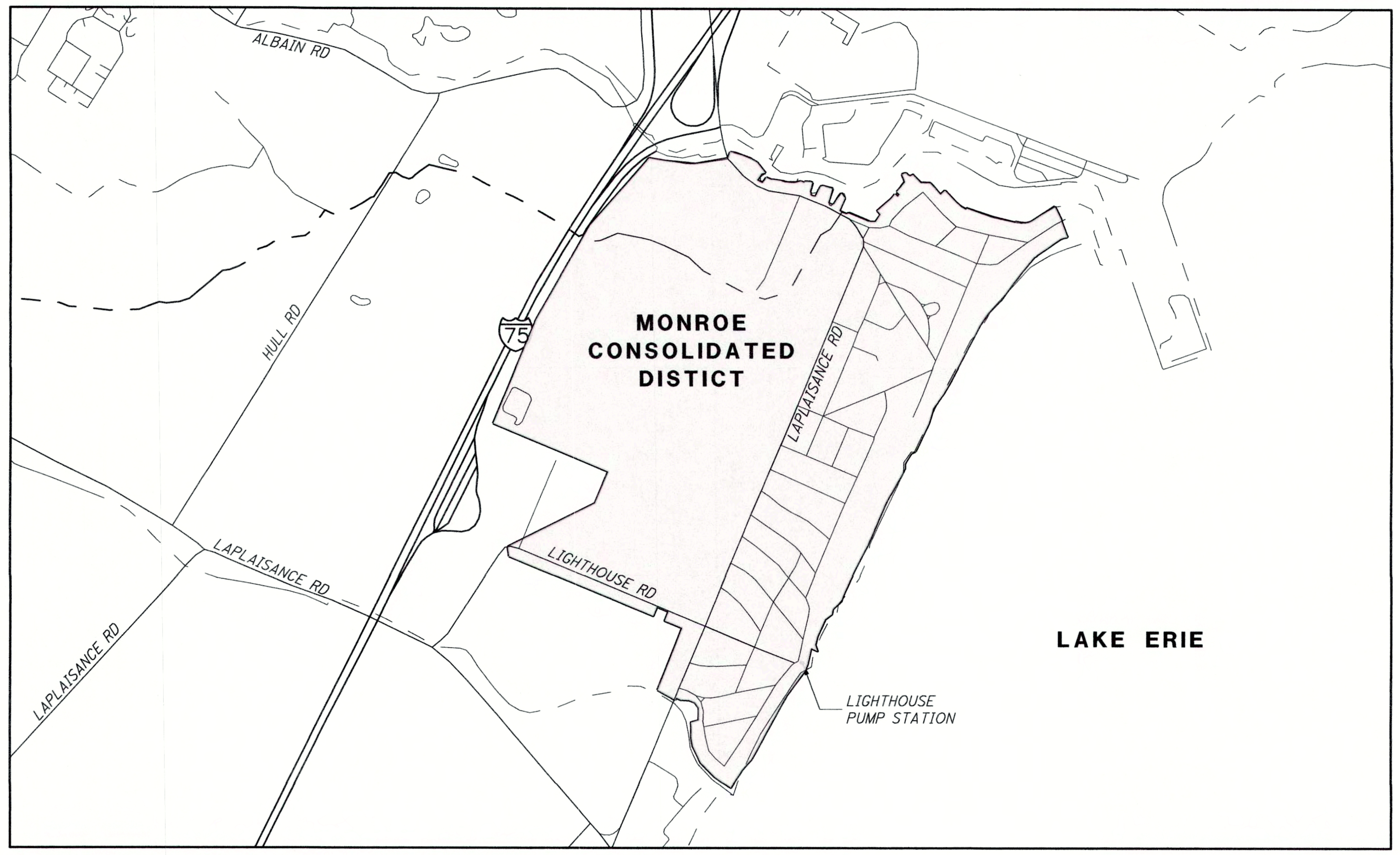
MONROE CONSOLIDATED DRAIN IMPROVEMENTS
MONROE COUNTY DRAIN COMMISSIONER
LOCATED WITHIN
MONROE CHARTER TOWNSHIP
MONROE COUNTY, MICHIGAN

MONROE CONSOLIDATED DRAIN

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	GENERAL NOTES & ESTIMATED QUANTITIES
3-4	TYPICAL ROADWAY SECTIONS
5	SITE PLAN
6	DRAINAGE PLAN
7	LIGHTHOUSE ROAD REMOVAL PLAN
8	LIGHTHOUSE ROAD CONSTRUCTION PLAN
9	LIGHTHOUSE ROAD PROFILE STA. -1+00 TO STA. 4+00
10	LIGHTHOUSE ROAD PROFILE STA. 4+00 TO STA. 9+00
11	LIGHTHOUSE ROAD PROFILE STA. 9+00 TO STA. 14+00
12	VENETIAN DRIVE REMOVAL PLAN
13	VENETIAN DRIVE CONSTRUCTION PLAN
14	VENETIAN DRIVE PROFILE STA. 99+00 TO STA. 104+00
15	VENETIAN DRIVE PROFILE STA. 104+00 TO STA. 109+00
16	VENETIAN DRIVE PROFILE STA. 109+00 TO STA. 114+00
17	AVALON ROAD & LAPLAISANCE ROAD REMOVAL PLAN
18	AVALON ROAD & LAPLAISANCE ROAD CONSTRUCTION PLAN
19	AVALON ROAD PROFILE STA. 199+00 TO STA. 204+00
20	LAPLAISANCE ROAD PROFILE STA. 299+00 TO STA. 304+00
21	LAPLAISANCE ROAD PROFILE STA. 304+00 TO STA. 308+00
22	DRIVEWAY REPLACEMENT DETAILS
23	MISCELLANEOUS DETAILS
24	SOIL EROSION & SEDIMENTATION CONTROL DETAILS
25	PUMP STATION NOTES
26	EXISTING PUMP STATION SITE CONDITIONS
27	DEMOLITION PLAN
28	PROPOSED PUMP STATION PLAN
29-40	PUMP STATION DETAILS
41-43	ELECTRICAL DETAILS
44	GRATE DETAILS
45-48	LADDER DETAILS
49-52	GAURDRAIL DETAILS
53-54	BUILDING FOUNDATION DETAILS
55-56	PIPE SUPPORT DETAILS
57	GENERATOR PAD DETAILS
58	STEEL REINFORCEMENT SCHEDULE



LOCATION MAP
NOT TO SCALE

MONROE COUNTY DRAIN COMMISSIONER

1005 S. RAISINVILLE RD.
MONROE, MICHIGAN 48161
(734) 240-3101

DRAIN COMMISSIONER ....DAVID P. THOMPSON
DEPUTY DRAIN COMMISSIONER ....TIMOTHY J. CSURGO

NOTE

EXCEPT WHERE OTHERWISE INDICATED ON THESE PLANS OR IN THE PROPOSAL AND SUPPLEMENTAL SPECIFICATIONS CONTAINED THEREIN, ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION 2020 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND THE MONROE COUNTY DRAIN COMMISSIONER'S SPECIFICATIONS.

PLANS PREPARED BY:

Mannik Smith GROUP
1771 NORTH DIXIE HIGHWAY
MONROE, MICHIGAN 48162
TEL: (734) 289-2200
FAX: (734) 289-2345
www.MannikSmithGroup.com

STATE OF MICHIGAN
CLIFFORD ELLING
ENGINEER
No. 38912
LICENSED PROFESSIONAL ENGINEER

BY:

CLIFFORD W. ELLING, P.E.
PROFESSIONAL ENGINEER #38912

DATE: 01 June 2022

MISS DIG System, Inc.
811
1-800-482-7171

GENERAL NOTES

UTILITIES

MISS DIG/UNDERGROUND UTILITY NOTIFICATION
FOR THE PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH MCL 460.171 ET SEQ, THE CONTRACTOR SHALL CONTACT MISS DIG SYSTEM, INC. BY PHONE AT 811 OR 800-482-7171 OR VIA THE WEB AT EITHER ELOCATE.MISSDIG.ORG FOR SINGLE ADDRESS OR RTE.MISSDIG.ORG, A MINIMUM OF 3 WORK DAYS PRIOR TO EXCAVATING, EXCLUDING WEEKENDS AND HOLIDAYS.

SURVEY

ADJUSTING MONUMENT BOXES:

SURVEY REFERENCES NAVD88 DATUM

ALL GOVERNMENT CORNERS ON THIS PROJECT SHALL BE PRESERVED, WHETHER SHOWN OR NOT. IT MAY BE NECESSARY TO PLACE OR ADJUST MONUMENT BOXES, AS REQUIRED.

EARTHWORK

EARTH DISTURBANCE LIMITS:

THE EARTH DISTURBANCE LIMIT FOR THIS PROJECT WILL BE LIMITED TO 10' BEYOND THE SLOPE STAKE LINE OR TO THE ROW LINE WHICHEVER IS LESS FOR ALL AREAS EXCEPT FOR WETLAND AREAS. FOR AREAS ADJACENT TO WETLANDS, THE EARTH DISTURBANCE LIMIT WILL BE LIMITED TO THE SLOPE STAKE LINE. RESTORATION MEASURES HAVE BEEN INCLUDED IN THIS SET OF PLANS FOR THE APPROVED AREAS OF DISTURBANCE. THE CONTRACTOR SHALL SUBMIT AN EARTH CHANGE PLAN FOR ANY WORK BEYOND THE APPROVED LIMITS TO THE ENGINEER TO REVIEW FOR APPROVAL PRIOR TO THE DISTURBANCE. ALL COSTS FOR OBTAINING AND EXECUTING AN APPROVED EARTH CHANGE PLAN, INCLUDING RESTORATION, SHALL BE AT THE CONTRACTOR'S EXPENSE.

SOIL EROSION MEASURES:

APPROPRIATE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO EARTH-DISTURBING ACTIVITIES. PLACE TURF ESTABLISHMENT ITEMS AS SOON AS POSSIBLE ON POTENTIAL ERODABLE SLOPES AS DIRECTED BY THE ENGINEER. CRITICAL DITCH GRADES SHALL BE PROTECTED WITH EITHER SOD OR SEED/MULCH OR MULCH BLANKET AS DIRECTED BY THE ENGINEER.

SIGNS

GENERAL:

ALL SIGNS SHALL BE INSTALLED, REMOVED AND/OR SALVAGED ACCORDING TO THE CURRENT EDITION OF "MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND THE CURRENT EDITION OF MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) "STANDARD SPECIFICATIONS FOR CONSTRUCTION."

ALL SIGNS ON THE PLANS OR IN THE LOG THAT DO NOT HAVE A RECOMMENDATION ARE TO BE RETAINED.

EXISTING SIGN RELOCATION:

ANY PERMANENT SIGNS REQUIRING RELOCATION DUE TO CONTRACTOR OPERATIONS SHALL BE SALVAGED AND RESET BY THE CONTRACTOR AT LOCATIONS DESIGNATED BY THE ENGINEER. SIGNS AND POSTS DAMAGED DURING THE REMOVAL AND STORAGE OPERATIONS SHALL BE REPLACED WITH NEW SIGNS AND POSTS. THE COST OF THIS WORK SHALL BE BORNE BY THE CONTRACTOR.

DRAINAGE STRUCTURES

GENERAL:

FINAL GRADES ON ALL STRUCTURES WILL BE BASED ON FIELD CONDITIONS. NOTED RIM ELEVATIONS ARE CONSERVATIVE TO ASSURE DRAINAGE. ANY ADJUSTMENT TO THESE GRADES BASED ON FINAL FIELD CONDITIONS WILL BE PAID AS "DR STRUCTURE COVER, ADJ, CASE 2".

FENCING

A 8'-0" HIGH CHAIN LINK FENCE WITH TWO 12'-0" LOCKABLE GATES AND 4'-0" LOCKABLE MAN GATE SHALL BE INSTALLED AROUND THE PERIMETER OF THE PUMP STATION AS SHOWN IN SHT. C-2. ON EACH OUTSIDE FACE OF THE FENCE WARNING SIGNS SHALL BE ATTACHED TO THE FABRIC WITH THE FOLLOWING WARNING:

"CAUTION"
"DO NOT ENTER"
"HIGH VOLTAGE"

AROUND THE OUTLET STRUCTURE A 10'-0" HIGH FENCE WITH 4'-0" LOCKABLE MAN GATE AND ANTI-CLIMB FENCES OVER THE SHEET PILE SHALL BE INSTALLED AS SHOWN ON SHEET C-7. ON EACH OUTSIDE FACE OF THE FENCE WARNING SIGNS SHALL BE ATTACHED TO THE FABRIC WITH THE FOLLOWING WARNING:

"CAUTION"
"DO NOT ENTER"
"HIGH PRESSURE PUMP DISCHARGE"

FENCE INSTALLATION WILL BE AS PER MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION. SIGNS SHALL BE OF FLAT SHEETS MADE OF ALUMINUM WITH REFLECTIVE SHEETING. LETTERS SHALL BE 2" IN HEIGHT AND SHALL BE SILK SCREENED BY DIRECT OR REVERSE SCREEN PROCESS.

COLORS ARE TO BE APPROVED BY THE DRAIN COMMISSION.

END POSTS AND LINE POSTS SHALL BE GALVANIZED 2.875 INCH O.D., GRADE 2, fy = 50,000 PSI, 4.64 LBS./FT. POST SHALL BE SPACED A MAXIMUM OF LINE RAIL AND TOP RAIL SHALL BE PROVIDED. AT THE OUTLET STRUCTURE TWO INTERMEDIATE LINE RAILS AND TOP RAIL SHALL BE PROVIDED.

LINE RAILS AND TOP RAILS SHALL BE GALVANIZED 1.66" O.D., GRADE 2, fy = 50,000 PSI, 1.84 LBS./FT. AT THE PUMP STATION ONE INTERMEDIATE LINE RAIL AND TOP RAIL SHALL BE PROVIDED. AT THE OUTLET STRUCTURE TWO INTERMEDIATE LINE RAILS AND TOP RAIL SHALL BE PROVIDED.

THE FENCE FABRIC SHALL NOT BE ERECTED UNTIL AFTER FIVE DAYS FROM THE TIME OF SETTING THE POST IN CONCRETE WHEN REGULAR CONCRETE IS USED, OR THREE DAYS WHEN HIGH-EARLY STRENGTH CONCRETE IS USED. THE FABRIC SHALL BE A MINIMUM OF 11 GAGE WIRE UNIFORMLY GALVANIZED IN ACCORDANCE WITH ASTM A641-82. THE FINISHED FABRIC SHALL BE COMPOSED OF A 1 INCH DIAMOND PATTERN OF A CONTINUOUS CHAIN LINK MESH. FABRIC TIES SHALL BE GALVANIZED WIRE IN ACCORDANCE WITH ABOVE AND PLACED AS PER THE MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION.

TENSION BANDS SHALL BE GALVANIZED 1/8" X 1" STEEL ASSEMBLED WITH 3/8" X 1 1/4" GALVANIZED BOLTS AND SPACED 12" APART. TENSION BARS SHALL BE 3/16" X 1/2" GALVANIZED STEEL.

MALLEABLE OR CAST IRON FITTINGS USE FOR END POST DOME CAPS, HALF BALL AND LOOP LINE POST CAPS, AND LINE OR TOP RAIL ENDS SHALL BE GALVANIZED.

ALL POSTS, LINE RAILS, TOP RAILS, TENSION BANDS AND BARS, AND FITTINGS SHALL BE GALVANIZED AS PER GENERAL NOTE NO. 5.

THE FENCE SHALL BE TOPPED WITH 3 STRANDS OF BARBED WIRE SECURELY FASTENED TO EACH POST AND EQUALLY SPACED SO THAT THE TOP WIRE IS 12" ABOVE THE FABRIC.

AT EACH GATE A MASTER PADLOCK, KEY NUMBER KA2072, SHALL BE PROVIDED WITH A LOCKING DEVICE.

MISCELLANEOUS

SEE SHEET 25 FOR PUMP STATION NOTES.

PUBLIC UTILITIES

THE EXISTING UTILITIES LISTED BELOW AND SHOWN ON THESE PLANS REPRESENT THE BEST INFORMATION AVAILABLE AS OBTAINED ON OUR SURVEYS. THIS INFORMATION DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO BE SATISFIED AS TO IT'S ACCURACY AND THE LOCATION OF EXISTING UTILITIES.

MICHIGAN GAS UTILITIES
ATTENTION: KRISTOPHER KLEINSMITH
899 S. TELEGRAPH ROAD
MONROE, MI 48161
PHONE: (734) 790-5504
EMAIL: KRISTOPHER.KLEINSMITH@MICHIGANGASUTILITIES.COM

CITY OF MONROE
ATTENTION: BARRY LAROY
120 EAST FIRST ST.
MONROE, MI 48161
PHONE: (734) 384-9122
EMAIL: BARRY.LAROY@MONROEMI.GOV

AT&T
ATTENTION: BRIAN GRIFFIN
17651 MICHIGAN AVE
DEARBORN, MI 48126
PHONE: (313) 240-5486
EMAIL: BG2619@ATT.COM

COMCAST
ATTENTION: NICK STAMPER
27096 OAKMEAD DR.
PERRYSBURG, OH 43551
PHONE: (419) 874-9262 EXT.208
EMAIL: NSTAMPER@TEAMSIGMA.COM

CONSUMERS ENERGY
ATTENTION: DAVID SOUTHWARD
1955 W. PARNALL ROAD
JACKSON, MI 49201
PHONE: (517) 673-1072
EMAIL: DAVID.SOUTHWARD@CMSENERGY.COM

MONROE COUNTY DRAIN COMMISSIONER
1005 SOUTH RAISINVILLE RD.
MONROE, MI 48161
(734) 240-3101

MONROE COUNTY ROAD COMMISSION
840 S TELEGRAPH ROAD
MONROE, MI 48161
734-240-5101

MISCELLANEOUS QUANTITIES

Pay Item	Quantity	Units	Description
Category 001: Storm Sewer			
1100001	1	LSUM	Mobilization, Max
2010001	0.5	Acre	Clearing
2020002	9	Ea	Tree, Rem, 19 inch to 36 inch
2020004	3	Ea	Tree, Rem, 6 inch to 18 inch
2020006	2	Ea	Stump, Rem, 19 inch to 36 inch
2030001	8	Ea	Culv, Rem, Less than 24 inch
2030011	17	Ea	Dr Structure, Rem
2030015	983	Ft	Sewer, Rem, Less than 24 inch
2030016	95	Ft	Sewer, Rem, 24 inch to 48 inch
2040020	110	Ft	Curb and Gutter, Rem
2040050	1537	Syd	Pavt, Rem
2050016	280	Cyd	Excavation, Earth
2080020	46	Ea	Erosion Control, Inlet Protection, Fabric Drop
2080036	2400	Ft	Erosion Control, Silt Fence
3020016	446	Syd	Aggregate Base, 6 inch
3020020	1330	Syd	Aggregate Base, 8 inch
3060021	56	Cyd	Maintenance Gravel, LM
4020030	20	Ft	Sewer, Cl A, 6 inch, Tr Det B
4020031	20	Ft	Sewer, Cl A, 8 inch, Tr Det B
4020032	25	Ft	Sewer, Cl A, 10 inch, Tr Det B
4020033	702	Ft	Sewer, Cl A, 12 inch, Tr Det B
4020035	1394	Ft	Sewer, Cl A, 18 inch, Tr Det B
4020036	640	Ft	Sewer, Cl A, 24 inch, Tr Det B
4020037	480	Ft	Sewer, Cl A, 30 inch, Tr Det B
4020038	14	Ft	Sewer, Cl A, 36 inch, Tr Det B
4021232	3	Ea	Sewer Bulkhead, 18 inch
4030006	12	Ea	Dr Structure Cover, Adj, Case 2
4030010	3	Ea	Dr Structure Cover, Type B
4030040	31	Ea	Dr Structure Cover, Type G
4030050	1	Ea	Dr Structure Cover, Type K
4030210	29	Ea	Dr Structure, 48 inch dia
4030220	6	Ea	Dr Structure, 60 inch dia
4037001	2564	Ft	Storm Sewer Cleanout
5010005	1540	Syd	HMA Surface, Rem
5010009	134	Ft	Edge Trimming
5010033	323	Ton	HMA, 13A
5010061	34	Ton	HMA Approach
8010001	165	Syd	Driveway, Reinf Conc, 6 inch
8020020	110	Ft	Curb and Gutter, Conc, Det C1
8077050	19	Ea	Mailbox, Rem, Salv, Erect
8100402	15	Ea	Sign, Type III, Erect, Salv
8100403	15	Ea	Sign, Type III, Rem
8120012	10	Ea	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn
8120013	10	Ea	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper
8120130	2	Ea	Lighted Arrow, Type B, Furn
8120131	2	Ea	Lighted Arrow, Type B, Oper
8120170	1	LSUM	Minor Traf Devices
8120252	75	Ea	Plastic Drum, Fluorescent, Furn
8120253	75	Ea	Plastic Drum, Fluorescent, Oper
8120350	198	Sft	Sign, Type B, Temp, Prismatic, Furn
8120351	198	Sft	Sign, Type B, Temp, Prismatic, Oper
8162001	4000	Syd	Slope Restoration, Non-Freeway, Type A
Category 002: Pump Station			
4057051	1	LSUM	Pump Basin Structure (Lighthouse)
4057051	1	LSUM	Electrical Equipment Enclosure (Lighthouse)
4057051	1	LSUM	Pump Equipment (Lighthouse)
4057051	1	LSUM	Piping Discharge (Lighthouse)
4057051	1	LSUM	Pump Electrical (Lighthouse)
4057051	1	LSUM	Back-Up Generator (Lighthouse)

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

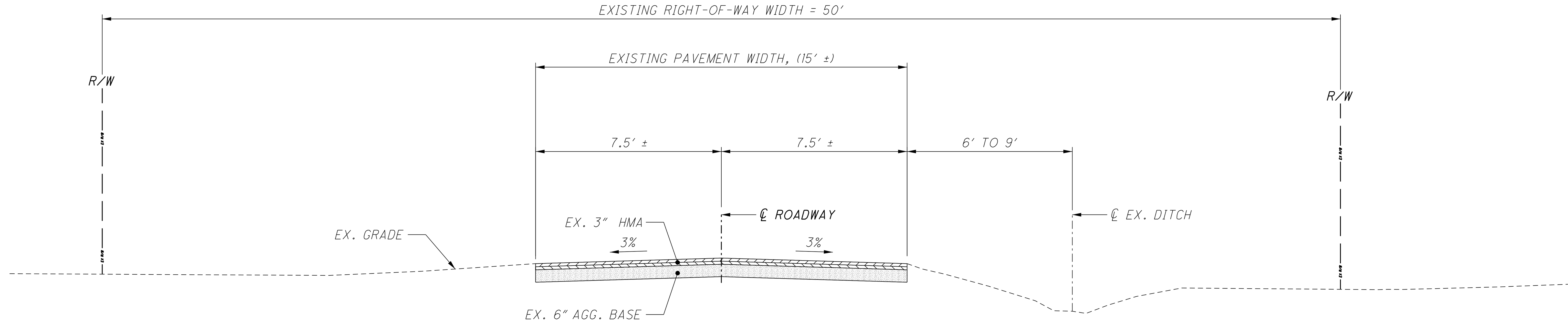
Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com
1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

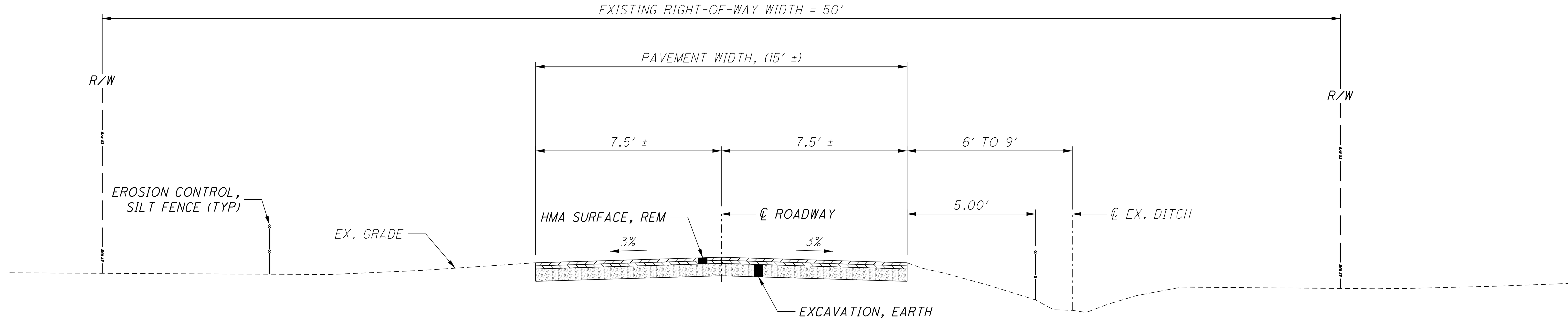
MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

GENERAL NOTES & ESTIMATED QUANTITIES



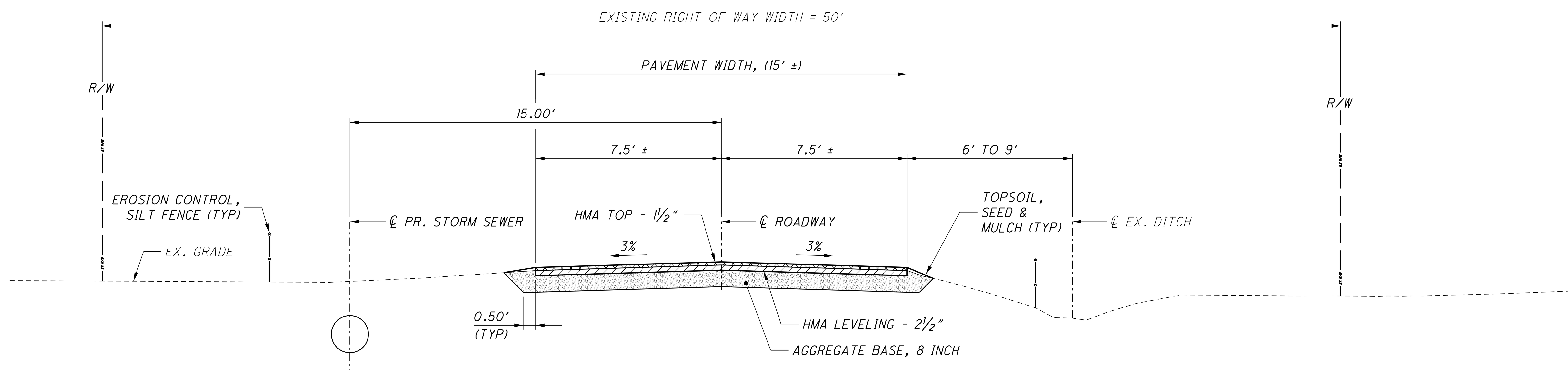
VENETIAN DR, PARKWAY, & LAKEWAY ST: EXISTING TYPICAL ROADWAY SECTION

SCALE: 1" = 3'-0"



VENETIAN DR, PARKWAY, LAKEWAY ST, & S. HARBOR DR: EXISTING TYPICAL ROADWAY SECTION

SCALE: 1" = 3'-0"
LOCATIONS: INTERSECTION OF VENETIAN DRIVE & PARKWAY
INTERSECTION OF VENETIAN DRIVE & LAKEWAY STREET
INTERSECTION OF S. HARBOR DRIVE & LAPLAISANCE ROAD



VENETIAN DR, PARKWAY, LAKEWAY ST, & S. HARBOR DR: EXISTING TYPICAL ROADWAY SECTION

SCALE: 1" = 3'-0"
LOCATIONS: INTERSECTION OF VENETIAN DRIVE & PARKWAY
INTERSECTION OF VENETIAN DRIVE & LAKEWAY STREET
INTERSECTION OF S. HARBOR DRIVE & LAPLAISANCE ROAD

IDENT NO.	ITEM	THICKNESS	RATE LBS PER SYD	PERFORMANCE GRADE	REMARKS
TOP	HMA, LVSP OR EL	1.5 INCHES	165	PG 58-28	TOP COURSE (AWI = 260 MIN., TARGET AIR VOIDS = 3.5%)
LEVELING	HMA, LVSP EL OR 13A	2.5 INCHES	275	PG 58-28	LEVELING COURSE (TARGET AIR VOIDS = 3.5%)
	BOND COAT			0.05-0.15 GAL	SS-1H (FOR INFORMATION ONLY)

ALTERNATE PAVEMENTS TYPES CAN BE SUBMITTED BY THE CONTRACTOR FOR CONSIDERATION BY THE ENGINEER AND OWNER.

NOTES

ALL WIDTHS ARE TO MATCH EXISTING SURFACE WIDTHS AT ALL PAVEMENT REMOVAL LOCATIONS.

WIDTHS MAY BE MODIFIED AT INTERSECTIONS AS DIRECTED BY THE ENGINEER.

