

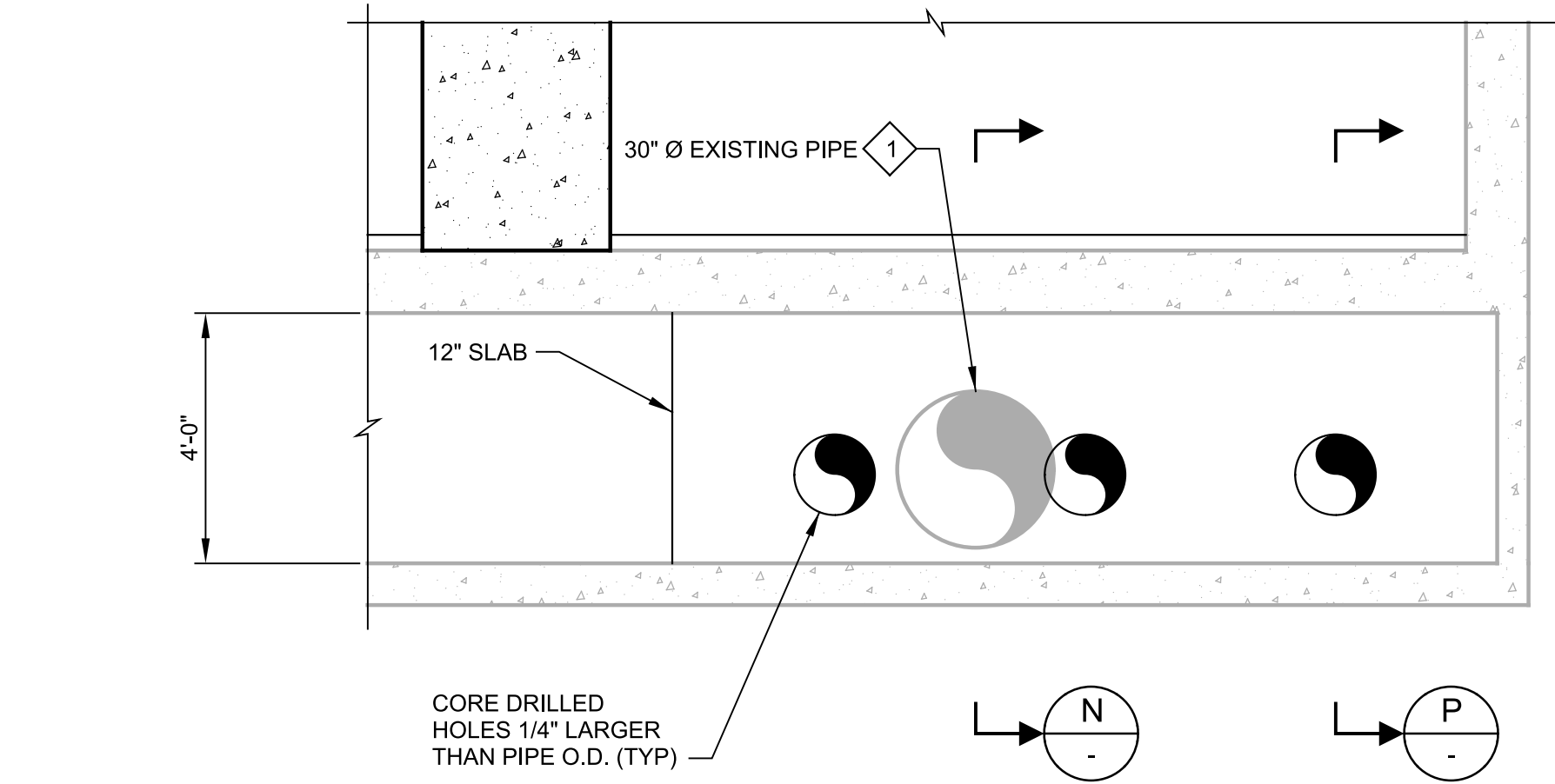
G	100% SUBMITTAL													DESIGNED DM	PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.	 401 NORTH CATTLEMEN ROAD, SUITE 306 SARASOTA, FLORIDA 34232 PHONE (941) 371-9832 FAX (941) 371-9873 CA 00008571	 MANATEE COUNTY LAKE MANATEE WTP FILTER UPGRADE STRUCTURAL UF FILTER BUILDING PLAN AT EL 71.54	VERIFY SCALES	JOB NO. 095201,10	G																
													DRAWING NO.	03S04																						
													0 1"																							
													IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY																							
	REV	DATE	BY	DESCRIPTION														DATE SEPTEMBER 2018																		
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PROJECT NO. FILE NAME: 952011003S04.dgn																																				

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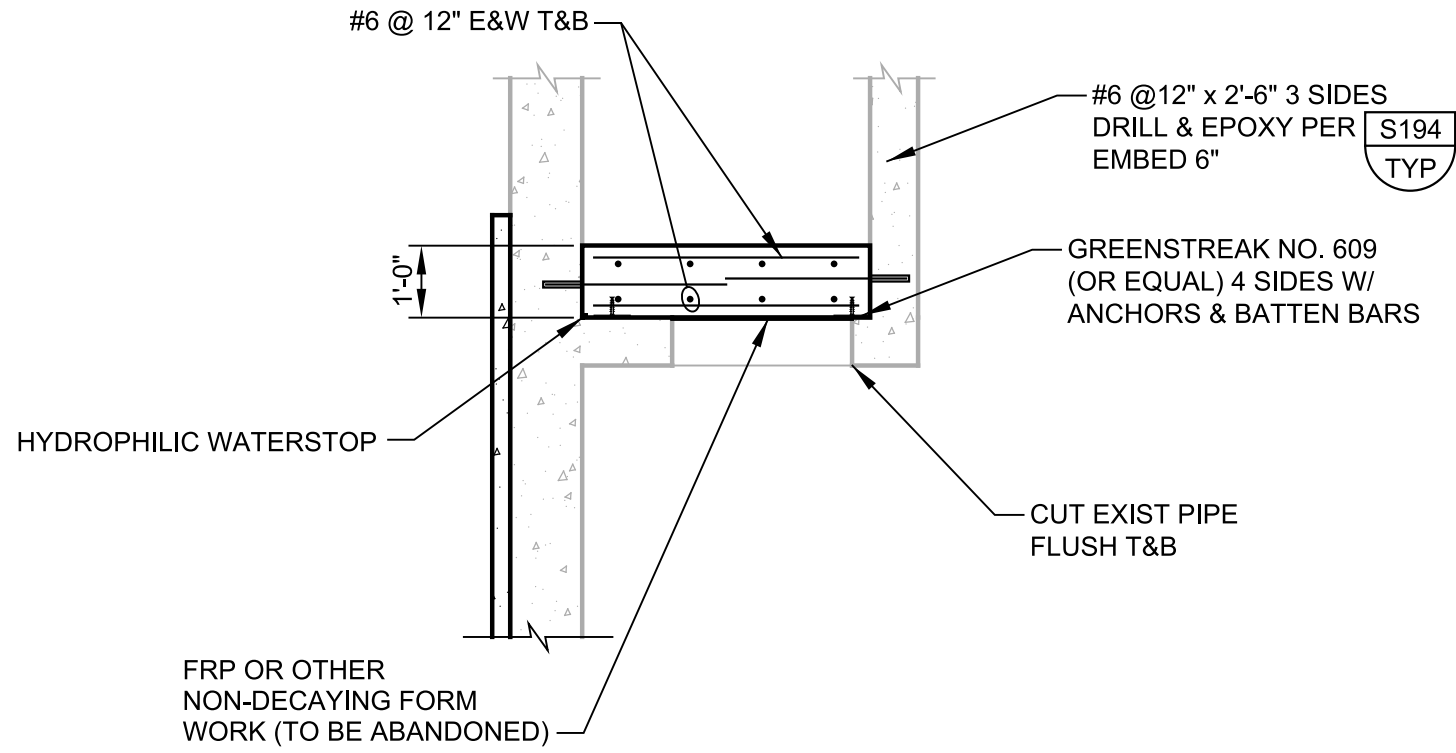
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Model: Layout1 ColorTable: gshade.ctb DesignScript: Carollo Std Pen_v0905.pen PlotScale: 1:1

