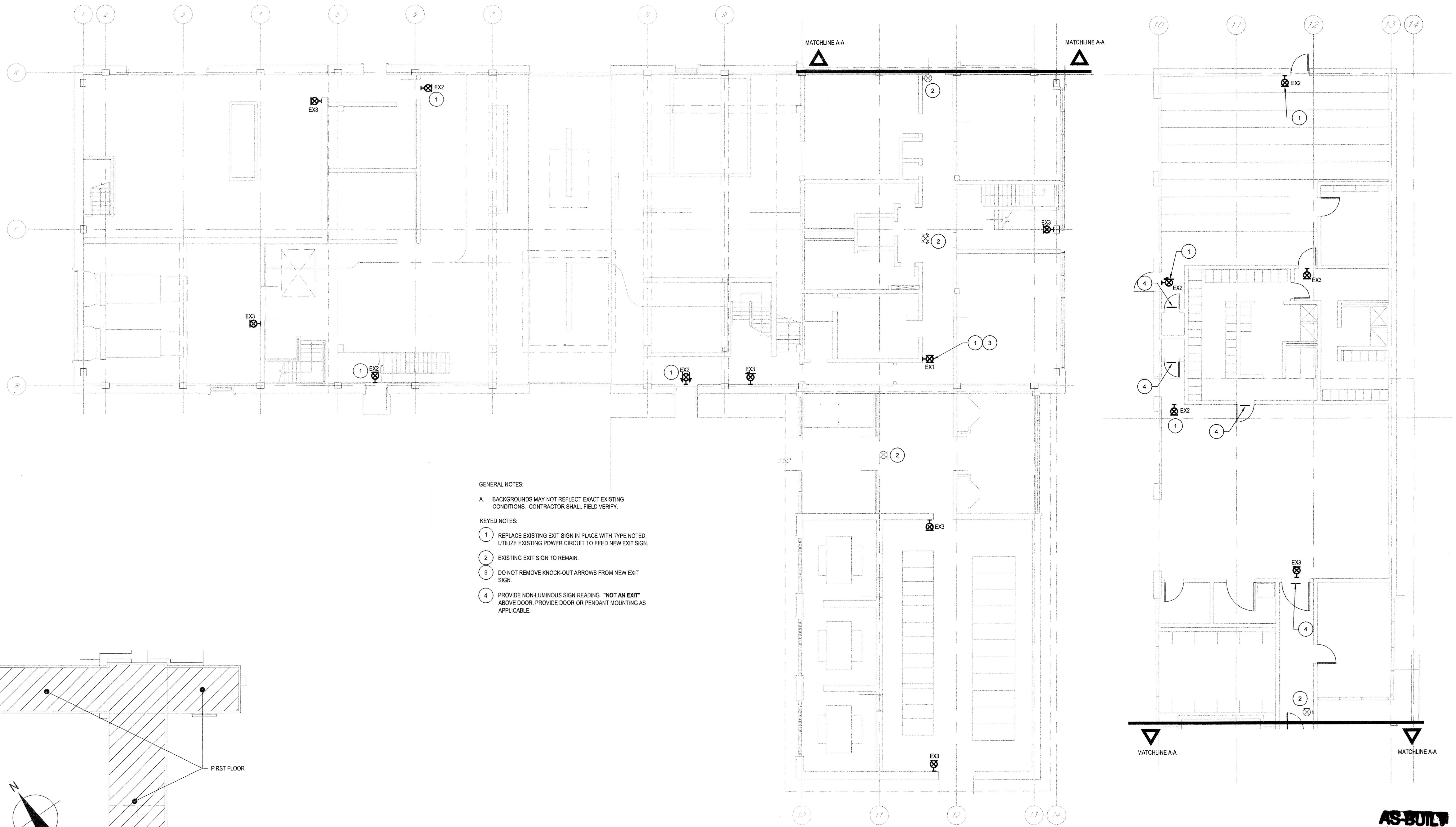
Client	<b>ONONDAGA COUNTY DWEP</b>
Project	<b>BSK WWTP IMMEDIATE IMPROVEMENTS</b>
Title	<b>CONTROL BUILDING GROUND FLOOR LIGHTING PLAN</b>
Contract No.	<b>2</b>
Original Size	<b>Arch D</b>
Drawing No.	<b>86-16538-E002</b>
Rev.	<b>0</b>



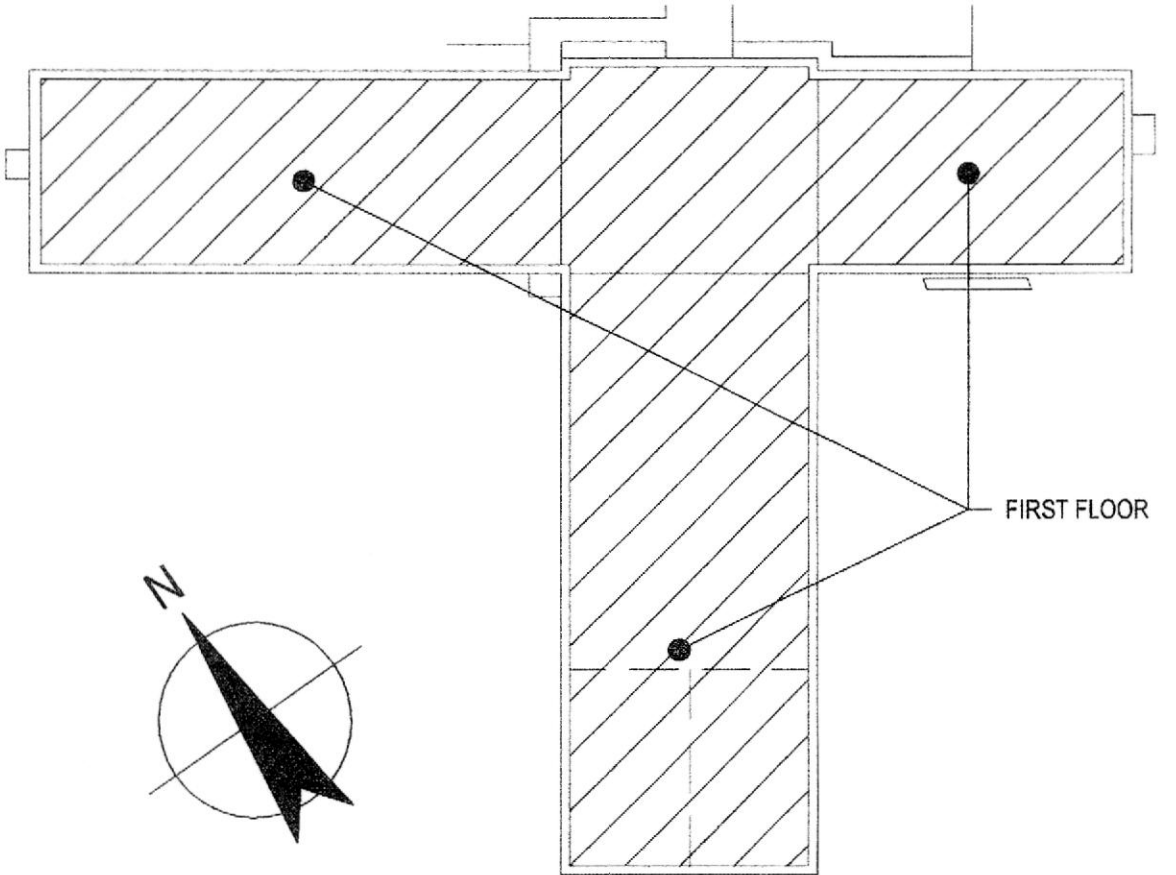
SCALE 1/8"=1'-0" AT ORIGINAL SIZE

**AS-BUILT**  
Vickley Electric Co., Inc.  
8500 Court Street  
Syracuse, NY 13209





- GENERAL NOTES:
- A. BACKGROUNDS MAY NOT REFLECT EXACT EXISTING CONDITIONS. CONTRACTOR SHALL FIELD VERIFY.
- KEYED NOTES:
- 1 REPLACE EXISTING EXIT SIGN IN PLACE WITH TYPE NOTED. UTILIZE EXISTING POWER CIRCUIT TO FEED NEW EXIT SIGN.
  - 2 EXISTING EXIT SIGN TO REMAIN.
  - 3 DO NOT REMOVE KNOCK-OUT ARROWS FROM NEW EXIT SIGN.
  - 4 PROVIDE NON-LUMINOUS SIGN READING "NOT AN EXIT" ABOVE DOOR. PROVIDE DOOR OR PENDANT MOUNTING AS APPLICABLE.



KEY PLAN  
NOT TO SCALE

FIRST FLOOR LIGHTING PLAN  
SCALE 1/8" = 1'-0"

**AS-BUILT**  
Vidley Electric Co., Inc.  
8800 Court Street #103  
Syracuse, NY 13208

SCALE 1/8"=1'-0" AT ORIGINAL SIZE

No	Revision	Note: * Indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
0	FOR BID		TSA	RCF	BGM	08/2014

NOTES:  
UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.

IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

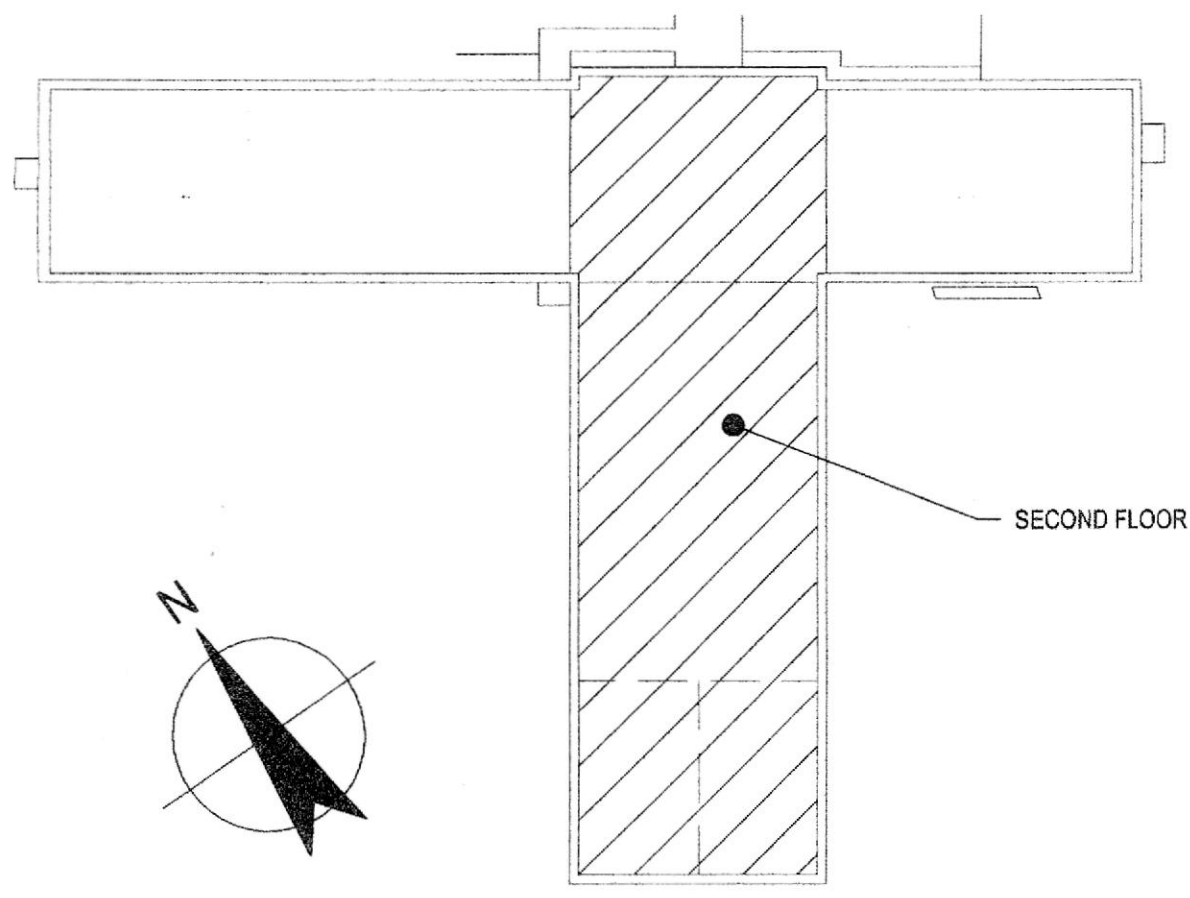
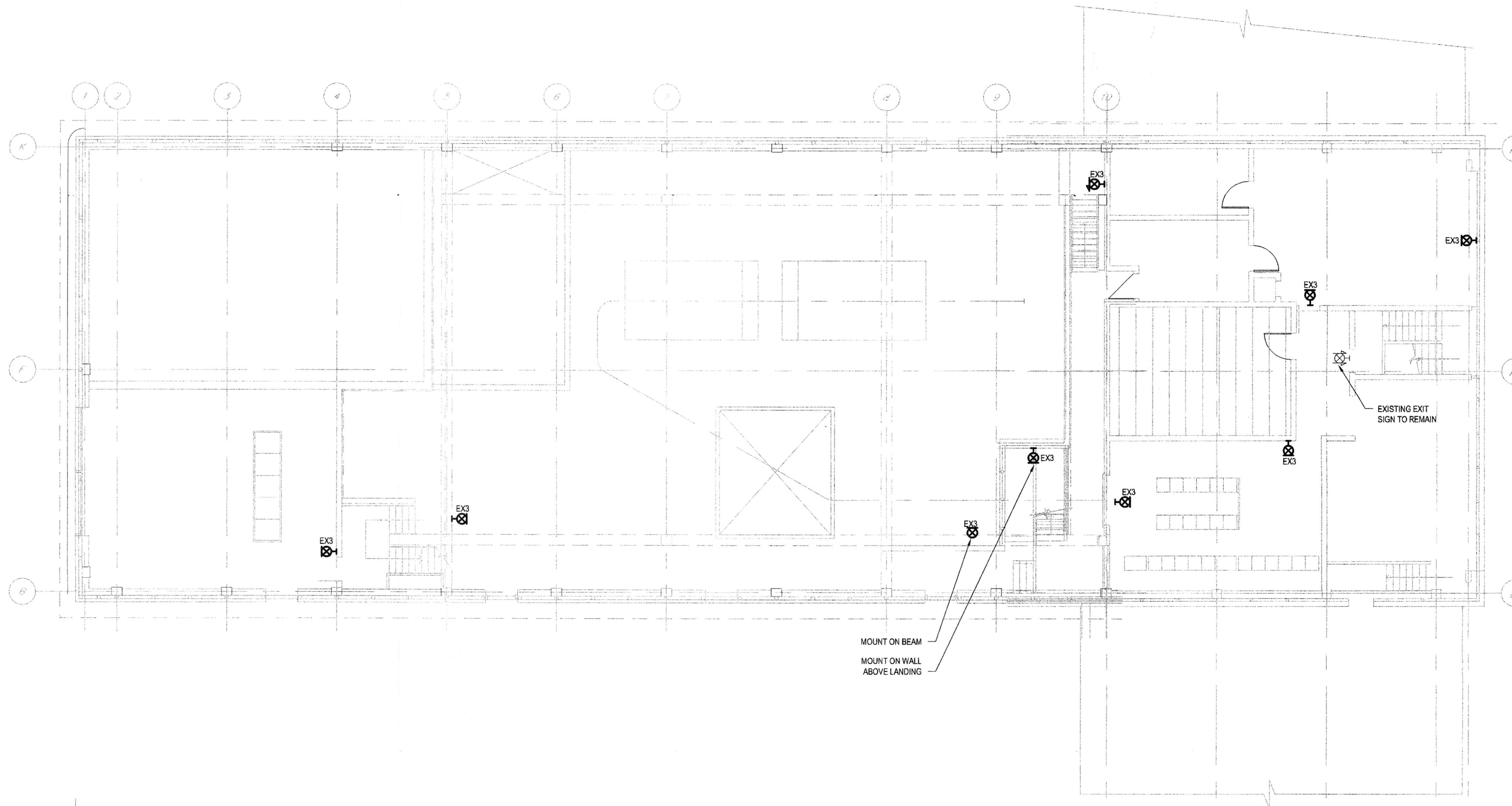


**GHD**  
GHD Consulting Services Inc.  
One Remington Park Drive  
Catskill, NY 13035 USA  
T 1 315 679 5800 F 1 315 679 5801  
E cazmail@ghd.com W www.ghd.com

Drawn	TSA	Designer	TSA
Drafting Check	TSA	Design Check	WFH
Approved (Project Director)	<i>Bruce J. Miller</i>		
Date	9/12/14		
Scale	AS NOTED		

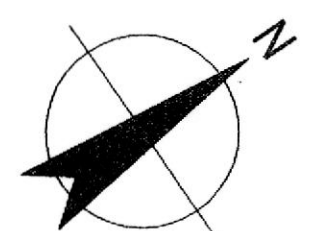
Client	ONONDAGA COUNTY DWEP
Project	BSK WWTP IMMEDIATE IMPROVEMENTS
Title	CONTROL BUILDING FIRST FLOOR LIGHTING PLAN
Contract No.	2
Original Size	Arch D
Drawing No.	86-16538-E003
Rev.	0



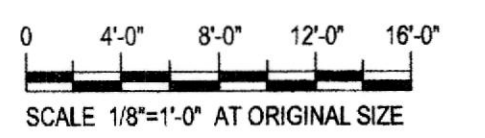


KEY PLAN  
NOT TO SCALE

SECOND FLOOR LIGHTING PLAN  
SCALE 1/8" = 1'-0"



GENERAL NOTES:  
A. BACKGROUNDS MAY NOT REFLECT EXACT EXISTING CONDITIONS. CONTRACTOR SHALL FIELD VERIFY.

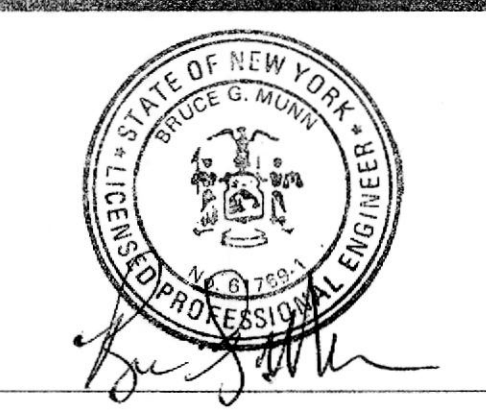


**AS-BUILT**  
Wiley Electric Co., Inc.  
8808 Court Street Rd.  
Syracuse, NY 13209

No.	Revision	Note: * Indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
0	FOR BID		TSA	RCF	BGM	08/2014

**NOTES:**  
UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.

IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

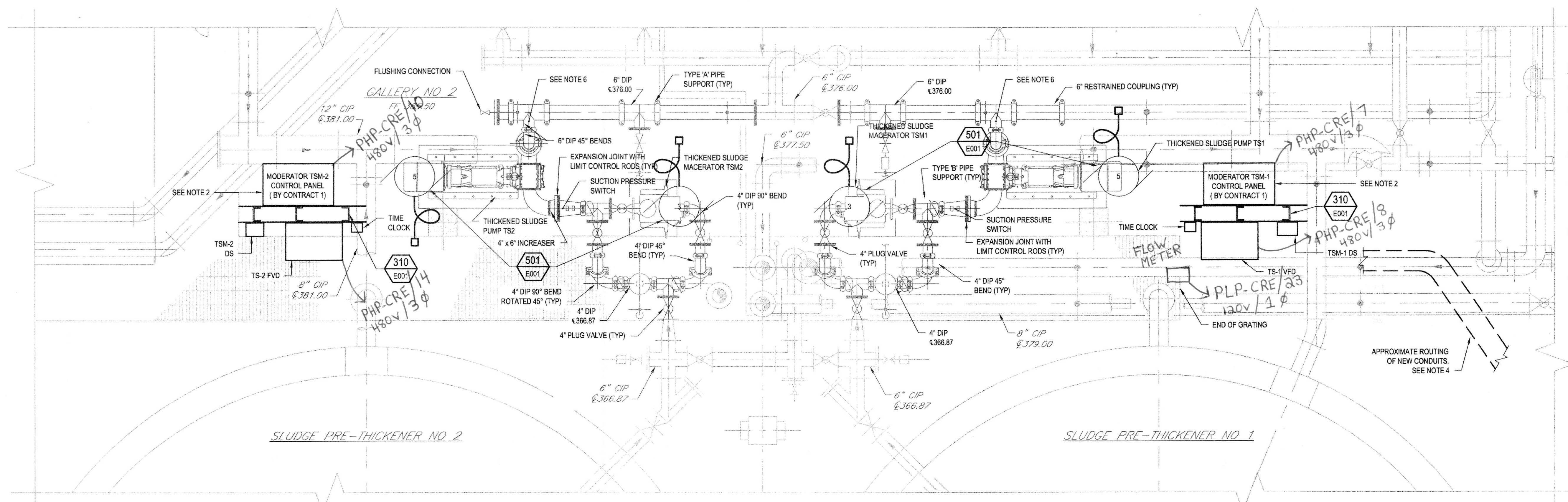


**GHD**  
GHD Consulting Services Inc.  
One Remington Park Drive  
Cazenovia NY 13035 USA  
T 1 315 679 5800 F 1 315 679 5801  
E cazmail@ghd.com W www.ghd.com

Drawn	TSA	Designer	TSA
Drafting Check	TSA	Design Check	WFH
Approved (Project Director)	<i>[Signature]</i>		
Date	9/12/14		
Scale	AS NOTED		

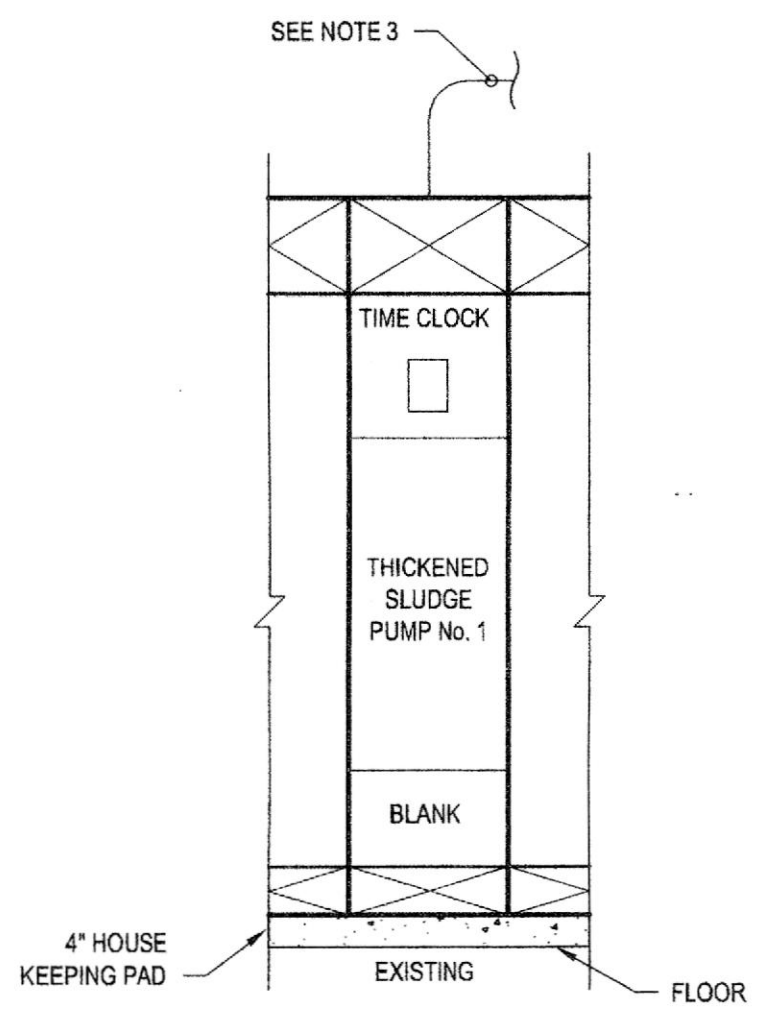
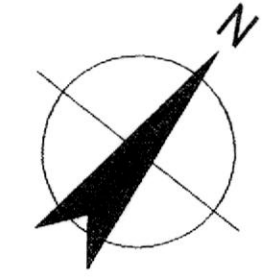
Client **ONONDAGA COUNTY DWEP**  
Project **BSK WWTP IMMEDIATE IMPROVEMENTS**  
Title **CONTROL BUILDING SECOND FLOOR LIGHTING PLAN**  
Contract No. **2**  
Original Size  
Arch D Drawing No: **86-16538-E004** Rev: **0**