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

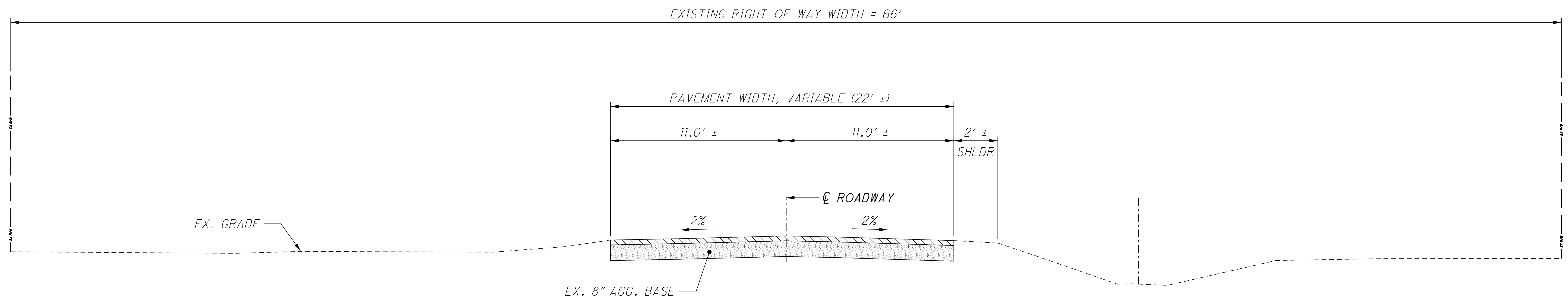
ManikSmith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.ManikSmithGroup.com
1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

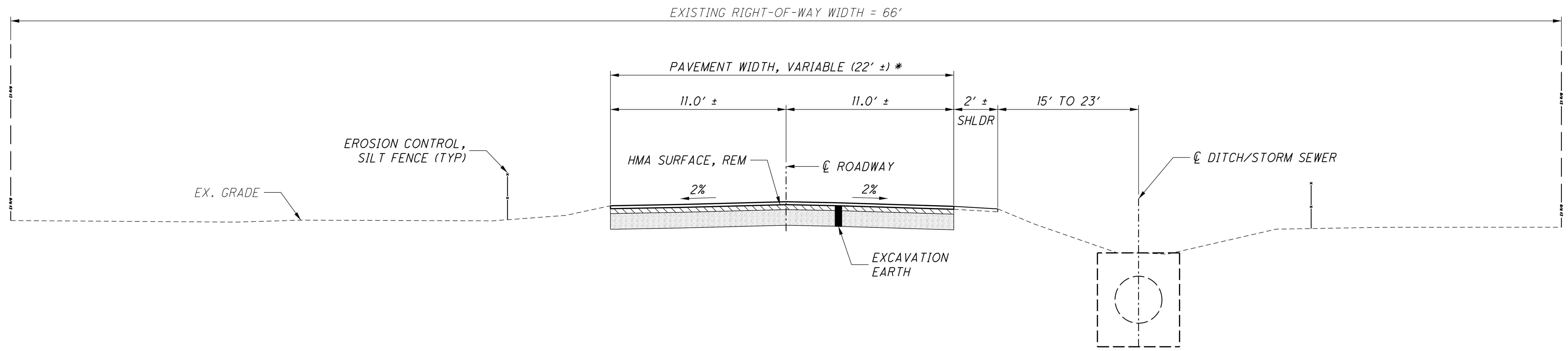
MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

TYPICAL ROADWAY SECTIONS



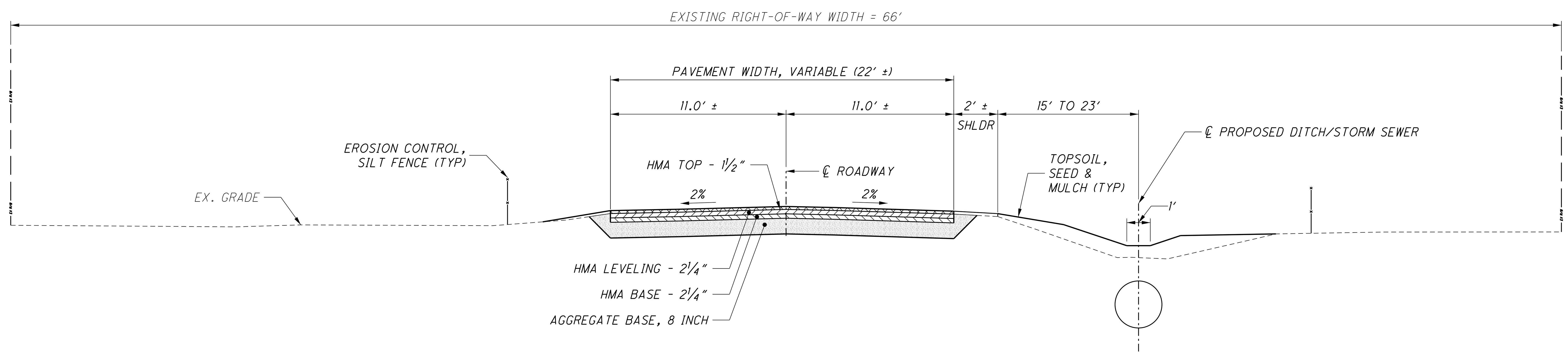
LAPLAISANCE & LIGHTHOUSE ROAD: EXISTING TYPICAL ROADWAY SECTION

SCALE: 1" = 3'-0"



LAPLAISANCE & LIGHTHOUSE ROAD: EXISTING TYPICAL ROADWAY SECTION

SCALE: 1" = 3'-0"
LOCATIONS: INTERSECTION OF LIGHTHOUSE ROAD & VENETIAN DRIVE
INTERSECTION OF LIGHTHOUSE ROAD & AVALON ROAD
INTERSECTION OF LAPLAISANCE ROAD & LIGHTHOUSE ROAD



LAPLAISANCE & LIGHTHOUSE ROAD: FULL-DEPTH ROADWAY REPAIR TYPICAL SECTION

SCALE: 1" = 3'-0"
LOCATIONS: INTERSECTION OF LIGHTHOUSE ROAD & VENETIAN DRIVE
INTERSECTION OF LIGHTHOUSE ROAD & AVALON ROAD
INTERSECTION OF LAPLAISANCE ROAD & LIGHTHOUSE ROAD

IDENT NO.	ITEM	THICKNESS	RATE LBS PER SYD	PERFORMANCE GRADE	REMARKS
TOP	HMA, LVSP OR EL	1.5 INCHES	165	PG 58-28	TOP COURSE (AWI = 260 MIN., TARGET AIR VOIDS = 3.5%)
LEVELING	HMA, LVSP EL OR 13A	2.25 INCHES	250	PG 58-28	LEVELING COURSE (TARGET AIR VOIDS = 3.5%)
BASE	13A	2.25 INCHES	250	PG 58-28	LEVELING COURSE (TARGET AIR VOIDS = 3.5%)
	BOND COAT			0.05-0.15 GAL	SS-1H (FOR INFORMATION ONLY)

ALTERNATE PAVEMENTS TYPES CAN BE SUBMITTED BY THE CONTRACTOR FOR CONSIDERATION BY THE ENGINEER AND OWNER.

NOTES

ALL WIDTHS ARE TO MATCH EXISTING SURFACE WIDTHS AT ALL PAVEMENT REMOVAL LOCATIONS.

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

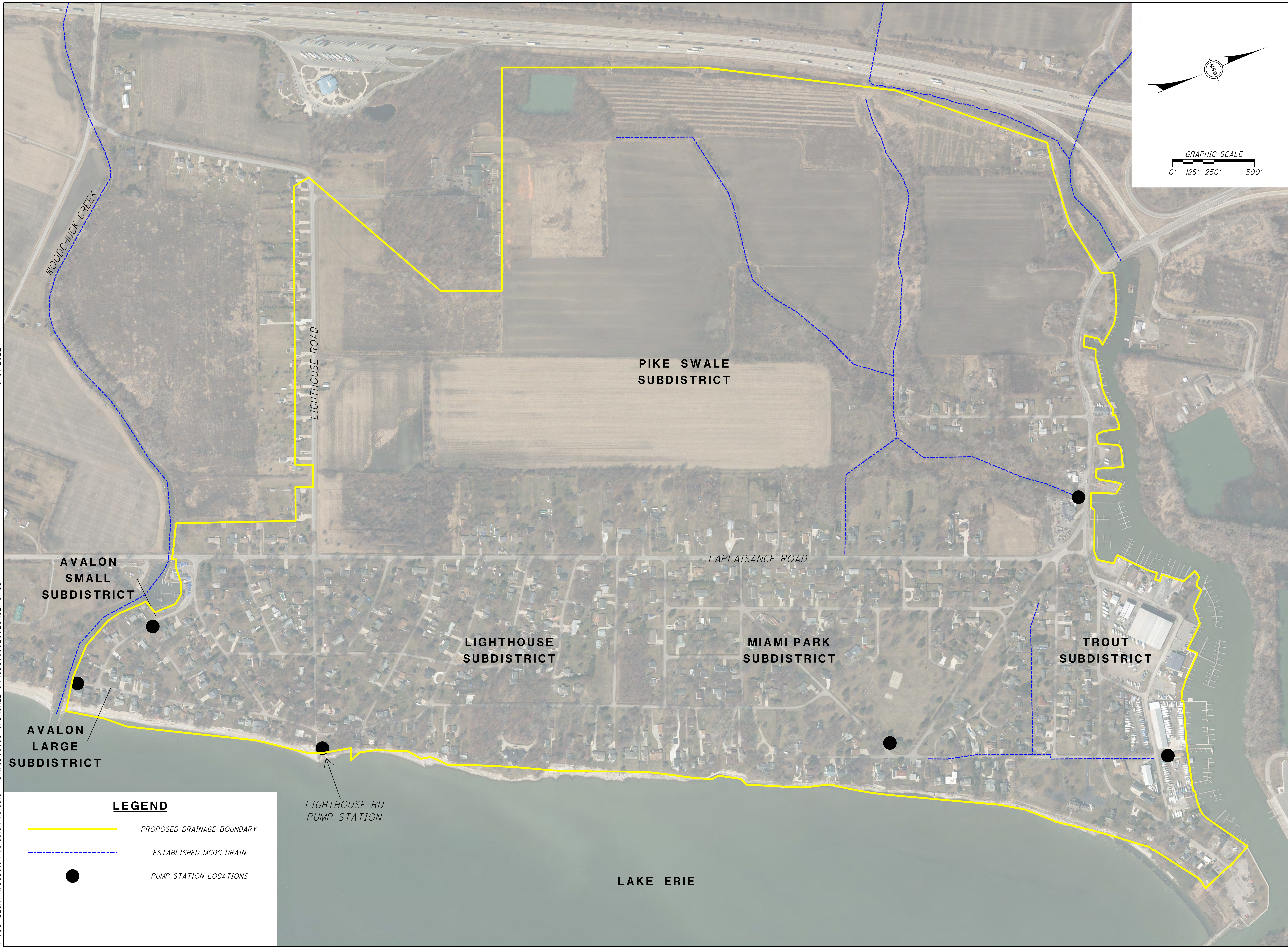
PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
100 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

TYPICAL ROADWAY SECTIONS

5/31/2022

\\MSGFILESRV\MSGData\Projects\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_04_Typical_Sections.dgn



5/31/2022

\\MSGFILESRV\MSGData\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_05_Site_Plan.dgn

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2245

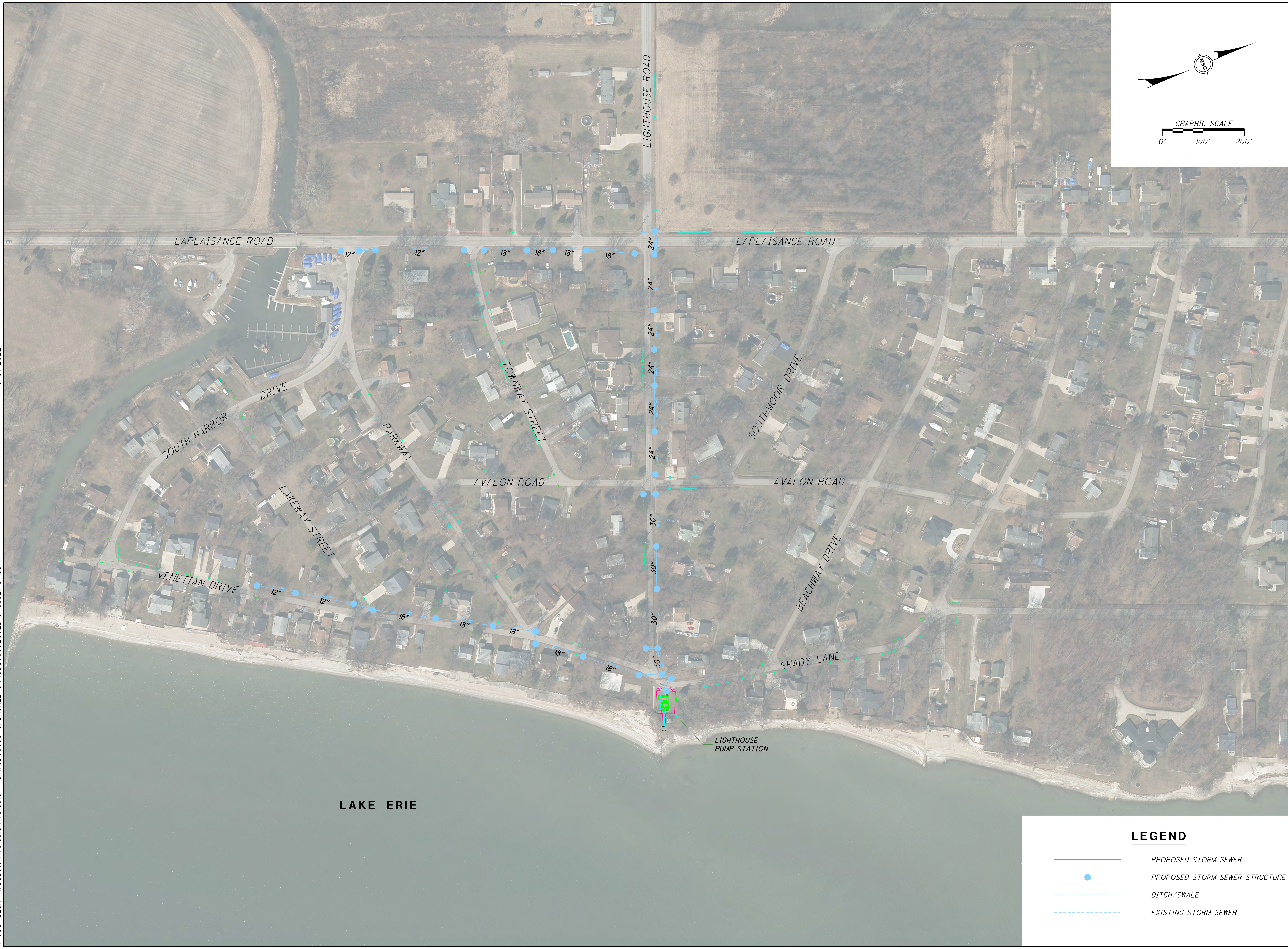
PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

Manik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.ManikSmithGroup.com

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1000 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

SITE PLAN



5/31/2022

\\MSGFILESRV\MSGData\Projects\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_06_Drainage_Plan.dgn

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET
--	_/_/_	--	
--	_/_/_	--	
--	_/_/_	--	
--	_/_/_	--	
--	_/_/_	--	
--	_/_/_	--	
--	_/_/_	--	
--	_/_/_	--	

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

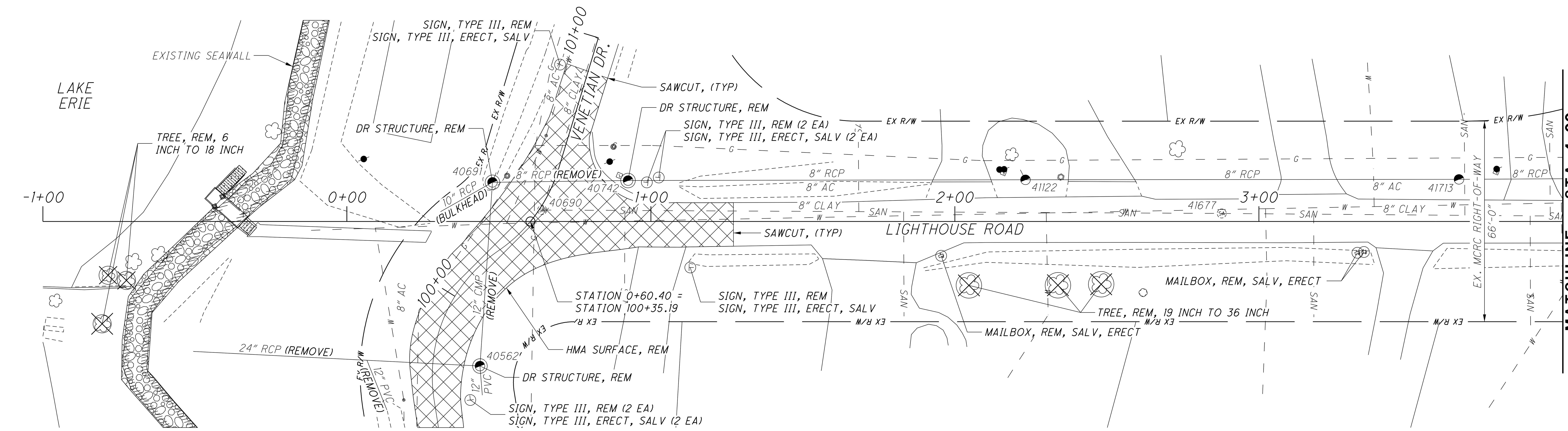
PROJECT DATE:	6/1/2022
PROJECT NO.:	MCDC0095
DRAWN BY:	CBJ
CHECKED BY:	CMZ

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.ManniKSmithGroup.com

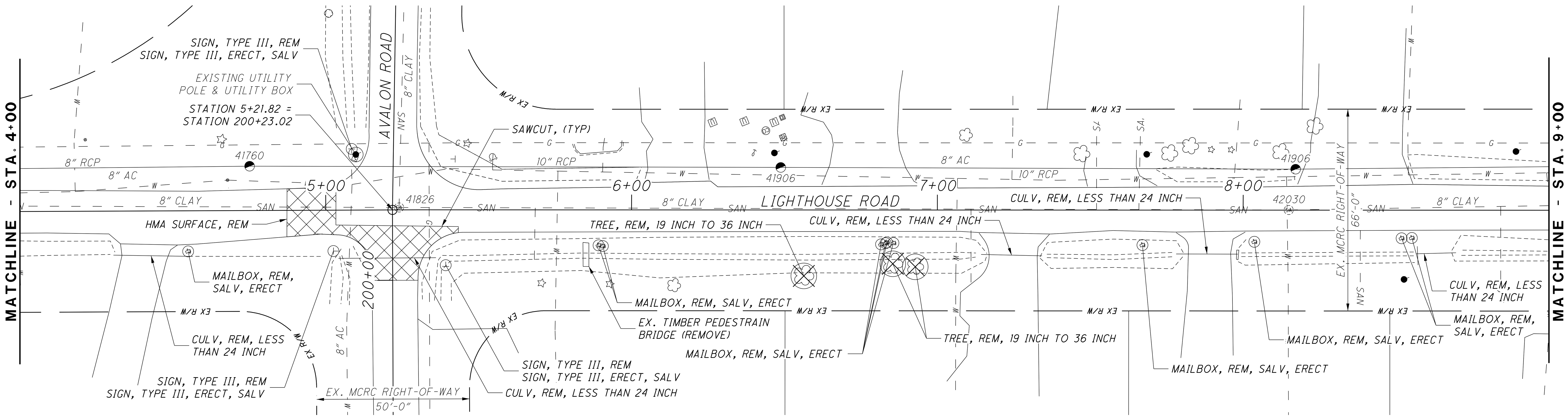
PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

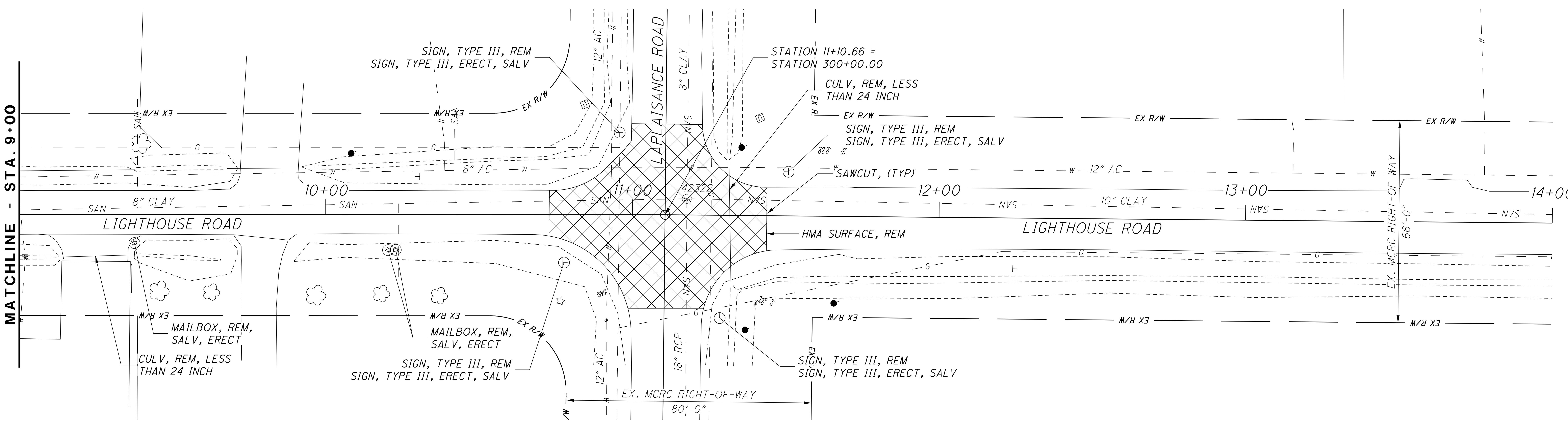
DRAINAGE PLAN



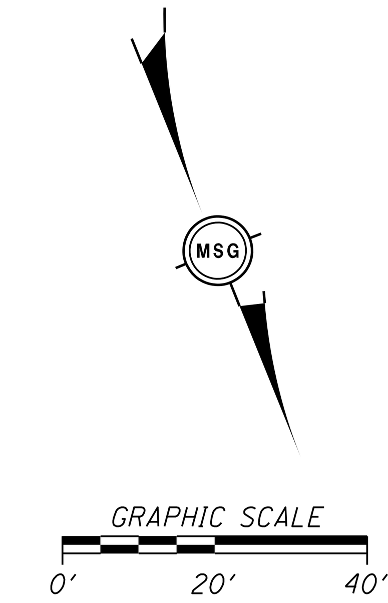
LIGHTHOUSE ROAD: STA. -1+00 TO 4+00

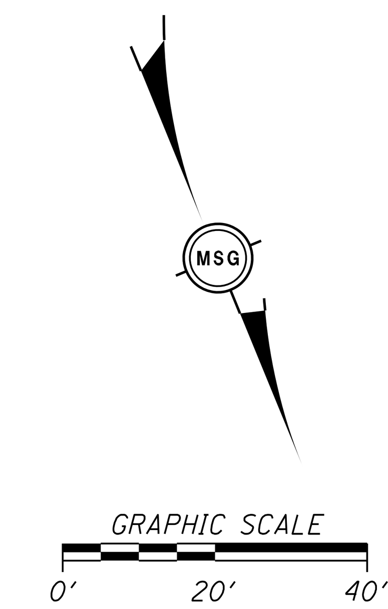


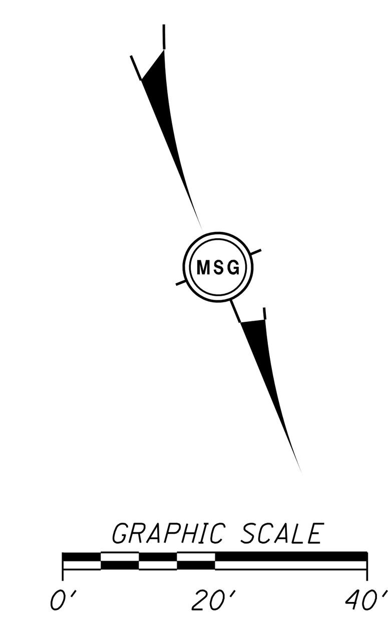
LIGHTHOUSE ROAD: STA. 4+00 TO 9+00



LIGHTHOUSE ROAD: STA. 9+00 TO 14+00







LEGEND

HMA SURFACE REMOVAL

TREE REMOVAL

NOTE: SEE PAGE 22 FOR ALL DRIVEWAY DATA

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

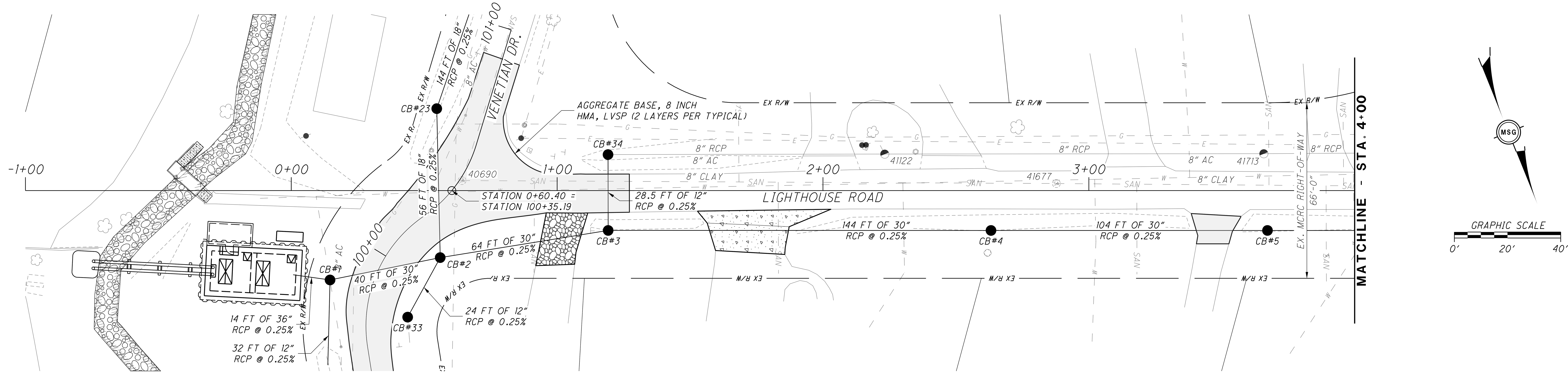
Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

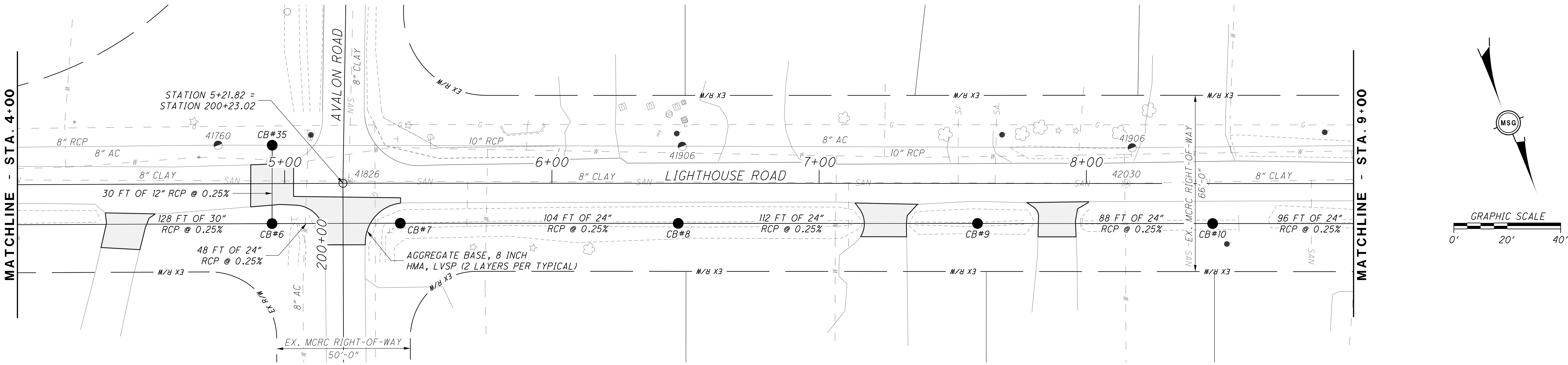
MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