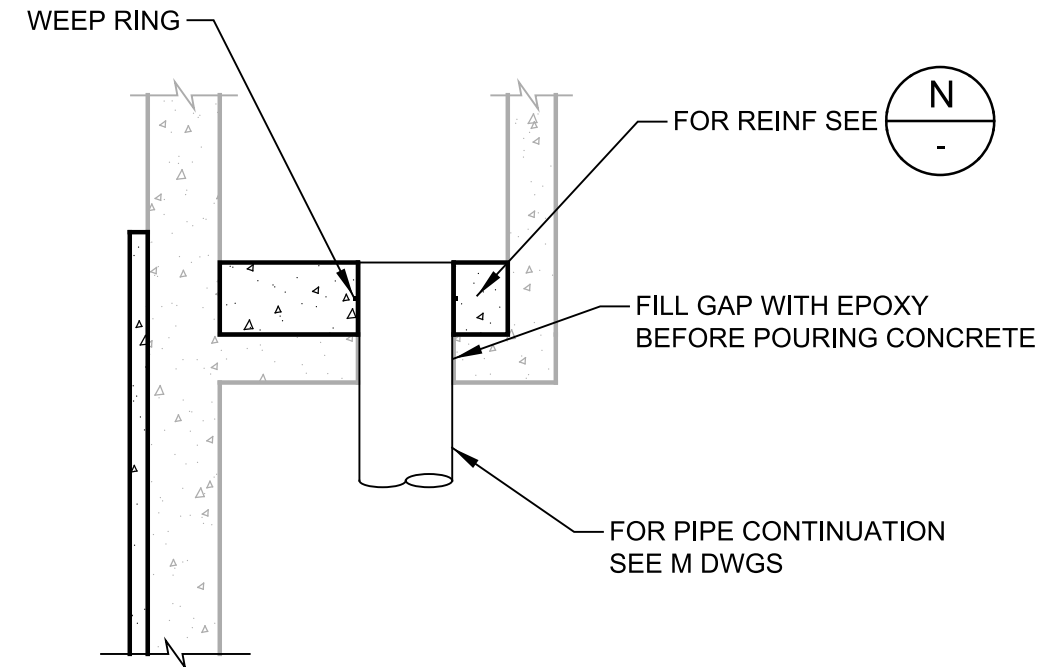
LAST SAVED BY: Tdeiz



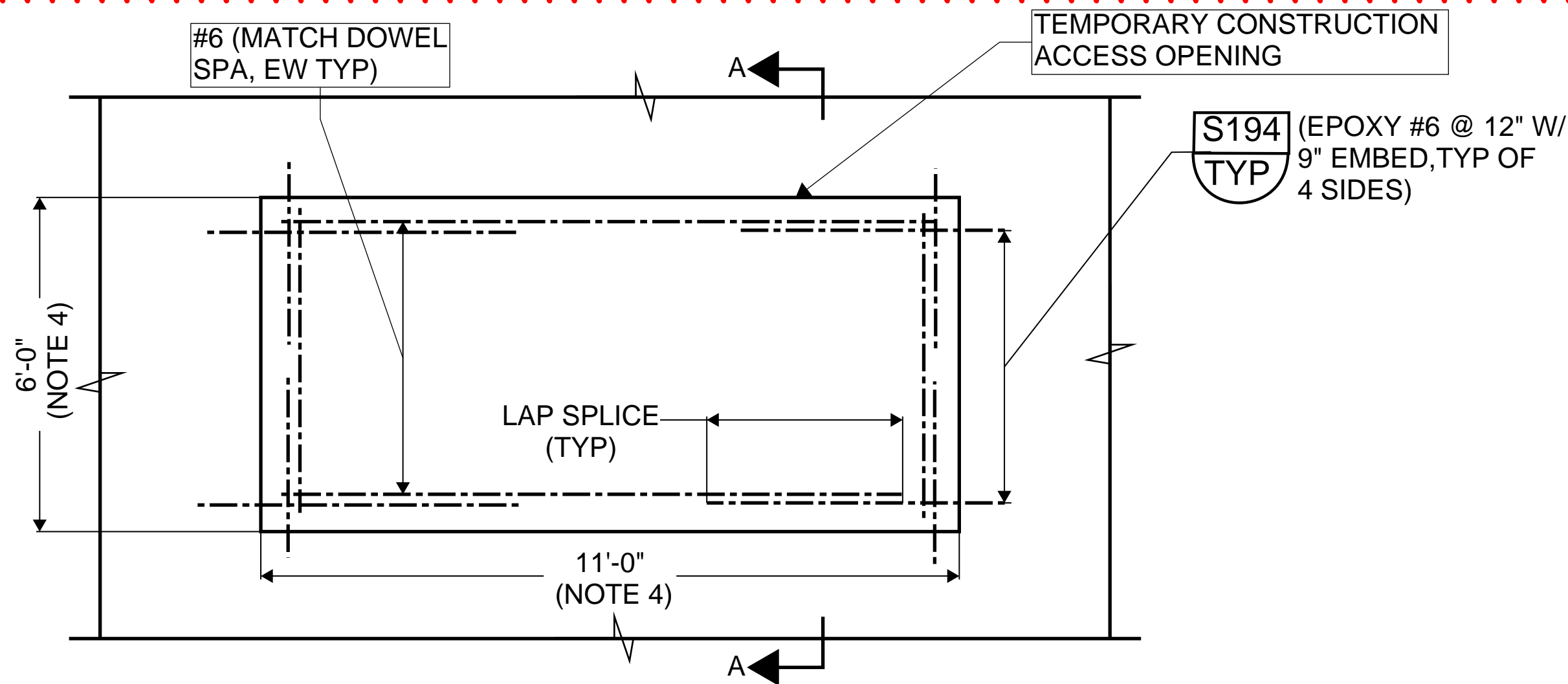
27 DETAIL
03S03 SCALE: 3/8" = 1'-0"
FILE: 9520110-03-040-310



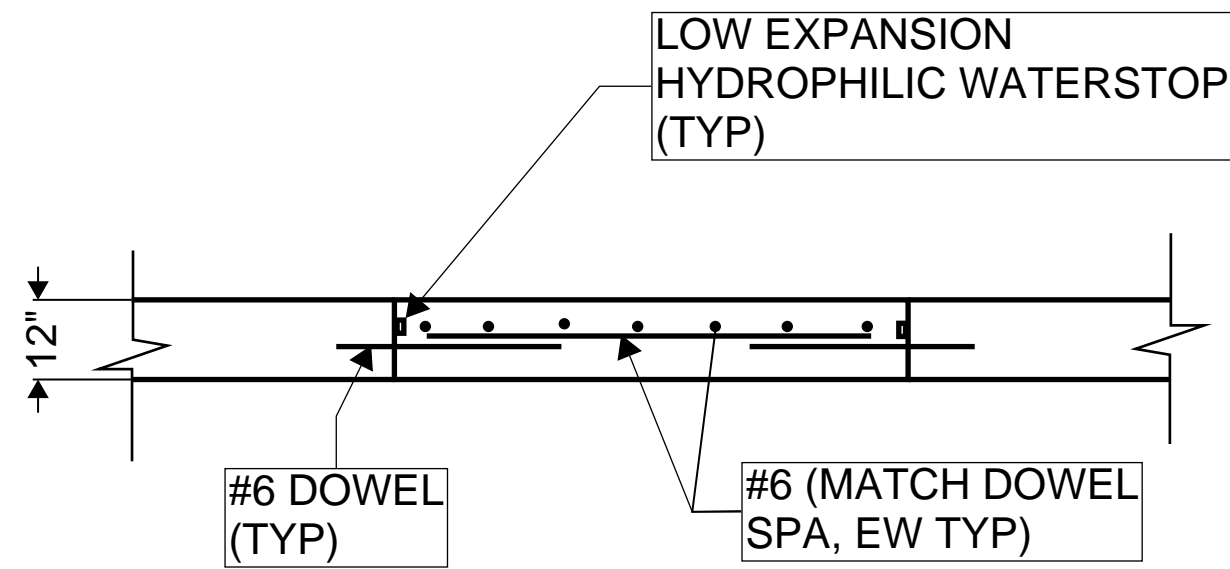
N DETAIL
SCALE: 3/8" = 1'-0"
FILE: 9520110-03-040-310



P DETAIL
SCALE: 3/8" = 1'-0"
FILE: 9520110-03-040-310



PLAN



SECTION A-A

NOTES:

1. PROVIDE OPENING IN SLAB FOR REQUIRED WORK AT CLEARWELL, SEE MECHANICAL DRAWINGS.
2. CLEAN AND BEND EXISTING REINFORCEMENT.
3. AFTER WORK IN COMPLETE, DRILL AND EPOXY REINFORCEMENT AND PLACE CONCRETE.
4. CONTRACTOR TO VERIFY OPENING SIZE WITH REQUIRED WORK AT CLEARWELL, SEE MECHANICAL DRAWINGS.

FLOATATION CONSIDERATIONS:

WHEN EXISTING FILTERS ARE EMPTY STRUCTURE IS BOUYANT. CONTRACTOR WILL BE RESPONSIBLE FOR DEWATERING PERIMETER OF STRUCTURE DURING WORK.

KEY NOTES:

- 1 EXISTING 30" Ø PIPE SLEEVE MAY BE PARTIALLY OR ENTIRELY REMOVED FOR EASE OF CORING.

100% SUBMITTAL

REV	DATE	BY	DESCRIPTION
1			
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3			
4			

DESIGNED

DM

DRAWN

TJD

CHECKED

DATE

SEPTEMBER 2018

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401 NORTH CATTLEMEN ROAD, SUITE 306
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CA 00008571



MANATEE COUNTY
LAKE MANATEE WTP FILTER UPGRADE
STRUCTURAL
UF FILTER BUILDING
DETAILS VI

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING

0 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.

095201.10

DRAWING NO.

