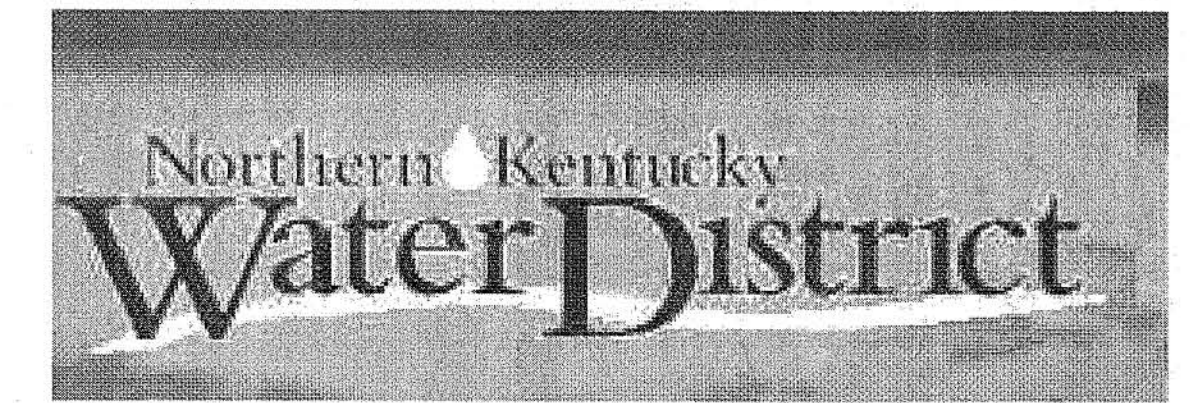


NORTHERN KENTUCKY WATER DISTRICT KENTON COUNTY, KENTUCKY

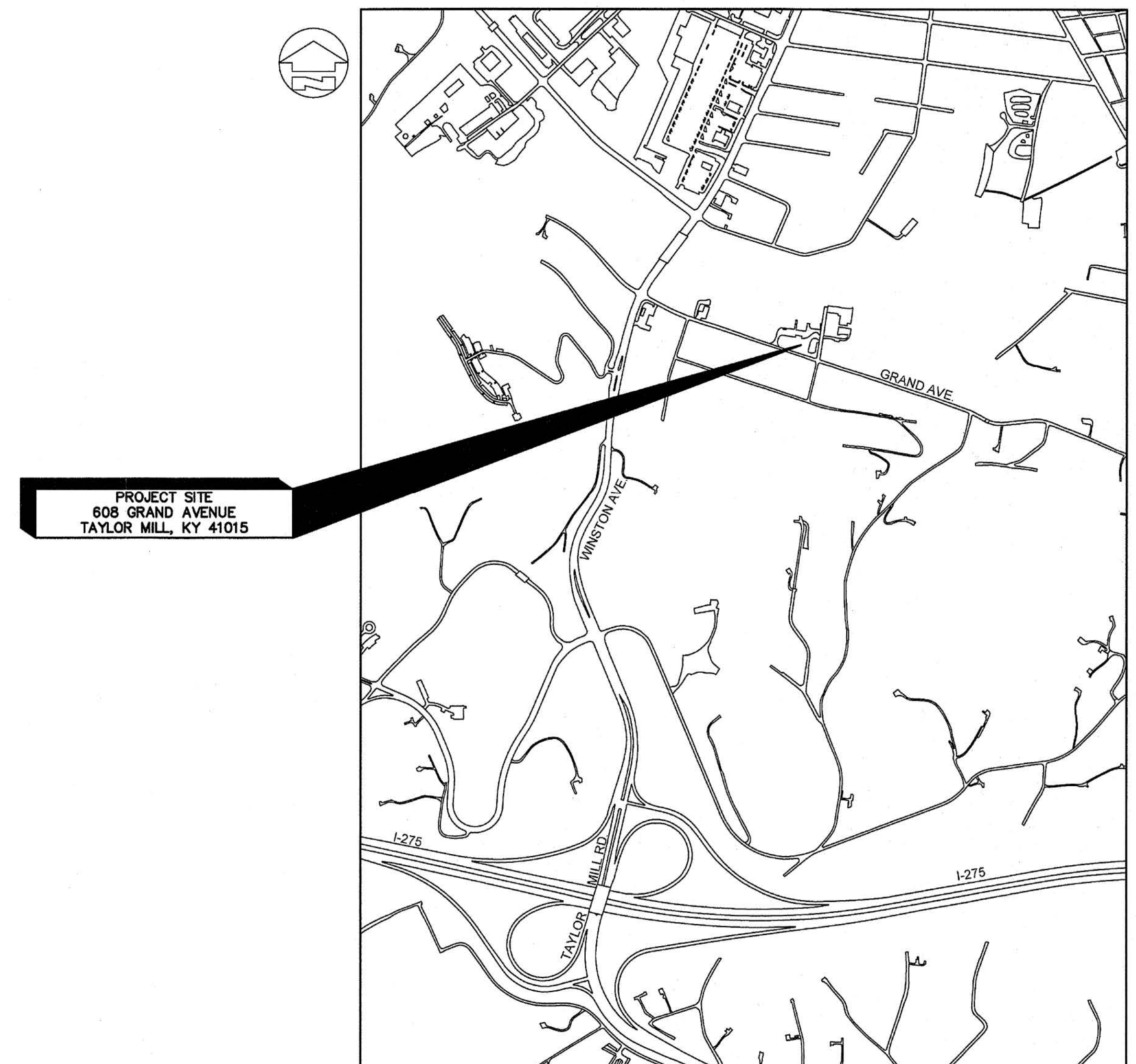


TAYLOR MILL WATER TREATMENT PLANT ELECTRICAL AND BASIN IMPROVEMENTS

**DRAWINGS FOR:
NKWD PROJECT NO. 184-0476
DOW LOAN NO. DWL 13060**

JANUARY 2014

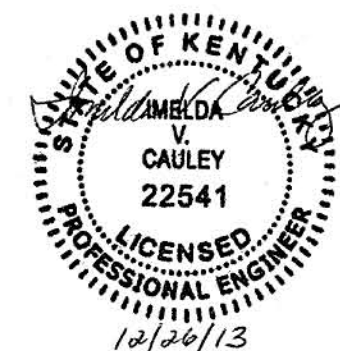
RON LOVAN _____ PRESIDENT/CEO
 NORTHERN KENTUCKY WATER DISTRICT BOARD OF COMMISSIONERS
 DOUG WAGNER _____ CHAIRPERSON
 FRED MACKE JR. _____ VICE CHAIRPERSON
 CLYDE CUNNINGHAM _____ SECRETARY
 DAVID SPAULDING _____ TREASURER
 PAT SOMMERKAMP _____ COMMISSIONER
 ANDREW COLLINS _____ COMMISSIONER



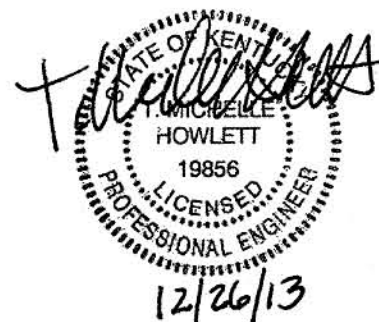
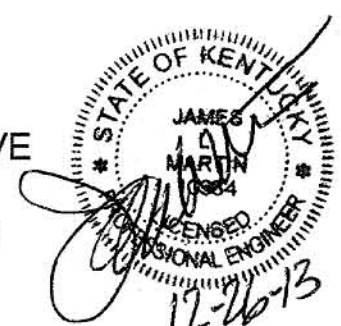
PROJECT SITE
608 GRAND AVENUE
TAYLOR MILL, KY 41015



4665 CORNELL ROAD
SUITE 350
CINCINNATI, OH 45241



861 CORPORATE DRIVE
SUITE 210
LEXINGTON, KY 40503



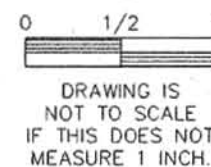
VICINITY MAP
NOT TO SCALE

BID SET

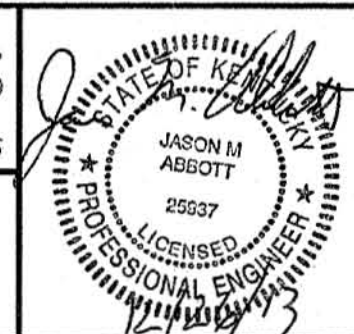
INDEX OF DRAWINGS

DWG NO	DESCRIPTION
GENERAL	
SHEET NO.	
G-00-001	COVER SHEET
G-00-002	INDEX OF DRAWINGS
G-00-003	NOTES, SYMBOLS, AND ABBREVIATIONS
MECHANICAL	
SHEET NO.	
M-01-001	FILTER BUILDING - FRONT PUMP ROOM AND BASEMENT MODIFICATION PLANS AND DETAILS
M-01-002	FILTER BUILDING - FRONT PUMP ROOM MODIFICATION SECTIONS
M-01-003	FILTER BUILDING - BACK PUMP ROOM MODIFICATION PLANS
M-01-004	FILTER BUILDING - BACK PUMP ROOM MODIFICATION SECTIONS
M-02-001	BASINS MODIFICATION PLAN AND SECTION
STRUCTURAL	
SHEET NO.	
S-00-001	GENERAL STRUCTURAL NOTES AND ABBREVIATIONS
S-02-001	OVERALL DEMOLITION PLAN
S-02-002	DEMOLITIONS SECTIONS
S-02-003	ENLARGED RAPID MIX, CHANNEL, AND TUNNEL PLANS
S-02-004	SECTIONS AND DETAIL
S-02-005	ENLARGED SEDIMENTATION BASIN PLANS
S-02-006	SECTIONS AND DETAILS
S-02-007	REPAIR DETAILS
S-02-008	TYPICAL DETAILS AND REPAIR SCHEDULE
ARCHITECTURAL	
SHEET NO.	
A-01-001	FILTER BUILDING DEMOLITION PLANS
A-01-002	FILTER BUILDING PLANS AT EL. 525.50 AND 535.00
A-01-003	FILTER BUILDING PLAN AT EL. 545.00, SECTION AND DETAILS
A-01-004	FILTER BUILDING ROOF PLAN AND SECTIONS
A-01-005	FILTER BUILDING ELEVATIONS
A-01-006	FILTER BUILDING SECTION AND DETAILS SHEET
HVAC	
SHEET NO.	
H-00-001	GENERAL NOTES, SYMBOLS, AND ABBREVIATIONS
H-00-002	HVAC DETAILS
H-00-003	HVAC SCHEDULES
H-01-001	FILTER BUILDING PUMP ROOM HVAC PLANS AT EL. 525.50
H-01-002	FILTER BUILDING THIRD FLOOR AND PARTIAL ROOF HVAC PLANS
H-01-003	FILTER BUILDING MEZZANINE HVAC PLANS AT EL. 535.00
ELECTRICAL	
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E-00-002	DETAILS AND SCHEDULES
E-00-003	POWER SYSTEM ONE LINE DIAGRAM
E-00-004	HIGH SERVICE PUMP CONTROL CIRCUITS I
E-00-005	HIGH SERVICE PUMP CONTROL CIRCUITS II
E-01-001	FILTER BUILDING ELECTRICAL PUMP ROOM DEMO. PLAN AT EL. 525.50
E-01-002	FILTER BUILDING ELECTRICAL MEZZANINE DEMO. PLAN AT EL. 535.00
E-01-003	FILTER BUILDING ELECTRICAL THIRD FLOOR DEMO. PLAN AT EL. 545.00
E-01-004	FILTER BUILDING POWER PLAN AT EL. 525.50
E-01-005	FILTER BUILDING PUMP ROOM POWER PLAN AT EL. 525.50
E-01-006	FILTER BUILDING MEZZANINE POWER PLAN AT EL. 535.00 I
E-01-007	FILTER BUILDING MEZZANINE POWER PLAN AT EL. 535.00 II
E-01-008	FILTER BUILDING THIRD FLOOR LIGHTING PLAN AT EL. 545.00
E-01-009	FILTER BUILDING THIRD FLOOR POWER PLAN AT EL. 545.00 I
E-01-010	FILTER BUILDING THIRD FLOOR POWER PLAN AT EL. 545.00 II
E-02-001	TUNNEL ELECTRICAL PLANS

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NO.	BY	DATE	REMARKS

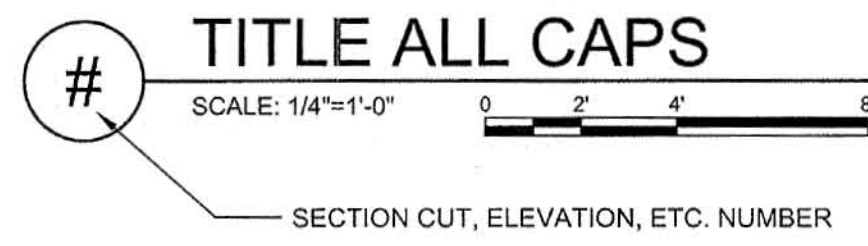
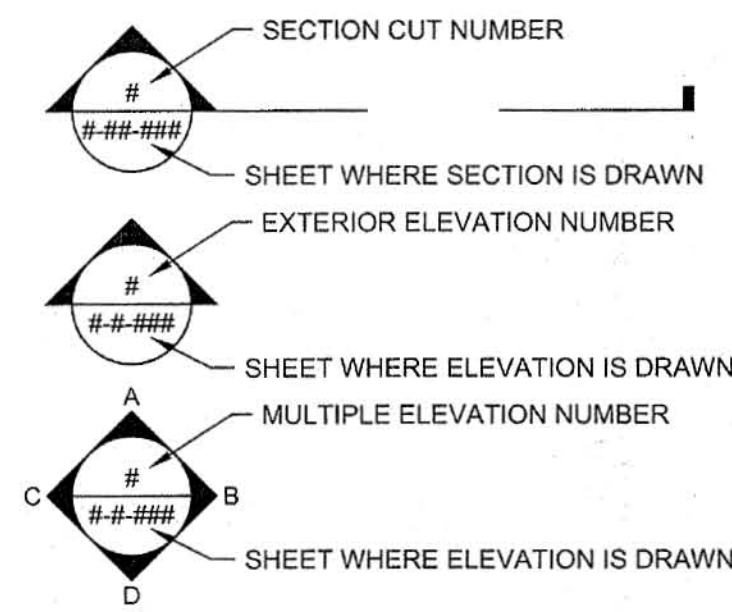
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DWN PJW
CKD JMA

NORTHERN KENTUCKY WATER DISTRICT
TAYLOR MILL WATER TREATMENT PLANT
ELECTRICAL AND BASIN IMPROVEMENTS

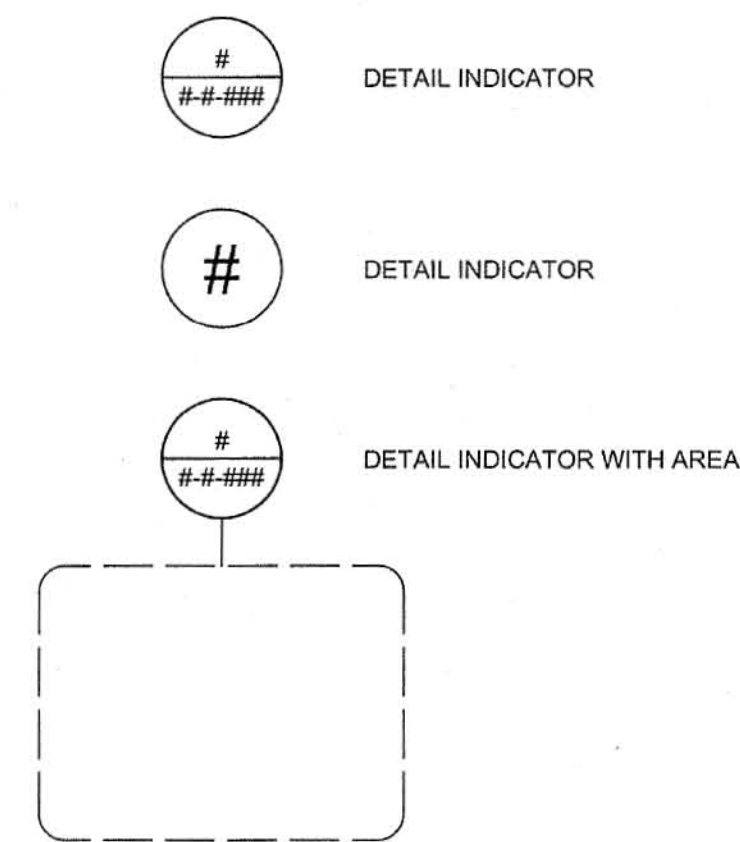
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SHEET: G-00-002
CAD REF. NO.: 2142001.0002

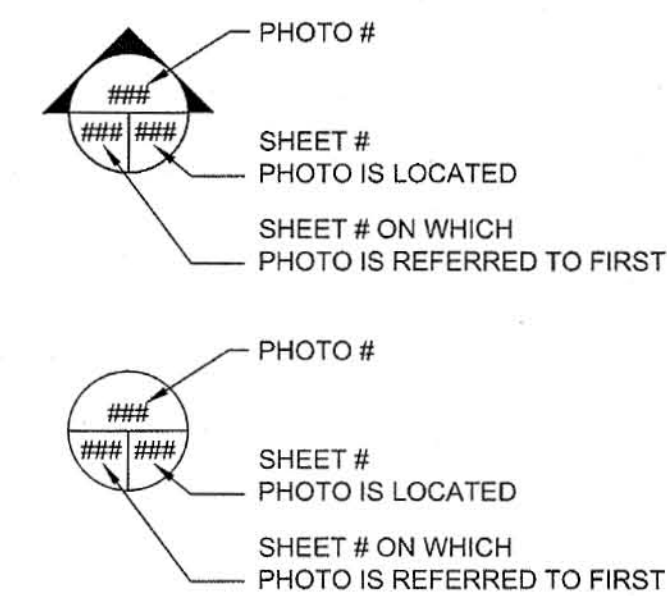
TYPICAL SECTION/ ELEVATION TAGS



TYPICAL DETAIL TAG



TYPICAL PHOTO TAG



0 1/2 1
DRAWING IS NOT TO SCALE IF THIS DOES NOT MEASURE 1 INCH.

TYPICAL NOTE TAG

KEYNOTE SYMBOL SHEET KEYNOTES:

- KEYNOTES
-
-
-

GENERAL NOTES:

- GENERAL NOTES
-
-
-

TYPICAL NORTH SYMBOL



MECHANICAL ABBREVIATIONS

AB	ANCHOR BOLT	EA	EACH	MGD	MILLION GALLONS PER DAY
ABAN.	ABANDONED	ECC	ECCENTRIC	MH	MANHOLE
AC	ASPHALT CONCRETE PAVEMENT	EDB	ELECTRICAL DUCT BANK	MIN.	MINIMUM
ADDL.	ADDITIONAL	EF	EACH FACE	MIP	MALE IRON PIPE THREAD
ADJ.	ADJUSTABLE	EFF.	EFFLUENT	MJ	MECHANICAL JOINT
AH	ACCESS HATCH	EJ	EXPANSION JOINT	MO	MASONRY OPENING
ALUM.	ALUMINUM	EL	ELEVATION	NC	NORMALLY CLOSED
ALT.	ALTERNATE	ELEC.	ELECTRIC	NF	NORMALLY OPEN
ARCH	ARCHITECTURE	EMH	ELECTRICAL MANHOLE	NO	NEAR FACE
BF	BLIND FLANGE	EQ	EQUALIZATION	NO.	NUMBER
BFV	BUTTERFLY VALVE	EW	EACH WAY	O	OVERFLOW
BITUM.	BITUMINOUS	EX	EXISTING	OC	ON CENTER
BL	BASELINE	FD	FLOOR DRAIN	OD	OUTSIDE DIAMETER
BLDG.	BUILDING	FDN	FOUNDATION	OF	OUTSIDE FACE
BM	BENCH MARK	FDND	FOUNDATION DRAIN	OPNG.	OPENING
BM.	BEAM	FF	FAR FACE	OPP.	OPPOSITE
BOP	BOTTOM OF PIPE	FIN.	FINISHED	PC	POINT OF CURVATURE
BOT.	BOTTOM	FIPT	FEMALE IRON PIPE THREAD	PE	PLAIN END
BRG	BEARING	FLEX.	FLEXIBLE	PI	POINT OF INTERSECTION
BRP	BUILDING REFERENCE POINT	FLG.	FLANGE	PL	PLATE OR PROPERTY LINE
BW	BACKWASH	FLR.	FLOOR	PSF	POUNDS PER SQUARE FOOT
BWS	BACKWASH SUPPLY	FTG.	FOOTING	PSI	POUNDS PER SQUARE INCH
BWW	BACKWASH WASTE	FT.,'	FEET	PT	POINT OF TANGENCY
C	CENTERLINE	GA.	GAGE OR GAUGE	R	RISER
C/C	CENTER TO CENTER	GAC	GRANULAR ACTIVATED CARBON	RED.	REDUCER
CB	CATCH BASIN	GALV.	GALVANIZED	REINF.	REINFORCEMENT OR REINFORCE
CHEM	CHEMICAL LINE	GE	GROOVED END JOINT	REQD.	REQUIRED
CHH	COMMUNICATION HANDHOLE	GRD.	GROUND	RMJ	RESTRAINED JOINT
CJ	CONSTRUCTION JOINT	GRAT.	GRATING	RM.	ROOM
CL	CLEAR	HB	HOSE BIB	ROW	RIGHT OF WAY
CMH	COMMUNICATION MANHOLE	HFC	HARNESSED FLANGE COUPLING ADAPTER	RPCV	ROTARY PUMP CONTROL VALVE
CMU	CONCRETE MASONRY UNIT	HORIZ.	HORIZONTAL	SHT.	SHEET
CO	CLEANOUT	HP	HIGH POINT	SOC	SOCKET
COL.	COLUMN	ID	INSIDE DIAMETER	SPA.	SPACING
CONC.	CONCRETE	IN.,"	INCHES	SR	SHORT RADIUS
CONN	CMU CORNER OF EXT. FACE	INF.	INFLUENT	SS	STAINLESS STEEL
CONT.	CONTINUED	INV.	INVERT	STD.	STANDARD
CPLG.	COUPLING	JST.	JOIST	STL.	STEEL
CTW	CONTACTOR TO WASTE	JT.	JOINT	STRUC.	STRUCTURAL
CY	CUBIC YARD(S)	K	KIP (1000 POUNDS)	T	TREAD
CW	COLD WATER (POTABLE)	KSF	KIPS PER SQUARE FOOT	T/	TOP OF
D	DRAIN	LG.	LONG	T&B	TOP AND BOTTOM
DET.	DETAIL	LLH	LONG LEG HORIZONTAL	THK	THICK
DIP	DUCTILE IRON PIPE	LLV	LONG LEG VERTICAL	TYP.	TYPICAL
DIA.	DIAMETER	LR	LONG RADIUS	UON	UNLESS OTHERWISE NOTED
DIM	DIMENSION	LSH	LEVEL SWITCH HIGH	USG	UNITED STATES STANDARD GAGE
DISCH.	DISCHARGE	LSLL	LEVEL SWITCH LOW LOW	VERT.	VERTICAL
DMH	DROP MANHOLE	MAS	MASONRY	W/	WITH
DN.	DOWN	MAX.	MAXIMUM	WP	WORK POINT
DTL	DETAIL	MCC	MOTOR CONTROL CENTER	WRF	WATER RECLAMATION FACILITY
DWGS	DRAWINGS	MFR.	MANUFACTURER	WS	WATER STOP
DWL.	DOWELS			WWF	WELDED WIRE FABRIC

IDENTIFYING LETTERS FOR GROUP OF DRAWINGS

G	GENERAL
M	MECHANICAL
S	STRUCTURAL
A	ARCHITECTURAL
H	HVAC
E	ELECTRICAL

TMP AREA LEGEND

AREA IDENTIFIER NUMBER	AREA DESCRIPTION
00	GENERAL SHEETS
01	FILTER BUILDING
02	SEDIMENTATION BASINS

DIMENSIONS:

- (*) DENOTES DIMENSIONS TO BE DETERMINED BY MANUFACTURER
- (* *) DENOTES DIMENSIONS TO BE DETERMINED IN FIELD BY CONTRACTOR.

MALCOLM PIRNIE
The Water Division of ARCADIS

Magna ENGINEERS

STATE OF KENTUCKY
JASON M. ABBOTT
PROFESSIONAL ENGINEER
20037
12/12/13

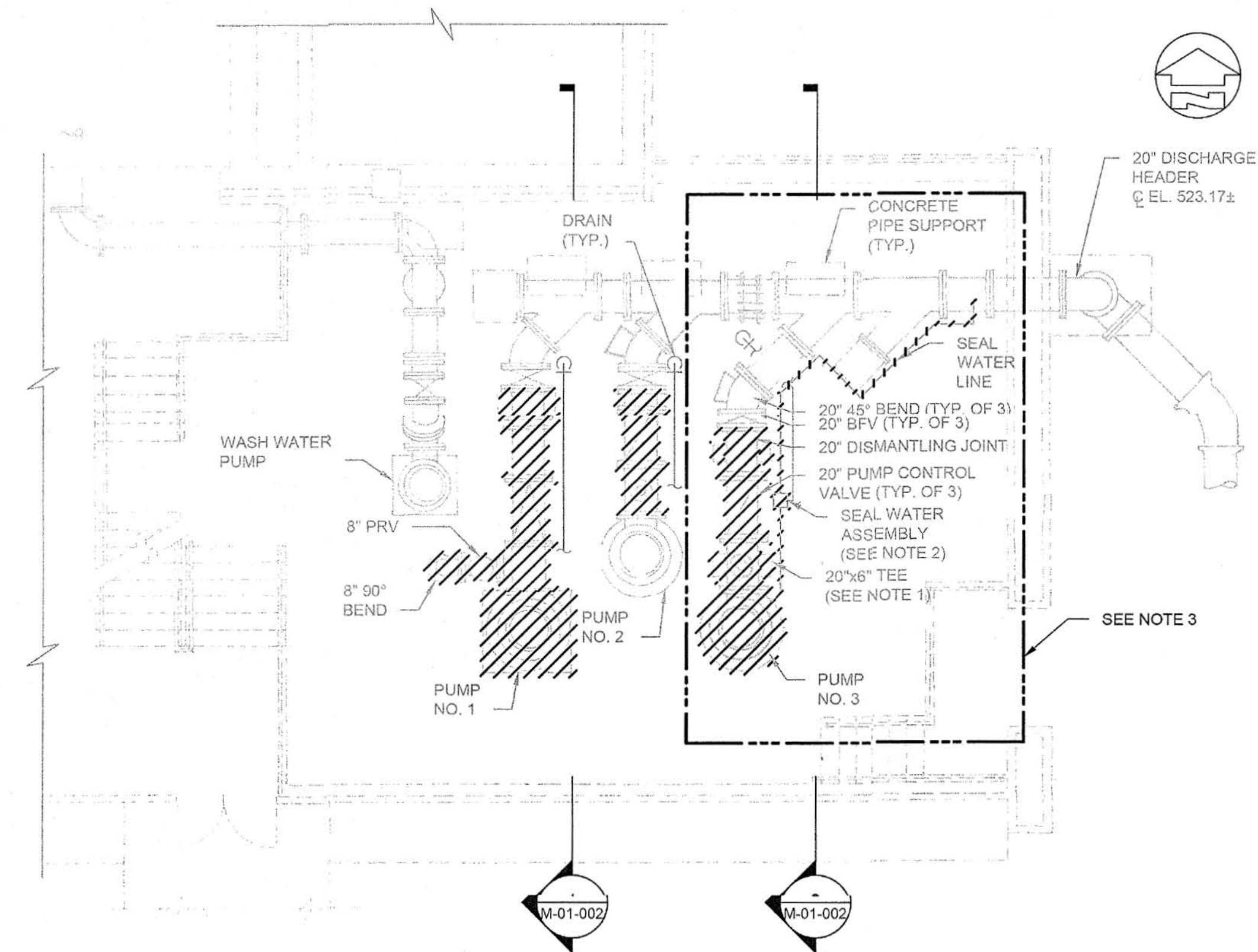
NO.		BY	DATE	REVISIONS	REMARKS

DES	JIL
DWN	PJW
CKD	JMA

NORTHERN KENTUCKY WATER DISTRICT
TAYLOR MILL WATER TREATMENT PLANT
ELECTRICAL AND BASIN
IMPROVEMENTS

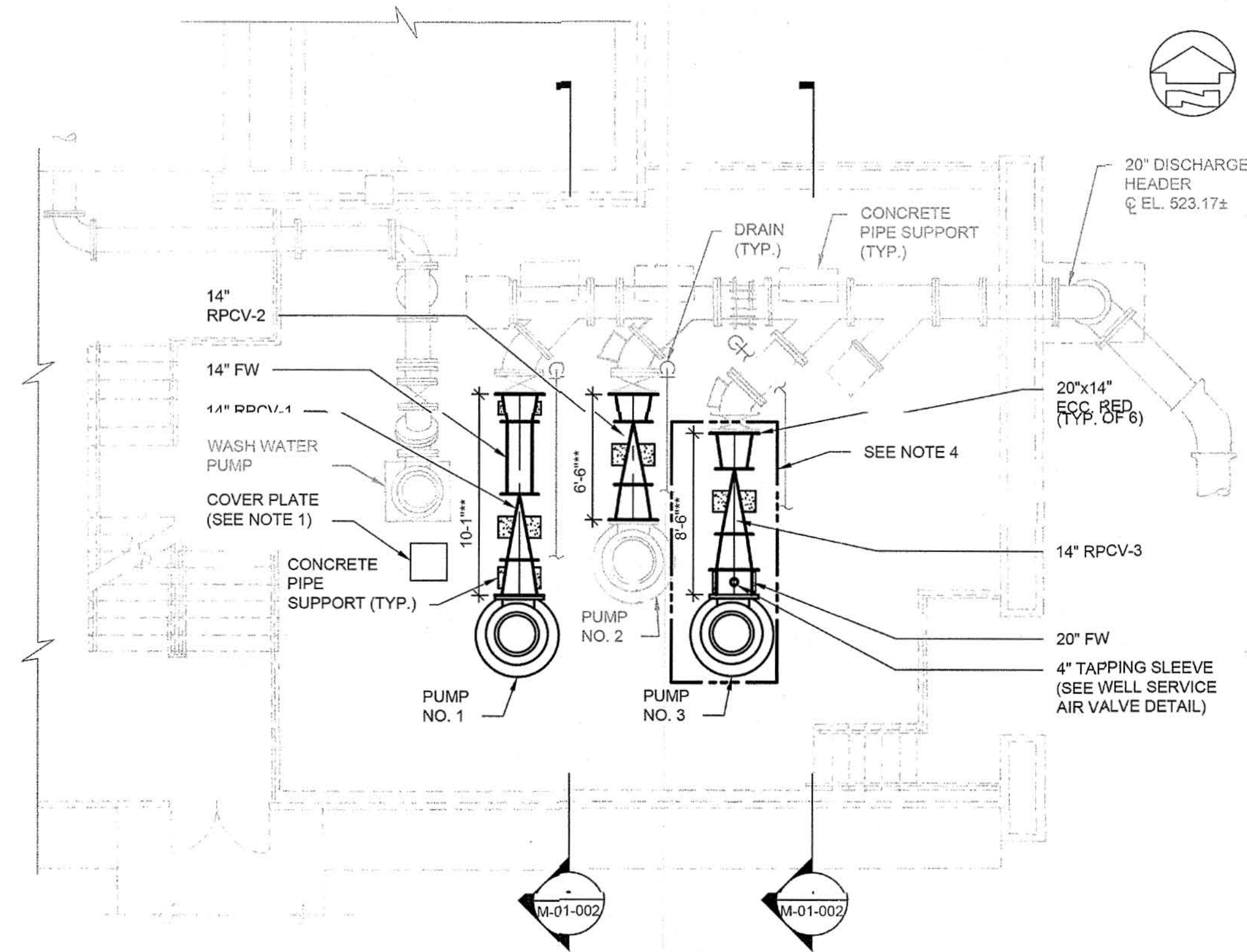
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AND ABBREVIATIONS
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DATE	JANUARY 2014
SHEET	G-00-003
CAD REF. NO.	2142001.003



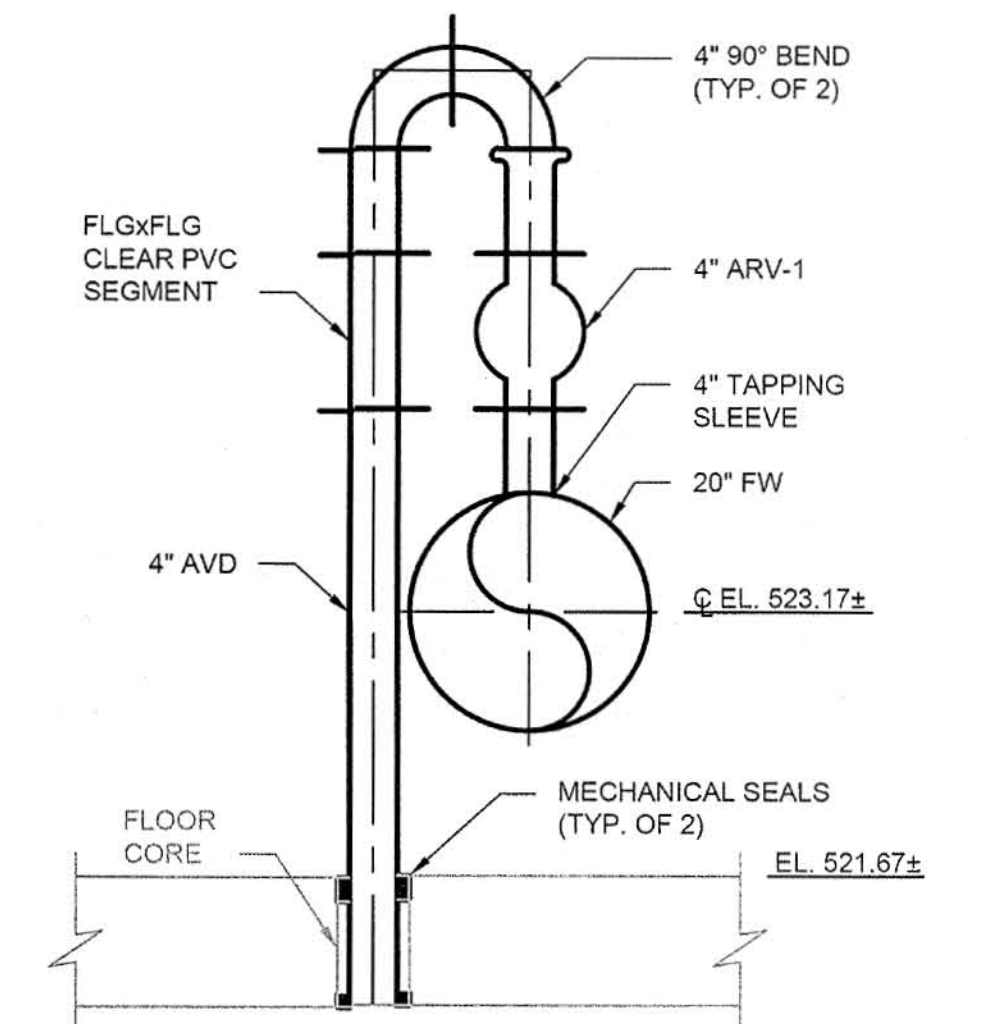
1 1ST FLOOR DEMO PLAN

- NOT TO SCALE
NOTES:
- CONTRACTOR SHALL DEMOLISH TEE, AIR RELIEF VALVE AND 6" DRAIN LINE.
 - CONTRACTOR SHALL DEMOLISH SEAL WATER ASSEMBLY AND ASSOCIATED SEAL WATER LINE. CONTRACTOR SHALL ADEQUATELY PLUG CORP. STOP ON DISCHARGE HEADER.
 - WORK SHOWN WITHIN THIS BOUNDARY LINE IS PART OF ALTERNATIVE NO. 2. SEE SPECIFICATION SECTION 01 23 00 FOR DESCRIPTION OF ALTERNATIVE NO. 2.



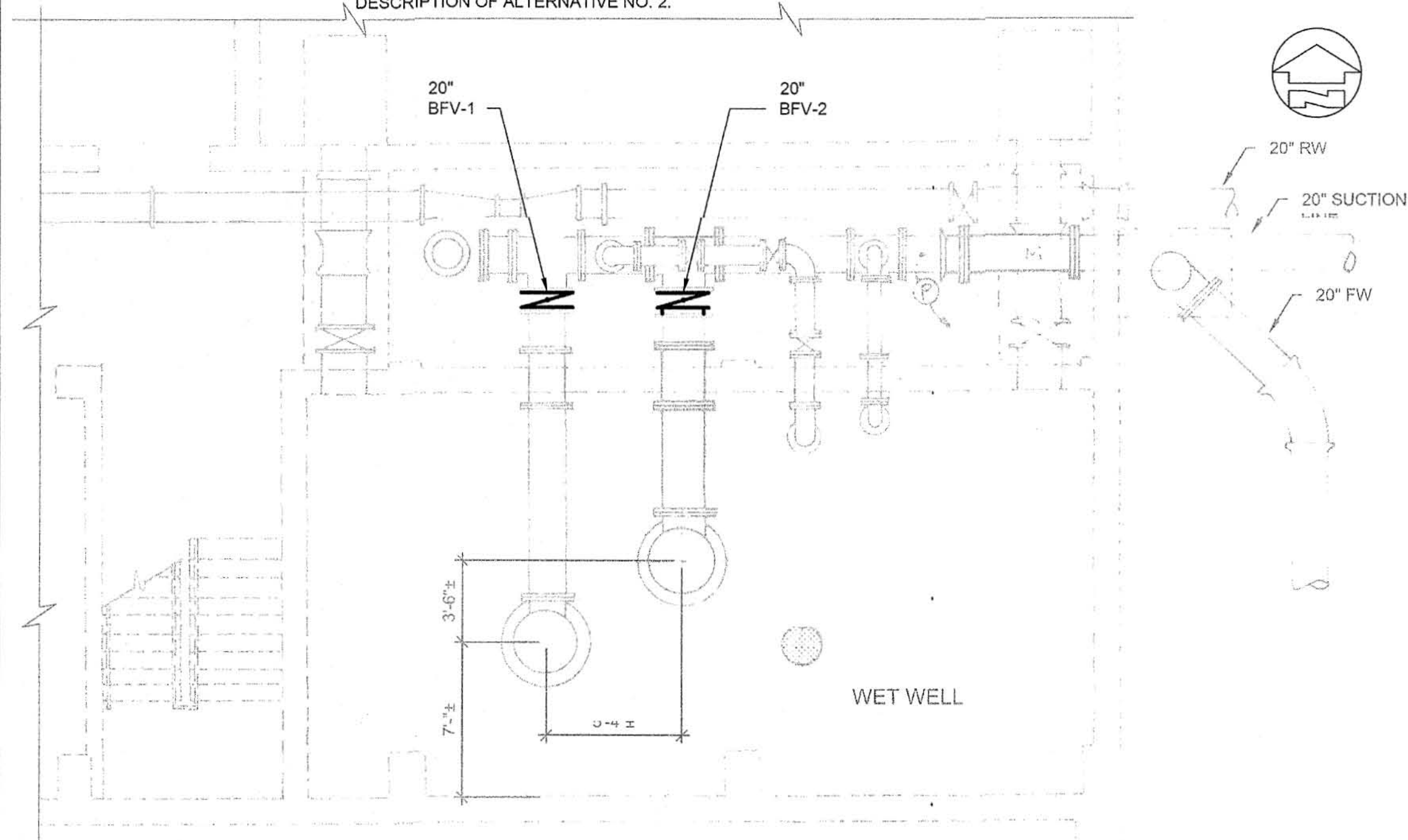
3 1ST FLOOR PLAN

- NOT TO SCALE
NOTES:
- CONTRACTOR SHALL PROVIDE AND INSTALL 1/4" GALVANIZED, PAINTED COVER PLATE OVER EXISTING OPENING. CONTRACTOR SHALL VERIFY SIZE REQUIRED. PAINTING AND ANCHOR HARDWARE PER CONTRACT DOCUMENTS.
 - CONTRACTOR SHALL CONNECT EACH RPCV TO ASSOCIATED EXISTING PVC DRAIN LINE AS REQUIRED.
 - DIMENSIONS MARKED WITH "*" SHALL BE DETERMINED IN FIELD BY CONTRACTOR. CONTRACTOR SHALL PROVIDE ANY ADDITIONAL PIPING, FITTINGS AND SPECIALTIES AS REQUIRED TO ASSEMBLE DISCHARGE PIPING. WHEN POSSIBLE, CONTRACTOR SHALL PROVIDE DISMANTLING JOINT.
 - WORK WITHIN THIS BOUNDARY LINE IS PART OF ALTERNATIVE NO. 2. SEE SPECIFICATION SECTION 01 23 00 FOR DESCRIPTION OF ALTERNATIVE NO. 2.



PUMP NO. 3 AIR VALVE DETAIL

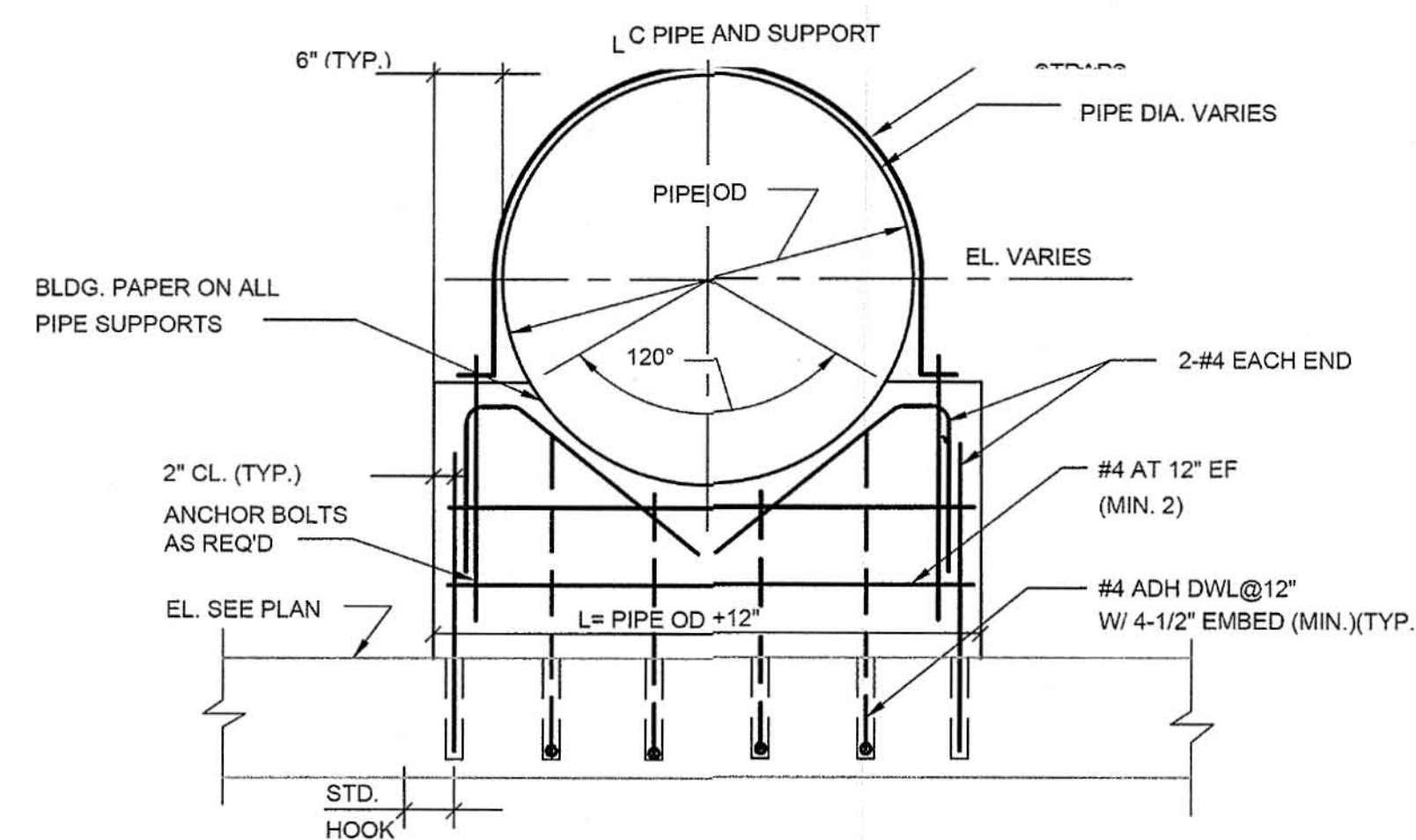
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2 BASEMENT MODIFICATION PLAN

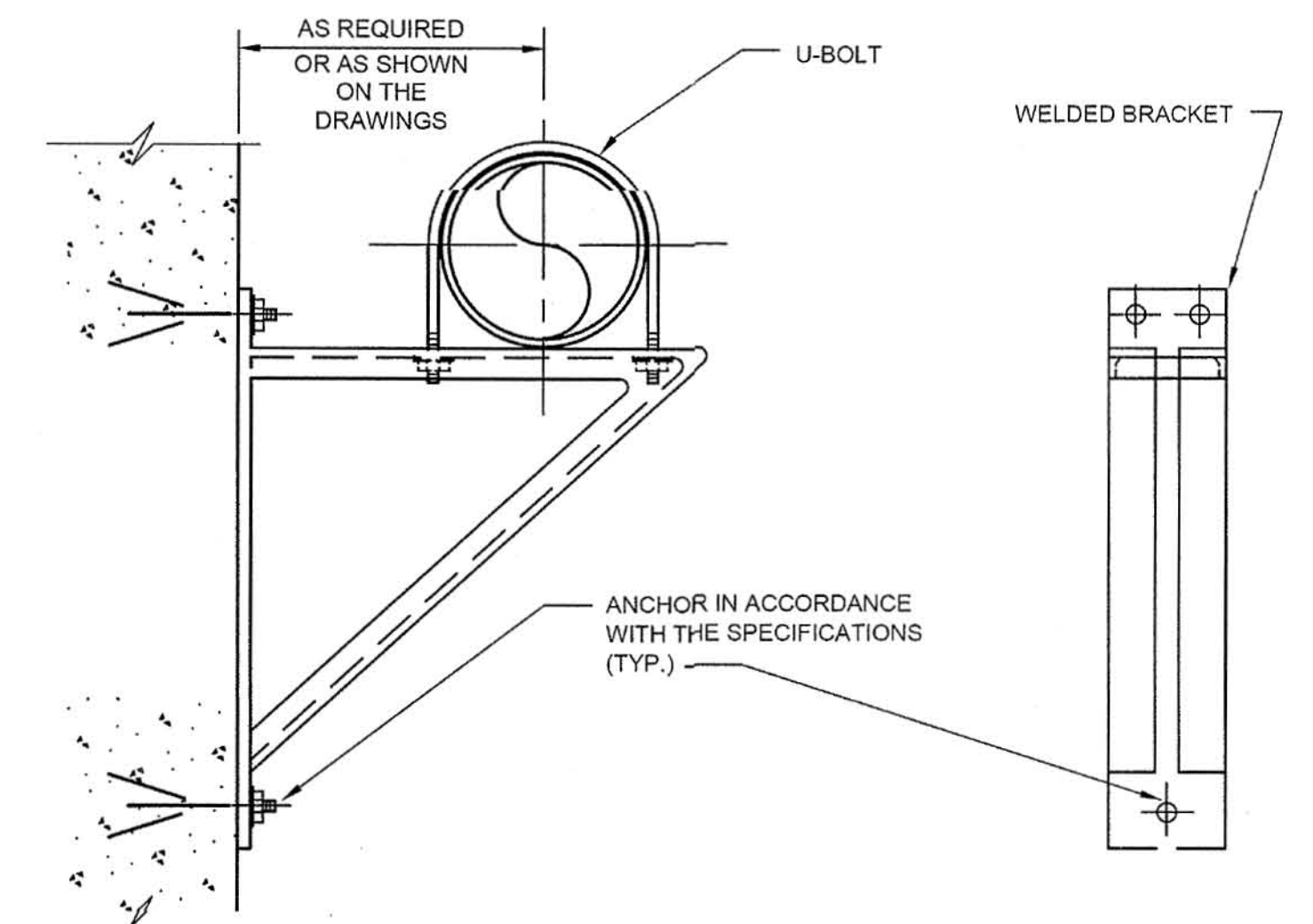
- NOT TO SCALE
NOTES:
- CONTRACTOR SHALL REMOVE AND REPLACE BUTTERFLY VALVES.

