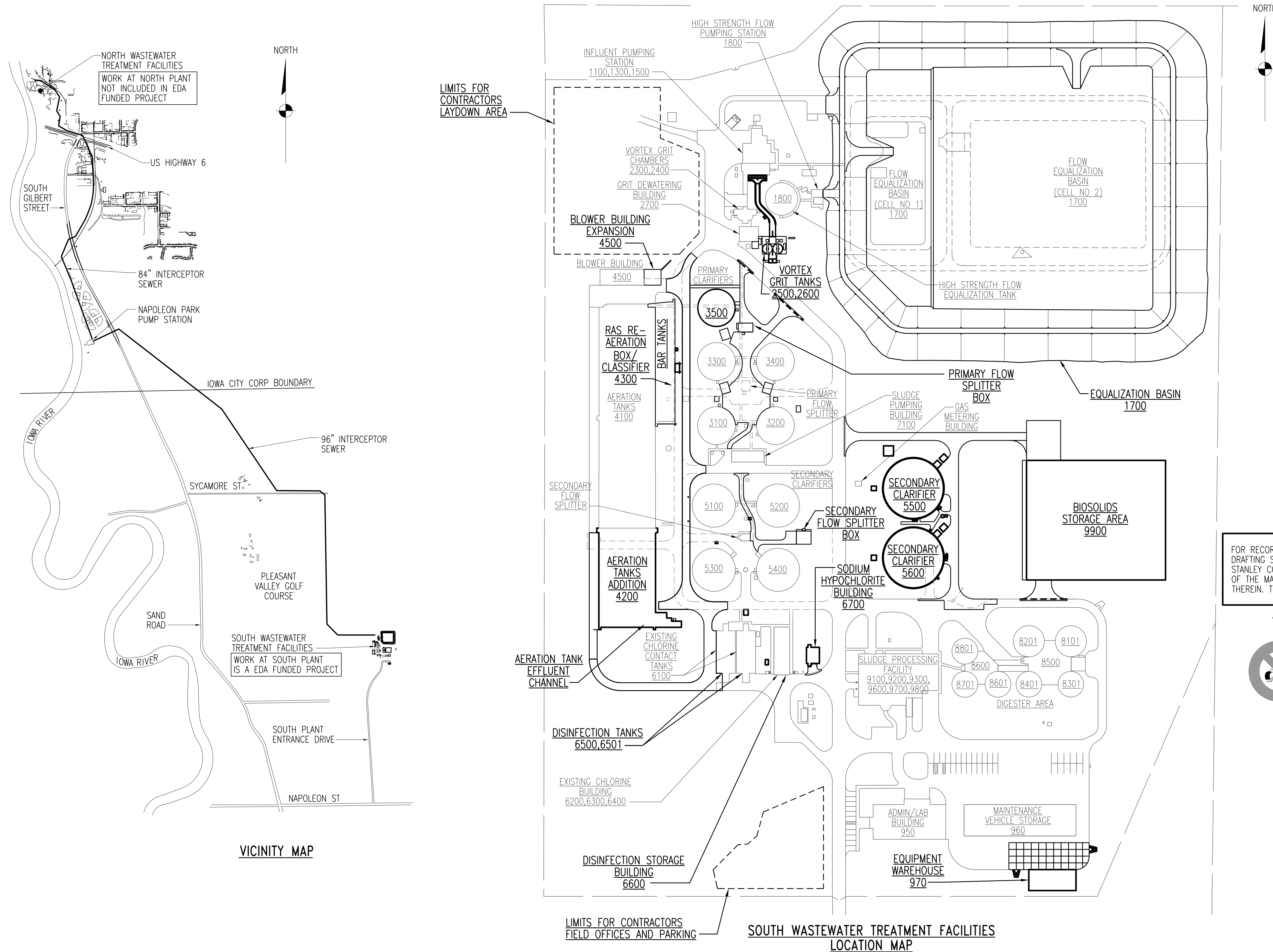


CITY OF IOWA CITY, IOWA

WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

VOLUME 2

U.S. DEPARTMENT OF COMMERCE ECONOMIC
DEVELOPMENT ADMINISTRATION FINANCIAL
ASSISTANCE AWARD NO. 05-79-04921



VICINITY MAP

SOUTH WASTEWATER TREATMENT FACILITIES
LOCATION MAP

<p>THE ORIGINAL OF THIS DRAWING WAS SIGNED, SEALED, AND CERTIFIED BY: REV: O BENNETT D. REISCHAUER 12-02-11 IA. REG. NO. 07997 EXP. DATE 12-31-13 G1A-G3A,C90-C92</p>	<p>THE ORIGINAL OF THIS DRAWING WAS SIGNED, SEALED, AND CERTIFIED BY: REV: O GREGORY A. LUDWIG 12-02-11 IA. REG. NO. 03589 EXP. DATE 06-30-13 ALL "A" DRAWINGS, D420</p>	<p>THE ORIGINAL OF THIS DRAWING WAS SIGNED, SEALED, AND CERTIFIED BY: REV: O KEVIN B. HALL 12-02-11 IA. REG. NO. 17771 EXP. DATE 12-31-13 ALL "S" DRAWINGS D101,D401-D404,D421,D601,D602,D901</p>
<p>THE ORIGINAL OF THIS DRAWING WAS SIGNED, SEALED, AND CERTIFIED BY: REV: O CANDICE LYNN BARK 12-02-11 IA. REG. NO. 19910 EXP. DATE 12-31-13 D120,M120,D301,D302,M301-M331,M350 D501-D503,M501-M560</p>	<p>THE ORIGINAL OF THIS DRAWING WAS SIGNED, SEALED, AND CERTIFIED BY: REV: ALL JAY M. BRADY 12-02-11 IA. REG. NO. 13153 EXP. DATE 12-31-12 D102,D103,M101-M103,D110,M110,D202,D210, M210-M212,D220,M220,D405-D408,M401-M407, D422,M420,M421,M603,M601-M603,M601A, M602A,D610,M610,M620,M621,D701,M701, D801-D806,M801-M810,D902,D903,M901-M906</p>	<p>THE ORIGINAL OF THIS DRAWING WAS SIGNED, SEALED, AND CERTIFIED BY: REV: O JON J. BOVENKAMP 12-02-11 IA. REG. NO. 15551 EXP. DATE 12-31-12 D104,D105,M104-M106,M213,M221,M332, M422-M424,M623-M628,D702,M703-M705 D910,D911,D914,M907-M915</p>
<p>THE ORIGINAL OF THIS DRAWING WAS SIGNED, SEALED, AND CERTIFIED BY: REV: O JEREMY D. COOAN 12-02-11 IA. REG. NO. 19921 EXP. DATE 12-31-13 ALL "E" DRAWINGS, D106,D107,D201,D221, D409-D411,D604,D703,D810,D811,D912,D913</p>	<p>THE ORIGINAL OF THIS DRAWING WAS SIGNED, SEALED, AND CERTIFIED BY: REV: ALL GREGORY A. LUDWIG 01-10-12 IA. REG. NO. 03589 EXP. DATE 06-30-13 ALL "A" DRAWINGS, D420</p>	<p>THE ORIGINAL OF THIS DRAWING WAS SIGNED, SEALED, AND CERTIFIED BY: REV: ALL KEVIN B. HALL 01-10-12 IA. REG. NO. 17771 EXP. DATE 12-31-13 ALL "S" DRAWINGS D101,D401-D404,D421,D601,D602,D901</p>
<p>THE ORIGINAL OF THIS DRAWING WAS SIGNED, SEALED, AND CERTIFIED BY: REV: ALL CANDICE LYNN BARK 01-10-12 IA. REG. NO. 19910 EXP. DATE 12-31-13 D120,M120,D301,D302,M301-M331,M350 D501-D503,M501-M560</p>	<p>THE ORIGINAL OF THIS DRAWING WAS SIGNED, SEALED, AND CERTIFIED BY: REV: ALL JAY M. BRADY 01-10-12 IA. REG. NO. 13153 EXP. DATE 12-31-12 D102,D103,M101-M103,D110,M110,D202,D210,M210-M212, D220,M220,D405-D408,M401-M409,D422,M420,M421,M603, M601-M604,M601A,M602A,D610,M610,M620,M621,D701, M701,D801-D806,M801-M810,D902,D903,M901-M906</p>	<p>THE ORIGINAL OF THIS DRAWING WAS SIGNED, SEALED, AND CERTIFIED BY: REV: ALL JON J. BOVENKAMP 01-10-12 IA. REG. NO. 15551 EXP. DATE 12-31-12 D104,D105,M104-M106,M213,M221,M332, M422-M424,M623-M628,D702,M703-M705 D910,D911,D914,M907-M915</p>
<p>THE ORIGINAL OF THIS DRAWING WAS SIGNED, SEALED, AND CERTIFIED BY: REV: ALL BENNETT D. REISCHAUER 01-25-12 IA. REG. NO. 07997 EXP. DATE 12-31-13 G1A,C90-C92</p>	<p>THE ORIGINAL OF THIS DRAWING WAS SIGNED, SEALED, AND CERTIFIED BY: REV: ALL GREGORY A. LUDWIG 01-25-12 IA. REG. NO. 03589 EXP. DATE 06-30-13 A220,A420,A421,A621,D420</p>	<p>THE ORIGINAL OF THIS DRAWING WAS SIGNED, SEALED, AND CERTIFIED BY: REV: ALL KEVIN B. HALL 01-25-12 IA. REG. NO. 17771 EXP. DATE 12-31-13 ALL "S" DRAWINGS D421,D901</p>
<p>THE ORIGINAL OF THIS DRAWING WAS SIGNED, SEALED, AND CERTIFIED BY: REV: ALL CANDICE LYNN BARK 01-25-12 IA. REG. NO. 19910 EXP. DATE 12-31-13 D301,D302,M301-M330,M350 D501-D503,M502-M507,M550,M560</p>	<p>THE ORIGINAL OF THIS DRAWING WAS SIGNED, SEALED, AND CERTIFIED BY: REV: ALL JAY M. BRADY 01-25-12 IA. REG. NO. 13153 EXP. DATE 12-31-12 D102,M101-M102,M210,M211,M401,M404-M407, M420,M421,M620,M621,D701,M701,D801,D805, D801,D805,M802-M810,D902,M901-M903</p>	<p>THE ORIGINAL OF THIS DRAWING WAS SIGNED, SEALED, AND CERTIFIED BY: REV: ALL JON J. BOVENKAMP 01-25-12 IA. REG. NO. 15551 EXP. DATE 12-31-12 M104,M623</p>
<p>THE ORIGINAL OF THIS DRAWING WAS SIGNED, SEALED, AND CERTIFIED BY: REV: ALL JEREMY D. COOAN 01-25-12 IA. REG. NO. 19921 EXP. DATE 12-31-13 ALL "E" DRAWINGS D106,D107,D201,D221,D409-D411,D604,D703 D810,D811,D912,D913</p>	<p>THE ORIGINAL OF THIS DRAWING WAS SIGNED, SEALED, AND CERTIFIED BY: REV: ALL GREGORY A. LUDWIG 02-22-12 IA. REG. NO. 03589 EXP. DATE 12-31-13 E901</p>	<p>THE ORIGINAL OF THIS DRAWING WAS SIGNED, SEALED, AND CERTIFIED BY: REV: ALL KEVIN B. HALL 02-22-12 IA. REG. NO. 17771 EXP. DATE 12-31-13 S401-S403,S405-S415,S993 D401-D404</p>
<p>THE ORIGINAL OF THIS DRAWING WAS SIGNED, SEALED, AND CERTIFIED BY: REV: ALL JEREMY D. COOAN 03-06-12 IA. REG. NO. 19921 EXP. DATE 12-31-13 E302,E502,E503 D913</p>		

FOR RECORD DRAWINGS, STANLEY CONSULTANTS PROVIDED ONLY DRAFTING SERVICES BASED ON MARK-UP PROVIDED BY OTHERS. STANLEY CONSULTANTS TAKES NO RESPONSIBILITY FOR ACCURACY OF THE MARK-UP OR ANY FIELD DESIGN CHANGES REFLECTED THEREIN. THIS STAMP INCLUDES ALL DRAWINGS IN THIS SET.



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- NORTH WASTEWATER TREATMENT PLANT: 1000 SOUTH CLINTON ST. IOWA CITY, IOWA 52240

<p>I HEREBY CERTIFY THAT REVISIONS TO THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.</p> <p>JAMES B. LUND 05-04-2012 LICENSE NUMBER: 189254 MY LICENSE RENEWAL DATE IS 12-31-13 PAGES OR SHEETS COVERED BY THIS SEAL: G1A,M220,E220,D301,D404,S401-S415,M401,M402,E405,M421,E422, S501,S503,M506,S603,S604,S608,S609,S630A,E610,S620,M620,M621,E620, E804,D903,D910,D912,D914,C90</p>
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4	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
3	ADDED ADDENDUM COMMENT	LJO	JBL	JBL	05-04-2012
2	GENERAL	CLB	CLB	BDR	01-25-2012
1	ISSUED FOR CONSTRUCTION	CLB	CLB	BDR	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

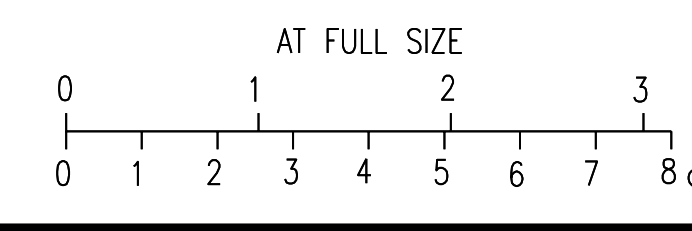
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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

GENERAL
COVER SHEET
DRAWING SET 2 OF 2

DESIGNED: CL BARK	SCALE: NONE
DRAWN: LJ OSBORN	NO. 22800
CHECKED: CL BARK	REV. 4
APPROVED: BD REISCHAUER	G1A
APPROVED: _____	DATE: DECEMBER 2, 2011



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DWG NO	DRAWING TITLE
	GENERAL
G1A	COVER SHEET - DRAWING SET 2 OF 2
G2A	DRAWING INDEX - SHEET 1 - DRAWING SET 2 OF 2
G3A	DRAWING INDEX - SHEET 2 - DRAWING SET 2 OF 2
	INFLUENT PUMP STATION
D101	STRUCTURAL DEMOLITION PLANS
D102	PROCESS PIPING BASEMENT - DEMOLITION PLAN
D103	PROCESS PIPING GROUND FLOOR - DEMOLITION PLAN
D104	HVAC DEMOLITION PLANS
D105	HVAC DEMOLITION PLAN AND DETAILS
D106	ELECTRICAL DEMOLITION PLANS
D107	ELECTRICAL DEMOLITION ROOF PLAN
S101	GROUND FLOOR - PLAN AND DETAILS
M101	PROCESS PIPING BASEMENT PLAN
M102	PROCESS PIPING GROUND FLOOR PLAN
M103	PROCESS PIPING SECTIONS AND DETAILS
M104	HVAC PLANS AND DETAILS
M105	HVAC ROOF PLAN
M106	HVAC SECTIONS AND DETAILS
E101	POWER AND INSTRUMENT LOCATION PLANS
E102	ROOF PLAN
	HIGH STRENGTH FLOW EQUALIZATION TANK
D110	DEMOLITION PLANS AND DETAILS
M110	PROCESS PIPING PLAN AND DETAILS
E110	POWER PLAN AND DETAILS
	HIGH STRENGTH FLOW AREA
D120	DEMOLITION PLAN AND SECTION
M120	PROCESS PIPING PLAN AND SECTIONS
	VORTEX GRIT TANKS AREA
D201	ELECTRICAL DEMOLITION - PLAN AND DETAILS
D202	EXISTING VORTEX GRIT CHAMBER - DEMOLITION
D210	INFLUENT PUMP DISCHARGE CHANNEL - DEMOLITION PLAN AND SECTION
S210	INFLUENT CHANNEL - PLANS
S211	INFLUENT CHANNEL - DETAILS - SHEET 1
S212	INFLUENT CHANNEL - DETAILS - SHEET 2
S213	VORTEX GRIT TANKS - PLAN AT EL 641'-0"
S214	VORTEX GRIT TANKS - PLAN AT EL 650'-0"
S215	VORTEX GRIT TANKS - PLAN AT EL 659'-1 1/2"
S216	VORTEX GRIT TANKS - SECTIONS AND DETAILS - SHEET 1
S217	VORTEX GRIT TANKS - SECTIONS AND DETAILS - SHEET 2
S218	VORTEX GRIT TANKS - SECTIONS AND DETAILS - SHEET 3
M210	INFLUENT CHANNEL - PROCESS PIPING PLANS & DETAILS
M211	VORTEX GRIT TANKS - PROCESS PIPING PLAN & SECTIONS
M212	VORTEX GRIT TANKS - PROCESS PIPING PLAN
M213	VORTEX GRIT TANKS - HVAC PLAN AND SECTIONS
E210	POWER PLAN AND DETAILS
	GRIT DEWATERING BUILDING
D220	PROCESS PIPING DEMOLITION - PLAN AND SECTION
D221	ELECTRICAL DEMOLITION PLANS AND DETAILS
A220	FLOOR AND ROOF PLANS
A221	BUILDING ELEVATIONS


DWG NO	DRAWING TITLE
S220	PLANS
S221	SECTIONS
M220	PROCESS PIPING PLAN AND SECTIONS
M221	HVAC FLOOR AND ROOF PLANS
E220	POWER AND LIGHTING PLANS AND DETAILS
	PRIMARY CLARIFIER AREA
D301	TANKS 3100 AND 3200 - DEMOLITION DETAILS
D302	TANKS 3300 AND 3400 - DEMOLITION DETAILS
S301	TANK 3500 - PLAN AND DETAILS
S302	TANK 3500 - DETAILS
S303	TANK 3500 - STAIR AND PLATFORM DETAILS
S320	PRIMARY FLOW SPLITTER - PLANS
S321	PRIMARY FLOW SPLITTER - DETAILS - SHEET 1
S322	PRIMARY FLOW SPLITTER - DETAILS - SHEET 2
S330	PRIMARY SLUDGE PUMPING VAULTS - PLANS
S331	PRIMARY SLUDGE PUMPING VAULTS - DETAILS - SHEET 1
S332	PRIMARY SLUDGE PUMPING VAULTS - DETAILS - SHEET 2
S340	PRIMARY JUNCTION STRUCTURE NO.1 - STRUCTURAL PLAN AND SECTIONS
S341	PRIMARY JUNCTION STRUCTURE NO.2 - STRUCTURAL PLAN AND SECTIONS
S350	PRIMARY SLUDGE METER VAULT - PLANS AND DETAILS
M301	TANK 3100 AND 3200 MODIFICATIONS
M302	TANK 3300 AND 3400 MODIFICATIONS
M303	TANK 3500 - PLAN AND DETAILS - SHEET 1
M304	TANK 3500 - PLAN AND DETAILS - SHEET 2
M305	TANK 3500 - SUBDRAIN SYSTEM - PLAN AND DETAILS
M320	PRIMARY FLOW SPLITTER - MECHANICAL PLAN
M321	PRIMARY FLOW SPLITTER - MECHANICAL SECTIONS
M330	PRIMARY SLUDGE PUMPING VAULTS - PLANS
M331	PRIMARY SLUDGE PUMPING VAULTS - SECTIONS
M332	PRIMARY SLUDGE PUMPING VAULTS - HVAC PLANS AND DETAILS
M350	PRIMARY SLUDGE METER VAULT - PLANS AND DETAILS
E301	TANK 3500 - POWER PLAN AND DETAILS
E302	TANK 3100, 3200, 3300 AND 3400 HEAT TRACE DETAILS
E350	PRIMARY SLUDGE METER VAULT PLANS AND DETAILS
	AERATION TANKS
D401	STRUCTURAL DEMOLITION PLANS - SHEET 1
D402	STRUCTURAL DEMOLITION PLANS - SHEET 2
D403	STRUCTURAL DEMOLITION DETAILS - SHEET 1
D404	STRUCTURAL DEMOLITION DETAILS - SHEET 2
D405	PROCESS PIPING DEMOLITION PLANS - SHEET 1
D406	PROCESS PIPING DEMOLITION PLANS - SHEET 2
D407	PROCESS PIPING DEMOLITION PLANS - SHEET 3
D408	PROCESS PIPING DEMOLITION DETAILS
D409	ELECTRICAL DEMOLITION PLANS - SHEET 1
D410	ELECTRICAL DEMOLITION PLANS - SHEET 2
D411	ELECTRICAL DEMOLITION PLANS - SHEET 3
S401	PARTIAL PLAN - SHEET 1
S402	PARTIAL PLAN - SHEET 2 -
S403	PARTIAL PLAN - SHEET 3
S404	PARTIAL PLAN - SHEET 4
S405	DETAILS - SHEET 1
S406	DETAILS - SHEET 2
S407	DETAILS - SHEET 3
S408	DETAILS - SHEET 4
S409	DETAILS - SHEET 5
S410	DETAILS - SHEET 6
S411	DETAILS - SHEET 7
S412	DETAILS - SHEET 8

DWG NO	DRAWING TITLE
S413	DETAILS - SHEET 9
S414	DETAILS - SHEET 10
S415	DETAILS - SHEET 11
S416	DETAILS - SHEET 12
S418	WAS VALVE VAULT - PLAN AND DETAILS
M401	PROCESS PIPING PLAN - SHEET 1
M402	PROCESS PIPING PLAN - SHEET 2
M403	PROCESS PIPING PLAN - SHEET 3
M404	PROCESS PIPING PLAN - SHEET 4
M405	PROCESS PIPING DETAILS - SHEET 1
M406	PROCESS PIPING DETAILS - SHEET 2
M407	PROCESS PIPING DETAILS - SHEET 3
M408	SUBDRAIN PLAN AND DETAILS
M409	SUBDRAIN AND TANK DRAIN PLAN
E401	PLAN - SHEET 1
E402	PLAN - SHEET 2
E403	PLAN - SHEET 3
E404	PLAN - SHEET 4
E405	DETAILS
	BLOWER BUILDING
D420	ARCHITECTURAL DEMOLITION - PLANS AND ELEVATION
D421	STRUCTURAL DEMOLITION - PLAN AND DETAILS
D422	MECHANICAL DEMOLITION - PLAN AND SECTIONS
A420	FLOOR AND ROOF PLANS
A421	BUILDING ELEVATIONS
S420	ADDITION PLANS
S421	DETAILS
M420	PROCESS PIPING PLAN
M421	PROCESS PIPING SECTIONS AND DETAILS
M422	HVAC FLOOR PLAN
M423	HVAC ROOF PLAN
M424	PLUMBING PLAN
E420	POWER PLANS AND DETAILS
E421	LIGHTING PLAN AND DETAILS
E422	AND AERATION TANKS POWER PLAN
	SECONDARY CLARIFIER AREA
D501	TANKS 5100 & 5200 - DEMOLITION PLAN AND SECTIONS
D502	TANKS 5300 & 5400 DEMOLITION PLAN
D503	TANKS 5300 & 5400 DEMOLITION SECTION
S501	TANKS 5500 & 5600 - DETAILS - SHEET 1
S502	TANKS 5500 & 5600 - DETAILS - SHEET 2
S503	TANKS 5500 & 5600 - DETAILS - SHEET 3
S504	TANKS 5500 & 5600 - DETAILS - SHEET 4
S520	SECONDARY FLOW SPLITTER - PLAN @ EL 651'-0"
S521	SECONDARY FLOW SPLITTER - PLAN @ EL 646'-0"
S522	SECONDARY FLOW SPLITTER - DETAILS
S540	EFFLUENT JUNCTION STRUCTURE NO. 1 - PLAN AND DETAILS
S541	EFFLUENT JUNCTION STRUCTURE NO. 2 - PLAN AND DETAILS
S542	EFFLUENT JUNCTION STRUCTURE NO. 3 - PLAN AND DETAILS
S550	RAS METER VAULT - PLANS
S551	RAS METER VAULT - DETAILS
M501	TANKS 5100 & 5200 MECHANICAL PLAN
M502	TANKS 5300 & 5400 MECHANICAL PLAN
M503	TANKS 5300 & 5400 MECHANICAL SECTION
M505	TANKS 5500 & 5600 MECHANICAL DETAILS - SHEET 1
M506	TANKS 5500 & 5600 MECHANICAL DETAILS - SHEET 2

DWG NO	DRAWING TITLE
M507	TANKS 5500 & 5600 SUBDRAIN SYSTEM - PLAN AND DETAILS
M508	RAS PUMP WELLS - PLAN AND SECTION
M520	SECONDARY FLOW SPLITTER - MECHANICAL PLAN AND SECTION
M550	RAS METER VAULT - MECHANICAL PLANS AND DETAILS
M560	SECONDARY SCUM COLLECTION MANHOLES
E501	TANKS 5500 & 5600 POWER PLAN
E502	TANKS 5100 AND 5200 - HEAT TRACE DETAILS
E503	TANKS 5300 AND 5400 - HEAT TRACE DETAILS
E550	RAS METER VAULT - PLANS AND DETAILS
E560	SECONDARY SCUM COLLECTION MANHOLES - ELECTRICAL PLANS AND DETAILS
	DISINFECTION TANKS AREA
D601	STRUCTURAL DEMOLITION PLANS
D602	STRUCTURAL DEMOLITION DETAILS
D603	CHLORINE CONTACT TANKS - PROCESS PIPING DEMOLITION PLAN
D604	CHLORINE BUILDING AND CONTACT TANKS - POWER DEMOLITION PLAN
	DISINFECTION TANKS AREA - OPTION A
S601	UV AND EFFLUENT WATER STORAGE TANKS - OVERALL TOP COVER PLAN
S602	UV AND EFFLUENT WATER STORAGE TANKS - TOP PLAN - SHEET 1
S603	PRE-ENGINEERED BUILDING - PLAN AND DETAILS
S604	UV AND EFFLUENT WATER STORAGE TANKS - DETAILS - SHEET 1
S605	UV AND EFFLUENT WATER STORAGE TANKS - DETAILS - SHEET 2
S606	UV AND EFFLUENT WATER STORAGE TANKS - DETAILS - SHEET 3
S607	UV AND EFFLUENT WATER STORAGE TANKS - DETAILS - SHEET 4
S608	UV AND EFFLUENT WATER STORAGE TANKS - DETAILS - SHEET 5
S610	EW IRW METER VAULT - PLAN AND DETAILS
M601	UV AND EFFLUENT WATER STORAGE TANKS - PROCESS PIPING PLANS
M602	UV TANKS - PROCESS PIPING SECTIONS
M603	EFFLUENT WATER STORAGE TANKS - PROCESS PIPING PLAN AND SECTIONS
M604	EW IRW METER VAULT
E601	UV AND EFFLUENT WATER STORAGE TANKS - POWER PLAN AND DETAILS
E602	UV TANKS - POWER PLAN DETAILS
	DISINFECTION TANKS AREA - OPTION B
S601A	UV AND EFFLUENT WATER STORAGE TANKS - OVERALL TOP COVER PLAN
S602A	UV AND EFFLUENT WATER STORAGE TANKS - TOP PLAN - SHEET 1
S603A	PRE-ENGINEERED BUILDING - PLAN AND DETAILS
S604A	DETAILS - SHEET 1
S605A	DETAILS - SHEET 2
M601A	UV AND EFFLUENT WATER STORAGE TANKS - PROCESS PIPING PLANS
M602A	UV TANKS - PROCESS PIPING SECTIONS
E601A	UV TANKS - POWER PLAN AND DETAILS
E602A	UV TANKS - POWER DETAILS
	DISINFECTION STORAGE BUILDING
D610	MECHANICAL DEMOLITION PLAN
M610	PROCESS PIPING PLAN
E610	POWER AND LIGHTING PLANS AND DETAILS

DWG NO	DRAWING TITLE
E611	PANEL SCHEDULES
	SODIUM HYPOCHLORITE BUILDING
A620	LIFE SAFETY PLAN
A621	FLOOR AND ROOF PLANS
A622	BUILDING ELEVATIONS
S620	PLANS
S621	DETAILS - SHEET 1
S622	DETAILS - SHEET 2
M620	PROCESS PIPING PLAN
M621	PROCESS PIPING SECTIONS & DETAILS
M623	PLUMBING PLAN AND DETAILS
M624	HVAC PLAN AND DETAILS
M625	HVAC ROOF PLAN AND DETAILS
M626	HVAC SECTIONS AND DETAILS
M627	FIRE PROTECTION PLAN AND DETAILS
M628	HVAC CONTROL SCHEMATIC
E620	POWER AND LIGHTING PLANS
	SLUDGE PUMPING BUILDING
D701	MECHANICAL DEMOLITION PLANS
D702	HVAC DEMOLITION PLANS AND DETAILS
D703	ELECTRICAL DEMOLITION PLANS
M701	PROCESS PIPING PLANS AND SECTIONS
M703	HVAC PLANS AND DETAILS
M704	HVAC SECTIONS AND DETAILS
M705	HVAC CONTROL SCHEMATIC
E701	POWER AND LIGHTING PLANS AND DETAILS
E702	PANEL SCHEDULES

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	CLB	CLB	BDR	01-25-2012
1	ISSUED FOR CONSTRUCTION	CLB	CLB	BDR	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



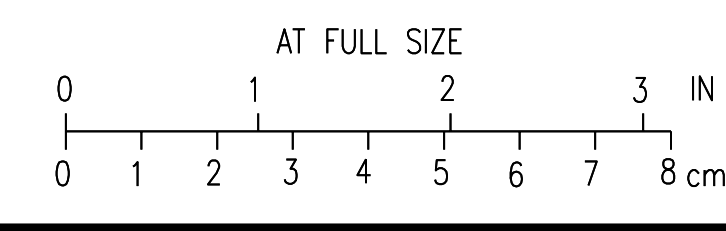
Stanley Consultants INC.

225 Iowa Avenue, Muscatine, Iowa 52761-3764
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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**GENERAL
DRAWING INDEX - SHEET 1
DRAWING SET 2 OF 2**

DESIGNED	CL BARK	SCALE: AS NOTED
DRAWN	DA SCHMIDT	NO. 22800
CHECKED	CL BARK	REV.
APPROVED	BD REISCHAUER	G2A
APPROVED	BD REISCHAUER	3
DATE	DECEMBER 2, 2011	



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DWG NO	DRAWING TITLE
	DIGESTER AREA
D801	MECHANICAL BASEMENT DEMOLITION PLAN
D802	MECHANICAL GROUND FLOOR - DEMOLITION PLAN
D803	MECHANICAL ROOF DEMOLITION PLAN
D804	MECHANICAL DEMOLITION DETAILS
D805	SLUDGE DIGESTER TANK - MECHANICAL DEMOLITION DETAILS
D806	SLUDGE HOLDING TANK - MECHANICAL DEMOLITION DETAILS
D810	ELECTRICAL DEMOLITION BASEMENT PLAN
D811	ELECTRICAL DEMOLITION GROUND FLOOR PLAN
M801	GENERAL ARRANGEMENT PLAN
M802	PROCESS PIPING BASEMENT PLAN - SHEET 1
M803	PROCESS PIPING BASEMENT PLAN - SHEET 2
M804	PROCESS PIPING GROUND FLOOR PLAN - SHEET 1
M805	PROCESS PIPING GROUND FLOOR PLAN - SHEET 2
M806	PROCESS PIPING GROUND FLOOR - ENLARGED PLAN AND SECTIONS
M808	SLUDGE DIGESTER TANK PLAN AND SECTION
M809	SLUDGE HOLDING TANK PLAN AND SECTION
M810	PROCESS PIPING SECTIONS & DETAILS
E801	BASEMENT PLAN - SHEET 1
E802	BASEMENT PLAN - SHEET 2
E803	GROUND FLOOR PLAN - SHEET 1
E803A	GROUND FLOOR PLAN - SHEET 2
E804	SECTIONS AND DETAILS
	SLUDGE PROCESSING FACILITY
D901	STRUCTURAL GROUND FLOOR - DEMOLITION PLAN
D902	PROCESS PIPING GROUND FLOOR - DEMOLITION PLAN
D903	CONVEYOR DEMOLITION DETAILS
D910	HVAC GROUND FLOOR DEMOLITION PLAN
D911	HVAC ROOF DEMOLITION PLAN
D912	ELECTRICAL DEMOLITION PLAN
D913	ELECTRICAL DEMOLITION DETAILS
D914	PLUMBING GROUND FLOOR - DEMOLITION PLAN
A901	TOILET DEMOLITION AND RENOVATION - PLANS AND ELEVATION
S901	ROTARY DRUM THICKENER FLOOR PLAN
S902	DETAILS
M901	PROCESS PIPING GROUND FLOOR PLAN
M902	PROCESS PIPING PLAN AND SECTIONS - ROTARY DRUM THICKENERS - SHEET 1
M903	PROCESS PIPING PLAN AND SECTIONS - ROTARY DRUM THICKENERS - SHEET 2
M904	PROCESS PIPING PLANS AND DETAILS
M905	POLYMER PROCESS ISOMETRIC
M906	PROCESS PIPING PLAN AND SECTION - CONVEYOR REPLACEMENT
M907	PLUMBING GROUND FLOOR PLAN AND DETAILS
M910	HVAC GROUND FLOOR PLAN
M911	HVAC ROOF PLAN
M912	HVAC SECTIONS AND DETAILS
M913	HVAC CONTROL SCHEMATIC - SHEET 1
M914	HVAC CONTROL SCHEMATIC - SHEET 2
M915	HVAC CONTROL SCHEMATIC - SHEET 3
E901	POWER AND LIGHTING PLAN
E902	POWER AND LIGHTING DETAILS
	MAINTENANCE VEHICLE STORAGE
E960	GROUND FLOOR POWER PLAN
	EQUIPMENT WAREHOUSE
A970	FLOOR PLAN AND DETAILS

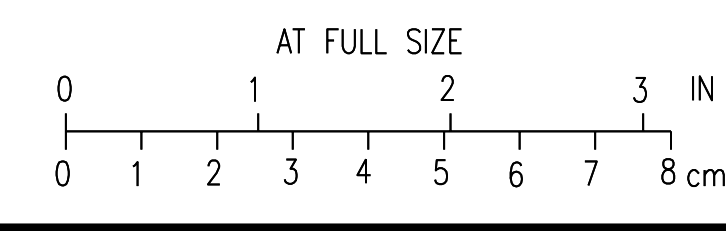
DWG NO	DRAWING TITLE
A971	ELEVATIONS AND SECTION
A972	SECTIONS AND DETAILS
S970	PLAN AND DETAILS
E971	POWER AND LIGHTING PLANS AND DETAILS
E972	PANEL SCHEDULES
	BIOSOLIDS STORAGE AREA
S990	GROUND FLOOR PLAN
S991	FLOOR JOINTING PLAN
S992	DETAILS - SHEET 1
S993	DETAILS - SHEET 2
E991	POWER AND LIGHTING PLAN
	NORTH PLANT MODIFICATIONS
C90	NORTH PLANT VICINITY MAP AND - RELOCATED SEWER PLAN & PROFILE
C91	NORTH PLANT DIVERSION STRUCTURE - MODIFICATION PLAN
C92	NORTH PLANT DIVERSION STRUCTURE - MODIFICATION DETAILS

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	CLB	CLB	BDR	01-25-2012
1	ISSUED FOR CONSTRUCTION	CLB	CLB	BDR	01-10-2012



CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**GENERAL
DRAWING INDEX - SHEET 2
DRAWING SET 2 OF 2**



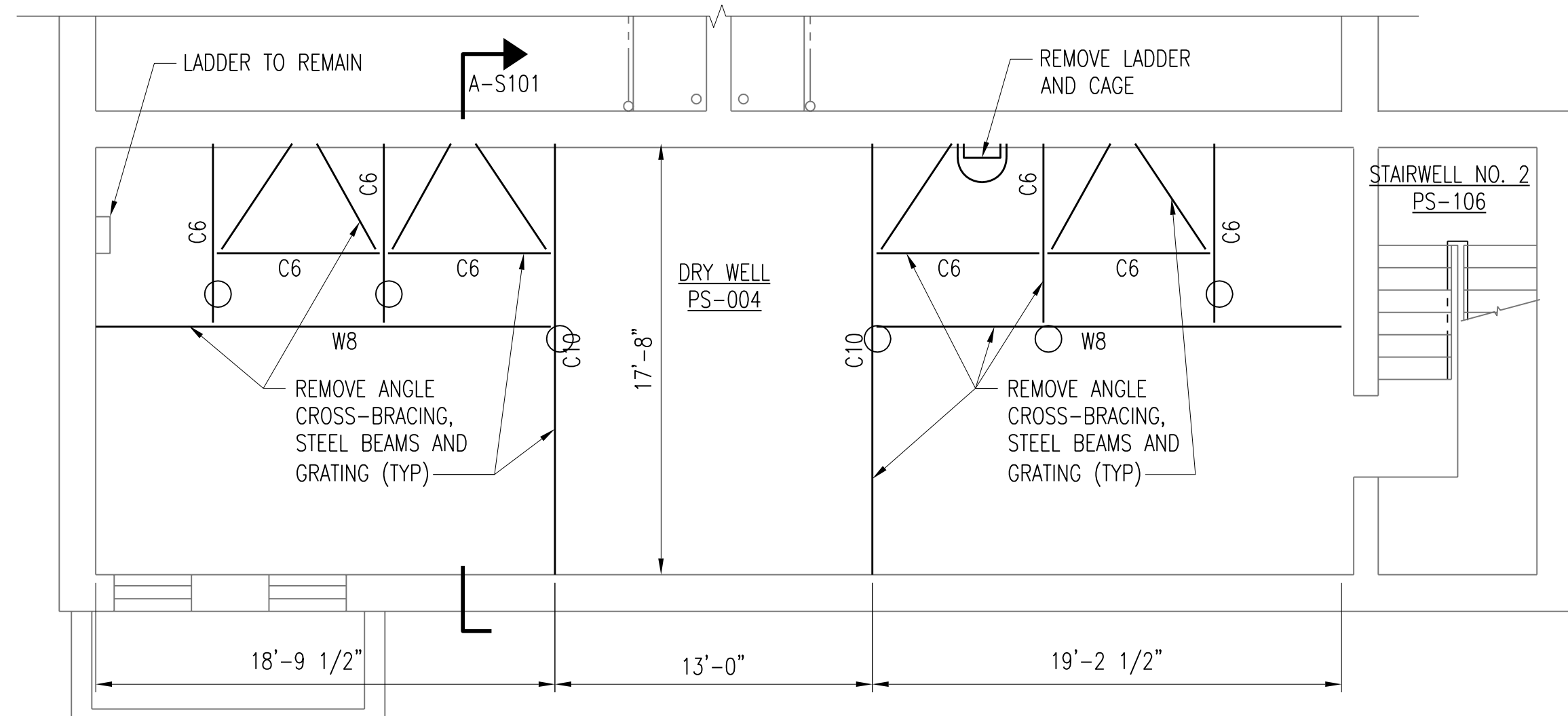
DESIGNED: CL BARK	SCALE: AS NOTED	REV.
DRAWN: DA SCHMIDT	NO. 22800	
CHECKED: CL BARK	G3A	3
APPROVED: BD REISCHAUER		
DATE: DECEMBER 2, 2011		

CADDD D1-11-14

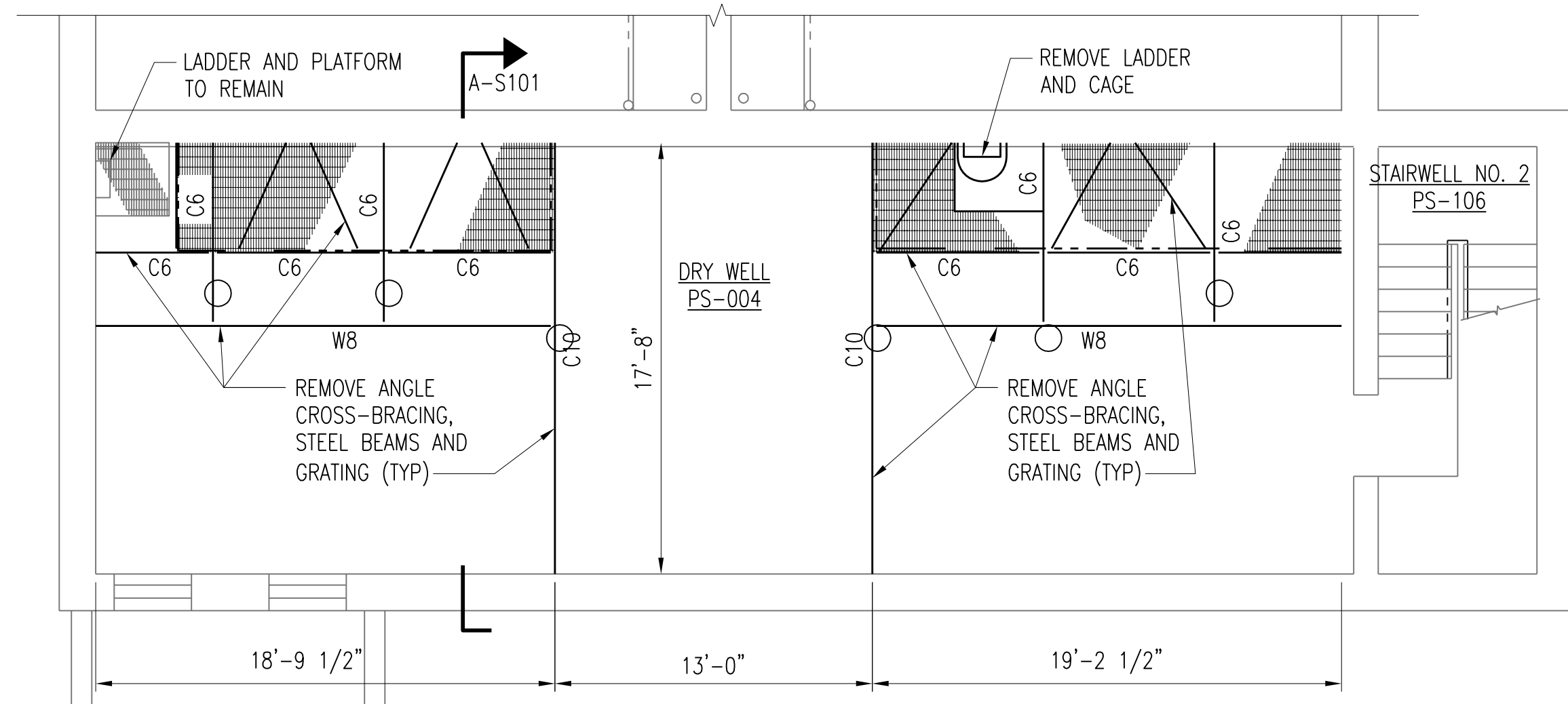
BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE

NOTES:

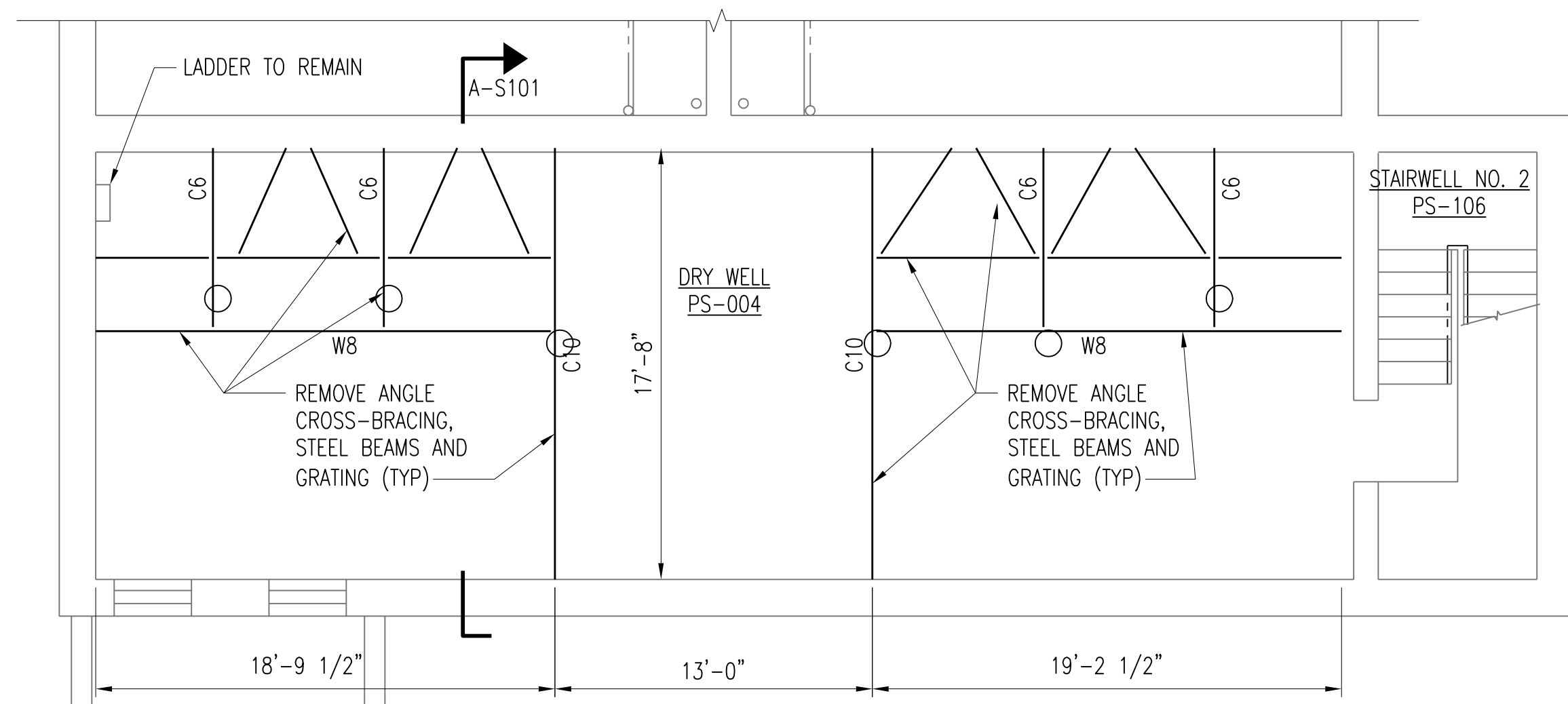
1. PLAN LOCATION, ELEVATION AND INDICATED SIZE OF STEEL TO BE REMOVED ARE APPROXIMATE AND SHALL BE FIELD VERIFIED. COORDINATE FINAL REMOVAL OF STEEL MEMBERS WITH OWNER.
2. PUMPS, PIPING AND OTHER MECHANICAL AND ELECTRICAL SYSTEMS NOT SHOWN FOR CLARITY. COORDINATE WITH ELECTRICAL DRAWINGS FOR RELOCATION OF ELECTRICAL CONDUITS SUPPORTED BY STEEL TO BE REMOVED.
3. COORDINATE REMOVAL OF PUMP SHAFT SUPPORTS WITH CONSTRUCTION SEQUENCING.
4. ANCHOR BOLTS OR ANY OTHER CONNECTIONS TO CONCRETE WALLS SHALL BE GROUND FLUSH WITH WALL OR SHALL BE REMOVED AND HOLES PATCHED WITH GROUT.
5. CONTRACTOR MAY USE EXISTING 2 TON HOIST TO ASSIST THE STEEL REMOVAL PROCESS FROM THE DRY WELL. COORDINATE HOIST USE WITH OWNER PRIOR TO USE.



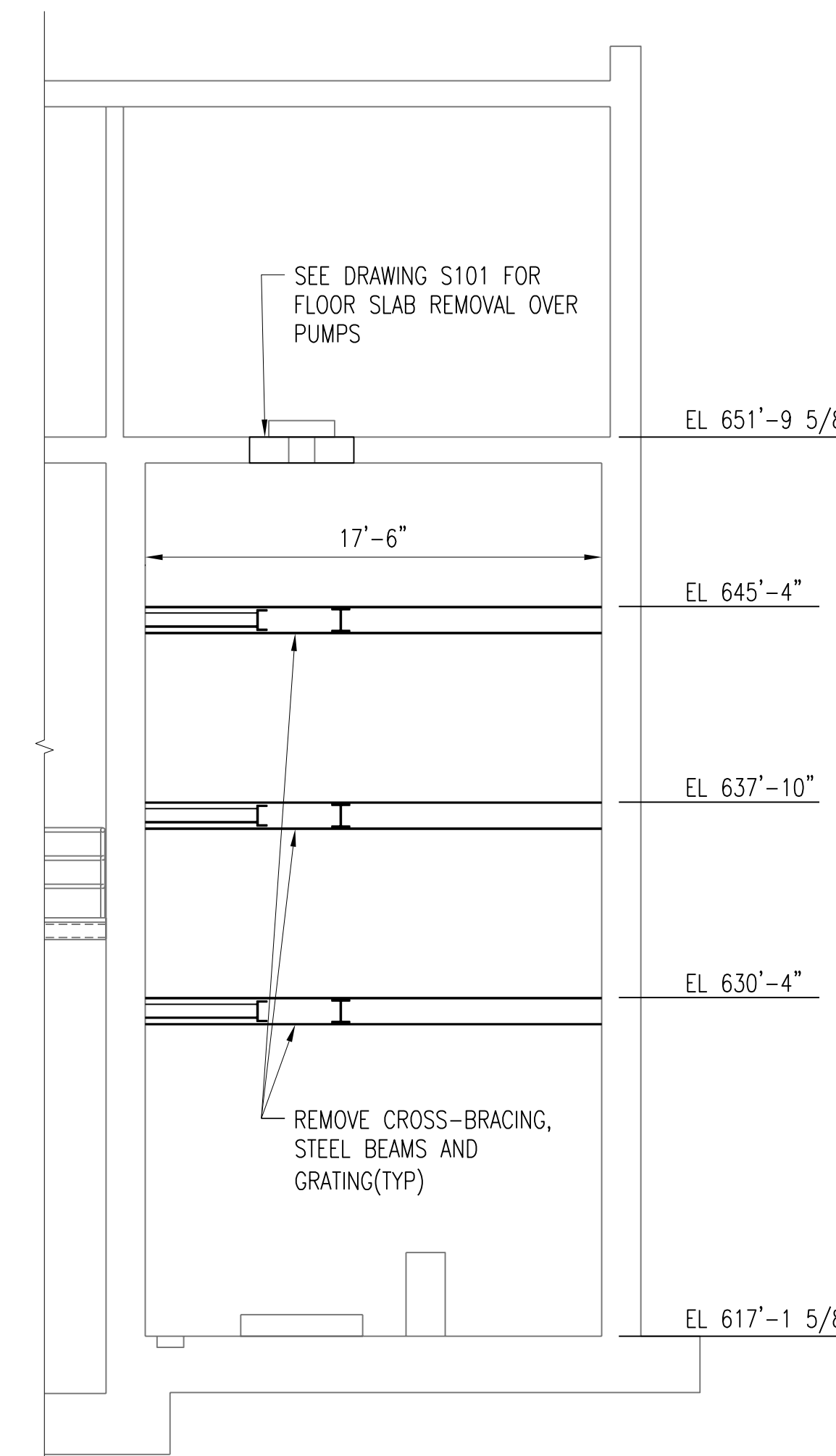
EL 630'-4" DEMOLITION PLAN
SCALE: 3/16" = 1'-0"



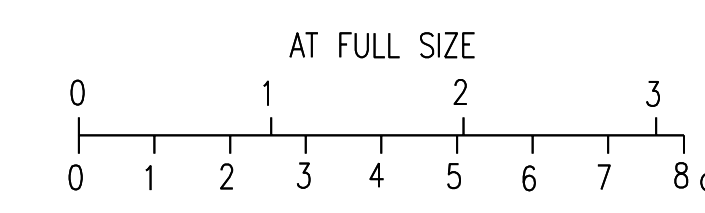
EL 637'-10" DEMOLITION PLAN
SCALE: 3/16" = 1'-0"



EL 645'-4" DEMOLITION PLAN
SCALE: 3/16" = 1'-0"



SECTION A-S101
SCALE: 3/16" = 1'-0"



NO.	REVISIONS	DSGN	CHKD	APVD	DATE
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012



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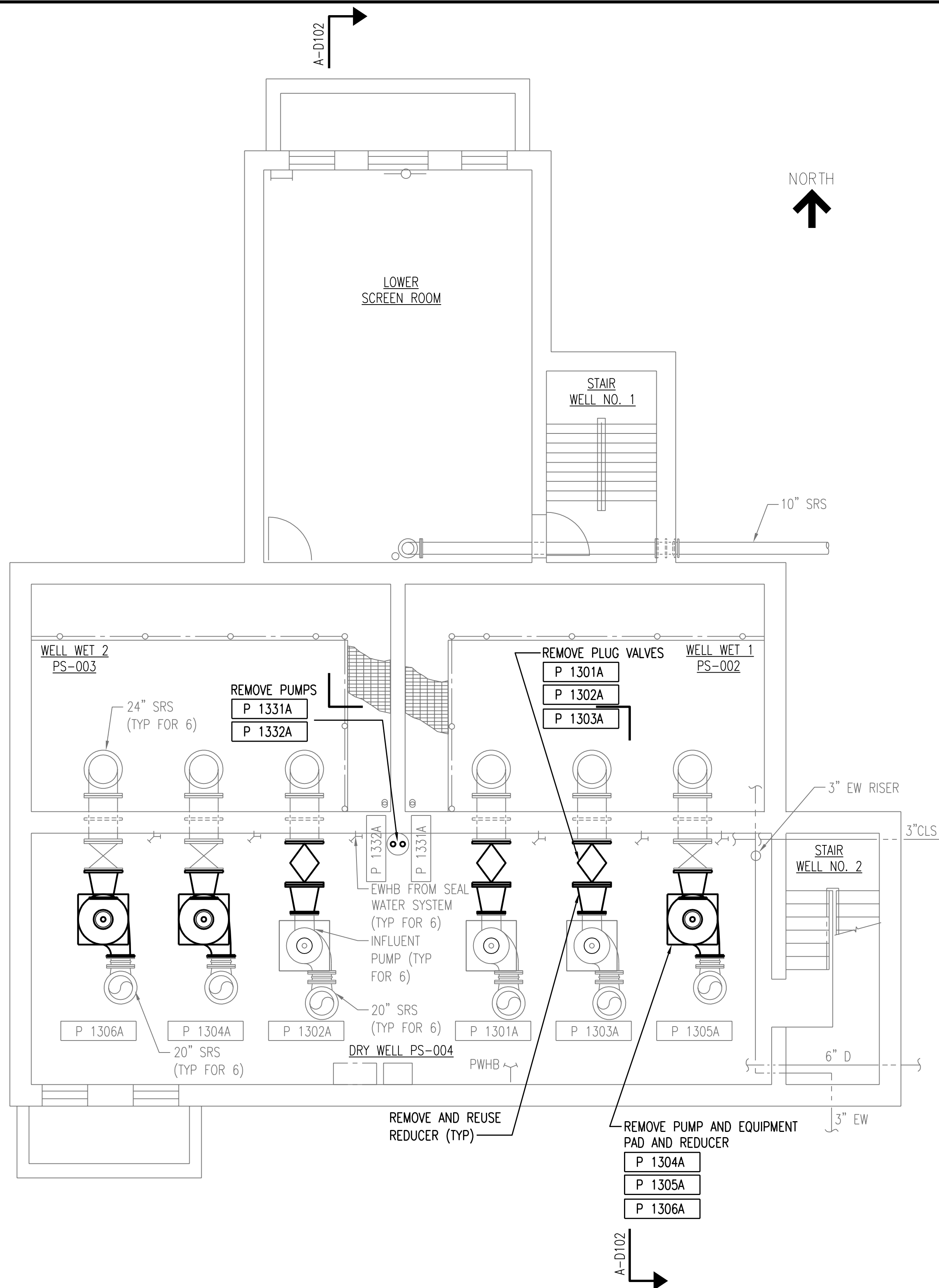
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**INFLUENT PUMP STATION
STRUCTURAL DEMOLITION PLANS**

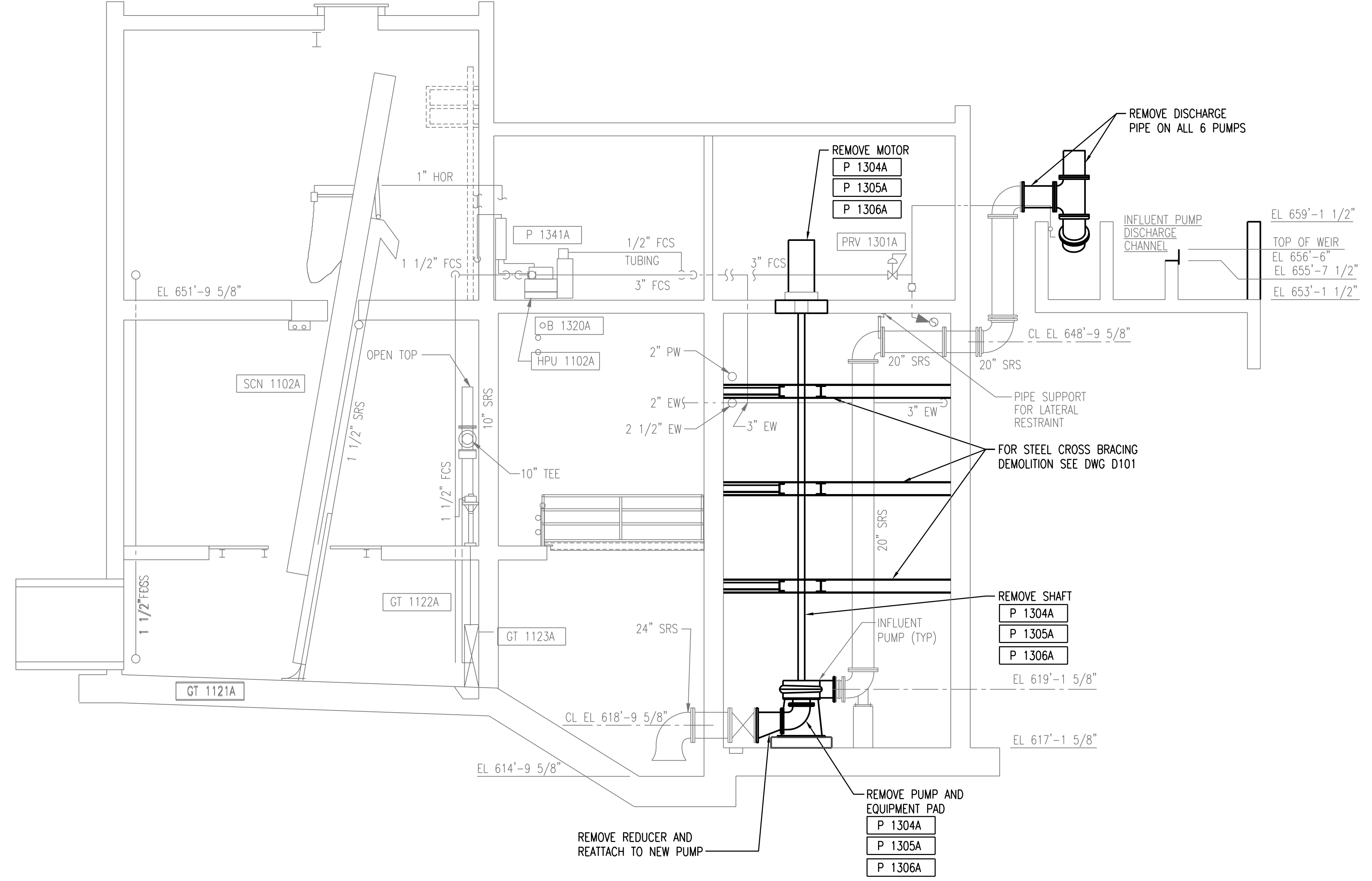
DESIGNED	KB HALL
DRAWN	DA SCHMIDT
CHECKED	KB HALL
APPROVED	LH BADTRAM
DATE	DECEMBER 2, 2011

SCALE: AS NOTED	NO. 22800	REV.
	D101	2

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INFLUENT PUMP STATION BASEMENT PLAN
SCALE: 3/16" = 1'-0"



SECTION A-D102
D102.D103
SCALE: 3/16" = 1'-0"

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	LABEL AND DEMO PUMPS	JBL	JBL	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	JBL	JBL	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



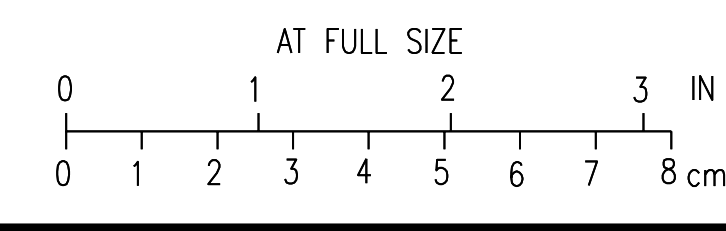
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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**INFLUENT PUMP STATION
PROCESS PIPING BASEMENT
DEMOLITION PLAN**

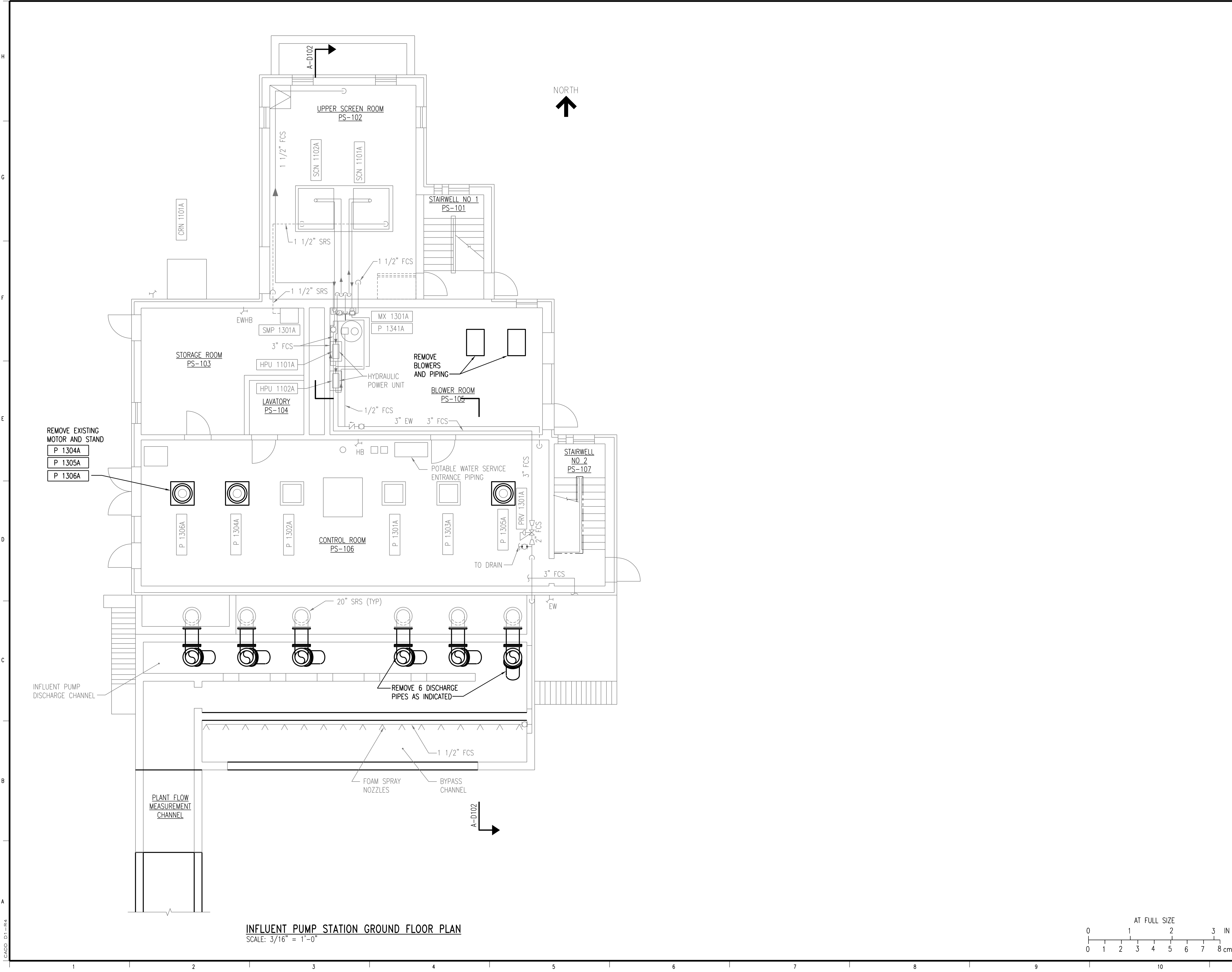
DESIGNED	JBL LUND	SCALE:	AS NOTED
DRAWN	LJ OSBORN	NO.	22800
CHECKED	JBL LUND	REV.	
APPROVED	JM BRADY	D102	3
DATE	DECEMBER 2, 2011		



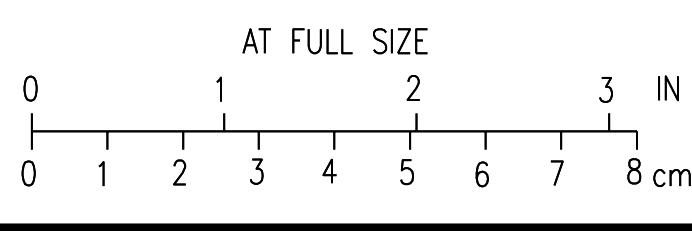
CADD: D1-104

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BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE



INFLUENT PUMP STATION GROUND FLOOR PLAN
SCALE: 3/16" = 1'-0"



3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED TEXT	JBL	JBL	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	JBL	JBL	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**INFLUENT PUMP STATION
PROCESS PIPING GROUND FLOOR
DEMOLITION PLAN**

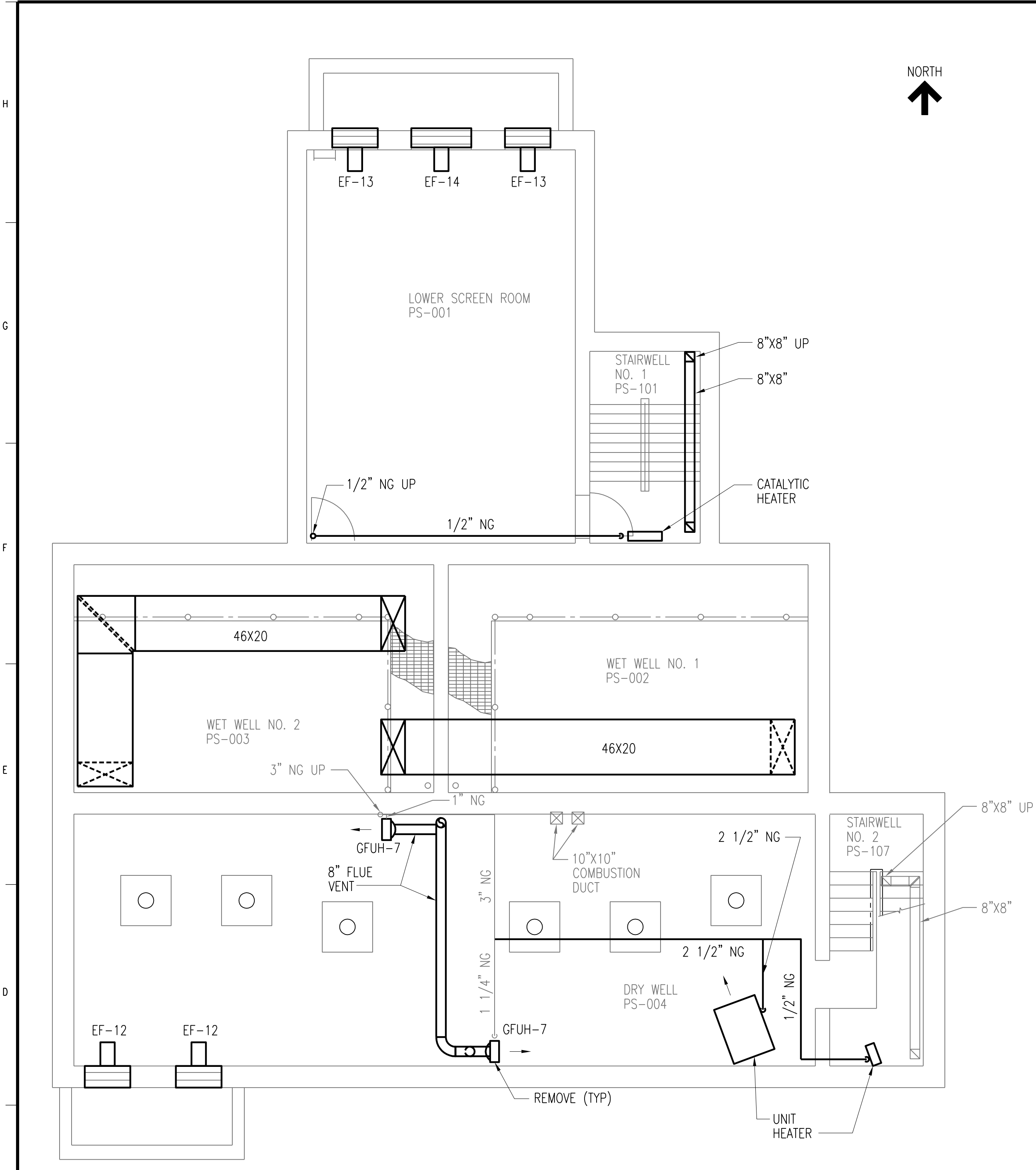
DESIGNED	JBL LUND	SCALE:	AS NOTED
DRAWN	LJ OSBORN	NO.	22800
CHECKED	JBL LUND	REV.	
APPROVED	JM BRADY	D103	3
DATE	DECEMBER 2, 2011		

CADD: D1-104

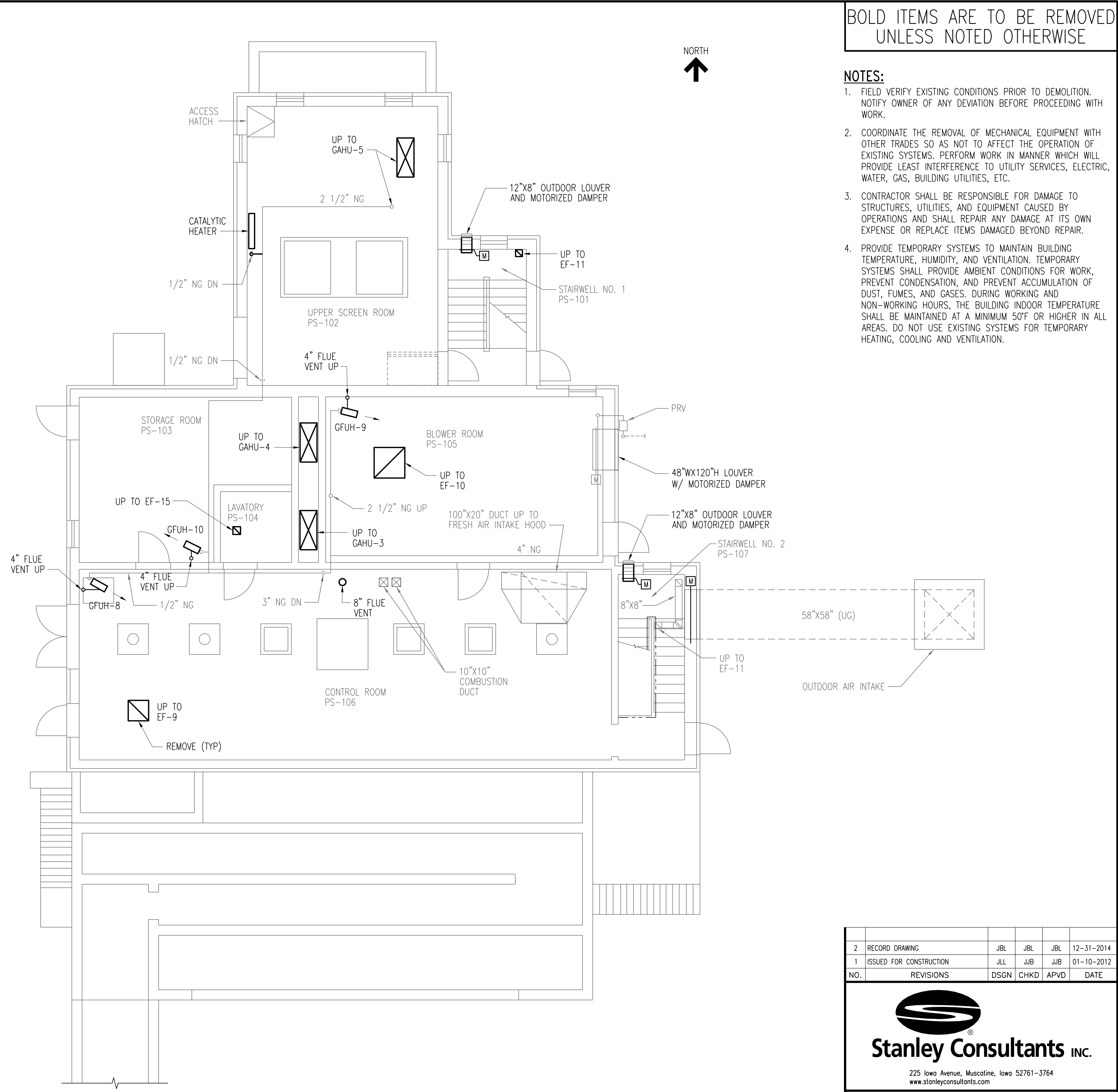
BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE

NOTES:

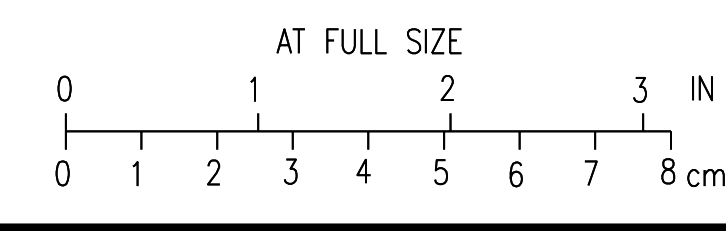
1. FIELD VERIFY EXISTING CONDITIONS PRIOR TO DEMOLITION. NOTIFY OWNER OF ANY DEVIATION BEFORE PROCEEDING WITH WORK.
2. COORDINATE THE REMOVAL OF MECHANICAL EQUIPMENT WITH OTHER TRADES SO AS NOT TO AFFECT THE OPERATION OF EXISTING SYSTEMS. PERFORM WORK IN MANNER WHICH WILL PROVIDE LEAST INTERFERENCE TO UTILITY SERVICES, ELECTRIC, WATER, GAS, BUILDING UTILITIES, ETC.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO STRUCTURES, UTILITIES, AND EQUIPMENT CAUSED BY OPERATIONS AND SHALL REPAIR ANY DAMAGE AT ITS OWN EXPENSE OR REPLACE ITEMS DAMAGED BEYOND REPAIR.
4. PROVIDE TEMPORARY SYSTEMS TO MAINTAIN BUILDING TEMPERATURE, HUMIDITY, AND VENTILATION. TEMPORARY SYSTEMS SHALL PROVIDE AMBIENT CONDITIONS FOR WORK, PREVENT ACCUMULATION OF DUST, FUMES, AND GASES. DURING WORKING AND NON-WORKING HOURS, THE BUILDING INDOOR TEMPERATURE SHALL BE MAINTAINED AT A MINIMUM 50°F OR HIGHER IN ALL AREAS. DO NOT USE EXISTING SYSTEMS FOR TEMPORARY HEATING, COOLING AND VENTILATION.



INFLUENT PUMPING STATION BASEMENT PLAN
SCALE: 3/16" = 1'-0"



INFLUENT PUMPING STATION GROUND FLOOR PLAN
SCALE: 3/16" = 1'-0"



NO.	REVISIONS	DSGN	CHKD	APVD	DATE
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JLL	JJB	JJB	01-10-2012

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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**INFLUENT PUMP STATION
HVAC DEMOLITION PLANS**

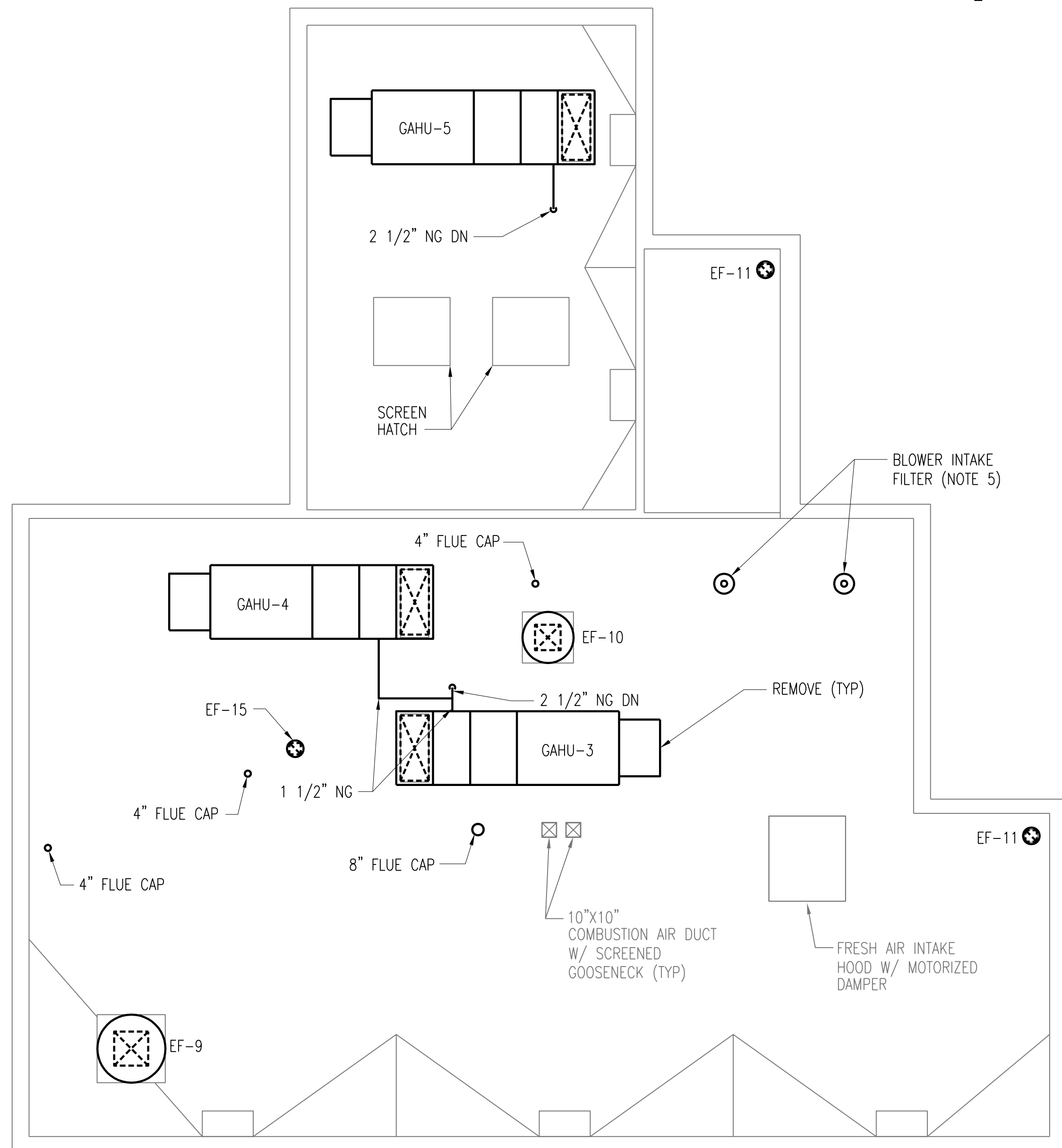
DESIGNED <u>JL LEE</u>	SCALE: AS NOTED
DRAWN <u>D.WILGES</u>	NO. 22800
CHECKED <u>JJ BOVENKAMP</u>	REV.
APPROVED <u>JJ BOVENKAMP</u>	D104
DATE <u>DECEMBER 2, 2011</u>	2

BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE

NOTES:

1. FIELD VERIFY EXISTING CONDITIONS PRIOR TO DEMOLITION. NOTIFY OWNER OF ANY DEVIATION BEFORE PROCEEDING WITH WORK.
2. COORDINATE THE REMOVAL OF MECHANICAL EQUIPMENT WITH OTHER TRADES SO AS NOT TO AFFECT THE OPERATION OF EXISTING SYSTEMS. PERFORM WORK IN MANNER WHICH WILL PROVIDE LEAST INTERFERENCE TO UTILITY SERVICES, ELECTRIC, WATER, GAS, BUILDING UTILITIES, ETC.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO STRUCTURES, UTILITIES, AND EQUIPMENT CAUSED BY OPERATIONS AND SHALL REPAIR ANY DAMAGE AT ITS OWN EXPENSE OR REPLACE ITEMS DAMAGED BEYOND REPAIR.
4. PROVIDE TEMPORARY SYSTEMS TO MAINTAIN BUILDING TEMPERATURE, HUMIDITY, AND VENTILATION. TEMPORARY SYSTEMS SHALL PROVIDE AMBIENT CONDITIONS FOR WORK, PREVENT CONDENSATION, AND PREVENT ACCUMULATION OF DUST, FUMES, AND GASES. DURING WORKING AND NON-WORKING HOURS, THE BUILDING INDOOR TEMPERATURE SHALL BE MAINTAINED AT A MINIMUM 50°F OR HIGHER IN ALL AREAS. DO NOT USE EXISTING SYSTEMS FOR TEMPORARY HEATING, COOLING AND VENTILATION.
5. REMOVE EXISTING PIPE, PIPE SLEEVE, AND FLASHING. FILL PIPE OPENING WITH INSULATION AND PROVIDE A COVER PLATE ANCHORED TO TOP OF ROOF DECK. RE-ROOF WITH SIMILAR ROOFING MATERIAL PER MANUFACTURER'S STANDARD DETAIL.

NORTH
↑



INFLUENT PUMPING STATION ROOF PLAN

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

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JLL	JJB	JJB	01-10-2012

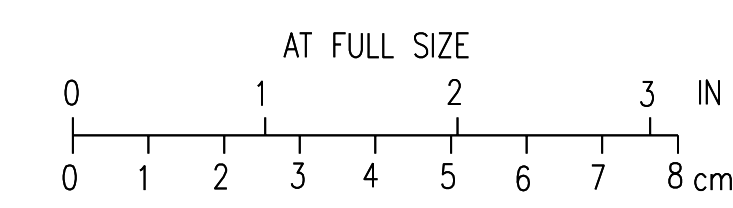


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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**INFLUENT PUMP STATION
HVAC DEMOLITION PLAN AND DETAILS**

DESIGNED <u>JL LEE</u>	SCALE: AS NOTED
DRAWN <u>D.WILGES</u>	NO. 22800
CHECKED <u>JJ BOVENKAMP</u>	REV. <u>2</u>
APPROVED <u>JJ BOVENKAMP</u>	D105
DATE <u>DECEMBER 2, 2011</u>	

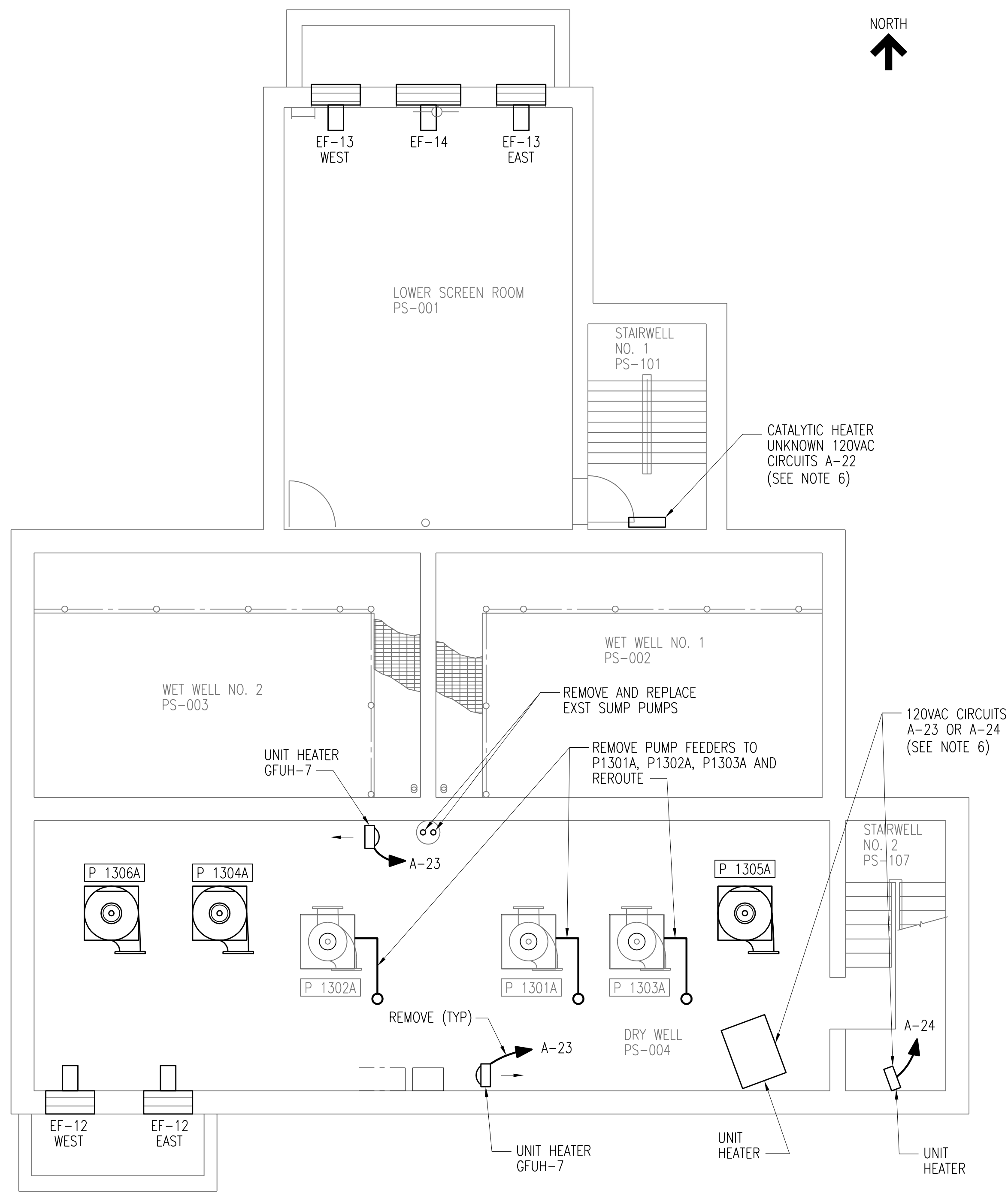


CAD D-11-14

BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE

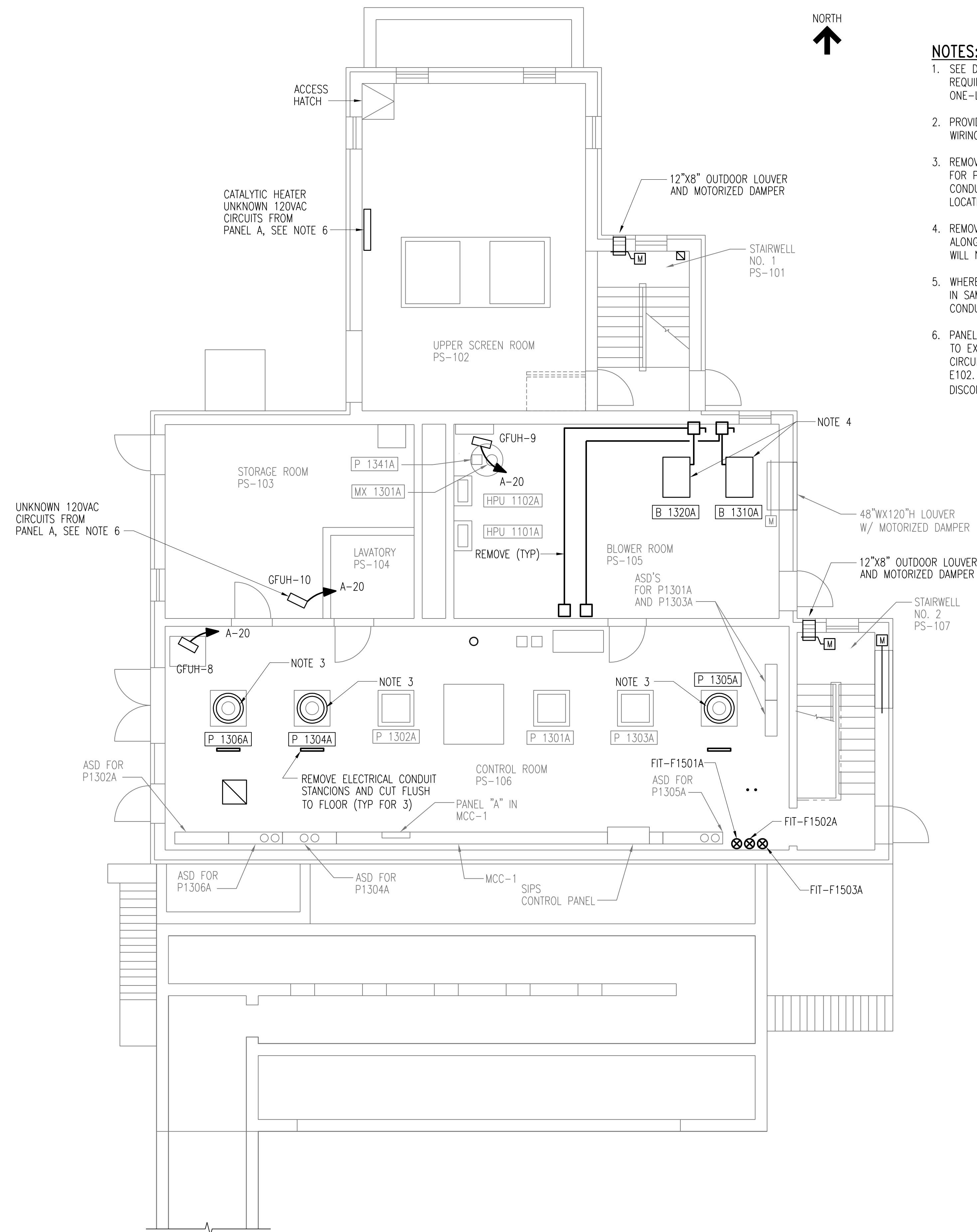
NOTES:

- SEE DRAWING D12 AND D13 FOR MCC-1 ONE-LINE DEMOLITION REQUIREMENTS AND DRAWING E12 AND E13 FOR REVISED MCC-1 ONE-LINE DIAGRAM.
- PROVIDE CAPS OR SEALOFFS ON REMAINING CONDUITS AFTER REMOVAL OF WIRING FROM CONDUITS PENETRATING TEMPERED SPACES.
- REMOVE EXISTING 125HP ELECTRICAL MOTORS ON GROUND FLOOR LEVEL FOR PUMPS P1304A, P1305A, AND P1306A AND WIRING BACK TO ASD AND CONDUIT BACK TO FIRST COUPLER CONDUIT EXIT AT ASSOCIATED ASD AT LOCATIONS SHOWN.
- REMOVE EXISTING BLOWERS AND WIRING REQUIREMENTS BACK TO MCC-1 ALONG WITH ANY CONDUIT SUPPORTS DEDICATED TO THIS LOAD. BLOWERS WILL NOT BE REPLACED AT SAME LOCATION.
- WHERE DEMOLITION ONE LINE DIAGRAMS SHOW REPLACE HVAC EQUIPMENT IN SAME LOCATION CONTRACTOR MAY REUSE EXISTING CONDUITING AND CONDUIT IF POSSIBLE AND IN GOOD CONDITION.
- PANEL A SERVING 120V LOADS IS LOCATED IN MCC-1. REMOVE CIRCUITS TO EXISTING HVAC EQUIPMENT SHOWN ON THIS DRAWING AND PROVIDE NEW CIRCUITING TO NEW 120V HVAC UNITS SHOWN ON DRAWING E101 AND E102. CONTRACTOR TO CONFIRM ALL CIRCUITS AT PANEL BEFORE DISCONNECTING AT ALL SITE PANELS AND MCC'S.



INFLUENT PUMPING STATION BASEMENT PLAN

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



INFLUENT PUMPING STATION GROUND FLOOR PLAN

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

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



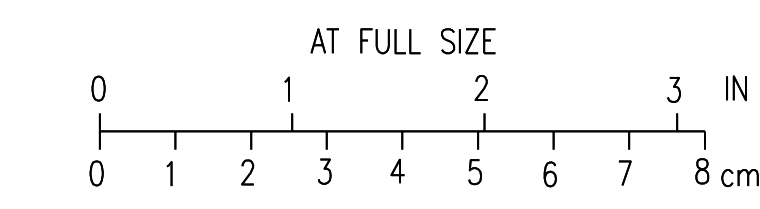
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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

INFLUENT PUMP STATION ELECTRICAL DEMOLITION PLANS

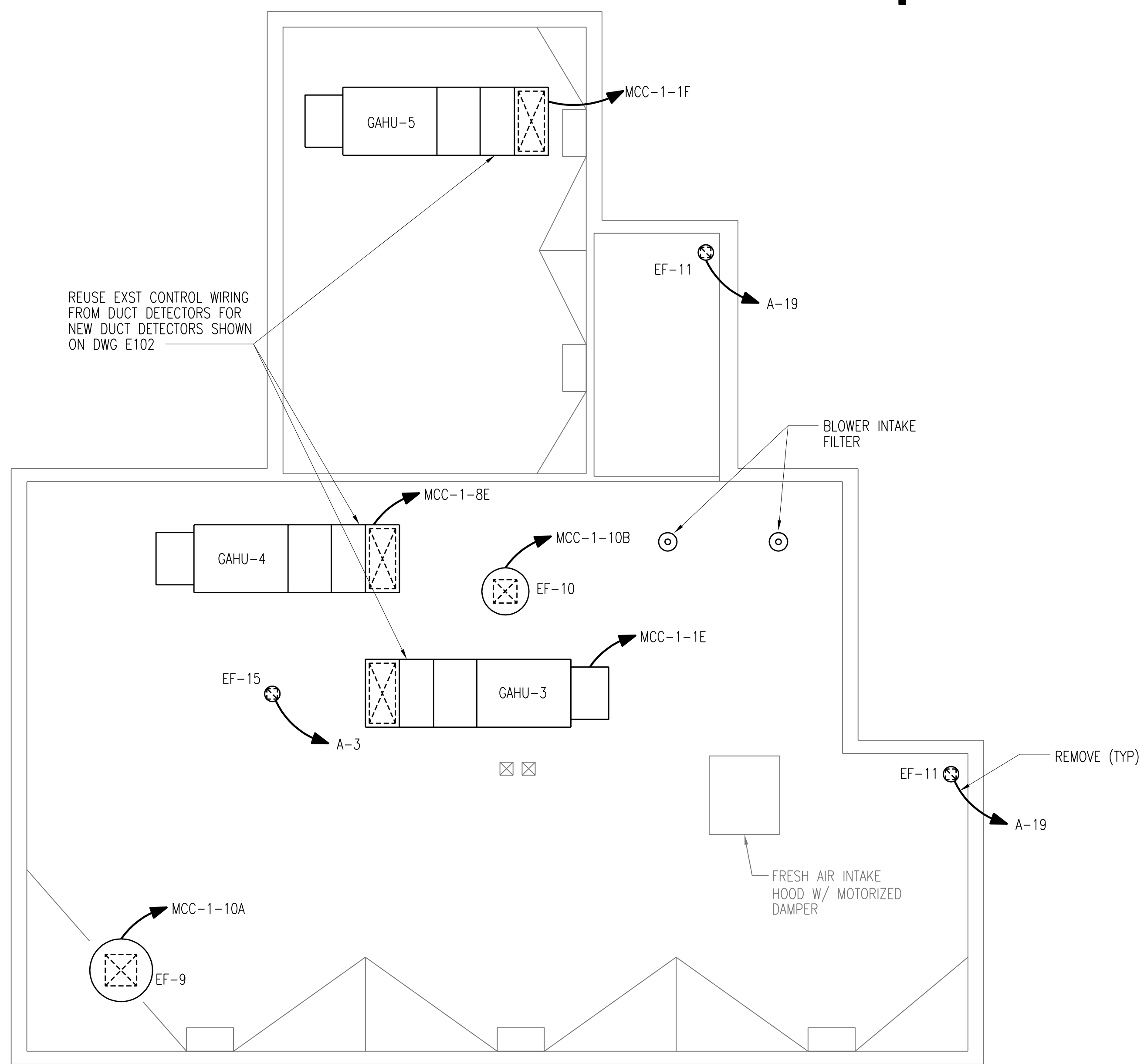
DESIGNED	DL MORITZ	SCALE:	AS NOTED
DRAWN	D.WILGES	NO.	22800
CHECKED	DL MORITZ	REV.	
APPROVED	JD COOAN	D106	3
DATE	DECEMBER 2, 2011		



CAD: D1-14

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BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE



INFLUENT PUMPING STATION ROOF PLAN
SCALE: 3/16" = 1'-0"

PANEL NAME:		EXIST "A"	LOCATION:	INFLUENT PUMP ST.	
MOUNTING:		SURFACE	VOLTAGE:	208Y/120	
ENCLOSURE:		NEMA 1	PHASE:	3P/4W	
MAINS:		MLO	SHORT CIRCUIT RATING:	10KA	
BUS AMPACITY:		100A	GROUND BUS:	YES	
BUS TYPE:			ISOLATED GROUND BUS:	NO	
BRANCH BREAKER TYPE:			NEUTRAL BUS:	100%	
NO.	LOAD DESCRIPTION	CB PH, G, COND	LOAD DESCRIPTION	CB PH, G, COND	NO.
1	LIGHTING CONTROL STORAGE ROOM	1P20A	LIGHTING STAIRWAY AND DRY WELL	1P20A	2
3	LIGHT BLOWER ROOM AND UPPER BAR SCREEN ROOM	1P20A	LIGHTING STAIRWAY, LOWER BAR SCREEN, AND WET WELL	1P20A	4
5	SPARE	1P20A	LIGHTING BUILDING EXTERIOR	1P20A	6
		#12, #12, 0.75			
7	RECEPTACLE PUMP ROOM	1P20A	LIGHTING EXTERIOR FLOOD AND ROADWAY	1P20A	8
9	RECEPTACLES, STORAGE, RESTROOM, BLOWER ROOM	1P20A	GAS MONITOR RELAY PANEL	1P20A	10
11	PARTIAL FLUMES	1P20A	CONTROL PANEL	1P20A	12
13	GAS DETECTORS	1P20A	CONTROL PANEL BAR 3	1P20A	14
15	HEAT TRACE	2P15A	COMPRESSOR CONTROL PAN	1P20A	16
17			DRY WELL RECEPTACLE	1P20A	18
19	EF-11 X 2	1P20A	GFUH 8, 9,10,11	1P20A	20
21	WH-1, DRY WELL, RESTROOM WATER HEATER	1P20A	CATALITIC HEATERS - BAR SCREEN AREA	1P20A	22
			#12, #12, 0.75		
23	GFUH 7 X 2	1P20A	CATALITIC HEATERS - STAIRWELL, DRY WELL	1P20A	24
			#12, #12, 0.75		
25	FOAM CONTROL PUMP AND MIXER	1P20A	120V OUTLET AT SUMP	1P20A	26
27	120V INFLUENT	1P20A	SAMPLER	1P20A	28
29	INFLUENT SAMPLE PUMP	2P20A	DAMPER MOTOR FOR EF-12	1P20A	30
31	"	"	DAMPER MOTOR FOR EF-11	1P20A	32
33	SUMP PUMP	2P20A	DAMPER MOTOR EF-9	1P20A	34
35	"	"	DAMPER MOTOR EF-10	1P20A	36
37	SPARE	2P40A	SPARE	2P40A	38
39	"	"	"	"	40
41	SPARE	1P20A	SPACE	1P20A	42

NOTE:
WHEN LOADS ONLY ARE BOLD REMOVE LOAD BUT REUSE CIRCUIT FOR NEW LOAD SHOWN ON ASSOCIATED E DRAWING E102.

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012

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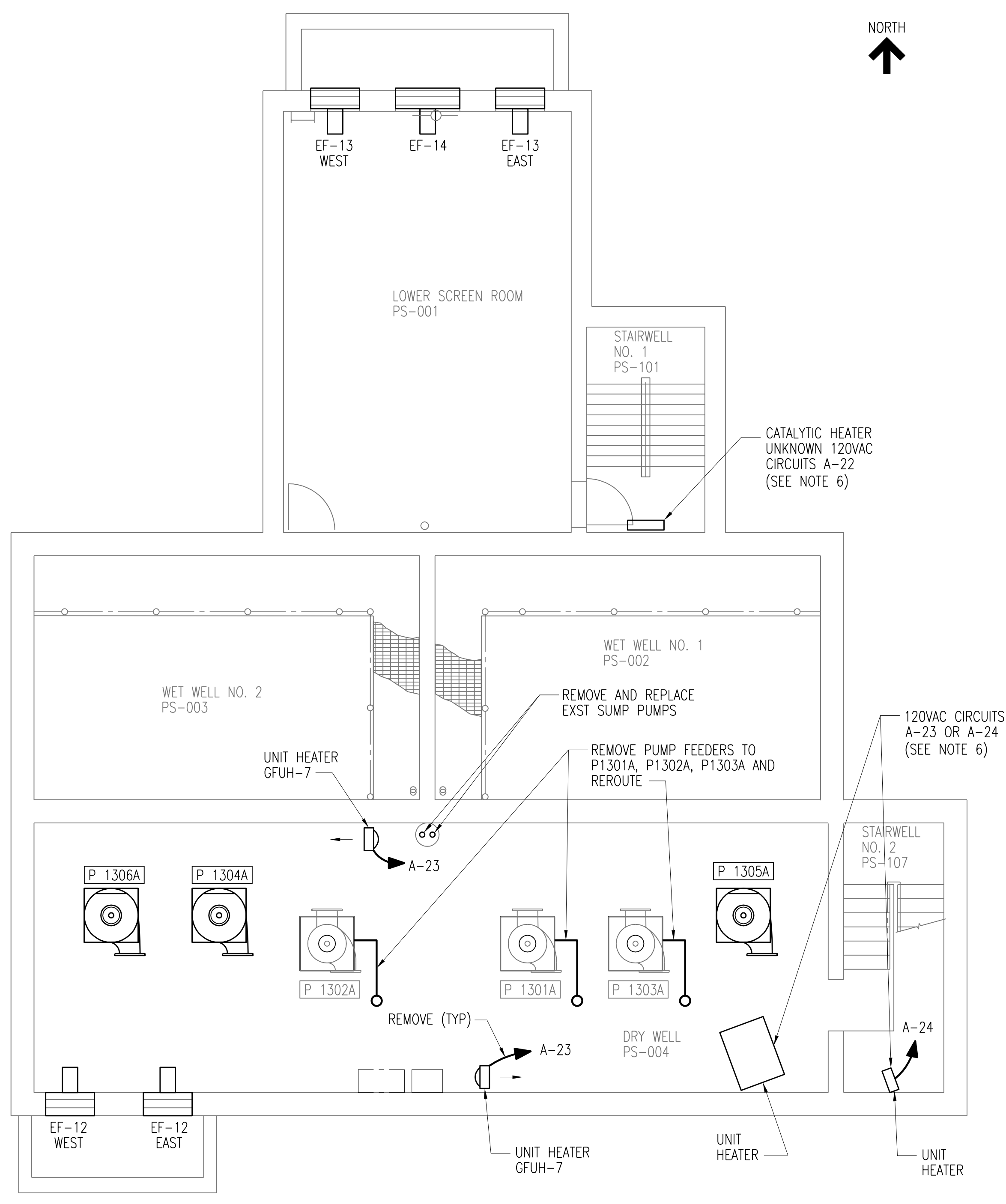
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**INFLUENT PUMP STATION
ELECTRICAL DEMOLITION ROOF PLAN**

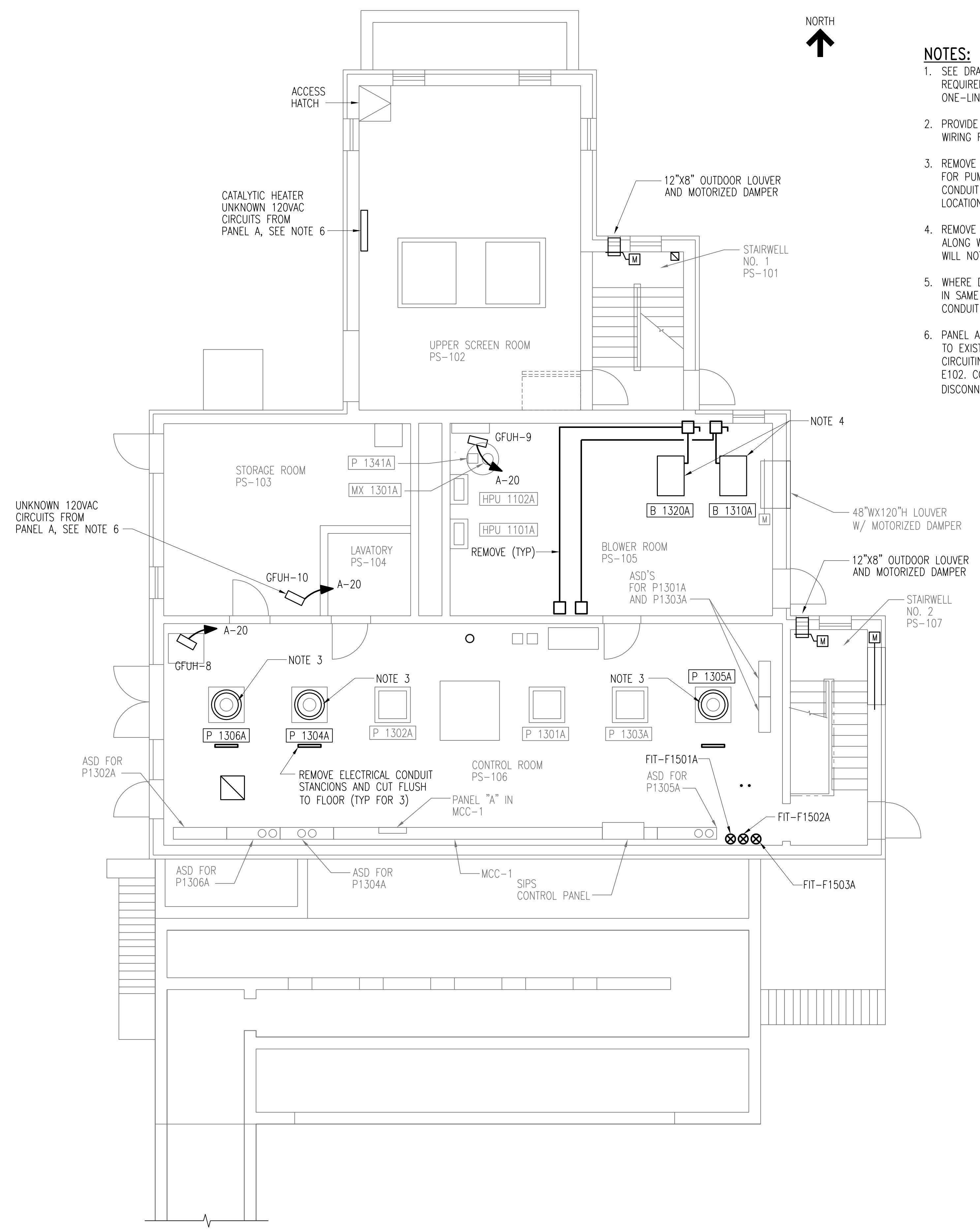


DESIGNED DL MORITZ	SCALE: AS NOTED	REV.
DRAWN D.WILGES	NO. 22800	
CHECKED DL MORITZ		
APPROVED JD COOAN		
DATE DECEMBER 2, 2011	D107	3

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INFLUENT PUMPING STATION BASEMENT PLAN
SCALE: 3/16" = 1'-0"



INFLUENT PUMPING STATION GROUND FLOOR PLAN
SCALE: 3/16" = 1'-0"

- NOTES:**
- SEE DRAWING D12 AND D13 FOR MCC-1 ONE-LINE DEMOLITION REQUIREMENTS AND DRAWING E12 AND E13 FOR REVISED MCC-1 ONE-LINE DIAGRAM.
 - PROVIDE CAPS OR SEALOFFS ON REMAINING CONDUITS AFTER REMOVAL OF WIRING FROM CONDUITS PENETRATING TEMPERED SPACES.
 - REMOVE EXISTING 125HP ELECTRICAL MOTORS ON GROUND FLOOR LEVEL FOR PUMPS P1304A, P1305A, AND P1306A AND WIRING BACK TO ASD AND CONDUIT BACK TO FIRST COUPLER CONDUIT EXIT AT ASSOCIATED ASD AT LOCATIONS SHOWN.
 - REMOVE EXISTING BLOWERS AND WIRING REQUIREMENTS BACK TO MCC-1 ALONG WITH ANY CONDUIT SUPPORTS DEDICATED TO THIS LOAD. BLOWERS WILL NOT BE REPLACED AT SAME LOCATION.
 - WHERE DEMOLITION ONE LINE DIAGRAMS SHOW REPLACE HVAC EQUIPMENT IN SAME LOCATION CONTRACTOR MAY REUSE EXISTING CONDUITING AND CONDUIT IF POSSIBLE AND IN GOOD CONDITION.
 - PANEL A SERVING 120V LOADS IS LOCATED IN MCC-1. REMOVE CIRCUITS TO EXISTING HVAC EQUIPMENT SHOWN ON THIS DRAWING AND PROVIDE NEW CIRCUITING TO NEW 120V HVAC UNITS SHOWN ON DRAWING E101 AND E102. CONTRACTOR TO CONFIRM ALL CIRCUITS AT PANEL BEFORE DISCONNECTING AT ALL SITE PANELS AND MCC'S.

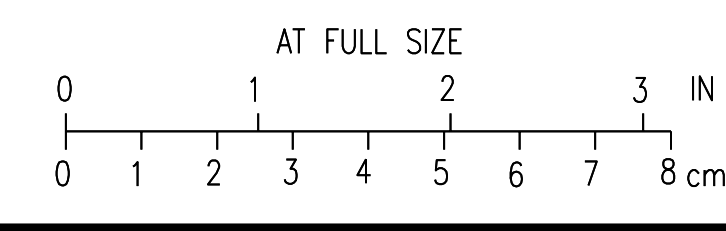
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

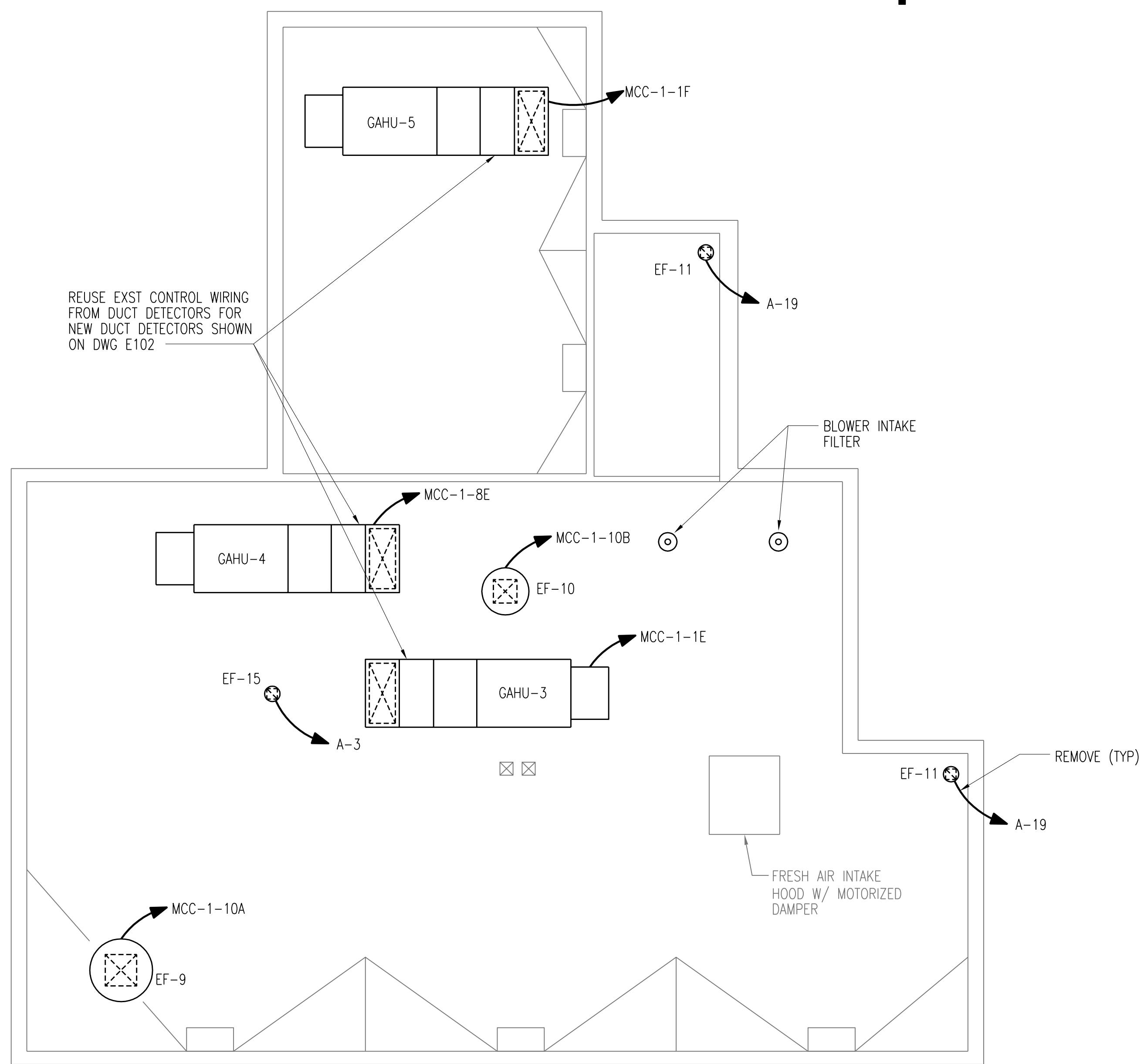
**INFLUENT PUMP STATION
ELECTRICAL DEMOLITION PLANS**

DESIGNED DL MORITZ	SCALE: AS NOTED
DRAWN D. WILGES	NO. 22800
CHECKED DL MORITZ	REV.
APPROVED JD COOAN	D106
DATE DECEMBER 2, 2011	3



CAD D-11-14

BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE



INFLUENT PUMPING STATION ROOF PLAN
SCALE: 3/16" = 1'-0"

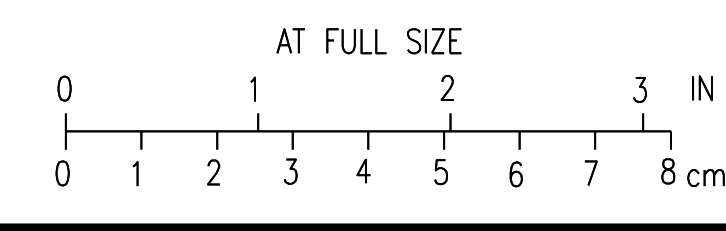
PANEL NAME:		EXIST "A"	LOCATION:	INFLUENT PUMP ST.	
MOUNTING:		SURFACE	VOLTAGE:	208Y/120	
ENCLOSURE:		NEMA 1	PHASE:	3P/4W	
MAINS:		MLO	SHORT CIRCUIT RATING:	10KA	
BUS AMPACITY:		100A	GROUND BUS:	YES	
BUS TYPE:			ISOLATED GROUND BUS:	NO	
BRANCH BREAKER TYPE:			NEUTRAL BUS:	100%	
NO.	LOAD DESCRIPTION	CB PH, G, COND	LOAD DESCRIPTION	CB PH, G, COND	NO.
1	LIGHTING CONTROL STORAGE ROOM	1P20A	LIGHTING STAIRWAY AND DRY WELL	1P20A	2
3	LIGHT BLOWER ROOM AND UPPER BAR SCREEN ROOM	1P20A	LIGHTING STAIRWAY, LOWER BAR SCREEN, AND WET WELL	1P20A	4
5	SPARE	1P20A #12, #12, 0.75	LIGHTING BUILDING EXTERIOR	1P20A	6
7	RECEPTACLE PUMP ROOM	1P20A	LIGHTING EXTERIOR FLOOD AND ROADWAY	1P20A	8
9	RECEPTACLES, STORAGE, RESTROOM, BLOWER ROOM	1P20A	GAS MONITOR RELAY PANEL	1P20A	10
11	PARTIAL FLUMES	1P20A	CONTROL PANEL	1P20A	12
13	GAS DETECTORS	1P20A	CONTROL PANEL BAR 3	1P20A	14
15	HEAT TRACE	2P15A	COMPRESSOR CONTROL PAN	1P20A	16
17			DRY WELL RECEPTACLE	1P20A	18
19	EF-11 X 2	1P20A	GFUH 8, 9, 10, 11	1P20A	20
21	WH-1, DRY WELL, RESTROOM WATER HEATER	1P20A	CATALITIC HEATERS - BAR SCREEN AREA	1P20A #12, #12, 0.75	22
23	GFUH 7 X 2	1P20A	CATALITIC HEATERS - STAIRWELL, DRY WELL	1P20A #12, #12, 0.75	24
25	FOAM CONTROL PUMP AND MIXER	1P20A	120V OUTLET AT SUMP	1P20A	26
27	120V INFLUENT	1P20A	SAMPLER	1P20A	28
29	INFLUENT SAMPLE PUMP	2P20A	DAMPER MOTOR FOR EF-12	1P20A	30
31	"	"	DAMPER MOTOR FOR EF-11	1P20A	32
33	SUMP PUMP	2P20A	DAMPER MOTOR EF-9	1P20A	34
35	"	"	DAMPER MOTOR EF-10	1P20A	36
37	SPARE	2P40A	SPARE	2P40A	38
39	"	"	"	"	40
41	SPARE	1P20A	SPACE	1P20A	42

NOTE:
WHEN LOADS ONLY ARE BOLD REMOVE LOAD BUT REUSE CIRCUIT FOR NEW LOAD SHOWN ON ASSOCIATED E DRAWING E102.

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012

CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**INFLUENT PUMP STATION
ELECTRICAL DEMOLITION ROOF PLAN**



DESIGNED DL MORITZ	SCALE: AS NOTED
DRAWN D.WILGES	NO. 22800
CHECKED DL MORITZ	REV. 3
APPROVED JD COOAN	D107
DATE DECEMBER 2, 2011	

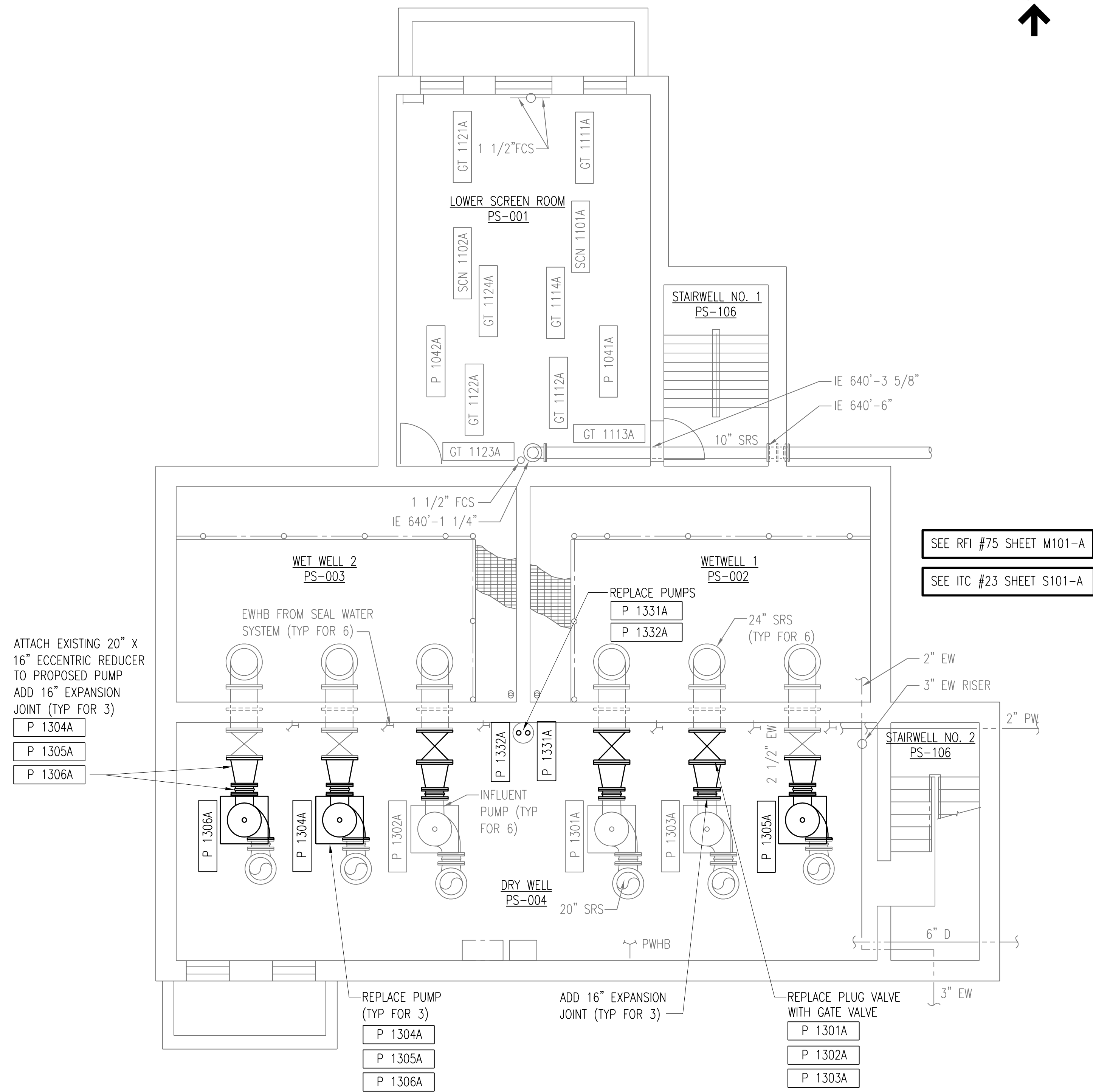
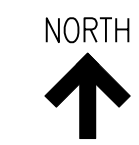
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1 2 3 4 5 6 7 8 9 10 11 12

NOTES:

1. MINIMUM OF TWO PUMPS TO BE OPERABLE AT ALL TIMES DURING CONSTRUCTION.
2. COORDINATE WITH CONSTRUCTION SEQUENCING.



SEE RFI #75 SHEET M101-A
SEE ITC #23 SHEET S101-A

ATTACH EXISTING 20\"/>

INFLUENT PUMP STATION BASEMENT PLAN
SCALE: 3/16\"/>

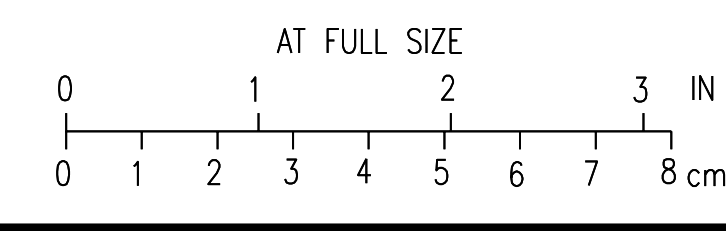
NO.	REVISIONS	DSGN	CHKD	APVD	DATE
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	LABEL NEW SUMP PUMPS	JBL	JBL	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	JBL	JBL	JMB	01-10-2012

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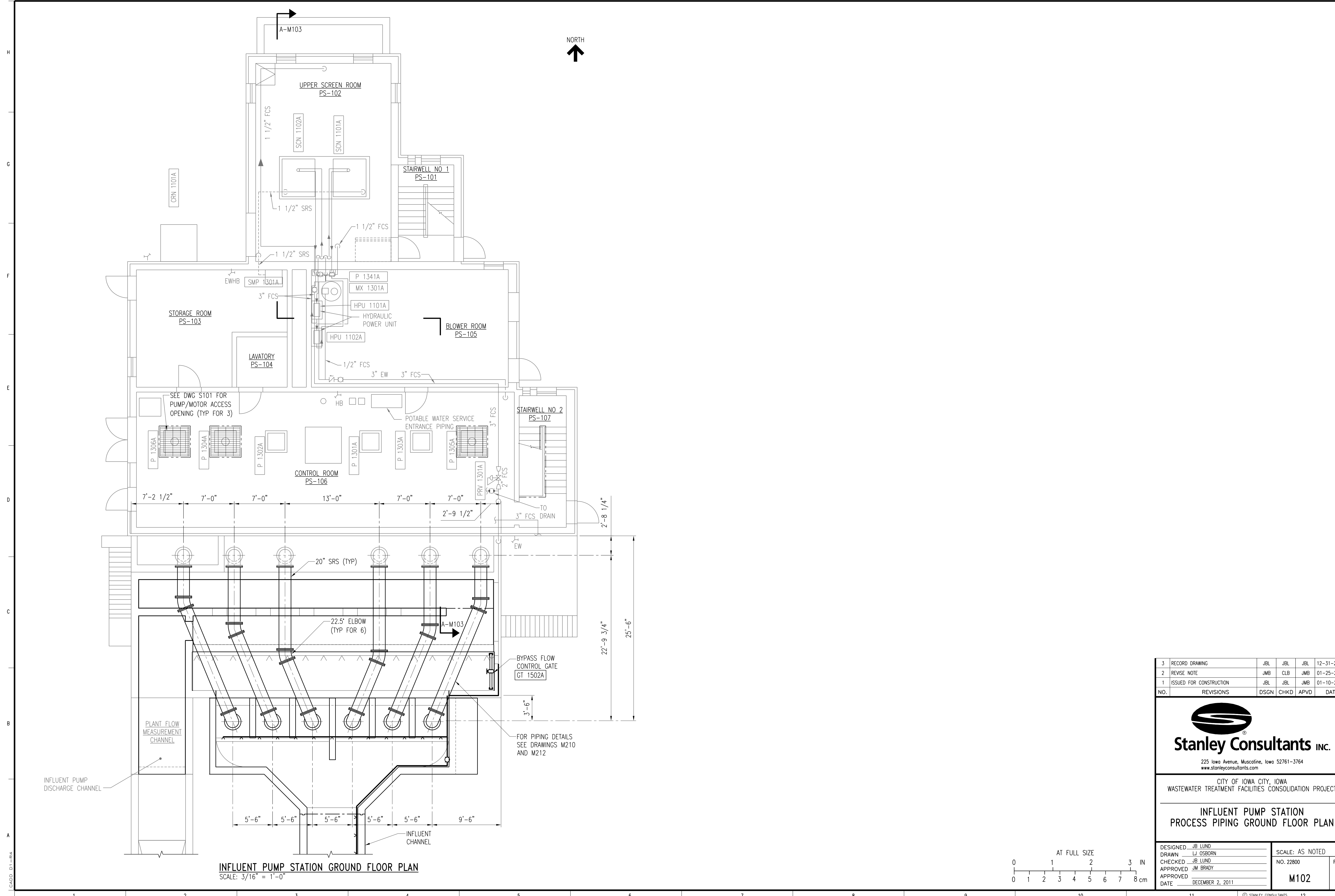
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**INFLUENT PUMP STATION
PROCESS PIPING BASEMENT PLAN**

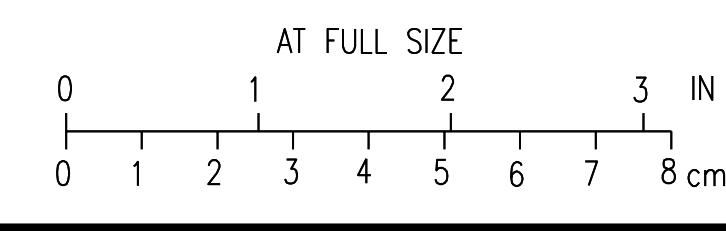
DESIGNED: JB LUND	SCALE: AS NOTED
DRAWN: LJ OSBORN	NO. 22800
CHECKED: JB LUND	REV. 3
APPROVED: JM BRADY	M101
DATE: DECEMBER 2, 2011	



CADD: D1-R4



INFLUENT PUMP STATION GROUND FLOOR PLAN
SCALE: 3/16" = 1'-0"



3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISE NOTE	JMB	CLB	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	JBL	JBL	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

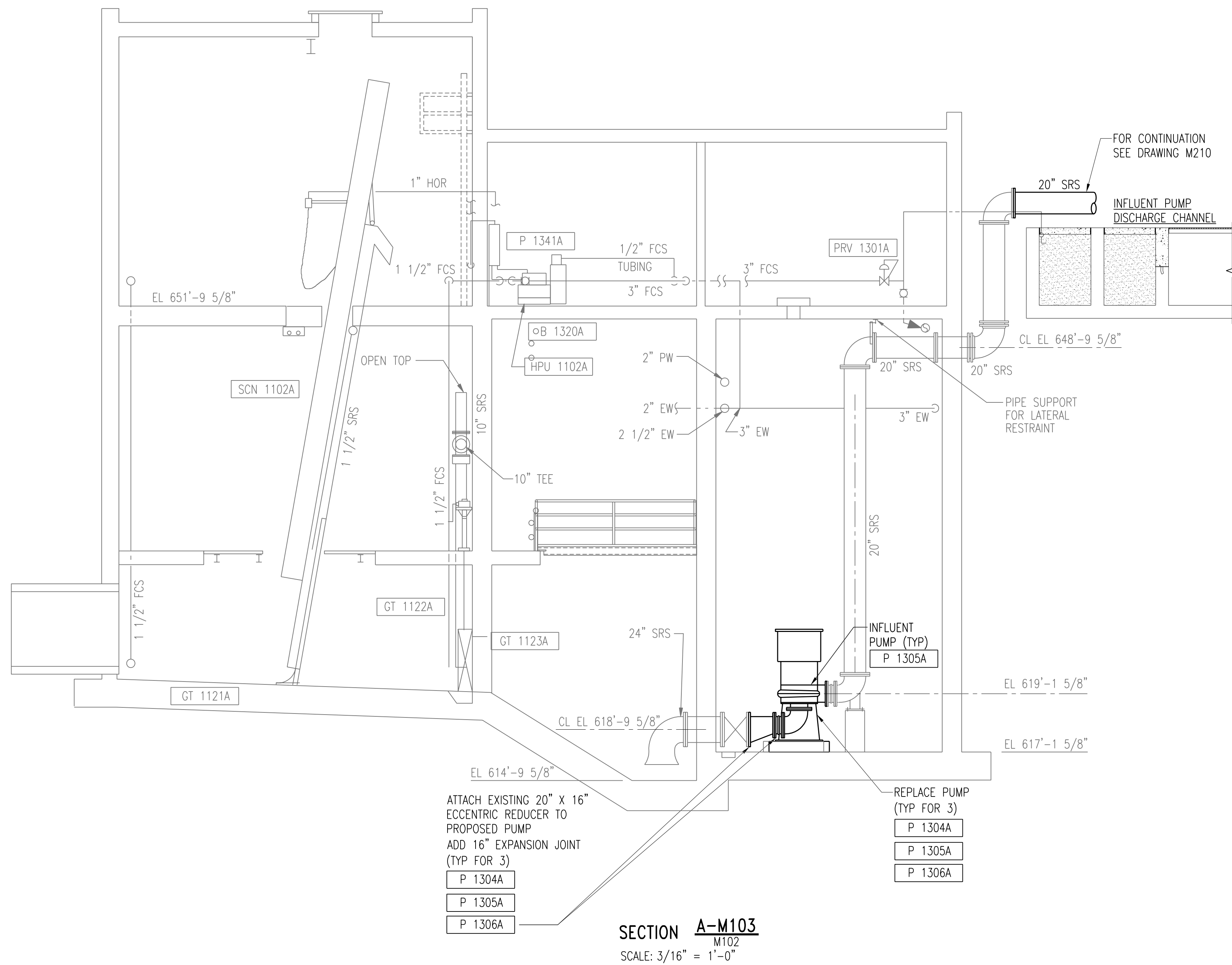
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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**INFLUENT PUMP STATION
PROCESS PIPING GROUND FLOOR PLAN**

DESIGNED	JBL LUND	SCALE:	AS NOTED
DRAWN	LJ OSBORN	NO.	22800
CHECKED	JBL LUND	REV.	
APPROVED	JM BRADY		
DATE	DECEMBER 2, 2011	M102	3

LADD: D1-104



SECTION **A-M103**
M102
 SCALE: 3/16" = 1'-0"

ATTACH EXISTING 20" X 16" ECCENTRIC REDUCER TO PROPOSED PUMP
 ADD 16" EXPANSION JOINT (TYP FOR 3)
 P 1304A
 P 1305A
 P 1306A

REPLACE PUMP (TYP FOR 3)
 P 1304A
 P 1305A
 P 1306A

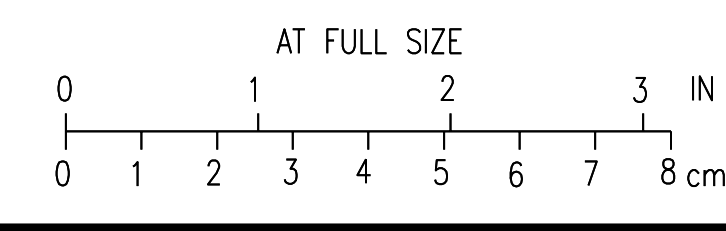
NO.	REVISIONS	DSGN	CHKD	APVD	DATE
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JBL	JBL	JMB	01-10-2012


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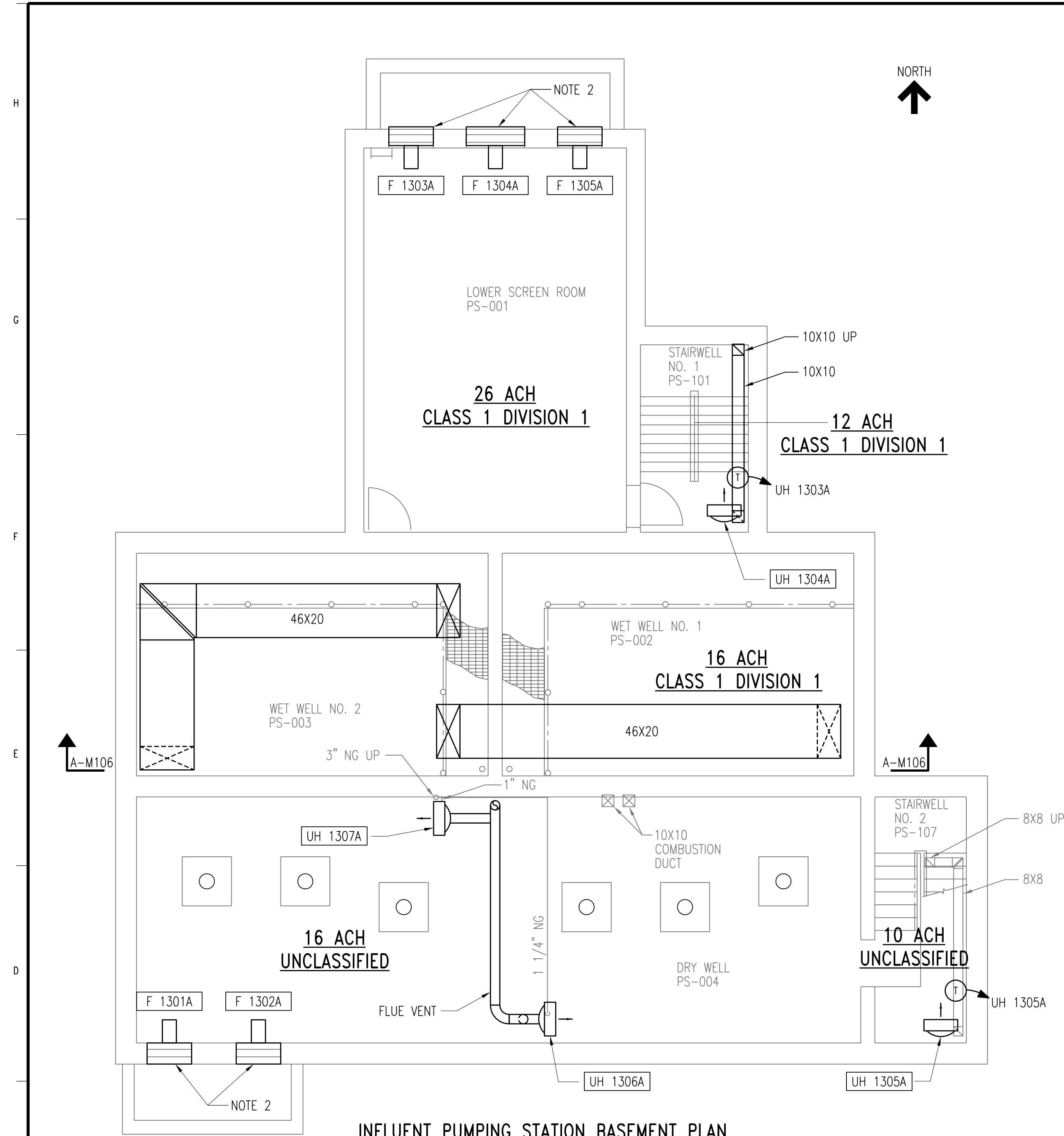
CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**INFLUENT PUMP STATION
 PROCESS PIPING SECTIONS AND DETAILS**

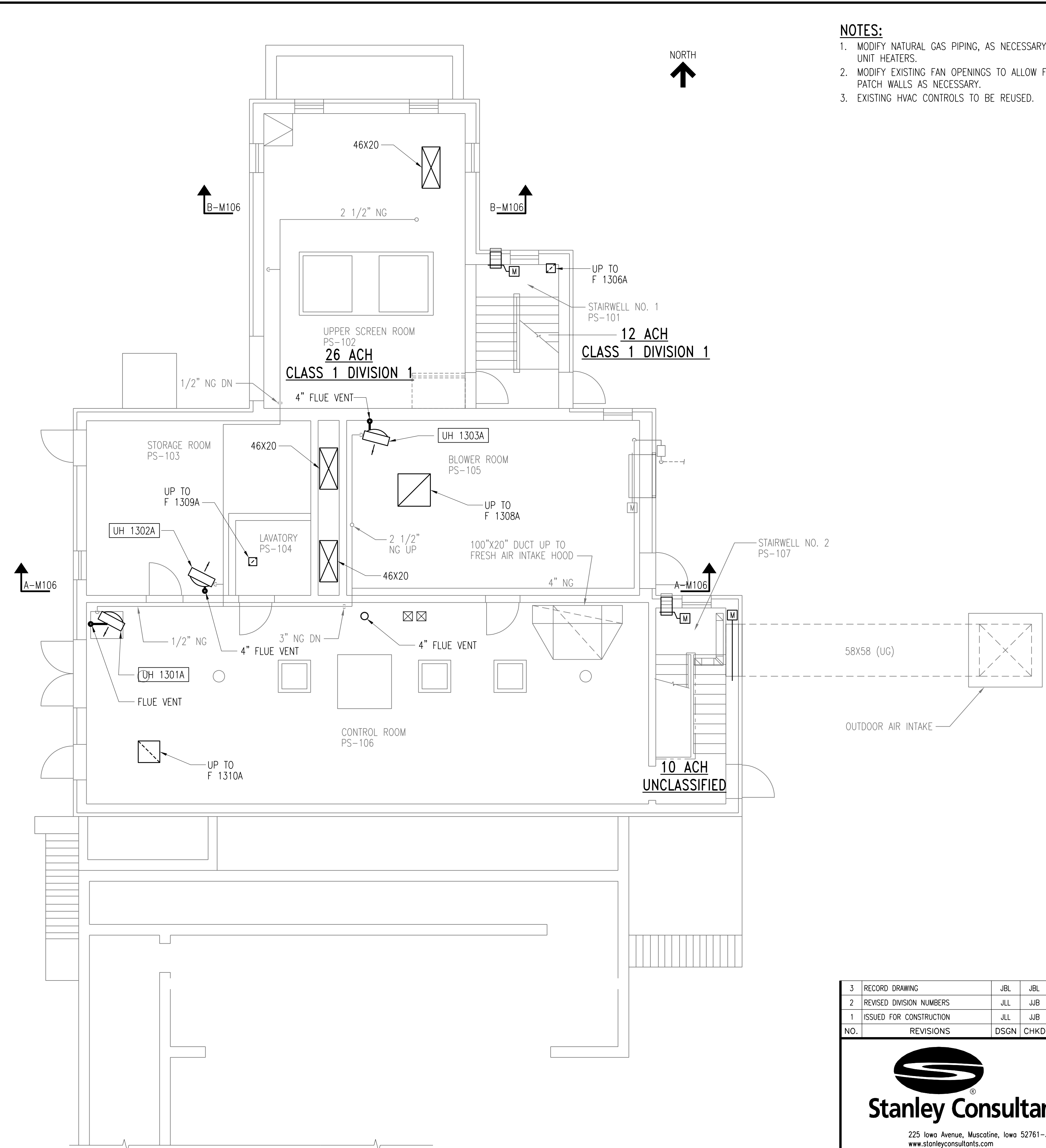
DESIGNED <u>JB LUND</u>	SCALE: AS NOTED
DRAWN <u>LJ OSBORN</u>	NO. 22800
CHECKED <u>JB LUND</u>	REV.
APPROVED <u>JM BRADY</u>	M103
DATE <u>DECEMBER 2, 2011</u>	2



- NOTES:**
1. MODIFY NATURAL GAS PIPING, AS NECESSARY, TO NEW GAS UNIT HEATERS.
 2. MODIFY EXISTING FAN OPENINGS TO ALLOW FOR NEW FANS. PATCH WALLS AS NECESSARY.
 3. EXISTING HVAC CONTROLS TO BE REUSED.



INFLUENT PUMPING STATION BASEMENT PLAN
SCALE: 3/16" = 1'-0"



INFLUENT PUMPING STATION GROUND FLOOR PLAN
SCALE: 3/16" = 1'-0"

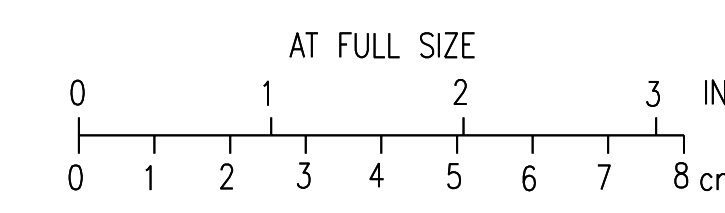
NO.	REVISIONS	DSGN	CHKD	APVD	DATE
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED DIVISION NUMBERS	JLL	JJB	JJB	01-25-2012
1	ISSUED FOR CONSTRUCTION	JLL	JJB	JJB	01-10-2012


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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**INFLUENT PUMP STATION
HVAC PLANS AND DETAILS**

DESIGNED	JL LEE	SCALE:	AS NOTED
DRAWN	D.WILGES	NO.	22800
CHECKED	JJ BOVENKAMP	REV.	
APPROVED	JJ BOVENKAMP		
DATE	DECEMBER 2, 2011	M104	3

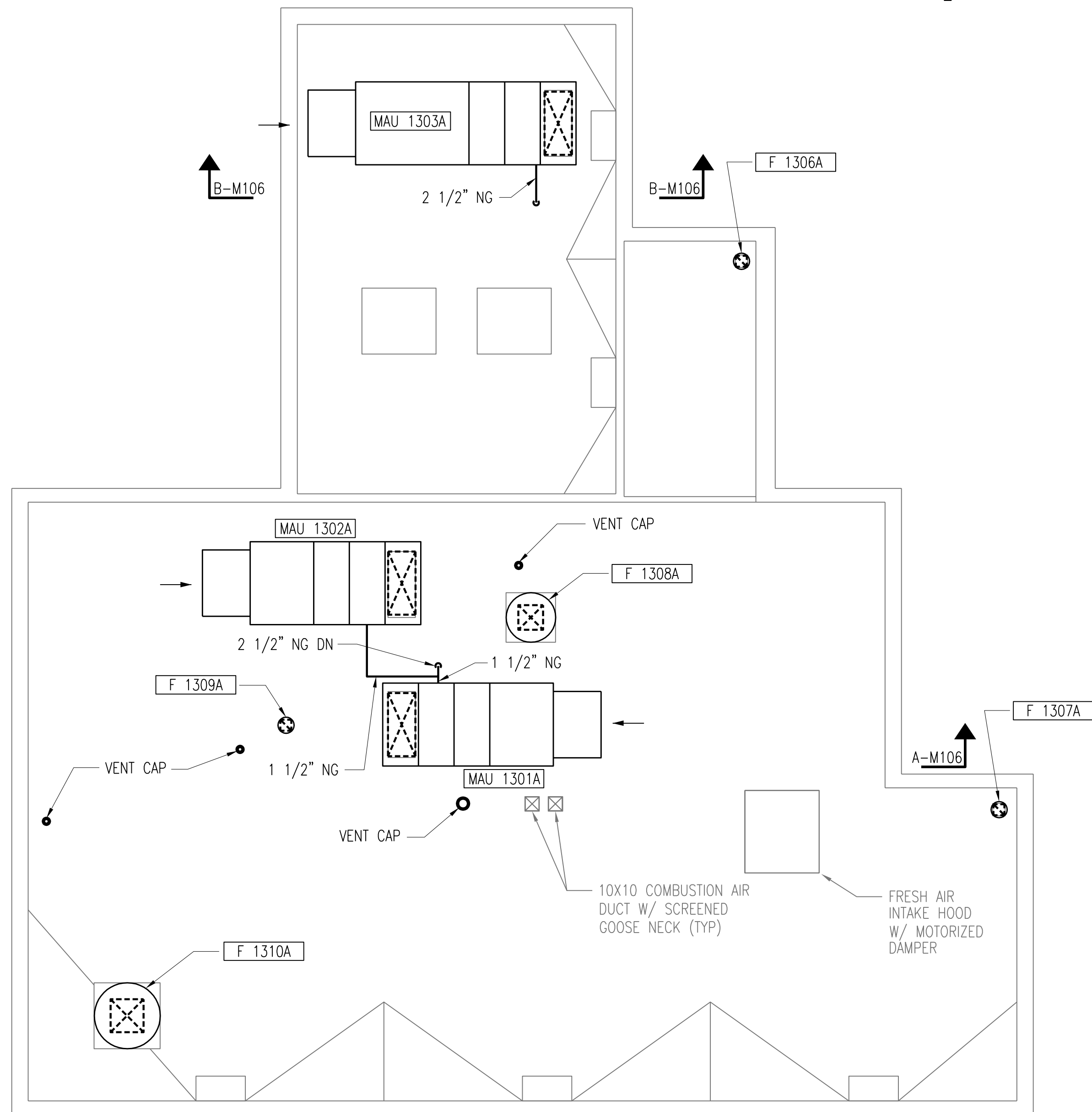


CADD: D1-104

NOTES:

1. PROVIDE ROOF CURB ADAPTER TO MATCH PRE-EXISTING ROOF CURBS FOR ALL NEW EQUIPMENT ON ROOF.
2. REMOVE EXISTING PIPE, PIPE SLEEVE, AND FLASHING. FILL PIPE OPENING WITH INSULATION AND PROVIDE A COVER PLATE ANCHORED TO TOP OF ROOF DECK. RE-ROOF WITH SIMILAR ROOFING MATERIAL PER MANUFACTURER'S STANDARD DETAIL.
3. EXISTING HVAC CONTROLS TO BE REUSED.

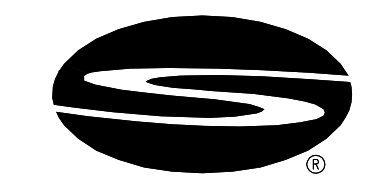
NORTH
↑



INFLUENT PUMPING STATION ROOF PLAN

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

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JLL	JJB	JJB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



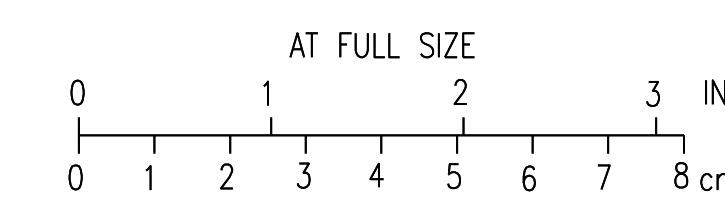
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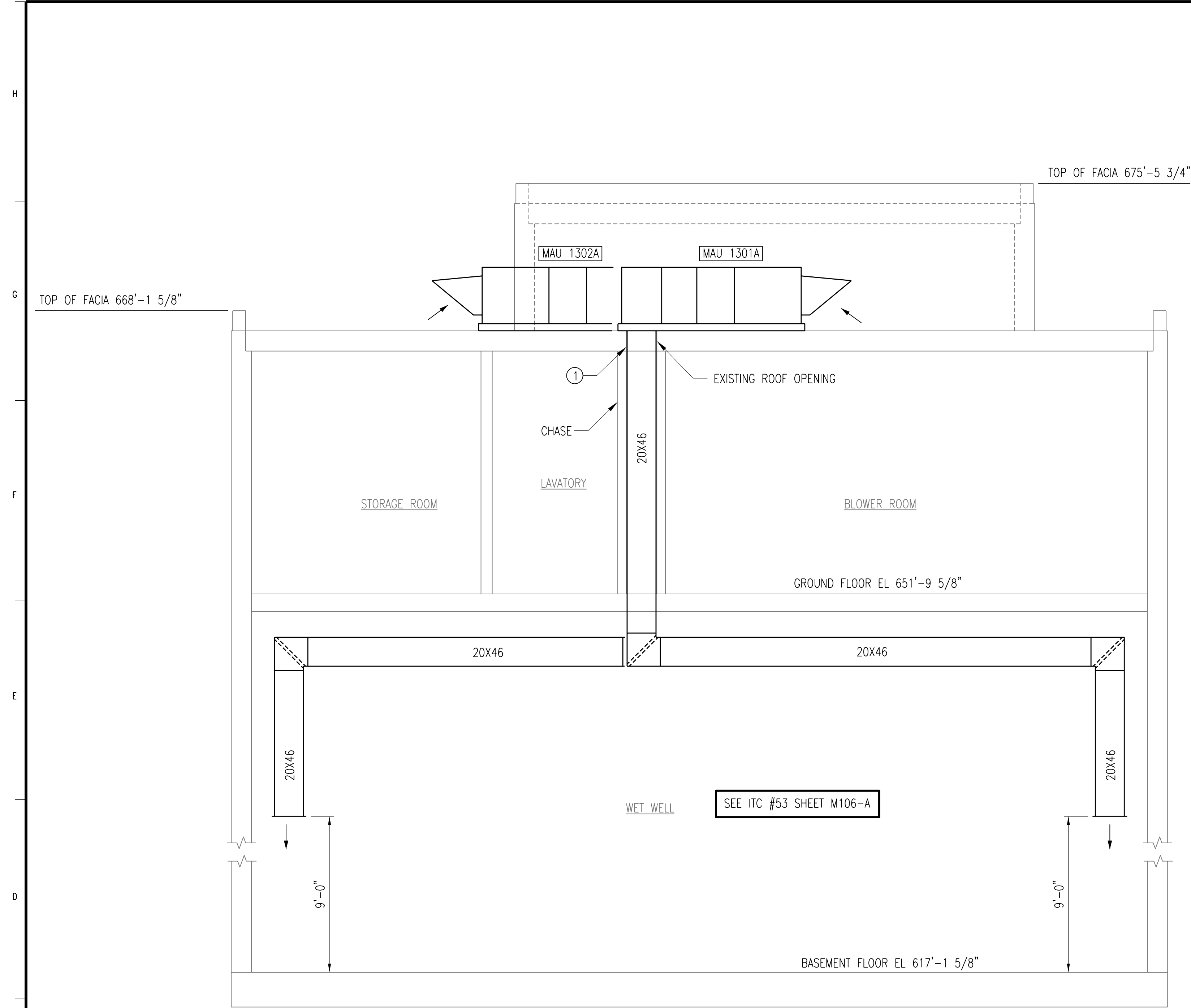
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**INFLUENT PUMP STATION
HVAC ROOF PLAN**

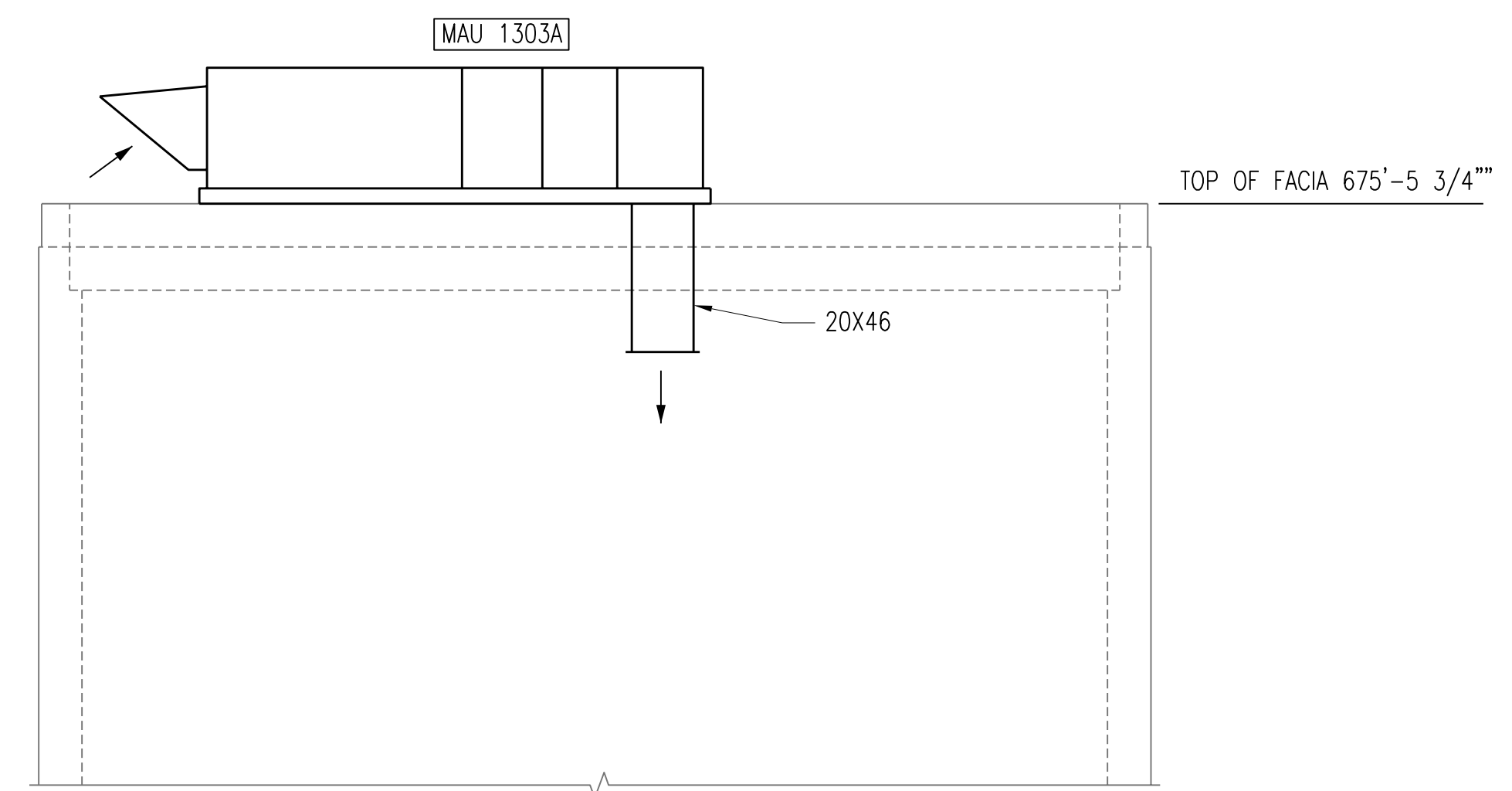
DESIGNED	JL LEE	SCALE:	AS NOTED
DRAWN	D.WILGES	NO.	22800
CHECKED	JJ BOVENKAMP	REV.	
APPROVED	JJ BOVENKAMP		
DATE	DECEMBER 2, 2011	M105	2



CADDD D1-1-14



SECTION **A-M106**
M104, M105
SCALE: 1/4" = 1'-0"

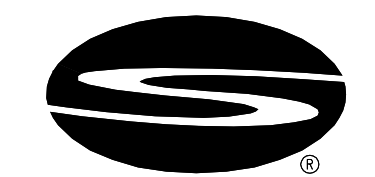


SECTION **B-M106**
M104, M105
SCALE: 1/4" = 1'-0"

KEY NOTES:

- ① FOR NEW DUCT PENETRATIONS AND EXISTING OPENINGS RE-USED, SEE ARCHITECTURAL DRAWING A4 FOR DETAILS.

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JLL	JJB	JJB	01-10-2012

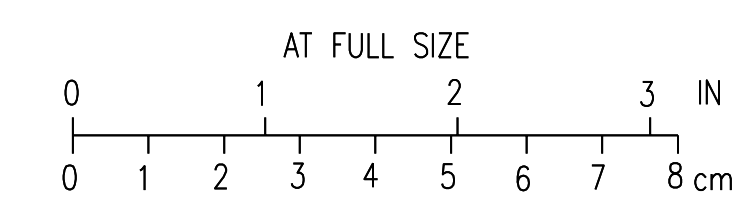


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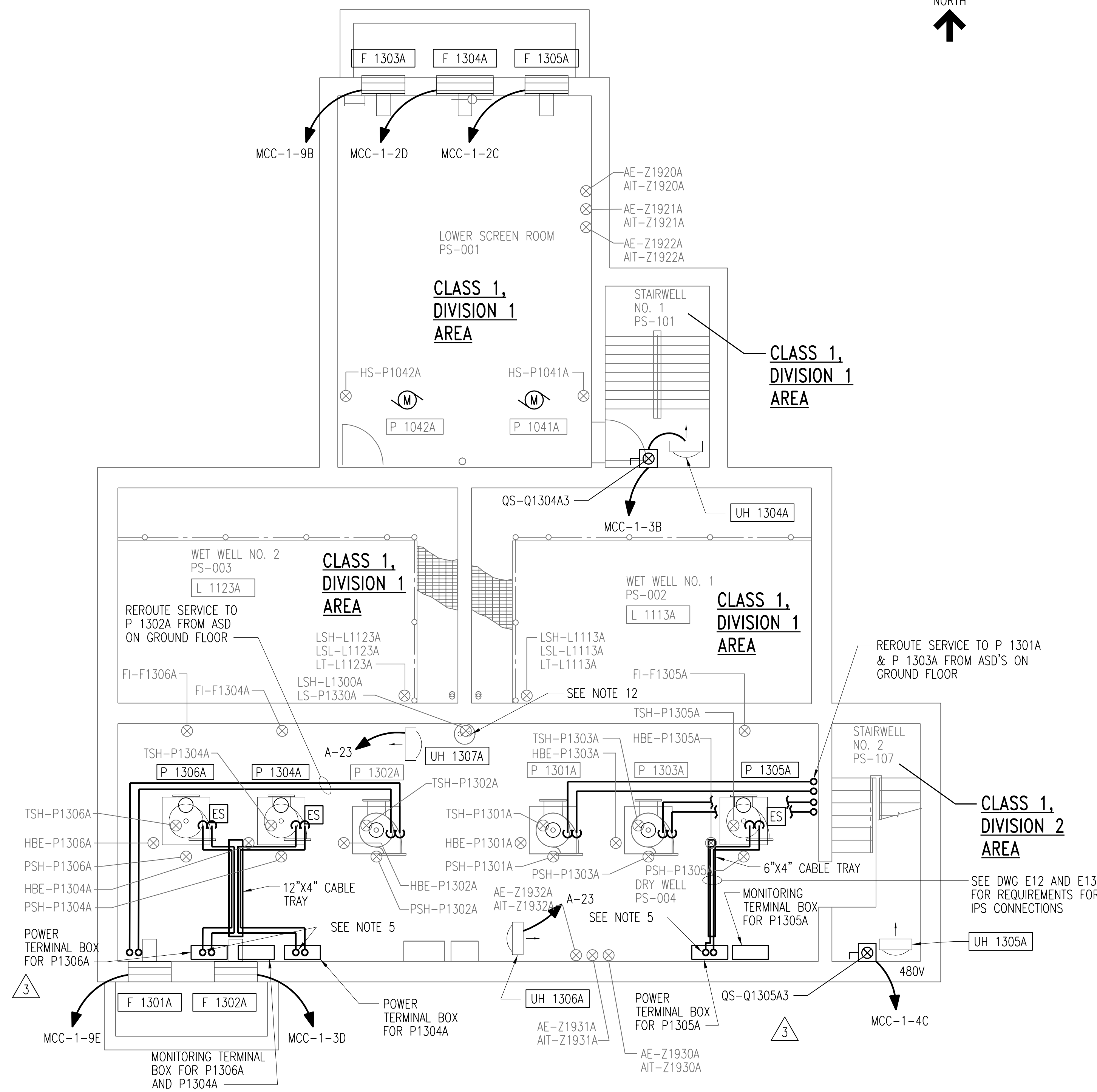
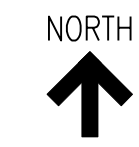
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**INFLUENT PUMP STATION
HVAC SECTIONS AND DETAILS**

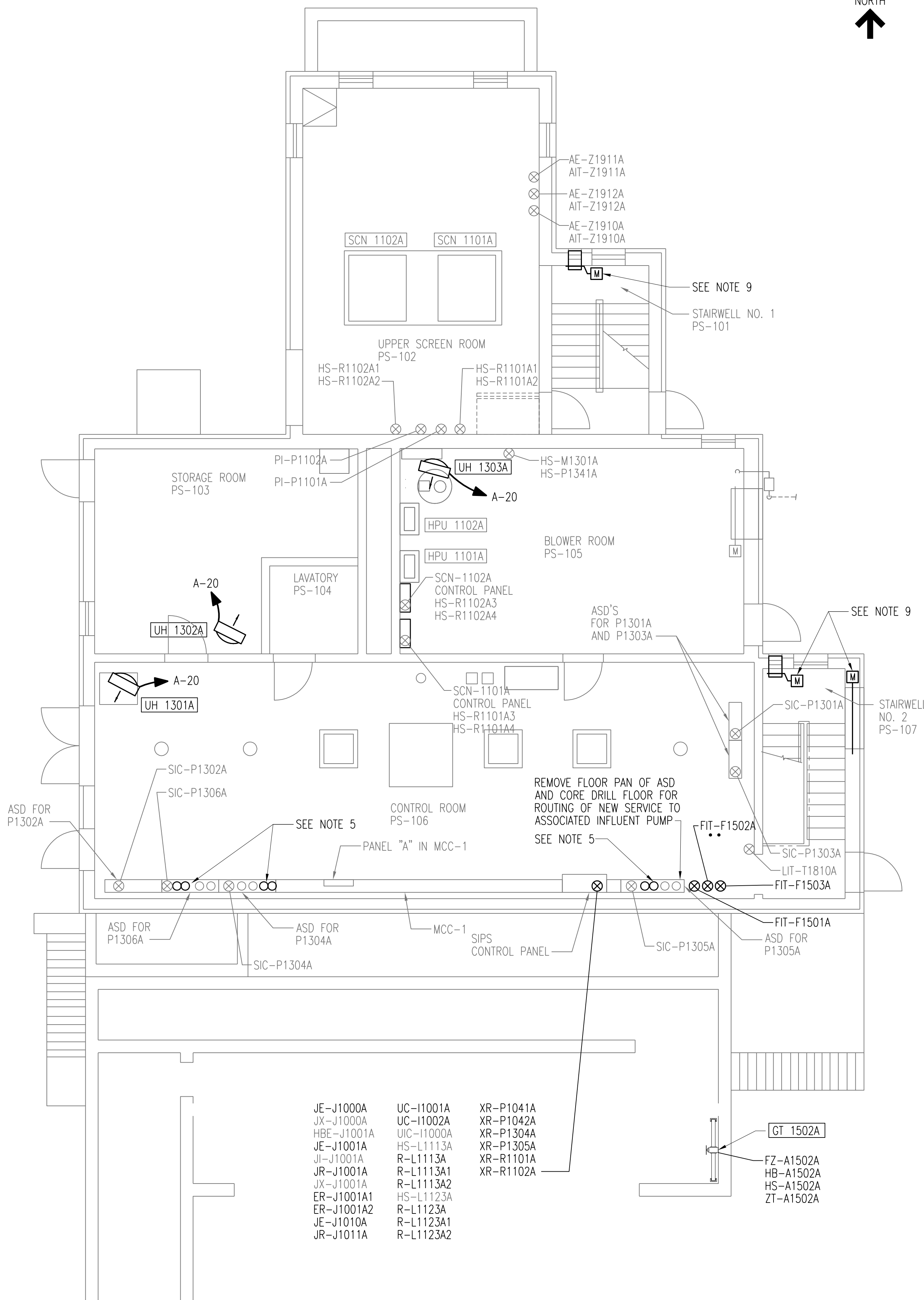
DESIGNED <u>JL LEE</u>	SCALE: AS NOTED
DRAWN <u>D.WILGES</u>	NO. 22800
CHECKED <u>JJ BOVENKAMP</u>	REV.
APPROVED <u>JJ BOVENKAMP</u>	M106
DATE <u>DECEMBER 2, 2011</u>	2



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INFLUENT PUMP STATION BASEMENT PLAN
SCALE: 3/16" = 1'-0"



INFLUENT PUMP STATION GROUND FLOOR PLAN
SCALE: 3/16" = 1'-0"

- JE-J1000A UC-I1001A XR-P1041A
 - JX-J1000A UC-I1002A XR-P1042A
 - HBE-J1001A UC-I1000A XR-P1304A
 - JE-J1001A HS-L1113A XR-P1305A
 - JJ-J1001A R-L1113A XR-R1101A
 - JR-J1001A R-L1113A1 XR-R1102A
 - JX-J1001A R-L1113A2
 - ER-J1001A1 HS-L1123A
 - ER-J1001A2 R-L1123A
 - JE-J1010A R-L123A1
 - JR-J1011A R-L123A2
- GT 1502A
FZ-A1502A
HB-A1502A
HS-A1502A
ZT-A1502A

- NOTES:**
- SEE DRAWING E12 AND E13 FOR MCC-1 NEW MCC REQUIREMENTS.
 - SEE DRAWING E1 FOR GENERAL ELECTRICAL NOTES AND WIRING DEVICE SCHEDULE.
 - SEE DRAWING E4 FOR TYPICAL ELECTRICAL DETAILS.
 - SEE DRAWING G9 FOR ELECTRICAL LEGEND.
 - THE NEW 125HP PUMP MOTORS ARE TO BE LOCATED AS SHOWN ON DRAWINGS M101 AND M102. CORE DRILL THE GROUND FLOOR LEVEL FOR PASSAGE OF CONDUITS AS SHOWN ON DRAWINGS E12 AND E13 TO ALLOW NEXT SIZE OF CONDUIT PVC SCHEDULE 40 SLEEVE THROUGH CONCRETE TO PASS NEW PVC COATED RGS CONDUITS AS REQUIRED TO MOTORS FROM ASSOCIATED ASD.
 - WHERE ELECTRICAL EQUIPMENT IS SHOWN IN CLASS 1 DIVISION 2 AREAS PROVIDE WIRING MEANS AND METHODS, AND EQUIPMENT SUITABLE PER THE NEC FOR THIS TYPE OF AREA.
 - PROVIDE UNIT HEATERS WITH DISCONNECTS MOUNTED ON EQUIPMENT. PROVIDE 3 #12 IN A 3/4" RGS CONDUIT TO UNIT HEATER FROM 120V CIRCUIT AS REQUIRED PER PANEL SCHEDULES. FOR 480V UNIT HEATERS PROVIDE A 30A NON FUSIBLE DISCONNECT IN ENCLOSURE TO MATCH AREA CLASSIFICATION WITH NEMA 1 ENCLOSURES IN DRY NON RATED AREAS, AND NEMA 4X IN AREAS SUCH AS DRYWELL AREA. SEE HEATER DISCONNECT DETAIL ON DRAWING M3 FOR 120V NATURAL GAS HEATERS.
 - PROVIDE 4 #12 IN A .75 INCH PVC COATED RGS CONDUIT TO EXHAUST FANS FROM MCC-1 CIRCUITS SHOWN OR FROM PANEL FOR 120V FANS. PROVIDE CPT AT MCC AS REQUIRED FOR HVAC CONTROL INTERFACE.
 - PROVIDE 3 #12 IN A .75 INCH PVC COATED RGS CONDUIT TO CONTROL DAMPERS WHEN DAMPERS ARE 120V FROM CIRCUITS SHOWN ON PANEL SCHEDULE.
 - INTERLOCK AND CONTROL REQUIREMENTS FOR ALL HVAC EQUIPMENT SHALL BE PROVIDED AS DESCRIBED IN THE HVAC SEQUENCE OF OPERATION AND HVAC DRAWINGS.
 - CONTRACTOR SHALL INSTALL ALL CONDUITS CLEAR OF ANY POSSIBLE CONFLICTS WITH HOIST OR LIFTING OF PUMP MOTORS ON GROUND FLOOR FOR REMOVAL.
 - PROVIDE NEW SUMP PUMPS AND CONTROLS FOR PUMPS P 1331A AND P 1332A ON EXISTING 120V CIRCUIT.
 - ALL REVISED LOADS SERVED FROM PANEL A SHOWN ON DRAWING E102 SHALL BE FROM PANEL WITH 3#12 IN A .75 INCH PVC COATED RGS CONDUIT AS REQUIRED. UNIT HEATERS AND FANS SHALL BE REPLACED IN SAME LOCATION IN IPS.

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
3	REVISED PER ITC #10	DLM	DLM	JDC	08-28-2012
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012

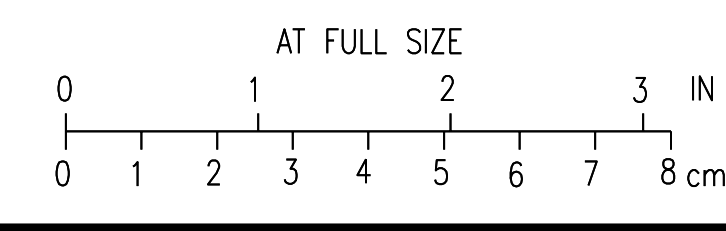
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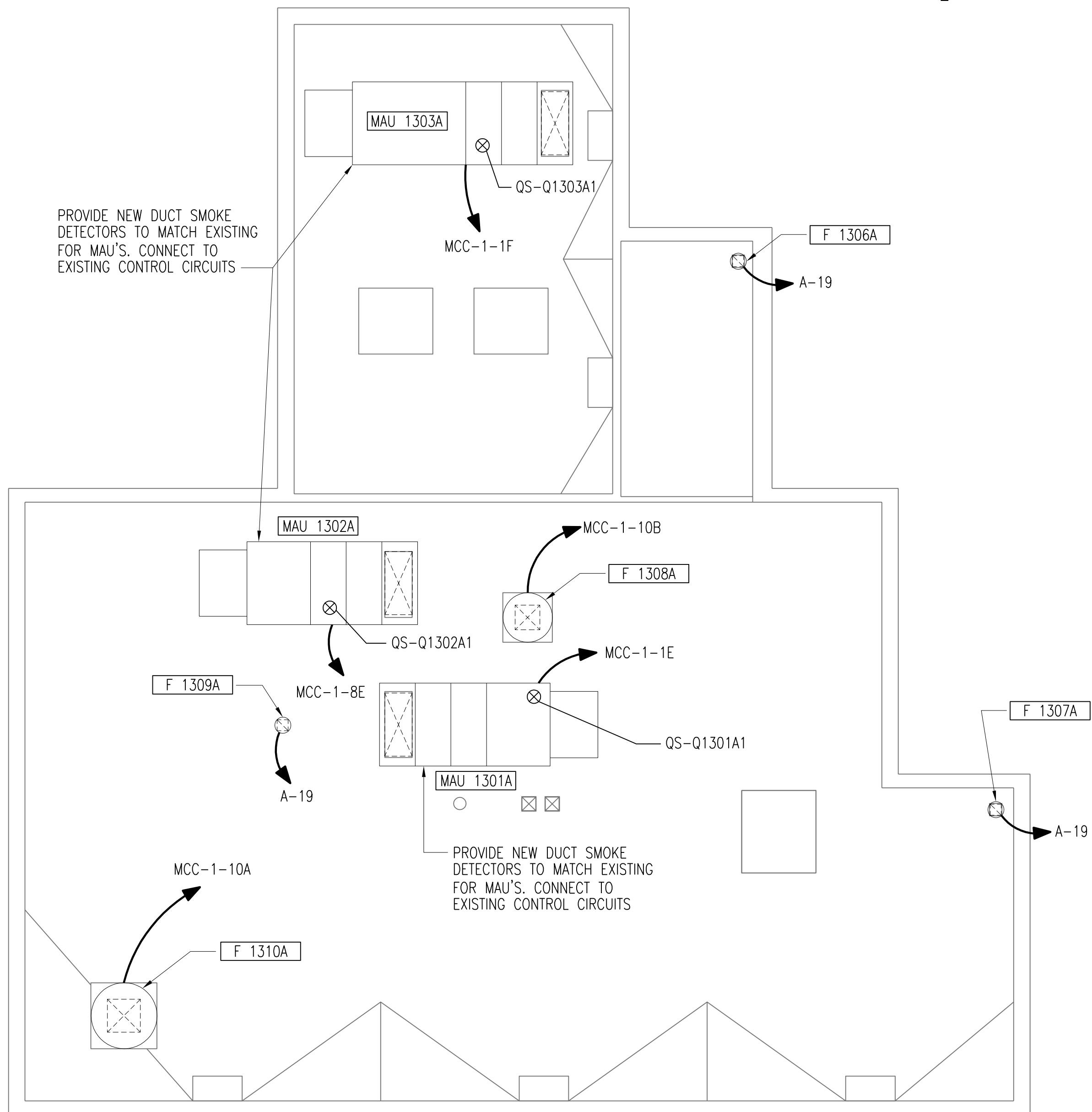
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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**INFLUENT PUMP STATION
POWER AND INSTRUMENT LOCATION PLANS**

DESIGNED DL MORITZ	SCALE: AS NOTED
DRAWN B.M. GOODNIGHT	NO. 22800
CHECKED DL MORITZ	REV. 3
APPROVED JD COOAN	E101
DATE DECEMBER 2, 2011	





INFLUENT PUMPING STATION ROOF PLAN

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

PANEL NAME:		EXIST "A"	LOCATION:	INFLUENT PUMP STA.	
MOUNTING:		SURFACE	VOLTAGE:	208Y/120	
ENCLOSURE:		NEMA 1	PHASE:	3P/4W	
MAINS:		MLO	SHORT CIRCUIT RATING:	10KA	
BUS AMPACITY:		100A	GROUND BUS:	YES	
BUS TYPE:			ISOLATED GROUND BUS:	NO	
BRANCH BREAKER TYPE:			NEUTRAL BUS:	100%	
NO.	LOAD DESCRIPTION	CB PH, G, COND	LOAD DESCRIPTION	CB PH, G, COND	NO.
1	LIGHTING CONTROL STORAGE ROOM	1P20A	LIGHTING STAIRWAY AND DRY WELL	1P20A	2
3	LIGHT BLOWER ROOM AND UPPER BAR SCREEN ROOM	1P20A	LIGHTING STAIRWAY, LOWER BAR SCREEN, AND WET WELL	1P20A	4
5	SPARE	1P20A	LIGHTING BUILDING EXTERIOR	1P20A	6
7	RECEPTACLE PUMP ROOM	1P20A	LIGHTING EXTERIOR FLOOD AND ROADWAY	1P20A	8
9	RECEPTACLES, STORAGE, RESTROOM, BLOWER ROOM	1P20A	GAS MONITOR RELAY PANEL	1P20A	10
11	PARTIAL FLUMES	1P20A	CONTROL PANEL	1P20A	12
13	GAS DETECTORS	1P20A	CONTROL PANEL BAR 3	1P20A	14
15	HEAT TRACE	2P15A	COMPRESSOR CONTROL PANEL	1P20A	16
17			DRY WELL RECEPTACLE	1P20A	18
19	F1306A, F1307A AND F1309A	1P20A	UH1301A, 1302A, 1303A	1P20A	20
21	WH-1, DRY WELL, RESTROOM WATER HEATER	1P20A	SPARE	1P20A	22
23	UH1306A AND UH1307A	1P20A	SPARE	1P20A	24
25	FOAM CONTROL PUMP AND MOTOR	1P20A	120V OUTLET AT SUMP	1P20A	26
27	120V INFLUENT	1P20A	SAMPLER	1P20A	28
29	INFLUENT SAMPLE PUMP	2P20A	DAMPER MOTOR FOR EF-12	1P20A	30
31	"	"	DAMPER MOTOR FOR EF-11	1P20A	32
33	SUMP PUMP	2P20A	DAMPER MOTOR EF-9	1P20A	34
35	"	"	DAMPER MOTOR EF-10	1P20A	36
37	SPARE	2P40A	SPARE	2P40A	38
39	"	"	"	"	40
41	DUCT SMOKE DETECTORS	1P20A	SPACE	1P20A	42

NOTE:
SHADED AND BOLD ITEMS ABOVE ARE CIRCUITS WHERE WORK IS REQUIRED FOR THIS CONTRACT. PROVIDE REVISED PANEL SCHEDULES, TYPE WRITTEN FOR ALL PANELS EFFECTED BY THIS CONTRACT. (TYP FOR ALL PANELS)

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
2	ADDED NOTE	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012



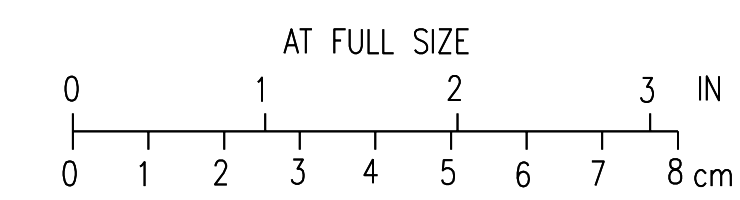
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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**INFLUENT PUMP STATION
ROOF PLAN**

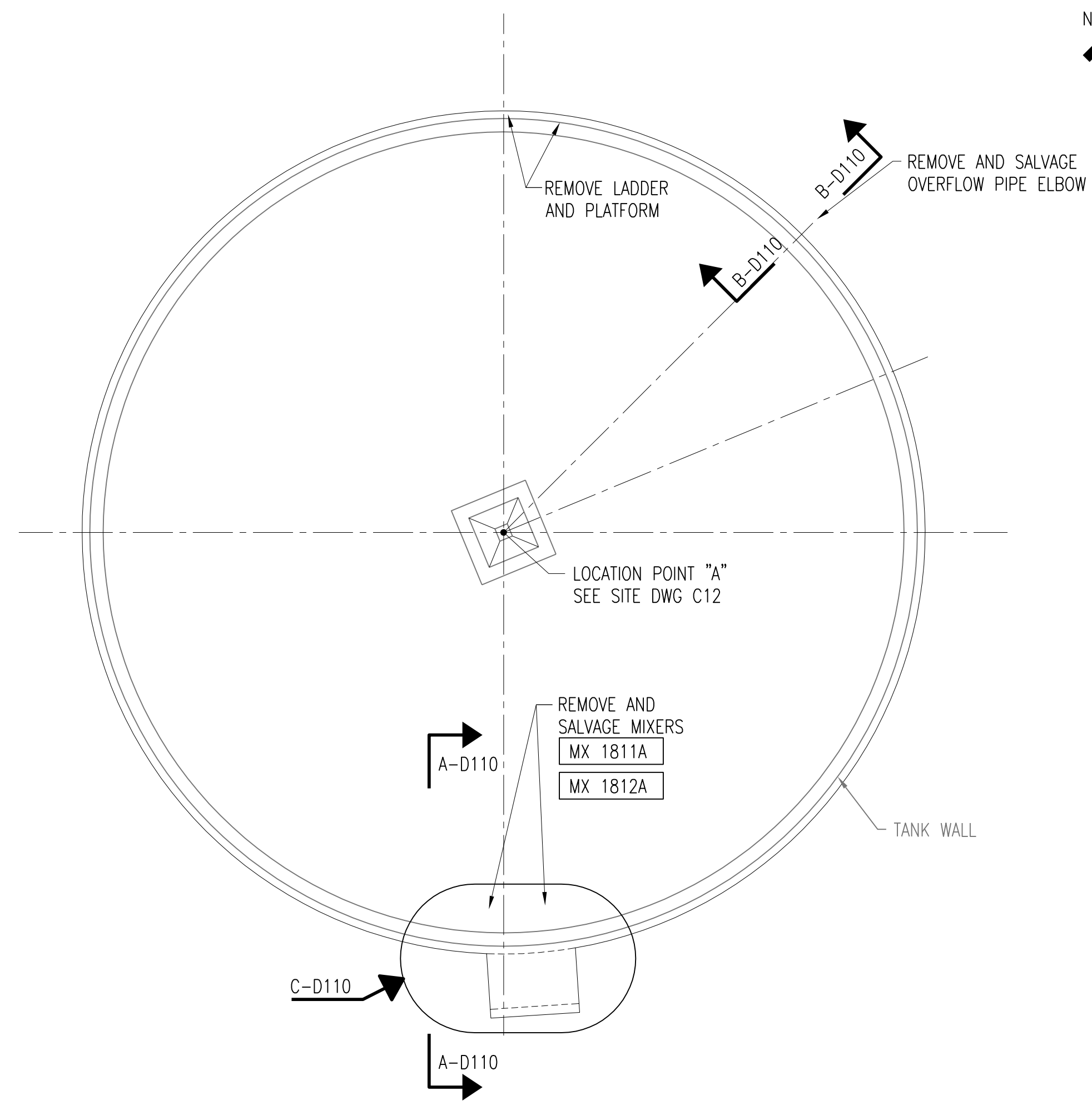
DESIGNED DL MORITZ	SCALE: AS NOTED	REV.
DRAWN D. WILGES	NO. 22800	
CHECKED DL MORITZ		
APPROVED JD COGAN		
DATE DECEMBER 2, 2011	E102	2



BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE

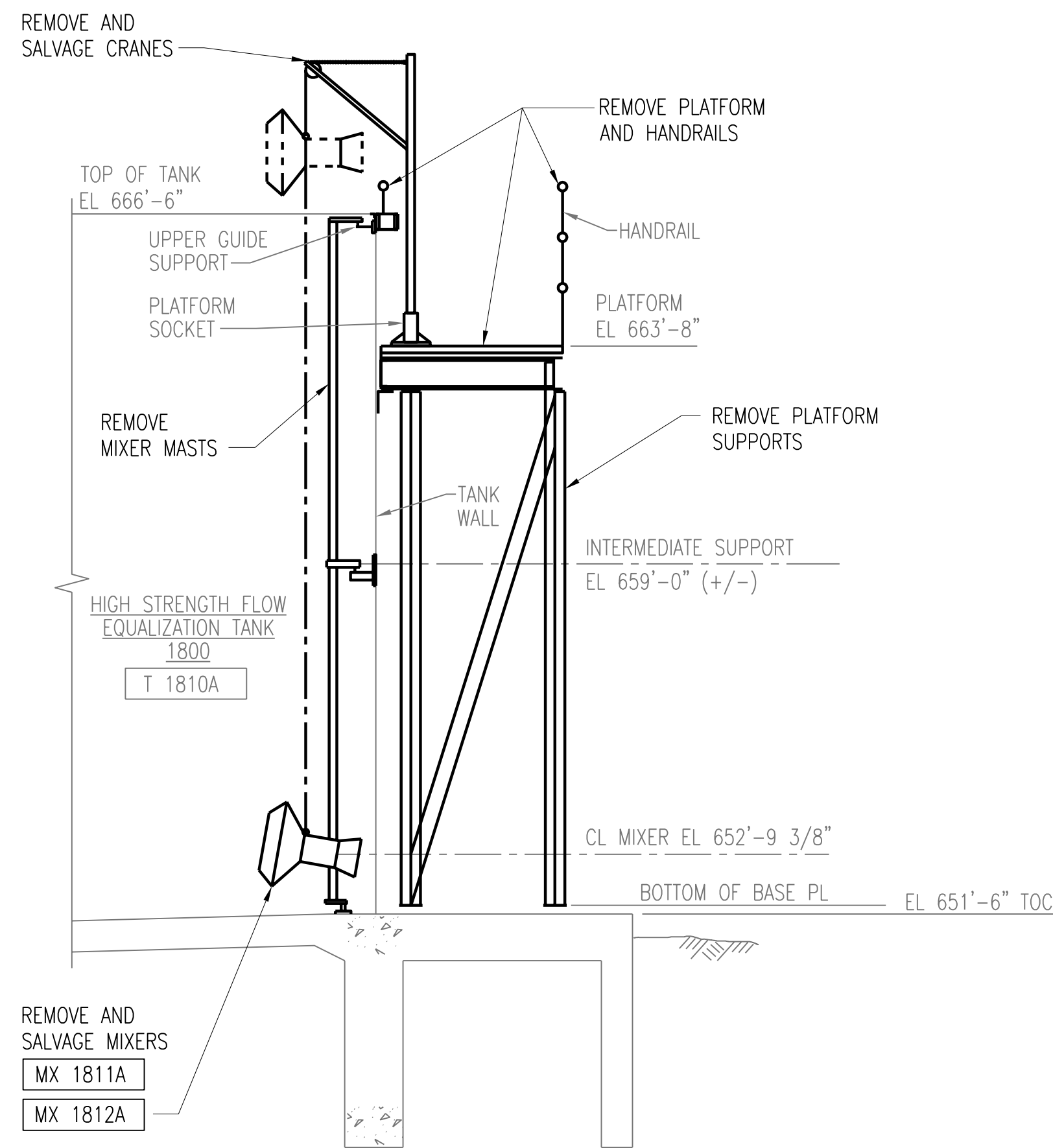
NOTES:

1. REMOVE EQUIPMENT AS REQUIRED TO INCREASE TANK HEIGHT TO THE DESIGN ELEVATION.
2. SEE DWG C12 FOR STRUCTURE LOCATION.
3. SEE DWG C32 FOR CONTINUATION OF PIPING.



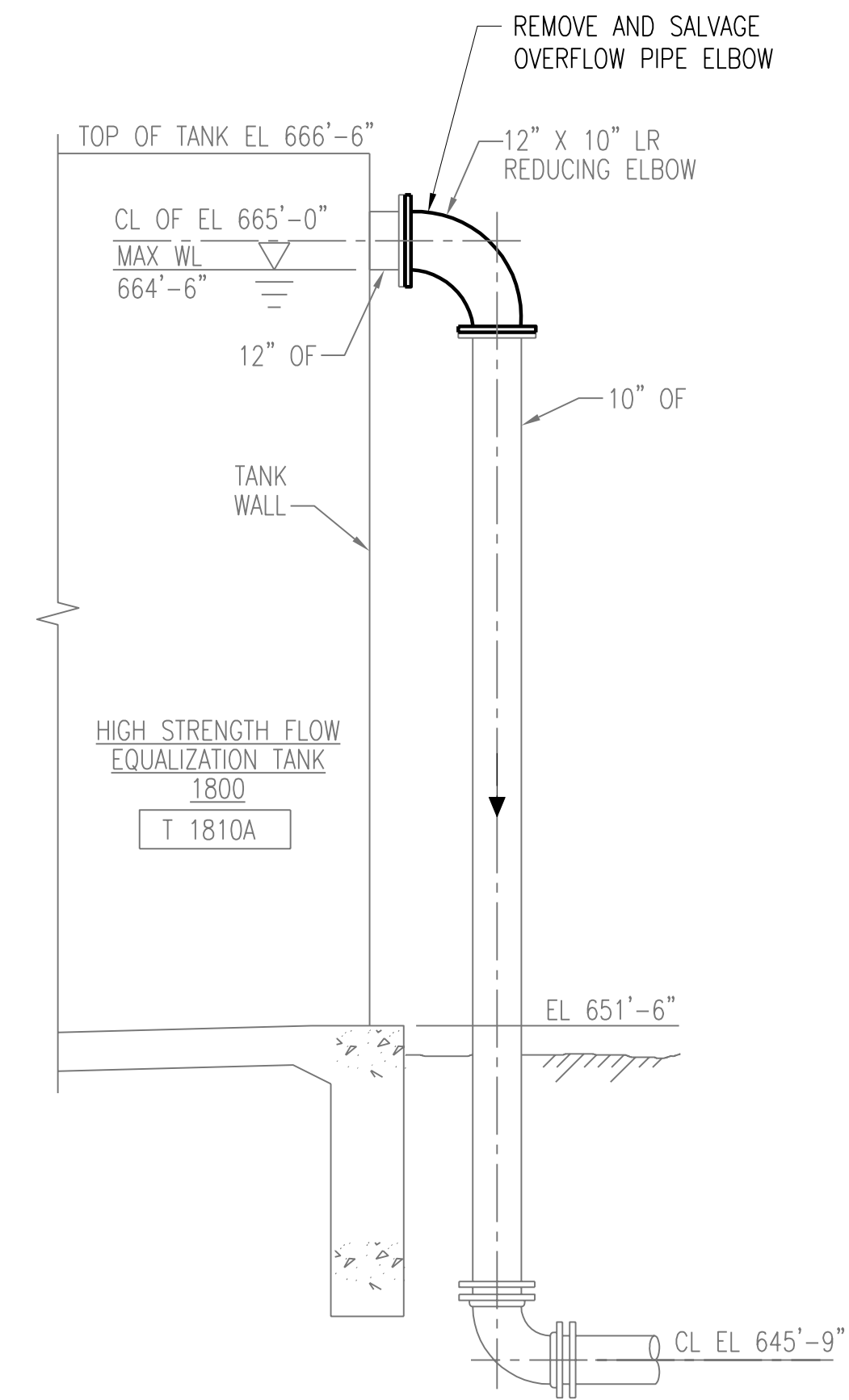
HIGH STRENGTH FLOW EQUALIZATION TANK PLAN

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



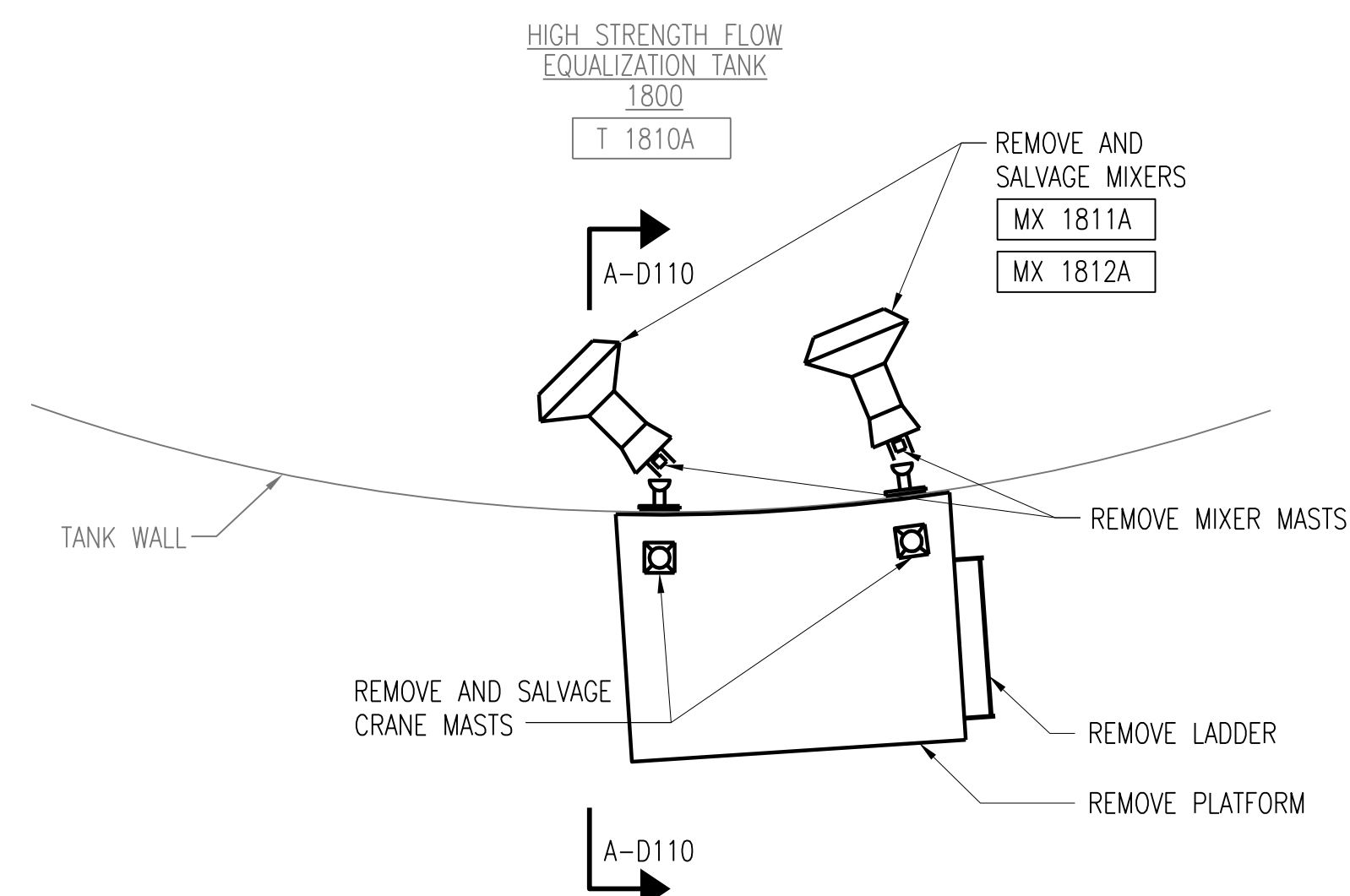
SECTION A-D110

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



SECTION B-D110

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



DETAIL C-D110

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

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	AMR	AMR	JBL	01-10-2012



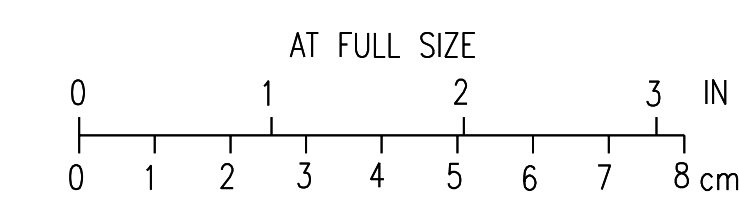
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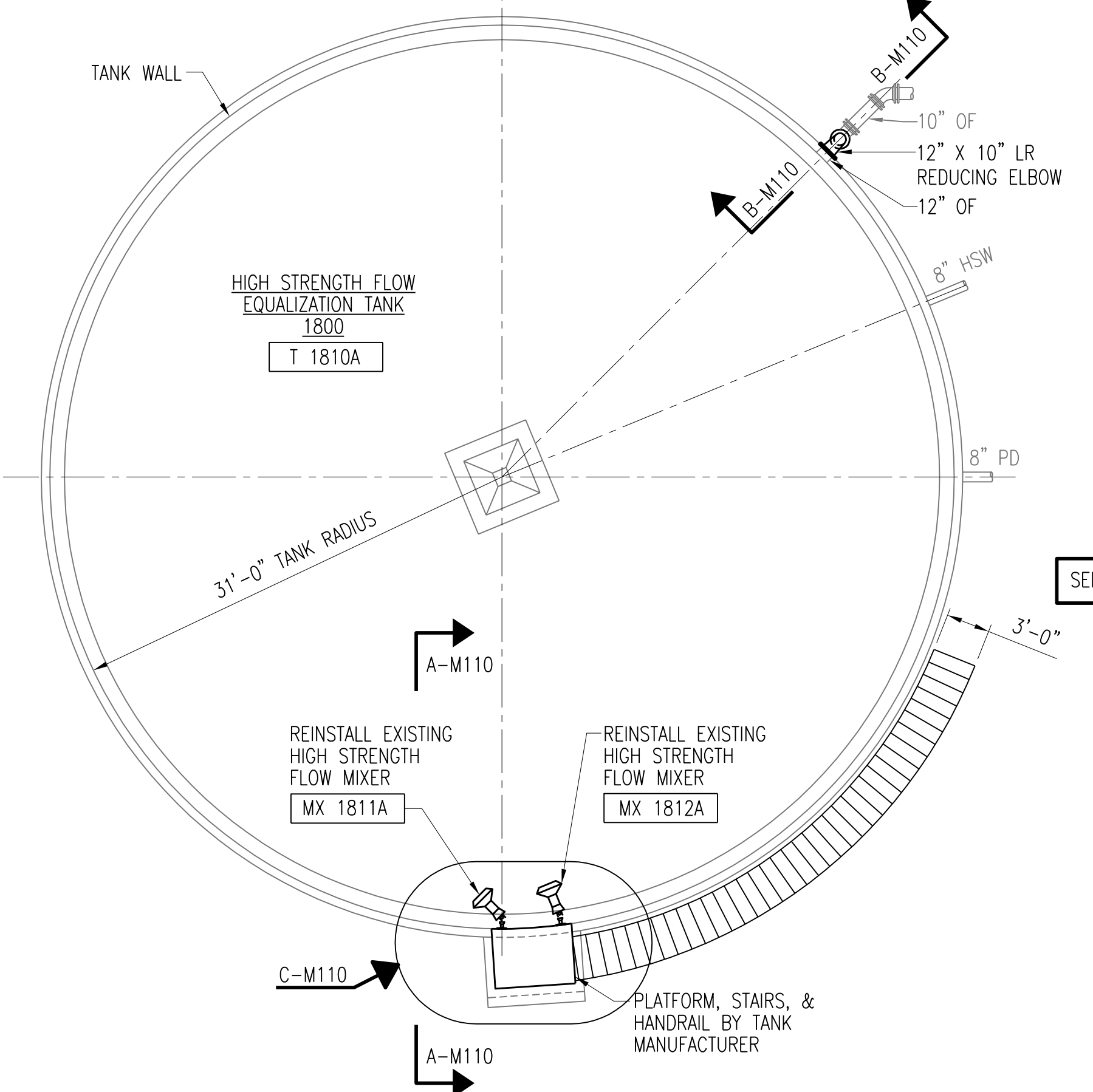
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

HIGH STRENGTH FLOW EQUALIZATION TANK DEMOLITION PLANS AND DETAILS

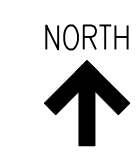
DESIGNED AM ROMERO	SCALE: AS NOTED
DRAWN LJ OSBORN	NO. 22800
CHECKED AM ROMERO	REV.
APPROVED JB LUND	D110
DATE DECEMBER 2, 2011	2



CADD: D110-R4



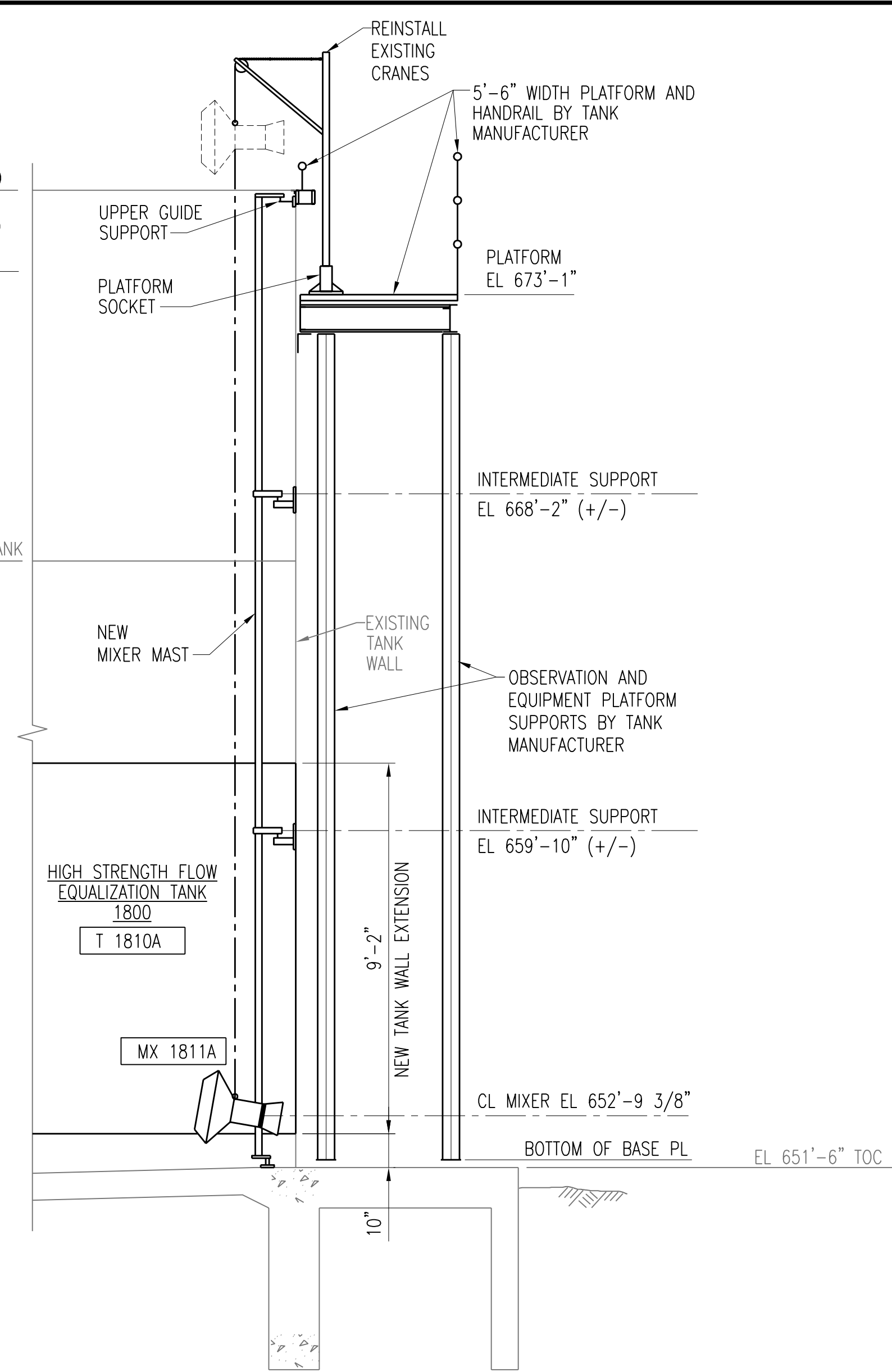
HIGH STRENGTH FLOW EQUALIZATION TANK PLAN
SCALE: 1/8" = 1'-0"



TOP OF PROPOSED TANK EXPANSION
EL 675'-8" (+/-)
MAX WL 673'-8"

TOP OF EXISTING TANK
EL 666'-6"

SEE RFI #94 SHEET M110-A



SECTION A-M110
SCALE: 3/8" = 1'-0"

TOP OF PROPOSED TANK EXPANSION
EL 675'-8" (+/-)

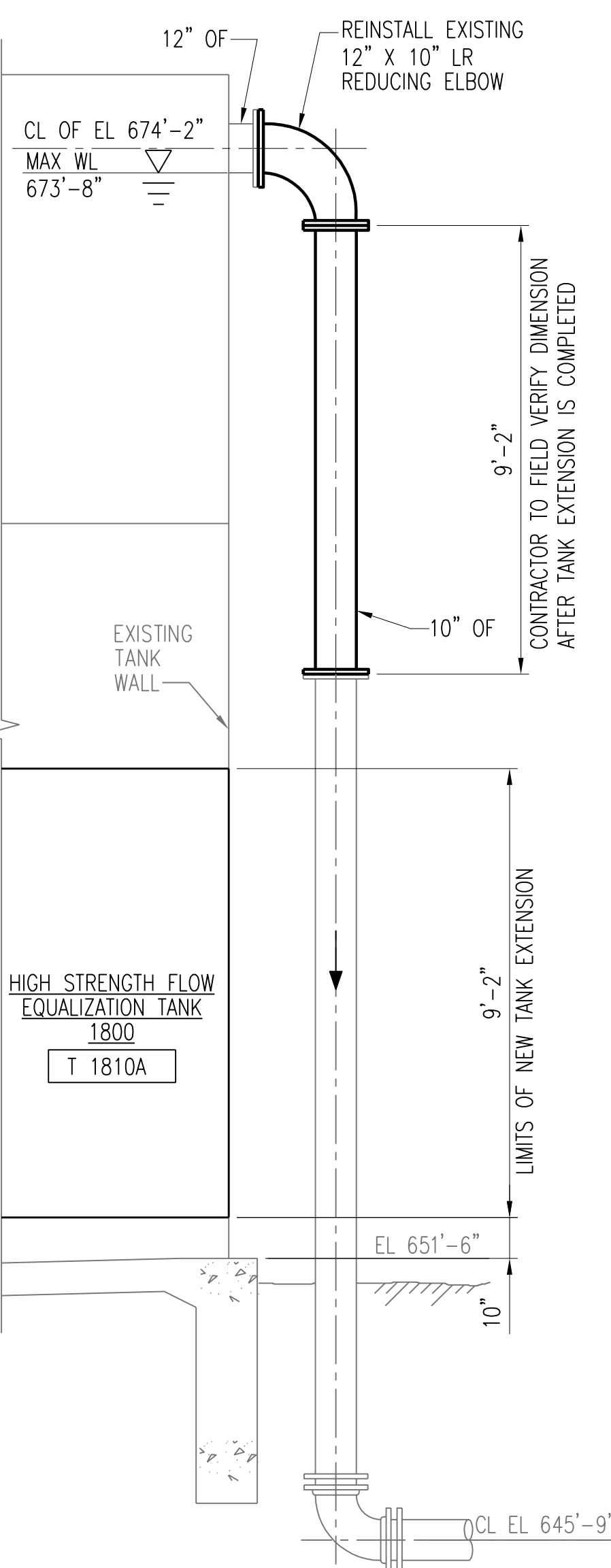
TOP OF EXISTING TANK
EL 666'-6"

CL OF EL 674'-2"
MAX WL 673'-8"

CL MIXER EL 652'-9 3/8"

EL 651'-6"

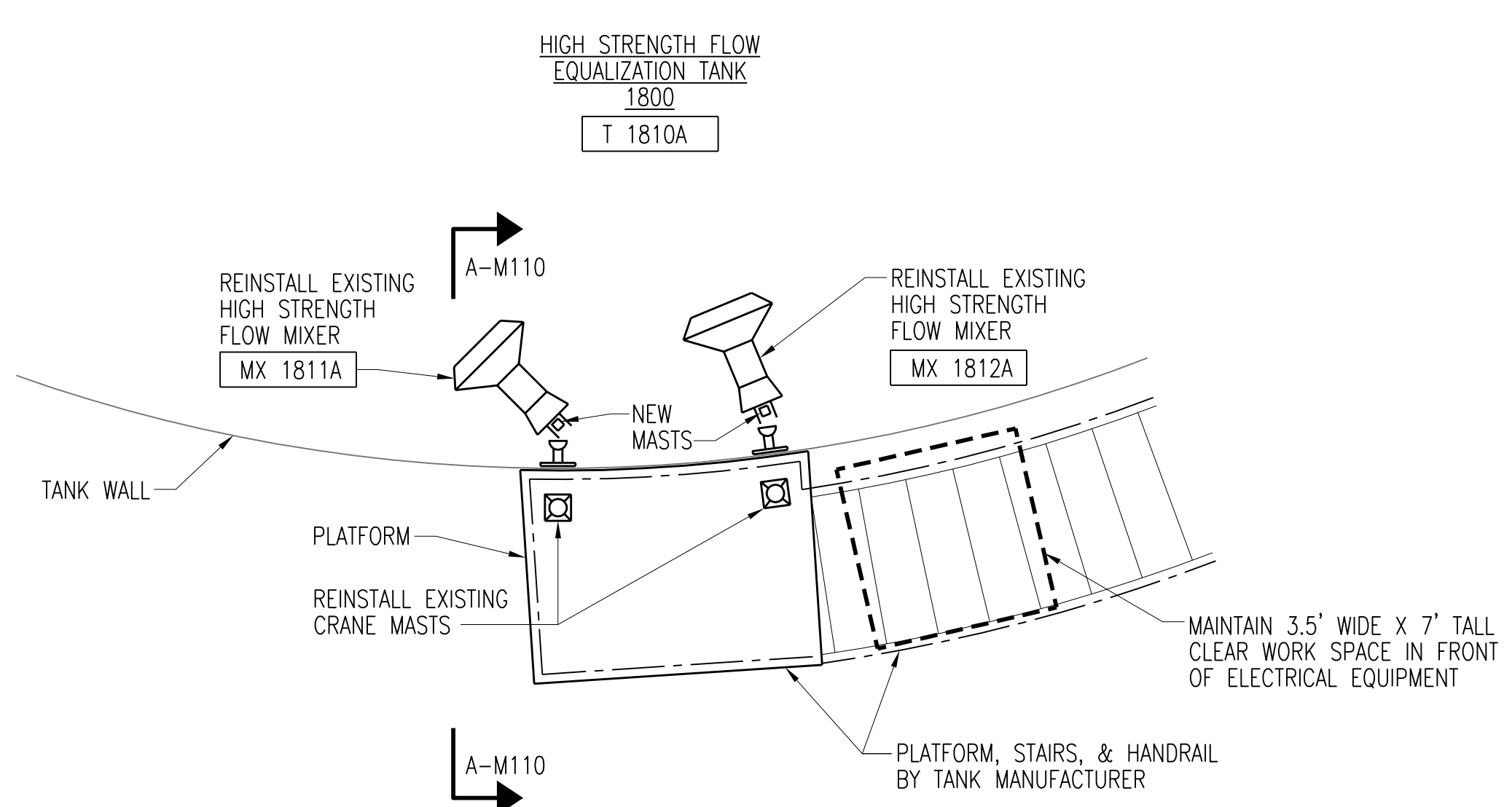
CL EL 645'-9"



SECTION B-M110
SCALE: 3/8" = 1'-0"

NOTES:

1. SEE DWG C12 FOR STRUCTURE LOCATION.
2. SEE DWG C32 FOR CONTINUATION OF PIPING.
3. INSTALL NEW MIXER CABLES.
4. DISCONNECT EXISTING TANK WALL FROM STARTER RING. RAISE EXISTING TANK WALL AND CONNECT NEW TANK WALL SECTIONS TO TOP OF STARTER RING. CONNECT BOTTOM OF EXISTING TANK WALL TO TOP OF NEW TANK WALL.



DETAIL C-M110
SCALE: 3/8" = 1'-0"

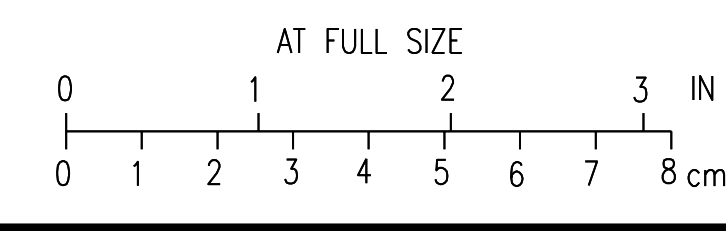
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	AMR	AMR	JBL	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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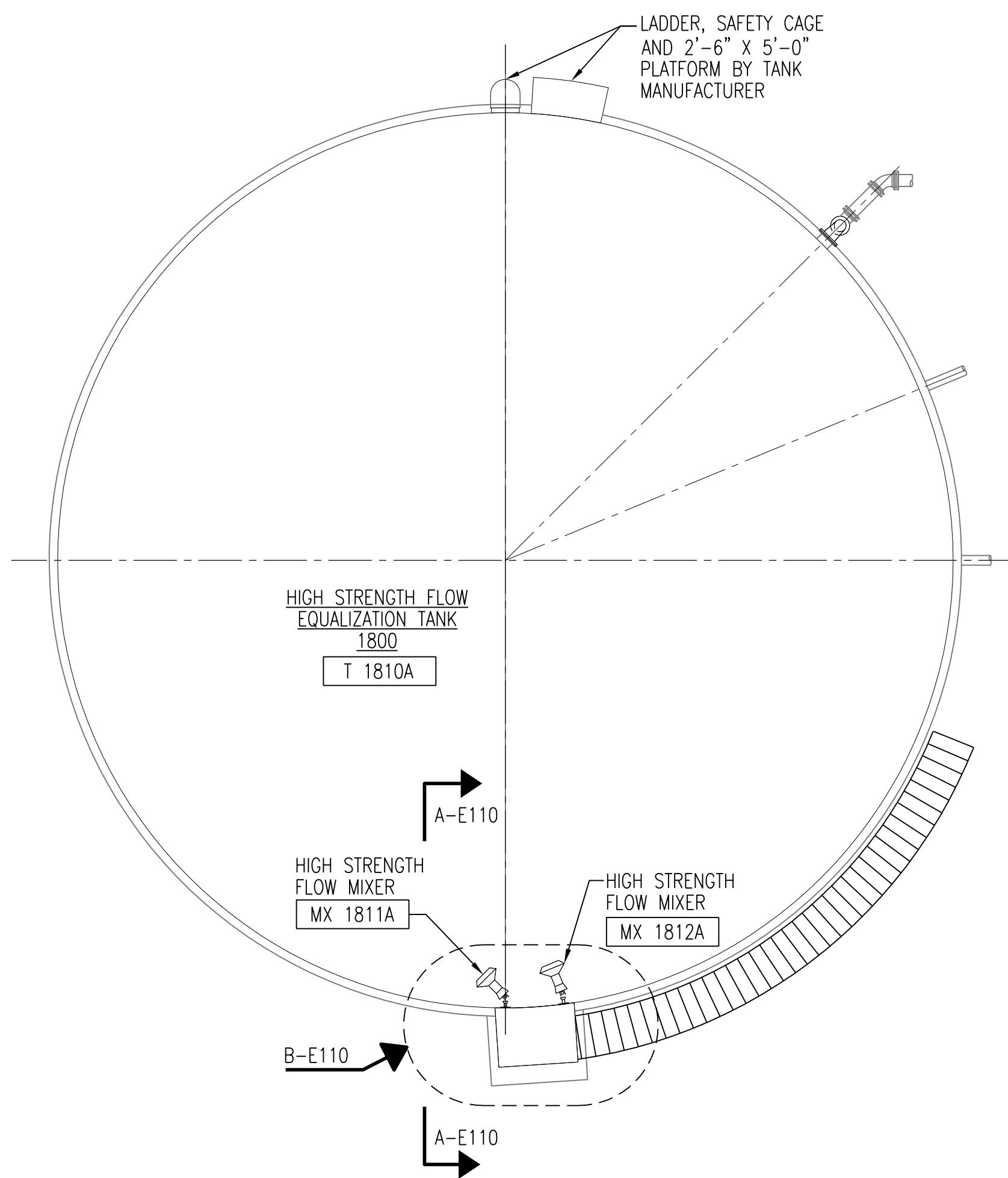
**HIGH STRENGTH FLOW EQUALIZATION TANK
PROCESS PIPING PLAN AND DETAILS**

DESIGNED	AM ROMERO	SCALE:	AS NOTED
DRAWN	LJ OSBORN	NO.	22800
CHECKED	AM ROMERO	REV.	
APPROVED	JB LUND	M110	2
DATE	DECEMBER 2, 2011		

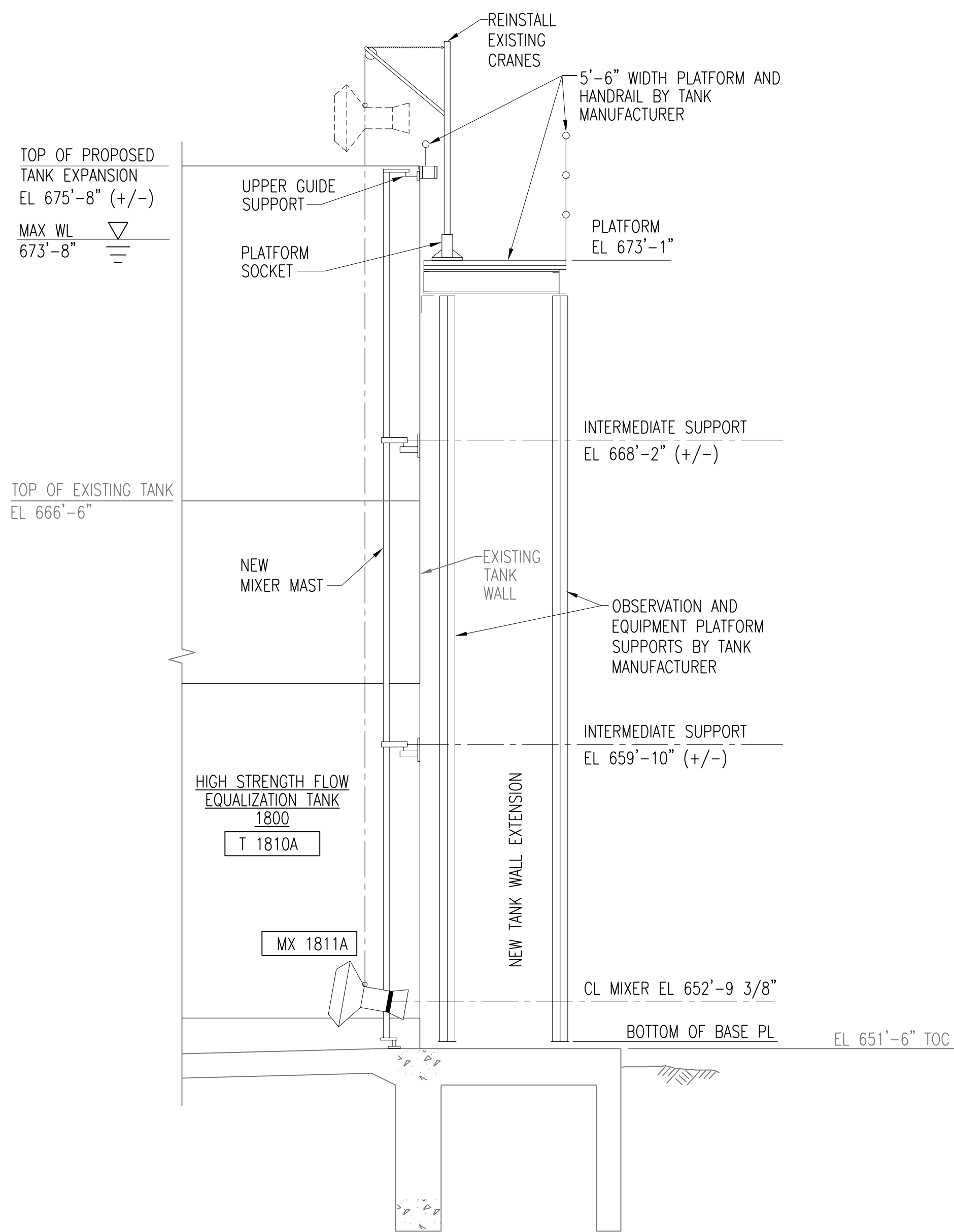


CADD: D1-104

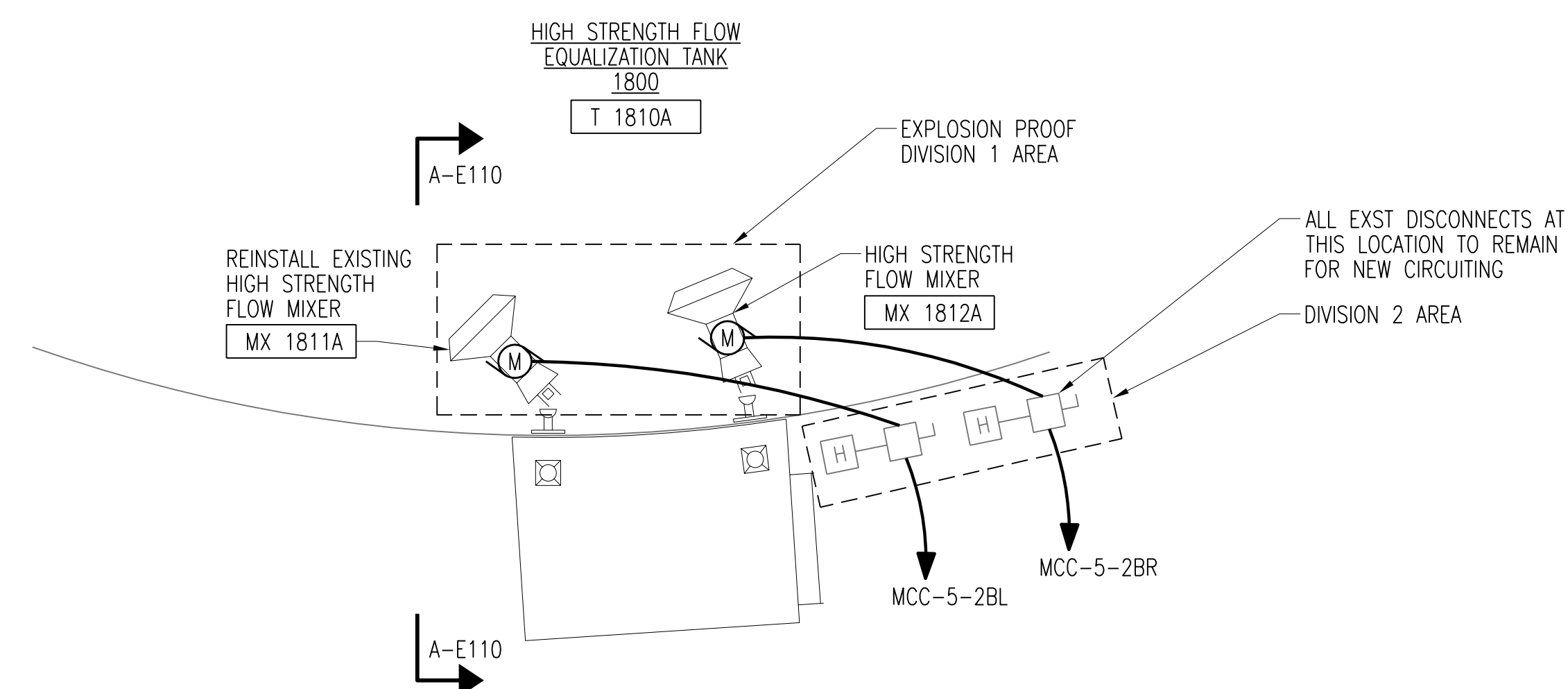
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HIGH STRENGTH FLOW EQUALIZATION TANK PLAN
SCALE: 1/8" = 1'-0"



SECTION A-E110
SCALE: 3/8" = 1'-0"



DETAIL B-E110
SCALE: 3/8" = 1'-0"

- NOTES:**
1. SEE DRAWING E17 FOR REVISED MCC-5 ONE-LINE REQUIREMENTS.
 2. SEE DRAWING E1 FOR GENERAL ELECTRICAL NOTES AND WIRING DEVICE SCHEDULE.
 3. SEE DRAWING E4 FOR TYPICAL ELECTRICAL DETAILS.
 4. SEE DRAWINGS E2 AND E3 FOR LIGHTING FIXTURE SCHEDULE.
 5. SEE DRAWING G9 FOR ELECTRICAL LEGEND.
 6. EXISTING HIGH STRENGTH FLOW MIXERS MX 1811A AND MX 1812A ARE TO BE REMOVED BACK TO THE EXISTING DISCONNECTS LOCAL TO THE TANK SHOWN ON BREAKOUT DETAIL B-E110. NEW MIXERS ARE DUE TO THE INCREASED TANK HEIGHT. ROUTE CABLING IN THE SAME CONDUIT EXTEND AS REQUIRED AND SUPPORT ON NEW RAIL SYSTEM.

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED NOTES	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



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**HIGH STRENGTH FLOW EQUALIZATION TANK
POWER PLAN AND DETAILS**

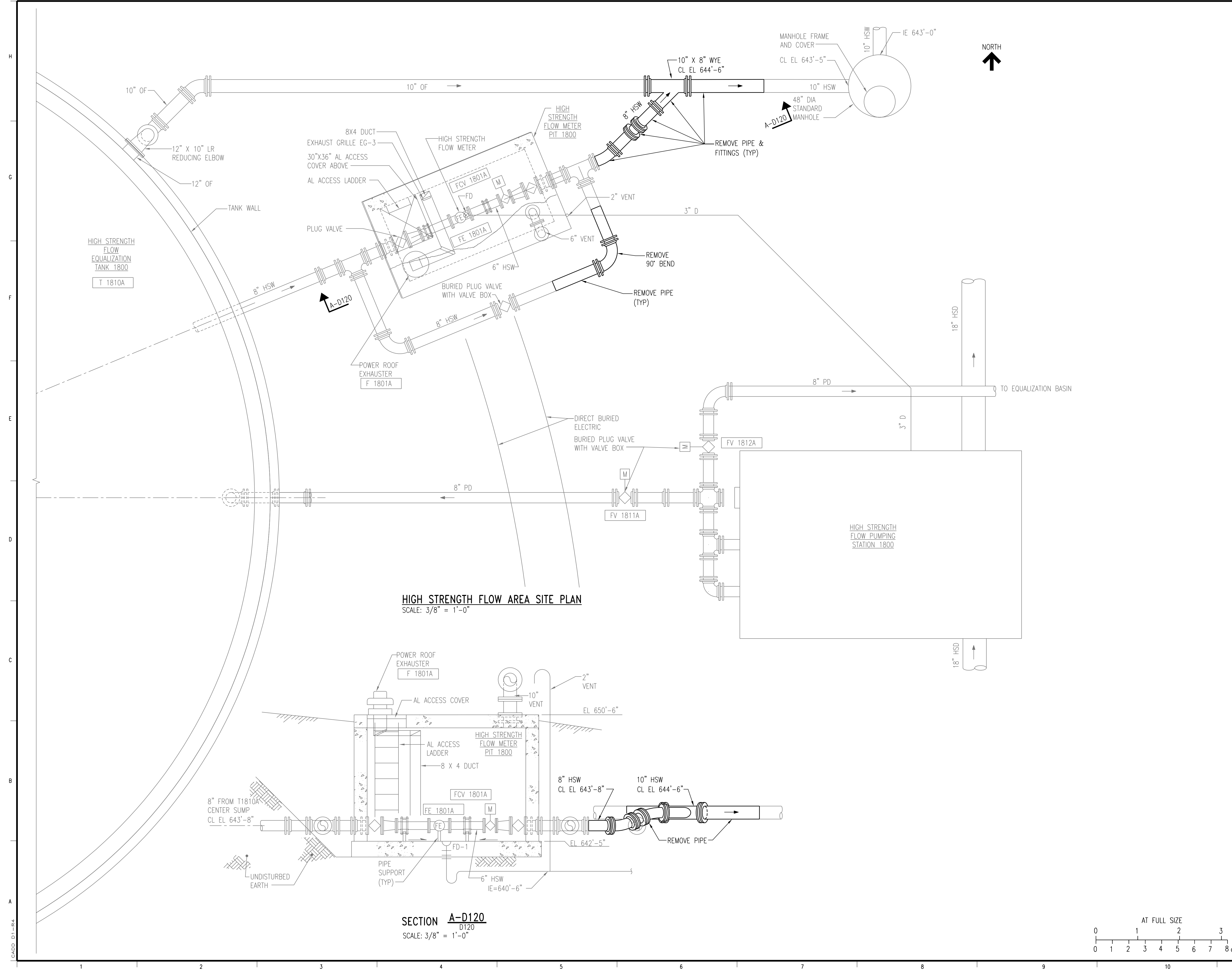
DESIGNED DL MORITZ	SCALE: AS NOTED
DRAWN D. WILGES	NO. 22800
CHECKED DL MORITZ	REV.
APPROVED JD COOAN	E110
DATE DECEMBER 2, 2011	3



CAADD D1-144

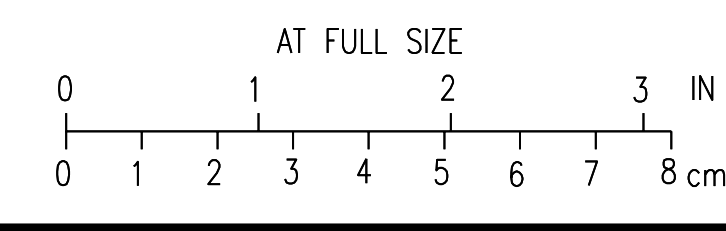
BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE

- NOTES:**
1. SEE DWG C12 FOR STRUCTURE LOCATION.
 2. SEE DWG C32 FOR CONTINUATION OF SITE PIPING.




HIGH STRENGTH FLOW AREA SITE PLAN
SCALE: 3/8" = 1'-0"

SECTION A-D120
SCALE: 3/8" = 1'-0"



2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	AMR	AMR	JBL	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



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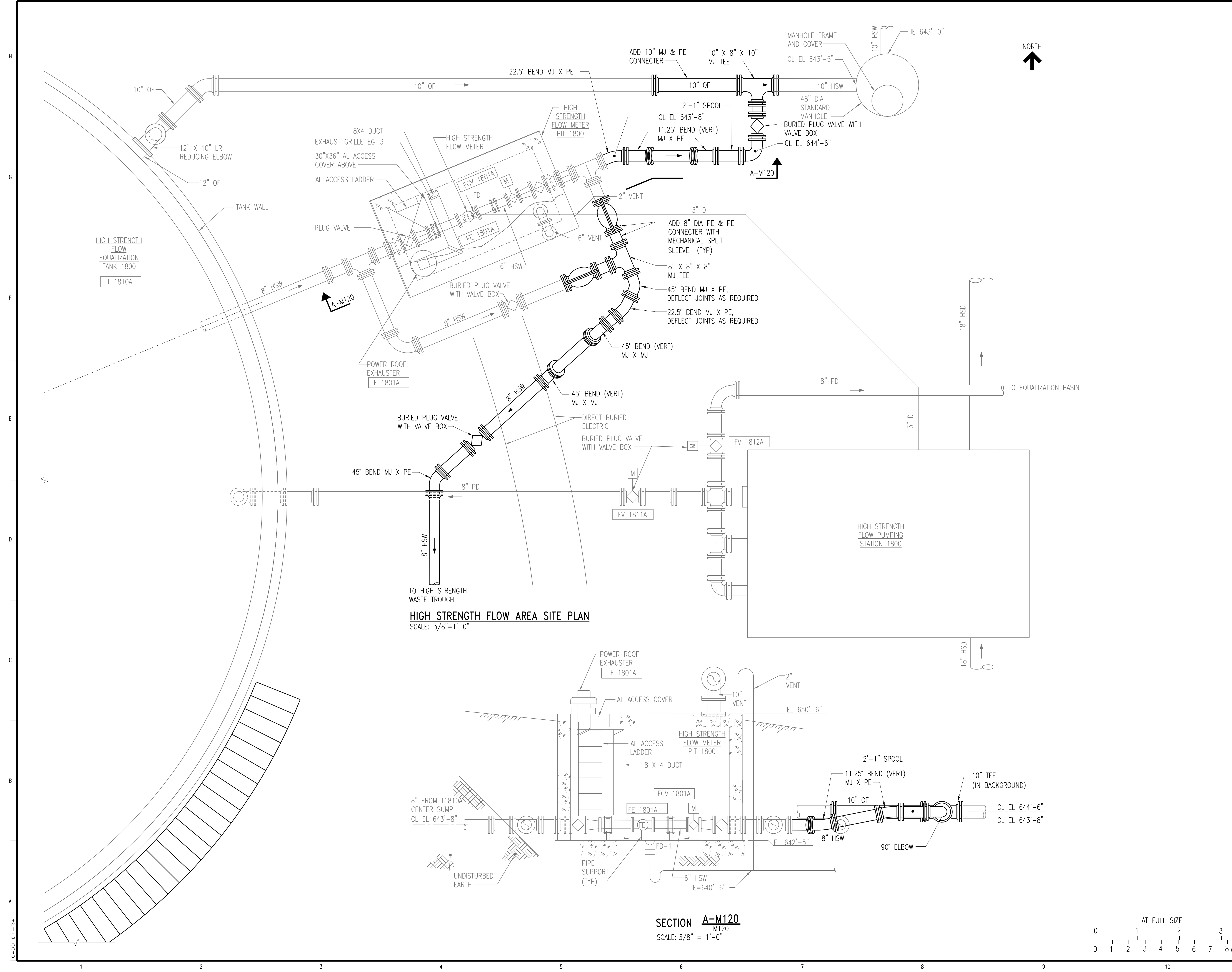
**HIGH STRENGTH FLOW AREA
DEMOLITION PLAN AND SECTION**

DESIGNED: AM ROMERO	SCALE: AS NOTED
DRAWN: LJ OSBORN	NO. 22800
CHECKED: AM ROMERO	REV.
APPROVED: JB LUND	D120
DATE: DECEMBER 2, 2011	2

CADD: D11-R4

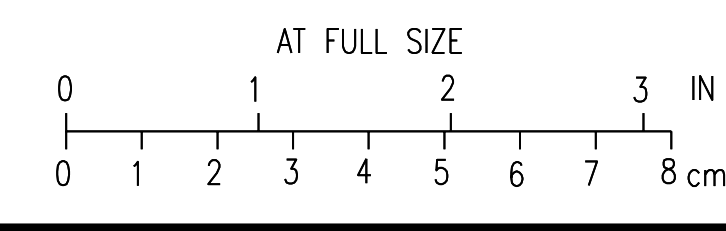
NOTES:

1. SEE DWG C12 FOR STRUCTURE LOCATION.
2. SEE DWG C32 FOR CONTINUATION OF SITE PIPING.



HIGH STRENGTH FLOW AREA SITE PLAN
SCALE: 3/8"=1'-0"

SECTION A-M120
SCALE: 3/8" = 1'-0"



2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	AMR	AMR	JBL	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



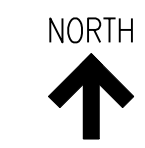
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**HIGH STRENGTH FLOW AREA
PROCESS PIPING PLAN AND SECTIONS**

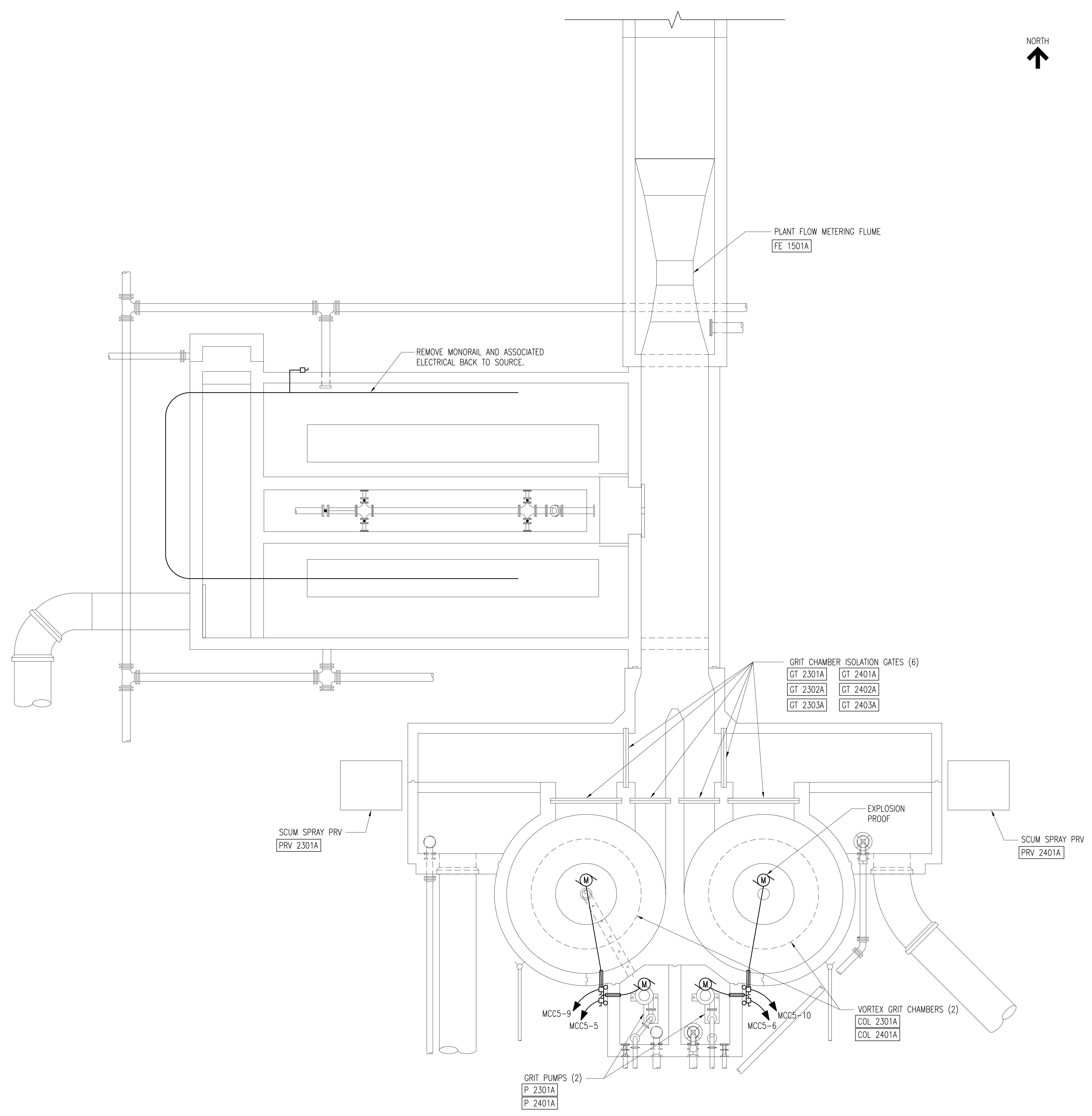
DESIGNED	AM ROMERO	SCALE:	AS NOTED
DRAWN	LJ OSBORN	NO.	22800
CHECKED	AM ROMERO	REV.	
APPROVED	JB LUND		
DATE	DECEMBER 2, 2011	M120	2

BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE



NOTES:

1. REMOVE OUTDOOR ELECTRICAL EQUIPMENT.
2. REMOVE SUBMERSIBLE PUMPS 2301A AND P2401A AND COLLECTORS COL 2301A AND COL 2401A. MOTOR STARTERS FOR PUMPS ARE LOCATED IN MCC-5 IN GRIT DEWATERING BUILDING. SEE DRAWING D221 FOR GRIT DEWATERING BUILDING DEMOLITION AND DRAWING D17 FOR MCC-5 ONE LINE DIAGRAM DEMOLITION.
3. PROVIDE SEALOFFS ON REMAINING CONDUITS AFTER REMOVAL OF WIRING FROM CONDUITS PENETRATING CLASSIFIED AREAS.



3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**VORTEX GRIT TANKS AREA
 ELECTRICAL DEMOLITION
 PLAN AND DETAILS**

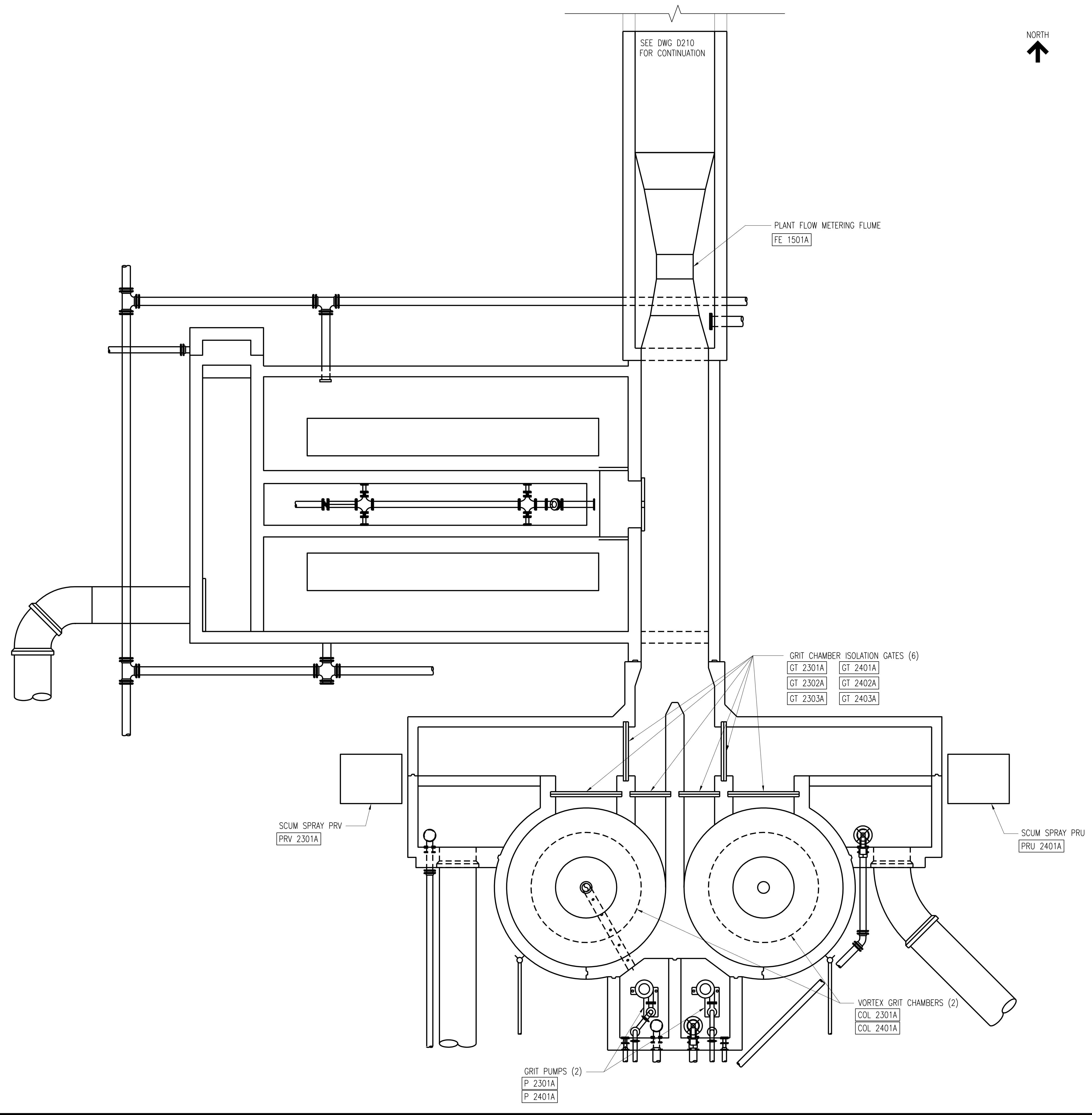
DESIGNED	DL MORITZ	SCALE:	1/4" = 1'-0"
DRAWN	D.WILGES	NO.	22800
CHECKED	DL MORITZ	REV.	
APPROVED	JD COOAN		
DATE	DECEMBER 2, 2011	D201	3

CADD: D1-R4

BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE

NOTES:

1. DEMO STRUCTURES 3'-0" BELOW GROUND.
2. CAP AND ABANDON ALL ASSOCIATED PIPING.



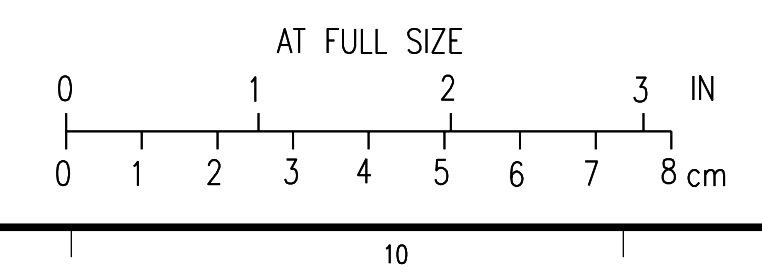
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JBL	JBL	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**VORTEX GRIT TANKS AREA
EXISTING VORTEX GRIT CHAMBER
DEMOLITION**

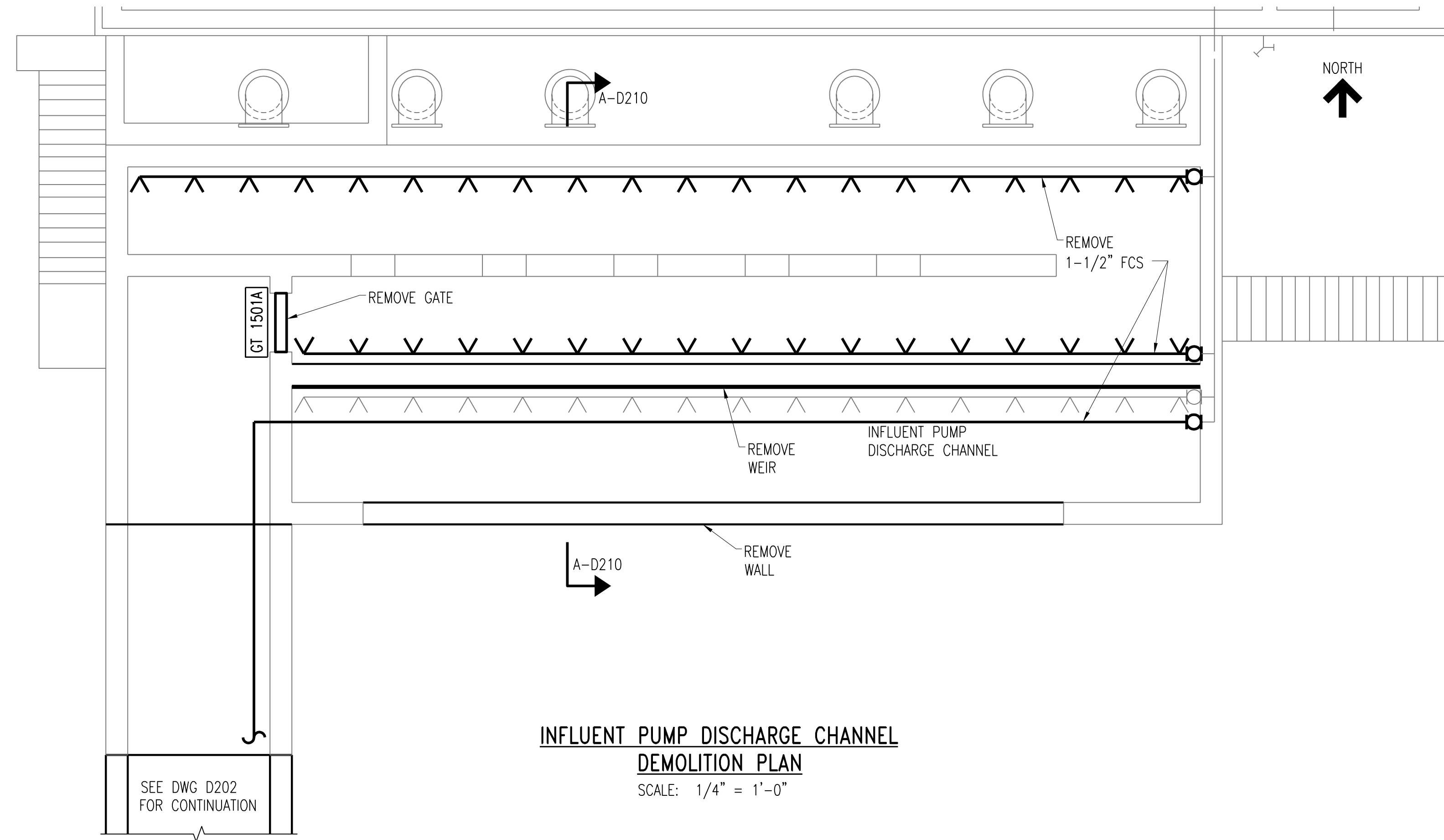
DESIGNED	JB LUND	SCALE: 1/4" = 1'-0"	
DRAWN	LJ OSBORN	NO. 22800	REV.
CHECKED	JB LUND		
APPROVED	JM BRADY		
DATE	DECEMBER 2, 2011	D202	2



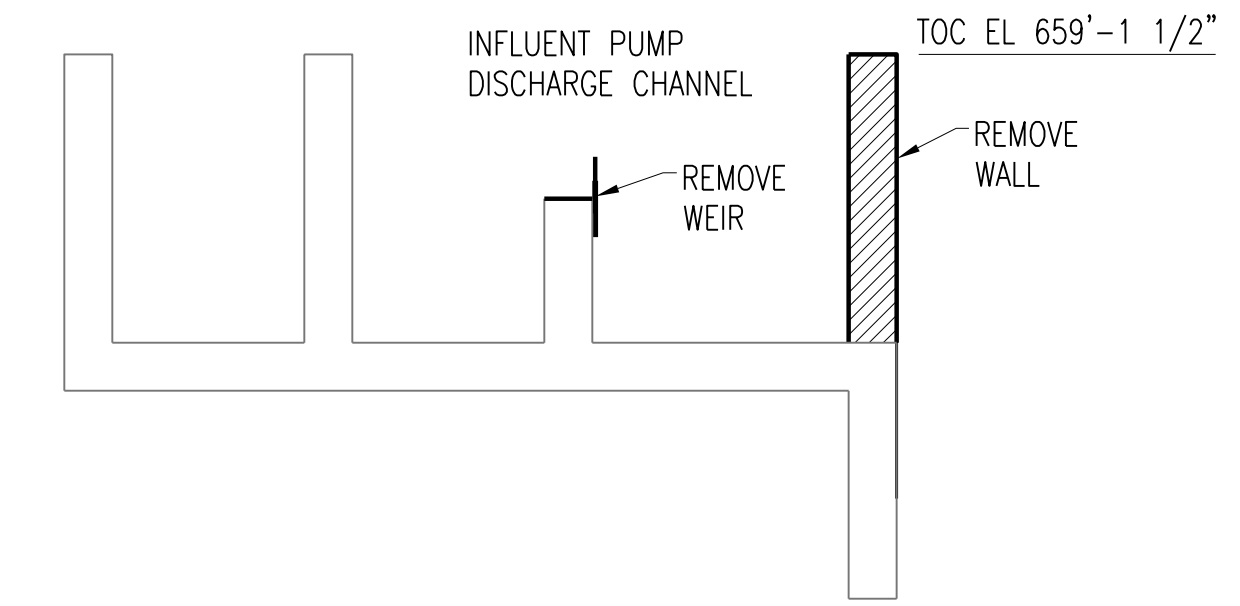
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BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE

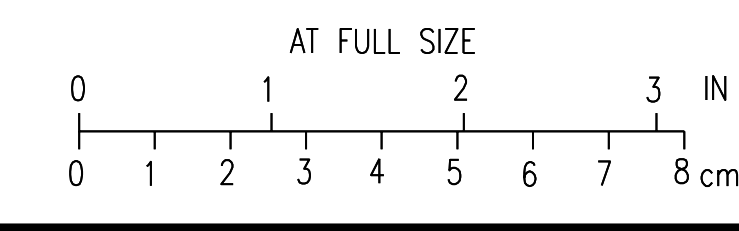


**INFLUENT PUMP DISCHARGE CHANNEL
DEMOLITION PLAN**
SCALE: 1/4" = 1'-0"



SECTION A-D210
SCALE: 1/4" = 1'-0"

SEE DWG D202 FOR CONTINUATION



NO.	REVISIONS	DSGN	CHKD	APVD	DATE
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REMOVE GATE	JBL	JBL	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	JBL	JBL	JMB	01-10-2012



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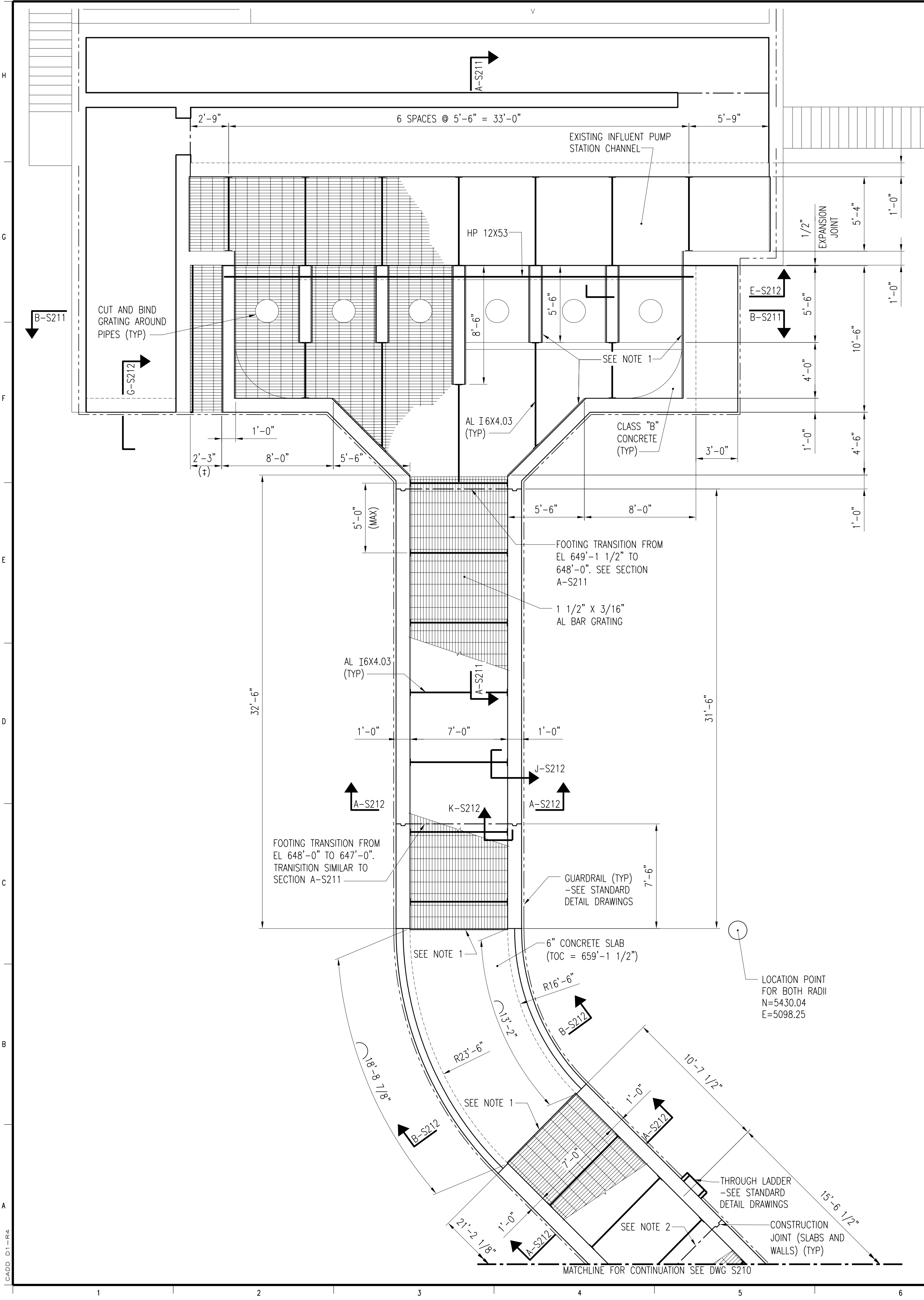
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**VORTEX GRIT TANKS AREA
INFLUENT PUMP DISCHARGE CHANNEL
DEMOLITION PLAN AND SECTION**

DESIGNED <u>JB LUND</u>	SCALE: AS NOTED
DRAWN <u>LJ OSBORN</u>	NO. 22800
CHECKED <u>JB LUND</u>	REV. 2
APPROVED <u>JM BRADY</u>	D210
DATE <u>DECEMBER 2, 2011</u>	

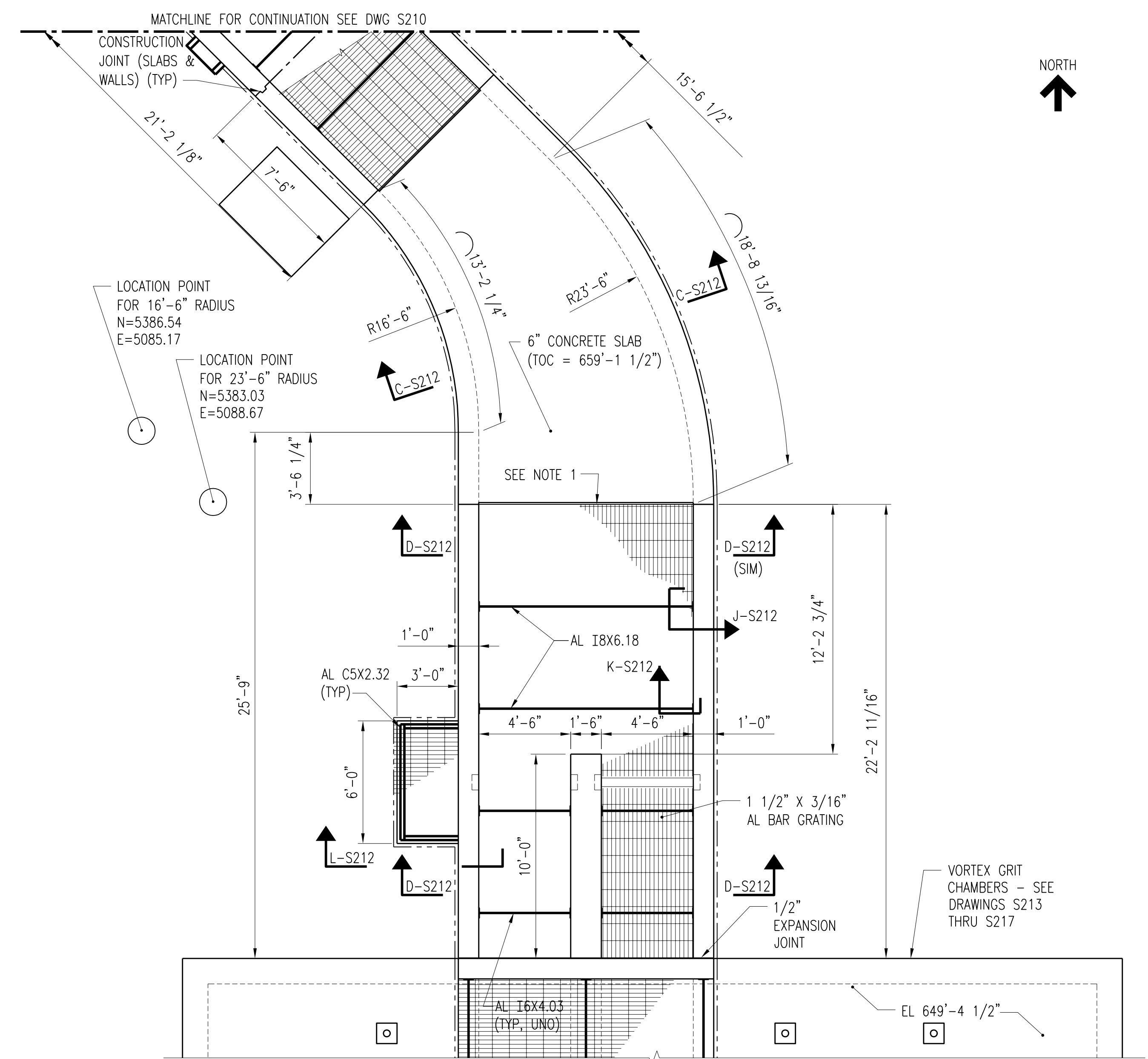
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NOTES:

1. AL L4X2X3/8 WITH 5/8" DIA SST HILT, KB-TZ ANCHORS AT 1'-6" CTS. MINIMUM EMBEDMENT OF 4" OR APPROVED EQUAL (TYP).
2. FOOTING TRANSITION FROM EL 647'-0" TO 646'-0". TRANSITION SIMILAR TO SECTION A-S211



INFLUENT CHANNEL PLAN
SCALE: 1/4" = 1'-0"

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

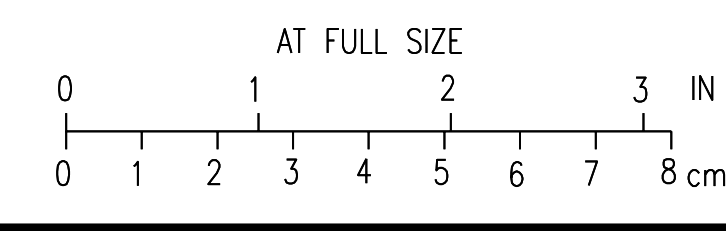
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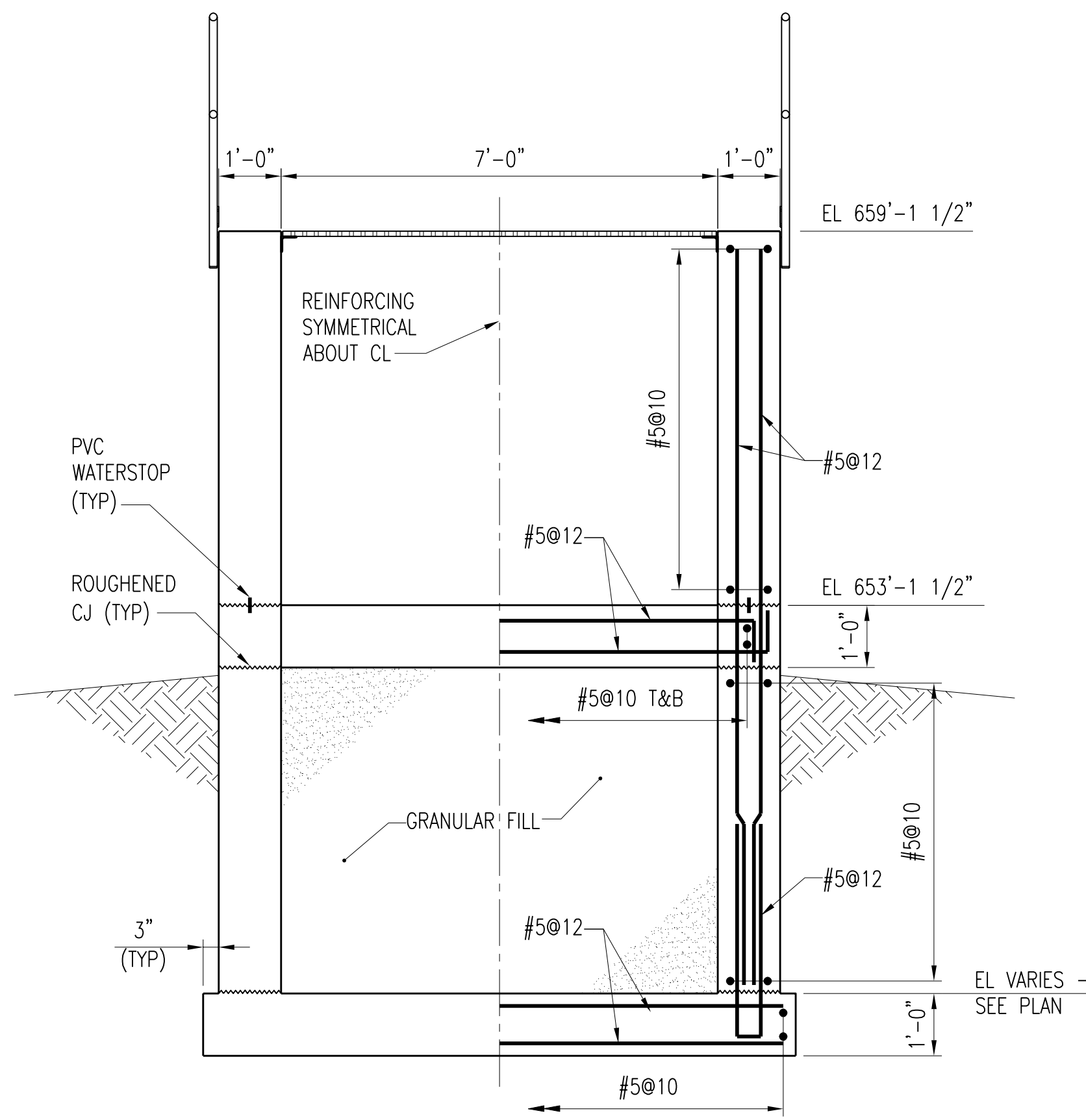
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**VORTEX GRIT TANKS AREA
INFLUENT CHANNEL - PLANS**

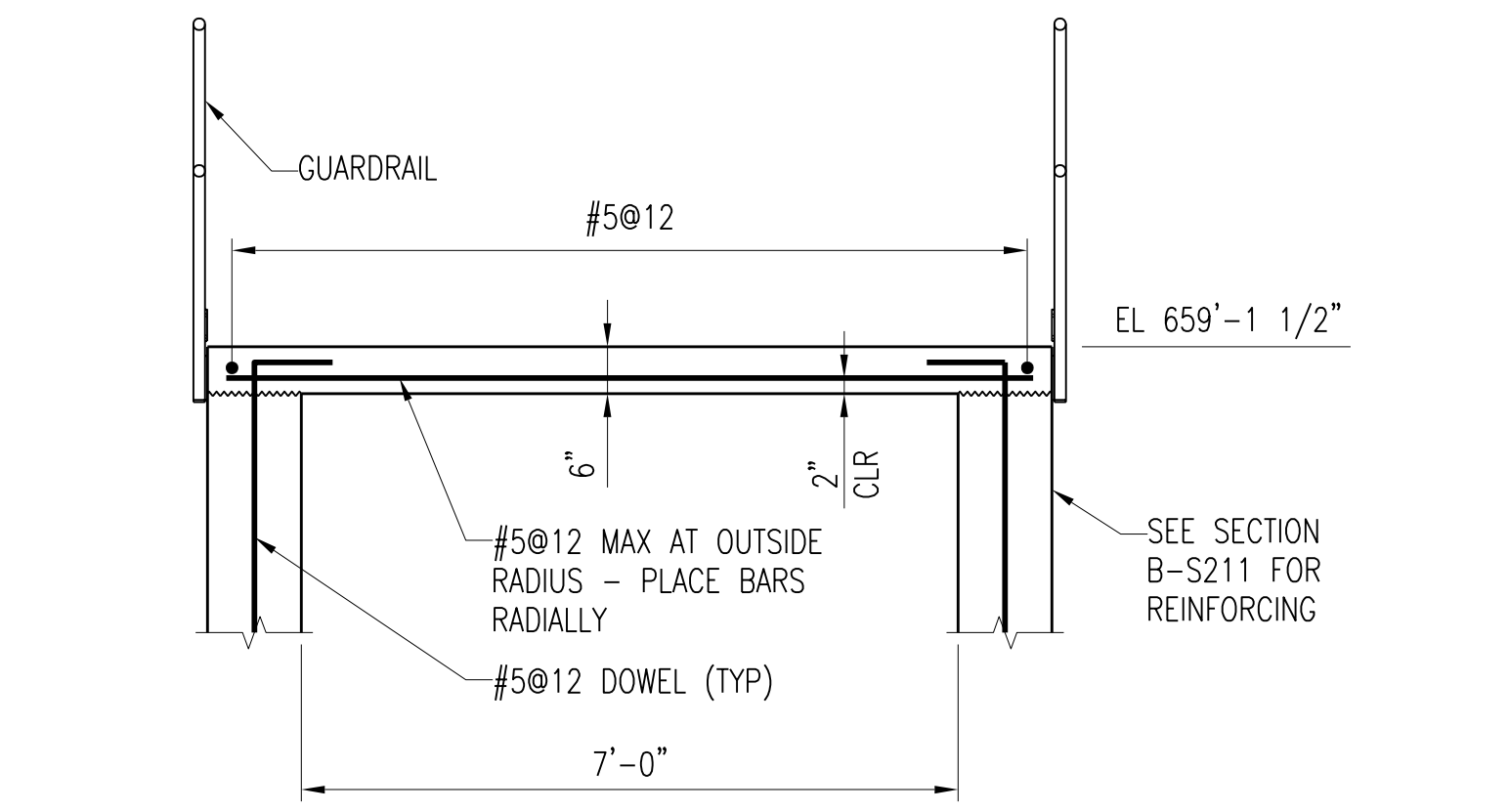
DESIGNED	KB HALL
DRAWN	DA SCHMIDT
CHECKED	LH BADTRAM
APPROVED	JM BRADY
DATE	DECEMBER 2, 2011

SCALE: AS NOTED	REV.
NO. 22800	
S210	2

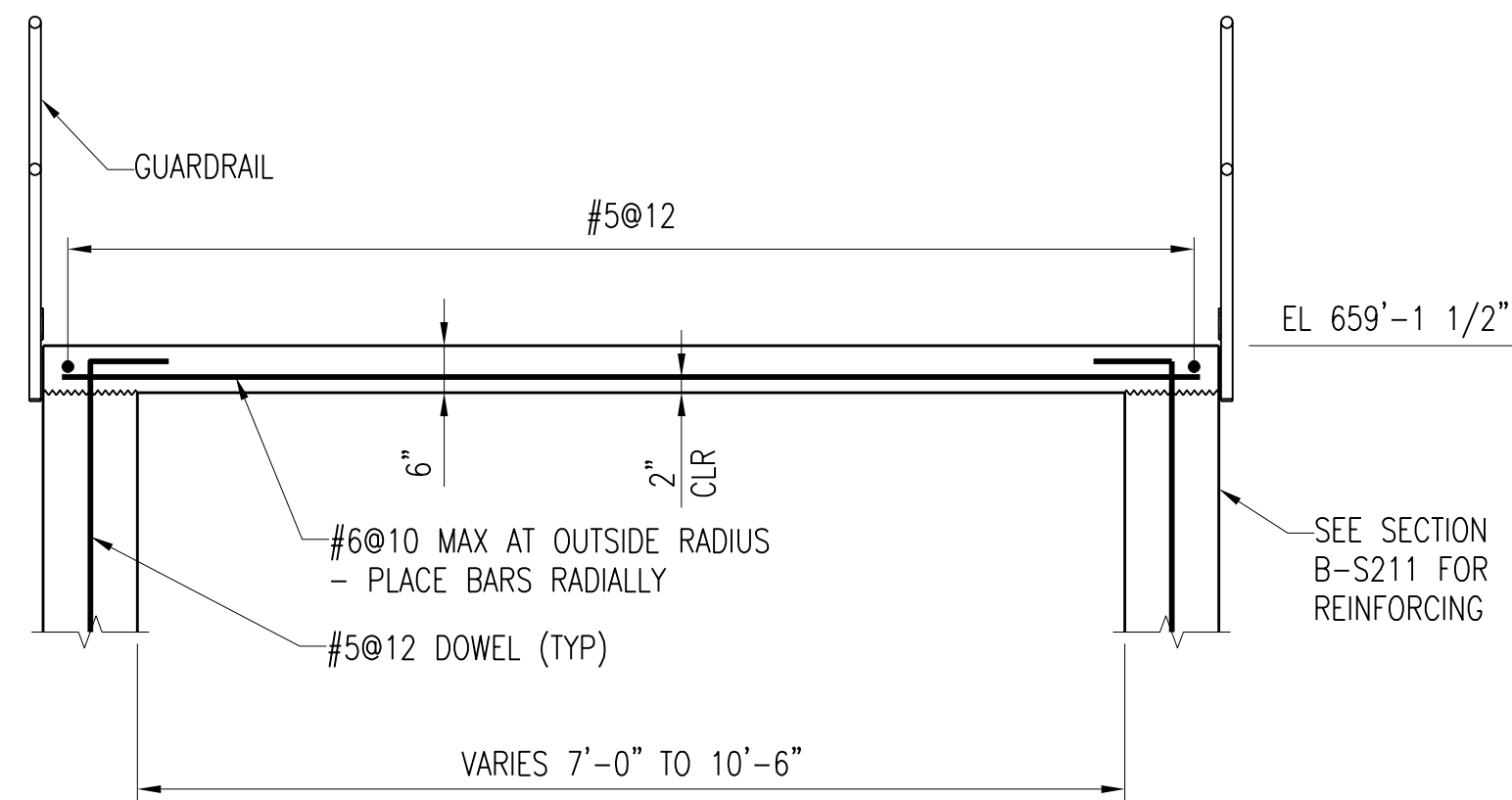




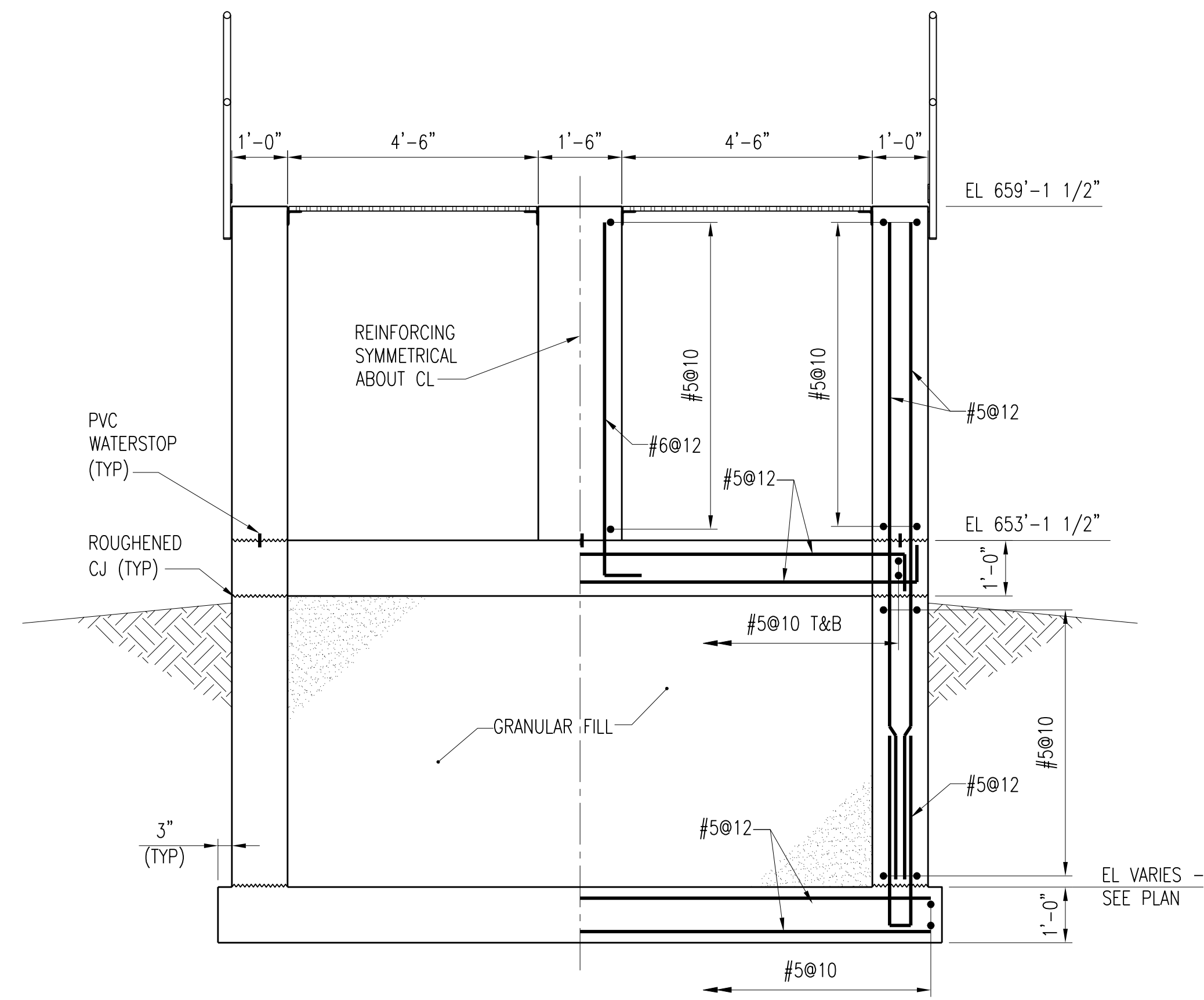
SECTION **A-S212**
S210
SCALE: 1/2" = 1'-0"



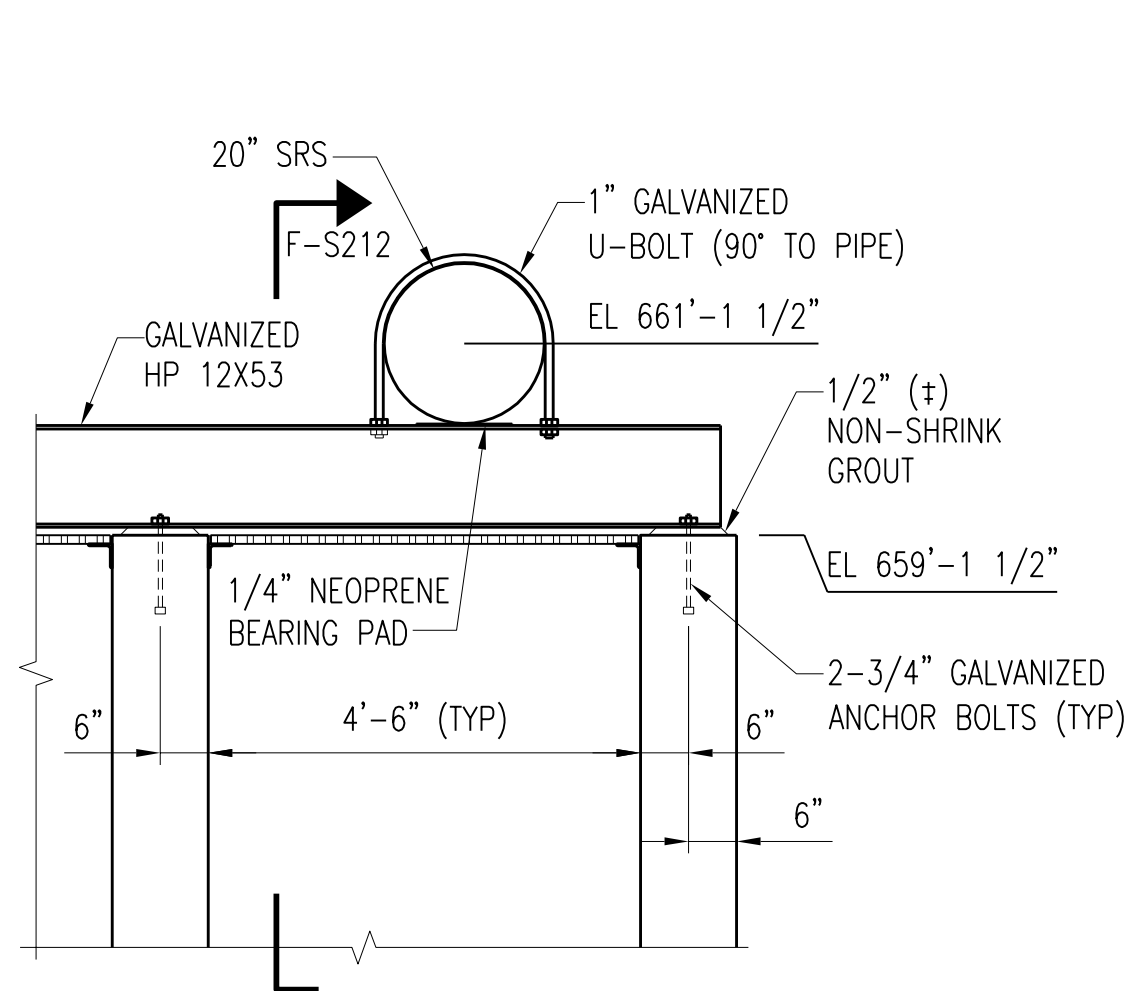
SECTION **B-S212**
S210
SCALE: 1/2" = 1'-0"



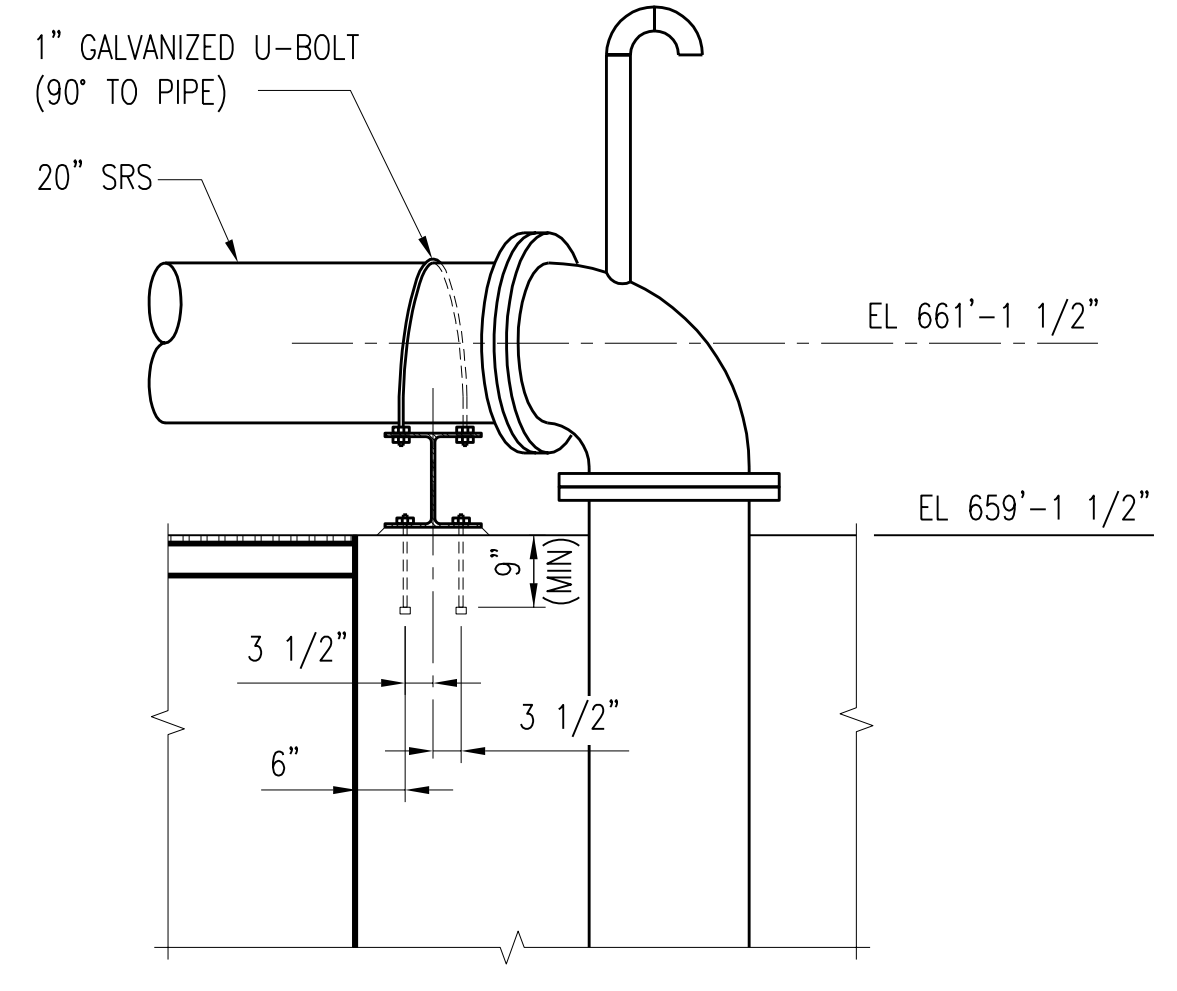
SECTION **C-S212**
S210
SCALE: 1/2" = 1'-0"



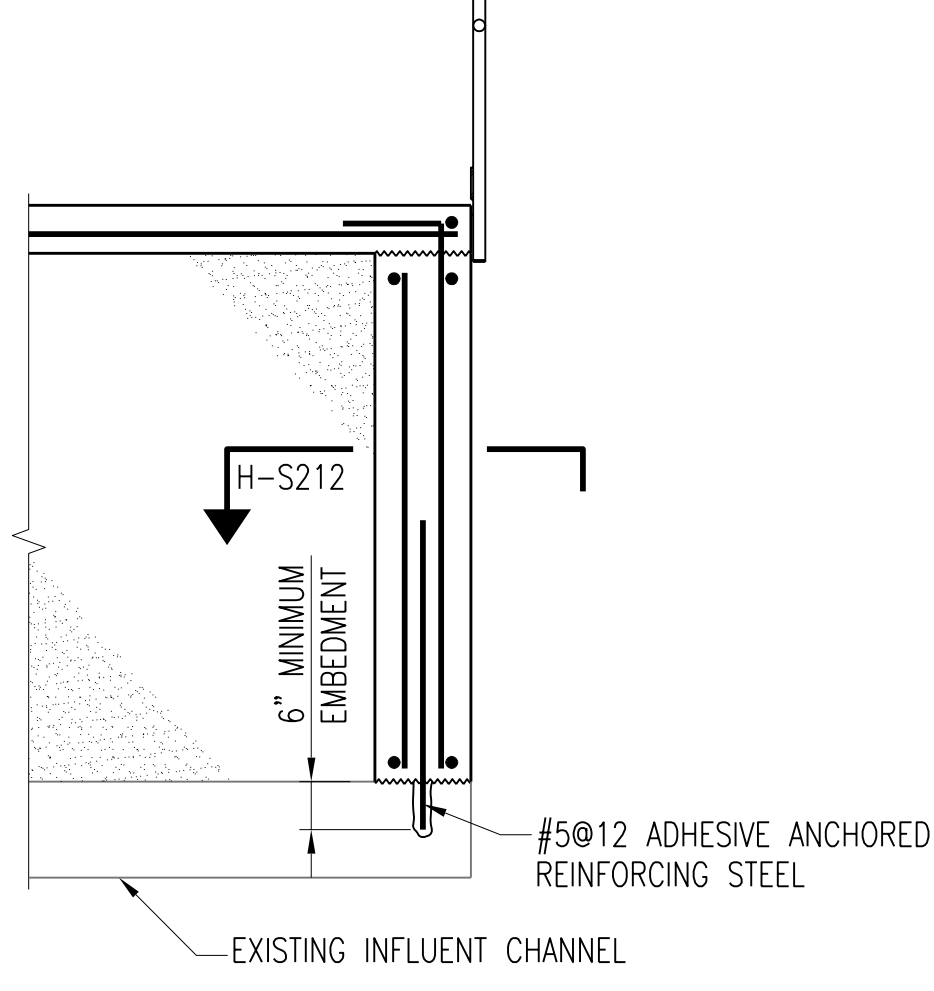
SECTION **D-S212**
S210
SCALE: 1/2" = 1'-0"



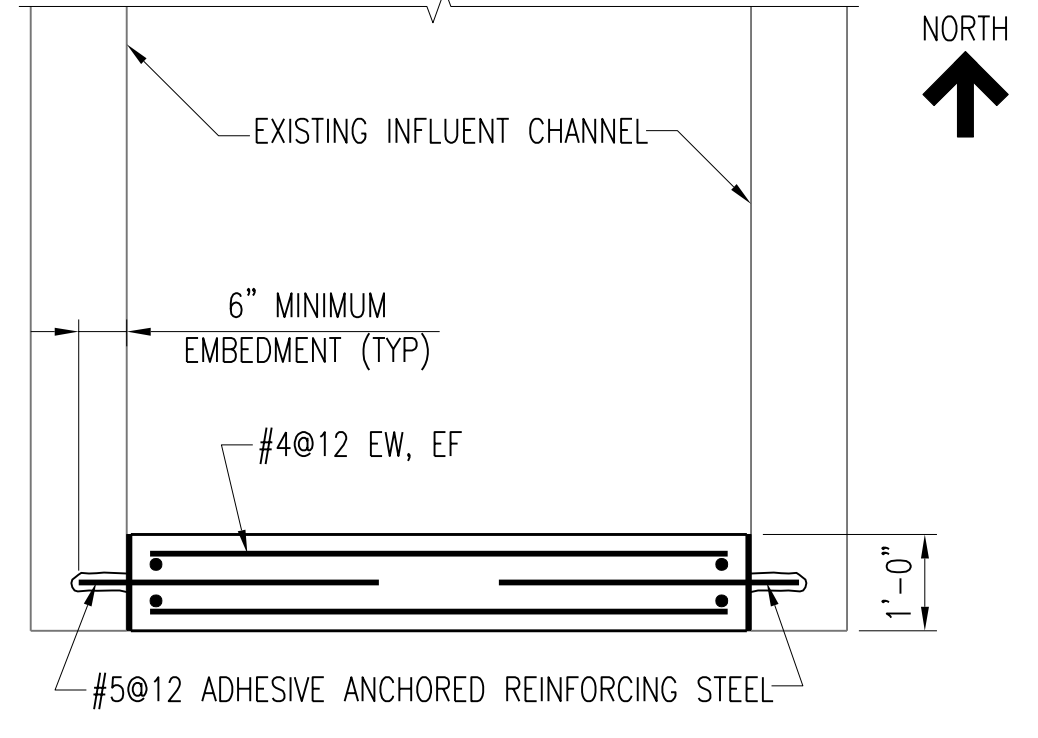
SECTION **E-S212**
S210
SCALE: 1/2" = 1'-0"



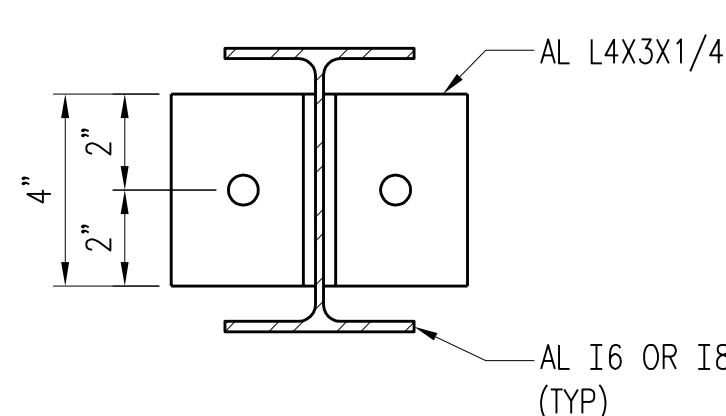
SECTION **F-S212**
S212
SCALE: 1/2" = 1'-0"



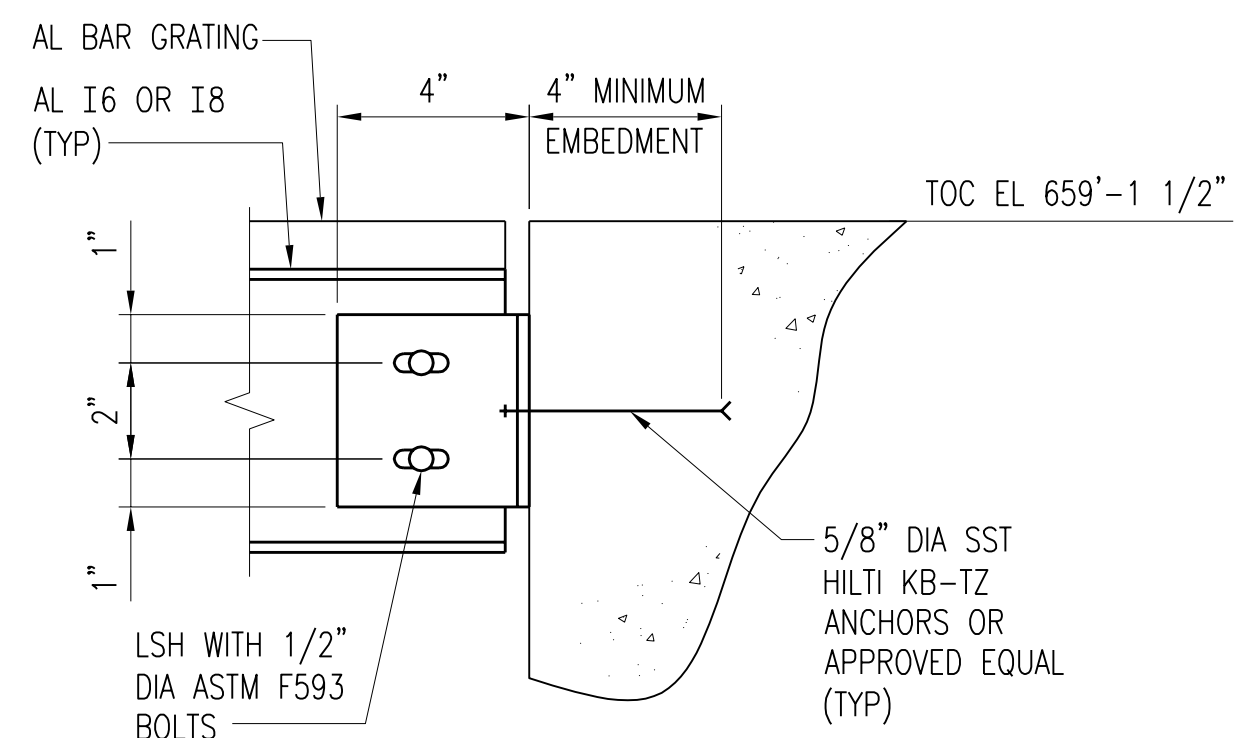
SECTION **G-S212**
S210
SCALE: 1/2" = 1'-0"



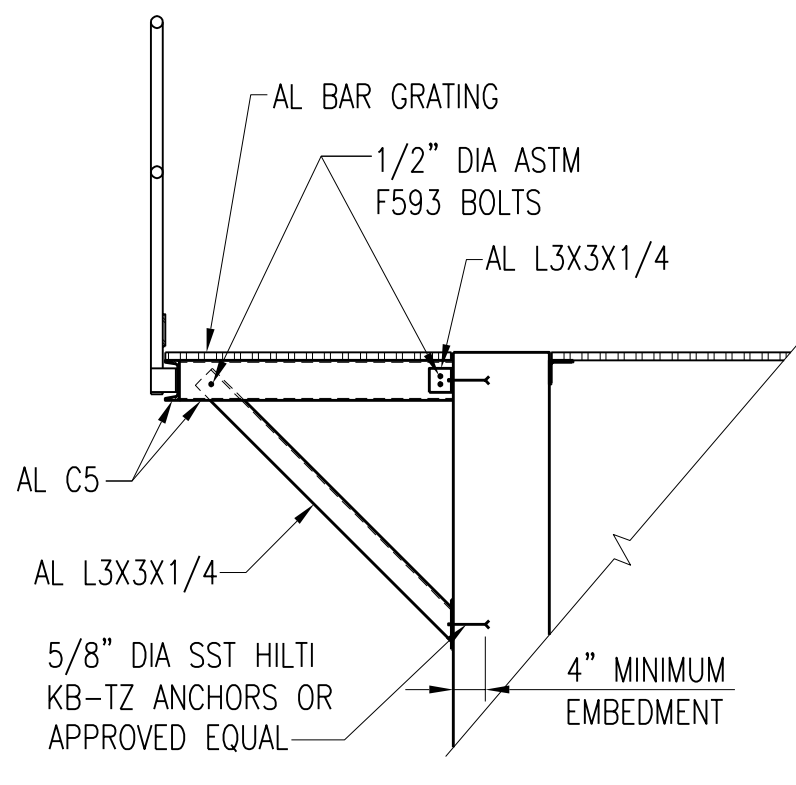
SECTION **H-S212**
S212
SCALE: 1/2" = 1'-0"



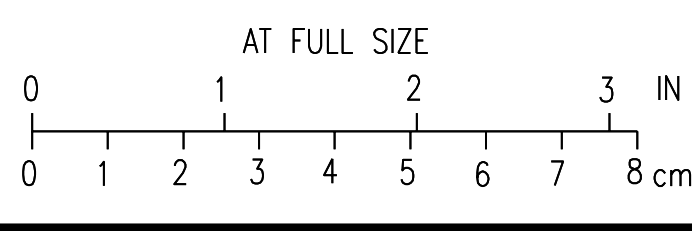
SECTION **J-S212**
S210
SCALE: 3" = 1'-0"



SECTION **K-S212**
S210
SCALE: 3" = 1'-0"



SECTION **L-S212**
S210
SCALE: 1/2" = 1'-0"



2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

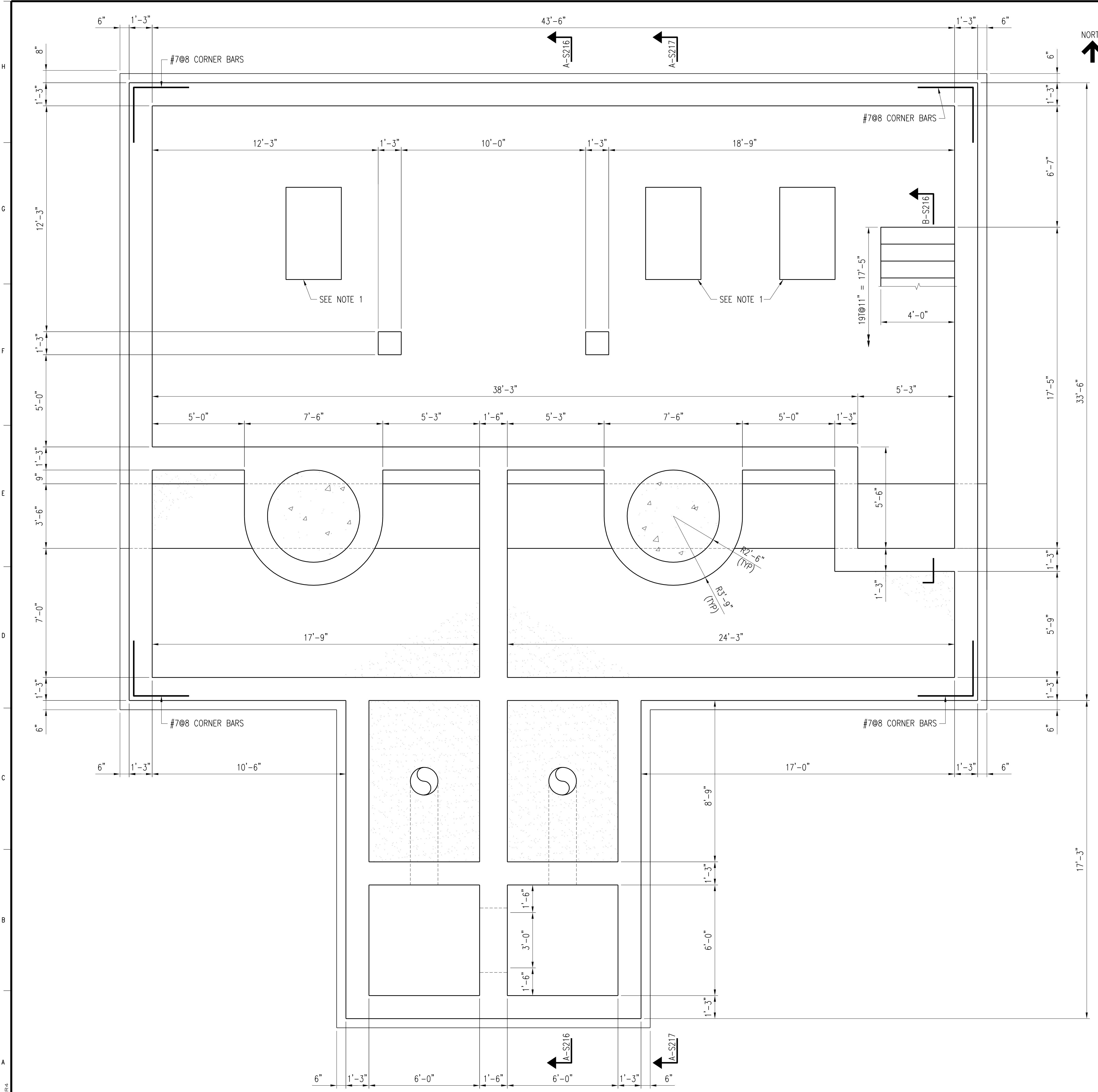
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 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**VORTEX GRIT TANKS AREA
 INFLUENT CHANNEL
 DETAILS - SHEET 2**

DESIGNED: KB HALL	SCALE: AS NOTED
DRAWN: DA SCHMIDT	NO. 22800
CHECKED: KB HALL	REV. 2
APPROVED: LH BADTRAM	S212
DATE: DECEMBER 2, 2011	

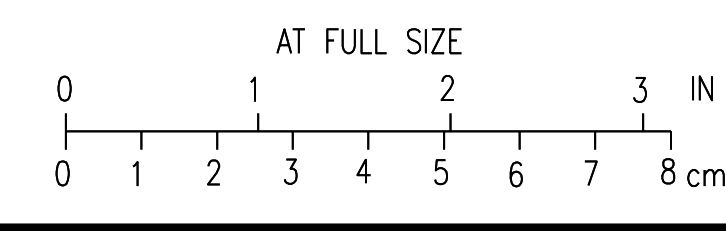
CADD: D1-104



- NOTES:**
1. COORDINATE EQUIPMENT PAD SIZE WITH EQUIPMENT MANUFACTURER.
 2. COORDINATE GRIT CHAMBER CONSTRUCTION WITH MANUFACTURERS INSTALLATION INSTRUCTIONS.
 3. CONTRACTOR SHALL PROVIDE MEANS TO PREVENT FLOATATION OF THE STRUCTURE DURING CONSTRUCTION.

SEE RFI #252 SHEET S213-A

PLAN AT EL 641'-0"
SCALE: 3/8" = 1'-0"



3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED AND REISSUED	KBH	KBH	LHB	01-25-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

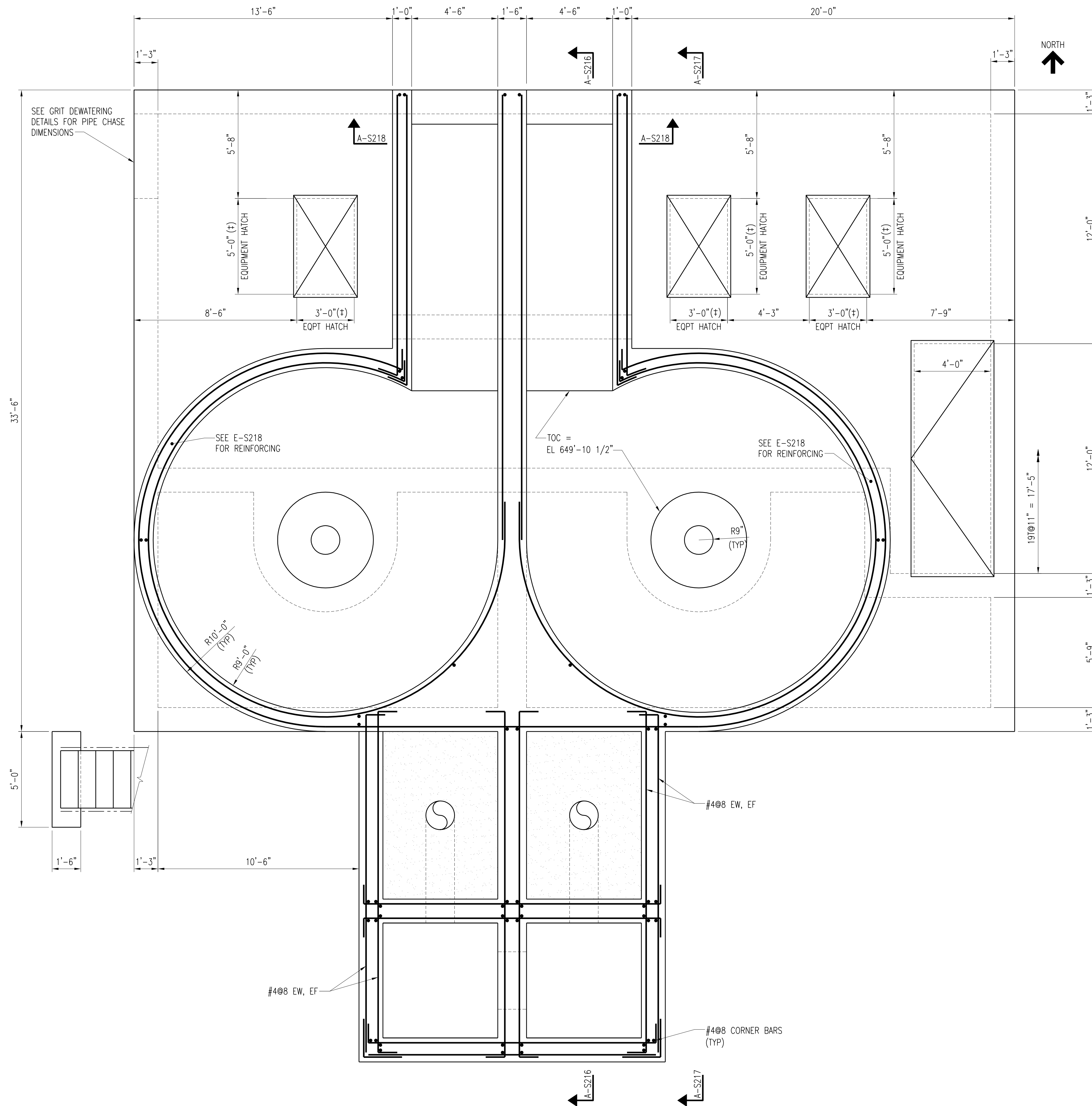
225 Iowa Avenue, Muscatine, Iowa 52761-3764
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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

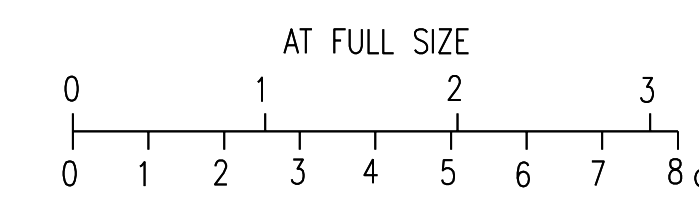
VORTEX GRIT TANKS AREA
VORTEX GRIT TANKS
PLAN AT EL 641'-0"

DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM	S213	3
DATE	DECEMBER 2, 2011		

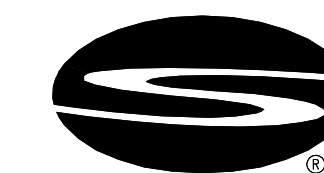
CADD: D:\1-14



PLAN AT EL 650'-0"
SCALE: 3/8" = 1'-0"



2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



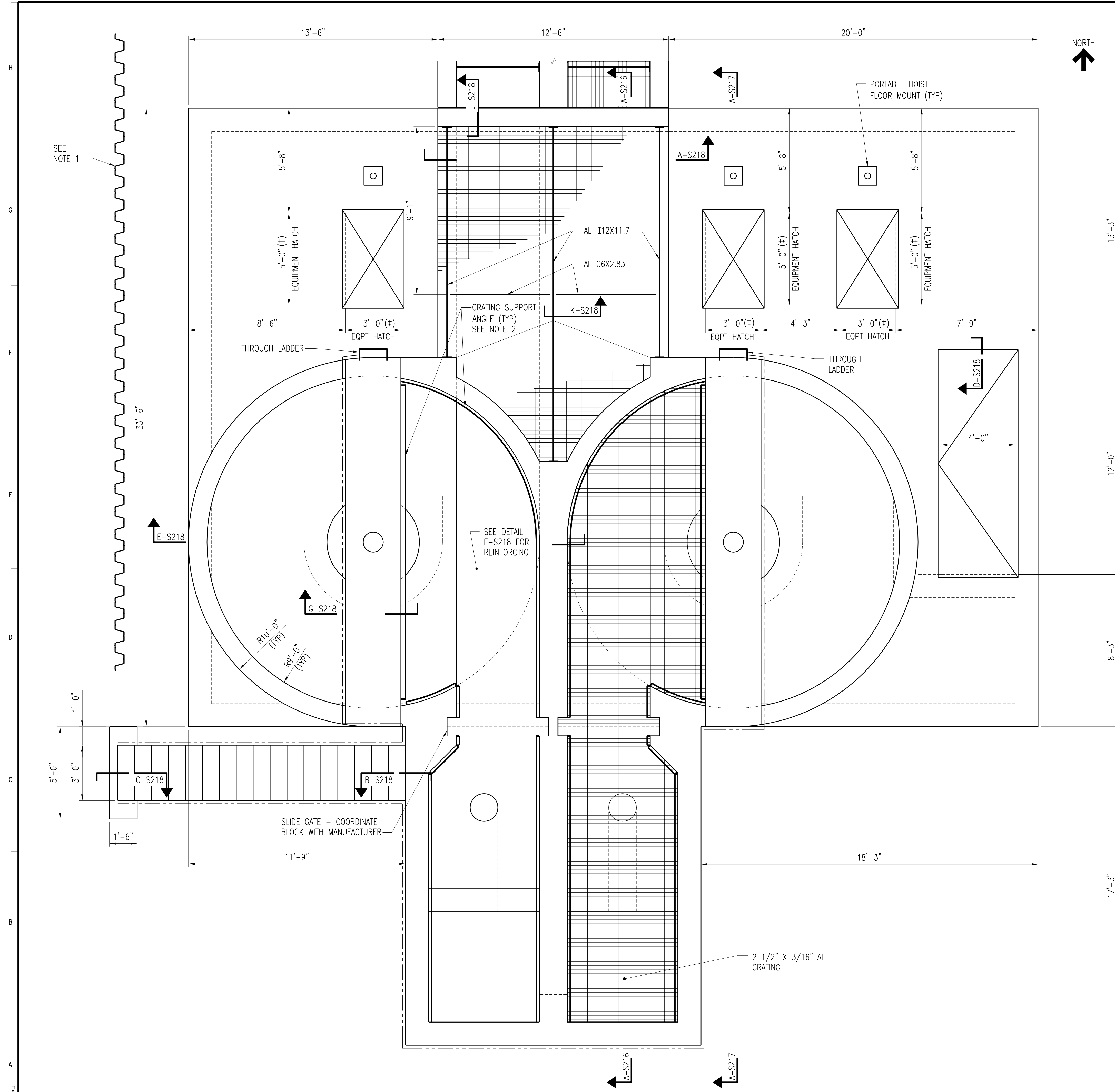
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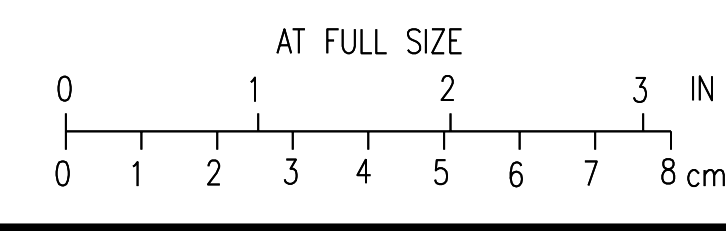
**VORTEX GRIT TANKS AREA
VORTEX GRIT TANKS
PLAN AT EL 650'-0"**

DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM	S214	2
DATE	DECEMBER 2, 2011		




- NOTES:**
- TEMPORARY SHORING REQUIRED TO CONSTRUCT VORTEX GRIT TANKS STRUCTURE TO BE DESIGNED BY CONTRACTOR.
 - AL L4X2X3/8 WITH 5/8" DIA SST HILTI, KB-TZ ANCHORS AT 1'-6" CTS. MINIMUM EMBEDMENT OF 4" OR APPROVED EQUAL.

PLAN-SECTION AT EL 659'-1 1/2"
 SCALE: 3/8" = 1'-0"



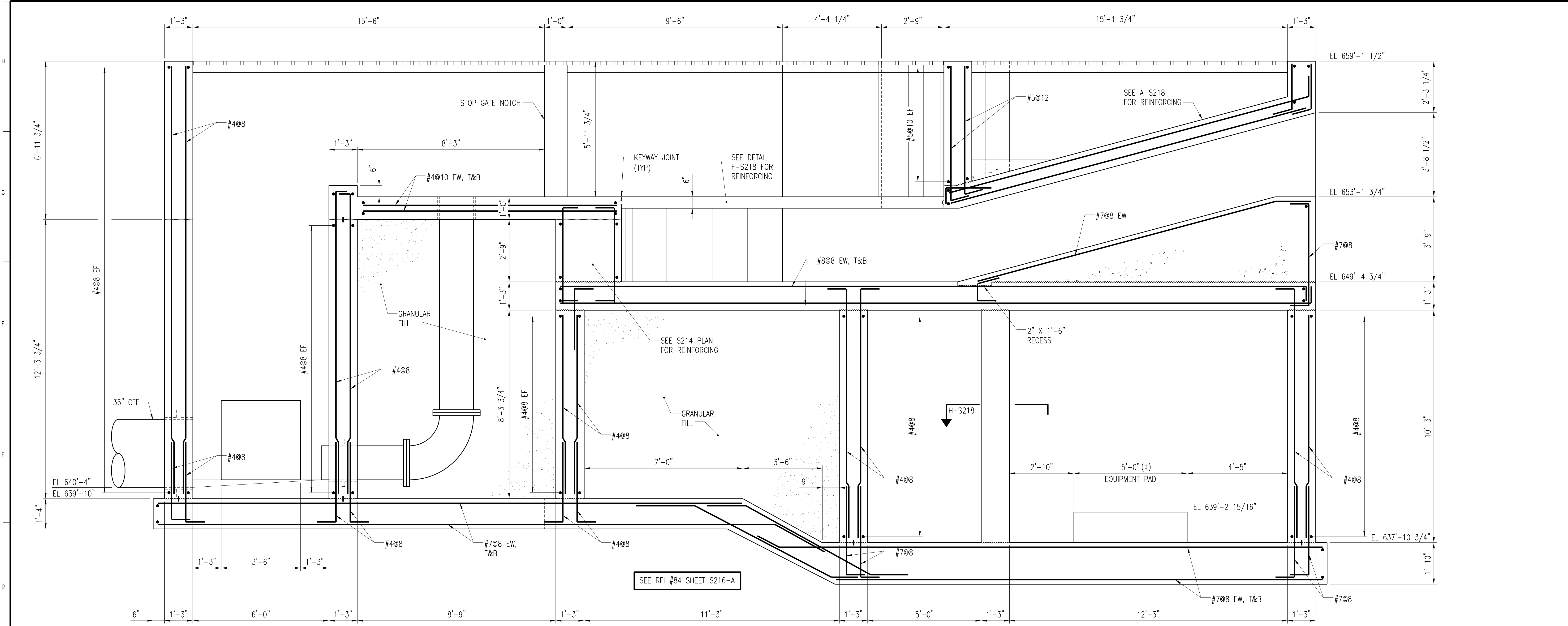
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1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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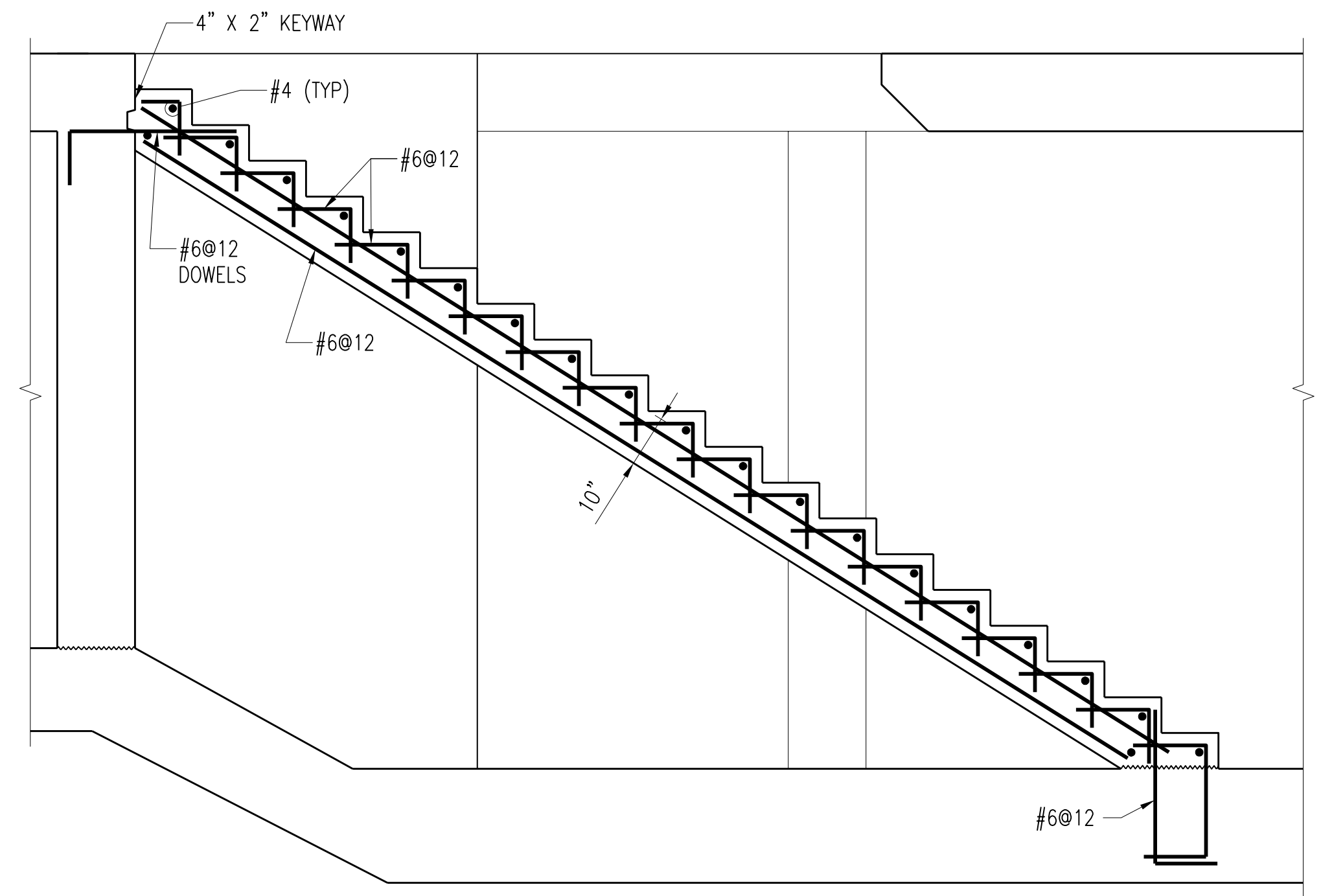
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 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

VORTEX GRIT TANKS AREA
VORTEX GRIT TANKS
PLAN AT EL 659'-1 1/2"

DESIGNED: KB HALL	SCALE: AS NOTED
DRAWN: DA SCHMIDT	NO. 22800
CHECKED: KB HALL	REV.
APPROVED: LH BADTRAM	S215
DATE: DECEMBER 2, 2011	1



SECTION **A-S216**
 S213, S214, S215
 SCALE: 1/2" = 1'-0"



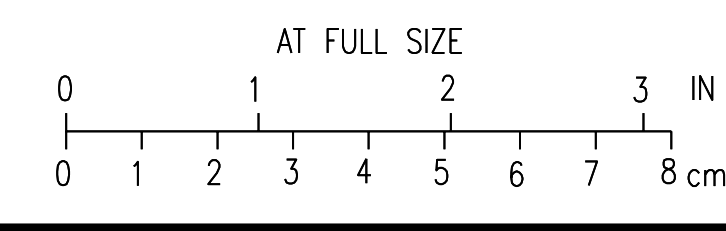
SECTION **B-S216**
 S213
 SCALE: 1/2" = 1'-0"

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED AND REISSUED	KBH	KBH	LHB	01-25-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012



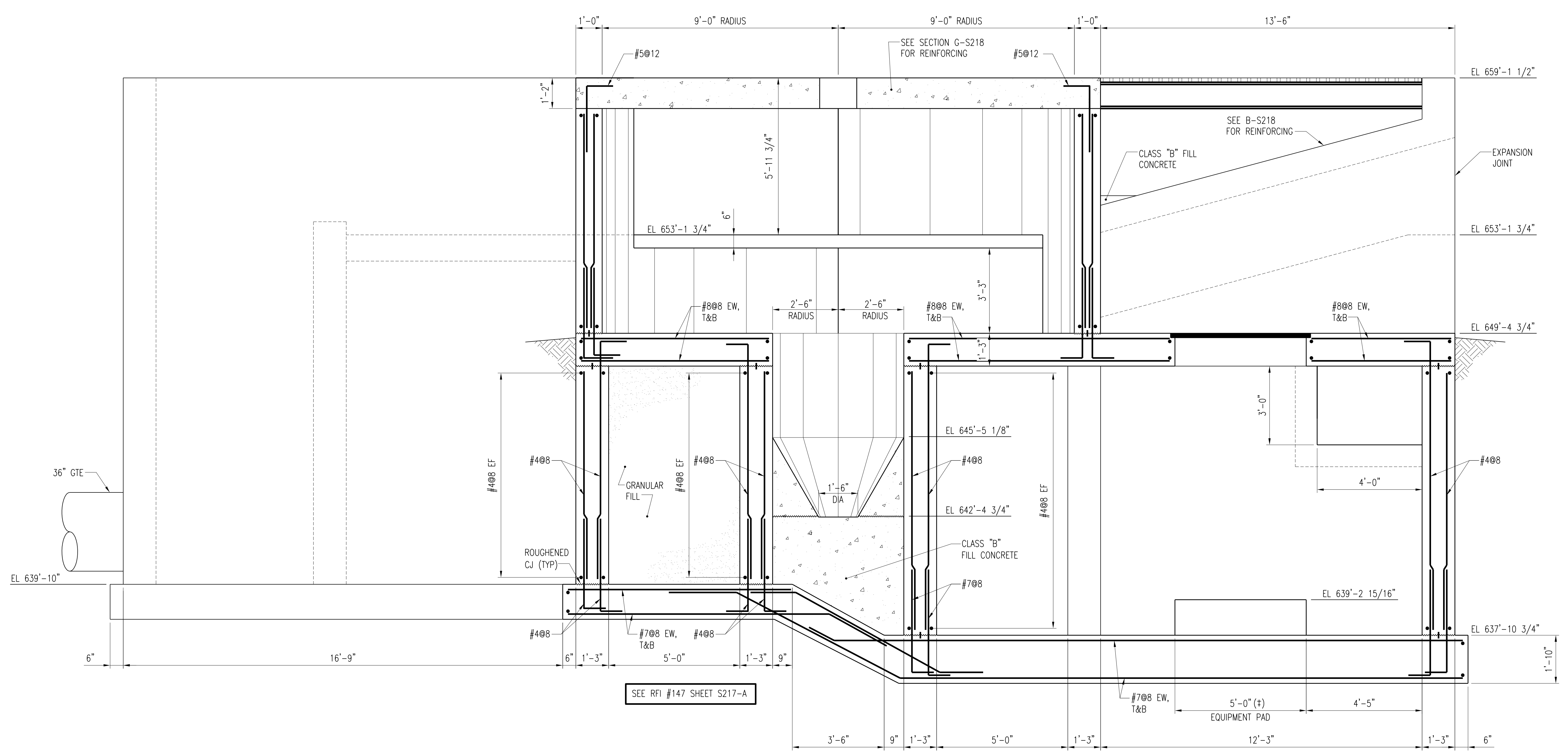
CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

VORTEX GRIT TANKS AREA
VORTEX GRIT TANKS
SECTIONS AND DETAILS - SHEET 1



DESIGNED: KB HALL	SCALE: AS NOTED	REV.
DRAWN: DA SCHMIDT	NO. 22800	
CHECKED: KB HALL	S216	3
APPROVED: LH BADTRAM	DATE: DECEMBER 2, 2011	

CAD: D1-R4



SECTION **A-S217**
 S213, S214, S215
 SCALE: 1/2" = 1'-0"

SEE RFI #147 SHEET S217-A

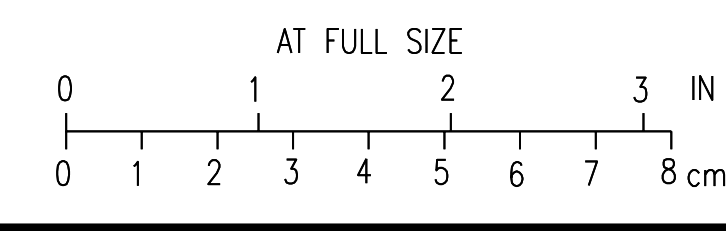
SEE RFI #164 SHEET S217-A

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012

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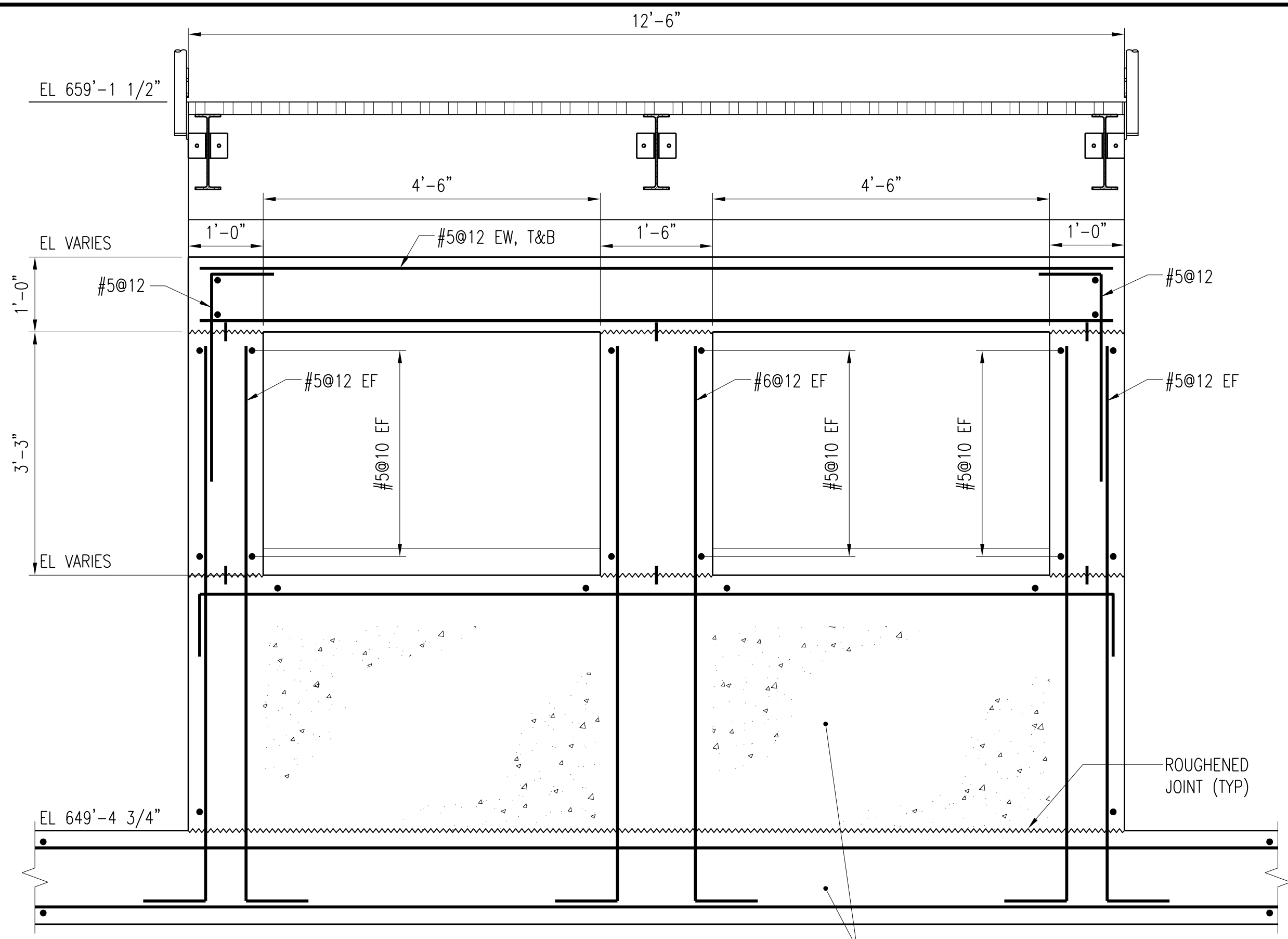
CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

VORTEX GRIT TANKS AREA
VORTEX GRIT TANKS
SECTIONS AND DETAILS - SHEET 2

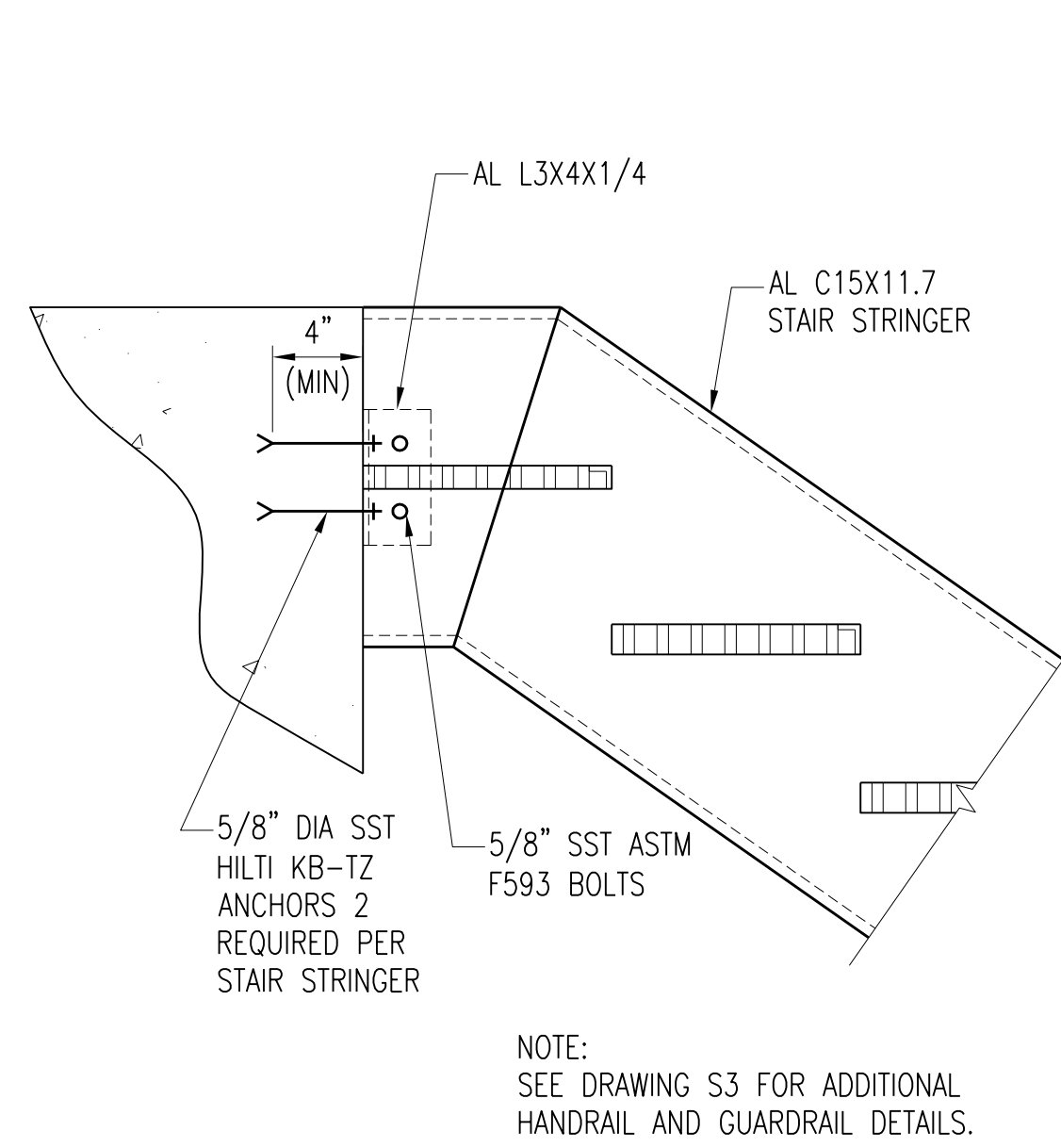


DESIGNED: KB HALL	SCALE: AS NOTED	REV.
DRAWN: DA SCHMIDT	NO. 22800	
CHECKED: KB HALL		
APPROVED: LH BADTRAM		
DATE: DECEMBER 2, 2011	S217	2

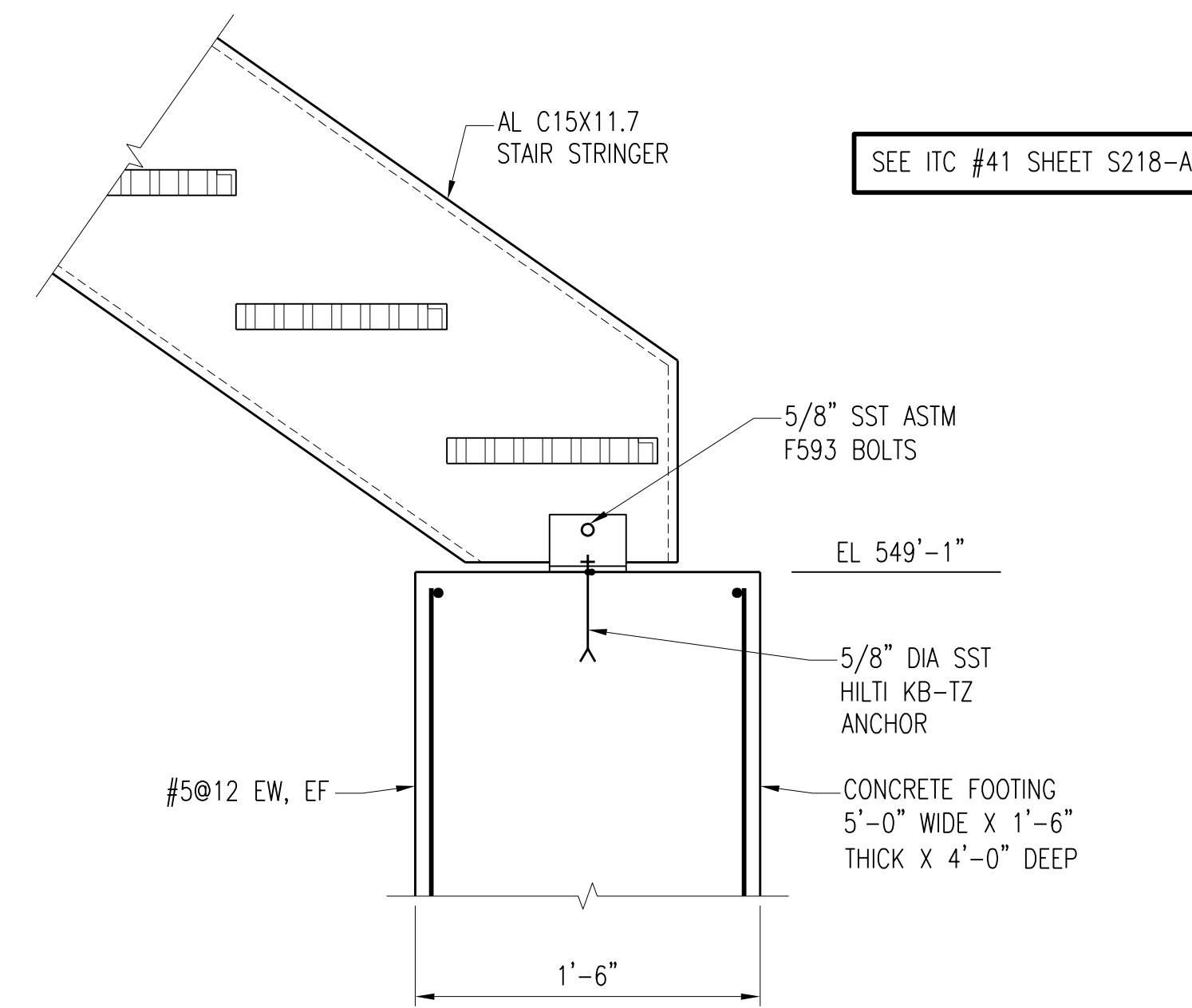
CAADD D1-R4



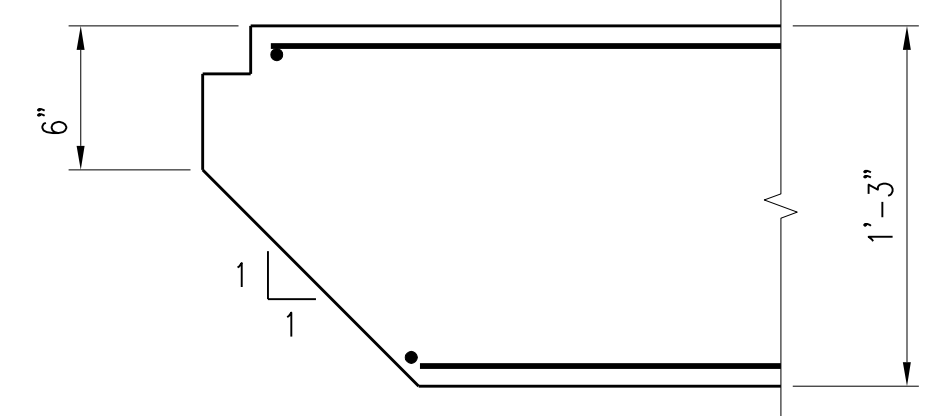
SECTION A-S218
S214, S215
SCALE: 3/4" = 1'-0"



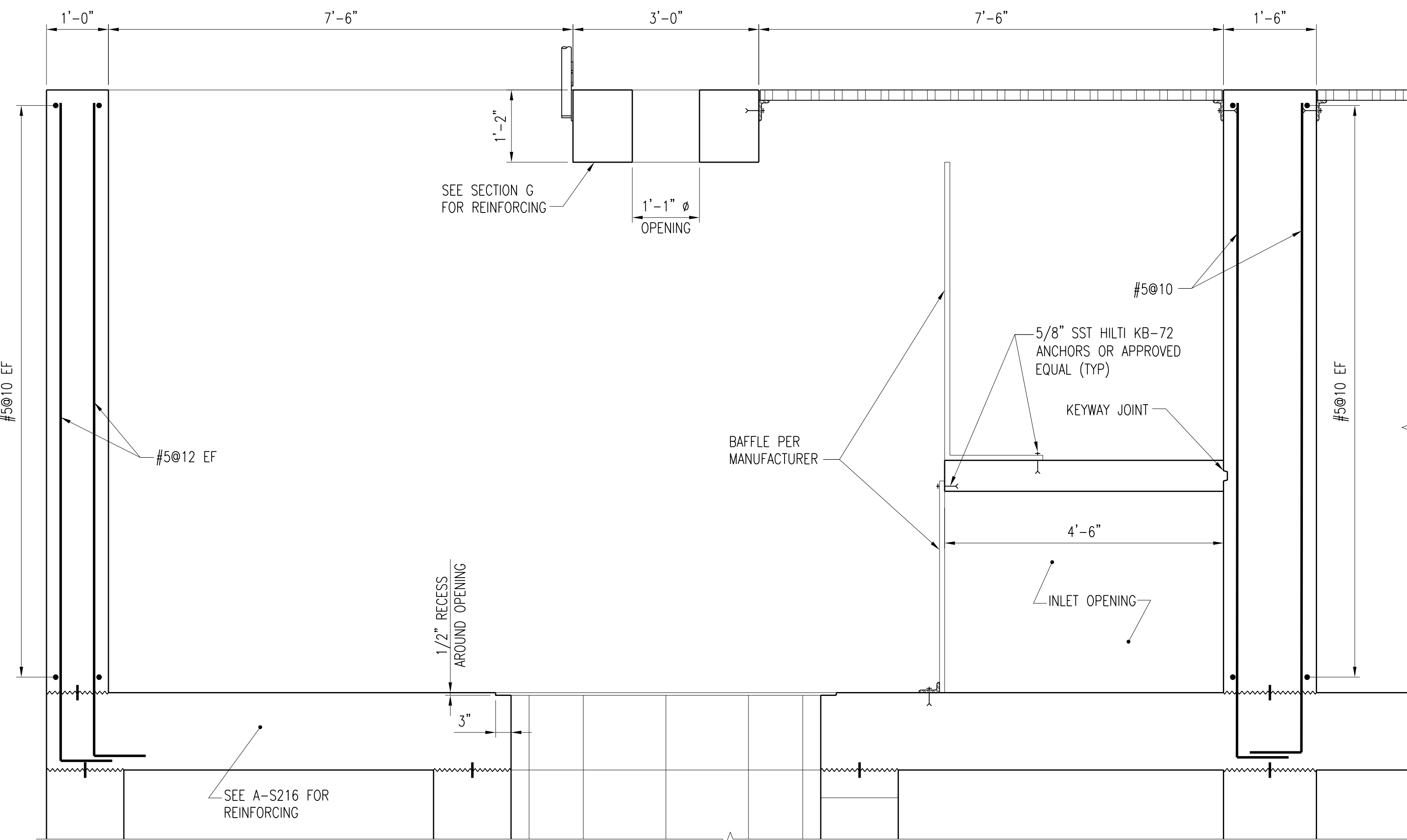
SECTION B-S218
S215
SCALE: 1 1/2" = 1'-0"



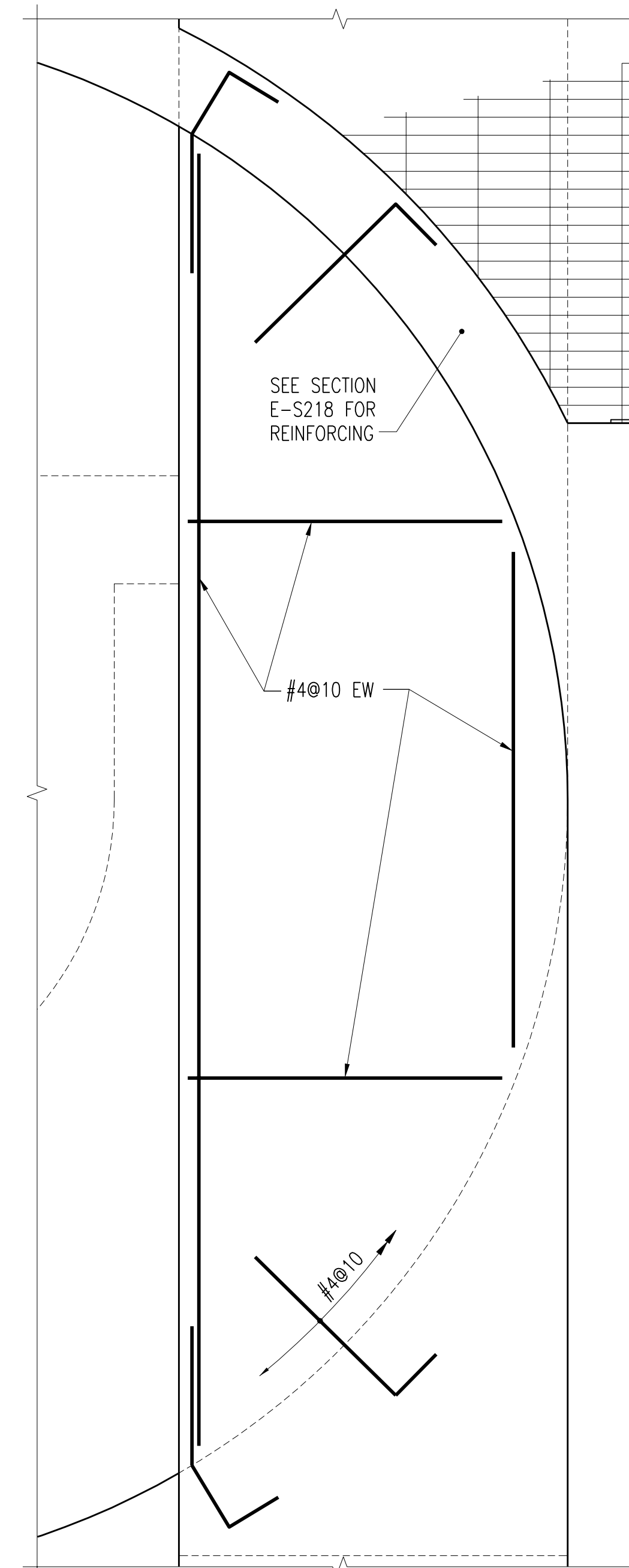
SECTION C-S218
S215
SCALE: 1 1/2" = 1'-0"



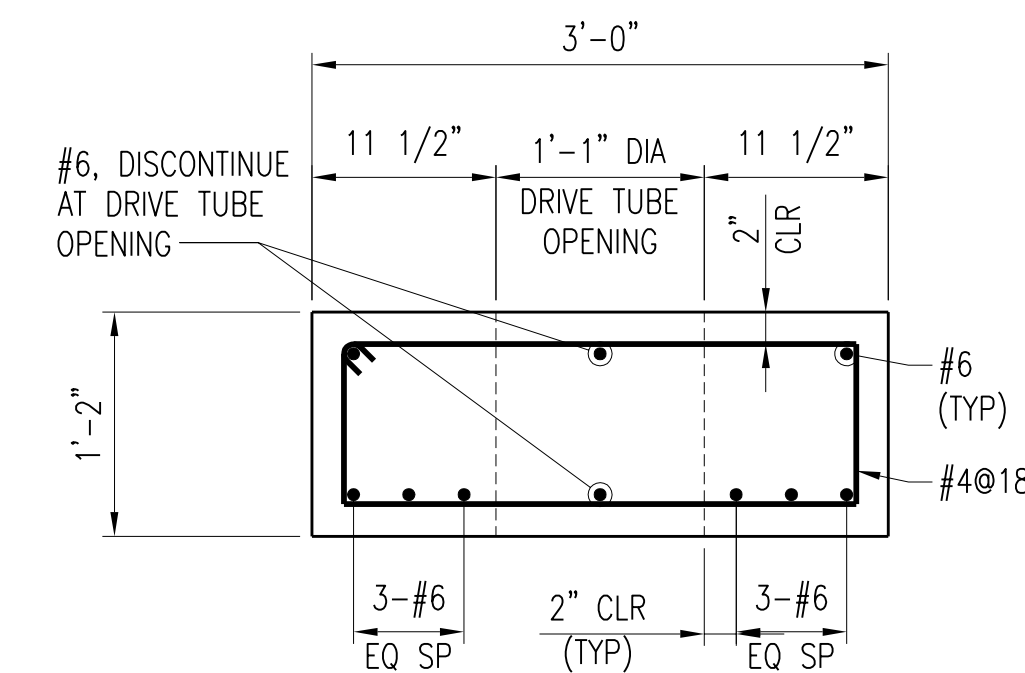
SECTION D-S218
S215
SCALE: 1 1/2" = 1'-0"



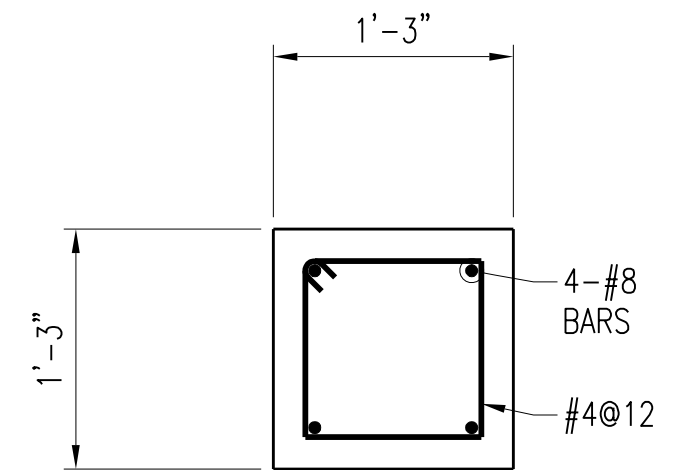
SECTION E-S218
S215
SCALE: 3/4" = 1'-0"



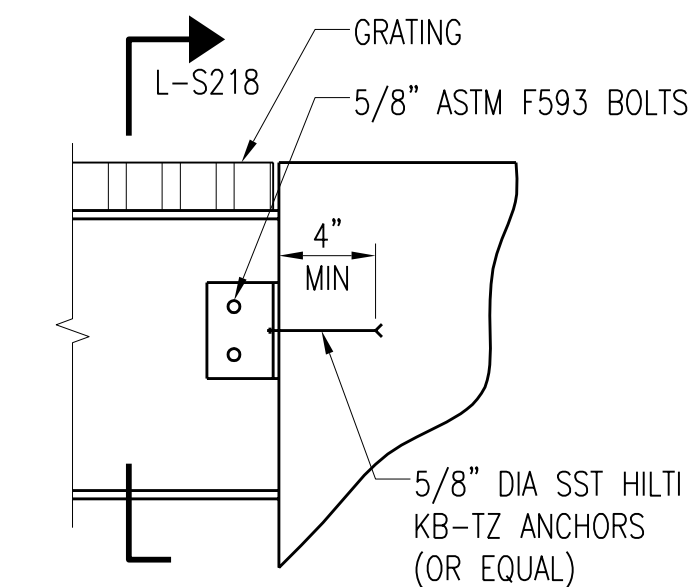
DETAIL F-S218
S215, S216
SCALE: 3/4" = 1'-0"



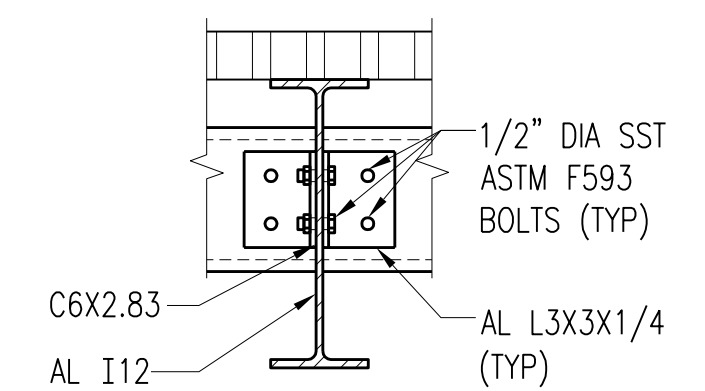
SECTION G-S218
S215
SCALE: 3/4" = 1'-0"



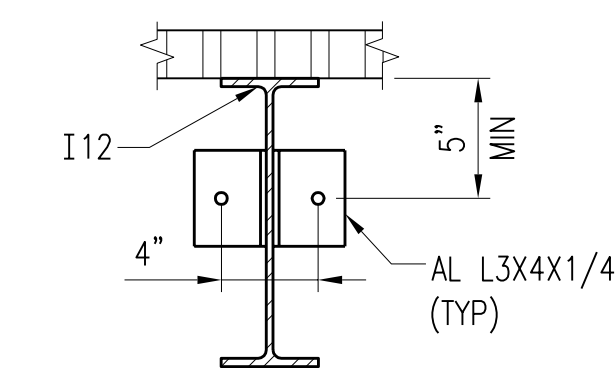
SECTION H-S218
S216
SCALE: 3/4" = 1'-0"



SECTION I-S218
S215
SCALE: 1 1/2" = 1'-0"



SECTION J-S218
S215
SCALE: 1 1/2" = 1'-0"



SECTION K-S218
S218
SCALE: 1 1/2" = 1'-0"

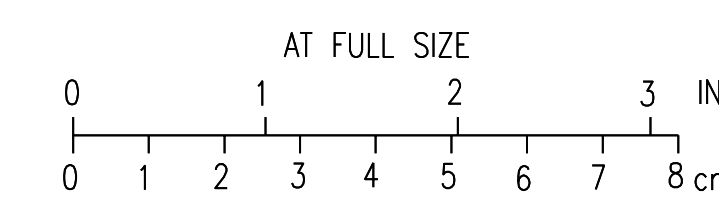
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1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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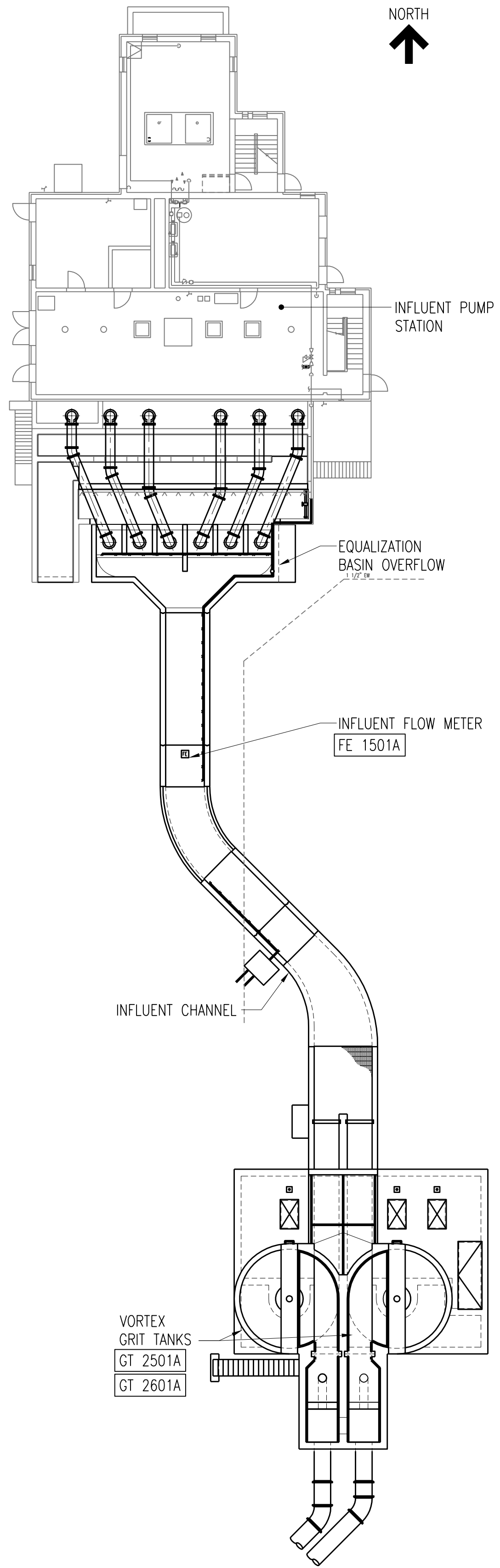
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

VORTEX GRIT TANKS AREA
VORTEX GRIT TANKS
SECTIONS AND DETAILS - SHEET 3

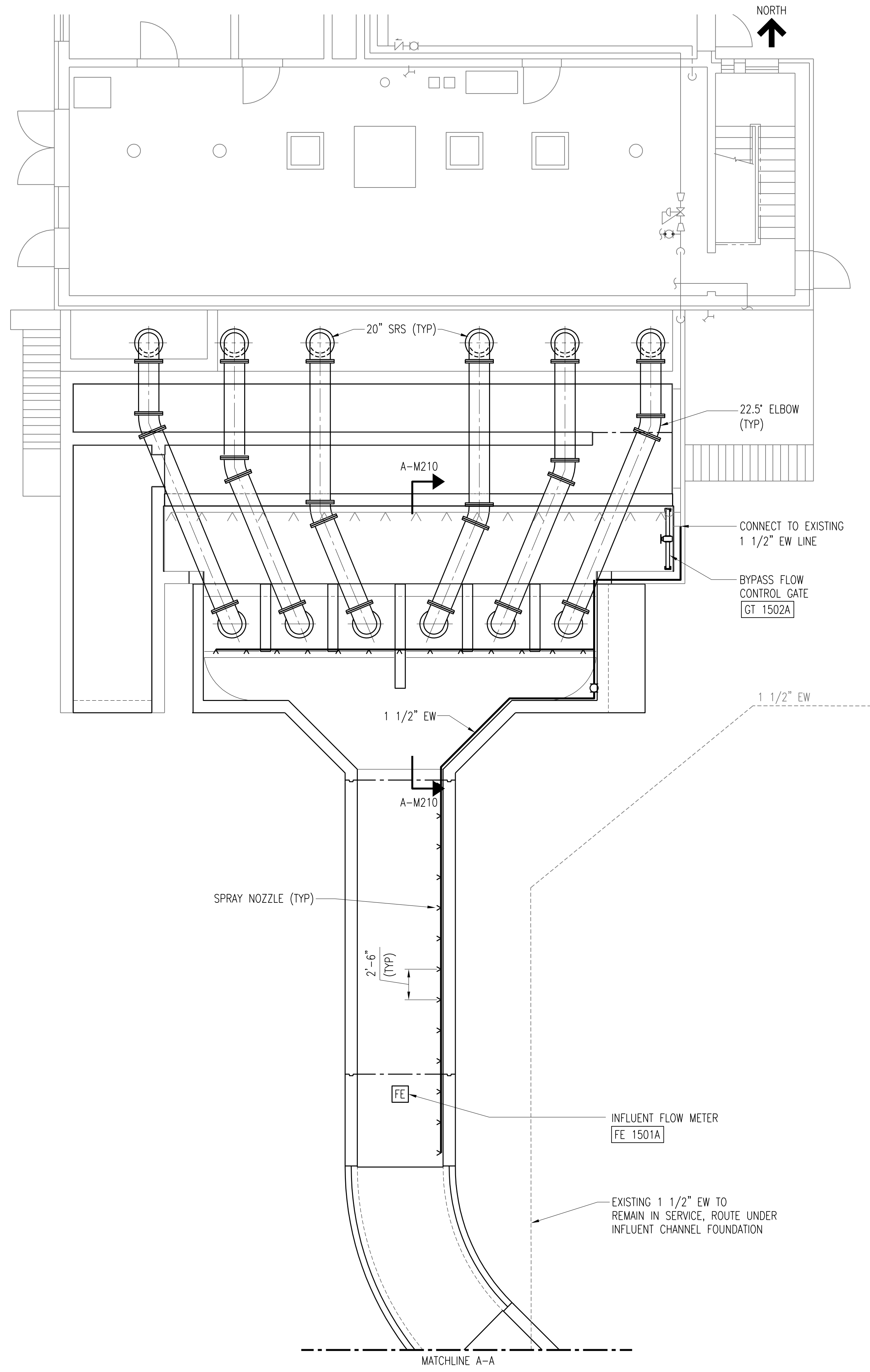
DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM	S218	2
DATE	DECEMBER 2, 2011		



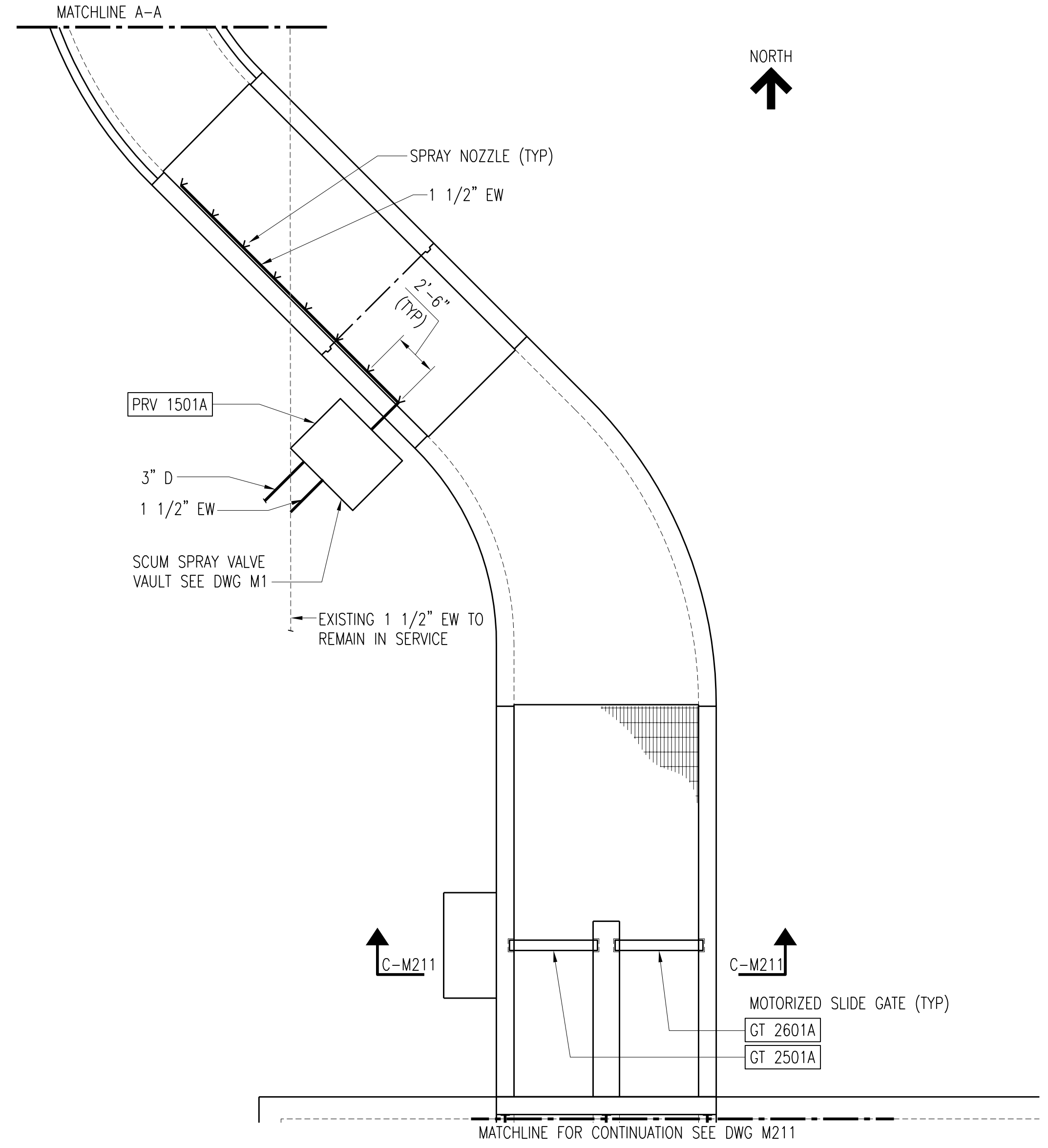
CADD: D1-F-84



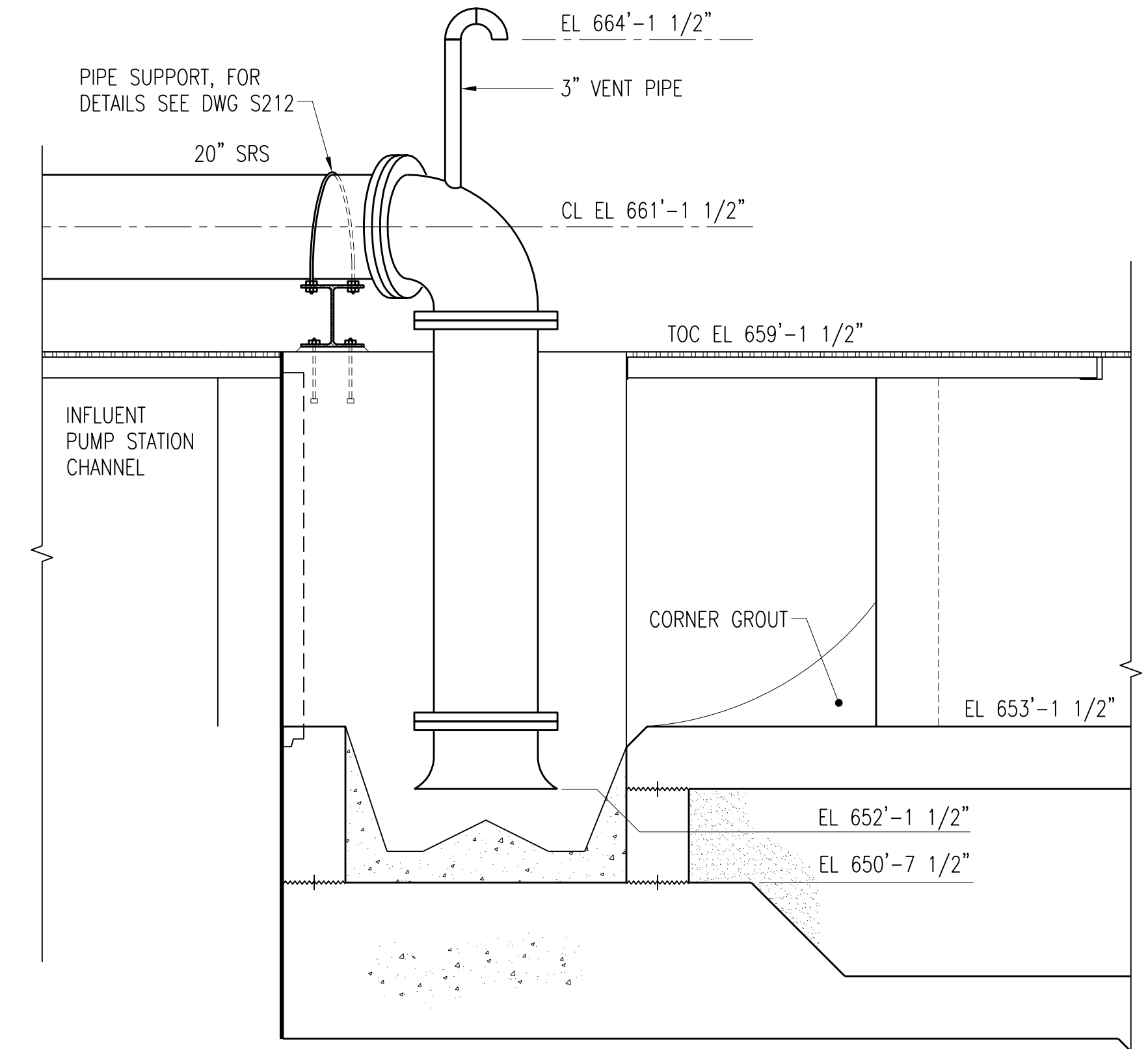
OVERALL PLAN
SCALE: 1/16" = 1'-0"



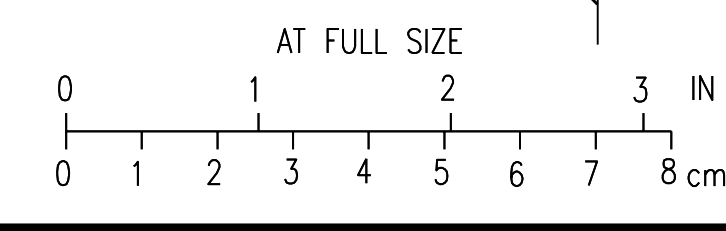
ENLARGED INFLUENT CHANNEL
SCALE: 3/16" = 1'-0"



ENLARGED INFLUENT CHANNEL
SCALE: 3/16" = 1'-0"



SECTION A-M210
SCALE: 1/2" = 1'-0"



3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	JBL	JBL	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	JBL	JBL	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

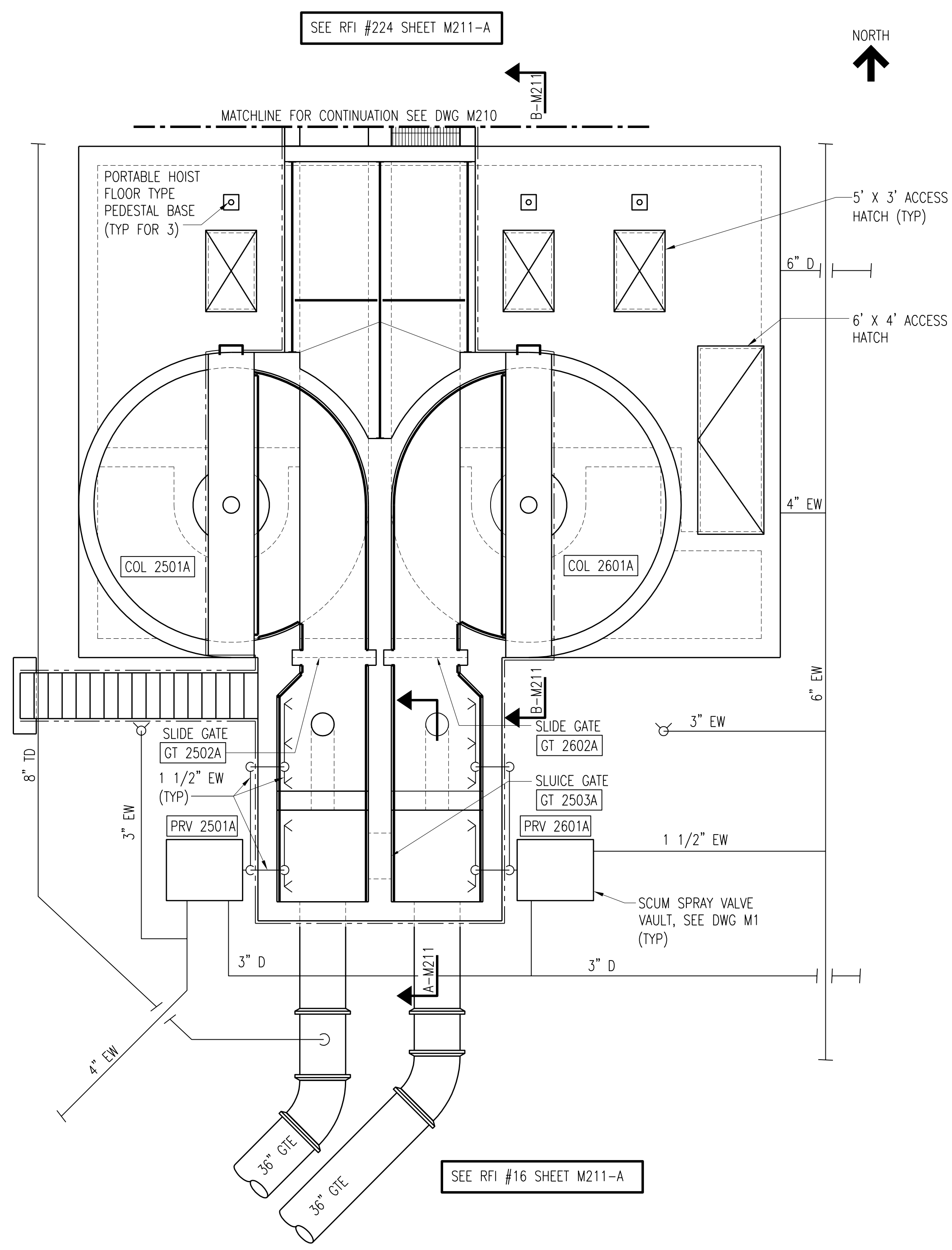
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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

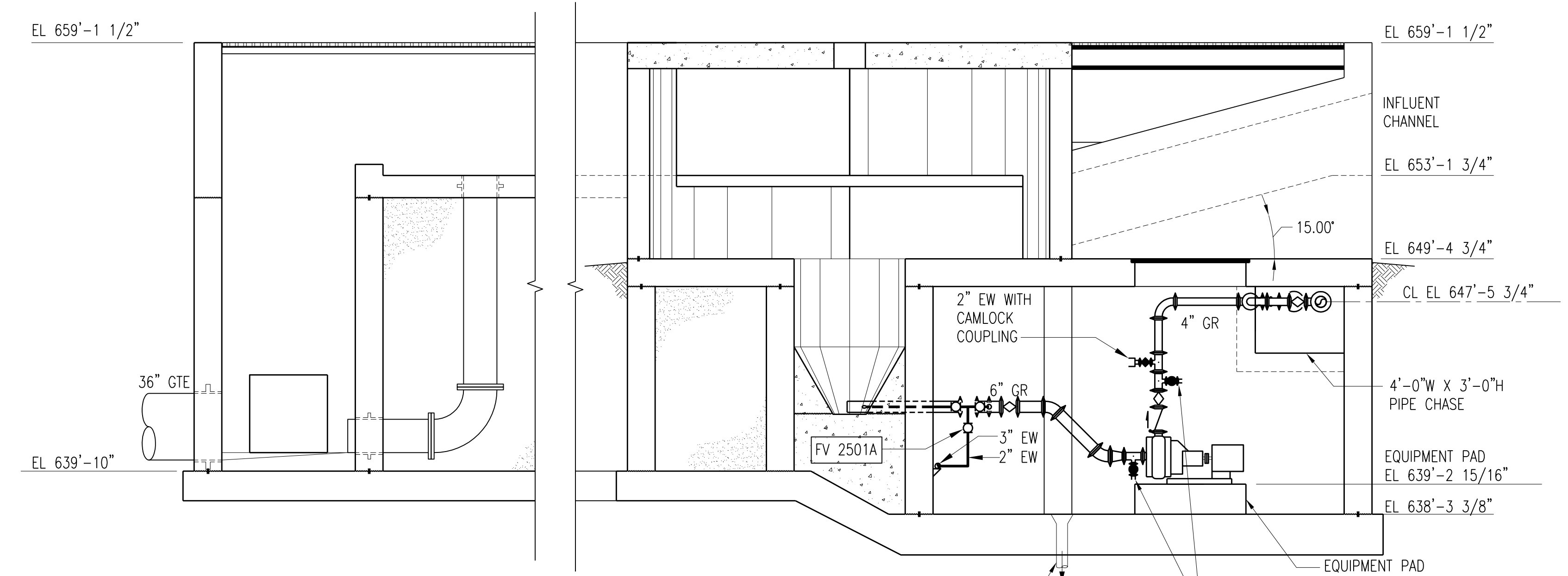
**VORTEX GRIT TANKS AREA
INFLUENT CHANNEL
PROCESS PIPING PLANS & DETAILS**

DESIGNED	JBL LUND	SCALE: AS NOTED
DRAWN	LJ OSBORN	NO. 22800
CHECKED	JBL LUND	REV.
APPROVED	JM BRADY	M210
DATE	DECEMBER 2, 2011	3

NOTES:
 1. PEDESTAL BASE SHALL BE THERN MODEL 524 OR EQUAL.