03S12

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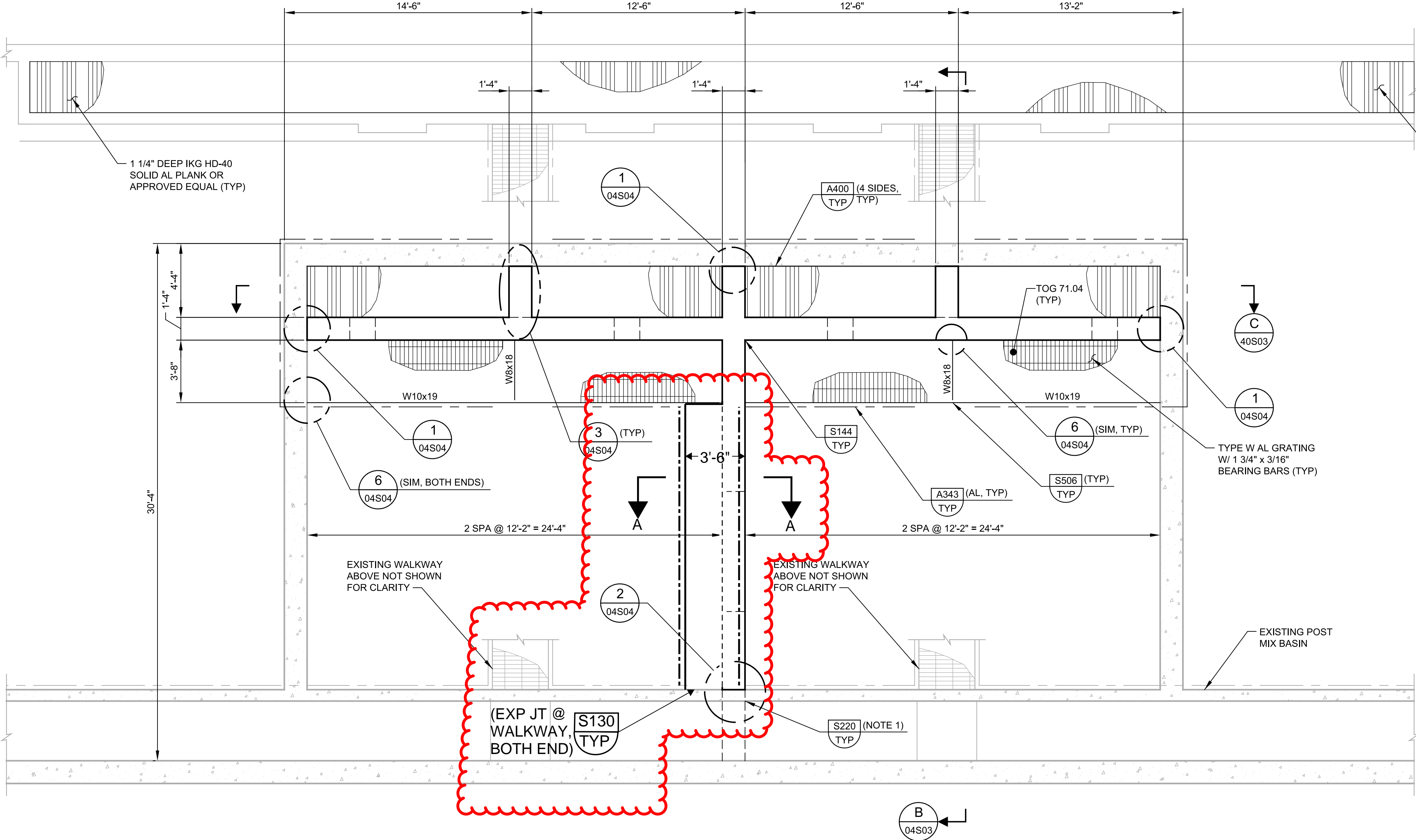
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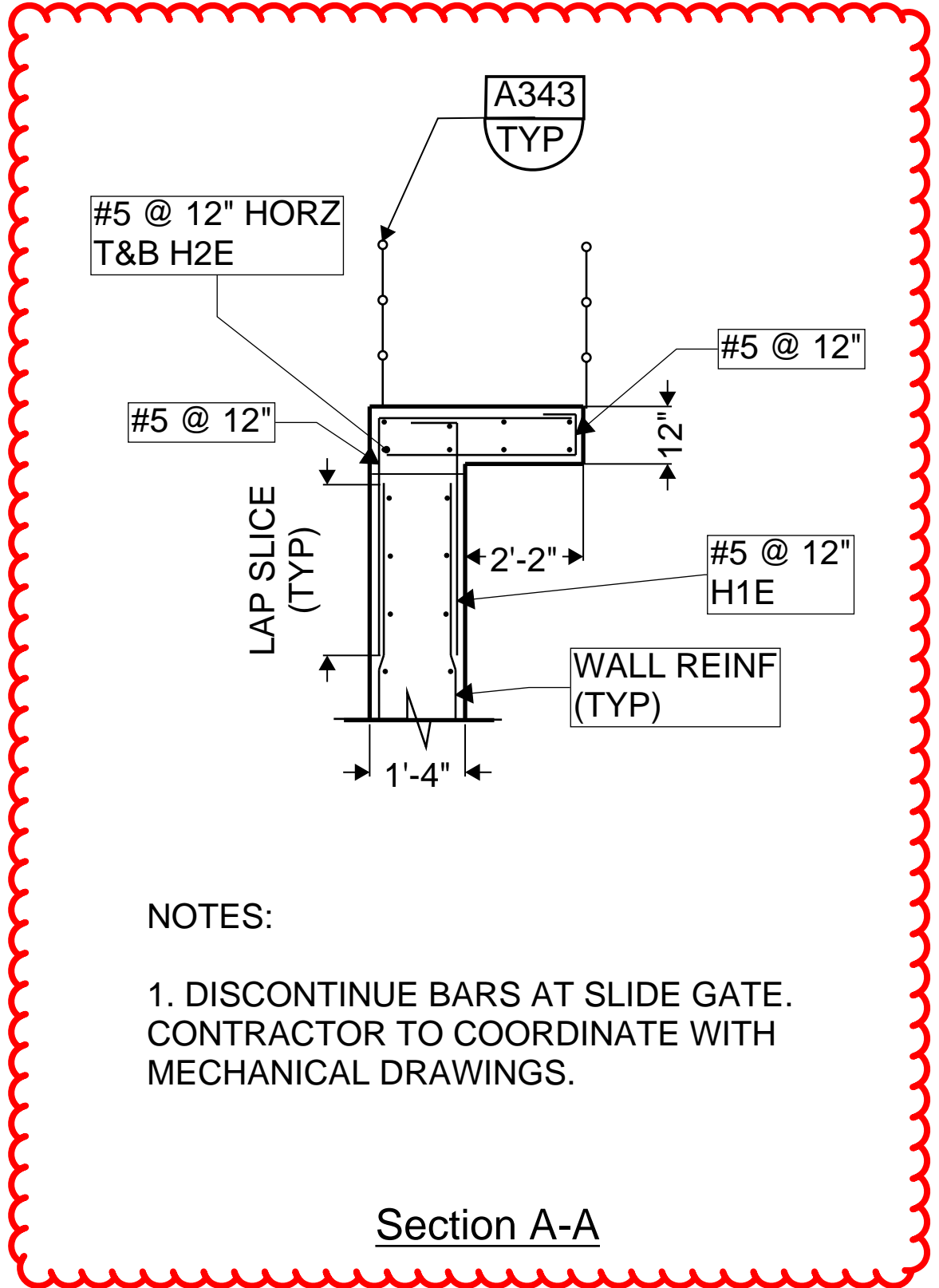
LAST SAVED BY: Tdeitz



- GENERAL NOTES:
1. FILL EXISTING 1'-0" x 4'-0" OPENING AT TROUGH.
 2. LIVE LOAD = 100 PSF.