0 1/2 1
DRAWING IS NOT TO SCALE. IF THIS DOES NOT MEASURE 1 INCH.



TYPICAL PIPE/VALVE SUPPORT DETAIL

- NOT TO SCALE
NOTES:
- SUPPORT TO BE 12" THICK. (U.O.N.)
 - COORDINATE LOCATION OF PIPE SUPPORTS WITH M SHEETS AND SPECIFICATIONS.



WALL BRACKET DETAIL

NOT TO SCALE

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MALCOLM PIRNIE
The Water Division of ARCADIS
Magna
ENGINEERS

STATE OF KENTUCKY
JASON M. ABBOTT
25937
LICENSED PROFESSIONAL ENGINEER
12/28/13

REVISIONS		DATE	REMARKS
NO.	BY	DATE	REMARKS

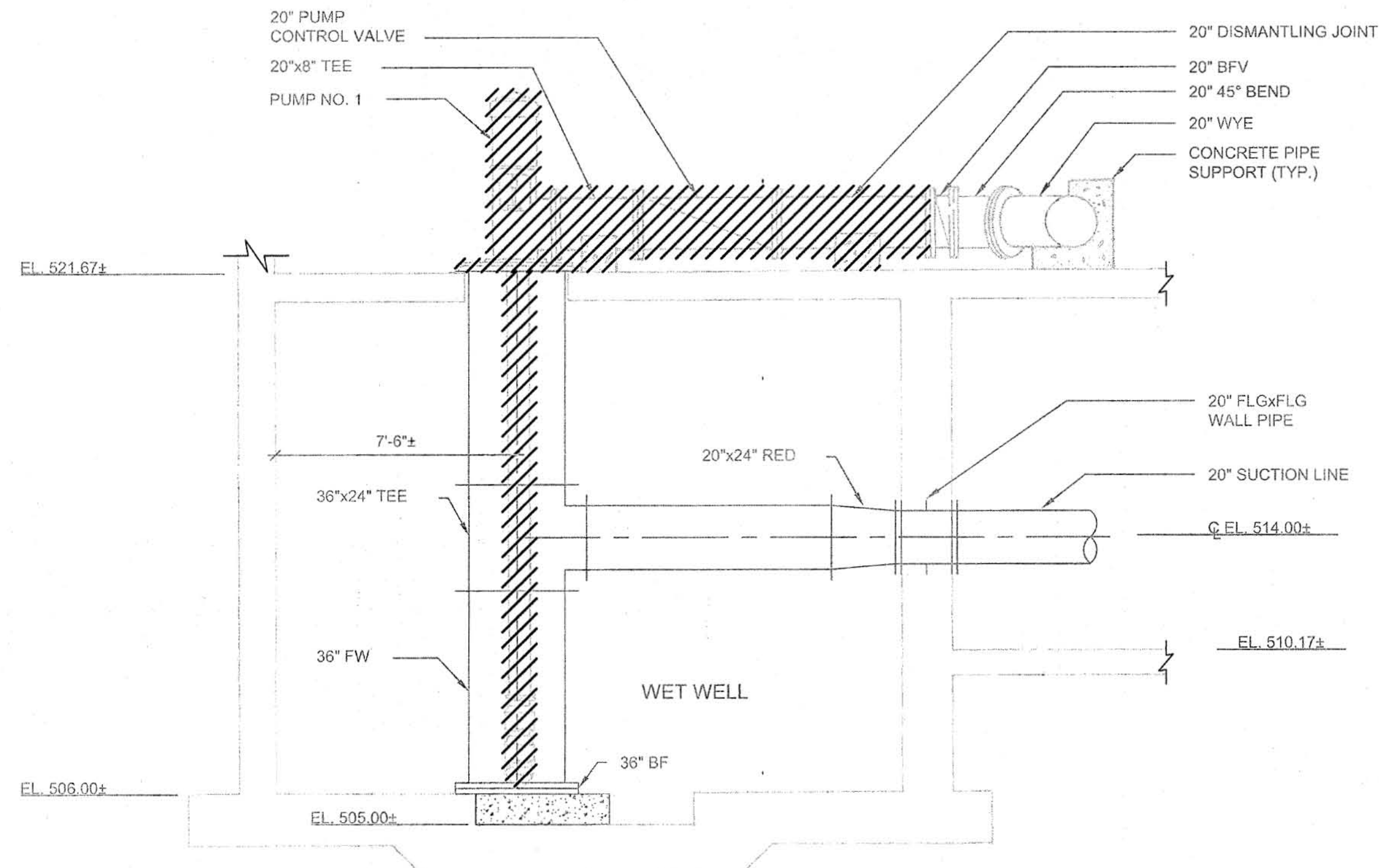
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DWN: PJW
CKD: JMA

NORTHERN KENTUCKY WATER DISTRICT
TAYLOR MILL WATER TREATMENT PLANT
ELECTRICAL AND BASIN IMPROVEMENTS

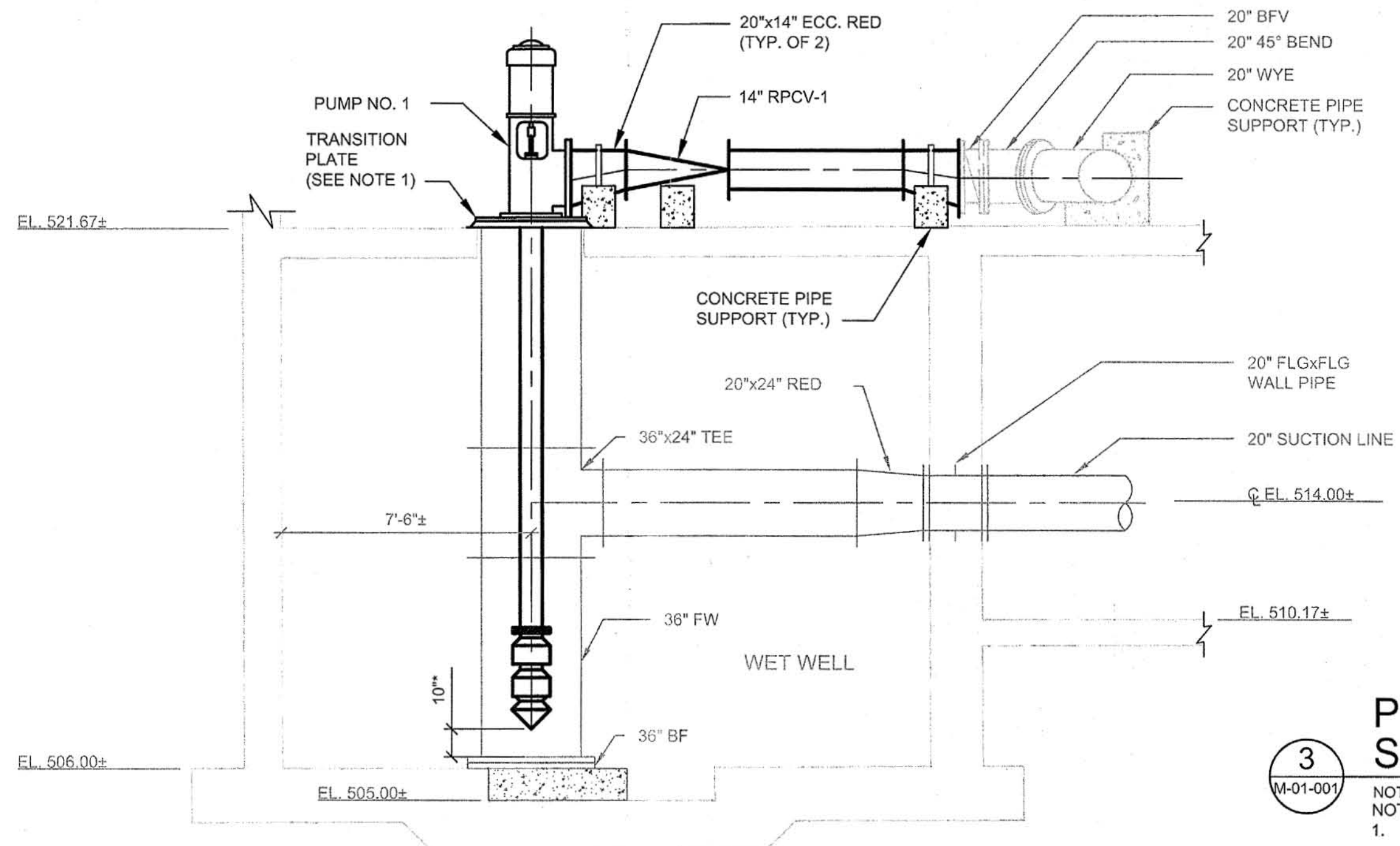
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DATE: JANUARY 2014
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CAD REF. NO.: M-01-001.DWG
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DATE: JANUARY 2014
SHEET: M-01-001
CAD REF. NO.: M-01-001.DWG

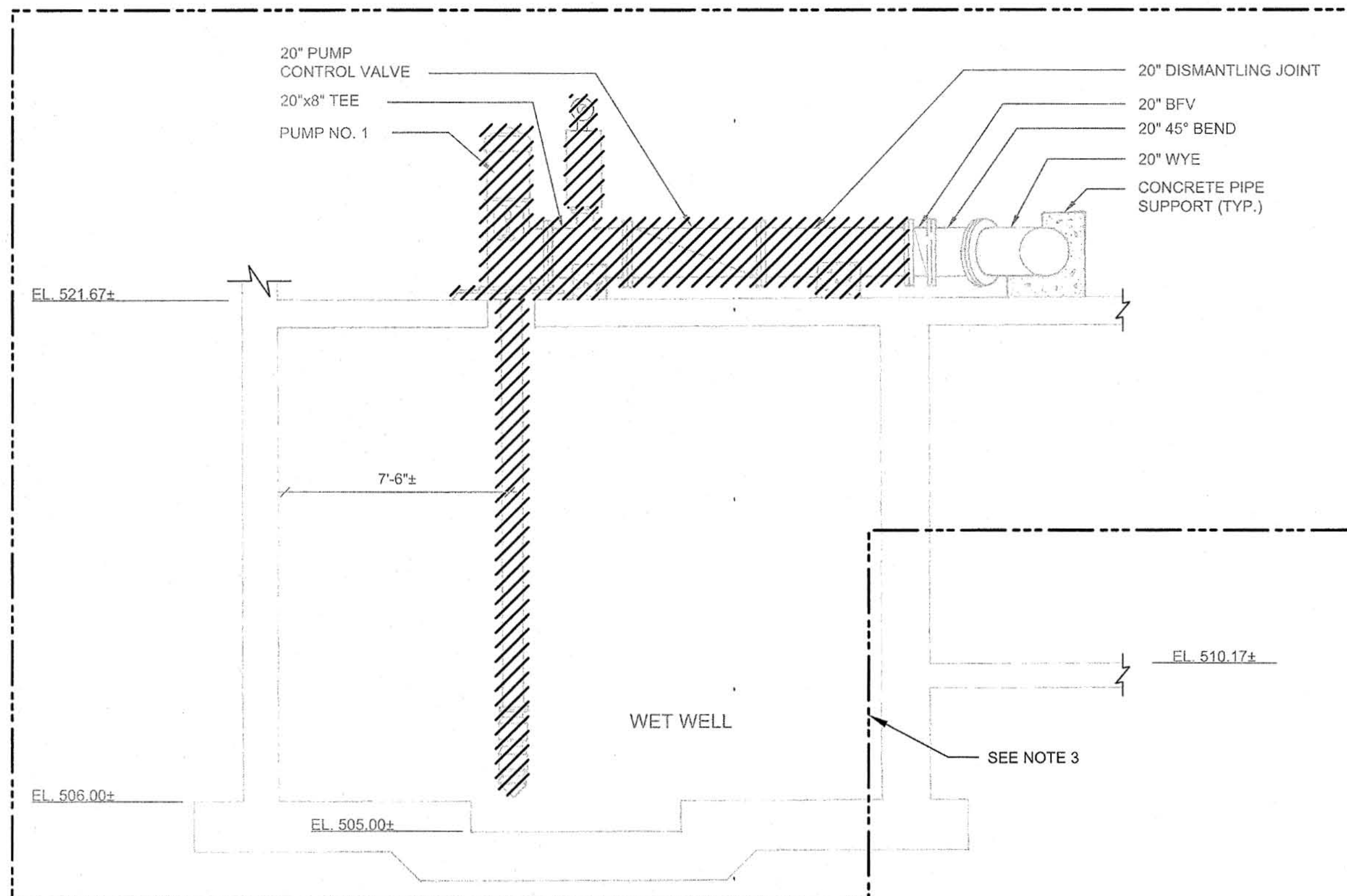
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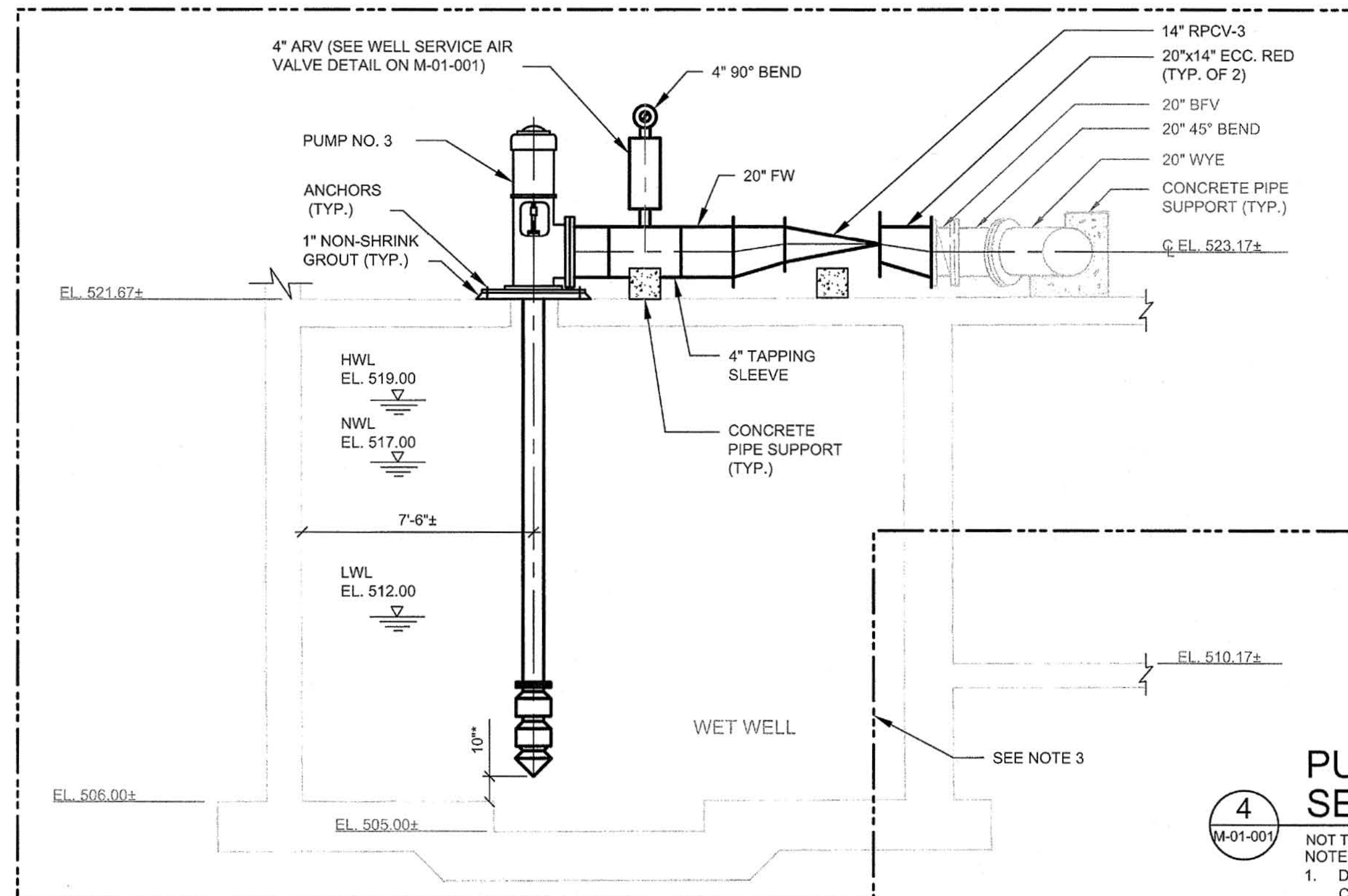
1
M-01-001
PUMP NO. 1 DEMO SECTION
NOT TO SCALE



3
M-01-001
PUMP NO. 1 SECTION
NOT TO SCALE
NOTES:
1. CONTRACTOR SHALL COORDINATE WITH PUMP MANUFACTURER TO PROVIDE / INSTALL REQUIRED TRANSITION PLATE FOR INSTALLATION OF NEW PUMP ONTO EXISTING CAN.
2. DIMENSIONS MARKED WITH A "±" SHALL BE COORDINATED BY CONTRACTOR WITH PUMP MANUFACTURER AND FIELD VERIFIED.



2
M-01-001
PUMP NO. 3 DEMO SECTION
NOT TO SCALE



4
M-01-001
PUMP NO. 3 SECTION
NOT TO SCALE
NOTES:
1. DIMENSIONS MARKED WITH A "±" SHALL BE COORDINATED BY CONTRACTOR WITH PUMP MANUFACTURER AND FIELD VERIFIED.
2. CONTRACTOR SHALL COORDINATE WITH PUMP MANUFACTURER AND PROVIDE ANCHORAGE OF PUMP NO. 3 WITH EXISTING SOLE PLATE.
3. WORK SHOWN WITHIN THIS BOUNDARY LINE IS PART OF ALTERNATIVE NO. 2. SEE SPECIFICATION SECTION 01 23 00 FOR DESCRIPTION OF ALTERNATIVE NO. 2.

0 1/2 1
DRAWING IS NOT TO SCALE IF THIS DOES NOT MEASURE 1 INCH.



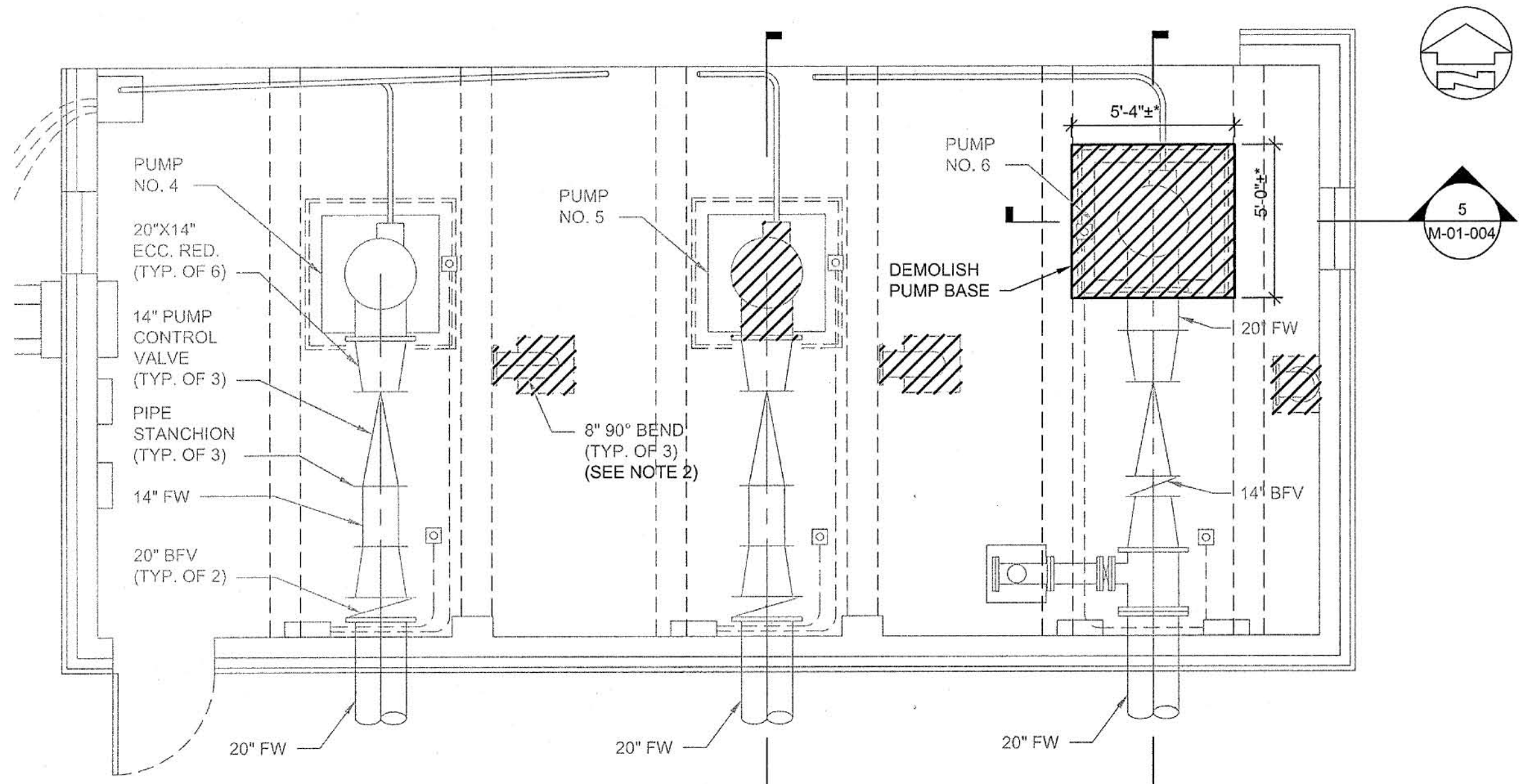
NO.		BY	DATE	REVISIONS	REMARKS

DES JIL
DWN PJW
CKD JMA

NORTHERN KENTUCKY WATER DISTRICT
TAYLOR MILL WATER TREATMENT PLANT
ELECTRICAL AND BASIN IMPROVEMENTS

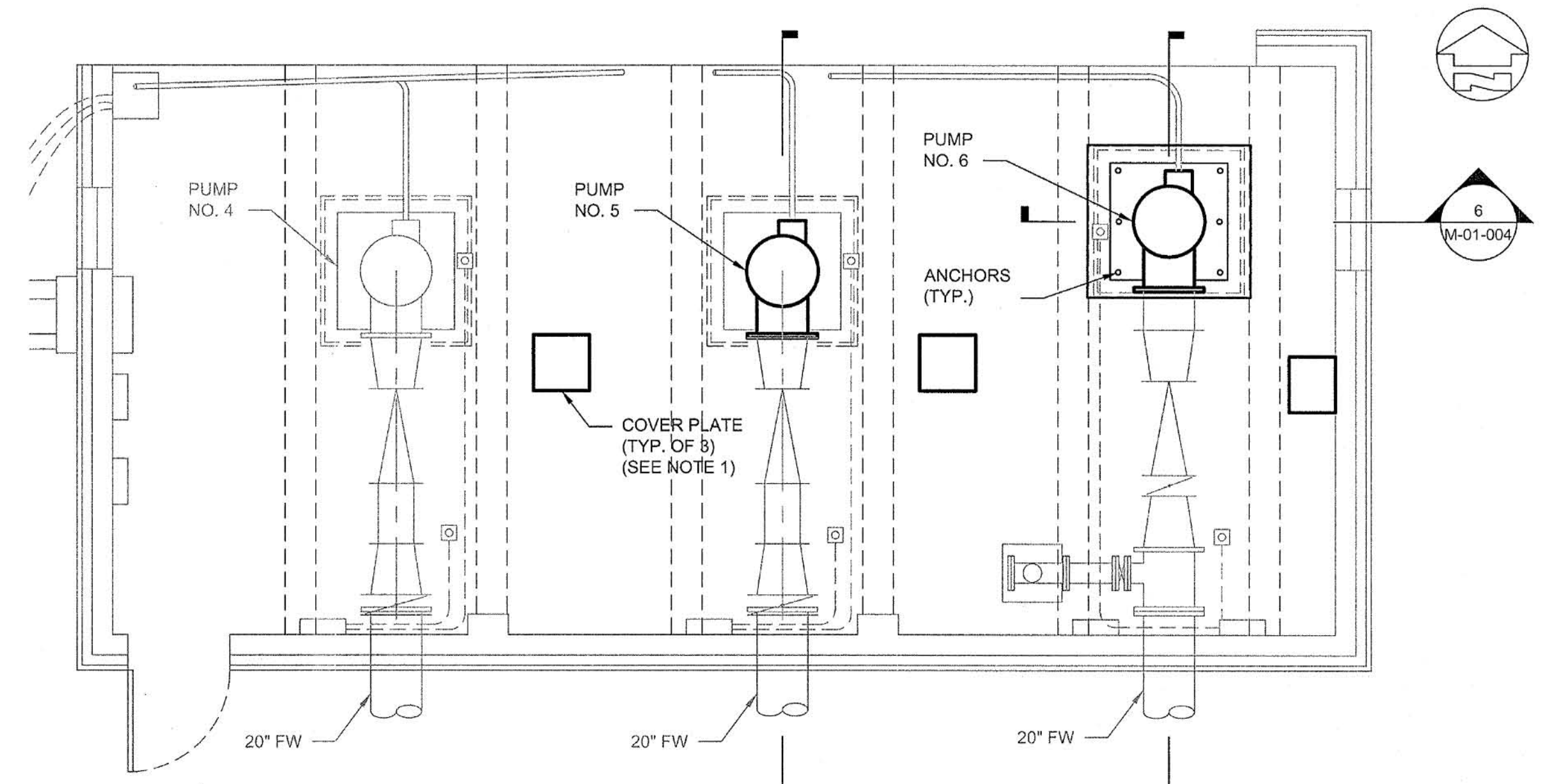
FILTER BUILDING
FRONT PUMP ROOM MODIFICATION SECTIONS
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ISSUED STATUS: BID SET
DATE JANUARY 2014
SHEET M-01-002
CAD REF. NO. M-01-002.DWG



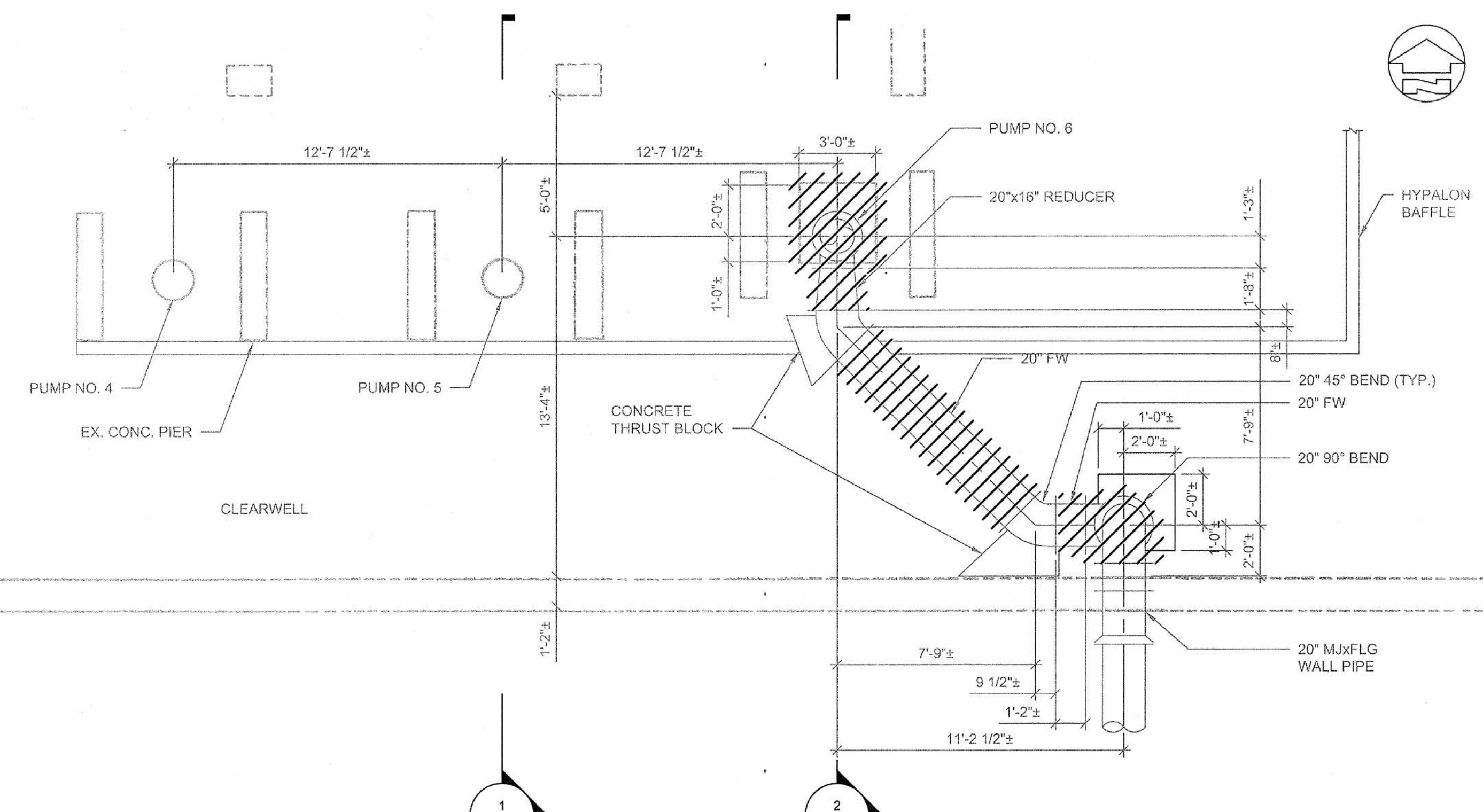
BACK PUMP ROOM DEMO PLAN

- NOT TO SCALE
 NOTES:
 1. DIMENSIONS MARKED WITH A "±" SHALL BE COORDINATED BY CONTRACTOR WITH PUMP MANUFACTURER AND FIELD VERIFIED.
 2. CONTRACTOR SHALL DEMOLISH BEND, PIPING, AND BASE PLATE. CONCRETE PAD TO REMAIN.



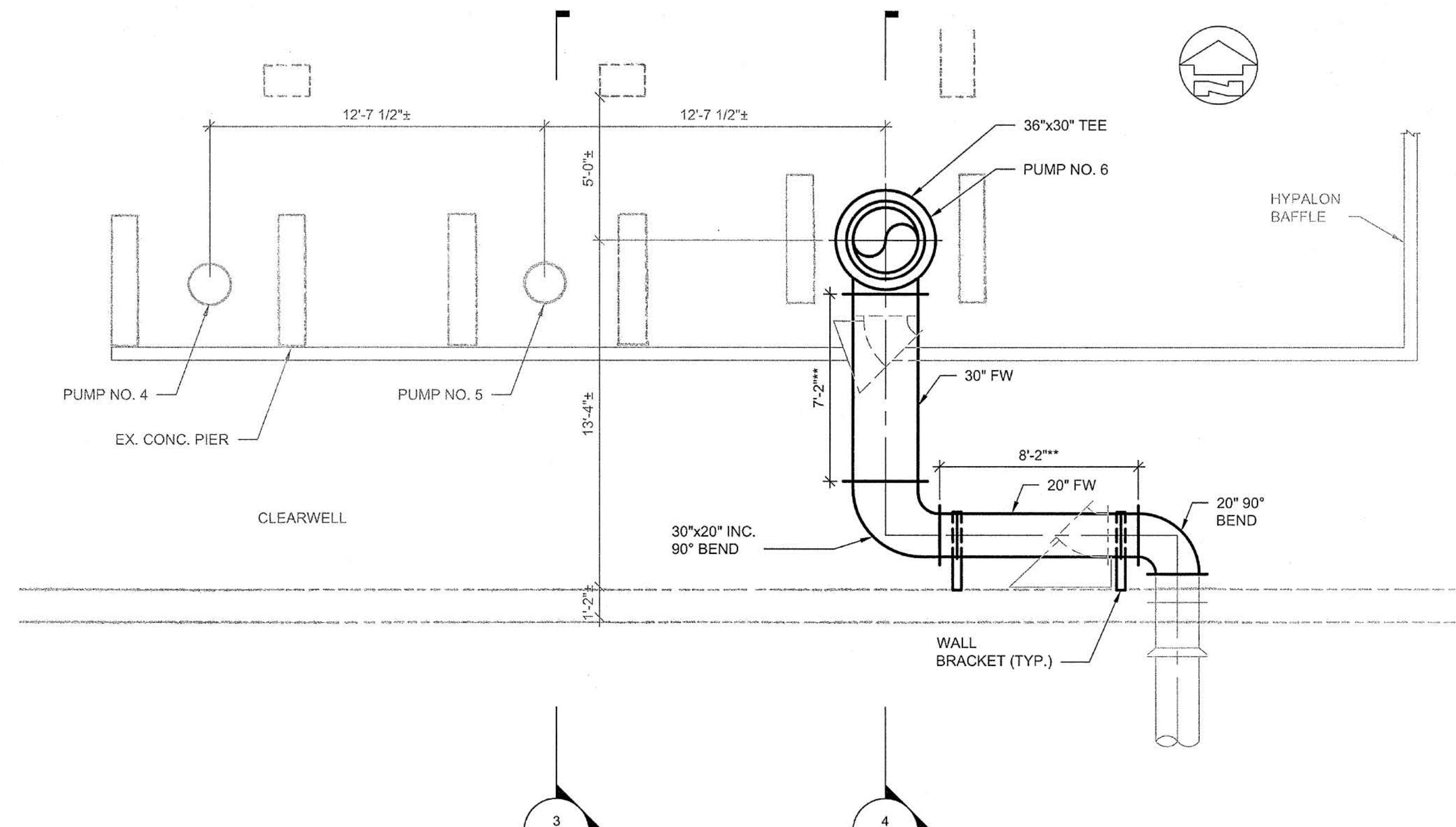
BACK PUMP ROOM PLAN

- NOT TO SCALE
 NOTES:
 1. CONTRACTOR SHALL PROVIDE AND INSTALL 1/4" STEEL PAINTED COVER PLATE FOR EXISTING OPENING. CONTRACTOR SHALL VERIFY SIZE REQUIRED. PAINTING AND ANCHOR HARDWARE PER CONTRACT DOCUMENTS.
 2. CONTRACTOR SHALL MODIFY PUMP DISCHARGE PIPING, VALVES, FITTINGS, AND APPURTENANCES AS REQUIRED FOR INSTALLATION OF NEW PUMPS.



CLEARWELL DEMO PLAN

NOT TO SCALE



CLEARWELL PLAN

- NOT TO SCALE
 NOTES:
 1. DIMENSIONS MARKED WITH A "±" SHALL BE COORDINATED BY CONTRACTOR WITH PUMP MANUFACTURER AN FIELD VERIFIED.
 2. DIMENSIONS MARKED WITH "±" SHALL BE DETERMINED IN FIELD BY CONTRACTOR. CONTRACTOR SHALL PROVIDE ANY ADDITIONAL PIPING, FITTINGS AND SPECIALTIES AS REQUIRED TO ASSEMBLE SUCTION PIPING. WHEN POSSIBLE, CONTRACTOR SHALL PROVIDE DISMANTLING JOINT.

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 DRAWING IS NOT TO SCALE IF THIS DOES NOT MEASURE 1 INCH.

MALCOLM PIRNIE
 The Water Division of **ARCADIS**
Magna ENGINEERS

STATE OF KENTUCKY
 JASON M. ABBOTT
 25987
 LICENSED PROFESSIONAL ENGINEER

REVISIONS		REMARKS
NO.	BY	DATE

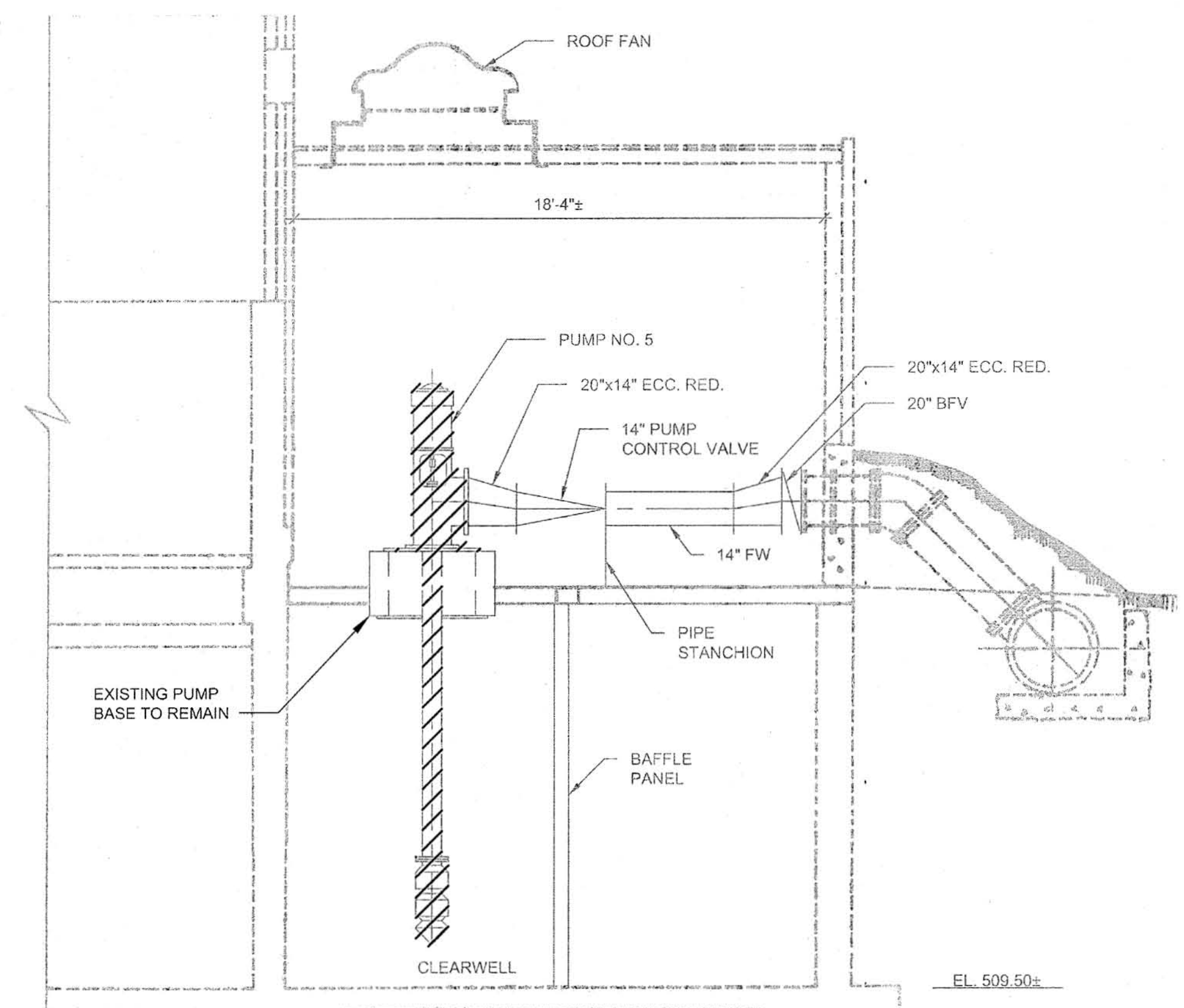
DES JIL
 DWN PJW
 CKD JMA

NORTHERN KENTUCKY WATER DISTRICT
 TAYLOR MILL WATER TREATMENT PLANT
ELECTRICAL AND BASIN IMPROVEMENTS

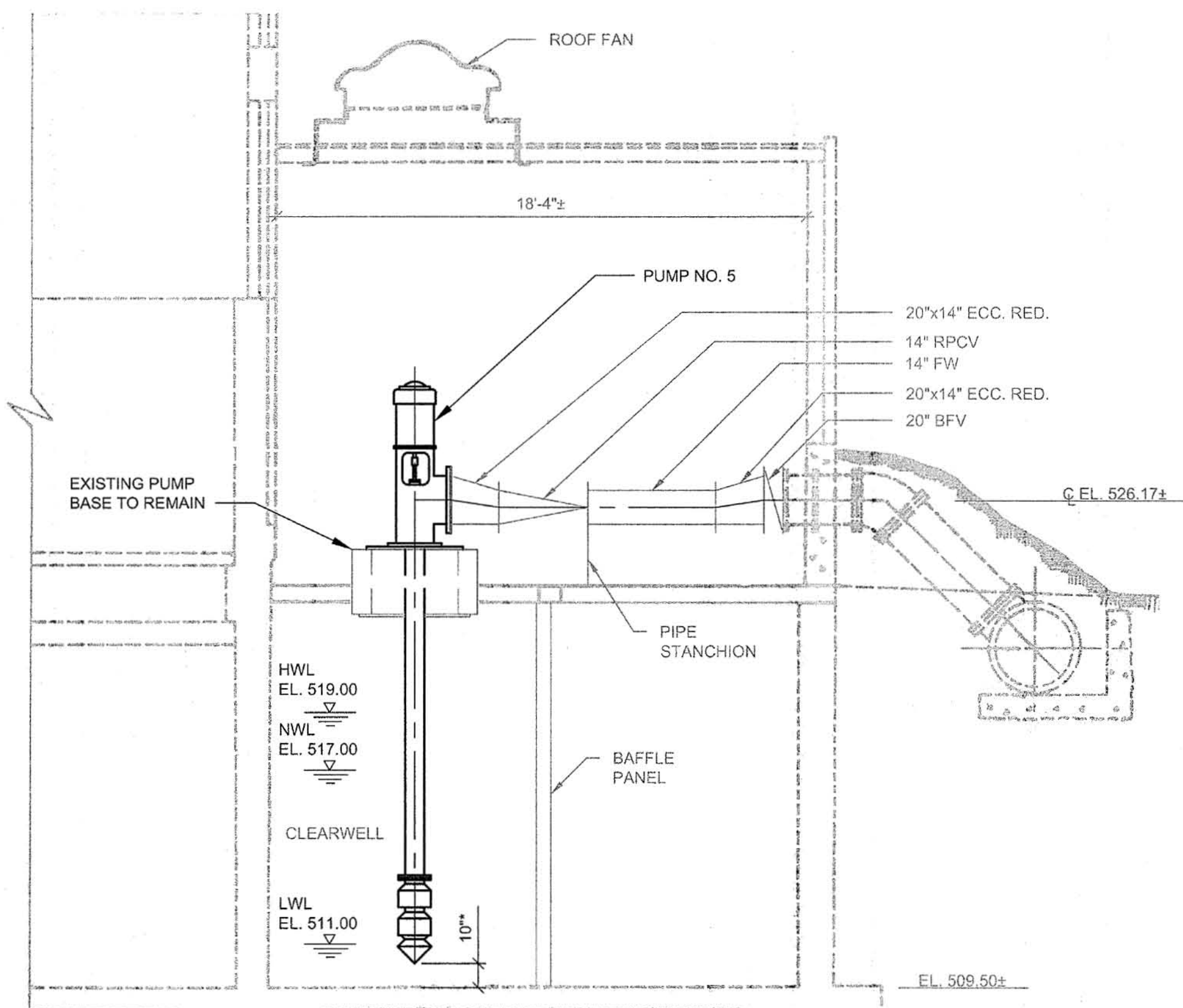
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 DATE JANUARY 2014
 SHEET M-01-003
 CAD REF. NO. M-01-003.DWG

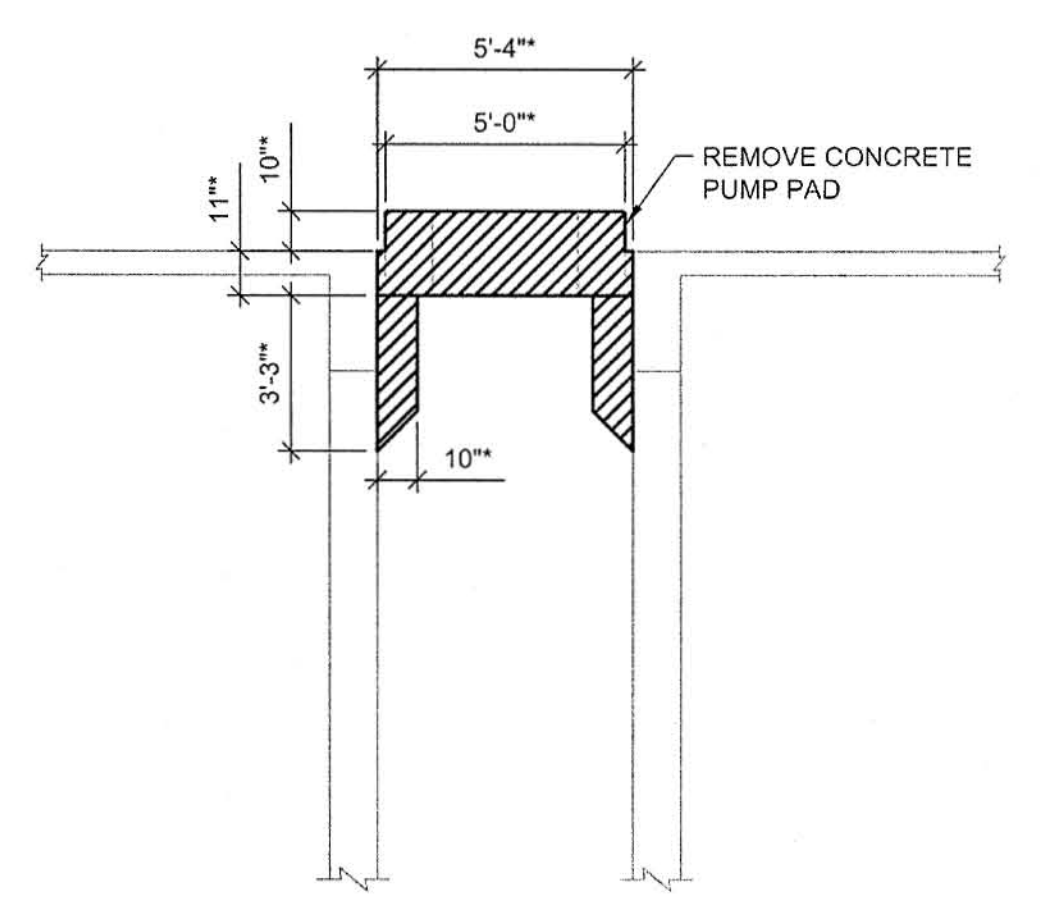
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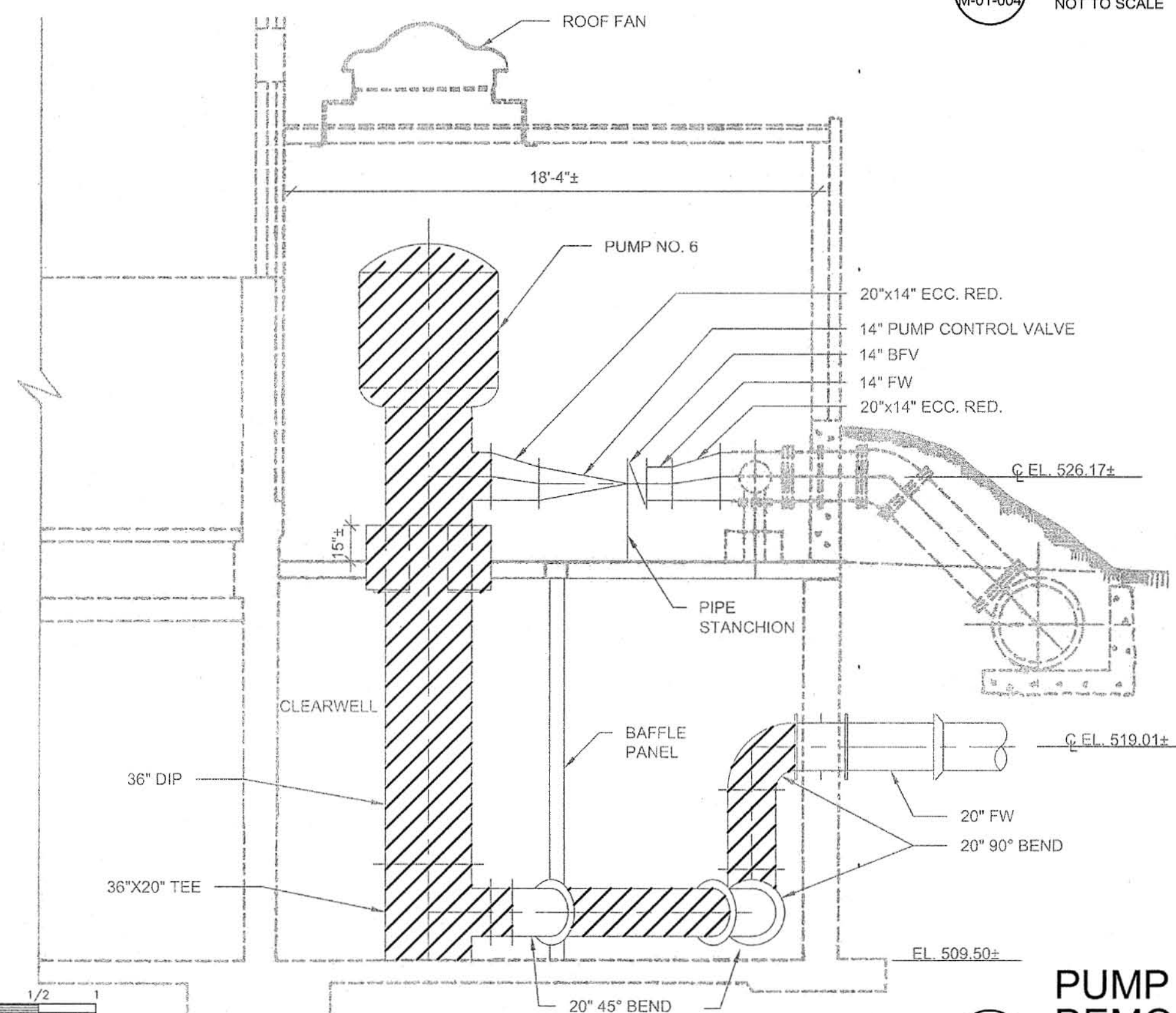
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PUMP NO. 5 DEMO SECTION
NOT TO SCALE



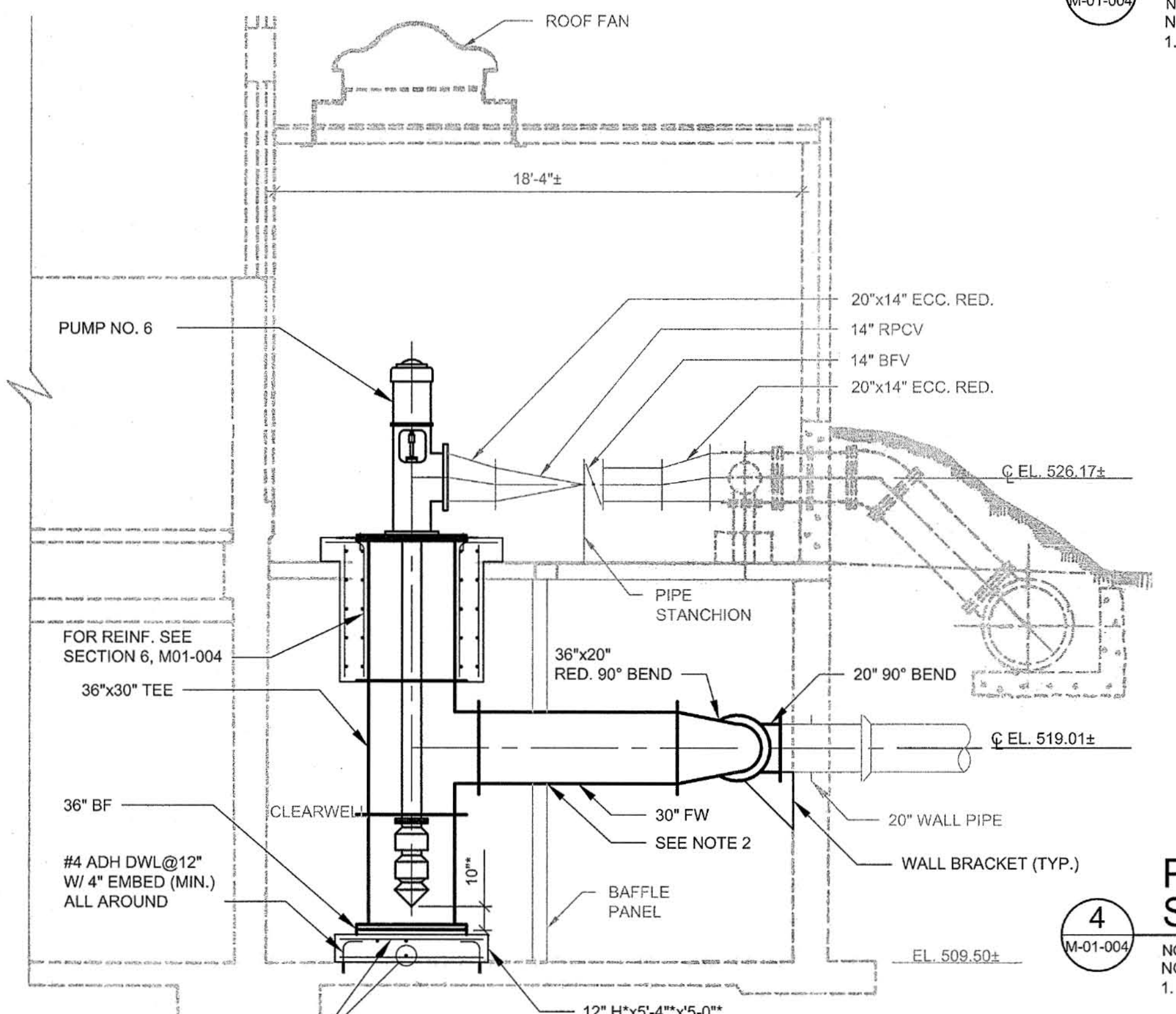
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PUMP NO. 5 SECTION
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NOTES:
1. DIMENSIONS MARKED WITH A "±" SHALL BE COORDINATED BY CONTRACTOR WITH PUMP MANUFACTURER AND FIELD VERIFIED.