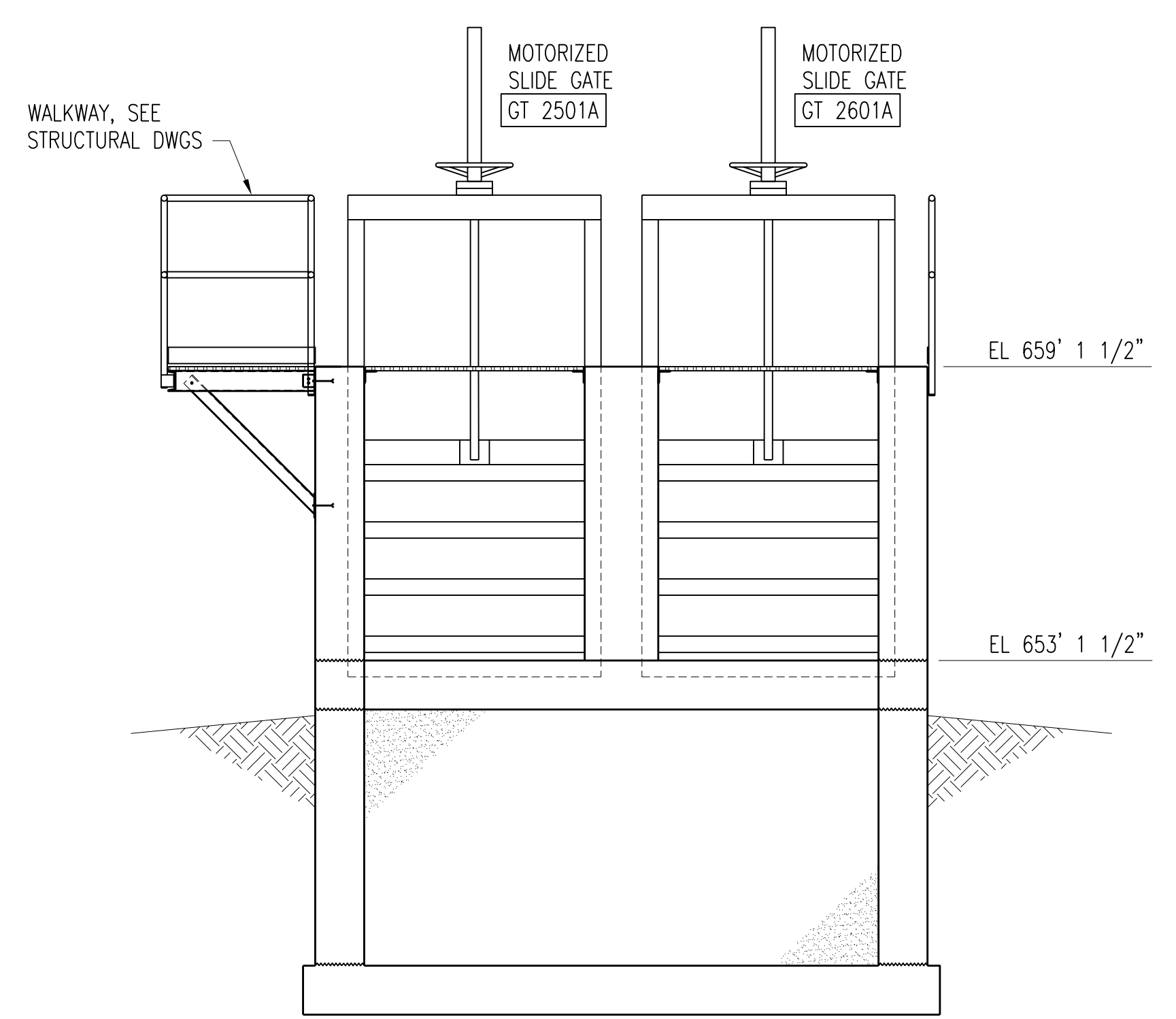


PLAN-SECTION AT EL 652'-0"
 SCALE: 3/16" = 1'-0"



SECTION A-M211
 M211
 SCALE: 1/4" = 1'-0"

SECTION B-M211
 M211, M212
 SCALE: 1/4" = 1'-0"



SECTION C-M211
 M210
 SCALE: 3/8" = 1'-0"

SEE RFI #100 SHEET M211-A

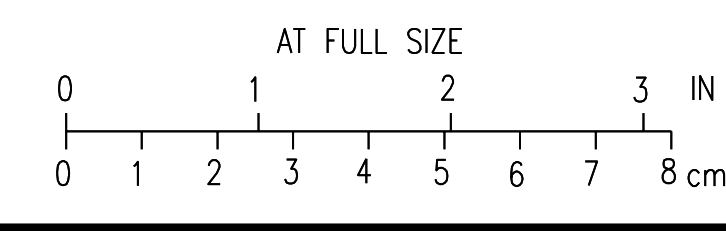
SEE RFI #16 SHEET M211-A

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	JBL	JBL	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	JBL	JBL	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

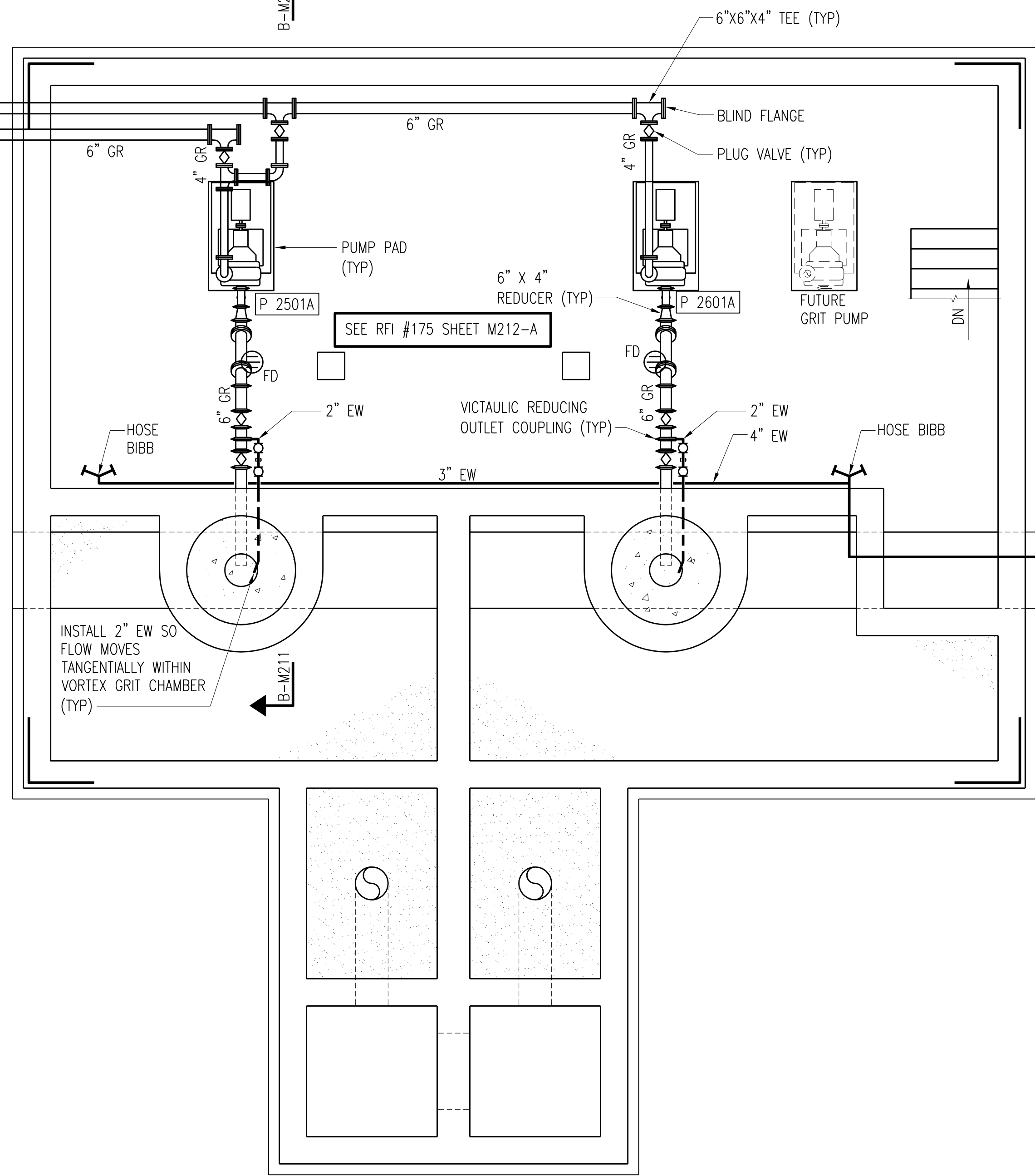
**VORTEX GRIT TANKS AREA
 VORTEX GRIT TANKS
 PROCESS PIPING PLAN & SECTIONS**



DESIGNED	JBL LUND	SCALE:	AS NOTED
DRAWN	LJ OSBORN	NO.	22800
CHECKED	JBL LUND	REV.	
APPROVED	JM BRADY		
DATE	DECEMBER 2, 2011	M211	3

CADD: D1-R4

TO GRIT DEWATERING
BLDG, FOR CONTINUATION
SEE DWG M220



SEE RFI #100 SHEET M212-A

FOR CONTINUATION
SEE DWG C35

PLAN-SECTION AT EL 640'-0"
SCALE: 1/4" = 1'-0"

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JBL	JBL	JMB	01-10-2012



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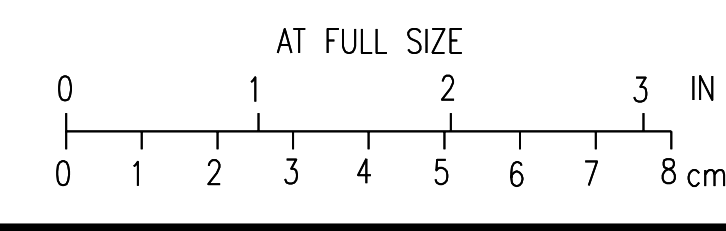
225 Iowa Avenue, Muscatine, Iowa 52761-3764
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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**VORTEX GRIT TANKS AREA
VORTEX GRIT TANKS
PROCESS PIPING PLAN**

DESIGNED: JB LUND
DRAWN: LJ OSBORN
CHECKED: JB LUND
APPROVED: JM BRADY
DATE: DECEMBER 2, 2011

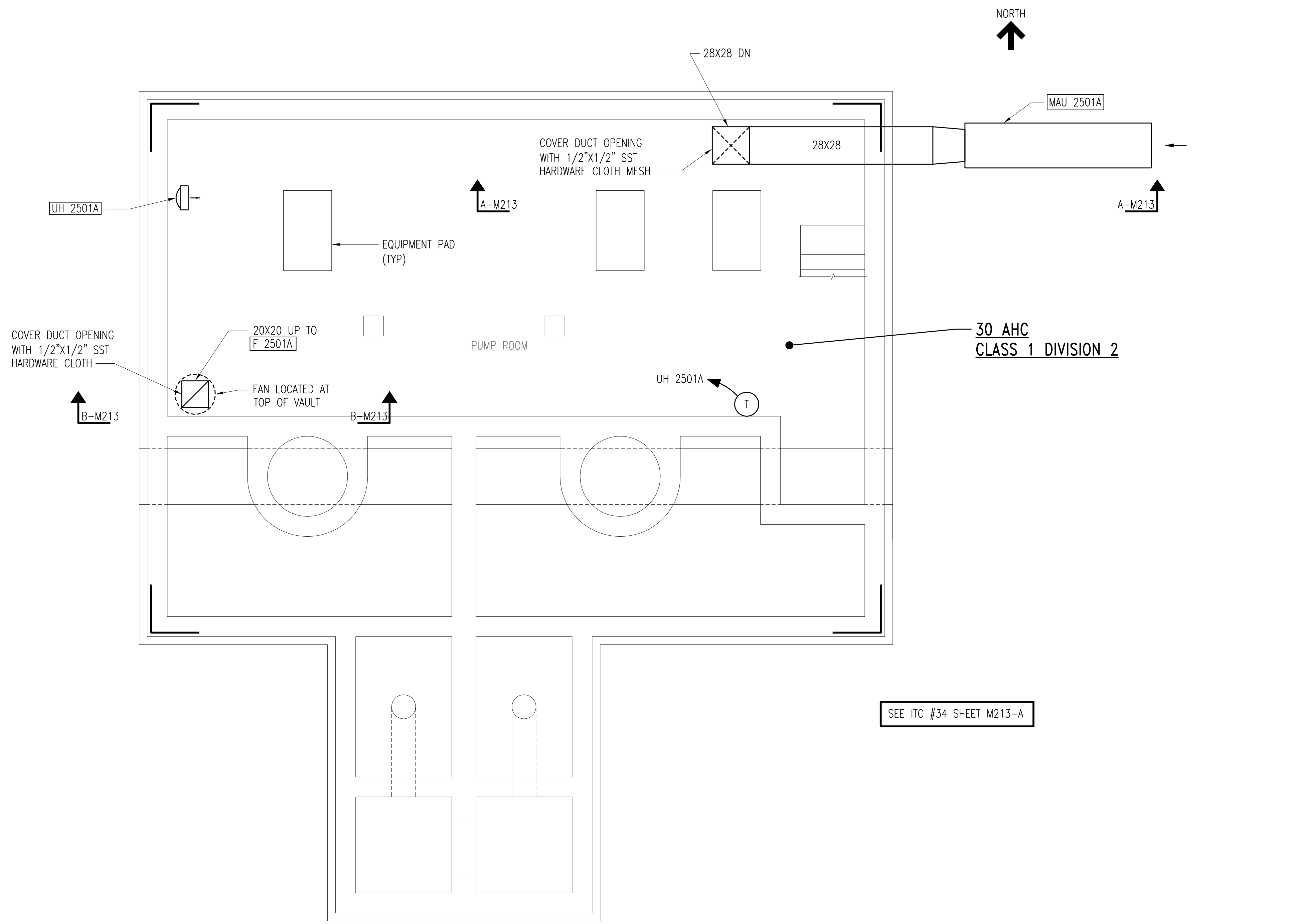
SCALE: AS NOTED
NO. 22800
REV. 2
M212



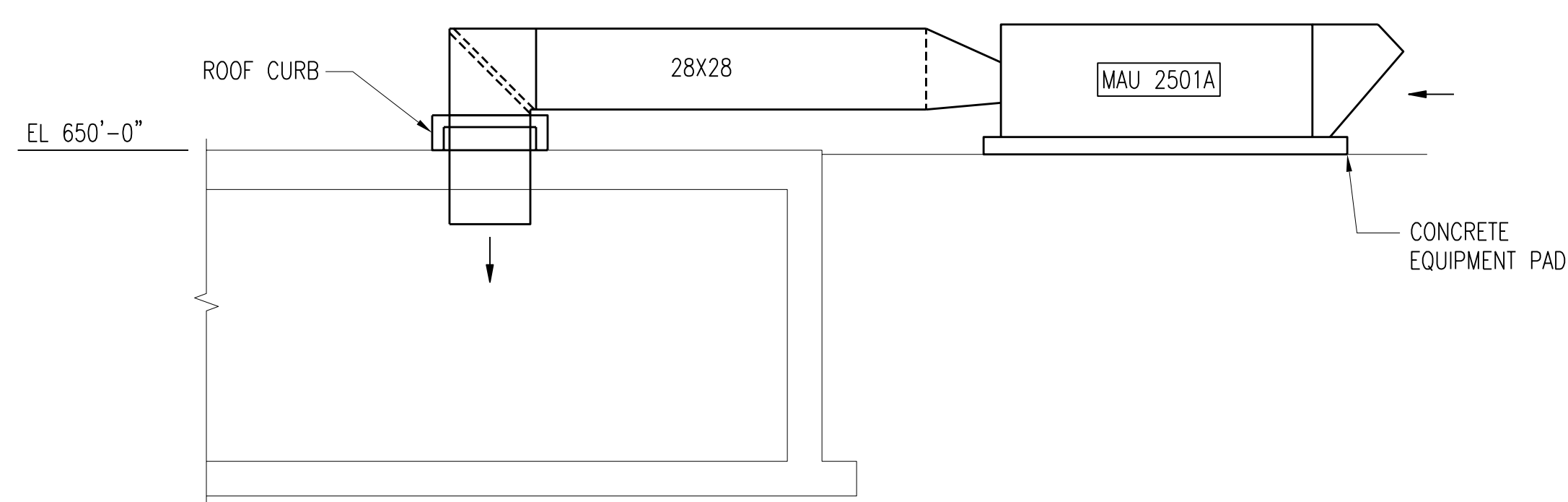
CAD: D11-R4

SEQUENCE OF OPERATION

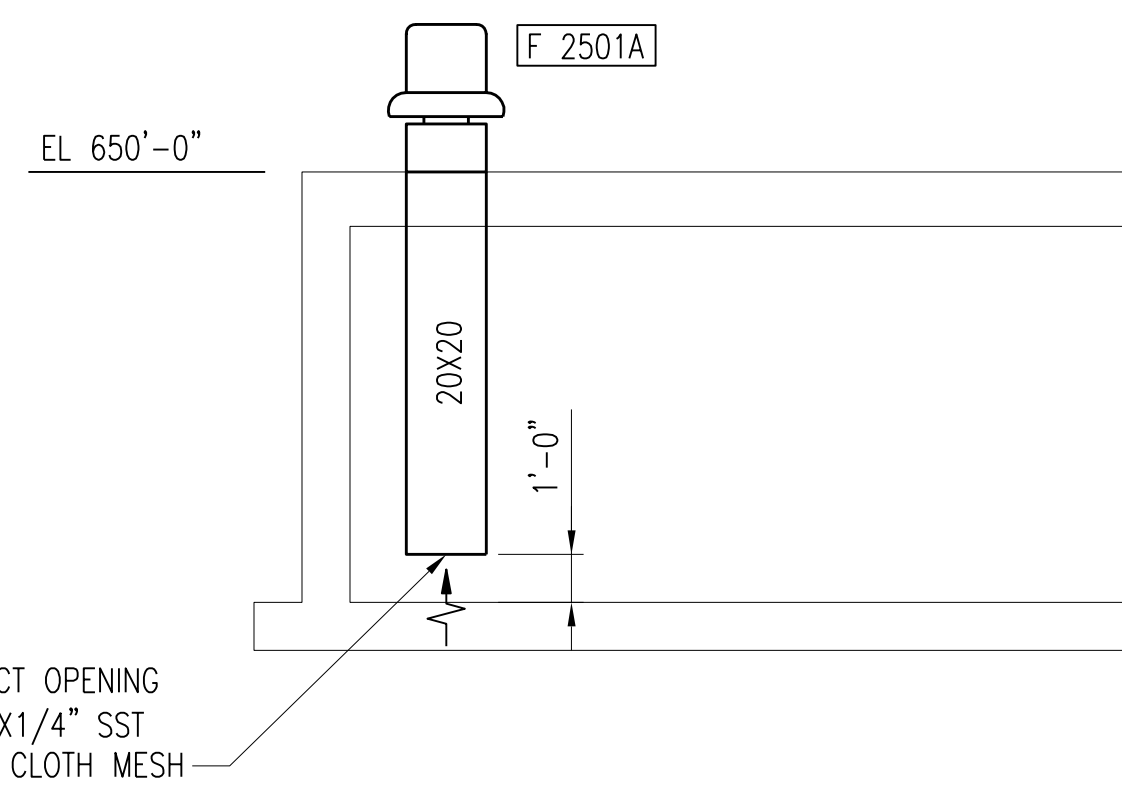
1. CONTROL OF HVAC FUNCTIONS OF FOLLOWING EQUIPMENT:
 - A. MAKEUP AIR UNIT (MAU):
 - i. MAU 2501A
 - B. EXHAUST FANS (F):
 - i. F 2501A
 - C. UNIT HEATERS (UH):
 - i. UH 2501A
2. GENERAL REQUIREMENTS:
 - A. HVAC SYSTEMS SHALL BE CONTROLLED BY SWITCHES AND THERMOSTATS.
 - B. REMOTE THERMOSTATS SHALL BE PROGRAMMABLE ELECTRONIC WITH BATTERY BACKUP; WITH 7 SEPARATE PROGRAMMABLE DAYS; WITH MULTIPLE STAGES OF HEATING AND COOLING BASED ON REQUIRED SEQUENCE OF CONTROL; AND WITH HEATING-COOLING SELECTOR SWITCH.
 - C. SET POINTS LABELED AS "ADJUSTABLE" SHALL BE FULLY ADJUSTABLE.
 - D. ALARM REPORTING SHALL BE DONE AT PANEL ASSOCIATED WITH EQUIPMENT.
3. NORMAL CONTROL POSITIONS:
 - A. "NORMAL POSITIONS OF CONTROLLED DEVICES SHALL BE POSITION THAT A DEVICE RETURNS TO ON POWER FAILURE OR CONTROLLER FAILURE. NORMAL POSITIONS SHALL BE AS FOLLOWS:
 - i. OUTDOOR AIR DAMPERS: NORMALLY CLOSED.
4. MAKEUP AIR UNIT MAU 2501A CONTROL:
 - A. MAU 2501A SHALL SERVE VORTEX GRIT TANKS PUMP ROOM.
 - B. MAU 2501 SHALL BE CONTROLLED AS FOLLOWS:
 - i. MAU 2501A SHALL BE INTERLOCKED WITH LIGHTING SWITCH AND SHALL OPERATE CONTINUOUSLY WHEN LIGHTS ARE TURNED ON. ASSOCIATED OUTDOOR AIR DAMPER SHALL OPEN.
 - ii. WHEN THE SUPPLY AIR TEMPERATURE IS BELOW SET POINT (70°F, ADJUSTABLE), MAU 2501A ELECTRIC HEATING COIL SHALL ENERGIZE AND MODULATE TO MAINTAIN SUPPLY AIR TEMPERATURE SETPOINT. WHEN SUPPLY AIR TEMPERATURE RISES ABOVE SETPOINT, MAU 2501A ELECTRIC HEATING COIL SHALL CLOSE SHALL DEENERGIZE. UPON SIGNAL FROM MAU 2501A SMOKE DUCT DETECTOR, MAU 2501A FAN SHALL STOP. AN ALARM SHALL BE ENERGIZED AT REMOTE DDC CONTROL PANEL.
5. EXHAUST FAN CONTROL:
 - A. EXHAUST FANS F 2501A SERVING VORTEX GRIT TANKS PUMP ROOM SHALL BE INTERLOCKED WITH MAU 2501A AND SHALL OPERATE CONTINUOUSLY. UPON SIGNAL FROM MAU 2501A SMOKE DUCT DETECTOR, EXHAUST FANS 2501A SHALL STOP.
6. ELECTRIC UNIT HEATER CONTROL:
 - A. UNIT HEATER UH 2501A SHALL BE CONTROLLED BY WALL-MOUNTED THERMOSTAT. WHEN SPACE TEMPERATURE DROPS BELOW SETPOINT (50°F, ADJUSTABLE), UH 2501A FAN SHALL START AND ELECTRIC HEATING COIL SHALL ENERGIZE. WHEN SPACE TEMPERATURE RISES ABOVE SETPOINT, UH 2501A FAN SHALL STOP AND ELECTRIC HEATING COIL SHALL DEENERGIZE.



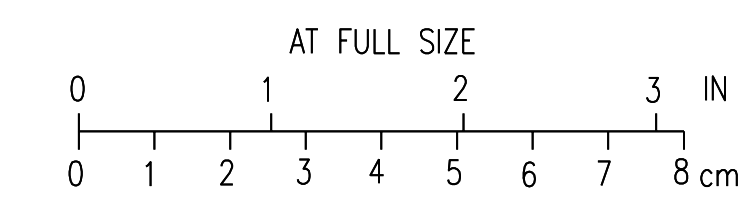
HVAC PLAN
SCALE: 1/4" = 1'-0"



SECTION A-M213
SCALE: 1/4" = 1'-0"



SECTION B-M213
SCALE: 1/4" = 1'-0"



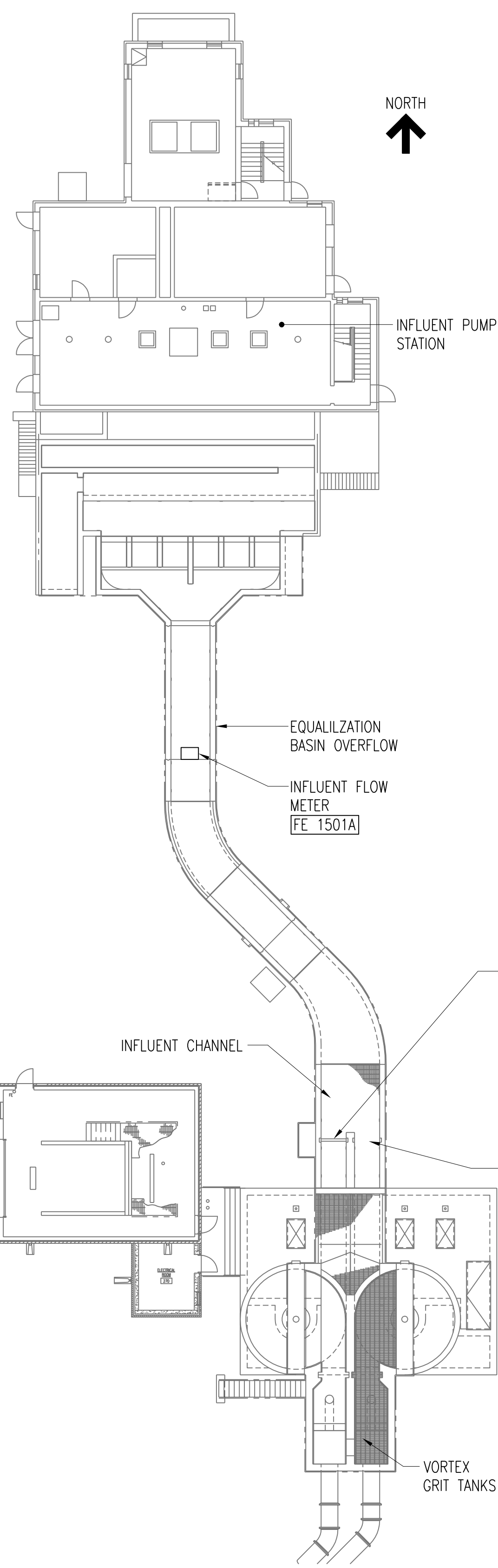
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JLL	JJB	JJB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

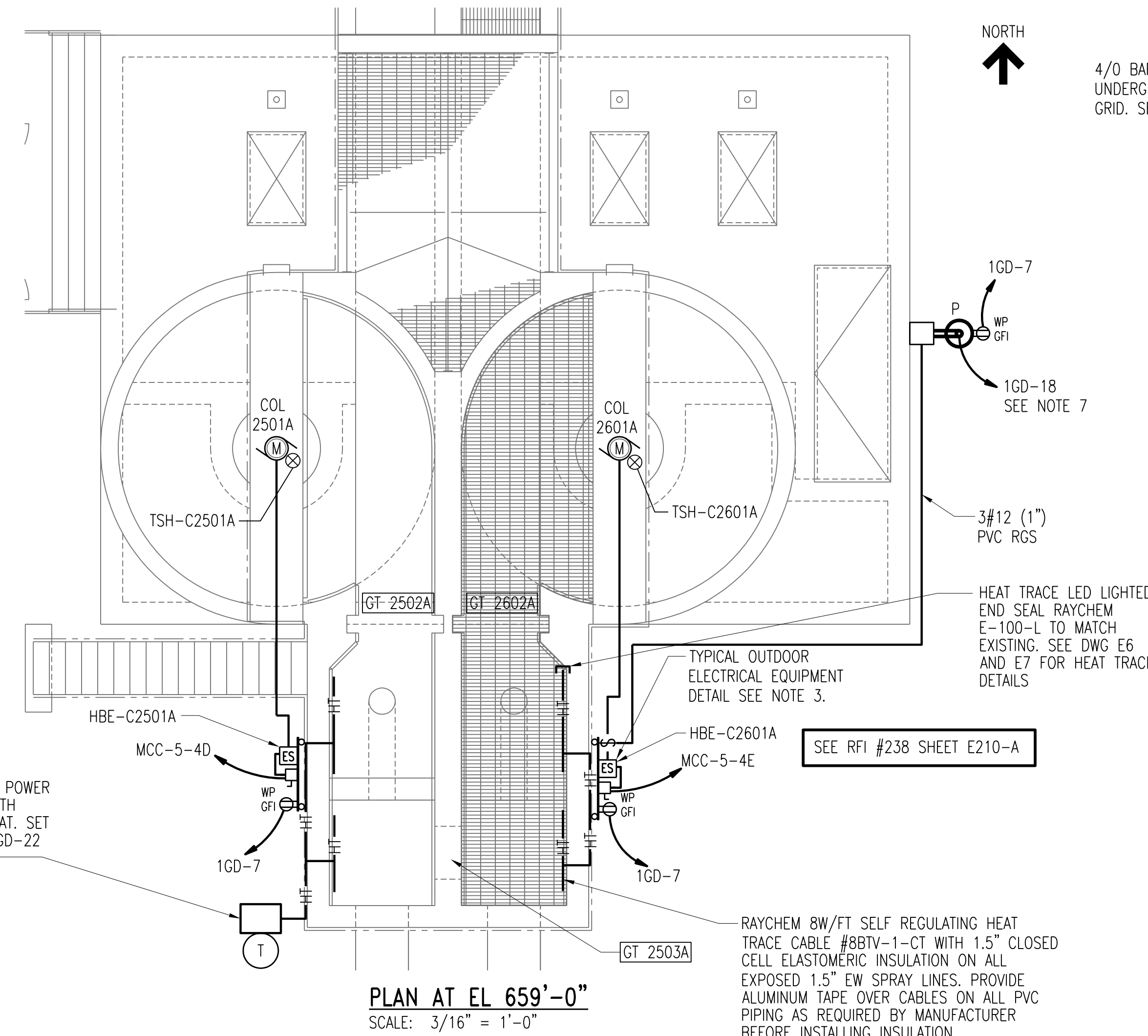
VORTEX GRIT TANKS AREA
VORTEX GRIT TANKS
HVAC PLAN AND SECTIONS

DESIGNED	JL LEE	SCALE:	AS NOTED
DRAWN	D. WILGES	NO.	22800
CHECKED	JJ BOVENKAMP	REV.	
APPROVED	JJ BOVENKAMP		
DATE	DECEMBER 2, 2011	M213	2

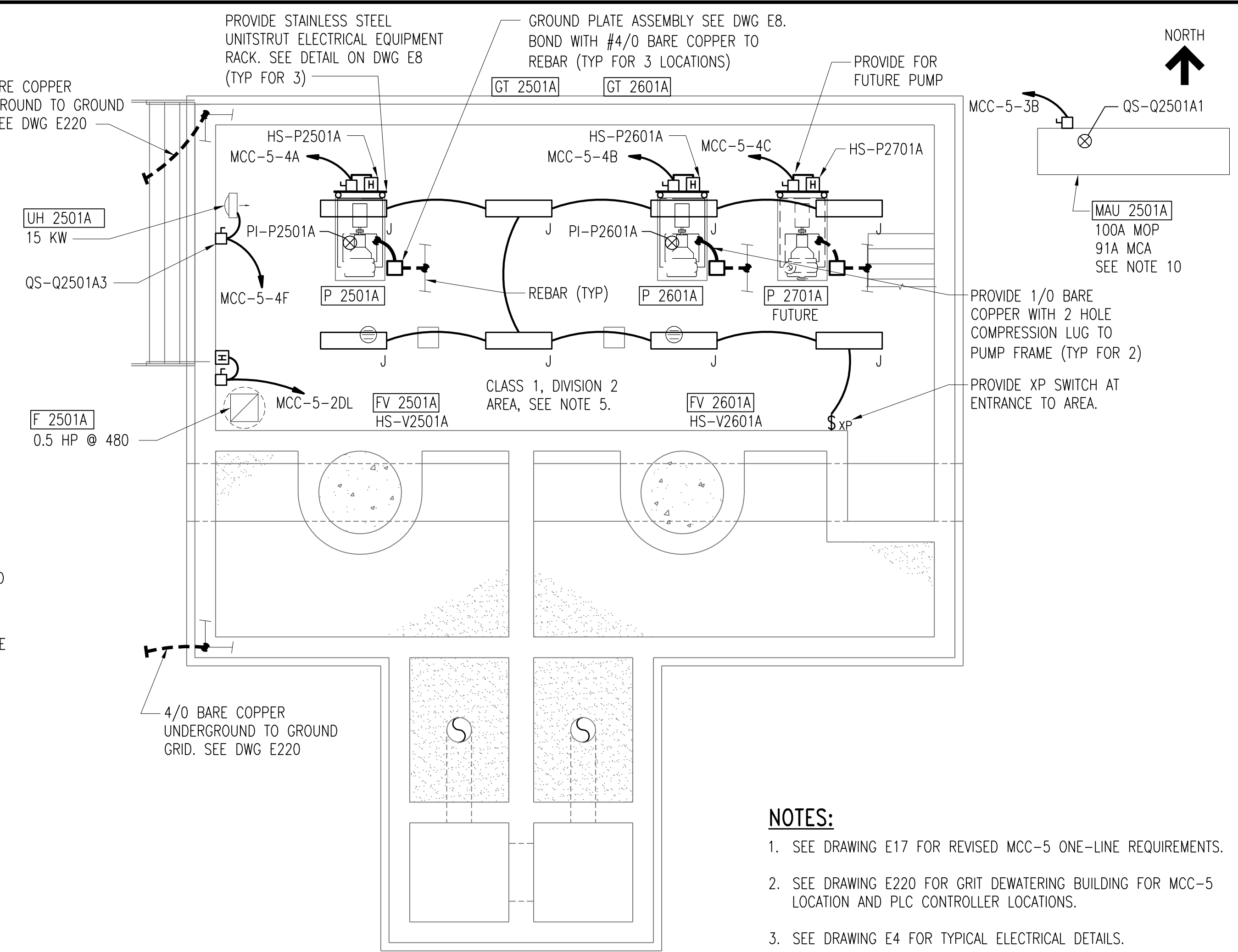


OVERALL PLAN
SCALE: 1/16" = 1'-0"

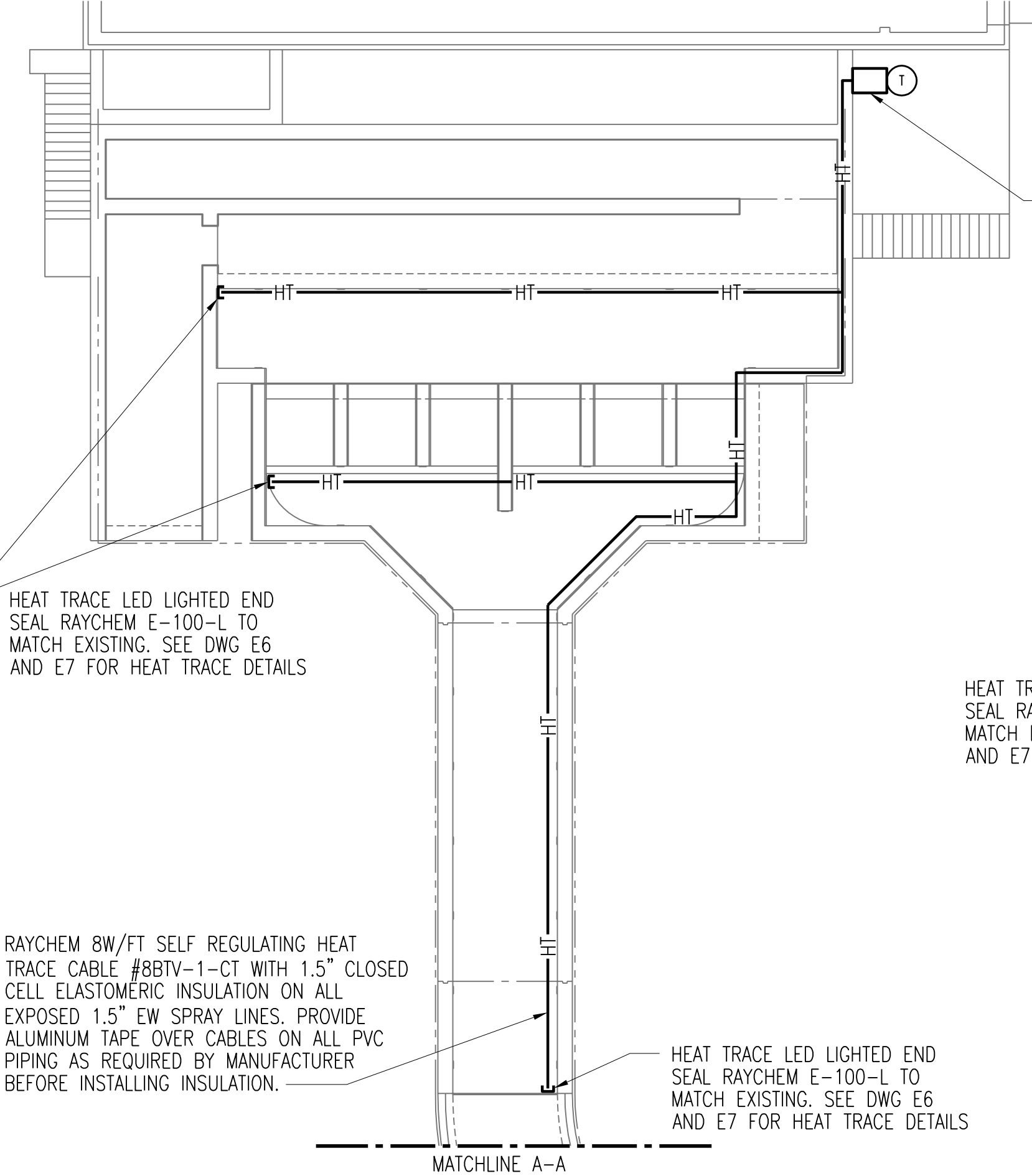
- GT 2501A
CIRCUIT MCC-5-5A
FZ-A2501A
HS-A2501A
HB-A2501A
ZT-A2501A
ZSC-A2501A
ZSO-A2501A
- GT 2601A
CIRCUIT MCC-5-5A
FZ-A2601A
HS-A2601A
HB-A2601A
ZT-A2601A
ZSC-A2601A
ZSO-A2601A



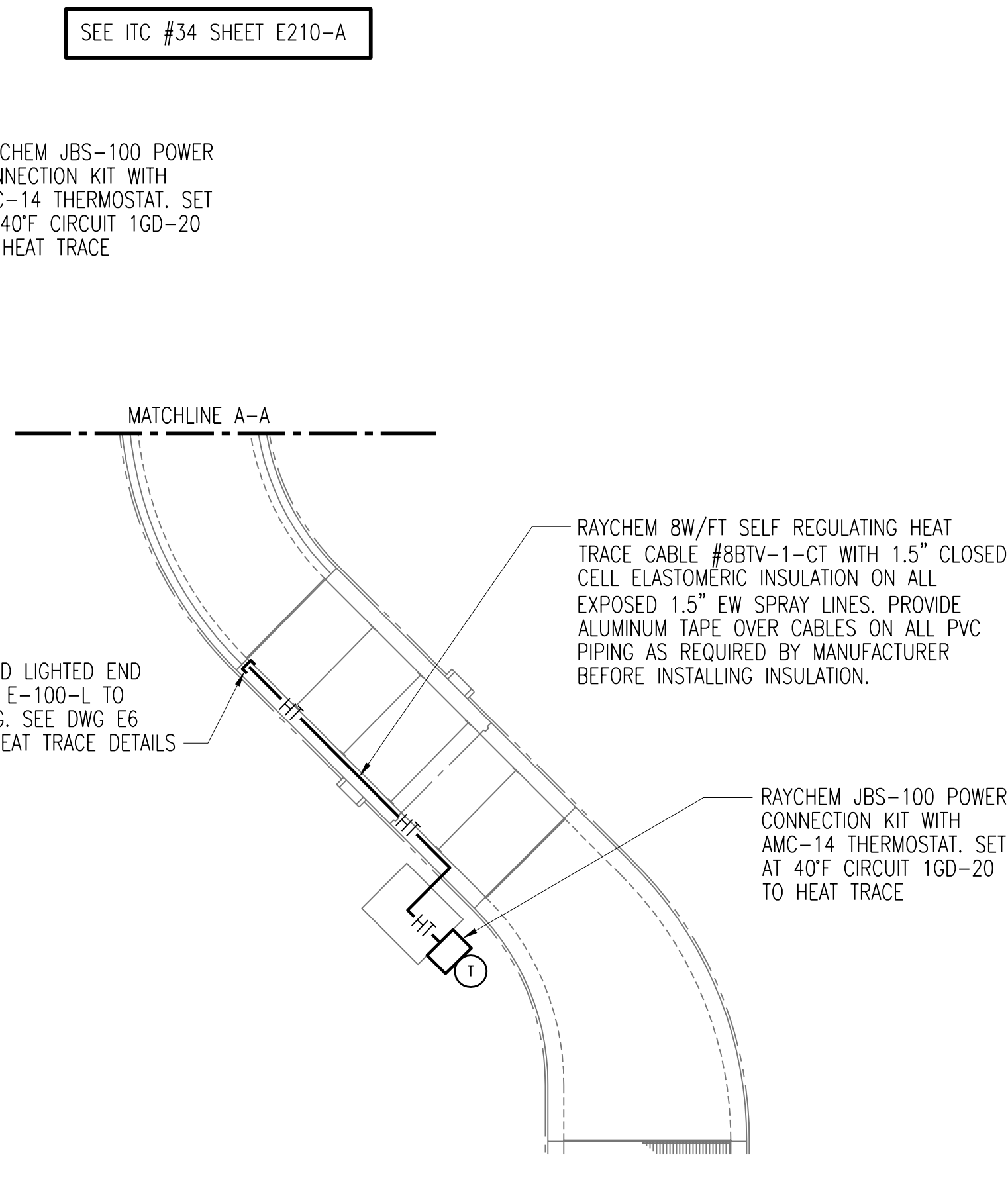
PLAN AT EL 659'-0"
SCALE: 3/16" = 1'-0"



PLAN AT EL 641'-0"
SCALE: 3/16" = 1'-0"



ENLARGED INFLUENT CHANNEL
SCALE: 1/8" = 1'-0"



ENLARGED INFLUENT CHANNEL
SCALE: 1/8" = 1'-0"

- NOTES:**
- SEE DRAWING E17 FOR REVISED MCC-5 ONE-LINE REQUIREMENTS.
 - SEE DRAWING E220 FOR GRIT DEWATERING BUILDING FOR MCC-5 LOCATION AND PLC CONTROLLER LOCATIONS.
 - SEE DRAWING E4 FOR TYPICAL ELECTRICAL DETAILS.
 - SEE DRAWINGS E2 AND E3 FOR LIGHTING FIXTURE SCHEDULE.
 - ALL CONDUIT IN THIS AREA TO BE PVC COATED RGS CONDUITS WITH XP BOXES SUITABLE FOR CLASS 1 DIV 2 AREAS.
 - SEE DRAWING E52 AND E55 FOR SITE PLAN LOCATION OF NEW VORTEX GRIT TANK AREA.
 - PROVIDE TYPE P LIGHT FIXTURE PER DRAWING E2 WITH MULTI VOLT TAP BALLAST AND SET FOR 120V FROM CIRCUIT 1GD-18. PROVIDE 3 #10 IN 1" PVC RGS CONDUIT. PROVIDE WEATHERPROOF/XP TYPE SWITCH AT ELECTRICAL STAND AT LOCATION SHOWN. PROVIDE A WP GFI RECEPTACLE ON POLE.
 - BOND NEW VORTEX GRIT TANK REBAR TO EXISTING GRIT DEWATERING BUILDING GROUND GRID. SEE DRAWING E220. WHERE GROUND PLATE ASSEMBLIES ARE SHOWN PLACE FLUSH TO FLOOR AND PLACE BOLTS IN HOLES TO PREVENT THREADS FROM FILLING WITH CONCRETE. LOCATE GROUND PLATE ASSEMBLIES 4 INCHES FROM CONCRETE TO NEAREST EDGE OF PAD. TOP OF PLATE ASSEMBLIES TO BE 1/8 INCH ABOVE CONCRETE APPROXIMATELY.
 - PROVIDE WP RECEPTACLES AT EQUIPMENT STANDS WITH HINGED COVERS TO ALLOW 120V DEVICES TO REMAIN PLUGGED IN. SEE ELECTRICAL GENERAL NOTES FOR WIRING REQUIREMENTS.
 - ADD PHOTOELECTRIC TYPE DUCT DETECTOR AT MAU-2501A. DETECTOR TO BE 120V POWERED WITH INPUTS TO MAU STARTER TO SHUTDOWN MAU ON ALARM. PROVIDE 3#12 IN 1" C FROM PANEL 1GD CIRCUIT 23.

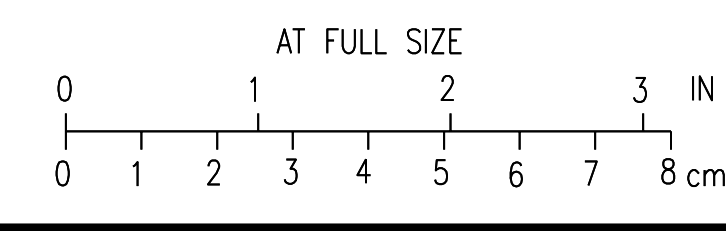
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2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012

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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**VORTEX GRIT TANKS AREA
POWER PLAN AND DETAILS**

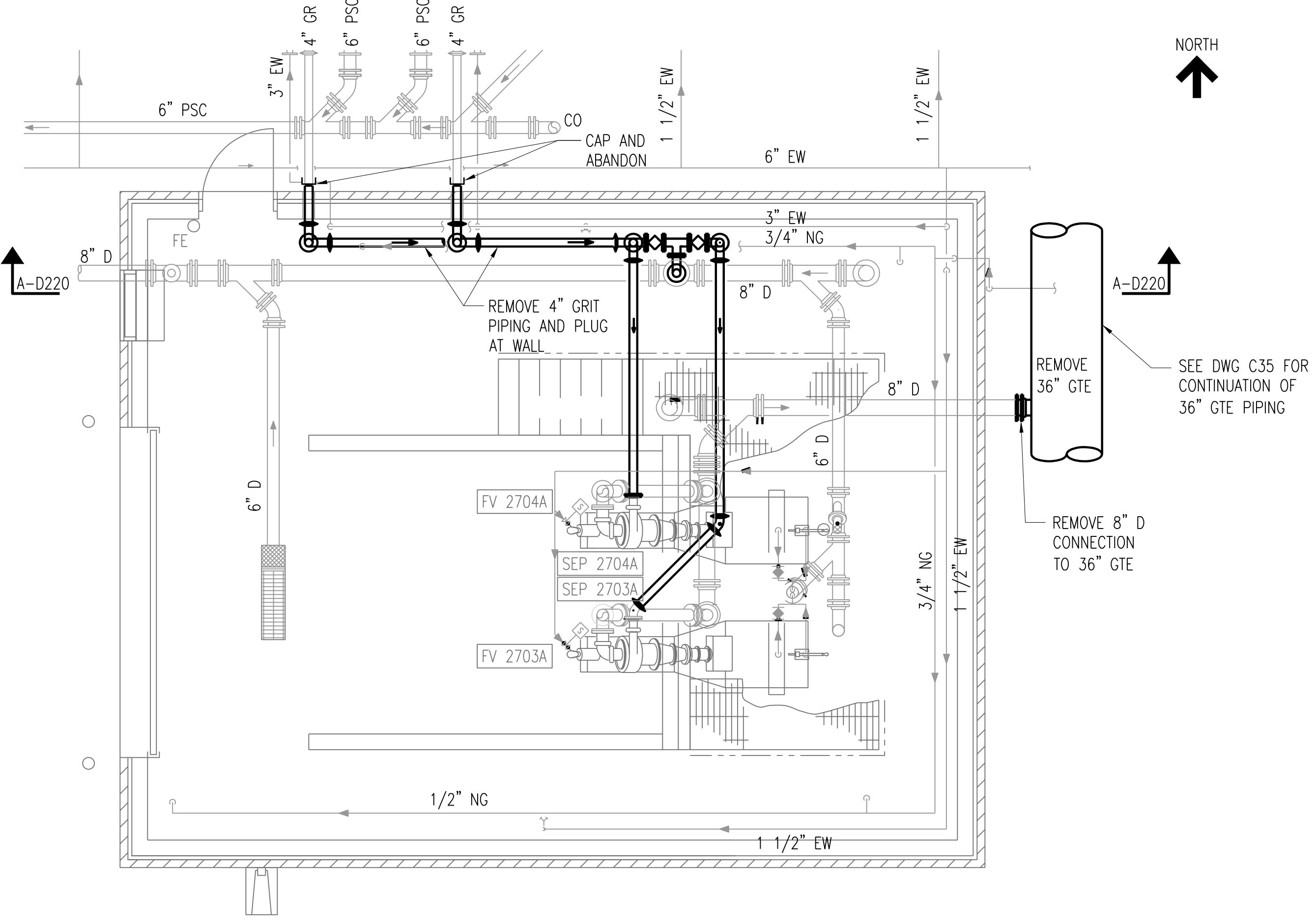
DESIGNED DL MORITZ	SCALE: AS NOTED
DRAWN D. WILGES	NO. 22800
CHECKED DL MORITZ	REV. 3
APPROVED JD COOAN	E210
DATE DECEMBER 2, 2011	



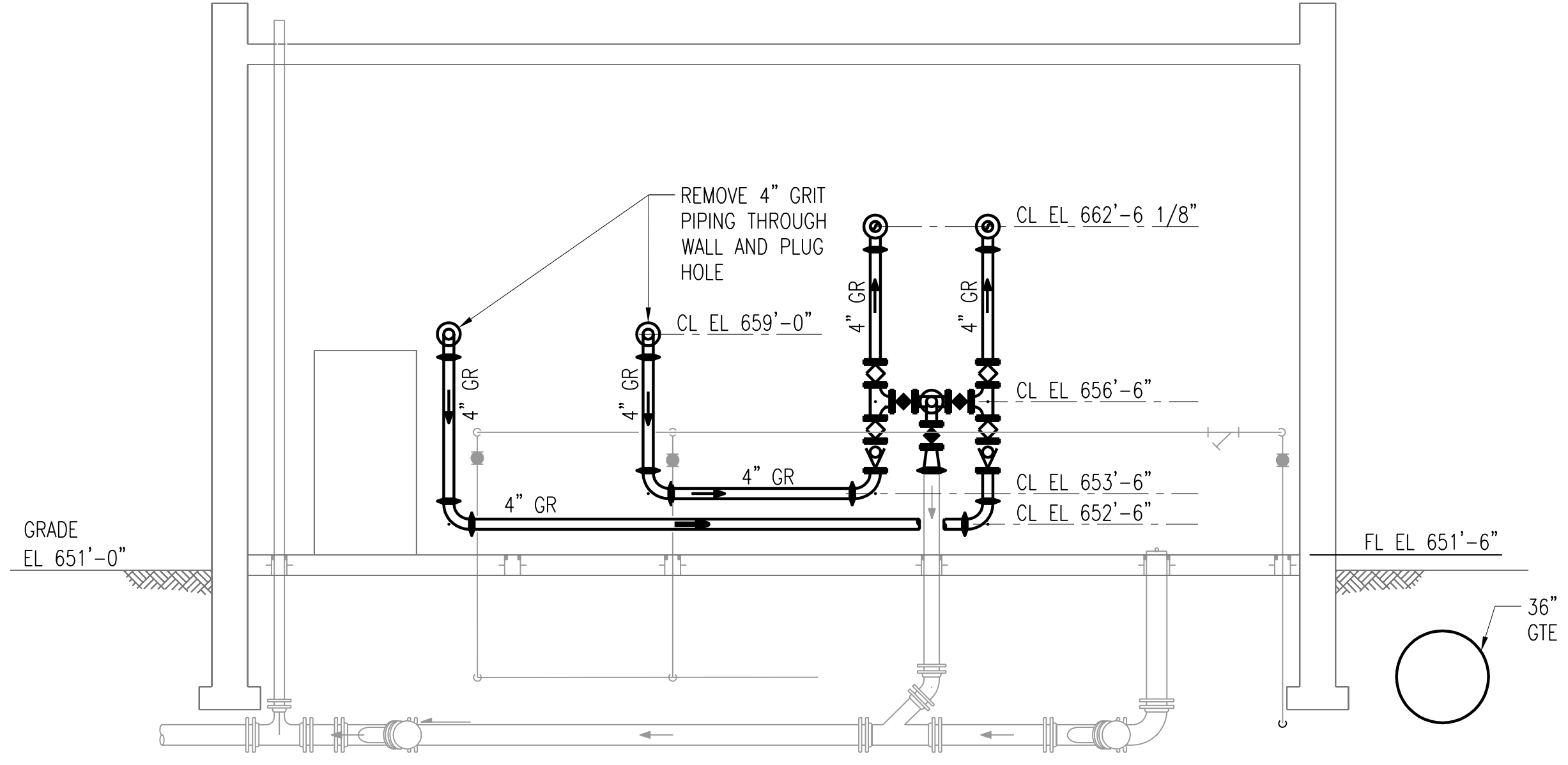
CAD D:\1-14

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BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE



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



DEMOLITION SECTION A-D220
SCALE: 1/4" = 1'-0"

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
2	RECORD DRAWING	JBL	JBL	JBL	21-31-2014
1	ISSUED FOR CONSTRUCTION	CLB	CLB	JMB	01-10-2012


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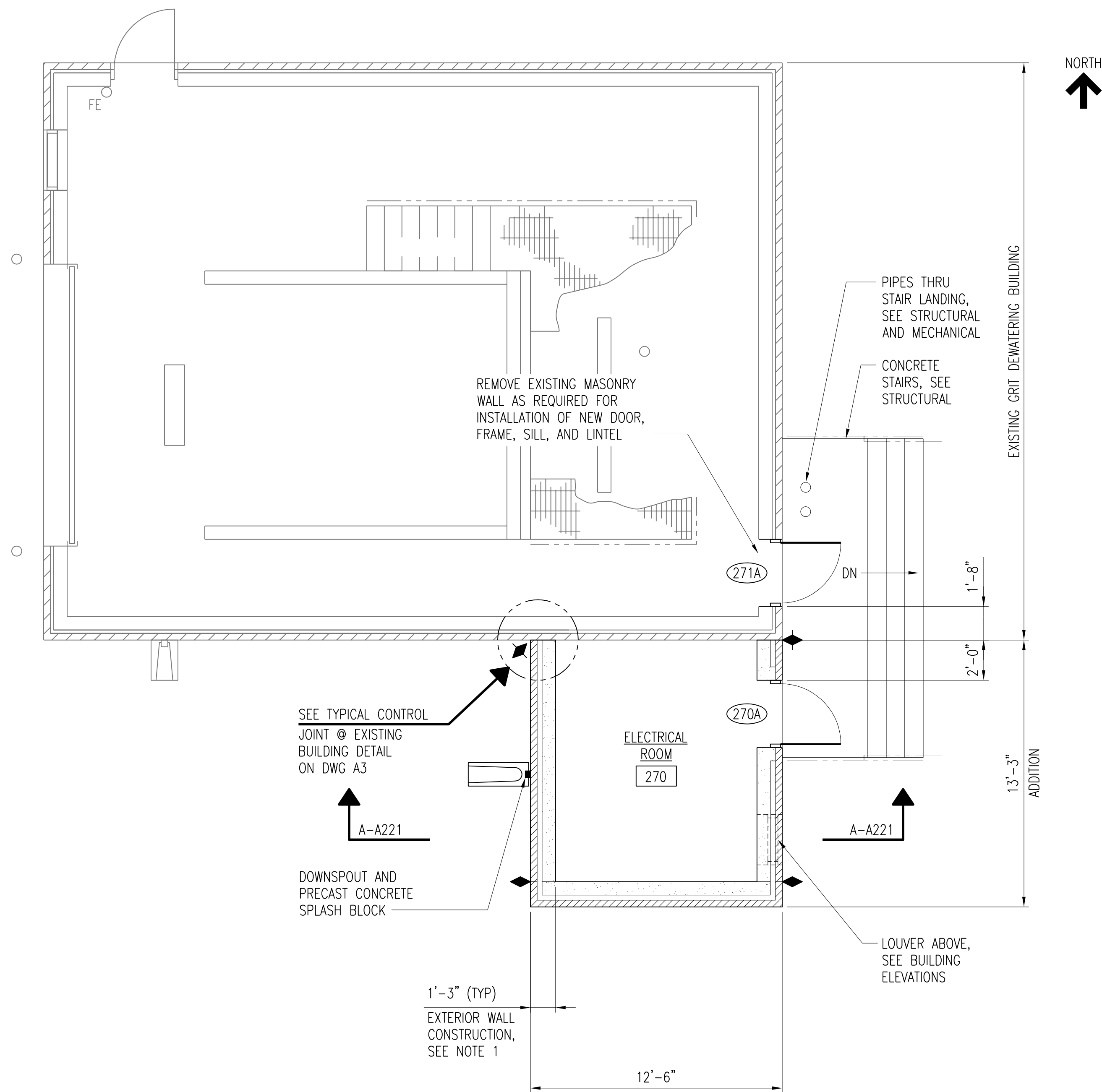
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**GRIT DEWATERING BUILDING
PROCESS PIPING DEMOLITION
PLAN AND SECTION**



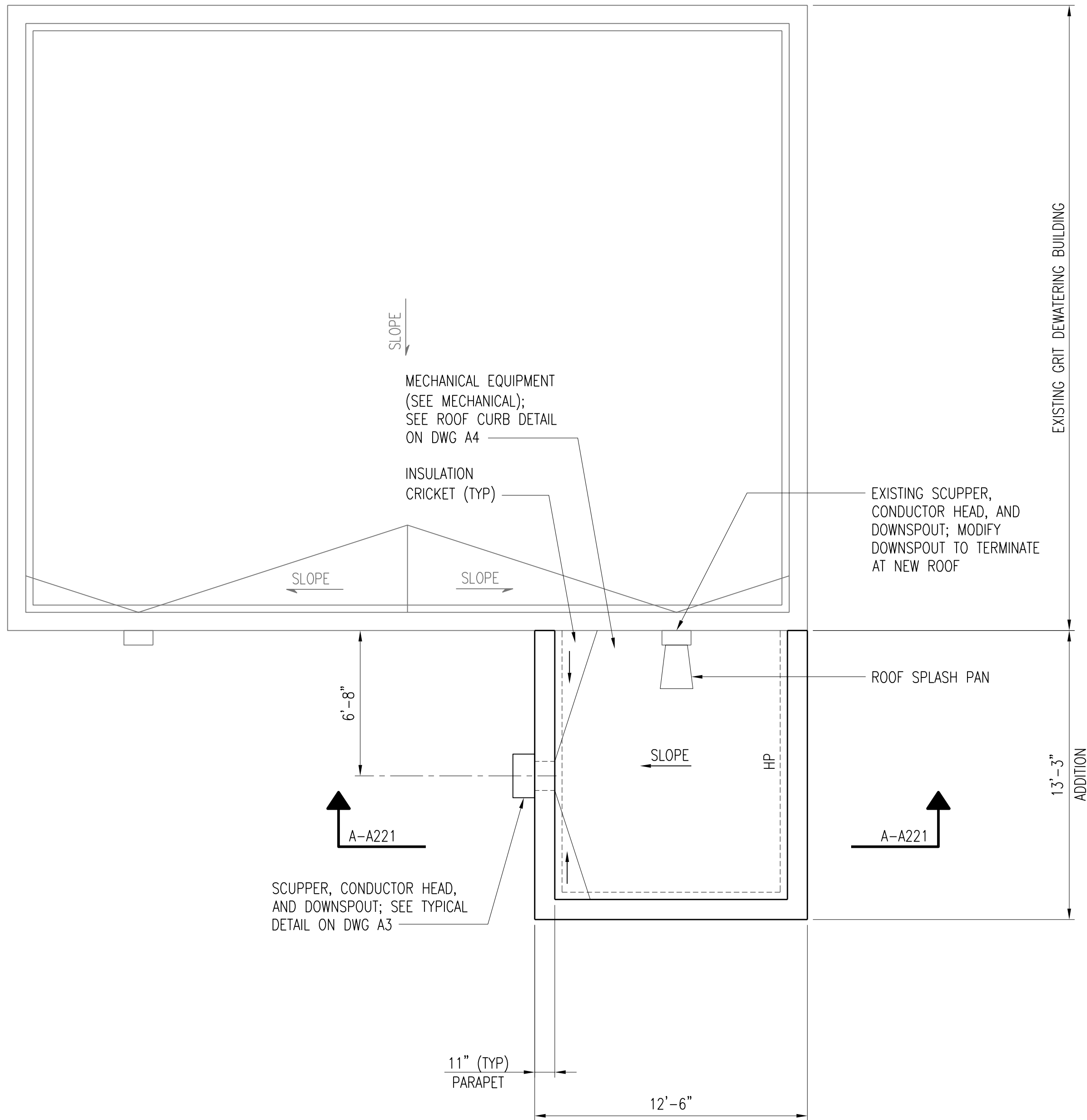
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DRAWN GA GOOS	NO. 22800
CHECKED CL BARK	REV.
APPROVED JM BRADY	D220
DATE DECEMBER 2, 2011	2

CADD: D1-R4



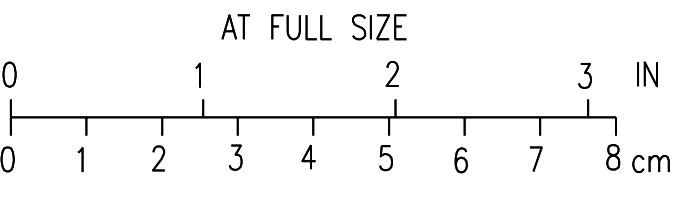
FLOOR PLAN
SCALE: 1/4" = 1'-0"

- FLOOR PLAN NOTES:**
- EXTERIOR WALL CONSTRUCTION ABOVE GRADE:
4" FACE BRICK
AIR SPACE
2" RIGID INSULATION (R=10)
8" CMU
 - MASONRY WALL REINFORCING - SEE DRAWING S1.
 - MASONRY CONTROL JOINTS: LOCATE WHERE SHOWN ON PLANS AND BUILDING ELEVATIONS. SEE DETAILS ON DRAWING A3.
 - WALL PENETRATIONS:
ALL PENETRATIONS SHALL BE SEALED - FULL GROUT IN PLACE MASONRY.
ALLOW FOR EXPANSION WHEN REQUIRED OR AS INDICATED BY OTHER DISCIPLINES.
 - SEE DRAWING A3 FOR TYPICAL WALL CONSTRUCTION DETAILS.
 - SEE DRAWING A1 FOR INTERIOR FINISH SCHEDULE.
 - SEE DRAWING A1 FOR OPENING SCHEDULE.
 - COORDINATE LOCATION OF EQUIPMENT WITH MECHANICAL.



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

- ROOF PLAN NOTES:**
- ROOF CONSTRUCTION:
BALLAST ON SINGLE-PLY ROOF MEMBRANE ON 4" RIGID (R=20) INSULATION ON SLOPED GROUT TOPPING (5" @ HP AND 2" @ LP) ON 8" HOLLOW CORE DECK.
 - COORDINATE ACTUAL LOCATIONS AND SIZE OF CURBS, PENETRATIONS, AND EQUIPMENT WITH STRUCTURAL AND MECHANICAL DRAWINGS.
 - PIPE PENETRATIONS SMALLER THAN 6" MAY NOT BE SHOWN. COORDINATE WITH DISCIPLINE DRAWINGS.
 - SOME MISCELLANEOUS ROOF PENETRATIONS NOT SPECIFICALLY SHOWN ON THIS PLAN SHALL BE FLASHED AND SEALED ACCORDING TO DETAILS SHOWN, AND PER ROOFING MANUFACTURER'S RECOMMENDED GUIDE DETAILS.
 - PROVIDE ADDITIONAL CRICKETS/SADDLES AS REQUIRED AT CURBS TO ALLOW FOR DRAINAGE.
 - SEE DRAWING A3 AND A4 FOR TYPICAL ROOF CONSTRUCTION DETAILS.



3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REV ROOF PLAN NOTES 1	GAL	GAL	DS	01-25-2012
1	ISSUED FOR CONSTRUCTION	GAL	GAL	DS	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

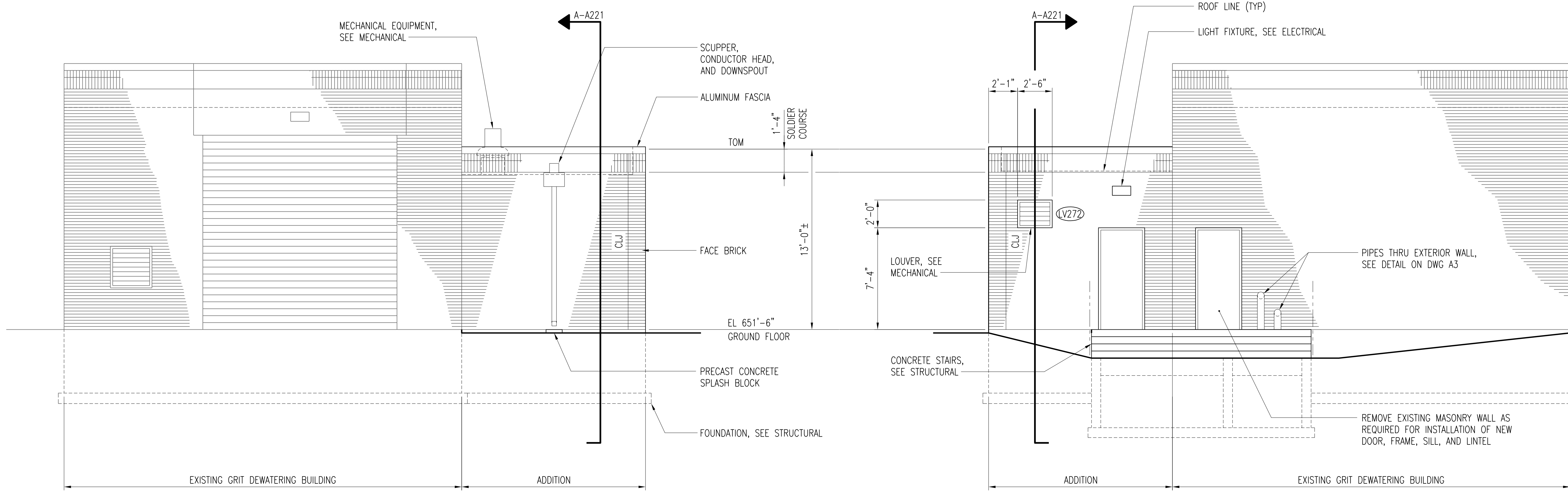

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CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**GRIT DEWATERING BUILDING
 FLOOR AND ROOF PLANS**

DESIGNED GA LUDWIG	SCALE: AS NOTED
DRAWN DA HUMISTON	NO. 22800
CHECKED GA LUDWIG	REV.
APPROVED D SARKAR	A220
DATE DECEMBER 2, 2011	3

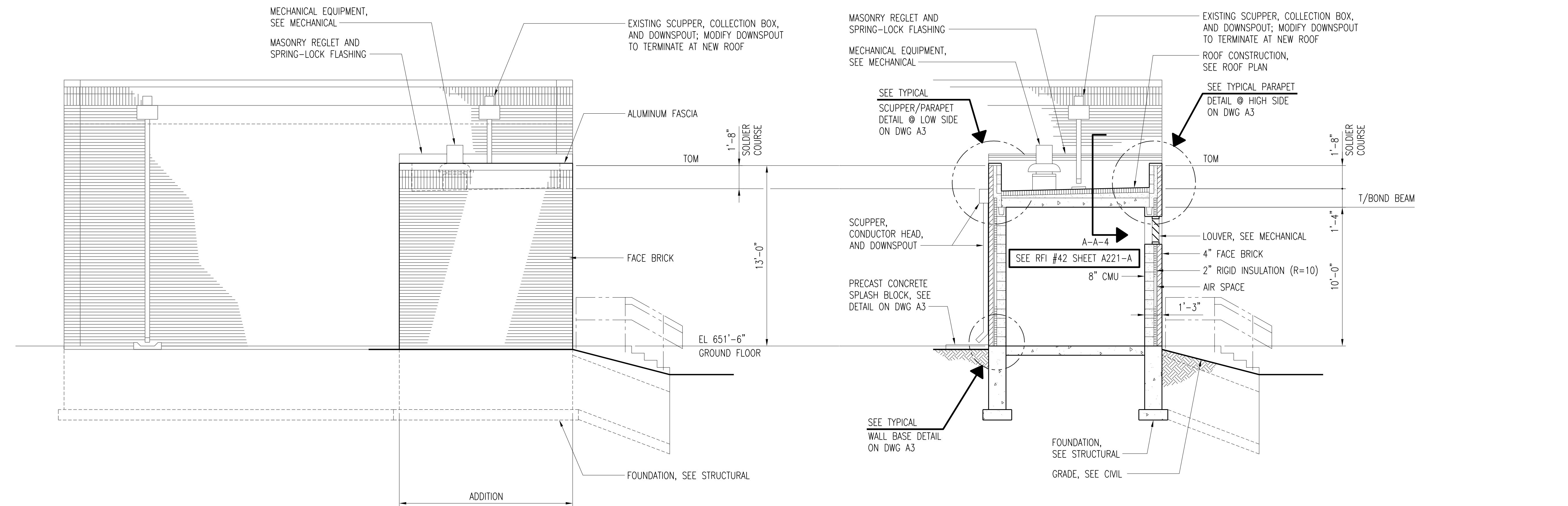
CAD D:\1-14



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

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


SEE RFI #42 SHEET A221-A



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

SECTION A-A221
A220, A221
SCALE: 1/4" = 1'-0"

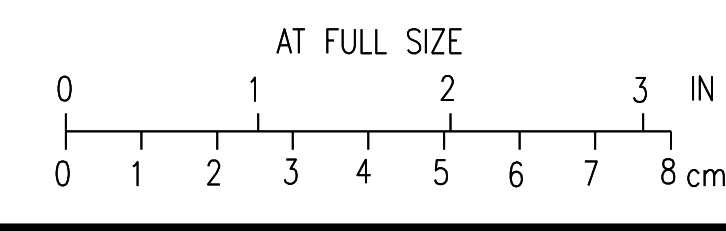
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1	ISSUED FOR CONSTRUCTION	GAL	GAL	DS	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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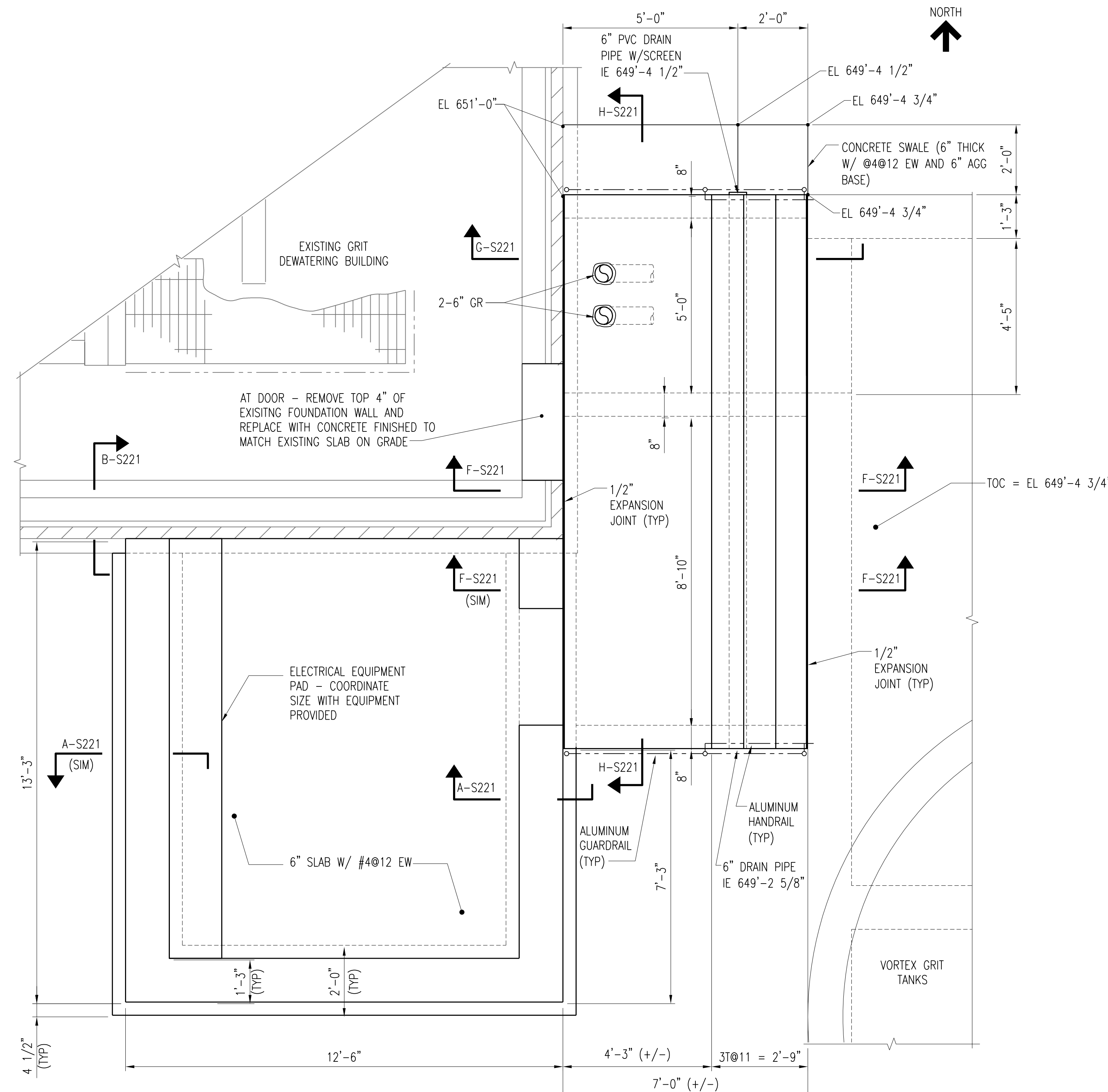
CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

GRIT DEWATERING BUILDING
BUILDING ELEVATIONS

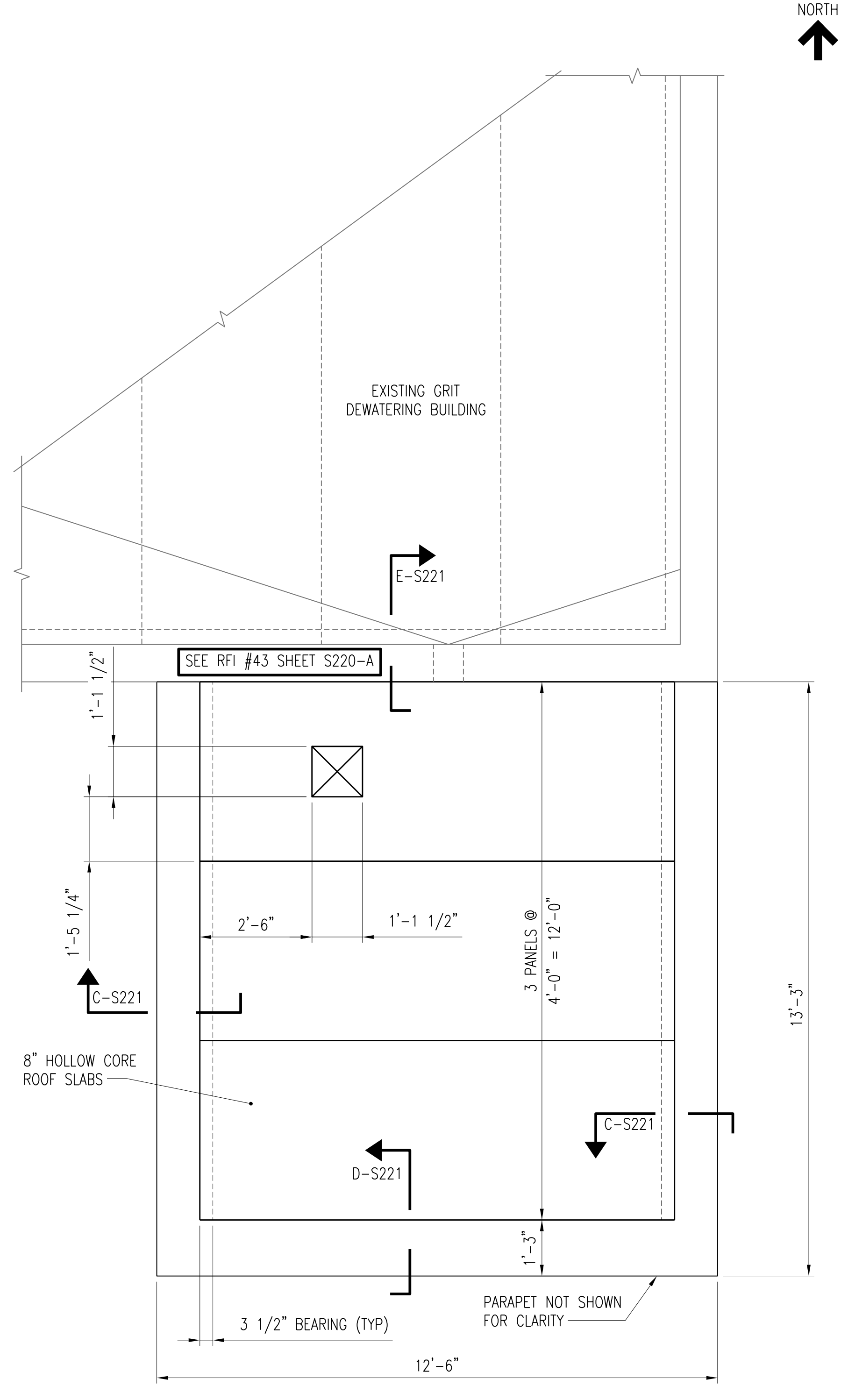
DESIGNED GA LUDWIG	SCALE: AS NOTED
DRAWN DA HUMISTON	NO. 22800
CHECKED GA LUDWIG	REV.
APPROVED D SARKAR	A221
DATE DECEMBER 2, 2011	2



H
G
F
E
D
C
B
A
 1 2 3 4 5 6 7 8 9 10 11 12



FOUNDATION / SLAB PLAN
SCALE: 1/2" = 1'-0"



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

NOTES:

1. COORDINATE WITH ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL DIMENSIONAL INFORMATION AND OTHER REQUIREMENTS.
2. SEE STRUCTURAL STANDARD DETAIL DRAWINGS FOR STRUCTURAL DESIGN CRITERIA AND OTHER DETAILS.
3. COORDINATE AND MATCH TOP OF FOUNDATION ELEVATION WITH EXISTING GRIT DEWATERING BUILDING.
4. SLAB-ON-GRADE DESIGN LIVE LOAD: 100 PSF
5. GRIT DEWATERING BUILDING DESIGN CRITERIA:
 - a. OCCUPANCY CATEGORY: III
 - b. WIND IMPORTANCE FACTOR: 1.15
 - c. SEISMIC IMPORTANCE FACTOR: 1.25

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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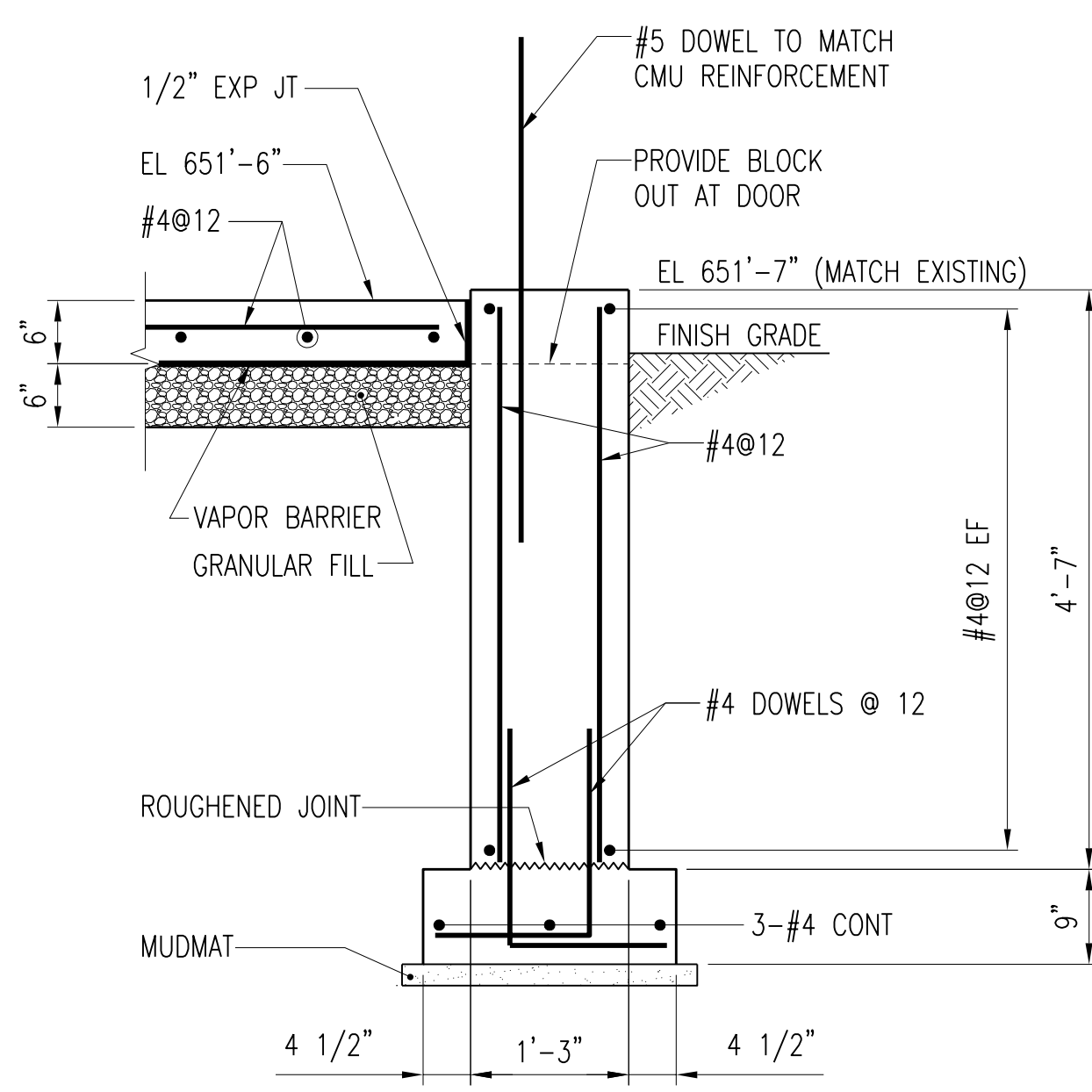
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

GRIT DEWATERING BUILDING PLANS

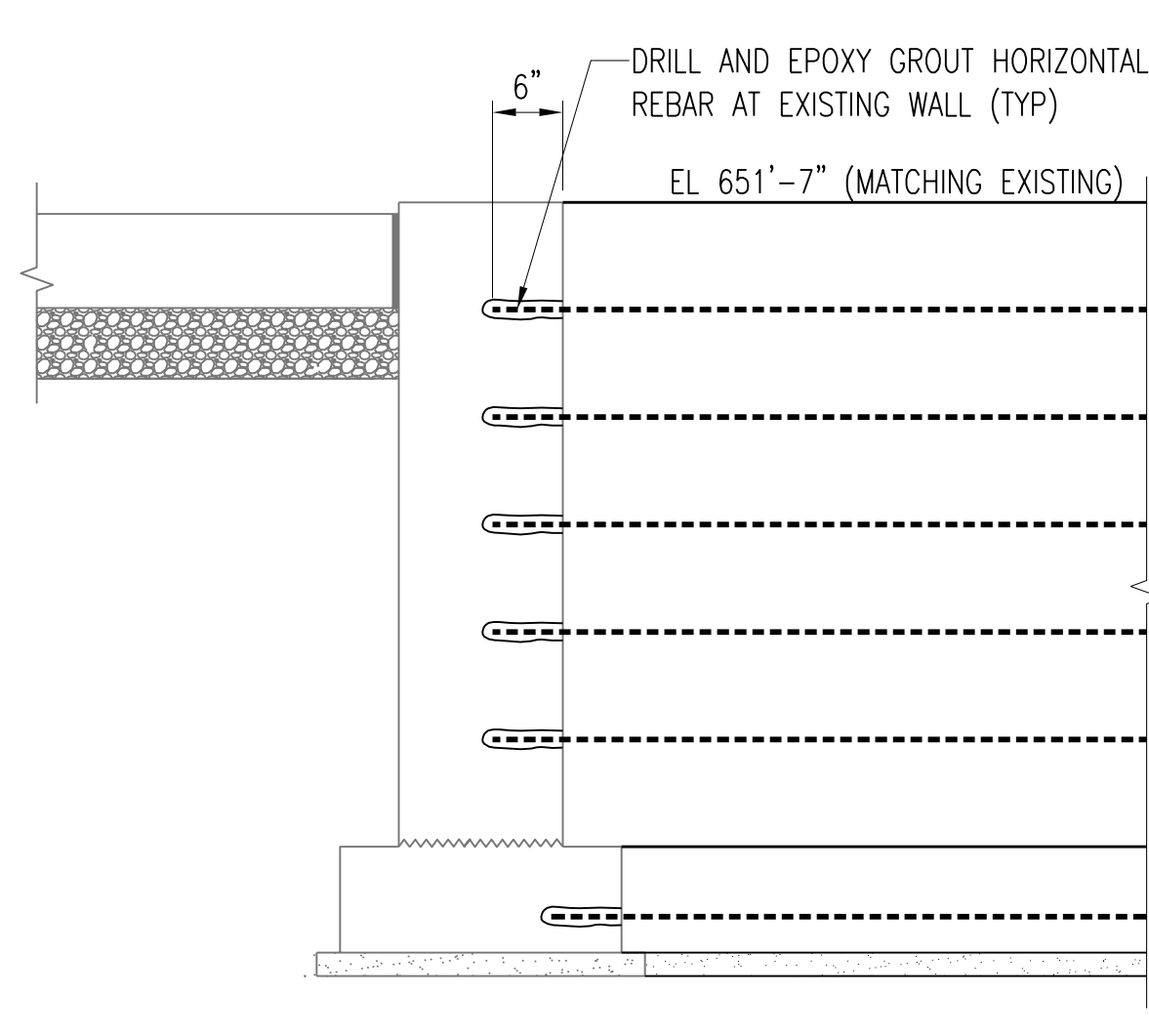
DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM	S220	2
DATE	DECEMBER 2, 2011		



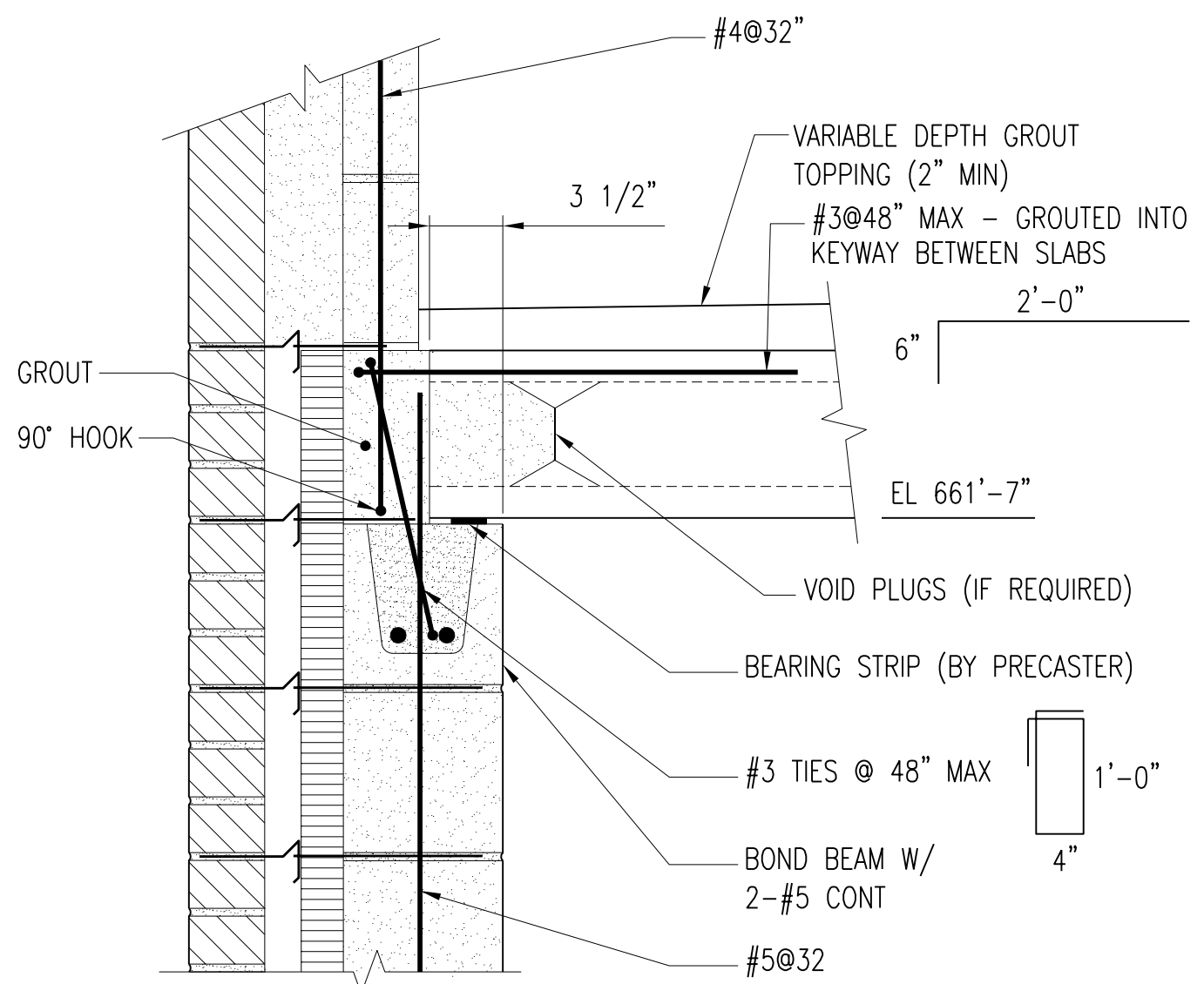
CAD: D:\P4



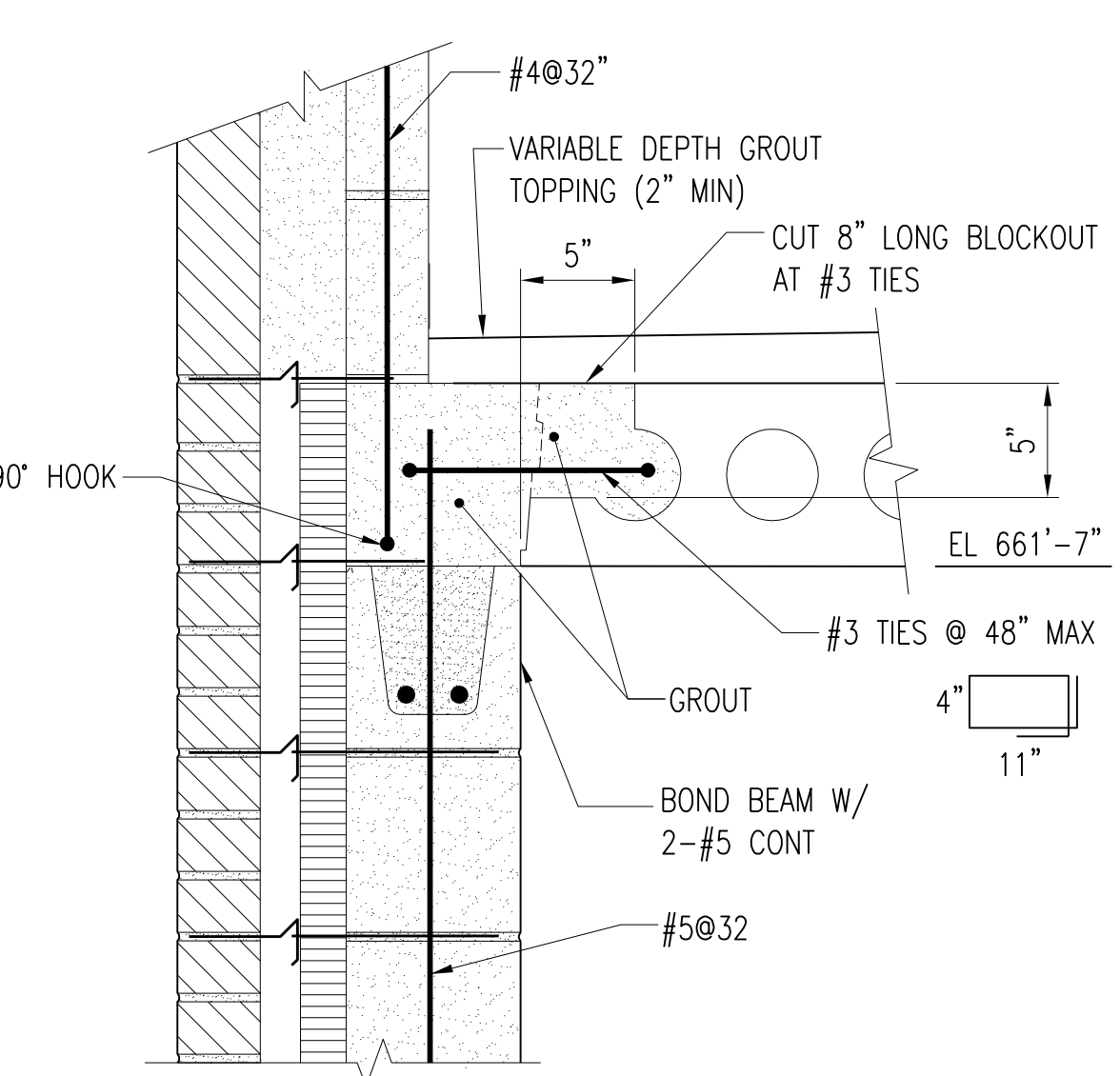
SECTION A-S221
S220
SCALE: 3/4" = 1'-0"



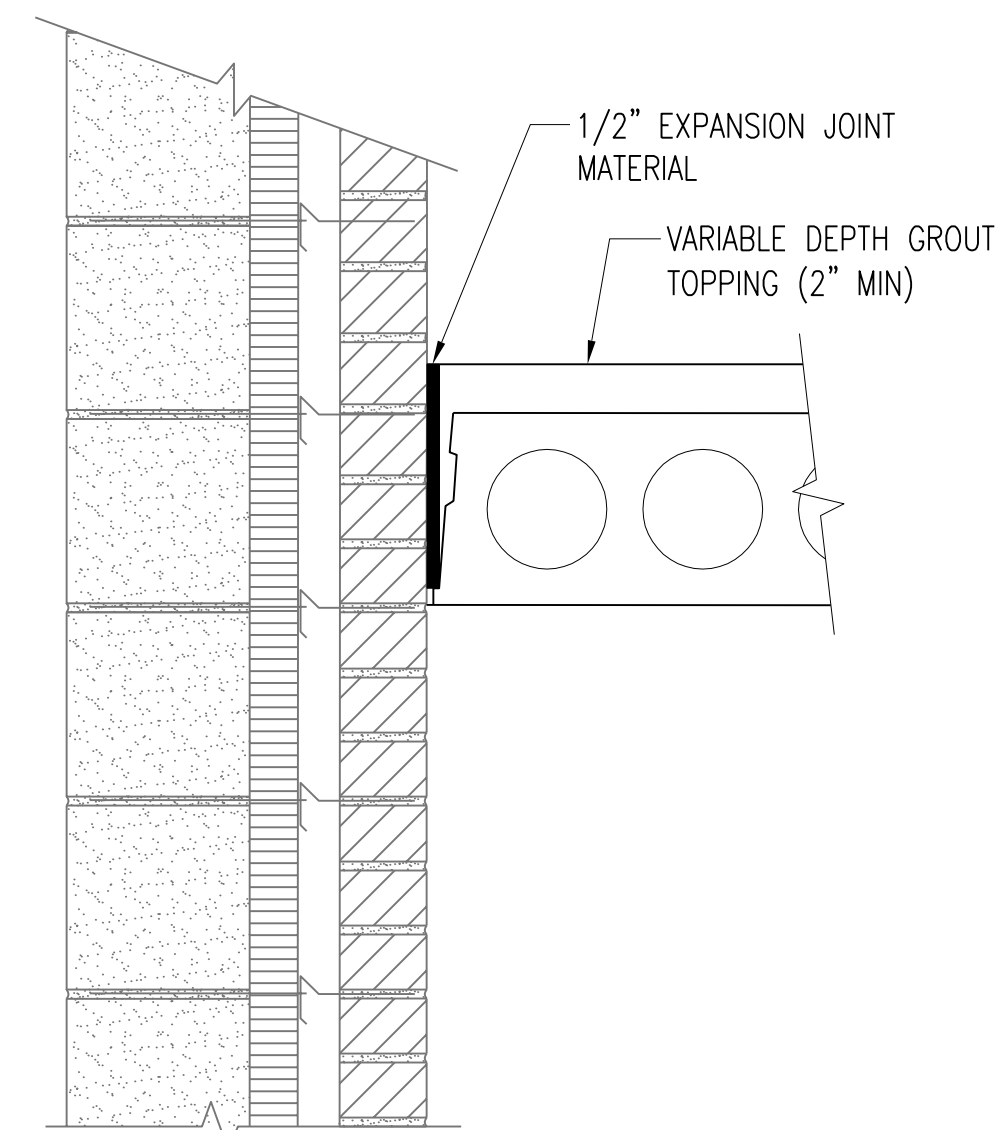
SECTION B-S221
S220
SCALE: 3/4" = 1'-0"



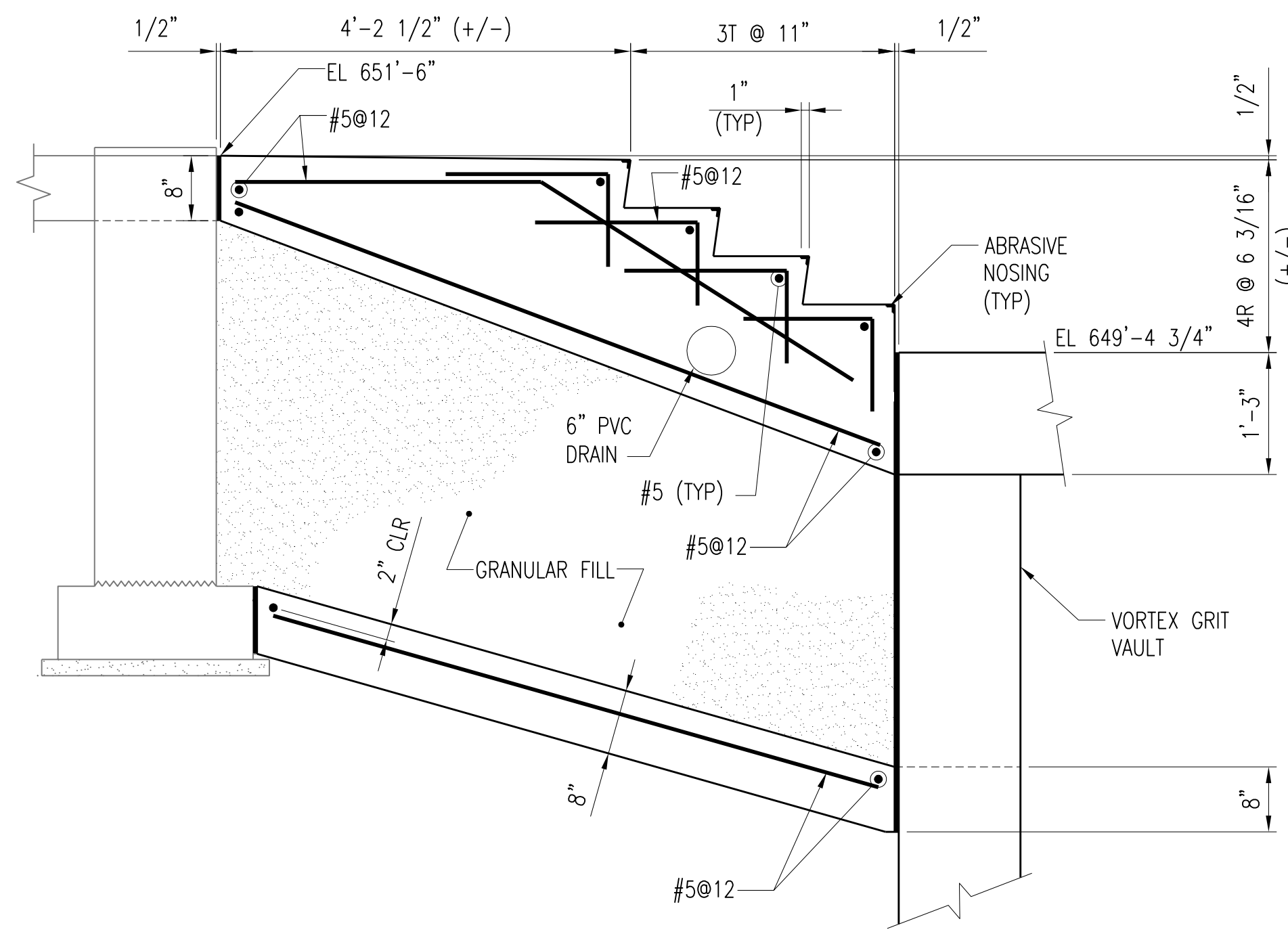
SECTION C-S221
S220
SCALE: 1 1/2" = 1'-0"



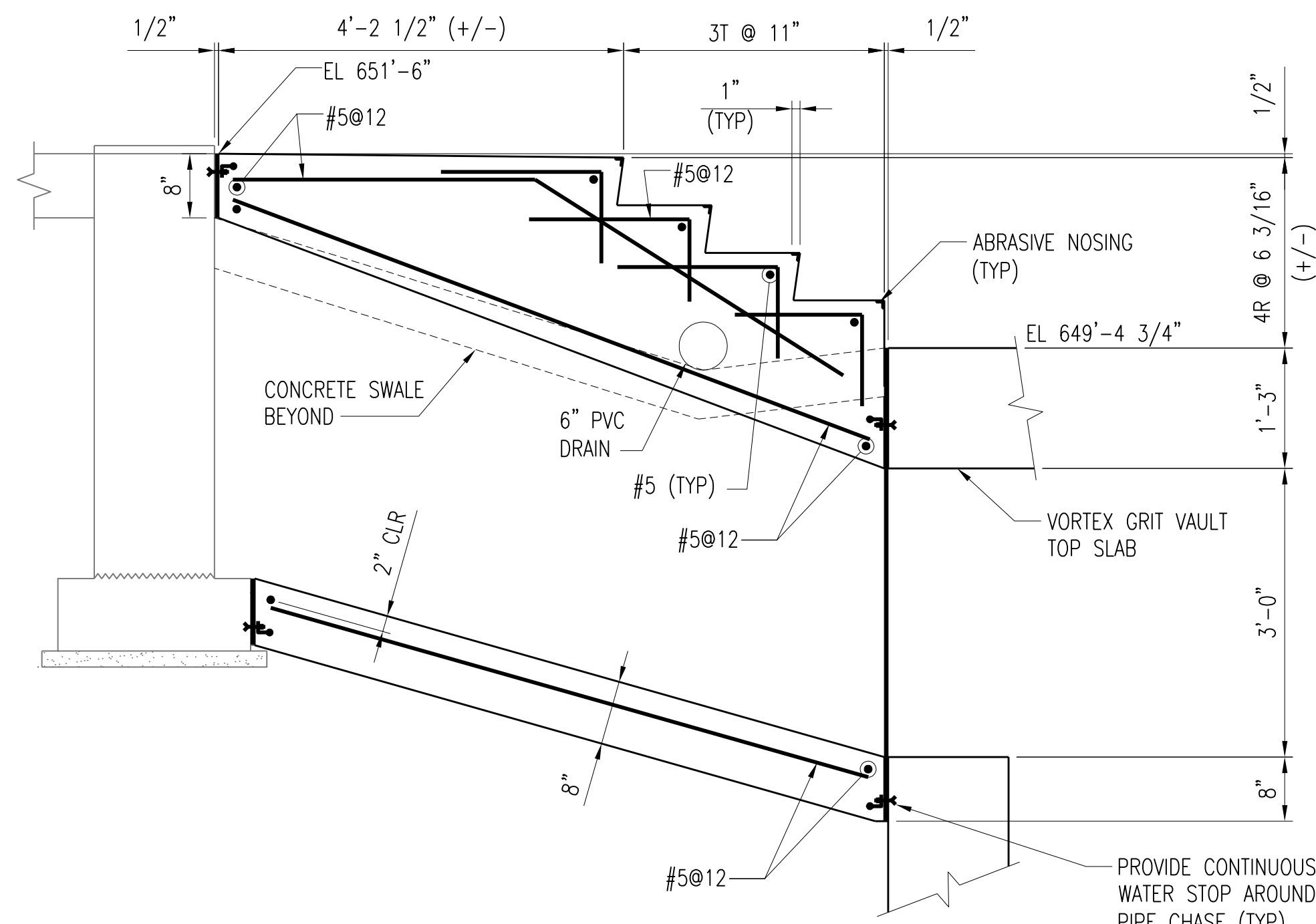
SECTION D-S221
S220
SCALE: 1 1/2" = 1'-0"



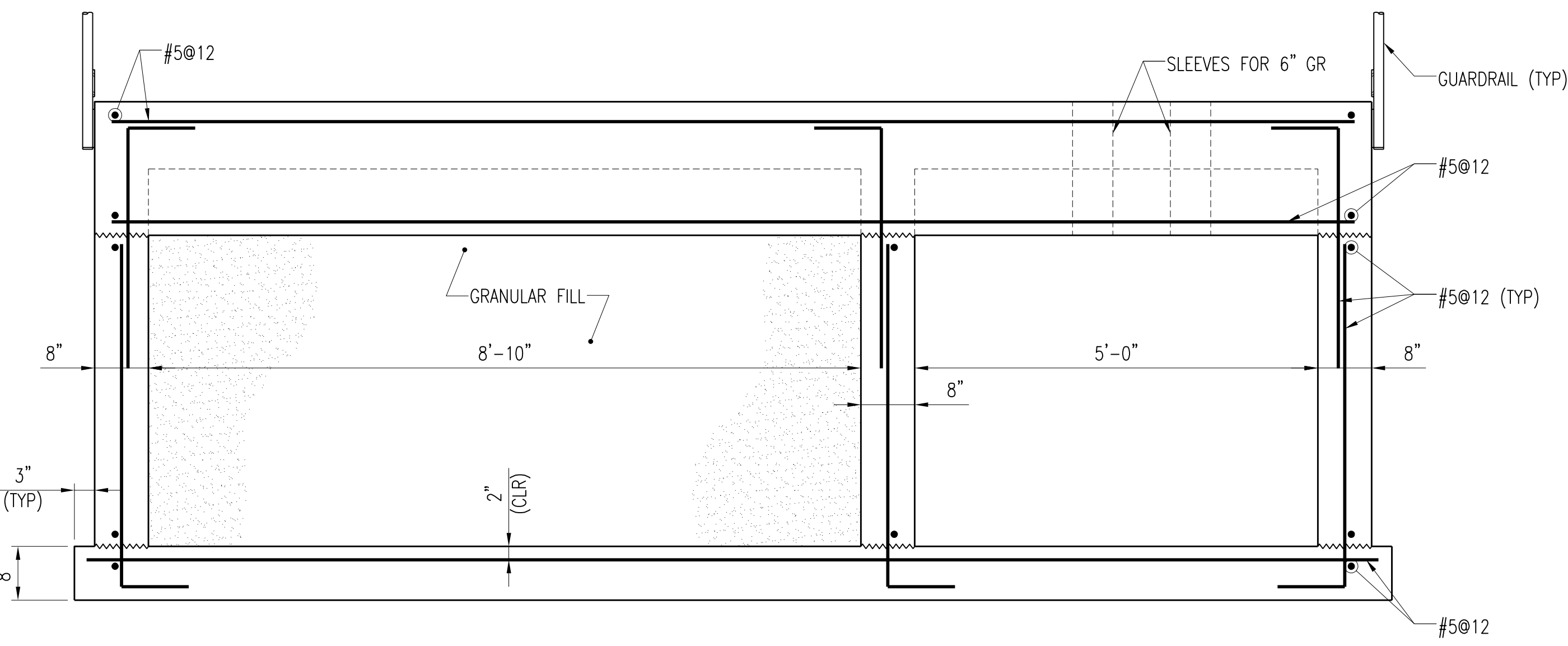
SECTION E-S221
S220
SCALE: 1 1/2" = 1'-0"



SECTION F-S221
S220
SCALE: 3/4" = 1'-0"

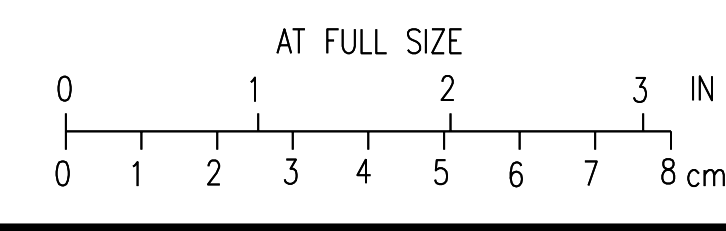


SECTION G-S221
S220
SCALE: 3/4" = 1'-0"



SECTION H-S221
S220
SCALE: 3/4" = 1'-0"

- NOTES:**
- COORDINATE WITH ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL DIMENSIONAL INFORMATION AND OTHER REQUIREMENTS.
 - SEE STRUCTURAL STANDARD DETAIL DRAWINGS FOR STRUCTURAL DESIGN CRITERIA AND OTHER DETAILS.
 - COORDINATE AND MATCH TOP OF FOUNDATION ELEVATION WITH EXISTING GRIT DEWATERING BUILDING



2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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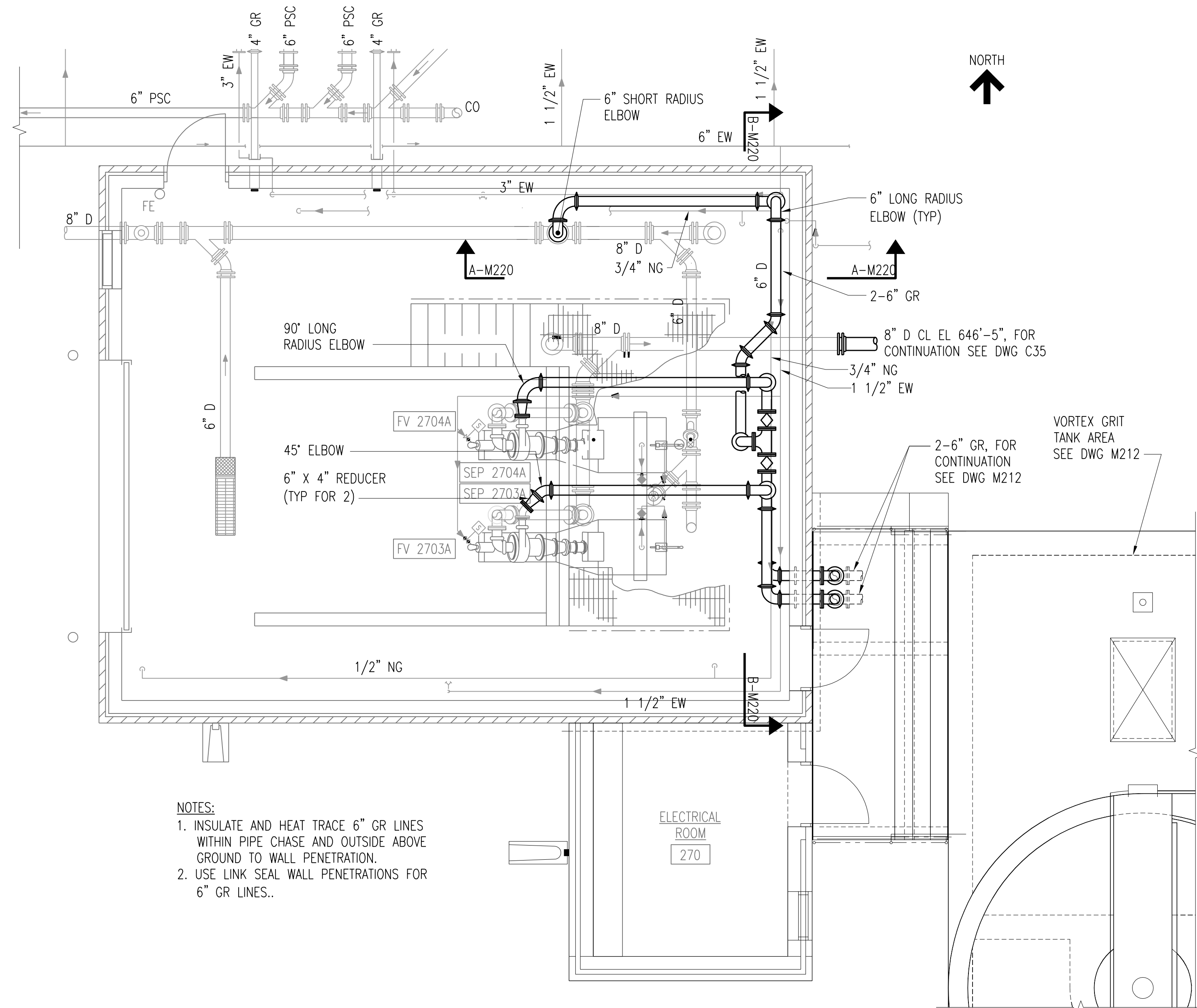
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

GRIT DEWATERING BUILDING SECTIONS

DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM	S221	2
DATE	DECEMBER 2, 2011		

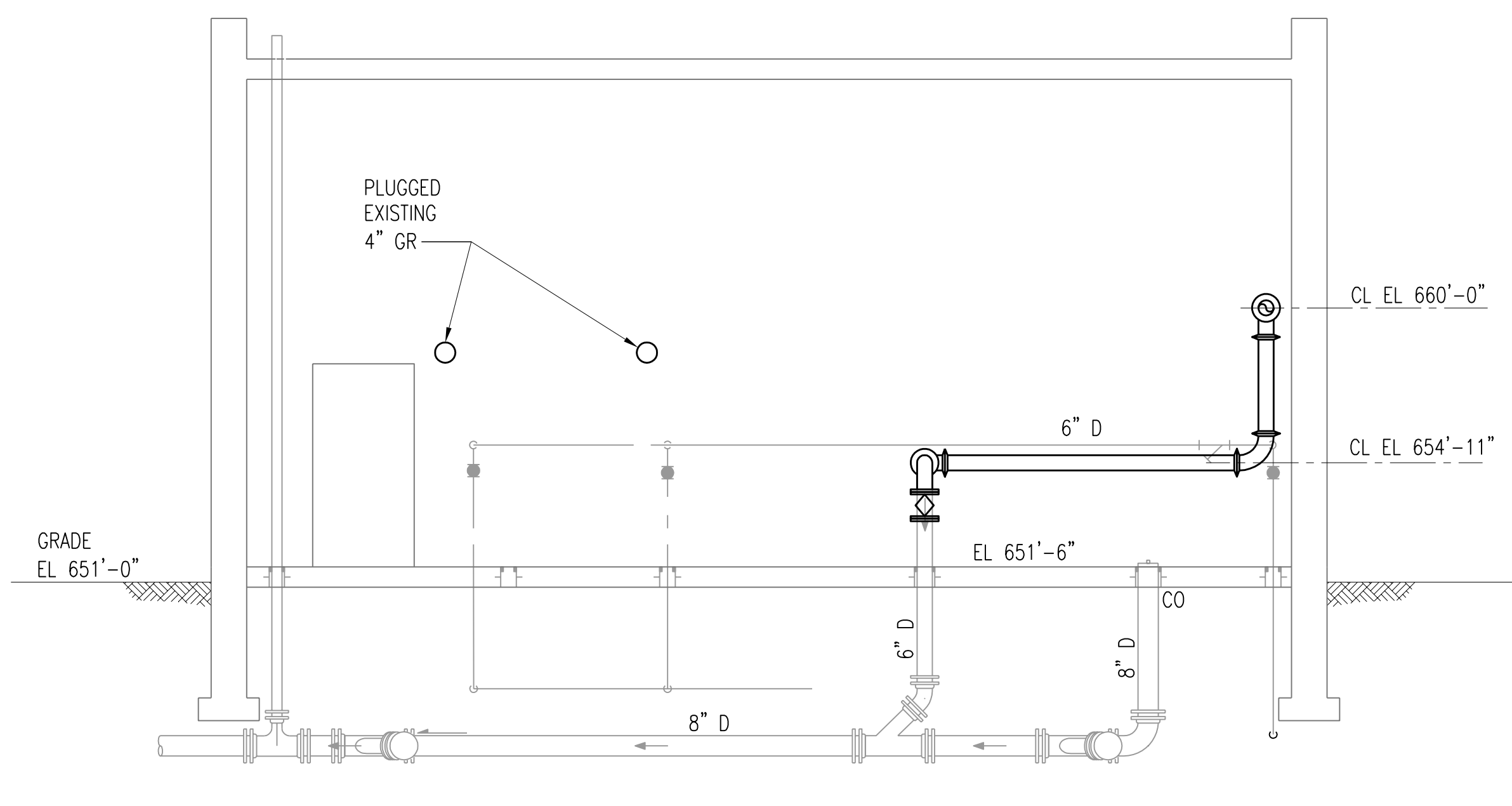
CADD D1-14

SEE RFI #93 SHEET M220-A

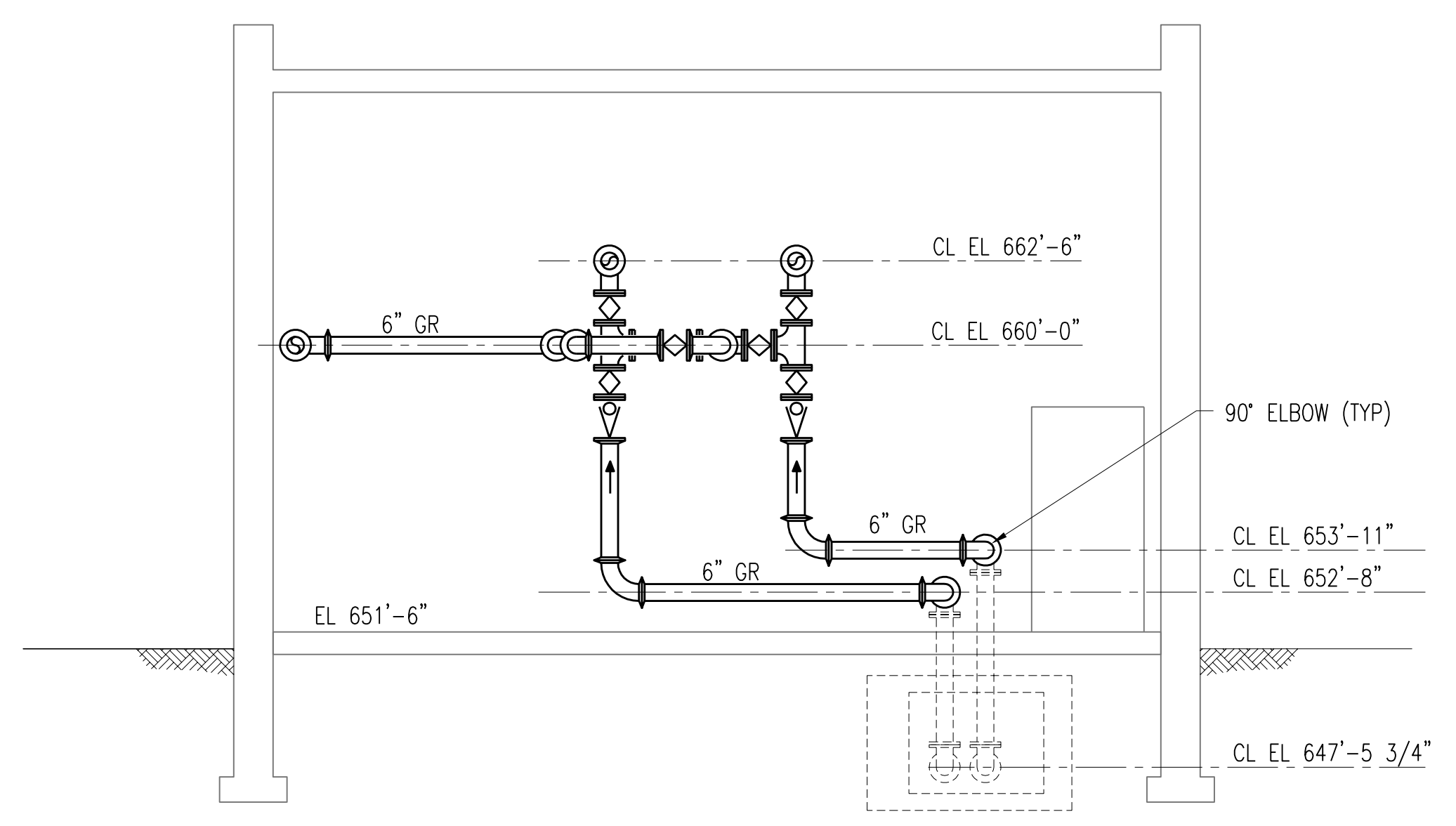


- NOTES:**
1. INSULATE AND HEAT TRACE 6" GR LINES WITHIN PIPE CHASE AND OUTSIDE ABOVE GROUND TO WALL PENETRATION.
 2. USE LINK SEAL WALL PENETRATIONS FOR 6" GR LINES..

GRIT DEWATERING PIPING PLAN
SCALE: 1/4" = 1'-0"



SECTION A-M220
SCALE: 1/4" = 1'-0"



SECTION B-M220
SCALE: 1/4" = 1'-0"

△ PROVIDE FLASHING OVER 6" GR PENETRATIONS THROUGH TOP OF PIPE CHASE IN ADDITION TO PIPE PENETRATION SEALS. FLASHING SHALL BE SUITABLE FOR INSULATED PIPE AND SHALL BE SIMILAR TO "VENT THROUGH ROOF FLASHING DETAIL" SHOWN ON DWG A4.

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
4	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
3	ADDED ADDENDUM COMMENT	LJO	JBL	JBL	05-04-2012
2	REVISED TEXT	CLB	CLB	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	CLB	CLB	JMB	01-10-2012

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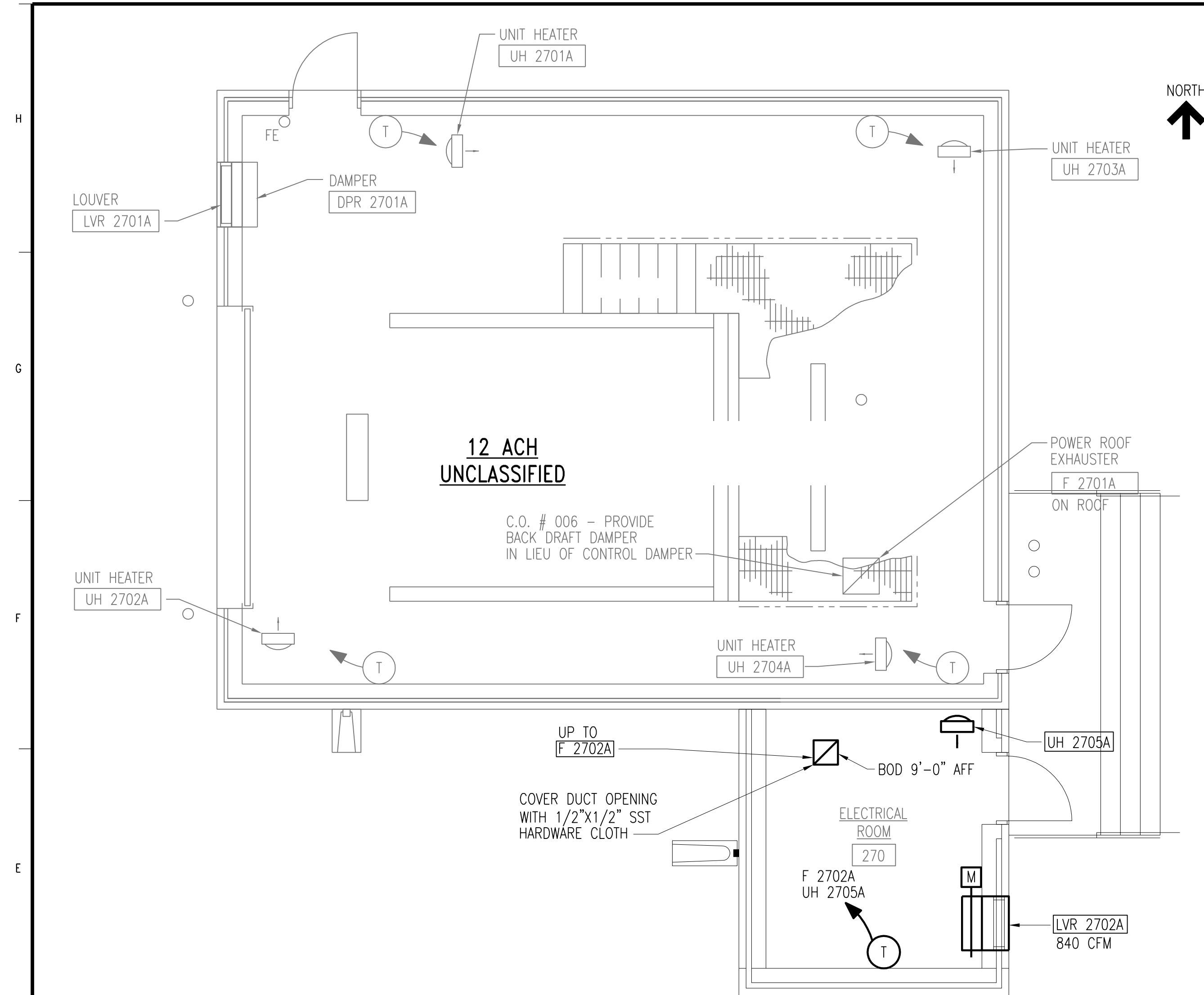
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**GRIT DEWATERING BUILDING
PROCESS PIPING PLAN AND SECTIONS**



DESIGNED CL BARK	SCALE: AS NOTED
DRAWN GA GOOS	NO. 22800
CHECKED CL BARK	REV.
APPROVED JM BRADY	M220
DATE DECEMBER 2, 2011	4

CAD: D1-R4



12 ACH
UNCLASSIFIED

C.O. # 006 - PROVIDE
BACK DRAFT DAMPER
IN LIEU OF CONTROL DAMPER

UP TO
F 2702A

COVER DUCT OPENING
WITH 1/2"x1/2" SST
HARDWARE CLOTH

ELECTRICAL
ROOM
270

F 2702A
UH 2705A

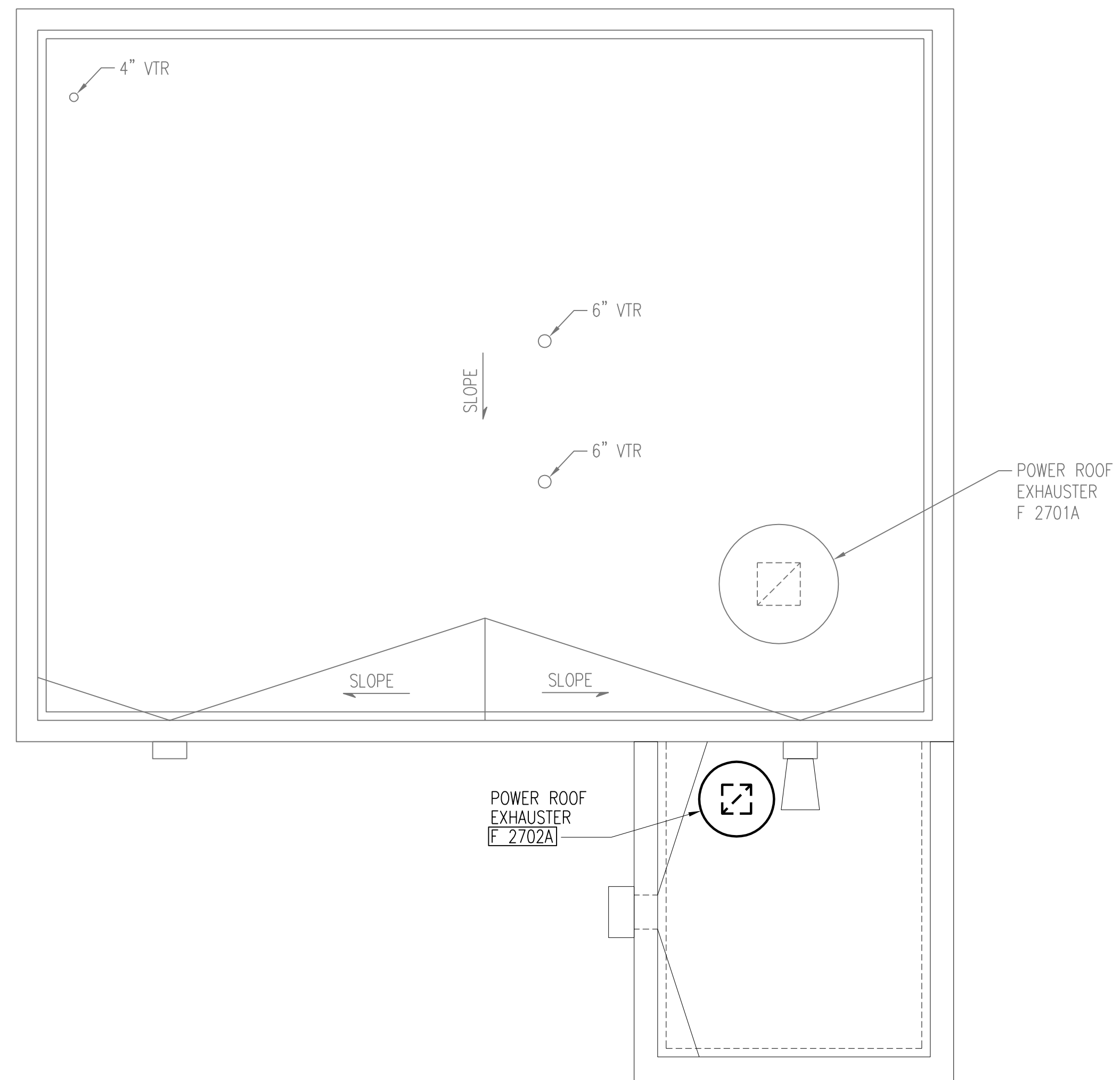
BOD 9'-0" AFF

LVR 2702A
840 CFM

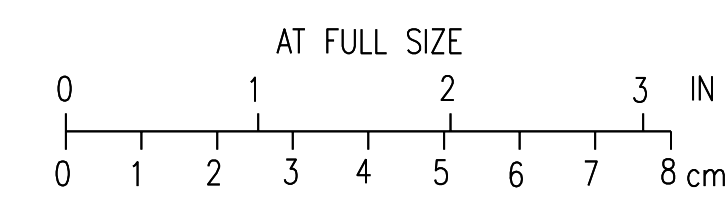
SEQUENCE OF OPERATION

HVAC FLOOR PLAN
SCALE: 1/4" = 1'-0"

1. CONTROL OF HVAC FUNCTIONS OF FOLLOWING EQUIPMENT:
 - A. EXHAUST FAN (F)
 - i. F 2702A
 - B. UNIT HEATER (UH)
 - i. UH 2705A
2. GENERAL REQUIREMENTS:
 - A. HVAC SYSTEMS SHALL BE CONTROLLED BY HVAC CONTROL SYSTEM AND REMOTE THERMOSTATS.
 - B. REMOTE THERMOSTATS SHALL BE PROGRAMMABLE ELECTRONIC WITH BATTERY BACKUP; WITH 7 SEPARATE PROGRAMMABLE DAYS AND NIGHT SETBACK; WITH MULTIPLE STAGES OF HEATING AND COOLING BASED ON REQUIRED SEQUENCE OF CONTROL; AND WITH HEATING-COOLING SELECTOR SWITCH.
 - C. SET POINTS LABELED AS "ADJUSTABLE" SHALL BE FULLY ADJUSTABLE.
 - D. ALARM REPORTING SHALL BE DONE AT PANEL ASSOCIATED WITH EQUIPMENT.
3. NORMAL CONTROL POSITIONS:
 - A. NORMAL POSITIONS OF CONTROLLED DEVICES SHALL BE POSITION DEVICE RETURNS TO ON POWER FAILURE OR CONTROLLER FAILURE. NORMAL POSITIONS SHALL BE AS FOLLOWS.
 - i. MOTORIZED OUTSIDE AIR DAMPER: CLOSED
4. EXHAUST FAN CONTROL:
 - A. EXHAUST FAN F 2702A SERVING ELECTRICAL ROOM SHALL BE CONTROLLED BY WALL-MOUNTED THERMOSTAT.
 - i. WHEN SPACE TEMPERATURE RISES ABOVE SETPOINT (85°F, ADJUSTABLE), MOTORIZED CONTROL DAMPER FOR LOUVER LVR 2702A SHALL OPEN AND EXHAUST FAN F 2702A SHALL START. WHEN SPACE TEMPERATURE FALLS BELOW SETPOINT, EXHAUST FAN F 2702A SHALL STOP AND MOTORIZED CONTROL DAMPER FOR LOUVER LVR 2702A SHALL CLOSE.
5. ELECTRIC UNIT HEATER CONTROL:
 - A. UNIT HEATER UH 2705A SHALL BE CONTROLLED BY WALL-MOUNTED THERMOSTAT.
 - i. WHEN SPACE TEMPERATURE DROPS BELOW SETPOINT (60°F, ADJUSTABLE), UH 2705A FAN SHALL START AND ELECTRIC HEATING COIL SHALL ENERGIZE. WHEN SPACE TEMPERATURE RISES ABOVE SETPOINT, UH 2705A FAN SHALL STOP AND ELECTRIC HEATING COIL SHALL DEENERGIZE.



HVAC ROOF PLAN
SCALE: 1/4" = 1'-0"



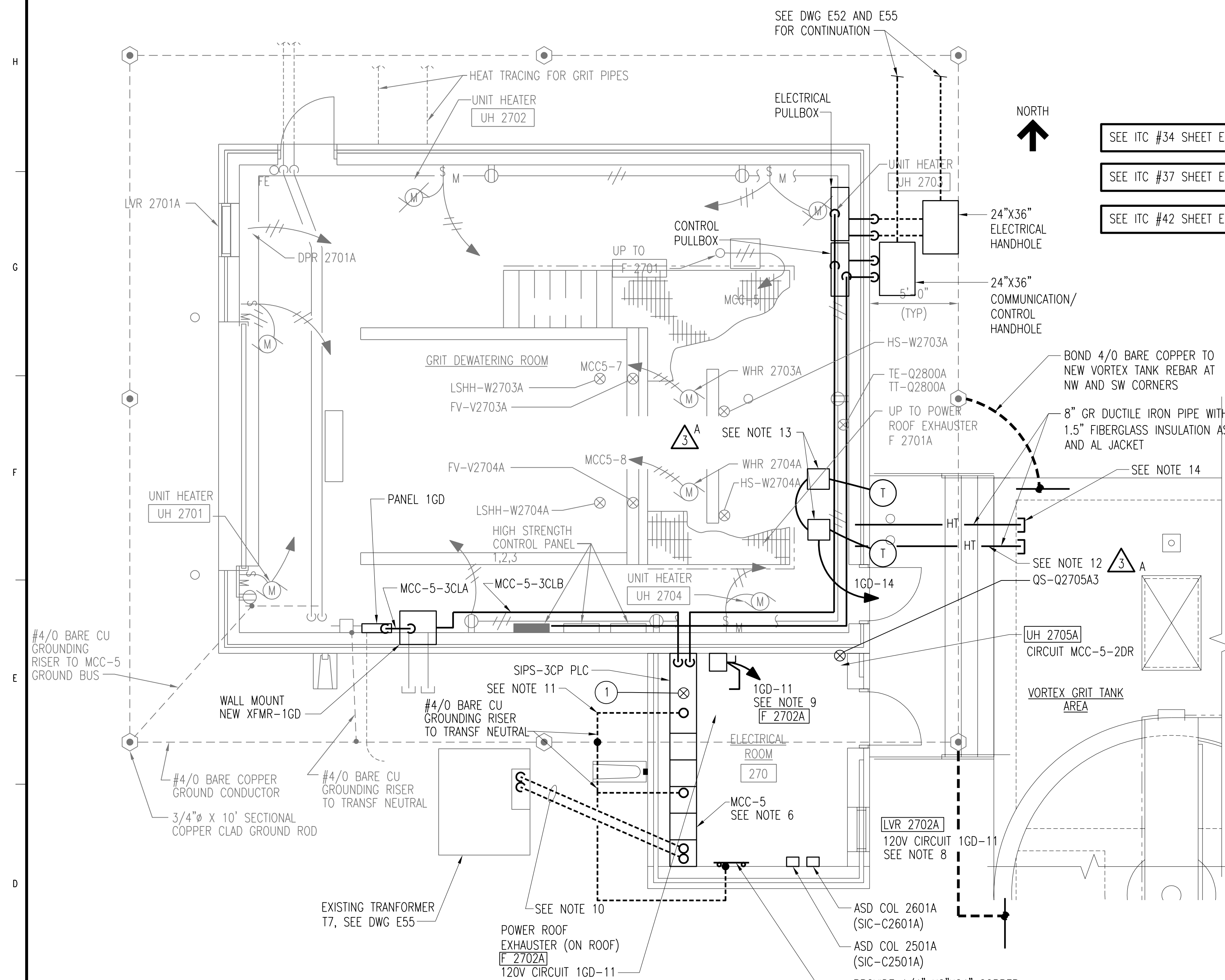
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JLL	JJB	JJB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**GRIT DEWATERING BUILDING
HVAC FLOOR AND ROOF PLANS**

DESIGNED: J.L. LEE	SCALE: AS NOTED
DRAWN: D.WILGES	NO. 22800
CHECKED: J.J. BOVENKAMP	REV.
APPROVED: J.J. BOVENKAMP	M221
DATE: DECEMBER 2, 2011	2



ELECTRICAL FLOOR PLAN
SCALE: 1/4" = 1'-0"

NOTES:

- SEE DRAWING E17 FOR REVISED MCC-5 ONE-LINE REQUIREMENTS.
- SEE DRAWING E1 FOR GENERAL ELECTRICAL NOTES AND WIRING DEVICE SCHEDULE.
- SEE DRAWING E4 FOR TYPICAL ELECTRICAL DETAILS.
- SEE DRAWINGS E2 AND E3 FOR LIGHTING FIXTURE SCHEDULE.
- SEE DRAWING G9 FOR ELECTRICAL LEGEND.
- CONTRACTOR IS TO PROVIDE A NEW MCC-5 AND IT WILL BE PLACED IN NEW LOCATION AS SHOWN. ALL MCC-5 LOADS NOT REMOVED IN DEMOLITION DRAWING D17 OR D221 ARE TO HAVE NEW CONDUITING AND RACEWAY FROM LOAD TO MCC-5. CONTRACTOR MAY REUSE CONDUITS WHERE POSSIBLE OR EXTEND WITH PVC COATED RGS AS REQUIRED. SEE MCC-5 ONE LINE DIAGRAM FOR REQUIREMENTS.
- PROVIDE UNIT HEATER UH2705A WITH DISCONNECT MOUNTED ON EQUIPMENT. PROVIDE 3 #12 IN A 3/4" INCH PVC COATED RGS CONDUIT TO UNIT HEATER FROM CIRCUIT MCC-5-2DR.
- FOR ELECTRICAL CONNECTION TO LOUVER LVR 2702A PROVIDE 120V CIRCUIT 1GD-11 WITH 3 #12 IN A 3/4" INCH PVC COATED RGS CONDUIT. SEE SEQUENCE OF OPERATION ON DRAWING M221 FOR INTERLOCK REQUIREMENTS.
- PROVIDE 3 #12 IN A 3/4" INCH PVC COATED RGS CONDUIT TO FAN F 2702A FROM PANEL 1GD-11. PROVIDE A NEMA SIZE 00 MAGNETIC CONTACTOR STARTER WITH OVERLOADS IN A NEMA 1 ENCLOSURE WITH INTERLOCK TO LOUVER LVR2702A. SEE DRAWING M221.
- PROVIDE NEW ELECTRICAL SERVICE TO MCC-5 AS SHOWN ON ONE LINE DIAGRAM. PROVIDE AT 36 INCHES BELOW GRADE AND HAVE ROUTED PRIOR TO REMOVAL OF SERVICE TO EXISTING MCC-5 IF POSSIBLE TO MINIMIZE OUTAGE TIME FOR CRITICAL LOADS.
- EXTEND EXISTING GROUND COUNTERPOISE INTO NEW PLC CABINET, MCC-5, AND GROUND BAR ON SOUTH WALL WITH 4/0 BARE COPPER RISERS. PROVIDE SLEEVES IN CONCRETE AS SHOWN ON DRAWING E4.
- CIRCUITS FROM MCC-5 TO NEW VORTEX GRIT TANKS ARE TO BE ROUTED FROM MCC-5 UNDERGROUND TO LOCATIONS SHOWN ON DRAWING E210.
- RAYCHEM 8W/FT SELF REGULATING HEAT TRACE CABLE #8BTV-1-CT WITH PARALLEL RUNS AS REQUIRED WITH INSULATION AS SPECIFIED IN MECHANICAL SPECIFICATIONS.
- RAYCHEM JBS-100 POWER CONNECTION KIT WITH AMC-14 THERMOSTAT. SET AT 40 DEGREES F. PROVIDE CIRCUIT 1GD-14 WITH 3 #12 IN .75 CONDUIT TO HEAT TRACE CONNECTION KITS. WHERE PIPING PENETRATES GRIT DEWATERING BUILDING PROVIDE WALL SEAL TO ALLOW HEAT TRACE CABLE AND INSULATION TO ENTER FACILITY WITHOUT COMPRESSING CABLE. PROVIDE LED LIGHTED END SEAL RAYCHEM E-100-L TO MATCH EXISTING ON SITE AND LOCATE IN VORTEX GRIT CHAMBER PUMP ROOM. SEE DWG E6 AND E7 FOR HEAT TRACE DETAILS.
- PROVIDE LED LIGHTED END SEAL RAYCHEM E-100-L TO MATCH EXISTING ON SITE AND LOCATE IN VORTEX GRIT CHAMBER PUMP ROOM. SEE DWG E6 AND E7 FOR HEAT TRACE DETAILS.

KEYNOTES:

- JE-J2000A JE-J2001A JE-J2010A JE-J2001A ER-J2001A HBE-J2001A JR-J2001A JR-J2011A JX-J2000A JX-J2001A UC-I2003A XR-M1800A XR-P1801A XR-P1802A XR-P1803A XR-M1812A R-T1810A XR-M1811A R W2703A R-W2704A XR-P2501A XR-V2501A XR-P2601A XR-V2601A XR-W2703A XR-W2704A

SEE ITC #34 SHEET E220-A
SEE ITC #37 SHEET E220-A
SEE ITC #42 SHEET E220-A

PANEL NAME:	NEW PANEL 1GD	BUS RATING:	100 A	MOUNTING:	SURFACE				
SERVICE VOLTAGE:	208Y/120 VAC, 3 PH - 4 W	60 HZ	MAIN BREAKER:	100 A	MINIMUM AIC:	10,000	MULTI-LUG:	N/A	
SOURCE NAME:	MCC-5 XFMR-1GD	NEMA TYPE:	4X	IG BUS:	NO	SERVICE ENTRANCE:	NO	7 MODE TVSS:	YES
SOURCE LOCATION:	GRIT DEWATERING BUILDING	200% NEUTRAL:	NO	TVSS LEVEL:	160 KA				

BRKR NO.	CIRCUIT DESCRIPTION	LOAD DESCRIPTION	BRKR RTG	DEMAND (KVA)			CONNECTED (KVA)				LOAD FACTOR
				A	B	C	LTG	RCPT	MTR	EQPT	
1	2#12 #12GRD.75°C	DAMPER	20A,1P	0.00							1.00
3	2#12 #12GRD.75°C	INTERIOR LIGHTS	20A,1P		0.00						1.00
5	2#12 #12GRD.1°C	EXTERIOR LIGHTS	20A,1P			0.00					1.00
7	2#8 #8GRD.1°C	VORTEX GRIT RECEPTACLES	20A,1P	0.00							1.00
9	2#12 #12GRD.1°C	VORTEX CHAMBER RECEPTACLES	20A,1P		0.00						1.00
11	2#12 #12GRD.75°C	LOUVER AND FAN LVR 2702A, F2702A	20A,1P			0.00					1.00
13	PLC	PLC POWER	20A,1P	0.00							1.00
15	2#12 #12GRD.75°C	HEAT TRACE	20A,1P		0.00						1.00
17	3#12 #12GRD.75°C	OVERHEAD DOOR	20A,3P			0.00					1.00
19	I	I	I	0.00							1.00
21	I	I	I		0.00						1.00
23		SPARE	20A,1P			0.00					1.00
25		LIGHTS IN PUMP ROOM TYPE V	20A,1P	0.00							1.00
27		ROOF RECEPTACLE	20A,1P		0.00						1.00
29		GRIT VORTEX HEAT TRACE	20A,1P			0.00					1.00

2	2#12 #12GRD.75°C	UNIT HEATERS	20A,1P	0.00							1.00
4	2#12 #12GRD.75°C	EXIT LIGHTS	20A,1P		0.00						0.90
6	2#12 #12GRD.75°C	RECEPTACLES	20A,1P			0.00					1.00
8	2#12 #12GRD.1°C	OUTDOOR HS AREA RECEPTACLES	20A,1P	0.00							1.00
10	2#12 #12GRD.3/4"C	FAN 2707F	20A,1P		0.00						1.00
12	2#12 #12GRD.75°C	HS EXHAUST FAN F1801	20A,1P			0.00					1.00
14	GRD.1°C	CONTROL POWER STAINLESS CAB	30A,1P	0.00							1.00
16	2#12 #12GRD.1°C	HEAT TRACE	20A,1P		0.00						1.00
18	2#10 #10GRD.1°C	EXTERIOR LIGHT	20A,1P			0.00					1.00
20	2#12 #12GRD.1°C	HEAT TRACE INFLUENT CHANNEL	30A,1P	0.00							1.00
22	2#10 #10GRD.1°C	HEAT TRACE VORTEX GRIT TANKS	30A,1P		0.00						1.00
24	3#10 1"C	DDC CIRCUIT FOR MAU2501A	20A,1P			0.00					1.00
26	2#12 3/4"C	H.S. AREA RECEPTACLE	20A,1P	0.00							1.00
28		SPARE	20A,1P		0.00						1.00
30	2#12 #12GRD.1°C	SPARE	20A,1P			0.00					1.00

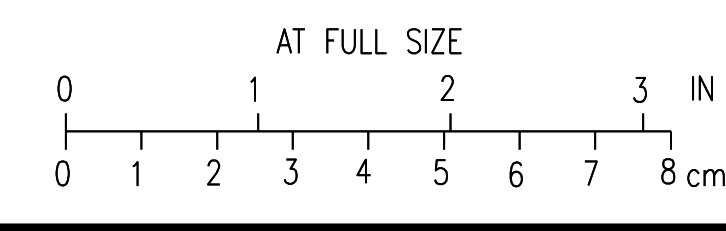
LOAD TYPE	CONNECTED (KVA)	DEMAND (KVA)	REMARKS:	MINIMUM PANEL RATINGS			
				LOAD (KVA)	DEMAND FACTOR	RATED (KVA)	AMPACITY (AMPS)
LIGHTING:	0.0	0.0	*ASTERICK MEANS 30MA GFI BREAKER FOR HEAT TRACE. REPLACE IN SAME LOCATION AS EXIST. PANEL 1GD. PROVIDE IN STAINLESS STEEL ENCLOSURE. BOLD CIRCUITS ARE BRAND NEW AND SCREENED ITEMS ARE EXISTING TO BE RECONNECTED.	0.0	0.0	0.0	0
RECEPTACLE:	0.0	0.0		0.0	1.25	0.0	0
MOTOR:	0.0	0.0		0.0			
EQUIPMENT:	0.0	0.0					
TOTALS:	0.0	0.0		0.0	1.25	0.0	0

NOTES:

-
-
-
-
-
-

EXISTING PANEL 2GD REPLACEMENT								
CIR. NO.	LOAD	50A MCB			480/277 VOLT, 3 PHASE, 4 WIRE		CIR. NO.	
		CB	P	Ø	P	CB		LOAD
1	HS MOTOR OPERATED VALVE FCV-1801A	20	3	A	1	20	SPARE	2
				B	1	20	SPARE	4
				C	1	20	SPARE	6

- ADD NOTE 13 REFERENCE TO THERMOSTAT SYMBOLS BY PIPES ENTERING EAST SIDE OF GRIT DEWATERING BUILDING.
- CHANGE EXISTING NOTE 13 REFERENCE TO READ NOTE 12.
- ADD BOLD FONT TO PANEL 1GD CIRCUIT 23 TO SHOW NEW WIRING REQUIREMENT.
- ADD 2 TYPE W LIGHTS IN NEW ELECTRICAL ROOM 270. ADD CIRCUIT 1GD-25 WITH 2 #12#12 GRD.75" C AND SWITCH AT DOOR.



NO.	REVISIONS	DSGN	CHKD	APVD	DATE
4	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
3	ADDED ADDENDUM COMMENTS	LJO	JBL	JBL	05-04-2012
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012


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CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT
GRIT DEWATERING BUILDING
POWER AND LIGHTING PLANS AND DETAILS

DESIGNED: DL MORITZ	SCALE: AS NOTED
DRAWN: DWILGES	
CHECKED: DL MORITZ	NO. 22800
APPROVED: JD COGAN	
APPROVED: _____	E220
DATE: DECEMBER 2, 2011	
REV. _____	4

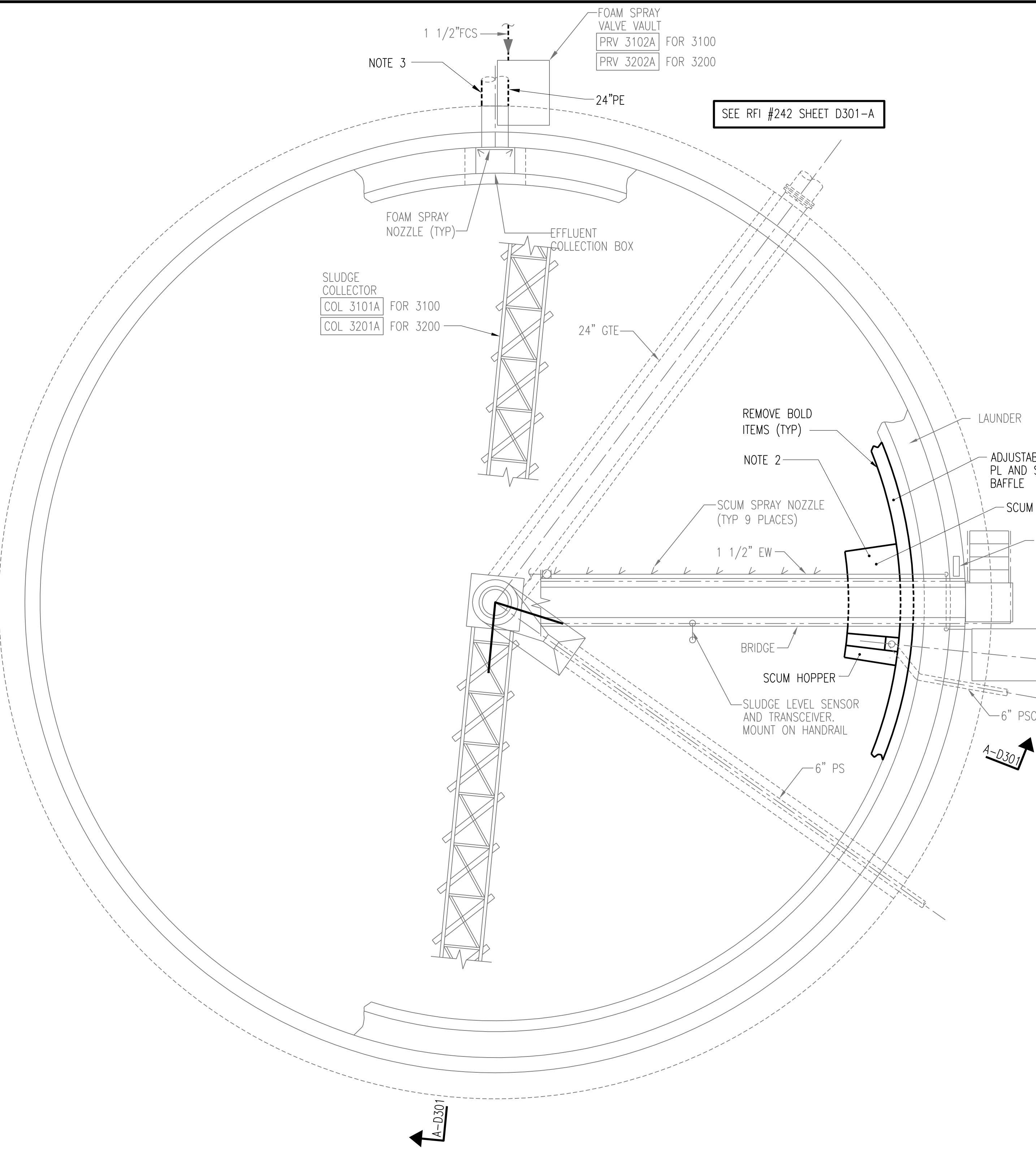
BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE

NOTES:

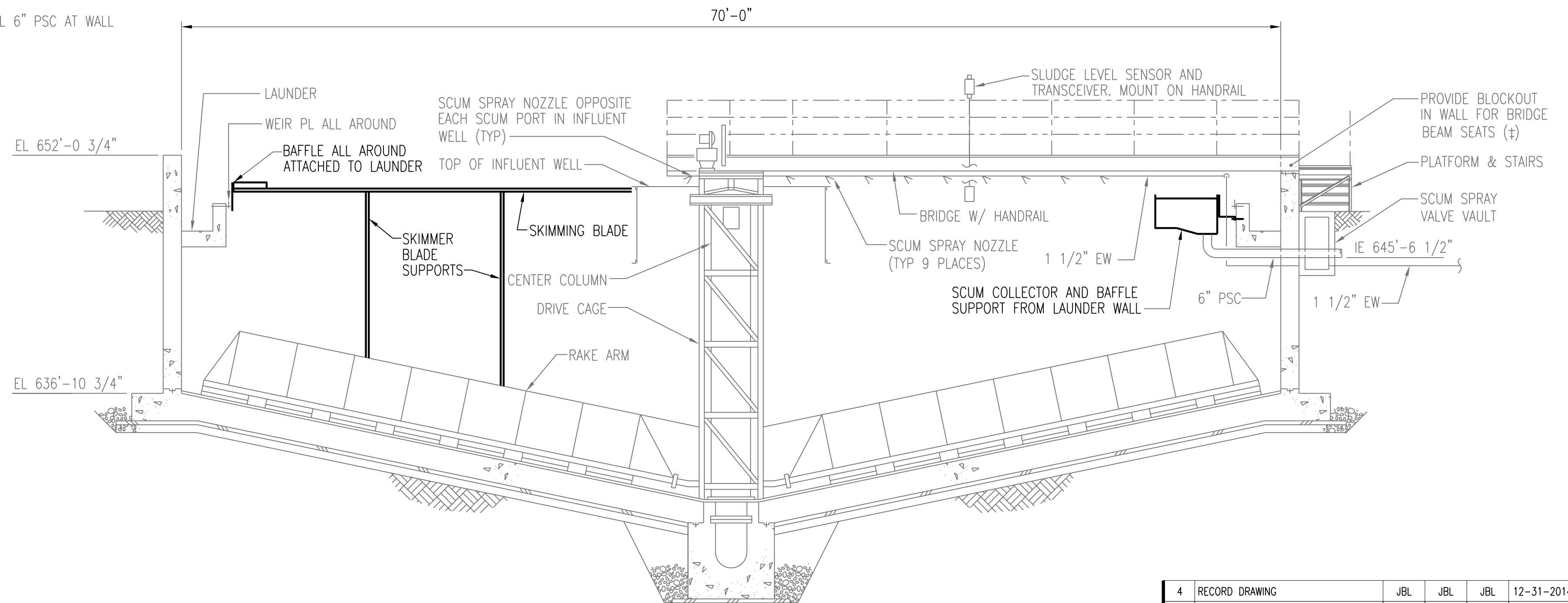
1. PRIMARY CLARIFIER 3200 IS SIMILAR.
2. REMOVE WEIR, SCUM SKIMMER BLADE, SCUM BAFFLE AND COLLECTOR.
3. CUT AND REMOVE 24" PE. LEAVE 2'-0" STUBBED OUT FROM CLARIFIER WALL.

ADD NOTE 4. TO READ:

4. EXISTING PRIMARY AND SECONDARY CLARIFIERS ARE EQUIPPED WITH PRESSURE RELIEF VALVES TO HELP PREVENT TANK FLOATAION BUT THEY SHOULD NOT BE DEPENDED ON AND CONTRACTOR SHALL PROVIDE EXTERNAL DEWATERING TO MAINTAIN GROUNDWATER BELOW BOTTOM OF TANK ELEVATION WHEN TANKS ARE EMPTY. GROUNDWATER CAN BE DISCHARGE TO STORM DRAINS ON SITE OR TO THE PLANT OUTFALL PIPE DOWNSTREAM OF THE EFFLUENT SAMPLING LOCATION.



TYPICAL PRIMARY CLARIFIERS DEMOLITION PLAN (NO. 3100)
SCALE: 3/16" = 1'-0"



SECTION A-D301
SCALE: 3/16" = 1'-0"

4	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
3	ADDED ADDENDUM COMMENT	LJO	JBL	JBL	05-04-2012
2	REVISE NOTES, SECTION A-0301	CLB	CLB	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	CLB	CLB	MA/JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



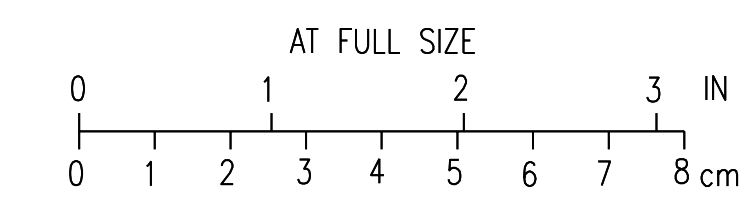
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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**PRIMARY CLARIFIER AREA
TANKS 3100 AND 3200
DEMOLITION DETAILS**

DESIGNED	CL BARK	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	CL BARK	REV.	
APPROVED	M AKYUREK	D301	4
APPROVED	JM BRADY	DATE	DECEMBER 2, 2011



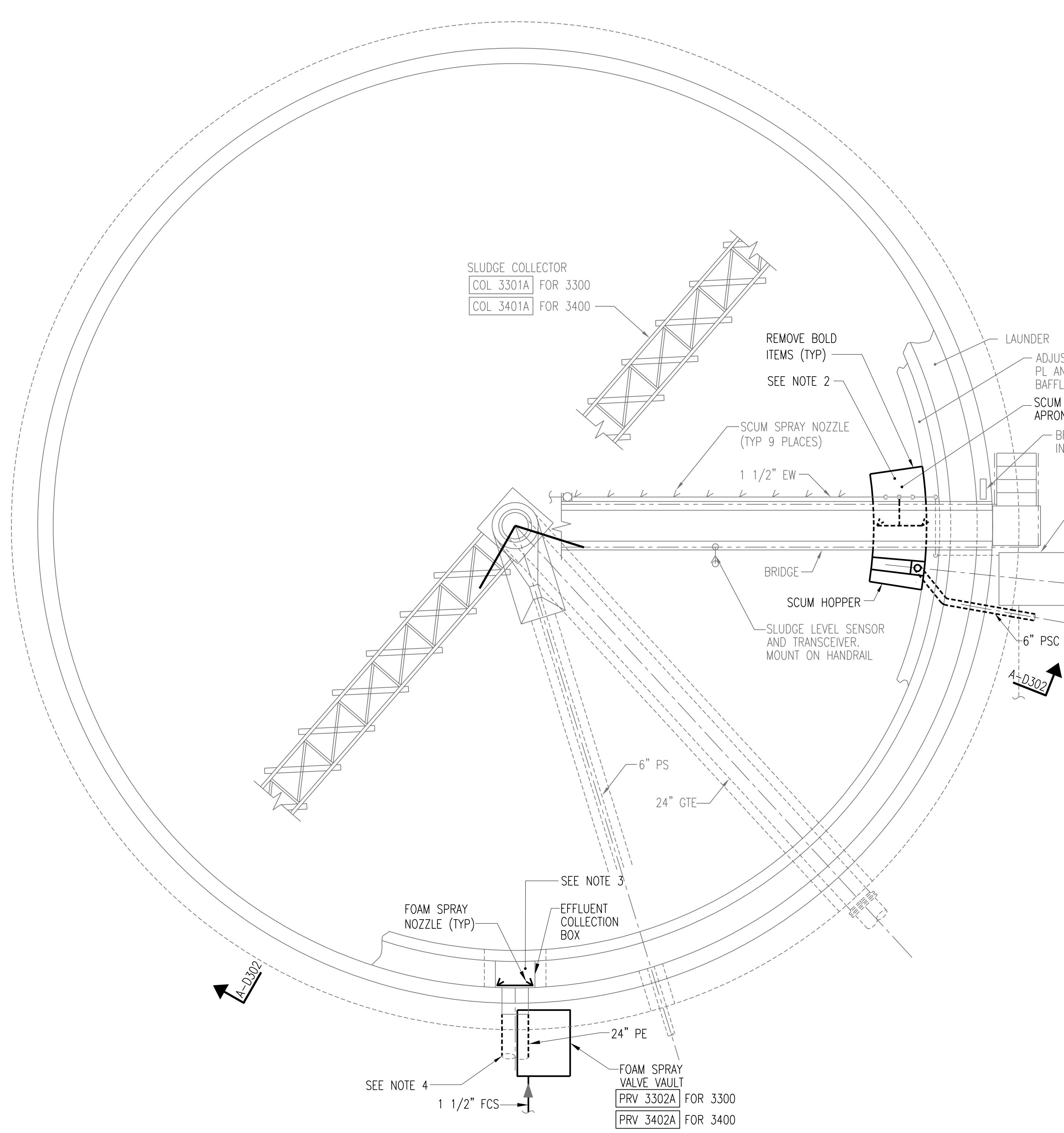
CADD: D1-R4

BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE

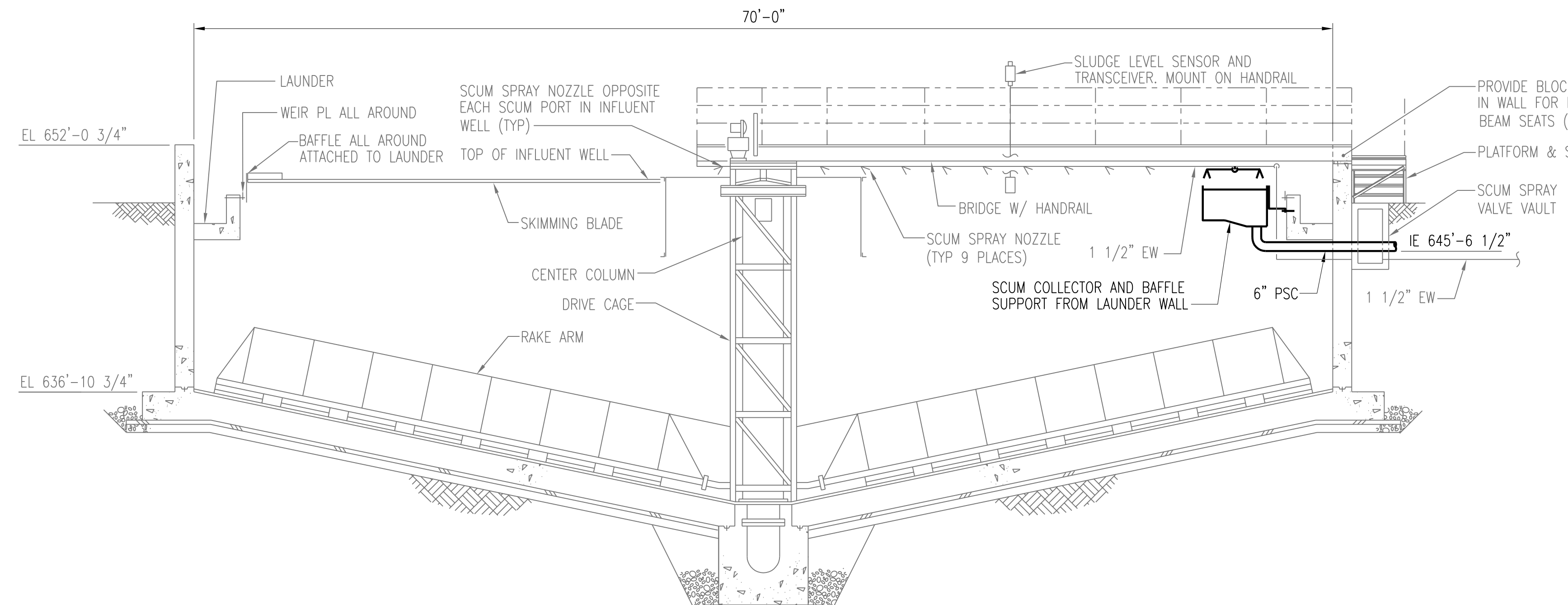


NOTES:

1. PRIMARY CLARIFIER 3400 IS SIMILAR.
2. REMOVE SCUM COLLECTOR AND SCUM PIPING. REMOVE LOCALIZED SECTION OF SCUM BAFFLE TO FACILITATE SCUM COLLECTOR REMOVAL. REPLACE WITH NEW SCUM BAFFLE.
3. REMOVE FOAM SPRAY VALVE VAULT AND NOZZLES.
4. CUT AND REMOVE 24" PE. LEAVE 2'-0" STUBBED OUT FROM CLARIFIER WALL.



TYPICAL PRIMARY CLARIFIERS DEMOLITION PLAN (NO. 3300)
SCALE: 3/16" = 1'-0"



SECTION A-D302
SCALE: 3/16" = 1'-0"

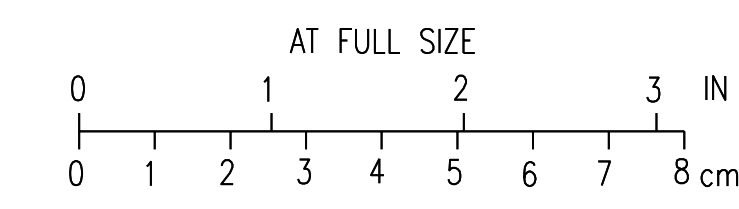
NO.	REVISIONS	DSGN	CHKD	APVD	DATE
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISE NOTES	CLB	CLB	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	CLB	CLB	MA/JMB	01-10-2012

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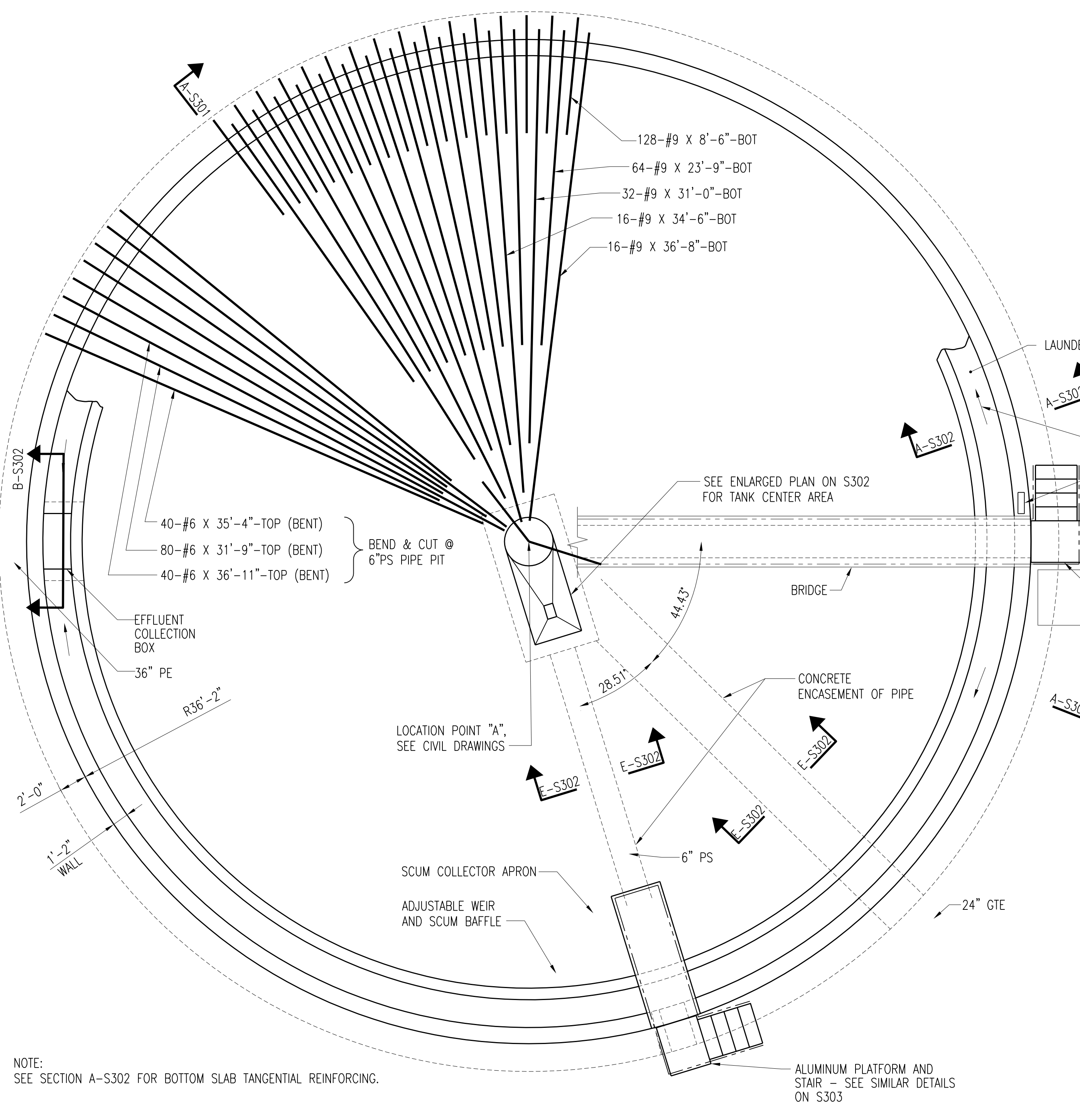
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**PRIMARY CLARIFIER AREA
TANKS 3300 AND 3400
DEMOLITION DETAILS**

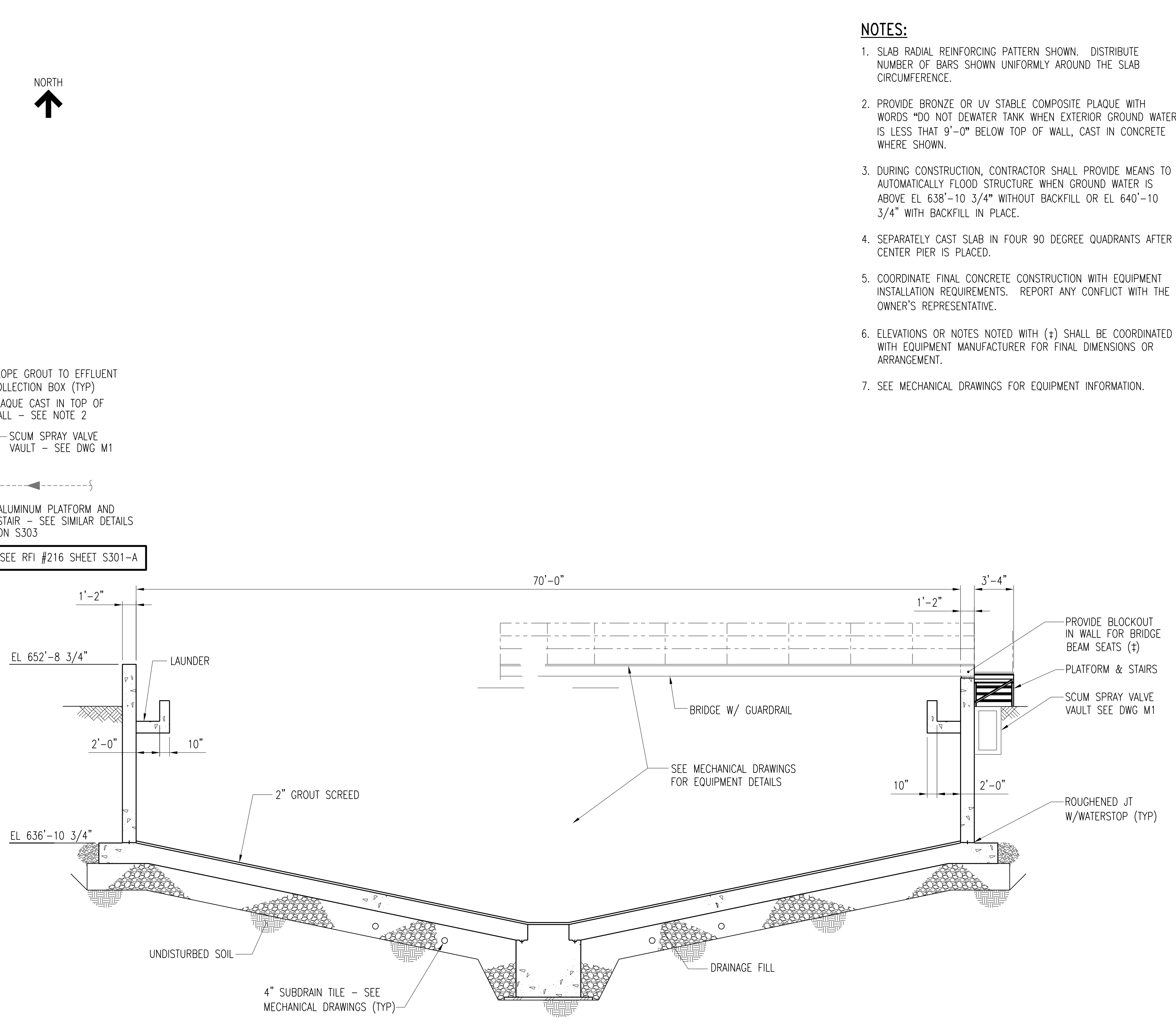
DESIGNED: CL BARK	SCALE: AS NOTED
DRAWN: DA SCHMIDT	NO. 22800
CHECKED: CL BARK	REV. 3
APPROVED: M AKYUREK	D302
APPROVED: JM BRADY	DATE: DECEMBER 2, 2011



CADD: D1-R4



PRIMARY CLARIFIER PLAN (3500)
 SCALE: 3/16" = 1'-0"



- NOTES:**
1. SLAB RADIAL REINFORCING PATTERN SHOWN. DISTRIBUTE NUMBER OF BARS SHOWN UNIFORMLY AROUND THE SLAB CIRCUMFERENCE.
 2. PROVIDE BRONZE OR UV STABLE COMPOSITE PLAQUE WITH WORDS "DO NOT DEWATER TANK WHEN EXTERIOR GROUND WATER IS LESS THAN 9'-0" BELOW TOP OF WALL, CAST IN CONCRETE WHERE SHOWN.
 3. DURING CONSTRUCTION, CONTRACTOR SHALL PROVIDE MEANS TO AUTOMATICALLY FLOOD STRUCTURE WHEN GROUND WATER IS ABOVE EL 638'-10 3/4" WITHOUT BACKFILL OR EL 640'-10 3/4" WITH BACKFILL IN PLACE.
 4. SEPARATELY CAST SLAB IN FOUR 90 DEGREE QUADRANTS AFTER CENTER PIER IS PLACED.
 5. COORDINATE FINAL CONCRETE CONSTRUCTION WITH EQUIPMENT INSTALLATION REQUIREMENTS. REPORT ANY CONFLICT WITH THE OWNER'S REPRESENTATIVE.
 6. ELEVATIONS OR NOTES NOTED WITH (±) SHALL BE COORDINATED WITH EQUIPMENT MANUFACTURER FOR FINAL DIMENSIONS OR ARRANGEMENT.
 7. SEE MECHANICAL DRAWINGS FOR EQUIPMENT INFORMATION.

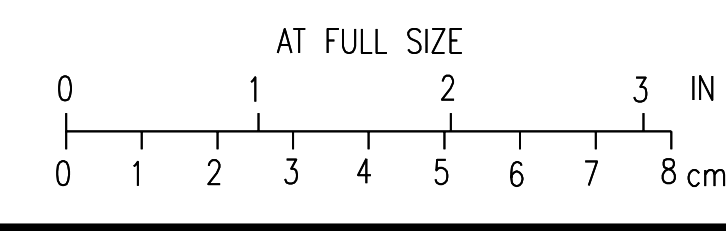
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2	REVISED AND REISSUED	KBH	KBH	LHB	01-25-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

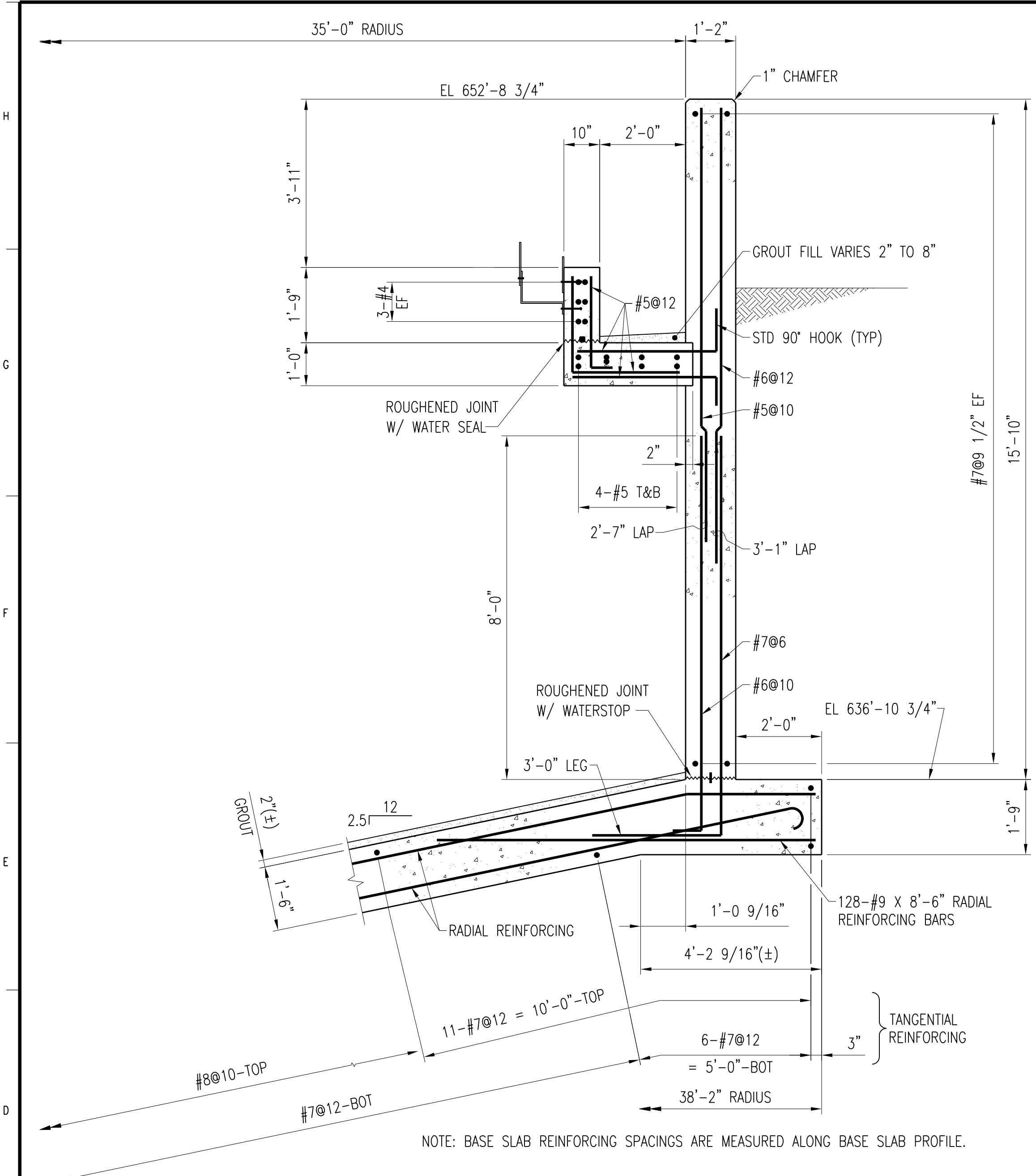
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 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

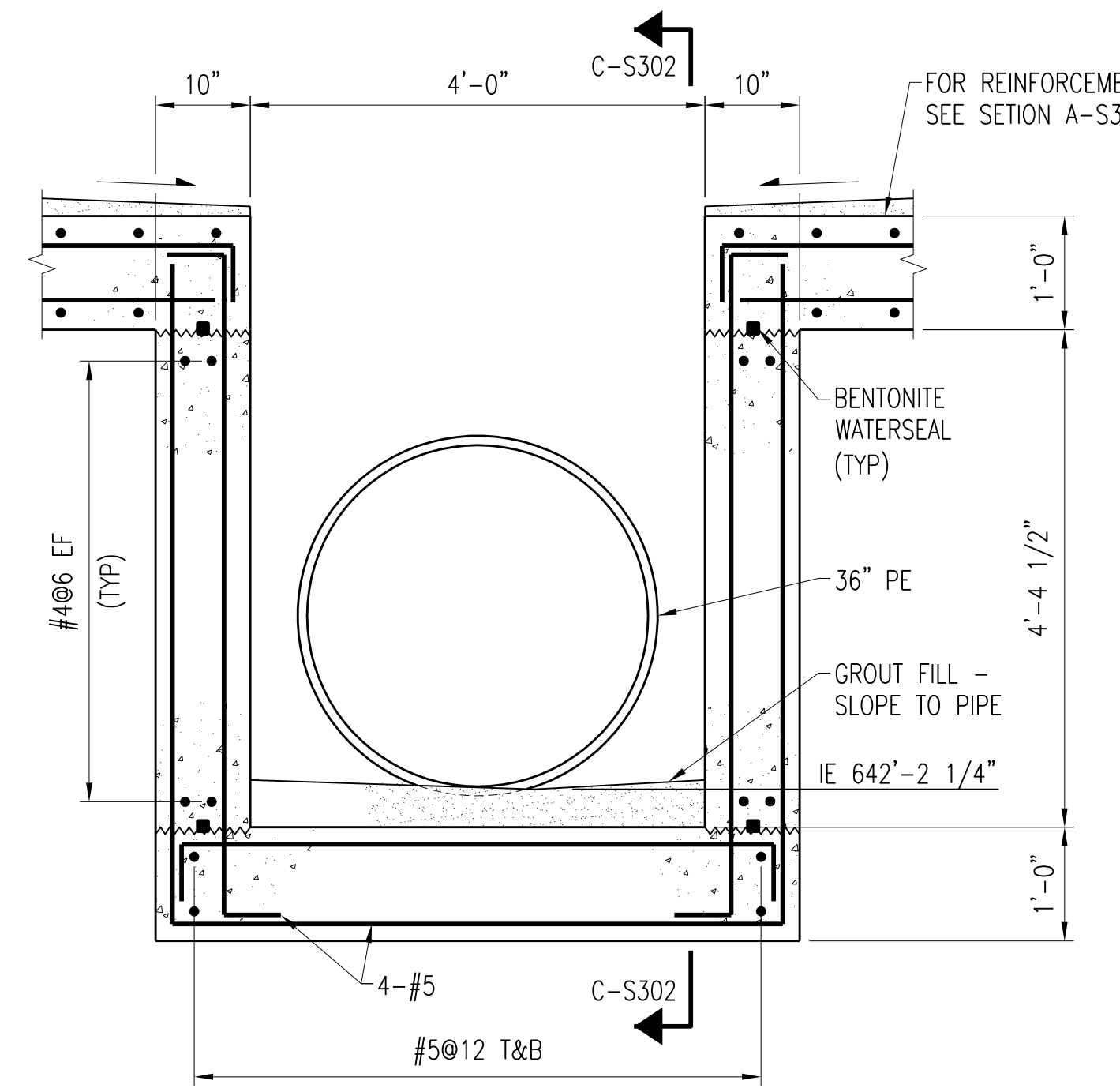
**PRIMARY CLARIFIER AREA
 TANK 3500 - PLAN AND DETAILS**

DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
APPROVED			
DATE	DECEMBER 2, 2011	S301	3

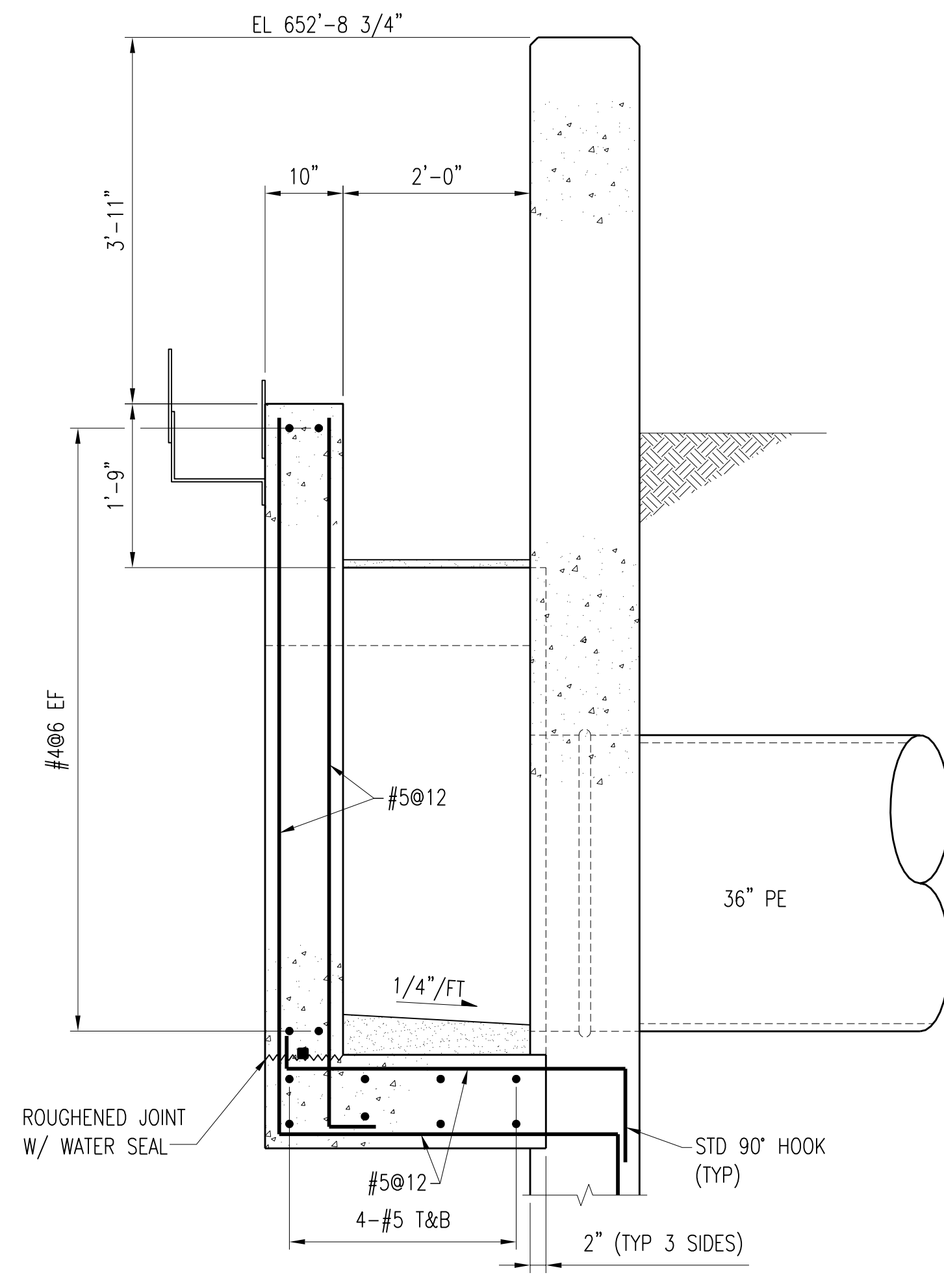




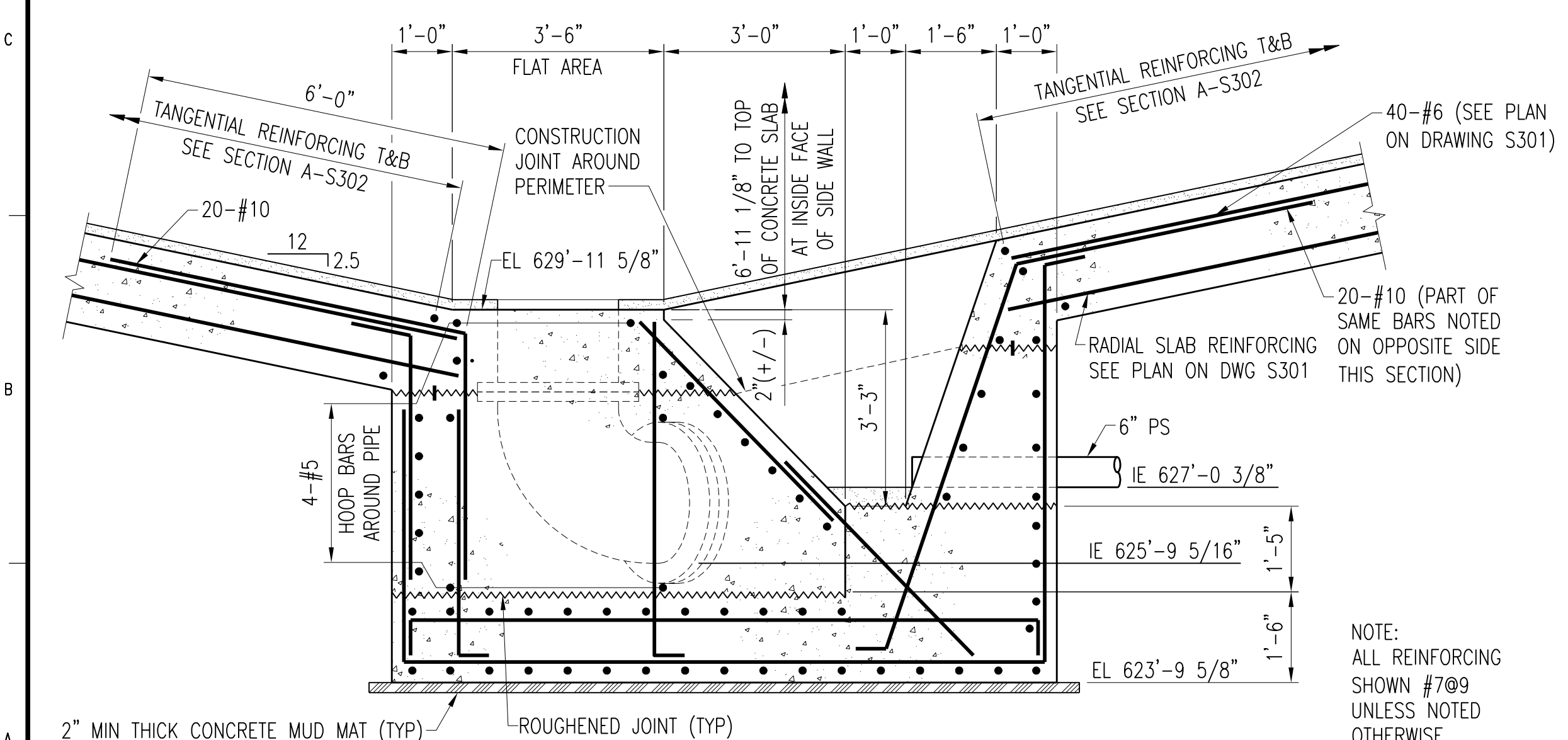
SECTION A-S302
S301
SCALE: 1/2" = 1'-0"



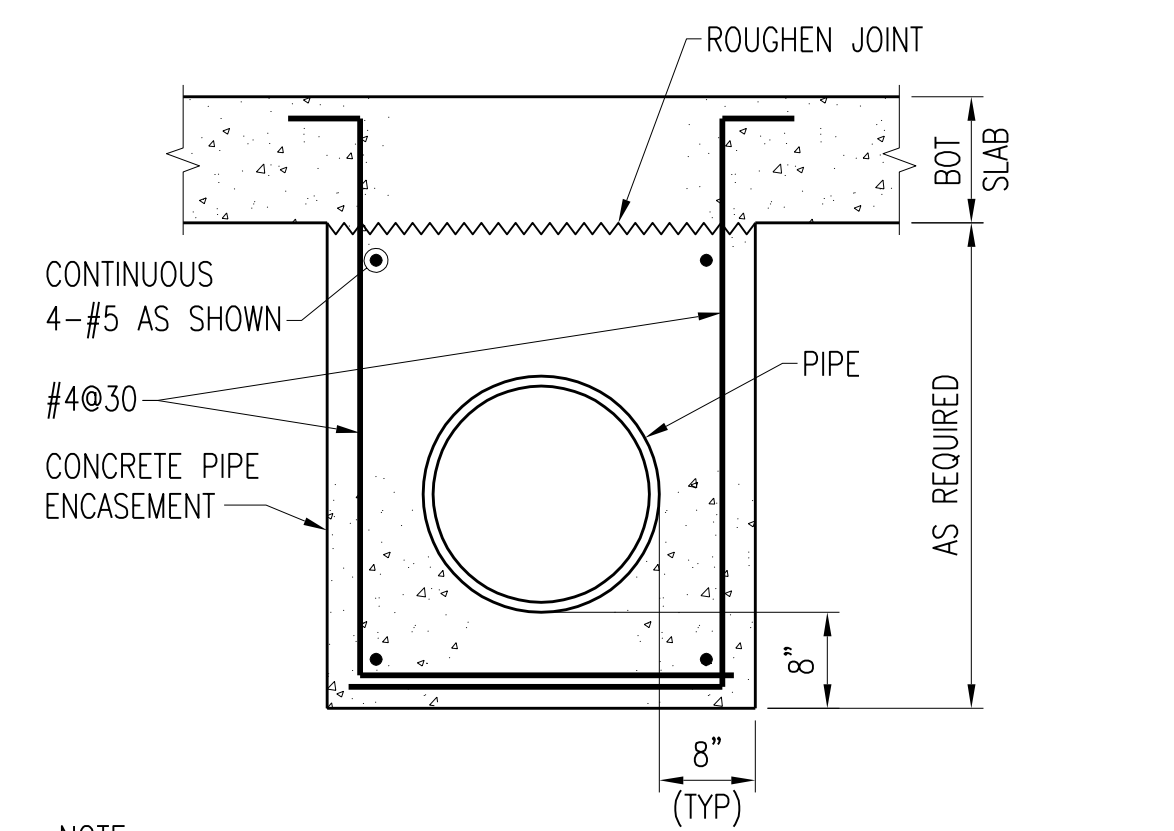
SECTION B-S302
S301
SCALE: 3/4" = 1'-0"



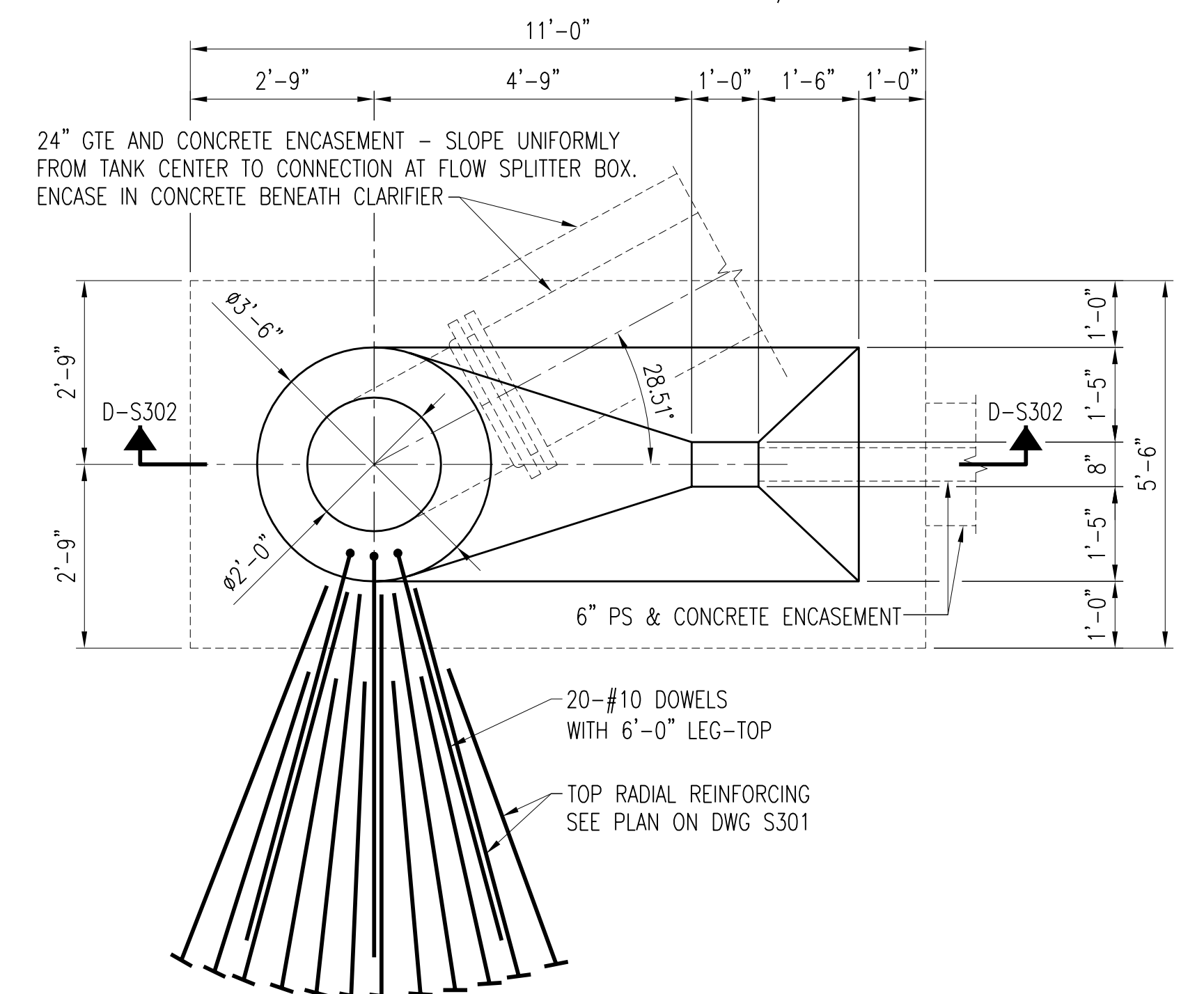
SECTION C-S302
S302
SCALE: 3/4" = 1'-0"



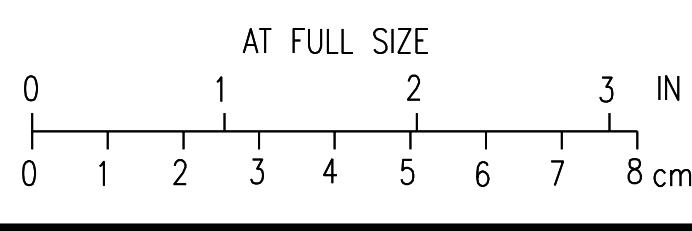
SECTION D-S302
S302
SCALE: 1/2" = 1'-0"



SECTION E-S302
S301
SCALE: 3/4" = 1'-0"



ENLARGED PLAN AT TANK CENTER
SCALE: 1/2" = 1'-0"



3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED AND REISSUED	KBH	KBH	LHB	01-25-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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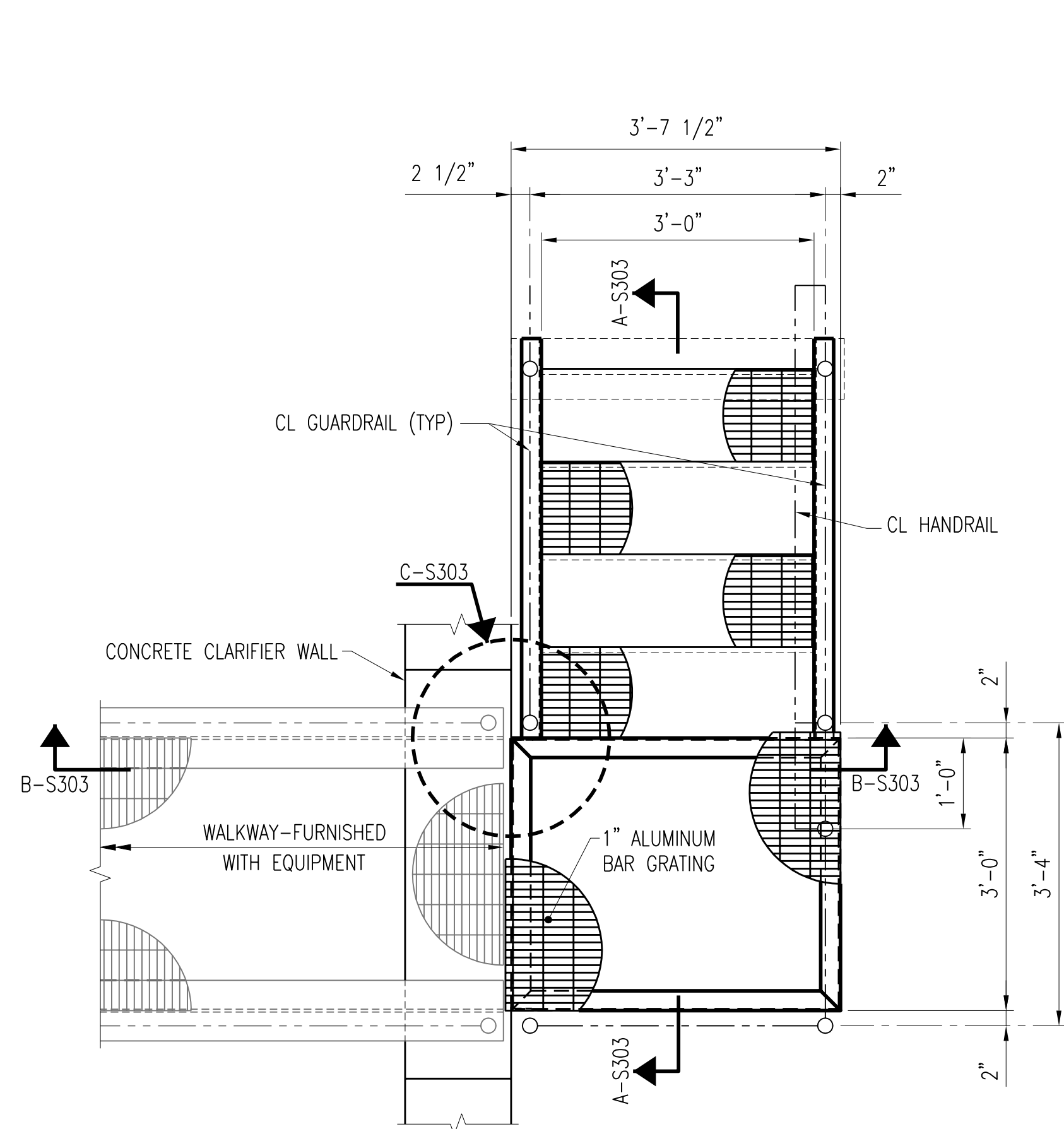
**PRIMARY CLARIFIER AREA
TANK 3500 - DETAILS**

DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
APPROVED			
DATE	DECEMBER 2, 2011	S302	3

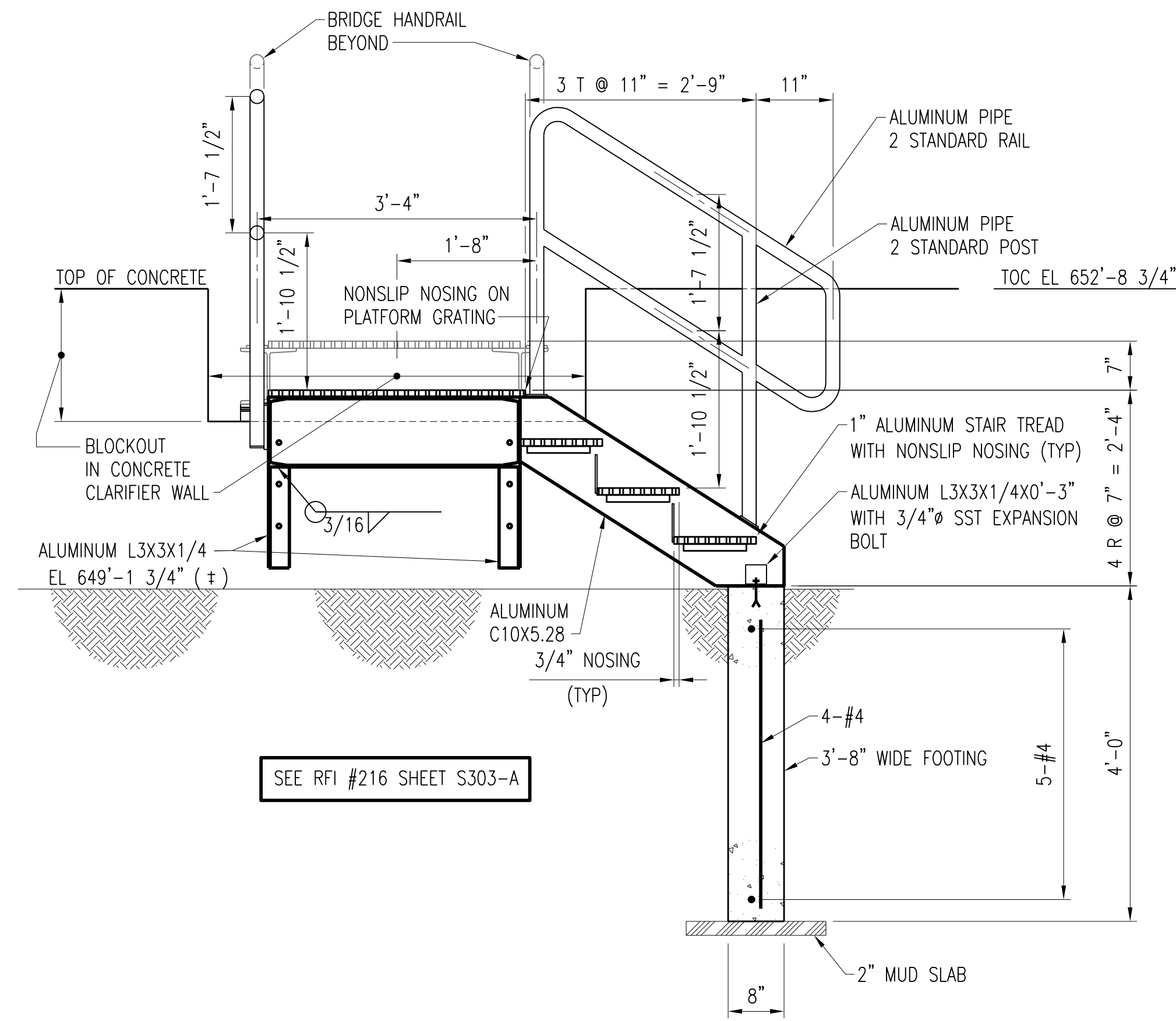
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NOTES:

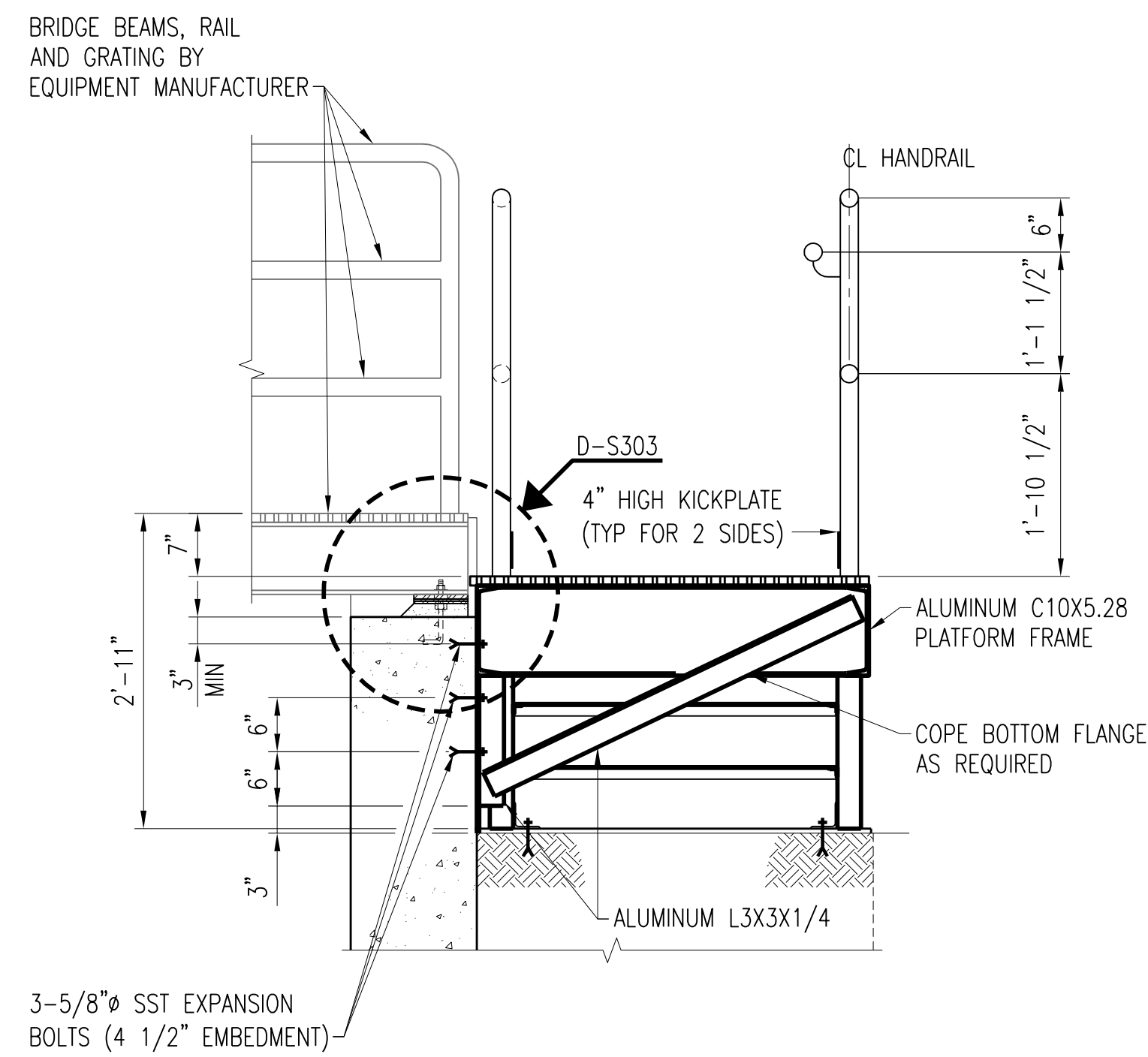
1. ALL PLATFORM FRAMING AND GRATING SHALL BE CONSTRUCTED OF ALUMINUM EXCEPT AS NOTED. ALL ANCHORS AND BOLTS SHALL BE STAINLESS STEEL.
2. CONTRACTOR SHALL COORDINATE FINAL PLATFORM DIMENSIONS TO SUIT EQUIPMENT BRIDGE PROVIDED. VARIATIONS SHALL BE IDENTIFIED IN SHOP DRAWINGS.



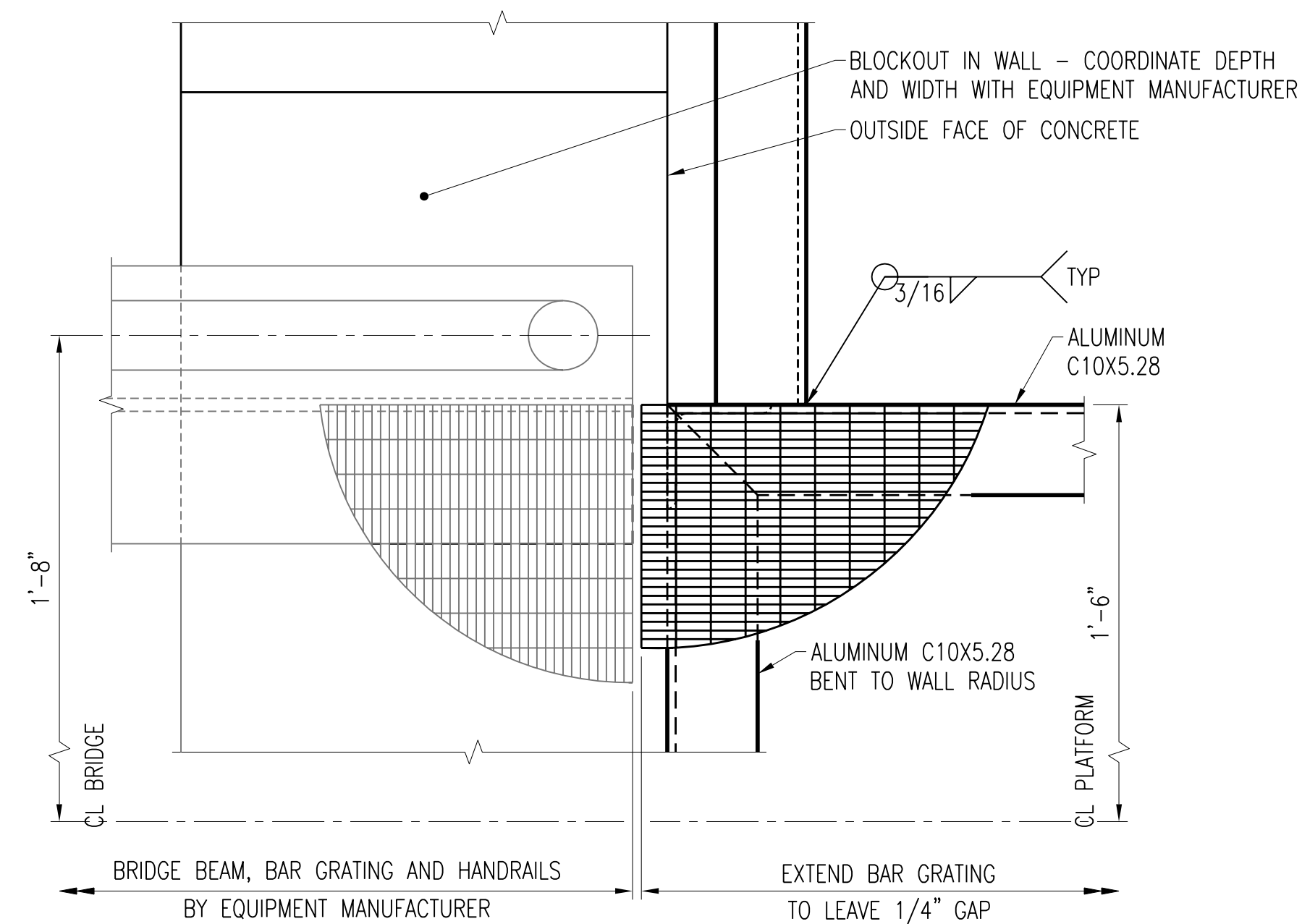
CLARIFIER STAIR AND PLATFORM PLAN
SCALE: 3/4" = 1'-0"



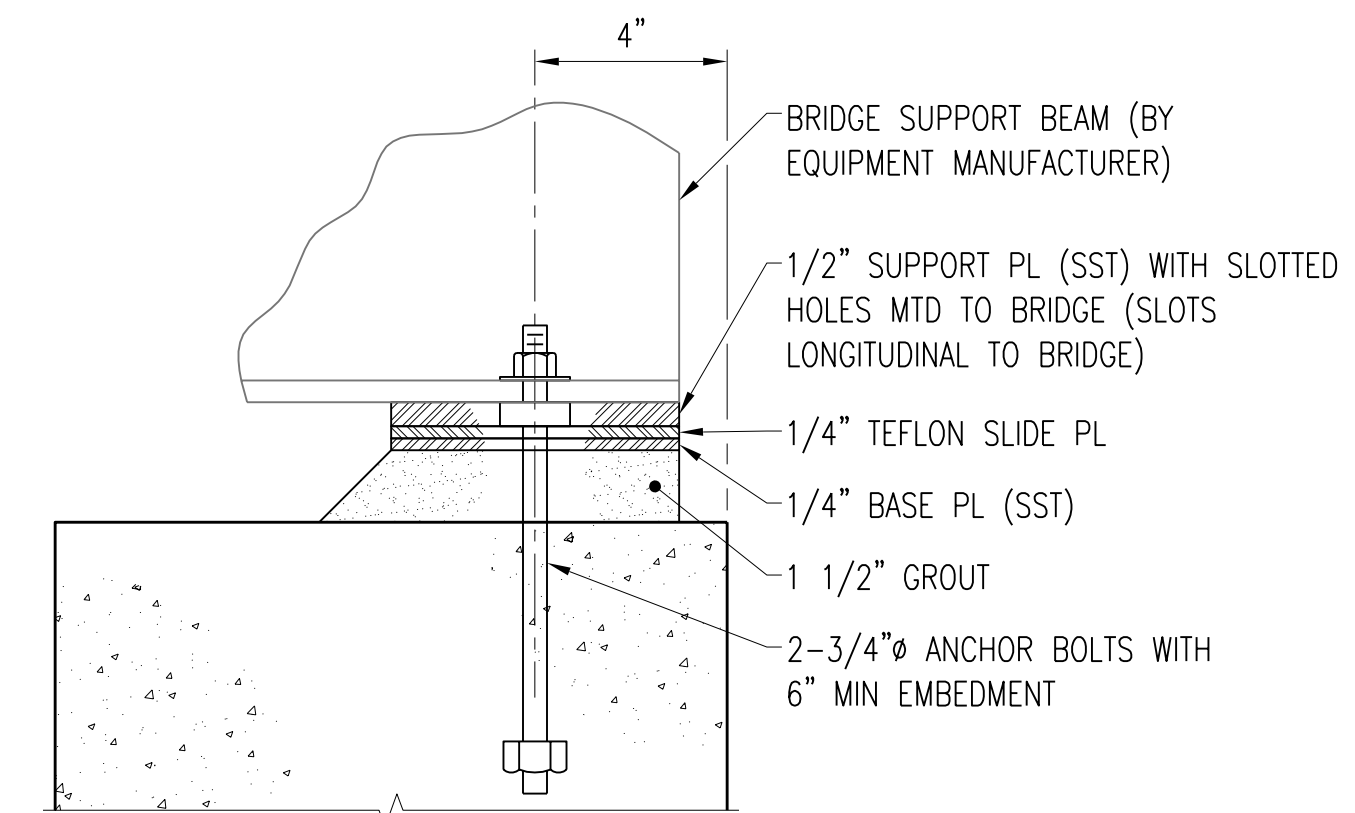
SECTION A-S303
SCALE: 3/4" = 1'-0"



SECTION B-S303
SCALE: 3/4" = 1'-0"



DETAIL C-S303
SCALE: 3" = 1'-0"



DETAIL D-S303
SCALE: 3" = 1'-0"

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED AND REISSUED	KBH	KBH	LHB	01-25-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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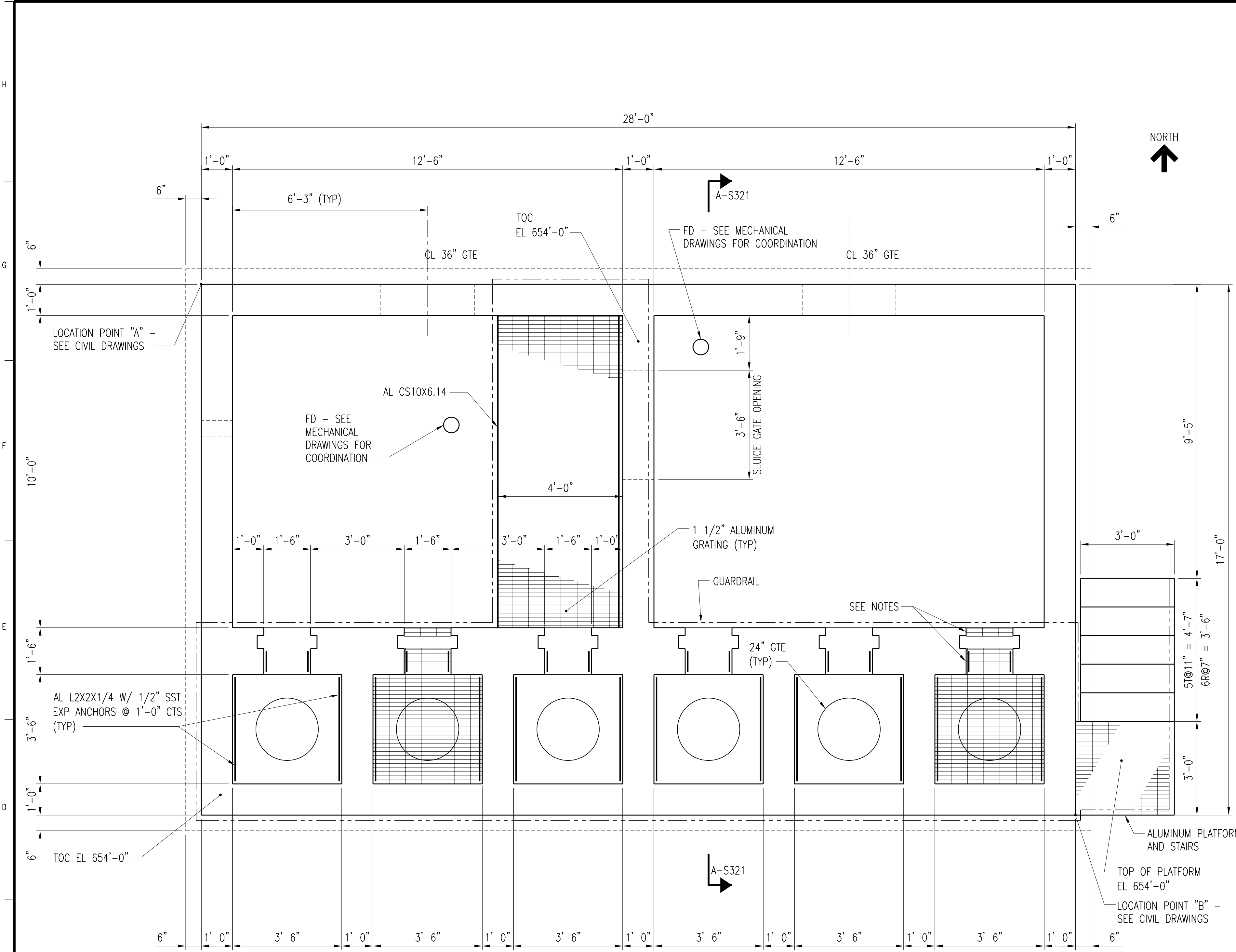
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**PRIMARY CLARIFIER AREA
TANK 3500
STAIR AND PLATFORM DETAILS**

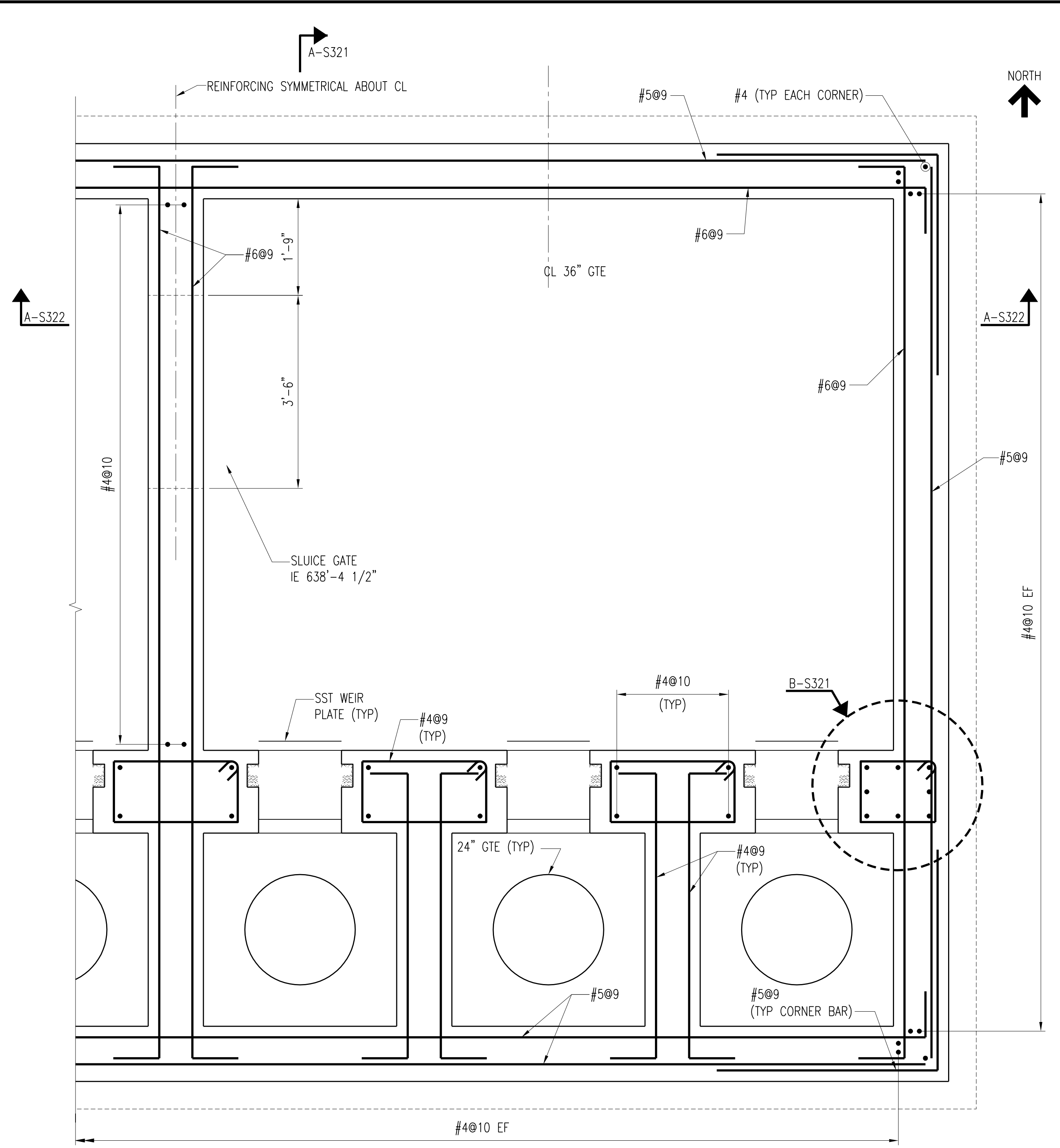
DESIGNED	KB HALL	SCALE: AS NOTED
DRAWN	DA SCHMIDT	NO. 22800
CHECKED	KB HALL	REV.
APPROVED	LH BADTRAM	S303
DATE	DECEMBER 2, 2011	3



CADD: D11-R4



PRIMARY FLOW SPLITTER PLAN @ EL 654.00
SCALE: 1/2" = 1'-0"



PRIMARY FLOW SPLITTER REINFORCING PLAN
SCALE: 3/4" = 1'-0"

NOTES:

1. GRATING DESIGN LIVE LOAD = 100 PSF.
2. GRATING IS TO BE WITHIN 1" OF GATE. EDGE BIND GRATING WITH 4" TALL KICKPLATE. WHERE OPENINGS OCCUR FOR GATE OPERATION.
3. SET WEIR PLATES IN A BED OF SILICONE SEALANT.

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED AND REISSUED	KBH	KBH	LHB	01-25-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012

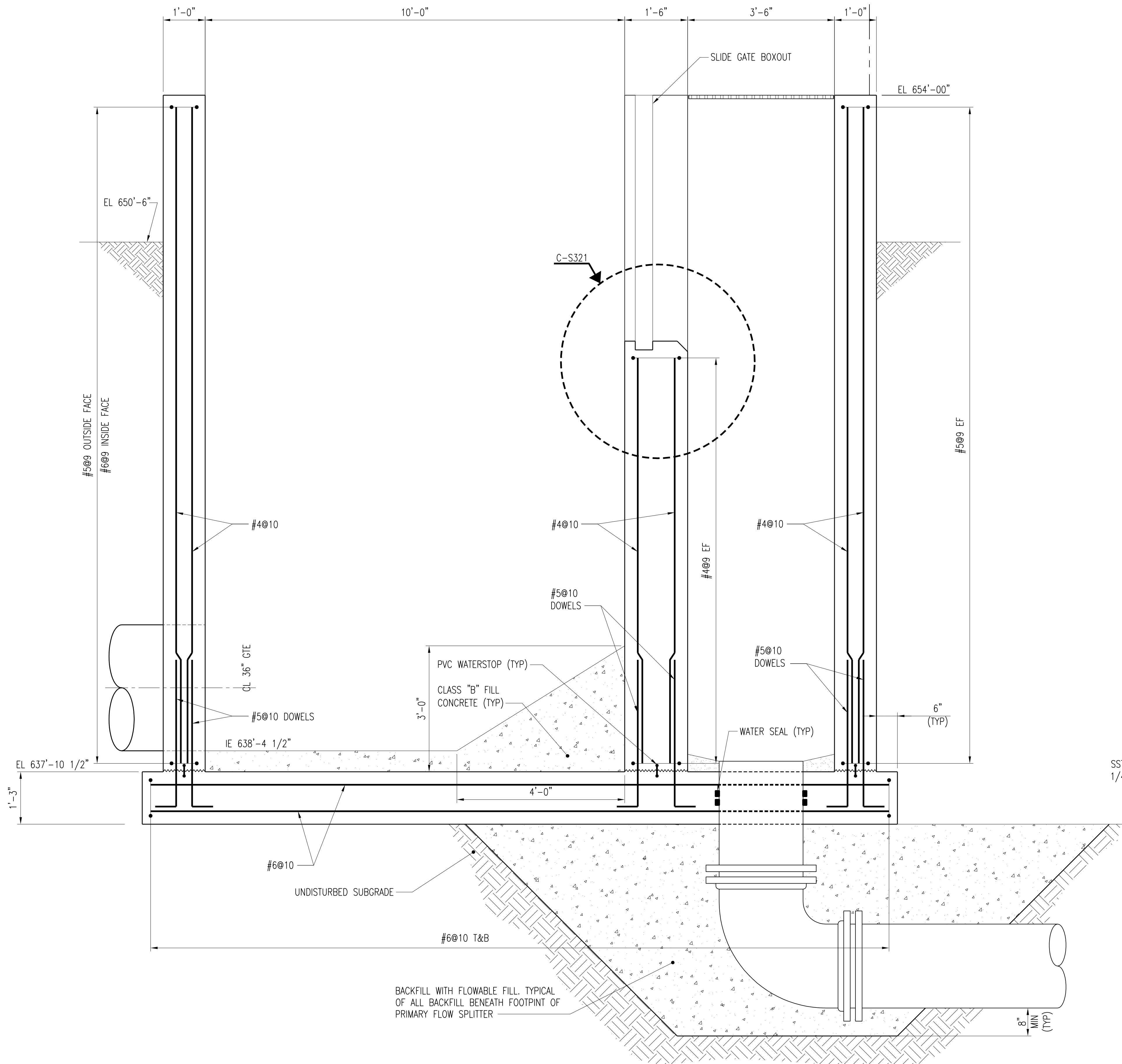

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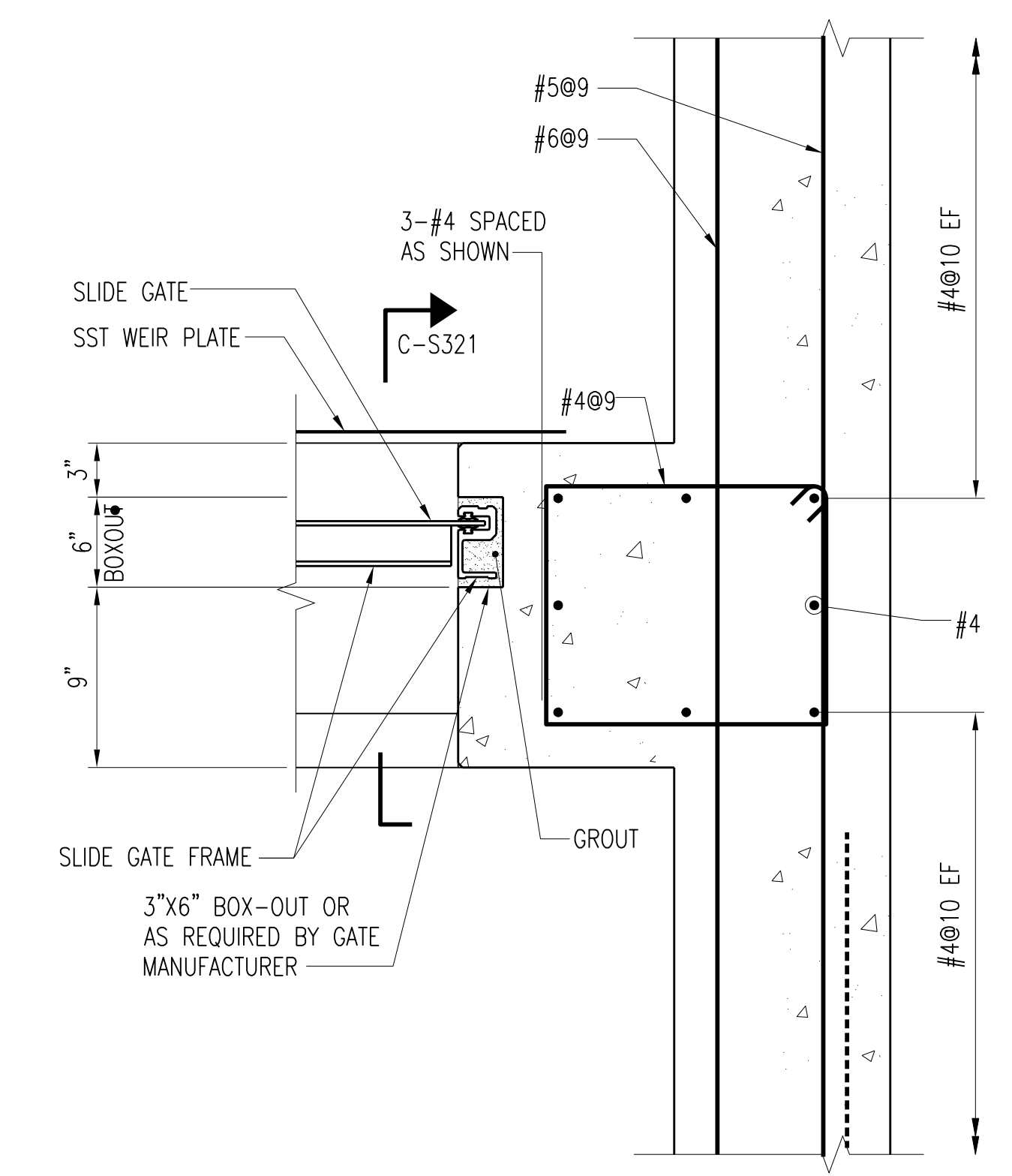
**PRIMARY CLARIFIER AREA
PRIMARY FLOW SPLITTER
PLANS**



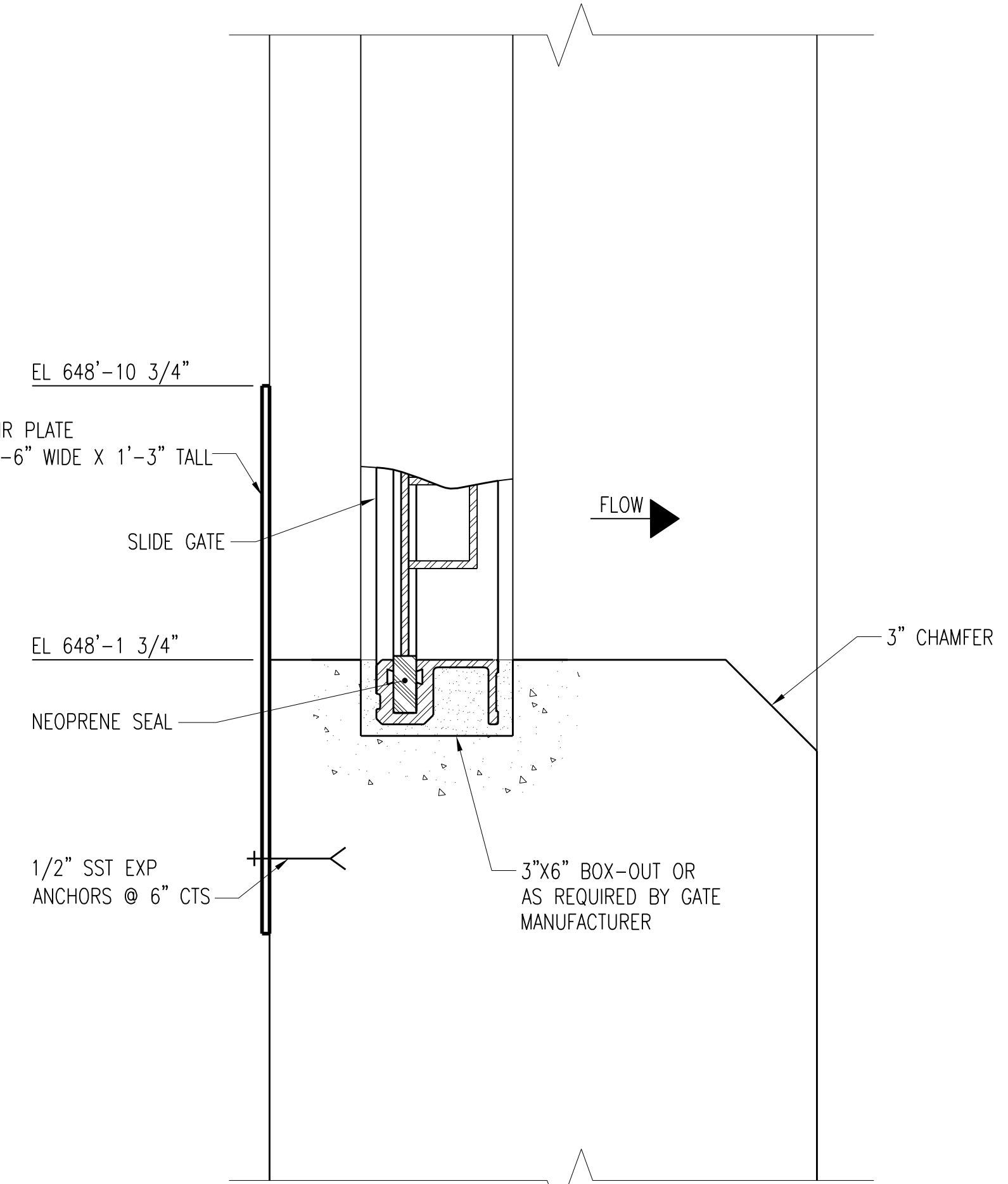
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DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
DATE	DECEMBER 2, 2011	S320	3



SECTION **A-S321**
S320
SCALE: 3/4" = 1'-0"



DETAIL **B-S321**
S320
SCALE: 1 1/2" = 1'-0"



SECTION **C-S321**
S321
SCALE: 3" = 1'-0"

- NOTES:**
1. BACKFILL EXCAVATION FOR PIPES WITH FLOWABLE FILL.
 2. THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING THE FLOATATION OF PIPES DURING FLOWABLE FILL PLACEMENT.

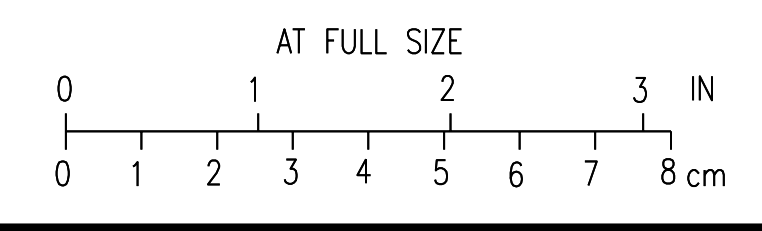
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED AND REISSUED	KBH	KBH	LHB	01-25-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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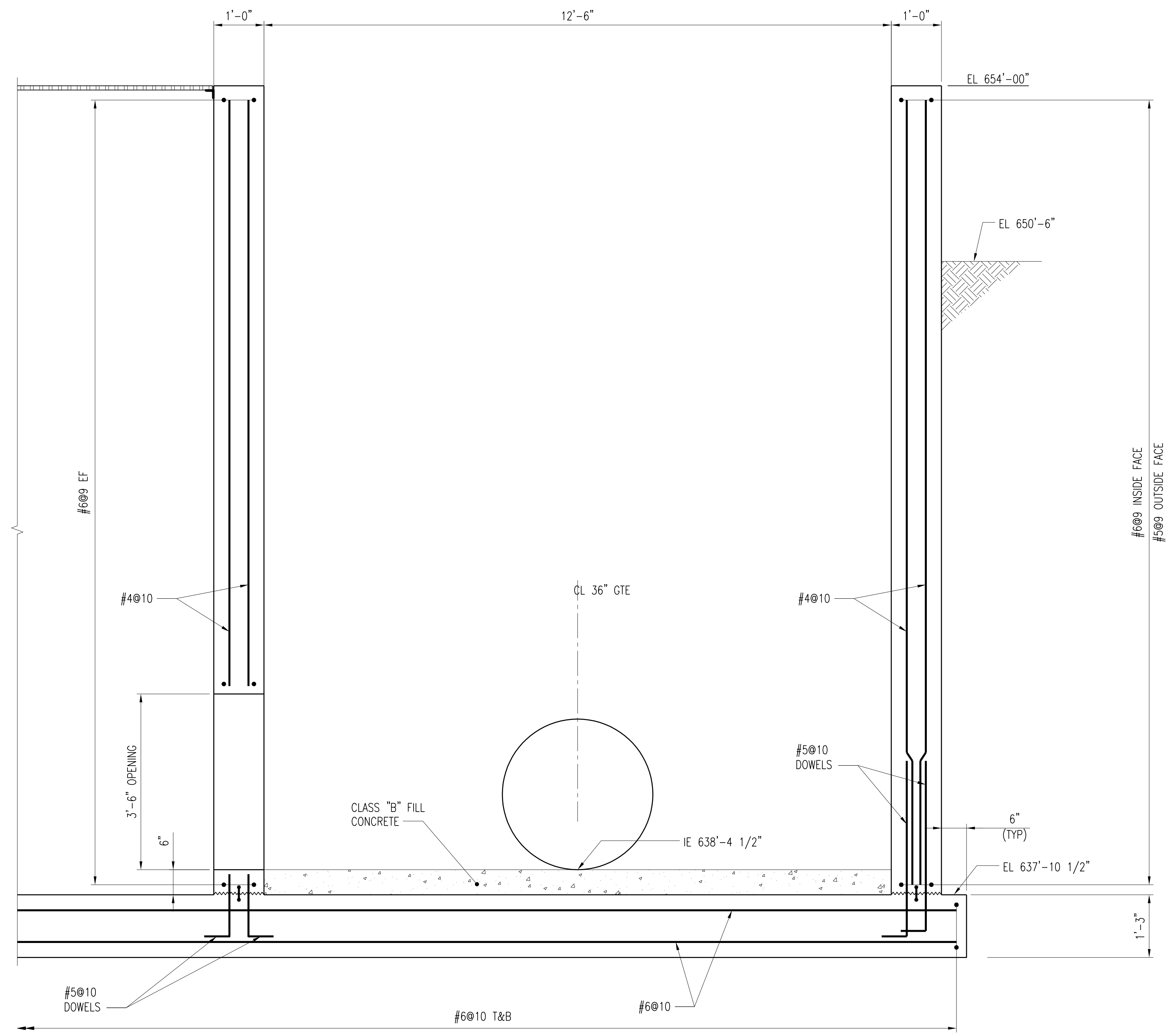
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**PRIMARY CLARIFIER AREA
PRIMARY FLOW SPLITTER
DETAILS - SHEET 1**

DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
DATE	DECEMBER 2, 2011	S321	3



CADD: D:\1-14



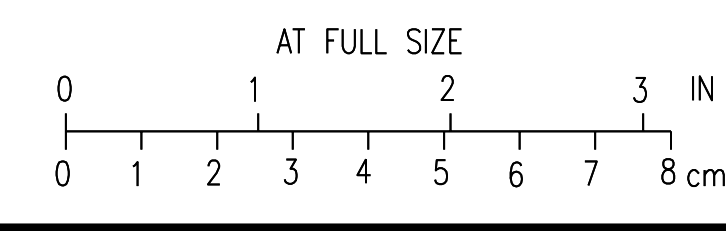
SECTION A-S322
S320
 SCALE: 3/4" = 1'-0"

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED AND REISSUED	KBH	KBH	LHB	01-25-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012


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CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**PRIMARY CLARIFIER AREA
 PRIMARY FLOW SPLITTER
 DETAILS - SHEET 2**

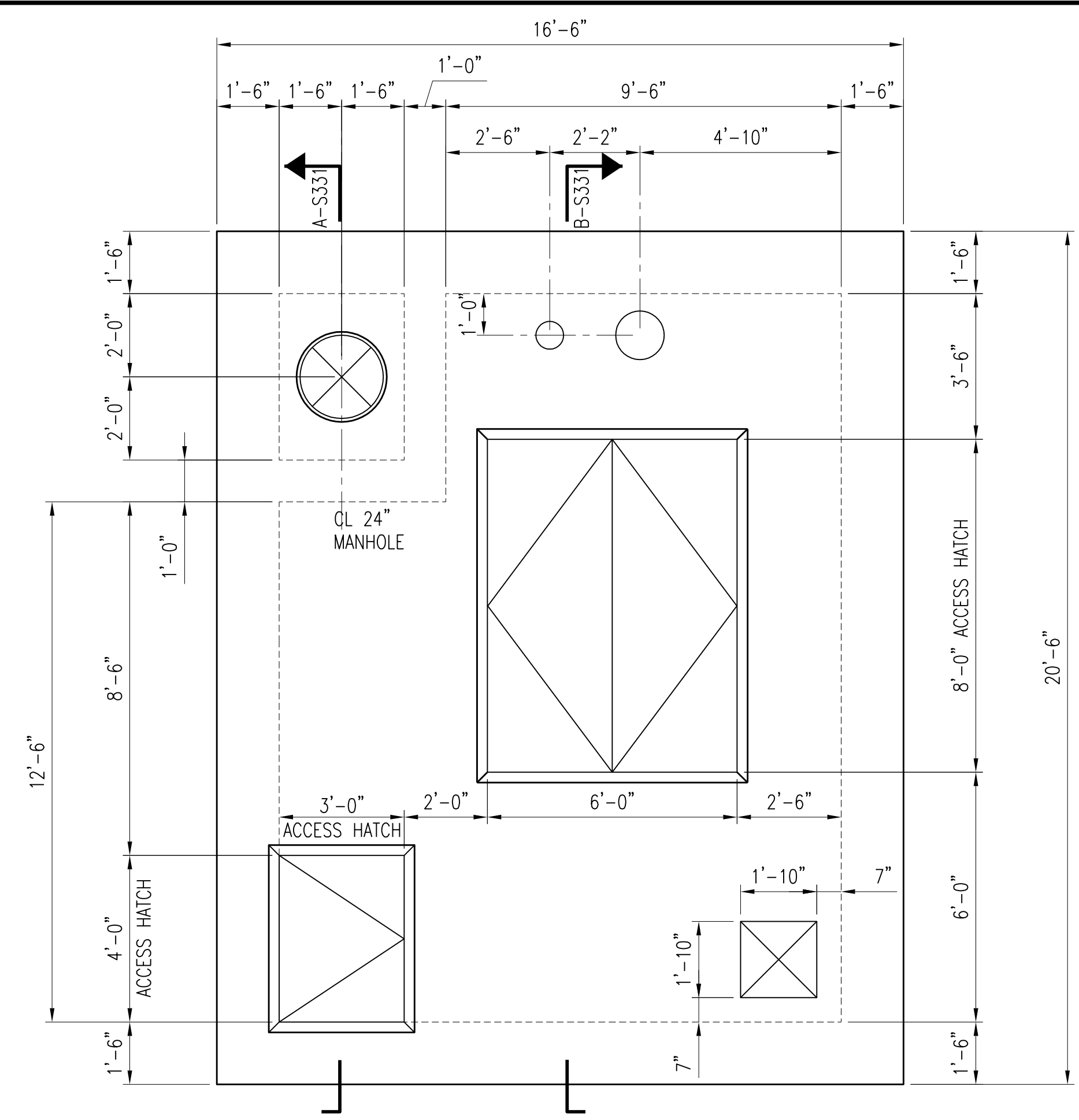


DESIGNED <u>KB HALL</u>	SCALE: AS NOTED	REV.
DRAWN <u>DA SCHMIDT</u>	NO. 22800	
CHECKED <u>KB HALL</u>	S322	3
APPROVED <u>LH BADTRAM</u>		
DATE <u>DECEMBER 2, 2011</u>		

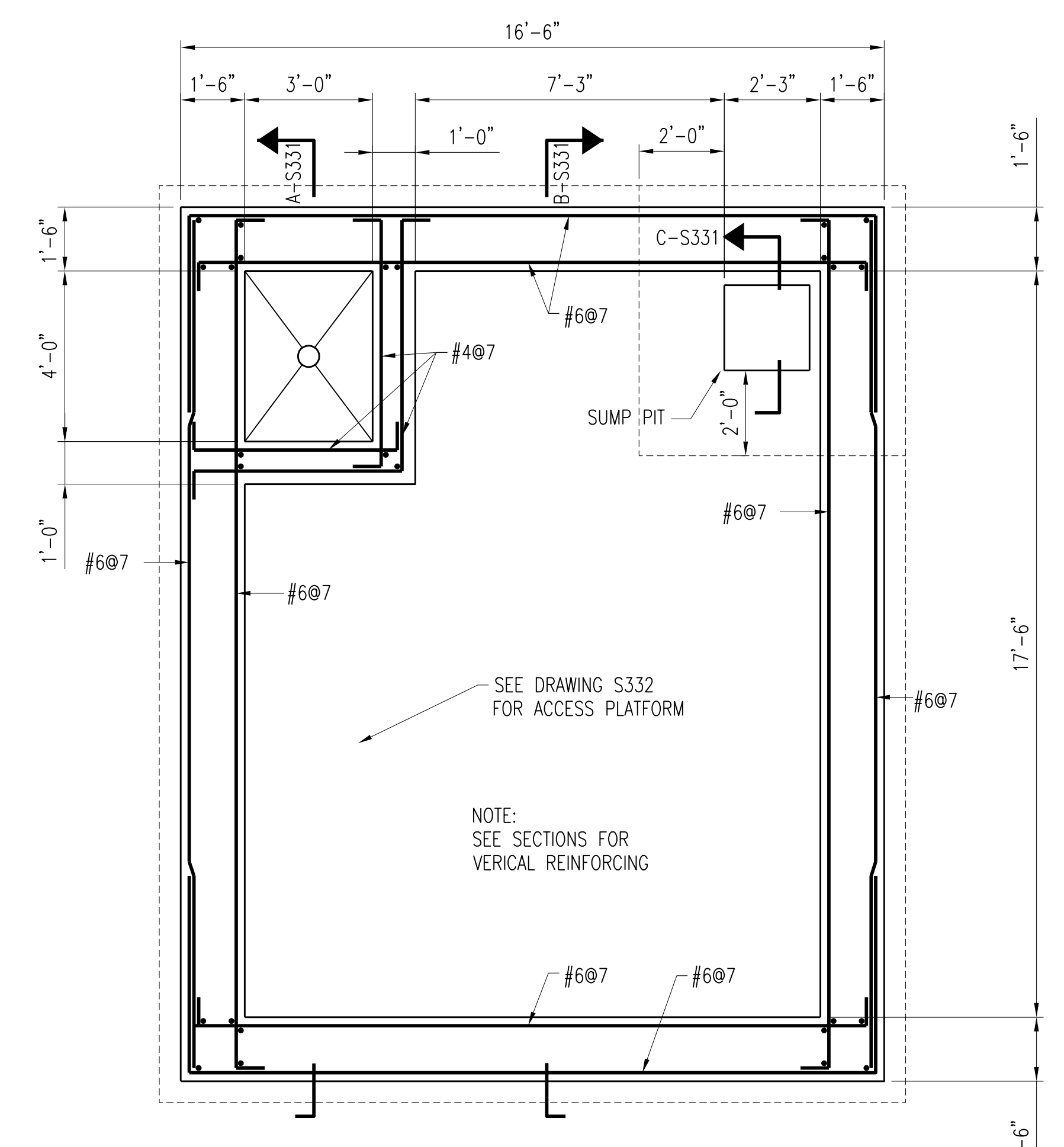
CADDD D1-R4

NOTES:

1. SEE SITE PLANS FOR VAULT ORIENTATION.
2. TOP SLAB DESIGN LIVE LOAD: 300PSF.
3. SEE STANDARD STRUCTURAL NOTES AND DETAILS FOR ADDITIONAL REINFORCING REQUIREMENTS AROUND HATCHES AND OPENINGS IN TOP SLAB.



TYPICAL PRIMARY SLUDGE VAULT PLAN @ EL 649'-0"
SCALE: 3/8" = 1'-0"



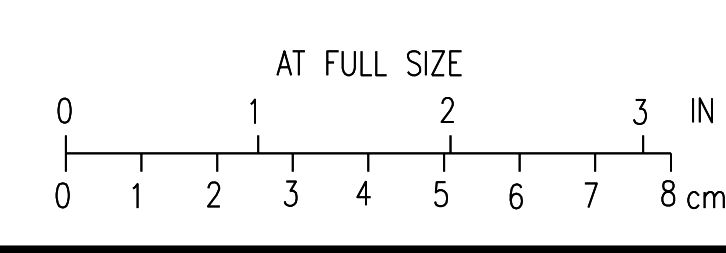
TYPICAL PRIMARY SLUDGE VAULT PLAN @ EL 637'-0"
SCALE: 3/8" = 1'-0"

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED AND REISSUED	KBH	KBH	LHB	01-25-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012


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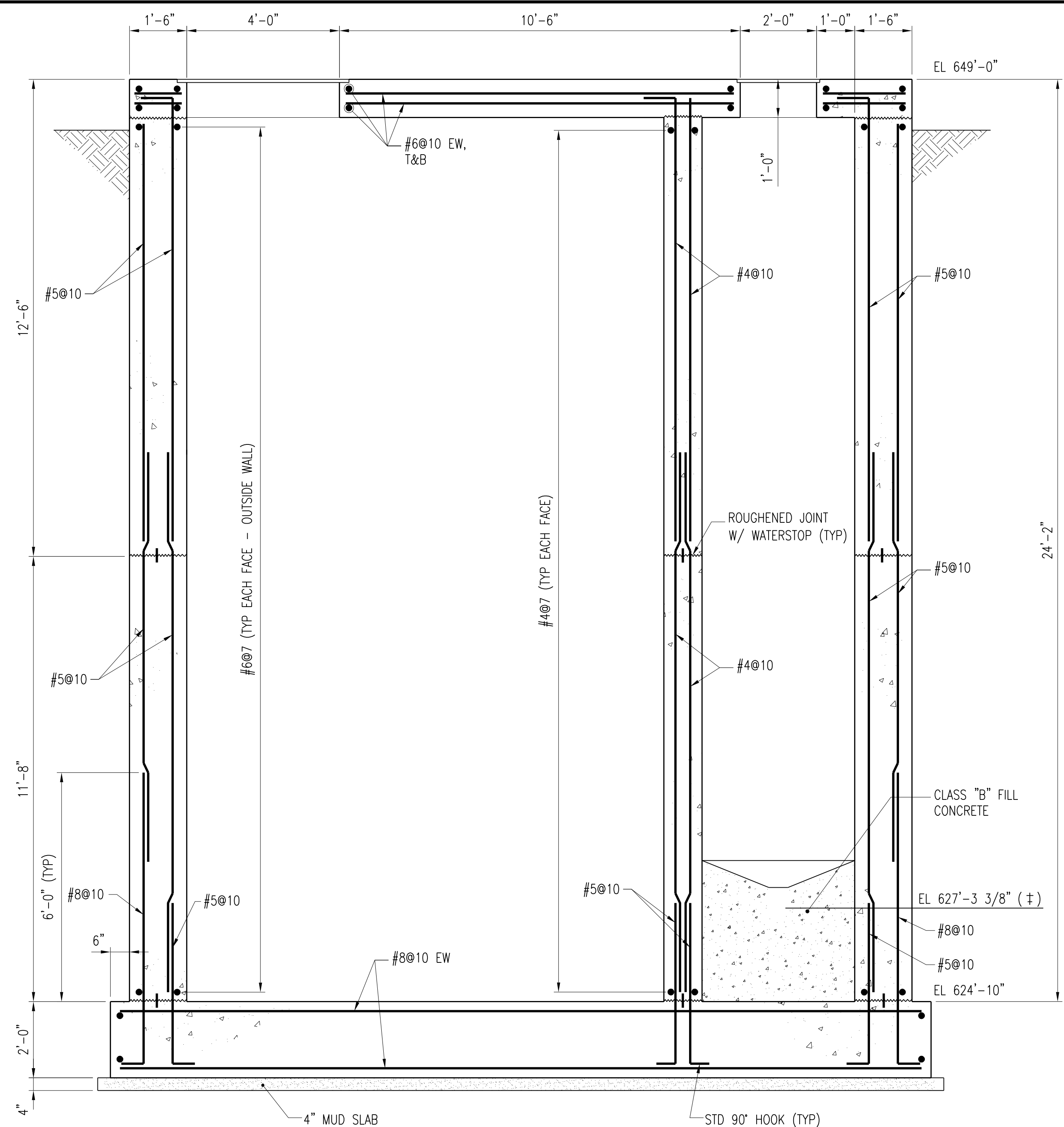
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**PRIMARY CLARIFIER AREA
PRIMARY SLUDGE PUMPING VAULTS
PLANS**

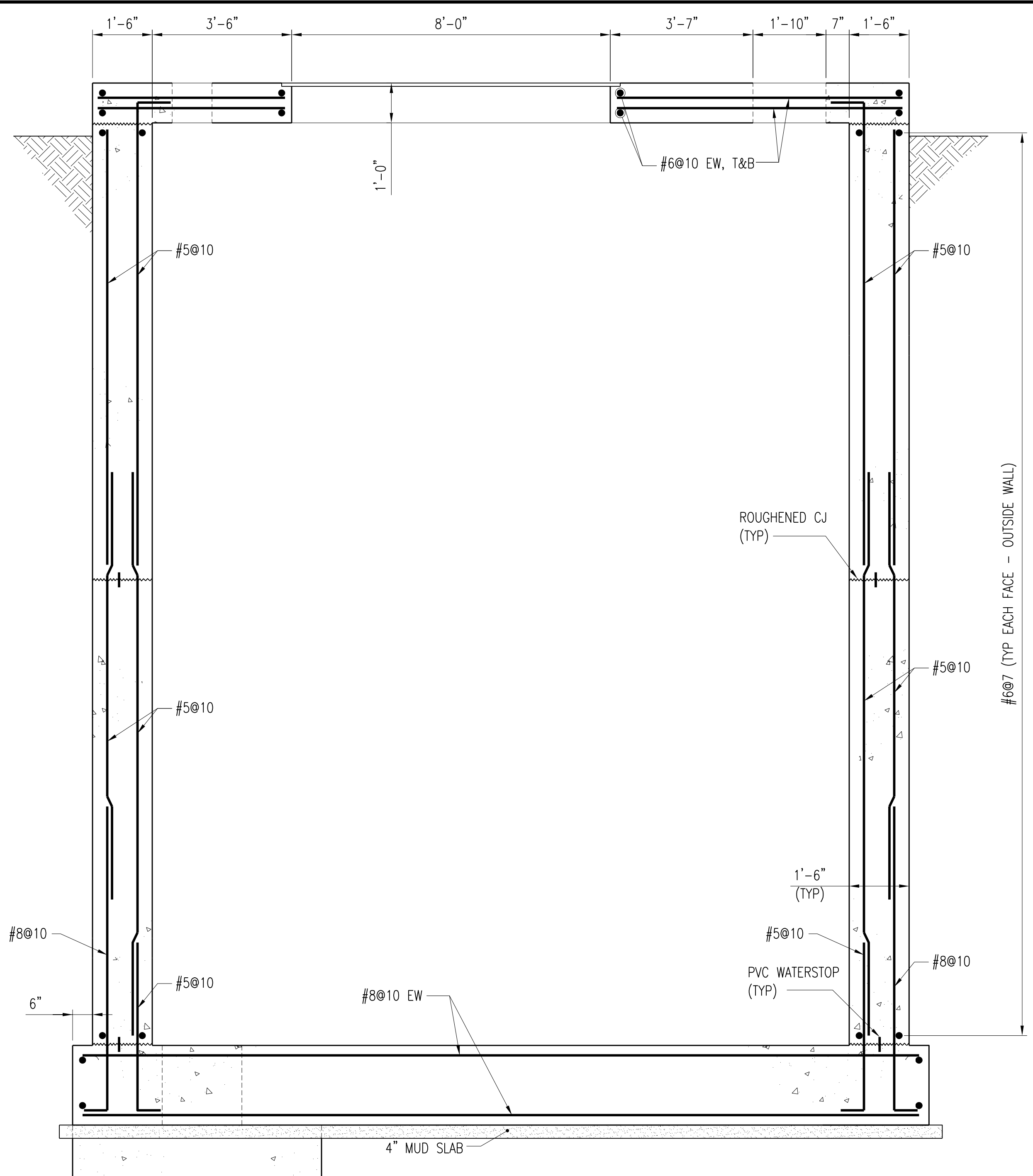


DESIGNED: KB HALL	SCALE: AS NOTED	REV. 3
DRAWN: DA SCHMIDT	NO. 22800	
CHECKED: KB HALL	S330	
APPROVED: LH BADTRAM		
DATE: DECEMBER 2, 2011		

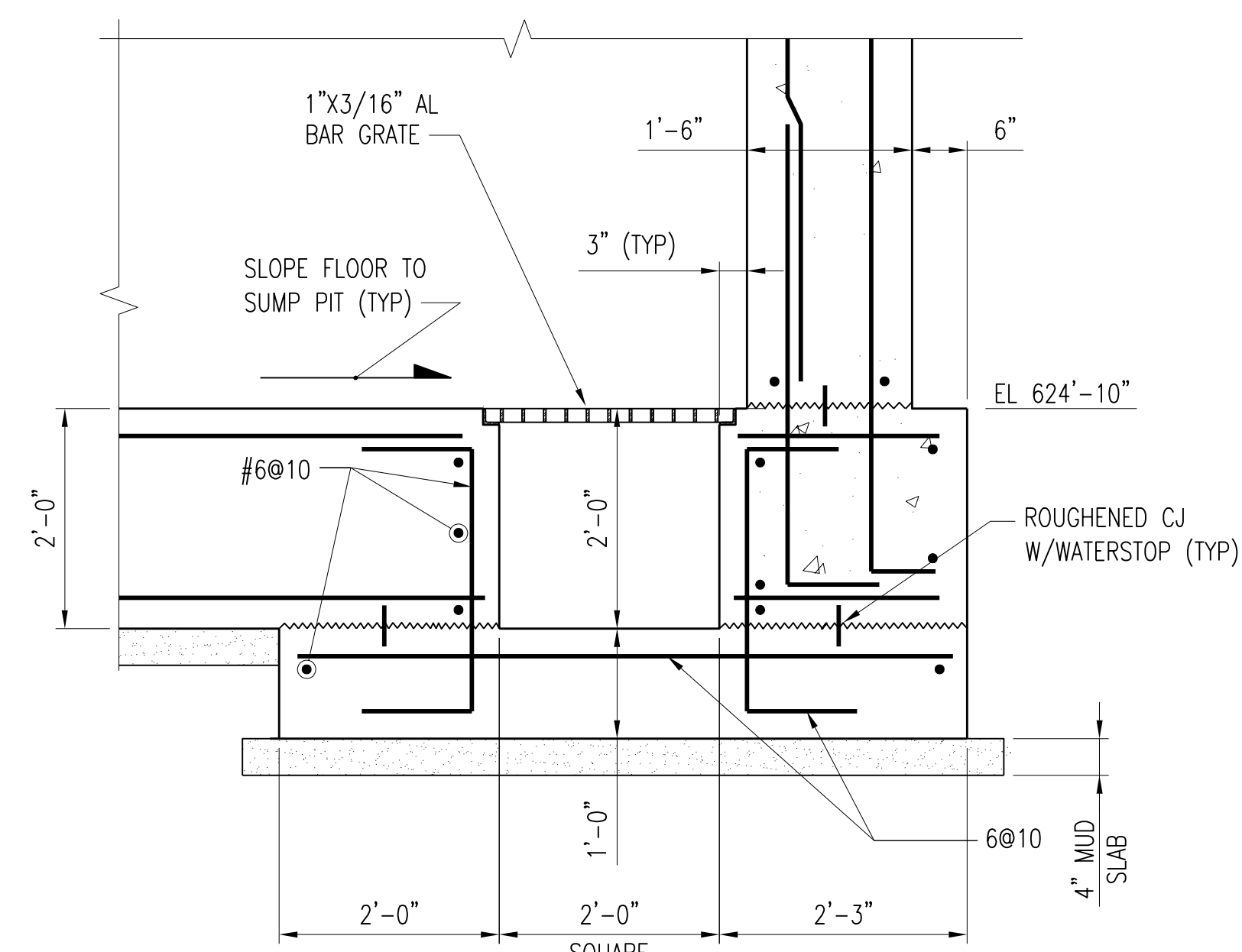
CADDD D1-144



SECTION A-S331
S330
SCALE: 1/2" = 1'-0"



SECTION B-S331
S330
SCALE: 1/2" = 1'-0"



SECTION C-S331
S330
SCALE: 3/4" = 1'-0"

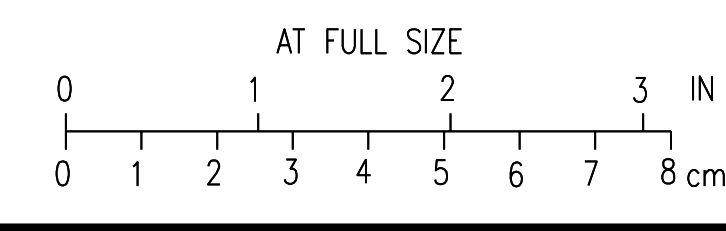
- NOTES:**
1. SEE SITE PLANS FOR VAULT ORIENTATION.
 2. TOP SLAB DESIGN LIVE LOAD: 300 PSF.
 3. SEE STANDARD STRUCTURAL NOTES AND DETAILS FOR ADDITIONAL REINFORCING REQUIREMENTS AROUND HATCHES AND OPENINGS IN TOP SLAB.
 4. APPLY DAMP PROOFING TO EXTERIOR VAULT WALLS IN ACCORDANCE WITH SPECIFICATION 07 11 00.

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED AND REISSUED	KBH	KBH	LHB	01-25-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**PRIMARY CLARIFIER AREA
PRIMARY SLUDGE PUMPING VAULTS
DETAILS - SHEET 1**



DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
DATE	DECEMBER 2, 2011	S331	3

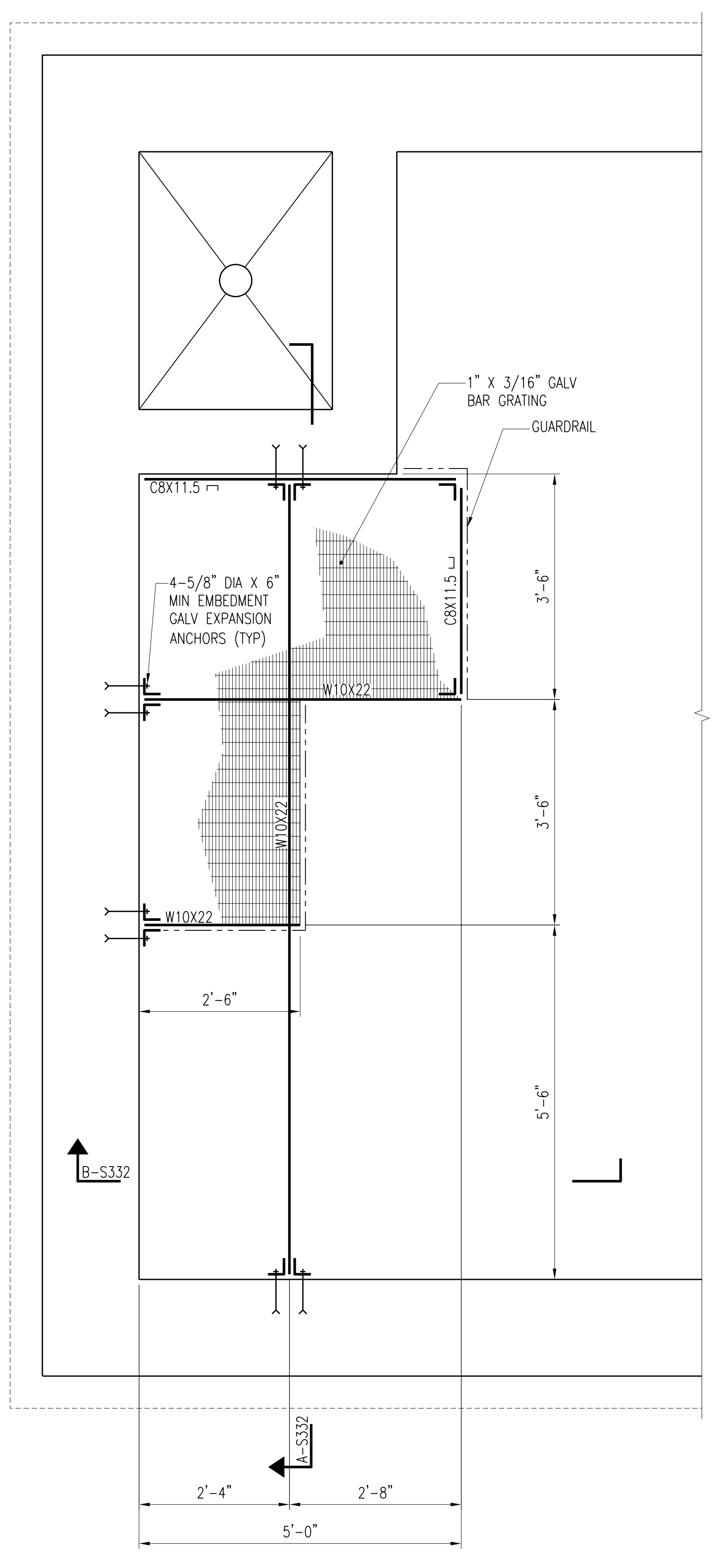
H
G
F
E
D
C
B
A
CADD: D1-144

H
G
F
E
D
C
B
A

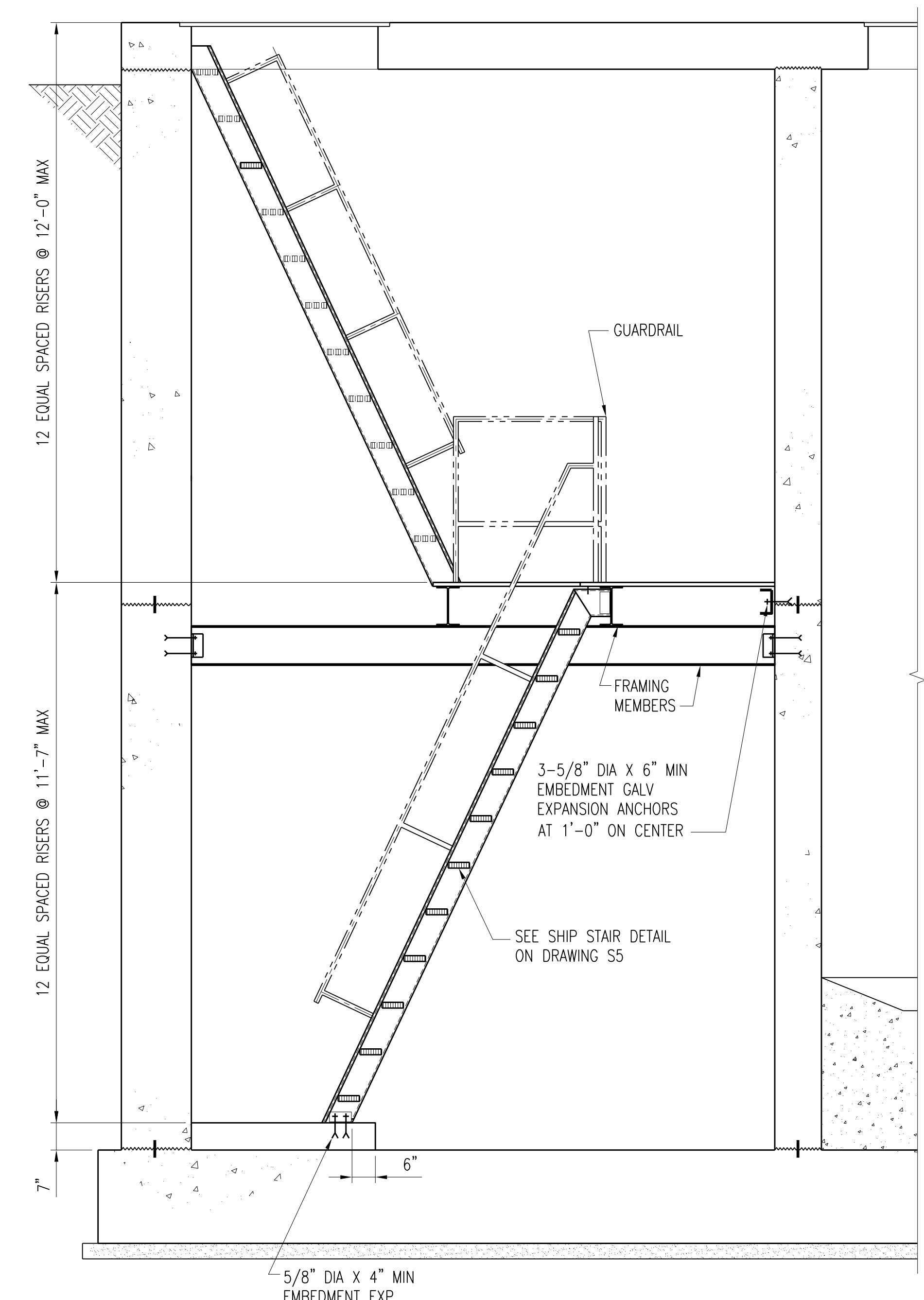
1 2 3 4 5 6 7 8 9 10 11 12

NOTES:

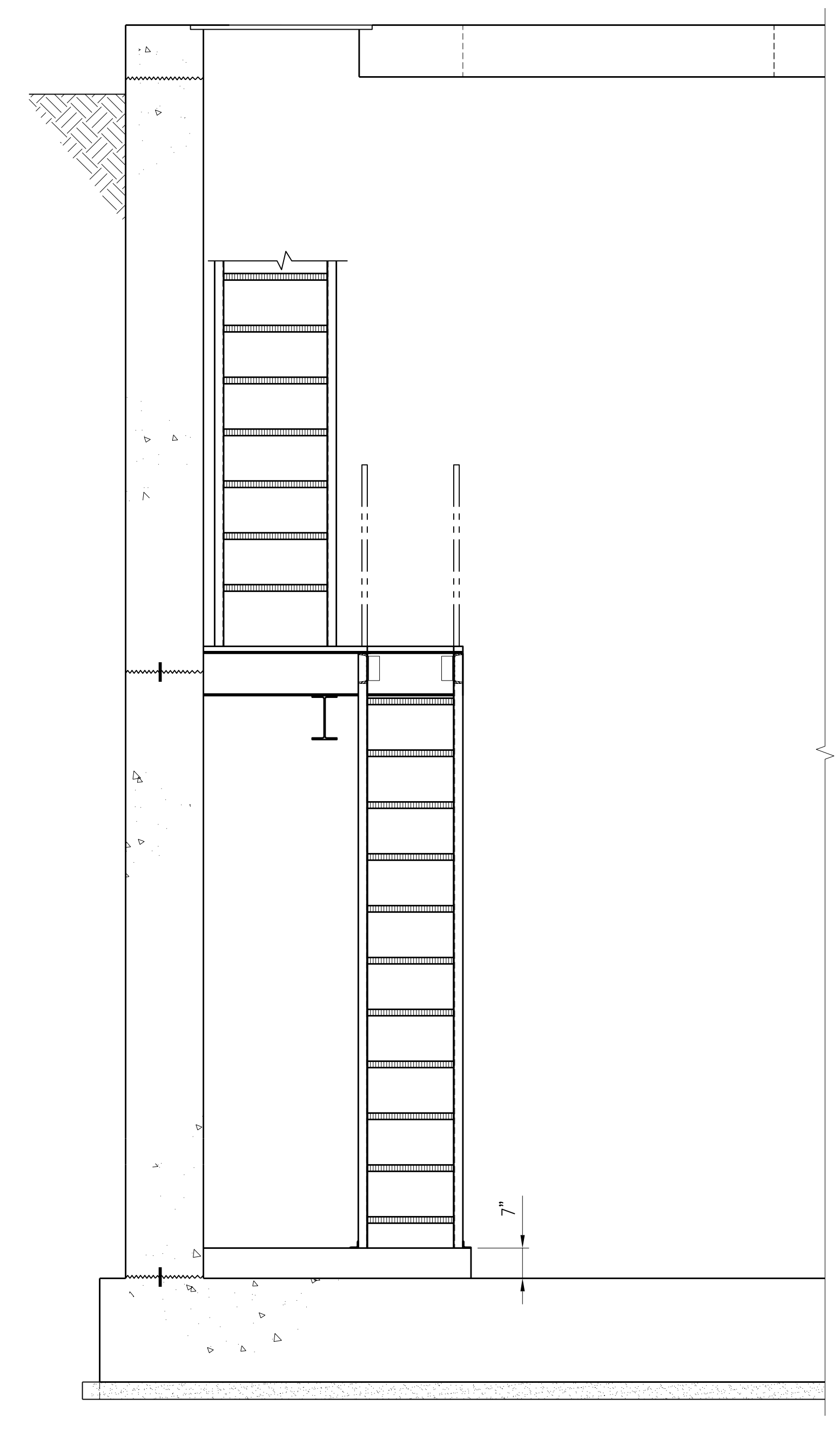
1. ALL STRUCTURAL STEEL SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION.



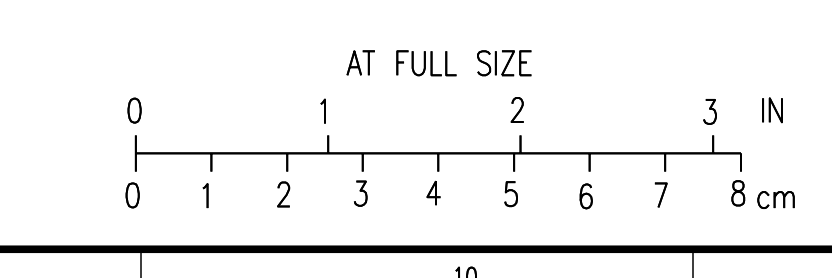
(TOP OF GRATING EL 637'-0")
PRIMARY SLUDGE VAULT PLATFORM PLAN
 SCALE: 3/4" = 1'-0"



SECTION A-S332
 S332
 SCALE: 1/2" = 1'-0"



SECTION B-S332
 S332
 SCALE: 1/2" = 1'-0"



NO.	REVISIONS	DSGN	CHKD	APVD	DATE
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED AND REISSUED	KBH	KBH	LHB	01-25-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012

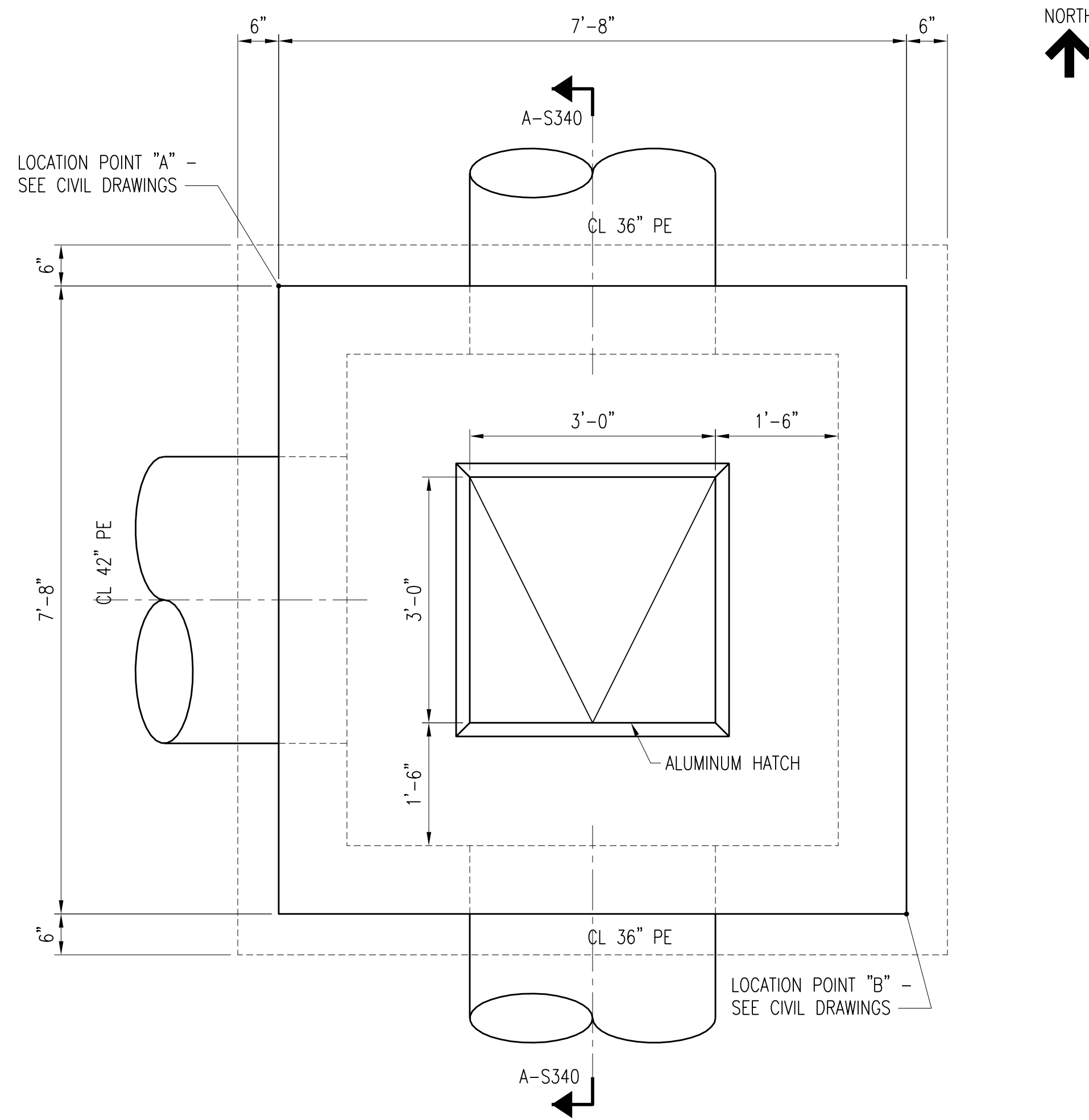

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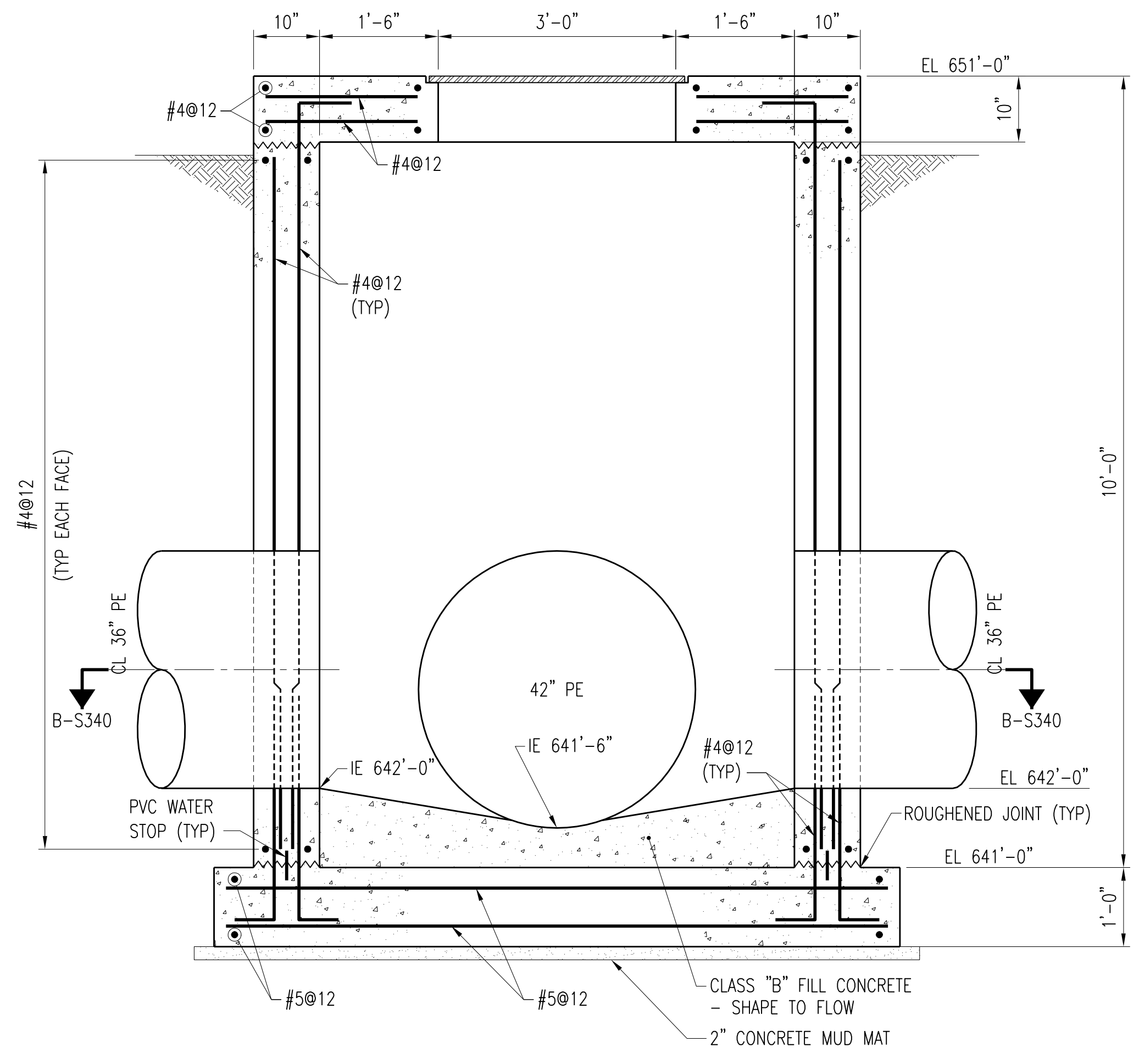
**PRIMARY CLARIFIER AREA
 PRIMARY SLUDGE PUMPING VAULTS
 DETAILS - SHEET 2**

DESIGNED: KB HALL	SCALE: AS NOTED	REV.
DRAWN: DA SCHMIDT	NO. 22800	
CHECKED: KB HALL	S332	3
APPROVED: LH BADTRAM		
DATE: DECEMBER 2, 2011		

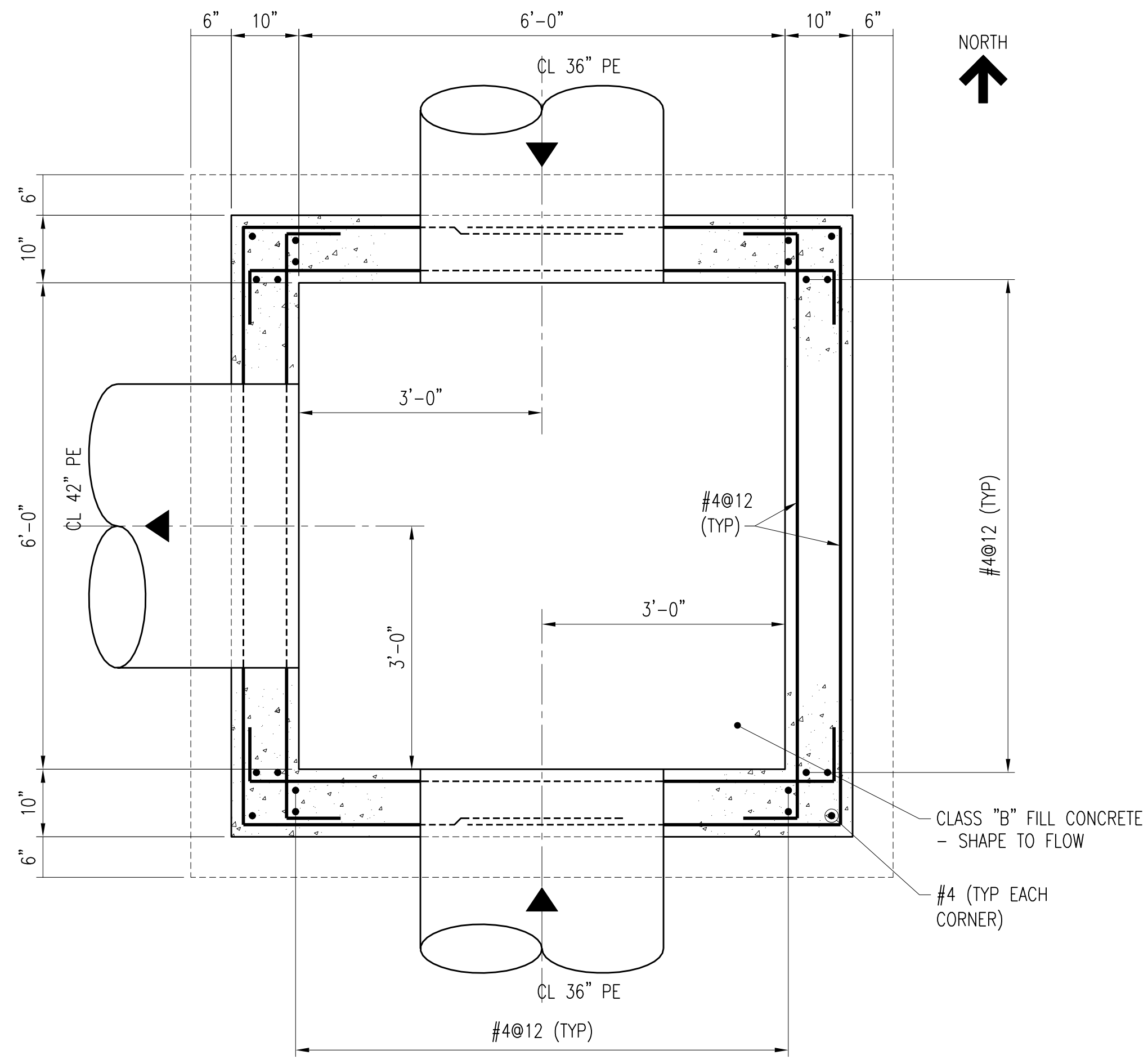
CADD: D1-R4



PRIMARY JUNCTION STRUCTURE NO.1 PLAN
SCALE: 3/4" = 1'-0"



SECTION A-S340
SCALE: 3/4" = 1'-0"



SECTION B-S340
SCALE: 3/4" = 1'-0"

- NOTES:**
- SEE STRUCTURAL TYPICAL NOTES AND DETAILS FOR ADDITIONAL REINFORCING REQUIREMENTS AROUND PIPE PENETRATIONS AND HATCHES.
 - TOP SLAB DESIGN LIVE LOAD: 300 PSF.

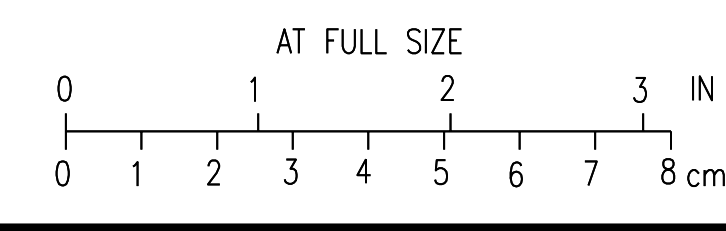
NO.	REVISIONS	DSGN	CHKD	APVD	DATE
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012

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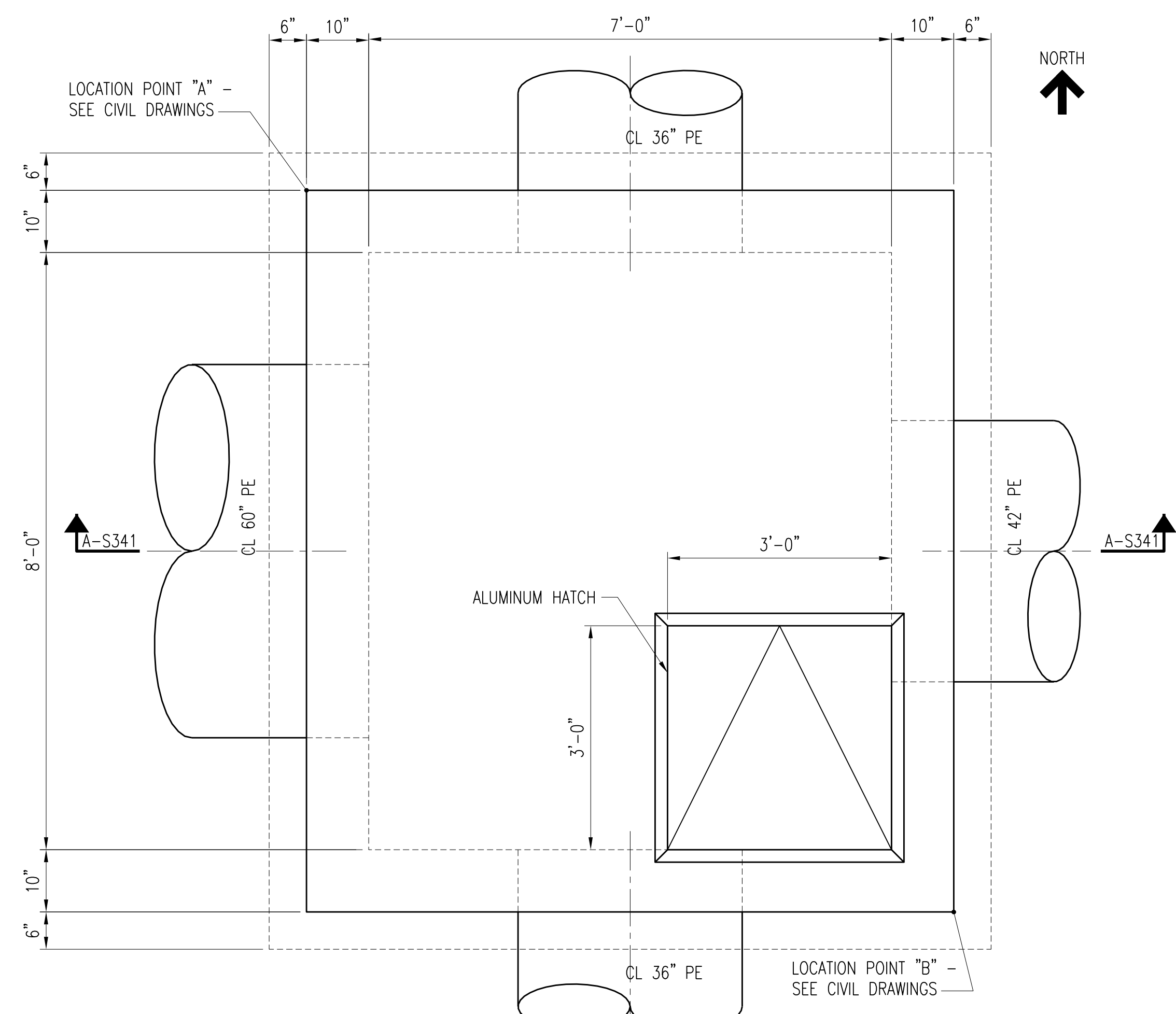
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**PRIMARY CLARIFIER AREA
PRIMARY JUNCTION STRUCTURE NO.1
STRUCTURAL PLAN AND SECTIONS**

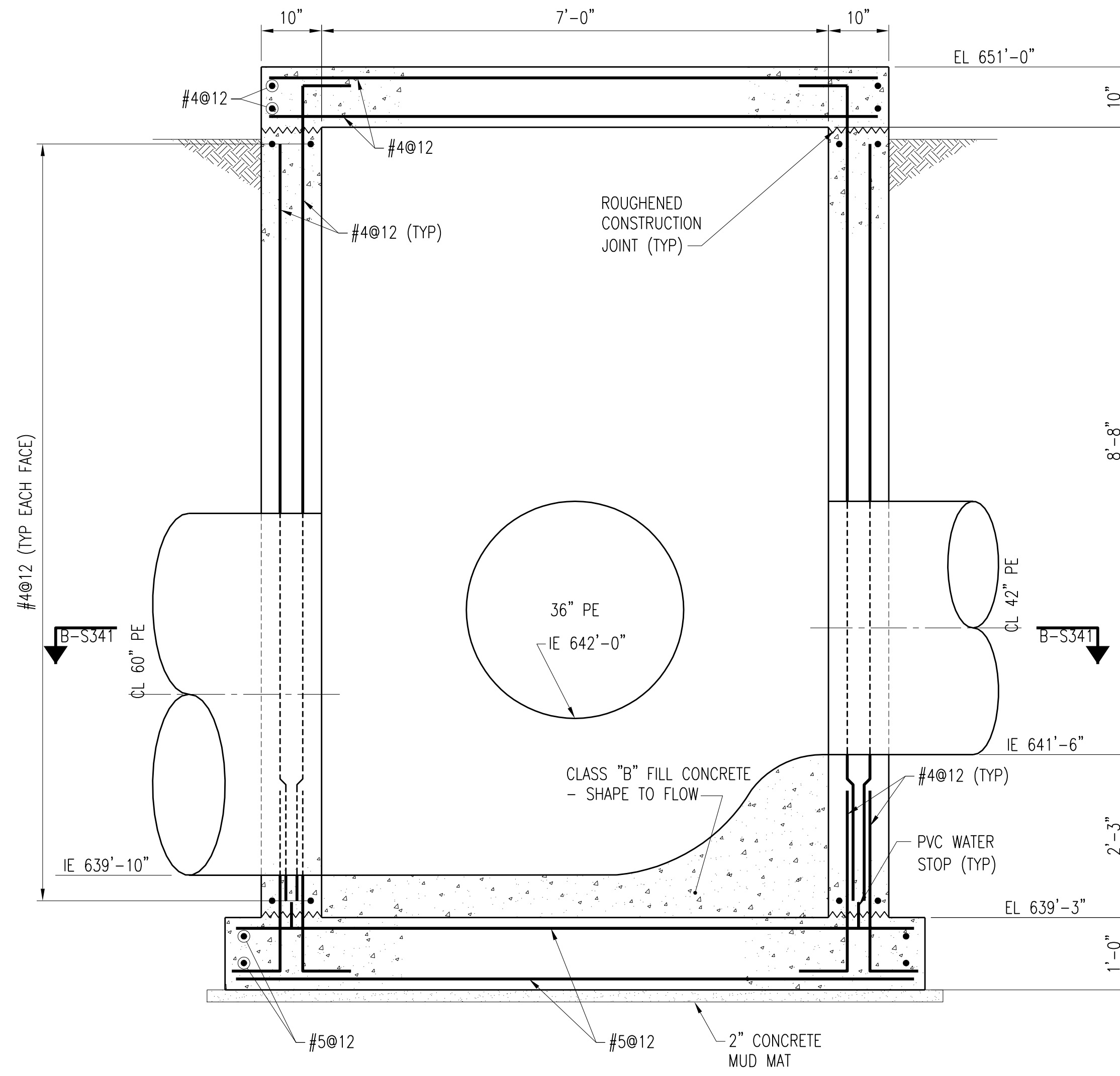
DESIGNED: KB HALL	SCALE: AS NOTED	REV.
DRAWN: DA SCHMIDT	NO. 22800	
CHECKED: KB HALL		
APPROVED: LH BADTRAM		
DATE: DECEMBER 2, 2011	S340	2



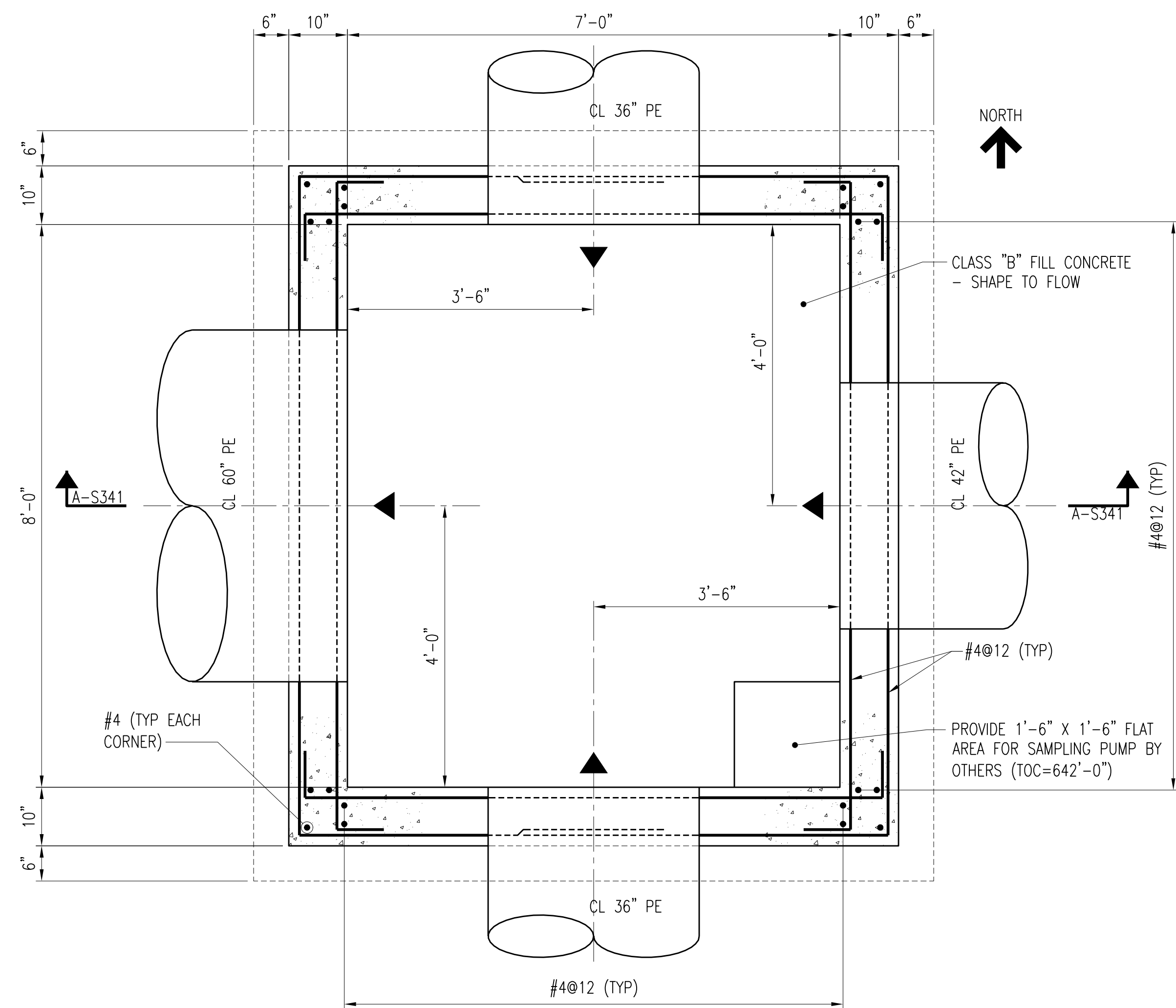
CADD: D1-R4



PRIMARY JUNCTION STRUCTURE NO. 2 PLAN
SCALE: 3/4" = 1'-0"



SECTION A-S341
SCALE: 3/4" = 1'-0"

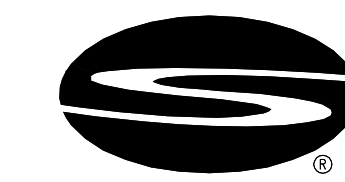


SECTION B-S341
SCALE: 3/4" = 1'-0"

NOTES:

1. SEE STRUCTURAL TYPICAL NOTES AND DETAILS FOR ADDITIONAL REINFORCING REQUIREMENTS AROUND PIPE PENETRATIONS AND HATCHES.
2. TOP SLAB AND HATCH DESIGN LIVE LOAD: 300 PSF

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

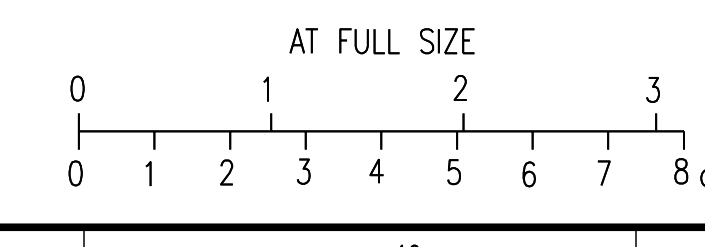


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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**PRIMARY CLARIFIER AREA
PRIMARY JUNCTION STRUCTURE NO.2
STRUCTURAL PLAN AND SECTIONS**

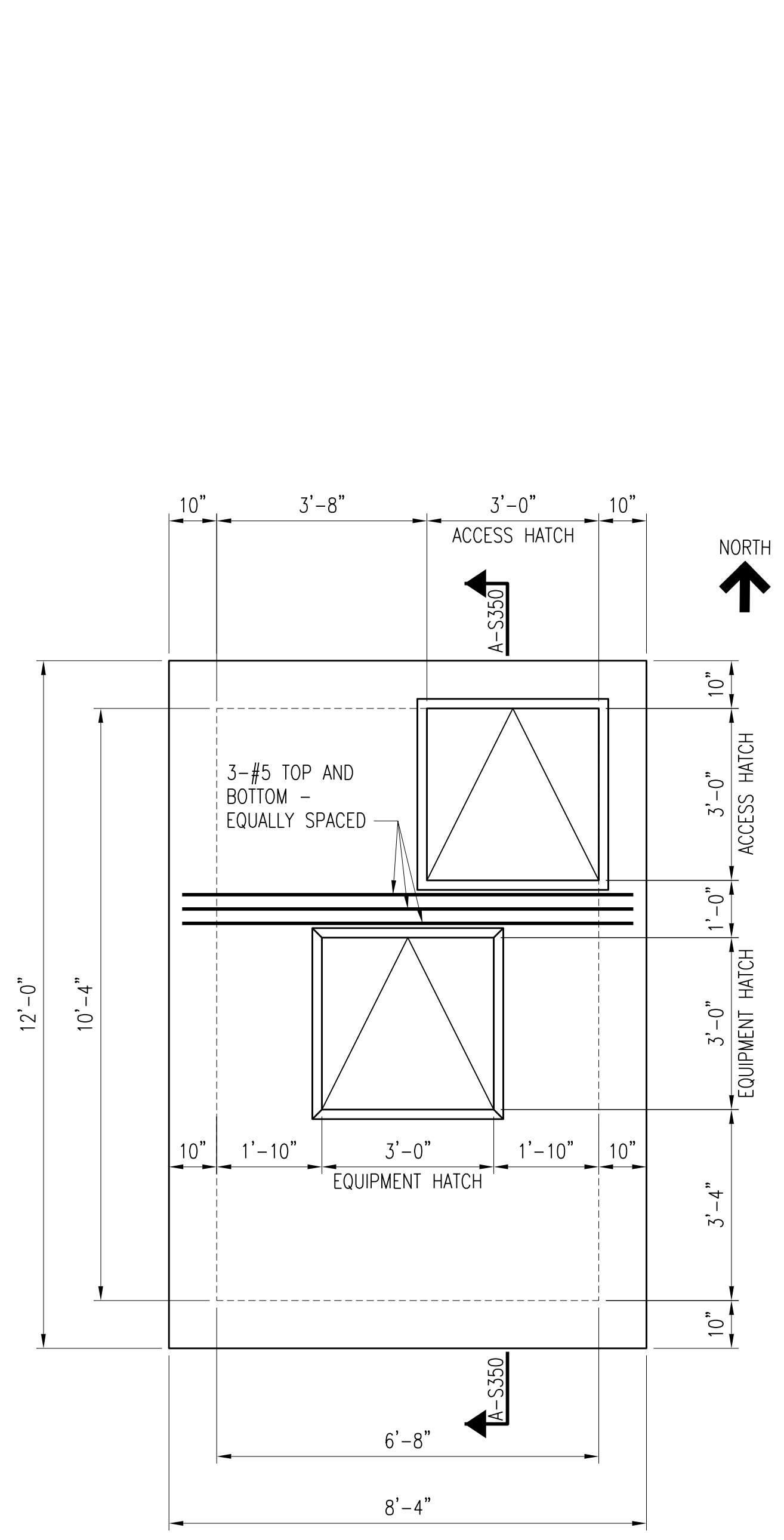
DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
DATE	DECEMBER 2, 2011	S341	2



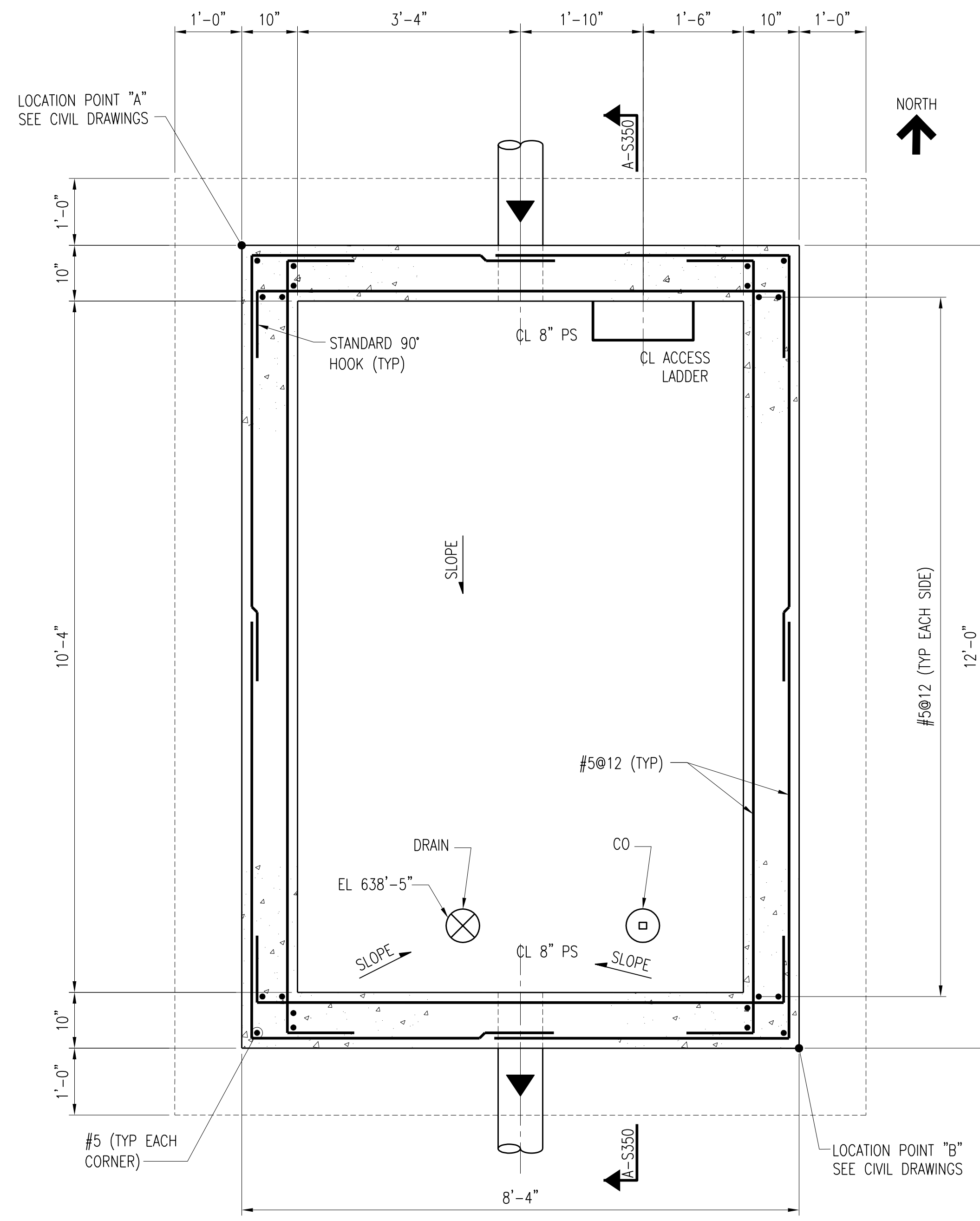
CAD: D1-14

NOTES:

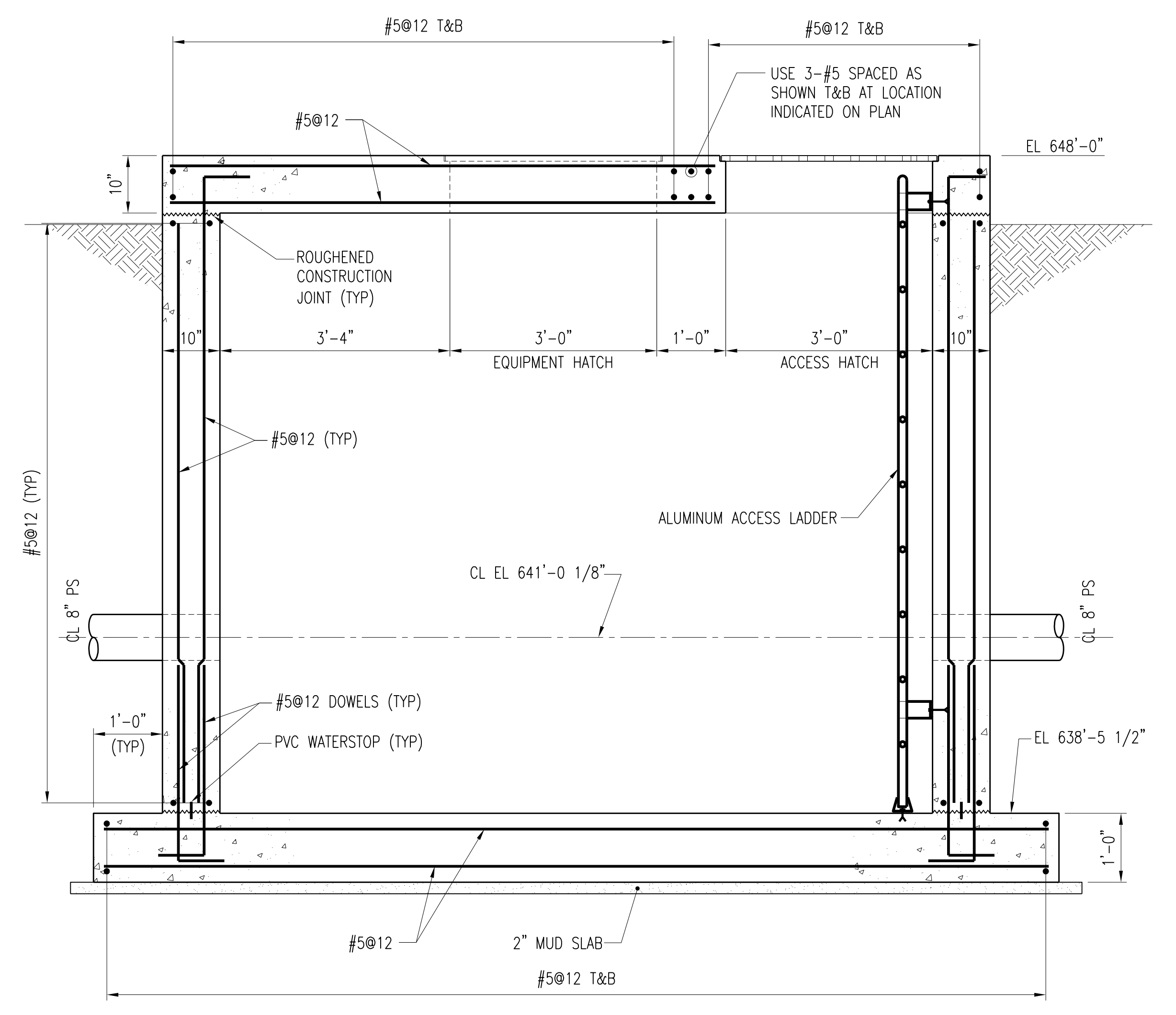
1. TOP SLAB DESIGN LIVE LOAD: 300 PSF.
2. SEE STANDARD STRUCTURAL NOTES AND DETAILS FOR ADDITIONAL REINFORCING REQUIREMENTS AROUND HATCHES AND OPENINGS IN TOP SLAB.
3. APPLY DAMP PROOFING TO EXTERIOR VAULT WALLS IN ACCORDANCE WITH SPECIFICATION 07 11 00.