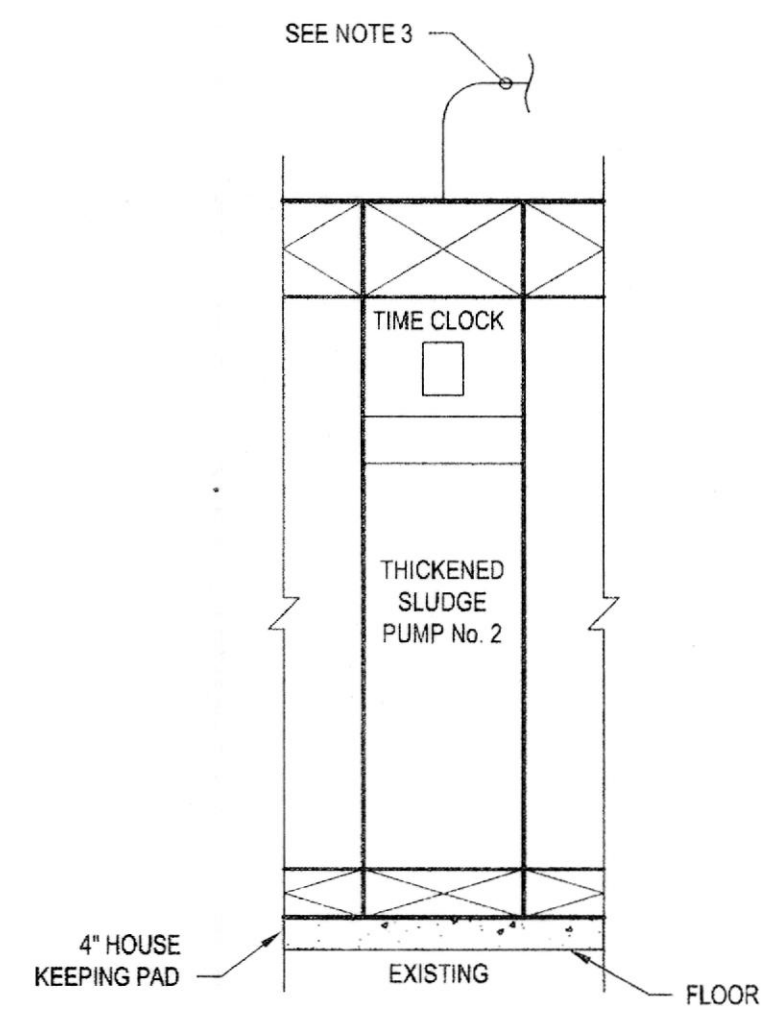
- NOTES:**
- SEE DRAWING No. G003 FOR WORK AREA LOCATIONS
  - PUMP CONTROL PANELS AND MOUNTING STAND TO BE FIELD LOCATED. PUMP CONTROL PANELS TO BE FURNISHED BY CONTRACT 1 AND INSTALLED THIS CONTRACT. WIRE, CONDUIT AND CONNECTION PROVIDED BY THIS CONTRACT. MACERATOR CONTROL PANEL SHALL BE FURNISHED UNDER CONTRACT 1.
  - BACKGROUNDS MAY NOT REFLECT EXACT EXISTING CONDITIONS. CONTRACTOR SHALL FIELD VERIFY.
  - THE AREA WHERE THE NEW CONDUITS ARE TO BE INSTALLED IS VERY CONGESTED WITH NUMEROUS EXISTING CONDUITS. IT IS ANTICIPATED THE NEW CONDUITS WILL BE INSTALLED UNDER THE EXISTING CONDUIT RACKS. CONTRACTOR SHALL FIELD VERIFY ROUTING AND ADJUST NEW WORK AS REQUIRED IN CONJUNCTION WITH THE OWNERS REQUIREMENTS.
  - POSSIBLE LOCATION OF HPO VENT VALVE AND HEAT TRACE CONDUIT INTO ADJOINING SPACE AND THEN INTO GALLERY No.'s 3 & 4. ACTUAL LOCATION OF WALL/FLOOR PENETRATION (CORED HOLE) AND CONDUIT ROUTING INTO AND THROUGH GALLERY No.'s 3 AND 4 SHALL BE DETERMINED IN THE FIELD WITH THE OWNER.
  - DISCHARGE PRESSURE SWITCH MOUNTED ON VERTICAL DISCHARGE PIPE APPROXIMATELY 7'-6" AFF.
  - ALL WORK FOR THE THICKENED SLUDGE PUMPS (ROTARY LOBE) AND MACERATOR IS INCLUDED IN PAYMENT ITEM 2.3.2.

**GALLERY NUMBER 2  
PARTIAL PLAN**  
SCALE 1/2" = 1'-0"



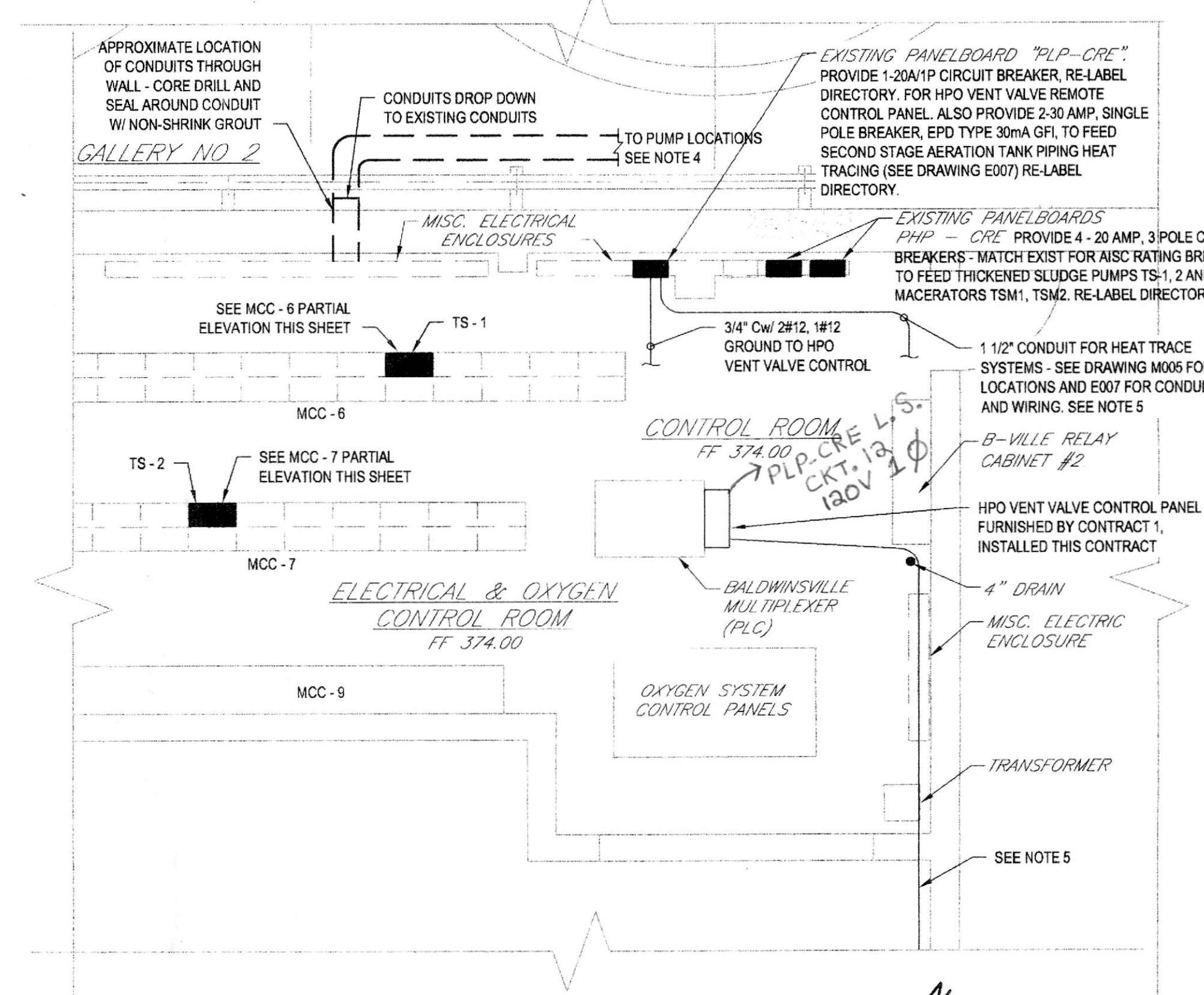
**PARTIAL MCC-6 ELEVATIONS**  
NTS

- NOTES:**
- EXISTING MCC IS SQUARE D MODEL 4 - BACK TO LINEUP (20" TOTAL DEPTH).
  - ABANDON EXISTING STARTER AND ALL CONTROLS FOR THICKENED SLUDGE PUMP IN PLACE. ALL MATERIALS TO REMAIN THE PROPERTY OF THE OWNER.
  - REMOVE ALL EXISTING THICKENED SLUDGE PUMP CONDUIT AND WIRING - MCC TO PUMP - CONTRACTOR TO REMOVE MATERIAL FROM SITE.

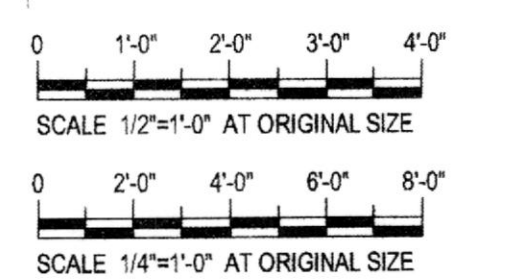
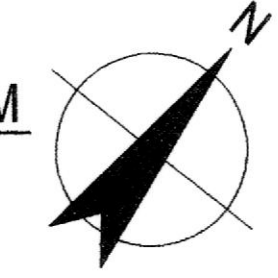


**PARTIAL MCC-7 ELEVATIONS**  
NTS

- NOTES:**
- EXISTING MCC IS SQUARE D MODEL 4 - BACK TO LINEUP (20" TOTAL DEPTH).
  - ABANDON EXISTING STARTER AND ALL CONTROLS FOR THICKENED SLUDGE PUMP IN PLACE. ALL MATERIALS TO REMAIN THE PROPERTY OF THE OWNER.
  - REMOVE ALL EXISTING THICKENED SLUDGE PUMP CONDUIT AND WIRING - MCC TO PUMP - CONTRACTOR TO REMOVE MATERIAL FROM SITE.