LIGHTHOUSE ROAD REMOVAL PLAN

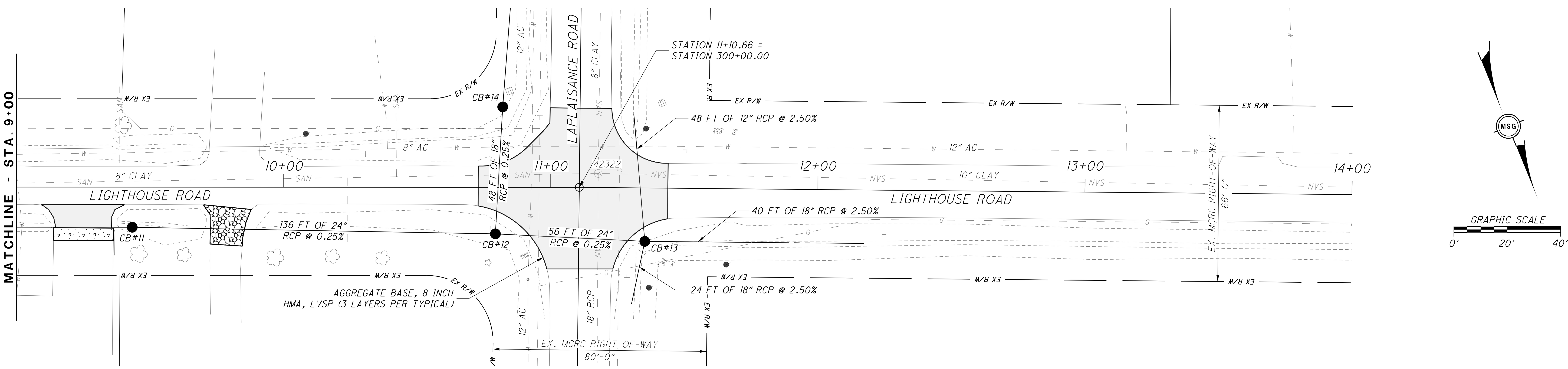
5/31/2022
\\MSGFILESRV\MSGData\Projects\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_07_Rev_Plan.dgn



LIGHTHOUSE ROAD: STA. -1+00 TO 4+00



LIGHTHOUSE ROAD: STA. 4+00 TO 9+00



LIGHTHOUSE ROAD: STA. 9+00 TO 14+00

NOTE: SEE PAGE 22 FOR ALL DRIVEWAY DATA

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

Manik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.ManikSmithGroup.com
1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

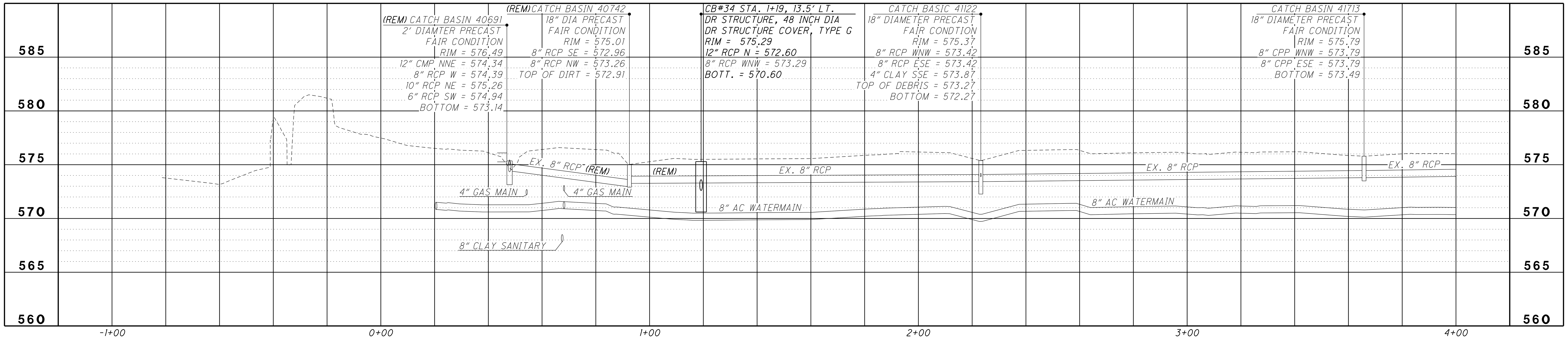
PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

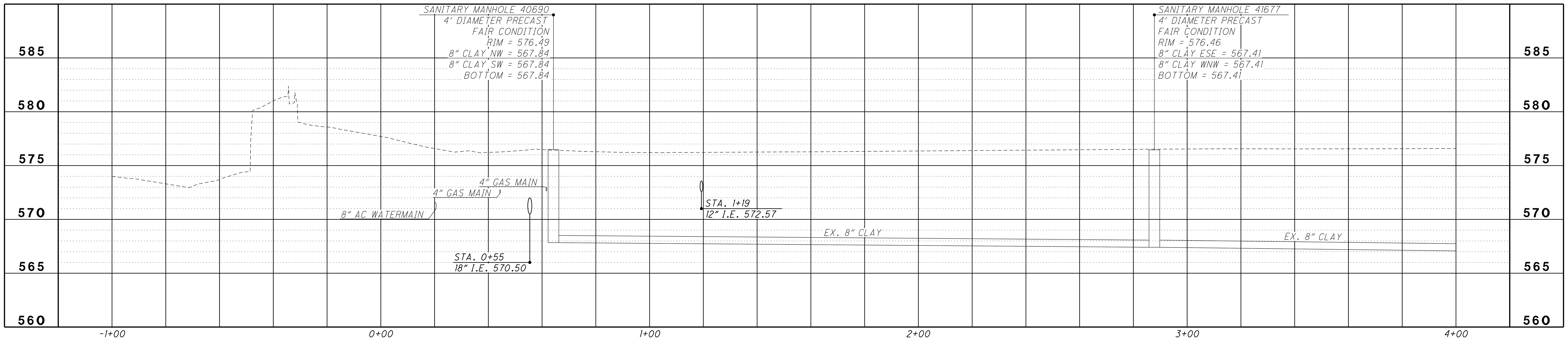
MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

LIGHTHOUSE ROAD CONSTRUCTION PLAN

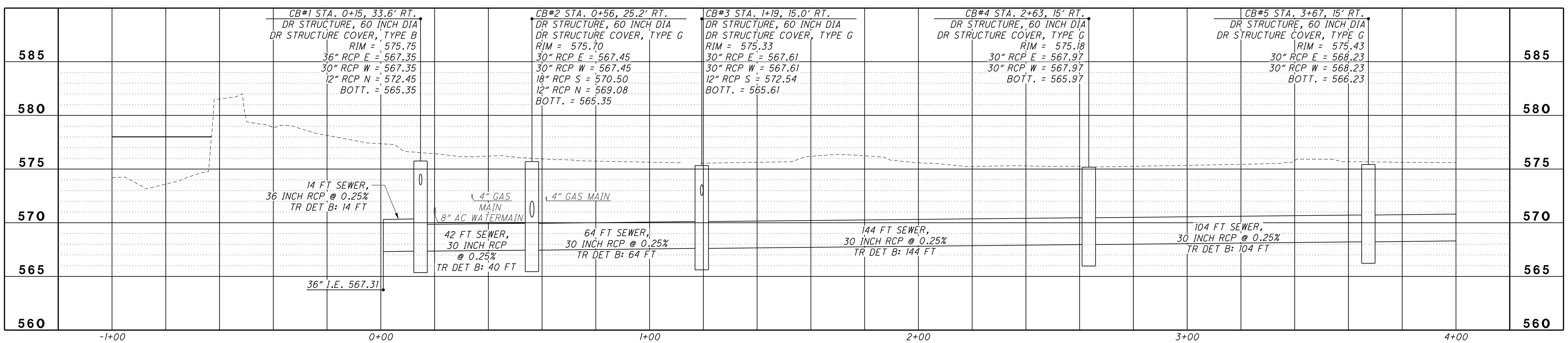
5/31/2022
\\MSGFILESRV\MSGData\Projects\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_08_Plan.dgn



LIGHTHOUSE ROAD: LEFT PROFILE



LIGHTHOUSE ROAD: CENTERLINE PROFILE



LIGHTHOUSE ROAD: RIGHT PROFILE

5/31/2022

\\MSGFILESRV\MSGData\Projects\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_09_Profile.dgn

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

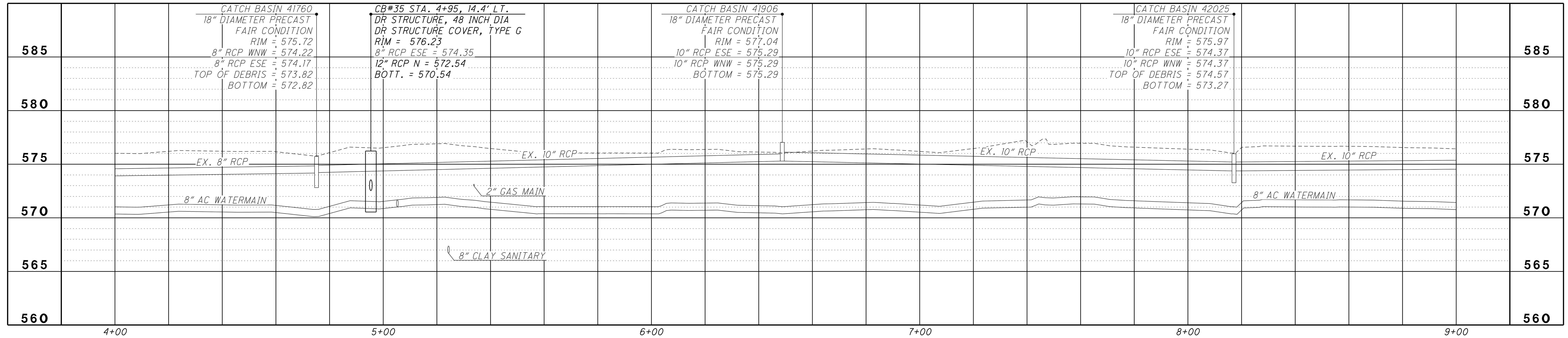
PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

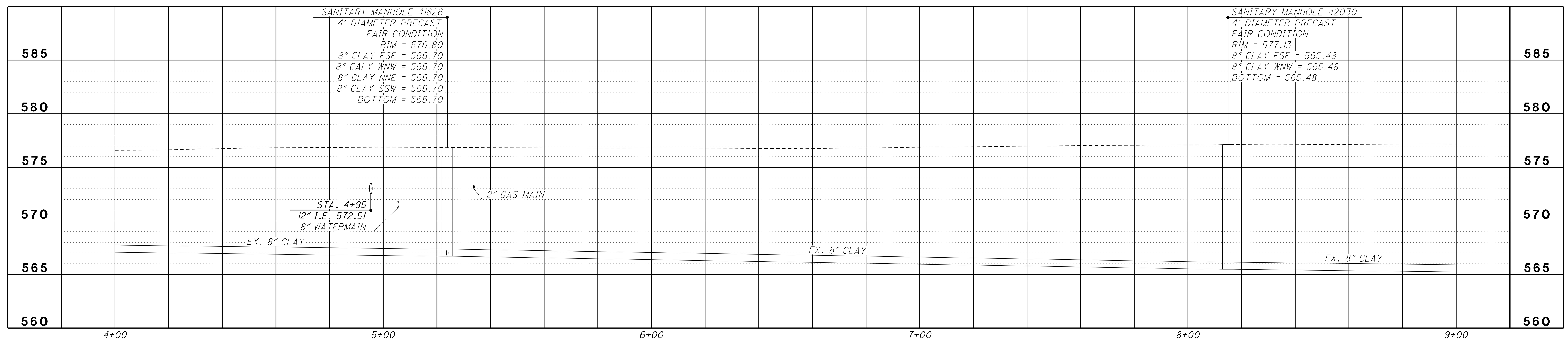
PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

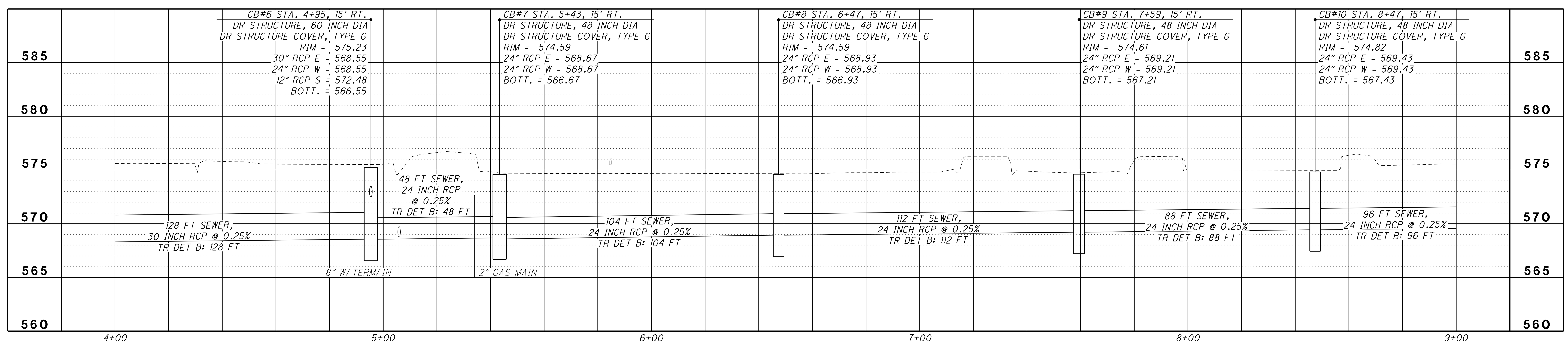
LIGHTHOUSE ROAD PROFILE
STA. -1+00 TO STA. 4+00



LIGHTHOUSE ROAD: LEFT PROFILE



LIGHTHOUSE ROAD: CENTERLINE PROFILE



LIGHTHOUSE ROAD: RIGHT PROFILE

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

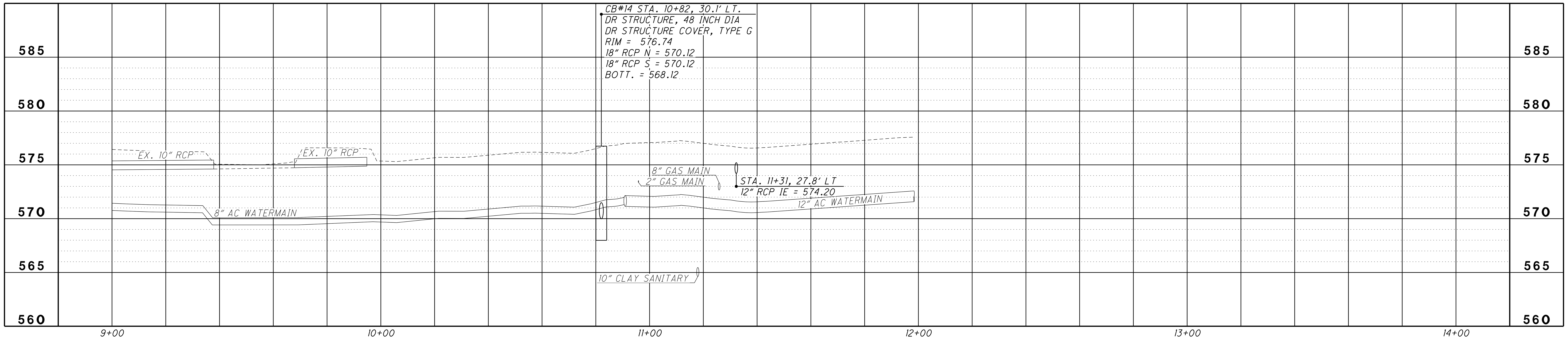
MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

LIGHTHOUSE ROAD PROFILE
STA. 4+00 TO STA. 9+00

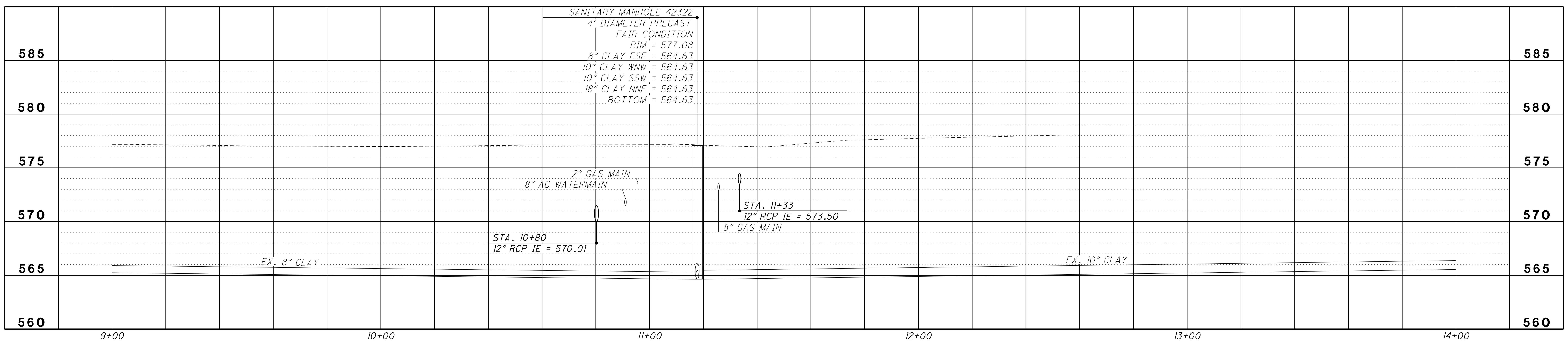
10 / 58

5/31/2022

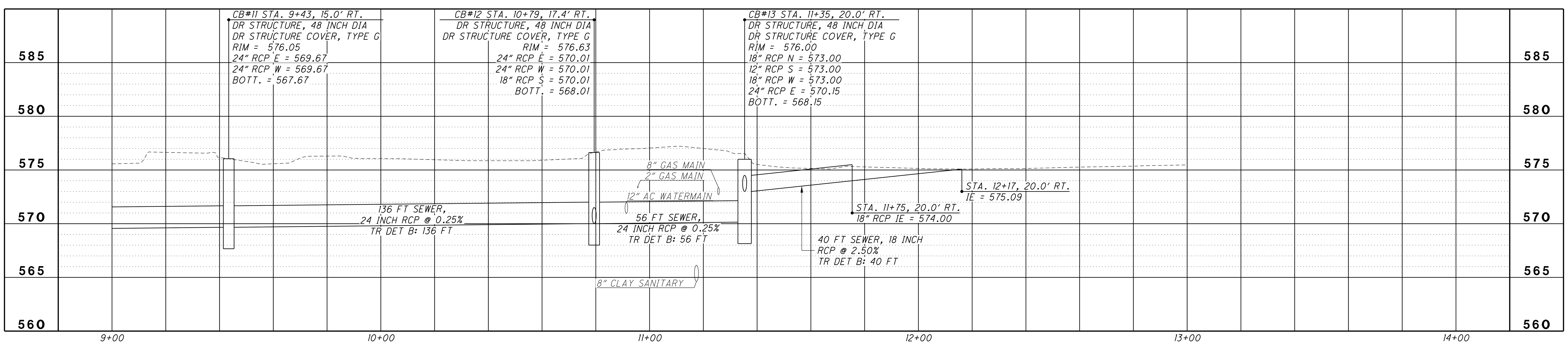
\\MSGFILESRV\MSGData\Projects\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_10_Profile.dgn



LIGHTHOUSE ROAD: LEFT PROFILE



LIGHTHOUSE ROAD: CENTERLINE PROFILE



LIGHTHOUSE ROAD: RIGHT PROFILE

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com
1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

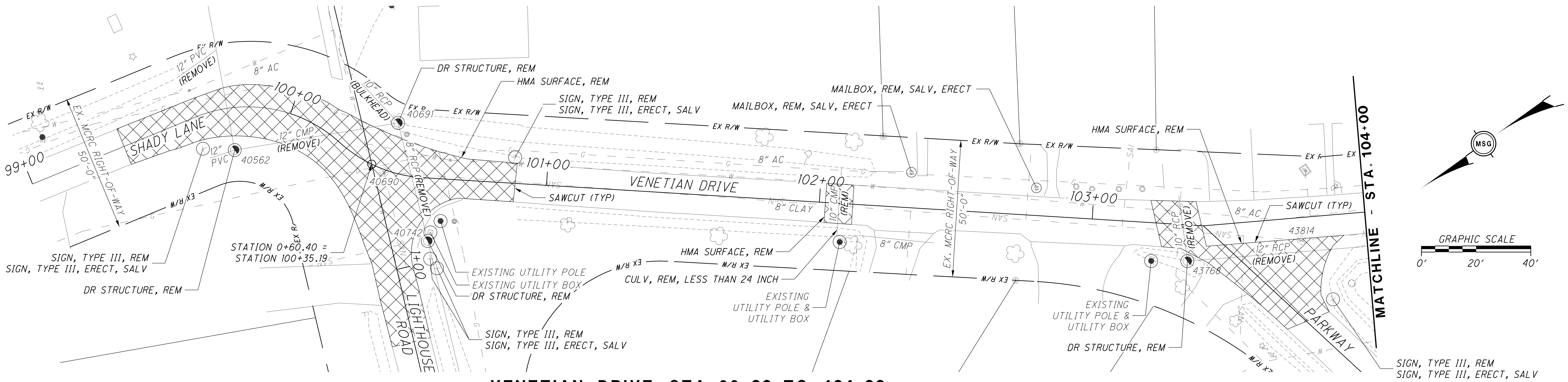
PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
100 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

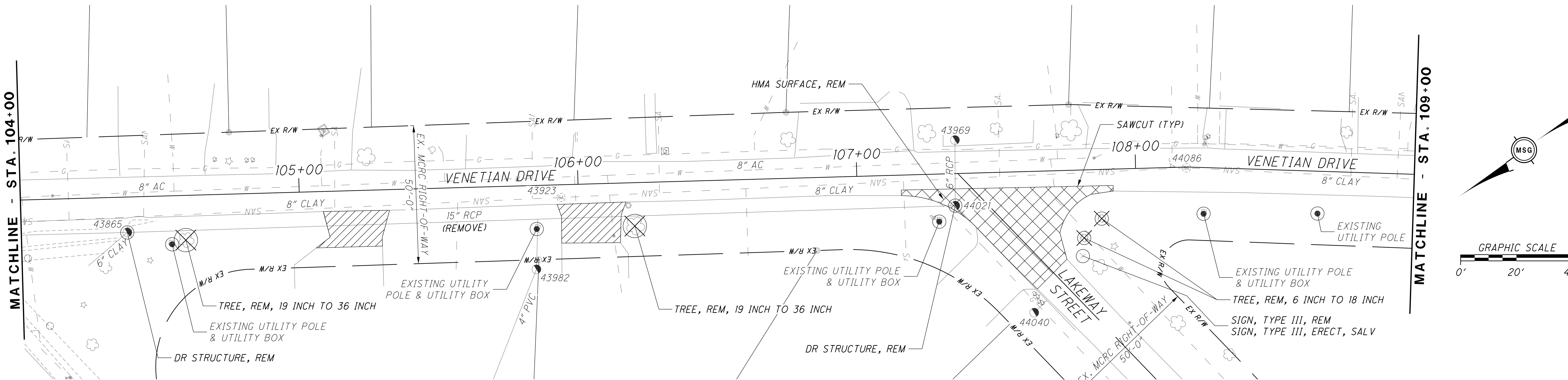
MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

LIGHTHOUSE ROAD PROFILE
STA. 9+00 TO STA. 14+00

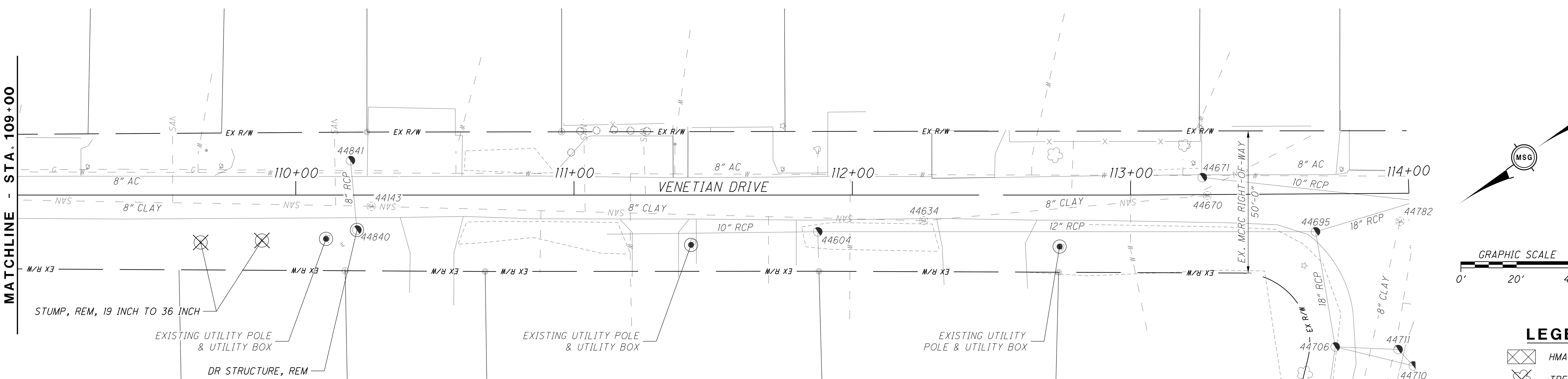
5/31/2022
\\MSGFILESRV\MSGData\Projects\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_11_Profile.dgn



VENETIAN DRIVE: STA. 99+00 TO 104+00



VENETIAN DRIVE: STA. 104+00 TO 109+00



VENETIAN DRIVE: STA. 109+00 TO 114+00

LEGEND

- HMA SURFACE REMOVAL
- TREE REMOVAL

NOTE: SEE PAGE 22 FOR ALL DRIVEWAY DATA

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

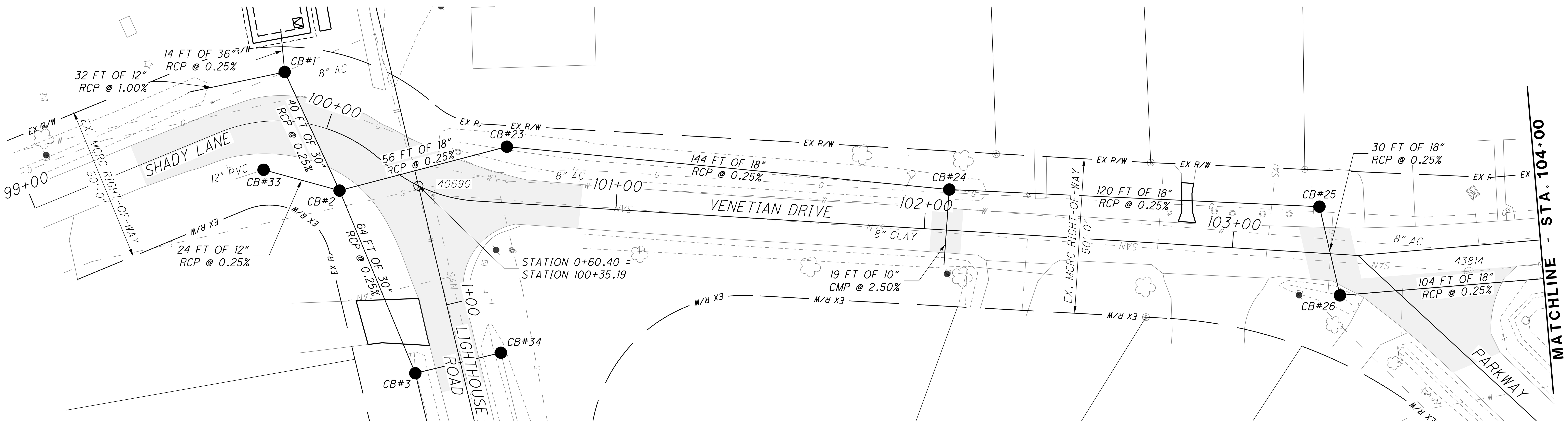
PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

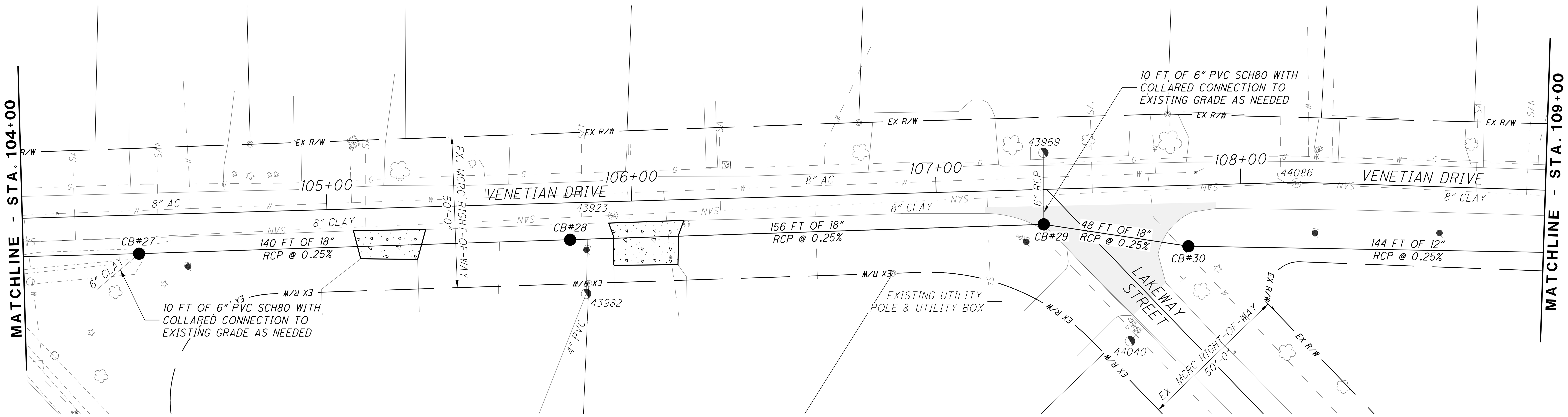
MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