PLAN AT EL 648'-0"
SCALE: 1/2" = 1'-0"



PLAN AT EL 642'-0"
SCALE: 3/4" = 1'-0"



SECTION A-S350
SCALE: 3/4" = 1'-0"

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012



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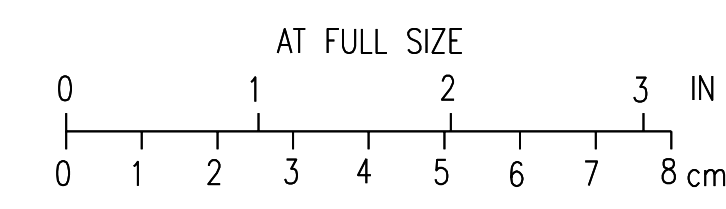
225 Iowa Avenue, Muscatine, Iowa 52761-3764
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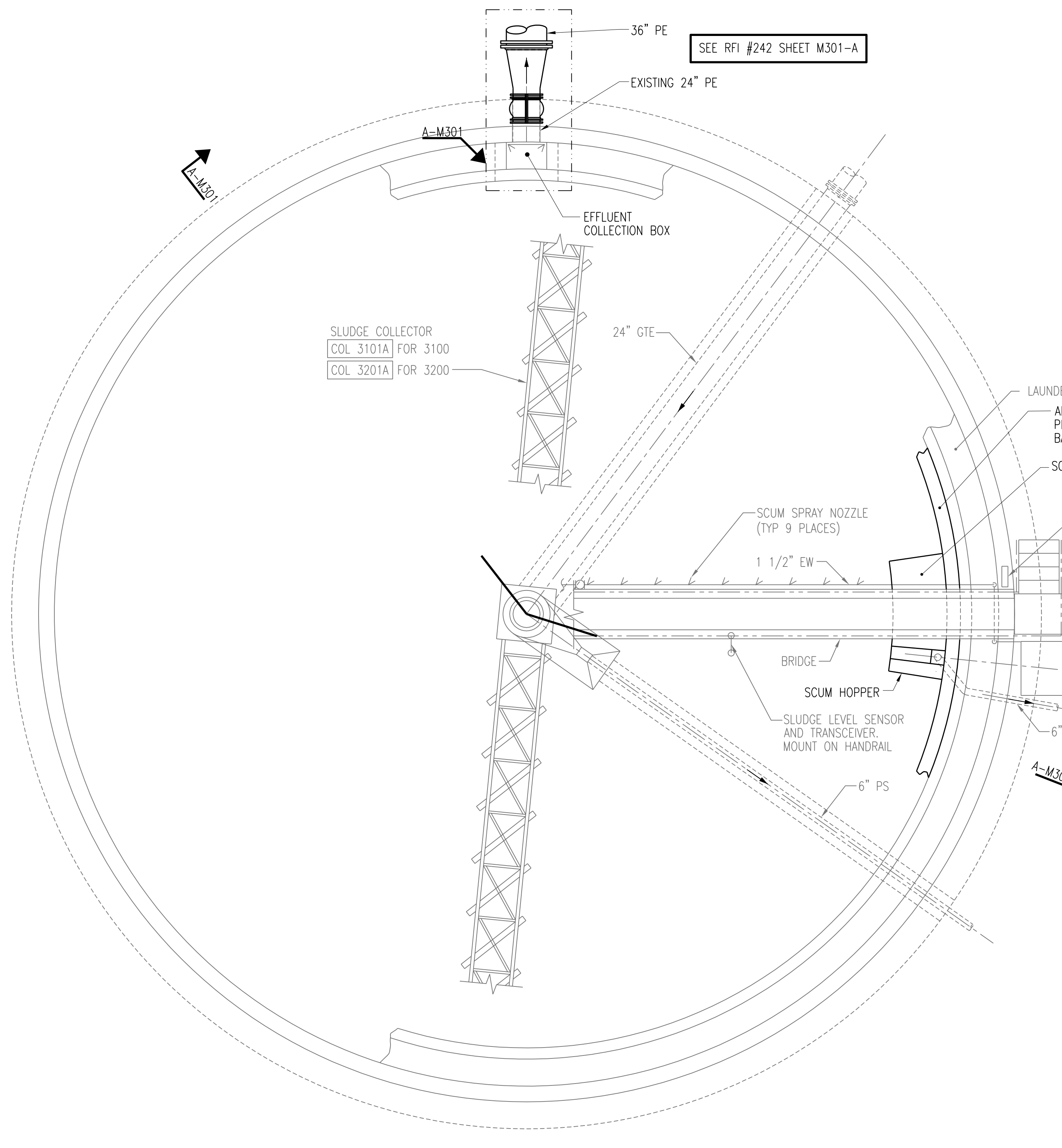
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**PRIMARY CLARIFIER AREA
PRIMARY SLUDGE METER VAULT
PLANS AND DETAILS**

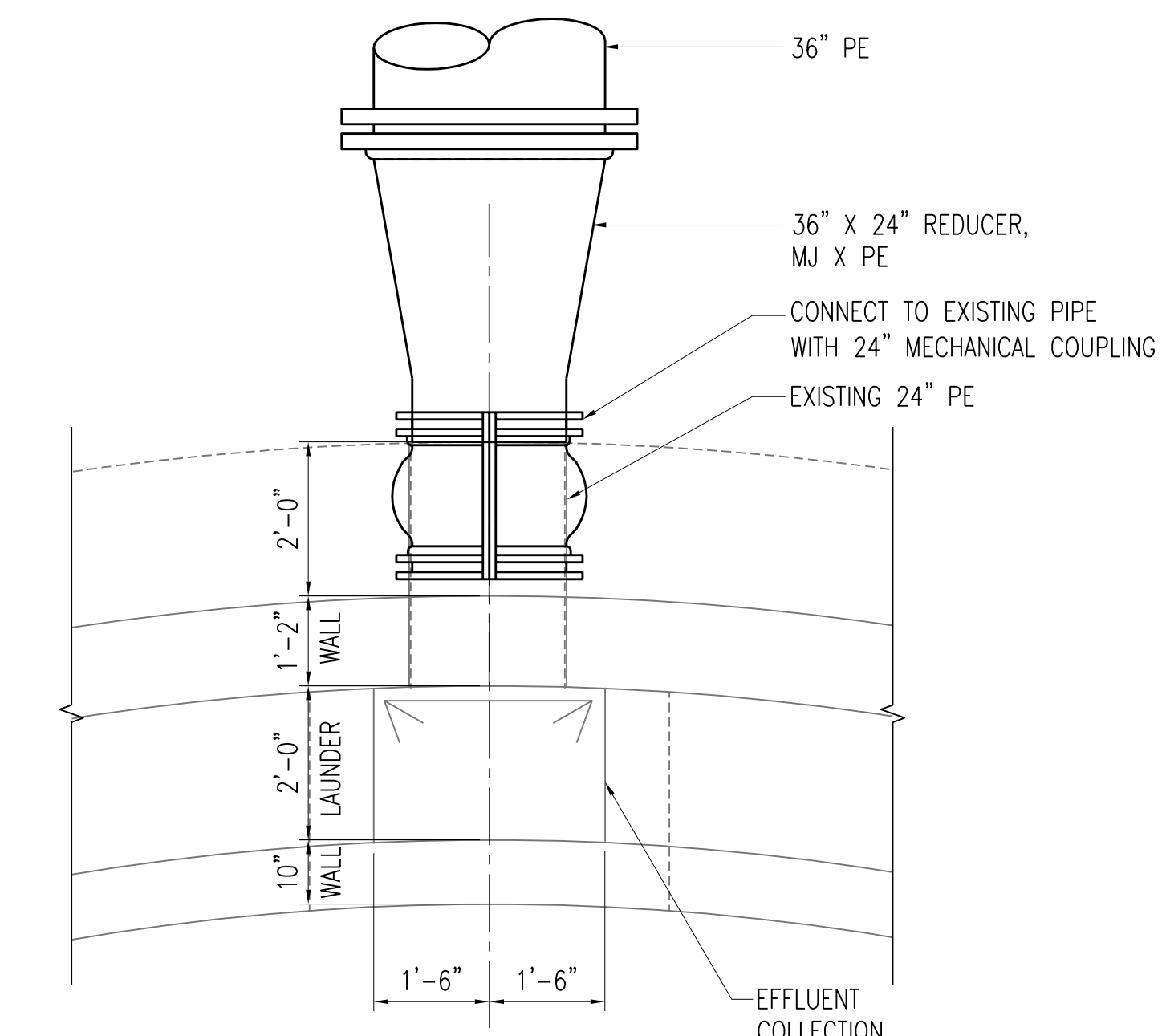
DESIGNED	KB HALL
DRAWN	DA SCHMIDT
CHECKED	KB HALL
APPROVED	LH BADTRAM
DATE	DECEMBER 2, 2011

SCALE: AS NOTED	REV.
NO. 22800	
S350	2

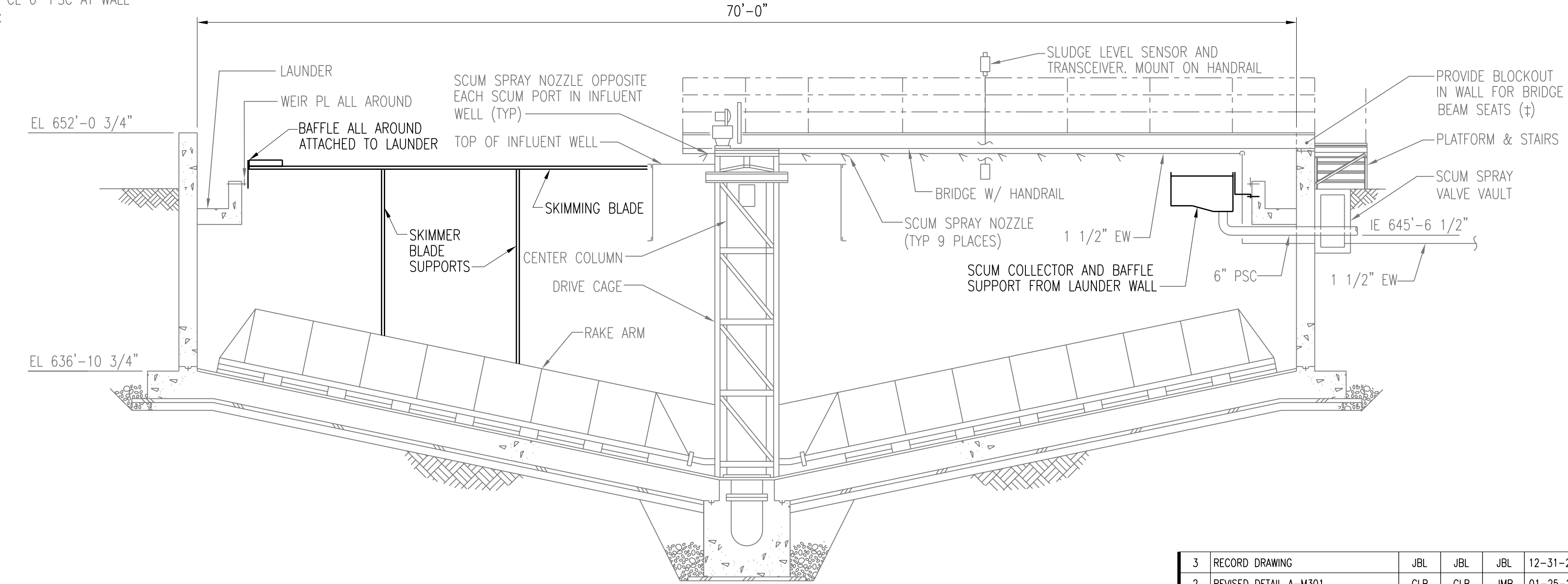




TYPICAL PRIMARY CLARIFIERS MODIFICATIONS PLAN (NO. 3100)
SCALE: 3/16" = 1'-0"



DETAIL A-M301
SCALE: 1/2" = 1'-0"



SECTION A-M301
SCALE: 3/16" = 1'-0"

- NOTES:**
1. PRIMARY CLARIFIER 3200 IS SIMILAR.
 2. REPLACE WEIR, SCUM SKINNER BLADE, SCUM BAFFLE, AND COLLECTOR. FOR DETAILS SEE DRAWINGS S302 AND M304.

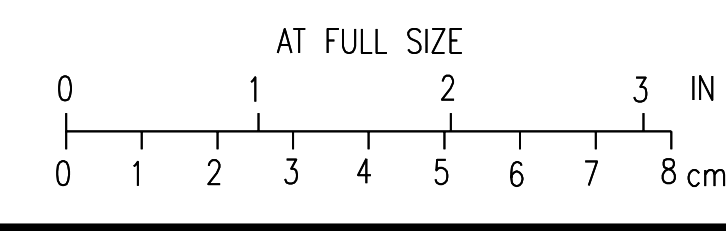
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED DETAIL A-M301	CLB	CLB	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	CLB	CLB	MA/JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**PRIMARY CLARIFIER AREA
TANK 3100 AND 3200 MODIFICATIONS**

DESIGNED	CL BARK	SCALE:	AS NOTED
DRAWN	LJ OSBORN	NO.	22800
CHECKED	CL BARK	REV.	
APPROVED	M AKYUREK		
APPROVED	JM BRADY		
DATE	DECEMBER 2, 2011		

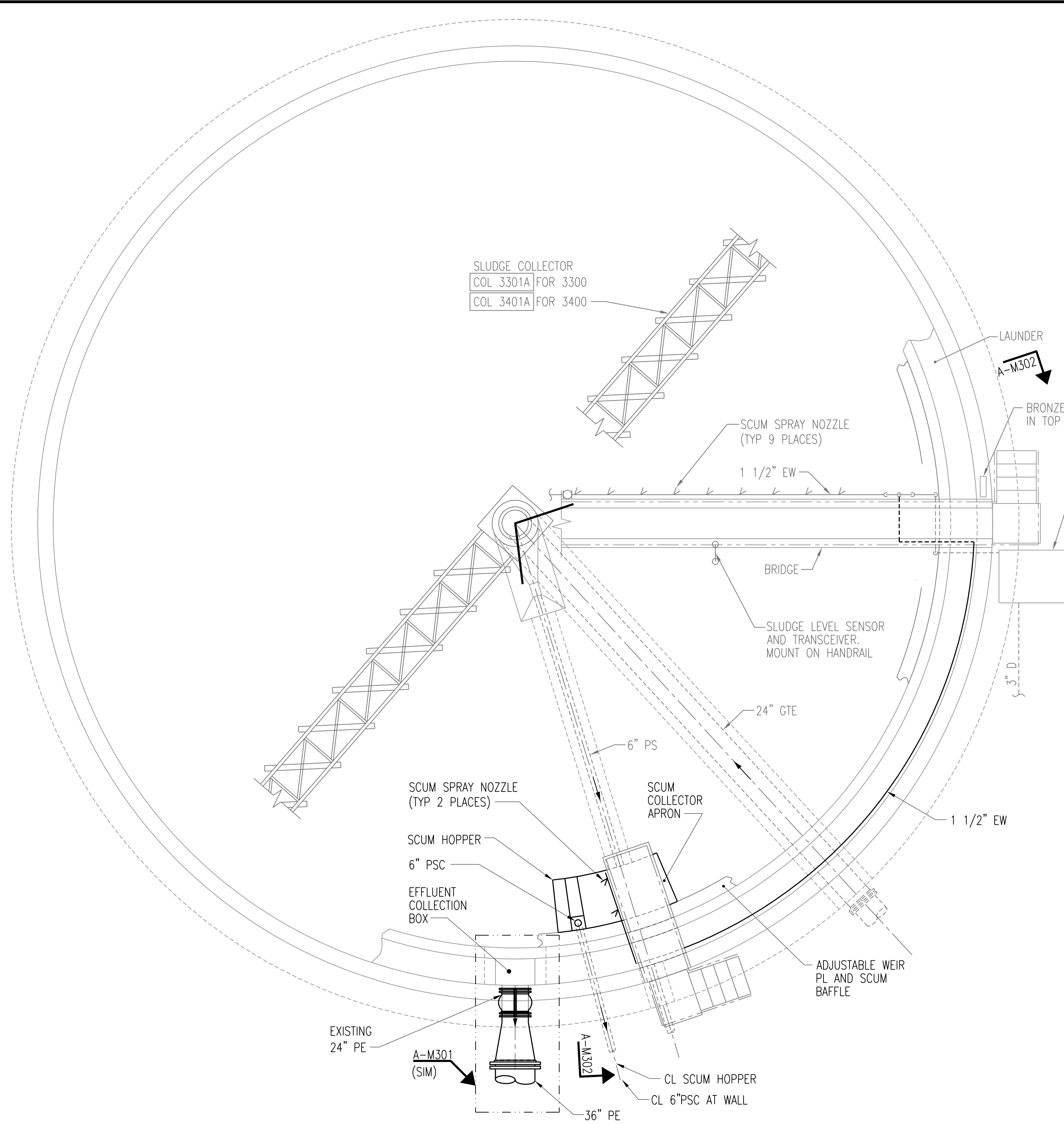


M301

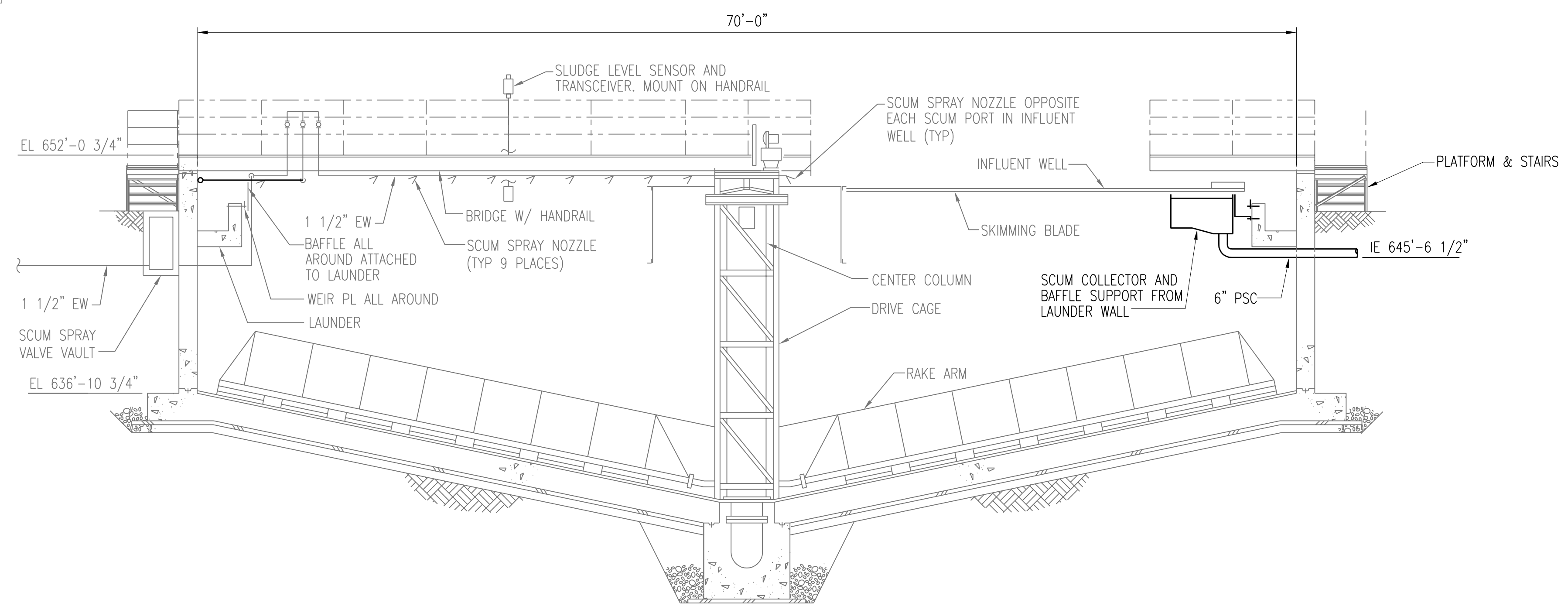
3

NOTES:

1. PRIMARY CLARIFIER 3400 IS SIMILAR.
2. REPLACE AND RELOCATE SCUM COLLECTOR AND SCUM PIPING.
3. FOR DETAILS SEE DWGS S302 AND M304.
4. FOR CONTINUATION OF SITE PIPING SEE DRAWING C35.
5. INSULATE AND HEAT TRACE 1 1/2" EW LINES.



TYPICAL PRIMARY CLARIFIERS MODIFICATIONS PLAN (NO. 3300)
SCALE: 3/16" = 1'-0"



SECTION A-M302
SCALE: 3/16" = 1'-0"

3	RECORD DRAWING	12-31-2014			
2	REVISED NOTE	CLB	CLB	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	CLB	CLB	MA/JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

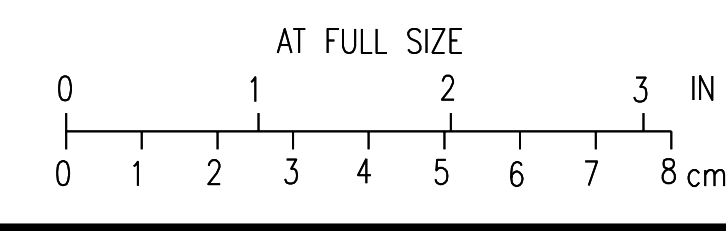


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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

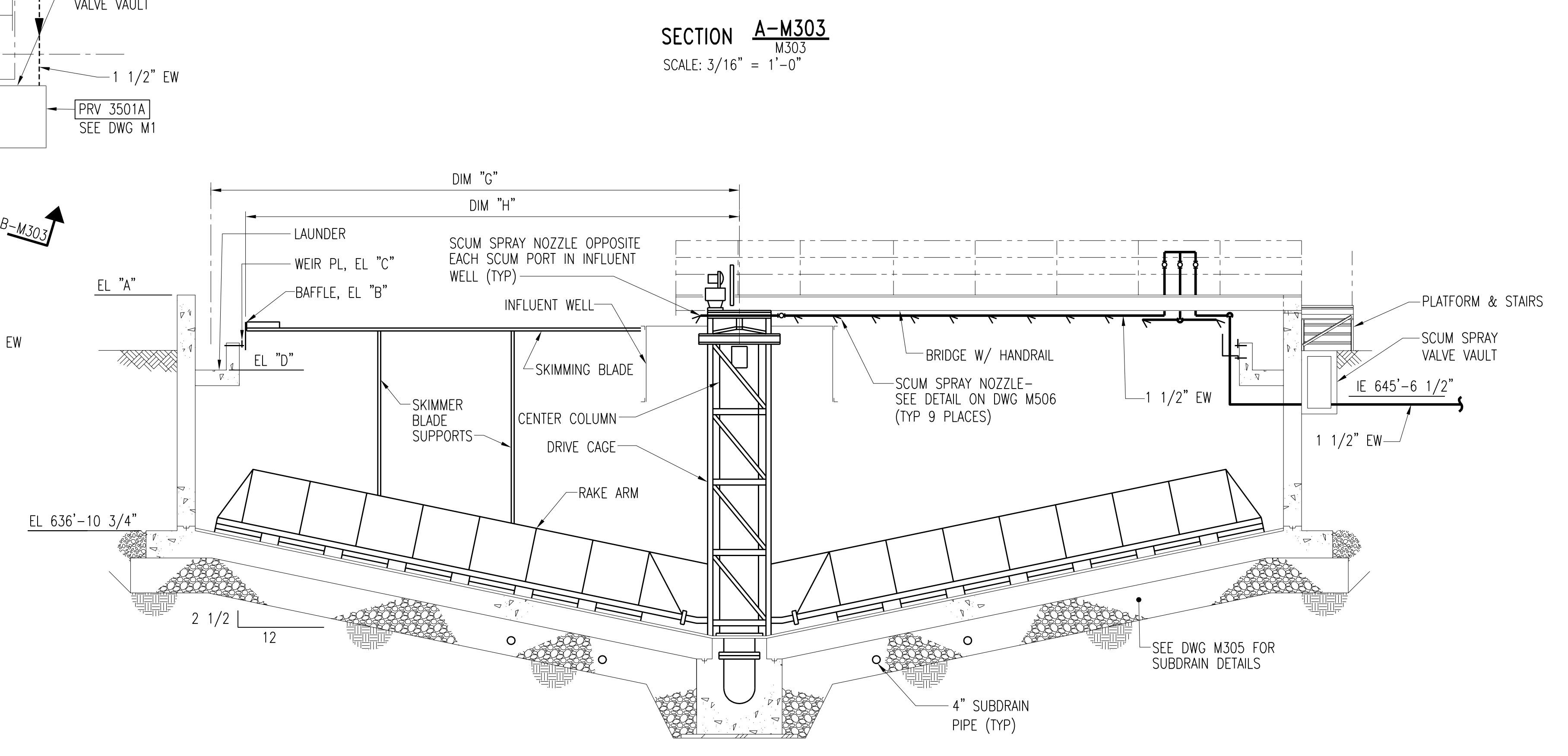
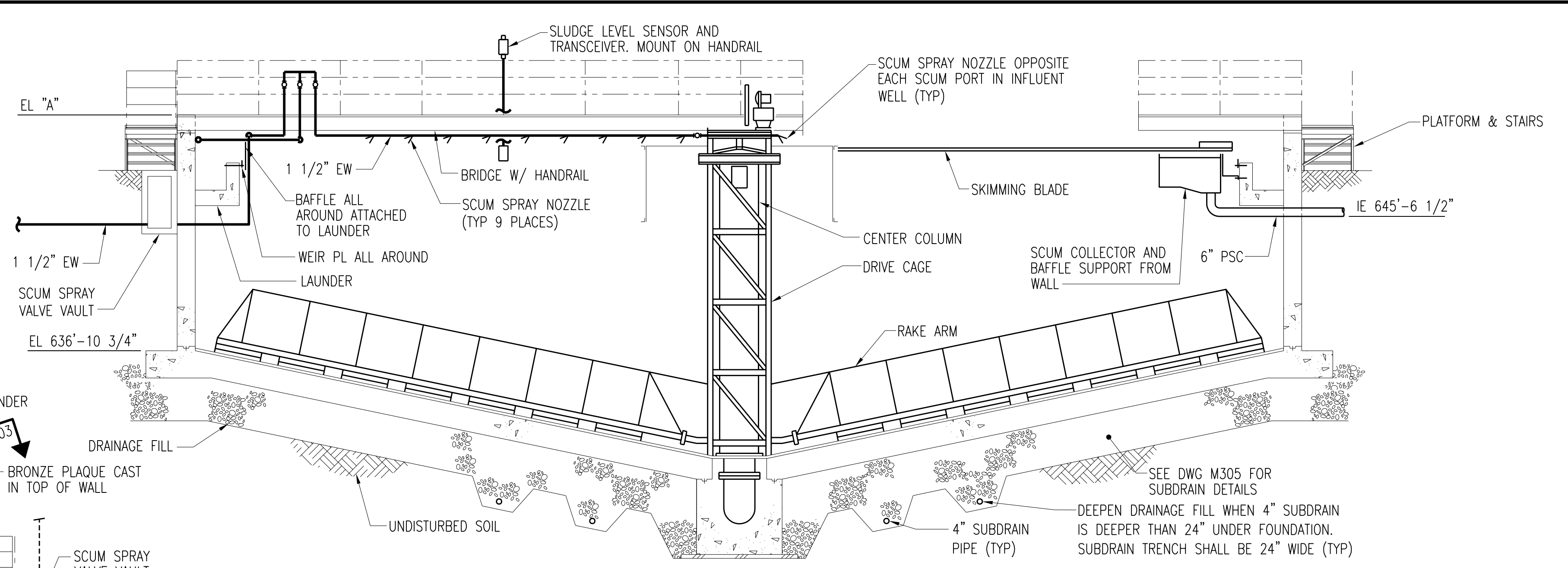
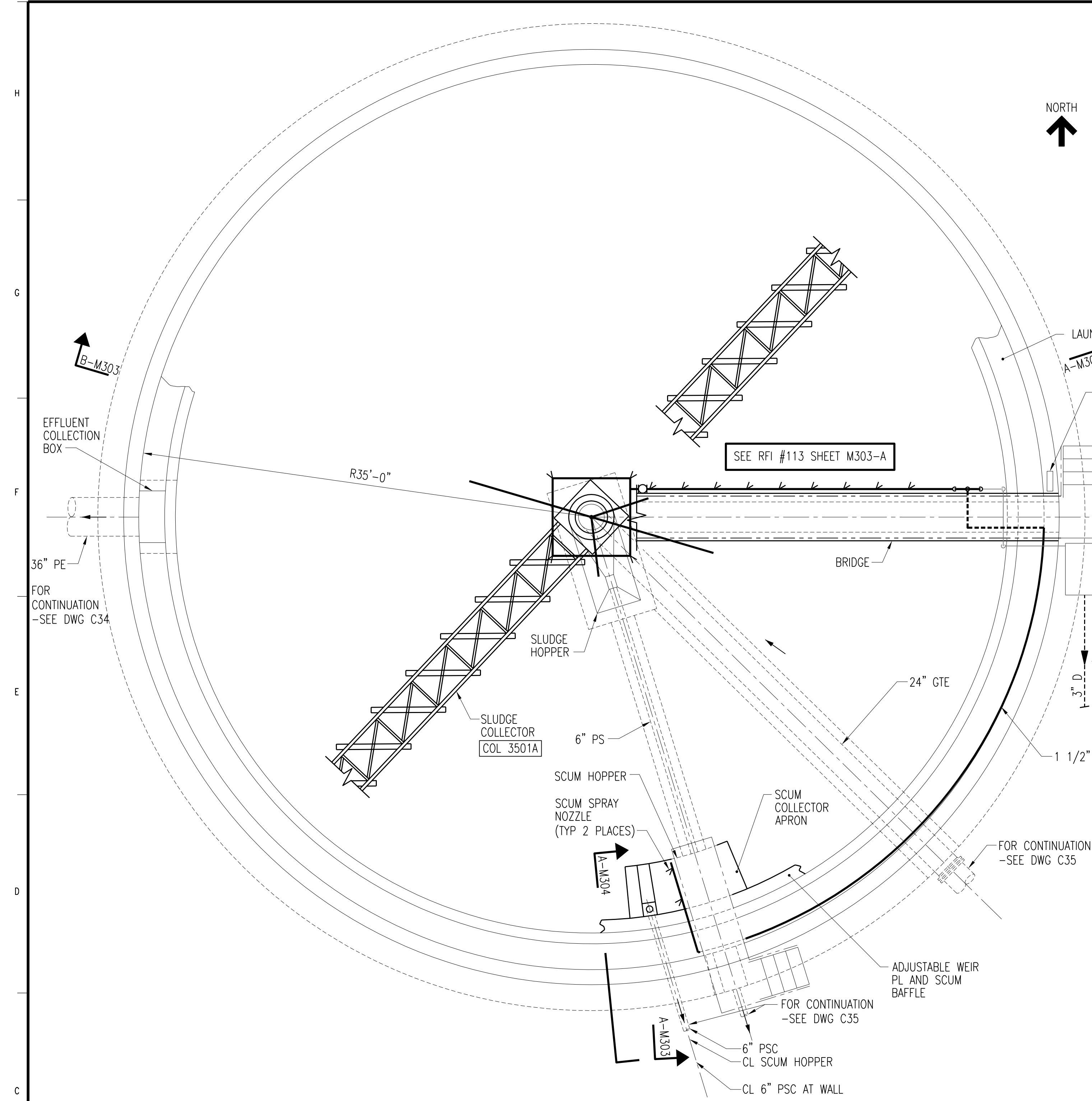
**PRIMARY CLARIFIER AREA
TANK 3300 AND 3400 MODIFICATIONS**

DESIGNED	CL BARK	SCALE:	AS NOTED
DRAWN	LJ OSBORN	NO.	22800
CHECKED	CL BARK	REV.	
APPROVED	M AKYUREK		
APPROVED	JM BRADY		
DATE	DECEMBER 2, 2011		



M302 **3**

CAD: D1-R4



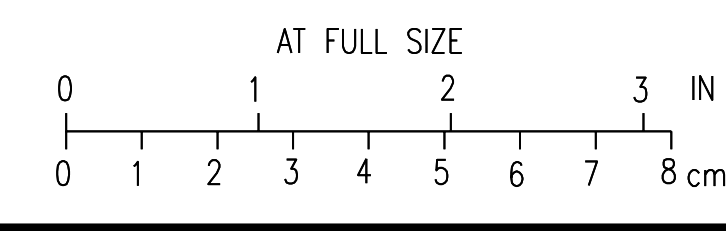
- NOTES:**
1. FOR ELEVATION TABLE SEE DWG M304.
 2. FOR CONTINUATION OF SITE PIPING SEE DRAWING C35.
 3. INSULATE AND HEAT TRACE 1 1/2" EW LINES.

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED SECTIONS	CLB	CLB	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	CLB	CLB	MA/JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

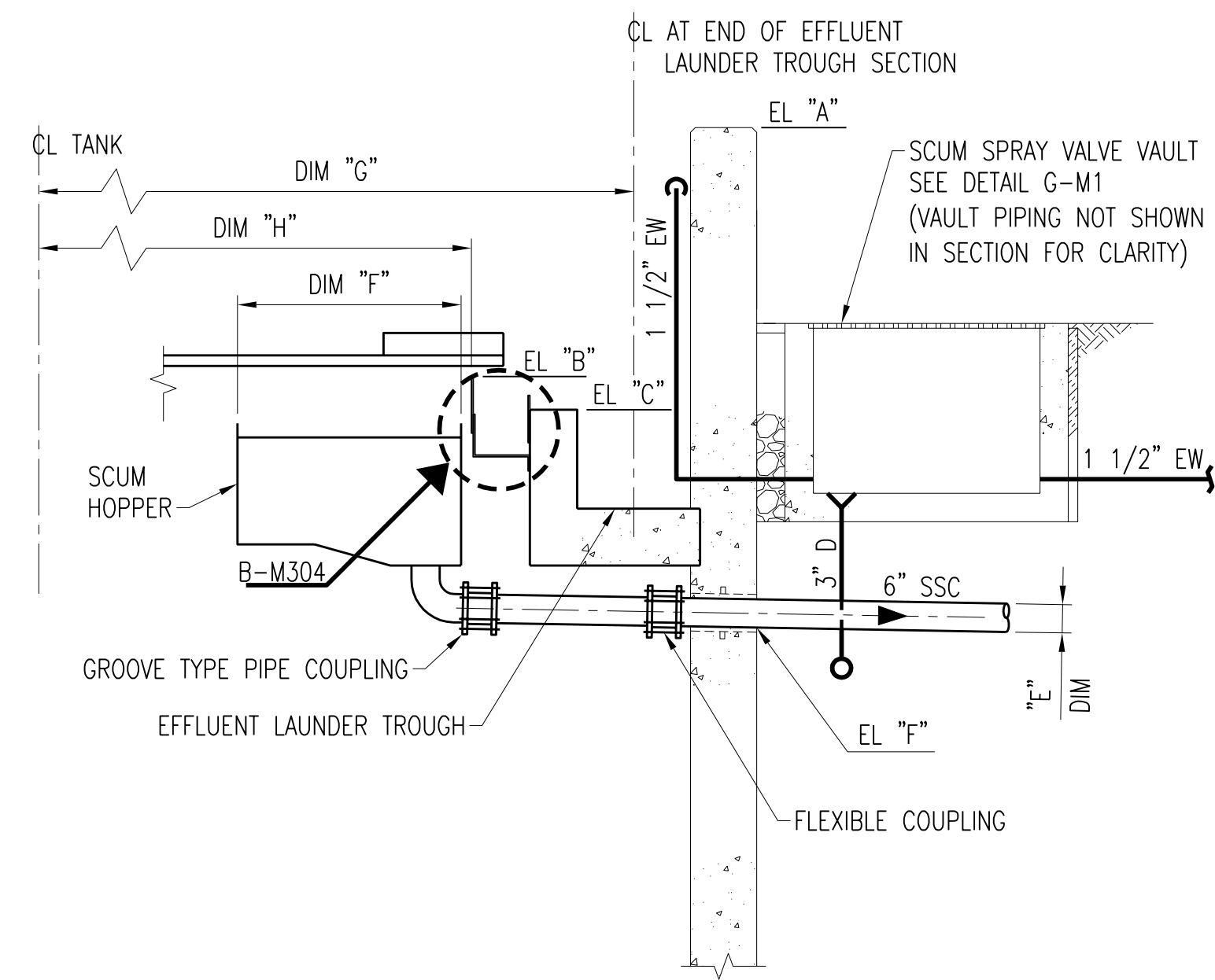
**PRIMARY CLARIFIER AREA
TANK 3500 - PLAN AND DETAILS
SHEET 1**



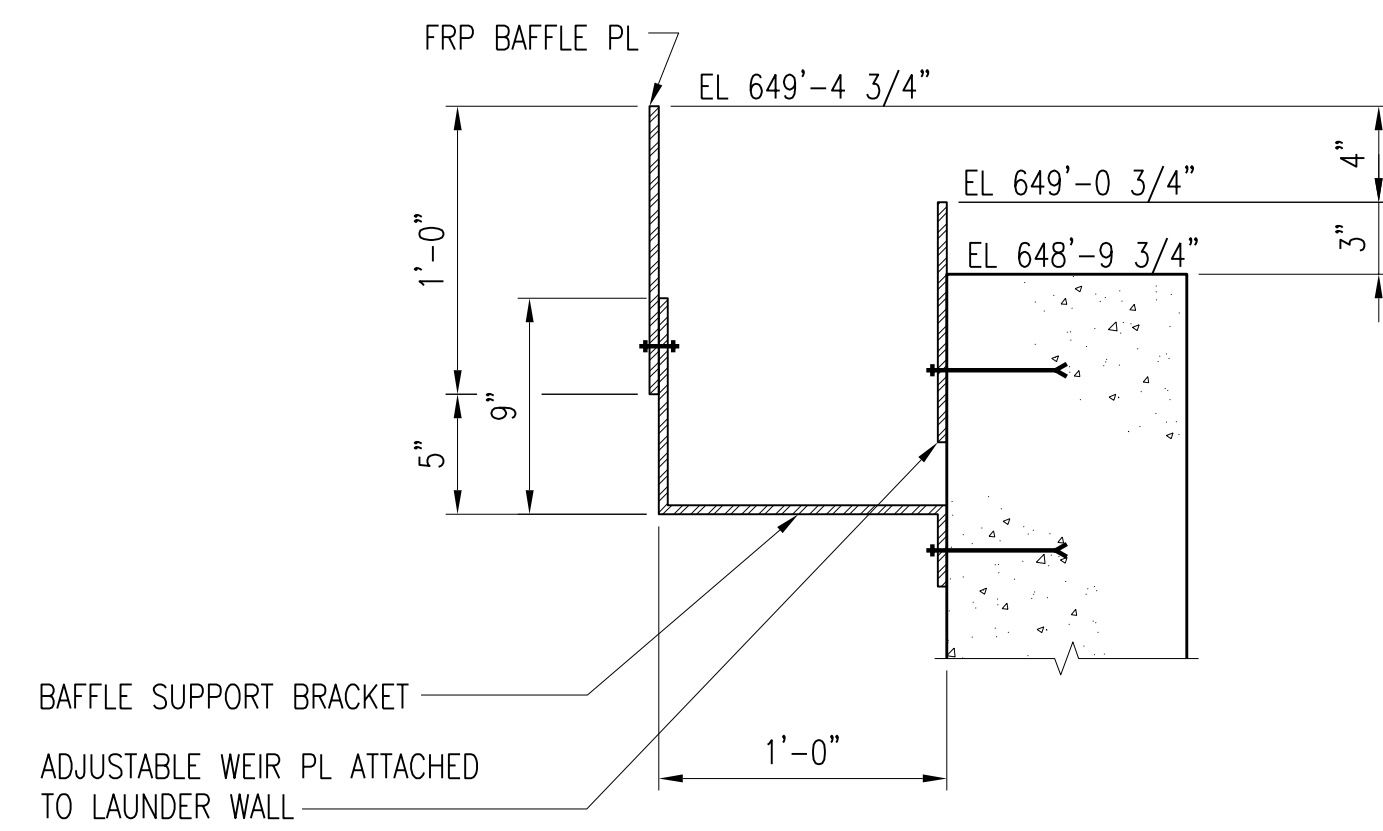
DESIGNED	CL BARK	SCALE: AS NOTED	REV.
DRAWN	LJ OSBORN	NO. 22800	
CHECKED	CL BARK		
APPROVED	M AKYUREK		
APPROVED	JM BRADY		
DATE	DECEMBER 2, 2011		

M303

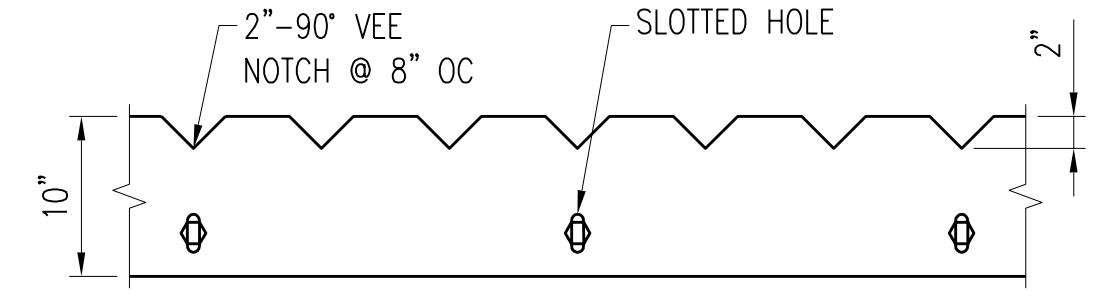
3



SECTION A-M304
M303
SCALE: 3/8" = 1'-0"



DETAIL B-M304
M304
SCALE: 1 1/2" = 1'-0"



ADJUSTABLE WEIR PLATE DETAIL
SCALE: 1" = 1'-0"

NOTES:

- REFER TO DWG M303 AND THIS DWG FOR DIMENSION AND ELEVATION CALLOUTS.

ELEVATION TABLE		
ITEM	DESCRIPTION	ELEVATION
A	TOP OF CONCRETE WALL	652'-8 3/4"
B	TOP OF SCUM BAFFLE	649'-4 11/16"
C	TOP OF WEIR	649'-0 3/4"
D	BOTTOM OF LAUNDER	647'-2 3/4"
E	MAXIMUM WATER SURFACE ELEVATION	649'-0 3/4"
F	INVERT SCUM PIPE AT WALL	644'-8 7/16"

DIMENSION TABLE		
ITEM	DESCRIPTION	DIMENSION
A	WIDTH OF EFFLUENT COLLECTION BOX	4'-0"
B	WIDTH OF LAUNDER TROUGH	2'-0"
C	WEIR NOTCH SPACING	0'-8"
D	WEIR NOTCH DEPTH	0'-2"
E	PRIMARY SCUM DIAMETER	0'-6"
F	SCUM HOPPER/BEACH WIDTH	4'-0"
G	RADIUS TO TROUGH CL AT MITER	34'-0"
H	RADIUS TO SCUM BAFFLE	32'-2"
I	NO. OF INFLUENT PORTS	4
J	WIDTH OF INFLUENT PORT	0'-6"
K	HEIGHT OF INFLUENT PORT	3'-0"

DIMENSION TABLE		
ITEM	DESCRIPTION	DIAMETER
D1	INFLUENT FEEDWELL	12'-0"
D2	CENTER COLUMN	2'-6"

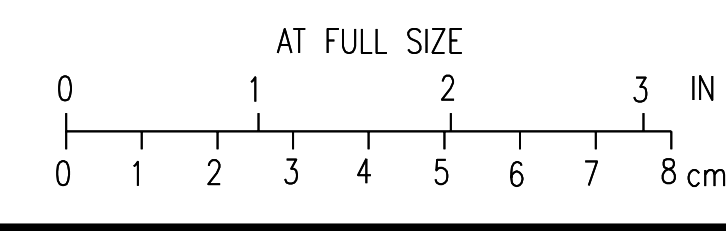
NO.	REVISIONS	DSGN	CHKD	APVD	DATE
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	CLB	CLB	MA/JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	CLB	CLB	MA/JMB	01-10-2012


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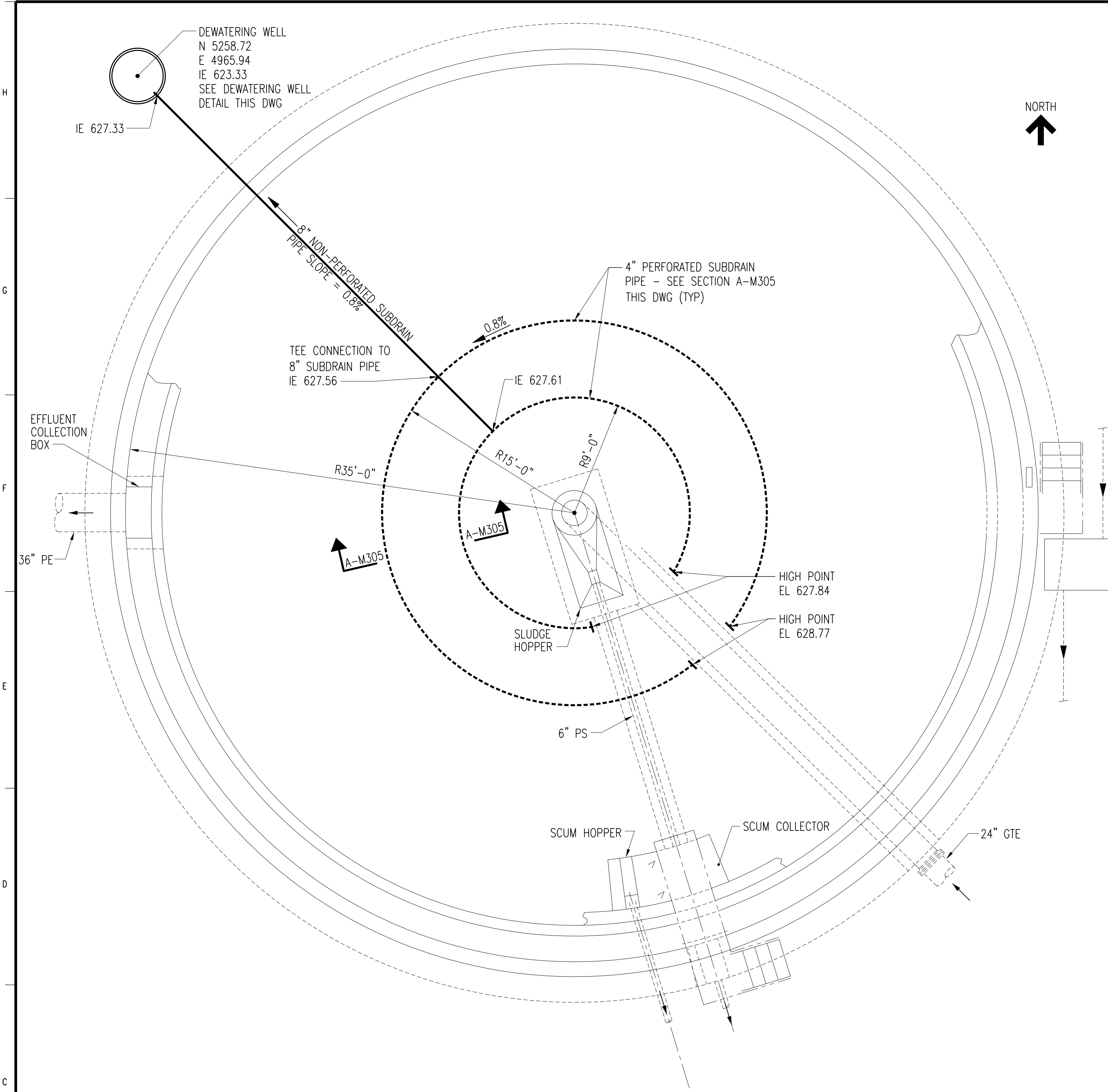
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

PRIMARY CLARIFIER AREA
TANK 3500 - PLAN AND DETAILS
SHEET 2

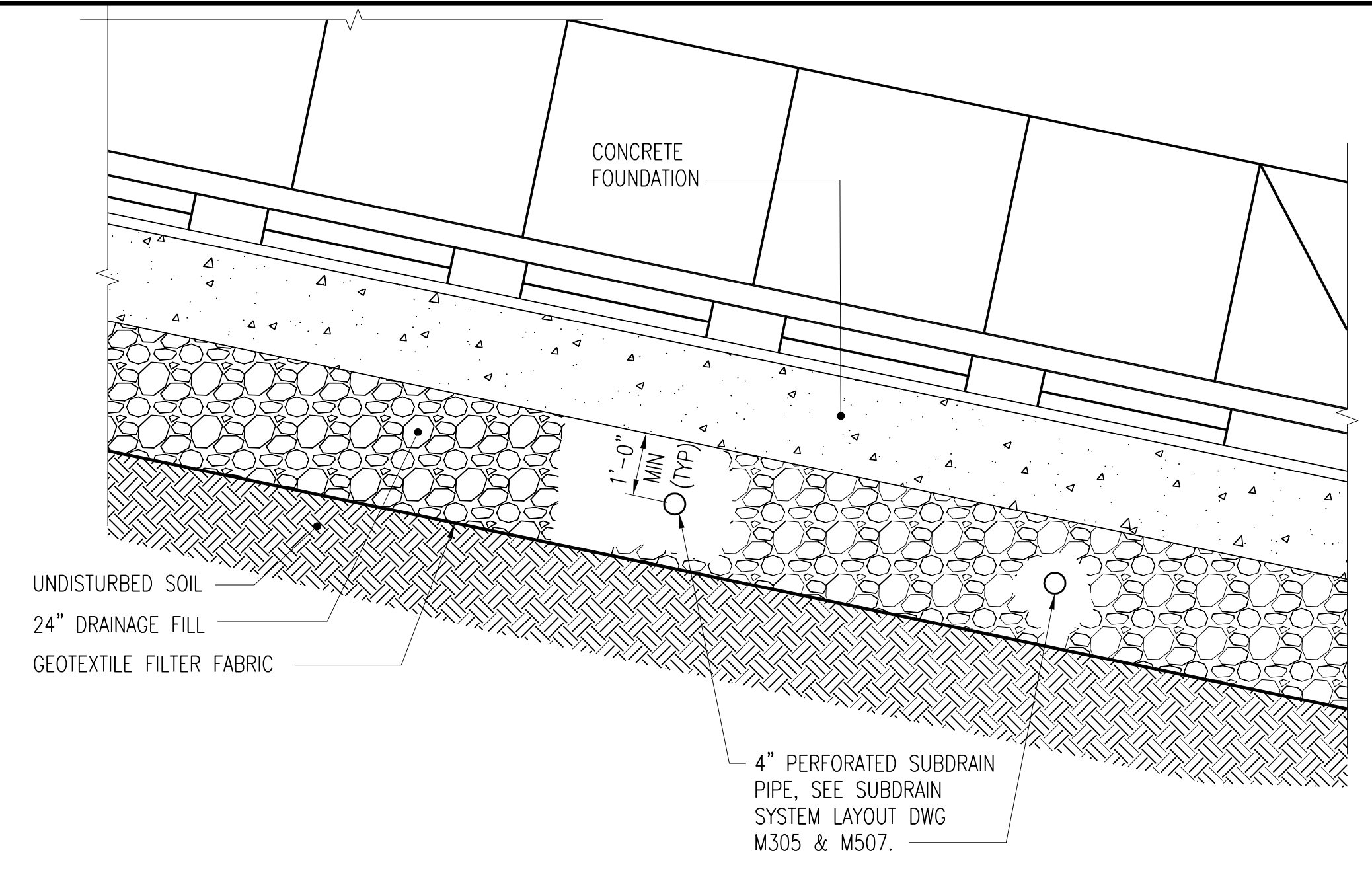
DESIGNED <u>CL BARK</u>	SCALE: AS NOTED	NO. 22800	REV.
DRAWN <u>LJ OSBORN</u>			
CHECKED <u>CL BARK</u>	M304	3	
APPROVED <u>M AKYUREK</u>			
APPROVED <u>JM BRADY</u>			
DATE <u>DECEMBER 2, 2011</u>			



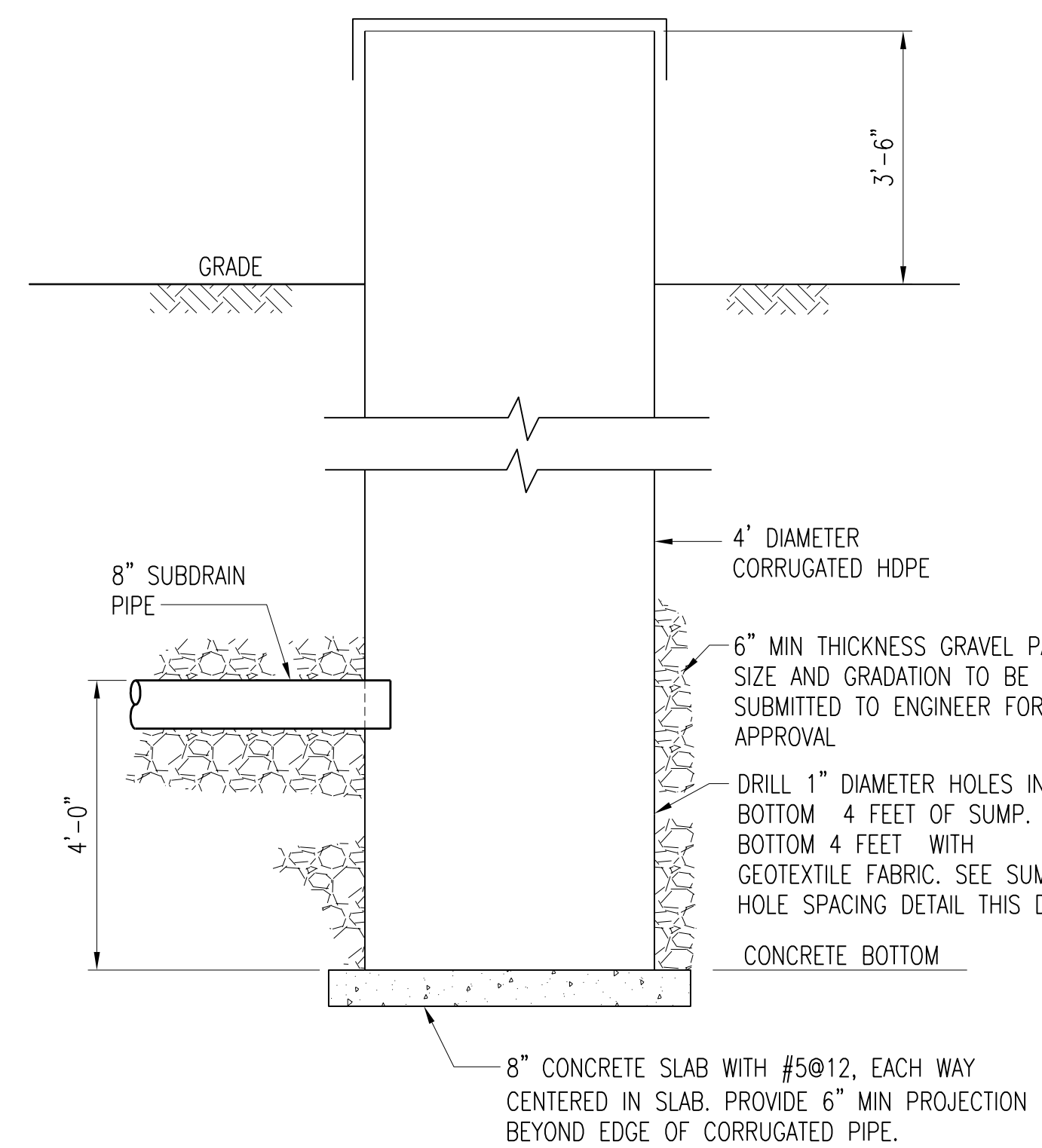
CADD: D1-R4



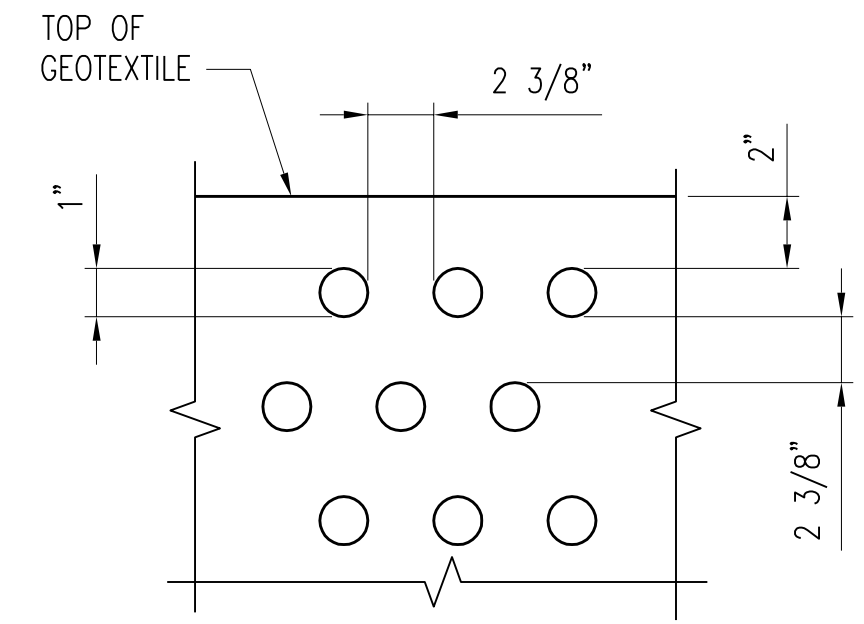
PRIMARY CLARIFIER PLAN (NO. 3500)
SCALE: 3/16" = 1'-0"



SECTION A-M305
SCALE: 1/2" = 1'-0"



DEWATERING WELL DETAIL
SCALE: 1/2" = 1'-0"

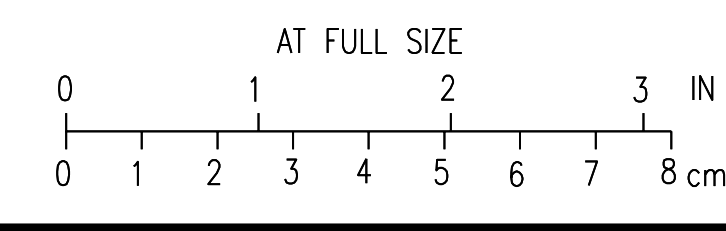


DEWATERING HOLE SPACING DETAIL
SCALE: NONE

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED NOTES	JMB	CLB	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	CLB	CLB	MA/JMB	01-10-2012


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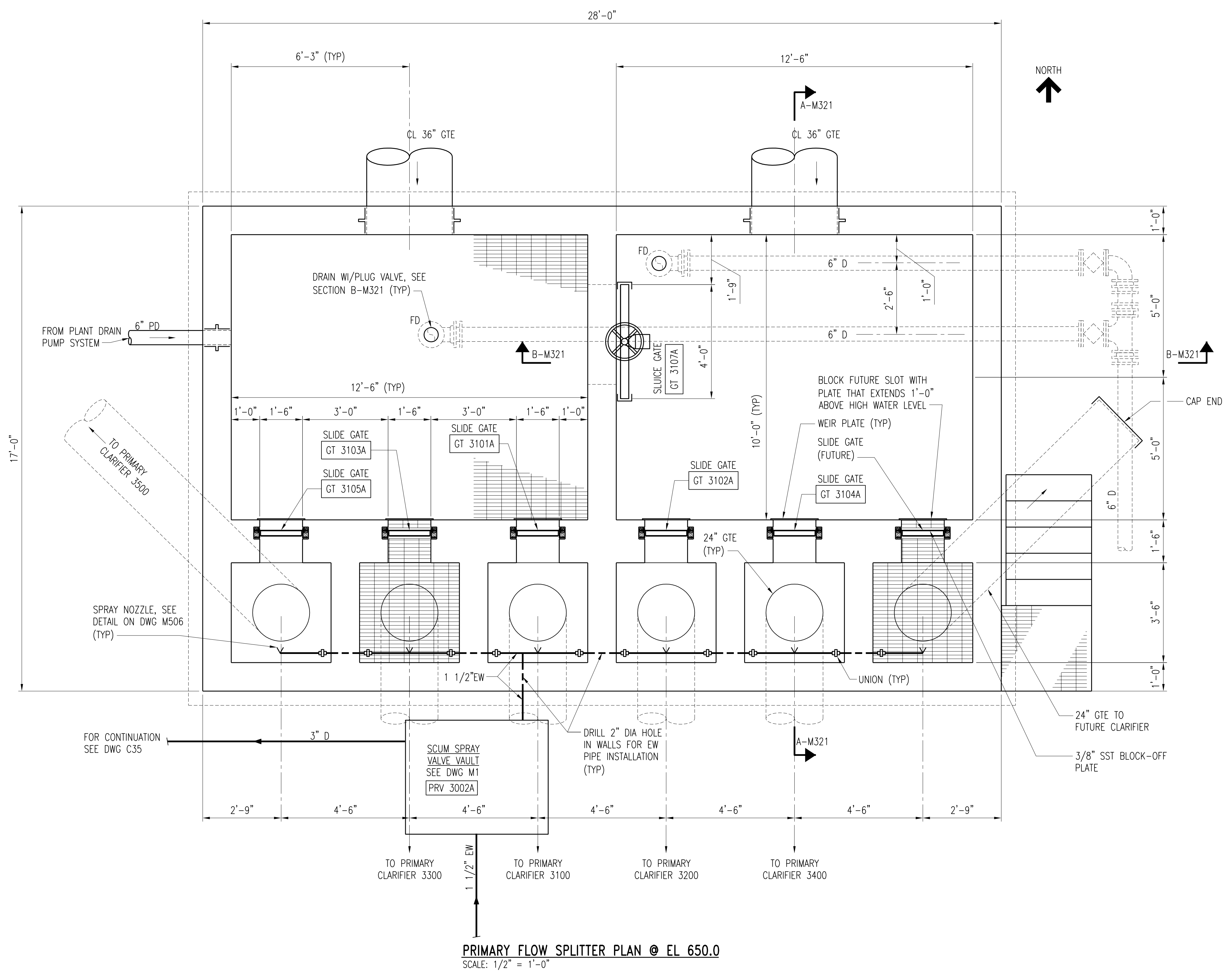
CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT
PRIMARY CLARIFIER AREA
TANK 3500 - SUBDRAIN SYSTEM
PLAN AND DETAILS



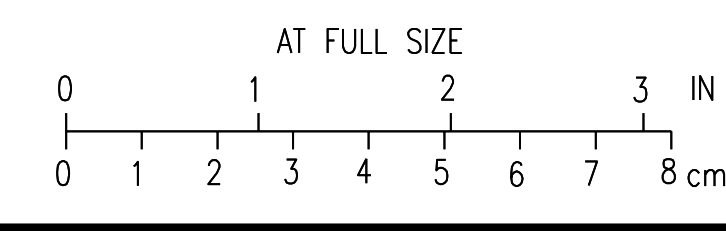
DESIGNED <u>CL BARK</u>	SCALE: AS NOTED
DRAWN <u>GA GOOS</u>	NO. 22800
CHECKED <u>CL BARK</u>	REV. 3
APPROVED <u>M AKYUREK</u>	M305
APPROVED <u>JM BRADY</u>	DATE <u>DECEMBER 2, 2011</u>

CADD: D1-1-14

- NOTES:**
- SEE DRAWING C35 FOR CONTINUATION OF SITE PIPING.
 - SEE DRAWING S320 FOR HANDRAIL.



PRIMARY FLOW SPLITTER PLAN @ EL 650.0
 SCALE: 1/2" = 1'-0"



3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	MOVED 6" D PIPES, ADDED NOTES	CLB	CLB	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	CLB	CLB	MA/JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

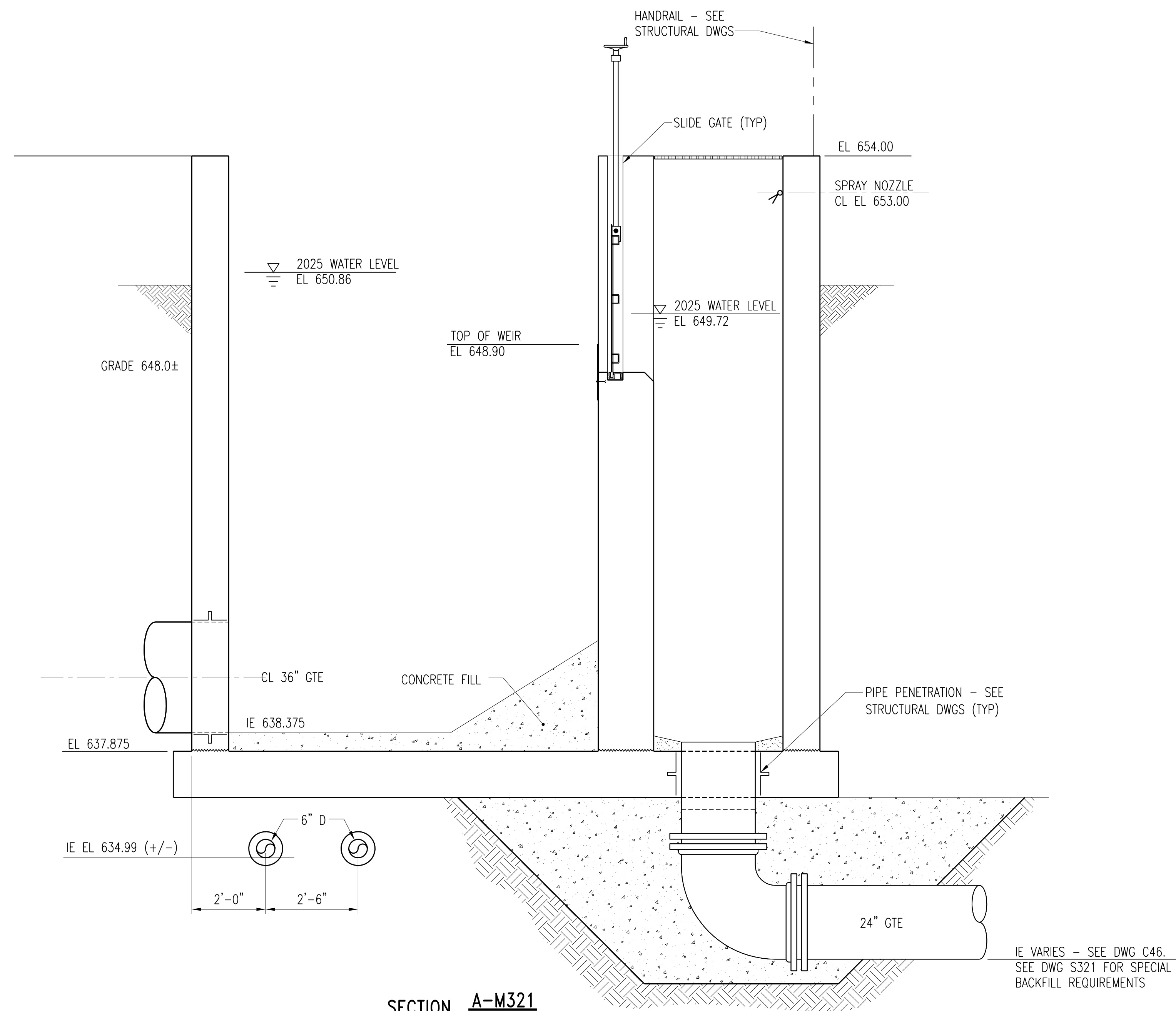

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**PRIMARY FLOW SPLITTER
 MECHANICAL PLAN**

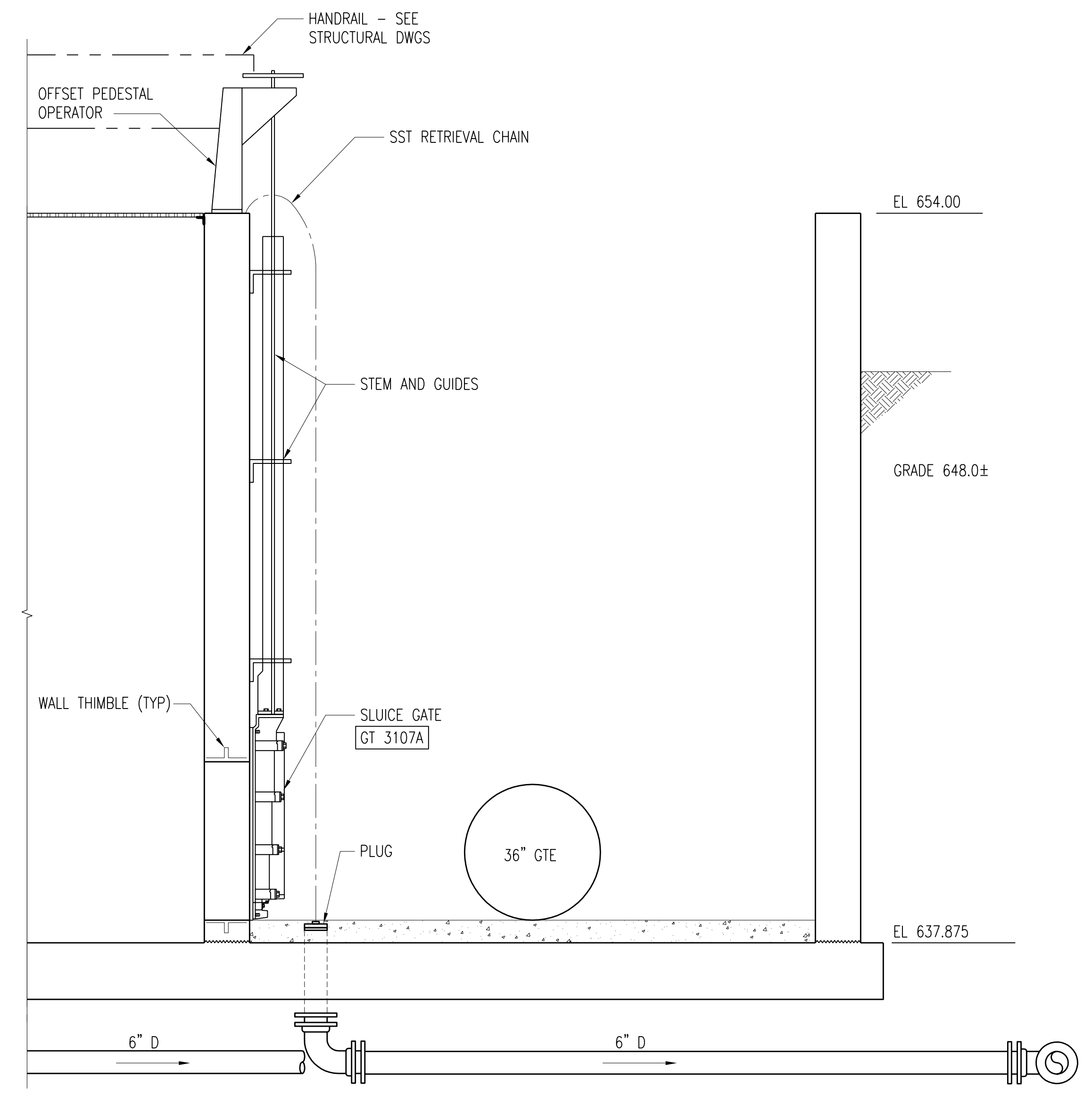
DESIGNED	CL BARK	SCALE:	AS NOTED
DRAWN	LJ OSBORN	NO.	22800
CHECKED	CL BARK	REV.	
APPROVED	M AKYUREK	M320	3
APPROVED	JM BRADY	DATE	DECEMBER 2, 2011

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SECTION **A-M321**
M320
SCALE: 1/2" = 1'-0"

IE VARIES - SEE DWG C46.
SEE DWG S321 FOR SPECIAL
BACKFILL REQUIREMENTS



SECTION **B-M321**
M320
SCALE: 1/2" = 1'-0"

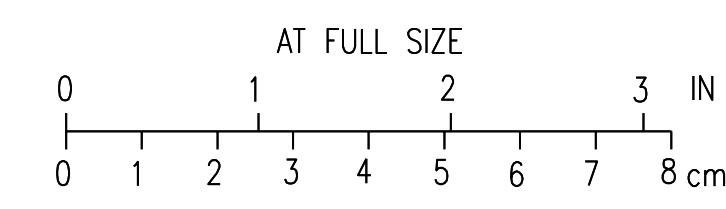
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	MOVED 6" D PIPES, ADDED NOTES	CLB	CLB	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	CLB	CLB	MA/JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

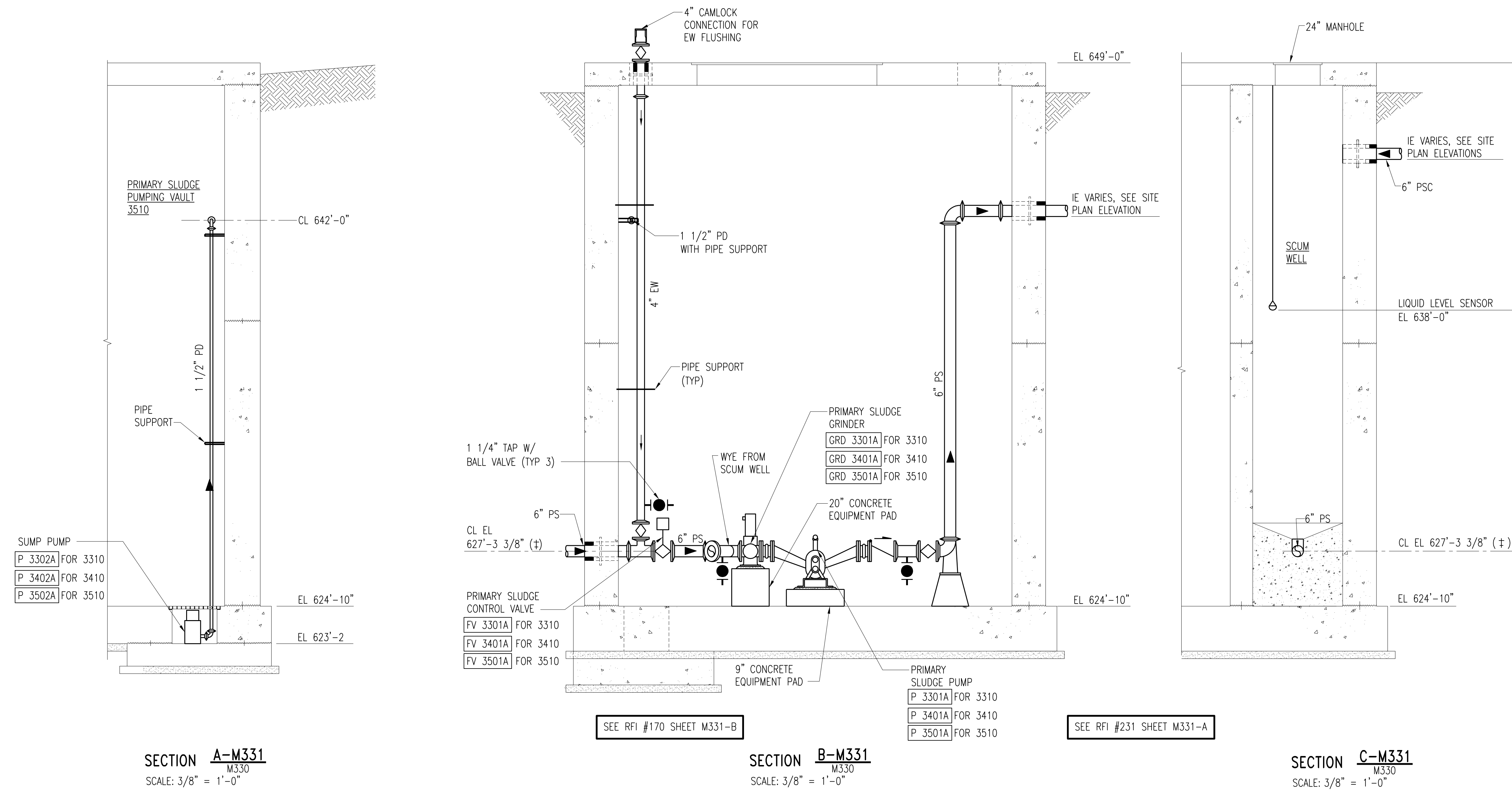

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**PRIMARY FLOW SPLITTER
MECHANICAL SECTIONS**

DESIGNED	CL BARK	SCALE:	AS NOTED
DRAWN	LJ OSBORN	NO.	22800
CHECKED	CL BARK	REV.	
APPROVED	M AKYUREK	M321	3
APPROVED	JM BRADY	DATE	DECEMBER 2, 2011





NOTES:

- CONNECT PROPOSED 6" PS LINE TO EXISTING 6" PRIMARY CLARIFIER SLUDGE PIPE NEAR FOUNDATION.

SECTION **A-M331**
M330
SCALE: 3/8" = 1'-0"

SECTION **B-M331**
M330
SCALE: 3/8" = 1'-0"

SECTION **C-M331**
M330
SCALE: 3/8" = 1'-0"

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	CLB	CLB	MA/IMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



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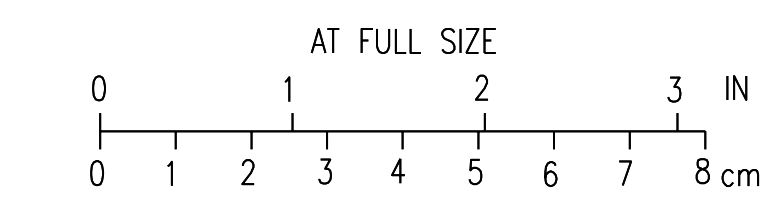
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**PRIMARY CLARIFIER AREA
PRIMARY SLUDGE PUMPING VAULTS
SECTIONS**

DESIGNED	CL BARK	SCALE:	AS NOTED
DRAWN	LJ OSBORN	NO.	22800
CHECKED	CL BARK	REV.	
APPROVED	M AKYUREK		
APPROVED	JM BRADY		
DATE	DECEMBER 2, 2011		

M331

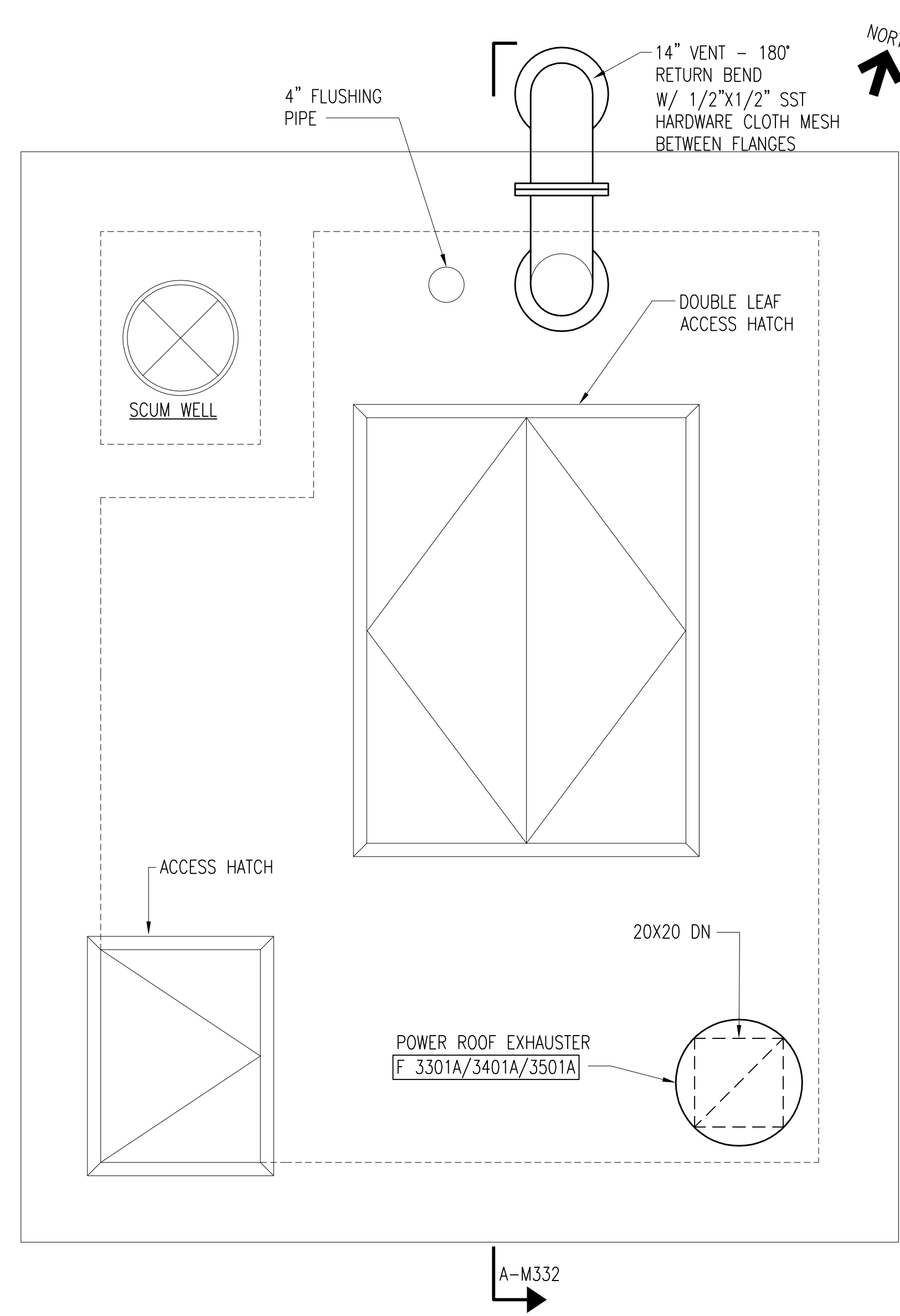
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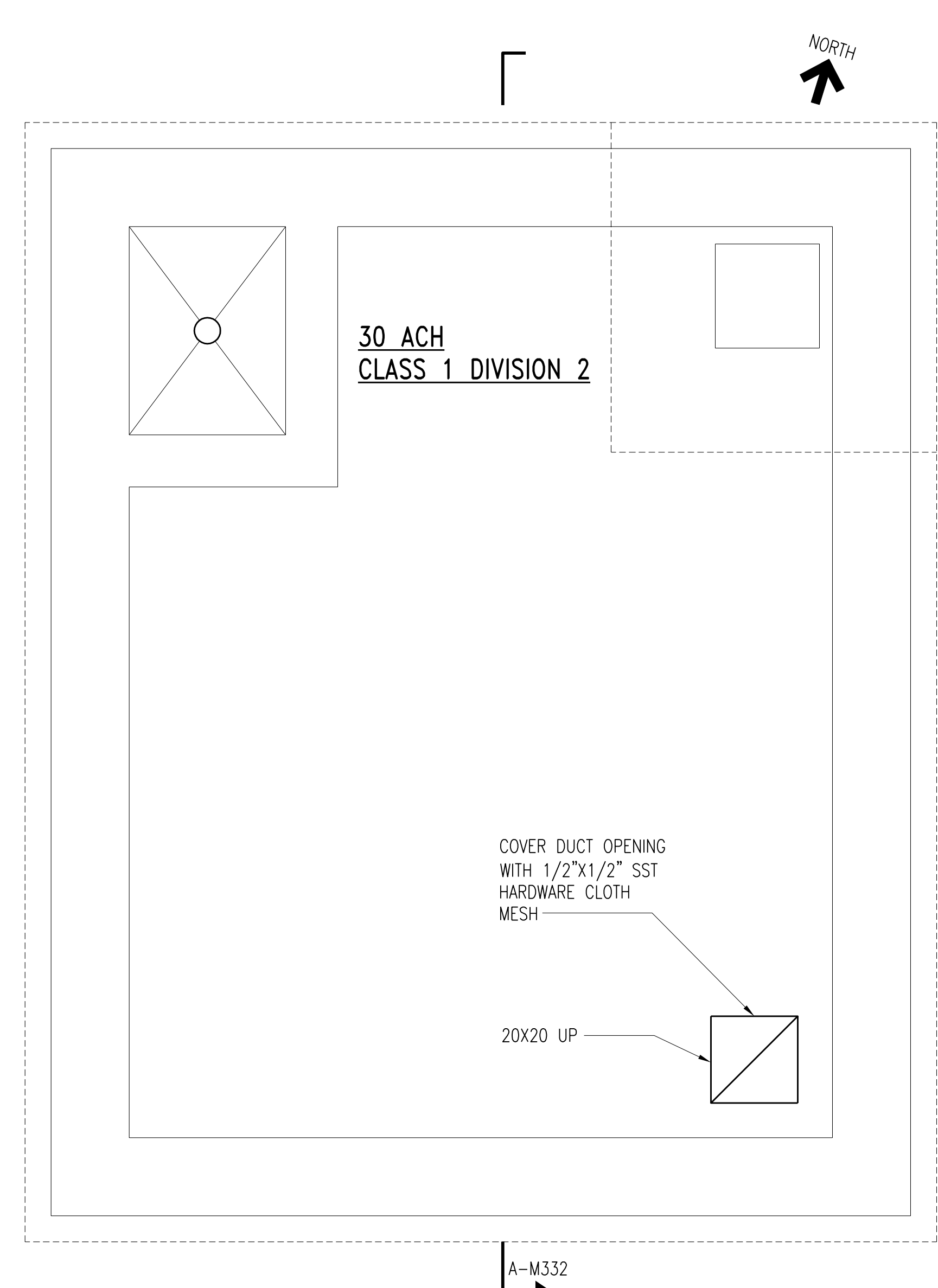
CADD: D1-R4

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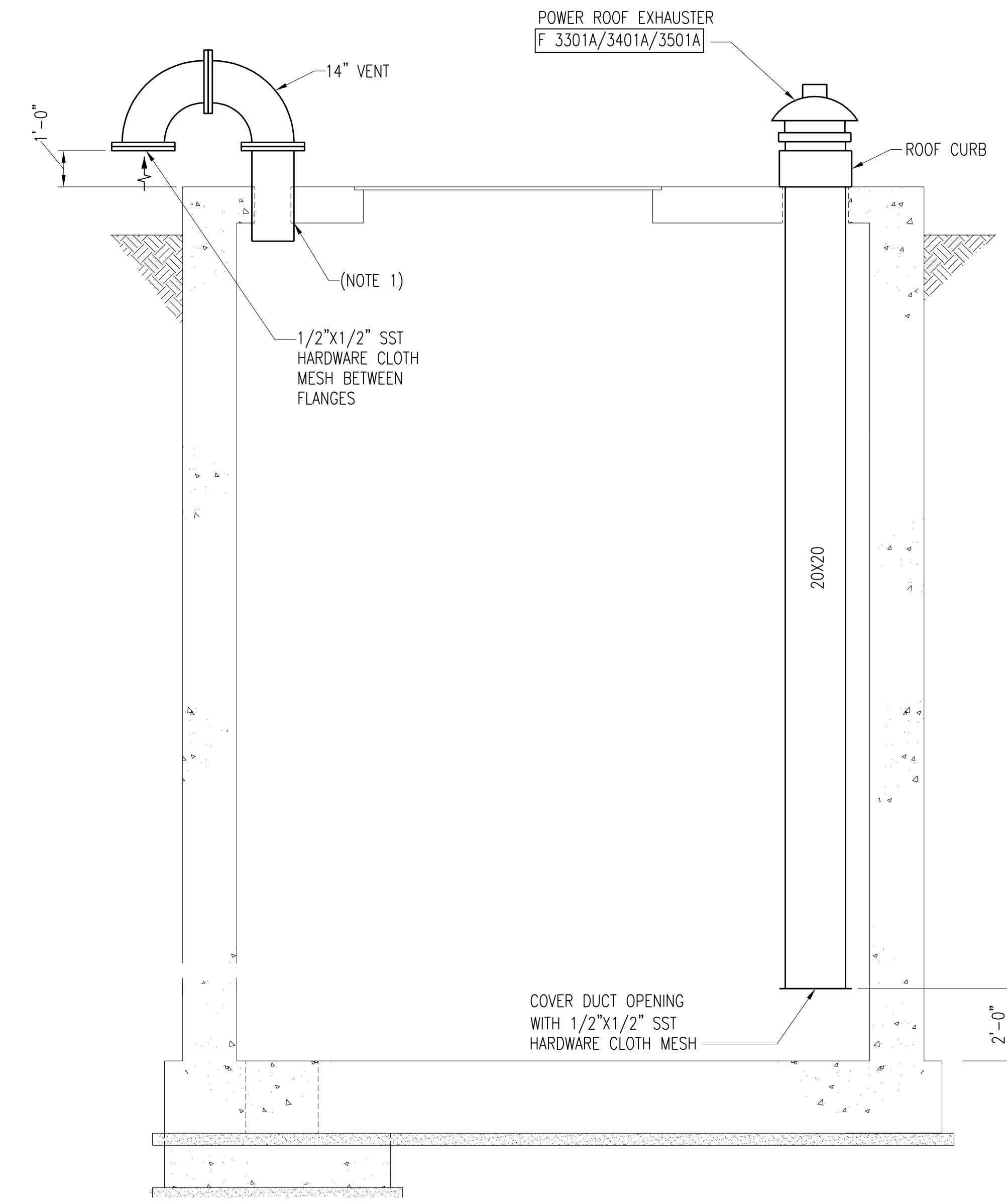
NOTES:
1. SEAL AROUND PIPE PENETRATIONS INTO VAULT.



TYPICAL PRIMARY SLUDGE VAULT PLAN @ EL 649'-0"
SCALE: 1/2" = 1'-0"



TYPICAL PRIMARY SLUDGE VAULT PLAN @ EL 637'-0"
SCALE: 1/2" = 1'-0"

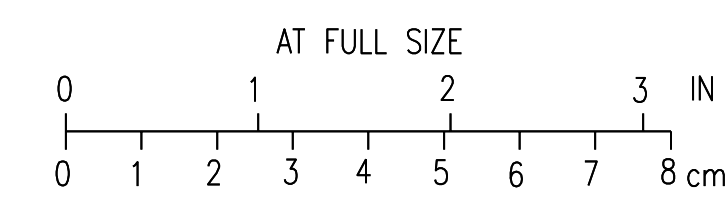


SECTION A-M332
SCALE: 3/8" = 1'-0"

SEE ITC #34 SHEET M332-A

SEQUENCE OF OPERATION

1. CONTROL OF HVAC FUNCTIONS OF FOLLOWING EQUIPMENT:
 - A. EXHAUST FANS (F):
 - i. F 3301A
 - ii. F 3401A
 - iii. F 3501A
2. GENERAL REQUIREMENTS:
 - A. HVAC SYSTEM SHALL BE CONTROLLED BY ACCESS HATCH DOOR SWITCH.
 - B. SET POINTS LABELED AS "ADJUSTABLE" SHALL BE FULLY ADJUSTABLE.
 - C. ALARM REPORTING SHALL BE DONE AT PANEL ASSOCIATED WITH EQUIPMENT.
3. EXHAUST FAN CONTROL:
 - A. EXHAUST FANS F 3301A, F 3401A, AND F 3501A SERVING PRIMARY SLUDGE VAULT SHALL BE INTERLOCKED WITH ACCESS HATCH SWITCH AND SHALL OPERATE CONTINUOUSLY WHEN HATCH IS OPENED.



2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JLL	JJB	JJB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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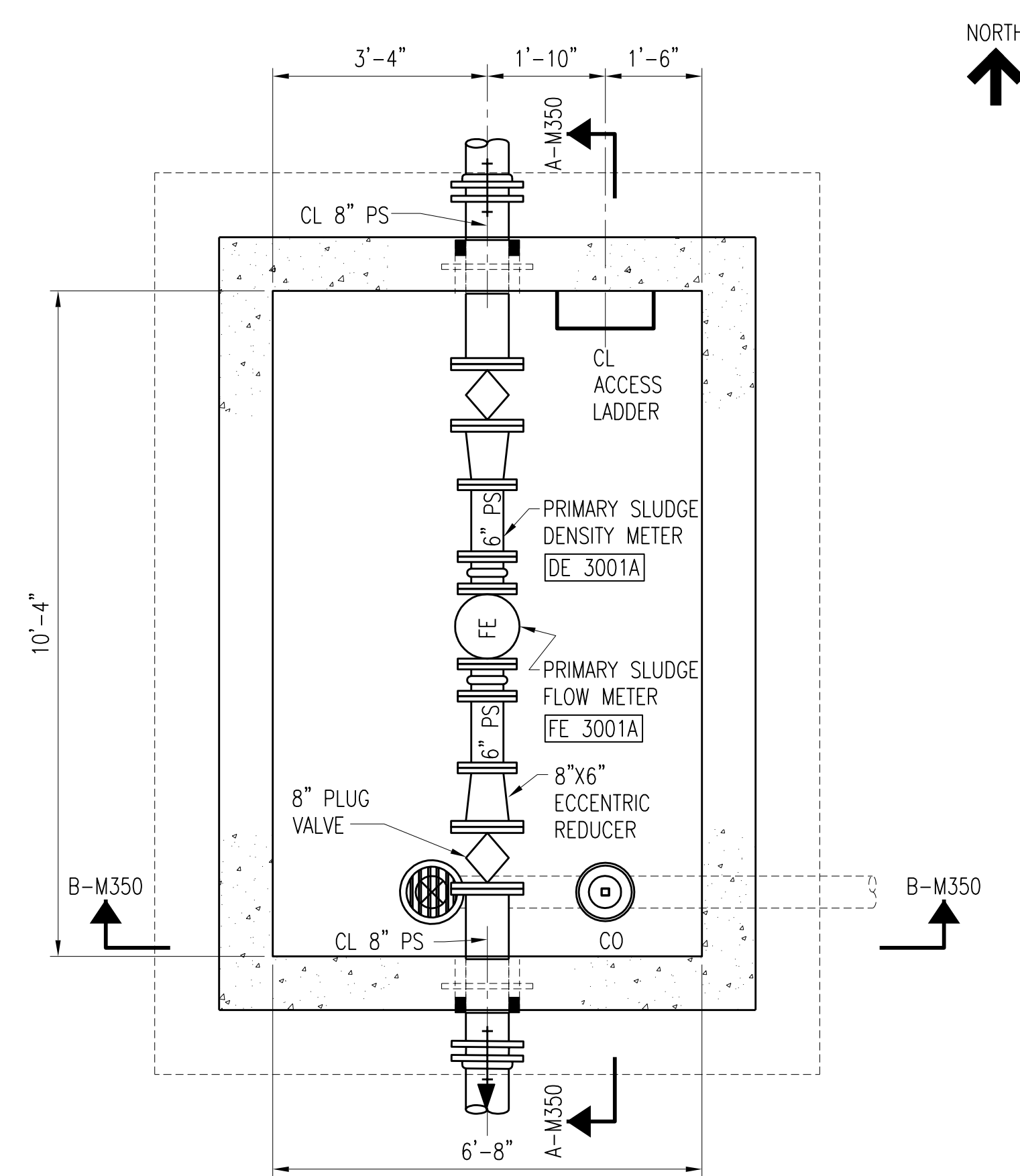
**PRIMARY CLARIFIER AREA
PRIMARY SLUDGE PUMPING VAULTS
HVAC PLANS AND DETAILS**

DESIGNED: J.L. LEE	SCALE: AS NOTED
DRAWN: D. WILGES	NO. 22800
CHECKED: J.J. BOVENKAMP	REV.
APPROVED: J.J. BOVENKAMP	M332
DATE: DECEMBER 2, 2011	2

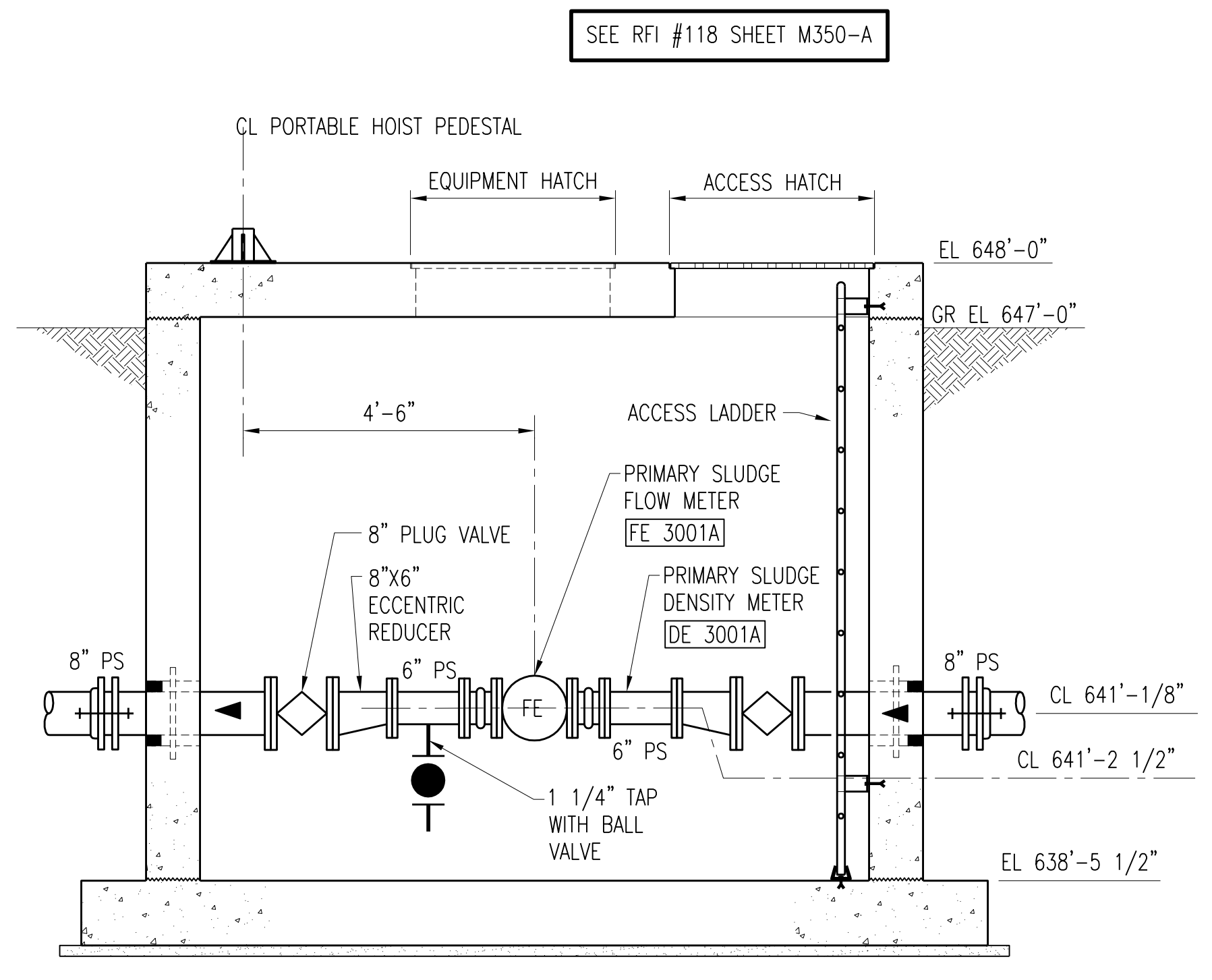
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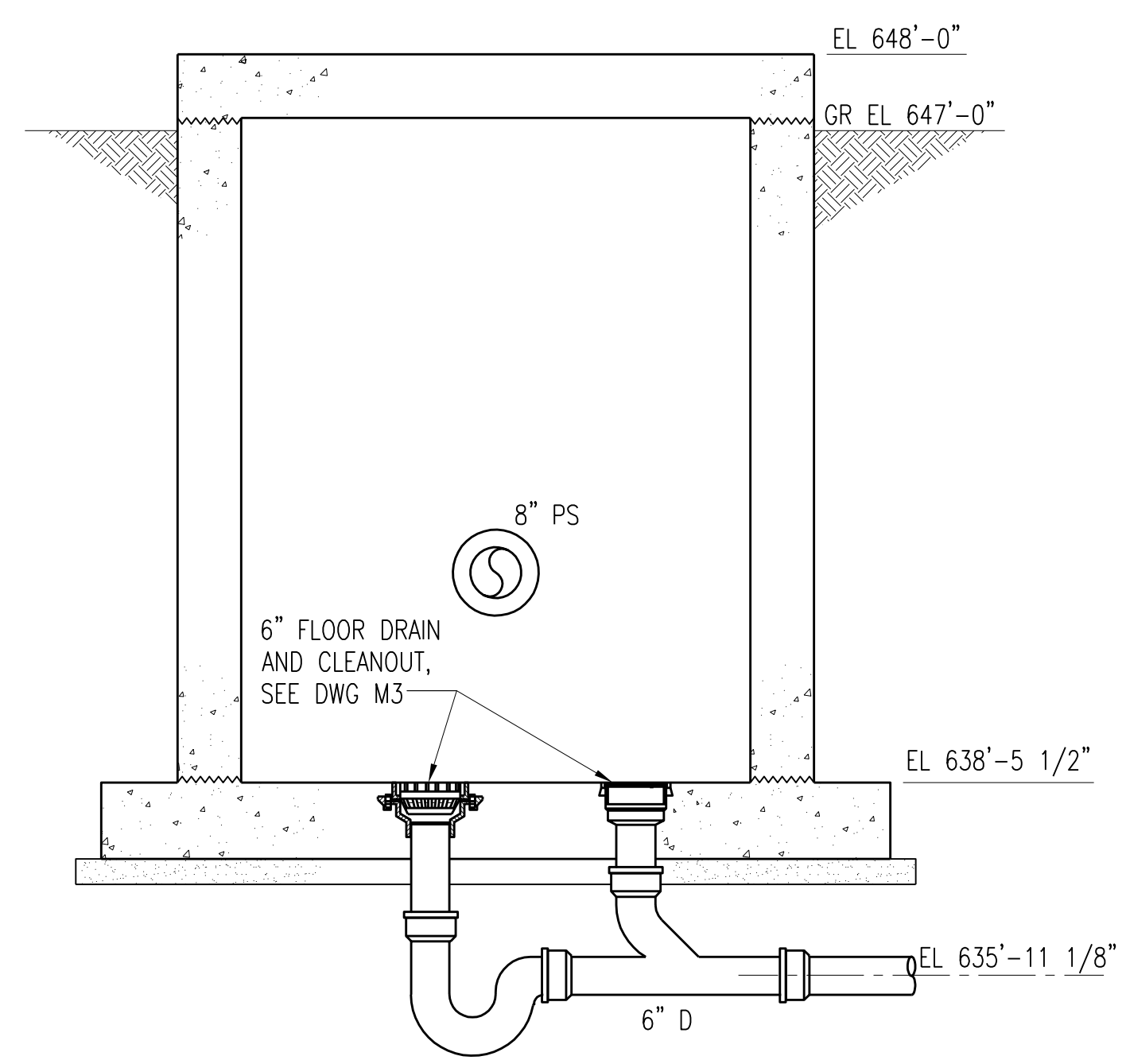
NOTES:
 1. PEDESTAL BASE SHALL BE THERN MODEL 524 OR EQUAL.
 2. FOR CONTINUATION OF SITE PIPING SEE DRAWING C35.



PLAN AT EL 642'-0"
 SCALE: 1/2" = 1'-0"



SECTION A-M350
 M350
 SCALE: 1/2" = 1'-0"



SECTION B-M350
 M350
 SCALE: 1/2" = 1'-0"

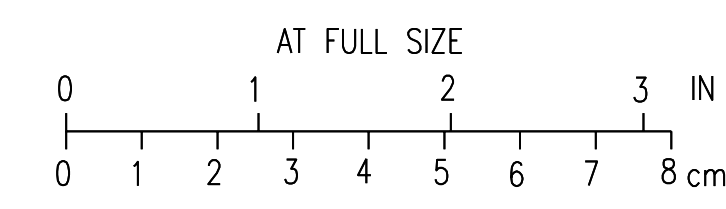
SEE RFI #118 SHEET M350-A

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	CHANGED VALVE	JMB	CLB	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	CLB	CLB	MA/JMB	01-10-2012


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CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**PRIMARY CLARIFIER AREA
 PRIMARY SLUDGE METER VAULT
 PLANS AND DETAILS**

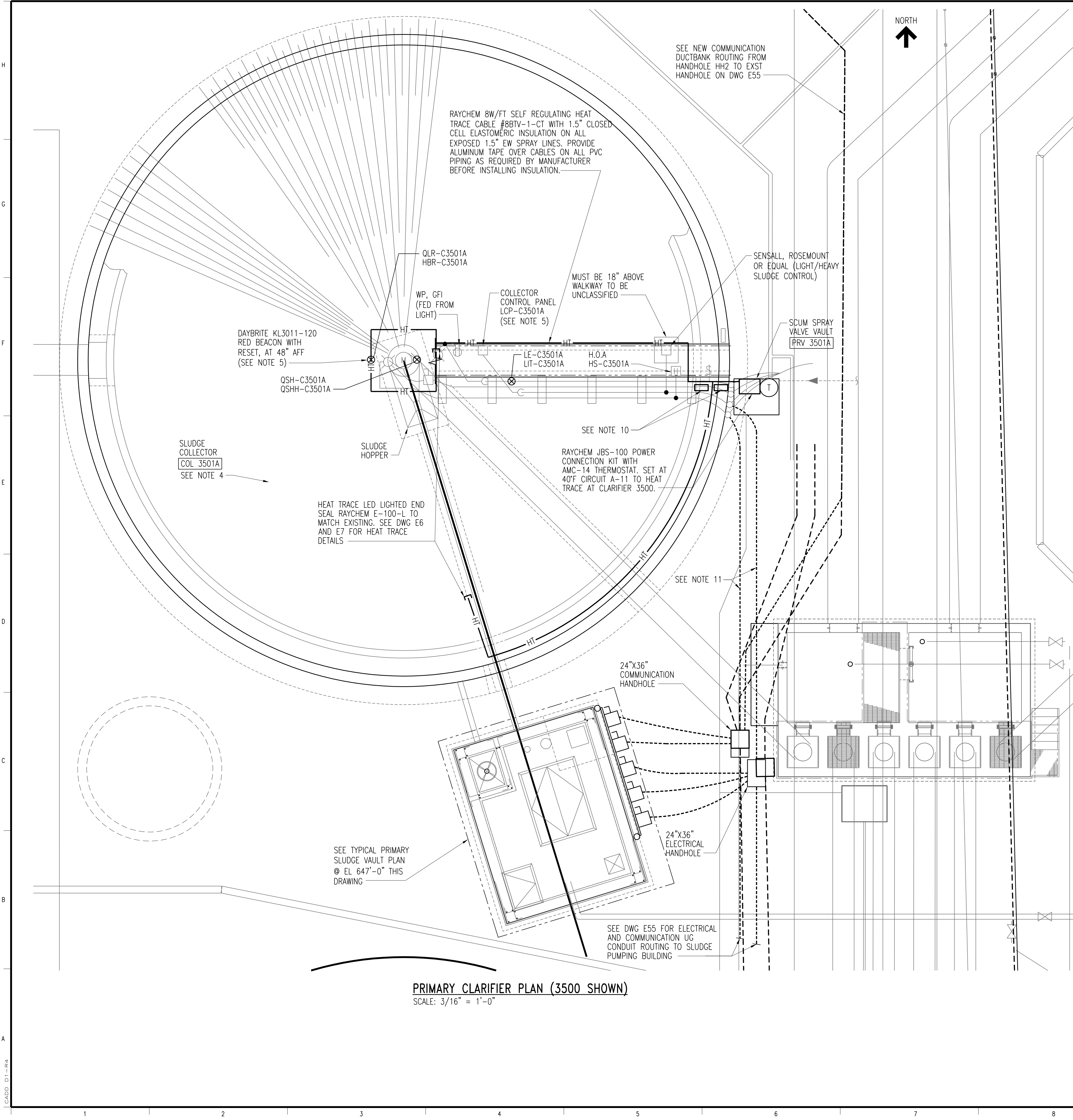


DESIGNED: CL BARK	SCALE: AS NOTED
DRAWN: LJ OSBORN	NO. 22800
CHECKED: CL BARK	REV.
APPROVED: M AKYUREK	M350
APPROVED: JM BRADY	3
DATE: DECEMBER 2, 2011	

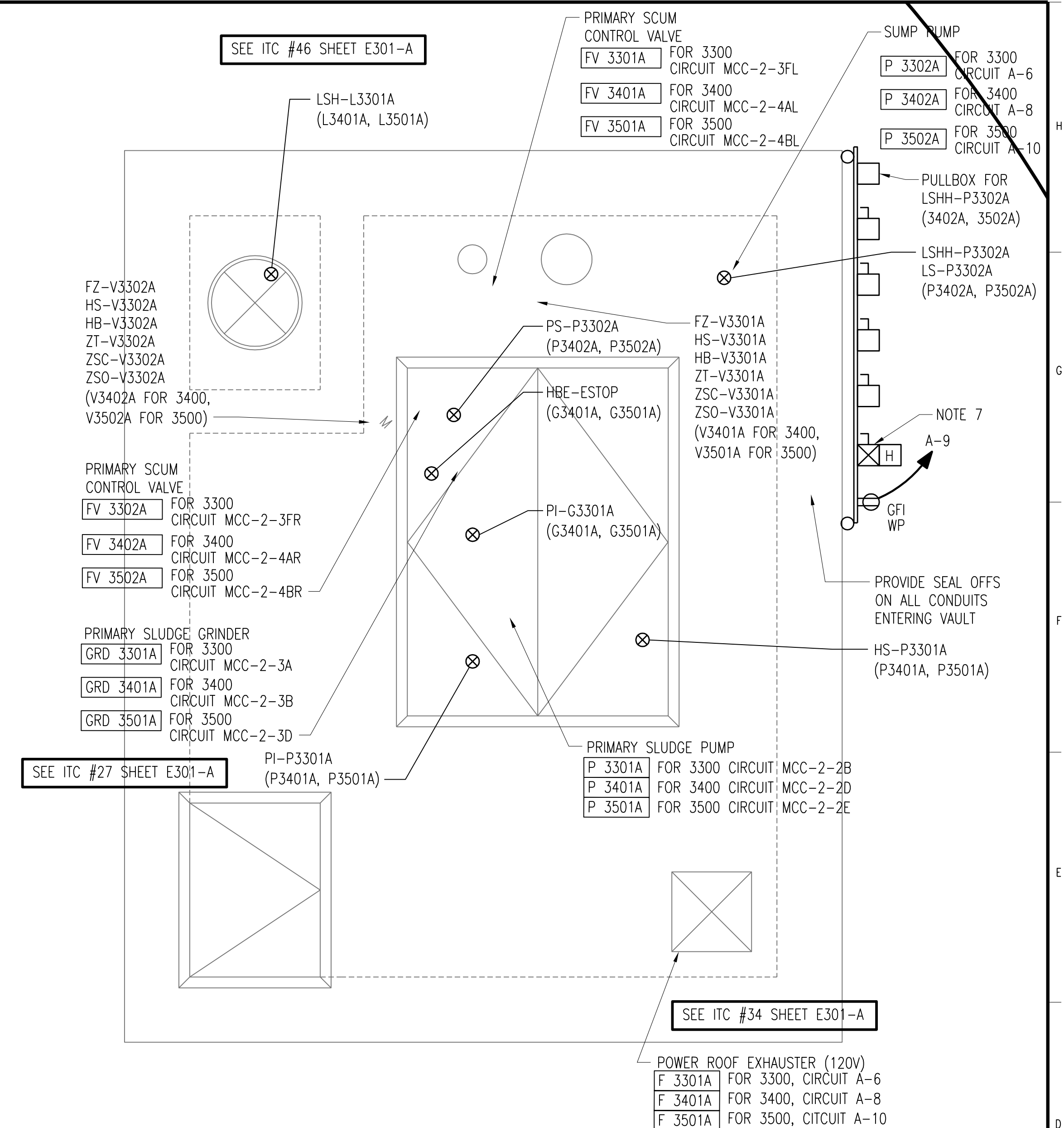
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1 2 3 4 5 6 7 8 9 10 11 12



PRIMARY CLARIFIER PLAN (3500 SHOWN)
SCALE: 3/16" = 1'-0"



TYPICAL PRIMARY SLUDGE VAULT PLAN @ EL 647'-0"
SCALE: 1/2"=1'-0" (CLASS 1, DIVISION 2)

NOTES:

1. ALL POWER REQUIREMENTS FOR PRIMARY CLARIFIER SHALL BE ROUTED THROUGH THE HANDHOLE SYSTEM AS SHOWN ON ELECTRICAL SITE PLAN DRAWING E55 TO SLUDGE PUMPING BUILDING MCC-2 AND MCC-3. PROVIDE NEW CONDUITS AS SHOWN ON ONE LINE DIAGRAMS AND ELECTRICAL SITE PLAN.
2. SEE DRAWING D14 AND D15 FOR MCC-3 DEMOLITION ITEMS AND DRAWING E14 AND E15 FOR MCC-3 AND E30 FOR NEW MCC-2 REQUIREMENTS.
3. SEE DRAWING E-701 FOR PANEL B SCHEDULE FOR 120V WIRING REQUIREMENTS.
4. PROVIDE 4 #10 IN A 2" PVC COATED RGS CONDUIT FROM COLLECTOR COL 3501A AND DRIVE MECHANISM TO MCC-2. ROUTE CONDUITS FROM CLARIFIER THROUGH HANDHOLE SYSTEM AND ONTO MCC-2 AT SLUDGE PUMPING BUILDING.
5. PROVIDE CLARIFIER HIGH TORQUE ALARM LIGHT AND HORN WITH SILENCE SWITCH AND RELAY TO MATCH TYPE PROVIDED ON EXISTING CLARIFIERS 3300 AND 3400. PROVIDE MOMENTARY SWITCH AND 3 POLE ELECTRICALLY HELD RELAY ON HANDRAIL (TYP).
6. CONTRACTOR SHALL PROVIDE CIRCUITS FROM PANEL A AND B IN SLUDGE PUMPING BUILDING FOR ALL 120V CIRCUITS SHOWN AT NEW 3500 PRIMARY CLARIFIER AND PRIMARY SLUDGE VAULT.
7. PROVIDE 3 #10 1" RGS CONDUIT TO POWER ROOF EXHAUSTERS MOUNT A LOCKABLE COMBINATION STARTER IN A NEMA 4X ENCLOSURE WITH RED AND GREEN INDICATING LIGHTS AND HOA SWITCH ON COVER AT 48" AFF WHERE SHOWN ON DRAWING. SIZE FUSES AT 1.75 X FLA OF MOTOR.
8. INTERLOCK AND CONTROL REQUIREMENTS FOR ALL HVAC EQUIPMENT SHALL BE PROVIDED AS DESCRIBED IN THE HVAC SEQUENCE OF OPERATION AND HVAC DRAWINGS.
9. PRIMARY SLUDGE PUMPING VAULT ELECTRICAL INSTALLATION SHALL BE SUITABLE FOR CLASS 1, DIVISION 2 AREAS.
10. PROVIDE TWO 12" X 12" X 6" STAINLESS STEEL PULLBOXES SUITABLE FOR AREA WITH SIDE HINGED AND LOCKABLE COVERS. PULLBOXES ARE TO BE USED FOR FUTURE SLUDGE LEVEL BLANKET INDICATORS. ONE BOX WILL BE USED FOR 120V CIRCUITS AND THE OTHER BOX WILL BE USED FOR SIGNAL CABLING. PROVIDE A 1 INCH PVC RGS CONDUIT TO EACH BOX FROM SLUDGE PUMPING BUILDING PLC FOR CLARIFIER SHOWN. IN 120V CONDUIT PROVIDE 3/C #12 AND COIL BACK AT PLC FOR FUTURE CONNECTION. IN SIGNAL CONDUIT PROVIDE 1 - #16TSP AND ALSO COIL BACK AT PLC.
11. CONTRACTOR TO COORDINATE EXACT CONDUITS FROM CLOSEST HANDHOLES TO COLLECTOR, LIGHTS, PANEL CONTROLS, HEAT TRACE, AND DEVICES PER P&ID'S, ONE-LINE DIAGRAMS, AND PANEL SCHEDULES. (TYP FOR ALL CLARIFIERS)

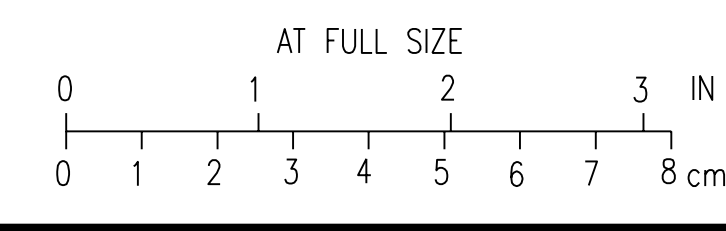
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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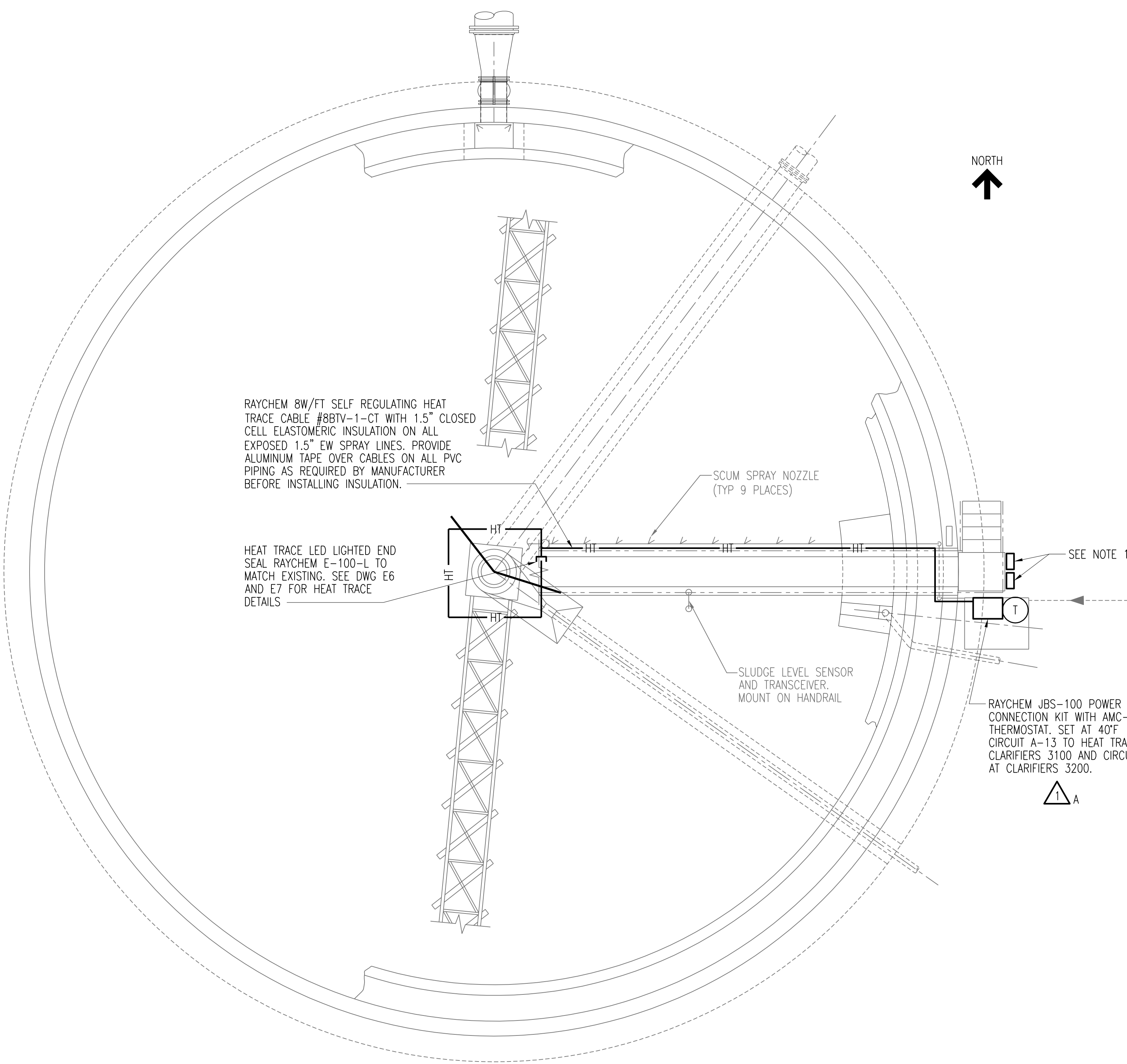
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**PRIMARY CLARIFIER AREA
TANK 3500 - POWER PLAN AND DETAILS**

DESIGNED	D.L. MORITZ	SCALE:	AS NOTED
DRAWN	D. WILGES	NO.	22800
CHECKED	D.L. MORITZ	REV.	
APPROVED	J.D. COOAN	E301	3
DATE	DECEMBER 2, 2011		



CADD: D1-E-14



RAYCHEM 8W/FT SELF REGULATING HEAT TRACE CABLE #8BTV-1-CT WITH 1.5" CLOSED CELL ELASTOMERIC INSULATION ON ALL EXPOSED 1.5" EW SPRAY LINES. PROVIDE ALUMINUM TAPE OVER CABLES ON ALL PVC PIPING AS REQUIRED BY MANUFACTURER BEFORE INSTALLING INSULATION.

HEAT TRACE LED LIGHTED END SEAL RAYCHEM E-100-L TO MATCH EXISTING. SEE DWG E6 AND E7 FOR HEAT TRACE DETAILS

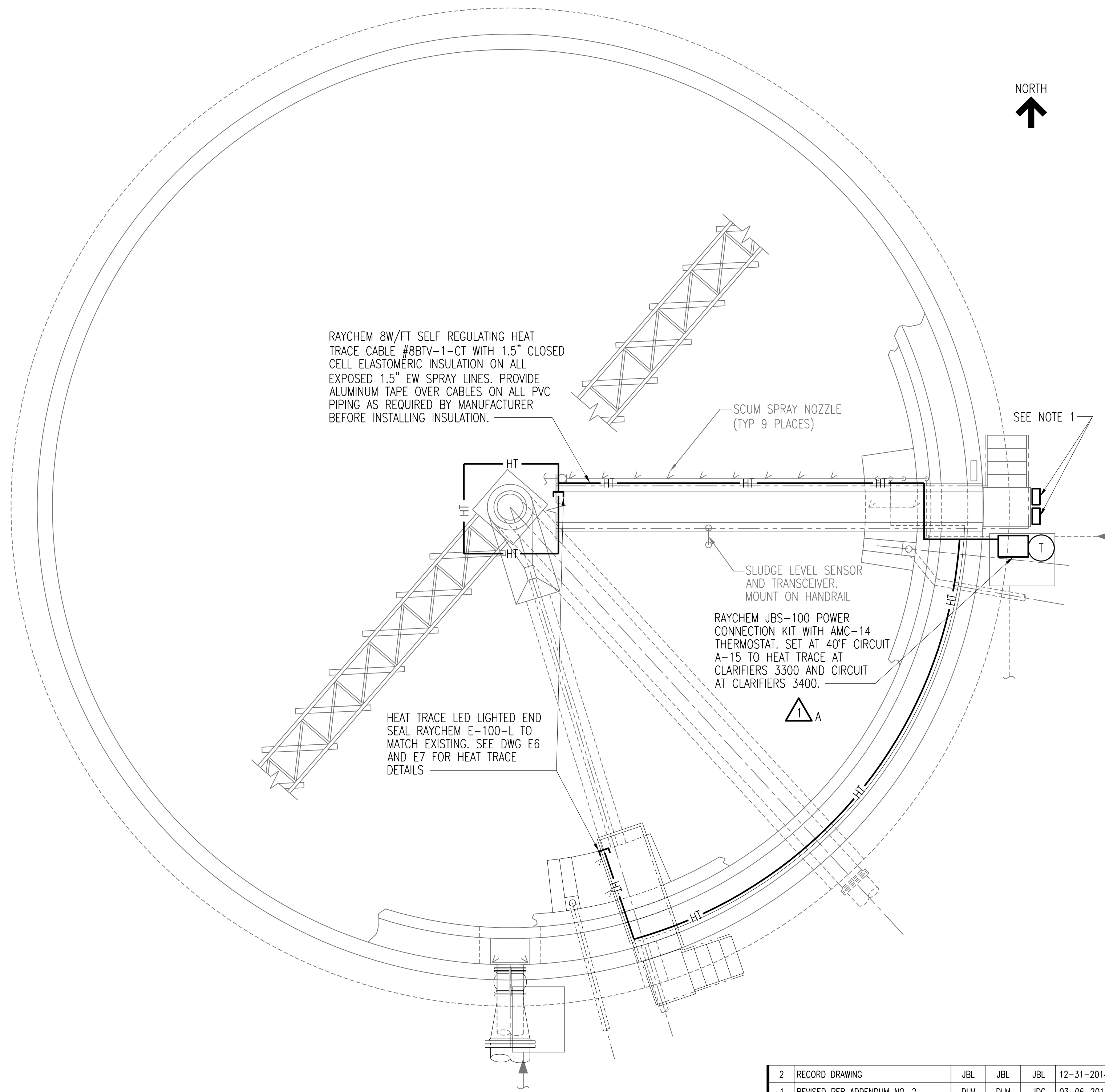
SCUM SPRAY NOZZLE (TYP 9 PLACES)

SLUDGE LEVEL SENSOR AND TRANSCIEVER. MOUNT ON HANDRAIL

RAYCHEM JBS-100 POWER CONNECTION KIT WITH AMC-14 THERMOSTAT. SET AT 40°F CIRCUIT A-13 TO HEAT TRACE AT CLARIFIERS 3100 AND CIRCUIT AT CLARIFIERS 3200.

SEE NOTE 1

HEAT TRACE PLAN FOR CLARIFIER NO. 3100 (NO. 3200 SIMILAR)
SCALE: 3/16" = 1'-0"



RAYCHEM 8W/FT SELF REGULATING HEAT TRACE CABLE #8BTV-1-CT WITH 1.5" CLOSED CELL ELASTOMERIC INSULATION ON ALL EXPOSED 1.5" EW SPRAY LINES. PROVIDE ALUMINUM TAPE OVER CABLES ON ALL PVC PIPING AS REQUIRED BY MANUFACTURER BEFORE INSTALLING INSULATION.

HEAT TRACE LED LIGHTED END SEAL RAYCHEM E-100-L TO MATCH EXISTING. SEE DWG E6 AND E7 FOR HEAT TRACE DETAILS

SCUM SPRAY NOZZLE (TYP 9 PLACES)

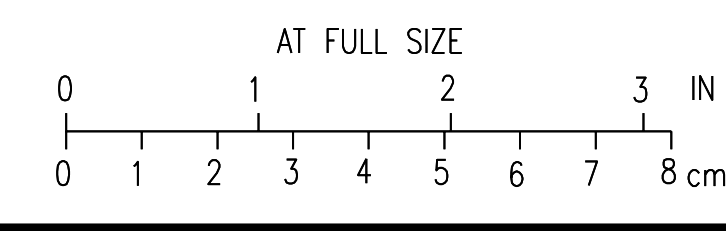
SLUDGE LEVEL SENSOR AND TRANSCIEVER. MOUNT ON HANDRAIL

RAYCHEM JBS-100 POWER CONNECTION KIT WITH AMC-14 THERMOSTAT. SET AT 40°F CIRCUIT A-15 TO HEAT TRACE AT CLARIFIERS 3300 AND CIRCUIT AT CLARIFIERS 3400.


SEE NOTE 1

HEAT TRACE PLAN FOR CLARIFIER NO. 3300 (NO. 3400 SIMILAR)
SCALE: 3/16" = 1'-0"

NOTES:
1. PROVIDE TWO 12" X 12" X 6" STAINLESS STEEL PULLBOXES SUITABLE FOR AREA WITH SIDE HINGED AND LOCKABLE COVERS. PULLBOXES ARE TO BE USED FOR FUTURE SLUDGE LEVEL BLANKET INDICATORS. ONE BOX WILL BE USED FOR 120V CIRCUITS AND THE OTHER BOX WILL BE USED FOR SIGNAL CABLING. PROVIDE A 1 INCH PVC RGS CONDUIT TO EACH BOX FROM SLUDGE PUMPING BUILDING PLC FOR CLARIFIER SHOWN. IN 120V CONDUIT PROVIDE 3/C #12 AND COIL BACK AT PLC FOR FUTURE CONNECTION. IN SIGNAL CONDUIT PROVIDE 1 - #16TSP AND ALSO COIL BACK AT PLC.



2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	REVISED PER ADDENDUM NO. 2	DLM	DLM	JDC	03-06-2012
0	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



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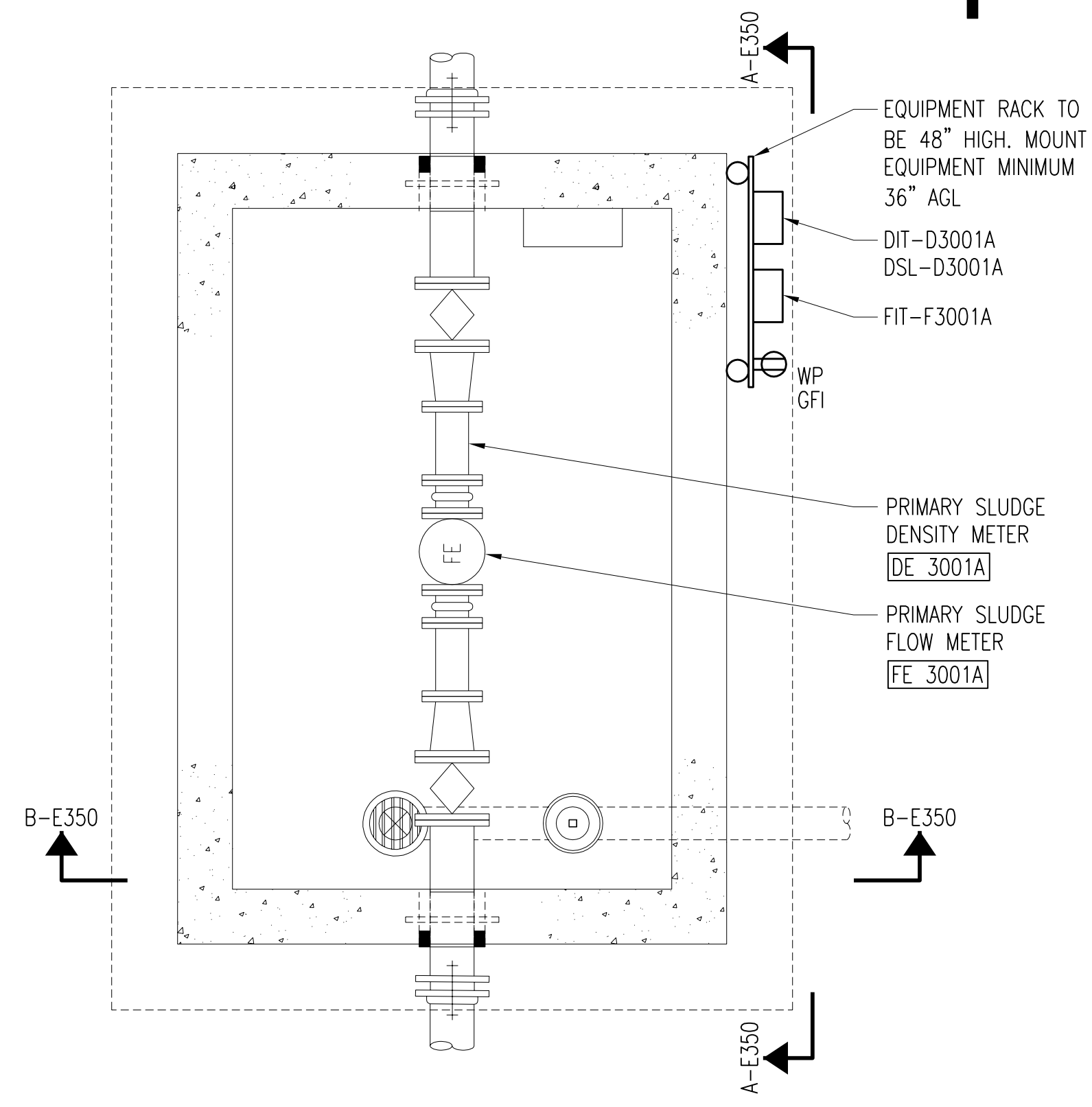
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**PRIMARY CLARIFIER AREA
TANK 3100, 3200, 3300 AND 3400
HEAT TRACE DETAILS**

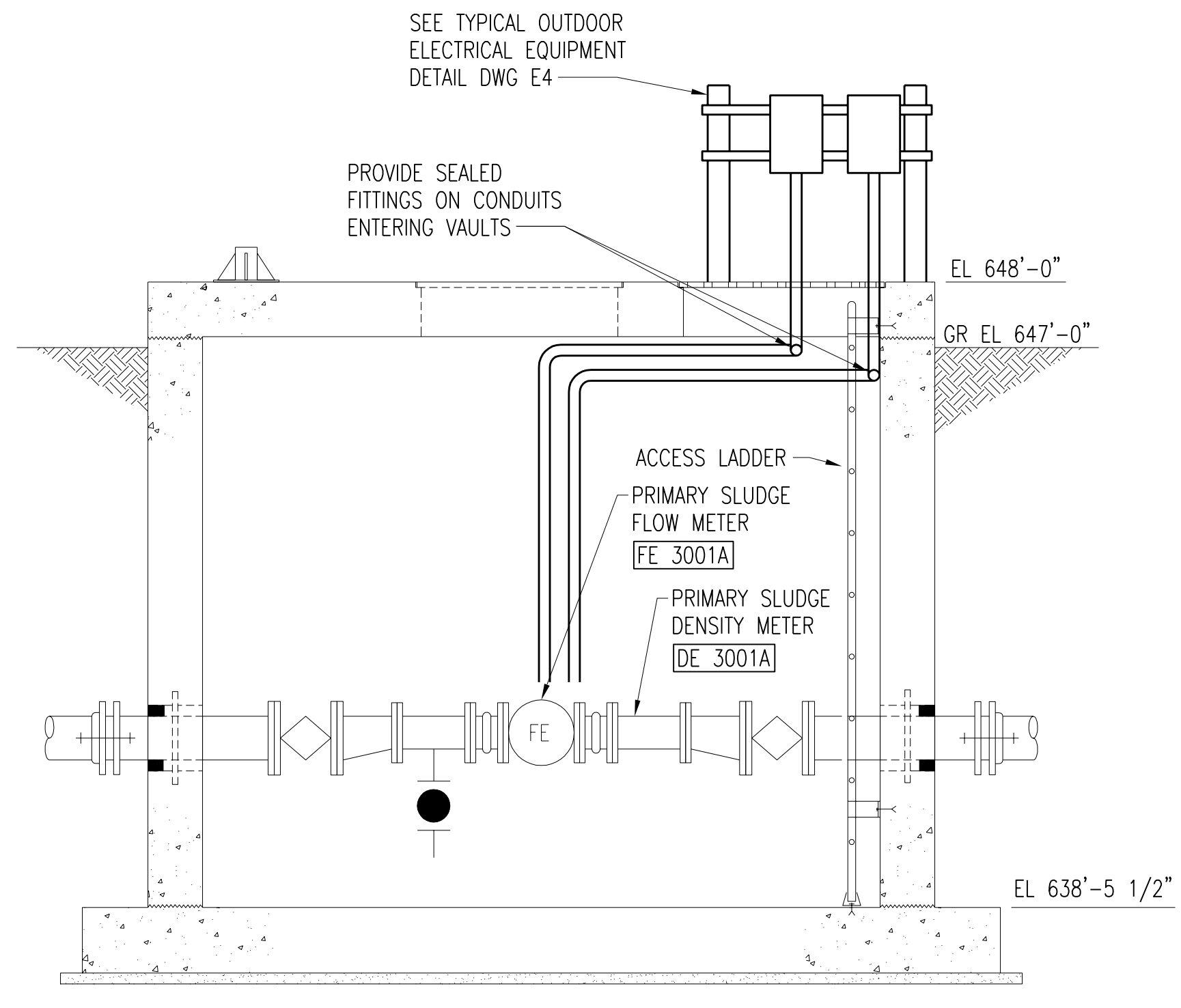
DESIGNED <u>DL MORITZ</u>	SCALE: AS NOTED
DRAWN <u>D. WILGES</u>	NO. 22800
CHECKED <u>DL MORITZ</u>	REV.
APPROVED <u>JD COOAN</u>	E302
DATE <u>JANUARY 10, 2012</u>	2

CADD: D1-104

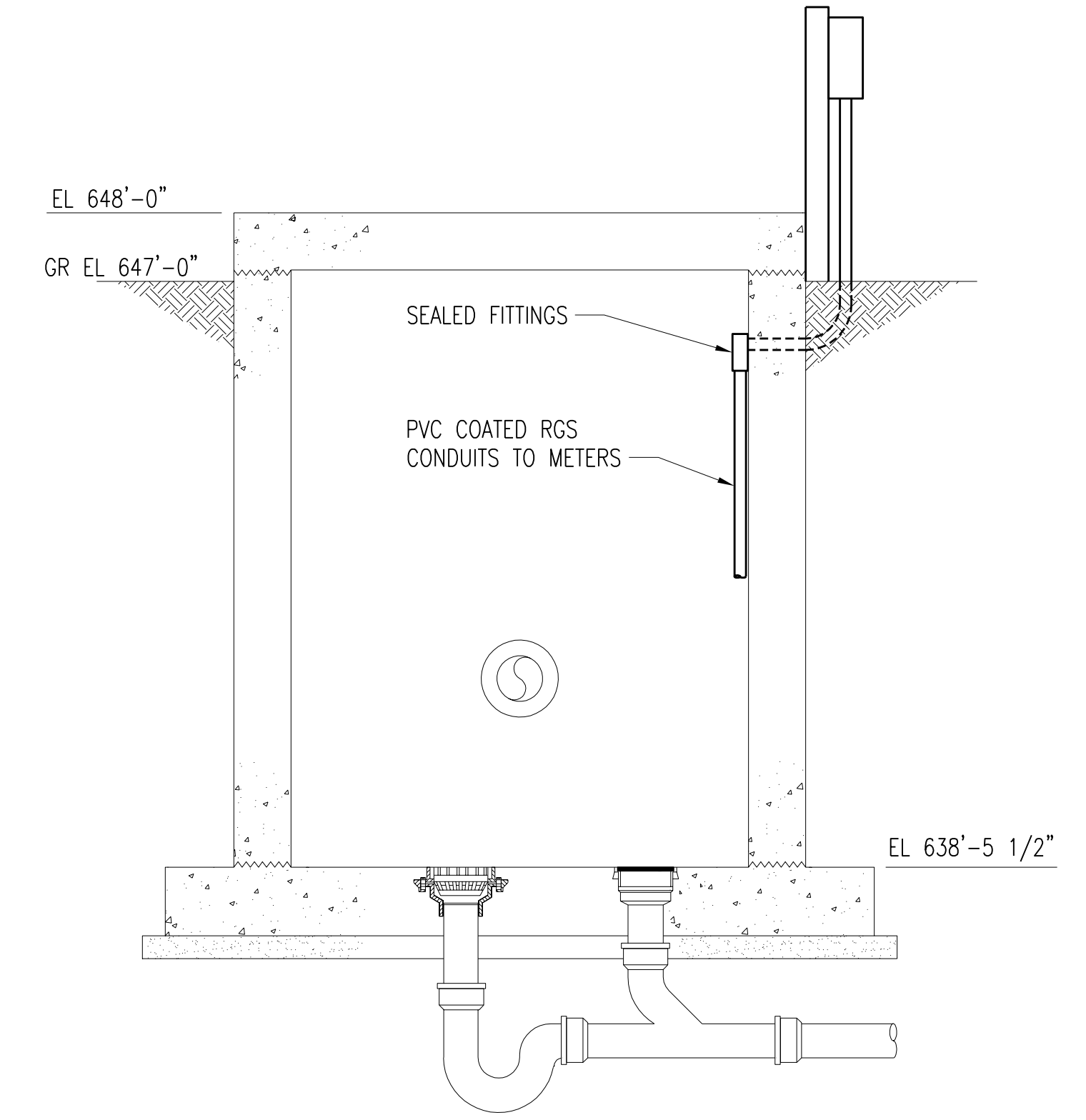
NORTH
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PLAN AT EL 642'-0"
SCALE: 1/2" = 1'-0"
(SEE DWG E55)



SECTION A-E350
E350
SCALE: 1/2" = 1'-0"



SECTION B-E350
E350
SCALE: 1/2" = 1'-0"

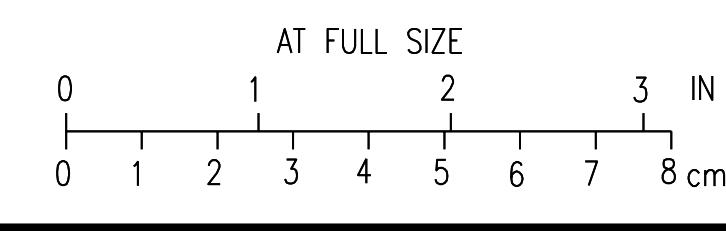
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1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



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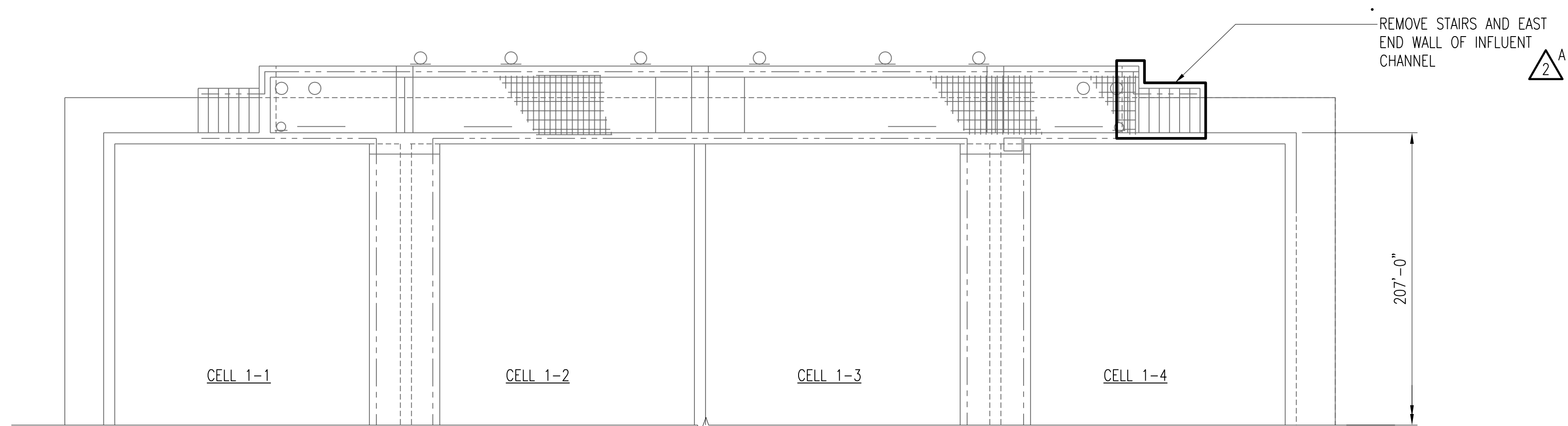
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**PRIMARY CLARIFIER AREA
PRIMARY SLUDGE METER VAULT
PLANS AND DETAILS**

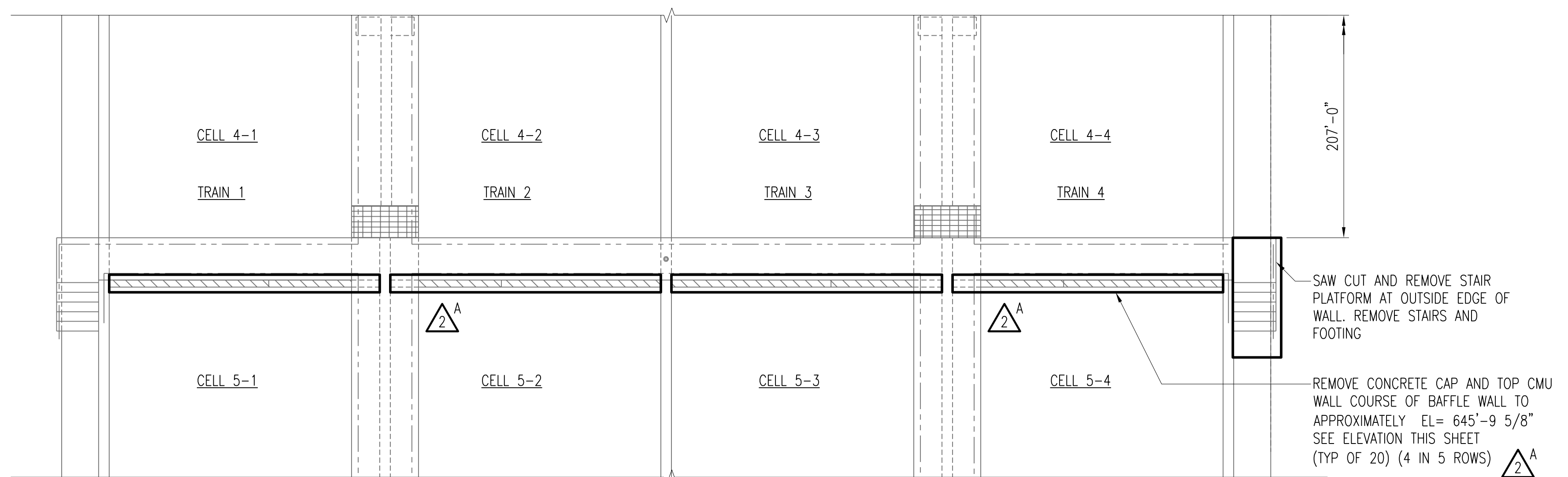


DESIGNED DL MORITZ	SCALE: AS NOTED
DRAWN BK GROTHE	NO. 22800
CHECKED DL MORITZ	REV.
APPROVED JD COOAN	E350
DATE DECEMBER 2, 2011	1

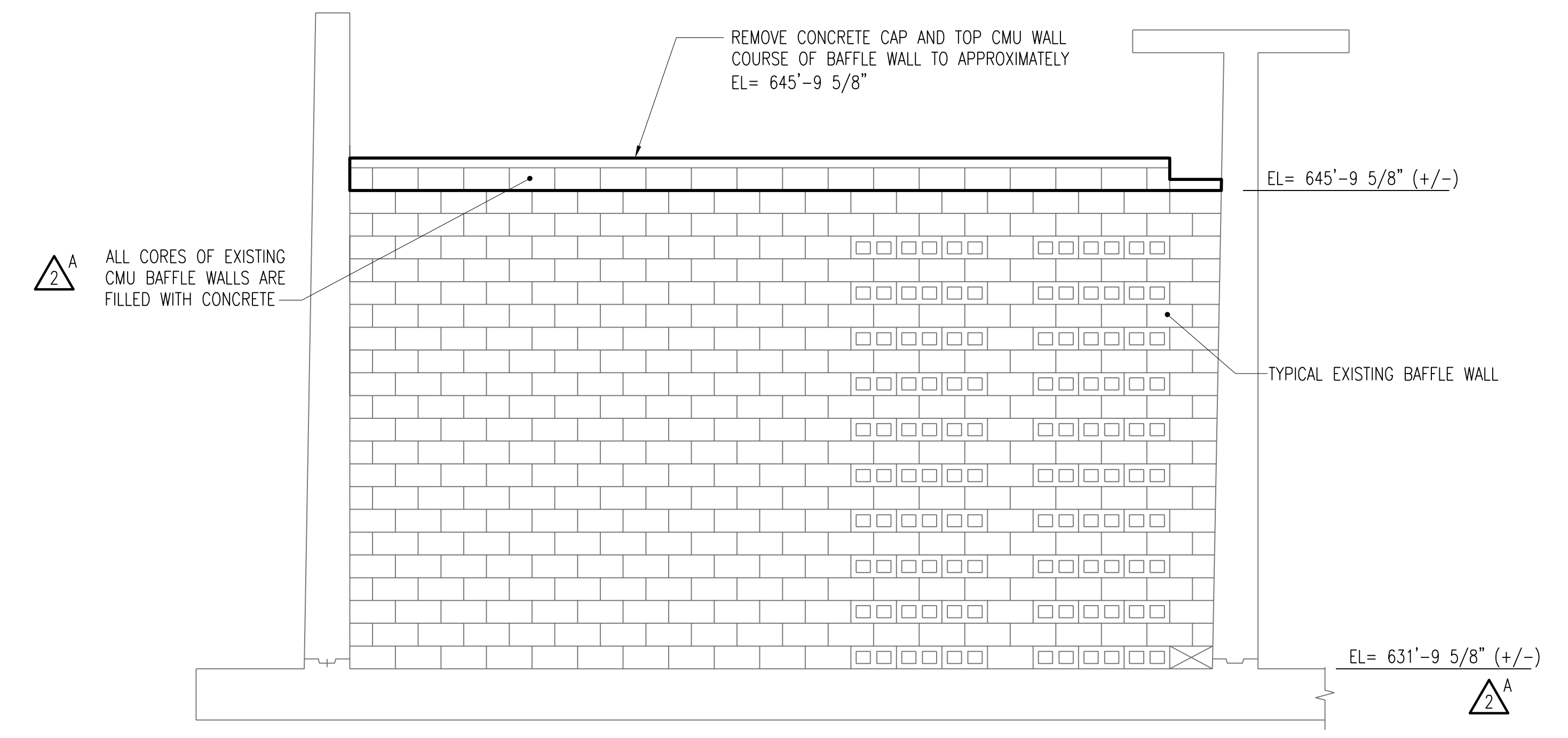
BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE



NORTH END OF EXISTING AERATION BASIN DEMO PLAN
SCALE: 1/8" = 1'-0"



CENTER OF EXISTING AERATION BASIN DEMO PLAN
SCALE: 1/8" = 1'-0"



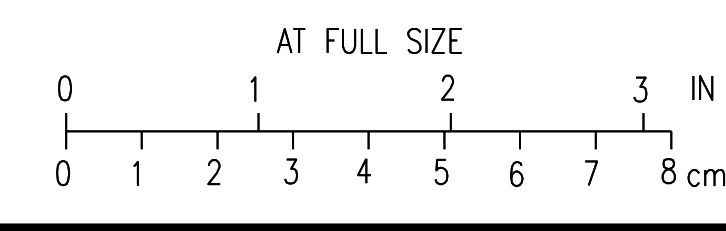
TYPICAL BAFFLE WALL ELEVATION
SCALE: 1/2" = 1'-0"

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED PER ADDENDUM NO.1	KBH	KBH	LHB	02-22-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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**AERATION TANKS
STRUCTURAL DEMOLITION PLANS
SHEET 1**



DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM	D401	3
DATE	DECEMBER 2, 2011		

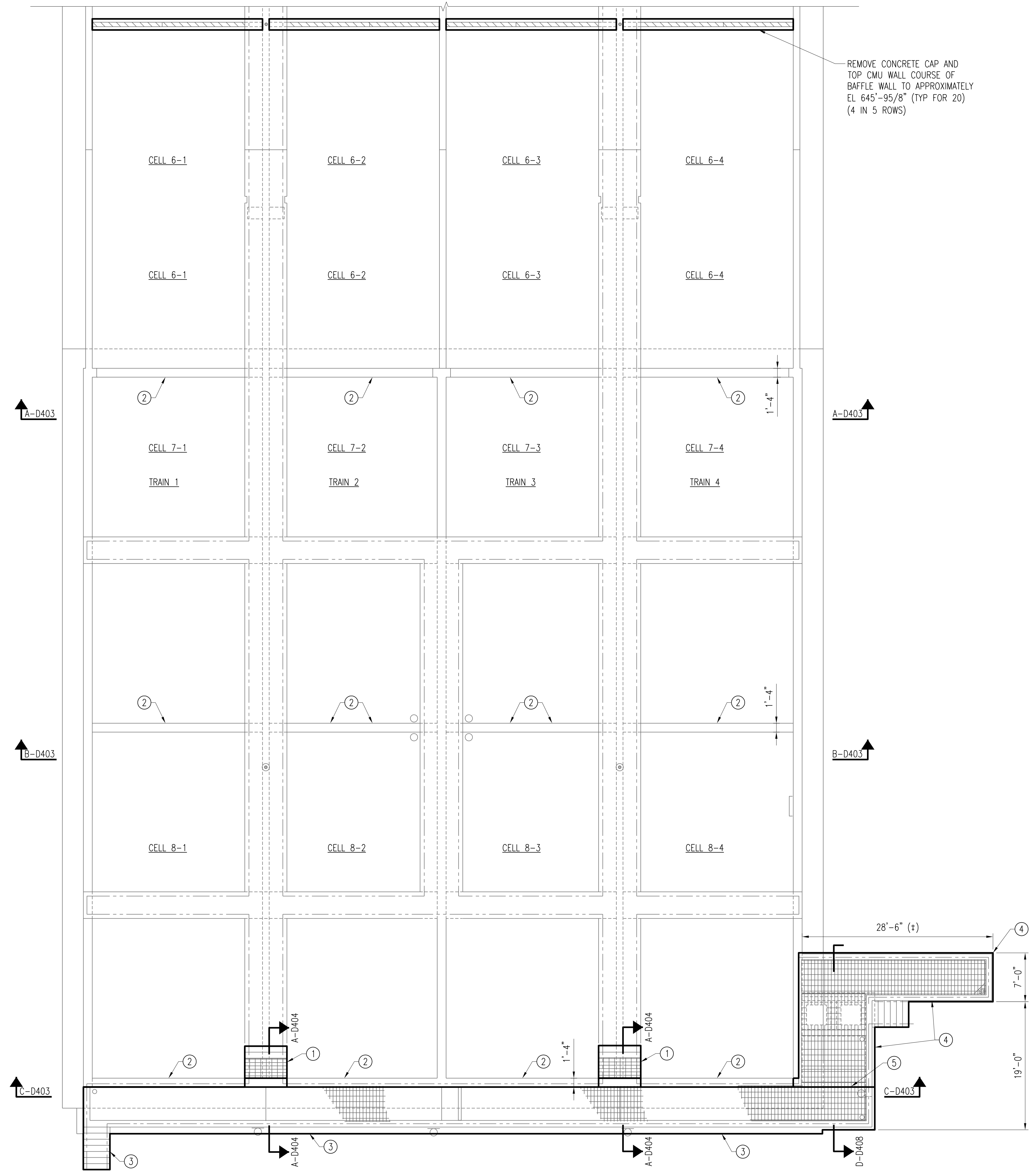
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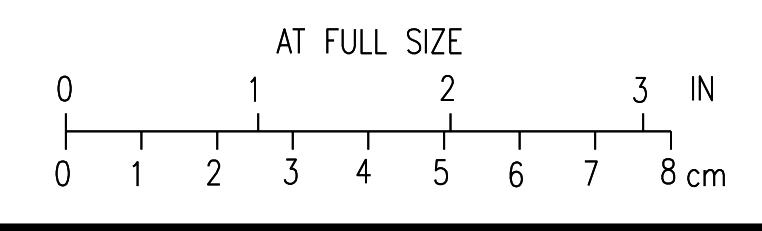
BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE

- KEYNOTES:**
- ① REMOVE STAIRS, PLATFORM AND GRATING (TYP 2 LOCATIONS).
 - ② SAW CUT AND REMOVE CONCRETE WALL TO CREATE OPENINGS. SEE SECTIONS ON DRAWINGS D403 FOR DIMENSIONS.
 - ③ REMOVE EFFLUENT TROUGH WALLS, SLABS AND STAIRS.
 - ④ REMOVE REINFORCED CONCRETE WALLS (1'-0"), BASE SLAB (1'-3"), GRATING AND EQUIPMENT. TOP OF BASE SLAB EL = 634'-9".
 - ⑤ REMOVE FLOW STRAIGHTENING RACK.

REMOVE CONCRETE CAP AND TOP CMU WALL COURSE OF BAFFLE WALL TO APPROXIMATELY EL 645'-95/8" (TYP FOR 20) (4 IN 5 ROWS)



SOUTH END OF EXISTING AERATION BASIN DEMO PLAN
SCALE: 1/8" = 1'-0"



3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED PER ADDENDUM NO.1	KBH	KBH	LHB	02-22-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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**AERATION TANKS
STRUCTURAL DEMOLITION PLANS
SHEET 2**

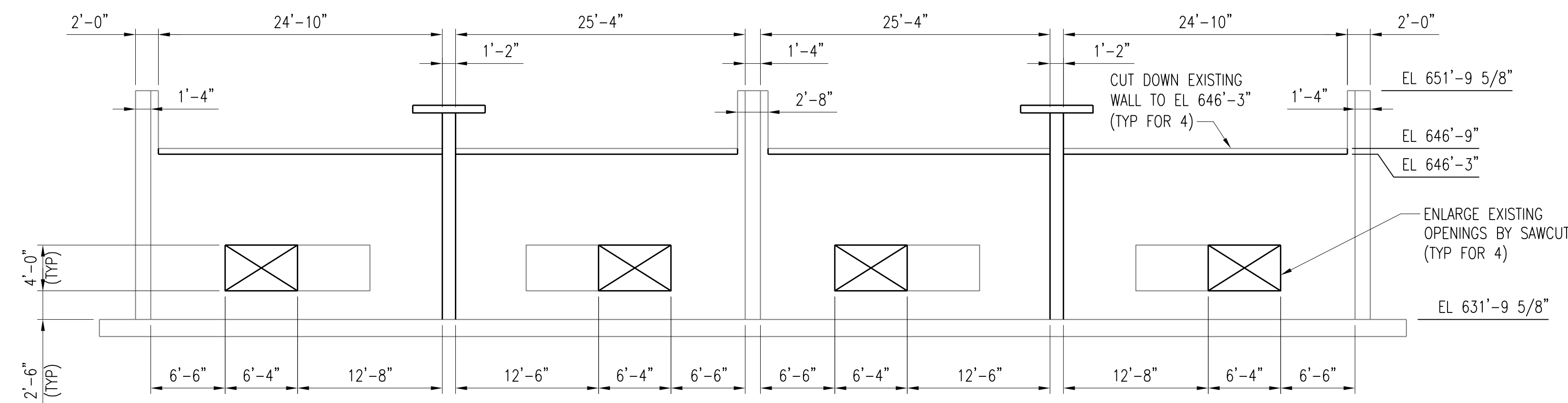
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DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM	D402	3
DATE	DECEMBER 2, 2011		

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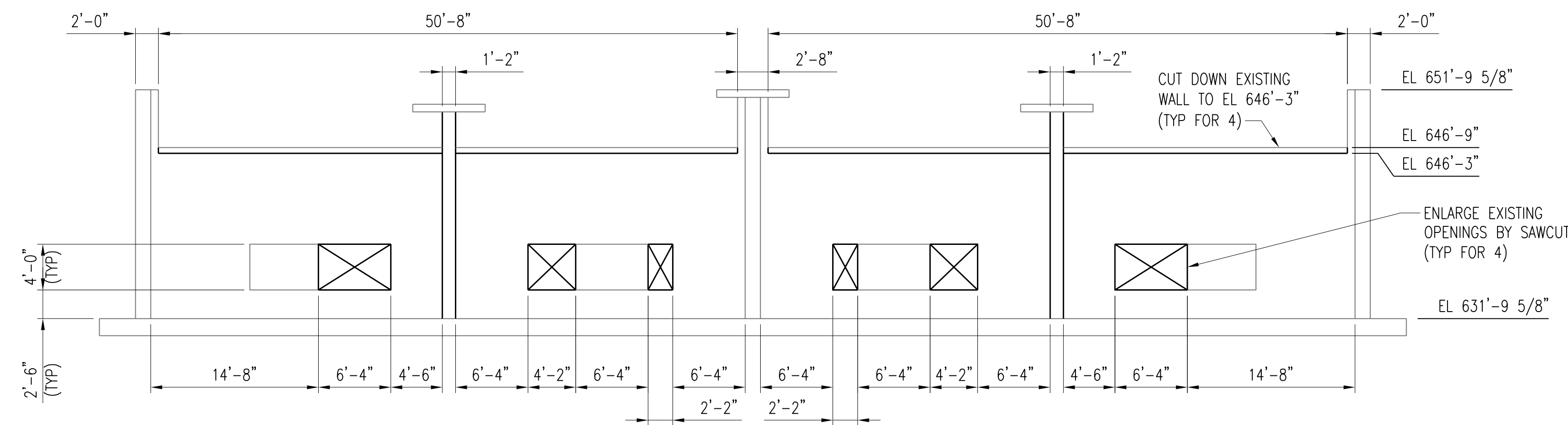
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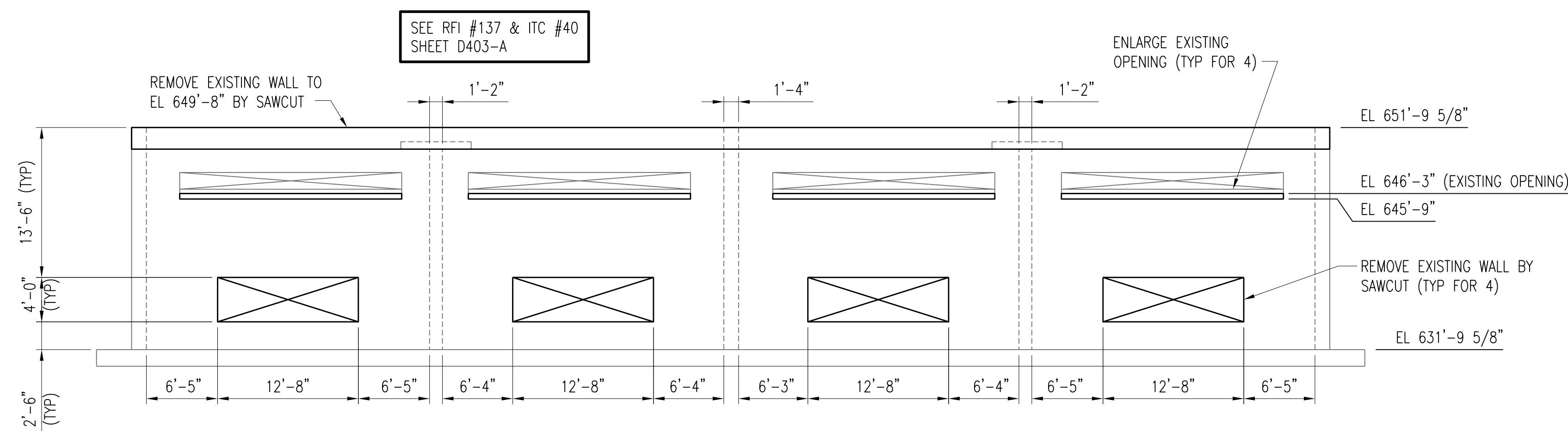
BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE



SECTION A-D403
D402
SCALE: 1/8" = 1'-0"



SECTION B-D403
D402
SCALE: 1/8" = 1'-0"



SECTION C-D403
D402
SCALE: 1/8" = 1'-0"

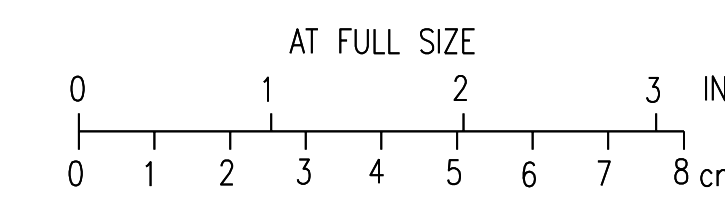
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1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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**AERATION TANKS
STRUCTURAL DEMOLITION DETAILS
SHEET 1**

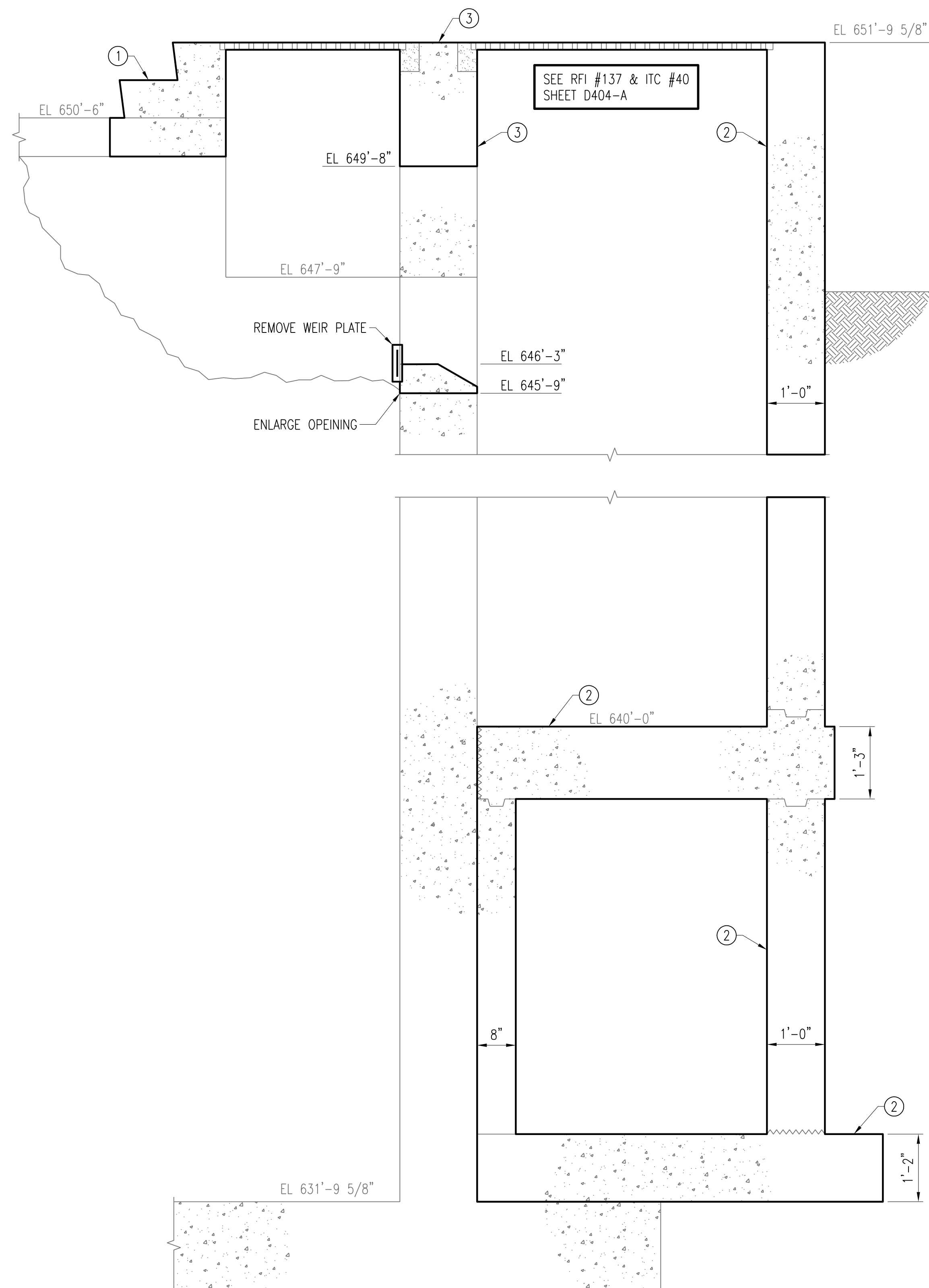
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DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM	D403	2
DATE	DECEMBER 2, 2011		



CADD: D1-R4

BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE

- KEYNOTES:**
- ① REMOVE STAIRS, PLATFORM AND GRATING (TYP 2 LOCATIONS).
 - ② REMOVE EFFLUENT TROUGH WALLS AND SLABS.
 - ③ REMOVE TOP OF EXISTING WALL ABOVE EL 649'-8" BETWEEN EXTERIOR FACE OF EXTERIOR WALLS.



SECTION **A-D404**
D402
SCALE: 3/4" = 1'-0"

- ADD NOTE 4. TO READ:**
- 1. REMOVE EXISTING EFFLUENT TROUGH TO LIMITS INDICATED. REMOVE LOWER TROUGH WALL COMMON TO ADJACENT AERATION TANK TO EXISTING CONSTRUCTION JOINT. AFTER DEMOLITION, PATCH EXPOSED REINFORCING OR DAMAGE TO REMAINING AERATION BASIN WALL.

4	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
3	ADDED ADDENDUM COMMENT	LJO	JBL	JBL	05-04-2012
2	REVISED PER ADDENDUM NO.1	KBH	KBH	LHB	02-22-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



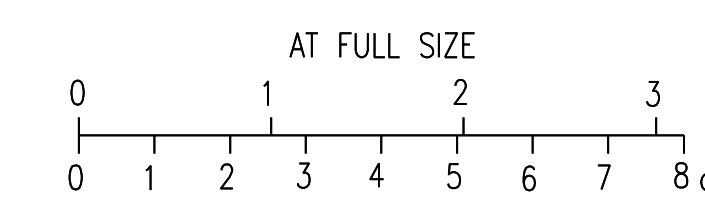
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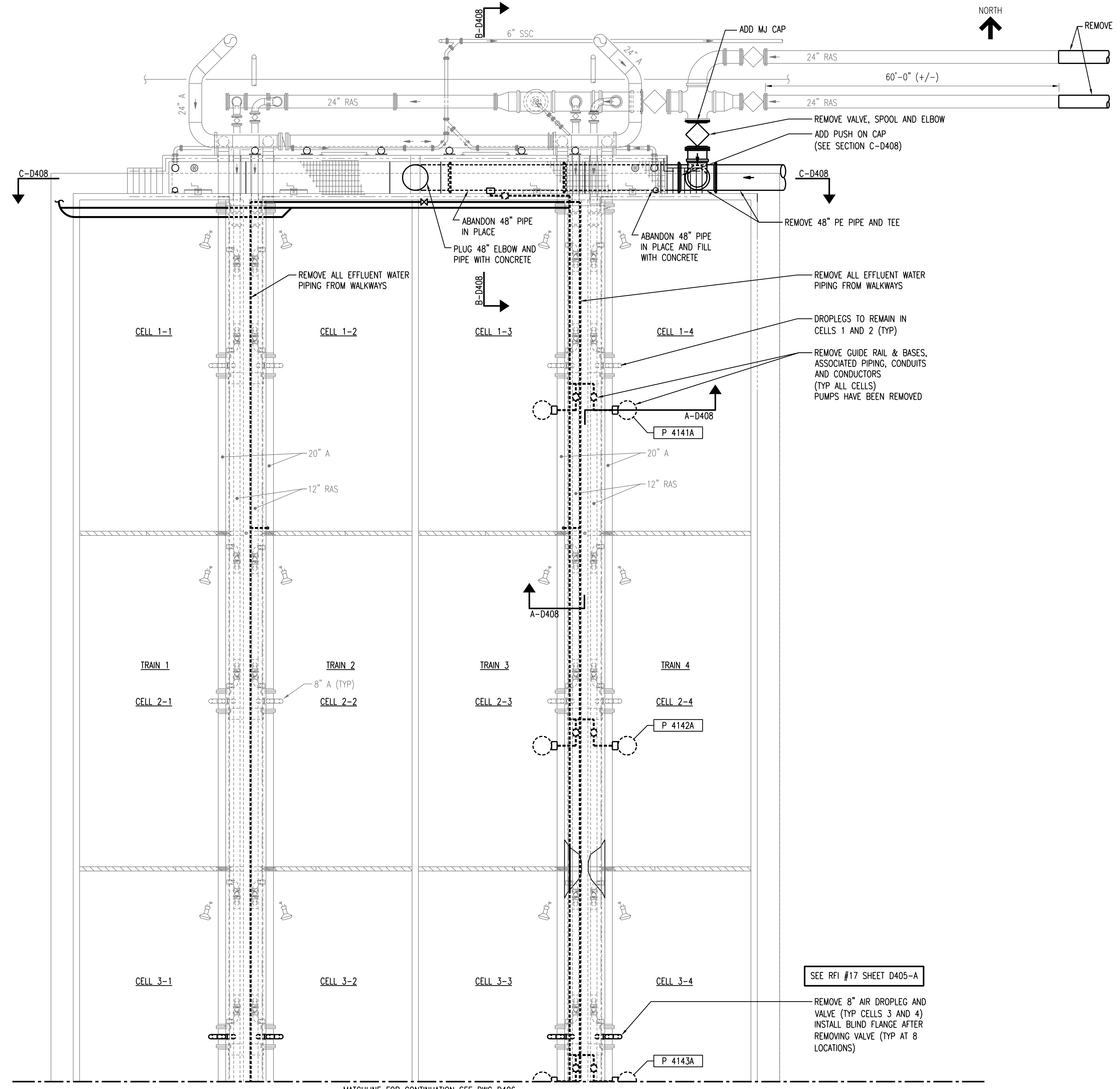
**AERATION TANKS
STRUCTURAL DEMOLITION DETAILS
SHEET 2**

DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
DATE	DECEMBER 2, 2011	D404	3



CADD: D1-R4

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AERATION TANKS MECHANICAL DEMOLITION PLAN
SCALE: 1/8" = 1'-0"

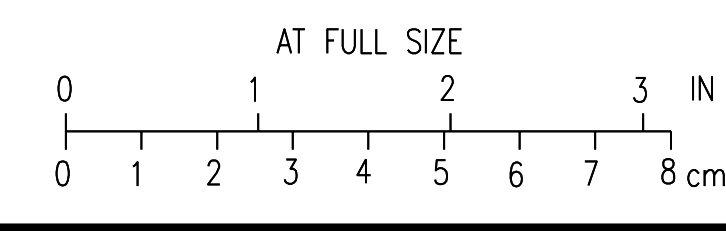
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1	ISSUED FOR CONSTRUCTION	JBL	JBL	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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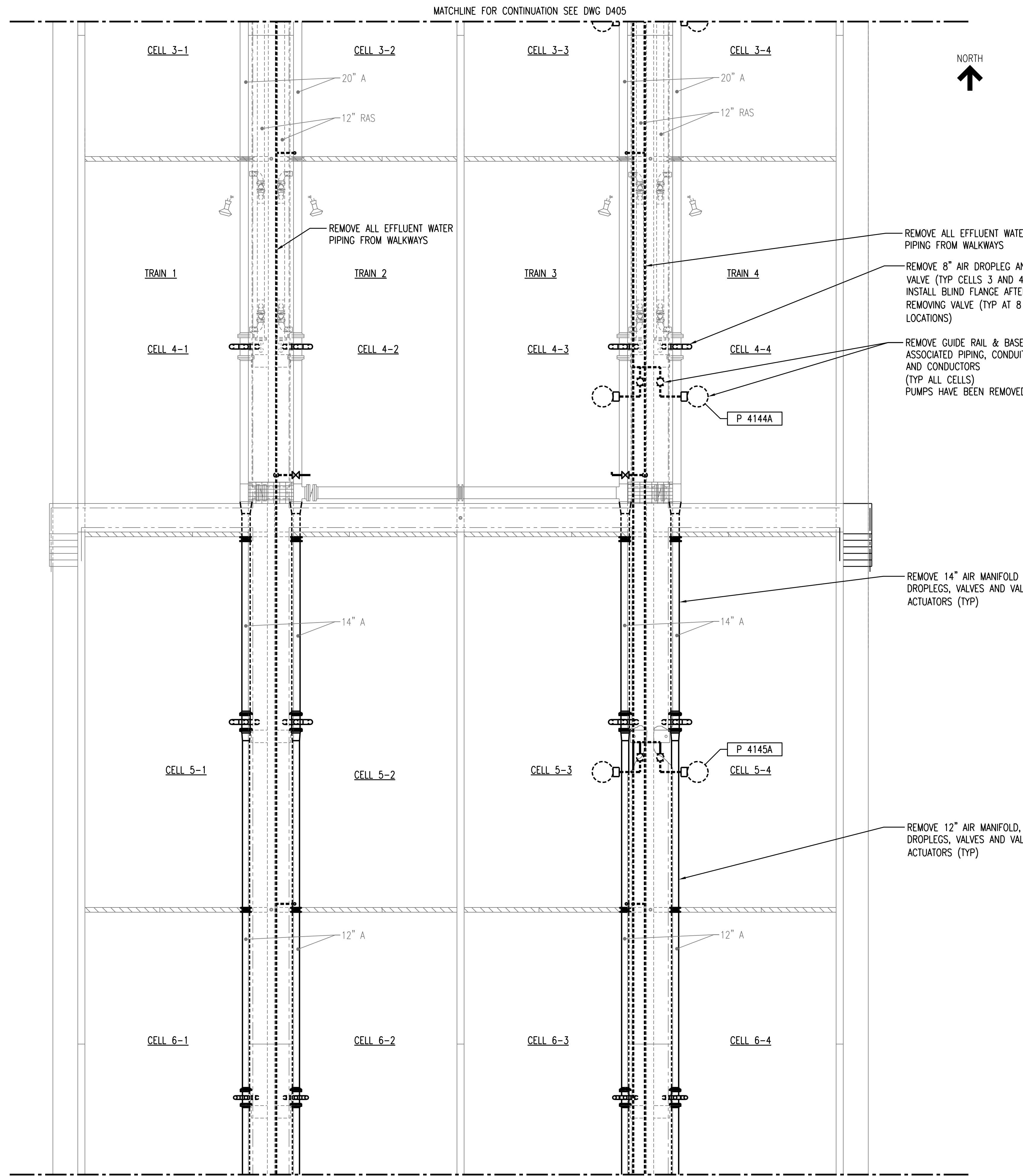
**AERATION TANKS
PROCESS PIPING DEMOLITION PLANS
SHEET 1**

DESIGNED	JBL LUND	SCALE:	AS NOTED
DRAWN	LJ OSBORN	NO.	22800
CHECKED	JBL LUND	REV.	
APPROVED	JM BRADY	D405	2
DATE	DECEMBER 2, 2011		

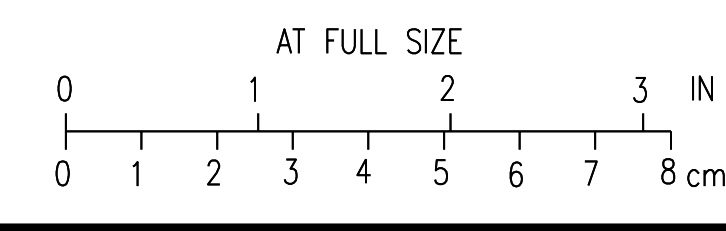


CAD: D:\1-14

BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE



AERATION TANKS MECHANICAL DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JBL	JBL	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**AERATION TANKS
PROCESS PIPING DEMOLITION PLANS
SHEET 2**

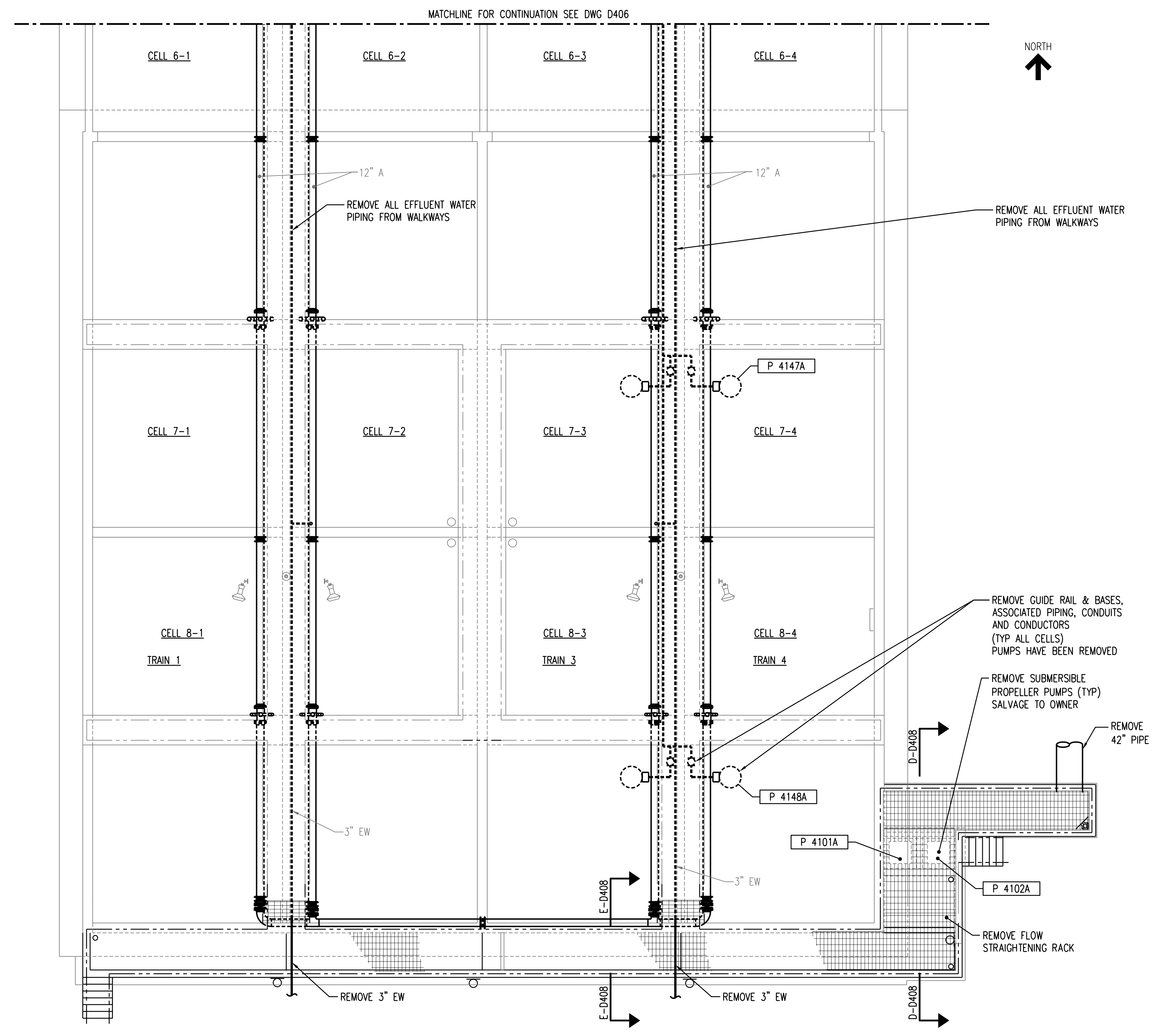
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DRAWN	LJ OSBORN	NO.	22800
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APPROVED	JM BRADY	D406	2
DATE	DECEMBER 2, 2011		

CADD: D1-R4

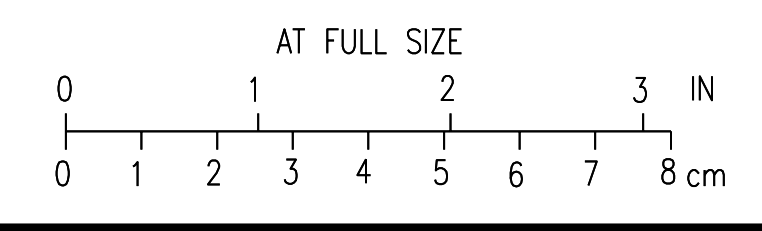
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BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE



AERATION TANKS MECHANICAL DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JBL	JBL	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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**AERATION TANKS
PROCESS PIPING DEMOLITION PLANS
SHEET 3**

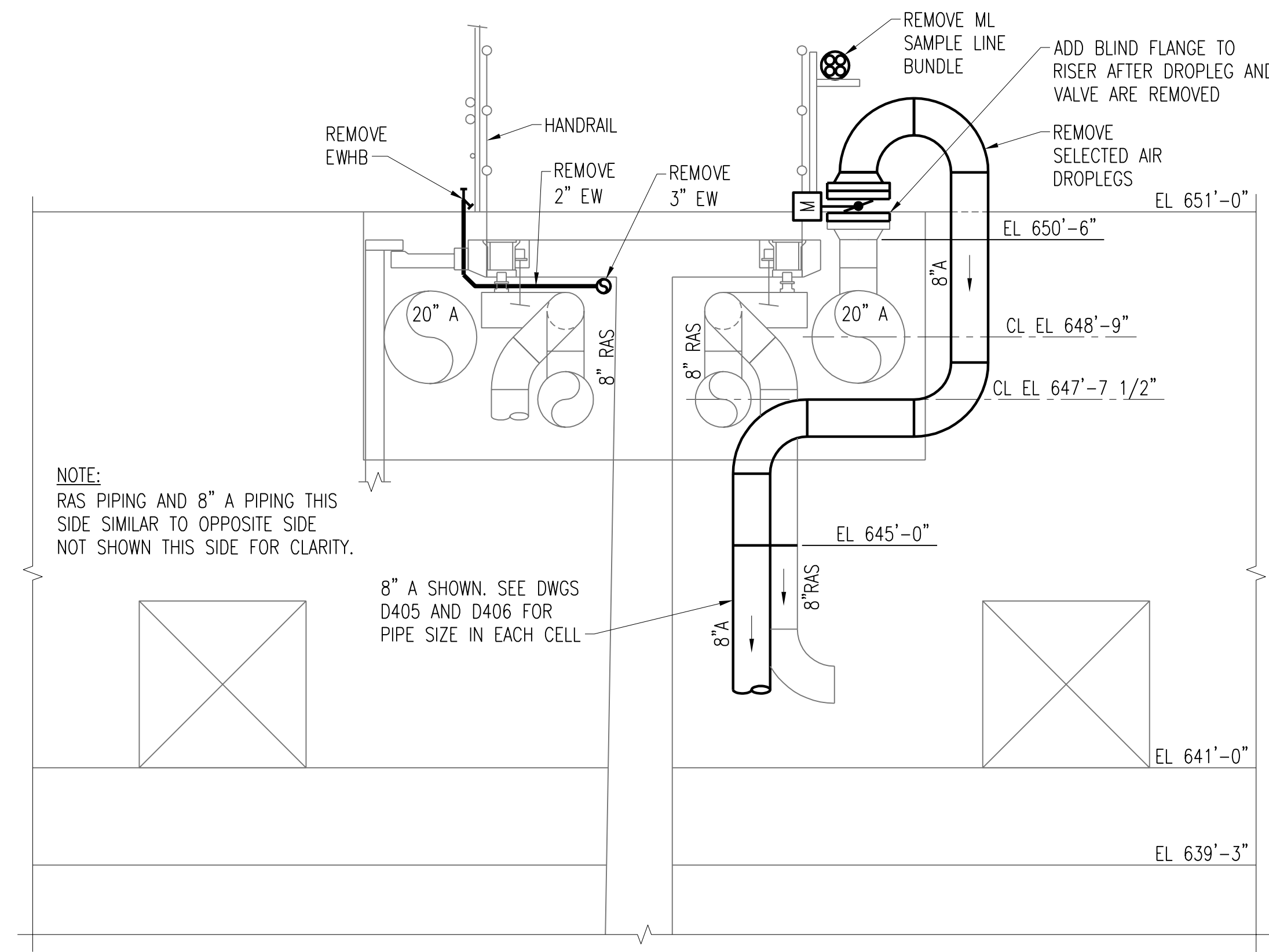
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DRAWN	LJ OSBORN	NO.	22800
CHECKED	JBL LUND	REV.	
APPROVED	JM BRADY	D407	1
DATE	DECEMBER 2, 2011		

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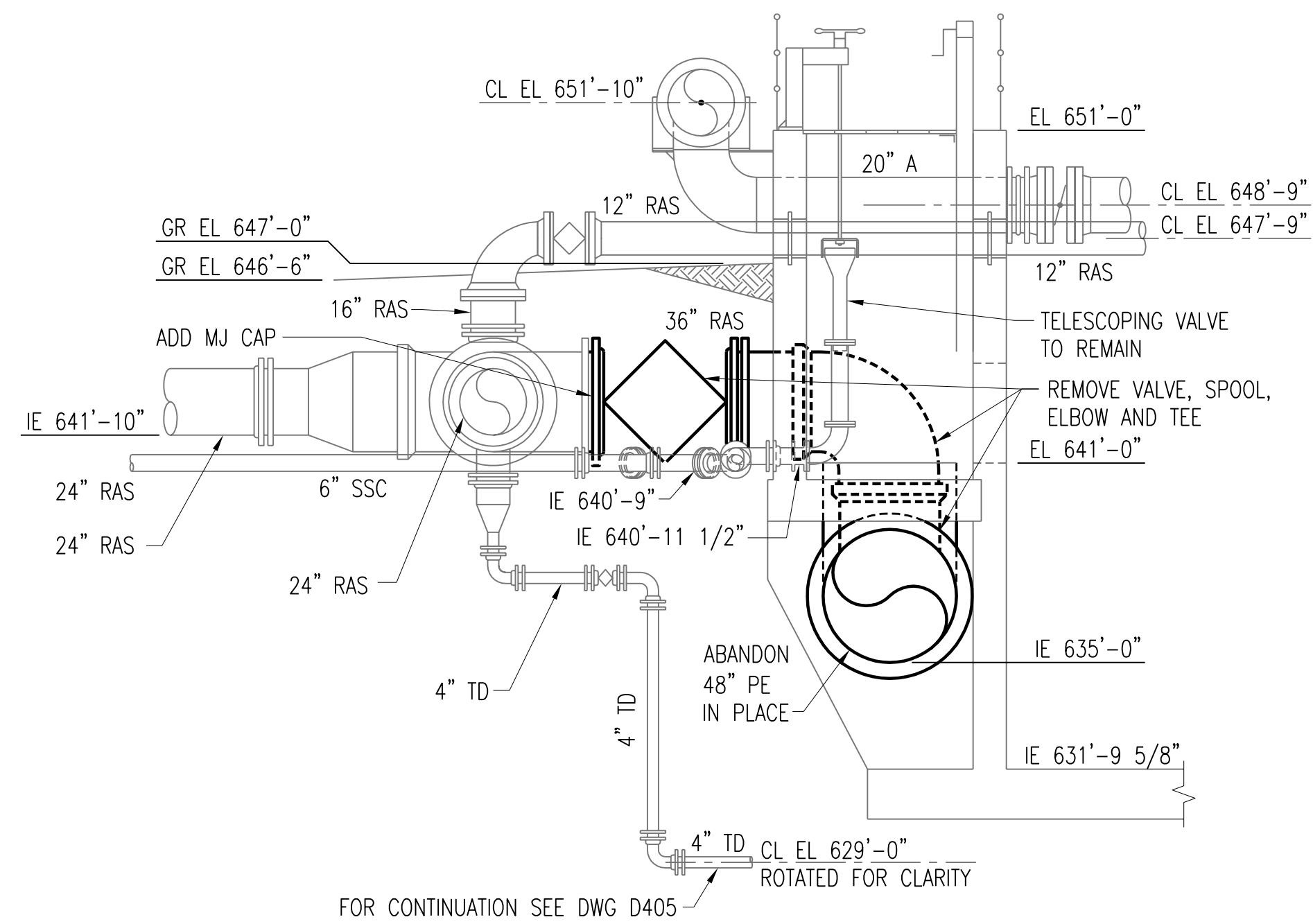
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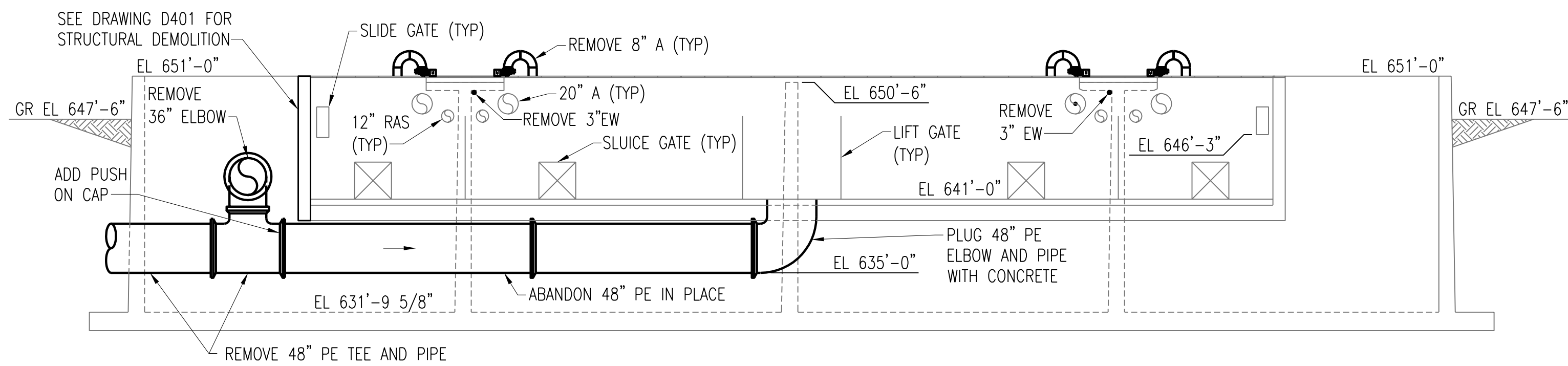
BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE



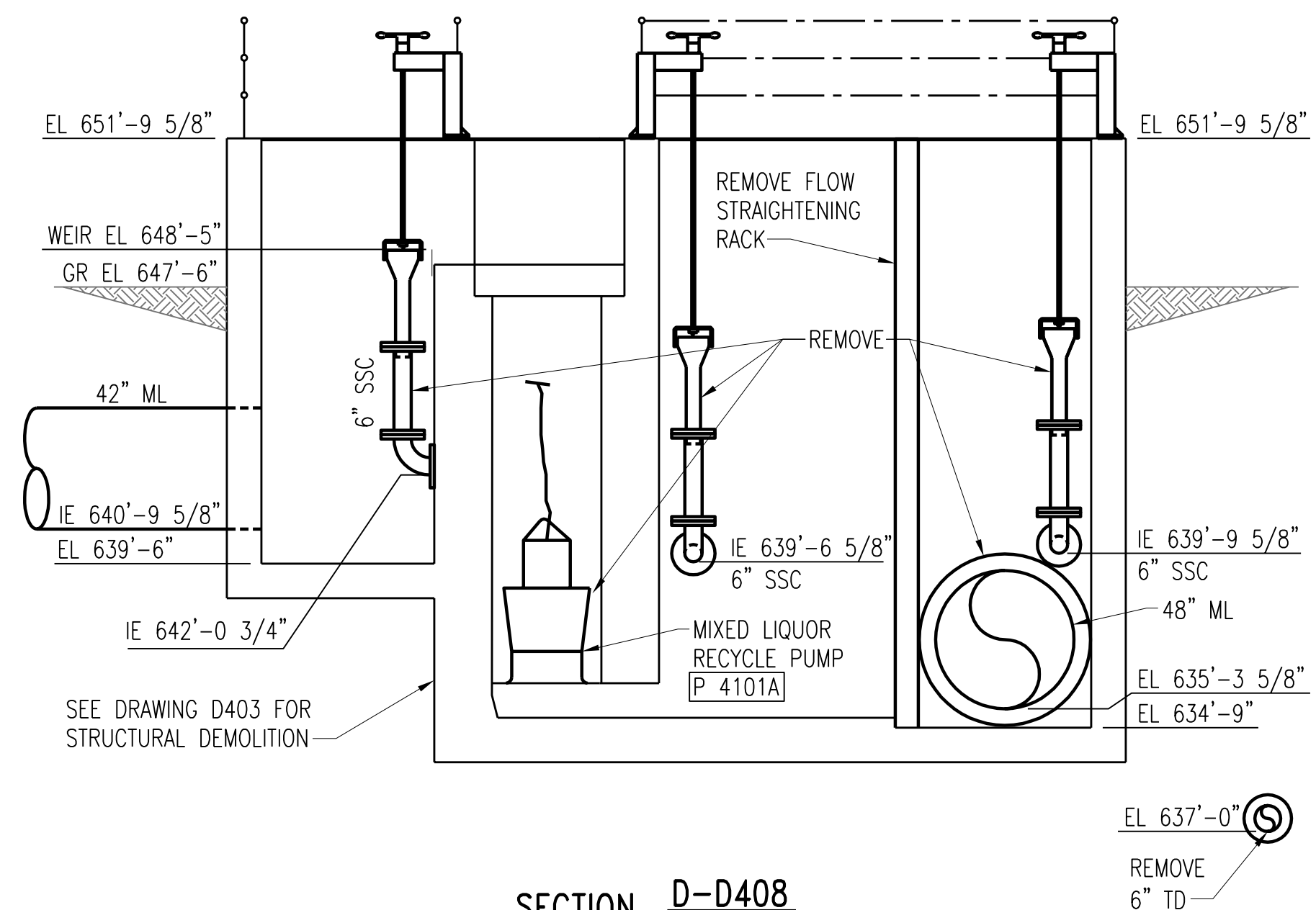
SECTION A-D408
D405
SCALE: 1/2" = 1'-0"



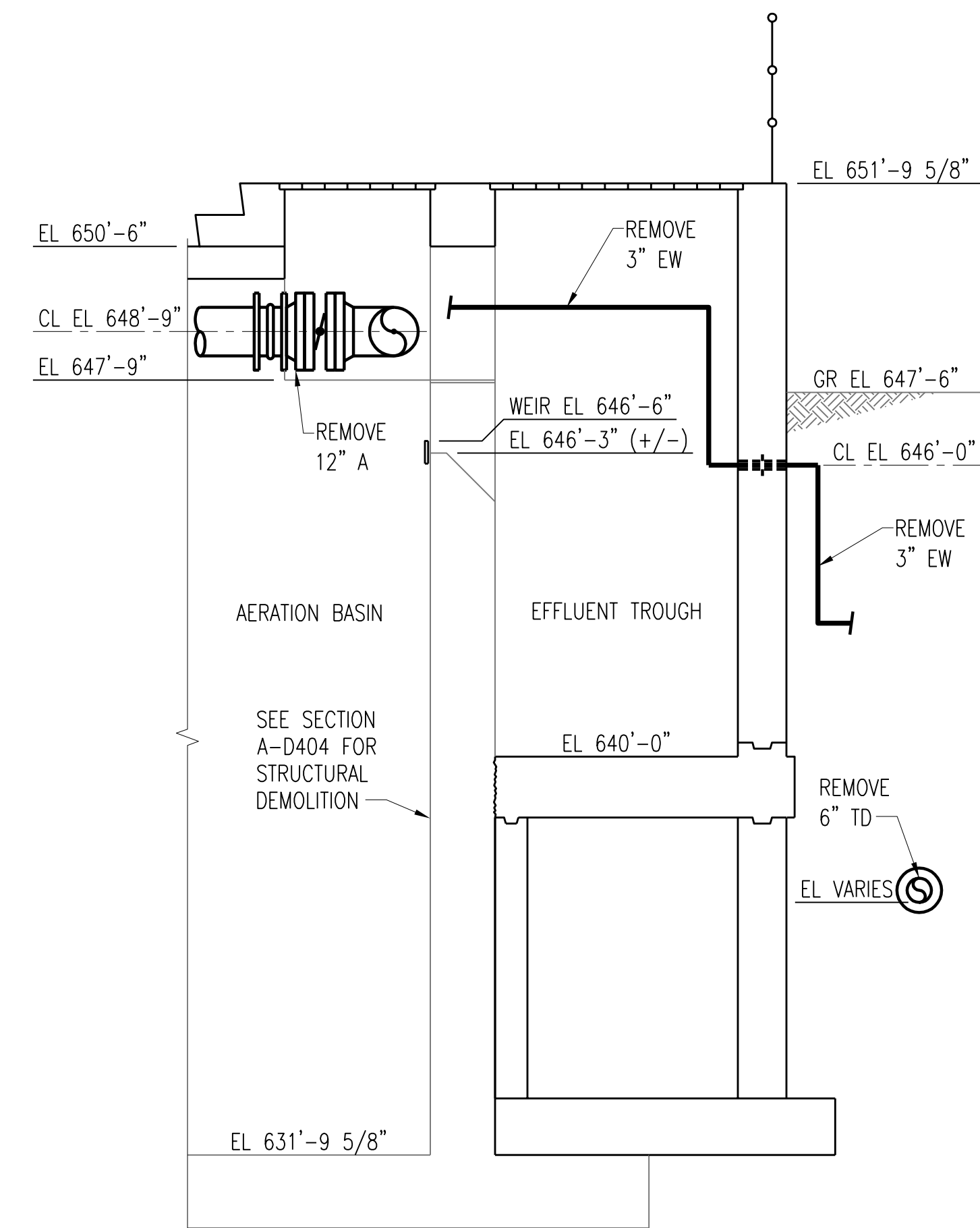
SECTION B-D408
D405
SCALE: 1/2" = 1'-0"



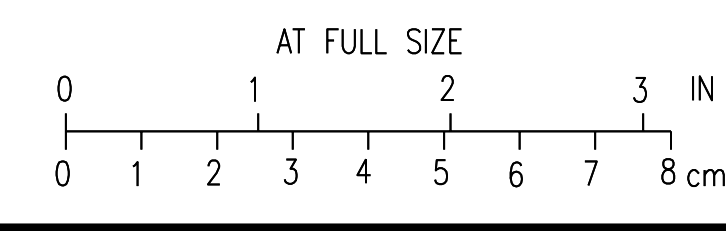
SECTION C-D408
D405
SCALE: 1/2" = 1'-0"



SECTION D-D408
D407
SCALE: 1/2" = 1'-0"



SECTION E-D408
D407
SCALE: 1/2" = 1'-0"



3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED DETAIL	JBL	JBL	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	JBL	JBL	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**AERATION TANKS
PROCESS PIPING DEMOLITION DETAILS**

DESIGNED	JBL LUND	SCALE:	AS NOTED
DRAWN	LJ OSBORN	NO.	22800
CHECKED	JBL LUND	REV.	
APPROVED	JM BRADY	D408	3
DATE	DECEMBER 2, 2011		

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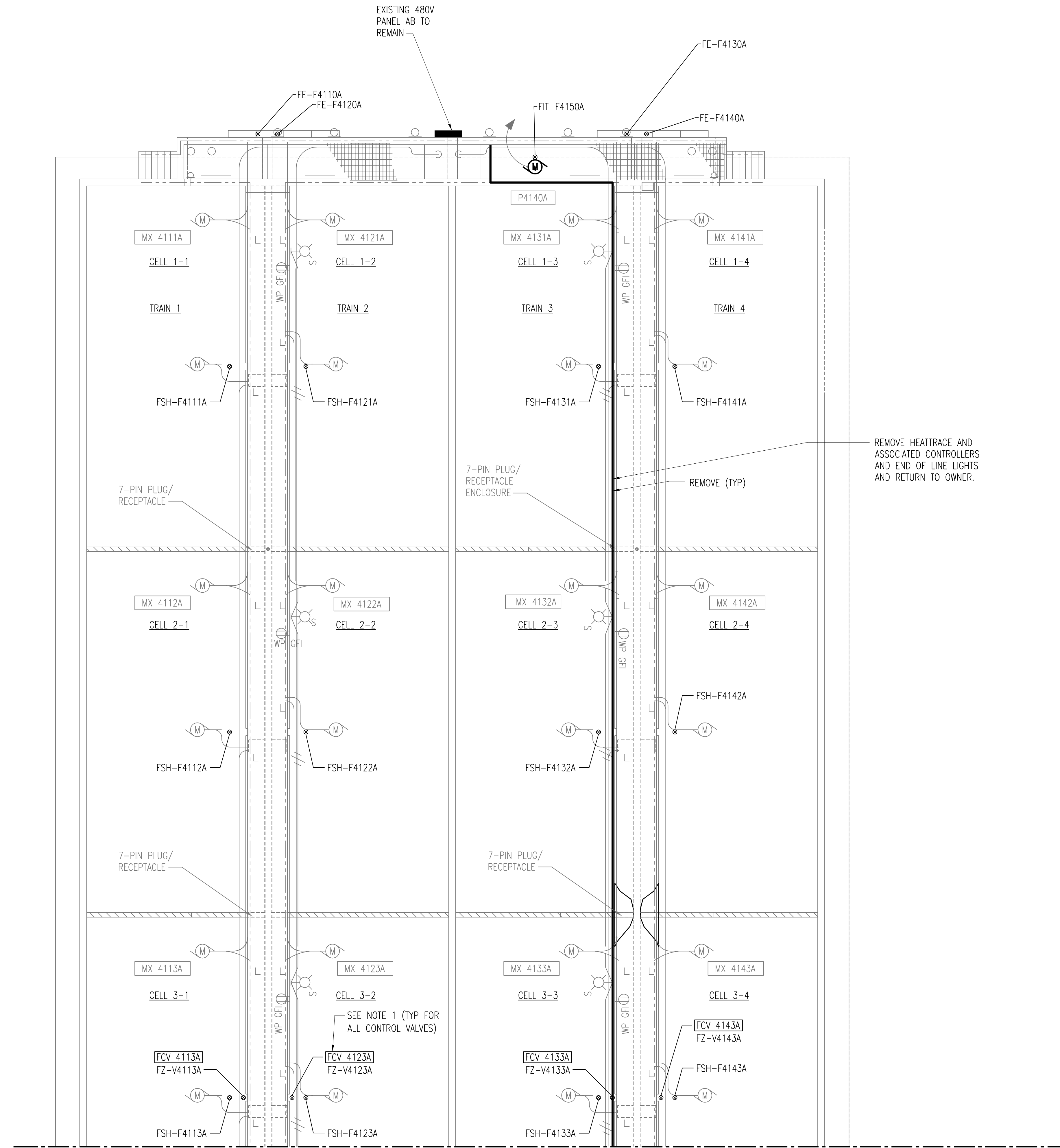
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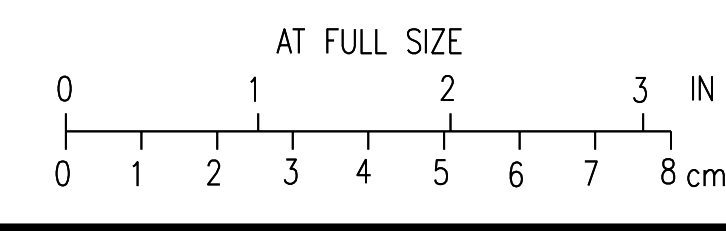
BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE

NOTES:

- SEE DRAWING E405 FOR PANEL SCHEDULE FOR PANEL AB THAT SERVES ALL 480V CONTROL VALVES SHOWN ON DRAWINGS D409 THRU D411 TO BE REMOVED. SEE DRAWING E401 THRU E405 FOR CONTROL VALVES TO BE REPLACED OR NEW LOCATIONS AND USE EXISTING CIRCUITS FROM PANEL AB AND EXTEND WITH SAME WIRING AND CONDUIT AS SHOWN.



AERATION TANKS ELECTRICAL DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



NO.	REVISIONS	DSGN	CHKD	APVD	DATE
3	RECORD DRAWING	JBL	JBL	JBL	12-13-2014
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012

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**AERATION TANKS
ELECTRICAL DEMOLITION PLANS
SHEET 1**

DESIGNED <u>DL MORITZ</u>	SCALE: 1/8"=1'-0"
DRAWN <u>D.WILGES</u>	NO. 22800
CHECKED <u>DL MORITZ</u>	REV. <u>3</u>
APPROVED <u>JD COOAN</u>	D409
DATE <u>DECEMBER 2, 2011</u>	

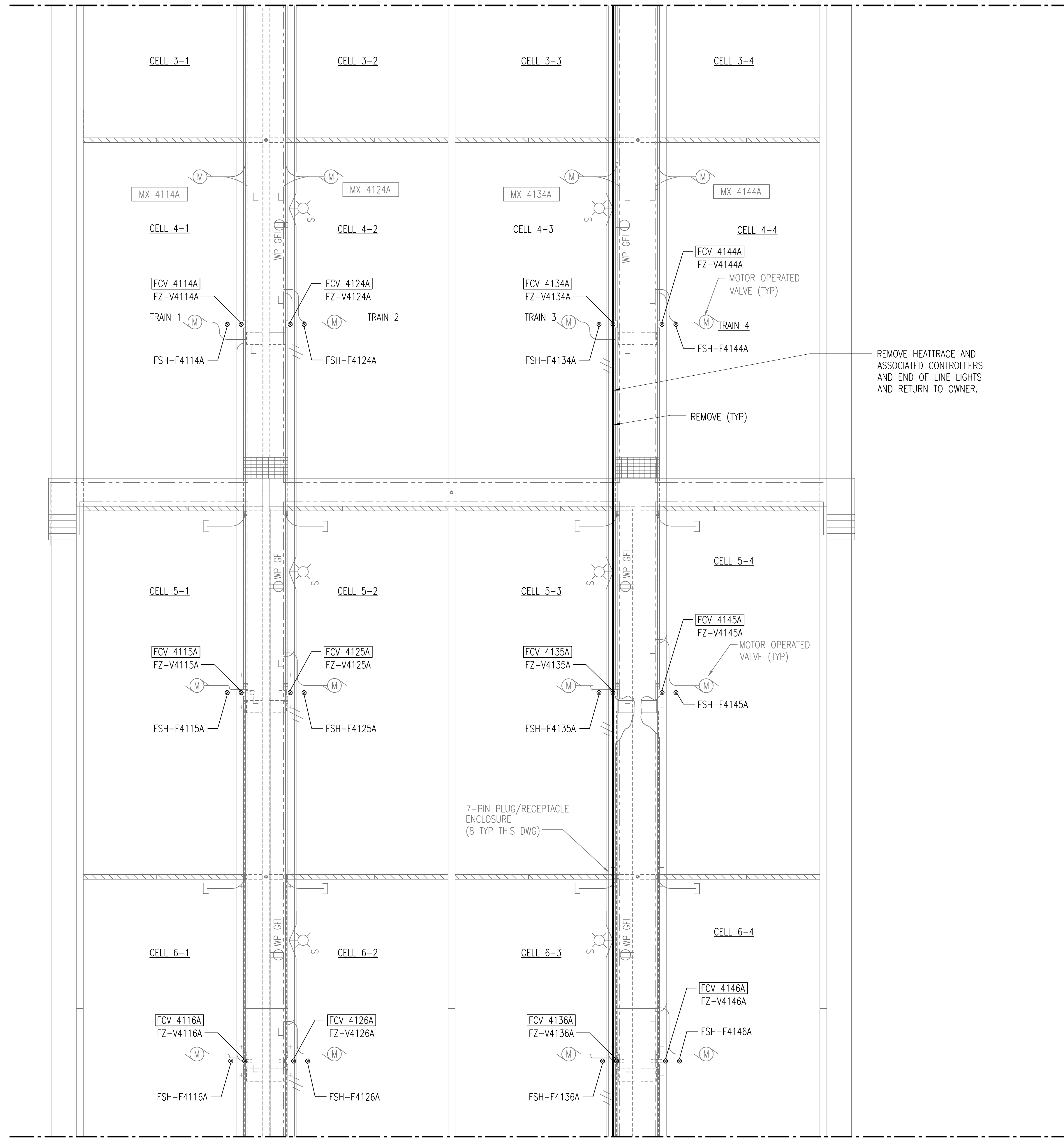
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BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE

MATCHLINE FOR CONTINUATION SEE DWG D409



REMOVE HEATTRACE AND ASSOCIATED CONTROLLERS AND END OF LINE LIGHTS AND RETURN TO OWNER.

REMOVE (TYP)

7-PIN PLUG/RECEPTACLE ENCLOSURE (8 TYP THIS DWG)

MATCHLINE FOR CONTINUATION SEE DWG D411

AERATION TANKS ELECTRICAL DEMOLITION PLAN
SCALE: 1/8" = 1'-0"

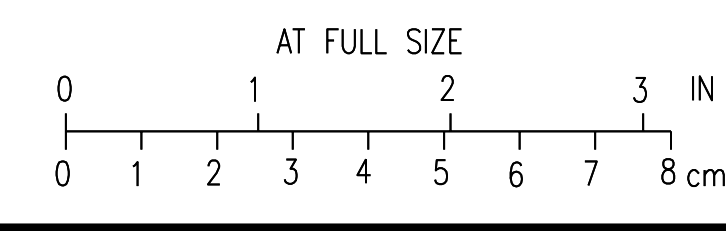
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1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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**AERATION TANKS
ELECTRICAL DEMOLITION PLANS
SHEET 2**

DESIGNED <u>DL MORITZ</u>	SCALE: 1/8"=1'-0"
DRAWN <u>D.WILGES</u>	NO. 22800
CHECKED <u>DL MORITZ</u>	REV.
APPROVED <u>JD COOAN</u>	D410
DATE <u>DECEMBER 2, 2011</u>	2



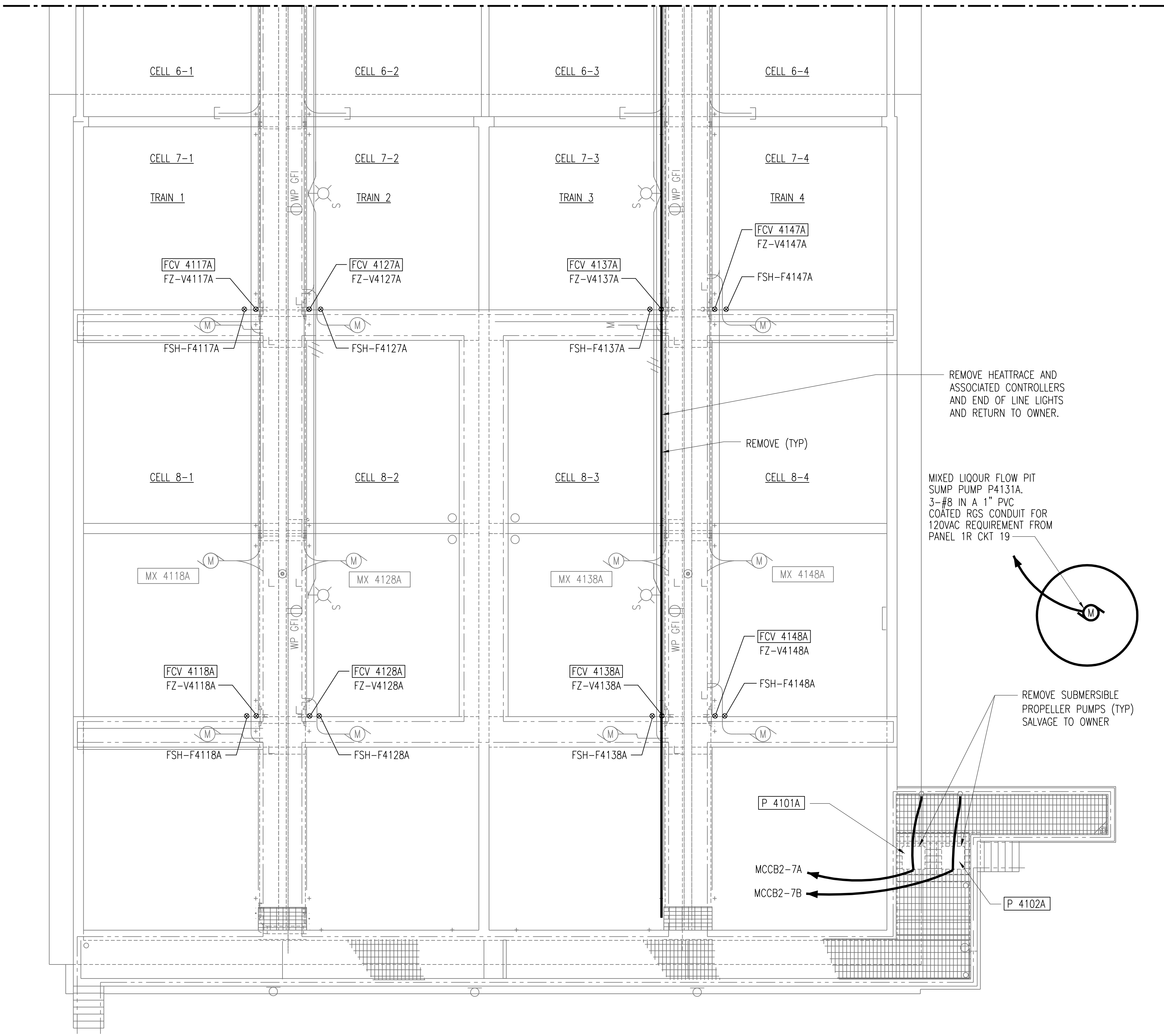
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CADD D1-14

BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE

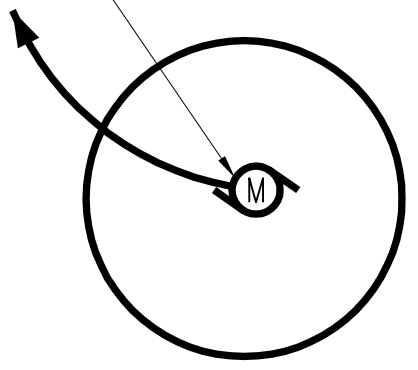
MATCHLINE FOR CONTINUATION SEE DWG D410



REMOVE HEATTRACE AND ASSOCIATED CONTROLLERS AND END OF LINE LIGHTS AND RETURN TO OWNER.

REMOVE (TYP)

MIXED LIQUOR FLOW PIT SUMP PUMP P4131A. 3-#8 IN A 1" PVC COATED RGS CONDUIT FOR 120VAC REQUIREMENT FROM PANEL 1R CKT 19



REMOVE SUBMERSIBLE PROPELLER PUMPS (TYP) SALVAGE TO OWNER

AERATION TANKS ELECTRICAL DEMOLITION PLAN
SCALE: 1/8" = 1'-0"

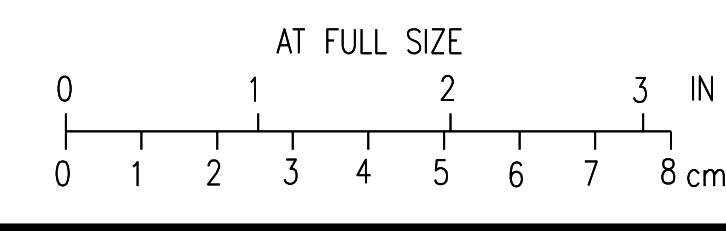
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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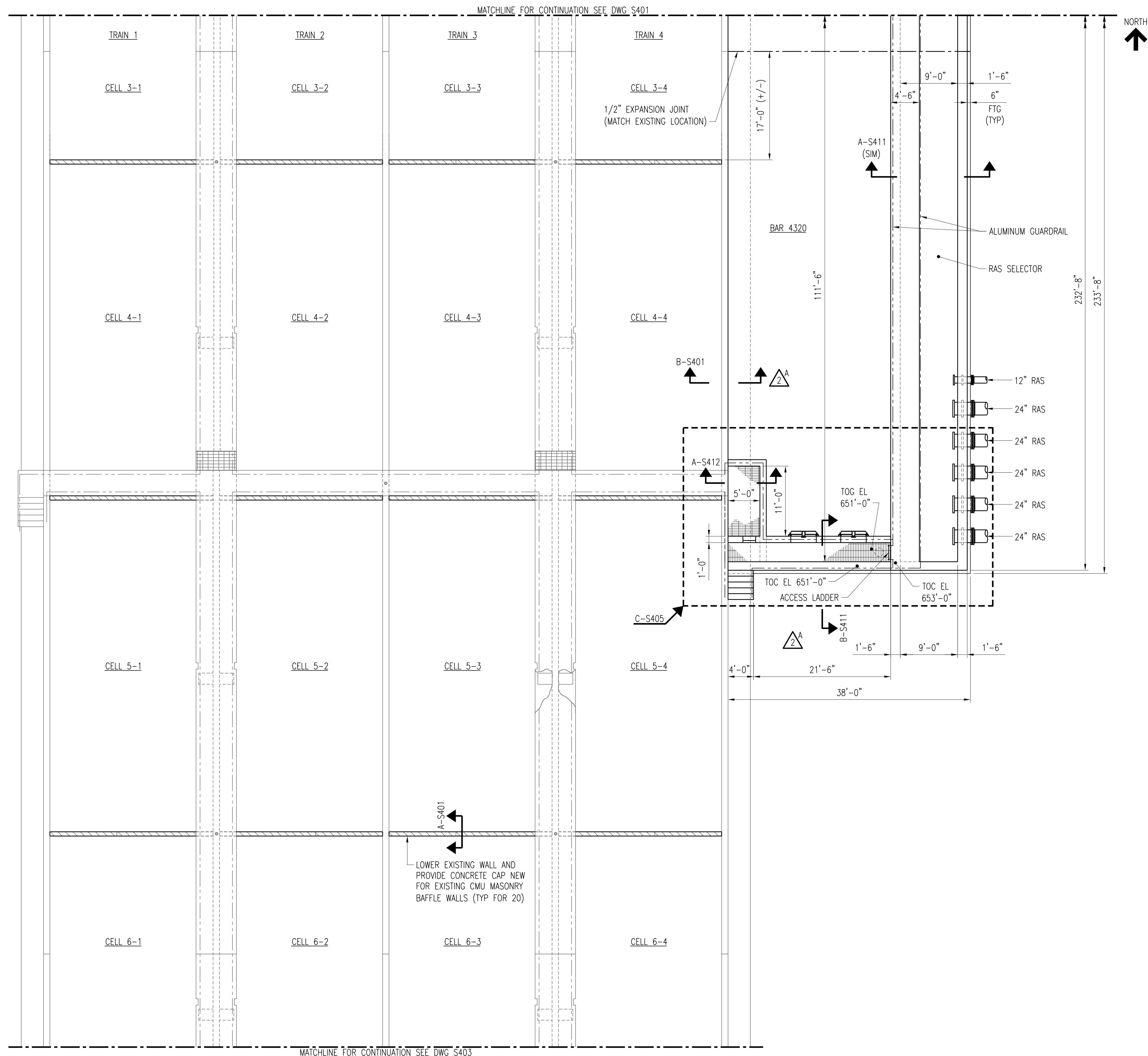
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**AERATION TANKS
ELECTRICAL DEMOLITION PLANS
SHEET 3**

DESIGNED	DL MORITZ	SCALE: 1/8"=1'-0"
DRAWN	D.WILGES	NO. 22800
CHECKED	DL MORITZ	REV.
APPROVED	JD COOAN	D411
DATE	DECEMBER 2, 2011	2



CADD D1-R4



MATCHLINE FOR CONTINUATION SEE DWG S401



MATCHLINE FOR CONTINUATION SEE DWG S403

AERATION TANKS STRUCTURAL PLAN

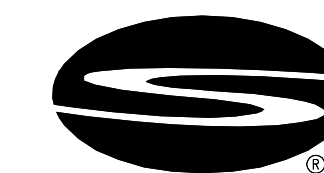
SCALE: 1/8" = 1'-0"

NOTES:

1. GRATING AND STAIR DESIGN LIVE LOAD: 100 PSF.
2. FOR GRATING SUPPORT AT CONCRETE WALLS - SEE STANDARD DETAILS. GRATING SUPPORT SHALL BE BY EMBEDDED ANGLE OR EXTERNAL ANGLE BOLTED TO WALL.
3. ALUMINUM GRATING SUPPORT BEAMS NOT SHOWN. SEE ENLARGED PLANS FOR DETAILS.
4. LOCATE EXPANSION JOINTS AS SHOWN TO CORRESPOND WITH EXISTING EXPANSION JOINTS IN EXISTING ADJACENT TANK WALL AND BASE SLAB.
5. CONSTRUCTION JOINTS SHALL BE LOCATED AS SHOWN OR AS APPROVED BY ENGINEER.
6. DURING CONSTRUCTION, PROVIDE A SYSTEM WHEREBY STRUCTURE WILL AUTOMATICALLY FLOOD IF EXTERIOR WATER LEVEL WILL BE ABOVE EL 635.2' (15.8' BELOW TOP OF WALL)
7. ENCASE ALL PIPE, EXCEPT SUBDRAIN PIPING, IN CONCRETE BENEATH BOTTOM CONCRETE SLAB.
8. ALL GRATING, SUPPORT BEAMS, GUARDRAIL AND KICK PLATES SHALL BE ALUMINUM.
9. SEE MECHANICAL DRAWINGS FOR INFORMATION ON PIPING AND GATES.

3 TANK EXPANSION JOINTS SHALL HAVE PVC WATERSTOP UNLESS OTHERWISE NOTED. SEE TYPICAL JOINT DETAILS ON DRAWING S6. BENTONITE WATER SEALS ONLY ALLOWED WHERE INDICATED AT FIXED CONSTRUCTION JOINTS.

4	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
3	ADDED ADDENDUM COMMENT	LJO	JBL	JBL	05-04-2012
2	REVISED PER ADDENDUM NO.1	KBH	KBH	LHB	02-22-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



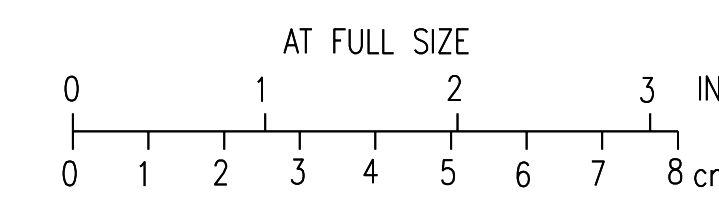
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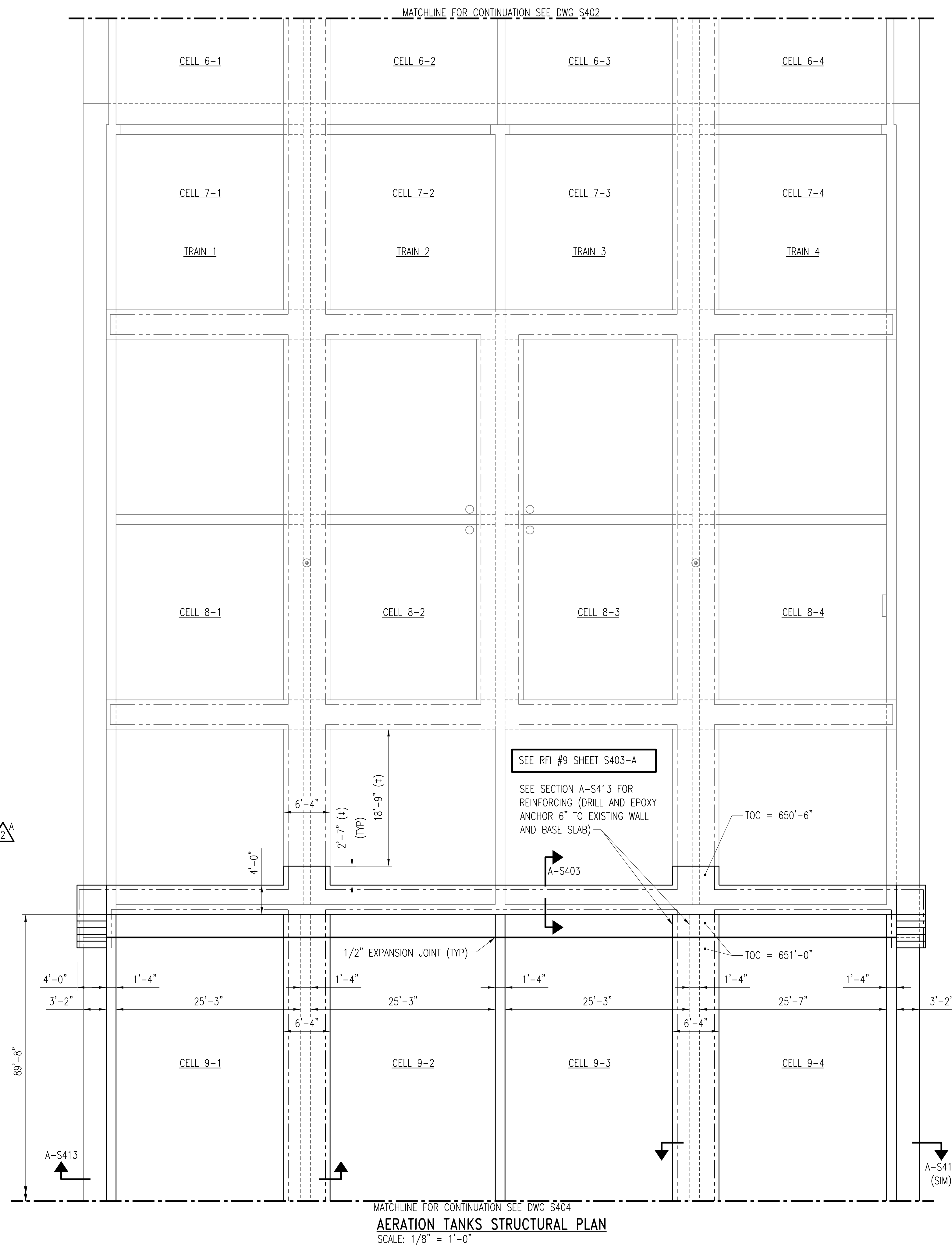
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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**AERATION TANKS
PARTIAL PLAN - SHEET 2**

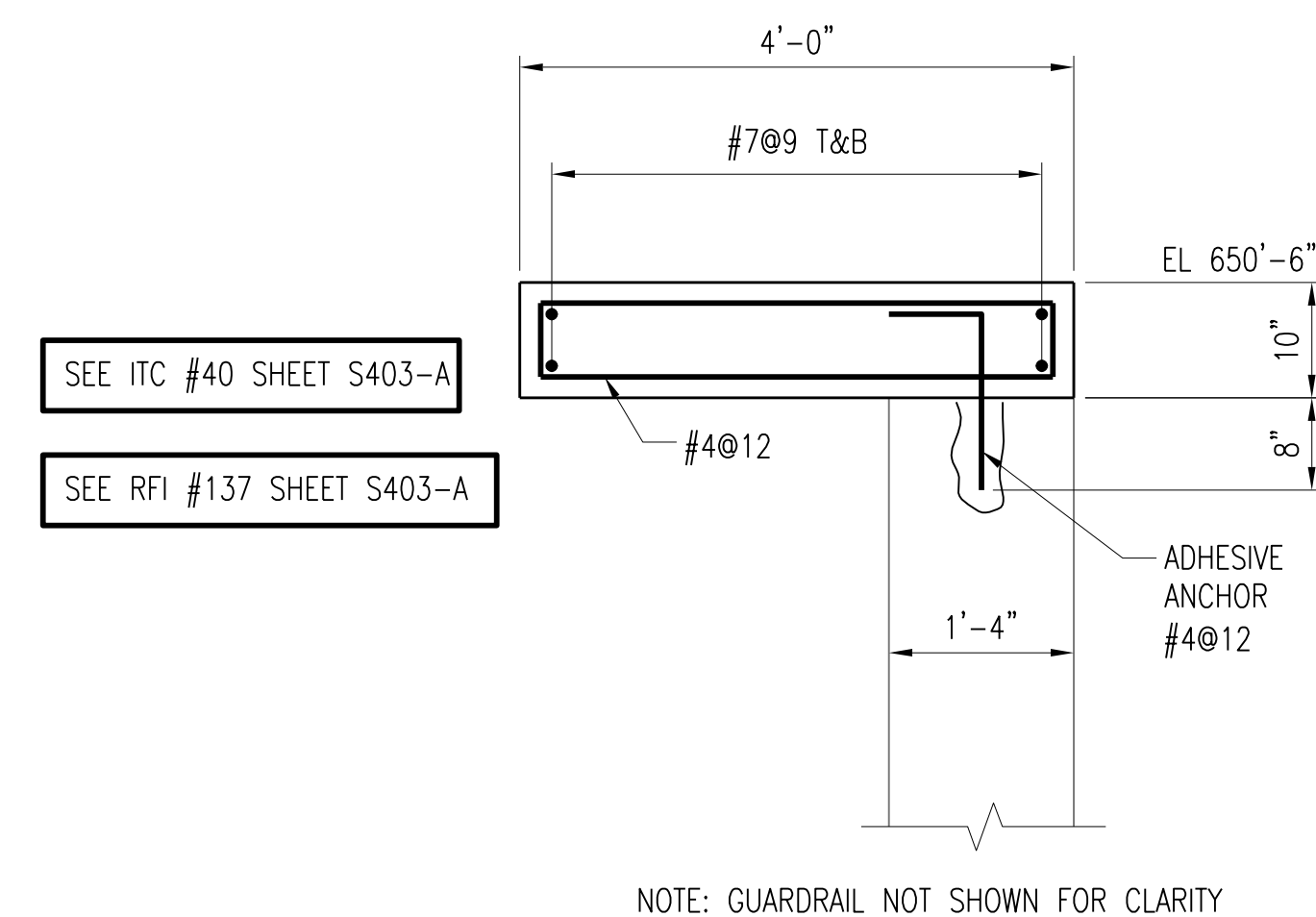
DESIGNED	KB HALL	SCALE: 1/8" = 1'-0"
DRAWN	DA SCHMIDT	NO. 22800
CHECKED	KB HALL	REV.
APPROVED	LH BADTRAM	S402
APPROVED	DATE: DECEMBER 2, 2011	4





NOTES:

1. GRATING AND STAIR DESIGN LIVE LOAD: 100 PSF.
2. LOCATE EXPANSION JOINTS AS SHOWN TO CORRESPOND WITH EXISTING EXPANSION JOINTS IN EXISTING ADJACENT TANK WALL AND BASE SLAB.
3. CONSTRUCTION JOINTS SHALL BE LOCATED AS SHOWN OR AS APPROVED BY ENGINEER.
4. DURING CONSTRUCTION, PROVIDE A SYSTEM WHEREBY STRUCTURE WILL AUTOMATICALLY FLOOD IF EXTERIOR WATER LEVEL WILL BE ABOVE EL 635.2' (15.8' BELOW TOP OF WALL)
5. ENCASE ALL PIPE, EXCEPT SUBDRAIN PIPING, IN CONCRETE BENEATH BOTTOM CONCRETE SLAB.
6. ALL GRATING, SUPPORT BEAMS, GUARDRAIL AND KICK PLATES SHALL BE ALUMINUM.
7. SEE MECHANICAL DRAWINGS FOR INFORMATION ON PIPING AND GATES.



SECTION A-S403
SCALE: 3/4" = 1'-0"

TANK EXPANSION JOINTS SHALL HAVE PVC WATERSTOP UNLESS OTHERWISE NOTED. SEE TYPICAL JOINT DETAILS ON DRAWING S6. BENTONITE WATER SEALS ONLY ALLOWED WHERE INDICATED AT FIXED CONSTRUCTION JOINTS.

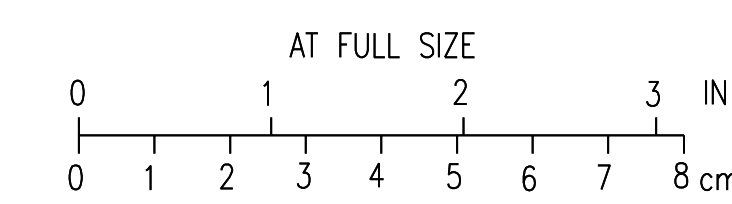
NO.	REVISIONS	DSGN	CHKD	APVD	DATE
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3	ADDED ADDENDUM COMMENT	LJO	JBL	JBL	05-04-2012
2	REVISED PER ADDENDUM NO.1	KBH	KBH	LHB	02-22-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012

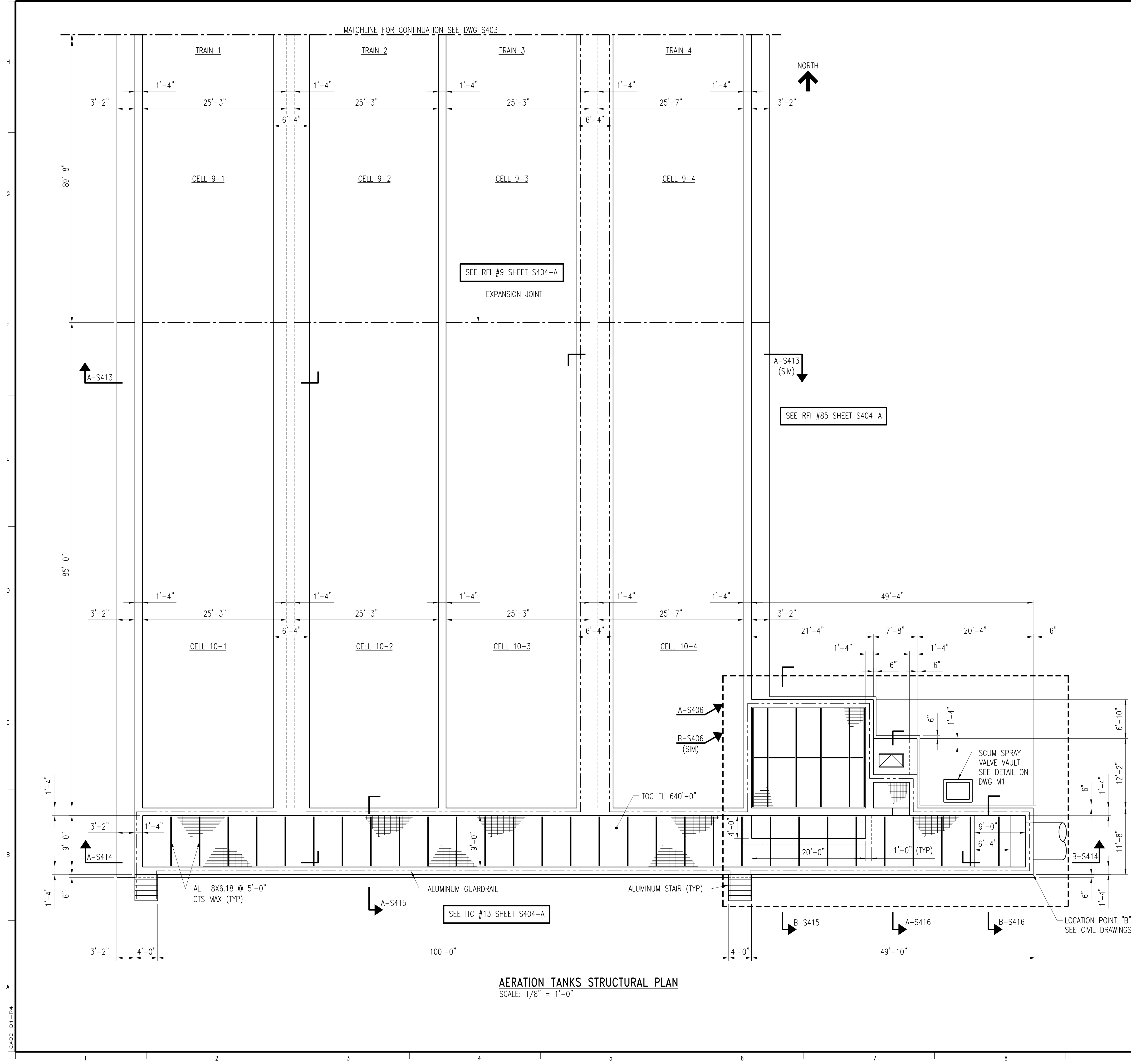
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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**AERATION TANKS
PARTIAL PLAN - SHEET 3**

DESIGNED	KB HALL	SCALE: 1/8" = 1'-0"	NO. 22800	REV.
DRAWN	DA SCHMIDT			
CHECKED	KB HALL			
APPROVED	LH BADTRAM			
DATE	DECEMBER 2, 2011	S403	4	





NOTES:

1. GRATING AND STAIR DESIGN LIVE LOAD: 100 PSF.
2. FOR GRATING SUPPORT AT CONCRETE WALLS - SEE STANDARD DETAILS. GRATING SUPPORT SHALL BE BY EMBEDDED ANGLE OR EXTERNAL ANGLE BOLTED TO WALL.
3. ALUMINUM GRATING SUPPORT BEAMS NOT SHOWN. SEE ENLARGED PLANS FOR DETAILS.
4. LOCATE EXPANSION JOINTS AS SHOWN TO CORRESPOND WITH EXISTING EXPANSION JOINTS IN EXISTING ADJACENT TANK WALL AND BASE SLAB.
5. CONSTRUCTION JOINTS SHALL BE LOCATED AS SHOWN OR AS APPROVED BY ENGINEER.
6. DURING CONSTRUCTION, PROVIDE A SYSTEM WHEREBY STRUCTURE WILL AUTOMATICALLY FLOOD IF EXTERIOR WATER LEVEL WILL BE ABOVE EL 635.2' (15.8' BELOW TOP OF WALL)
7. ENCASE ALL PIPE, EXCEPT SUBDRAIN PIPING, IN CONCRETE BENEATH BOTTOM CONCRETE SLAB.
8. ALL GRATING, SUPPORT BEAMS, GUARDRAIL AND KICK PLATES SHALL BE ALUMINUM.
9. SEE MECHANICAL DRAWINGS FOR INFORMATION ON PIPING AND GATES.

△ TANK EXPANSION JOINTS SHALL HAVE PVC WATERSTOP UNLESS OTHERWISE NOTED. SEE TYPICAL JOINT DETAILS ON DRAWING S6. BENTONITE WATER SEALS ONLY ALLOWED WHERE INDICATED AT FIXED CONSTRUCTION JOINTS.

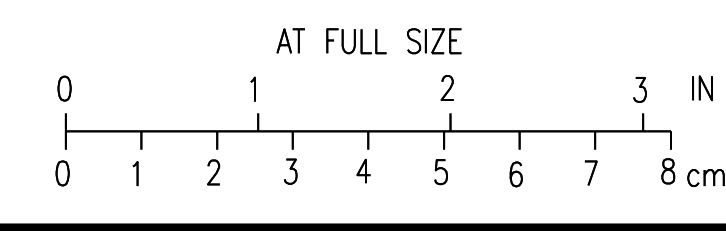
NO.	REVISIONS	DSGN	CHKD	APVD	DATE
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3	ADDED ADDENDUM COMMENT	LJO	JBL	JBL	05-04-2012
2	REVISED AND REISSUED	KBH	KBH	LHB	01-25-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012



CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**AERATION TANKS
PARTIAL PLAN - SHEET 4**

DESIGNED: KB HALL	SCALE: 1/8" = 1'-0"
DRAWN: DA SCHMIDT	NO. 22800
CHECKED: KB HALL	REV.
APPROVED: LH BADTRAM	S404
DATE: DECEMBER 2, 2011	4

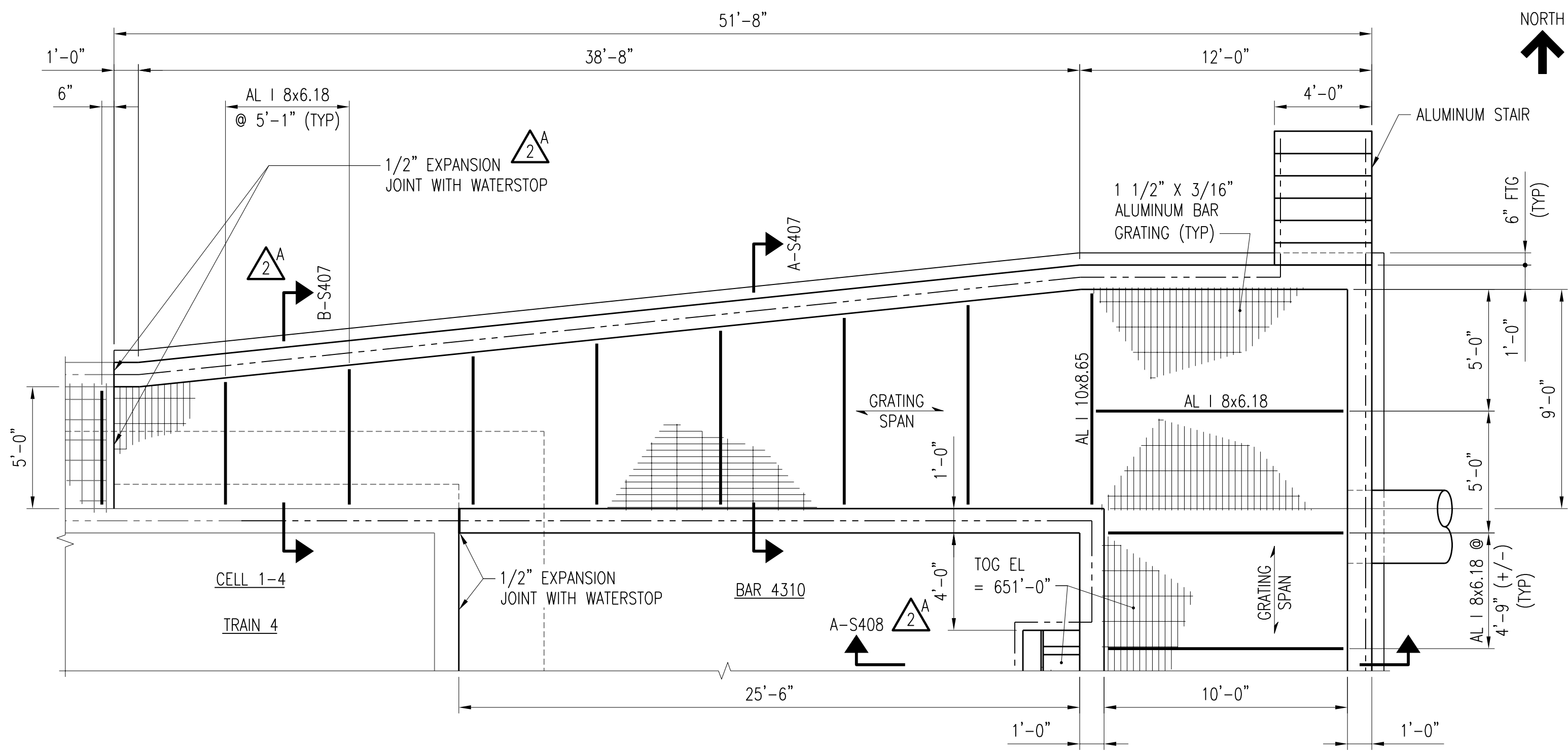


AERATION TANKS STRUCTURAL PLAN
SCALE: 1/8" = 1'-0"

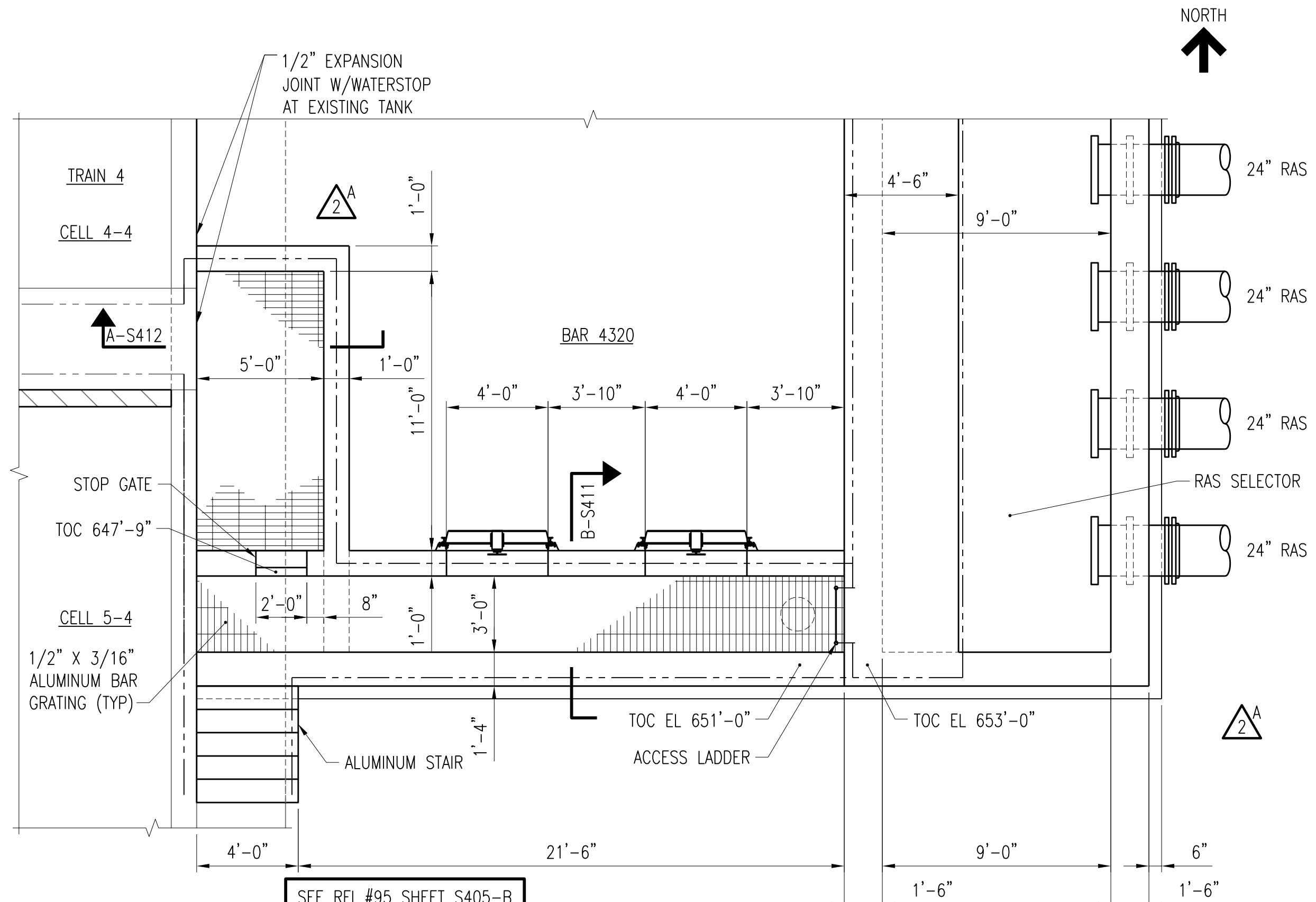
CADD: D:\1-14

NOTES:

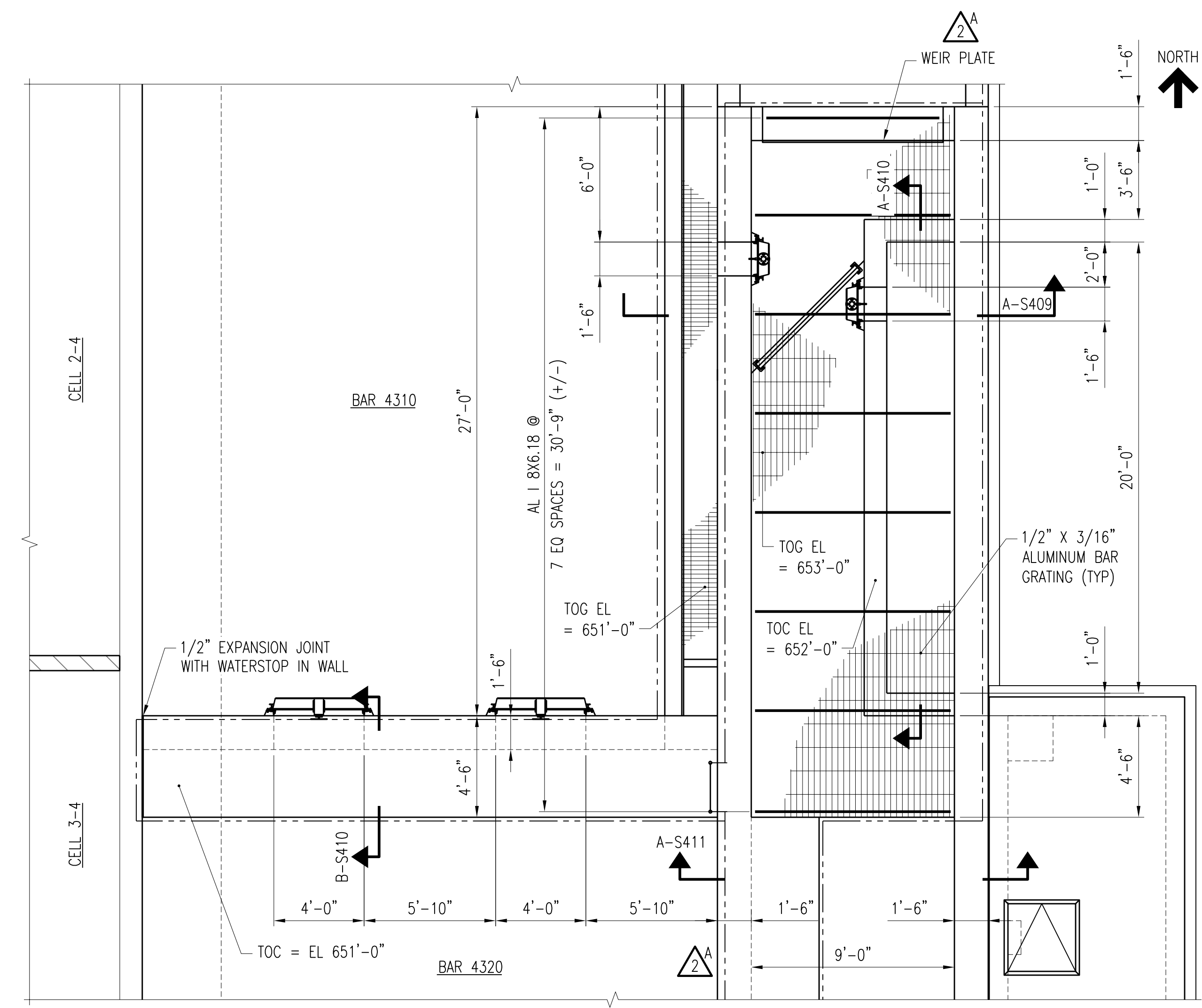
1. PLATFORM AND GRATING DESIGN LIVE LOAD: 100 PSF.
2. FOR GRATING SUPPORT - SEE STANDARD DETAILS.
3. LOCATE EXPANSION JOINTS AS SHOWN TO CORRESPOND WITH EXISTING EXPANSION JOINTS IN EXISTING ADJACENT TANK WALL AND BASE SLAB.
4. CONSTRUCTION JOINTS SHALL BE LOCATED AS SHOWN OR AS APPROVED BY ENGINEER.
5. DURING CONSTRUCTION, PROVIDE A SYSTEM WHEREBY STRUCTURE WILL AUTOMATICALLY FLOOD IF EXTERIOR WATER LEVEL WILL BE ABOVE EL. 635.2' (15.8' BELOW TOP OF WALL)
6. ENCASE ALL PIPE IN CONCRETE BENEATH BOTTOM CONCRETE SLAB.
7. ALL GUARDRAIL AND KICK PLATES SHALL BE ALUMINUM.



DETAIL A-S405
S401
SCALE: 1/4" = 1'-0"



DETAIL C-S405
S402
SCALE: 1/4" = 1'-0"



DETAIL B-S405
S401
SCALE: 1/4" = 1'-0"

3 TANK EXPANSION JOINTS SHALL HAVE PVC WATERSTOP UNLESS OTHERWISE NOTED. SEE TYPICAL JOINT DETAILS ON DRAWING S6. BENTONITE WATER SEALS ONLY ALLOWED WHERE INDICATED AT FIXED CONSTRUCTION JOINTS.

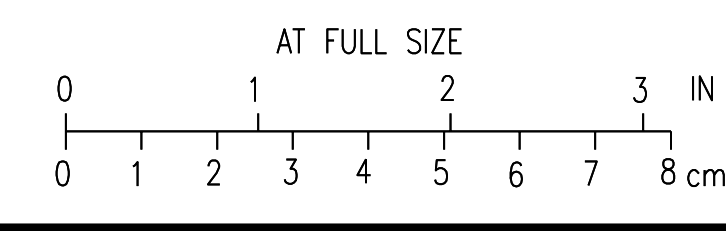
NO.	REVISIONS	DSGN	CHKD	APVD	DATE
5	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
4	REISSUE FOR RFI #1	LJO	JBL	JBL	05-22-2012
3	ADDED ADDENDUM COMMENTS	LJO	JBL	JBL	05-04-2012
2	REVISED PER ADDENDUM NO.1	KBH	KBH	LHB	02-22-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012


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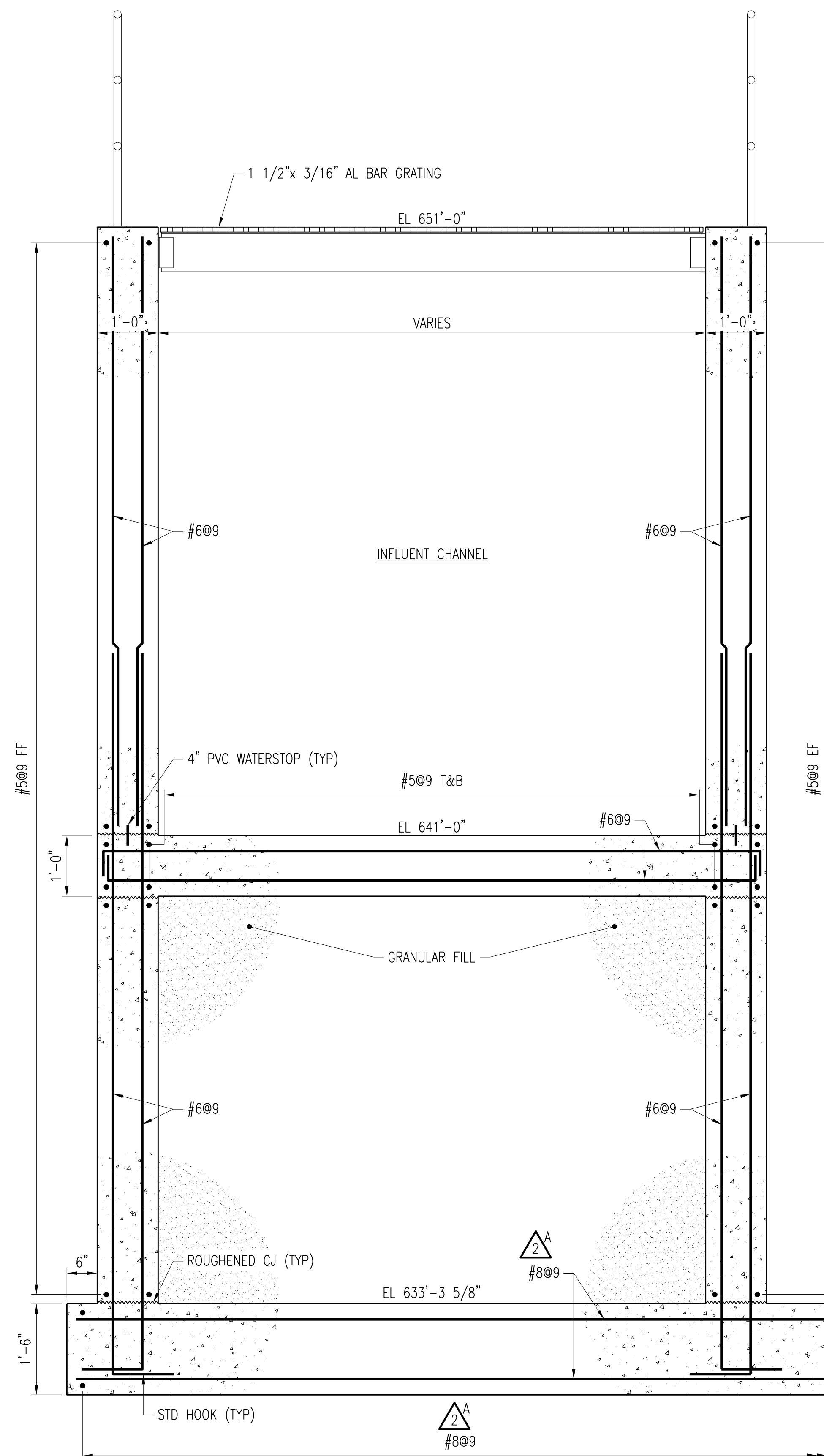
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**AERATION TANKS
DETAILS - SHEET 1**

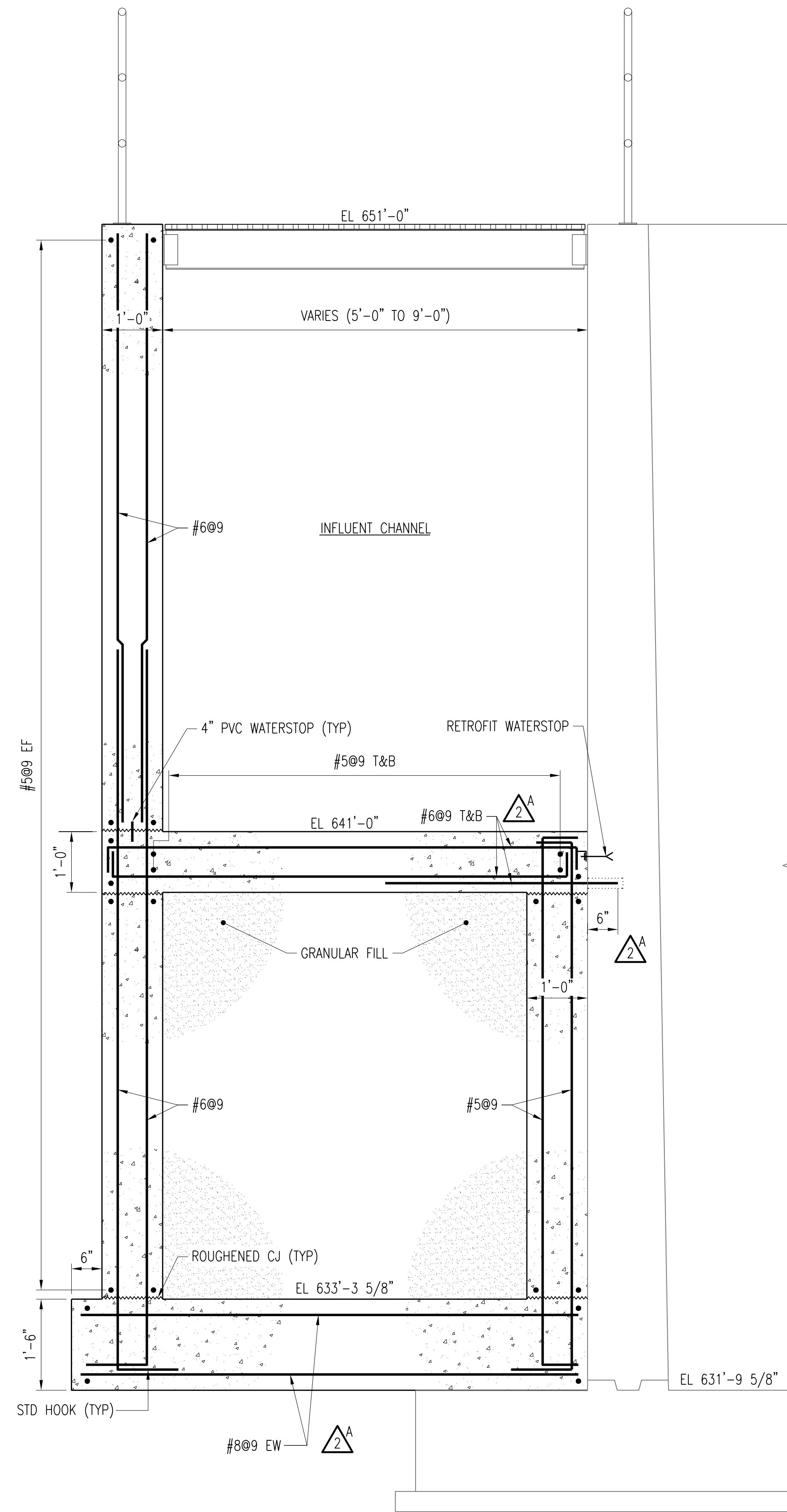
DESIGNED: KB HALL	SCALE: AS NOTED	NO. 22800	REV. 5
DRAWN: DA SCHMIDT			
CHECKED: KB HALL			
APPROVED: LH BADTRAM			
DATE: DECEMBER 2, 2011			



CADD: D1-R4



SECTION **A-S407**
S401,S405
SCALE: 3/4" = 1'-0"



SECTION **B-S407**
S401,S405
SCALE: 3/4" = 1'-0"

SEE CONTRACTORS
ATTACHMENT 1 & 2
ON SHEET S407-B

△ A TANK EXPANSION JOINTS SHALL HAVE PVC WATERSTOP UNLESS OTHERWISE NOTED. SEE TYPICAL JOINT DETAILS ON DRAWING S6. BENTONITE WATER SEALS ONLY ALLOWED WHERE INDICATED AT FIXED CONSTRUCTION JOINTS.

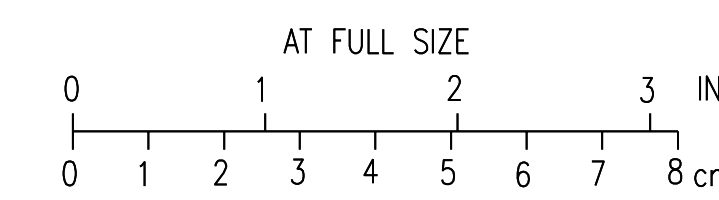
NO.	REVISIONS	DSGN	CHKD	APVD	DATE
4	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
3	ADDED ADDENDUM COMMENT	LJO	JBL	JBL	05-04-2012
2	REVISED PER ADDENDUM NO.1	KBH	KBH	LHB	02-22-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012


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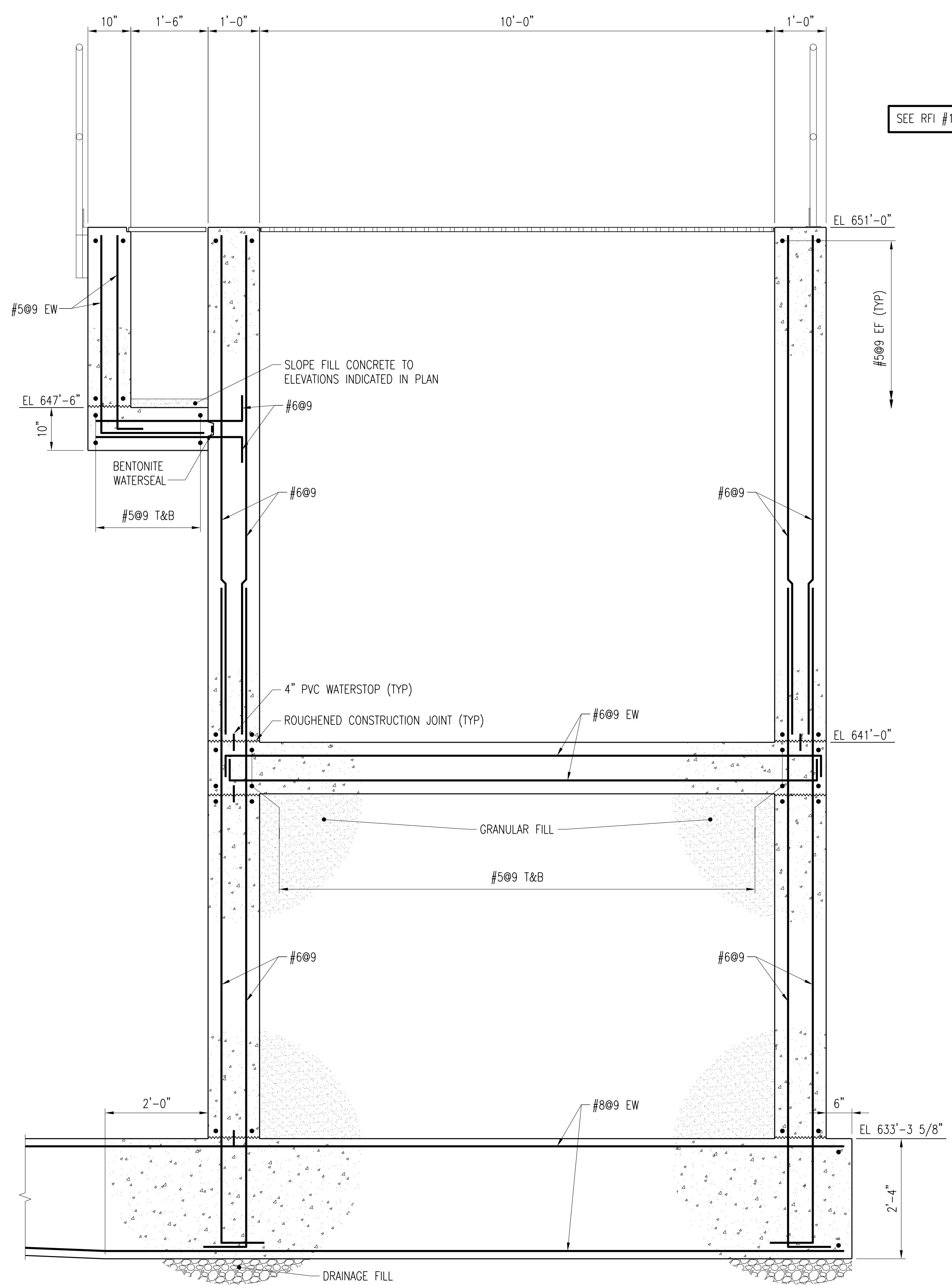
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**AERATION TANKS
DETAILS - SHEET 3**

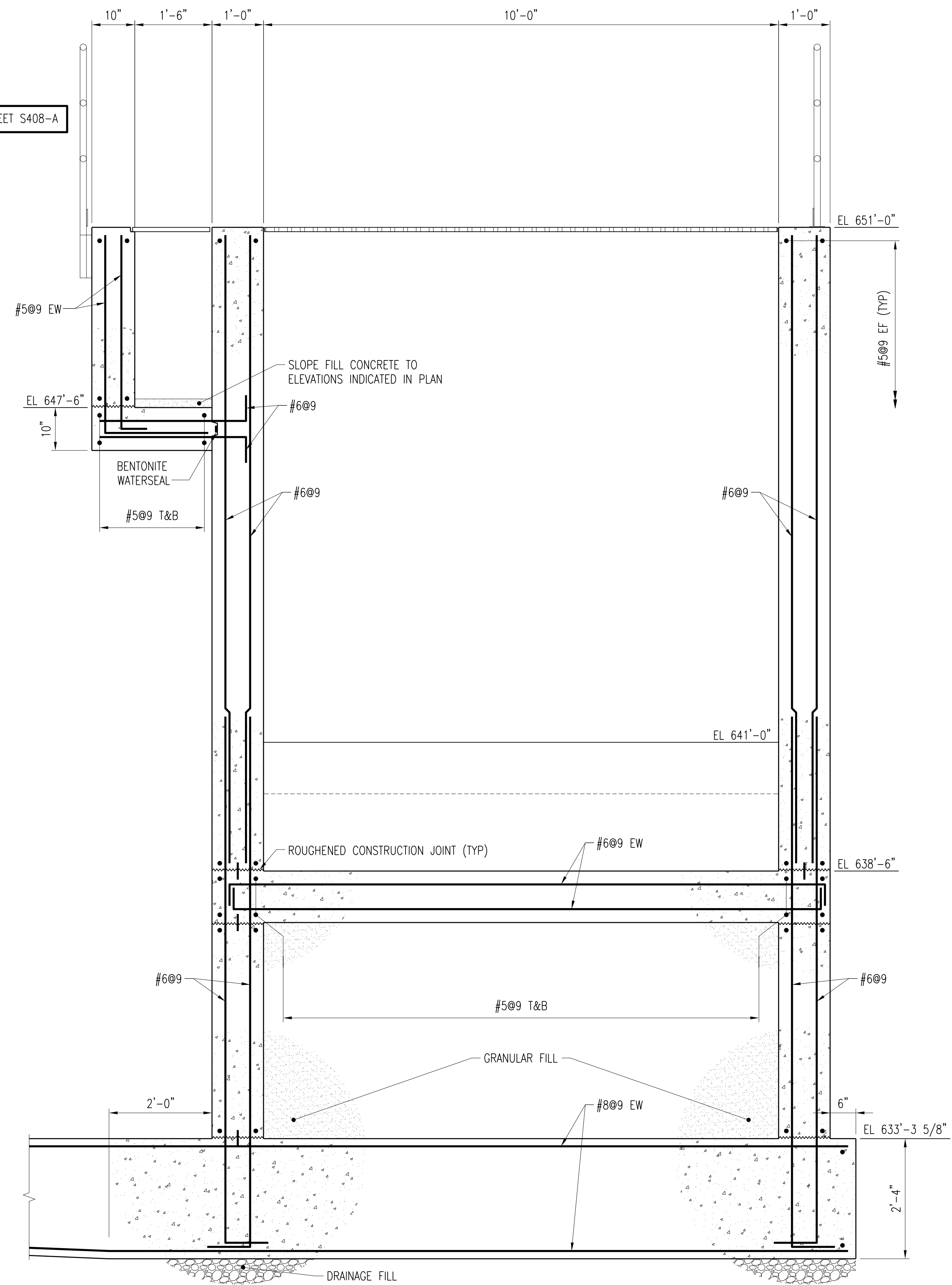
DESIGNED <u>KB HALL</u>	SCALE: AS NOTED	REV.
DRAWN <u>DA SCHMIDT</u>	NO. 22800	
CHECKED <u>KB HALL</u>	S407	4
APPROVED <u>LH BADTRAM</u>		
DATE <u>DECEMBER 2, 2011</u>		



SEE RFI #130 SHEET S408-A



SECTION **A-S408**
S401
SCALE: 3/4" = 1'-0"



SECTION **B-S408**
S401
SCALE: 3/4" = 1'-0"

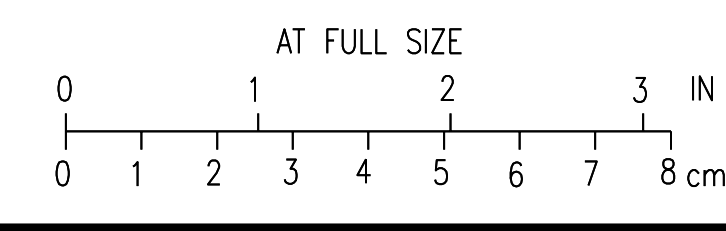
△ TANK EXPANSION JOINTS SHALL HAVE PVC WATERSTOP UNLESS OTHERWISE NOTED. SEE TYPICAL JOINT DETAILS ON DRAWING S6. BENTONITE WATER SEALS ONLY ALLOWED WHERE INDICATED AT FIXED CONSTRUCTION JOINTS.

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	ADDED ADDENDUM COMMENT	LJO	JBL	JBL	05-04-2012
1	REVISED PER ADDENDUM NO.1	KBH	KBH	LHB	02-22-2012
0	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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**AERATION TANKS
DETAILS - SHEET 4**

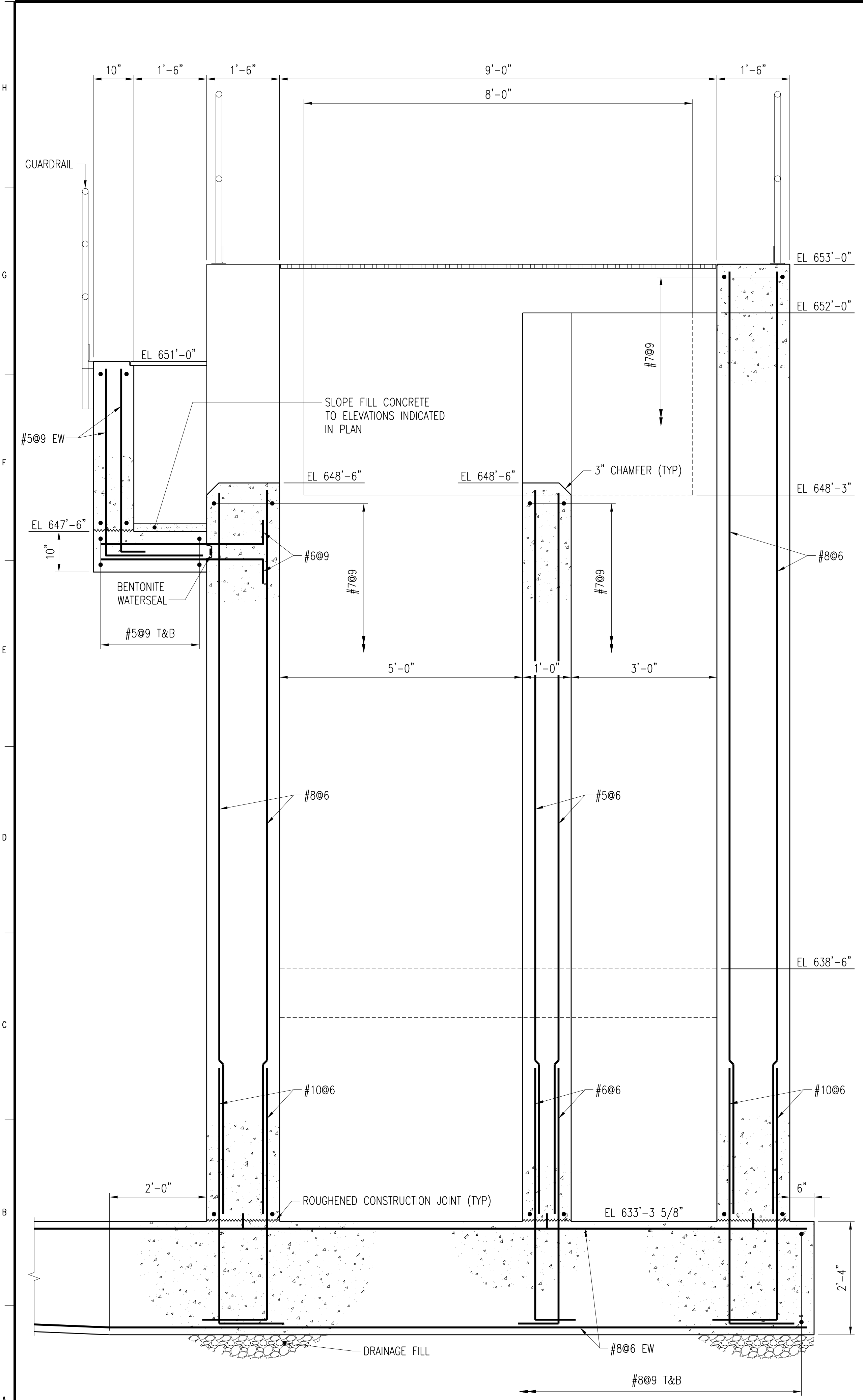


DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
DATE	JANUARY 10, 2012	S408	3

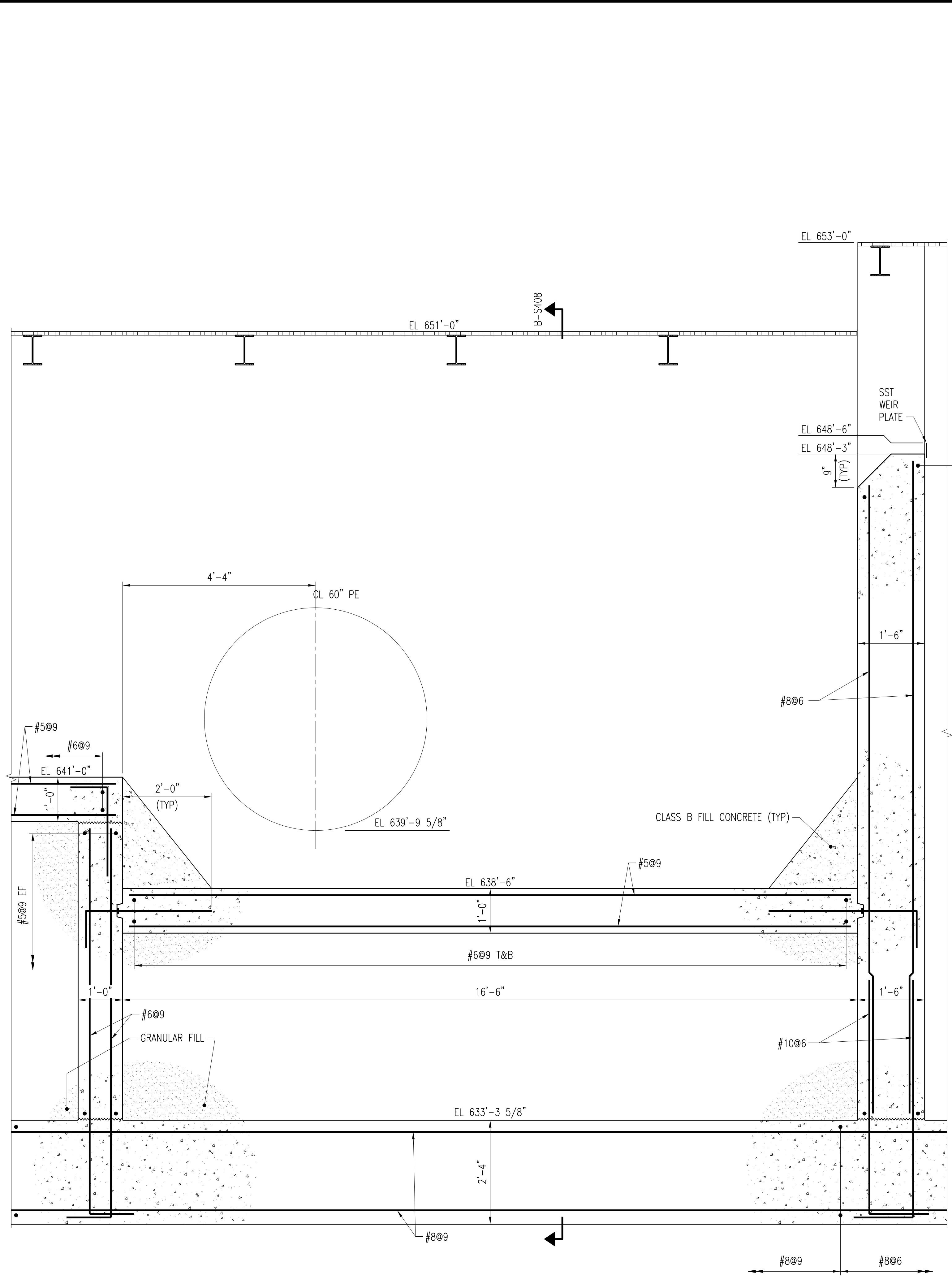
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G
F
E
D
C
B
A

H
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D
C
B
A

1 2 3 4 5 6 7 8 9 10 11 12



SECTION **A-S409**
S401, S405
SCALE: 3/4" = 1'-0"



SECTION **B-S409**
S401
SCALE: 3/4" = 1'-0"

3 A TANK EXPANSION JOINTS SHALL HAVE PVC WATERSTOP UNLESS OTHERWISE NOTED. SEE TYPICAL JOINT DETAILS ON DRAWING S6. BENTONITE WATER SEALS ONLY ALLOWED WHERE INDICATED AT FIXED CONSTRUCTION JOINTS.

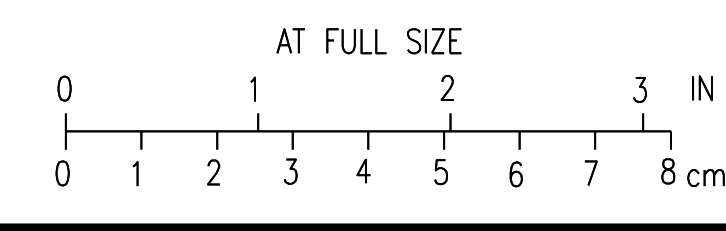
NO.	REVISIONS	DSGN	CHKD	APVD	DATE
4	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
3	ADDED ADDENDUM COMMENTS	LJO	JBL	JBL	05-04-2012
2	REVISED PER ADDENDUM NO.1	KBH	KBH	LHB	02-22-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012

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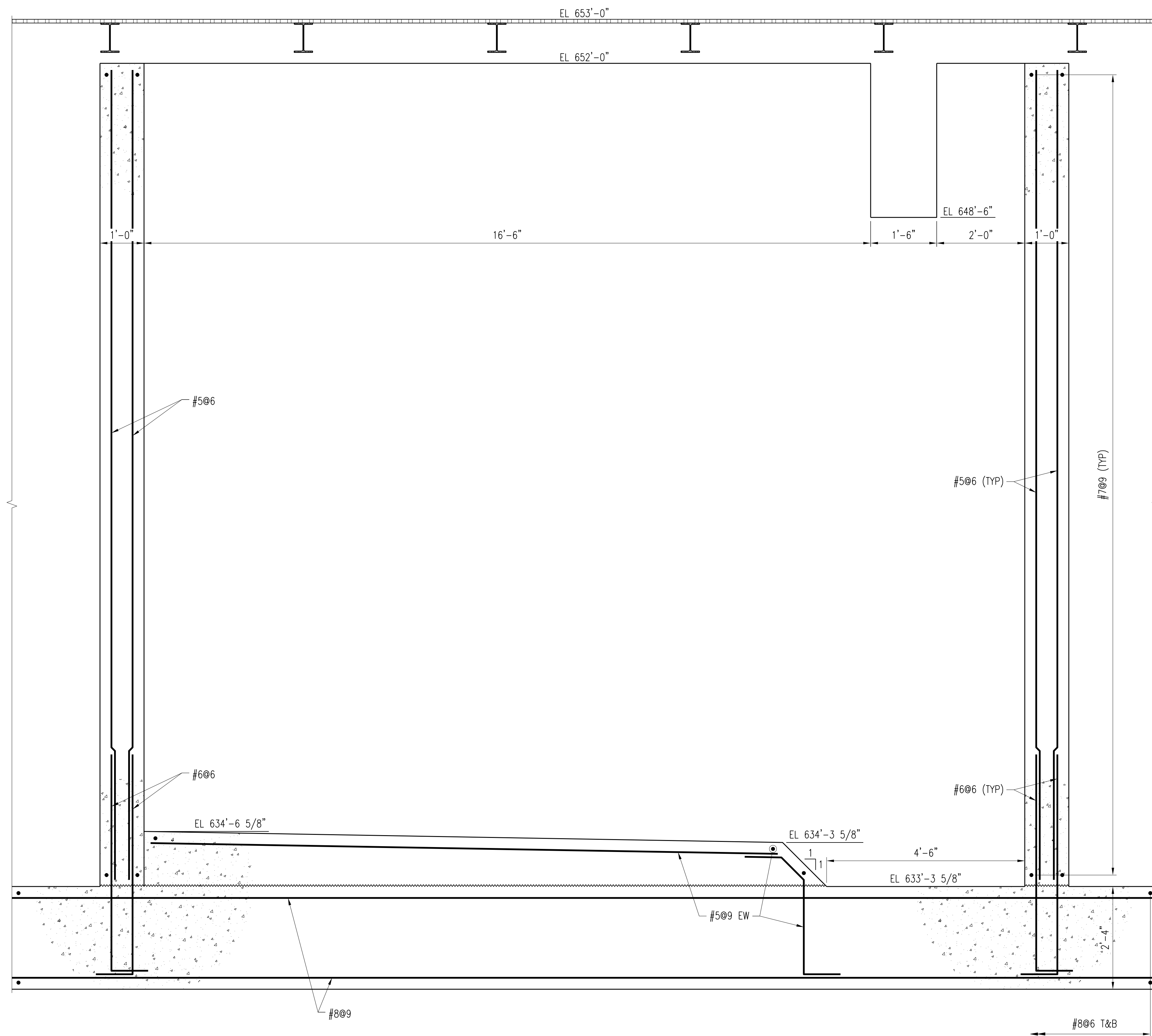
CITY OF IOWA CITY, IOWA
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**AERATION TANKS
DETAILS - SHEET 5**

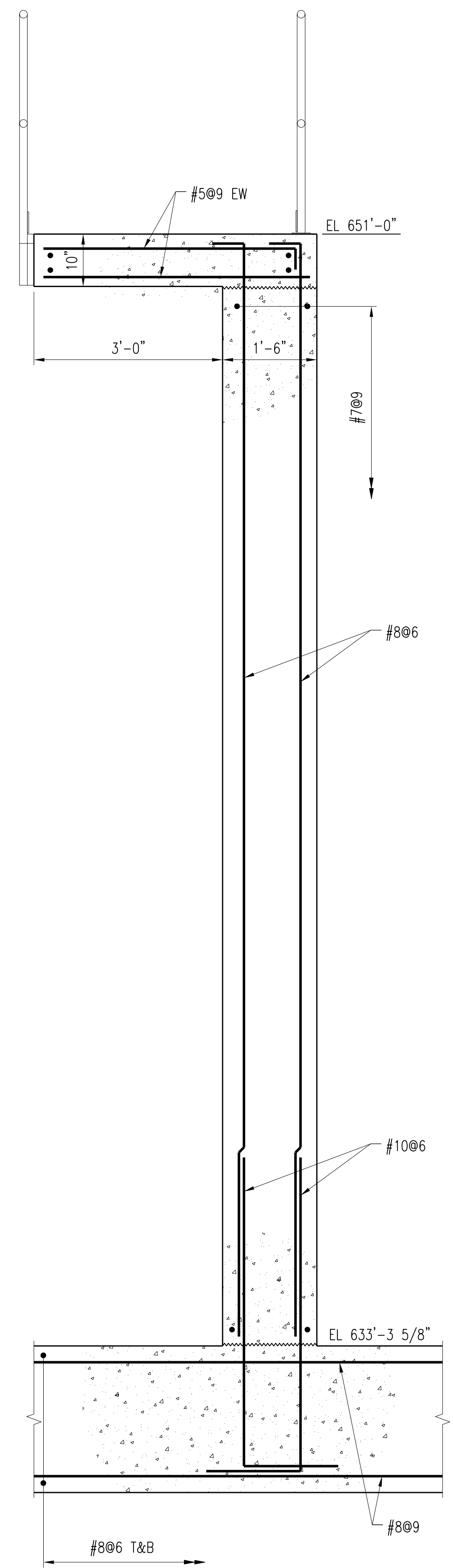
DESIGNED: KB HALL	SCALE: AS NOTED	REV.
DRAWN: DA SCHMIDT	NO. 22800	
CHECKED: KB HALL	S409	4
APPROVED: LH BADTRAM	DATE: DECEMBER 2, 2011	



CADD: D1-14



SECTION **A-S410**
S401,S405
SCALE: 3/4" = 1'-0"



SECTION **B-S410**
S401,S405
SCALE: 3/4" = 1'-0"

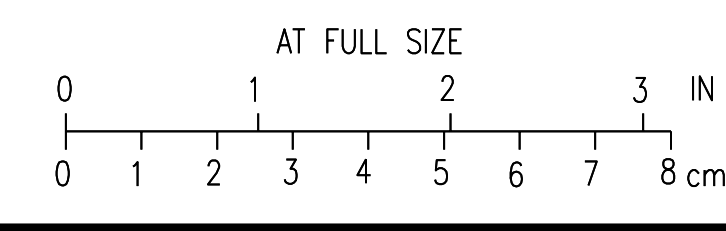
△ 3 A TANK EXPANSION JOINTS SHALL HAVE PVC WATERSTOP UNLESS OTHERWISE NOTED. SEE TYPICAL JOINT DETAILS ON DRAWING S6. BENTONITE WATER SEALS ONLY ALLOWED WHERE INDICATED AT FIXED CONSTRUCTION JOINTS.

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
4	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
3	ADDED ADDENDUM COMMENT	LJO	JBL	JBL	05-04-2012
2	REVISED PER ADDENDUM NO.1	KBH	KBH	LHB	02-22-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012

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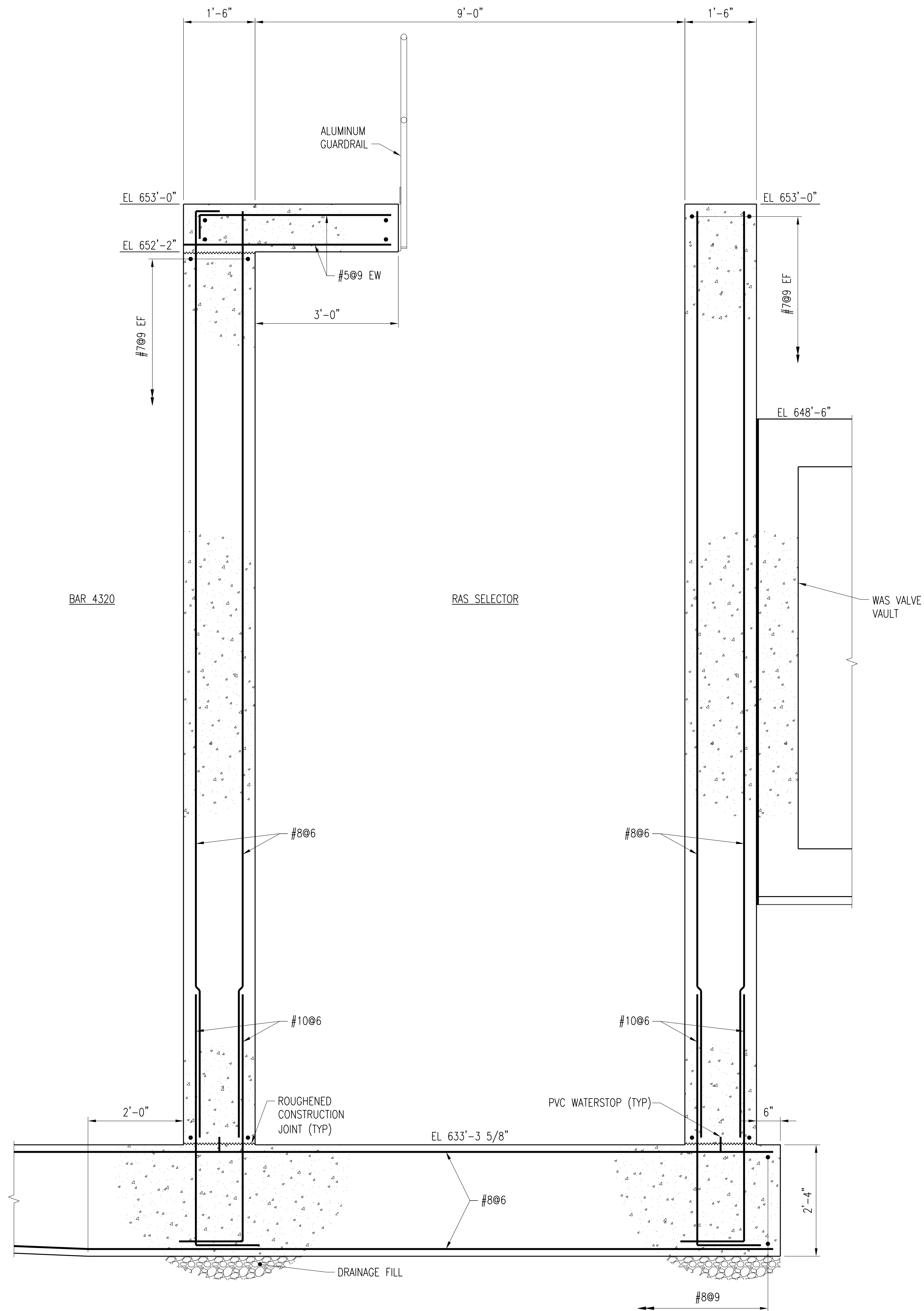
CITY OF IOWA CITY, IOWA
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**AERATION TANKS
DETAILS - SHEET 6**

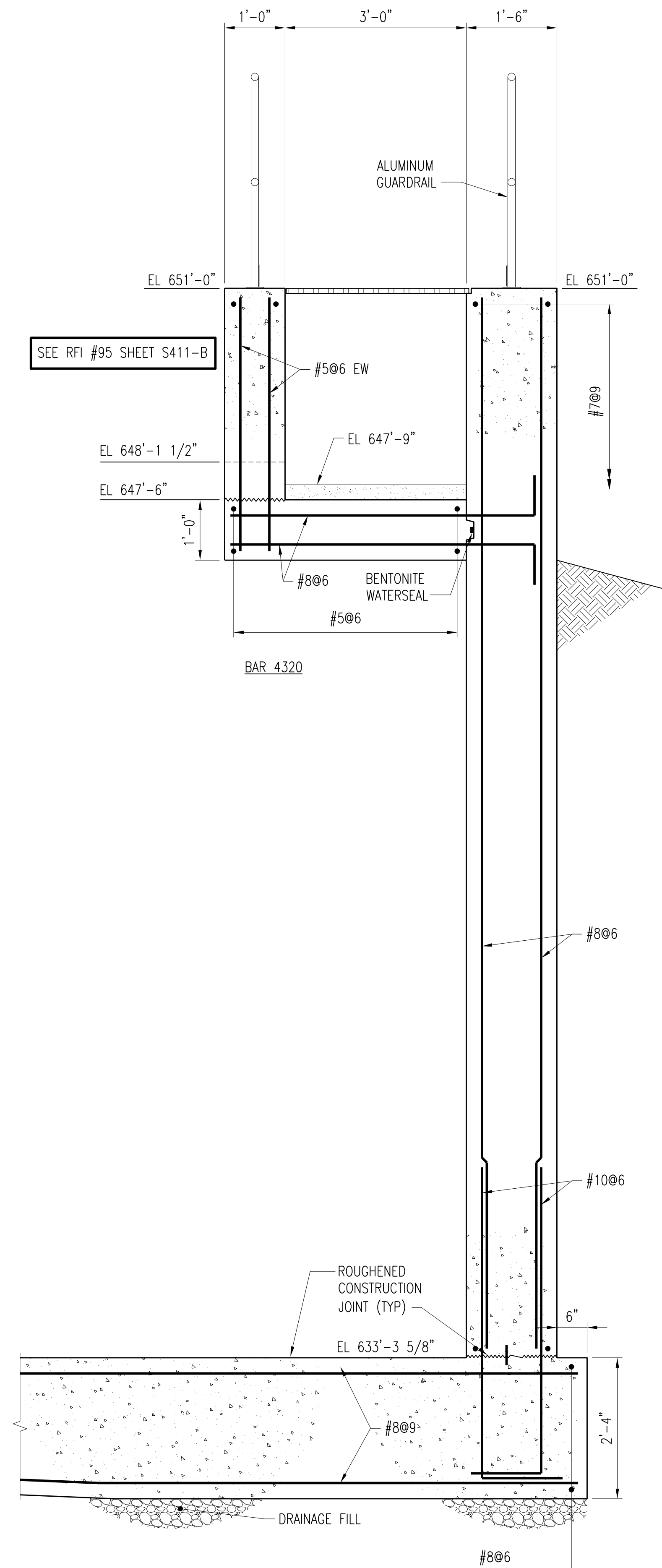


DESIGNED: KB HALL	SCALE: AS NOTED	REV.
DRAWN: DA SCHMIDT	NO. 22800	
CHECKED: KB HALL		
APPROVED: LH BADTRAM		
DATE: DECEMBER 2, 2011	S410	4

CADD: D1-R4



SECTION **A-S411**
S401,S405
SCALE: 3/4" = 1'-0"



SECTION **B-S411**
S402,S405
SCALE: 3/4" = 1'-0"

△^A TANK EXPANSION JOINTS SHALL HAVE PVC WATERSTOP UNLESS OTHERWISE NOTED. SEE TYPICAL JOINT DETAILS ON DRAWING S6. BENTONITE WATER SEALS ONLY ALLOWED WHERE INDICATED AT FIXED CONSTRUCTION JOINTS.

4	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
3	ADDED ADDENDUM COMMENT	LJO	JBL	JBL	05-04-2012
2	REVISED PER ADDENDUM NO.1	KBH	KBH	LHB	02-22-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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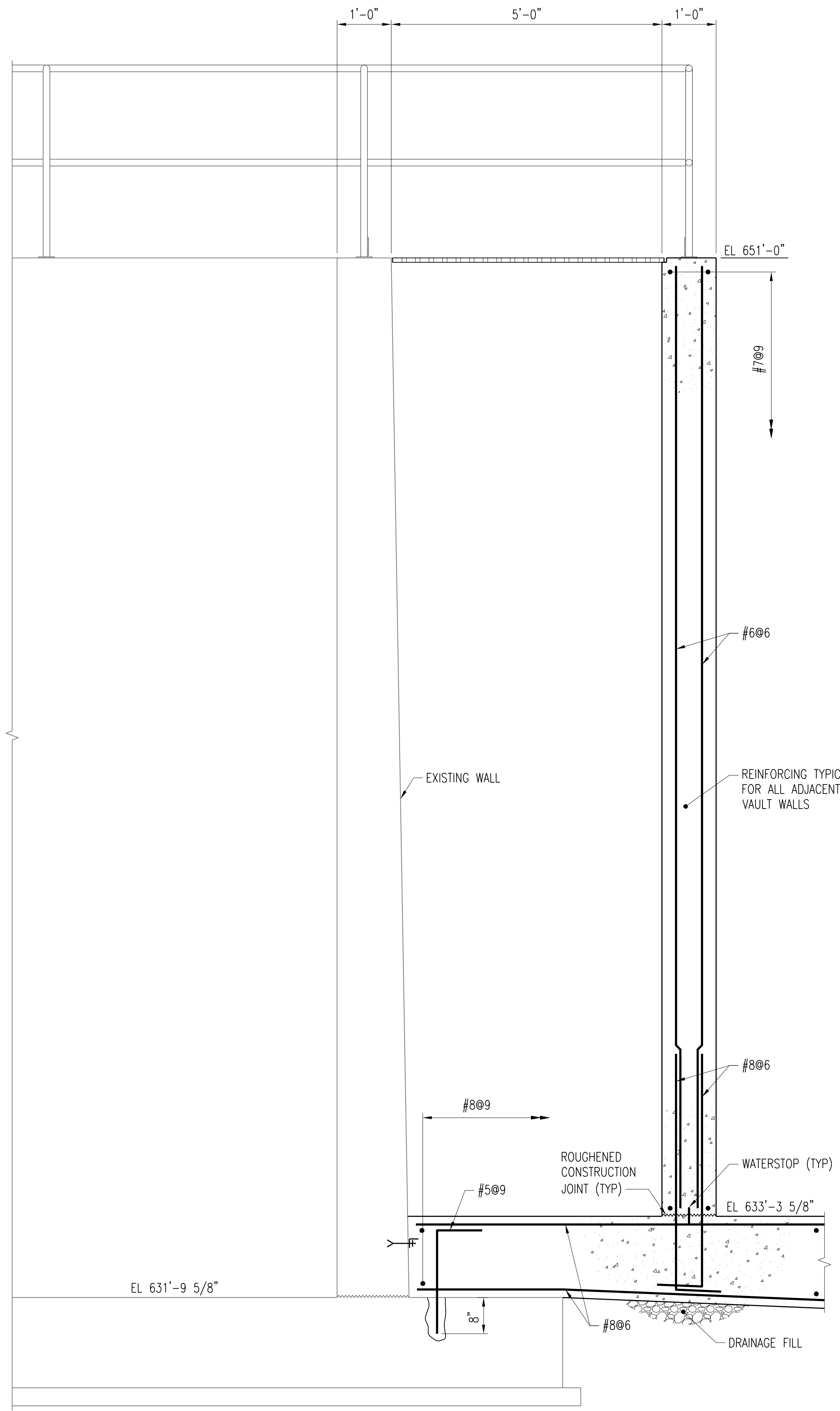
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**AERATION TANKS
DETAILS - SHEET 7**

DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
DATE	DECEMBER 2, 2011	S411	4



CADD: D1-14



SECTION **A-S412**
 S402,S405
 SCALE: 3/4" = 1'-0"

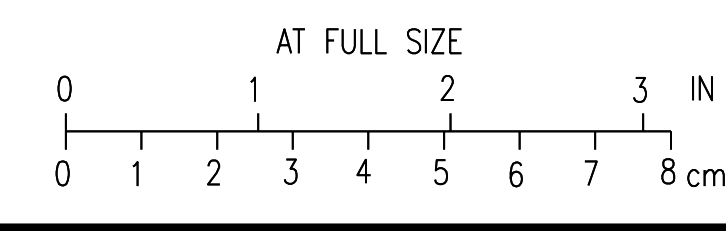
△ 3 A TANK EXPANSION JOINTS SHALL HAVE PVC WATERSTOP UNLESS OTHERWISE NOTED. SEE TYPICAL JOINT DETAILS ON DRAWING S6. BENTONITE WATER SEALS ONLY ALLOWED WHERE INDICATED AT FIXED CONSTRUCTION JOINTS.

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
4	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
3	ADDED ADDENDUM COMMENT	LJO	JBL	JBL	05-04-2012
2	REVISED PER ADDENDUM NO.1	KBH	KBH	LHB	02-22-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012

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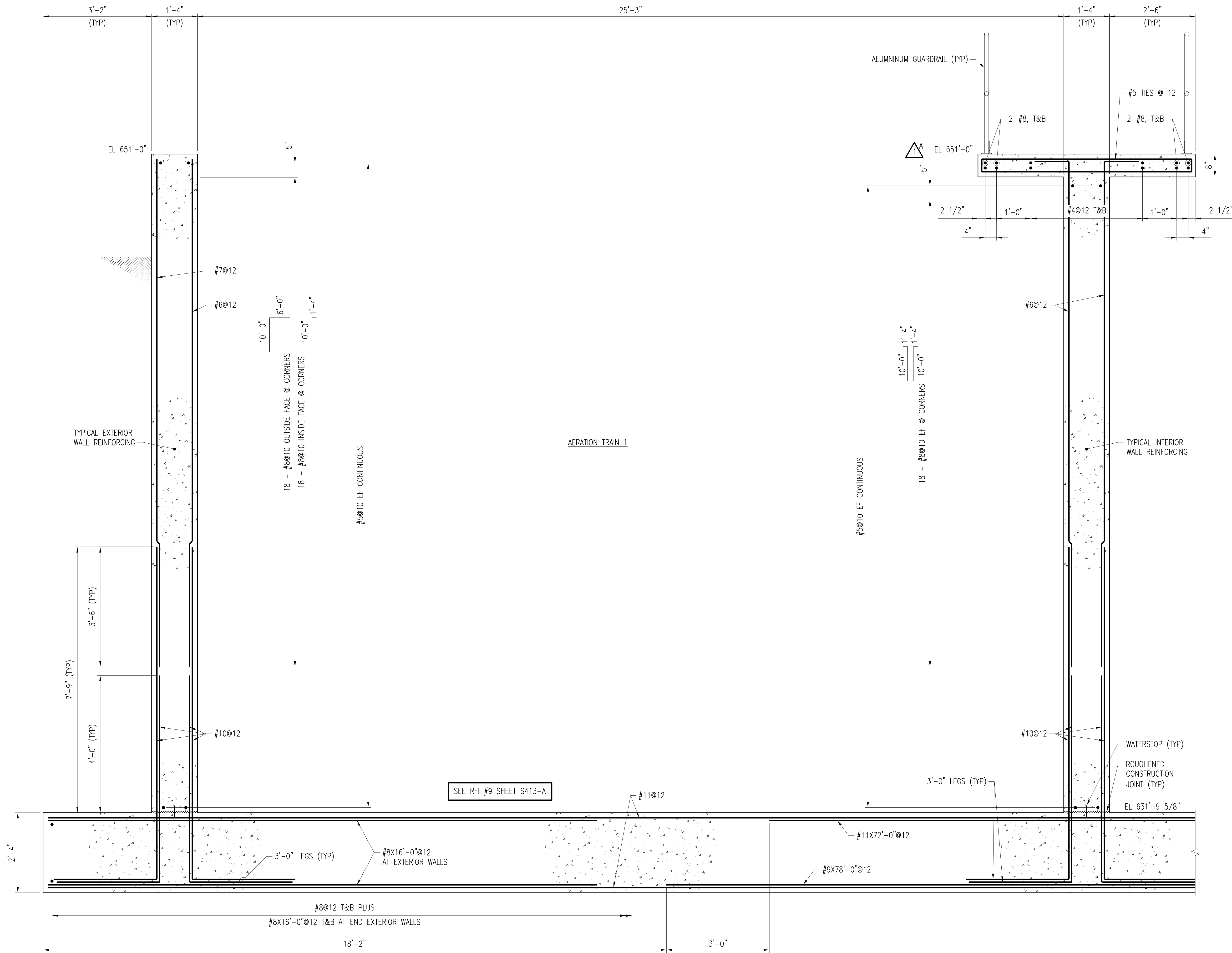
CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**AERATION TANKS
 DETAILS - SHEET 8**



DESIGNED <u>KB HALL</u>	SCALE: AS NOTED	REV.
DRAWN <u>DA SCHMIDT</u>	NO. 22800	
CHECKED <u>KB HALL</u>	S412	4
APPROVED <u>LH BADTRAM</u>		
DATE <u>DECEMBER 2, 2011</u>		

CADD: D1-R4



△ TANK EXPANSION JOINTS SHALL HAVE PVC WATERSTOP UNLESS OTHERWISE NOTED. SEE TYPICAL JOINT DETAILS ON DRAWING S6. BENTONITE WATER SEALS ONLY ALLOWED WHERE INDICATED AT FIXED CONSTRUCTION JOINTS.

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	ADDED ADDENDUM COMMENT	LJO	JBL	JBL	05-04-2012
1	REVISED PER ADDENDUM NO.1	KBH	KBH	LHB	02-22-2012
0	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012

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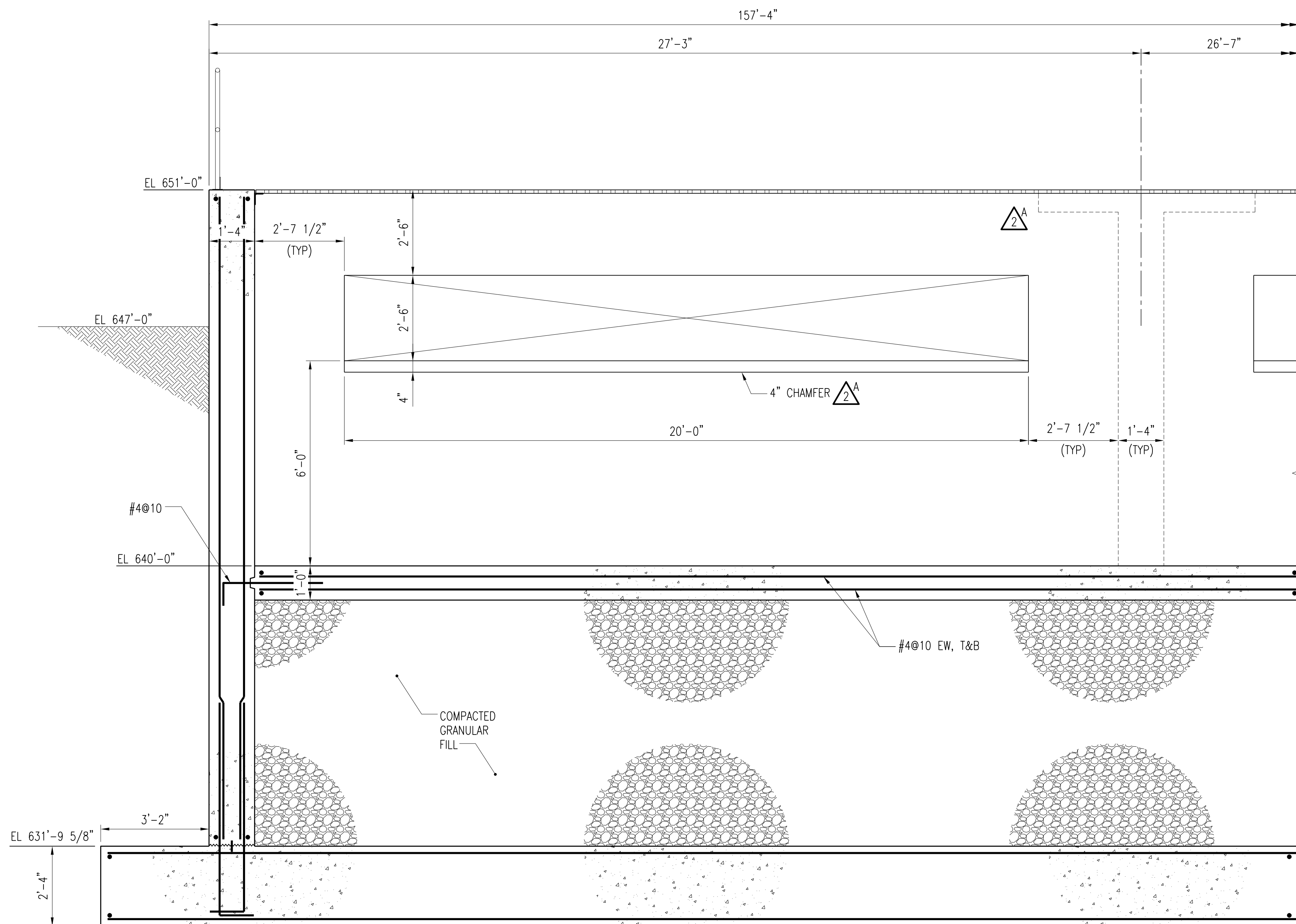
**AERATION TANKS
 DETAILS - SHEET 9**

DESIGNED: KB HALL	SCALE: AS NOTED	NO. 22800	REV. 3
DRAWN: DA SCHMIDT			
CHECKED: KB HALL			
APPROVED: LH BADTRAM			
DATE: JANUARY 10, 2012			

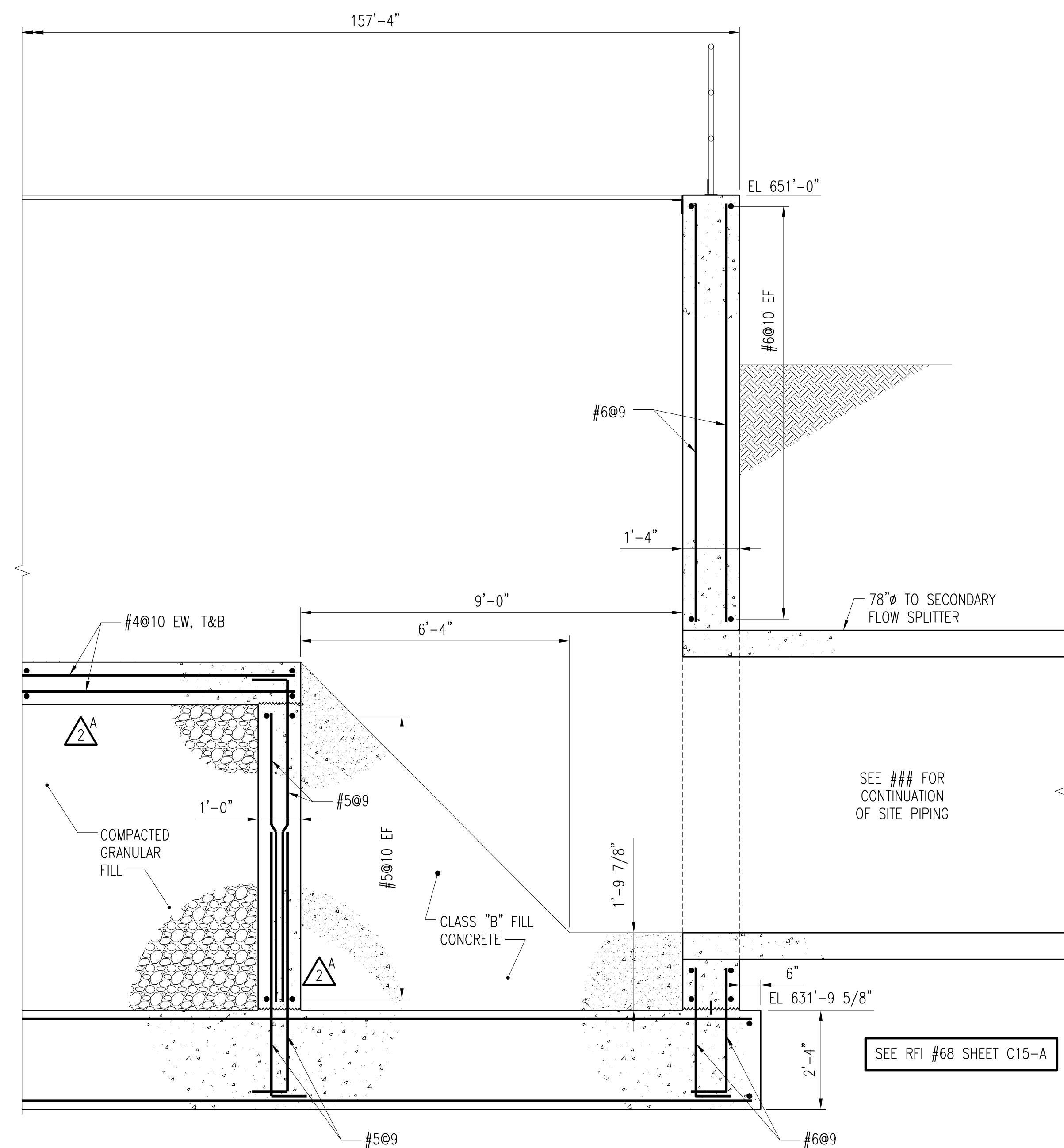


SECTION A-S413
 S403,S404
 SCALE: 3/4" = 1'-0"

CADD: D1-144



SECTION **A-S414**
S404
SCALE: 1/2" = 1'-0"



SECTION **B-S414**
S404
SCALE: 1/2" = 1'-0"

3 TANK EXPANSION JOINTS SHALL HAVE PVC WATERSTOP UNLESS OTHERWISE NOTED. SEE TYPICAL JOINT DETAILS ON DRAWING S6. BENTONITE WATER SEALS ONLY ALLOWED WHERE INDICATED AT FIXED CONSTRUCTION JOINTS.

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
4	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
3	ADDED ADDENDUM COMMENT	LJO	JBL	JBL	05-04-2012
2	REVISED PER ADDENDUM NO.1	KBH	KBH	LHB	02-22-2012
1	REVISED AND REISSUED	KBH	KBH	LHB	01-25-2012
0	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012

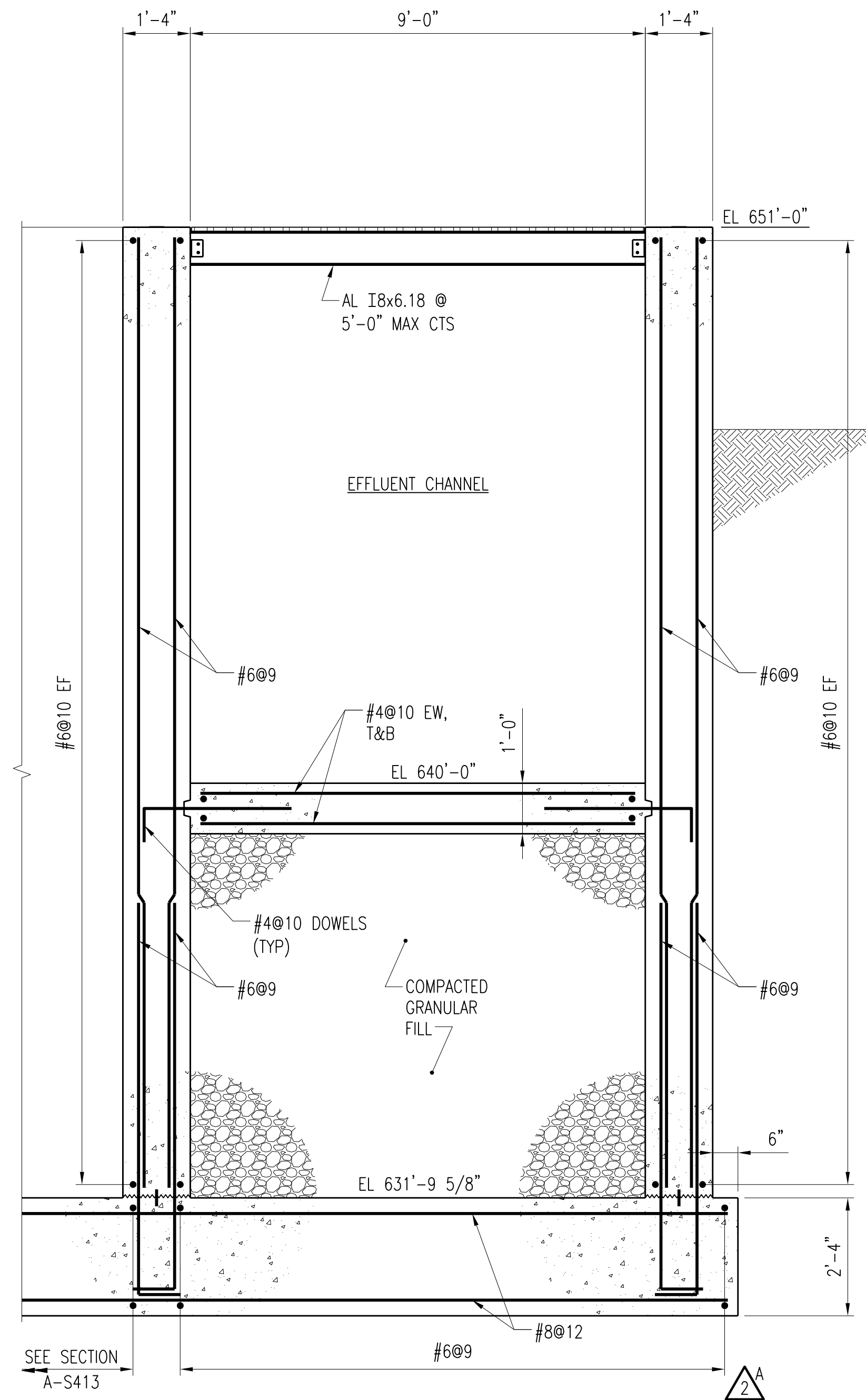
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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

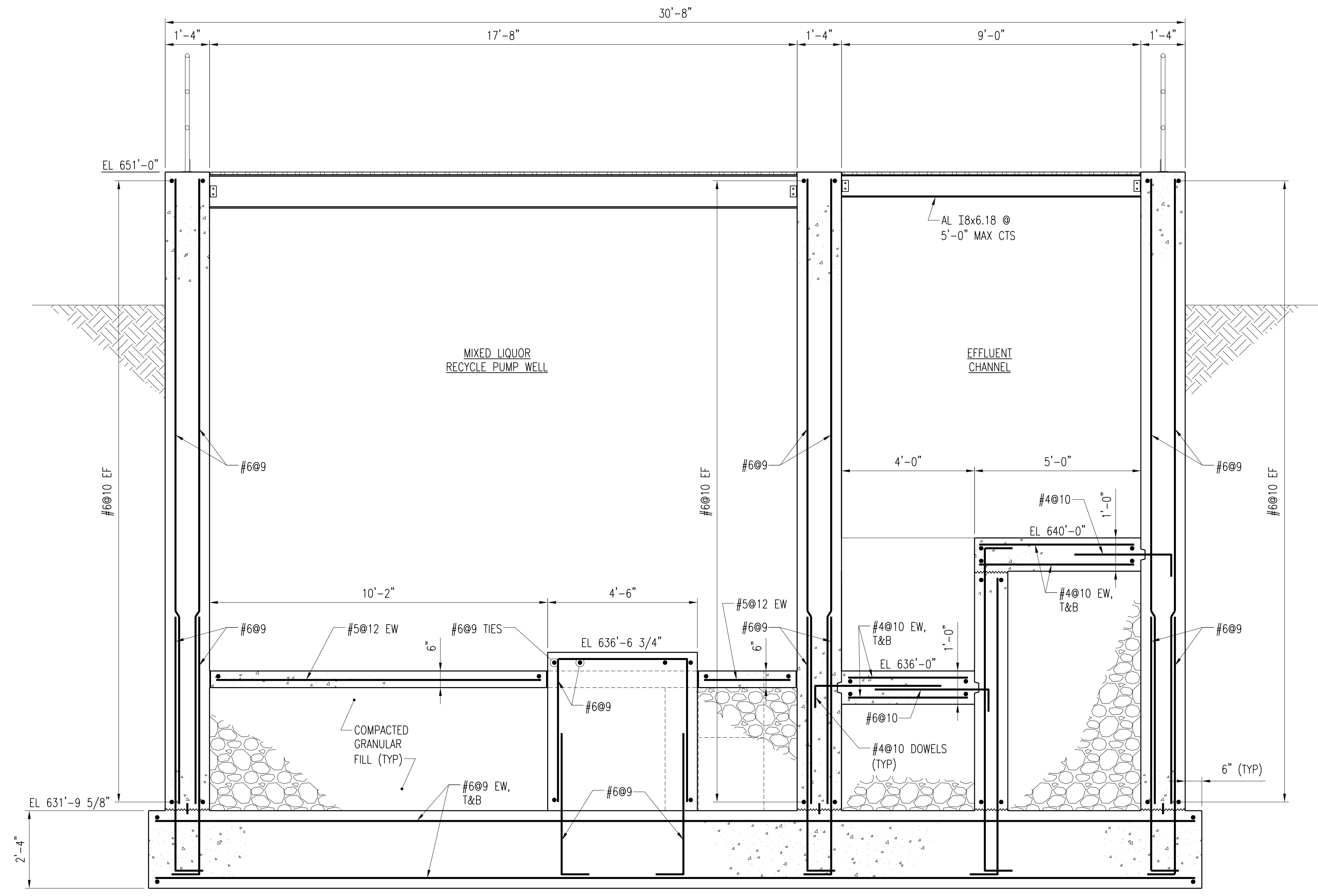
**AERATION TANKS
DETAILS - SHEET 10**



DESIGNED: KB HALL	SCALE: AS NOTED	NO. 22800	REV.
DRAWN: DA SCHMIDT			
CHECKED: KB HALL			
APPROVED: LH BADTRAM			
DATE: JANUARY 10, 2012			
	S414		4



SECTION **A-S415**
S404,S406
SCALE: 1/2" = 1'-0"



SECTION **B-S415**
S404,S406
SCALE: 1/2" = 1'-0"

SEE RFI #79 SHEET S415-A

3 TANK EXPANSION JOINTS SHALL HAVE PVC WATERSTOP UNLESS OTHERWISE NOTED. SEE TYPICAL JOINT DETAILS ON DRAWING S6. BENTONITE WATER SEALS ONLY ALLOWED WHERE INDICATED AT FIXED CONSTRUCTION JOINTS.