A TOP PLAN
SCALE: 1/4" = 1'-0"
FILE: 9520110-04-050-111



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				DRAWN TJD				LAKE MANATEE WTP FILTER UPGRADE			BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO.		
				CHECKED				STRUCTURAL			0  1"	04S02		
				DATE SEPTEMBER 2018				POST MIX BASIN B PLAN			IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY			
REV	DATE	BY	DESCRIPTION											
1				2	3	4	6	7	8	9	10	11	12	13

PIPE SCHEDULE							
ABBREVIATION	DESCRIPTION/SERVICE	MATERIAL	THICKNESS	TESTING METHOD	TEST PRESSURE (PSI)	LINING	COATING
AA	ANHYDROUS AMMONIA	316L SST	SCH 10S	HH	150	NONE	NONE
AS	AIR SCOUR	316L SST	SCH 10S	AM	125	NONE	NONE
BCB	BLEND CHAMBER BYPASS	DI	200	HH	125	CM	PEE
BLW	BLENDED WATER	DI	200	HH	125	CM	PEE
BWR	BACKWASH WATER	DI	200	HH	125	NONE	NONE
BWS	BACKWASH SUPPLY	316L SST	SCH 10S	HH	125	NONE	NONE
CA	CITRIC ACID	PVC	SCH 80	HH	150	NONE	NOTE 3
CBS	CHEMICAL BUILDING TANK SUPPLY	316L SST	SCH 10S	HH	125	NONE	NONE
CD	CHEMICAL DRAIN (ABOVE GROUND)	CPVC	SCH 80	GR	NA	NONE	NOTE 3
CFL	CONVENTIONAL MEDIA FILTER FILTRATE	DI	200	GR	NA	CM	PEE
CH	CALCIUM HYDROXIDE (LIME)	CPVC	SCH 80	HH	150	NONE	NOTE 3
CI	CORROSION INHIBITOR	CPVC	SCH 80	HH	150	NONE	NOTE 3
CPA	COMPRESSED AIR FOR MIT, PNEUMATIC VALVES, AND MEMBRANE TRAIN EJECTORS	316L SST	SCH 10S	AM	50	NONE	NONE
CIP	CLEAN IN PLACE	PVC	SCH 80	HH	150	NONE	NOTE 3
CS	CAUSTIC SODA	CPVC	SCH 80	HH	150	NONE	NOTE 3
D	DRAIN	CPVC	SCH 80	GR	NA	NONE	NOTE 3
	DRAIN (BURIED 6" AND 16" FROM WASTE EQUALIZATION TANK TO MANHOLE AND LS)	DI	200	GR	NA	CE	NONE
HCL	HYDROCHLORIC ACID	CPVC	SCH 80	HH	150	NONE	NOTE 3
HW	HOT WATER	PVC	SCH 80	HH	125	NONE	NOTE 3
F	FLOURIDE	CPVC	SCH 80	HH	150	NONE	NOTE 3
FPW	FIRE PROTECTION WATER (BELOW GROUND)	DI	200	HH	125	CM	PEE
	FIRE PROTECTION WATER (ABOVE GROUND)	DI	200	HH	125	CM	EPP
IX	ION EXCHANGE - SUPPLY AND SOFTENED WATER	CPVC	SCH 80	HH	125	NONE	NOTE 3
MFW	MEMBRANE FEED WATER	316L SST	SCH 10S	HH	125	NONE	NONE
MFL	MEMBRANE FILTRATE (ABOVE GROUND AND IN CLEARWELL)	316L SST	SCH 10S	HH	125	NONE	NONE
	MEMBRANE FILTRATE (BURIED 54" TO BLEND CHAMBER)	DI	200	HH	125	CM	PEE
	MEMBRANE FILTRATE (BURIED 14" TO PERMEATE STORAGE TANK)	PVC	SCH 80	HH	125	NONE	NONE
MWW	MEMBRANE WASTE WASHWATER	316L SST	SCH 10S	GR	NA	NONE	NONE
	MEMBRANE WASTE WASHWATER (BURIED)	DI	200	GR	NA	CM	PEE
NWW	NEUTRALIZED WASTE WATER	CPVC	SCH 80	HH	125	NONE	NOTE 3
	NEUTRALIZED WASTE WATER (BELOW GROUND TO EQ TANK)	HDPE	DR11	HH	125	NONE	NONE
	NEUTRALIZED WASTE WATER (STAND PIPE IN WASTE EQUALIZATION TANK)	DI	200	HH	125	CE	EPP
OF	OVERFLOW	DI	200	GR	NA	CE	NONE
PSTV	PERMEATE STORAGE TANK VENT	DI	200	GR	NA	CM	EPP
SBS	SODIUM BISULFITE	PVC	SCH 80	HH	150	NONE	NOTE 3
SH	SODIUM HYPOCHLORITE	PVC	SCH 80	HH	150	NONE	NOTE 3
UW	UTILITY WATER	PVC	SCH 80	HH	150	NONE	NOTE 3
WM	WATER MAIN	DI	200	HH	150	CM	PEE
WSFM	WASTE SUMP/PUMP STATION FORCE MAIN	PVC	SCH 80	HH	150	NONE	NONE

ABBREVIATIONS:

1. THE FOLLOWING ABBREVIATIONS USED IN THE COLUMN OF TEST METHOD REFER TO RESPECTIVE METHODS AS SPECIFIED IN SECTION 40_05_00.09

AM AIR METHOD
GR GRAVITY METHOD
HH HIGH HEAD METHOD
LH LOW HEAD METHOD
SC SPECIAL CASE

2. ABBREVIATIONS TO DESIGNATE PIPING INCLUDE THE FOLLOWING:

CE CERAMIC EPOXY
CM CEMENT MORTAR
CPVC CHLORINATED POLYVINYL CHLORIDE
DI DUCTILE IRON
EPP EPOXY POLYURETHANE
HDPE HIGH-DENSITY POLYETHYLENE
PEE POLYETHYLENE ENCASUREMENT (PER SPECIFICATION 40_05_19.01)
PVC POLYVINYL CHLORIDE
SST STAINLESS STEEL

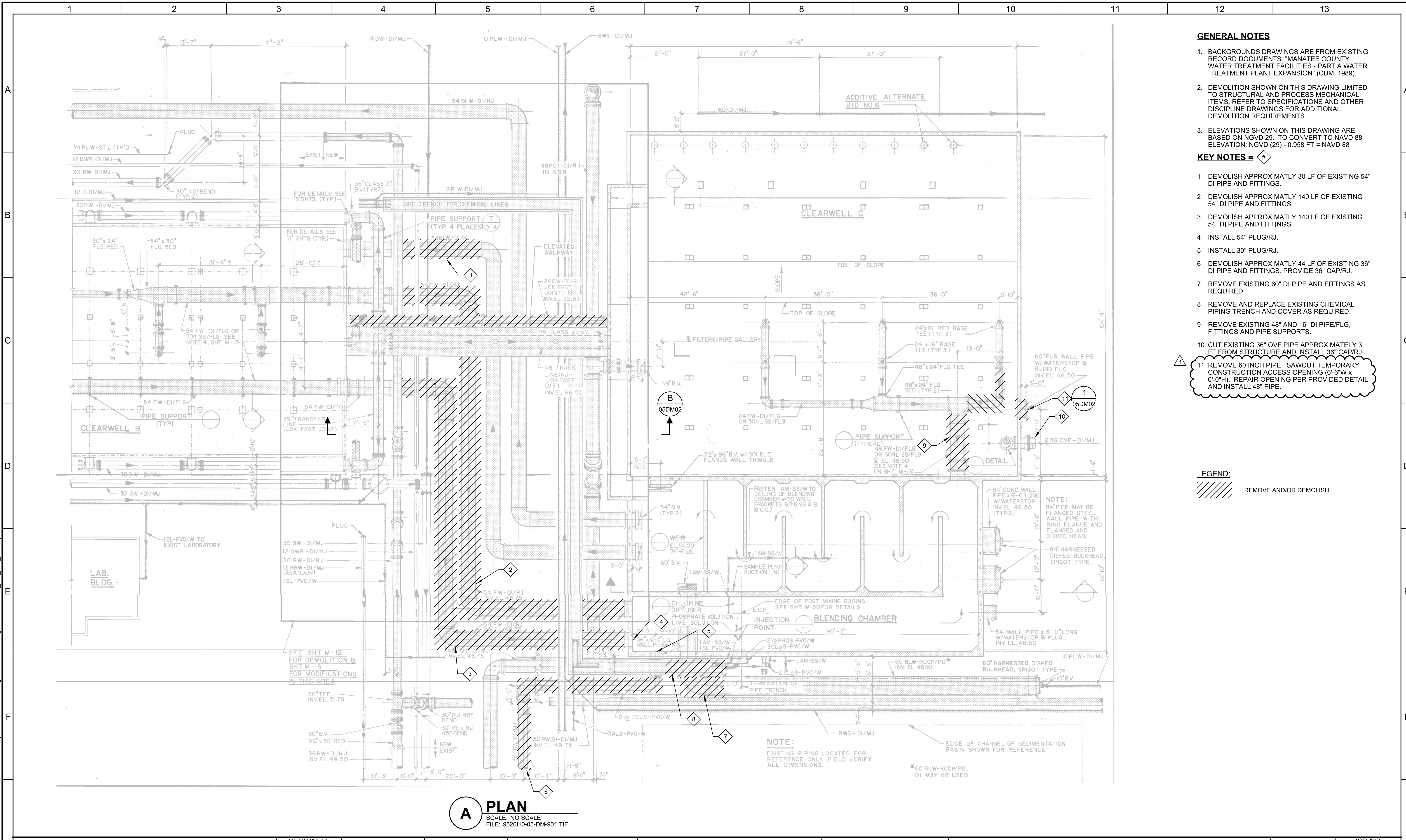
3. PER SPECIFICATION SECTION 09_96_01 FOR EXTERIOR, ABOVE GROUND PIPING

Plot Date: 22-FEB-2019 10:51:22 AM

User: svcPW

Model: Layout1 ColorTable: gshade.ctb DesignScript: Carollo Std Pen_v0905.pen PlotScale: 1:1