VENETIAN DRIVE REMOVAL PLAN

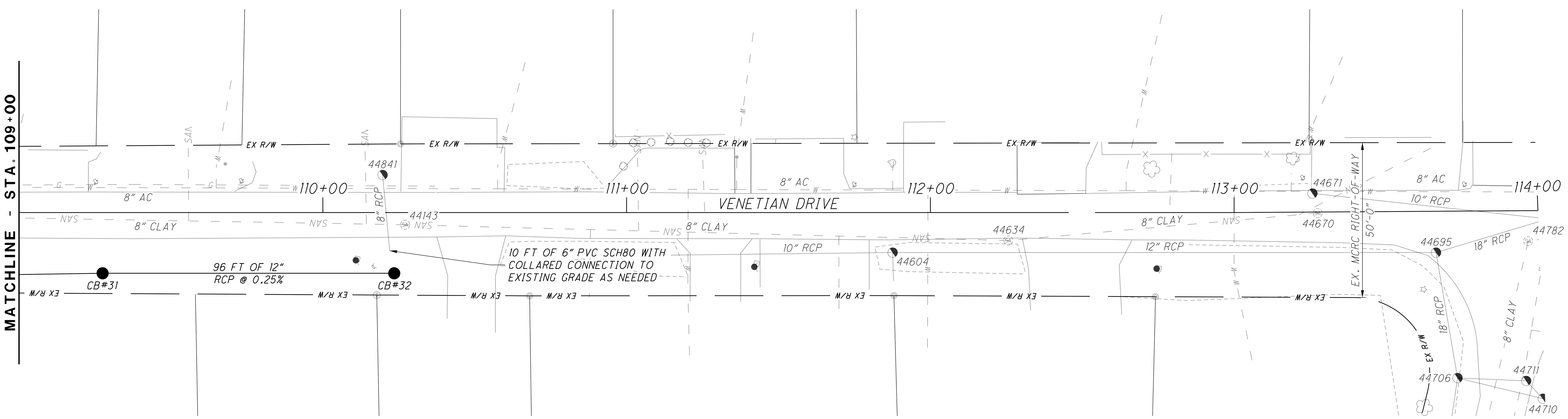
5/31/2022
\\MSGFILESRV\MSGData\Projects\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_12_Rev_Plan.dgn



VENETIAN DRIVE: STA. 99+00 TO 104+00



VENETIAN DRIVE: STA. 104+00 TO 109+00



VENETIAN DRIVE: STA. 109+00 TO 114+00

NOTE: SEE PAGE 22 FOR ALL DRIVEWAY DATA

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

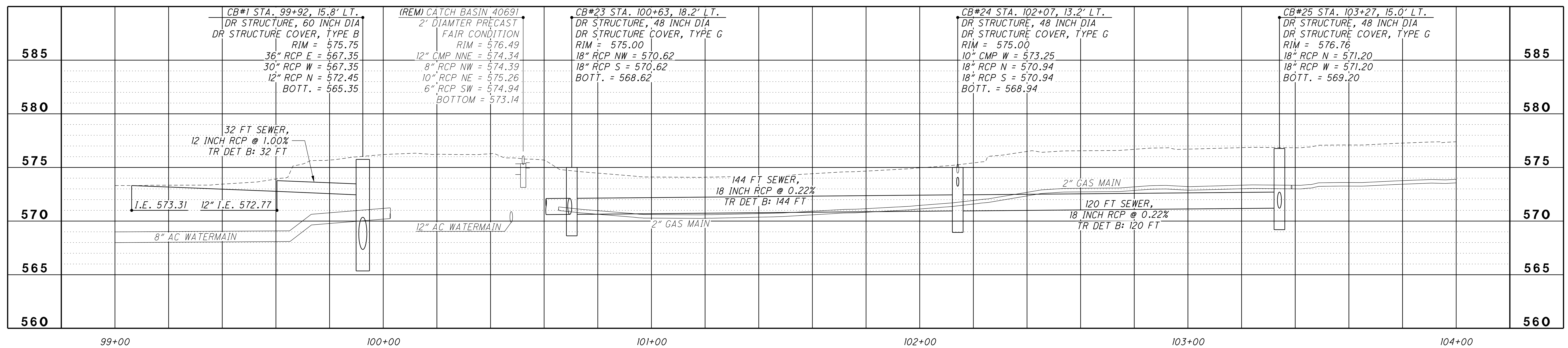
PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

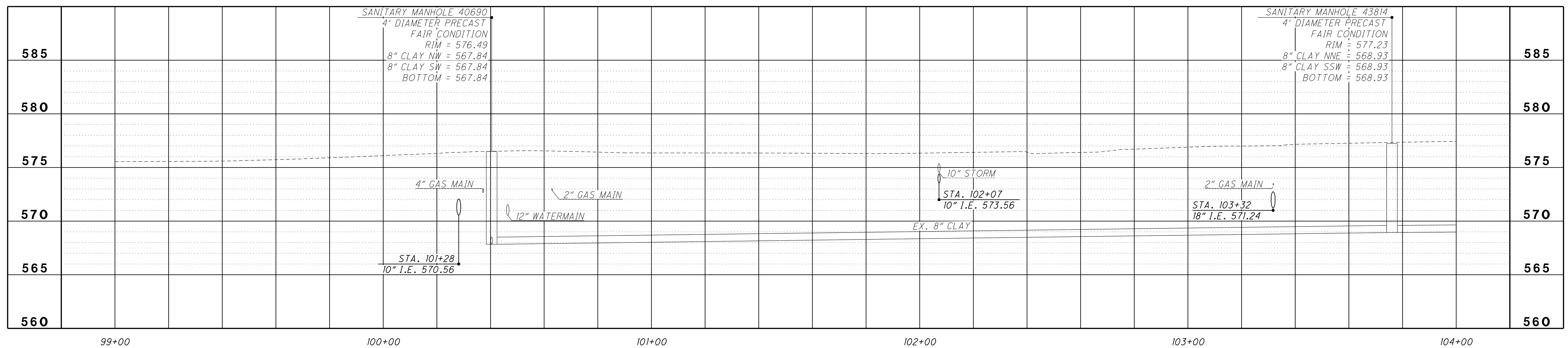
VENETIAN DRIVE CONSTRUCTION PLAN

5/31/2022

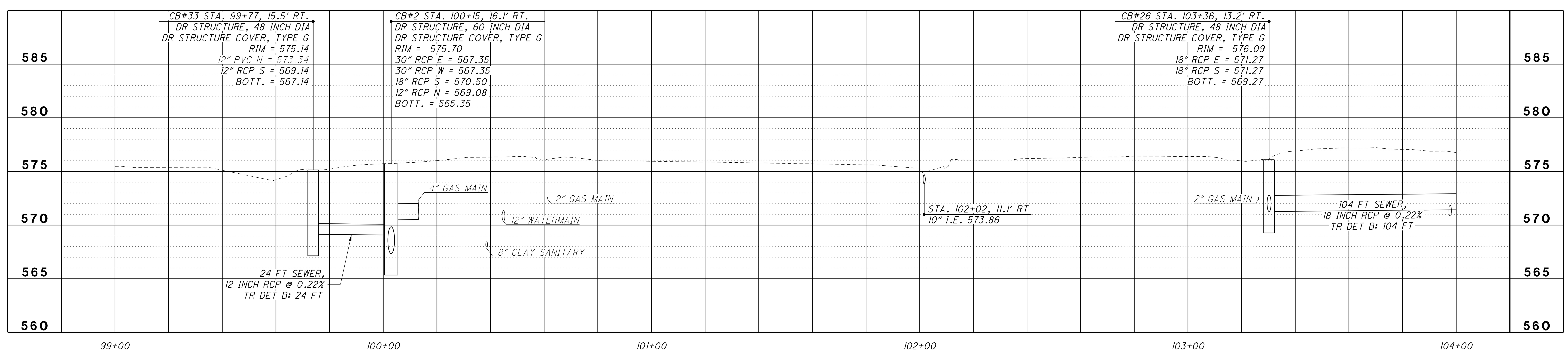
\\MSGFILESRV\MSGData\Projects\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_13_Plan.dgn



VENETIAN DRIVE: LEFT PROFILE



VENETIAN DRIVE: CENTERLINE PROFILE



VENETIAN DRIVE: RIGHT PROFILE

5/31/2022

\\MSGFILESRV\MSGData\Projects\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_14_Profile.dgn

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

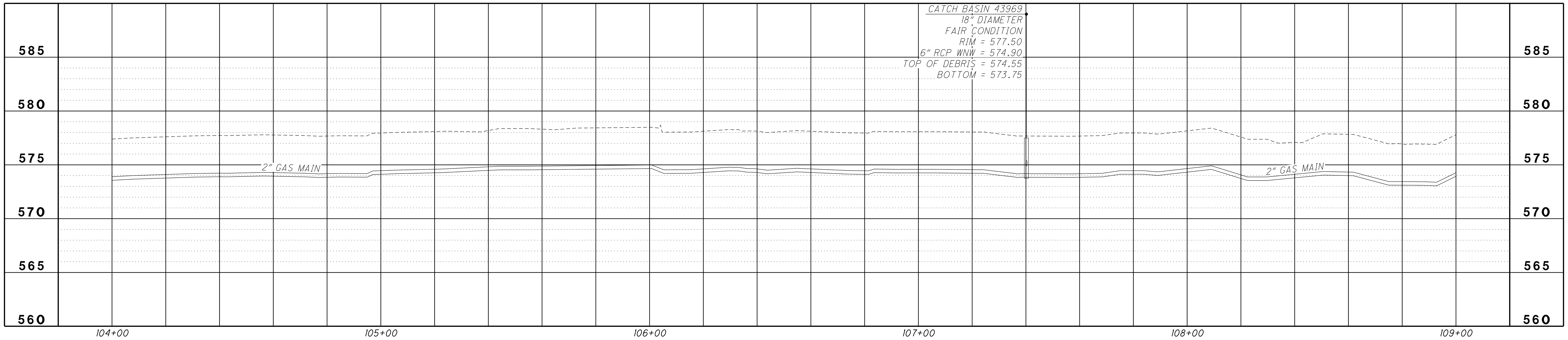
PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

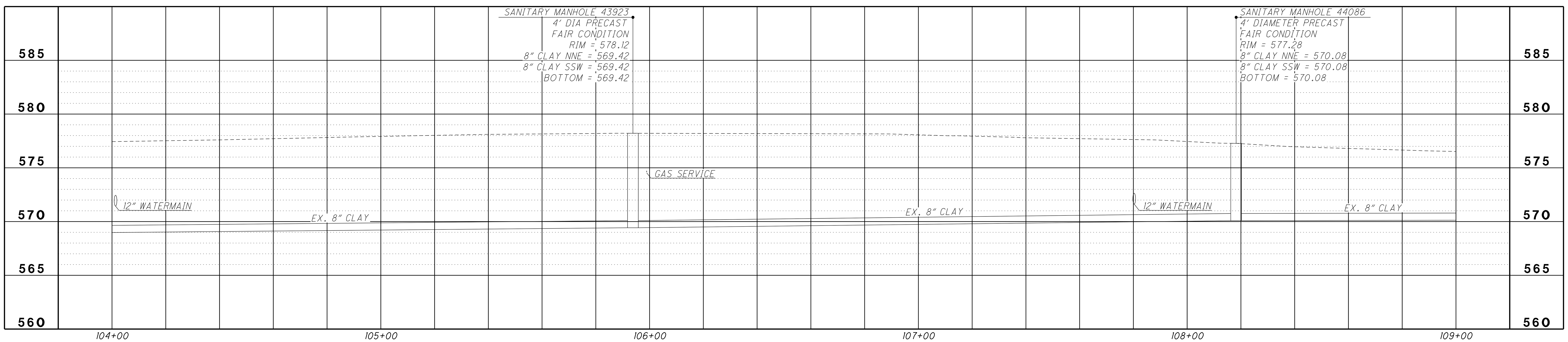
PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
100 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

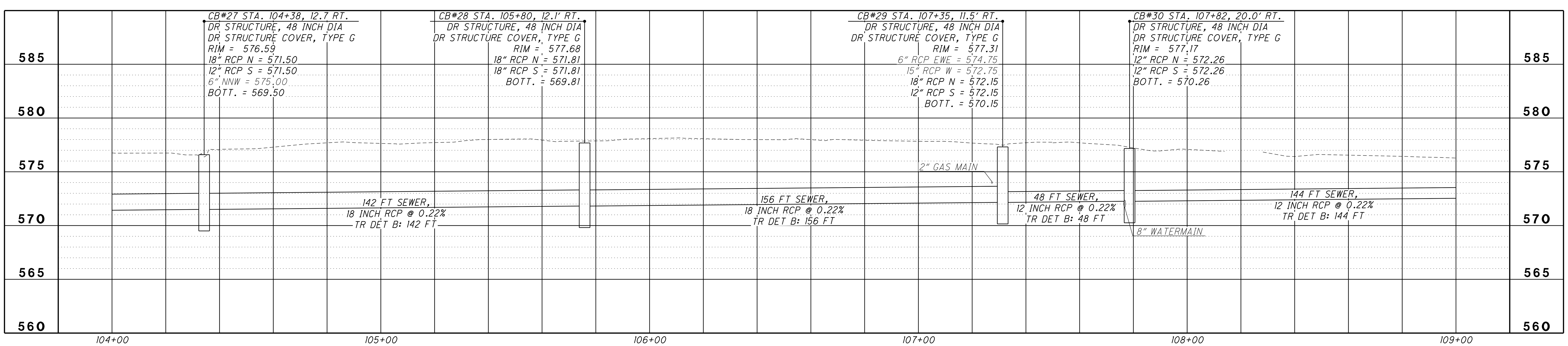
VENETIAN DRIVE PROFILE
STA. 99+00 TO STA. 104+00



VENETIAN DRIVE: LEFT PROFILE



VENETIAN DRIVE: CENTERLINE PROFILE



VENETIAN DRIVE: RIGHT PROFILE

5/31/2022

\\MSGFILESRV\MSGData\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_15_Profile.dgn

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL 734-289-2200
FAX 734-289-2345

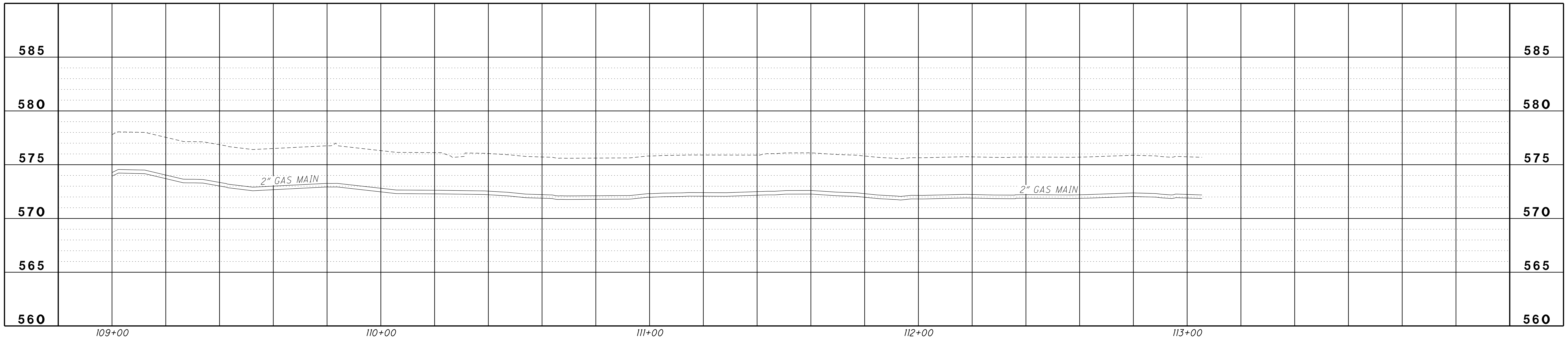
PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.ManniksmithGroup.com

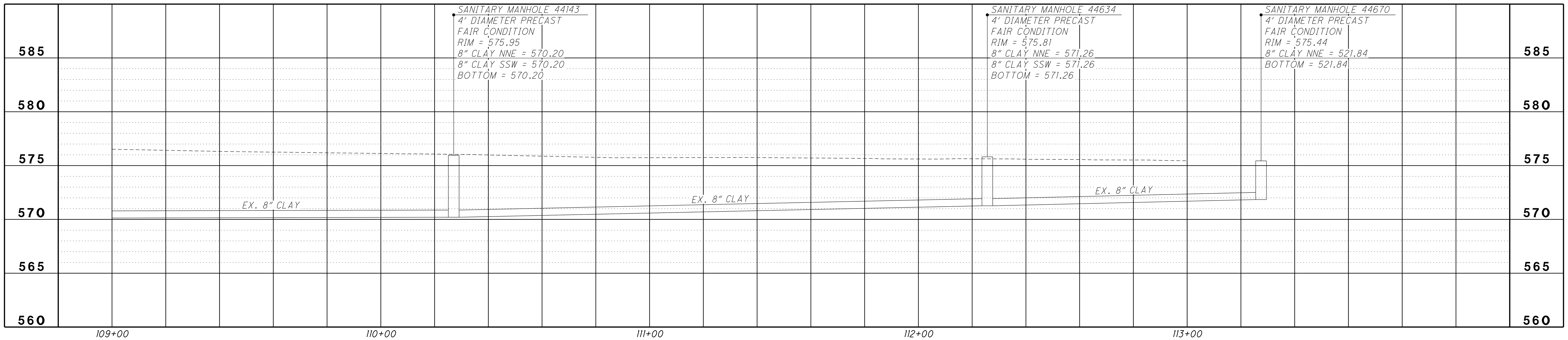
PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

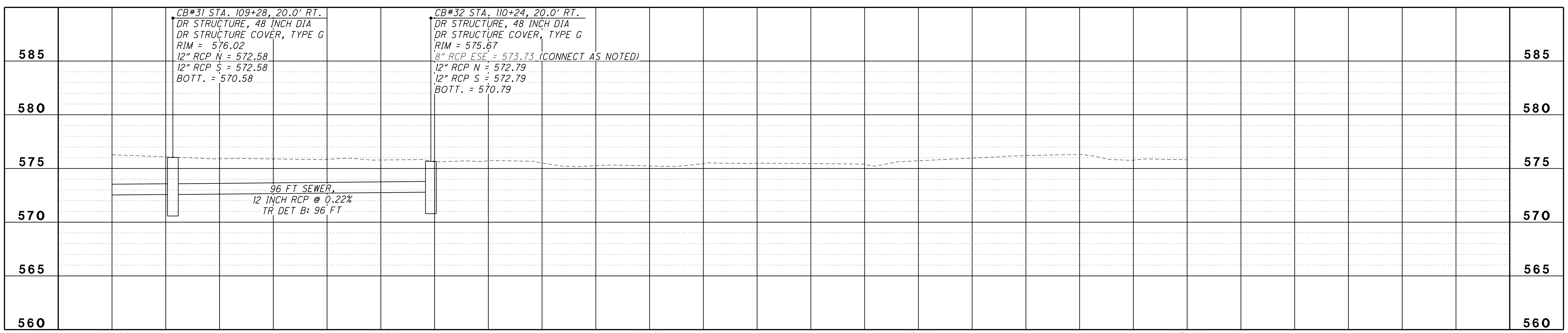
VENETIAN DRIVE PROFILE
STA. 104+00 TO STA. 109+00



VENETIAN DRIVE: LEFT PROFILE



VENETIAN DRIVE: CENTERLINE PROFILE



VENETIAN DRIVE: RIGHT PROFILE

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.ManniKSmithGroup.com
1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

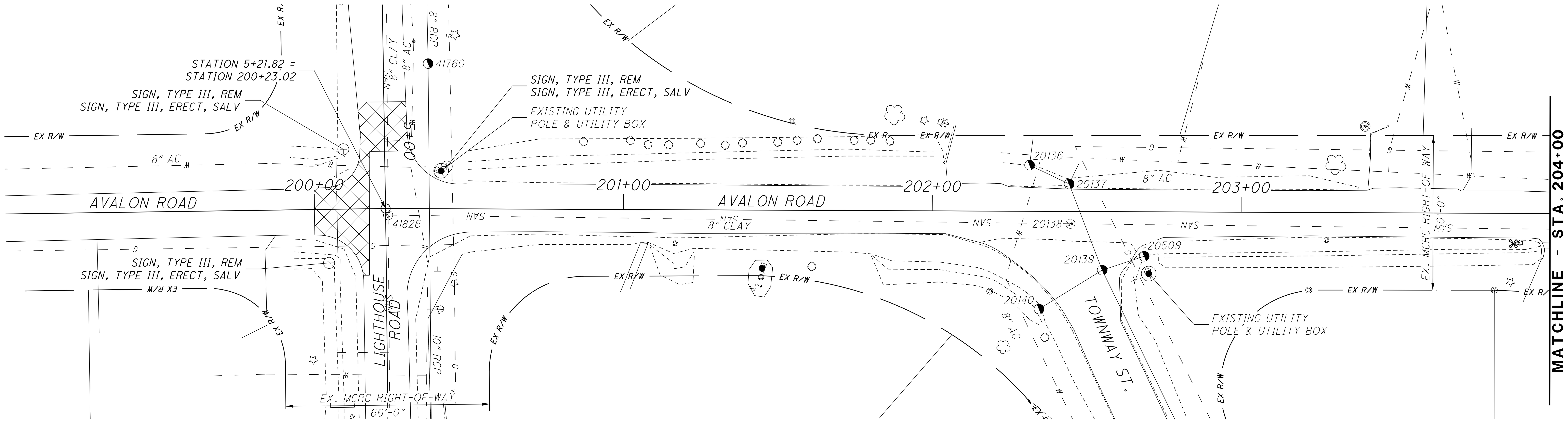
PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

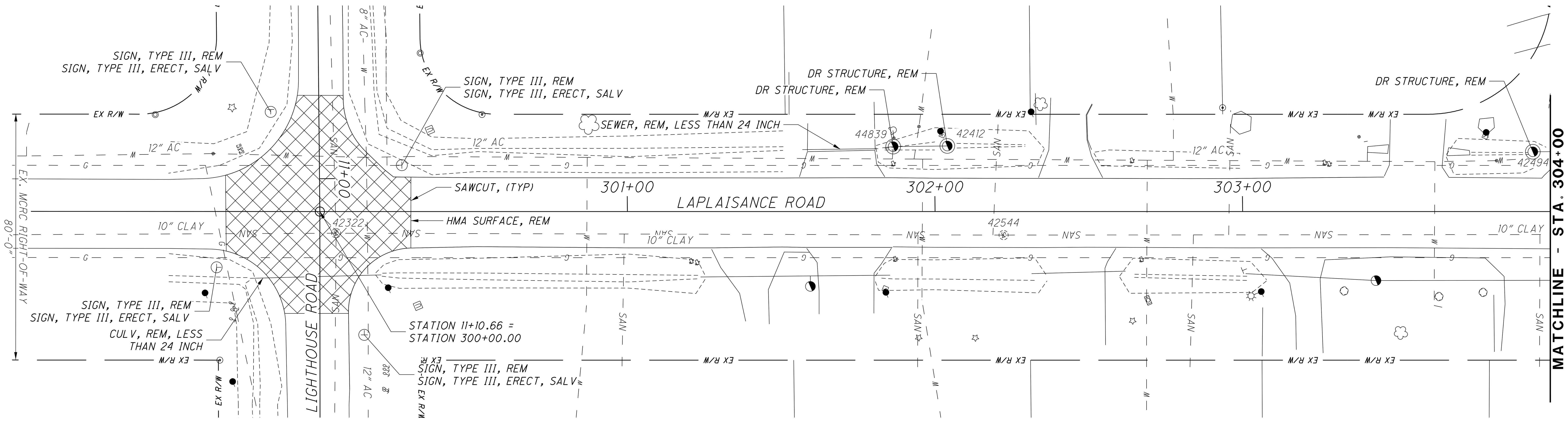
VENETIAN DRIVE PROFILE
STA. 109+00 TO STA. 114+00

5/31/2022
\\MSGFILESRV\MSGData\Projects\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_16_Profile.dgn



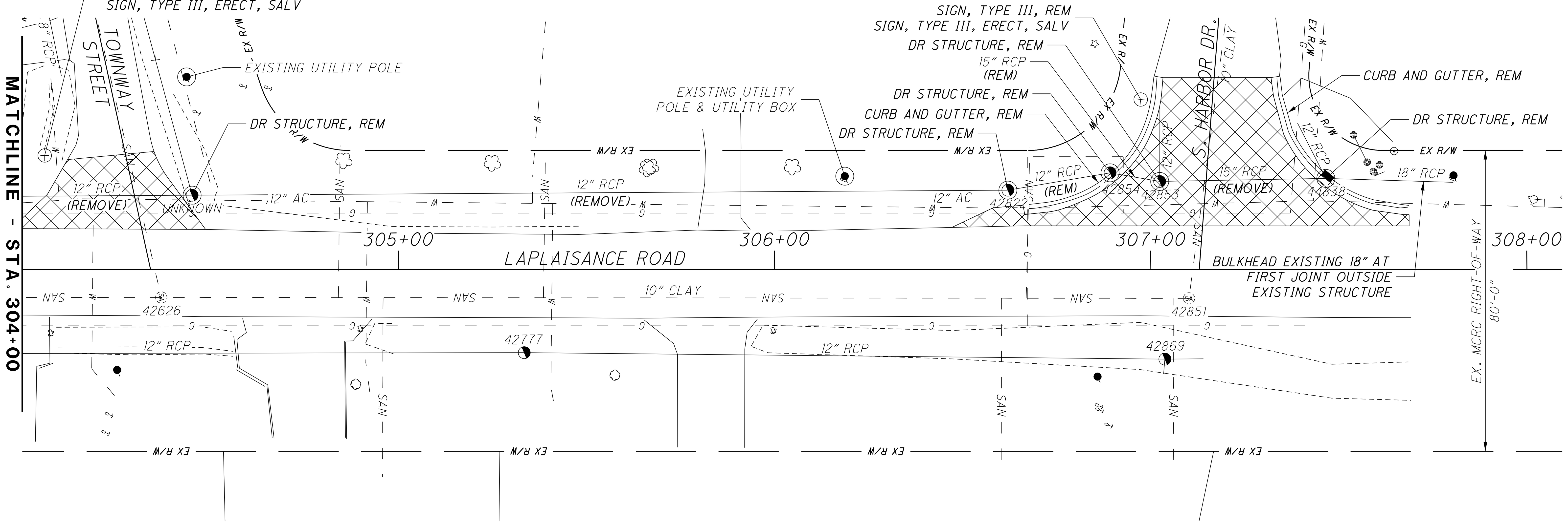
AVALON ROAD: STA. 199+00 TO 204+00

GRAPHIC SCALE
0' 20' 40'



LAPLAISANCE ROAD: STA. 299+00 TO 304+00

GRAPHIC SCALE
0' 20' 40'



LAPLAISANCE ROAD: STA. 304+00 TO 308+00

GRAPHIC SCALE
0' 20' 40'

LEGEND

HMA SURFACE REMOVAL

TREE REMOVAL

NOTE: SEE PAGE 22 FOR ALL DRIVEWAY DATA

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

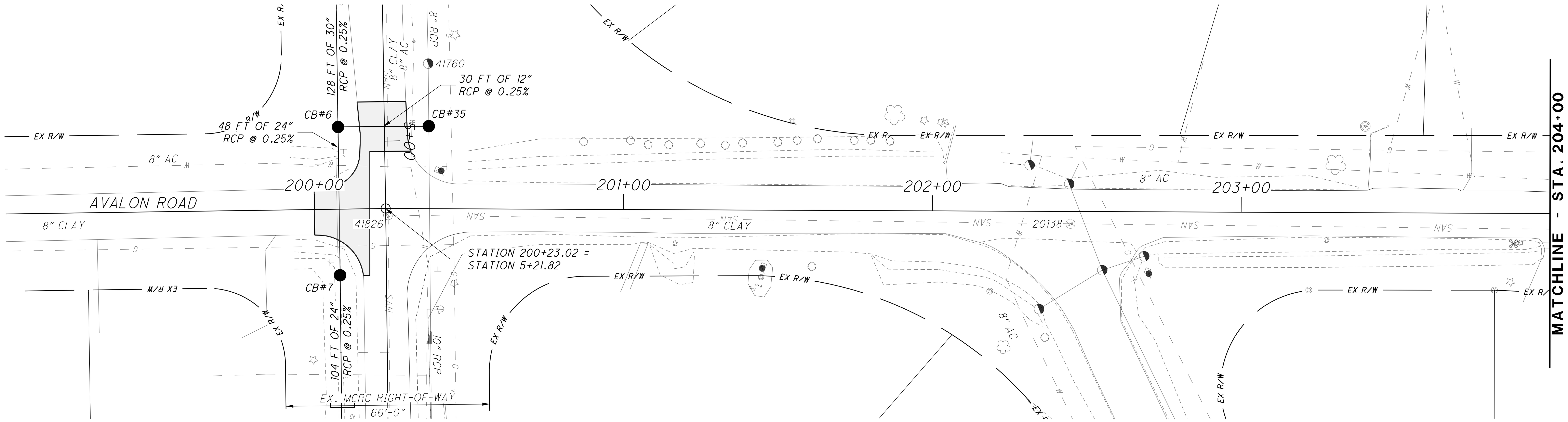
Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.ManikSmithGroup.com