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
4	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
3	ADDED ADDENDUM COMMENT	LJO	JBL	JBL	05-04-2012
2	REVISED PER ADDENDUM NO.1	KBH	KBH	LHB	02-22-2012
1	REVISED AND REISSUED	KBH	KBH	LHB	01-25-2012
0	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012

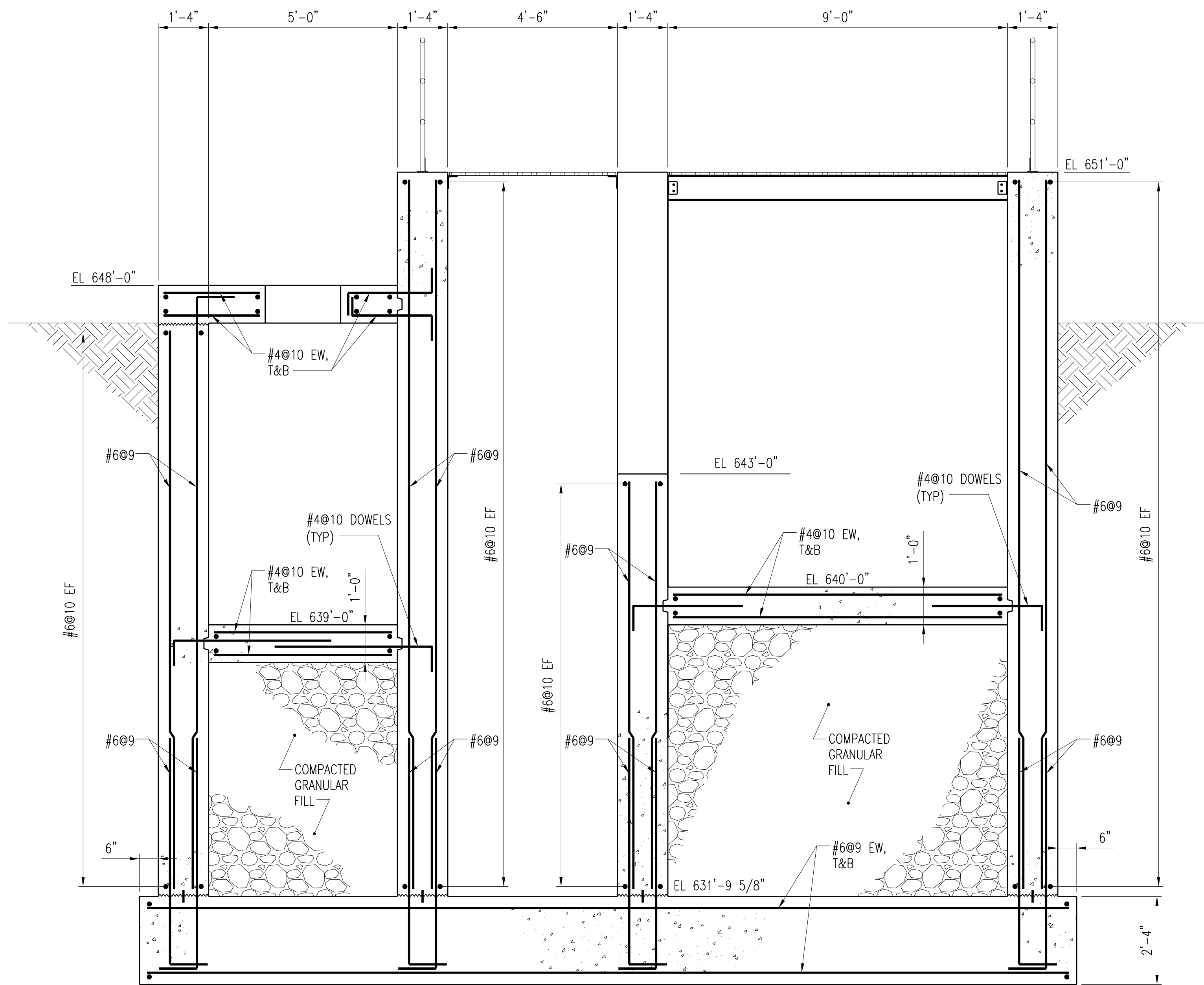


CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

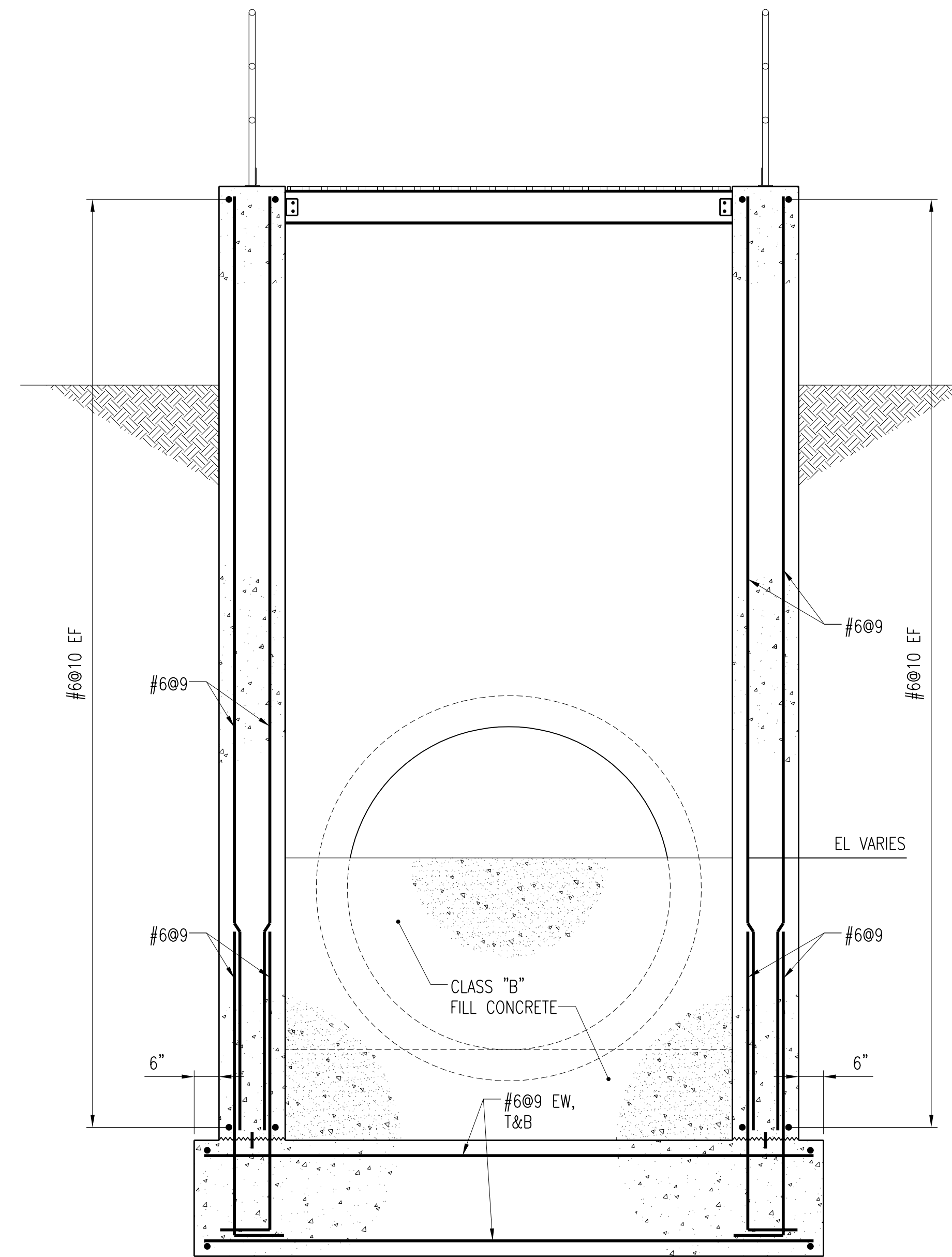
**AERATION TANKS
DETAILS - SHEET 11**



DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
DATE	JANUARY 10, 2012	S415	4



SECTION **A-S416**
S404,S406
SCALE: 1/2" = 1'-0"



SECTION **B-S416**
S404,S406
SCALE: 1/2" = 1'-0"

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	REVISED AND REISSUED	KBH	KBH	LHB	01-25-2012
0	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012



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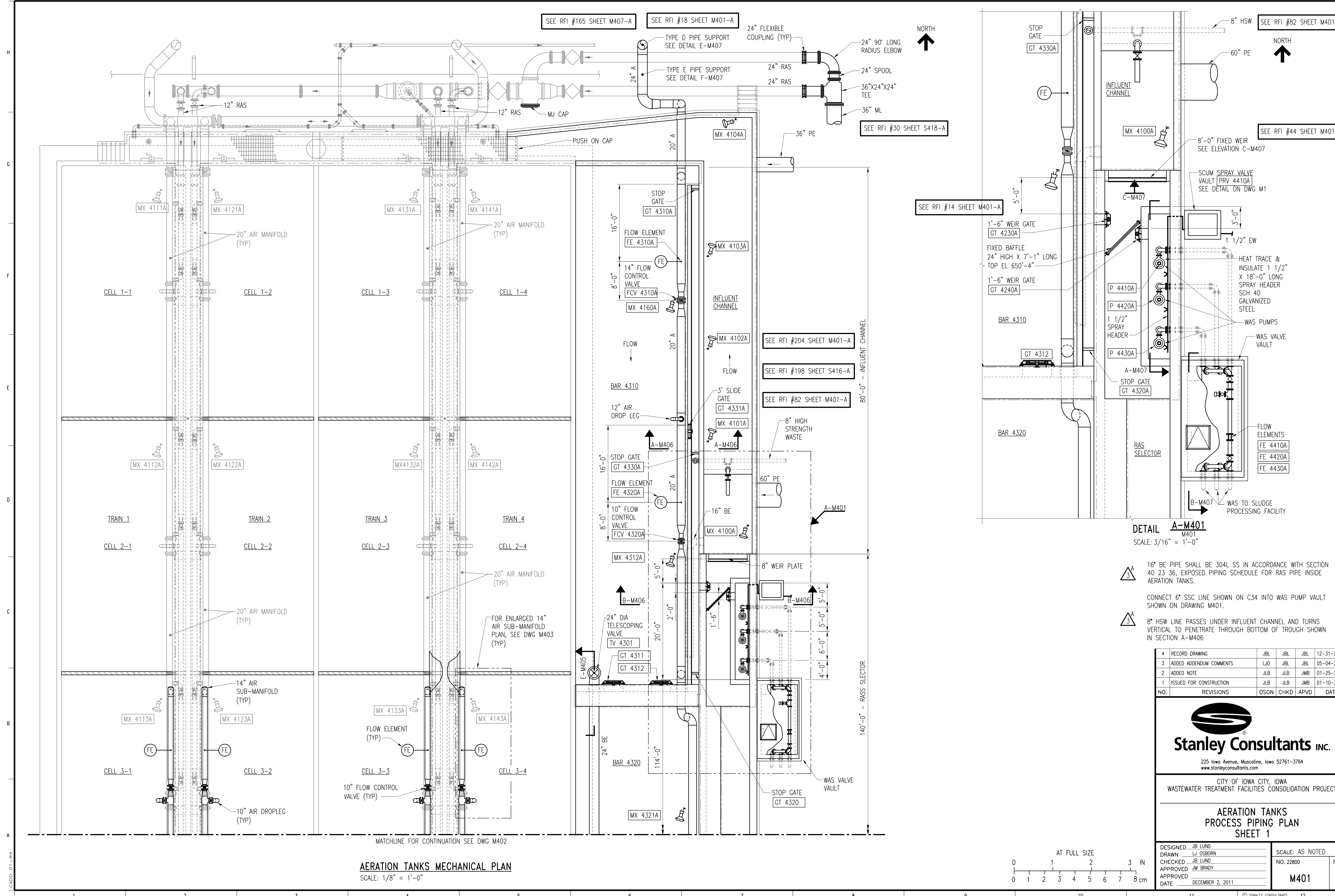
CITY OF IOWA CITY, IOWA
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**AERATION TANKS
DETAILS - SHEET 12**

DESIGNED	KB HALL
DRAWN	DA SCHMIDT
CHECKED	KB HALL
APPROVED	LH BADTRAM
DATE	JANUARY 10, 2012

SCALE: AS NOTED	NO. 22800	REV.
	S416	2





AERATION TANKS MECHANICAL PLAN
SCALE: 1/8" = 1'-0"

DETAIL A-M401
SCALE: 3/16" = 1'-0"

- 3 A 16" BE PIPE SHALL BE 304L SS IN ACCORDANCE WITH SECTION 40 23 36, EXPOSED PIPING SCHEDULE FOR RAS PIPE INSIDE AERATION TANKS.
- CONNECT 6" SSC LINE SHOWN ON C34 INTO WAS PUMP VAULT SHOWN ON DRAWING M401.
- 3 A 8" HSW LINE PASSES UNDER INFLUENT CHANNEL AND TURNS VERTICAL TO PENETRATE THROUGH BOTTOM OF TROUGH SHOWN IN SECTION A-M406

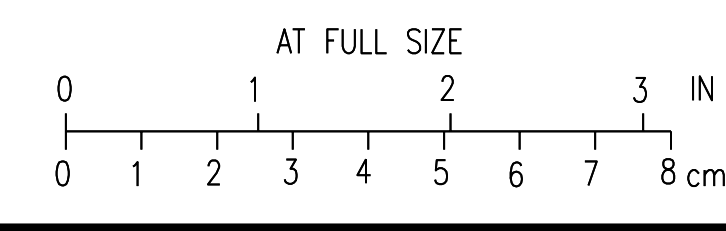
NO.	REVISIONS	DSGN	CHKD	APVD	DATE
4	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
3	ADDED ADDENDUM COMMENTS	LJO	JBL	JBL	05-04-2012
2	ADDED NOTE	JLB	JLB	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	JLB	JLB	JMB	01-10-2012

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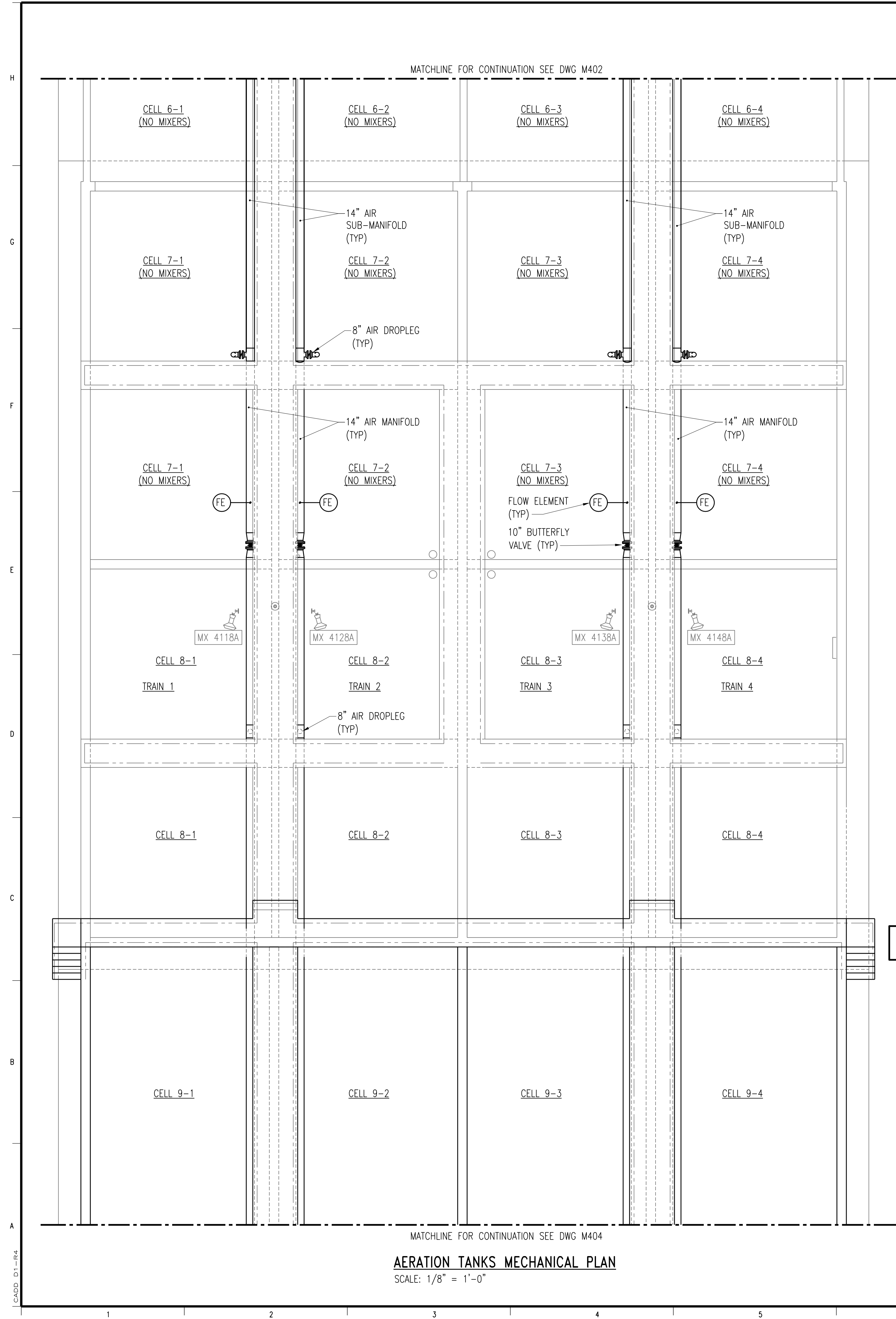
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**AERATION TANKS
PROCESS PIPING PLAN
SHEET 1**

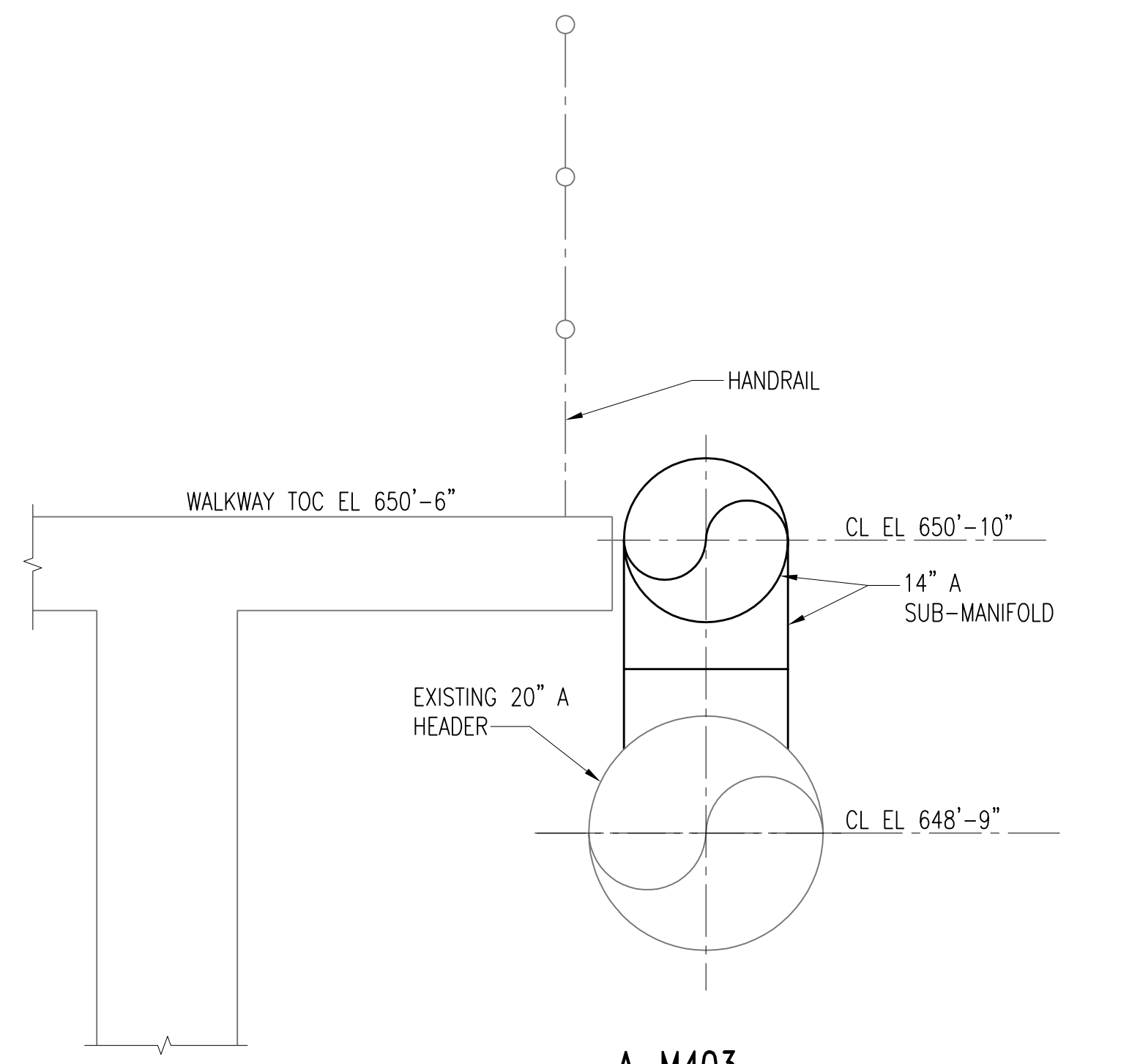
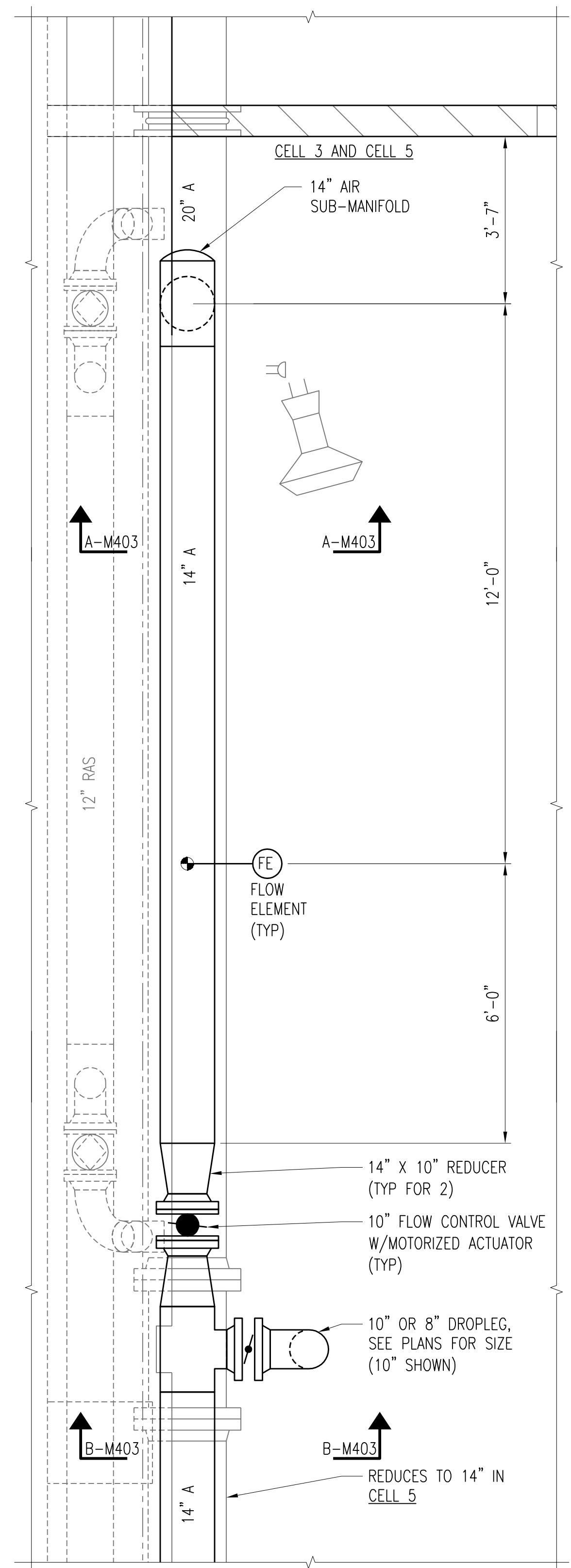
DESIGNED	JB LUND	SCALE:	AS NOTED
DRAWN	LJ OSBORN	NO.	22800
CHECKED	JB LUND	REV.	
APPROVED	JM BRADY	M401	4
DATE	DECEMBER 2, 2011		



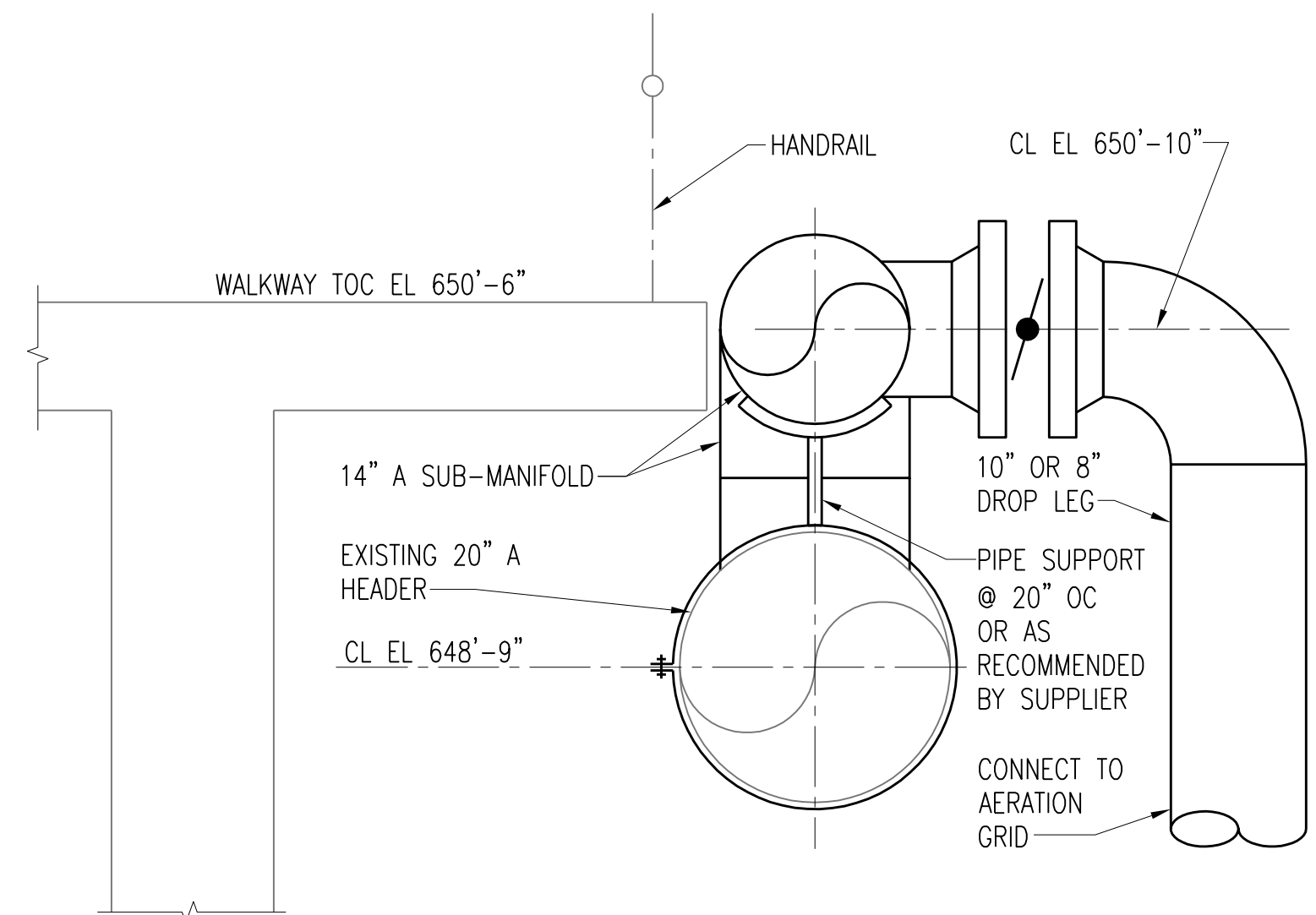
CADD: D1-14



SEE ITC #40 & RFI #137 SHEET M403-A



SEE ITC #04 & RFI #17 SHEET M403-A



2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JBL	JBL	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

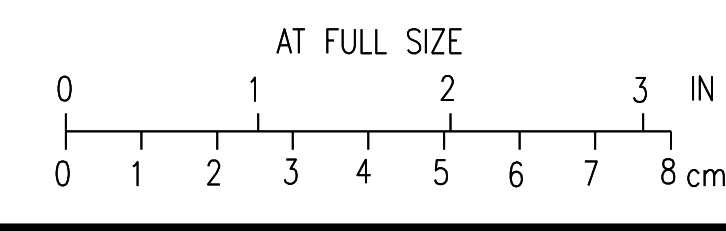
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**AERATION TANKS
 PROCESS PIPING PLAN
 SHEET 3**

DESIGNED: JB LUND
 DRAWN: LJ OSBORN
 CHECKED: JB LUND
 APPROVED: JM BRADY
 DATE: DECEMBER 2, 2011

SCALE: 1/8" = 1'-0"
 NO. 22800
M403
 REV. 2

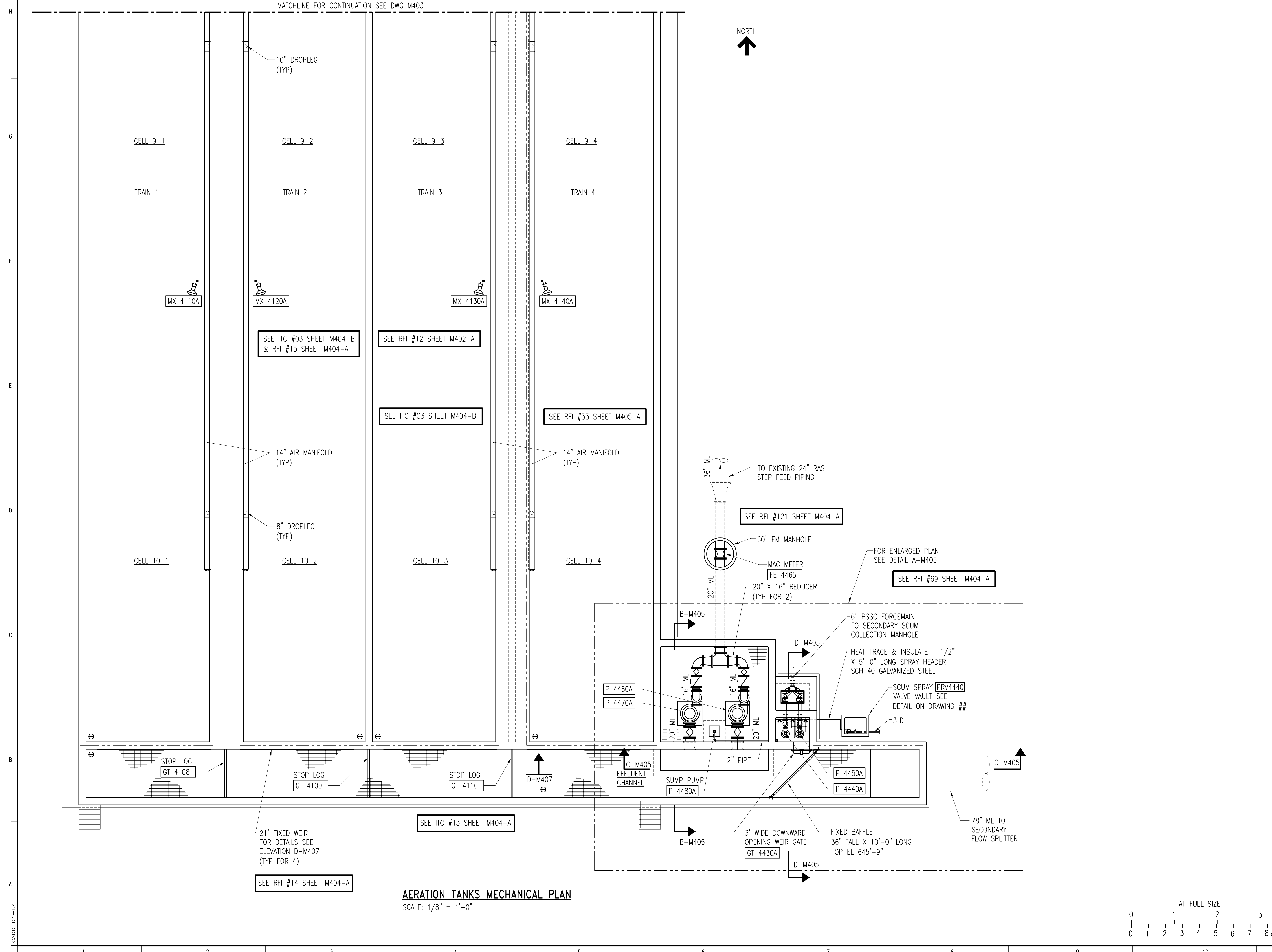


AERATION TANKS MECHANICAL PLAN
 SCALE: 1/8" = 1'-0"

CADD: D1-104

NOTES:

1. PROVIDE 1 (ONE) SET OF STOP LOGS TO BE USED IN EITHER GT 4108, GT 4109 OR GT 4110.



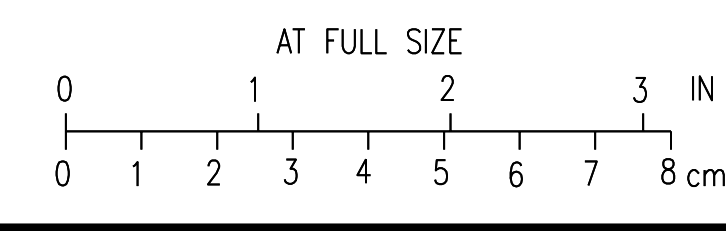
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED PLAN	JBL	JBL	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	JBL	JBL	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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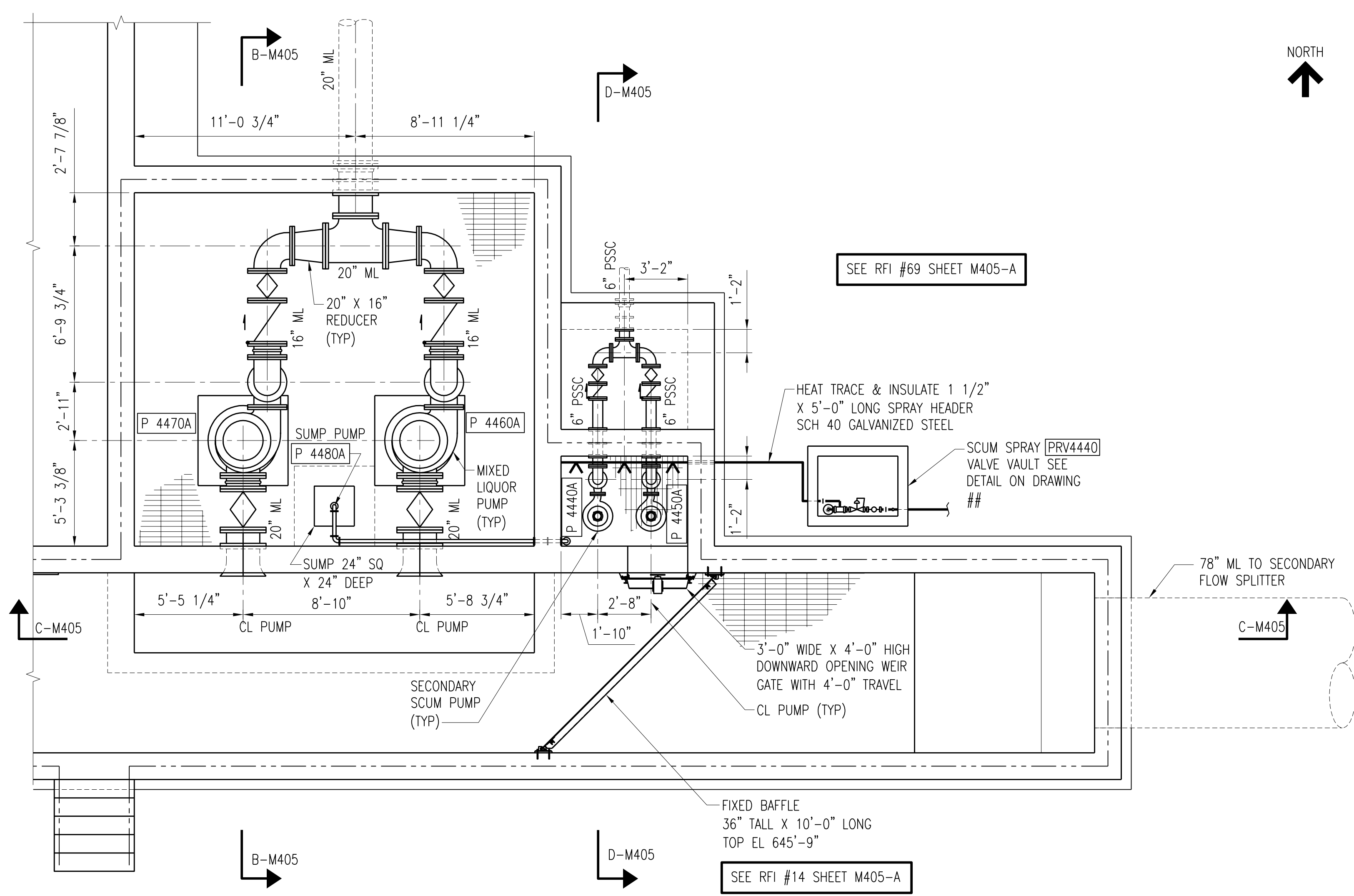
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**AERATION TANKS
PROCESS PIPING PLAN
SHEET 4**

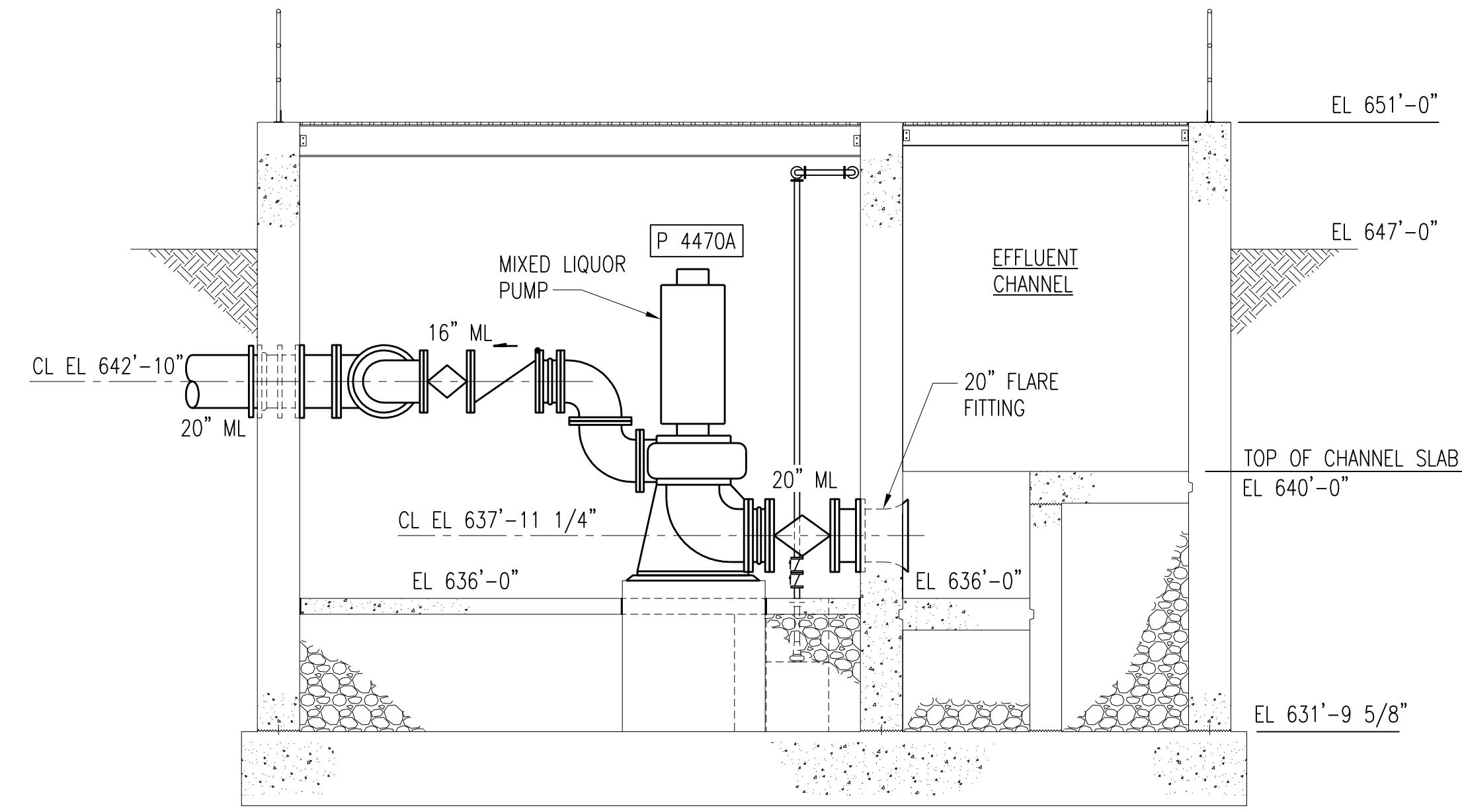
DESIGNED	JB LUND	SCALE: 1/8" = 1'-0"	NO. 22800	REV. 3
DRAWN	LJ OSBORN			
CHECKED	JB LUND			
APPROVED	JM BRADY			
DATE	DECEMBER 2, 2011			



CADD: D:\1-14

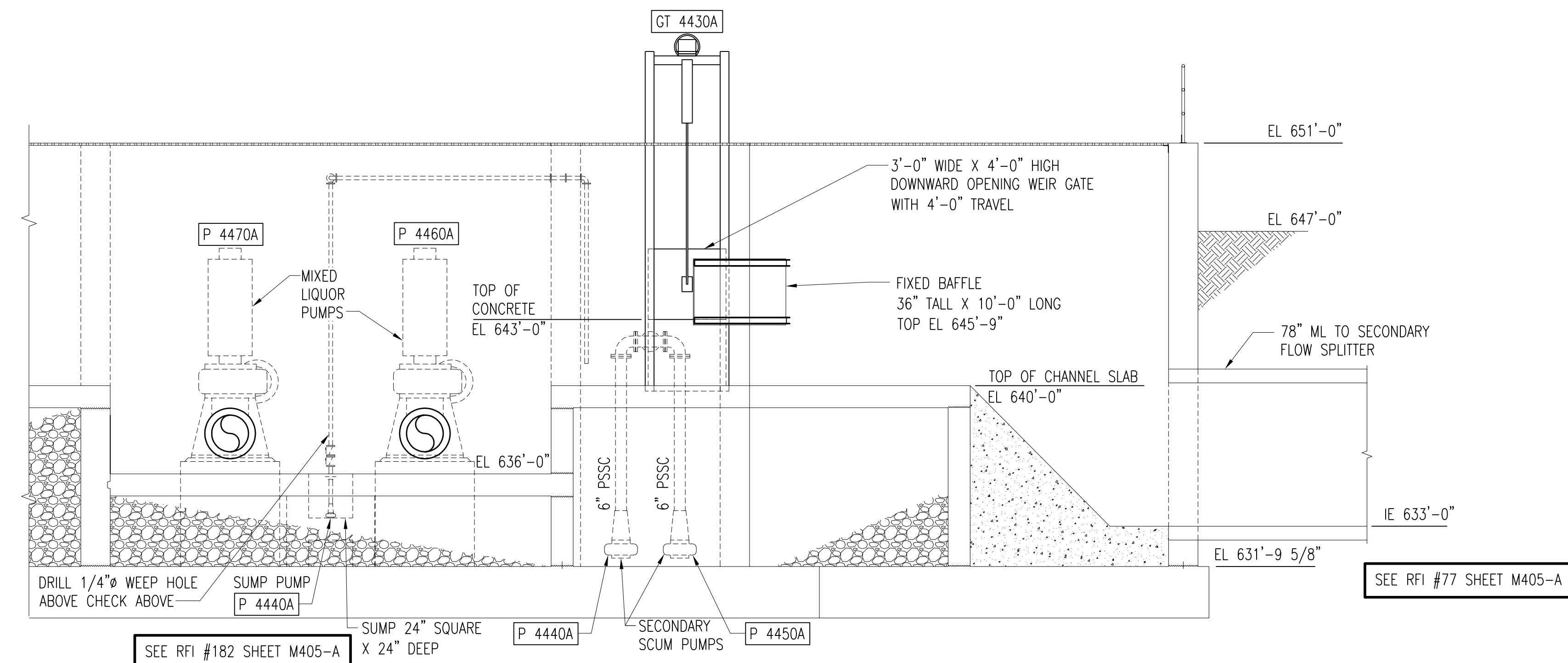


DETAIL **A-M405**
M404
SCALE: 1/4" = 1'-0"



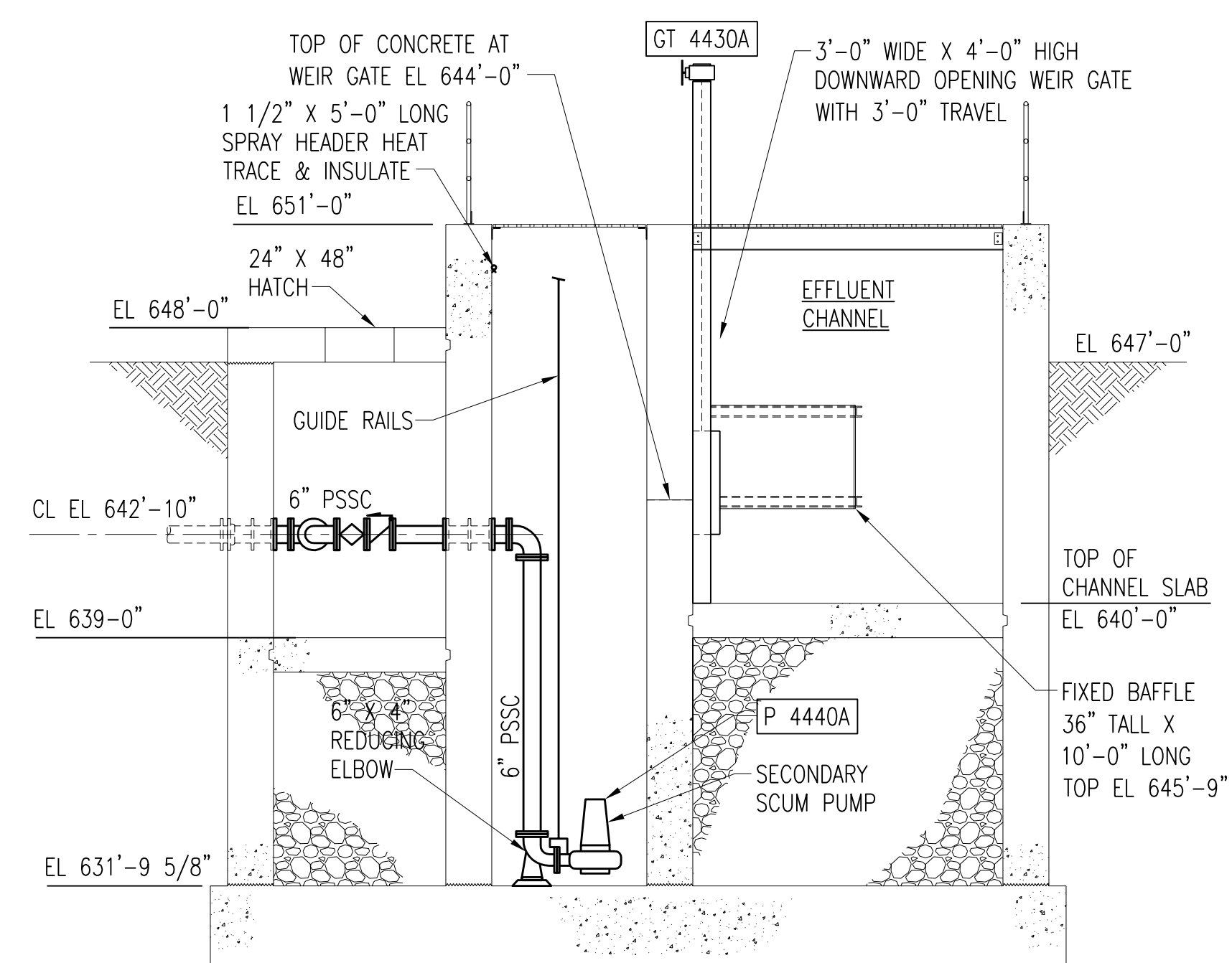
SEE RFI #68 SHEET C15-A

SECTION **B-M405**
M404, M405
SCALE: 1/4" = 1'-0"

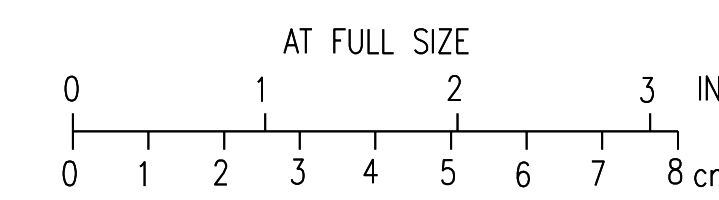


SEE RFI #77 SHEET M405-A

SECTION **C-M405**
M404, M405
SCALE: 1/4" = 1'-0"



SECTION **D-M405**
M404, M405
SCALE: 1/4" = 1'-0"



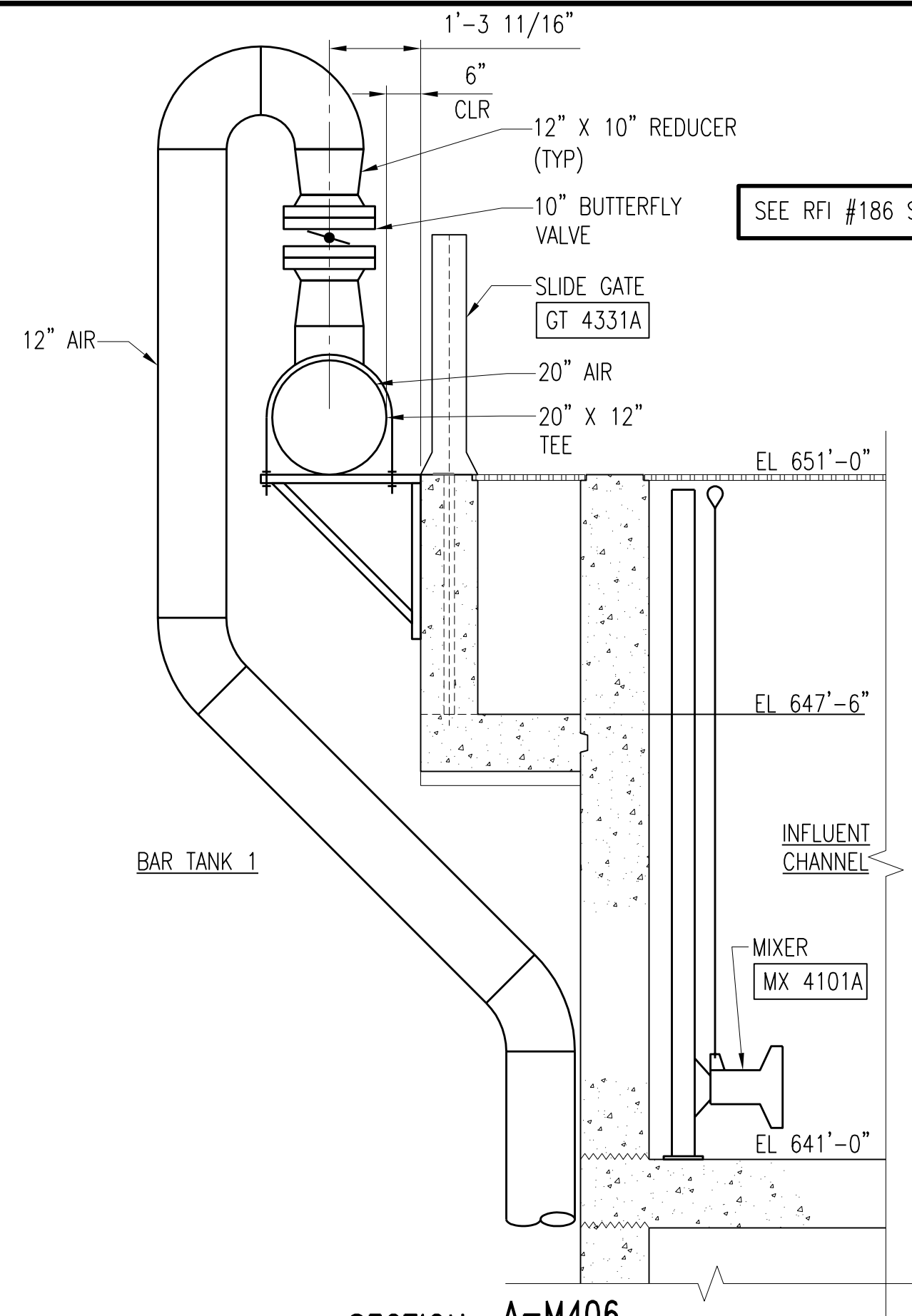
NO.	REVISIONS	DSGN	CHKD	APVD	DATE
2	REVISED PLANS & SECTIONS	JBL	JBL	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	JBL	JBL	JMB	01-10-2012

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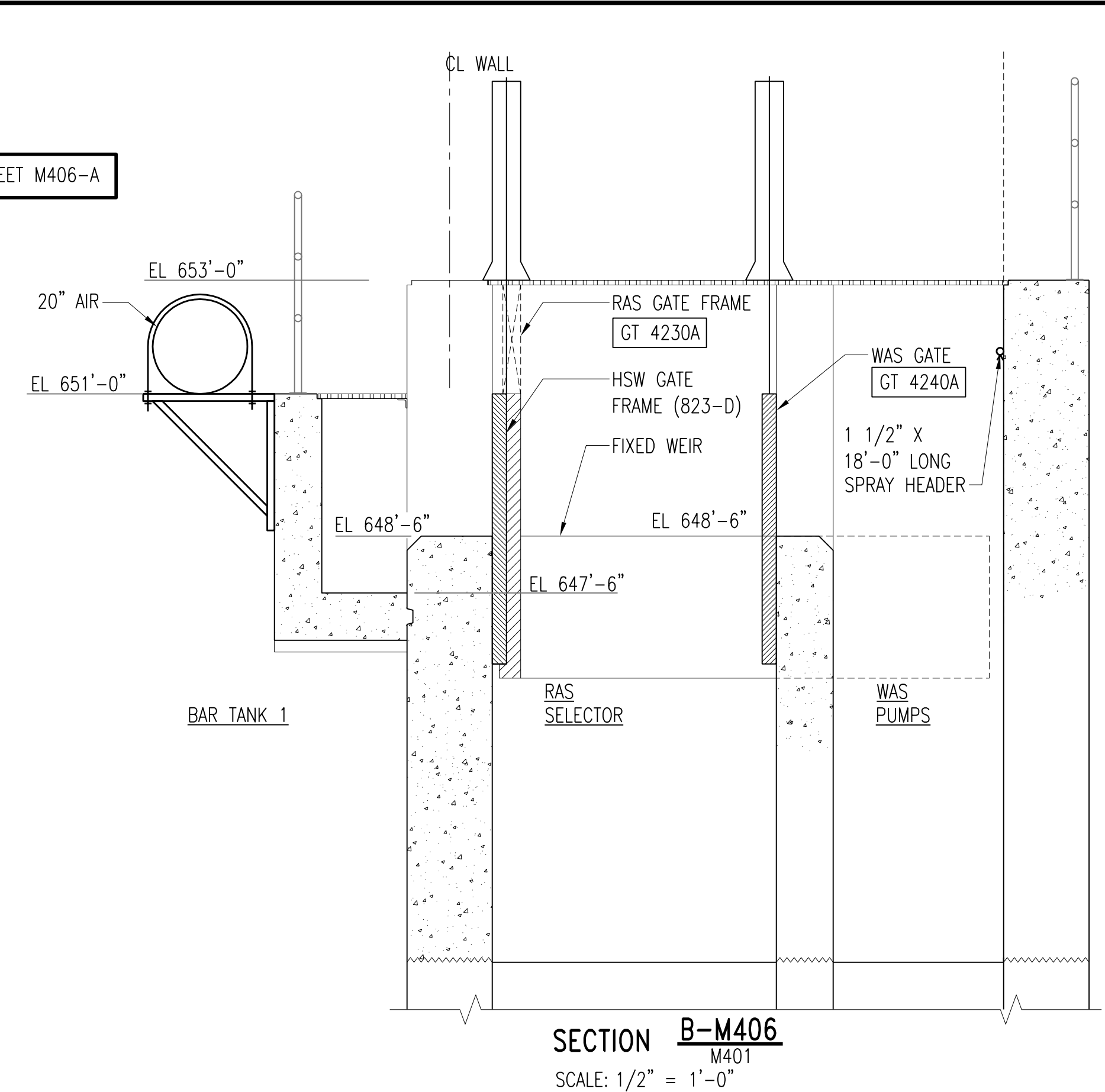
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**AERATION TANKS
PROCESS PIPING DETAILS
SHEET 1**

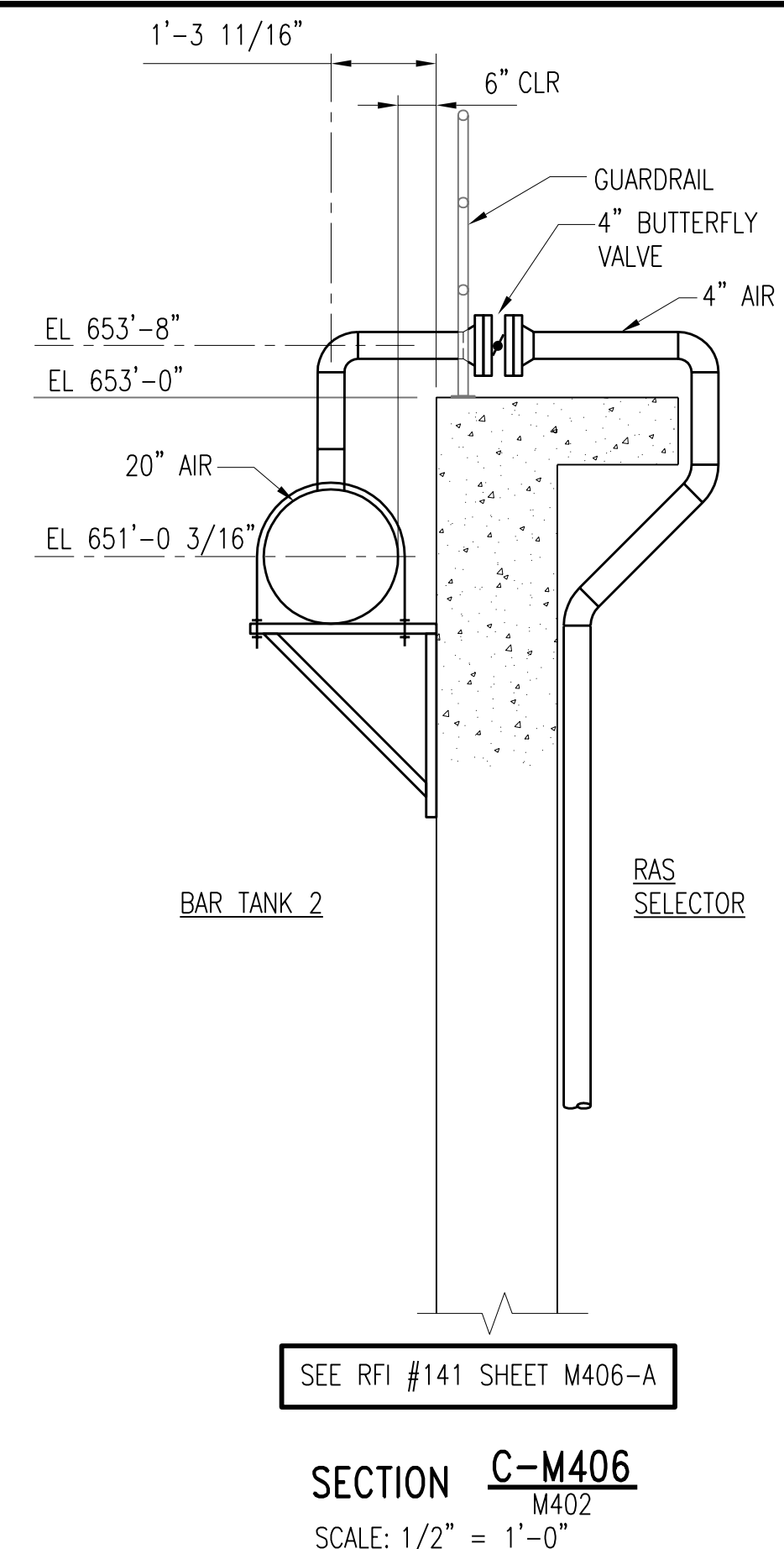
DESIGNED: JB LUND	SCALE: AS NOTED
DRAWN: DA SCHMIDT	NO. 22800
CHECKED: JB LUND	REV.
APPROVED: JM BRADY	M405
DATE: DECEMBER 2, 2011	2



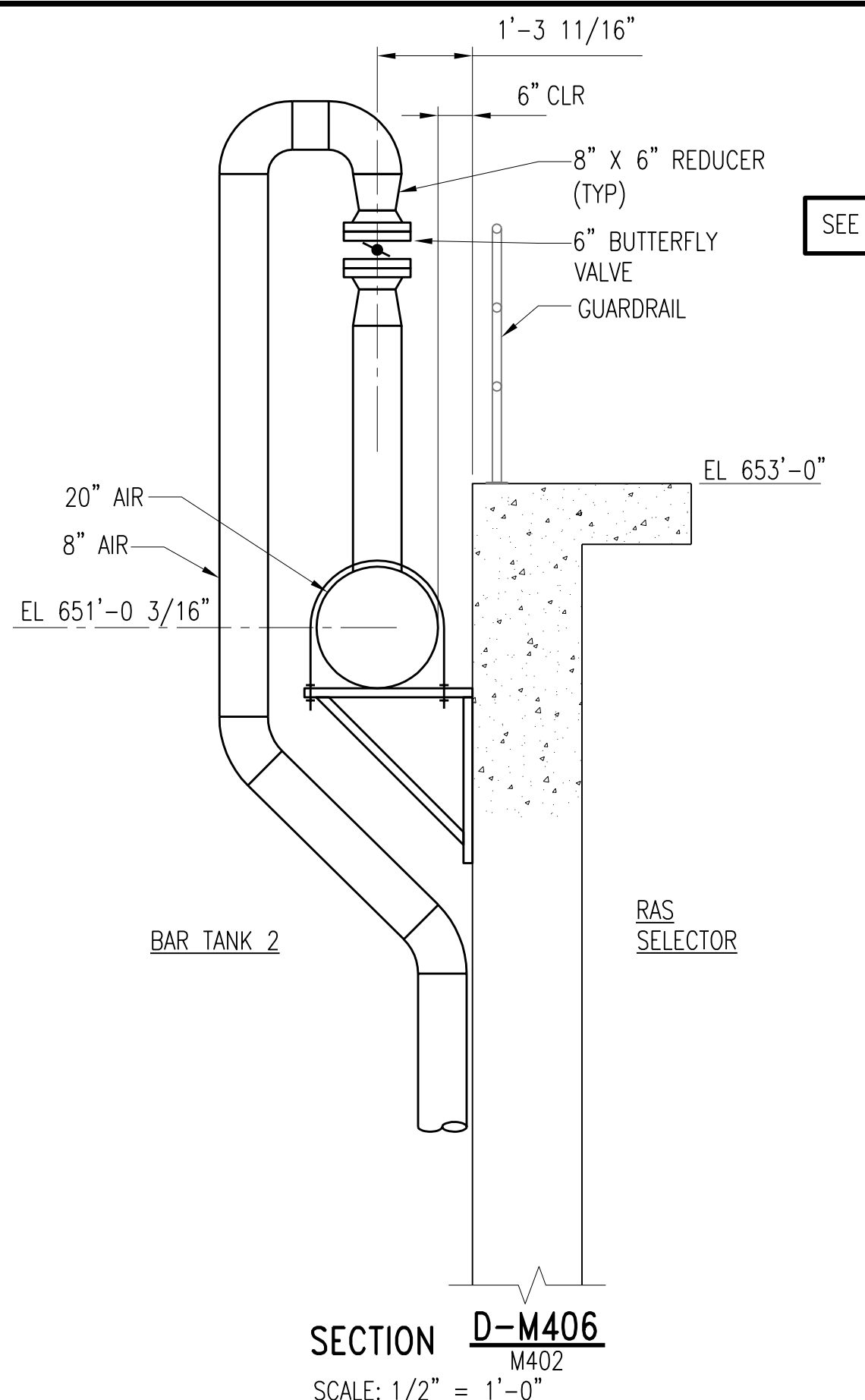
SECTION A-M406
M401
SCALE: 1/2" = 1'-0"



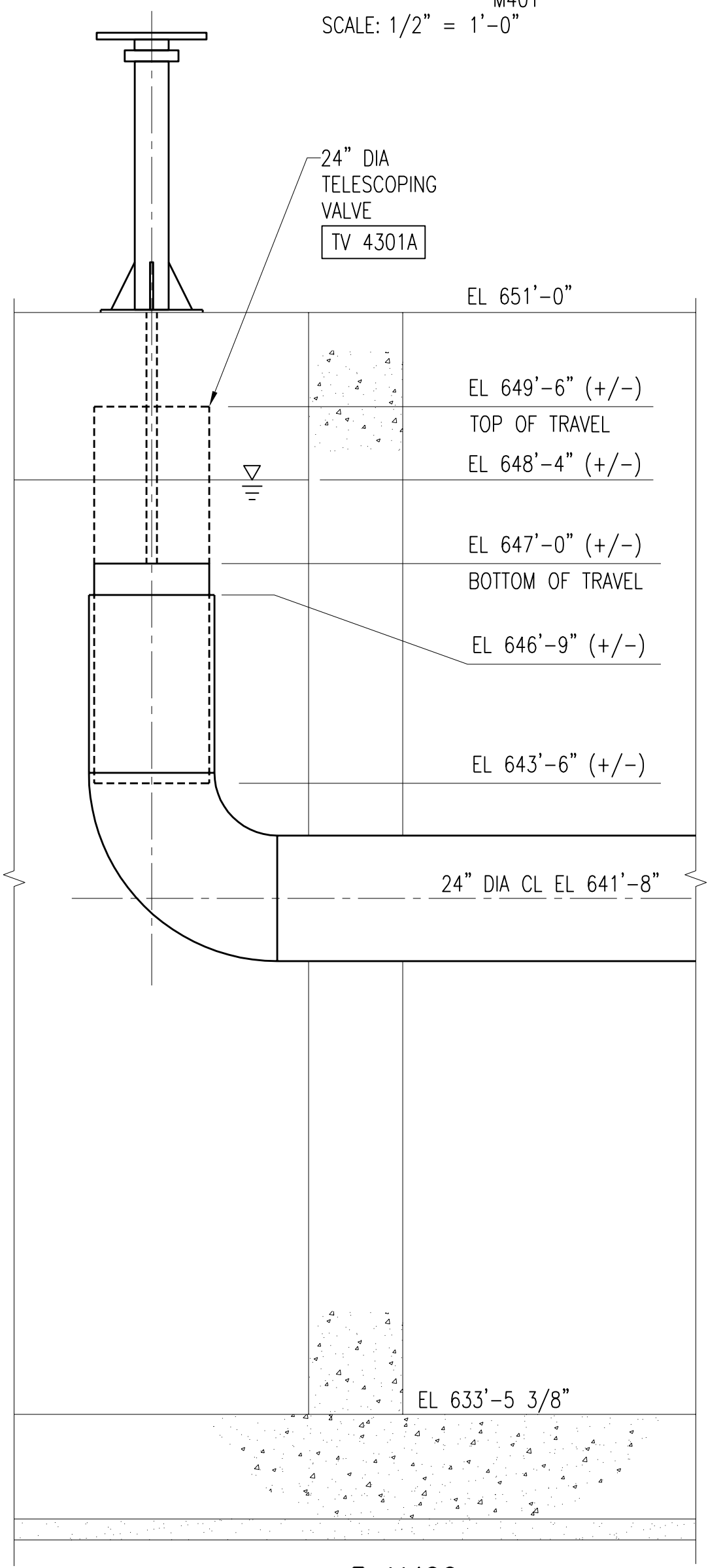
SECTION B-M406
M401
SCALE: 1/2" = 1'-0"



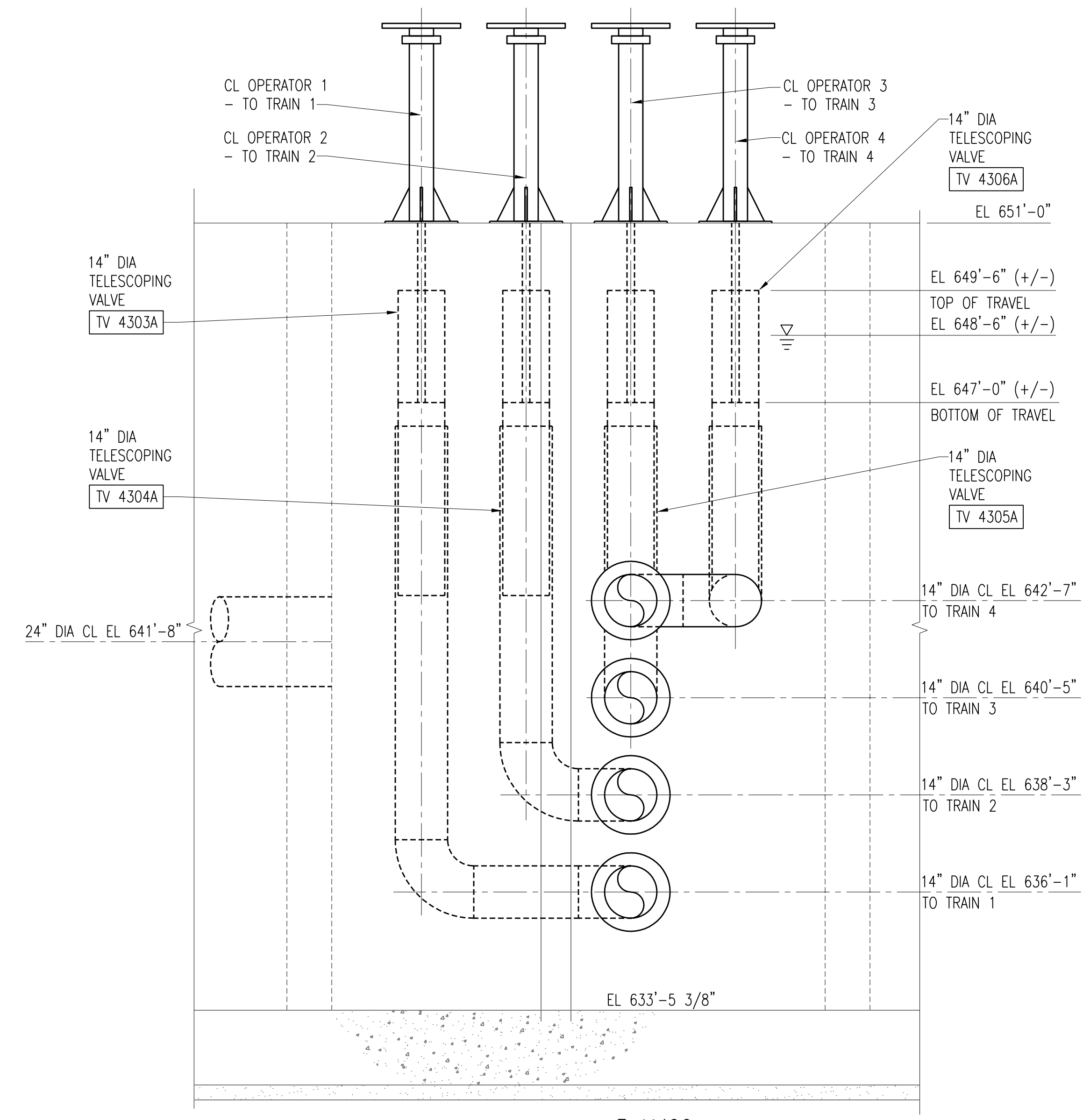
SECTION C-M406
M402
SCALE: 1/2" = 1'-0"



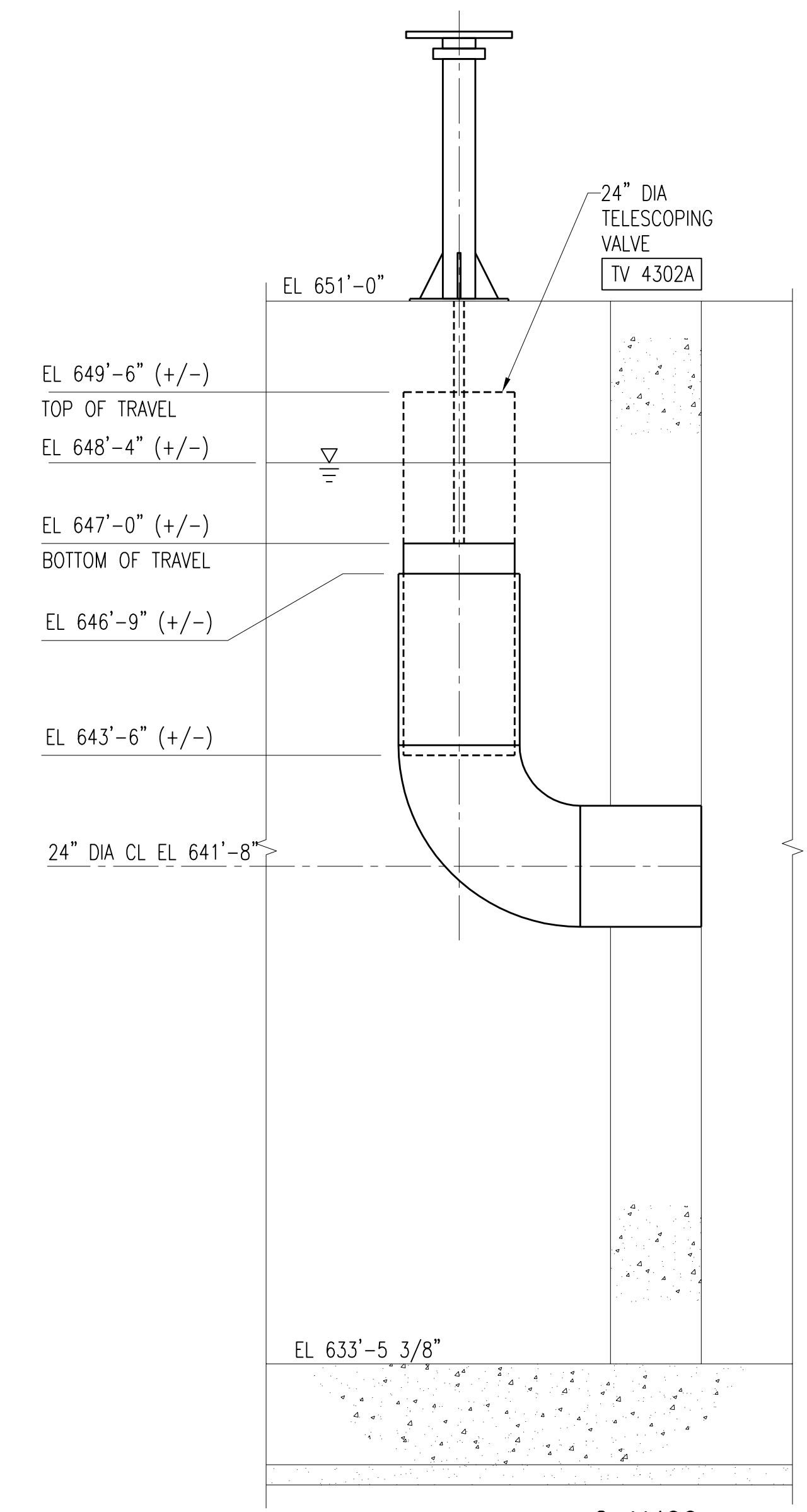
SECTION D-M406
M402
SCALE: 1/2" = 1'-0"



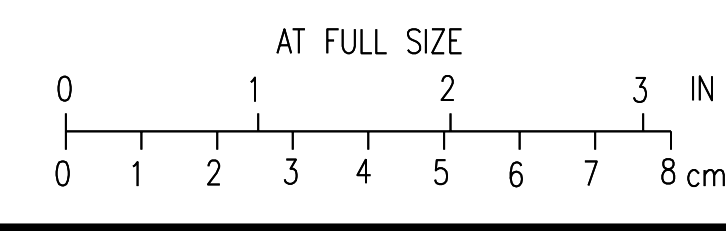
SECTION E-M406
M401
SCALE: 1/2" = 1'-0"



SECTION F-M406
M402
SCALE: 1/2" = 1'-0"



SECTION G-M406
M402
SCALE: 1/2" = 1'-0"



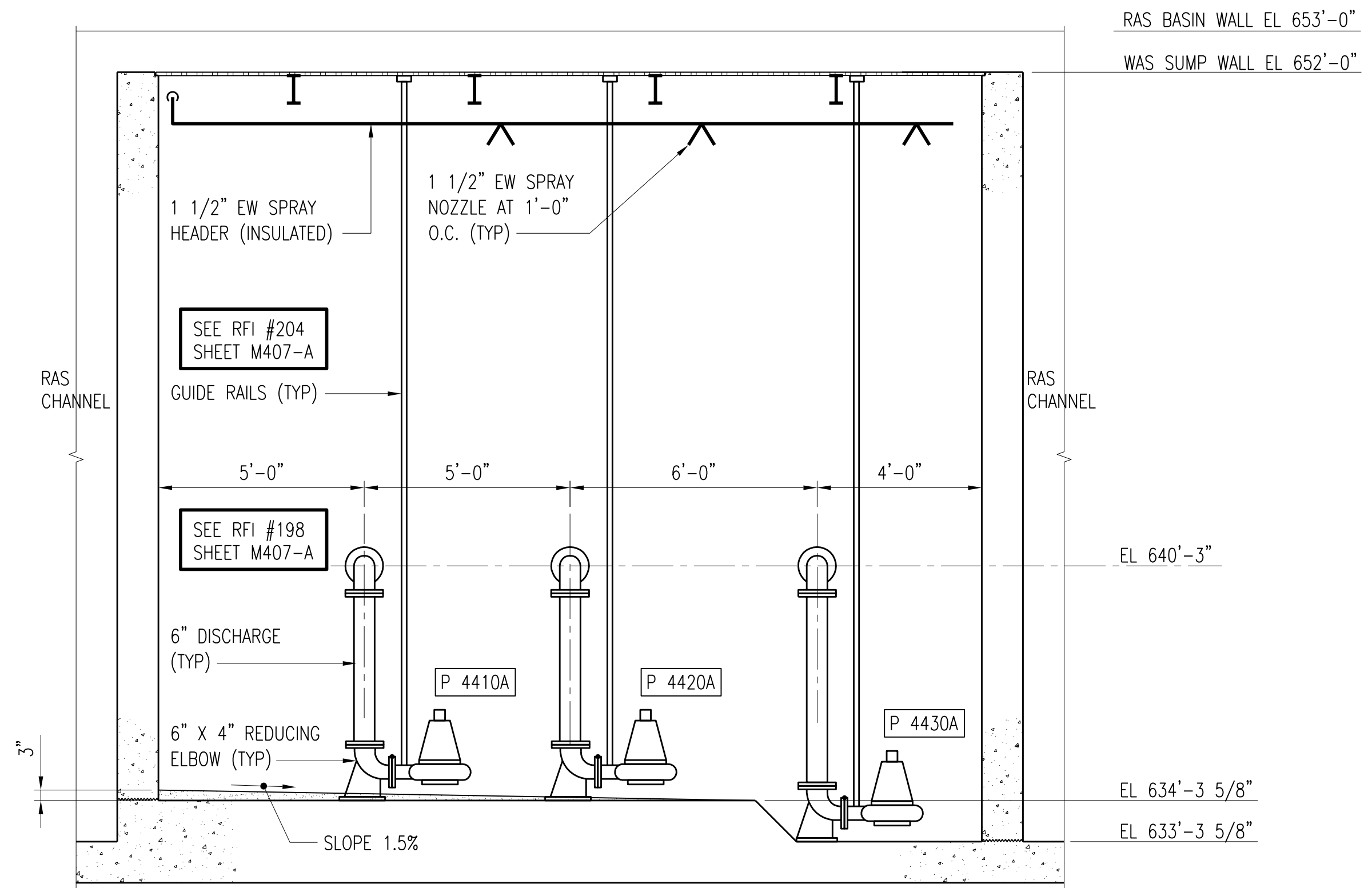
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED SECTION	JBL	JBL	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	JBL	JBL	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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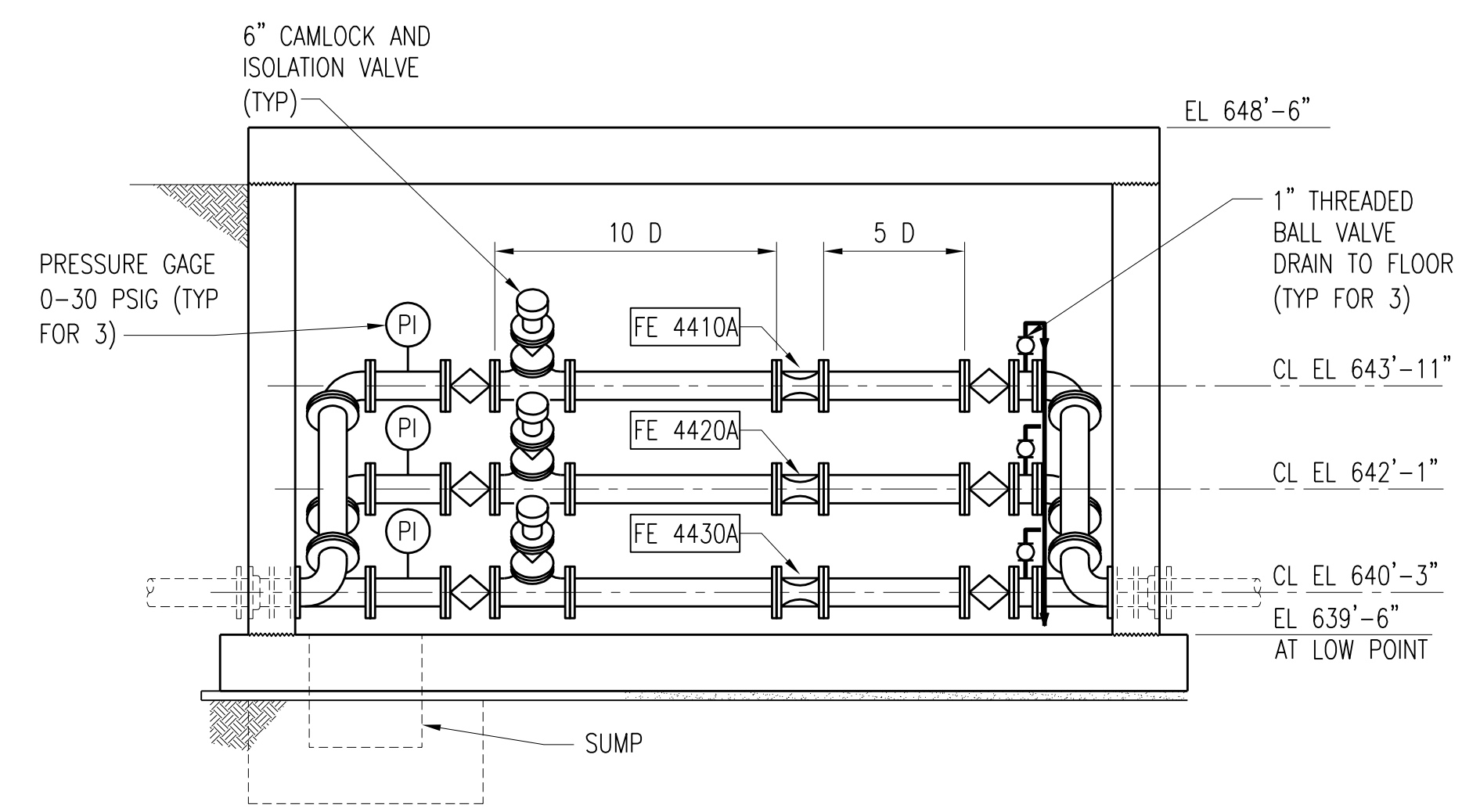
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**AERATION TANKS
PROCESS PIPING DETAILS
SHEET 2**

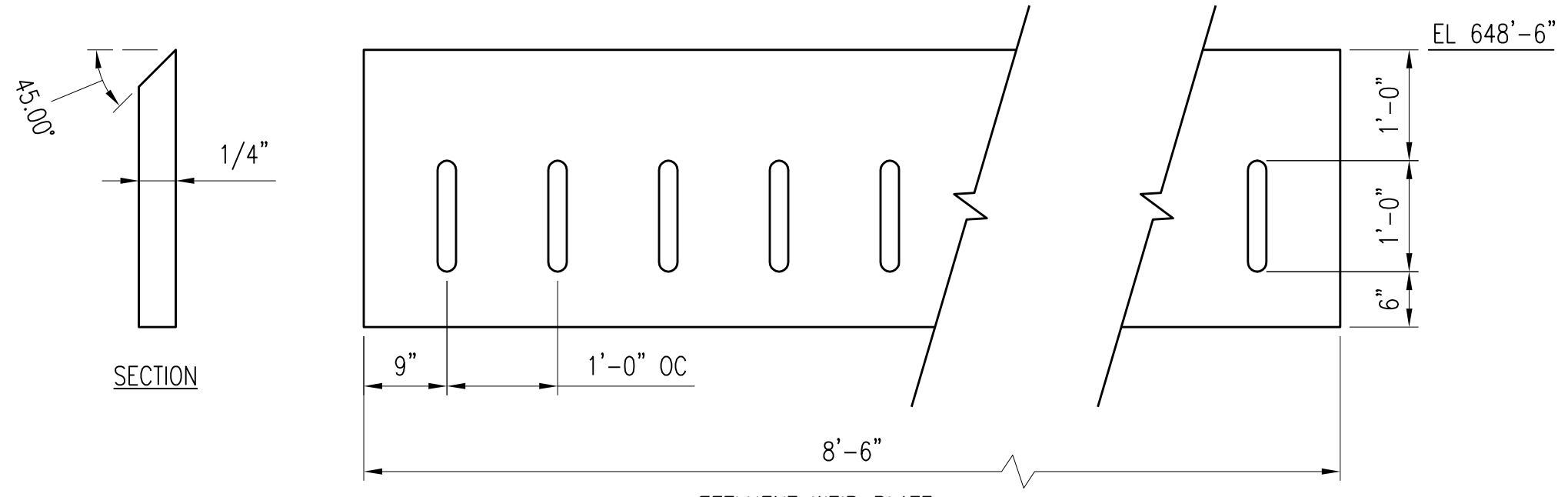
DESIGNED	JBL LUND	SCALE:	AS NOTED
DRAWN	ZL MAGNUSON	NO.	22800
CHECKED	JBL LUND	REV.	
APPROVED	JM BRADY		
APPROVED			
DATE	DECEMBER 2, 2011	M406	3



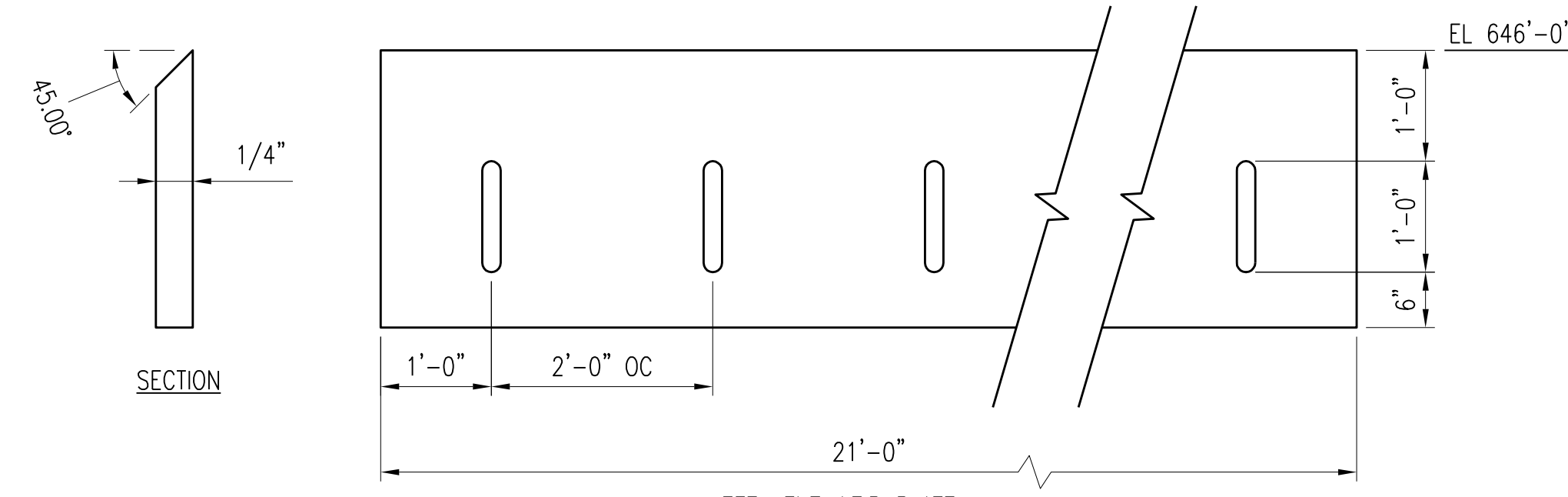
SECTION A-M407
M401
SCALE: 3/8" = 1'-0"



SECTION B-M407
M401
SCALE: 3/8" = 1'-0"

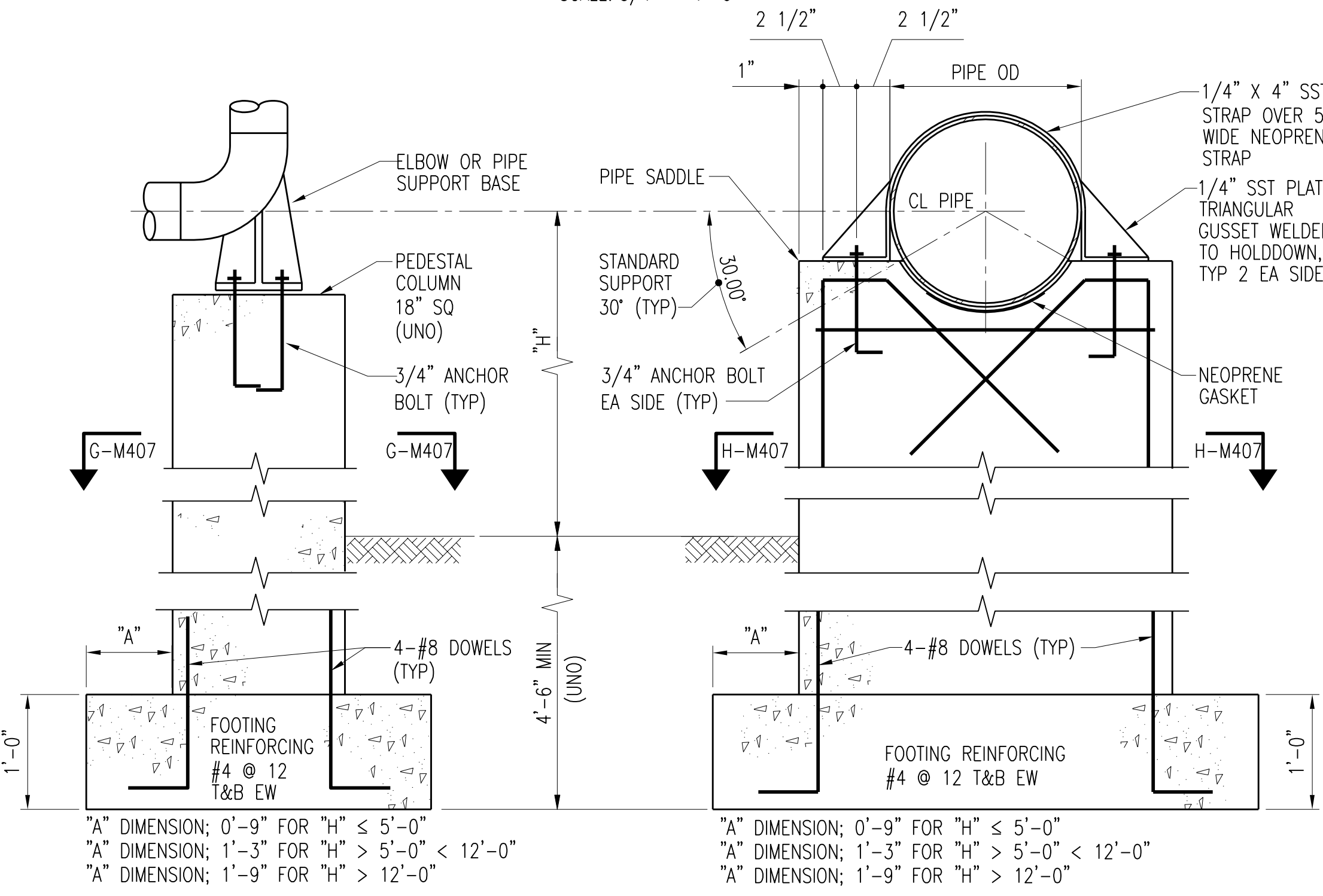


ELEVATION C-M407
S410, M401
SCALE: 3/4" = 1'-0"



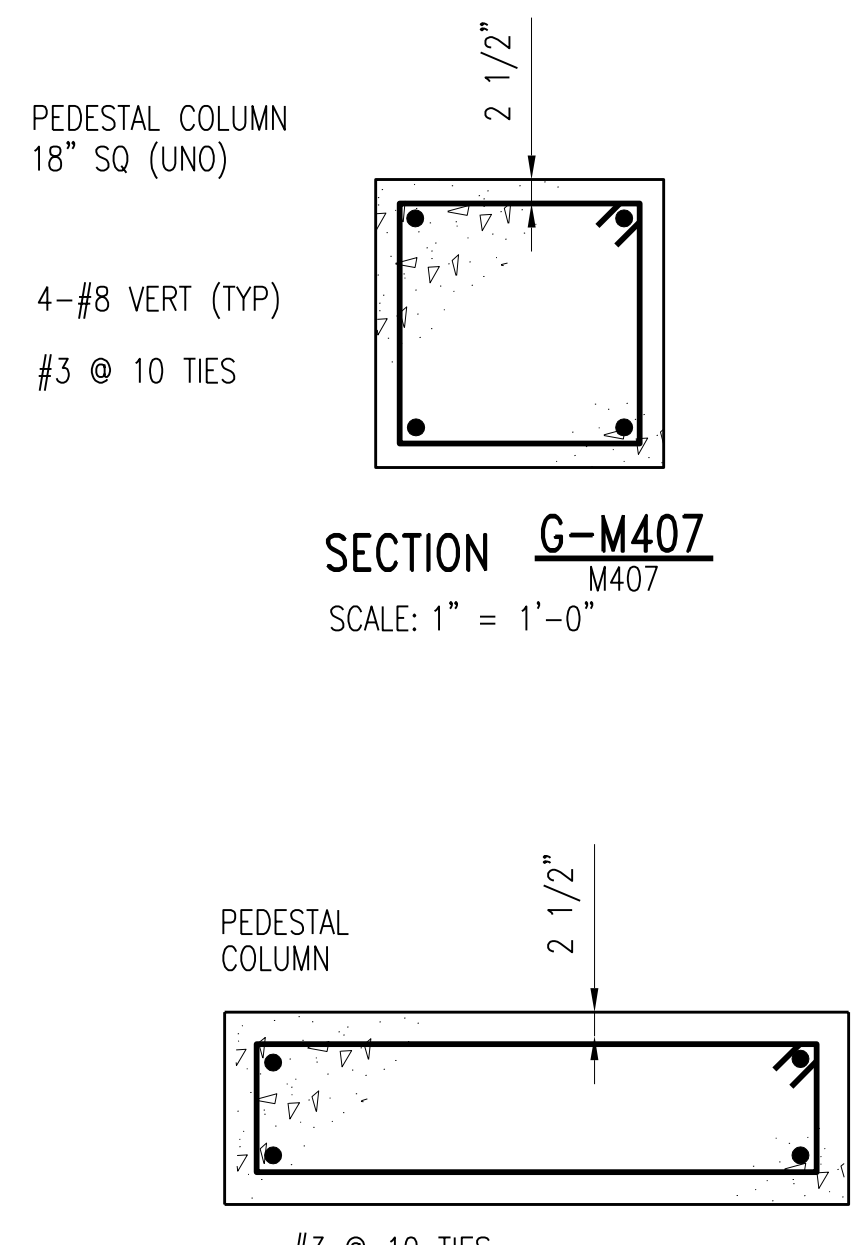
ELEVATION D-M407
S410, M404
SCALE: 3/4" = 1'-0"

SEE RFI #14 SHEET M407-A



DETAIL E-M407
M401
SCALE: 1" = 1'-0"

DETAIL F-M407
M401
SCALE: 1" = 1'-0"



SECTION G-M407
M407
SCALE: 1" = 1'-0"

SECTION H-M407
M407
SCALE: 1" = 1'-0"

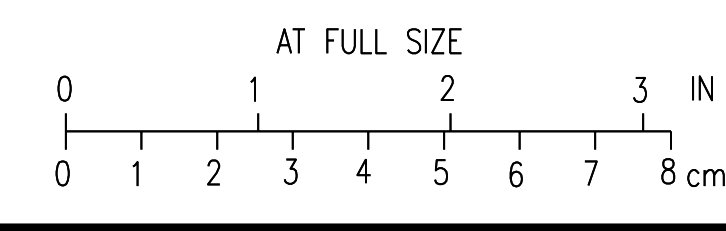
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED SECTION NOTE	JBL	JBL	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	JBL	JBL	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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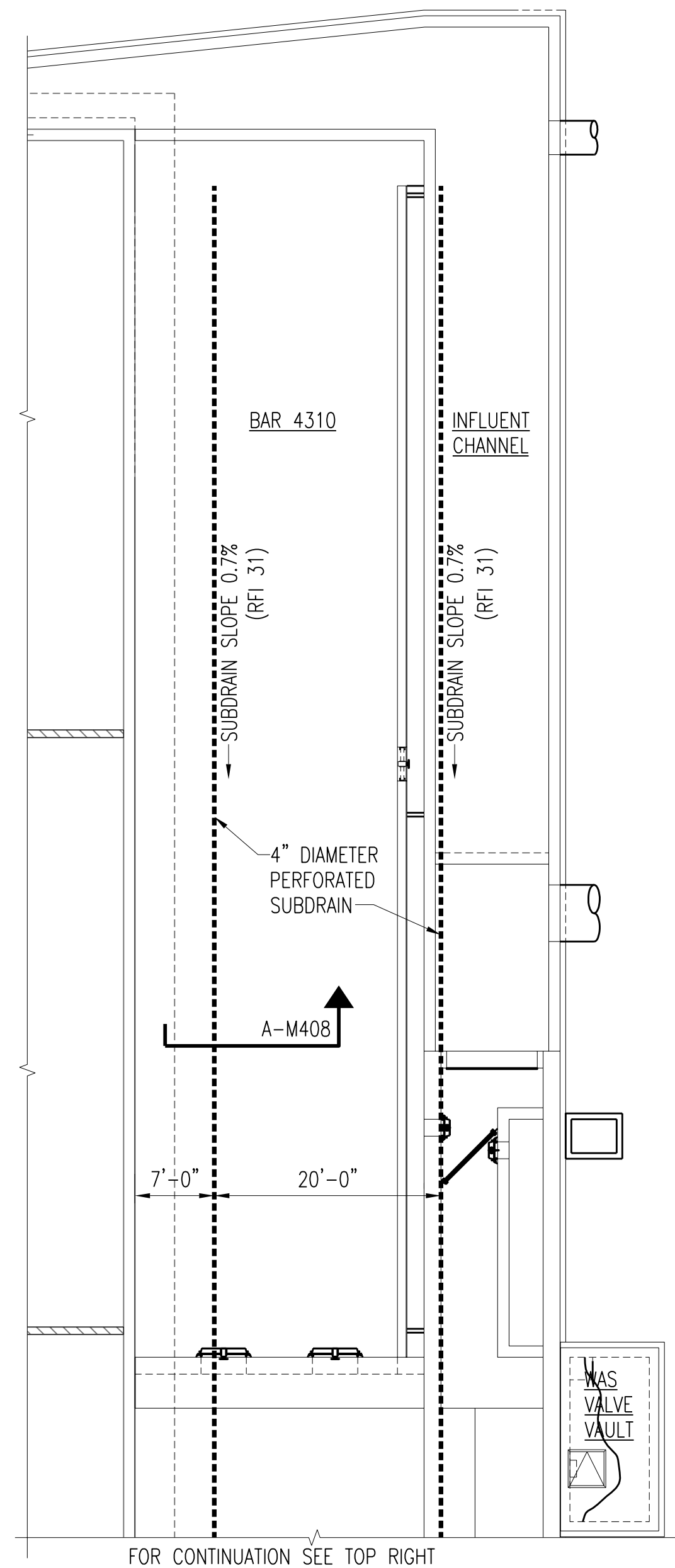
**AERATION TANKS
PROCESS PIPING DETAILS
SHEET 3**

DESIGNED	JBL LUND	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	JBL LUND	REV.	
APPROVED	JM BRADY		
DATE	DECEMBER 2, 2011	M407	3



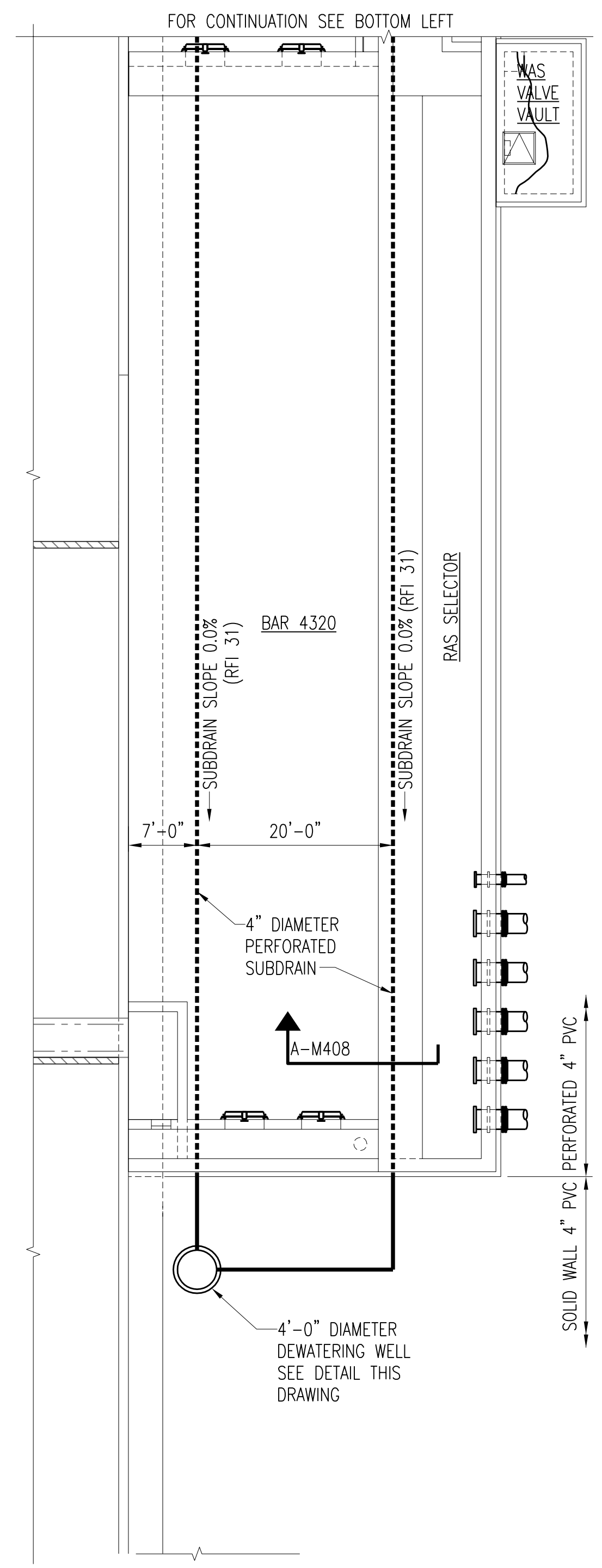
CADD D1-144

NOTES:
 1. FOR ADDITIONAL TANK SUBDRAINS SEE DRAWING M409.



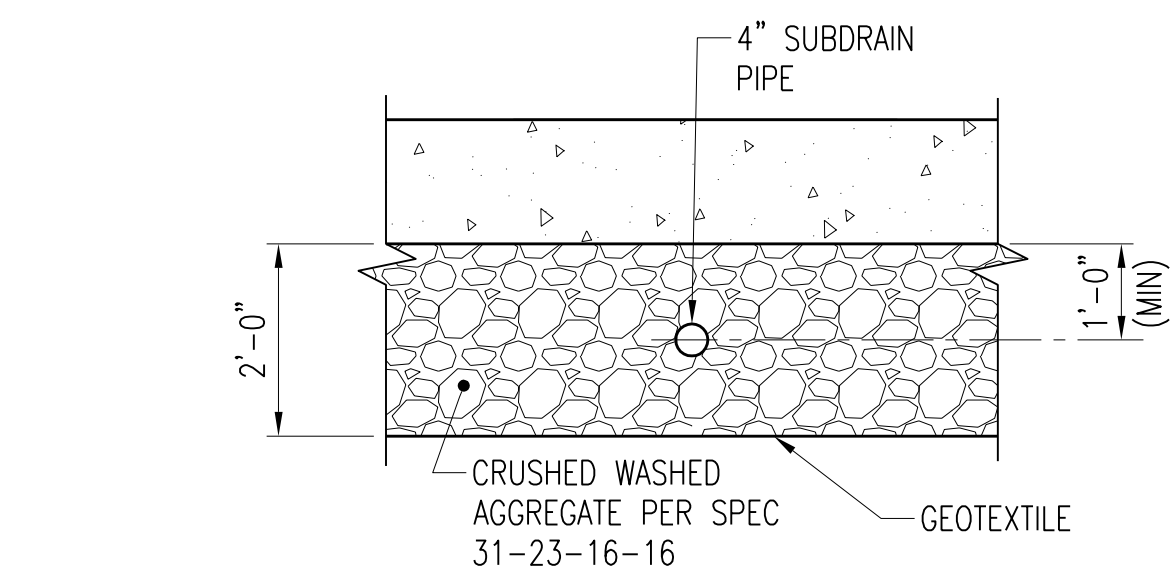
FOR CONTINUATION SEE TOP RIGHT

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

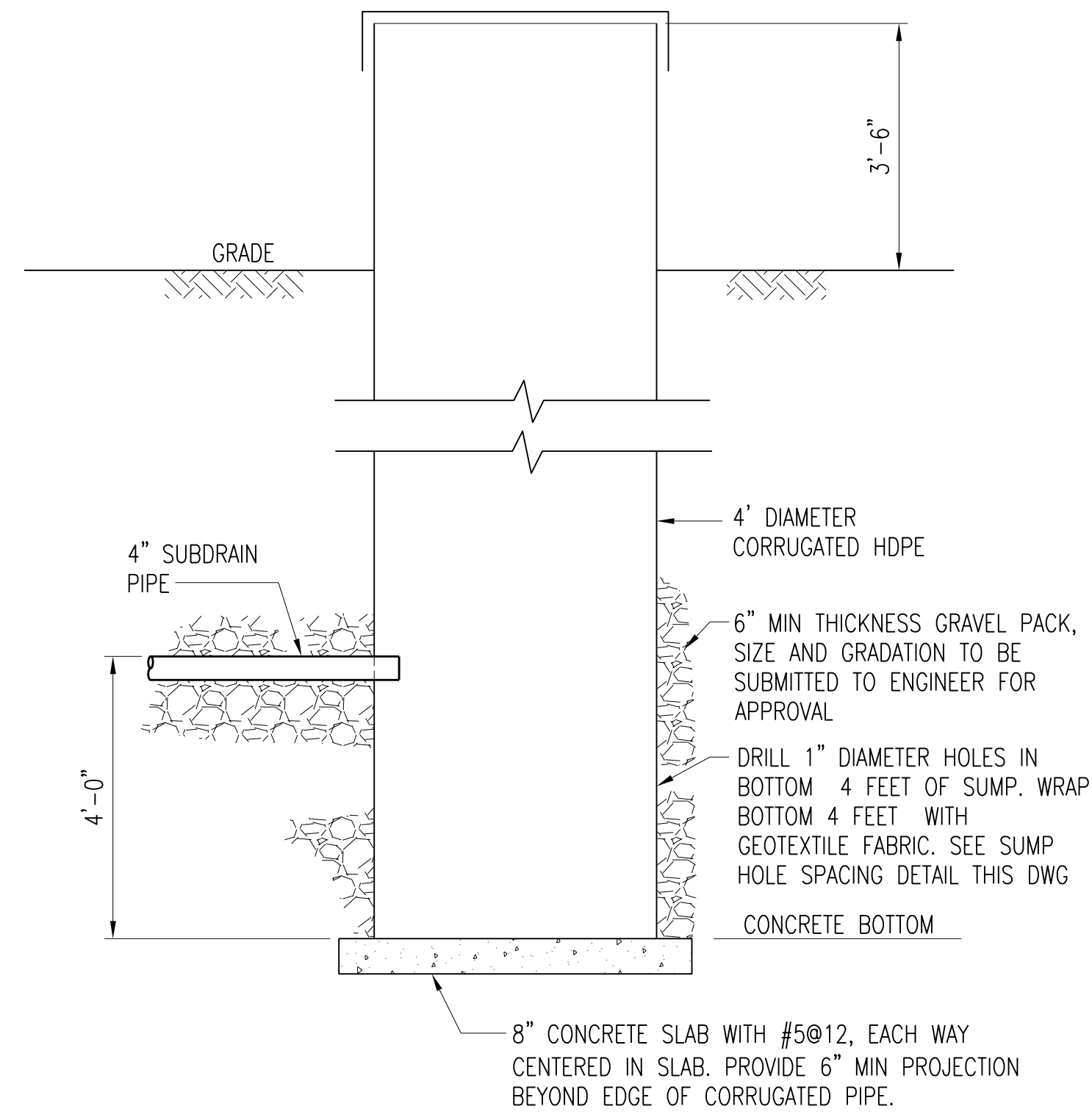


FOR CONTINUATION SEE BOTTOM LEFT

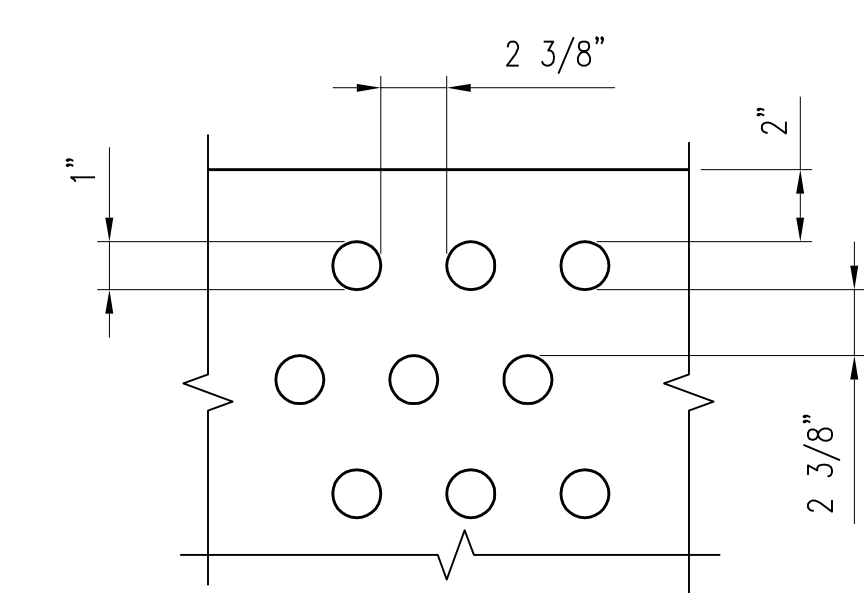
SOLID WALL 4" PVC PERFORATED 4" PVC



SECTION A-M408
 M408
 SCALE: 1/2" = 1'-0"



DEWATERING WELL DETAIL
 SCALE: 1/2" = 1'-0"



UNIFORMLY SPACE 1" DIA HOLES AS SHOWN
DEWATERING HOLE SPACING DETAIL
 SCALE: NONE

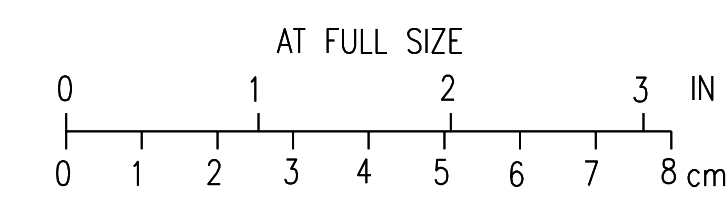
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	RFI 31 AS OF 02-13-2013				08-02-2012
0	ISSUED FOR CONSTRUCTION	JBL	JBL	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

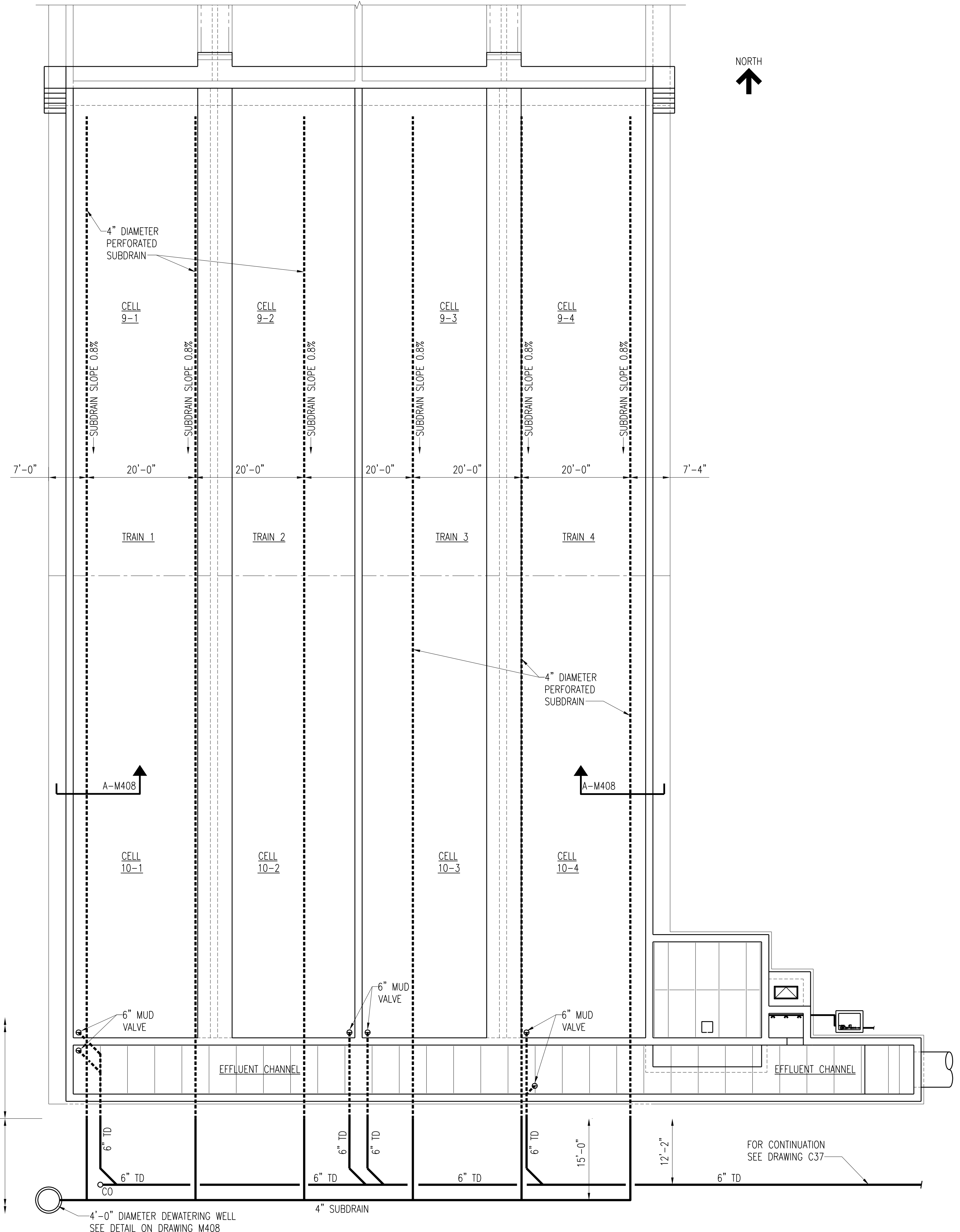
**AERATION TANKS
 SUBDRAIN PLAN AND DETAILS**

DESIGNED	JB LUND	SCALE:	AS NOTED
DRAWN	LJ OSBORN	NO.	22800
CHECKED	JB LUND	REV.	
APPROVED	JM BRADY	M408	3
DATE	JANUARY 10, 2012		

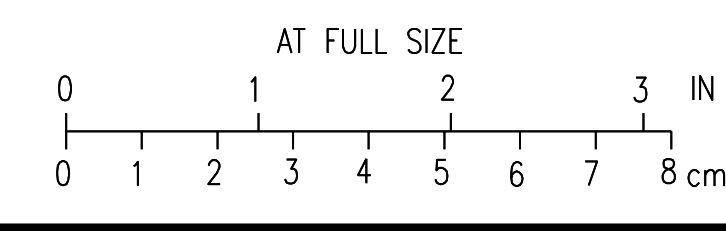


H
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F
E
D
C
B
A
 CADDD: D1-R4
 1 2 3 4 5 6 7 8 9 10 11 12

NOTES:
 1. FOR ADDITIONAL TANK SUBDRAINS AND SUBDRAIN DETAILS SEE DRAWING M408.



SUBDRAIN AND TANK DRAIN PLAN
 SCALE: 3/32" = 1'-0"



1	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
0	ISSUED FOR CONSTRUCTION	JBL	JBL	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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**AERATION TANKS
 SUBDRAIN AND TANK DRAIN PLAN**

DESIGNED	JBL LUND	SCALE:	AS NOTED
DRAWN	LJ OSBORN	NO.	22800
CHECKED	JBL LUND	REV.	
APPROVED	JM BRADY	M409	1
DATE	JANUARY 10, 2012		

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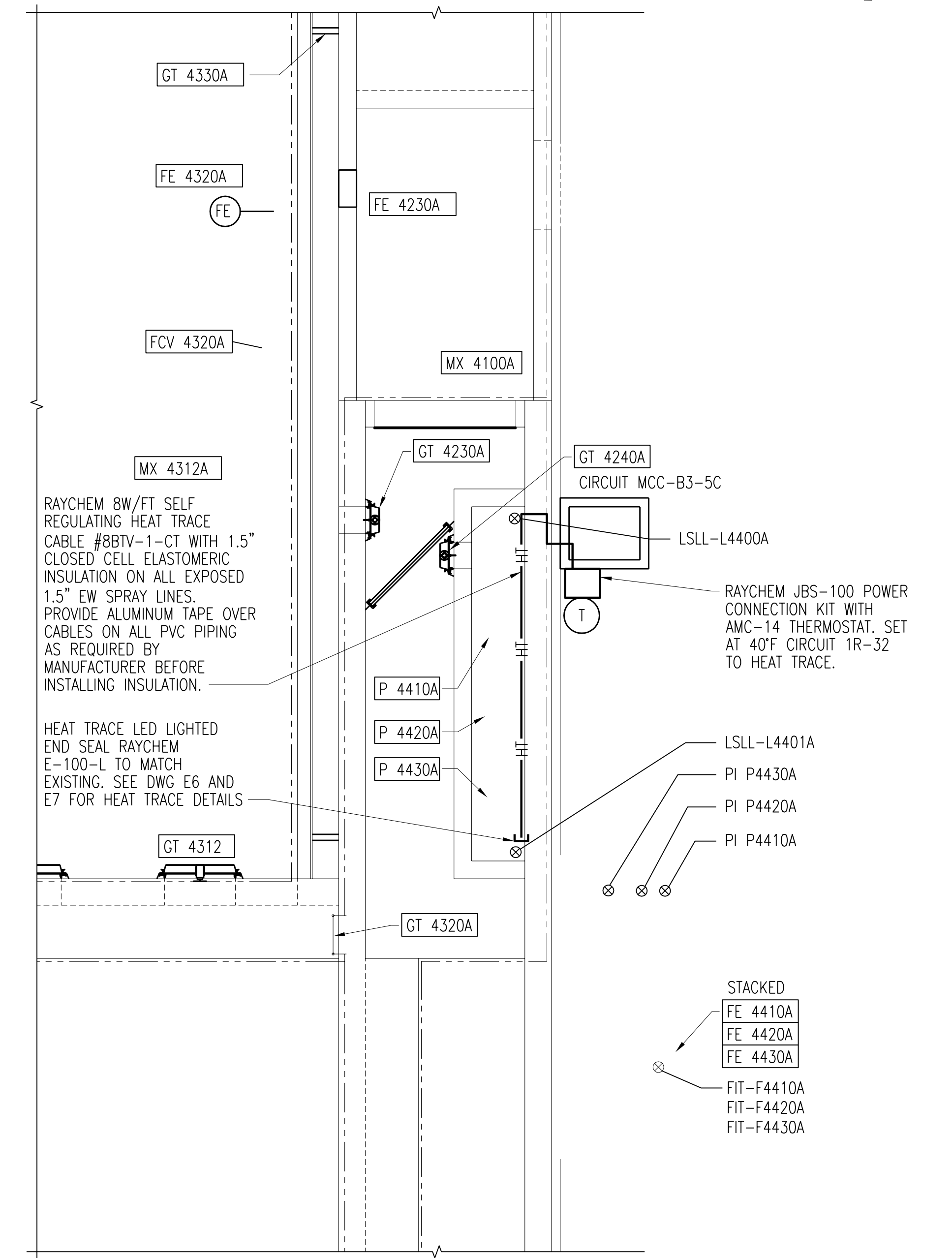
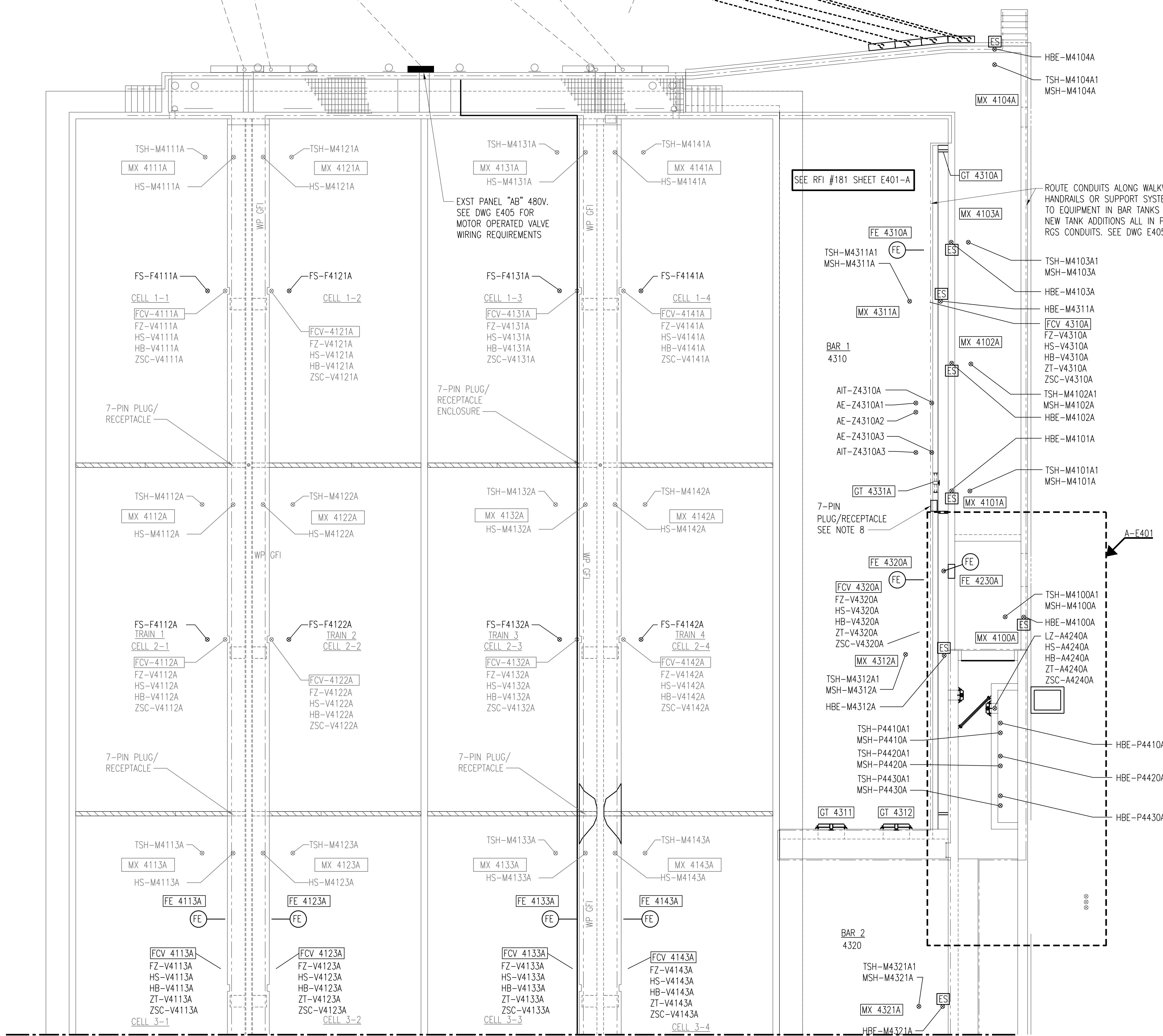
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12

SEE SHEET E54 FOR
ELECTRICAL CONDUIT LOCATION

NORTH

NORTH



DETAIL A-E401
E401
SCALE: 3/16" = 1'-0"

NOTES:

- SEE DRAWING D18 THRU D21 FOR MCC-B1 AND MCC-B2 DEMOLITION ITEMS AND DRAWING E18 THRU E21 AND DRAWING E31 FOR NEW AND MODIFIED MCC-B1, B2, AND NEW MCC-B3 REQUIREMENTS.
- SEE DRAWING E1 FOR GENERAL ELECTRICAL NOTES AND WIRING DEVICE SCHEDULE.
- SEE DRAWING E4 FOR TYPICAL ELECTRICAL DETAILS.
- SEE DRAWINGS E2 AND E3 FOR LIGHTING FIXTURE SCHEDULE.
- SEE DRAWING G9 FOR ELECTRICAL LEGEND.
- SEE DRAWING E420-E423 FOR PANEL SCHEDULES 1L,PCC,AB, AND 1R FOR CIRCUITING REQUIREMENTS.
- CONNECT GROUNDING SYSTEM SHOWN ON DRAWING INTO EXISTING PLANT GROUND SYSTEM AT SERVICE TRANSFORMERS.
- PROVIDE RECEPTACLE ENCLOSURES PER DETAIL ON DRAWING E5. PROVIDE 120VAC AND 24VDC FROM PLC IN BLOWER BUILDING FOR TWO LOCATIONS IN BAR AREA IN 1" PVC RGS.
- SOUTH END OF AERATION BASIN IS SERVICED FROM DISINFECTION BUILDING. SEE DRAWINGS E16, E16A, E16B, E16C AND E611 FOR PANEL "C" CIRCUIT REQUIREMENTS.
- ALL PLC MONITORING AND CONTROL OF AERATION TANKS TO GO TO SABS-PLC IN BLOWER BUILDING.
- SEE P&ID DRAWINGS FOR CONTROL AND MONITORING DEVICE REQUIREMENTS.

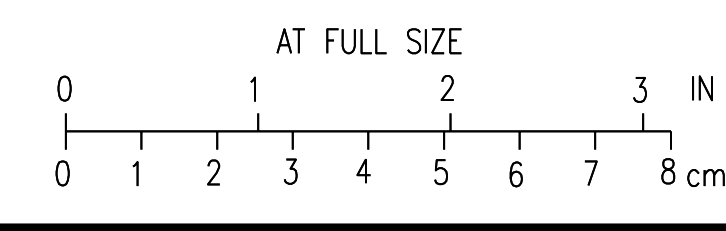
3	RECORD DRAWING	JBL	JBL	JBL	21-31-2014
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**AERATION TANKS
PLAN - SHEET 1**

DESIGNED DL MORITZ	SCALE: AS NOTED
DRAWN D.WILGES	NO. 22800
CHECKED DL MORITZ	REV. 3
APPROVED JD COOAN	E401
DATE DECEMBER 2, 2011	

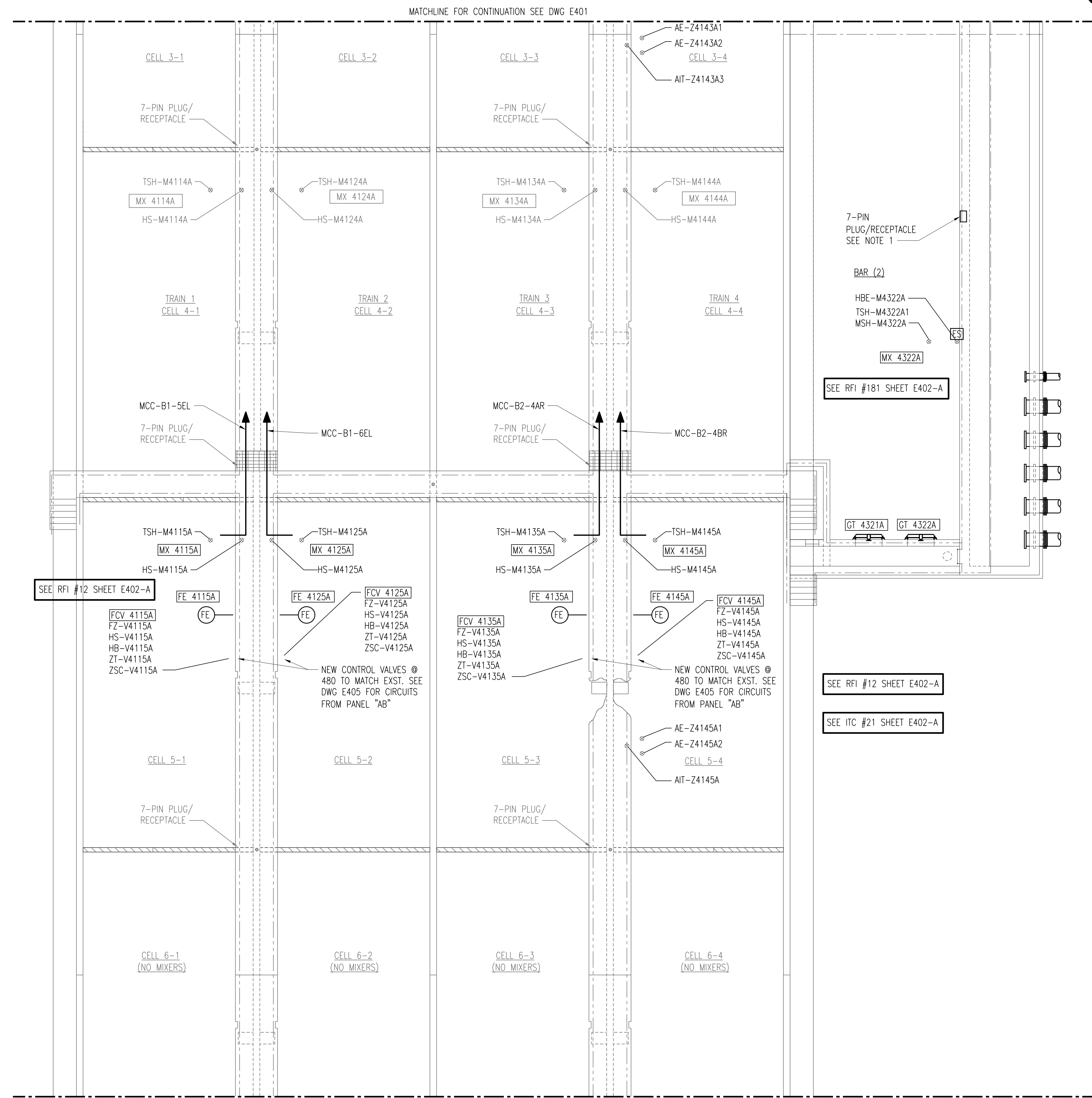


AERATION TANKS ELECTRICAL PLAN
SCALE: 1/8" = 1'-0"

CADD D1-E4

NOTES:

1. PROVIDE RECEPTACLE ENCLOSURES PER DETAIL ON DRAWING I403. PROVIDE 120VAC AND 24VDC FROM PLC IN BLOWER BUILDING FOR TWO LOCATIONS IN BAR AREA IN 1" PVC RGS.



MATCHLINE FOR CONTINUATION SEE DWG E401

MATCHLINE FOR CONTINUATION SEE DWG E403

AERATION TANKS ELECTRICAL PLAN
SCALE: 1/8" = 1'-0"

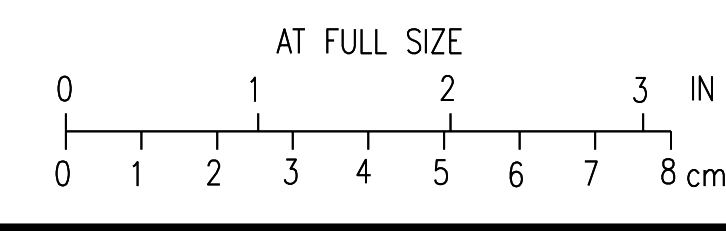
NO.	REVISIONS	DSGN	CHKD	APVD	DATE
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012

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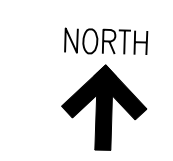
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**AERATION TANKS
PLAN - SHEET 2**

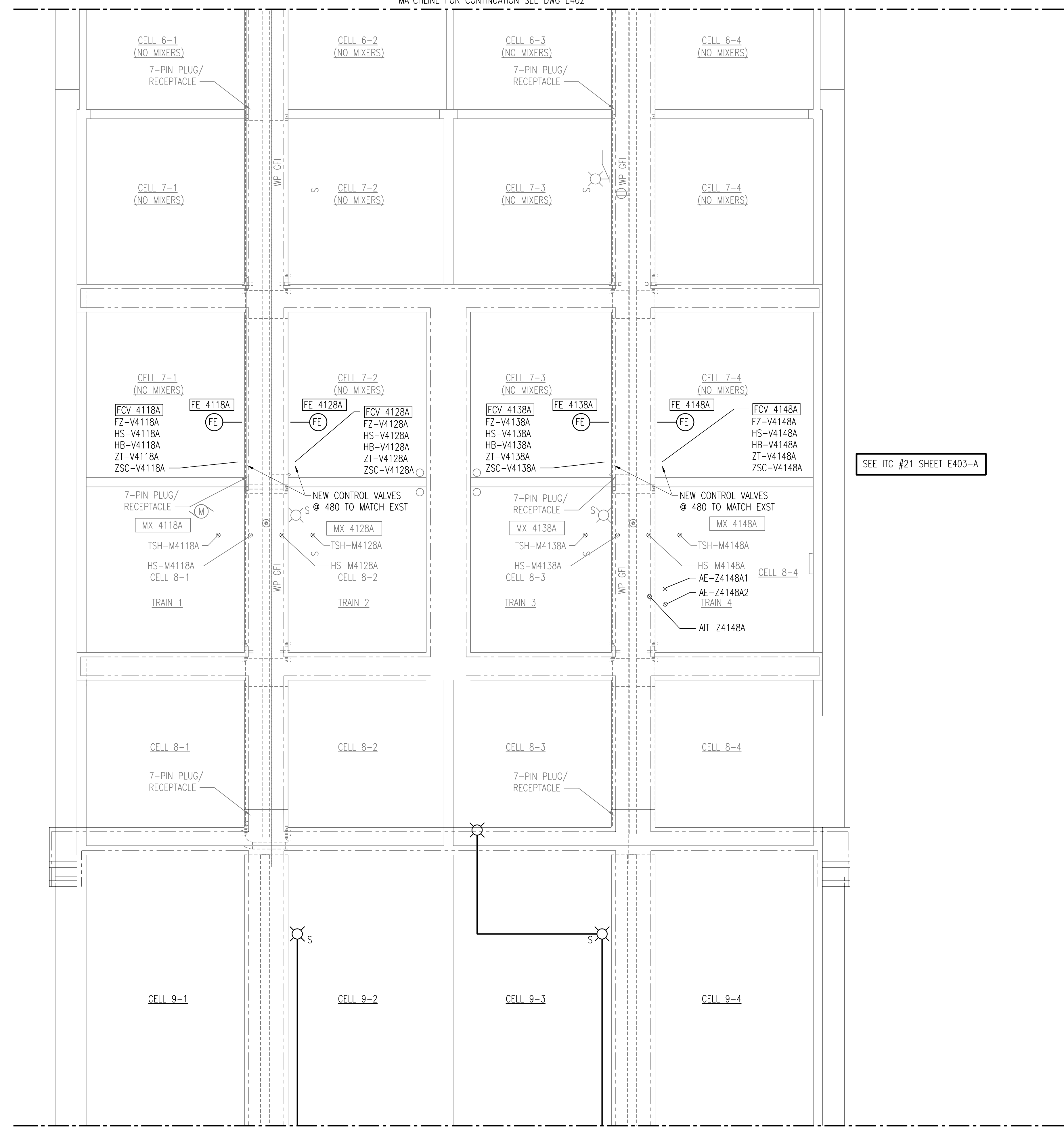
DESIGNED <u>DL MORITZ</u>	SCALE: AS NOTED
DRAWN <u>D.WILGES</u>	NO. 22800
CHECKED <u>DL MORITZ</u>	REV. 3
APPROVED <u>JD COOAN</u>	E402
DATE <u>DECEMBER 2, 2011</u>	



CADD: D1-R4



MATCHLINE FOR CONTINUATION SEE DWG E402



SEE ITC #21 SHEET E403-A

MATCHLINE FOR CONTINUATION SEE DWG E404

AERATION TANKS ELECTRICAL PLAN
SCALE: 1/8" = 1'-0"

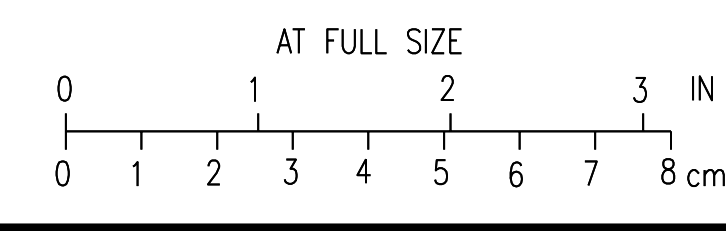
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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**AERATION TANKS
PLAN - SHEET 3**

DESIGNED	DL MORITZ	SCALE:	AS NOTED
DRAWN	D.WILGES	NO.	22800
CHECKED	DL MORITZ	REV.	
APPROVED	JD COGAN	E403	3
DATE	DECEMBER 2, 2011		

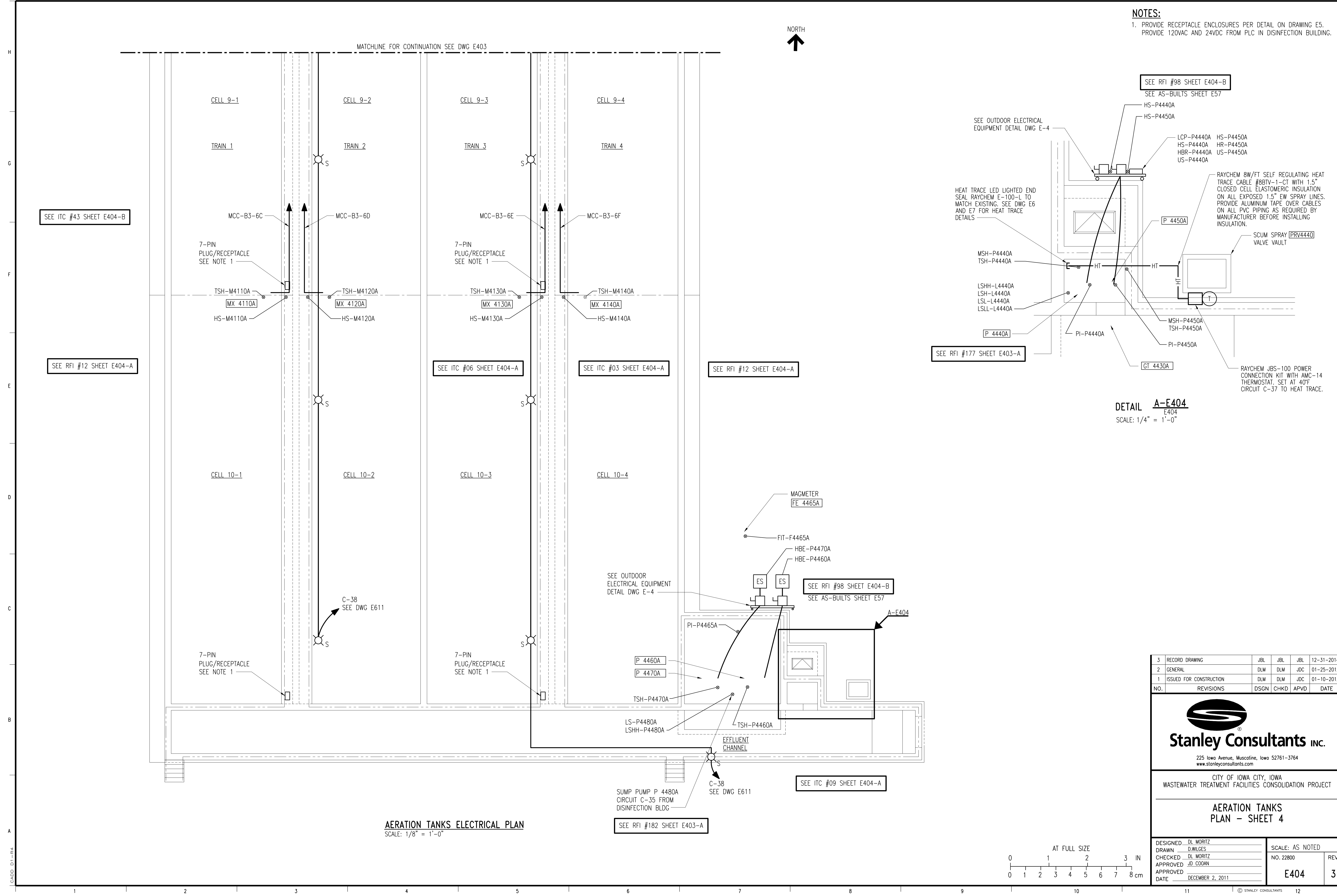


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CADD D1-R4

NOTES:
 1. PROVIDE RECEPTACLE ENCLOSURES PER DETAIL ON DRAWING E5.
 PROVIDE 120VAC AND 24VDC FROM PLC IN DISINFECTION BUILDING.



AERATION TANKS ELECTRICAL PLAN
 SCALE: 1/8" = 1'-0"

DETAIL A-E404
 E404
 SCALE: 1/4" = 1'-0"

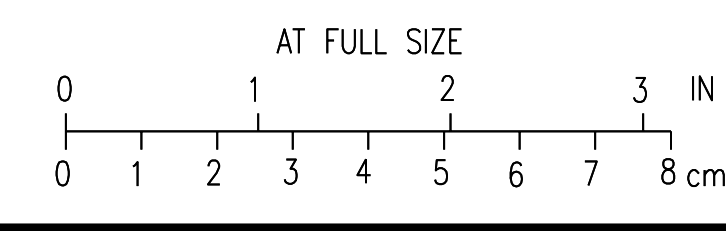
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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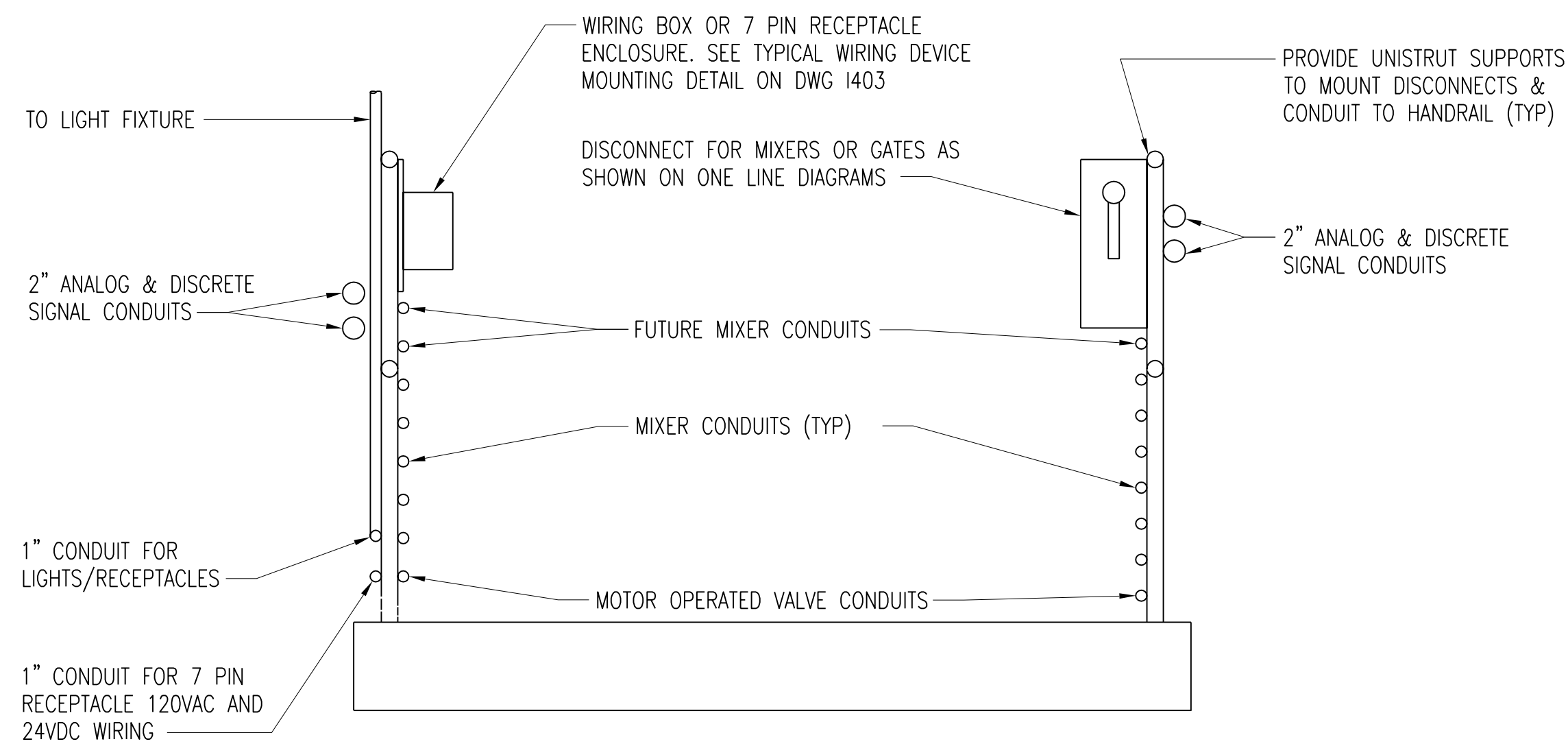
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**AERATION TANKS
 PLAN - SHEET 4**

DESIGNED	DL MORITZ	SCALE:	AS NOTED
DRAWN	D.WILGES	NO.	22800
CHECKED	DL MORITZ	REV.	
APPROVED	JD COOAN	E404	3
DATE	DECEMBER 2, 2011		



CADD: D1-14

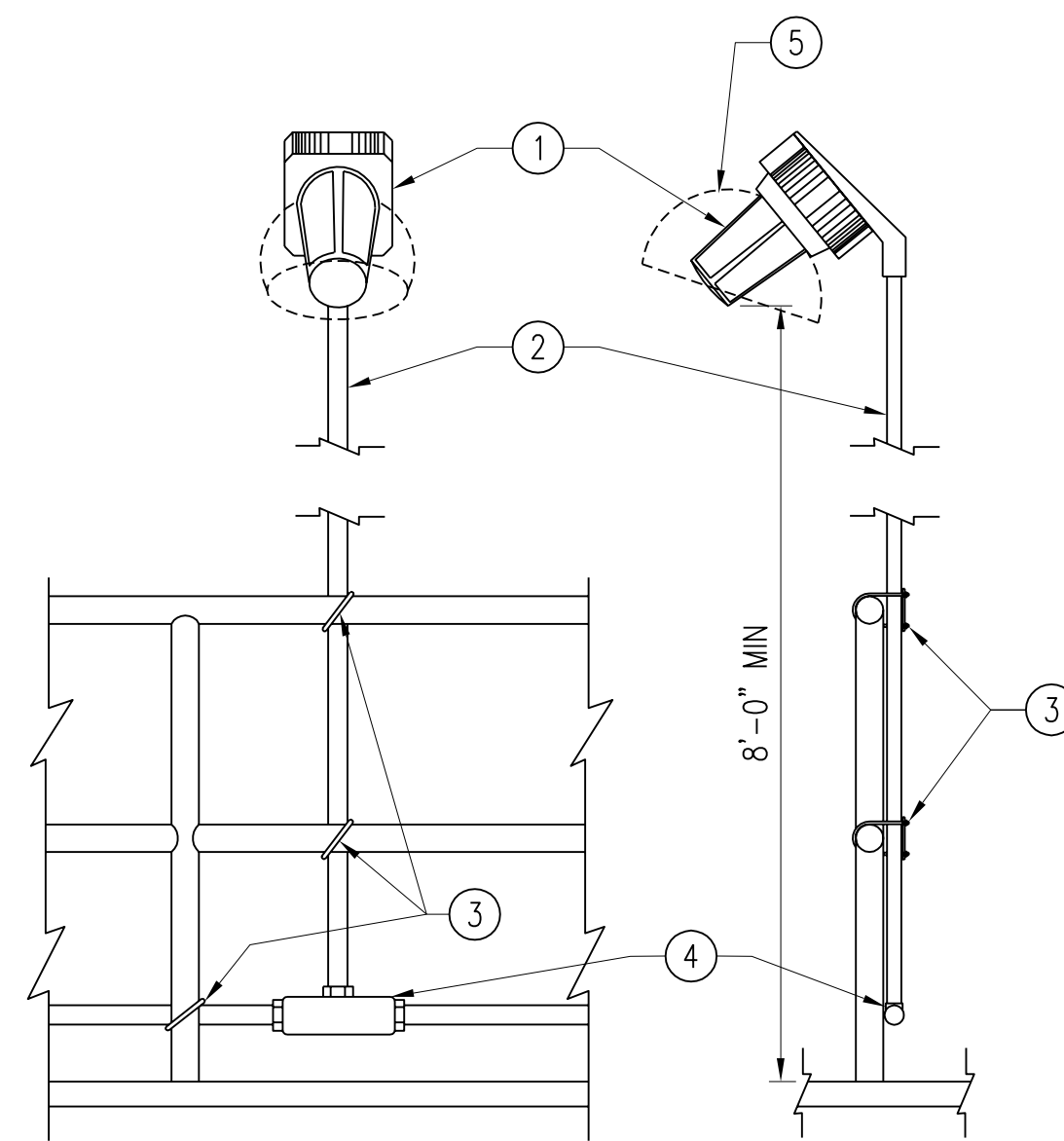


TYPICAL AERATION CONDUIT ROUTING DETAIL

SCALE: NONE

NOTES:

- UNISTRUT FOR MOUNTING CONDUIT ON THE INSIDE OF THE HANDRAIL SHALL BE THE NARROWEST AVAILABLE TO MINIMIZE CONDUIT INTRUSION INTO THE WALKWAY AND INTERFERENCE WITH VALVE OPERATORS LOCATED IN THE WALKWAY FLOOR.
- ALL CONDUITS ARE 1" UNLESS NOTED OTHERWISE.

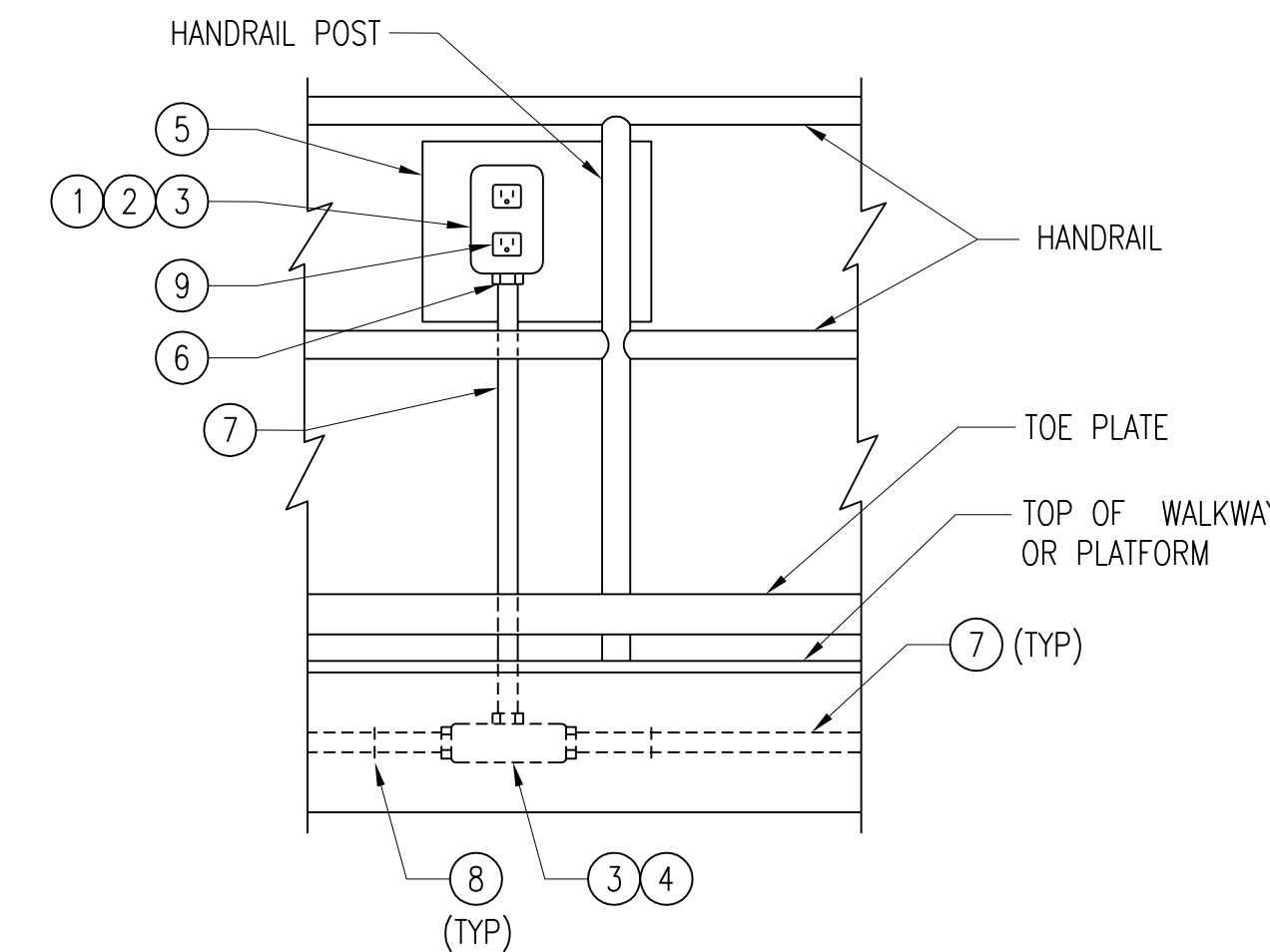


BILL OF MATERIAL

ITEM NO.	QUANTITY	DESCRIPTION
①	1	FIXTURE STANCHION MOUNT HPS TYPE. SEE FIXTURE SCHEDULE
②	1	CONDUIT, RIGID, 1 1/4" HOT DIPPED GALVANIZED, PVC COATED
③	3	U-BOLT, GALVANIZED 1 1/4" WITH NUT & LOCKWASHERS
④	1	FITTING, TEE 1 1/4" CROUSE-HINDS TYPE T-47 OR GUAT
⑤	1	PROVIDE 30° ANGLE POLYESTER REFLECTOR

TYPE S LIGHTING FIXTURE MOUNTING DETAIL

SCALE: NONE



ITEM NO.	DESCRIPTION
①	CAST DEVICE BOX W/ MOUNTING LUGS
②	COVER - OUTDOOR - ALUMINUM
③	NEOPRENE GASKET
④	CAST BOX WITH COVER
⑤	6"x6"x1/4" STEEL PLATE
⑥	1/4" MINIMUM MOUNTING HARDWARE
⑦	3/4" PVC COATED RGS CONDUIT
⑧	CONDUIT SUPPORT
⑨	WIRING DEVICE

TYPICAL SWITCH/RECEPTACLE MOUNTING DETAIL

SCALE: NONE

PANEL NAME:	EXIST "AB"	LOCATION:	AERATION TANK		
MOUNTING:	SURFACE	VOLTAGE:	480Y/277		
ENCLOSURE:	NEMA 1	PHASE:	3P/4W		
MAINS:	MLO	SHORT CIRCUIT RATING:	22KA		
BUS AMPACITY:	150A	GROUND BUS:	YES		
BUS TYPE:		ISOLATED GROUND BUS:	NO		
BRANCH BREAKER TYPE:		NEUTRAL BUS:	100%		
NO.	LOAD DESCRIPTION	CB PH, G, COND	LOAD DESCRIPTION	CB PH, G, COND	NO.
1	SPARE	1P20A	SPARE	1P20A	2
3	SPARE	1P20A	SPARE	1P20A	4
5	SPARE	1P20A	SPARE	1P20A	6
7	FCV #1 - BASIN CHANNEL 4111 MOTOR OPERATED VALVES	3P30A #10,#10,1"C	FCV #2 - BASIN CHANNEL 412 MOTOR OPERATED VALVES	3P20A #10,#10,1"C	8
9	"	"	"	"	10
11	"	"	"	"	12
13	FCV #3 - BASIN CHANNEL 4131 MOTOR OPERATED VALVES	3P20A #10,#10,1"C	FCV #4 - BASIN CHANNEL 414 MOTOR OPERATED VALVES	3P20A #10,#10,1"C	14
15	"	"	"	"	16
17	"	"	"	"	18
19					20
21					22
23					24
25					26
27					28
29					30
31					32
33					34
35					36
37					38
39					40
41					42

PROVIDE NEW WIRING TO FCV VALVES SHOWN ON DWGS E401-E404.

3 CHANGE NOTE ON TYPICAL AERATION CONDUIT ROUTING DETAIL FROM "WIRING BOX OR 7 PIN RECEPTACLE ENCLOSURE. SEE TYPICAL WIRING DEVICE MOUNTING DETAIL ON DRAWING 1403" TO READ "WIRING BOX OR 7-PIN RECEPTACLE ENCLOSURE. SEE TYPICAL WIRING DEVICE MOUNTING DETAIL ON DRAWING E5."

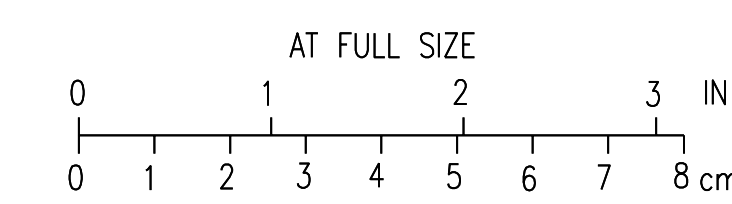
NO.	REVISIONS	DSGN	CHKD	APVD	DATE
4	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
3	ADDED ADDENDUM COMMENT	LJO	JBL	JBL	05-04-2012
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012

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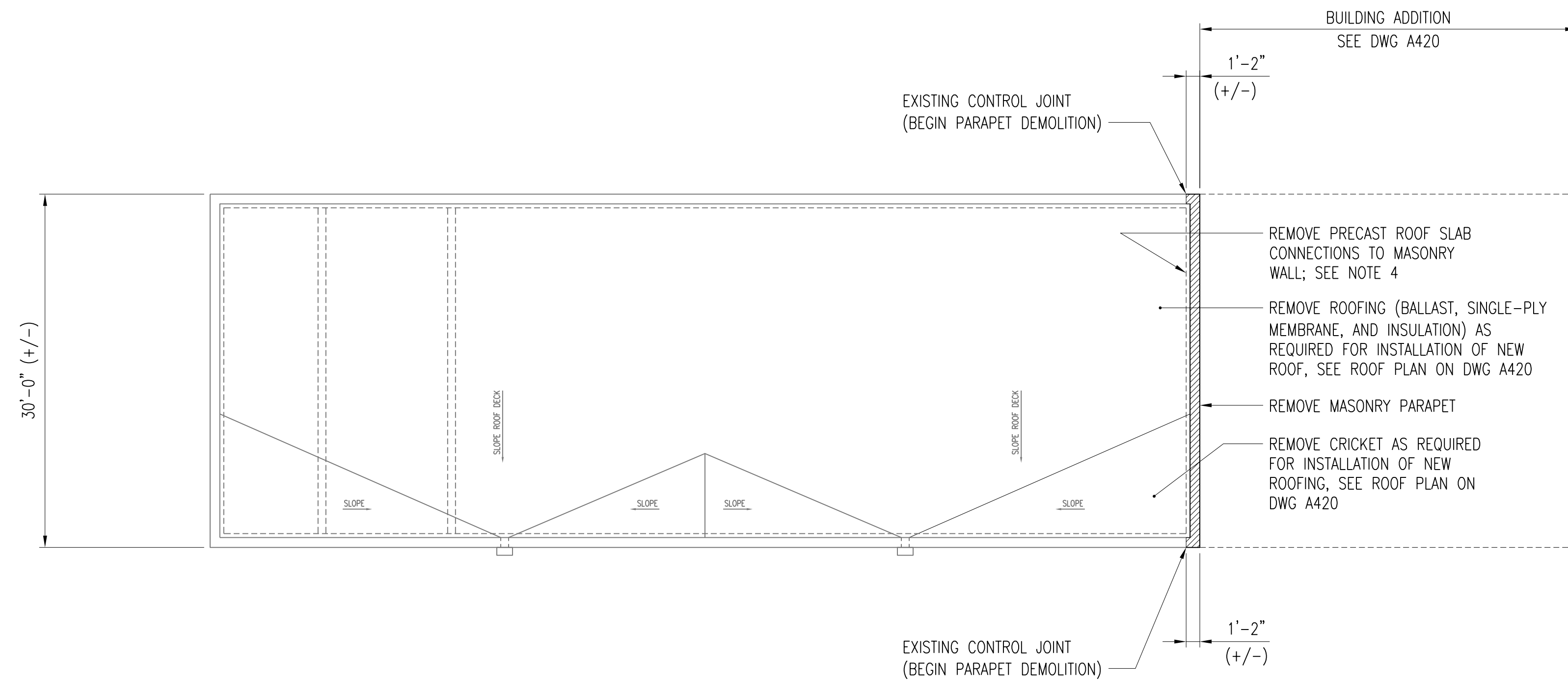
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**AERATION TANKS
 DETAILS**

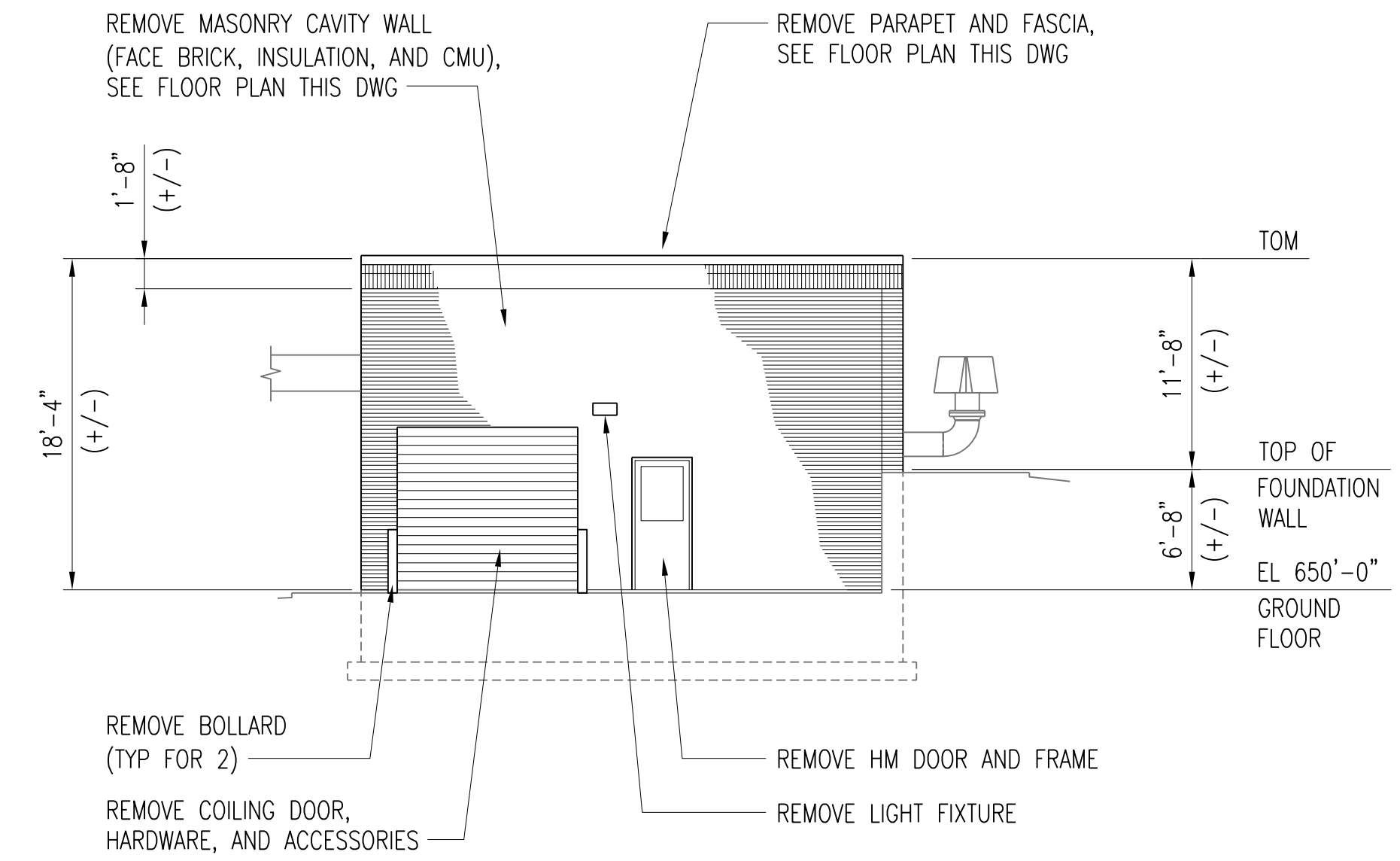
DESIGNED DL MORITZ	SCALE: AS NOTED	REV.
DRAWN D. WILGES	NO. 22800	
CHECKED DL MORITZ		
APPROVED JD COOAN		
APPROVED DATE DECEMBER 2, 2011	E405	4



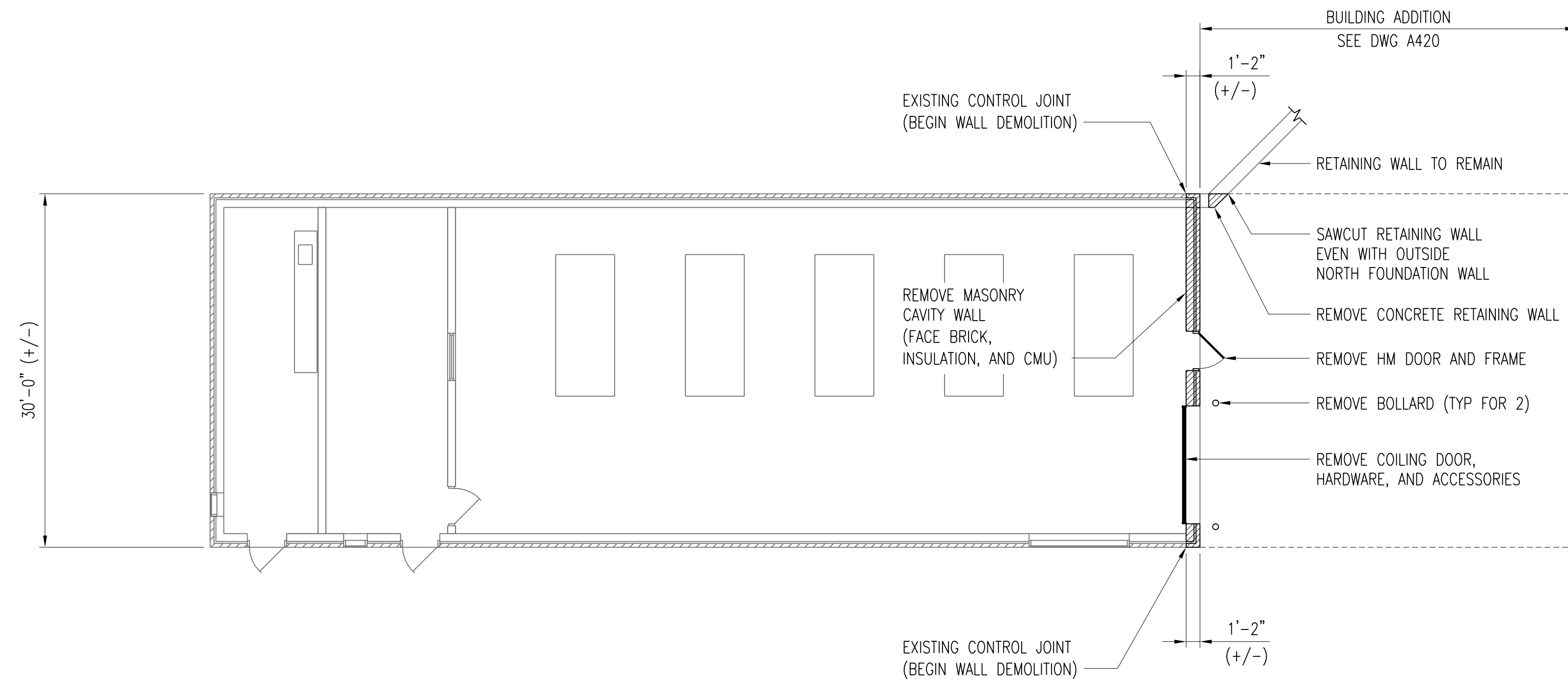
BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE



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



DEMOLITION EAST ELEVATION
SCALE: 1/8" = 1'-0"



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



ARCHITECTURAL DEMOLITION NOTES:

1. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS BEFORE BEGINNING WORK.
2. DIMENSIONS SHOWN SHALL BE VERIFIED BY CONTRACTOR.
3. COORDINATE DEMOLITION WORK WITH OTHER DISCIPLINES.
4. CONTRACTOR SHALL DESIGN AND PROVIDE TEMPORARY LATERAL BRACING OF ROOF AND WALLS PRIOR TO REMOVING MASONRY END WALL AND CONNECTION TO HOLLOW CORE ROOF PANEL. BRACING DESIGN SHALL BE COMPLETED BY A PROFESSIONAL ENGINEER LICENSED IN IOWA.

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REV RETAINING WALL DEMO & NOTE 4	GAL	GAL	DS	01-25-2012
1	ISSUED FOR CONSTRUCTION	GAL	GAL	DS	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



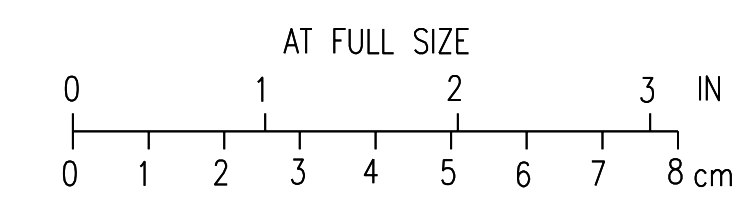
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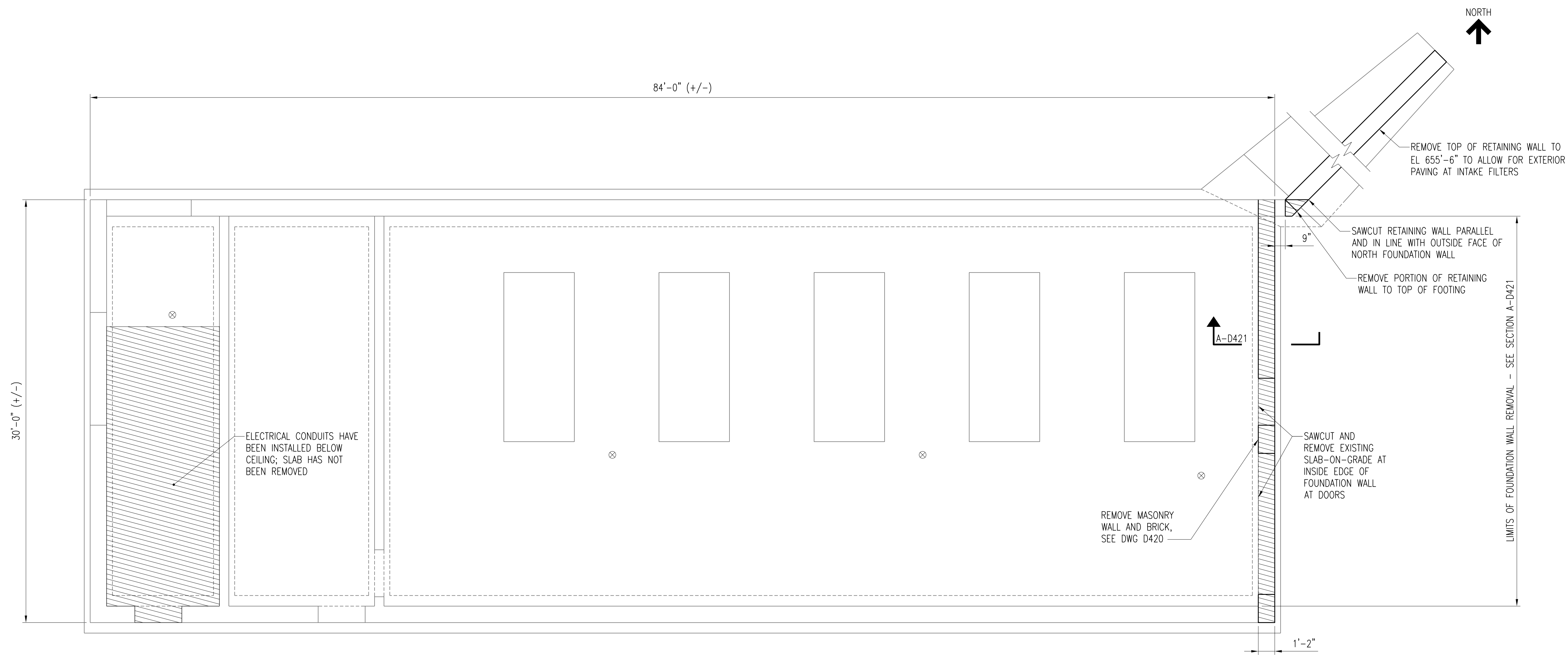
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**BLOWER BUILDING
ARCHITECTURAL DEMOLITION
PLANS AND ELEVATION**

DESIGNED	GA LUDWIG	SCALE:	AS NOTED
DRAWN	DA HUMISTON	NO.	22800
CHECKED	GA LUDWIG	REV.	
APPROVED	D SARKAR	D420	3
DATE	DECEMBER 2, 2011		

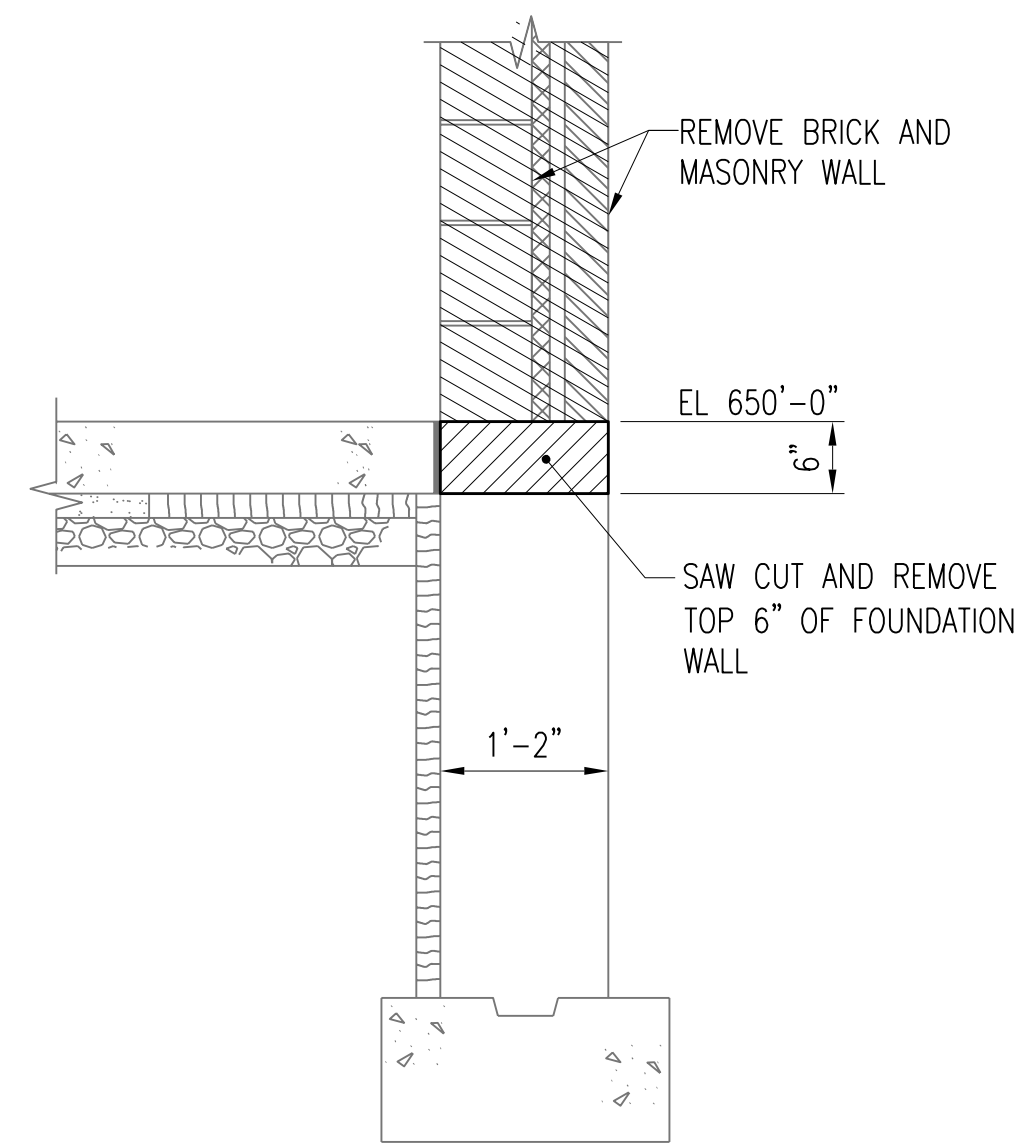


BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE



DEMOLITION PLAN

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



DETAIL A-D421

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

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED AND REISSUED	KBH	KBH	LHB	1-25-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012



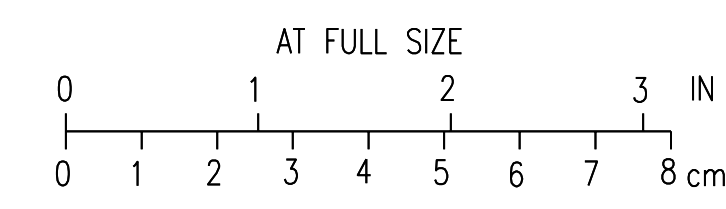
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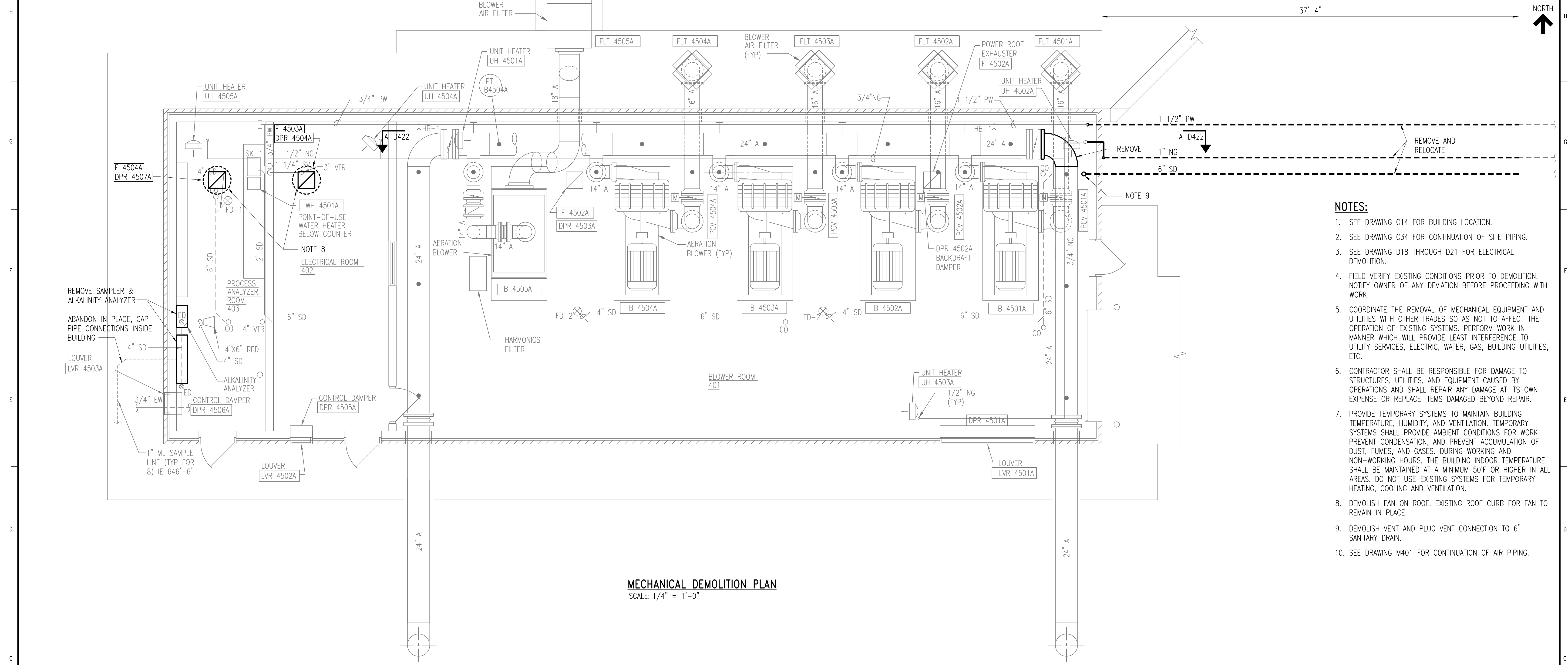
**BLOWER BUILDING
STRUCTURAL DEMOLITION
PLAN AND DETAILS**

DESIGNED <u>KB HALL</u>	SCALE: AS NOTED	REV.
DRAWN <u>DA SCHMIDT</u>	NO. 22800	
CHECKED <u>KB HALL</u>		
APPROVED <u>LH BADTRAM</u>		
DATE <u>DECEMBER 2, 2011</u>	D421	3



CADD: D1-14

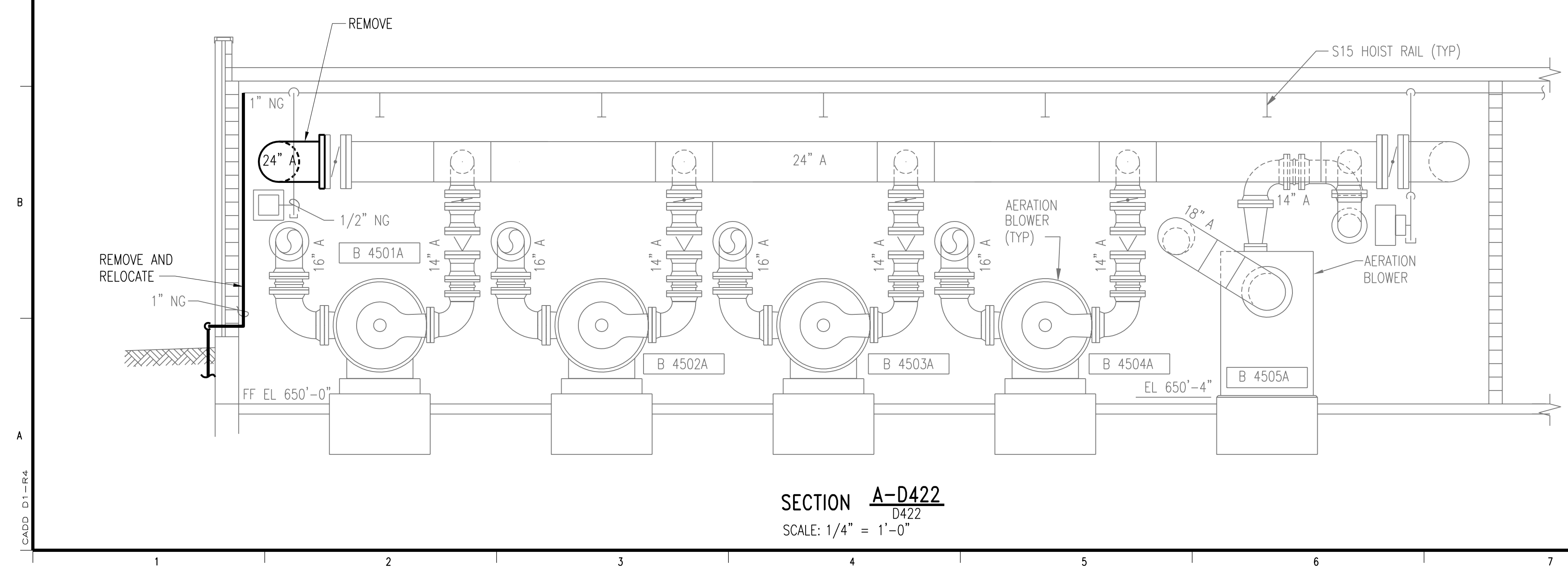
BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE



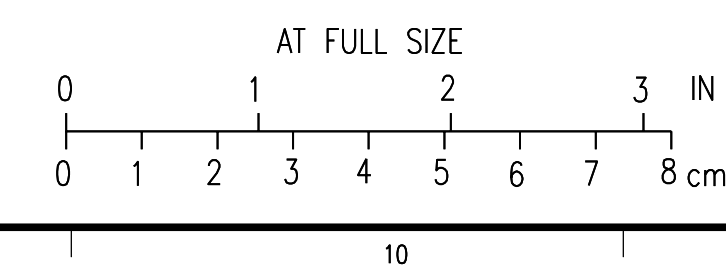
MECHANICAL DEMOLITION PLAN
SCALE: 1/4" = 1'-0"

NOTES:

1. SEE DRAWING C14 FOR BUILDING LOCATION.
2. SEE DRAWING C34 FOR CONTINUATION OF SITE PIPING.
3. SEE DRAWING D18 THROUGH D21 FOR ELECTRICAL DEMOLITION.
4. FIELD VERIFY EXISTING CONDITIONS PRIOR TO DEMOLITION. NOTIFY OWNER OF ANY DEVIATION BEFORE PROCEEDING WITH WORK.
5. COORDINATE THE REMOVAL OF MECHANICAL EQUIPMENT AND UTILITIES WITH OTHER TRADES SO AS NOT TO AFFECT THE OPERATION OF EXISTING SYSTEMS. PERFORM WORK IN MANNER WHICH WILL PROVIDE LEAST INTERFERENCE TO UTILITY SERVICES, ELECTRIC, WATER, GAS, BUILDING UTILITIES, ETC.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO STRUCTURES, UTILITIES, AND EQUIPMENT CAUSED BY OPERATIONS AND SHALL REPAIR ANY DAMAGE AT ITS OWN EXPENSE OR REPLACE ITEMS DAMAGED BEYOND REPAIR.
7. PROVIDE TEMPORARY SYSTEMS TO MAINTAIN BUILDING TEMPERATURE, HUMIDITY, AND VENTILATION. TEMPORARY SYSTEMS SHALL PROVIDE AMBIENT CONDITIONS FOR WORK, PREVENT CONDENSATION, AND PREVENT ACCUMULATION OF DUST, FUMES, AND GASES. DURING WORKING AND NON-WORKING HOURS, THE BUILDING INDOOR TEMPERATURE SHALL BE MAINTAINED AT A MINIMUM 50°F OR HIGHER IN ALL AREAS. DO NOT USE EXISTING SYSTEMS FOR TEMPORARY HEATING, COOLING AND VENTILATION.
8. DEMOLISH FAN ON ROOF. EXISTING ROOF CURB FOR FAN TO REMAIN IN PLACE.
9. DEMOLISH VENT AND PLUG VENT CONNECTION TO 6" SANITARY DRAIN.
10. SEE DRAWING M401 FOR CONTINUATION OF AIR PIPING.



SECTION A-D422
SCALE: 1/4" = 1'-0"



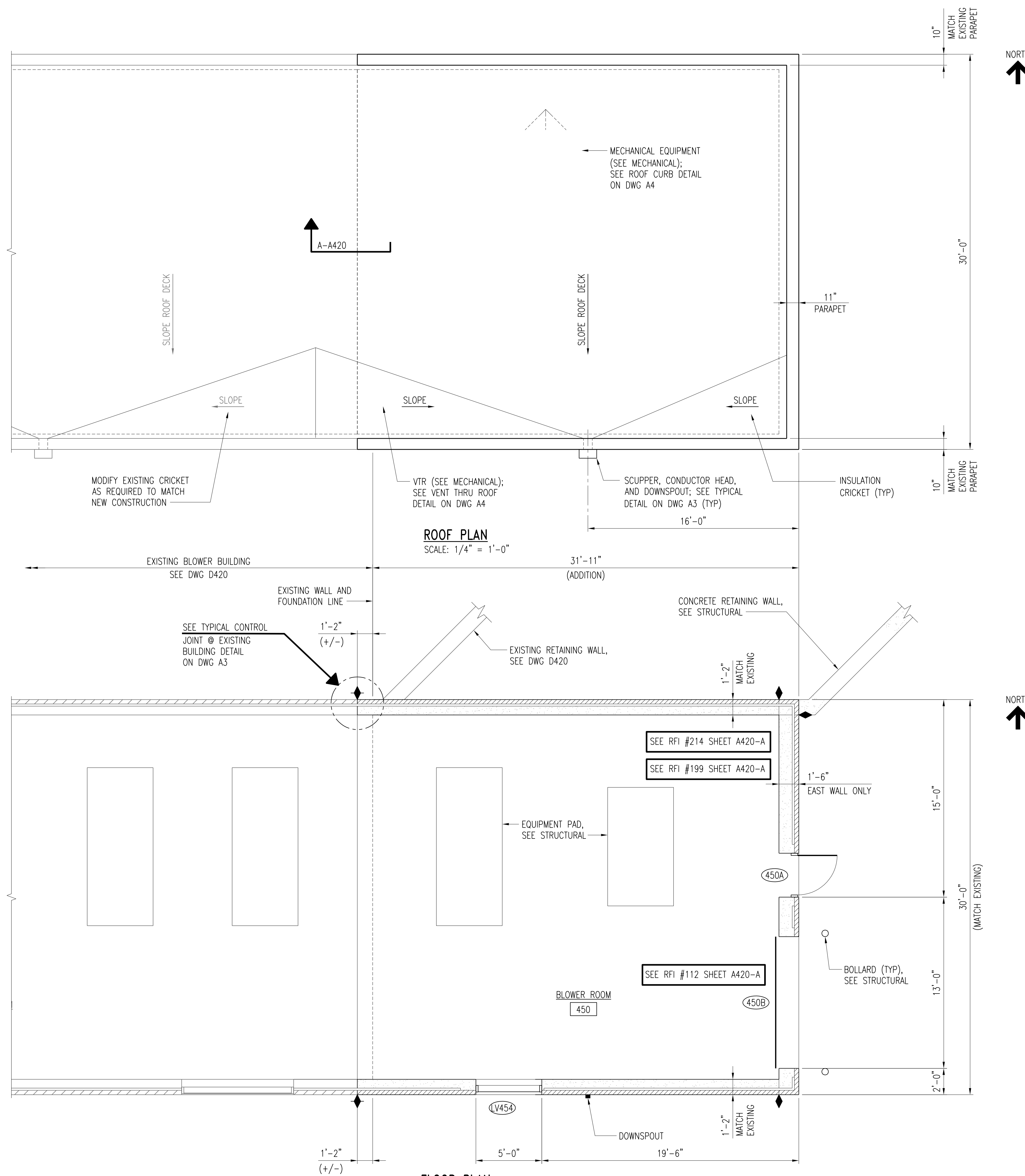
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED PIPE SIZE	AMR/JLL	AMR	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	AMR/JLL	AMR	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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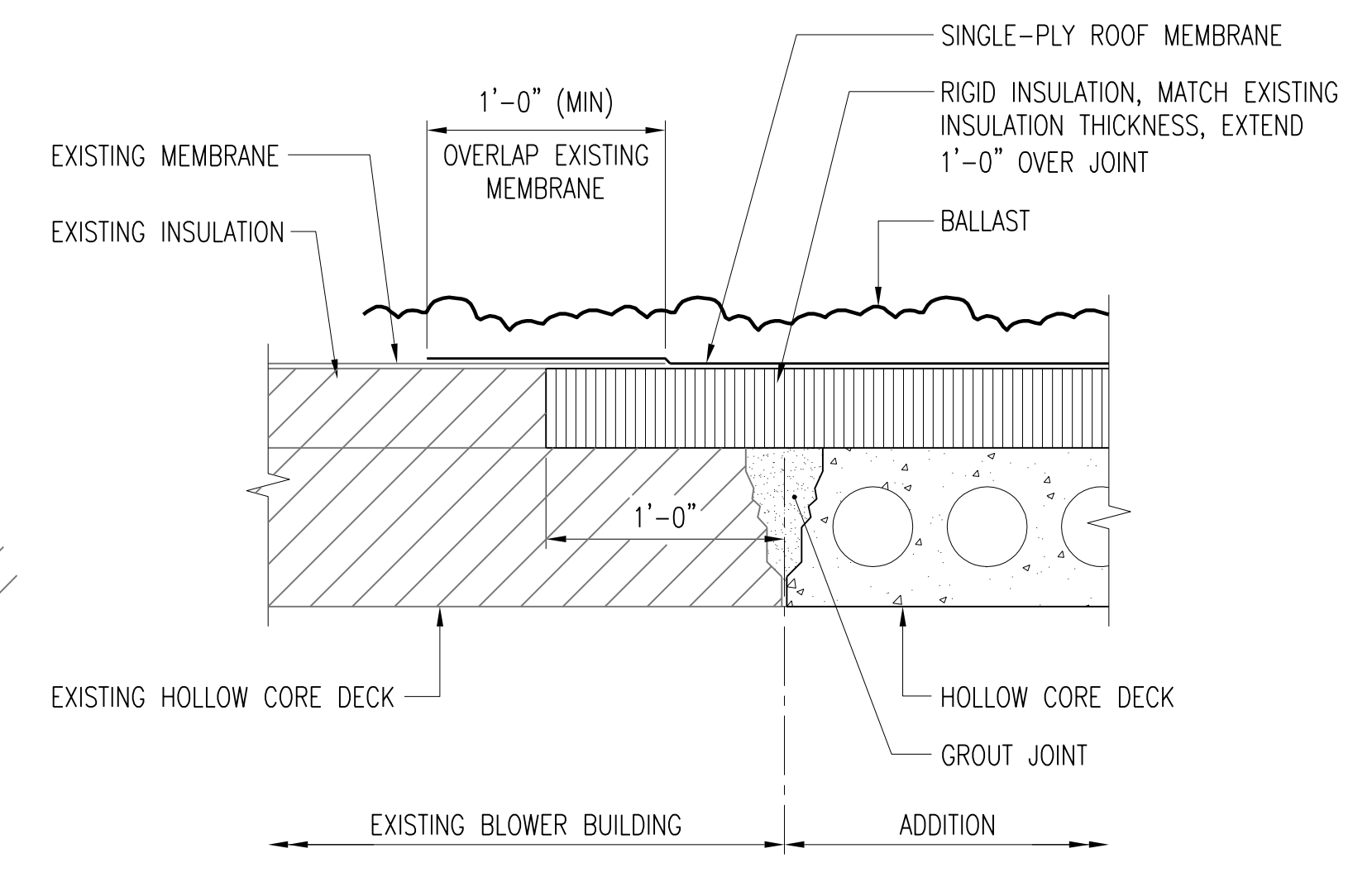
**BLOWER BUILDING
MECHANICAL DEMOLITION
PLAN AND SECTIONS**

DESIGNED	AM ROMERO/JL LEE	SCALE: 1/4"=1'-0"	REV.
DRAWN	LJ OSBORN	NO. 22800	
CHECKED	AM ROMERO	D422	
APPROVED	JM BRADY	3	
DATE	DECEMBER 2, 2011		



ROOF PLAN NOTES:

1. ROOF CONSTRUCTION: BALLAST ON SINGLE-PLY ROOF MEMBRANE ON RIGID INSULATION ON 8" HOLLOW CORE DECK (MATCH EXISTING ROOF).
2. COORDINATE ACTUAL LOCATIONS AND SIZE OF CURBS, PENETRATIONS, AND EQUIPMENT WITH STRUCTURAL AND MECHANICAL DRAWINGS.
3. MINIMUM SLOPE = 1/4" PER FOOT (MATCH EXISTING).
4. PIPE PENETRATIONS SMALLER THAN 6" MAY NOT BE SHOWN. COORDINATE WITH DISCIPLINE DRAWINGS.
5. SOME MISCELLANEOUS ROOF PENETRATIONS NOT SPECIFICALLY SHOWN ON THIS PLAN SHALL BE FLASHED AND SEALED ACCORDING TO DETAILS SHOWN, AND PER ROOFING MANUFACTURER'S RECOMMENDED GUIDE DETAILS.
6. PROVIDE ADDITIONAL CRICKETS/SADDLES AS REQUIRED AT CURBS TO ALLOW FOR DRAINAGE.
7. SEE DRAWING A4 FOR TYPICAL ROOF CONSTRUCTION DETAILS.
8. SEE DRAWING D420 FOR ARCHITECTURAL DEMOLITION WORK.



ROOF JOINT AT EXISTING HOLLOW CORE DECK

SECTION A-A420
SCALE: 1 1/2" = 1'-0"

SEE RFI #42 SHEET A402-A

FLOOR PLAN NOTES:

1. EXTERIOR WALL CONSTRUCTION ABOVE GRADE (MATCH EXISTING): 4" FACE BRICK AIR SPACE 1 1/2" RIGID INSULATION (R=8) 8" CMU (12" CMU AT EAST WALL) - SOUNDBLOX ACOUSTICAL SOUND ABSORBING MASONRY (MATCH EXISTING)
2. MASONRY WALL REINFORCING - #6@32 TYPICAL; #7@8 BETWEEN DOORS.
3. MASONRY CONTROL JOINTS: LOCATE WHERE SHOWN ON PLANS AND BUILDING ELEVATIONS. SEE DETAILS ON DRAWING A3.
4. WALL PENETRATIONS: ALL PENETRATIONS SHALL BE SEALED - FULL GROUT IN PLACE MASONRY. ALLOW FOR EXPANSION WHEN REQUIRED OR AS INDICATED BY OTHER DISCIPLINES.
5. SEE DRAWING A3 FOR TYPICAL WALL CONSTRUCTION DETAILS.
6. SEE DRAWING A1 FOR INTERIOR FINISH SCHEDULE.
7. SEE DRAWING A1 FOR OPENING SCHEDULE.
8. COORDINATE LOCATION OF EQUIPMENT WITH MECHANICAL.
9. SEE DRAWING D420 FOR ARCHITECTURAL DEMOLITION WORK.

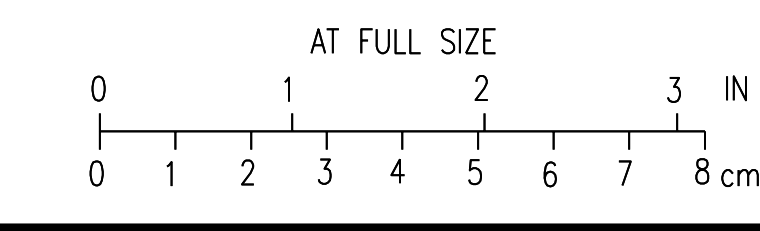
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REV FL SLAB JT, FL NOTE 2, & SECT	GAL	GAL	DS	01-25-2012
1	ISSUED FOR CONSTRUCTION	GAL	GAL	DS	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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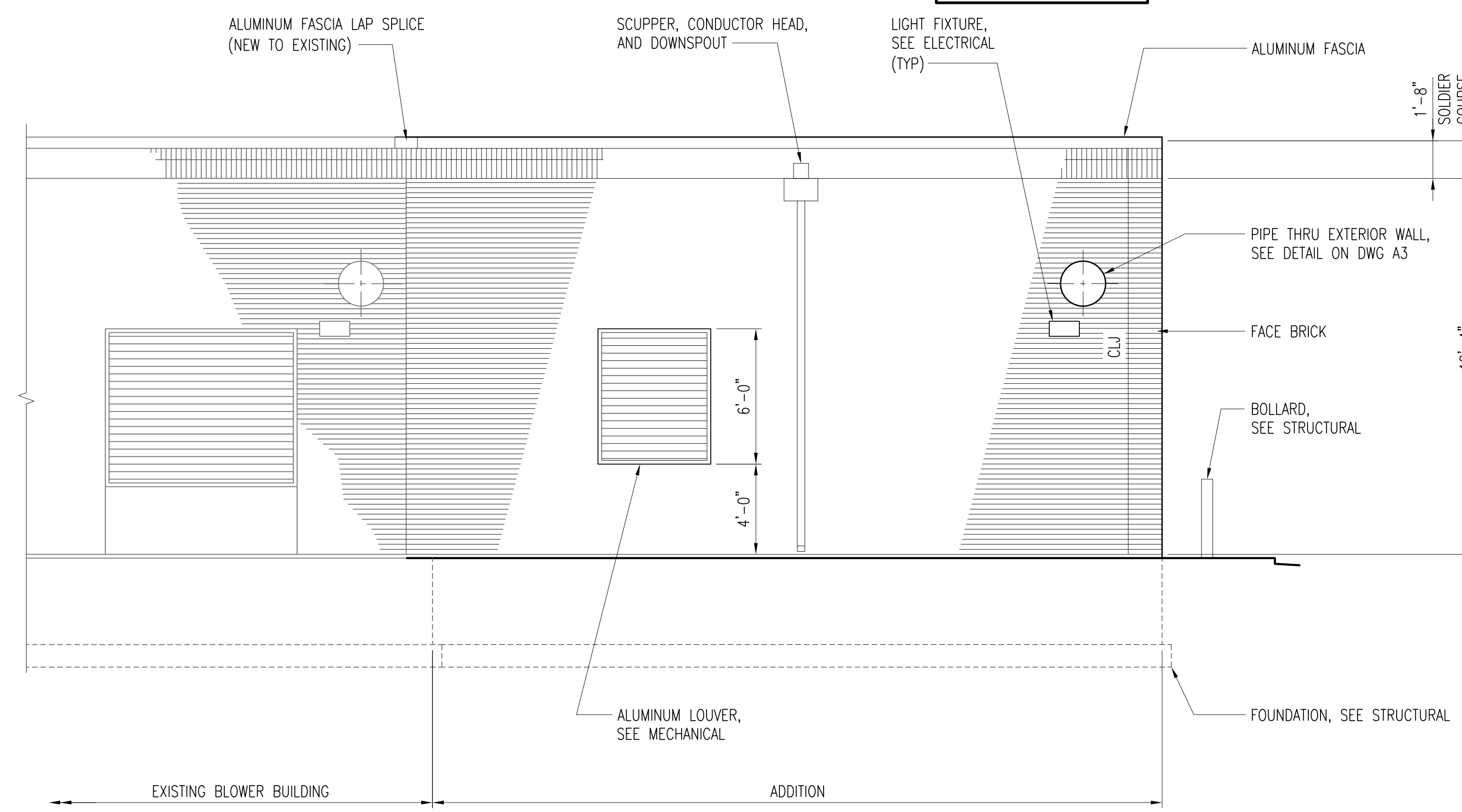
**BLOWER BUILDING
FLOOR AND ROOF PLANS**

DESIGNED	GA LUDWIG	SCALE: AS NOTED
DRAWN	DA HUMISTON	NO. 22800
CHECKED	GA LUDWIG	REV.
APPROVED	D SARKAR	A420
APPROVED		3
DATE	DECEMBER 2, 2011	

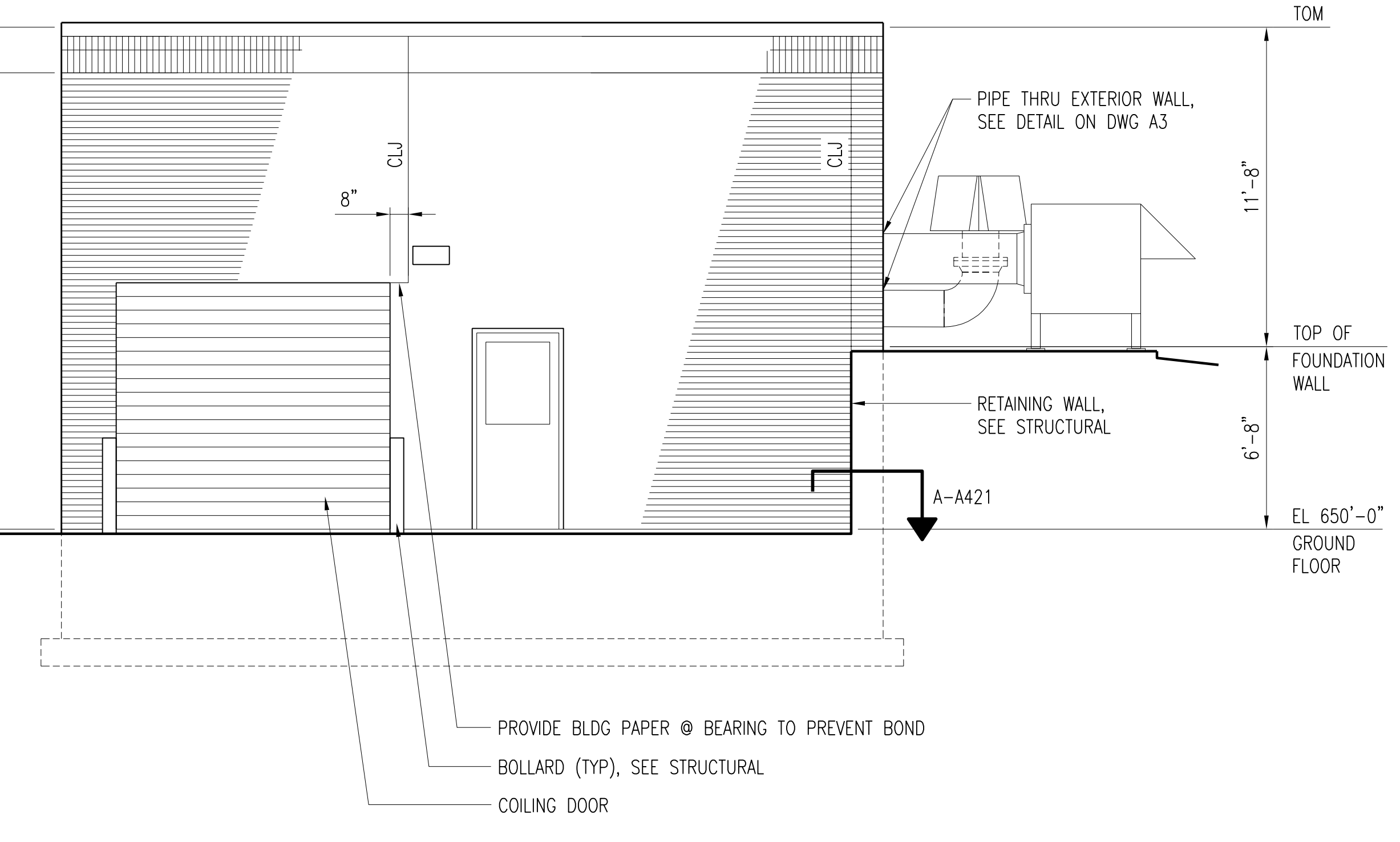


CAD: D1-14

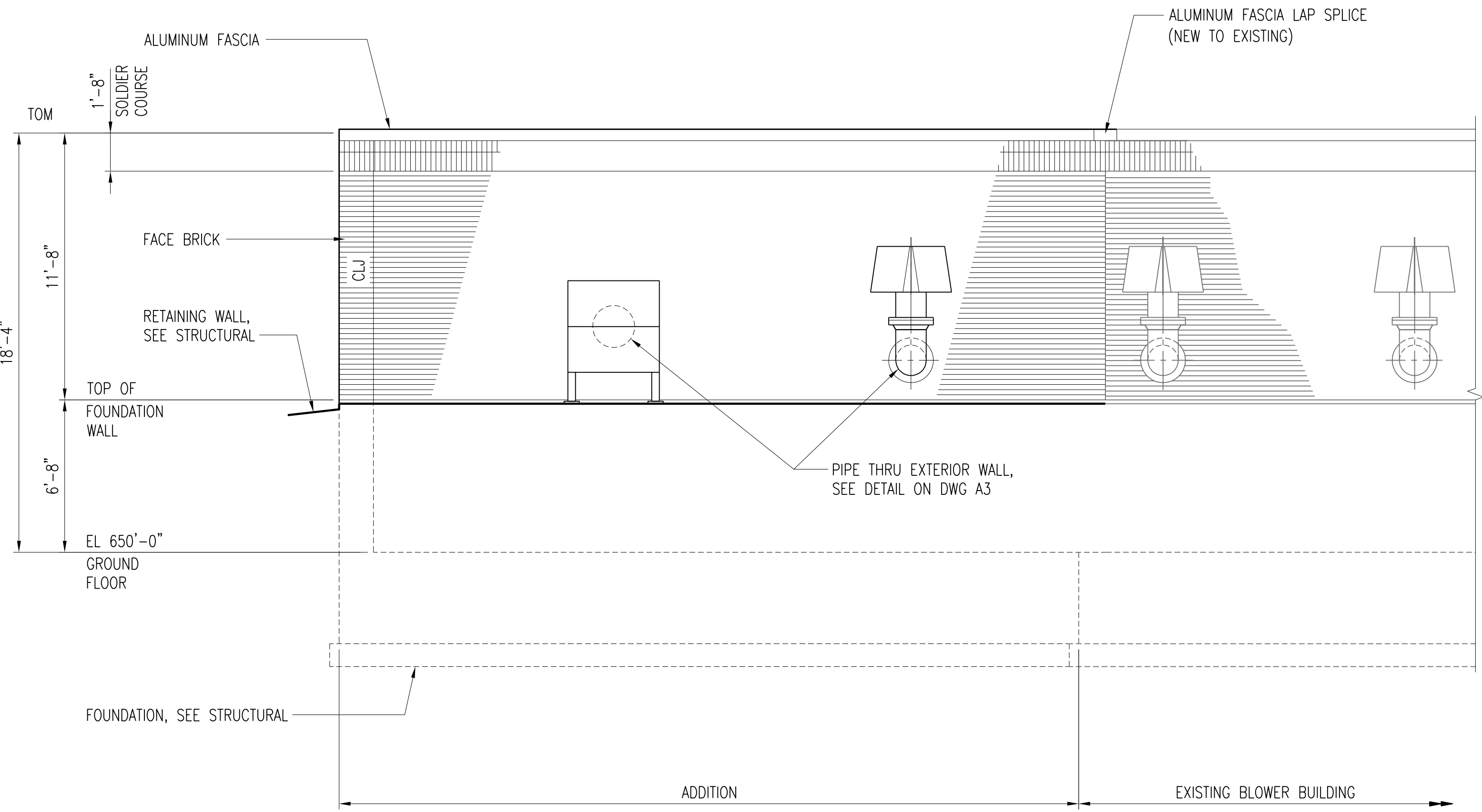
SEE RFI #110 SHEET A421-A



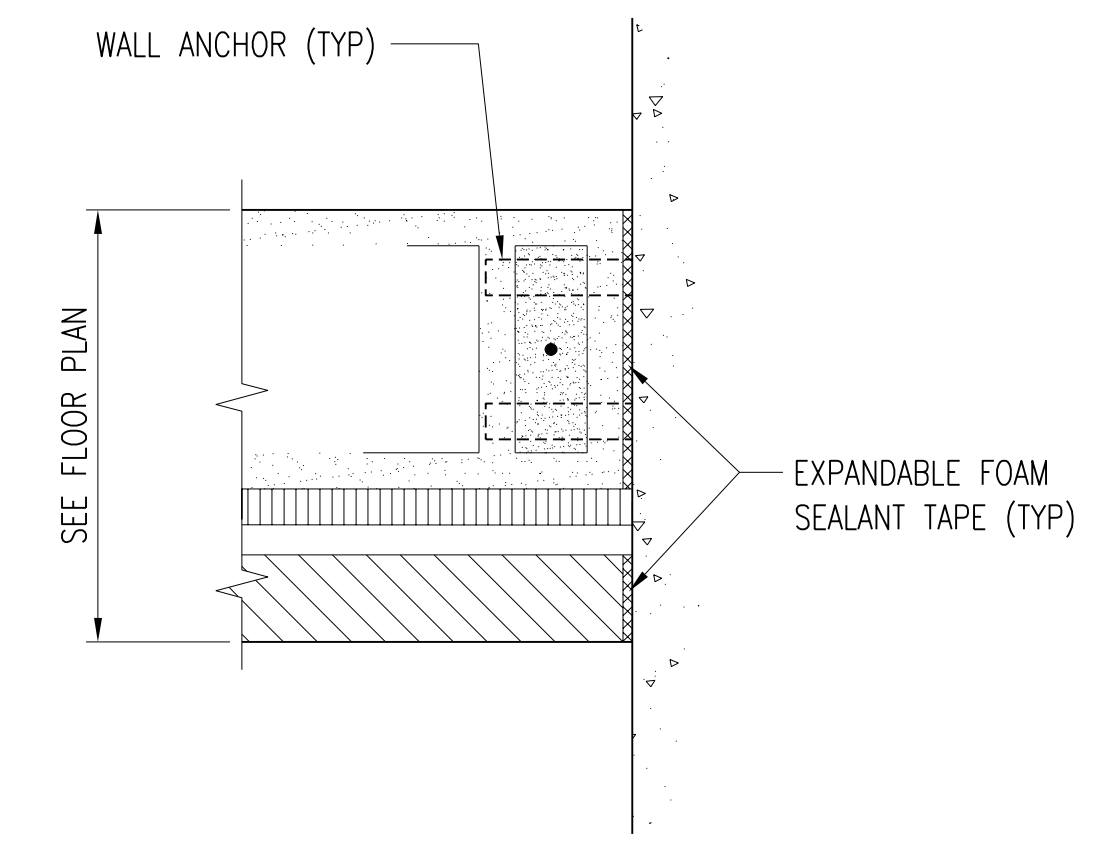
SOUTH ELEVATION
 SCALE: 1/4" = 1'-0"



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



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



MASONRY WALL AT FOUNDATION/RETAINING WALL
SECTION A-A421
 SCALE: 1 1/2" = 1'-0"

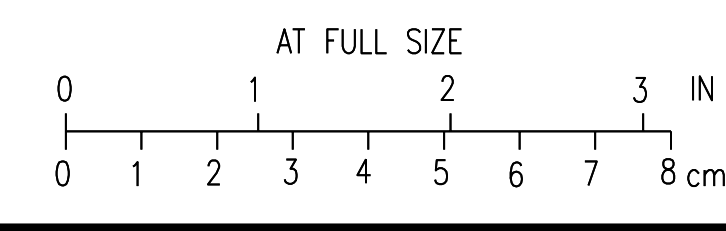
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REV PIPE THRU WALL SOUTH/EAST EL	GAL	GAL	DS	01-25-2012
1	ISSUED FOR CONSTRUCTION	GAL	GAL	DS	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

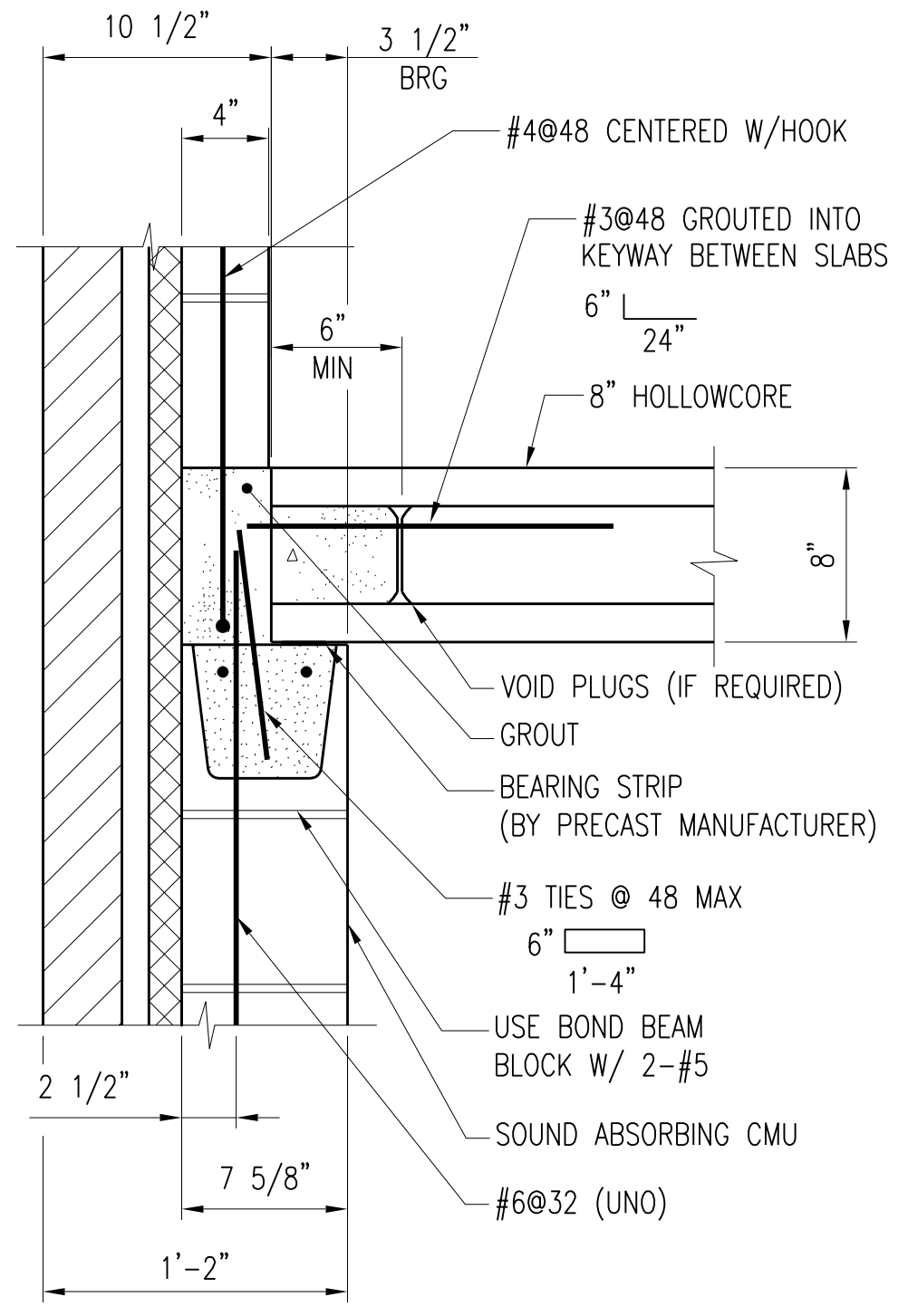
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CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

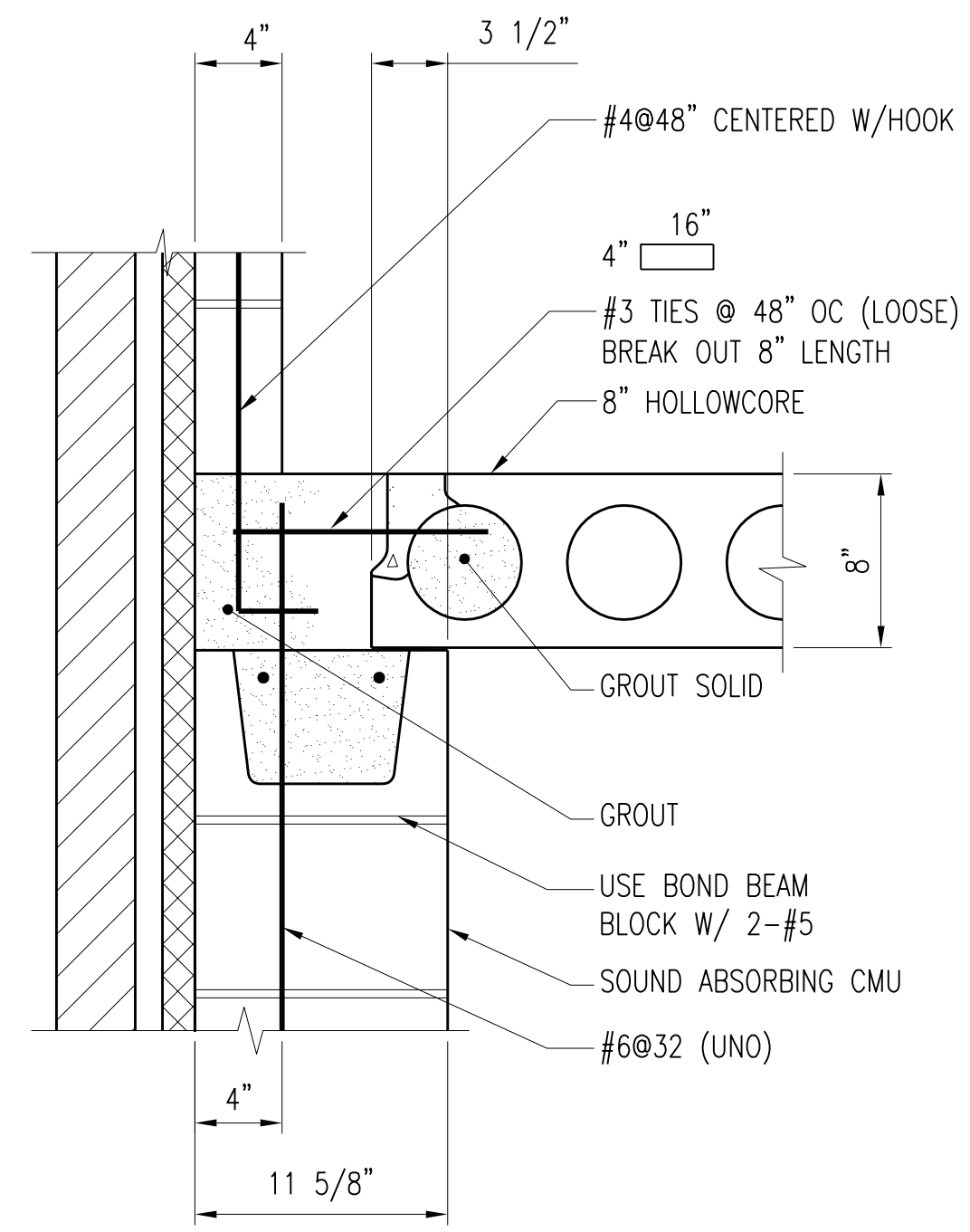
**BLOWER BUILDING
 BUILDING ELEVATIONS**

DESIGNED	GA LUDWIG	SCALE:	AS NOTED
DRAWN	DA HUMISTON	NO.	22800
CHECKED	GA LUDWIG	REV.	
APPROVED	D SARKAR	A421	3
DATE	DECEMBER 2, 2011		

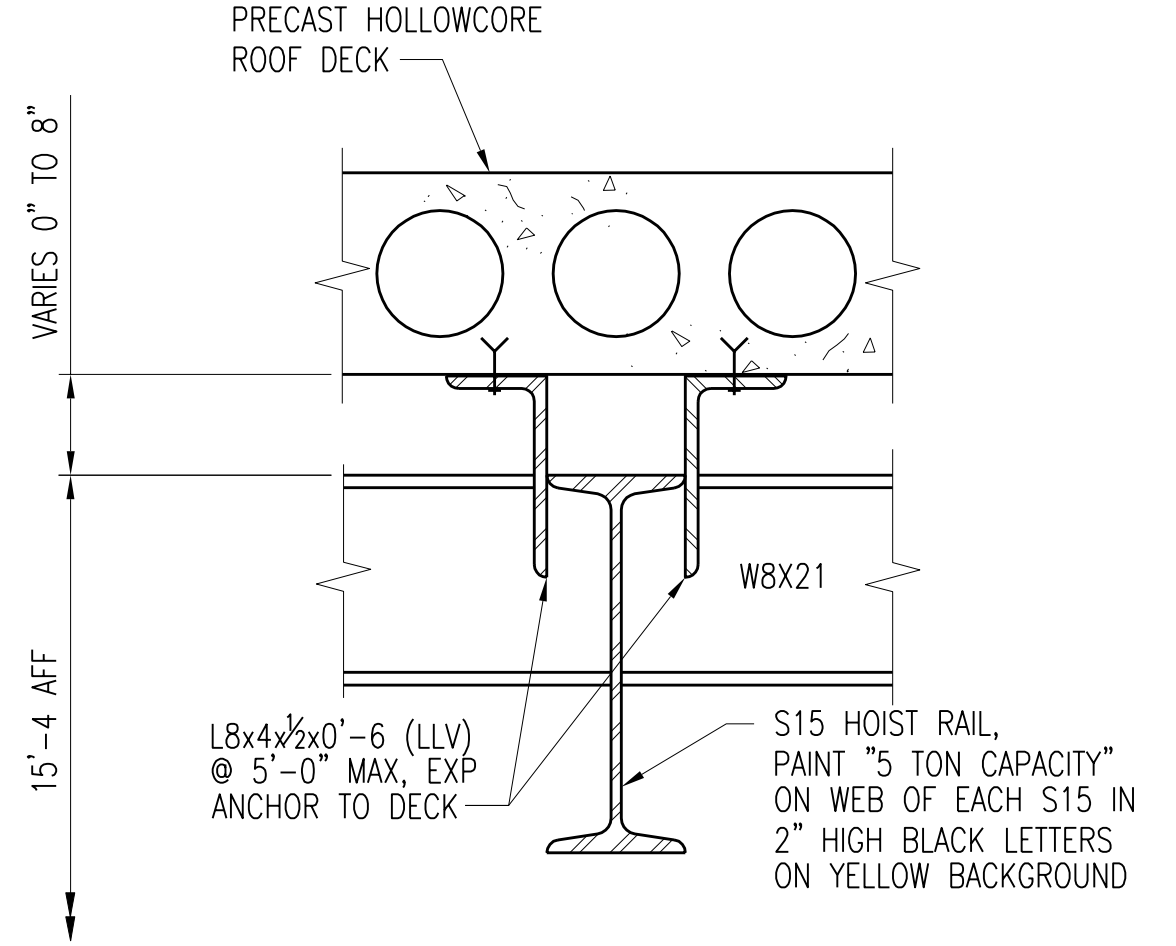




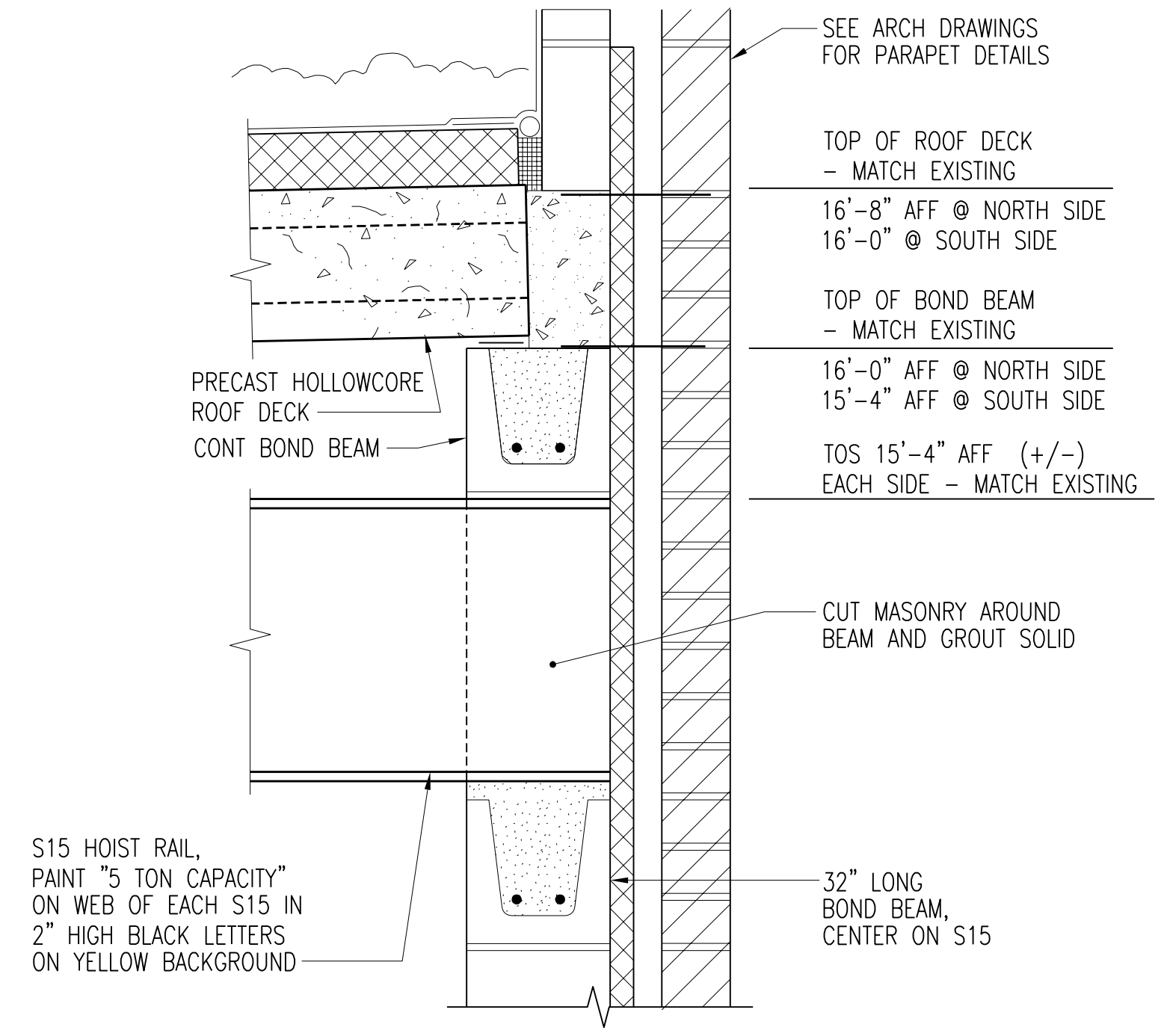
SECTION A-S421
S420
SCALE: 1 1/2" = 1'-0"



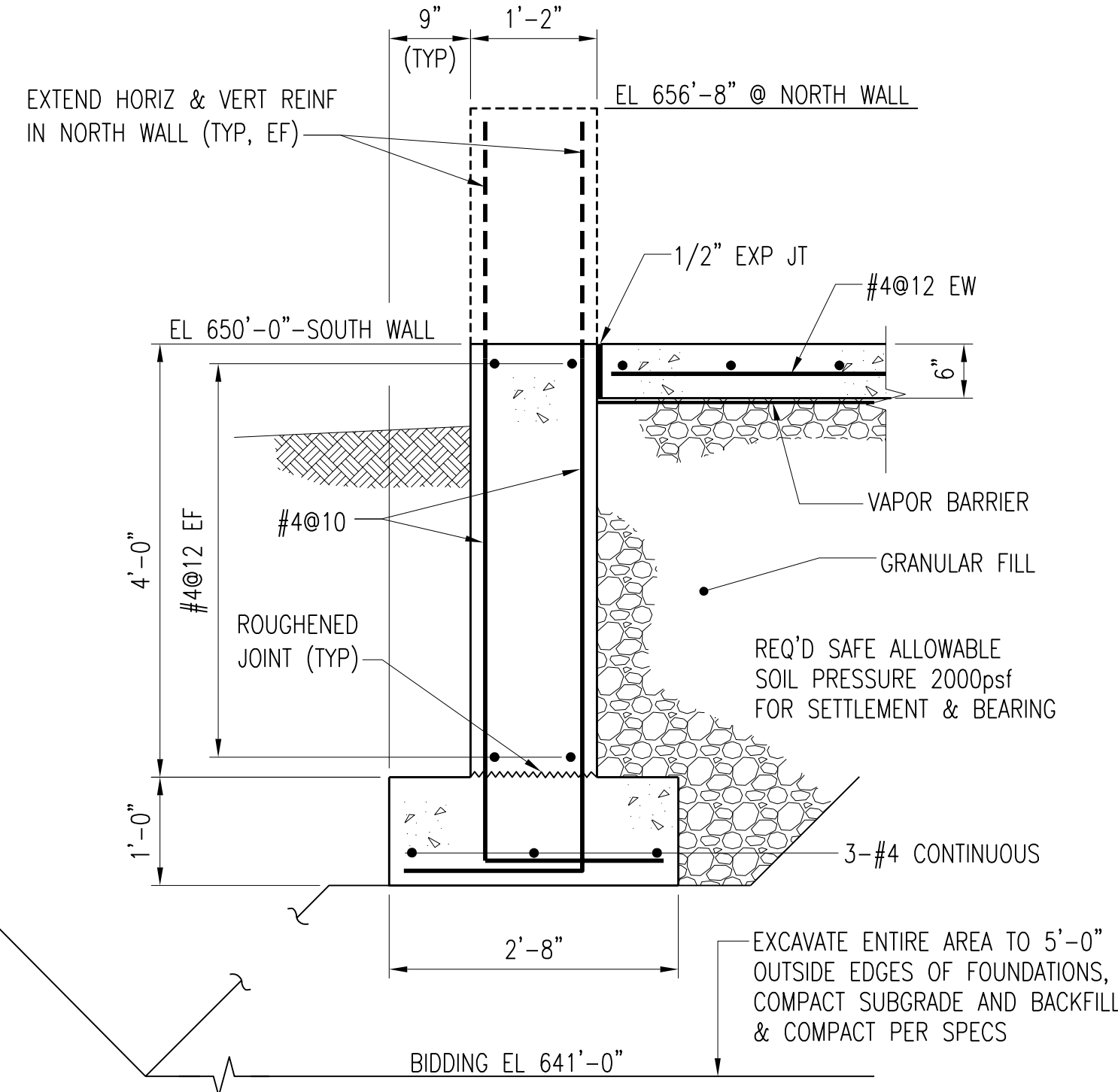
SECTION B-S421
S420
SCALE: 1 1/2" = 1'-0"



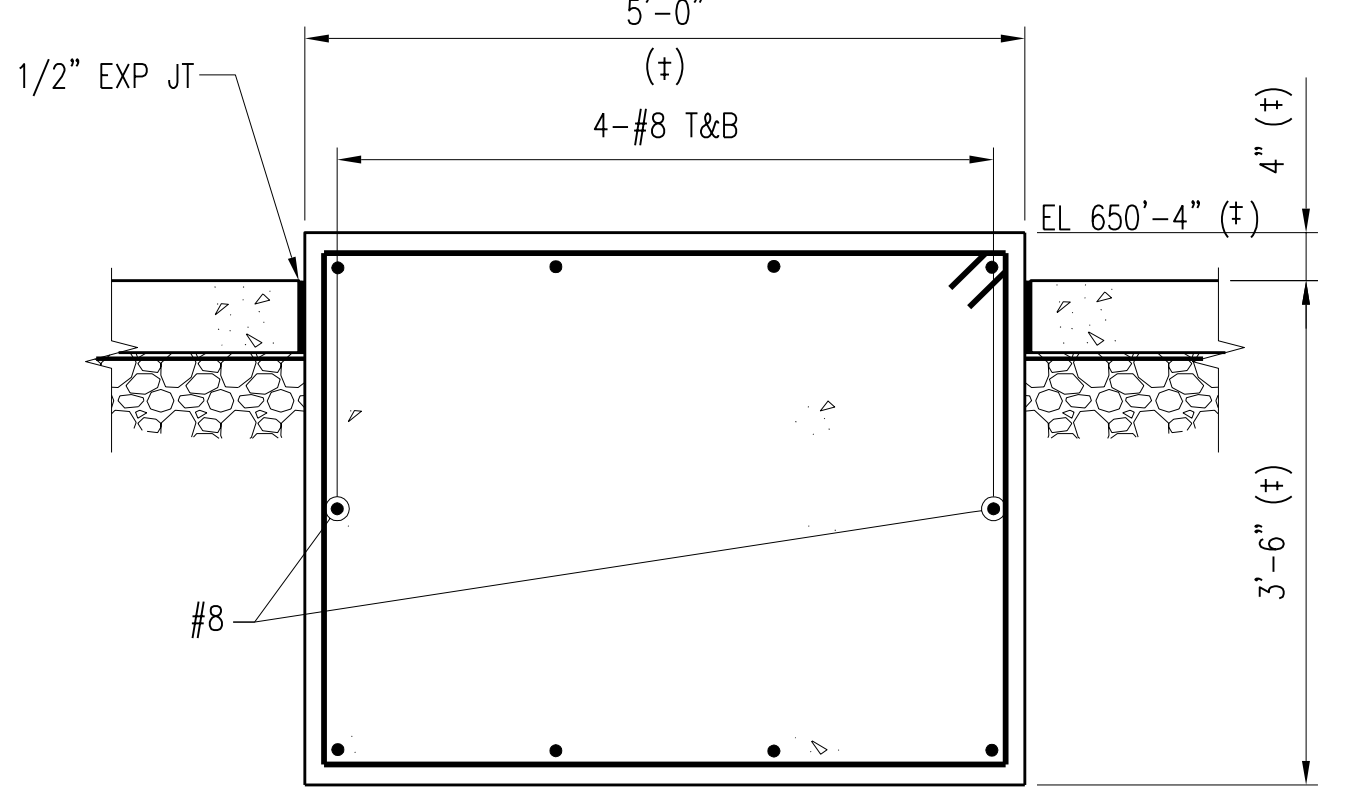
SECTION C-S421
S420
SCALE: 1 1/2" = 1'-0"



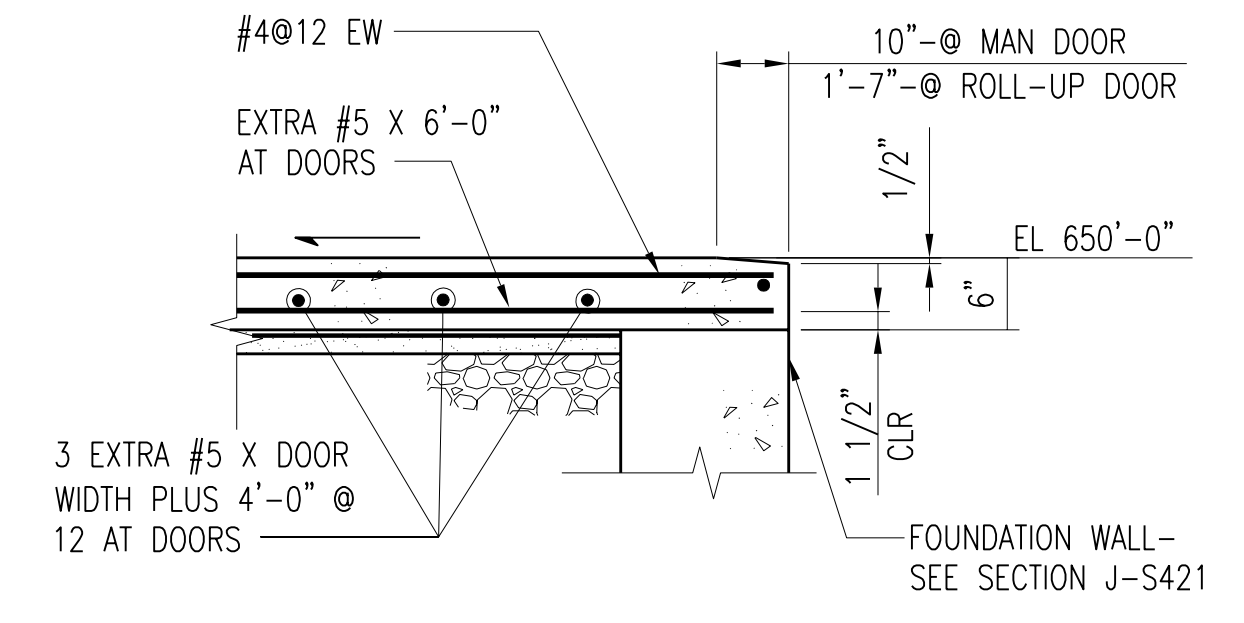
SECTION D-S421
S420
SCALE: 1 1/2" = 1'-0"



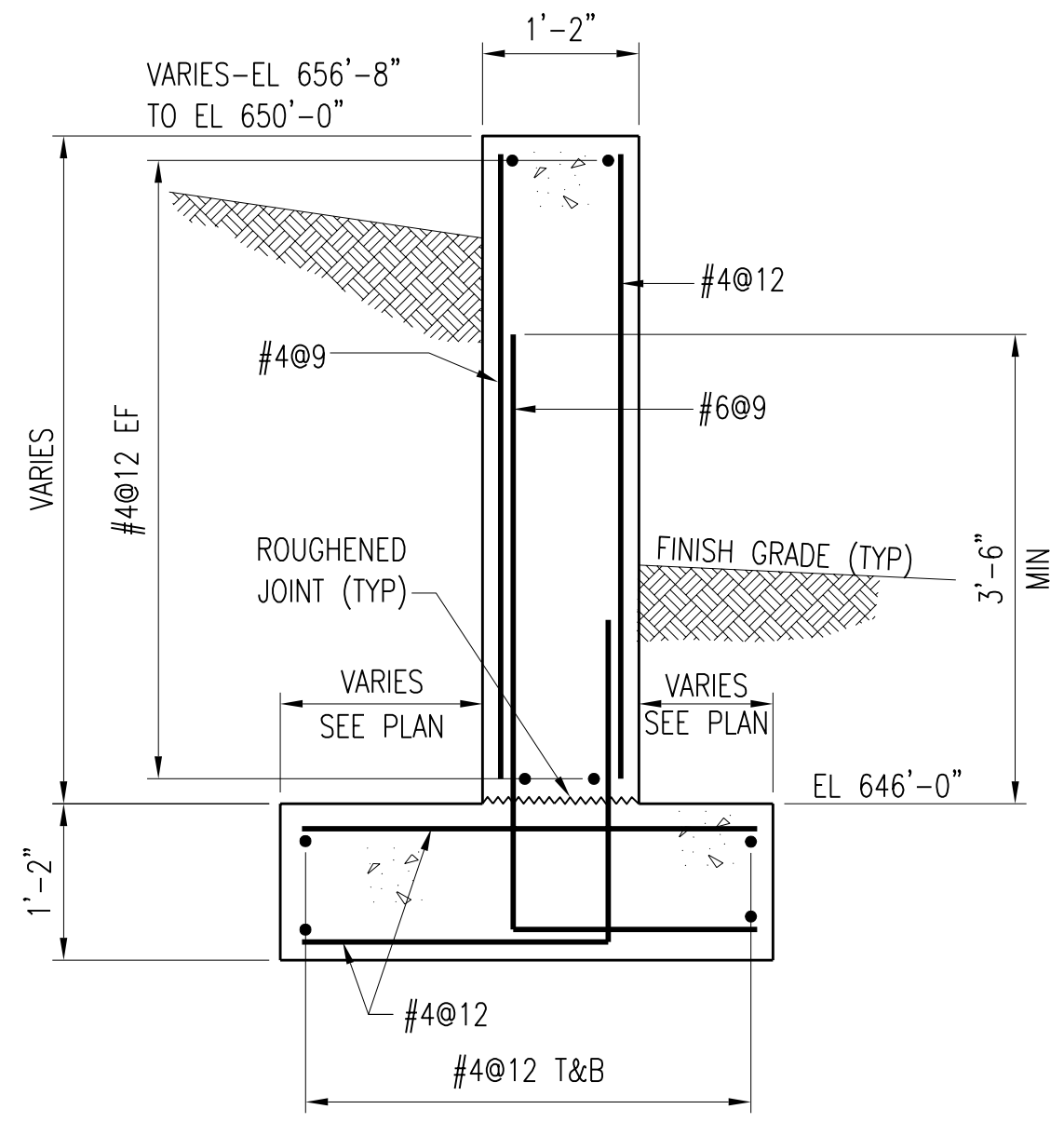
SECTION E-S421
S420
SCALE: 3/4" = 1'-0"



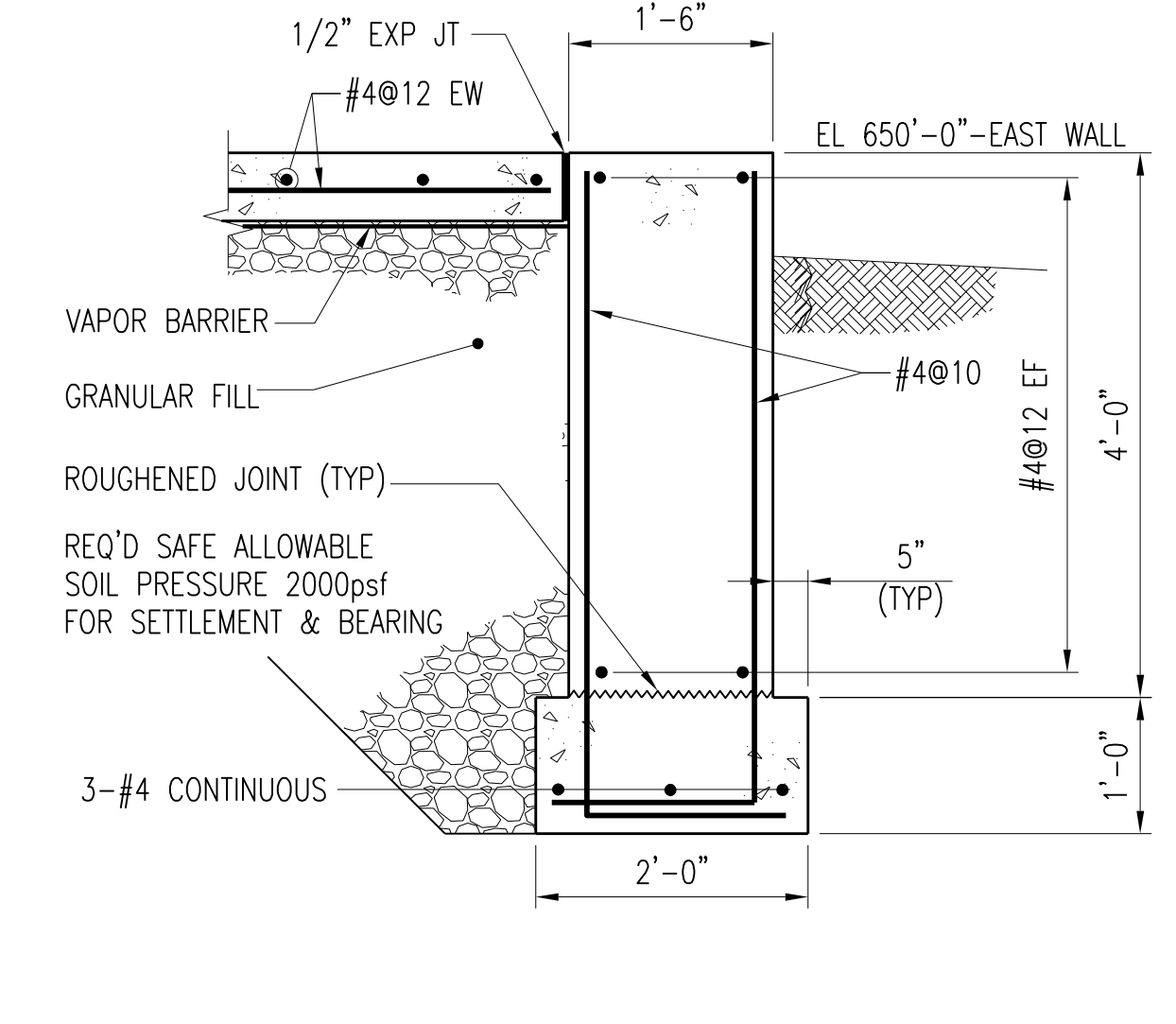
SECTION F-S420
S421
SCALE: 3/4" = 1'-0"



SECTION G-S421
S420
SCALE: 3/4" = 1'-0"



SECTION H-S421
S420
SCALE: 3/4" = 1'-0"



SECTION J-S421
S420
SCALE: 3/4" = 1'-0"

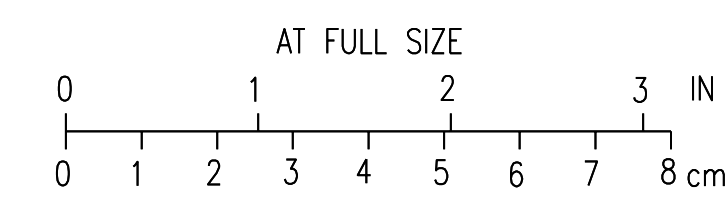
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED AND REISSUED	KBH	KBH	LHB	01-25-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



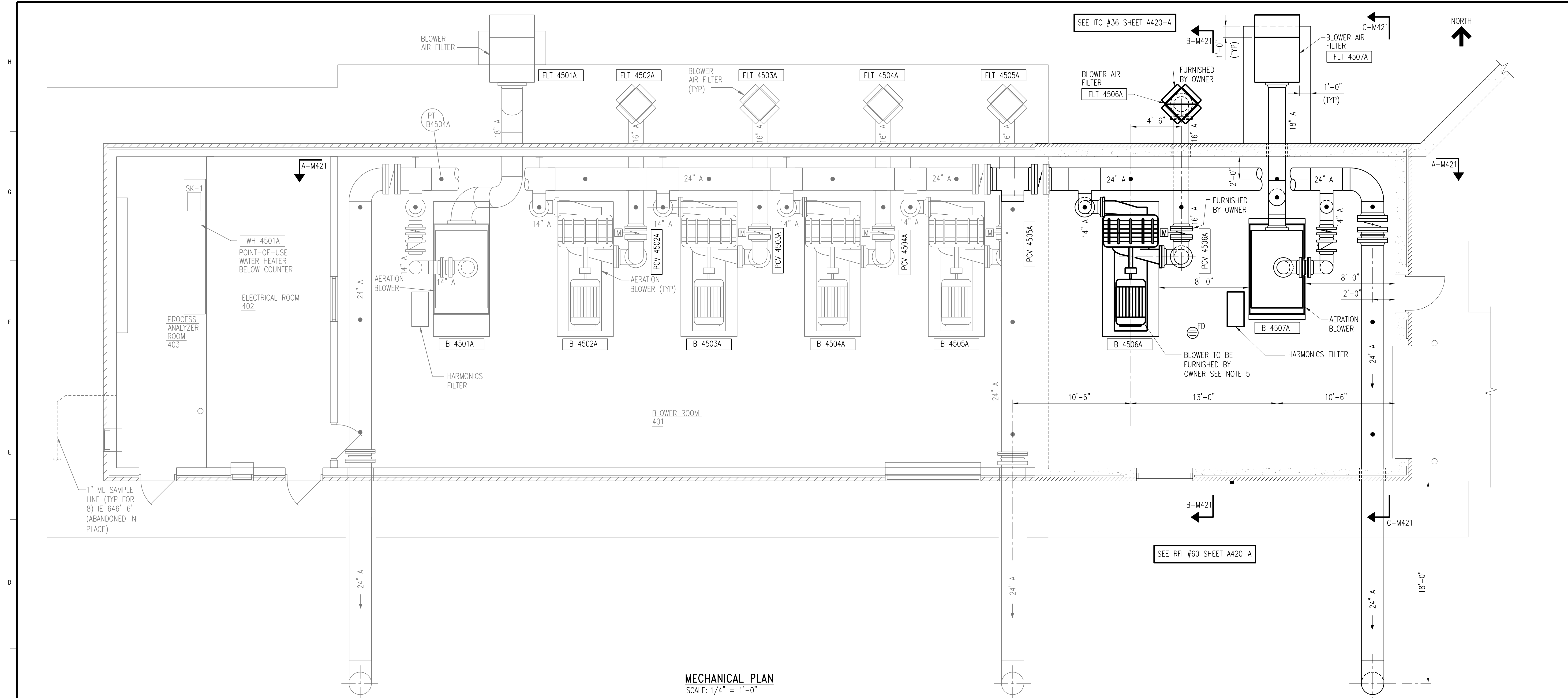
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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**BLOWER BUILDING
DETAILS**

DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
DATE	DECEMBER 2, 2011		



CADD: D:\1-14



NOTES:

1. INSTALL NEW NAMEPLATES ON EXISTING BLOWERS AND ASSOCIATE EQUIPMENT TO INDICATE NEW EQUIPMENT TAG NUMBERS.
2. SEE DRAWING C14 FOR BUILDING LOCATION.
3. SEE DRAWING C34 FOR CONTINUATION OF SITE PIPING.
4. SEE DRAWING M401 FOR CONTINUATION OF AIR PIPING.
5. INSTALL OWNER FURNISHED LAMSON 6250 SCFM CENTRIFUGAL AERATION BLOWER.

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED PIPE SIZE AND NOTES	AMR	AMR	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	AMR	AMR	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

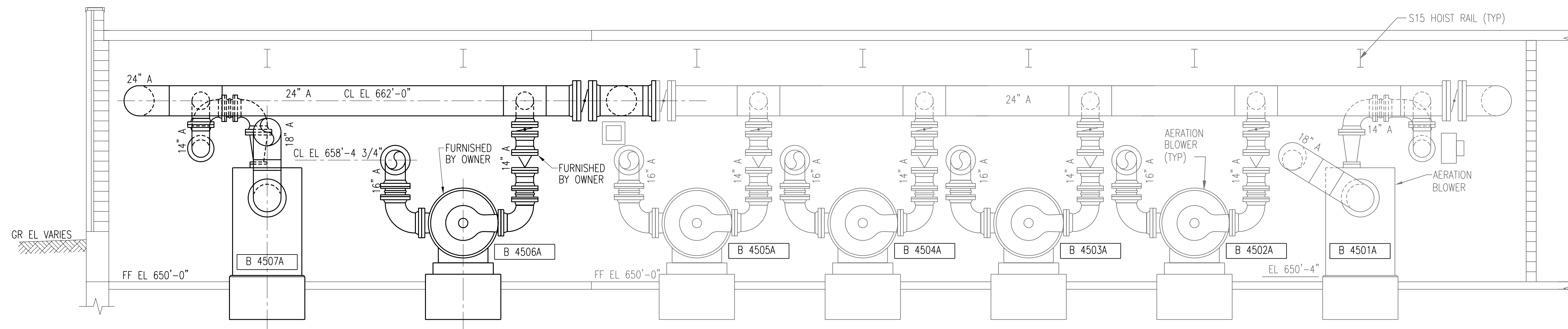
**BLOWER BUILDING
PROCESS PIPING PLAN**

DESIGNED	AM ROMERO	SCALE:	AS NOTED
DRAWN	LJ OSBORN	NO.	22800
CHECKED	AM ROMERO	REV.	
APPROVED	JM BRADY		
DATE	DECEMBER 2, 2011	M420	3

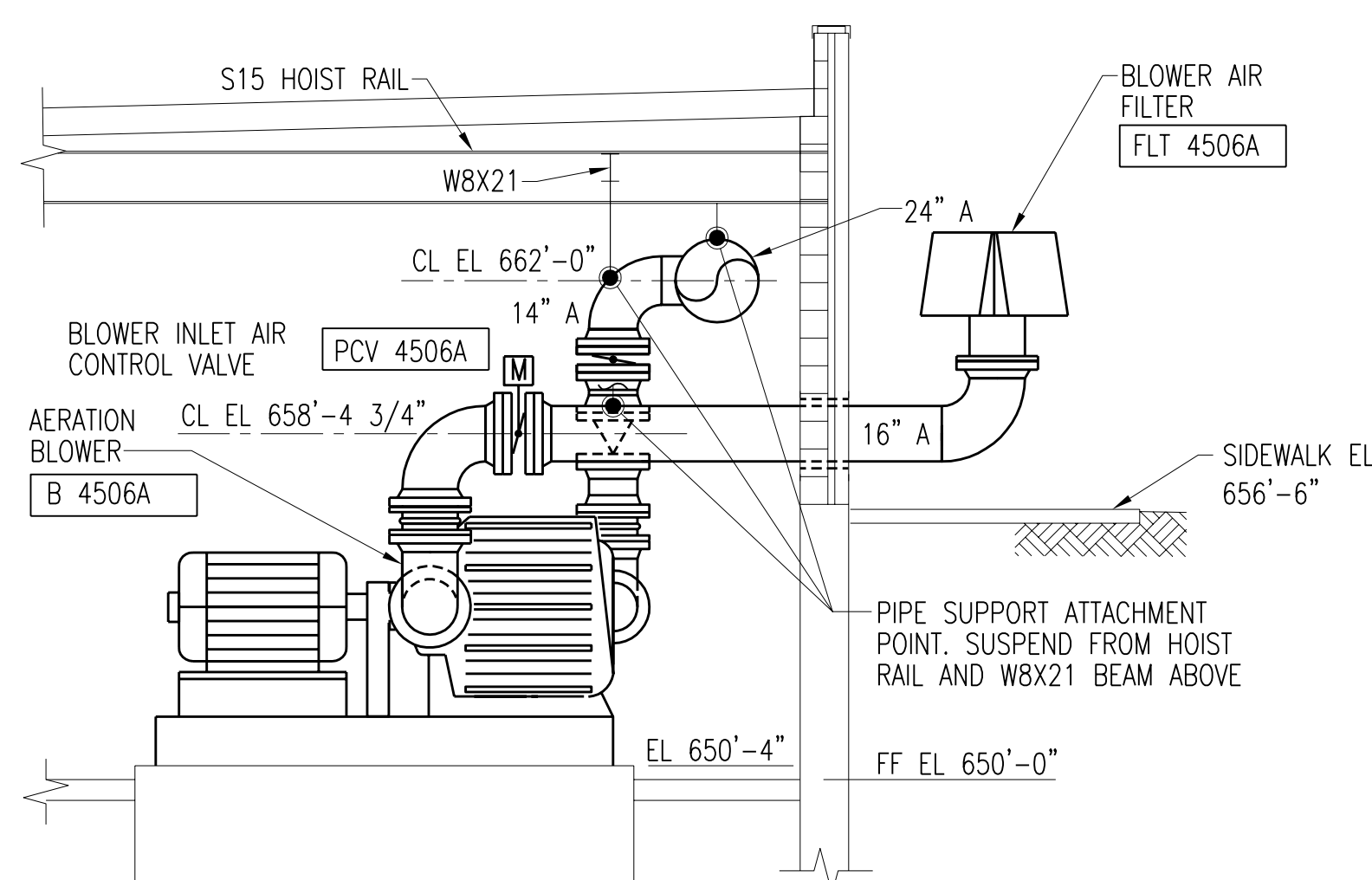


NOTES:

1. SEE DRAWING C14 FOR STRUCTURE LOCATION.
2. SEE DRAWING M401 FOR CONTINUATION OF AIR PIPING.
3. PROVIDE EQUIPMENT PAD WITH FOOTINGS EXTENDING BELOW FROST DEPTH BENEATH BLOWER AIR FILTER FLT 4507A.
4. PROVIDE EXPANSION JOINT IN AIR PIPE BETWEEN BLOWER AIR FILTER FLT 4507A AND BLOWER BUILDING WALL.



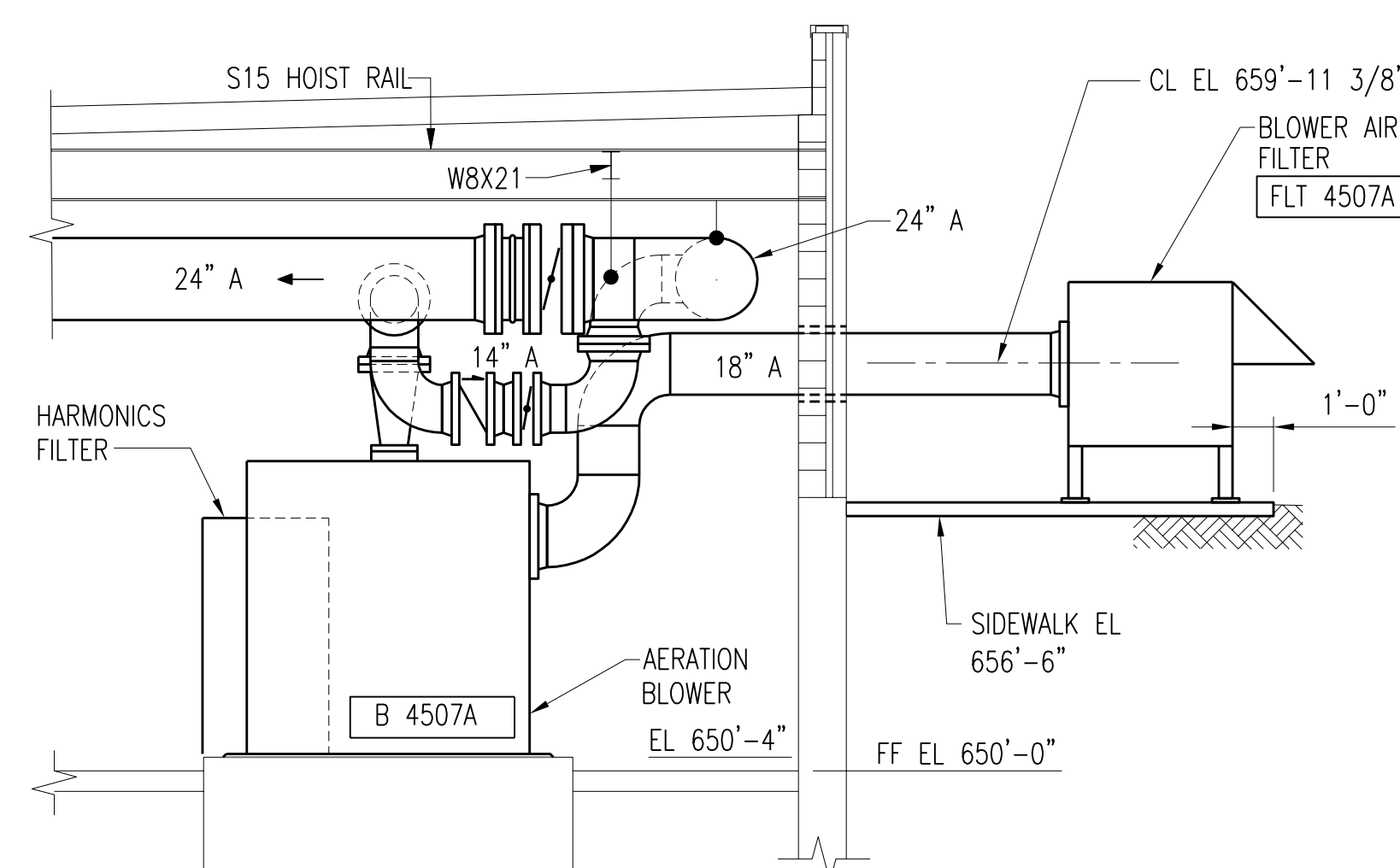
SECTION A-M421
M420
SCALE: 1/4" = 1'-0"



NOTE:

1. AERATION BLOWER, BLOWER AIR FILTER, PRESSURE CONTROL VALVE, AND CHECK VALVE TO BE FURNISHED BY OWNER.

SECTION B-M421
M420
SCALE: 1/4" = 1'-0"



NOTE:

1. CONTRACTOR TO FIELD VERIFY DIMENSIONS OF EQUIPMENT PAD TO PROVIDE 1' OF OVERHANG BEYOND FOOTPRINT OF FILTER.

SECTION C-M421
M420
SCALE: 1/4" = 1'-0"

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
4	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
3	ADDED ADDENDUM COMMENT	LJO	JBL	JBL	05-04-2012
2	REVISED PIPE SIZE AND NOTES	AMR	AMR	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	AMR	AMR	JMB	01-10-2012



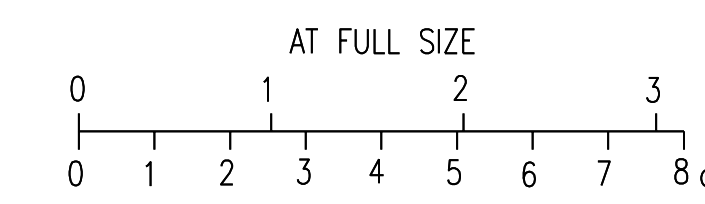
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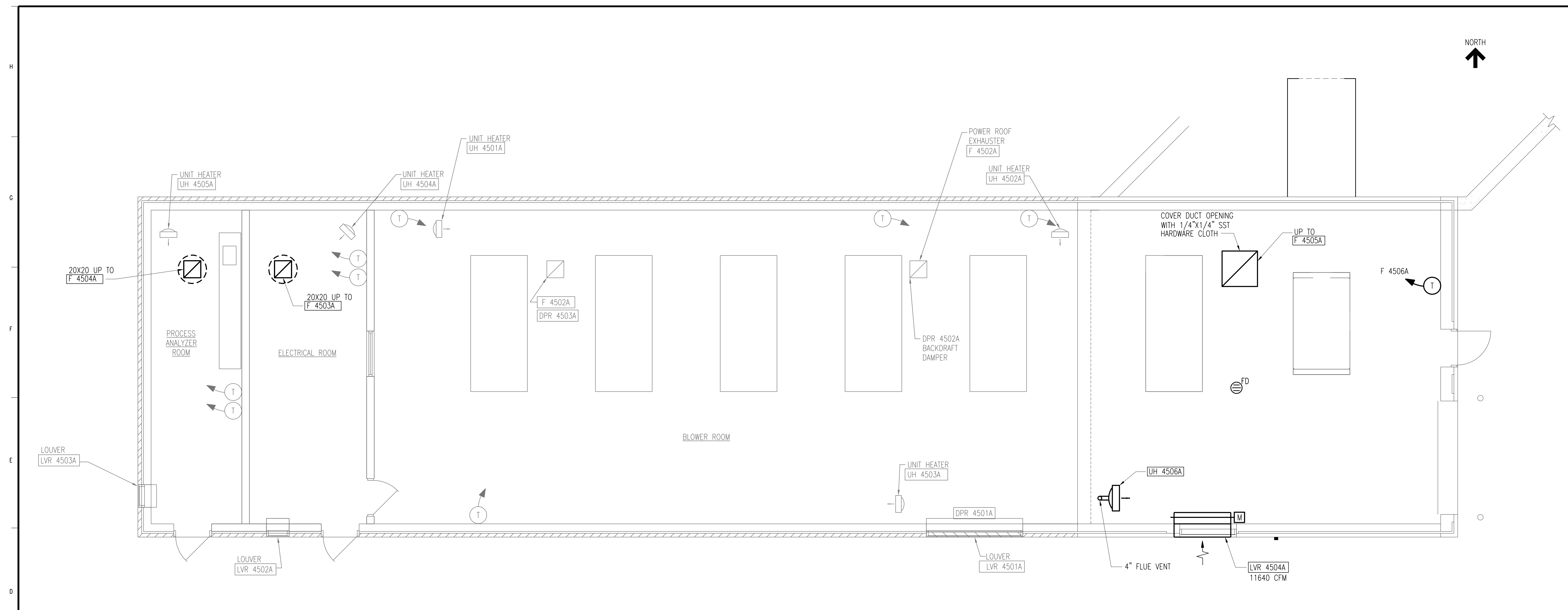
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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**BLOWER BUILDING
PROCESS PIPING SECTIONS AND DETAILS**

DESIGNED	AM ROMERO	SCALE:	AS NOTED
DRAWN	LJ OSBORN	NO.	22800
CHECKED	AM ROMERO	REV.	
APPROVED	JM BRADY		
DATE	DECEMBER 2, 2011	M421	3





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

SEQUENCE OF OPERATION

1. CONTROL OF HVAC FUNCTIONS OF FOLLOWING EQUIPMENT:
 - A. UNIT HEATERS (UH):
 - i. UH 4506A
 - B. EXHAUST FANS (F):
 - i. F 4505A
2. GENERAL REQUIREMENTS:
 - A. HVAC SYSTEMS SHALL BE CONTROLLED BY HVAC CONTROL SYSTEM AND REMOTE THERMOSTATS.
 - B. REMOTE THERMOSTATS SHALL BE PROGRAMMABLE ELECTRONIC WITH BATTERY BACKUP; WITH 7 SEPARATE PROGRAMMABLE DAYS AND NIGHT SETBACK; WITH MULTIPLE STAGES OF HEATING AND COOLING BASED ON REQUIRED SEQUENCE OF CONTROL; AND WITH HEATING-COOLING SELECTOR SWITCH.
 - C. SET POINTS LABELED AS "ADJUSTABLE" SHALL BE FULLY ADJUSTABLE.
 - D. ALARM REPORTING SHALL BE DONE AT PANEL ASSOCIATED WITH EQUIPMENT.
3. NORMAL CONTROL POSITIONS:
 - A. NORMAL POSITIONS OF CONTROLLED DEVICES SHALL BE POSITION DEVICE RETURNS TO ON POWER FAILURE OR CONTROLLER FAILURE. NORMAL POSITIONS SHALL BE AS FOLLOWS.
 - i. MOTORIZED OUTSIDE AIR DAMPER: CLOSED
4. EXHAUST FAN CONTROL:
 - A. EXHAUST FAN F 4505A SERVING BLOWER ROOM SHALL BE CONTROLLED BY WALL-MOUNTED THERMOSTAT.
 - i. WHEN SPACE TEMPERATURE RISES ABOVE SETPOINT (80°F, ADJUSTABLE), MOTORIZED CONTROL DAMPER FOR LOUVER LVR 4504A SHALL OPEN AND EXHAUST FAN F 4505 SHALL START. WHEN SPACE TEMPERATURE FALLS BELOW SETPOINT, EXHAUST FAN F 4505 SHALL STOP AND MOTORIZED CONTROL DAMPER FOR LOUVER LVR 4504A SHALL CLOSE.
 - B. EXHAUST FAN F 4503A SERVING ELECTRICAL ROOM SHALL BE CONTROLLED BY WALL-MOUNTED THERMOSTAT.
 - i. WHEN SPACE TEMPERATURE RISES ABOVE SETPOINT (80°F, ADJUSTABLE), MOTORIZED CONTROL DAMPER FOR LOUVER LVR 4502A SHALL OPEN AND EXHAUST FAN F 4503A SHALL START. WHEN SPACE TEMPERATURE FALLS BELOW SETPOINT, EXHAUST FAN F 4503A SHALL STOP AND MOTORIZED CONTROL DAMPER FOR LOUVER LVR 4502A SHALL CLOSE.
 - C. EXHAUST FAN F 4504A SERVING PROCESS ANALYZER ROOM SHALL BE CONTROLLED BY WALL-MOUNTED THERMOSTAT.
 - i. WHEN SPACE TEMPERATURE RISES ABOVE SETPOINT (80°F, ADJUSTABLE), MOTORIZED CONTROL DAMPER FOR LOUVER LVR 4503A SHALL OPEN AND EXHAUST FAN F 4504A SHALL START. WHEN SPACE TEMPERATURE FALLS BELOW SETPOINT, EXHAUST FAN F 4504A SHALL STOP AND MOTORIZED CONTROL DAMPER FOR LOUVER LVR 4503A SHALL CLOSE.
5. GAS-FIRED UNIT HEATER CONTROL:
 - A. UNIT HEATER UH 4506A SHALL BE CONTROLLED BY WALL-MOUNTED THERMOSTAT.
 - i. WHEN ROOM SPACE TEMPERATURE DROPS BELOW SET POINT (60°F, ADJUSTABLE) UH 4506A FAN SHALL START AND GAS HEATER SHALL IGNITE AND MODULATE GAS INPUT TO MAINTAIN ROOM TEMPERATURE SET POINT. WHEN ROOM TEMPERATURE RISES ABOVE SETPOINT, UH 4506A FAN AND GAS BURNER SHALL STOP.

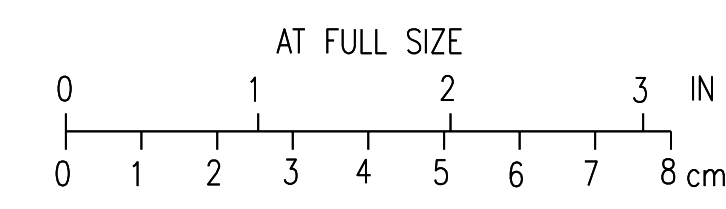
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1	ISSUED FOR CONSTRUCTION	JLL	JJB	JJB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**BLOWER BUILDING
HVAC FLOOR PLAN**

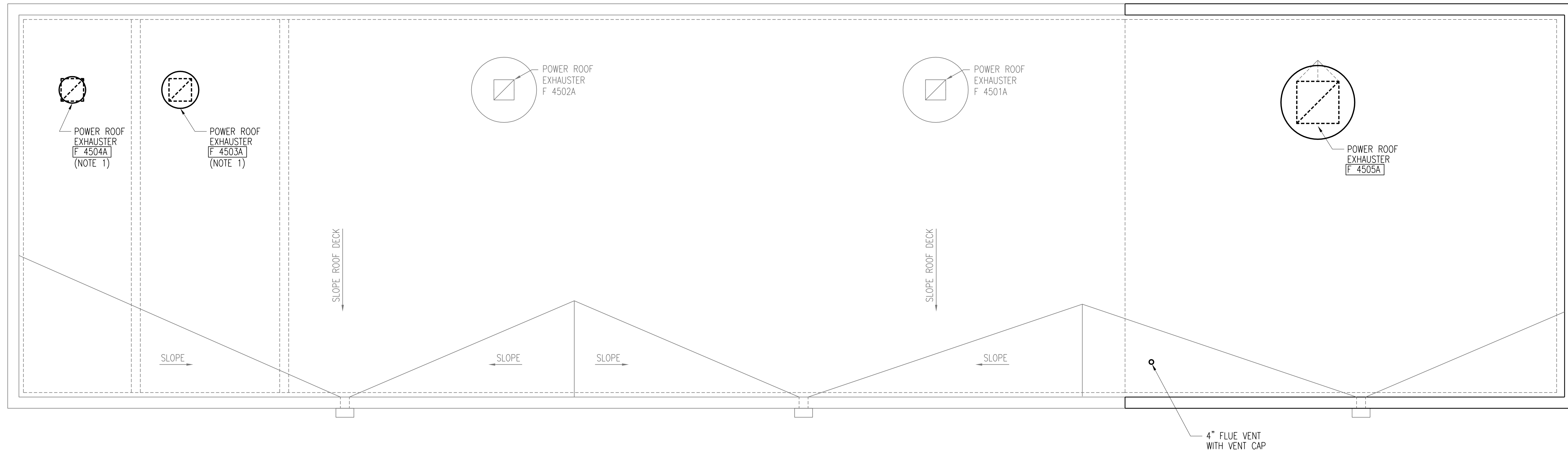
DESIGNED	JL LEE	SCALE:	AS NOTED
DRAWN	D. WILGES	NO.	22800
CHECKED	JJ BOVENKAMP	REV.	
APPROVED	JJ BOVENKAMP	M422	2
DATE	DECEMBER 2, 2011		



CAD D 11-14

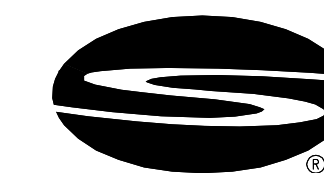
NOTES:

1. PROVIDE ROOF CURB ADAPTER TO MATCH PRE-EXISTING ROOF CURBS.



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

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JLL	JJB	JJB	01-10-2012



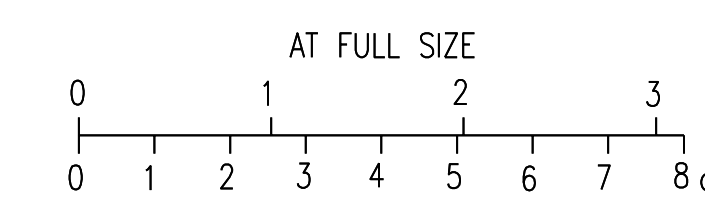
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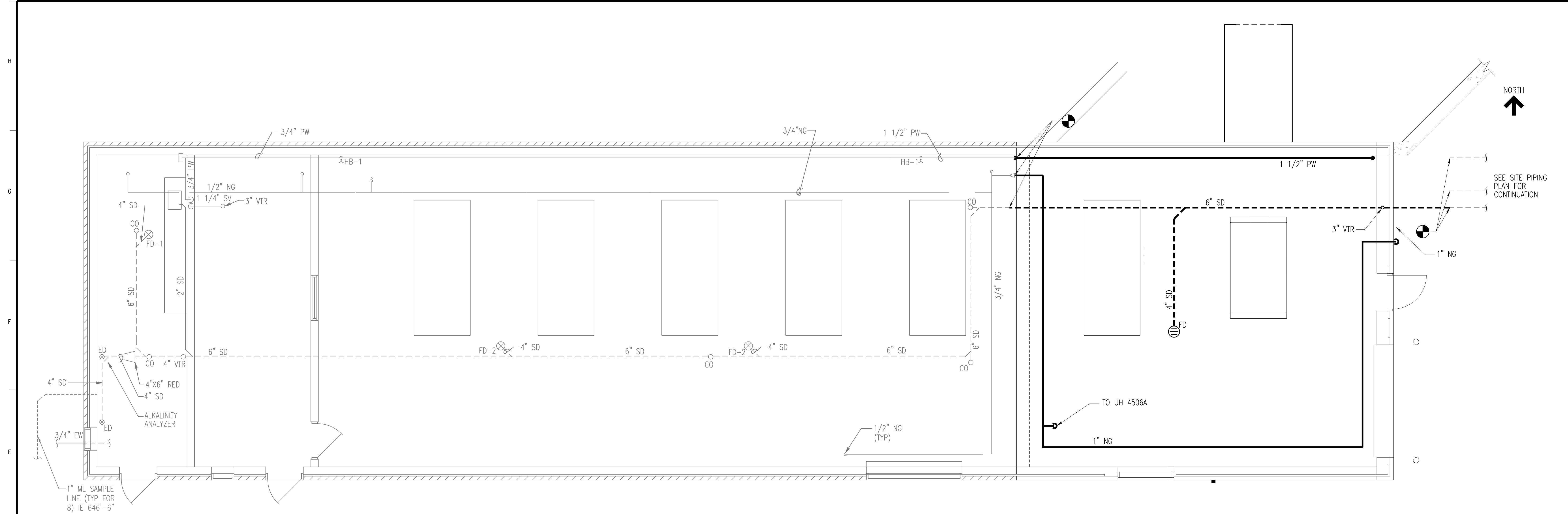
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**BLOWER BUILDING
HVAC ROOF PLAN**

DESIGNED	JL LEE	SCALE:	AS NOTED
DRAWN	D.WILGES	NO.	22800
CHECKED	JJ BOVENKAMP	REV.	
APPROVED	JJ BOVENKAMP		
DATE	DECEMBER 2, 2011	M423	2



CAD: D:\1-14



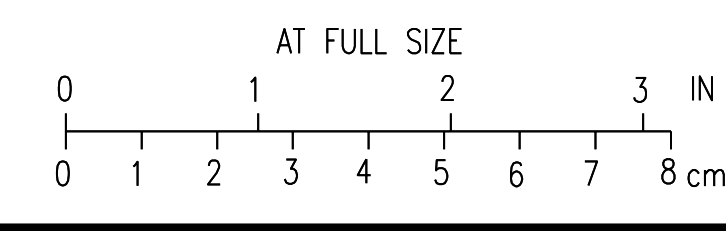
PLUMBING PLAN
SCALE: 1/4" = 1'-0"

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JLL	JJB	JJB	01-10-2012


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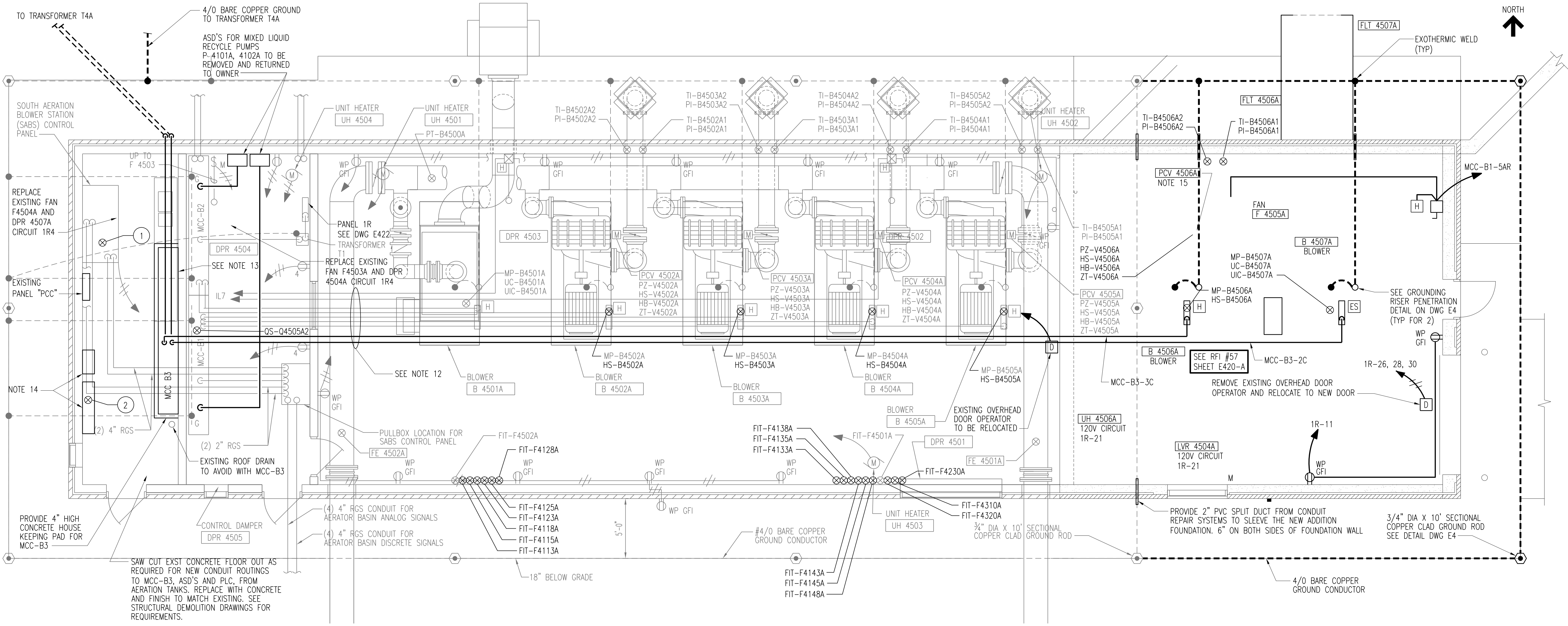
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**BLOWER BUILDING
PLUMBING PLAN**



DESIGNED	JL LEE	SCALE:	AS NOTED
DRAWN	D. WILGES	NO.	22800
CHECKED	JJ BOVENKAMP	REV.	
APPROVED	JJ BOVENKAMP	M424	2
DATE	DECEMBER 2, 2011		

CAD: D.L.R.



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

KEYNOTES:

- ① JE-J4000A JX-J4000A JE-J4001A JI-J4001A JR-4001A JX-J4001A JE-J4010A JR-J4011A UC-I4001A UC-I4002A UC-I4003A UC-I4004A FR-F4410A FR-F4420A FR-F4430A XR-B4501A XR-B4502A XR-B4503A XR-B4504A XR-B4505A XR-B4506A XR-B4507A HBR-M4100A US-M4100A HBR-M4101A US-M4101A HBR-M4102A US-M4102A HBR-M4103A US-M4103A HBR-M4104A US-M4104A HBR-M4311A US-M4311A HBR-M4312A US-M4312A HBR-M4321A US-M4321A HBR-M4322A US-M4322A HBR-P4410A US-P4410A HBR-P4420A US-P4420A HBR-P4430A US-P4430A HBR-P4440A US-P4440A HBR-P4450A US-P4450A XR-M4110A XR-M4111A XR-M4112A XR-M4113A XR-M4114A XR-M4115A XR-M4118A XR-M4120A XR-M4121A XR-M4121A XR-M4122A XR-M4123A XR-M4124A XR-M4125A XR-M4128A XR-M4130A XR-M4131A XR-4132A XR-M4133A XR-M4134A XR-M4135A XR-M4138A XR-M4140A XR-M4141A XR-M4142A XR-M4143A XR-M4144A XR-M4145A XR-M4148A
- ② SIC-M4100A SIC-M4101A SIC-M4102A SIC-M4103A SIC-M4104A SIC-M4311A SIC-M4312A SIC-M4321A SIC-M4322A SIC-P4410A SIC-P4420A SIC-P4430A

SEE ITC #34 SHEET E420-A

NOTES:

1. SEE DRAWING D18 THRU D21 FOR MCC-B1 AND MCC-B2 DEMOLITION ITEMS AND DRAWING E18 THRU E21 FOR NEW MCC REQUIREMENTS.
2. SEE DRAWING E1 FOR GENERAL ELECTRICAL NOTES AND WIRING DEVICE SCHEDULE.
3. SEE DRAWING E4 FOR TYPICAL ELECTRICAL DETAILS.
4. SEE DRAWINGS E2 AND E3 FOR LIGHTING FIXTURE SCHEDULE.
5. SEE DRAWING G9 FOR ELECTRICAL LEGEND.
6. SEE DRAWING E420-E422 FOR PANEL SCHEDULES 1L,PCC,AB, AND 1R FOR CIRCUITING REQUIREMENTS.
7. CONNECT GROUNDING SYSTEM SHOWN ON DRAWING INTO EXISTING PLANT GROUND SYSTEM AT SERVICE TRANSFORMERS.
8. PROVIDE UNIT HEATERS UH4506A WITH DISCONNECTS MOUNTED ON EQUIPMENT. PROVIDE 3 #12 IN A 3/4" RGS CONDUIT TO UNIT HEATER FROM CIRCUIT 1R-21. SEE HEATER DISCONNECT DETAIL ON DRAWING M3.
9. PROVIDE 4 #12 IN A 3/4" RGS CONDUIT TO EXHAUST FAN F 4505A FROM MCC-B1-5AR. PROVIDE CPT AT MCC AS REQUIRED FOR HVAC CONTROL INTERFACE.
10. PROVIDE 3 #12 IN A 3/4" RGS CONDUIT TO CONTROL DAMPER LVR 4504A FROM CIRCUITS SHOWN ON PANEL SCHEDULE 1R.
11. INTERLOCK AND CONTROL REQUIREMENTS FOR ALL HVAC EQUIPMENT SHALL BE PROVIDED AS DESCRIBED IN THE HVAC SEQUENCE OF OPERATION AND HVAC DRAWINGS.
12. CONTRACTOR SHALL INSTALL ALL CONDUITS CLEAR OF ANY POSSIBLE CONFLICTS WITH HOIST OR LIFTING OF BLOWER MOTORS OR ENCLOSURES.
13. REMOVE BASE CABINET SECTION TO PHYSICAL BREAK POINT BETWEEN 2 CABINET SECTIONS. RECUT COUNTERTOP AND MATCH END LAMINATE FOR NEW END OF COUNTER.
14. REMOVE EXISTING SAMPLER AND ANALYZER WITH ASSOCIATED CIRCUITING. AFTER REMOVAL CONTRACTOR SHALL LOCATE NEW ASD'S FOR TANK MIXERS, INFLUENT CHANNEL MIXERS AND WAS PUMPS. SEE ONE LINE DIAGRAMS ON DRAWINGS E31 AND E32 FOR ASD REQUIREMENTS.
15. CITY TO PROVIDE PCV 4506A. VALVE TO BE POWERED WITH 3#10, W#10 GRD IN 1" C FROM PANEL 1L CIRCUIT 10. EXTEND FROM BLOWER B4505A VALVE.

EXISTING PANEL 1L									
100A MAIN BREAKER 277/480 VOLT, 3 PHASE, 4 WIRE					PROVIDED AND MOUNTED IN MOTOR CONTROL CENTER MCC-B2				
CIR. NO.	LOAD	CB	P	Ø	P	CB	LOAD	CIR. NO.	
1	SPACE			A			SPACE	2	
3	SPARE	20	1	B	1	20	SPARE	4	
5	SPARE	20	1	C	1	20	SPARE	6	
7	EXIT LIGHTS	20	1	A	1	20	SPARE	8	
9	POWER ROOM VENTILATORS # 4501, F4502 & F4503	20	3	B	3	30	MOTORIZED FLOW CONTROL VALVES FOR BLOWERS	10	

NOTE: BOLD ITEMS CIRCUITS 1L-9 AND 1L-10 TO BE MODIFIED PER THIS DRAWING FOR REQUIREMENTS.

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012

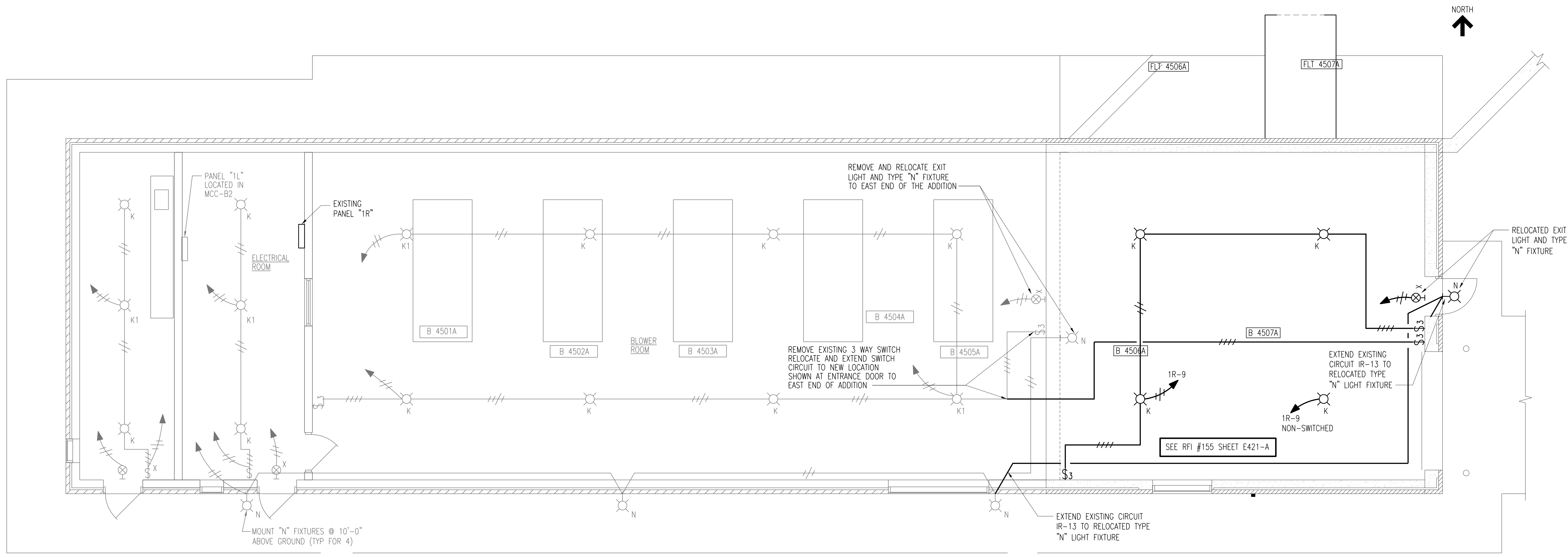
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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**BLOWER BUILDING
POWER PLANS AND DETAILS**

DESIGNED DL MORITZ	SCALE: AS NOTED
DRAWN D. WILGES	NO. 22800
CHECKED DL MORITZ	REV.
APPROVED JD COOAN	E420
APPROVED DATE: DECEMBER 2, 2011	3





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

EXISTING PANEL PCC (SEE DWG E420)								
120/240 VOLT								
CIR. NO.	LOAD	CB	P	?	P	CB	LOAD	CIR. NO.
1	AERATION/BLOWER PLC CABINET	20	1	A	1	20	ALKALINITY ANALYZER	2
3	AERATION/BLOWER PLC CABINET	20	1	B	1	20		4
5	AERATION/BLOWER PLC CABINET	20	1	C	1	20	AIR COMPRESSOR	6
7	42" FLOW METER	20	1	A	1	20	12" RAS FLOW METER	8
9		20	1	B	1	20		10
11	4110 120V COMMON	20	1	C	1	20	4130 120V COMMON	12
13	4120 120V COMMON	20	1	A	1	20	4140 120V COMMON	14

NOTE:
EXISTING PANEL PCC CIRCUITS 1, 3, AND 5 ARE TO BE USED FOR ANY PLC REQUIREMENTS PER P&ID DRAWINGS. CIRCUITS 11 THRU 14 ARE FOR 120V RECEPTACLE EXTENSIONS TO AERATION BASINS AS SHOWN.

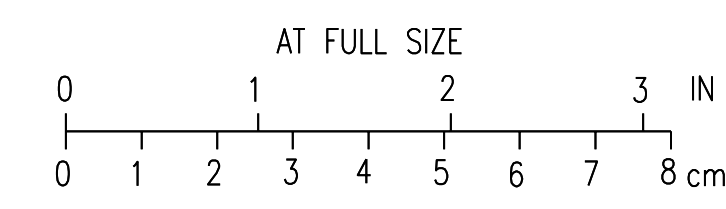
- NOTES:**
- SEE DRAWING E1 FOR GENERAL ELECTRICAL NOTES AND WIRING DEVICE SCHEDULE.
 - SEE DRAWING E4 FOR TYPICAL ELECTRICAL DETAILS.
 - SEE DRAWINGS E2 AND E3 FOR LIGHTING FIXTURE SCHEDULE.
 - SEE DRAWING G9 FOR ELECTRICAL LEGEND.
 - SEE DRAWING E423 FOR PANEL SCHEDULE 1R FOR WIRING REQUIREMENTS.
 - CONTRACTOR SHALL MOUNT FIXTURES IN BLOWER ROOM ADDITION AS HIGH AS POSSIBLE TO ELIMINATE ALL POSSIBLE CONFLICTS WITH OVERHEAD SERVICE TO BLOWERS.

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	ADDED NOTE	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012

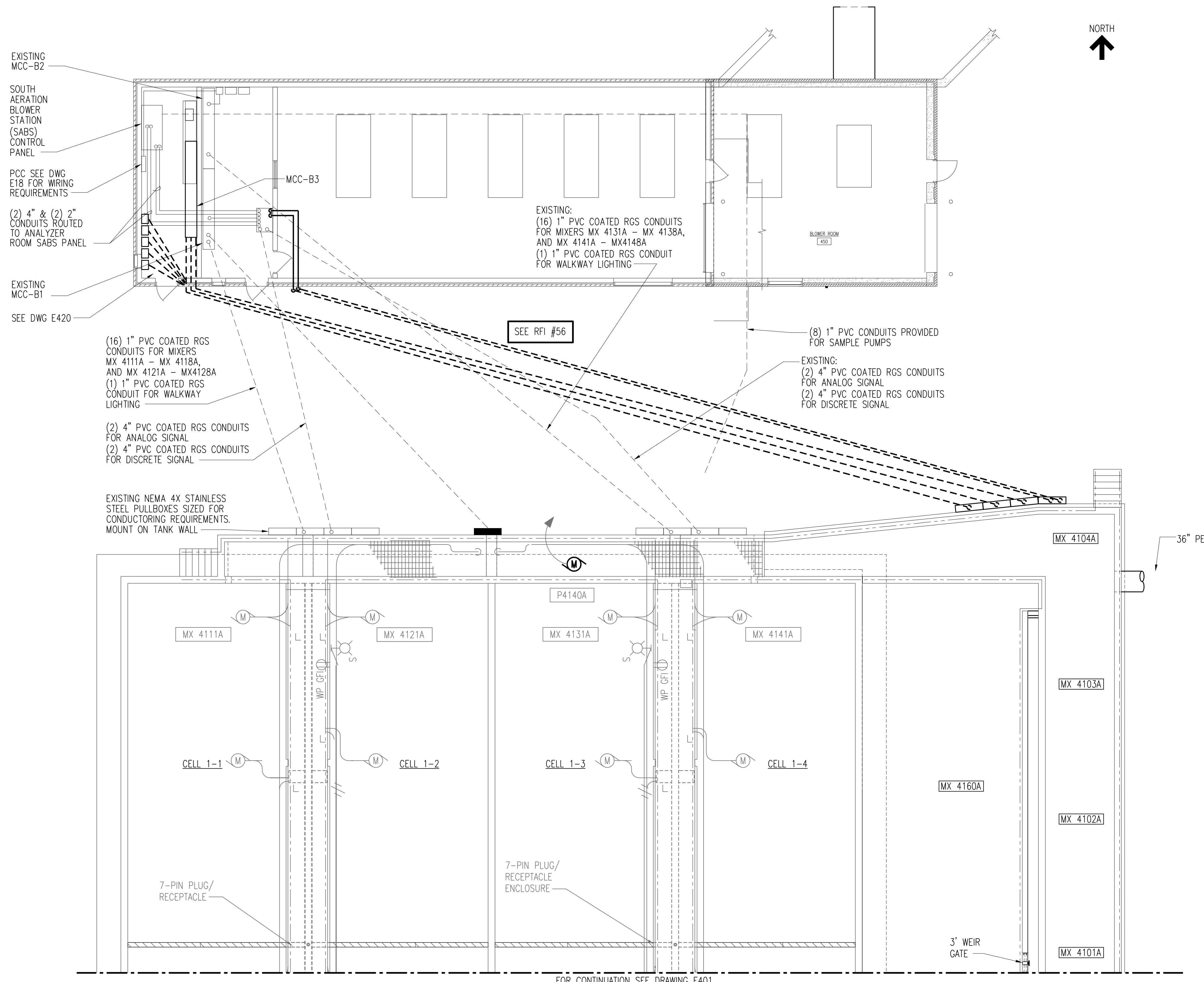
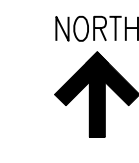

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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**BLOWER BUILDING
LIGHTING PLAN AND DETAILS**



DESIGNED DL MORITZ	SCALE: AS NOTED	REV.
DRAWN D. WILGES	NO. 22800	
CHECKED DL MORITZ	E421	3
APPROVED JD COOAN		
DATE DECEMBER 2, 2011		



PANEL NAME:		EXIST "1R"	LOCATION:	BLOWER BLDG	
MOUNTING:		SURFACE	VOLTAGE:	208Y/120V	
ENCLOSURE:		NEMA 1	PHASE:	3P/4W	
MAINS:		MLO	SHORT CIRCUIT RATING:	10KA	
BUS AMPACITY:		250A	GROUND BUS:	YES	
BUS TYPE:			ISOLATED GROUND BUS:	NO	
BRANCH BREAKER TYPE:			NEUTRAL BUS:	100%	
NO.	LOAD DESCRIPTION	CB PH, G, COND	LOAD DESCRIPTION	CB PH, G, COND	NO.
1	SPARE	1P20A	UNIT HEATERS 4501 & 4502	1P20A	2
3	UNIT HEATERS 4503 & 4504	1P20A	ROOF VENTILATOR F4503, F4504 AND DAMPER	1P20A	4
5	CONTROL DAMPER 4502 & BLOWER ROOM	1P20A	CONTROL DAMPER 4505	1P20A	6
7	RECEPTACLE B102 & B103	1P20A	SOUTH RECEPTACLE BLOWER ROOM	1P20A	8
9	PHOTO CELL & CONTACTOR	1P20A	NORTH RECEPTACLE BLOWER ROOM	1P20A	10
11	ADDITION RECEPTACLES	#12, #12, 0.75	AERATION WALKWAY LIGHTS RECEPTACLES EAST	1P30A	12
13	WALL PACKS	1P20A	AERATION WALKWAY LIGHTS RECEPTACLES WEST	1P20A	14
15	ELECTRIC & PROCESS ROOM	1P20A	SPARE	1P20A	16
17	BLOWER PUMP ROOM LIGHTS	1P20A	EXHAUST FAN F4502A, DAMPER 4506A, UNIT HEATER 4505A	1P20A	18
19	SPARE	1P20A	SPARE	1P20A	20
21	UH4506A AND LVR4504A	1P20A	SPARE	1P20A	22
23	SPARE	1P20A	SPARE	1P20A	24
25	GARAGE DOOR	1P20A	SPARE	3P15A	26
27	HEAT TRACE	1P20A	SPARE	" "	28
29	HEAT TRACE	1P20A	SPARE	" "	30
31	HEAT TRACE	1P20A	WAS PUMP VAULT HEAT TRACE	1P20A*	32
33	HEAT TRACE	1P20A	SPACE	" "	34
35	HEAT TRACE	1P20A	SPACE	" "	36
37	HEAT TRACE	1P20A	SPACE	" "	38
39	HEAT TRACE	1P20A	SPACE	" "	40
41	SPACE		SPACE	" "	42

NOTE:
BOLD ITEMS FOR PANEL 1R ARE MODIFIED CIRCUITS. HEAT TRACE CIRCUITS TO BE REMOVED AND GARAGE DOOR LIGHTING RECEPTACLE CIRCUIT TO BE NEW.

* PROVIDE BREAKER 32 AS A 20A, 1P WITH 30MA GFI PROTECTION FOR HEAT TRACE CIRCUITS TO WAS PUMP VAULT.

△₃ "NEW NEMA 4X STAINLESS STEEL PULL BOXES SIZED FOR CONDUCTING REQUIREMENTS. MOUNT ON TANK WALL."

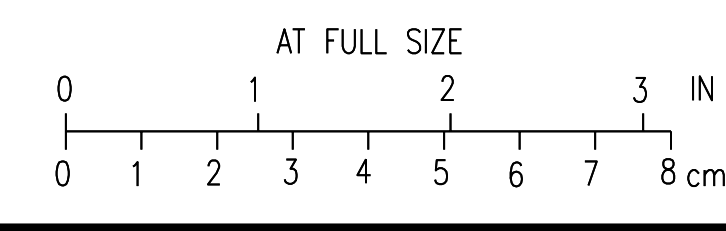
NO.	REVISIONS	DSGN	CHKD	APVD	DATE
4	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
3	ADDED ADDENDUM COMMENT	LJO	JBL	JBL	05-04-2012
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012

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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

BLOWER BUILDING AND AERATION TANKS POWER PLAN

DESIGNED DL MORITZ	SCALE: AS NOTED
DRAWN D. WILGES	NO. 22800
CHECKED DL MORITZ	REV.
APPROVED JD COOAN	E422
APPROVED DATE DECEMBER 2, 2011	4

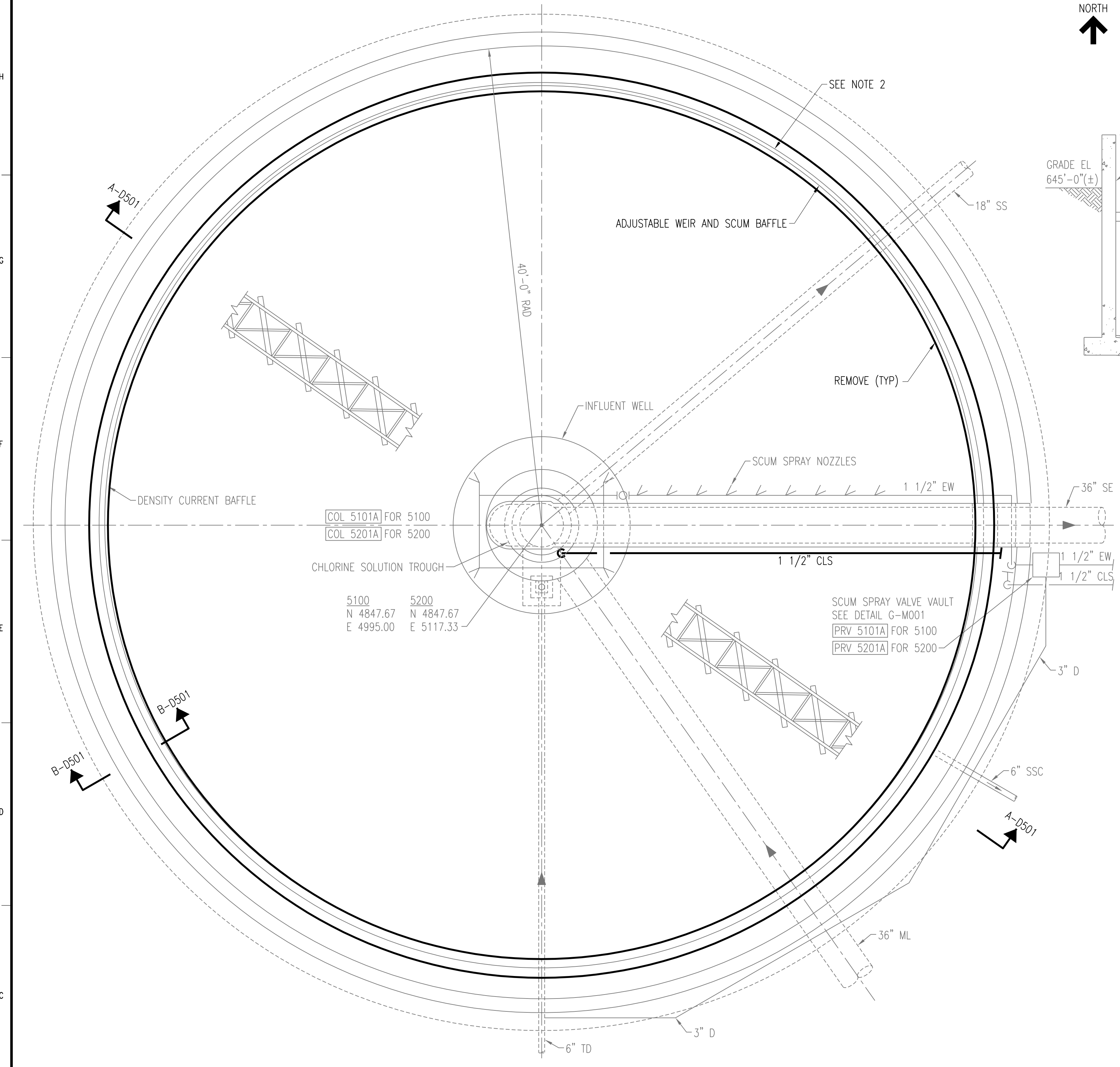


AERATION TANKS POWER PLAN
SCALE: 1/8" = 1'-0"

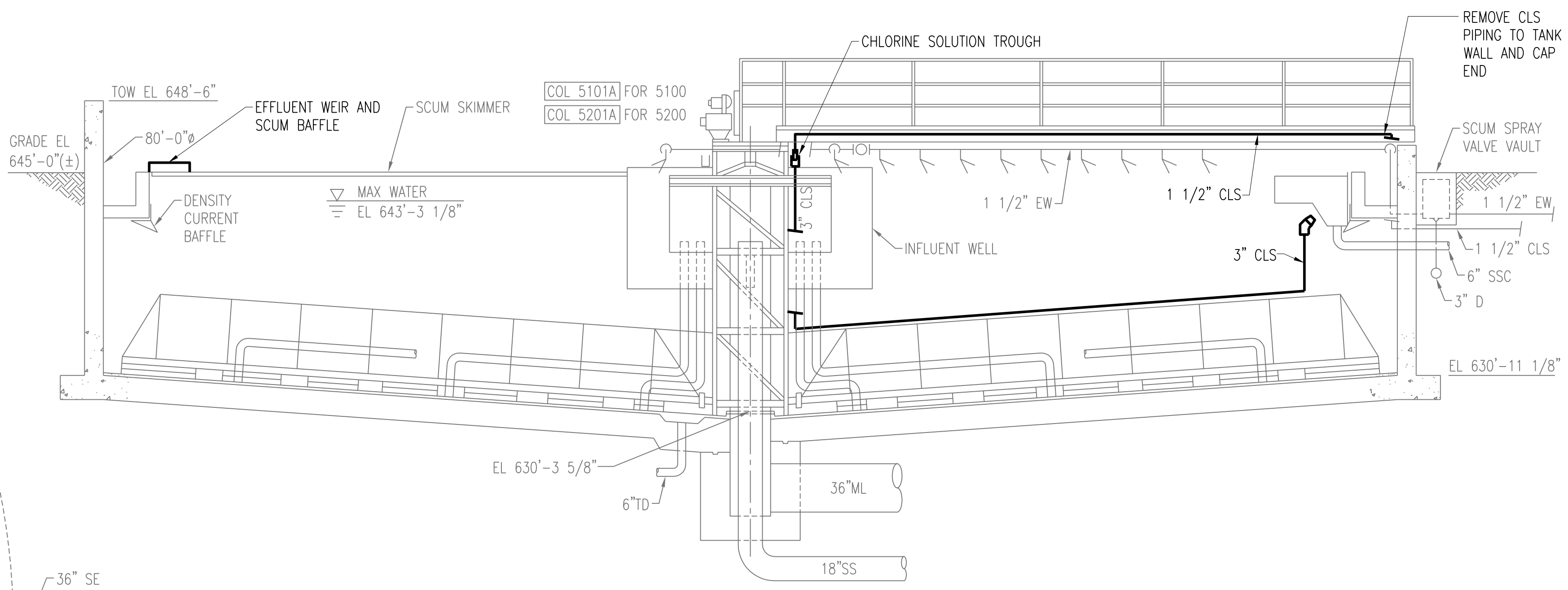
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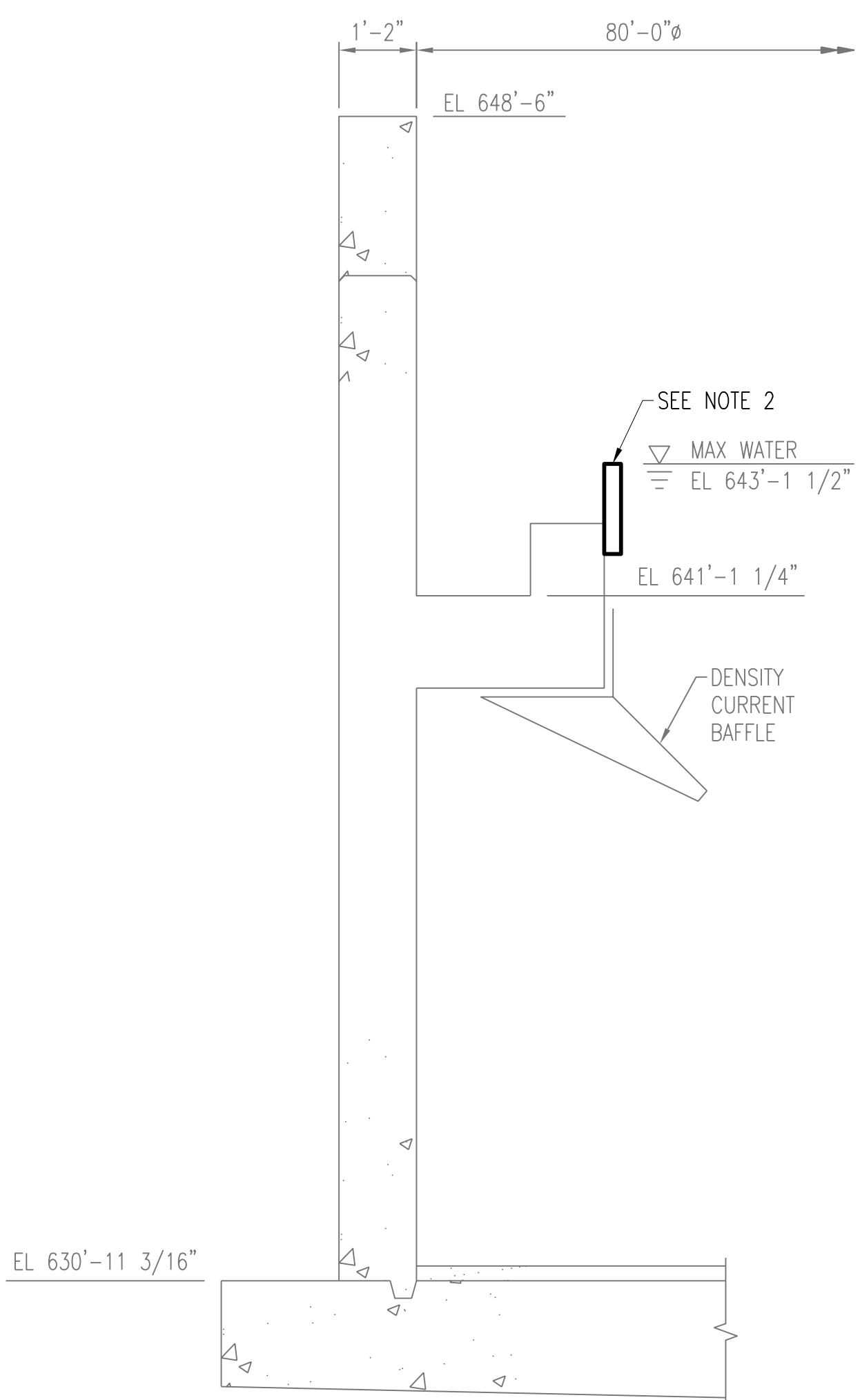
BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE



TYPICAL EXISTING SECONDARY CLARIFIER DEMOLITION PLAN (NO. 5100)
SCALE: 3/16" = 1'-0"



SECTION **A-D501**
D501
SCALE: 3/16" = 1'-0"



SECTION **B-D501**
D501
SCALE: 1/2" = 1'-0"

- NOTES:**
1. SECONDARY CLARIFIER 5200 IS SIMILAR.
 2. REMOVE EXISTING V-NOTCH EFFLUENT WEIRS, SCUM BAFFLES, AND CHLORINE SOLUTION TROUGH AND PIPING.
 3. DEWATER GROUNDWATER TO 633'-8 3/8" BEFORE CLARIFIER IS DEWATERED.

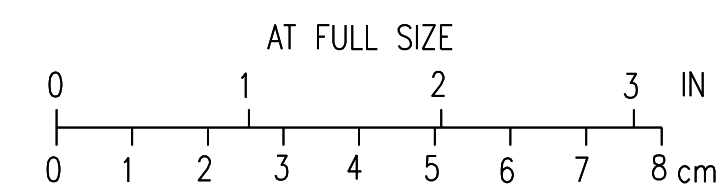
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISE NOTES	CLB	CLB	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	CLB	CLB	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

SECONDARY CLARIFIER AREA
TANKS 5100 & 5200
DEMOLITION PLAN AND SECTIONS

DESIGNED	CL BARK	SCALE: AS NOTED	NO. 22800	REV. D501 3
DRAWN	LJ OSBORN			
CHECKED	CL BARK			
APPROVED	M AKYUREK			
APPROVED	JM BRADY			
DATE	DECEMBER 2, 2011			

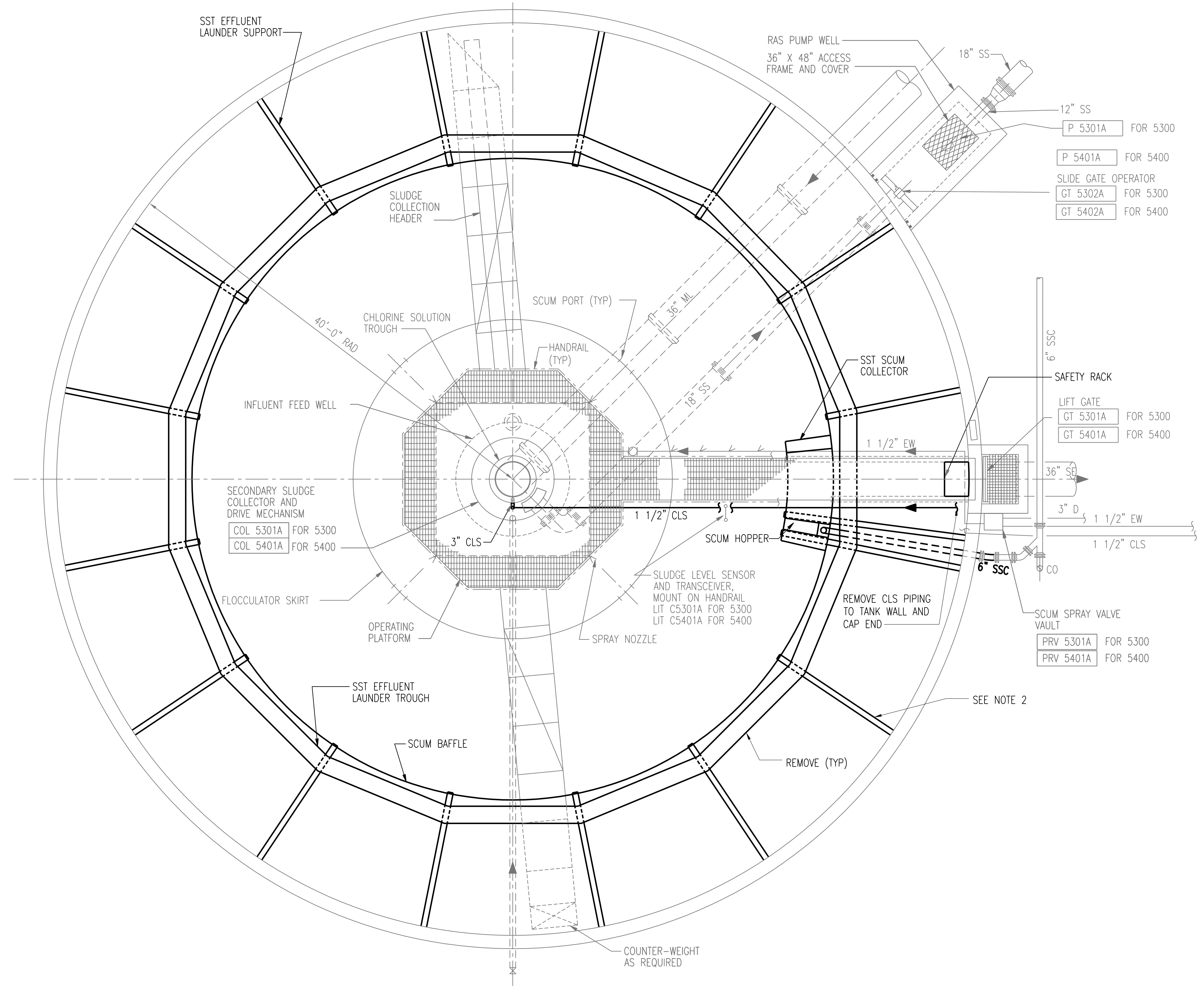


CADD: D1-R4

**BOLD ITEMS ARE TO BE REMOVED
UNLESS NOTED OTHERWISE**

NOTES:

1. SECONDARY CLARIFIER 5400 IS SIMILAR.
2. REMOVE INBOARD EFFLUENT LAUNDER SYSTEM, SCUM MANAGEMENT SYSTEM, SCUM BAFFLES, AND CHLORINE SOLUTION TROUGH AND PIPING.
3. DEWATER GROUNDWATER TO 633'-8 3/8" BEFORE CLARIFIER IS DEWATERED.



TYPICAL SECONDARY CLARIFIER DEMOLITION PLAN (NO. 5300)
SCALE: 3/16" = 1'-0"

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISE NOTES	CLB	CLB	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	CLB	CLB	MA/JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



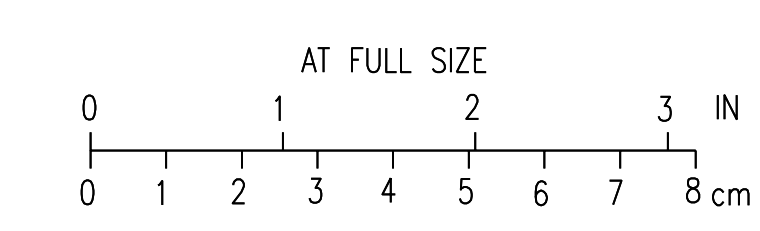
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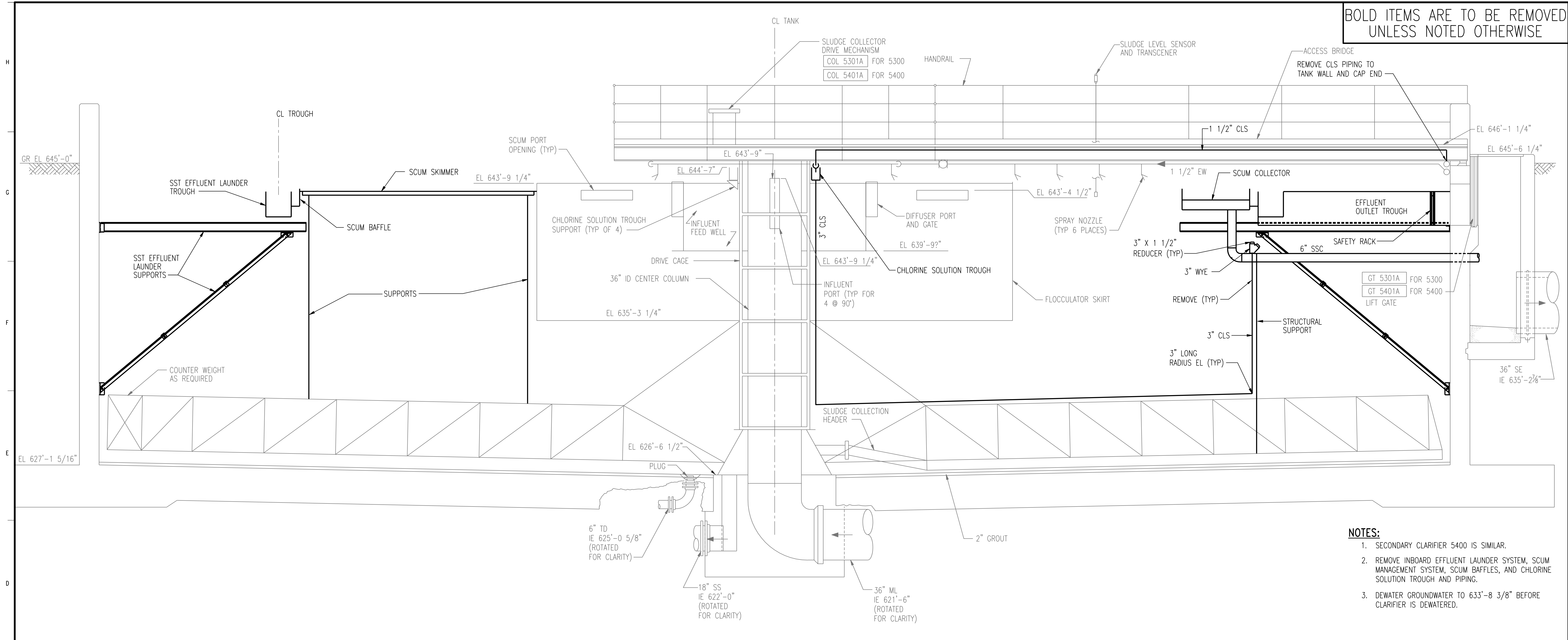
**SECONDARY CLARIFIER AREA
TANKS 5300 & 5400 DEMOLITION PLAN**

DESIGNED CL BARK	SCALE: AS NOTED
DRAWN K H-JOHNSON	NO. 22800
CHECKED CL BARK	REV.
APPROVED M AKYUREK	D502
APPROVED JM BRADY	3
DATE DECEMBER 2, 2011	



CADD: D1-R4

BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE



- NOTES:**
1. SECONDARY CLARIFIER 5400 IS SIMILAR.
 2. REMOVE INBOARD EFFLUENT LAUNDER SYSTEM, SCUM MANAGEMENT SYSTEM, SCUM BAFFLES, AND CHLORINE SOLUTION TROUGH AND PIPING.
 3. DEWATER GROUNDWATER TO 633'-8 3/8" BEFORE CLARIFIER IS DEWATERED.

TYPICAL SECONDARY CLARIFIER DEMOLITION SECTION (NO. 5300)
SCALE: 3/8" = 1'-0"

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REMOVE SCUM PIPE	CLB	CLB	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	CLB	CLB	MA/JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



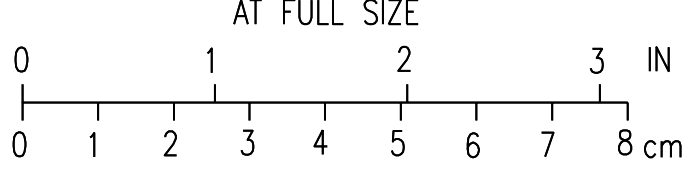
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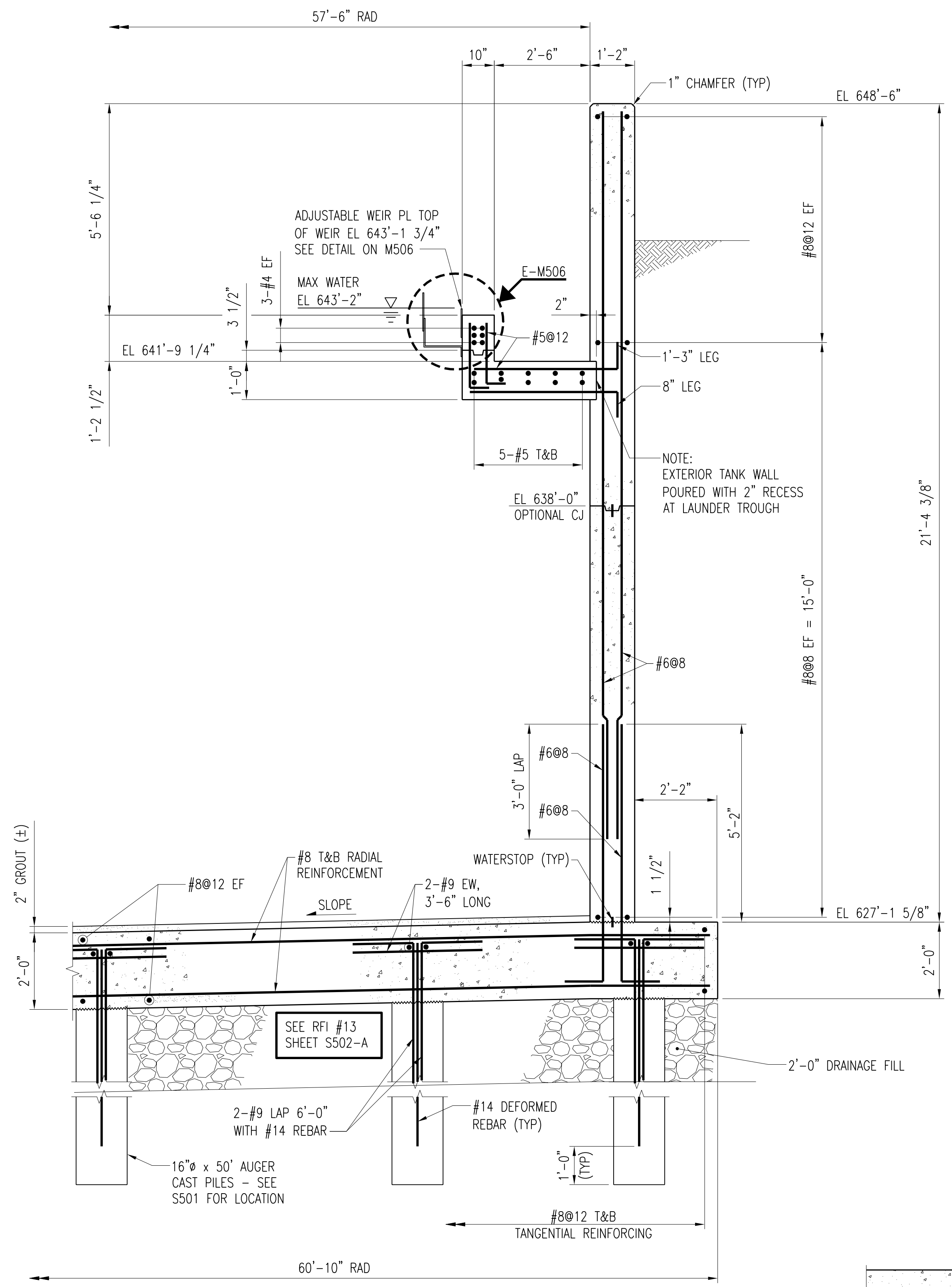
**SECONDARY CLARIFIER AREA
TANKS 5300 & 5400 DEMOLITION SECTION**

DESIGNED CL BARK	SCALE: AS NOTED
DRAWN K H-JOHNSON	NO. 22800
CHECKED CL BARK	REV.
APPROVED M AKYUREK	D503
APPROVED JM BRADY	3
DATE DECEMBER 2, 2011	



CADD: D1-R4

NOTES:
 1. SEE STANDARD STRUCTURAL NOTES AND DETAILS FOR ADDITIONAL REINFORCING REQUIREMENTS AROUND OPENINGS.



NOTE: BASE SLAB REINFORCING SPACING ARE MEASURED ALONG BASE SLAB PROFILE.

SECTION A-S502
 S501
 SCALE: 1/2" = 1'-0"

3/16" x 1 1/2" LG ANCHORS INTO CONCRETE @ 1'-6" MAX OC

WARNING: DO NOT LOWER INTERIOR WATER LEVEL MORE THAN 13.8 FEET BELOW EXTERIOR WATER LEVEL. DO NOT COMPLETELY DRAIN TANK WITH EXTERIOR WATER LEVEL LESS THAN 7.6 FEET BELOW TOP OF WALL.

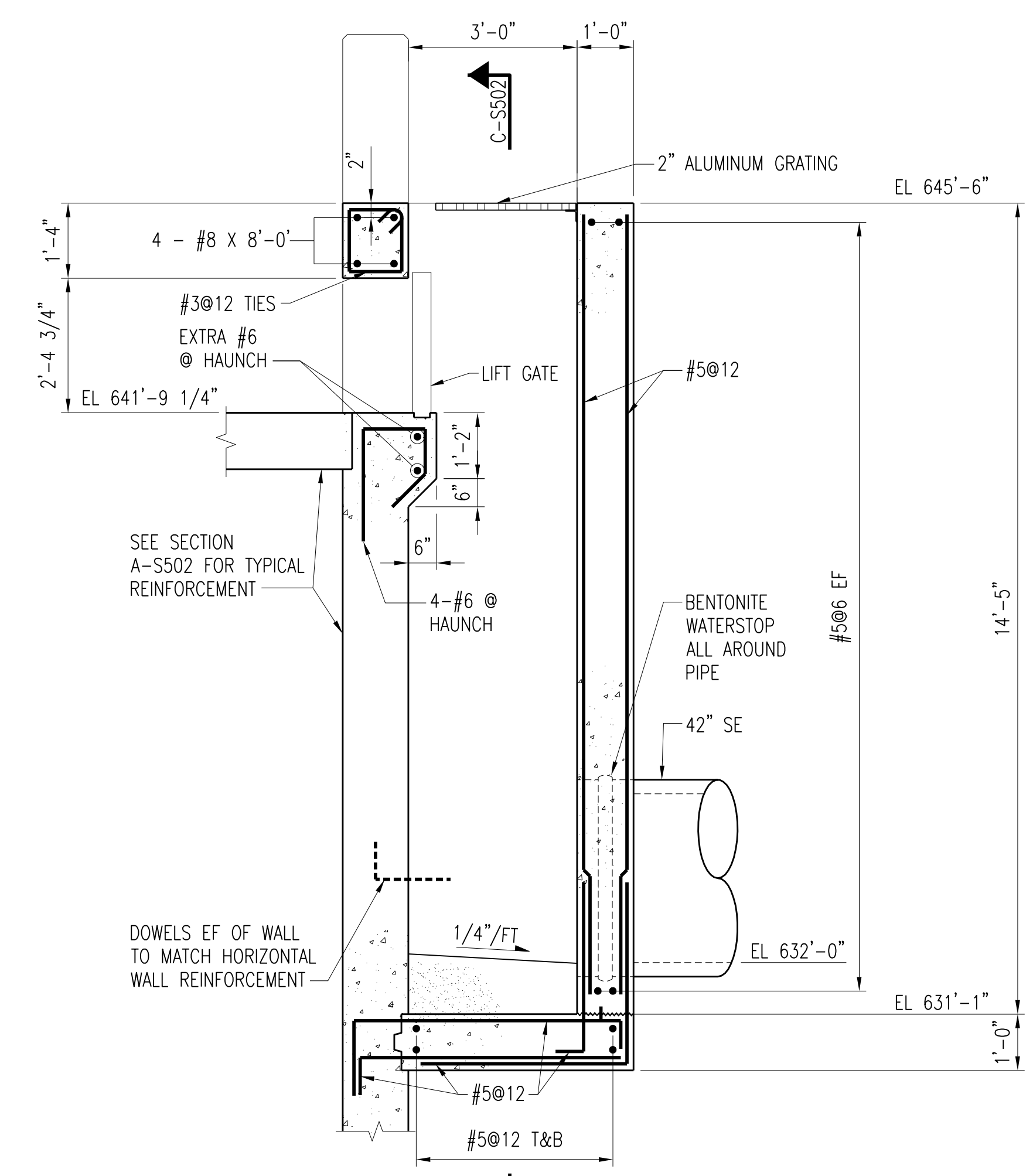
FACE MOUNT PLAQUE ON SIDE TO MATCH EXISTING; SEE DRAWING S501 FOR LOCATION.

MATERIAL: 3/4" THICK BRONZE PLAQUE

LETTERING: 1" HIGH BLOCK STYLE CAPITALS, ENGRAVED 3/16" DEEP X 5/32" WIDE; PAINT ENGRAVED PORTIONS BLACK.

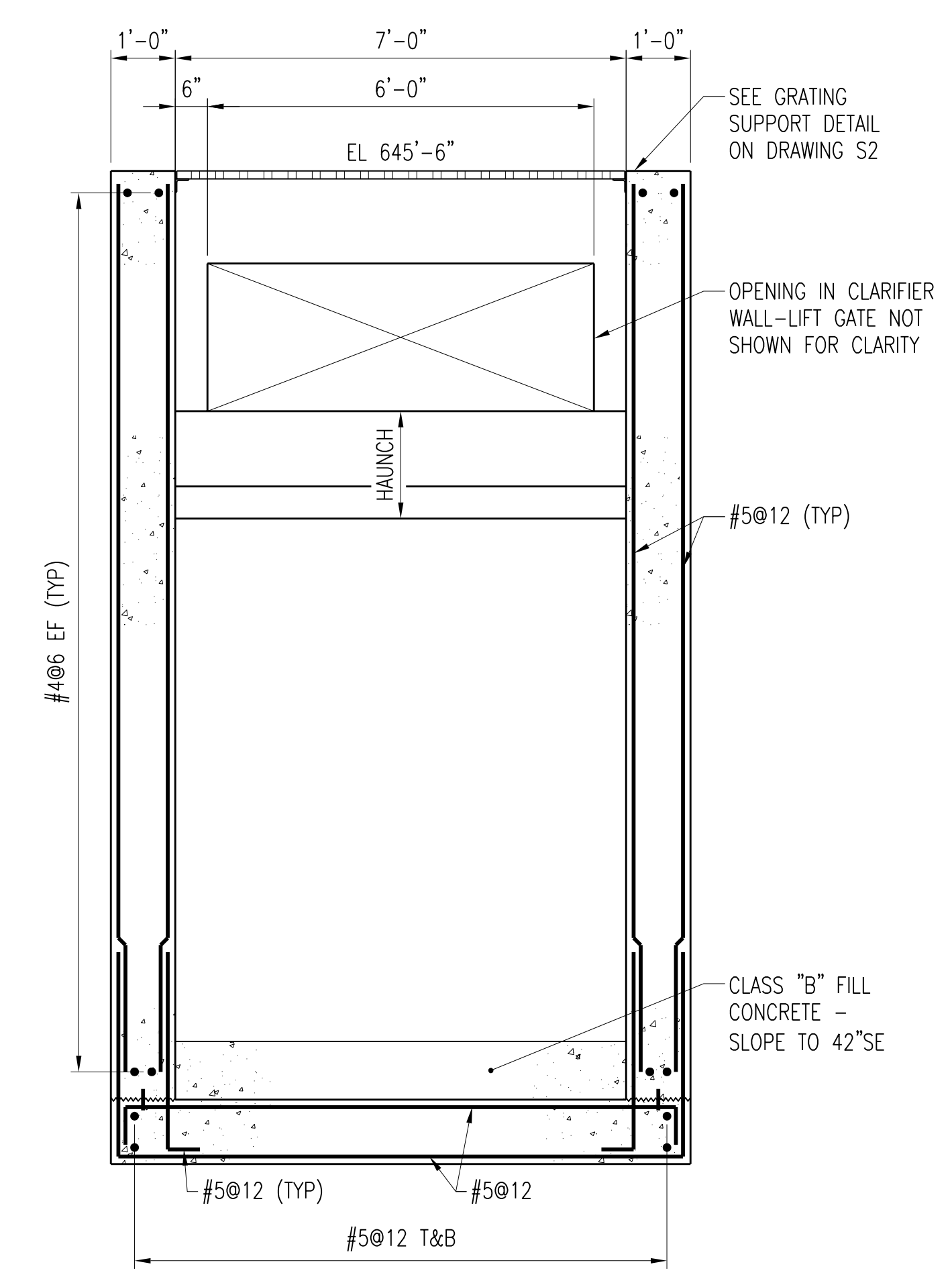
BRONZE PLAQUE
 SCALE: NONE

SEE RFI #4 SHEET S502-A

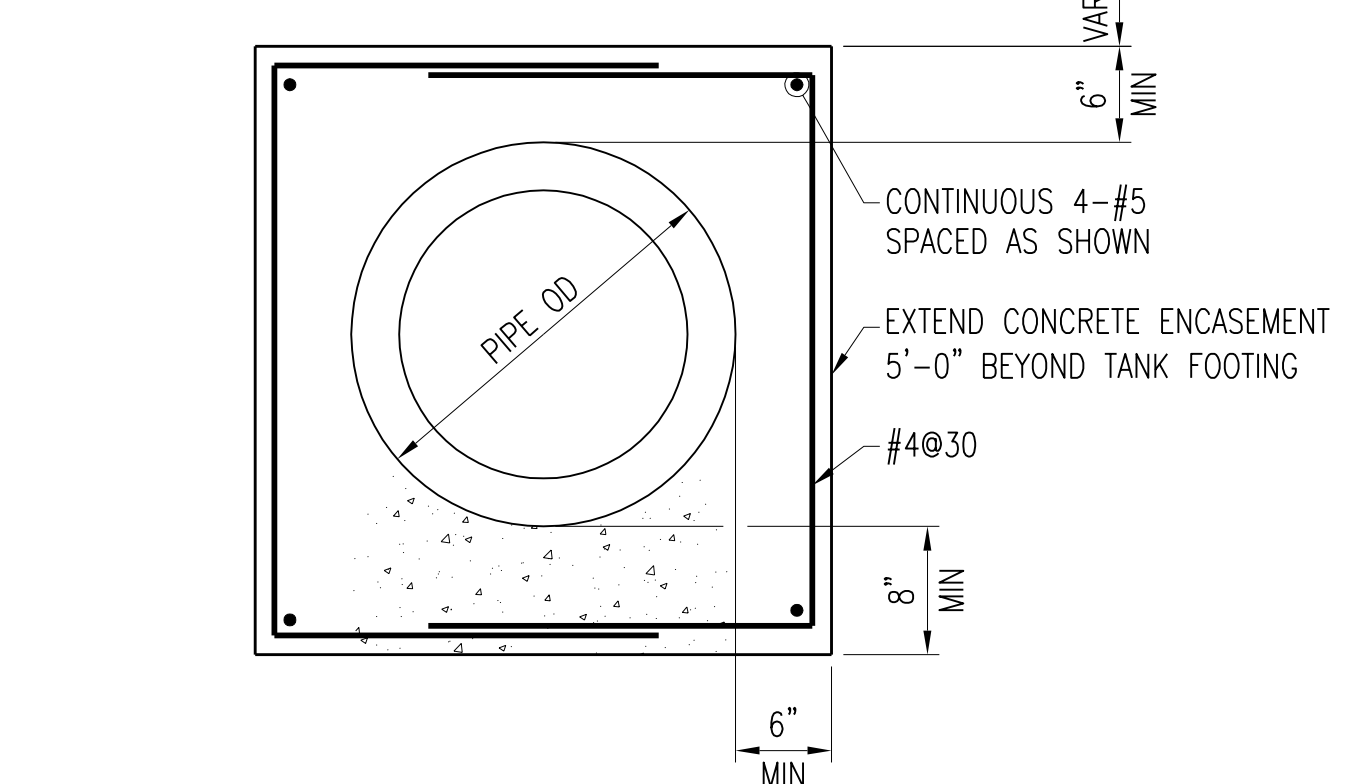


SECTION B-S502
 S501
 SCALE: 1/2" = 1'-0"

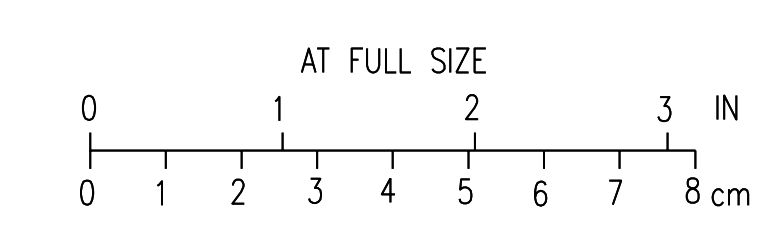
SEE RFI #196 SHEET S502-A



SECTION C-S502
 S502
 SCALE: 1/2" = 1'-0"



TYPICAL PIPE ENCASEMENT BELOW BASE SLAB DETAIL
 SCALE: 1" = 1'-0"



3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED AND REISSUED	KBH	KBH	LHB	01-25-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

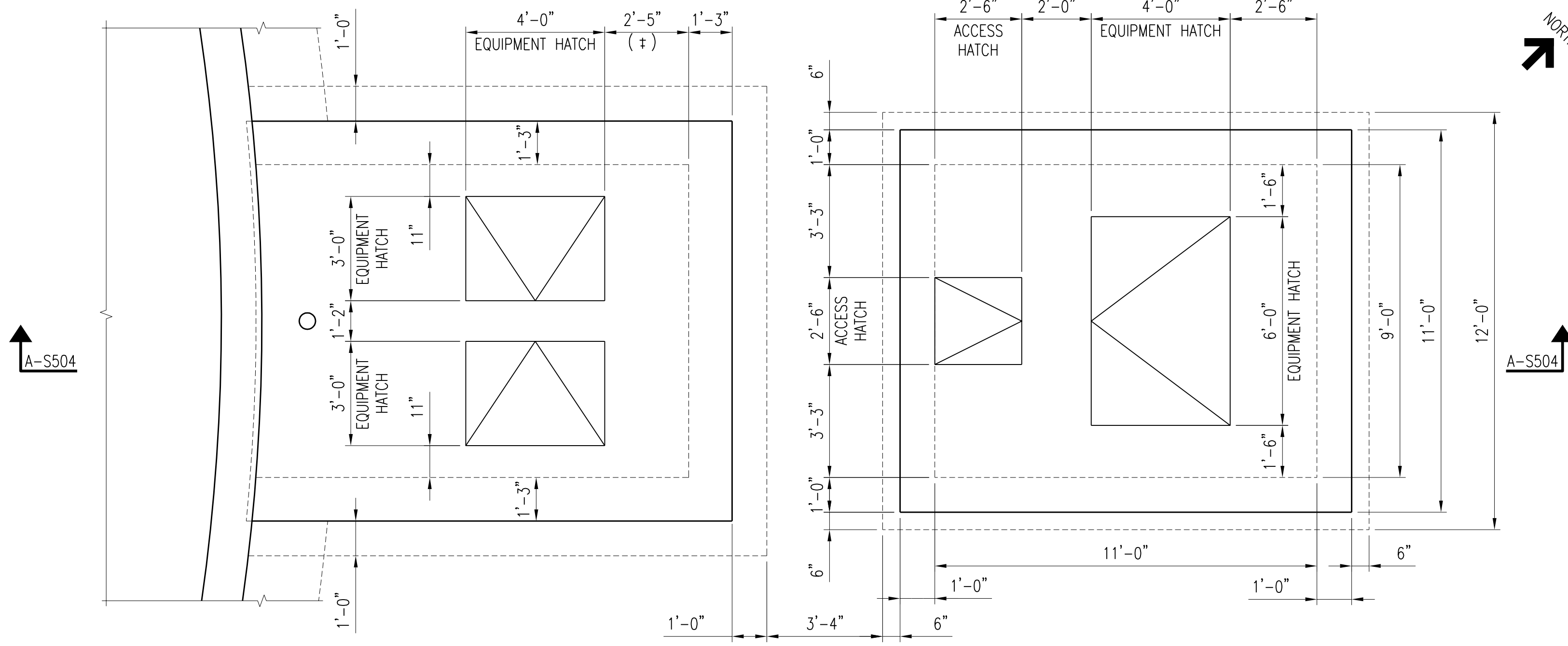
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 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

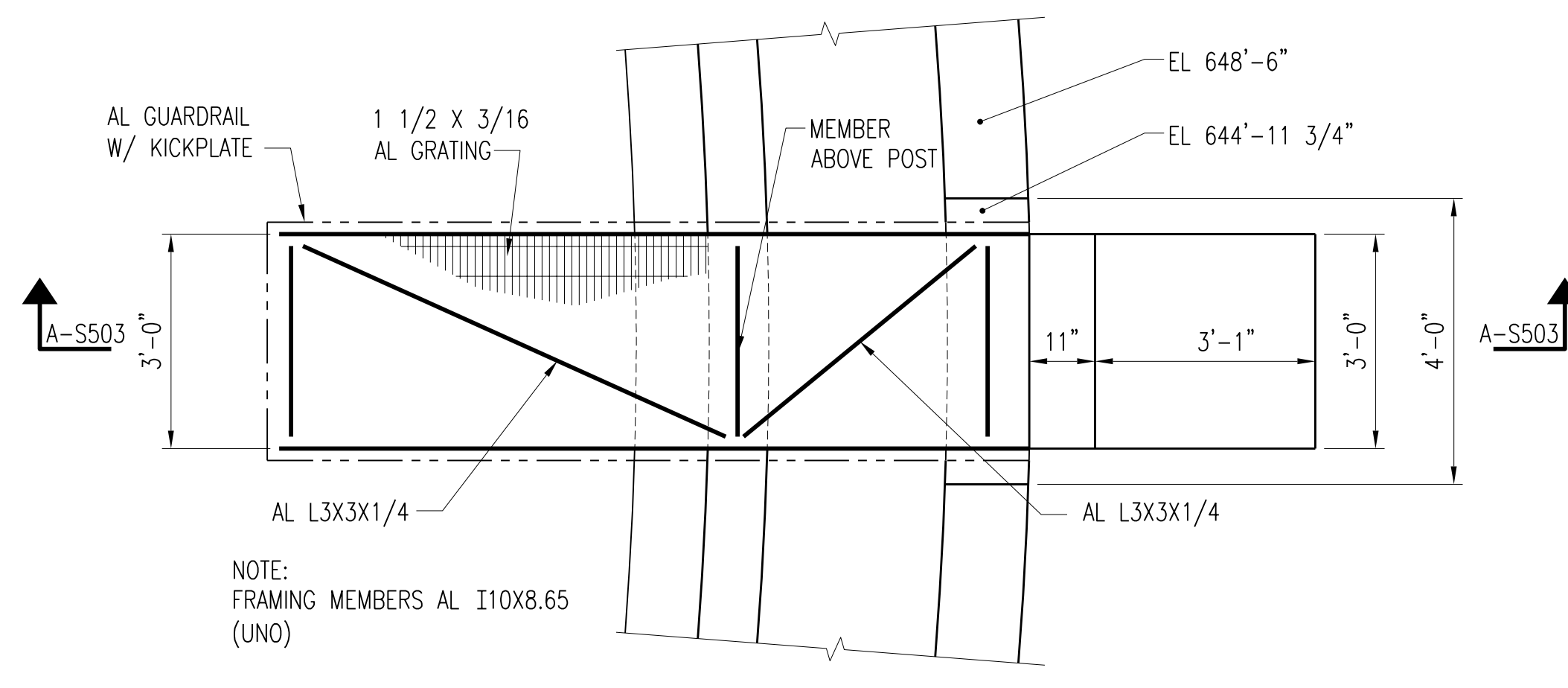
**SECONDARY CLARIFIER AREA
 TANKS 5500 & 5600
 DETAILS - SHEET 2**

DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
APPROVED			
DATE	DECEMBER 2, 2011	S502	3

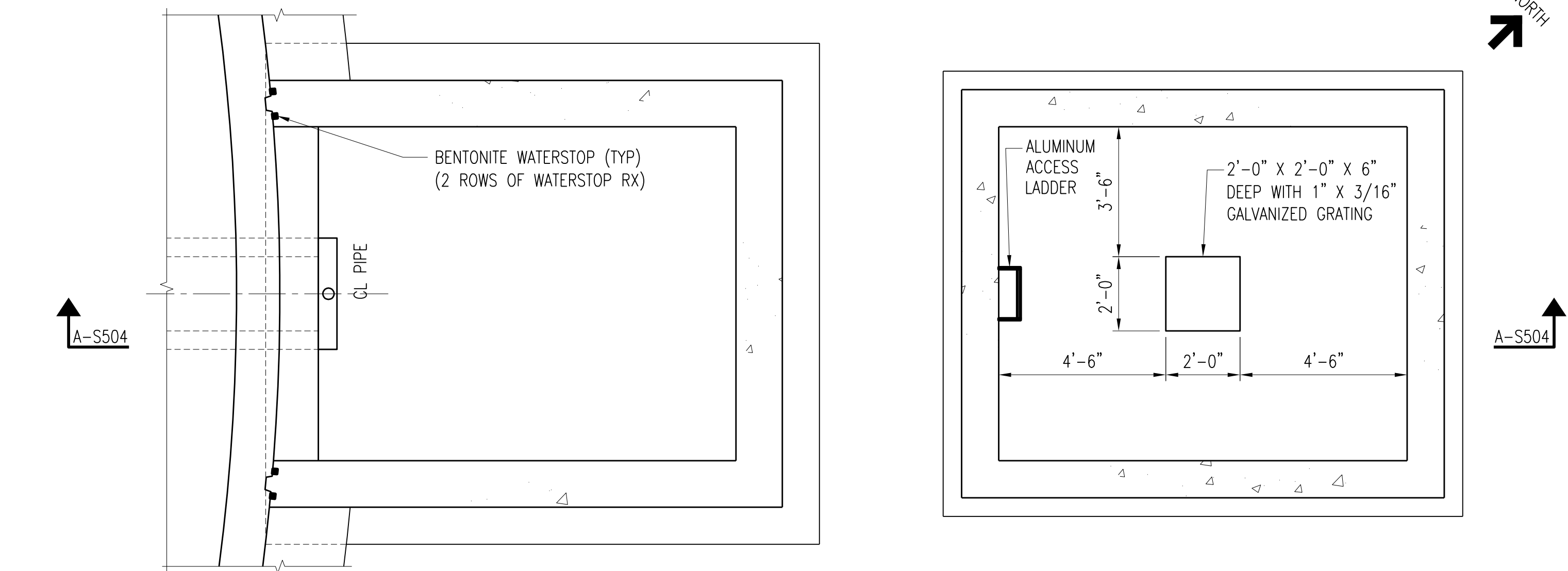
CADD: D1-R4



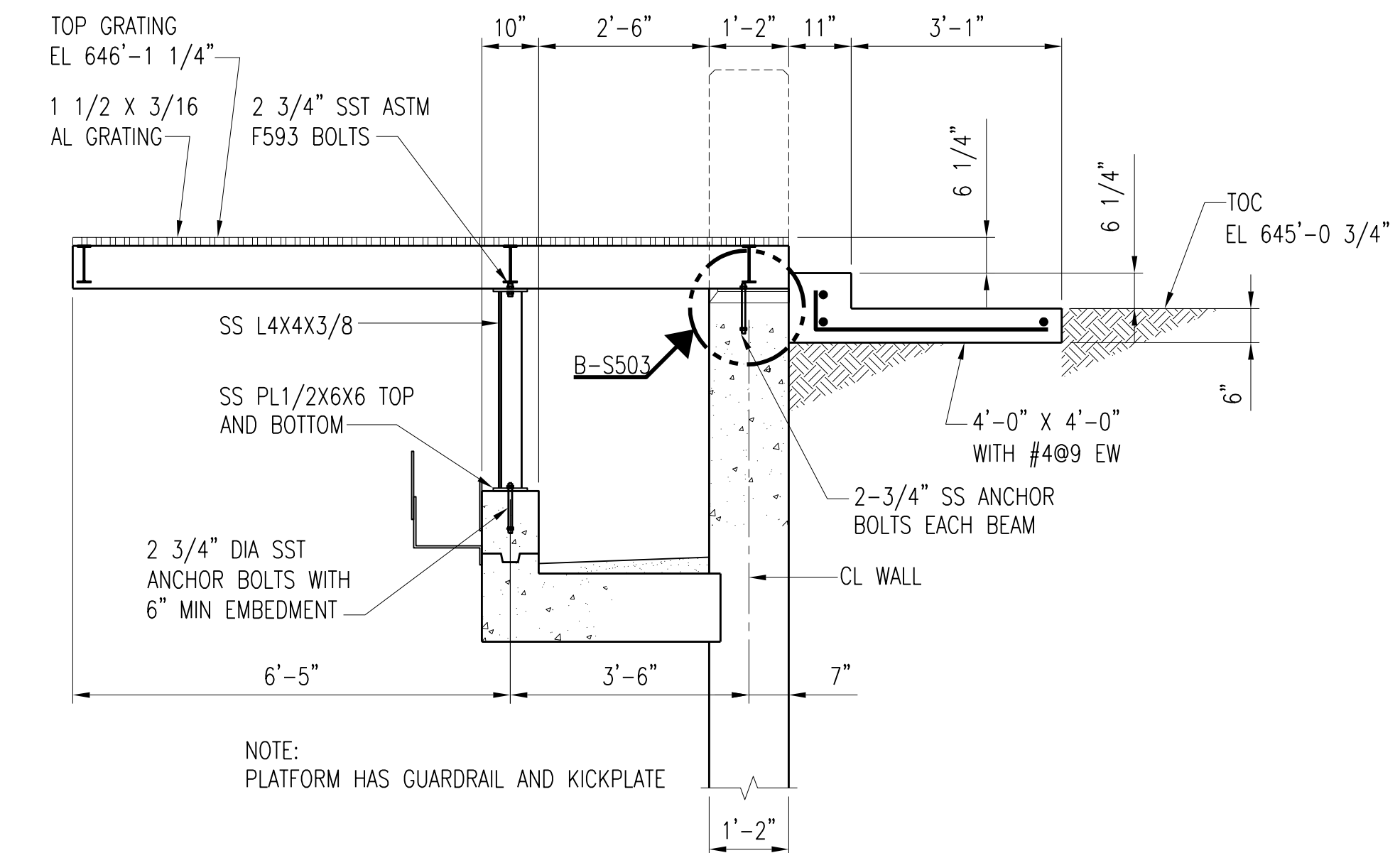
TOP PLAN
SCALE: 3/8" = 1'-0"



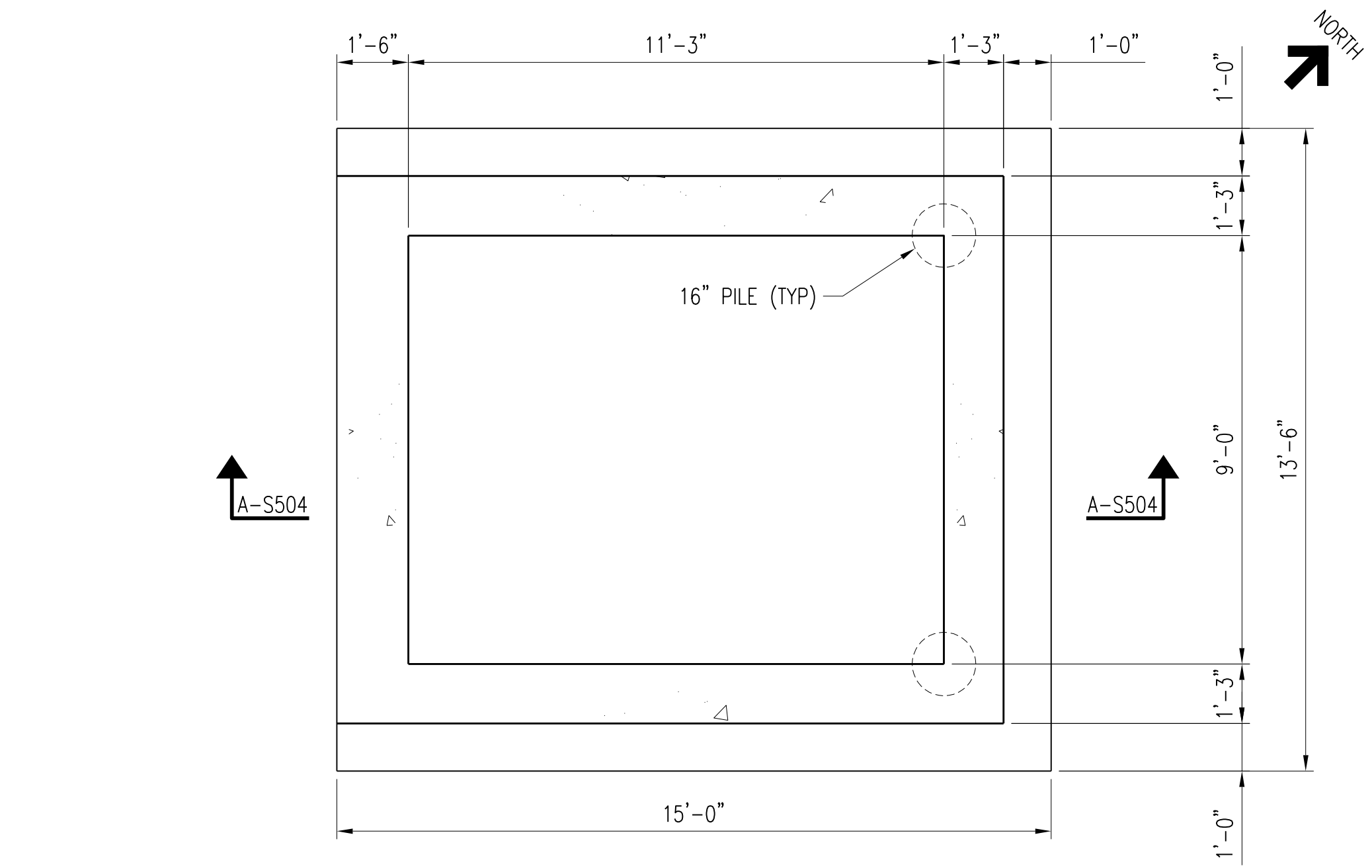
TOP PLAN
SCALE: 1/2" = 1'-0"



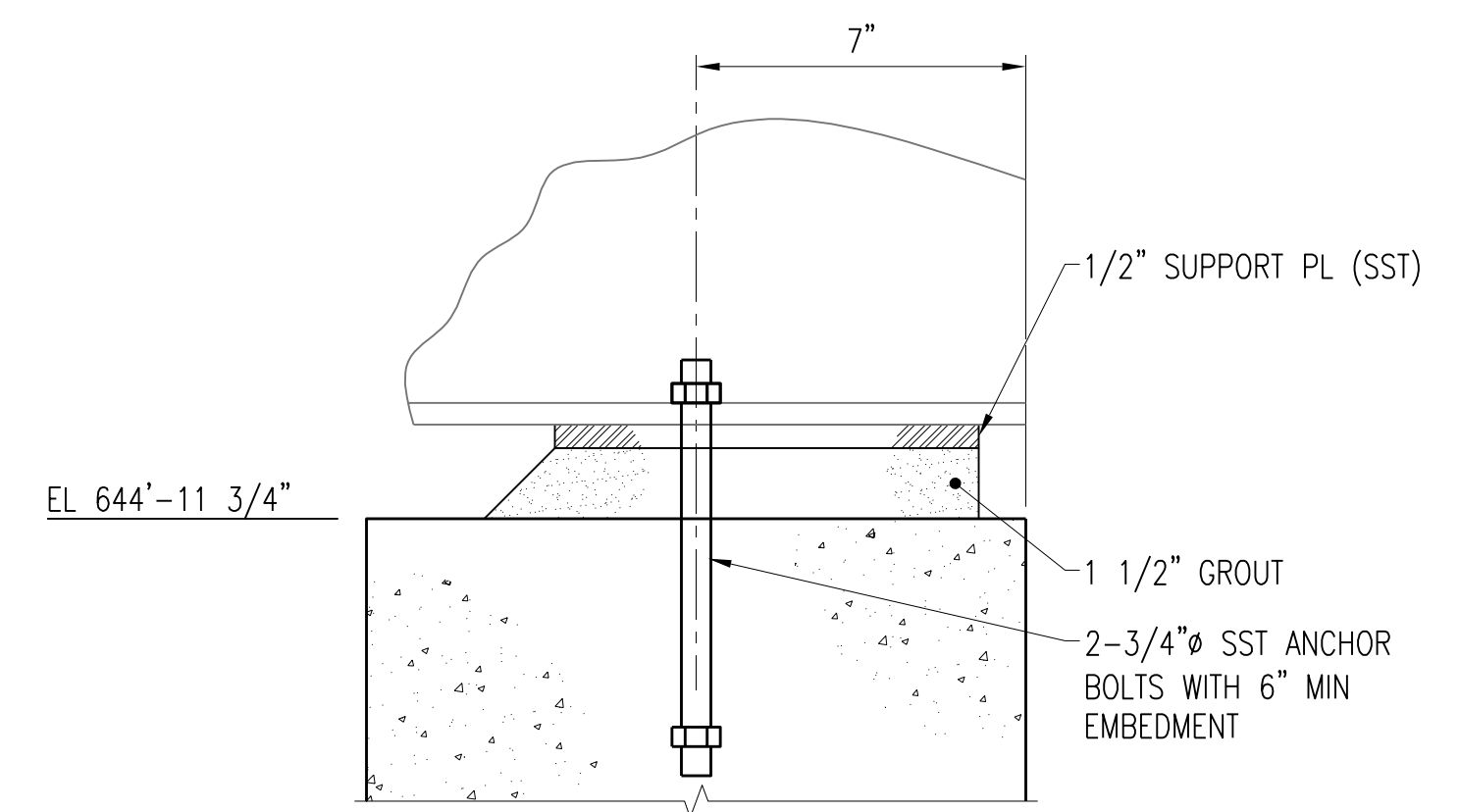
PLAN @ EL 636'-0"
SCALE: 3/8" = 1'-0"



SECTION A-S503
SCALE: 1/2" = 1'-0"



BASE SLAB PLAN
SCALE: 3/8" = 1'-0"



DETAIL B-S503
SCALE: 3" = 1'-0"

IN SECTION A-S503, DELETE SLOPED GROUT INDICATED IN BOTTOM OF TROUGH.