**ELECTRICAL & OXYGEN CONTROL ROOM  
PARTIAL PLAN**  
SCALE 1/4" = 1'-0"



0	FOR BID	SFB	RCF	BGM	08/2014	
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

**NOTES:**

UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.

IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



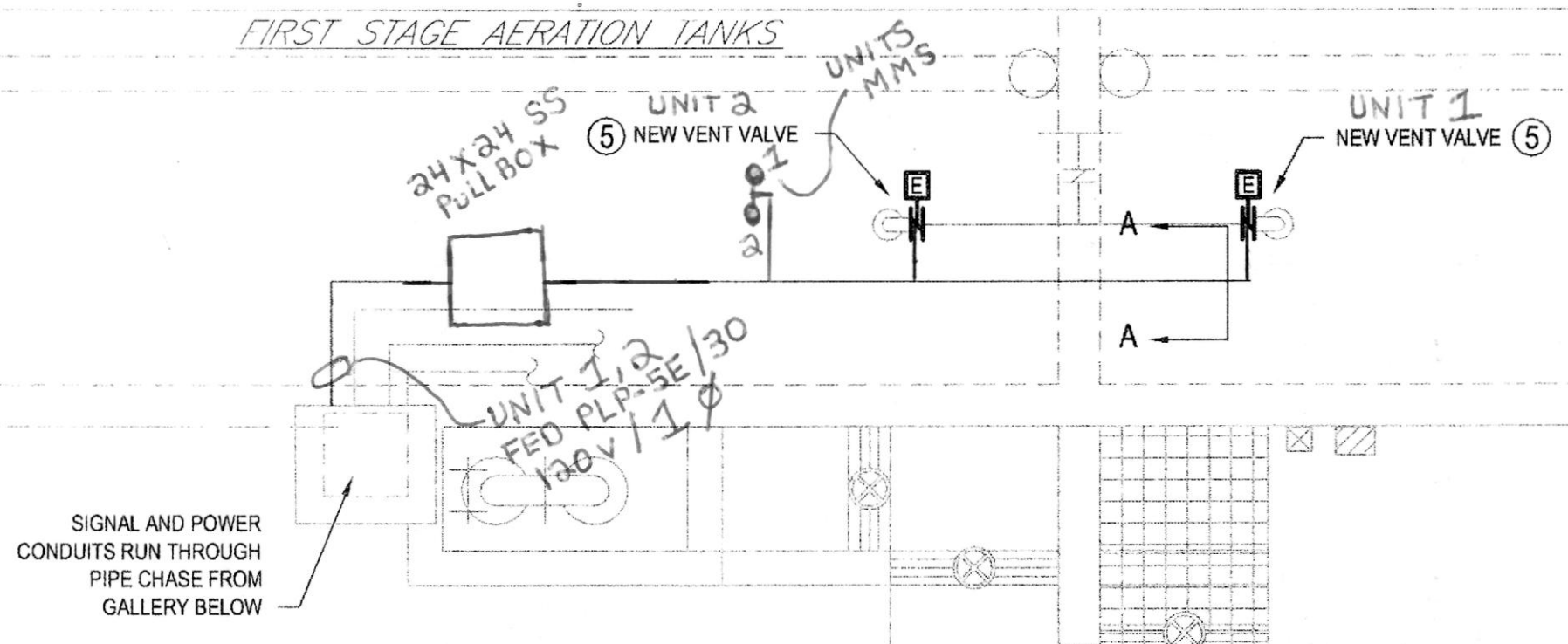
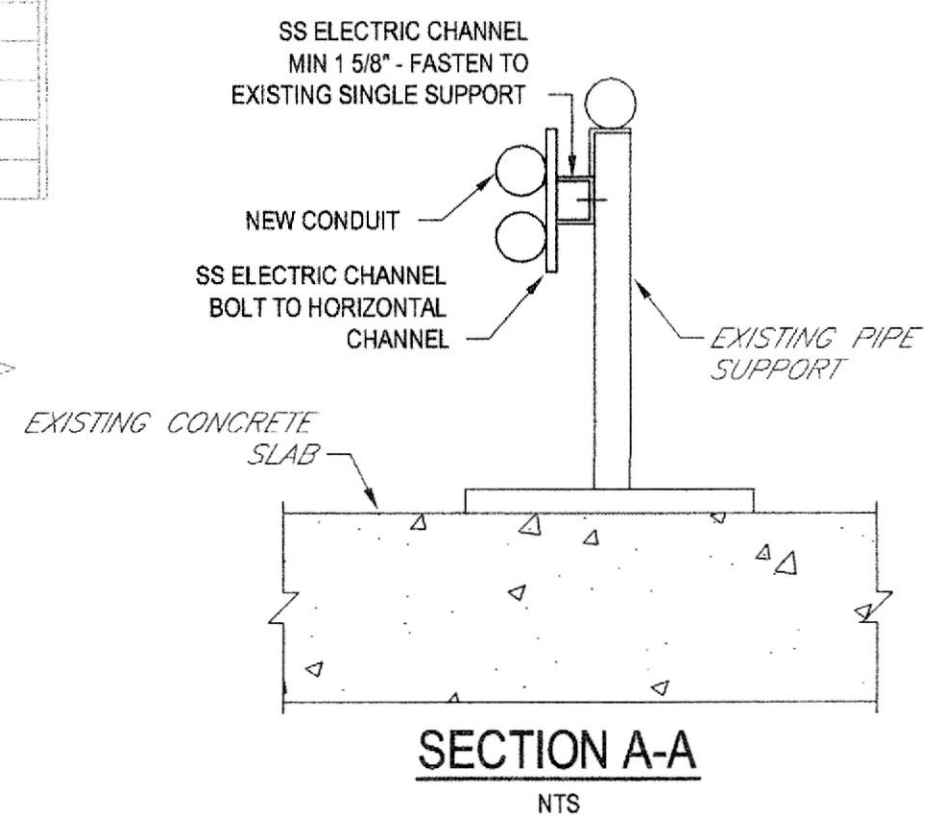
**GHD**  
GHD Consulting Services Inc.  
One Remington Park Drive  
Cazenovia NY 13035 USA  
T 1 315 679 5800 F 1 315 679 5801  
E cazmail@ghd.com W www.ghd.com

Drawn	KLW	Designer	WFH
Drafting Check	SFB	Design Check	EJP
Approved (Project Director)	[Signature]		
Date	9/2/14		
Scale	AS SHOWN		

Client: **ONONDAGA COUNTY DWEP**  
Project: **BSK WWTP IMMEDIATE IMPROVEMENTS**  
Title: **GALLERY NO 2 - PARTIAL PLAN AND ELECTRICAL AND OXYGEN CONTROL ROOM - PARTIAL PLAN**  
Contract No. **2**  
Original Size: **Arch D**  
Drawing No: **86-16538-E005**  
Rev: **0**

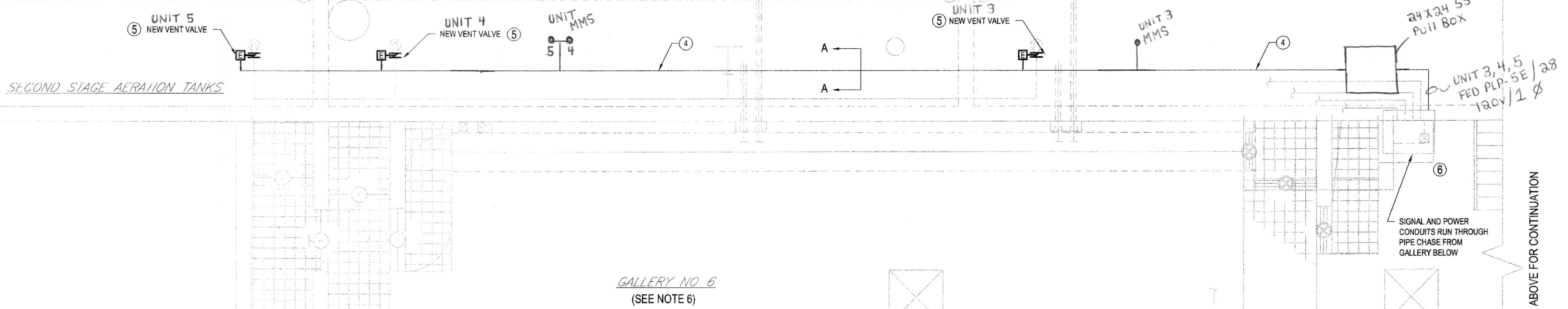
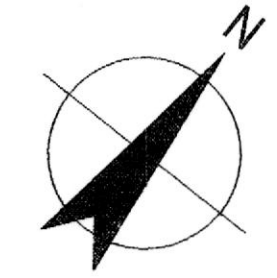


SEE BELOW FOR CONTINUATION



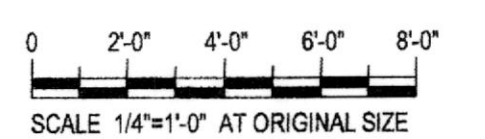
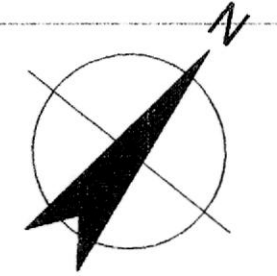
EXISTING PANELBOARD PLP-5E  
(LOCATED IN GALLERY No. 5 BELOW)

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



SEE ABOVE FOR CONTINUATION

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



NOTES:

- CONTROL PANEL FOR NEW HPO ELECTRIC ACTUATED BUTTERFLY VALVES SHOWN ON SHEET M004 AND E005.
- SEE HPO VENT VALVE INTERCONNECTIONS SCHEMATIC IN DRAWING E007.
- PROVIDE MOUNTING STAND (SEE DETAIL 301 ON DRAWING E001). INSTALL VALVE MSS AND JUNCTION/PULL BOXES AS PER DIAGRAM ON DRAWING E007.
- INSTALL CONDUIT ALONG/ON EXISTING CONDUIT/PIPE SUPPORT RACK. SEE SECTION A-A THIS SHEET.
- AREA WITHIN 10 FT. FROM HPO VENT VALVES IS A CLASS I, DIVISION 2 HAZARDOUS AREA. ALL WORK IN THIS AREA SHALL BE IN ACCORDANCE WITH NEC ARTICLE No.'s 500 AND 501.
- GALLERY No.'s 5 AND 6 ARE "WET AREAS". ROUTING OF CONDUITS WITH THESE GALLERIES SHALL BE FIELD VERIFIED AND LOCATED BY THE CONTRACTOR. NEW CONDUITS SHALL GENERALLY RUN WITH EXISTING CONDUITS.

NOTES:  
UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.

IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

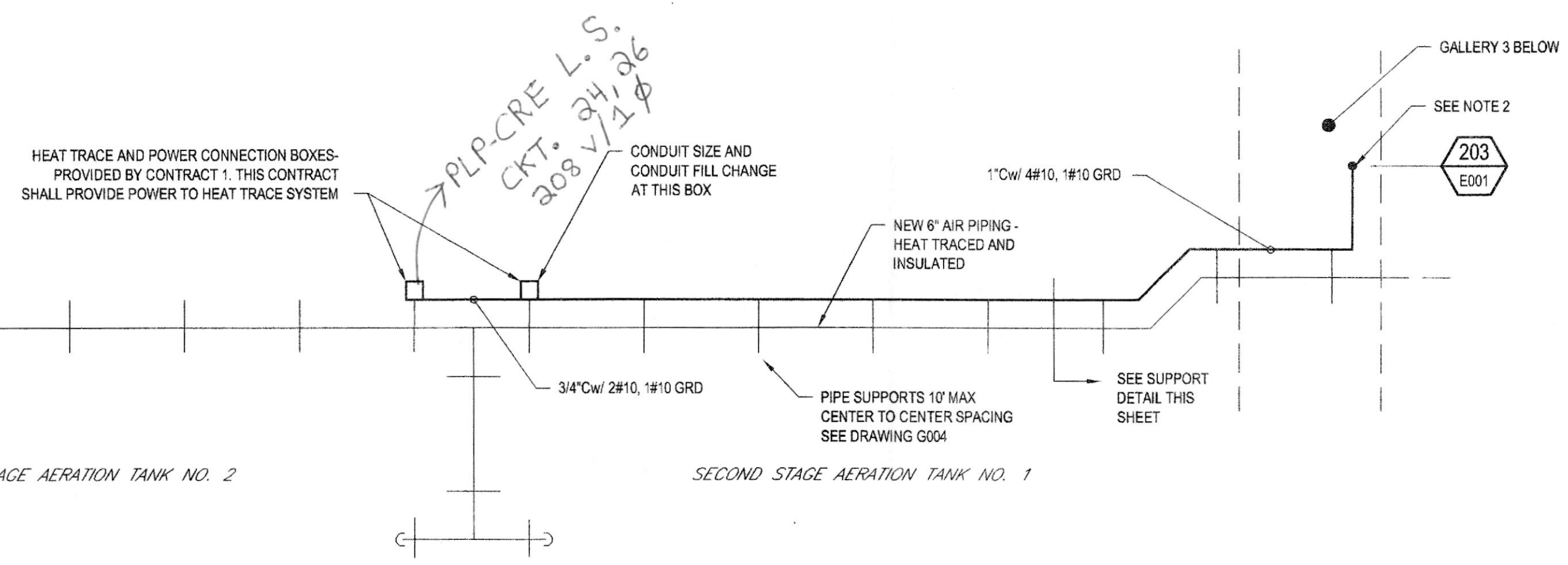


**GHD**  
GHD Consulting Services Inc.  
One Remington Park Drive  
Cazenovia NY 13025 USA  
T 1 315 679 5800 F 1 315 679 5801  
E cazmail@ghd.com W www.ghd.com

Drawn	TSA	Designer	WFH
Drafting Check	WFH	Design Check	WFH
Approved (Project Director)	<i>[Signature]</i>		
Date	9/18/14		
Scale	1/4" = 1'-0"		

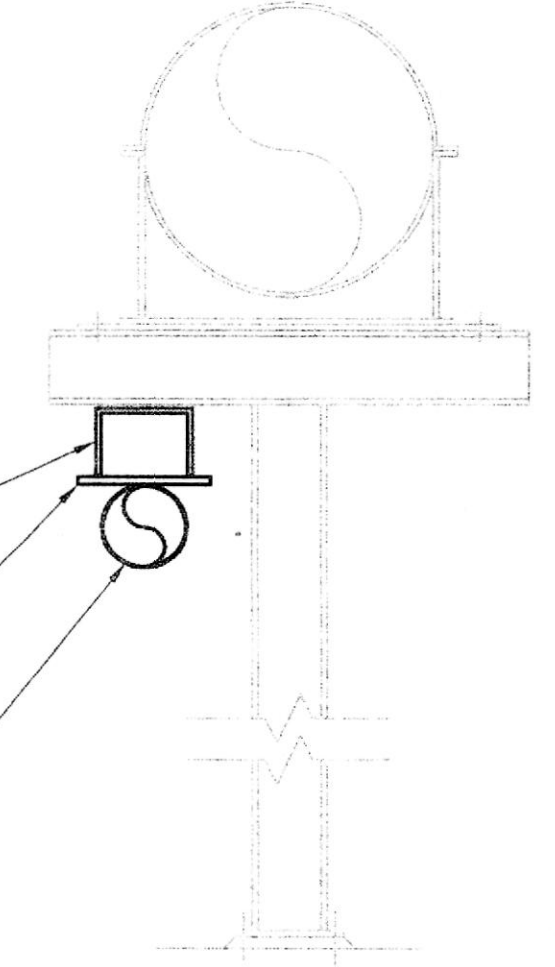
Client	ONONDAGA COUNTY DWEP
Project	BSK WWTP IMMEDIATE IMPROVEMENTS
Title	GALLERY NOS 5 AND 6 PARTIAL UPPER LEVEL PLANS
Contract No.	1
Original Size	Arch D Drawing No: 86-16538-E006
Rev:	0



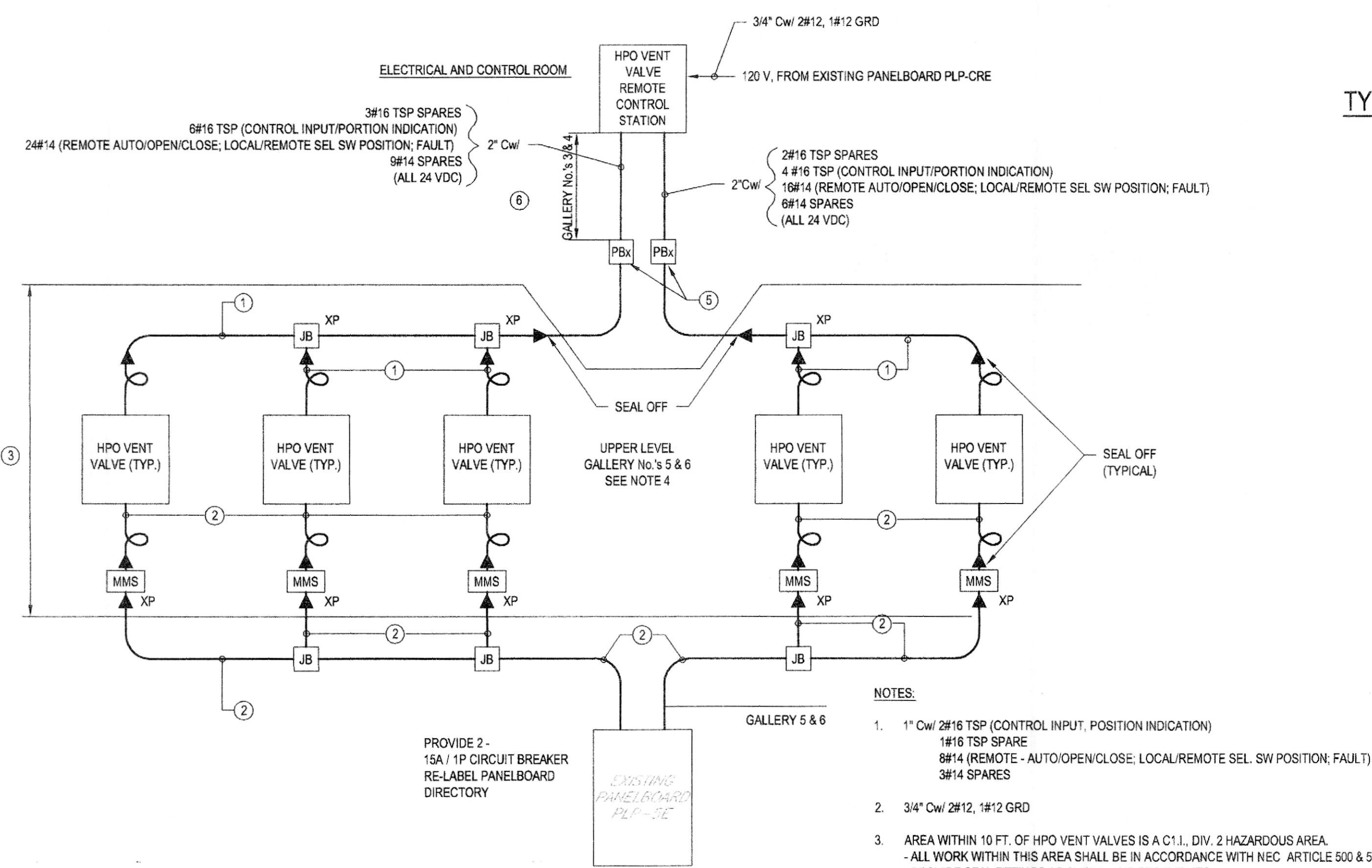


NOTES:  
 1. SEE DRAWING M005 FOR PIPING LAYOUT AND WORK LOCATION  
 2. CONTRACTOR SHALL DETERMINE ACTUAL LOCATION TO EXIT GALLERY 3 BELOW. CONDUIT FROM 24" BELOW SLATE TO HEAT TRACE SYSTEM ABOVE AERATION TANKS SHALL BE TYPE 'E'. CONDUIT GALLERY 3 SHALL BE TYPE 'D'.