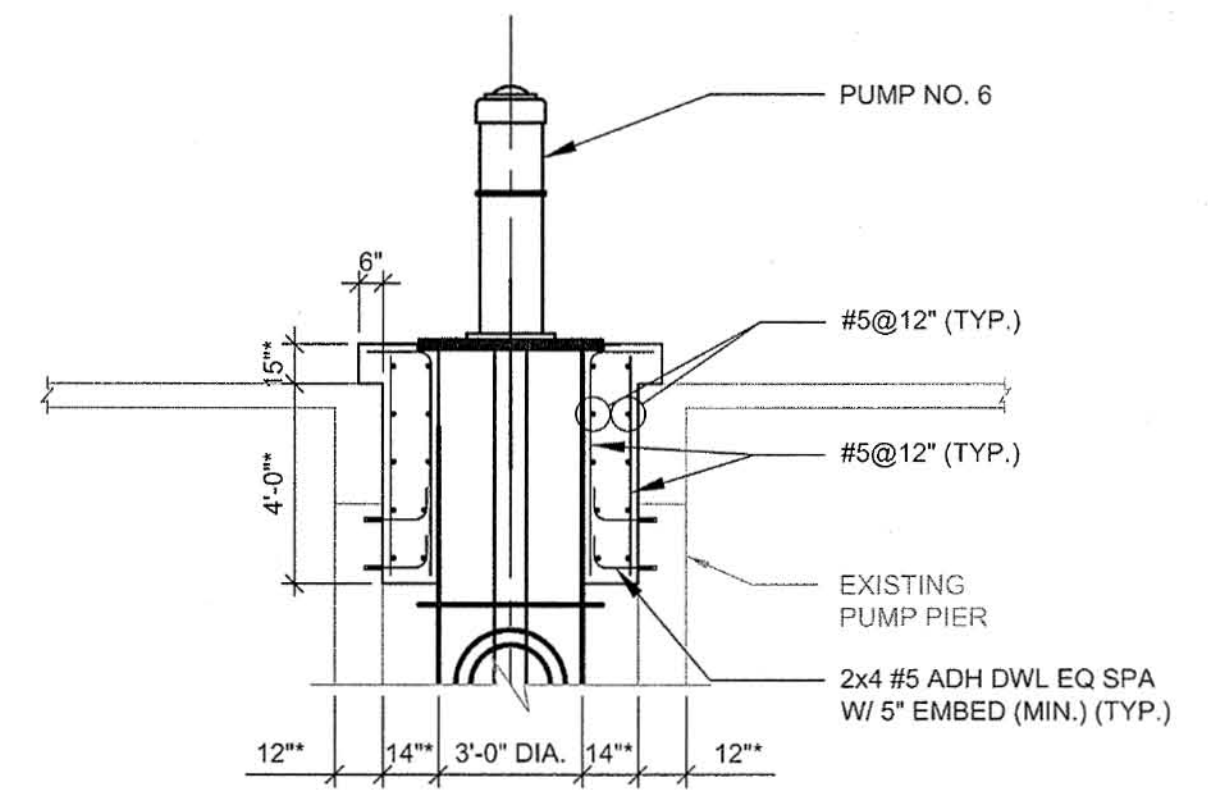
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PUMP NO. 6 DEMO SECTION
NOT TO SCALE



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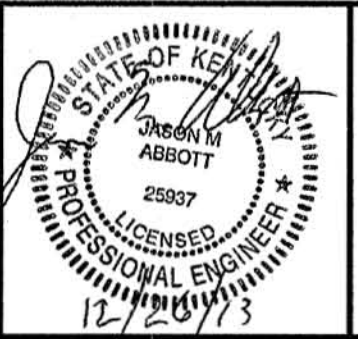


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M-01-004
PUMP NO. 6 SECTION
NOT TO SCALE
NOTES:
1. DIMENSIONS MARKED WITH A "±" SHALL BE COORDINATED BY CONTRACTOR WITH PUMP MANUFACTURER AND FIELD VERIFIED.
2. CONTRACTOR SHALL CUT OPENING IN BAFFLE PANEL AS REQUIRED TO ADEQUATELY INSTALL PIPING.



6
M-01-004
PUMP NO. 6 SECTION
NOT TO SCALE

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DRAWING IS NOT TO SCALE IF THIS DOES NOT MEASURE 1 INCH.



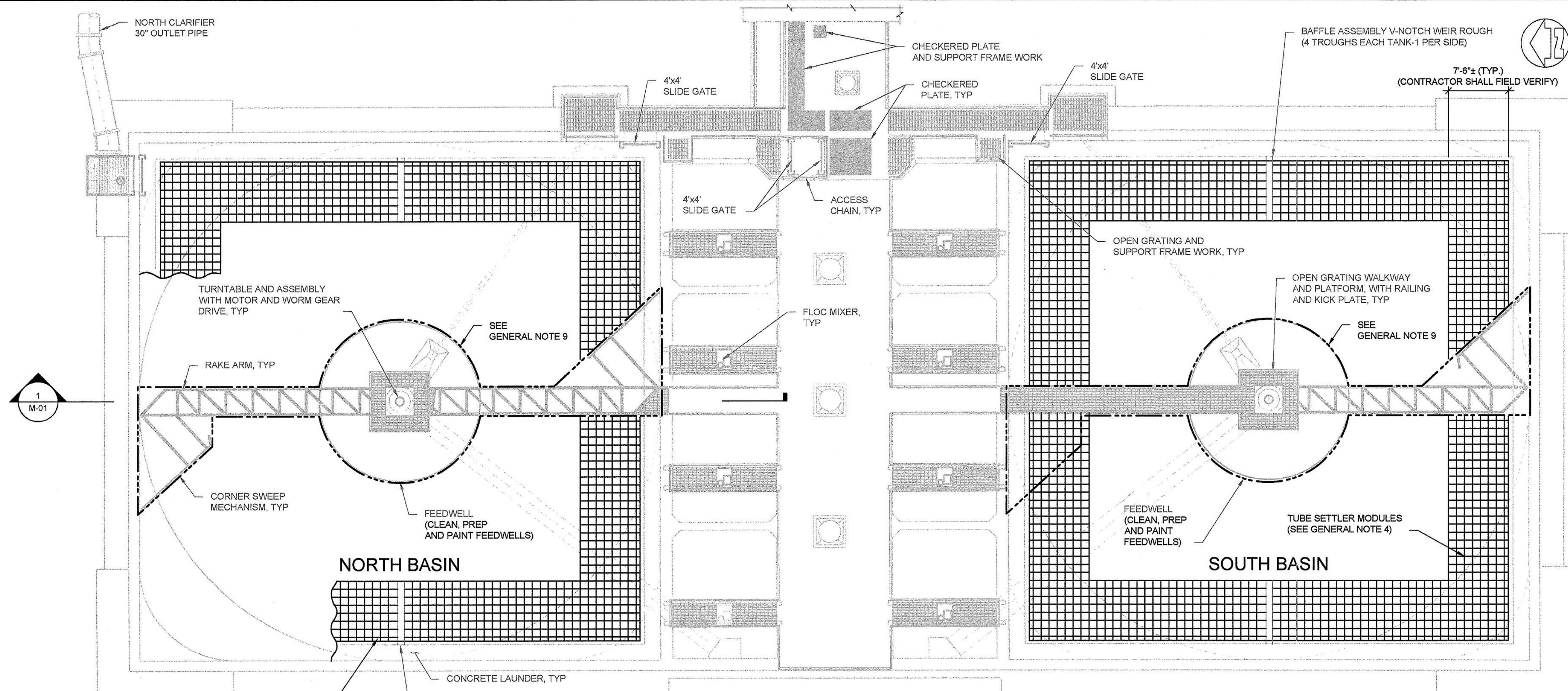
REVISIONS		NO.	BY	DATE	REMARKS

DES JIL
DWN PJW
CKD JMA

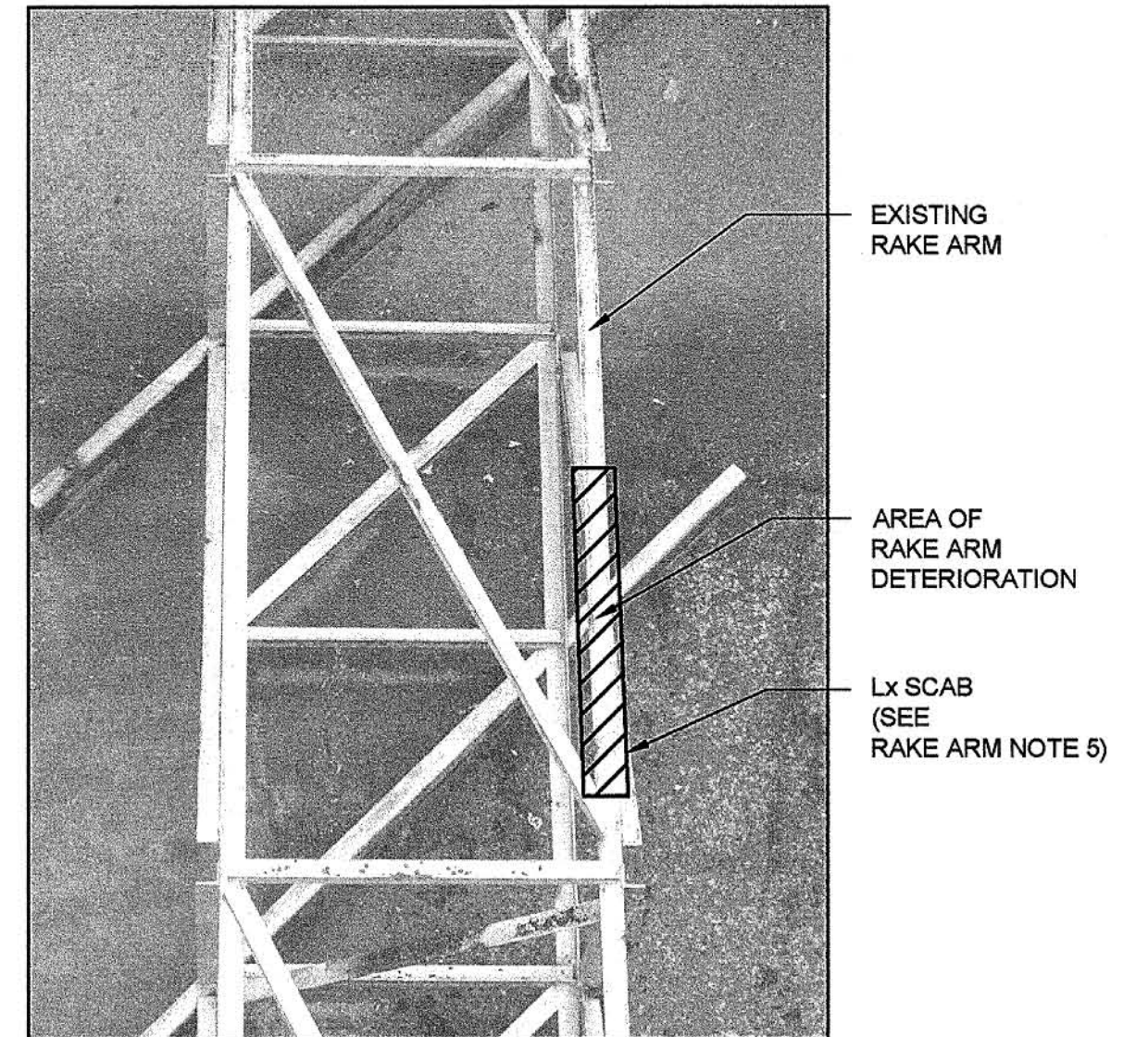
NORTHERN KENTUCKY WATER DISTRICT
TAYLOR MILL WATER TREATMENT PLANT
ELECTRICAL AND BASIN IMPROVEMENTS

ISSUED STATUS: BID SET
DATE: JANUARY 2014
SHEET: M-01-004
CAD REF. NO.: M-01-004.DWG
SCALE: N.T.S.

ISSUED STATUS: BID SET
DATE: JANUARY 2014
SHEET: M-01-004
CAD REF. NO.: M-01-004.DWG



1
BASIN MODIFICATIONS
PLAN AT EL. 533.42±
 NOT TO SCALE



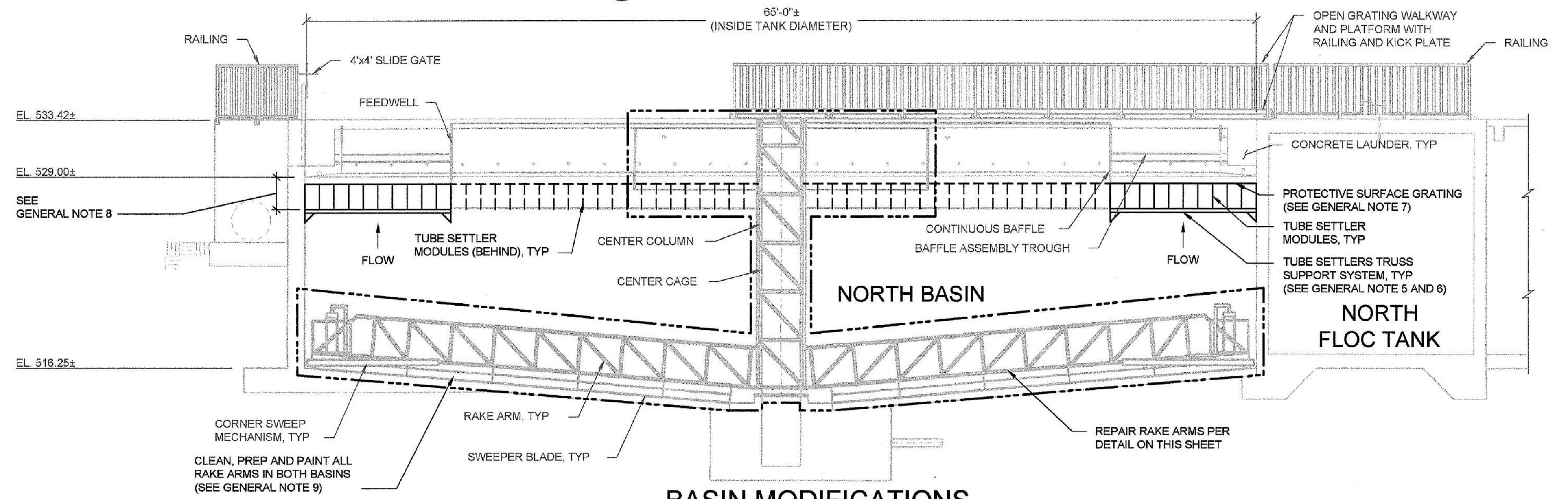
RAKE ARM REPAIR DETAIL
 NOT TO SCALE

RAKE ARM NOTES:

1. REPAIR SEDIMENTATION BASIN RAKE ARMS AS GENERALLY INDICATED. REFER TO REPAIR SCHEDULE ON SHEET S-02-008.
2. NO EXISTING INFORMATION REGARDING THE DESIGN OR CONSTRUCTION OF THE RAKE ARMS IS AVAILABLE. CONTRACTOR SHALL DETERMINE DIMENSIONS, MEMBER SIZES AND REVIEW EXISTING CONDITIONS ASSOCIATED WITH THE REPAIR PRIOR TO COMMENCING WITH THE WORK.
3. PROVIDE INFORMATION SUBMITTAL SUMMARIZING RESULTS OF FIELD MEASUREMENTS, INCLUDING DIMENSIONS AND MEMBER SIZES.
4. PROVIDE TEMPORARY SUPPORT OF RAKE ARMS DURING REPAIR.
5. REPAIR EXISTING STEEL RAKE ARMS BY PATCHING DETERIORATED AREAS WITH PAINTED STEEL Lx MATCHING EXISTING CONSTRUCTION AS DESIRED BY ENGINEER. Lx SHALL HAVE EQUAL LEGS OF SAME LENGTH AND THICKNESS AS EXISTING RAKE ARM CONSTRUCTION.
6. EXTEND PATCHING Lx A MINIMUM OF 12" BEYOND DETERIORATED AREAS.

GENERAL NOTES:

1. BASE DRAWING FROM 1999 RECORD DRAWINGS OF TAYLOR MILL PLANT CHEMICAL BUILDING, CLARIFIER, AND CLEARWELL IMPROVEMENTS PROJECT DESIGNED BY CH2M HILL.
2. CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO PROTECT EXISTING PIPING, VALVES, EQUIPMENT, INSTRUMENTATION AND OTHER ITEMS DURING CONSTRUCTION.
3. EXISTING MISCELLANEOUS STRUCTURAL SUPPORTS AND OTHER MISCELLANEOUS APPURTENANCES NOT SHOWN. CONTRACTOR SHALL INSPECT EXISTING FACILITIES PRIOR TO SUBMITTING A BID TO DETERMINE ALL CONSTRAINTS THAT MAY AFFECT CONSTRUCTION ACTIVITIES AND INCLUDE ALL COSTS ASSOCIATED WITH THEM IN ITS BID.
4. CONTRACTOR SHALL DEMOLISH EXISTING TUBE SETTLER MODULES AND REPLACE WITH NEW TUBE SETTLER MODULES PER SECTION 46 43 73.
5. CONTRACTOR SHALL REUSE EXISTING TUBE SETTLER TRUSS SUPPORT SYSTEM FOR INSTALLATION OF NEW TUBE SETTLER MODULES PER SECTION 46 43 73.
6. CONTRACTOR SHALL FIELD VERIFY DIMENSIONS OF EXISTING TUBE SETTLERS TRUSS SUPPORT SYSTEM AND COORDINATE WITH MANUFACTURER OF TUBE SETTLERS PRIOR TO SUBMITTAL OF SHOP DRAWINGS FOR TUBE SETTLERS PER SECTION 46 43 73.
7. CONTRACTOR SHALL INSTALL NEW PROTECTIVE SURFACE GRATING PER SECTION 46 43 73.
8. CONTRACTOR SHALL FIELD MEASURE DISTANCE BETWEEN TOP OF TRUSS SUPPORT AND UNDERNEATH EXISTING EFFLUENT LAUNDER. NEW TUBE SETTLER MODULES AND PROTECTIVE SURFACE GRATING SHALL MAINTAIN EXISTING CLEARANCE UNDERNEATH EXISTING EFFLUENT LAUNDER.
9. WORK SHOWN WITHIN THIS BOUNDARY LINE IS PART OF ALTERNATIVE NO. 4. SEE SPECIFICATION SECTION 01 23 00 FOR DESCRIPTION OF ALTERNATIVE NO. 4.



1
BASIN MODIFICATIONS
SECTION 1
 NOT TO SCALE
 NOTE:
 SOUTH BASIN ARRANGEMENT SIMILAR

0 1/2 1
 DRAWING IS NOT TO SCALE IF THIS DOES NOT MEASURE 1 INCH.

MALCOLM PIRNIE
 The Water Division of ARCADIS

Magna ENGINEERS

STATE OF KENTUCKY
 JASON M ABBOTT
 25937
 LICENSED PROFESSIONAL ENGINEER

REVISIONS			
NO.	BY	DATE	REMARKS

DES JIL
 DWN PJW
 CKD JMA

NORTHERN KENTUCKY WATER DISTRICT
TAYLOR MILL WATER TREATMENT PLANT
ELECTRICAL AND BASIN IMPROVEMENTS

MECHANICAL
BASIN MODIFICATION
PLAN AND SECTION
 SCALE: N.T.S.

ISSUED STATUS: BID SET

DATE: JANUARY 2014

SHEET: M-02-001

CAD REF. NO.: M-02-001

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GENERAL

- 1. ITEMS NOTED ON THE DRAWINGS SHALL BE CONSIDERED THE SAME AS NOTED ITEMS WHICH ARE GRAPHICALLY REPRESENTED IN THE SAME MANNER.
- 2. THE SYMBOLS, ABBREVIATIONS, AND LAP SPLICE AND EMBEDMENT TABLE ON THIS SHEET IS A COMPREHENSIVE STANDARD GUIDE FOR GENERAL USE ON ALL PROJECTS.
- 3. QUALITY OF CONSTRUCTION REQUIRED, PERFORMANCE LEVELS OF WORKMANSHIP, MANUFACTURING AND INDUSTRY STANDARDS, STRENGTH AND PHYSICAL REQUIREMENTS OF MATERIALS, CONFORMANCE TO CODES AND REGULATIONS, GUARANTEES AND OTHER PROJECT REQUIREMENTS ARE SPECIFIED IN THE PROJECT MANUAL.
- 4. IF MATERIALS, QUANTITIES, STRENGTHS OR SIZES INDICATED BY THE DRAWINGS OR SPECIFICATIONS ARE NOT IN AGREEMENT WITH THESE NOTES, THE BETTER QUALITY AND/OR GREATER QUANTITY, STRENGTH OR SIZE INDICATED, SPECIFIED, OR NOTED SHALL BE PROVIDED.
- 5. PERFORM ALL WORK IN COORDINATION WITH ALL DRAWINGS AND INFORMATION RELATED TO STRUCTURAL WORK. ANY CHANGES TO THE EQUIPMENT REQUIRING CHANGES TO THE STRUCTURAL SYSTEMS SHALL BE REDESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF KENTUCKY AT NO COST TO THE OWNER AND SUBMITTED TO THE ENGINEER. SUBMITTAL SHALL BE ACKNOWLEDGED IN WRITING BEFORE BEGINNING CONSTRUCTION.
- 6. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO ENSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF WHATEVER TEMPORARY BRACING, GUYS OR TIE-DOWNS MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.
- 7. FACILITIES HAVE BEEN DESIGNED FOR DESIGN LOADS SHOWN OR SPECIFIED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FACILITIES SUBJECT TO CONSTRUCTION LOADS EXCEEDING THE DESIGN LOADS AND SHALL NOTIFY THE ENGINEER OF ANY SUCH ADDITIONAL LOADS.
- 8. ALL DIMENSIONS AND ELEVATIONS NOTED THUS (*) ON STRUCTURES SHOWN ON THE DRAWINGS SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD OR WITH THE EQUIPMENT MANUFACTURER AND SHALL CONFORM TO THOSE SHOWN ON OTHER DRAWINGS.
- 9. DESIGN LOADS: BASED ON THE KENTUCKY BUILDING CODE, 2007 EDITION.
FLOOR LIVE LOADS:
- SEE PLANS
SNOW LOAD:
- GROUND SNOW LOAD, Pg 20 PSF
- SNOW EXPOSURE FACTOR 0.9
- SNOW LOAD IMPORTANCE FACTOR: 1.1
- THERMAL FACTOR 1.1
WIND LOAD:
- BASIC WIND SPEED 90 MPH
- WIND IMPORTANCE FACTOR: 1.15
- WIND EXPOSURE C
- COMPONENTS AND CLADDING (SEE SPECIFICATIONS)
EARTHQUAKE DESIGN DATA:
- SEISMIC IMPORTANCE FACTOR: 1.25
- OCCUPANCY CATEGORY III
- SPECTRAL RESPONSE ACCELERATIONS, Sa 0.180
- SPECTRAL RESPONSE ACCELERATIONS, S1 0.076
- SITE CLASS D
- SPECTRAL RESPONSE COEFFICIENT, Sps 0.144
- SPECTRAL RESPONSE COEFFICIENT, Sps1 0.086
- SEISMIC DESIGN CATEGORY B
- 10. FOR PAINTING SYSTEM REQUIREMENTS REFER TO SPECIFICATION SECTION 09 91 00.

CAST-IN-PLACE CONCRETE

- 1. CONCRETE SHALL HAVE THE FOLLOWING MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS:
A. 4,500 POUNDS PER SQUARE INCH (PSI) WITH ENTRAINED AIR FOR ALL CONCRETE UNLESS SPECIFICALLY NOTED OTHERWISE.
- 2. ALL CONCRETE WORK NOT COVERED UNDER ACI 350 SHALL BE IN ACCORDANCE WITH "THE BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" ACI 318. TOLERANCES SHALL BE IN ACCORDANCE WITH ACI 347, SECTION 3.3.1, TOLERANCES FOR REINFORCED CONCRETE BUILDINGS.
- 3. ALL REINFORCING STEEL SHALL BE NEW DOMESTIC DEFORMED BILLET STEEL CONFORMING TO ASTM A-615 GRADE 60.
- 4. ALL REINFORCING DETAILS SHALL CONFORM TO "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT", ACI 315, UNLESS DETAILED OTHERWISE ON THE STRUCTURAL DRAWINGS.
- 5. CONTRACTOR SHALL REVIEW ALL DRAWINGS FOR SIZE AND LOCATION OF EMBEDDED ITEMS, SLEEVES, SLAB DEPRESSIONS, REQUIRED. THESE ITEMS SHALL BE FURNISHED AND INSTALLED PRIOR TO PLACEMENT OF CONCRETE.
- 6. ALL BEAMS, SPANDRELS AND SLABS SHALL BE CAST MONOLITHICALLY, EXCEPT FOR REQUIRED CONSTRUCTION JOINTS. CONTRACTOR SHALL SUBMIT ANY AND ALL ALTERNATE AND ADDITIONAL CONSTRUCTION JOINT LOCATIONS AND DETAILS.
- 7. CONSTRUCTION JOINTS REQUIRED BY THE ENGINEER ARE SHOWN ON THE DRAWINGS. ADDITIONAL CONSTRUCTION JOINTS SHALL BE PROVIDED AS OUTLINED IN SPECIFICATIONS. REINFORCEMENT SHALL BE CONTINUOUS ACROSS CONSTRUCTION JOINTS. SUBMIT ALL CONSTRUCTION JOINT LOCATIONS WITH REINFORCING STEEL SHOP DRAWINGS.
- 8. CONTRACTOR SHALL PROVIDE 3/4 INCH CHAMFER USING WOOD CHAMFER STRIPS ON ALL EXPOSED CORNERS OF COLUMNS, BEAMS AND WALLS, OR AS REQUIRED TO MATCH EXISTING.
- 9. COVER FOR REINFORCING STEEL SHALL CONFORM TO THE FOLLOWING:
TYPICAL REINFORCING BAR COVER TABLE
CONCRETE CAST AGAINST EARTH3"
REINFORCING TO CLEAR WATERSTOP3"
SURFACES EXPOSED TO LIQUIDS, EARTH OR WEATHER2"
ALL OTHER SURFACES2"
- 10. PROVIDE WATERSTOPS IN ALL FOUNDATIONS, TANKS AND OTHER SUBSTRUCTURES UP TO AN ELEVATION AT LEAST 12 INCHES ABOVE GRADE OR TO AN ELEVATION AT LEAST 12 INCHES ABOVE LIQUID LEVEL IN TANKS, WHICHEVER IS HIGHER, UNLESS SHOWN OTHERWISE.
- 11. CALCIUM CHLORIDE SHALL NOT BE PERMITTED NOR SHALL ANY ADMIXTURE CONTAINING CALCIUM CHLORIDE BE PERMITTED THAT RESULTS IN A TOTAL CONCRETE MIX IN WHICH THE PRESENCE OF CHLORIDE IONS EXCEED 0.10 PERCENT BY WEIGHT OF CEMENT.
- 12. ALUMINUM PIPE SHALL NOT BE USED WITH CONCRETE PUMPS.
- 13. CONTRACTOR SHALL LOCATE ALL EXISTING REINFORCING PRIOR TO INSTALLING ADHESIVE DOWELS AND ADHESIVE AND MECHANICAL ANCHORS. CONTRACTOR SHALL USE X-RAY TYPE NON-DESTRUCTIVE INSPECTION METHOD.

SPECIAL INSPECTION

- 1. OWNER WILL RETAIN THE INSPECTION SERVICES FOR SPECIAL INSPECTION. ON SITE INSPECTION WILL BE IN ACCORDANCE TO THE KENTUCKY BUILDING CODE - SECTION 17 REGULATIONS UNDER THE SUPERVISION OF A QUALIFIED INSPECTOR.
- 2. TESTING SERVICES SHALL BE PERFORMED AS STIPULATED BY THE SPECIFICATIONS.
- 3. CONTRACTOR SHALL NOTIFY INSPECTION AT LEAST 48 HOURS PRIOR TO THE START OF WORK.

EXISTING CONCRETE

- 1. EXISTING MATERIAL PROPERTIES UTILIZED FOR ANALYSIS:
- CONCRETE COMPRESSIVE STRENGTH = 3,000 PSI
- REINFORCING STEEL YIELD STRENGTH = 40,000 PSI
- 2. EXISTING CONCRETE REFERS TO CONCRETE WHICH IS IN PLACE PRIOR TO THE START OF THIS PROJECT.
- 3. PRIOR TO BEGINNING DEMOLITION WORK OF EXISTING CONCRETE PROVIDE ALL NECESSARY TEMPORARY SUPPORTS AND LOCATE AND PROTECT ALL ELECTRICAL CONDUITS AND PIPES AS OUTLINED IN SPECIFICATIONS.
- 4. REMOVE EXISTING CONCRETE GENERALLY WITHIN THE LIMITS SHOWN ON THE DRAWINGS.
- 5. WHERE EXISTING REINFORCING IS SHOWN ON THE DESIGN DRAWINGS AS PROJECTING INTO NEW CONCRETE WORK, THE EXISTING REINFORCING SHALL PROJECT INTO THE NEW CONCRETE THE MINIMUM LAP LENGTH AS NOTED IN THE "LAP SPLICE AND EMBEDMENT LENGTH TABLE". REMOVE ALL FOREIGN MATERIAL FROM SURFACE OF EXISTING REINFORCING WITH A WIRE BRUSH OR OTHER MEANS.
- 6. WHERE NEW REINFORCING DOWELS ARE SHOWN TO BE EMBEDDED INTO THE EXISTING CONCRETE, THE NEW DOWELS SHALL BE INSTALLED INTO THE DEPTH OF HOLE NOTED OR REQUIRED TO FULLY DEVELOP THE TENSILE STRENGTH OF THE REINFORCING BAR. USE ADHESIVE MATERIAL, HOLE DIAMETERS AND DEPTH, AND INSTALLATION PROCEDURES AS REQUIRED BY THE MANUFACTURER AND OUTLINED IN SPECIFICATIONS.
- 7. WHERE NEW REINFORCING DOWELS ARE PROPOSED BY CONTRACTOR TO REPLACE CUT OR DAMAGED EXISTING REINFORCING, SUBMIT LOCATIONS AND DEPTHS FOR APPROVAL PRIOR TO COMMENCEMENT OF WORK.
- 8. PROVIDE CHAMFERS ON NEW CONCRETE WORK WHERE REQUIRED TO MATCH CHAMFERS ON EXISTING CONCRETE WORK.
- 9. WHERE REQUIRED TO SECURE BACKFILLED MATERIAL OR MAKE EXISTING CONCRETE WATERTIGHT, FILL ALL ABANDONED PIPE SLEEVES, AND OTHER OPENINGS WITH NON-SHRINK GROUT.
- 10. AFTER REMOVAL OF PART OR ALL OF EXISTING CONCRETE WORK, WHICH TIES INTO NEW OR EXISTING WORK, THE EXPOSED AREAS OF THE EXISTING WORK SHALL BE NEATLY REPAIRED AS OUTLINED IN SPECIFICATIONS. PROPERLY CLEAN AND ROUGHEN SURFACE AND APPLY BONDING ADHESIVE PRIOR TO PLACING THE SPECIFIED SPECIFIED CONCRETE SURFACE REPAIR MATERIAL.
- 11. WHERE DEMOLITION OF EXISTING STRUCTURES IS PERFORMED, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN THE INTEGRITY OF ADJACENT STRUCTURES AND TO PREVENT DAMAGE TO EXISTING FACILITIES AND EQUIPMENT.

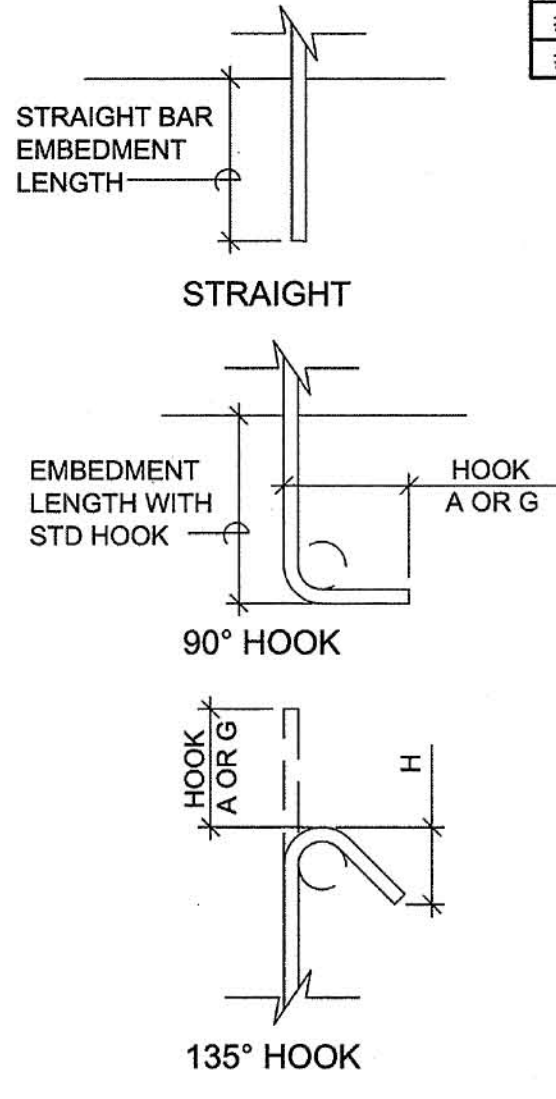
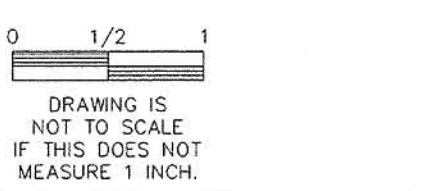


Table with columns: BAR SIZE, MIN LAP LENGTHS FOR BEAMS AND COLUMNS* (CLASS B), SLABS AND WALLS** (CLASS B), MIN EMBEDMENT LENGTHS FOR BEAMS AND COLUMNS* (TOP***) and WALLS** (TOP***) with STD HOOKS, and MIN STD. HOOKS (90° and 135°).

REINFORCEMENT LAP SPLICE, EMBEDMENT LENGTH AND STANDARD HOOKS TABLE IS BASED ON A MINIMUM CONCRETE COMPRESSIVE STRENGTH OF 4000 PSI AND 60000 PSI REINFORCEMENT (WITH NO EPOXY COATING). ALL LAPS SPLICES SHALL BE CLASS B SPLICES. * THE MINIMUM LAP LENGTH FOR BEAMS, COLUMNS, AND STRAIGHT EMBEDMENTS ARE BASED ON A 3 BAR DIAMETER MINIMUM CENTER TO CENTER BAR SPACING AND A 2 INCH BAR COVER. IF THE SPLICE AND/OR EMBEDMENT DOES NOT CONFORM TO THESE REQUIREMENTS, THEN CONTRACTOR SHALL APPLY APPROPRIATE FACTORS IN COMPLIANCE WITH ACI 318 WITH APPROVAL BY ENGINEER. ** THE MINIMUM LAP LENGTH FOR SLABS, WALLS, AND STRAIGHT EMBEDMENTS ARE BASED ON A 6 INCH BAR SPACING AND A 2 INCH BAR COVER. IF THE LAP CONDITION DOES NOT CONFORM TO THESE REQUIREMENTS, THEN USE BEAM LAP LENGTHS; OR COMPLY WITH LAP REQUIREMENTS OF ACI 318 WITH APPROVAL BY ENGINEER. *** TOP BARS ARE DEFINED AS ALL HORIZONTAL BARS, EXCLUDING WALL BARS, WITH 12" OR MORE FRESH CONCRETE BENEATH. WHERE SPLICES ARE REQUIRED BETWEEN BARS OF DIFFERENT SIZES, THE LAP LENGTH SHALL BE NO LESS THAN THE EMBEDMENT LENGTH OF THE LARGER BAR OR THE LAP LENGTH OF THE SMALLER BAR, WHICHEVER IS GREATER.

LAP SPLICE AND EMBEDMENT LENGTH TABLE

Table with two columns: SYMBOLS and ABBREVIATIONS. SYMBOLS shows patterns for UNDISTURBED SOIL, ROCK, SUBBASE, MUDMAT, SELECT BACKFILL, GENERAL FILL, GRATING, PLANK GRATING, STEEL, CHECKERED PLATE, BRICK, CMU, CONCRETE, and GROUT. ABBREVIATIONS lists terms like AB - ANCHOR BOLT, EQ - EQUAL, EXIST. - EXISTING, etc., up to EMBD. - EMBEDDED.



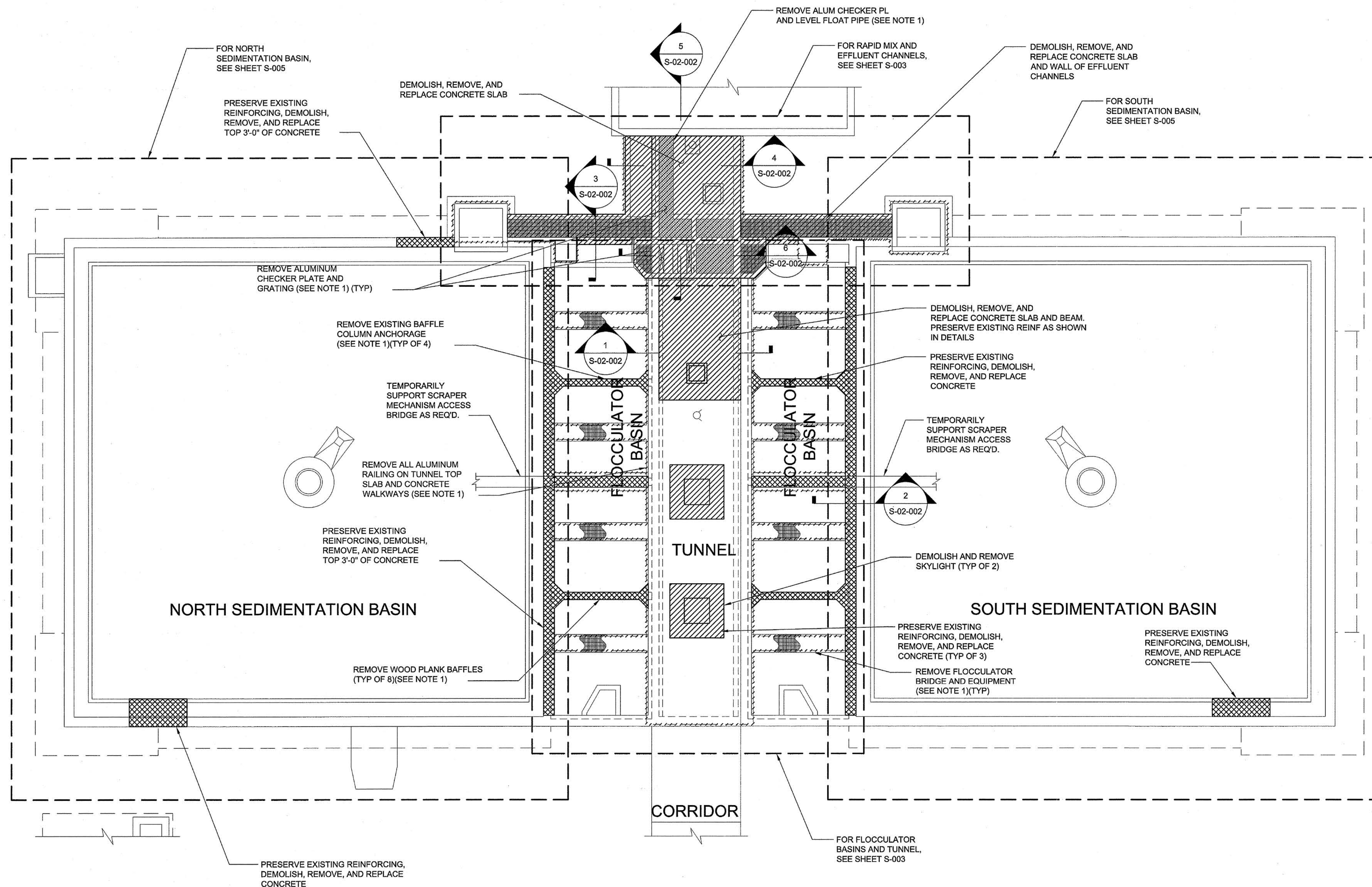
Logos for MALCOLM PIRNIE, ARCADIS, and Magna ENGINEERS.

Professional Engineer seal for JAMES V. CAULEY, License No. 22541.

Table with columns: NO., BY, DATE, REVISIONS, REMARKS. Rows for DES JH, DWN JJH, and OKD IVC.

NORTHERN KENTUCKY WATER DISTRICT
TAYLOR MILL WATER TREATMENT PLANT
ELECTRICAL AND BASIN
IMPROVEMENTS

STRUCTURAL
GENERAL STRUCTURAL NOTES,
AND ABBREVIATIONS
SCALE: N.T.S.
ISSUED STATUS: BID SET
DATE: JANUARY 2014
SHEET: S-00-001
CAD REF. NO.: 2142001S01



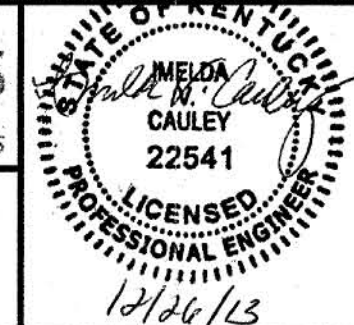
1 OVERALL DEMOLITION PLAN
 SCALE: 1/8" = 1'-0"

GENERAL NOTES:

- REMOVE AND RE-INSTALL AFTER CONCRETE WORK IS COMPLETED.
- FOR PLAN DIMENSIONS SEE SHEETS 003 AND 005.

** REMOVE DETERIORATED CONCRETE DOWN TO SOUND CONCRETE. LIMITS PROVIDED ARE FOR BID PURPOSES AND MAY BE ADJUSTED FOR REMOVAL. ADJUSTMENTS SHALL NOT OCCUR WITHOUT THE ENGINEER'S APPROVAL.

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 DRAWING IS NOT TO SCALE IF THIS DOES NOT MEASURE 1 INCH.