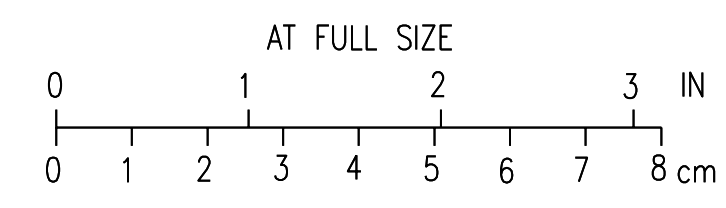
4	RECORD DRAWING	JBL	JBL	JBL	03-31-2014
3	ADDED ADDENDUM COMMENT	LJO	JBL	JBL	05-04-2012
2	REVISED AND REISSUED	KBH	KBH	LHB	01-25-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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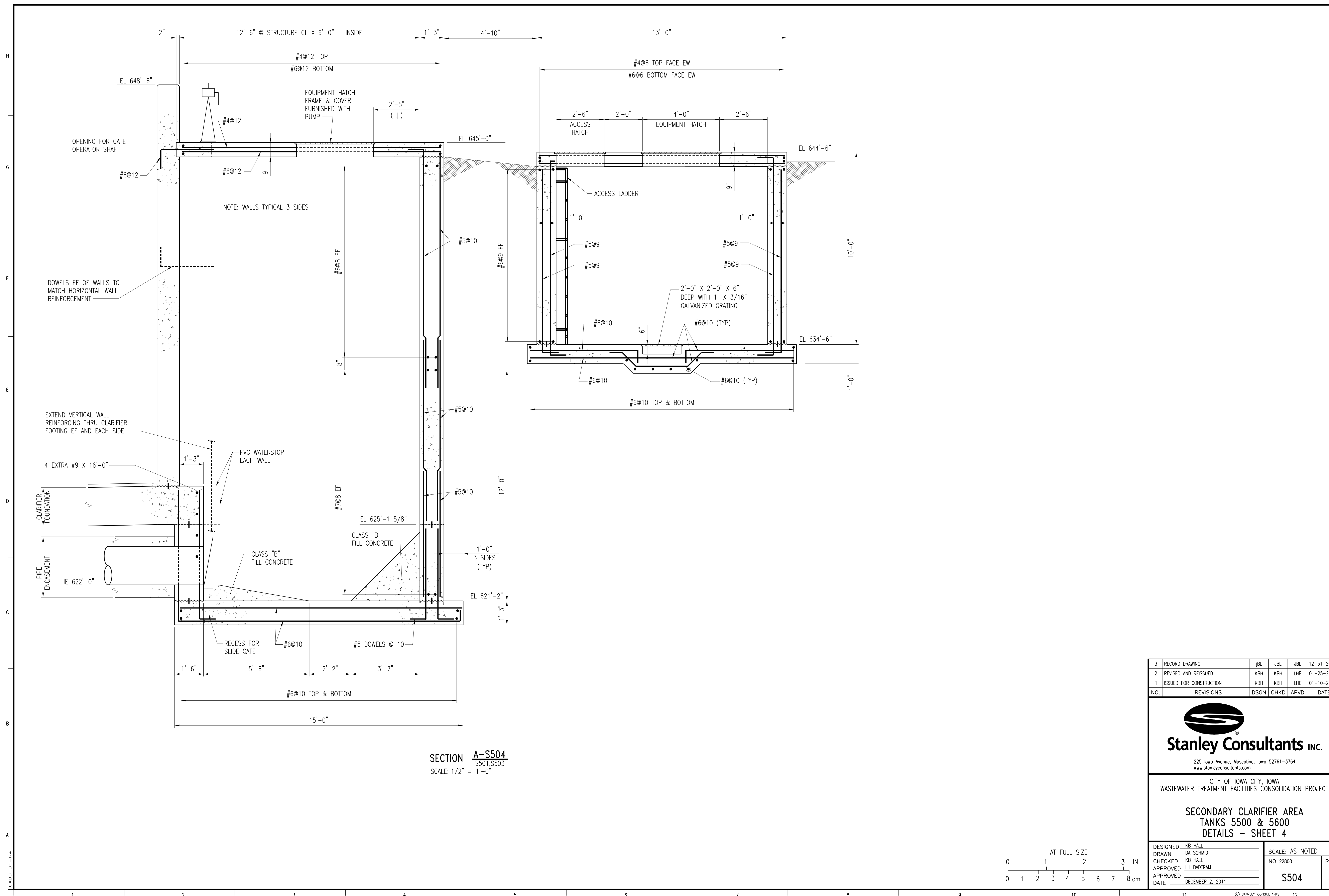
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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SECONDARY CLARIFIER AREA
TANKS 5500 & 5600
DETAILS - SHEET 3**

DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
APPROVED			
DATE	DECEMBER 2, 2011	S503	4



CADD: D1-R4



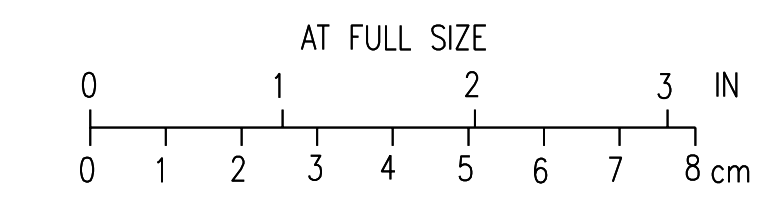
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED AND REISSUED	KBH	KBH	LHB	01-25-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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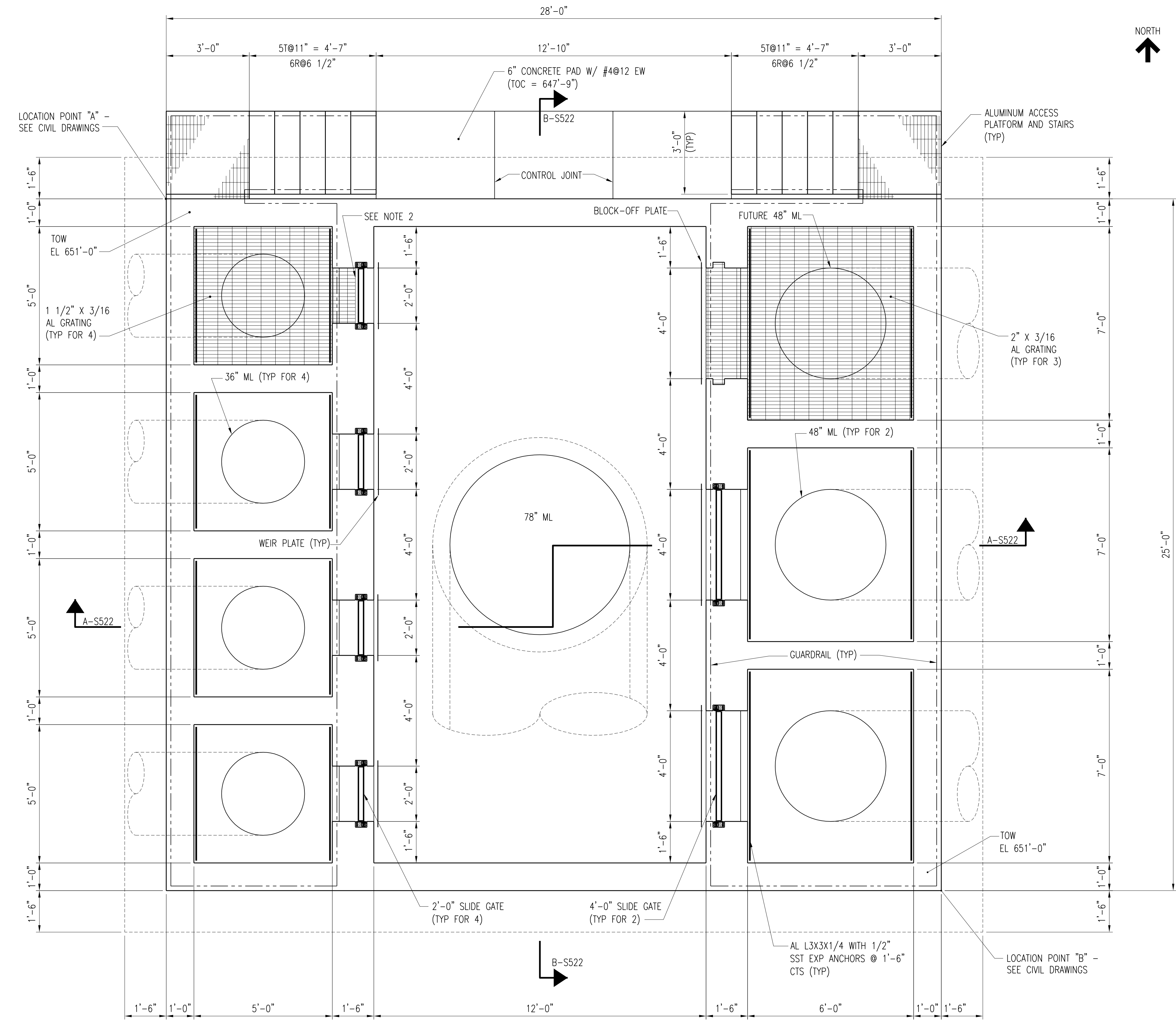
SECONDARY CLARIFIER AREA
TANKS 5500 & 5600
DETAILS - SHEET 4

DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
APPROVED		S504	3
DATE	DECEMBER 2, 2011		



CADD: D1-R4

- NOTES:**
- SEE MECHANICAL DRAWINGS FOR GATE EQUIPMENT ID.
 - CANTILEVER GRATING TO WITHIN 1 INCH OF GATE (TYP).



SECONDARY FLOW SPLITTER PLAN @ EL 651'-00"
 SCALE: 1/2" = 1'-0"

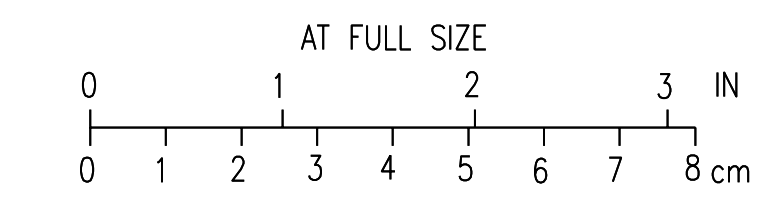
3	RECORD DRAWING	JBL	JBL	JBL	01-31-2014
2	REVISED AND REISSUED	KBH	KBH	LHB	01-25-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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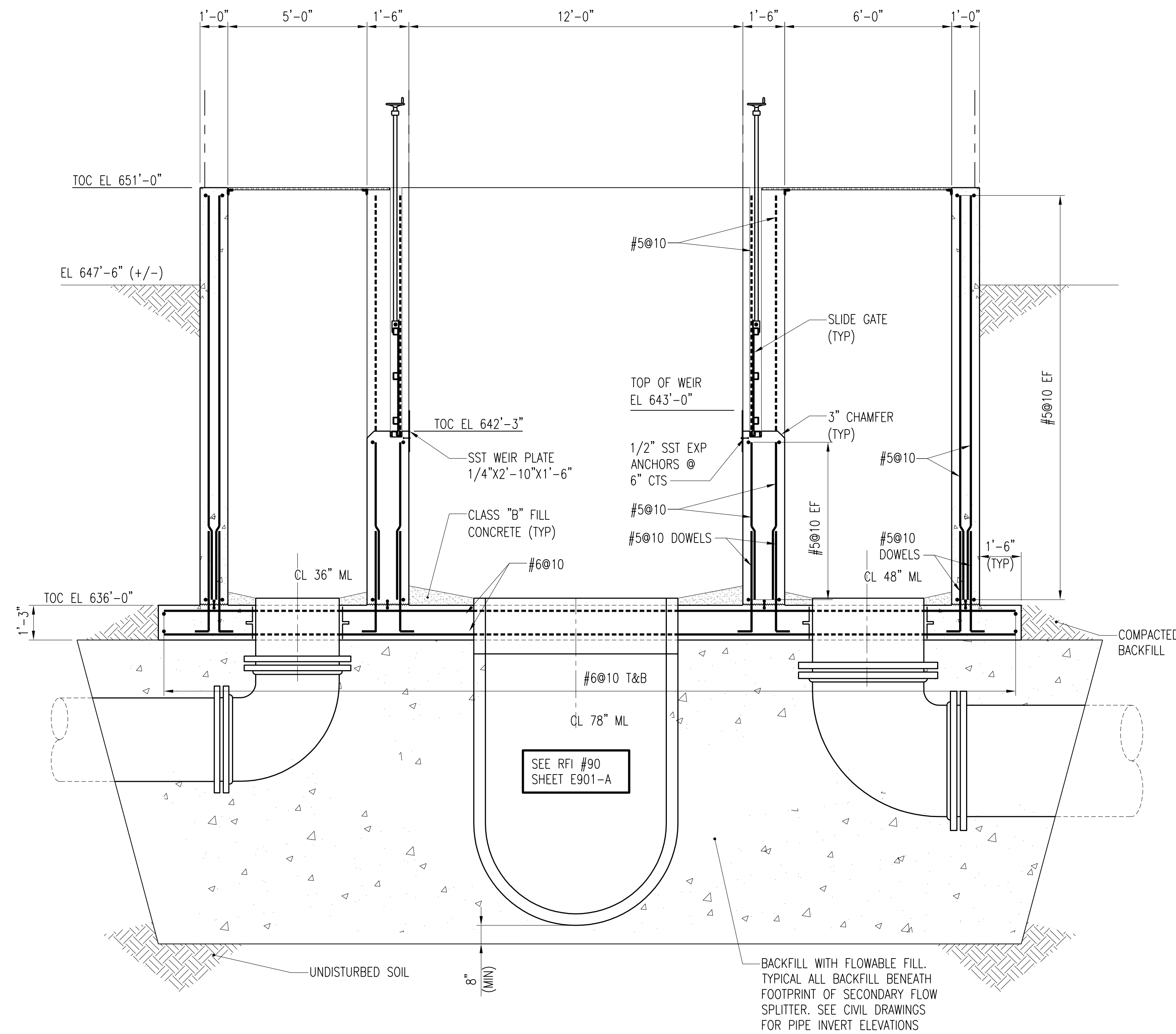
**SECONDARY FLOW SPLITTER
 PLAN @ EL 651'-0"**

DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
DATE	DECEMBER 2, 2011	S520	3

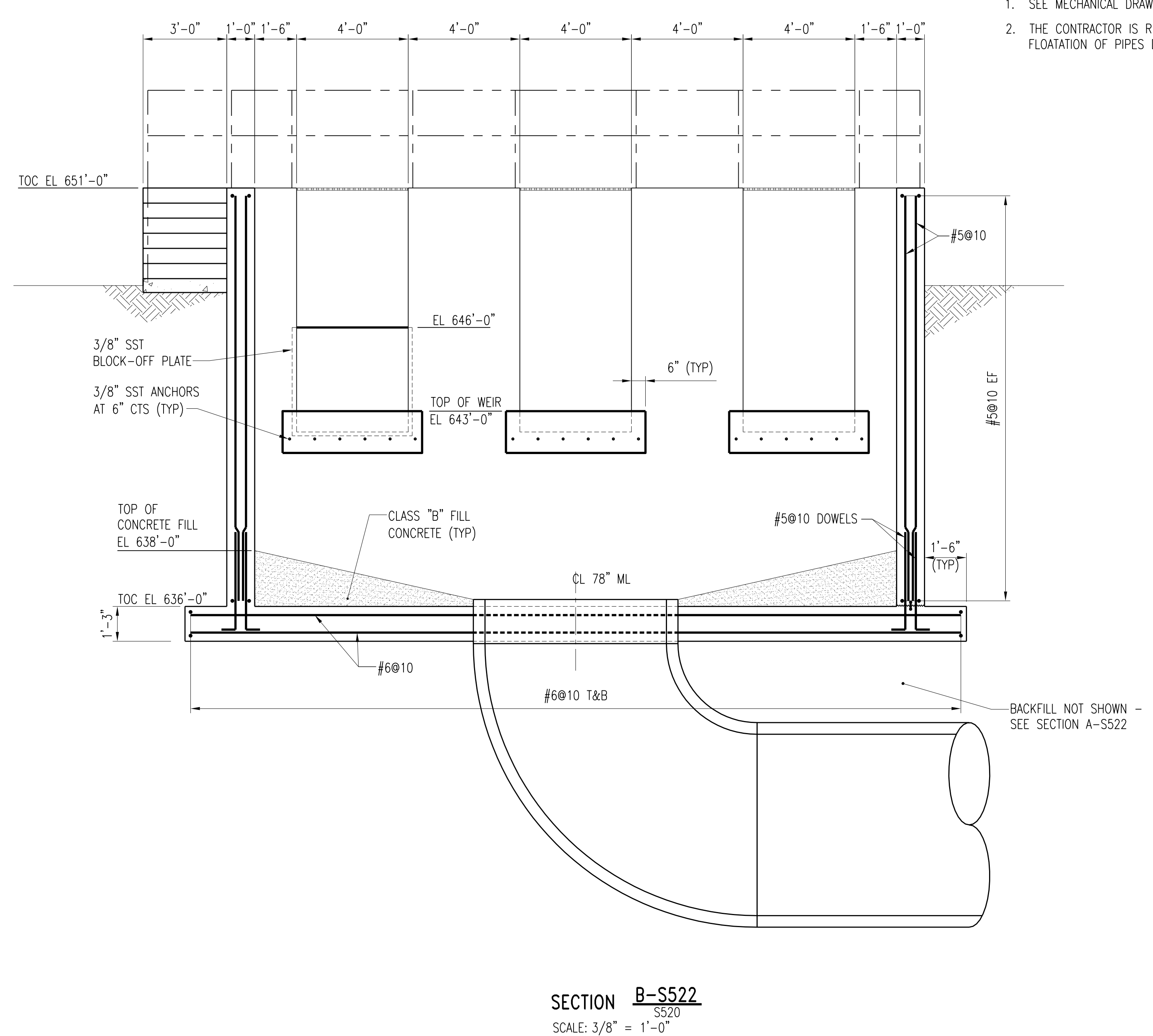


CADD: D1-R4

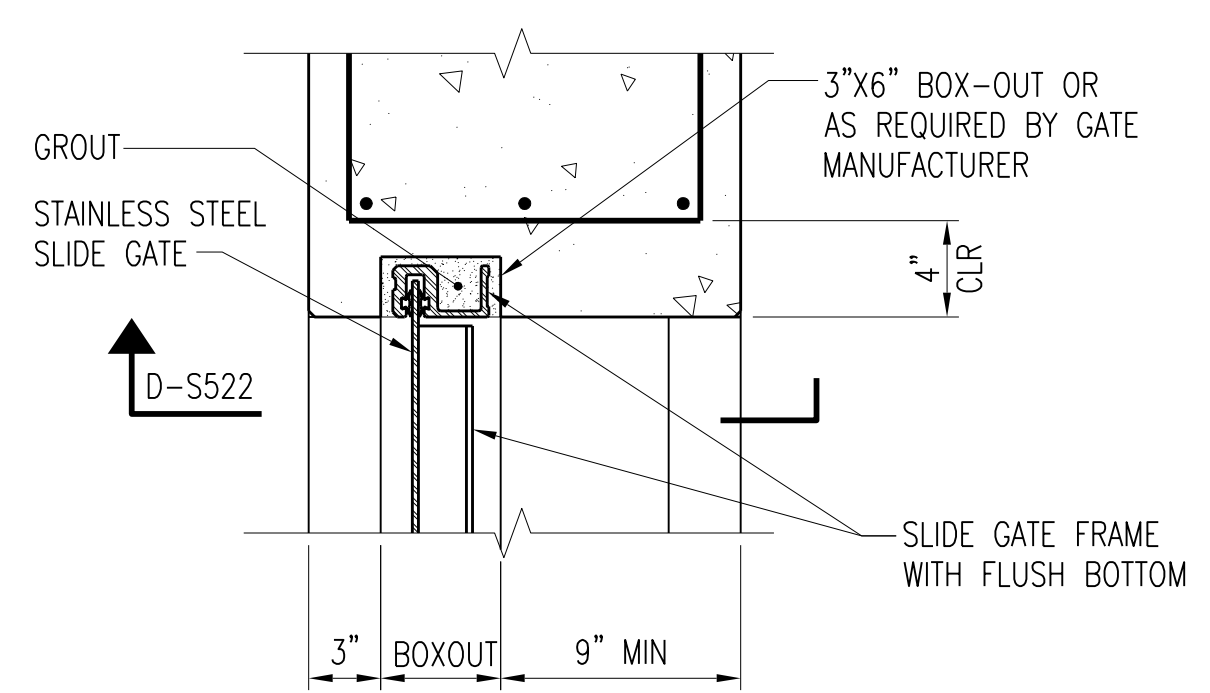
- NOTES:**
- SEE MECHANICAL DRAWINGS FOR GATE EQUIPMENT ID.
 - THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING THE FLOATAION OF PIPES DURING CONSTRUCTION.



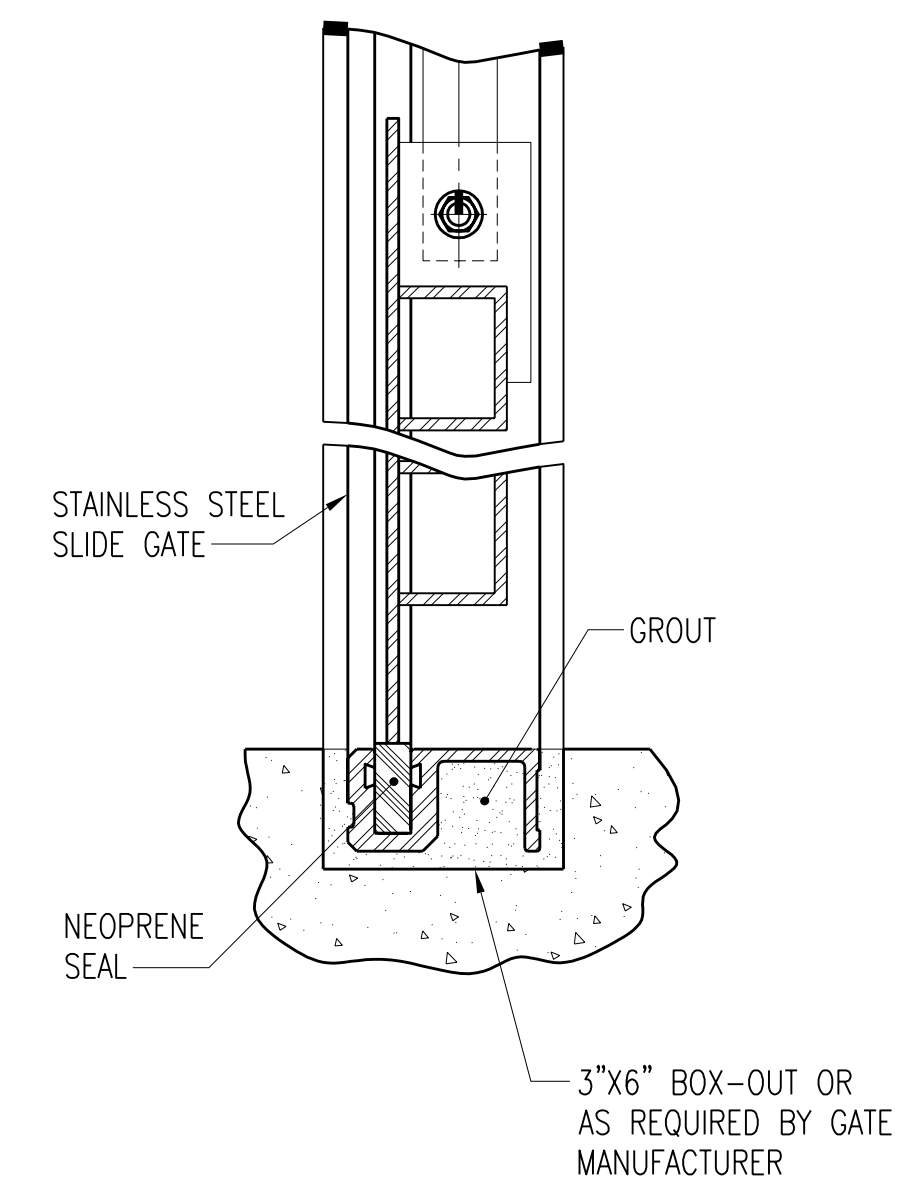
SECTION A-S522
S520
SCALE: 3/8" = 1'-0"



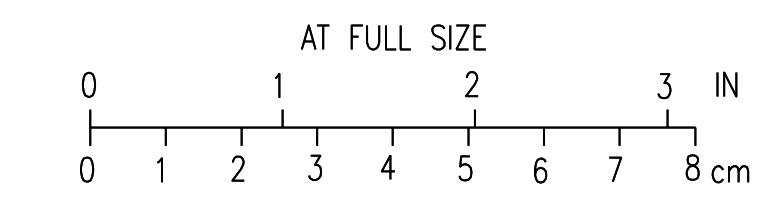
SECTION B-S522
S520
SCALE: 3/8" = 1'-0"



DETAIL C-S522
S521
SCALE: 1 1/2" = 1'-0"



SECTION D-S522
S522
SCALE: 3" = 1'-0"



3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED AND REISSUED	KBH	KBH	LHB	01-25-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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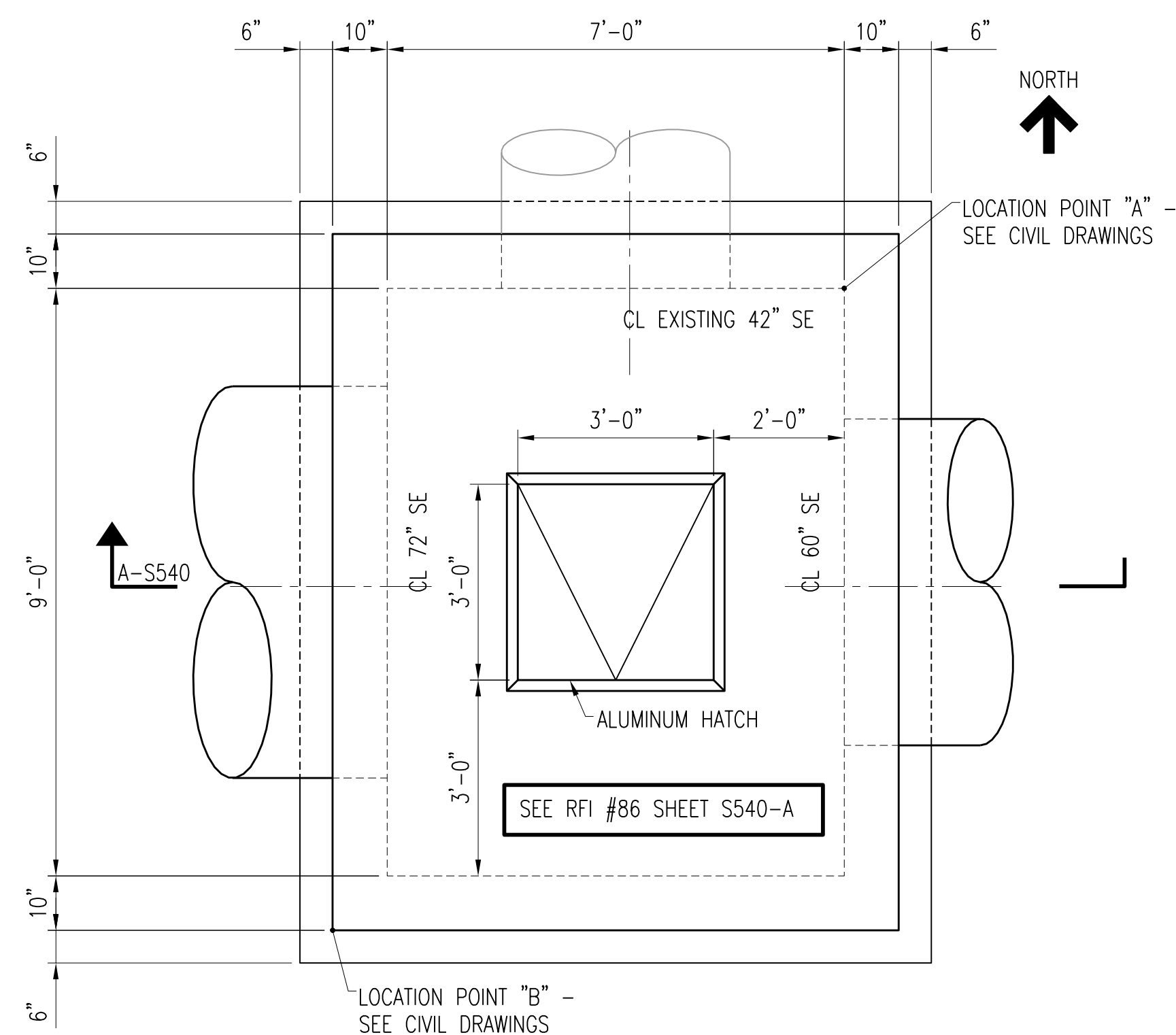
**SECONDARY FLOW SPLITTER
 DETAILS**

DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
APPROVED			
DATE	DECEMBER 2, 2011	S522	3

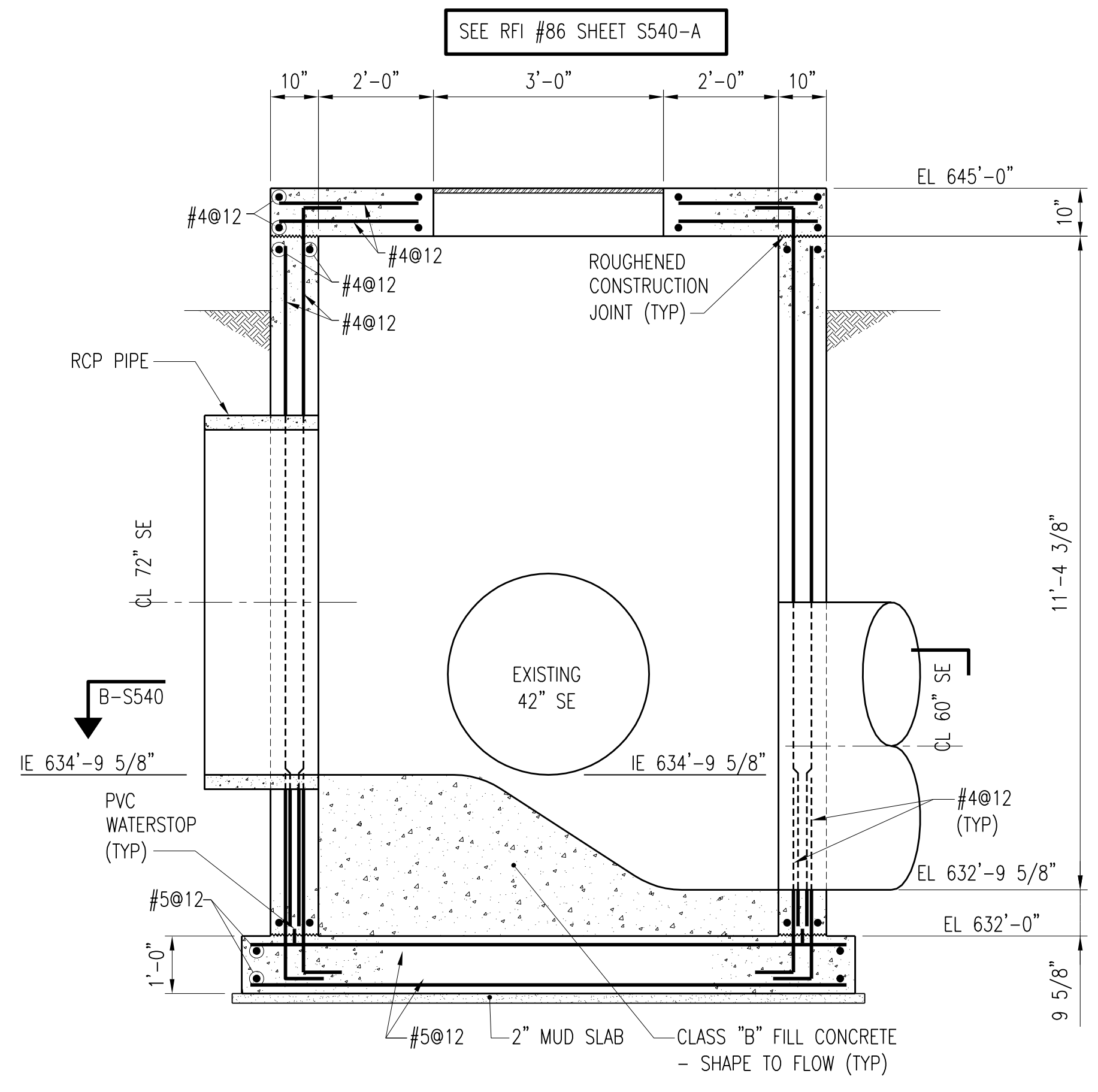
CADD: D1-R4

NOTES:

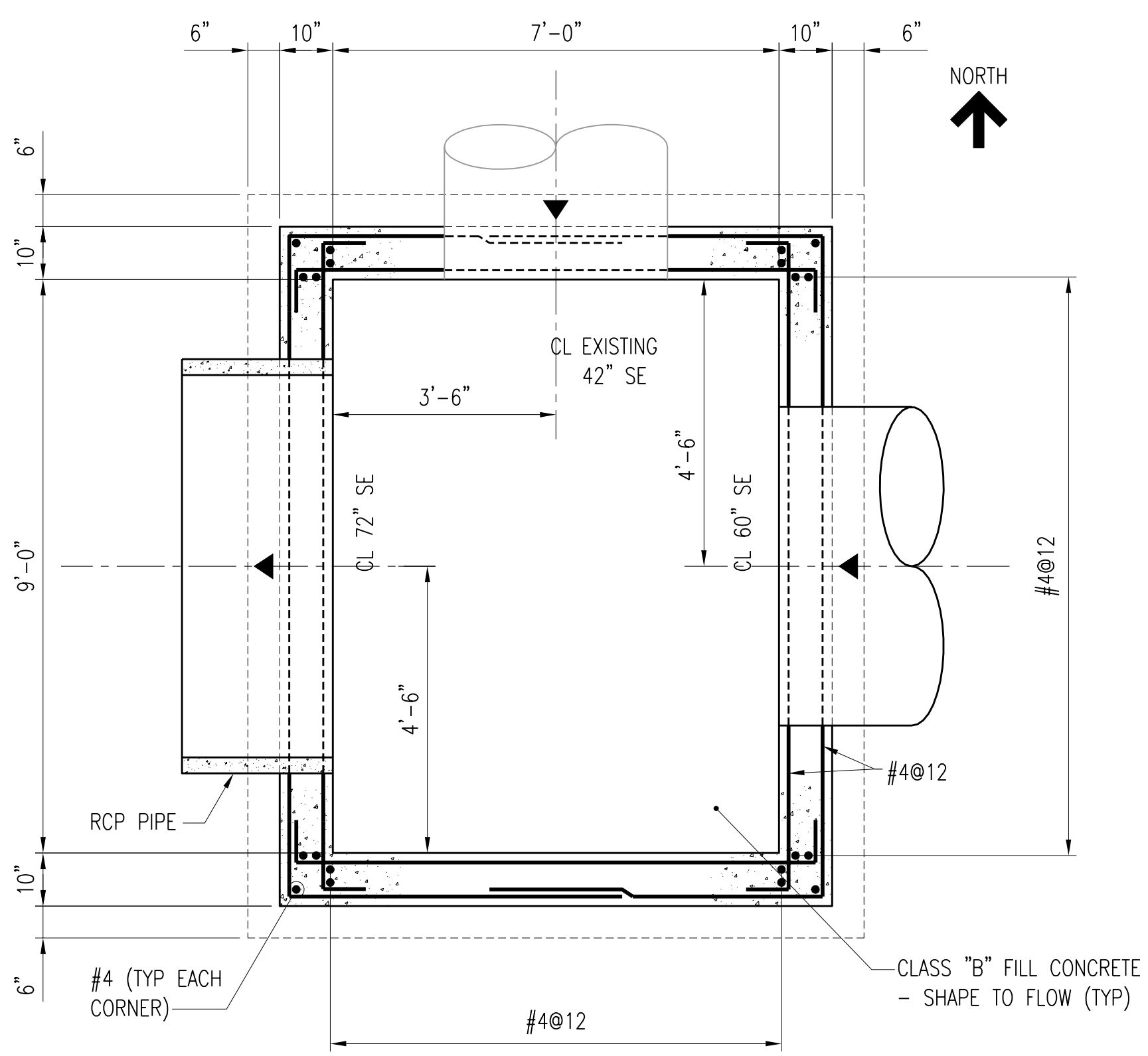
- SEE STRUCTURAL TYPICAL NOTES AND DETAILS FOR ADDITIONAL REINFORCING REQUIREMENTS AROUND PIPE PENETRATIONS AND HATCHES.
- TOP SLAB DESIGN LIVE LOAD: 300 PSF.



PLAN EFFLUENT JUNCTION STRUCTURE NO. 1
SCALE: 1/2" = 1'-0"



SECTION A-S540
SCALE: 1/2" = 1'-0"



SECTION B-S540
SCALE: 1/2" = 1'-0"

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

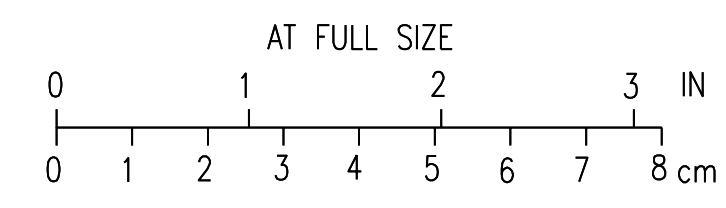
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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SECONDARY CLARIFIER AREA
EFFLUENT JUNCTION STRUCTURE NO. 1
PLAN AND DETAILS**

DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
APPROVED			
DATE	DECEMBER 2, 2011		

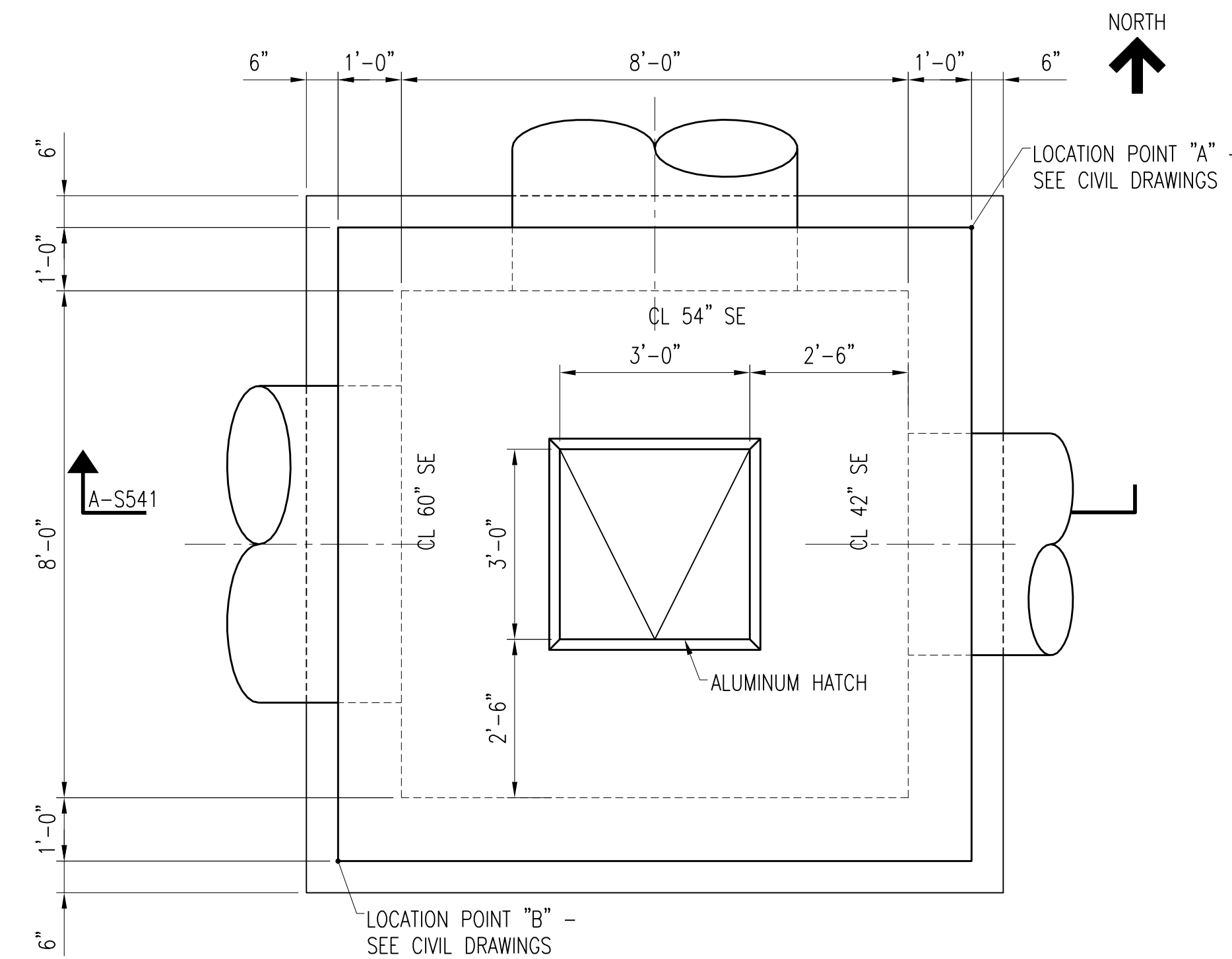
S540
2



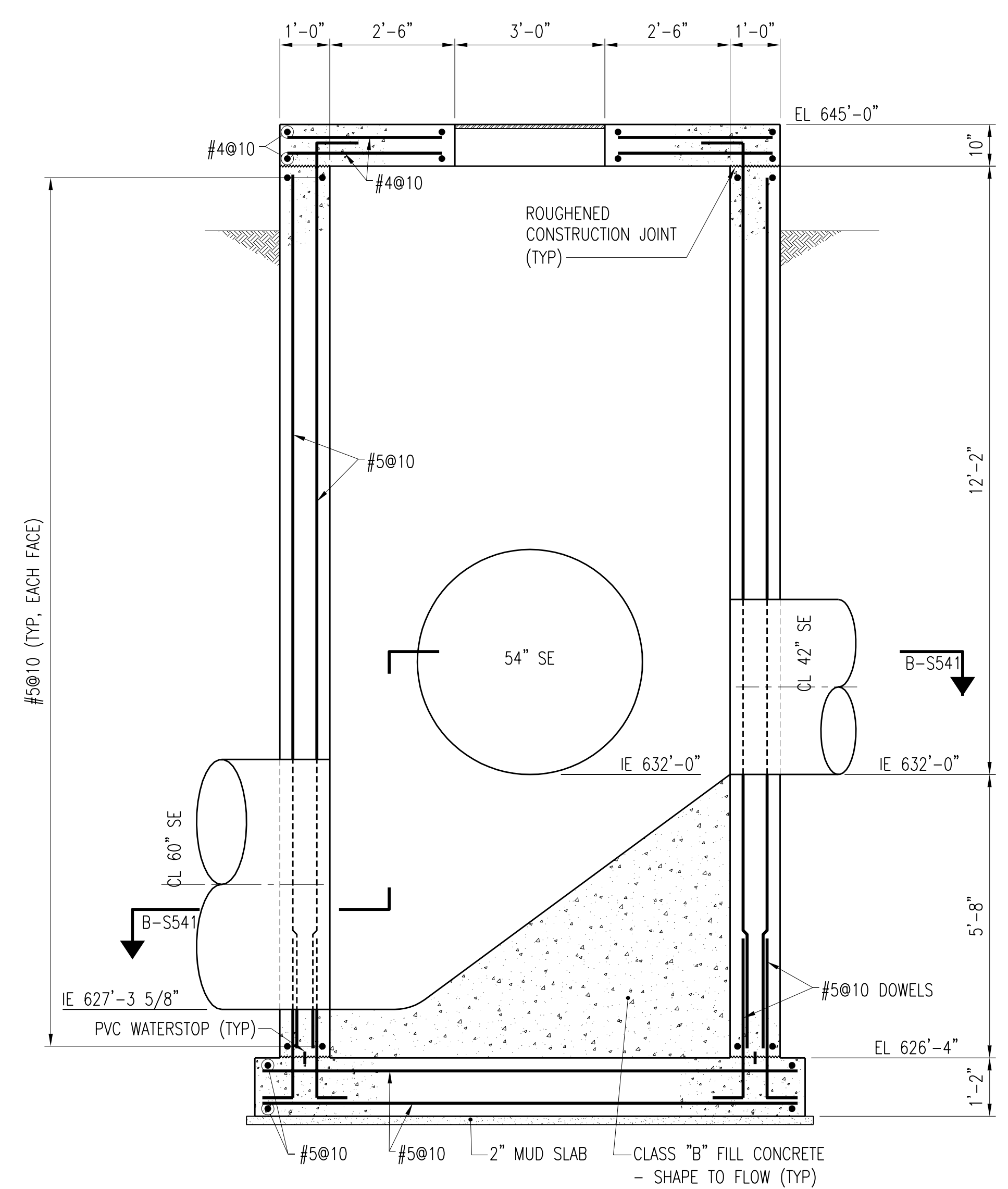
CADD: D1-R4

NOTES:

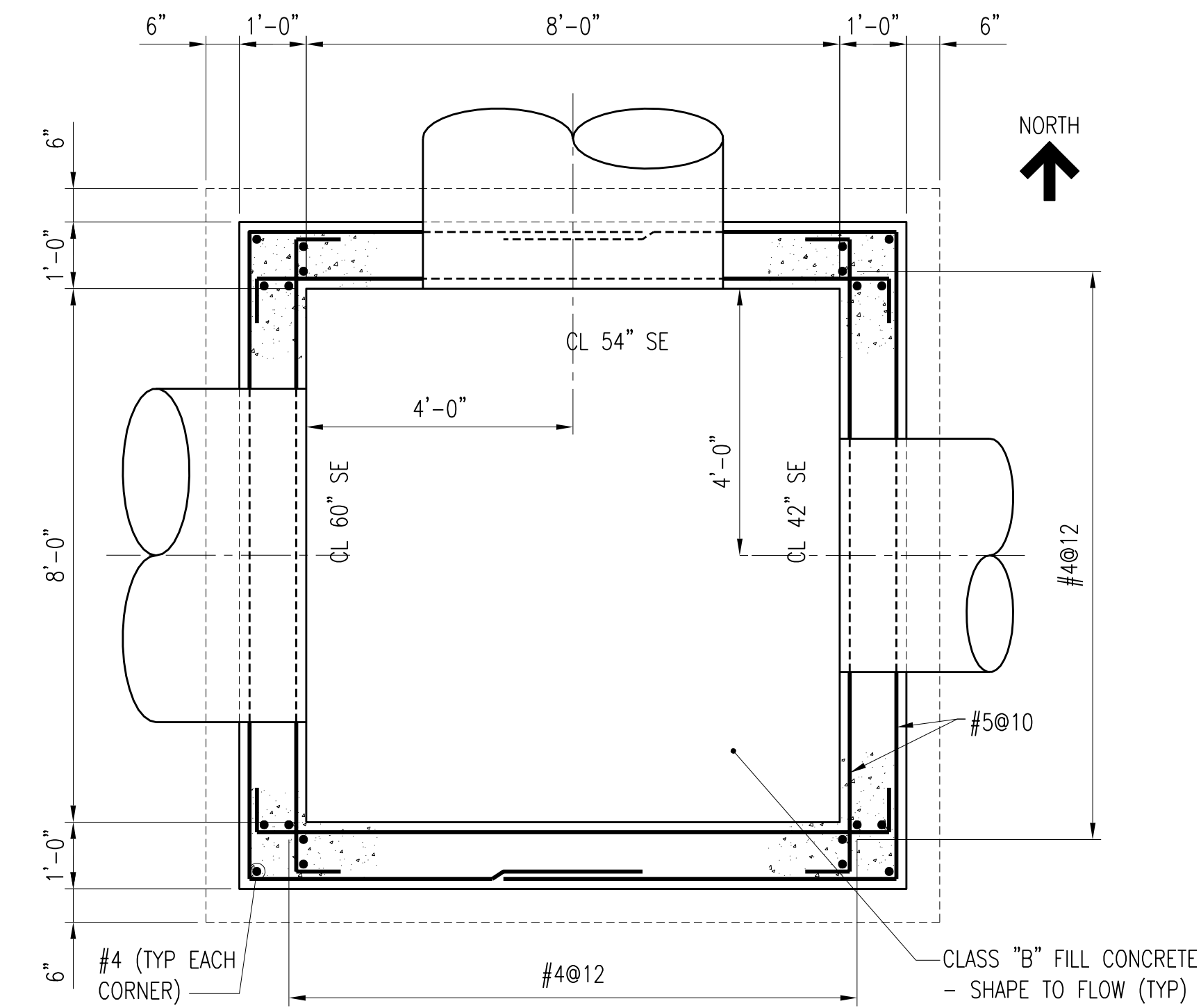
1. SEE STRUCTURAL TYPICAL NOTES AND DETAILS FOR ADDITIONAL REINFORCING REQUIREMENTS AROUND PIPE PENETRATIONS AND HATCHES.
2. TOP SLAB DESIGN LIVE LOAD: 300 PSF.



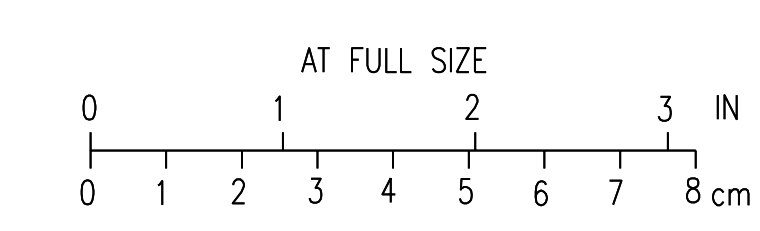
PLAN EFFLUENT JUNCTION STRUCTURE NO. 2
SCALE: 1/2" = 1'-0"



SECTION A-S541
SCALE: 1/2" = 1'-0"



SECTION B-S541
SCALE: 1/2" = 1'-0"



2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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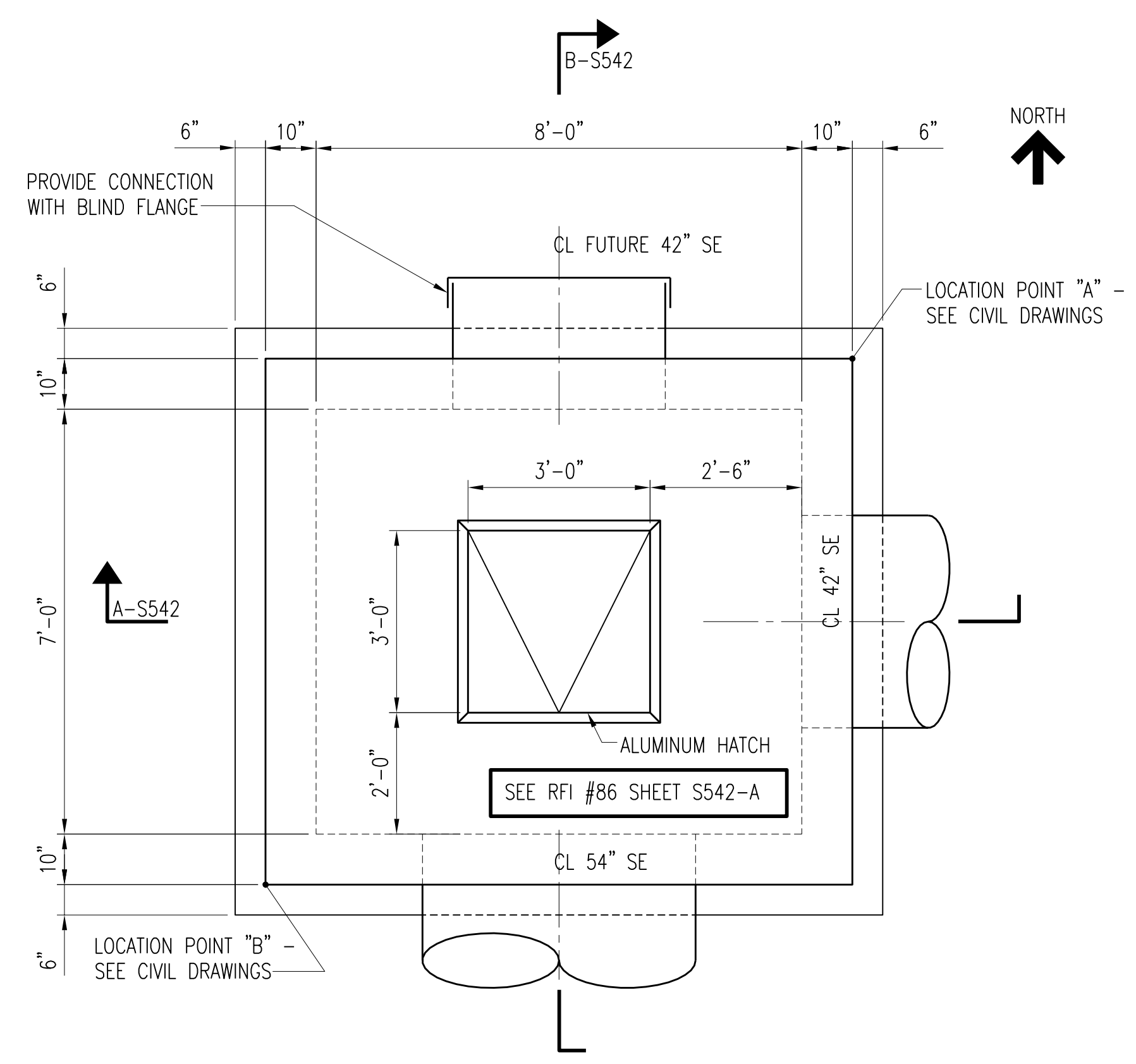
**SECONDARY CLARIFIER AREA
EFFLUENT JUNCTION STRUCTURE NO. 2
PLAN AND DETAILS**

DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
APPROVED			
DATE	DECEMBER 2, 2011	S541	2

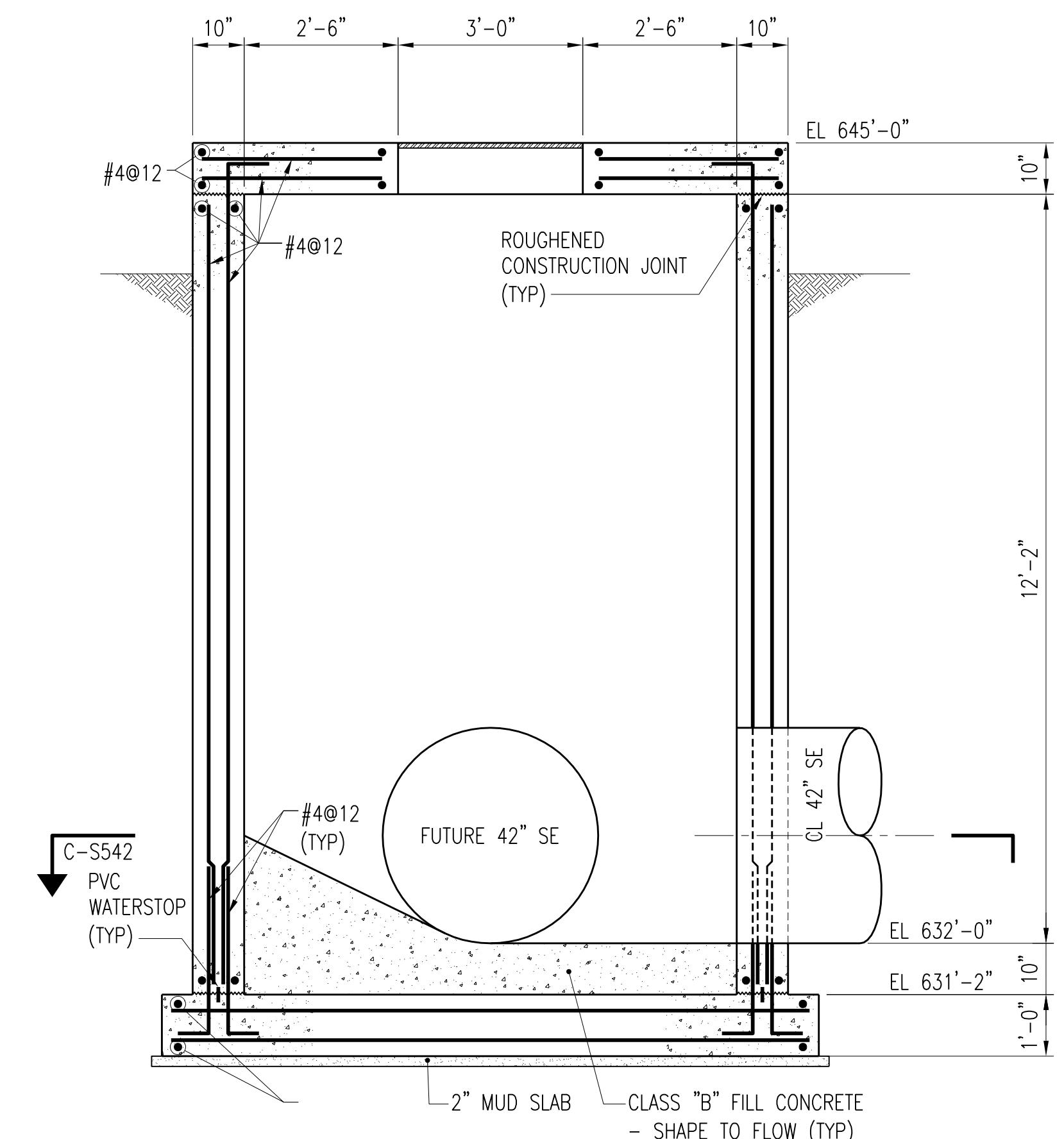
CADD: D1-R4

NOTES:

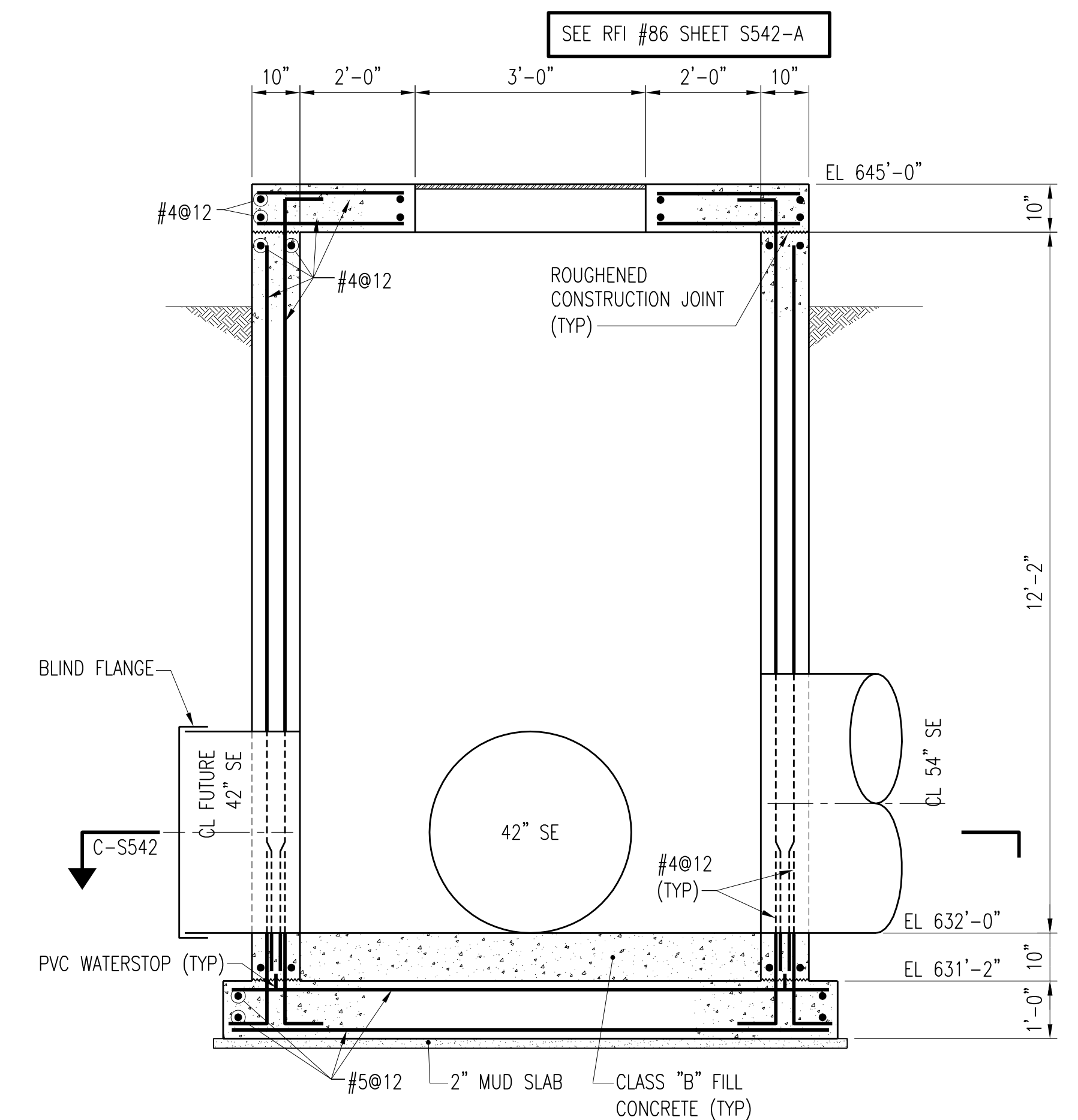
1. SEE STRUCTURAL TYPICAL NOTES AND DETAILS FOR ADDITIONAL REINFORCING REQUIREMENTS AROUND PIPE PENETRATIONS AND HATCHES.
2. TOP SLAB DESIGN LIVE LOAD: 300 PSF.



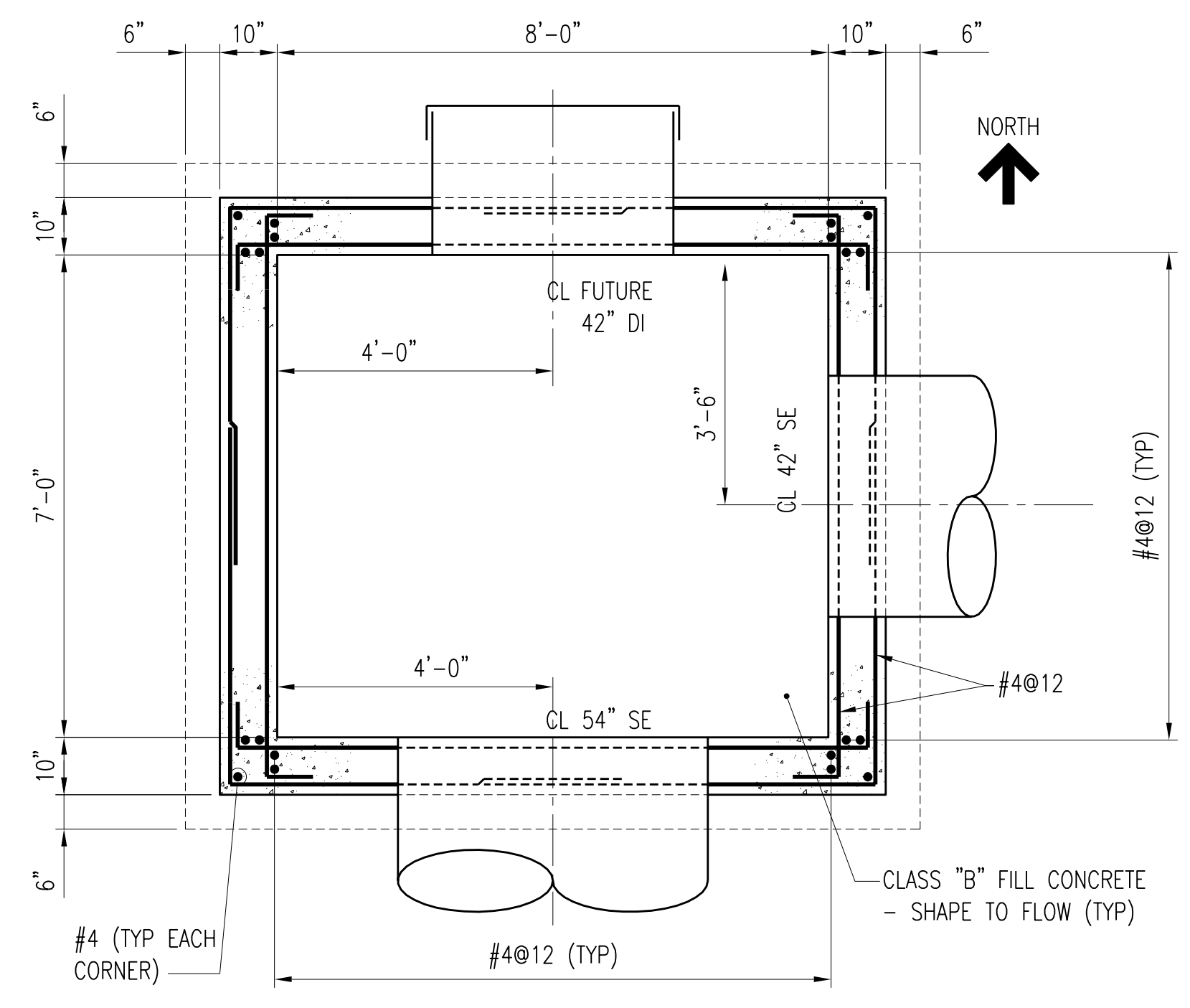
PLAN EFFLUENT JUNCTION STRUCTURE NO. 3
SCALE: 1/2" = 1'-0"



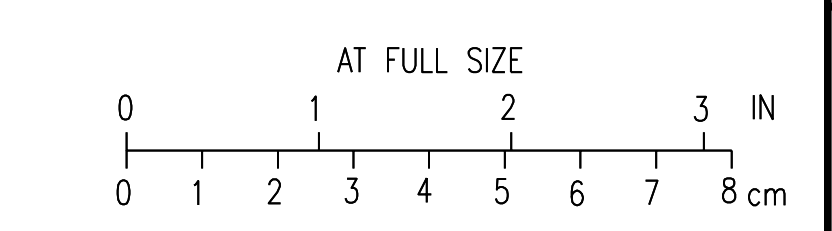
SECTION A-S542
SCALE: 1/2" = 1'-0"



SECTION B-S542
SCALE: 1/2" = 1'-0"



SECTION C-S542
SCALE: 1/2" = 1'-0"



2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

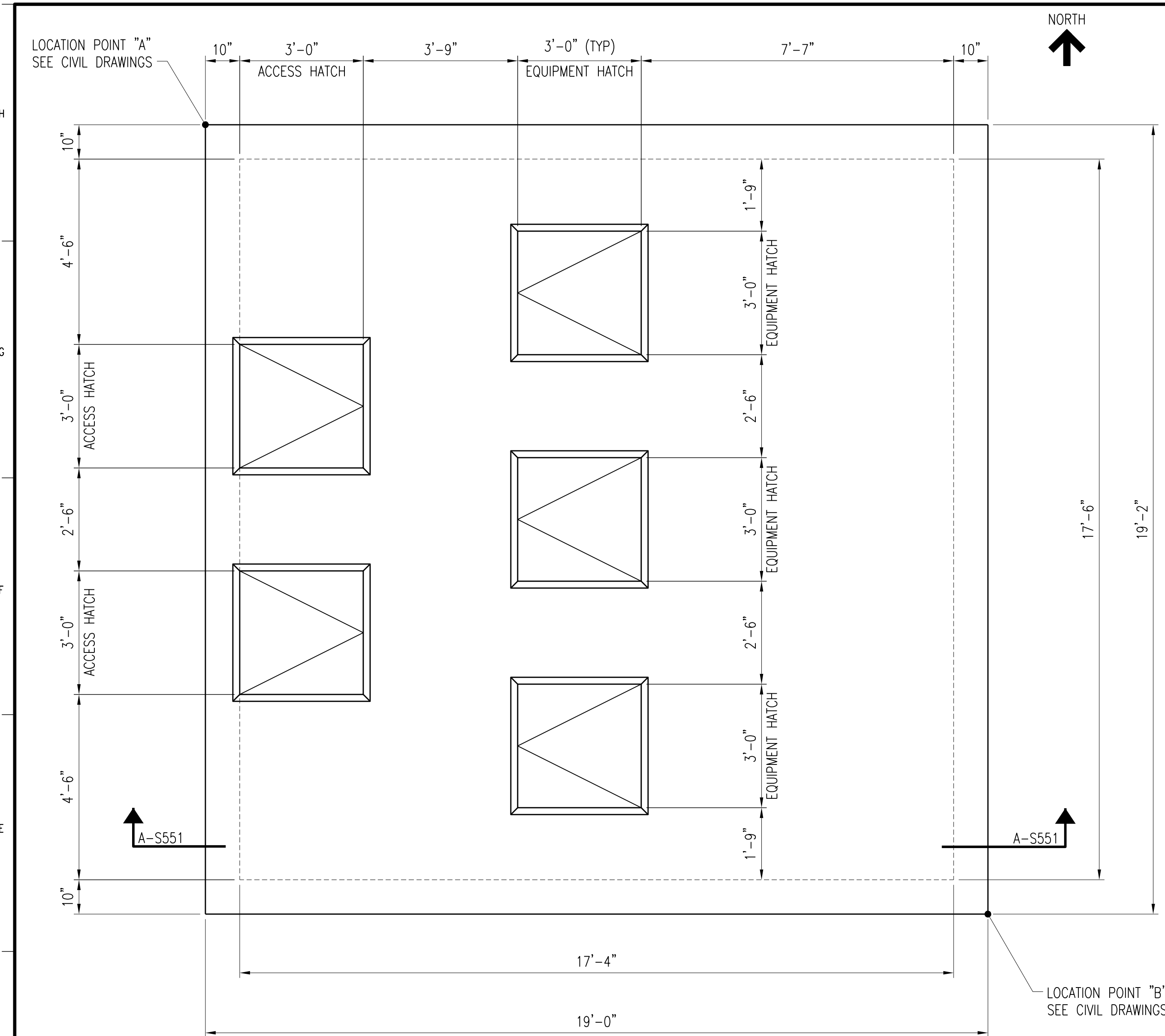

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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

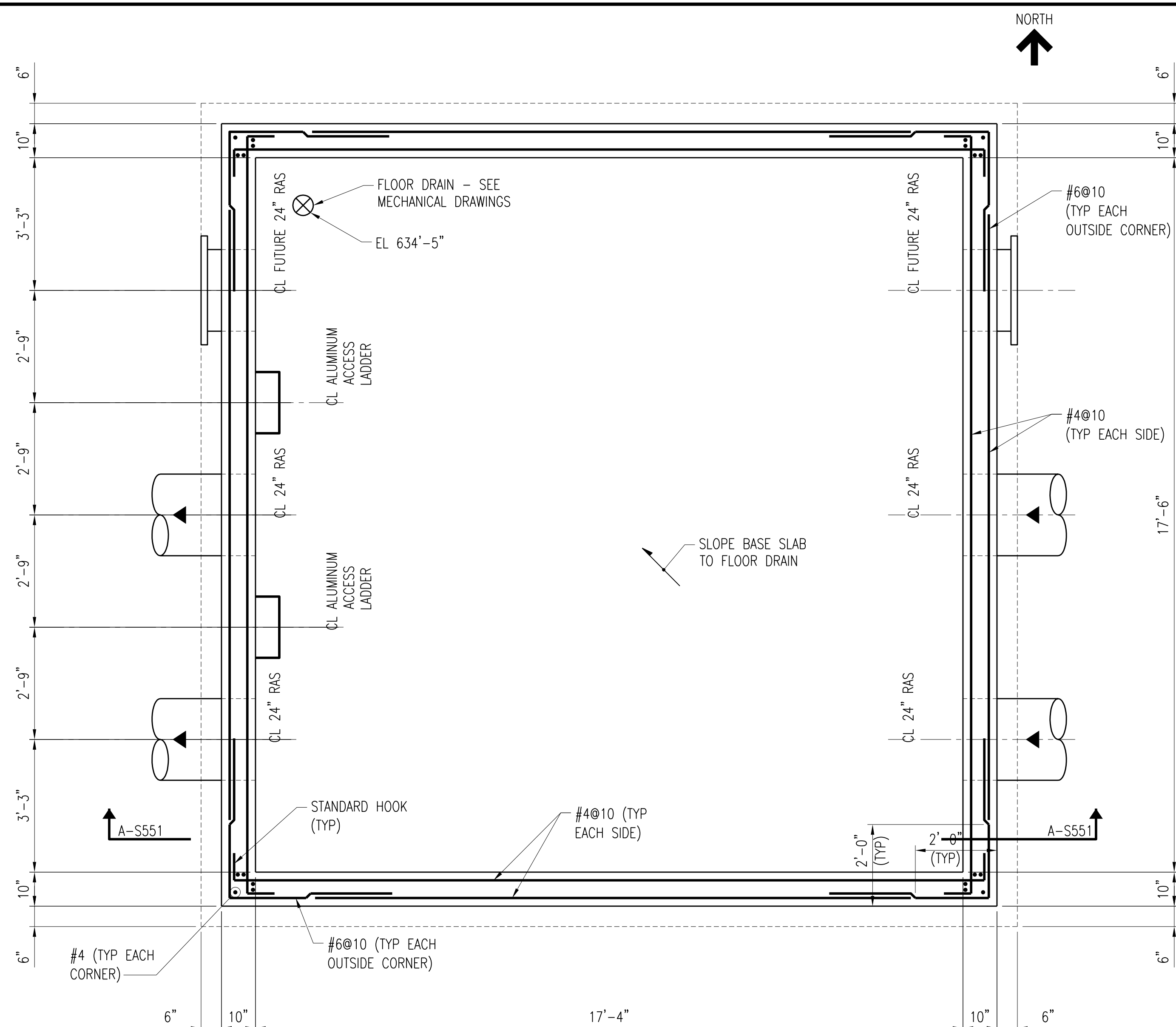
**SECONDARY CLARIFIER AREA
EFFLUENT JUNCTION STRUCTURE NO. 3
PLAN AND DETAILS**

DESIGNED	KB HALL	SCALE: AS NOTED	NO. 22800	REV. 2
DRAWN	DA SCHMIDT			
CHECKED	KB HALL			
APPROVED	LH BADTRAM			
APPROVED				
DATE	DECEMBER 2, 2011	S542		

CADD: D1-R4



PLAN AT EL 644'-6"
SCALE: 1/2" = 1'-0"



PLAN AT EL 640'-0"
SCALE: 1/2" = 1'-0"

NOTES:

1. TOP SLAB DESIGN LIVE LOAD: 300 PSF.
2. SEE STANDARD STRUCTURAL NOTES AND DETAILS FOR ADDITIONAL REINFORCING REQUIREMENTS AROUND PIPES AND OTHER OPENINGS.
3. APPLY DAMPPROOFING TO EXTERIOR VAULT WALLS IN ACCORDANCE WITH SPECIFICATION 07 11 00.

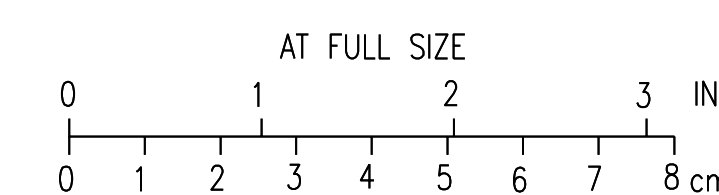
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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**SECONDARY CLARIFIER AREA
RAS METER VAULT
PLANS**

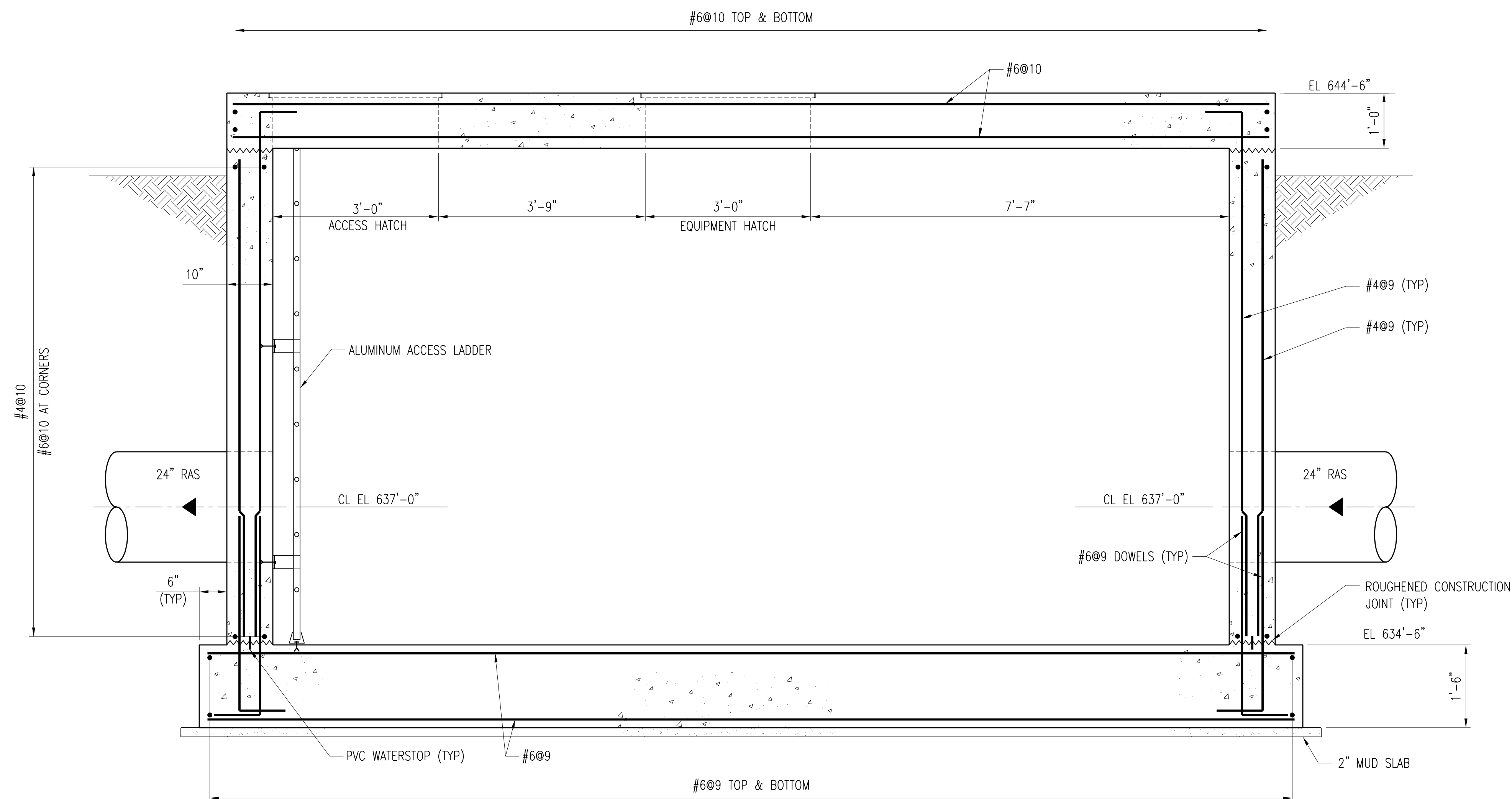
DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
APPROVED		S550	2
DATE	DECEMBER 2, 2011		



CADD: D1-R4

NOTES:

1. TOP SLAB DESIGN LIVE LOAD: 300 PSF.
2. SEE STANDARD STRUCTURAL NOTES AND DETAILS FOR ADDITIONAL REINFORCING REQUIREMENTS AROUND PIPES AND OTHER OPENINGS.
3. APPLY DAMPPROOFING TO EXTERIOR VAULT WALLS IN ACCORDANCE WITH SPECIFICATION 07 11 00.



SECTION A-S551
S550
SCALE: 3/4" = 1'-0"

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

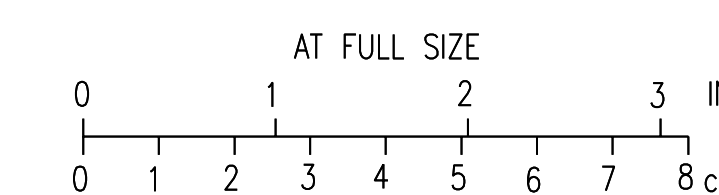

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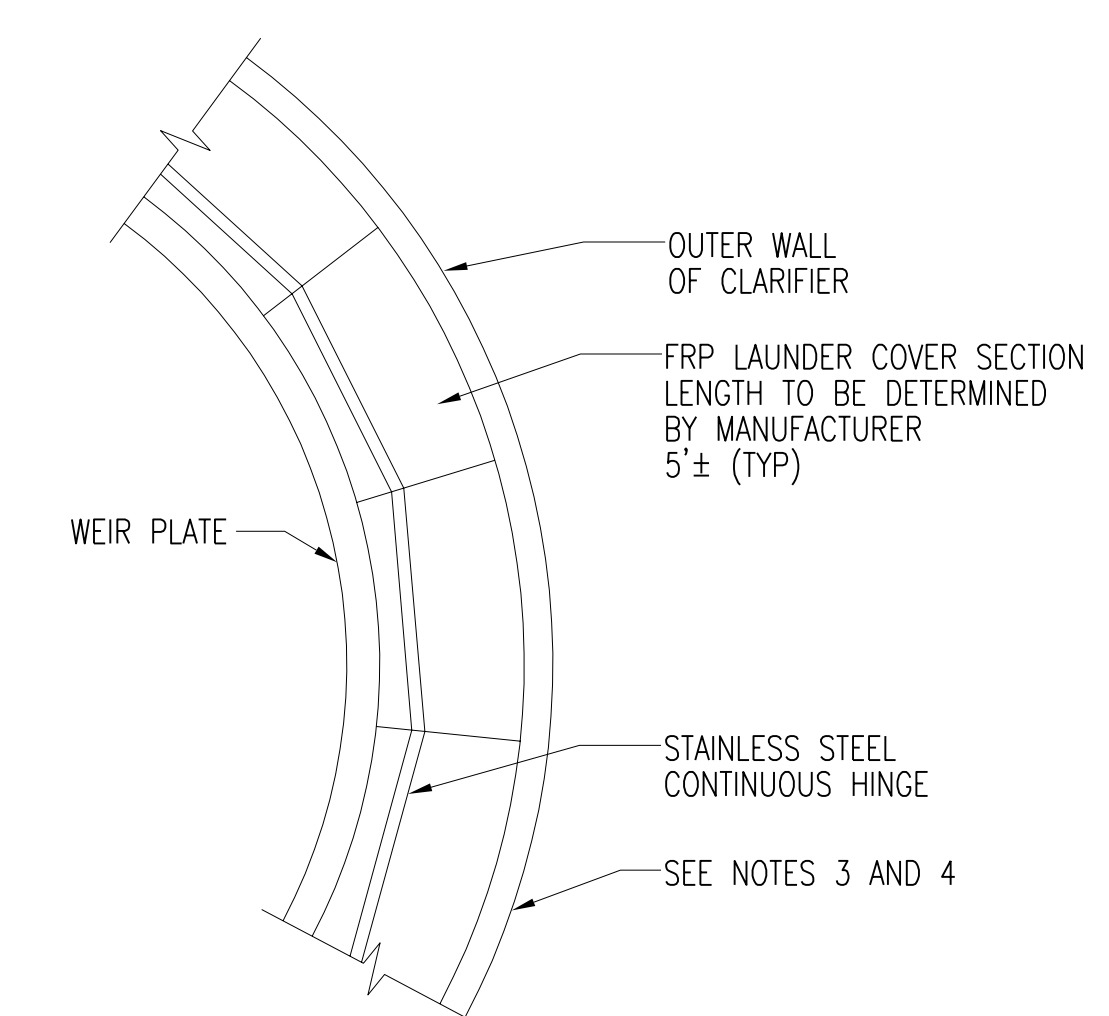
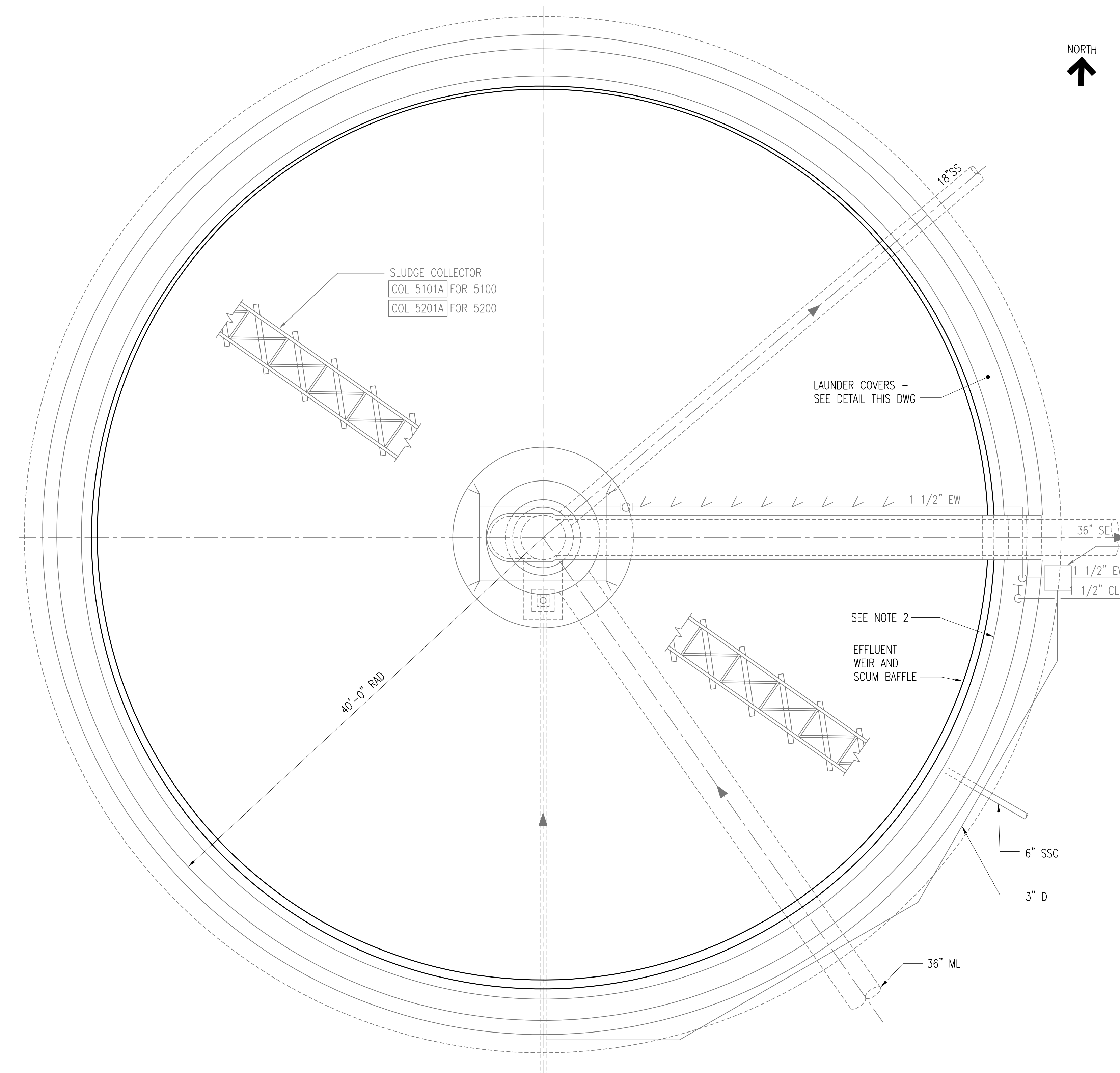
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SECONDARY CLARIFIER AREA
RAS METER VAULT
DETAILS**

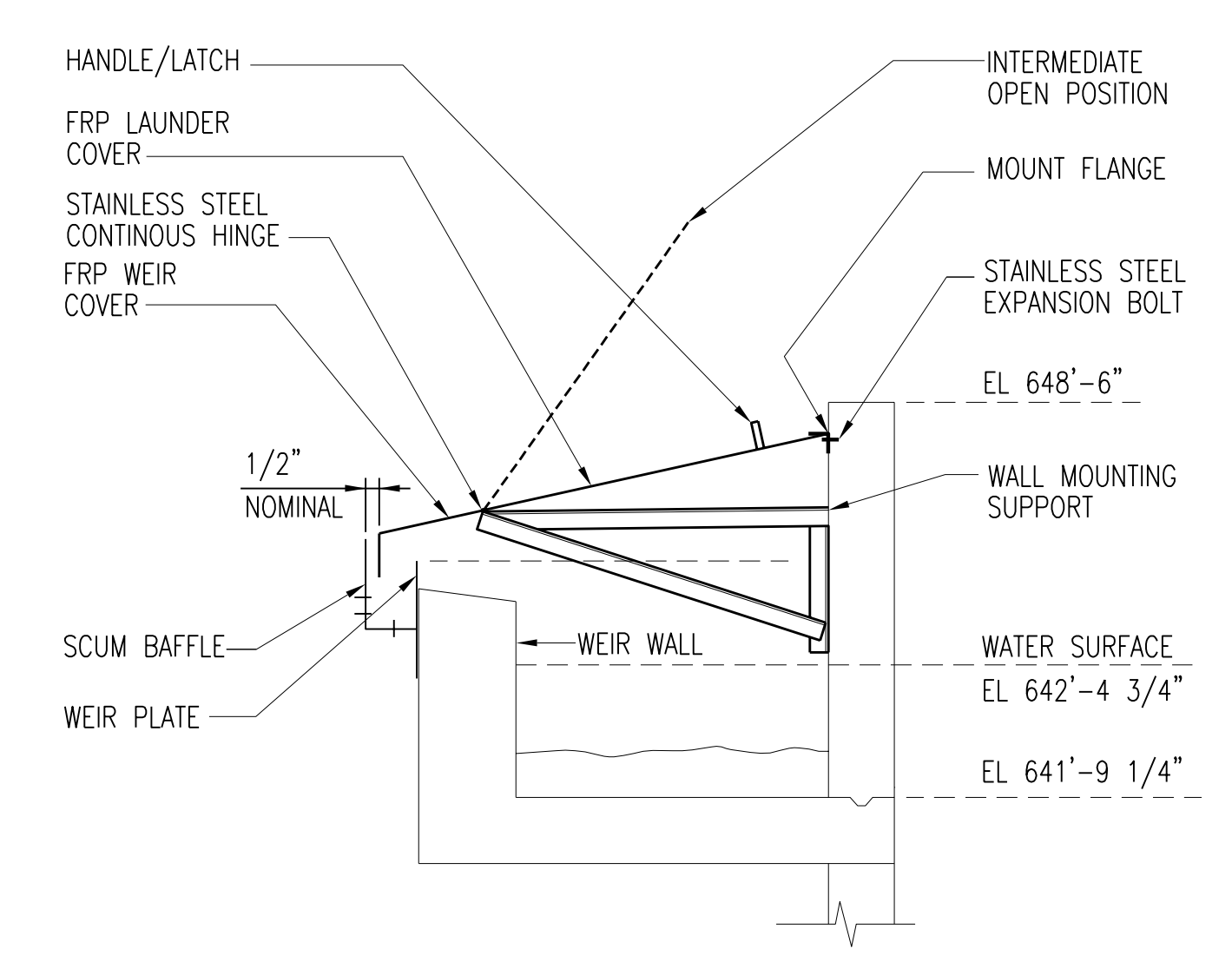
DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
APPROVED			
DATE	DECEMBER 2, 2011		

S551 **2**





PLAN - LAUNDRY COVERS
SCALE: NONE



LAUNDRY COVER DETAIL
SCALE: NONE

- NOTES:**
1. SECONDARY CLARIFIER 5200 IS SIMILAR.
 2. REPLACE V-NOTCH EFFLUENT WEIRS AND SCUM BAFFLES. SET TOP OF WEIR AT 643'-1 3/4"
 3. CONTRACTOR TO FIELD VERIFY EFFLUENT LAUNDRY DIMENSIONS.
 4. ALL HARDWARE TO BE 316 STAINLESS STEEL.

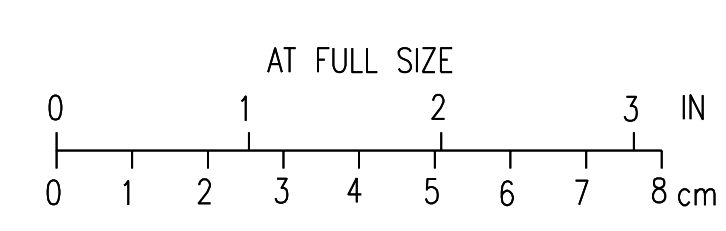
TYPICAL SECONDARY CLARIFIER MODIFICATIONS PLAN (NO. 5100)
SCALE: 3/16" = 1'-0"

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	CLB	CLB	MA/JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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**SECONDARY CLARIFIER AREA
TANKS 5100 & 5200 MECHANICAL PLAN**



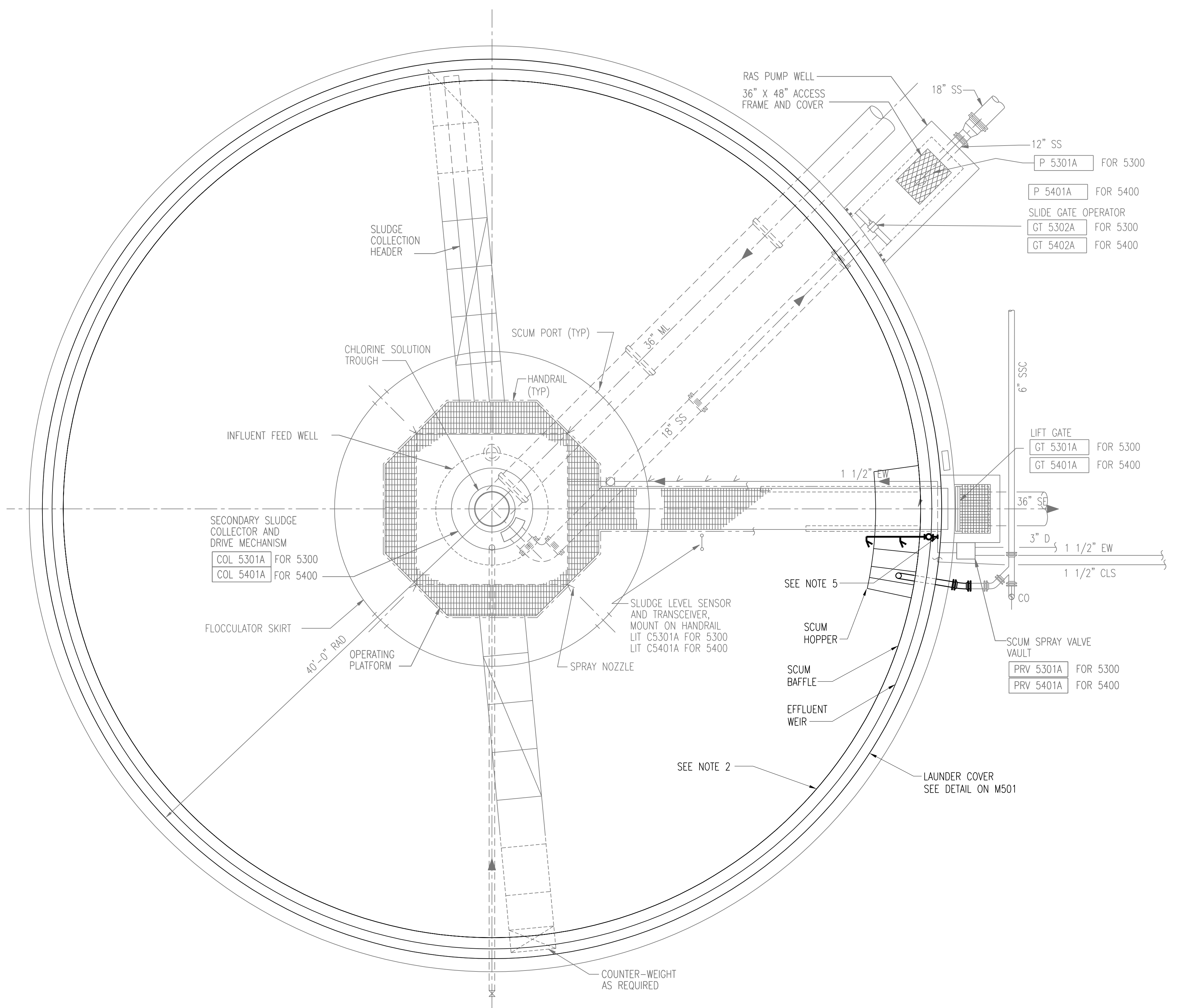
DESIGNED	CL BARK	SCALE: AS NOTED	
DRAWN	LJ OSBORN	NO. 22800	REV.
CHECKED	CL BARK		
APPROVED	M AKYUREK		
APPROVED	JM BRADY		
DATE	DECEMBER 2, 2011		

M501 **2**

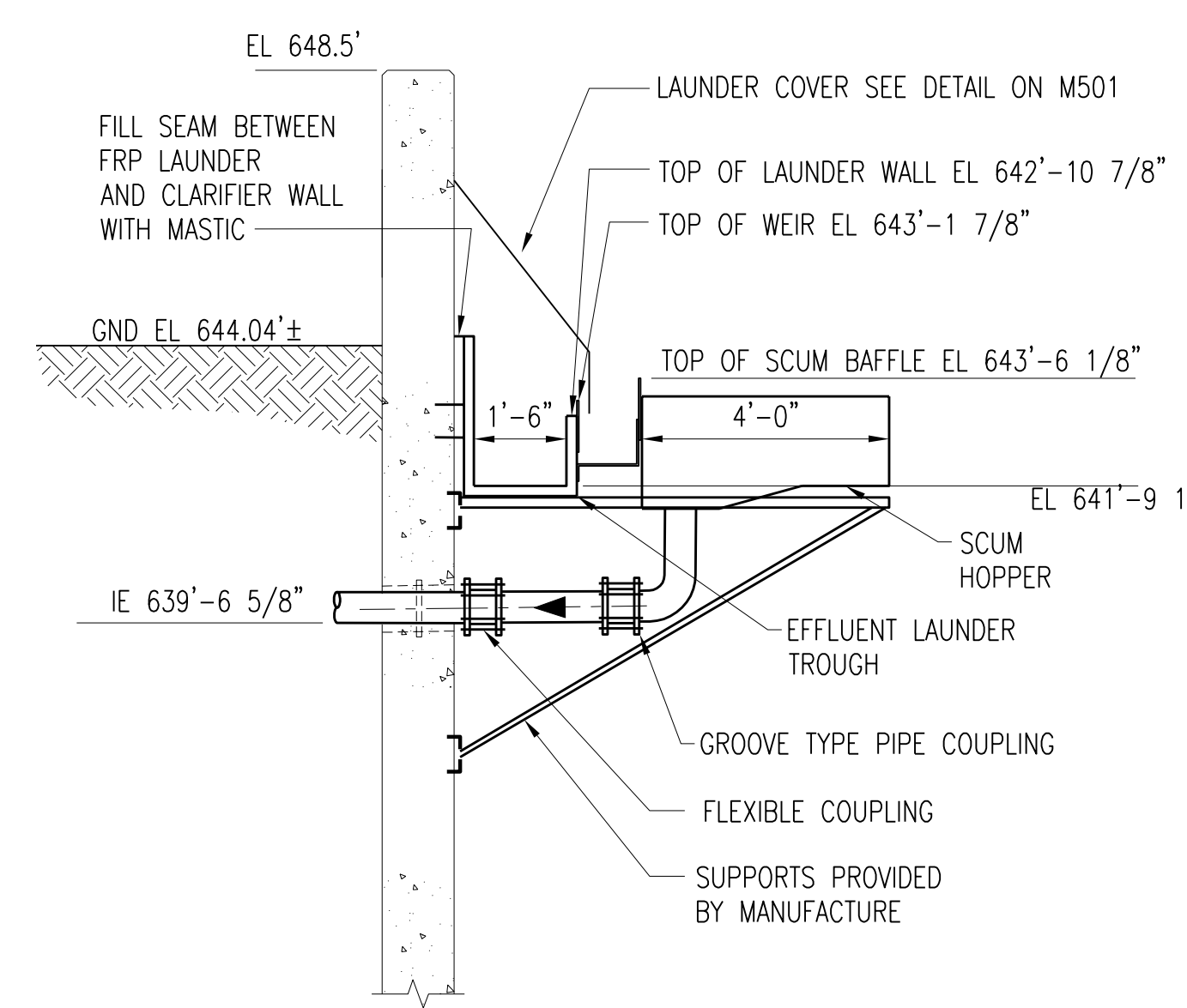
CADD: D1-R4

NOTES:

1. SECONDARY CLARIFIER 5400 IS SIMILAR.
2. INSTALL INNER WALL MOUNTED PERIPHERAL EFFLUENT LAUNDERS, AND LAUNDER COVERS. REPLACE SCUM BAFFLES AND ALL ASSOCIATED SCUM MANAGEMENT EQUIPMENT. SET TOP OF WEIR AT 643'-1 3/4"
3. INSTALL FRP EFFLUENT LAUNDER, SCUM BAFFLE AND EFFLUENT WEIR ACCORDING TO MANUFACTURER RECOMMENDATIONS.
4. SEE TYPICAL SECTION ON SHEET M503.
5. TEE CONNECTION TO EXISTING 1 1/2" EW LINE WITH ISOLATION VALVE ON NEW 1 1/2" LINE.
6. FOR CONTINUATION OF SITE PIPING SEE DRAWING C38.
7. INSULATE AND HEAT TRACE 1 1/2" EW LINES.



TYPICAL SECONDARY CLARIFIER MODIFICATIONS PLAN (NO. 5300)
SCALE: 3/16" = 1'-0"



FIBERGLASS (FRP) EFFLUENT LAUNDER, WEIR AND SCUM EQUIPMENT
DETAIL FOR 5300 AND 5400
SCALE: 3/8" = 1'-0"

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	ADDED NOTE	CLB	CLB	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	CLB	CLB	MA/JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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**SECONDARY CLARIFIER AREA
TANKS 5300 & 5400 MECHANICAL PLAN**

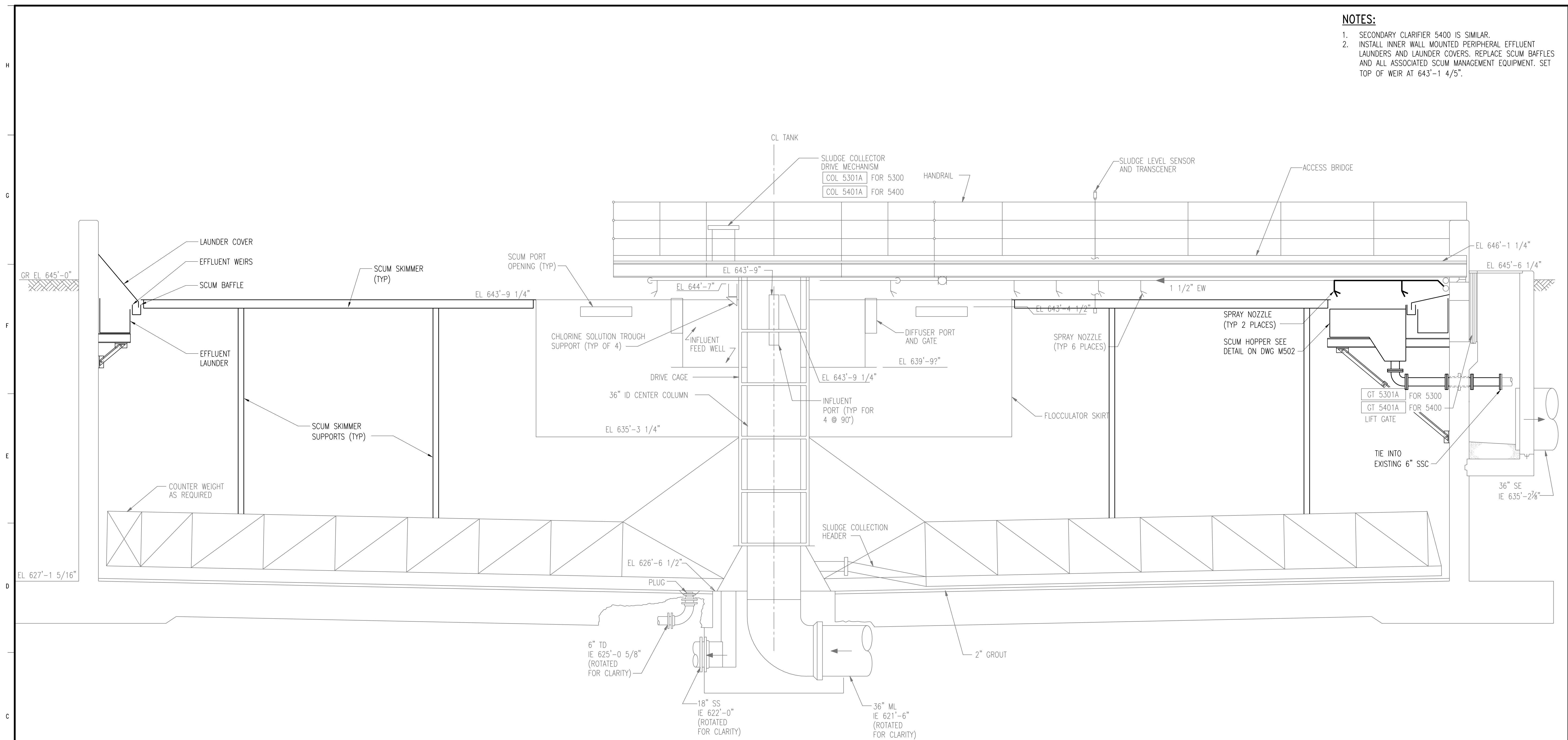


DESIGNED	CL BARK	SCALE:	AS NOTED
DRAWN	LJ OSBORN	NO.	22800
CHECKED	CL BARK	REV.	
APPROVED	M AKYUREK	M502	3
APPROVED	JM BRADY		
DATE	DECEMBER 2, 2011		

CADD: D1-1-R4

NOTES:

1. SECONDARY CLARIFIER 5400 IS SIMILAR.
2. INSTALL INNER WALL MOUNTED PERIPHERAL EFFLUENT LAUNDERS AND LAUNDER COVERS. REPLACE SCUM BAFFLES AND ALL ASSOCIATED SCUM MANAGEMENT EQUIPMENT. SET TOP OF WEIR AT 643'-1 4/5".



TYPICAL SECONDARY CLARIFIER MODIFICATIONS SECTION (NO. 5300)
SCALE: 3/8" = 1'-0"

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED SECTION	CLB	CLB	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	CLB	CLB	MA/JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



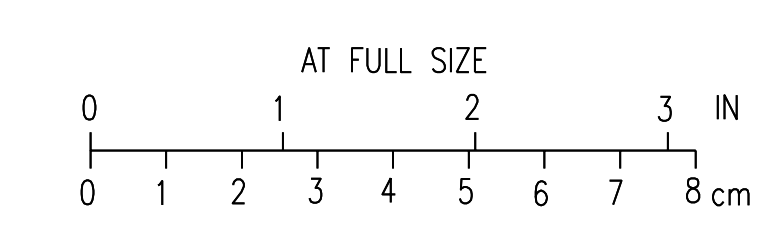
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**SECONDARY CLARIFIER AREA
TANKS 5300 & 5400 MECHANICAL SECTION**

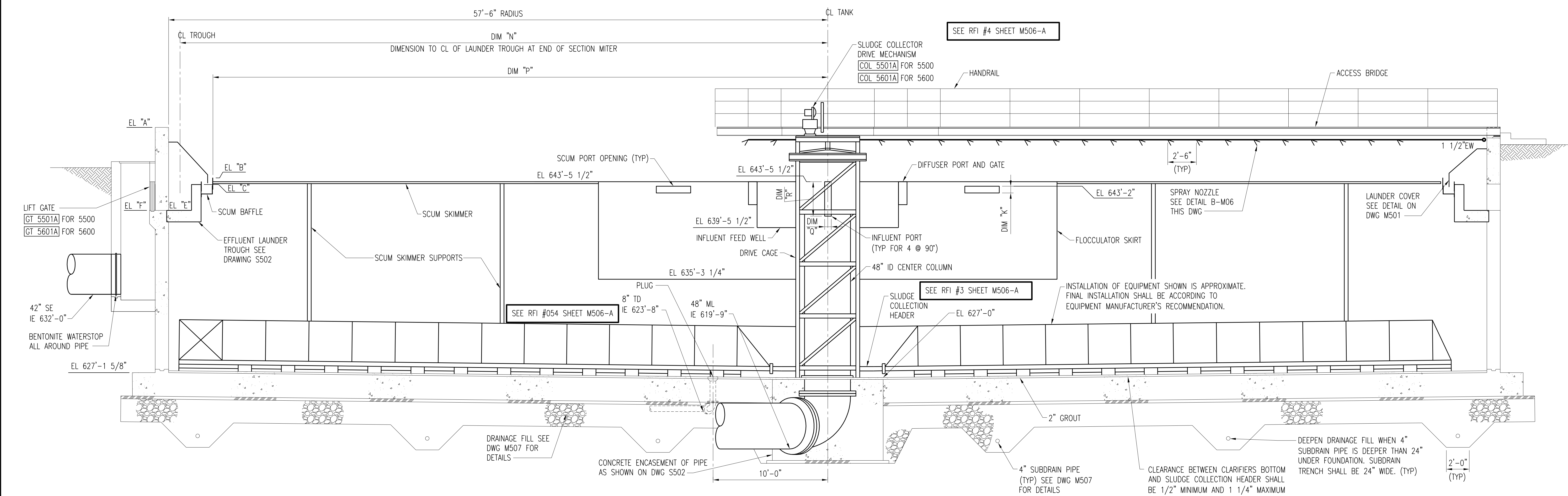
DESIGNED CL BARK	SCALE: AS NOTED	M503 3
DRAWN LJ OSBORN	NO. 22800	
CHECKED CL BARK	REV.	
APPROVED M AKYUREK		
APPROVED JM BRADY	DATE: DECEMBER 2, 2011	



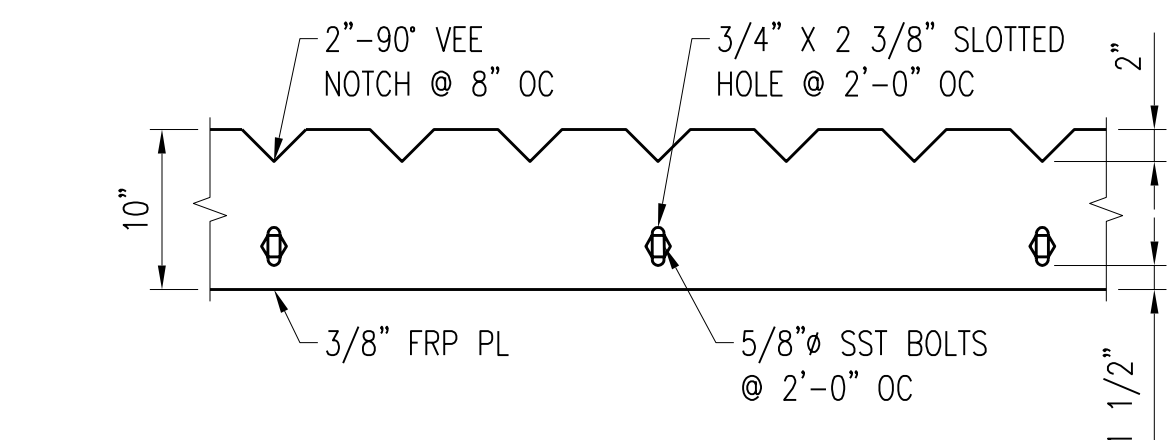
CADD: D1-R4

NOTES:

- SEE DRAWING M505 FOR ELEVATION AND DIMENSION TABLES.



SECTION A-M506
M505
SCALE: NONE



- NOTES:**
- SEAL PLATE TO CONCRETE TO PREVENT WATER FLOW BEHIND PLATE OR THRU BOLT HOLE.
 - MECHANICAL REBAR SPLICES INSTALLED WHERE BOTTOM AND SIDE WALLS TIE INTO EXTERIOR CONCRETE TANK WALLS.

ADJUSTABLE WEIR PLATE DETAIL

SCALE: 1" = 1'-0"
 DELETE "ADJUSTABLE WEIR PLATE DETAIL" - REFER TO DETAIL ON M304

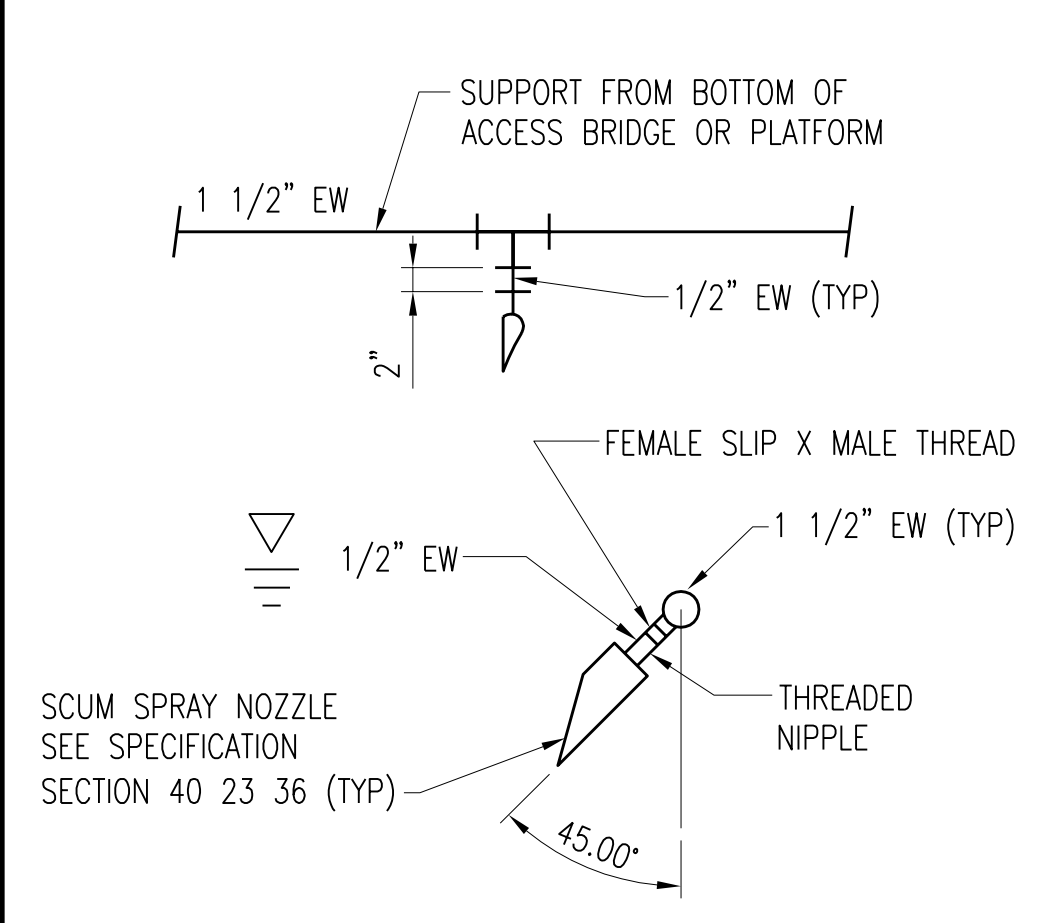
4	RECORD DRAWING	JBL	JBL	JBL	03-31-2014
3	ADDED ADDENDUM COMMENT	LJO	JBL	JBL	05-04-2012
2	REVISED LAUNDER AND NOTES	CLB	CLB	MA/JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	CLB	CLB	MA/JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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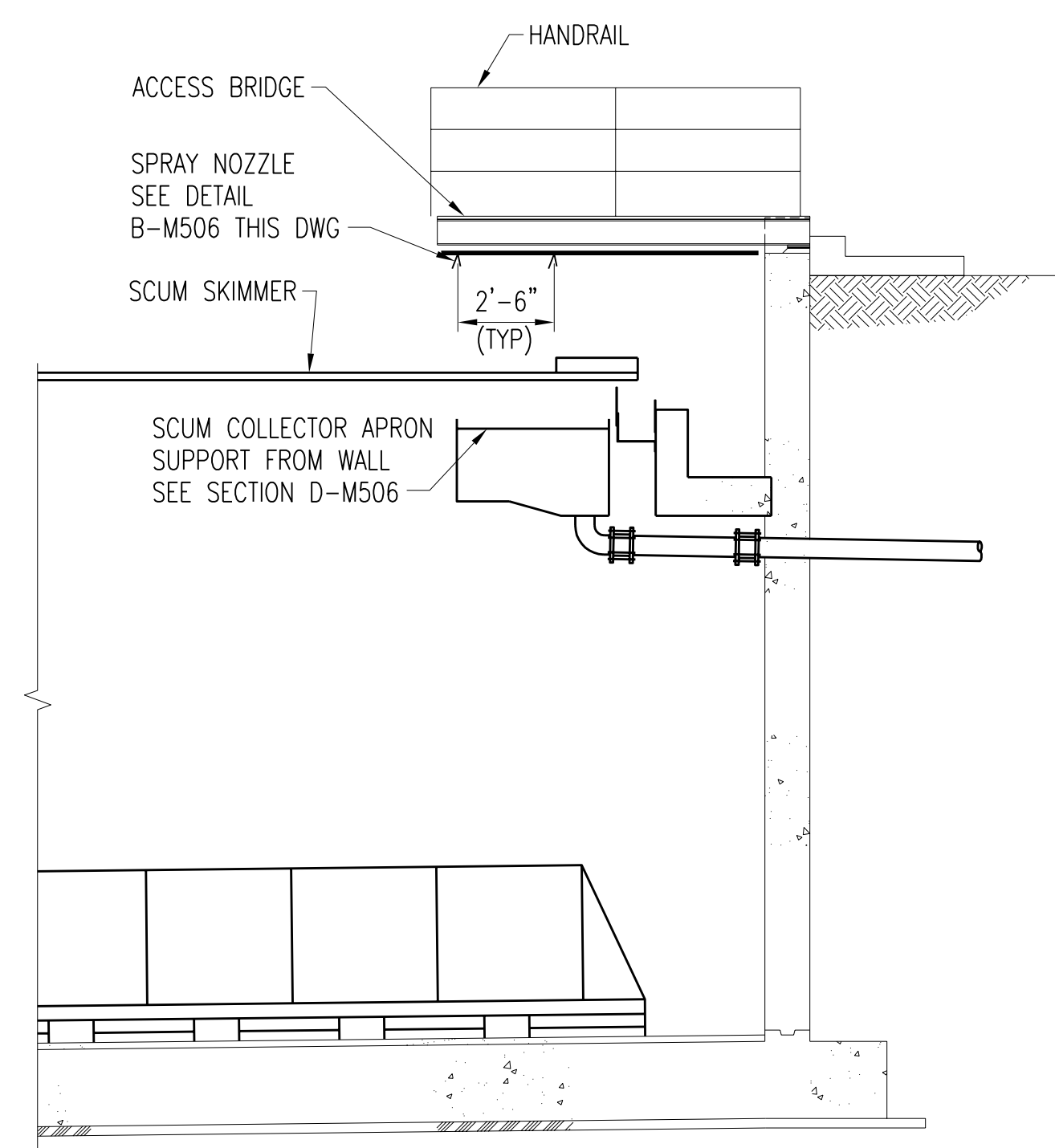
CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

SECONDARY CLARIFIER AREA
TANKS 5500 & 5600 MECHANICAL DETAILS
SHEET 2

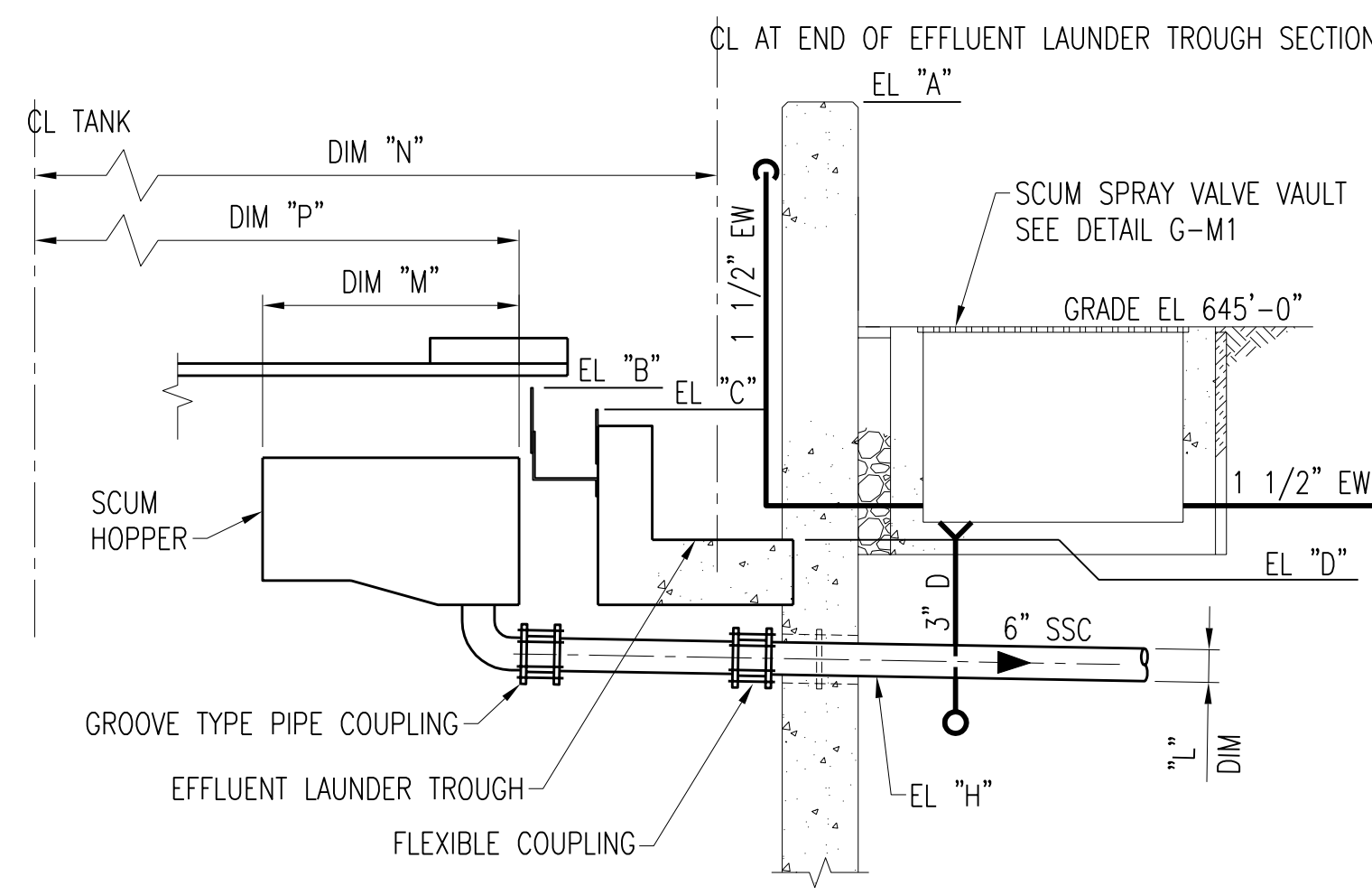
DESIGNED	CL BARK	SCALE:	AS NOTED
DRAWN	LJ OSBORN	NO.	22800
CHECKED	CL BARK	REV.	
APPROVED	M AKYUREK		
APPROVED	JM BRADY		
DATE	DECEMBER 2, 2011		



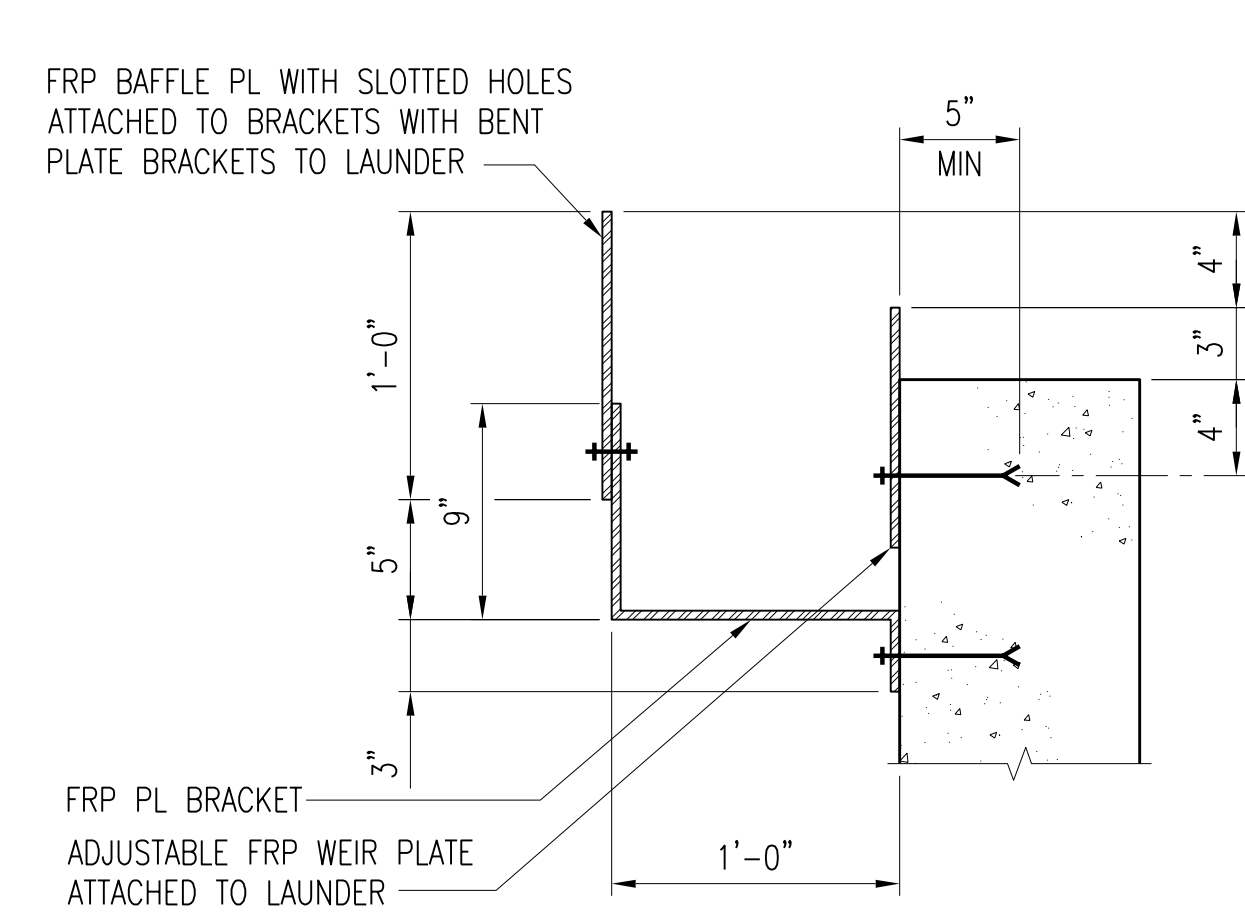
DETAIL B-M506
M506
SCALE: NONE



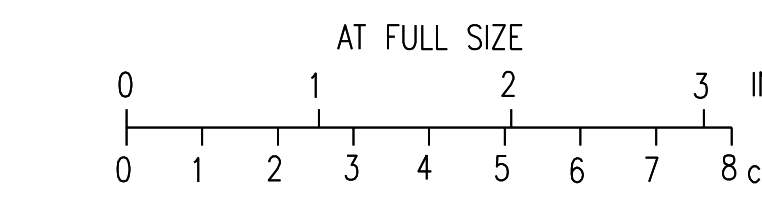
SECTION C-M506
M505
SCALE: 1/4" = 1'-0"



SECTION D-M506
M505, M506
SCALE: 3/8" = 1'-0"

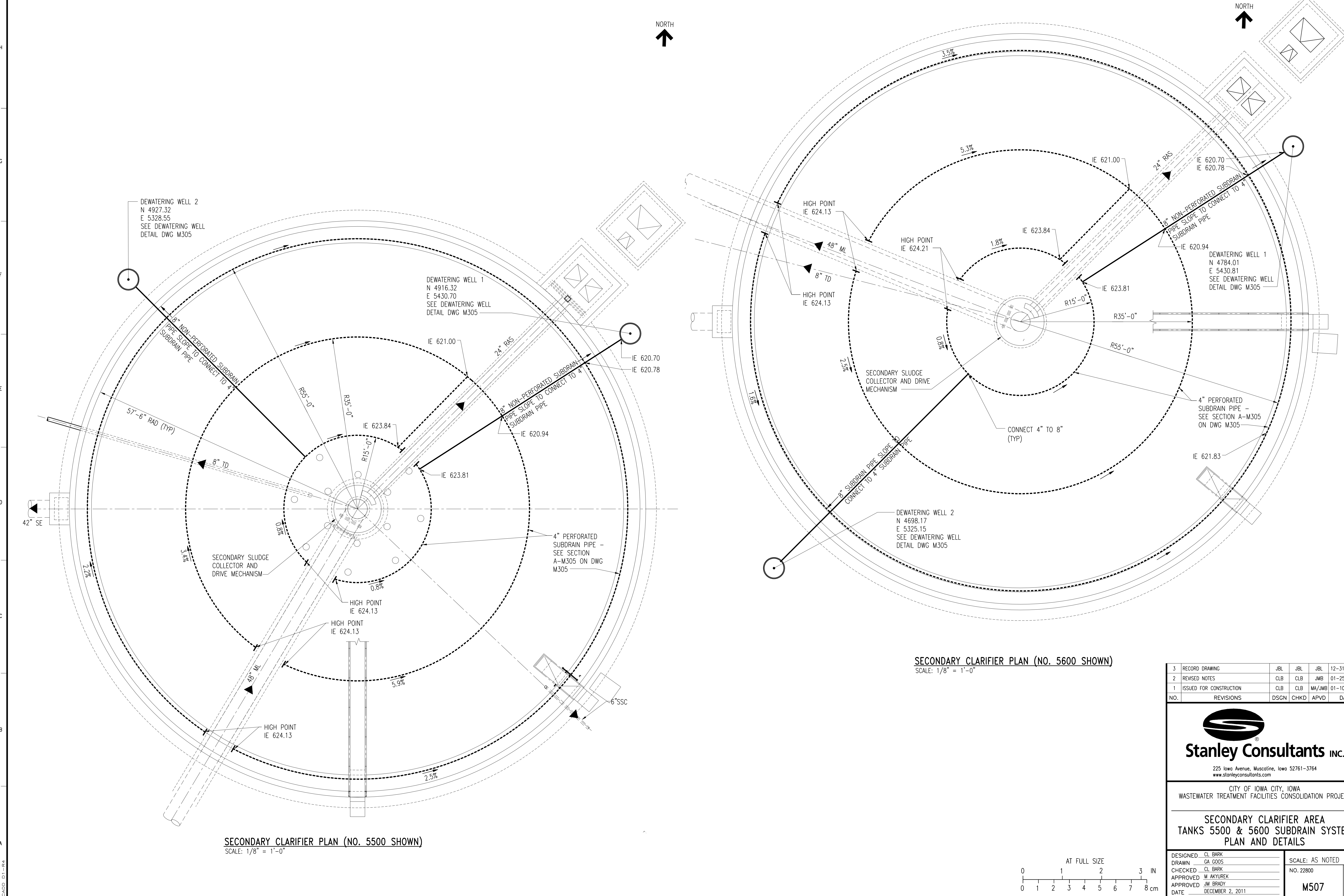


DETAIL E-M506
S502
SCALE: 1 1/2" = 1'-0"



AT FULL SIZE

CADD: D1-1-R4



DEWATERING WELL 2
 N 4927.32
 E 5328.55
 SEE DEWATERING WELL
 DETAIL DWG M305

DEWATERING WELL 1
 N 4916.32
 E 5430.70
 SEE DEWATERING WELL
 DETAIL DWG M305

DEWATERING WELL 1
 N 4784.01
 E 5430.81
 SEE DEWATERING WELL
 DETAIL DWG M305

DEWATERING WELL 2
 N 4698.17
 E 5325.15
 SEE DEWATERING WELL
 DETAIL DWG M305

SECONDARY CLARIFIER PLAN (NO. 5500 SHOWN)
 SCALE: 1/8" = 1'-0"

SECONDARY CLARIFIER PLAN (NO. 5600 SHOWN)
 SCALE: 1/8" = 1'-0"

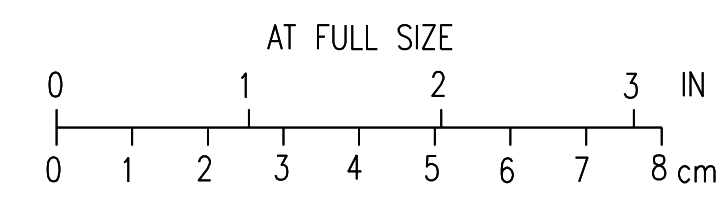
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED NOTES	CLB	CLB	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	CLB	CLB	MA/JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SECONDARY CLARIFIER AREA
 TANKS 5500 & 5600 SUBDRAIN SYSTEM
 PLAN AND DETAILS**

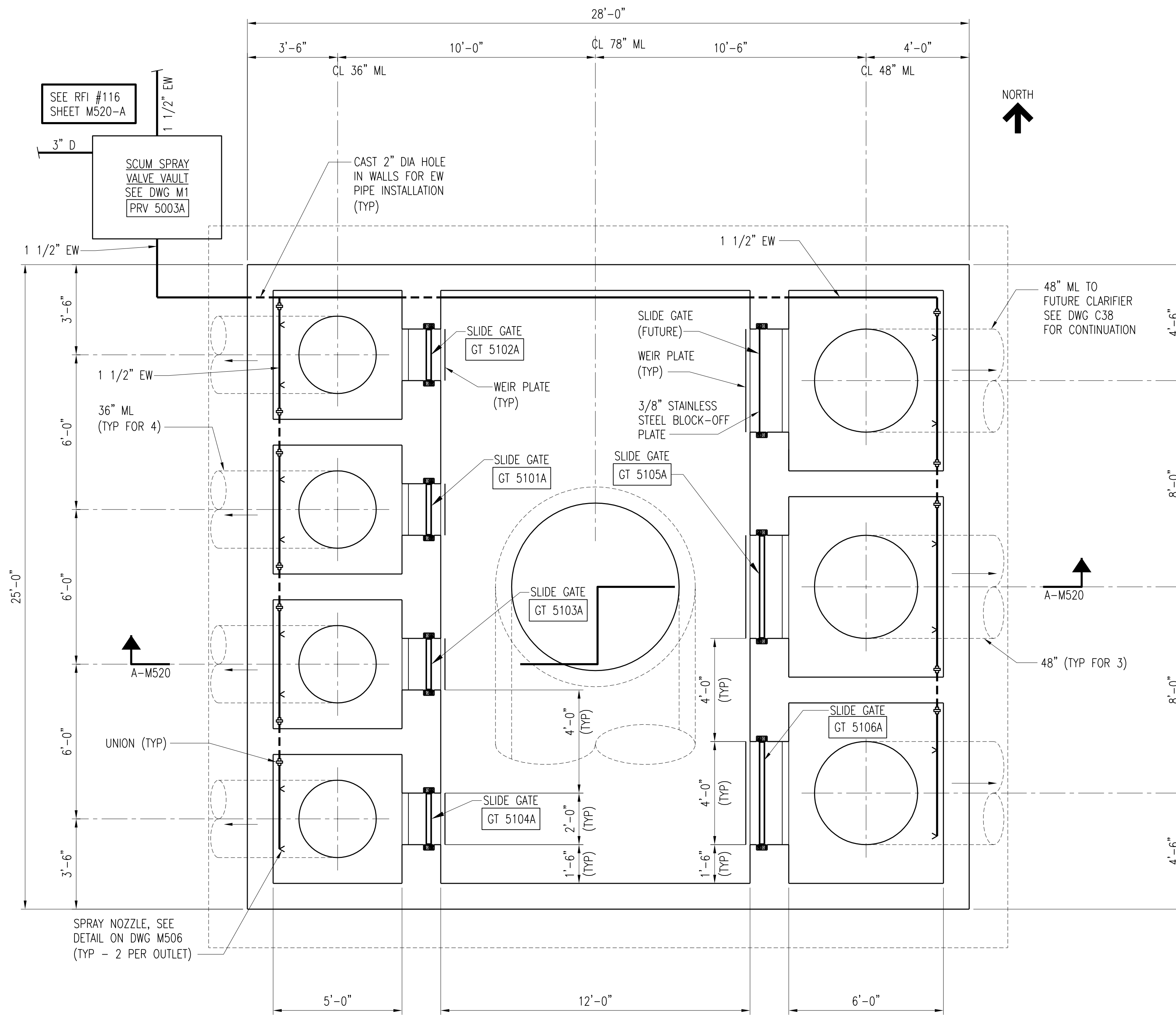
DESIGNED	CL BARK	SCALE: AS NOTED	NO. 22800	REV. 3
DRAWN	GA GOOS			
CHECKED	CL BARK			
APPROVED	M AKYUREK			
APPROVED	JM BRADY			
DATE	DECEMBER 2, 2011	M507		



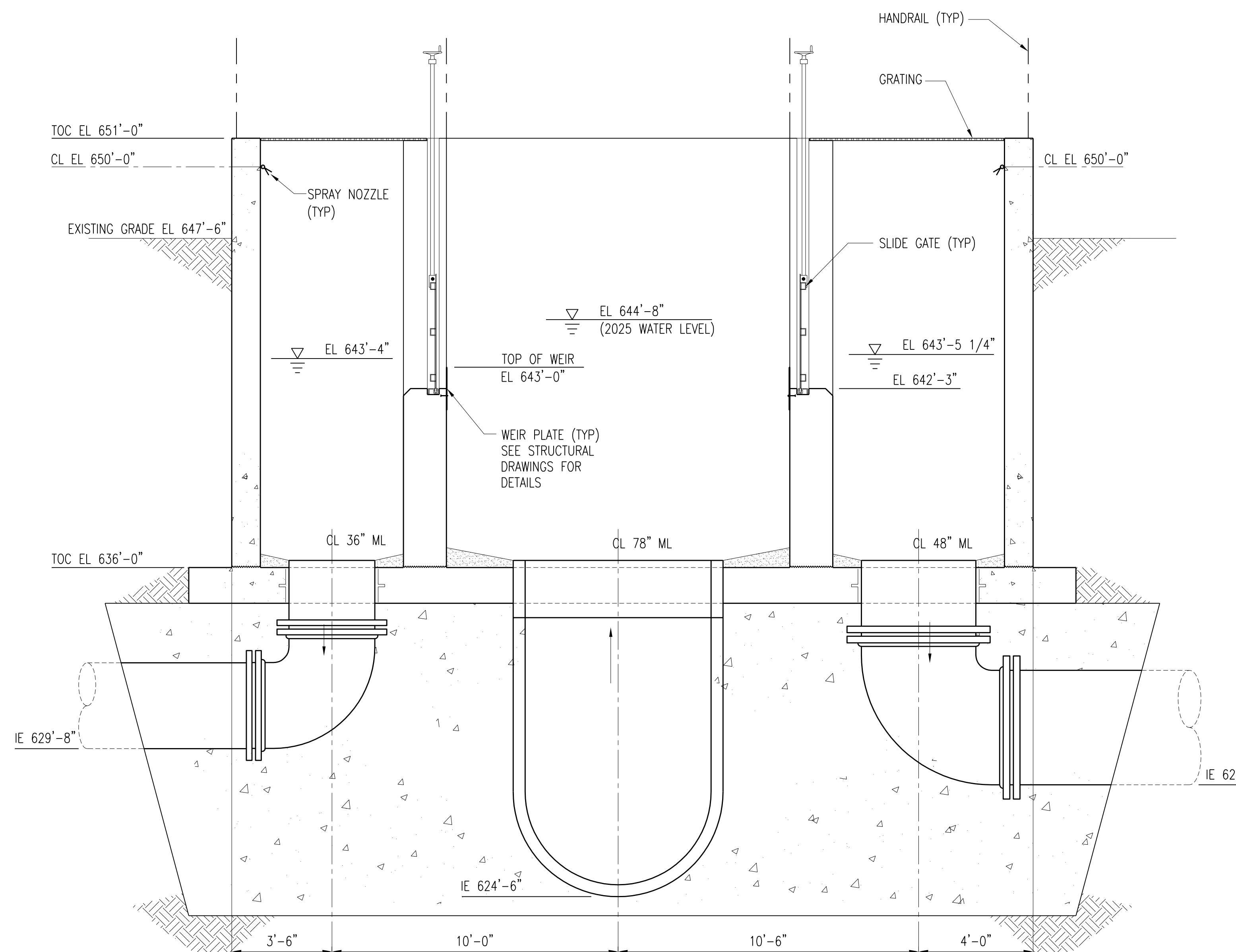
CADD: D1-1-R4

NOTES:

1. SEE DWG C38 FOR CONTINUATION OF SITE PIPING.



SECONDARY FLOW SPLITTER MECHANICAL PLAN @EL 645.00
SCALE: 3/8" = 1'-0"



SECTION A-M520
SCALE: 3/8" = 1'-0"

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	CLB	CLB	MA/JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	CLB	CLB	MA/JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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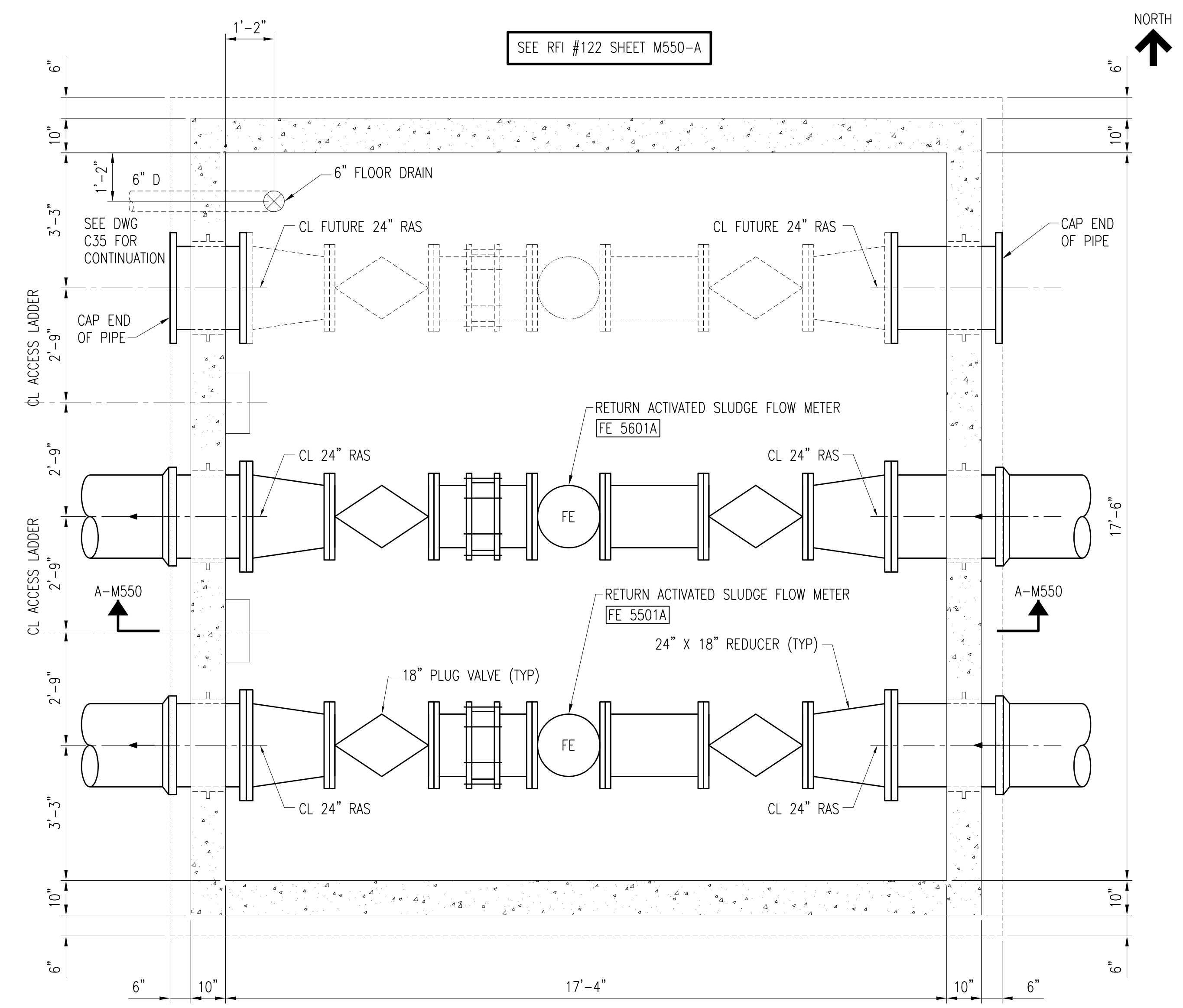
CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT
**SECONDARY FLOW SPLITTER
 MECHANICAL PLAN AND SECTION**

DESIGNED	CL BARK	SCALE:	AS NOTED
DRAWN	LJ OSBORN	NO.	22800
CHECKED	CL BARK	REV.	
APPROVED	M AKYUREK	M520	3
APPROVED	JM BRADY		
DATE	DECEMBER 2, 2011		

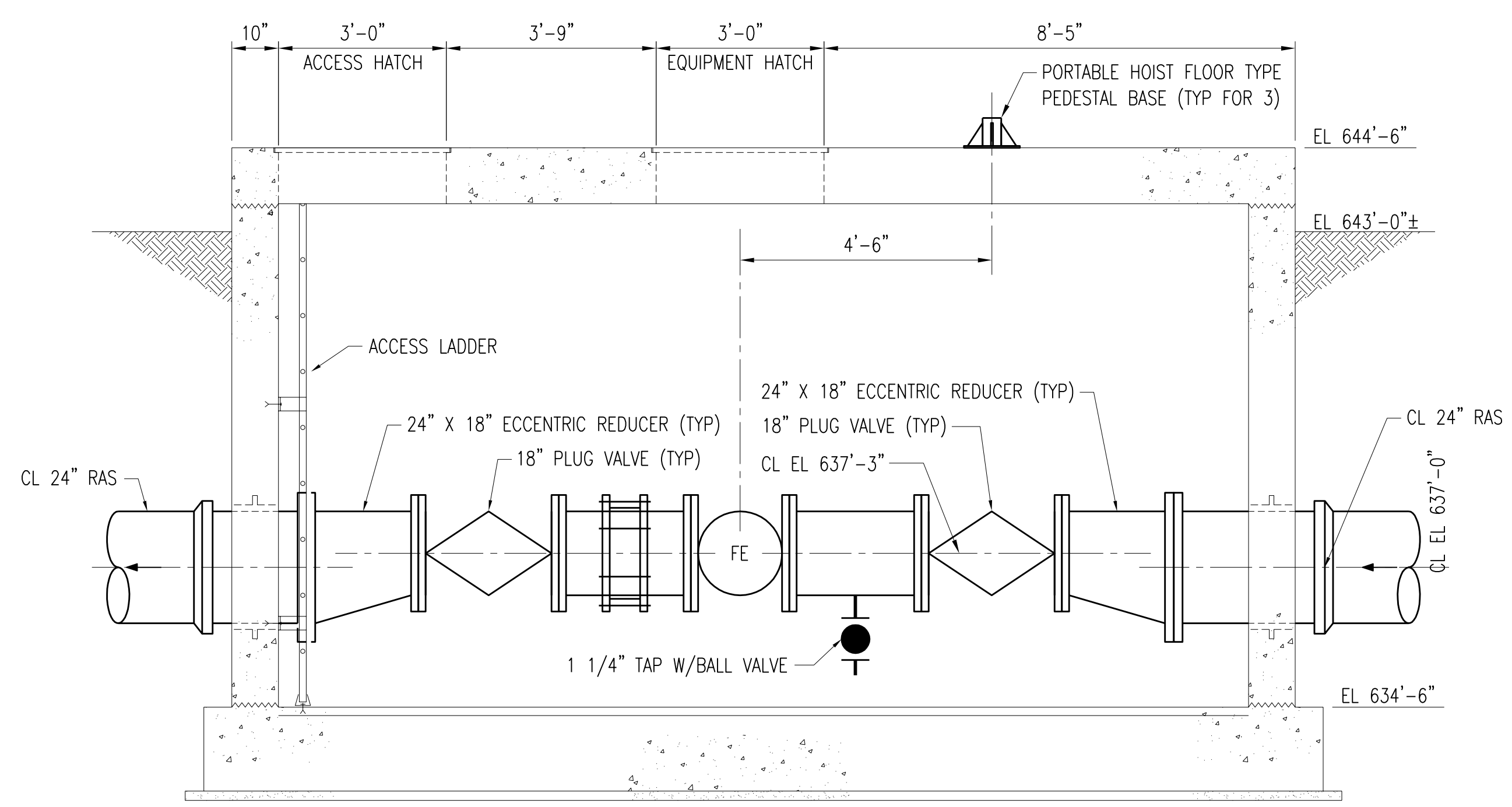


CADD: D1-R4

NOTES:
 1. PEDESTAL BASE SHALL BE THERN MODEL 524 OR EQUAL.



PLAN AT EL 640'-0"
 SCALE: 1/2" = 1'-0"



SECTION A-M550
 M550
 SCALE: 1/2" = 1'-0"

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED VALVE	CLB	CLB	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	CLB	CLB	MA/JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SECONDARY CLARIFIER AREA
 RAS METER VAULT
 MECHANICAL PLANS AND DETAILS**

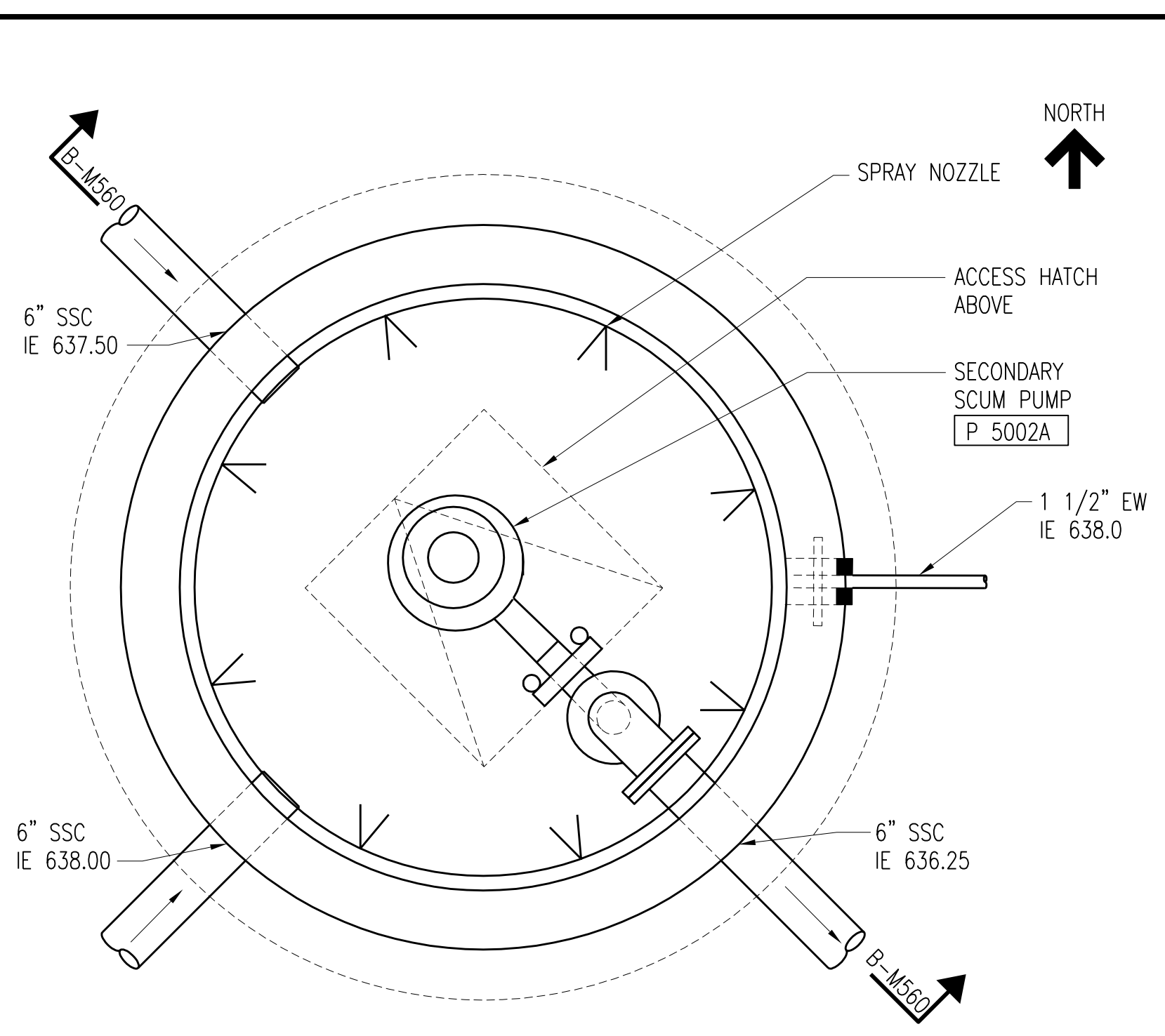
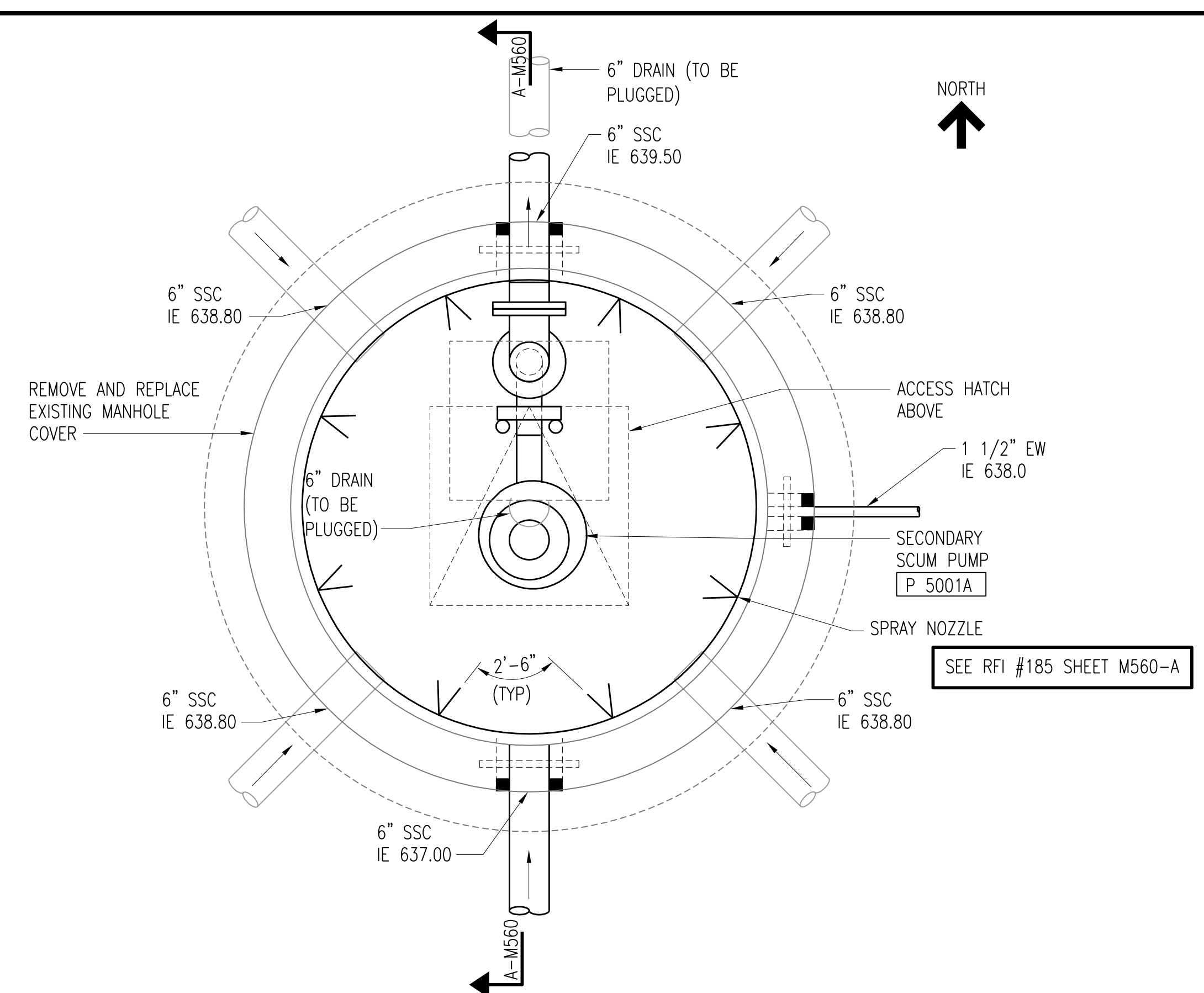
DESIGNED	CL BARK	SCALE: AS NOTED	NO. 22800	REV. 3
DRAWN	LJ OSBORN			
CHECKED	CL BARK			
APPROVED	M AKYUREK			
APPROVED	JM BRADY			
DATE	DECEMBER 2, 2011			



CADD: D1-R4

NOTES:

1. FOR CONTINUATION OF SITE PIPING SEE DRAWING C38.

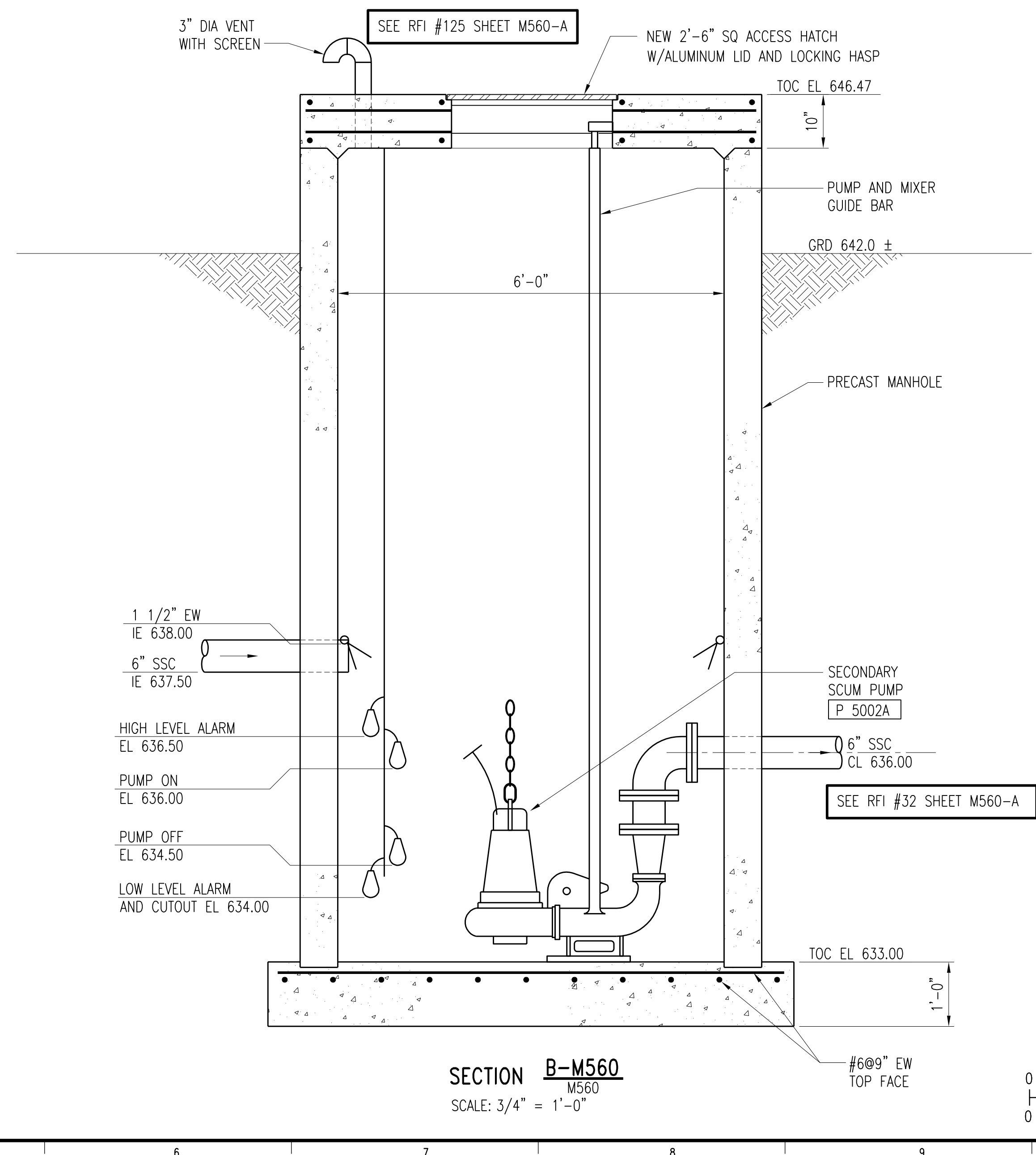
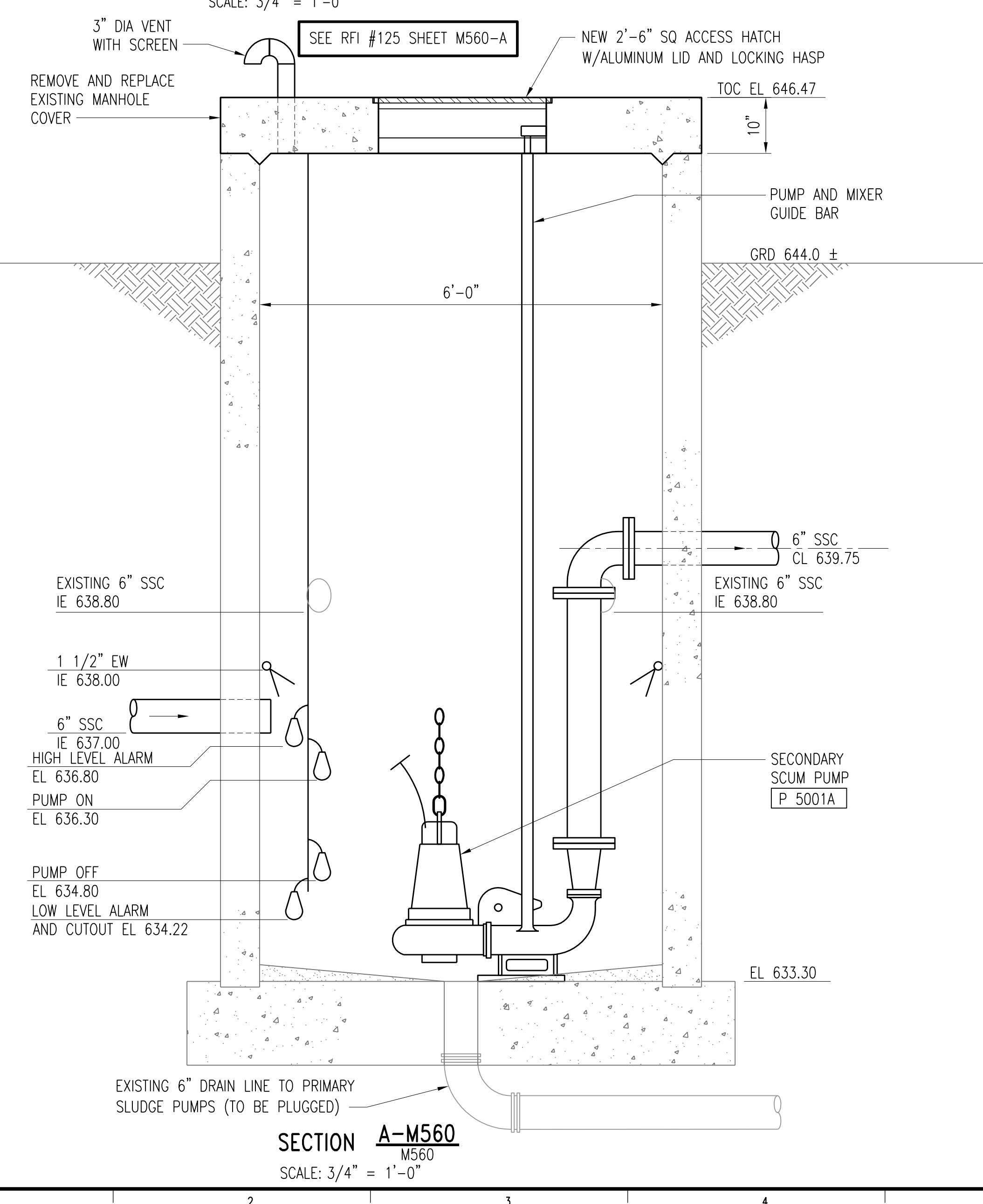


EXISTING SECONDARY SCUM COLLECTION MANHOLE


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

NEW SECONDARY SCUM COLLECTION MANHOLE

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



3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED ELEVATIONS	CLB	CLB	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	CLB	CLB	MA/JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



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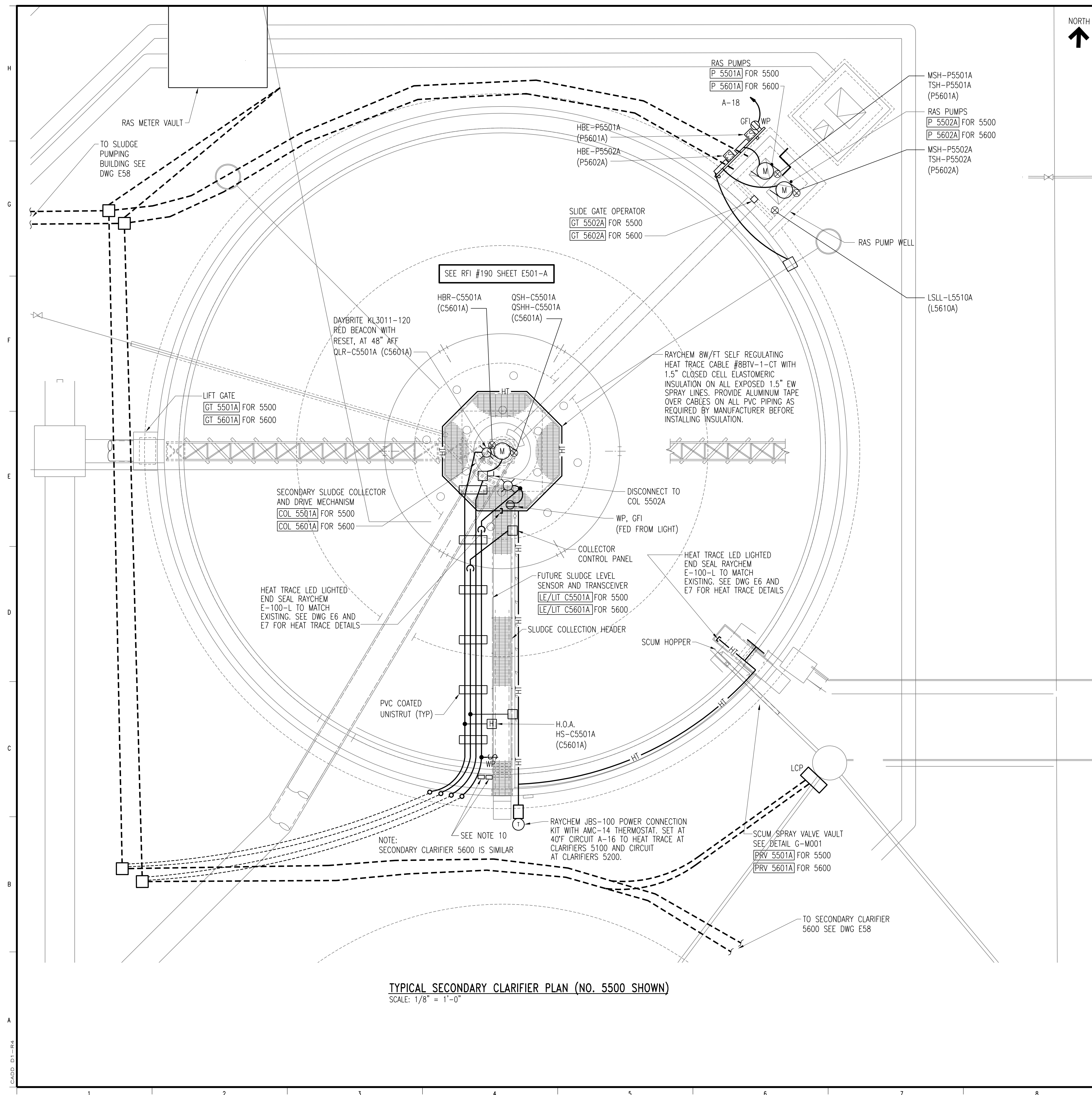
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SECONDARY CLARIFIER AREA
SECONDARY SCUM COLLECTION MANHOLES**

DESIGNED CL BARK	SCALE: AS NOTED
DRAWN LJ OSBORN	NO. 22800
CHECKED CL BARK	REV.
APPROVED M AKYUREK	M560
APPROVED JM BRADY	3
DATE DECEMBER 2, 2011	



CADD D1-184

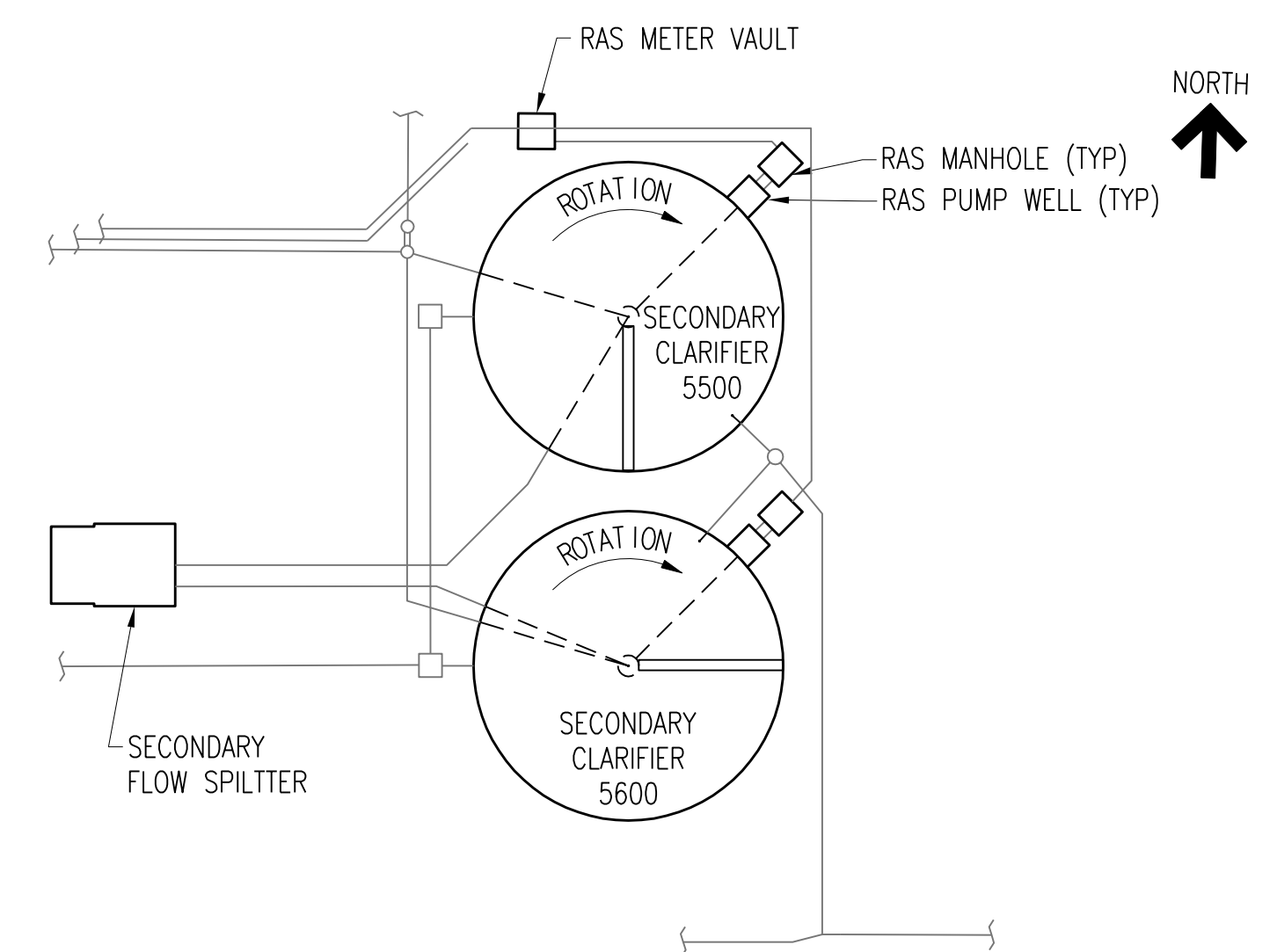


TYPICAL SECONDARY CLARIFIER PLAN (NO. 5500 SHOWN)
SCALE: 1/8" = 1'-0"



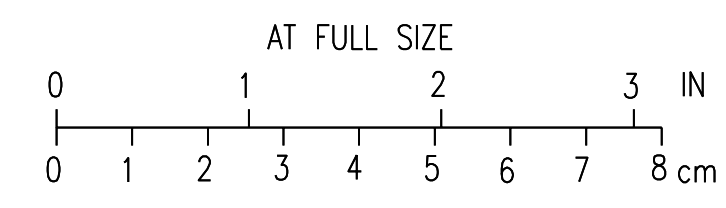
NOTES:

1. ALL POWER REQUIREMENTS FOR SECONDARY CLARIFIERS SHALL BE ROUTED THROUGH THE HANDHOLE SYSTEM AS SHOWN ON ELECTRICAL SITE PLAN DRAWING E38 TO SLUDGE PUMPING BUILDING MCC-2. PROVIDE NEW CONDUITS AS SHOWN ON ONE LINE DIAGRAMS AND ELECTRICAL SITE PLAN.
2. SEE DRAWING E30 FOR NEW MCC-2 REQUIREMENTS.
3. SEE DRAWING E-701 FOR NEW PANEL A SCHEDULE FOR 120V WIRING REQUIREMENTS.
4. PROVIDE 4 #10 IN A 2" PVC COATED RGS CONDUIT FROM EACH COLLECTOR COL 5501A AND 5601A DRIVE MECHANISM TO MCC-2. ROUTE CONDUITS FROM CLARIFIER THROUGH HANDHOLE SYSTEM AND ONTO MCC-2 AT SLUDGE PUMPING BUILDING.
5. PROVIDE CLARIFIER HIGH TORQUE ALARM LIGHT AND HORN WITH SILENCE SWITCH AND RELAY TO SWITCH TYPE PROVIDE ON EXISTING CLARIFIERS 5300 AND 5400. PROVIDE MOMENTARY SWITCH AND 3 POLE ELECTRICALLY HELD RELAY ON HANDRAIL (TYP).
6. SEE DRAWING E1 FOR GENERAL ELECTRICAL NOTES AND WIRING DEVICE SCHEDULE.
7. SEE DRAWINGS E2 AND E3 FOR LIGHTING FIXTURE SCHEDULE.
8. SEE DRAWINGS E2 AND E3 FOR LIGHTING FIXTURE SCHEDULE.
9. SEE DRAWING G9 FOR ELECTRICAL LEGEND.
10. PROVIDE TWO 12" X 12" X 6" STAINLESS STEEL PULLBOXES SUITABLE FOR AREA WITH SIDE HINGED AND LOCKABLE COVERS. PULLBOXES ARE TO BE USED FOR FUTURE SLUDGE LEVEL BLANKET INDICATORS. ONE BOX WILL BE USED FOR 120V CIRCUITS AND THE OTHER BOX WILL BE USED FOR SIGNAL CABLING. PROVIDE A 1 INCH PVC RGS CONDUIT TO EACH BOX FROM SLUDGE PUMPING BUILDING PLC FOR CLARIFIER SHOWN. IN 120V CONDUIT PROVIDE 3/C #12 AND COIL BACK AT PLC FOR FUTURE CONNECTION. IN SIGNAL CONDUIT PROVIDE 1 - #16TSP AND ALSO COIL BACK AT PLC.



ORIENTATION PLAN
SCALE: NONE

NOTE:
1. SEE DRAWING C38 FOR SITE PIPING.



3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SECONDARY CLARIFIER AREA
TANKS 5500 & 5600 POWER PLAN**

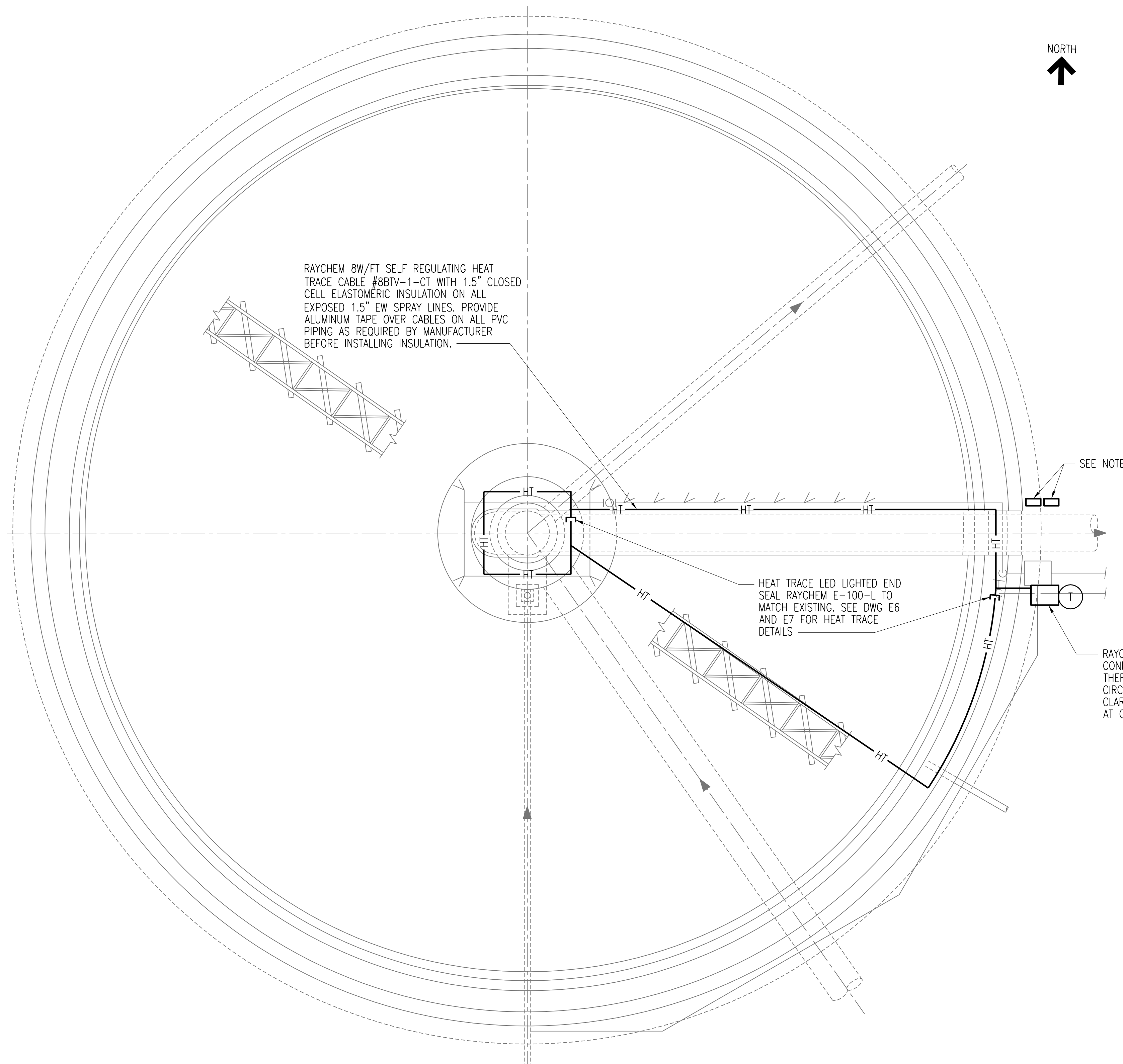
DESIGNED	DL MORITZ	SCALE:	AS NOTED
DRAWN	D. WILGES	NO.	22800
CHECKED	DL MORITZ	REV.	
APPROVED	JD COGAN		
APPROVED			
DATE	DECEMBER 2, 2011		

E501 **3**

CADD: D1-1-R4

NOTES:

1. REMOVE EXISTING HEAT TRACE INSTALLATION ON CLARIFIERS 5100 AND 5200 AND REPLACE AS SHOWN ON DRAWINGS E6 AND E7.
2. PROVIDE TWO 12" X 12" X 6" STAINLESS STEEL PULLBOXES SUITABLE FOR AREA WITH SIDE HINGED AND LOCKABLE COVERS. PULLBOXES ARE TO BE USED FOR FUTURE SLUDGE LEVEL BLANKET INDICATORS. ONE BOX WILL BE USED FOR 120V CIRCUITS AND THE OTHER BOX WILL BE USED FOR SIGNAL CABLING. PROVIDE A 1 INCH PVC RGS CONDUIT TO EACH BOX FROM SLUDGE PUMPING BUILDING PLC FOR CLARIFIER SHOWN. IN 120V CONDUIT PROVIDE 3/C #12 AND COIL BACK AT PLC FOR FUTURE CONNECTION. IN SIGNAL CONDUIT PROVIDE 1 - #16TSP AND ALSO COIL BACK AT PLC.



RAYCHEM 8W/FT SELF REGULATING HEAT TRACE CABLE #8BTV-1-CT WITH 1.5" CLOSED CELL ELASTOMERIC INSULATION ON ALL EXPOSED 1.5" EW SPRAY LINES. PROVIDE ALUMINUM TAPE OVER CABLES ON ALL PVC PIPING AS REQUIRED BY MANUFACTURER BEFORE INSTALLING INSULATION.

HEAT TRACE LED LIGHTED END SEAL RAYCHEM E-100-L TO MATCH EXISTING. SEE DWG E6 AND E7 FOR HEAT TRACE DETAILS

SEE NOTE 2

RAYCHEM JBS-100 POWER CONNECTION KIT WITH AMC-14 THERMOSTAT. SET AT 40°F. CIRCUIT A-12 TO HEAT TRACE AT CLARIFIERS 5100 AND CIRCUIT AT CLARIFIERS 5200.

HEAT TRACE PLAN FOR SECONDARY CLARIFIER NO. 5100 (NO. 5200 SIMILAR)
SCALE: 3/16"=1'-0"

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	REVISED PER ADDENDUM NO. 2	DLM	DLM	JDC	03-06-2012
0	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



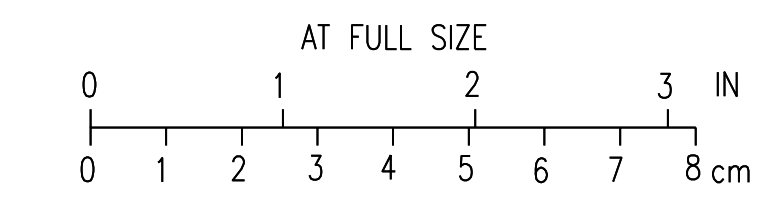
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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SECONDARY CLARIFIER AREA
TANKS 5100 AND 5200
HEAT TRACE DETAILS**

DESIGNED	DL MORITZ
DRAWN	D. WILGES
CHECKED	DL MORITZ
APPROVED	JD COGAN
APPROVED	
DATE	JANUARY 10, 2012

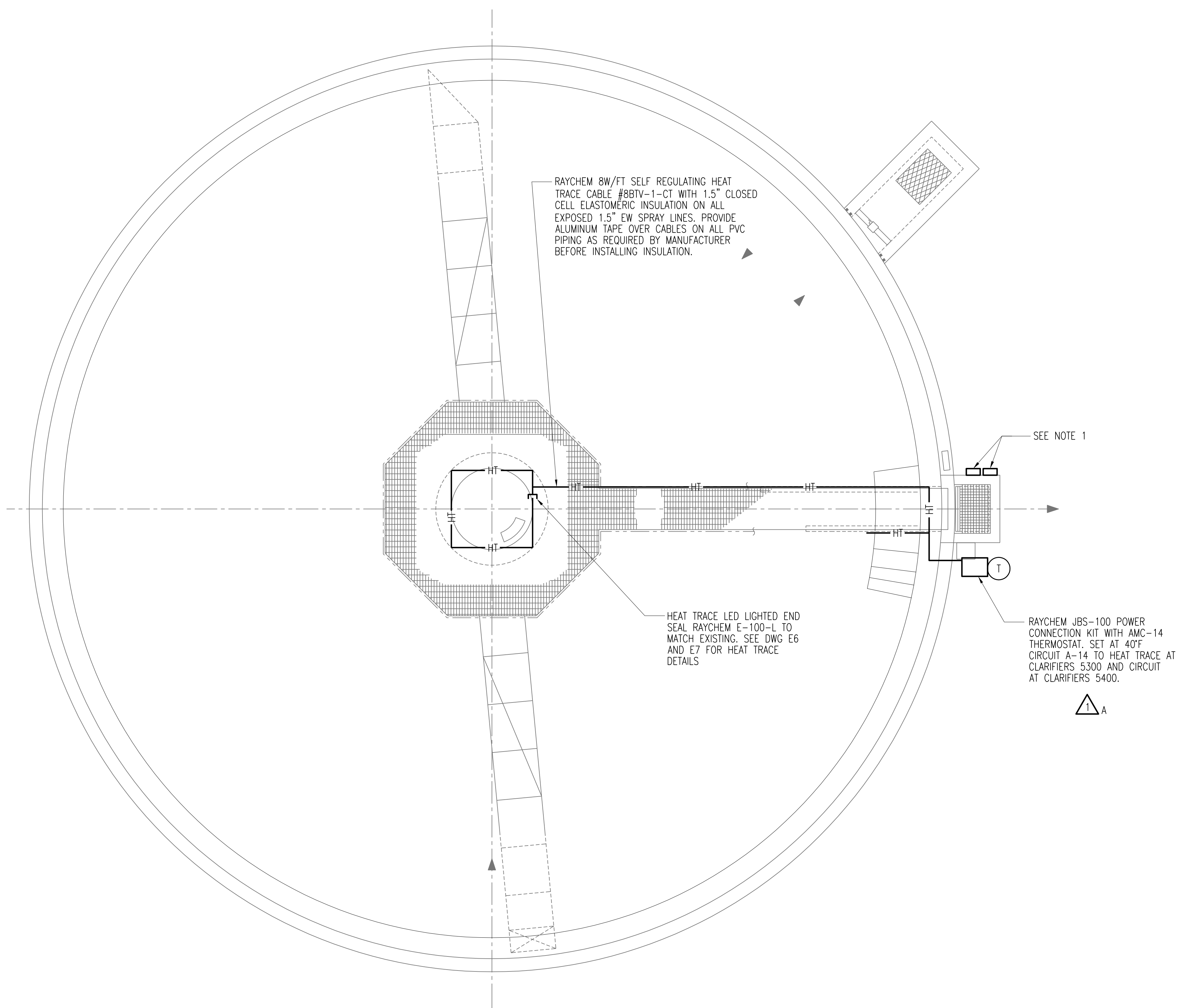
SCALE: AS NOTED	NO. 22800	REV.
	E502	2



CADD: D1-R4

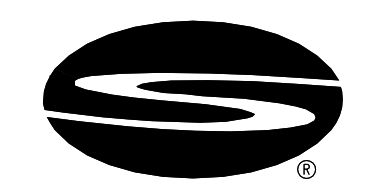
NOTES:

1. PROVIDE TWO 12" X 12" X 6" STAINLESS STEEL PULLBOXES SUITABLE FOR AREA WITH SIDE HINGED AND LOCKABLE COVERS. PULLBOXES ARE TO BE USED FOR FUTURE SLUDGE LEVEL BLANKET INDICATORS. ONE BOX WILL BE USED FOR 120V CIRCUITS AND THE OTHER BOX WILL BE USED FOR SIGNAL CABLING. PROVIDE A 1 INCH PVC RGS CONDUIT TO EACH BOX FROM SLUDGE PUMPING BUILDING PLC FOR CLARIFIER SHOWN. IN 120V CONDUIT PROVIDE 3/C #12 AND COIL BACK AT PLC FOR FUTURE CONNECTION. IN SIGNAL CONDUIT PROVIDE 1 - #16TSP AND ALSO COIL BACK AT PLC.



HEAT TRACE PLAN FOR SECONDARY CLARIFIER NO. 5300 (NO. 5400 SIMILAR)
SCALE: 3/16" = 1'-0"

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	REVISED PER ADDENDUM NO. 2	DLM	DLM	JDC	03-06-2012
0	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

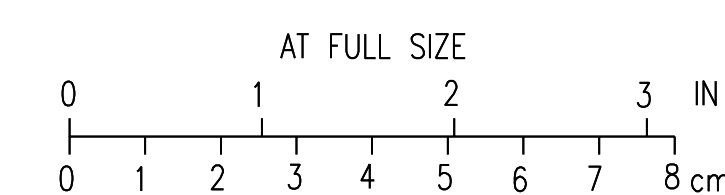


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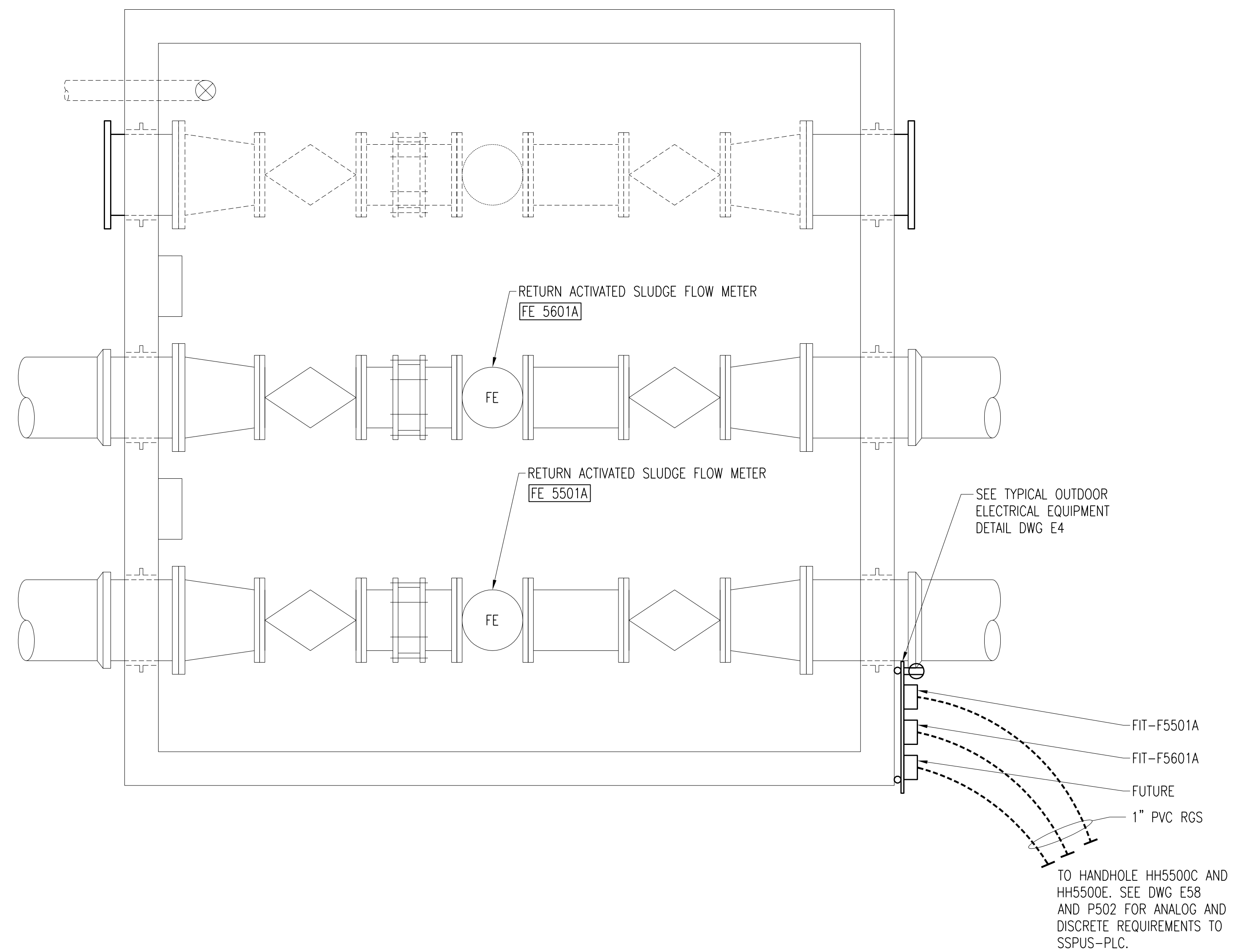
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SECONDARY CLARIFIER AREA
TANKS 5300 AND 5400
HEAT TRACE DETAILS**

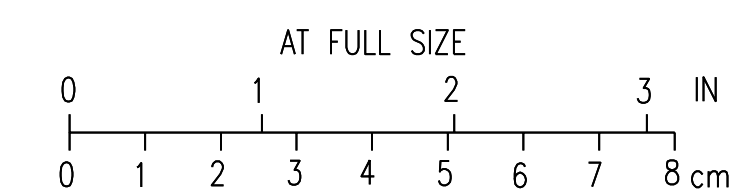
DESIGNED	DL MORITZ	SCALE:	AS NOTED
DRAWN	D. WILGES	NO.	22800
CHECKED	DL MORITZ	REV.	
APPROVED	JD COGAN		
APPROVED		E503	2
DATE	JANUARY 10, 2012		



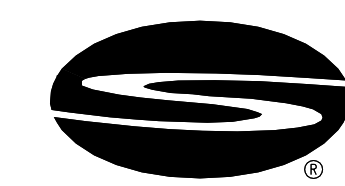
NORTH
↑



PLAN AT EL. 640'-0"
SCALE: 1/2" = 1'-0"



3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

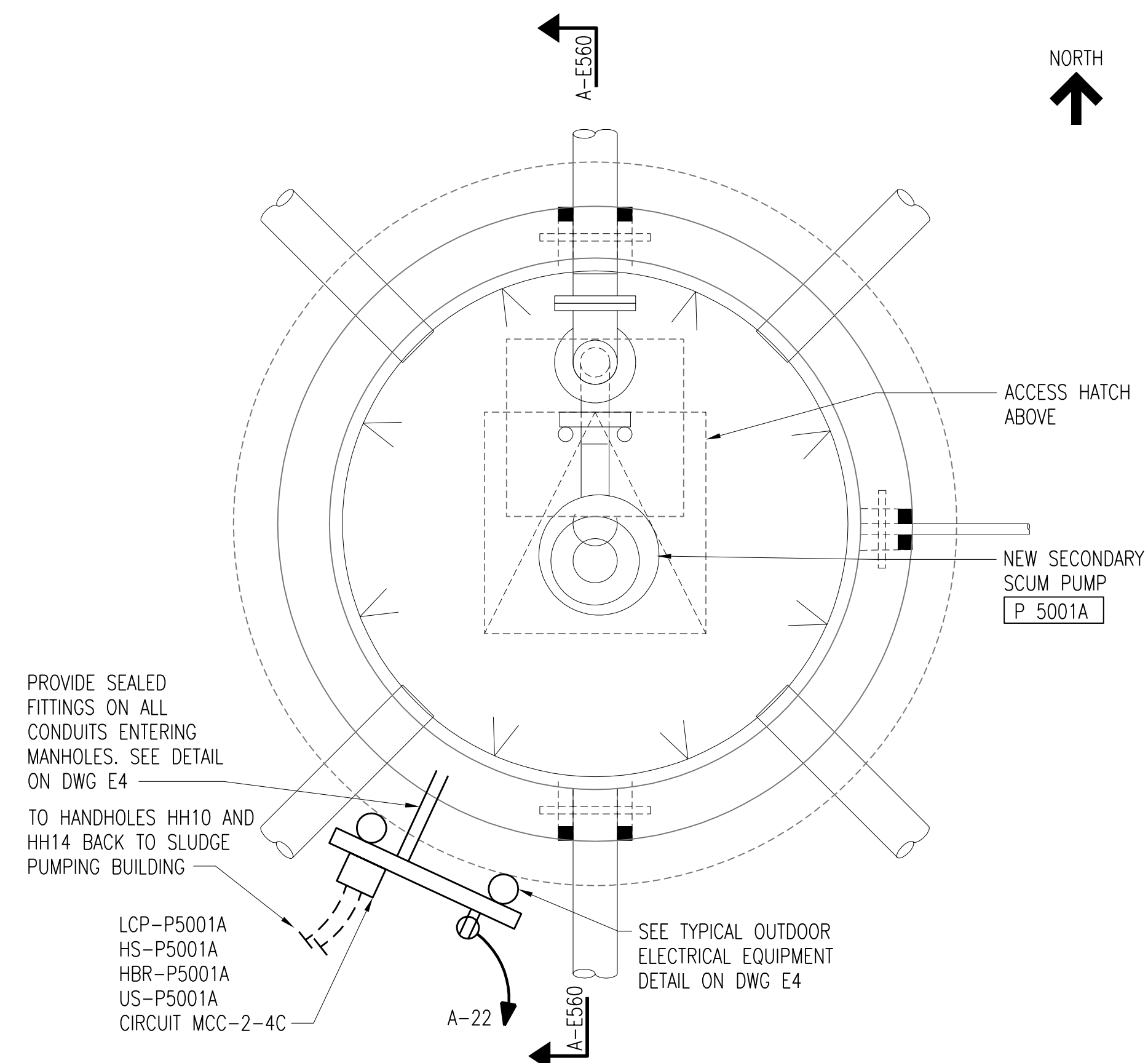
**SECONDARY CLARIFIER AREA
RAS METER VAULT
PLANS AND DETAILS**

DESIGNED	DL MORTIZ	SCALE:	AS NOTED
DRAWN	BK GROTHE	NO.	22800
CHECKED	DL MORTIZ	REV.	
APPROVED	JD COGAN		
APPROVED		E550	3
DATE	DECEMBER 2, 2011		

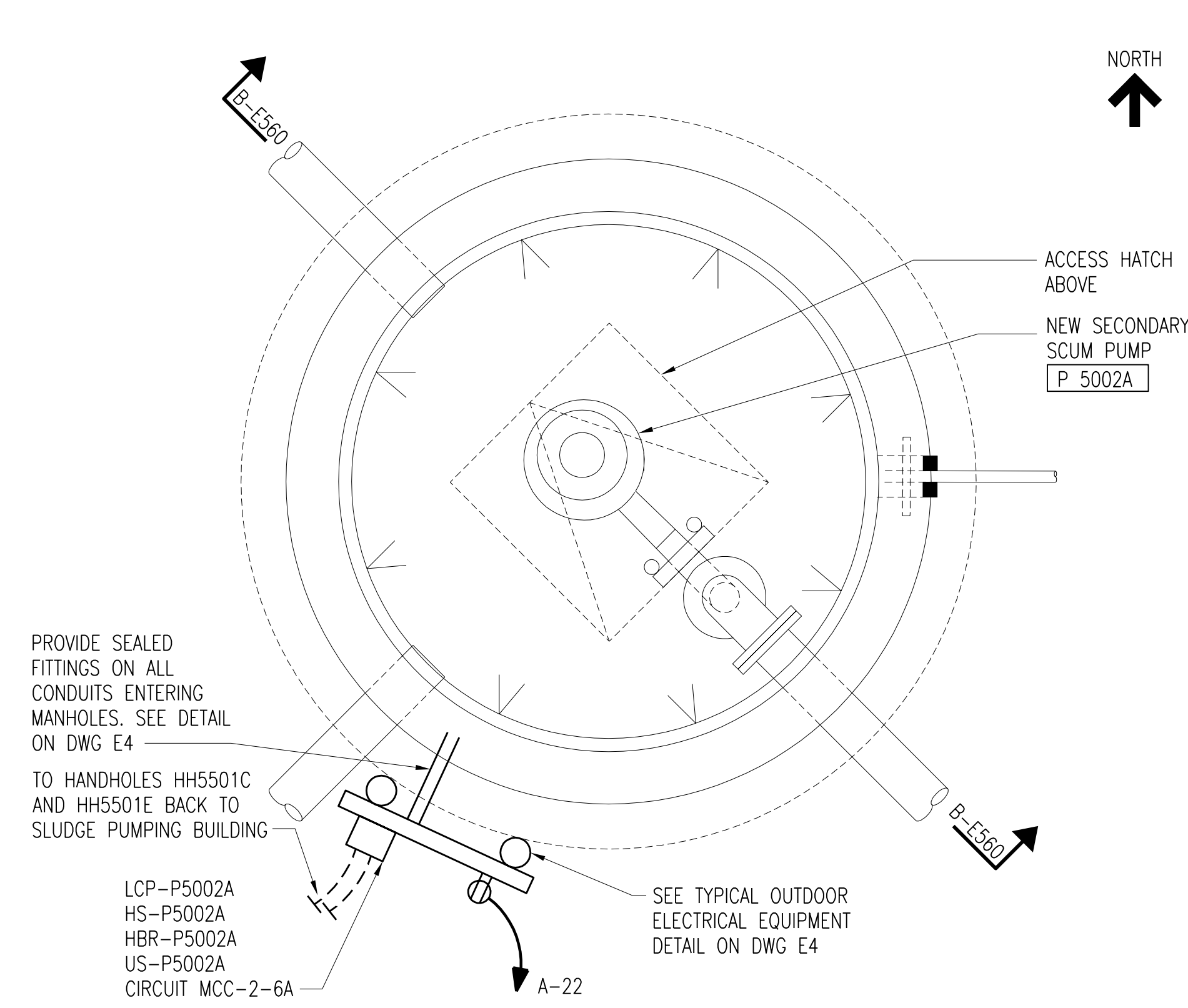
CADD: D1-R4

NOTES:

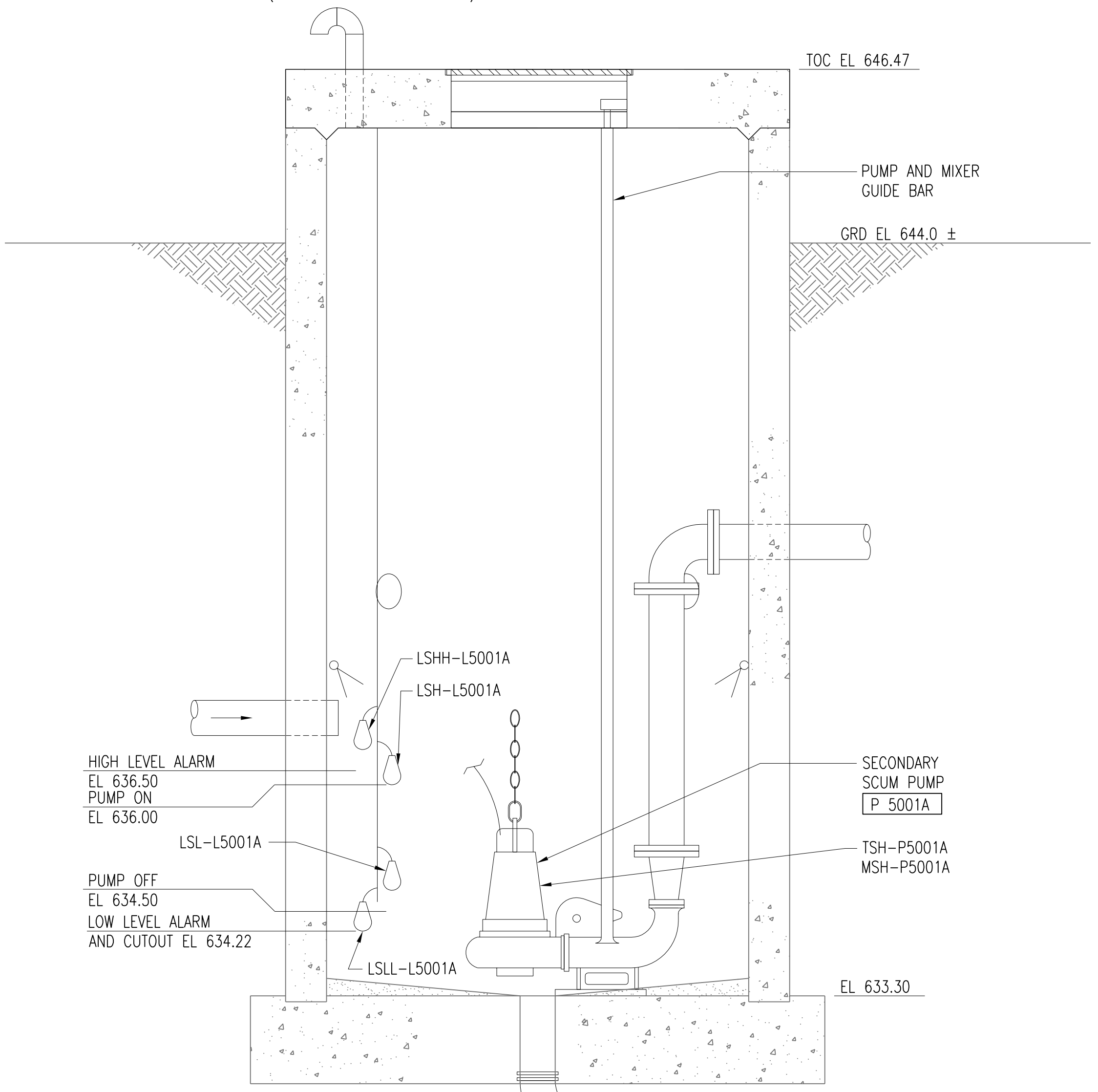
- FOR CONTINUATION OF SITE PIPING SEE DRAWING C38.
- SEE DRAWING P501 AND P502 FOR INSTRUMENTATION AND CONTROL REQUIREMENTS TO SCUM COLLECTION MANHOLES FROM SSPUS-PLC.



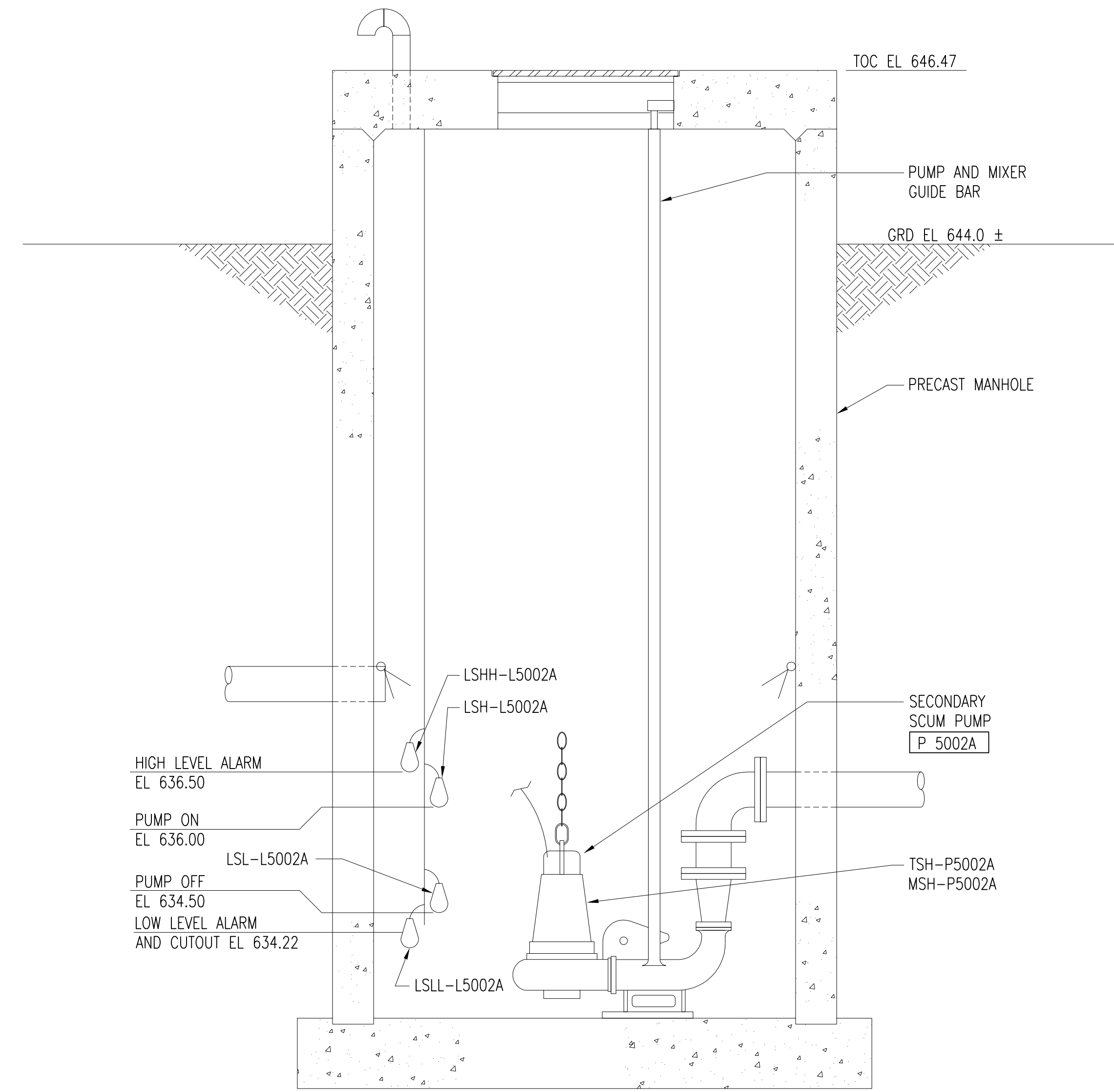
EXISTING SECONDARY SCUM COLLECTION MANHOLE
 SCALE: 3/4" = 1'-0"
 (LOCATED BY CLARIFIER 5100) SEE DWG E58



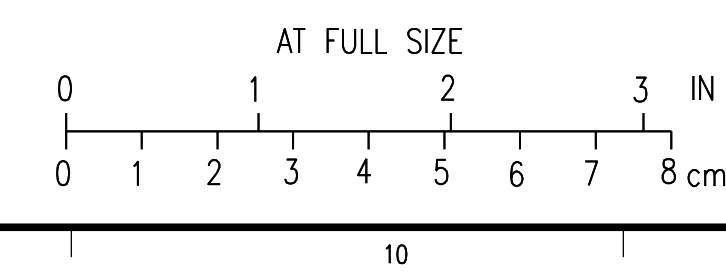
NEW SECONDARY SCUM COLLECTION MANHOLE
 SCALE: 3/4" = 1'-0"
 (LOCATED BY CLARIFIER 5500) SEE DWG E58



SECTION A-E560
 E560
 SCALE: 3/4" = 1'-0"



SECTION B-E560
 E560
 SCALE: 3/4" = 1'-0"



3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT
SECONDARY CLARIFIER AREA
SECONDARY SCUM COLLECTION MANHOLES
ELECTRICAL PLANS AND DETAILS

DESIGNED	DL MORITZ	SCALE:	AS NOTED
DRAWN	D.WILGES	NO.	22800
CHECKED	DL MORITZ	REV.	
APPROVED	JD COOAN	E560	3
DATE	DECEMBER 2, 2011		

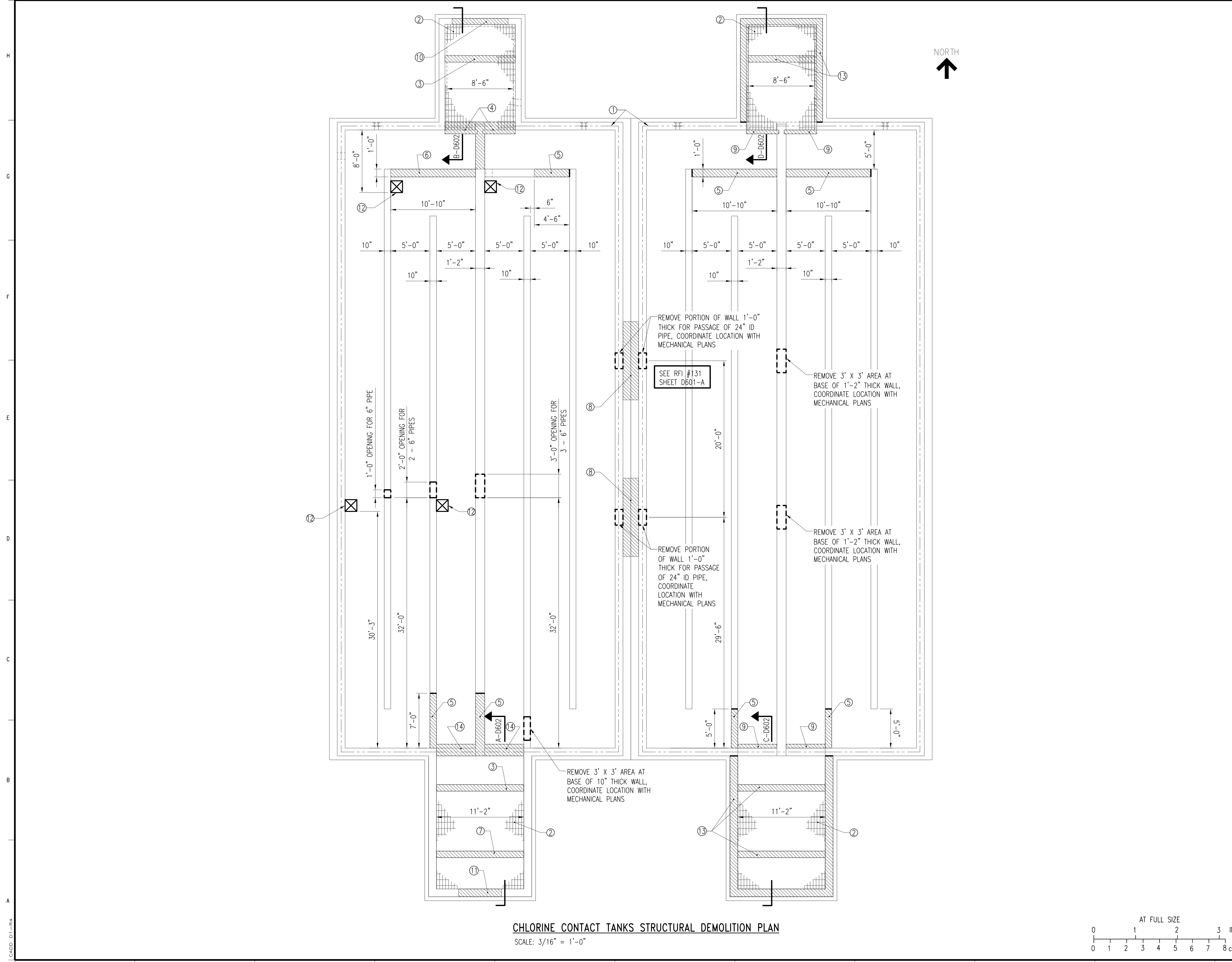
11
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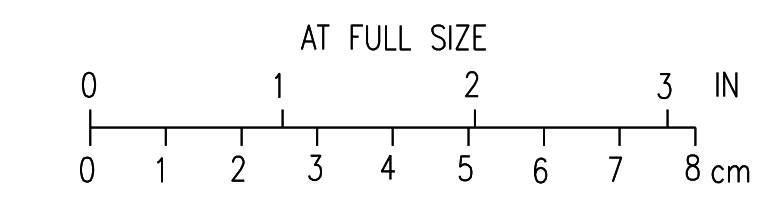
BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE

NOTES:

1. REMOVE ALUMINUM GUARDRAIL AND KICKPLATE.
2. REMOVE EXISTING GRATING AND SUPPORT BEAMS.
3. SAWCUT AND REMOVE REINFORCED CONCRETE BAFFLE WALL. SAWCUT FLUSH AT REMOVAL LIMITS INDICATED.
4. REMOVE SLIDE GATE AT NORTH SIDE OF TANK AND REMOVE 1'-0" THICK BY 8'-6" TALL REINFORCED CONCRETE WALL. SAWCUT FLUSH WITH ADJACENT WALLS AND BASE SLAB TO REMAIN.
5. REMOVE REINFORCED CONCRETE WALLS FLUSH TO TOP OF SLAB. SAWCUT FLUSH AT REMOVAL LIMITS INDICATED.
6. REMOVE 1'-0" THICK REINFORCED CONCRETE WALLS TO EL. 638'-10". SAWCUT FLUSH AT REMOVAL LIMITS INDICATED.
7. REMOVE WEIR AND 10" THICK BY APPROXIMATELY 7'-3" TALL REINFORCED CONCRETE WALL. SAWCUT FLUSH WITH ADJACENT WALLS AND BASE SLAB TO REMAIN.
8. REMOVE AND REPLACE SIDEWALK AS NECESSARY FOR REMOVAL OF CONCRETE WALL AND PIPE INSTALLATION.
9. REMOVE SLIDE GATE AT NORTH SIDE OF TANK AND WIER PLATE AT SOUTH END OF TANK.
10. REMOVE PORTION OF 1'-0" THICK WALL TO ALLOW PASSAGE AND INSTALLATION OF NEW 72" I.D. INFLUENT RCP. COORDINATE LOCATION WITH MECHANICAL PLANS.
11. REMOVE PORTION OF 1'-0" THICK WALL TO ALLOW PASSAGE AND INSTALLATION OF 60" I.D. DUCTILE IRON EFFLUENT PIPE. COORDINATE LOCATION WITH MECHANICAL PLANS.
12. REMOVE 2'-0" BY 2'-0" OF EXISTING FILL CONCRETE TO TOP OF BASE SLAB FOR SUMP WELL.
13. REMOVE 1'-0" SIDE WALLS AND 10" BAFFLE WALLS AT NORTH AND SOUTH ENDS OF TANK TO TOP OF BASE SLAB. SAWCUT FLUSH WITH ADJACENT WALLS AND BASE SLAB TO REMAIN. BACKFILL VOID WITH GRANULAR MATERIAL.
14. REMOVE WEIR AND UPPER PORTIONS OF WALL.



CHLORINE CONTACT TANKS STRUCTURAL DEMOLITION PLAN
SCALE: 3/16" = 1'-0"



2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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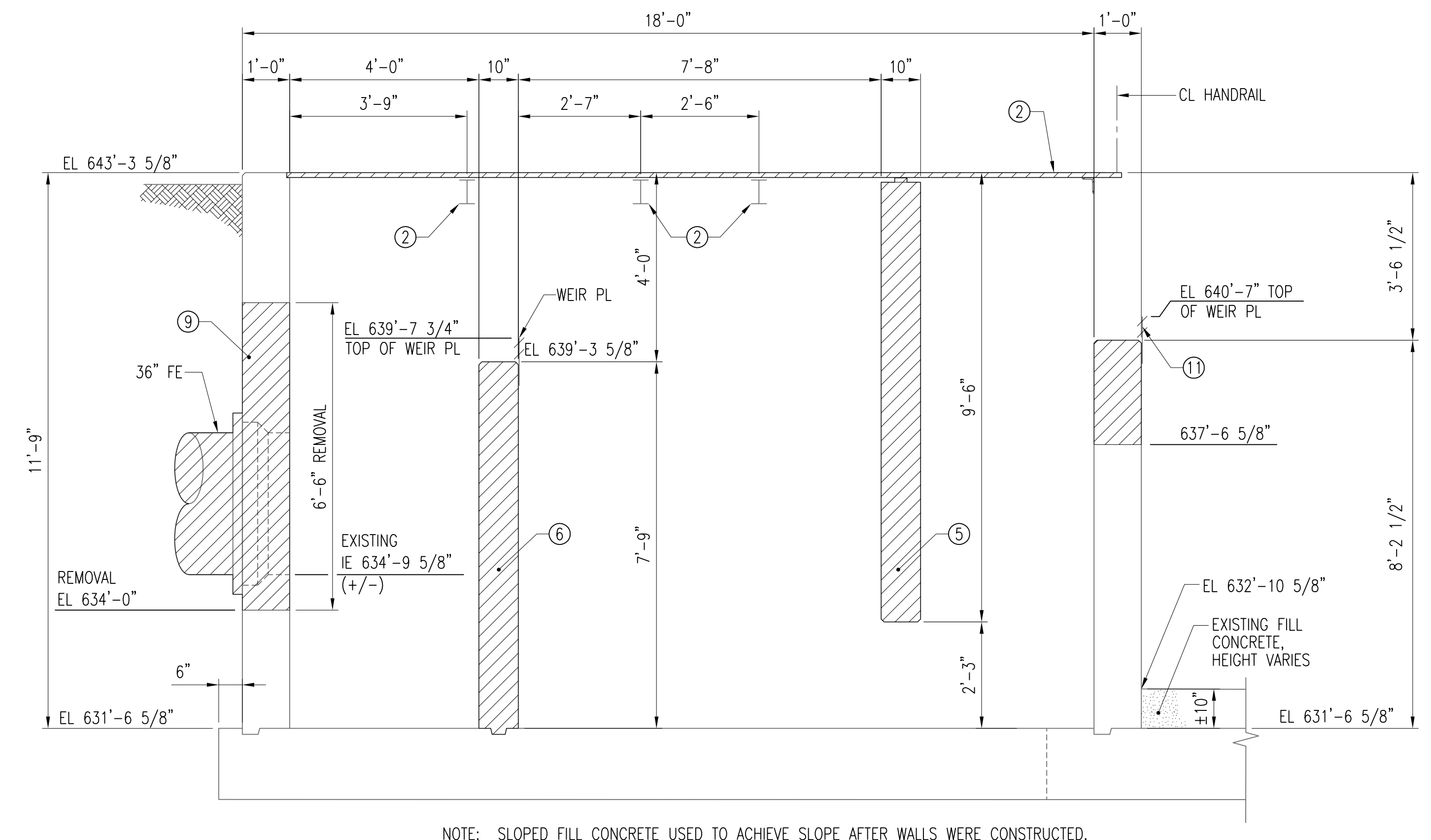
**DISINFECTION TANKS AREA
CHLORINE CONTACT TANKS
STRUCTURAL DEMOLITION PLANS**

DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	RT THOMS	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
APPROVED			
DATE	DECEMBER 2, 2011	D601	2

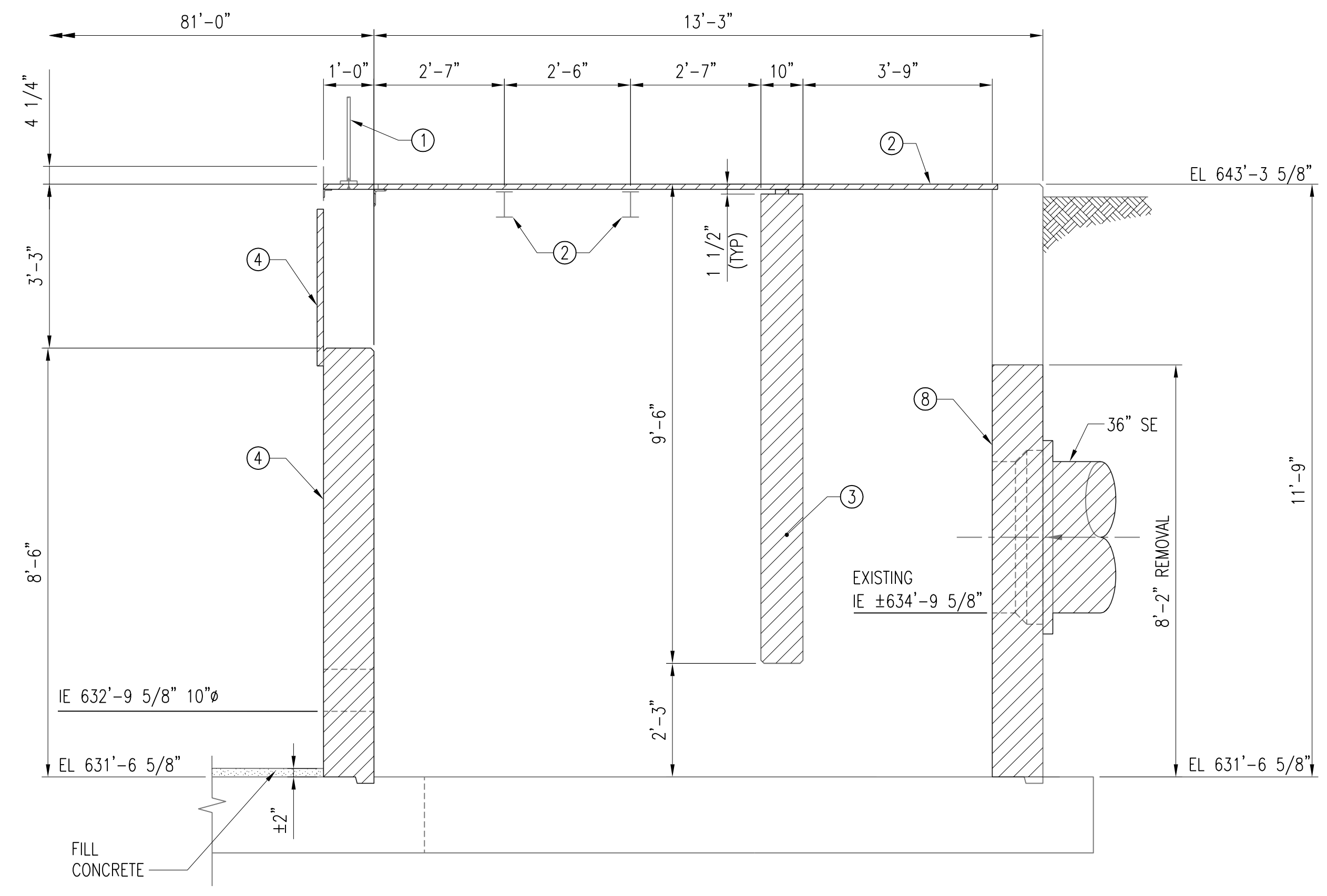
CADD: D1-R4

BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE

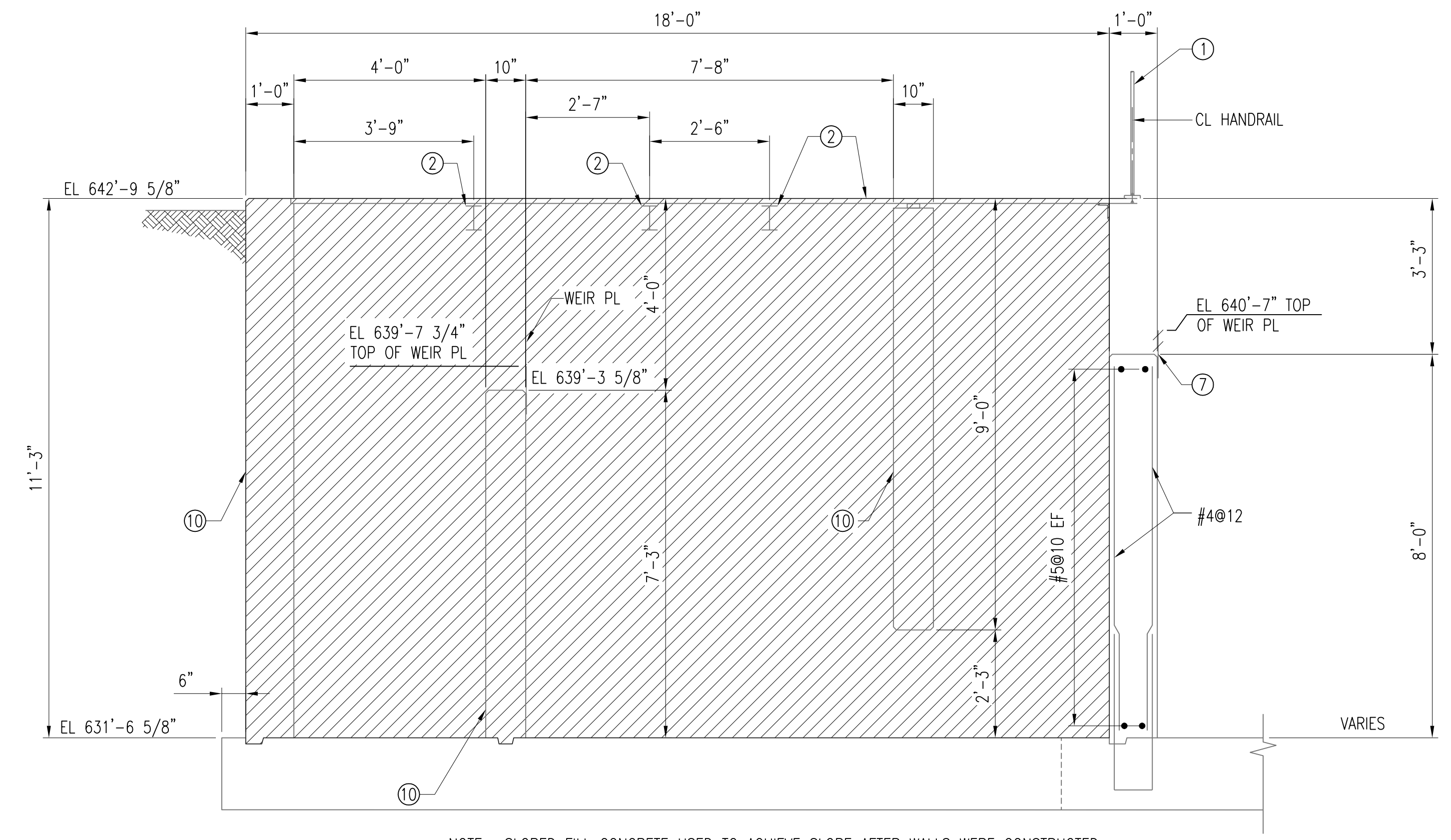
- NOTES:**
1. REMOVE AND PROTECT ALUMINUM GUARDRAIL AND KICKPLATE FOR REINSTALLATION.
 2. REMOVE EXISTING GRATING AND SUPPORT BEAMS.
 3. SAWCUT AND REMOVE 10" THICK BY 9'-6" TALL REINFORCED CONCRETE BAFFLE WALL. SAWCUT FLUSH AT REMOVAL LIMITS INDICATED.
 4. REMOVE SLIDE GATE AT NORTH SIDE OF TANK AND REMOVE 1'-0" THICK BY 8'-6" TALL REINFORCED CONCRETE WALL. SAWCUT FLUSH WITH ADJACENT WALLS AND BASE SLAB TO REMAIN.
 5. SAWCUT AND REMOVE 10" THICK BY 9'-6" TALL REINFORCED CONCRETE BAFFLE WALL. SAWCUT FLUSH AT ADJACENT WALLS TO REMAIN.
 6. REMOVE WEIR AND 10" THICK BY APPROXIMATELY 7'-9" TALL REINFORCED CONCRETE WALL. SAWCUT FLUSH WITH ADJACENT WALLS AND BASE SLAB TO REMAIN.
 7. REMOVE SLIDE GATE AT NORTH SIDE OF TANK AND WIER PLATE AT SOUTH END OF TANK.
 8. REMOVE PORTION OF 1'-0" THICK WALL TO ALLOW PASSAGE AND INSTALLATION OF NEW 72" I.D. INFLUENT RCP. COORDINATE LOCATION WITH MECHANICAL PLANS.
 9. REMOVE PORTION OF 1'-0" THICK WALL TO ALLOW PASSAGE AND INSTALLATION OF 60" I.D. DUCTILE IRON EFFLUENT PIPE. COORDINATE LOCATION WITH MECHANICAL PLANS.
 10. REMOVE 1'-0" SIDE WALLS AND 10" BAFFLE WALLS AT NORTH AND SOUTH ENDS OF TANK TO TOP OF BASE SLAB. SAWCUT FLUSH WITH ADJACENT WALLS AND BASE SLAB TO REMAIN. BACKFILL VOID WITH GRANULAR MATERIAL.
 11. REMOVE WIER AND UPPER PORTION OF WALL.



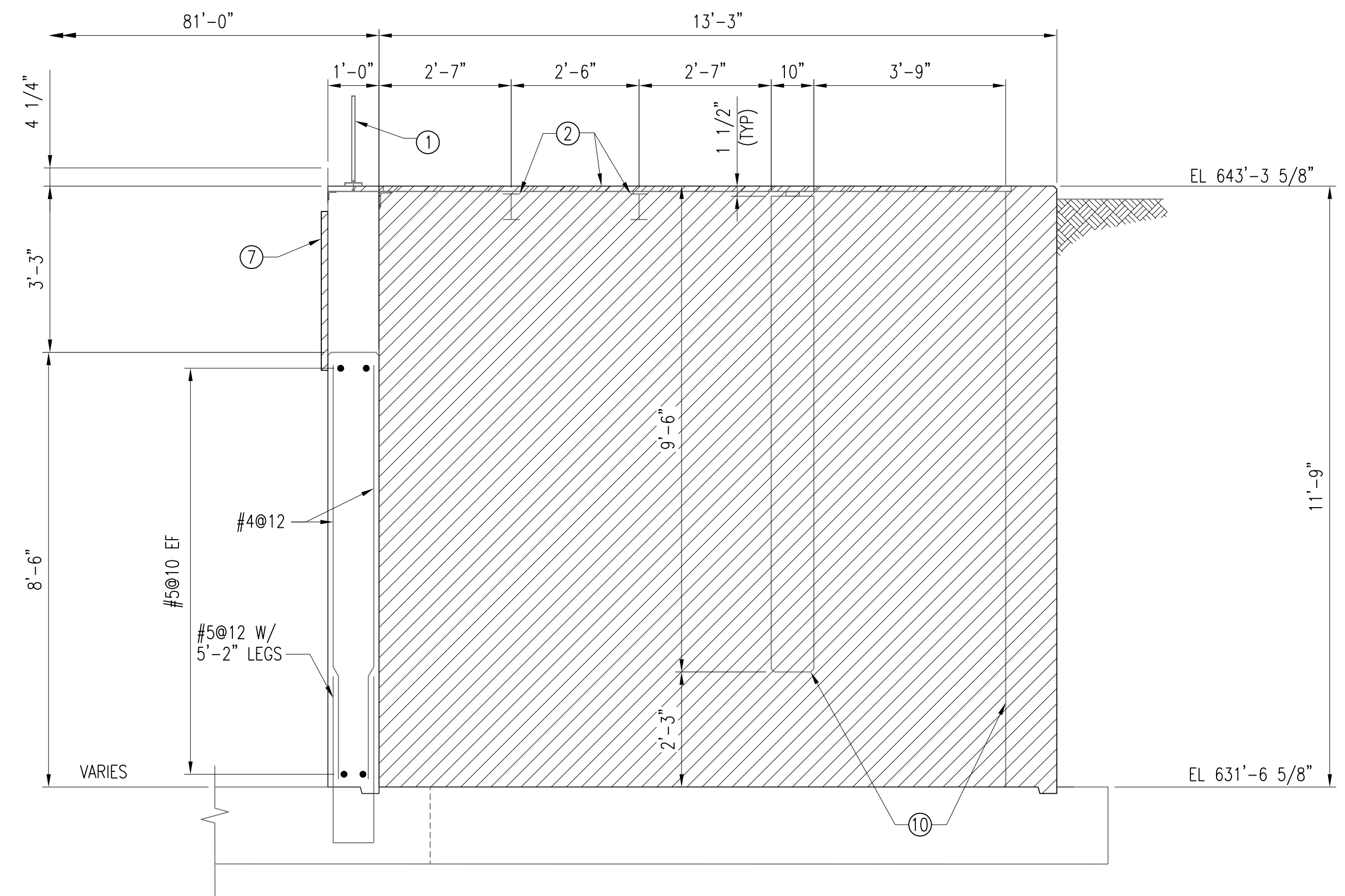
SECTION A-D602
D601
SCALE: 1/2" = 1'-0"



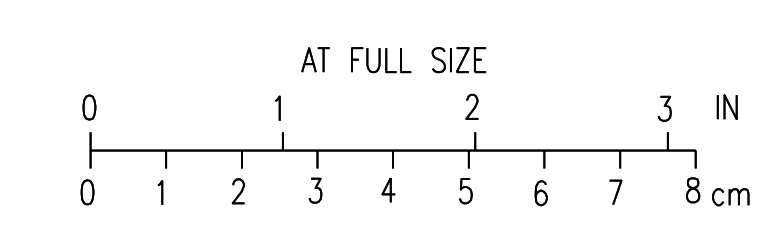
SECTION B-D602
D601
SCALE: 1/2" = 1'-0"



SECTION C-D602
D601
SCALE: 1/2" = 1'-0"



SECTION D-D602
D601
SCALE: 1/2" = 1'-0"



2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**DISINFECTION TANKS AREA
CHLORINE CONTACT TANKS
STRUCTURAL DEMOLITION DETAILS**

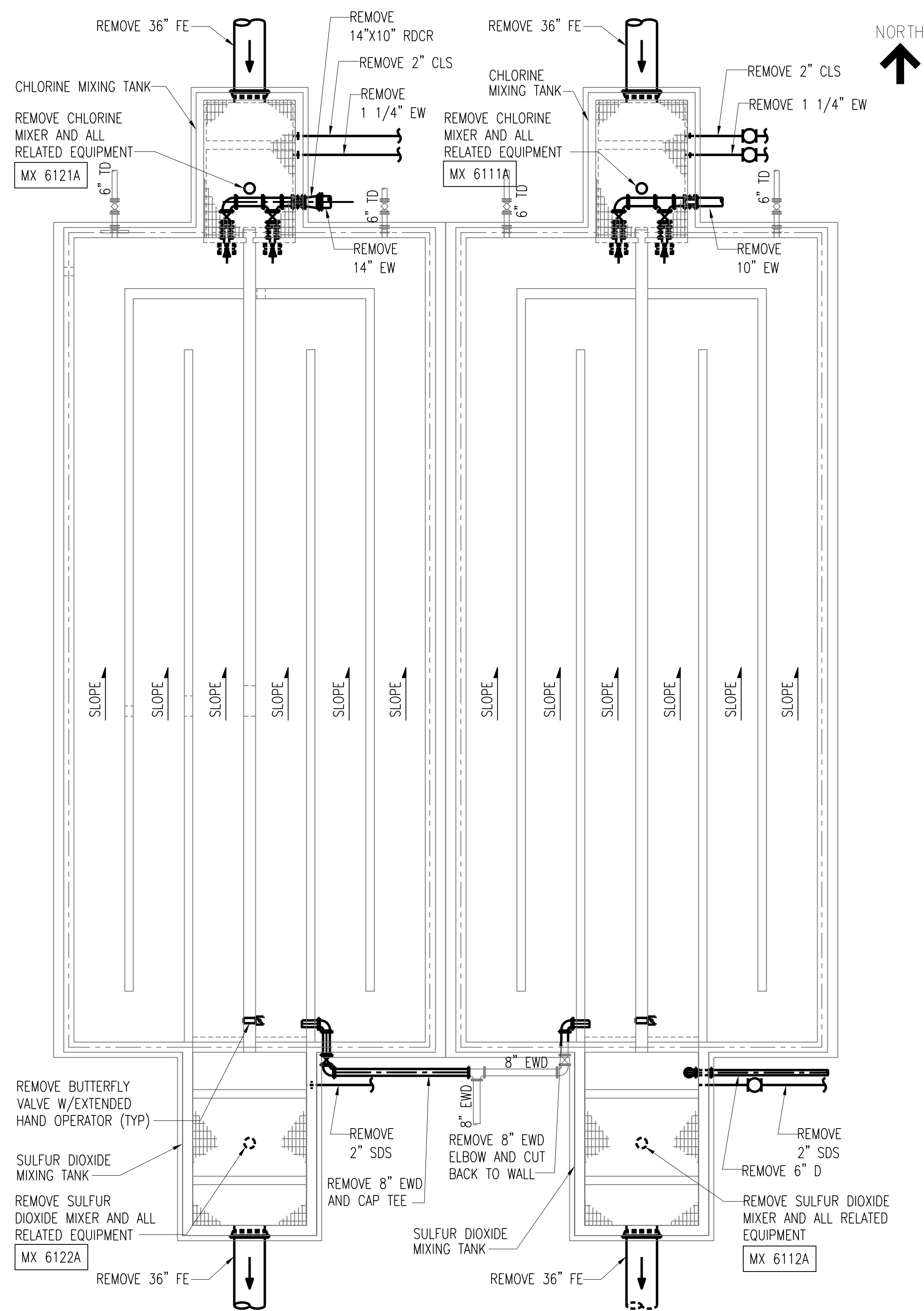
DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	RT THOMS	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
APPROVED			
DATE	DECEMBER 2, 2011		

D602 **2**

CADD: D1-R4

BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE

NOTES:
1. SEE DRAWINGS D12 - D15 FOR ELECTRICAL DEMO.



CHLORINE CONTACT TANKS MECHANICAL DEMOLITION PLAN
SCALE: 1/8" = 1'-0"

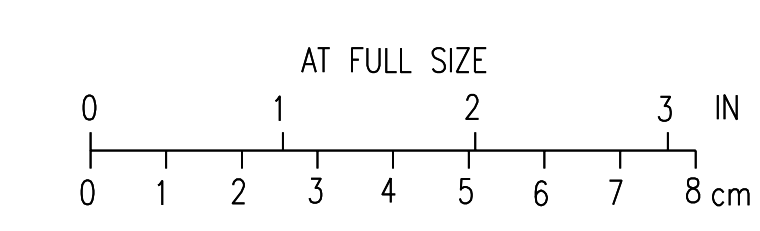
2	RECORD DRAWING	LBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	MA	MA	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

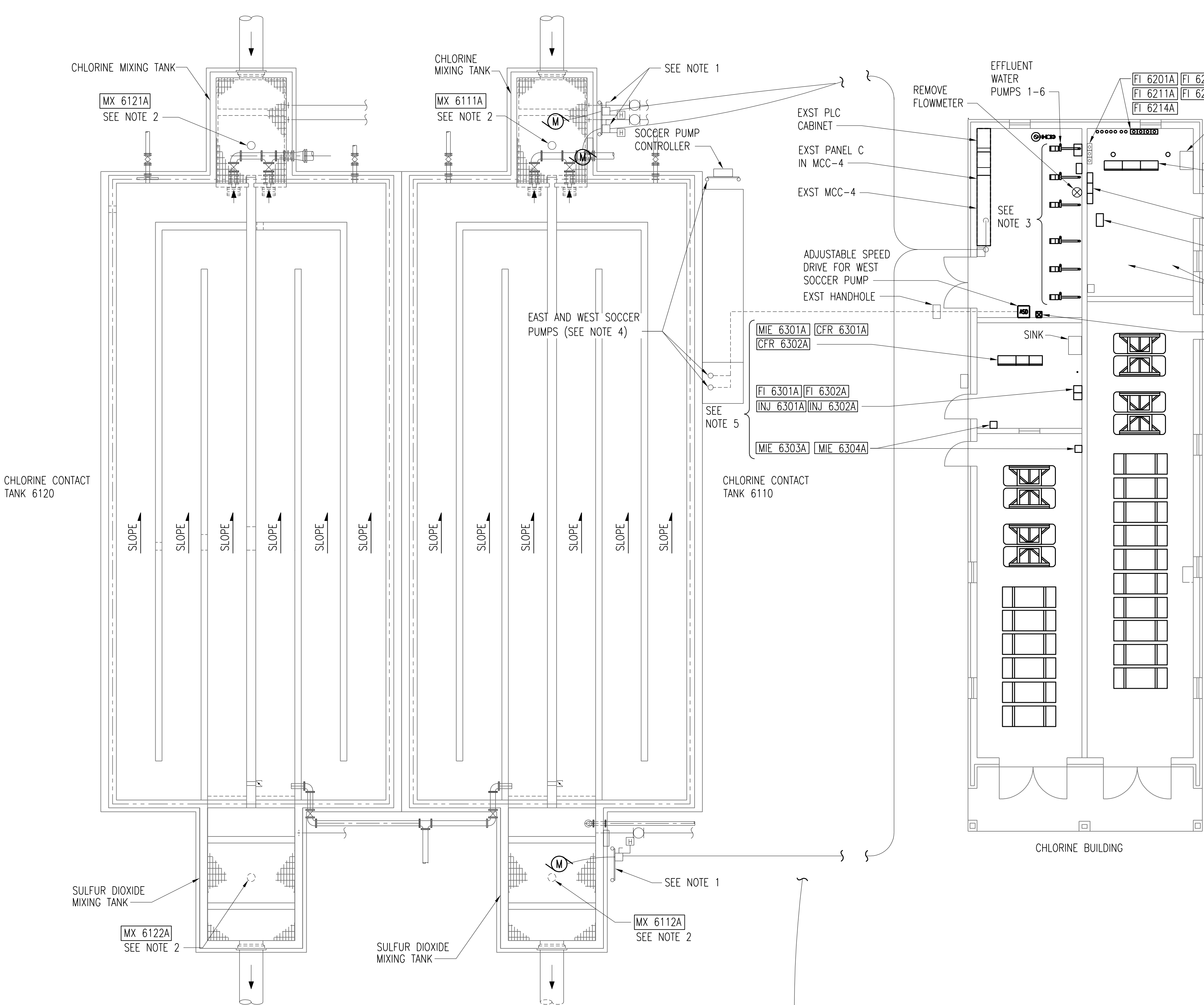
**DISINFECTION TANKS AREA
CHLORINE CONTACT TANKS
PROCESS PIPING DEMOLITION PLAN**

DESIGNED	M. AKYUREK	SCALE:	AS NOTED
DRAWN	DA. SCHMIDT	NO.	22800
CHECKED	M. AKYUREK	REV.	
APPROVED	JM. BRADY		
APPROVED			
DATE	DECEMBER 2, 2011		



CADD: D1-1-R4

BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE



CHLORINE CONTACT TANKS ELECTRICAL DEMOLITION PLAN
SCALE: 1/8" = 1'-0"

EXISTING PANEL C CHEMICAL BUILDING									
CIR. NO.	LOAD	CB	P	?	P	CB	LOAD	CIR. NO.	
1	LIGHTING ROOM 101, 102, 103	20	1	A	1	20	LIGHTING EXTERIOR ROADWAY	2	
3	LIGHTING ROOM 104, 105	20	1	B	1	20	LIGHTING EXTERIOR FLOOD	4	
5	RECEPTACLE ROOM 102, 103 FINAL SAMPLE	20	1	C	1	20	CONTROL PANEL	6	
7	RECEPTACLE ROOM 104	20	1	A	1	20	CONTROL PANEL	8	
9	EFW FLOW METER	20	1	B	1	20	CHLORINE/SULFIDE ALARM PANEL	10	
11	PUMP	20	1	C	1	20	CHLORINE ANALYZER	12	
13	EFW PRIME SAMPLE	20	1	A	1	20	CHLORINATORS	14	
15	EF-1	20	1	B	1	20	SPARE	16	
17	EF-2	20	1	C	1	20	SULFINATORS	18	
19	EF-3, 4, 6	20	1	A	1	20	LEAK DETECTORS	20	
21	EF-5	20	1	B	1	20	RECEPTACLES ROOM 101,105	22	
23	GFUH-1, 2, 3	20	1	C	1	20	ISOLATER PANEL	24	
25	P 6101A FINAL SAMPLE	20	1	A	1	20	SPARE	26	
27	P 6121	20	1	B	1	20	DAN FOSS FLOW METER	28	
29	SAMPLE PUMP	20	1	C	1	20	120V CHLORINE CONTACT TANK-NORTH	30	
31	208V CHLORINE CONTACT TANK-SOUTH	20	1	A	1	20	208V CHLORINE CONTACT TANK-NORTH	32	
33	208V CHLORINE CONTACT TANK-SOUTH	20	1	B	1	20	208V CHLORINE CONTACT TANK-NORTH	34	
35	SPACE				C		SPACE	36	
37	SPACE				A		SPACE	38	
39	SPACE				B		SPACE	40	
41	SPACE				C		SPACE	42	

NOTE:
EXISTING PANEL C IS IN MCC-4. IT IS TO BE REMOVED AND NEW PANEL C WILL BE INSTALLED AS SHOWN ON DRAWING E611. EXTEND ALL CIRCUITING FOR LOADS SHOWN SCREENED ABOVE WITH REQUIREMENTS SHOWN ON DRAWING E611 IN REMARKS SECTION OF PANEL. ALL BOLD CIRCUITS ABOVE TO BE REMOVED AS PART OF DEMOLITION.

NOTES:

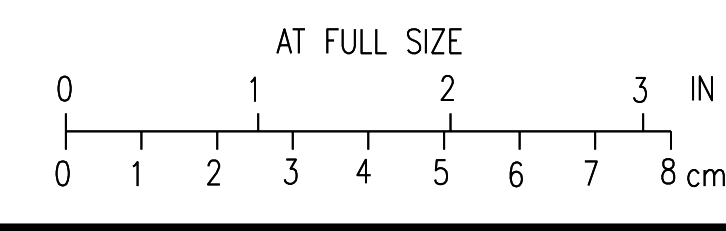
- SEE DRAWING D16 FOR MCC-4 ONE-LINE DEMOLITION REQUIREMENTS AND DRAWING E16 FOR REVISED MCC-4 ONE-LINE DIAGRAM.
- REMOVE CHLORINE MIXER 6121A AND MX6111A AND SULFUR DIOXIDE MIXERS MX6112A AND MX 6122A ALONG WITH ASSOCIATED LOCAL DISCONNECTS AND CONTROL. REMOVE WIRING BACK TO MCC-4.
- REMOVE EFFLUENT WATER PUMPS 1 THRU 6 FROM MCC-4 ROOM ALONG WITH ASSOCIATED CONDUIT AND WIRING BACK TO MCC-4. CHLORINE MIXER 6121A AND MX6111A AND SULFUR DIOXIDE MIXERS MX6112A AND MX 6122A ALONG WITH ASSOCIATED LOCAL DISCONNECTS AND CONTROL. REMOVE WIRING BACK TO MCC-4.
- REMOVE EAST AND WEST SOCCER PUMPS AND ASSOCIATED STARTER AND ASD SHOWN. REMOVE CONDUITING FROM UNDERGROUND CONDUITS AND REUSE IF POSSIBLE FOR NEW UV SYSTEM. IF NOT THREAD AND CAP CONDUIT ON BOTH ENDS.
- REMOVE THE FOLLOWING SULFUR DIOXIDE TREATMENT EQUIPMENT AND ALL ASSOCIATED WIRING AND CONDUIT BACK TO THE SOURCE PANEL C OR MCC-4.
MIE 6301A, CFR 6301A, CFR 6302A, FI 6301A, FI 6302A, INJ 6301A, INJ 6302A, MIE 6303A, MIE 6304A.
- REMOVE THE FOLLOWING CHLORINATION TREATMENT FILTER EQUIPMENT AND ALL ASSOCIATED WIRING AND CONDUIT BACK TO THE SOURCE PANEL C OR MCC-4.
FI 6201A, FI 6202A, FI 6203A, FI 6211A, FI 6212A, FI 6213A, FI 6214A.
- REMOVE THE FOLLOWING CHLORINATION TREATMENT EQUIPMENT AND ALL ASSOCIATED WIRING AND CONDUIT BACK TO THE SOURCE PANEL C OR MCC-4.
MIE 6201A, CFR 6201A, CFR 6202A, CFR 6203A, CFR 6211A, INJ 6201A, INJ 6202A, P 6241A, EPR 6201A, AND EPR 6202A.
- PROVIDE CAPS OR SEALOFFS ON REMAINING CONDUITS AFTER REMOVAL OF WIRING FROM CONDUITS PENETRATING TEMPERED SPACES.
- CONTRACTOR TO CONFIRM ALL 120V LOADS TO BE REMOVED FROM PANEL C LOCATED IN MCC-4.

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012


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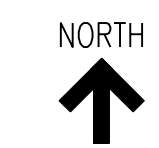
CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT
**DISINFECTION TANKS AREA
 CHLORINE BUILDING AND CONTACT TANKS
 POWER DEMOLITION PLAN**

DESIGNED DL MORITZ	SCALE: AS NOTED
DRAWN D. WILGES	NO. 22800
CHECKED DL MORITZ	REV.
APPROVED JD COOAN	D604
DATE DECEMBER 2, 2011	3



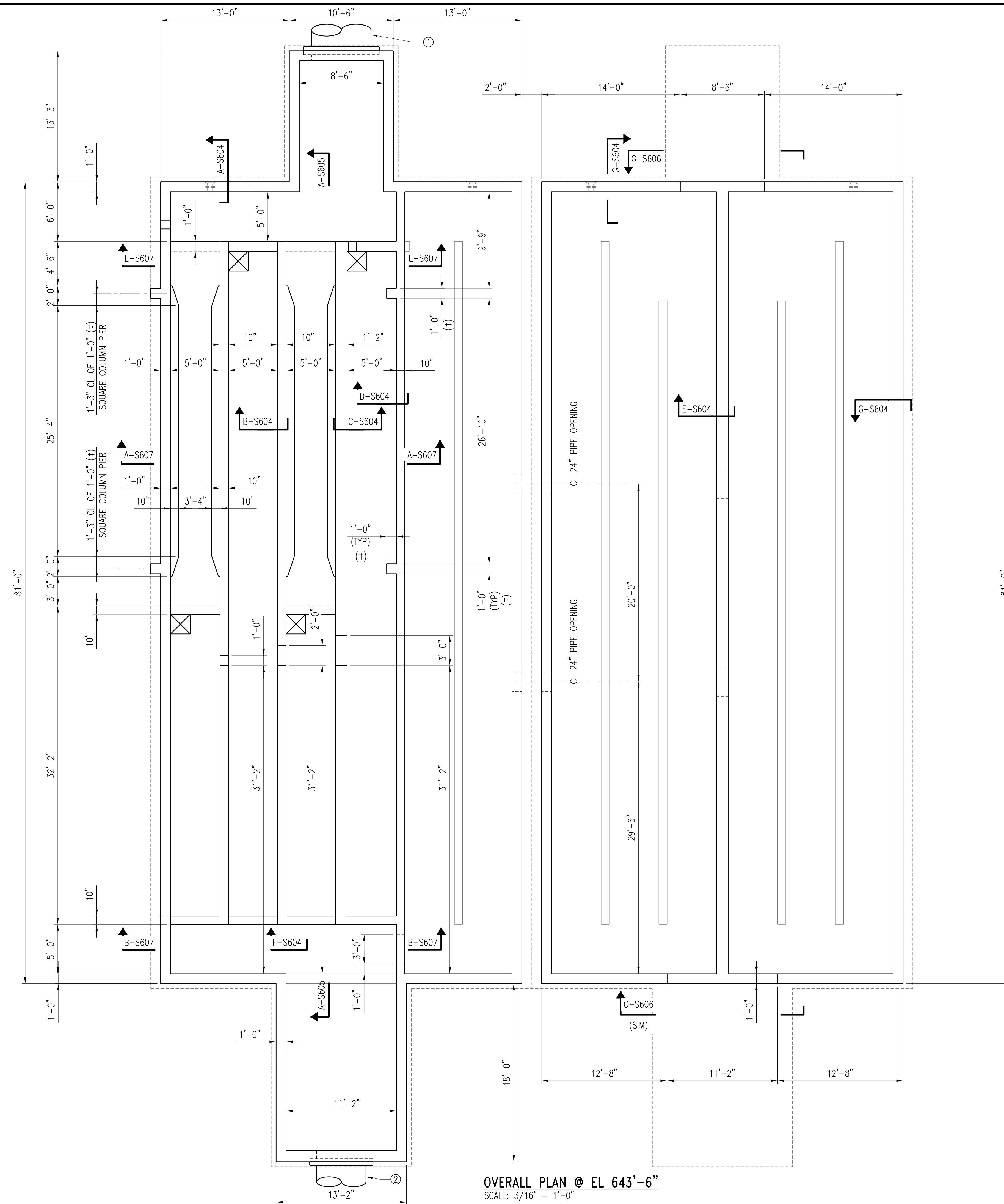
H
G
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G
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D
C
B
A



NOTES:

1. INSTALL 72" ID RCP AT INVERT ELEVATION OF 632.6 FT. CUT EXISTING REINFORCING AS NEEDED TO SET PIPE IN REQUIRED LOCATION. CONTRACTOR TO ENSURE WATER TIGHTNESS OF FINAL PRODUCT.
2. INSTALL 60" ID DUCTILE IRON PIPE AT INVERT ELEVATION OF 634.8 FT. CUT EXISTING REINFORCING AS REQUIRED TO SET PIPE IN REQUIRED LOCATION. CONTRACTOR TO ENSURE WATER TIGHTNESS OF FINAL PRODUCT.



OVERALL PLAN @ EL 643'-6"
 SCALE: 3/16" = 1'-0"



2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

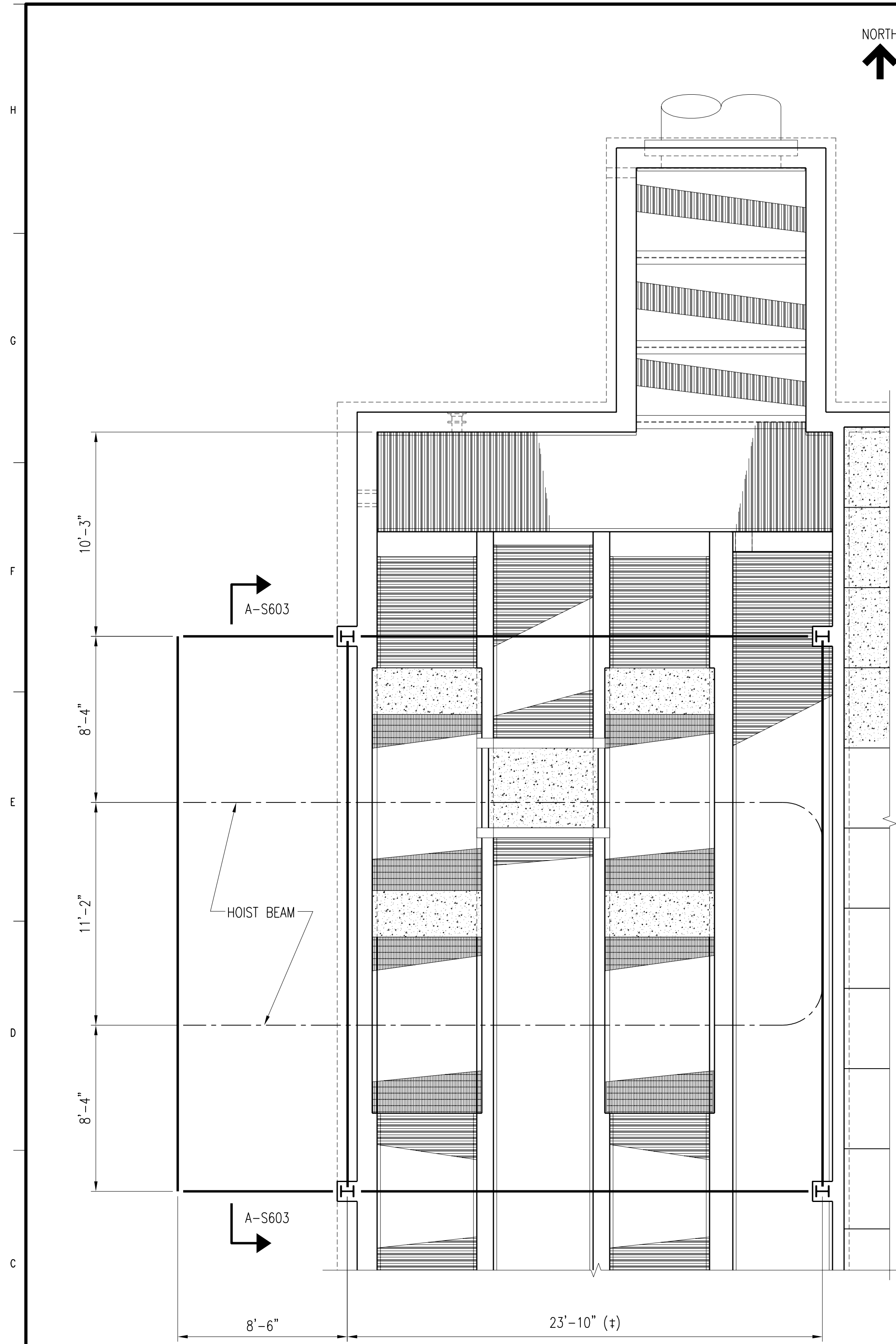
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 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

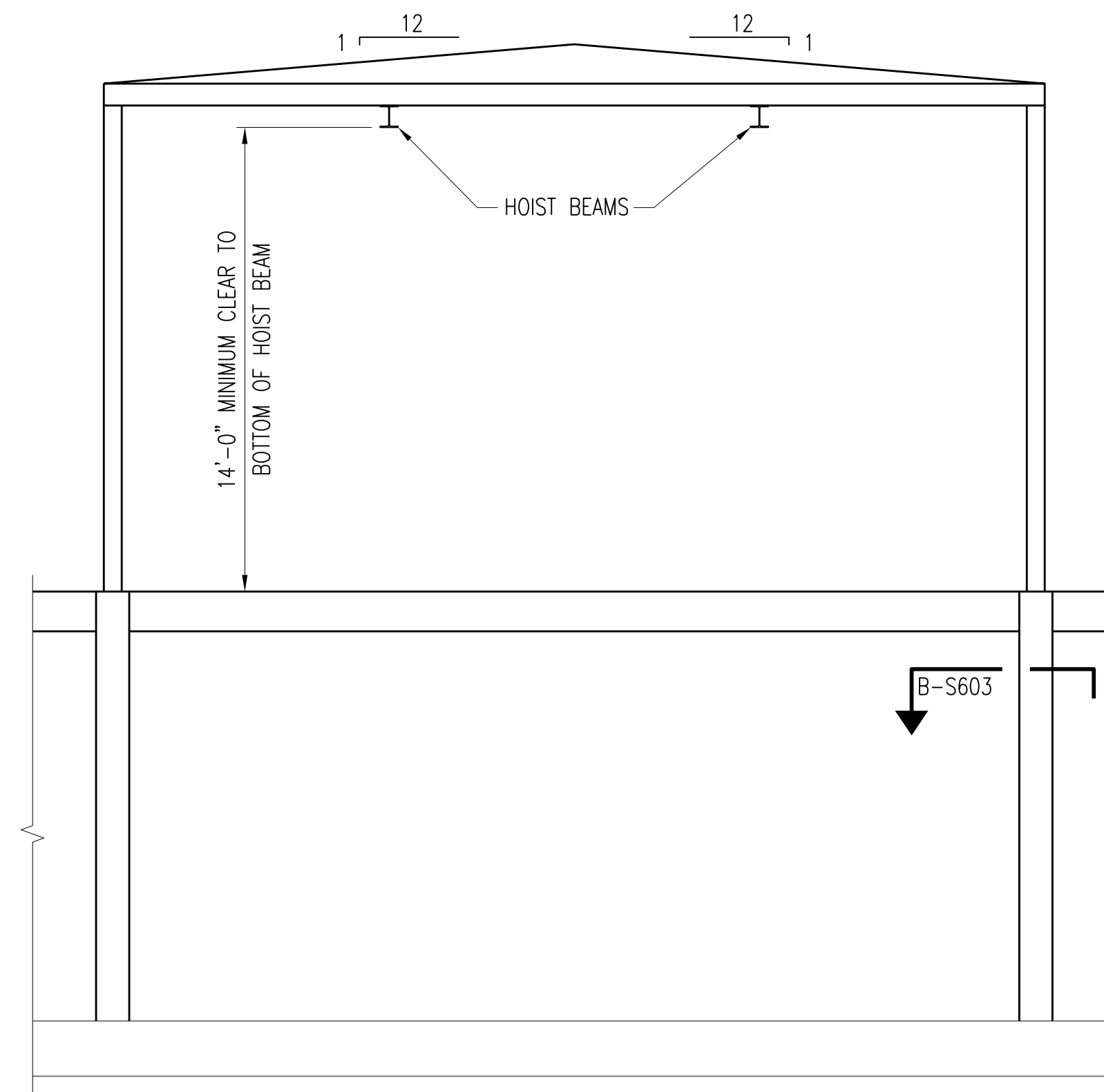
**DISINFECTION TANKS AREA - OPTION A
 UV AND EFFLUENT WATER STORAGE TANKS
 TOP PLAN - SHEET 1**

DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	RT THOMS	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
APPROVED			
DATE	DECEMBER 2, 2011	S602	2

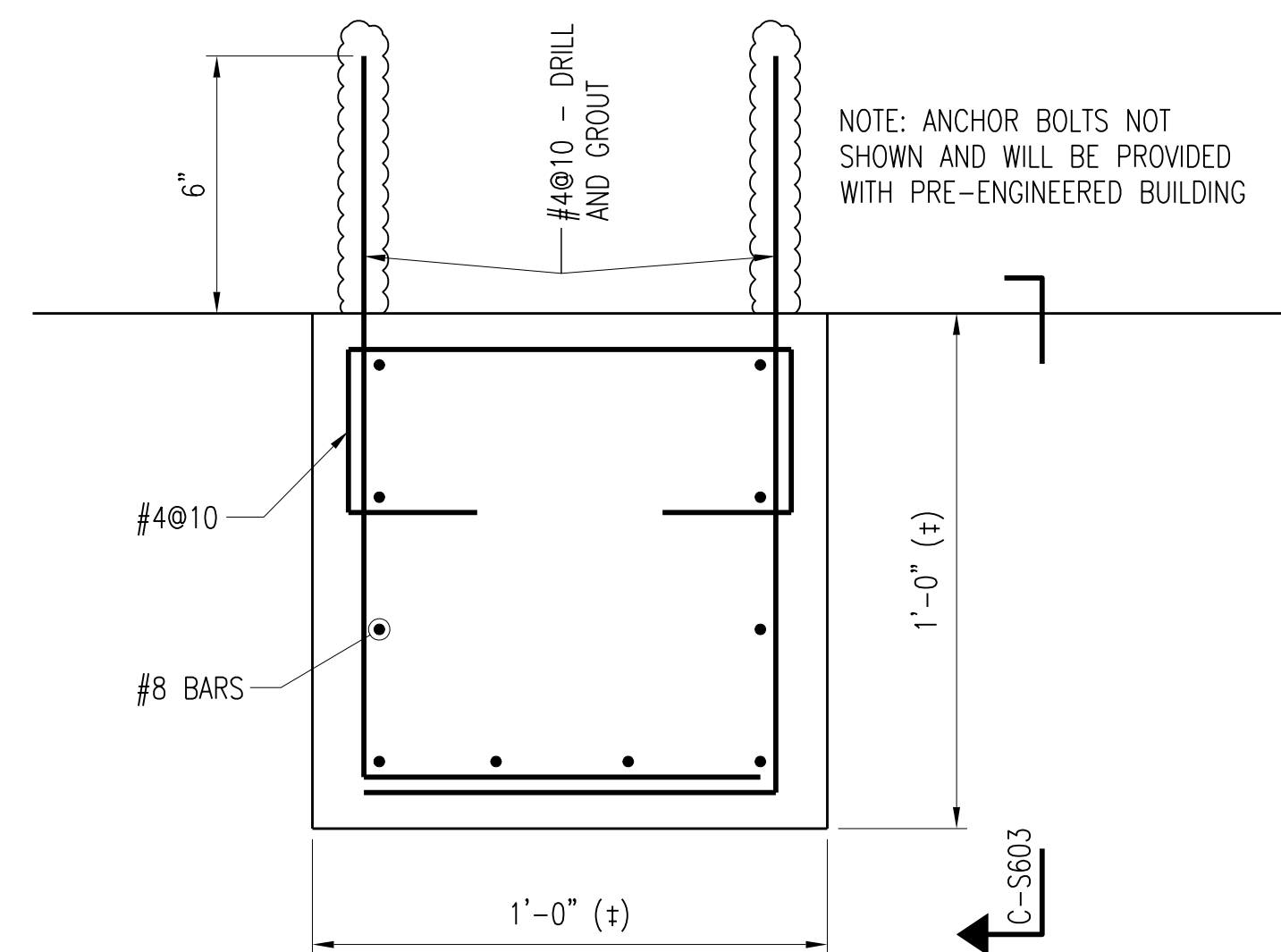
CADD: D1-R4



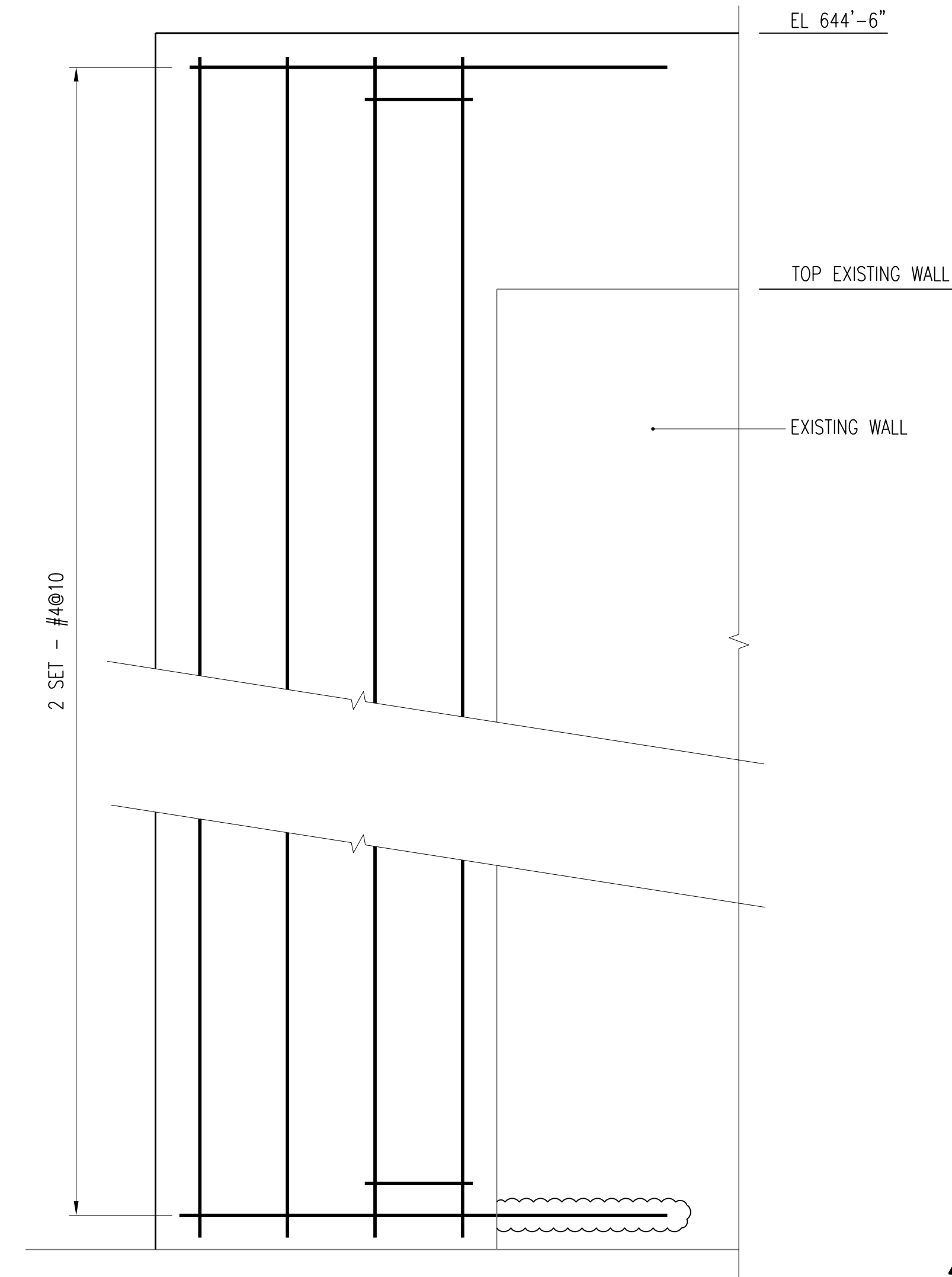
PRE-ENGINEERED BLG PLAN
SCALE: 1/4" = 1'-0"



SECTION A-S603
SCALE: 1/4" = 1'-0"



SECTION B-S603
SCALE: 3" = 1'-0"



SECTION C-S603
SCALE: 3" = 1'-0"

NOTES:

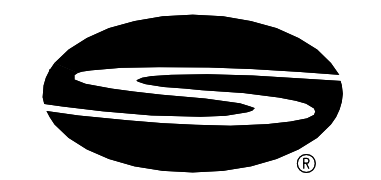
- COORDINATE FINAL DIMENSIONS, ELEVATIONS AND DETAILS WITH BUILDING MANUFACTURER DRAWINGS.
- REFER TO STANDARD STRUCTURAL NOTES AND DETAILS FOR STANDARD DETAILS AND ADDITIONAL REQUIREMENTS.
- DIMENSIONS NOTED (±) MAY BE VARIED FOR METAL BUILDING MANUFACTURE STANDARD CONSTRUCTION.
- PILASTERS SUPPORTING BUILDING COLUMN WILL ACCEPT A 2000 POUND VERTICAL LOAD AND A 1000 POUND HORIZONTAL LOAD.
- ORIENTATION OF BUILDING COLUMNS MAY BE ADJUSTED TO FIT METAL BUILDING SYSTEM PROVIDED.

METAL BUILDING SYSTEM NOTES:

- OUT-TO-OUT BUILDING DIMENSIONS SHALL BE AS INDICATED. THE CONTRACTOR SHALL COORDINATE COLUMN, BASE PLATE AND ANCHOR BOLT REQUIREMENTS WITH THE BUILDING MANUFACTURER. ANY DISCREPANCIES OR CONFLICTS SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE IMMEDIATELY.
- LATERAL BRACING OF THE BUILDING SHALL BE BY SIDEWALL BRACING OR OTHER METHODS AS DETERMINED BY BUILDING MANUFACTURER. CLEAR OPENINGS IN THE NORTH AND SOUTH WALLS SHALL BE 7'-6". CLEAR OPENINGS IN THE EAST AND WEST WALLS SHALL CLEAR EQUIPMENT REMOVAL BY 2'-0".
- METAL BUILDING SYSTEMS SHALL CONFORM TO THE REQUIREMENTS OF THE MBMA METAL BUILDING SYSTEMS MANUAL AND SPECIFICATIONS 13 14 19 - METAL BUILDING SYSTEMS.
- HOIST BEAM SHALL BE PROVIDED BY AND DESIGNED BY THE METAL BUILDING MANUFACTURER TO HANDLE A 1/2 TON HOIST.

METAL BUILDING SYSTEM NOTES: CHANGE NOTE 3 TO REFERENCE SPECIFICATION SECTION 13 34 19.

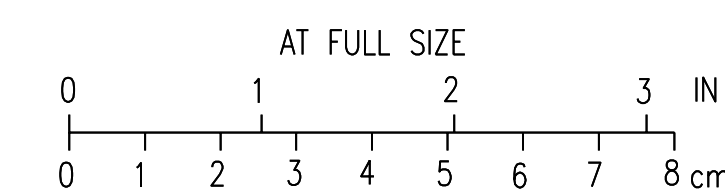
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2	ADDED ADDENDUM COMMENT	LJO	JBL	JBL	05-04-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

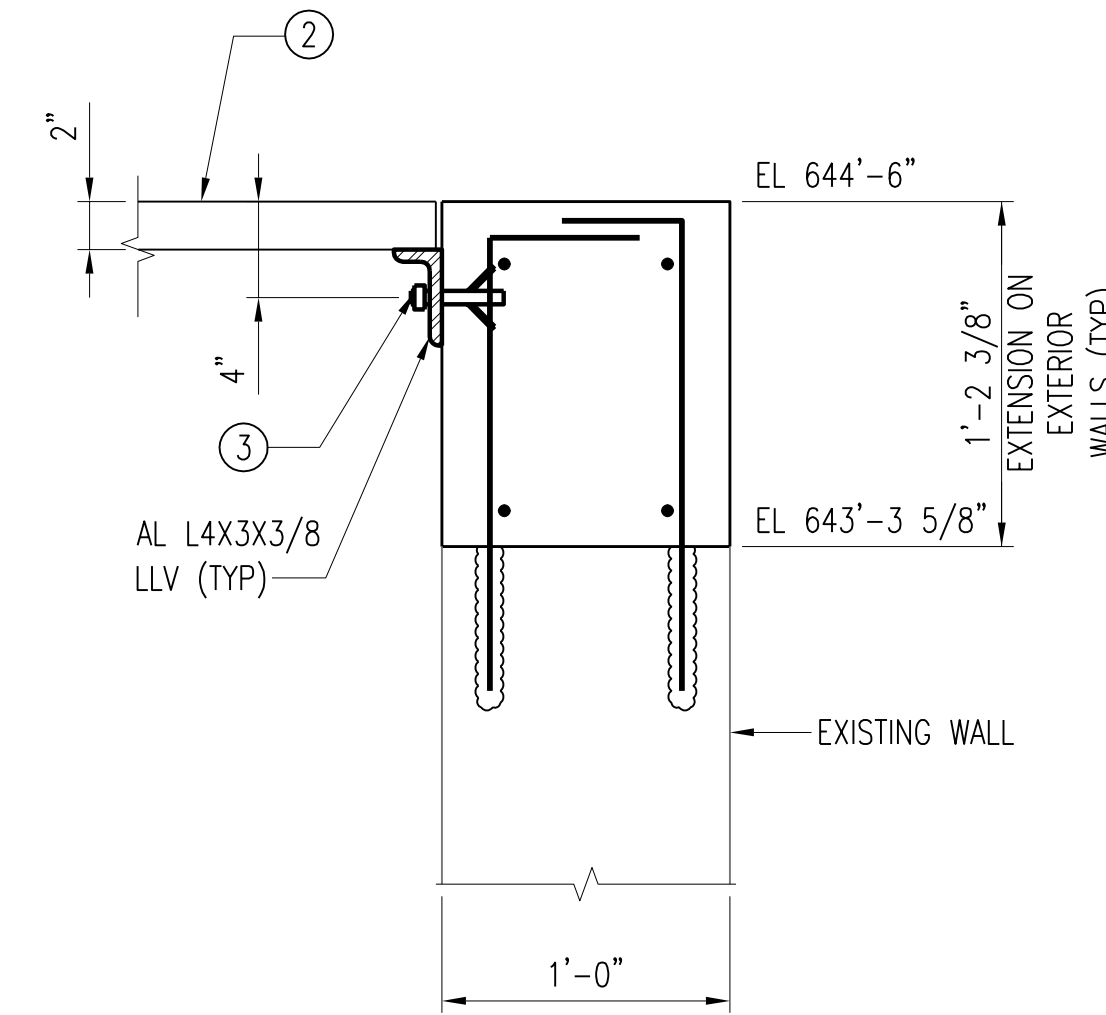


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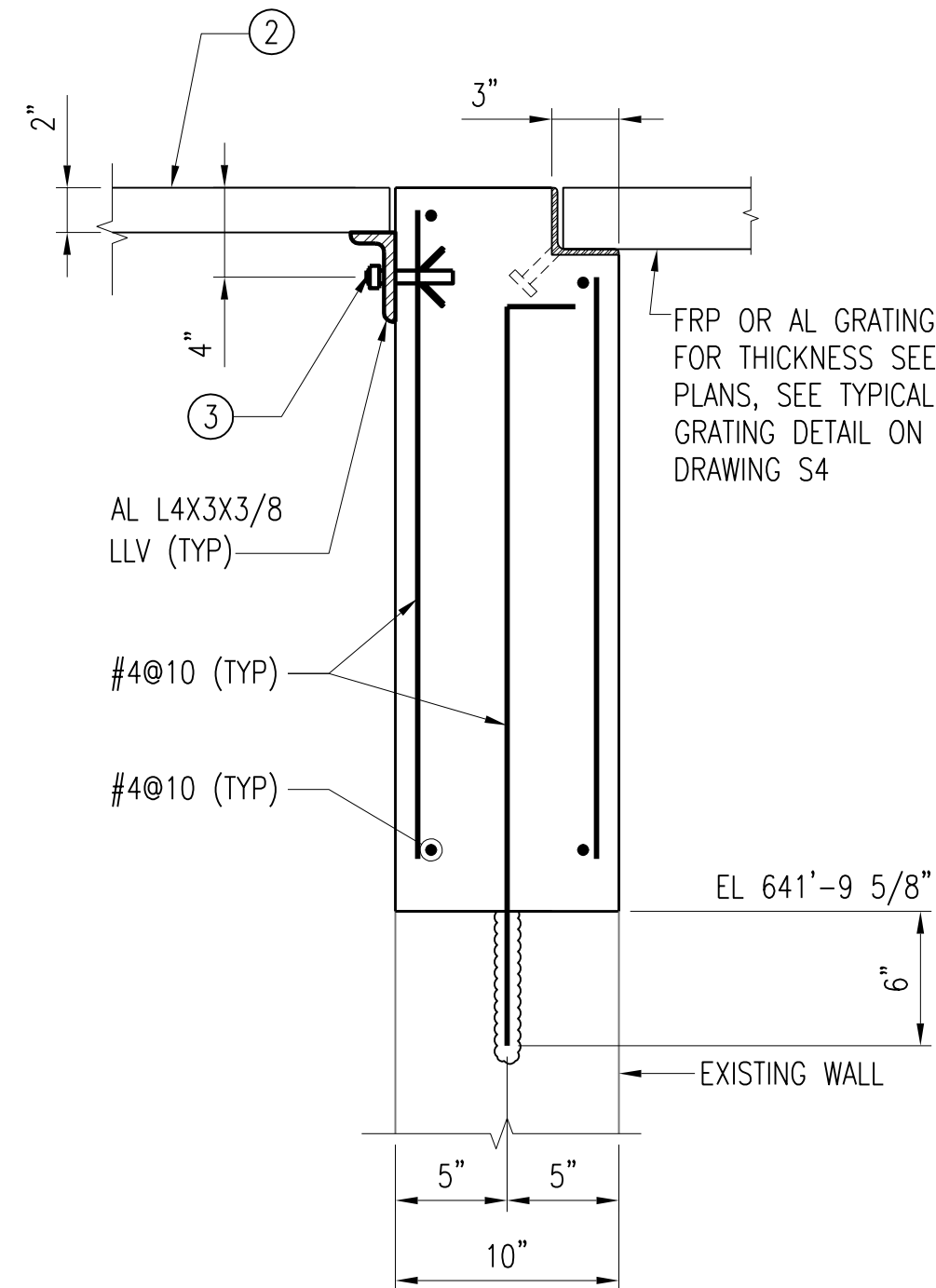
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT
**DISINFECTION TANKS AREA - OPTION A
PRE-ENGINEERED BUILDING
PLAN AND DETAILS**

DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	RT THOMS	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
APPROVED			
DATE	DECEMBER 2, 2011	S603	3

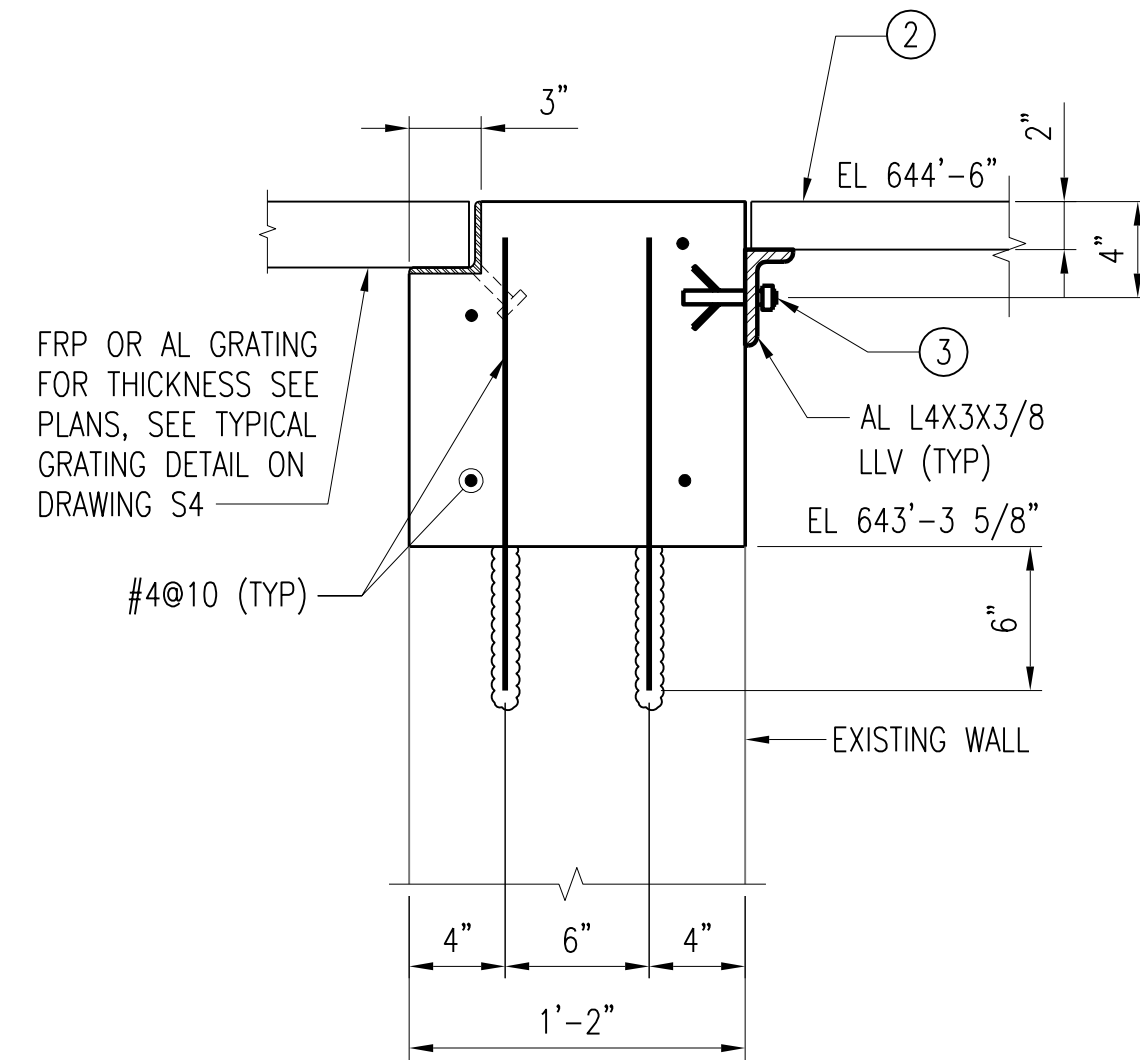




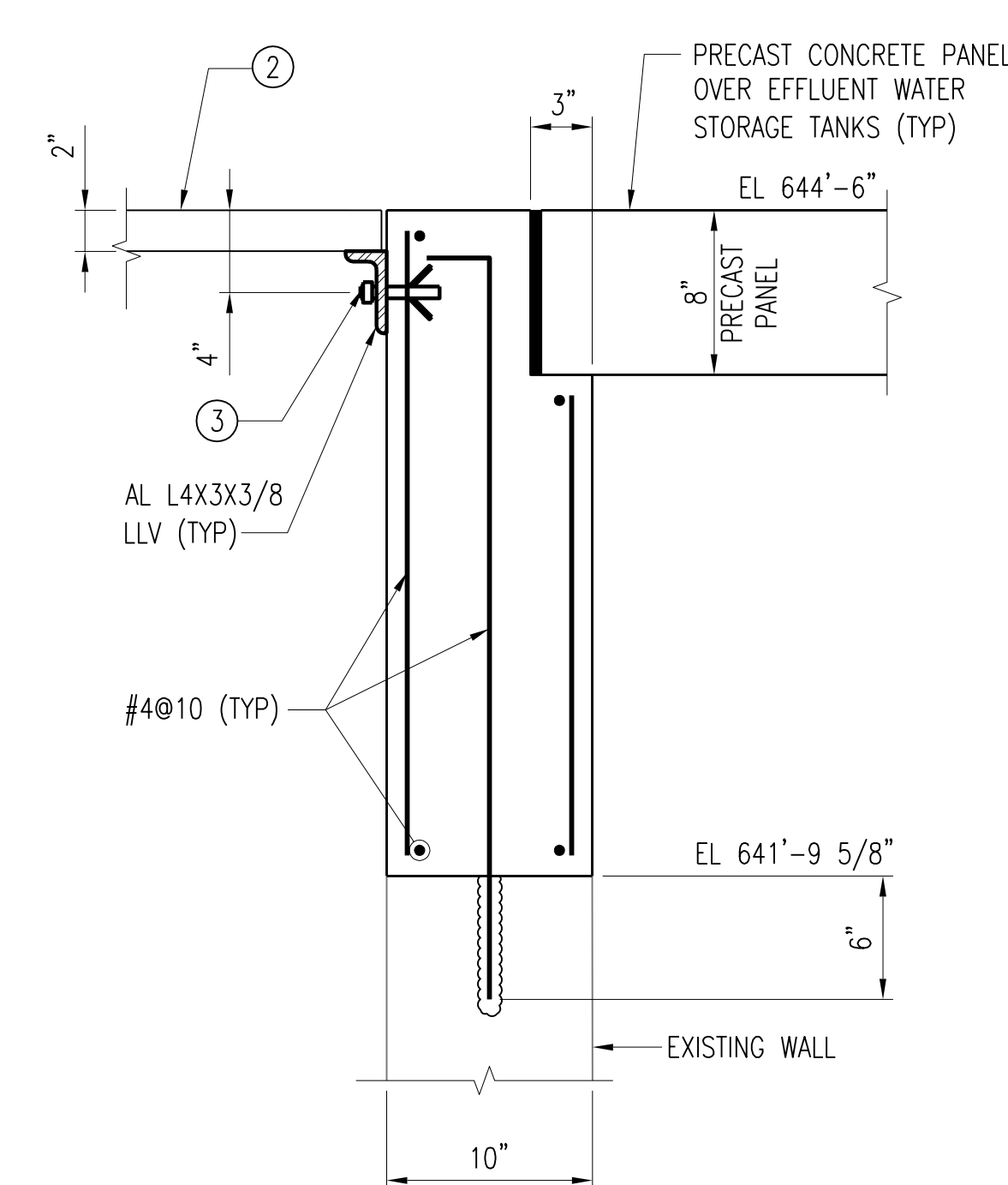
SECTION A-S604
S601, S602
SCALE: 1 1/2" = 1'-0"



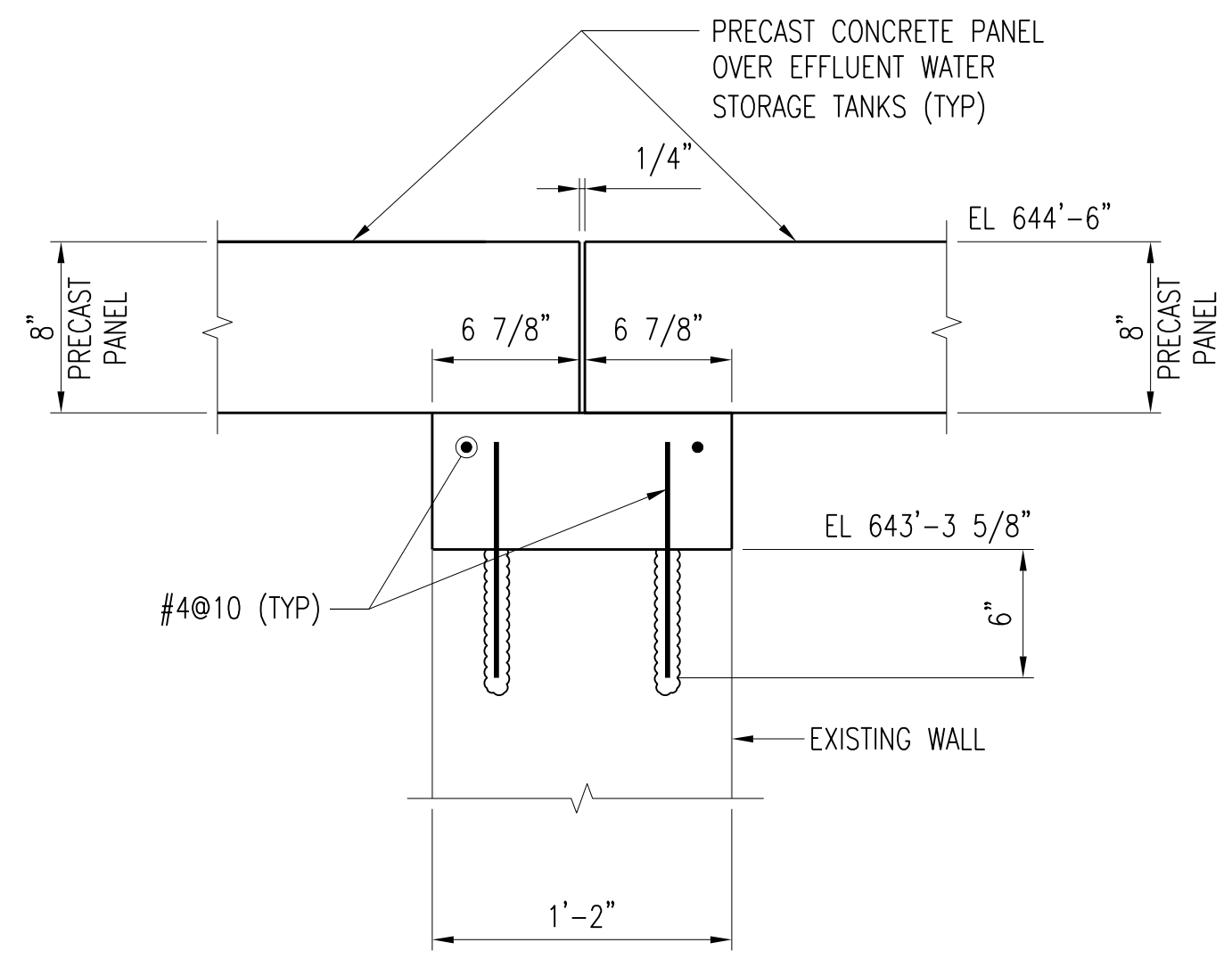
SECTION B-S604
S601, S602
SCALE: 1 1/2" = 1'-0"



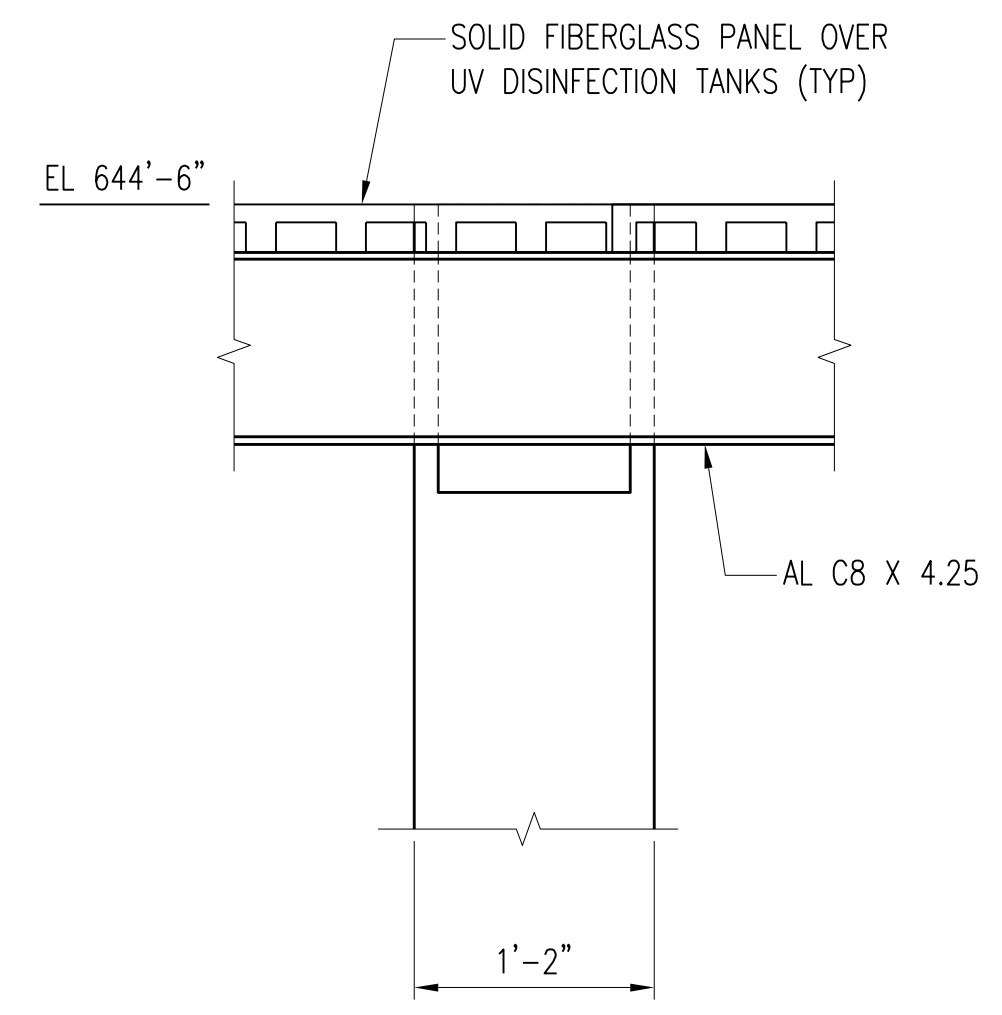
SECTION C-S604
S601, S602
SCALE: 1 1/2" = 1'-0"



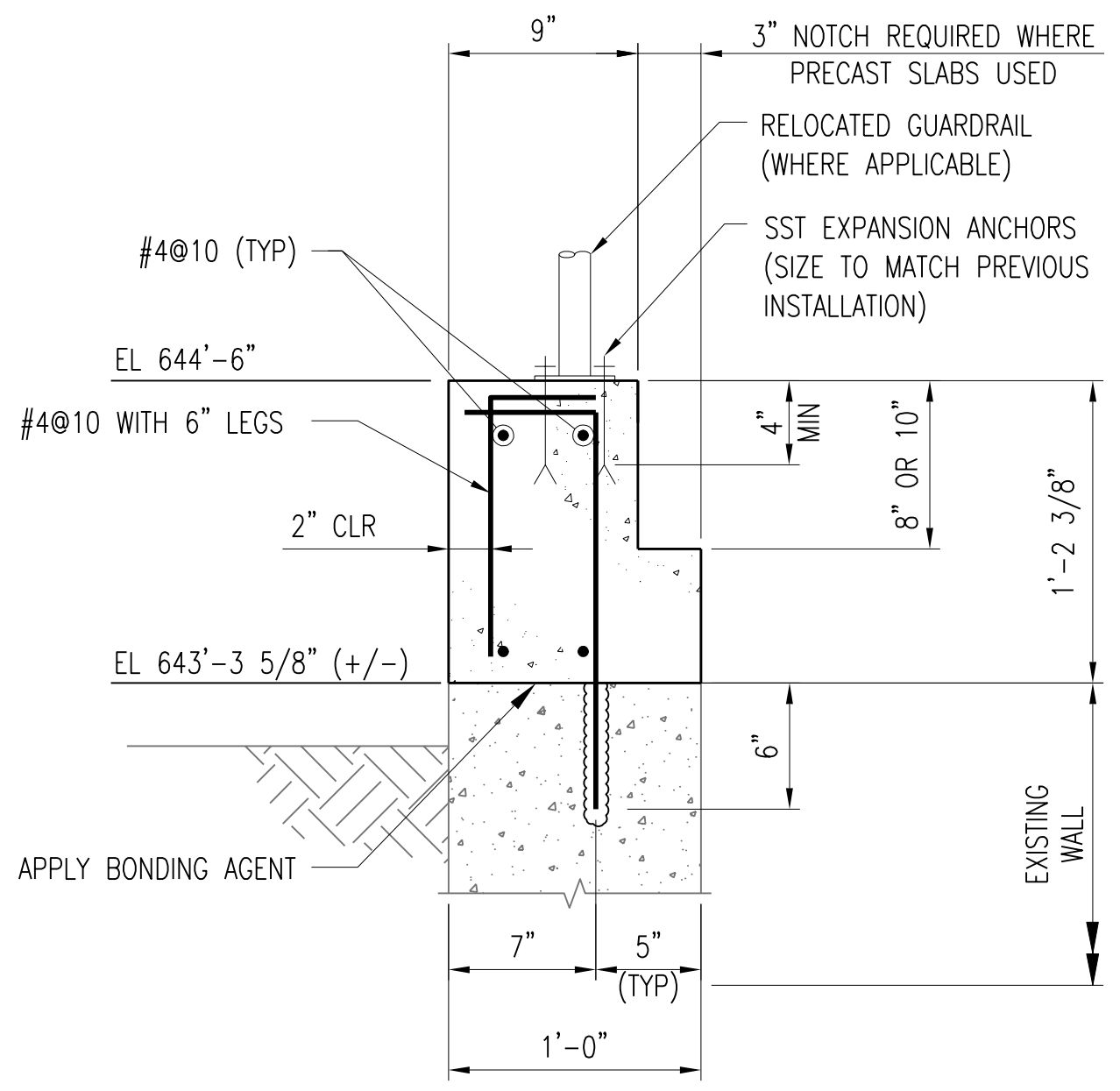
SECTION D-S604
S601, S602
SCALE: 1 1/2" = 1'-0"



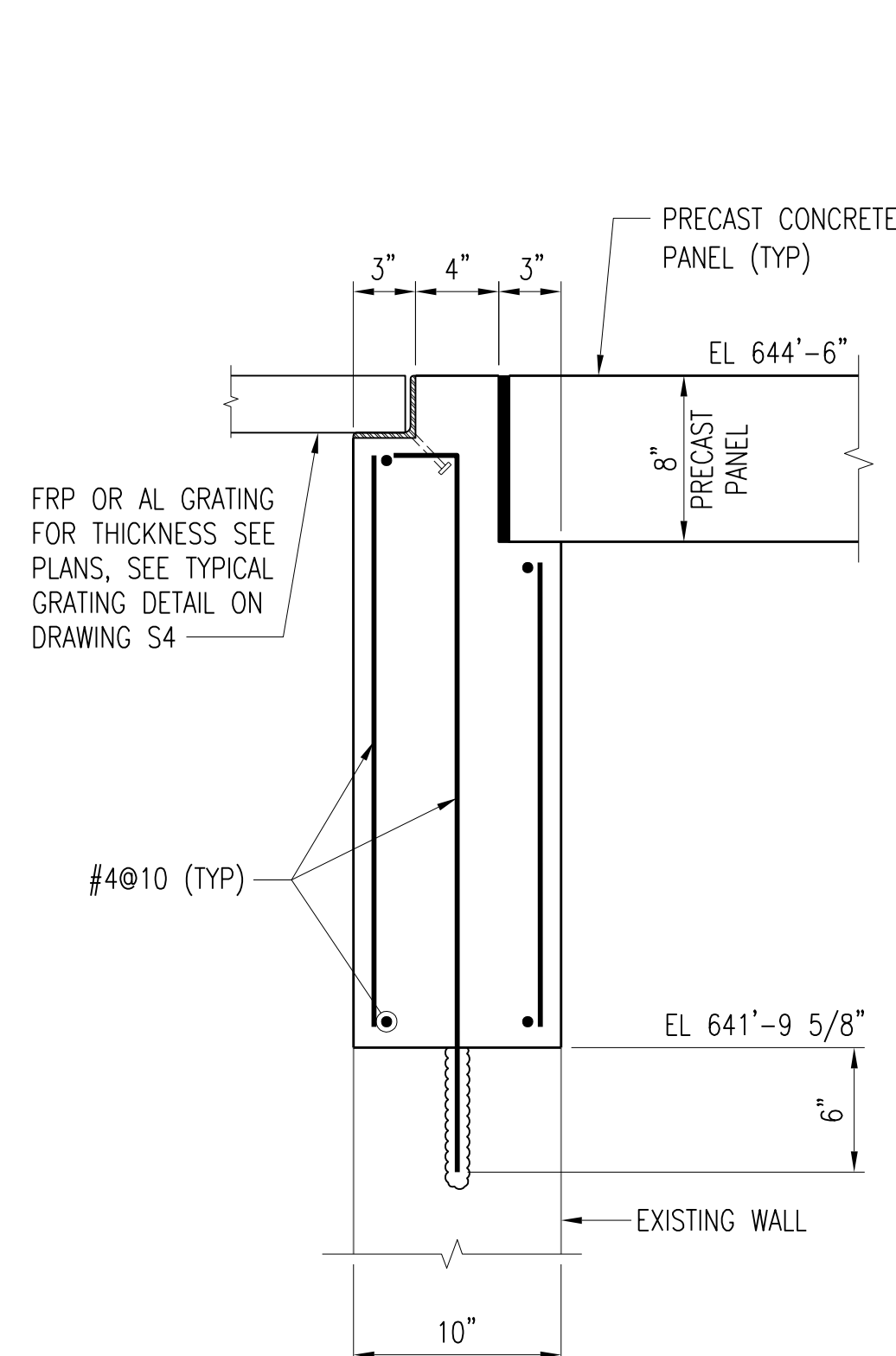
SECTION E-S604
S601, S602
SCALE: 1 1/2" = 1'-0"



SECTION F-S604
S601, S602
SCALE: 1 1/2" = 1'-0"



SECTION G-S604
S601, S602
SCALE: 1 1/2" = 1'-0"



SECTION H-S604
S601
SCALE: 1 1/2" = 1'-0"

- NOTES:**
- FIBERGLASS PLANK TO BE SAFPLANK ® BY STRONGWELL OR APPROVED EQUIVALENT RATED FOR 76" SPAN WITH 100 PSF LIVE LOAD. ALL GRATING SUPPORT BEAMS, CHANNELS AND ANGLES SHALL BE ALUMINUM AND ALL ANCHORING BOLTS, NUTS AND WASHERS SHALL BE STAINLESS STEEL.
 - 1/2" STAINLESS STEEL EXPANSION ANCHORS.
 - PROVIDE 1/4" THICK BY 3" WIDE CONTINUOUS NEOPRENE BEARING PAD AT EACH PRECAST CONCRETE PANEL BEARING LOCATION. SEE SECTION 03 40 00 FOR MATERIAL SPECIFICATIONS. SEALANT AT PANEL JOINT EDGES NOT REQUIRED.



3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	ADDED ADDENDUM COMMENT	LJO	JBL	JBL	05-04-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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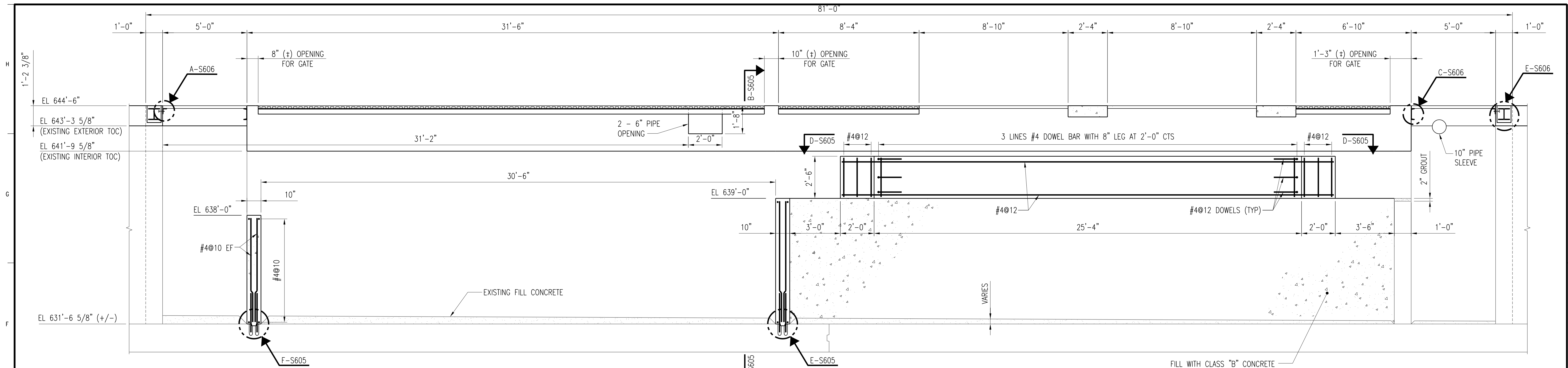
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**DISINFECTION TANKS AREA - OPTION A
UV AND EFFLUENT WATER STORAGE TANKS
DETAILS - SHEET 1**

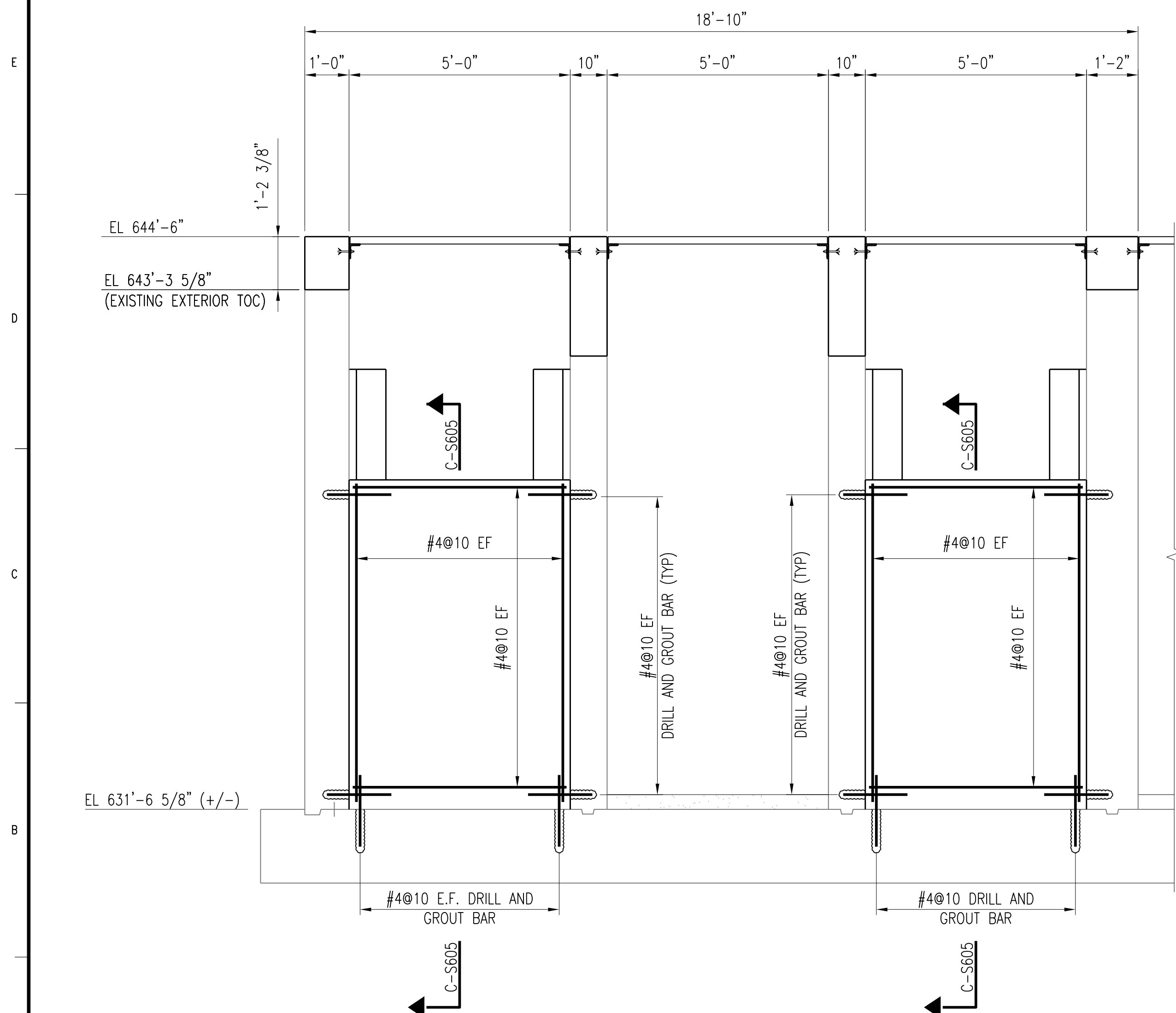
DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	RT THOMS	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
APPROVED			
DATE	DECEMBER 2, 2011	S604	3



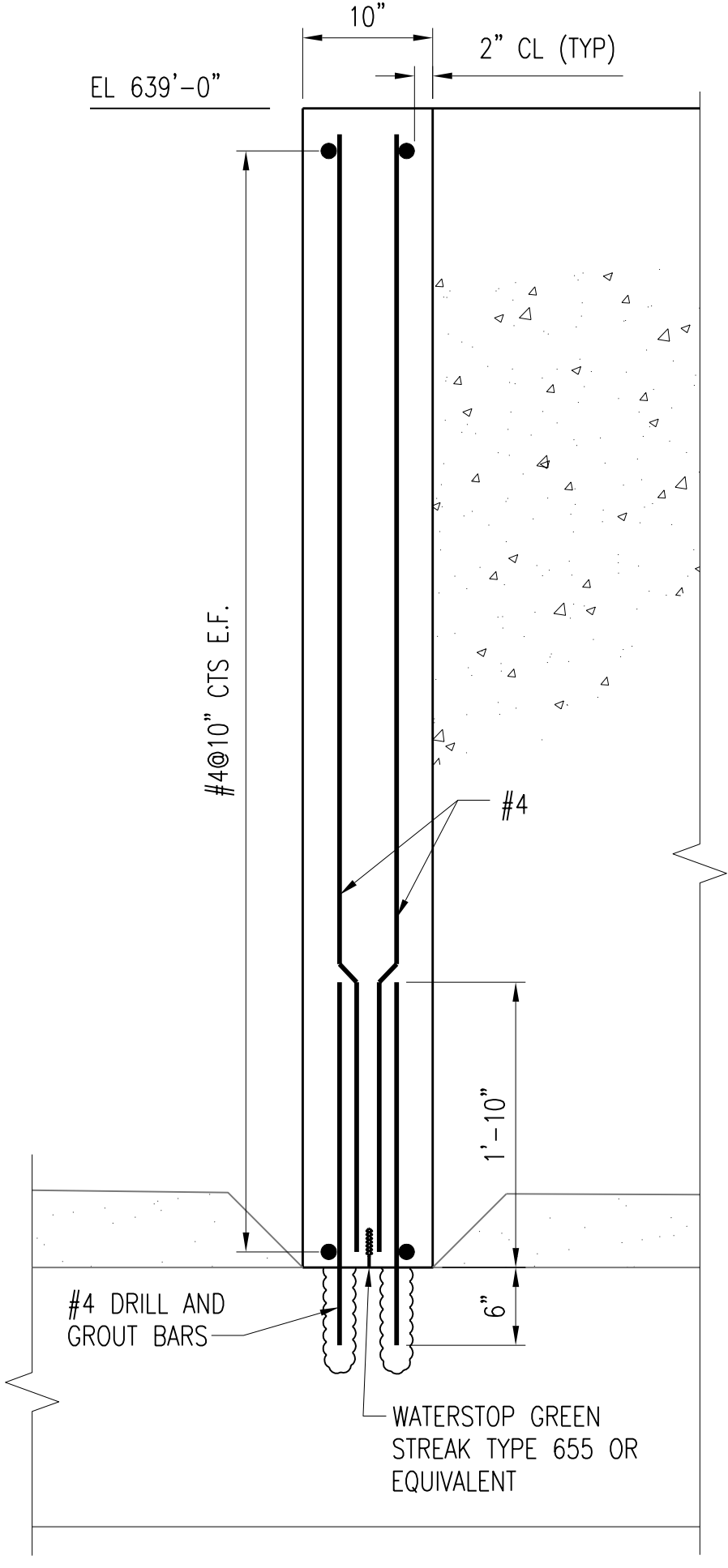
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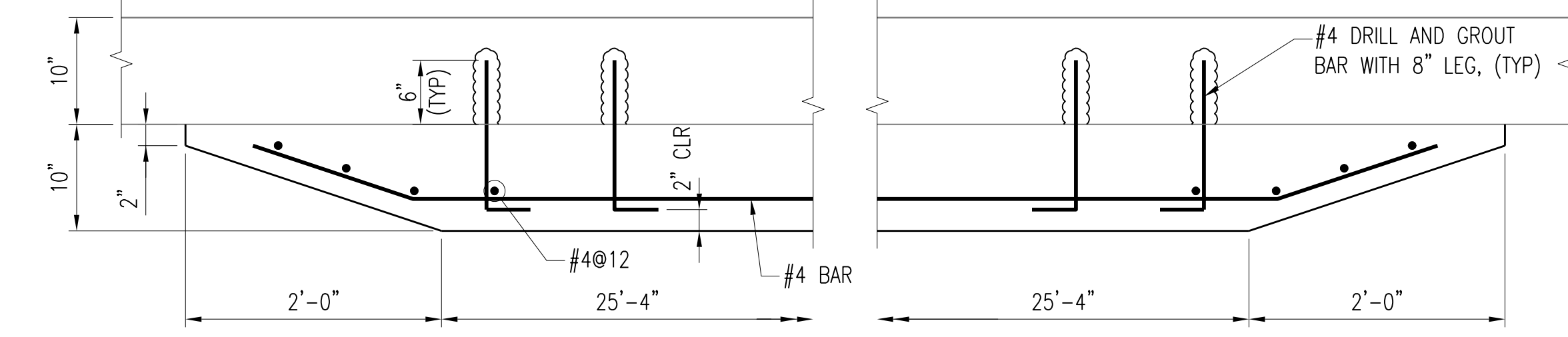
SECTION A-S605
S601, S602
SCALE: 3/8" = 1'-0"



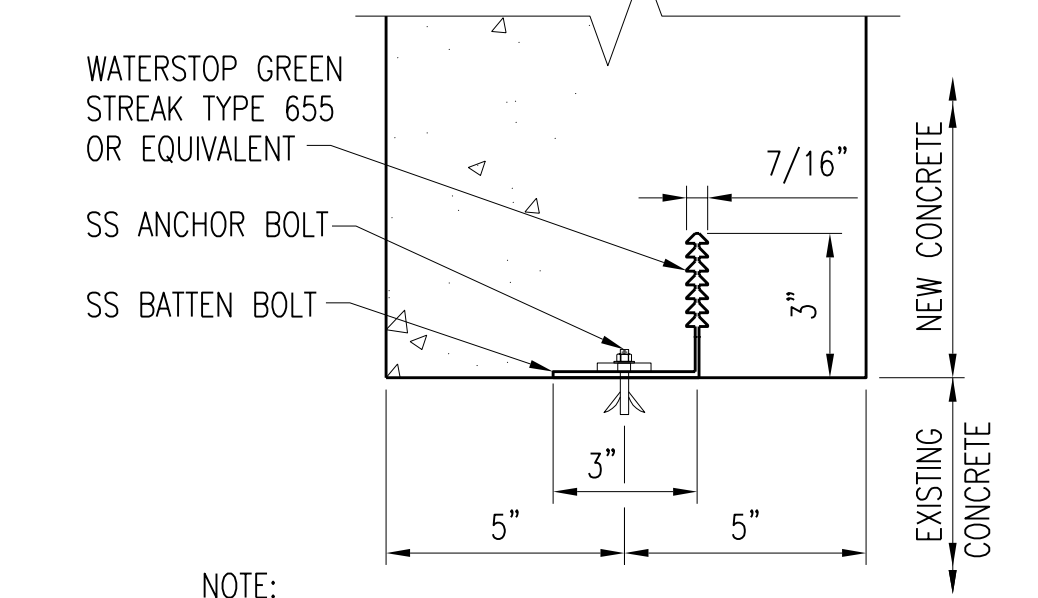
SECTION B-S605
S605
SCALE: 1/2" = 1'-0"



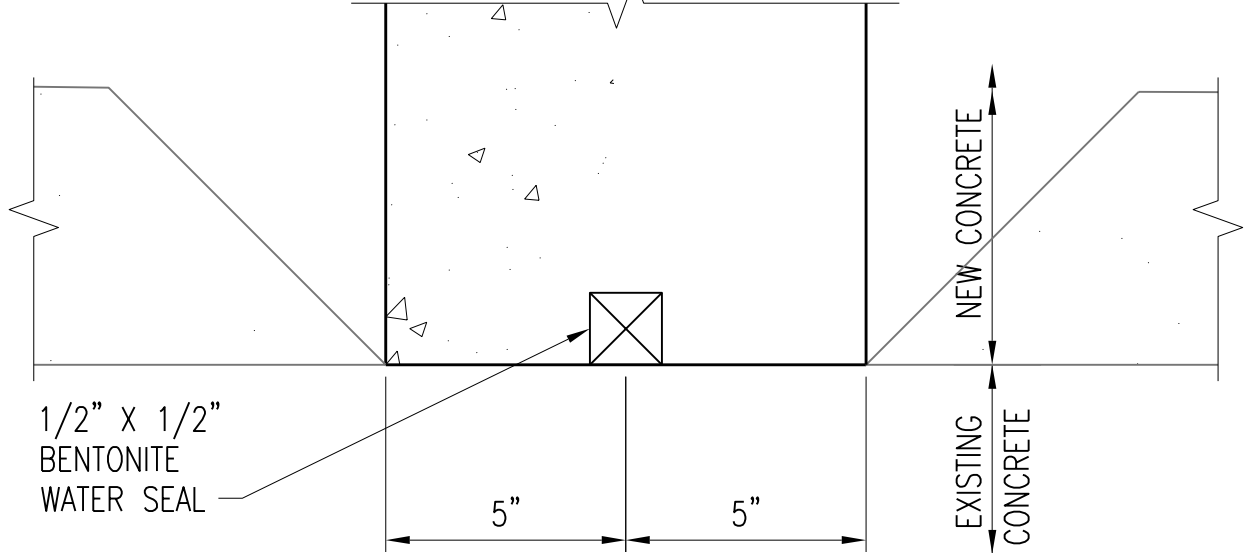
SECTION C-S605
S605
SCALE: 1" = 1'-0"



SECTION D-S605
S605
SCALE: 1" = 1'-0"



DETAIL E-S605
S605
SCALE: 3" = 1'-0"



DETAIL F-S605
S605
SCALE: 3" = 1'-0"

- NOTES:**
- FOR WALL EXTENSION DETAILS SEE SHEET S-602.
 - WATER STOP SHALL BE GREEN STREAK TYPE 655 OR EQUIVALENT FOR AREAS WHERE WALL MODIFICATION WILL NOT BE CONSTANTLY IN CONTACT WITH WATER. FOR WALL MODIFICATIONS THAT WILL BE CONSTANTLY IN CONTACT WITH WATER, BENTONITE WATER SEALS ARE PERMISSIBLE.

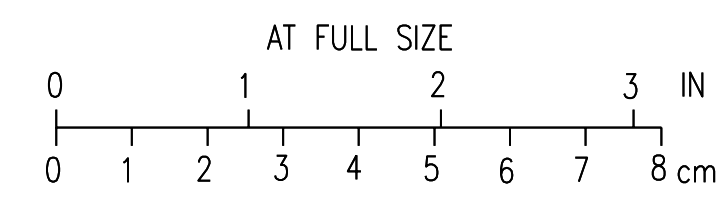
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DGNS	CHKD	APVD	DATE

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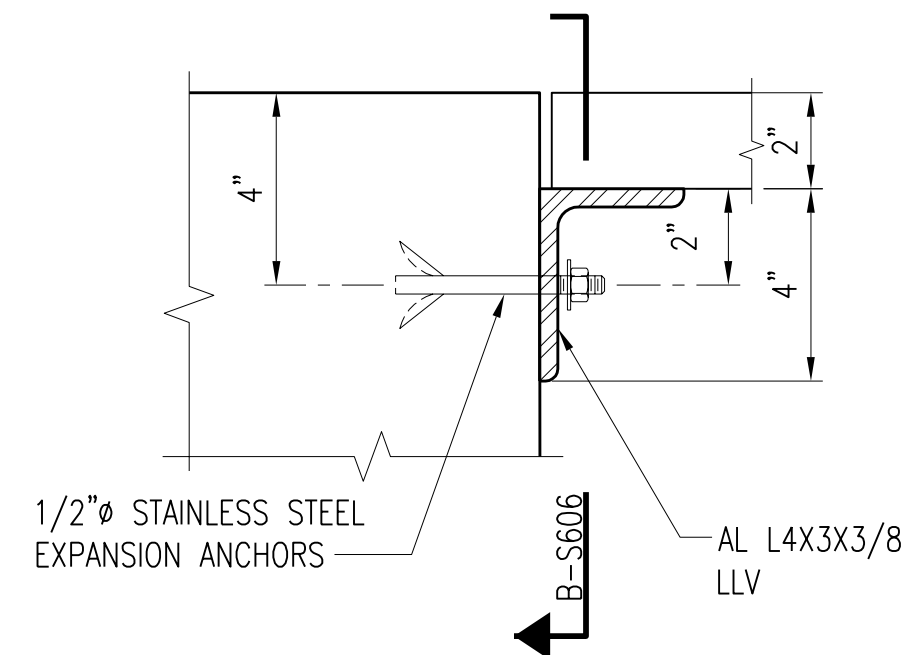
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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**DISINFECTION TANKS AREA - OPTION A
UV AND EFFLUENT WATER STORAGE TANKS
DETAILS - SHEET 2**

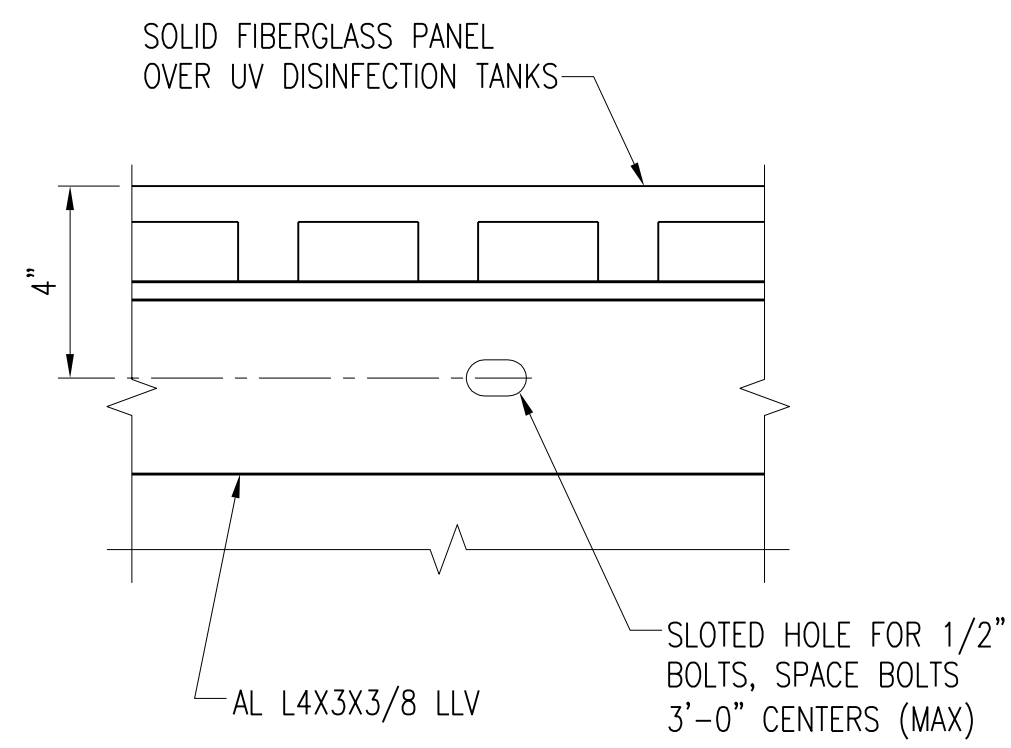
DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	RT THOMS	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
APPROVED			
DATE	DECEMBER 2, 2011		



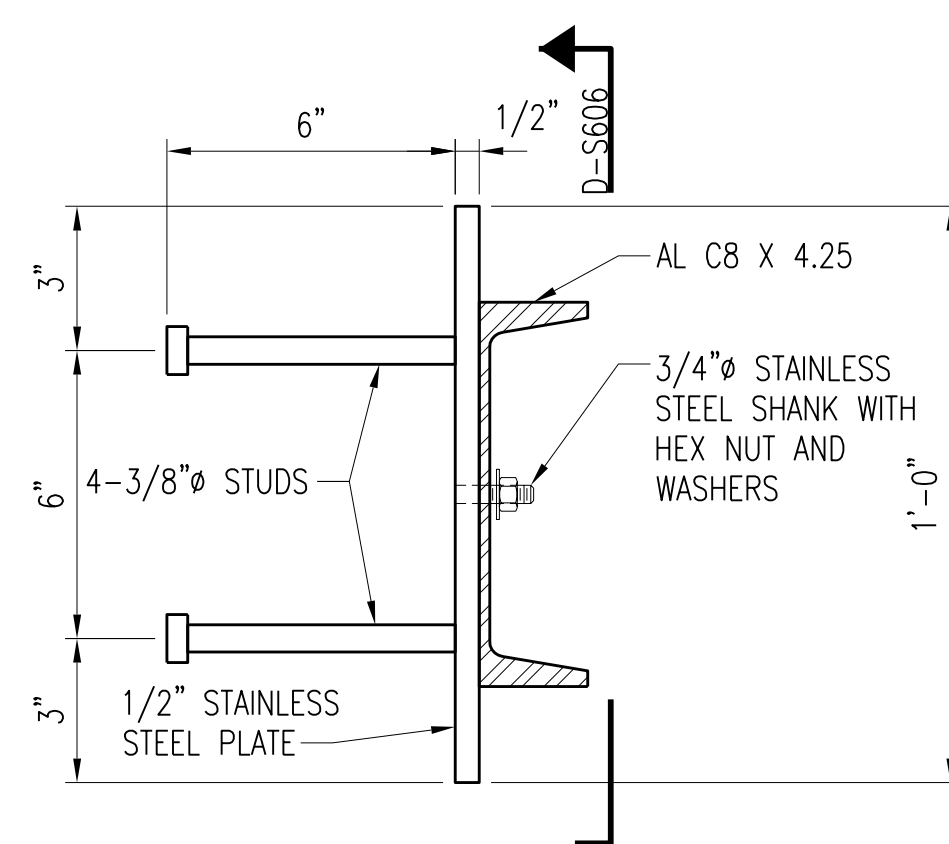
CADD: D1-R4



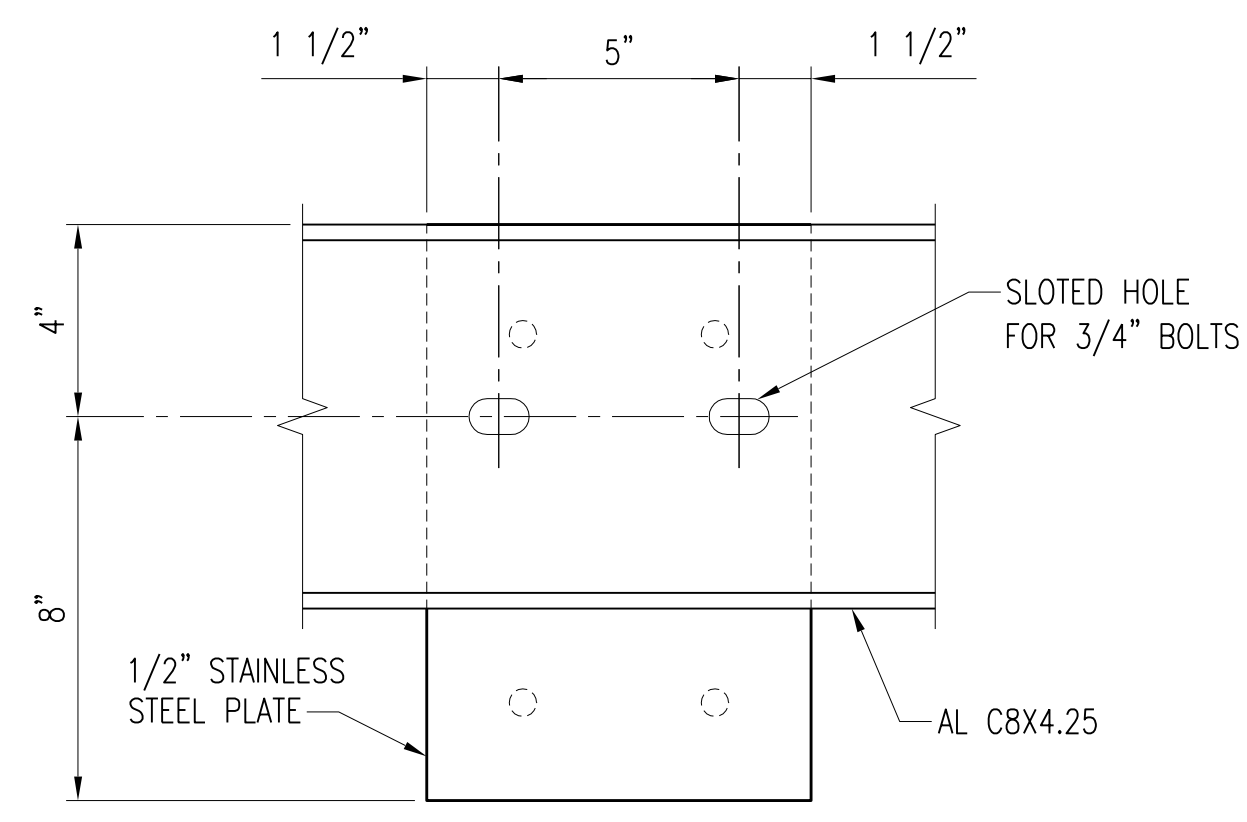
DETAIL A-S606
S605
SCALE: 3" = 1'-0"



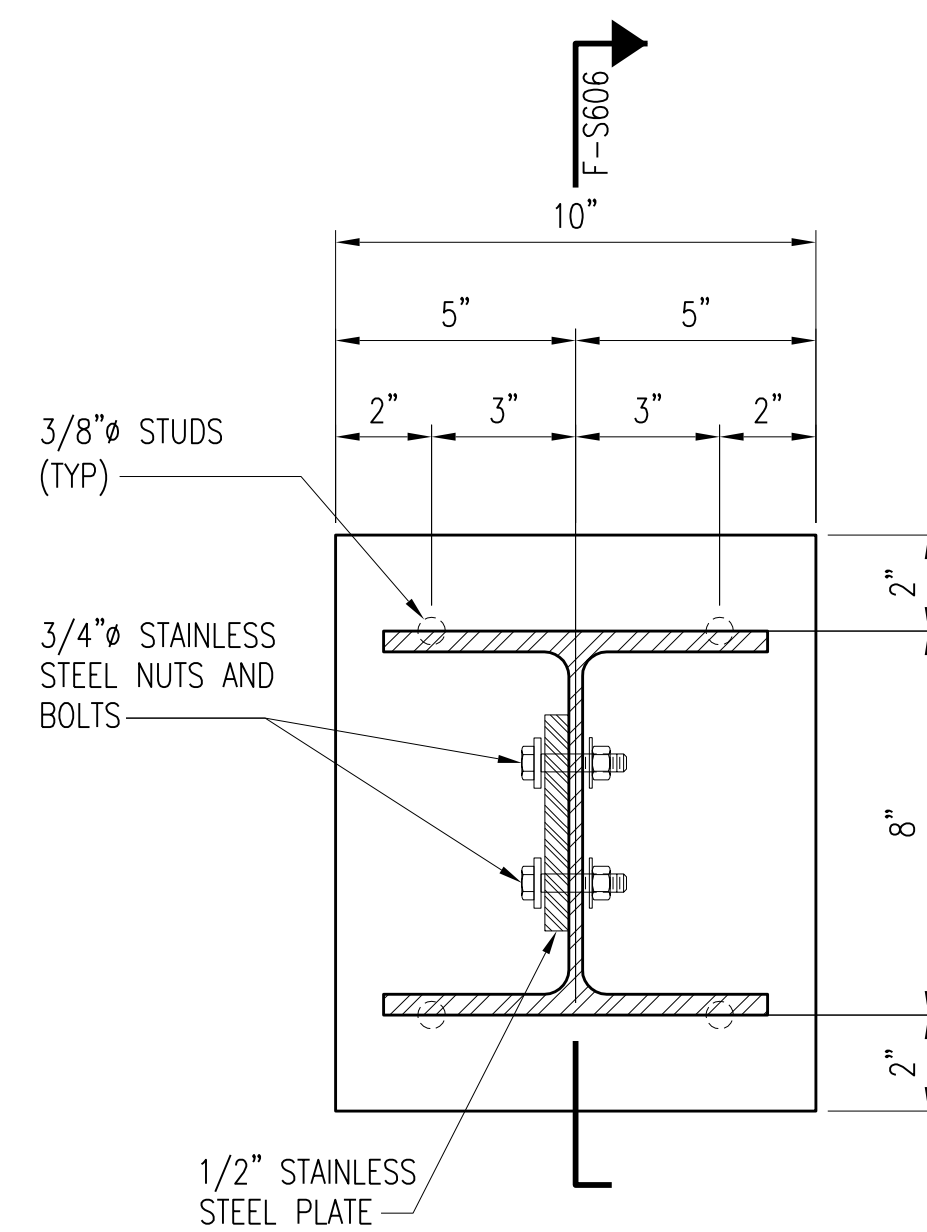
SECTION B-S606
S606
SCALE: 3" = 1'-0"



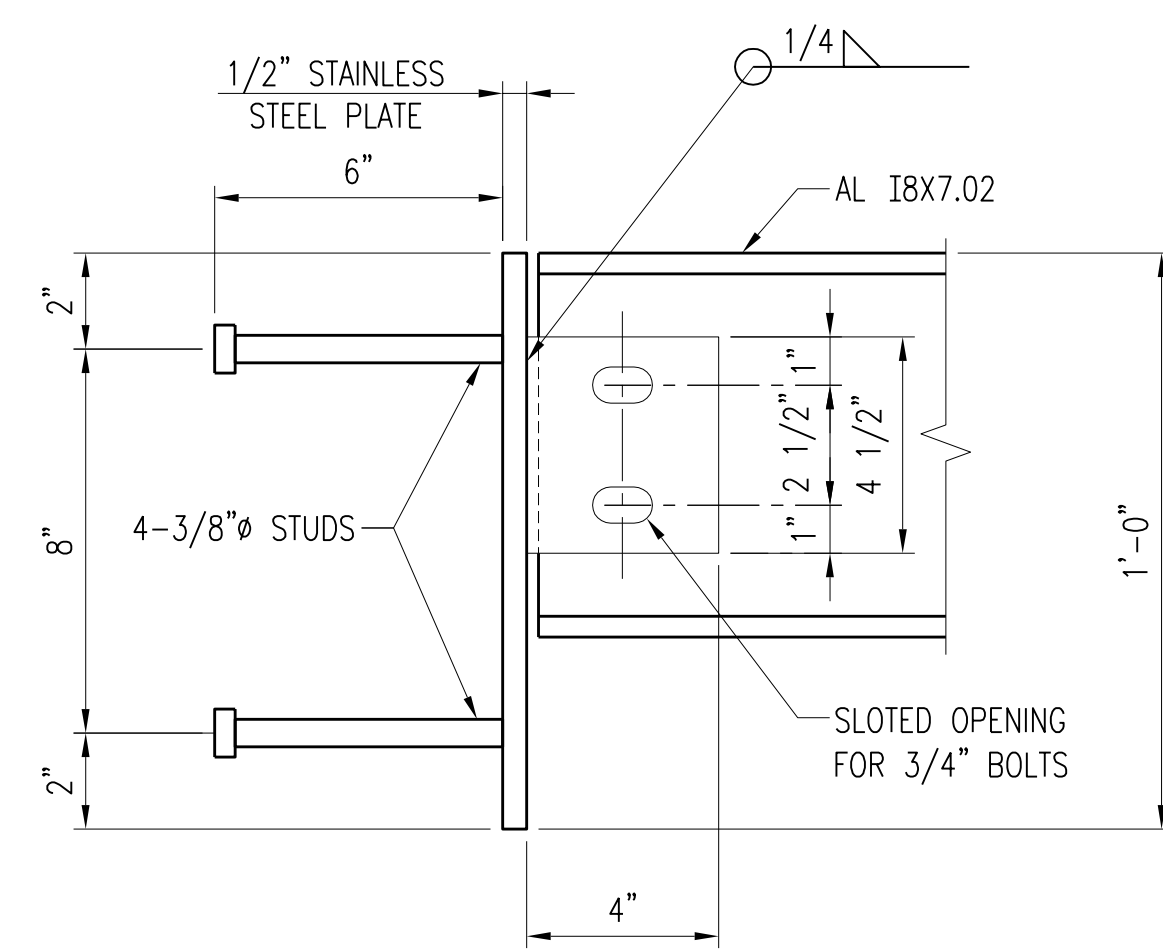
DETAIL C-S606
S605
SCALE: 3" = 1'-0"



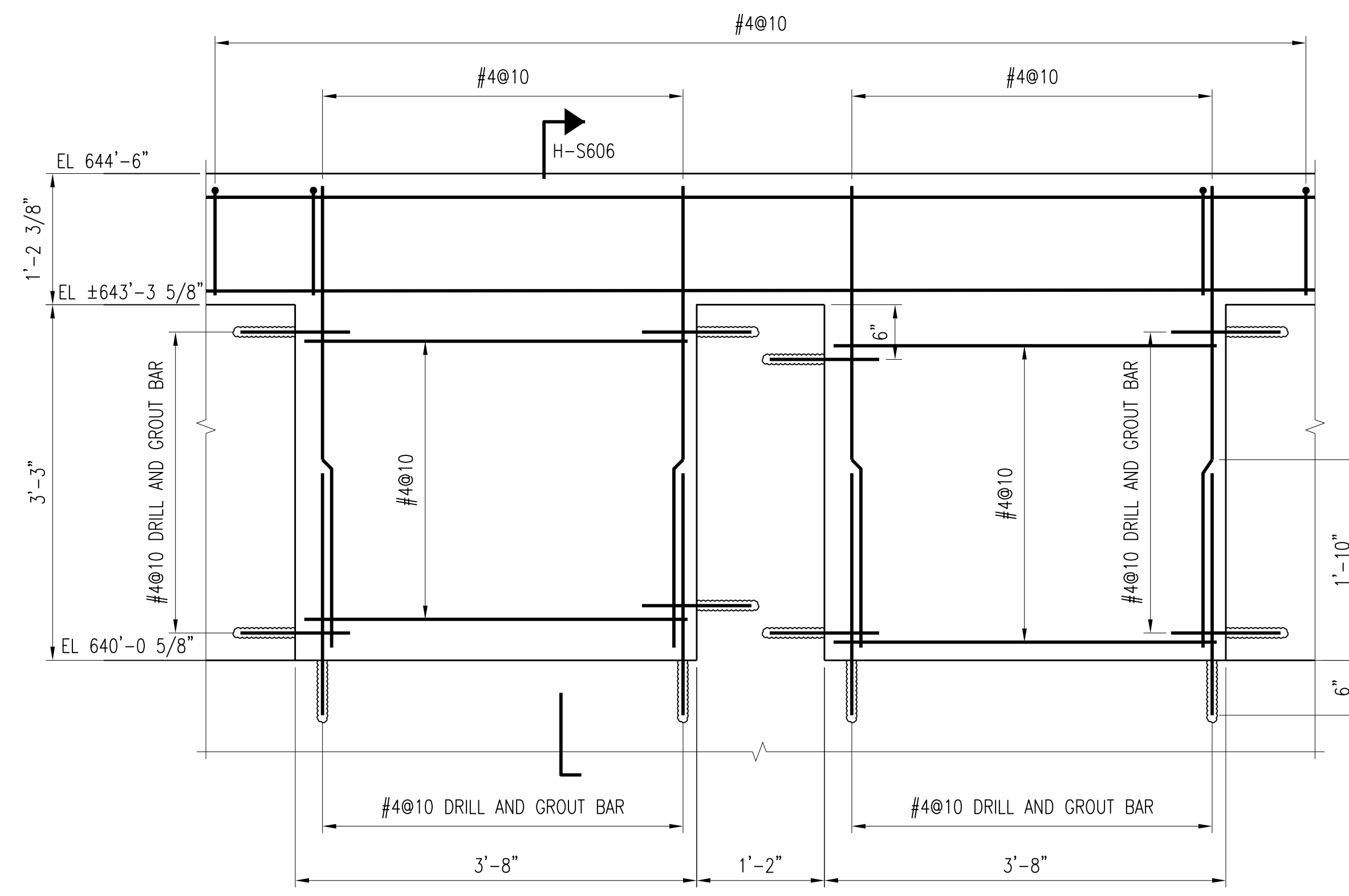
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S606
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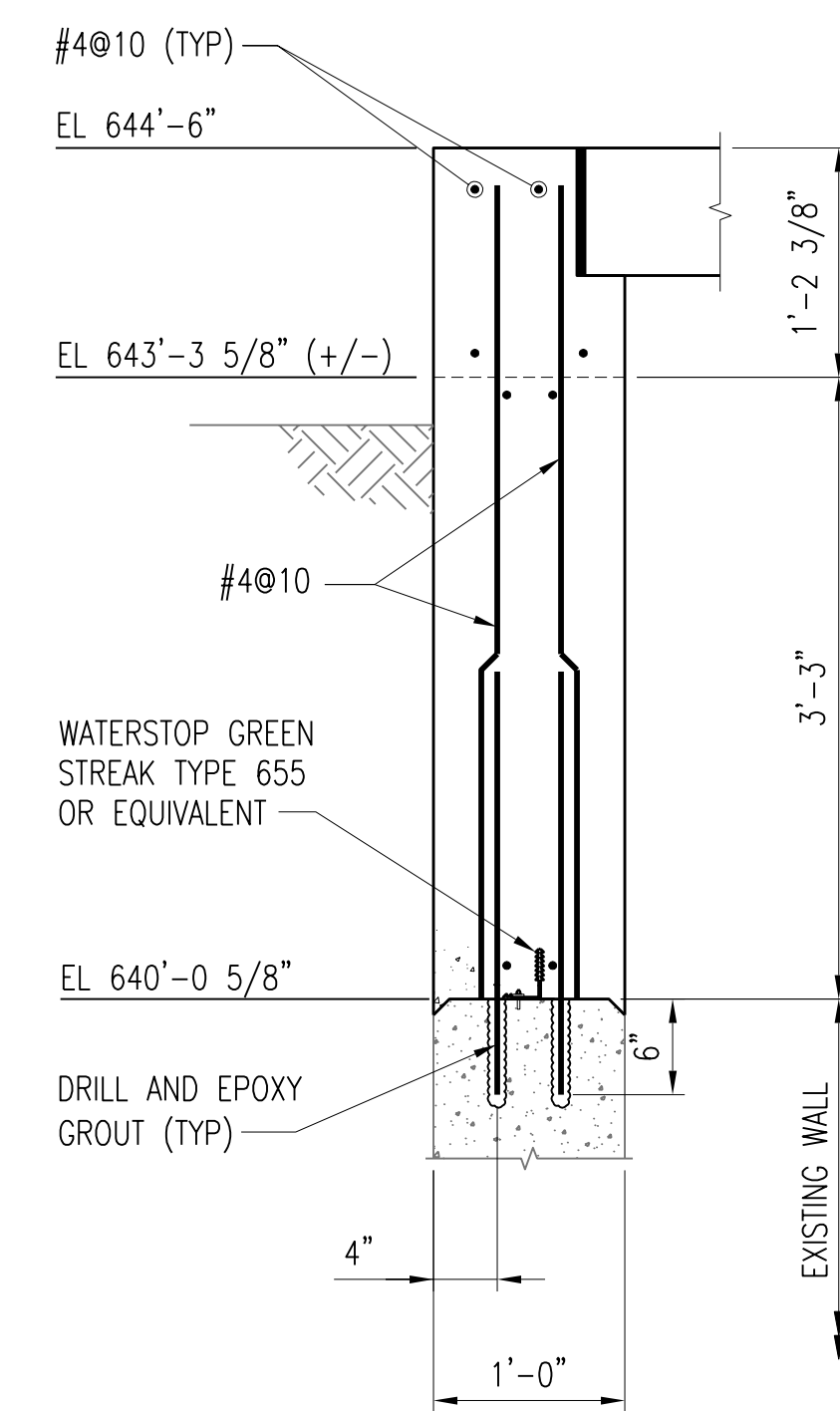
DETAIL E-S606
S605
SCALE: 3" = 1'-0"



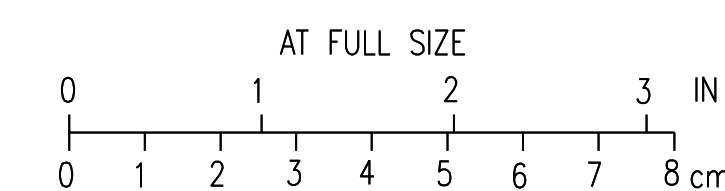
SECTION F-S606
S606
SCALE: 3" = 1'-0"



SECTION G-S606
S601, S602
SCALE: 1" = 1'-0"



SECTION H-S606
S606
SCALE: 1" = 1'-0"



2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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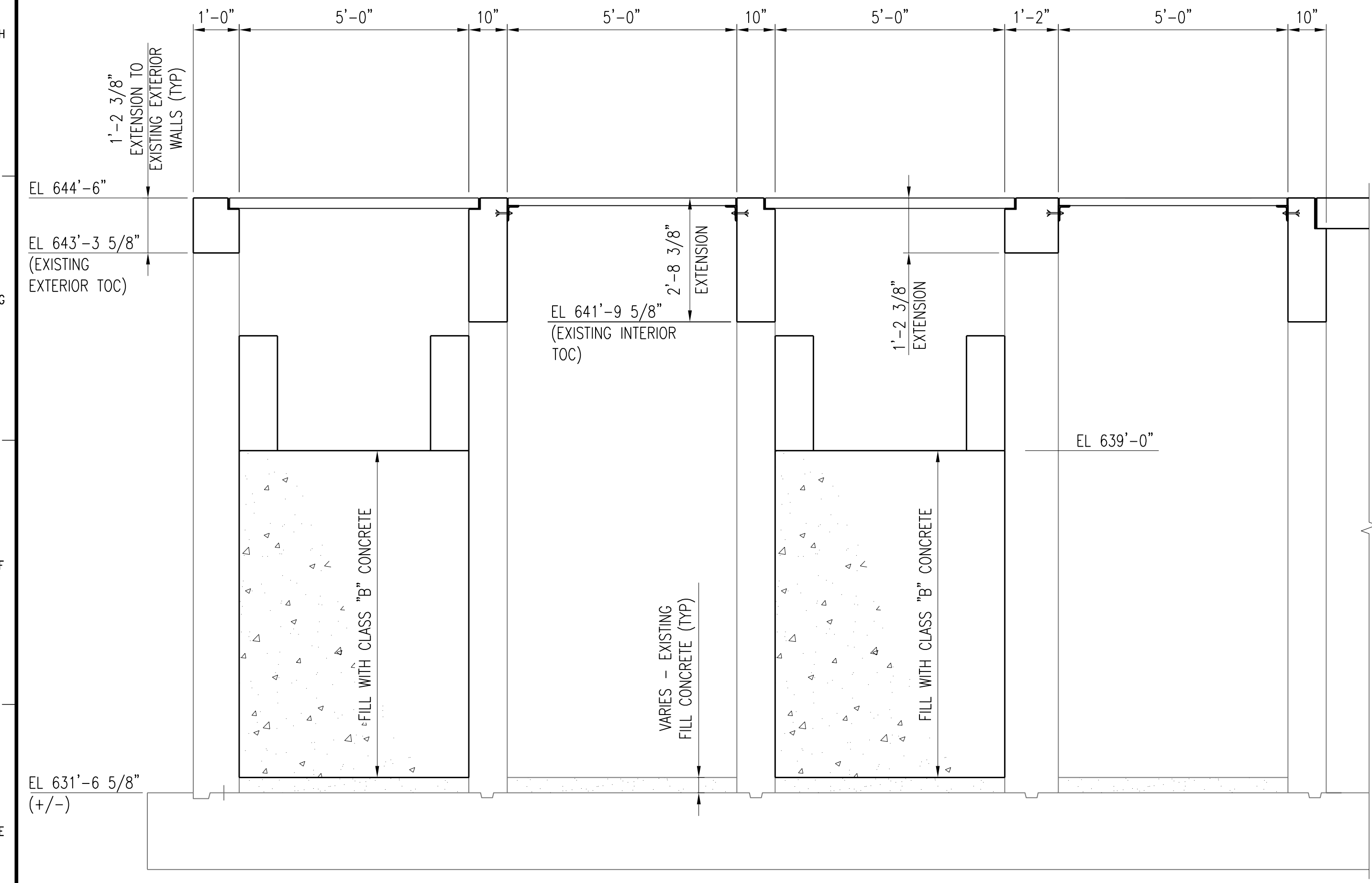
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

DISINFECTION TANKS AREA - OPTION A
UV AND EFFLUENT WATER STORAGE TANKS
DETAILS - SHEET 3

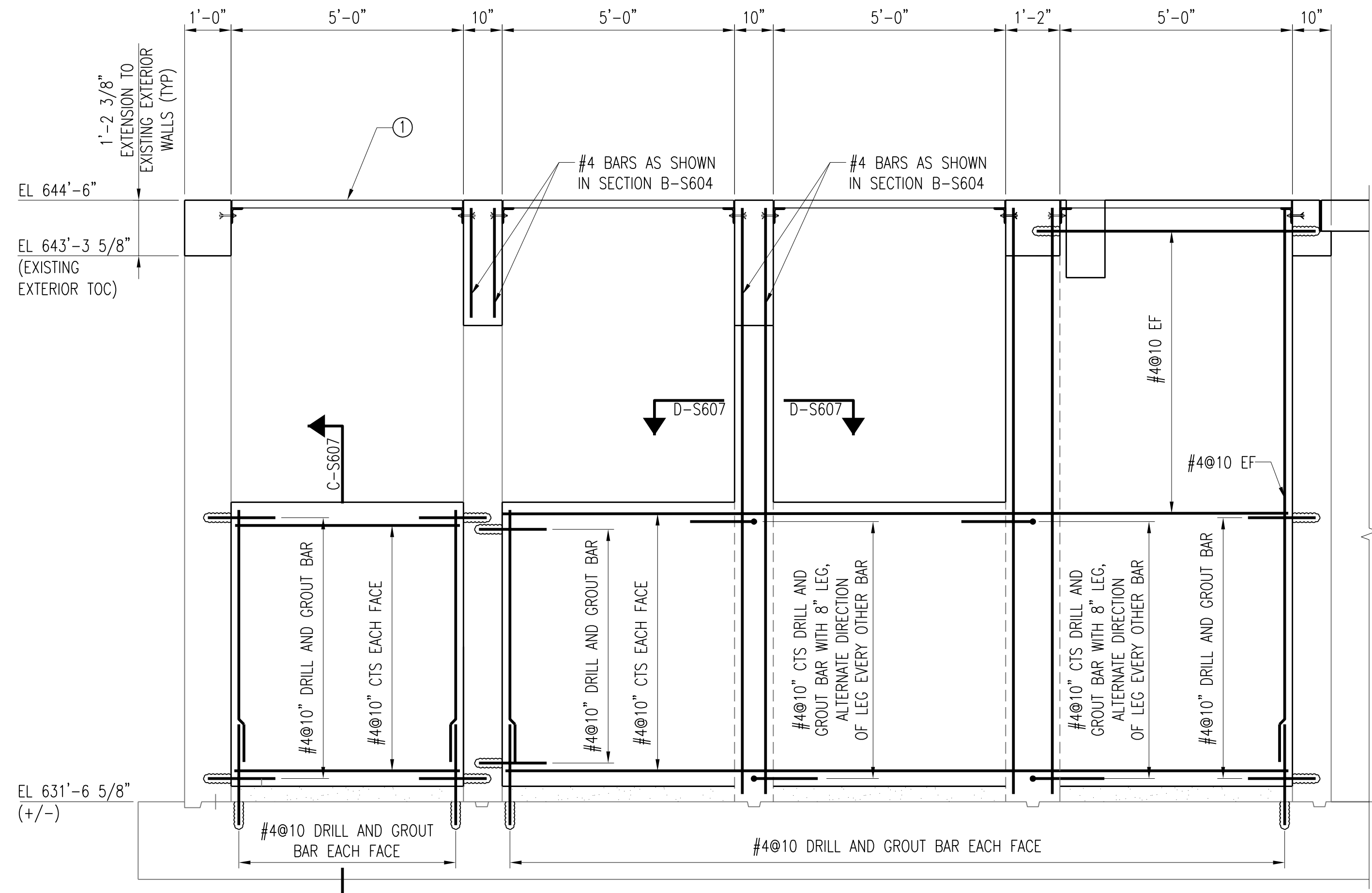
DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	RT THOMS	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
APPROVED			
DATE	DECEMBER 2, 2011		

S606 2

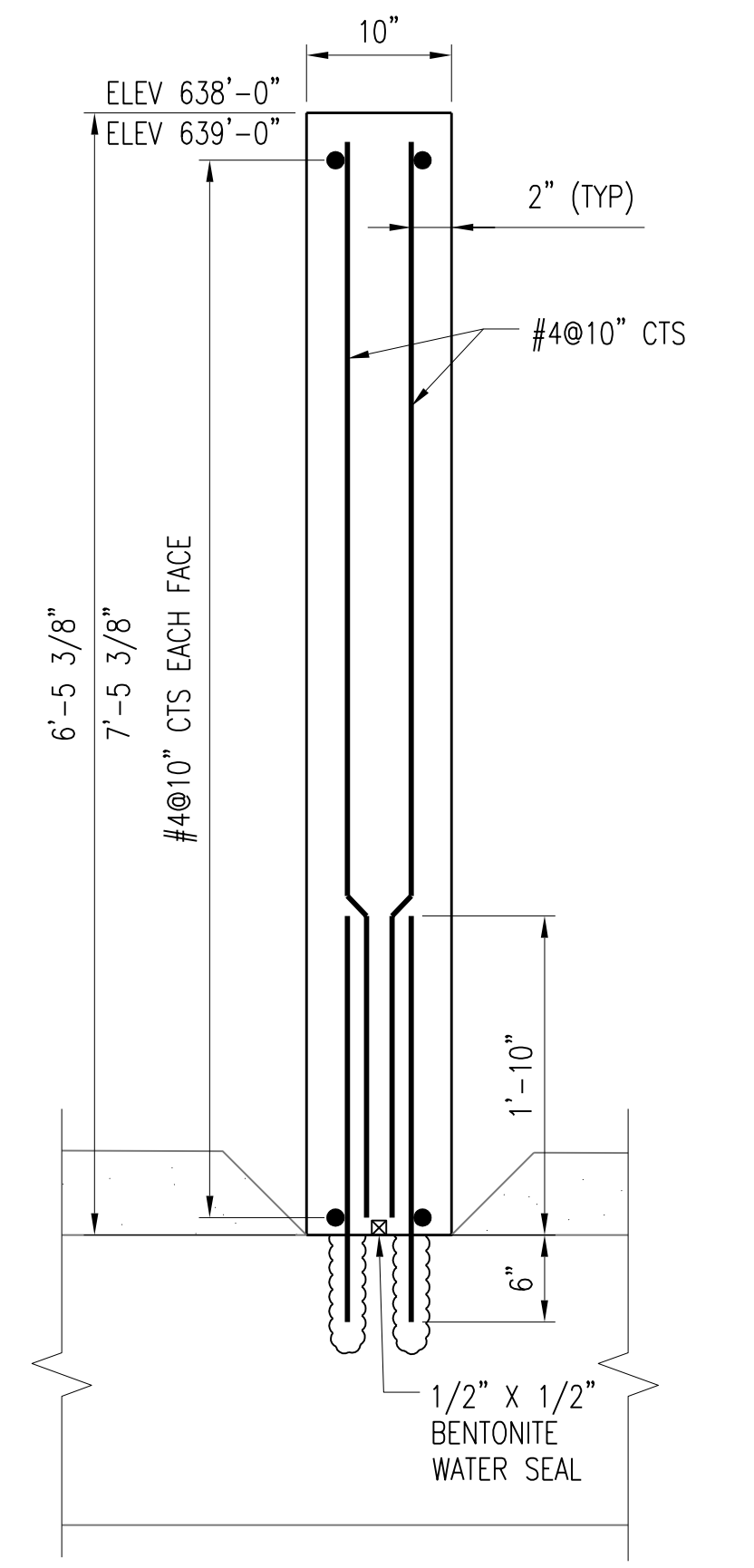
NOTES:
 1. SOLID FIBERGLASS PANELS OVER UV DISINFECTION.