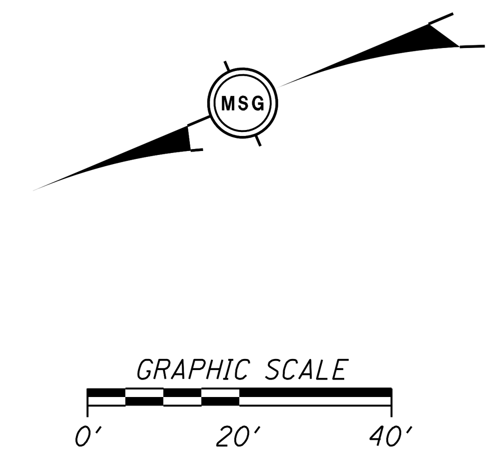
PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

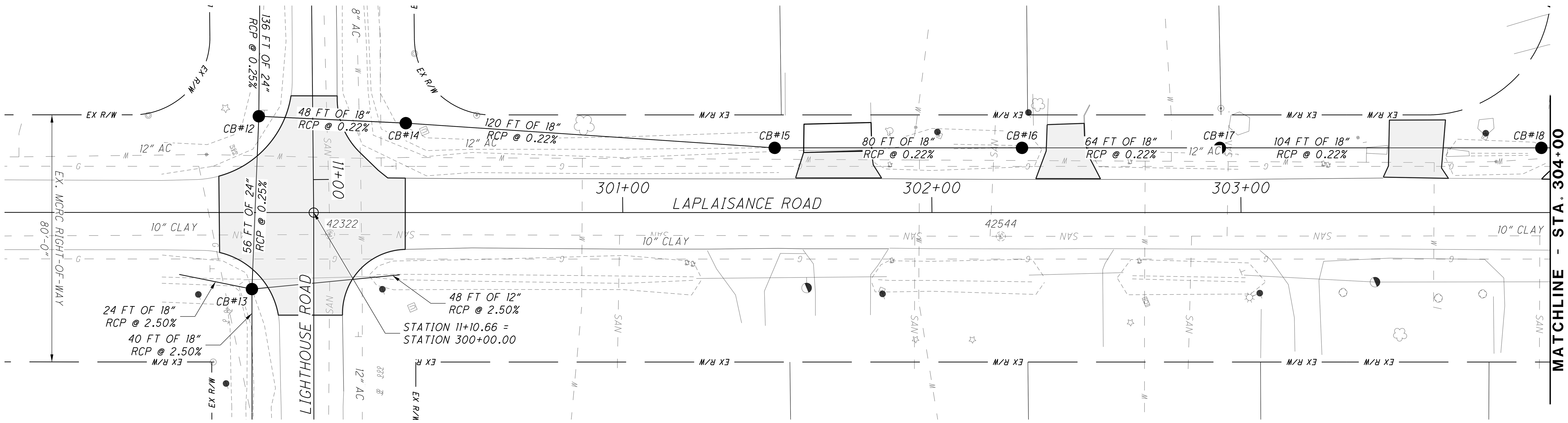
AVALON ROAD & LAPLAISANCE ROAD REMOVAL PLAN

5/31/2022
\\MSGFILESRV\MSGData\Projects\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_17_Rev_Plan.dgn

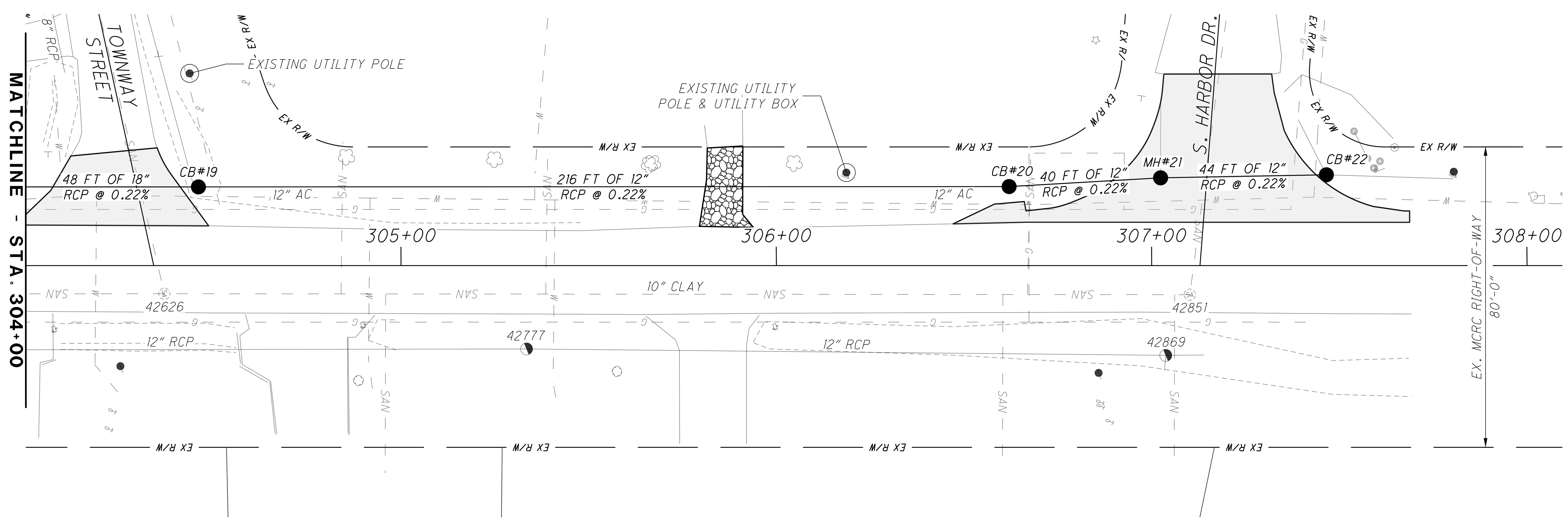




AVALON ROAD: STA. 199+00 TO 204+00



LAPLAISANCE ROAD: STA. 299+00 TO 304+00



LAPLAISANCE ROAD: STA. 304+00 TO 308+00

NOTE: SEE PAGE 22 FOR ALL DRIVEWAY DATA

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

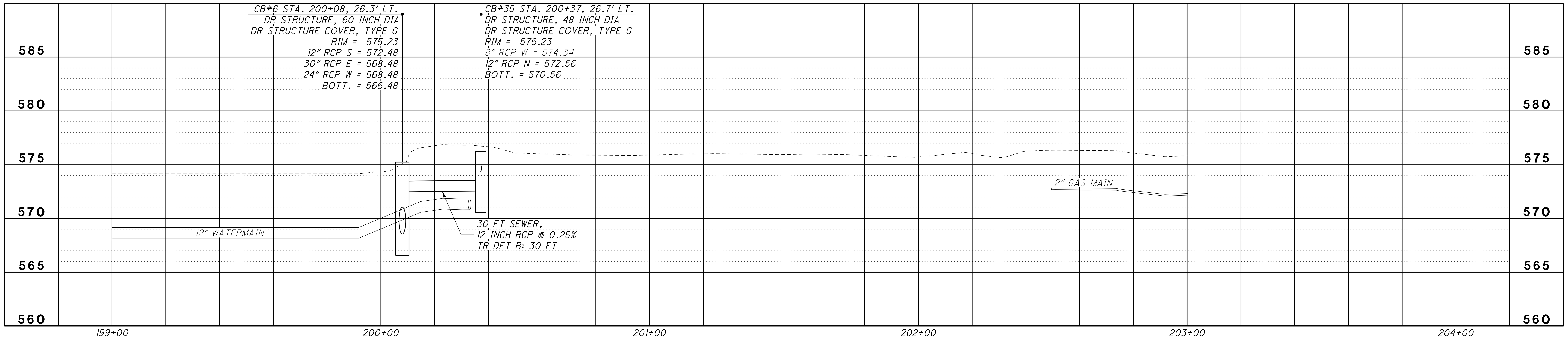
PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

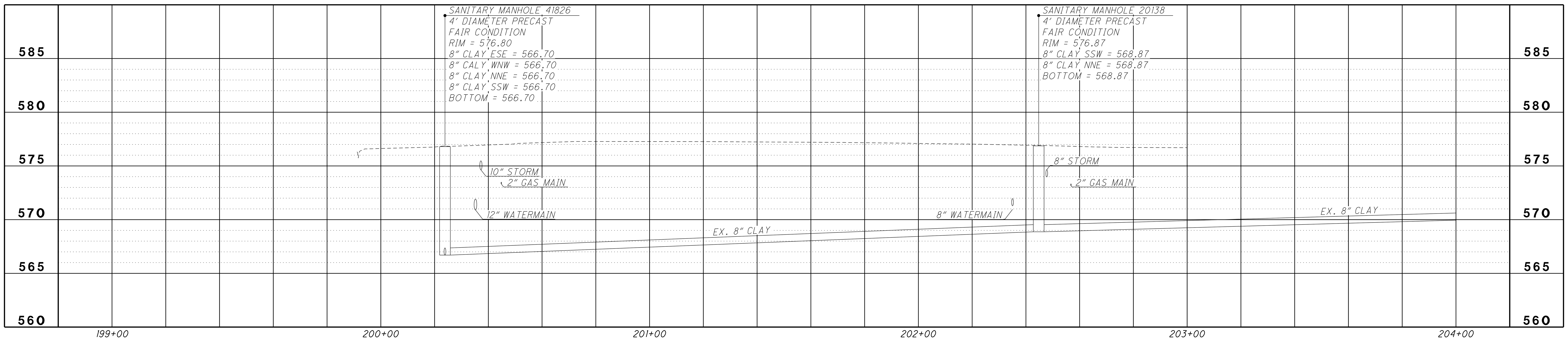
PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

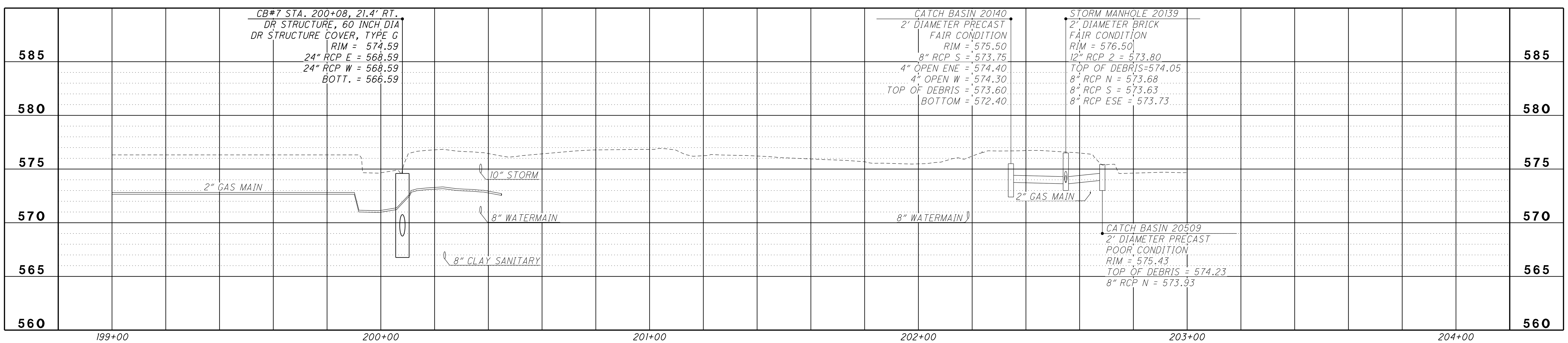
AVALON ROAD & LAPLAISANCE ROAD CONSTRUCTION PLAN



AVALON ROAD: LEFT PROFILE



AVALON ROAD: CENTERLINE PROFILE



AVALON ROAD: RIGHT PROFILE

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

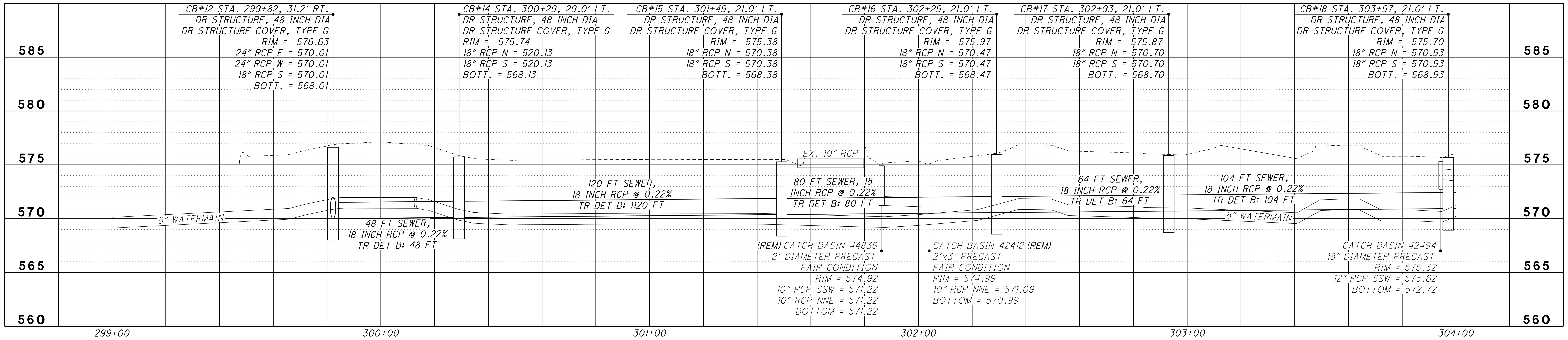
Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

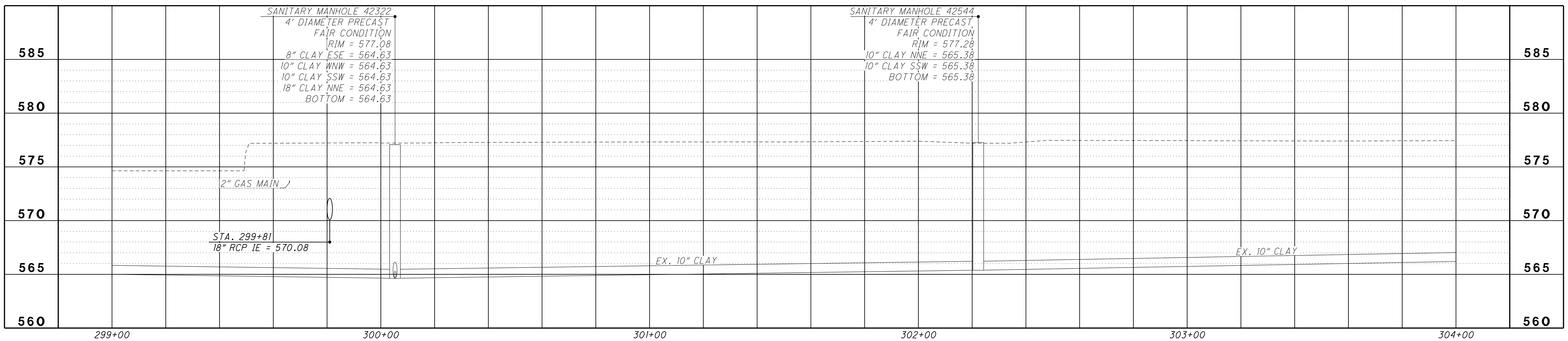
MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

AVALON ROAD PROFILE
STA. 199+00 TO STA. 204+00

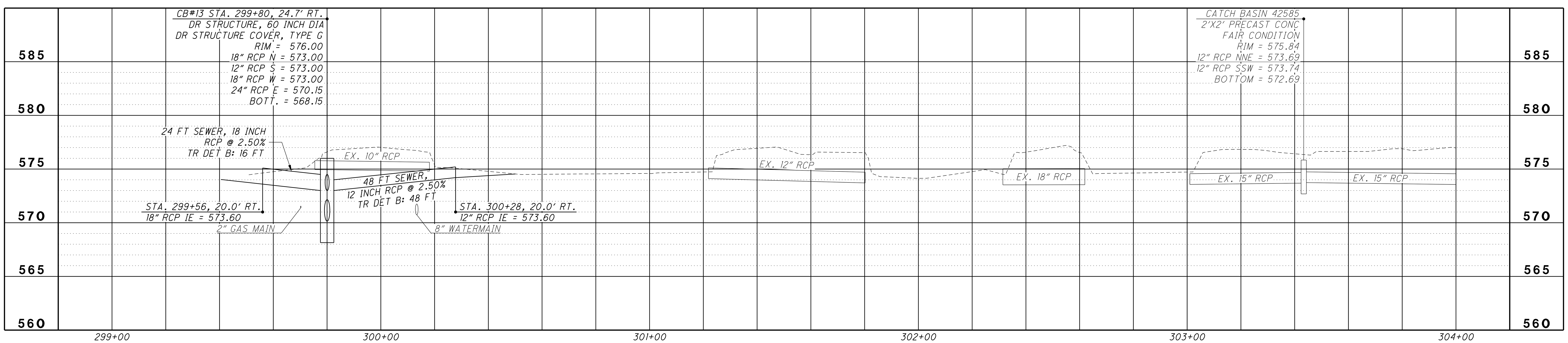
5/31/2022
\\MSGFILESRV\MSGData\Projects\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_19_Profile.dgn



LAPLAISANCE ROAD: LEFT PROFILE



LAPLAISANCE ROAD: CENTERLINE PROFILE



LAPLAISANCE ROAD: RIGHT PROFILE

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

PROJECT DATE:	6/1/2022
PROJECT NO.:	MCDC0095
DRAWN BY:	CBJ
CHECKED BY:	CMZ

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

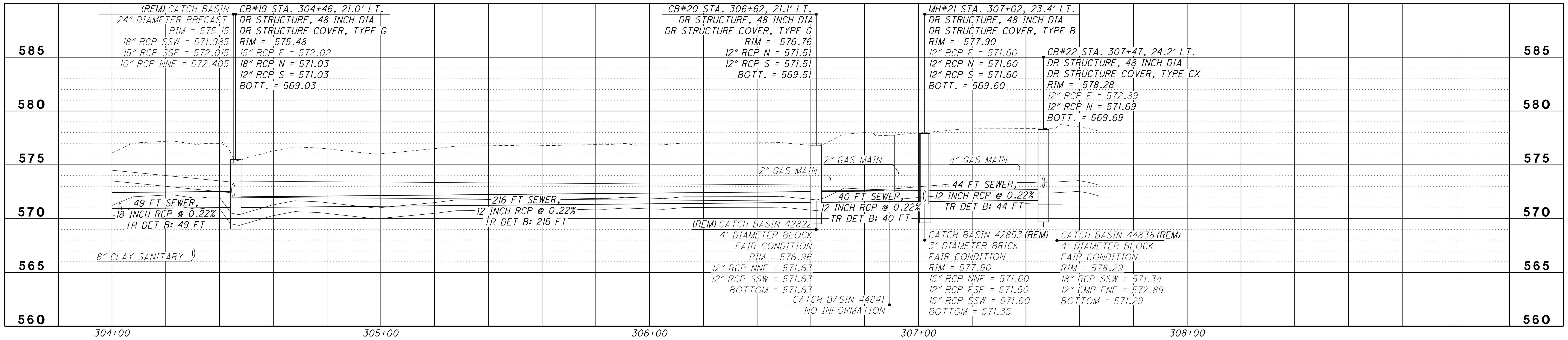
MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

LAPLAISANCE ROAD PROFILE
STA. 299+00 TO STA. 304+00

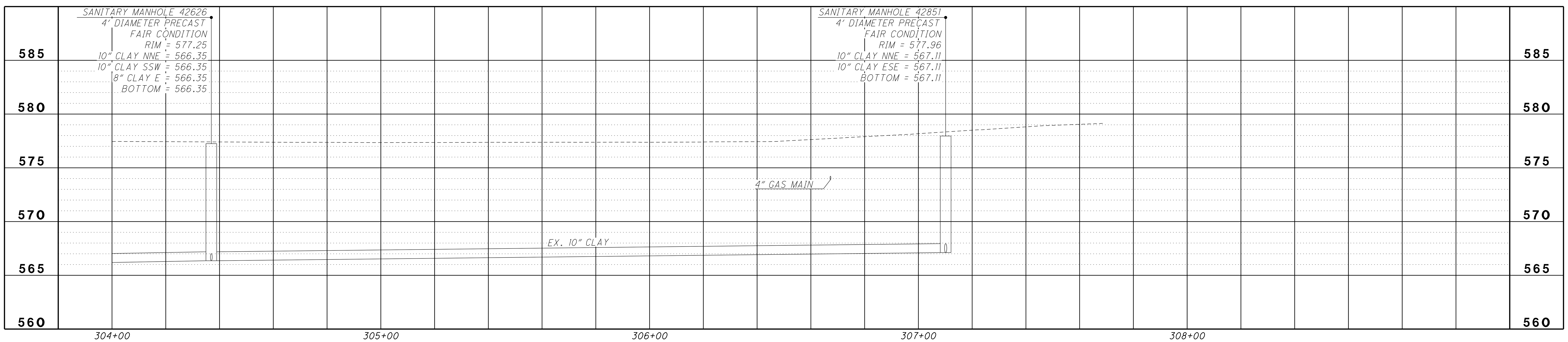
20 / 58

5/31/2022
\\MSGFILESRV\MSGData\Projects\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_20_Profile.dgn

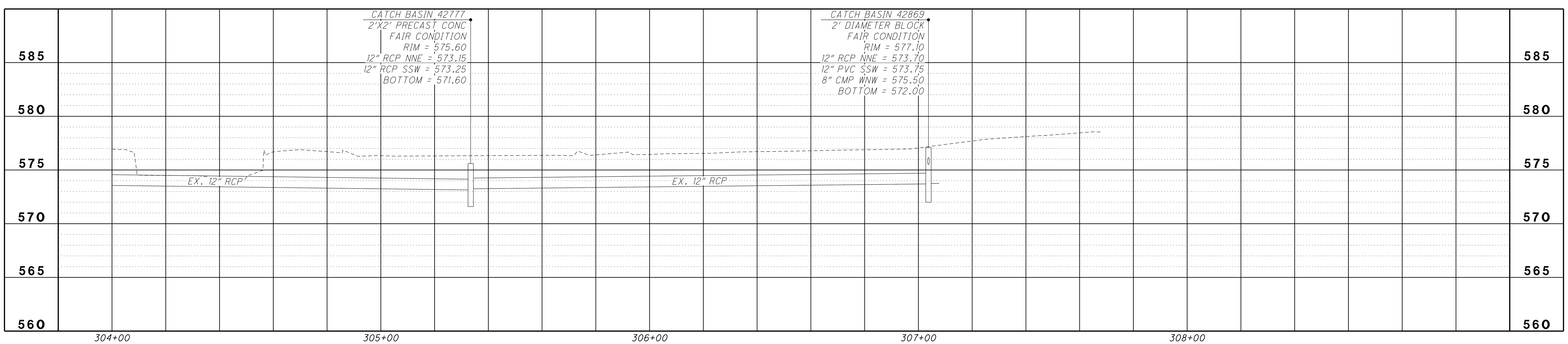
5/31/2022



LAPLAISANCE ROAD: LEFT PROFILE



LAPLAISANCE ROAD: CENTERLINE PROFILE



LAPLAISANCE ROAD: RIGHT PROFILE

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

LAPLAISANCE ROAD PROFILE
STA. 304+00 TO STA. 308+00

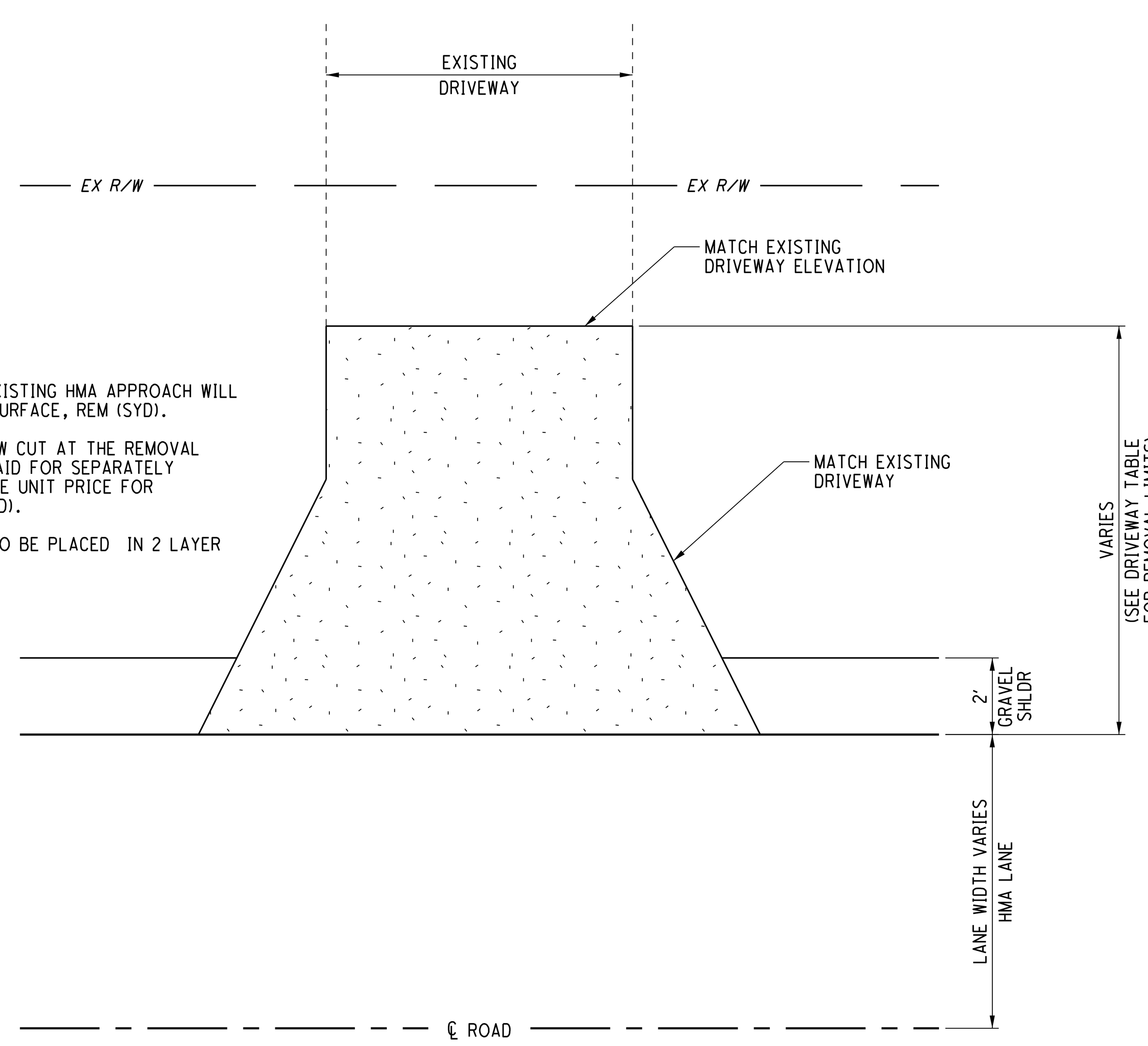
\\MSGFILESRV\MSGData\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_21_Profile.dgn

STATION	SIDE	ROAD	ADDRESS	EXISTING MATERIAL	WIDTH AT POINT OF RESTORATION	DISTANCE FROM CL TO MATCH POINT	2040050 PAVT, REM	3020020 AGGREGATE BASE, 8 INCH	3060021 MAINTENANCE GRAVEL, LM	5010005 HMA SURFACE, REM	5010007 EDGE TRIMMING	5010061 HMA APPROACH (LEVELING)	5010061 HMA APPROACH (WEARING)	8010005 DRIVEWAY, NONREINF CONC, 6 INCH
					FT	FT	SYD	SYD	CYD	SYD	FT	TON	TON	SYD
	RIGHT	LIGHTHOUSE RD	7990	GRAVEL ✳	15	28.0		32	4					
	RIGHT	LIGHTHOUSE RD	7980	ASPHALT	31	-		25	3	25				
	RIGHT	LIGHTHOUSE RD	7980	CONCRETE	26	23.3	33	33	4		40			58
	RIGHT	LIGHTHOUSE RD	7970	ASPHALT	12	20.0		18	2	18		1.5	1.5	
	RIGHT	LIGHTHOUSE RD	7964	ASPHALT	15	24.1		23	3	23		1.9	1.9	
	RIGHT	LIGHTHOUSE RD	7940	ASPHALT	17	20.0		24	3	24		2.0	2.0	
	RIGHT	LIGHTHOUSE RD	7930	ASPHALT	14	20.0		22	3	22		1.9	1.9	
	RIGHT	LIGHTHOUSE RD	7920	ASPHALT	21	15.2		23	3	23		2.0	2.0	
	RIGHT	LIGHTHOUSE RD	7920	CONCRETE	22	20.0	12	12	2					12
	RIGHT	LAPLAISANCE RD	13574	GRAVEL ✳	12	21.7		22	3					
	LEFT	VENETIAN DR	13548	CONCRETE	4	20.0	3	3	1					3
	LEFT	VENETIAN DR	13546	ASPHALT	4	20.0		6	2	6	4			3
	RIGHT	PARKWAY DR	7988	CONCRETE	12	15.0	9	9	3					9
	RIGHT	VENETIAN DR	13539	CONCRETE	24	16.8	23	23	3		30			23
	RIGHT	VENETIAN DR	13535	CONCRETE	21	21.1	35	35	4		30			35
	LEFT	LAPLAISANCE RD	13520	ASPHALT	22	19.7		23	3	23		1.9	1.9	
	LEFT	LAPLAISANCE RD	13520	CONCRETE	22	28.9	22	22	3		30			22
	LEFT	LAPLAISANCE RD	13500	ASPHALT	12	28.7		29	4	29		2.4	2.4	
	LEFT	LAPLAISANCE RD	13496	ASPHALT	18	30.0		37	5	37		3.1	3.1	
	LEFT	LAPLAISANCE RD	13482	GRAVEL ✳	10	31.5		25	3					
TOTALS							137	446	61	230	134	17	17	165

✳ ALL REQUIRED AGGREGATE/GRAVEL DRIVES WILL BE PAID AS AGGREGATE BASE, 6 INCH AND SHALL INCLUDE FINAL GRADING AND COMPACTION AS DIRECTED BY THE ENGINEER.