REVISIONS			
NO.	BY	DATE	REMARKS

DES JH
 DWN JJH
 CKD IVC

NORTHERN KENTUCKY WATER DISTRICT
 TAYLOR MILL WATER TREATMENT PLANT
ELECTRICAL AND BASIN IMPROVEMENTS

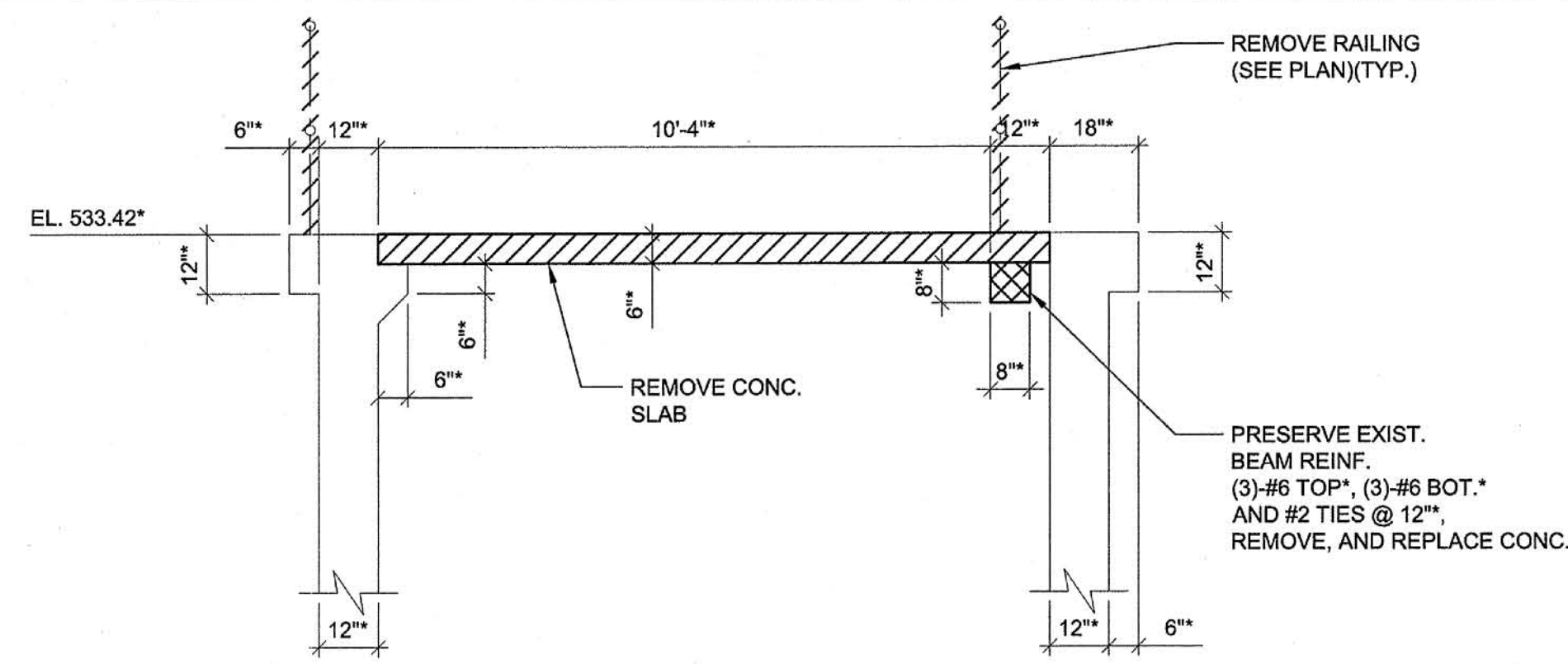
STRUCTURAL
OVERALL DEMOLITION PLAN

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

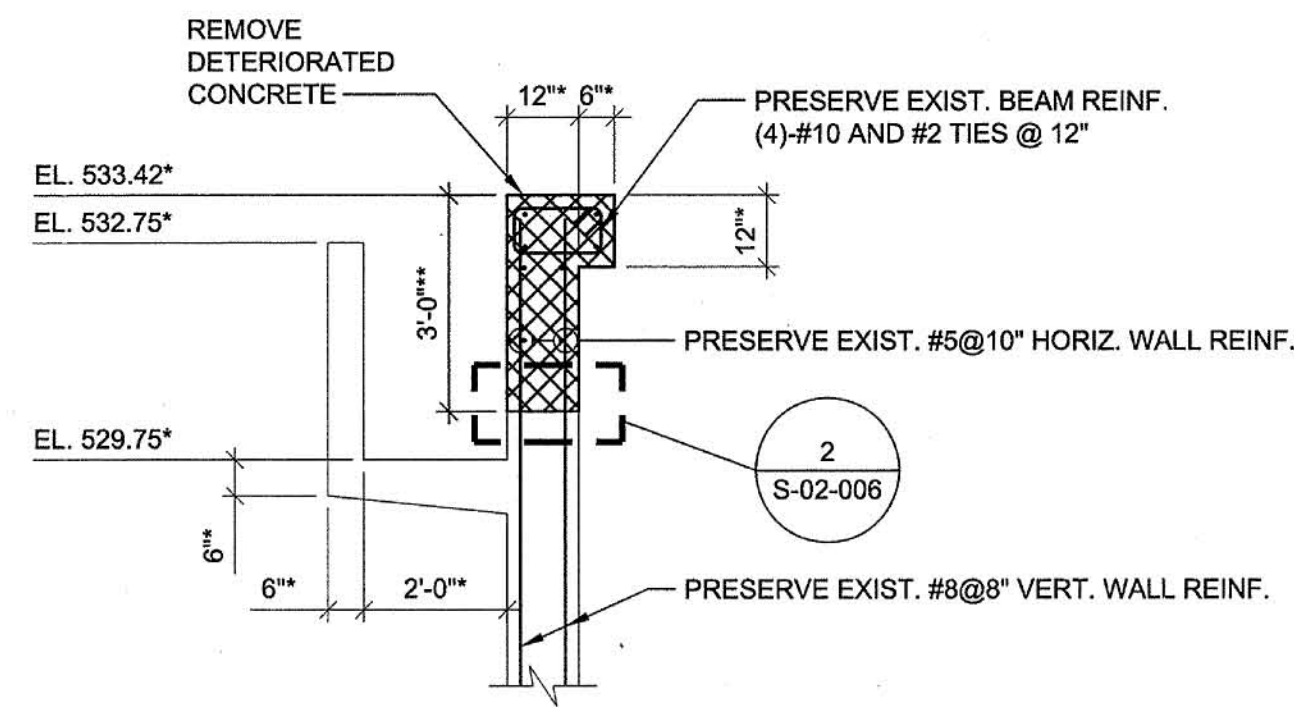
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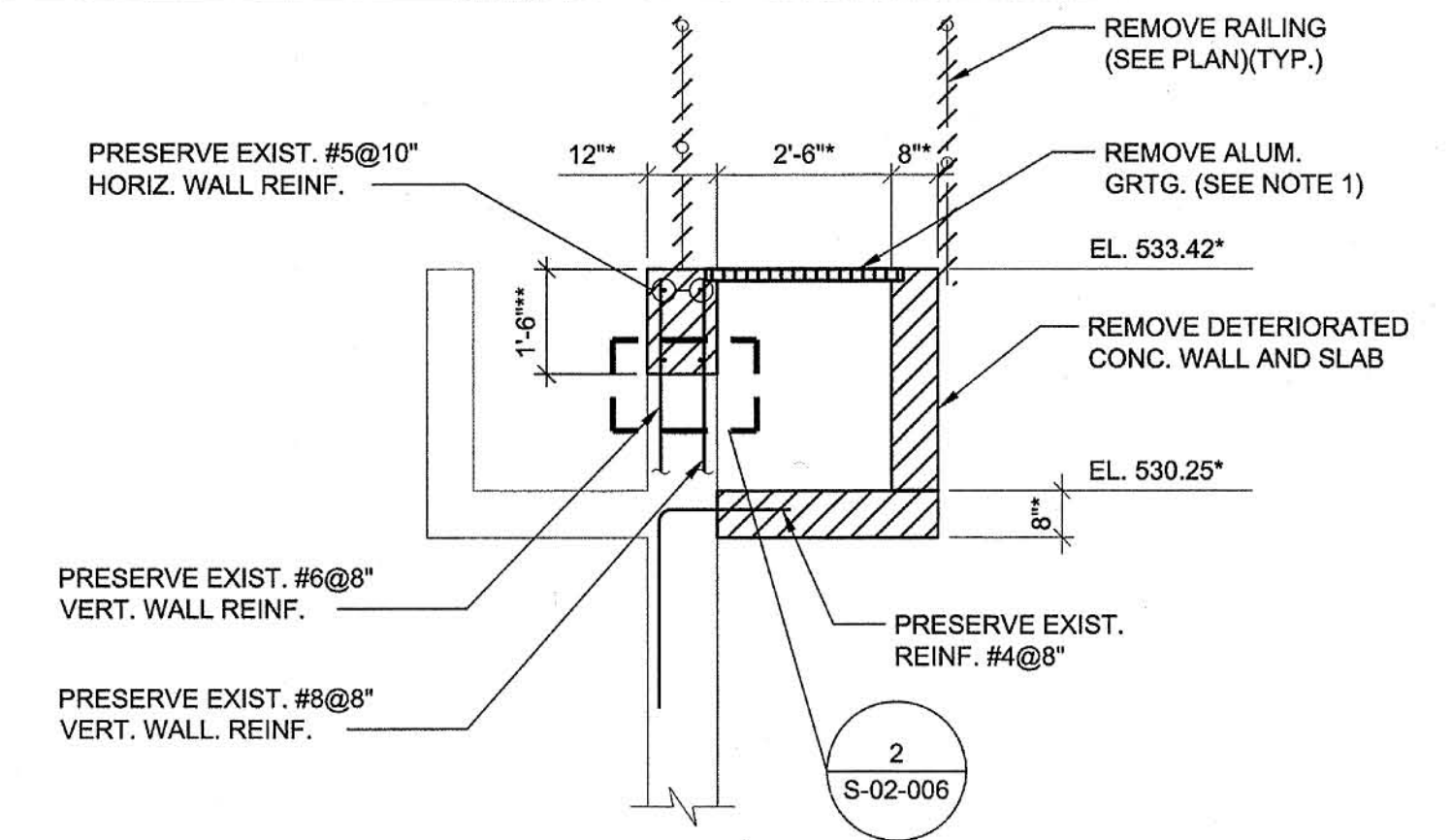
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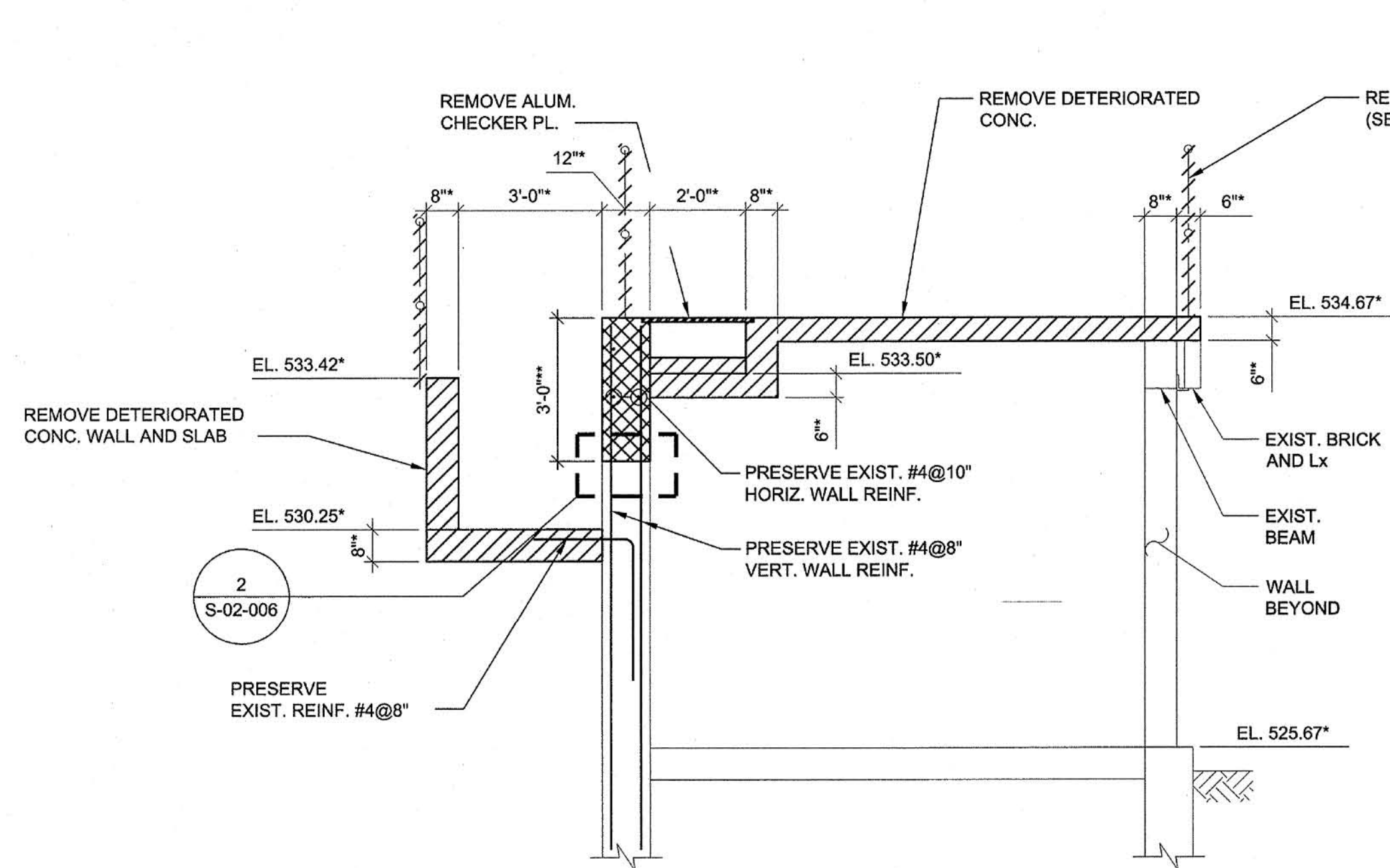
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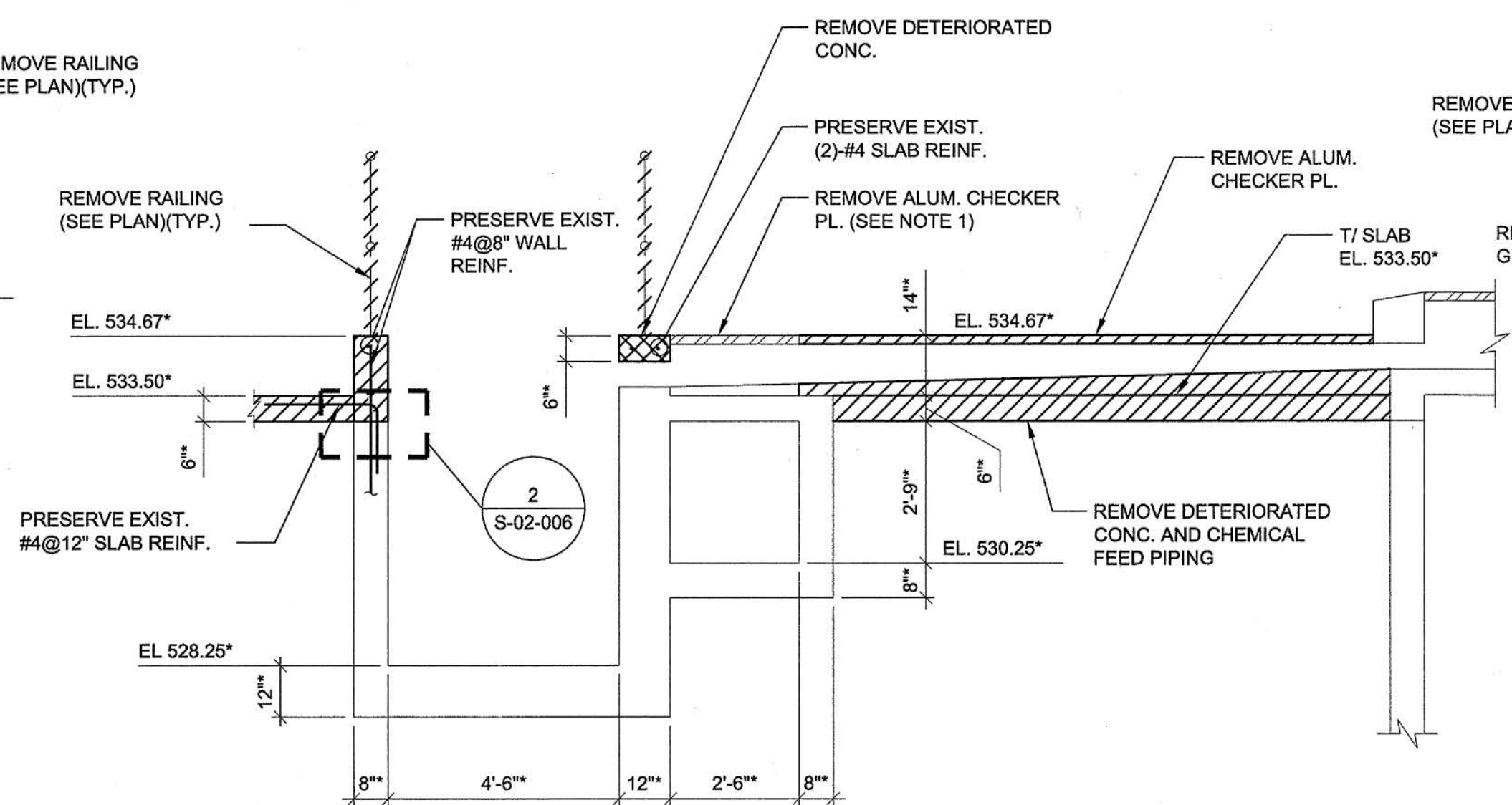
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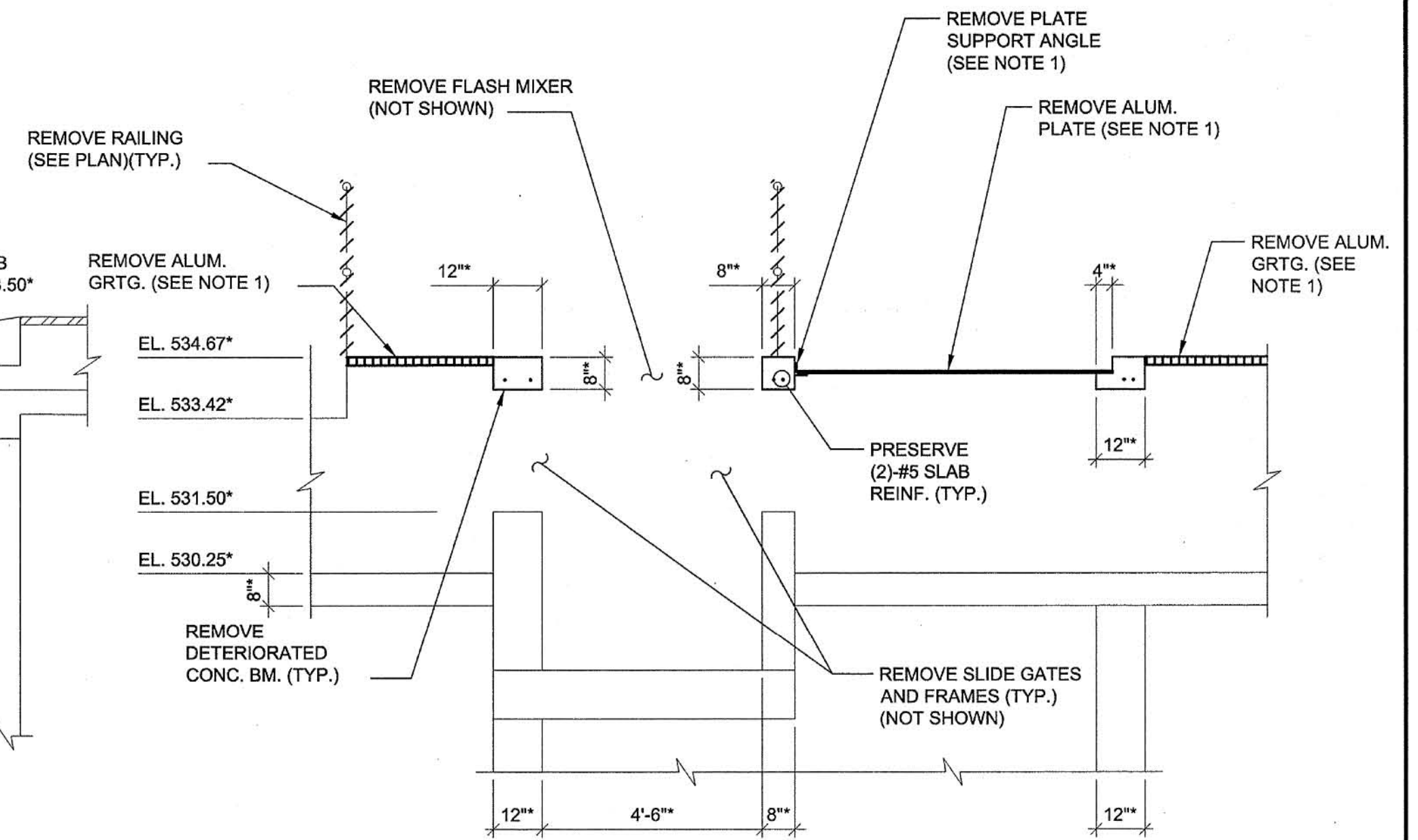
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4 SECTION
S-02-001



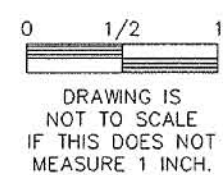
5 SECTION
S-02-001



6 SECTION
S-02-001

GENERAL NOTE:

- REMOVE AND RE-INSTALL AFTER CONCRETE WORK IS COMPLETED.
- ** REMOVE DETERIORATED CONCRETE DOWN TO SOUND CONCRETE. LIMITS PROVIDED ARE FOR BID PURPOSES AND MAY BE ADJUSTED DURING REMOVAL. ADJUSTMENTS SHALL NOT OCCUR WITHOUT THE ENGINEER'S APPROVAL.



NO.		BY	DATE	REVISIONS	REMARKS

DES JH
 DWN JJH
 CKD IVC

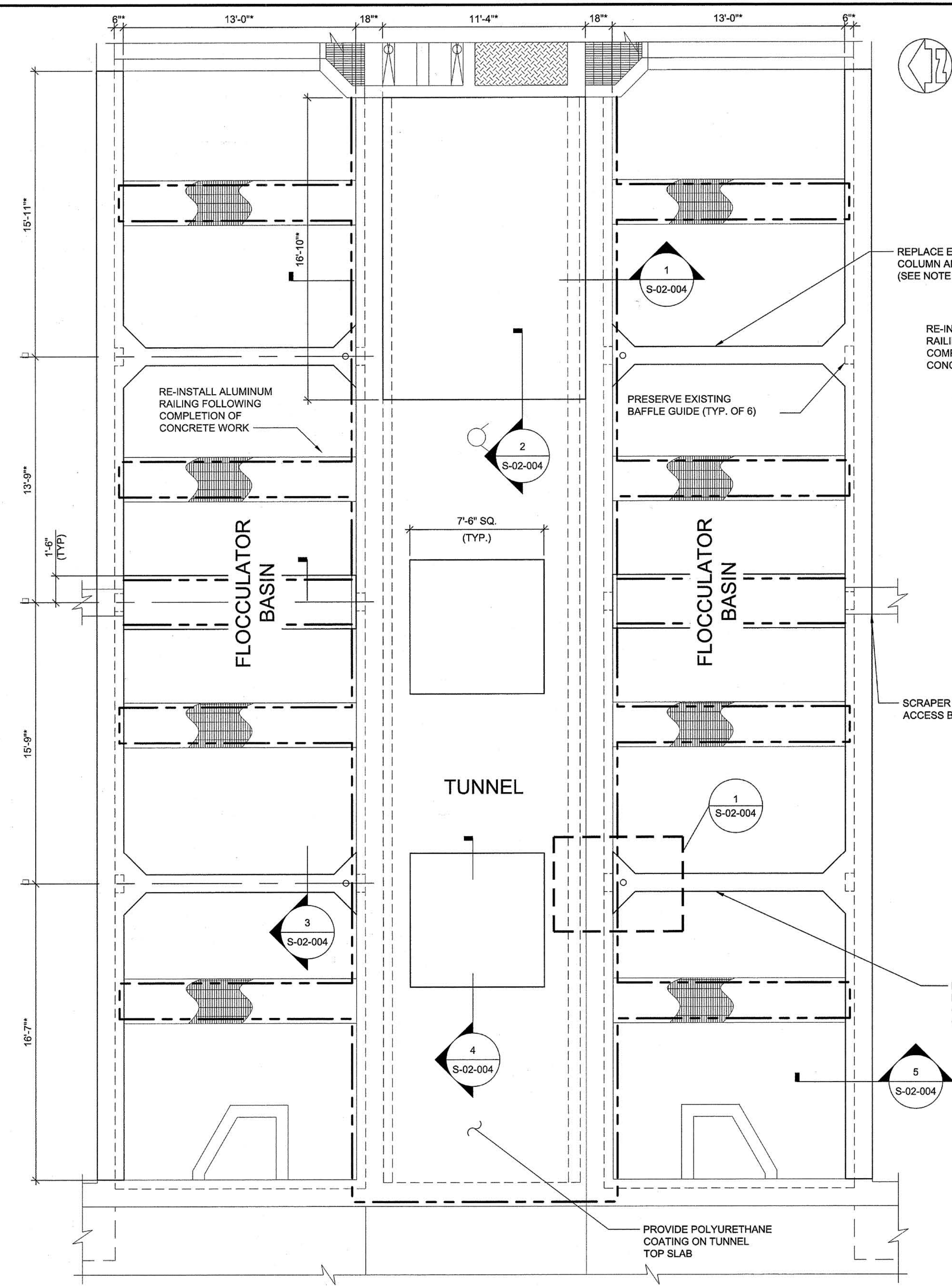
NORTHERN KENTUCKY WATER DISTRICT
 TAYLOR MILL WATER TREATMENT PLANT
ELECTRICAL AND BASIN IMPROVEMENTS

STRUCTURAL DEMOLITION SECTIONS

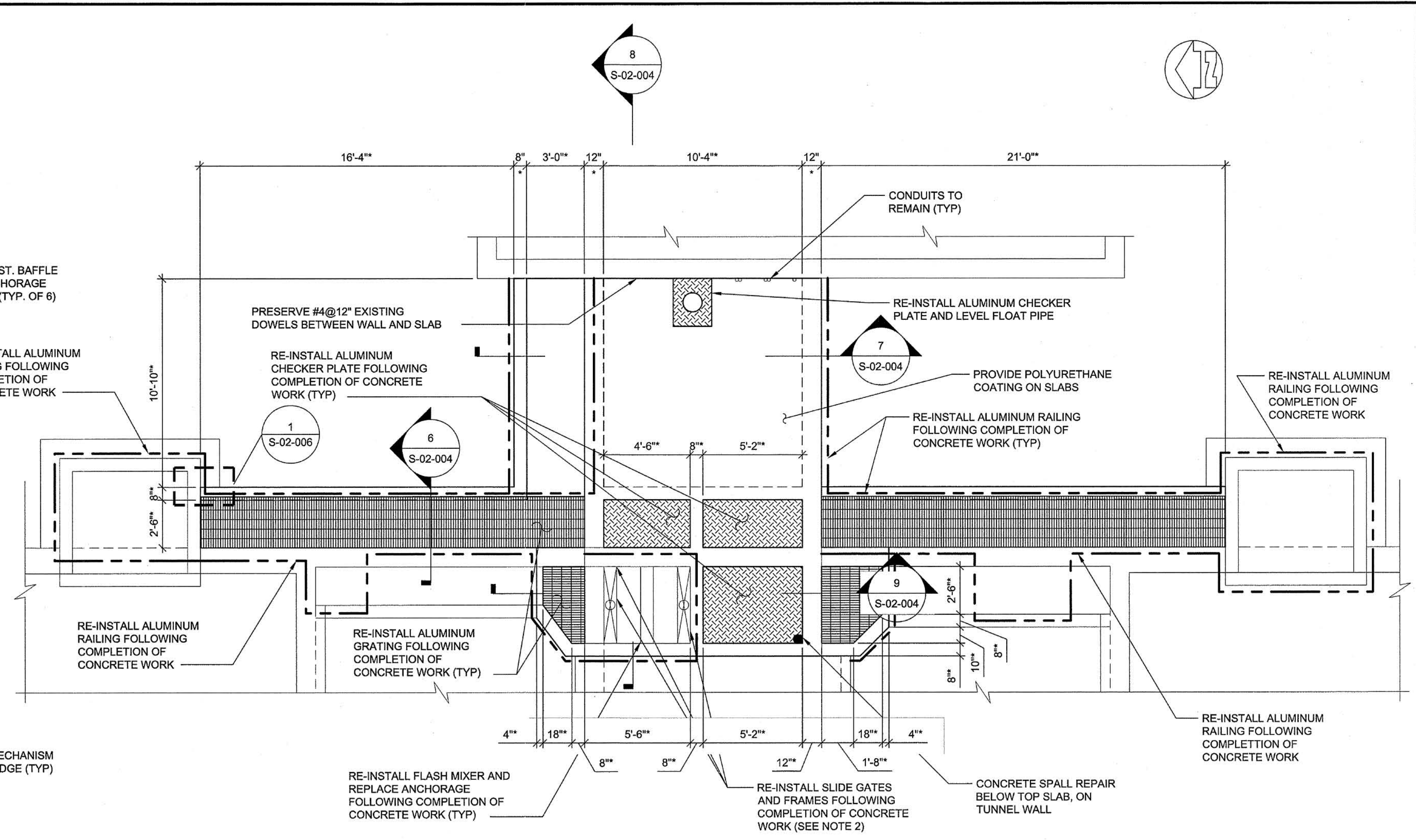
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 SHEET: S-02-002
 CAD REF. NO. 2142001S03

User: HOLLAND Spec: AUSTIN: NSM: MOD File: ARCADIS-US.COM\OFFICE\DATA\COLUMBUS-CHP\PROJECTS\BIDS PROJECTS\TAYLOR MILL\CAD\STRUCTURE\214201S04.DWG Scale: 1:1 Saved Date: 12/18/2013 Time: 17:35 Plot Date: Holland, Jimmy, 12/19/2013, 15:17 : Layout S-02-003

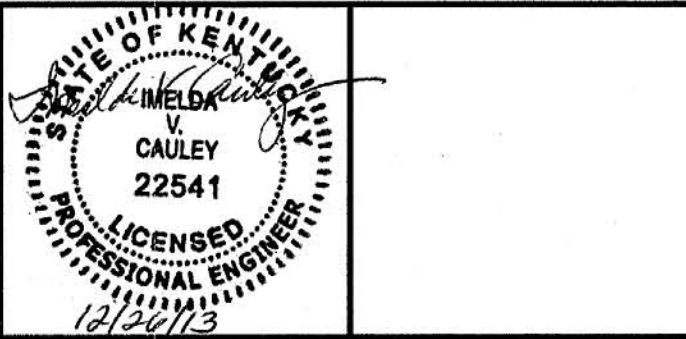


1 FLOCCULATOR BASINS AND TUNNEL ENLARGED PLAN
 SCALE: 1/4"=1'-0"
 NOTE:
 1. DESIGN LL = 300 PSF.



2 RAPID MIX AND EFFLUENT CHANNEL ENLARGED PLAN
 SCALE: 1/4"=1'-0"
 NOTE:
 1. DESIGN LL = 300 PSF.
 - GRATING DESIGN LL = 100 PSF.

- GENERAL NOTES:**
- REMOVE AND RE-INSTALL AFTER CONCRETE WORK IS COMPLETED.
 - REMOVE FRAME ANCHORAGE WHERE ANCHORAGE IS LOCATED IN CONCRETE TO BE REMOVED. REPLACE ANCHORAGE IN KIND FOLLOWING COMPLETION OF CONCRETE WORK.
 - PROVIDE 3/4" DIAMETER STAINLESS STEEL ADHESIVE ANCHORS TO FASTEN BAFFLE SUPPORT COLUMN TO THE BEAMS. FIELD VERIFY DIAMETER OF BOLTS TO MATCH EXISTING. (MIN EMBED = 6").
 - REFER TO PLAN FOR GENERAL REPAIR LOCATIONS FOR THE TYPE OF REPAIR AS FOLLOWS:
 ▲ INDICATES CRACK REPAIR
 ● INDICATES CONCRETE SPALL REPAIR
 ▨ INDICATES DEMOLISH, REMOVE, AND REPLACE
 ▩ INDICATES DEMOLISH CONCRETE, PRESERVE EXISTING REINFORCING, AND REPLACE CONCRETE
- ** REMOVE DETERIORATED CONCRETE DOWN TO SOUND CONCRETE. LIMITS PROVIDED ARE FOR BID PURPOSES AND MAY BE ADJUSTED DURING REMOVAL. ADJUSTMENTS SHALL NOT OCCUR WITHOUT THE ENGINEER'S APPROVAL.



REVISIONS		REMARKS
NO.	BY	DATE

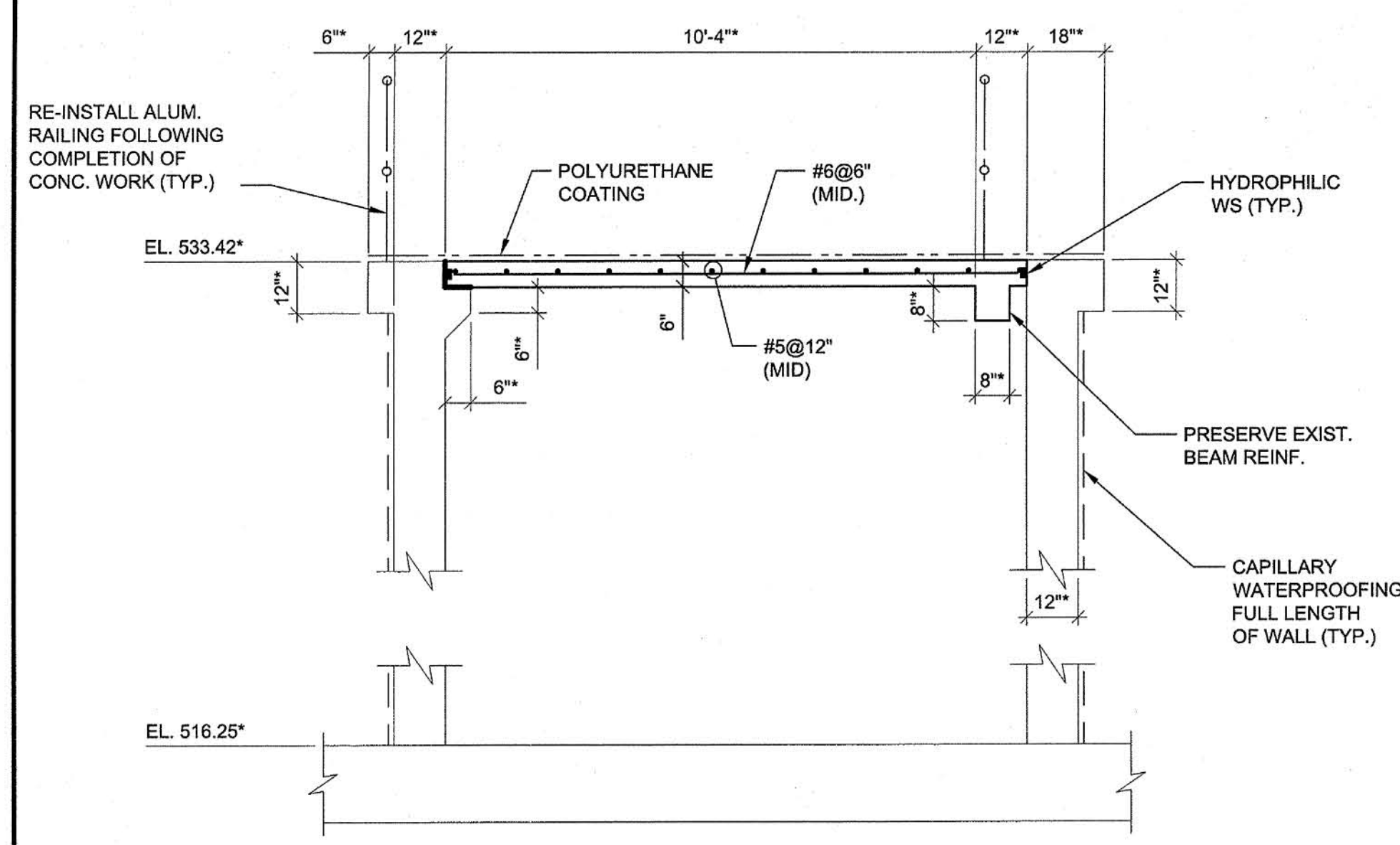
DES JH
 DWN JJH
 CKD IVC

NORTHERN KENTUCKY WATER DISTRICT
 TAYLOR MILL WATER TREATMENT PLANT
ELECTRICAL AND BASIN IMPROVEMENTS

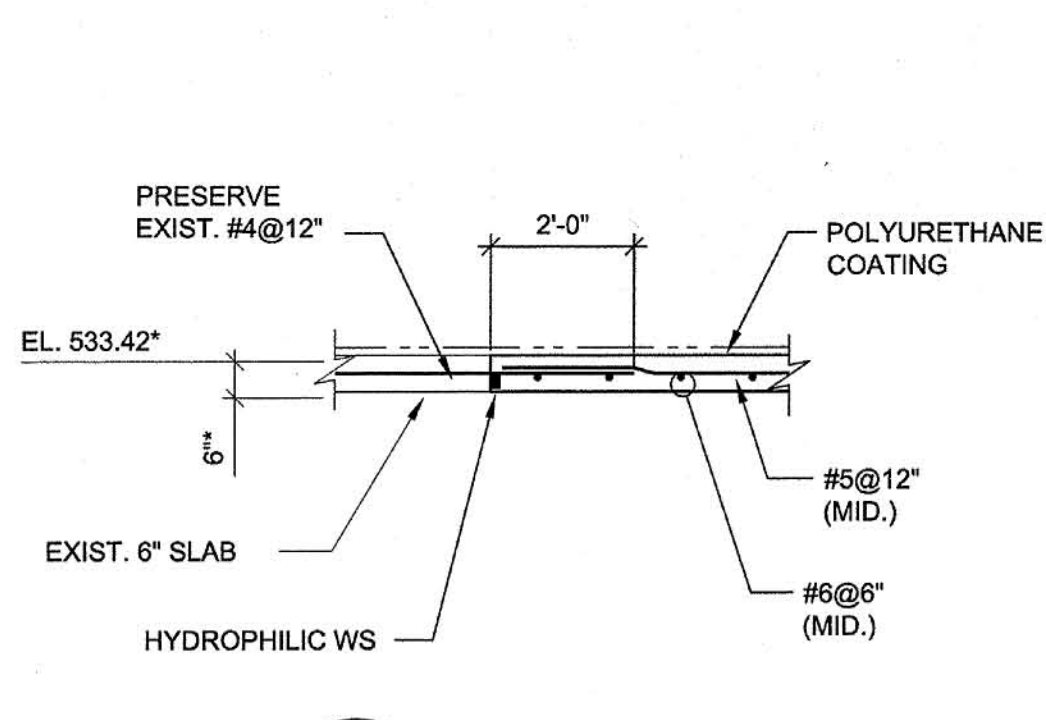
STRUCTURAL
ENLARGED RAPID MIX, CHANNEL, AND TUNNEL PLANS
 SCALE: N.T.S.

ISSUED STATUS: BID SET
 DATE: JANUARY 2014
 SHEET: S-02-003
 CAD REF. NO. 2142001S04

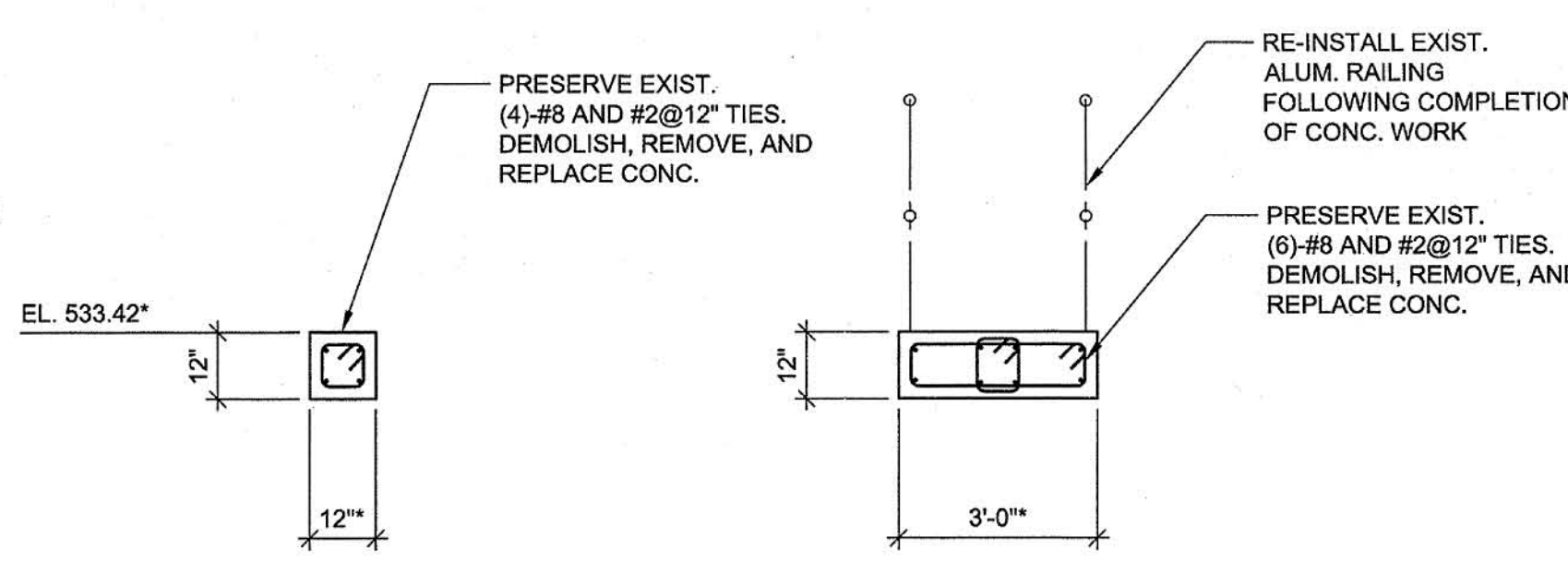
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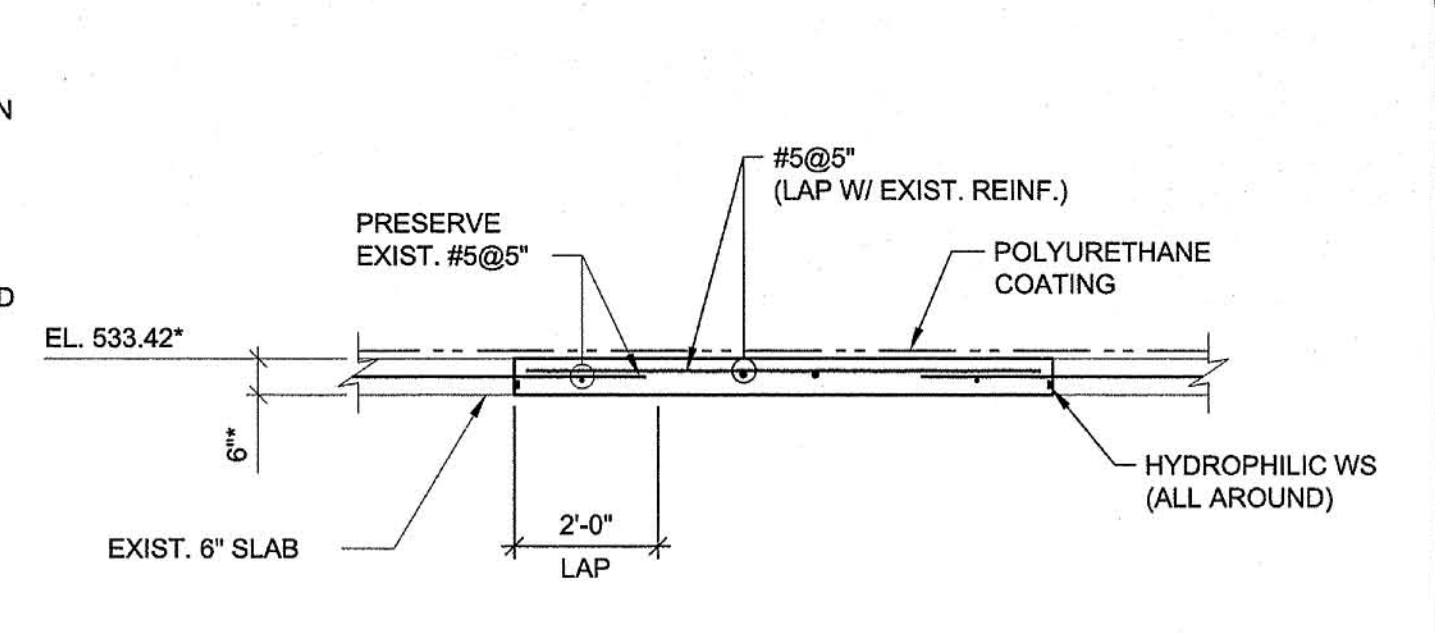
1 SECTION
S-02-003