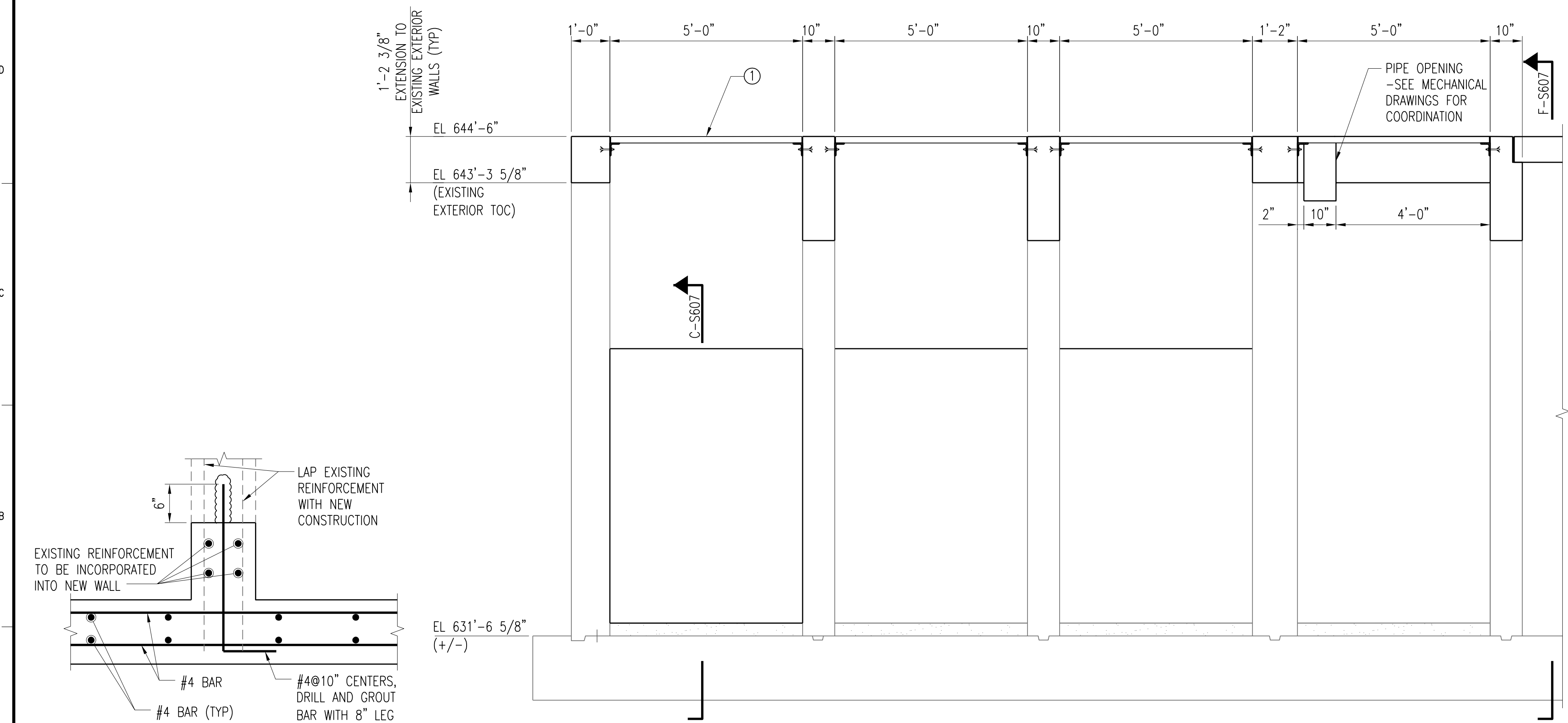
SECTION A-S607
 S601, S602
 SCALE: 1/2" = 1'-0"



SECTION B-S607
 S601, S602
 SCALE: 1/2" = 1'-0"

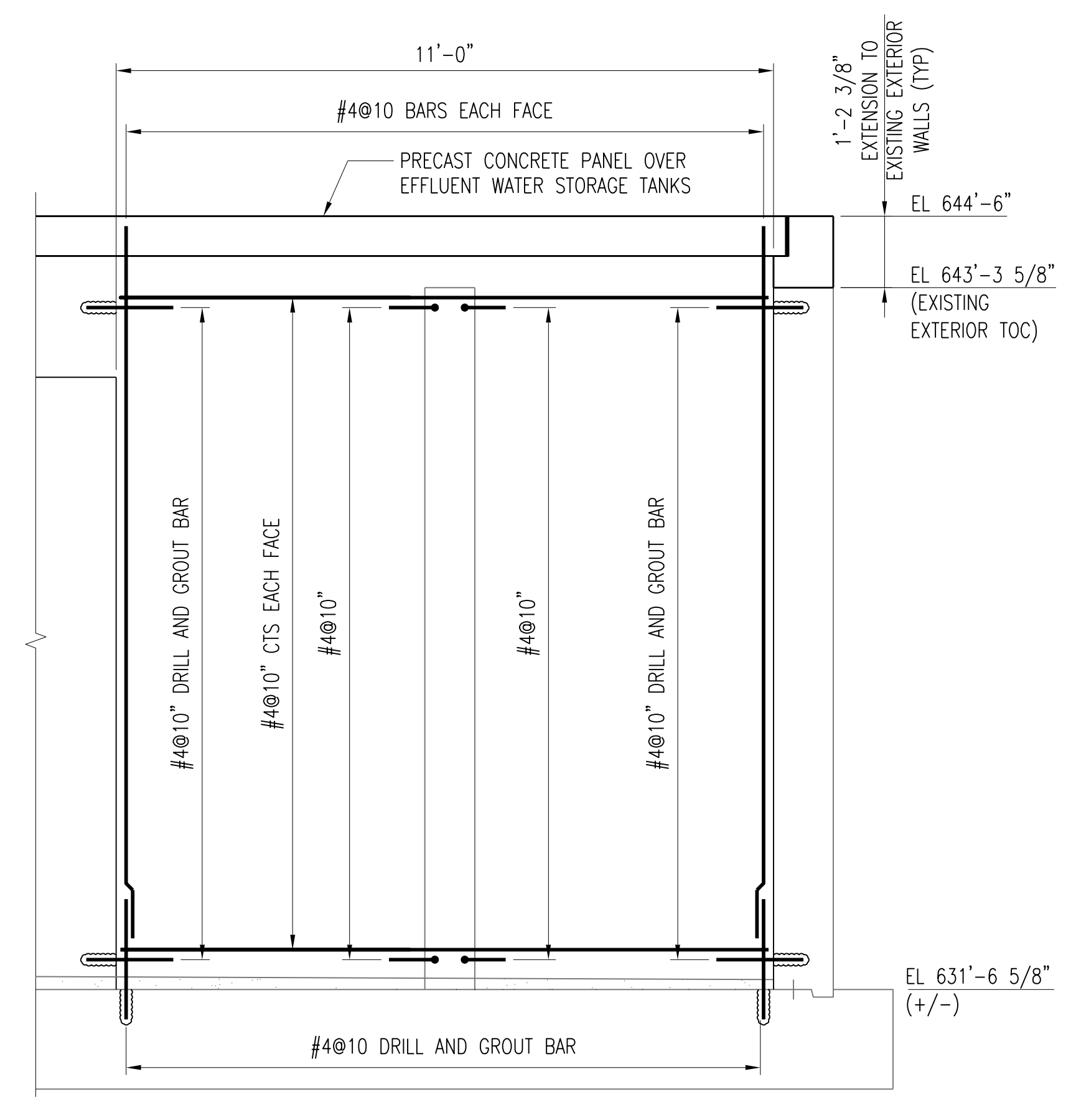


SECTION C-S607
 S607
 SCALE: 1" = 1'-0"

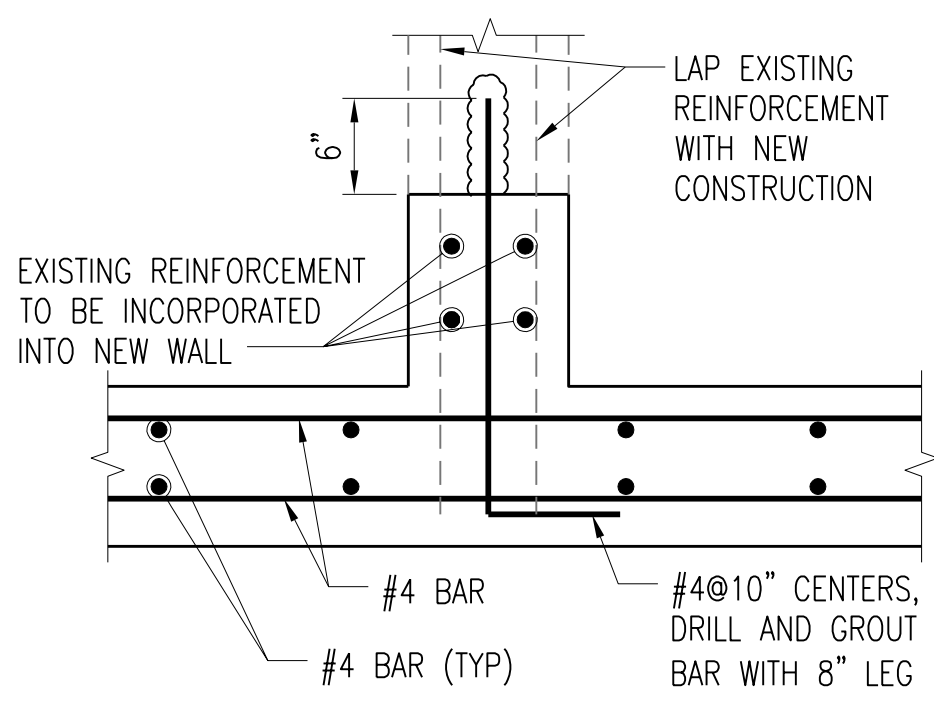


SECTION D-S607
 S607
 SCALE: 1" = 1'-0"

SECTION E-S607
 S601, S602
 SCALE: 1/2" = 1'-0"



SECTION F-S607
 S607
 SCALE: 1/2" = 1'-0"



1	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
0	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

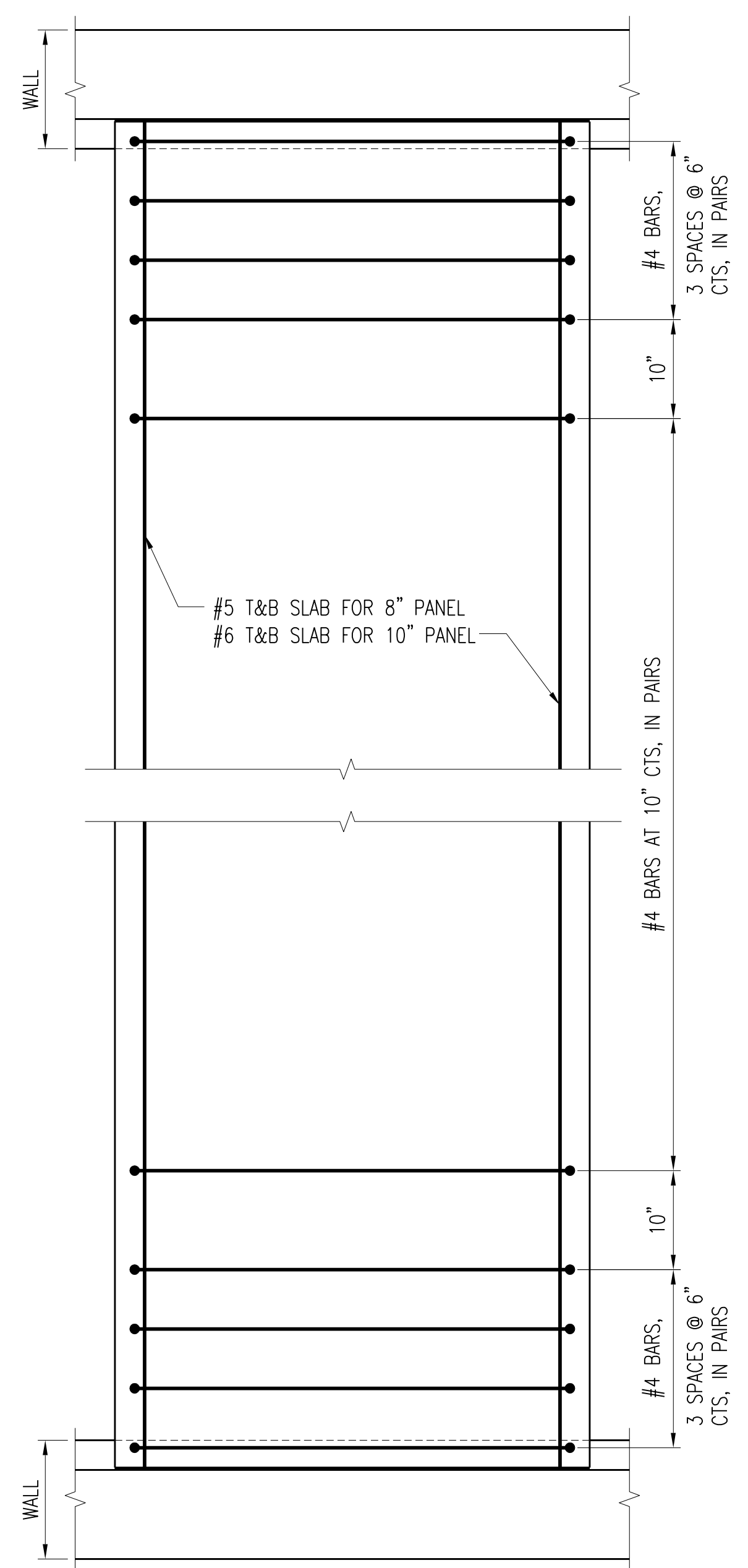
**DISINFECTION TANKS AREA - OPTION A
 UV AND EFFLUENT WATER STORAGE TANKS
 DETAILS - SHEET 4**

DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	RT THOMS	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
DATE	JANUARY 10, 2012	S607	1

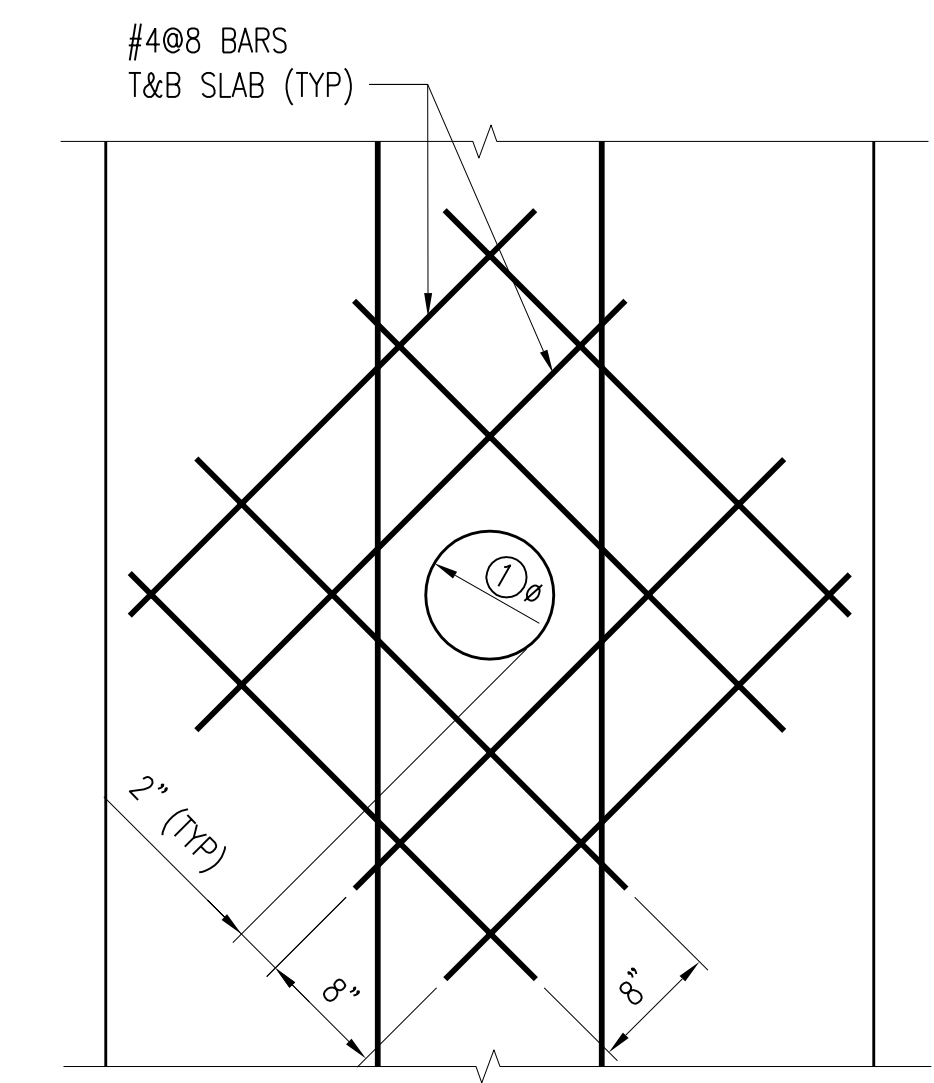
CADD: D1-R4

NOTES:

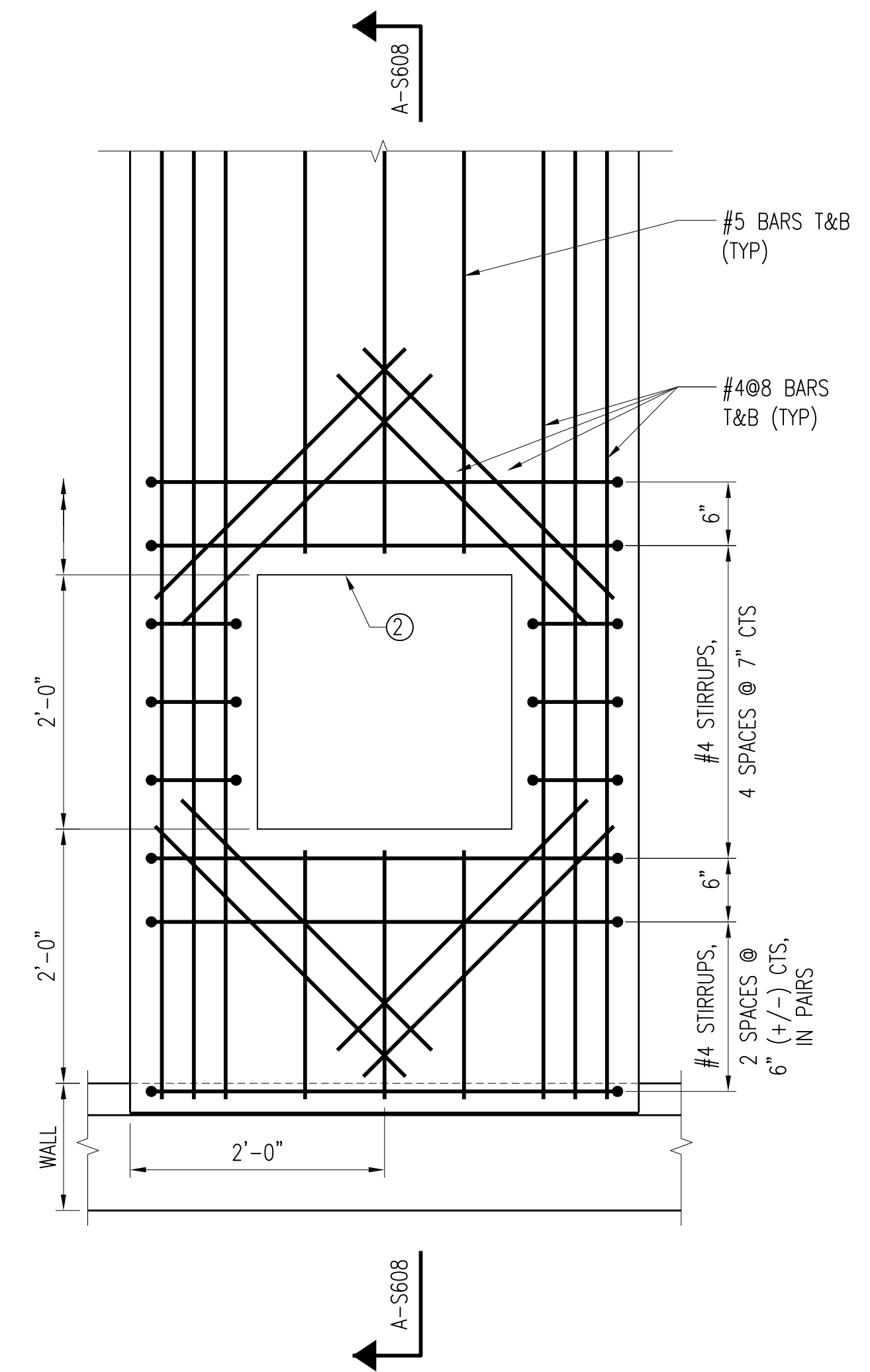
- ① CAST OPENING INTO ROOF PANEL FOR PASSAGE OF IRRIGATION AND EFFLUENT PUMP PIPING. COORDINATE LOCATION AND OUTER PIPE DIAMETER WITH MECHANICAL PLANS.
- ② PROVIDE ADDITION REINFORCING STEEL AT OPENINGS IN ROOF SLAB PANELS AS INDICATED IN DETAILS. TILT HOOKED BARS AS REQUIRED TO MAINTAIN MINIMUM CLEARANCES. OPENING SHALL BE FOR 2'-0" X 2'-0" BILCO TYPE HATCH.
- ③ PROVIDE 1/4" THICK BY 3" WIDE CONTINUOUS NEOPRENE BEARING PAD AT EACH PRECAST CONCRETE PANEL BEARING LOCATION. SEE SECTION 03 40 00 FOR MATERIAL SPECIFICATIONS. SEALANTS AT PANEL JOINT EDGES NOT REQUIRED.



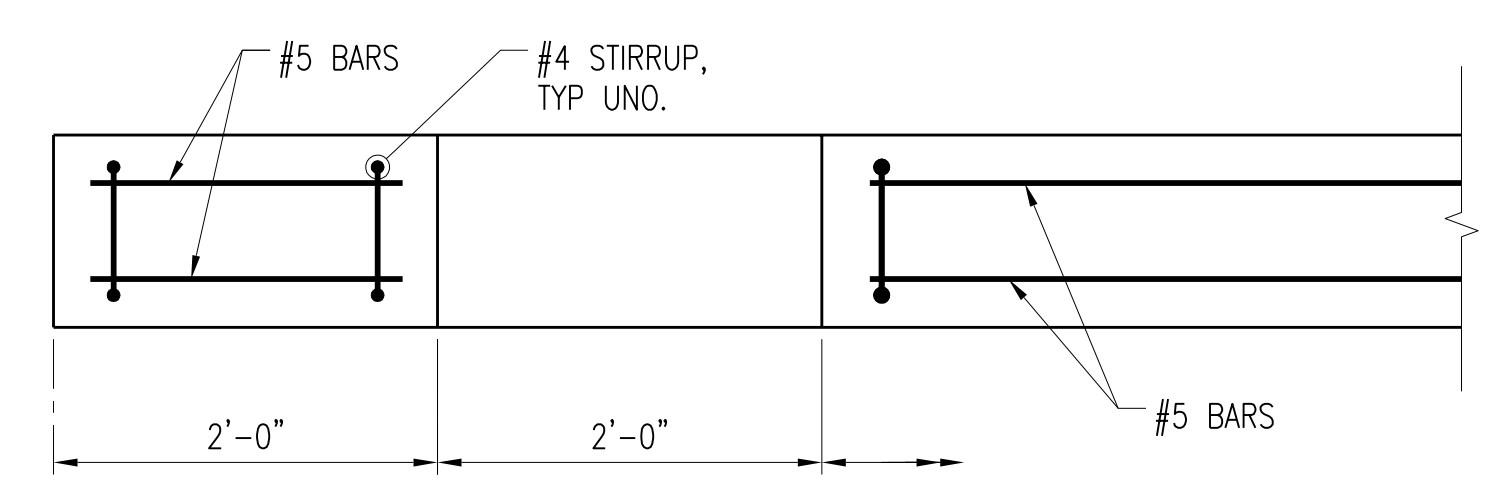
TYPICAL PRECAST CONCRETE PANEL
SCALE: 1" = 1'-0"



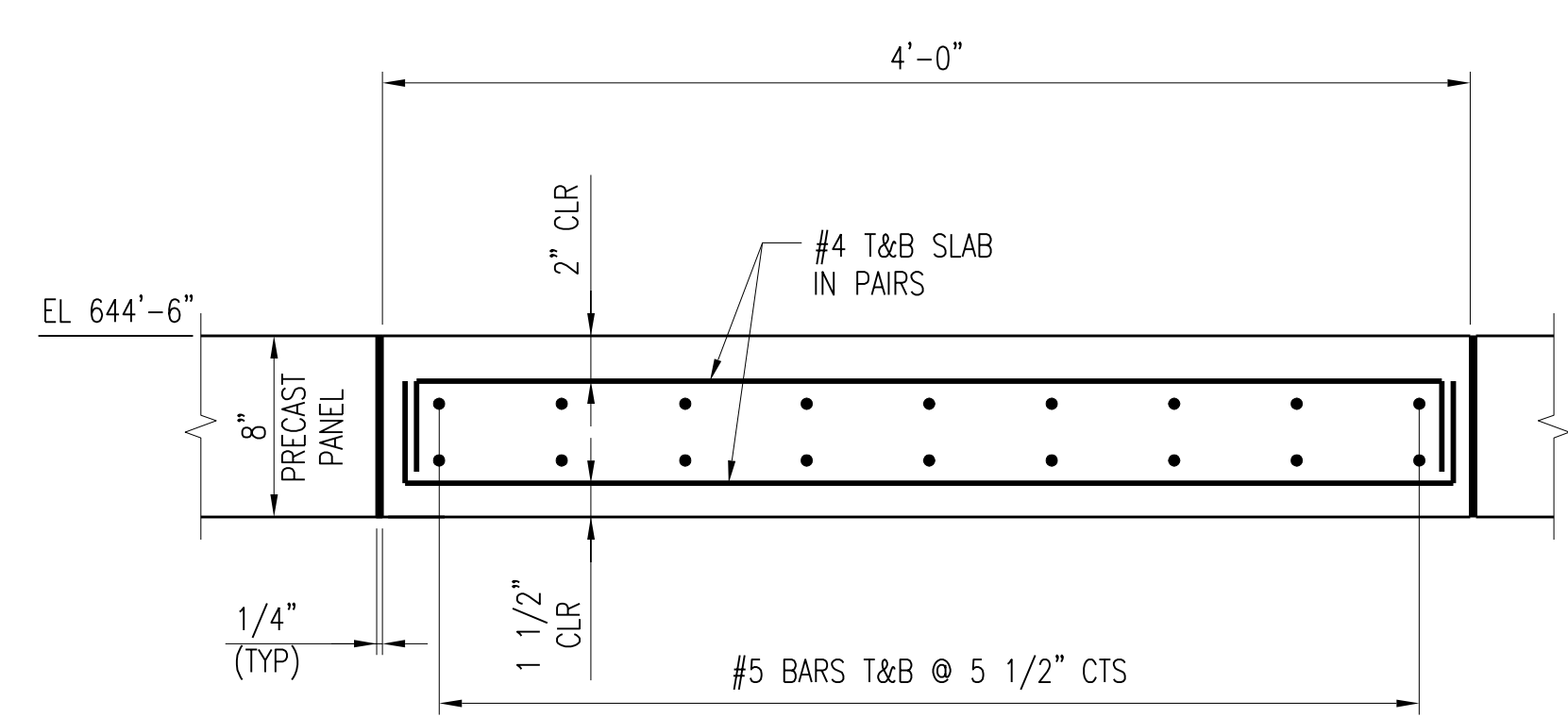
TYPICAL PIPE OPENING
(7 LOCATIONS IN SLAB PANELS)
SCALE: 1" = 1'-0"



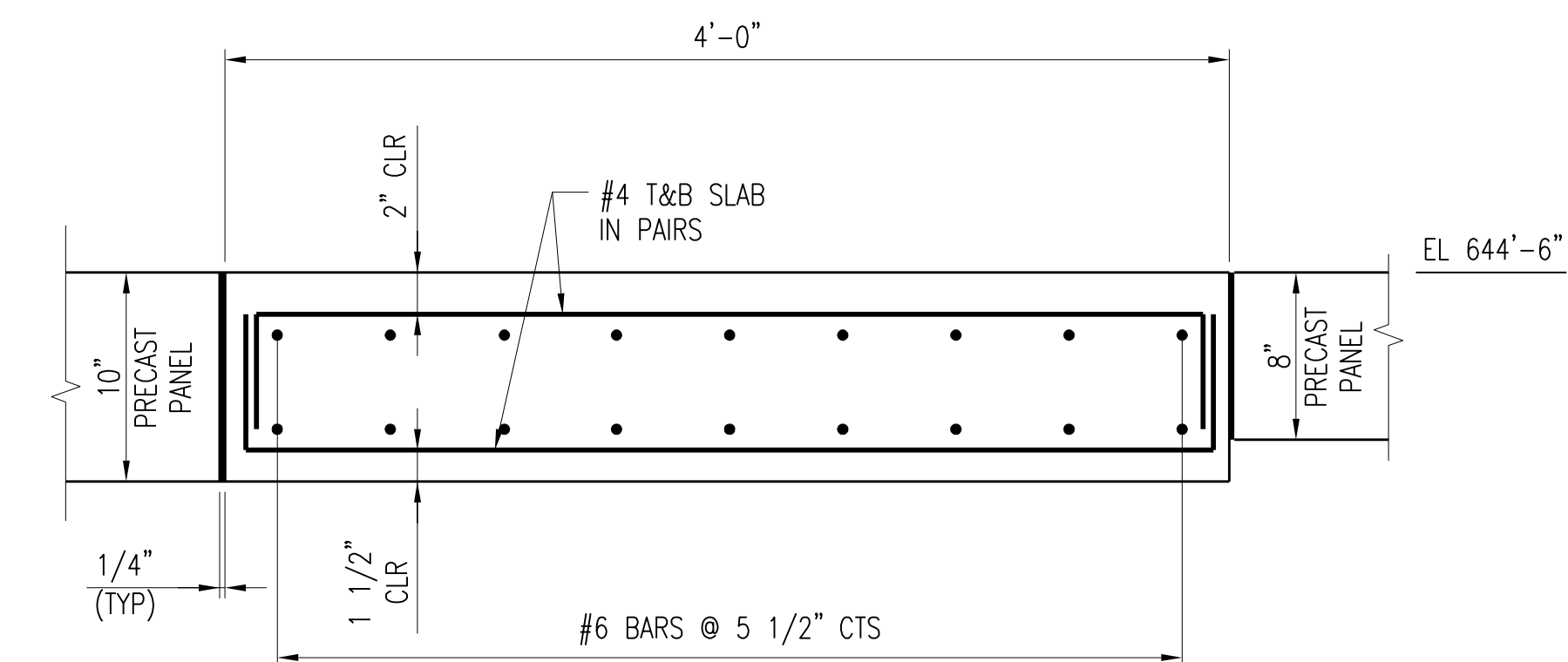
TYPICAL ADDITIONAL REINFORCING FOR ROOF PANELS WITH HATCH OPENING
(6 LOCATIONS)
SCALE: 1" = 1'-0"



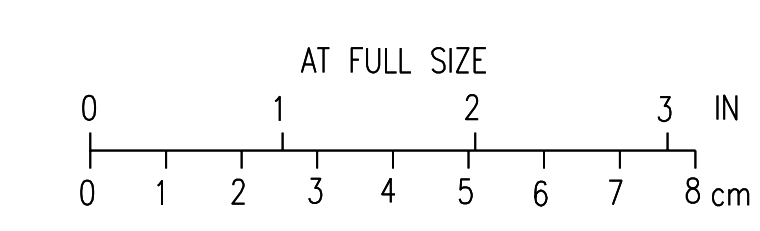
SECTION A-S608
SCALE: 1" = 1'-0"



SECTION B-S608
SCALE: 1 1/2" = 1'-0"



SECTION C-S608
SCALE: 1 1/2" = 1'-0"



2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ADDED ADDENDUM COMMENT	LJO	JBL	JBL	05-04-2012
0	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

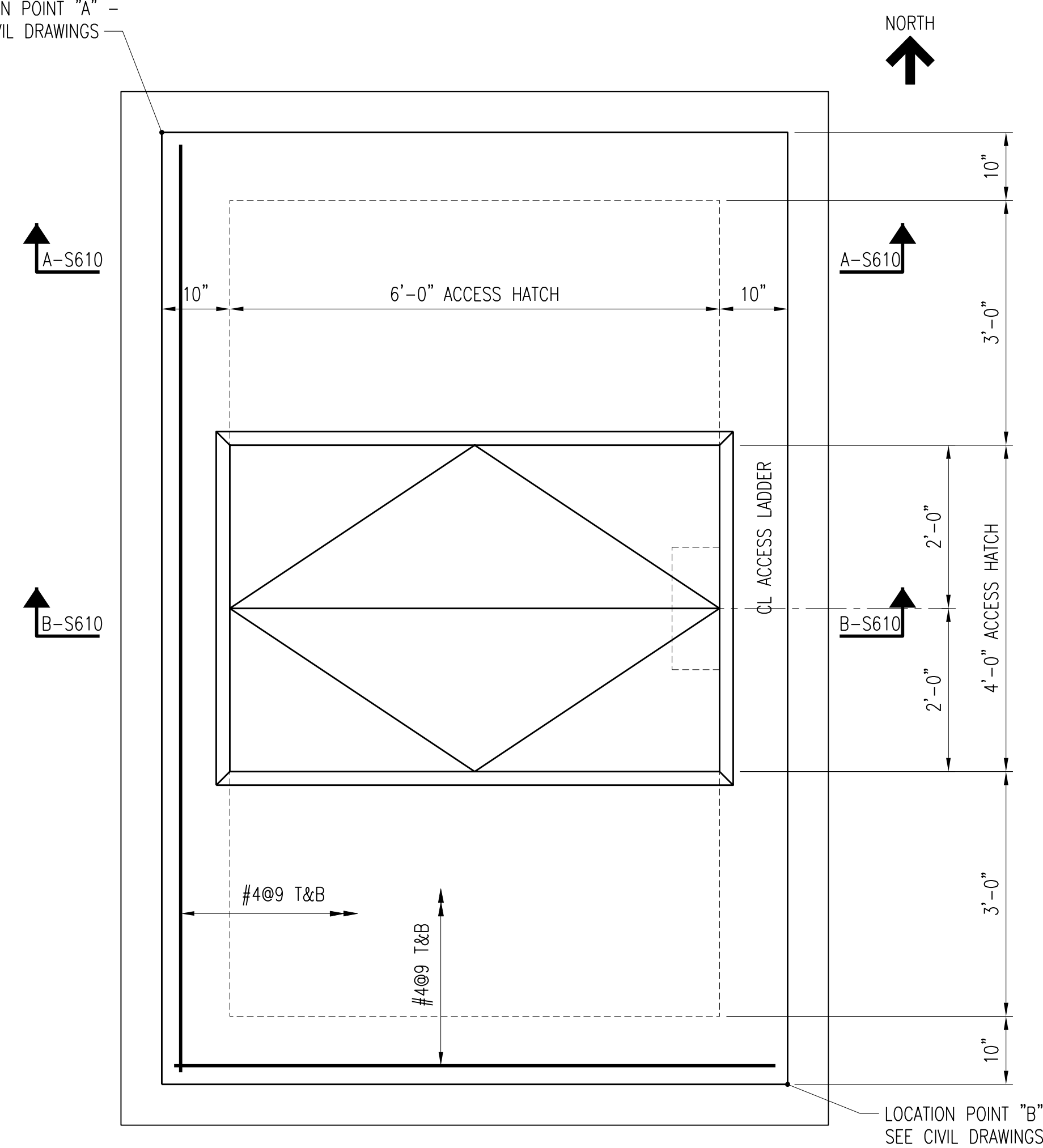
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 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT
DISINFECTION TANKS AREA - OPTION A
UV AND EFFLUENT WATER STORAGE TANKS
DETAILS - SHEET 5

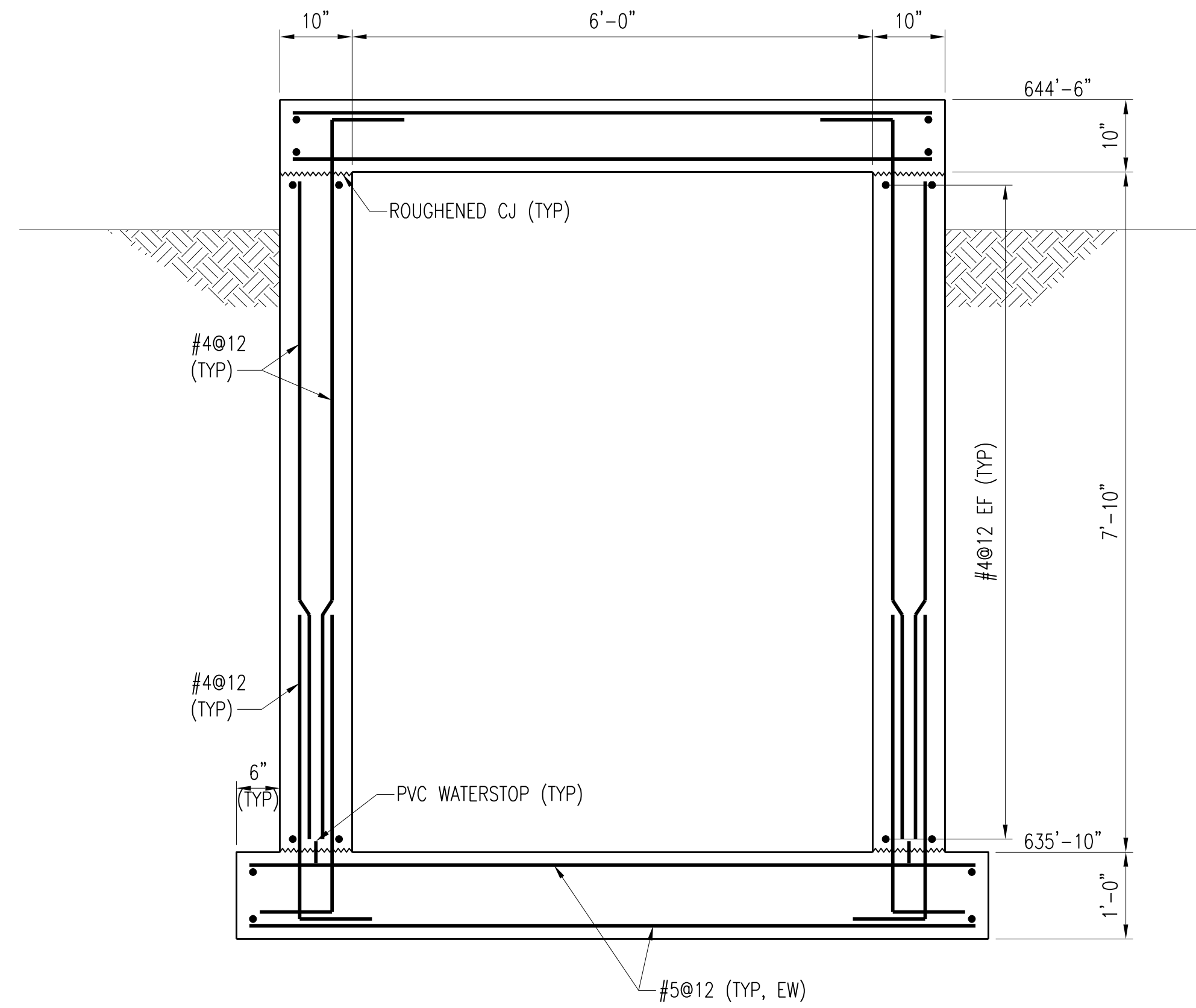
DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	RT THOMS	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
DATE	JANUARY 10, 2012		
		S608	2

CADD: D1-R4

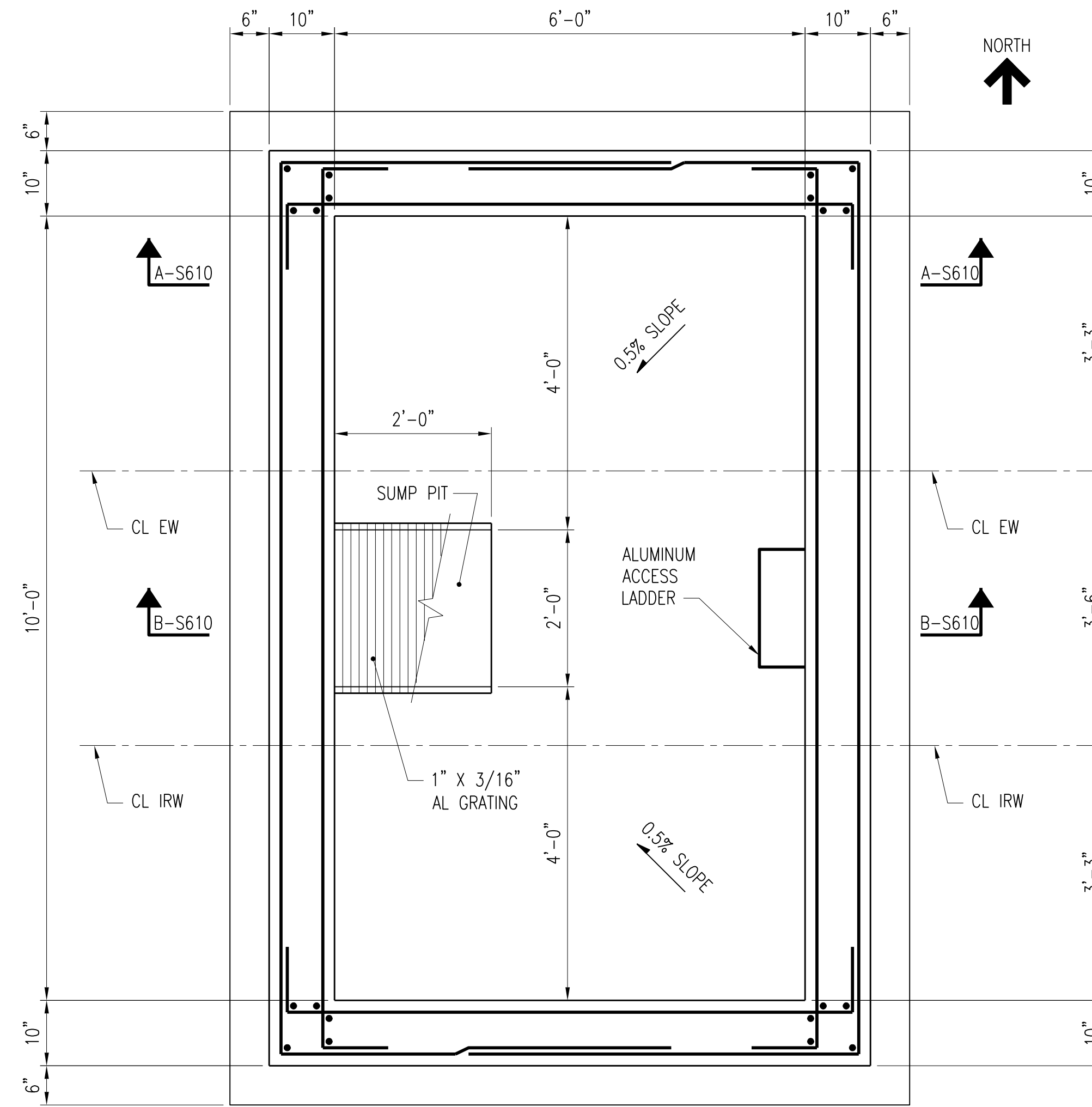
LOCATION POINT "A" -
SEE CIVIL DRAWINGS



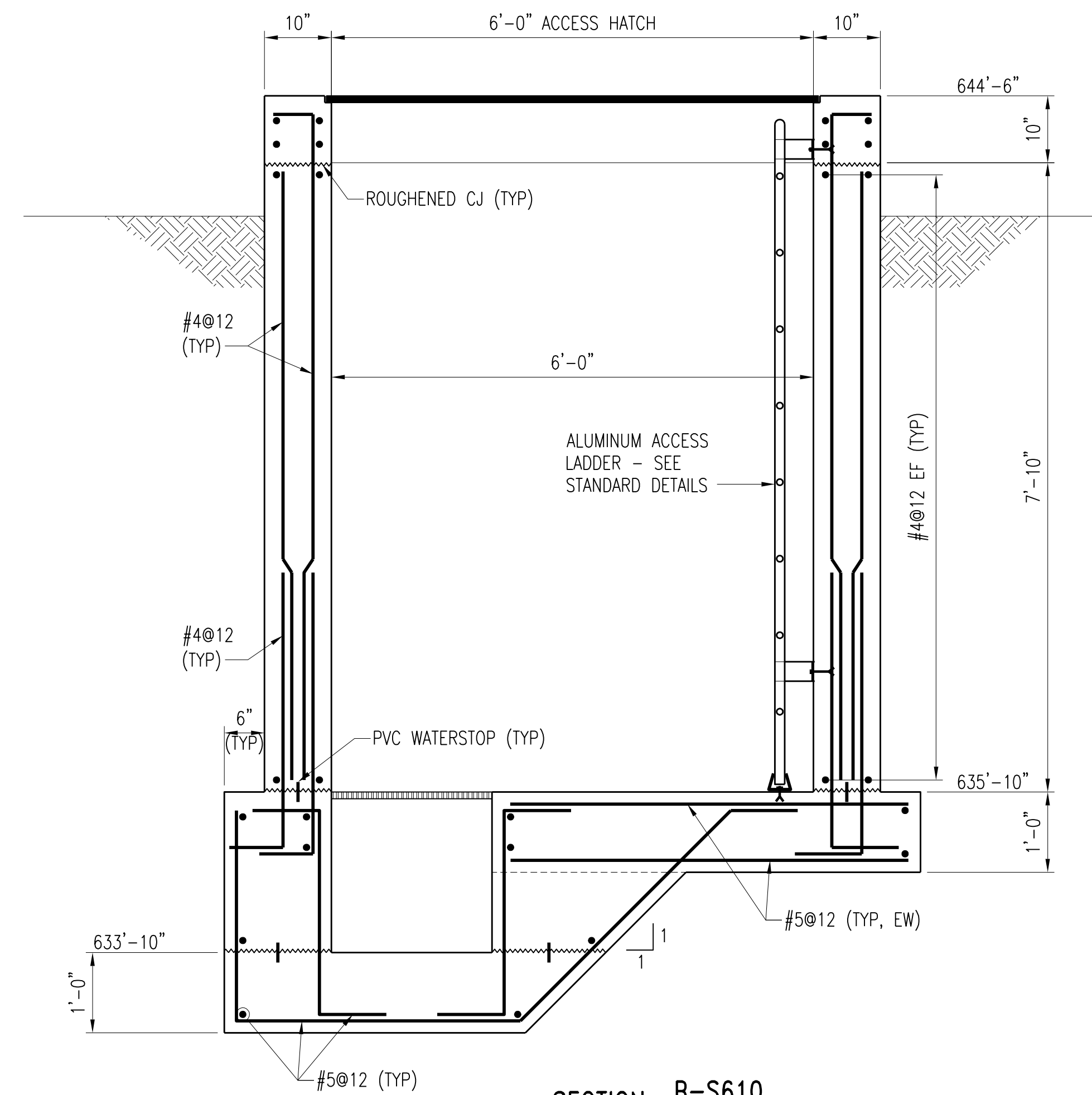
METER VAULT PLAN AT EL 644'-6"
SCALE: 3/4" = 1'-0"



SECTION A-S610
SCALE: 3/4" = 1'-0"



METER VAULT PLAN AT EL 636'-0"
SCALE: 3/4" = 1'-0"

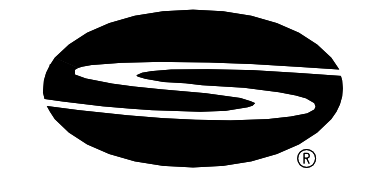


SECTION B-S610
SCALE: 3/4" = 1'-0"

NOTES:

1. TOP SLAB DESIGN LIVE LOAD: 300 PSF.
2. SLOPE BASE SLAB 0.5% TO SUMP.
3. SEE STRUCTURAL TYPICAL NOTES AND DETAILS FOR ADDITIONAL REINFORCING AT OPENINGS AND PIPE PENETRATIONS
4. SEE STRUCTURAL TYPICAL DETAILS FOR ALUMINUM ACCESS LADDER.
5. PROVIDE ACCESS HATCH TO MATCH INDICATED DIMENSIONS. PROVIDE PVC DRAIN PIPE FOR DRAINAGE OF HATCH FRAME. ROUTE DRAIN TO VAULT EXTERIOR ABOVE GRADE.
6. SEE MECHANICAL DRAWINGS FOR PIPE INFORMATION.
7. APPLY DAMP PROOFING TO EXTERIOR VAULT WALLS IN ACCORDANCE WITH SPECIFICATION 07 11 00.

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



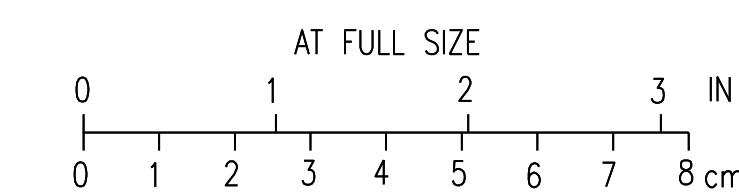
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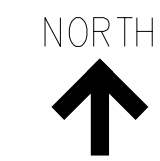
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

DISINFECTION TANKS AREA
EW IRW METER VAULT
PLAN AND DETAILS

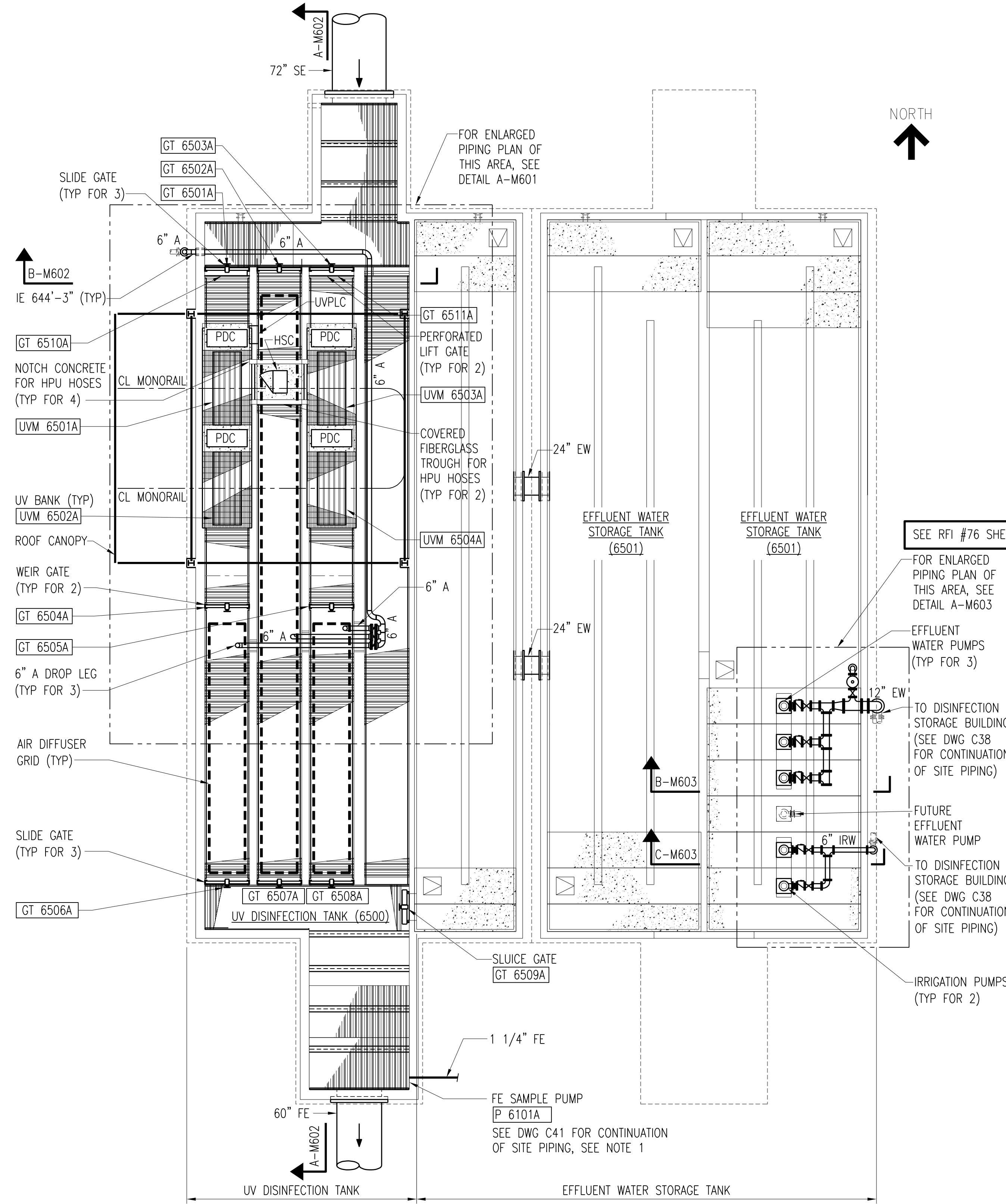
DESIGNED	J. CASE	SCALE:	AS NOTED
DRAWN	DA. SCHMIDT	NO.	22800
CHECKED	KB. HALL	REV.	
APPROVED	LH. BADTRAM		
APPROVED			
DATE	DECEMBER 2, 2011		

S610 2

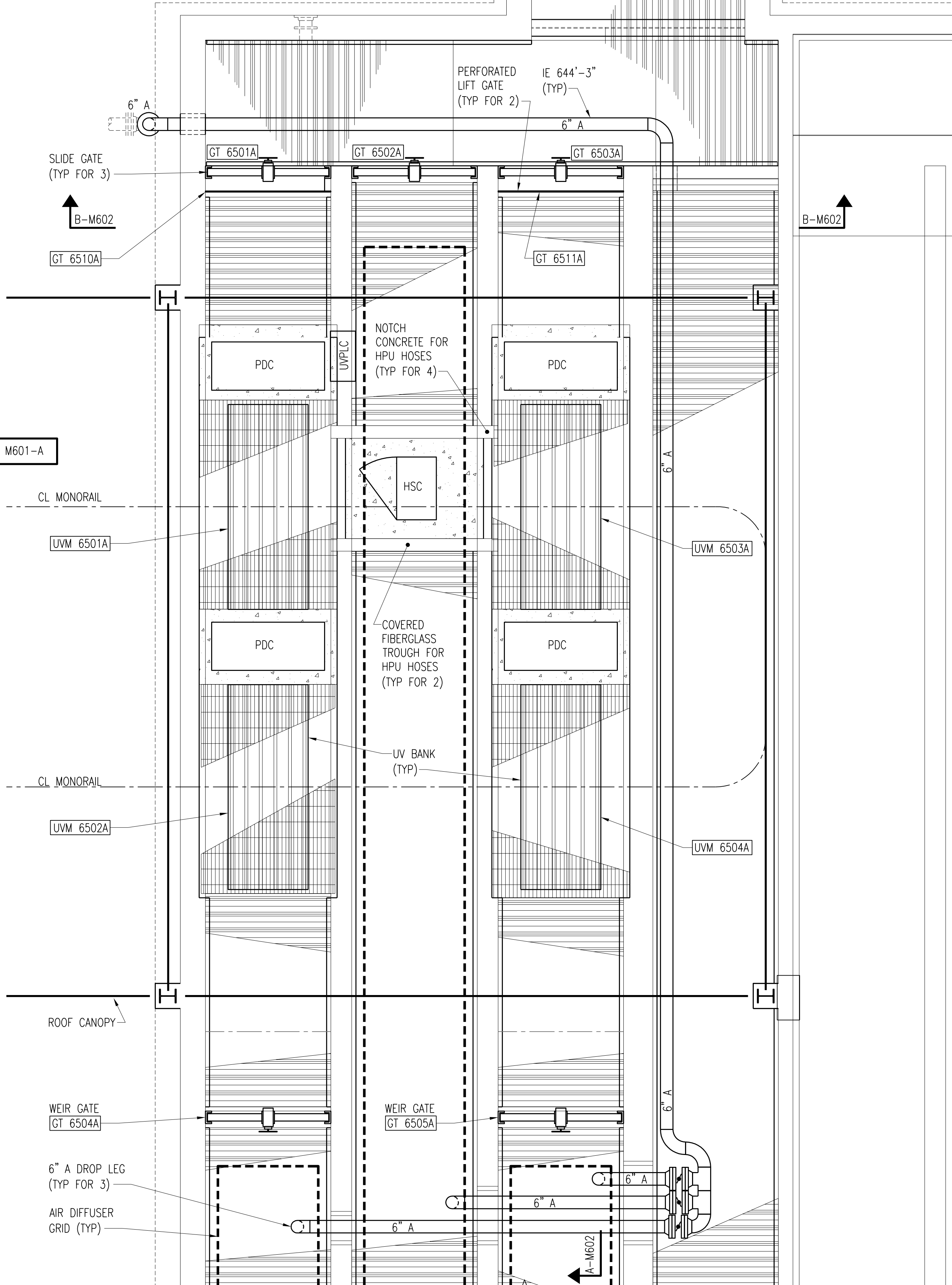




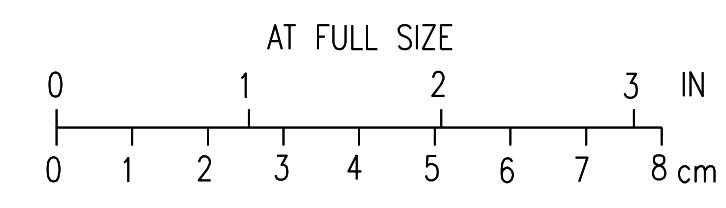
NOTES:
1. CITY TO INSTALL EXISTING FE SAMPLE PUMP.



UV DISINFECTION AND EFFLUENT WATER STORAGE TANKS MECHANICAL PLAN
SCALE: 1/8" = 1'-0"



ENLARGED PIPING PLAN
DETAIL **A-M601**
SCALE: 3/8" = 1'-0"



2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	MA	MA	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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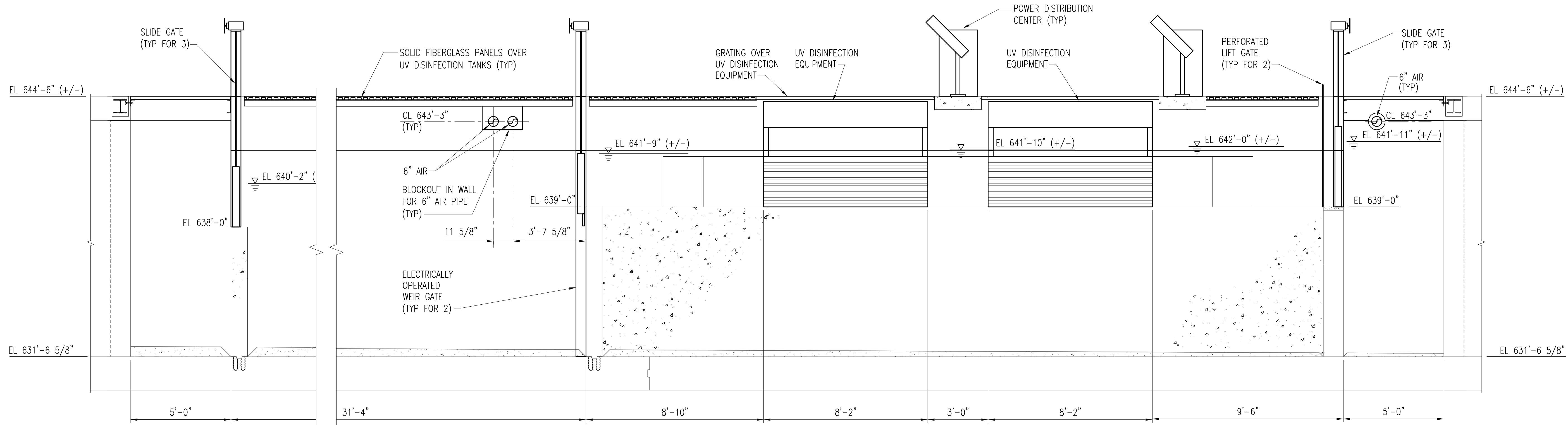
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**DISINFECTION TANKS AREA - OPTION A
UV AND EFFLUENT WATER STORAGE TANKS
PROCESS PIPING PLANS**

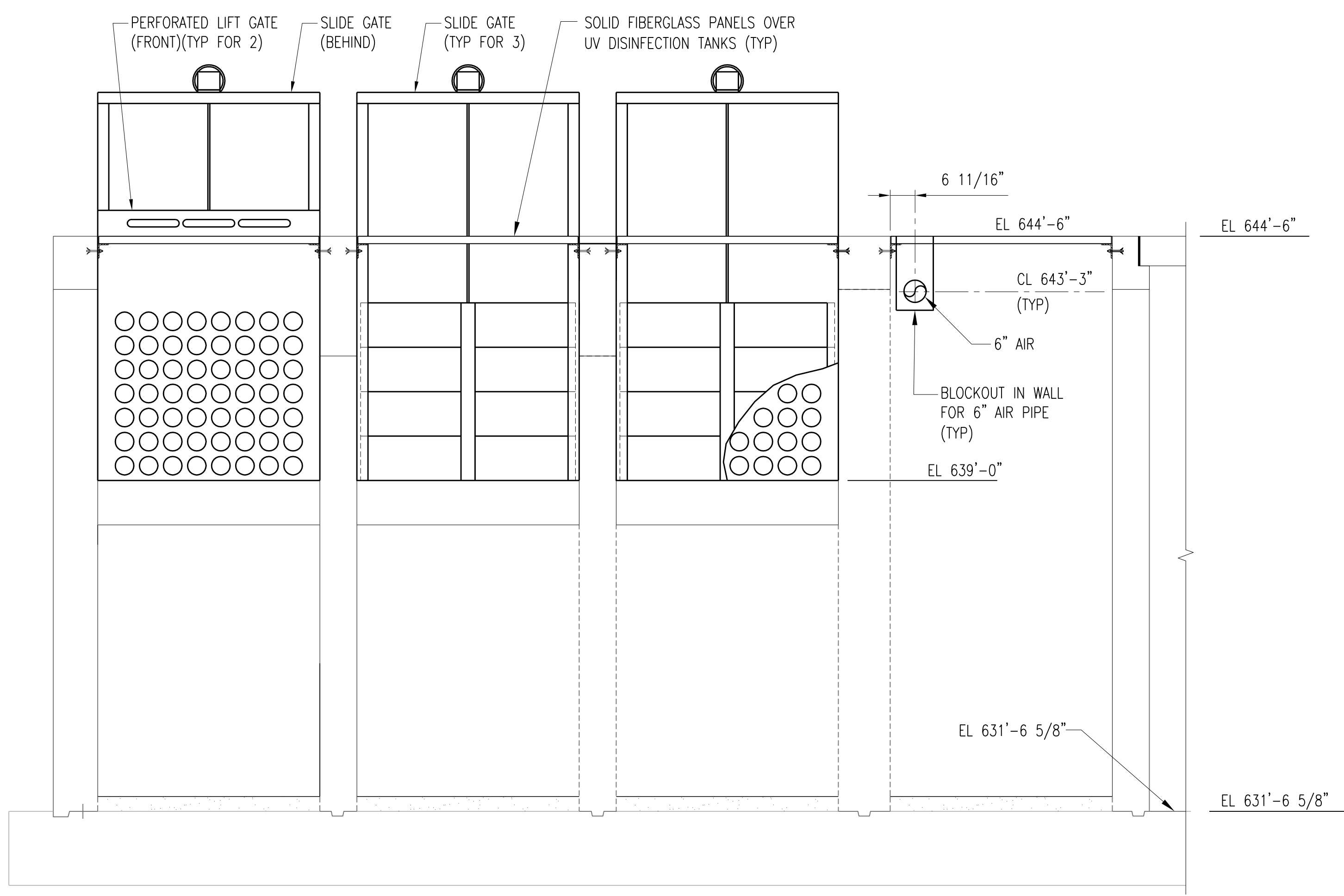
DESIGNED	M. AKYUREK	SCALE:	AS NOTED
DRAWN	DA. SCHMIDT	NO.	22800
CHECKED	M. AKYUREK	REV.	
APPROVED	JM. BRADY		
APPROVED			
DATE	DECEMBER 2, 2011		

M601 **2**

CADD: D1-R4



SECTION **A-M602**
 M601
 SCALE: 3/8" = 1'-0"



SECTION **B-M602**
 M601
 SCALE: 1/2" = 1'-0"

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	MA	MA	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

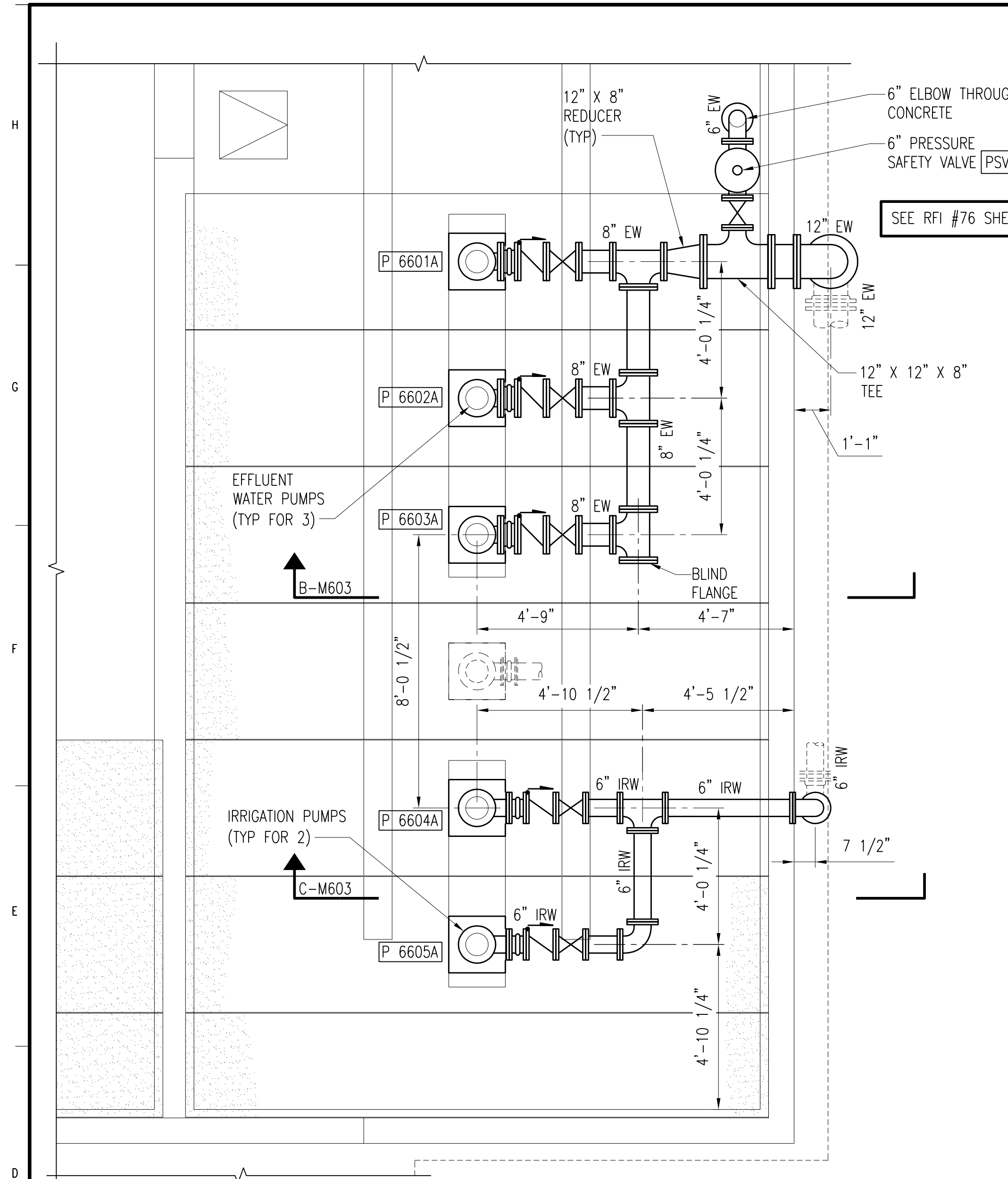

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CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT
DISINFECTION TANKS AREA - OPTION A
UV TANKS
PROCESS PIPING SECTIONS



DESIGNED	M. AKYUREK	SCALE:	AS NOTED
DRAWN	DA. SCHMIDT	NO.	22800
CHECKED	M. AKYUREK	REV.	
APPROVED	JM. BRADY		
APPROVED			
DATE	DECEMBER 2, 2011	M602	2

CADD: D1-R4



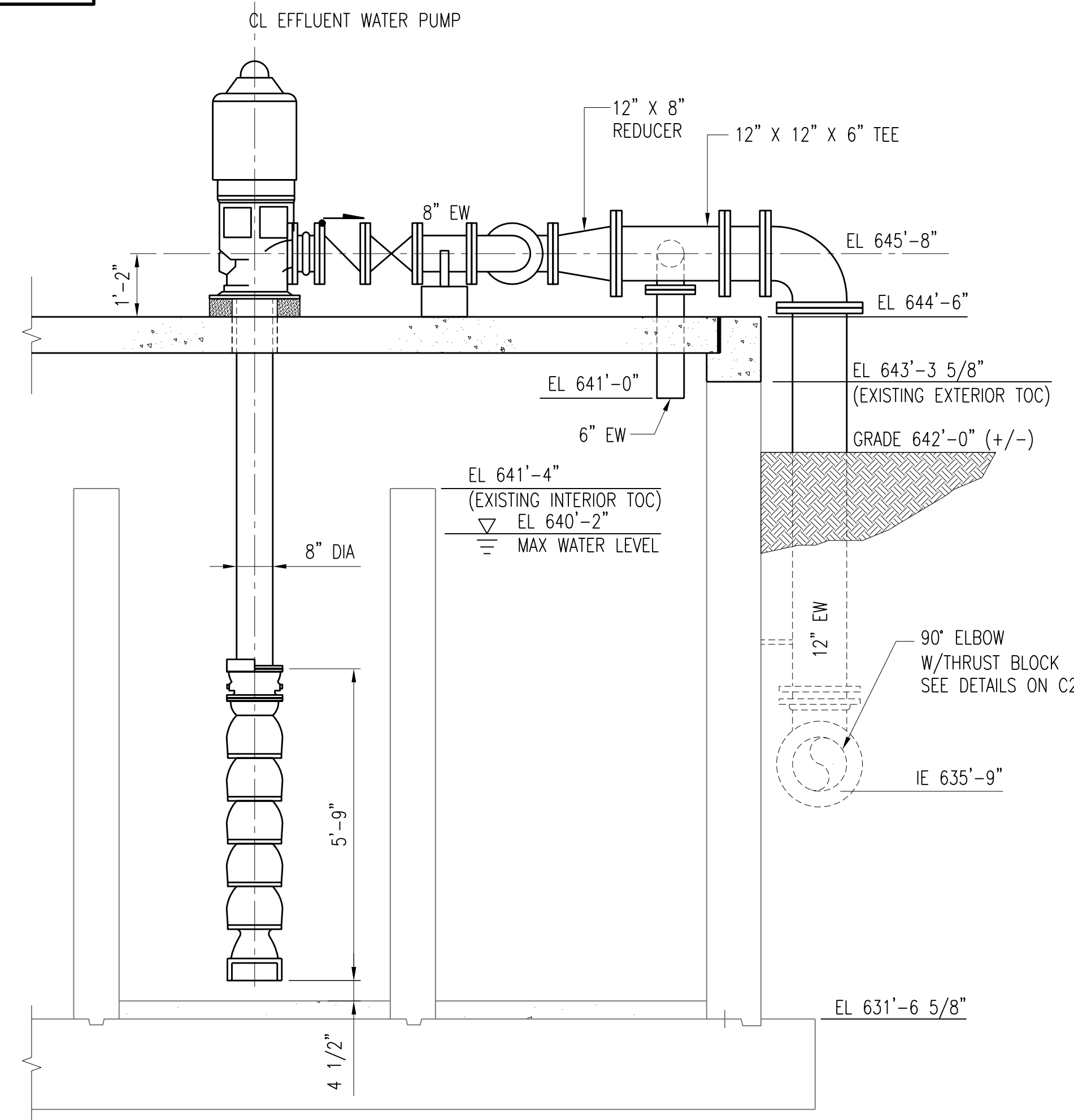
ENLARGED PIPING PLAN

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

DETAIL A-M603
M601, M601A

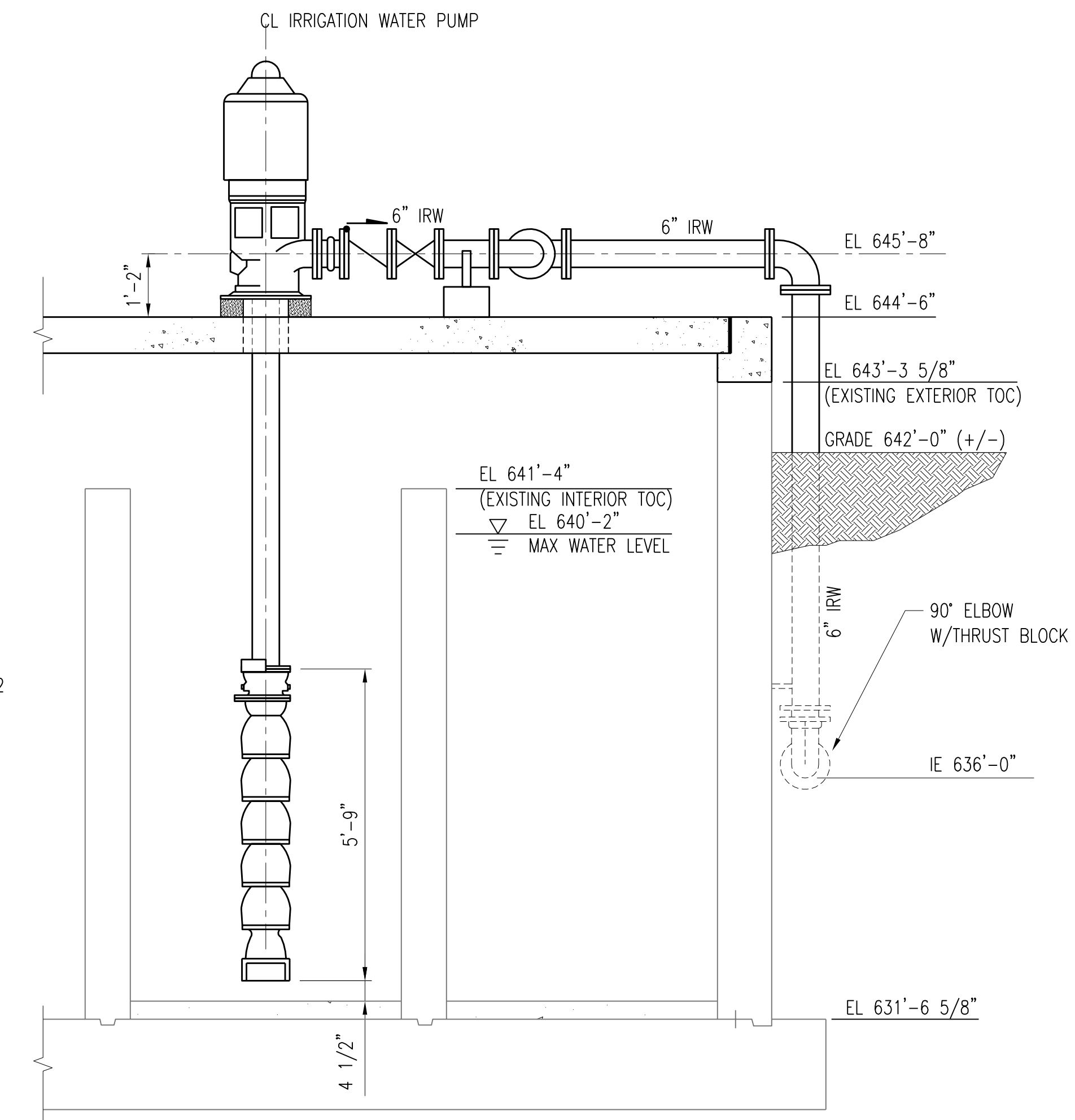
SCALE: 3/8" = 1'-0"

SEE RFI #101 & #101 REV 1
SHEET M603-A



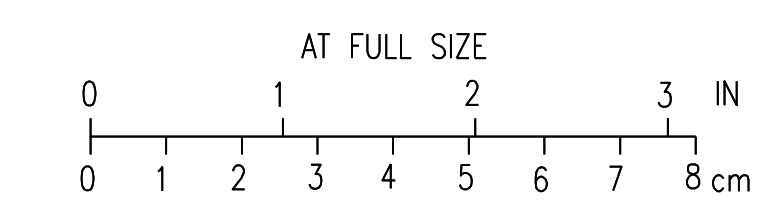
SECTION B-M603

M601, M601A, M603
SCALE: 1/2" = 1'-0"



SECTION C-M603

M601, M601A, M603
SCALE: 1/2" = 1'-0"



2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	MA	MA	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**DISINFECTION TANKS AREA - OPTION A
EFFLUENT WATER STORAGE TANKS
PROCESS PIPING PLAN AND SECTIONS**

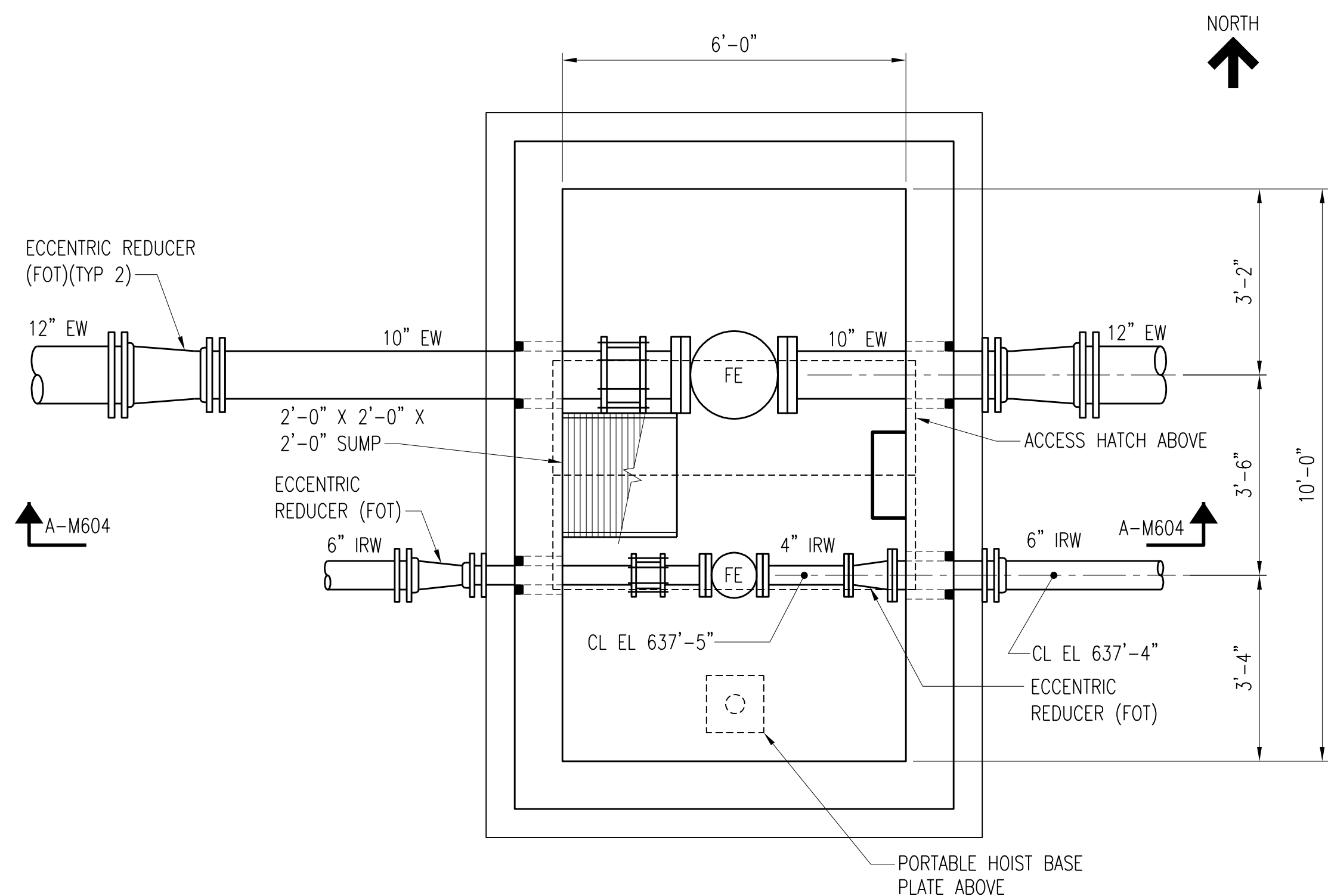
DESIGNED	M. AKYUREK
DRAWN	DA. SCHMIDT
CHECKED	M. AKYUREK
APPROVED	JM. BRADY
APPROVED	
DATE	DECEMBER 2, 2011

SCALE: AS NOTED	NO. 22800	REV.
M603		2

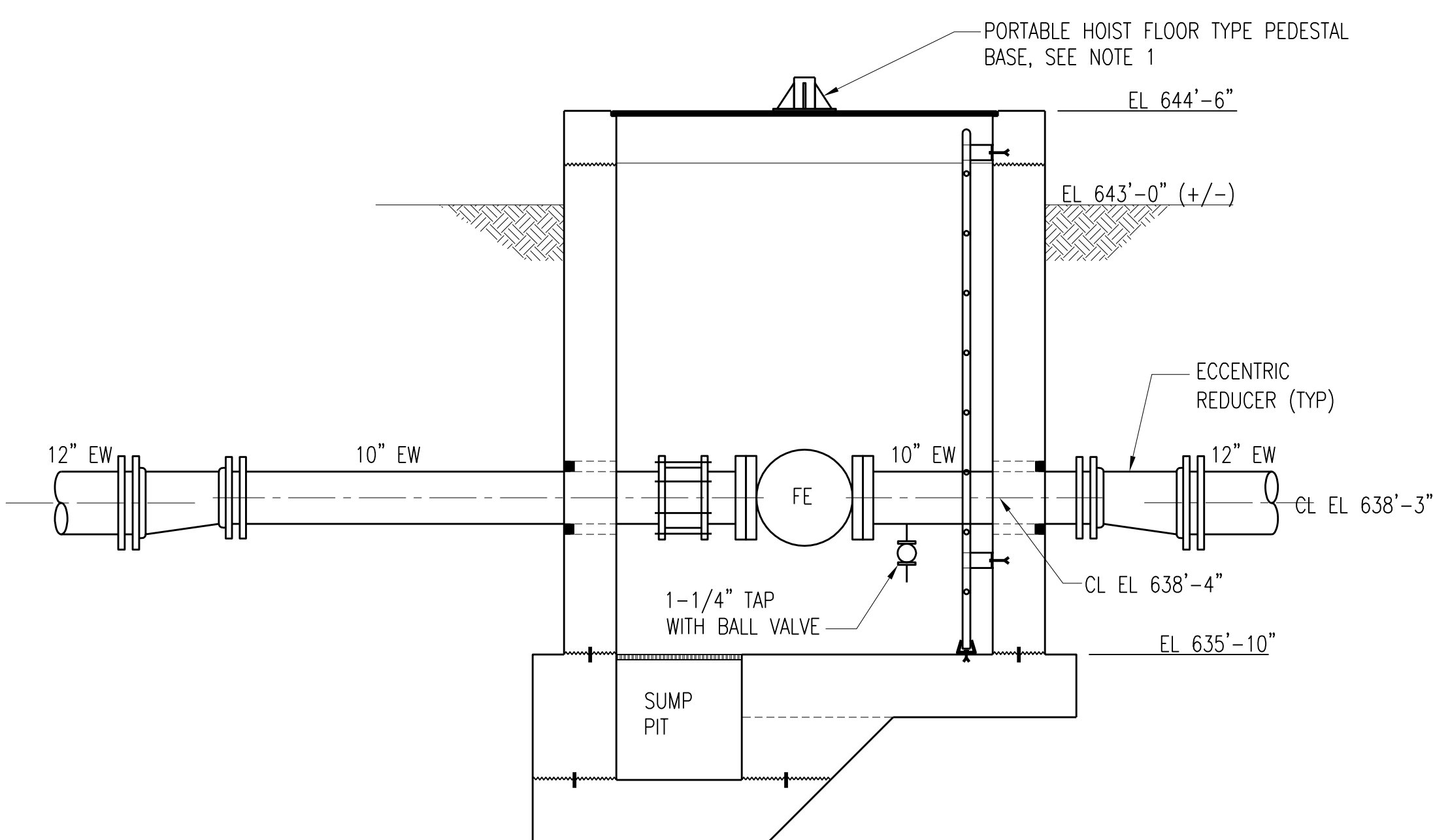
CADD: D1-R4

NOTES:

1. PEDESTAL BASE SHALL BE TERN MODEL 524 OR EQUAL.
2. SEE DRAWING C38 FOR CONTINUATION OF SITE PIPING.



EW/IRW METER VAULT PLAN AT EL 642'-0"
SCALE: 1/2" = 1'-0"



SECTION A-M604
M604
SCALE: 1/2" = 1'-0"

1	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
0	ISSUED FOR CONSTRUCTION	CLB	CLB	MA/JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

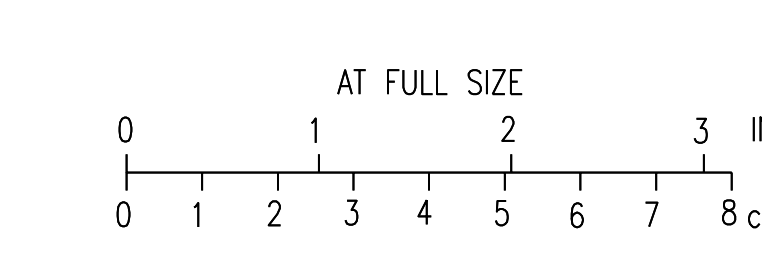

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CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

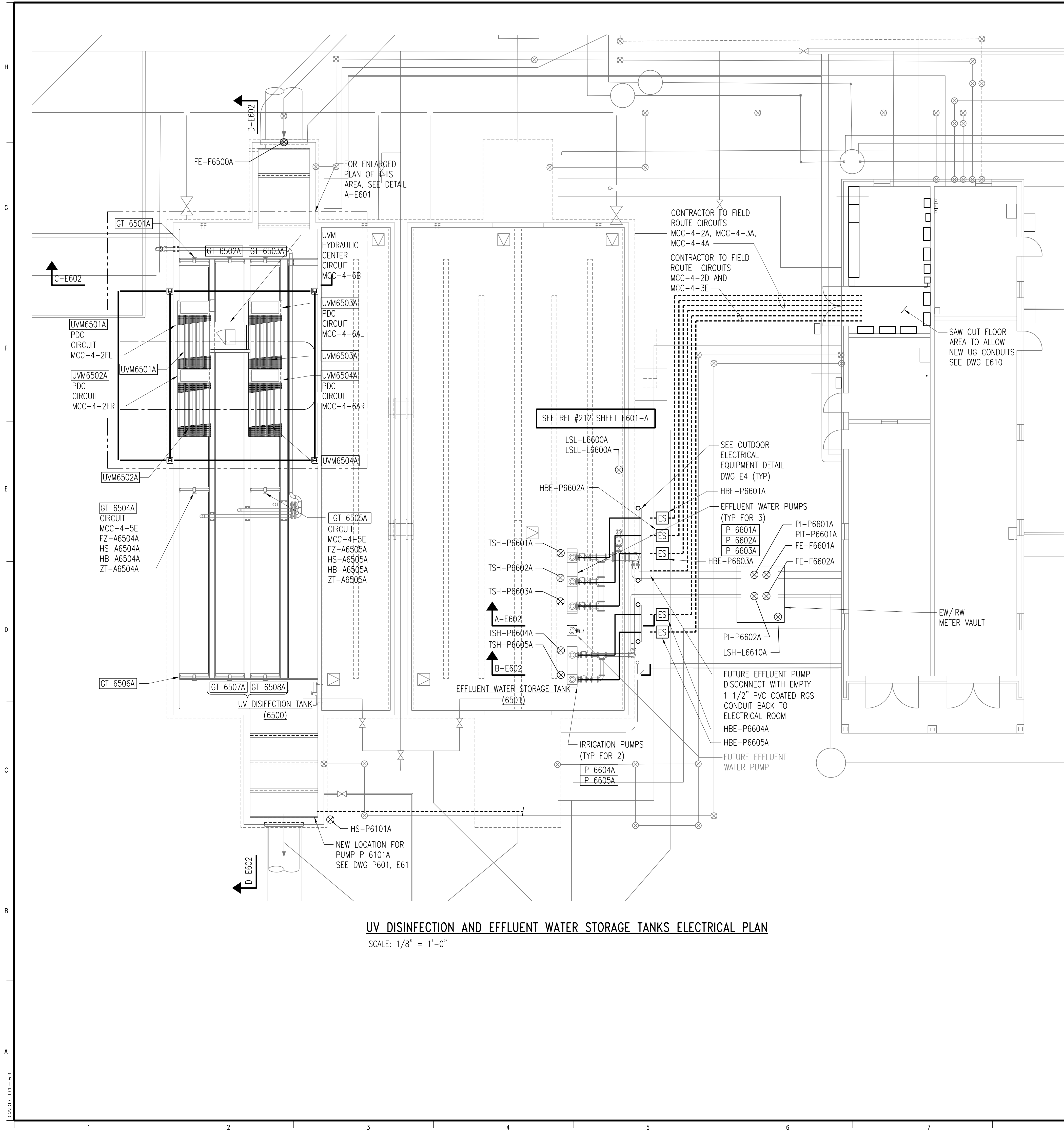
DISINFECTION TANKS AREA
EW IRW METER VAULT

DESIGNED	CL BARK	SCALE: AS NOTED	
DRAWN	LJ OSBORN	NO. 22800	REV.
CHECKED	CL BARK		
APPROVED	M AKYUREK		
APPROVED	JM BRADY		
DATE	JANUARY 10, 2012		

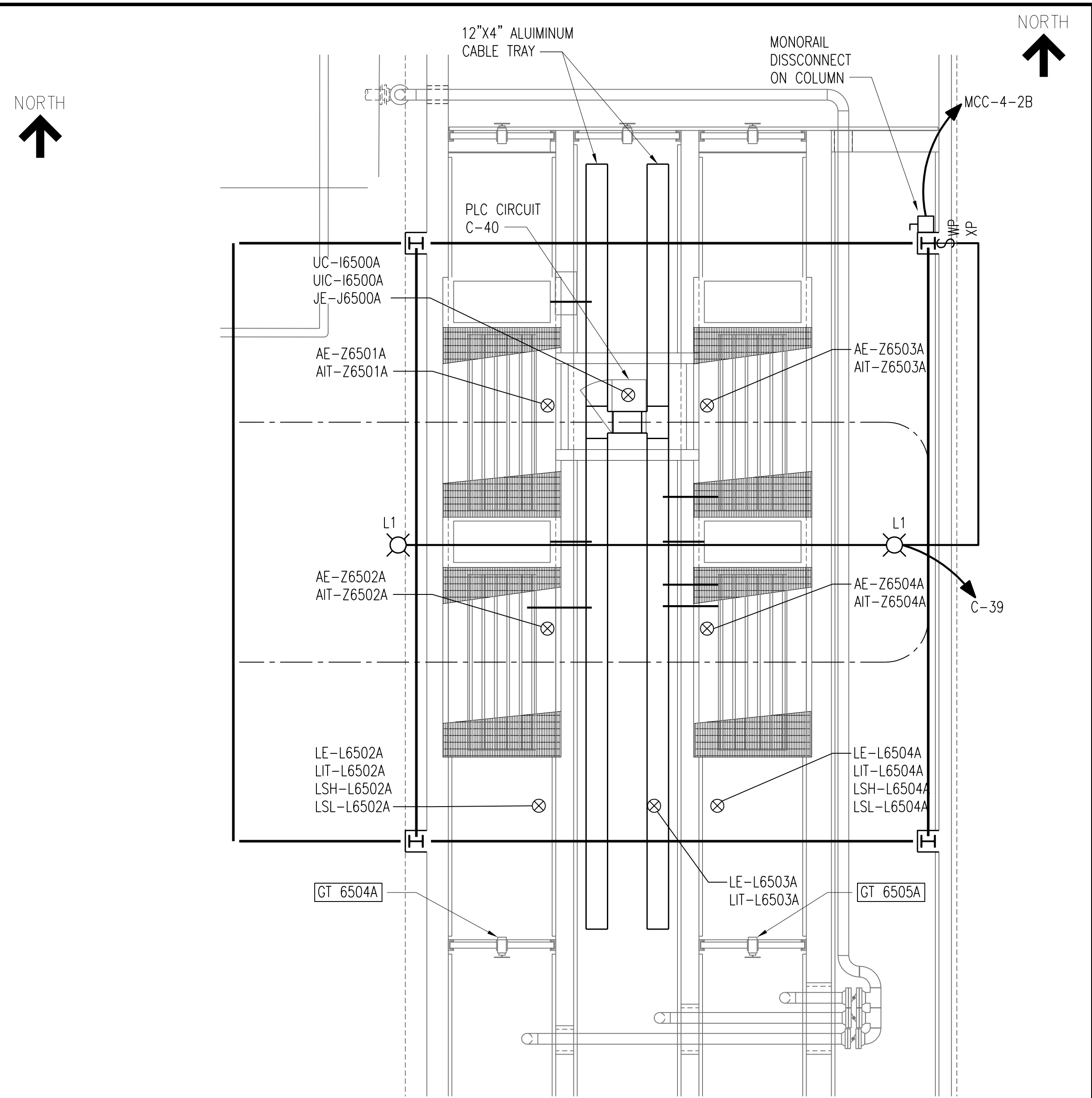
M604 **1**



CADD: D1-1-R4



UV DISINFECTION AND EFFLUENT WATER STORAGE TANKS ELECTRICAL PLAN
 SCALE: 1/8" = 1'-0"



SECTION A-E601
 SCALE: 1/4" = 1'-0"

NOTES:

- SEE DRAWING E16 FOR REVISED MCC-4 ONE-LINE DIAGRAM.
- SEE DRAWING E1 FOR GENERAL ELECTRICAL NOTES AND WIRING DEVICE SCHEDULE.
- SEE DRAWING E4 FOR TYPICAL ELECTRICAL DETAILS.
- SEE DRAWINGS E2 AND E3 FOR LIGHTING FIXTURE SCHEDULE.
- SEE DRAWING G9 FOR ELECTRICAL LEGEND.
- AT EFFLUENT WATER PUMPS P6601A, P6602A, AND P6603A CONTRACTOR SHALL PROVIDE NEMA 4X DISCONNECTS AND HOA CONTROL STATIONS IN PVC BACKBOXES LOCAL TO PUMP LOCATION. HOA STATIONS TO HAVE RED AND GREEN INDICATING LIGHTS AT SWITCH BACKBOX.
- AT IRRIGATION WATER PUMPS P6604A AND P6605A CONTRACTOR SHALL PROVIDE NEMA 4X DISCONNECTS AND HOA CONTROL STATIONS IN PVC BACKBOXES LOCAL TO PUMP LOCATION. HOA STATIONS TO HAVE RED AND GREEN INDICATING LIGHTS AT SWITCH BACKBOX.
- UV BANKS ARE TO BE CONNECTED AS SHOWN ON DETAIL TO UV BANK CONTROL PANEL FROM CIRCUITS SHOWN ON MCC-4 ONE-LINE DIAGRAMS AS SHOWN. CONFIRM WITH UV SYSTEM MANUFACTURER FOR EXACT CONDUIT CONNECTION REQUIREMENTS.
- PROVIDE 2#10 AND #10 GROUND IN 1" PVC RGS TO PUMPS P6601A, P6602A, P6603A, P6604A AND P6605A FOR MOTOR SPACE HEATERS FROM PANEL C CIRCUITS 10 AND 12. SWITCH HEATERS OFF WHEN PUMPS ARE OPERATING.

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

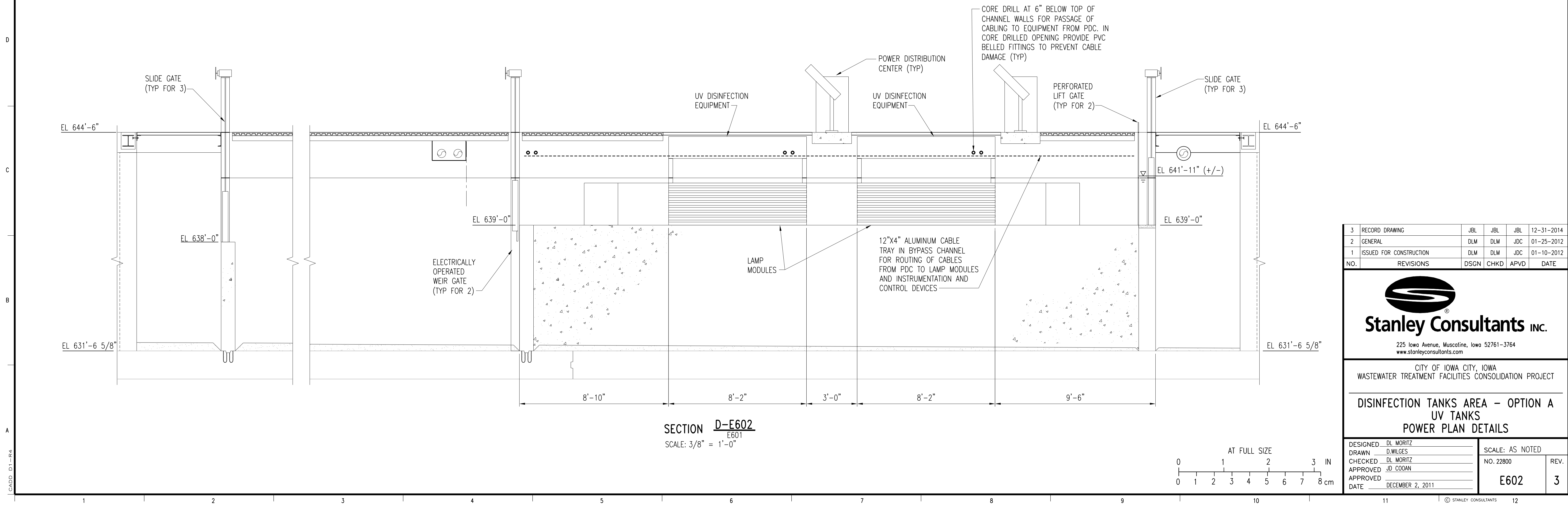
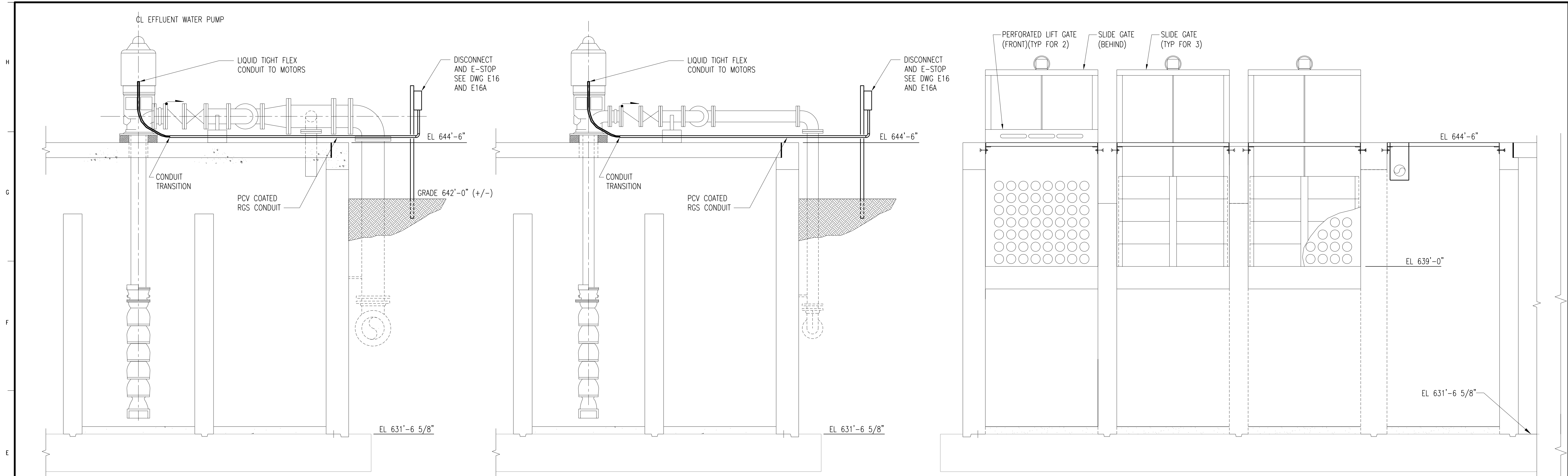
**DISINFECTION TANKS AREA - OPTION A
 UV AND EFFLUENT WATER STORAGE TANKS
 POWER PLAN AND DETAILS**

DESIGNED	DL MORITZ	SCALE:	AS NOTED
DRAWN	D.WILGES	NO.	22800
CHECKED	DL MORITZ	REV.	
APPROVED	JD COGAN		
APPROVED			
DATE	DECEMBER 2, 2011		



E601 **3**

CADD: D1-1-R4



3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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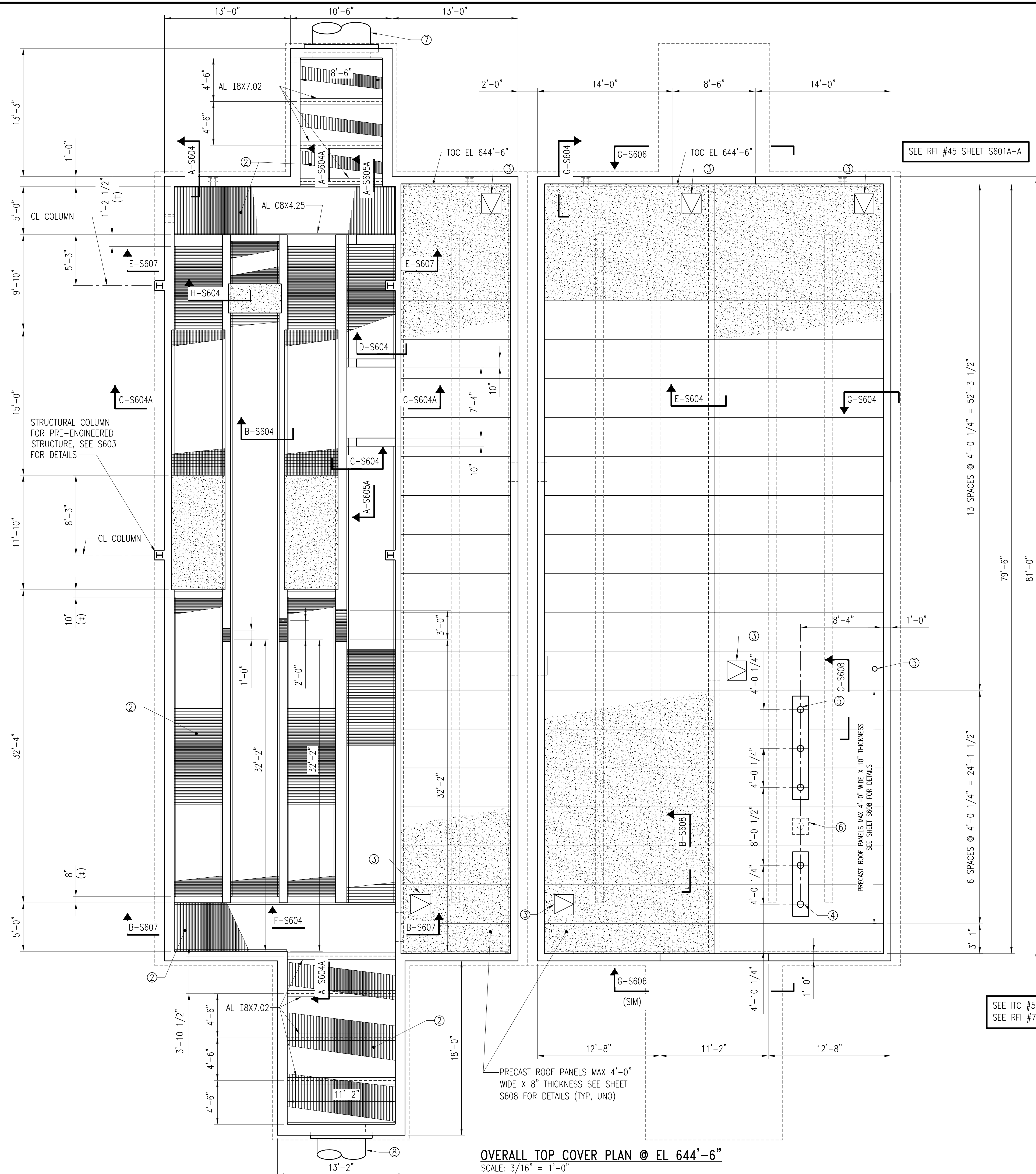
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**DISINFECTION TANKS AREA - OPTION A
UV TANKS
POWER PLAN DETAILS**

DESIGNED	DL MORITZ	SCALE: AS NOTED
DRAWN	D. WILGES	NO. 22800
CHECKED	DL MORITZ	REV.
APPROVED	JD COGAN	E602
APPROVED		3
DATE	DECEMBER 2, 2011	



CADD D1-R4



NOTES:

1. CONSTRUCTION JOINTS FOR ALL WALL EXTENSIONS PER STANDARD DETAIL AND TO BE PLACED TO MATCH EXISTING LOCATIONS.
2. FIBERGLASS PLANK TO BE SAFFLANK ® BY STRONGWELL OR APPROVED EQUIVALENT RATED FOR 76" SPAN WITH 100 PSF LIVE LOAD. ALL GRATING SUPPORT BEAMS, CHANNELS AND ANGLES SHALL BE ALUMINUM AND ALL ANCHORING BOLTS, NUTS AND WASHERS SHALL BE STAINLESS STEEL.
3. BILCO TYPE 2'-0" x 2'-0" ALUMINUM ACCESS HATCH OR APPROVED EQUIVALENT. OPENING FOR HATCH TO BE CAST INTO ROOFING PANELS, 6 LOCATIONS, SEE STRUCTURAL PLAN AND ADDITIONAL REINFORCING DETAILS.
4. PROVIDE OPENING IN ROOF PANEL FOR IRRIGATION PUMP PIPING. ADJUST SPACING OF REINFORCEMENT IN PANEL TO MISS PIPE PENETRATION WITHOUT CUTTING OF REINFORCING STEEL.
5. PROVIDE OPENING IN ROOF PANEL FOR EFFLUENT PUMP PIPING. ADJUST SPACING OF REINFORCEMENT IN PANEL TO MISS PIPE PENETRATION WITHOUT CUTTING OF REINFORCING STEEL.
6. PROVIDE OPENING IN ROOF PANEL FOR FUTURE EFFLUENT PUMP PIPING. A REMOVABLE COVER SHALL BE PROVIDED FOR THIS OPENING. ADJUST SPACING OF REINFORCEMENT IN PANEL TO MISS PIPE PENETRATION WITHOUT CUTTING OF REINFORCING STEEL.
7. INSTALL 72" ID RCP AT INVERT ELEVATION OF 632.6 FT. CUT EXISTING REINFORCING AS NEEDED TO SET PIPE IN REQUIRED LOCATION. CONTRACTOR TO ENSURE WATER TIGHTNESS OF FINAL PRODUCT.
8. INSTALL 60" ID DUCTILE IRON PIPE AT INVERT ELEVATION OF 634.8 FT. CUT EXISTING REINFORCING AS REQUIRED TO SET PIPE IN REQUIRED LOCATION. CONTRACTOR TO ENSURE WATER TIGHTNESS OF FINAL PRODUCT.
9. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR SIZE AND LOCATION OF OPENINGS FOR PIPES AND CONDUITS.

OVERALL TOP COVER PLAN @ EL 644'-6"
SCALE: 3/16" = 1'-0"

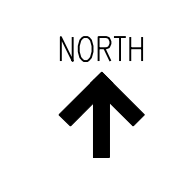
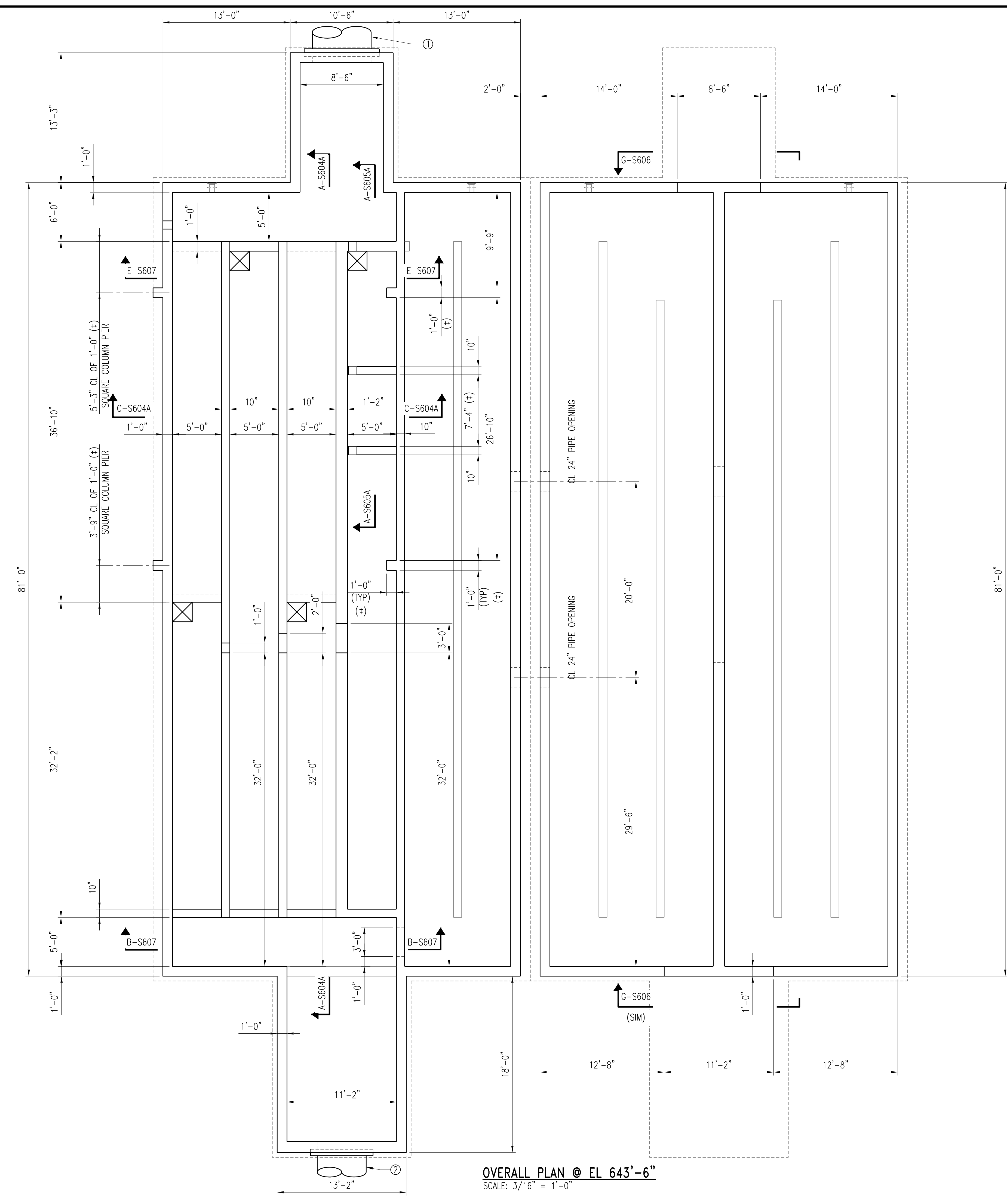


2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT
DISINFECTION TANKS AREA - OPTION B
UV AND EFFLUENT WATER STORAGE TANKS
OVERALL TOP COVER PLAN

DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	RT THOMS	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
DATE	DECEMBER 2, 2011	S601A	2

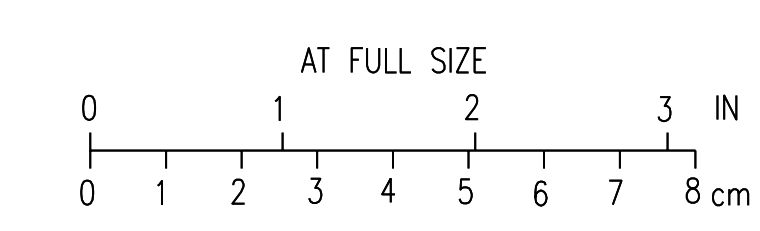
CADD: D1-R4



- NOTES:**
1. INSTALL 72" ID RCP AT INVERT ELEVATION OF 632.6 FT. CUT EXISTING REINFORCING AS NEEDED TO SET PIPE IN REQUIRED LOCATION. CONTRACTOR TO ENSURE WATER TIGHTNESS OF FINAL PRODUCT.
 2. INSTALL 60" ID DUCTILE IRON PIPE AT INVERT ELEVATION OF 634.8 FT. CUT EXISTING REINFORCING AS REQUIRED TO SET PIPE IN REQUIRED LOCATION. CONTRACTOR TO ENSURE WATER TIGHTNESS OF FINAL PRODUCT.

SEE RFI #213 SHEET S602A-A

OVERALL PLAN @ EL 643'-6"
SCALE: 3/16" = 1'-0"



2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

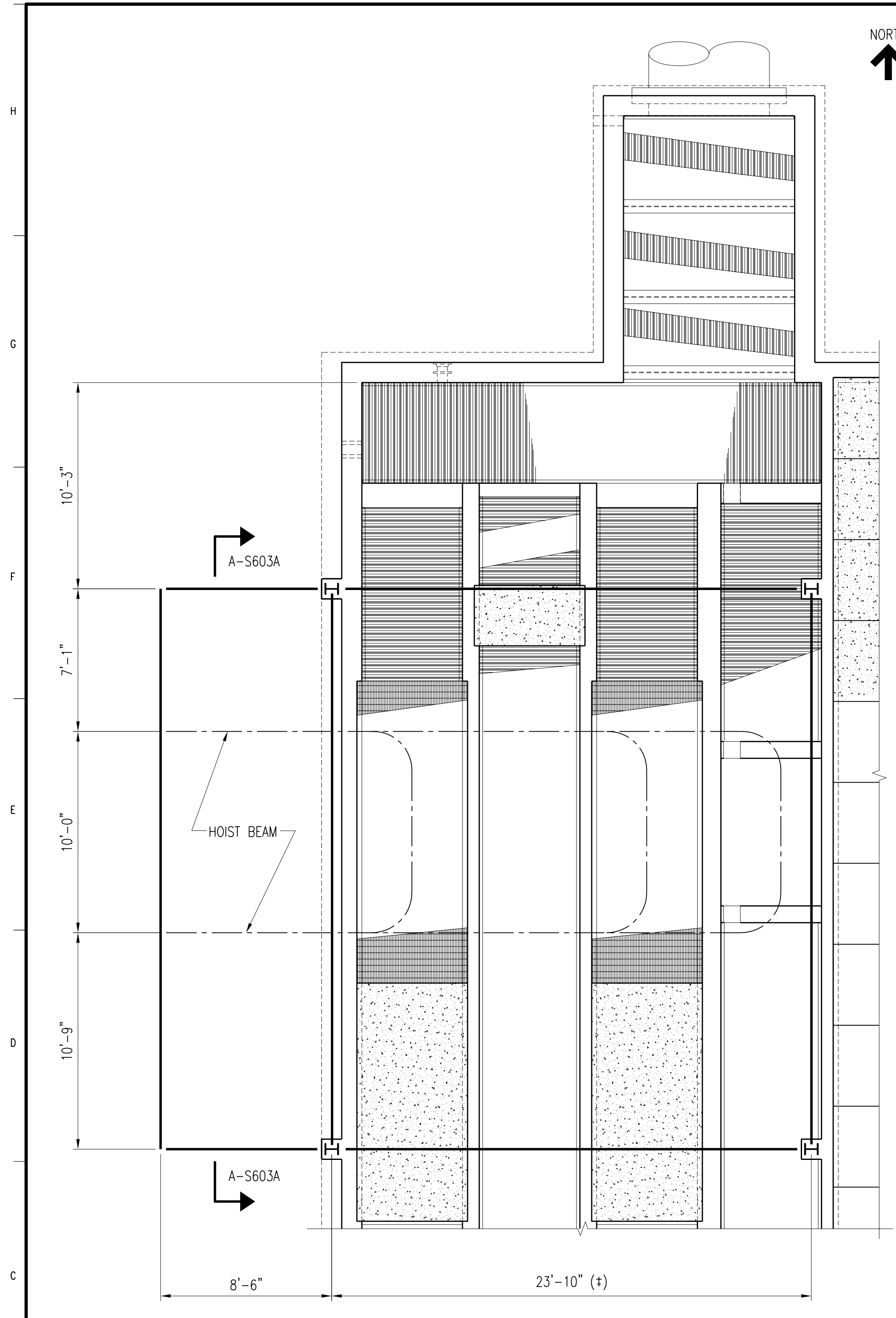
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**DISINFECTION TANKS AREA - OPTION B
UV AND EFFLUENT WATER STORAGE TANKS
TOP PLAN - SHEET 1**

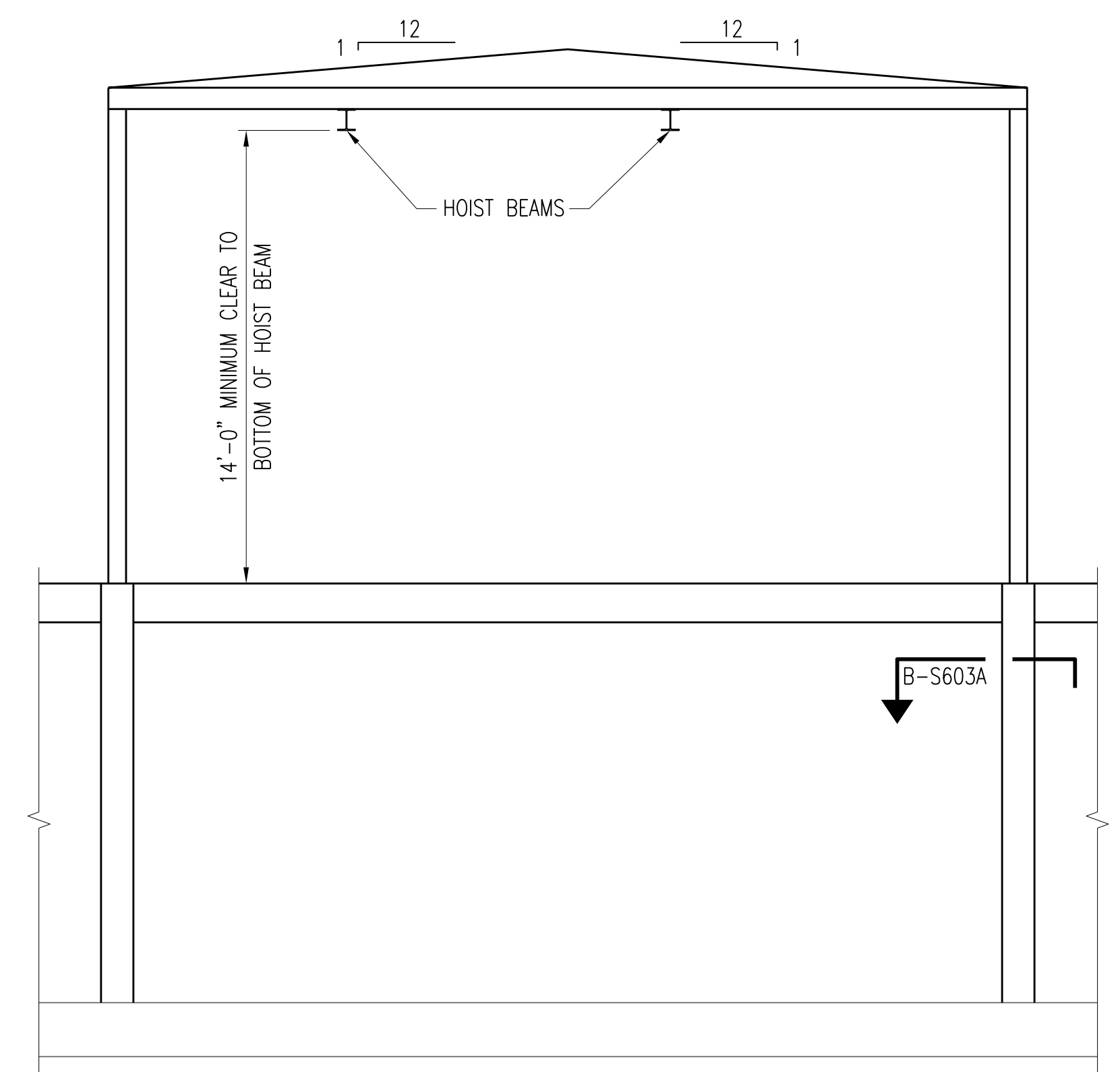
DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	RT THOMS	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
APPROVED			
DATE	DECEMBER 2, 2011	S602A	2

CADD: D1-R4

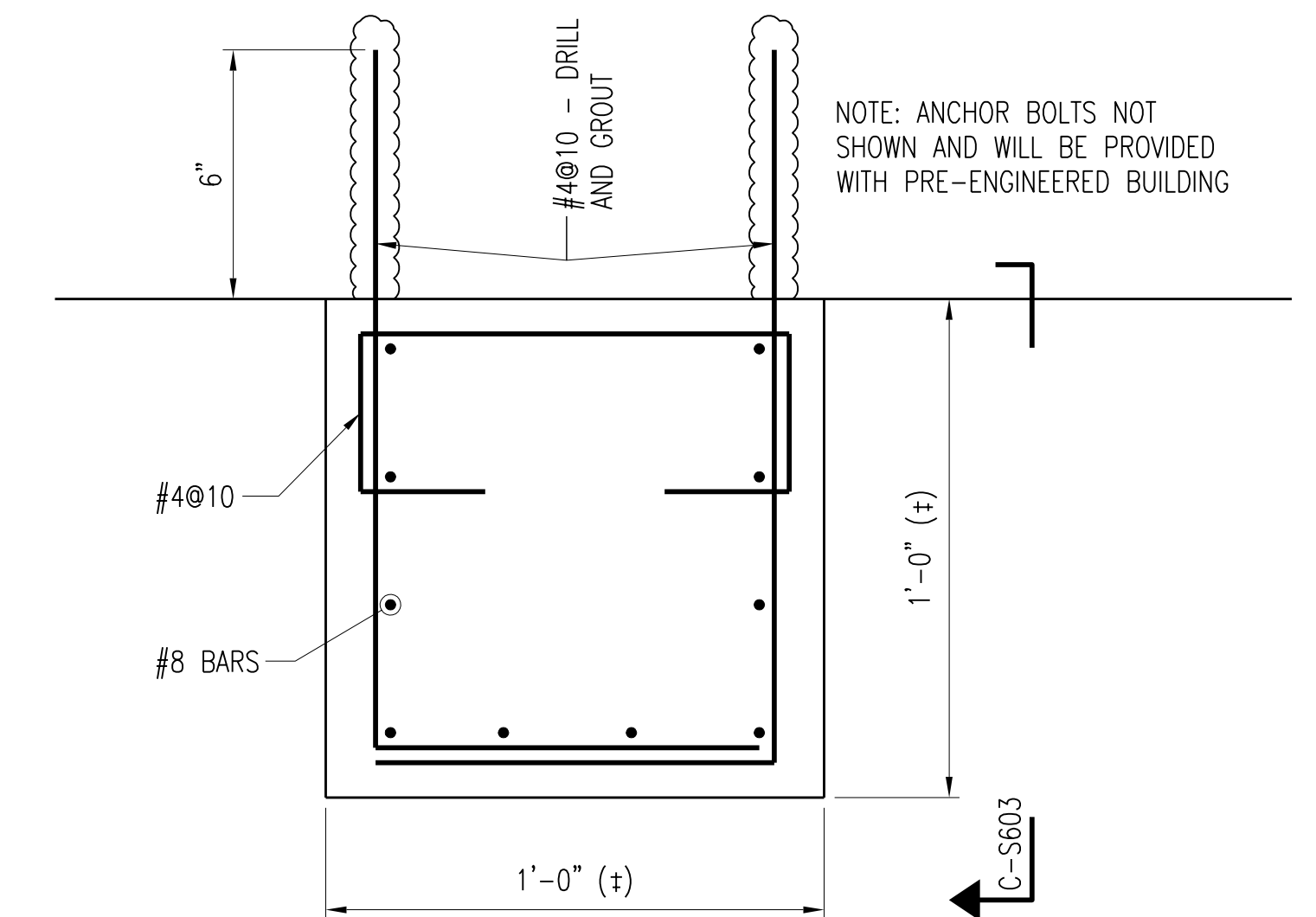


PRE-ENGINEERED BLG PLAN
SCALE: 1/4" = 1'-0"

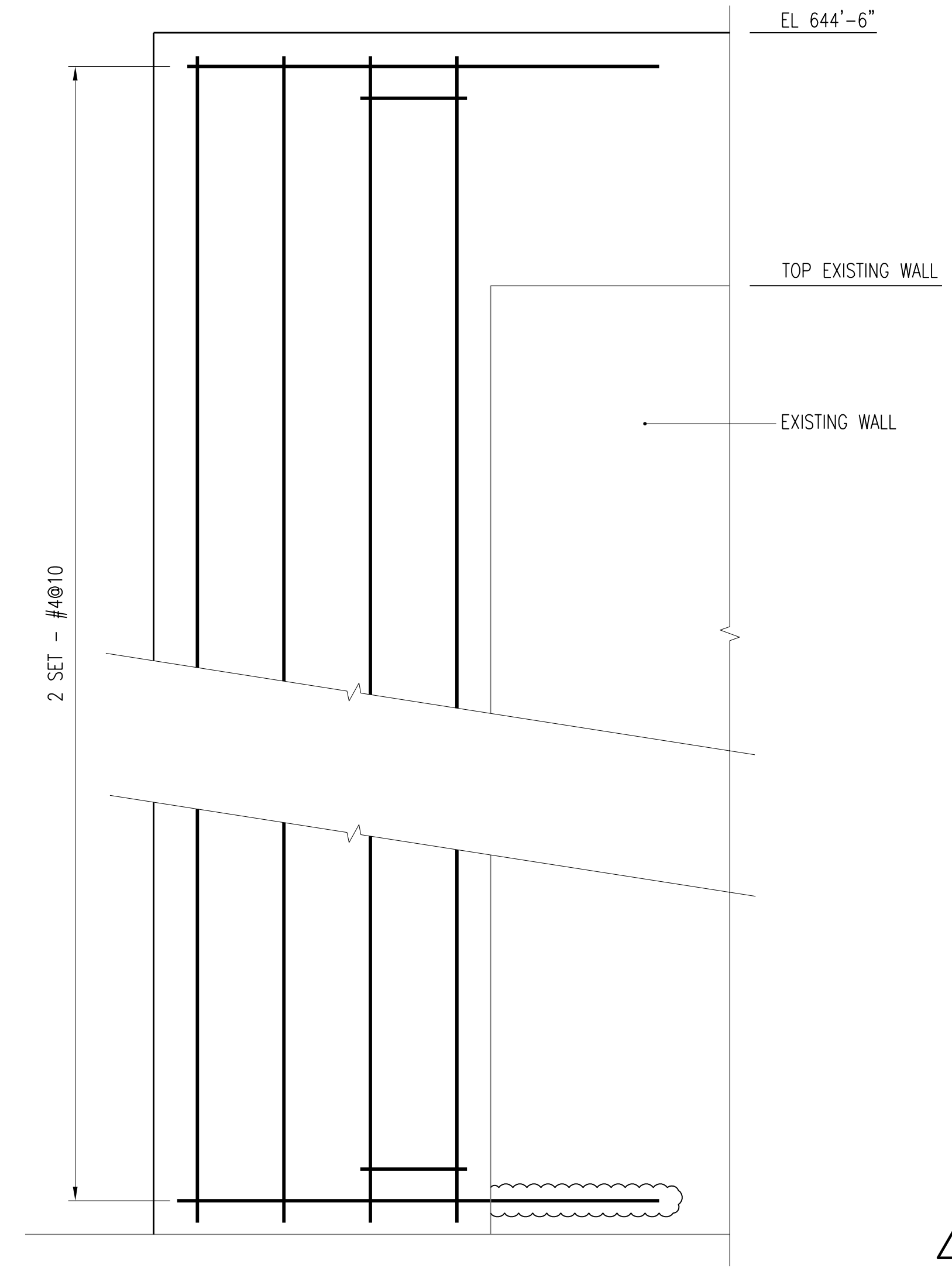
SEE RFI #19 SHEET S603A-A



SECTION A-S603A
SCALE: 1/4" = 1'-0"



SECTION B-S603A
SCALE: 3" = 1'-0"



SECTION C-S603A
SCALE: 3" = 1'-0"

- NOTES:**
- COORDINATE FINAL DIMENSIONS, ELEVATIONS AND DETAILS WITH BUILDING MANUFACTURER DRAWINGS.
 - REFER TO STANDARD STRUCTURAL NOTES AND DETAILS FOR STANDARD DETAILS AND ADDITIONAL REQUIREMENTS.
 - DIMENSIONS NOTED (+) MAY BE VARIED FOR METAL BUILDING MANUFACTURE STANDARD CONSTRUCTION.
 - PILASTERS SUPPORTING BUILDING COLUMN WILL ACCEPT A 2000 POUND VERTICAL LOAD AND A 1000 POUND HORIZONTAL LOAD.
 - ORIENTATION OF BUILDING COLUMNS MAY BE ADJUSTED TO FIT METAL BUILDING SYSTEM PROVIDED.

- METAL BUILDING SYSTEM NOTES:**
- OUT-TO-OUT BUILDING DIMENSIONS SHALL BE AS INDICATED. THE CONTRACTOR SHALL COORDINATE COLUMN, BASE PLATE AND ANCHOR BOLT REQUIREMENTS WITH THE BUILDING MANUFACTURER. ANY DISCREPANCIES OR CONFLICTS SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE IMMEDIATELY.
 - LATERAL BRACING OF THE BUILDING SHALL BE BY SIDEWALL BRACING OR OTHER METHODS AS DETERMINED BY BUILDING MANUFACTURER. CLEAR OPENINGS IN THE NORTH AND SOUTH WALLS SHALL BE 7'-6". CLEAR OPENINGS IN THE EAST AND WEST WALLS SHALL CLEAR EQUIPMENT REMOVAL BY 2'-0".
 - METAL BUILDING SYSTEMS SHALL CONFORM TO THE REQUIREMENTS OF THE MBMA METAL BUILDING SYSTEMS MANUAL AND SPECIFICATIONS 13 14 19 - METAL BUILDING SYSTEMS.
 - HOIST BEAM SHALL BE PROVIDED BY AND DESIGNED BY THE METAL BUILDING MANUFACTURER TO HANDLE A 1/2 TON HOIST.

▲ METAL BUILDING SYSTEM NOTES: CHANGE NOTE 3 TO REFERENCE SPECIFICATION SECTION 13 34 19.

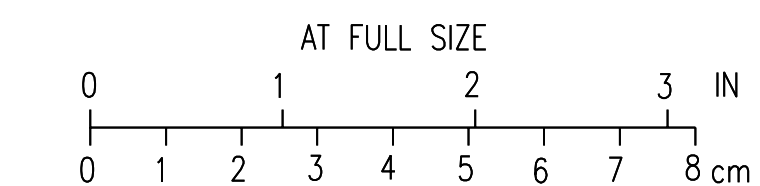
SEE RFI #025 SHEET S603A-A

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	ADDED ADDENDUM COMMENTS	LJO	JBL	JBL	05-04-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

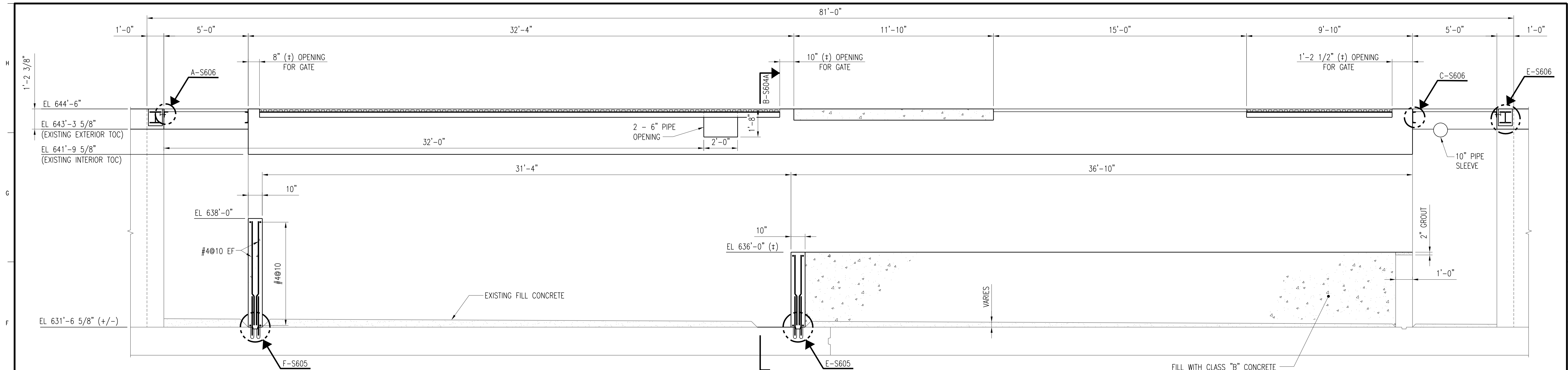
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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

DISINFECTION TANKS AREA - OPTION B
PRE-ENGINEERED BUILDING
PLAN AND DETAILS

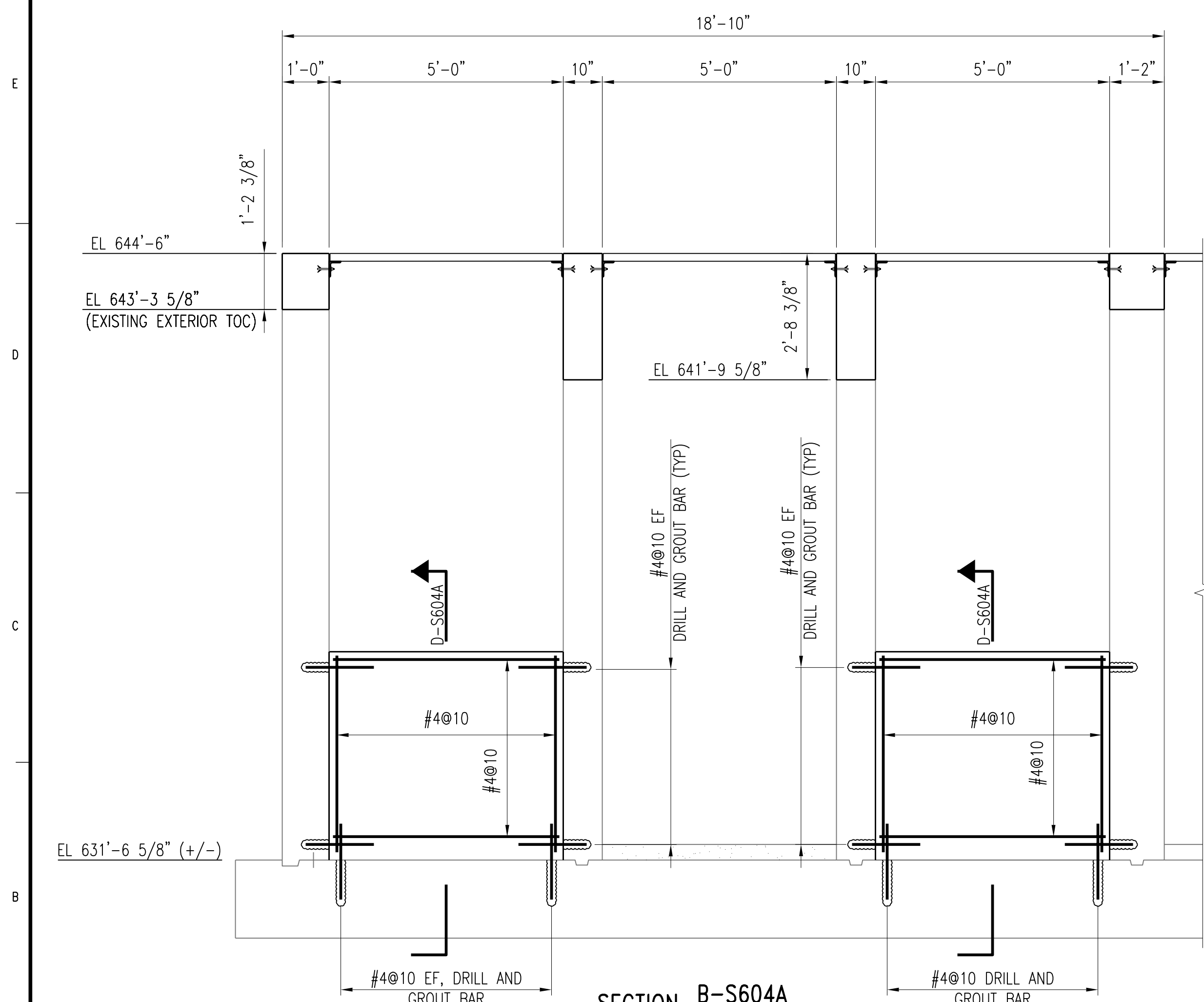
DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	RT THOMS	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
APPROVED			
DATE	DECEMBER 2, 2011	S603A	3



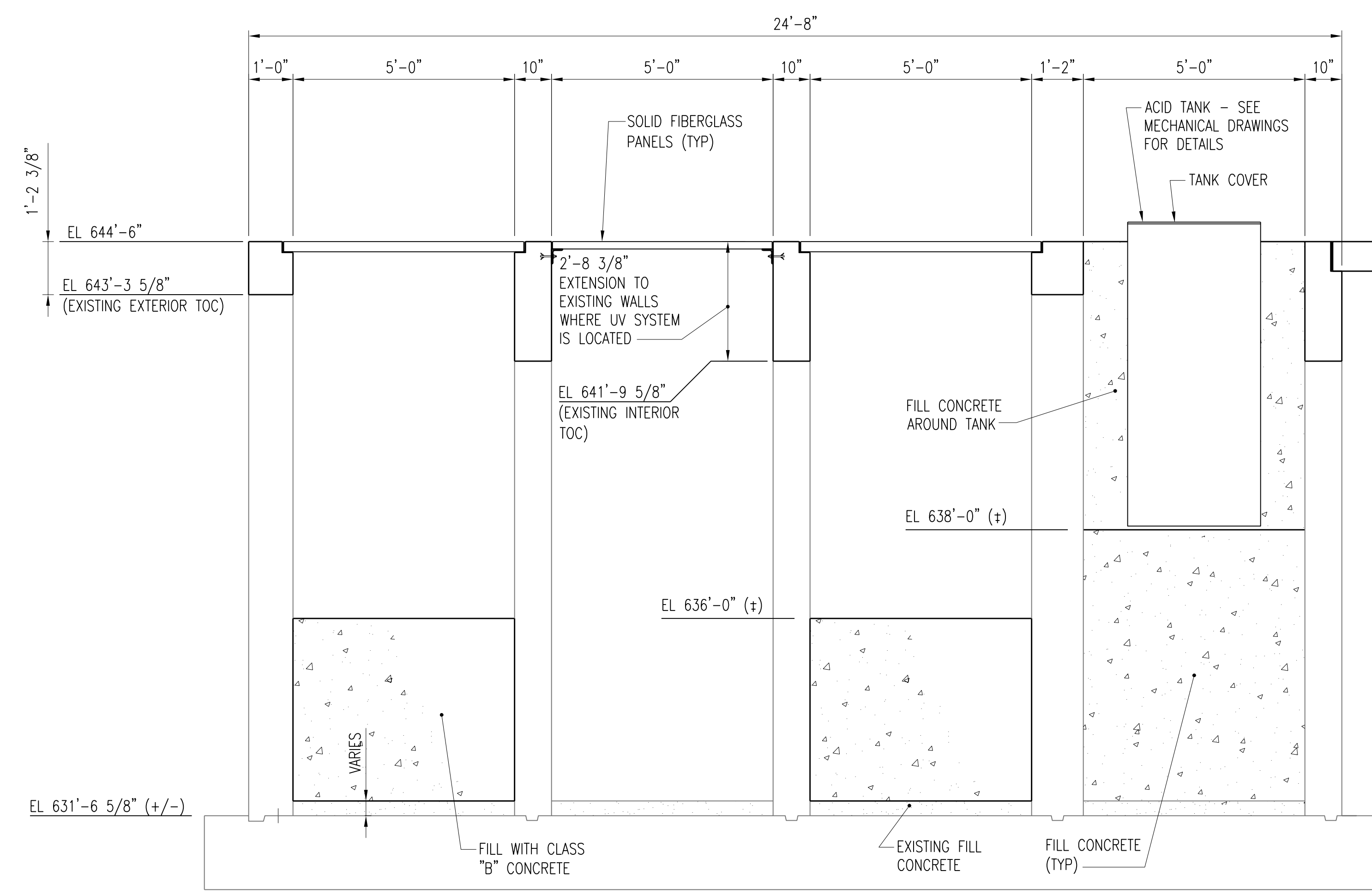
CADD: D1-R4



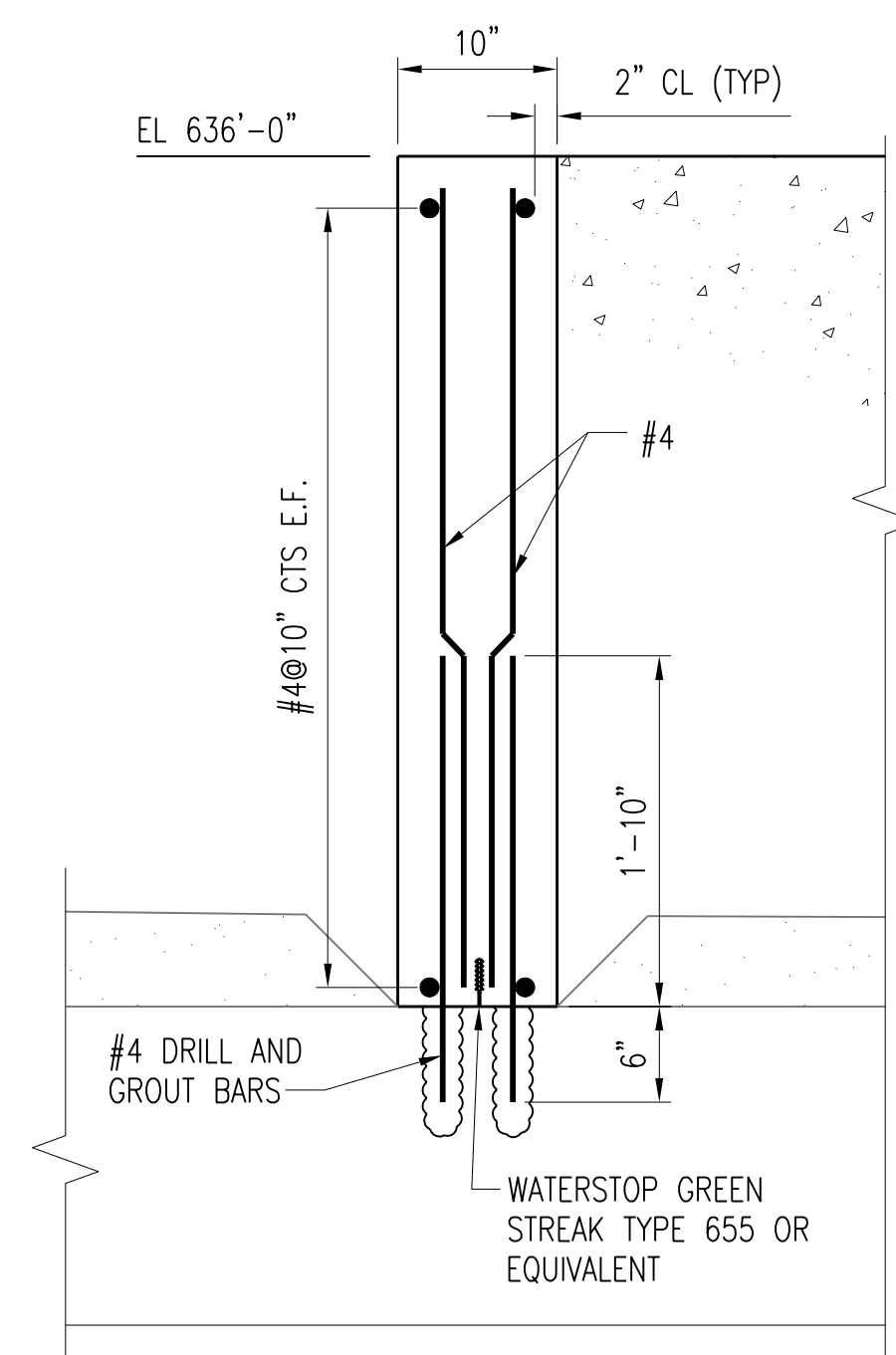
SECTION A-S604A
S601A, S602A
SCALE: 3/8" = 1'-0"



SECTION B-S604A
S604A
SCALE: 1/2" = 1'-0"

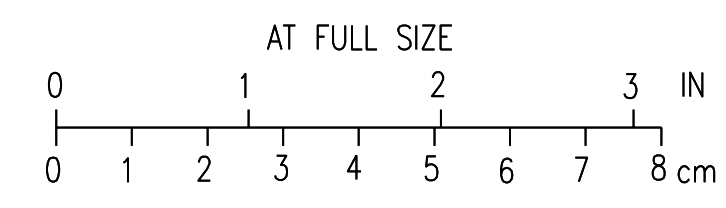


SECTION C-S604A
S601A, S602A
SCALE: 1/2" = 1'-0"



SECTION D-S604A
S604A
SCALE: 1/2" = 1'-0"

- NOTES:**
- FOR WALL EXTENSION DETAILS SEE SHEET S-602.
 - WATER STOP SHALL BE GREEN STREAK TYPE 655 OR EQUIVALENT FOR AREAS WHERE WALL MODIFICATION WILL NOT BE CONSTANTLY IN CONTACT WITH WATER. FOR WALL MODIFICATIONS THAT WILL BE CONSTANTLY IN CONTACT WITH WATER, BETONITE WATER SEALS ARE PERMISSIBLE.



1	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
0	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

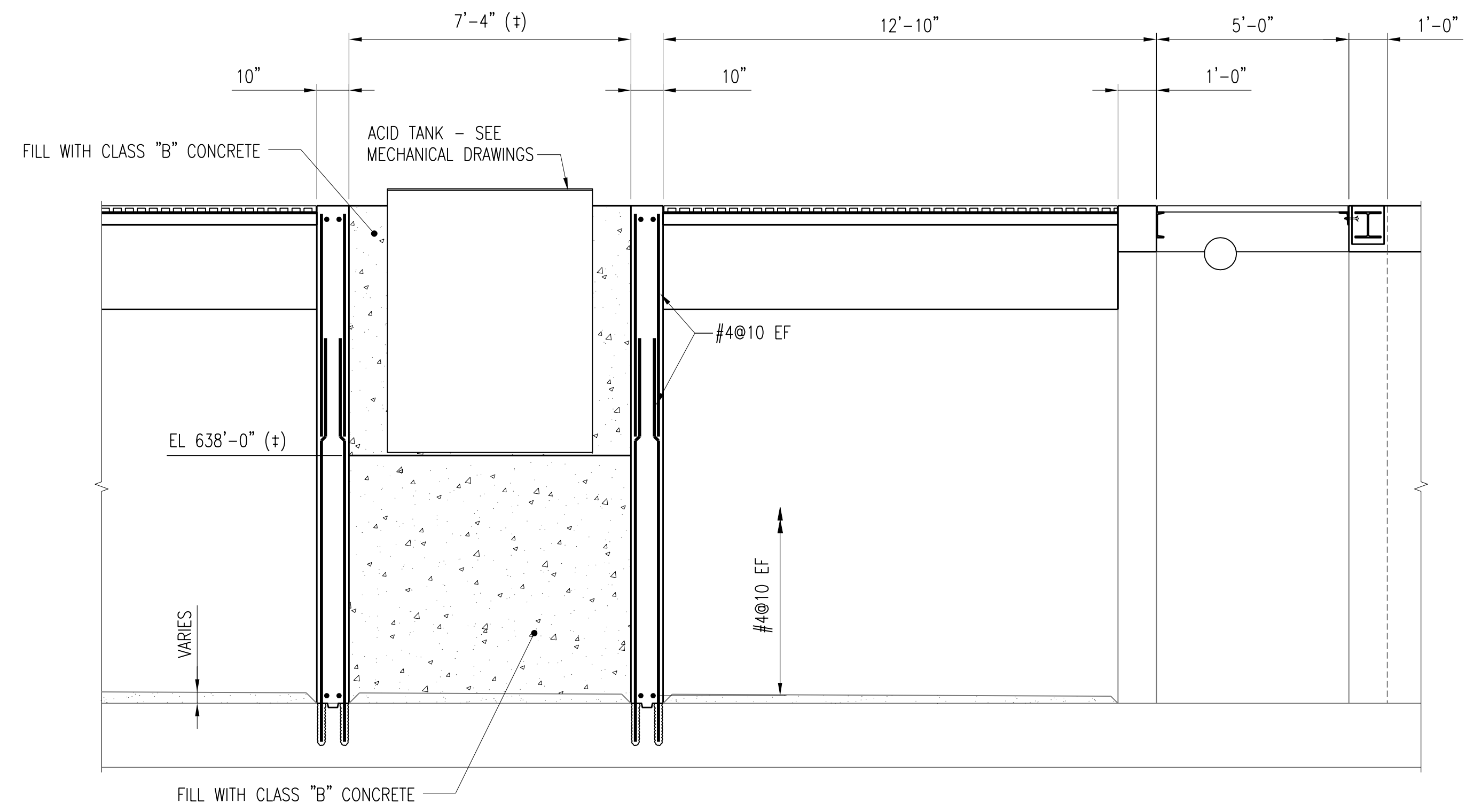
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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**DISINFECTION TANKS AREA - OPTION B
DETAILS - SHEET 1**

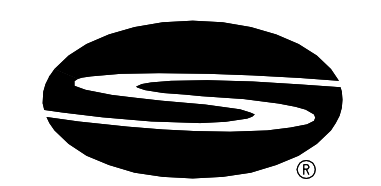
DESIGNED	KB HALL	SCALE: AS NOTED
DRAWN	RT THOMS	NO. 22800
CHECKED	KB HALL	REV.
APPROVED	LH BADTRAM	S604A
APPROVED		1
DATE	JANUARY 10, 2012	

CADD: D1-R4



SECTION **A-S605A**
 S601A, S602A
 SCALE: 3/8" = 1'-0"

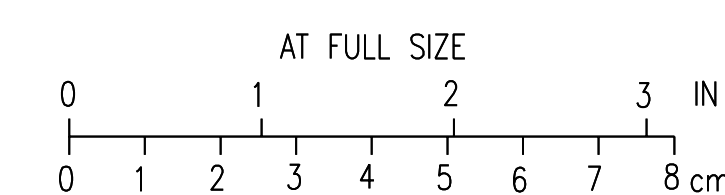
1	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
0	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



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DISINFECTION TANKS AREA - OPTION B
DETAILS - SHEET 2

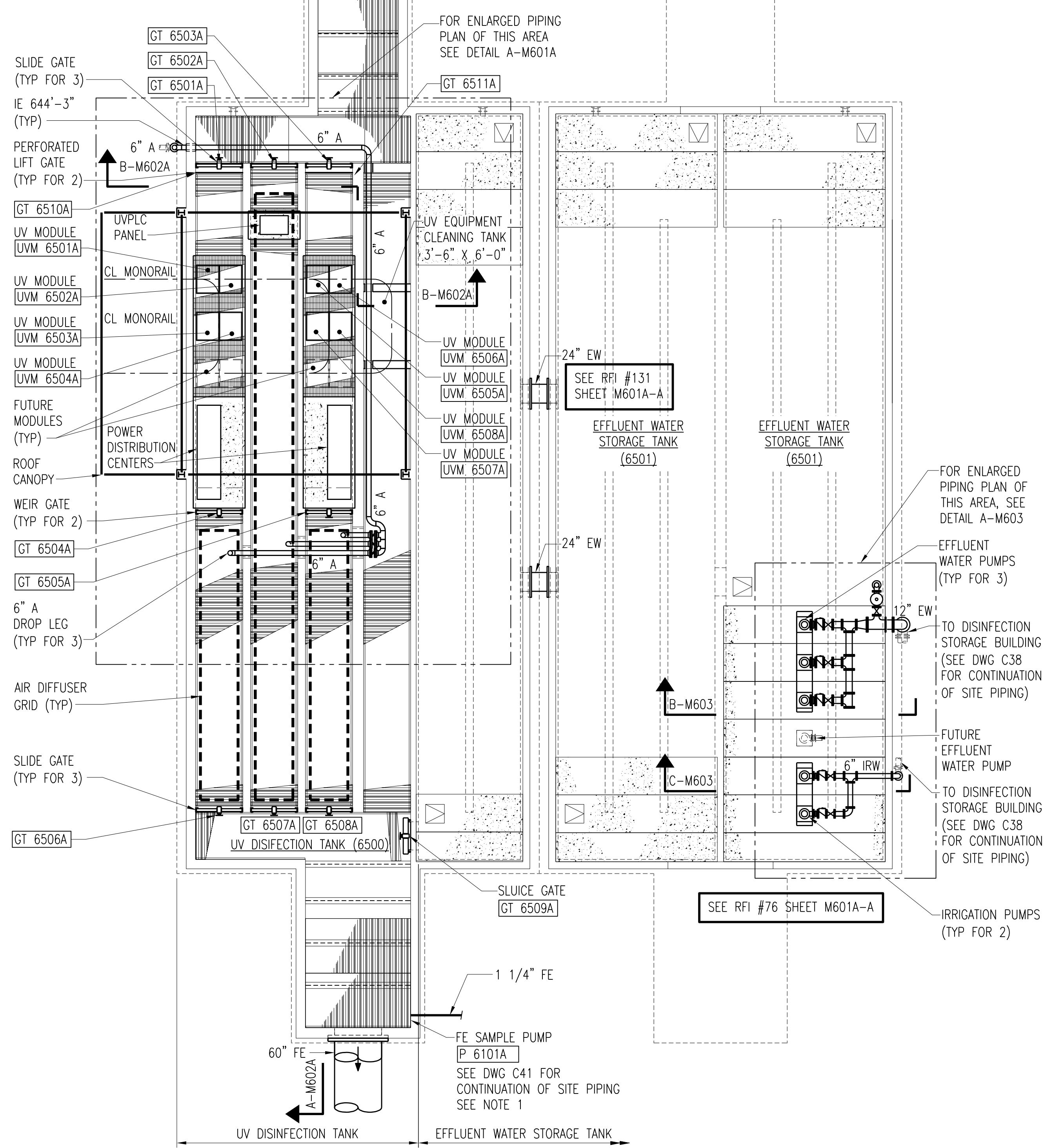
DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	RT THOMS	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
APPROVED		S605A	1
DATE	JANUARY 10, 2012		



NOTES:
 1. CITY TO INSTALL EXISTING FE SAMPLE PUMP.

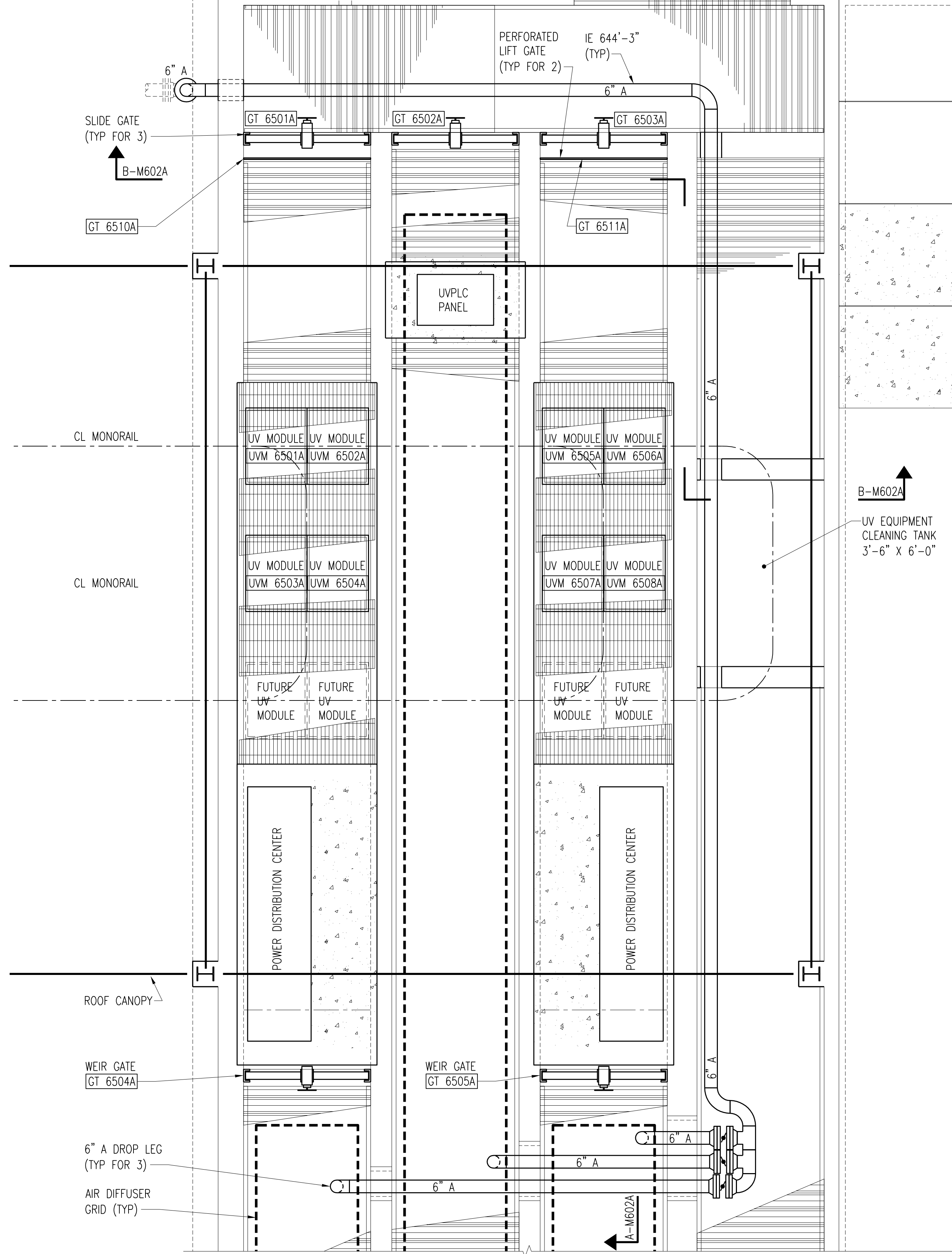
SEE ITC #19 SHEET M601A-A
 SEE RFI #168 SHEET S605A-A

NORTH
 ↑

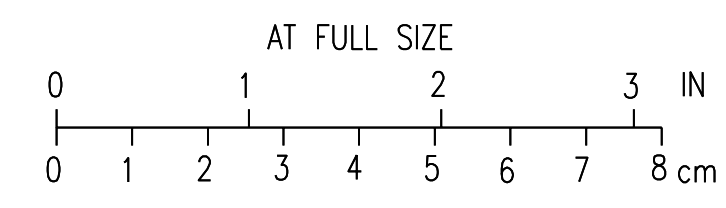


UV DISINFECTION AND EFFLUENT WATER STORAGE TANKS MECHANICAL PLAN
 SCALE: 1/8" = 1'-0"

SEE RFI #47 SHEET M601A-A



ENLARGED PIPING PLAN



SEE RFI #25 SHEET M601A-A

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	MA	MA	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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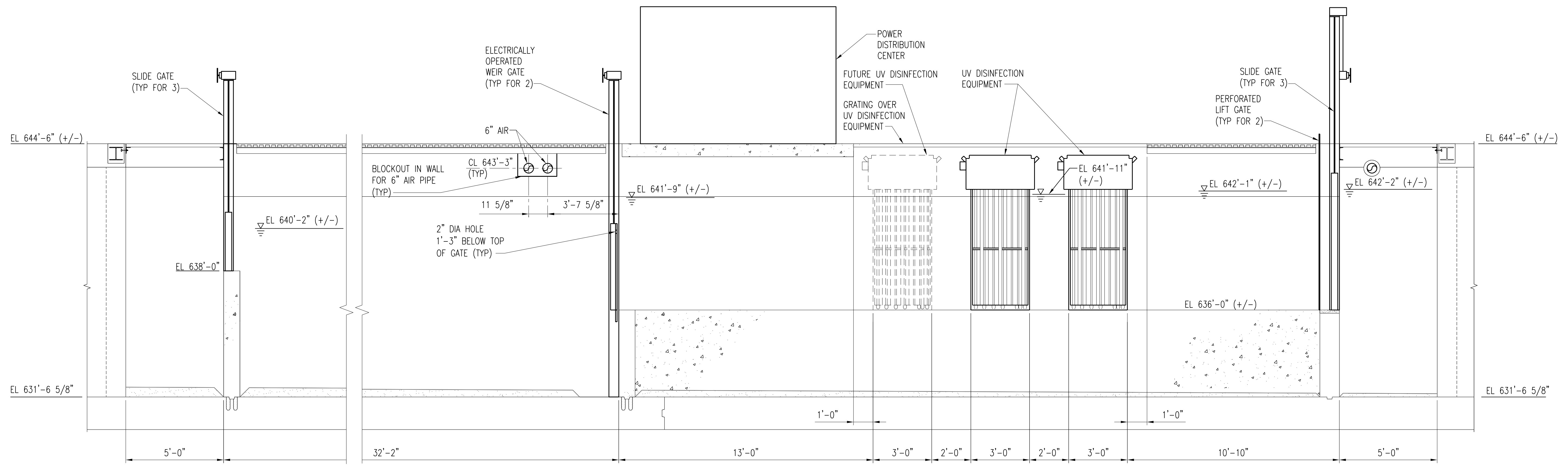
CITY OF IOWA CITY, IOWA
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**DISINFECTION TANKS AREA - OPTION B
 UV AND EFFLUENT WATER STORAGE TANKS
 PROCESS PIPING PLANS**

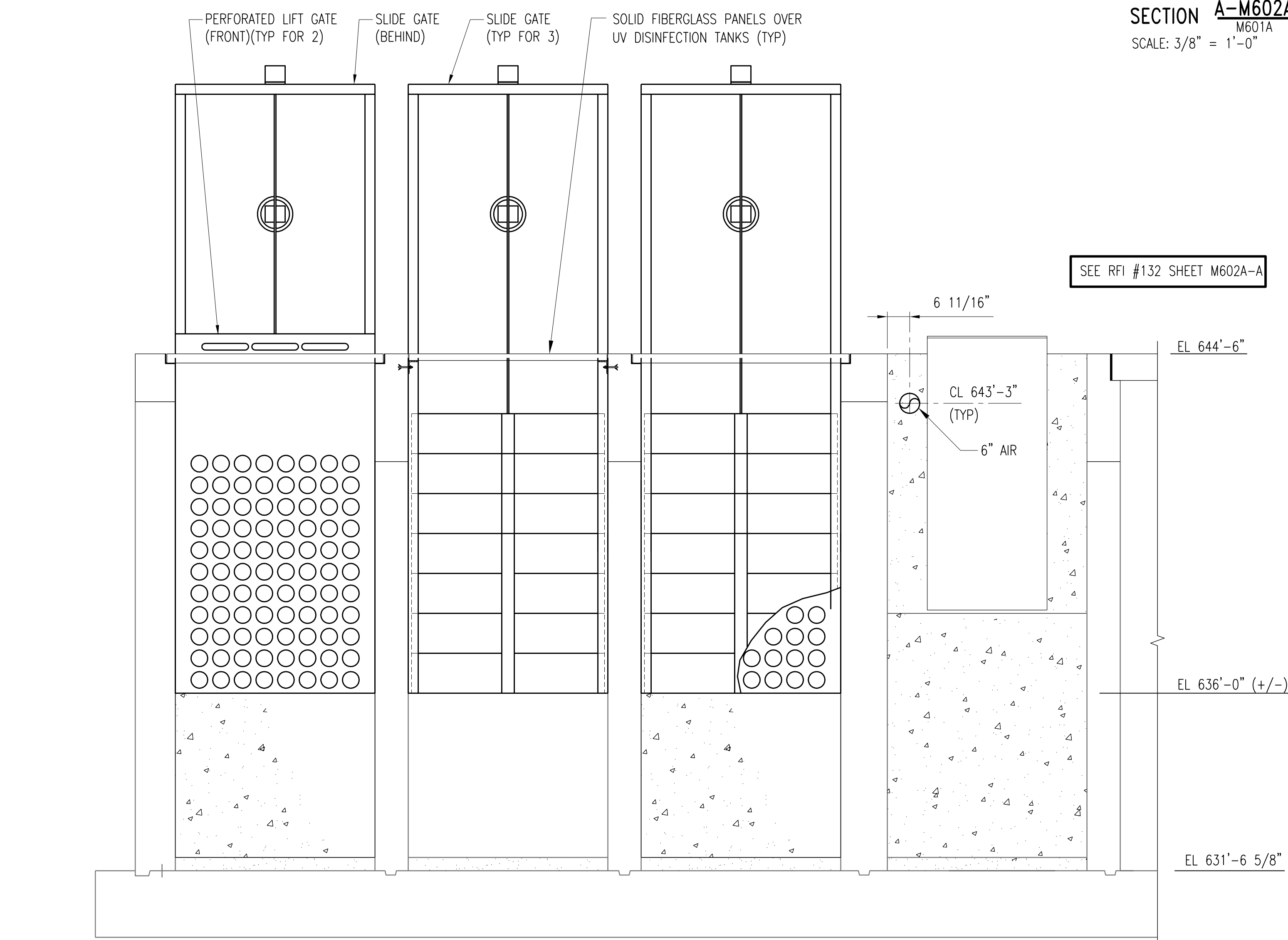
DESIGNED	M. AKYUREK	SCALE:	AS NOTED
DRAWN	DA. SCHMIDT	NO.	22800
CHECKED	M. AKYUREK	REV.	
APPROVED	JM. BRADY		
APPROVED			
DATE	DECEMBER 2, 2011		

M601A 2

CADD: D1-1-R4



SECTION **A-M602A**
M601A
SCALE: 3/8" = 1'-0"



SECTION **B-M602A**
M601A
SCALE: 1/2" = 1'-0"

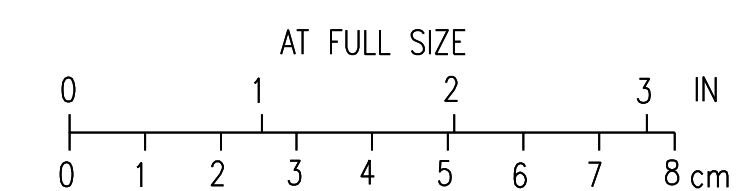
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	MA	MA	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

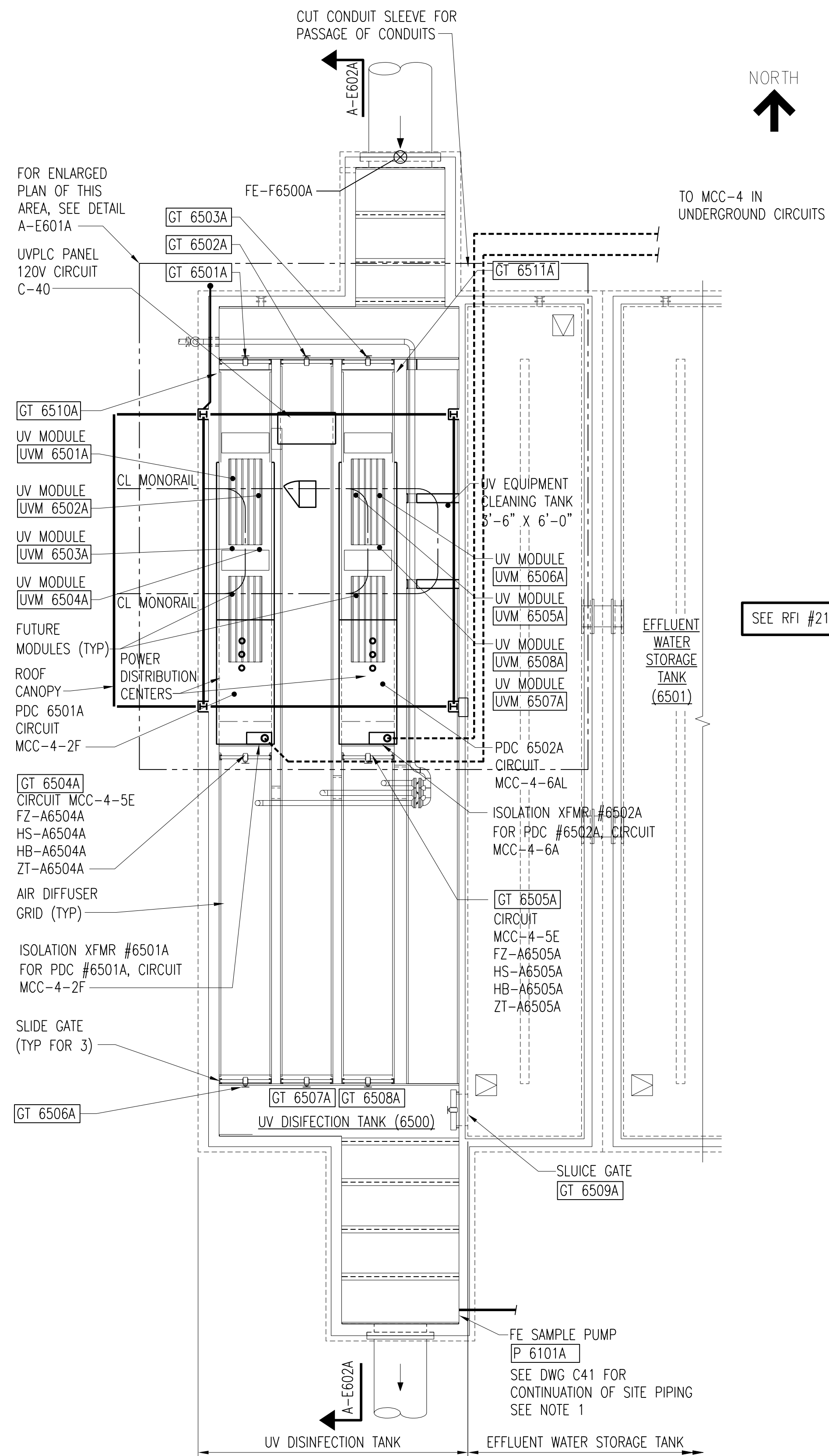

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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

DISINFECTION TANKS AREA - OPTION B
UV TANKS
PROCESS PIPING SECTIONS

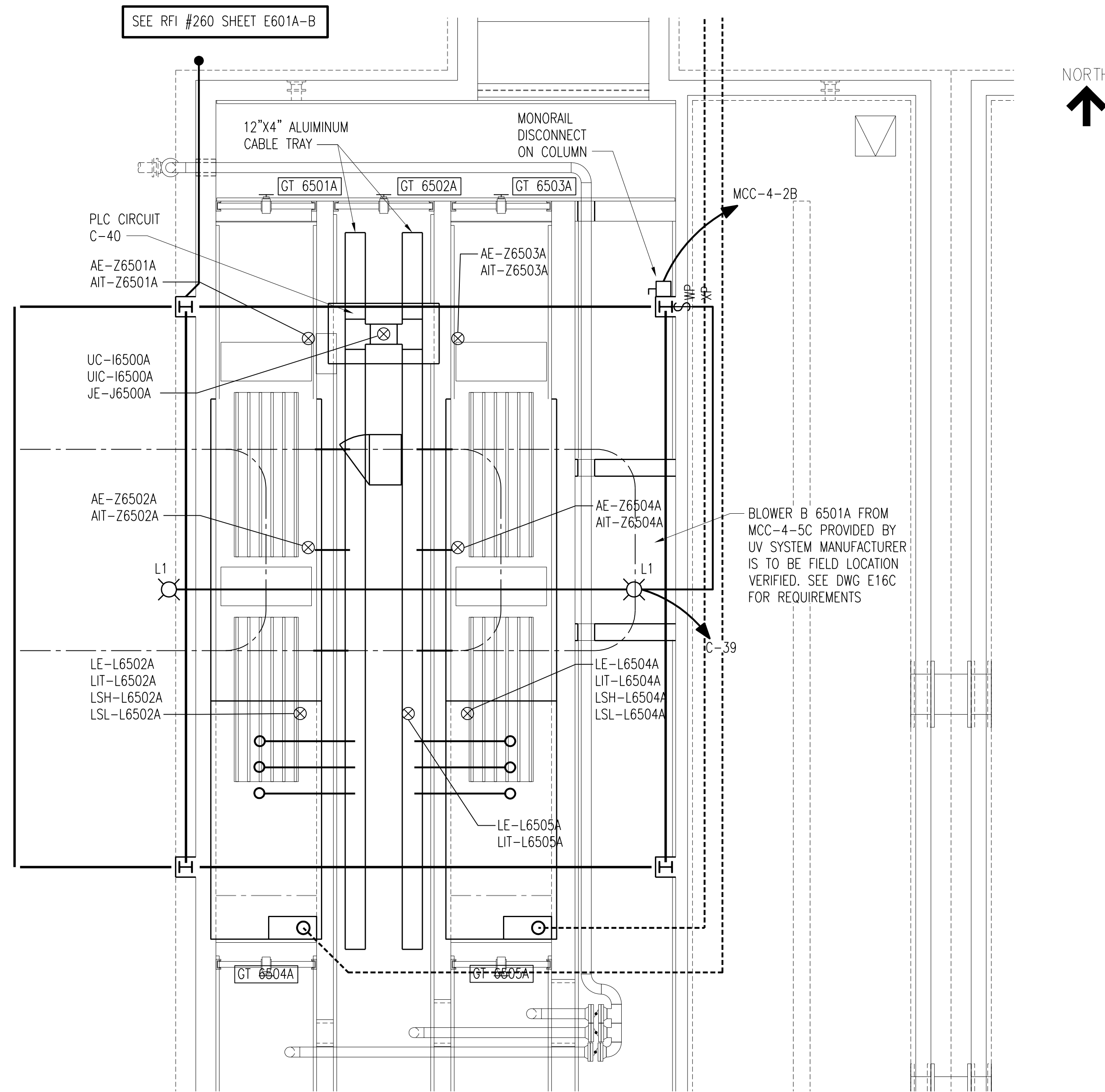
DESIGNED	M. AKYUREK	SCALE:	AS NOTED	REV. M602A 2
DRAWN	DA. SCHMIDT	NO.	22800	
CHECKED	M. AKYUREK	DATE	DECEMBER 2, 2011	
APPROVED	JM. BRADY			
DATE	DECEMBER 2, 2011			





UV DISINFECTION TANKS POWER PLAN

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

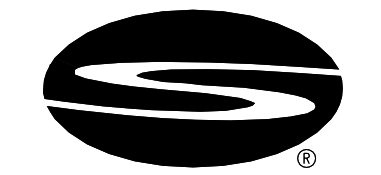


SECTION A-E601A

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

SEE RFI #25 SHEET E601A-A

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	GENERAL	DLM	DLM	JDC	01-25-2012
0	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

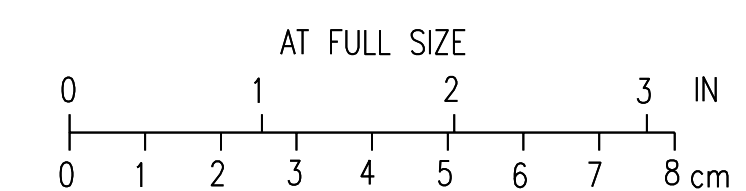


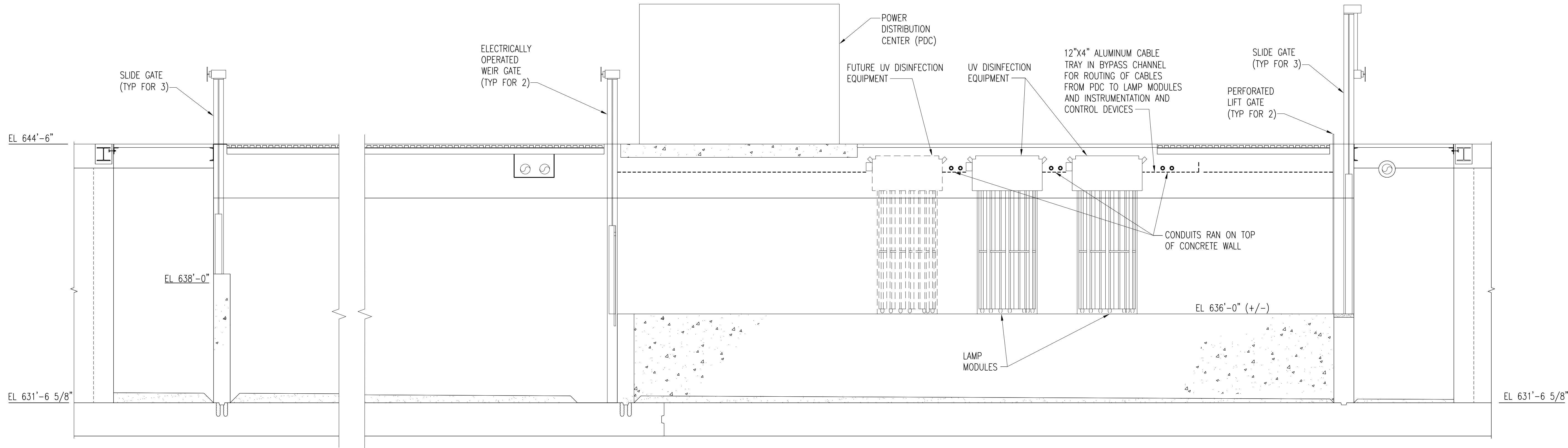
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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

DISINFECTION TANKS AREA - OPTION B
UV TANKS
POWER PLAN AND DETAILS

DESIGNED	DL MORITZ	SCALE: AS NOTED	
DRAWN	D. WILGES	NO. 22800	REV.
CHECKED	DL MORITZ		
APPROVED	JD COGAN		
APPROVED			
DATE	JANUARY 10, 2012	E601A	2





SECTION **A-E602A**
 E601A
 SCALE: 3/8" = 1'-0"

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	GENERAL	DLM	DLM	JDC	01-25-2012
0	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT
DISINFECTION TANKS AREA - OPTION B
UV TANKS
POWER DETAILS

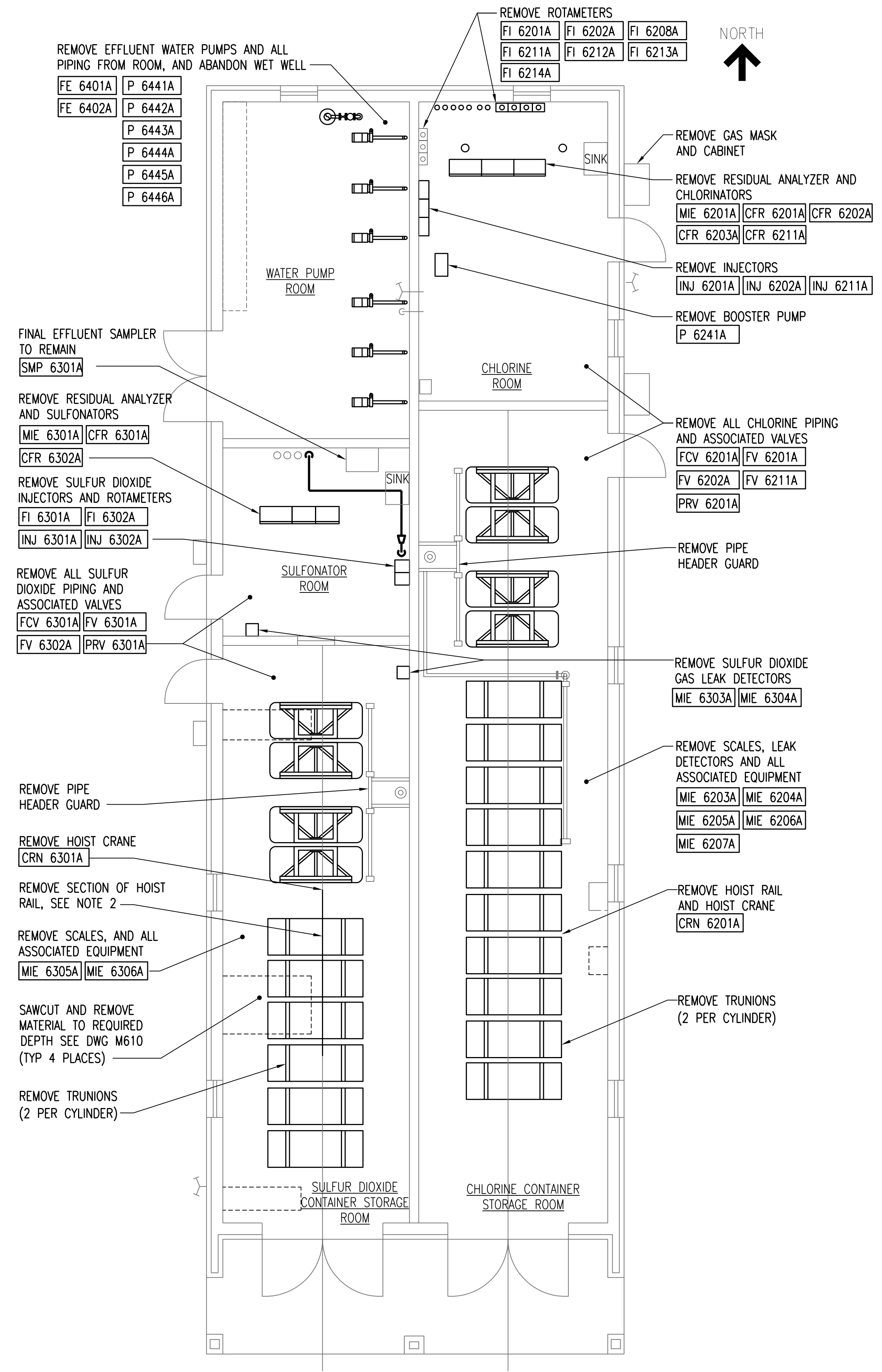
DESIGNED	DL MORITZ	SCALE:	AS NOTED
DRAWN	D. WILGES	NO.	22800
CHECKED	DL MORITZ	REV.	
APPROVED	JD COGAN		
APPROVED			
DATE	JANUARY 10, 2012		



CADD: D1-R4

BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE

- NOTES:**
- SEE DRAWINGS D12 - D16 FOR ELECTRICAL DEMOLITION.
 - AFTER INSTALLATION OF FILTERS SHOWN ON DRAWING M610, CUT AND REMOVE SECTION OF HOIST RAIL BACK TO 6" FROM ADJACENT SUPPORTS AND REMOVE HOIST CRANE.



DISINFECTANT STORAGE BUILDING FIRST FLOOR DEMO PLAN
SCALE: 3/16" = 1'-0"

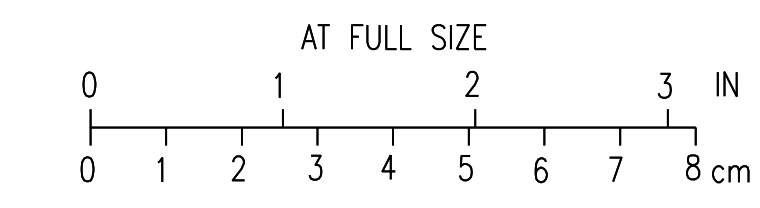
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	AMR	AMR	JBL	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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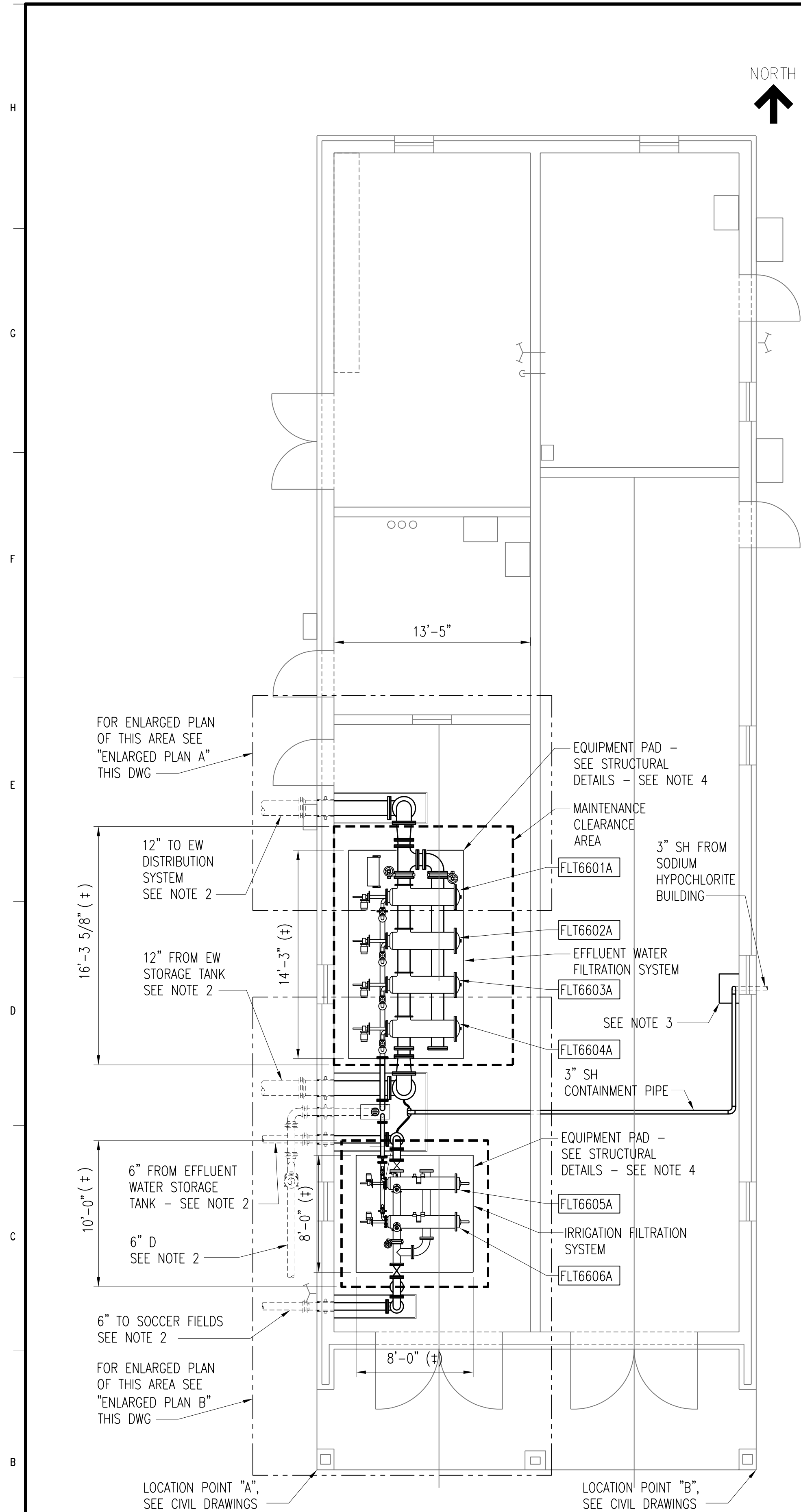
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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**DISINFECTANT STORAGE BUILDING
MECHANICAL DEMOLITION PLAN**

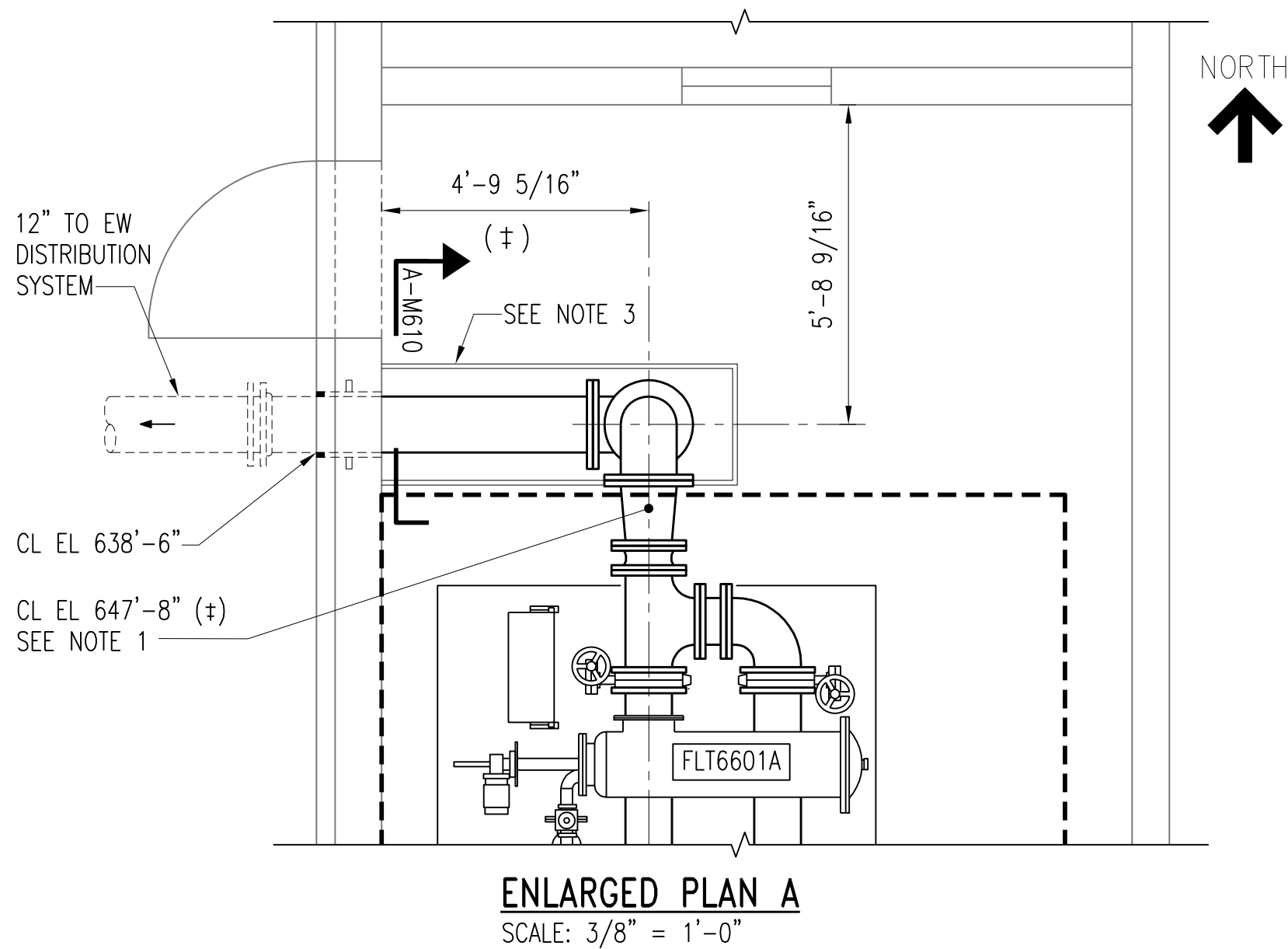
DESIGNED	AM ROMERO	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	AM ROMERO	REV.	
APPROVED	JBL LUND	D610	2
APPROVED			
DATE	DECEMBER 2, 2011		



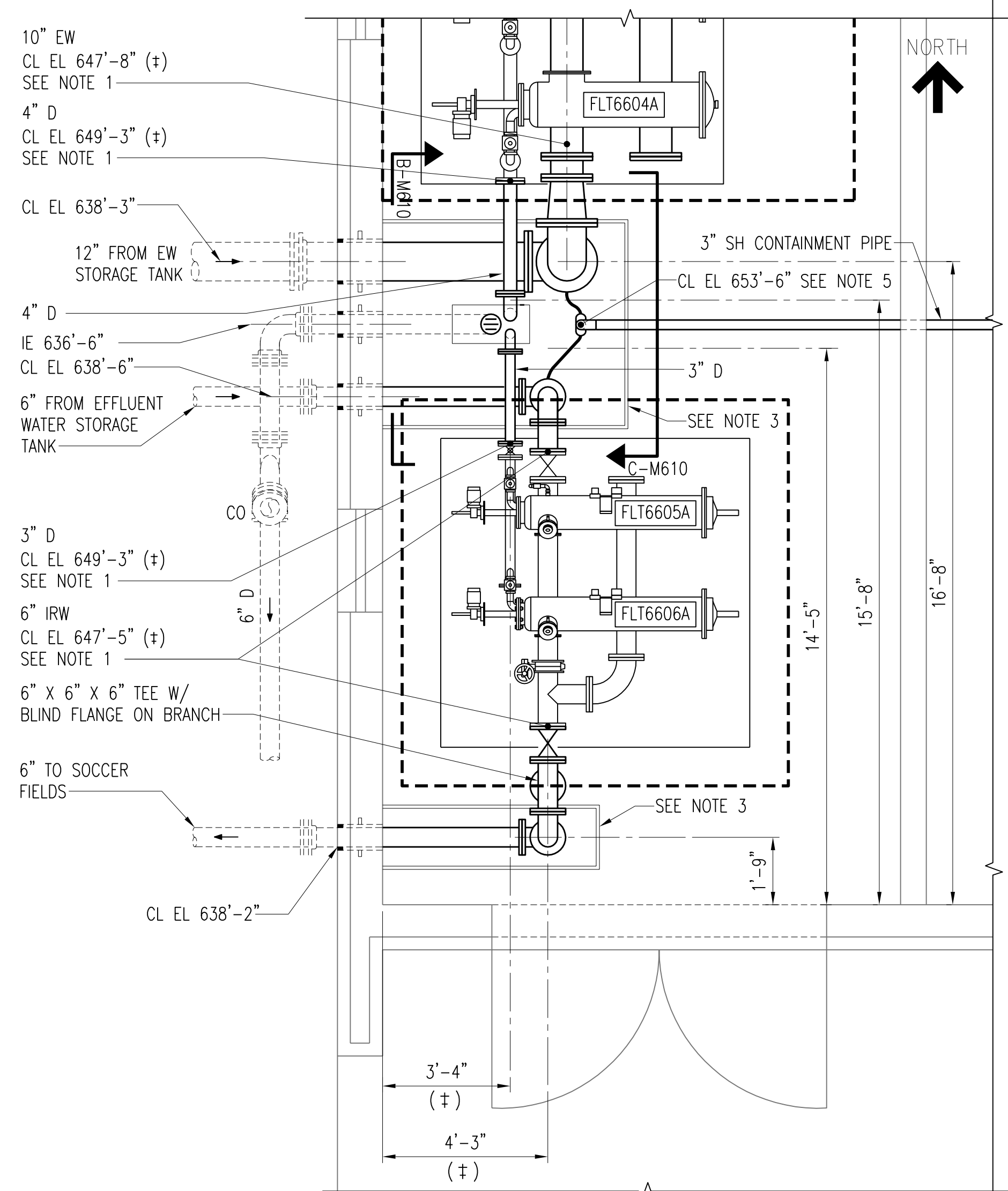
CADD: D1-1-R4



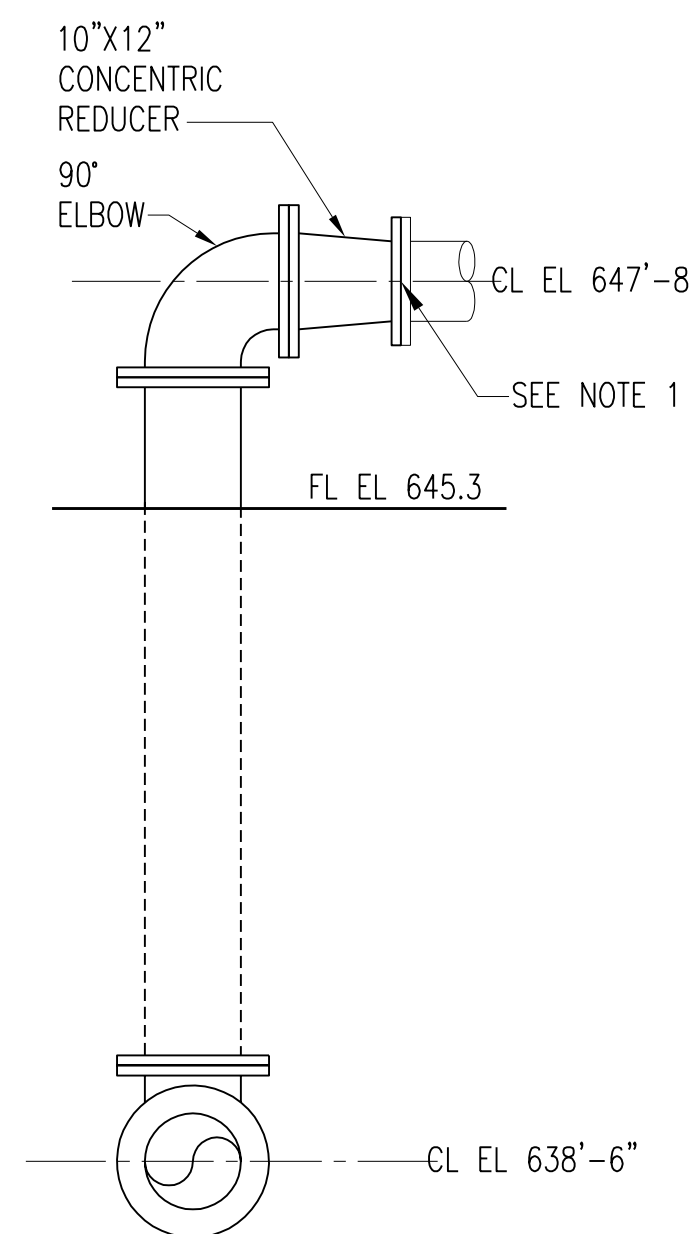
DISINFECTANT STORAGE BUILDING FIRST FLOOR MECHANICAL PLAN
SCALE: 3/16" = 1'-0"



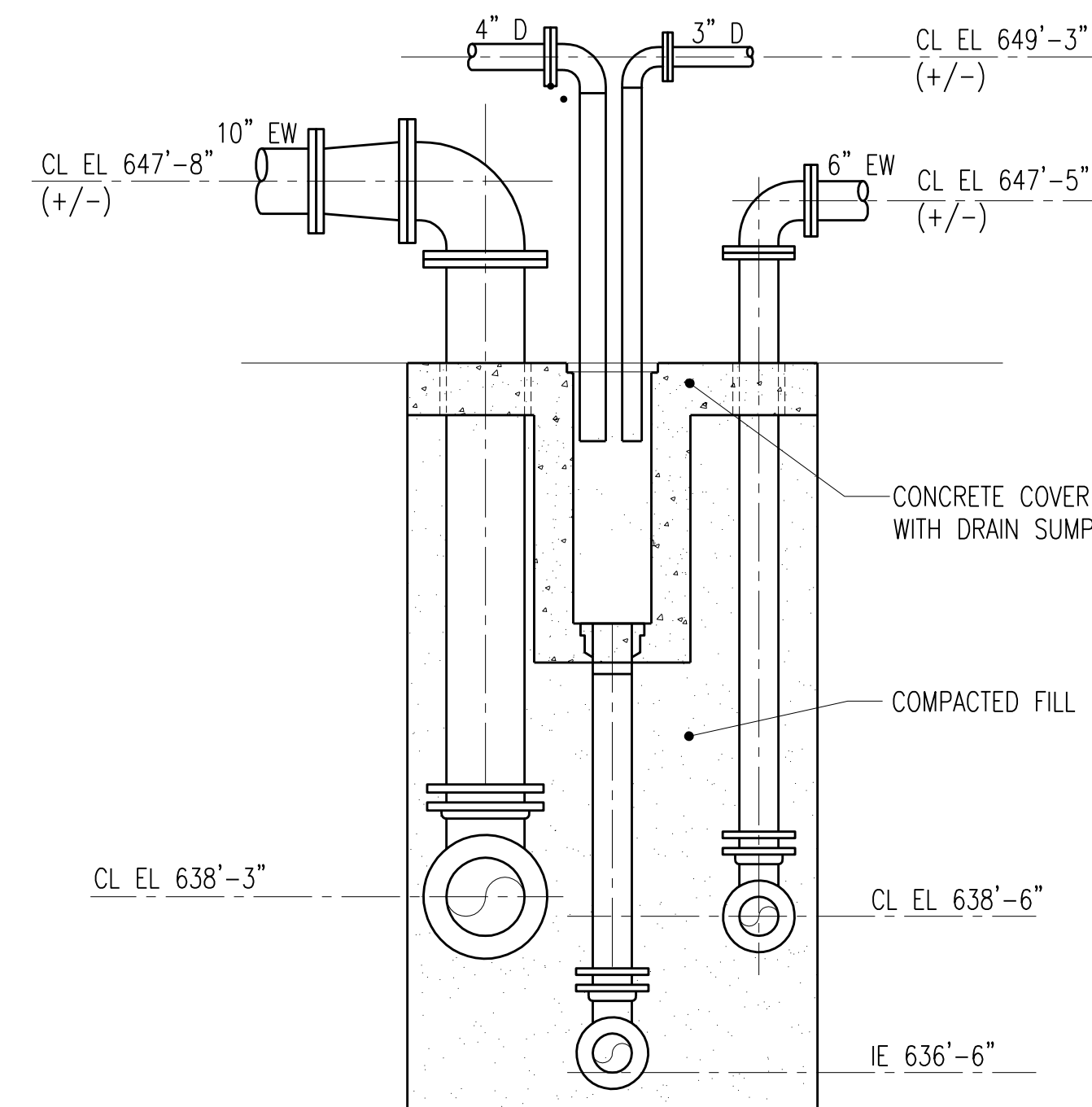
ENLARGED PLAN A
SCALE: 3/8" = 1'-0"



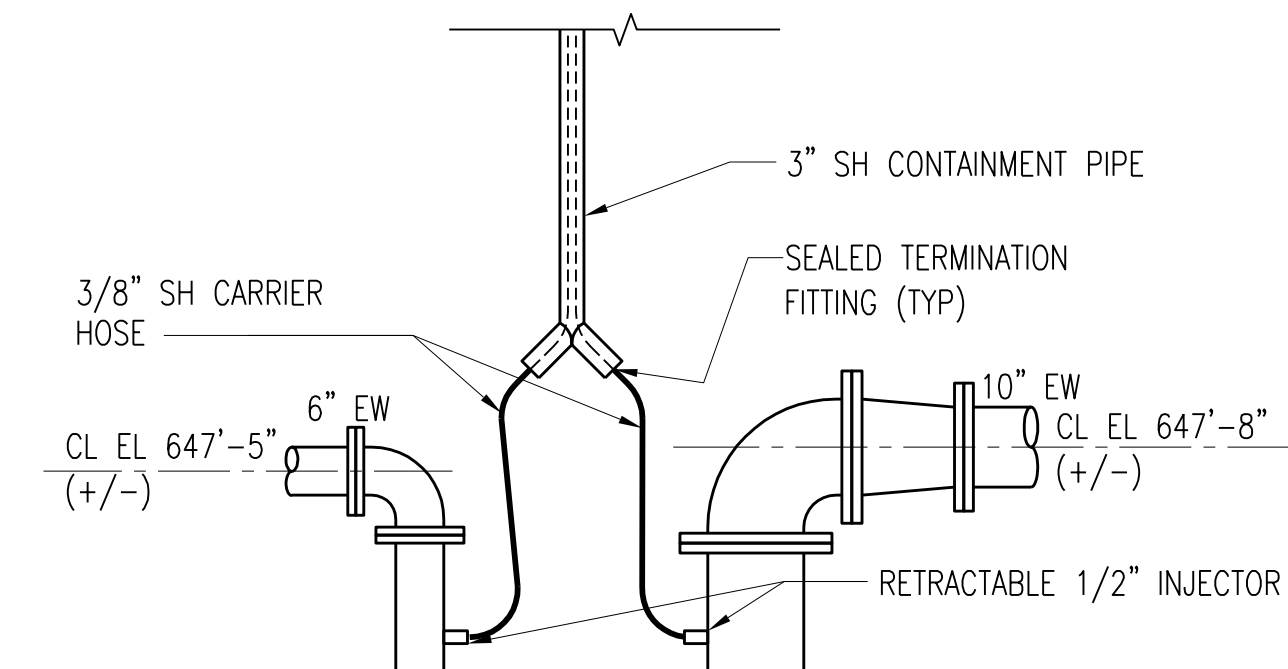
ENLARGED PLAN B
SCALE: 3/8" = 1'-0"



SECTION A-M610
SCALE: 1/2" = 1'-0"



SECTION B-M610
SCALE: 1/2" = 1'-0"



SECTION C-M610
SCALE: 1/2" = 1'-0"

NOTES:

1. TIE POINT TO PACKAGE EQUIPMENT.
2. SEE DRAWING C38 FOR CONTINUATION OF SITE PIPING.
3. SEE SIMILAR STRUCTURAL DETAILS H-S902 AND J-S902.
4. DIMENSIONS OF EQUIPMENT PAD SHALL BE MODIFIED TO FIT PURCHASED FILTER SYSTEM.
5. HIGH POINT IN SH CONTAINMENT PIPE. SLOPE DOWN TOWARD EAST AT 1/8" PER FT.

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	CLB	CLB	JBL/JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

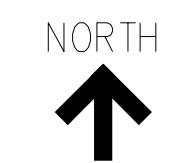
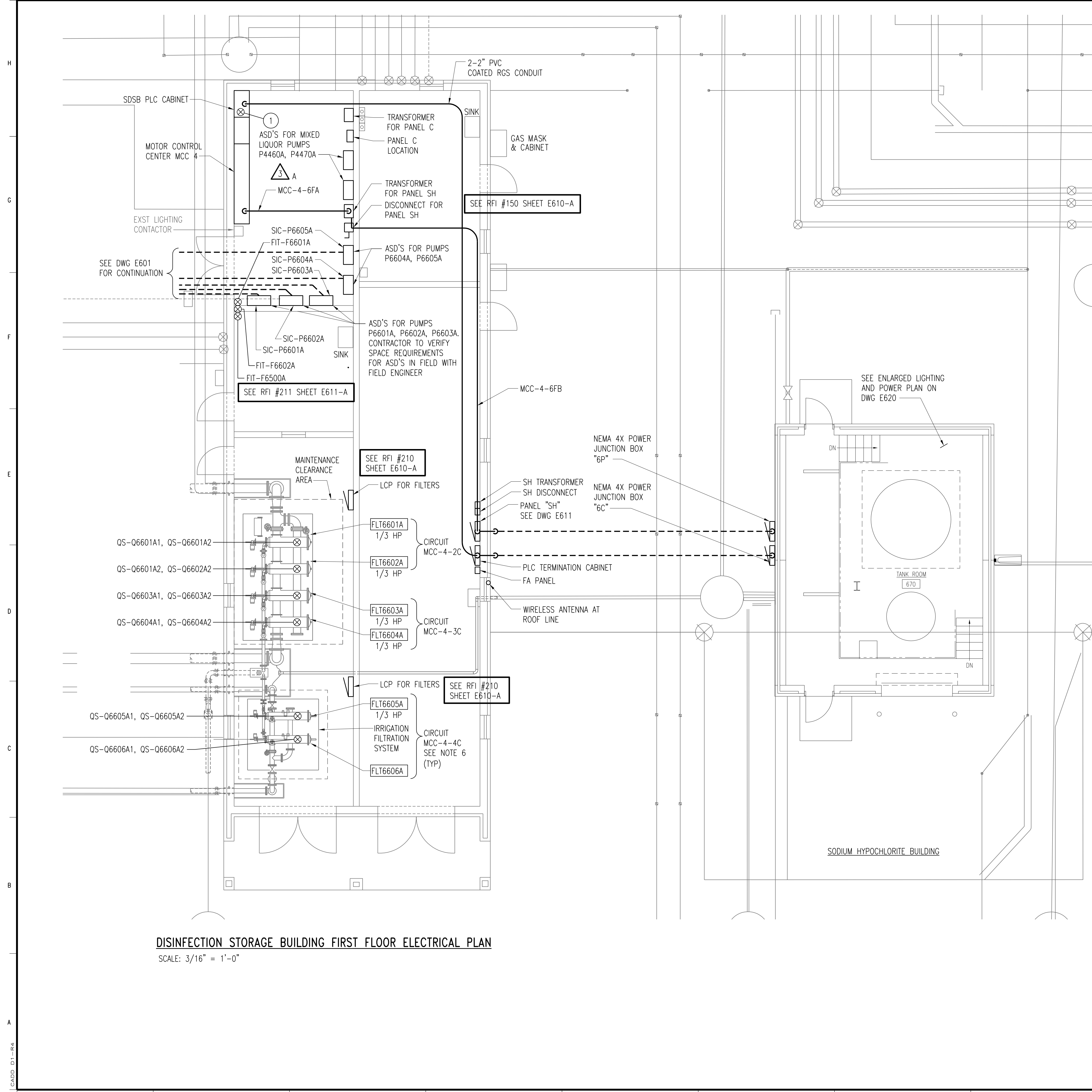
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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**DISINFECTANT STORAGE BUILDING
PROCESS PIPING PLAN**

DESIGNED	CL BARK	SCALE:	AS NOTED
DRAWN	LJ OSBORN	NO.	22800
CHECKED	CL BARK	REV.	
APPROVED	JBL LUNDY	M610	2
DATE	DECEMBER 2, 2011		





- NOTES:**
- SEE DRAWING E16 FOR REVISED MCC-4 ONE-LINE DIAGRAM.
 - SEE DRAWING E1 FOR GENERAL ELECTRICAL NOTES AND WIRING DEVICE SCHEDULE.
 - SEE DRAWING E4 FOR TYPICAL ELECTRICAL DETAILS.
 - SEE DRAWINGS E2 AND E3 FOR LIGHTING FIXTURE SCHEDULE.
 - SEE DRAWING G9 FOR ELECTRICAL LEGEND.
 - FILTER STARTERS PROVIDED WITH EQUIPMENT BY MANUFACTURER FOR FLT 6601A THRU 6606A

- KEYNOTES:**
- ① JE-J6000A, JX-J6000A, HBE-J6001A, JE-J6001A, JI-J6001A, JR-J6001A, JX-J6001A, ER-J6001A1, ER-J6001A2, JE-J6010A, JR-J6011A, UC-16000A, UC-16001A, UC-16000A, LY-T6701A, LY-T6702A, FR-F6601A, FR-F6602A, XR-T6701A, VR-V6701A, LR-T6702A, VR-T6702A, FR-P6721A, FR-P6722A, FR-P6723A, FR-P6724A, XR-Q6601A, XR-Q6602A, XR-Q6603A, XR-Q6604A, XR-Q6605A, XR-Q6606A, XR-T6701A, XR-T6702A, XR-P6721A, XR-P6722A, XR-P6723A, XR-P6724A.

- ⚠️ ADD 2 MIXED LIQUOR PUMPS ASDS TO PLAN NEXT TO PANEL C.
- ⚠️ ADD SMALL 4-ZONE FIRE ALARM PANEL ON WALL NEXT TO PANEL SH TO MONITOR FIRE ALARM DEVICES SHOWN ON DRAWING E620. ADD NOTE TO FIRE ALARM CONTROL PANEL TO READ:
- *PROVIDE SIMPLEX 4009 EXTENDER PANEL WITH INTRINSIC SAFE MODULE FOR CONNECTION TO FIRE ALARM DEVICES SHOWN IN NEW SODIUM HYPOCHLORITE BUILDING ON DRAWING E620. SIMPLEX TO PROVIDE WIRELESS COMMUNICATION MODULE AT NEW PANEL AND EXISTING SIMPLEX PANEL AT LAB/ADMIN BUILDING TO ALLOW REPORTING OF DEVICES TO LAB/ADMIN PANEL.*

DISINFECTATION STORAGE BUILDING FIRST FLOOR ELECTRICAL PLAN
SCALE: 3/16" = 1'-0"

4	RECORD DRAWING	JBL	JBL	JBL	03-31-2014
3	ADDED ADDENDUM COMMENTS	LJO	JBL	JBL	05-04-2012
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

225 Iowa Avenue, Muscatine, Iowa 52761-3764
www.stanleyconsultants.com

CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**DISINFECTATION STORAGE BUILDING
POWER AND LIGHTING PLANS AND DETAILS**

DESIGNED	DL MORITZ	SCALE:	AS NOTED
DRAWN	D. WILGES	NO.	22800
CHECKED	DL MORITZ	REV.	
APPROVED	JD COGAN		
APPROVED			
DATE	DECEMBER 2, 2011		



CADD: D1-144

PANEL NAME: NEW PANEL SH		BUS RATING: 100 A		MOUNTING: SURFACE	
SERVICE VOLTAGE: 208Y/120 VAC, 3 PH - 4 W		MAIN BREAKER: MLO		MULTI-LUG: N/A	
SOURCE NAME: MCC-4		MINIMUM AIC: 10,000		IG BUS: NO	
SOURCE LOCATION: DISINFECTION STORAGE BLDG		NEMA TYPE: 12		SERVICE ENTRANCE: NO	
		200% NEUTRAL: NO		TVSS LEVEL: 120 KA	

BRKR NO.	CIRCUIT DESCRIPTION	LOAD DESCRIPTION	BRKR RTG	DEMAND (KVA)			CONNECTED (KVA)				LOAD FACTOR
				A	B	C	LTG	RCPT	MTR	EQPT	
1	3#12,1#12 GND, .75" C	P6721A - METERING PUMP	20A,1P	0.20					0.20		1.00
3	3#12,1#12 GND, .75" C	P6723A - METERING PUMP	20A,1P		0.20				0.20		1.00
5		CIVIL DEFENSE SIREN	20A,1P			0.00					1.00
7	3#12,1#12 GND, .75" C	WH6701A - GAS WATER HEATER	20A,1P	0.30					0.30		1.00
9	3#12,1#12 GND, .75" C	F6701A - ROOF MOUNTED EXHAUST FAN	20A,1P		0.20				0.20		1.00
11	3#12,1#12 GND, .75" C	INTERIOR LIGHTING	20A,1P			0.51	0.51				1.00
13	3#12,1#12 GND, .75" C	P6725A - SUMP PUMP	20A,2P	0.25						0.25	1.00
15	I	I	I		0.25						1.00
17						0.00					1.00
19				0.00							1.00
21					0.00						1.00
23						0.00					1.00
25				0.00							1.00
27					0.00						1.00
29						0.00					1.00
2	3#12,1#12 GND, .75" C	P6722A - METERING PUMP	20A,1P	0.20					0.20		1.00
4	3#12,1#12 GND, .75" C	P6724A - METERING PUMP	20A,1P		0.18				0.20		0.90
6	3#12,1#12 GND, .75" C	RECEPTACLE	20A,1P			0.54			0.54		1.00
8	3#12,1#12 GND, .75" C	MAU6701A - GAS MAKEUP AIR UNIT	20A,1P	0.40					0.40		1.00
10	3#12,1#12 GND, .75" C	DDC PANEL	20A,1P		0.20					0.20	1.00
12	3#12,1#12 GND, .75" C	EXTERIOR LIGHTING	20A,1P			0.10	0.10				1.00
14				0.00							1.00
16					0.00						1.00
18						0.00					1.00
20				0.00							1.00
22					0.00						1.00
24						0.00					1.00
26				0.00							1.00
28					0.00						1.00
30						0.00					1.00
				1.4	1.0	1.2	KVA / PH				
				11	9	10	AMPS / PH				

LOAD TYPE	CONNECTED (KVA)	DEMAND (KVA)	REMARKS:
LIGHTING:	0.6	0.6	
RECEPTACLE:	0.0	0.0	
MOTOR:	2.2	2.2	
EQUIPMENT:	0.7	0.7	
TOTALS:	3.6	3.5	

MINIMUM PANEL RATINGS				
LOAD (KVA)	DEMAND FACTOR	RATED (KVA)	AMPACITY (AMPS)	
4.1	1.25	5.1	14	

NOTES:

-
-
-
-
-
-

PANEL NAME: NEW PANEL C		BUS RATING: 225 A		MOUNTING: SURFACE	
SERVICE VOLTAGE: 208Y/120 VAC, 3 PH - 4 W		MAIN BREAKER: 150 A		MULTI-LUG: N/A	
SOURCE NAME: MCC-4		MINIMUM AIC: 10,000		IG BUS: NO	
SOURCE LOCATION: DISINFECTION BUILDING		NEMA TYPE: 1		SERVICE ENTRANCE: NO	
		200% NEUTRAL: NO		TVSS LEVEL: 120 KA	

BRKR NO.	CIRCUIT DESCRIPTION	LOAD DESCRIPTION	BRKR RTG	DEMAND (KVA)			CONNECTED (KVA)				LOAD FACTOR
				A	B	C	LTG	RCPT	MTR	EQPT	
1	2#12,#12GRD, .75"C	LIGHTING ROOM 101, 102, 103	20A, 1P	0.00							1.00
3	2#12,#12GRD, .75"C	LIGHTING ROOM 104, 105	20A, 1P		0.00						1.00
5	2#12,#12GRD, .75"C	RECEPTACLE ROOM 102,103	20A, 1P			0.00					1.00
7	2#12,#12GRD, .75"C	RECEPTACLE ROOM 104	20A, 1P	0.00							1.00
9	2#12,#12GRD, .75"C	SPARE	20A, 1P		0.00						1.00
11	2#12,#12GRD, .75"C	SPARE	20A, 1P			0.00					1.00
13	2#12,#12GRD, .75"C	SPARE	20A, 1P	0.00							1.00
15	2#12,#12GRD, .75"C	EF-1	20A, 1P		0.00						1.00
17	2#12,#12GRD, .75"C	EF-2	20A, 1P			0.00					1.00
19	2#12,#12GRD, .75"C	EF-3, 4, 6	20A, 1P	0.00							1.00
21	2#12,#12GRD, .75"C	EF-5	20A, 1P		0.00						1.00
23	2#12,#12GRD, .75"C	GFUH-1, 2, 3	20A, 1P			0.00					1.00
25	2#12,#12GRD, .75"C	SPARE	20A, 1P	0.00							1.00
27	2#12,#12GRD, .75"C	SPARE	20A, 1P		0.00						1.00
29	2#12,#12GRD, .75"C	SPARE	20A, 1P			0.00					1.00
31	2#10,#10GRD, 1"C	SPARE	20A, 2P	0.00							1.00
33	I	SPARE	I		0.00						1.00
35	2#10, #10GRD, 1"C	SPARE	20A, 1P			0.00					1.00
37	2#10, #10GRD, 1"C	EFFLUENT SELECTOR PUMP VAULT HEAT TRACE	20A, 1P	0.00							1.00
39	2#10, #10GRD, 1"C	UV MAIN CONTROL PANEL	20A, 1P		0.00						1.00
41		SPARE	20A, 1P			0.00					1.00
2	2#12,#12GRD, .75"C	LIGHTING EXTERIOR ROADWAY	20A, 1P	0.00							1.00
4	2#12,#12GRD, .75"C	LIGHTING EXTERIOR FLOODLIGHTING	20A, 1P		0.00						1.00
6	2#12,#12GRD, .75"C	CONTROL PANEL	20A, 1P			0.00					1.00
8	2#12,#12GRD, .75"C	CONTROL PANEL	20A, 1P	0.00							1.00
10	2#12,#12GRD, .75"C	SPARE	20A, 1P		0.00						1.00
12	2#12,#12GRD, .75"C	SPARE	20A, 1P			0.00					1.00
14	2#12,#12GRD, .75"C	SPARE	20A, 1P	0.00							1.00
16	2#12,#12GRD, .75"C	SPARE	20A, 1P		0.00						1.00
18	2#12,#12GRD, .75"C	SPARE	20A, 1P			0.00					1.00
20	2#12,#12GRD, .75"C	SPARE	20A, 1P	0.00							1.00
22	2#12,#12GRD, .75"C	RECEPTACLES ROOM 101, 105	20A, 1P		0.00						1.00
24	2#12,#12GRD, .75"C	SPARE	20A, 1P			0.00					1.00
26	2#12,#12GRD, .75"C	SPARE	20A, 1P	0.00							1.00
28	2#12,#12GRD, .75"C	SPARE	20A, 1P		0.00						1.00
30	2#12,#12GRD, .75"C	SPARE	20A, 1P			0.00					1.00
32	2#10,#10GRD, 1"C	SPARE	20A, 2P	0.00							1.00
34	I	SPARE	I		0.00						1.00
36	2#10, #10GRD, 1"C	SPARE	20A, 1P			0.00					1.00
38	2#10, #10GRD, 1"C	SPARE	20A, 1P	0.00							1.00
40	2#10, #10GRD, 1"C	UV SUNSHADE LIGHTING	20A, 1P		0.00						1.00
42		SPARE	20A, 1P			0.00					1.00
				0.0	0.0	0.0	KVA / PH				
				0	0	0	AMPS / PH				

LOAD TYPE	CONNECTED (KVA)	DEMAND (KVA)	REMARKS:
LIGHTING:	0.0	0.0	
RECEPTACLE:	0.0	0.0	NEW PANEL TO REPLACE PANEL C REMOVED FROM MCC-4. REWIRE ALL EXISTING CIRCUITS AS SHOWN. CONTRACTOR MAY INTERCEPT EXISTING CIRCUITS THAT ARE NOT BOLD AND PROVIDE NEW CIRCUITING AS SHOWN FOR BOLD
MOTOR:	0.0	0.0	
EQUIPMENT:	0.0	0.0	
TOTALS:	0.0	0.0	

MINIMUM PANEL RATINGS				
LOAD (KVA)	DEMAND FACTOR	RATED (KVA)	AMPACITY (AMPS)	
0.0	1.25	0.0	0	

* PROVIDE BREAKER 37 TO BE 20A, 1P WITH 30MA GFI PROTECTION FOR HEAT TRACE CIRCUITS TO EFFLUENT SELECTOR PUMP VAULT

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DGN	CHKD	APVD	DATE



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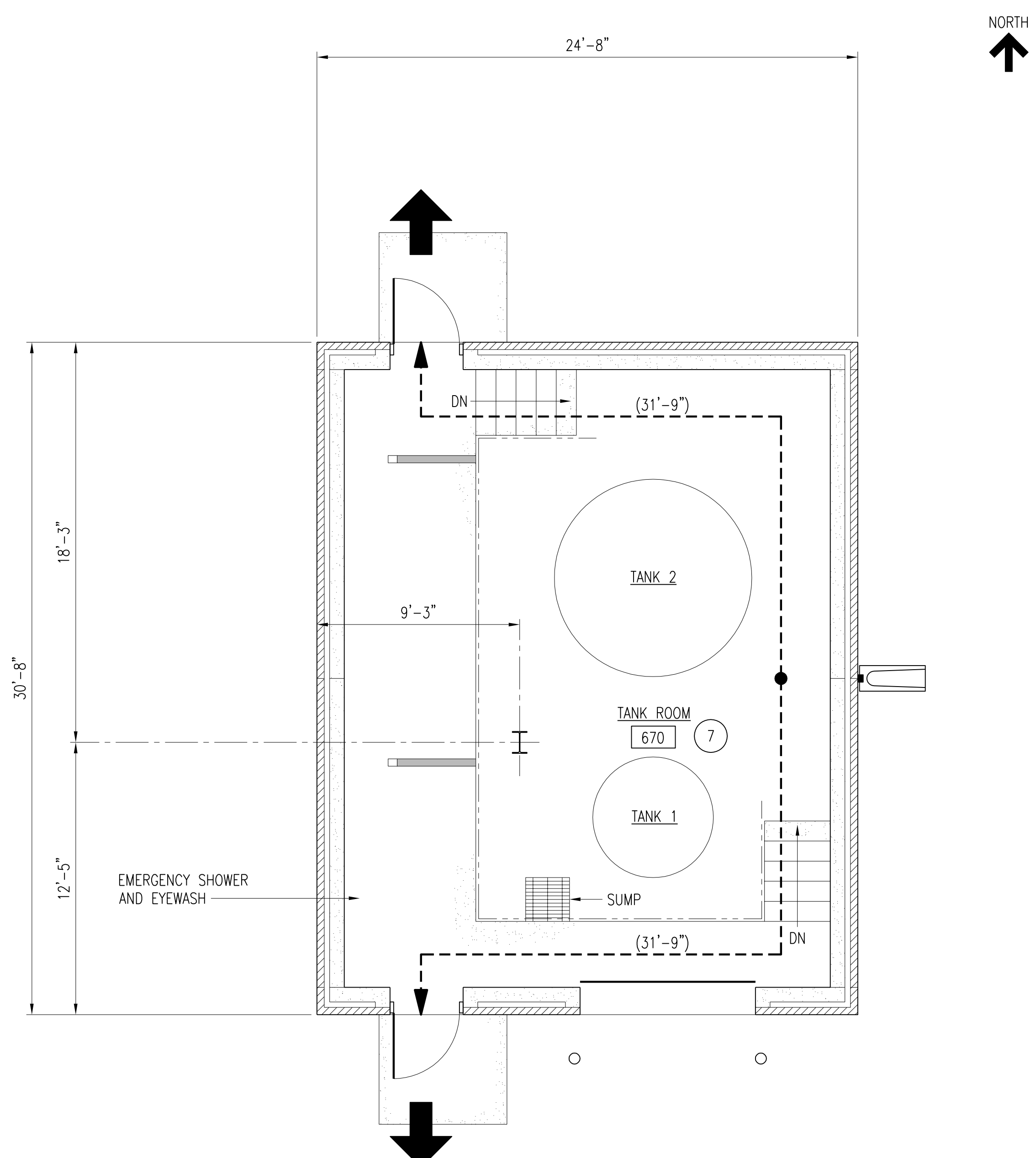
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**DISINFECTION STORAGE BUILDING
PANEL SCHEDULES**

DESIGNED: DL MORITZ	SCALE: AS NOTED
DRAWN: D. WILGES	NO. 22800
CHECKED: DL MORITZ	REV. 3
APPROVED: JD COGAN	E611
APPROVED: _____	DATE: DECEMBER 2, 2011



CADD: D1-1-R4



LIFE SAFETY PLAN

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

LIFE SAFETY LEGEND:

- (##'-#") TRAVEL DISTANCE
- ↑ BUILDING EXIT
- ⊘ OCCUPANT LOAD

Code Analysis

City of Iowa City - Sodium Hypochlorite Building
Iowa City, Iowa

BUILDING CODE			
INTERNATIONAL BUILDING CODE, 2009			
OCCUPANCY CLASSIFICATION			
H-4 HIGH HAZARD - CORROSIVE			
CONSTRUCTION TYPE			
TYPE II B			
FIRE SUPPRESSION			
YES			
HEIGHT/STORIES			
ALLOWABLE HEIGHT:	55 FT.	DESIGNED HEIGHT: 1 STORY	19'-8"
AREA			
ALLOWABLE AREA:	17,500 SQ.	DESIGNED AREA: FIRST FLOOR:	(SQ. FT.) 624 <u>624</u>

OCCUPANCY SEPARATION TABLE 508.3.3

USE GROUP	ADJACENT USE	REQUIRED	REDUCTION FOR SPRINKLERS	DESIGNED
H-4	N	N	N	N

N = NO SEPERATION REQUIRED

FIRE RESISTANCE RATINGS TABLE 601

BUILDING ELEMENT	REQUIRED	DESIGNED
STRUCTURAL FRAME	0 HR	0 HR
BEARING WALLS		
INTERIOR	0 HR	0 HR
EXTERIOR	0 HR	0 HR
NON BEARING WALLS & PARTITIONS	0 HR	0 HR
FLOOR CONSTRUCTION	0 HR	0 HR
ROOF CONSTRUCTION	0 HR	0 HR
CORRIDOR	0 HR	0 HR

EXTERIOR WALL RATINGS TABLE 602

FIRE SEPARATION DISTANCE (FT.)	TYPE OF CONSTR.	REQUIRED H-4	DESIGNED
> 30	IIB	0 HR	0 HR

OCCUPANCY CALCULATIONS TABLE 1004.1.1

	DESIGNED AREA (SQ. FT.)	MAX. AREA ALLOWED (SQ. FT./OCCUPANT)	OCCUPANCY	NO OF EXIT(S)
FIRST FLOOR				
TANK ROOM	624	100	7	2
FIRST FLOOR TOTALS	624		7	
TOTAL BUILDING	624		7	

IBC-2009-SECT. 1103.2.9: EQUIPMENT SPACE - SPACES FREQUENTED ONLY BY PERSONNEL FOR MAINTENANCE, REAIR, OR MONITORING EQUIPMENT ARE NOT REQUIRED TO BE ACCESSABLE.

EXIT REQUIREMENTS TABLE 1005.1

	NO. OF OCCUPANTS	INCHES PER OCCUPANT	MIN. ALLOWABLE WIDTH (IN.)	NO. OF EXISTS PROVIDED	MIN. WIDTH PER EXIT	DESIGNED WIDTH (IN.)
OPERATING FLOOR						
DOOR EGRESS	7	0.15	1.05	2	34	36

TRAVEL DISTANCE TABLE 1016.1

OCCUPANCY	WITHOUT SPRINKLER SYSTEM (FT.)	WITH SPRINKLER SYSTEM (FT.)	MAX. DESIGNED (FT.)
H-4	NOT PERMITTED	175	31'-9"

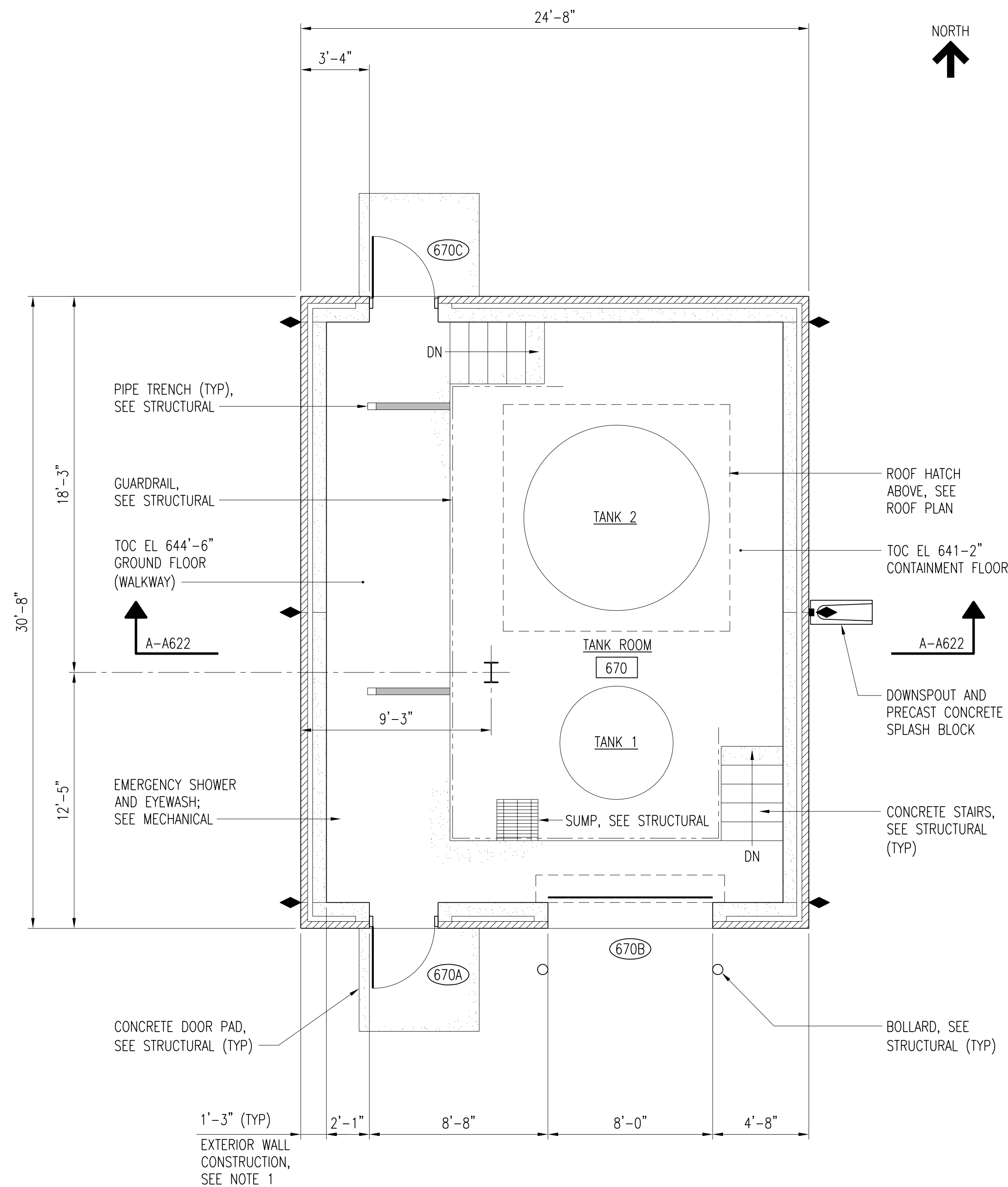
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	GAL	GAL	DS	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT
**SODIUM HYPOCHLORITE BUILDING
LIFE SAFETY PLAN**

DESIGNED	GA LUDWIG	SCALE: AS NOTED
DRAWN	DA HUMISTON	NO. 22800
CHECKED	GA LUDWIG	REV.
APPROVED	D SARKAR	A620
APPROVED		2
DATE	DECEMBER 2, 2011	



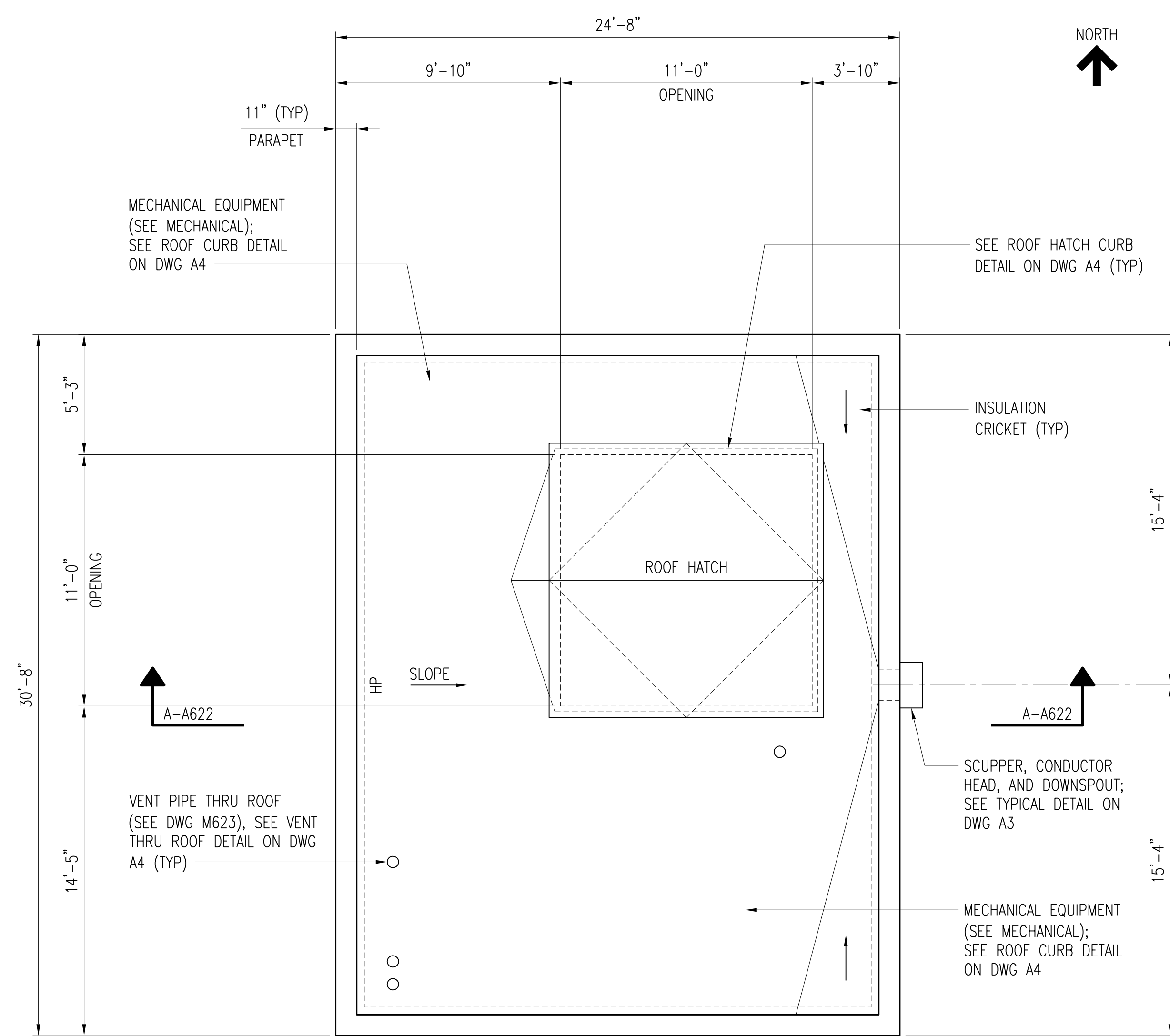
CADD: D1-R4



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

FLOOR PLAN NOTES:

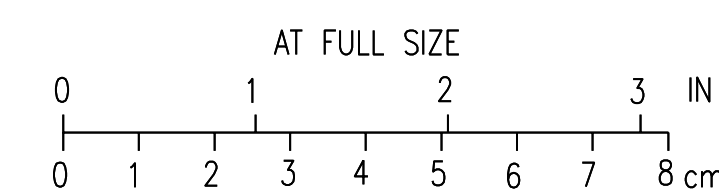
- EXTERIOR WALL CONSTRUCTION ABOVE GRADE:
4" FACE BRICK
AIR SPACE
2" RIGID INSULATION (R=10)
8" CMU
- MASONRY WALL REINFORCING - SEE DRAWING S1.
- MASONRY CONTROL JOINTS: LOCATE WHERE SHOWN ON PLANS AND BUILDING ELEVATIONS. SEE DETAILS ON DRAWING A3.
- WALL PENETRATIONS:
ALL PENETRATIONS SHALL BE SEALED - FULL GROUT IN PLACE MASONRY.
ALLOW FOR EXPANSION WHEN REQUIRED OR AS INDICATED BY OTHER DISCIPLINES.
- FLOOR DRAINS: NOT ALL FLOOR DRAINS ARE SHOWN ON ARCHITECTURAL PLANS.
SEE PLUMBING DRAWINGS FOR LOCATION AND TYPE OF ALL FLOOR DRAINS.
- SEE DRAWING A3 FOR TYPICAL WALL CONSTRUCTION DETAILS.
- SEE DRAWING A1 FOR INTERIOR FINISH SCHEDULE.
- SEE DRAWING A1 FOR OPENING SCHEDULE.
- COORDINATE LOCATION OF EQUIPMENT WITH MECHANICAL.



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

ROOF PLAN NOTES:

- ROOF CONSTRUCTION:
BALLAST ON SINGLE-PLY ROOF MEMBRANE ON 4" RIGID INSULATION (R=20)
ON SLOPED GROUT TOPPING (7 1/2" @ HP AND 2" @ LP) ON 8" HOLLOW CORE DECK.
- COORDINATE ACTUAL LOCATIONS AND SIZE OF PENETRATIONS WITH STRUCTURAL AND MECHANICAL DRAWINGS.
- MINIMUM SLOPE = 1/4" PER FOOT.
- PIPE PENETRATIONS SMALLER THAN 6" MAY NOT BE SHOWN. COORDINATE WITH DISCIPLINE DRAWINGS.
- SOME MISCELLANEOUS ROOF PENETRATIONS NOT SPECIFICALLY SHOWN ON THIS PLAN SHALL BE FLASHED AND SEALED ACCORDING TO DETAILS SHOWN, AND PER ROOFING MANUFACTURER'S RECOMMENDED GUIDE DETAILS.
- PROVIDE ADDITIONAL CRICKETS/SADDLES AS REQUIRED AT CURBS TO ALLOW FOR DRAINAGE.
- SEE DRAWING A4 FOR TYPICAL ROOF CONSTRUCTION DETAILS.



3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REV ROOF PLAN NOTES 1	GAL	GAL	DS	01-25-2012
1	ISSUED FOR CONSTRUCTION	GAL	GAL	DS	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

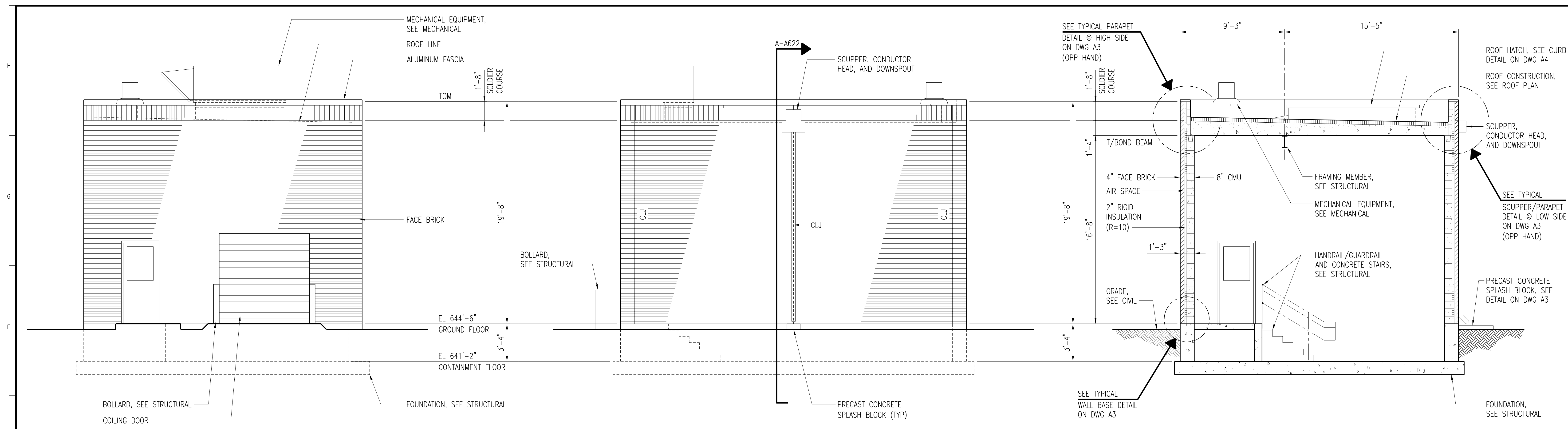


CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SODIUM HYPOCHLORITE BUILDING
FLOOR AND ROOF PLANS**

DESIGNED	GA LUDWIG	SCALE:	AS NOTED
DRAWN	DA HUMISTON	NO.	22800
CHECKED	GA LUDWIG	REV.	
APPROVED	D SARKAR		
APPROVED			
DATE	DECEMBER 2, 2011		

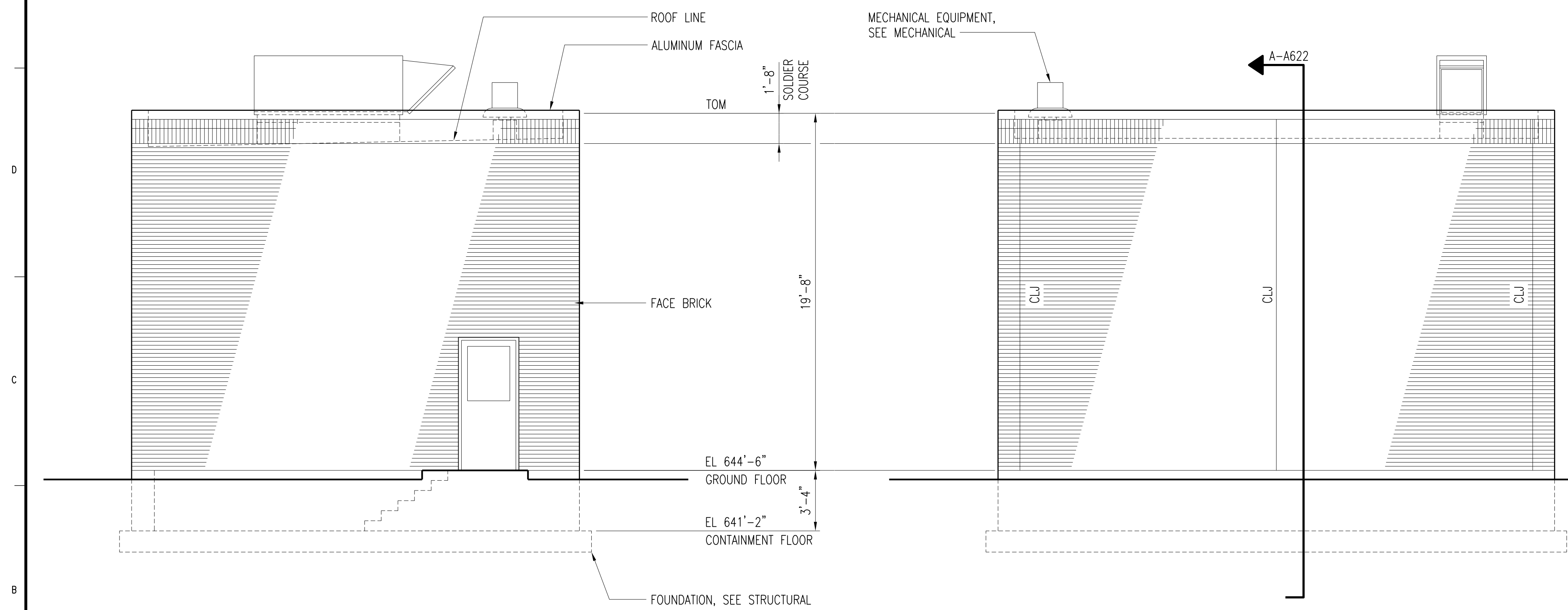
A621 3



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

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

SECTION A-A622
A621, A622
SCALE: 1/4" = 1'-0"




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

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

SEE RFI #110 SHEET A622-A

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	GAL	GAL	DS	01-10-2012
NO.	REVISIONS	DGN	CHKD	APVD	DATE


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CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

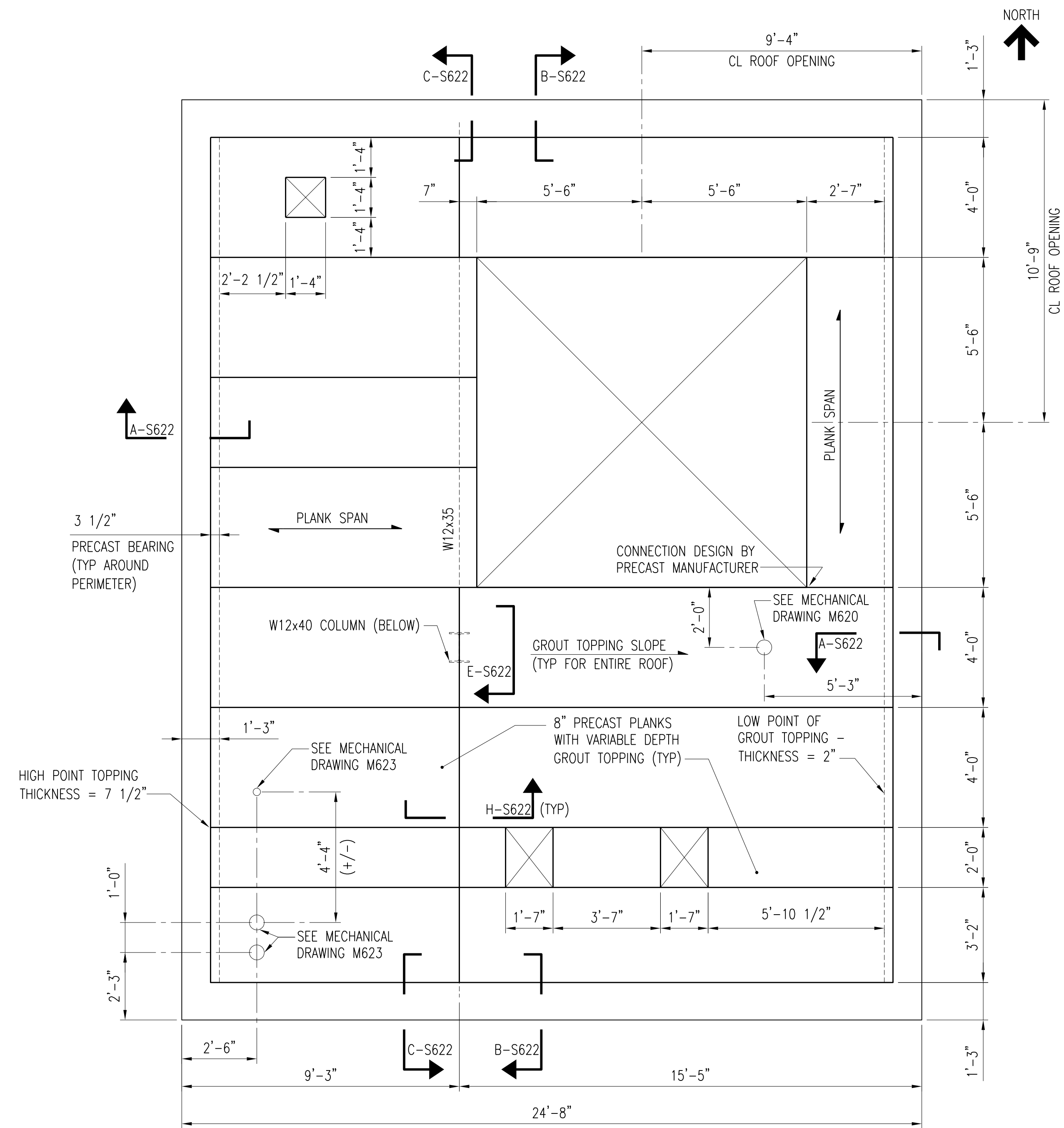
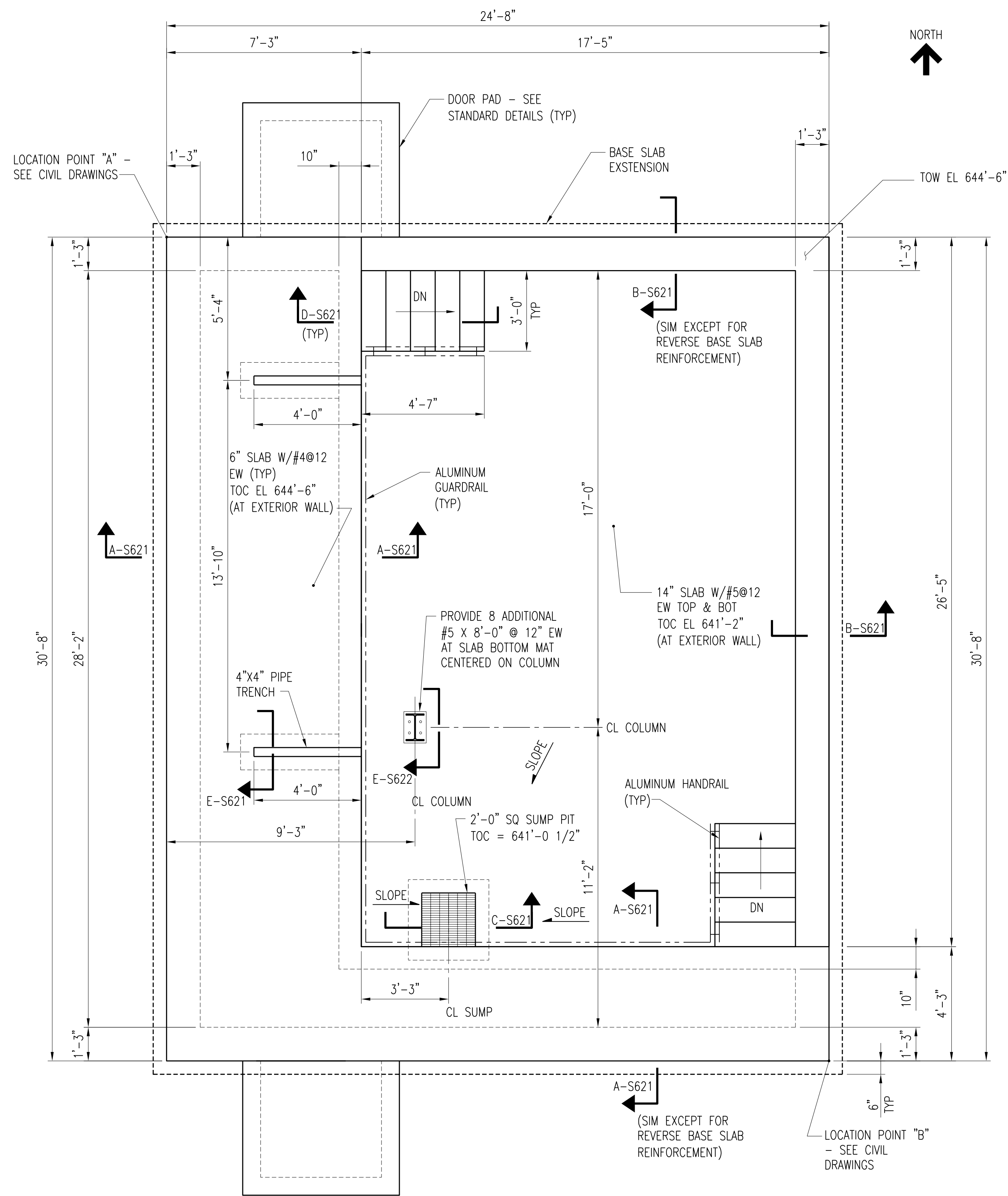
**SODIUM HYPOCHLORITE BUILDING
 BUILDING ELEVATIONS**

DESIGNED	GA LUDWIG	SCALE:	AS NOTED
DRAWN	DA HUMISTON	NO.	22800
CHECKED	GA LUDWIG	REV.	
APPROVED	D SARKAR		
APPROVED			
DATE	DECEMBER 2, 2011		

A622 **2**



CADD: D1-R4



NOTES:

- SEE ARCHITECTURAL, MECHANICAL OR ELECTRICAL PLANS FOR ADDITIONAL INFORMATION, INCLUDING LOCATION OF DOORS, OPENINGS AND OTHER DIMENSIONS NOT SHOWN.
- SEE STANDARD STRUCTURAL NOTES AND DETAILS FOR ADDITIONAL REINFORCING DETAILS AND OTHER PERTINENT NOTES AND DETAILS.
- CONTRACTOR SHALL COORDINATE FINAL ROOF OPENING SIZES WITH EQUIPMENT AND PIPING PROVIDED.
- ALL STRUCTURAL STEEL SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION.
- SODIUM HYPOCHLORITE BUILDING DESIGN CRITERIA:
 - OCCUPANCY CATEGORY: III
 - WIND IMPORTANCE FACTOR: 1.15
 - SEISMIC IMPORTANCE FACTOR: 1.25
- EXCAVATE ENTIRE AREA TO BIDDING ELEVATION OF 635'-0". EXCAVATION SHALL EXTEND 8" BEYOND FOUNDATION FOR EVERY FOOT OF DEPTH BELOW THE BOTTOM OF FOOTING ELEVATION. COMPACT SUBGRADE, THEN BACKFILL AND COMPACT IN ACCORDANCE WITH SECTION 31 23 16-16.

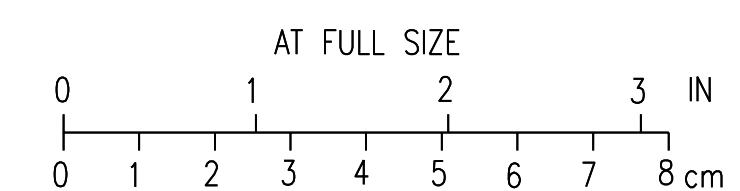
4	RECORD DRAWING	JBL	JBL	JBL	03-31-2014
3	ADDED ADDENDUM COMMENT	LJO	JBL	JBL	05-04-2012
2	REVISED AND REISSUED	KBH	KBH	LHB	01-25-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

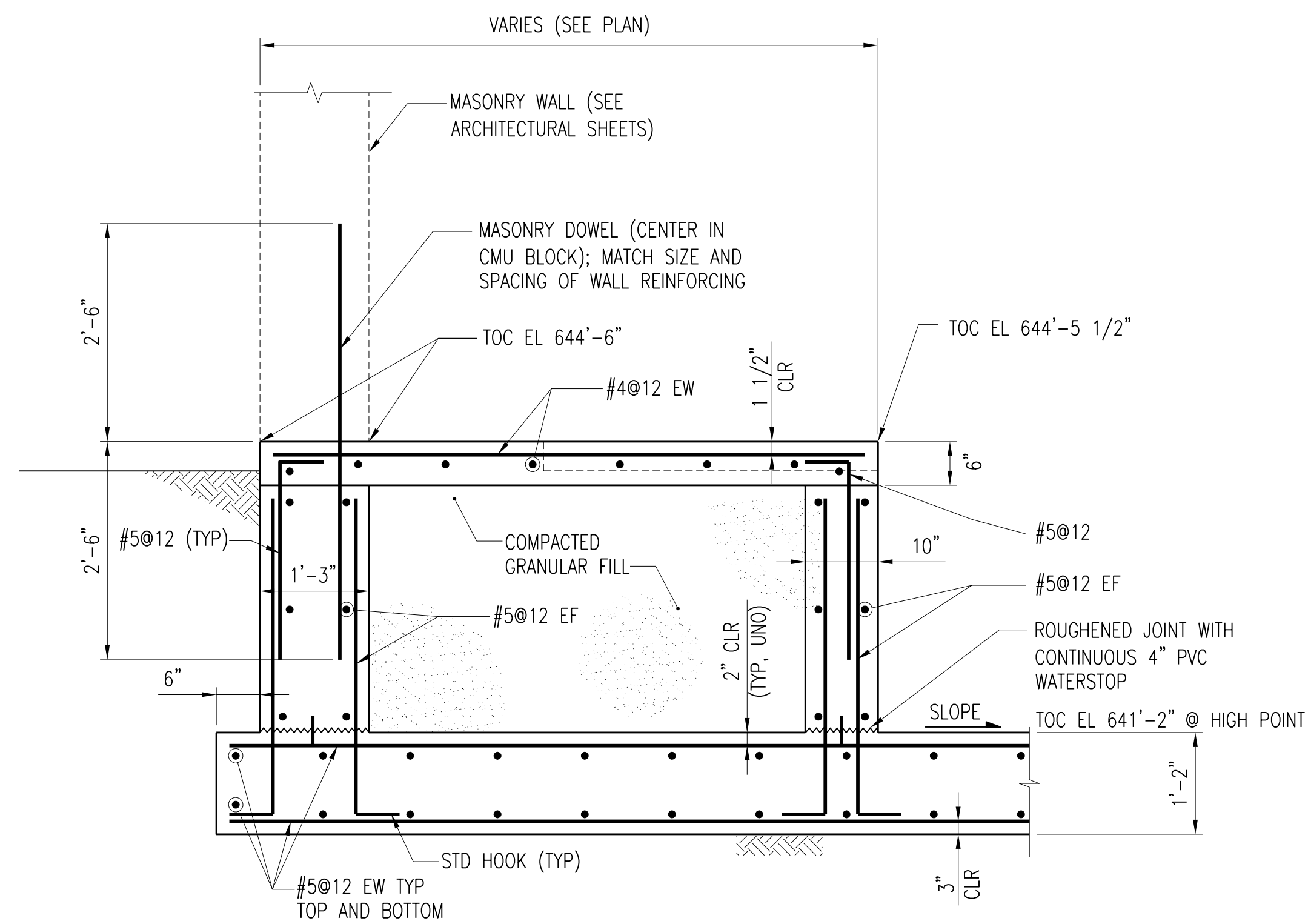

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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

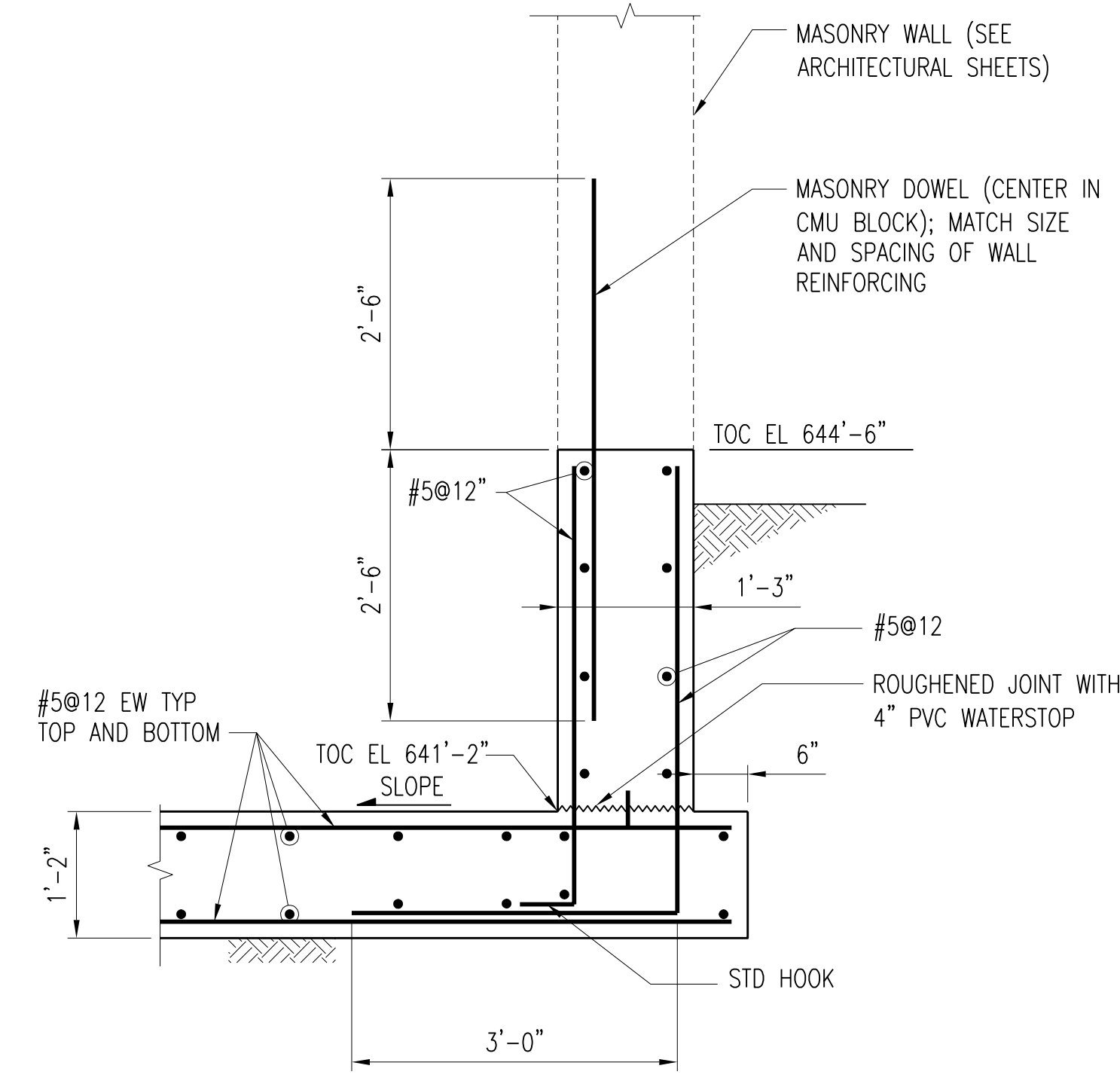
SODIUM HYPOCHLORITE BUILDING PLANS

DESIGNED	SR ECKMAN	SCALE: AS NOTED	NO. 22800	REV. 4
DRAWN	ZL MAGNUSON			
CHECKED	KB HALL			
APPROVED	LH BADTRAM			
APPROVED				
DATE	DECEMBER 2, 2011	S620		

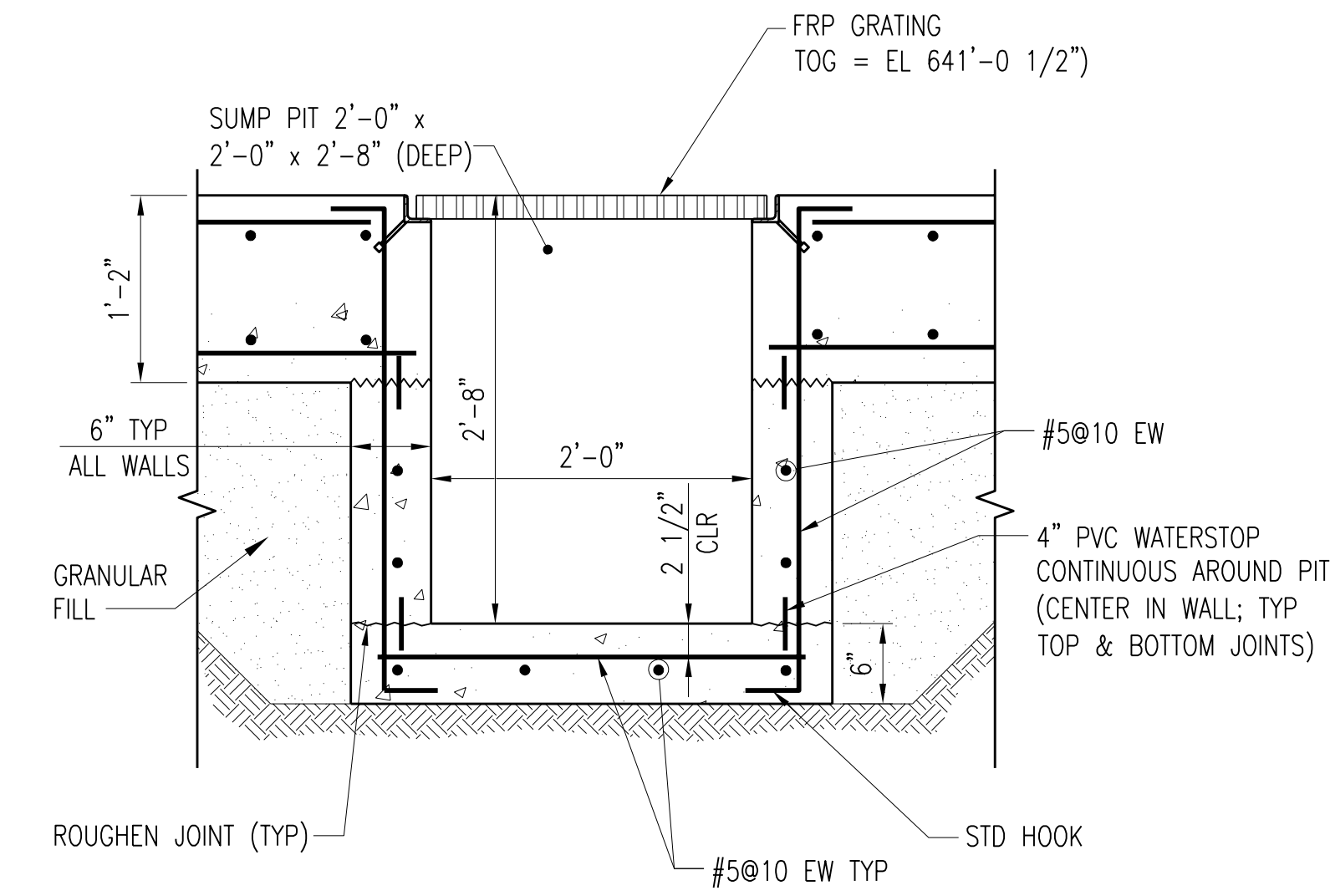




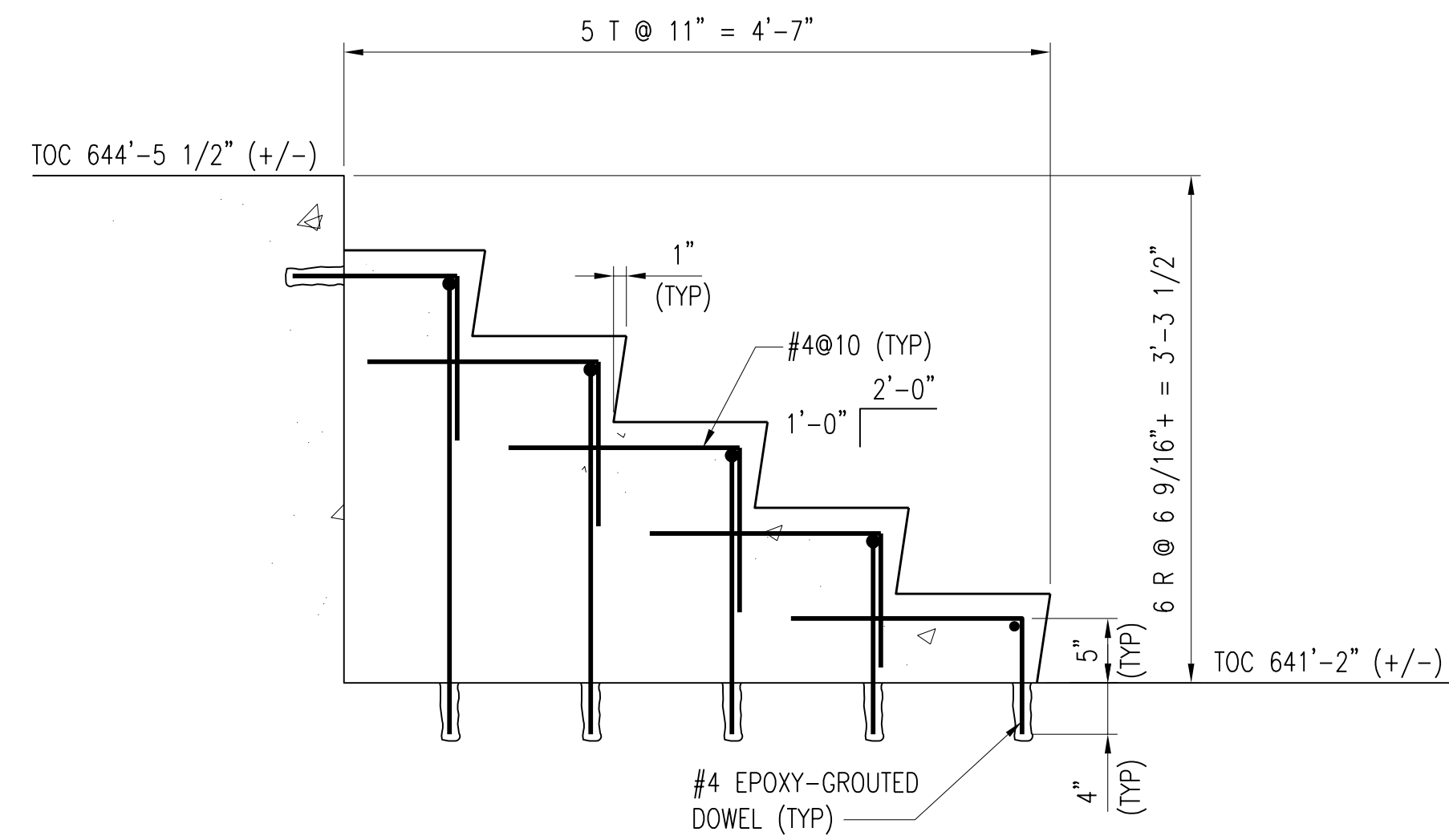
SECTION **A-S621**
S620
SCALE: 3/4" = 1'-0"



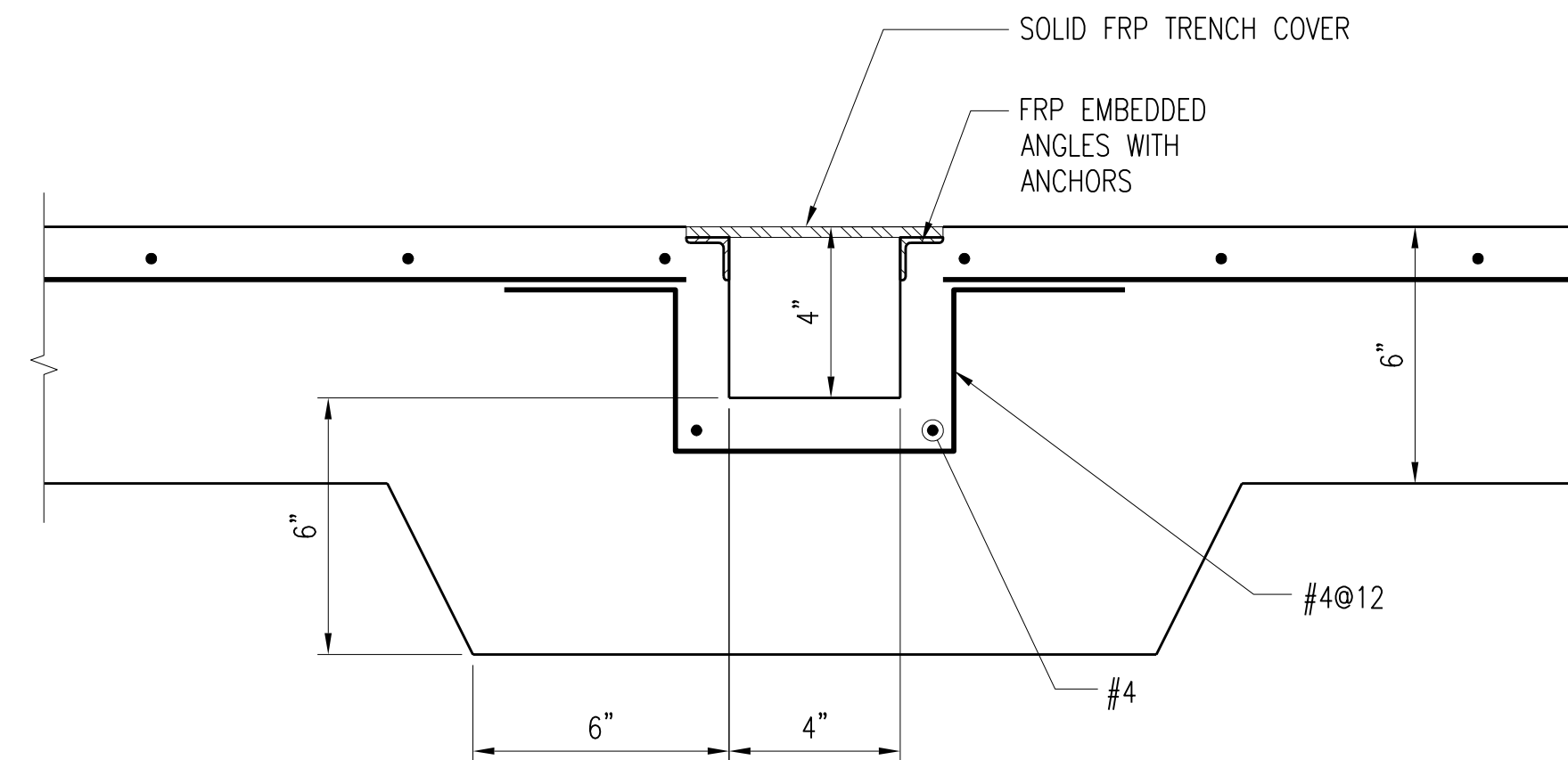
SECTION **B-S621**
S620
SCALE: 3/4" = 1'-0"



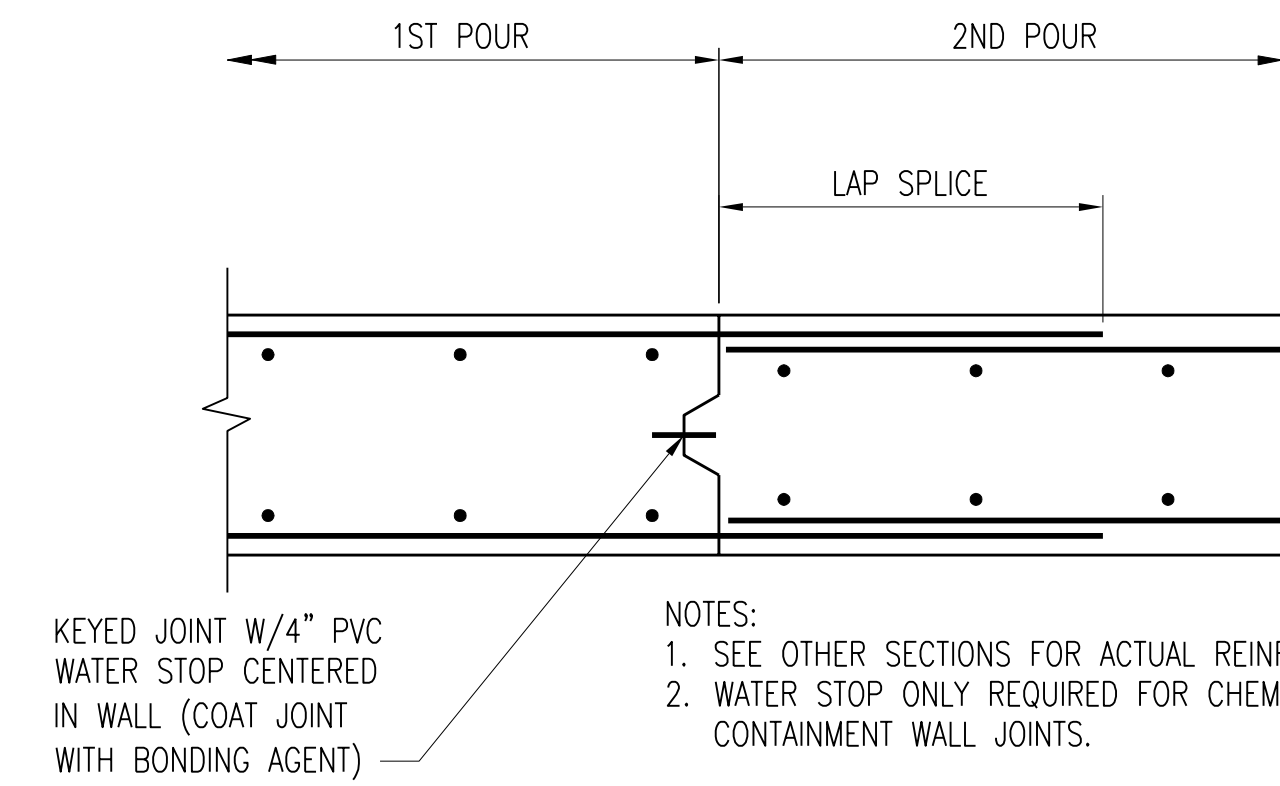
SECTION **C-S621**
S620
SCALE: 1" = 1'-0"



SECTION **D-S621**
S620
SCALE: 1" = 1'-0"



SECTION **E-S621**
S620
SCALE: 3" = 1'-0"



KEYED JOINT W/1/4" PVC WATER STOP CENTERED IN WALL (COAT JOINT WITH BONDING AGENT)

NOTES:
1. SEE OTHER SECTIONS FOR ACTUAL REINFORCING.
2. WATER STOP ONLY REQUIRED FOR CHEMICAL CONTAINMENT WALL JOINTS.

TYPICAL WALL CONSTRUCTION JOINT DETAIL
SCALE: 1" = 1'-0"

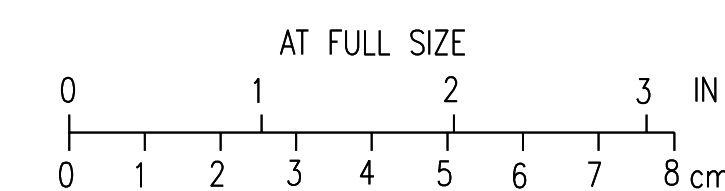
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED AND REISSUED	KBH	KBH	LHB	01-25-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

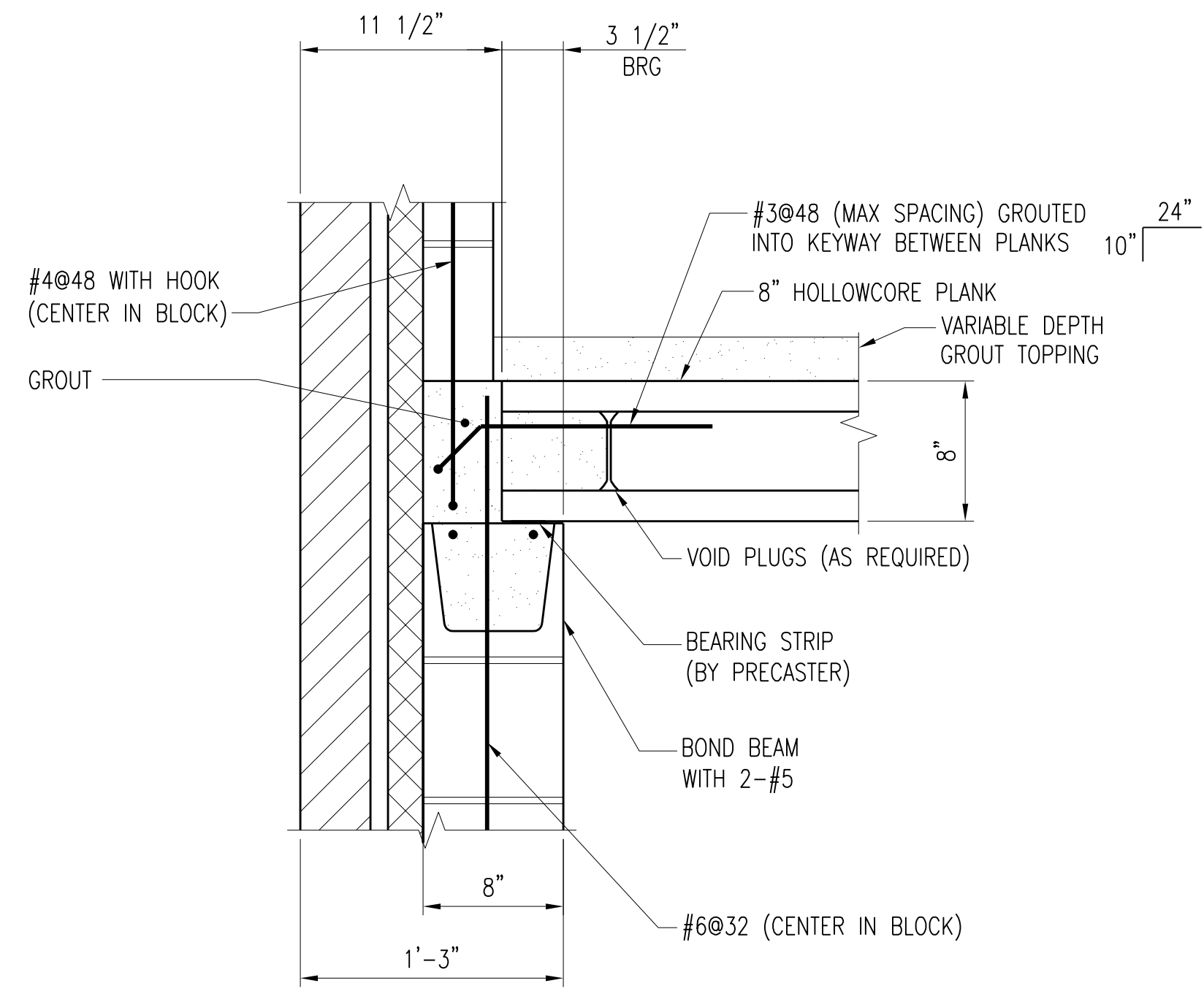
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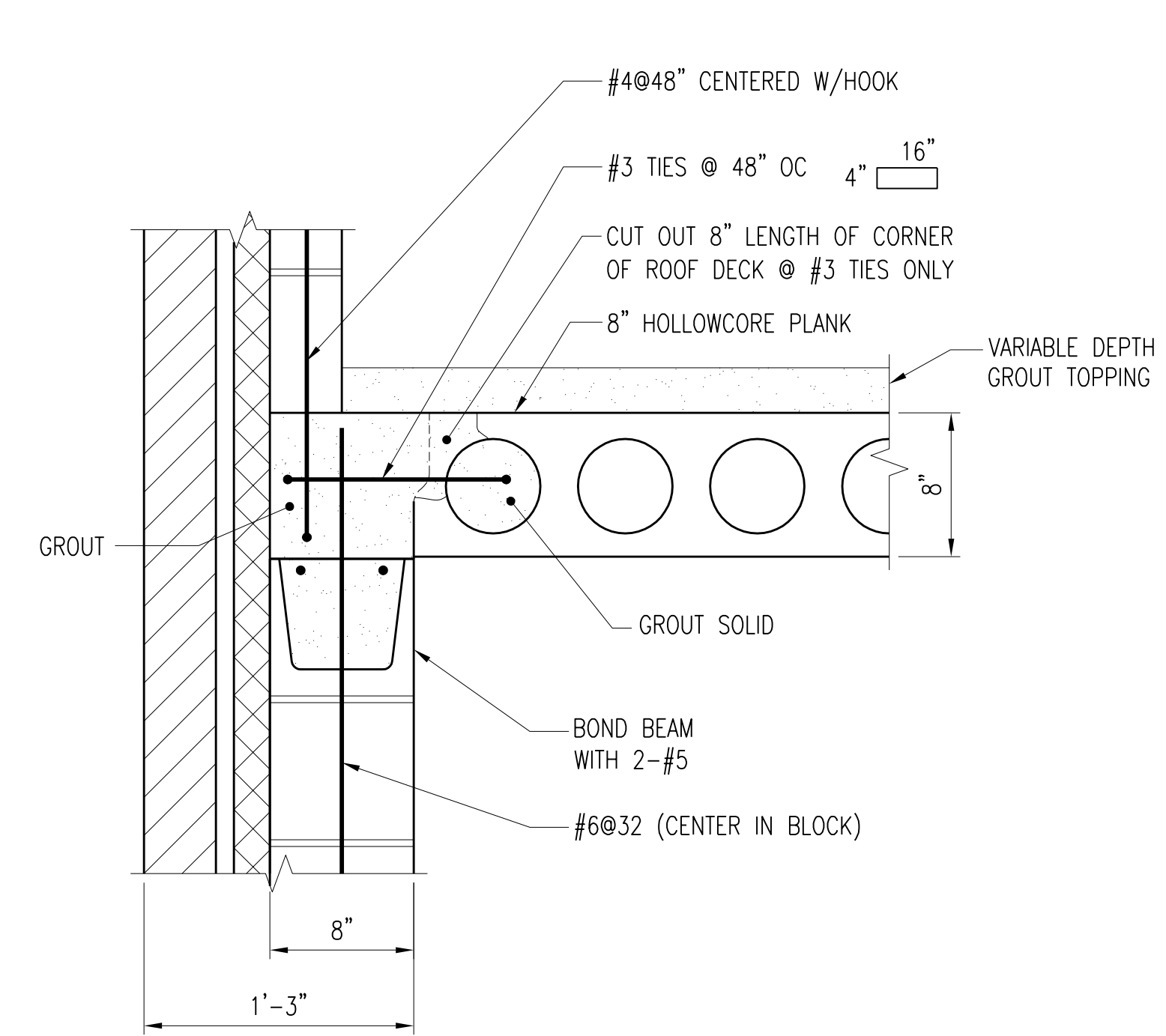
**SODIUM HYPOCHLORITE BUILDING
DETAILS - SHEET 1**

DESIGNED	SR ECKMAN	SCALE:	AS NOTED
DRAWN	ZL MAGNUSON	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
APPROVED			
DATE	DECEMBER 2, 2011	S621	3



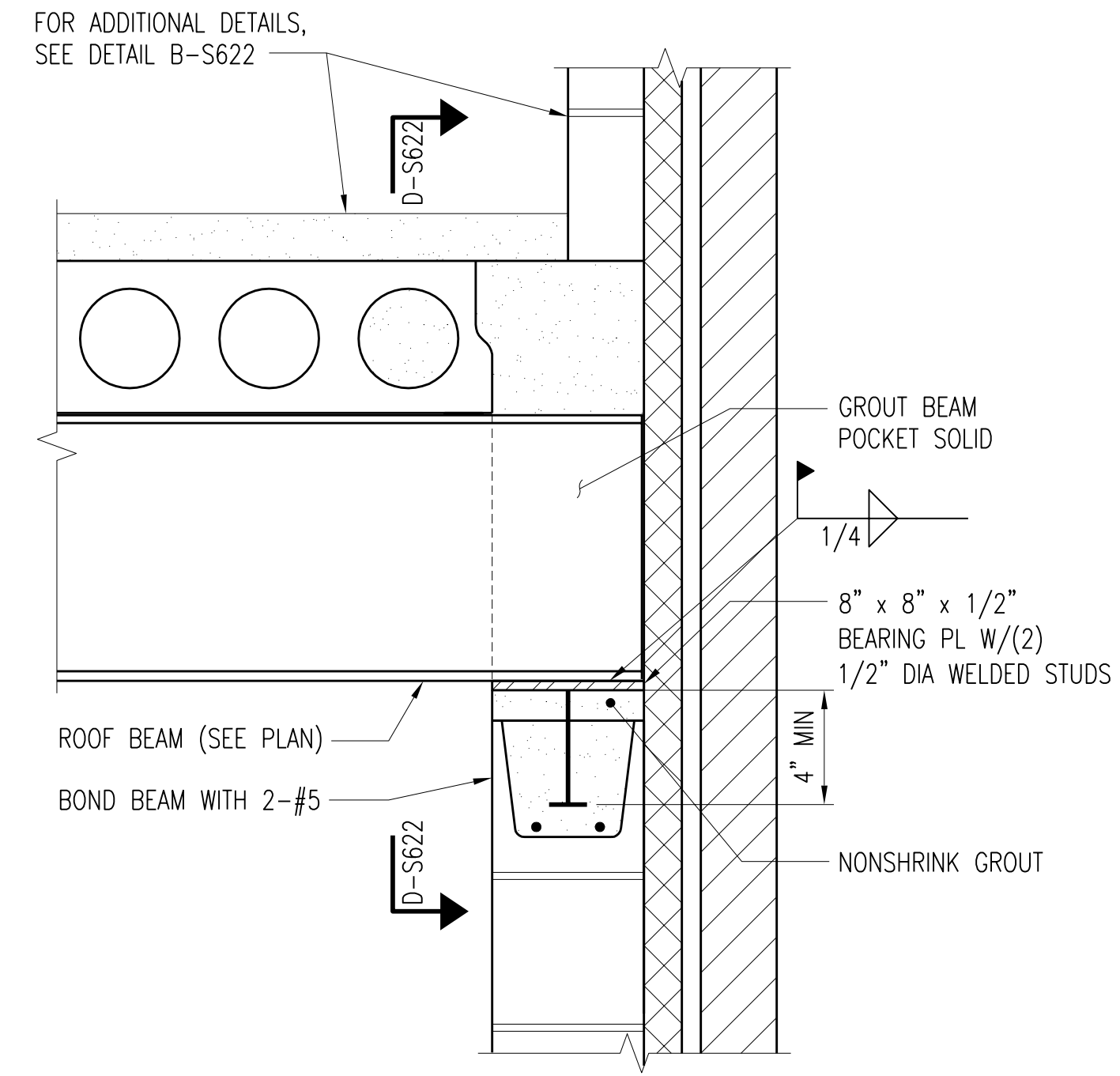


SECTION A-S622
S620
SCALE: 1 1/2" = 1'-0"



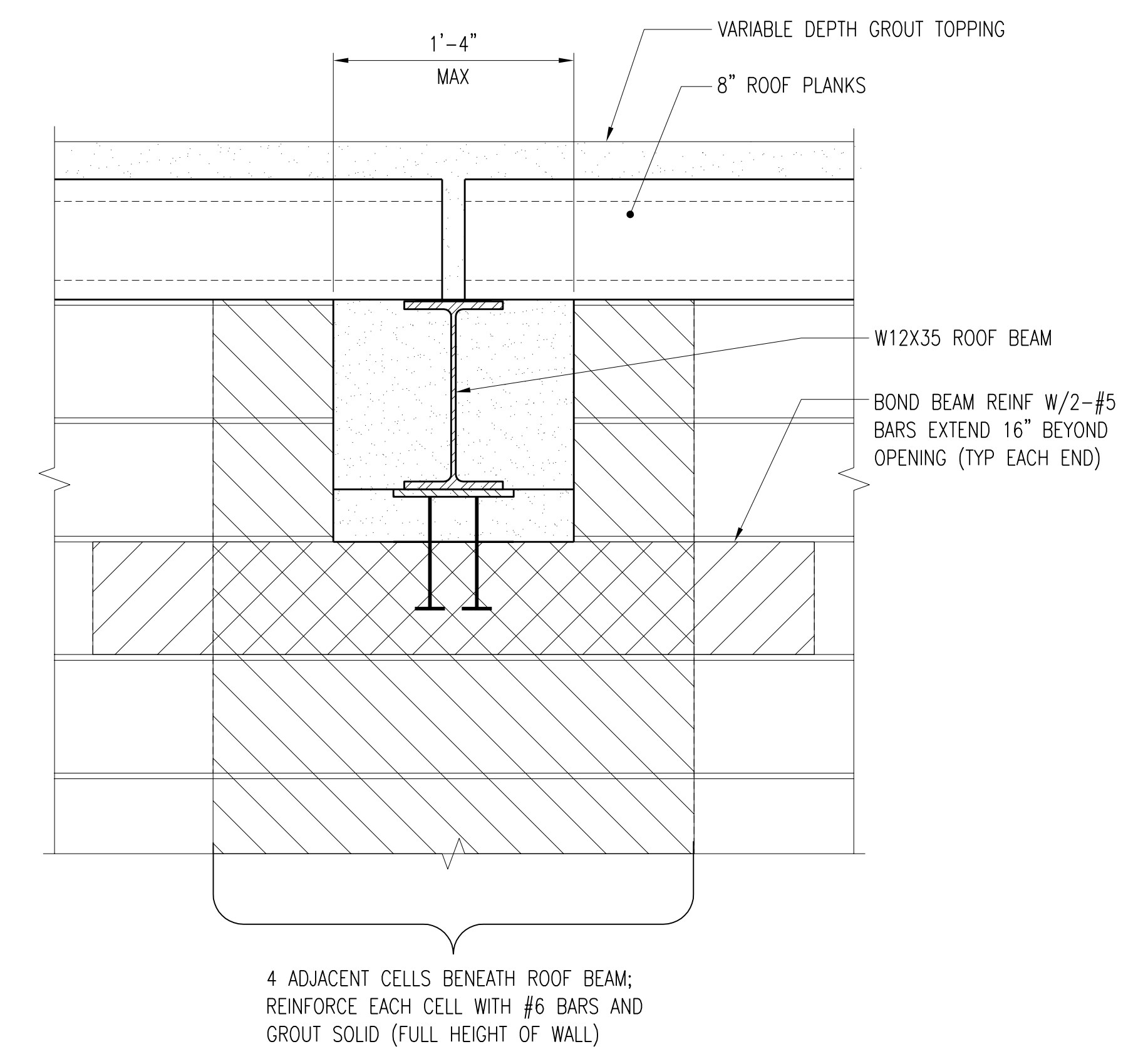
SECTION B-S622
S620
SCALE: 1 1/2" = 1'-0"

SEE RFI #42 SHEET S622-A



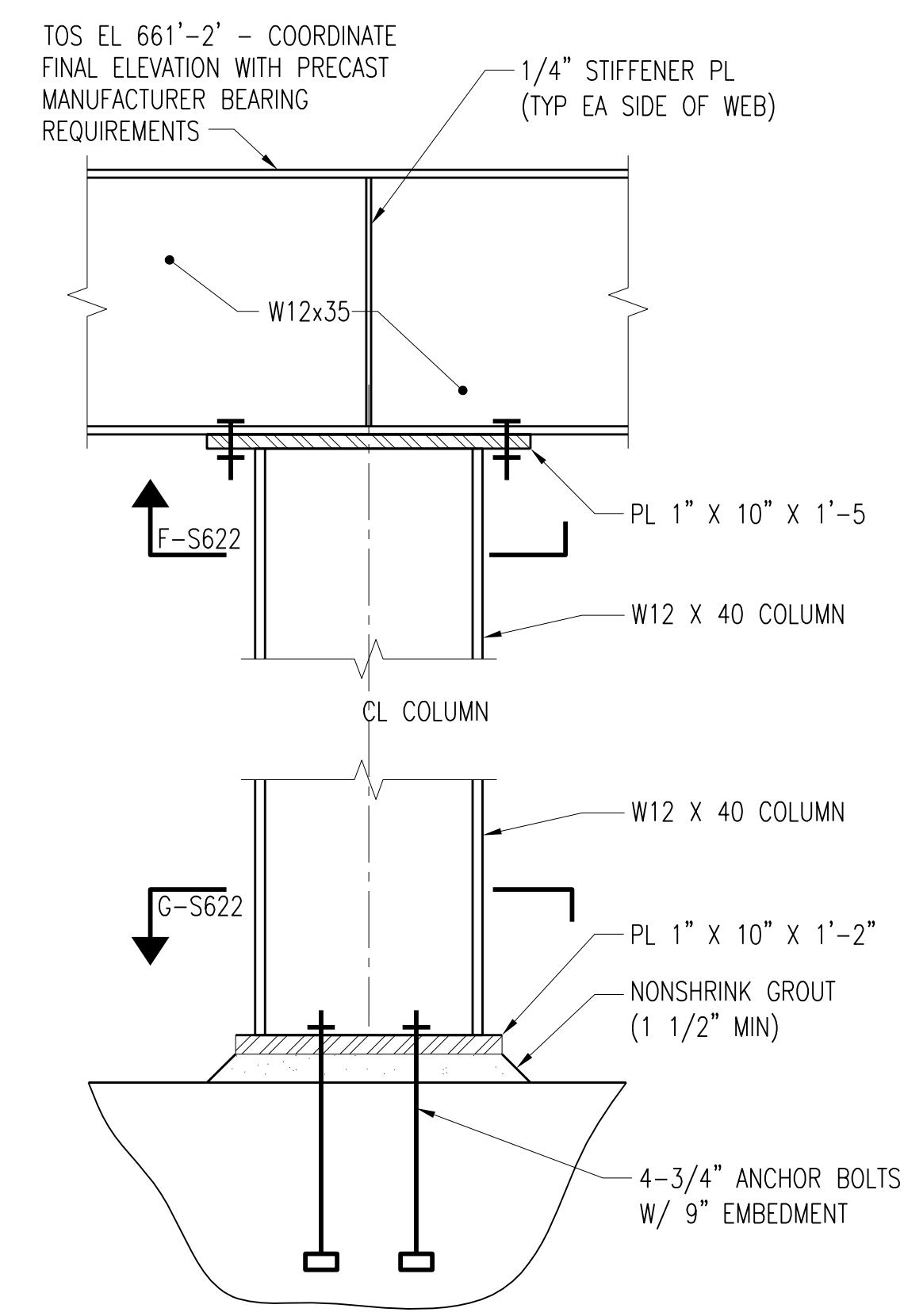
SECTION C-S622
S620
SCALE: 1 1/2" = 1'-0"

SEE RFI #42 SHEET S622-A

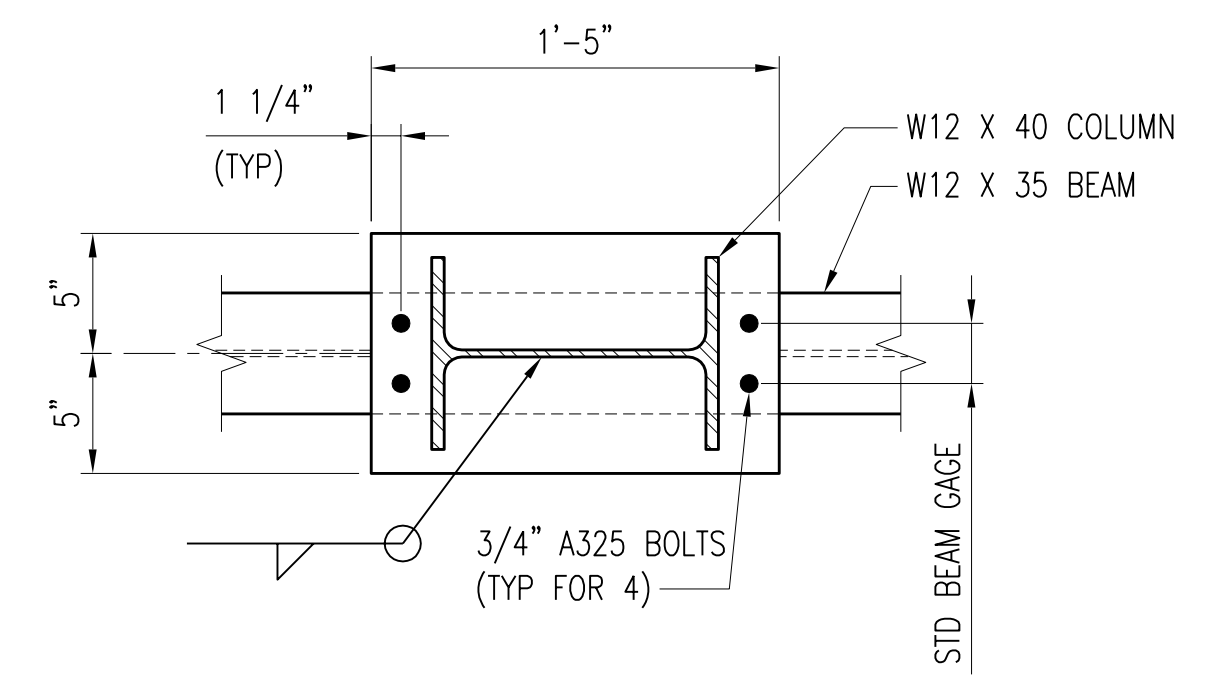


SECTION D-S622
S622
SCALE: 1 1/2" = 1'-0"

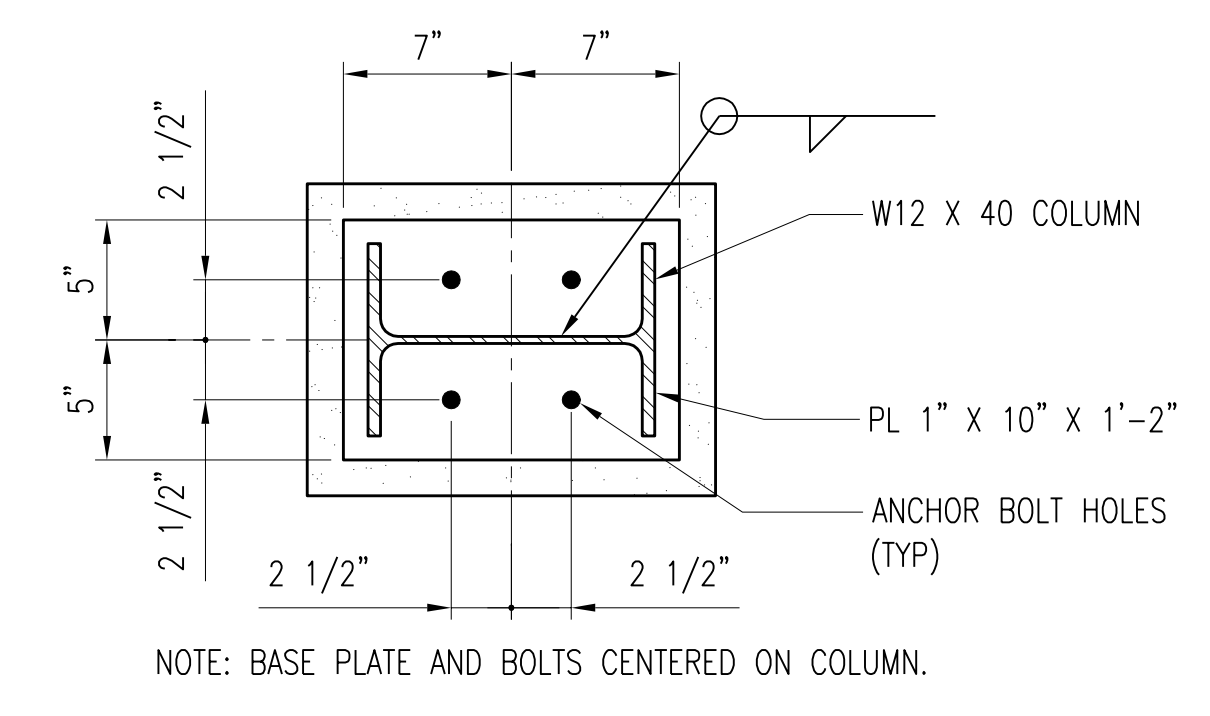
4 ADJACENT CELLS BENEATH ROOF BEAM;
REINFORCE EACH CELL WITH #6 BARS AND
GROUT SOLID (FULL HEIGHT OF WALL)



SECTION E-S622
S620
SCALE: 1 1/2" = 1'-0"

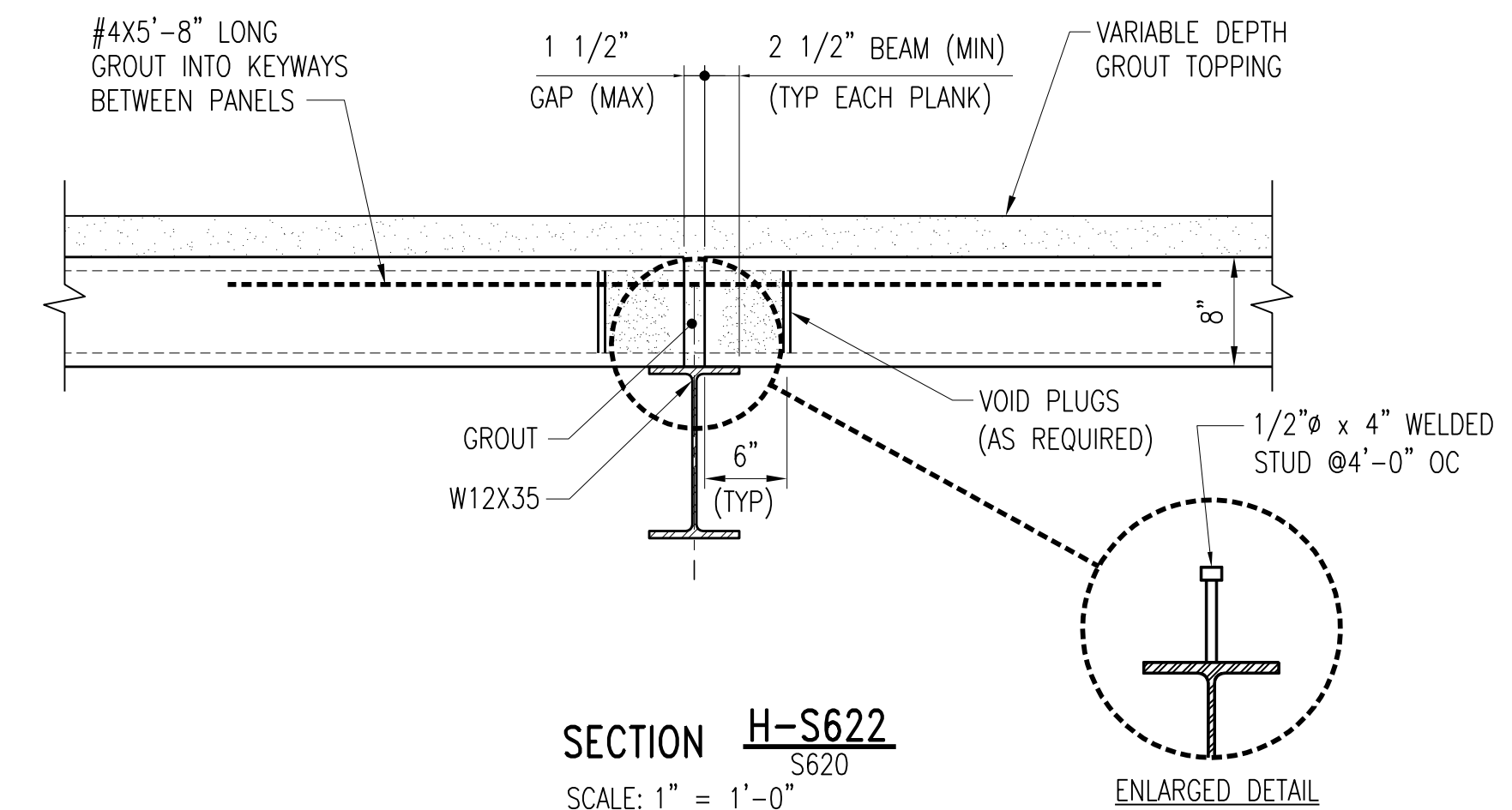


SECTION F-S622
S622
SCALE: 1 1/2" = 1'-0"



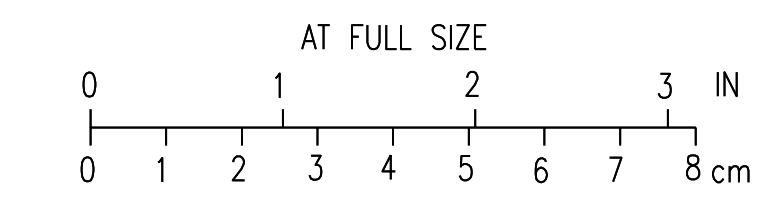
SECTION G-S622
S622
SCALE: 1 1/2" = 1'-0"

NOTE: BASE PLATE AND BOLTS CENTERED ON COLUMN.



SECTION H-S622
S620
SCALE: 1" = 1'-0"

ENLARGED DETAIL



3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	KBH	KBH	LHB	01-25-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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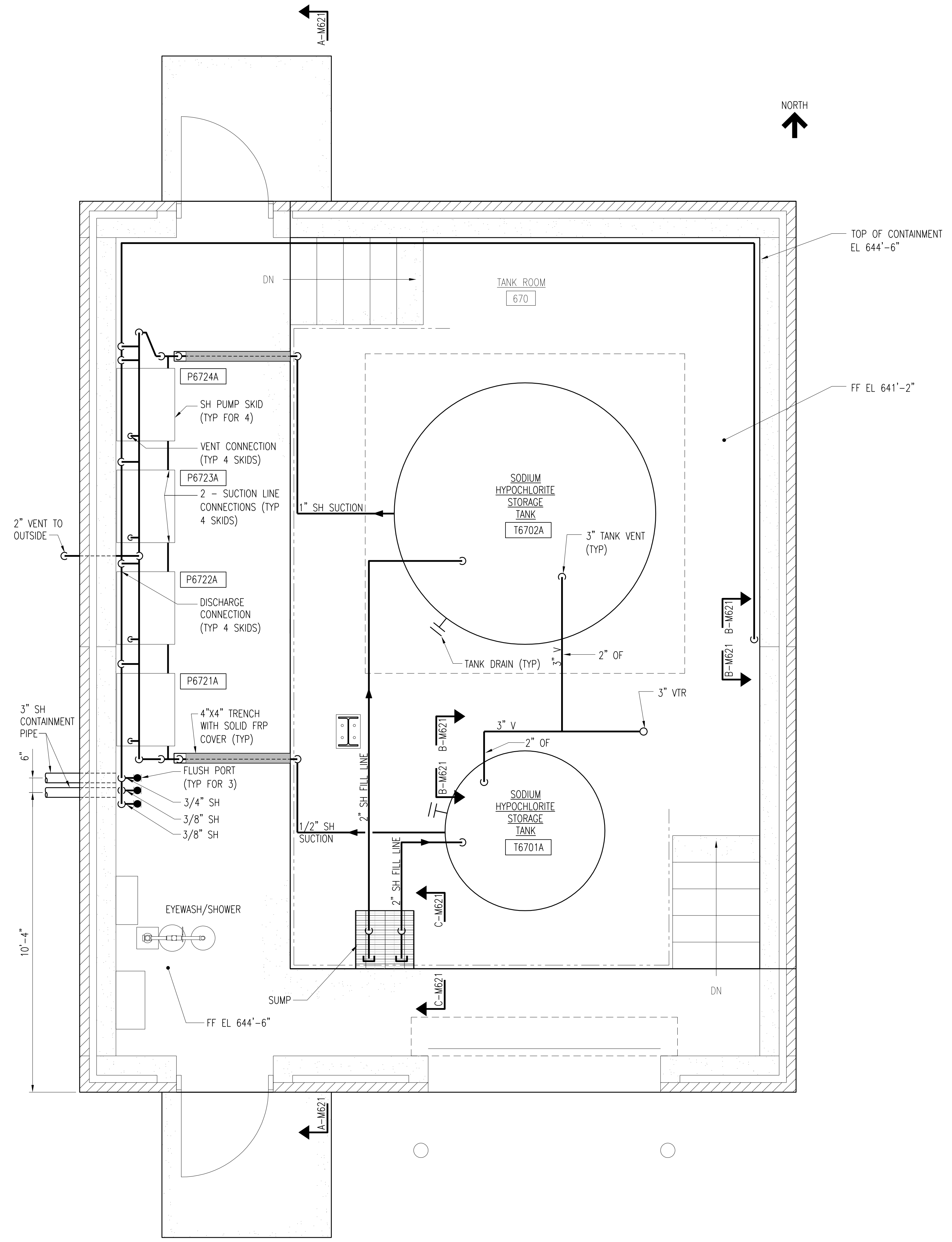
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SODIUM HYPOCHLORITE BUILDING
DETAILS - SHEET 2**

DESIGNED	SR ECKMAM	SCALE: AS NOTED	NO. 22800	REV. 3
DRAWN	ZL MAGNUSON			
CHECKED	KB HALL			
APPROVED	LH BADTRAM			
DATE	DECEMBER 2, 2011			

CADD D1-1-R4

- NOTES:**
- SEE DRAWING C18 FOR STRUCTURE LOCATION.
 - SEE DRAWING C38 FOR CONTINUATION OF SITE PIPING.
 - FOR CLARITY, NOT ALL VALVES ARE SHOWN. SEE DRAWINGS M621 AND P603 FOR ADDITIONAL VALVES.
 - FLOOR PENETRATIONS IN CONTAINMENT AREA SHALL BE TYPE B AS SHOWN ON DRAWING M2. MODULAR MECHANICAL EXPANDING RUBBER SEAL SHALL BE EPDM RUBBER WITH STAINLESS STEEL HARDWARE.



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



4	RECORD DRAWING	JBL	JBL	JBL	03-31-2014
3	ADDED ADDENDUM COMMENT	LJO	JBL	JBL	05-04-2012
2	ADDED SH LINE	AMR	AMR	JBL	01-25-2012
1	ISSUED FOR CONSTRUCTION	AMR	AMR	JBL	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

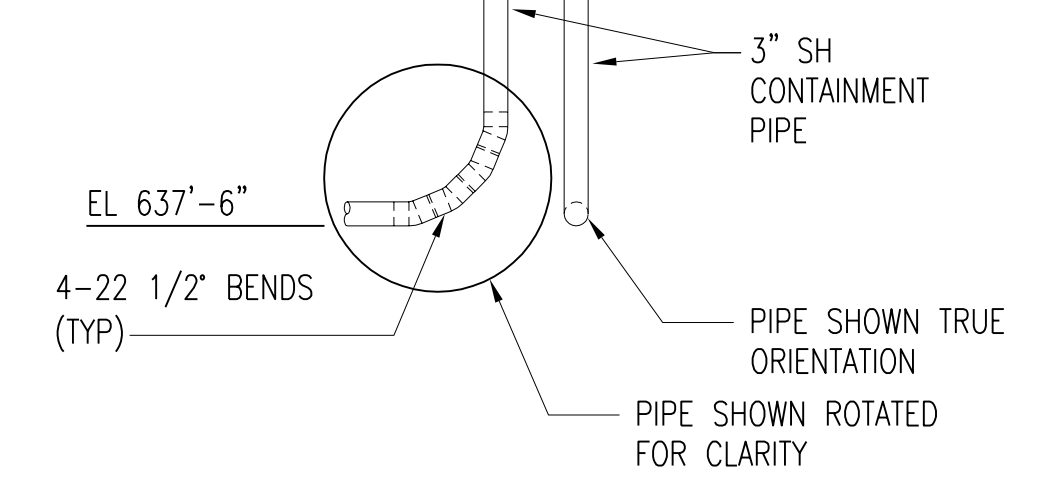
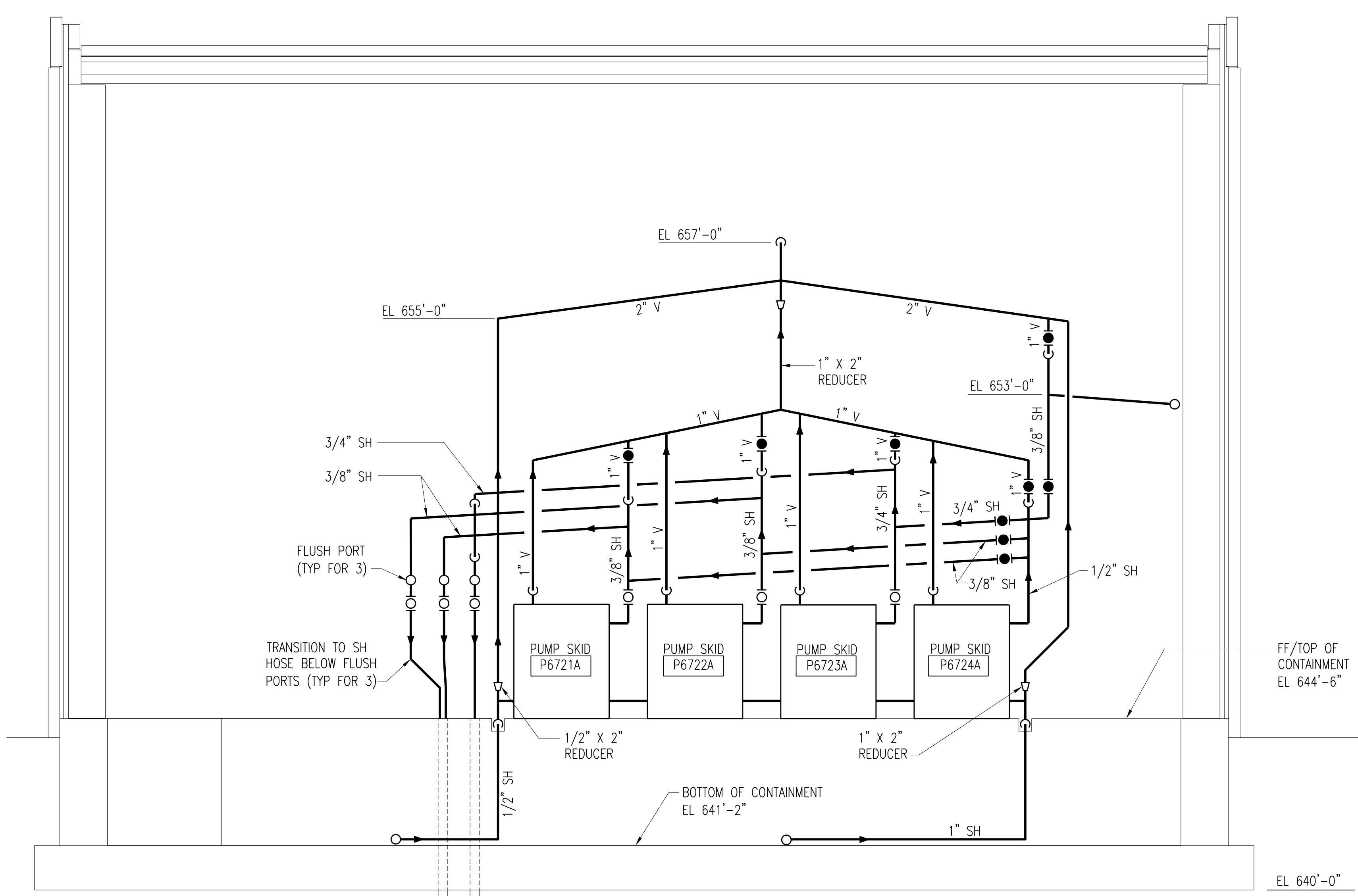
**SODIUM HYPOCHLORITE BUILDING
PROCESS PIPING PLAN**

DESIGNED AM ROMERO	SCALE: 1/4" = 1'-0"
DRAWN JM KOENIG	NO. 22800
CHECKED AM ROMERO	REV.
APPROVED JB LUND	M620
APPROVED	4
DATE DECEMBER 2, 2011	

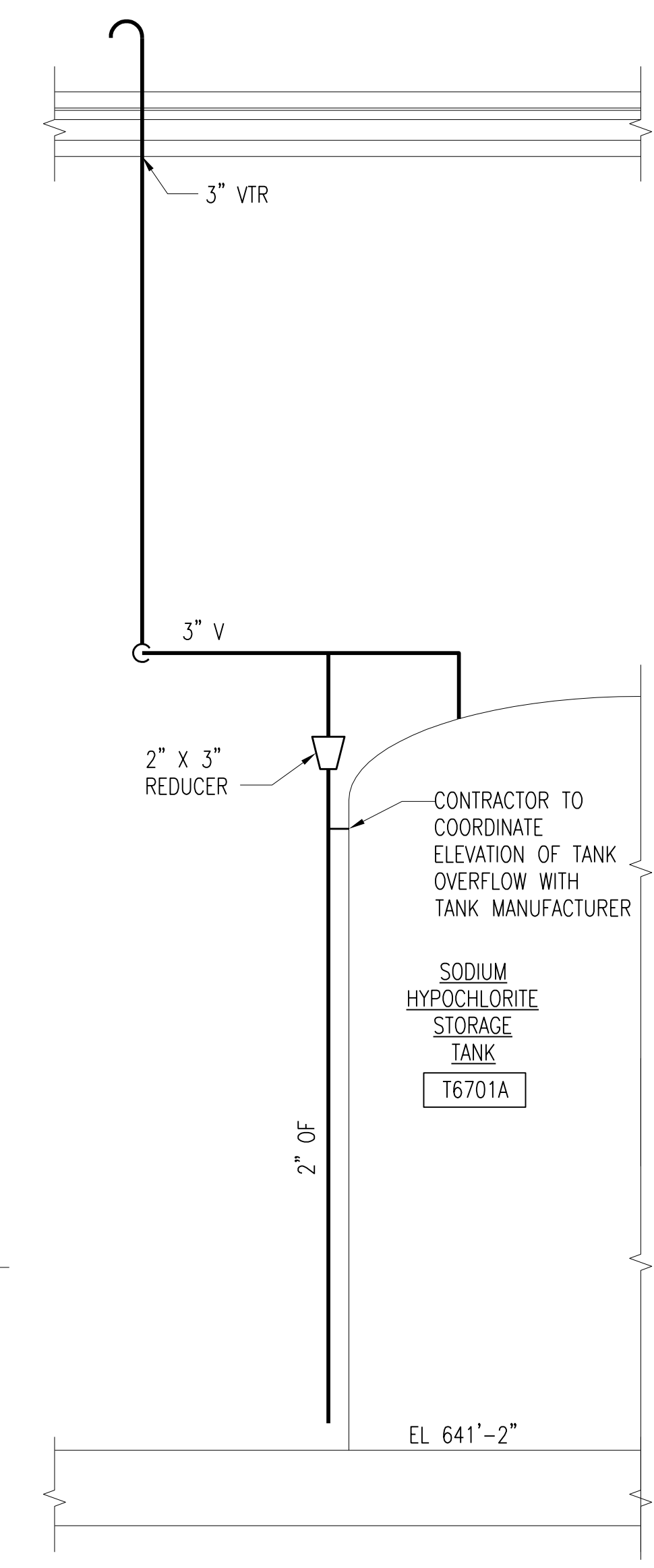
CADD: D1-1-R4

NOTES:

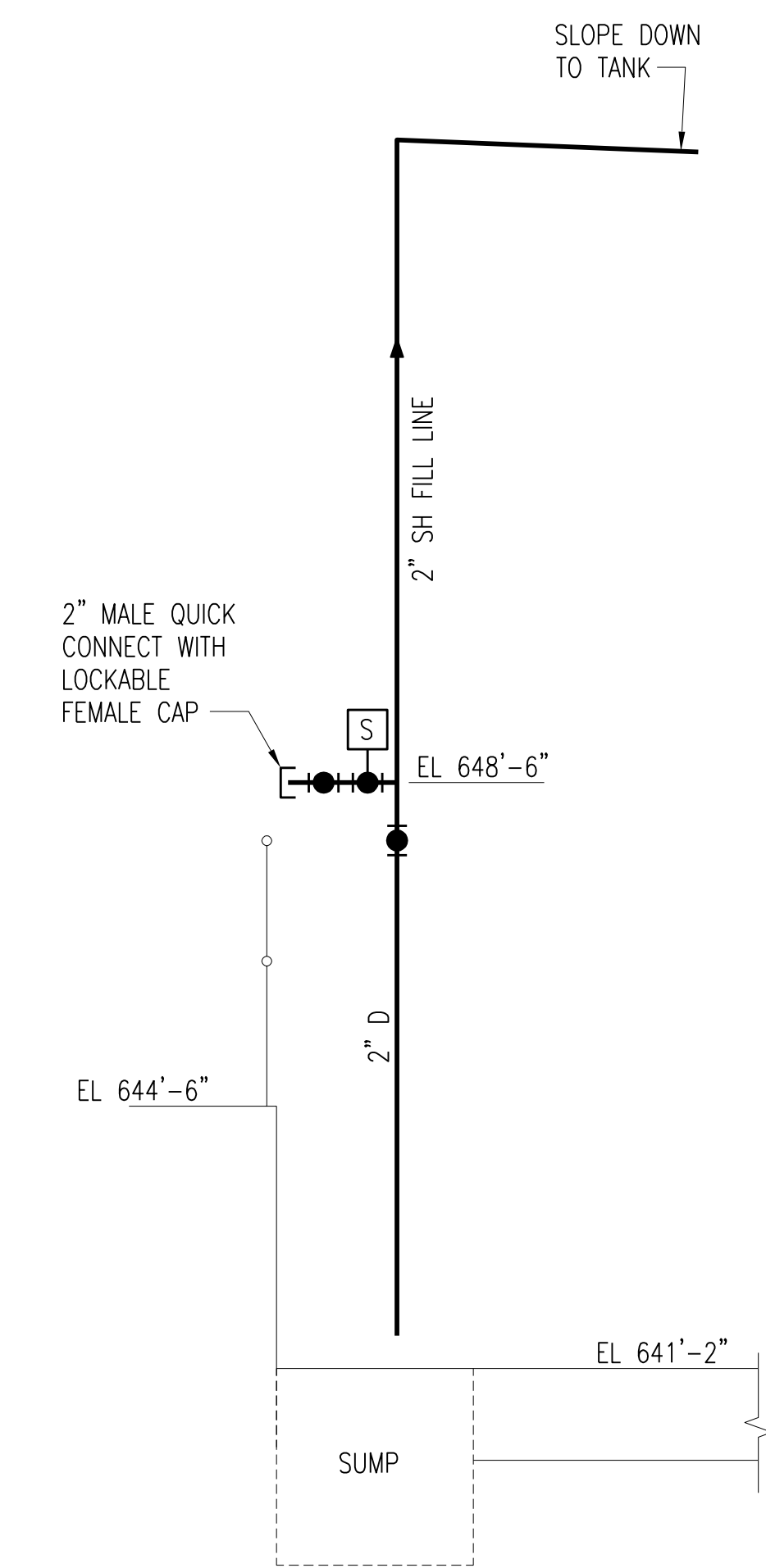
1. SEE DRAWING C18 FOR STRUCTURE LOCATION.
2. SEE DRAWING C38 FOR CONTINUATION OF SITE PIPING.
3. SLOPE SODIUM HYPOCHLORITE AND VENT PIPING UPWARDS.
4. COORDINATE ELEVATION OF PIPING WITH EQUIPMENT PURCHASED.
5. FOR CLARITY, NOT ALL VALVES ARE SHOWN. SEE DRAWINGS M620 AND P603 FOR ADDITIONAL VALVES.
6. FLOOR PENETRATIONS IN CONTAINMENT AREA SHALL BE TYPE B AS SHOWN ON DRAWING M2. MODULAR MECHANICAL EXPANDING RUBBER SEAL SHALL BE EPDM RUBBER WITH STAINLESS STEEL HARDWARE.