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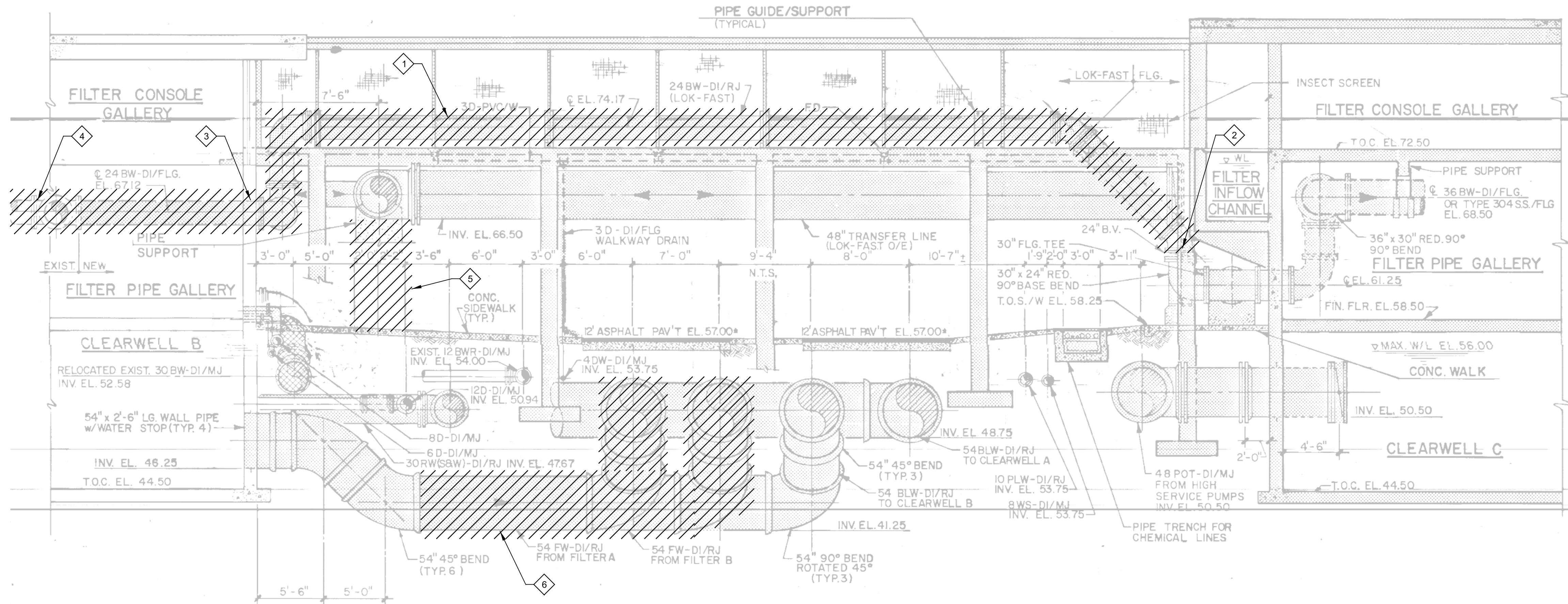
100% SUBMITTAL				DESIGNED GDM	PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.	 301 NORTH CATTLEMEN ROAD, SUITE 302 SARASOTA, FLORIDA 34232 PHONE (941) 371-9832 FAX (941) 371-9873 CA 00008571		MANATEE COUNTY		VERIFY SCALES	JOB NO. 095201.10
				DRAWN DVP				LAKE MANATEE WTP FILTER UPGRADE		BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO.
				CHECKED SS				DEMOLITION		0 1"	05DM01
				DATE JANUARY 2019				BLEND CHAMBER DEMOLITION PLAN		IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	
REV	DATE	GDM BY	DESCRIPTION								
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User: svcPW

Model: Layout1 ColorTable: gshade.ctb DesignScript: Carollo Std Pen_v0905.pen PlotScale: 1:1

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GENERAL NOTES

1. BACKGROUNDS DRAWINGS ARE FROM EXISTING RECORD DOCUMENTS: "MANATEE COUNTY WATER TREATMENT FACILITIES - PART A WATER TREATMENT PLANT EXPANSION" (CDM, 1989).
2. DEMOLITION SHOWN ON THIS DRAWING LIMITED TO STRUCTURAL AND PROCESS MECHANICAL ITEMS. REFER TO SPECIFICATIONS AND OTHER DISCIPLINE DRAWINGS FOR ADDITIONAL DEMOLITION REQUIREMENTS.
3. ELEVATIONS SHOWN ON THIS DRAWING ARE BASED ON NGVD 29. TO CONVERT TO NAVD 88 ELEVATION: NGVD (29) - 0.958 FT = NAVD 88

KEY NOTES = #

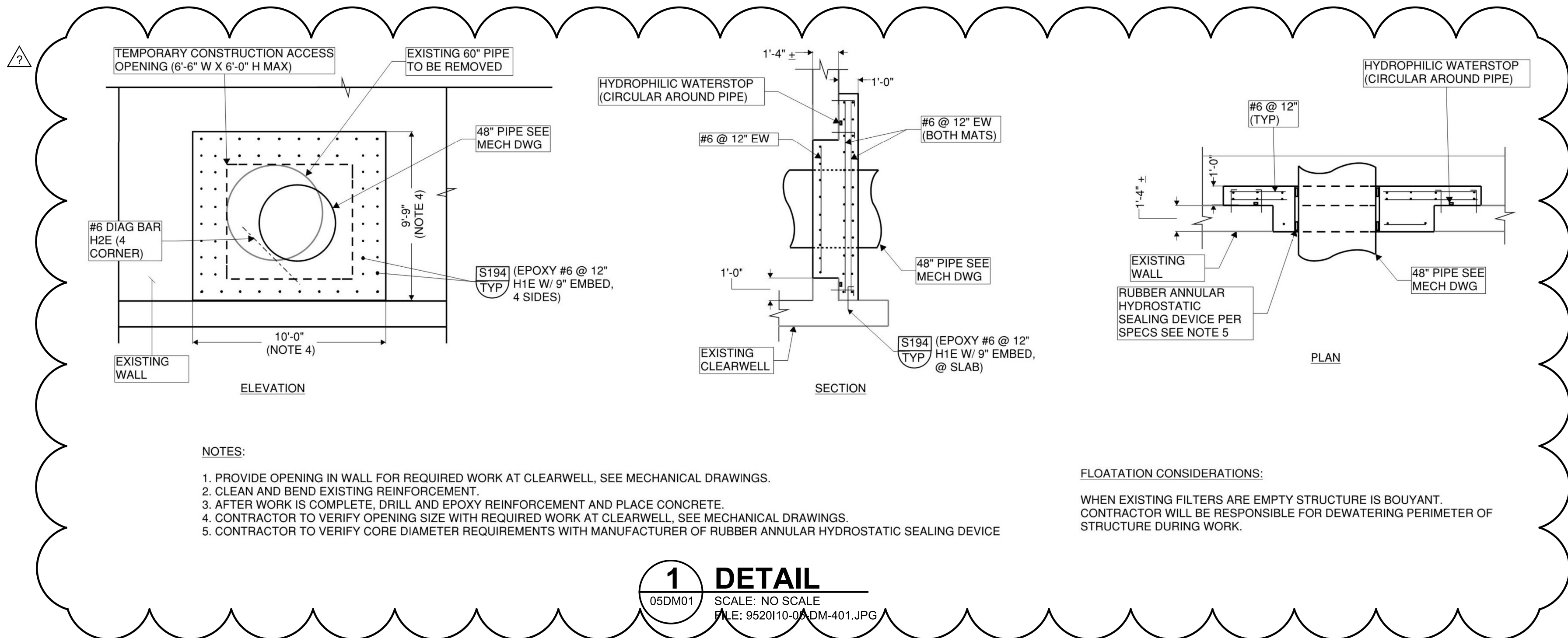
- 1 DEMOLISH APPROXIMATLY 80 LF OF EXISTING 24\"/>

LEGEND:

 REMOVE AND/OR DEMOLISH

B SECTION

05DM01 SCALE: NO SCALE
FILE: 952010-05-DM-902.TIF



NOTES:

1. PROVIDE OPENING IN WALL FOR REQUIRED WORK AT CLEARWELL, SEE MECHANICAL DRAWINGS.
2. CLEAN AND BEND EXISTING REINFORCEMENT.
3. AFTER WORK IS COMPLETE, DRILL AND EPOXY REINFORCEMENT AND PLACE CONCRETE.
4. CONTRACTOR TO VERIFY OPENING SIZE WITH REQUIRED WORK AT CLEARWELL, SEE MECHANICAL DRAWINGS.
5. CONTRACTOR TO VERIFY CORE DIAMETER REQUIREMENTS WITH MANUFACTURER OF RUBBER ANNULAR HYDROSTATIC SEALING DEVICE

FLOATATION CONSIDERATIONS:

WHEN EXISTING FILTERS ARE EMPTY STRUCTURE IS BOUYANT. CONTRACTOR WILL BE RESPONSIBLE FOR DEWATERING PERIMETER OF STRUCTURE DURING WORK.