NOTES:

- REMOVAL OF THE EXISTING HMA APPROACH WILL BE PAID FOR AS HMA SURFACE, REM (SYD).
- THE FULL DEPTH SAW CUT AT THE REMOVAL LIMITS WILL NOT BE PAID FOR SEPARATELY AND IS INCLUDED IN THE UNIT PRICE FOR HMA SURFACE, REM (SYD).
- HMA, APPROACH IS TO BE PLACED IN 2 LAYER AT 1.5 INCHES EACH

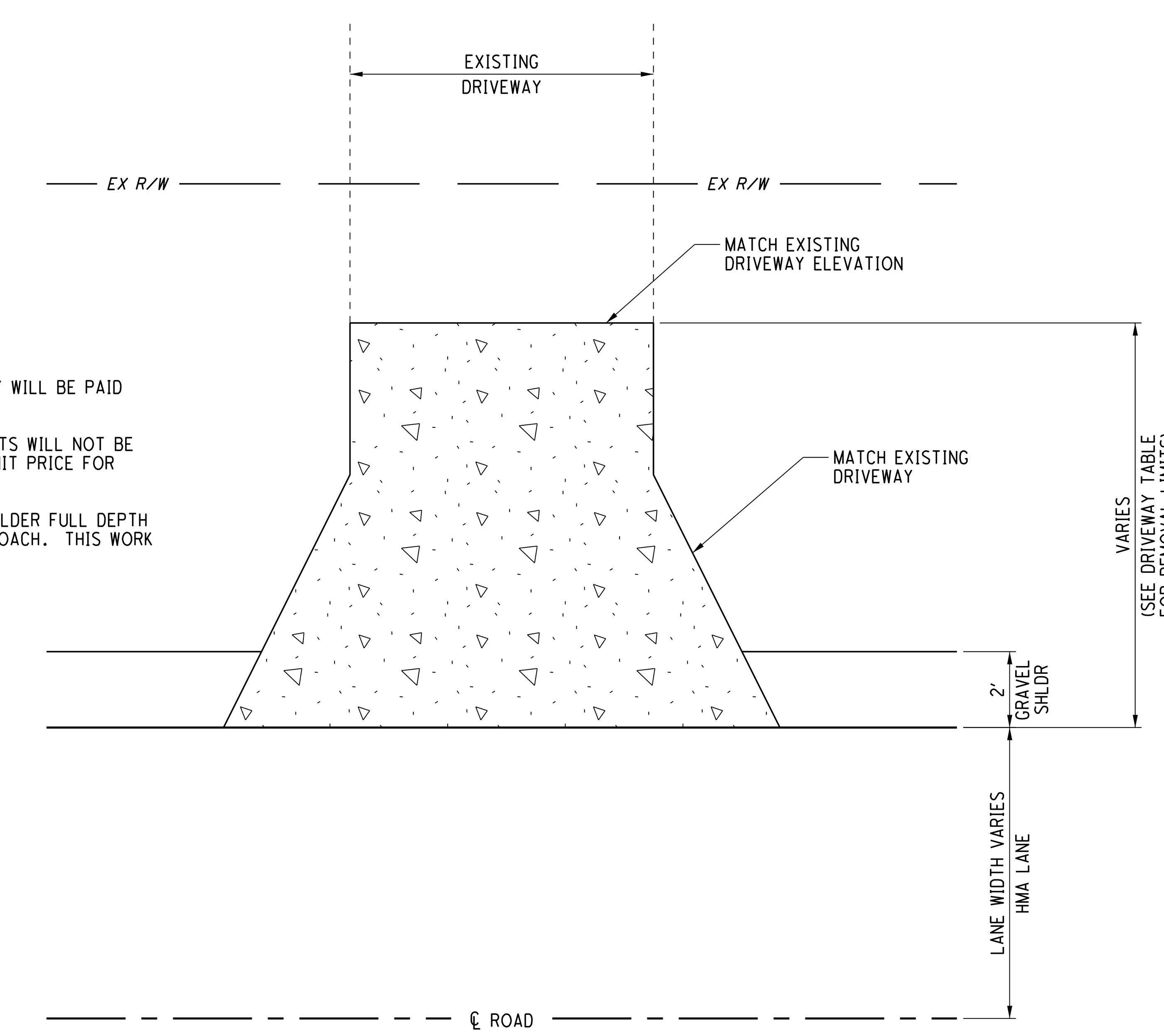


DETAIL - HMA APPROACH

TO APPLY:
HMA DRIVES AS SHOWN ON PLANS

NOTES:

- REMOVAL OF THE EXISTING CONCRETE DRIVEWAY WILL BE PAID FOR AS PAVT, REM (SYD).
- THE FULL DEPTH SAW CUT AT THE REMOVAL LIMITS WILL NOT BE PAID FOR SEPARATELY AND IS INCLUDED IN THE UNIT PRICE FOR PAV'T, REM (SYD).
- SAW CUT THE EDGE OF THE HMA PAVEMENT/SHOULDER FULL DEPTH PRIOR TO PLACING THE CONCRETE DRIVEWAY APPROACH. THIS WORK WILL BE PAID FOR AS EDGE TRIMMING (FT).



DETAIL - CONCRETE APPROACH

TO APPLY:
CONCRETE DRIVES AS SHOWN ON PLANS

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

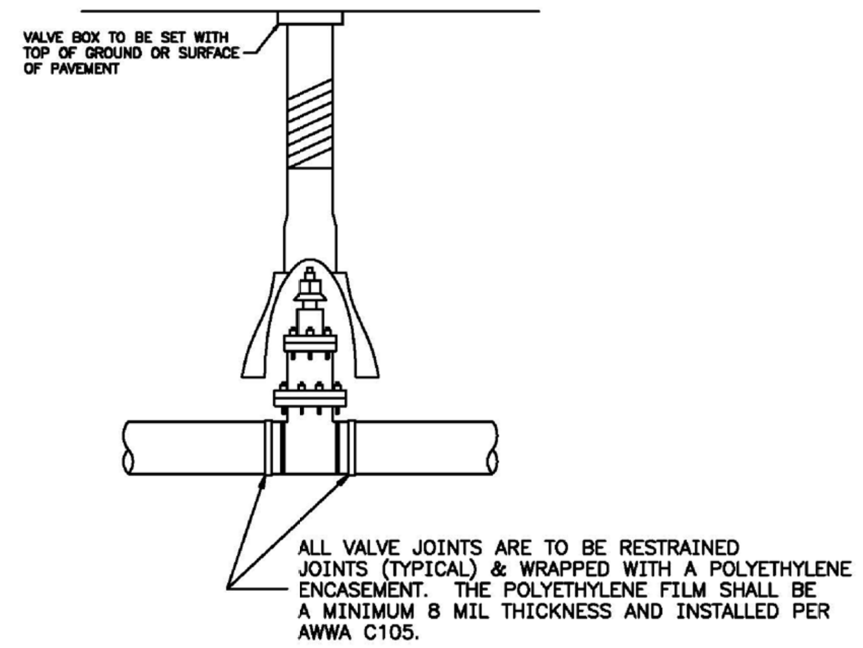
Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.ManniksmithGroup.com
1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

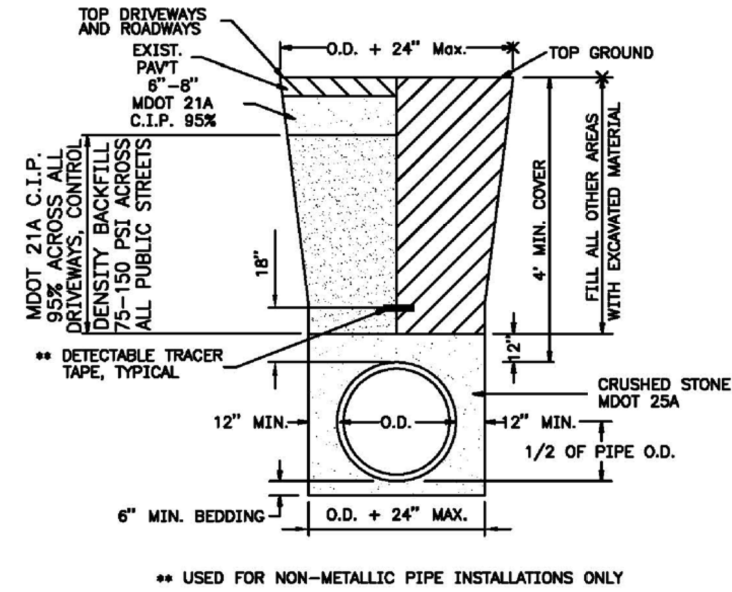
PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

DRIVEWAY REPLACEMENT DETAILS

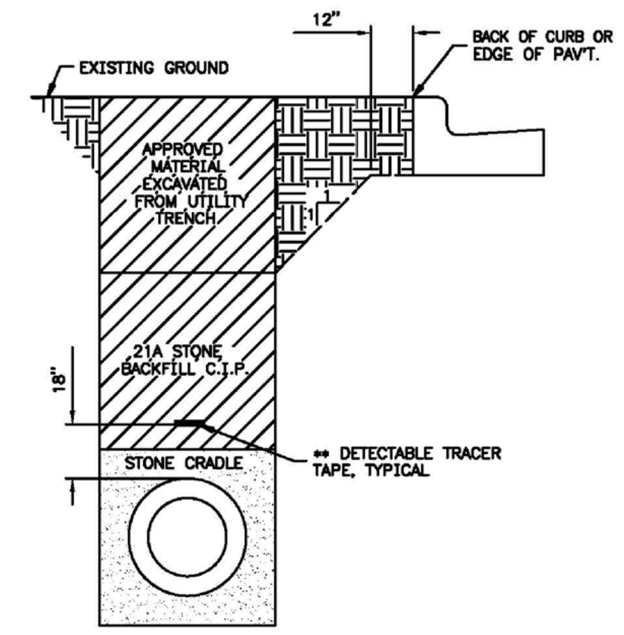


DETAIL OF GATE VALVE AND BOX

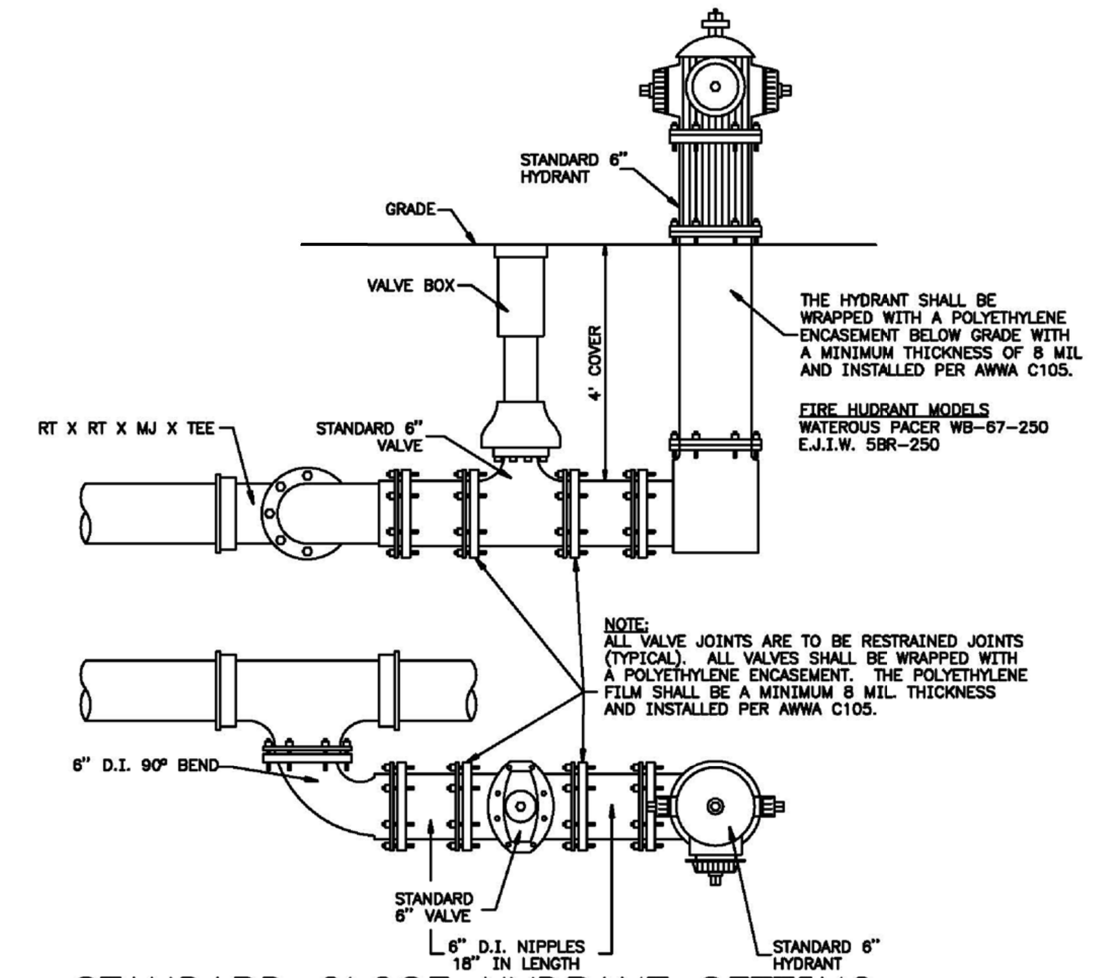


PIPE BEDDING FOR 12" AND SMALLER WM.

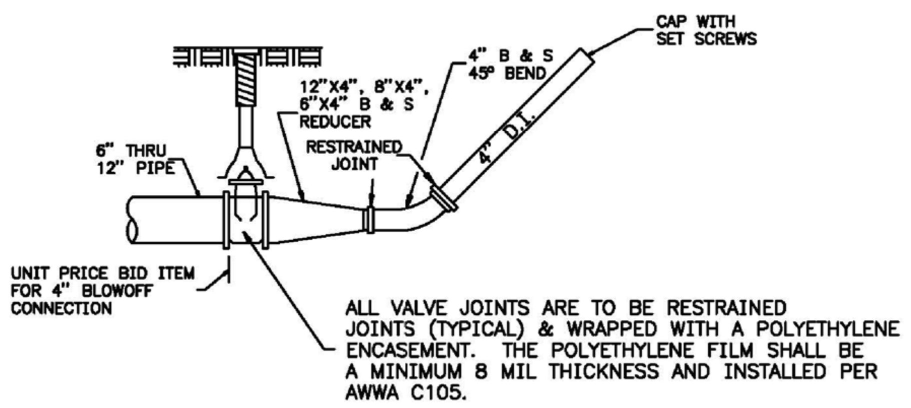
TYPICAL TRENCH PAY LIMIT



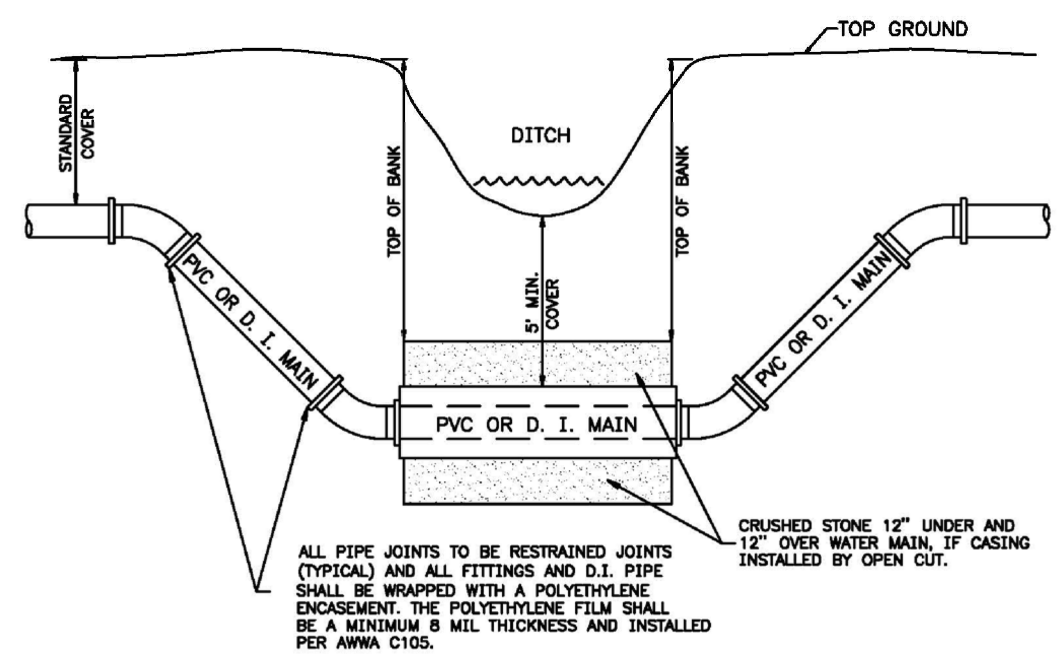
BACKFILL OUTSIDE PAV'T



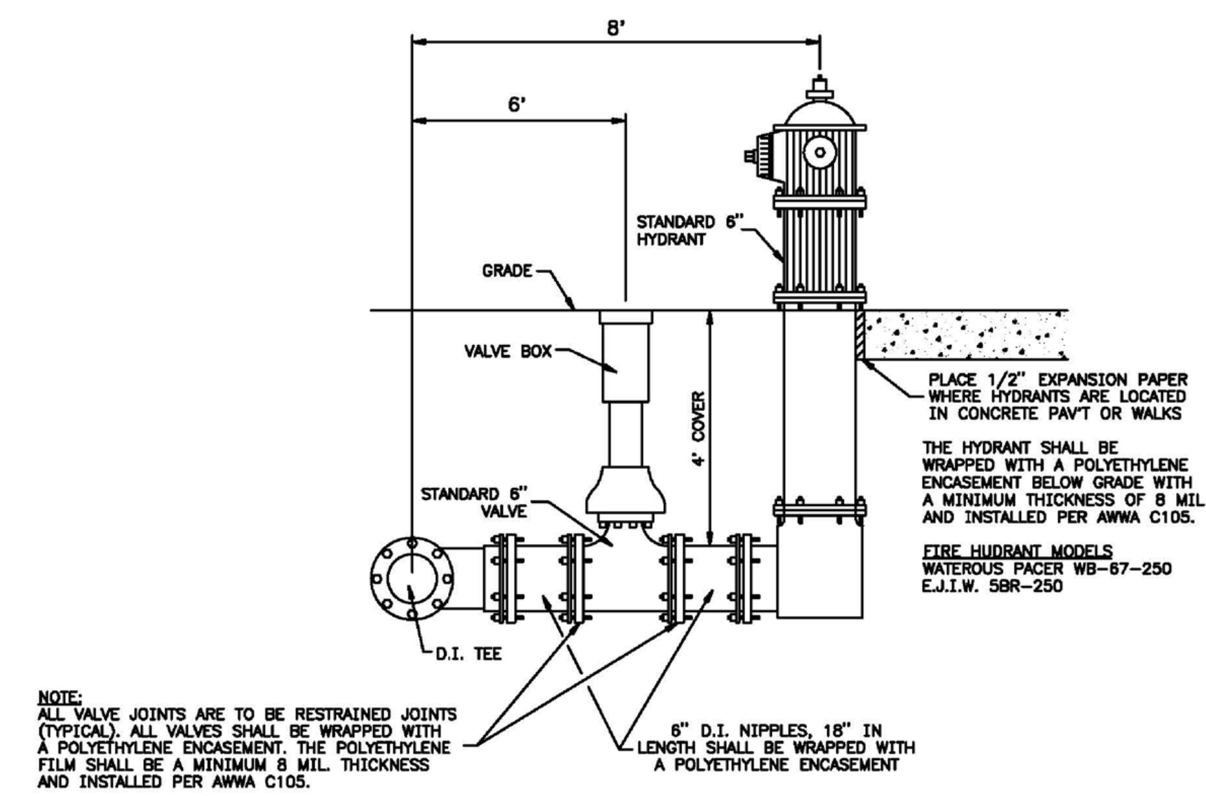
STANDARD CLOSE HYDRANT SETTING



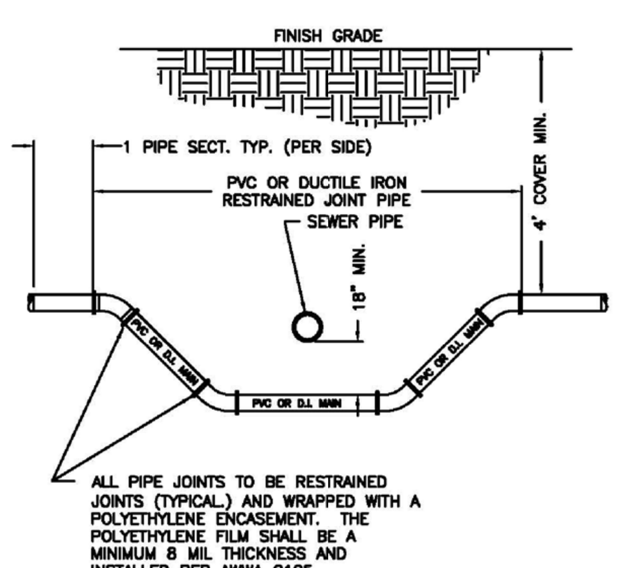
TYPICAL BLOWOFF ASSEMBLY



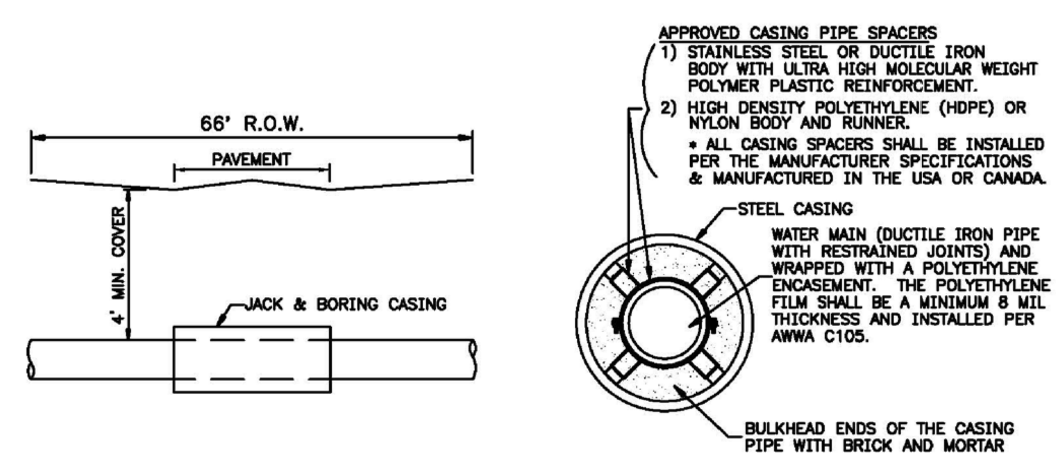
STREAM CROSSING



STANDARD HYDRANT SETTING



DEFLECTION FOR CONFLICT WITH UTILITIES



BORING AND JACKING DETAIL

SIGNATURE
MONROE COUNTY DRAIN COMMISSIONER

DATE

SIGNATURE
CHIEF ENGINEER

DATE

Monroe County Drain Commissioner

1005 South Raisinville Road
Monroe, Michigan 48161
Phone: (734) 240-3101
Fax: (734) 240-3112

DATE	DESCRIPTION	BY
11/2008	FIRST RELEASE FOR MDEQ APPROVAL	DJT

WATER MAIN
STANDARD DETAILS

1/2

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

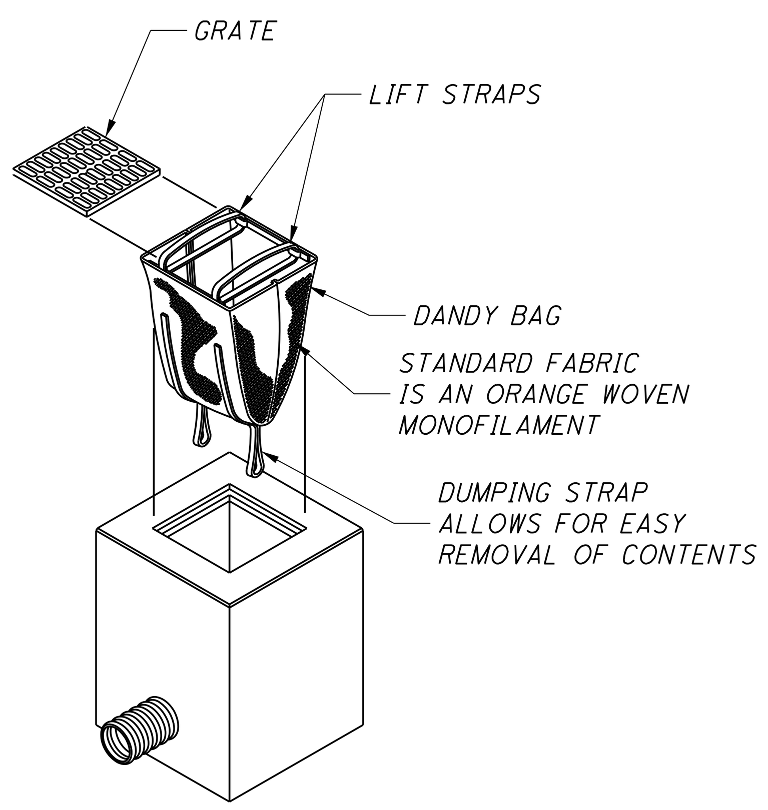
PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

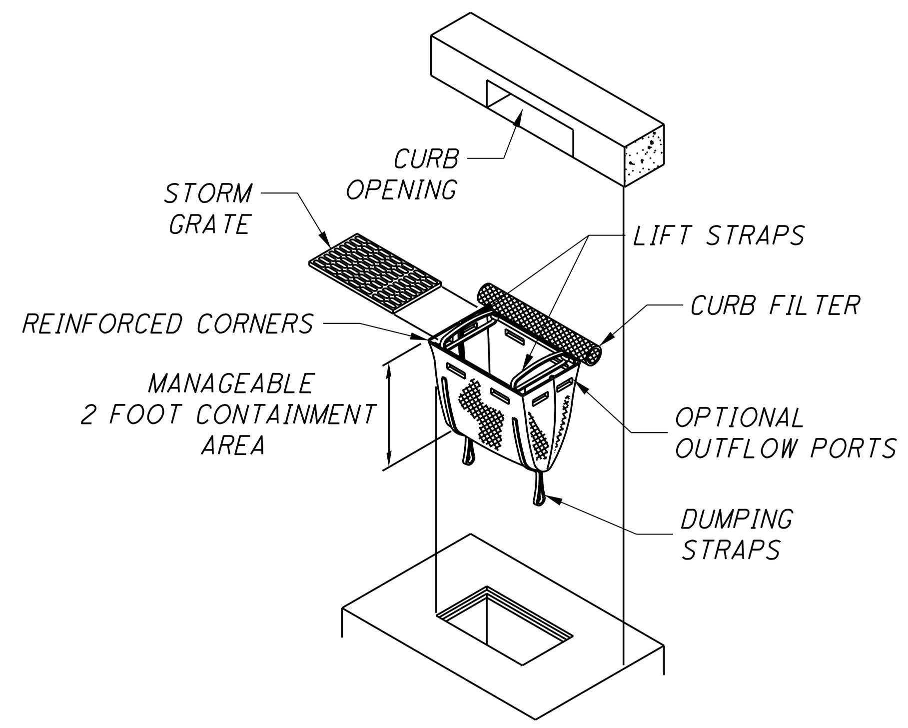
Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

MISCELLANEOUS DETAILS





INLET PROTECTION

NOTE:
CONTRACTOR MAY SPECIFY AN ALTERNATE INLET PROTECTION BMP. CONTRACTOR MUST OBTAIN ENGINEERING APPROVAL PRIOR TO IMPLEMENTATION

DANDY BAG® II

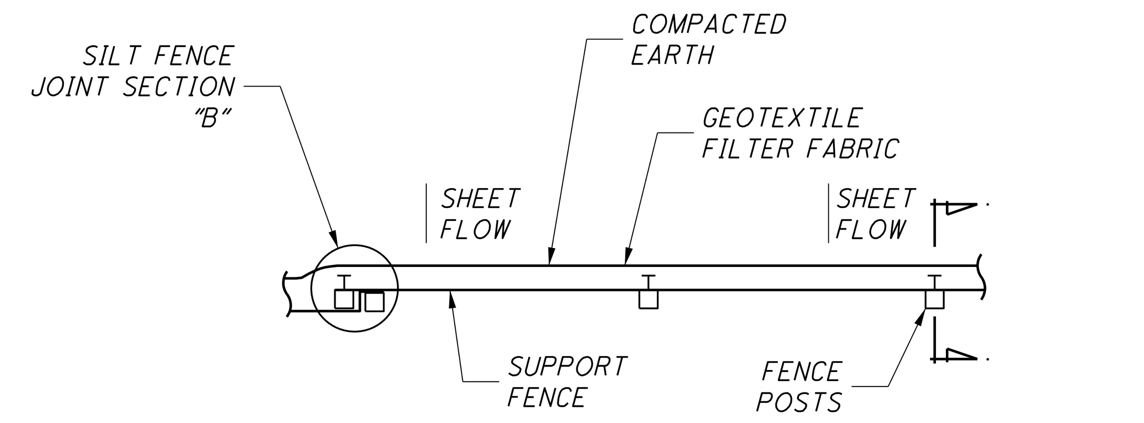
INSTALLATION AND MAINTENANCE GUIDELINES

INSTALLATION: REMOVE THE GRATE FROM CATCH BASIN. IF USING OPTIONAL OIL ABSORBENTS; PLACE ABSORBENT PILLOW IN UNIT. STAND THE GRATE ON END. MOVE THE TOP LIFTING STRAPS OUT OF THE WAY AND PLACE THE GRATE INTO THE DANDY BAG II SO THAT THE GRATE IS BELOW THE TOP STRAPS AND ABOVE THE LOWER STRAPS. HOLDING THE LIFTING DEVICES, INSERT THE GRATE INTO THE INLET.