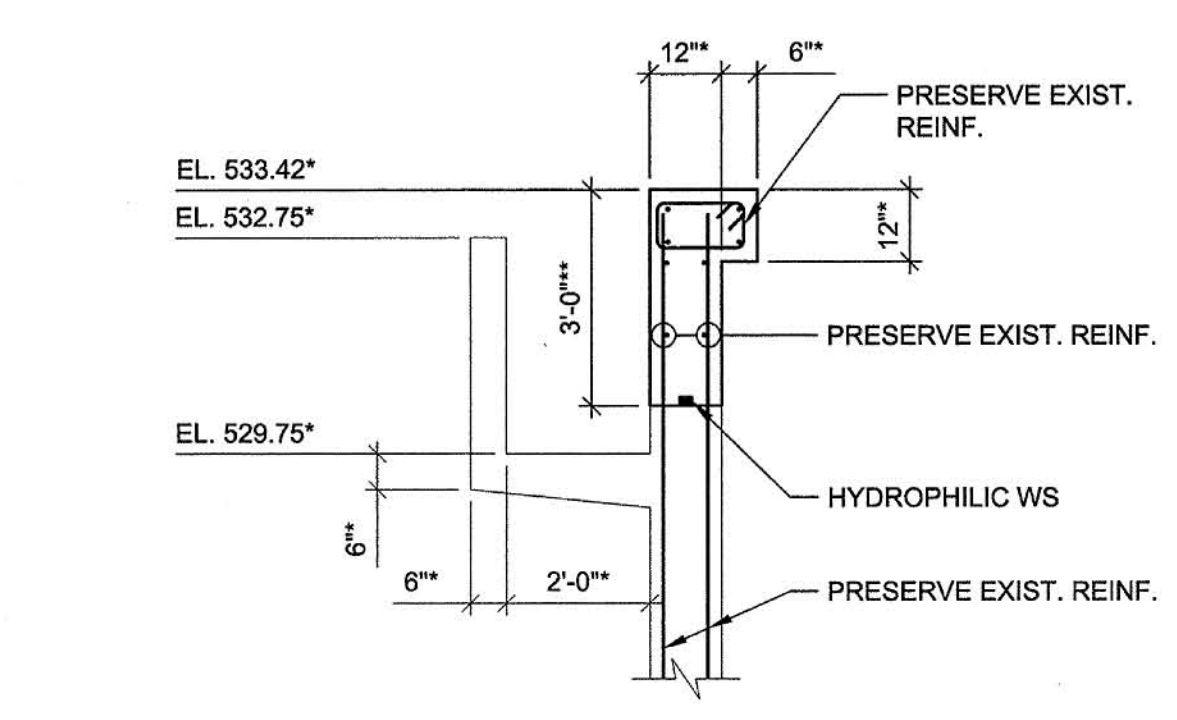
2 SECTION
S-02-003



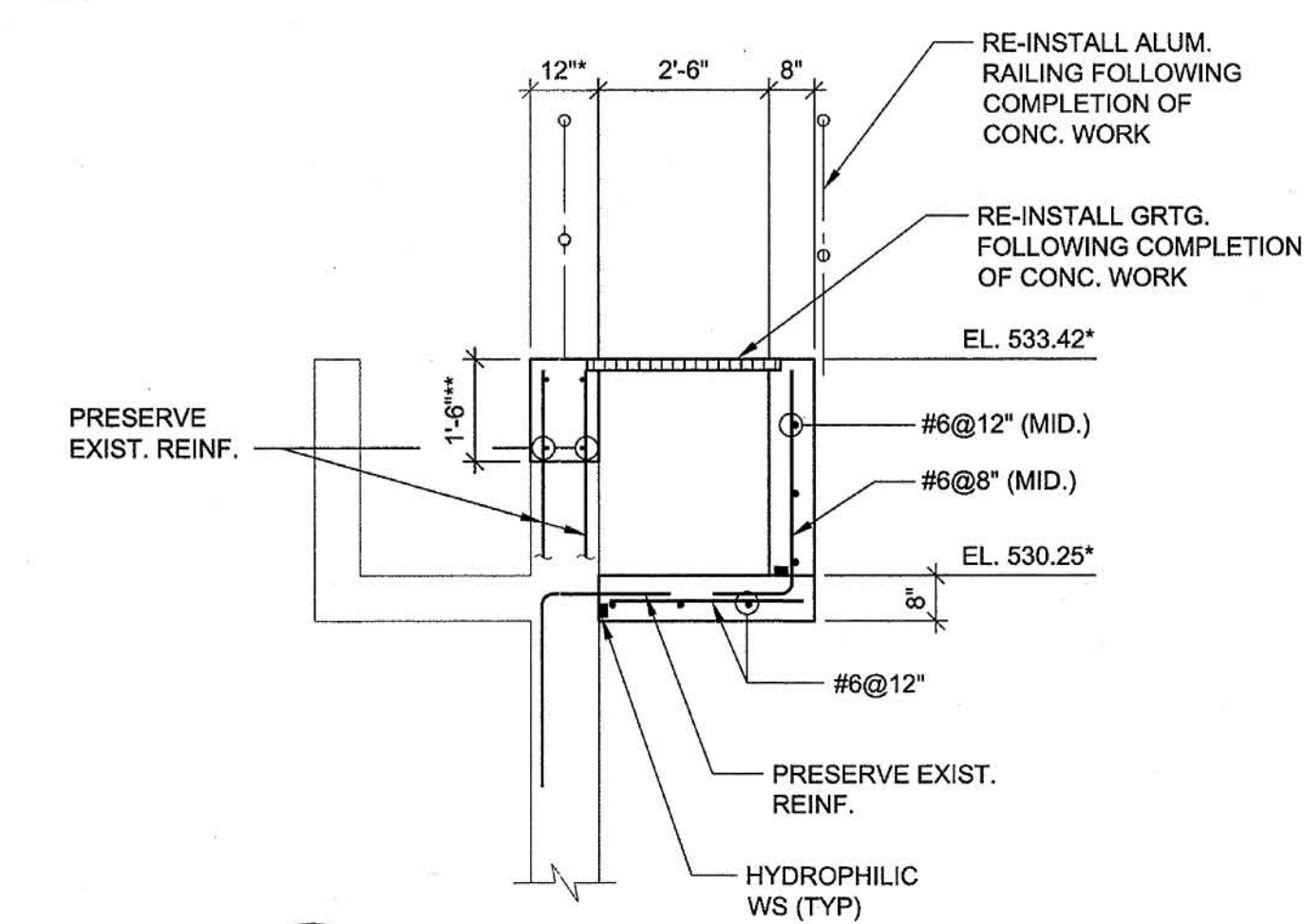
3 SECTION
S-02-003



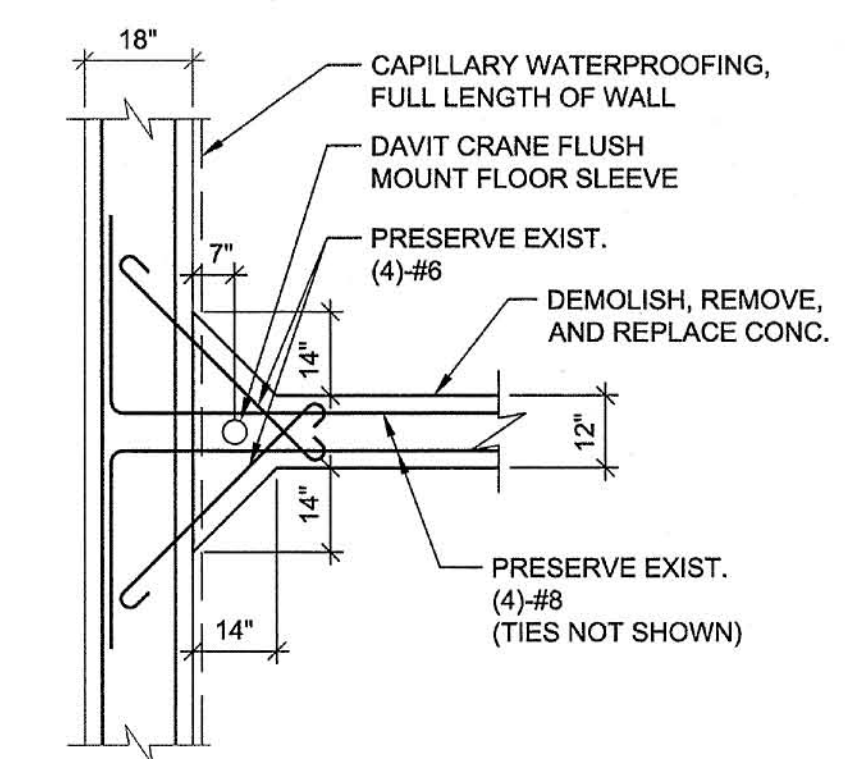
4 SECTION
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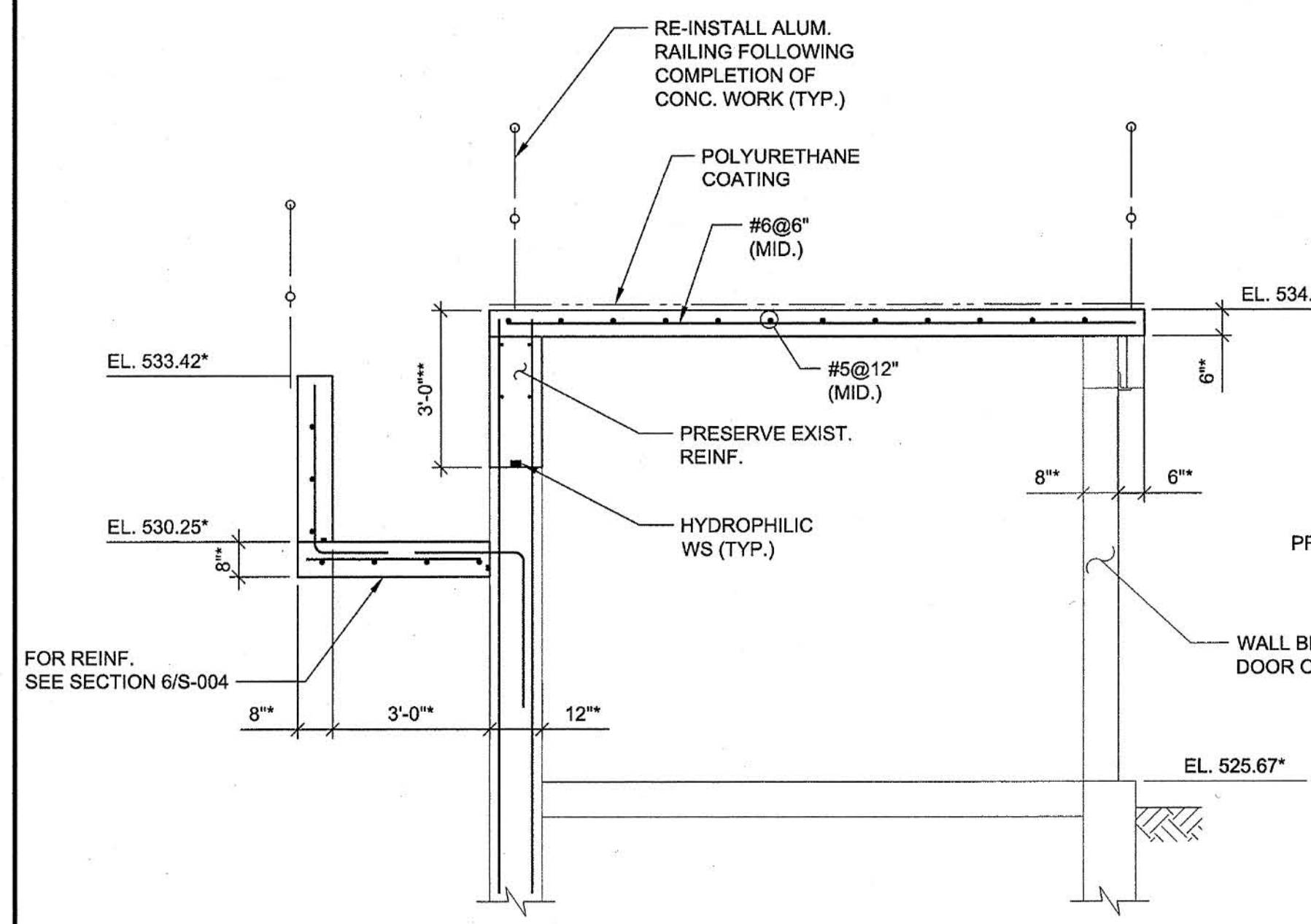
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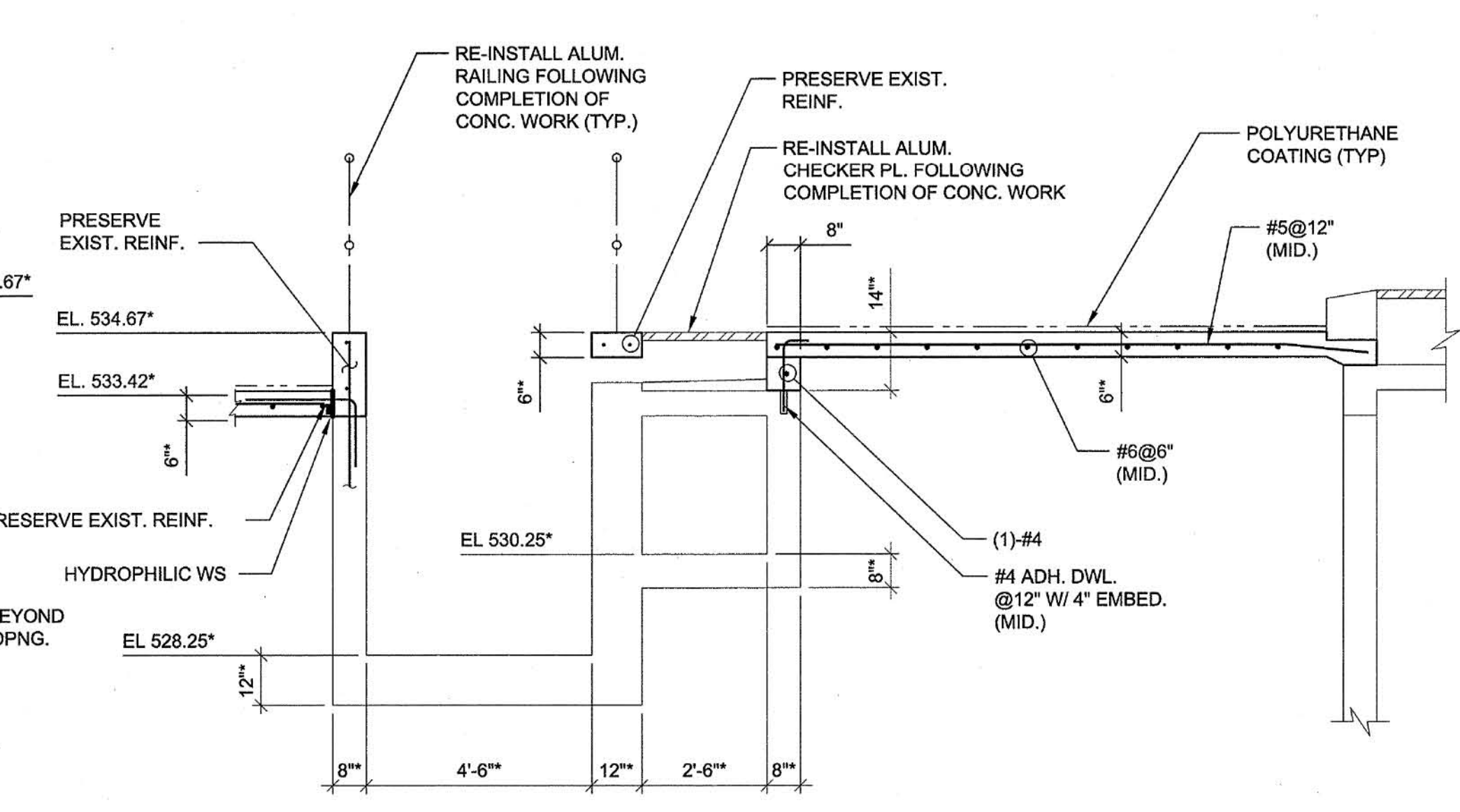
6 SECTION
S-02-003



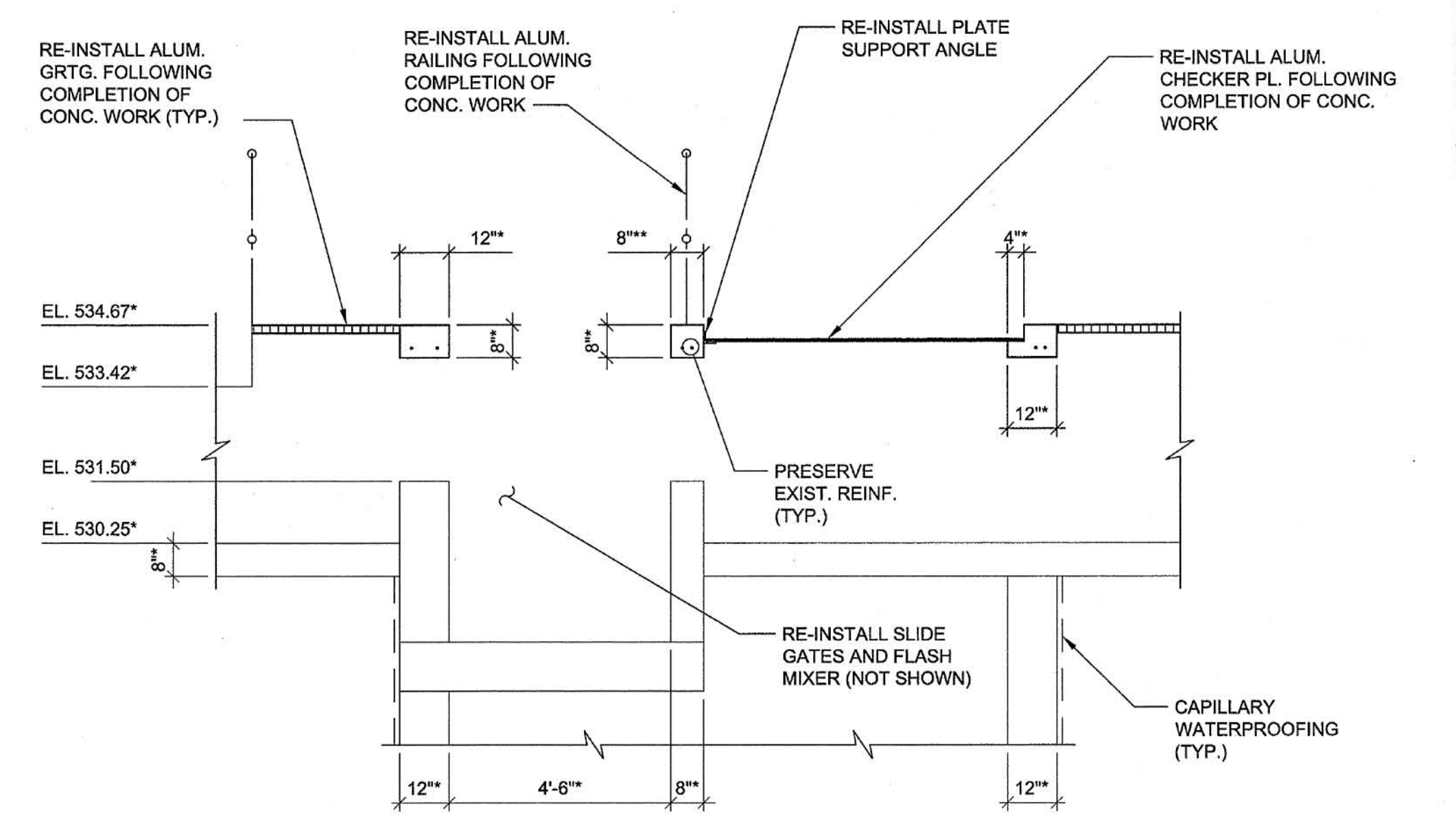
1 DETAIL
S-02-003



7 SECTION
S-02-003



8 SECTION
S-02-003



9 SECTION
S-02-003

- GENERAL NOTES:**
- SEE SHEETS 07 AND 08 FOR TYPICAL CONCRETE REPAIR DETAILS.
 - LIMITS PROVIDED FOR CONCRETE REPLACEMENT ARE FOR BID PURPOSES AND MAY BE ADJUSTED DURING THE WORK. ADJUSTMENTS SHALL NOT OCCUR WITHOUT ENGINEER'S APPROVAL.

0 1/2 1
DRAWING IS NOT TO SCALE IF THIS DOES NOT MEASURE 1 INCH.

MALCOLM PIRNIE
The Water Division of **ARCADIS**

Magna
ENGINEERS

STATE OF KENTUCKY
CAULEY
22541
LICENSED PROFESSIONAL ENGINEER
12/19/2013

NO.		BY	DATE	REVISIONS	REMARKS

DES JH
DWN JJH
CKD IVC

NORTHERN KENTUCKY WATER DISTRICT
TAYLOR MILL WATER TREATMENT PLANT
ELECTRICAL AND BASIN IMPROVEMENTS

STRUCTURAL SECTIONS AND DETAIL

ISSUED STATUS: BID SET

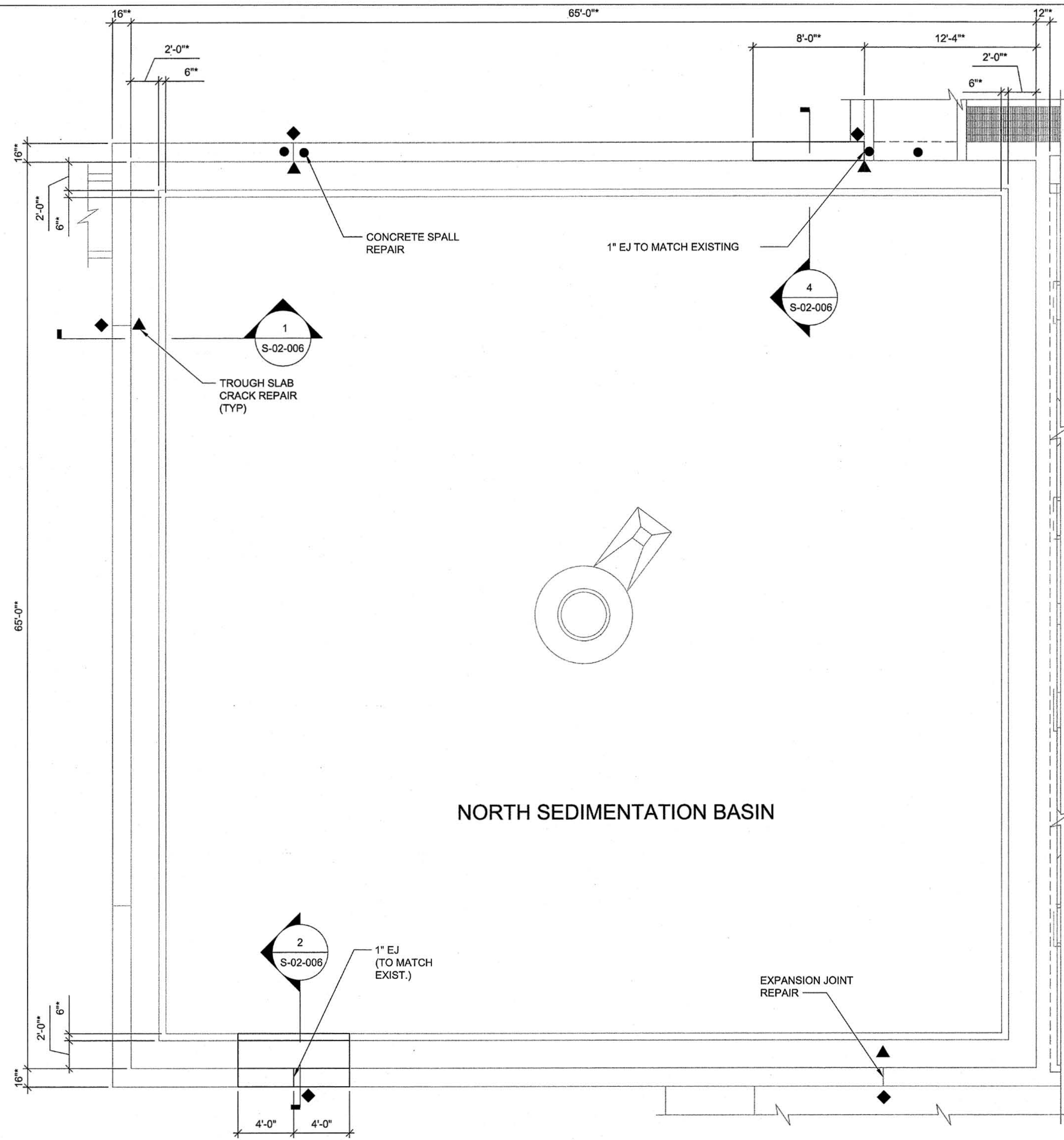
DATE: JANUARY 2014

SHEET: S-02-004

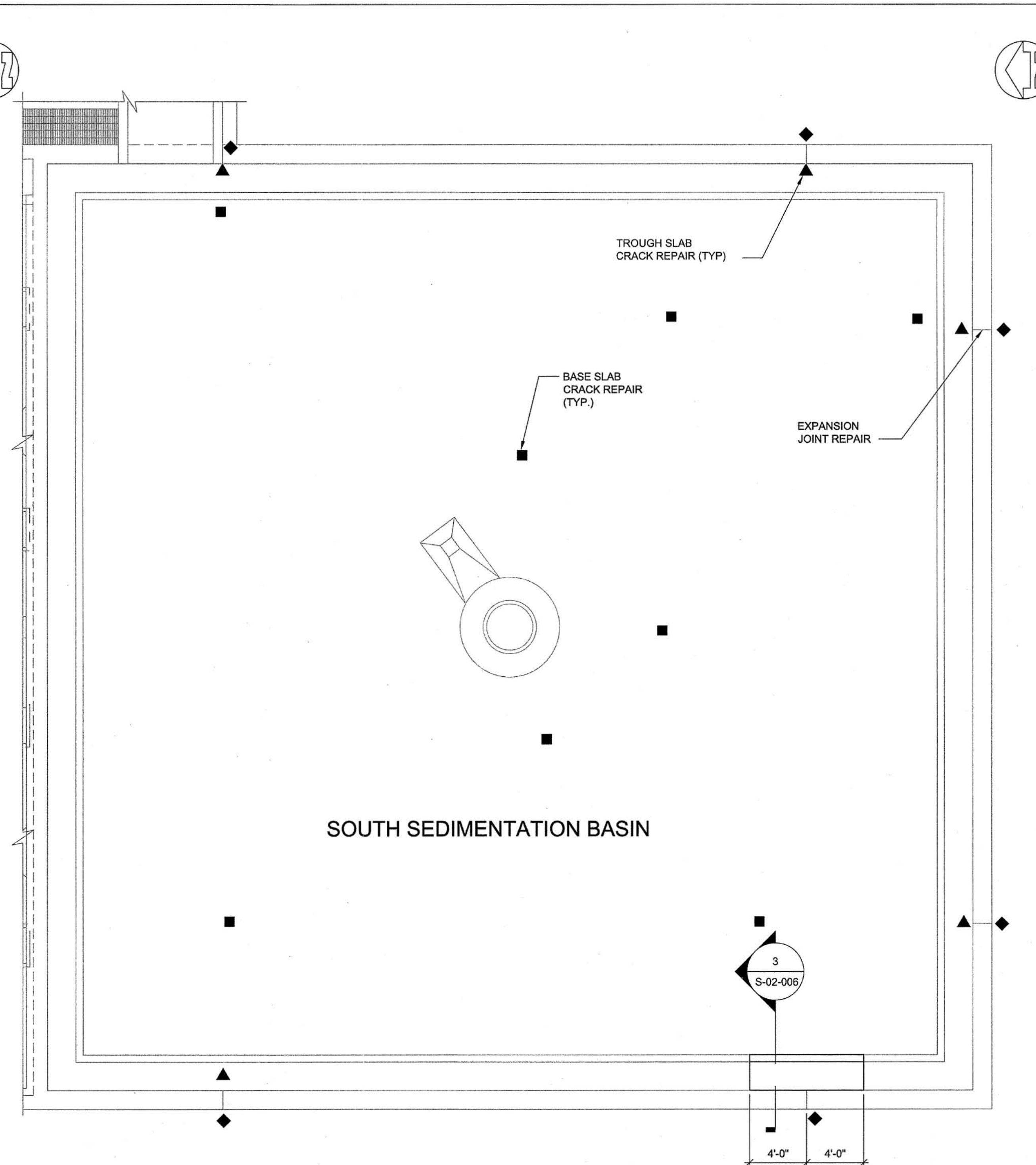
CAD REF. NO. 2142001S05

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

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1 NORTH SEDIMENTATION BASIN ENLARGED PLAN
SCALE: 3/16"=1'-0"



2 SOUTH SEDIMENTATION BASIN ENLARGED PLAN
SCALE: 3/16"=1'-0"

- GENERAL NOTES:**
- REFER TO PLAN FOR GENERAL REPAIR LOCATIONS FOR THE TYPE OF REPAIR AS FOLLOWS:
 - ▲ INDICATES CRACK REPAIR
 - INDICATES CONCRETE SPALL REPAIR
 - INDICATES BASE SLAB CRACK REPAIR
 - ◆ INDICATES EXPANSION JOINT REPAIR
 - SEE SHEETS S-007 AND S-008 FOR TYPICAL CONCRETE REPAIR DETAILS.

0 1/2 1
DRAWING IS NOT TO SCALE IF THIS DOES NOT MEASURE 1 INCH.

MALCOLM PIRNIE
The Water Division of **ARCADIS**

Magna
ENGINEERS

STATE OF KENTUCKY
MELBA V. CAULEY
22541
LICENSED PROFESSIONAL ENGINEER
12/24/13

NO.		BY	DATE	REVISIONS	REMARKS

DES JH
DWN JJH
CKD IVC

NORTHERN KENTUCKY WATER DISTRICT
TAYLOR MILL WATER TREATMENT PLANT
ELECTRICAL AND BASIN IMPROVEMENTS

STRUCTURAL ENLARGED SEDIMENTATION BASIN PLANS
SCALE: AS NOTED

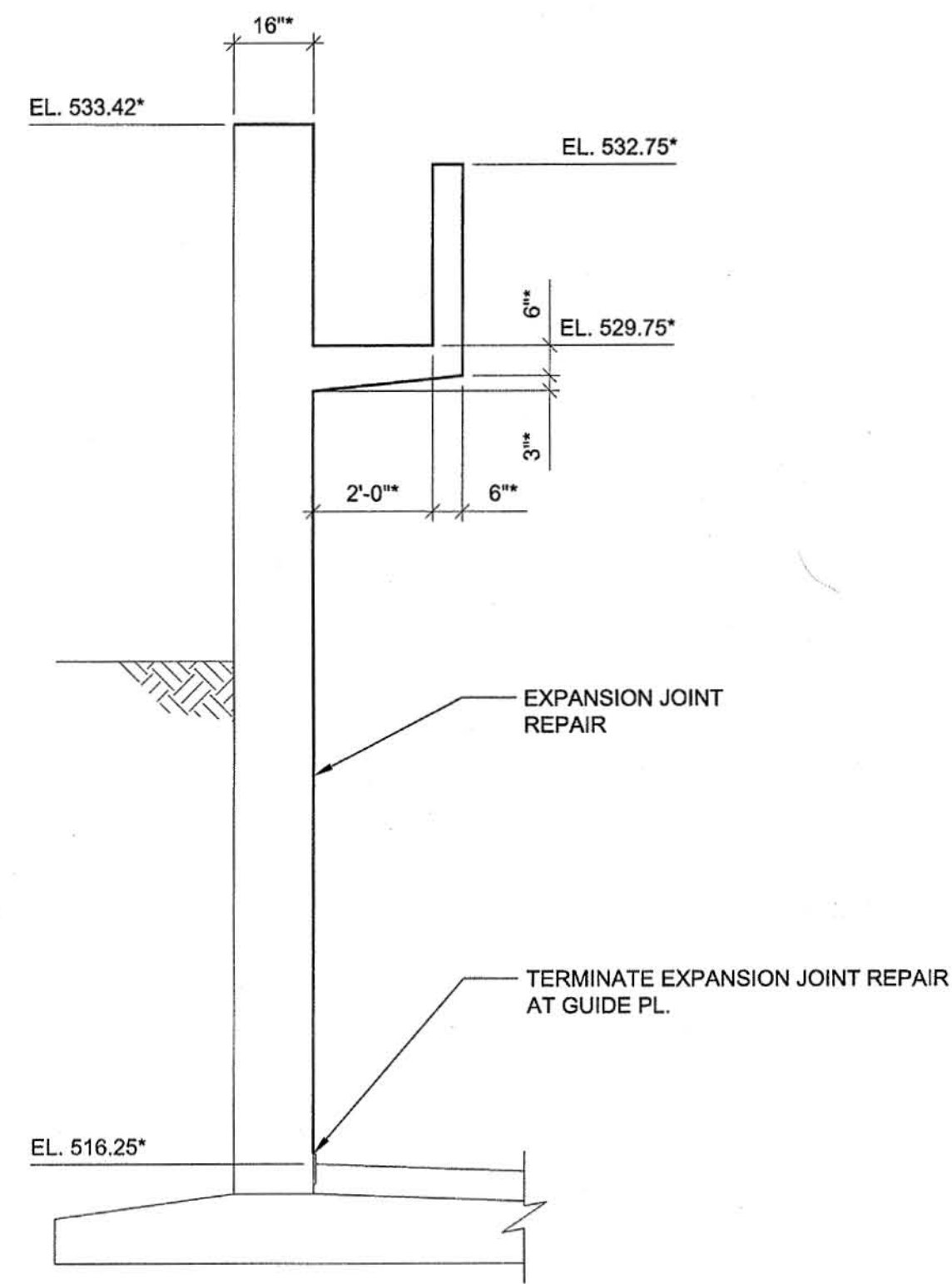
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DATE: JANUARY 2014

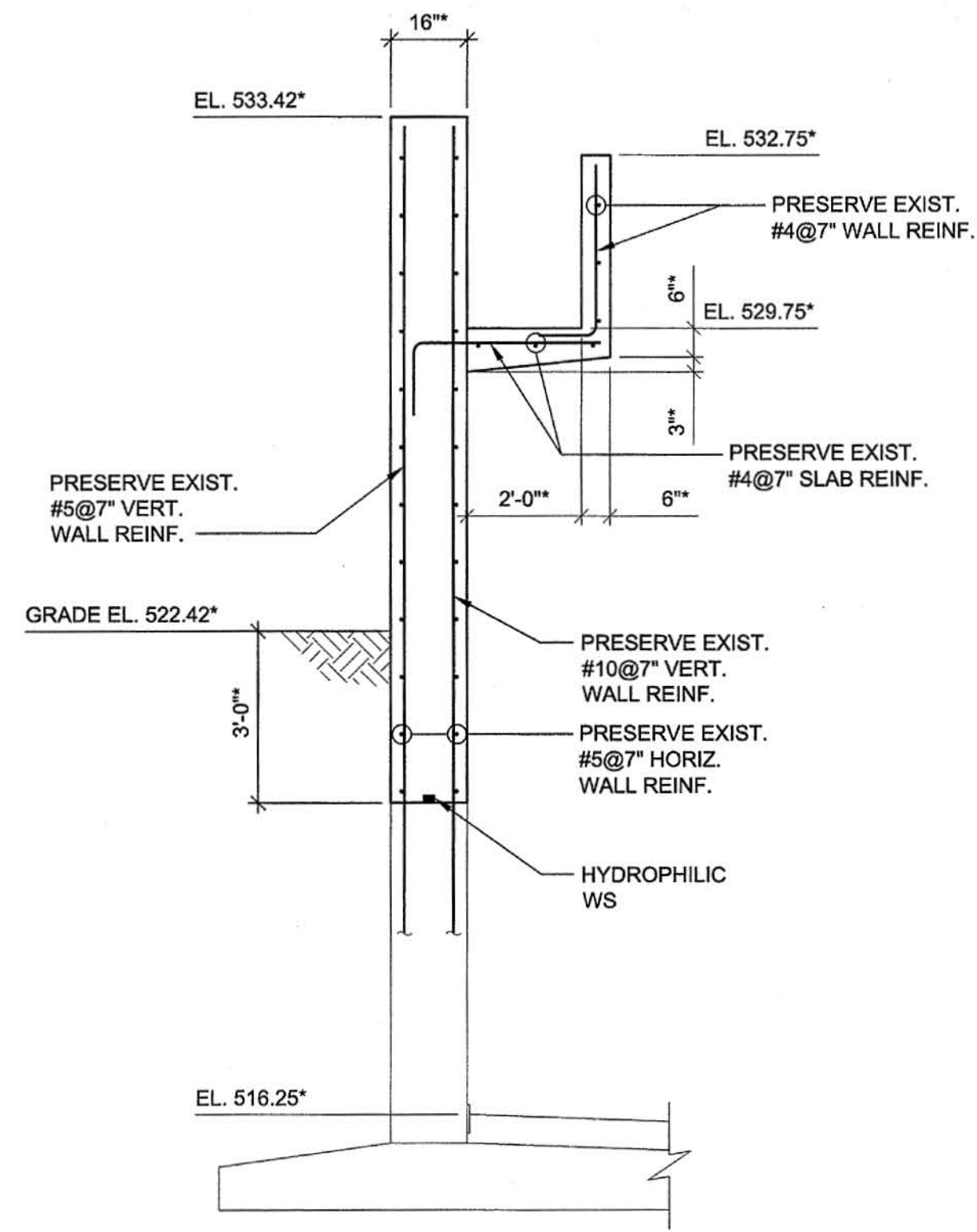
SHEET: S-02-005

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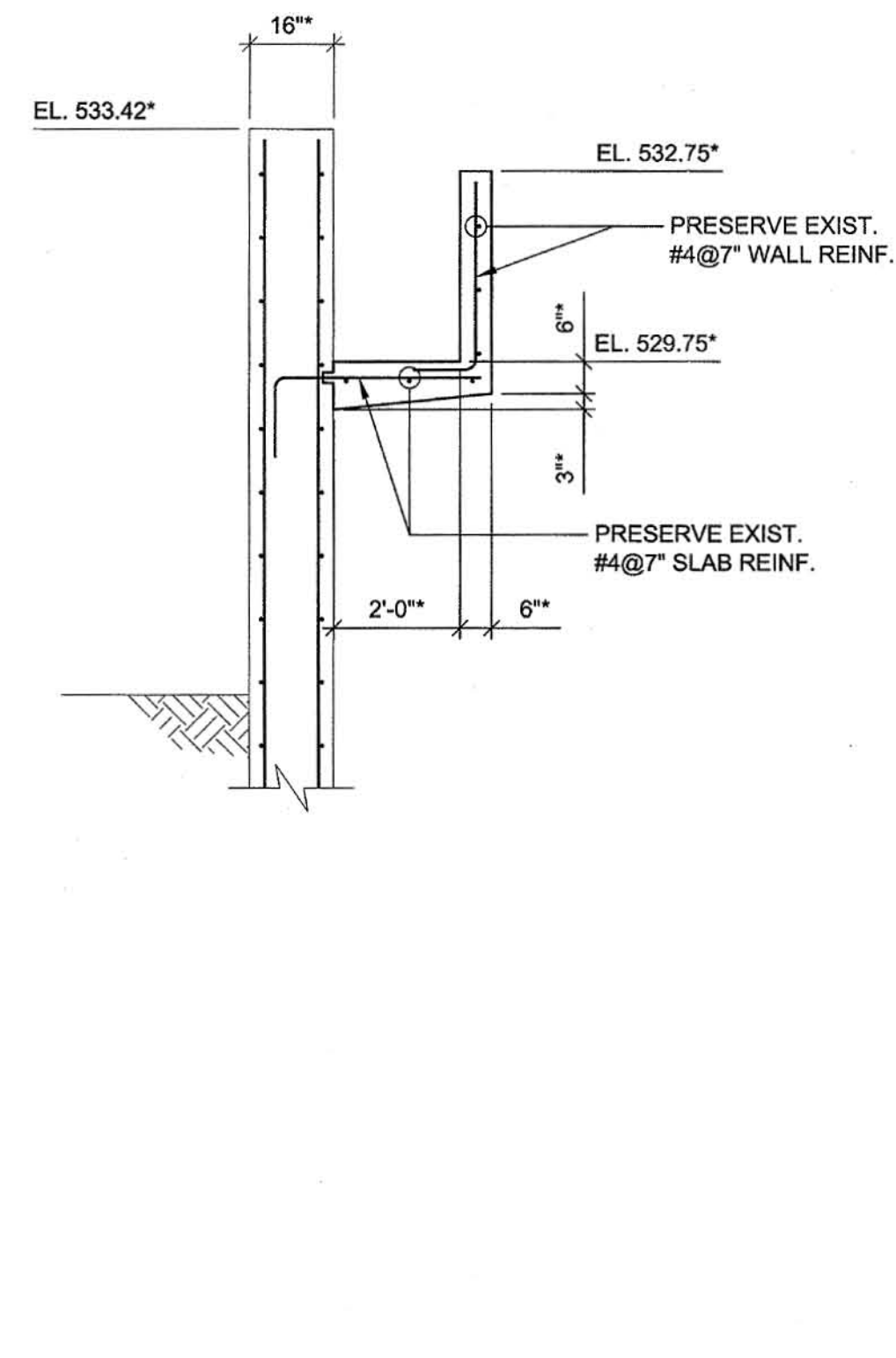
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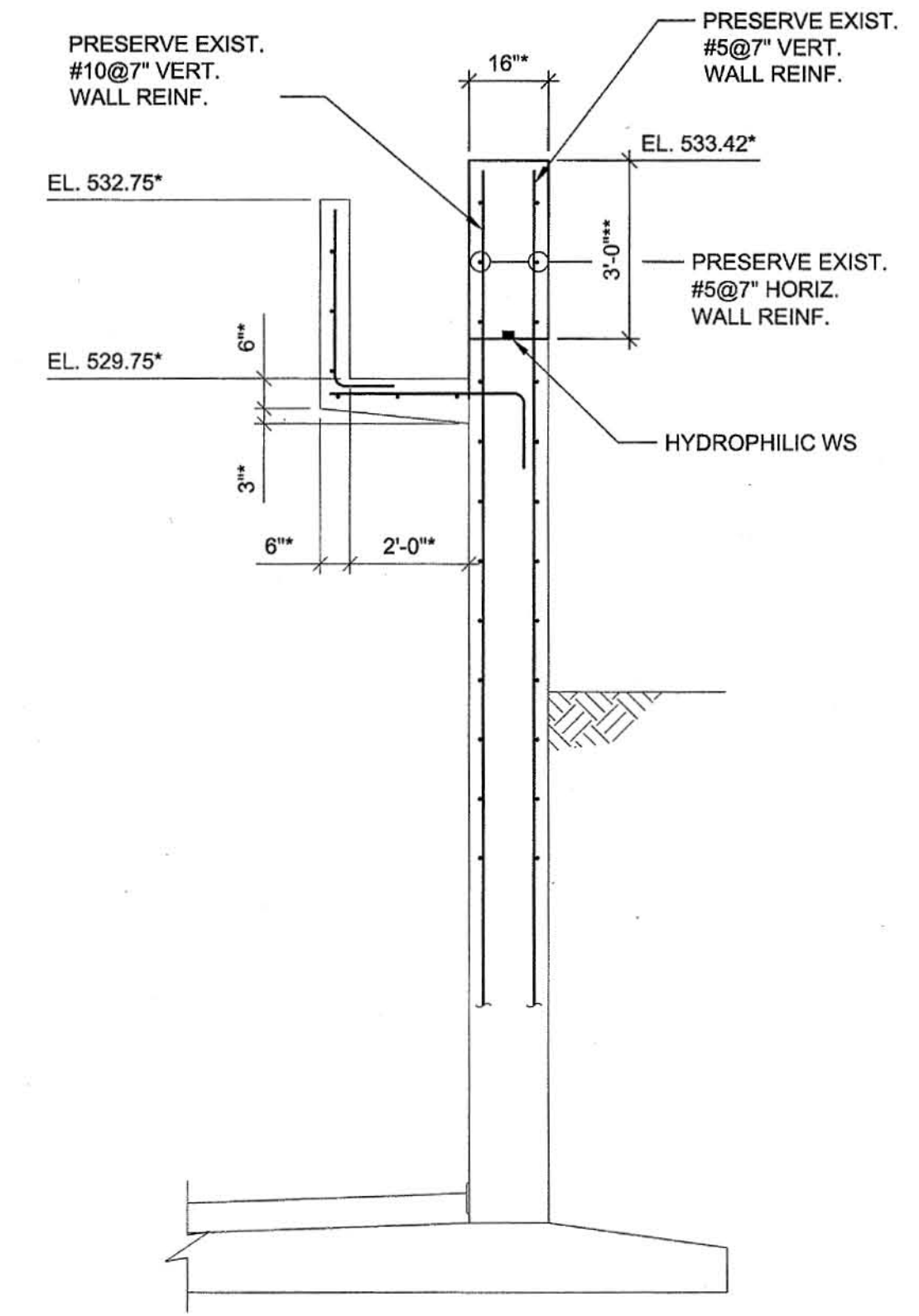
1 SECTION
S-02-005 SCALE: 3/8" = 1'-0"



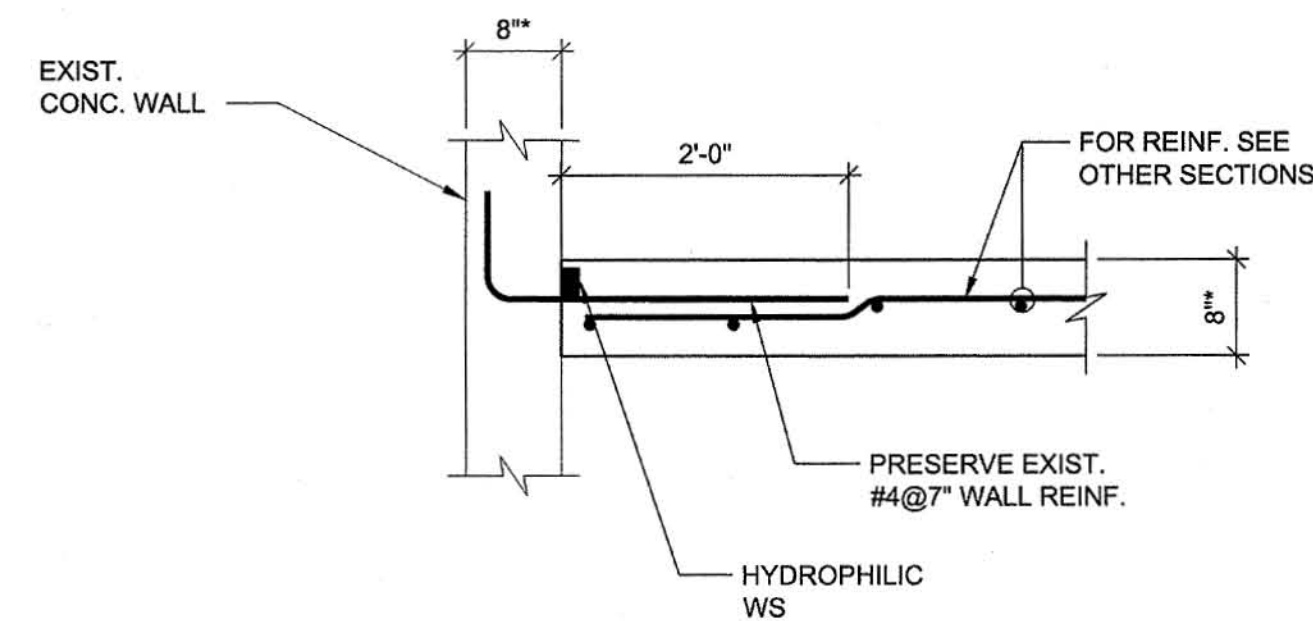
2 SECTION
S-02-005 SCALE: 3/8" = 1'-0"



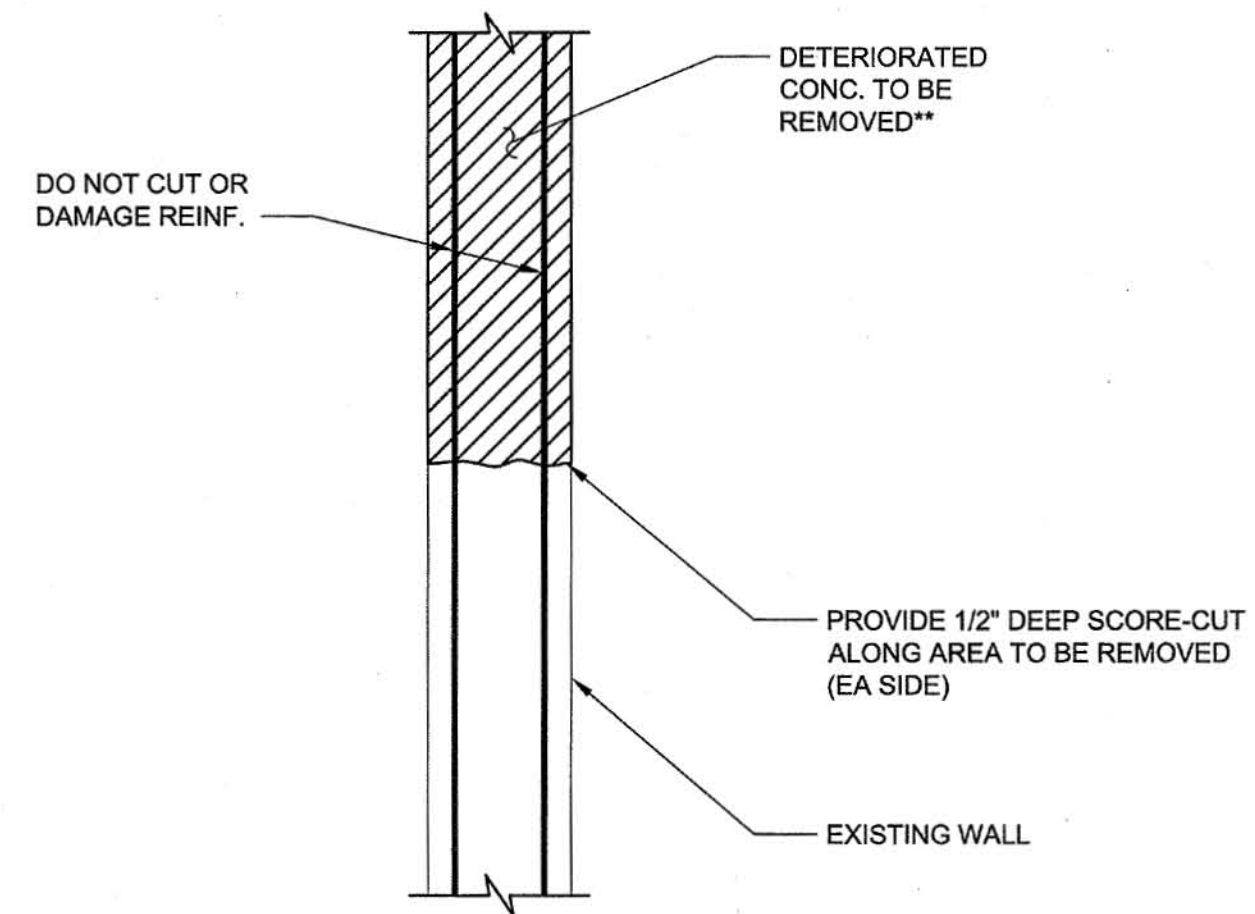
3 SECTION
S-02-005 SCALE: 3/8" = 1'-0"



4 SECTION
S-02-005 SCALE: 3/8" = 1'-0"



1 DETAIL
S-02-003 SCALE: 3/4" = 1'-0"

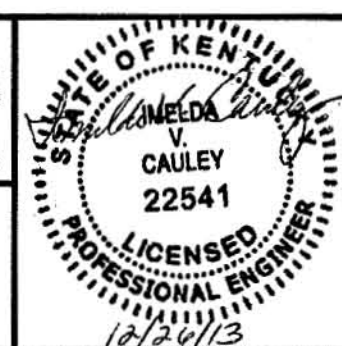


2 DETAIL
S-02-002 SCALE: NOT TO SCALE

GENERAL NOTE:

** LIMITS PROVIDED FOR CONCRETE REPLACEMENT ARE FOR BID PURPOSES AND MAY BE ADJUSTED DURING THE WORK. ADJUSTMENTS SHALL NOT OCCUR WITHOUT ENGINEER'S APPROVAL.