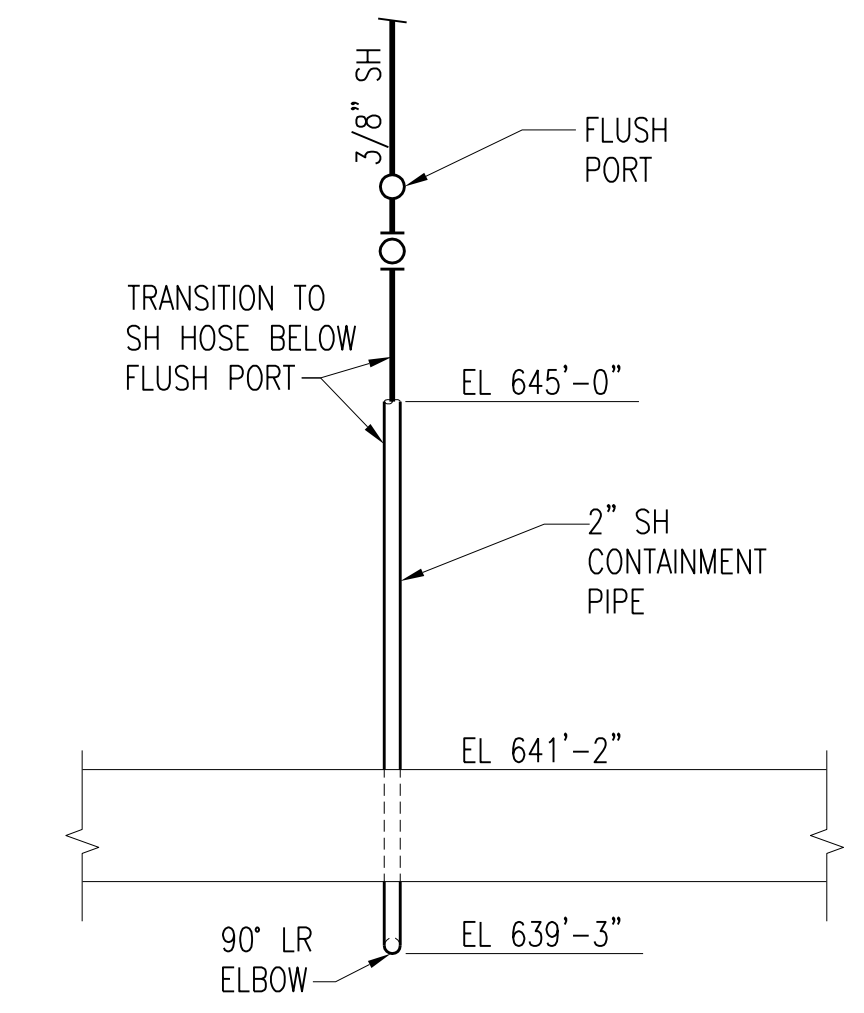
SECTION A-M621
M620
SCALE: 1/2" = 1'-0"



SECTION B-M621
M620
SCALE: 1/2" = 1'-0"



SECTION C-M621
M620
SCALE: 1/2" = 1'-0"



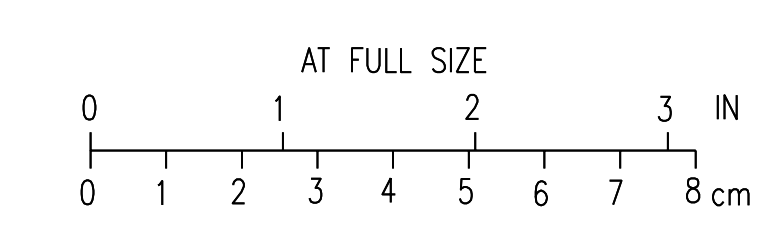
SECTION D-M621
M620
SCALE: 1/2" = 1'-0"

4	RECORD DRAWING	JBL	JBL	JBL	03-31-2014
3	ADDED ADDENDUM COMMENT	LJO	JBL	JBL	05-04-2012
2	REVISED SECTION A, ADDED SECTION D	AMR	AMR	JBL	01-25-2012
1	ISSUED FOR CONSTRUCTION	AMR	AMR	JBL	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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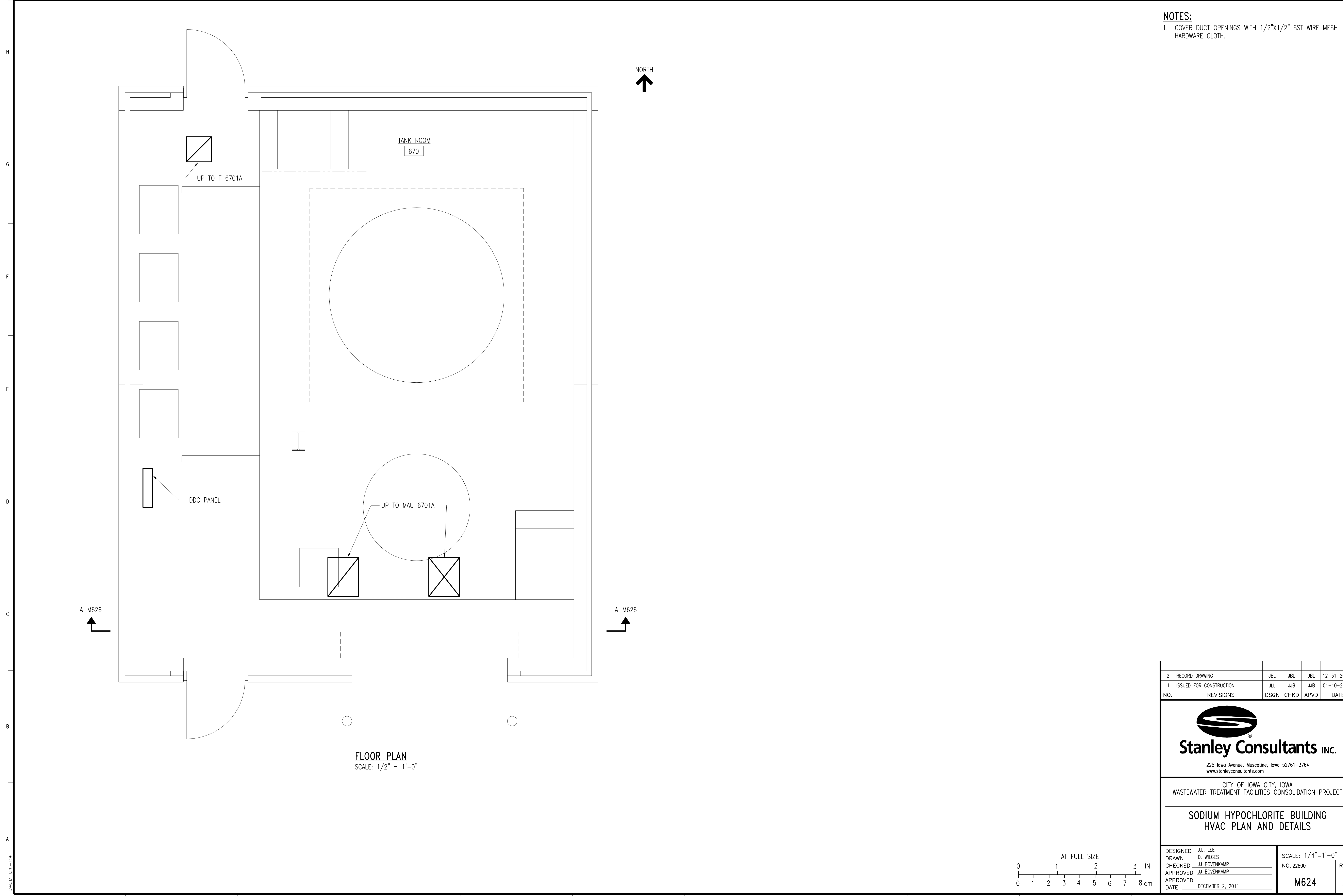
CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT
**SODIUM HYPOCHLORITE BUILDING
 PROCESS PIPING SECTIONS & DETAILS**

DESIGNED	AM ROMERO	SCALE: 1/4" = 1'-0"	NO. 22800	REV. 4
DRAWN	DA SCHMIDT			
CHECKED	AM ROMERO			
APPROVED	JB LUND			
APPROVED				
DATE	DECEMBER 2, 2011			



CADD: D1-1-R4

NOTES:
 1. COVER DUCT OPENINGS WITH 1/2"x1/2" SST WIRE MESH HARDWARE CLOTH.



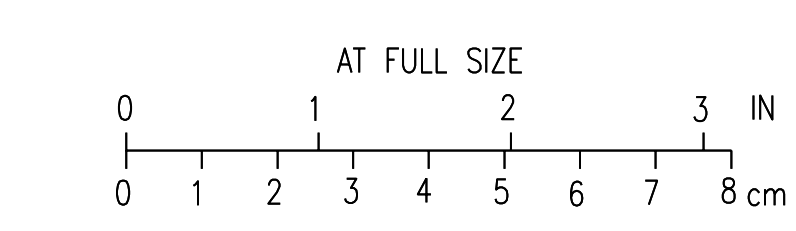
FLOOR PLAN
 SCALE: 1/2" = 1'-0"

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JLL	JJB	JJB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SODIUM HYPOCHLORITE BUILDING
 HVAC PLAN AND DETAILS**



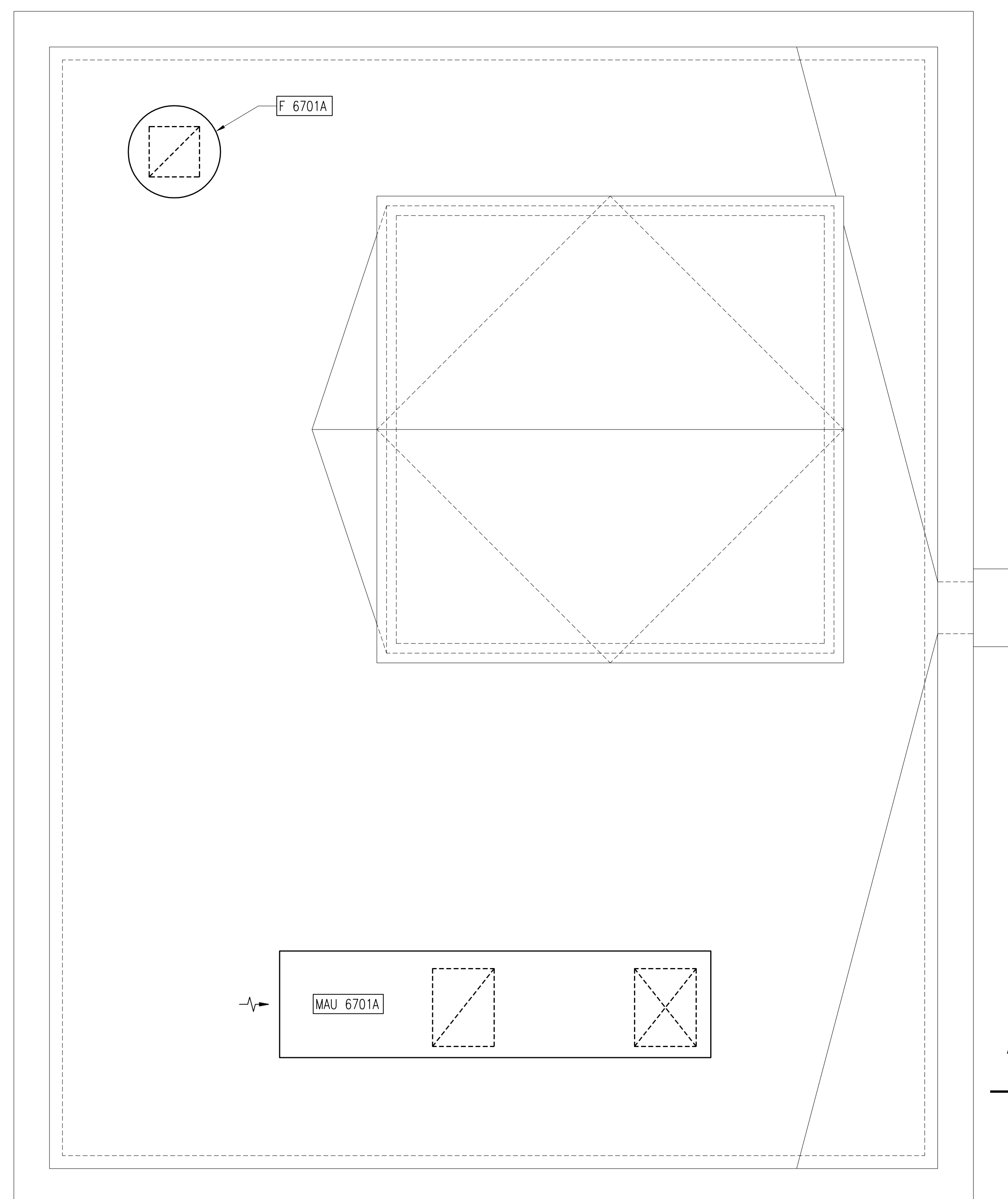
DESIGNED	J.L. LEE	SCALE: 1/4" = 1'-0"	
DRAWN	D. WILGES	NO. 22800	REV.
CHECKED	JJ BOVENKAMP		
APPROVED	JJ BOVENKAMP		
APPROVED		M624	2
DATE	DECEMBER 2, 2011		

CADD: D1-R4

NOTES:

- COVER DUCT OPENINGS WITH 1/2"x1/2" SST WIRE MESH HARDWARE CLOTH.

NORTH
↑



SEE RFI #88 SHEET M625-A

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

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JLL	JJB	JJB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



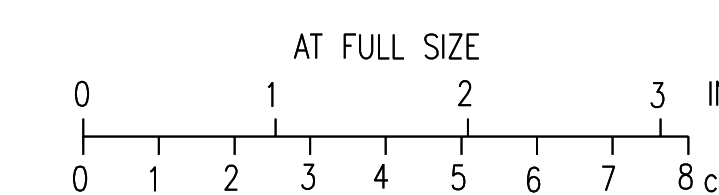
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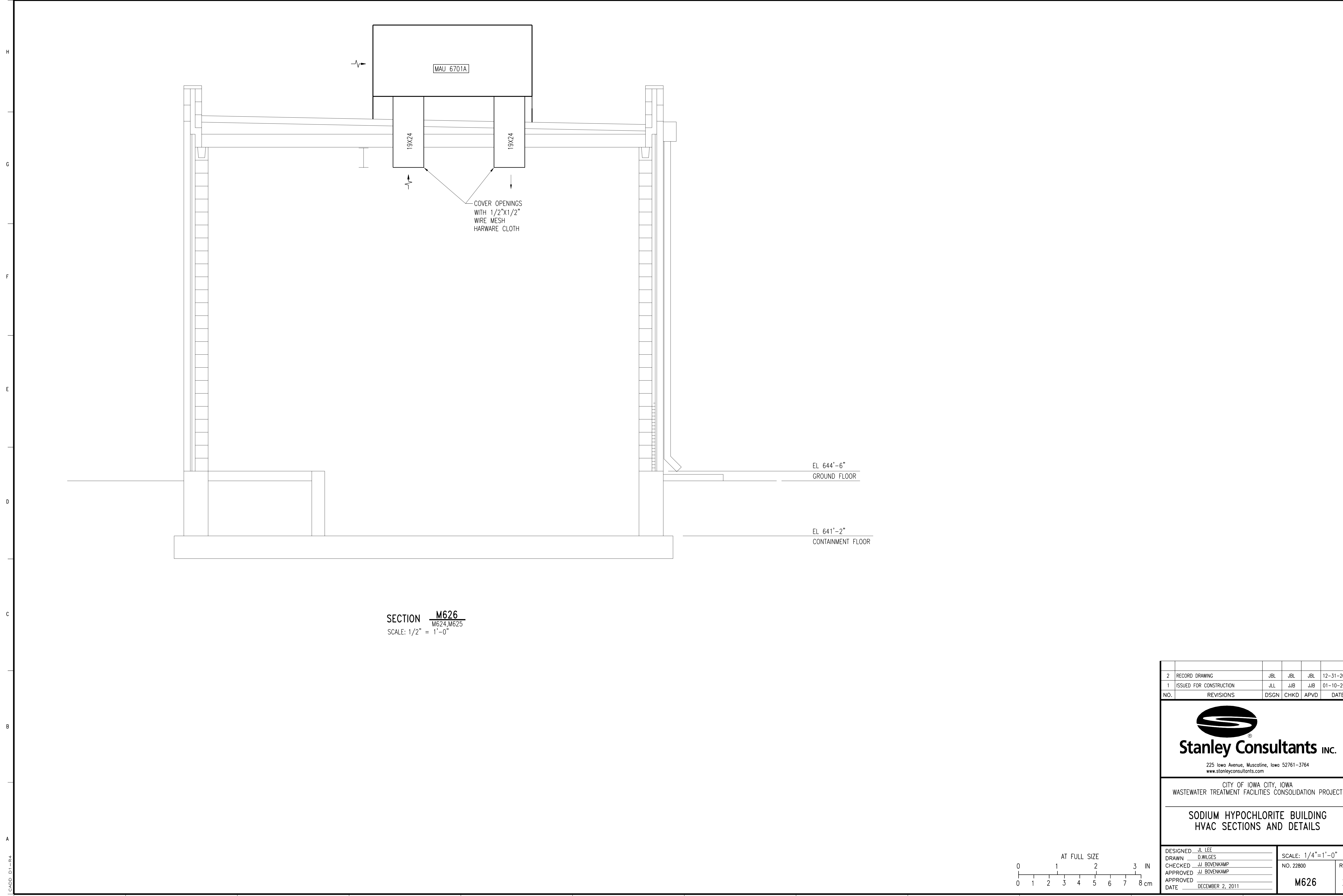
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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SODIUM HYPOCHLORITE BUILDING
HVAC ROOF PLAN AND DETAILS**

DESIGNED	J.L. LEE	SCALE: 1/4" = 1'-0"	
DRAWN	D. WILGES	NO. 22800	REV.
CHECKED	JJ BOVENKAMP		
APPROVED	JJ BOVENKAMP		
APPROVED			
DATE	DECEMBER 2, 2011		
		M625	2





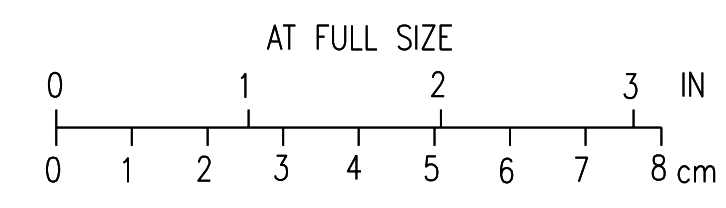
SECTION M626
 M624, M625
 SCALE: 1/2" = 1'-0"

EL 644'-6"
 GROUND FLOOR
 EL 641'-2"
 CONTAINMENT FLOOR

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JLL	JJB	JJB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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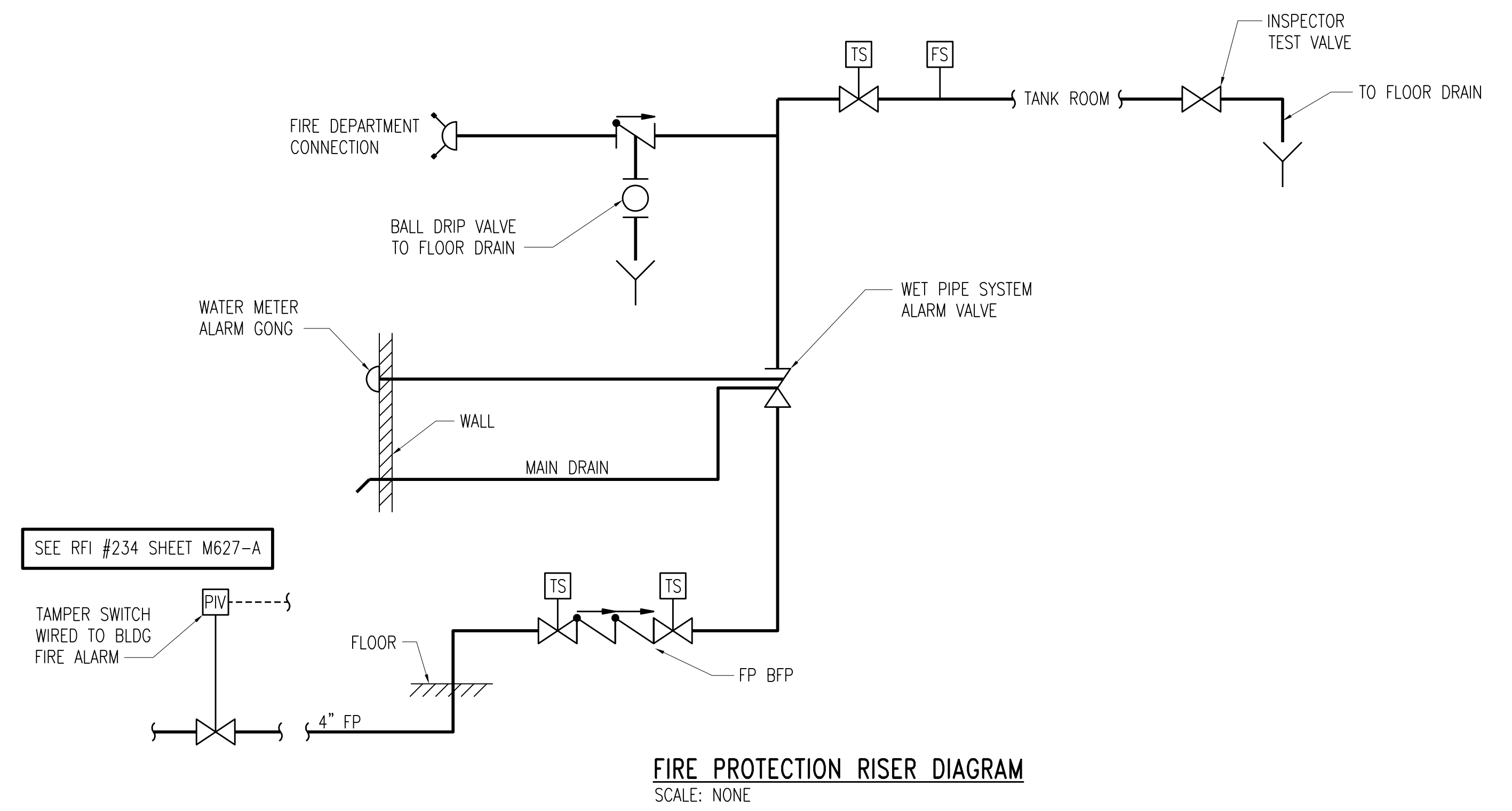
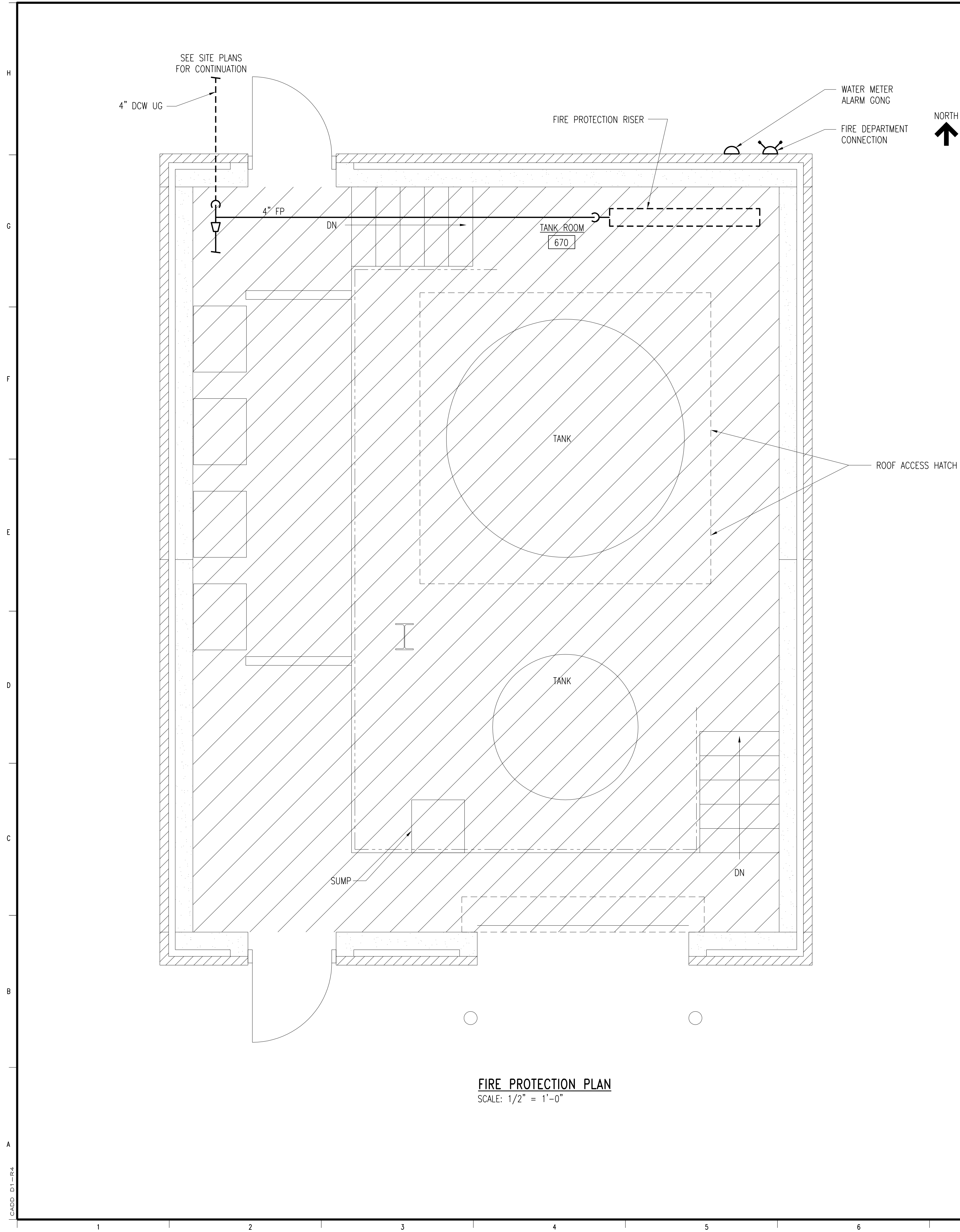
CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT
SODIUM HYPOCHLORITE BUILDING
HVAC SECTIONS AND DETAILS



DESIGNED	JL LEE	SCALE:	1/4" = 1'-0"
DRAWN	D. WILGES	NO.	22800
CHECKED	JJ BOVENKAMP	REV.	
APPROVED	JJ BOVENKAMP		
APPROVED			
DATE	DECEMBER 2, 2011		

M626 **2**

CADD: D1-R4



LEGEND:

ORDINARY HAZARD (GROUP 2)

NOTES:

1. AVOID PLACING SPRINKLERS AND PIPING ABOVE TANKS OR BELOW ACCESS HATCH. IF NOT POSSIBLE MINIMIZE PIPING AND SPRINKLERS AND PROVIDE ISOLATION VALVES AND OTHER ITEMS TO MAKE PIPING AND SPRINKLERS REMOVABLE IN THIS AREA.

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JLL	JJB	JJB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SODIUM HYPOCHLORITE BUILDING
FIRE PROTECTION PLAN AND DETAILS**

DESIGNED	J.L. LEE	SCALE: 1/4" = 1'-0"	NO. 22800	REV.
DRAWN	D. WILGES			
CHECKED	JJ BOVENKAMP			
APPROVED	JJ BOVENKAMP			
DATE	DECEMBER 2, 2011			
			M627	2



CADD: D1-R4

SEQUENCE OF OPERATION

1. CONTROL OF HVAC FUNCTIONS OF FOLLOWING EQUIPMENT:

A. MAKEUP AIR UNITS (MAU) :
i. MAU 6701A

B. EXHAUST FANS (F):
i. F 6701A

2. GENERAL REQUIREMENTS:

- A. HVAC SYSTEMS SHALL BE CONTROLLED BY DIRECT DIGITAL CONTROLS AND REMOTE THERMOSTATS.
- B. REMOTE THERMOSTATS SHALL BE PROGRAMMABLE ELECTRONIC WITH BATTERY BACKUP; WITH 7 SEPARATE PROGRAMMABLE DAYS; WITH MULTIPLE STAGES OF HEATING BASED ON REQUIRED SEQUENCE OF CONTROL; AND WITH HEATING-COOLING SELECTOR SWITCH.
- C. SET POINTS LABELED AS "ADJUSTABLE" SHALL BE FULLY ADJUSTABLE.
- D. ALARM REPORTING SHALL BE DONE AT PANEL ASSOCIATED WITH EQUIPMENT.

3. NORMAL CONTROL POSITIONS:

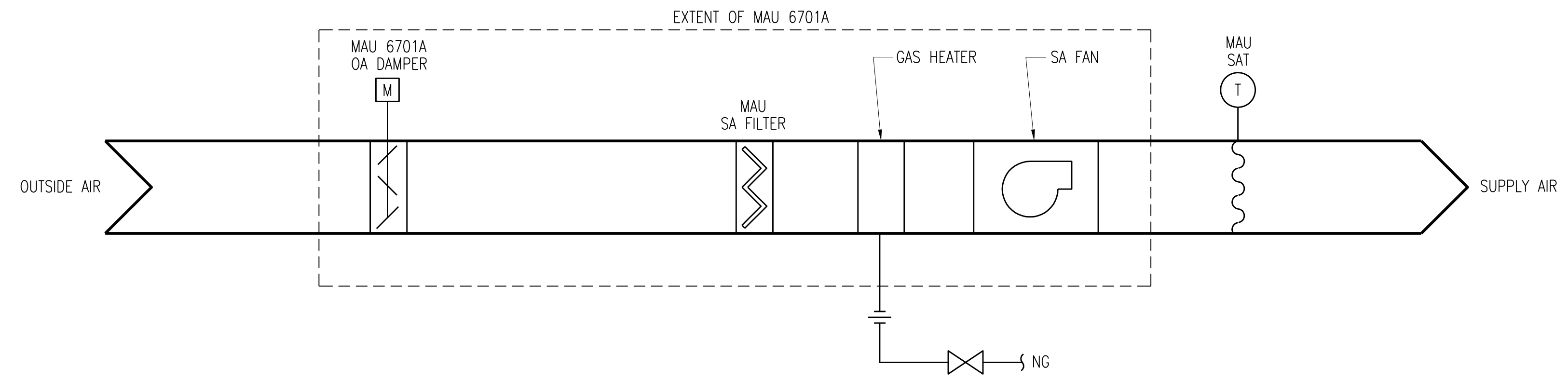
- A. "NORMAL POSITIONS OF CONTROLLED DEVICES SHALL BE POSITION THAT A DEVICE RETURNS TO ON POWER FAILURE OR CONTROLLER FAILURE. NORMAL POSITIONS SHALL BE AS FOLLOWS:
i. OUTDOOR AIR DAMPERS: NORMALLY CLOSED.

4. MAKEUP AIR UNIT CONTROL:

- A. MAKEUP AIR UNIT MAU 6701A SHALL SERVE SODIUM HYPOCHLORITE TANK ROOM.
- B. MAU 6701A SHALL BE CONTROLLED AS FOLLOWS:
i. MAU 6701A FAN SHALL OPERATE CONTINUOUSLY. ASSOCIATED OUTDOOR AIR DAMPER SHALL OPEN.
ii. WHEN SUPPLY AIR TEMPERATURE DROPS BELOW SET POINT (60°F, ADJUSTABLE) MAU 6701A GAS HEATER SHALL IGNITE AND MODULATE GAS INPUT TO MAINTAIN SUPPLY AIR TEMPERATURE. AS SUPPLY AIR TEMPERATURE RISES ABOVE SET POINT, MAU 6701A GAS HEATER SHALL TURN OFF.

5. EXHAUST FAN CONTROL:

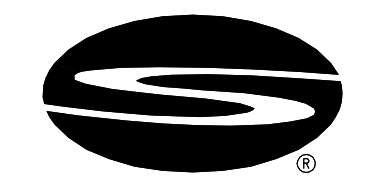
- A. EXHAUST FAN F 6701A SHALL SERVE SODIUM HYPOCHLORITE TANK ROOM. EXHAUST FANS F 6701A SHALL BE INTERLOCKED WITH MAU 6701A AND SHALL OPERATE CONTINUOUSLY.



MAKEUP AIR UNIT (MAU 6701A) CONTROL SCHEMATIC

SCALE: NONE

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JLL	JJB	JJB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



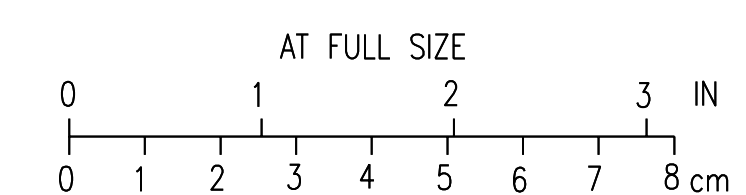
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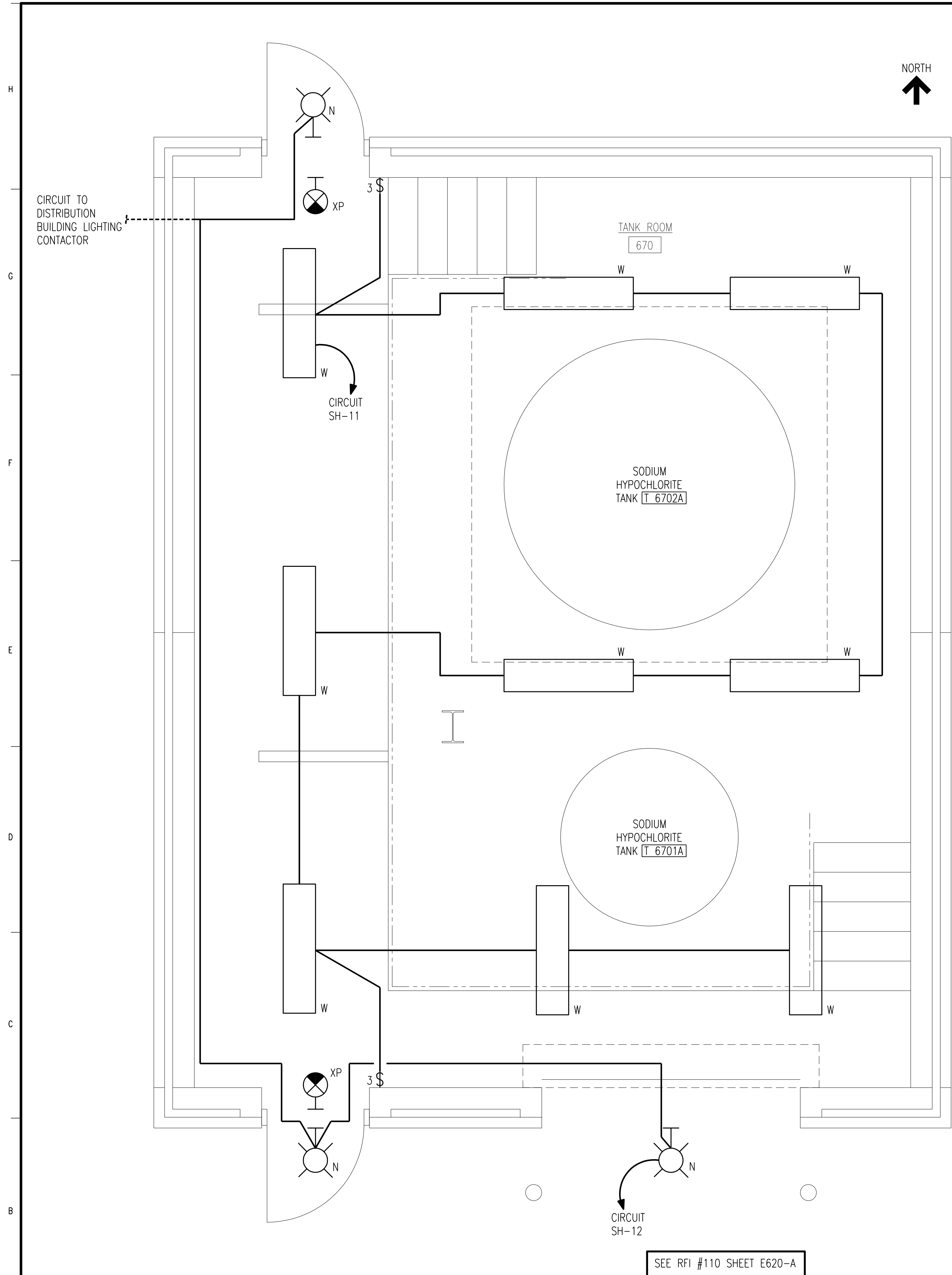
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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

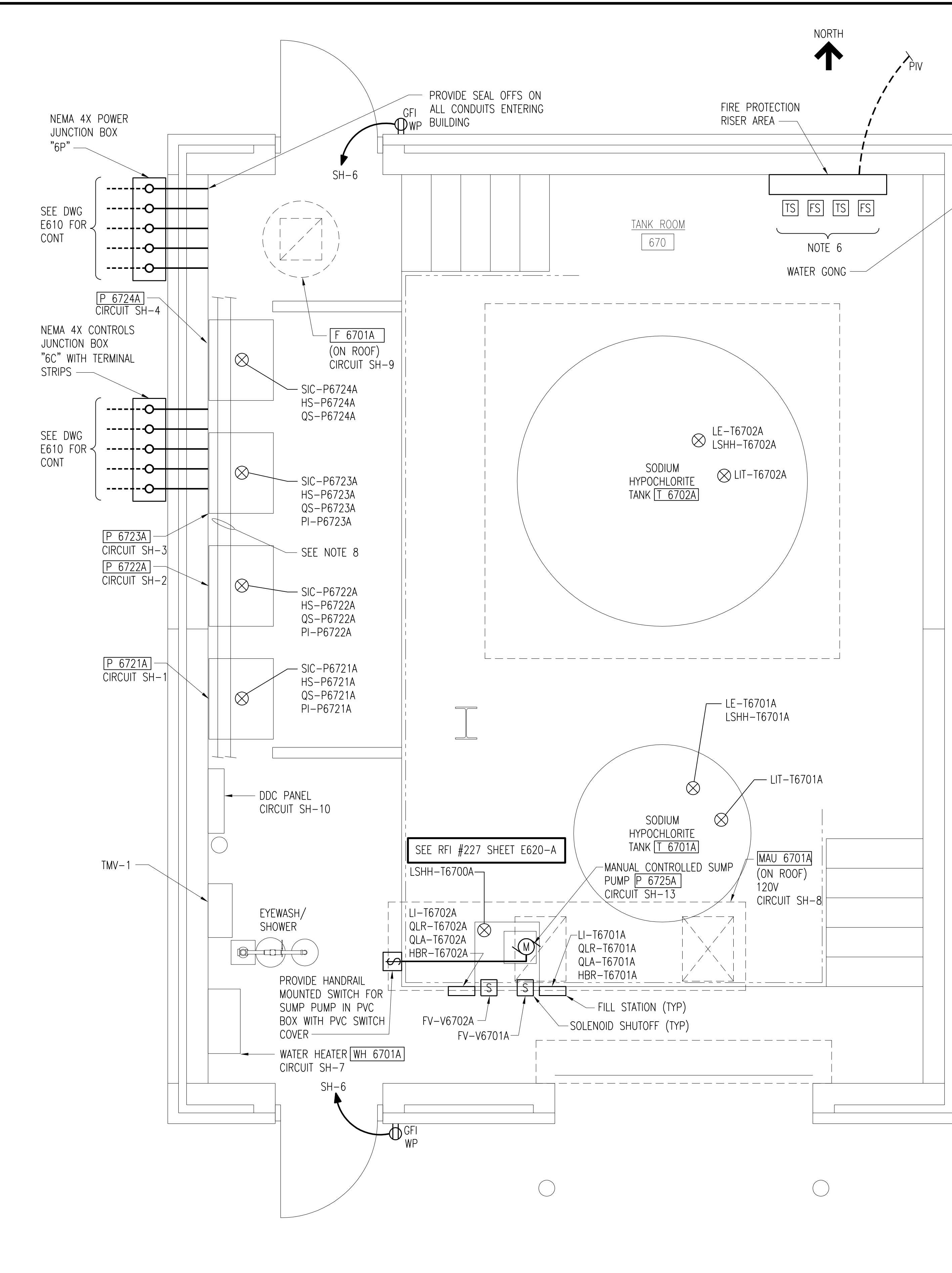
**SODIUM HYPOCHLORITE BUILDING
HVAC CONTROL SCHEMATIC**

DESIGNED	JL LEE	SCALE: NONE	
DRAWN	D. WILGES	NO. 22800	REV.
CHECKED	JJ BOVENKAMP		
APPROVED	JJ BOVENKAMP		
DATE	DECEMBER 2, 2011	M628	2





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



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

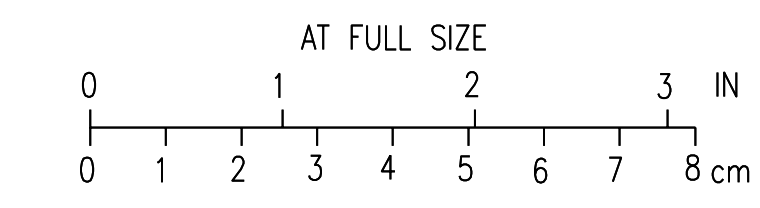
- NOTES:**
- SEE DRAWING E1 FOR GENERAL ELECTRICAL NOTES AND WIRING DEVICE SCHEDULE.
 - SEE DRAWINGS E4 FOR TYPICAL ELECTRICAL DETAILS.
 - SEE DRAWINGS E2 AND E3 FOR LIGHTING FIXTURE SCHEDULE.
 - SEE DRAWING G9 FOR ELECTRICAL LEGEND.
 - THE SODIUM HYPOCHLORITE BUILDING IS CONSIDERED A CORROSIVE ENVIRONMENT. ALL INTERIOR CONDUITS SHALL BE SCHEDULE 80 PVC MOUNTED WITH STAINLESS STEEL STRUT, CLAMPS AND HARDWARE. EXTERIOR CONDUIT RAN ABOVE GRADE SHALL BE PVC COATED RGS.
 - SPRINKLER SYSTEM FLOW AND TAMPER SWITCHES SHALL BE MONITORED BY FIRE ALARM CONTROL PANEL LOCATED AT DISINFECTION BUILDING. PROVIDE #16TSP TO MONITOR IAMS AT EACH SWITCH TO MONITOR CONTACT CLOSURE. SEE DRAWING M626 FOR FIRE PROTECTION RISER.
 - SEE MECHANICAL DRAWINGS FOR HVAC SEQUENCE OF CONTROL REQUIREMENTS.
 - SODIUM HYPOCHLORITE PIPING. SEE DRAWING M621. COORDINATE CONDUIT ENTRY FROM JUNCTION BOX "6C" AND ELECTRICAL JUNCTION BOX "6P" TO ALLOW ENTRANCE OF CONDUIT AND MAINTENANCE OF PIPING IN FUTURE.

4	RECORD DRAWING	JBL	JBL	JBL	03-31-2014
3	ADDED ADDENDUM COMMENT	LJO	JBL	JBL	05-04-2012
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DGN	CHKD	APVD	DATE


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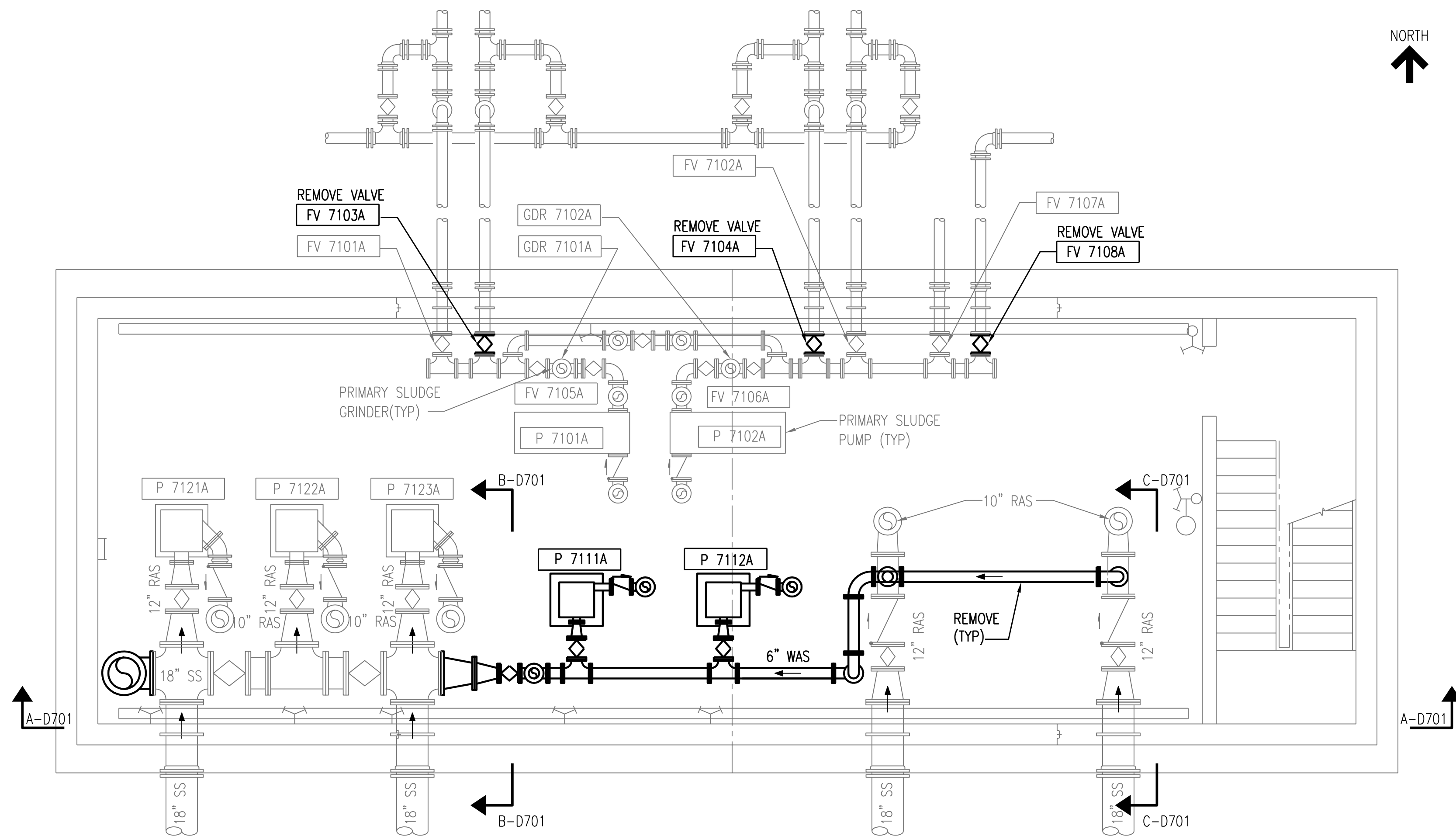
CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT
**SODIUM HYPOCHLORITE BUILDING
 POWER AND LIGHTING PLANS**

DESIGNED	DL MORITZ	SCALE: 1/4" = 1'-0"	NO. 22800	REV.
DRAWN	D. WILGES			
CHECKED	DL MORITZ			
APPROVED	JD COGAN			
APPROVED			E620	4
DATE	DECEMBER 2, 2011			

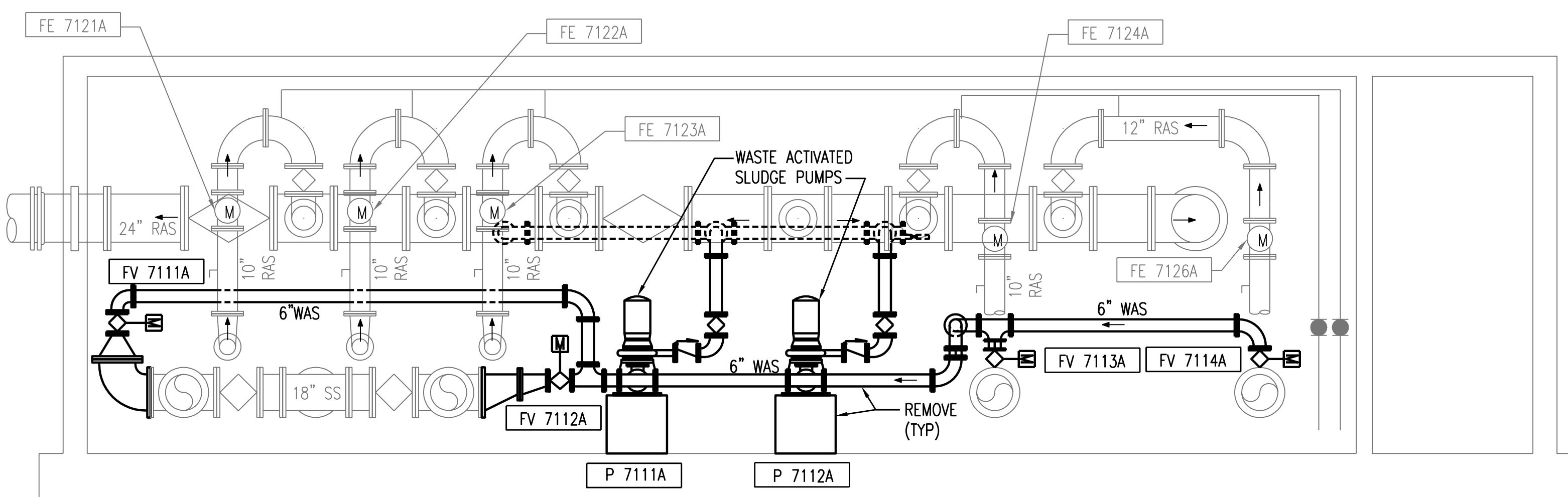


CADD: D1-R4

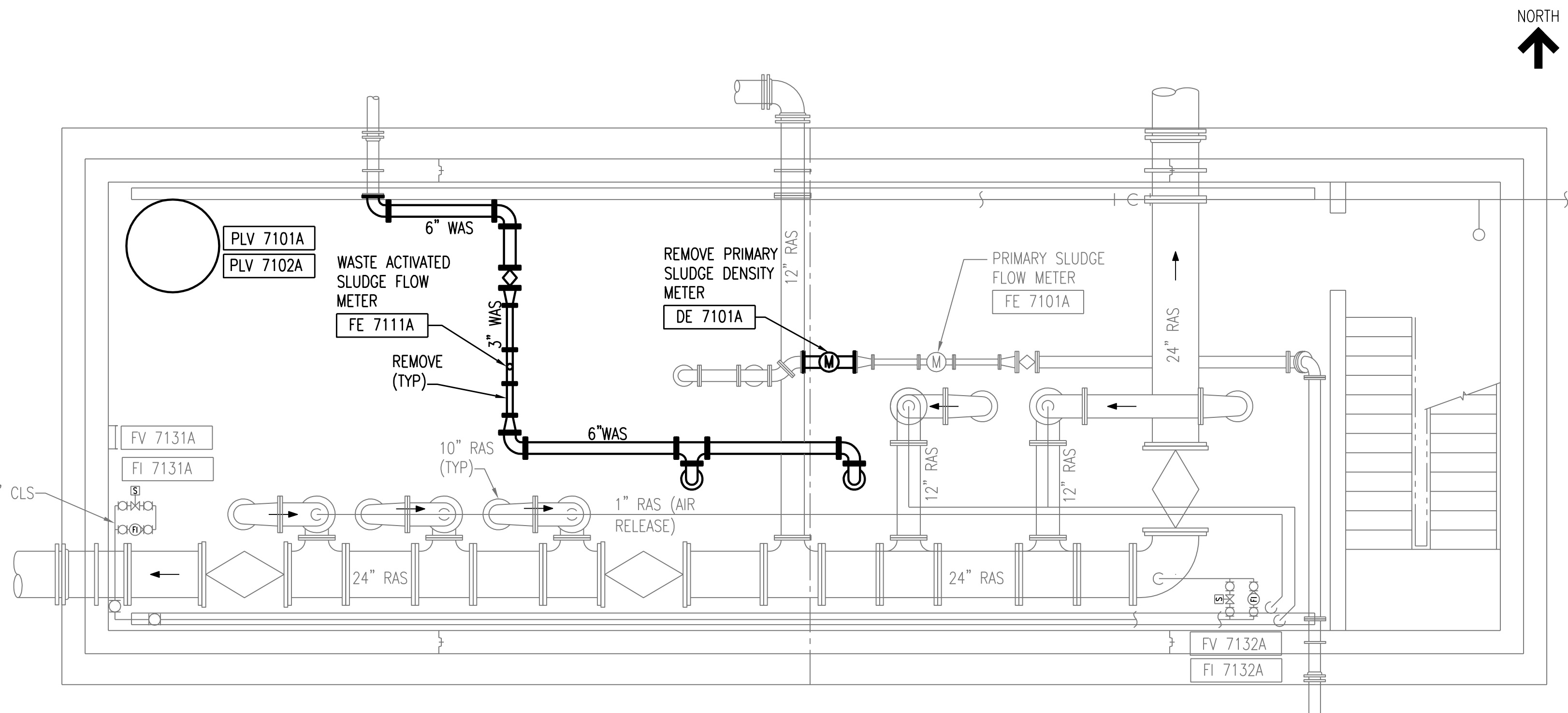
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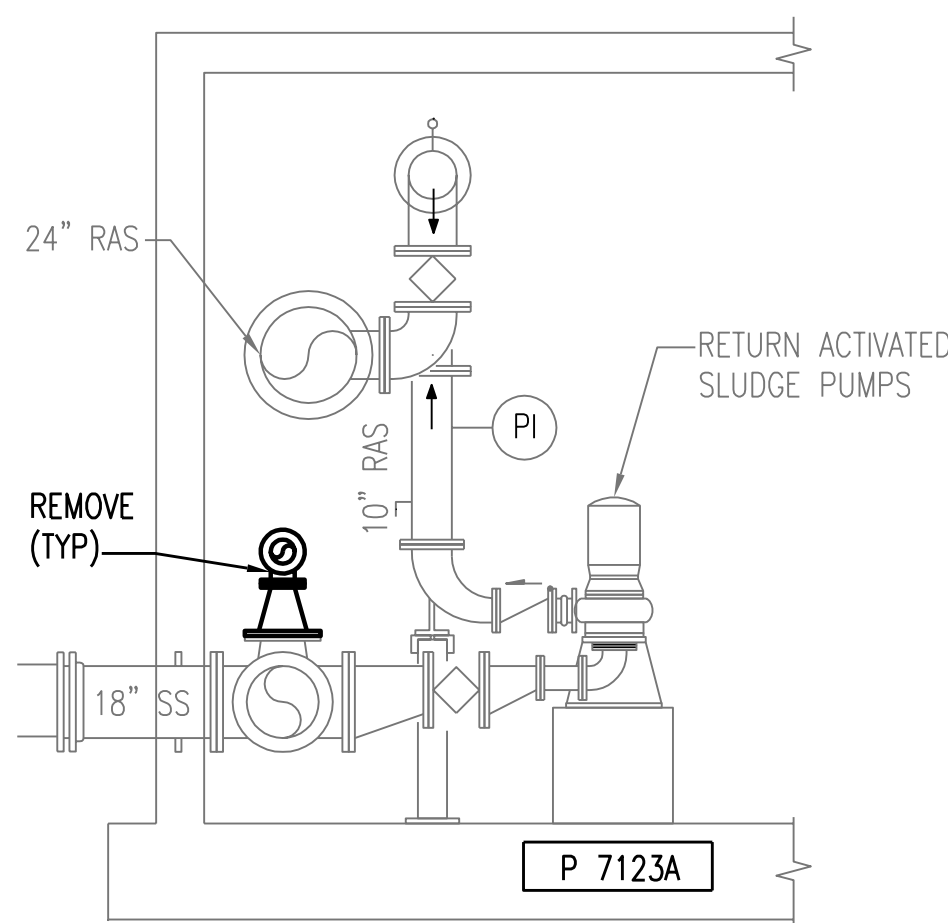
BASEMENT PLAN AT EL. 631'-4"
SCALE: 1/4" = 1'-0"



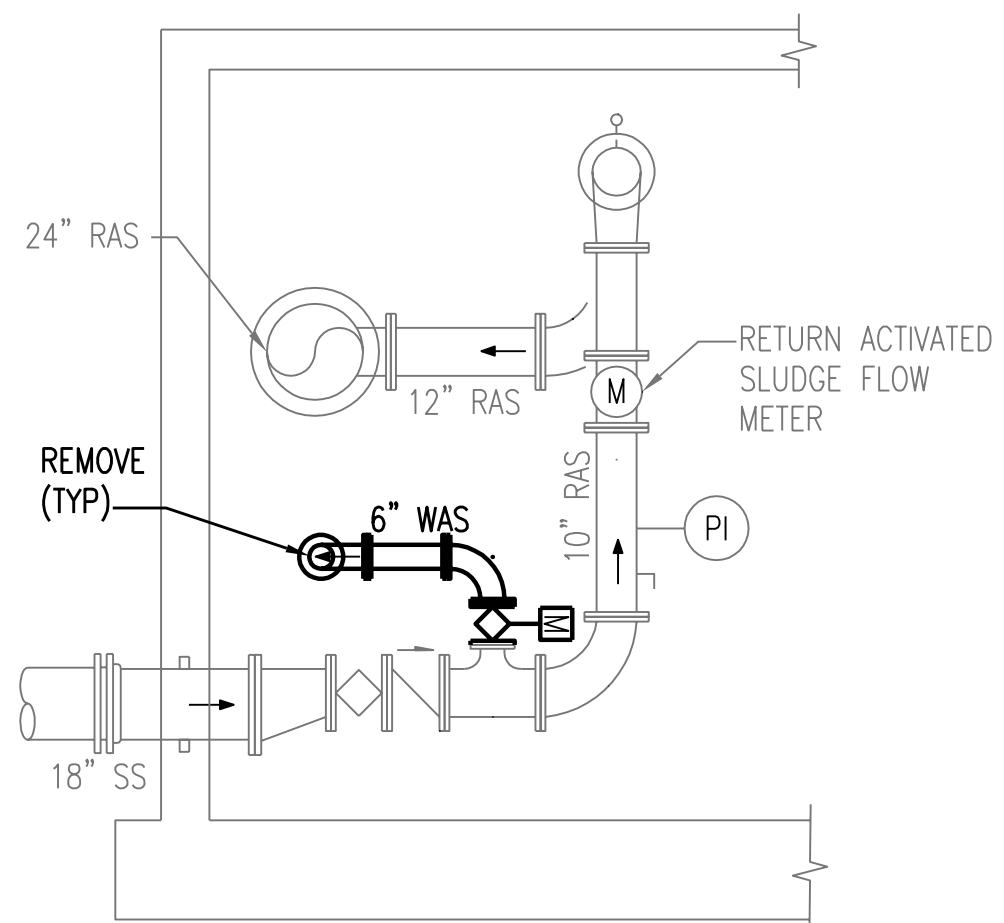
SECTION A-D701
SCALE: 1/4" = 1'-0"



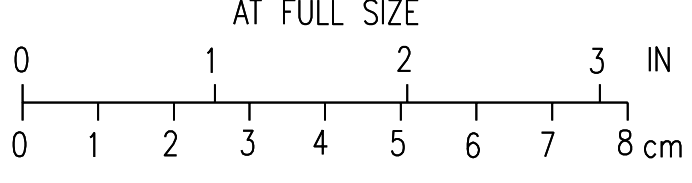
BASEMENT PLAN AT EL. 641'-0"
SCALE: 1/4" = 1'-0"



SECTION B-D701
SCALE: 1/4" = 1'-0"



SECTION C-D701
SCALE: 1/4" = 1'-0"



3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	CLB	CLB	MA	01-25-2012
1	ISSUED FOR CONSTRUCTION	CLB	CLB	MA	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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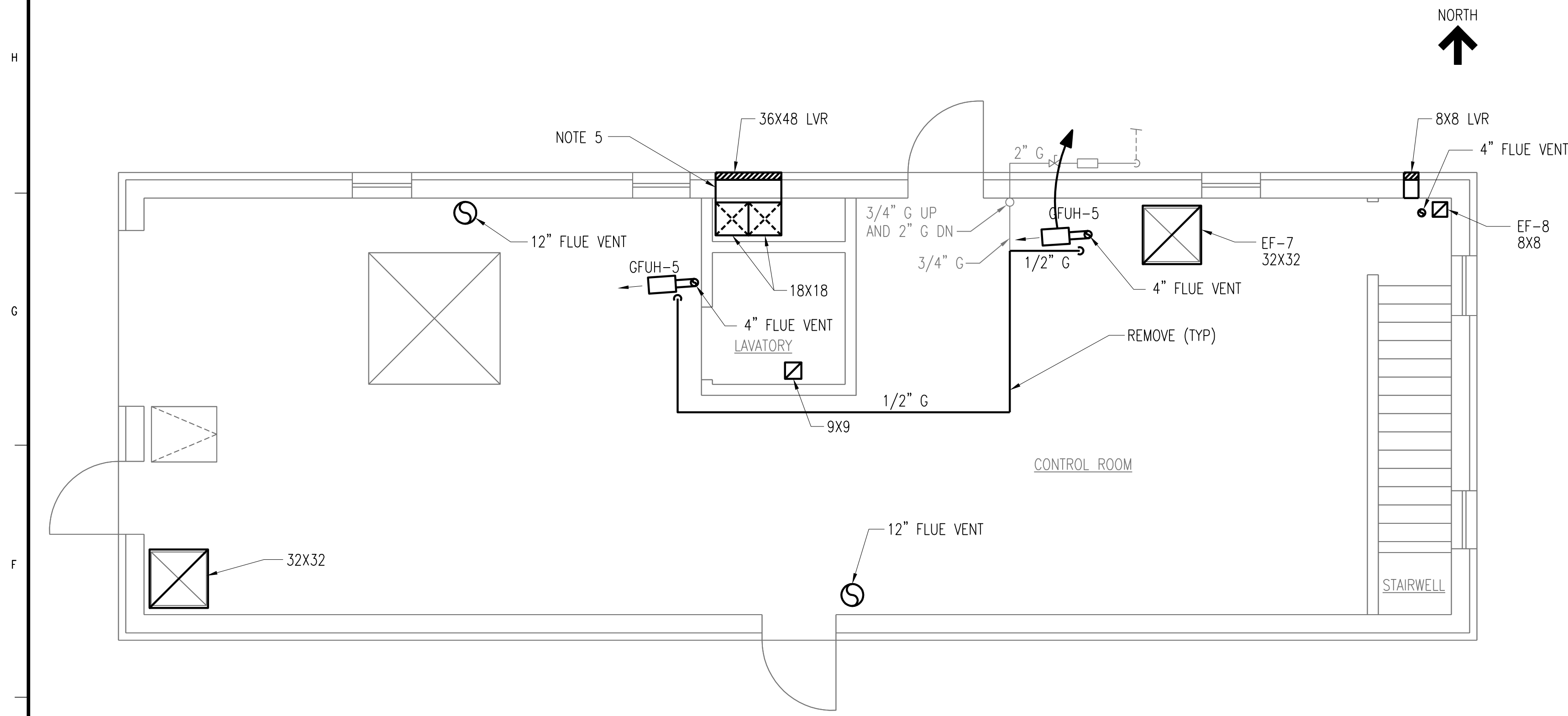
**SLUDGE PUMPING BUILDING
MECHANICAL DEMOLITION PLANS**

DESIGNED	CL BARK	SCALE:	AS NOTED
DRAWN	LJ OSBORN	NO.	22800
CHECKED	CL BARK	REV.	
APPROVED	M AKYUREK		
APPROVED			
DATE	DECEMBER 2, 2011		

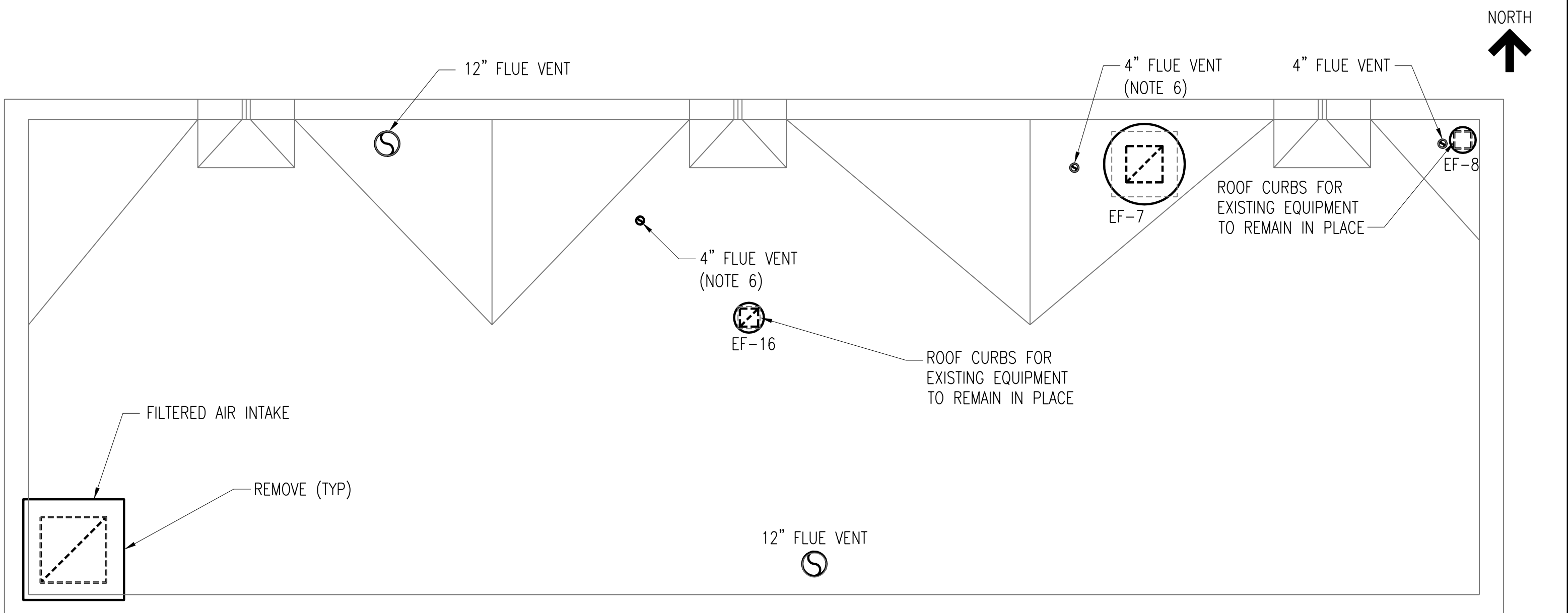
D701
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CADD: D1-R4

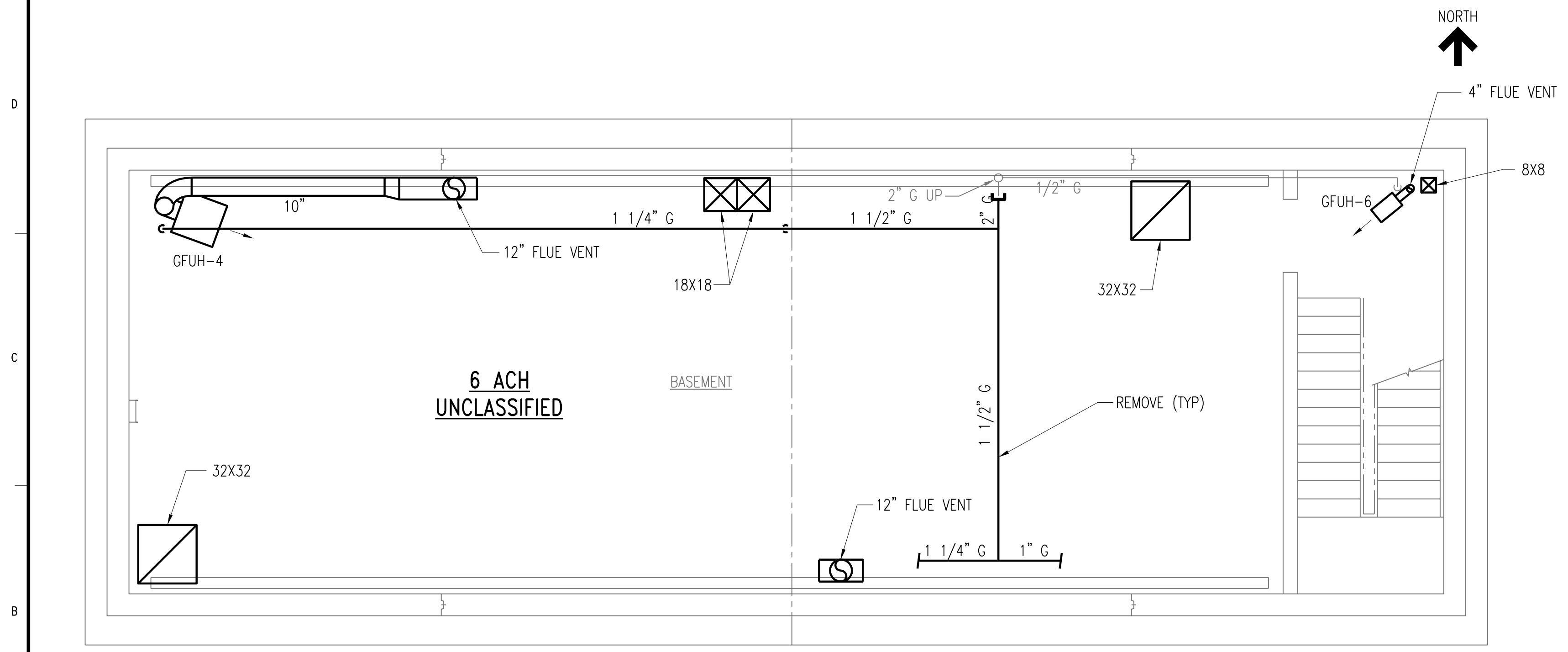
BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE



GROUND FLOOR PLAN AT EL. 654'-0"
SCALE: 1/4" = 1'-0"



ROOF PLAN AT EL. 663'-4"
SCALE: 1/4" = 1'-0"



BASEMENT FLOOR PLAN AT EL. 637'-6"
SCALE: 1/4" = 1'-0"

- NOTES:**
1. FIELD VERIFY EXISTING CONDITIONS PRIOR TO DEMOLITION. NOTIFY OWNER OF ANY DEVIATION BEFORE PROCEEDING WITH WORK.
 2. COORDINATE THE REMOVAL OF MECHANICAL EQUIPMENT WITH OTHER TRADES SO AS NOT TO AFFECT THE OPERATION OF EXISTING SYSTEMS. PERFORM WORK IN MANNER WHICH WILL PROVIDE LEAST INTERFERENCE TO UTILITY SERVICES, ELECTRIC, WATER, GAS, BUILDING UTILITIES, ETC.
 3. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO STRUCTURES, UTILITIES, AND EQUIPMENT CAUSED BY OPERATIONS AND SHALL REPAIR ANY DAMAGE AT ITS OWN EXPENSE OR REPLACE ITEMS DAMAGED BEYOND REPAIR.
 4. PROVIDE TEMPORARY SYSTEMS TO MAINTAIN BUILDING TEMPERATURE, HUMIDITY, AND VENTILATION. TEMPORARY SYSTEMS SHALL PROVIDE AMBIENT CONDITIONS FOR WORK, PREVENT CONDENSATION, AND PREVENT ACCUMULATION OF DUST, FUMES, AND GASES. DURING WORKING AND NON-WORKING HOURS, THE BUILDING INDOOR TEMPERATURE SHALL BE MAINTAINED AT A MINIMUM 50°F OR HIGHER IN ALL AREAS. DO NOT USE EXISTING SYSTEMS FOR TEMPORARY HEATING, COOLING AND VENTILATION.
 5. FILL IN EXISTING OPENING WITH CMU TO MATCH EXISTING IN SIZE.
 6. REMOVE EXISTING PIPE, PIPE SLEEVE, AND FLASHING. FILL PIPE OPENING WITH INSULATION AND PROVIDE A COVER PLATE ANCHORED TO TOP OF ROOF DECK. RE-ROOF WITH SIMILAR ROOFING MATERIAL PER MANUFACTURER'S STANDARD DETAIL.

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JLL	JJB	JJB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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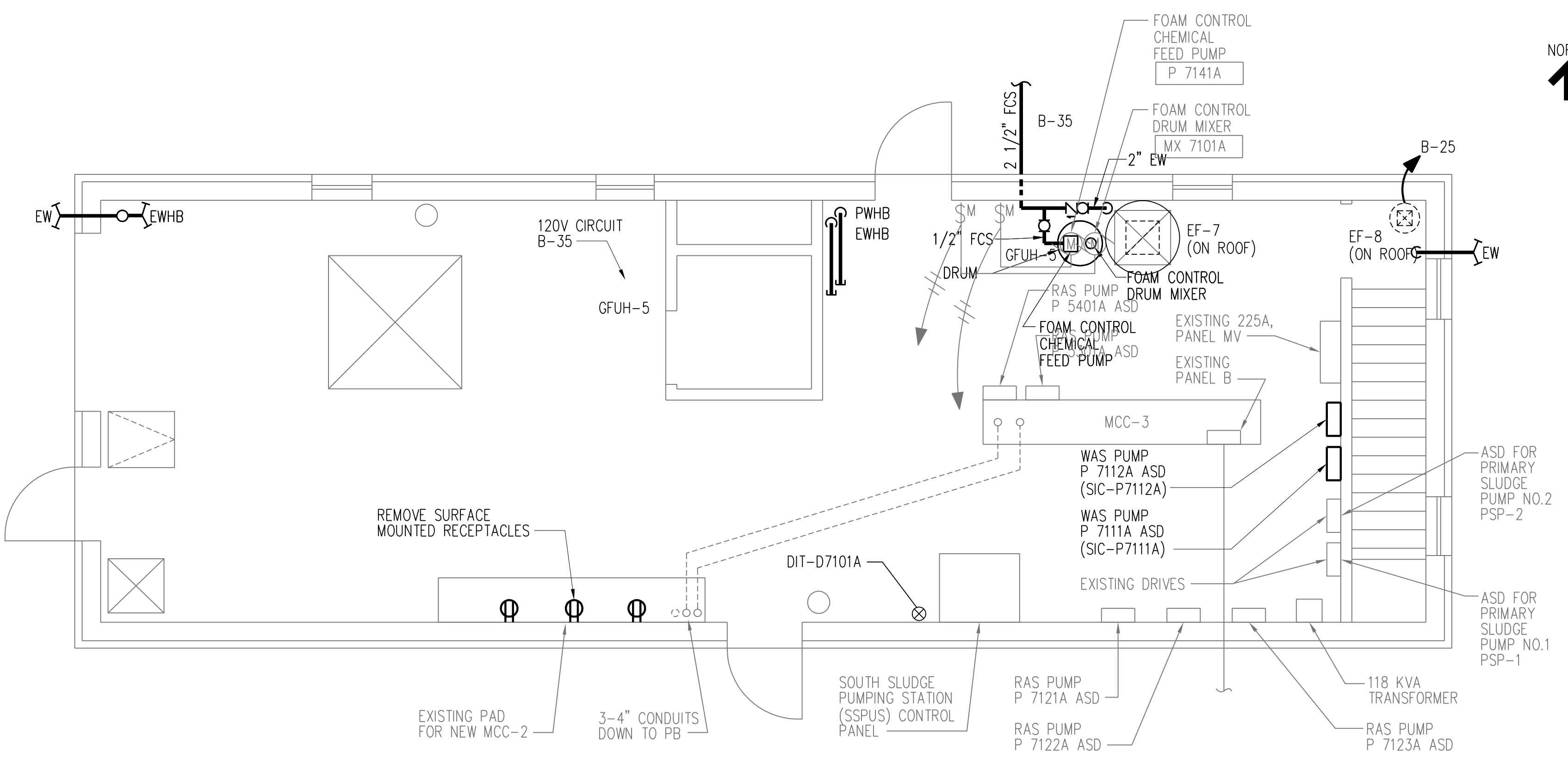
**SLUDGE PUMPING BUILDING
HVAC DEMOLITION PLANS AND DETAILS**

DESIGNED	JL LEE	SCALE:	AS NOTED
DRAWN	D. WILGES	NO.	22800
CHECKED	JJ BOVENKAMP	REV.	
APPROVED	JJ BOVENKAMP		
APPROVED			
DATE	DECEMBER 2, 2011		



CADD: D1-R4

BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE

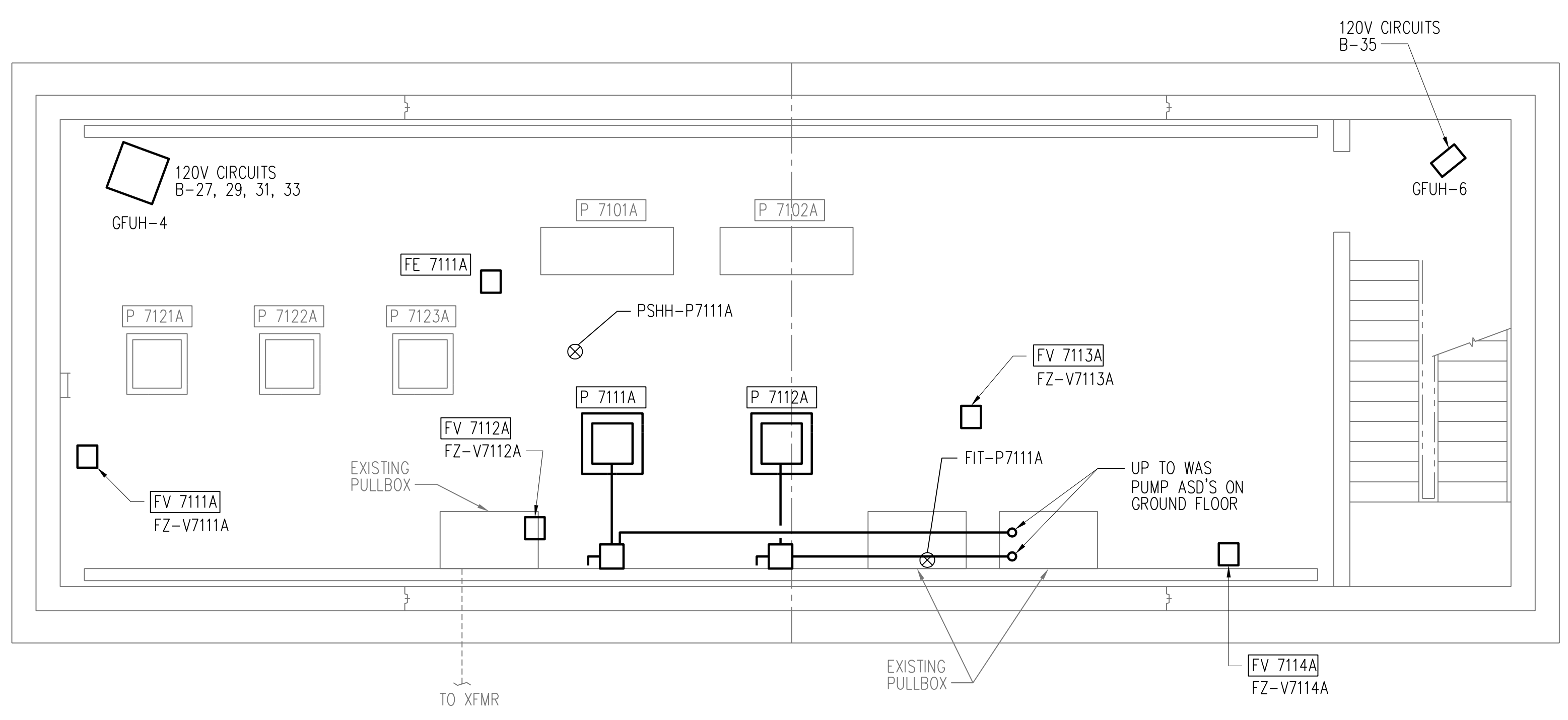


PANEL NAME:		EXIST "B"	LOCATION:	SLDG PUMP BLDG
MOUNTING:		IN MCC-3	VOLTAGE:	208Y/120
ENCLOSURE:			PHASE:	3P/4W
MAINS:		200A	SHORT CIRCUIT RATING:	10KA
BUS AMPACITY:		200A	GROUND BUS:	YES
BUS TYPE:			ISOLATED GROUND BUS:	NO
BRANCH BREAKER TYPE:			NEUTRAL BUS:	100%

NO.	LOAD DESCRIPTION	CB PH, G, COND	LOAD DESCRIPTION	CB PH, G, COND	NO.
1	LIGHTS	1P20A	PULLBOX RECEPTACLES	1P20A	2
3	BASEMENT LIGHTS	1P20A	PULLBOX RECEPTACLES	1P20A	4
5	1ST FLOOR RECEPTACLES	1P20A	SUMP PUMP #3	1P20A	6
7	BASEMENT RECEPTACLES	1P20A	OUTSIDE LIGHTS	1P20A	8
9	CLARIFIER RECEPTACLES	1P20A	SUMP PUMP #4	1P20A	10
11	BASEMENT RECEPTACLES	1P20A	SLUDGE DENSITY METER	1P20A	12
13	SECONDARY CLARIFIERS RECEPTACLES AND LIGHTS	1P20A	PRIMARY CLARIFIER #3 RECEPTACLES AND LIGHTS	1P20A	14
15	CLARIFIER RECEPTACLES	1P20A	?	1P20A	16
17	UI WETLAND	1P20A	OVERHEAD DOOR	1P20A	18
19	UI WETLAND	1P20A	PRIMARY CLARIFIER #4 RECEPTACLES AND LIGHTS	1P20A	20
21	UI WETLAND	1P20A	DEWATERING PUMP	1P20A	22
23	SPARE	1P20A	?	1P20A	24
25	EF-8	1P20A #12, #12, 0.75"	MAG FLOW METERS 1,2	1P20A	26
27	GFUH-4	1P20A #12, #12, 0.75"	MAG FLOW METERS 3,4,5	1P20A	28
29	GFUH-4	1P20A #12, #12, 0.75"	NOT WORKING	1P20A	30
31	GFUH-4	1P20A #12, #12, 0.75"	HOIST	1P20A	32
33	GFUH-4	1P20A #12, #12, 0.75"	?	1P20A	34
35	GFUH-5	1P20A #12, #12, 0.75"	SAMPLE PUMP	1P20A	36
37	DAMPERS		SAMPLE PUMP	1P20A	38
39	SPARE		REFRIG SAMPLER	1P20A	40
41	WH-1		D.O. PROBE	1P20A	42

- NOTES:**
- REMOVE WASTE SLUDGE PUMPS P 7111A AND P 7112A IN BASEMENT ALONG WITH ASSOCIATED ADJUSTABLE SPEED DRIVES ON GROUND FLOOR AT LOCATIONS SHOWN. SEE DRAWING D14 FOR MCC-3 ONE LINE DIAGRAM DEMOLITION.
 - REMOVE EXHAUST FAN EF-7. MOTOR STARTERS ARE LOCATED IN MCC-3.
 - PROVIDE SEALOFFS ON REMAINING CONDUITS AFTER REMOVAL OF WIRING FROM CONDUITS PENETRATING CLASSIFIED AREAS.
 - CONTRACTOR TO CONFIRM ALL CIRCUITS IN FIELD CIRCUITING BASED ON DRAWINGS PROVIDED.

NOTE:
WHEN LOADS ARE SHOWN BOLD REMOVE WIRING BACK TO PANEL B. SEE DRAWING E702 FOR NEW REQUIREMENTS IN SAME PANEL SPACE. RETURN UNUSED BREAKERS TO OWNER. FOR CIRCUITS 27, 29, 31 AND 33.



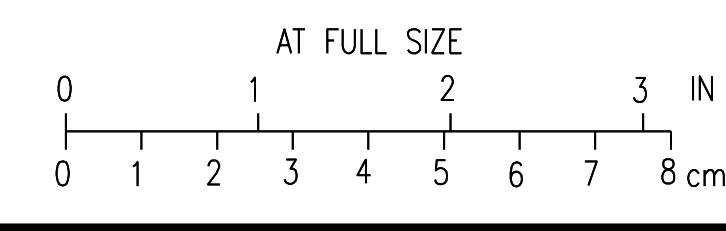
NO.	REVISIONS	DSGN	CHKD	APVD	DATE
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012

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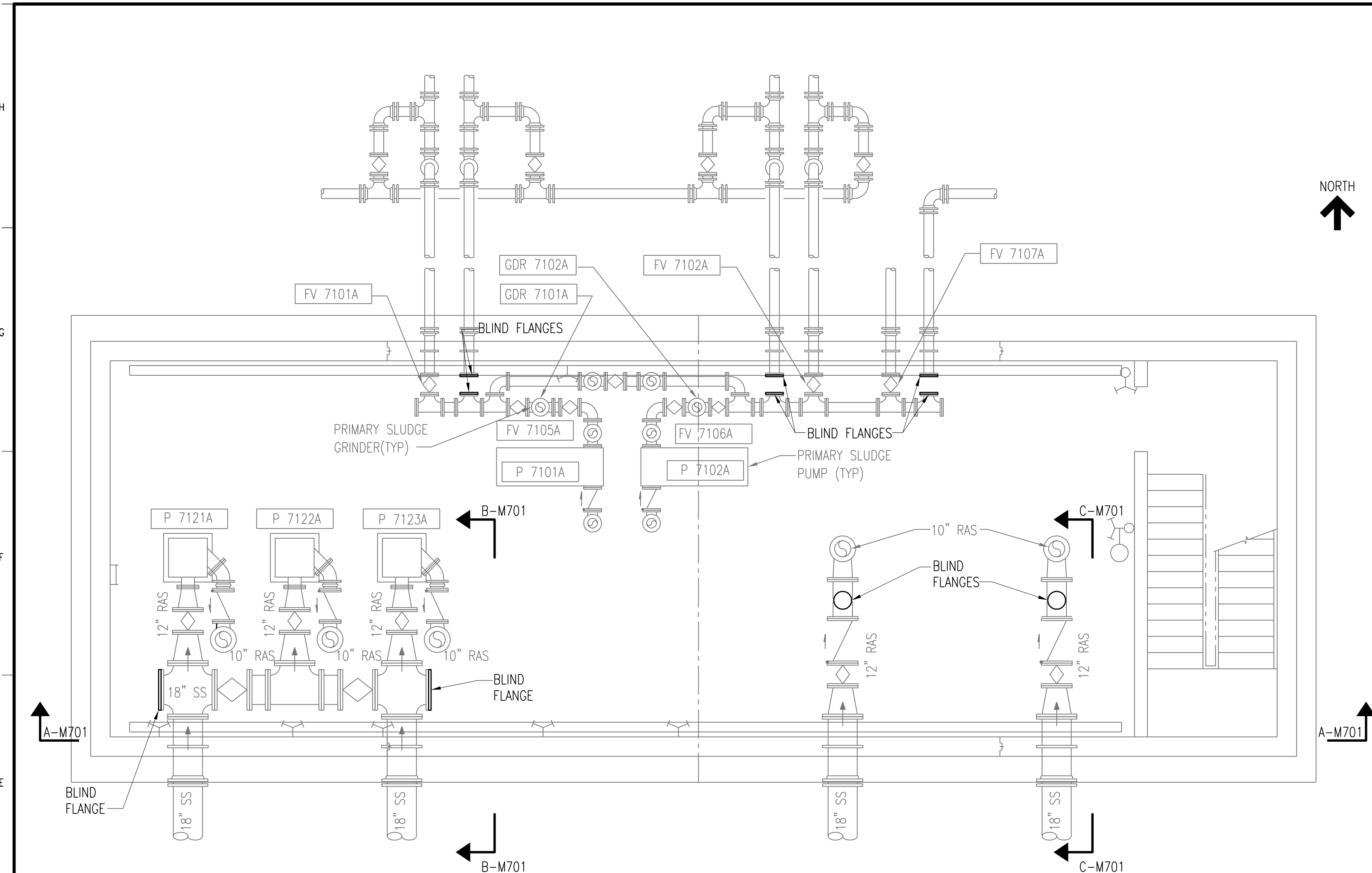
SLUDGE PUMPING BUILDING ELECTRICAL DEMOLITION PLANS

DESIGNED DL MORITZ	SCALE: AS NOTED	NO. 22800	REV.
DRAWN D. WILGES			
CHECKED DL MORITZ			
APPROVED JD COOAN			
DATE DECEMBER 2, 2011		D703	3

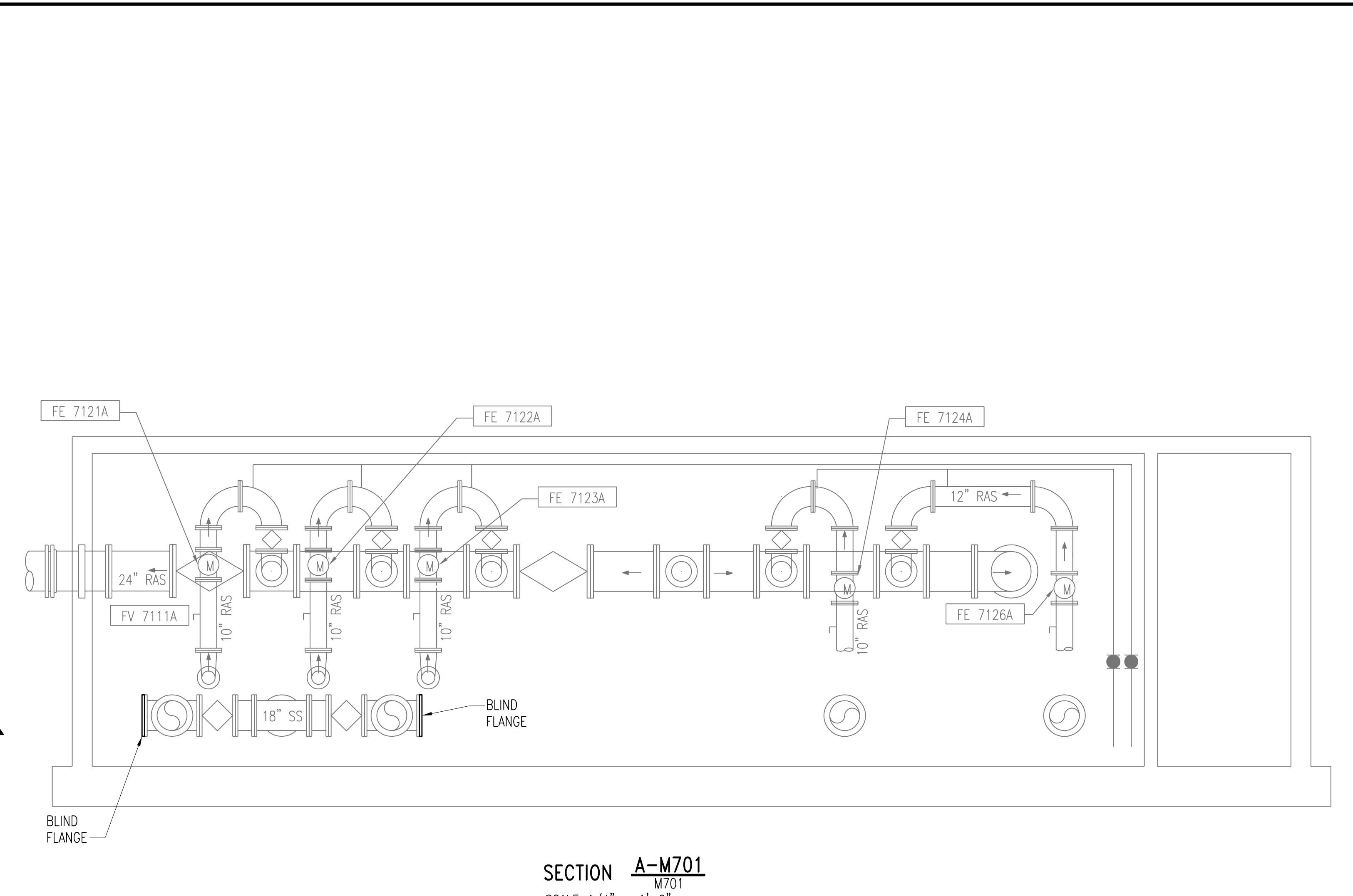


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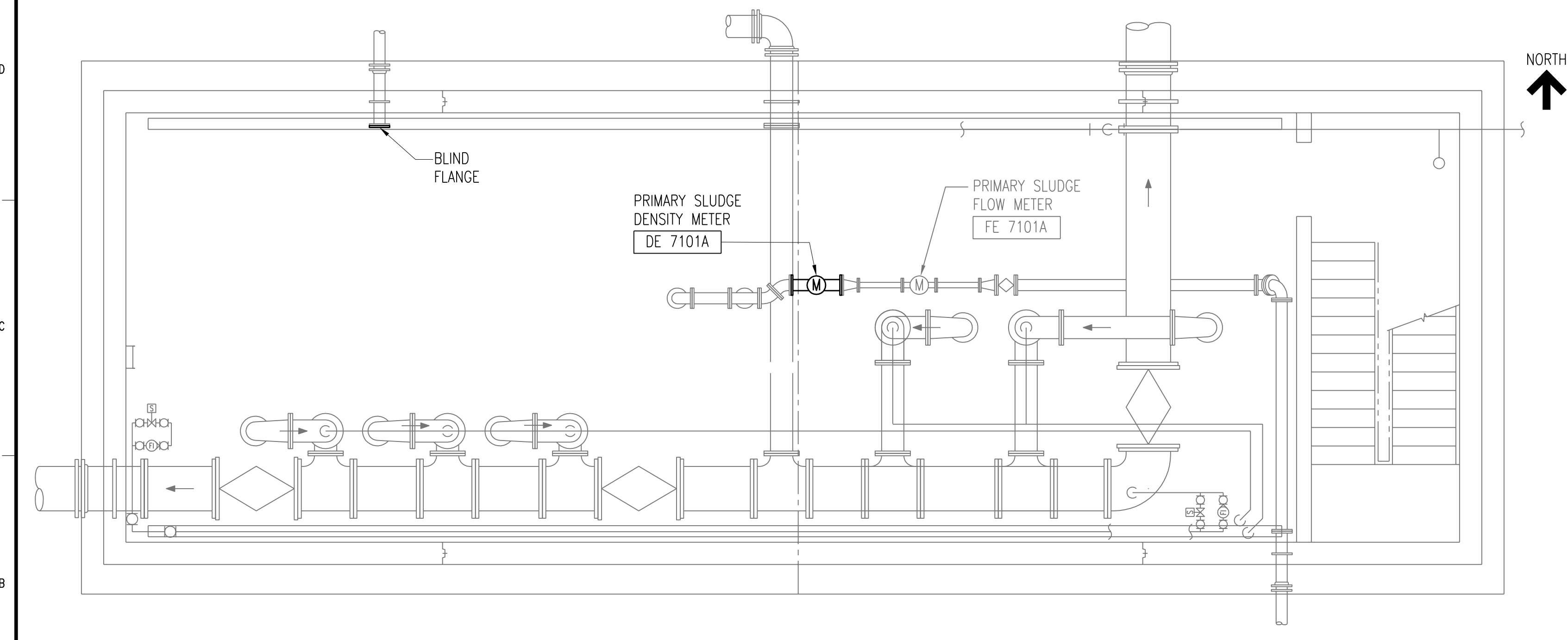
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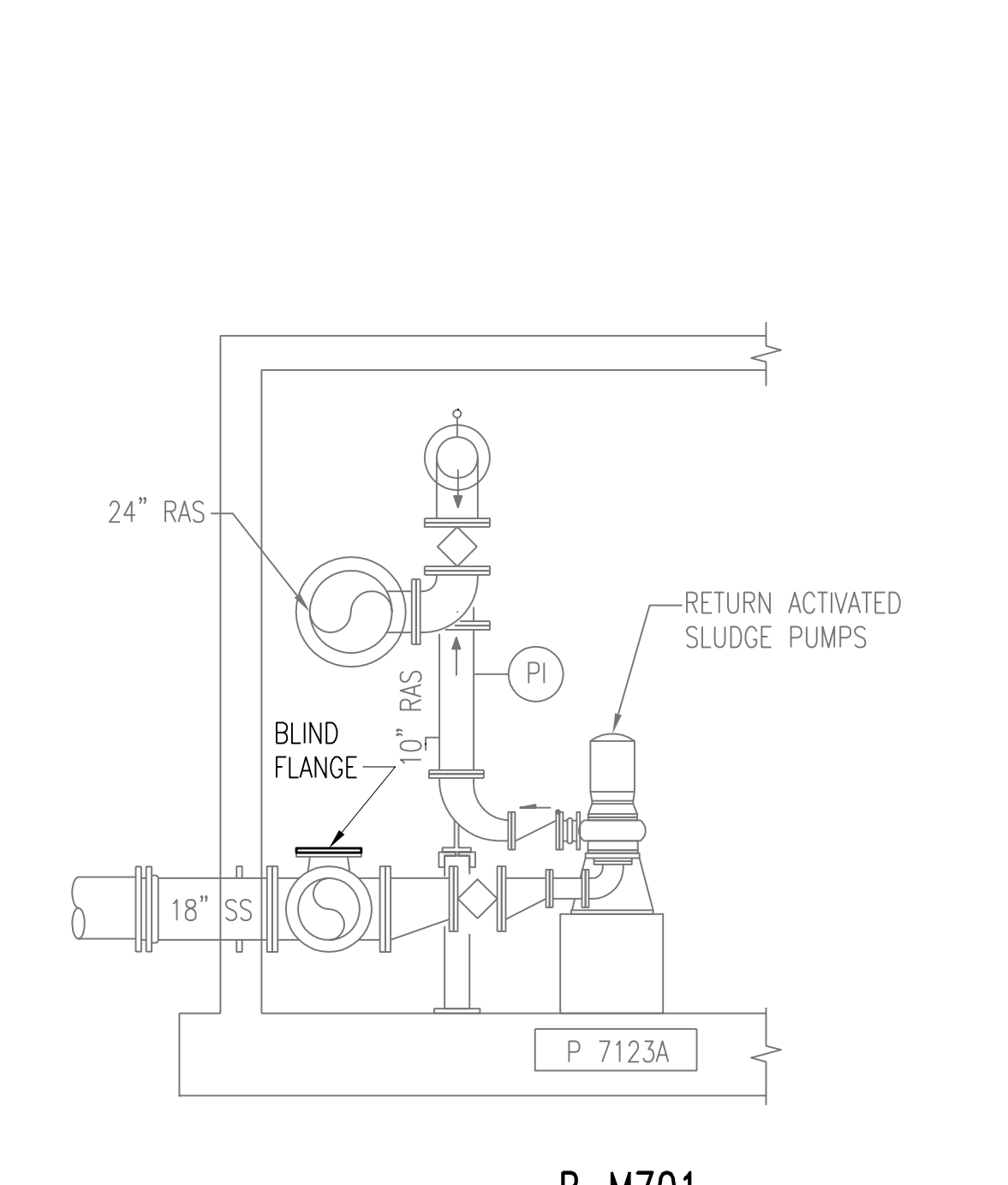
BASEMENT PLAN AT EL. 631'-4"
SCALE: 1/4" = 1'-0"



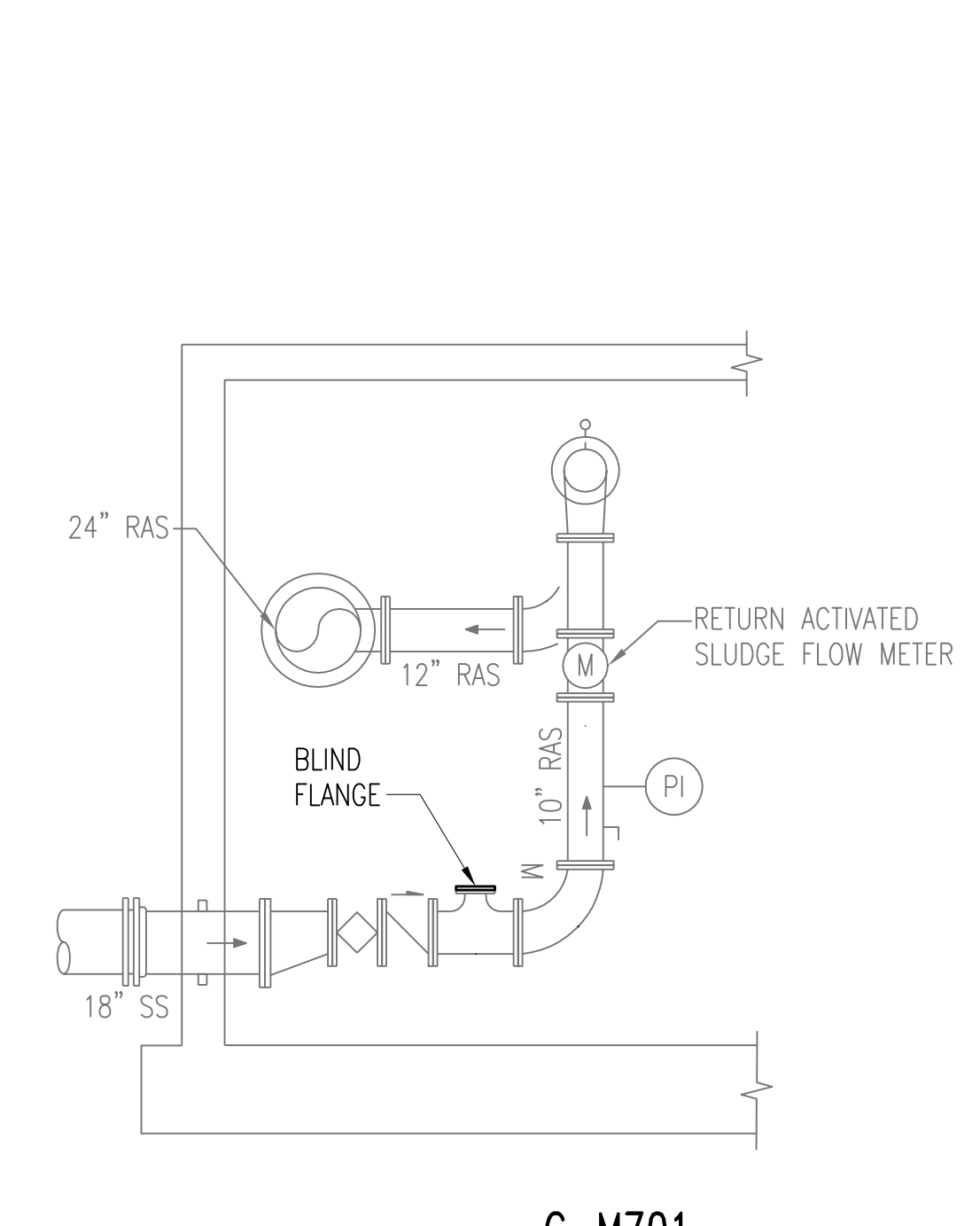
SECTION A-M701
SCALE: 1/4" = 1'-0"



BASEMENT PLAN AT EL. 641'-0"
SCALE: 1/4" = 1'-0"



SECTION B-M701
SCALE: 1/4" = 1'-0"



SECTION C-M701
SCALE: 1/4" = 1'-0"

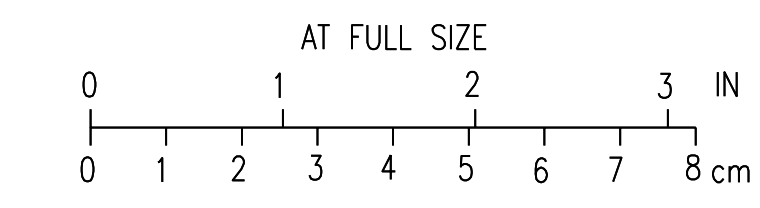
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	CLB	CLB	MA	01-25-2012
1	ISSUED FOR CONSTRUCTION	CLB	CLB	MA	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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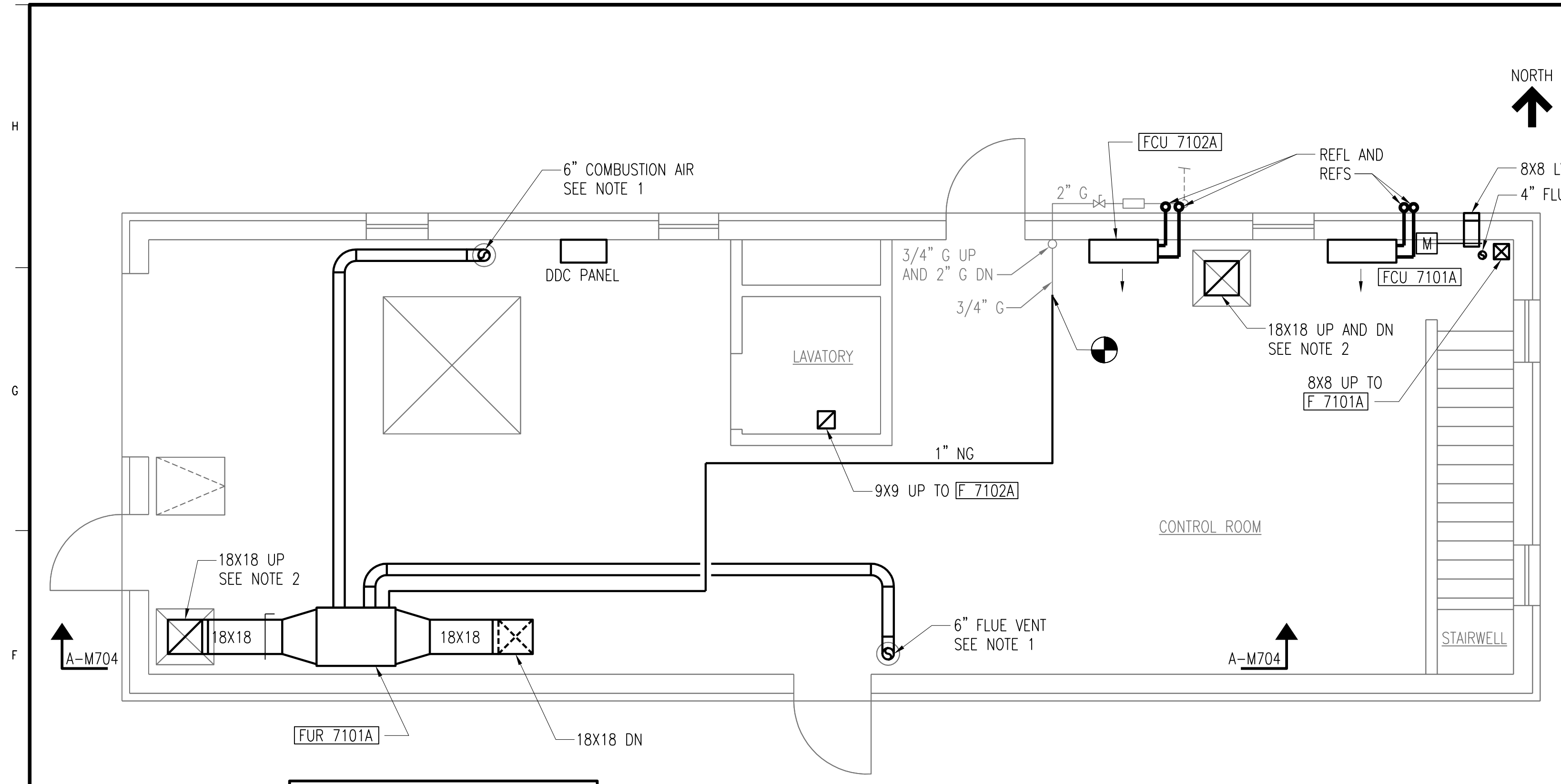
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SLUDGE PUMPING BUILDING
PROCESS PIPING PLANS AND SECTIONS**

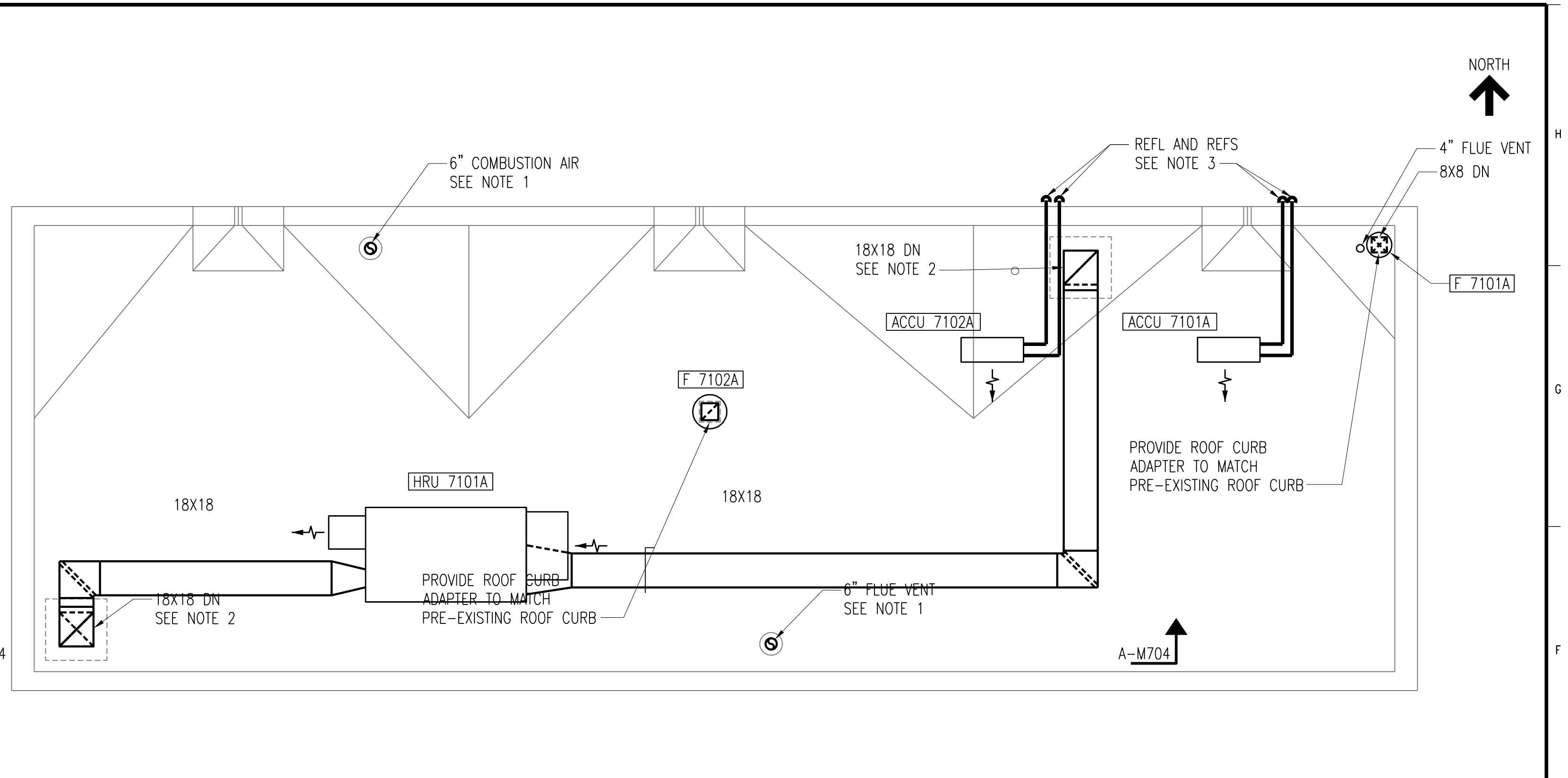
DESIGNED	CL BARK	SCALE:	AS NOTED
DRAWN	LJ OSBORN	NO.	22800
CHECKED	CL BARK	REV.	
APPROVED	M AKYUREK		
APPROVED			
DATE	DECEMBER 2, 2011	M701	3



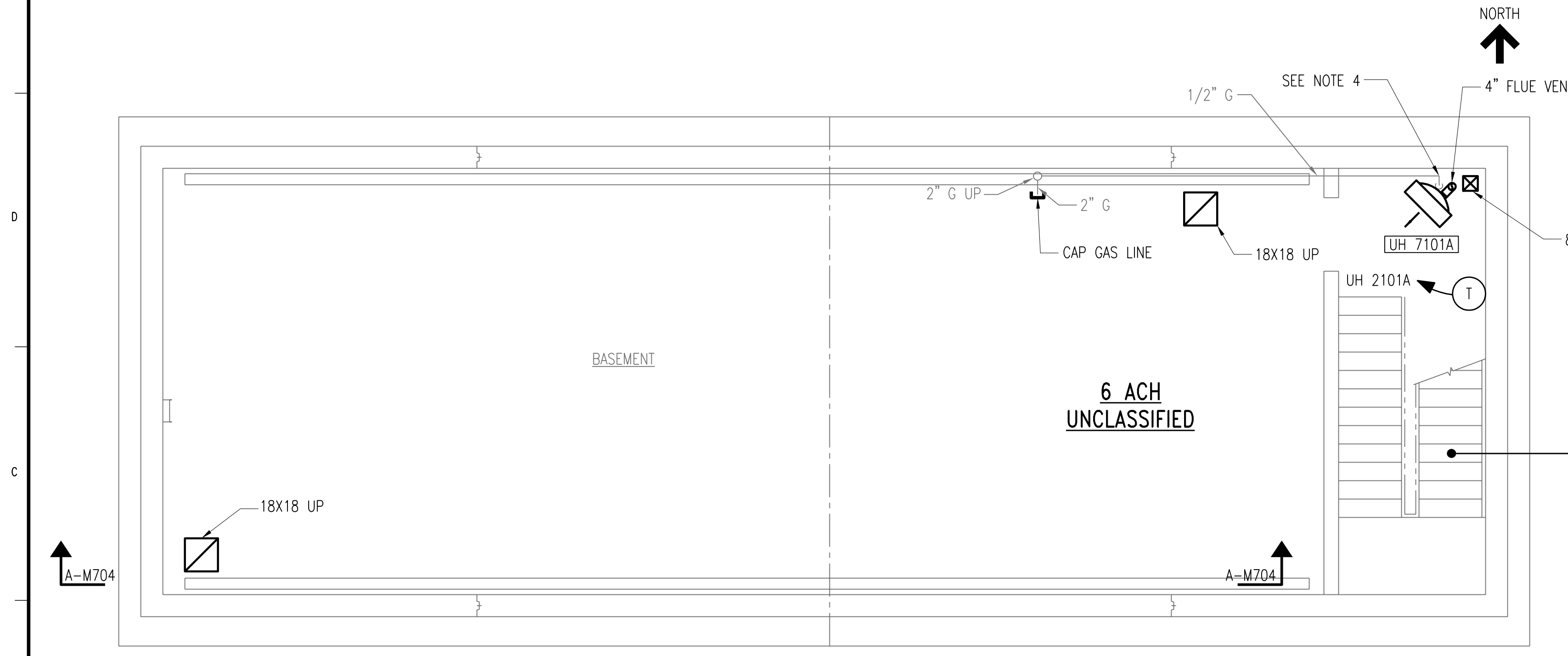
CADD: D1-1-R4



GROUND FLOOR PLAN AT EL. 654'-0"
SCALE: 1/4" = 1'-0"



ROOF PLAN AT EL. 663'-4"
SCALE: 1/4" = 1'-0"



BASEMENT FLOOR PLAN AT EL. 637'-6"
SCALE: 1/4" = 1'-0"

NOTES:

1. FOR NEW PIPE PENETRATIONS AND EXISTING OPENINGS RE-USED, SEE ARCHITECTURAL DRAWING A4 FOR DETAILS.
2. FOR NEW DUCT PENETRATIONS AND EXISTING OPENINGS RE-USED, SEE ARCHITECTURAL DRAWING A4 FOR DETAILS.
3. SIZE REFRIGERANT PIPING PER MANUFACTURER'S RECOMMENDATIONS.
4. RECONNECT EXISTING GAS LINE. PROVIDE ADDITIONAL PIPE AND FITTINGS AS NECESSARY.

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JLL	JJB	JJB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

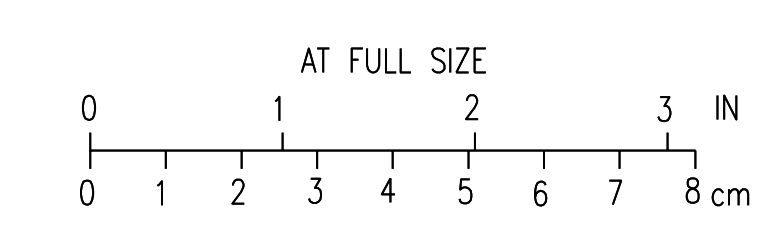
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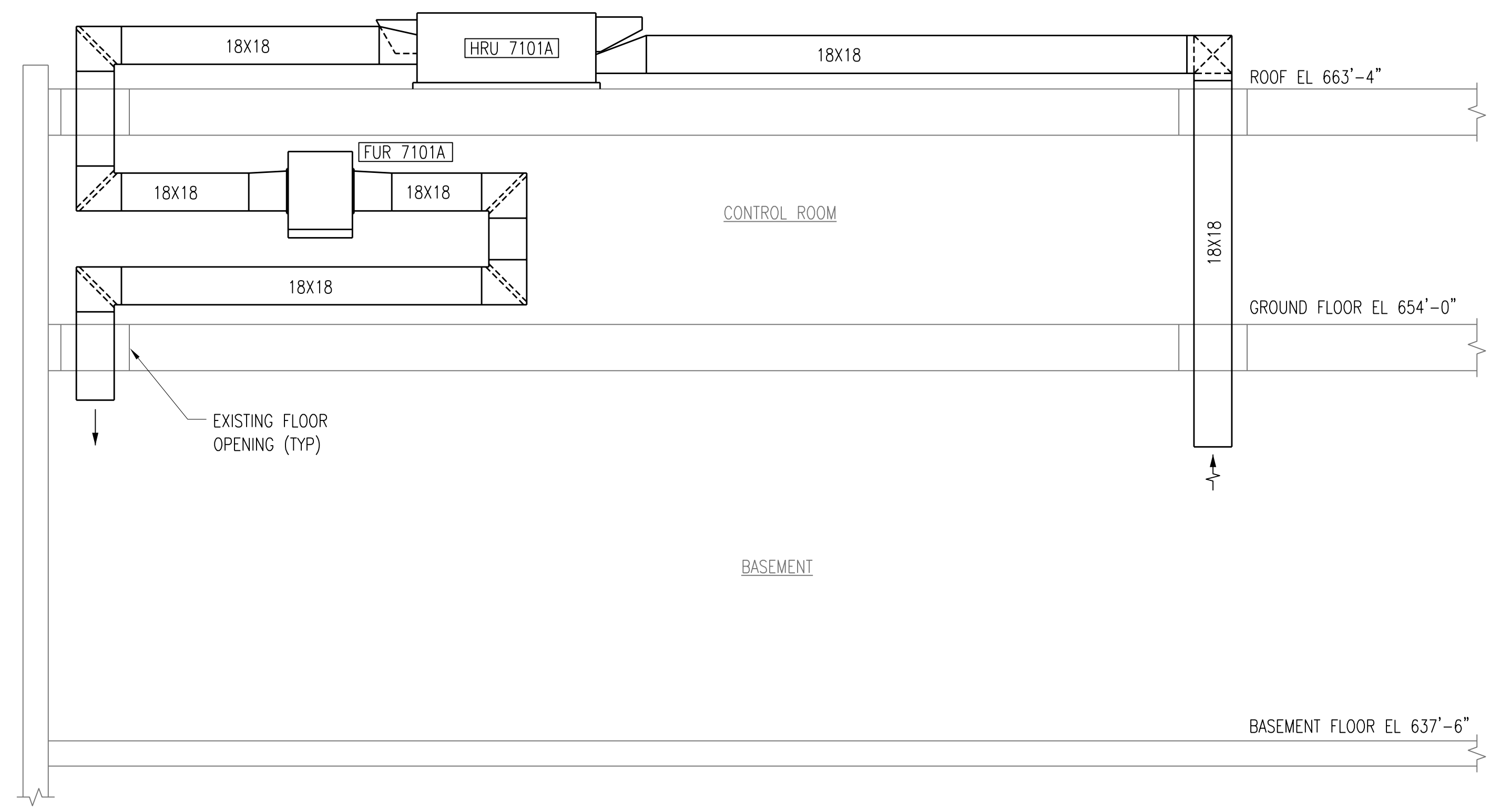
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SLUDGE PUMPING BUILDING
HVAC PLANS AND DETAILS**

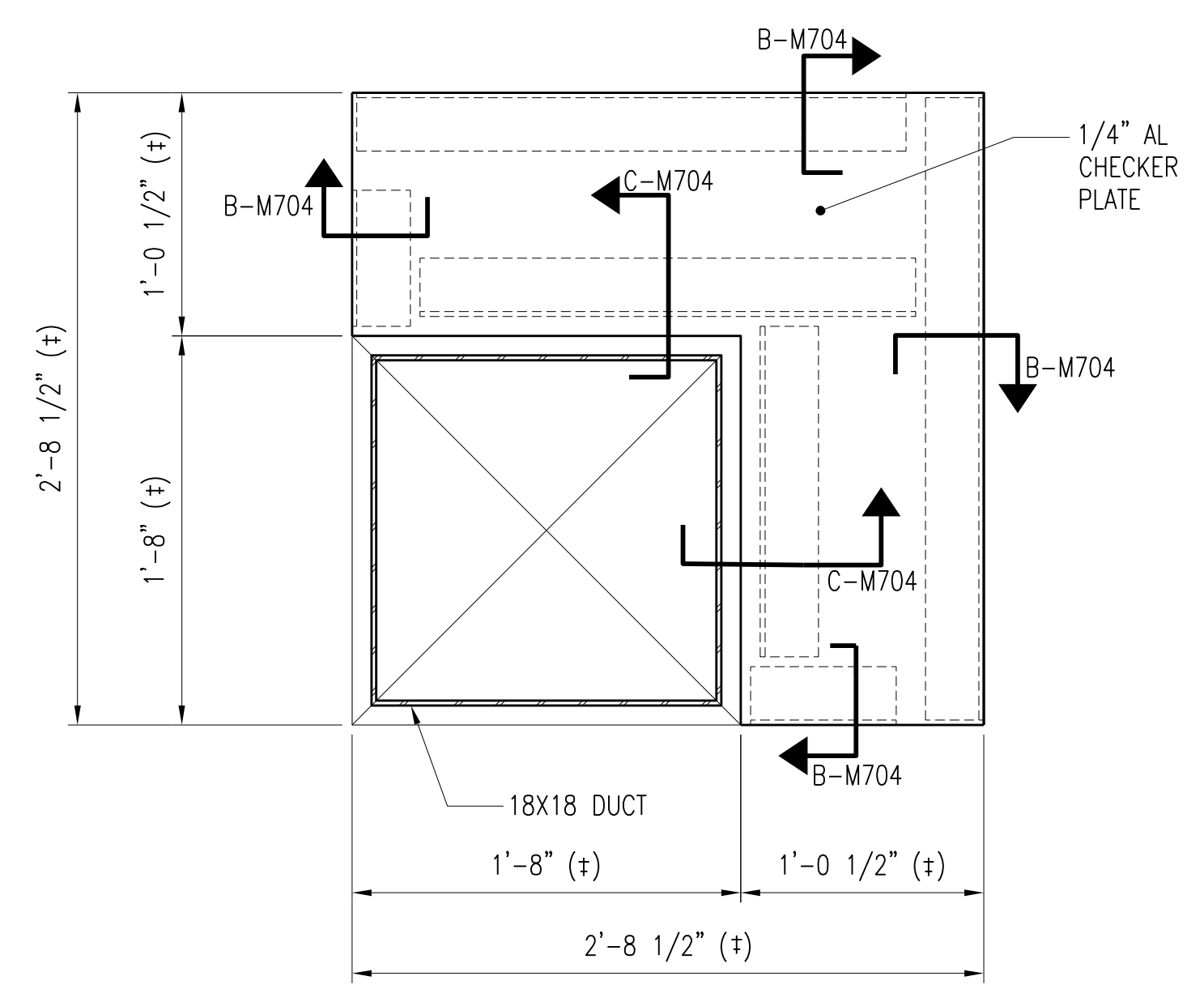
DESIGNED: J.L. LEE	SCALE: AS NOTED
DRAWN: D. WILGES	NO. 22800
CHECKED: J.J. BOVENKAMP	REV.
APPROVED: J.J. BOVENKAMP	M703
APPROVED: _____	2
DATE: DECEMBER 2, 2011	



CADD: D1-R4

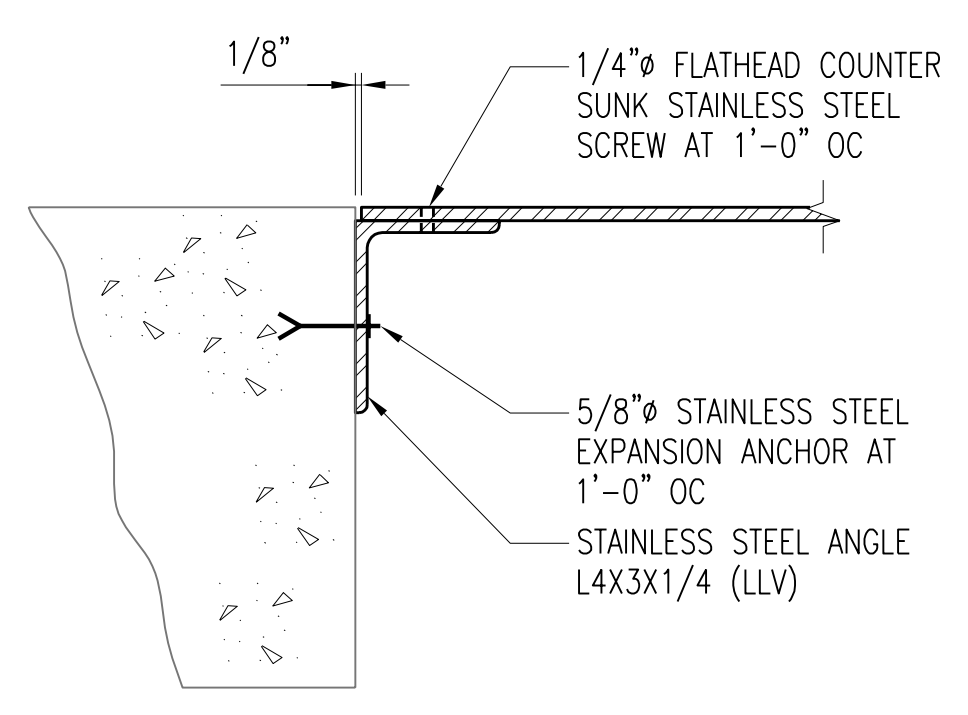


SECTION **A-M704**
M703
SCALE: 1/4" = 1'-0"

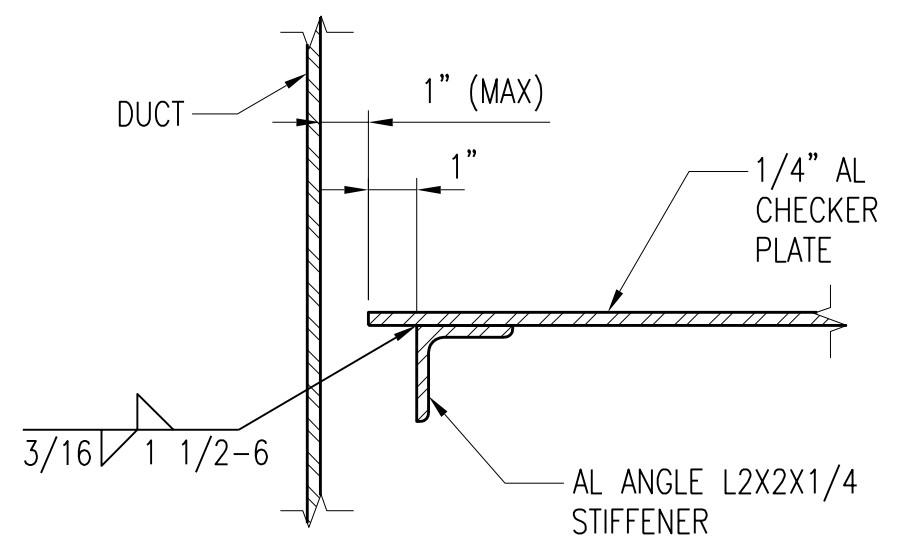


NOTE:
COORDINATE FINAL DIMENSIONS WITH DUCT
PROVIDED AND ACTUAL OPENING DIMENSIONS

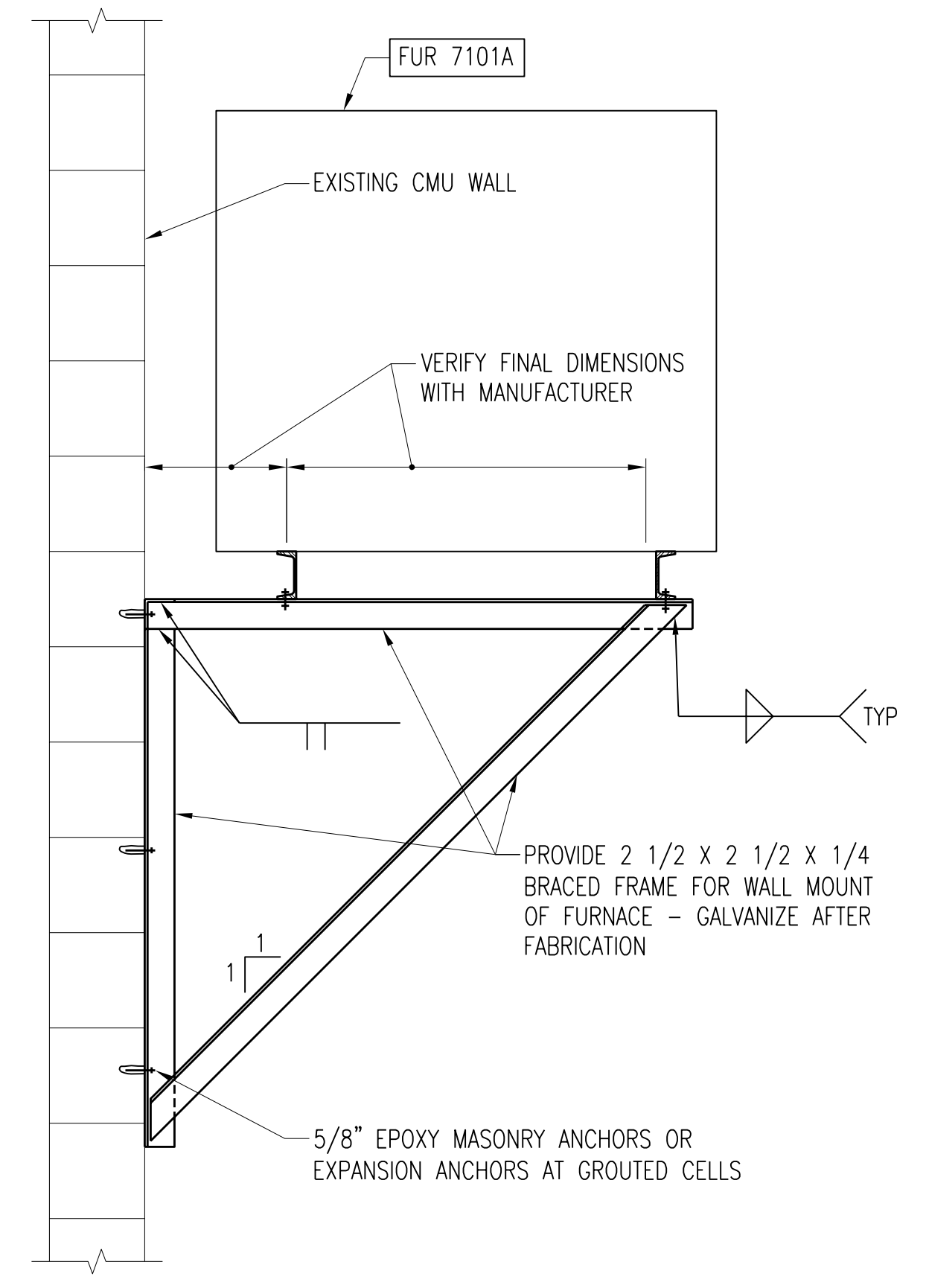
(TYPICAL 2 PLACES AT GROUND FLOOR)
TYPICAL PLATE CLOSURE PLAN AROUND DUCTS
SCALE: 1 1/2" = 1'-0"



SECTION **B-M704**
M704
SCALE: 3" = 1'-0"



SECTION **C-M704**
M704
SCALE: 3" = 1'-0"



TYPICAL FURNACE SUPPORT DETAIL
SCALE: 1" = 1'-0"

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JLL	JJB	JJB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

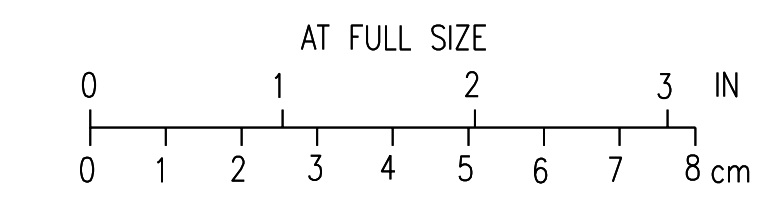
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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SLUDGE PUMPING BUILDING
HVAC SECTIONS AND DETAILS**

DESIGNED	JL LEE
DRAWN	D. WILGES
CHECKED	JJ BOVENKAMP
APPROVED	JJ BOVENKAMP
DATE	DECEMBER 2, 2011

SCALE: AS NOTED	NO. 22800	REV.
	M704	2



CADD: D1-R4

SEQUENCE OF OPERATIONS

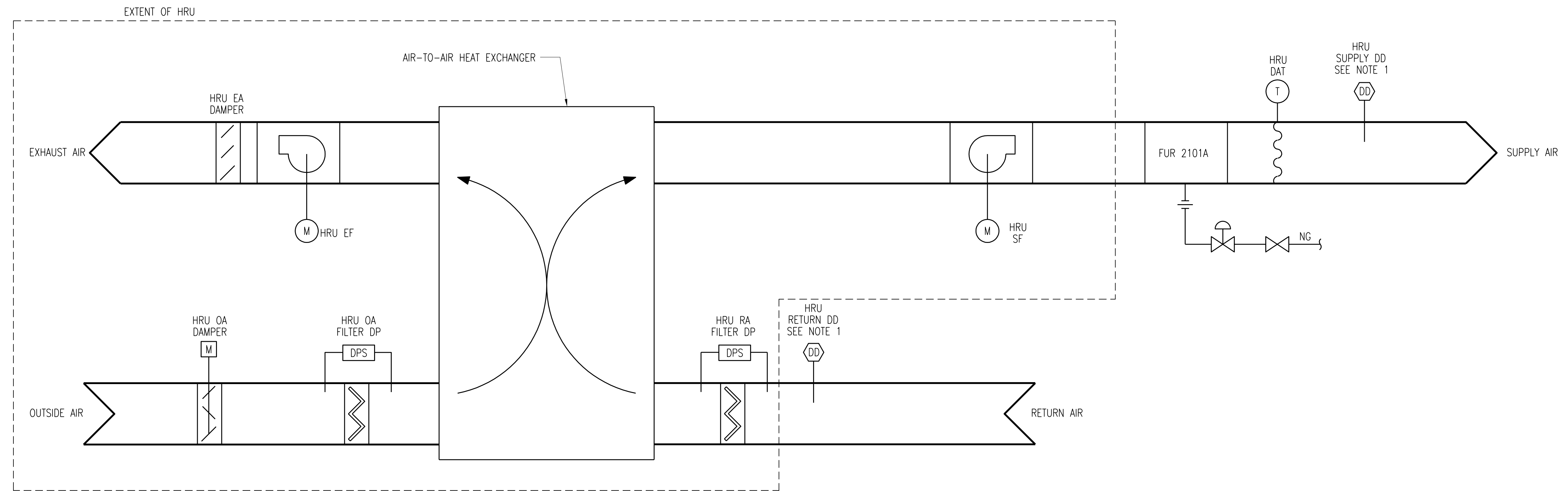
1. CONTROL OF HVAC FUNCTIONS OF FOLLOWING EQUIPMENT:
 - A. HEAT RECOVERY UNIT (HRU):
 - i. HRU 7101A
 - B. DUCT FURNACE (FUR):
 - i. FUR 7101A
 - C. UNIT HEATER (UH):
 - i. UH 7101A
 - D. EXHAUST FAN (F):
 - i. F 7101A
 - ii. F 7102A
 - E. SPLIT-SYSTEM AIR CONDITIONER (FCU/ACCU):
 - i. FCU 7101A AND ACCU 7101A
 - ii. FCU 7102A AND ACCU 7102A
2. GENERAL REQUIREMENTS:
 - A. HVAC SYSTEMS SHALL BE CONTROLLED BY DIRECT DIGITAL CONTROLS AND REMOTE THERMOSTATS.
 - B. REMOTE THERMOSTATS SHALL BE PROGRAMMABLE ELECTRONIC WITH BATTERY BACKUP; WITH 7 SEPARATE PROGRAMMABLE DAYS; WITH MULTIPLE STAGES OF HEATING AND COOLING BASED ON REQUIRED SEQUENCE OF CONTROL; AND WITH HEATING-COOLING SELECTOR SWITCH.
 - C. SET POINTS LABELED AS "ADJUSTABLE" SHALL BE FULLY ADJUSTABLE.
 - D. ALARM REPORTING SHALL BE DONE AT PANEL ASSOCIATED WITH EQUIPMENT.
3. NORMAL CONTROL POSITIONS:
 - A. "NORMAL POSITIONS OF CONTROLLED DEVICES SHALL BE POSITION THAT A DEVICE RETURNS TO ON POWER FAILURE OR CONTROLLER FAILURE. NORMAL POSITIONS SHALL BE AS FOLLOWS:
 - i. OUTDOOR AIR DAMPERS: NORMALLY CLOSED.
4. HEAT RECOVERY UNIT HRU 7101A CONTROL:
 - A. HRU 7101A SHALL SERVE SLUDGE PUMPING BUILDING BASEMENT.
 - B. HRU 7101A SHALL BE CONTROLLED AS FOLLOWS:
 - i. HRU 7101A SUPPLY FAN AND EXHAUST FAN SHALL OPERATE CONTINUOUSLY. ASSOCIATED OUTDOOR AIR DAMPER SHALL OPEN.
 - ii. UPON SIGNAL FROM HRU 7101A SMOKE DUCT DETECTOR, HRU 7101A SUPPLY FAN AND EXHAUST FAN SHALL STOP. AN ALARM SHALL BE ENERGIZED AT REMOTE DDC CONTROL PANEL.
5. DUCT FURNACE CONTROL:
 - A. DUCT FURNACE FUR 7101A SHALL BE INTERLOCKED WITH HRU 7101A SUPPLY FAN.
 - B. WHEN SUPPLY AIR TEMPERATURE DROPS BELOW SET POINT (70°F, ADJUSTABLE), FUR 7101A GAS HEATER SHALL IGNITE AND MODULATE GAS INPUT TO MAINTAIN SUPPLY AIR TEMPERATURE. AS SUPPLY AIR TEMPERATURE RISES ABOVE SET POINT, FUR 7101A GAS HEATER SHALL TURN OFF.
6. GAS-FIRED UNIT HEATER CONTROL:
 - A. UNIT HEATER UH 7101A SHALL BE CONTROLLED BY WALL-MOUNTED THERMOSTAT.
 - i. WHEN ROOM SPACE TEMPERATURE DROPS BELOW SET POINT (60°F, ADJUSTABLE) UH 7101A FAN SHALL START AND GAS HEATER SHALL IGNITE AND MODULATE GAS INPUT TO MAINTAIN ROOM TEMPERATURE SET POINT.
 - ii. WHEN ROOM TEMPERATURE RISES ABOVE SETPOINT, UH 7101A FAN AND GAS BURNER SHALL STOP.
7. EXHAUST FAN CONTROL:

SEE RFI #34 SHEET M705-A

 - A. EXHAUST FAN F 7101A SERVING STAIRWELL SHALL BE CONTROLLED BY GAS MONITOR.
 - B. EXHAUST FAN F 7102A SERVING TOILET, SHALL BE INTERLOCKED WITH LIGHT SWITCH.
8. SPLIT-SYSTEM AIR CONDITIONER CONTROL:
 - A. SPLIT-SYSTEM AIR CONDITIONER FCU/ACCU 7101A AND FCU/ACCU 7102A SHALL BE CONTROLLED BY WALL-MOUNTED THERMOSTAT.
 - i. WHEN THE THERMOSTAT CONTROL SWITCH IS IN THE "COOLING" POSITION AND THE ROOM TEMPERATURE IS ABOVE SET POINT (75°F, ADJUSTABLE), FCU AND ACCU SHALL START AND OPERATE TO MAINTAIN ROOM TEMPERATURE. WHEN THE ROOM TEMPERATURE DROPS BELOW THE SET POINT, FCU AND ACCU SHALL STOP.

NOTES:

1. DUCT DETECTOR TO BE WIRED TO FIRE PROTECTION SYSTEM AS REQUIRED.



HEAT RECOVERY UNIT (HRU 7101A) CONTROL SCHEMATIC

SCALE: NONE

HEAT RECOVERY UNIT POINTS LIST									
PLAN DESIGNATION	POINT DESCRIPTION	POINT TYPE						ALARMS	NOTES
		AO	DO	AI	DI	VP			
HRU SF STATUS	HRU SUPPLY FAN STATUS				X				
HRU SF S/S	HRU SUPPLY FAN START/STOP		X						
HRU EF STATUS	HRU EXHAUST FAN STATUS				X				
HRU EF S/S	HRU EXHAUST FAN START/STOP		X						
HRU RA FILTER DP	HRU RETURN AIR FILTER DIFFERENTIAL PRESSURE			X					ALARM ABOVE 0.75 IN W.G. (ADJUSTABLE)
HRU OA DAMP	HRU OUTDOOR AIR DAMPER	X							
HRU OA FILTER DP	HRU OUTDOOR AIR FILTER DIFFERENTIAL PRESSURE			X					ALARM ABOVE 0.75 IN W.G. (ADJUSTABLE)
HRU DAT	HRU DISCHARGE AIR TEMPERATURE			X					
HRU DAT SP	HRU DISCHARGE AIR TEMPERATURE SET POINT					X			70°F (ADJUSTABLE)
HRU RETURN DD	HRU RETURN SMOKE DUCT DETECTOR						X		
HRU SUPPLY DD	HRU SUPPLY SMOKE DUCT DETECTOR						X		

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JLL	JJB	JJB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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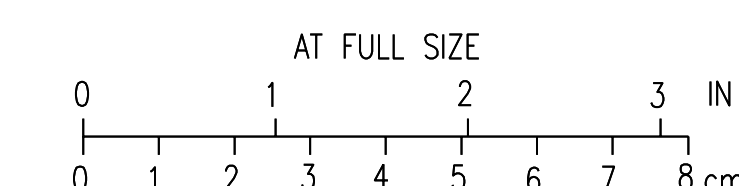
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SLUDGE PUMPING BUILDING
HVAC CONTROL SCHEMATIC**

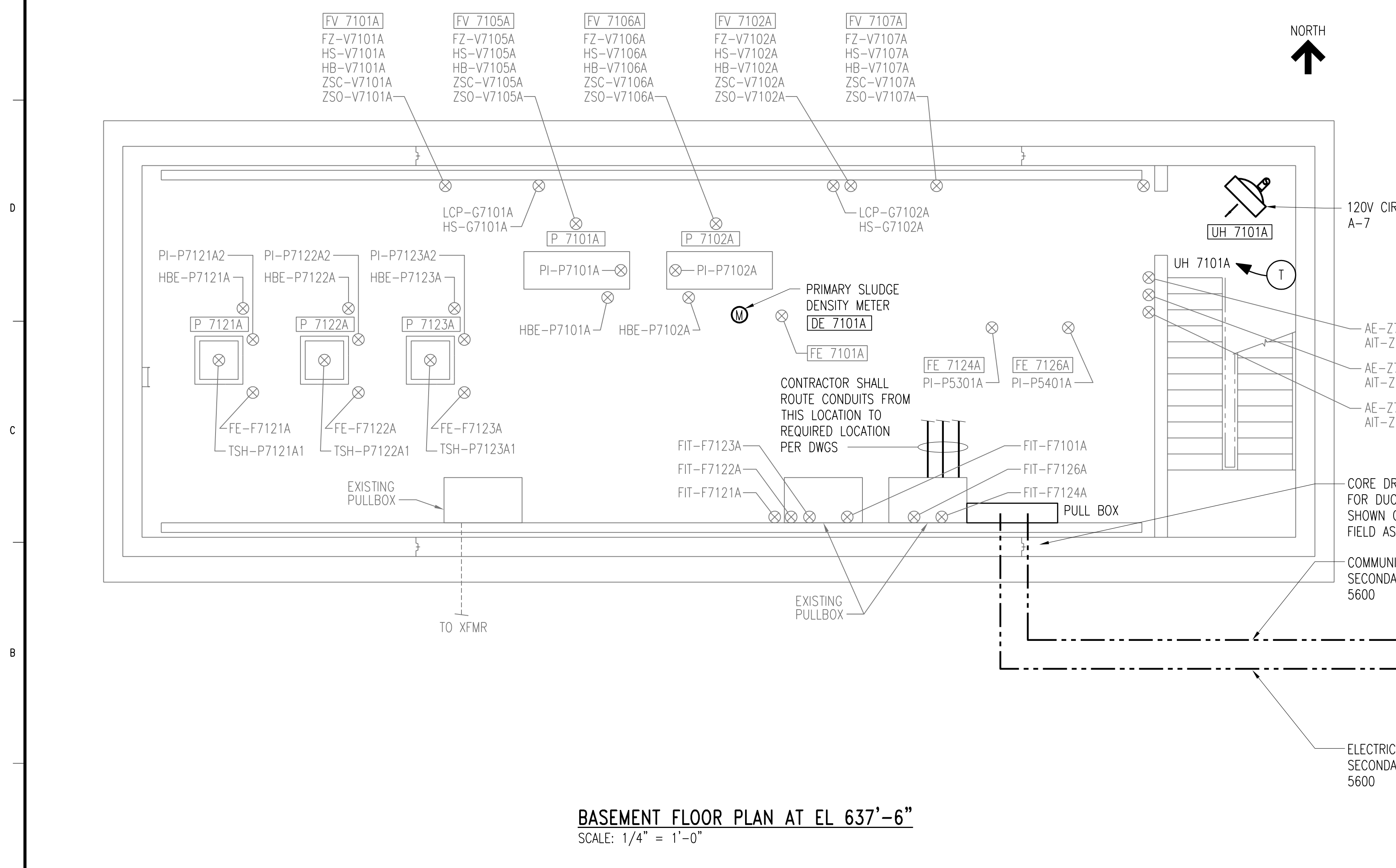
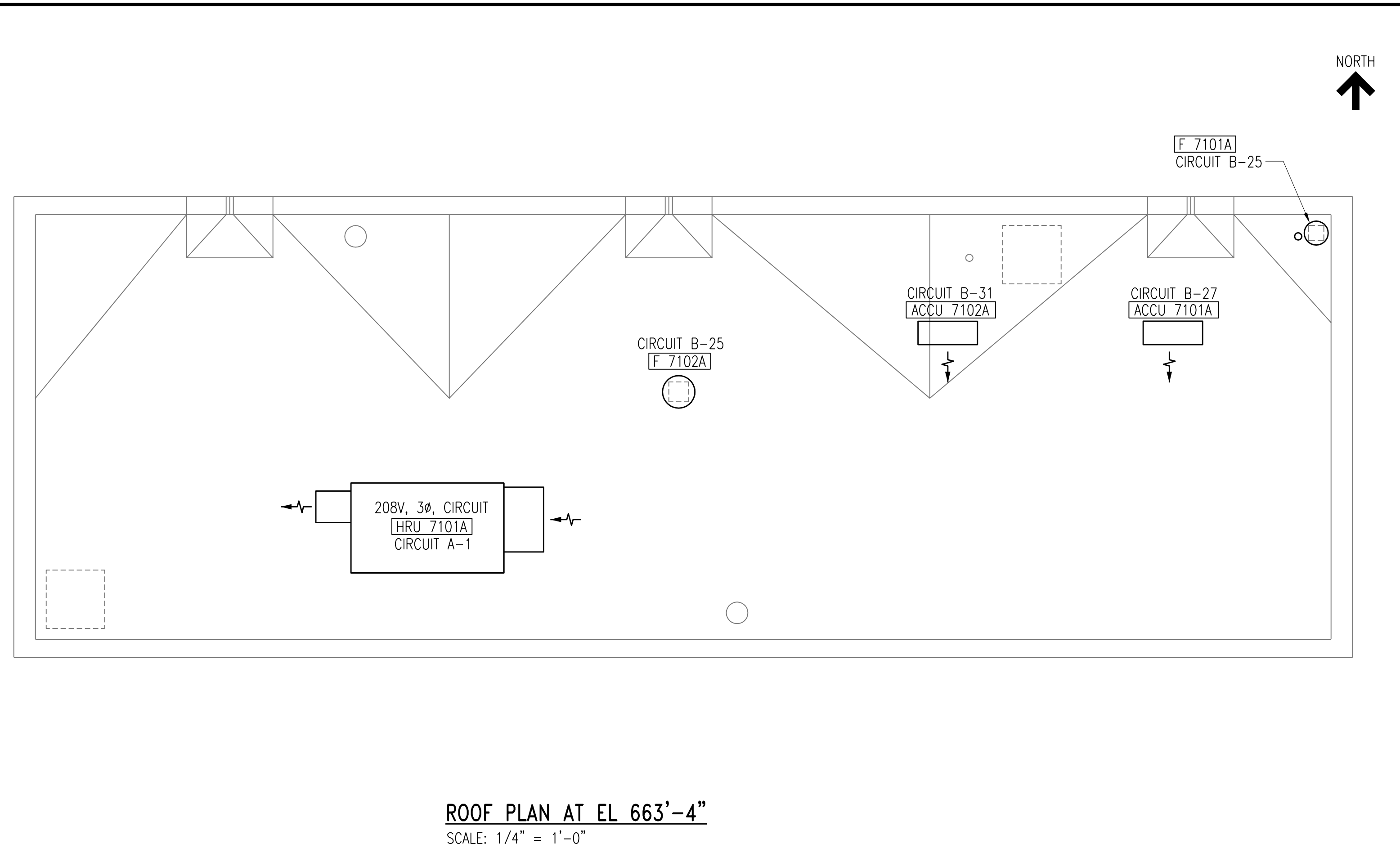
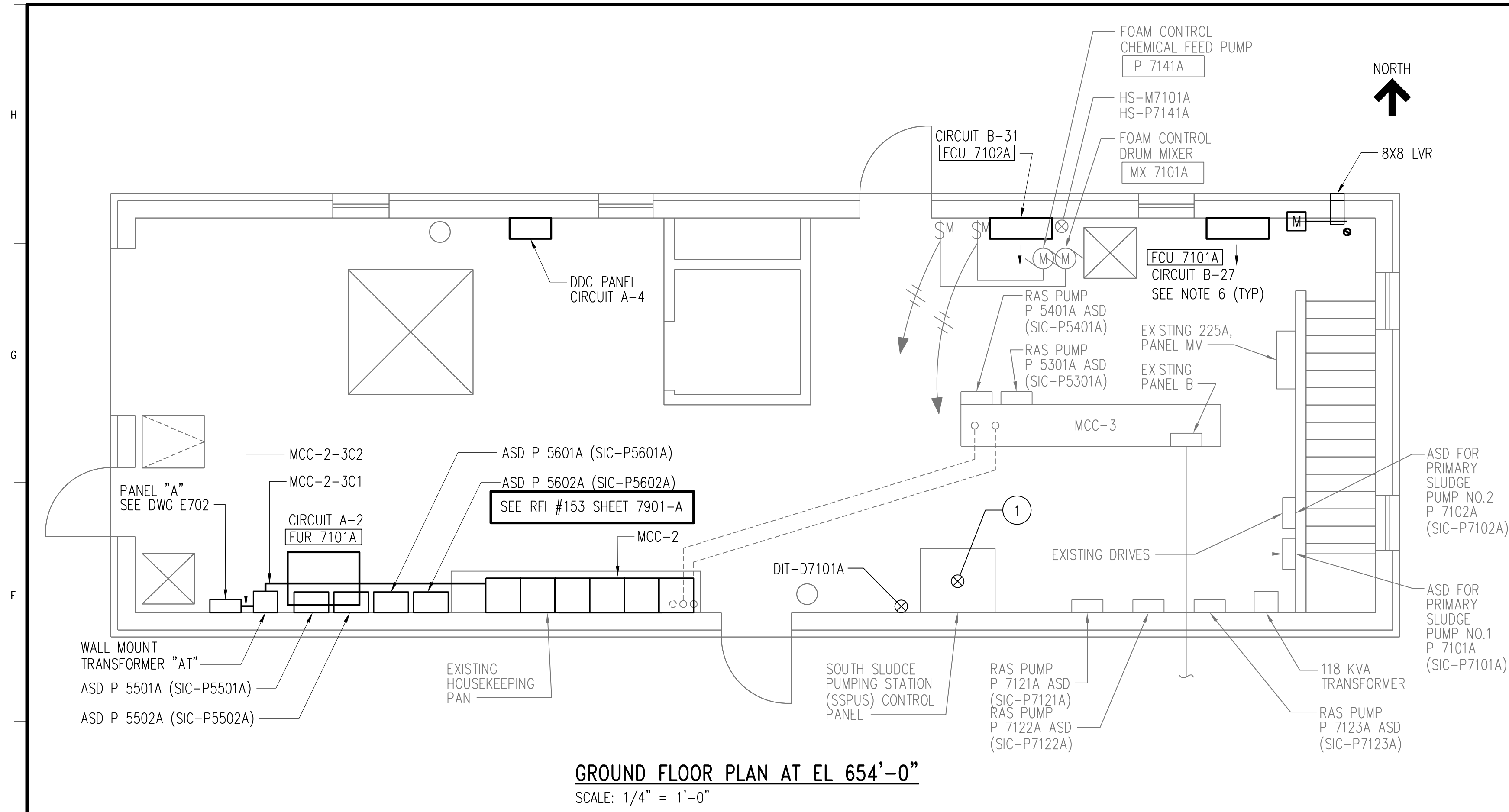
DESIGNED	JL LEE	SCALE: NONE	
DRAWN	D. WILGES	NO. 22800	REV.
CHECKED	JJ BOVENKAMP		
APPROVED	JJ BOVENKAMP		
APPROVED			
DATE	DECEMBER 2, 2011		

M705

2



CADD: D1-R4



KEYNOTES:

- 1. JE-J7000A JX-J7000A HBE-J7001A JE-J7001A JI-J7001A JR-7001A JX-J7001A ER-J7001A1 ER-J7001A2 ER-J7001A3 ER-J7001A4 ER-J7001A5 JE-7010A JR-J7011A UC-I7001A UC-I7002A UIC-I7000A R-L5301A R-L5401A FR-F3001A FR-F5501A LR-L5510A FR-F5601A LR-L5610A DR-D7101A XR-M3001A XR-P3042A XR-C3101A XR-C3201A XR-P3301A XR-G3301A XR-C3301A XR-P3401A XR-G3401A XR-C3401A XR-P3501A XR-C3501A XR-G3501A XR-P5042A XR-C5101A XR-C5201A XR-C5301A XR-C5401A XR-C5501A XR-G5601A XR-P501A XR-P7101A XR-V7101A XR-G7102A XR-P7102A XR-V7102A XR-V7105A XR-V7106A XR-V7107A XR-V7107A XR-V7107A HBR-P5401A US-P5401A HBR-P5501A US-P5501A HBR-P5502A US-P5502A HBR-P5601A US-P5601A HBR-P5602A US-P5602A

NOTES:

- SEE DRAWING D14 AND D15 FOR MCC-3 DEMOLITION ITEMS AND DRAWING E30 FOR NEW MCC-2 AND DRAWINGS E14 AND E15 FOR MODIFIED MCC-3 REQUIREMENTS.
- SEE DRAWING E1 FOR GENERAL ELECTRICAL NOTES AND WIRING DEVICE SCHEDULE.
- SEE DRAWING E4 FOR TYPICAL ELECTRICAL DETAILS.
- SEE DRAWINGS E2 AND E3 FOR LIGHTING FIXTURE SCHEDULE.
- SEE DRAWING G9 FOR ELECTRICAL LEGEND.
- FCU/ACCU 7101A AND 7102A HAVE WIRING HARNESS BETWEEN FCU AND ACCU BY MANUFACTURER. PROVIDE REQUIRED CONDUIT PER CODE FOR O.D. OF CABLES BETWEEN UNITS.

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT
**SLUDGE PUMPING BUILDING
 POWER AND LIGHTING PLANS AND DETAILS**

DESIGNED	DL MORITZ	SCALE:	AS NOTED
DRAWN	D. WILGES	NO.	22800
CHECKED	DL MORITZ	REV.	
APPROVED	JD COGAN		
DATE	DECEMBER 2, 2011	E701	3



CADD: D1-R4

PANEL NAME:		NEW PANEL A		BUS RATING:		100 A		MOUNTING:		SURFACE		
SERVICE VOLTAGE:		208Y/120 VAC, 3 PH - 4 W		60 HZ		MAIN BREAKER:		100 A				
SOURCE NAME:		MCC-2		MINIMUM AIC:		10,000		MULTI-LUG:		N/A		
SOURCE LOCATION:		MCC-2		NEMA TYPE:		1		IG BUS:		NO		
				SERVICE ENTRANCE:		NO		7 MODE TVSS:		YES		
				200% NEUTRAL:		NO		TVSS LEVEL:		180 KA		
BRKR NO.	CIRCUIT DESCRIPTION	LOAD DESCRIPTION	BRKR RTG	DEMAND (KVA)			CONNECTED (KVA)				LOAD FACTOR	
				A	B	C	LTG	RCPT	MTR	EQPT		
1	3#12,#12GRD,1°C	HRU 7101A	20A3P	1.20							1.20	1.00
3	I	I	I		1.20						1.20	1.00
5	I	I	I			1.20					1.20	1.00
7	2#8,#8GRD,1°C	RACK 3300, VAULT 120V RECEPTACLES 3400, 3500	20A,1P		0.54			0.54				1.00
9	2#8,#8GRD,1°C	HEAT TRACE PRIMARY CLARIFIER 3500	*30A,1P			0.80				0.80		1.00
11	2#8,#8GRD,1°C	HEAT TRACE PRIMARY CLARIFIER 3100,3200	*30A,1P	1.60							1.60	1.00
13	2#8,#8GRD,1°C	HEAT TRACE PRIMARY CLARIFIER 3300,3400	*30A,1P		1.60					1.60		1.00
15	2#12,#12GRD	COL 3500 CONTROL PANEL	20A1P			0.00						1.00
17	2#12,#12GRD	TRANE RTU	20A1P		0.00							1.00
19&21		VAULT 3300 RADIANT HEAT	20A1P			0.00						1.00
23&25		VAULT 3400 RADIANT HEAT	20A1P	0.00								1.00
27&29		VAULT 3500 RADIANT HEAT	20A1P		0.00							1.00
2		SPARE	20A1P	0.48							0.48	1.00
4	2#12,#12GRD,75°C	DDC PANEL	20A1P		0.18						0.20	0.90
6	2#10,#10GRD,1°C	SUMP PUMP AND PRI SLUDGE VAULT FAN F3301A	20A1P			0.40			0.40			1.00
8	2#10,#10GRD,1°C	SUMP PUMP AND PRI SLUDGE VAULT FAN F3401A	20A1P	0.40					0.40			1.00
10	2#10,#10GRD,1°C	SUMP PUMP AND PRI SLUDGE VAULT FAN F3501A	20A1P		0.40				0.40			1.00
14	2#8,#8GRD,1°C	HEAT TRACE SECONDARY CLARIFIER 5100,5200	*30A,1P			2.00				2.00		1.00
16	2#8,#8GRD,1°C	HEAT TRACE SECONDARY CLARIFIER 5300,5400	*30A,1P	2.00						2.00		1.00
12	2#8,#8GRD,1°C	HEAT TRACE SECONDARY CLARIFIER 5500,5600	*30A,1P		2.00					2.00		1.00
18	2#8,#8GRD,1°C	SECONDARY CLARIFIER 5500, 5600 RECEPT	20A,1P			0.36		0.36				1.00
20	2#8,#8GRD,1°C	SPARE	20A,1P	0.25						0.25		1.00
22	2#8,#8GRD,1°C	SEC.SLUDGE COLLECTION RECEPTACLES	20A,1P		0.36			0.36				1.00
24		HEAT TRACE 5600				0.00						1.00
26		SPARE WIRE		0.00								1.00
28		SPARE			0.00							1.00
30		COLLECTOR CONTROL PANELS 5500, 5600				0.00						1.00
				5.9	6.3	4.8	KVA / PH					
				49	52	40	AMPS / PH					
LOAD TYPE		CONNECTED (KVA)	DEMAND (KVA)	REMARKS:								
LIGHTING:		0.0	#VALUE!	AN ASTERICK IN THE BRKR RTG COLUMN REPRESENTS 30MA GFI TYPE BREAKER IS REQUIRED FOR HEAT TRACE CIRCUITS								
RECEPTACLE:		1.3	#VALUE!									
MOTOR:		1.2	#VALUE!									
EQUIPMENT:		14.5	#VALUE!									
TOTALS:		17.0	#VALUE!									

NOTES:
1 CIRCUITS TO FANS F3301A,3401A, AND 3501A MAY BE RUN IN OTHER POWER CONDUITS COMBINED TO PRI SLUDGE VAULTS
2
3
4
5
6

PANEL NAME:		EXIST "B"		LOCATION:		SLDG PUMP BLDG	
MOUNTING:		IN MCC-3		VOLTAGE:		208Y/120	
ENCLOSURE:		NEMA 1		PHASE:		3P/4W	
MAINS:		100A		SHORT CIRCUIT RATING:		10KA	
BUS AMPACITY:		100A		GROUND BUS:		YES	
BUS TYPE:		NO		ISOLATED GROUND BUS:		NO	
BRANCH BREAKER TYPE:				NEUTRAL BUS:		100%	
NO.	LOAD DESCRIPTION	CB PH, G, COND	LOAD DESCRIPTION	CB PH, G, COND	NO.	LOAD DESCRIPTION	CB PH, G, COND
1	LIGHTS	1P20A	PULLBOX RECEPTACLES	1P20A	2		
3	BASEMENT LIGHTS	1P20A	PULLBOX RECEPTACLES	1P20A	4		
5	1ST FLOOR RECEPTACLES	1P20A	SUMP PUMP #3	1P20A	6		
7	BASEMENT RECEPTACLES	1P20A	OUTSIDE LIGHTS	1P20A	8		
9	CLARIFIER RECEPTACLES	1P20A	SUMP PUMP #4	1P20A	10		
11	BASEMENT RECEPTACLES	1P20A	SLUDGE DENSITY METER	1P20A	12		
13	SECONDARY CLARIFIERS RECEPTACLES AND LIGHTS	1P20A	PRIMARY CLARIFIER #3 RECEPTACLES AND LIGHTS	1P20A	14		
15	CLARIFIER RECEPTACLES	1P20A	?	1P20A	16		
17	UI WETLAND	1P20A	OVERHEAD DOOR	1P20A	18		
19	UI WETLAND	1P20A	PRIMARY CLARIFIER #4 RECEPTACLES AND LIGHTS	1P20A	20		
21	UI WETLAND	1P20A	DEWATERING PUMP	1P20A	22		
23	SPARE	1P20A	?	1P20A	24		
25	F7101A AND F7102A	1P20A	MAG FLOW METERS 1,2	1P20A	26		
		#12, #12, 0.75"					
27	FCU/ACCU-7101A	2P25A	MAG FLOW METERS 3,4,5	1P20A	28		
		#10, #10, 0.75"					
29			NOT WORKING	1P20A	30		
31	FCU/ACCU-7102A	2P25A	HOIST	1P20A	32		
		#10, #10, 0.75"					
33			?	1P20A	34		
35	SPARE	1P20A	SAMPLE PUMP	1P20A	36		
37	DAMPERS		SAMPLE PUMP	1P20A	38		
39	SPARE		REFRIG SAMPLER	1P20A	40		
41	WH-1		D.O. PROBE	1P20A	42		

NOTES:
SEE DRAWING D703 FOR BOLD LOADS WHERE BREAKER MAY BE REUSED FOR CIRCUITS 25 AND 35.

PANEL NAME:		EXIST "MOV"		LOCATION:		SLDG PUMP BLDG	
MOUNTING:		SURFACE		VOLTAGE:		480V	
ENCLOSURE:		NEMA 1		PHASE:		3P/4W	
MAINS:		100A		SHORT CIRCUIT RATING:		18KA	
BUS AMPACITY:		100A		GROUND BUS:		YES	
BUS TYPE:		NO		ISOLATED GROUND BUS:		NO	
BRANCH BREAKER TYPE:				NEUTRAL BUS:		100%	
NO.	LOAD DESCRIPTION	CB PH, G, COND	LOAD DESCRIPTION	CB PH, G, COND	NO.	LOAD DESCRIPTION	CB PH, G, COND
1	MAIN BREAKER	3P100A	SECONDARY SCUM MIXER	3P15A	2		
7	PRIMARY SCUM VALVE	3P15A	PRIMARY CLARIFIER 2	3P15A	8		
13	PRIMARY CLARIFIER 4	3P15A	PRIMARY CLARIFIER 3	3P15A	14		
19	PRIMARY CLAIRIFER 1	3P15A	SECONDARY CLARIFIER 1	3P15A	20		
25	SECONDARY CLARIFIER 2	3P15A	GRINDER VALVE 1	3P15A	26		
31	GRINDER VALVE 2	3P15A	2- 480V RECEPTACLES SECONDARY CLARIFIER NORTH	3P20A	32		
37	480V RECEPTACLE SECONDARY CLARIFIER SOUTH	3P20A	2- 480V RECEPTACLES SECONDARY CLARIFIER SOUTH	3P20A	38		
43			2- 480V RECEPTACLES SECONDARY CLARIFIER SOUTH	3P20A	44		

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

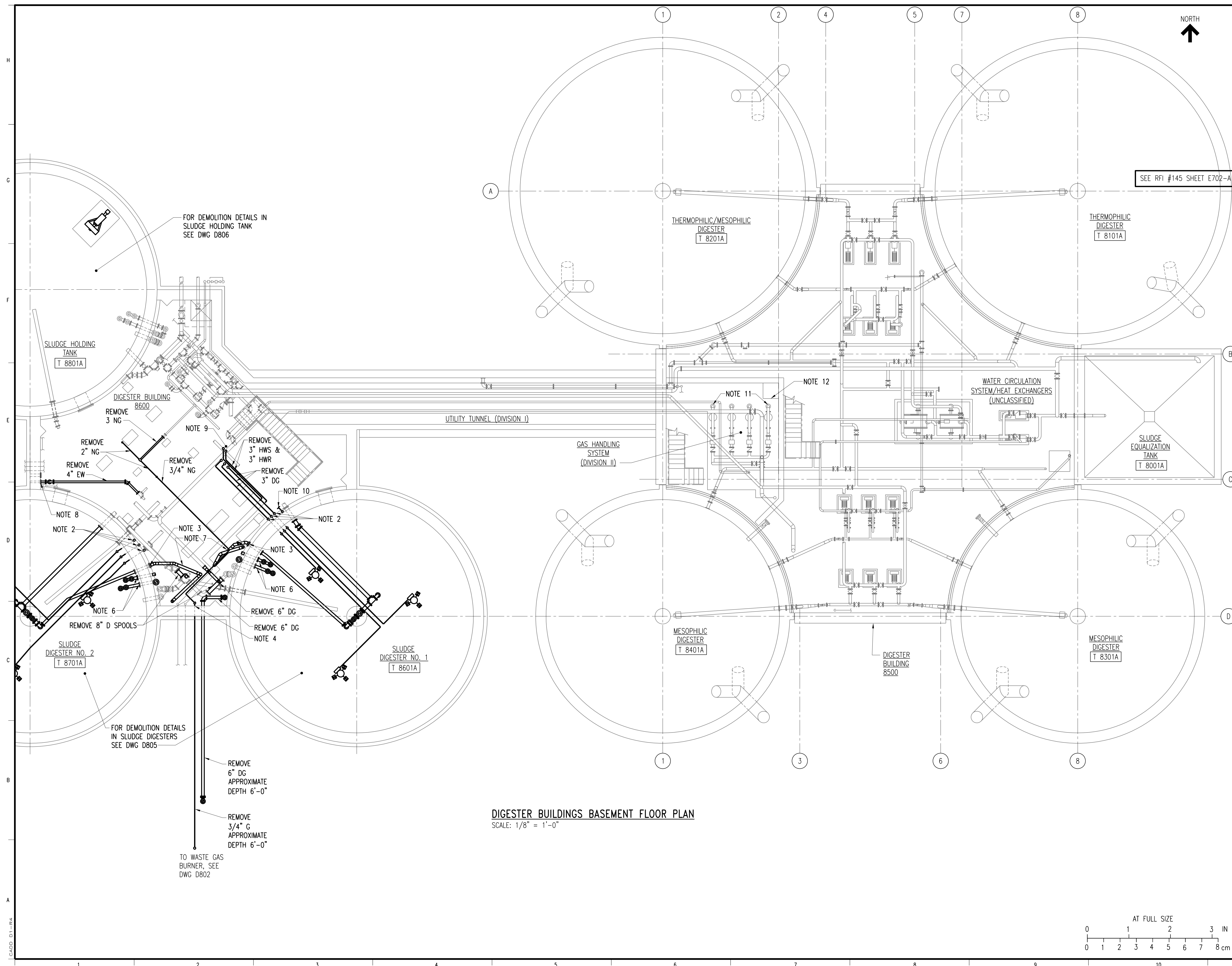


CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT
**SLUDGE PUMPING BUILDING
PANEL SCHEDULES**



DESIGNED DL MORITZ	SCALE: AS NOTED	NO. 22800	REV. 3
DRAWN D.WILGES			
CHECKED DL MORITZ			
APPROVED JD COGAN			
APPROVED	DATE: DECEMBER 2, 2011	E702	

CADD: D1-1-R4



BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE

- NOTES:**
- HEATING WATER PIPING, UNIT HEATERS AND ACCESSORIES TO REMAIN IN BASEMENT FLOOR AREA. SEE MECHANICAL DRAWINGS.
 - INSTALL CAP ON BOTH SIDES OF WALL (TYP 3" DG MIXING LINES DIGESTER NOS 1 AND 2).
 - INSTALL BLIND FLANGE AT WALL ON 6" DG LINE (TYP DIGESTER NOS 1 AND 2).
 - CAP OR BLIND FLANGE 3/4" G AT INTERIOR WALL.
 - REMOVE ELECTRICAL INSTRUMENTATION AND HEAT TRACING WIRING AND CONDUIT TO SOURCE PANEL IN DIGESTER BUILDING 8600.
 - REMOVE DECANT LINES AND OVERFLOW. CAP BOTH SIDES OF WALL AND OVERFLOW BOX, EXCEPT AS REQUIRED TO CONNECT NEW DSL LINE TO SLUDGE HEAT EXCHANGER RECIRCULATION PIPING.
 - REMOVE SEDIMENT TRAPS AND DG PIPING. PADS MAY REMAIN FOR NEW SEDIMENT TRAPS.
 - BLIND FLANGE 4" EW AT WALL. SEE DRAWING M802 FOR OTHER PIPING AND CONDUITS ON WEST WALL.
 - REMOVE AND REINSTALL EXISTING VENTILATION DUCTWORK APPROXIMATELY 24" WIDE X 30" HIGH AS REQUIRED TO INSTALL NEW HEATING WATER. REINSULATE DUCTWORK TO MATCH EXISTING.
 - REMOVE 3/4" DL AND DRIP TRAP FROM BASE OF DIGESTER TO COMPRESSOR ROOM.
 - REMOVE 6" DG SPOOL TO ALLOW FOR INSTALLATION OF PLUG VALVES AND DIGESTER GAS COOLERS. SEE DRAWING M803.
 - RELOCATE 28" X 28" VENTILATION AIR SUPPLY DAMPER AND LOUVER APPROXIMATELY 1'-4" HIGHER IN EXHAUST DUCTWORK TO ALLOW INSTALLATION OF 6" PLUG VALVE AND DG COOLER. RELOCATE SUMP PUMP CONDUIT AND WIRING AS REQUIRED ABOVE LOUVER DAMPER.

DIGESTER BUILDINGS BASEMENT FLOOR PLAN
SCALE: 1/8" = 1'-0"

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED NOTES AND DEMO PIPE	TJH	TJH	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	TJH	TJH	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

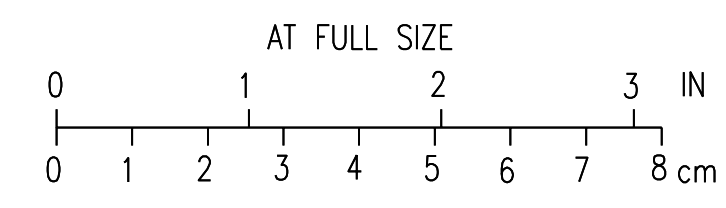


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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**DIGESTER AREA
MECHANICAL BASEMENT DEMOLITION PLAN**

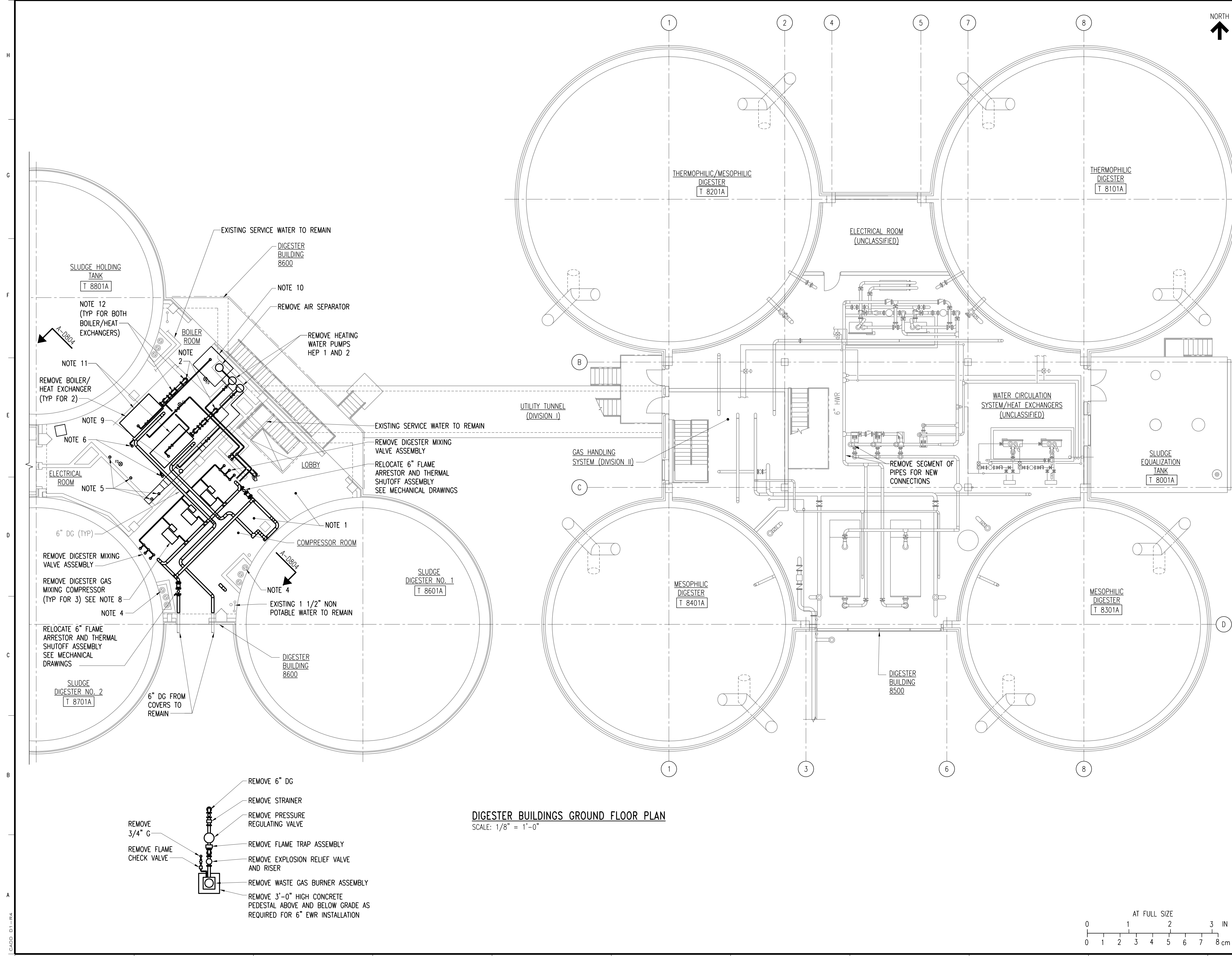
DESIGNED	TJ HICKEY	SCALE:	AS NOTED
DRAWN	LJ OSBORN	NO.	22800
CHECKED	TJ HICKEY	REV.	
APPROVED	JM BRADY		
APPROVED			
DATE	DECEMBER 2, 2011		



CADD: D1-R4

BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE

- NOTES:**
- HEATING WATER PIPING TO UNIT HEATERS AND AIR HANDLING COILS TO REMAIN IN LOBBY AND COMPRESSOR ROOMS. SEE MECHANICAL DRAWINGS.
 - PORTIONS OF SLUDGE PIPING TO HEAT EXCHANGERS TO REMAIN. SEE MECHANICAL DRAWINGS.
 - GENERAL NOTE - PLUG UNUSED FLOOR, ROOF AND WALL PENETRATIONS WHERE PIPE IS REMOVED.
 - CAP OR PLUG IN OVERFLOW BOX.
 - REMOVE DG DRIP TRAPS AND DRAIN LINES.
 - REMOVE 2" NG TO BOILERS.
 - SERVICE WATER PIPING TO REMAIN IN GROUND FLOOR ROOMS.
 - REMOVE EXISTING CONCRETE PADS FOR DG COMPRESSORS. TWO PADS 3'-6" WIDE X 6'-0" LONG, ONE PAD 3'-6" WIDE X 10'-0" LONG. 7" HIGH PAD WITH 3" GROUT.
 - REMOVE 2" NG VENT LINE THROUGH ROOF AND CAP.
 - AIR HANDLING UNIT AND ASSOCIATED HEATING WATER SUPPLY AND RETURN VALVES TO REMAIN. RECONNECT TO NEW HEATING WATER SUPPLY AND RETURN PIPING. SEE MECHANICAL DRAWINGS.
 - REMOVE CONCRETE PADS FOR BOILER/HEAT EXCHANGERS. TWO PADS 5'-6" X 10'-9" X 7" HIGH WITH 3" GROUT.
 - REMOVE AND REINSTALL 6" PLUG VALVES IN SLUDGE PIPING AT INLET, DISCHARGE AND BYPASS AROUND NEW SLUDGE HEAT EXCHANGERS.



DIGESTER BUILDINGS GROUND FLOOR PLAN
SCALE: 1/8" = 1'-0"

- REMOVE 6" DG
- REMOVE STRAINER
- REMOVE PRESSURE REGULATING VALVE
- REMOVE FLAME TRAP ASSEMBLY
- REMOVE EXPLOSION RELIEF VALVE AND RISER
- REMOVE WASTE GAS BURNER ASSEMBLY
- REMOVE 3'-0" HIGH CONCRETE PEDESTAL ABOVE AND BELOW GRADE AS REQUIRED FOR 6" EWR INSTALLATION
- REMOVE 3/4" G
- REMOVE FLAME CHECK VALVE



RECORD DRAWING	JBL	JBL	JBL	12-31-2014	
1 ISSUED FOR CONSTRUCTION	TJH	TJH	JMB	01-10-2012	
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

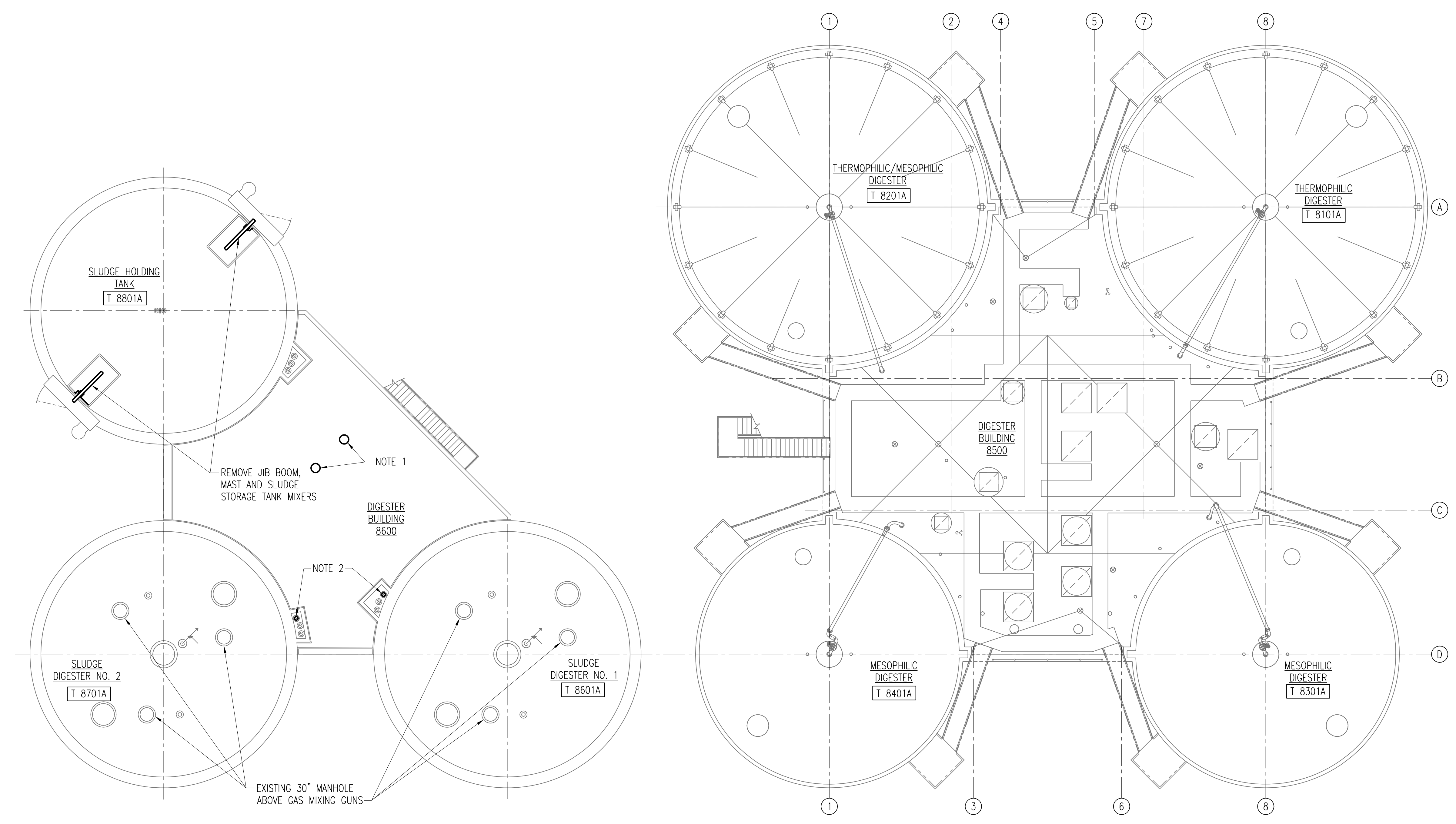
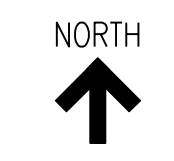
**DIGESTER AREA
MECHANICAL GROUND FLOOR
DEMOLITION PLAN**

DESIGNED TJ HICKEY	SCALE: AS NOTED	NO. 22800	REV. 2
DRAWN LJ OSBORN			
CHECKED TJ HICKEY			
APPROVED JM BRADY			
APPROVED			
DATE DECEMBER 2, 2011			

CADD: D1-1-R4

BOLD ITEMS ARE TO BE REMOVED
UNLESS NOTED OTHERWISE

- NOTES:**
1. REMOVE BOILER/HEAT EXCHANGER STACKS AND NG VENTS PASSING THROUGH ROOF AND CAP. SEE GROUND FLOOR DEMOLITION PLANS AND DETAILS.
 2. REMOVE TELESCOPING VALVE FROM DECANT LINES.



DIGESTER BUILDINGS ROOF DEMOLITION PLAN
SCALE: 3/32" = 1'-0"

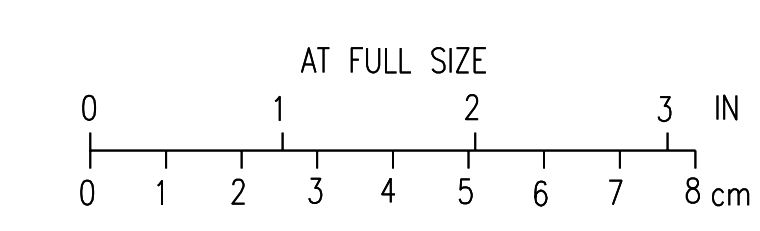
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	TJH	TJH	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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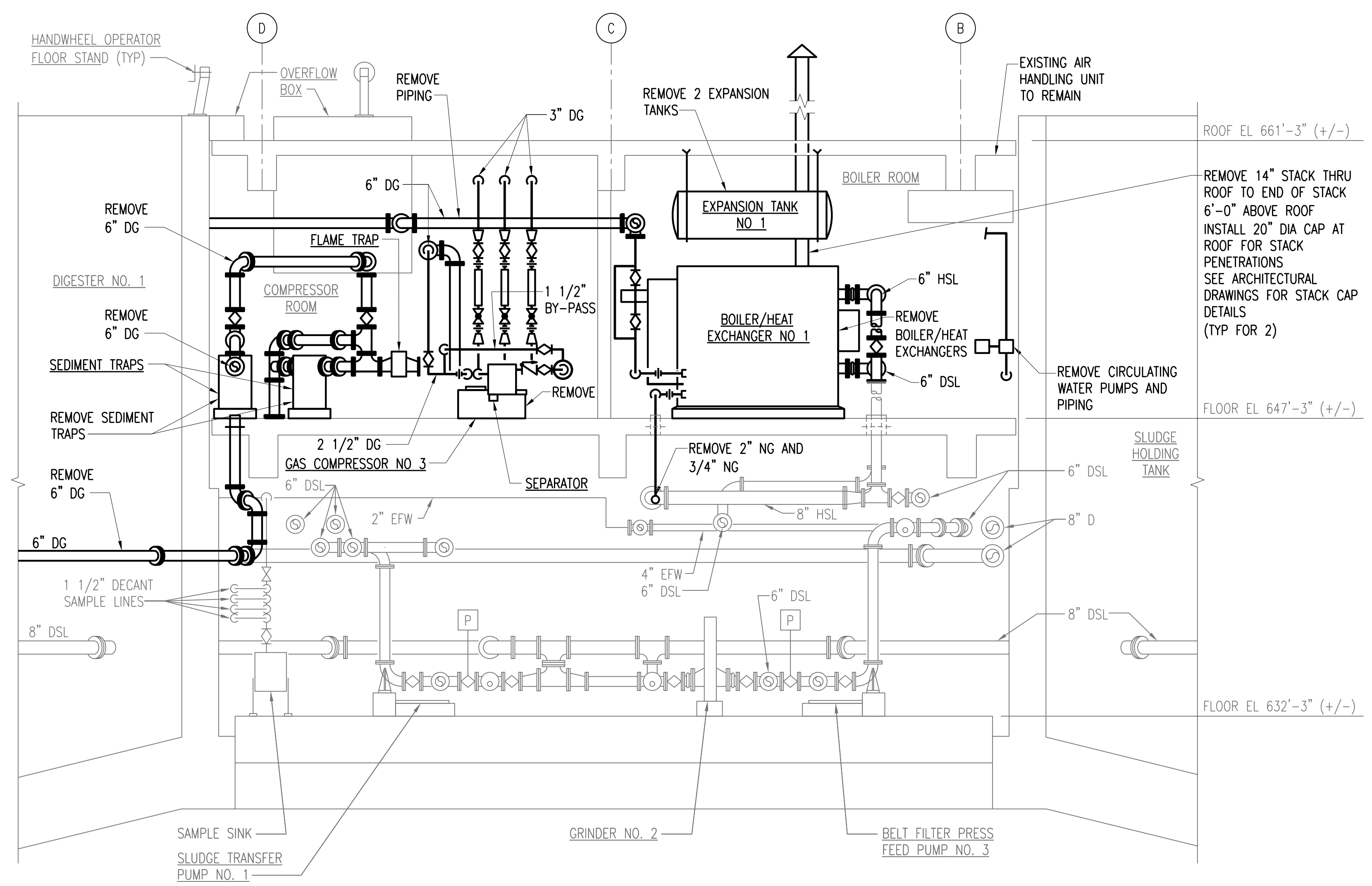
**DIGESTER AREA
MECHANICAL ROOF DEMOLITION PLAN**

DESIGNED	TJ HICKEY	SCALE:	AS NOTED
DRAWN	LJ OSBORN	NO.	22800
CHECKED	TJ HICKEY	REV.	
APPROVED	JM BRADY		
APPROVED		D803	2
DATE	DECEMBER 2, 2011		



CADD: D1-1-R4

BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE



- NOTES:**
- HEATING WATER PIPING, UNIT HEATERS AND ACCESSORIES TO REMAIN IN GROUND FLOOR AND BASEMENT FLOOR ROOMS. SEE MECHANICAL DRAWINGS.
 - REMOVE INSTRUMENTATION, POWER WIRING AND CONDUITS FOR EQUIPMENT TO BE DEMOLISHED BACK TO SOURCE PANELS.

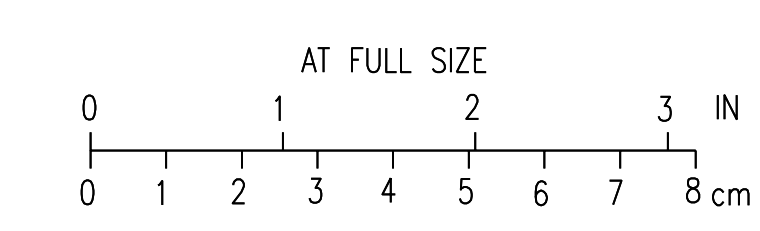
SECTION **A-D804**
D802
SCALE: 1/4" = 1'-0"

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	TJH	TJH	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**DIGESTER AREA
MECHANICAL DEMOLITION DETAILS**

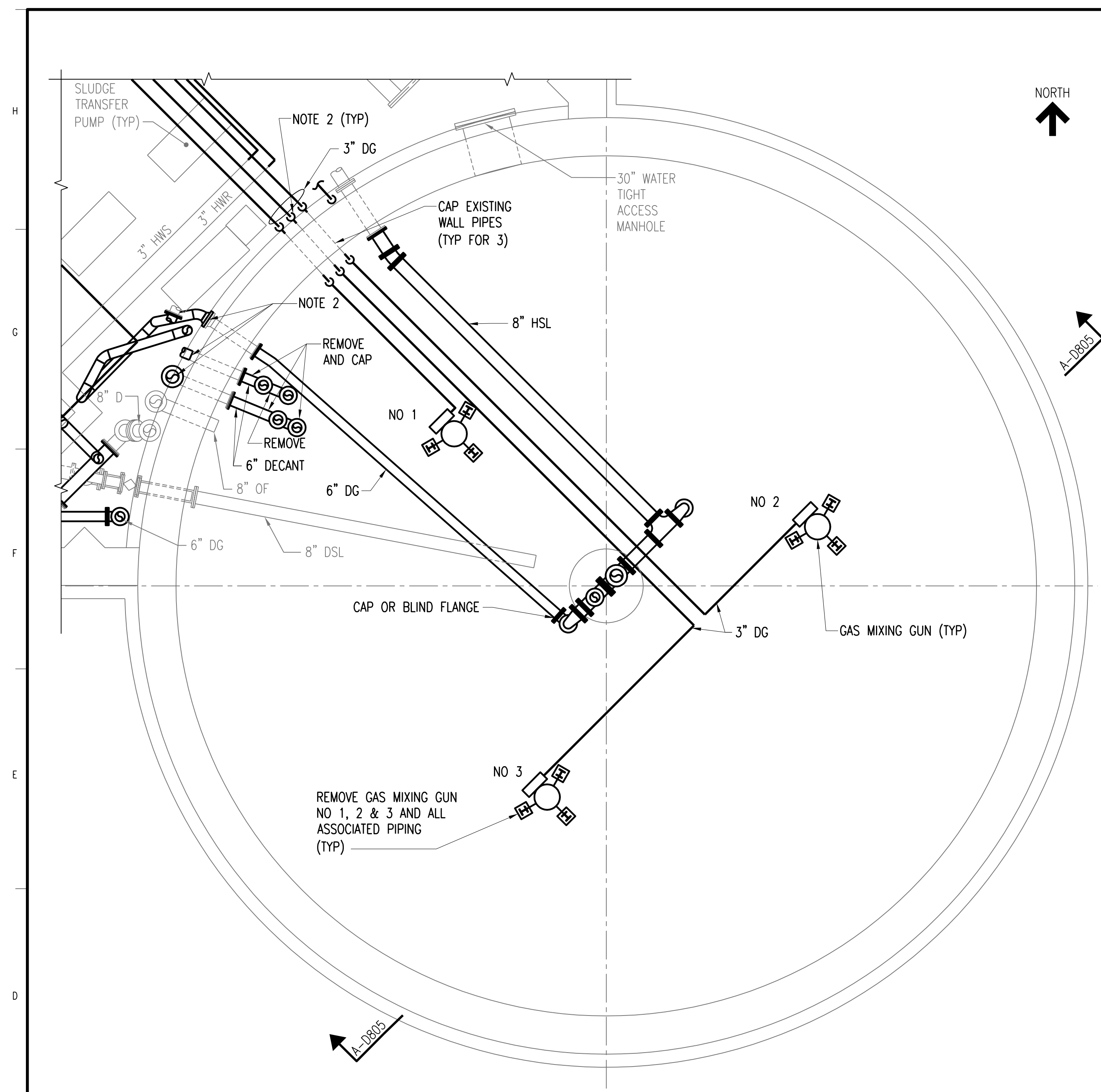


DESIGNED	TJ HICKEY	SCALE:	AS NOTED	NO. 22800	REV. D804 2
DRAWN	LJ OSBORN				
CHECKED	TJ HICKEY				
APPROVED	JM BRADY				
APPROVED					
DATE	DECEMBER 2, 2011				

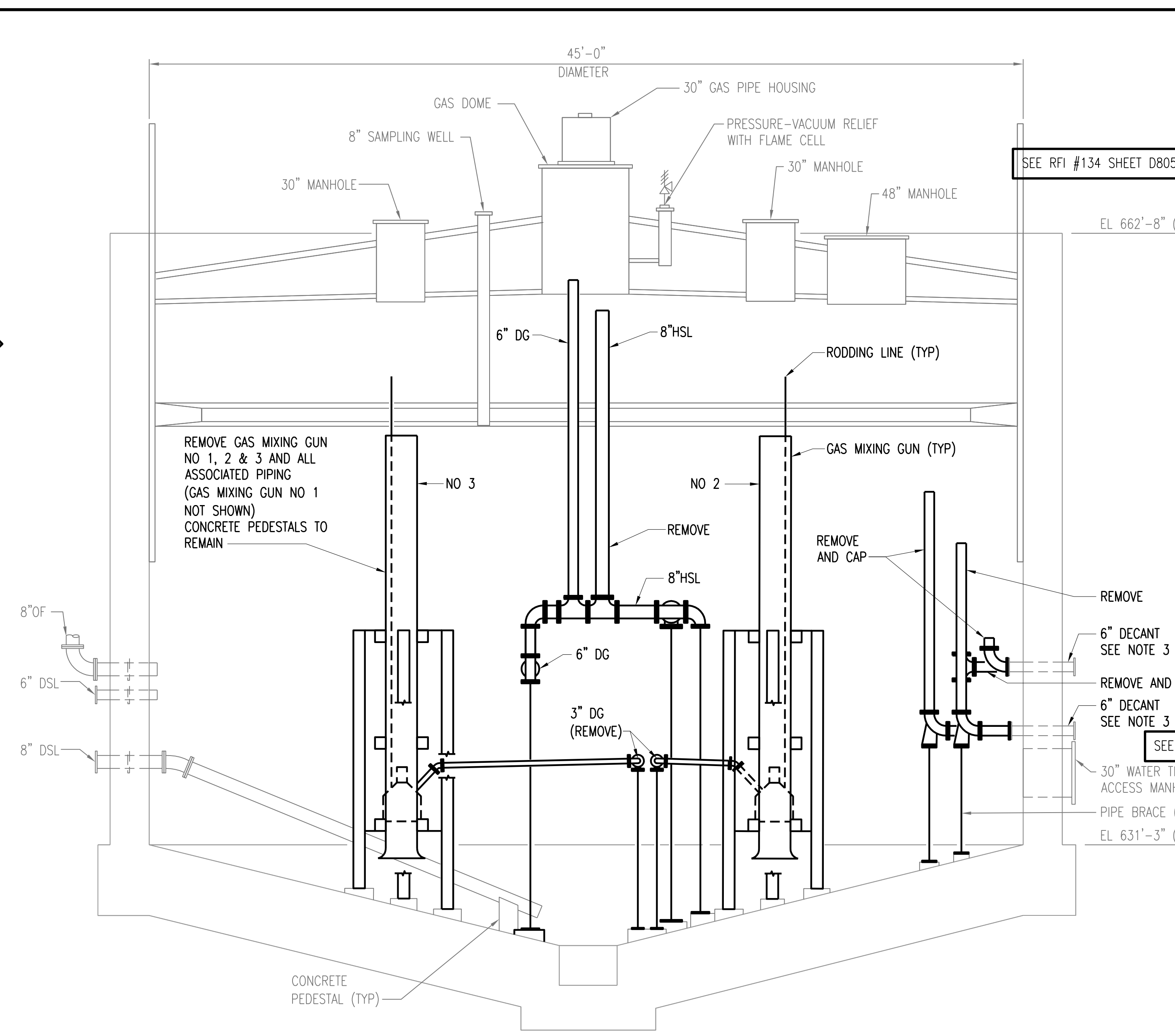
CADD: D1-1-R4

BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE

- NOTES:**
- DIGESTER 8701 IS SIMILAR. PERFORM SAME DEMOLITION WORK IN DIGESTER 8701.
 - INSTALL CAP OR BLIND FLANGE AT WALL, EXCEPT AS REQUIRED TO CONNECT NEW DSL LINE TO SLUDGE HEAT EXCHANGER RECIRCULATION PIPING.
 - REMOVE 1 1/2" SAMPLE LINES FROM DECANT PIPING TO SAMPLE SINK (TYP DIGESTERS 8601 AND 8701). 8 SAMPLE LINES TO BE REMOVED.



DIGESTER DEMOLITION PLAN (8601 SHOWN 8701 IS SIMILAR)
SCALE: 1/4" = 1'-0"



NOTE:
1. EXISTING PIPING ROTATED FOR CLARITY.

SECTION A-D805
SCALE: 1/4" = 1'-0"

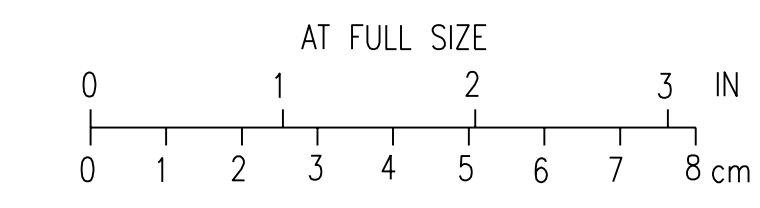
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED DEMOED PIPE	TJH	TJH	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	TJH	TJH	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

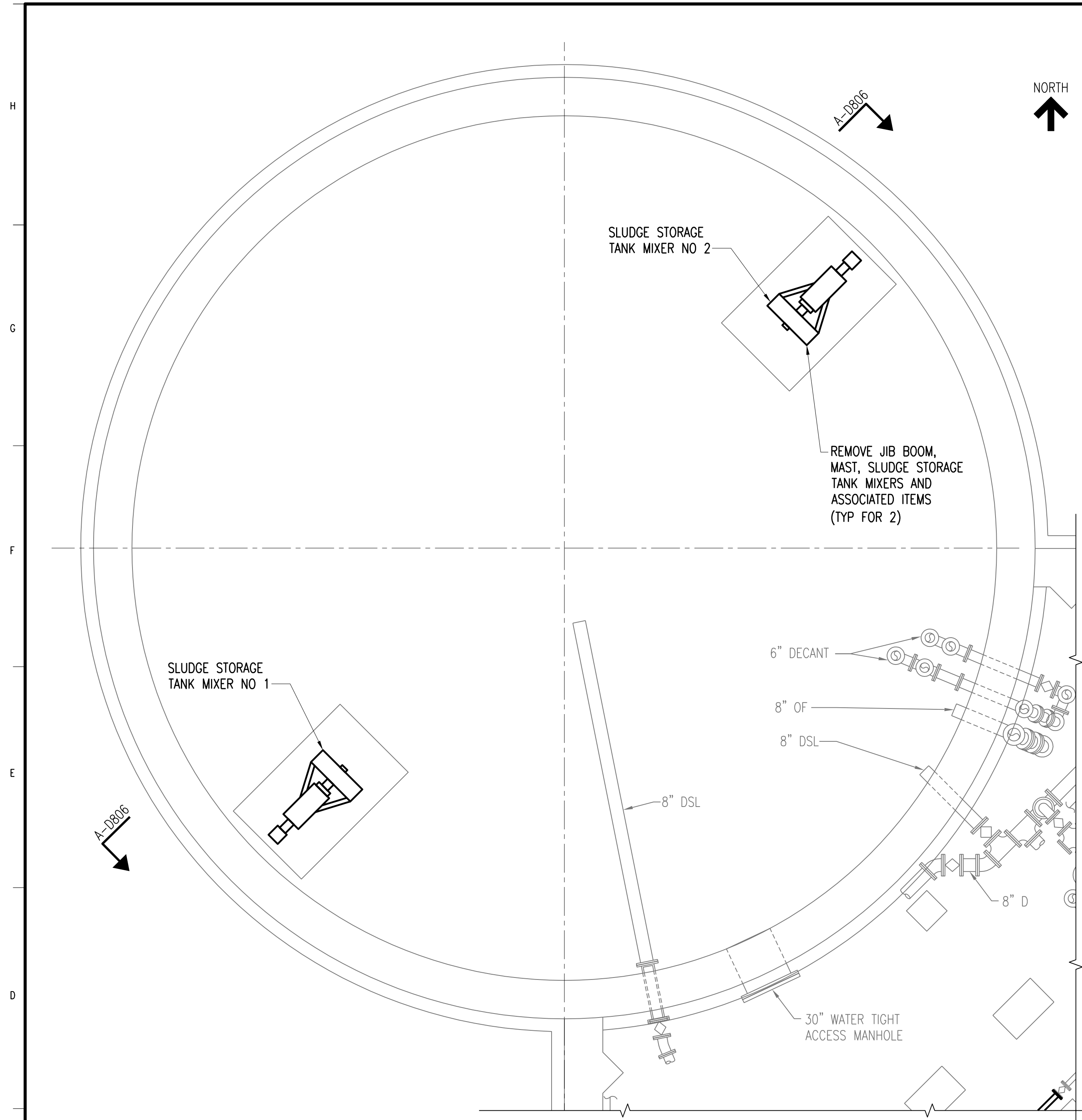
**DIGESTER AREA
SLUDGE DIGESTER TANK
MECHANICAL DEMOLITION DETAILS**

DESIGNED	TJ HICKEY	SCALE:	AS NOTED	NO. 22800	REV. D805 3
DRAWN	LJ OSBORN				
CHECKED	TJ HICKEY				
APPROVED	JM BRADY				
DATE	DECEMBER 2, 2011				

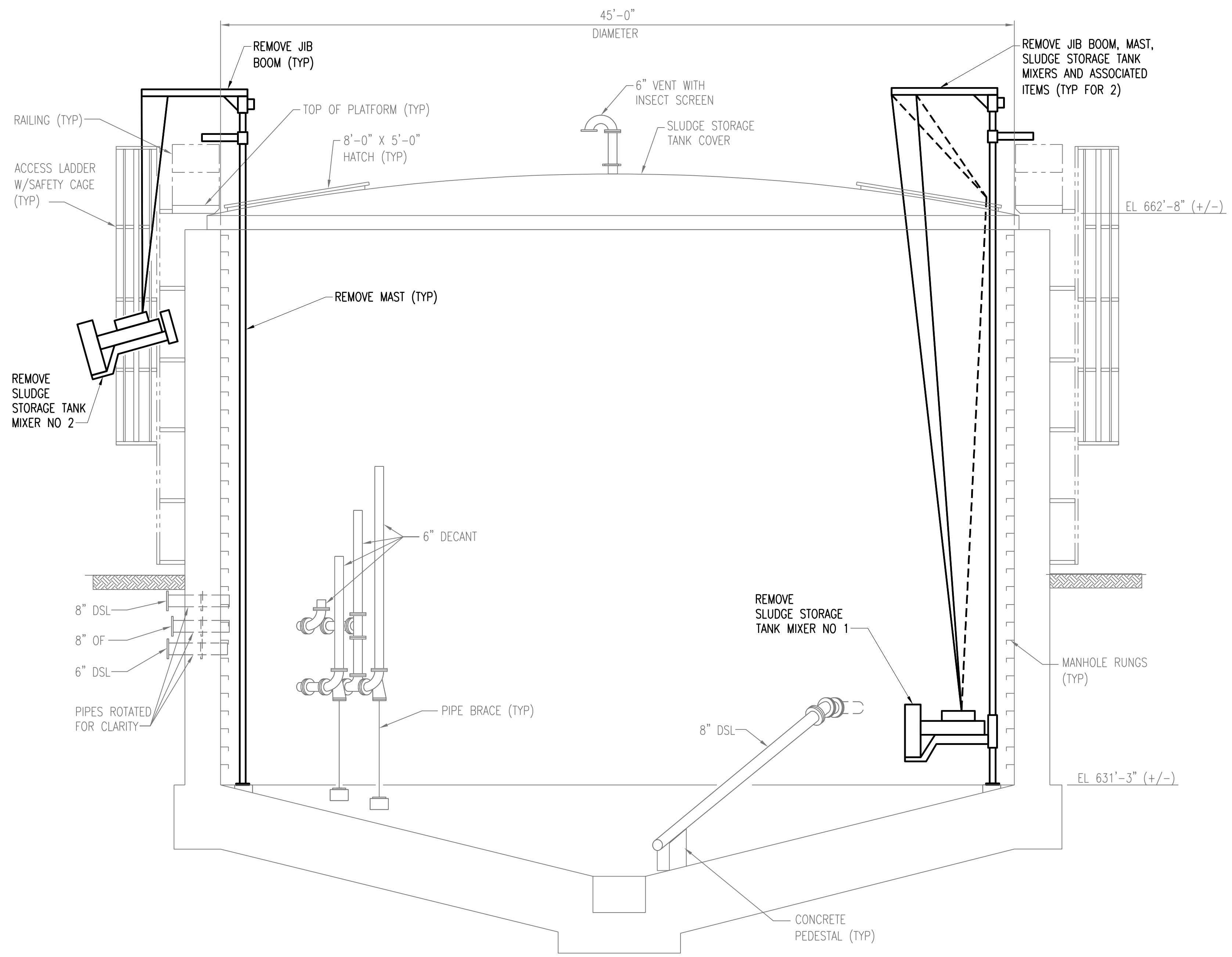


CADD: D11-144

BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE



SLUDGE HOLDING TANK DEMOLITION PLAN
SCALE: 1/4" = 1'-0"



SECTION A-D806
D806
SCALE: 1/4" = 1'-0"

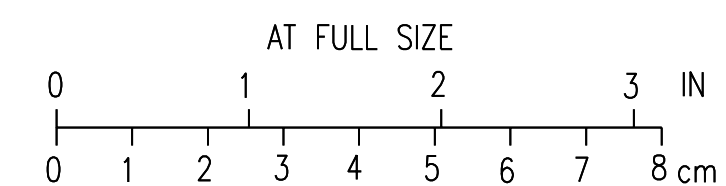
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	TJH	TJH	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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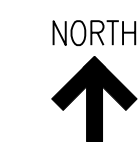
**DIGESTER AREA
SLUDGE HOLDING TANK
MECHANICAL DEMOLITION DETAILS**

DESIGNED	TJ HICKEY	SCALE: AS NOTED	
DRAWN	LJ OSBORN	NO. 22800	REV.
CHECKED	TJ HICKEY		
APPROVED	JM BRADY		
APPROVED			
DATE	DECEMBER 2, 2011	D806	2



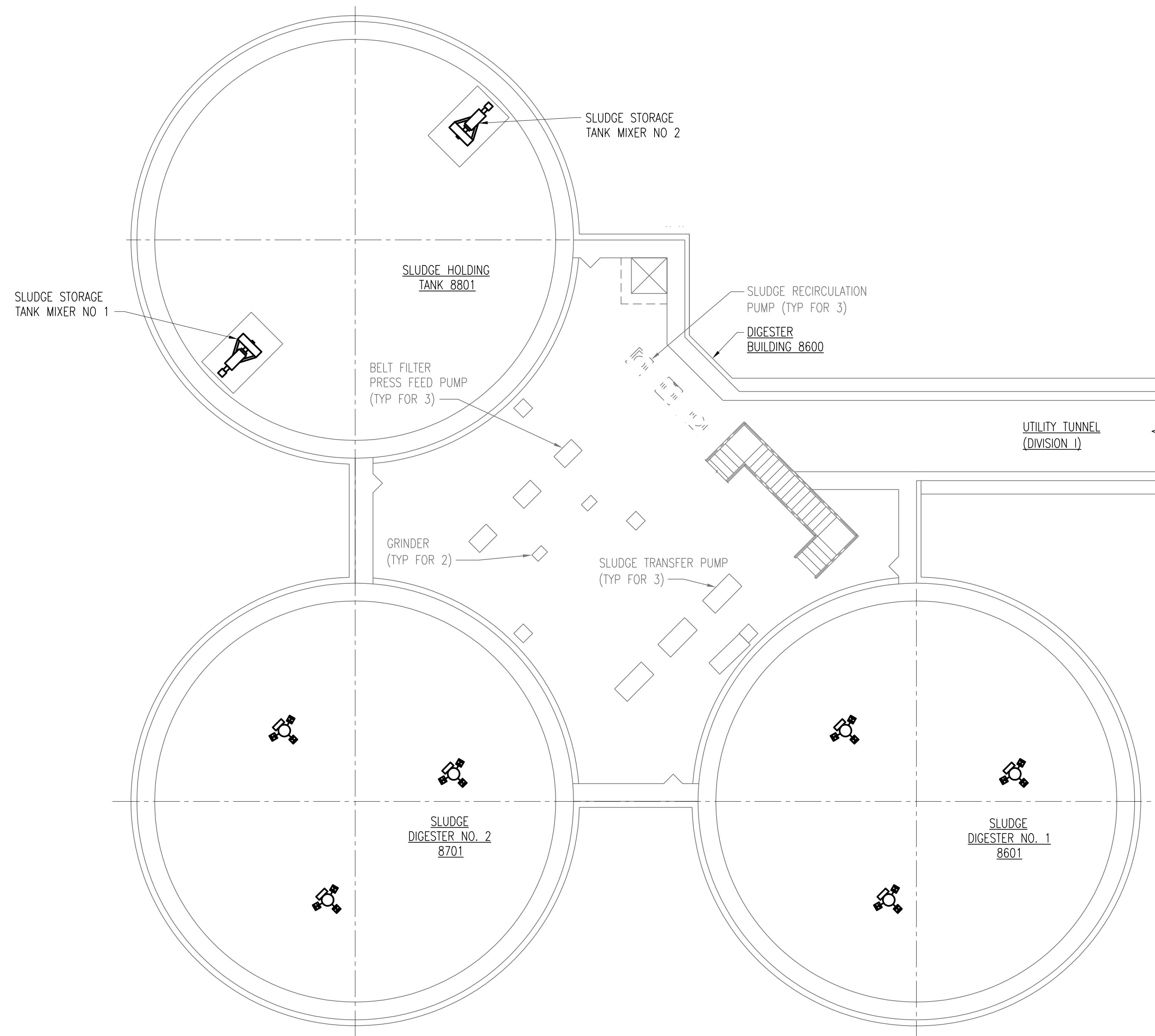
CADD: D1-R4

BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE



NOTES:

1. SEE DRAWING D25 AND D26 FOR MCC-DG1 AND MCC-DG2 ONE-LINE DEMOLITION REQUIREMENTS AND DRAWING E25 AND E26 FOR REVISED ONE-LINE DIAGRAMS.
2. PROVIDE CAPS OR SEALOFFS ON REMAINING CONDUITS AFTER REMOVAL OF WIRING FROM CONDUITS PENETRATING TEMPERED SPACES IF CONDUITS ARE NOT TO BE REUSED.
3. WHERE SLUDGE STORAGE TANK MIXERS ARE SHOWN TO BE REMOVED FROM TANK 8801 REMOVE ALL CONDUITS NOT TO BE REUSED AND CAP WHERE THEY ENTER THE BUILDING.
4. REMOVE GAS MIXING COMPRESSORS, BOILER HEAT EXCHANGERS WITH ASSOCIATED PUMPS AND FANS AND LOCAL DISCONNECTS. IF THE EXISTING CONDUITS CAN BE REUSED FOR NEW LOADS CONTRACTOR MAY REUSE AND EXTEND AS REQUIRED.



DIGESTER BUILDING 8600 BASEMENT PLAN
SCALE: 1/8" = 1'-0"

NO.	REVISIONS	DSGN	CHKD	APVD	DATE
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012



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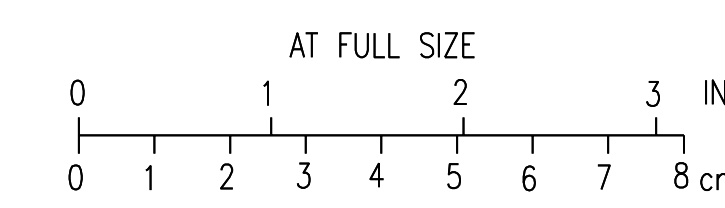
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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**DIGESTER AREA
ELECTRICAL DEMOLITION BASEMENT PLAN**

DESIGNED	DL MORITZ
DRAWN	D.WILGES
CHECKED	DL MORITZ
APPROVED	JD COOAN
DATE	DECEMBER 2, 2011

SCALE: AS NOTED	
NO. 22800	REV.
D810	2

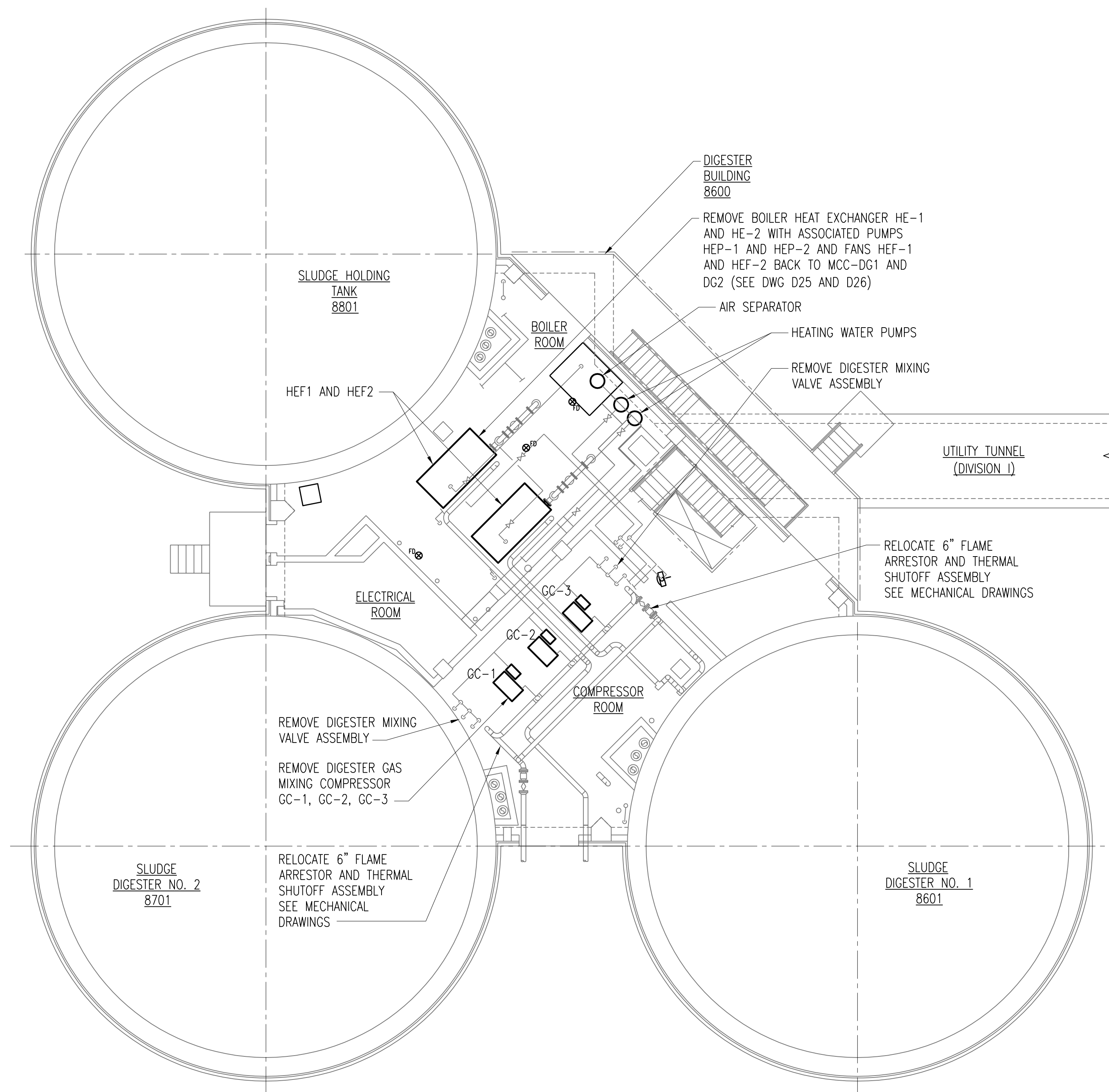


BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE



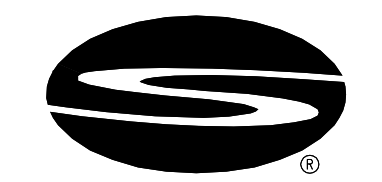
NOTES:

1. SEE DRAWING D25 AND D26 FOR MCC-DG1 AND MCC-DG2 ONE-LINE DEMOLITION REQUIREMENTS AND DRAWING E25 AND E26 FOR REVISED ONE-LINE DIAGRAMS.
2. PROVIDE CAPS OR SEALOFFS ON REMAINING CONDUITS AFTER REMOVAL OF WIRING FROM CONDUITS PENETRATING TEMPERED SPACES IF CONDUITS ARE NOT TO BE REUSED.
3. WHERE SLUDGE STORAGE TANK MIXERS ARE SHOWN TO BE REMOVED FROM TANK 8801 REMOVE ALL CONDUITS NOT TO BE REUSED AND CAP WHERE THEY ENTER THE BUILDING.
4. REMOVE GAS MIXING COMPRESSORS, BOILER HEAT EXCHANGERS WITH ASSOCIATED PUMPS AND FANS AND LOCAL DISCONNECTS. IF THE EXISTING CONDUITS CAN BE REUSED FOR NEW LOADS CONTRACTOR MAY REUSE AND EXTEND AS REQUIRED.



DIGESTER BUILDING 8600 GROUND FLOOR PLAN
SCALE: 1/8" = 1'-0"

RECORD DRAWING	JBL	JBL	JBL	12-31-2014	
1 ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012	
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



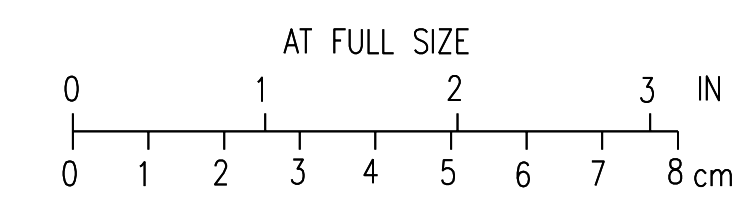
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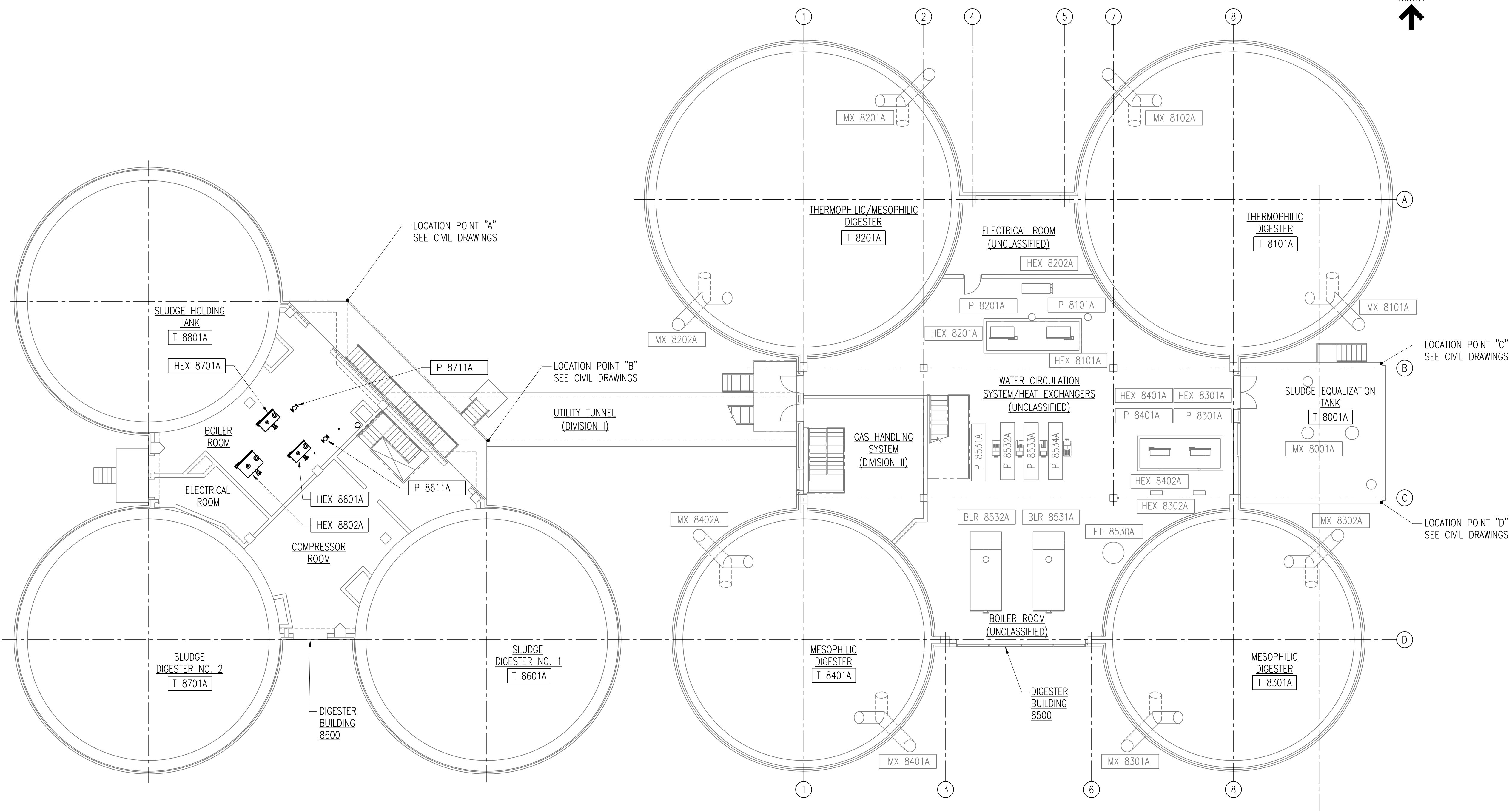
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**DIGESTER AREA
ELECTRICAL DEMOLITION GROUND FLOOR PLAN**

DESIGNED DL MORITZ	SCALE: AS NOTED
DRAWN D. WILGES	NO. 22800
CHECKED DL MORITZ	REV.
APPROVED JD COOAN	D811
DATE DECEMBER 2, 2011	2



CADD: D1-14



DIGESTER BUILDINGS GENERAL ARRANGEMENT GROUND FLOOR PLAN
 SCALE: 3/32" = 1'-0"

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	TJH	TJH	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

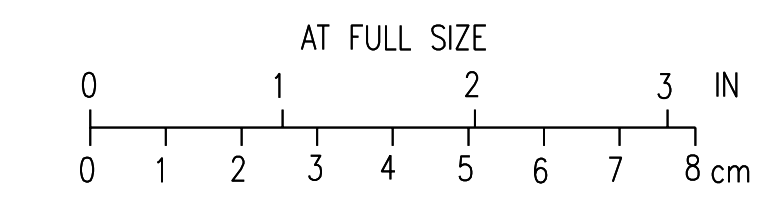

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CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**DIGESTER AREA
 GENERAL ARRANGEMENT PLAN**

DESIGNED	TJ HICKEY	SCALE:	AS NOTED
DRAWN	LJ OSBORN	NO.	22800
CHECKED	TJ HICKEY	REV.	
APPROVED	JM BRADY		
APPROVED			
DATE	DECEMBER 2, 2011		

M801 **2**

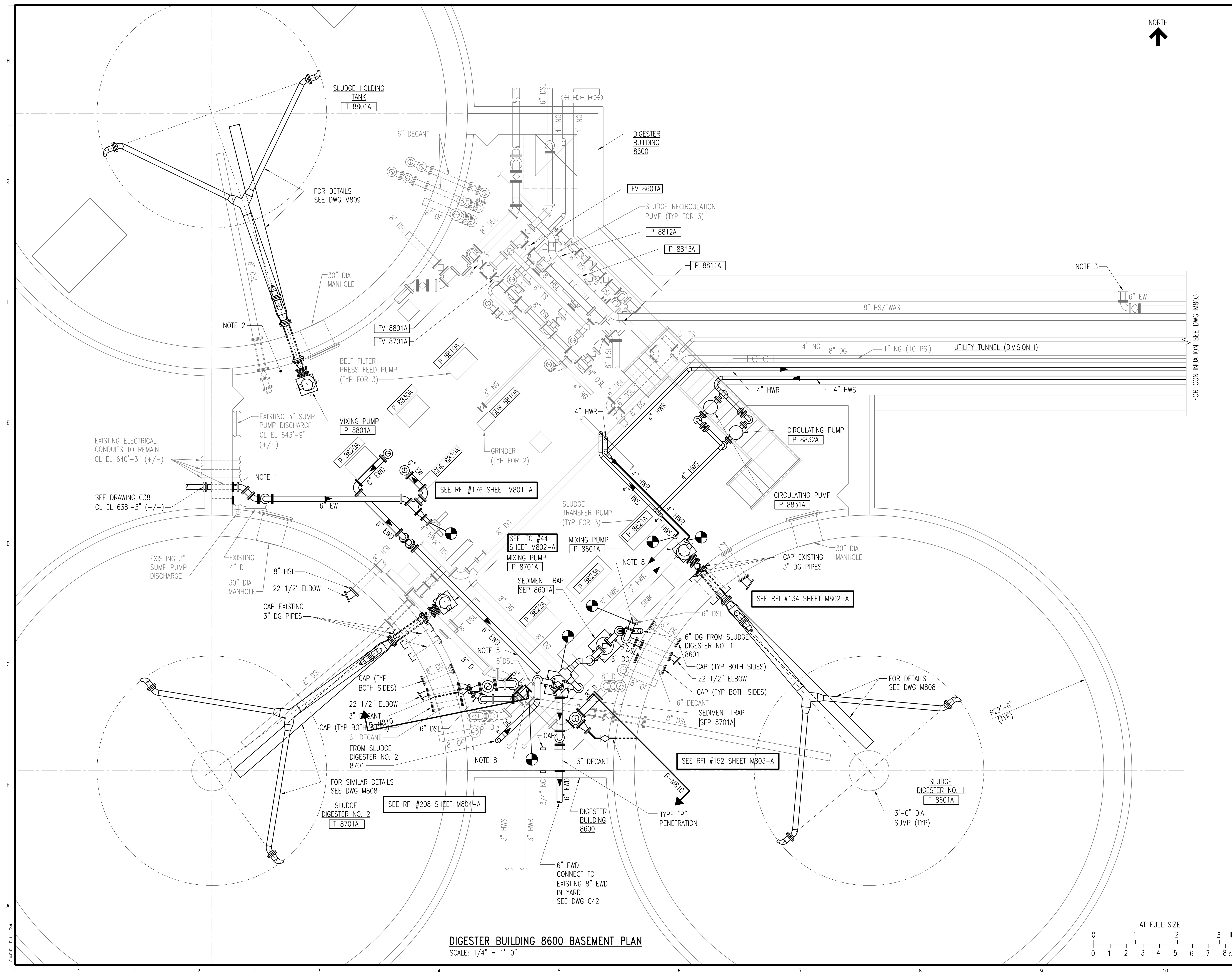


CADD: D1-R4



NOTES:

1. REMOVE 6"CAP. INSTALL 6"EWD PIPE FROM 8" EW MAIN. SEE DRAWINGS C38 AND C41.
2. RELOCATE EXISTING 3/4" CA STATION AND BYPASS AS REQUIRED TO MAINTAIN OPERATOR ACCESS. COORDINATE WITH OWNER.
3. INSTALL TEMPORARY CONNECTIONS, SHUTOFF VALVE AND PIPING AS REQUIRED TO MAINTAIN EW SERVICE TO BUILDING 8600 EQUIPMENT. COORDINATE WITH OWNER FOR USAGE, SEE DRAWING M803 FOR EXISTING CONNECTION IN BUILDING 8500 BASEMENT.
4. RELOCATE MISCELLANEOUS PIPE SUPPORTS, LIGHTING AND MOVE CIRCUITS AS REQUIRED TO INSTALL PROPOSED PIPING.
5. ROUTE 6" EWD UNDER EXISTING VENTILATION DUCT. BOTTOM ELEVATION OF DUCT IS 11'-11" ABOVE FINISH FLOOR (+/-).
6. REFER TO ELECTRICAL AND ARCHITECTURAL DRAWINGS FOR CLASSIFICATION OF ROOMS. SEAL WALL AND FLOOR PENETRATIONS TO MAINTAIN CLASSIFICATION RATINGS.
7. INSTALL NEW NAMEPLATES ON EXISTING EQUIPMENT TO INDICATE NEW EQUIPMENT TAG NUMBERS.
8. INSTALL NEW 6" DSL PIPING AND SHUTOFF VALVE. RECONNECT TO EXISTING 6" DSL PIPING TO SLUDGE RECIRCULATION PUMPS 10'-0" AFF (+/-).



DIGESTER BUILDING 8600 BASEMENT PLAN
 SCALE: 1/4" = 1'-0"



3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2		TJH	TJH	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	TJH	TJH	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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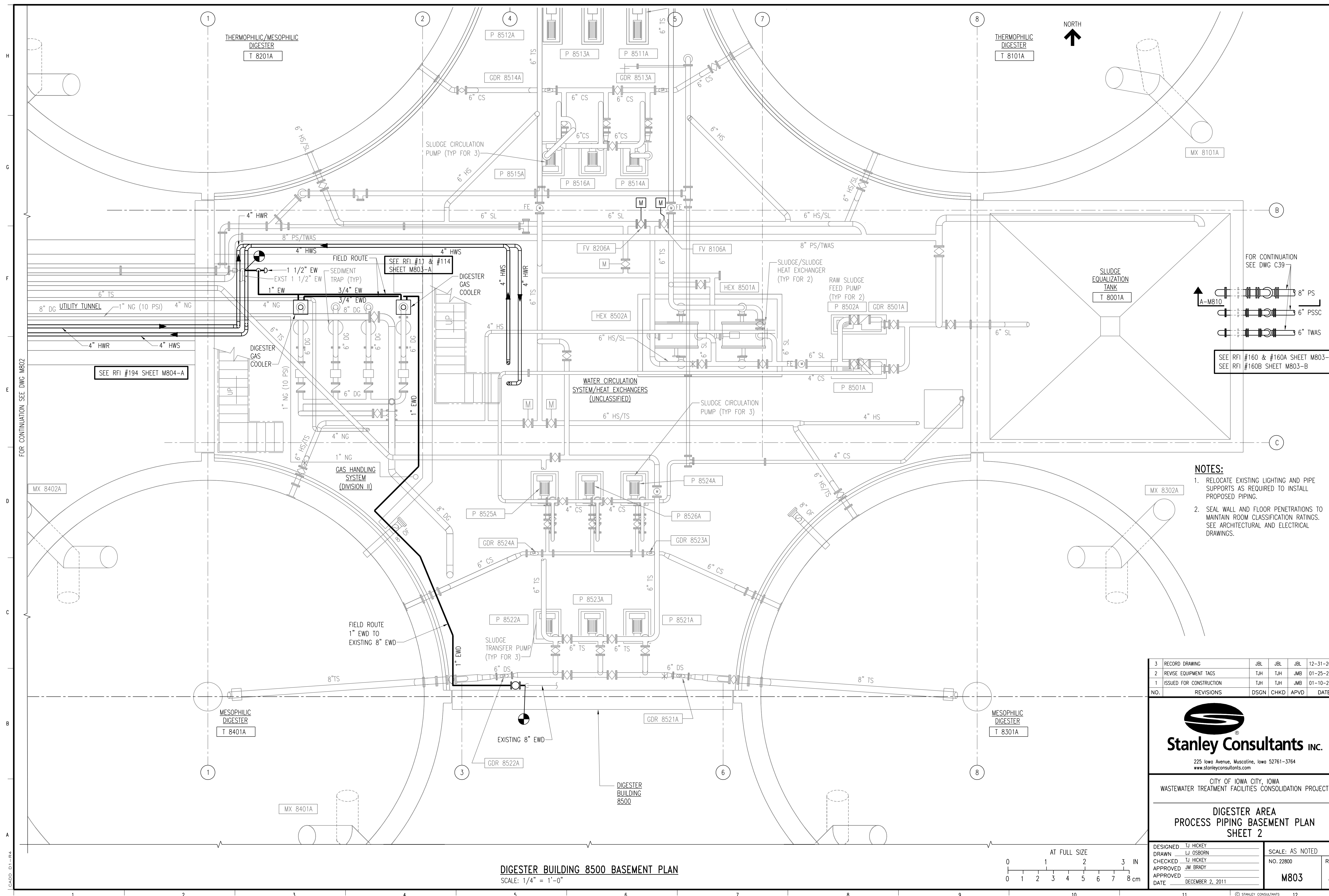
CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**DIGESTER AREA
 PROCESS PIPING BASEMENT PLAN
 SHEET 1**

DESIGNED	TJ HICKEY	SCALE:	AS NOTED	REV.	
DRAWN	LJ OSBORN	NO.	22800		
CHECKED	TJ HICKEY				
APPROVED	JM BRADY				
DATE	DECEMBER 2, 2011				

M802 **3**

CADD: D1-R4



- NOTES:**
1. RELOCATE EXISTING LIGHTING AND PIPE SUPPORTS AS REQUIRED TO INSTALL PROPOSED PIPING.
 2. SEAL WALL AND FLOOR PENETRATIONS TO MAINTAIN ROOM CLASSIFICATION RATINGS. SEE ARCHITECTURAL AND ELECTRICAL DRAWINGS.

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISE EQUIPMENT TAGS	TJH	TJH	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	TJH	TJH	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**DIGESTER AREA
PROCESS PIPING BASEMENT PLAN
SHEET 2**

DESIGNED	TJ HICKEY	SCALE:	AS NOTED	REV. 3
DRAWN	LJ OSBORN	NO.	22800	
CHECKED	TJ HICKEY			
APPROVED	JM BRADY			
DATE	DECEMBER 2, 2011			

DIGESTER BUILDING 8500 BASEMENT PLAN
SCALE: 1/4" = 1'-0"



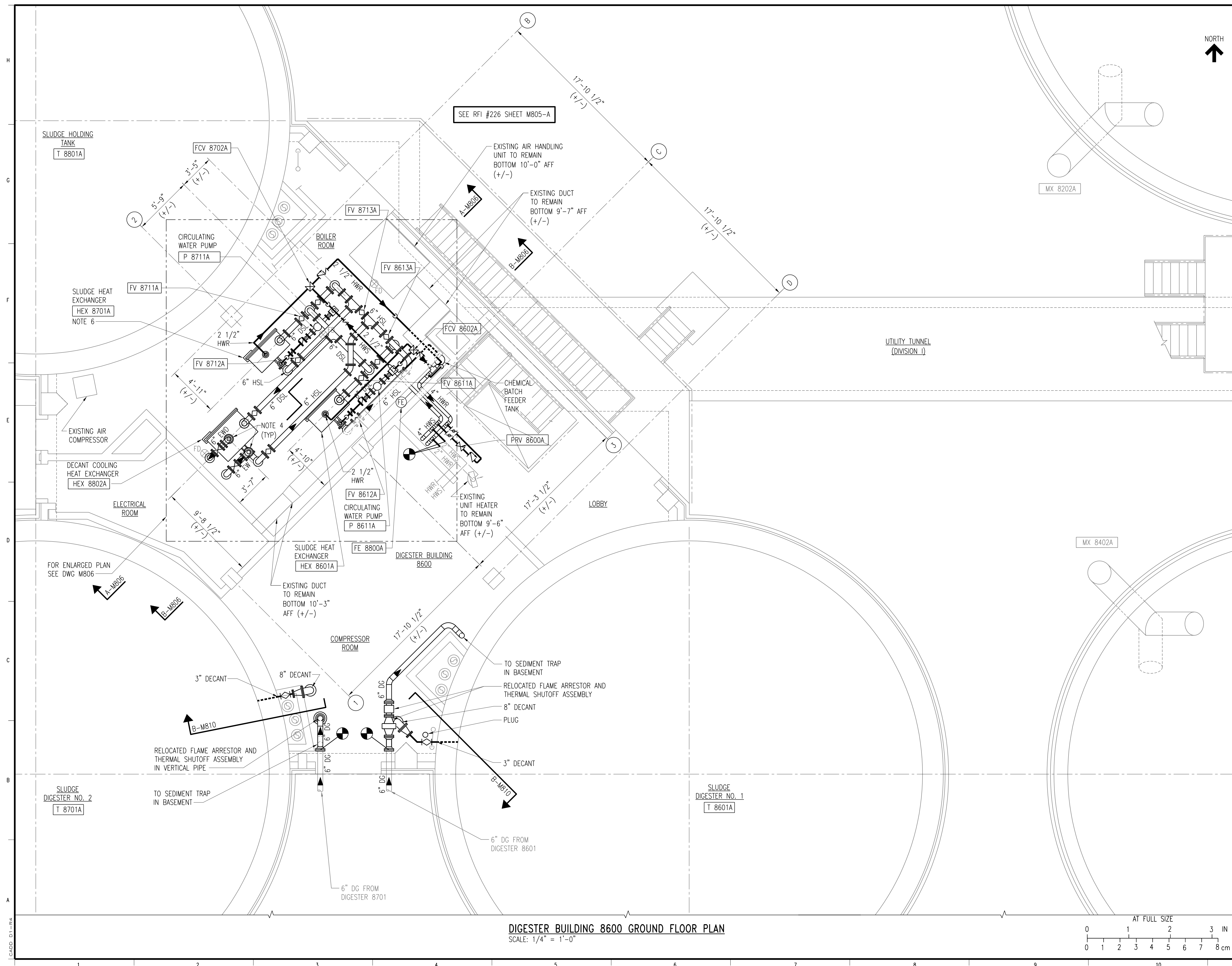
FOR CONTINUATION SEE DWG M802

FOR CONTINUATION
SEE DWG C39

8" PS
6" PSSC
6" TWAS

SEE RFI #160 & #160A SHEET M803-A
SEE RFI #160B SHEET M803-B

CADD: D1-R4



- NOTES:**
1. RECONNECT EXISTING 2" HWS AND 2" HWR TO UNIT HEATER AND COMPRESSOR ROOM IN LOBBY APPROXIMATELY 11'-7" AFF.
 2. DRILL NEW FLOOR PENETRATIONS FOR 4" HWS AND 4" HWR. PATCH EXISTING HWS AND HWR PENETRATIONS AS REQUIRED.
 3. RECONNECT 1 1/2" HWS AND 1 1/2" HWR TO EXISTING BOILER ROOM AHU. VALVES AND ACCESSORIES TO REMAIN IN SIMILAR CONFIGURATION. INSTALL SHUTOFF VALVES AT HWS AND HWR MAINS TO AHU.
 4. CONTRACTOR TO PROVIDE FLANGES IN PIPING TO ALLOW FOR PIPE REMOVAL PERIODICALLY FOR CLEANING
 5. REFER TO ELECTRICAL AND ARCHITECTURAL DRAWINGS FOR CLASSIFICATION OF ROOMS. SEAL WALL AND FLOOR PENETRATIONS TO MAINTAIN CLASSIFICATION RATINGS.
 6. CONTRACTOR TO VERIFY FINAL LOCATION OF HEX 8701A TO ALLOW FOR FULL ACCESS TO SPIRAL CHANNELS FOR CLEANOUT.
 7. SEE PIPING AND INSTRUMENTATION DIAGRAMS FOR ADDITIONAL VALVES, INSTRUMENTS, OPERATORS, AND PIPING.

FOR CONTINUATION SEE DWG M805

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL REVISION	TJH	TJH	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	TJH	TJH	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

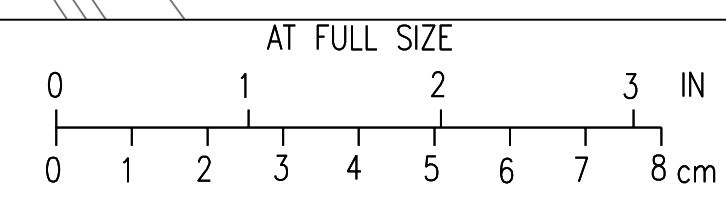

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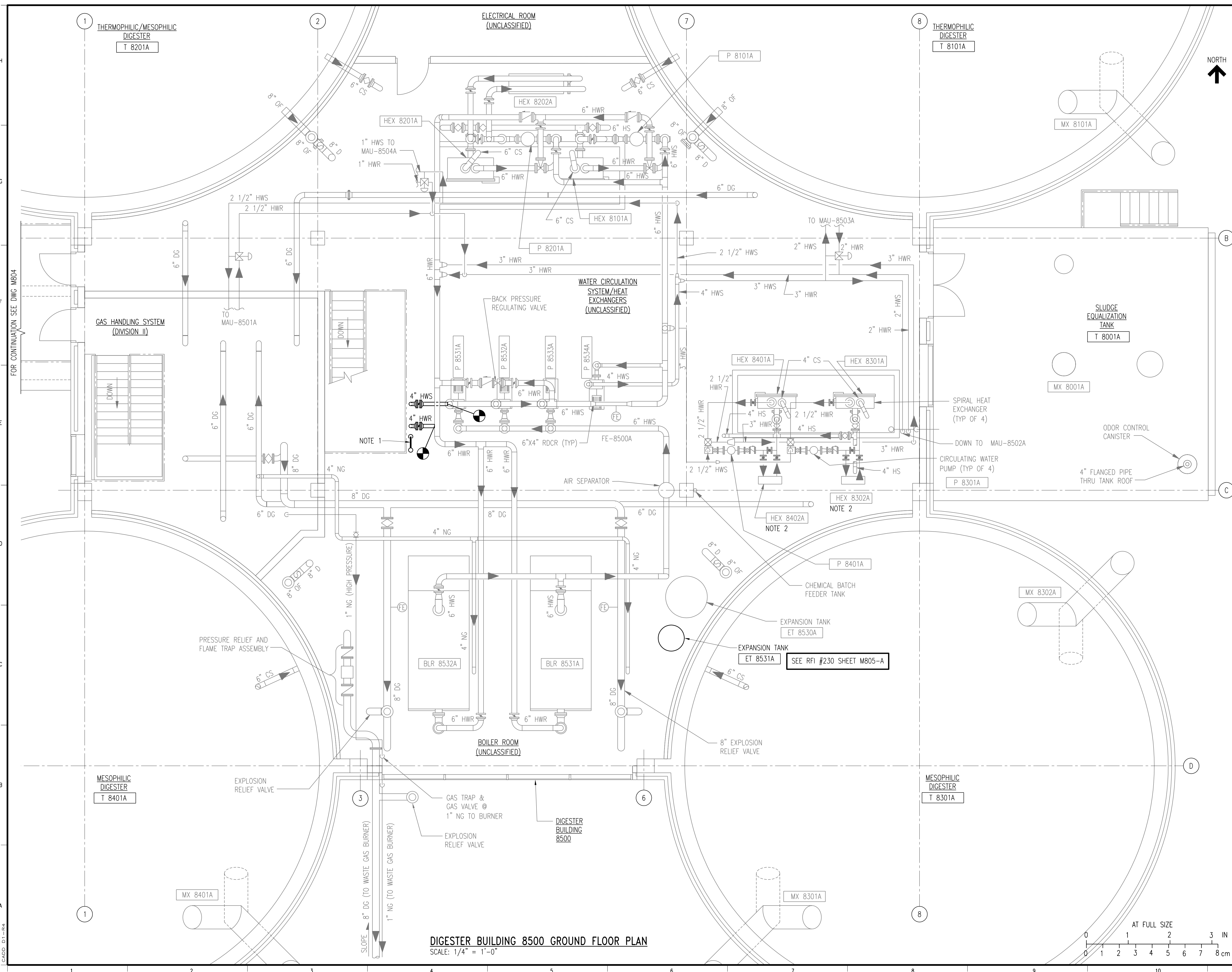
**DIGESTER AREA
PROCESS PIPING GROUND FLOOR PLAN
SHEET 1**

DESIGNED	TJ HICKEY	SCALE:	AS NOTED
DRAWN	LJ OSBORN	NO.	22800
CHECKED	TJ HICKEY	REV.	
APPROVED	JM BRADY		
APPROVED			
DATE	DECEMBER 2, 2011		

DIGESTER BUILDING 8600 GROUND FLOOR PLAN
SCALE: 1/4" = 1'-0"



CADD: D1-1-R4



- NOTES:**
1. RELOCATE EXISTING 2" SAN VENTS SOUTH TO SOUTH END OF ACCESSWAY. RECONNECT TO EXISTING RISER THROUGH ROOF.
 2. ADD ADDITIONAL PLATES TO HEX 8302A AND 8402A. SEE SPECIFICATION SECTION 421300.

FOR CONTINUATION SEE DWG M804

CADD: D1-R4

DIGESTER BUILDING 8500 GROUND FLOOR PLAN
SCALE: 1/4" = 1'-0"



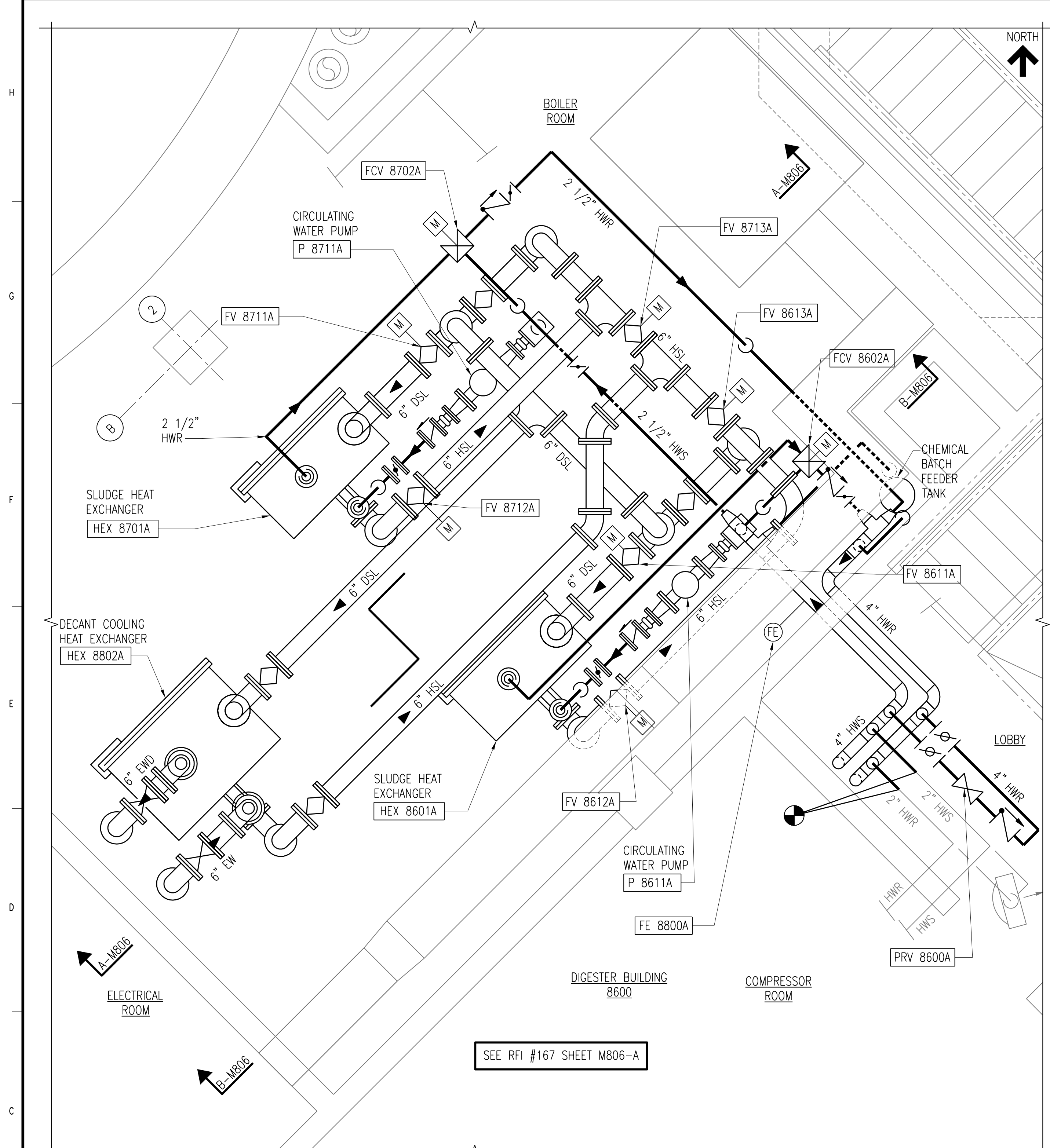
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	TJH	TJH	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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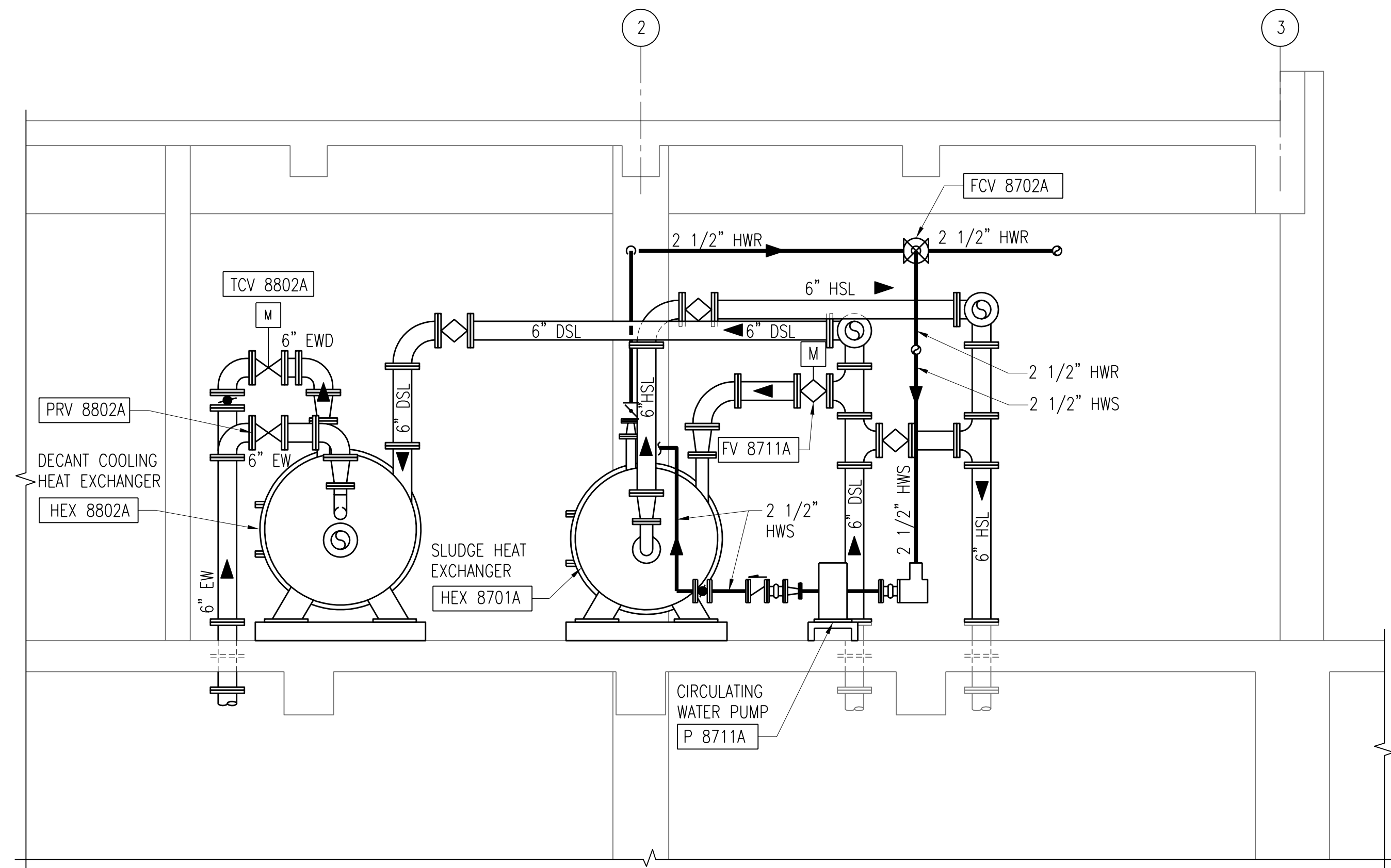
**DIGESTER AREA
PROCESS PIPING GROUND FLOOR PLAN
SHEET 2**

DESIGNED	TJ HICKEY	SCALE:	1/4" = 1'-0"
DRAWN	LJ OSBORN	NO.	22800
CHECKED	TJ HICKEY	REV.	
APPROVED	JM BRADY		
APPROVED			
DATE	DECEMBER 2, 2011	M805	2



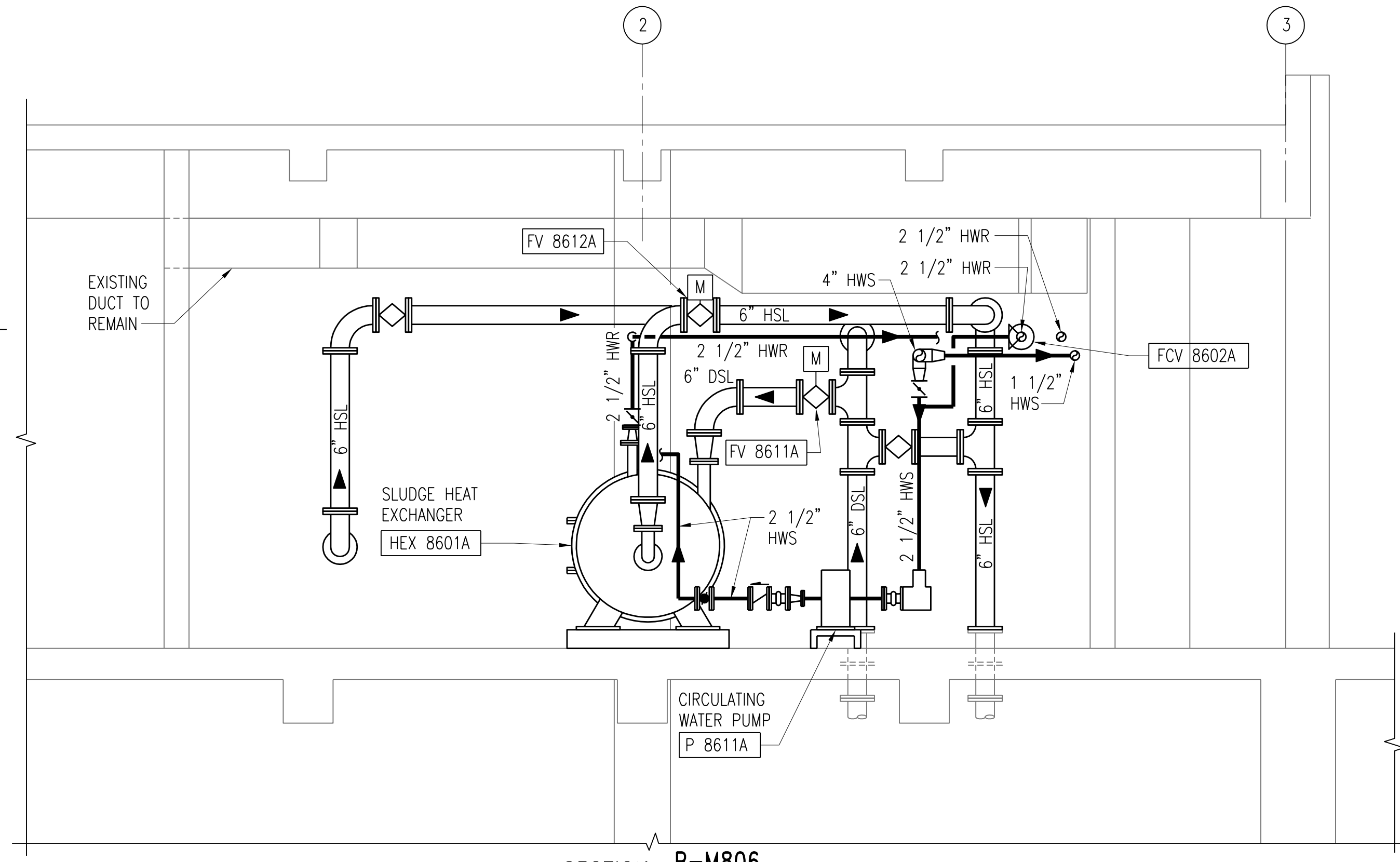
DIGESTER BUILDING 8600 GROUND FLOOR ENLARGED PLAN
SCALE: 1/2" = 1'-0"

SEE RFI #167 SHEET M806-A

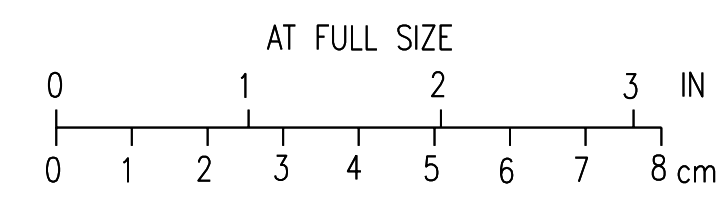


SECTION A-M806
M804, M806
SCALE: 3/8" = 1'-0"

SEE RFI #235 SHEET M806-A



SECTION B-M806
M804, M806
SCALE: 3/8" = 1'-0"



- NOTES:**
1. RECONNECT EXISTING 2" HWS AND 2" HWR TO UNIT HEATER AND COMPRESSOR ROOM IN LOBBY APPROXIMATELY 11'-7" AFF.
 2. DRILL NEW FLOOR PENETRATIONS FOR 4" HWS AND 4" HWR. PATCH EXISTING HWS AND HWR PENETRATIONS AS REQUIRED.
 3. RECONNECT 1 1/2" HWS AND 1 1/2" HWR TO EXISTING BOILER ROOM AHU. VALVES AND ACCESSORIES TO REMAIN IN SIMILAR CONFIGURATION. INSTALL SHUTOFF VALVES AT HWS AND HWR MAINS TO AHU.
 4. CONTRACTOR TO PROVIDE FLANGES IN PIPING TO ALLOW FOR PIPE REMOVAL PERIODICALLY FOR CLEANING
 5. REFER TO ELECTRICAL AND ARCHITECTURAL DRAWINGS FOR CLASSIFICATION OF ROOMS. SEAL WALL AND FLOOR PENETRATIONS TO MAINTAIN CLASSIFICATION RATINGS.
 6. CONTRACTOR TO VERIFY FINAL LOCATION OF HEX 8701A TO ALLOW FOR FULL ACCESS TO SPIRAL CHANNELS FOR CLEANOUT.
 7. SEE PIPING AND INSTRUMENTATION DIAGRAMS FOR ADDITIONAL VALVES, INSTRUMENTS, OPERATORS, AND PIPING.

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL REVISION	TJH	TJH	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	TJH	TJH	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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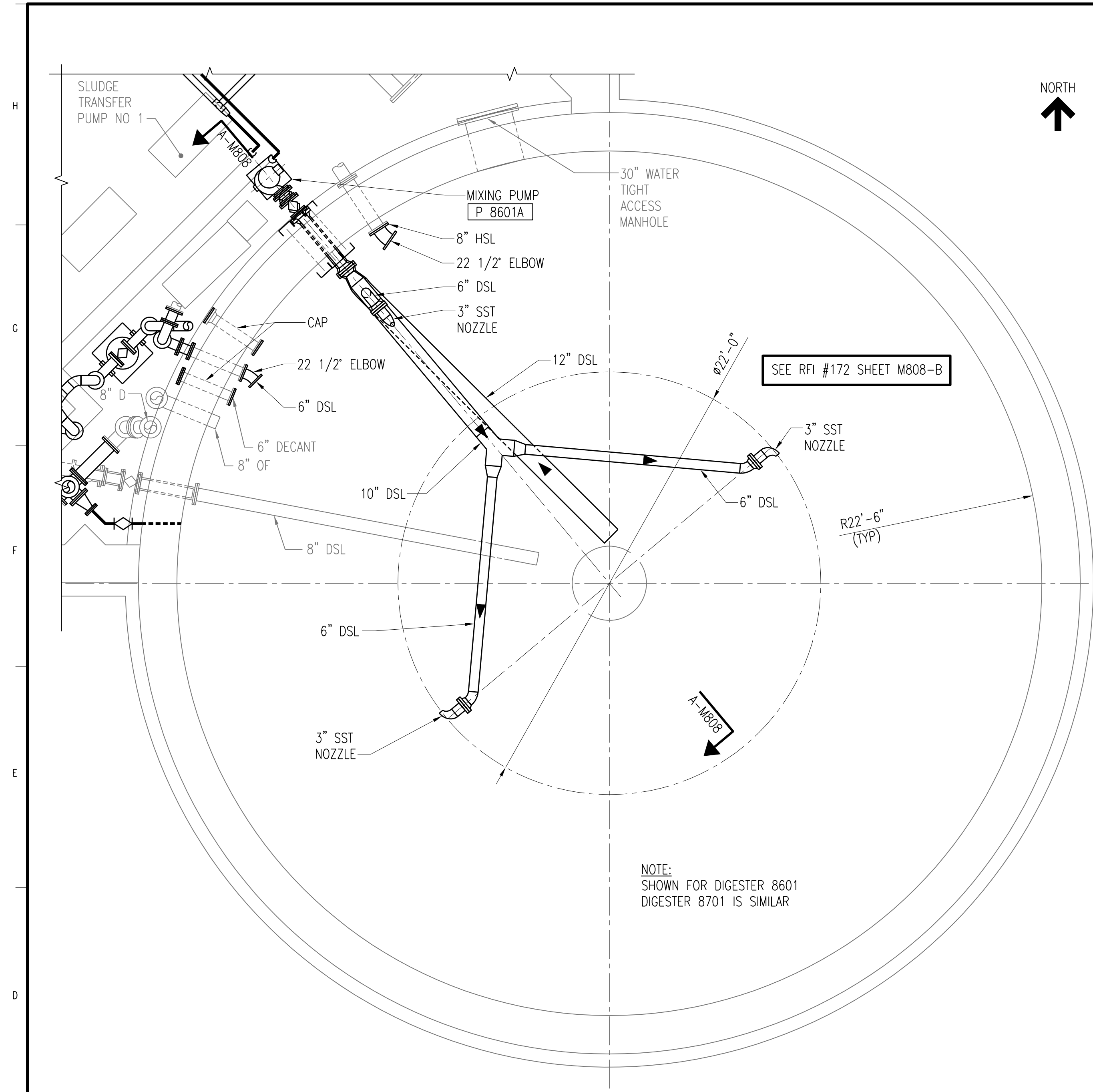
CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT
**DIGESTER AREA
 PROCESS PIPING GROUND FLOOR
 ENLARGED PLAN AND SECTIONS**

DESIGNED	TJ HICKEY	SCALE:	AS NOTED
DRAWN	LJ OSBORN	NO.	22800
CHECKED	TJ HICKEY	REV.	
APPROVED	JM BRADY		
APPROVED			
DATE	DECEMBER 2, 2011		

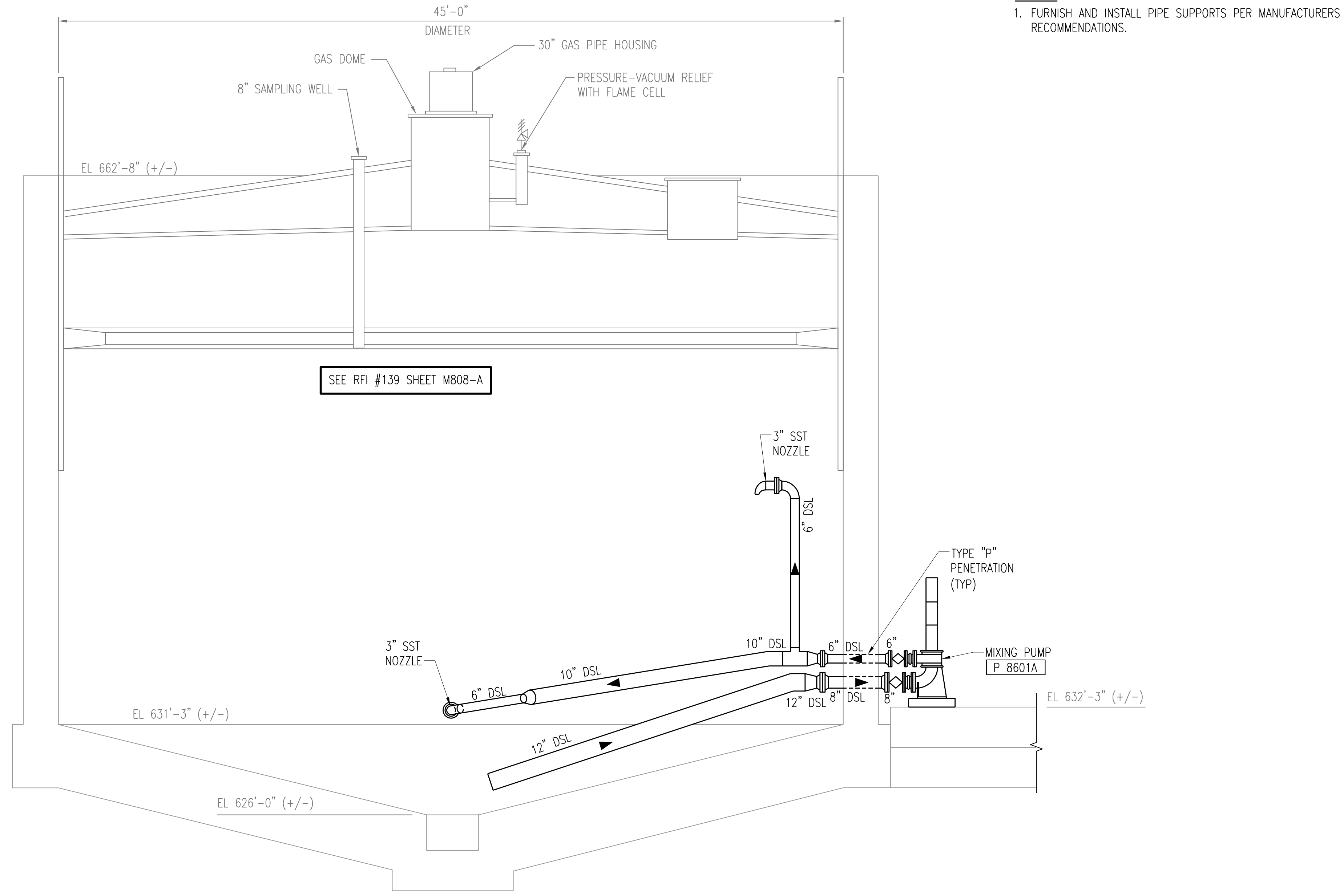
M806 **3**

NOTE:

1. FURNISH AND INSTALL PIPE SUPPORTS PER MANUFACTURERS RECOMMENDATIONS.



DIGESTER PIPING PLAN (8601 SHOWN)
SCALE: 1/4" = 1'-0"



SECTION A-M808
SCALE: 1/4" = 1'-0"

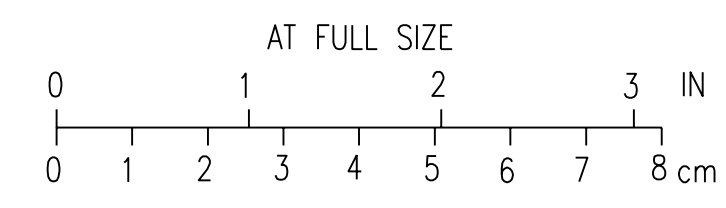
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL REVISION	MA	TJH	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	MA	TJH	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT
DIGESTER AREA
SLUDGE DIGESTER TANK PLAN AND SECTION

DESIGNED	M. AKYUREK	SCALE:	AS NOTED
DRAWN	L.J. OSBORN	NO.	22800
CHECKED	T.J. HICKEY	REV.	
APPROVED	J.M. BRADY		
APPROVED			
DATE	DECEMBER 2, 2011		

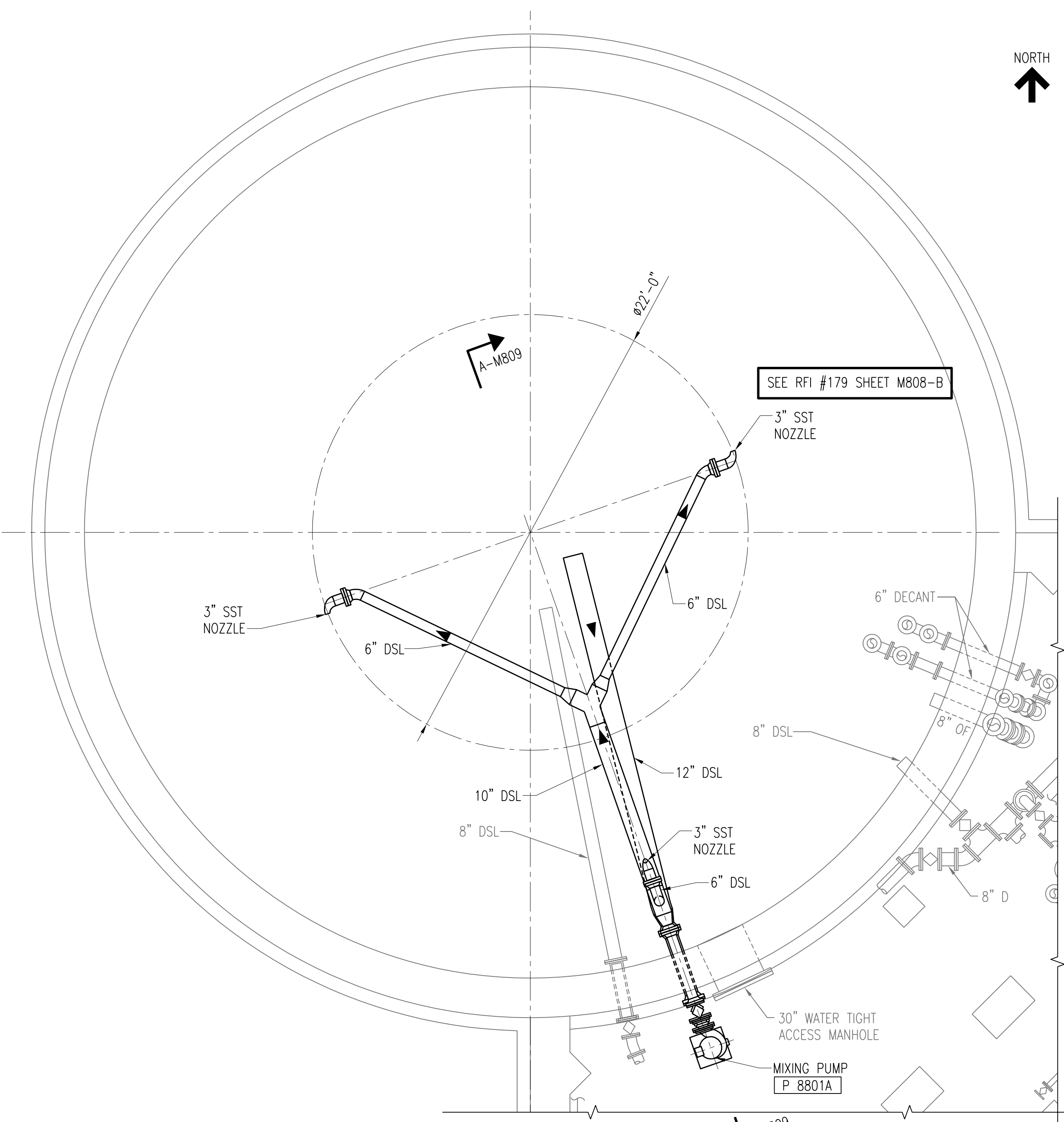
M808 **3**



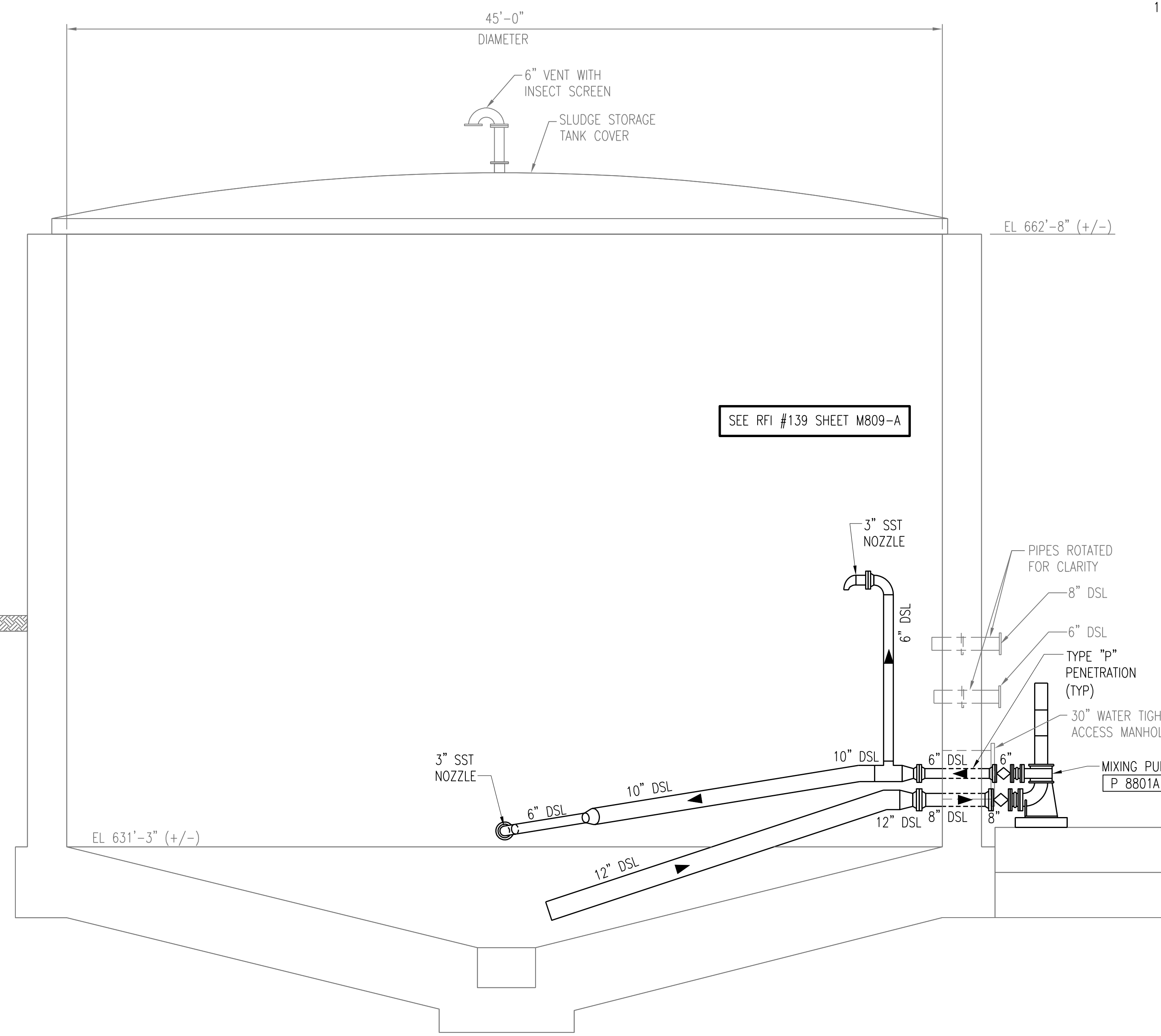
CADD: D1-1-R4

NOTE:

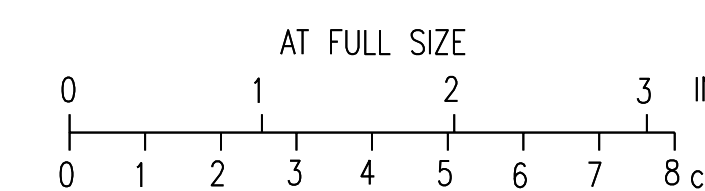
1. FURNISH AND INSTALL PIPE SUPPORTS PER MANUFACTURERS RECOMMENDATIONS.




SLUDGE HOLDING TANK PIPING PLAN (8801 SHOWN)
SCALE: 1/4" = 1'-0"



SECTION A-M809
SCALE: 1/4" = 1'-0"



2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	MA	TJH	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



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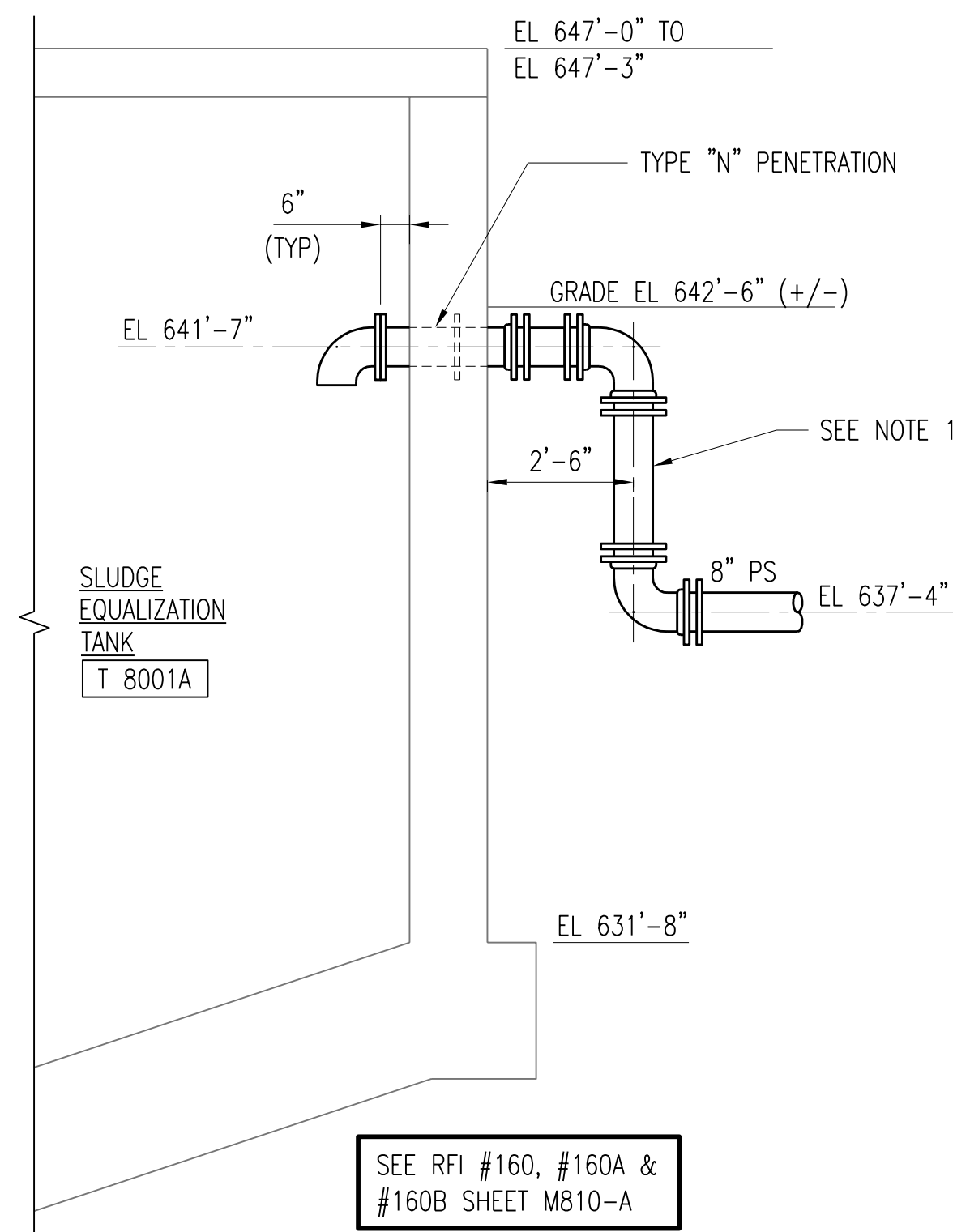
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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

DIGESTER AREA
SLUDGE HOLDING TANK PLAN AND SECTION

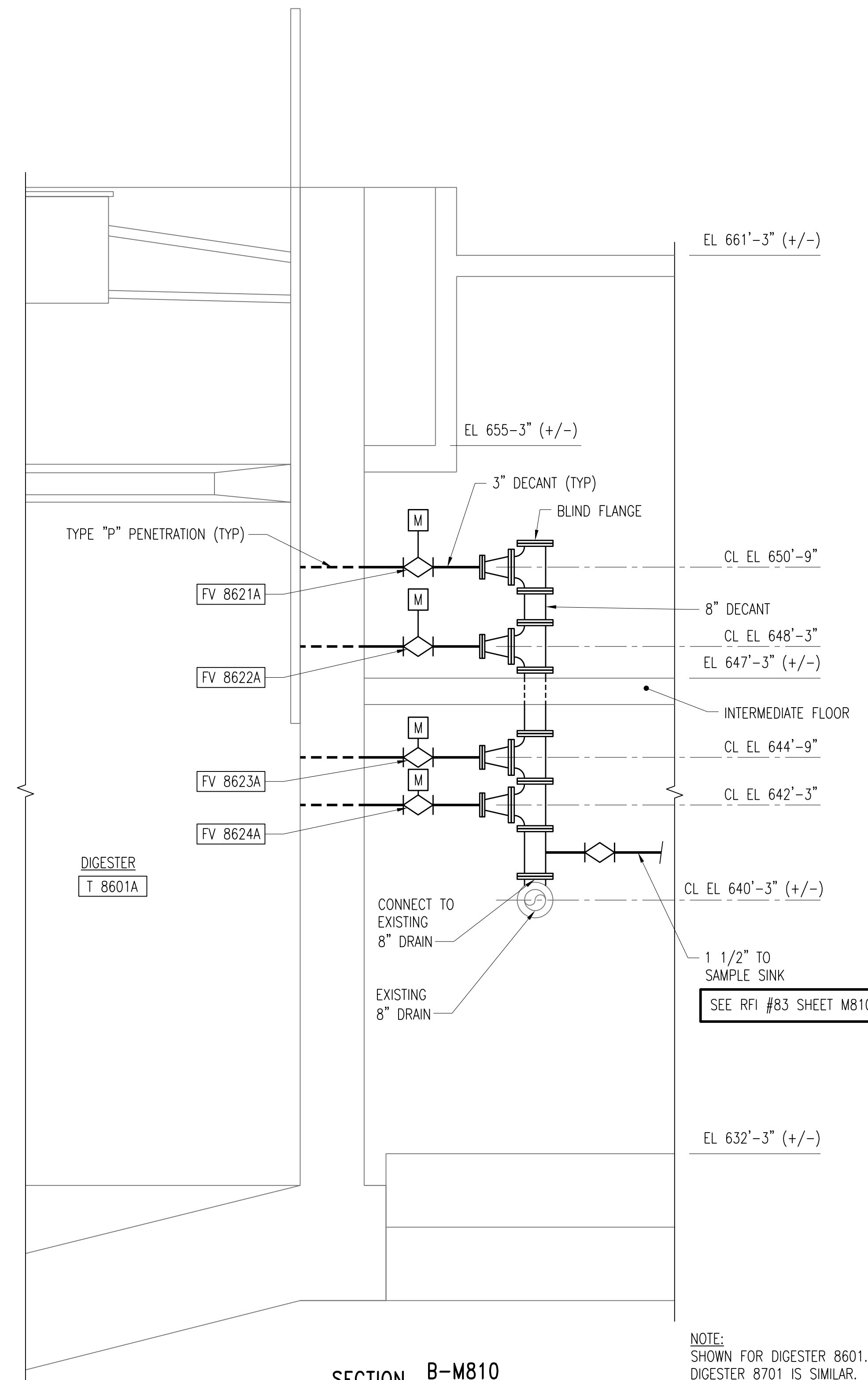
DESIGNED M. AKYUREK	SCALE: AS NOTED
DRAWN L.J. OSBORN	NO. 22800
CHECKED T.J. HICKEY	REV. 2
APPROVED J.M. BRADY	
APPROVED DATE DECEMBER 2, 2011	

NOTE:

1. INSULATE AND HEAT TRACE 8" PS LINE, 6" TWAS LINE AND 6" SSC/PSC LINE UP TO 5 FEET FROM SLUDGE EQUALIZATION TANK. SECTION IS SHOWN FOR 8" PS. 6" TWAS AND 6" SSC/PSC ARE SIMILAR.



SECTION A-M810
M803
SCALE: 3/8" = 1'-0"



SECTION B-M810
M802
SCALE: 3/8" = 1'-0"

NOTE:
SHOWN FOR DIGESTER 8601.
DIGESTER 8701 IS SIMILAR.

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	ADDED TEE & REVISED NOTES	MA	TJH	JMB	01-25-2012
1	ISSUED FOR CONSTRUCTION	MA	TJH	JMB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**DIGESTER AREA
PROCESS PIPING SECTIONS & DETAILS**

DESIGNED	M. AKYUREK	SCALE:	AS NOTED
DRAWN	LJ. OSBORN	NO.	22800
CHECKED	TJ. HICKEY	REV.	
APPROVED	JM. BRADY		
APPROVED		M810	3
DATE	DECEMBER 2, 2011		

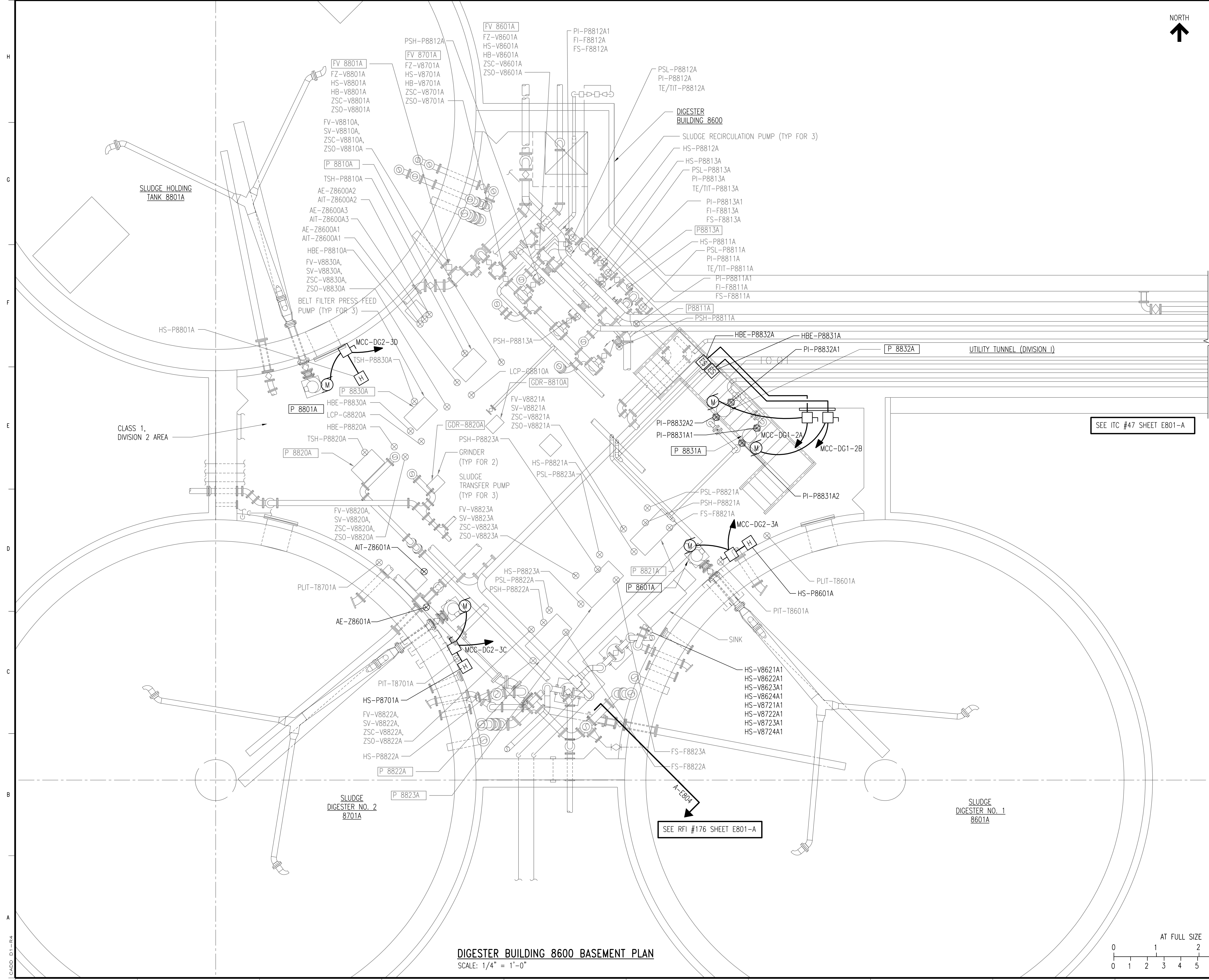


CADD: D1-PR4



NOTES:

- SEE DRAWING E25 THRU E29 FOR REVISED MCC-DG1, DG2, AND DG3 ONE-LINE DIAGRAMS.
- SEE DRAWING E1 FOR GENERAL ELECTRICAL NOTES AND WIRING DEVICE SCHEDULE.
- SEE DRAWING E4 FOR TYPICAL ELECTRICAL DETAILS.
- SEE DRAWINGS E2 AND E3 FOR LIGHTING FIXTURE SCHEDULE.
- SEE DRAWING G9 FOR ELECTRICAL LEGEND.
- PROVIDE SEALOFFS ON REMAINING CONDUITS AFTER REMOVAL OF WIRING FROM CONDUITS PENETRATING CLASSIFIED AREAS.
- PROVIDE NEW STAINLESS STEEL UNISTRUT EQUIPMENT STAND FOR LOCAL DISCONNECTS AND HOA SWITCHES FOR ASSOCIATED HOT WATER CIRC PUMPS P 8801A AND P 8901A. SEE TYPICAL ELECTRICAL DETAILS FOR REQUIREMENT.
- FOR JET MIXING PUMPS CP 8601A, CP 8701A, AND CP 8801A PROVIDE LOCAL DISCONNECTS WITH HOA SWITCHES ON WALL NEXT TO PUMPS.
- BASEMENT OF DIGESTER AREA SHALL BE A CLASS 1, DIVISION 2 AREA. PROVIDE REQUIRED ELECTRICAL CONDUITS, ENCLOSURES, AND WIRING METHODS AS REQUIRED FOR THIS CLASSIFICATION IN THIS AREA.
- NEW SLUDGE HEAT EXCHANGERS HEX 8601A, 8701A AND 8801A DO NOT HAVE ANY ELECTRICAL CONNECTIONS. CONTRACTOR TO VERIFY ALL PREVIOUS CONDUITS AND WIRING ASSOCIATED WITH BOILER REMOVED HAVE ALSO BEEN REMOVED TO ALLOW NEW EQUIPMENT TO BE PLACED.
- PROVIDE NEW STAINLESS STEEL UNISTRUT EQUIPMENT STAND FOR LOCAL DISCONNECTS AND HOA SWITCHES FOR ASSOCIATED CIRC PUMPS P 8601A AND P 8701A. SEE TYPICAL ELECTRICAL DETAILS FOR REQUIREMENT.

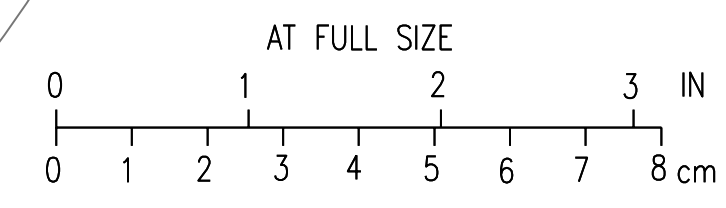


FOR CONTINUATION SEE DWG E802

SEE ITC #47 SHEET E801-A

SEE RFI #176 SHEET E801-A

DIGESTER BUILDING 8600 BASEMENT PLAN
SCALE: 1/4" = 1'-0"



3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED MECHANICAL BACKGROUND	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DGSM	CHKD	APVD	DATE

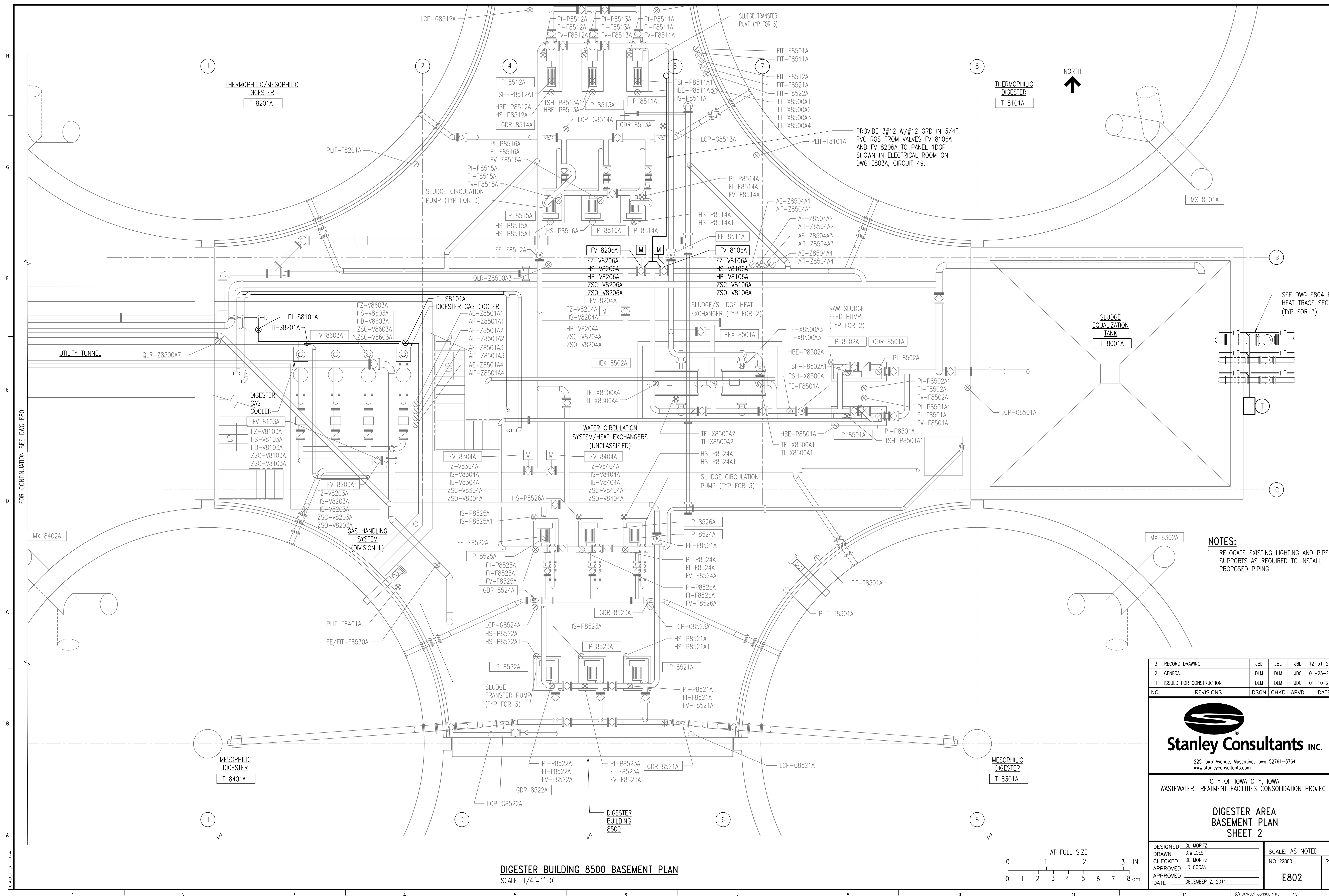
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**DIGESTER AREA
BASEMENT PLAN
SHEET 1**

DESIGNED	ML MORITZ	SCALE:	AS NOTED
DRAWN	D. WILGES	NO.	22800
CHECKED	ML MORITZ	REV.	
APPROVED	JD COGAN		
APPROVED			
DATE	DECEMBER 2, 2011	E801	3

CADD: D1-R4



PROVIDE 3#12 W/#12 GRD IN 3/4" PVC RGS FROM VALVES FV 8106A AND FV 8206A TO PANEL 1DGP SHOWN IN ELECTRICAL ROOM ON DWG E803A, CIRCUIT 49.

SEE DWG E804 FOR HEAT TRACE SECTION (TYP FOR 3)

- NOTES:**
- RELOCATE EXISTING LIGHTING AND PIPE SUPPORTS AS REQUIRED TO INSTALL PROPOSED PIPING.

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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**DIGESTER AREA
BASEMENT PLAN
SHEET 2**

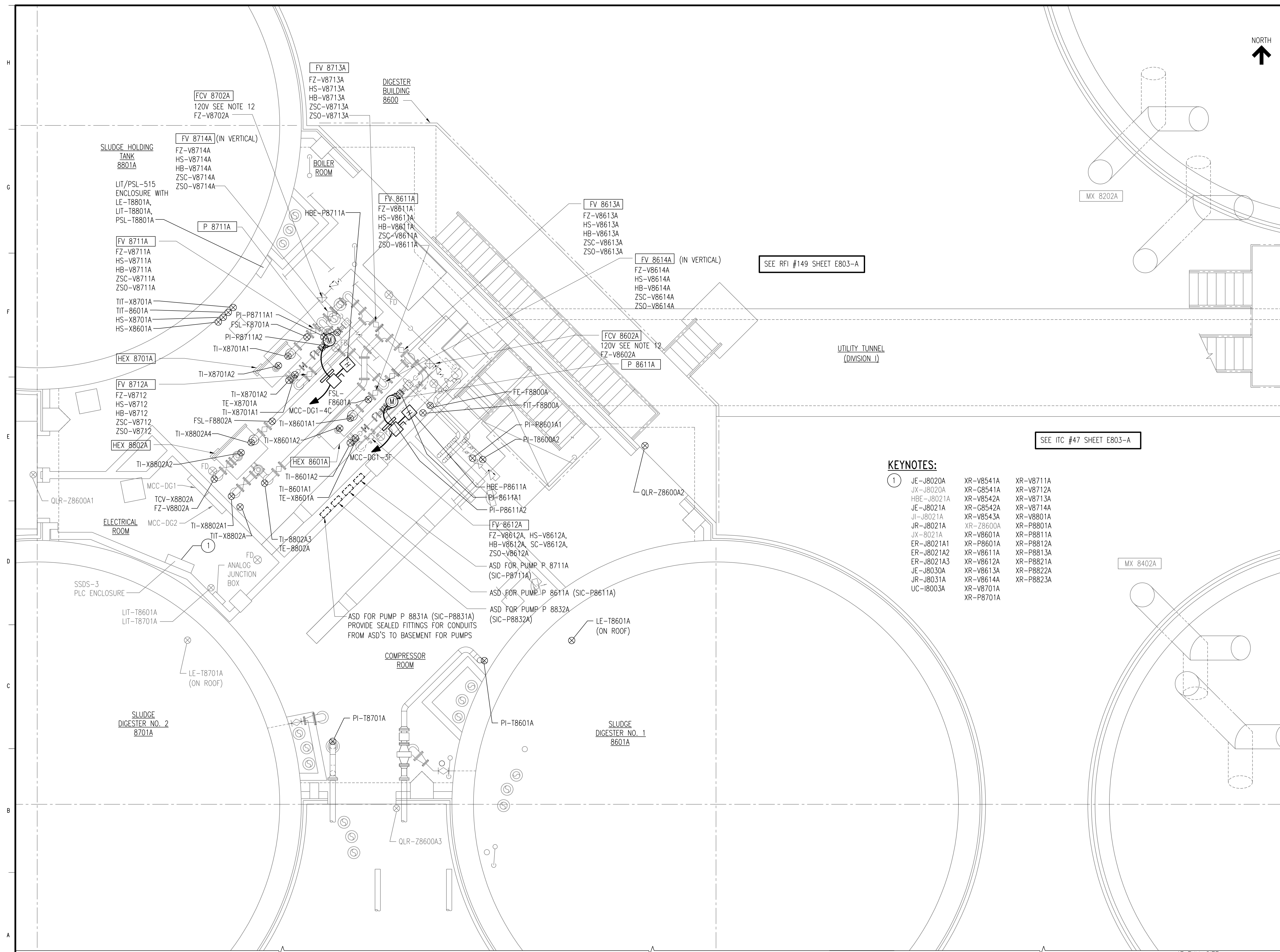
DESIGNED	DL MORITZ	SCALE:	AS NOTED	REV.	
DRAWN	D. WILGES	NO.	22800		
CHECKED	DL MORITZ				
APPROVED	JD COGAN				
APPROVED					
DATE	DECEMBER 2, 2011				

DIGESTER BUILDING 8500 BASEMENT PLAN
SCALE: 1/4"=1'-0"



FOR CONTINUATION SEE DWG E801

CADD: D1-1-R4



- NOTES:**
- SEE DRAWING E25 THRU E29 FOR REVISED MCC-DG1, DG2, AND DG3 ONE-LINE DIAGRAMS.
 - SEE DRAWING E1 FOR GENERAL ELECTRICAL NOTES AND WIRING DEVICE SCHEDULE.
 - SEE DRAWING E4 FOR TYPICAL ELECTRICAL DETAILS.
 - SEE DRAWINGS E2 AND E3 FOR LIGHTING FIXTURE SCHEDULE.
 - SEE DRAWING G9 FOR ELECTRICAL LEGEND.
 - PROVIDE SEALOFFS ON REMAINING CONDUITS AFTER REMOVAL OF WIRING FROM CONDUITS PENETRATING CLASSIFIED AREAS.
 - PROVIDE NEW STAINLESS STEEL UNISTRUT EQUIPMENT STAND FOR LOCAL DISCONNECTS AND HOA SWITCHES FOR ASSOCIATED HOT WATER CIRC PUMPS P 8801A AND P 8901A. SEE TYPICAL ELECTRICAL DETAILS FOR REQUIREMENT.
 - FOR JET MIXING PUMPS CP 8601A, CP 8701A, AND CP 8801A PROVIDE LOCAL DISCONNECTS WITH HOA SWITCHES ON WALL NEXT TO PUMPS.
 - BASEMENT OF DIGESTER AREA SHALL BE A CLASS 1, DIVISION 2 AREA. PROVIDE REQUIRED ELECTRICAL CONDUITS, ENCLOSURES, AND WIRING METHODS AS REQUIRED FOR THIS CLASSIFICATION IN THIS AREA.
 - NEW SLUDGE HEAT EXCHANGERS HEX 8601A, 8701A AND 8801A DO NOT HAVE ANY ELECTRICAL CONNECTIONS. CONTRACTOR TO VERIFY ALL PREVIOUS CONDUITS AND WIRING ASSOCIATED WITH BOILER REMOVED HAVE ALSO BEEN REMOVED TO ALLOW NEW EQUIPMENT TO BE PLACED.
 - PROVIDE NEW STAINLESS STEEL UNISTRUT EQUIPMENT STAND FOR LOCAL DISCONNECTS AND HOA SWITCHES FOR ASSOCIATED CIRC PUMPS P 8601A AND P 8701A. SEE TYPICAL ELECTRICAL DETAILS FOR REQUIREMENT.
 - PROVIDE 2#12 W/ #12 GRD IN 3/4" PVC RGS FROM PANEL PB-C IN MCC-DG2 TO VALVES FCV 8602A AND FCV 8702A. SEE P&ID 800 SERIES OF DRAWINGS FOR CONTROLS.

- KEYNOTES:**
- ①
- | | | |
|------------|-----------|-----------|
| JE-J8020A | XR-V8541A | XR-V8711A |
| JX-J8020A | XR-C8541A | XR-V8712A |
| HBE-J8021A | XR-V8542A | XR-V8713A |
| JE-J8021A | XR-C8542A | XR-V8714A |
| JL-J8021A | XR-V8543A | XR-V8801A |
| JR-J8021A | XR-Z8600A | XR-P8801A |
| JX-8021A | XR-V8601A | XR-P8811A |
| ER-J8021A1 | XR-P8601A | XR-P8812A |
| ER-J8021A2 | XR-V8611A | XR-P8813A |
| ER-J8021A3 | XR-V8612A | XR-P8821A |
| JE-J8030A | XR-V8613A | XR-P8822A |
| JR-J8031A | XR-V8614A | XR-P8823A |
| UC-I8003A | XR-V8701A | |
| | XR-P8701A | |

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

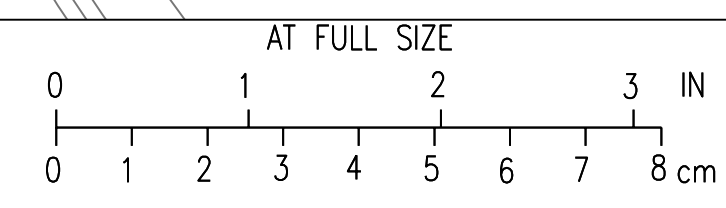


CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

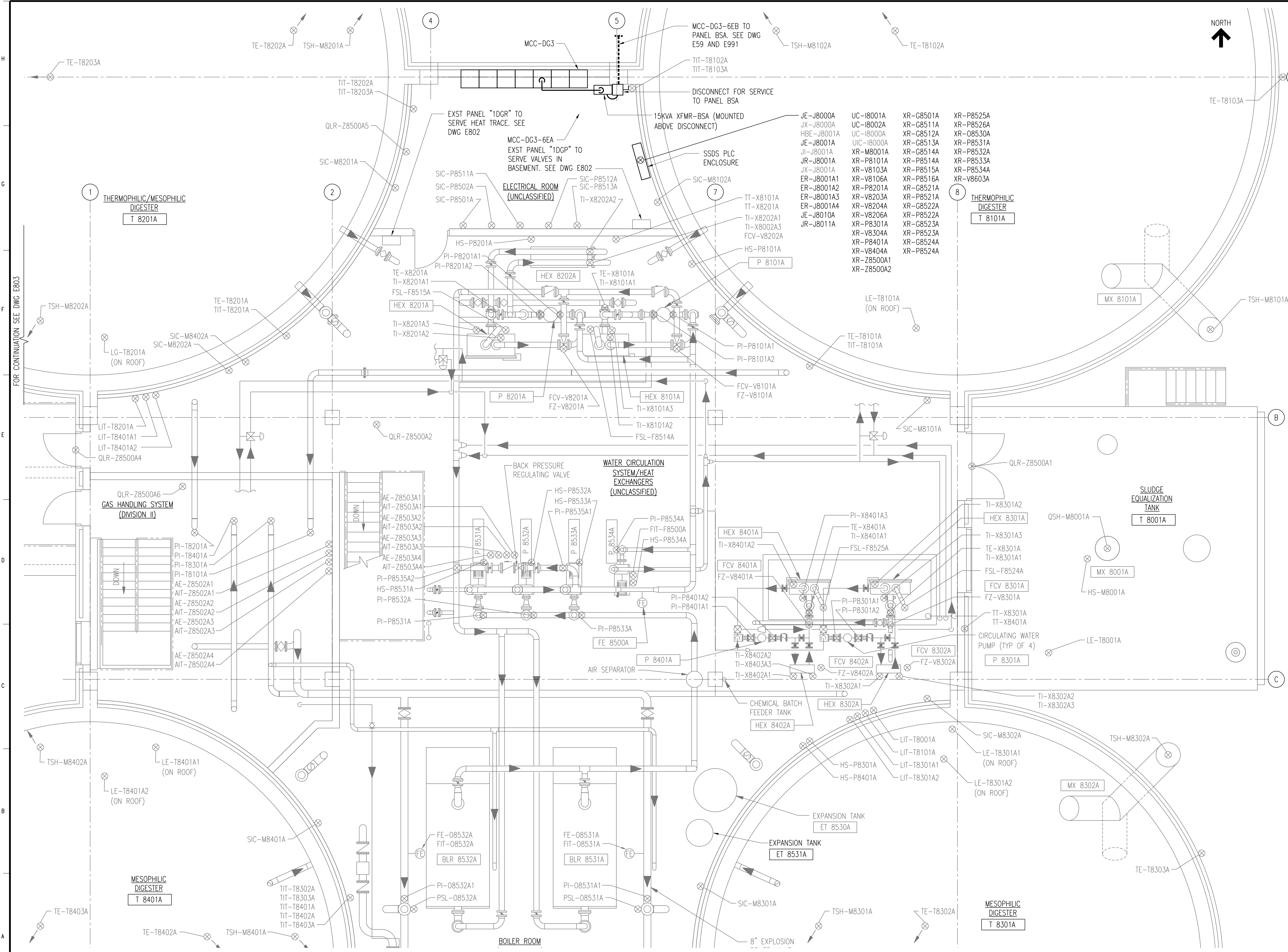
**DIGESTER AREA
GROUND FLOOR PLAN
SHEET 1**

DESIGNED	DL MORITZ	SCALE:	AS NOTED
DRAWN	D. WILGES	NO.	22800
CHECKED	DL MORITZ	REV.	
APPROVED	JD COGAN		
APPROVED		E803	3
DATE	DECEMBER 2, 2011		

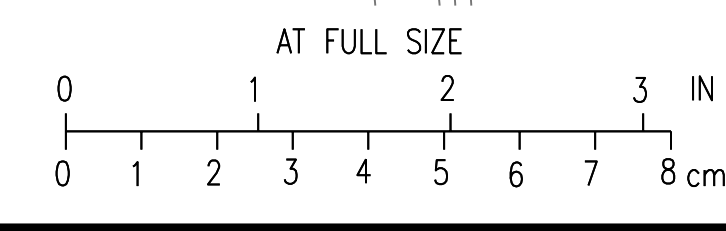
DIGESTER BUILDING 8600 GROUND FLOOR PLAN
SCALE: 1/4" = 1'-0"



CADD: D1-R4



DIGESTER BUILDING 8500 GROUND FLOOR PLAN
 SCALE: 1/4" = 1'-0"



1	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
0	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-25-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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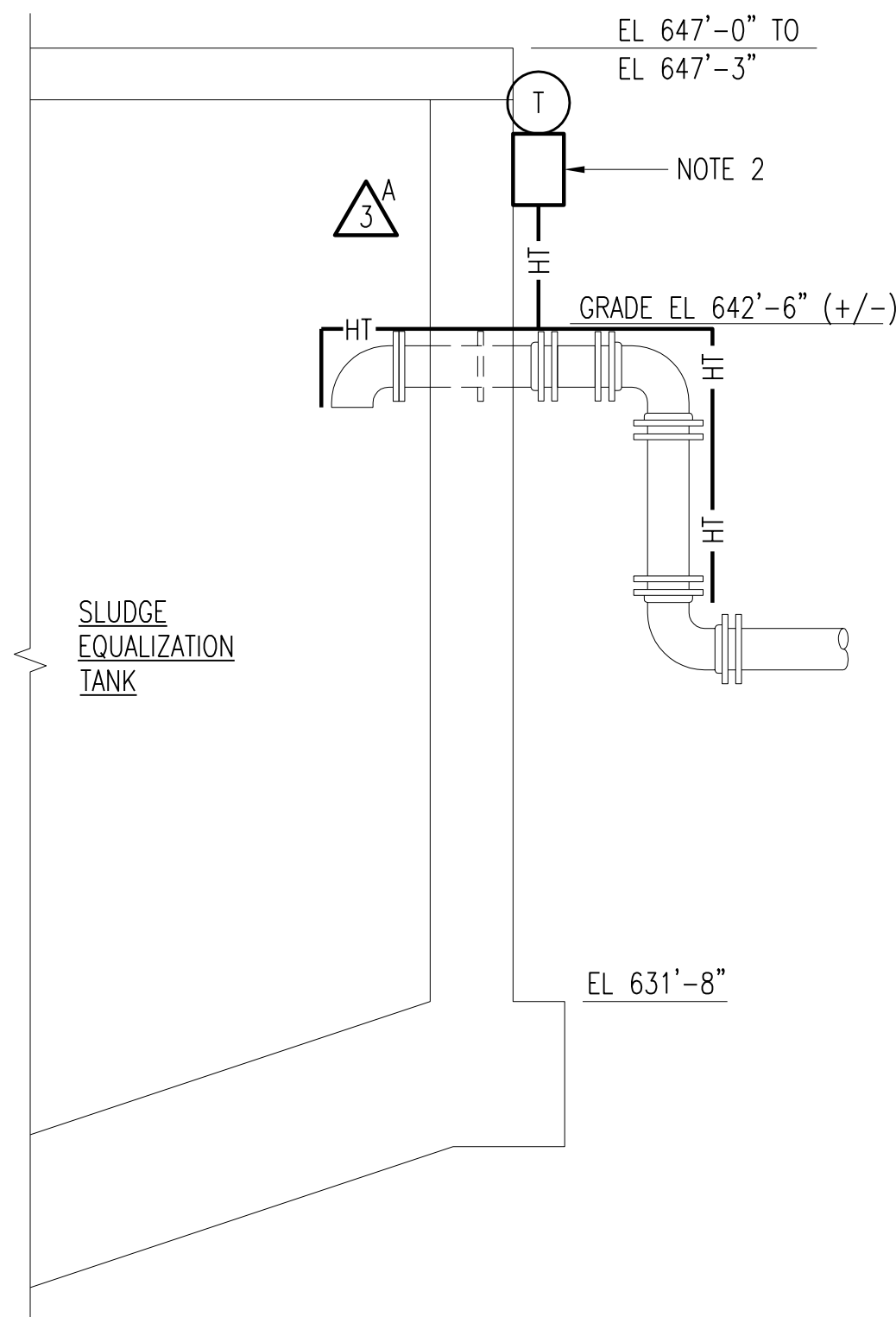
CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**DIGESTER AREA
 GROUND FLOOR PLAN
 SHEET 2**

DESIGNED DL MORITZ	SCALE: 1/4"=1'-0"
DRAWN D. WILGES	NO. 22800
CHECKED DL MORITZ	REV.
APPROVED JD COOAN	E803A
DATE JANUARY 25, 2012	1

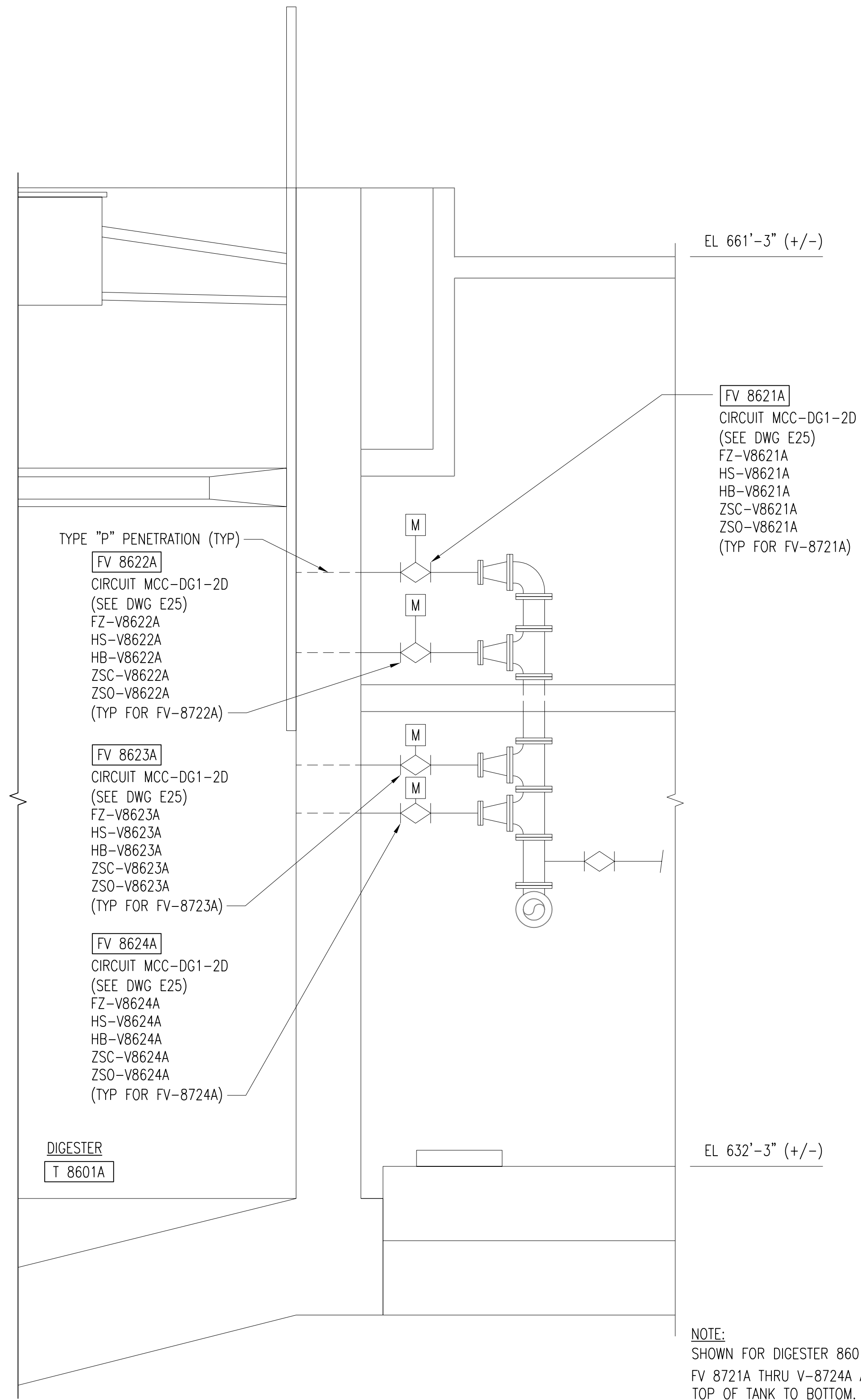
FOR CONTINUATION SEE DWG E803

CADD: D1-14



NOTE:
1. INSULATE AND HEAT TRACE PS LINE, SSC LINE, AND TWAS LINE UP TO 5 FEET FROM SLUDGE EQUALIZATION TANK.

HEAT TRACE SECTION
SCALE: 3/8" = 1'-0"



NOTE:
SHOWN FOR DIGESTER 8601. DIGESTER 8701 IS SIMILAR.
FV 8721A THRU V-8724A ARE ON DIGESTER 8701 FROM TOP OF TANK TO BOTTOM. SEE DRAWING E25 FOR CIRCUIT MCC-DG1-4BL CIRCUIT REQUIREMENTS.

SECTION A-E804
E801
SCALE: 3/8" = 1'-0"

NOTES:

1. ALL 480V VALVE ACTUATORS ARE PROVIDED WITH FUSIBLE DISCONNECTS. SEE GENERAL NOTE 31 ON DRAWING E1.
2. PROVIDE RAYCHEM 8W/FT SELF REGULATING HEAT TRACE CABLE #8BTV-1-CT WITH PARALLEL RUNS AS REQUIRED WITH INSULATION AS SPECIFIED IN MECHANICAL SPECIFICATIONS. PROVIDE RAYCHEM JBS-100 POWER CONNECTION KIT WITH AMC-14 THERMOSTAT. SET AT 40 DEGREES F. PROVIDE CIRCUIT 1DGR-29 FROM PANEL 1DGR IN ELECTRICAL ROOM SHOWN ON DRAWING E802 BUT VERIFY IN FIELD. WIRING FOR CIRCUIT TO POWER CONNECTION KIT SHALL BE 3# 12 IN 1 INCH CONDUIT. HEAT TRACE SHALL BE ON 8 INCH PRIMARY SLUDGE LINE, 6 INCH PUMPED SEC. SCUM LINE, AND 6 INCH THICKENED WASTE ACTIVATED SLUDGE LINE WHERE EXPOSED AND BELOW GRADE AS REQUIRED TO PREVENT FREEZING PER MANUFACTURER. PIPE SHALL BE DUCTILE IRON OR HDPE AT CONTRACTORS DISCRETION. IF HDPE IS USED USE ALUMINUM TAPE OVER HEAT TRACE CABLE BEFORE INSTALLING INSULATION. WHERE PIPING PENETRATES TANK WALL SEAL TO ALLOW HEAT TRACE CABLE AND INSULATION TO ENTER TANK WITHOUT COMPRESSING CABLE. PROVIDE LED LIGHTED END SEAL, RAYCHEM E-100-L TO MATCH EXISTING, ON ALL THREE PIPE HEAT TRACE SECTIONS ON SIDE OF TANK. SEE HEAT TRACE DETAILS ON DWG E6 AND E7.

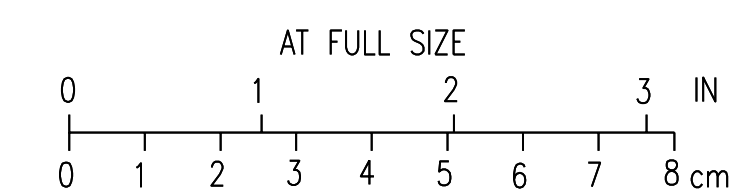
4	RECORD DRAWING	JBL	JBL	JBL	03-31-2014
3	ADDED ADDENDUM COMMENTS	LJO	JBL	JBL	05-04-2012
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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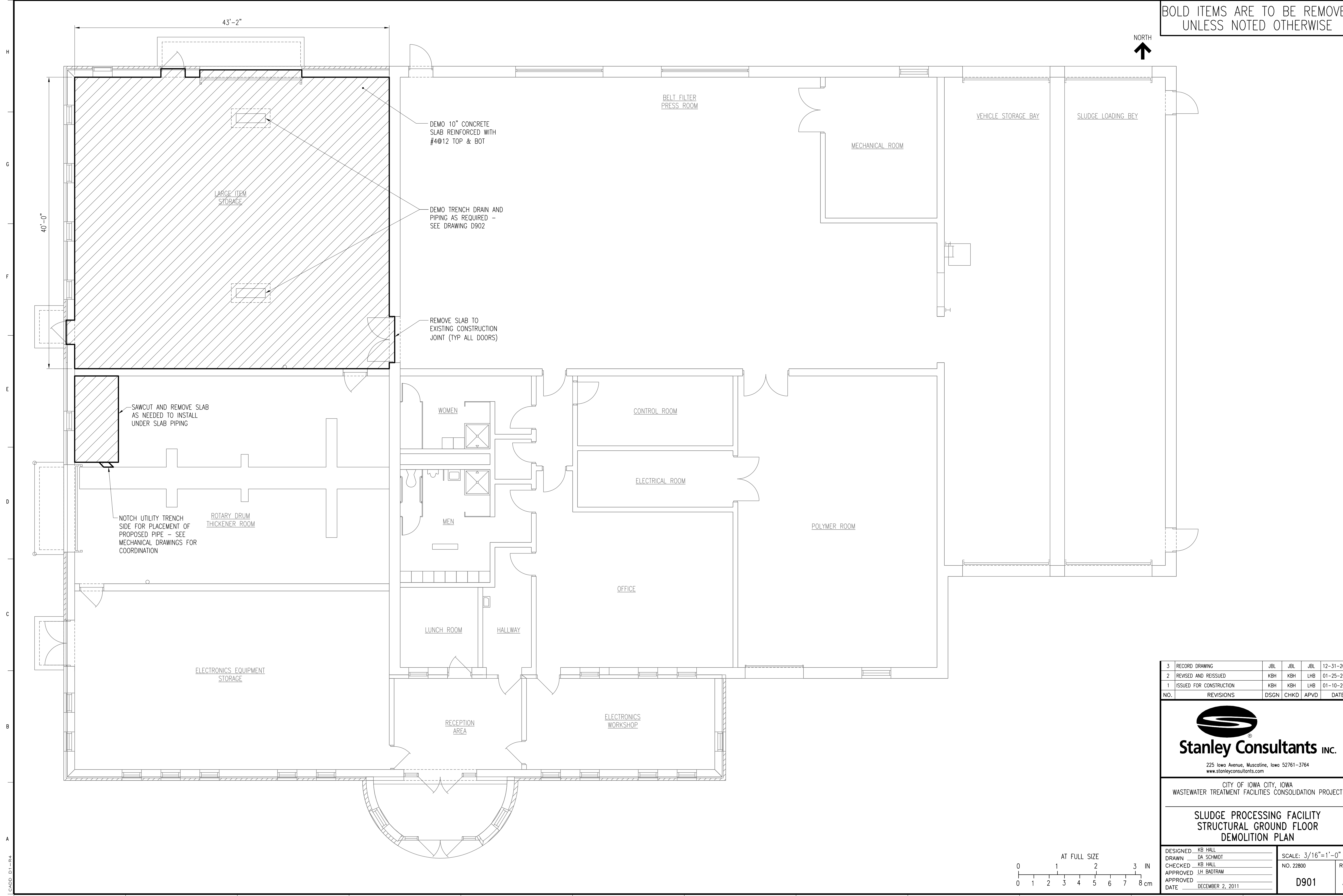
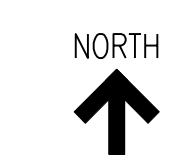
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**DIGESTER AREA
SECTIONS AND DETAILS**

DESIGNED	DL MORITZ	SCALE: AS NOTED	
DRAWN	D. WILGES	NO. 22800	REV.
CHECKED	DL MORITZ		
APPROVED	JD COGAN		
DATE	DECEMBER 2, 2011	E804	4



**BOLD ITEMS ARE TO BE REMOVED
UNLESS NOTED OTHERWISE**



3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED AND REISSUED	KBH	KBH	LHB	01-25-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

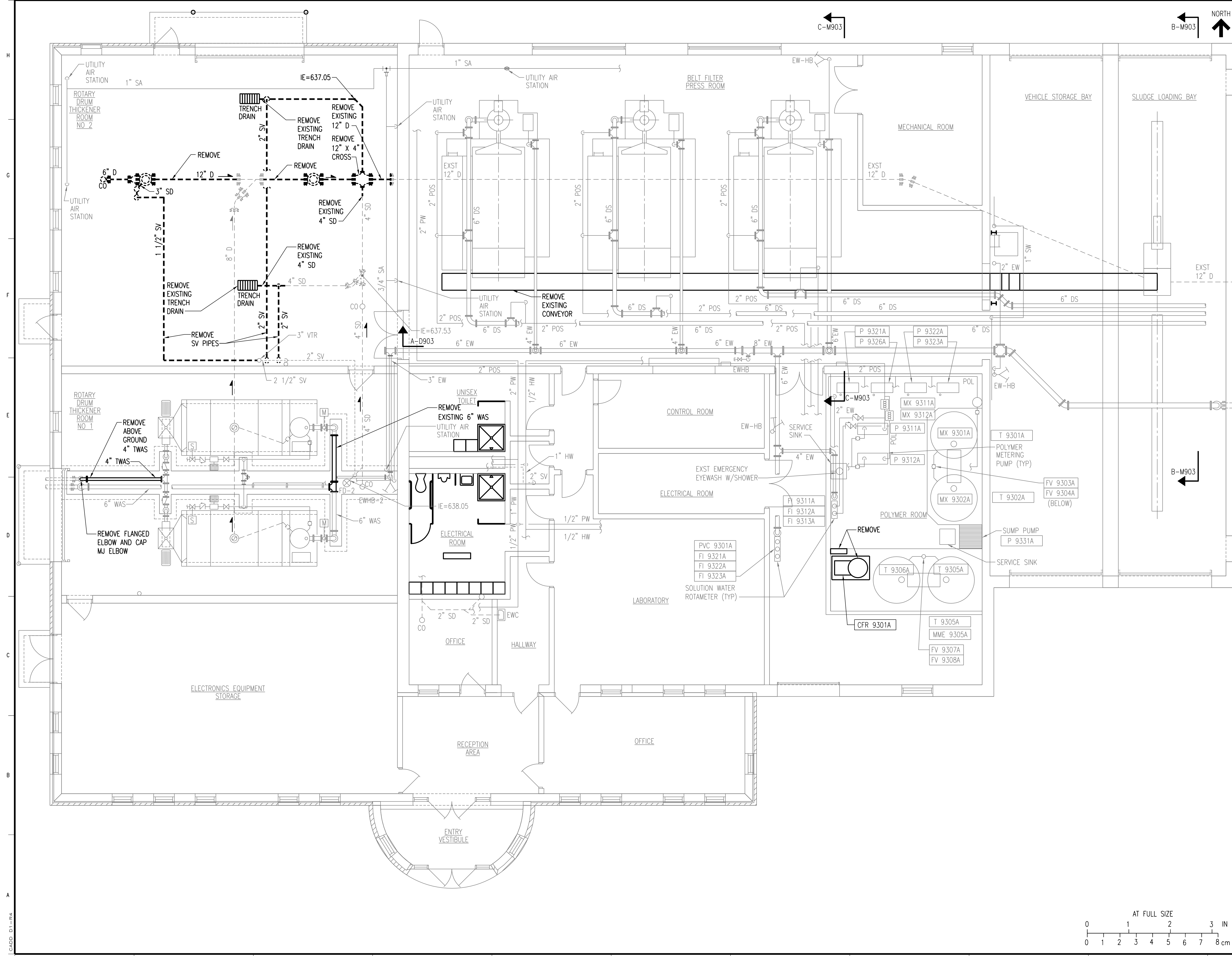
**SLUDGE PROCESSING FACILITY
STRUCTURAL GROUND FLOOR
DEMOLITION PLAN**

DESIGNED	KB HALL	SCALE:	3/16"=1'-0"
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
APPROVED			
DATE	DECEMBER 2, 2011	D901	3



CADD: D1-R4

BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE



3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED PIPE DEMOLITION	MA	MA	JBL	01-25-2012
1	ISSUED FOR CONSTRUCTION	MA	MA	JBL	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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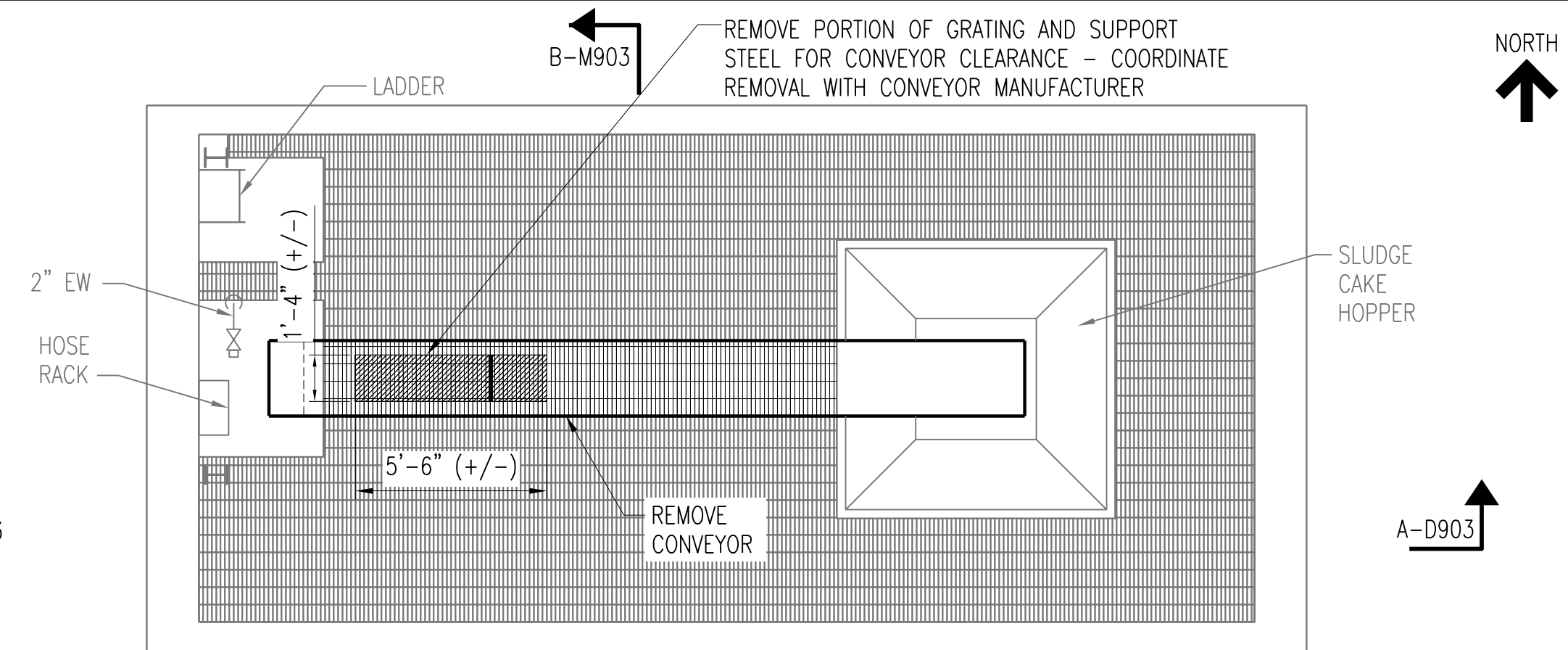
CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT
**SLUDGE PROCESSING FACILITY
 PROCESS PIPING GROUND FLOOR
 DEMOLITION PLAN**

DESIGNED	M. AKYUREK	SCALE:	3/16"=1'-0"
DRAWN	L.J. OSBORN	NO.	22800
CHECKED	M. AKYUREK	REV.	
APPROVED	J.B. LUND		
APPROVED			
DATE	DECEMBER 2, 2011	D902	3

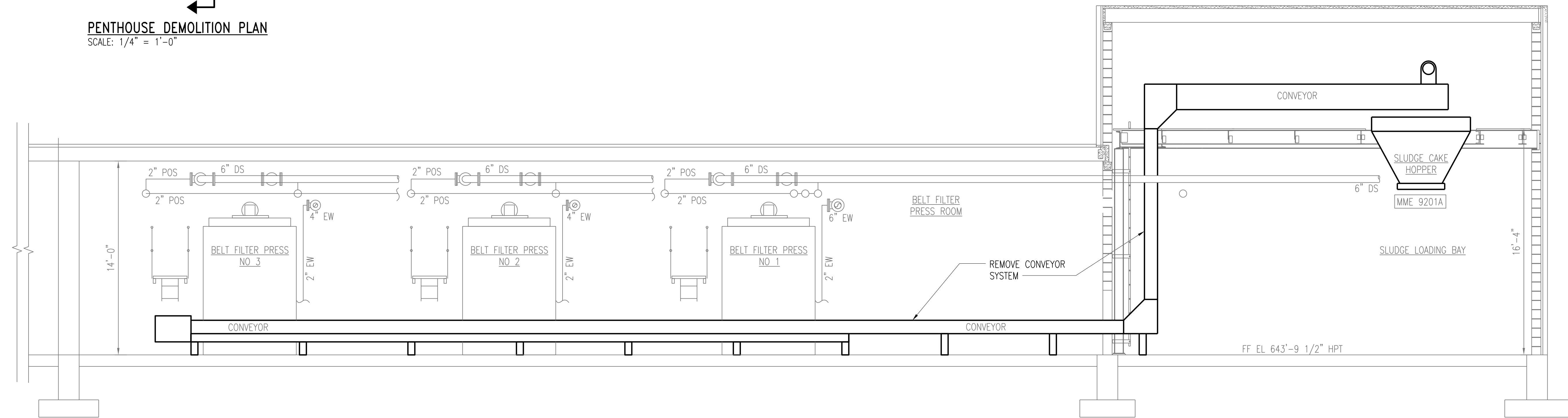


CADD: D1-R4

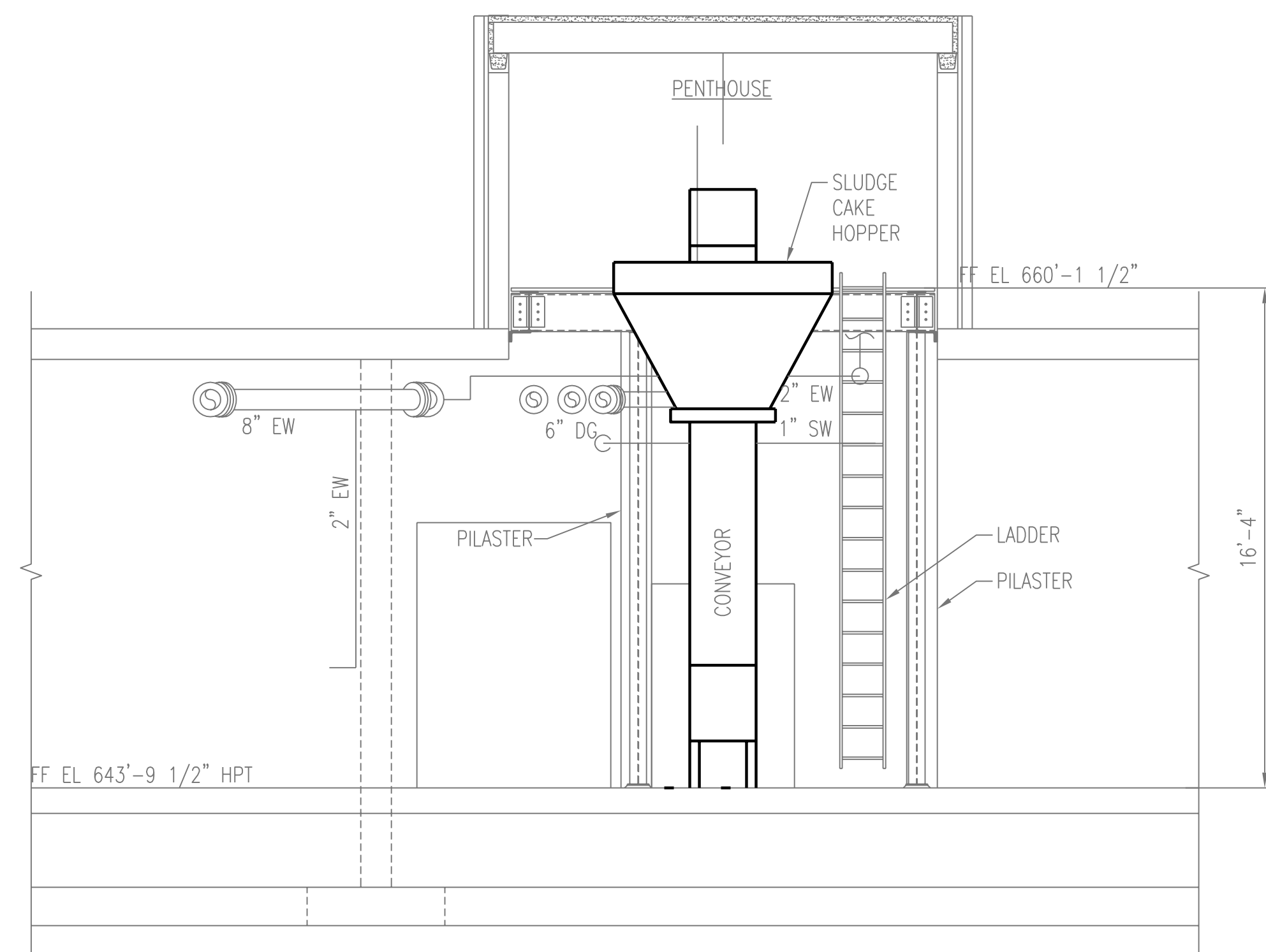
BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE



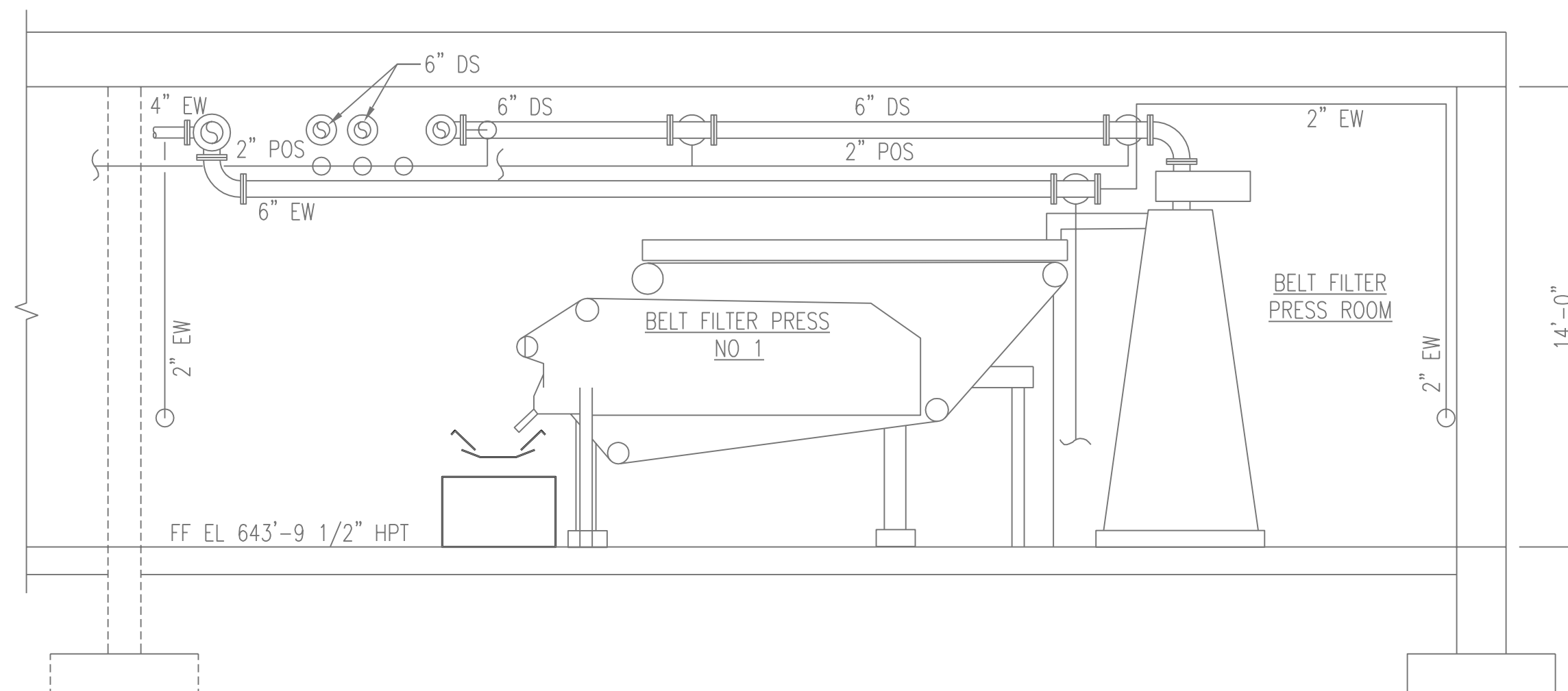
PENTHOUSE DEMOLITION PLAN
SCALE: 1/4" = 1'-0"



SECTION A-D903
D902, D903
SCALE: 1/4" = 1'-0"



SECTION B-D903
D902, D903
SCALE: 1/4" = 1'-0"



SECTION C-D903
D902
SCALE: 1/4" = 1'-0"

SECTION A-D903 AND B-D903: SLUDGE HOPPER SHALL REMAIN IN PLACE, DO NOT REMOVE

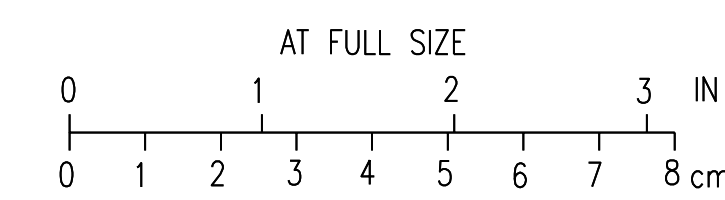
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	ADDED ADDENDUM COMMENT	LJO	JBL	JBL	05-04-2012
1	ISSUED FOR CONSTRUCTION	MA	MA	JBL	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SLUDGE PROCESSING FACILITY
CONVEYOR DEMOLITION DETAILS**

DESIGNED	M. AKYUREK	SCALE: 3/16" = 1'-0"	
DRAWN	L.J. OSBORN	NO. 22800	REV.
CHECKED	M. AKYUREK		
APPROVED	J.B. LUND		
APPROVED			
DATE	DECEMBER 2, 2011	D903	3

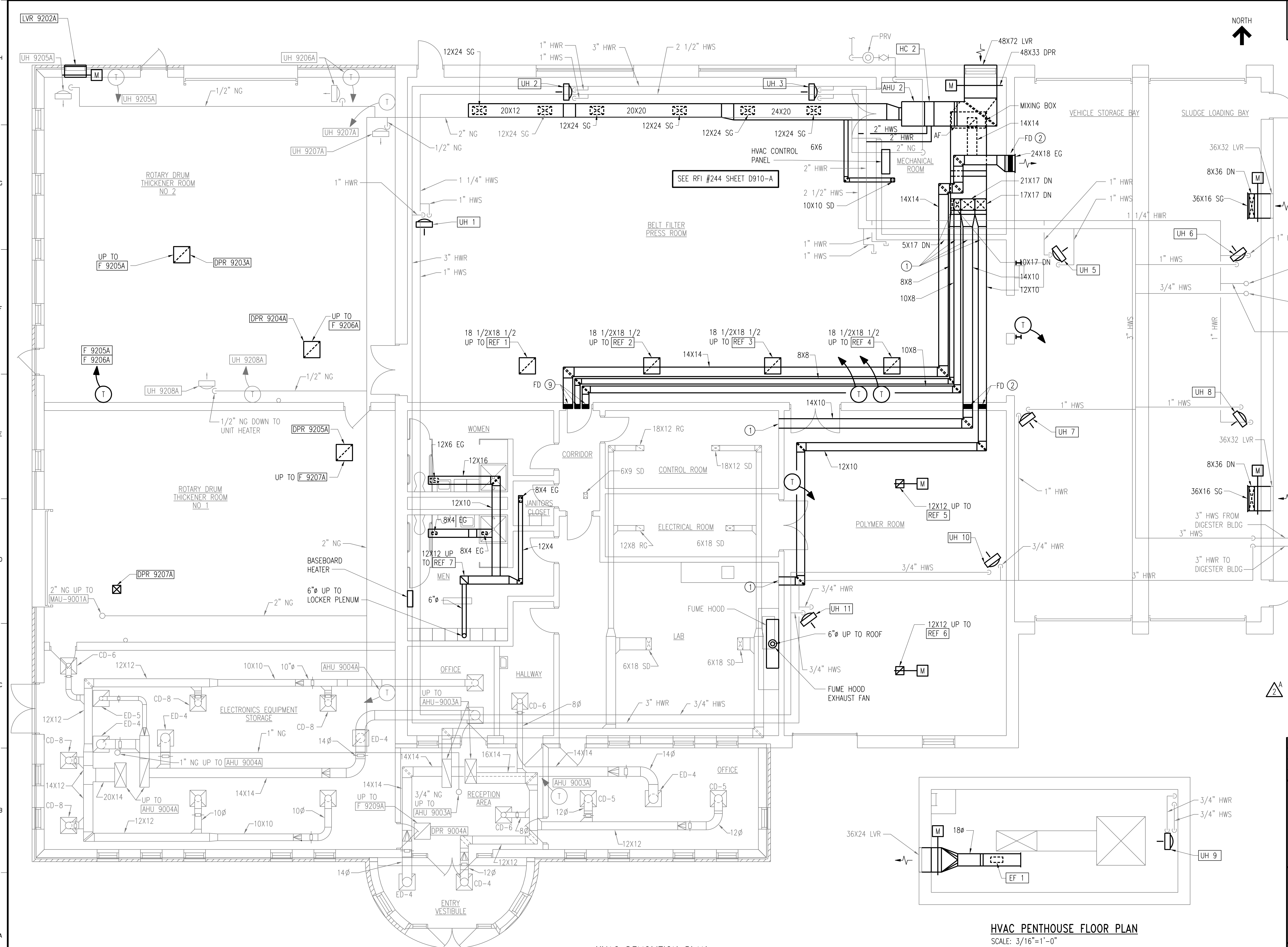


BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE

- NOTES:**
- FIELD VERIFY EXISTING CONDITIONS PRIOR TO DEMOLITION. NOTIFY OWNER OF ANY DEVIATION BEFORE PROCEEDING WITH WORK.
 - COORDINATE THE REMOVAL OF MECHANICAL EQUIPMENT WITH OTHER TRADES SO AS NOT TO AFFECT THE OPERATION OF EXISTING SYSTEMS. PERFORM WORK IN MANNER WHICH WILL PROVIDE LEAST INTERFERENCE TO UTILITY SERVICES, ELECTRIC, WATER, GAS, BUILDING UTILITIES, ETC.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO STRUCTURES, UTILITIES, AND EQUIPMENT CAUSED BY OPERATIONS AND SHALL REPAIR ANY DAMAGE AT ITS OWN EXPENSE OR REPLACE ITEMS DAMAGED BEYOND REPAIR.
 - PROVIDE TEMPORARY SYSTEMS TO MAINTAIN BUILDING TEMPERATURE, HUMIDITY, AND VENTILATION. TEMPORARY SYSTEMS SHALL PROVIDE AMBIENT CONDITIONS FOR WORK, PREVENT CONDENSATION, AND PREVENT ACCUMULATION OF DUST, FUMES, AND GASES. DURING WORKING AND NON-WORKING HOURS, THE BUILDING INDOOR TEMPERATURE SHALL BE MAINTAINED AT A MINIMUM 50°F OR HIGHER IN ALL AREAS. DO NOT USE EXISTING SYSTEMS FOR TEMPORARY HEATING, COOLING AND VENTILATION.