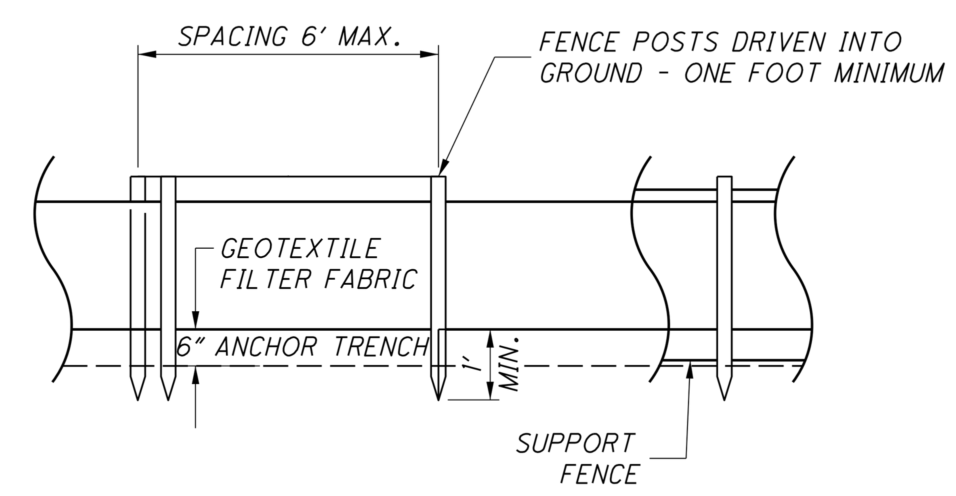
MAINTENANCE: REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM VICINITY OF UNIT AFTER EACH STORM EVENT. AFTER EACH STORM EVENT AND AT REGULAR INTERVALS, LOOK INTO THE DANDY BAG II. IF THE CONTAINMENT AREA IS MORE THAN 1/3 FULL OF SEDIMENT, THE UNIT MUST BE EMPTIED. TO EMPTY UNIT, LIFT THE UNIT OUT OF THE INLET USING THE LIFTING STRAPS AND REMOVE THE GRATE. IF USING OPTIONAL OIL ABSORBENTS; REPLACE ABSORBENT WHEN NEAR SATURATION.

NOTE: DANDY PROVIDES PROTECTION FOR ALL TYPES OF INLETS. REFER TO THE DANDY WEBSITE (WWW.DANDYPRODUCTS.COM) FOR ORDERING AND ADDITIONAL INFORMATION.

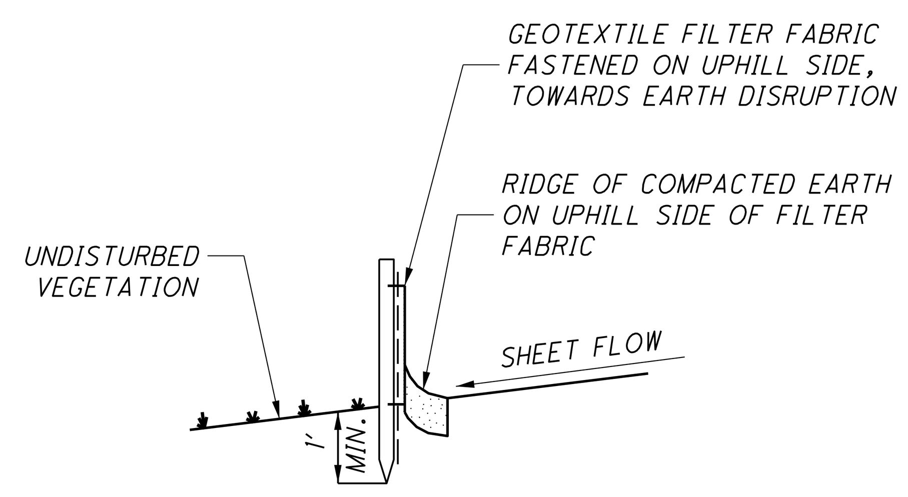
DANDY PRODUCTS



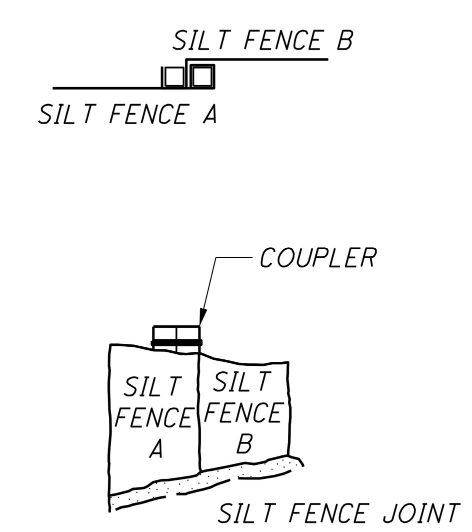
PLAN VIEW



FRONT VIEW



SECTION A-A



SECTION B-B

(26) FILTER FABRIC FENCE

EROSION CONTROL, INLET PROTECTION, FABRIC DROP

SOIL EROSION AND SEDIMENTATION CONTROL MEASURES

EROSION AND SEDIMENT CONTROL ACTIVITIES SHALL BE PERFORMED IN CONFORMANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION, MONROE COUNTY ROAD COMMISSION (MCRC) AND THE MONROE COUNTY DRAIN COMMISSIONER'S STANDARDS AND SPECIFICATIONS.

EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO, OR AS THE FIRST STEP IN CONSTRUCTION. SEDIMENT CONTROL PRACTICE AND CONSTRUCTION BARRIERS WILL BE APPLIED AS A PERIMETER DEFENSE AGAINST ANY TRANSPORTING OF SILT OFF THE SITE.

EROSION AND SEDIMENTATION RESULTING FROM WORK ON THIS SITE SHALL BE CONTAINED ON THE SITE AND NOT ALLOWED TO COLLECT IN ANY OFF-SITE AREAS OR IN WATERWAYS INCLUDING BOTH NATURAL AND MAN-MADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES AND PONDS.

TEMPORARY MEASURES MUST BE MAINTAINED CONTINUOUSLY UNTIL PERMANENT MEASURES ARE IN PLACE AND ACCEPTED BY JURISDICTIONAL AUTHORITY.

TEMPORARY MEASURES MUST BE COMPLETELY REMOVED UPON FINAL ACCEPTANCE OF PROJECT AND DAMAGE CAUSED BY REMOVAL OPERATIONS MUST BE IMMEDIATELY REPAIRED.

PERMANENT SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREAS SHALL BE COMPLETED WITHIN 5 CALENDAR DAYS AFTER FINAL GRADING HAS BEEN COMPLETED. WHEN IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA AFTER AN EARTH CHANGE HAS BEEN COMPLETED OR WHERE SIGNIFICANT EARTH CHANGE ACTIVITY CEASES TEMPORARY SOIL EROSION CONTROL MEASURES WILL BE IMPLEMENTED AND ESTABLISHED BEFORE A CERTIFICATE OF COMPLIANCE IS ISSUED.

ALL MUD/DIRT TRACKED ONTO ADJACENT PUBLIC ROADWAYS DUE TO ANY OF THE CONTRACTOR'S OPERATIONS MUST BE SCRAPED OR SWEPT AWAY BY THE CONTRACTOR AT THE END OF EACH WORKDAY.

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com
1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

SOIL EROSION & SEDIMENTATION CONTROL DETAILS

5/31/2022
\\MSGFILESRV\MSGData\Projects\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_24_SESC_Details.dgn

GENERAL NOTES

ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) STANDARD SPECIFICATION FOR CONSTRUCTION, 2020 EDITION.

THE PUMP STATION AND OUTLET STRUCTURE (INCLUDED WITH FORCE MAIN) SHALL BE SEPARATE LUMP SUM BIDS TO INCLUDE ALL COFFERDAMS, MATERIALS, EQUIPMENT, LABOR, AND INCIDENTALS AS REQUIRED AND AS NECESSARY TO COMPLETE THE WORK AS DESCRIBED HEREIN AND AS SHOWN ON THE PLANS.

PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR SHALL UNCOVER AND VISUALLY FIELD VERIFY THE EXISTING CONSTRUCTION AND SHALL FIELD VERIFY ALL PLAN DETAILS, DIMENSIONS, ELEVATIONS, AND CONDITIONS AND REPORT ANY DISCREPANCIES TO THE OWNER.

IF A PLAN DISCREPANCY IS DISCOVERED BY THE CONTRACTOR DURING CONSTRUCT ON, THEN THE CONTRACTOR SHALL REPORT THE DISCREPANCY TO THE OWNER PRIOR TO PROCEEDING WITH THE WORK.

IN CASES WHERE THERE IS A CONFLICT BETWEEN THE PLANS, SPECIFICATIONS, STANDARD DRAWINGS, THE MORE RESTRICTIVE SHALL TAKE PRECEDENT, AS DETERMINED BY THE OWNER.

FOUNDATIONS HAVE BEEN DESIGNED FOR AN ALLOWABLE SERVICE BEARING PRESSURE OF 3000 PSF.

A QUALIFIED GEOTECHNICAL CONSULTANT, PRIOR TO THE PLACEMENT OF REINFORCING STEEL AND CONCRETE, SHOULD EVALUATE FOUNDATION EXCAVATIONS TO VERIFY THAT AN ADEQUATE BEARING MATERIAL IS PRESENT AND THAT ALL DEBRIS, MUD, AND LOOSE, FROZEN OR WATER-SOFTENED SOILS ARE REMOVED.

IF THE GEOTECHNICAL ENGINEER DETERMINES THAT THE PROPOSED FOUNDATION MATERIAL IS UNSUITABLE, THEN THE MATERIAL SHALL BE REMOVED AND REPLACED BY ENGINEERED FILL MATERIAL TO THE LIMITS SPECIFIED BY THE GEOTECHNICAL ENGINEER. ALL FOOTINGS SHOULD BEAR ON NATURAL UNDISTURBED VERY STIFF OR BETTER COHESIVE SOILS OR ENGINEERED FILL.

FOUNDATIONS SHALL BE CONSTRUCTED AS SOON AS IS PRACTICAL AFTER FOUNDATION EXCAVATION ACTIVITIES. IF THE FOUNDATION EXCAVATIONS WILL BE LEFT OPEN FOR AN EXTENDED PERIOD OF TIME, A THIN MAT OF LEAN CONCRETE SHALL BE PLACED OVER THE BOTTOM TO MINIMIZE DAMAGE TO THE BEARING SURFACE FROM WEATHER OR CONSTRUCTION ACTIVITIES. WATER SHALL NOT BE ALLOWED TO POND IN ANY EXCAVATION. FOUNDATION CONCRETE SHALL NOT BE PLACED ON FROZEN OR FLOODED SUBGRADE.

ALL BACKFILL SHALL BE STRUCTURE BACKFILL ACCORDING TO THE MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION, SECTION 206.02.A.

CAST-IN-PLACE CONCRETE

CAST-IN-PLACE CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 4500 PSI.

CONCRETE ADMIXTURES CONTAINING CALCIUM CHLORIDE ARE NOT PERMITTED.

CONCRETE SHALL CONTAIN A WATER REDUCING ADMIXTURE CONFORMING TO ASTM C494 TYPE A, F, OR G.

REINFORCING STEEL FOR CONCRETE SHALL HAVE A YIELD STRENGTH OF 60 KSI AND SHALL BE EPOXY COATED.

DOWELING INTO CONCRETE SHALL BE WITH THE HILTI-RE 500 V3 ADHESIVE ANCHORING SYSTEM, OR ADHESIVES TECHNOLOGY CORPORATION ULTRABOND 1 HIGH STRENGTH ANCHORING EPOXY, OR UNITEX POXY 300 EPOXY GEL ANCHOR, OR AN EQUIVALENT ADHESIVE ANCHORING SYSTEM AS APPROVED BY THE ENGINEER. ALL CONCRETE ADHESIVE ANCHORS SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS. ALL CONCRETE ADHESIVE ANCHORS AND HARDWARE SHALL BE STAINLESS STEEL.

ALL CONCRETE REINFORCING STEEL SHALL HAVE A CLEAR COVER OF 3.0 INCHES UNLESS NOTED OTHERWISE.

REINFORCING STEEL IS TO BE BLOCKED TO PROPER LOCATION USING CHAIRS AND SPACERS. REINFORCEMENT SHALL BE TIED SECURELY WITH EPOXY COATED TIE WIRE TO PREVENT DISPLACEMENT. TACK WELDING OF REINFORCING IS PROHIBITED.

ALL CONCRETE SURFACES SHALL BE CAST IN FORMS. SURFACES SHALL BE FORMED IN A MANNER WHICH WILL PRODUCE A SMOOTH AND UNIFORM APPEARANCE WITHOUT RUBBING OR PLASTERING. SURFACES SHALL BE SMOOTH AND FREE FROM FLOAT AND TROWEL MARKS.

ALL EXPOSED CONCRETE EDGES SHOWN SQUARE ON THE PLANS SHALL BE BEVELED WITH A 0.75 CHAMFER.

STRUCTURAL STEEL

STRUCTURAL STEEL ROLLED BEAMS SHALL BE ASTM A992 GRADE 50 MATERIAL.

STRUCTURAL STEEL ROLLED ANGLES, PLATE, AND CHANNELS SHALL BE ASTM A36 GRADE 36 MATERIAL.

ALL STRUCTURAL STEEL SHALL BE HOT DIP GALVANIZED AFTER FABRICATION PER AASHTO M111.

ALL FABRICATIONS WILL BE ACCORDING TO MDOT 2020 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND OTHER CONTRACT DOCUMENTS.

FASTENERS FOR STRUCTURAL STEEL

BOLTS FOR HIGH STRENGTH FASTENERS SHALL BE ASTM F3125 GRADE A325, TYPE 1 AND SHALL HAVE A HEAVY HEX HEAD NUT, HARDENED WASHER, AND DTI WASHER. NUTS SHALL BE ASTM A 563 GRADE DH OR AASHTO M 292 GRADE 2H. WASHERS SHALL BE ASTM F436 TYPE 1.

GALVANIZED NUTS MUST BE TAPPED OVERSIZE IN ACCORDANCE WITH ASTM A563 AND MEET SUPPLEMENTARY REQUIREMENTS S1, LUBRICANT AND ROTATIONAL CAPACITY TEST FOR COATED NUTS AND S2, LUBRICANT DYE.

LOCK WASHERS SHALL BE STEEL, REGULAR, HELICAL SPRING WASHERS MEETING THE REQUIREMENTS OF ANSI B18.21.1.

ALL HARDWARE SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH AASHTO M 232.

ANCHOR RODS

ANCHOR RODS SHALL BE ASTM F1554 GRADE 55 MATERIAL AND SHALL BE HOT DIP GALVANIZED.

FLATWASHERS, HEAVY HEX HEAD NUTS, AND ALL HARDWARE SHALL BE HOT DIP GALVANIZED.

WELDING

WELDING SHALL BE IN ACCORDANCE WITH AWS 01.5: 2015 AS MODIFIED BY 12SP-707A (SPECIAL PROVISION STRUCTURAL STEEL AND ALUMINUM CONSTRUCTION).

WELDING ELECTRODES ARE TO BE E7018 (LH) OR ER70S-3 (95% ARGON, 5% OXYGEN). GMAW IS NOT PERMITTED.

NON-DESTRUCTIVE INSPECTION AND TESTING OF SHOP WELDS SHALL BE INSPECTED AND WHEN APPLICABLE TESTED, IN ACCORDANCE WITH AWS 01.1 AND/OR 01 .5. THE TYPE OF TESTING AND SPECIFICATION REQUIRED SHALL BE CLEARLY STATED IN THE GENERAL NOTES.

FIELD WELDS SHALL BE GROUND SMOOTH TO REMOVE ALL FINS AND SHARP EDGES. ALL FIELD WELDS SHALL BE COATED WITH 5 MILS OF ZINC RICH PAINT.

ASPHALT DRIVE AT PUMP STATION

A 10'-0" WIDE ASPHALT DRIVE WITH 10'-0" RADIUS ON EACH SIDE TO ROADWAY SHALL BE INSTALLED AS PER THE TYPICAL SECTION AND AS PER THE LIMITS SHOWN ON THE SITE PLAN.

ALL BACKFILL SHALL BE STRUCTURE BACKFILL AS PER MDOT MATERIAL SPECIFICATIONS 2.09.07. FINAL SITE AT THE PUMP STATION AND OUTLET STRUCTURE SHALL BE GRADED WITH 12 INCHES OF COMPACTED STONE MATERIAL TO MATCH AND RESTONED INTO THE ADJACENT PARKING LOT. THE PUMP STATION SHALL BE FINAL GRADED TO DRAIN INTO THE EXISTING CATCH BASIN AS SHOWN ON THE SITE PLAN.

CONTROL ROOM BUILDING

A. THE ELECTRICAL CONTROL ROOM BUILDING SHALL BE MANUFACTURED BY AN APPROVED SUPPLIER OF MODULAR PRECAST CONCRETE BUILDINGS AND INCLUDE NPCA CERTIFIED (NATIONAL PRECAST CONCRETE ASSOCIATION) AND MODULAR BUILDING INSTITUTE.

B. EXECUTION OF THE BUILDING SHALL INCLUDE STATE MODULAR BUILDING DESIGN APPROVALS AND PRODUCTION INSPECTIONS REQUIRED BY THE STATE OF MICHIGAN.

C. THE BUILDING DIMENSIONS MEASURED TO OUT TO OUT OF WALLS SHALL BE 9'-0 WIDTH BY 17'-0 LENGTH. THE EAVE HEIGHT, THE JUNCTURE OF THE ROOF AND SIDE WALL FROM THE TOP OF FLOOR AND SIDE WALL PANEL SHALL BE 10'-0 MINIMUM

D. THE BUILDING SHALL BE DESIGNED FOR THE FOLLOWING LOADS
   1. LIVE ROOF LOAD: 60 PSF
   2. WIND LOAD: 27 PSF
   3. FLOOR LOAD: 100 PSF
   4. FLOOR MECHANICAL DEAD LOAD 50 PSF

E. SANDWICH PANEL CONSTRUCTION: BUILDING SHALL INCORPORATE AN R10 SANDWICH PANEL DESIGN SYSTEM. THE ROOF SLAB AND WALL PANELS TO BE FABRICATED WITH AN INTERNAL LAYER OF 2" THICK, R10 RIGID INSULATION. FLOOR SLAB TO BE SOLID CONCRETE ONLY.

F. FOUNDATION FOR THE BUILDING SHALL BE PER PLAN, SEE SHEET 52.

G. ELECTRICAL FEATURES TO BE INTEGRATED WITH DESIGN AND CONSTRUCTION OF THE BUILDING
   1. CAST IN PLACE FLOOR OPENING FOR ELECTRICAL CONDUITS. DESIGN TO BE COORDINATED WITH ELECTRICAL EQUIPMENT TO BE INSTALLED WITHIN THE BUILDING
   2. CONCRETE BOXES FOR FOUR EXTERIOR LIGHTS AND A PHOTOCELL
   3. CONCRETE BOXES FOR THREE EXTERIOR RECEPTACLES

H. A STRUCTURAL ENGINEER, LICENSED TO PRACTICE IN THE STATE OF MICHIGAN, EXPERIENCED IN THE FIELD OF PRECAST CONCRETE TO ENSURE ADEQUACY OF THE STRUCTURAL ASPECTS OF THE DESIGN, SHOP DRAWINGS, MANUFACTURING, TRANSPORTATION AND INSTALLATION OF ALL PRECAST CONCRETE COMPONENTS, ATTACHMENTS, HARDWARE AND ASSEMBLIES.

I. REFERENCE CODES STANDARDS
   1. 2015 MICHIGAN BUILDING CODE (IBC 2015)
   2. ACI-318-19, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE".
   3. CONCRETE REINFORCING INSTITUTE, "MANUAL OF STANDARD PRACTICE".
   4. ANSI/ASCE-7-16 "BUILDING CODE REQUIREMENT FOR MINIMUM DESIGN LOADS IN BUILDINGS AND OTHER STRUCTURES".
   5. CONCRETE REINFORCING INSTITUTE, "MANUAL OF STANDARD PRACTICE"
   6. STEEL DOOR INSTITUTE, "STANDARD STEEL DOORS AND FRAMES FOR MODULAR MASONRY CONSTRUCTION" (SD-110-18)

J. MATERIALS OF CONSTRUCTION
   1. CONCRETE: STEEL-REINFORCED, 5000 PSI MINIMUM 28-DAY COMPRESSIVE STRENGTH, AIR-ENTRAINED (ASTM C260).
   2. FORMWORK MATERIALS: ALL FORMS SHALL BE ACCURATELY CONSTRUCTED, WELL BRACED AND STIFFENED TO AVOID DEFORMATIONS UNDER PRESSURE OF WET CONCRETE AND VIBRATORS.
   3. USE SAME BRANDS AND SOURCE OF CEMENT AND AGGREGATE FOR ENTIRE PROJECT TO ENSURE UNIFORMITY OF COLORATION AND OTHER MIX CHARACTERISTICS.
   4. REINFORCING STEEL: ASTM A615, GRADE 60 UNLESS OTHERWISE SPECIFIED.
   5. PANEL CONNECTIONS: ALL PANELS SHALL BE SECURELY FASTENED TOGETHER WITH MINIMUM 3/8" THICK STEEL BRACKETS. STEEL IS TO BE OF STRUCTURAL QUALITY, HOT-ROLLED CARBON COMPLYING WITH ASTM A283, GRADE C AND HOT DIPPED GALVANIZED AFTER FABRICATION. ALL FASTENERS TO BE 1/2" DIAMETER BOLTS COMPLYING WITH ASTM A307 FOR LOW-CARBON STEEL BOLTS. CAST-IN ANCHORS USED FOR PANEL CONNECTIONS TO BE DAYTON-SUPERIOR #F- 42, OR EQUAL.

K. FINISHES
   1. ALL EXTERIOR WALL FACES TO HAVE A SMOOTH STEEL FORM FINISH.
   2. ALL INTERIOR WALL FACES TO HAVE A SMOOTH STEEL FORM FINISH.
   3. CURING AND SEALING: ALL EXTERIOR FLOOR, WALL AND ROOF EDGES TO BE TREATED WITH 100% ELASTOMERIC ACRYLIC COATING, PIGMENTATION COLOR TO BE DETERMINED, CHEMMASTER, INC. MADISON, OHIO OR APPROVED EQUIVALENT

L. ROOF MEMBRANE AND ADHERENCE SHALL BE SUITABLE FOR PRECAST CONCRETE CONSTRUCTION
   1. MEMBRANE SHALL BE 50-MIL THICKNESS MINIMUM
   2. COLOR: WHITE
   3. MANUFACTURE SHALL BE DURA-LAST, SAGINAW, MICHIGAN.

M. "FLAT" ROOF: THE ROOF SLAB SHALL BE FABRICATED WITH VARYING THICKNESS TO ACHIEVE A MINIMUM 2" SLOPE FROM FRONT-TO-BACK. THE ROOF SHALL EXTEND A MINIMUM OF 3" BEYOND THE WALL PANEL ON EACH SIDE.

N. MAN DOOR
   1. DOOR SHALL BE FURNISHED WITH A REMOVABLE TRANSOM FOR INSTALLATION OF ELECTRICAL PANEL INSTALLATION AND REMOVAL.
   2. THE BUILDING SHALL BE FURNISHED WITH A 3'-0" X 6'-8" X 1 3/4" THICK FLUSH TYPE INSULATED MAN DROP. DOOR PANELS SHALL BE NOMINAL 20 GUAGE GALVANIZED STEEL REINFORCED WITH A SOLID INSULATED CORE ENCLOSED WITH 16 GUAGE END CHANNEL. THE HINGE REINFORCEMENTS SHALL BE NOMINAL 17 GUAGE AND THE LOCK REINFORCEMENTS SHALL BE NOMINAL 16 GUAGE.
   3. DOOR FRAMES SHALL BE DOUBLE RABBETED TYPE OF NOMINAL 16 GUAGE GALVANIZED STEEL.
   4. DOORS AND FRAMES SHALL BE FACTORY PAINTED WITH ONE COAT OF BAKED ON PRIMER AND FINISH COATED TO MATCH BUILDING COLOR. ALL DOORS SHALL BE PREASSEMBLED IN THEIR FRAMES AND HARDWARE INSTALLED AND TESTED PRIOR TO SHIPMENT. FIELD INSTALLATION OF SINGLE LEAF DOOR UNITS SHALL NOT REQUIRE ANY FRAME ASSEMBLY, OR DOOR HANGING.

O. DOOR HARDWARE
DOOR HARDWARE SHALL CONSIST OF:

THREE (3) 4-1/2" X 4-1/2" STEEL HINGES PER ANSI #A8132 (OLD GOVT. SPEC. FFH-116C, TYPE T2127) US26D (626) SATIN CHROME FINISH WITH NON REMOVABLE PINS.

3-11/16" WIDE X 5/8" HIGH EXTRUDED ALUMINUM THRESHOLD. (OUT SWING).

3/16" X 1/2" POLYURETHANE AND VINYL WEATHERSTRIPPING.

PASSAGE SET PER ANSI A156.2, SERIES 4000, GRADE 2, FUNCTION F75, (OLD GOVT. SPEC. 160N) US26D (626) SATIN CHROME FINISH.

GADMIUM PLATED LOCKING HASP WITH TAMPER PROOF ATTACHMENTS AND MASTER PADLOCK, KEY NUMBER KA2072.

DOOR CLOSER CERTIFIED TO CONFORM TO ANSI 156.4 GRADE 1 AND MEETS EXTERIOR BARRIER FREE CODES IN ALUMINUM LACQUER FINISH.

P. ADJUSTABLE WALL LOUVERS

16" WIDE X 24" HIGH ADJUSTABLE LOUVERS AT EACH END OF THE BUILDING SHALL BE OF SELF FRAMING DESIGN. THE LOUVER FRAME SHALL BE OF NOMINAL 14 GAUGE FORMED ALUMINUM AND THE LOUVER BLADES SHALL BE NOMINAL 12 GAUGE EXTRUDED ALUMINUM. FINISH SHALL BE NATURAL MILL FINISH AND SHALL NOT REQUIRE FIELD PAINTING.

BLADES SHALL BE PIVOTED ON 1/2" DIAMETER ALUMINUM PIVOT PINS THROUGH NYLON FLANGED BEARINGS AND OPERATED BY MEANS OF A PULL BAR OPERATING HANDLE. ALL LOUVERS SHALL BE COMPLETE WITH AN EXTERIOR MOUNTED ALUMINUM MESH INSECT SCREEN.

WALL LOUVERS SHALL HAVE REMOVABLE FILTERS AND SCREENS.

PUMPING SYSTEM

A. THE CONTRACTOR SHALL INCLUDE IN THE PROPOSAL A QUALIFIED PUMP SYSTEMS INTEGRATOR TO COMPLETE AND EXECUTE THE FINAL DESIGN AND INSTALLATION. KENNEDY INDUSTRIES OR AN APPROVED EQUIVALENT SUPPLIER SHALL BE ENGAGED FOR THIS PROJECT.

B. THE DESIGN PROVIDED IS A BASIS FOR THE FINAL DESIGN AND INSTALLATION.

PUMPS

A. THE PUMPING SYSTEM BASIS OF DESIGN IS FLYGT MODEL NP3202 LT 3 - 616

B. PUMP GUIDE ROD RAILS SHALL BE 3 INCH DIAMETER STAINLESS STEEL

C. CHAINS AND CABLES FOR PUMP SHALL BE STAINLESS STEEL

D. PUMP ANCHOR BOLTS SHALL BE STAINLESS STEEL

E. PUMP MOTORS AND CABLES ARE DESIGNED AND COMPATIBLE WITH VARIABLE FREQUENCY DRIVE SYSTEM.

f. provide an elbow ball check valve on the discharge of the pump typical reference szuster type esk.