0 1/2 1
DRAWING IS NOT TO SCALE IF THIS DOES NOT MEASURE 1 INCH.



REVISIONS			
NO.	BY	DATE	REMARKS

DES JH
DWN JJH
CKD IVC

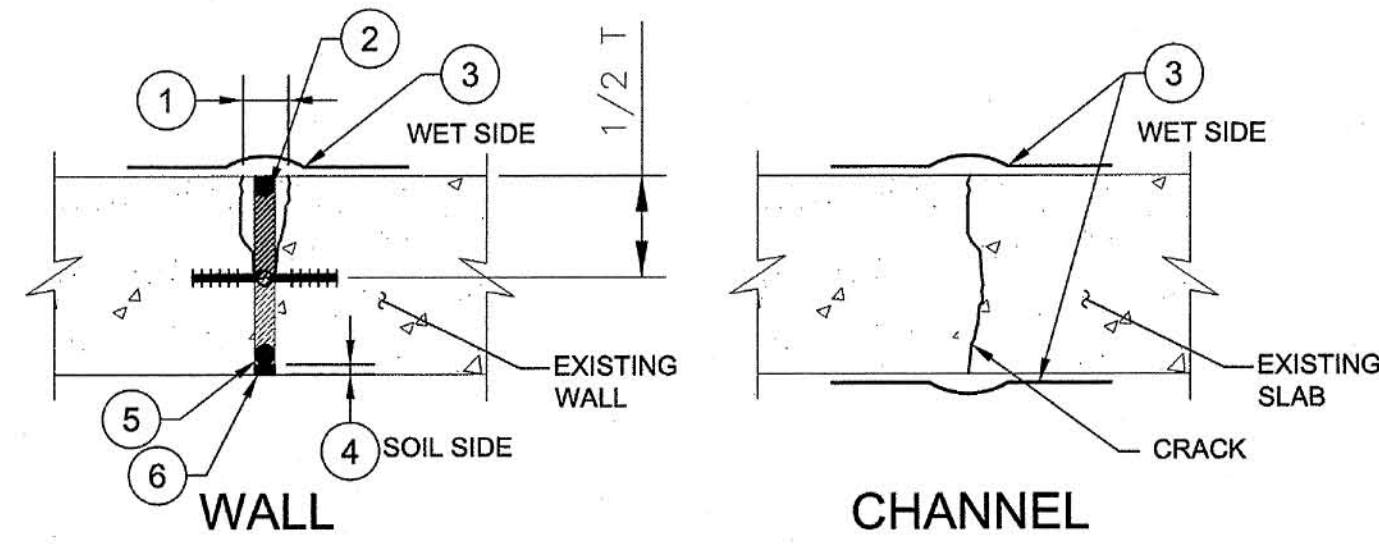
NORTHERN KENTUCKY WATER DISTRICT
TAYLOR MILL WATER TREATMENT PLANT
ELECTRICAL AND BASIN
IMPROVEMENTS

STRUCTURAL
SECTIONS AND DETAILS

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

ISSUED STATUS: BID SET
DATE: JANUARY 2014
SHEET: S-02-006
CAD REF. NO. 2142001S07

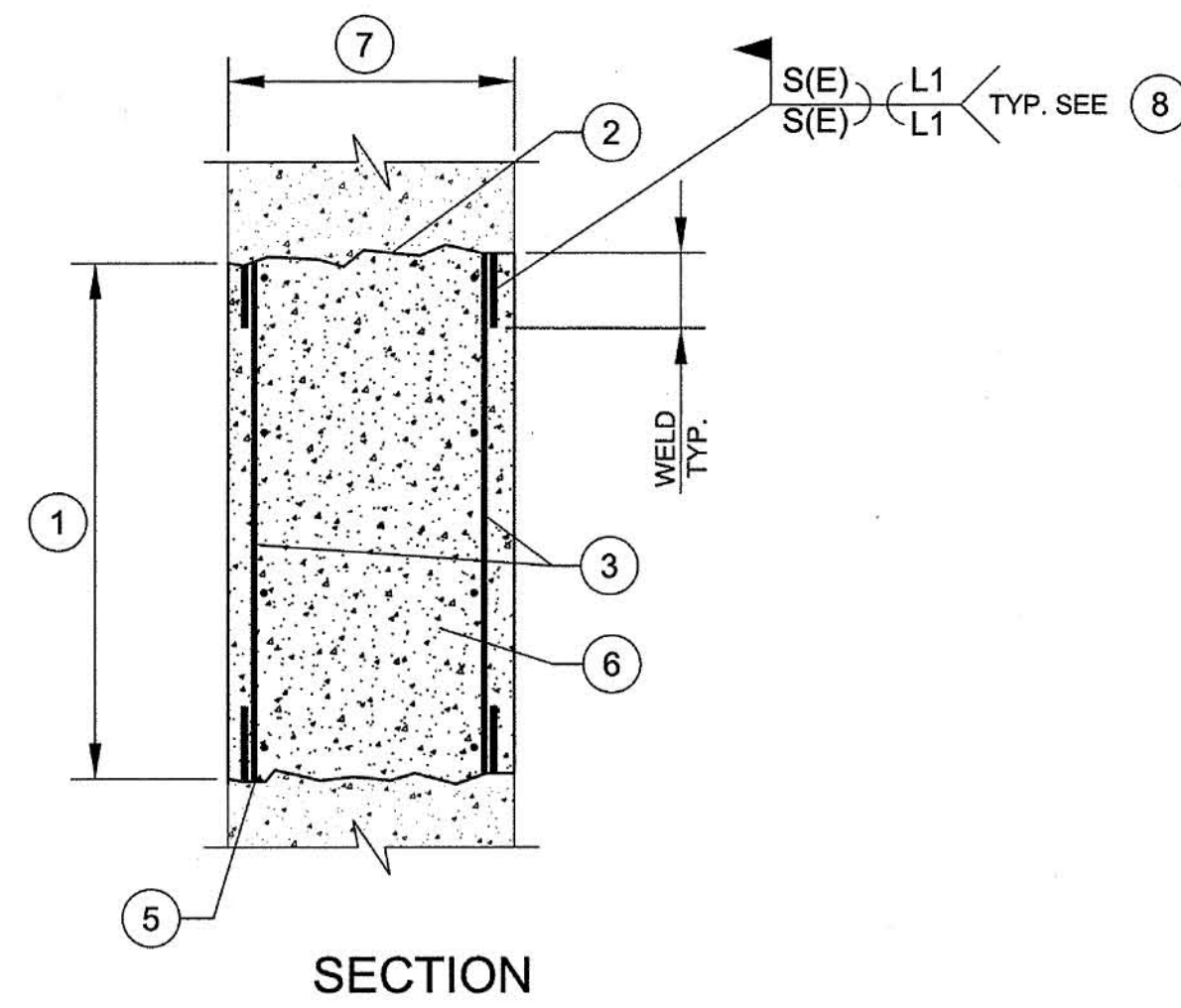
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1 EXPANSION JOINTS

KEYED NOTES

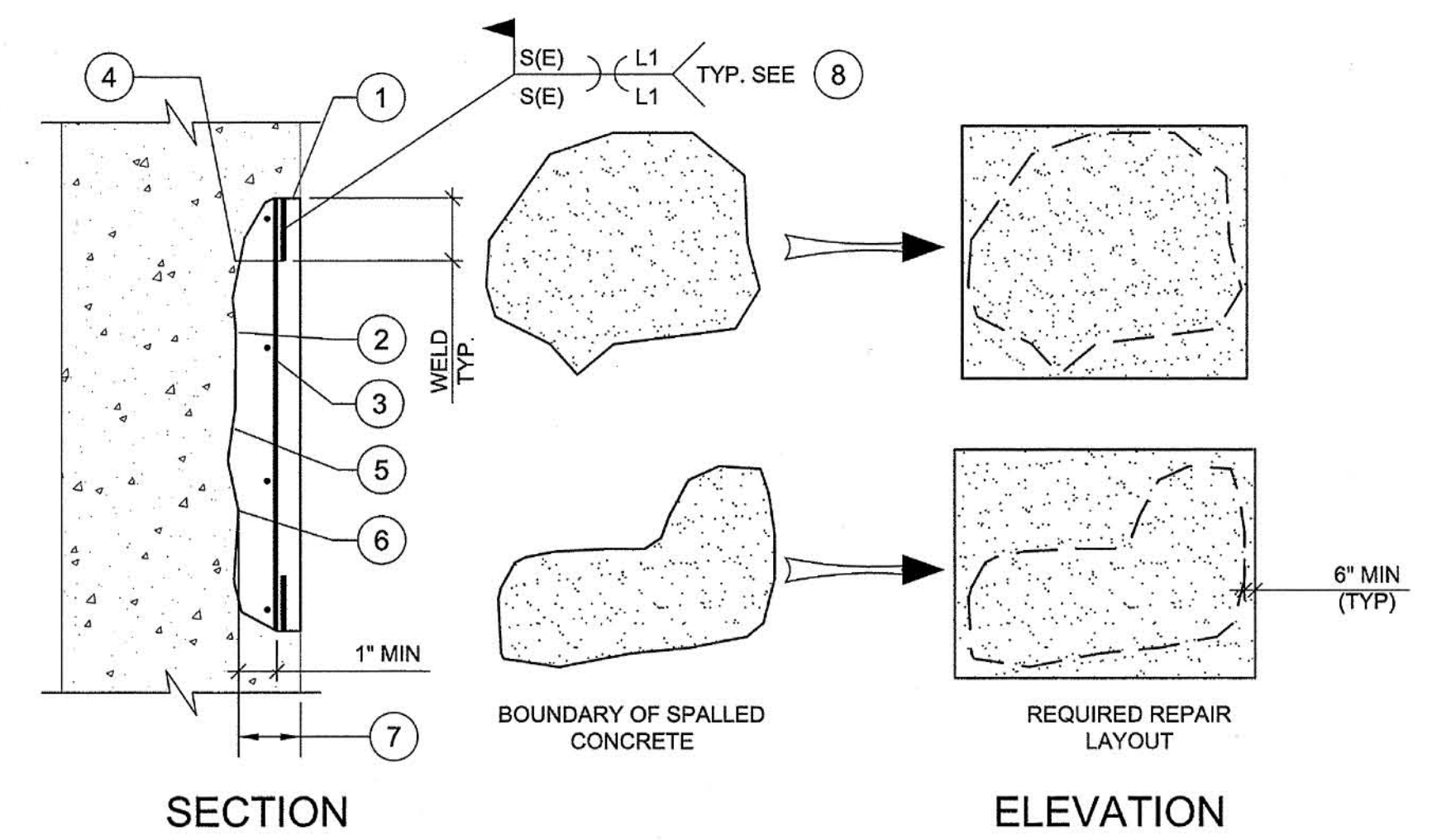
- 1 REMOVE EXISTING EXPANSION JOINT MATERIAL AND RECONSTRUCT JOINT AS DIRECTED BY ENGINEER IN ACCORDANCE TO SPALL REPAIR DETAIL.
- 2 PLACE BACKER ROD SOAKED IN CRACK INJECTION REPAIR SYSTEM HYDROPHOBIC POLYURETHANE CHEMICAL GROUT.
- 3 INSTALL EXPANSION JOINT REPAIR SYSTEM. HYPALON SHEETING SHALL BE INSTALLED TO ALLOW FOR 3/4" MOVEMENT WITHOUT INDUCING TENSION INTO HYPALON.
- 4 1/2 THICKNESS OF JOINT.
- 5 REMOVE EXISTING EXPANSION JOINT MATERIAL AS NECESSARY TO INSTALL BACKER ROD DOWN TO TOP OF GRADE.
- 6 JOINT SEALER.



2 CONCRETE REMOVAL AND REPLACEMENT

KEYED NOTES

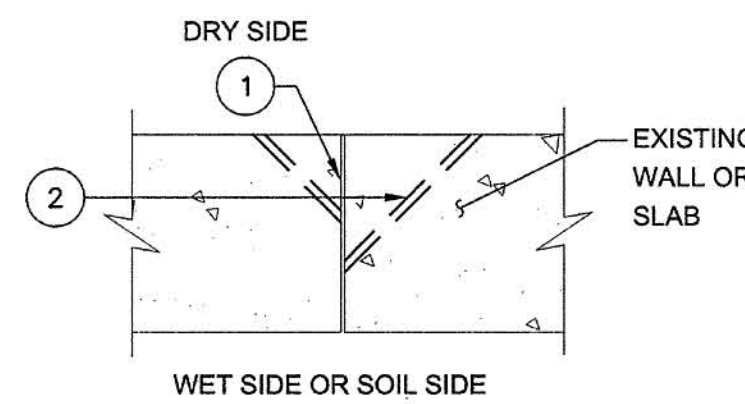
- 1 REMOVE EXISTING CONCRETE USING HYDRODEMOLITION METHODS AS REQUIRED. DO NOT CUT OR DAMAGE EXISTING REINFORCING DURING CONCRETE REMOVAL PROCESS.
- 2 REMOVE ALL DETERIORATED CONCRETE TO SOUND CONCRETE. PREPARE CONCRETE SUBSTRATE TO OBTAIN A SURFACE PROFILE OF 1/8-INCH IN DEPTH WITH A NEW FRACTURED AGGREGATE SURFACE.
- 3 WHERE REINFORCING STEEL WITH ACTIVE CORROSION IS ENCOUNTERED, REPLACEMENT IS REQUIRED WHERE LOSS ON REBAR CROSS SECTION IS OVER 25%. AFTER REPAIR WHERE REINFORCING REMAINS, CLEAN REINFORCING STEEL TO REMOVE ALL CONTAMINANTS AND RUST.
- 4 IF REINFORCING REPLACEMENT IS REQUIRED, CUT EXISTING CORRODED REINFORCING BAR AS REQUIRED AND WELD NEW REBAR OF SAME SIZE, AS SHOWN.
- 5 SURFACE PREPARATION SHALL COMPLY WITH BONDING AGENT AND REPAIR MORTAR MANUFACTURER'S INSTRUCTIONS.
- 6 INSTALL CONCRETE PER PROJECT SPECIFICATION 03 00 05.
- 7 FOR BID PURPOSES, TOTAL DEPTH OF REPAIR IS EQUAL TO MEMBER DEPTH.
- 8 S, (E), AND L1 DEFINITIONS CORRESPOND TO ANSII/AWS D1.4. MINIMUM L1 FOR BIDDING PURPOSES IS 3 INCHES.



3 CONCRETE SURFACE SPALL

KEYED NOTES

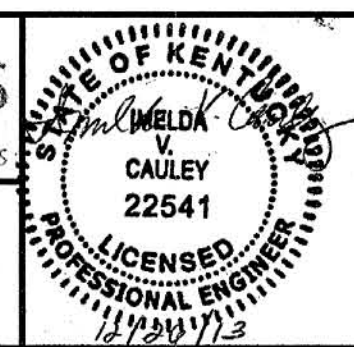
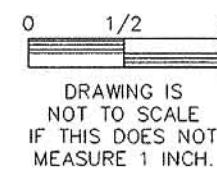
- 1 SCORE-CUT PERIMETER OF REPAIR AREA AS GENERALLY SHOWN. DO NOT CUT REINFORCING UNLESS NECESSARY TO REMOVE ALL DETERIORATED CONCRETE.
- 2 REMOVE ALL DETERIORATED CONCRETE TO SOUND CONCRETE. CHIP CONCRETE SUBSTRATE TO OBTAIN A SURFACE PROFILE OF 1/8-INCH IN DEPTH WITH A NEW FRACTURED AGGREGATE SURFACE.
- 3 WHERE REINFORCING STEEL WITH ACTIVE CORROSION IS ENCOUNTERED, REPLACEMENT IS REQUIRED WHERE LOSS ON REBAR CROSS SECTION IS OVER 25%. AFTER REPAIR WHERE REINFORCING REMAINS, CLEAN REINFORCING STEEL TO REMOVE ALL CONTAMINANTS AND RUST. REMOVE CONCRETE TO A DEPTH OF 1-INCH MINIMUM BEHIND REINFORCING BAR AS SHOWN.
- 4 IF REINFORCING REPLACEMENT IS REQUIRED, CUT EXISTING CORRODED REINFORCING BAR AS REQUIRED AND WELD NEW REBAR OF SAME SIZE, AS SHOWN.
- 5 SURFACE PREPARATION SHALL COMPLY WITH REPAIR MORTAR MANUFACTURER'S INSTRUCTIONS.
- 6 INSTALL BONDING AGENT AND REPAIR MORTAR PER THE MANUFACTURER'S REQUIREMENTS.
- 7 FOR BID PURPOSES, ASSUME TOTAL DEPTH OF REPAIR IS 6 INCHES.
- 8 S, (E), AND L1 DEFINITIONS CORRESPOND TO ANSII/AWS D1.4. MINIMUM L1 FOR BIDDING PURPOSES IS 3 INCHES.



4 CRACK REPAIR

KEYED NOTES

- 1 LEAKING CRACK
- 2 INJECTION PORTS FOR HYDROPHILIC CRACK INJECTION MATERIAL.



REVISIONS			
NO.	BY	DATE	REMARKS

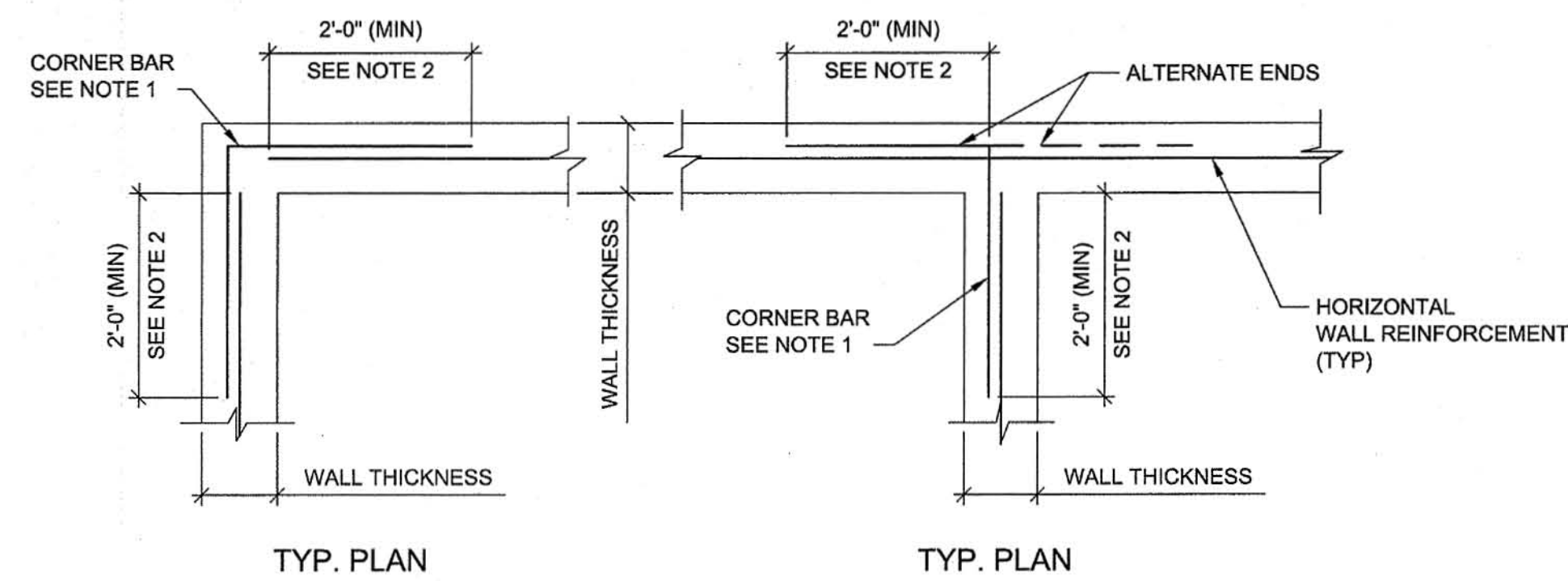
DES JH
DWN JJH
CKD IVC

NORTHERN KENTUCKY WATER DISTRICT
TAYLOR MILL WATER TREATMENT PLANT
**ELECTRICAL AND BASIN
IMPROVEMENTS**

**STRUCTURAL
REPAIR DETAILS**

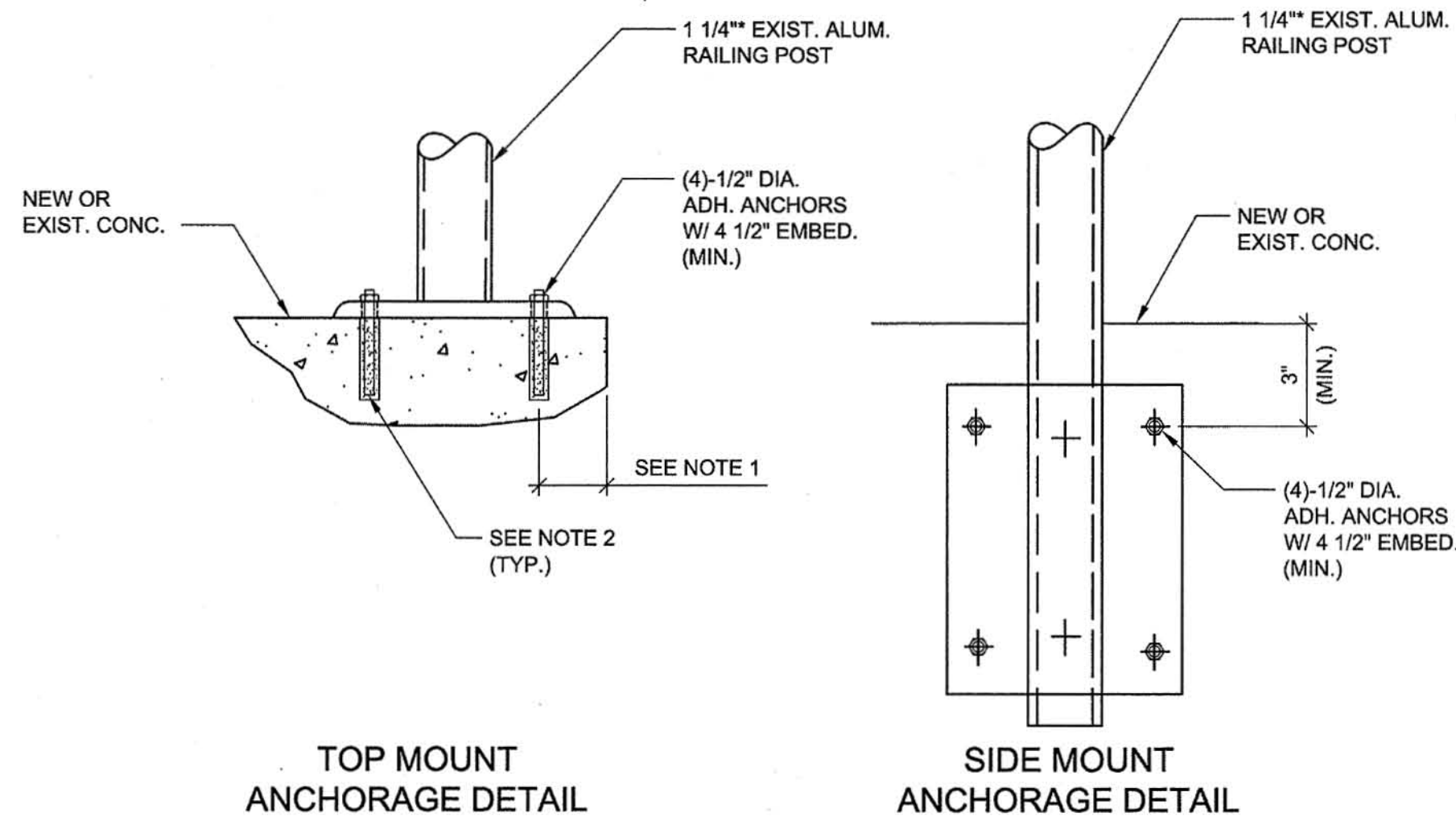
SCALE: N.T.S.

ISSUED STATUS: BID SET
DATE: JANUARY 2014
SHEET: S-02-007
CAD REF. NO. 2142001S08



TYP. PLAN
TYP. PLAN
TYPICAL REINFORCEMENT DETAIL AT SINGLY REINFORCED WALL INTERSECTIONS

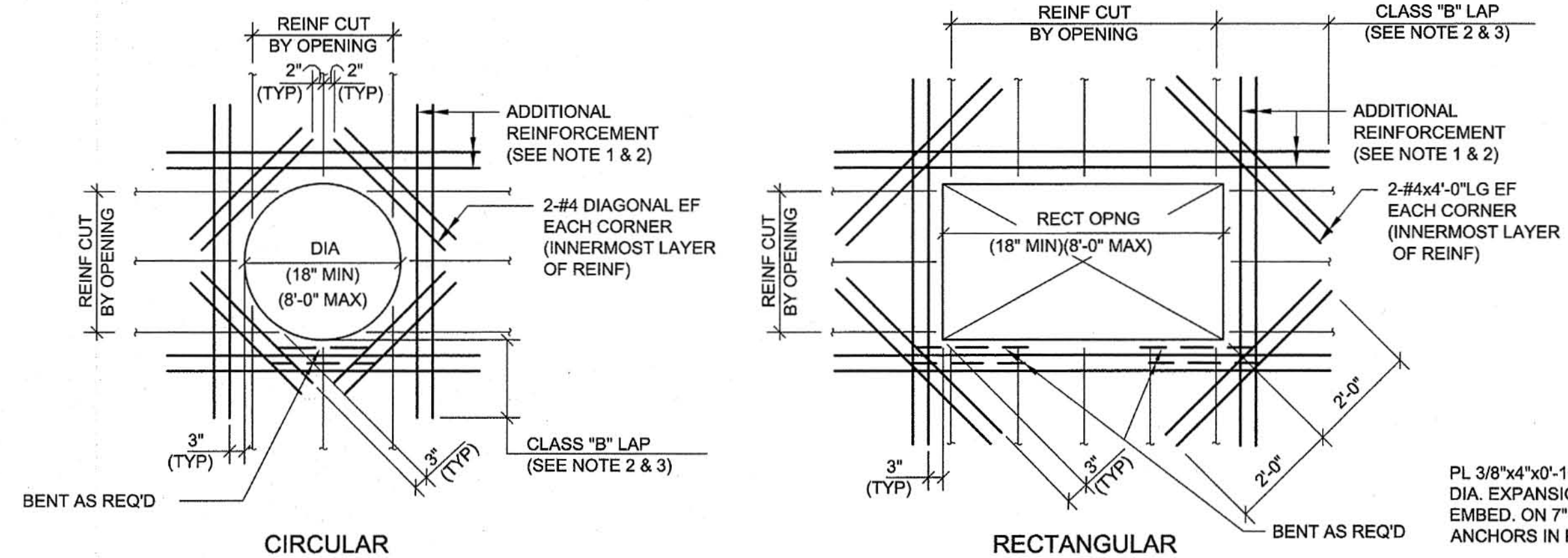
- NOTES:
- CORNER BARS TO MATCH SIZE AND SPACING OF WALL HORIZONTAL REINFORCEMENT (U.O.N.).
 - DIMENSION TO BE 0.25 TIMES THE CLEAR SPAN DISTANCE BETWEEN WALL INTERSECTIONS MEASURED HORIZONTALLY, BUT NO LESS THAN 2'-0" NOR GREATER THAN 6'-0".



TOP MOUNT ANCHORAGE DETAIL
SIDE MOUNT ANCHORAGE DETAIL

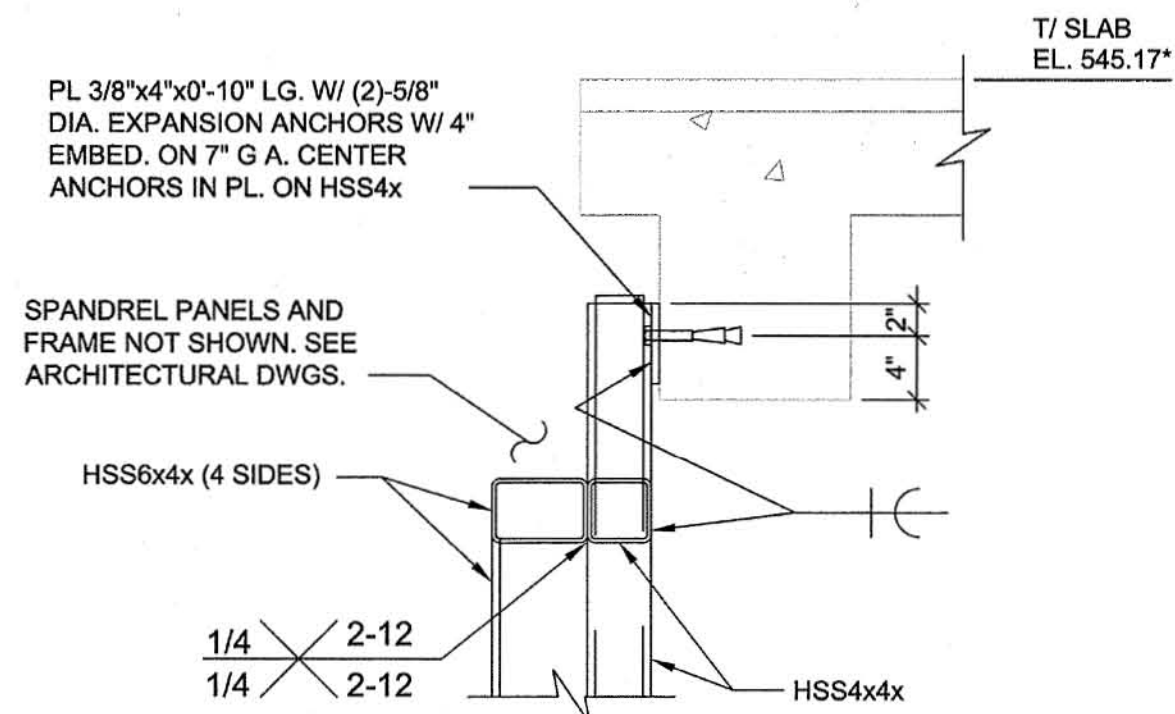
TYPICAL EXISTING RAILING ANCHORAGE DETAILS

- NOTES:
- PROVIDE A MINIMUM OF 3" OF EDGE DISTANCE.
 - EXISTING ANCHOR HOLES MAY BE RE-USED IF PREPARED ACCORDING TO ANCHOR MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS FOR HOLE DIAMETER, DRILLING, AND CLEANING INSTRUCTIONS. EXISTING RAILING MOUNTING FLANGES MAY BE RE-USED WITHOUT MODIFICATION IF ANCHOR SYSTEM SHOWN FITS INTO EXISTING HOLES. OTHERWISE, CONTRACTOR SHALL MODIFY FLANGES IN ORDER TO ACCOMMODATE NEW ANCHOR. THIS MAY INCLUDE PROVIDING OVERSIZED WASHERS OR REBORING LARGER HOLES.



TYPICAL REINFORCING AROUND OPENING IN WALL AND SLAB

- NOTES:
- PROVIDE ADDITIONAL REINFORCEMENT AT ALL OPENINGS, ACCESS HATCHES, PIPE PENETRATIONS, ETC. EQUAL IN AREA TO TYPICAL REINFORCEMENT CUT BY OPENING IN EACH DIRECTION. ADDITIONAL REINFORCEMENT TO MATCH SIZE OF TYPICAL REINFORCEMENT (MIN. 2 BARS ES AND EF) AND PLACED BETWEEN TYPICAL REINFORCEMENT @ 3" SPACING ON EACH SIDE OF OPENING.
 - PROVIDE MATCHING DOWELS WHERE REQUIRED TO PROVIDE CLASS "B" LAP WITH ADDITIONAL REINFORCEMENT. (WHERE LAPPING OF ADDITIONAL REINFORCEMENT FROM ADJACENT OPENINGS OCCUR, ADDITIONAL REINFORCEMENT SHALL BE COMBINED).
 - IF A WALL OR BEAM IS ADJACENT TO THE OPENING, THE ADDITIONAL REINFORCEMENT ON THAT SIDE OF THE OPENING CAN BE OMITTED.

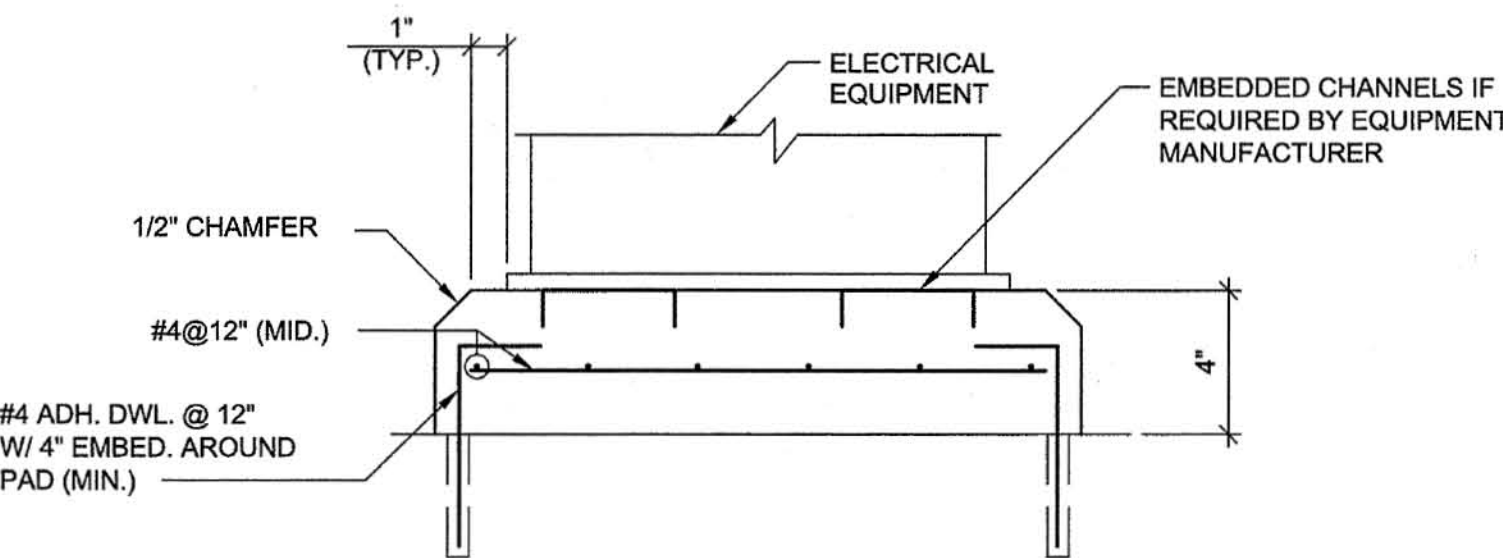


EXHAUST FAN SUPPORT FRAME DETAIL

- NOTES:
- ALL STRUCTURAL SHAPES SHALL BE PAINTED GALVANIZED STEEL AS NOTED:
- HSS4x4x = HSS4x4x1/4
- HSS6x4x = HSS6x4x1/2
- HSS4x2x = HSS2x2x1/4
 - COORDINATE FAN SUPPORT FRAME WITH APPROVED EXHAUST FAN SHOP DRAWINGS.
 - SEE DRAWING A-01-006 FOR ADDITIONAL DETAILS.

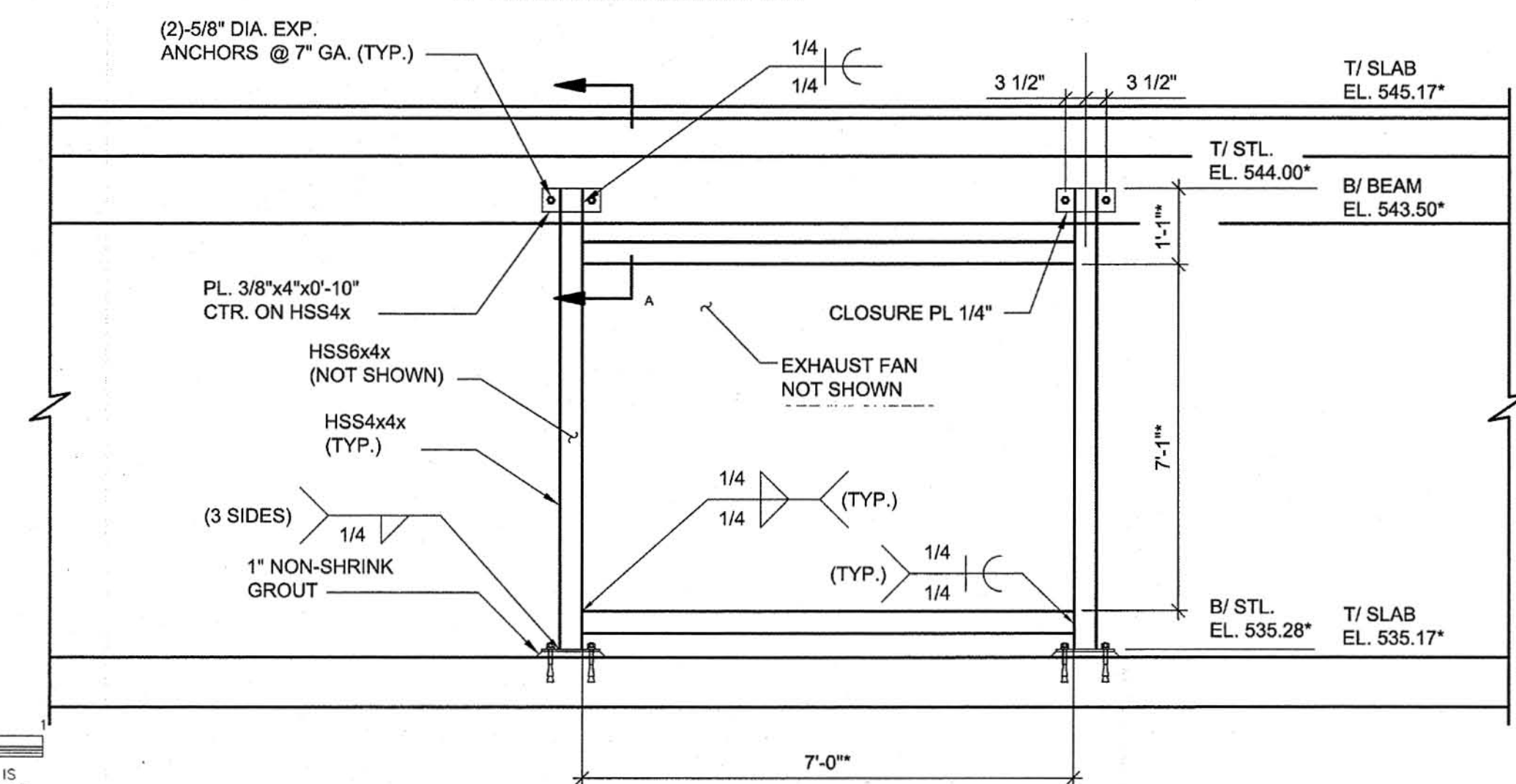
REPAIR SCHEDULE				
SYMBOLS	REPAIR TYPE	BID QUANTITY	DETAIL REFERENCE NO.	NOTES
◆	WALL EXPANSION JOINTS	600 LF	DETAIL 1 ON S-007	AS DIRECTED BY ENGINEER.
▲	CRACK	200 LF	DETAIL 4 ON S-007	DIMENSIONS OF EACH CRACK REPAIR VARY AS DIRECTED BY ENGINEER.
●	SPALL	100 SF	DETAIL 3 ON S-007	DIMENSIONS OF EACH SPALL REPAIR VARY AS DIRECTED BY ENGINEER.
■	BASE SLAB CRACK	400 LF	DETAIL 4 ON S-007	DIMENSIONS OF EACH BASE SLAB CRACK REPAIR VARY AS DIRECTED BY ENGINEER.
	PAINTING OF CONCRETE	600 SF	SPECIFICATION 09 91 00	AS DIRECTED BY ENGINEER.
	BASIN RAKE REPAIR	2000 LBS	SHEET NO. M-02-001	AS DIRECTED BY ENGINEER.

- NOTES:
- PAYMENT OF CONCRETE REPAIR AND REHABILITATION WORK SHALL BE BASED ON ACTUAL MEASURED REPAIR QUANTITIES MULTIPLIED BY THE ASSOCIATED UNIT PRICES INCLUDED ON THE PROPOSAL BID FORM.
 - ENGINEER MAY DIRECT CONTRACTOR TO PERFORM REPAIR WORK THAT IS GREATER THAN OR LESS THAN THE ESTIMATED QUANTITIES STATED ON THE PROPOSAL BID FORM. CONTRACTOR WILL BE COMPENSATED AT THE UNIT PRICES ON THE PROPOSAL BID FORM FOR THE ACTUAL QUANTITY OF CONCRETE REPAIR WORK AS SHOWN, SPECIFIED OR ORDERED.
 - FOR BID PURPOSES ASSUME A TOTAL OF 5,000 POUNDS OF REINFORCING STEEL REPLACEMENT IS REQUIRED FOR CONCRETE REMOVAL AND REPLACEMENT AND CONCRETE SURFACE SPALL REPAIRS.



ELECTRICAL EQUIPMENT PAD DETAIL

- NOTES:
- COORDINATE DIMENSIONS, BOXOUTS AND CONDUIT PENETRATIONS, WITH EQUIPMENT ACTUALLY BEING PROVIDED.
 - PROVIDE SUPPORT CHANNELS PER EQUIPMENT MANUFACTURER'S RECOMMENDATIONS.



TYPICAL GRATING AND CHECKERED PLATE SUPPORT DETAILS

- NOTES:
- PROVIDE TYPICAL SUPPORT AS SHOWN FOR ALL EXISTING GRATING AND PLATE SUPPORT. PROVIDE NEW EMBEDDED ANGLE DETAIL (UON).
 - PROVIDE SUPPORT ANGLE AND ANCHOR STUD OF THE SAME MATERIAL AS THE GRATING AND PLATE.

DRAWING IS NOT TO SCALE IF THIS DOES NOT MEASURE 1 INCH

MALCOLM PIRNIE
ARCADIS
The Water Division of ARCADIS
Magna ENGINEERS

STATE OF KENTUCKY
MELBA CAULEY
22541
LICENSED PROFESSIONAL ENGINEER
12/29/13

REVISIONS		NO.	BY	DATE	REMARKS

DES JH
DWN JJH
CKD IVC

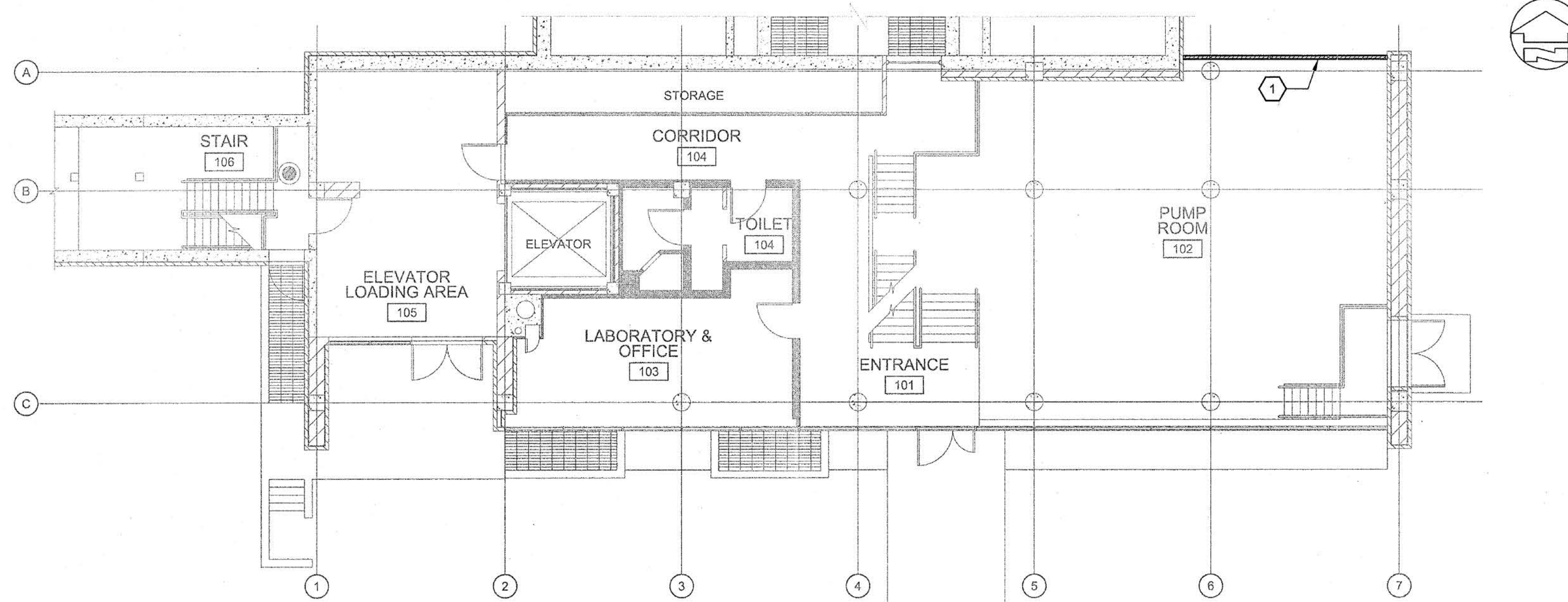
NORTHERN KENTUCKY WATER DISTRICT
TAYLOR MILL WATER TREATMENT PLANT
ELECTRICAL AND BASIN IMPROVEMENTS

STRUCTURAL
TYPICAL DETAILS AND REPAIR SCHEDULE
SCALE: N.T.S.

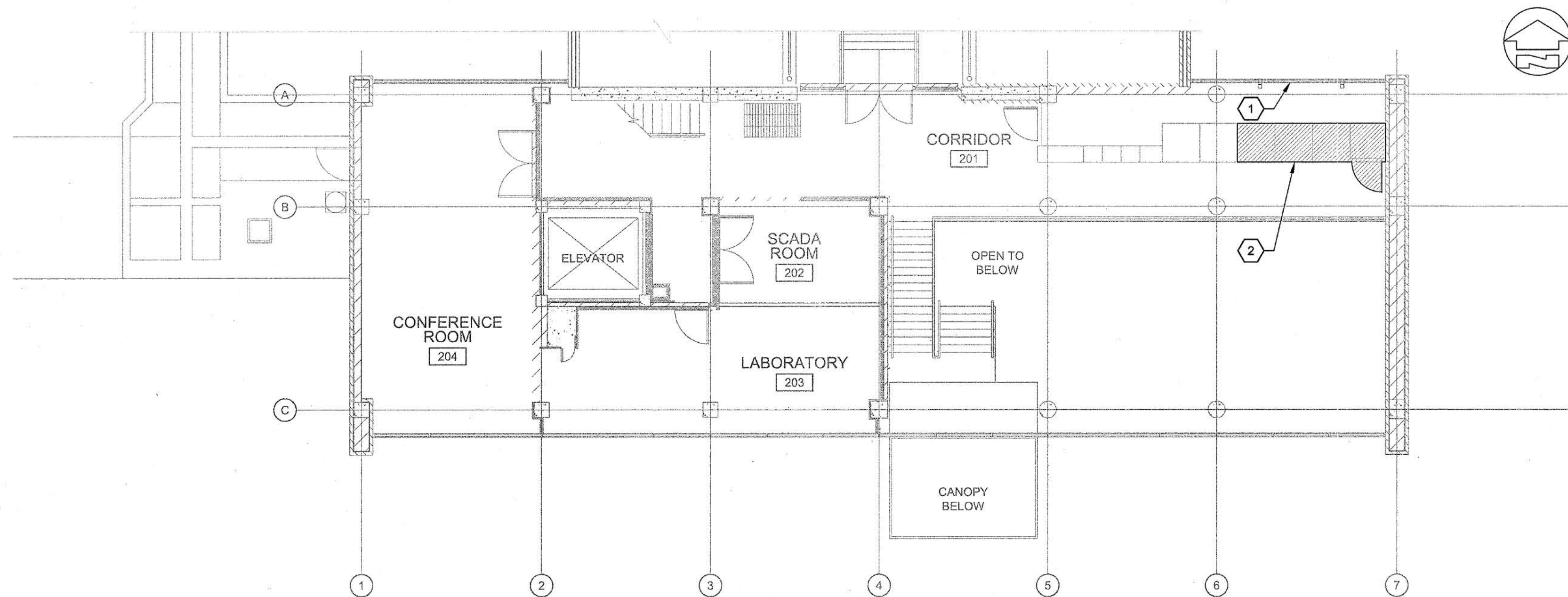
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DATE: JANUARY 2014
SHEET: S-02-008
CAD REF. NO.: 2142001S09

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1 FILTER BUILDING
DEMO PLAN EL. AT 525.50
SCALE: 1/8"=1'-0"



1 FILTER BUILDING
DEMO PLAN EL. AT 535.00
SCALE: 1/8"=1'-0"

GENERAL NOTES:

1. CONTRACTOR SHALL PROTECT ALL EXISTING TO REMAIN.
2. PROVIDE TEMPORARY DUST BARRIERS AND WEATHER PROOF ENCLOSURES ACCEPTABLE TO THE OWNER.