**PARTIAL PLAN - UPPER SECOND STAGE AERATION TANK**  
 NTS

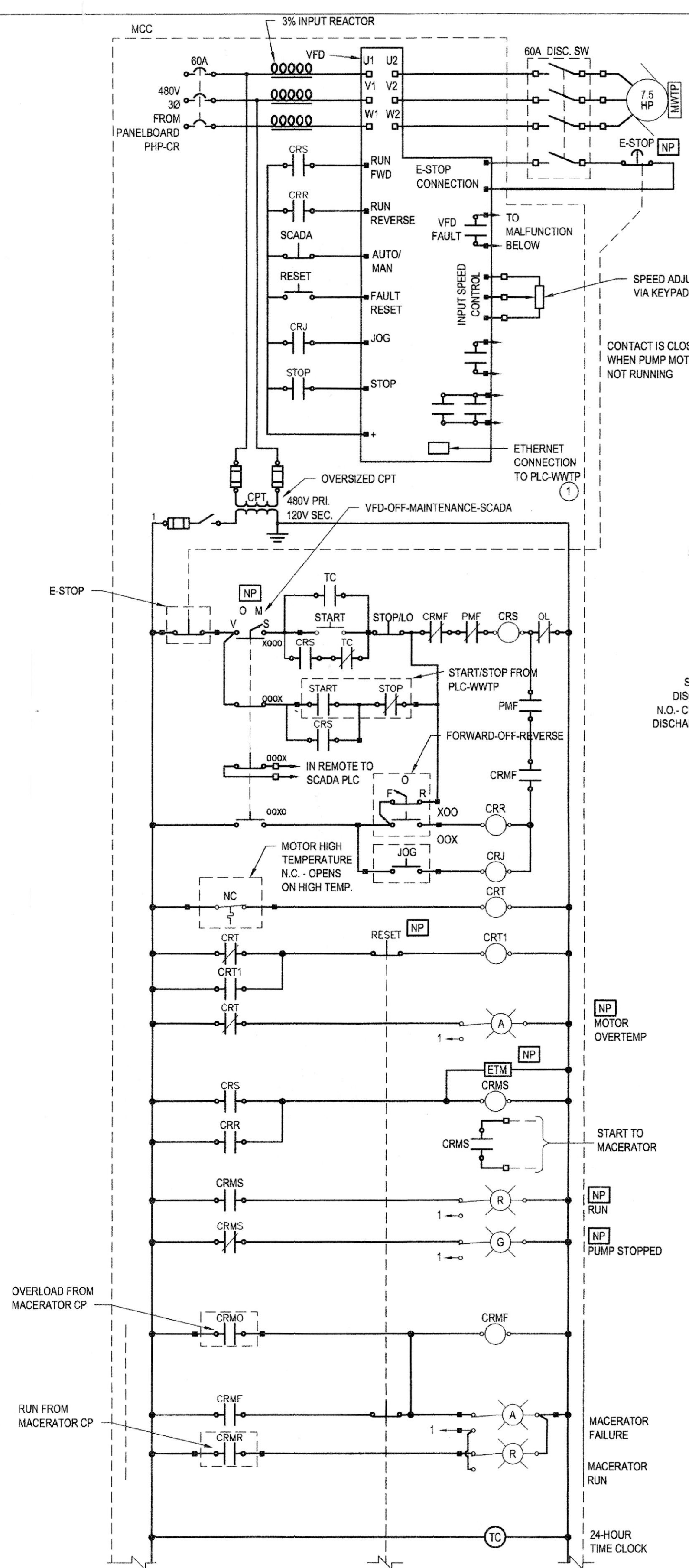


**TYPICAL CONDUIT AT PIPE SUPPORT DETAIL**  
 NTS



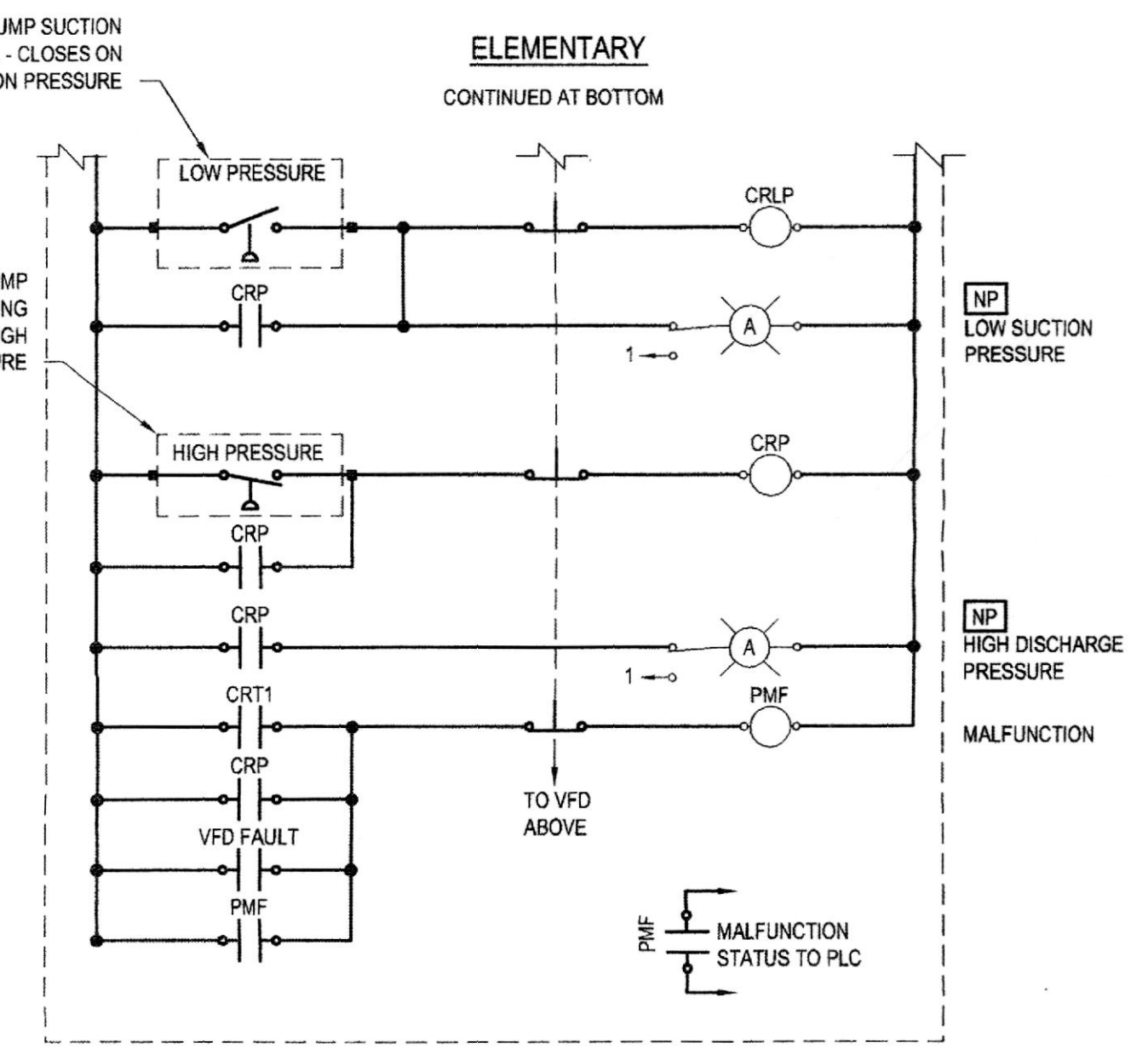
**HPO VENT VALVE INTERCONNECTION DIAGRAM**  
 NTS

NOTES:  
 1. 1" CW 2#16 TSP (CONTROL INPUT, POSITION INDICATION)  
 1#16 TSP SPARE  
 6#14 (REMOTE - AUTO/OPEN/CLOSE: LOCAL/REMOTE SEL. SW POSITION; FAULT)  
 3#14 SPARES  
 2. 3/4" CW 2#12, 1#12 GRD  
 3. AREA WITHIN 10 FT. OF HPO VENT VALVES IS A CLASS I, DIV. 2 HAZARDOUS AREA - ALL WORK WITHIN THIS AREA SHALL BE IN ACCORDANCE WITH NEC ARTICLE 500 & 501 - PROVIDE SEAL FITTINGS AS SHOWN AND PER THE NEC.  
 4. SEE DRAWING E006 FOR HPO VENT VALVE LOCATIONS.  
 5. PROVIDE A MINIMUM 18"X18"X6" PULL BOX / LOCATED ON OUTSIDE DECK.  
 6. CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING BUILDING EXPANSION JOINTS AND PROVIDE EXPANSION FITTINGS AT EACH JOINT. ASSUME A MINIMUM OF THREE FITTINGS PER CONDUIT RUN, PLUS ADDITIONAL FITTINGS REQUIRED PER SPECIFICATIONS.

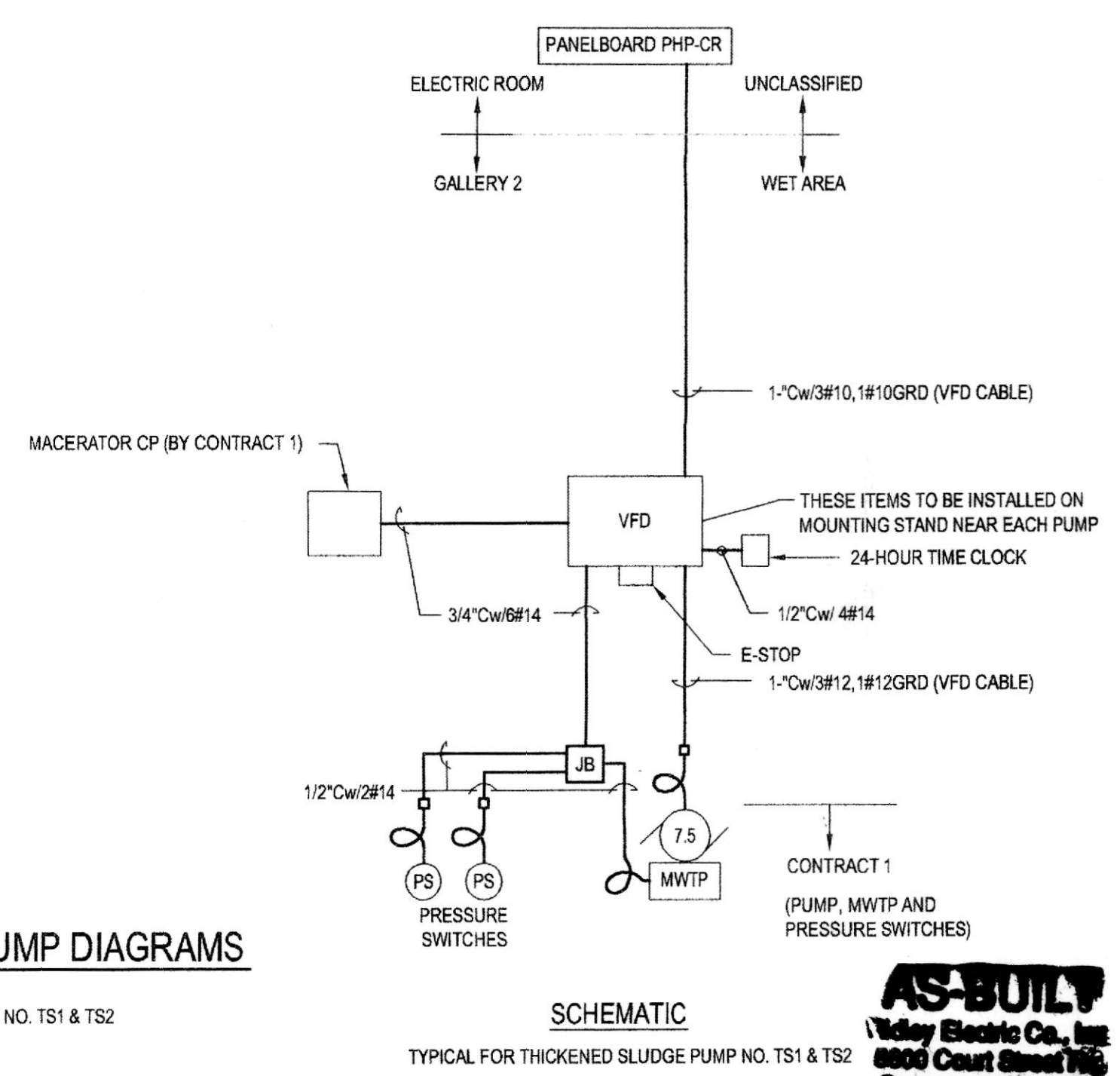
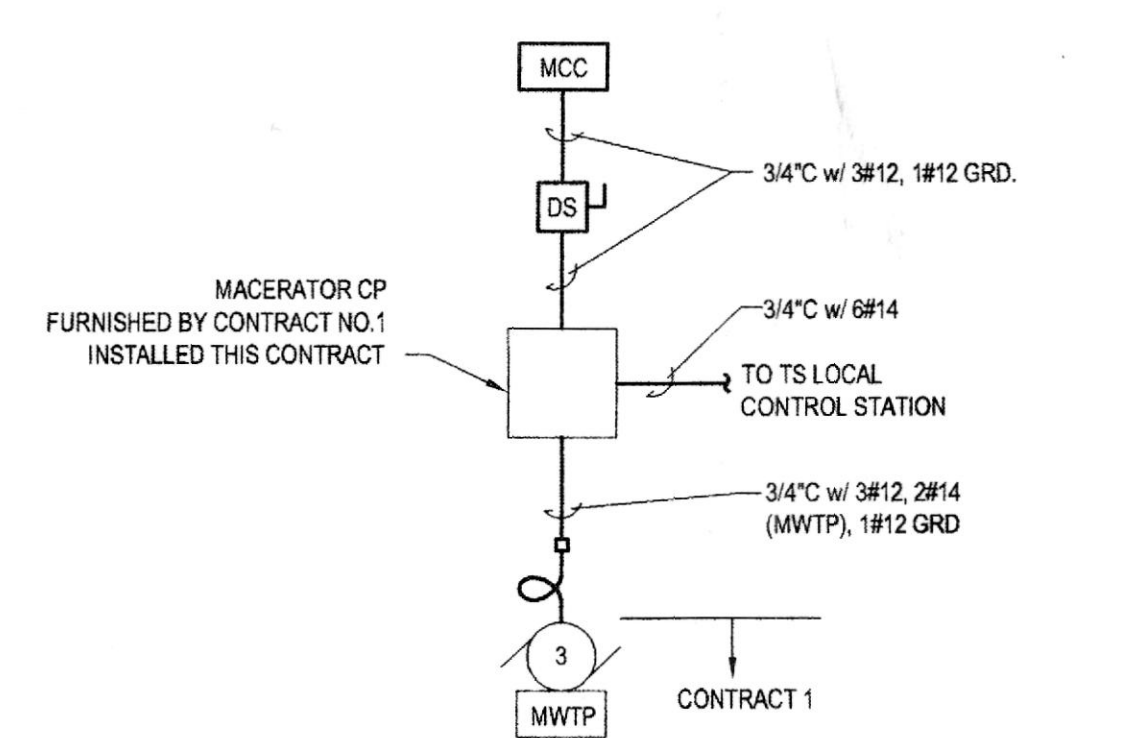


**THICKENED SLUDGE PUMP DIAGRAMS**  
 NTS  
 TYPICAL FOR THICKENED SLUDGE PUMP NO. TS1 & TS2

NOTE:  
 ALL NEW WORK FOR NEW THICKENED SLUDGE PUMPS (ROTARY LOBE) AND MACERATORS IS INCLUDED IN PAYMENT ITEM 2.3.2.