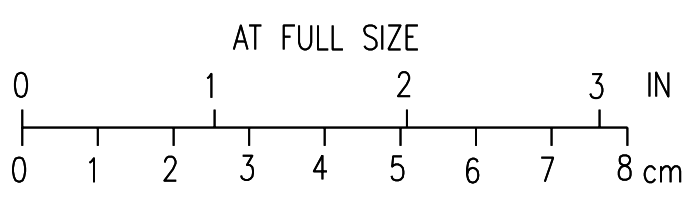
- KEYNOTES:**
- FILL EXISTING DUCT OPENING WITH CMU TO MATCH EXISTING WALL IN FINISH.
 - FILL EXISTING DUCT OPENING IN FIRE RATED WALL WITH CMU TO MATCH FIRE RATING OF WALL.

CHANGE KEY NOTE 9 IN BELT FILTER PRESS ROOM TO READ: "2".



HVAC PENTHOUSE FLOOR PLAN
SCALE: 3/16"=1'-0"

HVAC DEMOLITION PLAN
SCALE: 3/16"=1'-0"



3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	ADDED ADDENDUM COMMENT	LJO	JBL	JBL	05-04-2012
1	ISSUED FOR CONSTRUCTION	JLL	JJB	JJB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SLUDGE PROCESSING FACILITY
HVAC GROUND FLOOR DEMOLITION PLAN**

DESIGNED	JL LEE	SCALE:	AS NOTED
DRAWN	D. WILGES	NO.	22800
CHECKED	JJ BOVENKAMP	REV.	
APPROVED	JJ BOVENKAMP		
APPROVED			
DATE	DECEMBER 2, 2011	D910	3

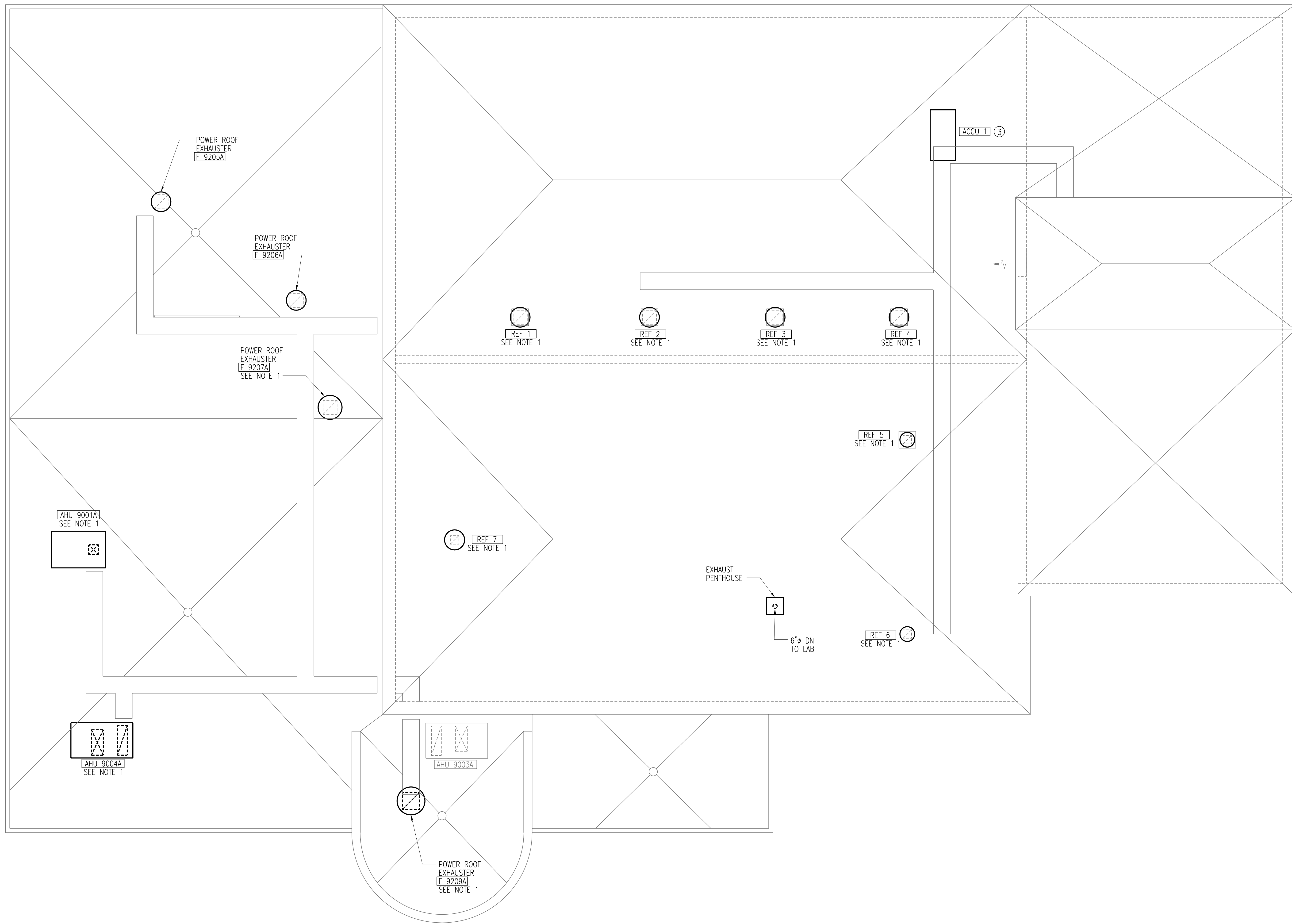
CADD: D1-R4

BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE

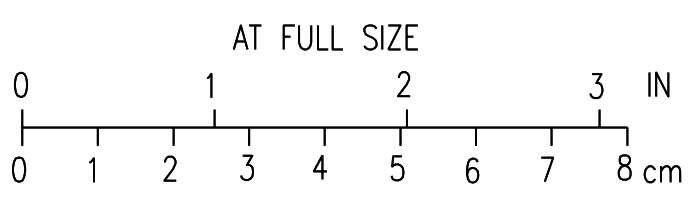


NOTES:

1. ROOF CURBS FOR EXISTING EQUIPMENT TO REMAIN IN PLACE.



HVAC DEMOLITION PLAN
SCALE: 3/16"=1'-0"



2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JLL	JJB	JJB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT
**SLUDGE PROCESSING FACILITY
HVAC ROOF DEMOLITION PLAN**

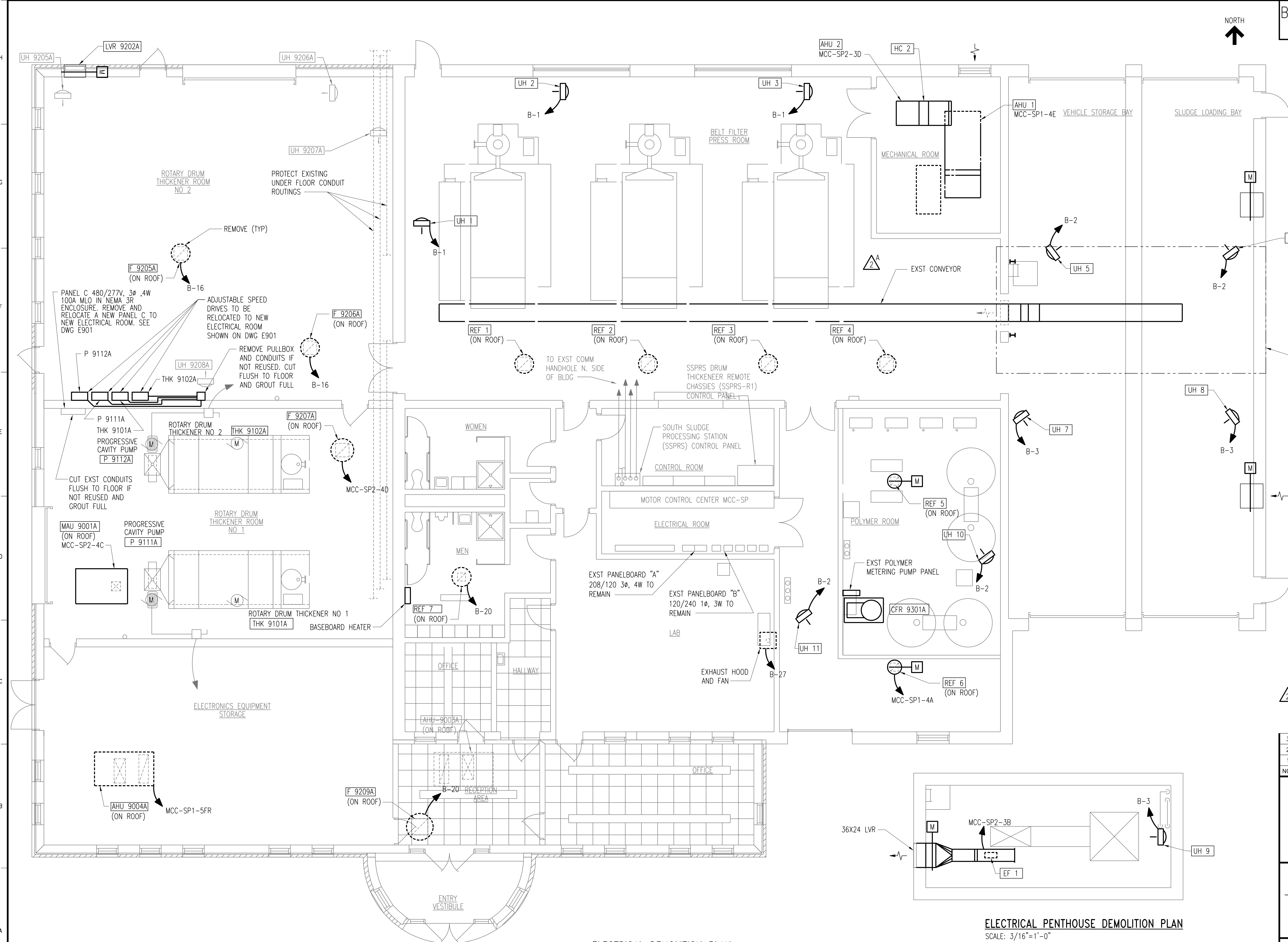
DESIGNED	JL LEE	SCALE:	AS NOTED
DRAWN	D. WILGES	NO.	22800
CHECKED	JJ BOVENKAMP	REV.	
APPROVED	JJ BOVENKAMP		
APPROVED			
DATE	DECEMBER 2, 2011	D911	2

CADD: D1-R4

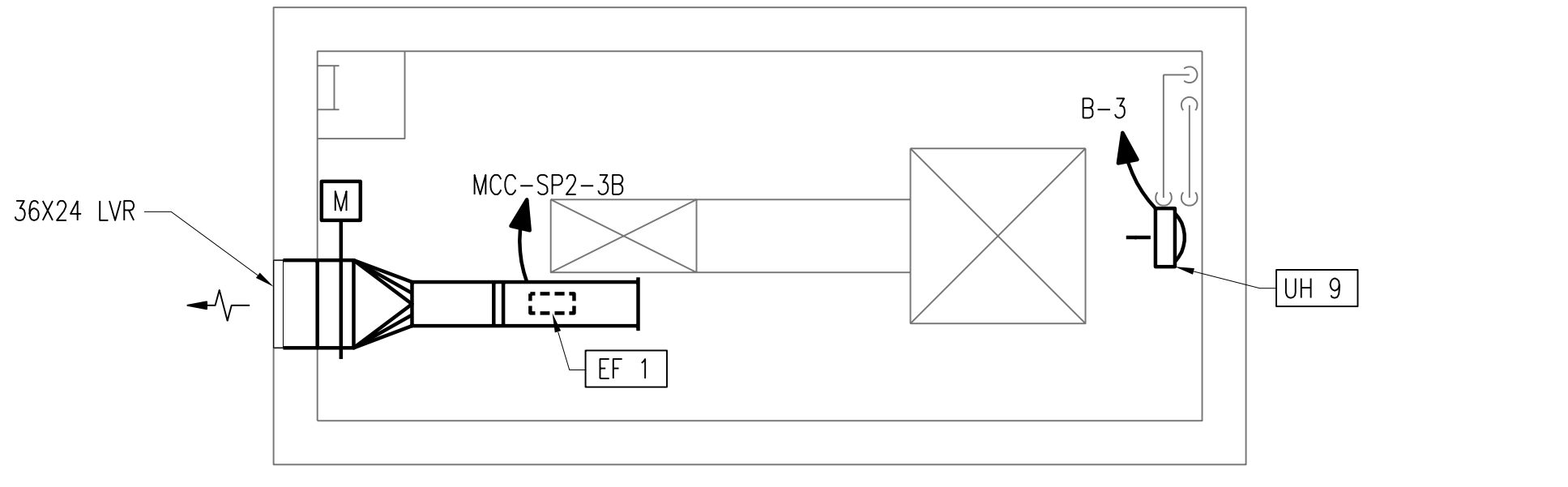
BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE



NOTES:
 1. CONTRACTOR TO CONFIRM ALL CIRCUITING TO BE REMOVED OR REUSED. CIRCUITS BASED ON PANEL SCHEDULES OR MCC ONE LINES.

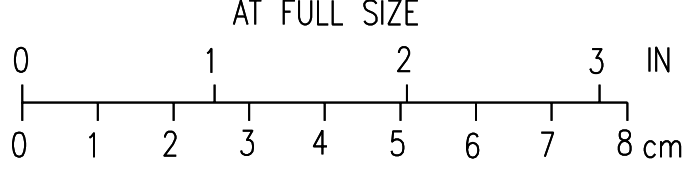


△ A EXISTING CONVEYOR TO BE REMOVED.



ELECTRICAL PENTHOUSE DEMOLITION PLAN
 SCALE: 3/16"=1'-0"

ELECTRICAL DEMOLITION PLAN
 SCALE: 3/16"=1'-0"



3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	ADDED ADDENDUM COMMENT	LJO	JBL	JBL	05-04-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DGSN	CHKD	APVD	DATE

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CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SLUDGE PROCESSING FACILITY
 ELECTRICAL DEMOLITION PLAN**

DESIGNED	DL MORITZ
DRAWN	D. WILGES
CHECKED	DL MORITZ
APPROVED	JD COGAN
DATE	DECEMBER 2, 2011

SCALE: AS NOTED	NO. 22800	REV.
	D912	3

CADD: D1-R4

BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE

PANEL NAME:		EXIST "A"		LOCATION:		ELECTRICAL ROOM	
MOUNTING:		SURFACE		VOLTAGE:		208Y/120	
ENCLOSURE:		NEMA 1		PHASE:		3P/4W	
MAINS:		MB 100A		SHORT CIRCUIT RATING:		10KA	
BUS AMPACITY:		100A		GROUND BUS:		YES	
BUS TYPE:				ISOLATED GROUND BUS:		NO	
BRANCH BREAKER TYPE:				NEUTRAL BUS:		100%	
NO.	LOAD DESCRIPTION	CB PH, G, COND	LOAD DESCRIPTION	CB PH, G, COND	NO.		
1	LIGHTING LUNCH ROOM, UNISEX, ELECTRICAL ROOM	1P20A	LIGHTING COORIDOR, ELEC ROOM, CONTROL ROOM	1P20A	2		
3	LIGHTING OFFICE	1P20A	LIGHTING POLYMER ROOM	1P20A	4		
5	LIGHTING BFP ROOM, MECH ROOM	1P20A	LIGHTING BFP ROOM	1P20A	6		
7	LIGHTING VESTIBULE	1P20A	LIGHTING TRUCKWAY	1P20A	8		
9	LIGHTING TRUCKWAY	1P20A	LIGHTING EMERGENCY	1P20A	10		
11	EXIT LIGHTS	1P20A	LIGHTING ROOMS 310, 312, 313	1P20A	12		
13	RECEPTACLES LUNCH, TO OFFICE	1P20A	RECEPTACLES OFFICE	1P20A	14		
15	RECEPTACLES OFFICE, COORIDOR RESTROOMS	1P20A	RECEPTACLES ELEC ROOM, CONTROL ROOM	1P20A	16		
17	RECEPTACLES POLYMER ROOM	1P20A	RECEPTACLE BFP ROOM, MECH ROOM	1P20A	18		
19	RECEPTACLE BFP ROOM	1P20A	RECEPTACLES TRUCKWAY	1P20A	20		
21	LIGHTS 309 ENTRY VESTIBULE	1P20A	LIGHTING ROOM 308	1P20A	22		
23	SPARE	1P20A	LIGHTING CONTACTOR FOR OUTSIDE LIGHTS	1P20A	24		
25	LIGHTS 305 THICKNER ROOM	1P20A	THK 9101 AND THK 9102	1P20A	26		
27	LIGHTS 301 LARGE ITEM STORAGE	1P20A	KITCHEN UNIT	1P20A	28		
29	SPACE	1P20A	MICROWAVE	1P20A	30		
31	SPACE		GARAGE DOORS 301, 302	3P20A	32		
33	SPACE				34		
35	SPACE				36		

PANEL NAME:		EXIST "B"		LOCATION:		ELECTRICAL ROOM	
MOUNTING:		SURFACE		VOLTAGE:		120V/240V	
ENCLOSURE:		NEMA 1		PHASE:		1P/3W	
MAINS:		MB 100A		SHORT CIRCUIT RATING:		10KA	
BUS AMPACITY:		100A		GROUND BUS:		YES	
BUS TYPE:				ISOLATED GROUND BUS:		NO	
BRANCH BREAKER TYPE:				NEUTRAL BUS:		100%	
NO.	LOAD DESCRIPTION	CB PH, G, COND	LOAD DESCRIPTION	CB PH, G, COND	NO.		
1	UNIT HEATERS UH-1,2,3	1P20A	UNIT HEATERS UH-4,5,6, 10 AND 11	1P20A	2		
3	UNIT HEATERS UH-7, 8, 9	1P20A	RECEPTACLES THICKNER ROOM	1P20A	4		
5	TCP	1P20A	SPCP	1P20A	6		
7	SLUDGE HOPPER HIGH LEVEL	1P20A	ROOFTOP GFIS	1P20A	8		
9	REFRIGERATOR, RECEPTION AREA REC	1P20A	EXISTING CIRCUIT	1P20A	10		
11	ROOM 308 NORTH GFI RECEPTS	1P20A	POLYMER BREAKER 1	1P20A	12		
13	PMP-1 AND 2, STR ADJ	1P20A	PMP-3 & 4 STR ADJ, POLY BREAKER 2	1P20A	14		
15	ELECTRONICS WORKSHOP GFIS	1P20A	F9205 & F9206	1P20A	16		
17	ROOM 308 SOUTH GFIS	1P20A	P-1 NEW PLC	1P20A	18		
19	POLYMER FILL STATION	1P20A	CH-1, REF-7	1P20A	20		
21	AIR DRYER	1P20A	FIT 528, 529, 530	1P20A	22		
23	EXISTING GAS DETECTORS	1P20A	UH-9205, 9207, 9208	1P20A	24		
25	EAST LAB NORTH RECEPTS	1P20A	SPARE EAST LAB	1P20A	26		
27	EAST LAB FAN	1P20A	SPARE EAST LAB	1P20A	28		
29	EAST LAB SOUTH RECEPTS	1P20A	P-2 NEW PLC	1P20A	30		
31	EAST LAB NORTH RECEPTS	1P20A	P-3 AND P-4 NEW PLC	1P20A	32		
33	EXISTING CIRCUIT	1P20A	WEST MAINT ROOM GFIS	1P20A	34		
35	EAST LAB AA SPARE	1P20A	EAST MAINT ROOM GFIS	1P20A	36		



NOTE:
WHEN LOADS ONLY ARE BOLD REMOVE LOAD BUT REUSE CIRCUIT FOR NEW LOAD ON ASSOCIATED E DRAWING E902. ALL BOLD CIRCUITS IN PANEL B TO HAVE REPLACED HVAC EQUIPMENT IN SAME LOCATION BUT DIFFERENT TAG DESIGNATION EXCEPT 27 BECOMES A SPARE.

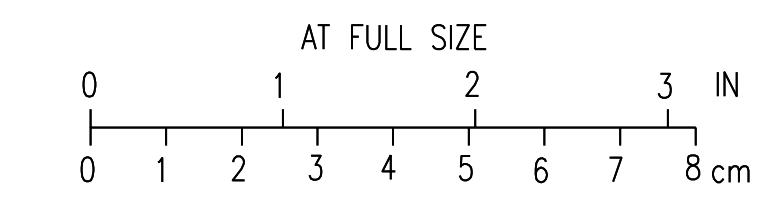
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED PER ADDENDUM NO. 2	DLM	DLM	JDC	03-06-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SLUDGE PROCESSING FACILITY
ELECTRICAL DEMOLITION DETAILS**

DESIGNED	DL MORITZ	SCALE:	AS NOTED
DRAWN	D. WILGES	NO.	22800
CHECKED	DL MORITZ	REV.	
APPROVED	JD COGAN		
APPROVED		D913	3
DATE	DECEMBER 2, 2011		



CADD D1-144

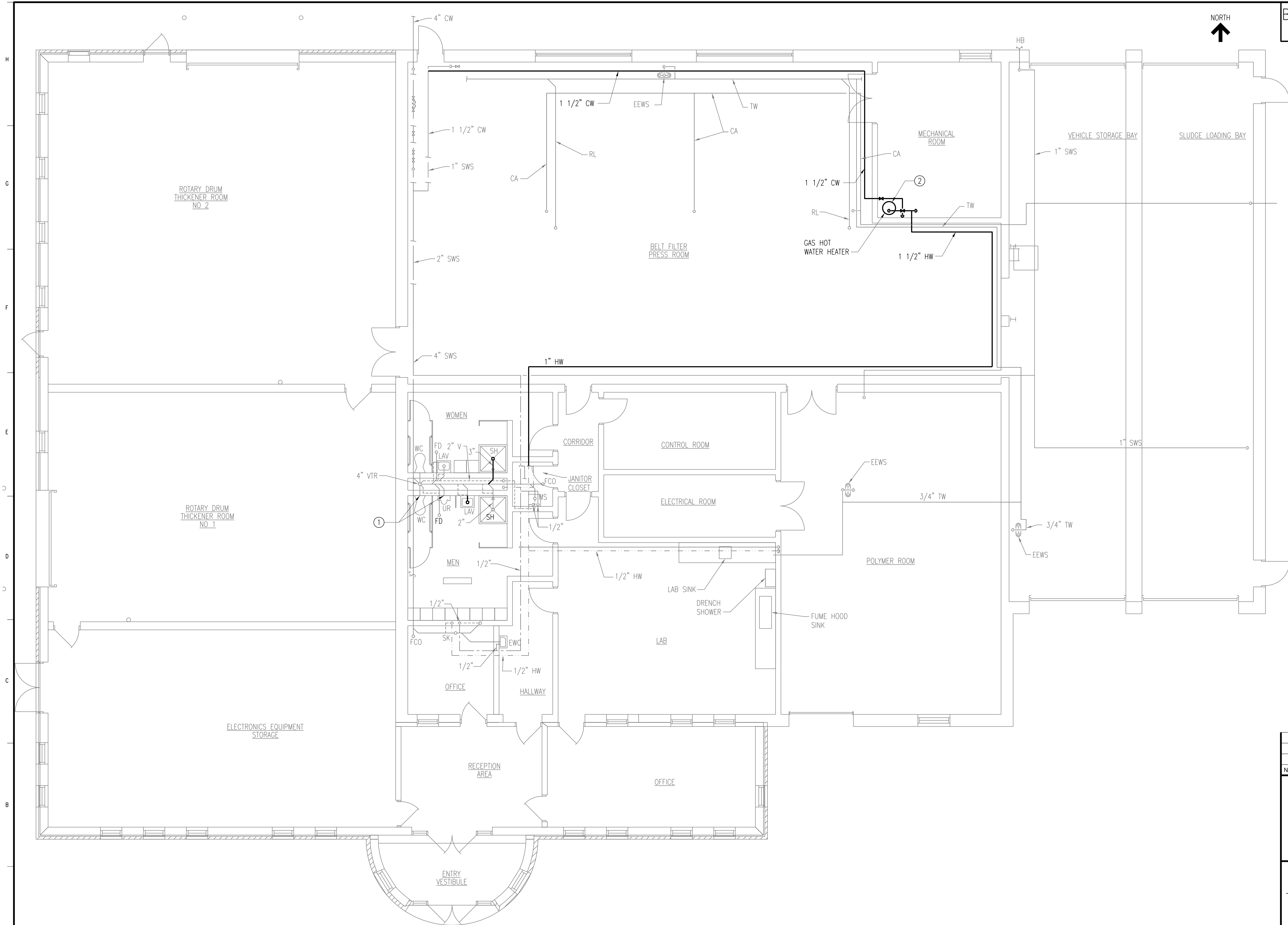
BOLD ITEMS ARE TO BE REMOVED UNLESS NOTED OTHERWISE

NOTES:

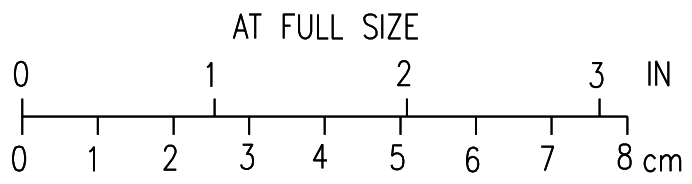
1. FIELD VERIFY EXISTING CONDITIONS PRIOR TO DEMOLITION. NOTIFY OWNER OF ANY DEVIATION BEFORE PROCEEDING WITH WORK.
2. COORDINATE THE REMOVAL OF PLUMBING EQUIPMENT WITH OTHER TRADES SO AS NOT TO AFFECT THE OPERATION OF EXISTING SYSTEMS. PERFORM WORK IN MANNER WHICH WILL PROVIDE LEAST INTERFERENCE TO UTILITY SERVICES, ELECTRIC, WATER, GAS, BUILDING UTILITIES, ETC.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO STRUCTURES, UTILITIES, AND EQUIPMENT CAUSED BY OPERATIONS AND SHALL REPAIR ANY DAMAGE AT ITS OWN EXPENSE OR REPLACE ITEMS DAMAGED BEYOND REPAIR.
4. FILL PIPE OPENING FOR DEMOLISHED 1" HW IN FIRE RATED WALL TO MATCH EXISTING FIRE RATING OF WALL. **2**

KEYNOTES:

- ① PLUG SANITARY DRAIN
- ② REMOVE EXISTING FLUE VENT, VENT CAP, AND ROOF FLASHING. FILL OPENING WITH INSULATION AND PROVIDE A COVER PLATE ANCHORED TO TOP OF ROOF DECK. RE-ROOF WITH SIMILAR ROOFING MATERIAL PER MANUFACTURER'S STANDARD DETAIL.



DEMOLITION FLOOR PLAN
SCALE: 3/16"=1'-0"



2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JLL	JJB	JJB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

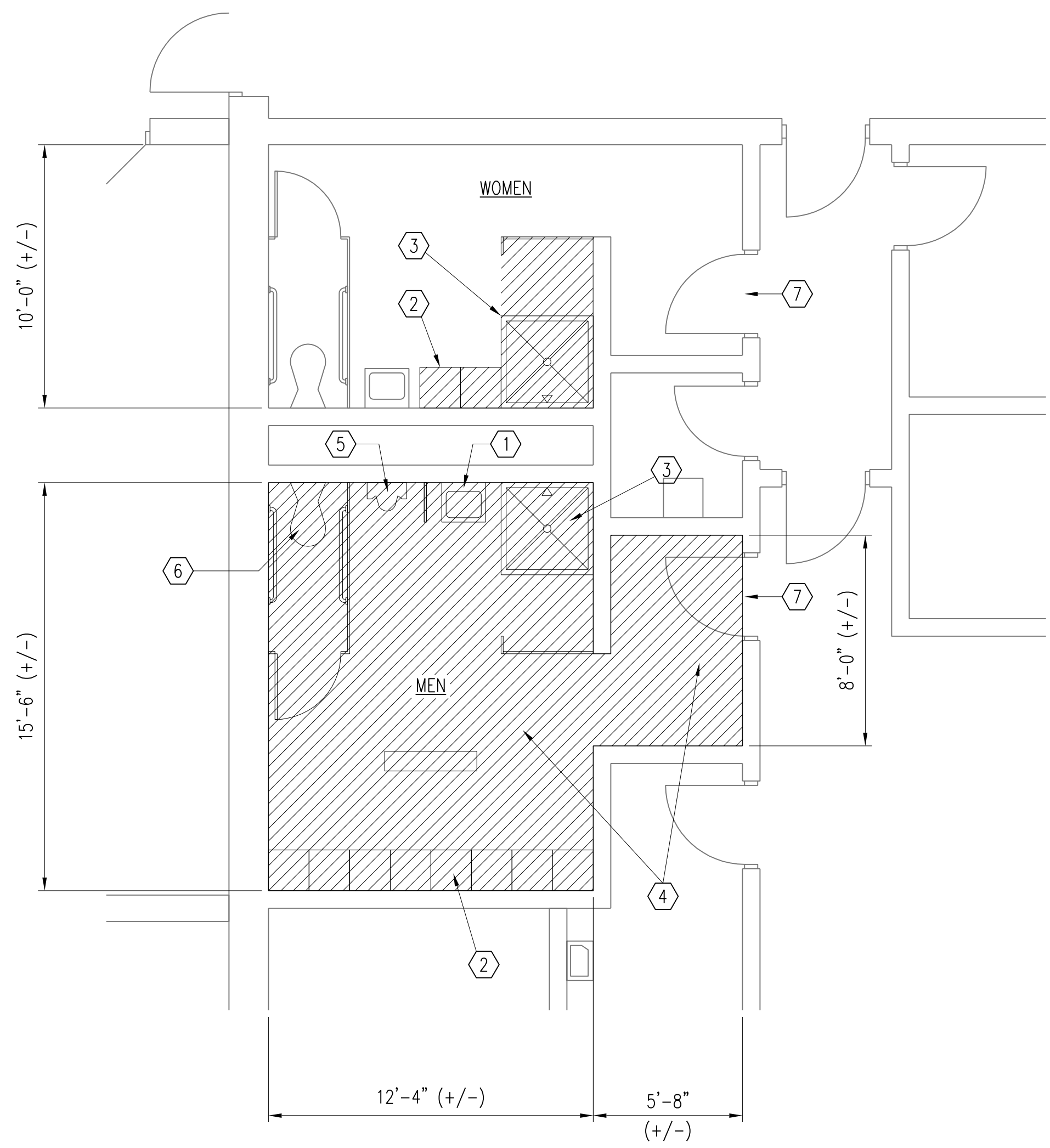

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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

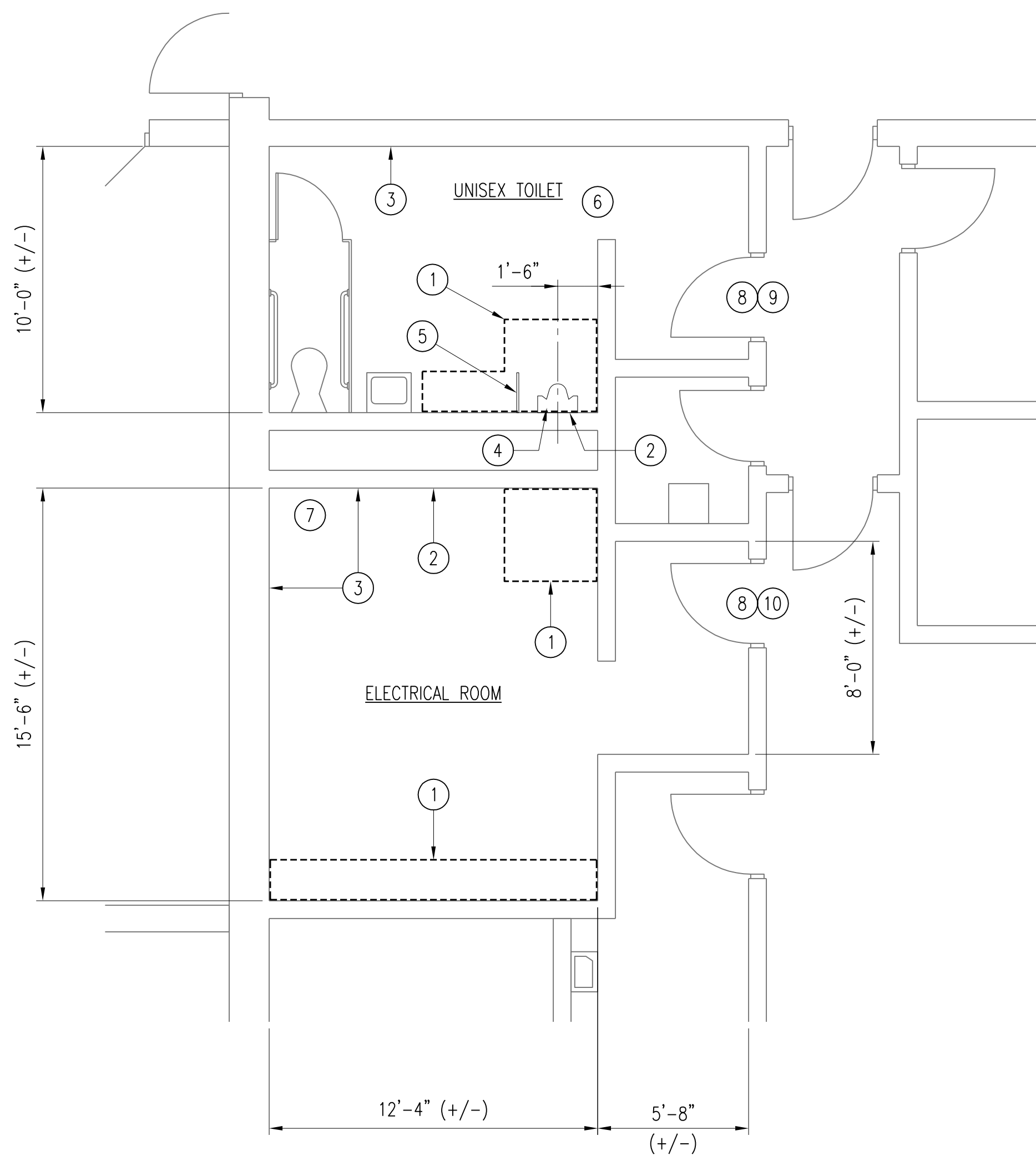
**SLUDGE PROCESSING FACILITY
PLUMBING GROUND FLOOR
DEMOLITION PLAN**

DESIGNED	JL LEE	SCALE: 3/8"=1'-0"	NO. 22800	REV. 2
DRAWN	D. WILGES			
CHECKED	JJ BOVENKAMP			
APPROVED	JJ BOVENKAMP			
APPROVED				
DATE	DECEMBER 2, 2011	D914		

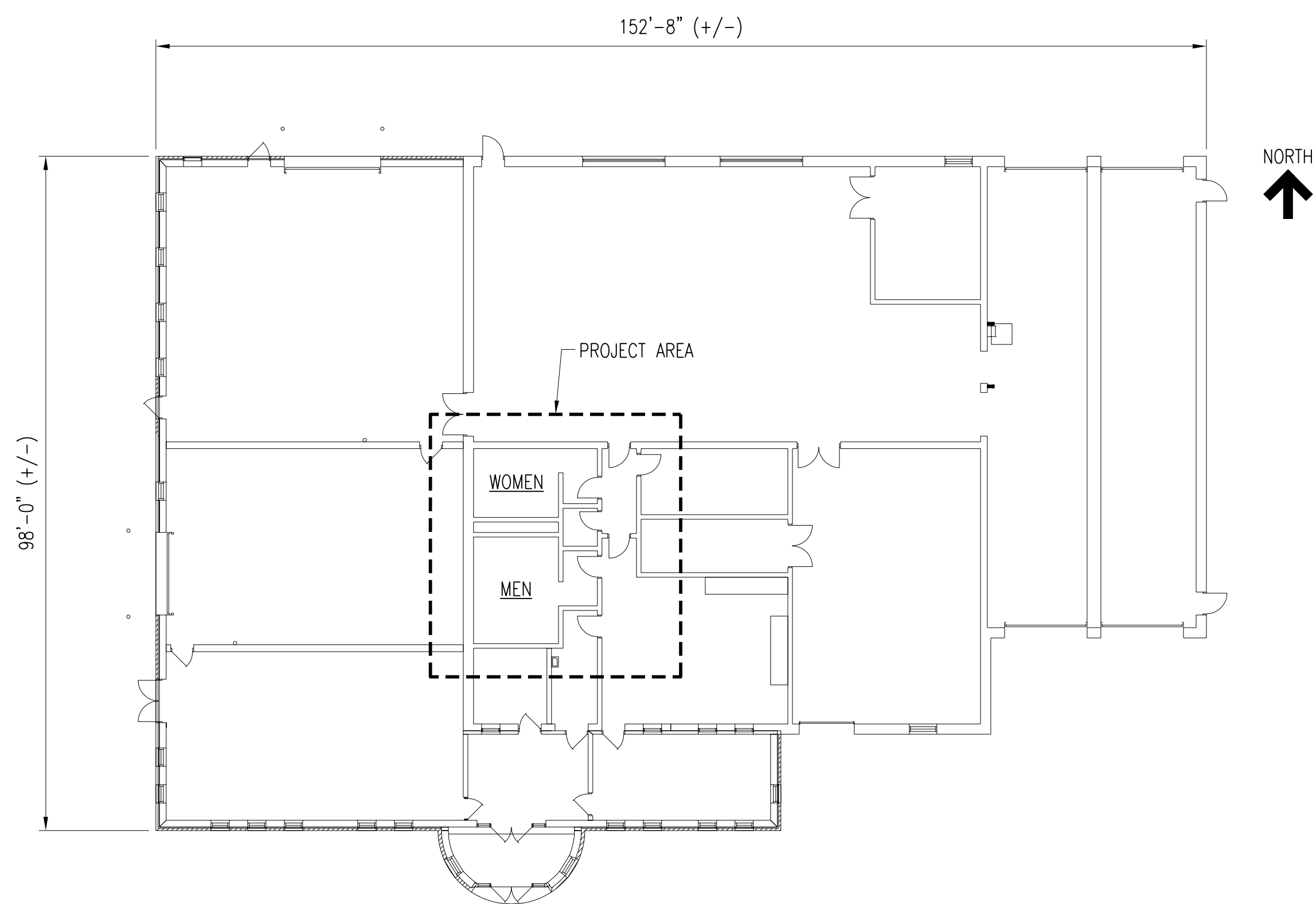
CADD: D1-R4



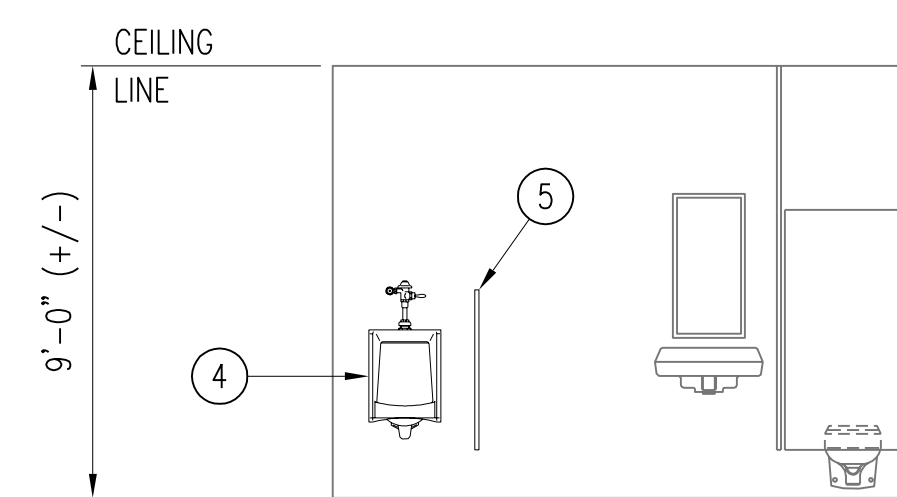
DEMOLITION FLOOR PLAN
SCALE: 1/4" = 1'-0"



RENOVATION FLOOR PLAN
SCALE: 1/4" = 1'-0"



KEY PLAN - SLUDGE PROCESSING FACILITY
SCALE: 1/16" = 1'-0"



ELEVATION - UNISEX TOILET
(LOOKING SOUTH)
SCALE: 1/4" = 1'-0"

DEMOLITION NOTES:

- CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS BEFORE BEGINNING WORK.
- DIMENSIONS SHOWN SHALL BE VERIFIED BY CONTRACTOR.
- COORDINATE DEMOLITION WORK WITH OTHER DISCIPLINES.

DEMOLITION KEYNOTES:

- REVIEW WITH OWNER'S REPRESENTATIVE ALL ACCESSORIES IN TOILET ROOM TO BE SALVAGE; MIRROR, PAPER TOWEL DISPENSER, LIGHT FIXTURES, GRAB BARS, ETC.
- REMOVE LOCKERS AND SALVAGE FOR OWNERS USE. REMOVE VENTILATION STACK AND ITS ACCESSORIES. PATCH OPENING ABOVE CEILING AS REQUIRED.
- SHOWER:
 - REMOVE SHOWER SCREEN WALL AND SALVAGE FOR OWNER USE.
 - REMOVE SHOWER UNIT AND SALVAGE FOR OWNER USE.
 - REMOVE SHOWER BASIN, TILE, AND DRAIN. CUT BACK FLOOR TO RECEIVE NEW TILE TO MATCH EXISTING FINISH FLOOR ELEVATION.
 - REMOVE FIXTURES - SHOWER HEAD AND VALVE.
- REMOVE CEILING SYSTEM - TILE AND FRAMING. SALVAGE REUSABLE TILE TO REPLACE DAMAGE TILE IN EXISTING WOMEN'S TOILET ROOM. NEW UNISEX TOILET.
- SALVAGE URINAL FOR REUSE IN NEW UNISEX TOILET ROOM RENOVATION.
- REMOVE ALL FIXTURES - TOILET, SINK, MIRROR, PARTITIONS, AND BENCHES.
- REMOVE DOOR PUSH /PULL HARDWARE.

RENOVATION KEYNOTES:

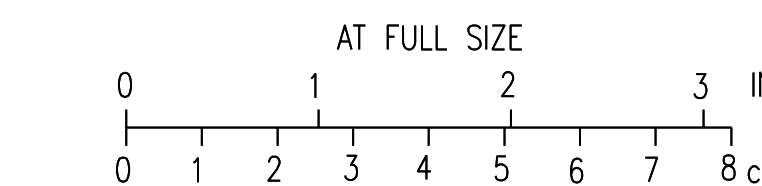
- PATCH FLOOR FLUSH WITH ADJACENT FLOOR WITH LEVELING GROUT AND TILE TO MATCH EXISTING IN COLOR, SIZE AND TEXTURE.
- PATCH ALL HOLES IN WALLS FLUSH WITH ADJACENT AREA.
- CLEAN FLOOR AND WALLS OF ALL DIRT, MARKS, AND STAINS IN AREA NOT RENOVATED. PAINT ALL WALLS WITH EPOXY PAINT TO MATCH EXISTING IN COLOR.
- CLEAN SALVAGED URINAL AND REUSE IN UNISEX TOILET ROOM PER ADA HEIGHT AND SPACING REQUIREMENTS.
- INSTALL NEW SCREEN PARTITION AT URINAL.
- REPLACE DAMAGE CEILING TILE WITH SALVAGED TILE FROM EXISTING MEN'S TOILET ROOM.
- PATCH ALL HOLES IN FLOOR FLUSH WITH ADJACENT AREA AS REQUIRED.
- CLEAN AND REPAIR EXISTING DOOR TO RECEIVE NEW HARDWARE. IF DOOR CANNOT BE REUSED DUE TO HARDWARE REQUIREMENTS, REPLACE DOOR WITH LIKE KIND.
- INSTALL NEW DOOR HARDWARE FUNCTION BHMA TYPE F09 FOR UNISEX TOILET ROOM.
- INSTALL NEW DOOR HARDWARE FUNCTION BHMA TYPE F07 FOR ELECTRICAL ROOM. ALL LOCKS TO BE COORDINATED WITH OWNERS KEYING SYSTEM AND PREFERRED MANUFACTURE.

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	GAL	GAL	DS	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT
**SLUDGE PROCESSING FACILITY
 TOILET DEMOLITION AND RENOVATION
 PLANS AND ELEVATION**

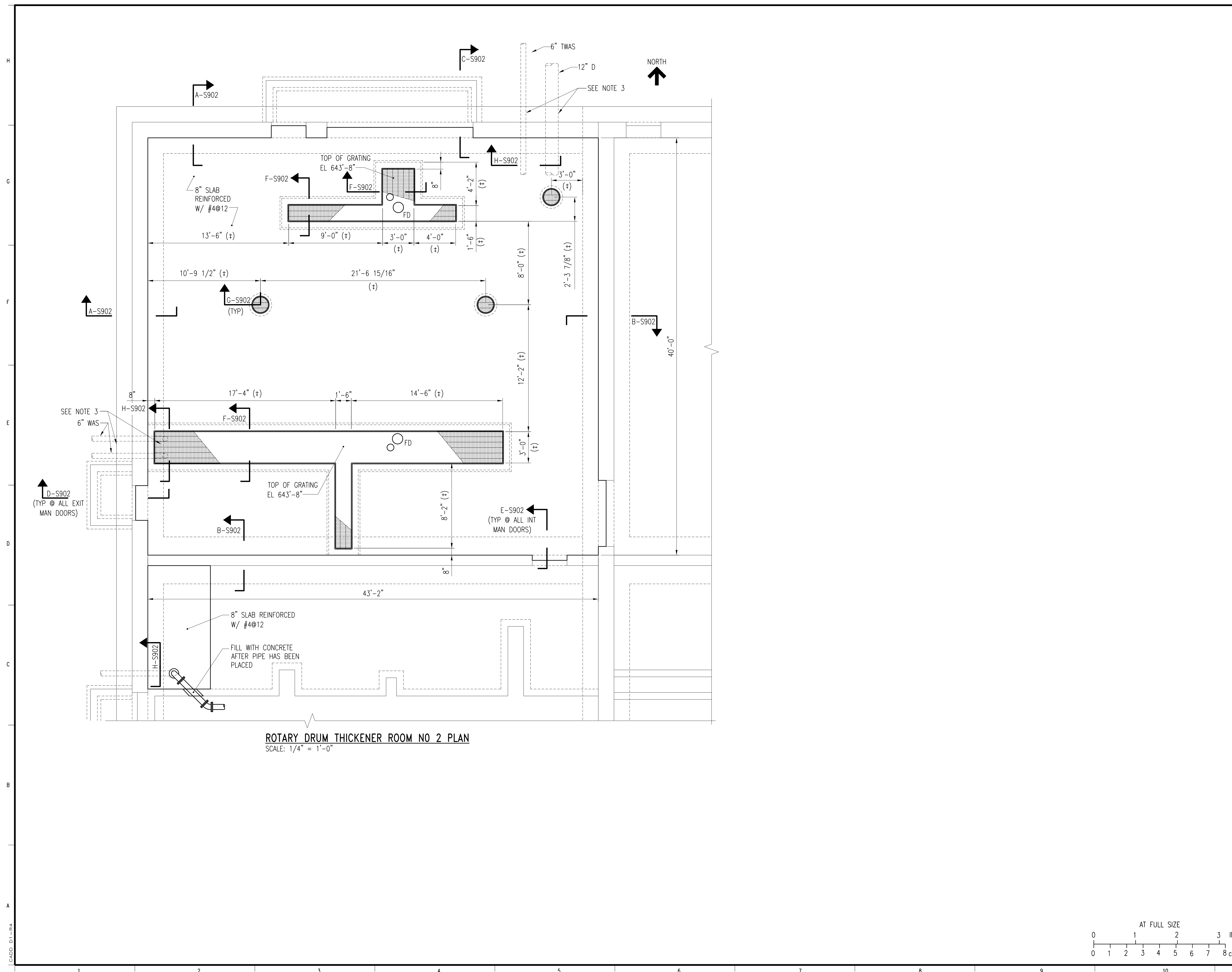
DESIGNED	GA LUDWIG	SCALE:	AS NOTED
DRAWN	DA HUMSTON	NO.	22800
CHECKED	GA LUDWIG	REV.	
APPROVED	D SARKAR		
APPROVED			
DATE	DECEMBER 2, 2011		



CADD: D1-R4

NOTES:

1. CONTRACTOR SHALL COORDINATE FINAL LOCATION OF TRENCHES AND GRATING WITH EQUIPMENT AND PIPING PROVIDED. COORDINATE FINAL LOCATIONS WITH OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
2. ALL GRATING SHALL BE FIBERGLASS REINFORCED PLASTIC (FRP) MOLDED GRATING WITH FRP EMBEDMENT ANGLE. GRATING DESIGN LIVE LOAD: 100PSF.
3. PIPING INSTALLED UNDER EXISTING FOOTINGS SHALL BE EXCAVATED, INSTALLED AND BACKFILLED AS QUICKLY AS POSSIBLE. BACKFILL WITH FLOWABLE FILL OR CLASS B CONCRETE AS INDICATED.
4. SLAB-ON-GRADE DESIGN LIVE LOAD: 250 PSF OR 8000 LBS CONCENTRATED LOAD.
5. SEE MECHANICAL DRAWINGS FOR UNDER SLAB PIPING.
6. SLOPE TRENCH BOTTOMS 0.5% TO FLOOR DRAINS



ROTARY DRUM THICKENER ROOM NO 2 PLAN
SCALE: 1/4" = 1'-0"

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED AND REISSUED	KBH	KBH	LHB	01-25-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



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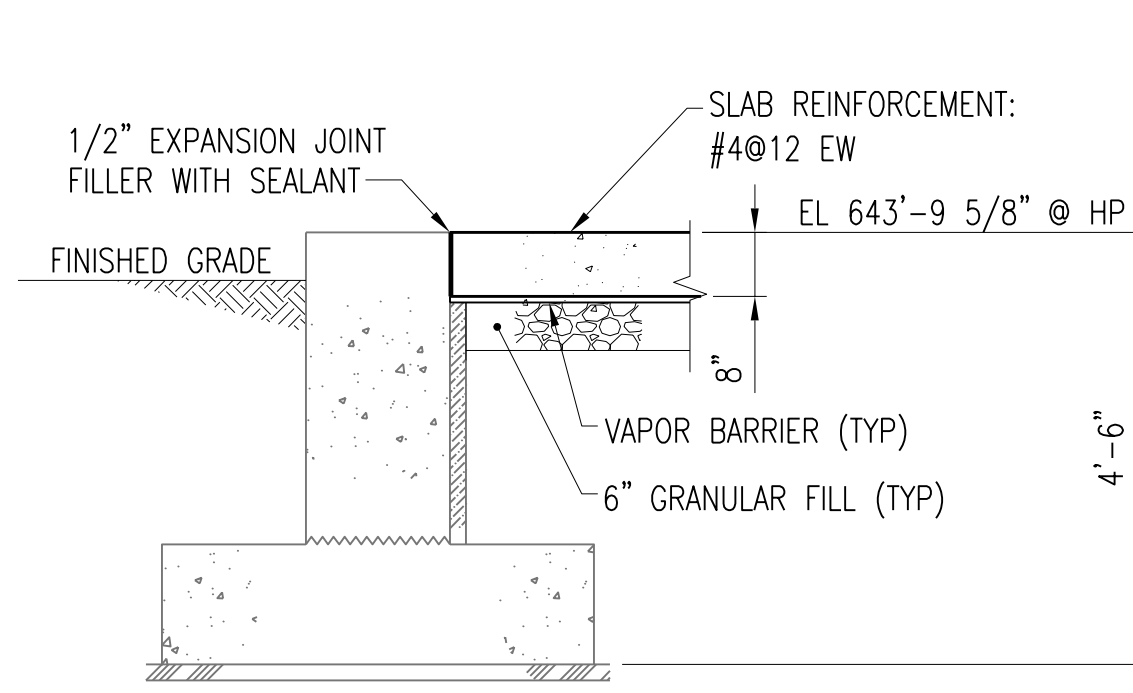
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SLUDGE PROCESSING FACILITY
ROTARY DRUM THICKENER FLOOR PLAN**

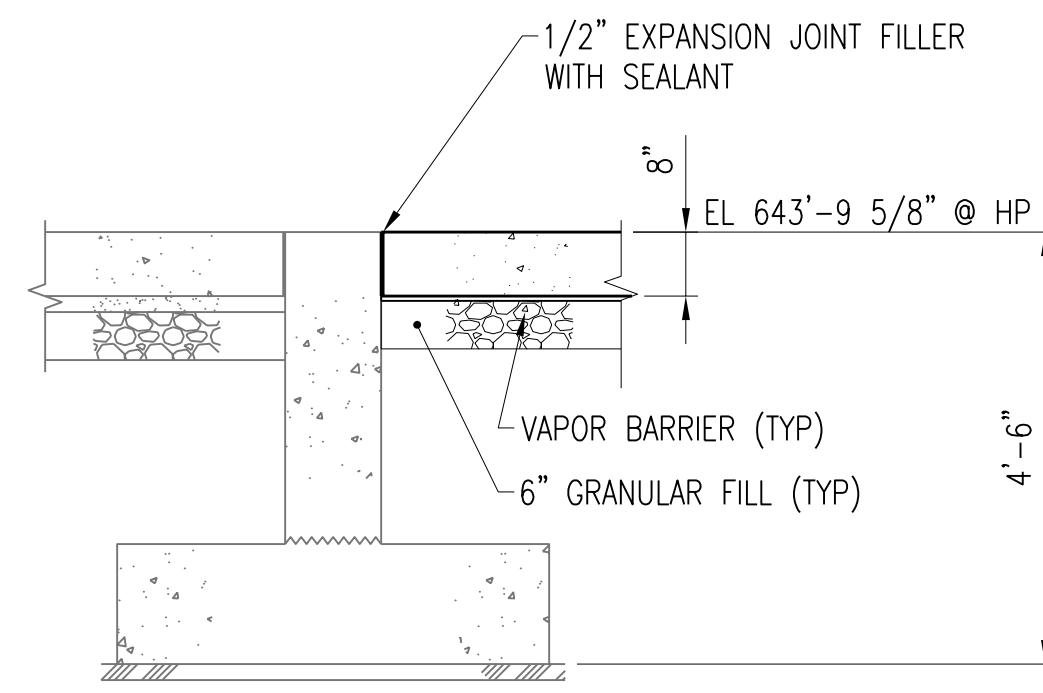
DESIGNED: KB HALL	SCALE: AS NOTED
DRAWN: DA SCHMIDT	NO. 22800
CHECKED: KB HALL	REV. 3
APPROVED: LH BADTRAM	
APPROVED: _____	
DATE: DECEMBER 2, 2011	



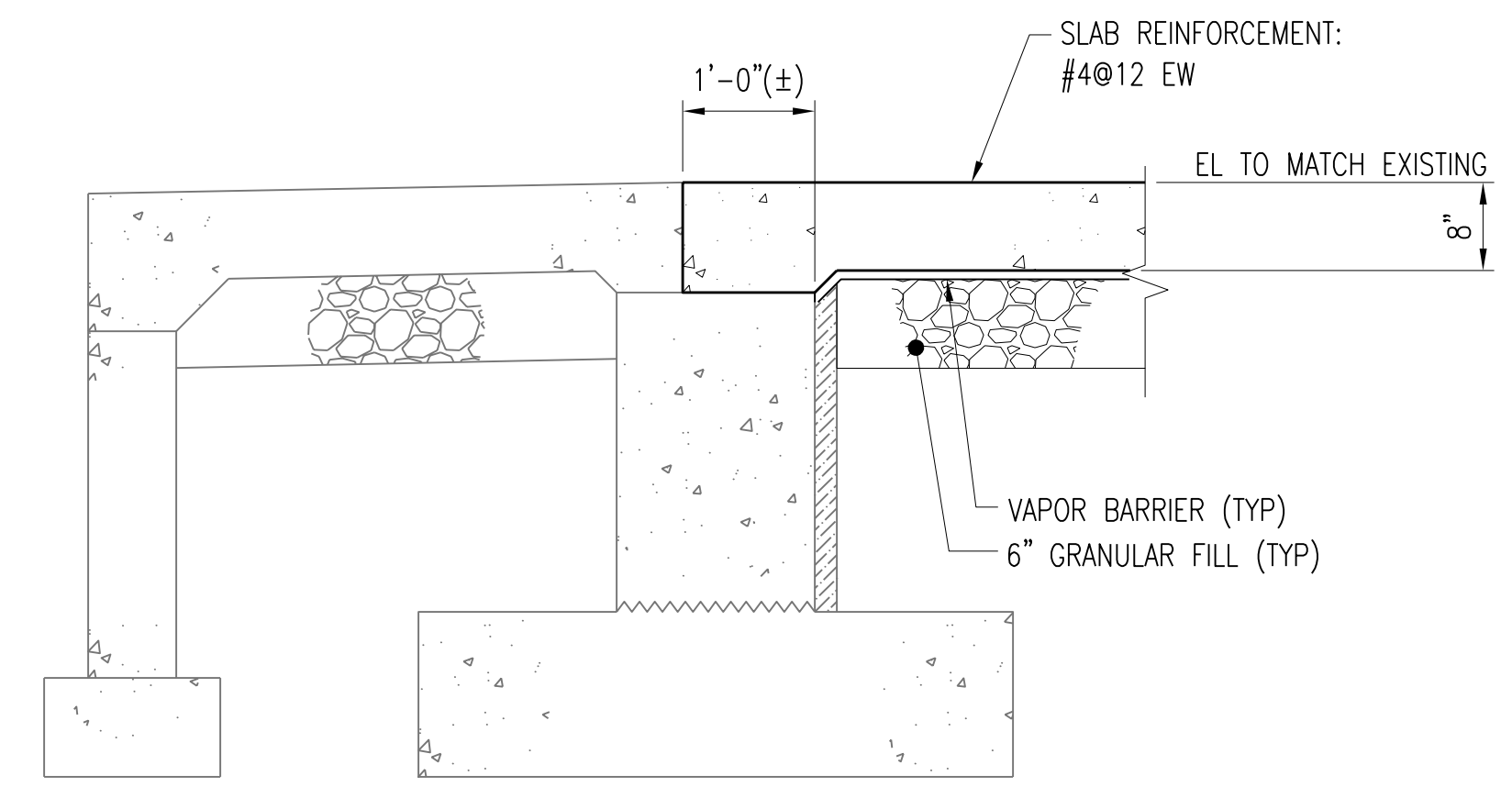
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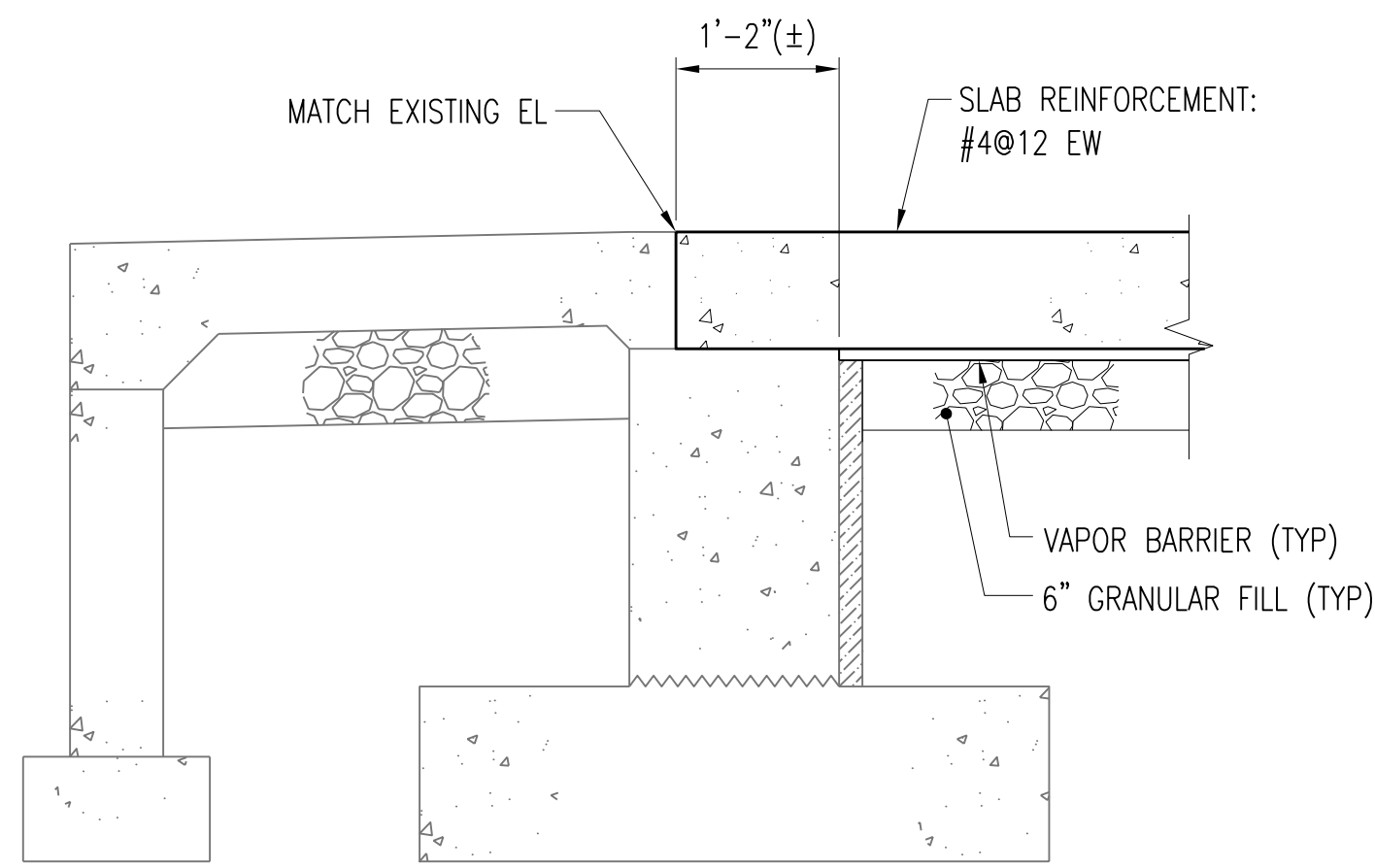
SECTION **A-S902**
S901
SCALE: 1/2" = 1'-0"



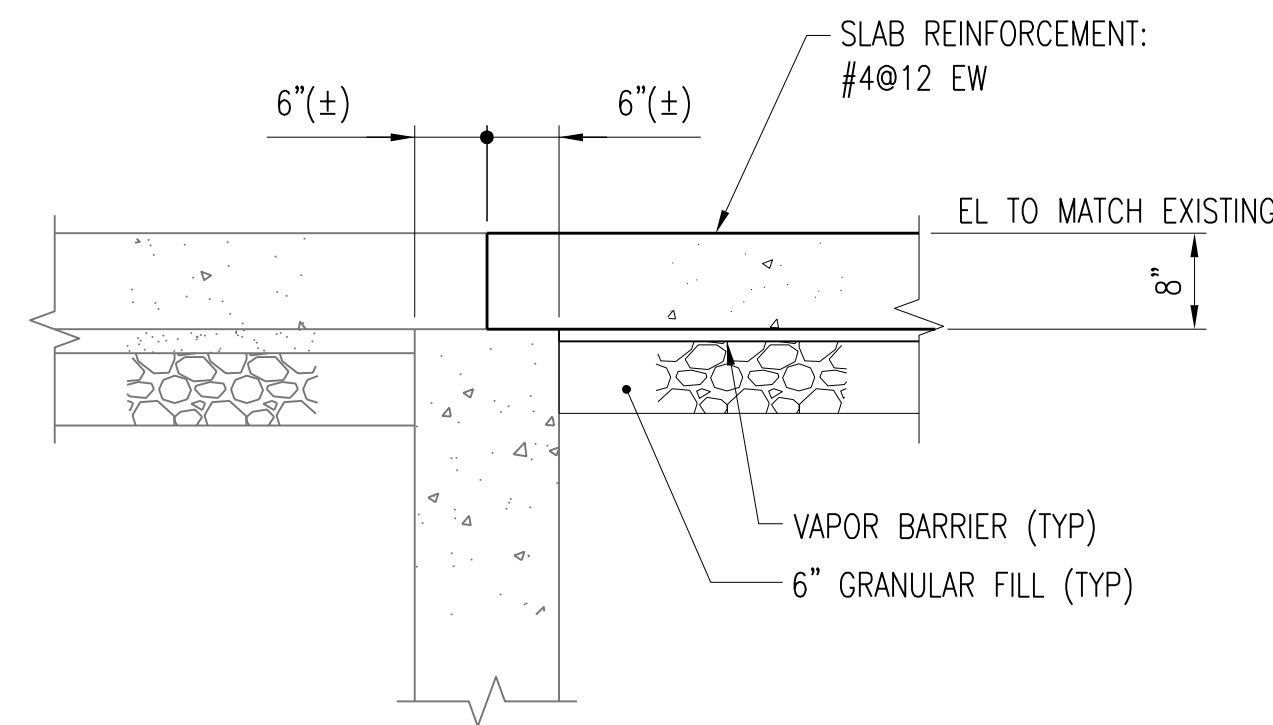
SECTION **B-S902**
S901
SCALE: 1/2" = 1'-0"



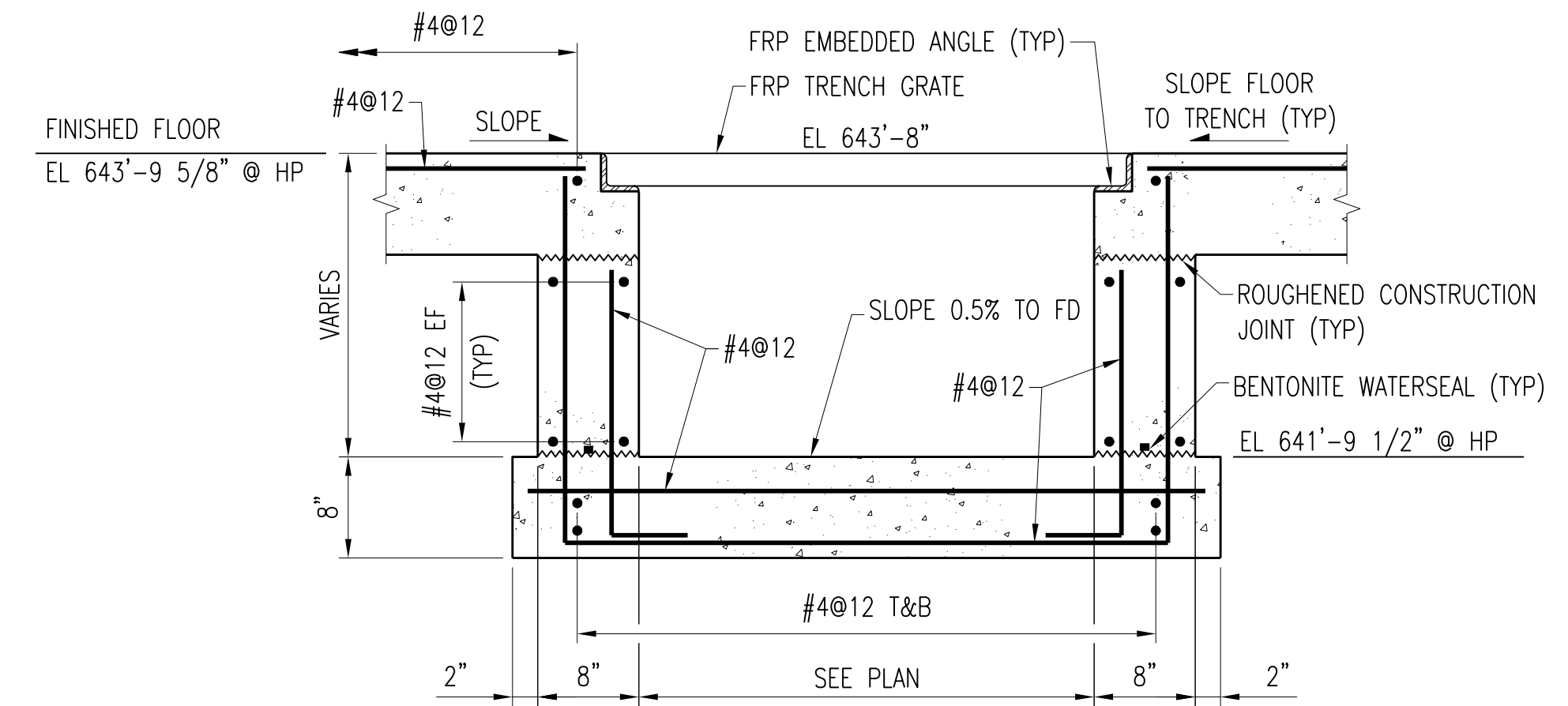
SECTION **C-S902**
S901
SCALE: 3/4" = 1'-0"



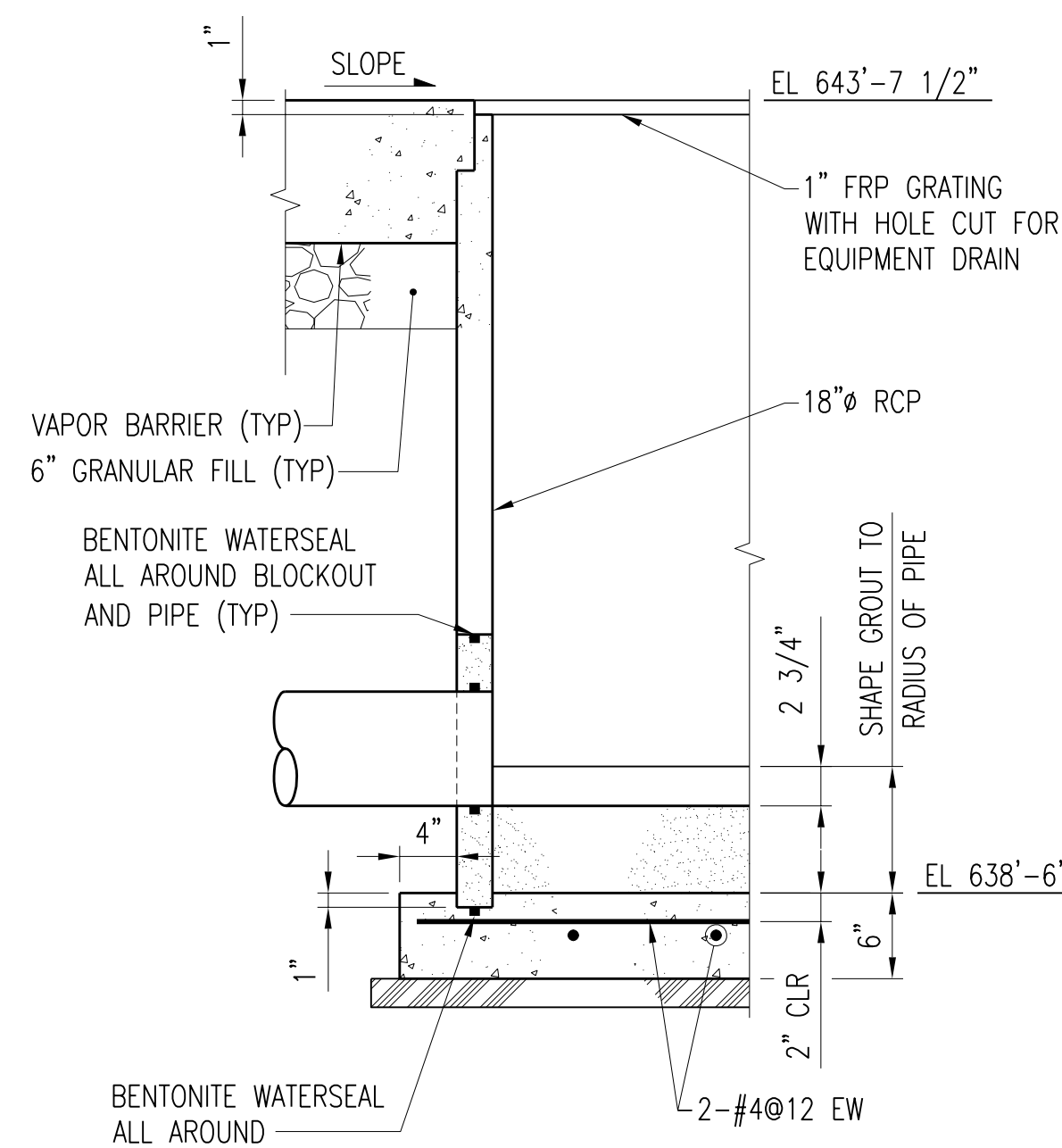
SECTION **D-S902**
S901
SCALE: 3/4" = 1'-0"



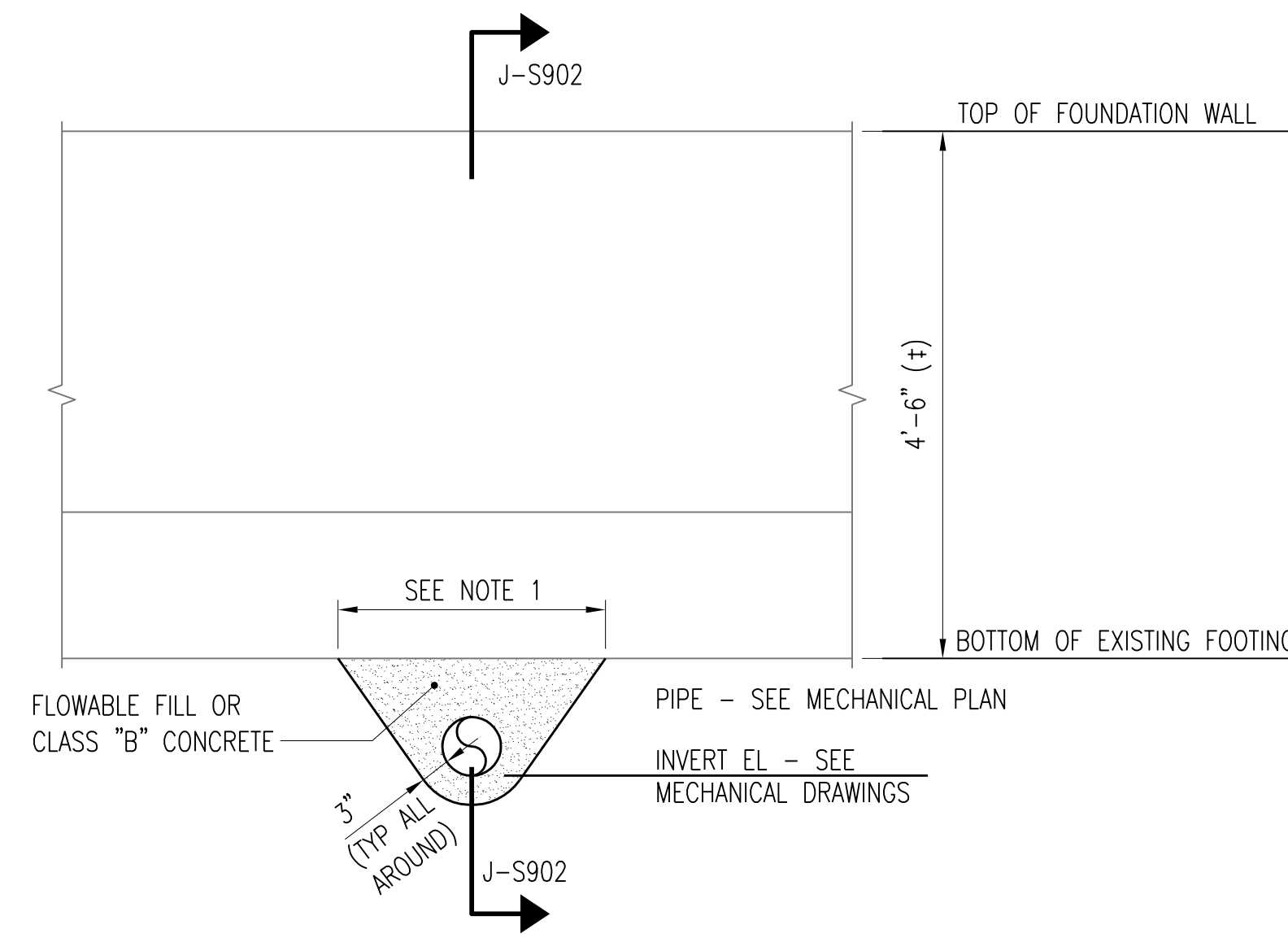
SECTION **E-S902**
S901
SCALE: 3/4" = 1'-0"



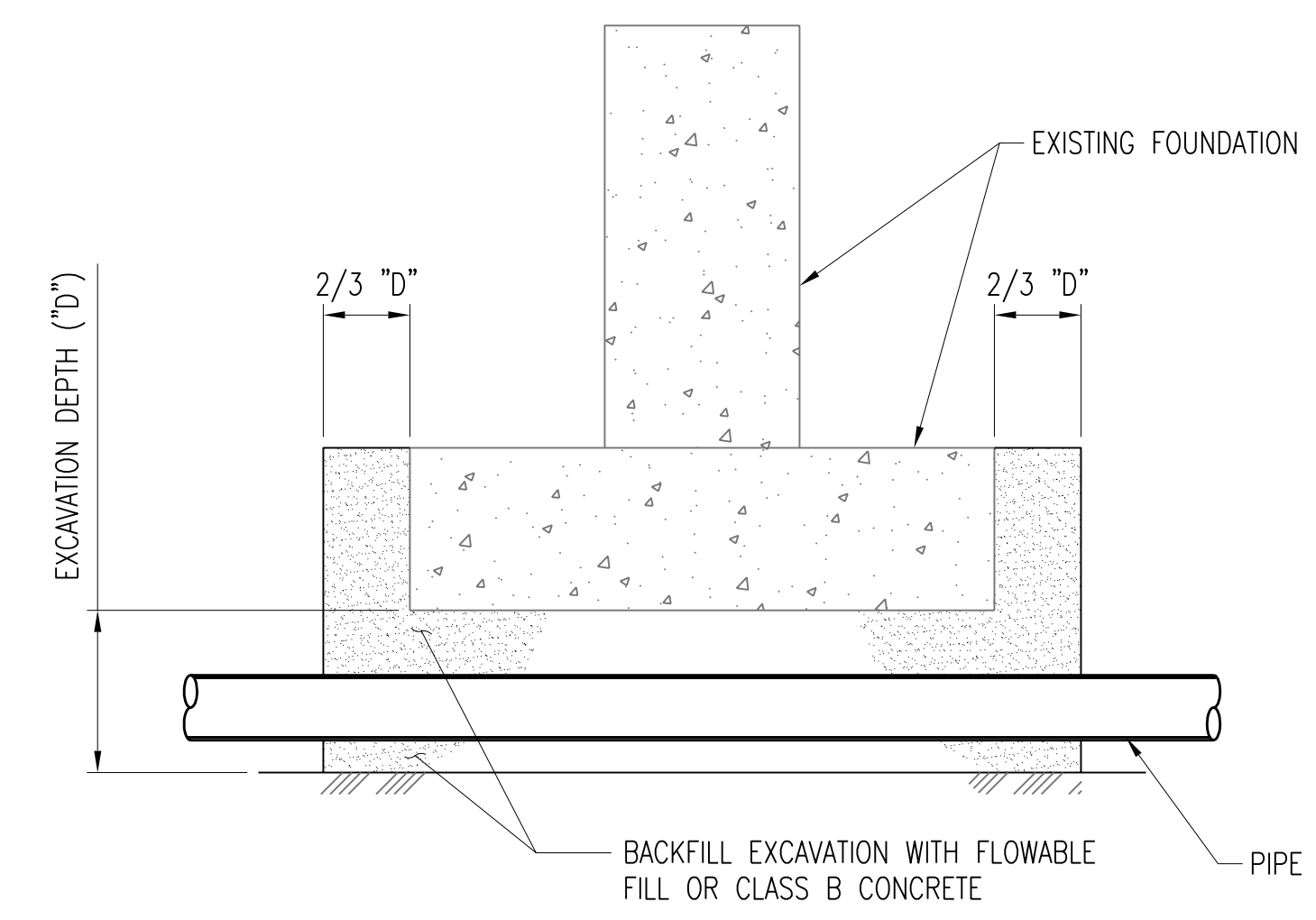
SECTION **F-S902**
S901
SCALE: 1" = 1'-0"



SECTION **G-S902**
S901
SCALE: 1" = 1'-0"

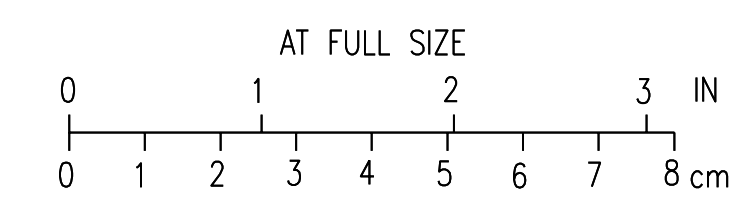


SECTION **H-S902**
S901
SCALE: 3/4" = 1'-0"



SECTION **J-S902**
S902
SCALE: 3/4" = 1'-0"

NOTES:
1. HAND EXCAVATE FOR PIPE PASSAGE TO MINIMIZE UNSUPPORTED FOOTING LENGTH. IF NEEDED, CONTRACTOR SHALL PROVIDE ADDITIONAL FOUNDATION SUPPORT TO ELIMINATE ANY FOUNDATION SETTLEMENT.



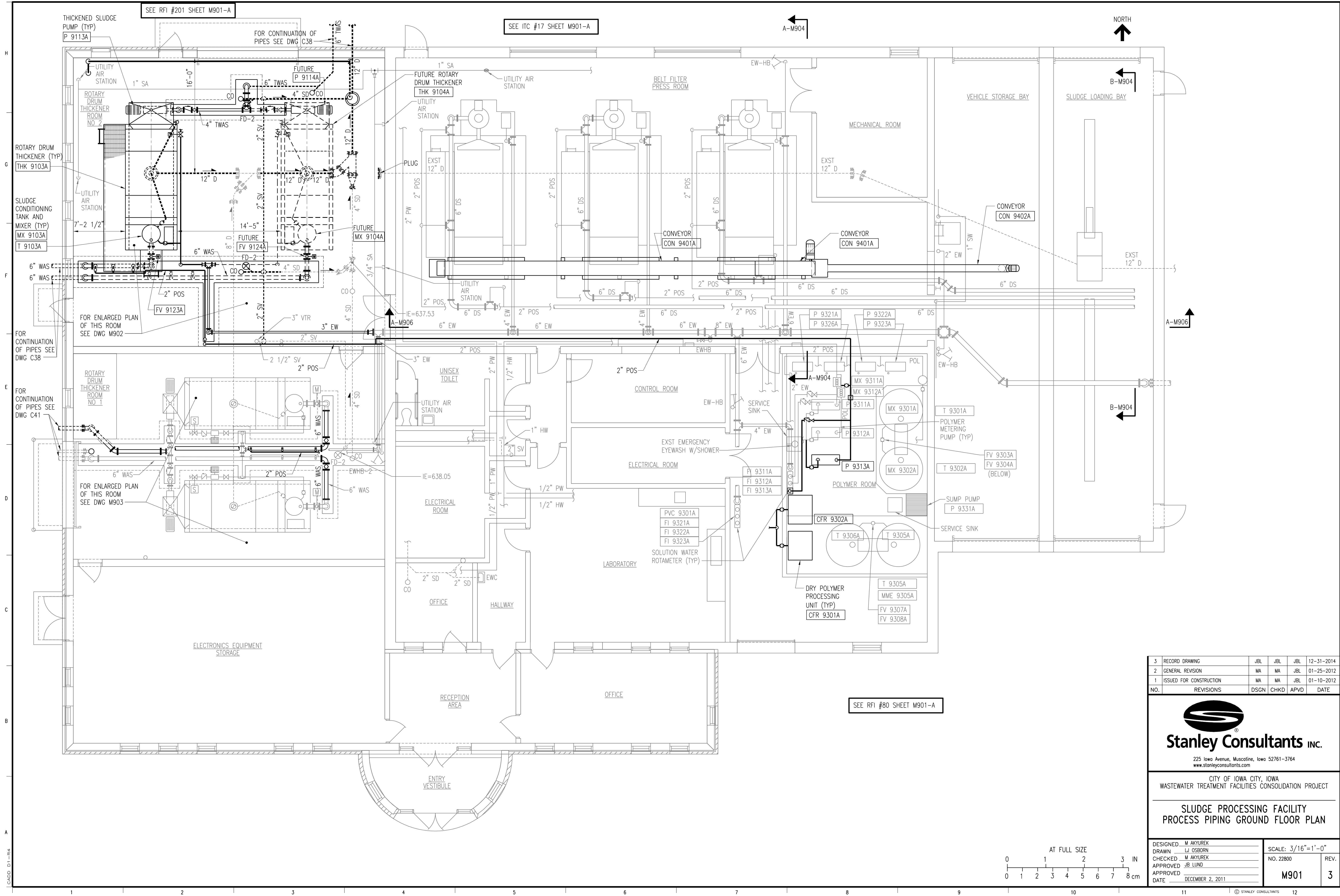
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED AND REISSUED	KBH	KBH	LHB	01-25-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SLUDGE PROCESSING FACILITY
DETAILS**

DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
APPROVED			
DATE	DECEMBER 2, 2011	S902	3

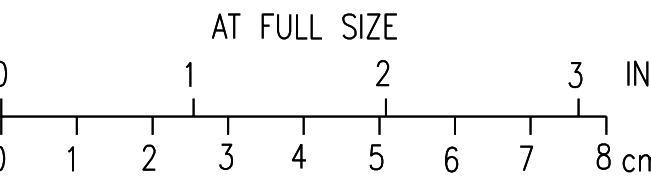


3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL REVISION	MA	MA	JBL	01-25-2012
1	ISSUED FOR CONSTRUCTION	MA	MA	JBL	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT
**SLUDGE PROCESSING FACILITY
 PROCESS PIPING GROUND FLOOR PLAN**

DESIGNED	M. AKYUREK	SCALE:	3/16"=1'-0"
DRAWN	L.J. OSBORN	NO.	22800
CHECKED	M. AKYUREK	REV.	
APPROVED	J.B. LUND		
APPROVED			
DATE	DECEMBER 2, 2011		



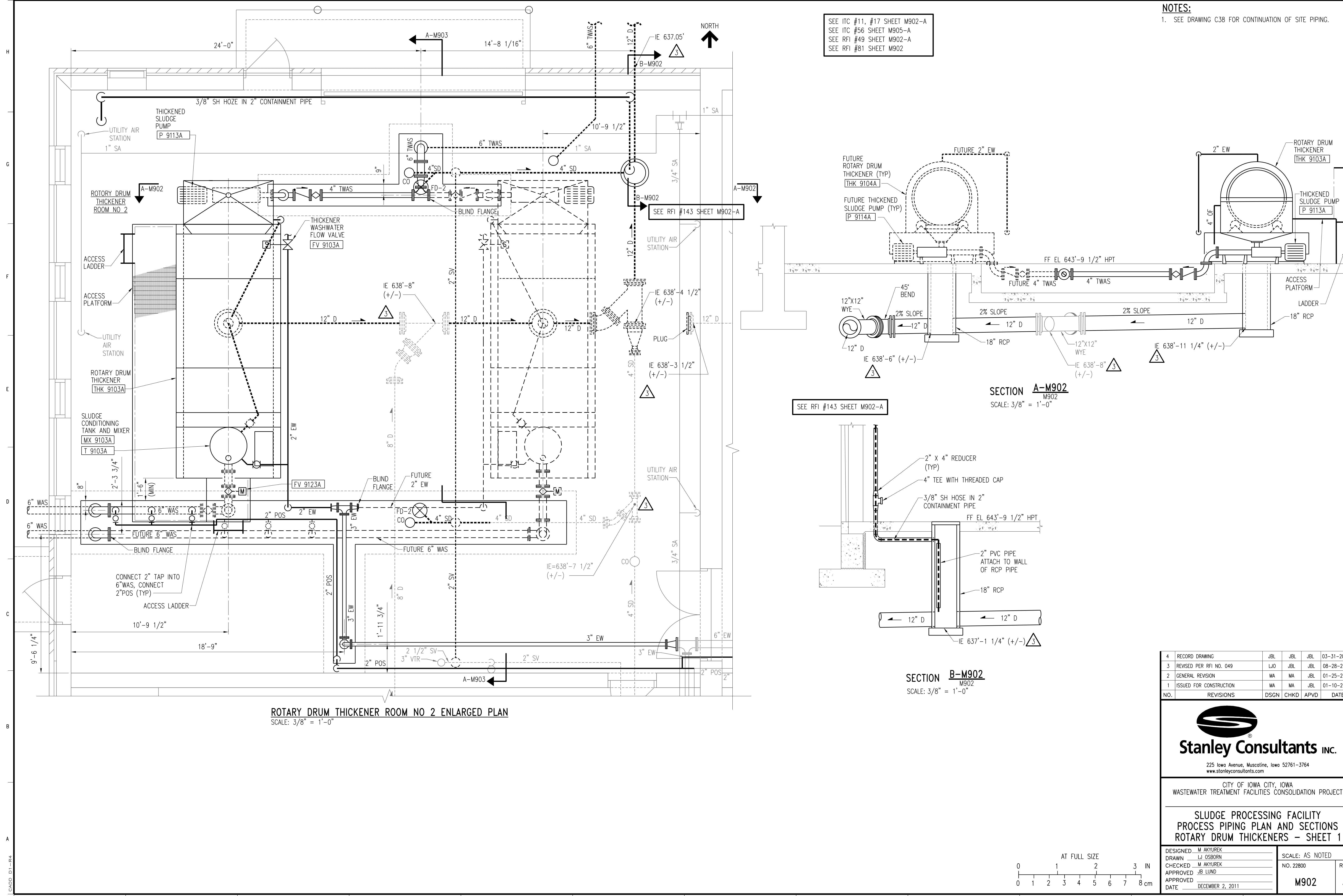
M901 **3**

CADD: D1-R4

NOTES:

1. SEE DRAWING C38 FOR CONTINUATION OF SITE PIPING.

SEE ITC #11, #17 SHEET M902-A
 SEE ITC #56 SHEET M905-A
 SEE RFI #49 SHEET M902-A
 SEE RFI #81 SHEET M902




ROTARY DRUM THICKENER ROOM NO 2 ENLARGED PLAN
 SCALE: 3/8" = 1'-0"

SECTION A-M902
 M902
 SCALE: 3/8" = 1'-0"

SECTION B-M902
 M902
 SCALE: 3/8" = 1'-0"

4	RECORD DRAWING	JBL	JBL	JBL	03-31-2014
3	REVISED PER RFI NO. 049	LJO	JBL	JBL	08-28-2012
2	GENERAL REVISION	MA	MA	JBL	01-25-2012
1	ISSUED FOR CONSTRUCTION	MA	MA	JBL	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



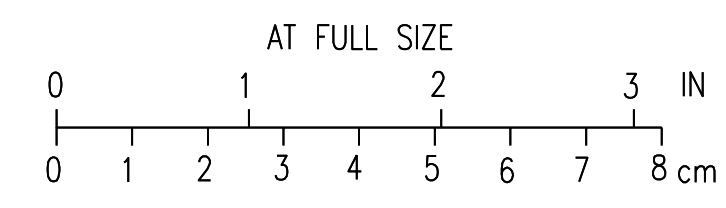
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CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

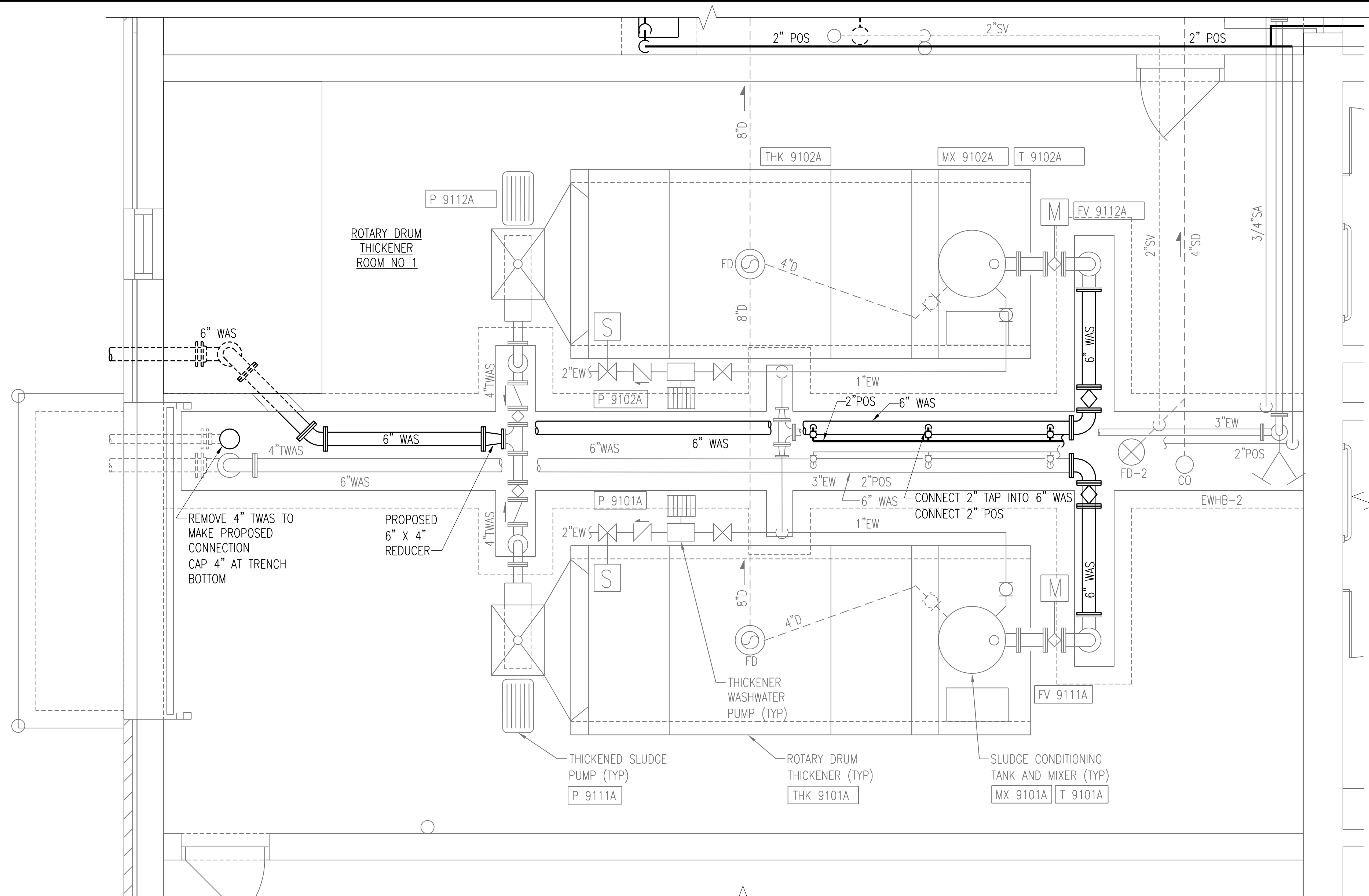
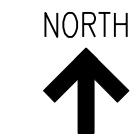
**SLUDGE PROCESSING FACILITY
 PROCESS PIPING PLAN AND SECTIONS
 ROTARY DRUM THICKENERS - SHEET 1**

DESIGNED	M. AKYUREK	SCALE:	AS NOTED
DRAWN	L.J. OSBORN	NO.	22800
CHECKED	M. AKYUREK	REV.	
APPROVED	J.B. LUND		
APPROVED			
DATE	DECEMBER 2, 2011	M902	3

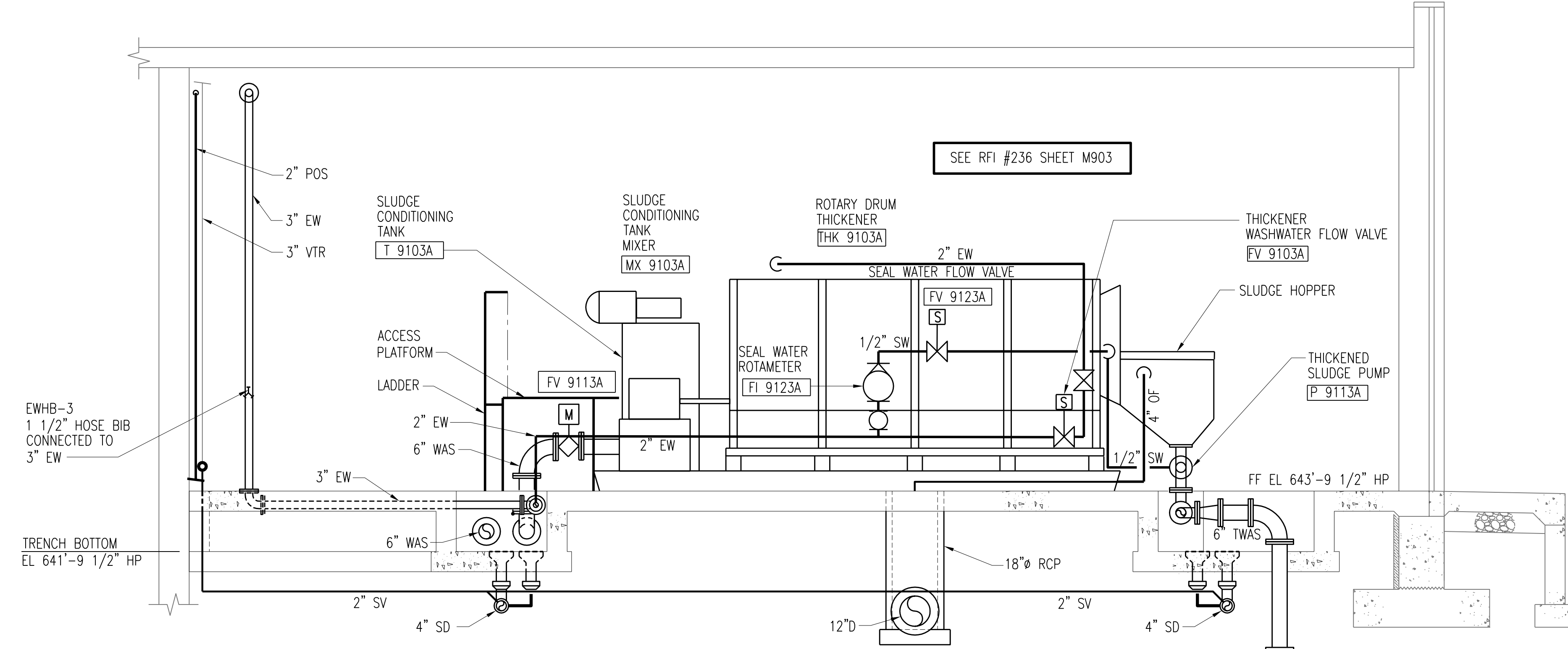


CADD: D1-1-R4

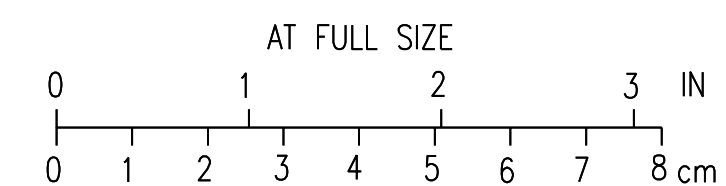
SEE ITC #17 SHEET M903-A
SEE RFI #80 SHEET M903-A



ROTARY DRUM THICKENER ROOM NO 1 ENLARGED PLAN
SCALE: 3/8" = 1'-0"



SECTION A-M903
SCALE: 3/8" = 1'-0"



3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL REVISION	MA	MA	JBL	01-25-2012
1	ISSUED FOR CONSTRUCTION	MA	MA	JBL	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

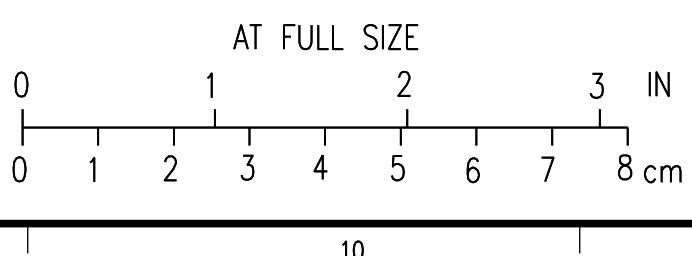
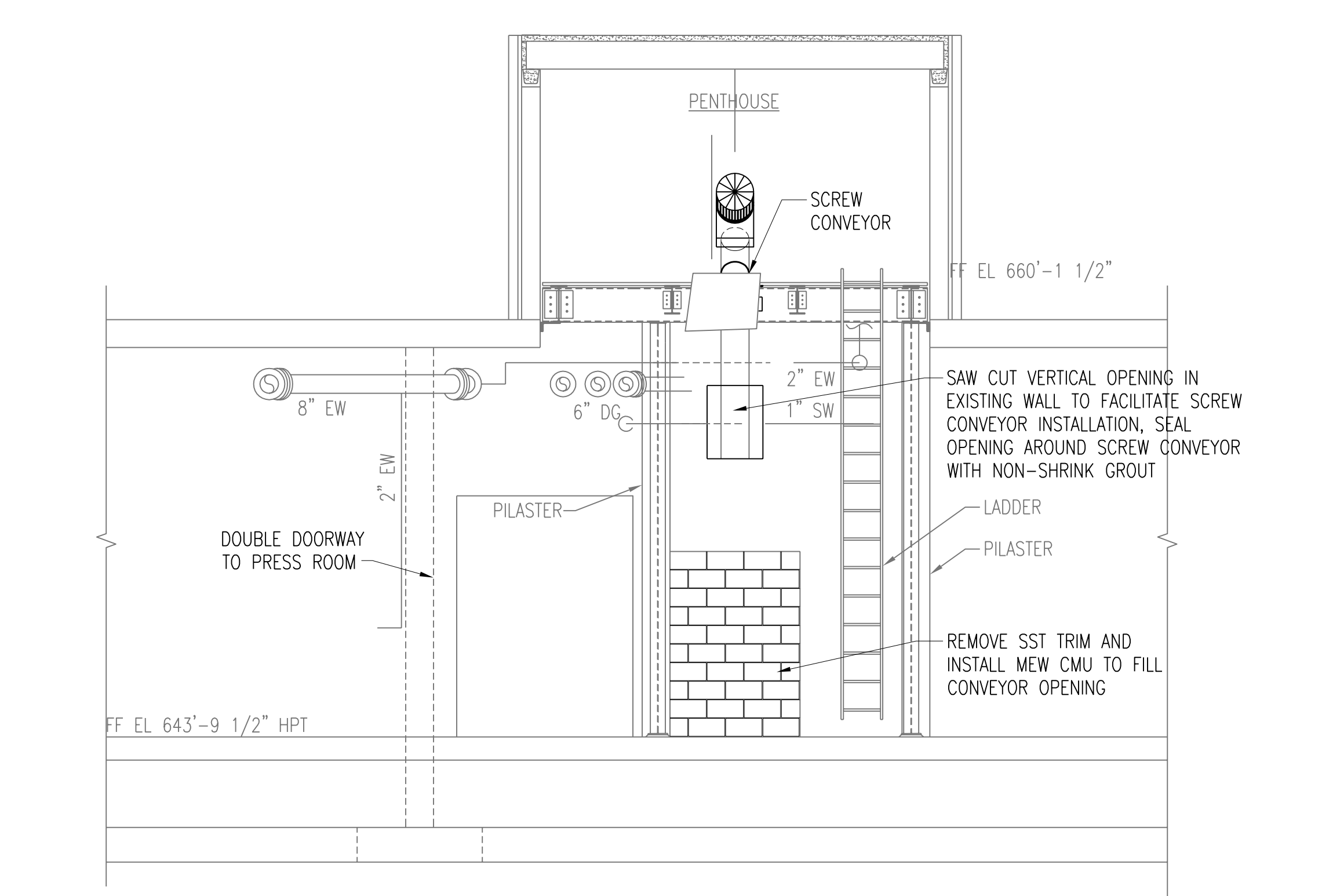
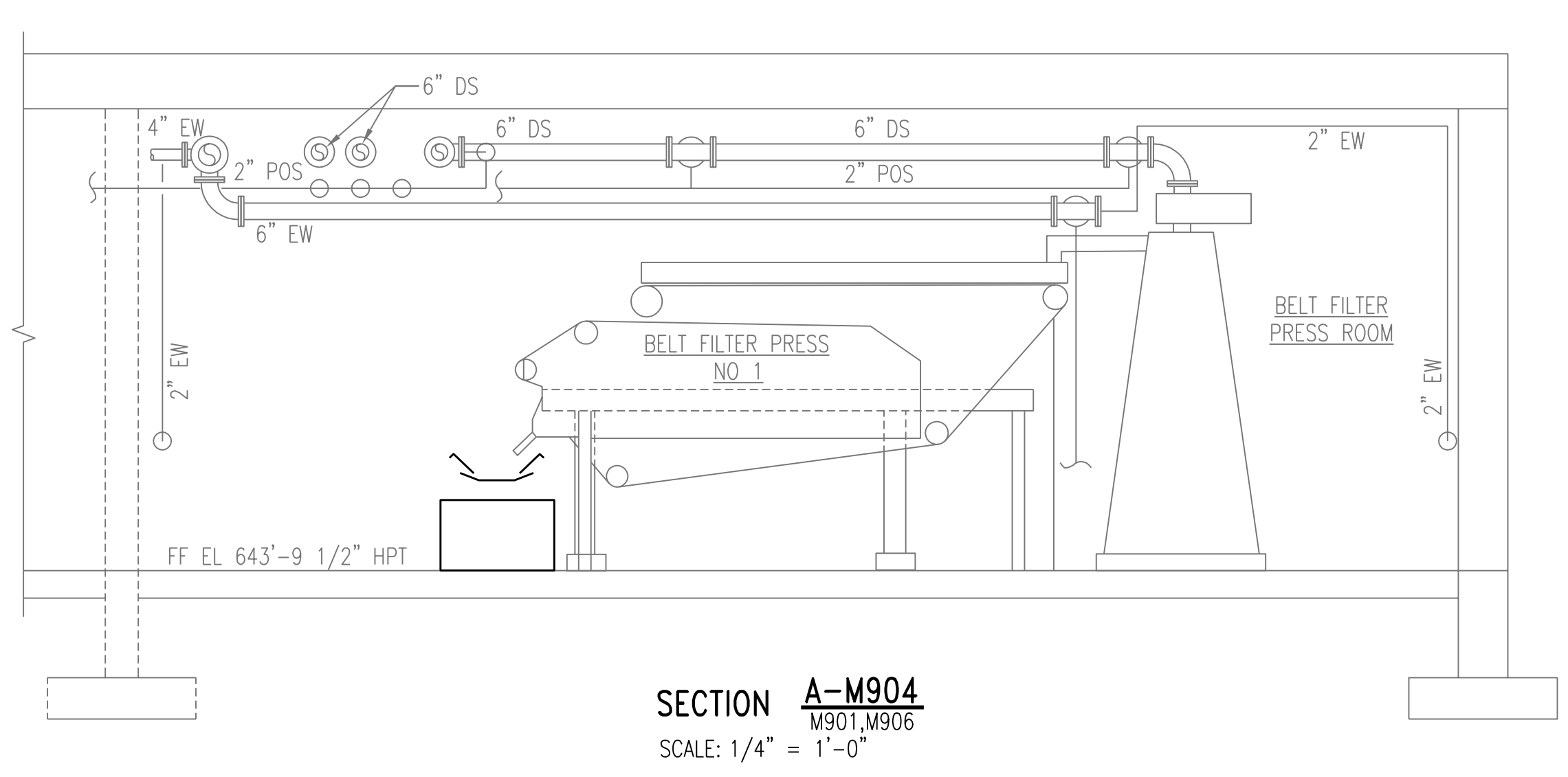
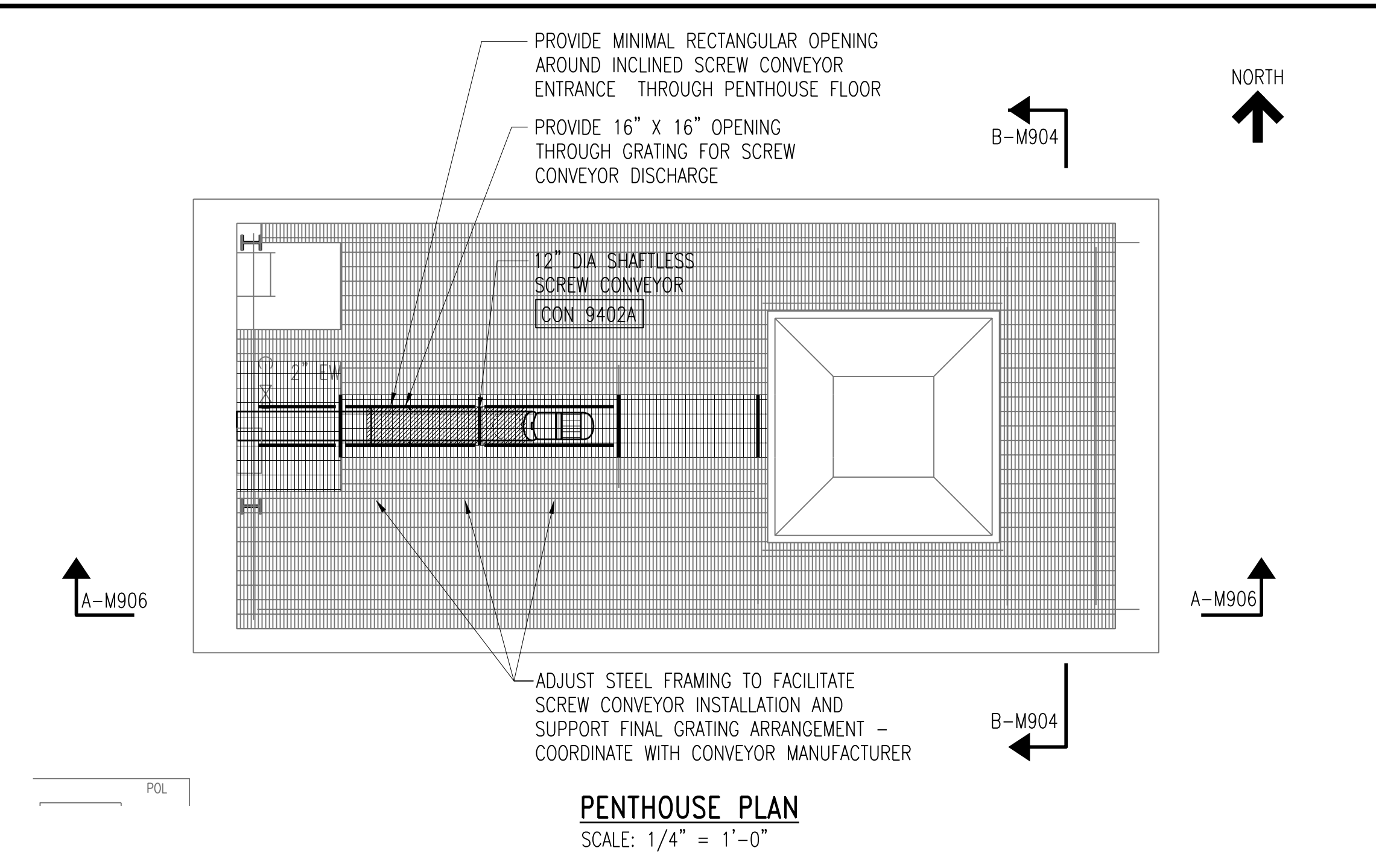
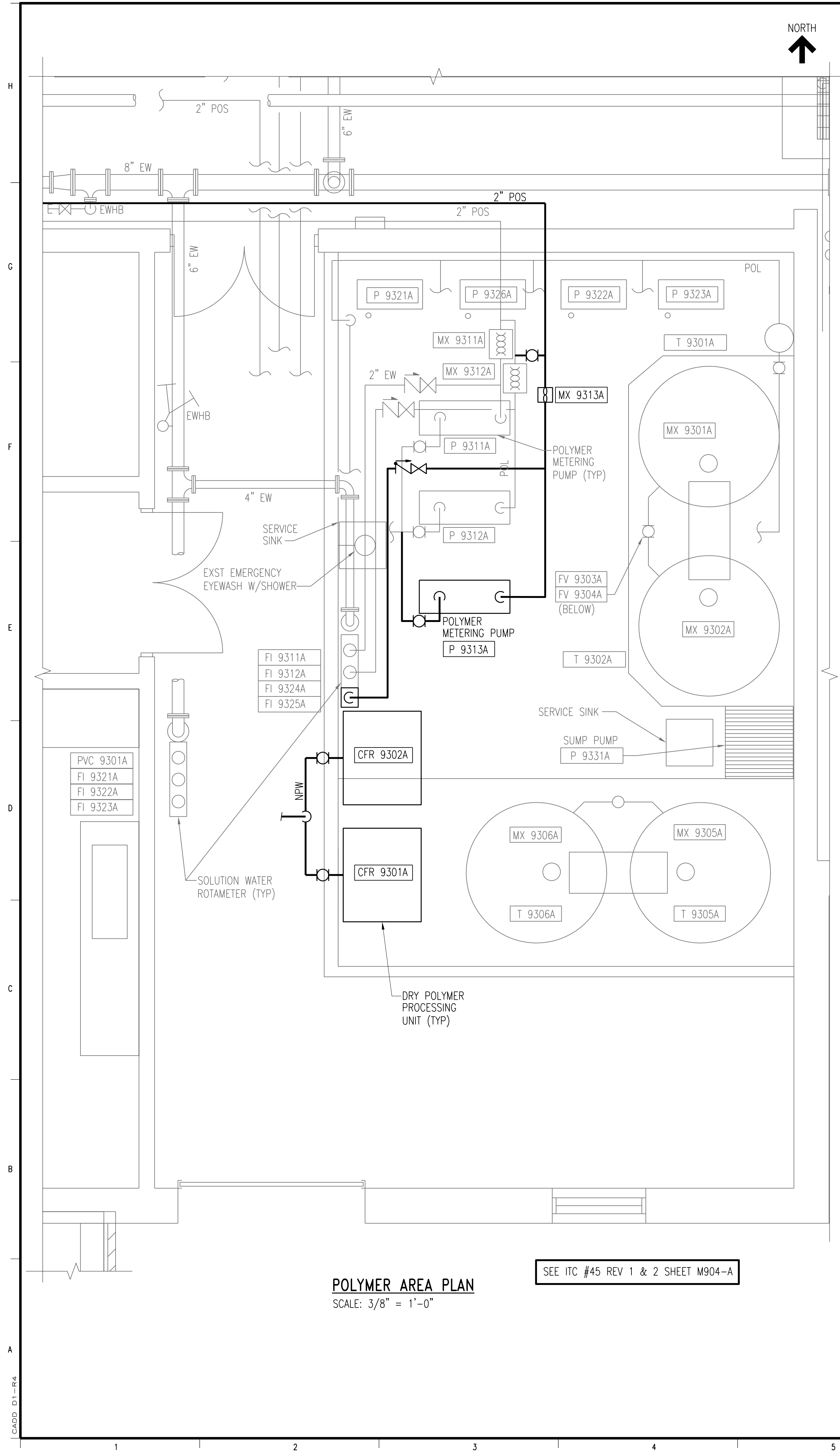

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WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

SLUDGE PROCESSING FACILITY
PROCESS PIPING PLAN AND SECTIONS
ROTARY DRUM THICKENERS - SHEET 2

DESIGNED	M. AKYUREK	SCALE:	AS NOTED	REV. M903 3
DRAWN	L.J. OSBORN	NO.	22800	
CHECKED	M. AKYUREK	DATE	DECEMBER 2, 2011	
APPROVED	J.B. LUND			
DATE	DECEMBER 2, 2011			

CADD: D1-184



2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	MA	MA	JBL	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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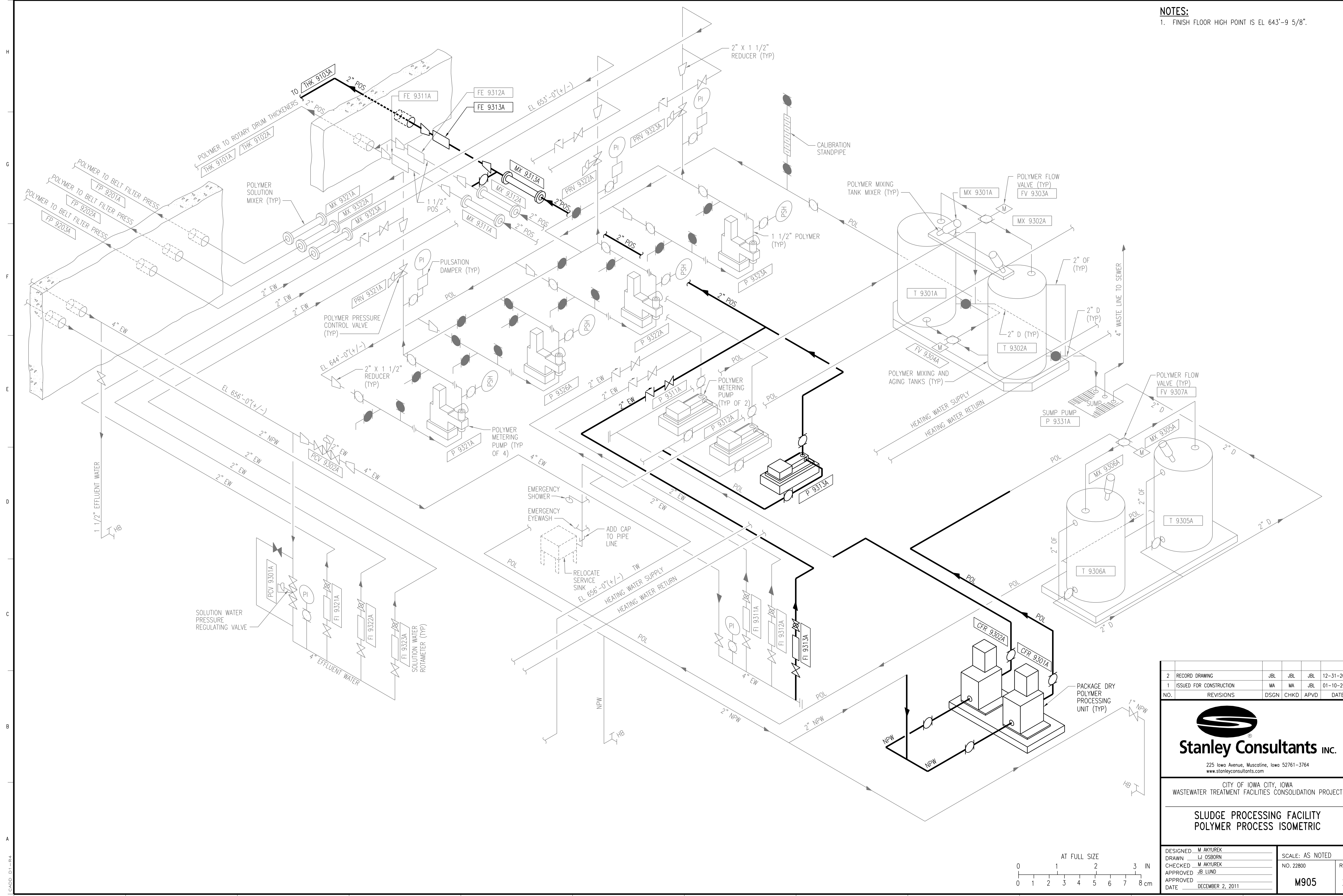
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SLUDGE PROCESSING FACILITY
PROCESS PIPING PLANS AND DETAILS**

DESIGNED	M. AKYUREK	SCALE:	AS NOTED
DRAWN	L.J. OSBORN	NO.	22800
CHECKED	M. AKYUREK	REV.	
APPROVED	J.B. LUND		
APPROVED			
DATE	DECEMBER 2, 2011	M904	2

CADD D1-184

NOTES:
 1. FINISH FLOOR HIGH POINT IS EL 643'-9 5/8".



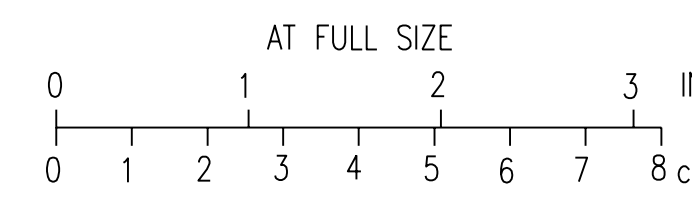
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1	ISSUED FOR CONSTRUCTION	MA	MA	JBL	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

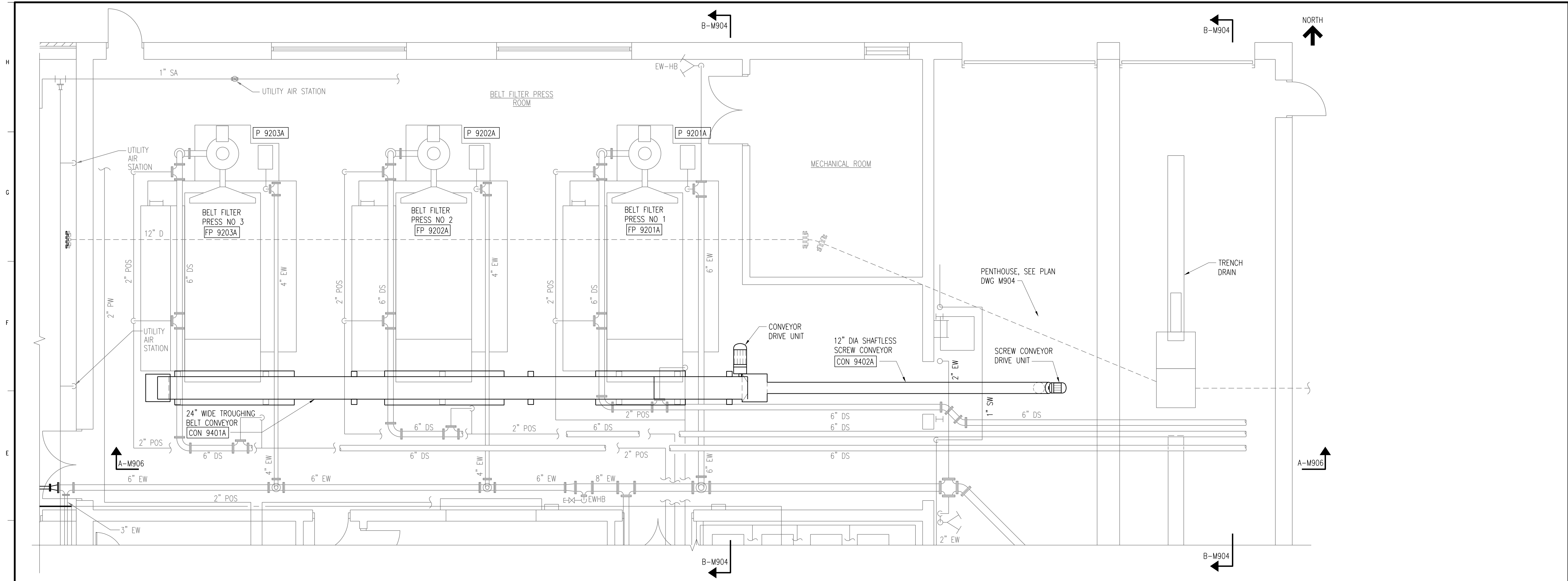
**SLUDGE PROCESSING FACILITY
 POLYMER PROCESS ISOMETRIC**

DESIGNED	M. AKYUREK	SCALE:	AS NOTED
DRAWN	L.J. OSBORN	NO.	22800
CHECKED	M. AKYUREK	REV.	
APPROVED	J.B. LUND		
APPROVED			
DATE	DECEMBER 2, 2011		

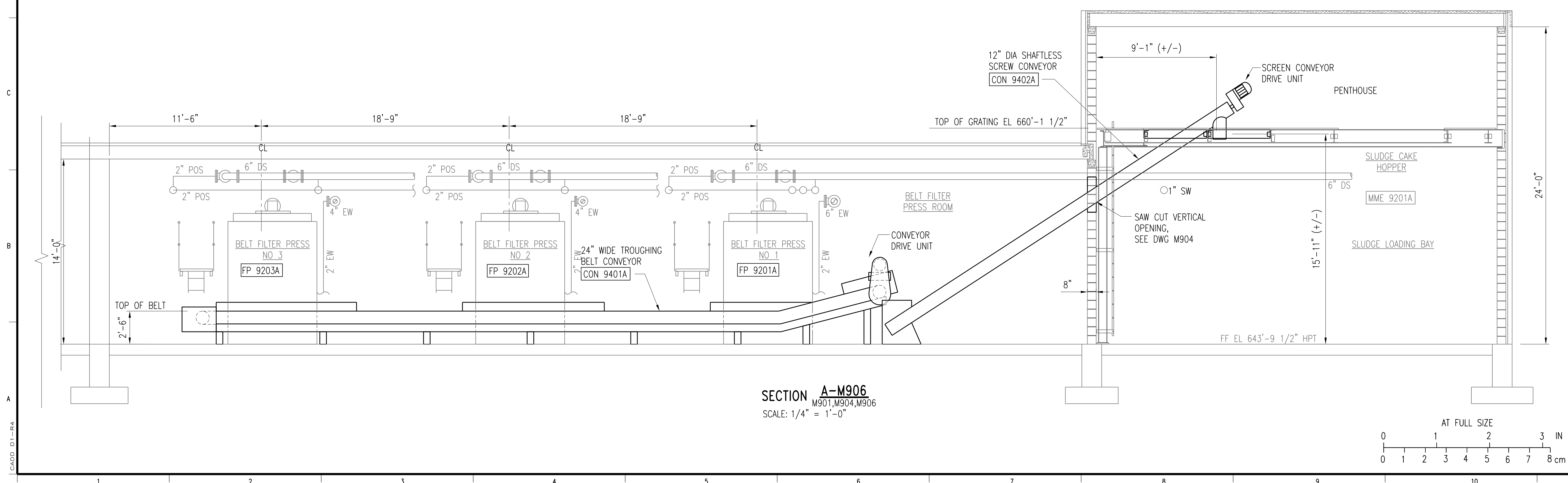


CADD: D1-184

11



ENLARGED PLAN - BELT FILTER PRESS ROOM
SCALE: 1/4" = 1'-0"



SECTION A-M906
M901, M904, M906
SCALE: 1/4" = 1'-0"

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	MA	MA	JBL	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

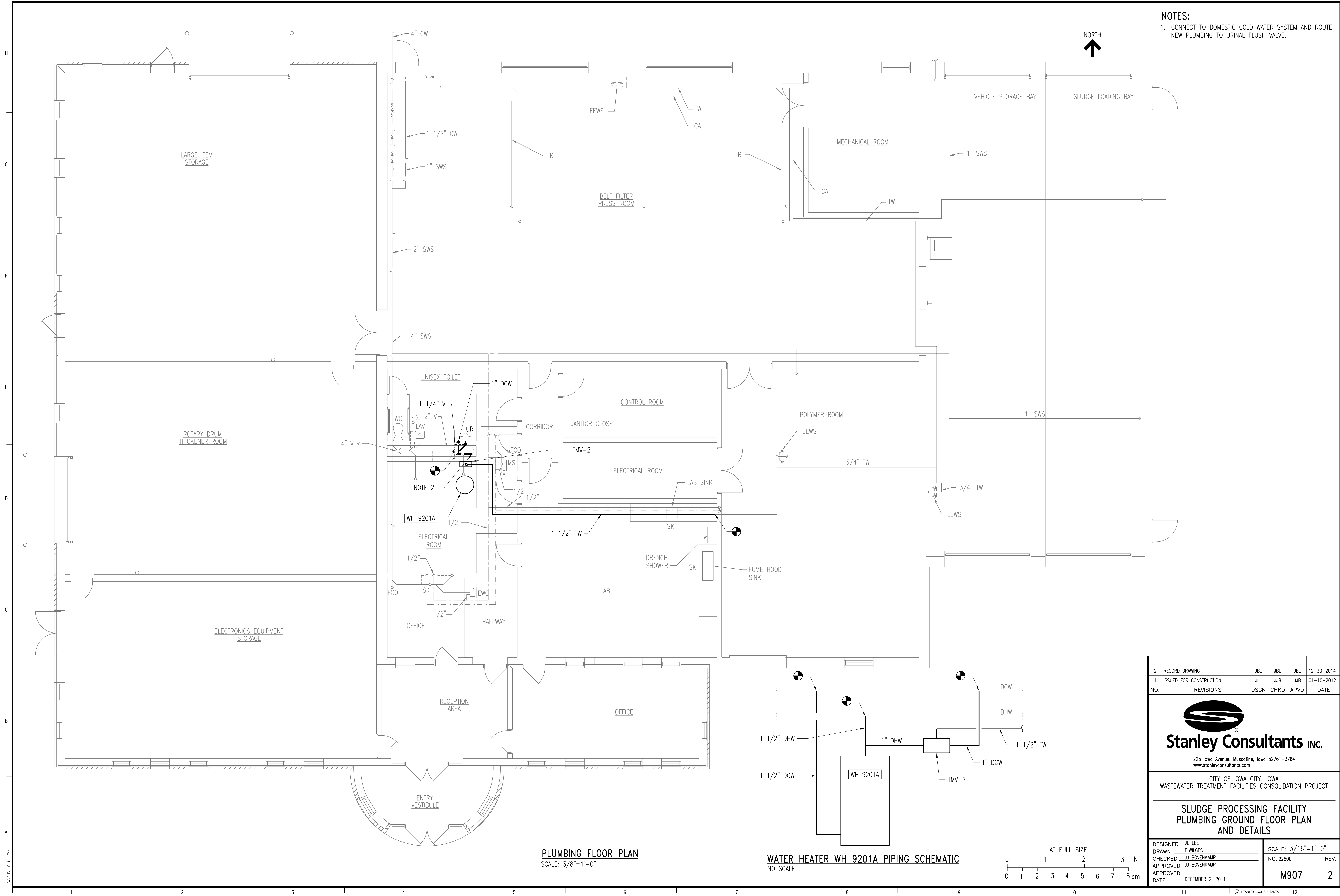
**SLUDGE PROCESSING FACILITY
PROCESS PIPING PLAN AND SECTION
CONVEYOR REPLACEMENT**

DESIGNED	M. AKYUREK	SCALE:	AS NOTED
DRAWN	L.J. OSBORN	NO.	22800
CHECKED	M. AKYUREK	REV.	
APPROVED	J.B. LUND		
APPROVED			
DATE	DECEMBER 2, 2011	M906	2

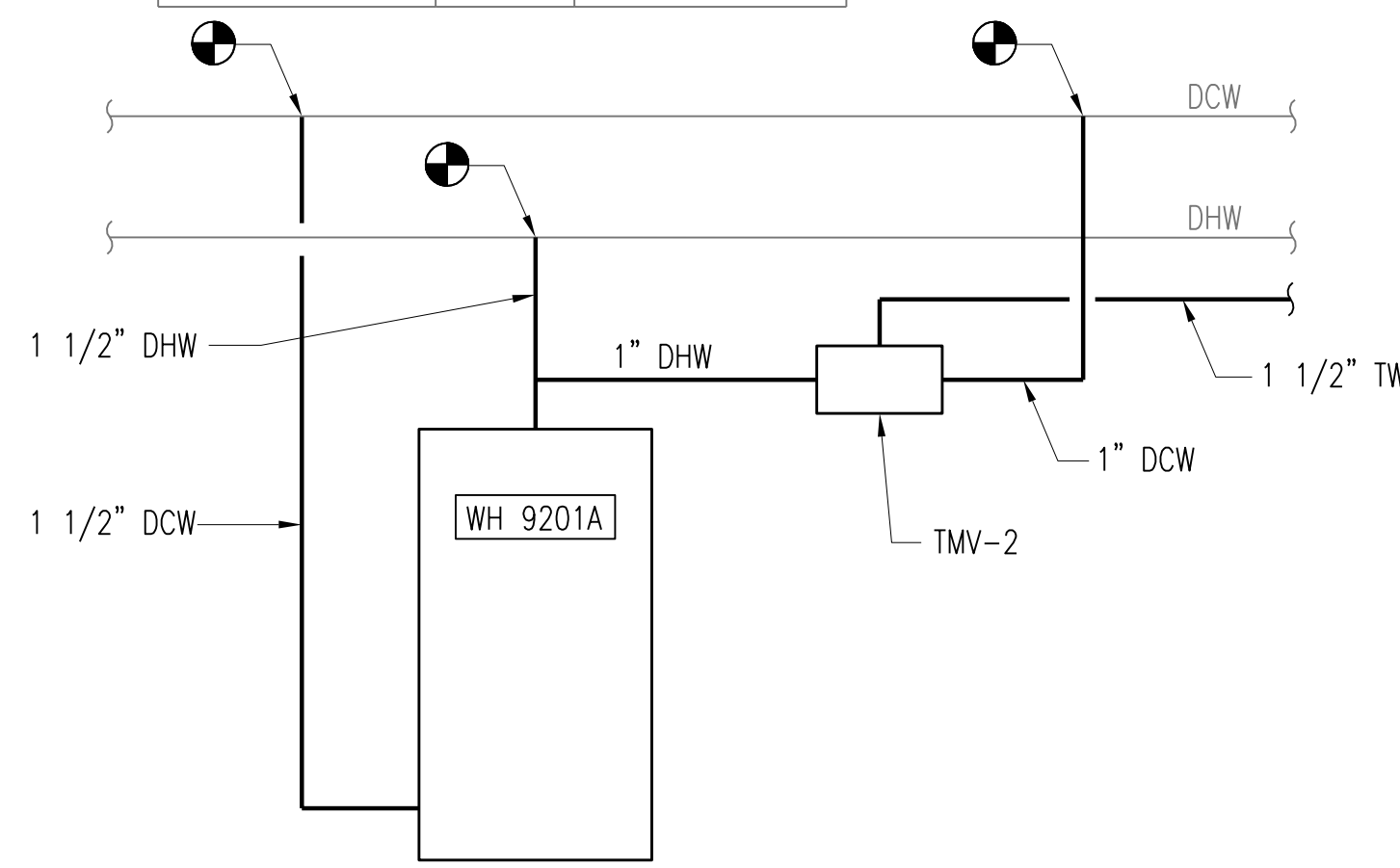


CADD: D1-R4

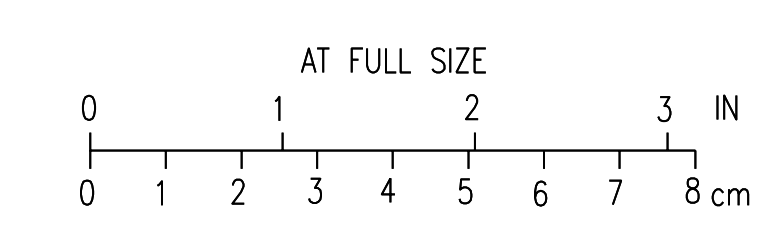
NOTES:
 1. CONNECT TO DOMESTIC COLD WATER SYSTEM AND ROUTE NEW PLUMBING TO URINAL FLUSH VALVE.



PLUMBING FLOOR PLAN
 SCALE: 3/8"=1'-0"



WATER HEATER WH 9201A PIPING SCHEMATIC
 NO SCALE



2	RECORD DRAWING	JBL	JBL	JBL	12-30-2014
1	ISSUED FOR CONSTRUCTION	JLL	JJB	JJB	01-10-2012
NO.	REVISIONS	DGN	CHKD	APVD	DATE

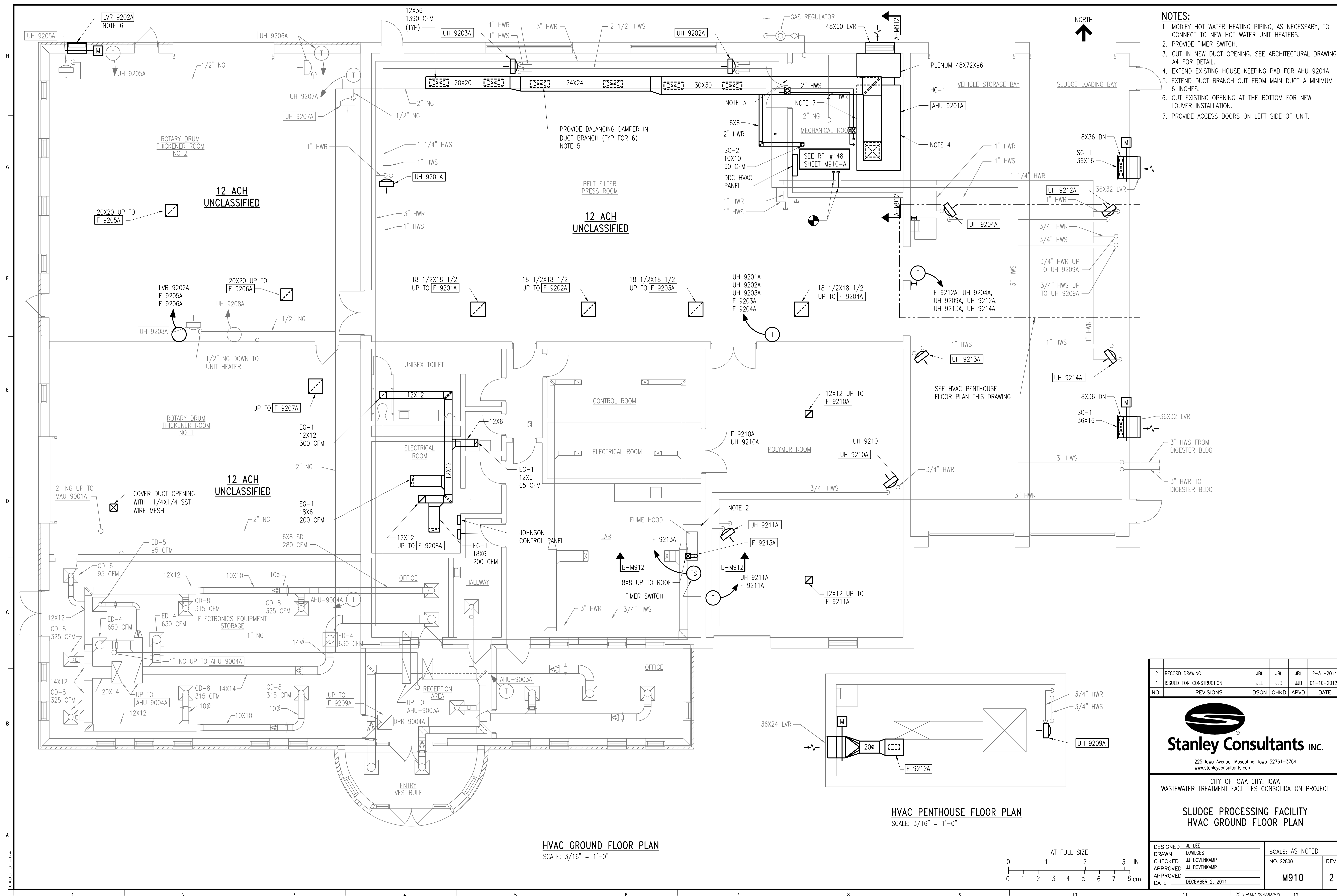
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CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SLUDGE PROCESSING FACILITY
 PLUMBING GROUND FLOOR PLAN
 AND DETAILS**

DESIGNED	JL LEE	SCALE:	3/16"=1'-0"
DRAWN	D. WILGES	NO.	22800
CHECKED	JJ BOVENKAMP	REV.	
APPROVED	JJ BOVENKAMP		
APPROVED			
DATE	DECEMBER 2, 2011	M907	2

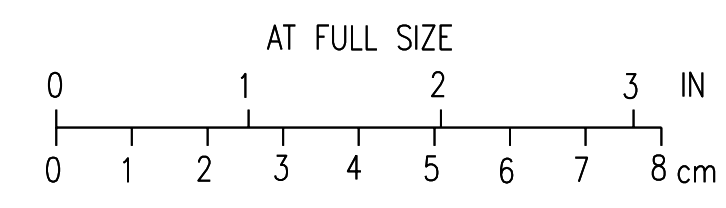
CADD: D1-R4



- NOTES:**
1. MODIFY HOT WATER HEATING PIPING, AS NECESSARY, TO CONNECT TO NEW HOT WATER UNIT HEATERS.
 2. PROVIDE TIMER SWITCH.
 3. CUT IN NEW DUCT OPENING. SEE ARCHITECTURAL DRAWING A4 FOR DETAIL.
 4. EXTEND EXISTING HOUSE KEEPING PAD FOR AHU 9201A.
 5. EXTEND DUCT BRANCH OUT FROM MAIN DUCT A MINIMUM 6 INCHES.
 6. CUT EXISTING OPENING AT THE BOTTOM FOR NEW LOUVER INSTALLATION.
 7. PROVIDE ACCESS DOORS ON LEFT SIDE OF UNIT.

HVAC GROUND FLOOR PLAN
SCALE: 3/16" = 1'-0"

HVAC PENTHOUSE FLOOR PLAN
SCALE: 3/16" = 1'-0"



2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JLL	JJB	JJB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SLUDGE PROCESSING FACILITY
HVAC GROUND FLOOR PLAN**

DESIGNED	JL LEE	SCALE:	AS NOTED	REV.	
DRAWN	D. WILGES	NO.	22800		
CHECKED	JJ BOVENKAMP				
APPROVED	JJ BOVENKAMP				
APPROVED					
DATE	DECEMBER 2, 2011				

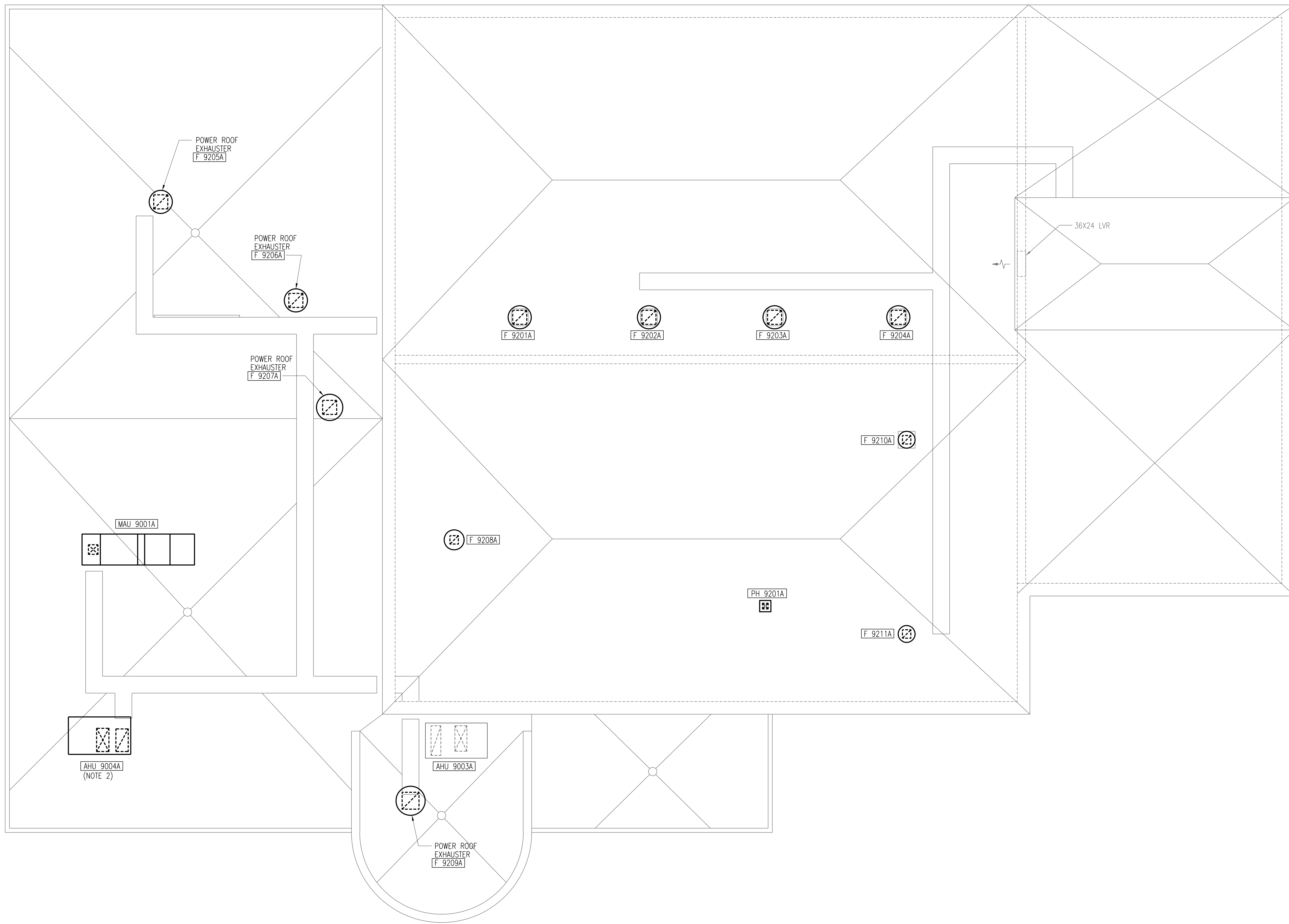
M910

2

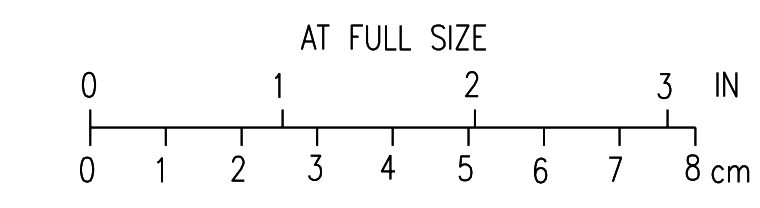
CADD: D1-R4



- NOTES:**
1. PROVIDE ROOF CURB ADAPTER TO MATCH PRE-EXISTING ROOF CURBS FOR ALL NEW EQUIPMENT ON ROOF.
 2. DISCHARGE CONDENSATE ONTO ROOF.



HVAC ROOF PLAN
SCALE: 3/16" = 1'-0"



2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JLL	JJB	JJB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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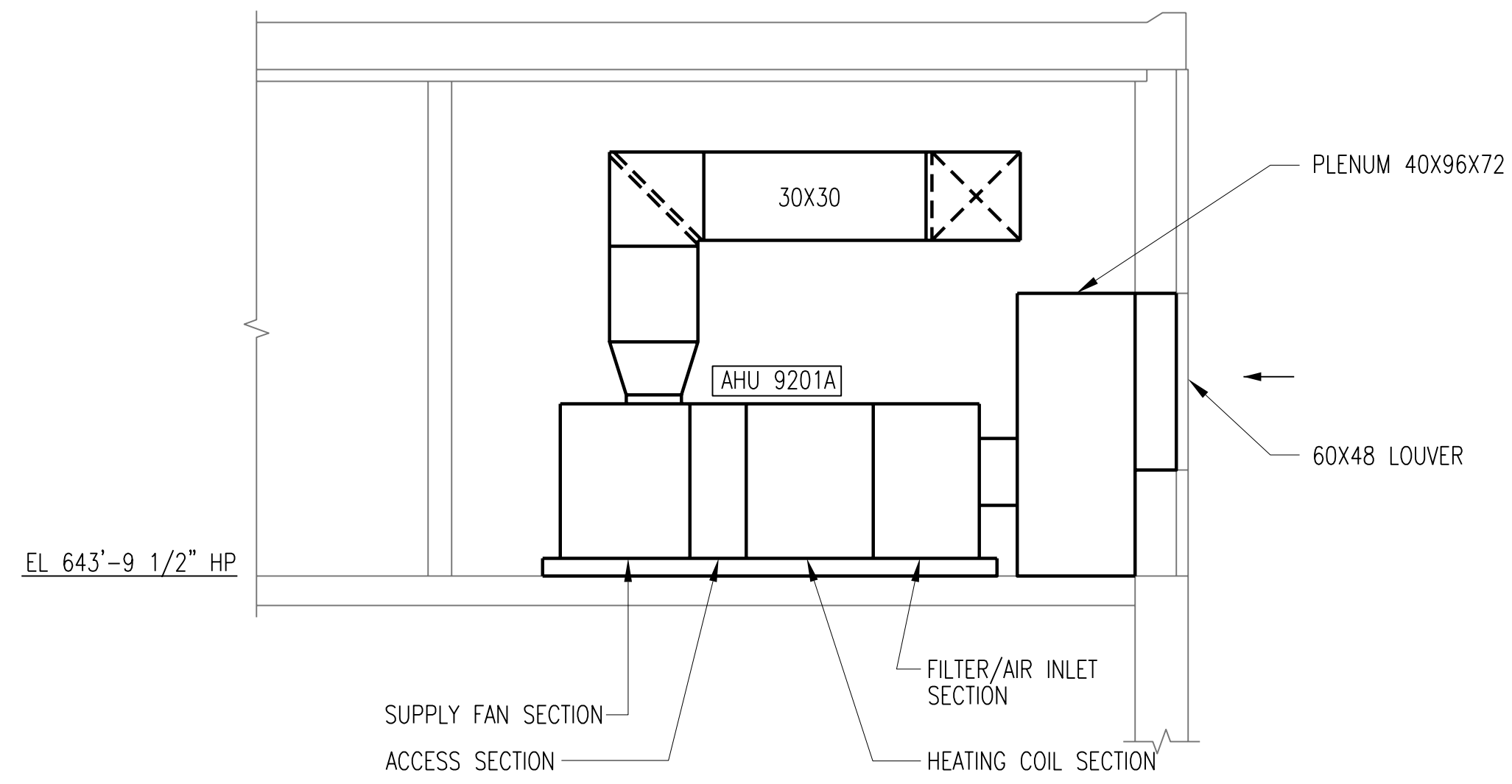
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SLUDGE PROCESSING FACILITY
HVAC ROOF PLAN**

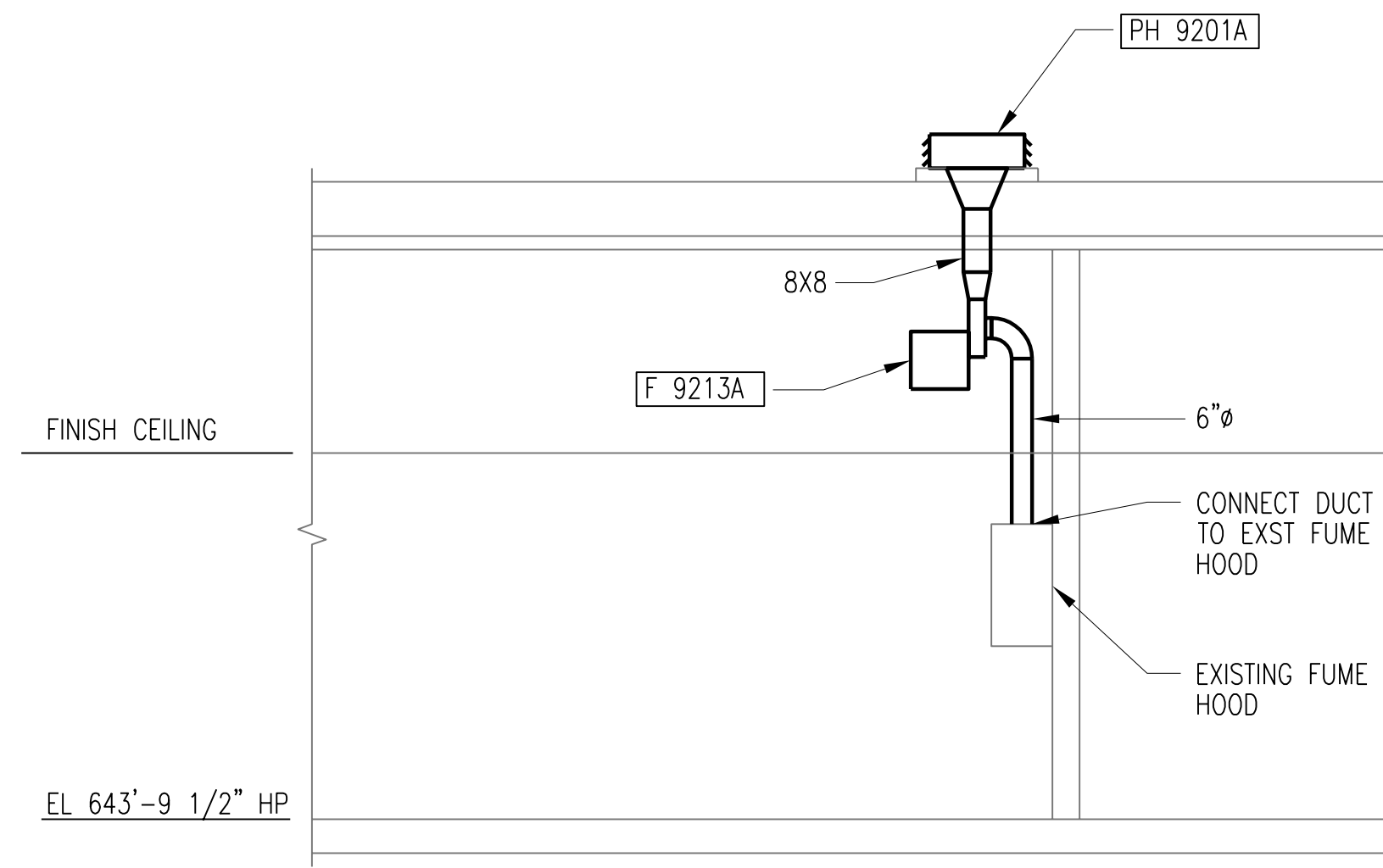
DESIGNED	JL LEE	SCALE:	AS NOTED
DRAWN	D. WILGES	NO.	22800
CHECKED	JJ BOVENKAMP	REV.	
APPROVED	JJ BOVENKAMP		
APPROVED			
DATE	DECEMBER 2, 2011		

M911 **2**

CADD: D1-R4

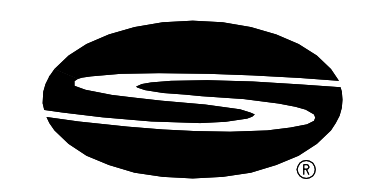


SECTION **A-M912**
M910
SCALE: 1/4" = 1'-0"



SECTION **B-M912**
M910
SCALE: 1/4" = 1'-0"

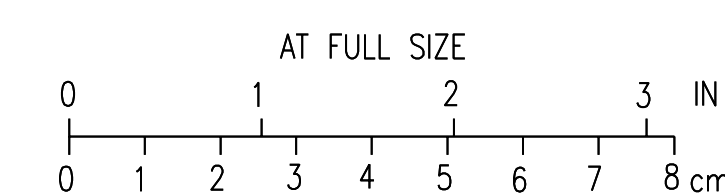
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JLL	JJB	JJB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SLUDGE PROCESSING FACILITY
HVAC SECTIONS AND DETAILS**



DESIGNED	JL LEE	SCALE:	AS NOTED
DRAWN	D. WILGES	NO.	22800
CHECKED	JJ BOVENKAMP	REV.	
APPROVED	JJ BOVENKAMP		
APPROVED			
DATE	DECEMBER 2, 2011	M912	2

SEQUENCE OF OPERATION

1. CONTROL OF HVAC FUNCTIONS OF FOLLOWING EQUIPMENT:

- A. AIR HANDLING UNIT (AHU):
 - i. AHU 9004A
- B. EXHAUST FAN (F):
 - i. F 9209A
 - ii. F 9210A
 - iii. F 9211A
- B. UNIT HEATERS (UH):
 - i. UH 9210A
 - ii. UH 9211A
 - iii. UH 9204A
 - iv. UH 9209A
 - v. UH 9212A
 - vi. UH 9213A
 - vii. UH 9214A

2. GENERAL REQUIREMENTS:

- A. HVAC SYSTEMS SHALL BE CONTROLLED BY DIRECT DIGITAL CONTROL SYSTEM AND REMOTE THERMOSTATS.
- B. REMOTE THERMOSTATS SHALL BE PROGRAMMABLE ELECTRONIC WITH BATTERY BACKUP; WITH 7 SEPARATE PROGRAMMABLE DAYS AND NIGHT SETBACK; WITH MULTIPLE STAGES OF HEATING AND COOLING BASED ON REQUIRED SEQUENCE OF CONTROL; AND WITH HEATING-COOLING SELECTOR SWITCH.
- C. SET POINTS LABELED AS "ADJUSTABLE" SHALL BE FULLY ADJUSTABLE.
- D. ALARM REPORTING SHALL BE DONE AT PANEL ASSOCIATED WITH EQUIPMENT.

3. NORMAL CONTROL POSITIONS:

- A. NORMAL POSITIONS OF CONTROLLED DEVICES SHALL BE POSITION DEVICE RETURNS TO ON POWER FAILURE OR CONTROLLER FAILURE. NORMAL POSITIONS SHALL BE AS FOLLOWS.
 - i. OUTSIDE AIR DAMPER: CLOSED.
 - ii. EXHAUST AIR DAMPER: CLOSED.
 - iii. RETURN AIR DAMPER: OPEN.

4. GAS HEATING AIR HANDLING UNIT CONTROL:

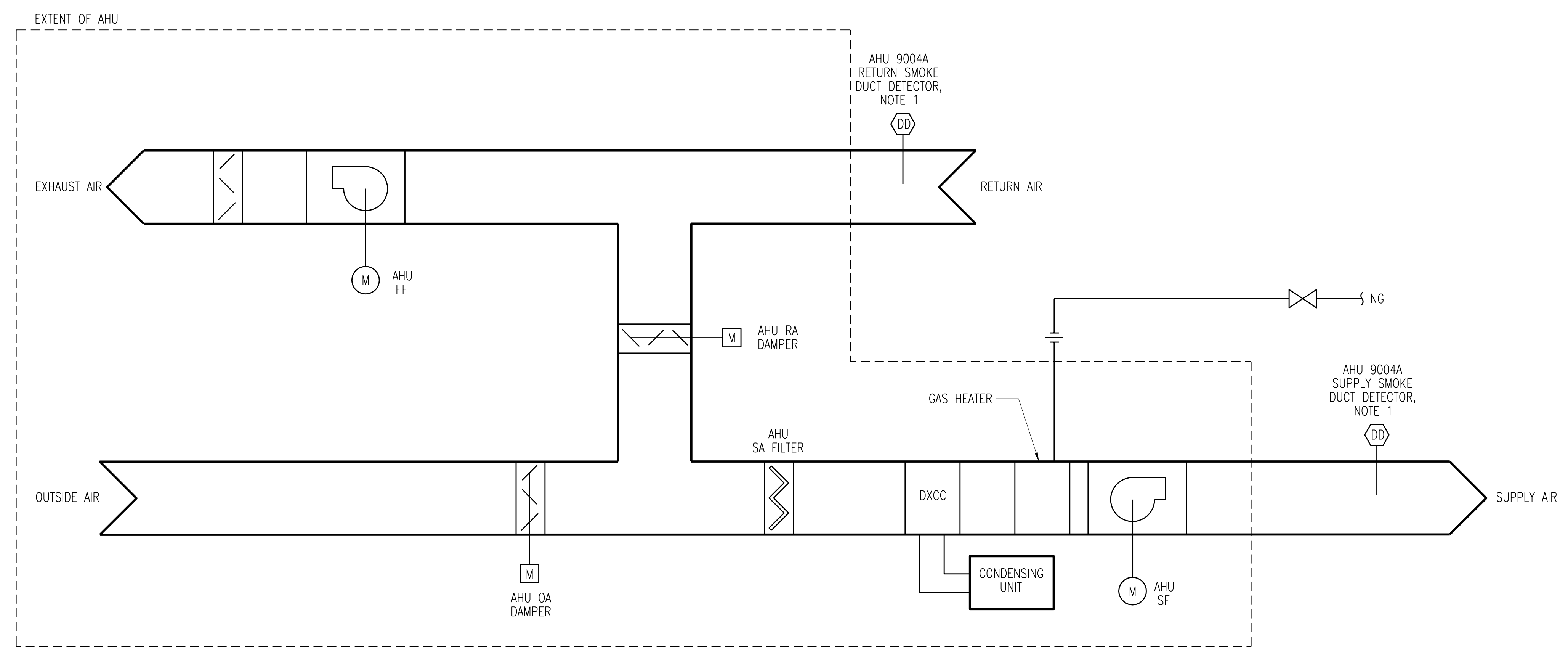
- A. "OCCUPIED" CYCLE:
 - i. AHU 9004A FAN SHALL OPERATE CONTINUOUSLY. ASSOCIATED OUTDOOR AIR DAMPER SHALL OPEN.
 - ii. WHEN THE THERMOSTAT CONTROL SWITCH IS IN THE "HEATING" POSITION AND THE ROOM TEMPERATURE IS BELOW SET POINT (68°F, ADJUSTABLE), AHU 9004A GAS HEATER SHALL START AND OPERATE TO MAINTAIN ROOM TEMPERATURE.
 - iii. WHEN THE THERMOSTAT CONTROL SWITCH IS IN THE "COOLING" POSITION AND THE ROOM TEMPERATURE IS ABOVE SET POINT (75°F, ADJUSTABLE), AHU 9004A CONDENSING UNIT SHALL START AND OPERATE TO MAINTAIN ROOM TEMPERATURE.
- B. "UNOCCUPIED" CYCLE:
 - i. AHU 9004A FAN SHALL STOP. ASSOCIATED OUTDOOR AIR DAMPER SHALL CLOSE.
 - ii. WHEN THE THERMOSTAT CONTROL SWITCH IS IN THE "HEATING" POSITION AND THE ROOM TEMPERATURE IS BELOW "UNOCCUPIED" CYCLE SET POINT (60°F, ADJUSTABLE), AHU 9004A FAN AND GAS HEATER SHALL START AND OPERATE TO MAINTAIN ROOM TEMPERATURE.
 - iii. WHEN THE THERMOSTAT CONTROL SWITCH IS IN THE "COOLING" POSITION AND THE ROOM TEMPERATURE IS ABOVE "UNOCCUPIED" CYCLE SET POINT (80°F, ADJUSTABLE), AHU 9004A FAN AND CONDENSING UNIT SHALL START AND OPERATE TO MAINTAIN ROOM TEMPERATURE.

5. EXHAUST FAN CONTROL:

- A. EXHAUST FAN F 9209A SERVING RECEPTION AREA SHALL BE INTERLOCKED WITH AHU 9004A AND SHALL OPERATE CONTINUOUSLY. EXHAUST FANS F 9210A AND F 9211A SERVING THE POLYMER ROOM SHALL BE CONTROLLED BY A WALL-MOUNTED THERMOSTAT.
- B. WHEN THE THERMOSTAT CONTROL SWITCH IS IN THE "COOLING" POSITION AND THE ROOM TEMPERATURE IS ABOVE SET POINT (80°F, ADJUSTABLE), EXHAUST FANS F 9210A AND F 9211A SHALL START. WHEN THE ROOM TEMPERATURE DROPS BELOW SETPOINT, EXHAUST FANS F 9210A AND F9211A SHALL STOP.

6. UNIT HEATER CONTROL:

- A. UNIT HEATERS UH 9210A AND UH 9211A SERVING THE POLYMER ROOM SHALL BE CONTROLLED BY A WALL-MOUNTED THERMOSTAT.
 - i. WHEN THE THERMOSTAT CONTROL SWITCH IS IN THE "HEATING" POSITION AND THE ROOM TEMPERATURE IS BELOW SET POINT (68°F, ADJUSTABLE), UH 9210A AND UH9211A FANS SHALL START AND OPERATE TO MAINTAIN ROOM TEMPERATURE. WHEN ROOM TEMPERATURE RISES ABOVE SET POINT, UH 9210A AND UH 9211A FANS SHALL STOP.
- B. UNIT HEATERS UH 9204A, UH 9209A, UH 9212A, UH 9213A, AND UH 9214A SERVING THE VEHICLE STORAGE BAY/SLUDGE LOADING BAY SHALL BE CONTROLLED BY A WALL-MOUNTED THERMOSTAT.
 - i. WHEN THE THERMOSTAT CONTROL SWITCH IS IN THE "HEATING" POSITION AND THE ROOM TEMPERATURE IS BELOW SET POINT (68°F, ADJUSTABLE), UH 9210A AND UH9211A FANS SHALL START AND OPERATE TO MAINTAIN ROOM TEMPERATURE. WHEN ROOM TEMPERATURE RISES ABOVE SET POINT, UH 9210A AND UH 9211A FANS SHALL STOP.



ROOF TOP AIR HANDLING UNIT (AHU 9004A) CONTROL SCHEMATIC
SCALE: NONE

SEE RFI #157 SHEET M913-A

NOTES:

- 1. SMOKE DUCT DETECTOR TO BE WIRED TO FIRE ALARM SYSTEM.

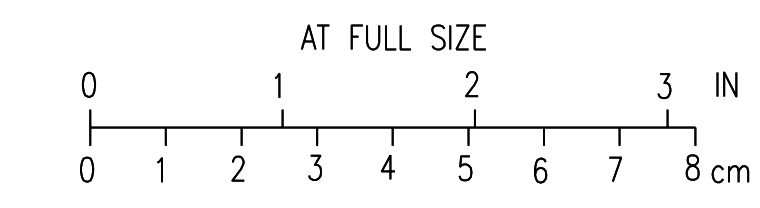
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JLL	JJB	JJB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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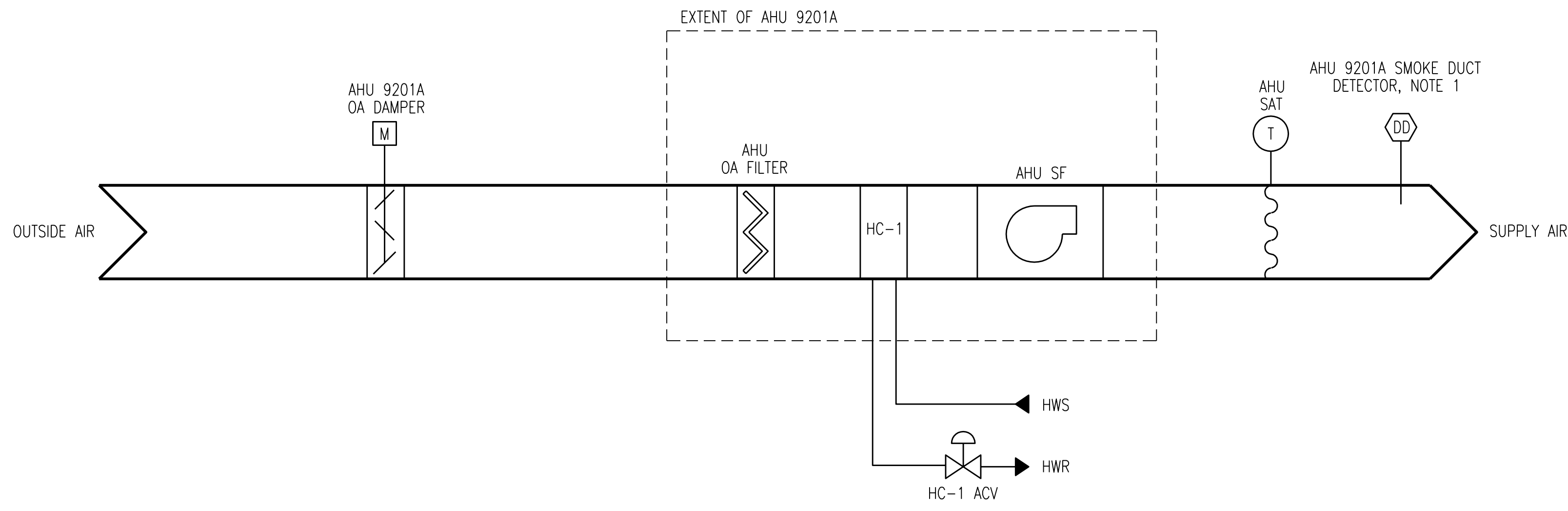
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SLUDGE PROCESSING FACILITY
HVAC CONTROL SCHEMATIC
SHEET 1**

DESIGNED: J.L. LEE	SCALE: NONE
DRAWN: D. WILGES	NO. 22800
CHECKED: J.J. BOVENKAMP	REV. 2
APPROVED: J.J. BOVENKAMP	
DATE: DECEMBER 2, 2011	



CADD: D1-R4



AIR HANDLING UNIT (AHU 9201A) CONTROL SCHEMATIC
SCALE: NONE

SEE ITC #58 SHEET M914-A
SEE RFI #157 SHEET M914-A

SEQUENCE OF OPERATIONS

1. CONTROL OF HVAC FUNCTIONS OF FOLLOWING EQUIPMENT:
 - A. AIR HANDLING UNIT (AHU):
 - i. AHU 9201A
 - B. EXHAUST FANS (F):
 - i. F 9201A
 - ii. F 9202A
 - iii. F 9203A
 - iv. F 9204A
2. GENERAL REQUIREMENTS:
 - A. HVAC SYSTEMS SHALL BE CONTROLLED BY DIRECT DIGITAL CONTROLS AND REMOTE THERMOSTATS.
 - B. REMOTE THERMOSTATS SHALL BE PROGRAMMABLE ELECTRONIC WITH BATTERY BACKUP; WITH 7 SEPARATE PROGRAMMABLE DAYS; WITH MULTIPLE STAGES OF HEATING AND COOLING BASED ON REQUIRED SEQUENCE OF CONTROL; AND WITH HEATING-COOLING SELECTOR SWITCH.
 - C. SET POINTS LABELED AS "ADJUSTABLE" SHALL BE FULLY ADJUSTABLE.
 - D. ALARM REPORTING SHALL BE DONE AT PANEL ASSOCIATED WITH EQUIPMENT.
3. NORMAL CONTROL POSITIONS:
 - A. "NORMAL POSITIONS OF CONTROLLED DEVICES SHALL BE POSITION THAT A DEVICE RETURNS TO ON POWER FAILURE OR CONTROLLER FAILURE. NORMAL POSITIONS SHALL BE AS FOLLOWS:
 - i. OUTDOOR AIR DAMPERS: NORMALLY CLOSED.
4. AIR HANDLING UNIT AHU 9201A CONTROL:
 - A. AHU 9201A SHALL SERVE BELT FILTER PRESS ROOM SPACE.
 - B. AHU 9201A SHALL BE CONTROLLED BY AS FOLLOWS:
 - i. AHU 9201A FAN SHALL OPERATE CONTINUOUSLY. ASSOCIATED OUTDOOR AIR DAMPER SHALL OPEN.
 - ii. WHEN THE SUPPLY AIR TEMPERATURE IS BELOW SET POINT (70°F, ADJUSTABLE), AHU 9201A HOT WATER HEATING COIL CONTROL VALVE SHALL OPEN AND MODULATE TO MAINTAIN SUPPLY AIR TEMPERATURE SETPOINT. WHEN SUPPLY AIR TEMPERATURE RISES ABOVE SETPOINT, AHU 9201A HOT WATER HEATING COIL CONTROL VALVE SHALL CLOSE.
 - iii. UPON SIGNAL FROM AHU 9201A SMOKE DUCT DETECTOR, AHU 9201A FAN SHALL STOP. AN ALARM SHALL BE ENERGIZED AT REMOTE DDC CONTROL PANEL.
5. EXHAUST FAN CONTROL:
 - A. EXHAUST FANS F 9201A AND F 9204A SERVING BELT FILTER PRESS ROOM SHALL BE INTERLOCKED WITH AHU 9201A AND SHALL OPERATE CONTINUOUSLY. UPON SIGNAL FROM AHU 9201 SMOKE DUCT DETECTOR, EXHAUST FANS 9201A AND F 9204A SHALL STOP.
 - B. EXHAUST FANS F 9202A AND F 9203A SERVING BELT FILTER PRESS ROOM SHALL BE CONTROLLED BY WALL-MOUNTED THERMOSTAT.
 - i. WHEN THERMOSTAT CONTROL SWITCH IS IN THE "COOLING" POSITION AND THE ROOM TEMPERATURE IS ABOVE SET POINT (80°F, ADJUSTABLE), EXHAUST FANS F 9202A AND F 9203A SHALL OPERATE. WHEN ROOM TEMPERATURE DROPS BELOW SET POINT, EXHAUST FANS F 9202A AND 9203A SHALL STOP. UPON SIGNAL FROM AHU 9201A SMOKE DUCT DETECTOR, EXHAUST FANS F 9202A AND F 9203A SHALL STOP.

AIR HANDLING UNIT POINTS LIST								
PLAN DESIGNATION	POINT DESCRIPTION	POINT TYPE					ALARMS	NOTES
		AO	DO	AI	DI	VP		
AHU SF STATUS	AHU SUPPLY FAN STATUS				X			
AHU SF S/S	AHU SUPPLY FAN START/STOP		X					
AHU OA DAMP	AHU OUTDOOR AIR DAMPER	X						
AHU OA FILTER DP	AHU OUTDOOR AIR FILTER DIFFERENTIAL PRESSURE			X				ALARM ABOVE 0.75 IN W.G. (ADJUSTABLE)
AHU HC-1 ACV	AHU HEATING COIL AUTOMATIC CONTROL VALVE		X					
AHU SA DAT	AHU DISCHARGE AIR TEMPERATURE			X				
AHU SA DAT SP	AHU DISCHARGE AIR TEMPERATURE SET POINT					X		70°F (ADJUSTABLE)
AHU SUPPLY DD	AHU SUPPLY DUCT DETECTOR						X	

NOTES:

1. SMOKE DUCT DETECTOR TO BE WIRED TO FIRE ALARM SYSTEM.

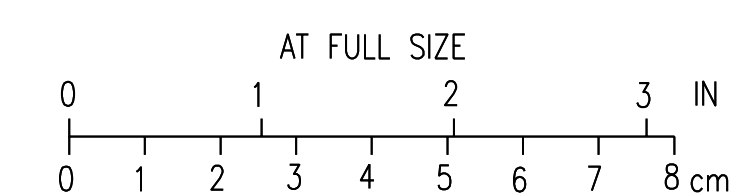
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JLL	JJB	JJB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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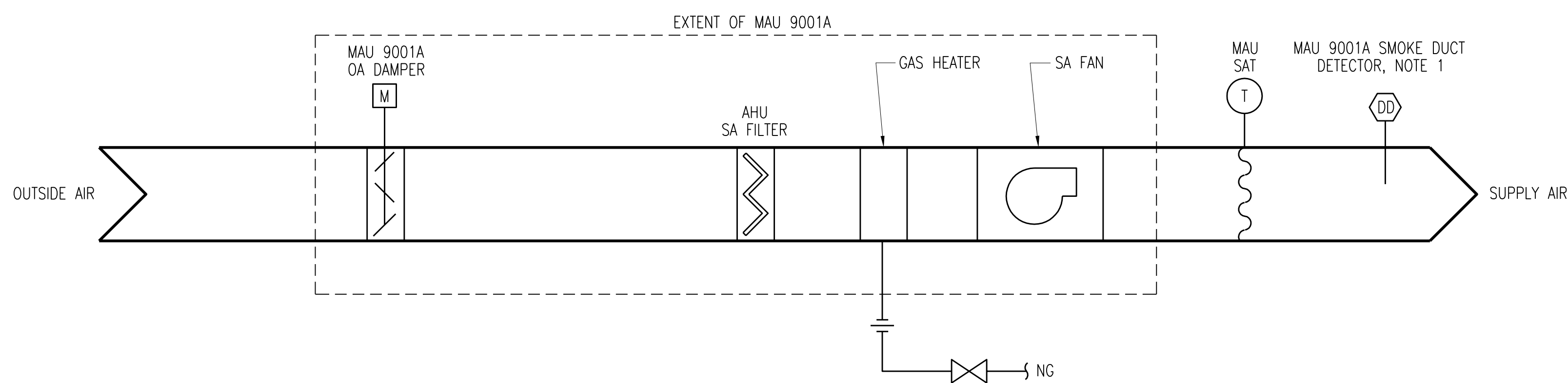
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SLUDGE PROCESSING FACILITY
HVAC CONTROL SCHEMATIC
SHEET 2**

DESIGNED	JL LEE	SCALE:	NONE
DRAWN	D. WILGES	NO.	22800
CHECKED	JJ BOVENKAMP	REV.	
APPROVED	JJ BOVENKAMP		
APPROVED			
DATE	DECEMBER 2, 2011		



CADD: D1-R4



MAKEUP AIR UNIT (MAU 9001A) CONTROL SCHEMATIC
SCALE: NONE

SEQUENCE OF OPERATION

1. CONTROL OF HVAC FUNCTIONS OF FOLLOWING EQUIPMENT:
 - A. MAKEUP AIR UNITS (MAU) :
 - i. MAU 9001A
 - B. EXHAUST FANS (F):
 - i. F 9207A
2. GENERAL REQUIREMENTS:
 - A. HVAC SYSTEMS SHALL BE CONTROLLED BY DIRECT DIGITAL CONTROLS AND REMOTE THERMOSTATS.
 - B. REMOTE THERMOSTATS SHALL BE PROGRAMMABLE ELECTRONIC WITH BATTERY BACKUP; WITH 7 SEPARATE PROGRAMMABLE DAYS; WITH MULTIPLE STAGES OF HEATING BASED ON REQUIRED SEQUENCE OF CONTROL; AND WITH HEATING-COOLING SELECTOR SWITCH.
 - C. SET POINTS LABELED AS "ADJUSTABLE" SHALL BE FULLY ADJUSTABLE.
 - D. ALARM REPORTING SHALL BE DONE AT PANEL ASSOCIATED WITH EQUIPMENT.
3. NORMAL CONTROL POSITIONS:
 - A. NORMAL POSITIONS OF CONTROLLED DEVICES SHALL BE POSITION THAT A DEVICE RETURNS TO ON POWER FAILURE OR CONTROLLER FAILURE. NORMAL POSITIONS SHALL BE AS FOLLOWS:
 - i. OUTDOOR AIR DAMPERS: NORMALLY CLOSED.
4. MAKEUP AIR UNIT CONTROL:
 - A. MAKEUP AIR UNIT MAU 9001A SHALL SERVE ROTARY DRUM THICKENER ROOM.
 - B. MAU 9001A SHALL BE CONTROLLED AS FOLLOWS:
 - i. MAU 9001A FAN SHALL OPERATE CONTINUOUSLY. ASSOCIATED OUTDOOR AIR DAMPER SHALL OPEN.
 - ii. WHEN SUPPLY AIR TEMPERATURE DROPS BELOW SET POINT (70°F, ADJUSTABLE) MAU 9001A GAS HEATER SHALL IGNITE AND MODULATE GAS INPUT TO MAINTAIN SUPPLY AIR TEMPERATURE. AS SUPPLY AIR TEMPERATURE RISES ABOVE SET POINT, MAU 9001A GAS HEATER SHALL TURN OFF.
 - iii. UPON SIGNAL FROM SMOKE DUCT DETECTOR, MAU 9001A SHALL TURN OFF.
5. EXHAUST FAN CONTROL:
 - A. EXHAUST FAN F 9207A SHALL SERVE ROTARY DRUM THICKENER ROOM. EXHAUST FAN F 9207A SHALL BE INTERLOCKED WITH MAU 9001A AND SHALL OPERATE CONTINUOUSLY.
 - B. UPON SIGNAL FROM MAU 9001A SMOKE DUCT DETECTOR, EXHAUST FAN F 9207A SHALL TURN OFF.

NOTES:

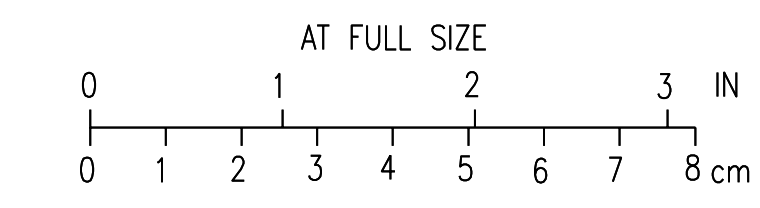
1. SMOKE DUCT DETECTOR TO BE WIRED TO FIRE ALARM SYSTEM.

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	JLL	JJB	JJB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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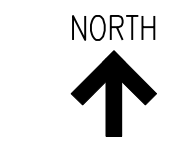
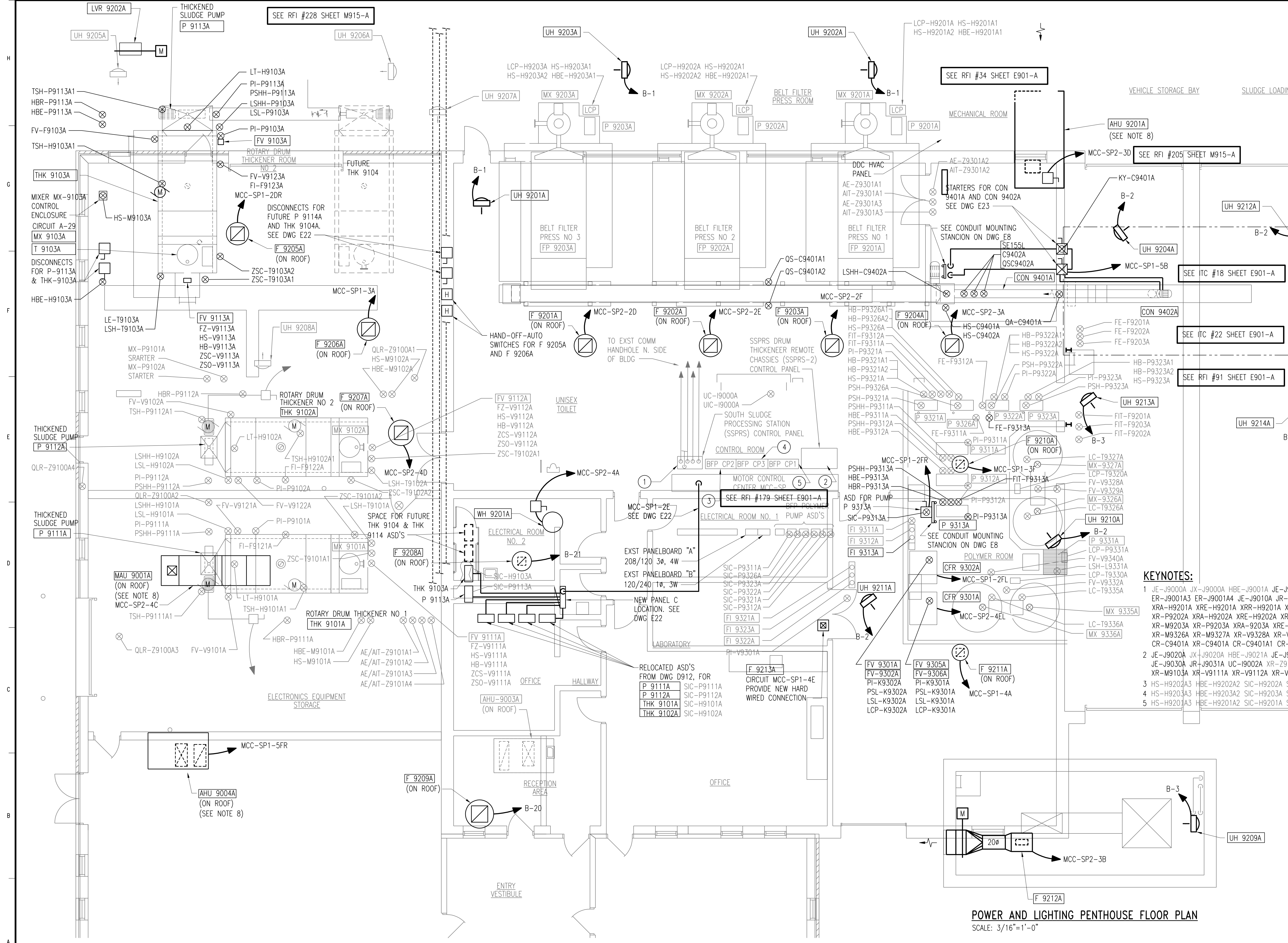
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**SLUDGE PROCESSING FACILITY
HVAC CONTROL SCHEMATIC
SHEET 3**



DESIGNED	JL LEE	SCALE: NONE	
DRAWN	D. WILGES	NO. 22800	REV.
CHECKED	JJ BOVENKAMP		
APPROVED	JJ BOVENKAMP		
APPROVED		M915	2
DATE	DECEMBER 2, 2011		

CADD: D1-R4



- NOTES:**
- SEE DRAWING E22 THRU E24 FOR REVISED MCC-SP1 AND SP2 ONE-LINE DIAGRAMS.
 - SEE DRAWING E1 FOR GENERAL ELECTRICAL NOTES AND WIRING DEVICE SCHEDULE.
 - SEE DRAWING E4 FOR TYPICAL ELECTRICAL DETAILS.
 - SEE DRAWINGS E2 AND E3 FOR LIGHTING FIXTURE SCHEDULE.
 - SEE DRAWING G9 FOR ELECTRICAL LEGEND.
 - PROVIDE SEALOFFS ON REMAINING CONDUITS AFTER REMOVAL OF WIRING FROM CONDUITS PENETRATING CLASSIFIED AREAS.
 - ALL CONDUIT IN ALL AREAS TO BE PVC COATED RGS CONDUIT EXCEPT OFFICE SPACES AND LAB WHERE EMT MAY BE USED.
 - PROVIDE NEW DUCT DETECTORS TO MATCH EXISTING FOR AHU'S AND MAU'S SHOWN. CONNECT TO EXISTING CONTROL CIRCUITS.

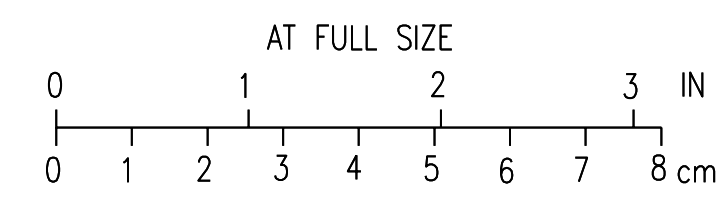
SEE POWER AND LIGHTING PENTHOUSE FLOOR PLAN THIS DRAWING

KEYNOTES:

- JE-J9000A JX-J9000A HBE-J9001A JE-J9001A JI-J9001A JR-J9001A JX-J9001A ER-J9001A ER-J9001A2 ER-J9001A3 ER-J9001A4 JE-J9010A JR-J9011A UC-I9001A XR-F9201A XR-M9201A XR-P9201A XRA-H9201A XRE-H9201A XRR-H9201A XRF-H9201A XRR-H9201A1 XRF-H9201A1 XRR-H9201A1 XRR-F9202A XR-M9202A XR-P9202A XRA-H9202A XRE-H9202A XRR-H9202A XRF-H9202A1 XRR-H9202A1 XRR-F9203A XR-M9203A XR-P9203A XRA-H9203A XRE-H9203A XRR-H9203A XRF-H9203A1 XRR-H9203A1 XRR-M9326A XR-M9327A XR-V9328A XR-V9329A XR-V9332A XR-V9332A XR-M9335A XR-M9336A XR-V9340A CR-C9401A XR-C9401A CR-C9401A1 CR-C9401A2 CR-C9401A2 XR-C9402A
- JE-J9020A JX-J9020A HBE-J9021A JE-J9021A JI-J9021A JR-J9021A JX-J9021A ER-J9021A1 ER-J9021A2 ER-J9030A JR-J9031A UC-I9002A XR-Z9100A XR-Z9100A XR-V9101A XR-M9101A XR-V9102A XR-M9102A XR-V9103A XR-M9103A XR-V9111A XR-V9112A XR-V9113A XR-V9121A XR-V9122A XR-V9123A
- HS-H9202A3 HBE-H9202A2 SIC-H9202A SIC-M9202A
- HS-H9203A3 HBE-H9203A2 SIC-H9203A SIC-M9203A
- HS-H9201A3 HBE-H9201A2 SIC-H9201A SIC-M9201A

POWER AND LIGHTING GROUND FLOOR PLAN
SCALE: 3/16" = 1'-0"

POWER AND LIGHTING PENTHOUSE FLOOR PLAN
SCALE: 3/16" = 1'-0"



4	RECORD DRAWING	JBL	JBL	JBL	03-31-2014
3	REVISED PER ADDENDUM NO. 1	DLW	DLW	JDC	02-22-2012
2	GENERAL	DLW	DLW	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLW	DLW	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT
SLUDGE PROCESSING FACILITY
POWER AND LIGHTING PLAN

DESIGNED	DL MORITZ	SCALE:	AS NOTED
DRAWN	D. WILGES	NO.	22800
CHECKED	DL MORITZ	REV.	
APPROVED	JD COOHN		
APPROVED			
DATE	DECEMBER 2, 2011	E901	4

CADD 01-1-14

PANEL NAME:	EXIST "A"	LOCATION:	ELECTRICAL ROOM		
MOUNTING:	SURFACE	VOLTAGE:	208Y/120		
ENCLOSURE:	NEMA 1	PHASE:	3P/4W		
MAINS:	MB 100A	SHORT CIRCUIT RATING:	10KA		
BUS AMPACITY:	100A	GROUND BUS:	YES		
BUS TYPE:		ISOLATED GROUND BUS:	NO		
BRANCH BREAKER TYPE:		NEUTRAL BUS:	100%		
NO.	LOAD DESCRIPTION	CB PH, G, COND	LOAD DESCRIPTION	CB PH, G, COND	NO.
1	LIGHTING LUNCH ROOM, UNISEX ELECTRICAL ROOM	1P20A	LIGHTING COORIDOR, ELEC ROOM, CONTROL ROOM	1P20A	2
3	LIGHTING OFFICE	1P20A	LIGHTING POLYMER ROOM	1P20A	4
5	LIGHTING BFP ROOM, MECH ROOM	1P20A	LIGHTING BFP ROOM	1P20A	6
7	LIGHTING VESTIBULE.	1P20A	LIGHTING TRUCKWAY	1P20A	8
9	LIGHTING TRUCKWAY	1P20A	LIGHTING EMERGENCY	1P20A	10
11	EXIT LIGHTS	1P20A	LIGHTING ROOMS 310, 312, 313	1P20A	12
13	RECEPTACLES LUNCH, TO OFFICE	1P20A	RECEPTACLES OFFICE	1P20A	14
15	RECEPTACLES OFFICE, COORIDOR RESTROOMS	1P20A	RECEPTACLES ELEC ROOM, CONTROL ROOM	1P20A	16
17	RECEPTACLES POLYMER ROOM	1P20A	RECEPTACLE BFP ROOM, MECH ROOM	1P20A	18
19	RECEPTACLE BFP ROOM	1P20A	RECEPTACLES TRUCKWAY	1P20A	20
21	LIGHTS 309 ENTRY VESTIBULE	1P20A	LIGHTING ROOM 308	1P20A	22
23	DDC PANEL FOR SHU 9201A	1P20A	LIGHTING CONTACTOR FOR OUTSIDE LIGHTS	1P20A	24
25	LIGHTS 305 THICKNER ROOM	1P20A	THK 9101 AND THK 9102	1P20A	26
27	LIGHTS 301 LARGE ITEM STORAGE	1P20A	KITCHEN UNIT	1P20A	28
29	SPACE	1P20A	MICROWAVE	1P20A	30
31	SPACE		GARAGE DOORS 301, 302	3P20A	32
33	SPACE				34
35	SPACE				36

NOTE:
PROVIDE CIRCUITING SHOWN FOR CIRCUIT 29. SEE ASSOCIATED P&ID DRAWING P902 FOR CONTROL REQUIREMENTS.

PANEL NAME:	B	LOCATION:	ELECTRICAL ROOM		
MOUNTING:	SURFACE	VOLTAGE:	120V/240V		
ENCLOSURE:	NEMA 1	PHASE:	1P/3W		
MAINS:	MB 100A	SHORT CIRCUIT RATING:	10KA		
BUS AMPACITY:	100A	GROUND BUS:	YES		
BUS TYPE:		ISOLATED GROUND BUS:	NO		
BRANCH BREAKER TYPE:		NEUTRAL BUS:	100%		
NO.	LOAD DESCRIPTION	CB PH, G, COND	LOAD DESCRIPTION	CB PH, G, COND	NO.
1	UNIT HEATERS UH-9201A, 9202A, 9203A	1P20A	UNIT HEATERS UH-9204A, 9210A, 9211A, 9212A	1P20A	2
3	UNIT HEATERS UH-9213A, 9214A, 9209A	1P20A	RECEPTACLES THICKNER ROOM	1P20A	4
5	SPARE	1P20A	SPPC	1P20A	6
7	TCI PANELS	1P20A	ROOFTOP GF'S	1P20A	8
9	REFRIGERATOR, RECEPTION AREA REC	1P20A	EXISTING CIRCUIT	1P20A	10
11	RECEPTION EX FAN	1P20A	POLYMER BREAKER 1	1P20A	12
13	PMP-1 AND 2, STR ADJ	1P20A	PMP-3 & 4 STR ADJ, POLY BREAKER 2	1P20A	14
15	ELECTRONICS WORKSHOP GF'S	1P20A	F9205 & F9206	1P20A	16
17	ROOM 308 SOUTH GF'S	1P20A	P-1 NEW PLC	1P20A	18
19	POLYMER FILL STATION	1P20A	CH-1, F9208A	1P20A	20
21	ROOF EX FAN 9208A	1P20A	FIT 528, 529, 530	1P20A	22
23	SPARE	1P20A	UH-9205, 9207, 9208	1P20A	24
25	EAST LAB NORTH RECEPTS	1P20A	SPARE EAST LAB	1P20A	26
27	EAST LAB FAN	1P20A	SPARE EAST LAB	1P20A	28
29	EAST LAB SOUTH RECEPTS	1P20A	P-2 NEW PLC	1P20A	30
31	EAST LAB NORTH RECEPTS	1P20A	P-3 AND P-4 NEW PLC	1P20A	32
33	EXISTING CIRCUIT	1P20A	WEST MAINT ROOM GF'S	1P20A	34
35	EAST LAB AA SPARE	1P20A	EAST MAINT ROOM GF'S	1P20A	36

NOTE:
PROVIDE CIRCUITING SHOWN FOR CIRCUIT 20 TO NEW LOADS SHOWN. SEE HVAC SEQUENCE OF OPERATION FOR CONTROL REQUIREMENTS IN MECHANICAL DRAWINGS.

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



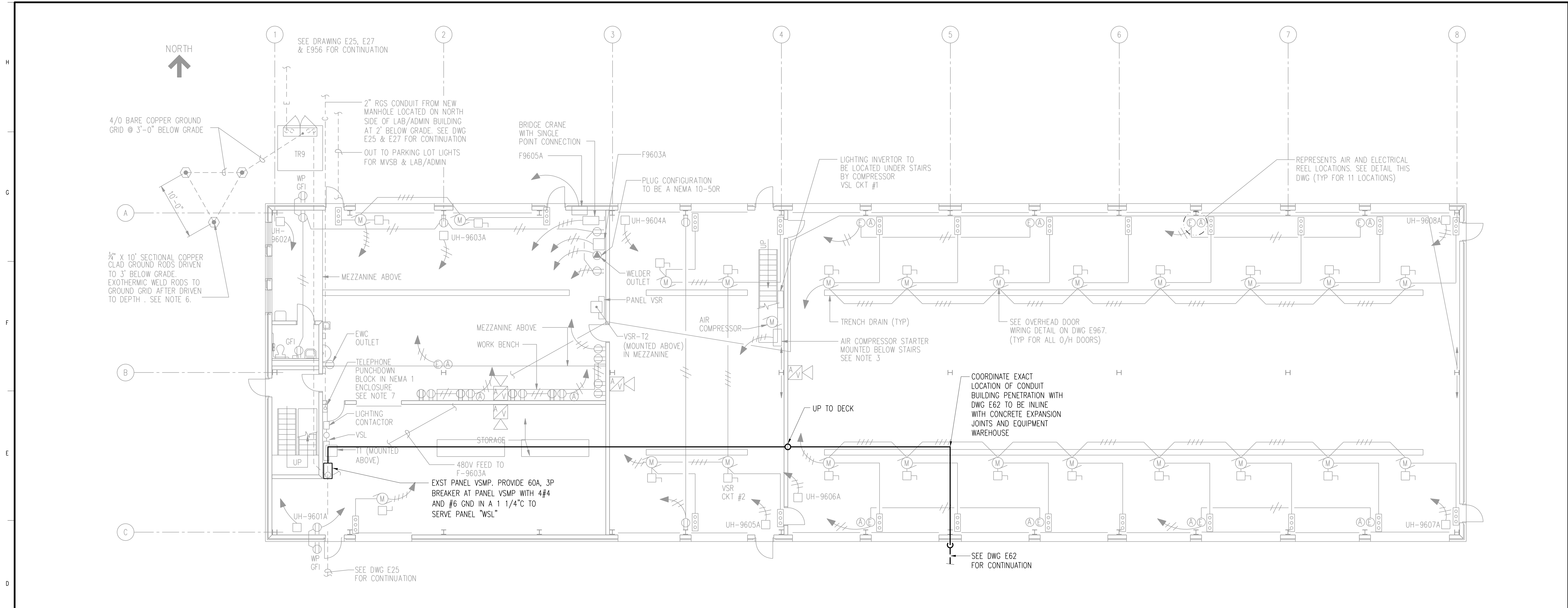
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

SLUDGE PROCESSING FACILITY
POWER AND LIGHTING DETAILS

DESIGNED	DL MORITZ	SCALE:	AS NOTED
DRAWN	D. WILGES	NO.	22800
CHECKED	DL MORITZ	REV.	3
APPROVED	JD COGAN		
APPROVED			
DATE	DECEMBER 2, 2011		



CADD D1-144



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

3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISION NOTE	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



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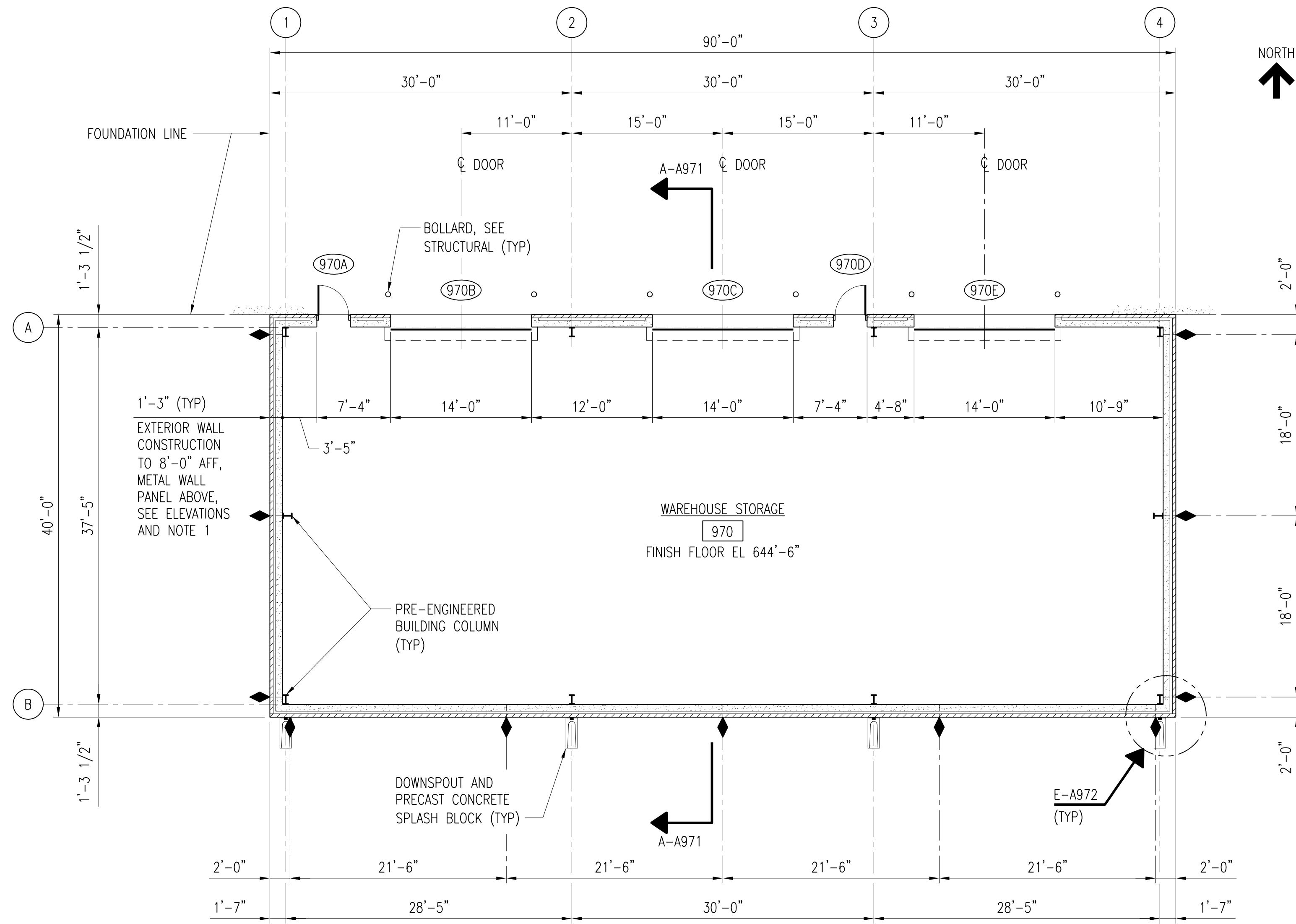
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**MAINTENANCE VEHICLE STORAGE
GROUND FLOOR POWER PLAN**

DESIGNED DL MORITZ	SCALE: AS NOTED
DRAWN K HALE-JOHNSON	NO. 22800
CHECKED DL MORITZ	REV.
APPROVED JD COGAN	E960
APPROVED	3
DATE DECEMBER 2, 2011	



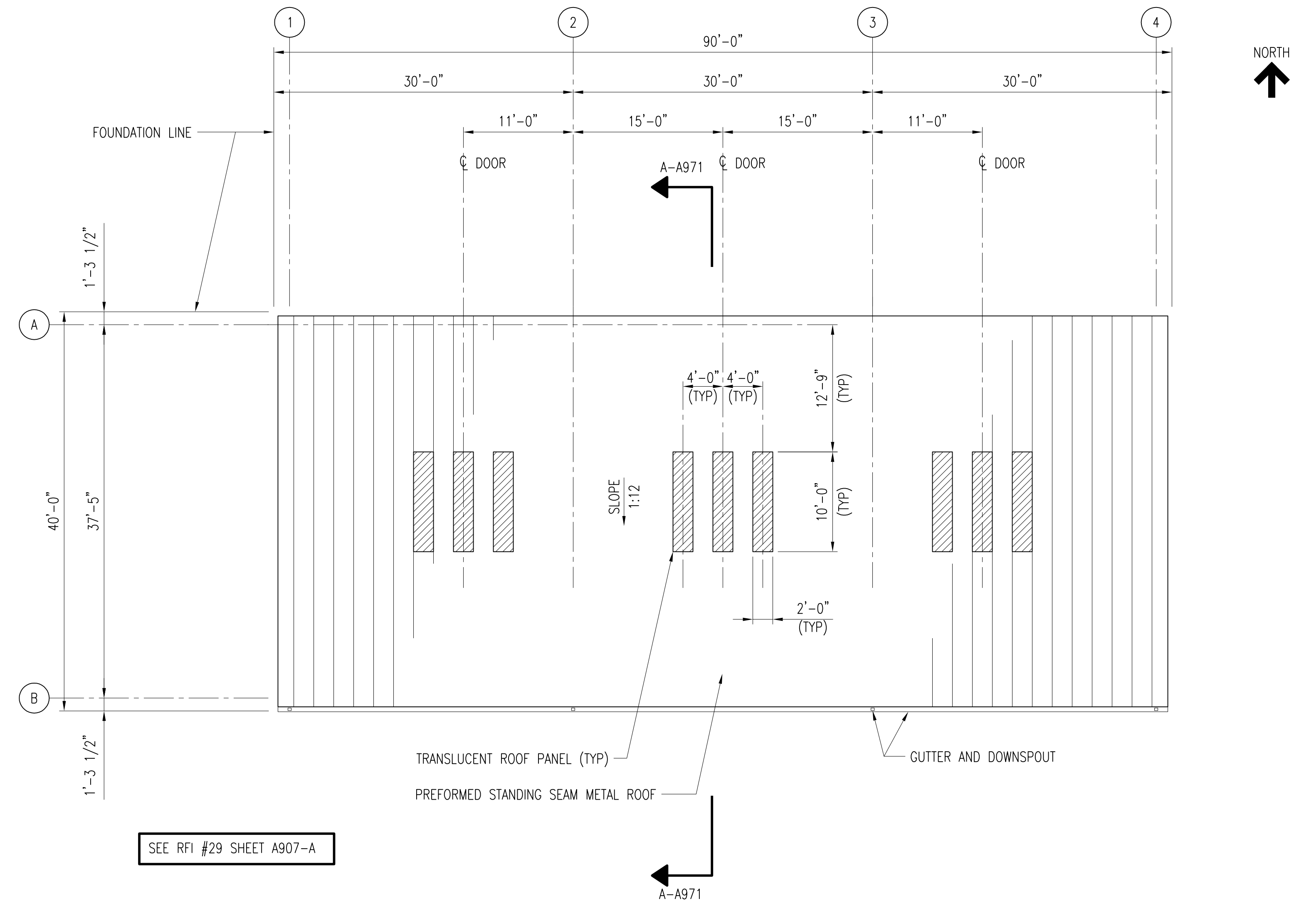
CADD: D1-R4



FLOOR PLAN
SCALE: 1/8" = 1'-0"

FLOOR PLAN NOTES:

- EXTERIOR WALL CONSTRUCTION ABOVE GRADE:
4" FACE BRICK/CAST STONE
AIR SPACE
2" RIGID INSULATION (R=10)
8" CMU
METAL WALL PANEL (8'-0" AFF TO ROOF)
- MASONRY WALL REINFORCING - SEE DRAWING S1.
- MASONRY CONTROL JOINTS: LOCATE WHERE SHOWN ON PLANS AND BUILDING ELEVATIONS. SEE DETAILS ON DRAWING A3.
- WALL PENETRATIONS:
ALL PENETRATIONS SHALL BE SEALED - FULL GROUT IN PLACE MASONRY.
ALLOW FOR EXPANSION WHEN REQUIRED OR AS INDICATED BY OTHER DISCIPLINES.
- SEE DRAWING A972 FOR TYPICAL WALL CONSTRUCTION DETAILS.
- SEE DRAWING A1 FOR INTERIOR FINISH SCHEDULE.
- SEE DRAWING A1 FOR OPENING SCHEDULE.



ROOF PLAN
SCALE: 1/8" = 1'-0"

ROOF PLAN NOTES:

- TRANSLUCENT ROOF PANELS:
10'-0" X 2'-0", SEE MANUFACTURER'S STANDARD DETAILS FOR INSTALLATION.

SEE RF1 #29 SHEET A907-A

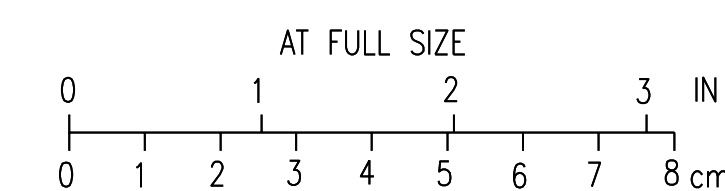
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1	ISSUED FOR CONSTRUCTION	GAL	GAL	DS	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

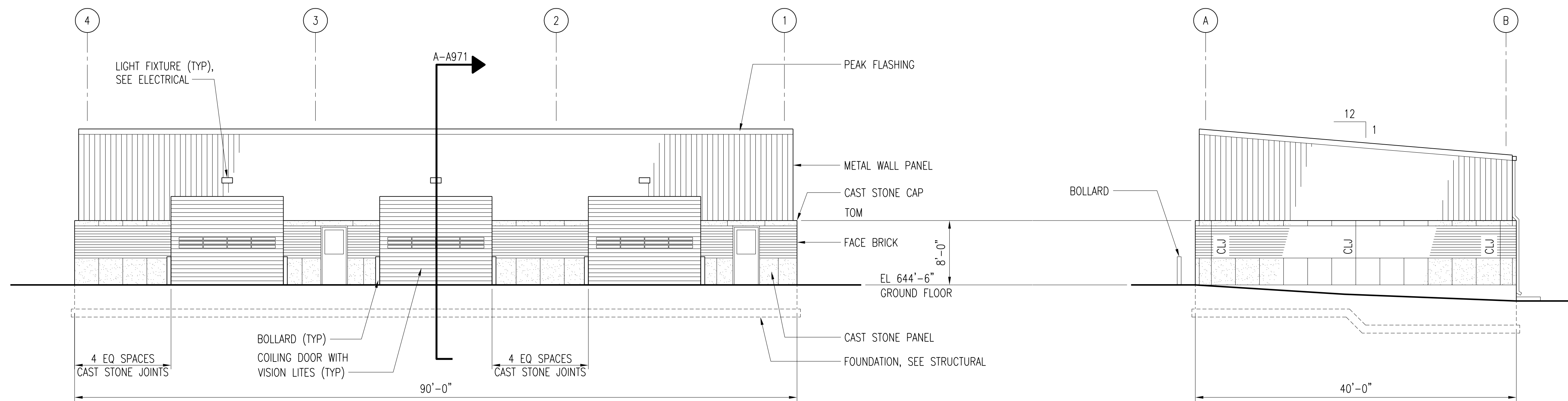

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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**EQUIPMENT WAREHOUSE
FLOOR PLAN AND DETAILS**

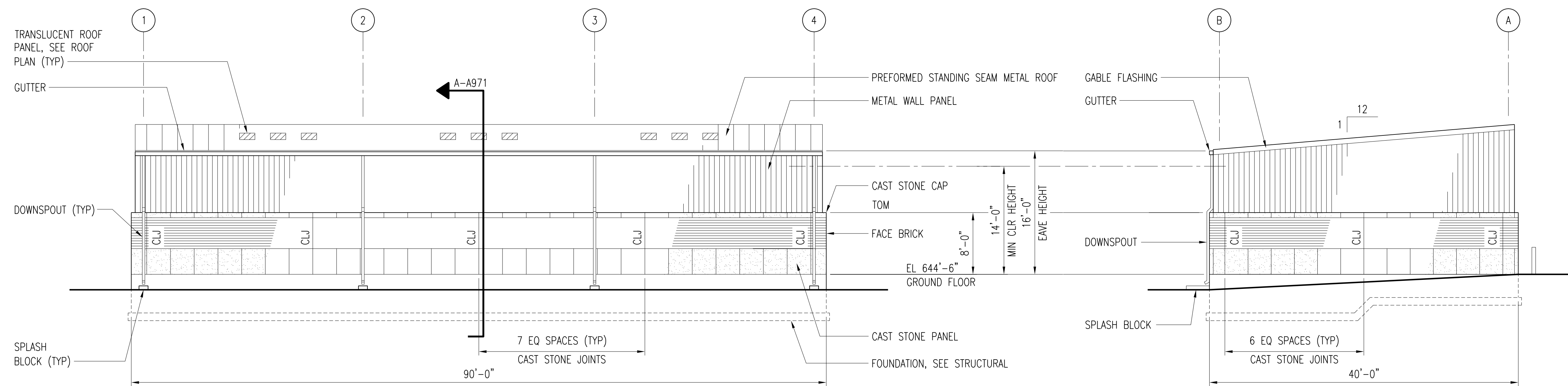
DESIGNED	GA LUDWIG	SCALE:	AS NOTED
DRAWN	DA HUMISTON	NO.	22800
CHECKED	GA LUDWIG	REV.	
APPROVED	D SARKAR	A970	2
DATE	DECEMBER 2, 2011		





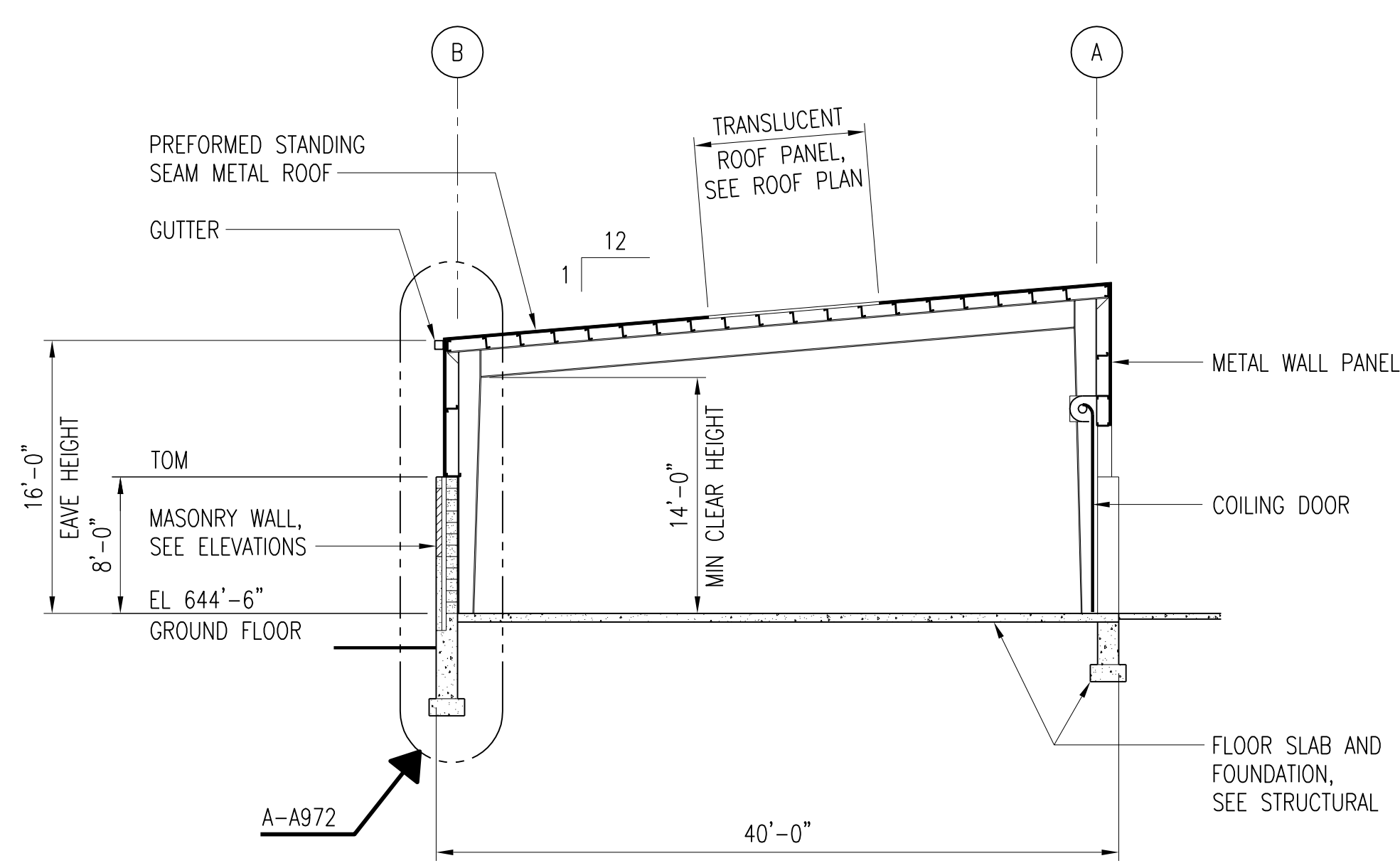
NORTH ELEVATION
SCALE: 1/8" = 1'-0"

WEST ELEVATION
SCALE: 1/8" = 1'-0"

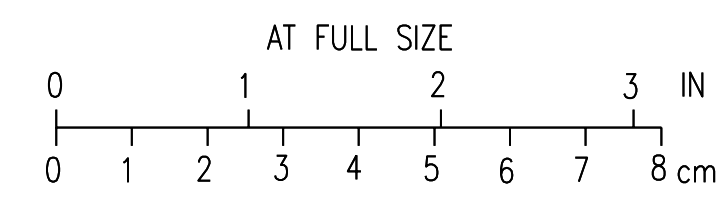


SOUTH ELEVATION
SCALE: 1/8" = 1'-0"

EAST ELEVATION
SCALE: 1/8" = 1'-0"



SECTION A-A971
A970,A971
SCALE: 1/8" = 1'-0"



RECORD DRAWING	JBL	JBL	JBL	12-31-2014	
1 ISSUED FOR CONSTRUCTION	GAL	GAL	DS	01-10-2012	
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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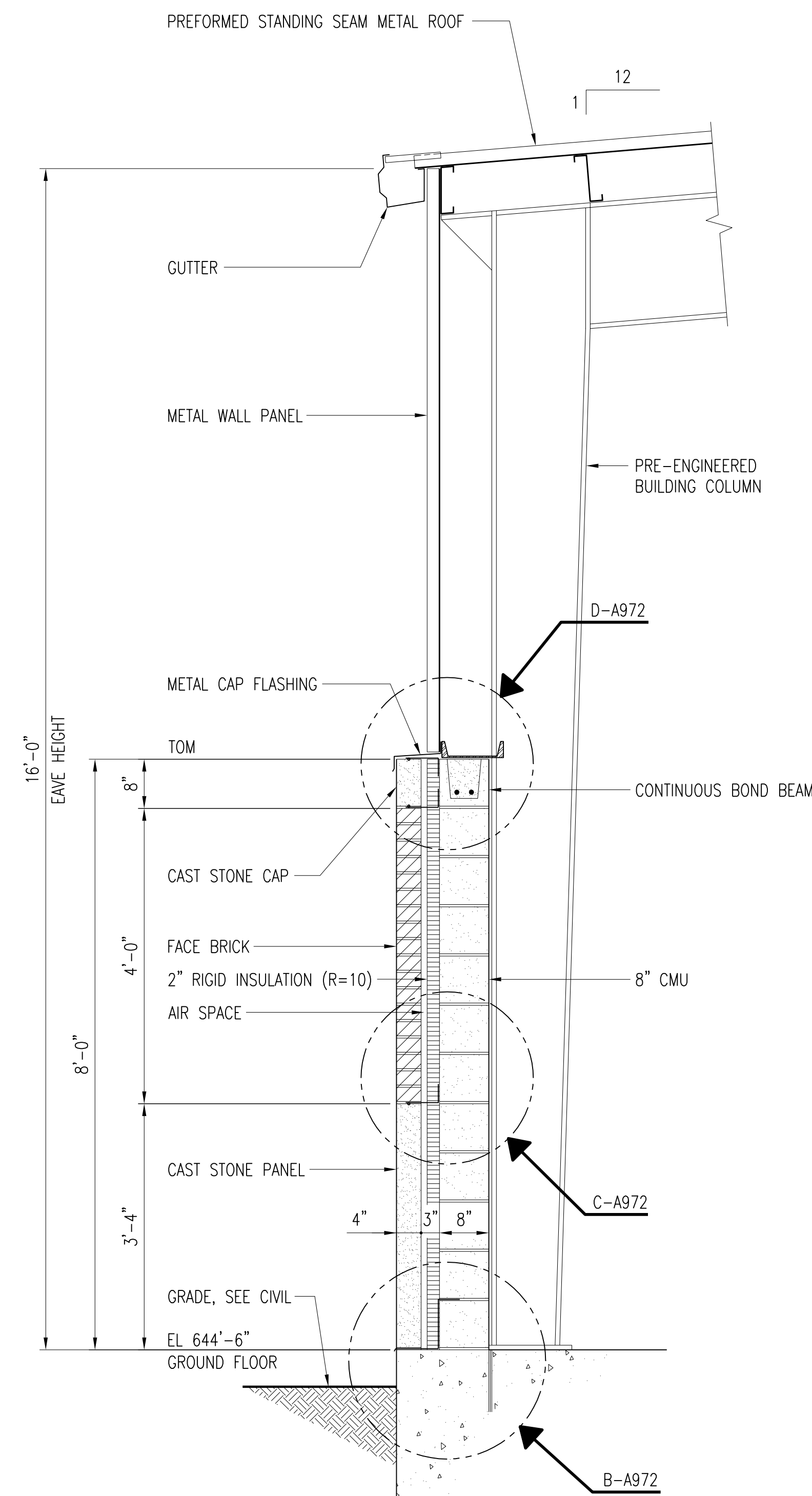
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**EQUIPMENT WAREHOUSE
ELEVATIONS AND SECTION**

DESIGNED GA LUDWIG	SCALE: AS NOTED
DRAWN DA HUMSTON	NO. 22800
CHECKED GA LUDWIG	REV.
APPROVED D SARKAR	A971
APPROVED	2
DATE DECEMBER 2, 2011	

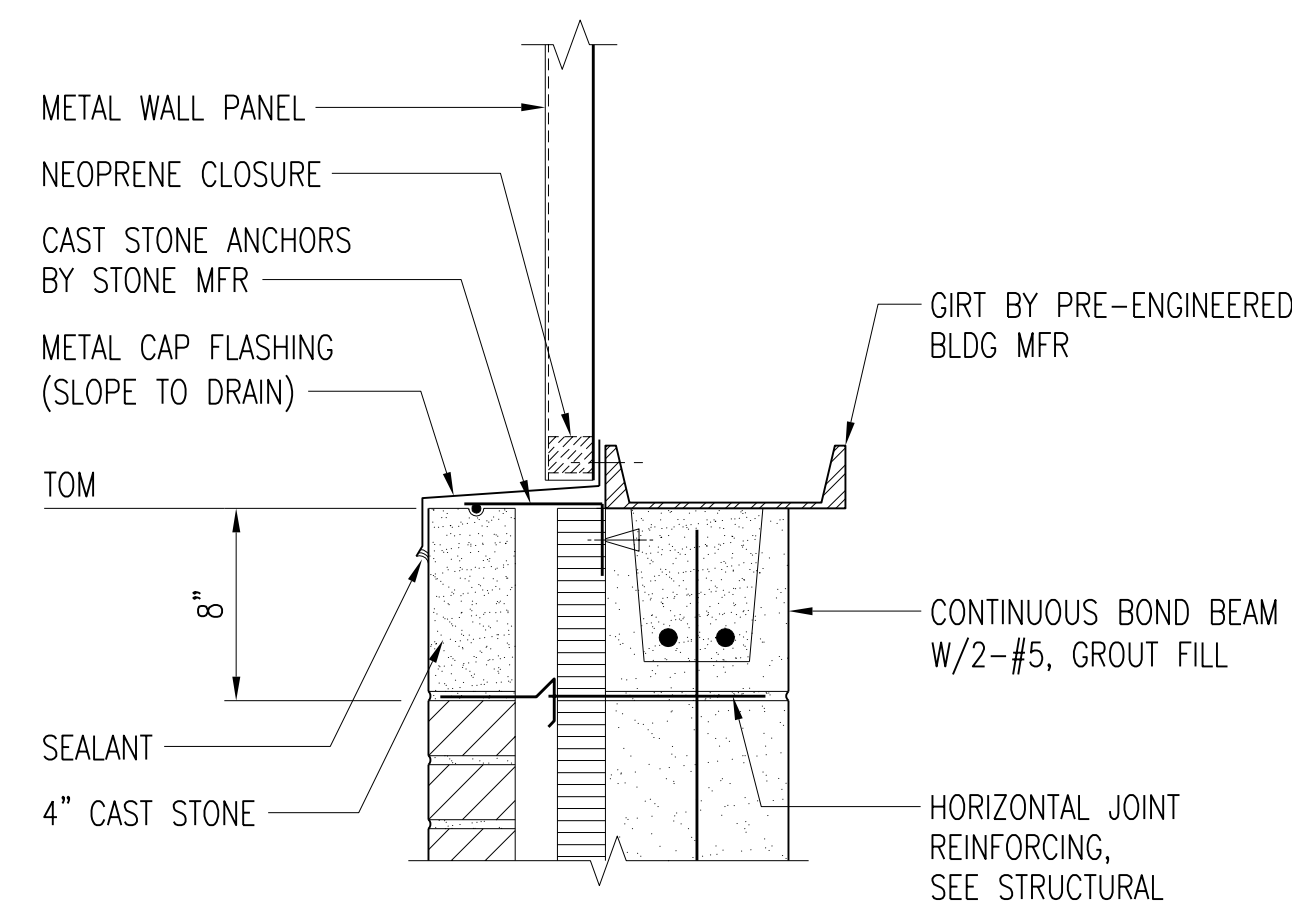
CADD: D1-R4

SEE RFI #10 SHEET A972-A



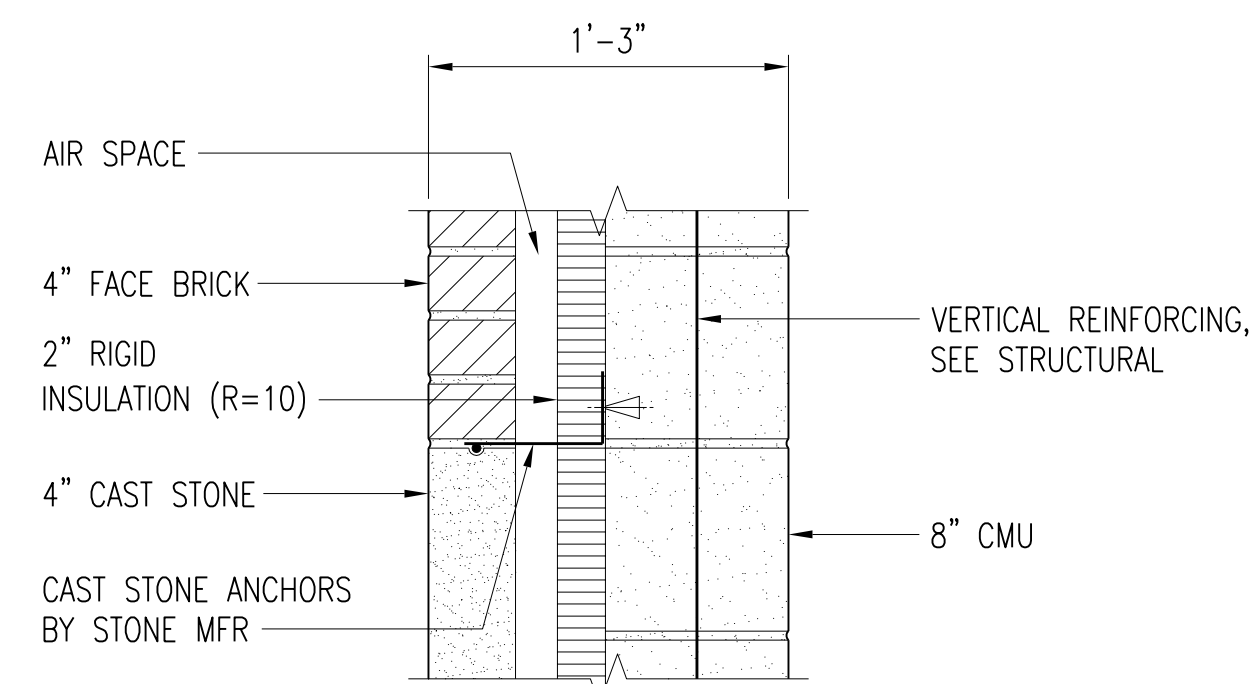
TYPICAL WALL SECTION (SHOWN AT EAVE)

SECTION **A-A972**
A971
SCALE: 3/4" = 1'-0"



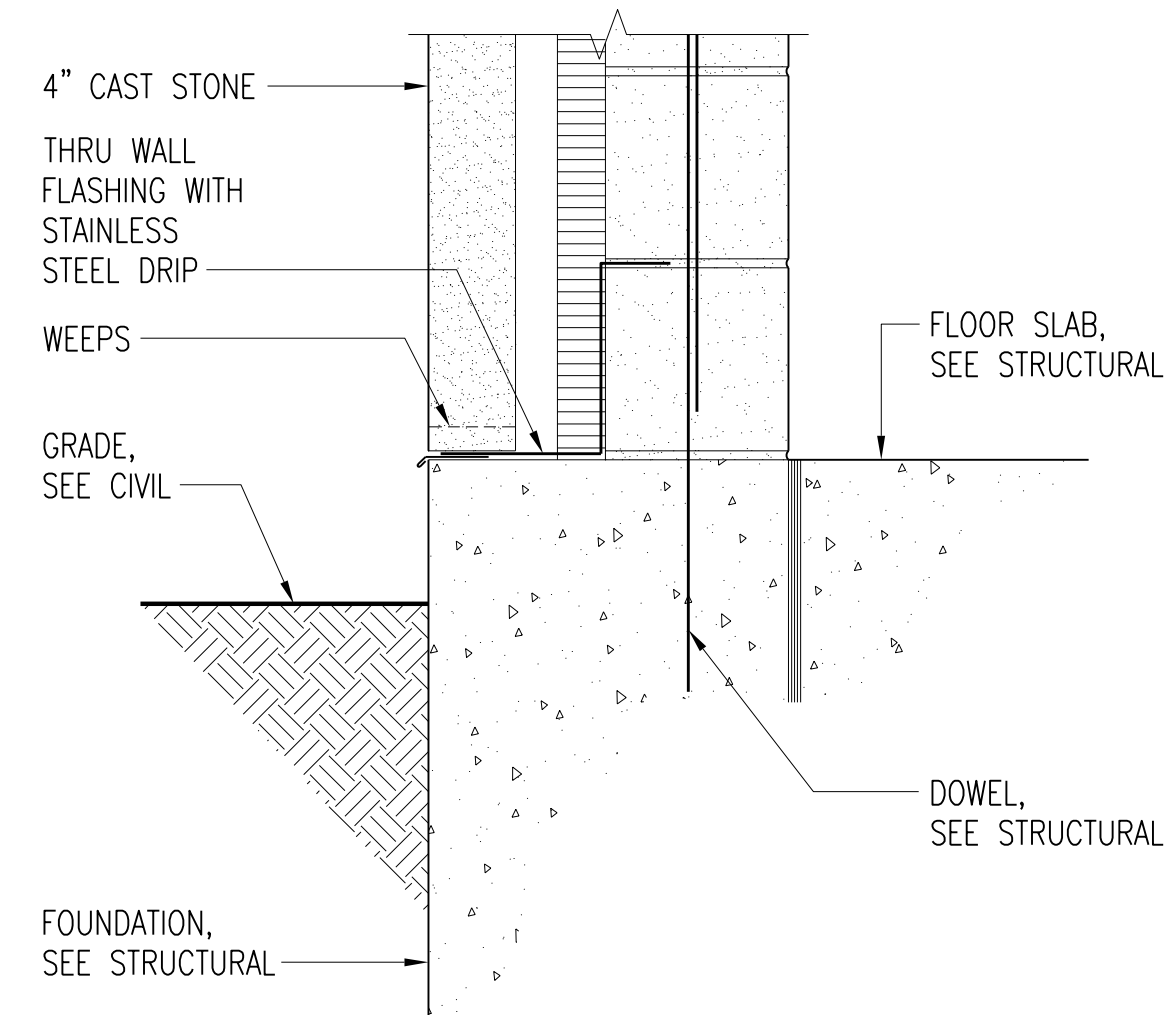
TYPICAL CAST STONE HEAD

DETAIL **D-A972**
A972
SCALE: 1 1/2" = 1'-0"



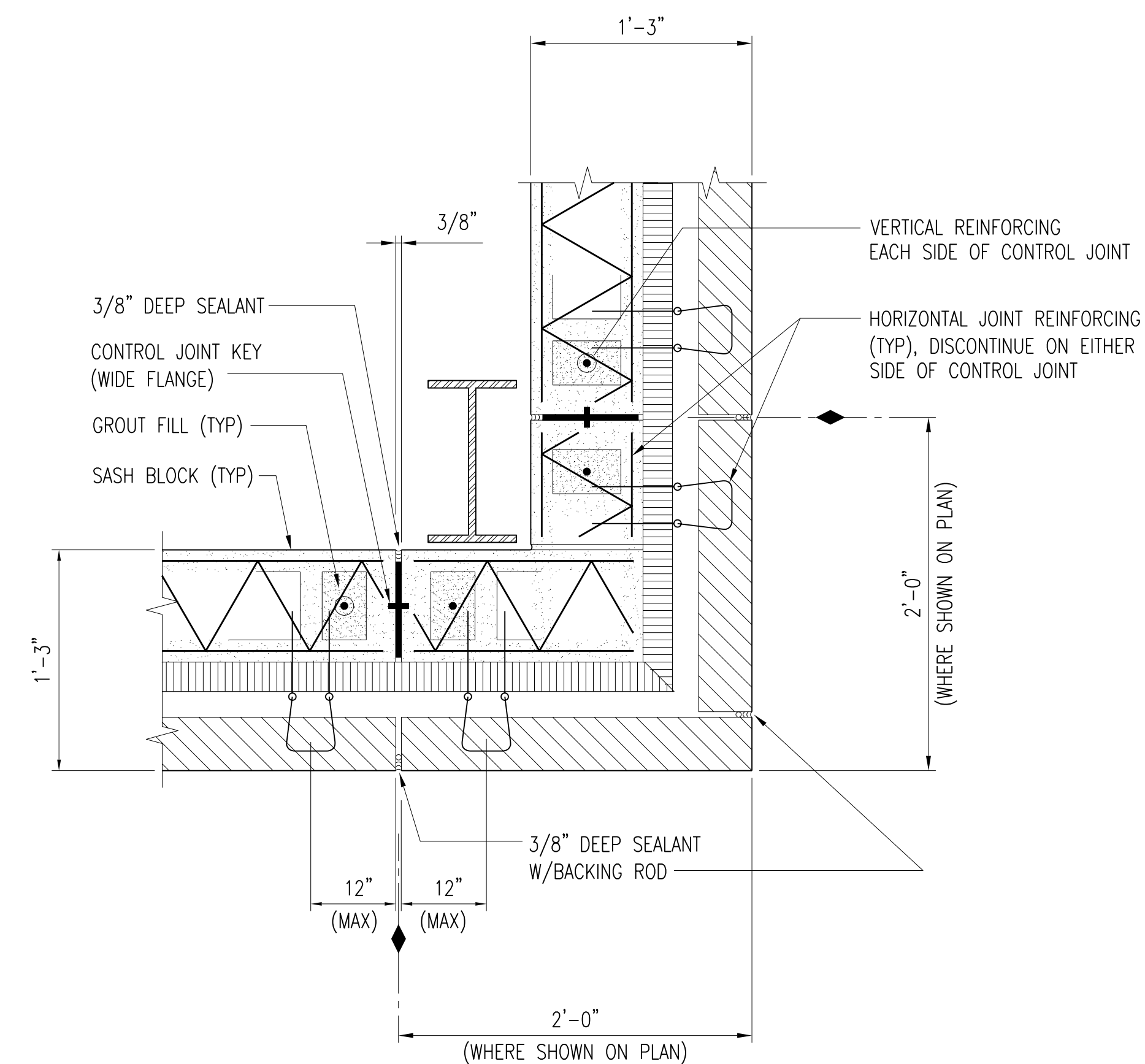
TYPICAL CAST STONE HEAD

DETAIL **C-A972**
A972
SCALE: 1 1/2" = 1'-0"



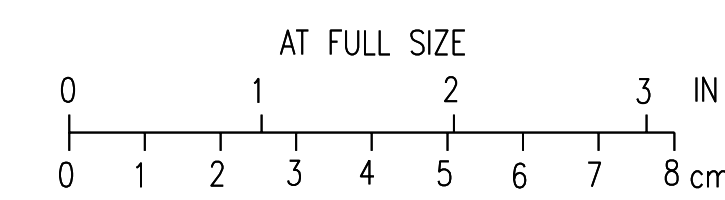
TYPICAL CAST STONE SILL

DETAIL **B-A972**
A972
SCALE: 1 1/2" = 1'-0"



TYPICAL CONTROL JOINT AT BUILDING CORNERS

DETAIL **E-A972**
A970
SCALE: 1 1/2" = 1'-0"



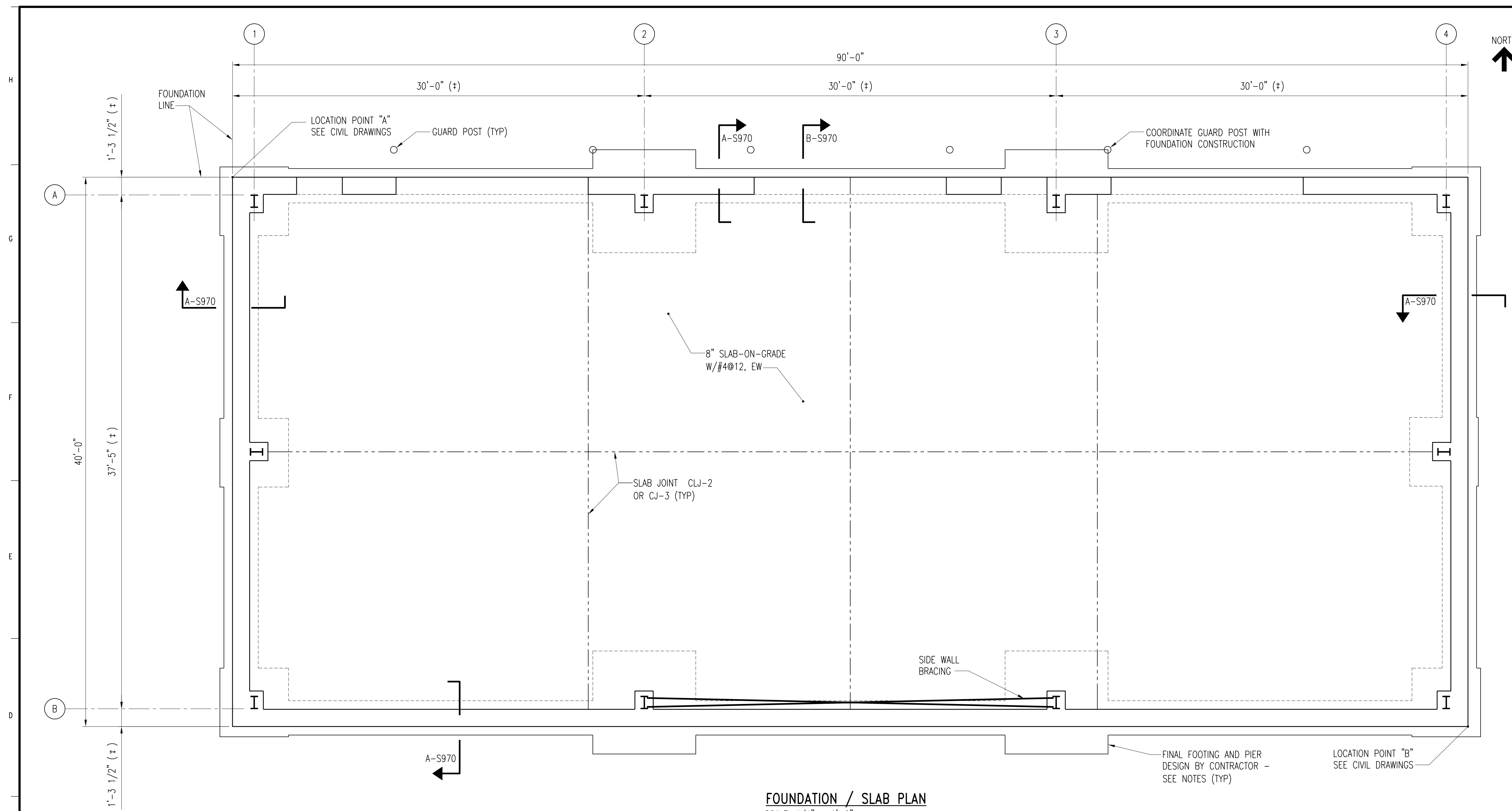
2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	GAL	GAL	DS	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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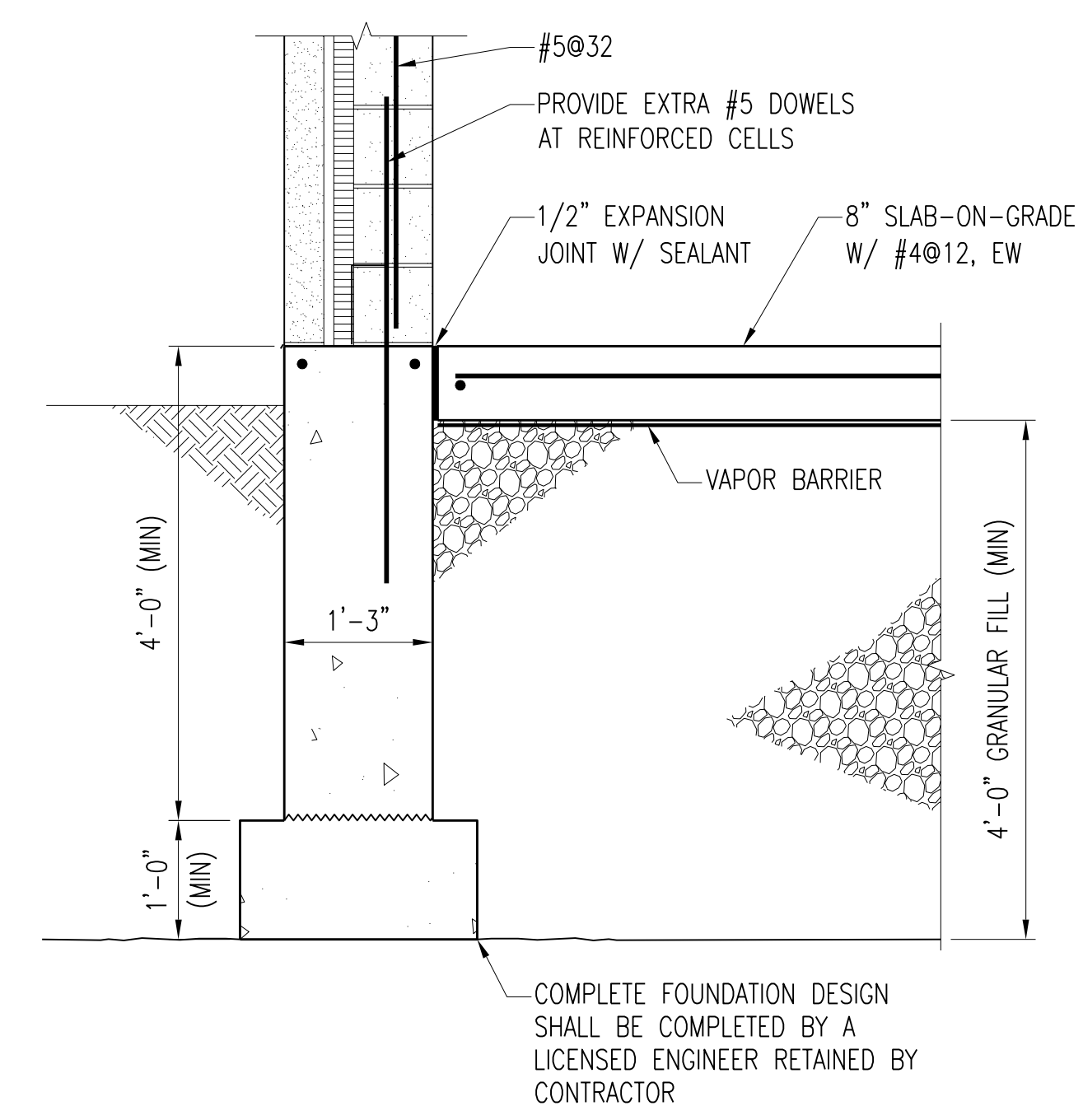
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**EQUIPMENT WAREHOUSE
SECTIONS AND DETAILS**

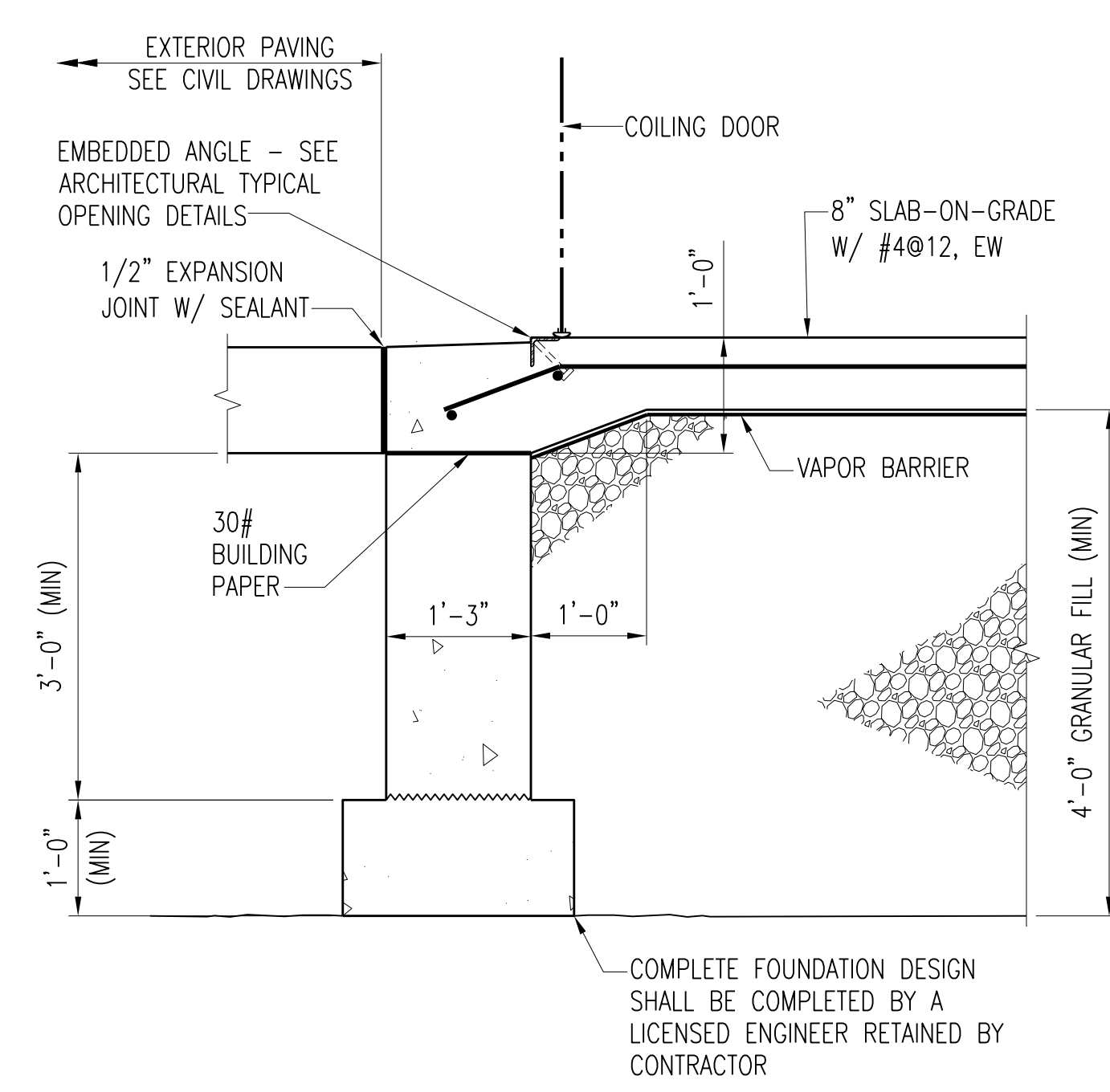
DESIGNED	GA LUDWIG	SCALE:	AS NOTED
DRAWN	DA HUMISTON	NO.	22800
CHECKED	GA LUDWIG	REV.	
APPROVED	D SARKAR	A972	2
APPROVED			
DATE	DECEMBER 2, 2011		



FOUNDATION / SLAB PLAN
SCALE: 1/4" = 1'-0"



SECTION A-S970
SCALE: 3/4" = 1'-0"



SECTION B-S970
SCALE: 3/4" = 1'-0"

- NOTES:**
- COORDINATE DIMENSIONS, WALL OPENINGS, ELEVATIONS, SECTIONS AND DETAILS WITH ARCHITECTURAL DRAWINGS AND BUILDING MANUFACTURER DRAWINGS.
 - REFER TO STANDARD STRUCTURAL NOTES AND DETAILS FOR STANDARD MASONRY NOTES AND ADDITIONAL REQUIREMENTS.
 - SLAB-ON-GRADE DESIGN LIVE LOAD: 250 PSF OR 8,000 LB WHEEL LOAD.
 - ALL FOOTINGS SHALL BE FOUNDED ENTIRELY ON NATURAL SOILS OR PROPERLY COMPACTED FILL AS INDICATED.
 - DIMENSIONS NOTED (+) MAY BE VARIED FOR METAL BUILDING MANUFACTURER STANDARD CONSTRUCTION

- FOUNDATION DESIGN CRITERIA:**
- CONTRACTOR SHALL RETAIN THE SERVICES OF A PROFESSIONAL ENGINEER LICENSED IN IOWA TO COMPLETE FOUNDATION DESIGN FOR INDIVIDUAL BUILDING COLUMNS, PERIMETER FOUNDATION WALLS, PIERS AND ANCHOR BOLTS. SLAB ON GRADE SHALL BE CONSTRUCTED AS INDICATED.
 - BUILDING REACTIONS SHALL BE OBTAINED FROM THE METAL BUILDING MANUFACTURER.
 - CONTRACTOR SHALL SUBMIT COMPLETE FOUNDATION DESIGN DRAWINGS PRIOR TO CONSTRUCTION. DRAWINGS SHALL CLEARLY IDENTIFY ALL DESIGN CRITERIA AND BUILDING LOADS. A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF IOWA SHALL SIGN ALL SUBMITTALS.
 - THE METAL BUILDING FOUNDATIONS SHALL BE DESIGNED BASED ON THE FOLLOWING PARAMETERS AND RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL ENGINEERING REPORT DATED AUGUST 17, 2011 COMPLETED BY TERRACON.
 - A. MAXIMUM NET ALLOWABLE SOIL BEARING PRESSURE: 2000 PSF
 - B. MINIMUM FOOTING DEPTH BELOW GRADE: 4FT, COORDINATE FOUNDATION DEPTH WITH PROPOSED GRADING AROUND BUILDING.
 - C. MINIMUM FACTOR OF SAFETY FOR OVERTURNING, SLIDING AND UPLIFT: 1.5. SLAB ON GRADE SHALL NOT BE USED TO PREVENT SLIDING OR OVERTURNING OF FOUNDATIONS.
 - D. LATERAL EARTH PRESSURE COEFFICIENTS FOR GRANULAR FILL: $K_a = 0.33$, $K_o = 0.5$, $K_p = 3.0$

- METAL BUILDING SYSTEM NOTES:**
- OUT-TO-OUT BUILDING DIMENSIONS SHALL BE AS INDICATED. THE CONTRACTOR SHALL COORDINATE COLUMN, BASE PLATE AND ANCHOR BOLT REQUIREMENTS WITH THE BUILDING MANUFACTURER. ANY DISCREPANCIES OR CONFLICTS SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE IMMEDIATELY.
 - METAL BUILDING SHALL BE DESIGNED TO PROVIDE LATERAL SUPPORT AT TOP OF MASONRY WALLS. LATERAL BRACING OF THE BUILDING SHALL BE BY SIDEWALL BRACING OR OTHER METHODS AS DETERMINED BY BUILDING MANUFACTURER.
 - METAL BUILDING SYSTEMS SHALL CONFORM TO THE REQUIREMENTS OF THE MBMA METAL BUILDING SYSTEMS MANUAL AND SPECIFICATION 13 34 19 - METAL BUILDING SYSTEMS.

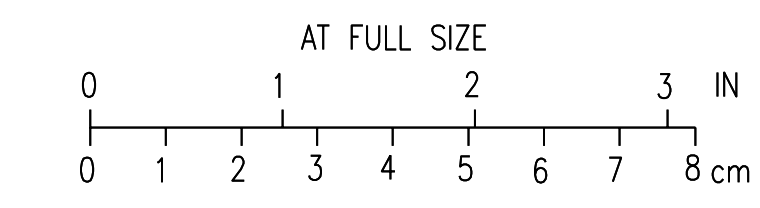
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1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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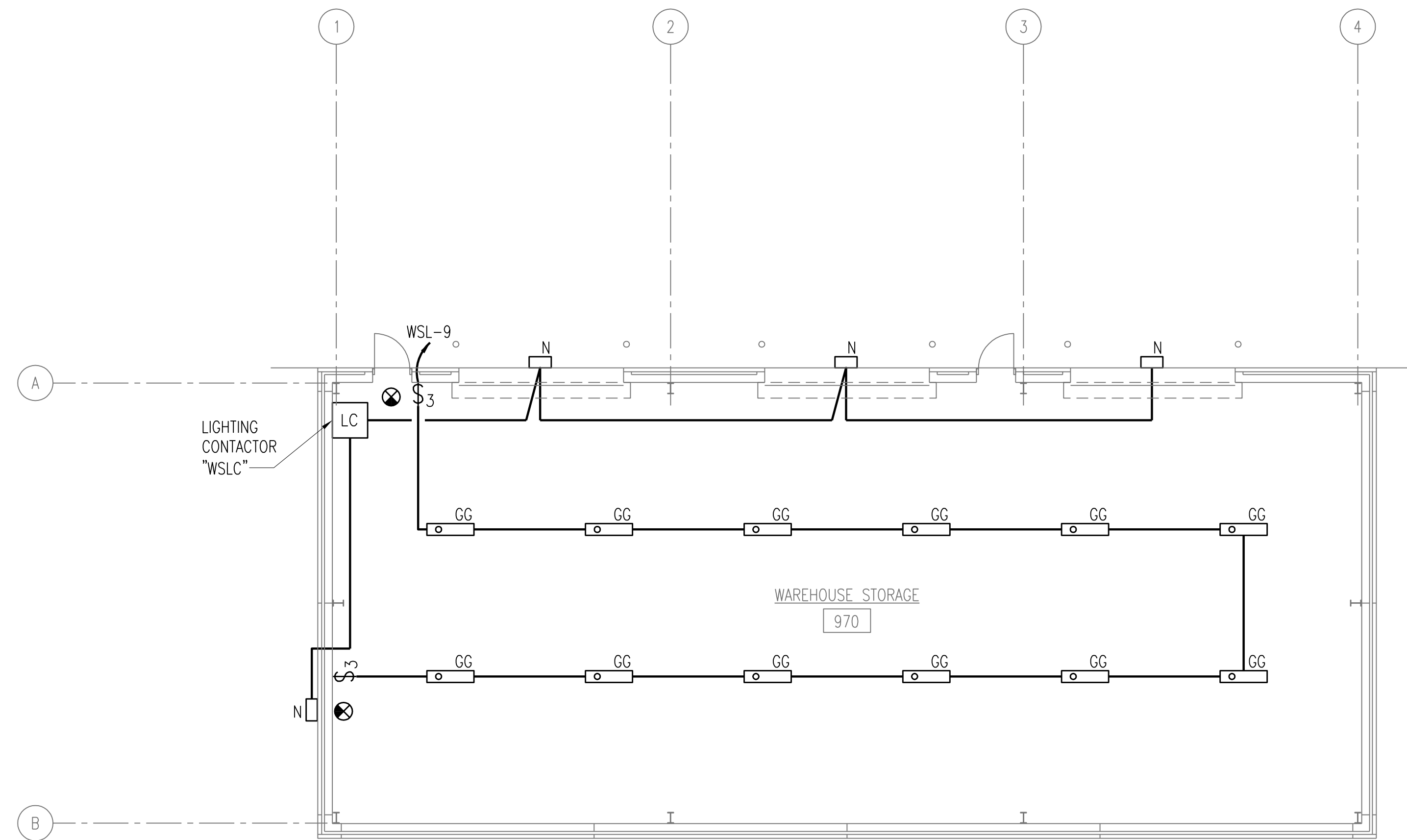
CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**EQUIPMENT WAREHOUSE
PLAN AND DETAILS**

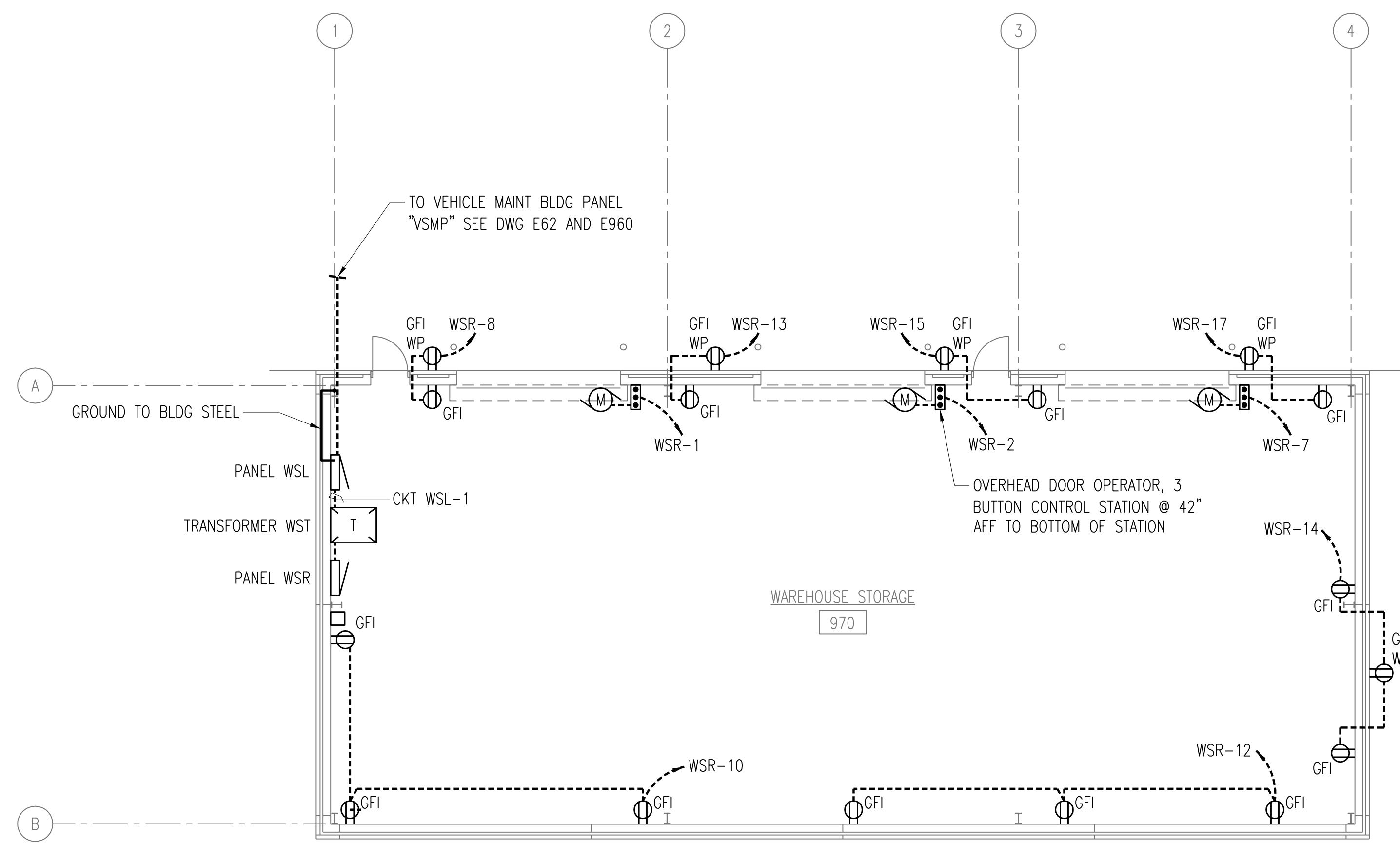
DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
APPROVED			
DATE	DECEMBER 2, 2011		



CADD: D1-R4



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



POWER FLOOR PLAN
SCALE: 1/8" = 1'-0"

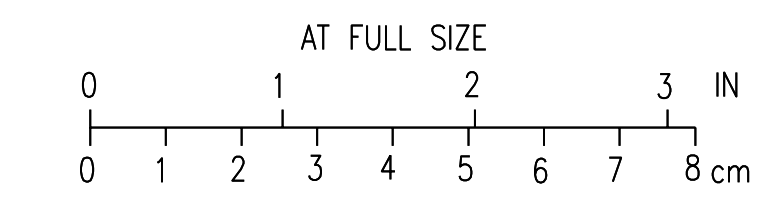
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1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE


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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**EQUIPMENT WAREHOUSE
POWER AND LIGHTING PLANS AND DETAILS**

DESIGNED	DL MORITZ	SCALE:	AS NOTED
DRAWN	D WILGES	NO.	22800
CHECKED	DL MORITZ	REV.	
APPROVED	JD COGAN		
APPROVED		E971	2
DATE	DECEMBER 2, 2011		



CADD: D1-R4

PANEL NAME:	NEW WSL		
SERVICE VOLTAGE:	480Y/277 VAC, 3 PH - 4 W	60 HZ	
SOURCE NAME:	PANEL VSMP		
SOURCE LOCATION:	VEHICLE MAIN STORAGE BLDG		
BUS RATING :	100 A	MOUNTING :	SURFACE
MAIN BREAKER :	100 A	MINIMUM AIC :	10,000
NEMA TYPE :	1	IG BUS :	NO
SERVICE ENTRANCE :	NO	7 MODE TVSS :	YES
200% NEUTRAL :	NO	TVSS LEVEL :	120 KA

BRKR NO.	CIRCUIT DESCRIPTION	LOAD DESCRIPTION	BRKR RTG	DEMAND (KVA)			CONNECTED (KVA)				LOAD FACTOR
				A	B	C	LTG	RCPT	MTR	EQPT	
1	3 #8,#10 GRD..75"C	TRANSFORMER FOR PANEL WSR, 30KVA	45A,3P	0.00							1.00
3	I	I	I		0.00						1.00
5	I	I	I			0.00					1.00
7	2 #12,#12 GRD..75"C	120 VOLTS	20A,1P	0.00							1.00
9	2 #12,#12 GRD..75"C	120 VOLTS	20A,1P		0.00						1.00
11		SPARE	20A,1P			0.00					1.00
13		SPARE	20A,1P	0.00							1.00
15		SPARE	20A,1P		0.00						1.00
17		SPARE	20A,1P			0.00					1.00
19		SPARE	20A,1P	0.00							1.00
21		SPARE	20A,1P		0.00						1.00
23		SPARE	20A,1P			0.00					1.00
25		SPARE	20A,1P	0.00							1.00
27		SPARE	20A,1P		0.00						1.00
29		SPARE	20A,1P			0.00					1.00

2		SPARE	20A,1P	0.00							1.00
4		SPARE	20A,1P		0.00						0.90
6		SPARE	20A,1P			0.00					1.00
8		SPARE	20A,1P	0.00							1.00
10		SPARE	20A,1P		0.00						1.00
12		SPARE	20A,1P			0.00					1.00
14		SPARE	20A,1P	0.00							1.00
16		SPARE	20A,1P		0.00						1.00
18		SPARE	20A,1P			0.00					1.00
20		SPARE	20A,1P	0.00							1.00
22		SPARE	20A,1P		0.00						1.00
24		SPARE	20A,1P			0.00					1.00
26		SPARE	20A,1P	0.00							1.00
28		SPARE	20A,1P		0.00						1.00
30		SPARE	20A,1P			0.00					1.00

				0.0	0.0	0.0	KVA / PH				
				0	0	0	AMPS / PH				
LOAD TYPE	CONNECTED (KVA)	DEMAND (KVA)	REMARKS:	MINIMUM PANEL RATINGS							
LIGHTING:	0.0	0.0		LOAD (KVA)	DEMAND FACTOR	RATED (KVA)	AMPACITY (AMPS)				
RECEPTACLE:	0.0	0.0									
MOTOR:	0.0	0.0									
EQUIPMENT:	0.0	0.0									
TOTALS:	0.0	0.0		0.0	1.25	0.0	0				

PANEL NAME:	NEW WSR		
SERVICE VOLTAGE:	208Y/120 VAC, 3 PH - 4 W	60 HZ	
SOURCE NAME:	XFMR WST		
SOURCE LOCATION:	ADJACENT TO PANEL		
BUS RATING :	100 A	MOUNTING :	SURFACE
MAIN BREAKER :	100 A	MINIMUM AIC :	10,000
NEMA TYPE :	1	IG BUS :	NO
SERVICE ENTRANCE :	NO	7 MODE TVSS :	YES
200% NEUTRAL :	NO	TVSS LEVEL :	120 KA

BRKR NO.	CIRCUIT DESCRIPTION	LOAD DESCRIPTION	BRKR RTG	DEMAND (KVA)			CONNECTED (KVA)				LOAD FACTOR
				A	B	C	LTG	RCPT	MTR	EQPT	
1	3 #12,#12 GRD..75"C	WEST DOOR	20A,3P	0.15						0.15	1.00
3	I	CENTER DOOR	I		0.15					0.15	1.00
5	I	EAST DOOR	I			0.15				0.15	1.00
7	3 #12,#12 GRD..75"C	SPARE	20A,3P	0.15						0.15	1.00
9	I	SPARE	I		0.15					0.15	1.00
11	I	SPARE	I			0.15				0.15	1.00
13	2 #12,#12 GRD..75"C	RECEPTACLES BY OVERHEAD DOOR WEST	20A,1P	0.36				0.36			1.00
15	2 #12,#12 GRD..75"C	RECEPTACLES BY OVERHEAD DOOR CENTER	20A,1P		0.36			0.36			1.00
17	2 #12,#12 GRD..75"C	RECEPTACLES BY OVERHEAD DOOR EAST	20A,1P			0.36		0.36			1.00
19		INSIDE LIGHTS	20A,1P	0.00							1.00
21		SPARE	20A,1P		0.00						1.00
23		SPARE	20A,1P			0.00					1.00
25		SPARE	20A,1P	0.00							1.00
27		SPARE	20A,1P		0.00						1.00
29		SPARE	20A,1P			0.00					1.00

2	3 #12,#12 GRD..75"C	SPARE	20A,3P	0.15						0.15	1.00
4	I	SPARE	I		0.14					0.15	0.90
6	I	SPARE	I			0.15				0.15	1.00
8	2 #12,#12 GRD..75"C	RECEPTACLES BY WALK IN DOOR NORTH	20A,1P	0.36				0.36			1.00
10	2 #12,#12 GRD..75"C	RECEPTACLES WEST WALL	20A,1P		0.54			0.54			1.00
12	2 #12,#12 GRD..75"C	RECEPTACLES SOUTH WALL	20A,1P			0.54		0.54			1.00
14	2 #12,#12 GRD..75"C	RECEPTACLES EAST WALL	20A,1P	0.54				0.54			1.00
16		OUTLET UNDER PANEL	20A,1P		0.00						1.00
18		EXTERIOR LIGHTS	20A,1P			0.00					1.00
20		SPARE	20A,1P	0.00							1.00
22		SPARE	20A,1P		0.00						1.00
24		SPARE	20A,1P			0.00					1.00
26				0.00							1.00
28					0.00						1.00
30						0.00					1.00

				1.7	1.3	1.4	KVA / PH				
				14	11	11	AMPS / PH				
LOAD TYPE	CONNECTED (KVA)	DEMAND (KVA)	REMARKS:	MINIMUM PANEL RATINGS							
LIGHTING:	0.0	0.0		LOAD (KVA)	DEMAND FACTOR	RATED (KVA)	AMPACITY (AMPS)				
RECEPTACLE:	3.1	3.1									
MOTOR:	0.0	0.0									
EQUIPMENT:	1.4	1.3									
TOTALS:	4.4	4.4		5.1	1.25	6.4	18				

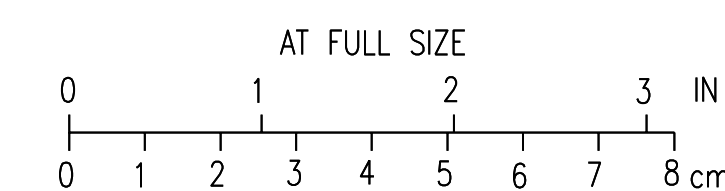
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2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

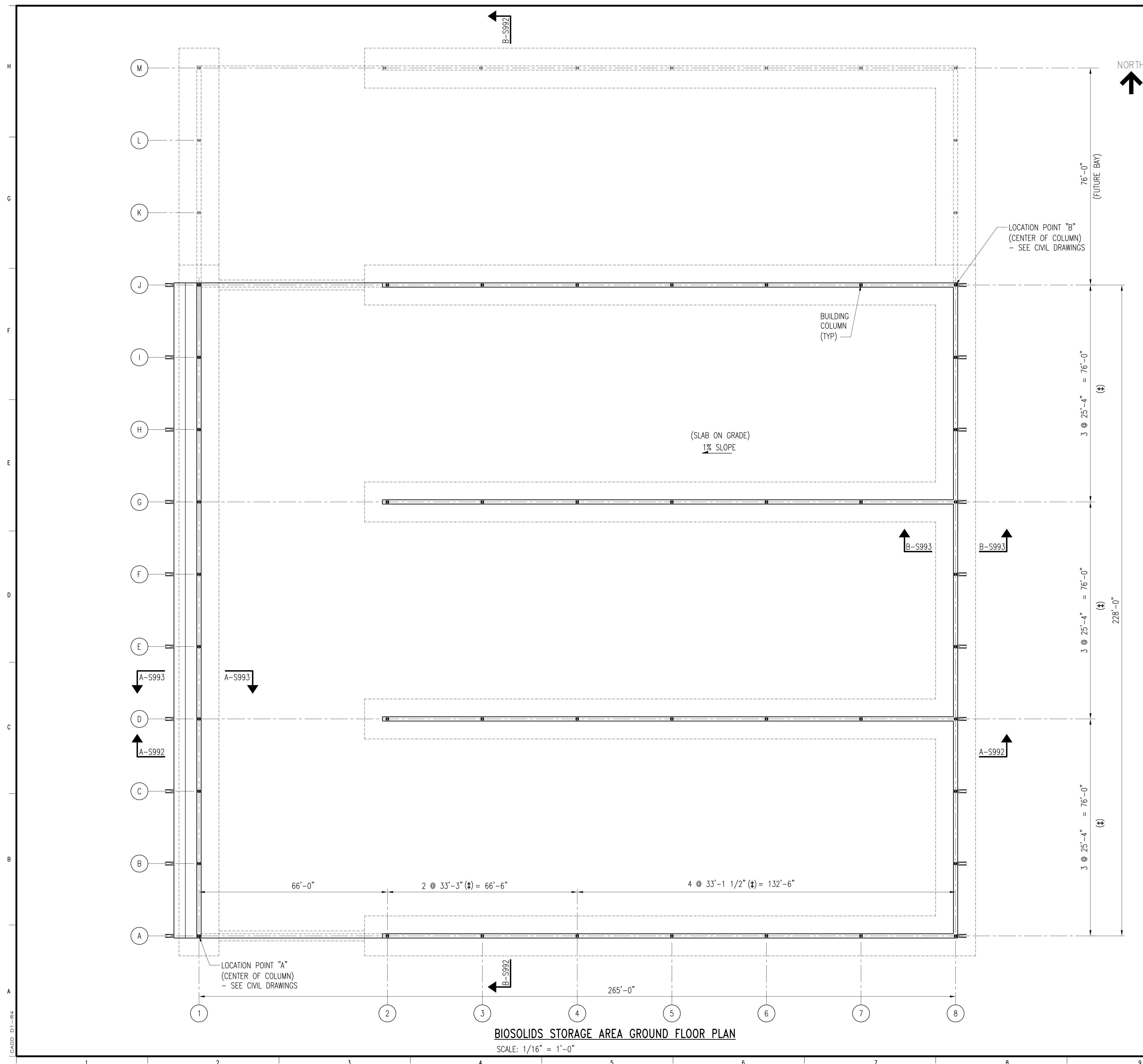


CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

EQUIPMENT WAREHOUSE
PANEL SCHEDULES

DESIGNED DL MORITZ	SCALE: AS NOTED	NO. 22800	REV. 3
DRAWN D WILGES			
CHECKED DL MORITZ			
APPROVED JD COGAN			
DATE DECEMBER 2, 2011			





NOTES:

GENERAL NOTES:

1. COORDINATE FINAL DIMENSIONS, WALL OPENINGS, ELEVATIONS, SECTIONS AND DETAILS WITH BUILDING MANUFACTURER DRAWINGS.
2. REFER TO STANDARD STRUCTURAL NOTES AND DETAILS FOR STANDARD DETAILS AND ADDITIONAL REQUIREMENTS.
3. SLAB-ON-GRADE DESIGN LIVE LOAD: 16,000 LB WHEEL LOAD.
4. ALL FOOTINGS SHALL BE FOUNDED ENTIRELY ON NATURAL SOILS OR PROPERLY COMPACTED FILL.
5. DIMENSIONS NOTED (±) MAY BE VARIED FOR METAL BUILDING MANUFACTURER STANDARD CONSTRUCTION.
6. INSTALL DRAINAGE GUTTERS AND DOWNSPOUTS ON EAST AND WEST SIDE OF STRUCTURE TO COLLECT AND CARRY ROOF DRAINAGE TO GROUND SURFACE. DOWNSPOUT SHALL BE ATTACHED TO EACH COLUMN AND DISCHARGE TO PRECAST CONCRETE SPLASH BLOCK LOCATED 8 FEET FROM STRUCTURE WALL ON WEST SIDE AND LOCATED AGAINST STRUCTURE ON EAST SIDE.
7. VAPOR BARRIER BELOW SLAB IS NOT REQUIRED.

FOUNDATION DESIGN CRITERIA:

1. CONTRACTOR SHALL RETAIN THE SERVICES OF A PROFESSIONAL ENGINEER LICENSED IN IOWA TO COMPLETE FOUNDATION DESIGN FOR INDIVIDUAL BUILDING COLUMNS, FOUNDATION RETAINING WALLS, PIERS AND ANCHOR BOLTS. SLAB ON GRADE SHALL BE CONSTRUCTED AS INDICATED.
2. FOUNDATION DESIGN LOADS OR BUILDING REACTIONS SHALL BE OBTAINED FROM THE METAL BUILDING MANUFACTURER.
3. CONTRACTOR SHALL SUBMIT COMPLETE FOUNDATION DESIGN DRAWINGS WITH COMPLETE DESIGN ANALYSES PRIOR TO CONSTRUCTION. A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF IOWA SHALL SIGN ALL SUBMITTALS.
4. THE METAL BUILDING FOUNDATION AND RETAINING WALLS SHALL BE DESIGNED BASED ON THE FOLLOWING PARAMETERS AND RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL ENGINEERING REPORT DATED AUGUST 17, 2011 COMPLETED BY TERRACON.
 - A. MAXIMUM NET ALLOWABLE SOIL BEARING PRESSURE: 2000 PSF
 - B. MINIMUM FOOTING DEPTH: 4 FT BELOW FINAL GRADE
 - C. MINIMUM FACTOR OF SAFETY FOR OVERTURNING, SLIDING AND UPLIFT: 1.5. SLAB ON GRADE SHALL NOT BE USED TO PREVENT SLIDING OR OVERTURNING OF FOUNDATIONS.
 - D. LATERAL EARTH PRESSURE COEFFICIENTS FOR GRANULAR BACKFILL: $K_a = 0.33$, $K_o = 0.5$, $K_p = 3.0$
 - E. LATERAL EARTH PRESSURE COEFFICIENTS FOR BIOSOLIDS: $K_o = 1.0$
 - F. BIOSOLIDS UNIT WEIGHT: 65 PCF

METAL BUILDING SYSTEM NOTES:

1. OUT-TO-OUT BUILDING DIMENSIONS SHALL BE AS INDICATED. THE CONTRACTOR SHALL COORDINATE COLUMN, BASE PLATE AND ANCHOR BOLT REQUIREMENTS WITH THE BUILDING MANUFACTURER. ANY DISCREPANCIES OR CONFLICTS SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE IMMEDIATELY.
2. LATERAL BRACING OF THE BUILDING SHALL BE BY SIDEWALL BRACING OR OTHER METHODS AS DETERMINED BY BUILDING MANUFACTURER.
3. METAL BUILDING SYSTEMS SHALL CONFORM TO THE REQUIREMENTS OF THE MBMA METAL BUILDING SYSTEMS MANUAL AND SPECIFICATION 13 34 19 - METAL BUILDING SYSTEMS.

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

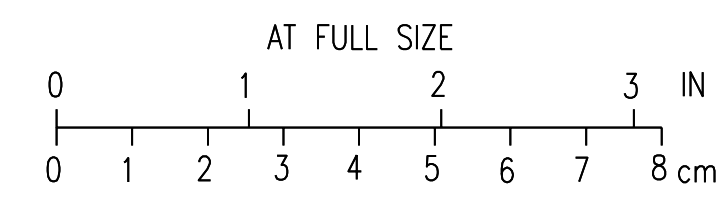

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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**BIOSOLIDS STORAGE AREA
GROUND FLOOR PLAN**

DESIGNED	KB HALL
DRAWN	DA SCHMIDT
CHECKED	KB HALL
APPROVED	LH BADTRAM
APPROVED	
DATE	DECEMBER 2, 2011

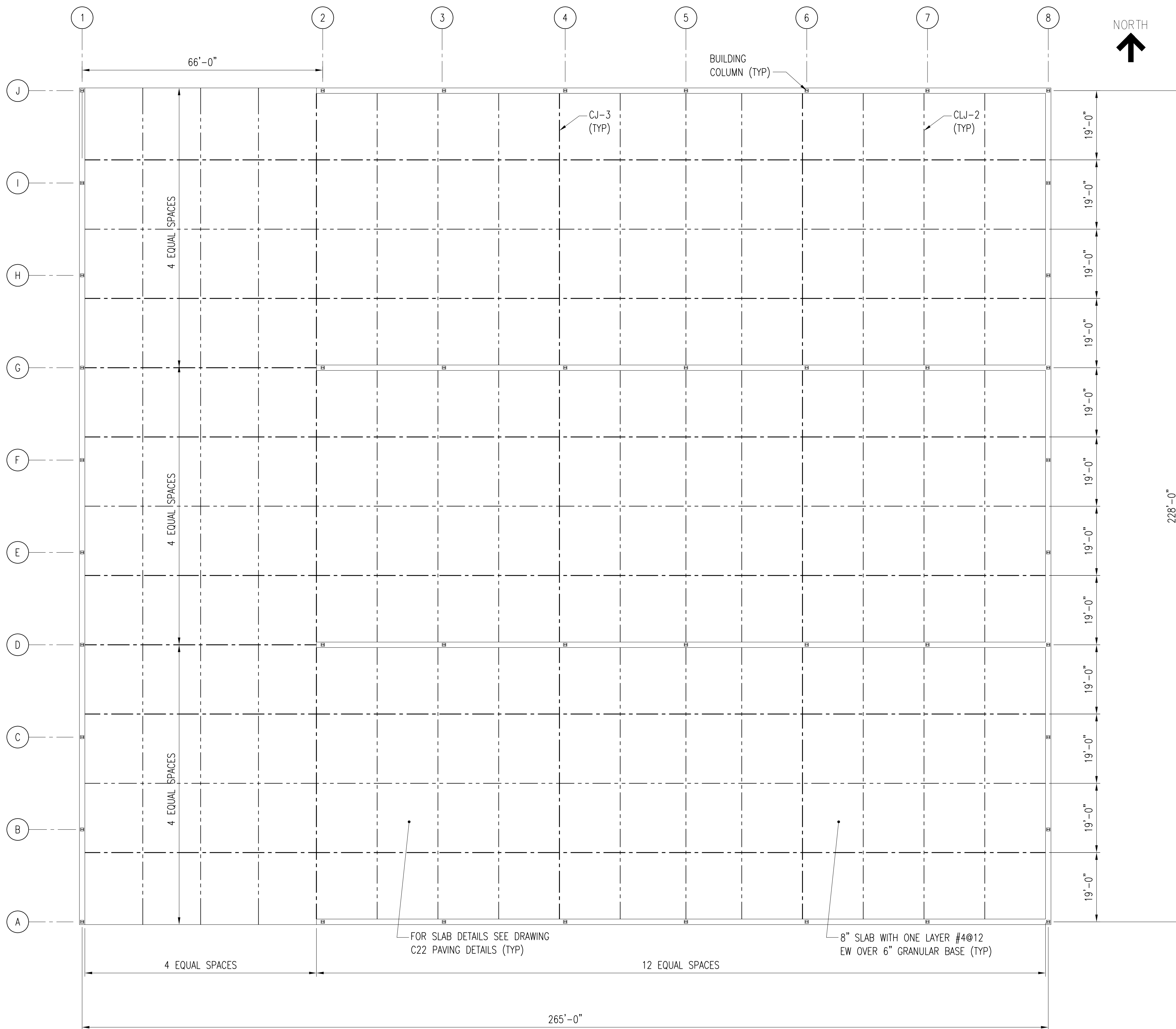
SCALE: AS NOTED	NO. 22800	REV.
	S990	2



BIOSOLIDS STORAGE AREA GROUND FLOOR PLAN
SCALE: 1/16" = 1'-0"

CADD: D1-184

NOTES:
 1. FOR JOINT DETAILS SEE DWG S7.



BIOSOLIDS STORAGE AREA FLOOR JOINTING PLAN
 SCALE: 1/16" = 1'-0"

2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

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CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

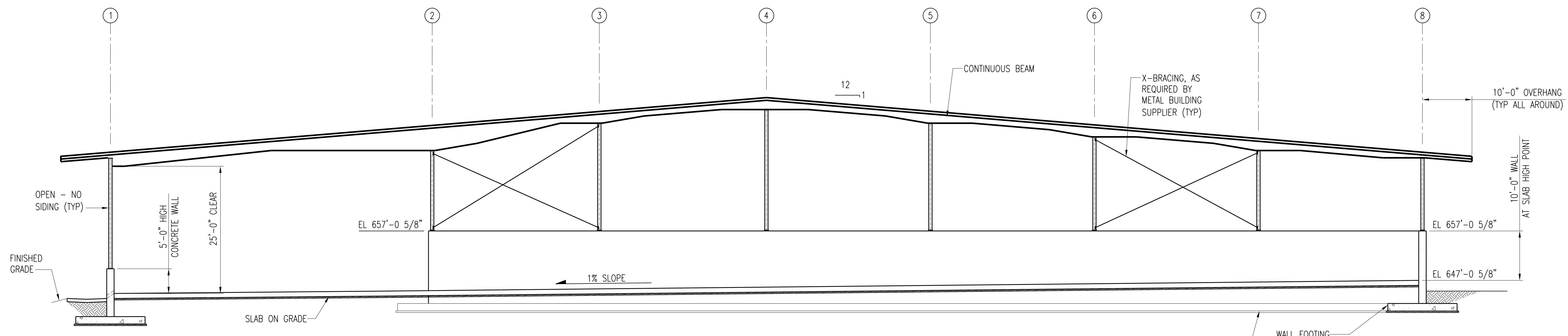
**BIOSOLIDS STORAGE AREA
 FLOOR JOINTING PLAN**

DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
APPROVED			
DATE	DECEMBER 2, 2011		

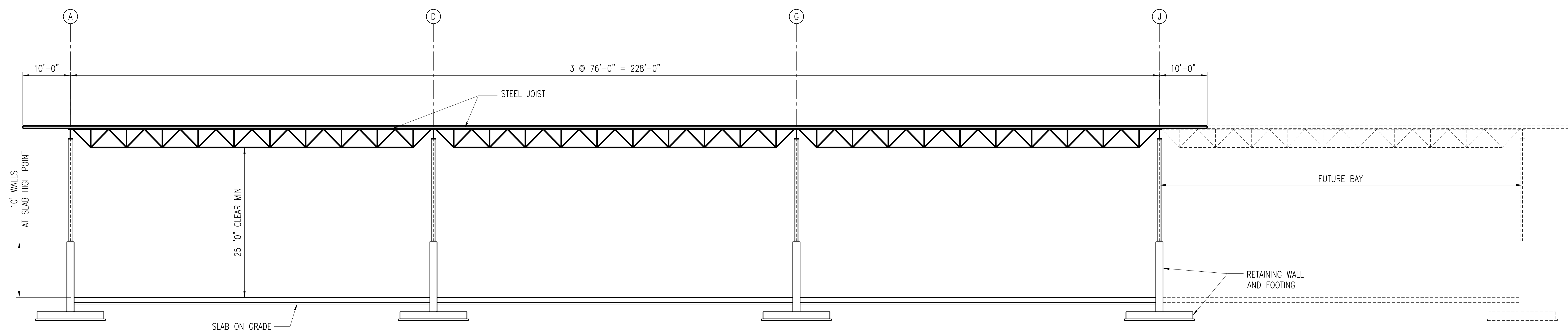
S991
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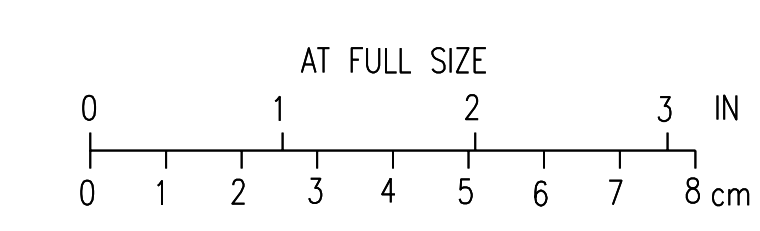
CADD: D1-R4



SECTION **A-S992**
S990
SCALE: 3/32" = 1'-0"



SECTION **B-S992**
S990
SCALE: 3/32" = 1'-0"



2	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

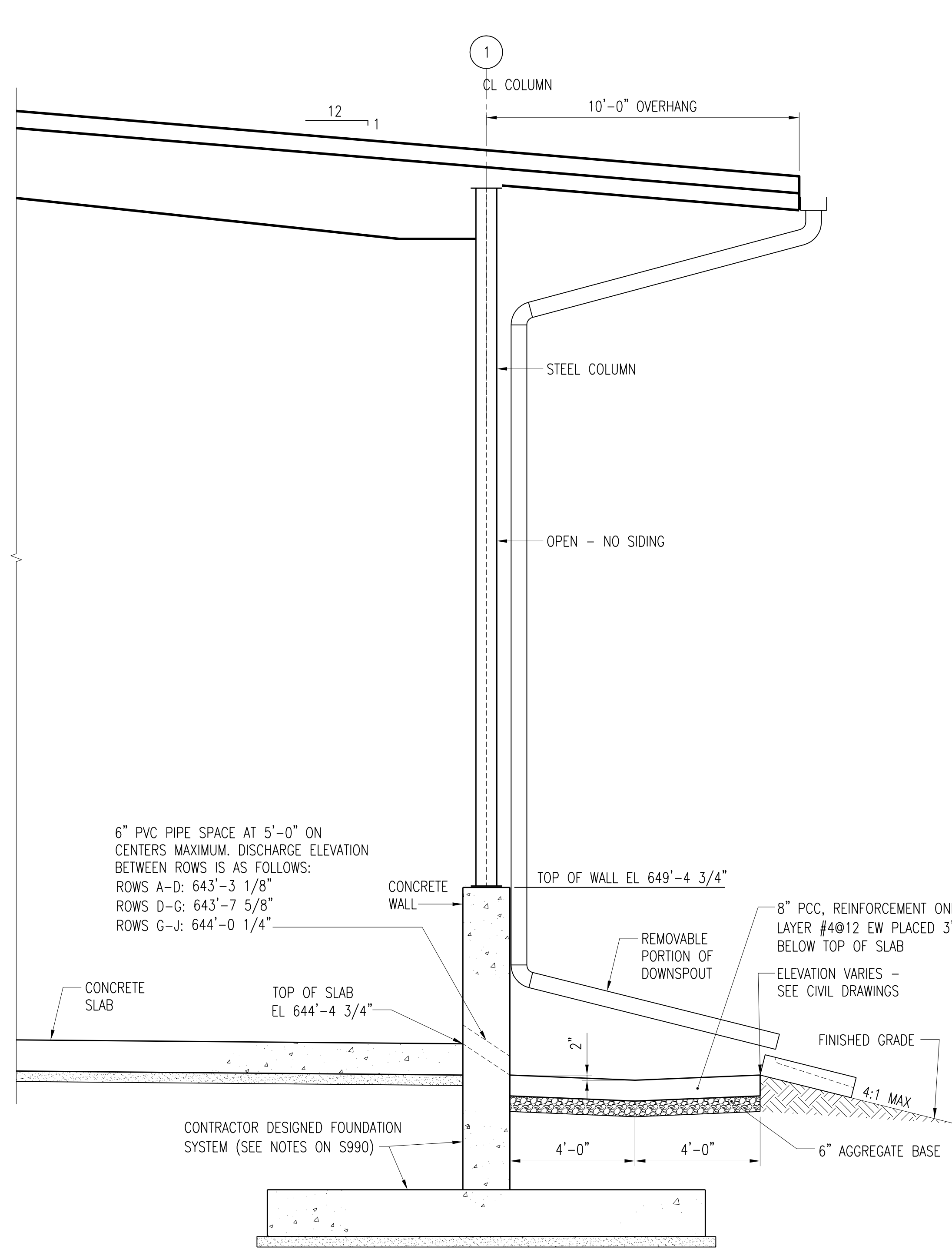

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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

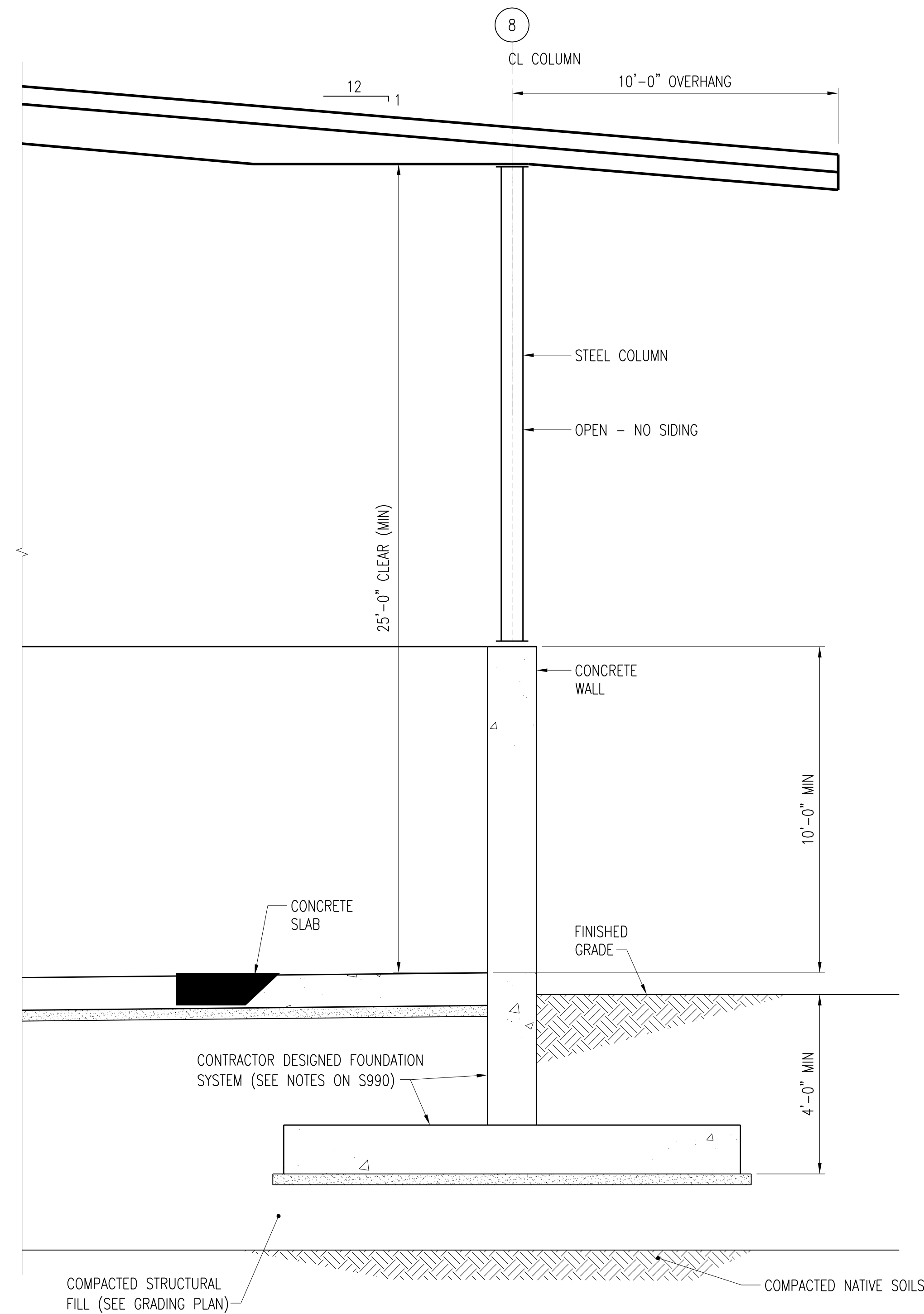
**BIOSOLIDS STORAGE AREA
DETAILS - SHEET 1**

DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
APPROVED			
DATE	DECEMBER 2, 2011	S992	2

CADD: D1-R4



SECTION **A-S993**
S990
SCALE: 3/8" = 1'-0"



SECTION **B-S993**
S990
SCALE: 3/8" = 1'-0"

6" PVC PIPE SPACE AT 5'-0" ON CENTERS MAXIMUM. DISCHARGE ELEVATION BETWEEN ROWS IS AS FOLLOWS:
ROWS A-D: 643'-3 1/8"
ROWS D-G: 643'-7 5/8"
ROWS G-J: 644'-0 1/4"

TOP OF WALL EL 649'-4 3/4"

TOP OF SLAB EL 644'-4 3/4"

8" PCC, REINFORCEMENT ONE LAYER #4@12 EW PLACED 3" BELOW TOP OF SLAB
ELEVATION VARIES - SEE CIVIL DRAWINGS

FINISHED GRADE

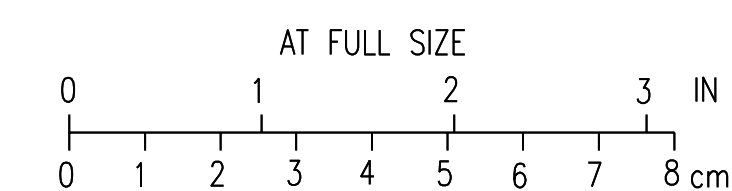
6" AGGREGATE BASE

CONTRACTOR DESIGNED FOUNDATION SYSTEM (SEE NOTES ON S990)

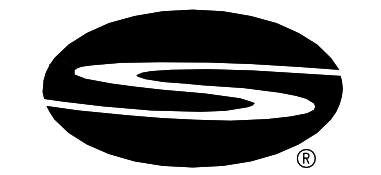
FINISHED GRADE

COMPACTED STRUCTURAL FILL (SEE GRADING PLAN)

COMPACTED NATIVE SOILS



3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	REVISED PER ADDENDUM NO. 1	KBH	KBH	LHB	02-22-2012
1	ISSUED FOR CONSTRUCTION	KBH	KBH	LHB	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



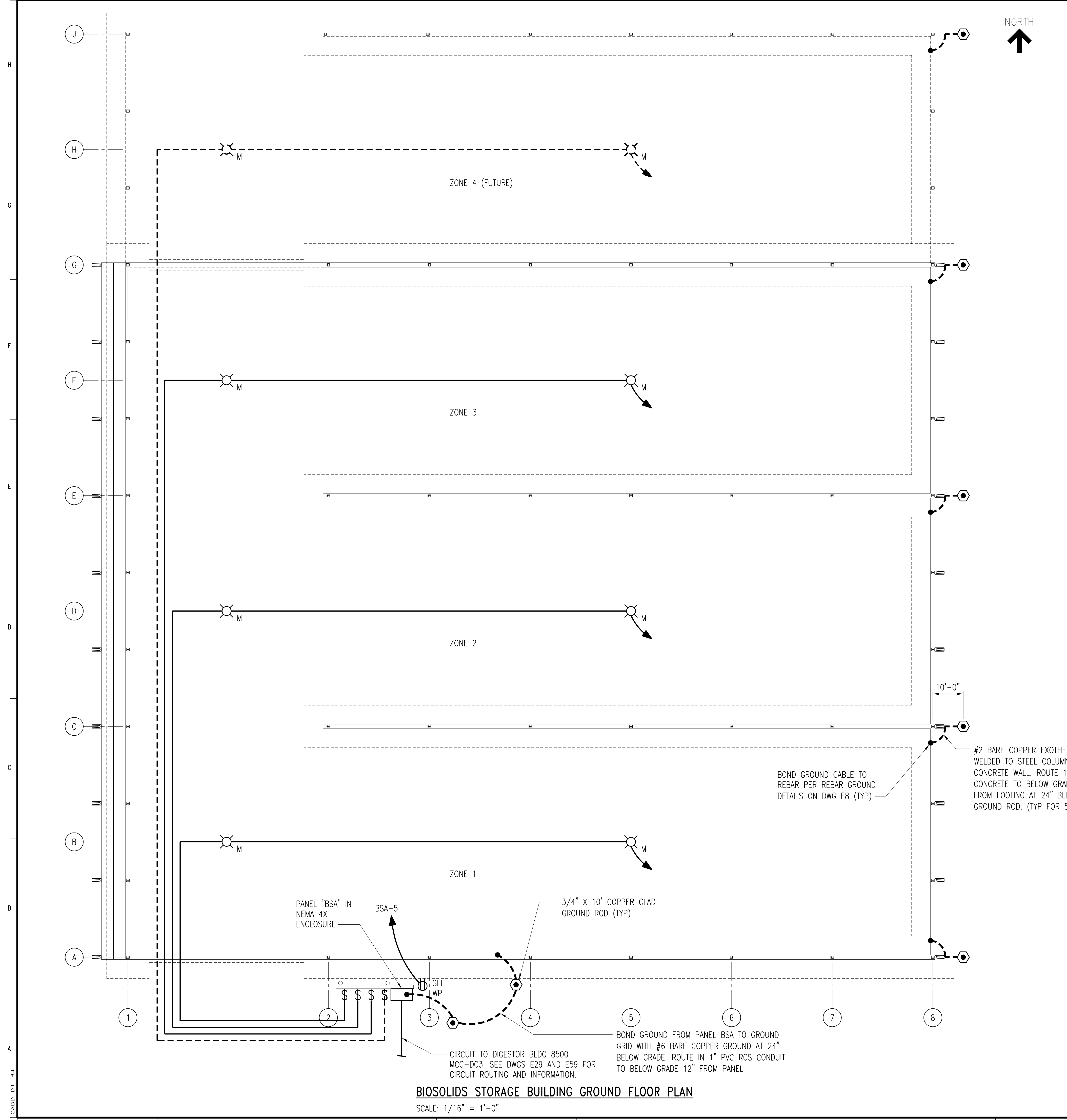
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CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**BIOSOLIDS STORAGE AREA
DETAILS - SHEET 2**

DESIGNED	KB HALL	SCALE:	AS NOTED
DRAWN	DA SCHMIDT	NO.	22800
CHECKED	KB HALL	REV.	
APPROVED	LH BADTRAM		
APPROVED			
DATE	DECEMBER 2, 2011	S993	3

CADD: D1-R4



PANEL NAME:	NEW PANEL BSA		BUS RATING:	100 A	MOUNTING:	SURFACE
SERVICE VOLTAGE:	208Y/120 VAC, 3 PH - 4 W	60 HZ	MAIN BREAKER:	MLO	MINIMUM AIC:	10,000
SOURCE NAME:	TRANSFORMER BSA		NEMA TYPE:	4X	IG BUS:	NO
SOURCE LOCATION:	DIGESTER BLDG 8500		SERVICE ENTRANCE:	YES	7 MODE TVSS:	YES
			200% NEUTRAL:	NO	TVSS LEVEL:	120 KA

BRKR NO.	CIRCUIT DESCRIPTION	LOAD DESCRIPTION	BRKR RTG	DEMAND (KVA)			CONNECTED (KVA)				LOAD FACTOR
				A	B	C	LTG	RCPT	MTR	EQPT	
1	2#8, #8GRD, 1" C	SPARE	20A, 1P	0.60			0.60				1.00
3	2#8, #8GRD, 1" C	SPARE	20A, 1P		0.60		0.60				1.00
5	2#12, #12GRD, 1" C	PANEL RECEPTACLE	20A, 1P			0.36		0.36			1.00
7		PANEL RECEPTACLE	20A, 1P	0.00							1.00
9		SPARE	20A, 1P		0.00						1.00
11		SOUTH BAY LIGHTS	20A, 1P			0.00					1.00
13		MIDDLE BAY LIGHTS	20A, 1P	0.00							1.00
15		NORTH BAY LIGHTS	20A, 1P		0.00						1.00
17						0.00					1.00
19				0.00							1.00
21					0.00						1.00
23						0.00					1.00
25				0.00							1.00
27						0.00					1.00
29						0.00					1.00

2	2#8, #8GRD, 1" C	ZONE 2 LIGHTING	20A, 1P	0.60			0.60				1.00
4	2#8, #8GRD, 1" C	ZONE 4 LIGHTING	20A, 1P		0.54		0.60				0.90
6		SPARE	20A, 1P			0.00					1.00
8		SPARE	20A, 1P	0.00							1.00
10		SPARE	20A, 1P		0.00						1.00
12		SPARE	20A, 1P			0.00					1.00
14		SPARE	20A, 1P	0.00							1.00
16		SPARE	20A, 1P		0.00						1.00
18						0.00					1.00
20				0.00							1.00
22					0.00						1.00
24						0.00					1.00
26				0.00							1.00
28						0.00					1.00
30						0.00					1.00

1.2	1.1	0.4	KVA / PH
10	9	3	AMPS / PH

LOAD TYPE	CONNECTED (KVA)	DEMAND (KVA)	REMARKS:
LIGHTING:	2.4	2.3	
RECEPTACLE:	0.4	0.4	
MOTOR:	0.0	0.0	
EQUIPMENT:	0.0	0.0	
TOTALS:	2.8	2.7	

MINIMUM PANEL RATINGS			
LOAD (KVA)	DEMAND FACTOR	RATED (KVA)	AMPACITY (AMPS)
3.6	1.25	4.5	12

- NOTES:
- 1
 - 2
 - 3
 - 4
 - 5
 - 6

#2 BARE COPPER EXOTHERMICALLY WELDED TO STEEL COLUMN AT 12" ABOVE CONCRETE WALL. ROUTE 1" PVC THROUGH CONCRETE TO BELOW GRADE AND 10' FROM FOOTING AT 24" BELOW GRADE TO GROUND ROD. (TYP FOR 5)

PANEL "BSA" IN NEMA 4X ENCLOSURE

BSA-5

3/4" X 10" COPPER CLAD GROUND ROD (TYP)

GFI WP

CIRCUIT TO DIGESTOR BLDG 8500 MCC-DG3. SEE DWGS E29 AND E59 FOR CIRCUIT ROUTING AND INFORMATION.

BOND GROUND FROM PANEL BSA TO GROUND GRID WITH #6 BARE COPPER GROUND AT 24" BELOW GRADE. ROUTE IN 1" PVC RGS CONDUIT TO BELOW GRADE 12" FROM PANEL

BOND GROUND CABLE TO REBAR PER REBAR GROUND DETAILS ON DWG E8 (TYP)

BIOSOLIDS STORAGE BUILDING GROUND FLOOR PLAN
SCALE: 1/16" = 1'-0"



3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	GENERAL	DLM	DLM	JDC	01-25-2012
1	ISSUED FOR CONSTRUCTION	DLM	DLM	JDC	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**BIOSOLIDS STORAGE AREA
POWER AND LIGHTING PLAN**

DESIGNED	DL MORITZ	SCALE:	AS NOTED
DRAWN	D. WILGES	NO.	22800
CHECKED	DL MORITZ	REV.	
APPROVED	JD COGAN		
APPROVED			
DATE	DECEMBER 2, 2011		

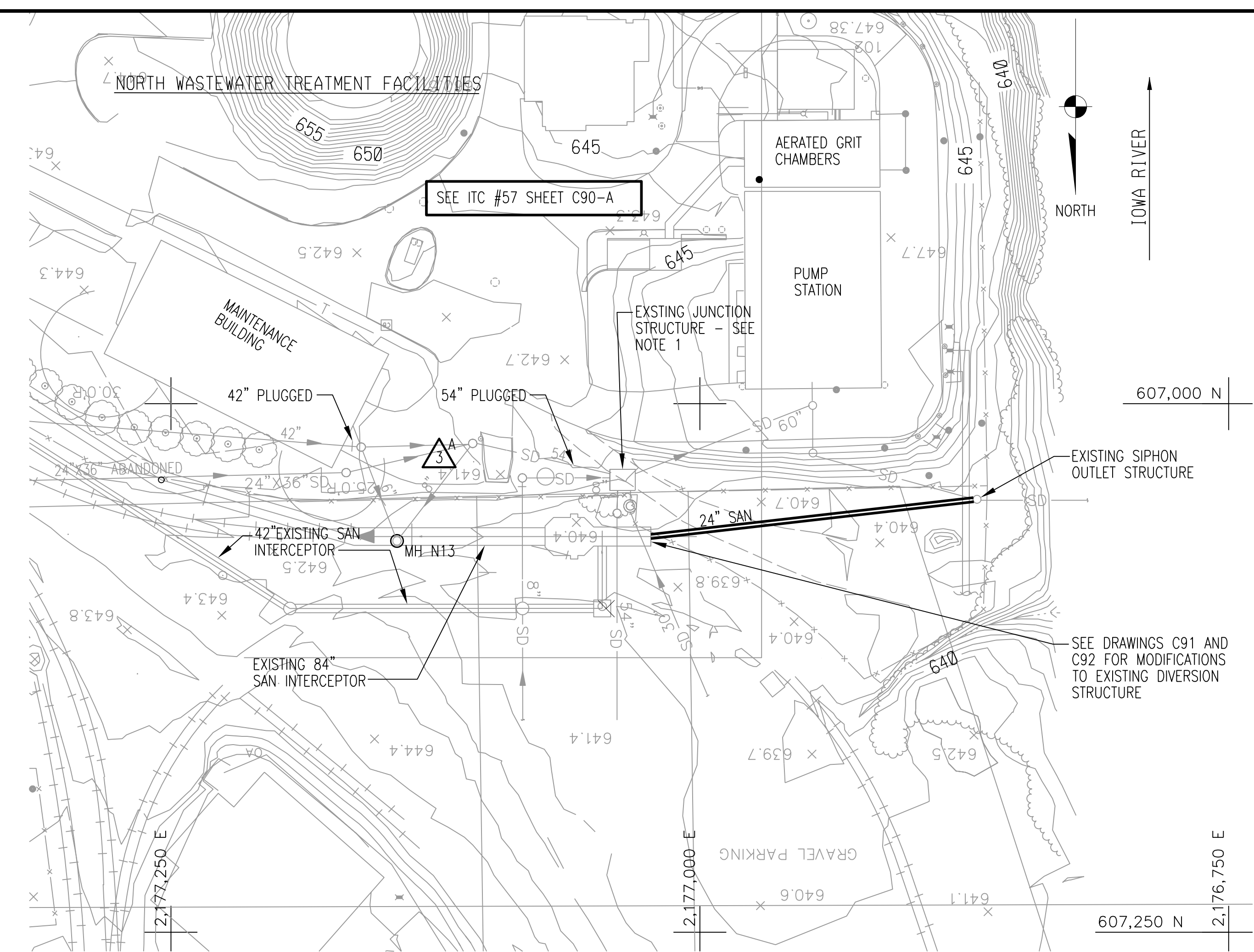
E991 **3**

WORK ON THIS DRAWING NOT INCLUDED IN EDA FUNDED PROJECT

- NOTES:**
- AFTER ALL FLOW IS DIVERTED FROM EXISTING JUNCTION STRUCTURE REMOVE STRUCTURE TO MINIMUM DEPTH OF 4 FEET BELOW GROUND SURFACE. FILL STRUCTURE WITH GRANULAR MATERIAL AND BACKFILL TO EXISTING GRADE.
 - DO NOT START WORK AT NORTH PLANT UNTIL SOUTH PLANT EXPANSION IS COMPLETE AND PLACED IN OPERATION.
 - PRECAST CONCRETE PIPE TO MEET ASTM C76 AND TO INCLUDE ANTIMICROBIAL ADDITIVE IN CONCRETE MIX TO RENDER CONCRETE UNINHABITABLE FOR BACTERIAL GROWTH. LIQUID ADMIXTURE TO BE EPA REGISTERED. SUBMIT REGISTRATION NUMBER WITH MIX DESIGN FOR APPROVAL PRIOR TO USE. AMOUNT USED SHALL BE AS RECOMMENDED BY MANUFACTURER OF THE AGENT. THE AGENT SHALL BE ADDED TO THE MIX WATER AND INCLUDED AS PART OF THE TOTAL WATER CONTENT OF THE MIX. USE CONMICSHIELD BY CONSHIELD TECHNOLOGIES, INC. OR EQUAL.
 - EXISTING OIL STORAGE TANK IS LOCATED IN CONCRETE CONTAINMENT STRUCTURE NEAR SITE OF PROPOSED MANHOLE A1 AT NORTH PLANT. OWNER WILL REMOVE OIL STORAGE TANK PRIOR TO CONSTRUCTION OF MANHOLE A1. CONTRACTOR SHALL REMOVE AND DISPOSE OF CONCRETE CONTAINMENT STRUCTURE INCLUDING FOUNDATIONS. CONTAINMENT STRUCTURE IS CONSTRUCTED WITH REINFORCED CONCRETE FLOOR SLAB PLACED AT GROUND LEVEL SURROUNDED BY REINFORCED CONCRETE WALL WHICH EXTENDS 3' ABOVE CONCRETE FLOOR. OUTSIDE WALL DIMENSIONS OF STRUCTURE ARE 19.4' LONG X 19.4' WIDE; 8" THICK WALLS WITH FROST FREE FOOTINGS FOR WALLS. FILL AND COMPACT EXCAVATION TO MATCH SURROUNDING GROUND SURFACE

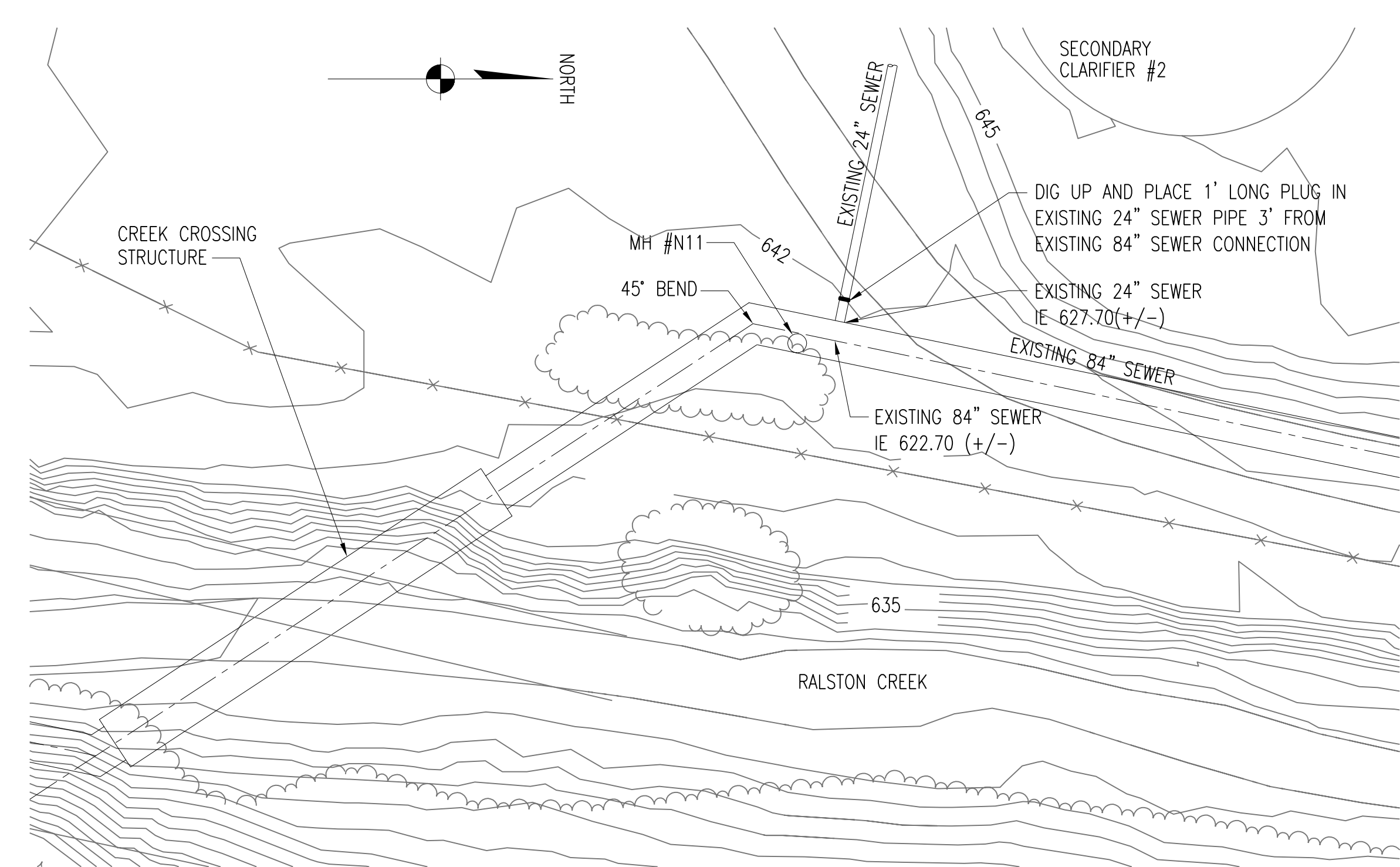


NORTH WASTEWATER TREATMENT PLANT VICINITY MAP
SCALE: NONE

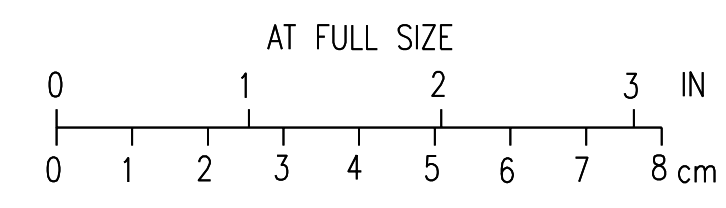
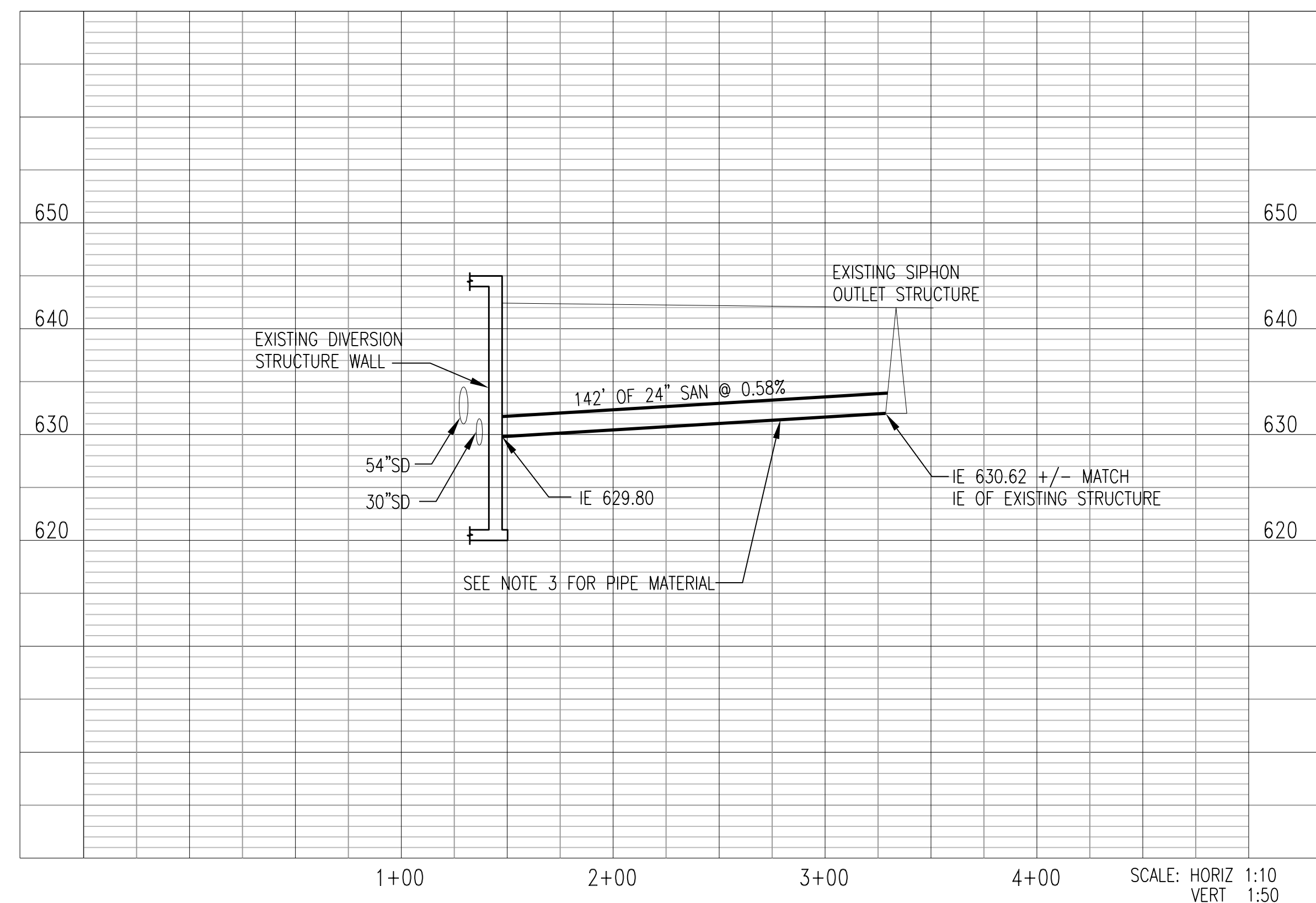


24" SEWER RELOCATION PLAN
SCALE: NONE

NOTE:
THE SIZE, NUMBER AND LOCATION OF UTILITY MAINS SHOWN ON DRAWINGS ARE APPROXIMATE AND FOR GENERAL INFORMATION ONLY. UTILITY SERVICE CONNECTIONS ARE NOT SHOWN ON DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR OBTAINING EXACT LOCATIONS OF EXISTING UTILITIES FROM UTILITY COMPANIES. SOME EXISTING UTILITIES MAY NOT BE SHOWN.



24" SEWER PLUG PLAN
SCALE: NONE



4	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
3	ADDED ADDENDUM COMMENTS	LJO	JBL	JBL	05-04-2012
2	ADDED NOTE	CLM	CLM	BDR	01-25-2012
1	ISSUED FOR CONSTRUCTION	CLB	CLB	BDR	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE



CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**NORTH PLANT MODIFICATIONS
NORTH PLANT VICINITY MAP AND
RELOCATED SEWER PLAN & PROFILE**

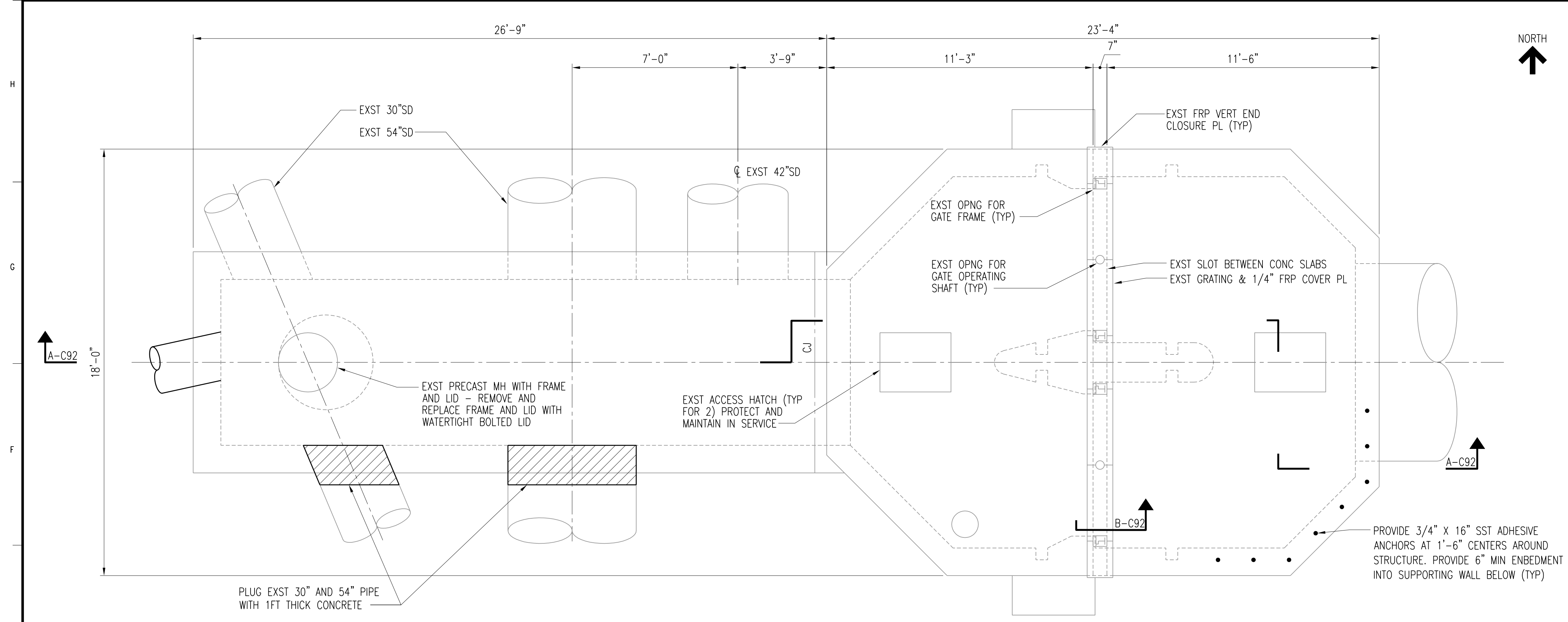
DESIGNED	CL BARK	SCALE:	AS NOTED
DRAWN	N VEGA	NO.	22800
CHECKED	CL BARK	REV.	
APPROVED	BD REISCHAUER		
APPROVED			
DATE	DECEMBER 2, 2011		

C90 **4**

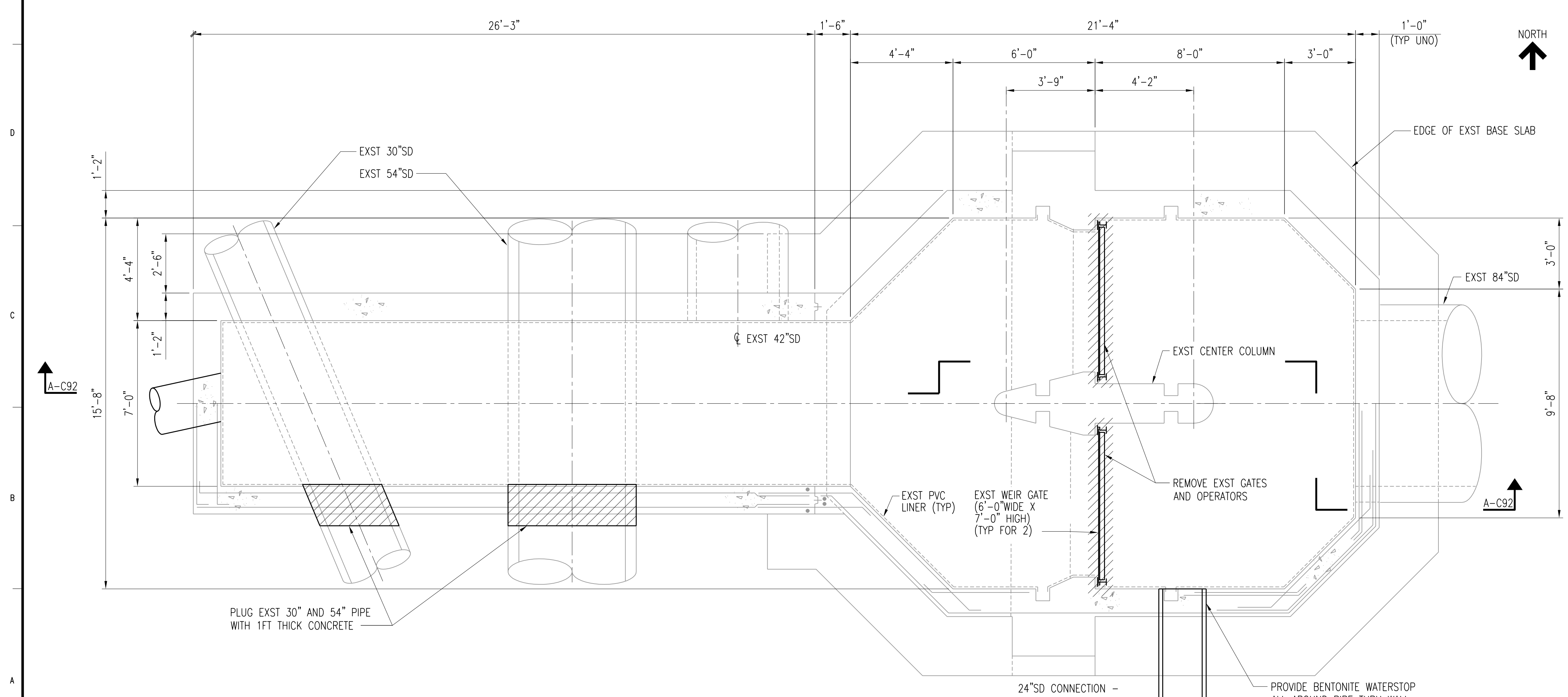
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WORK ON THIS DRAWING NOT INCLUDED IN EDA FUNDED PROJECT

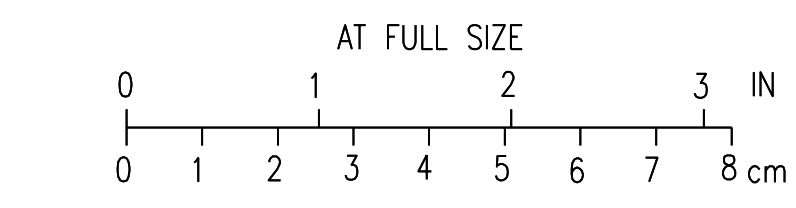
NOTES:
 1. PROTECT AND REPAIR ANY PVC LINER DAMAGED DURING CONSTRUCTION.



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



PLAN-SECTION @ EL 634'-0"
 SCALE: 3/8" = 1'-0"



3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	ADDED NOTE	CLB	CLB	BDR	01-25-2012
1	ISSUED FOR CONSTRUCTION	CLB	CLB	BDR	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

Stanley Consultants Inc.
 225 Iowa Avenue, Muscatine, Iowa 52761-3764
 www.stanleyconsultants.com

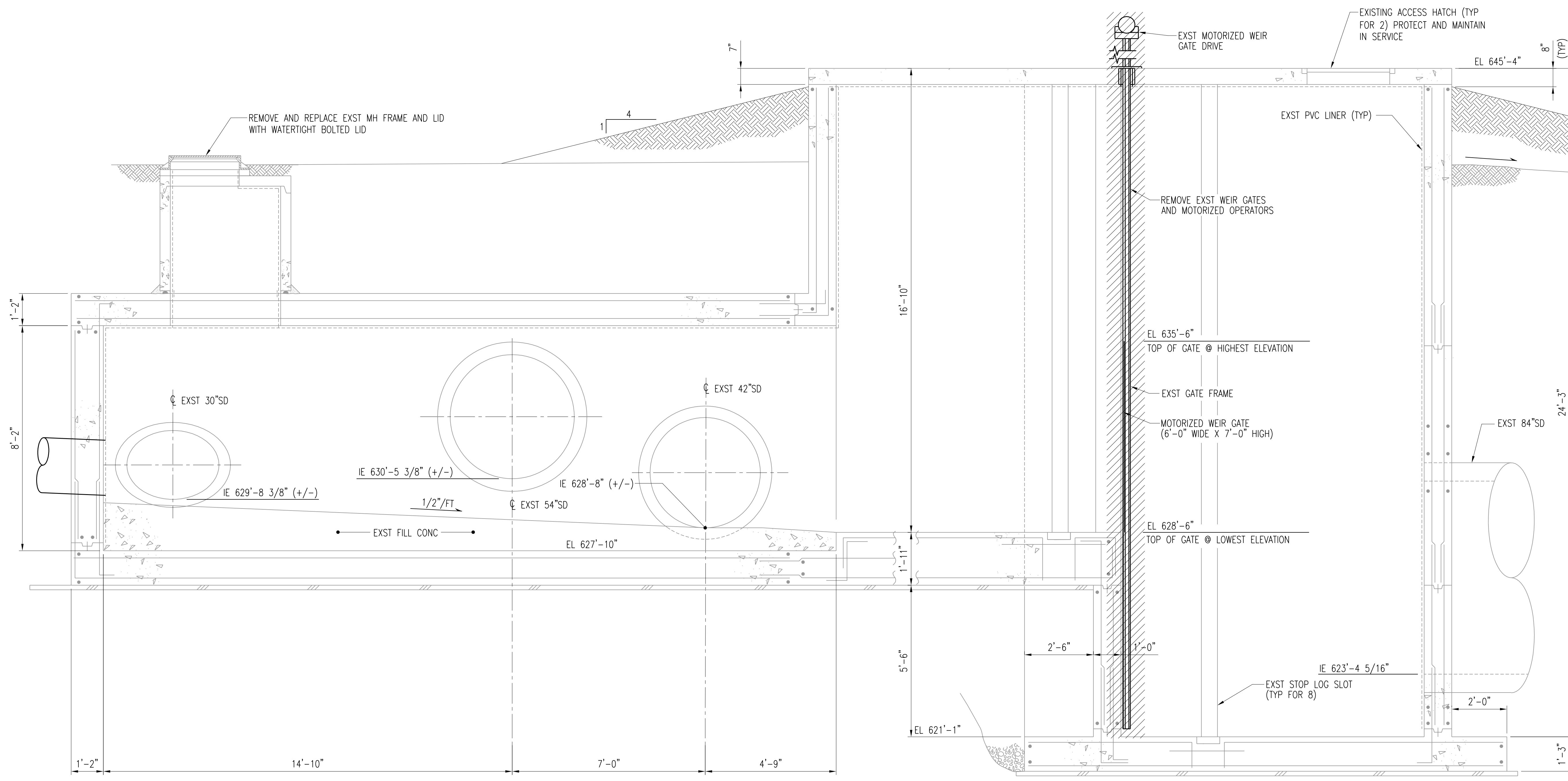
CITY OF IOWA CITY, IOWA
 WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**NORTH PLANT MODIFICATIONS
 NORTH PLANT DIVERSION STRUCTURE
 MODIFICATION PLAN**

DESIGNED	CL BARK	SCALE: AS NOTED	NO. 22800	REV. 3
DRAWN	LJ OSBORN			
CHECKED	CL BARK			
APPROVED	BD REISCHAUER			
APPROVED				
DATE	DECEMBER 2, 2011		C91	

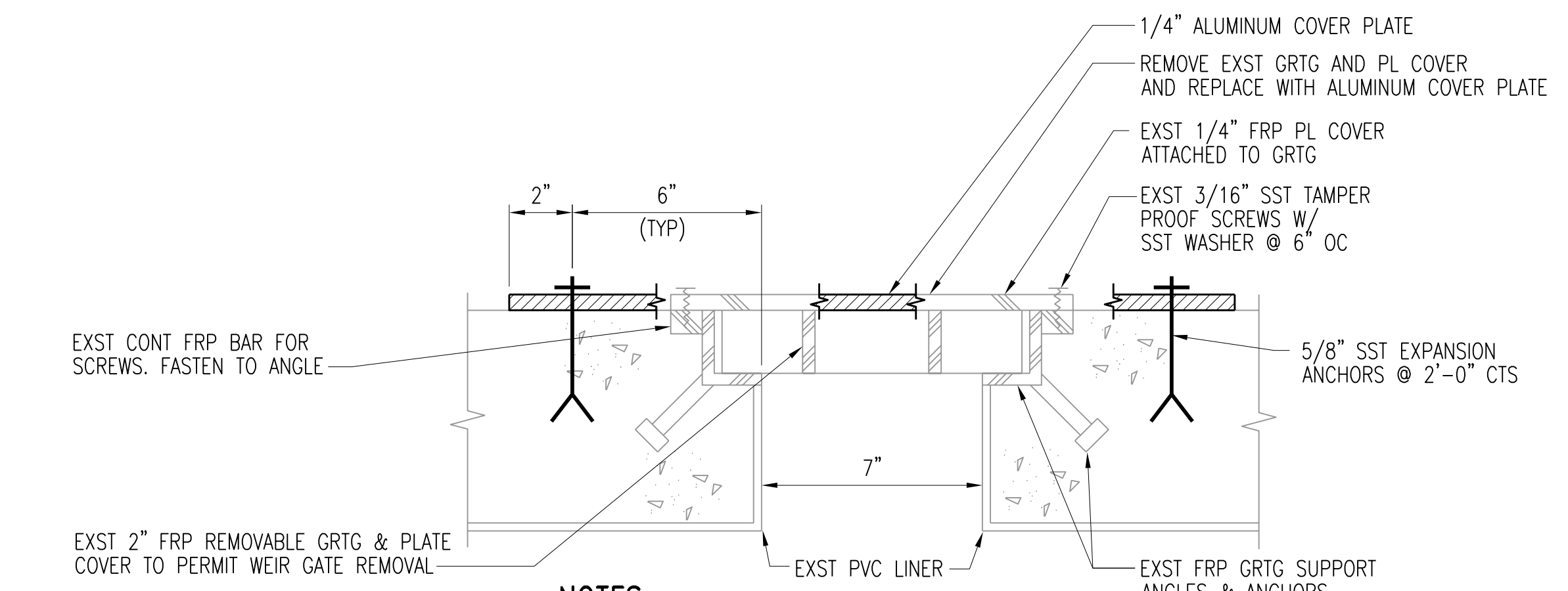
CADD: D1-R4

WORK ON THIS DRAWING NOT INCLUDED IN EDA FUNDED PROJECT



NOTES:
1. PROTECT AND REPAIR ANY PVC LINER DAMAGED DURING CONSTRUCTION.

SECTION A-C92
C91
SCALE: 1/2" = 1'-0"



NOTES:
1. SEAL COVER PLATE WITH SILICONE SEALANT AT ALL EDGES.
2. PROVIDE 1/4" AL COVER PLATE ANCHORED WITH EXPANSION ANCHORS AT ENDS OF SLOT.
3. PLATE SECTIONS SHALL BE FABRICATED WITH ADJACENT EDGE SUPPORT TO PROVIDE A WATERTIGHT SEAL BETWEEN SECTIONS.

SECTION B-C92
C91
SCALE: 3" = 1'-0"

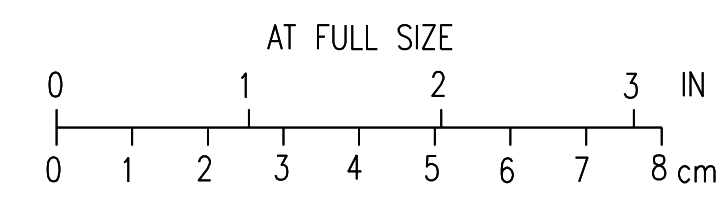
3	RECORD DRAWING	JBL	JBL	JBL	12-31-2014
2	ADDED NOTE	CLB	CLB	BDP	01-25-2012
1	ISSUED FOR CONSTRUCTION	CLB	CLB	BDP	01-10-2012
NO.	REVISIONS	DSGN	CHKD	APVD	DATE

Stanley Consultants Inc.
225 Iowa Avenue, Muscatine, Iowa 52761-3764
www.stanleyconsultants.com

CITY OF IOWA CITY, IOWA
WASTEWATER TREATMENT FACILITIES CONSOLIDATION PROJECT

**NORTH PLANT MODIFICATIONS
NORTH PLANT DIVERSION STRUCTURE
MODIFICATION DETAILS**

DESIGNED	CL BARK	SCALE: AS NOTED	NO. 22800	REV. 3
DRAWN	LJ OSBORN			
CHECKED	CL BARK			
APPROVED	BD REISCHAUER			
APPROVED				
DATE	DECEMBER 2, 2011	C92		



CADD: D1-R4