KEYNOTES:

1. REMOVE GLAZING AND SPANDREL PANELS FROM WINDOW WALL SYSTEM AS REQUIRED FOR INSTALLATION OF LOUVERS MECHANICAL LOUVERS. COORDINATE DEMOLITION WITH SHEET A-01-005.
2. REMOVE ELECTRICAL EQUIPMENT. SEE SHEET E-01-002. REMOVE EQUIPMENT SUPPORT RAILS FLUSH WITH EXISTING FLOOR.

0 1/2 1
DRAWING IS NOT TO SCALE. IF THIS DOES NOT MEASURE 1 INCH.

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22541
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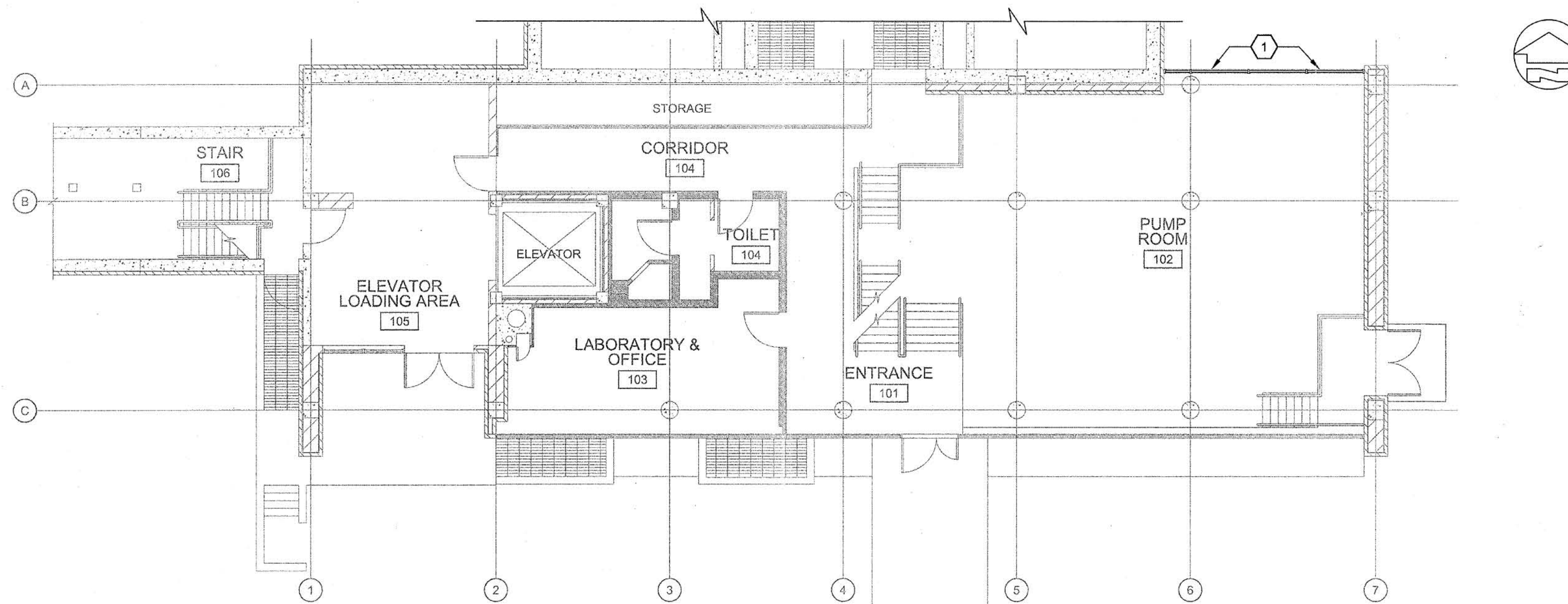
REVISIONS			
NO.	BY	DATE	REMARKS

DES SRZ
DWN JJH
CKD IVC

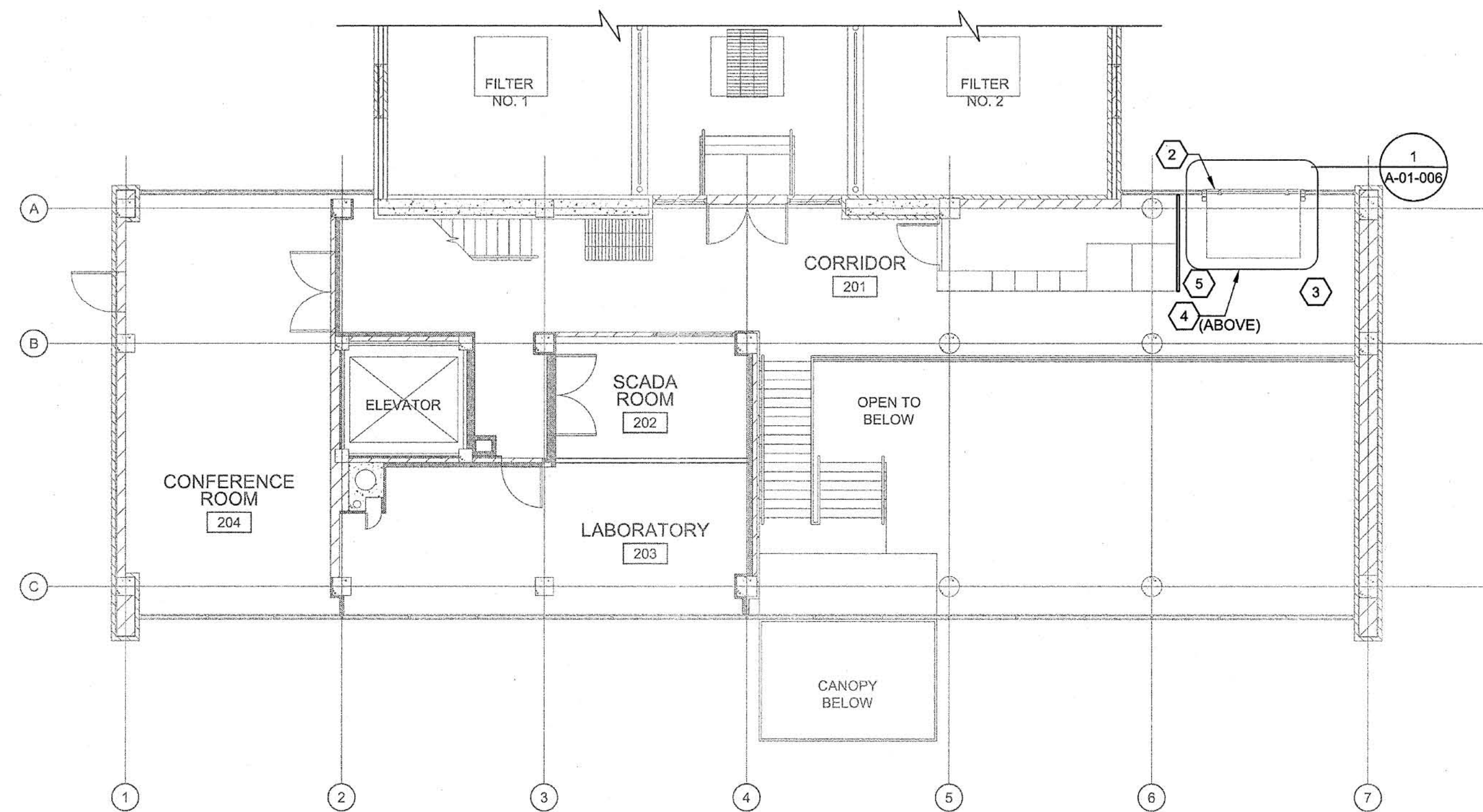
NORTHERN KENTUCKY WATER DISTRICT
TAYLOR MILL WATER TREATMENT PLANT
ELECTRICAL AND BASIN IMPROVEMENTS

ARCHITECTURAL
FILTER BUILDING DEMOLITION PLANS
SCALE: 1/8" = 1'-0"

ISSUED STATUS: BID SET
DATE: JANUARY 2014
SHEET: A-01-001
CAD REF. NO. A-01-001



1 FILTER BUILDING
PLAN EL. AT 525.50
SCALE: 1/8"=1'-0"



1 FILTER BUILDING
PLAN EL. AT 535.00
SCALE: 1/8"=1'-0"

GENERAL NOTES:

1. CONTRACTOR SHALL PROTECT ALL EXISTING TO REMAIN.
2. PROVIDE TEMPORARY DUST BARRIERS AND WEATHER PROOF ENCLOSURES ACCEPTABLE TO THE OWNER.

KEYNOTES:

1. LOUVERS. SEE DRAWINGS A-01-005 AND A-01-006.
2. HVAC EQUIPMENT - SEE "H" DRAWINGS.
3. INSTALL TERRAZZO FLOORING AT EXISTING CONCRETE SLAB TO MATCH EXISTING TERRAZZO FLOORING. APPROX 90 SF.
4. PROVIDE METAL PANEL CEILING TO MATCH EXISTING WHERE ELECTRICAL ENCLOSURE WAS REMOVED. APPROX 90 SF.
5. PROVIDE METAL WALL PANEL TO MATCH EXISTING.

User: HOLLAND Spine-AUS-NC5M0D File: ARCADIS-US-COM\OFFICE\DATA\COLUMBUS-OW\PROJECTS\TAYLOR MILL\LOAD\ARCH\A-01-002.DWG Scale: 1:1 Saved: 12/18/2013 11:55:15 AM Plot Date: Holland, Jimmy, 12/18/2013, 14:58, Layout: A-01-002

0 1/2 1
DRAWING IS NOT TO SCALE IF THIS DOES NOT MEASURE 1 INCH.

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12/20/13

REVISIONS			
NO.	BY	DATE	REMARKS

DES SRZ
DWN JJH
CKD IVC

NORTHERN KENTUCKY WATER DISTRICT
TAYLOR MILL WATER TREATMENT PLANT
ELECTRICAL AND BASIN IMPROVEMENTS

ARCHITECTURAL
FILTER BUILDING PLANS
AT EL. 525.50 AND 535.00
SCALE: 1/8" = 1'-0"

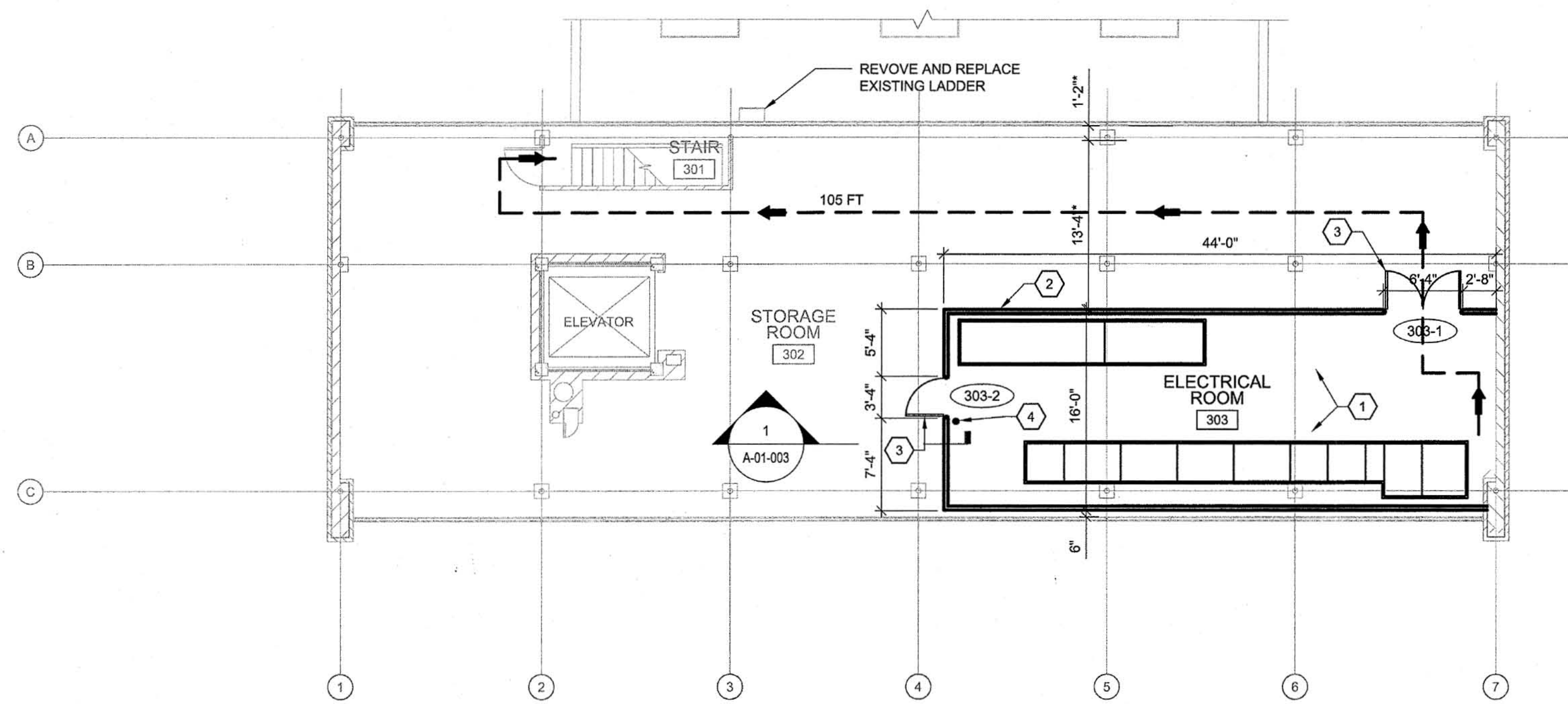
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DATE: JANUARY 2014
SHEET: A-01-002
CAD REF. NO.: A-01-002

GENERAL NOTES:

1. CONTRACTOR SHALL PROTECT ALL EXISTING TO REMAIN.
2. PROVIDE TEMPORARY DUST BARRIERS AND WEATHER PROOF ENCLOSURES ACCEPTABLE TO THE OWNER.
3. PATCH AND REPAIR ALL FINISHES AT M/E PENETRATIONS.
4. FIELD VERIFY ALL DIMENSIONS.

KEYNOTES:

1. SEE ELECTRICAL DRAWINGS FOR EQUIPMENT
2. PARTITION WALL
3. 1 HOUR FIRE RESISTANT HOLLOW METAL DOOR. IBC TABLE 720.1 (2), ITEM 15.1.11.
4. FIRE EXTINGUISHER - SENTINEL MODEL 10 BY J.L INDUSTRIES OR EQUAL. SECURELY FASTEN TO STRUCTURE PER MANUFACTURER'S INSTRUCTIONS.



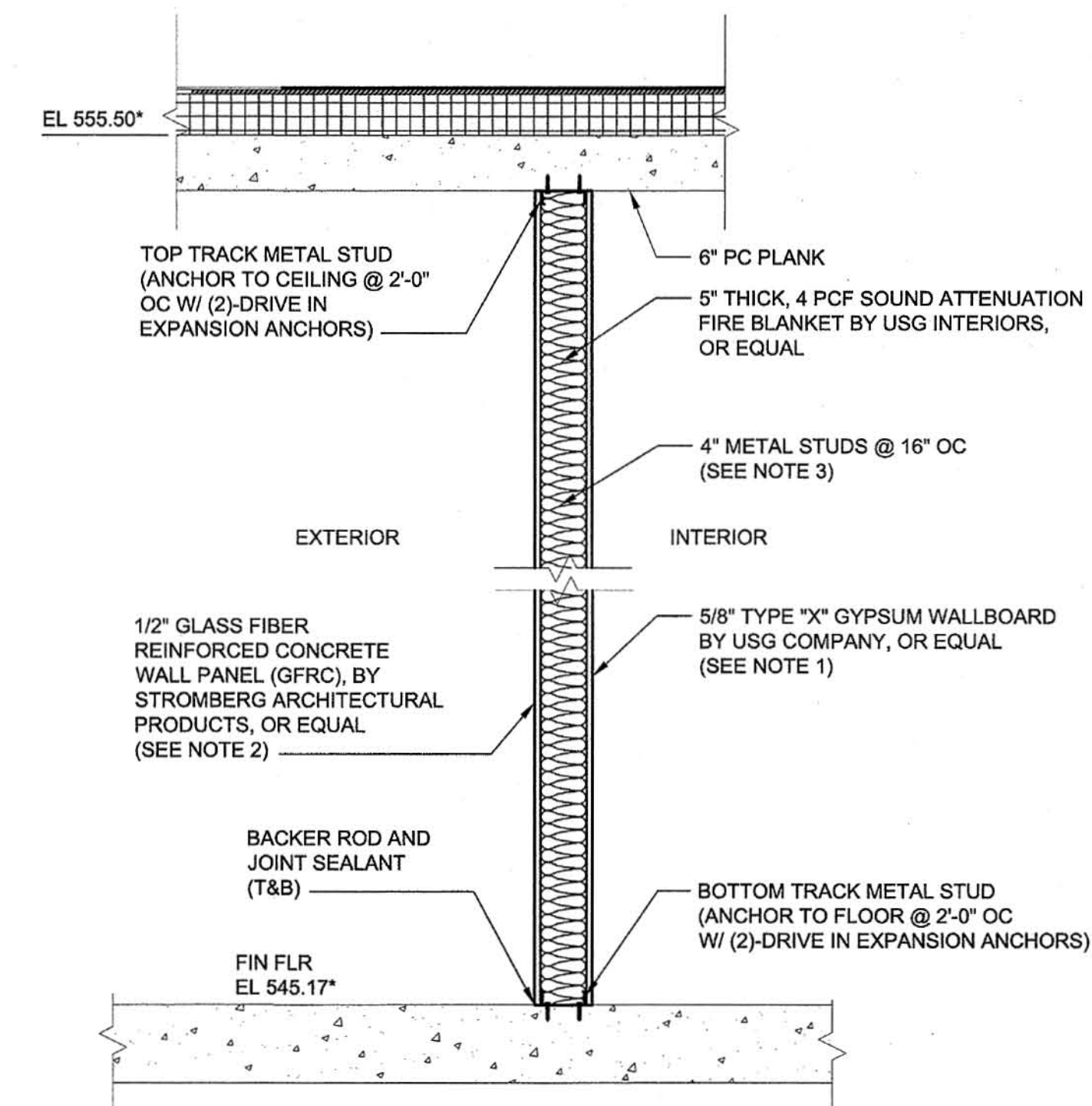
1 FILTER BUILDING PLAN EL. AT 545.00
SCALE: 1/8"=1'-0"

- NOTE:
1. FLOOR LIVE LOAD = 250 PSF

BUILDING CODE SUMMARY EXISTING FILTER BUILDING

EXISTING BUILDING - NEW DEMOLITION PATCHING AT WALLS, MECHANICAL, AND ELECTRICAL WORK ONLY. WORK WILL NOT AFFECT MAXIMUM EXIT TRAVEL DISTANCE.

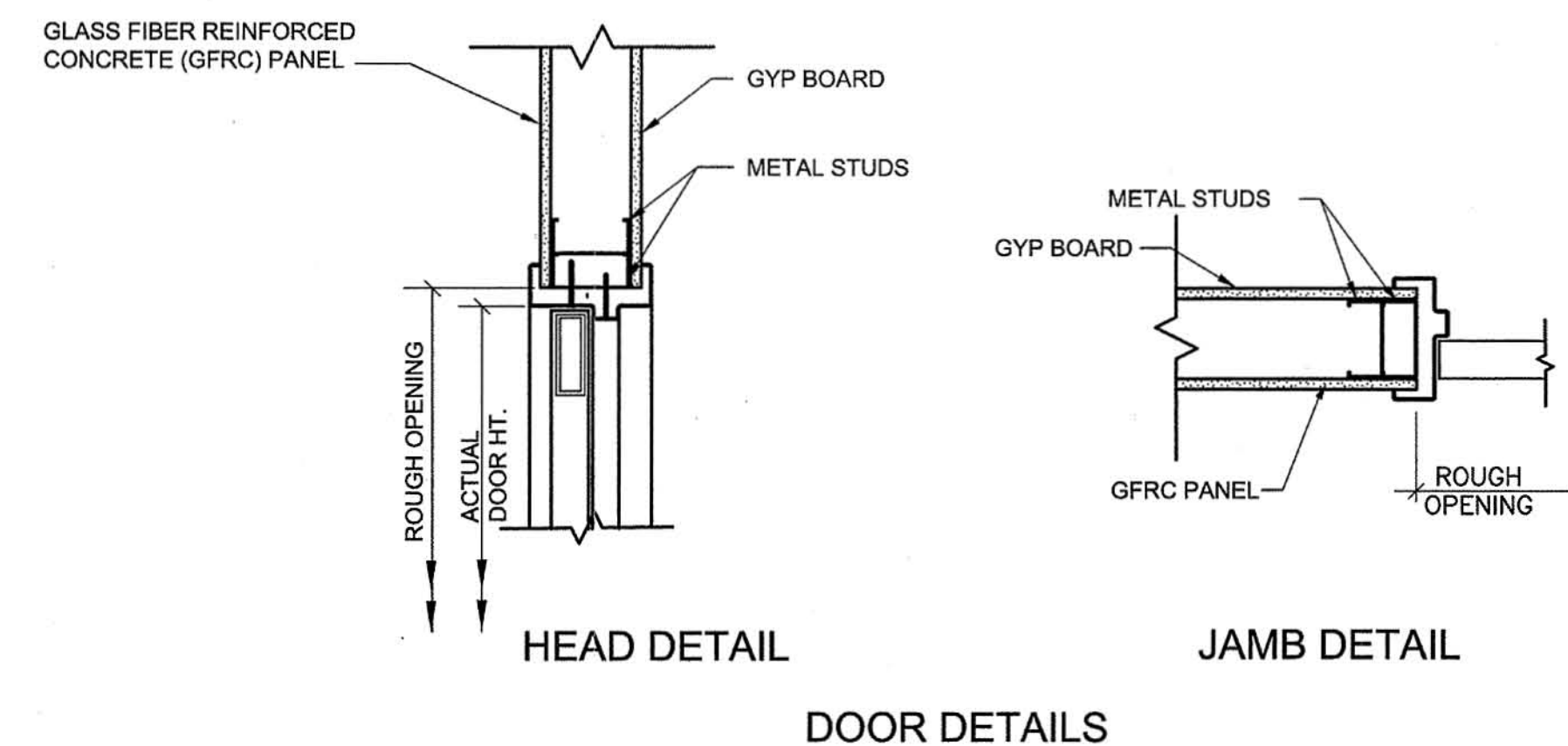
1. **USE GROUP - CHAPTER 3:**
USE GROUP DESIGNATION: F-2
DESCRIPTION: FACTORY INDUSTRIAL, LOW HAZARD, PROCESSING BEVERAGES
2. **BUILDING HEIGHT/AREA - CHAPTER 5:**
(TYPE II B CONSTRUCTION)
ALLOWABLE HEIGHT: 3 STORIES
ACTUAL HEIGHT: 3 STORIES
ALLOWABLE AREA, PER FLOOR: 23,000 SF
ACTUAL AREAS:
- BASEMENT: 2,350 SF
- FIRST: 2,660 SF
- SECOND: 2,820 SF
- THIRD: 2,850 SF
3. **TYPE OF CONSTRUCTION - CHAPTER 6:**
(602.2) II B NON-COMBUSTIBLE MATERIALS
TABLE 601 - NO ELEMENTS FOR TYPE II B CONSTRUCTION HAVE FIRE-RESISTANCE RATING REQUIREMENTS
4. **FIRE RESISTANT CONSTRUCTION - CHAPTER 7:**
FIRE WALL SEPARATION: N.A.
5. **INTERIOR FINISHES - CHAPTER 8:**
CORRIDORS, ROOMS, AND ENCLOSED SPACES: CLASS C
6. **FIRE PROTECTION SYSTEMS - CHAPTER 9:**
NO REQUIREMENTS
OCCUPANCY LOAD:
HABITABLE AREA: 7,815 SF
HABITABLE AREA / 100 SF PER PERSON (INDUSTRIAL AREAS)= 78 PERSONS OCCUPANT LOAD
7. **MEANS OF EGRESS - CHAPTER 10:**
NO REQUIREMENTS
OCCUPANCY LOAD:
HABITABLE AREA: 7,815 SF
HABITABLE AREA / 100 SF PER PERSON (INDUSTRIAL AREAS)= 78 PERSONS OCCUPANT LOAD
8. **EXITS REQUIRED**
TABLE 1016.1 MAXIMUM EXIT TRAVEL DISTANCE: 300 FT
ACTUAL LONGEST TRAVEL DISTANCE: 105 FT
9. **ACCESSIBILITY - CHAPTER 11:**
EQUIPMENT AREAS ARE NOT REQUIRED TO BE ACCESSIBLE PER 1103.2



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

NOTES:

1. ATTACH WALLBOARD TO STUDS WITH 1 1/4" LONG TYPE "S" BUGLEHEAD SCREWS AT 12" SPACING. FINISH IN ACCORDANCE WITH ASTM C840 LEVEL 3.
2. ATTACH GFRC WITH FLEX ANCHORS AT 2'-0" OC SPACING WITH 5" LEG WELDED TO STUDS WITH (2)-1/2" LONG FLARE BEVEL WELDS AND 4" FOOT ATTACHED TO GFRC WITH 5/8" BONDING PADS THAT EXTEND 2 1/2" BEYOND FOOT EACH SIDE. GFRC HAS 1 1/2" RETURNS PACKED WITH MINERAL FIBER.
3. METAL STUD SHALL HAVE A MINIMUM BASE METAL THICKNESS OF 0.060 INCH AND A MINIMUM FLANGE WIDTH OF 1 3/8", AS MANUFACTURED BY DIETRICH METAL FRAMING, OR EQUAL.



DOOR DETAILS

DRAWING IS NOT TO SCALE IF THIS DOES NOT MEASURE 1 INCH



REVISIONS			
NO.	BY	DATE	REMARKS

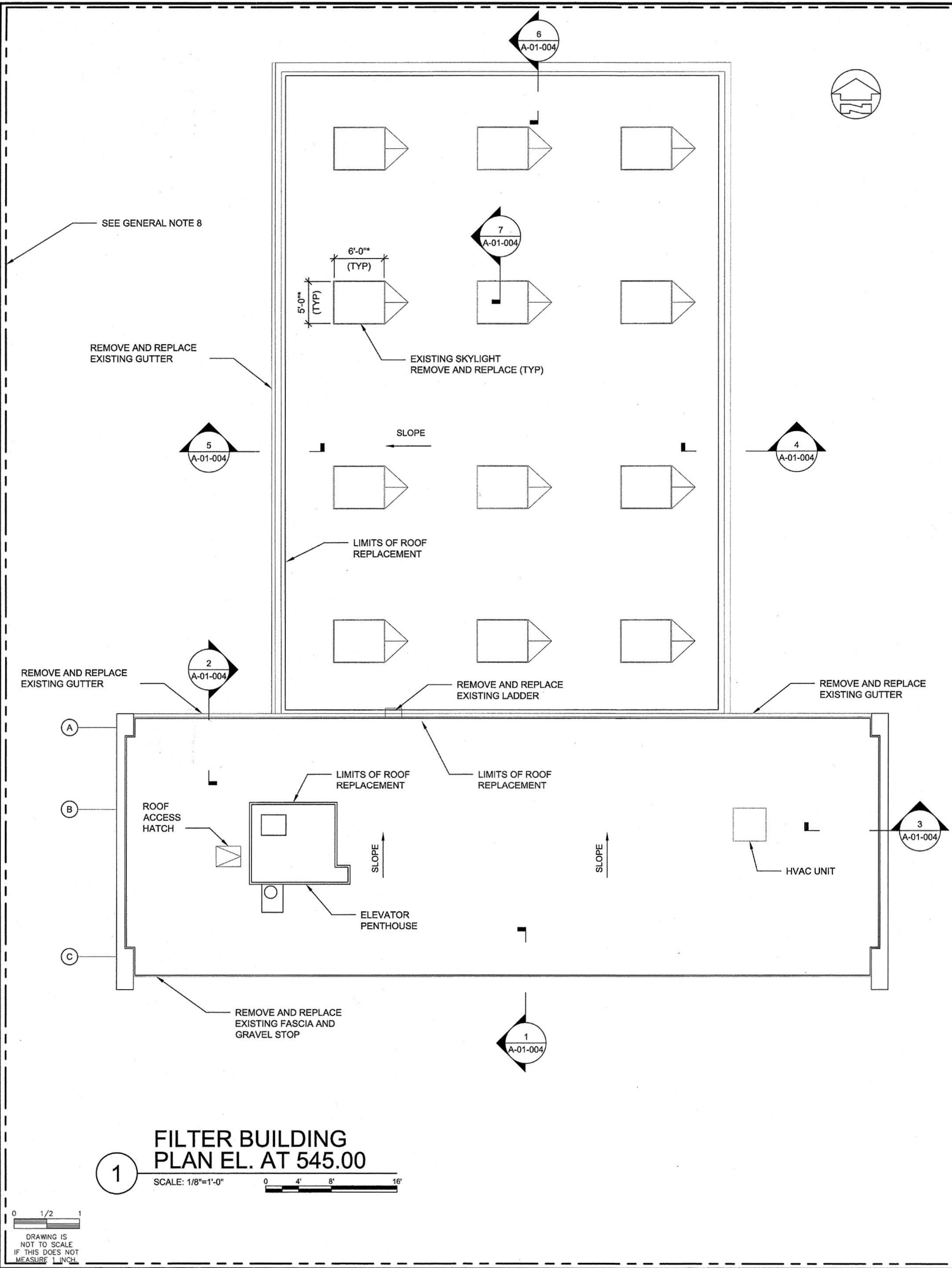
NORTHERN KENTUCKY WATER DISTRICT
TAYLOR MILL WATER TREATMENT PLANT
ELECTRICAL AND BASIN IMPROVEMENTS

ARCHITECTURAL
FILTER BUILDING PLAN AT EL 545.00, SECTION AND DETAILS
SCALE: AS NOTED

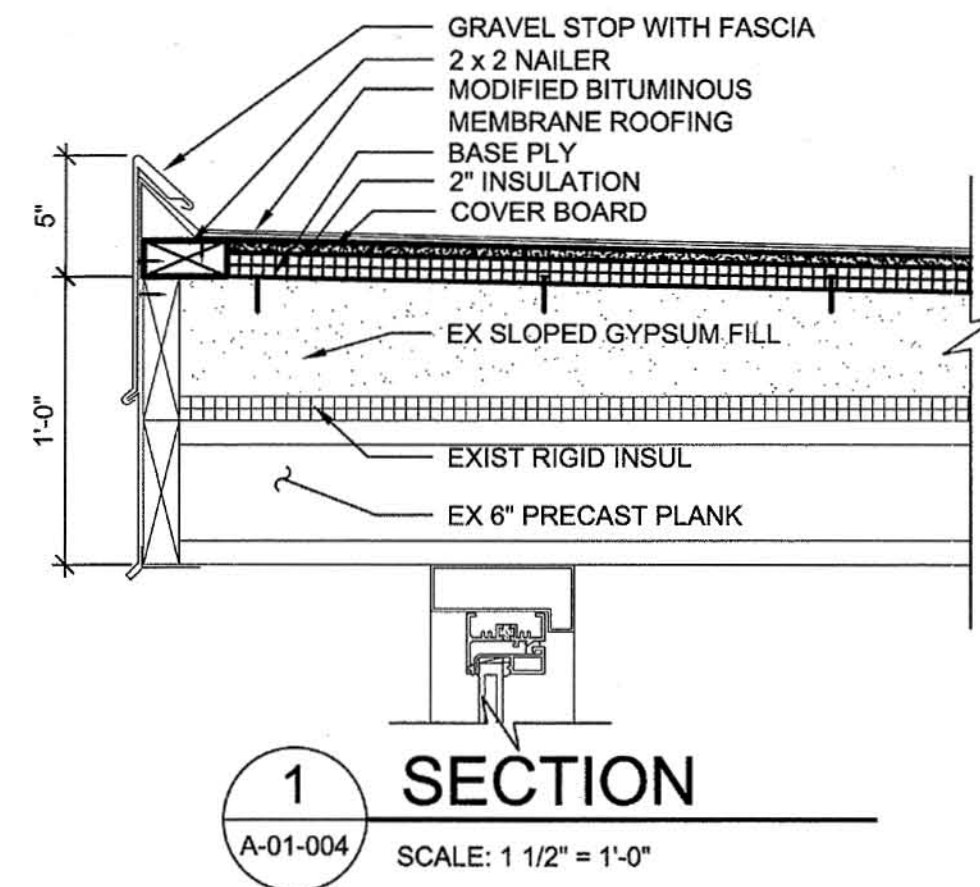
ISSUED STATUS: BID SET
DATE: JANUARY 2014
SHEET: A-01-003
CAD REF. NO.: A-01-003

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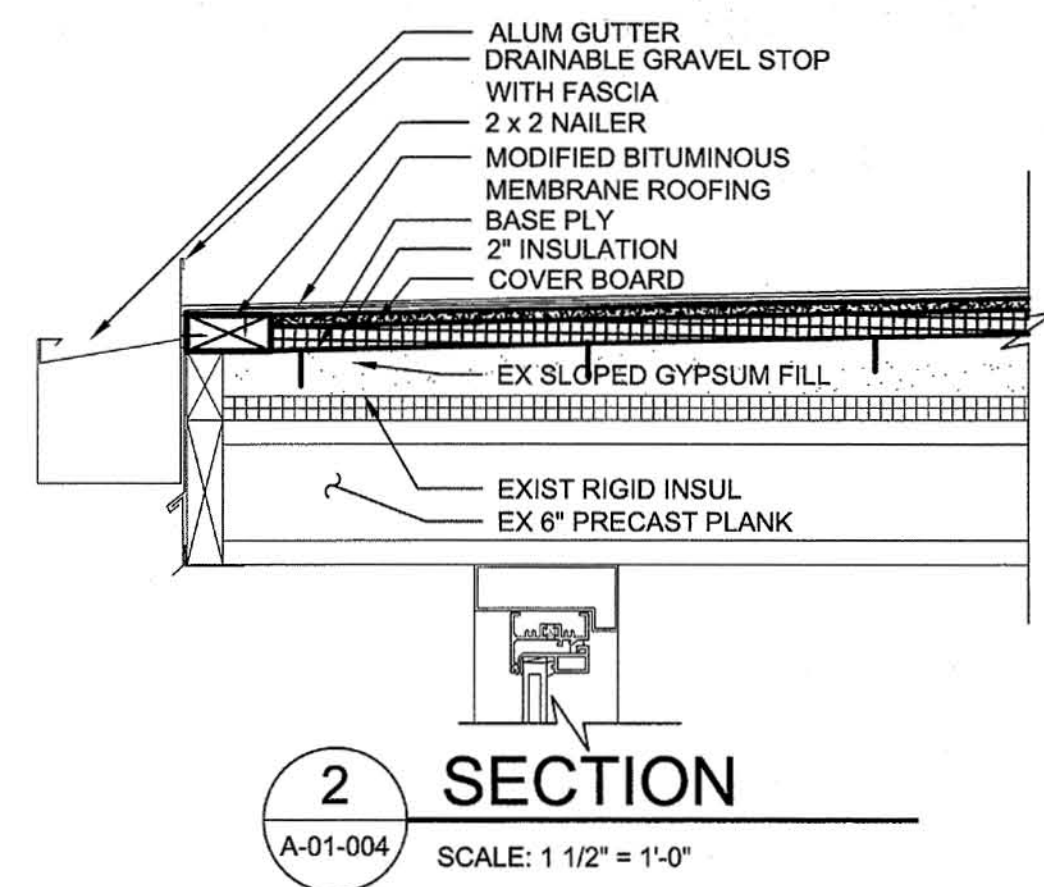
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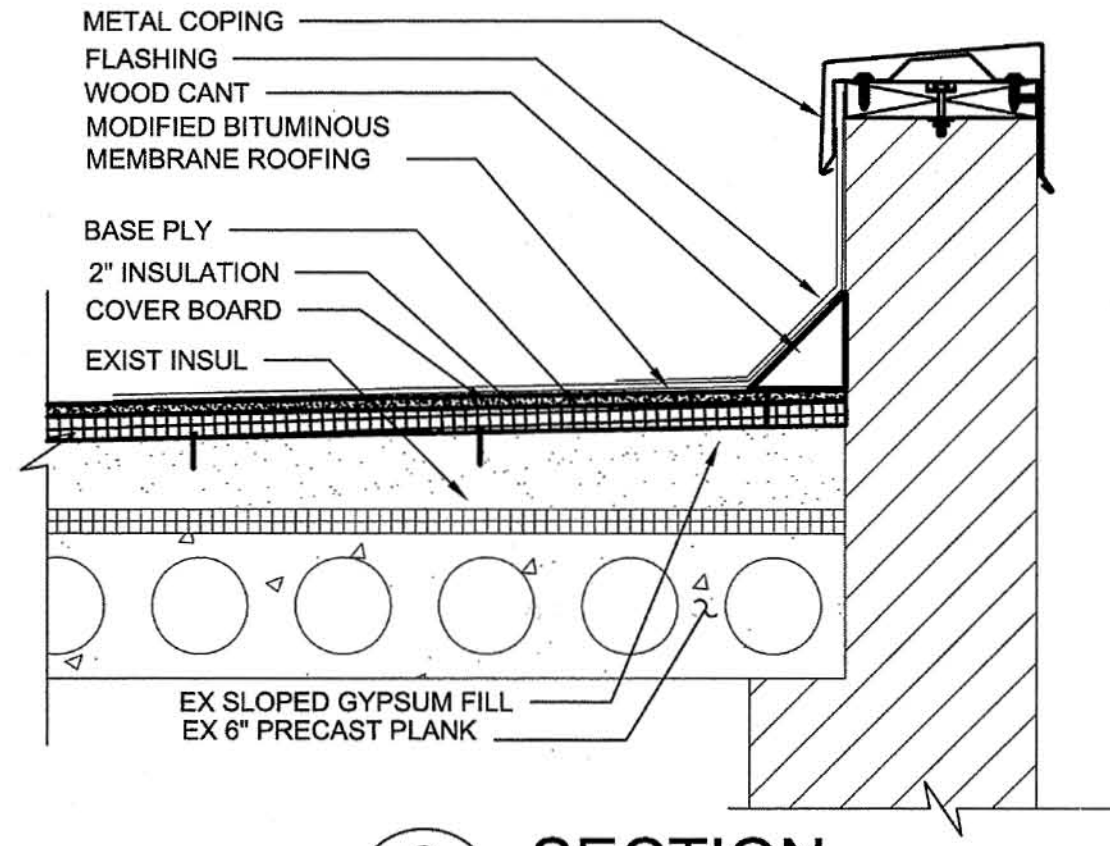
1 FILTER BUILDING
PLAN EL. AT 545.00
SCALE: 1/8"=1'-0"



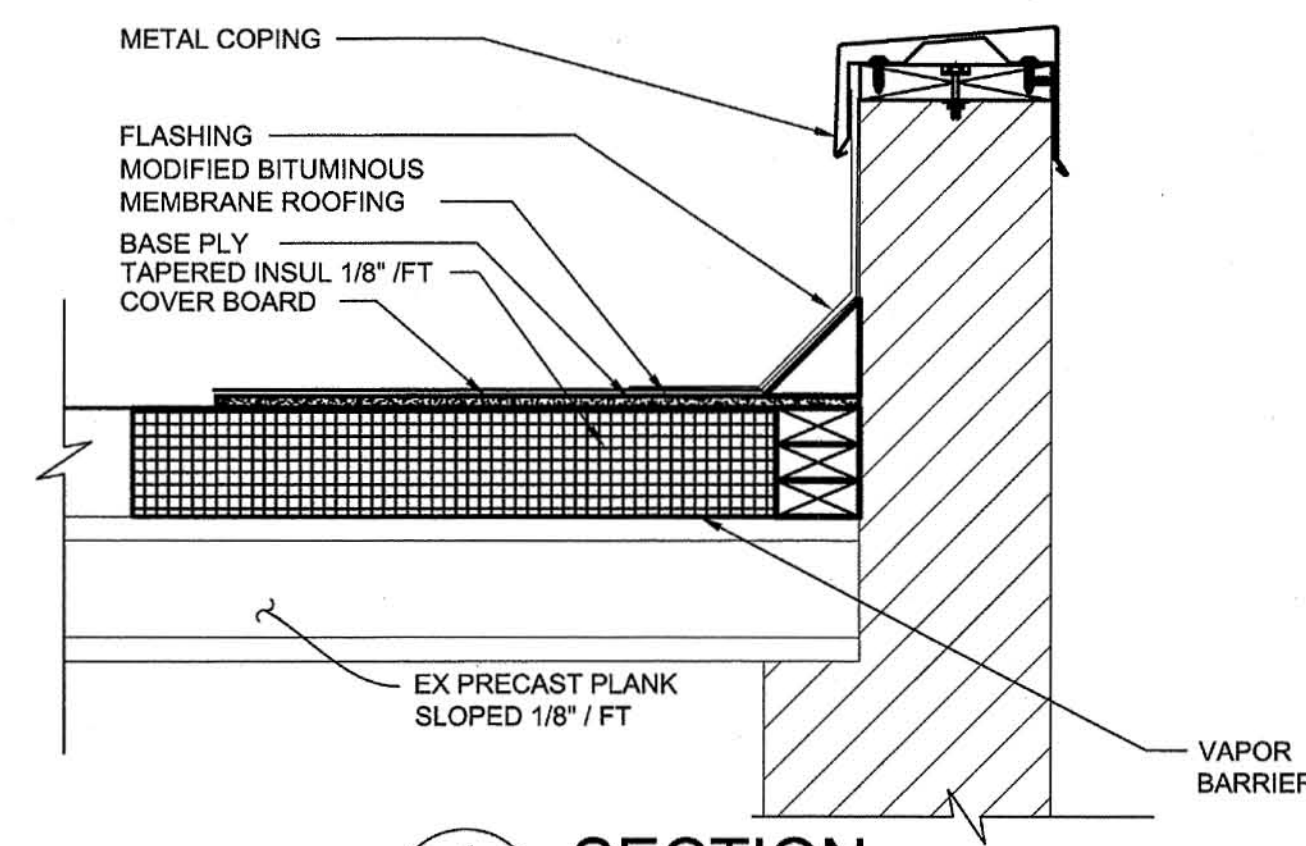
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A-01-004 SCALE: 1 1/2" = 1'-0"



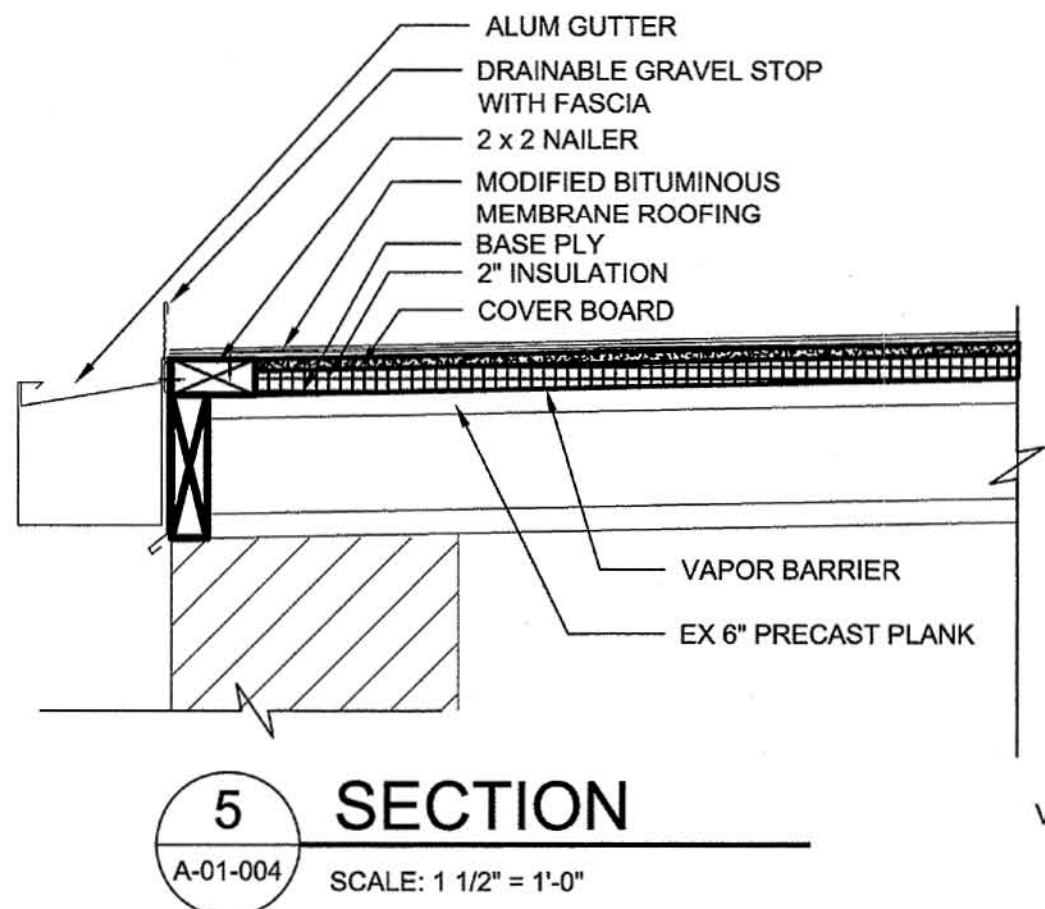
2 SECTION
A-01-004 SCALE: 1 1/2" = 1'-0"



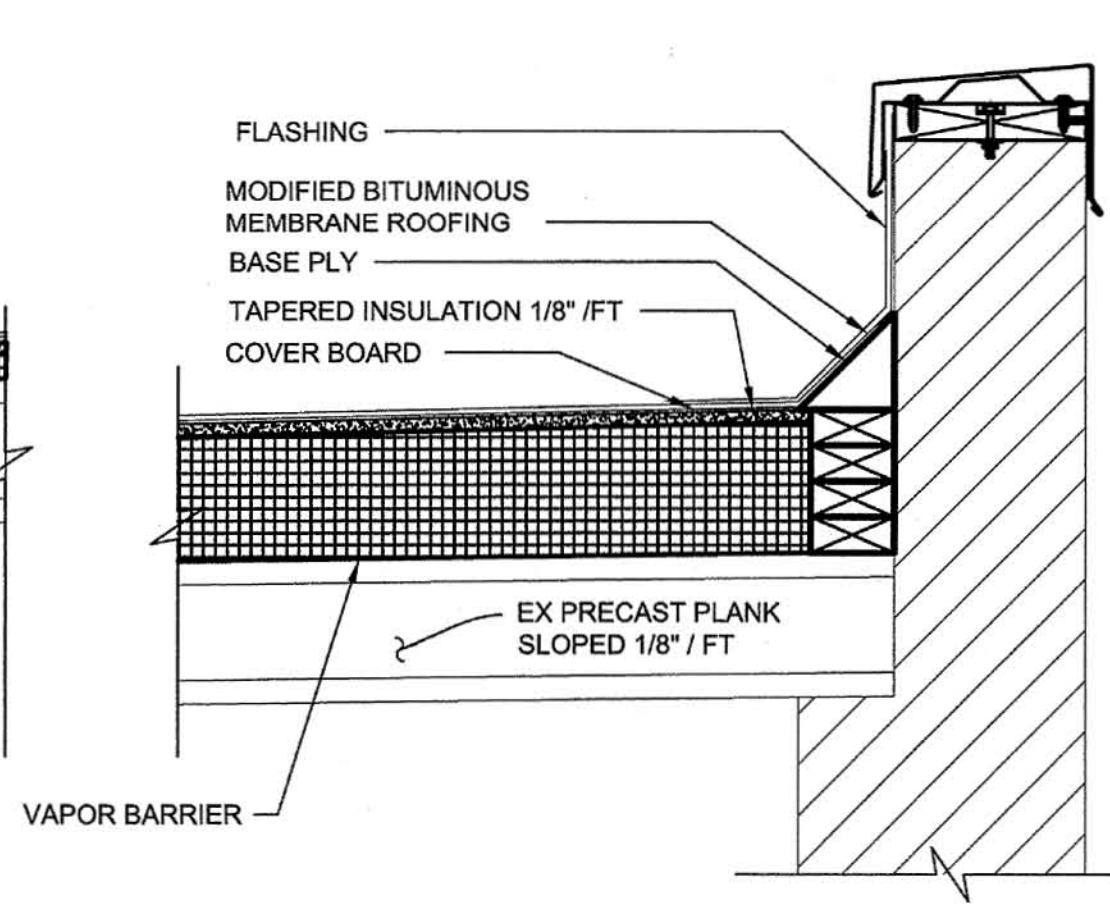
3 SECTION
A-01-004 SCALE: 1 1/2" = 1'-0"



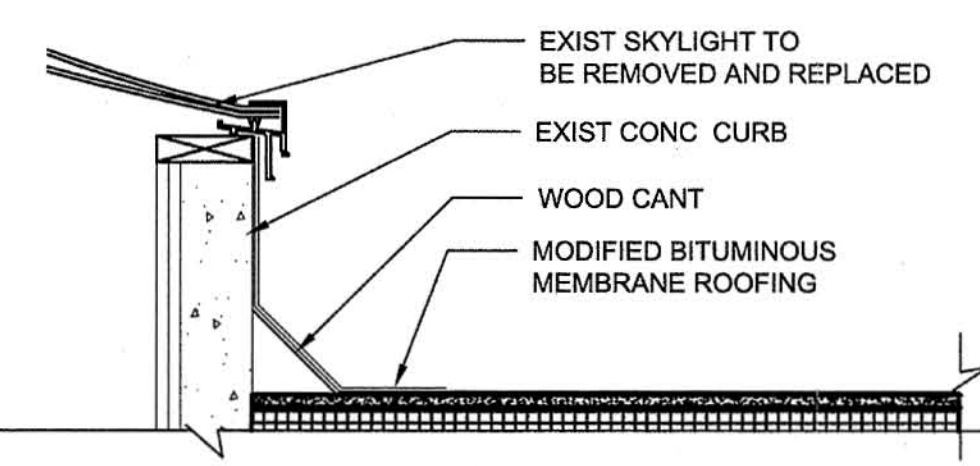
4 SECTION
A-01-004 SCALE: 1 1/2" = 1'-0"



5 SECTION
A-01-004 SCALE: 1 1/2" = 1'-0"



6 SECTION
A-01-004 SCALE: 1 1/2" = 1'-0"



7 SECTION
A-01-004 SCALE: 1 1/2" = 1'-0"

GENERAL NOTES:

- ROOFING NOTES:**
1. REMOVE EXISTING SINGLE PLY EPDM ROOF SYSTEM TO INCLUDE ALL FLASHING, COUNTER FLASHINGS, METAL COPING, GUTTERS AND DOWNSPOUTS, STONE BALLAST, EXISTING ROOF MEMBRANE, AND ROOF INSULATION PRIOR TO INSTALLATION OF GLASS-FIBER REINFORCED ASPHALT EMULSION ROOFING SYSTEM.
 2. ROOF PLAN SHOWS GENERAL CONFIGURATION AND DETAILS OF THE EXISTING ROOF. THE CONTRACTOR SHALL FIELD VERIFY EXISTING ROOF SYSTEM TYPES, ALL DIMENSIONS, DETAILS, PENETRATIONS, ROOF MOUNTED EQUIPMENT AND CONDITIONS WHICH MAY AFFECT THE INSTALLATION OF THE NEW ROOF SYSTEM.
 3. NEW ROOF LINES AND DIMENSIONS ARE GENERAL LIMITS OF THE NEW ROOF AND IS INTENDED TO SHOW THE VARIOUS LEVEL AND LOCATION OF THE ROOF TO BE REPLACED. THE CONTRACTOR SHALL FIELD VERIFY ALL ROOF LIMITS.
 4. KEEP EXISTING ROOF DRAINS FREE OF ALL DEBRIS AND CLEAN OUT AT END OF WORK. TEST ALL ROOF DRAINS TO VERIFY THEY ARE FREE FLOWING AND UNOBSTRUCTED.
 5. ALL ROOF MOUNTED EQUIPMENT MAY NOT BE SHOWN. THE CONTRACTOR SHALL INSPECT THE EXISTING ROOF TO BE REPLACED AND COORDINATE THE LOCATION OF ALL EXISTING ROOF MOUNTED EQUIPMENT, VENTS AND PLUMBING STACKS WITH PLACEMENT OF NEW FLASHINGS SEALS AND VENTS.
 6. FIELD VERIFY ALL DIMENSIONS.
 7. ROOF MAY NOT BE USED AS CONSTRUCTION STAGING AREAS.
 8. WORK SHOWN WITHIN THIS BOUNDARY LINE IS PART OF ALTERNATIVE NO. 3. SEE SPECIFICATION SECTION 01 23 00 FOR DESCRIPTION OF ALTERNATIVE NO. 3.