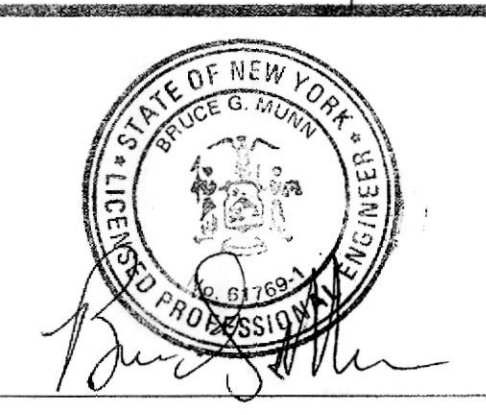
**THICKENED SLUDGE MACERATOR SCHEMATIC**  
 NTS  
 TYPICAL FOR THICKENED SLUDGE MACERATORS NO. TSM-1 & TSM-2



**SCHEMATIC THICKENED SLUDGE PUMP DIAGRAMS**  
 NTS  
 TYPICAL FOR THICKENED SLUDGE PUMP NO. TS1 & TS2

0	FOR BID	TSA	RCF	BGM	08/2014		
No	Revision	Note	* indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

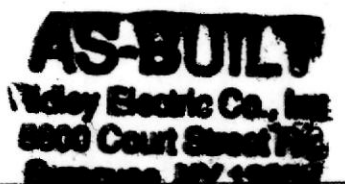
NOTES:  
 UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.  
 IT IS VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DRAWING IN ANYWAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



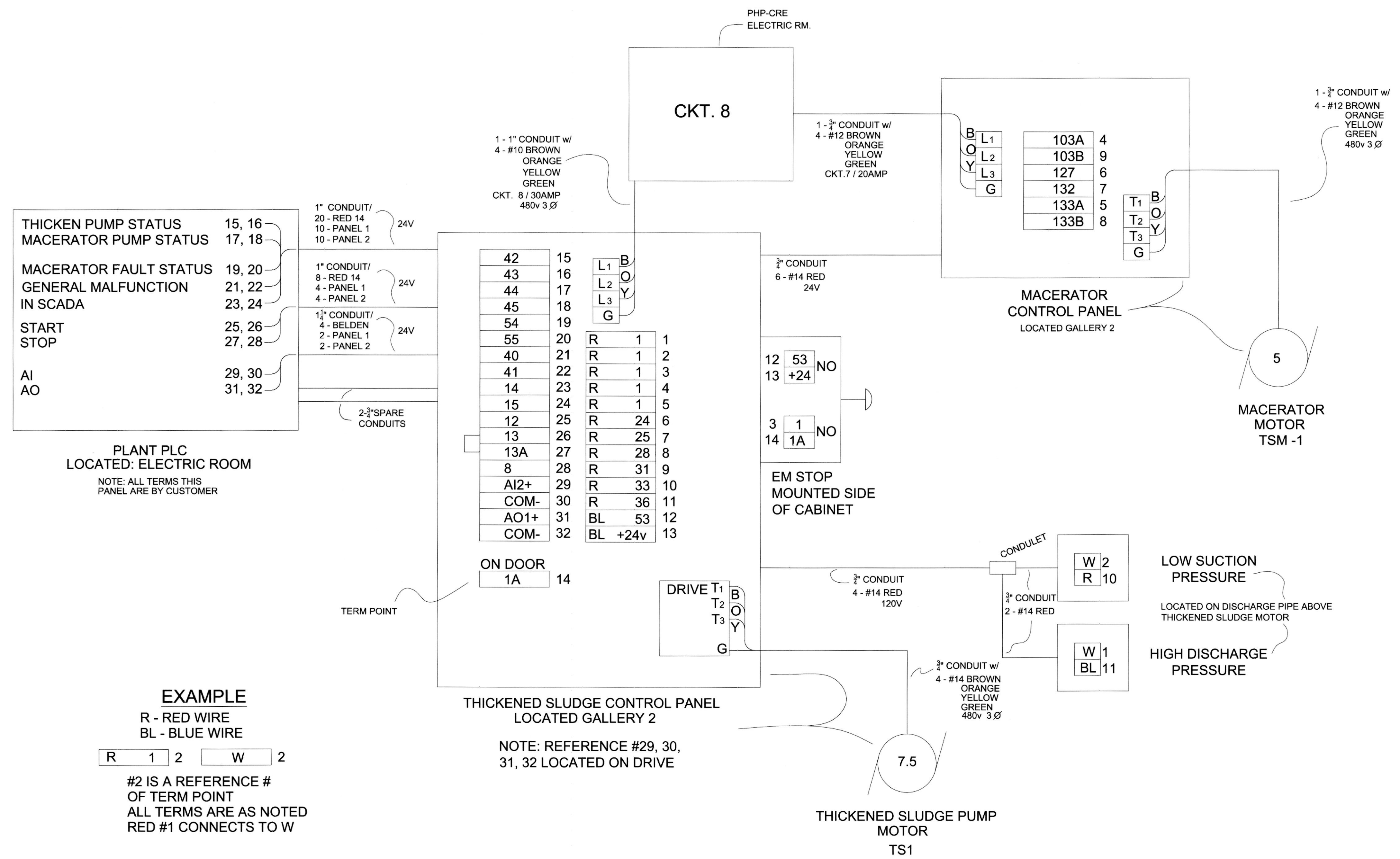
**GHD**  
 GHD Consulting Services Inc.  
 One Remington Park Drive  
 Cazenovia NY 13035 USA  
 T 1 315 679 5800 F 1 315 679 5801  
 E cazmail@ghd.com W www.ghd.com

Drawn TSA  
 Designer WFH  
 Drafting Check WFH  
 Design Check WFH  
 Approved (Project Director)  
 Date 9/12/14  
 Scale AS SHOWN

Client **ONONDAGA COUNTY DWEP**  
 Project **BSK WWTP IMMEDIATE IMPROVEMENTS**  
 Title **ELEMENTARY AND SCHEMATIC DIAGRAMS**  
 Contract No. 2  
 Original Site  
 Arch D Drawing No: **86-16538-E007**  
 Rev: 0







**EXAMPLE**  
R - RED WIRE  
BL - BLUE WIRE

R 1 2 W 2

#2 IS A REFERENCE # OF TERM POINT  
ALL TERMS ARE AS NOTED  
RED #1 CONNECTS TO W

NOTE: REFERENCE #29, 30, 31, 32 LOCATED ON DRIVE

OPTIONAL\_LAYER  
XREF  
DATE\_COM\_OP  
DIRECTORY/FILE

SCALE: NONE

THIS DRAWING WAS PREPARED AT THE SCALE INDICATED IN THE TITLE BLOCK. INACCURACIES IN THE STATED SCALE MAY BE INTRODUCED WHEN DRAWINGS ARE REPRODUCED BY ANY MEANS. USE THE GRAPHIC SCALE BAR IN THE TITLE BLOCK TO DETERMINE THE ACTUAL SCALE OF THIS DRAWING.

No.	Date	Revisions	Init.

In charge of \_\_\_ WFH \_\_\_  
Designed by \_\_\_ WFH \_\_\_  
Drawn by \_\_\_ KEB \_\_\_  
Checked by \_\_\_ GWS \_\_\_

RIDLEY ELECTRIC CO. INC.  
5800 COURT ST. ROAD  
SYRACUSE, NY 13206

ONONDAGA COUNTY • DEPARTMENT OF WATER ENVIRONMENT PROTECTION  
Baldwinsville - Seneca Knolls WWTP Improvements

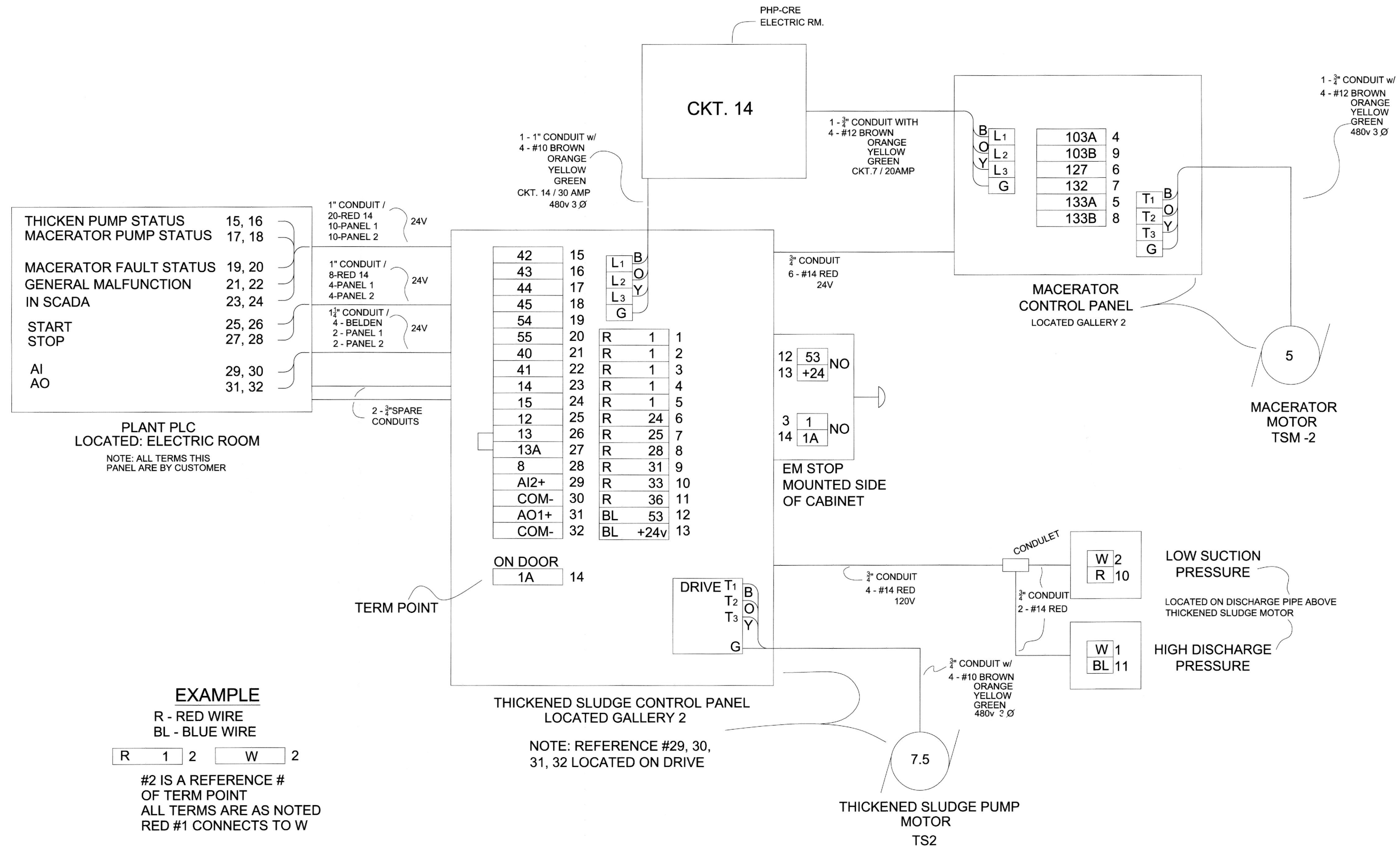
THICKENED SLUDGE CONTROL PANEL 1  
MACERATOR CONTROL PANEL 1  
BLOCK DIAGRAMS  
ELECTRIC

AS-BUILT  
DATE: 7/5/16

File Number 00663  
Date DATE  
E-008

**AS-BUILT**  
Ridley Electric Co., Inc.  
6800 Court Street Rd.  
Syracuse, NY 13206





OPTIONAL\_LAYER  
XREF  
DATE\_COM\_OF  
DIRECTORY/FILE

SCALE: NONE

THIS DRAWING WAS PREPARED AT THE SCALE INDICATED IN THE TITLE BLOCK. INACCURACIES IN THE STATED SCALE MAY BE INTRODUCED WHEN DRAWINGS ARE REPRODUCED BY ANY MEANS. USE THE GRAPHIC SCALE BAR IN THE TITLE BLOCK TO DETERMINE THE ACTUAL SCALE OF THIS DRAWING.