1 DETAIL

05DM01 SCALE: NO SCALE
FILE: 952010-05-DM-401.JPG

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REV	DATE	GDM BY	CHANGES PER ADDENDUM DESCRIPTION
1	02/22/2019	GDM	CHANGES PER ADDENDUM

DESIGNED GDM
DRAWN DVP
CHECKED SS
DATE JANUARY 2019

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CA 00008571



MANATEE COUNTY
LAKE MANATEE WTP FILTER UPGRADE

DEMOLITION
BLEND CHAMBER
DEMOLITION SECTION

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING

0 1"





IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

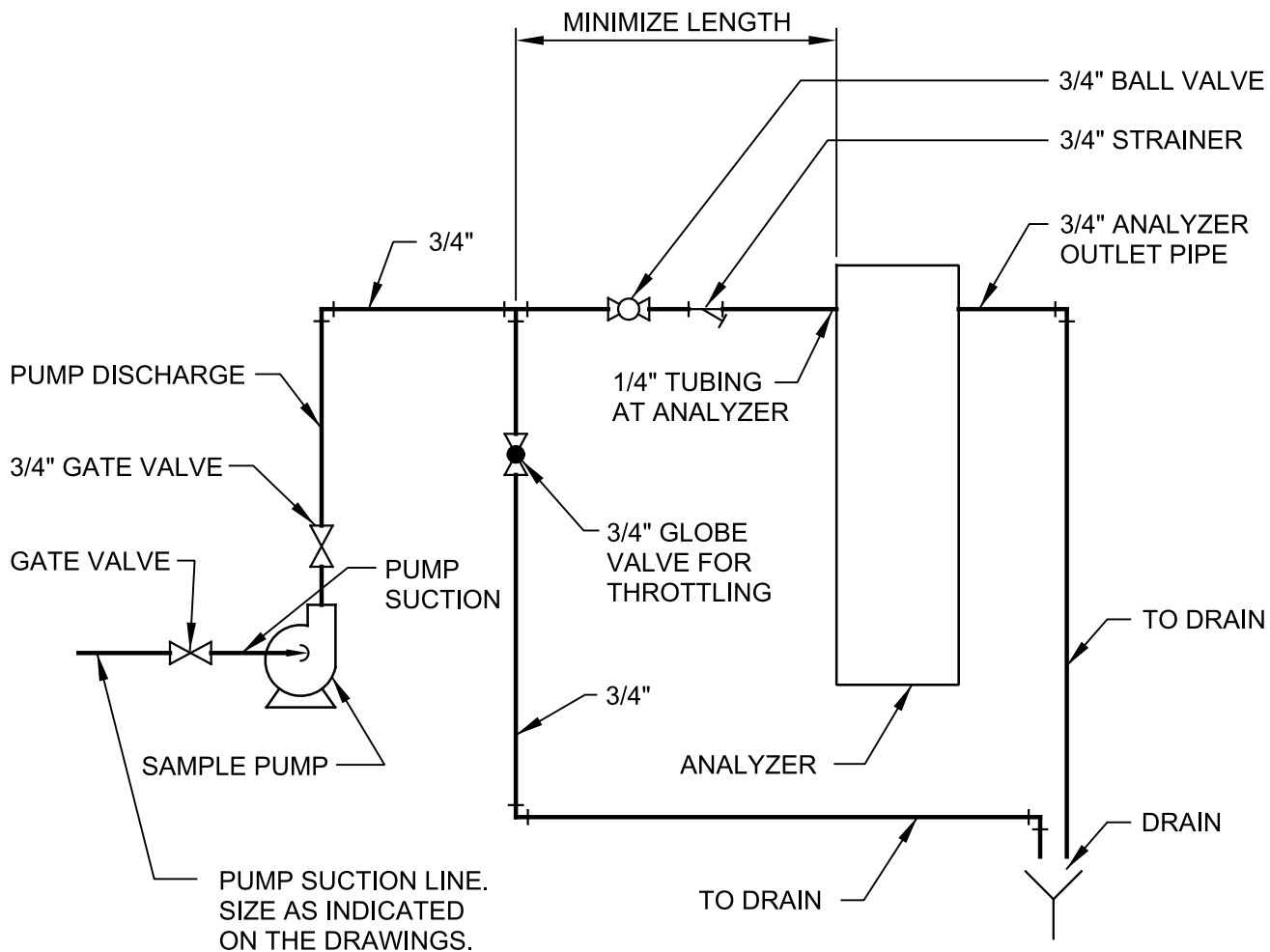
JOB NO.
095201.10

DRAWING NO.

05DM02



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					CHECKED SS				MECHANICAL			0  1"	05M02	
		02/21/2019	GDM	CHANGES PER ADDENDUM	DATE				BLEND CHAMBER PLAN II			IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY		
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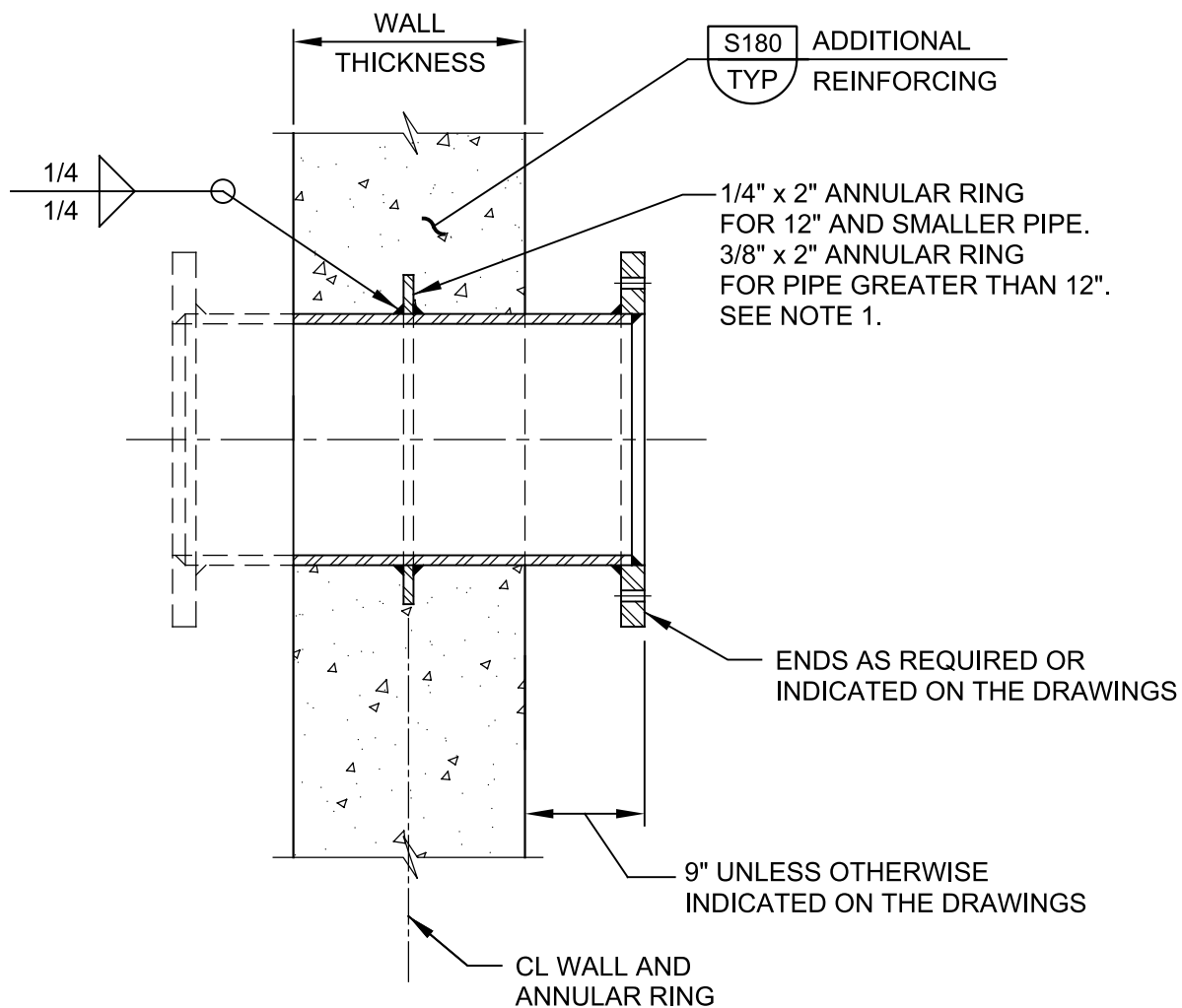
M263

TYP

SAMPLE PUMP TO ANALYZER PIPING

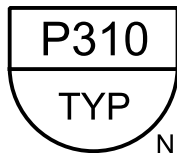
08/01/05

 **carollo**



NOTE:

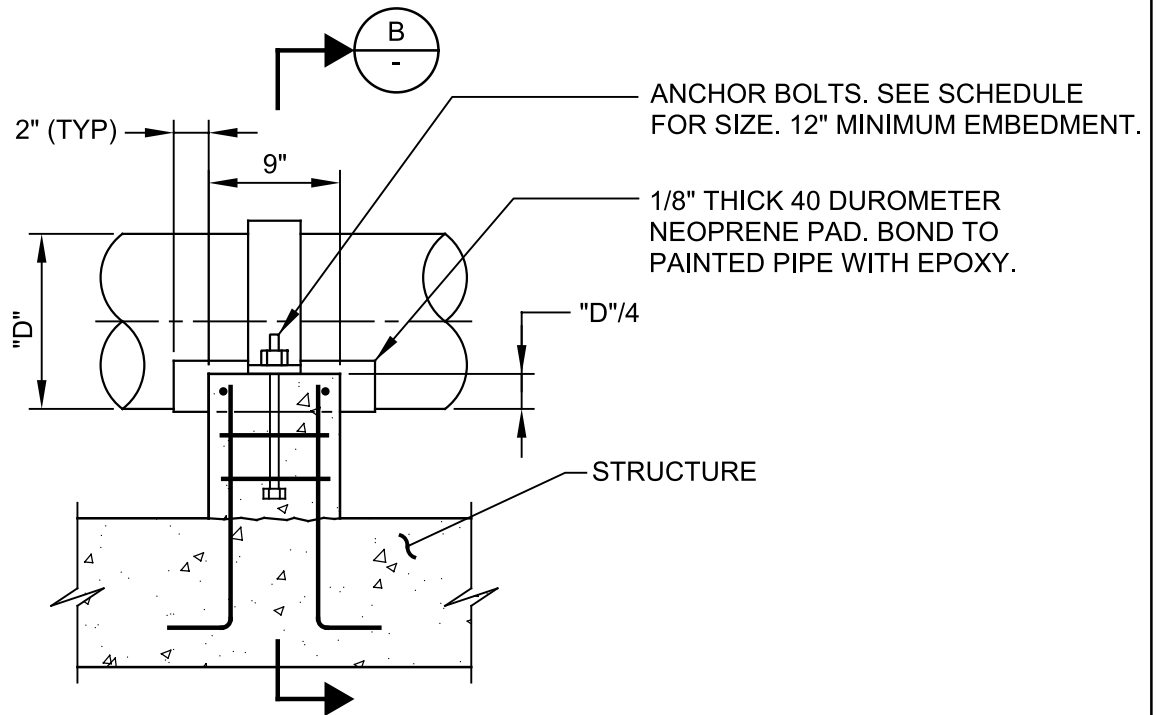
1. INSTALL ANNULAR RING ON PIPE SO THAT IT IS LOCATED AT CENTER OF WALL AND IN PLANE PARALLEL TO FACE OF WALL.



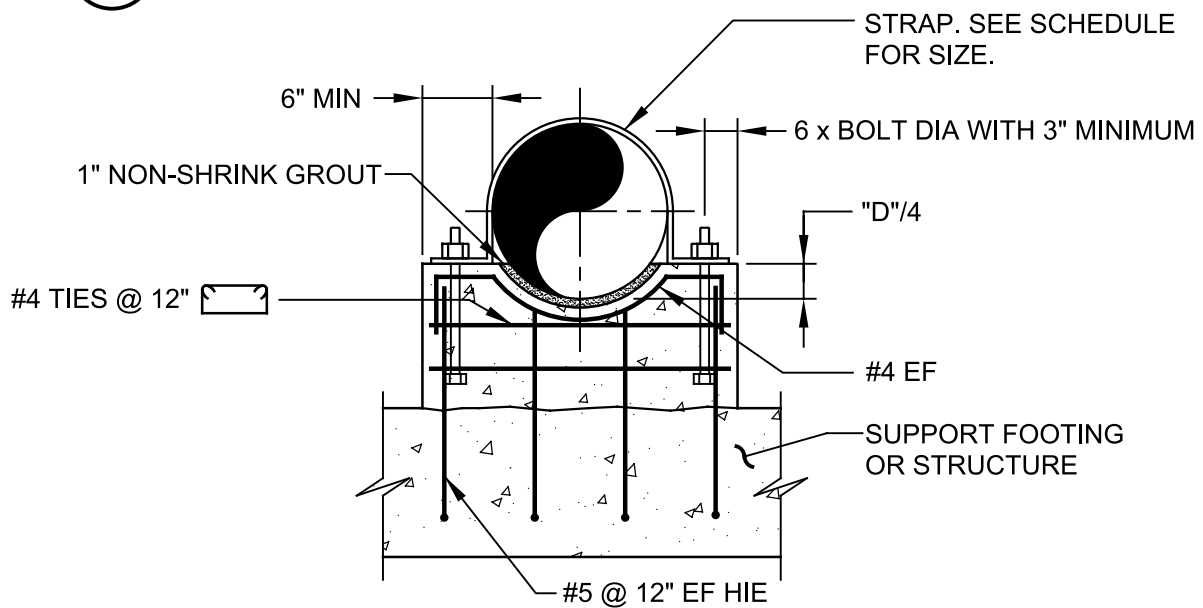
WALL THIMBLE FOR STEEL PIPE

01/30/2015

carollo



A SECTION-SUPPORT AT STRUCTURE



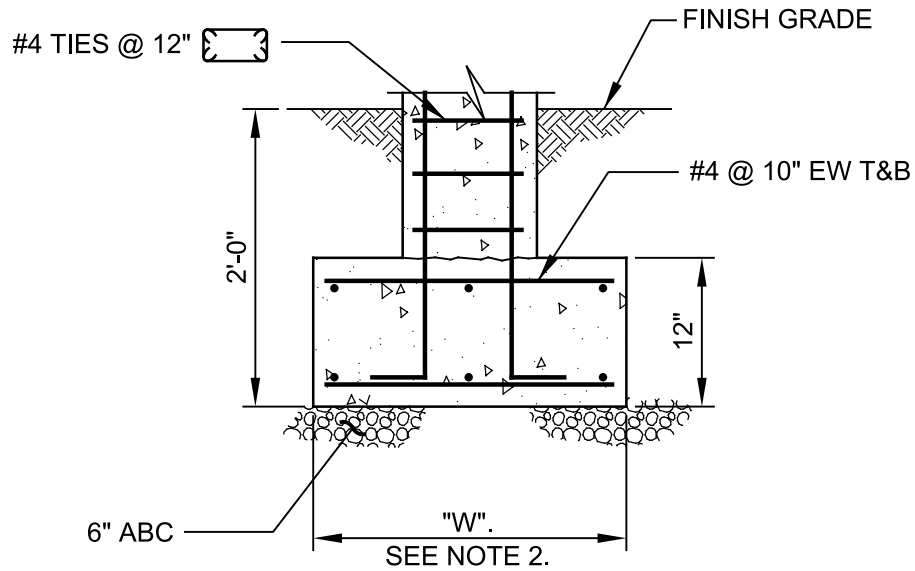
B SECTION

P602

TYP

N

CONCRETE PIPE SUPPORT



C
**SECTION-ISOLATED
SUPPORT WITH FOOTING**

SCHEDULE		
PIPE SIZE	STRAP SIZE	ANCHOR BOLT DIA
8" - 12"	FB 1/4" x 4"	1/2"
14" - 24"	FB 5/16" x 4"	5/8"
26" - 36"	FB 3/8" x 4"	3/4"

NOTES:

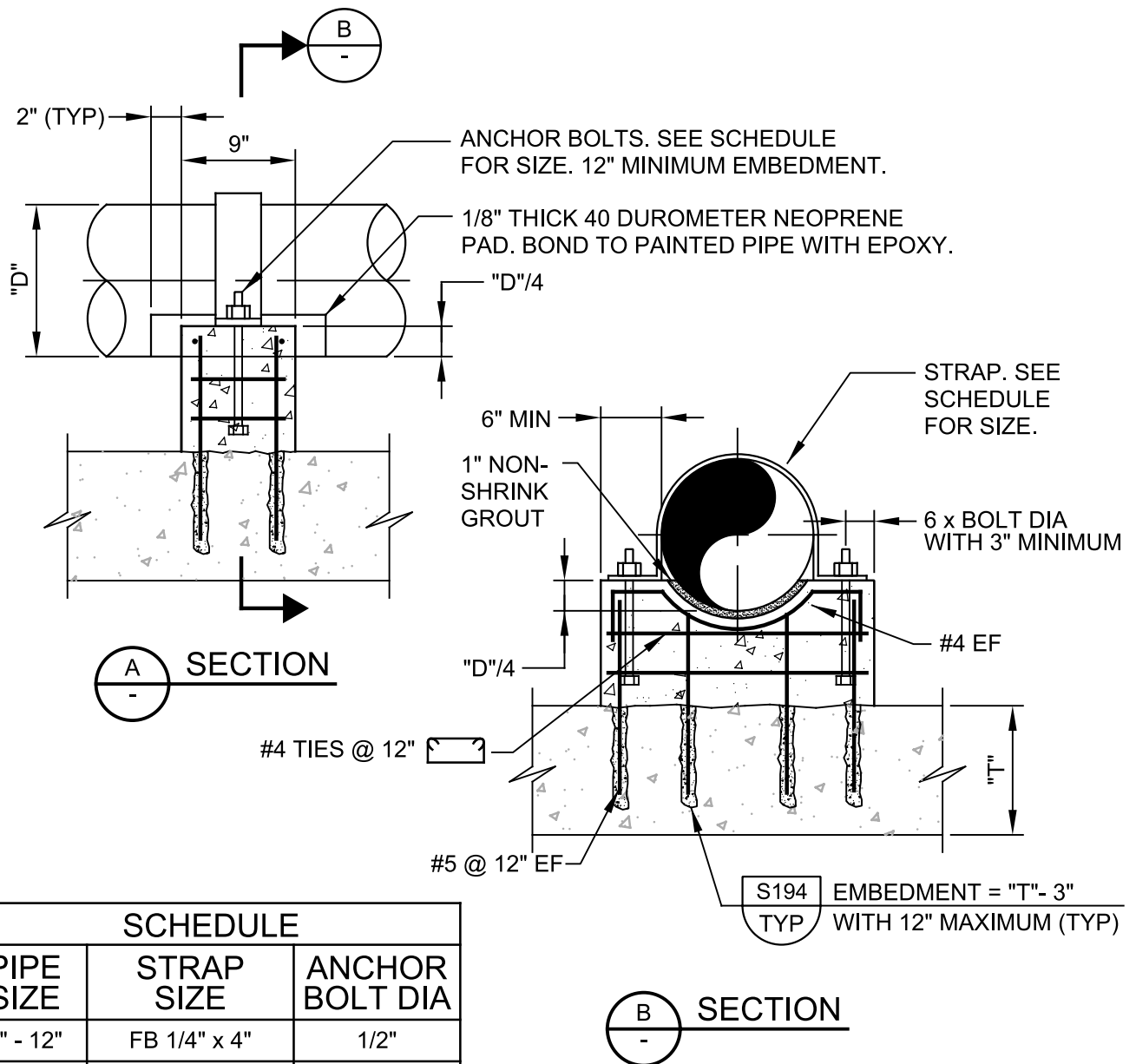
- IF SUPPORT IS SUBMERGED OR LOCATED BELOW THE TOP OF WALL IN WATER BEARING STRUCTURE, MATERIAL FOR ANCHOR BOLTS AND STRAP SHALL BE STAINLESS STEEL. IN ALL OTHER AREAS, THE MATERIAL FOR ANCHOR BOLTS AND STRAP SHALL BE HOT-DIP GALVANIZED STEEL UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
- THE WIDTH OF THE FOOTING "W" = 2'-6". THE LENGTH OF THE FOOTING = "D" + 2'-0".

P602

CONCRETE PIPE SUPPORT

TYP

N



NOTES:

1. IF SUPPORT IS SUBMERGED OR LOCATED BELOW THE TOP OF WALL IN WATER BEARING STRUCTURE, MATERIAL FOR ANCHOR BOLTS AND STRAP SHALL BE STAINLESS STEEL. IN ALL OTHER AREAS, THE MATERIAL FOR ANCHOR BOLTS AND STRAP SHALL BE HOT-DIP GALVANIZED STEEL UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
2. MIN "T" = 12".

P604

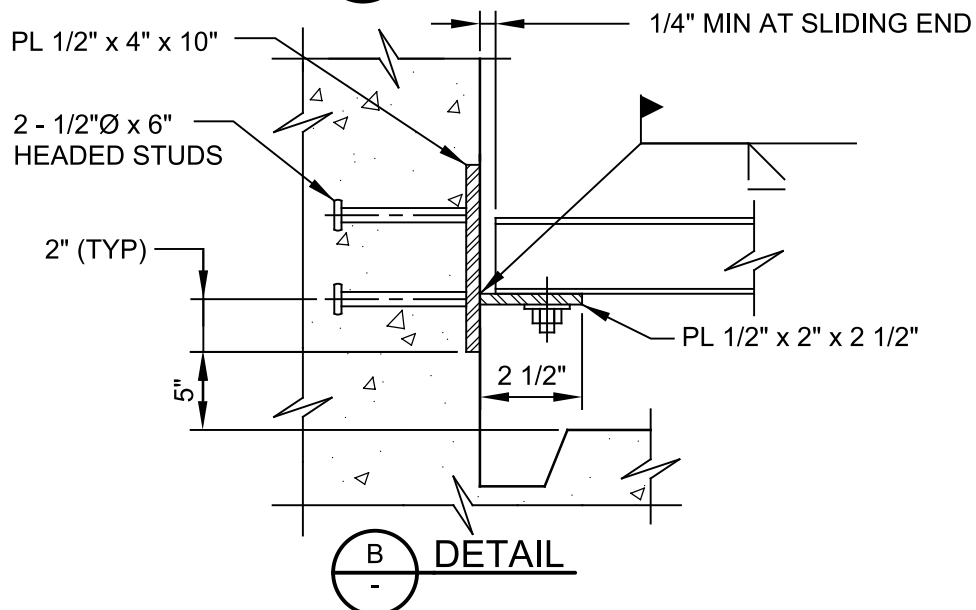
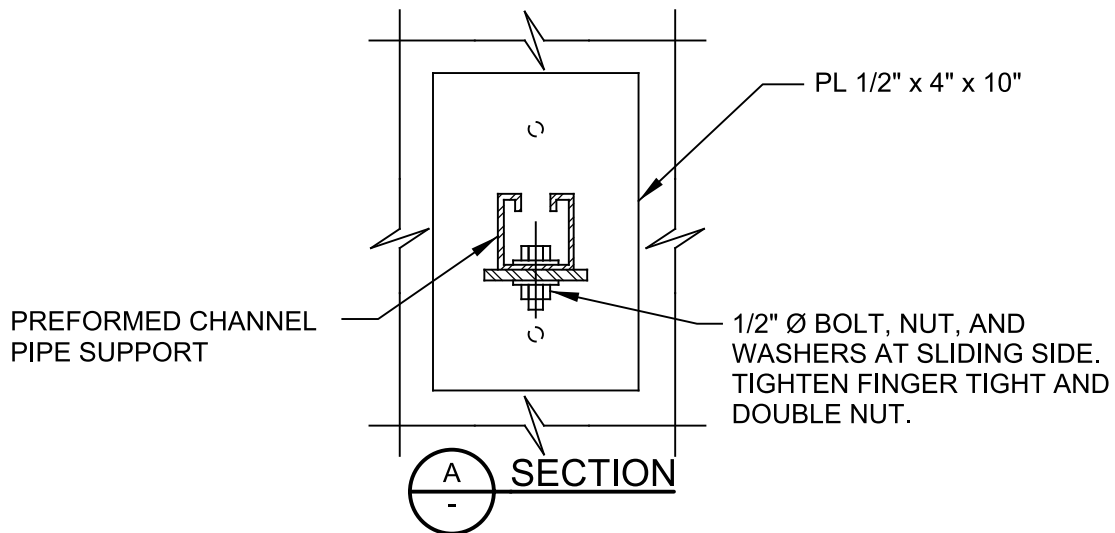
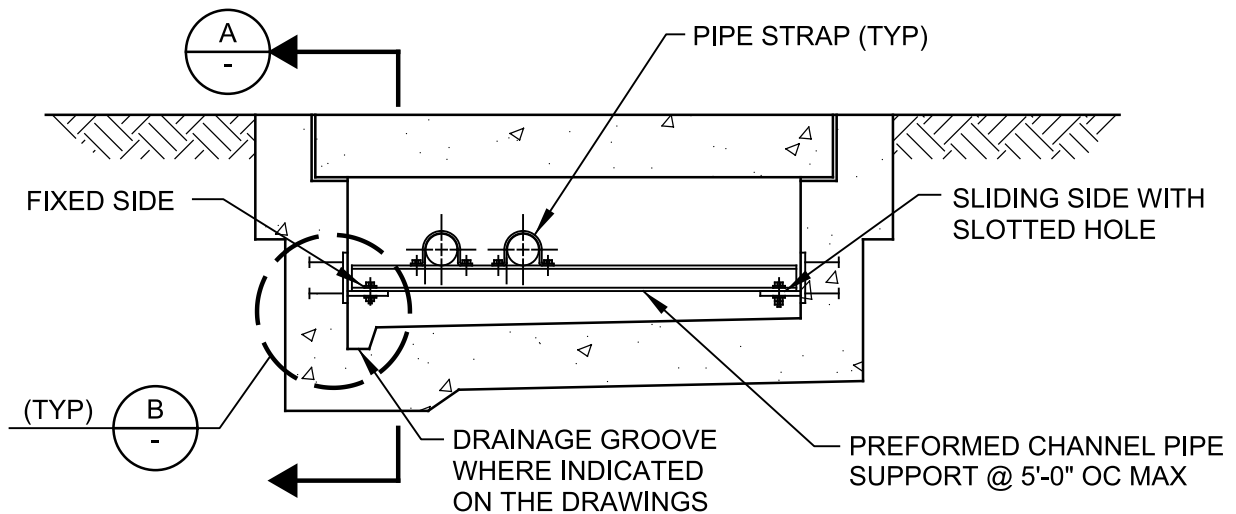
TYP

N

CONCRETE PIPE SUPPORT AT EXISTING STRUCTURE

07/31/08

carollo



P613

TYP

PREFORMED CHANNEL PIPE SUPPORT IN PIPE OR CONDUIT TRENCH

08/01/05

carollo