KEYNOTES:

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22541
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NO.		BY	DATE	REVISIONS	REMARKS

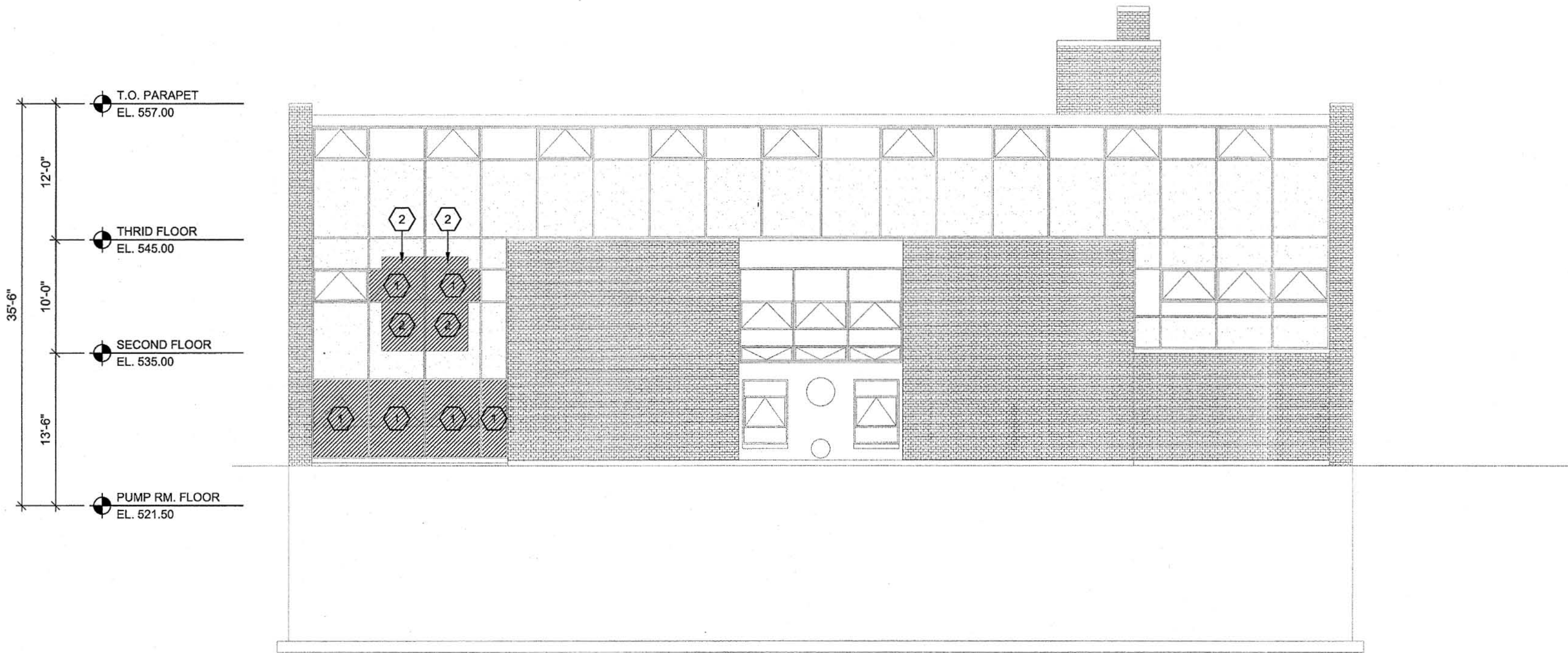
DES SRZ
DWN SRZ
CKD IVC

NORTHERN KENTUCKY WATER DISTRICT
TAYLOR MILL WATER TREATMENT PLANT
ELECTRICAL AND BASIN IMPROVEMENTS

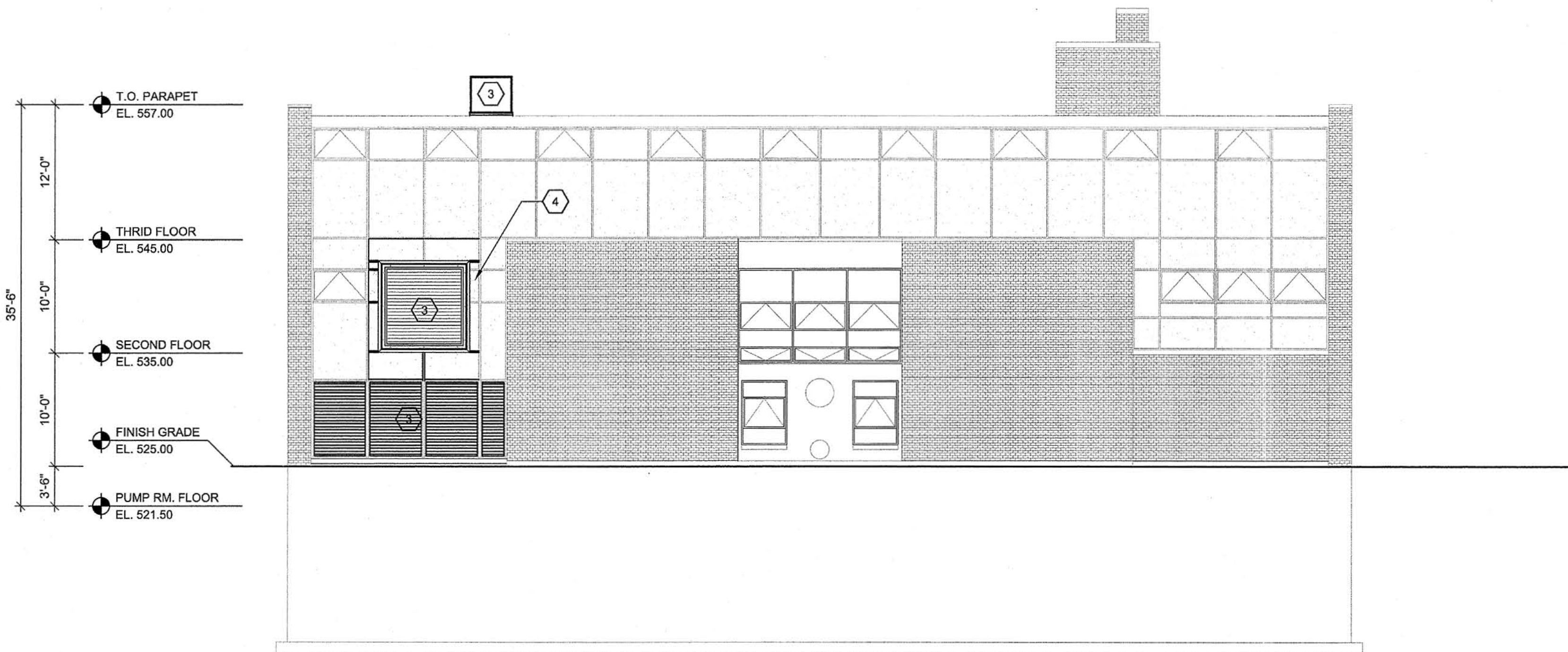
ARCHITECTURAL
FILTER BUILDING ROOF PLAN AND SECTIONS
SCALE: AS NOTED

ISSUED STATUS: BID SET
DATE: JANUARY 2014
SHEET: A-01-004
CAD REF. NO.: A-01-004

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1 FILTER BUILDING NORTH DEMO ELEVATION
SCALE: 1/8"=1'-0"



2 FILTER BUILDING NORTH ELEVATION
SCALE: 1/8"=1'-0"

GENERAL NOTES:

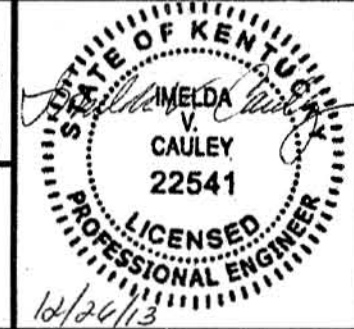
1. CONTRACTOR SHALL PROTECT ALL EXISTING TO REMAIN.
2. PROVIDE TEMPORARY DUST BARRIERS AND WEATHER PROOF ENCLOSURES ACCEPTABLE TO THE OWNER.
3. PATCH AND REPAIR ALL FINISHES AT ME PENETRATIONS.
4. FIELD VERIFY ALL DIMENSIONS.

KEYNOTES:

1. REMOVE SPANDREL PANEL, GLASS, OPERABLE WINDOW SASH REQUIRED FOR INSTALLATION OF HVAC EQUIPMENT AND LOUVERS
2. SAW CUT SPANDREL PANEL FOR INSTALLATION OF HVAC EQUIPMENT AND LOUVERS.
3. NEW HVAC EQUIPMENT - SEE "H" DRAWINGS.
4. RE-USE WHERE POSSIBLE OR PROVIDE NEW SPANDREL PANEL TO MATCH EXISTING.

0 1/2 1

DRAWING IS NOT TO SCALE IF THIS DOES NOT MEASURE 1 INCH.



NO.		BY	DATE	REVISIONS	REMARKS

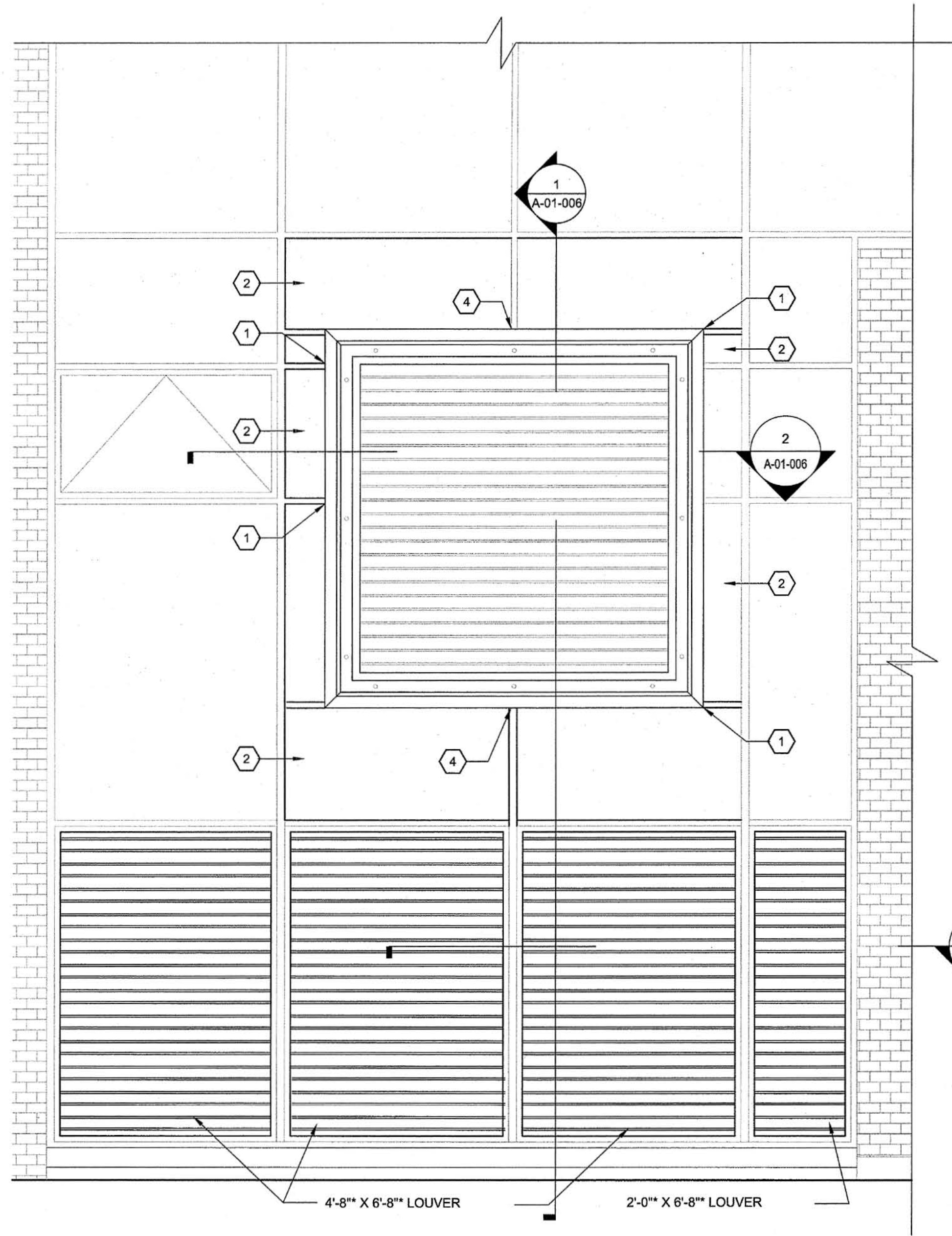
DES SRZ
DWN JJH
CKD IVC

NORTHERN KENTUCKY WATER DISTRICT
TAYLOR MILL WATER TREATMENT PLANT
ELECTRICAL AND BASIN IMPROVEMENTS

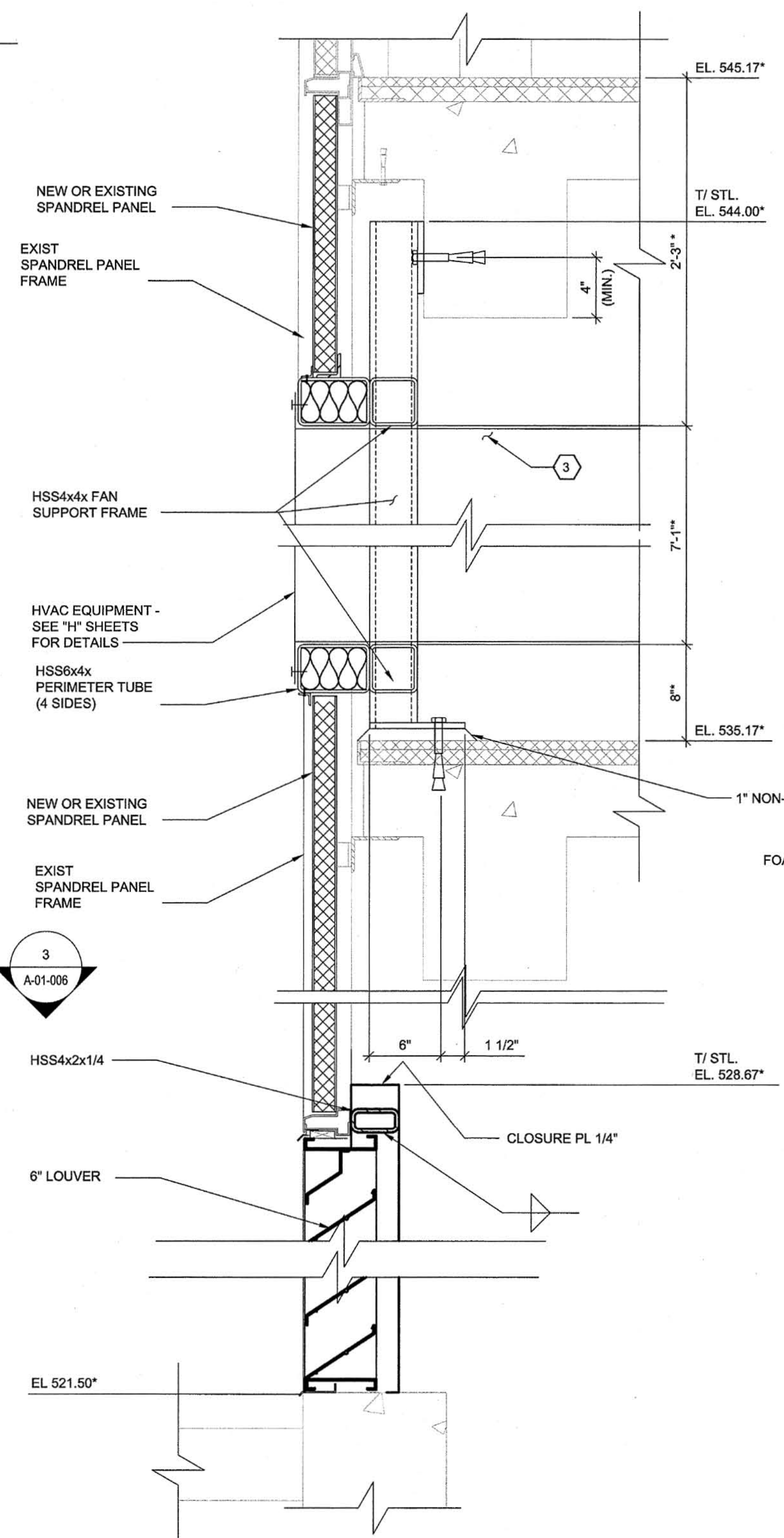
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CAD REF. NO.: A-01-005

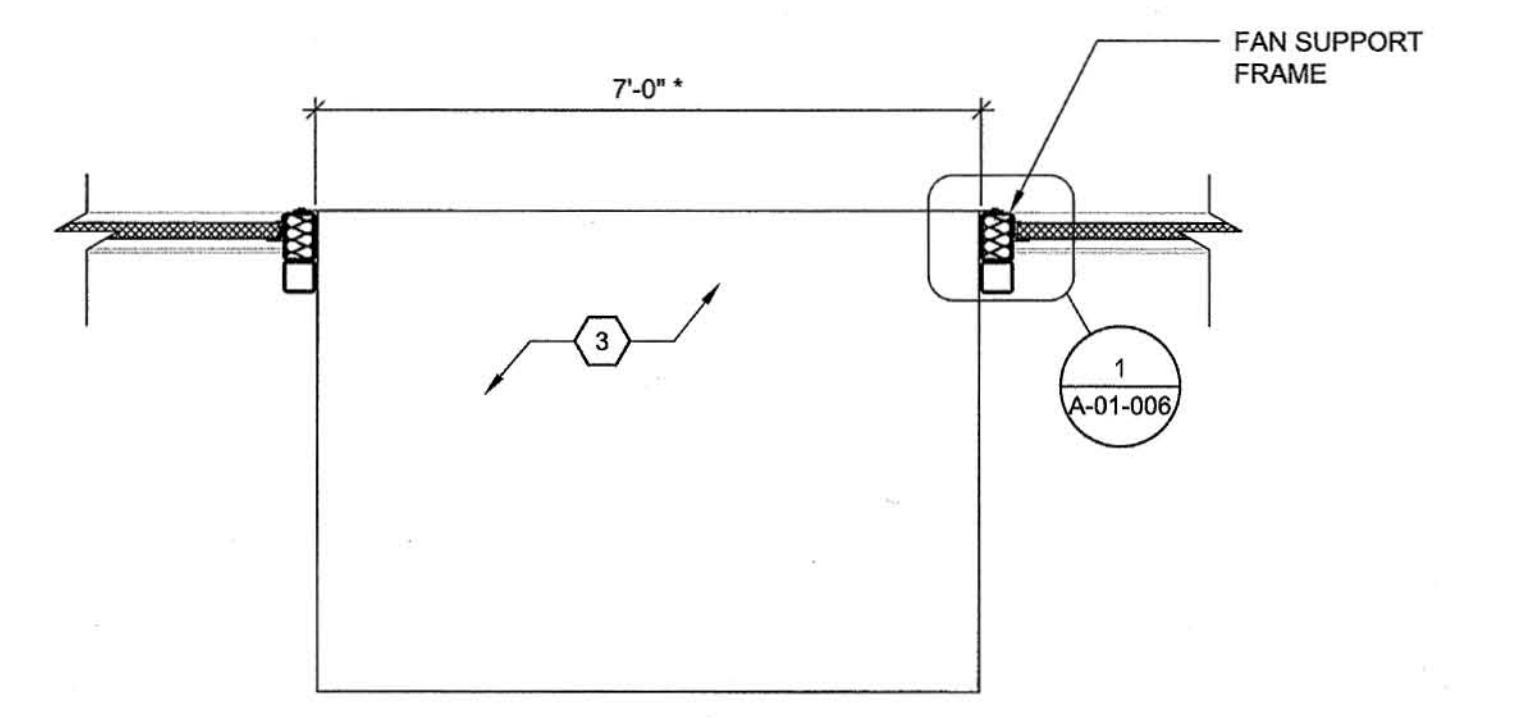
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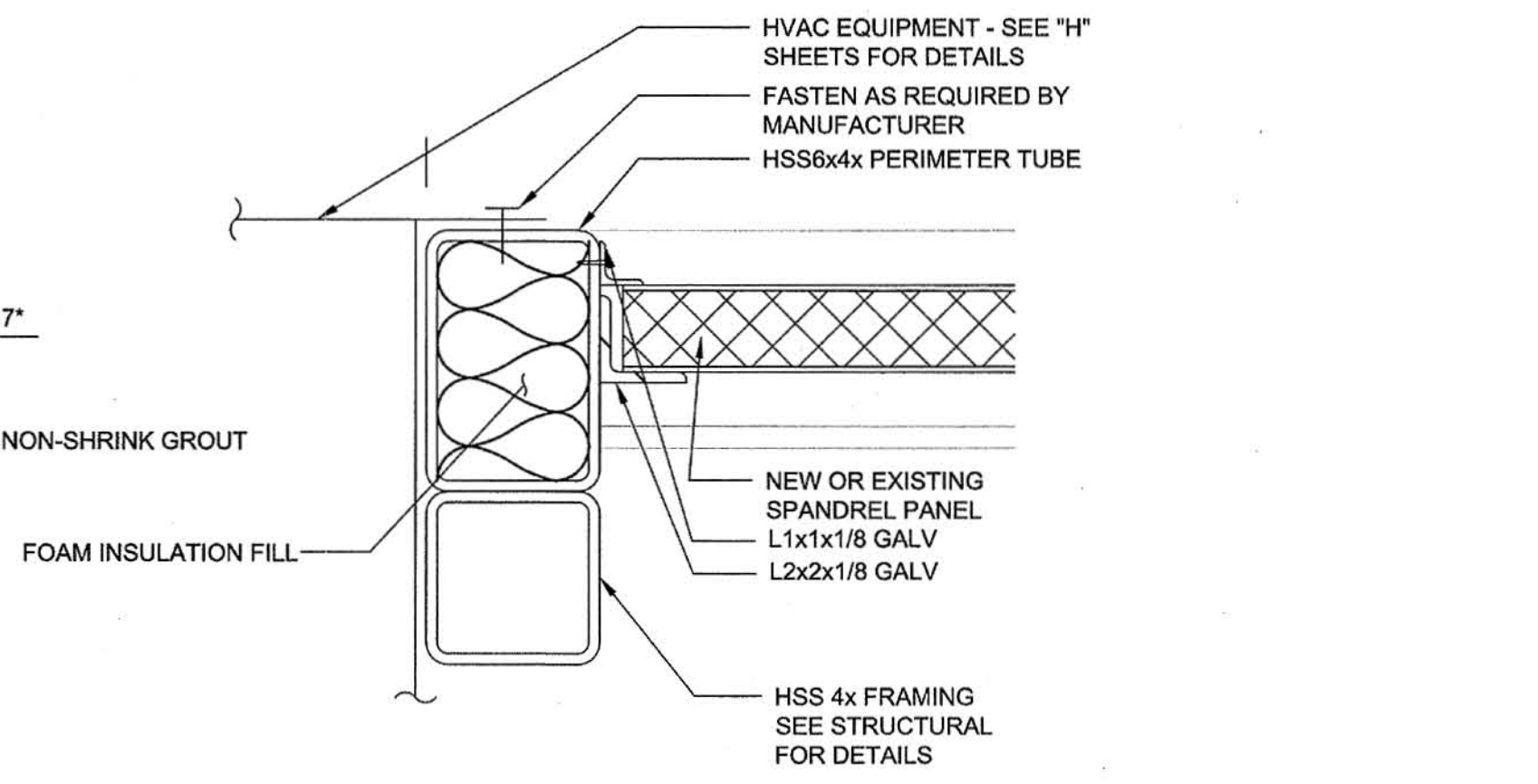
1 FILTER BUILDING ENLARGED ELEVATION
SCALE: 1/2" = 1'-0"
0 1' 2' 4'



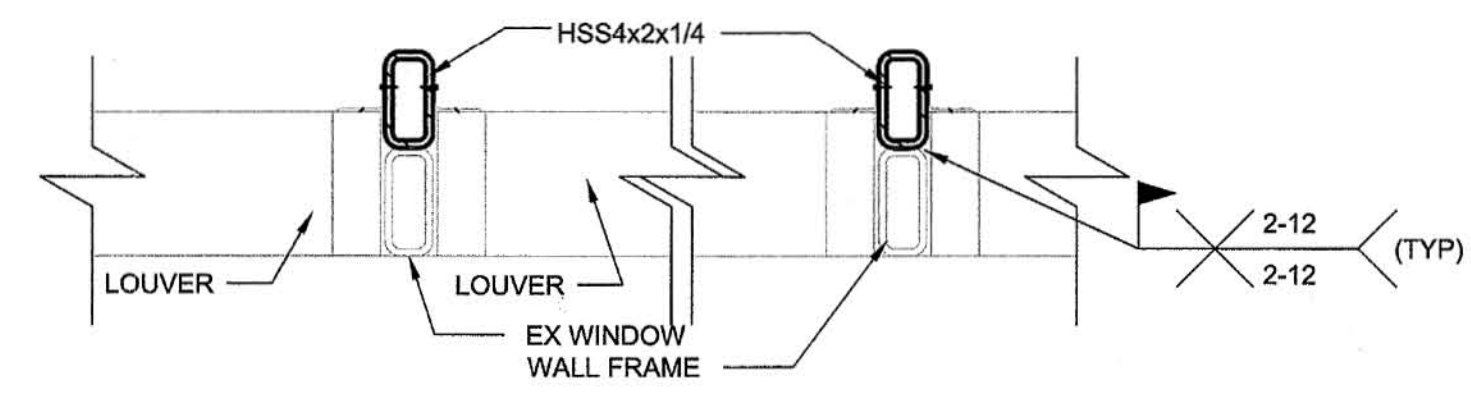
1 SECTION
A-01-006 SCALE: 1 1/2" = 1'-0"



2 SECTION
A-01-006 SCALE: 1/2" = 1'-0"



1 DETAIL
A-01-006 SCALE: 3" = 1'-0"



3 SECTION
A-01-006 SCALE: 1 1/2" = 1'-0"

GENERAL NOTES:

1. FIELD VERIFY ALL DIMENSIONS.

KEYNOTES:

1. FASTEN CURTAIN WALL MEMBERS TO FRAMING.
2. RE-USE WHERE POSSIBLE OR PROVIDE NEW SPANDREL PANEL TO MATCH EXISTING.
3. HVAC EQUIPMENT - SEE "H" SHEETS FOR DETAILS.
4. FIELD WELD EXISTING MULLION TO NEW FAN SUPPORT FRAME.

0 1/2 1
DRAWING IS NOT TO SCALE IF THIS DOES NOT MEASURE 1 INCH.

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NO.		BY	DATE	REVISIONS	REMARKS

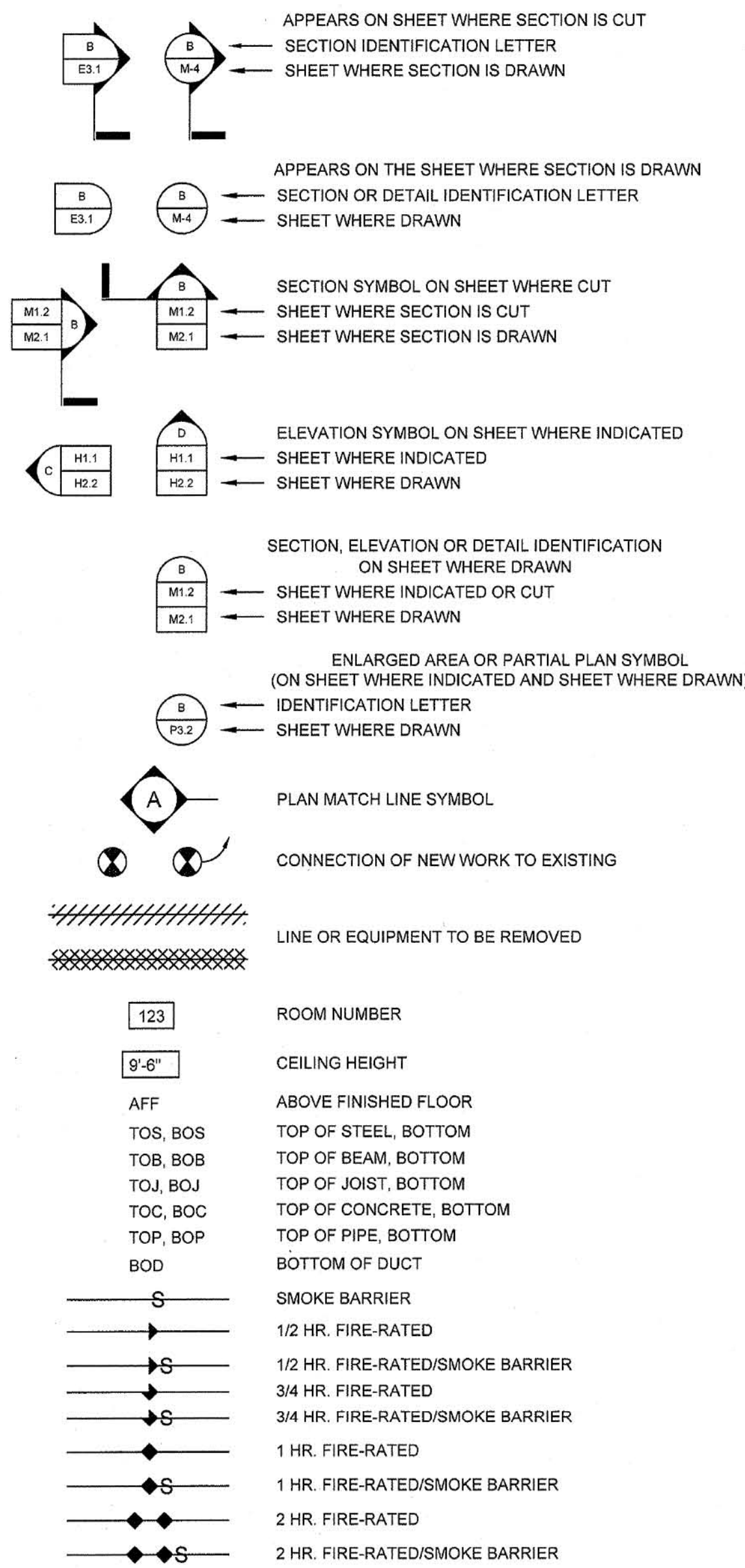
DES SRZ
DWN JJH
CKD IVC

NORTHERN KENTUCKY WATER DISTRICT
TAYLOR MILL WATER TREATMENT PLANT
ELECTRICAL AND BASIN IMPROVEMENTS

ARCHITECTURAL
FILTER BUILDING
SECTION AND DETAILS SHEET
SCALE: AS SHOWN

ISSUED STATUS: BID SET
DATE JANUARY 2014
SHEET A-01-006
CAD REF. NO. 2142001A-01-006

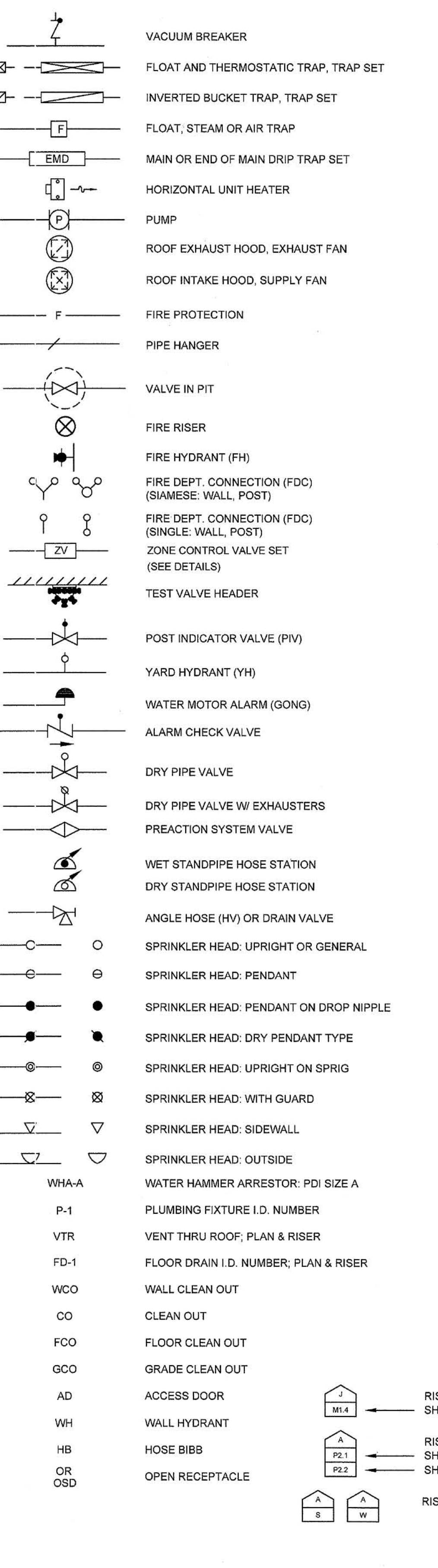
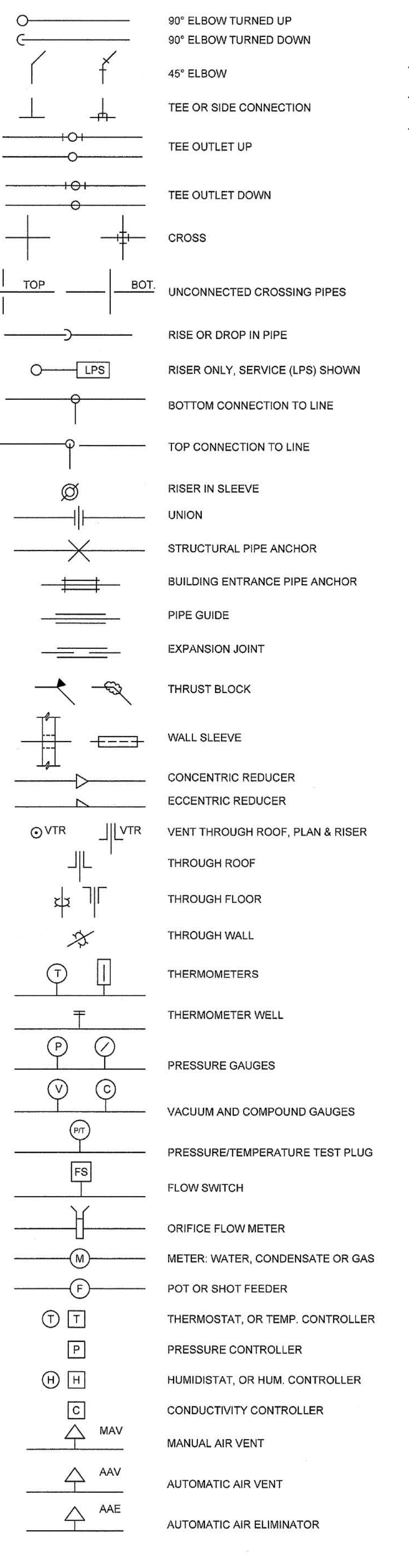
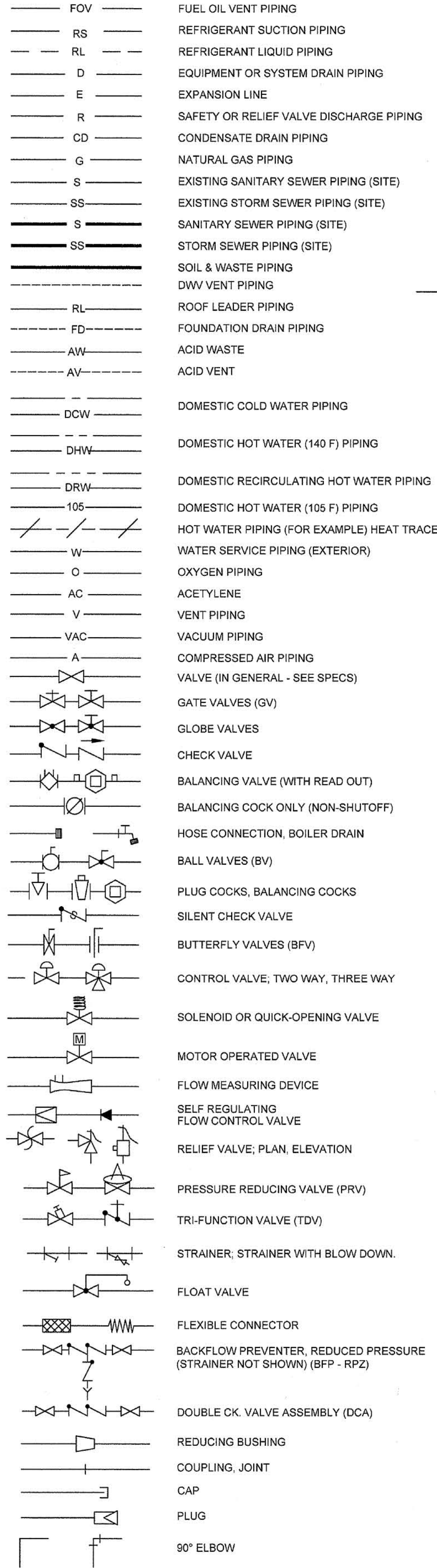
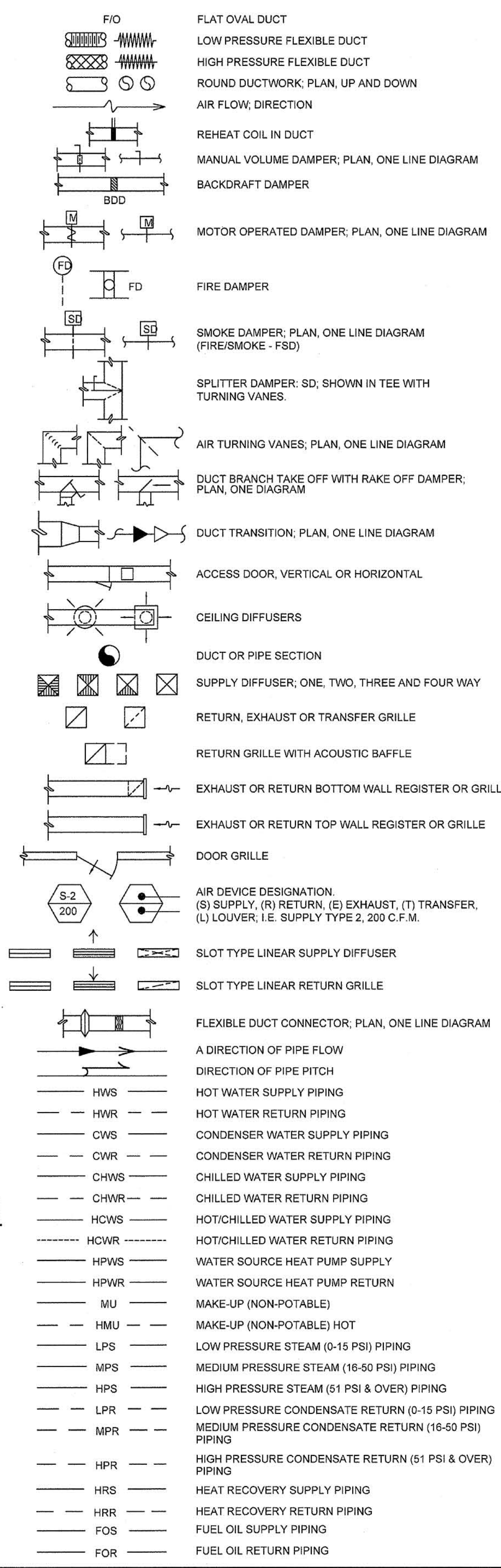
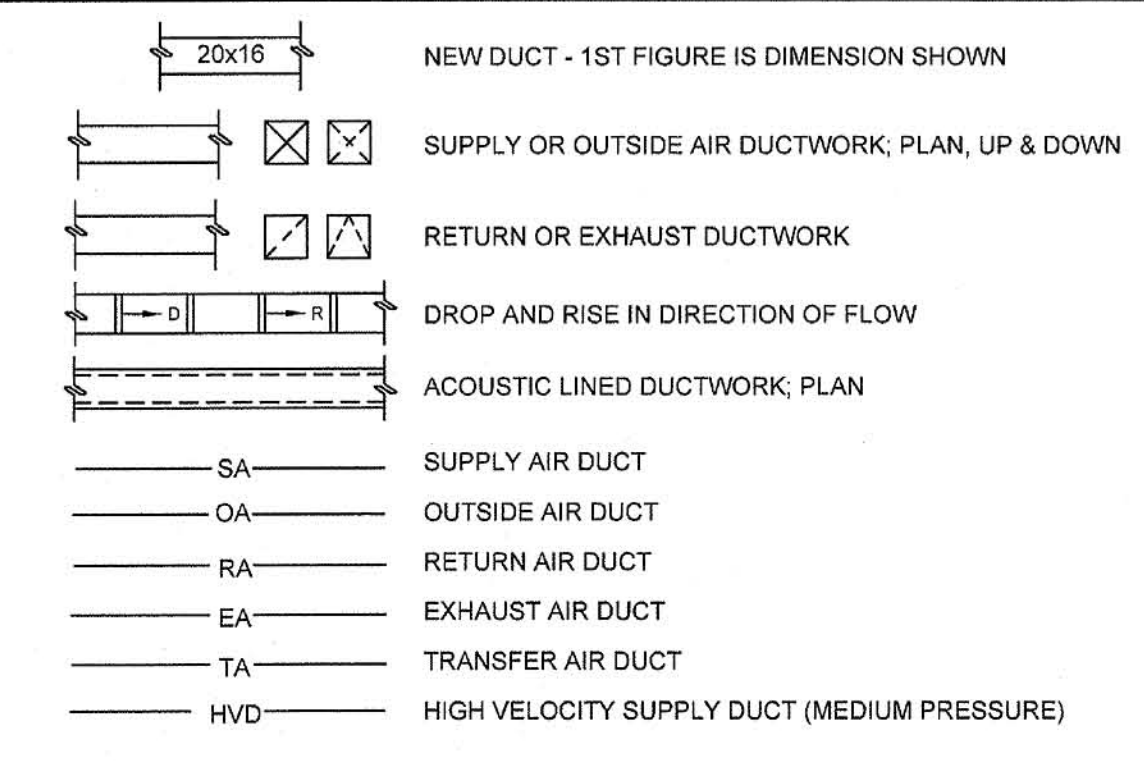
GENERAL LEGEND



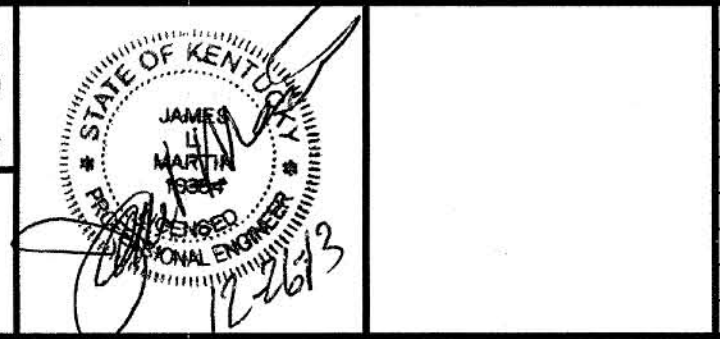
NOTE: LEGENDS ALSO APPEAR ON INDIVIDUAL PLANS, SCHEDULES AND DETAILS.

MECHANICAL LEGEND

HVAC, PLUMBING & FIRE PROTECTION



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REVISIONS			
NO.	BY	DATE	REMARKS

DES	JLM
DWN	YNR
CKD	JLM

NORTHERN KENTUCKY WATER DISTRICT
TAYLOR MILL WATER TREATMENT PLANT
ELECTRICAL AND BASIN IMPROVEMENTS

HVAC
GENERAL NOTES, SYMBOLS, AND ABBREVIATIONS
SCALE: NOT TO SCALE

ISSUED STATUS:	BID SET
DATE	JANUARY 2014
SHEET	H-00-001
CAD REF. NO.	H-00-001