No.	Date	Revisions	Init

NO ALTERATIONS PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW

In charge of -- WFH  
Designed by -- WFH  
Drawn by -- KEB  
Checked by -- GWS

RIDLEY ELECTRIC CO. INC.  
5800 COURT ST. ROAD  
SYRACUSE, NY 13206

ONONDAGA COUNTY • DEPARTMENT OF WATER ENVIRONMENT PROTECTION  
Baldwinsville - Seneca Knolls WWTP Improvements

THICKENED SLUDGE CONTROL PANEL 2  
MACERATOR CONTROL PANEL 2  
BLOCK DIAGRAMS  
ELECTRIC

AS-BUILT

DATE:  
7/5/16

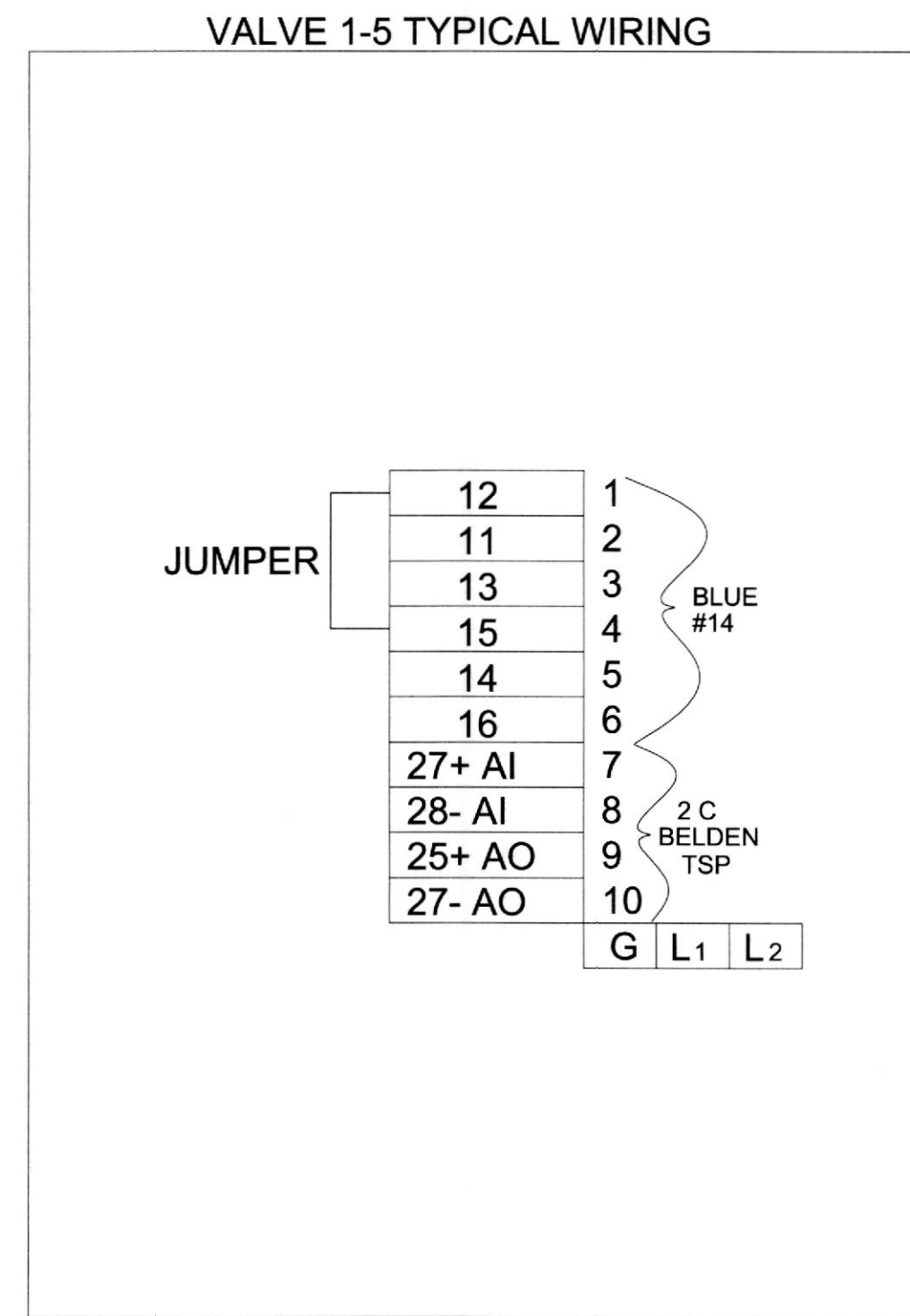
File Number  
00663  
Date  
DATE

E-009

**AS-BUILT**  
Ridley Electric Co., Inc.  
6800 Court Street  
Syracuse, NY 13209



NOTE: A CONDUIT RUN VIA GALLERY 3 & 4



HPO PANEL TERM CHART / WIRE # & TERM POINT

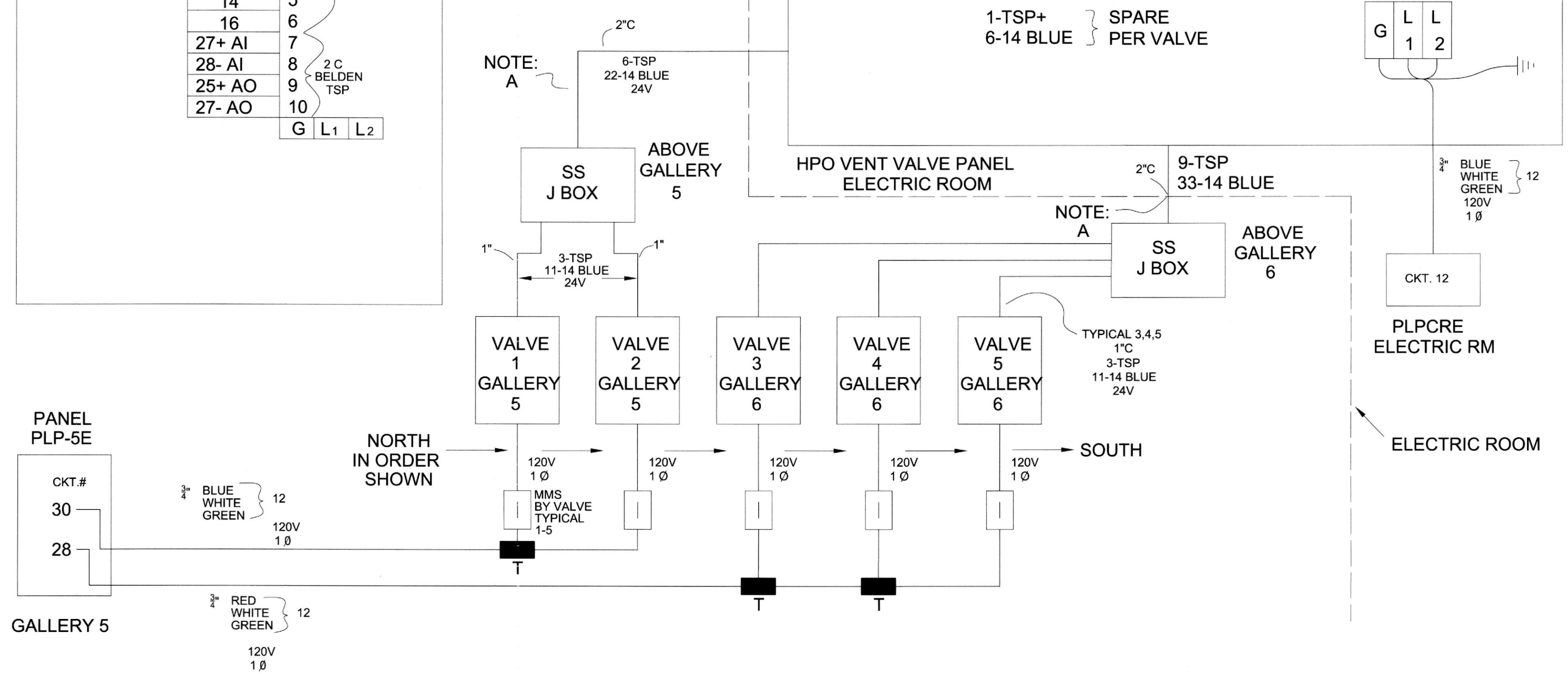
	VALVE 1	VALVE 2	VALVE 3	VALVE 4	VALVE 5
BL 1	SA302	SA302	SA302	SA302	SA1601
BL 2	SA316	SA333	SA404	SA416	SA1606
BL 3	SA318	SA355	SA406	SA418	SA1608
BL 5	SA320	SA337	SA408	SA420	SA1610
BL 6	SA322	SA339	SA410	SA422	SA1612
W 7	SA605+	SA611+	SA617+	SA623+	SA805+
BK 8	SA605-	SA611-	SA617-	SA623-	SA805-
W 9	SA1207+	SA1219+	SA1307+	SA1319+	SA907+
BK 10	SA1207-	SA1219-	SA1307-	SA1319-	SA907-

1-TSP+ } SPARE  
6-14 BLUE } PER VALVE

**EXAMPLE**

R 1 2 W 2

#2 IS A REFERENCE # OF TERM POINT  
ALL TERMS ARE AS NOTED  
RED #1 CONNECTS TO W



**AS-BUILT**  
Vidley Electric Co., Inc.  
6600 Court Street Rd.  
Syracuse, NY 13206

OPTIONAL\_LAYER  
XREF  
DATE\_COM\_OP  
DIRECTORY/FILE

SCALE: NONE

THIS DRAWING WAS PREPARED AT THE SCALE INDICATED IN THE TITLE BLOCK. INACCURACIES IN THE STATED SCALE MAY BE INTRODUCED WHEN DRAWINGS ARE REPRODUCED BY ANY MEANS. USE THE GRAPHIC SCALE BAR IN THE TITLE BLOCK TO DETERMINE THE ACTUAL SCALE OF THIS DRAWING.

No.	Date	Revisions	Init

In charge of \_ WFH \_  
Designed by \_ WFH \_  
Drawn by \_ KEB \_  
Checked by \_ GWS \_

RIDLEY ELECTRIC CO. INC.  
5800 COURT ST. ROAD  
SYRACUSE, NY 13206

ONONDAGA COUNTY • DEPARTMENT OF WATER ENVIRONMENT PROTECTION  
Baldwinsville - Seneca Knolls WWTP Improvements

HPO VENT VALVES  
BLOCK DIAGRAMS  
ELECTRIC

AS-BUILT  
DATE: 7/5/16

File Number 00663  
Date DATE  
E-010