PIPING

A. SHALL CONFORM TO ASME B31.3 ASME CODE FOR PRESSURE PIPING

B. FITTINGS SHALL CONFORM TO ASME B16.9

C. FLANGES SHALL CONFORM TO ASME B16.5

D. ELBOWS SHALL BE LONG RADIUS (1.5 DIAMETER)

E. FLANGE CONNECTING BOLTS SHALL BE TYPE 304 STAINLESS STEEL

F. PIPE SUPPORTS SHALL BE HOT-DIP GALVANIZED, CONTRACTOR SHALL SUBMIT PIPE SUPPORT DESIGN FOR PIPES IN THE WET WELL STRUCTURE

G. ALL PIPE AND PIPE FITTINGS TO BE HOT DIPPED GALVANIZED

POWER & CONTROLS

A. COMPLETION OF THE POWER AND CONTROLS DESIGN IS BY THE PUMP SYSTEM INTEGRATOR. THIS IS TO BE INCLUDED BY THE CONTRACTOR.

B. POWER AND CONTROLS SHALL BE PROVIDED BY THE CONTRACTOR; ENGINEERED FOR THE OPERATION OF THE PUMPING EQUIPMENT. THE SYSTEM PROVIDED SHALL BE SHOP FABRICATED AND WIRED FOR FIELD INSTALLATION. PRIOR TO SHIPMENT TO THE JOB SITE THE MCC AND CONTROL PANEL SHALL BE VERIFIED AND SHOP TESTED FOR THE PUMPING SYSTEM.

C. GENERAL DESIGN SHALL INCLUDE
   1. NAMEPLATES WHITE WITH BLACK LETTERS
   2. ENGRAVE NAME PLATES FOR ALL COMPONENTS
   3. PROVIDE 20% SPARE TERMINALS
   4. CONTROL WIRE SHALL BE #14 MTW

D. COMPONENTS OF THIS SYSTEM INCLUDE:
   1. POWER
      a. MCC SHALL BE 400 AMP 4 SECTIONS 2 SECTIONS DEDICATED TO THE PUMP VFD(S)
      b. MCC SHALL BE ALLEN BRADLEY (ROCKWELL AUTOMATION) COMPRISED OF THE FOLLOWING COMPONENETS

ID	QTY	Catalog Number / Unit Description
1	1	2193MT-DJC-50TKM / Main Circuit Breaker - 400A Frame Rating - Top Mounted with 400A Trip
2	2	2163UB-077HJB-14DA2R1-14HC6S-14RLX-47TGM / PowerFlex 753 AC Drive w/CB - 50 HP with Circuit Breaker Thermal Magnetic (125A Trip)
3	2	2193F-AJB-31TGM / Feeder Circuit Breaker - 125A Frame Rating with 20A Trip
4	1	2193LE-AJL118-00WT-30A09-31A09-111 / Lighting Panel Unit with Main Lug Only - 100A - 18 Total Circuits
5	1	2197-MJBA-37TGM / Control & Lighting Transformer w/CB - 25.0 kVA with Circuit Breaker Thermal Magnetic (70A Trip)
6	3	2100-BJ10 / Blank Unit Door - 1.0 Space Factor

   2. CONTROLS
      a. PLC SHALL BE ALLEN BRADLEY COMPACTLOGIX 5370
      b. PRIMARY LEVEL CONTROL SHALL BE VEGAPULS C21 80GHZ RADAR WITH VEGAMET CONTROLLER
      c. SECONDARY LEVEL CONTROLS B/W CONTROLS SERIES 7010 LIQUID LEVEL FLOAT SWITCH
   3. FEATURES
      a. OPERATOR INTERFACE 6 INCH MINIMUM, COLOR DISPLAY, TOUCH SCREEN
      b. STATUS LIGHTS / ALARMS
         1. PUMP RUN 1 (GREEN)
         2. PUMP RUN 2 (GREEN)
         3. LOW LEVEL (RED)
         4. HIGH LEVEL (RED)
         5. BACK-UP ON (RED)
      c. SELECTOR SWITCHES
         1. PUMP 1 RTM (RUN TIME METER)
         2. PUMP 2 RTM (RUN TIME METER)
      d. PUMP HEAT AND SEAL SENSORS
         1. TEMPERATURE
         2. PUMP SEAL

GENERATOR

A. GENERATOR SHALL BE A CUMMINS MODEL C125NR NATURAL GAS 125 KW STANDBY SPARK IGNITED GENERATOR SET. NATURAL GAS IS THE FUEL SUPPLY.

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

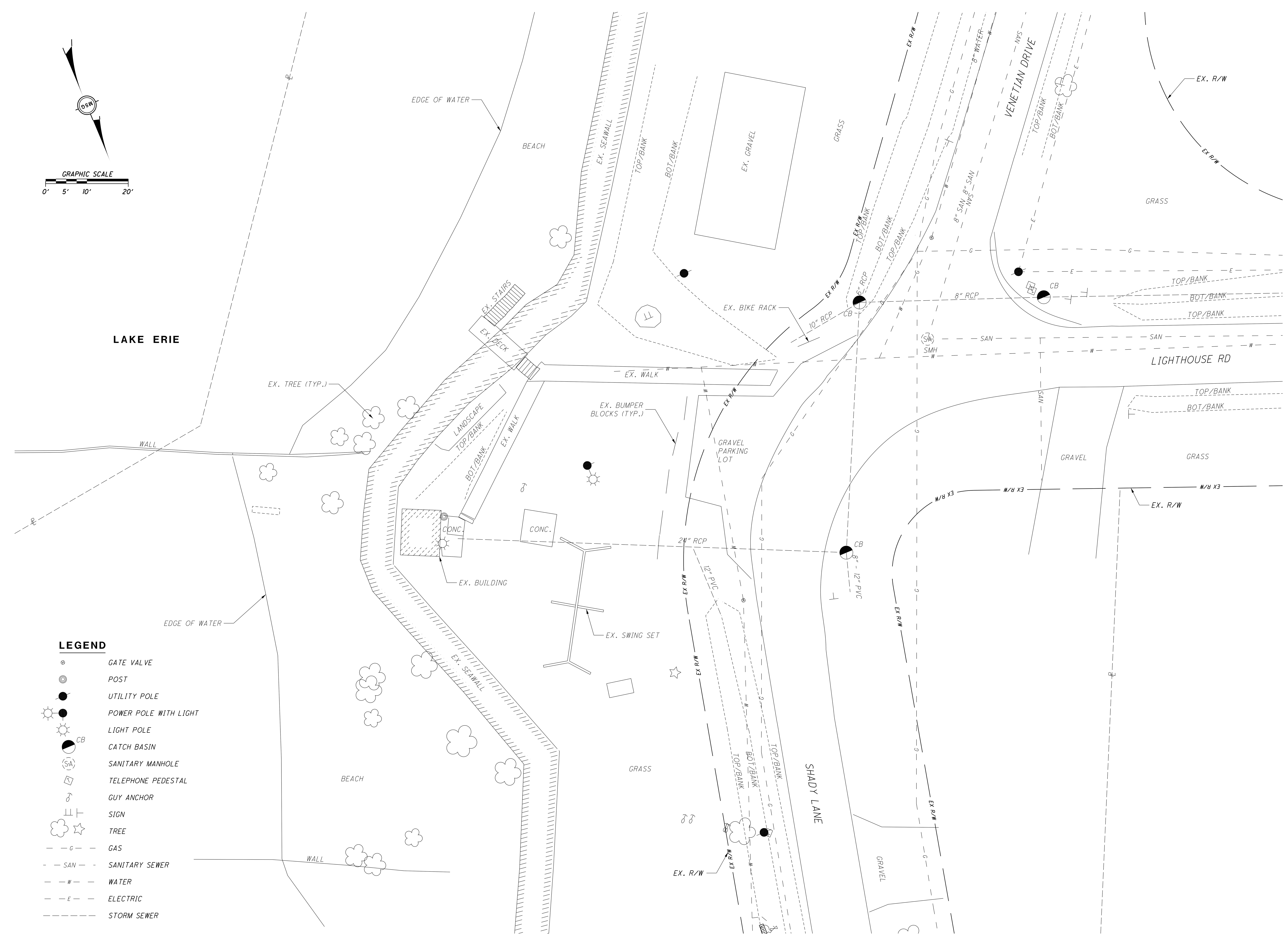
PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

TECHNICAL SKILL. CREATIVE SPIRIT.
Mannik Smith GROUP
www.MannikSmithGroup.com

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

PUMP STATION NOTES



NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

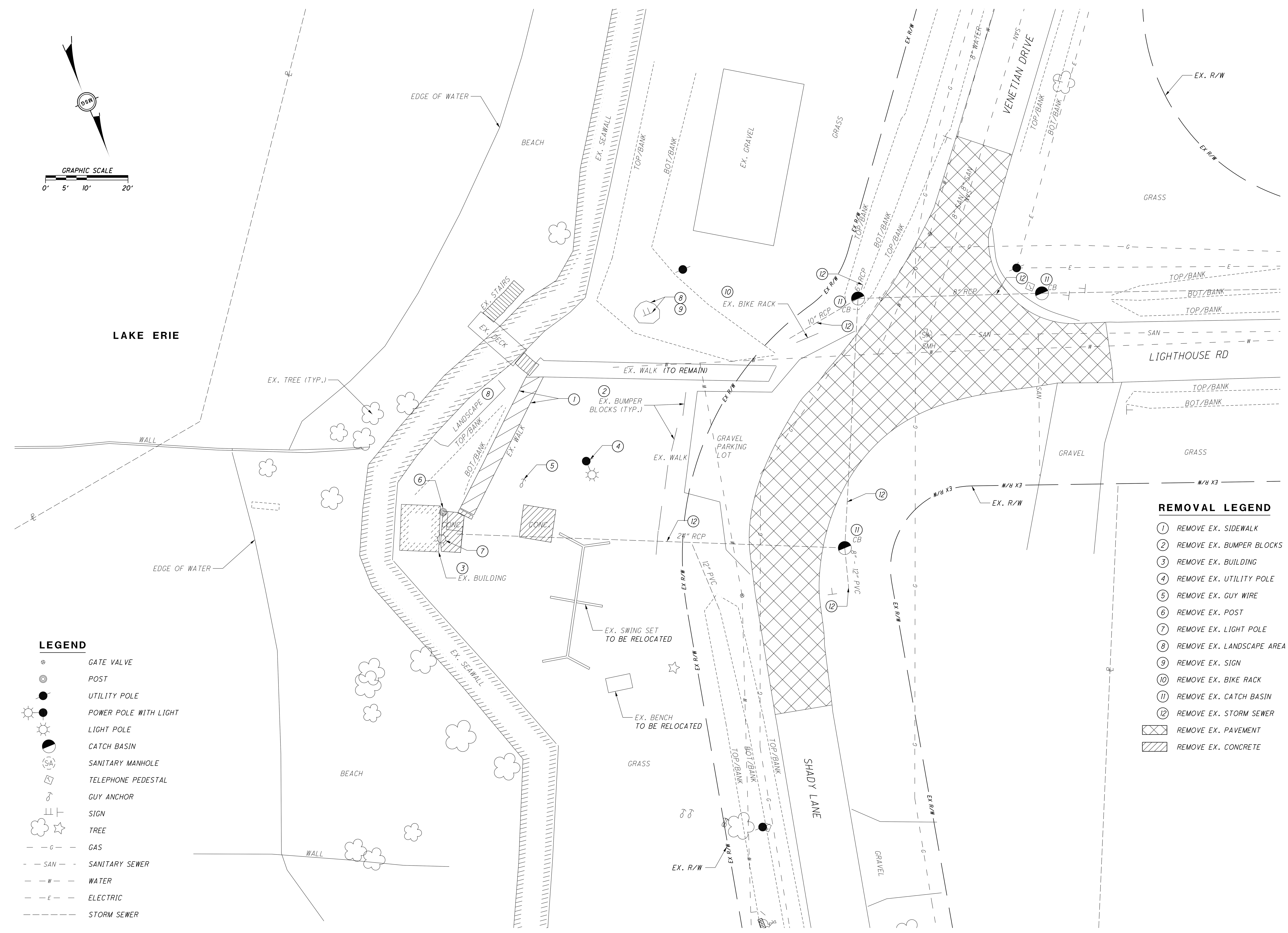
ManikSmith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.ManikSmithGroup.com

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

EXISTING PUMP STATION SITE CONDITIONS

5/31/2022
\\MSGFILESRV\MSGData\Projects\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_26_Ex_Pump_Station_Conditions.dgn



LEGEND

- GATE VALVE
- POST
- UTILITY POLE
- POWER POLE WITH LIGHT
- LIGHT POLE
- CATCH BASIN
- SANITARY MANHOLE
- TELEPHONE PEDESTAL
- GUY ANCHOR
- SIGN
- TREE
- GAS
- SANITARY SEWER
- WATER
- ELECTRIC
- STORM SEWER

REMOVAL LEGEND

1. REMOVE EX. SIDEWALK
2. REMOVE EX. BUMPER BLOCKS
3. REMOVE EX. BUILDING
4. REMOVE EX. UTILITY POLE
5. REMOVE EX. GUY WIRE
6. REMOVE EX. POST
7. REMOVE EX. LIGHT POLE
8. REMOVE EX. LANDSCAPE AREA
9. REMOVE EX. SIGN
10. REMOVE EX. BIKE RACK
11. REMOVE EX. CATCH BASIN
12. REMOVE EX. STORM SEWER

- REMOVE EX. PAVEMENT
- REMOVE EX. CONCRETE

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com
1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

DEMOLITION PLAN

WORK POINT	NORTHING	EASTING
WP 1	132 411.7	13 389 071.1
WP 2	132 398.6	13 389 103.8
WP 3	132 415.9	13 389 111.7
WP 4	132 431.0	13 389 079.0

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com
1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

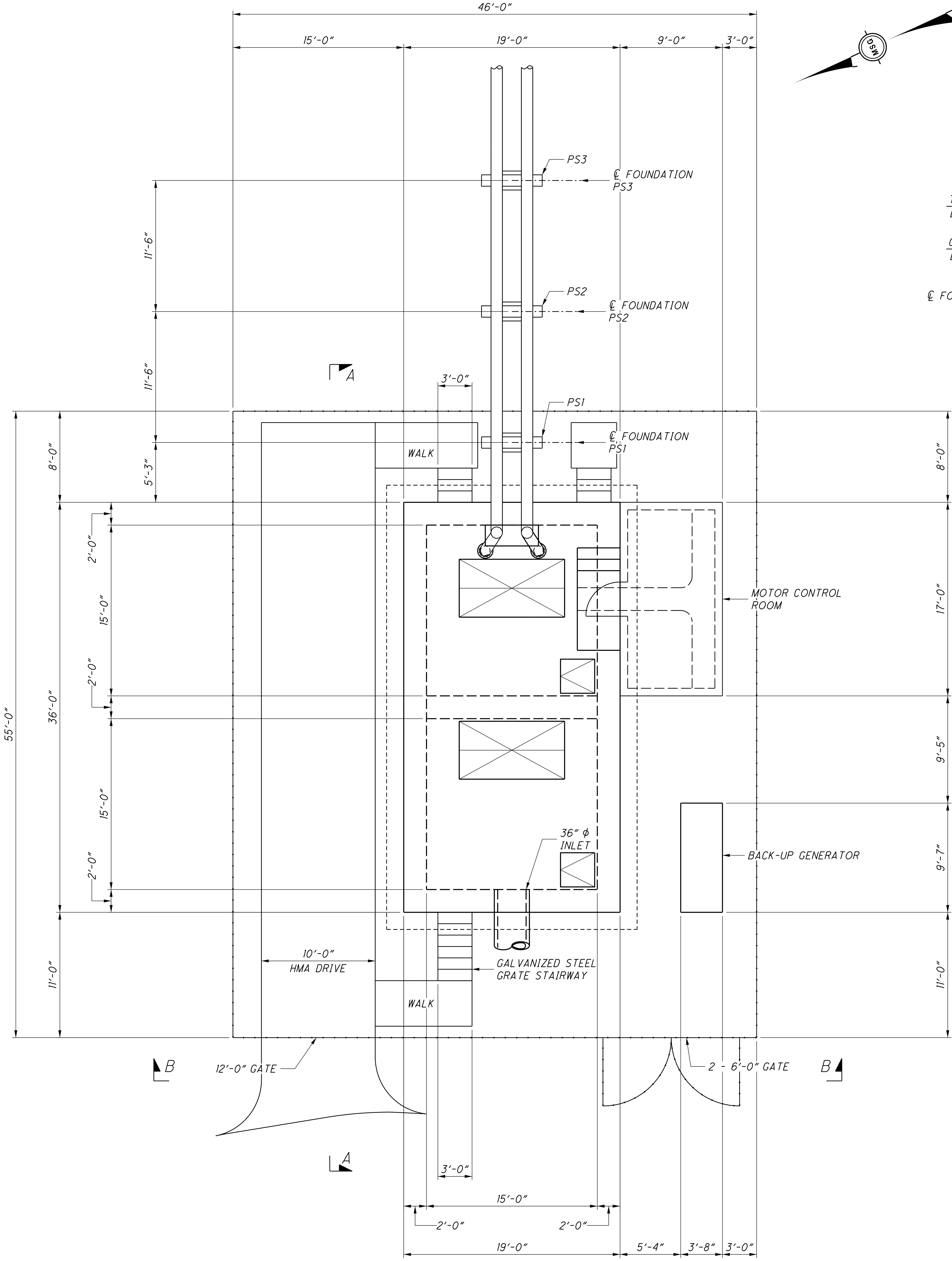
PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

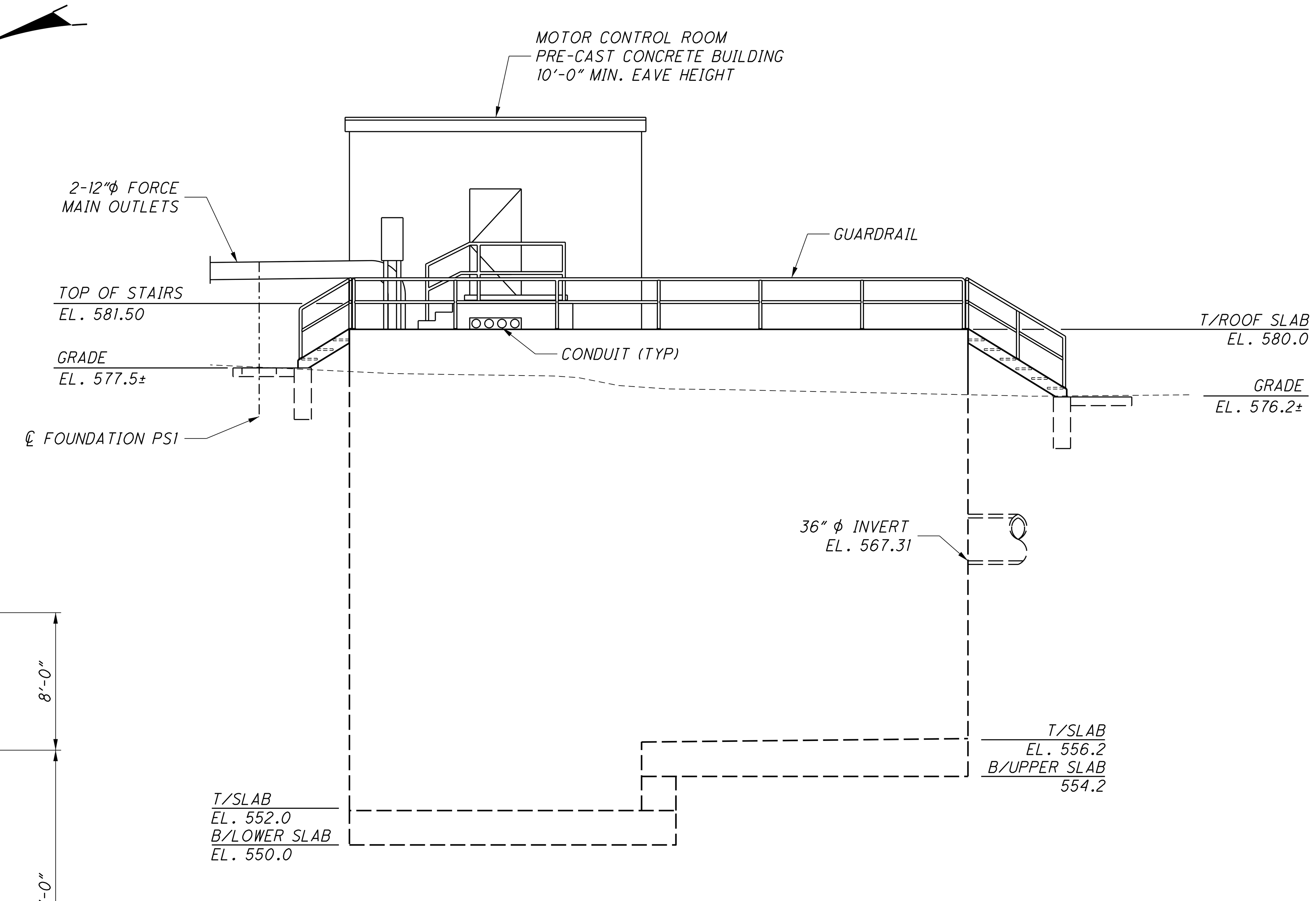
PROPOSED PUMP STATION PLAN

5/31/2022
\\MSGFILESRV\MSGData\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_28_Pump_Station_Plan.dgn



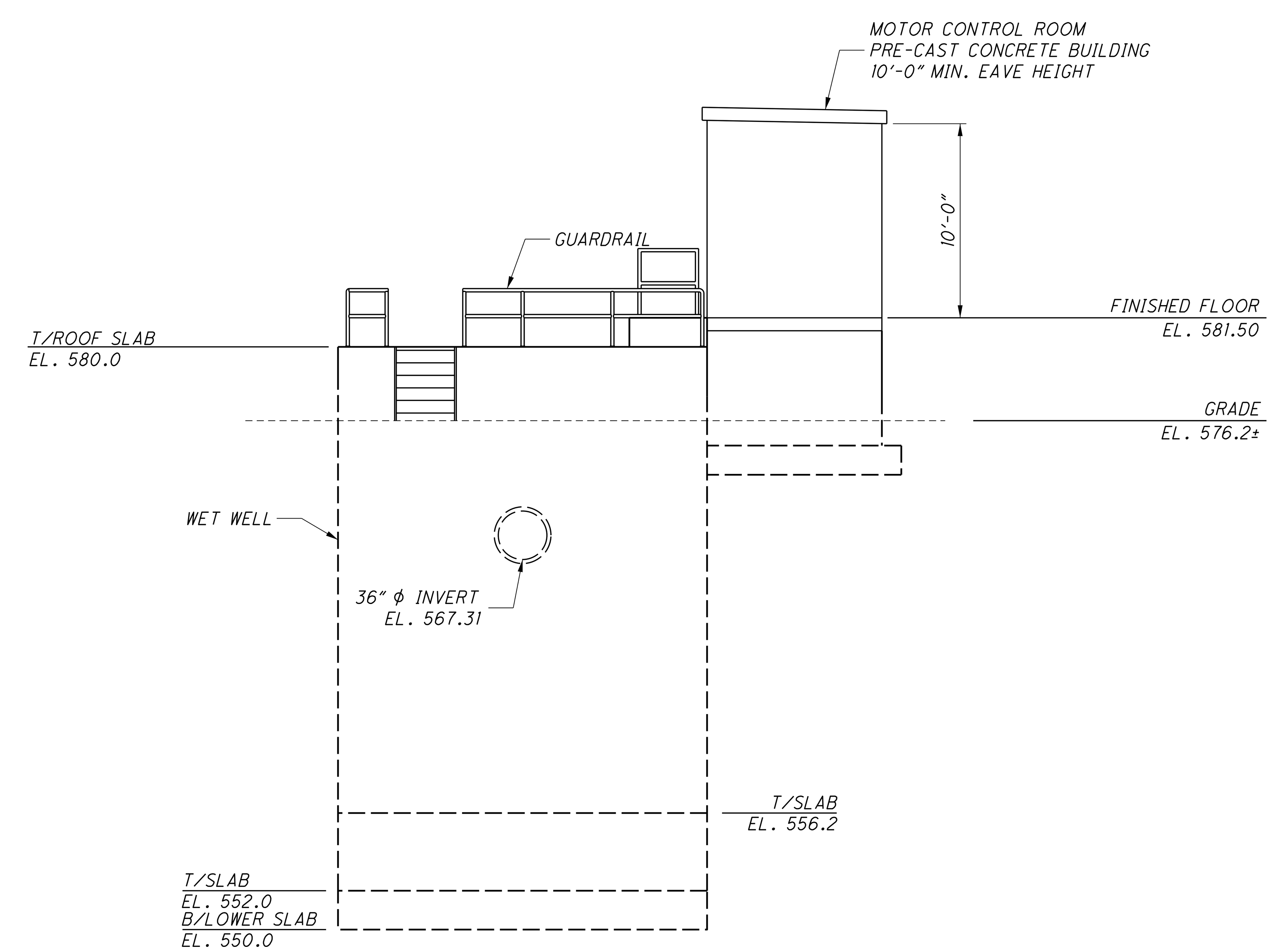
SITE PLAN

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



NORTH ELEVATION SECTION A-A

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



WEST ELEVATION SECTION B-B

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

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL 734-289-2200
FAX 734-289-2345

PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

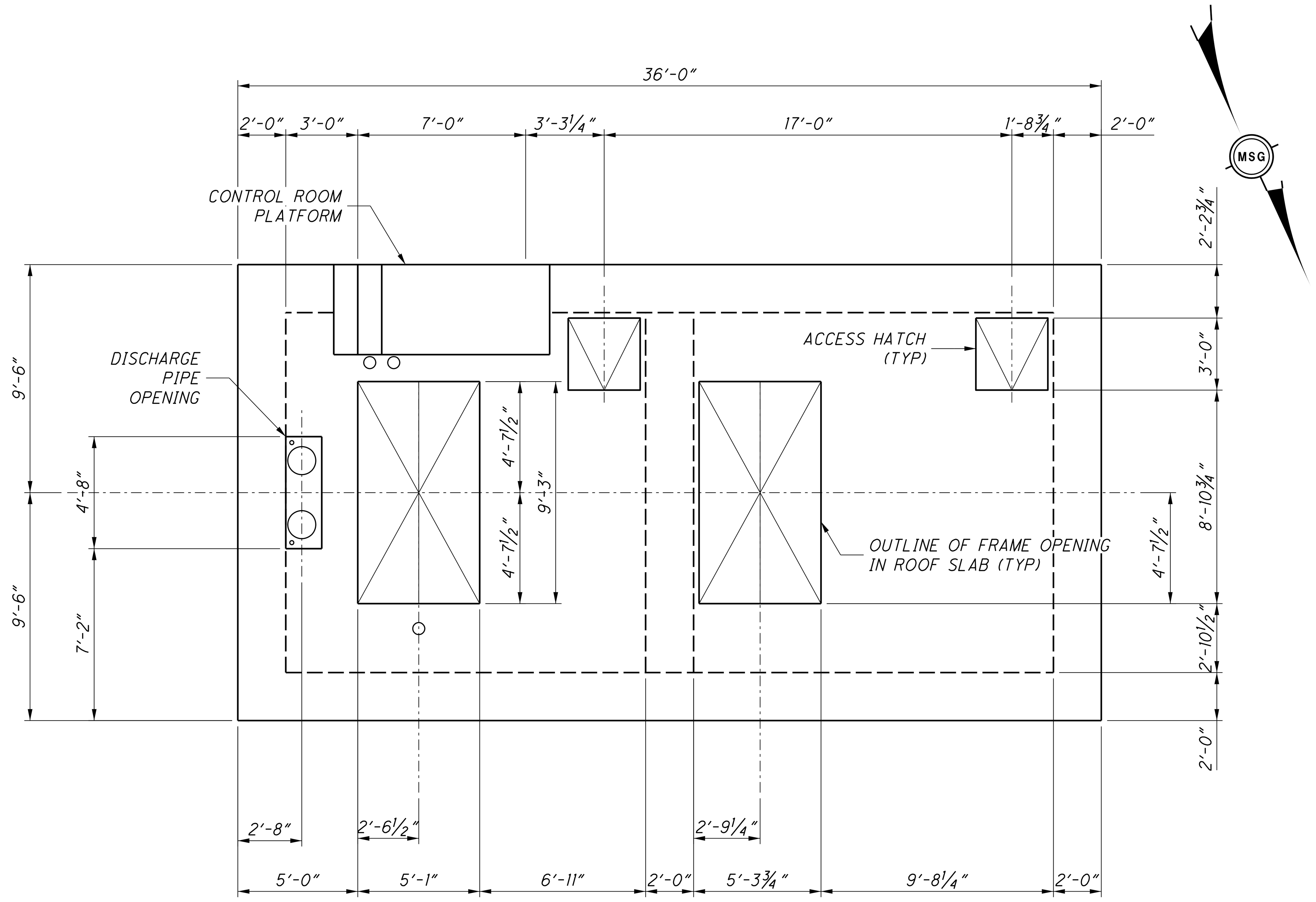
Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
100 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

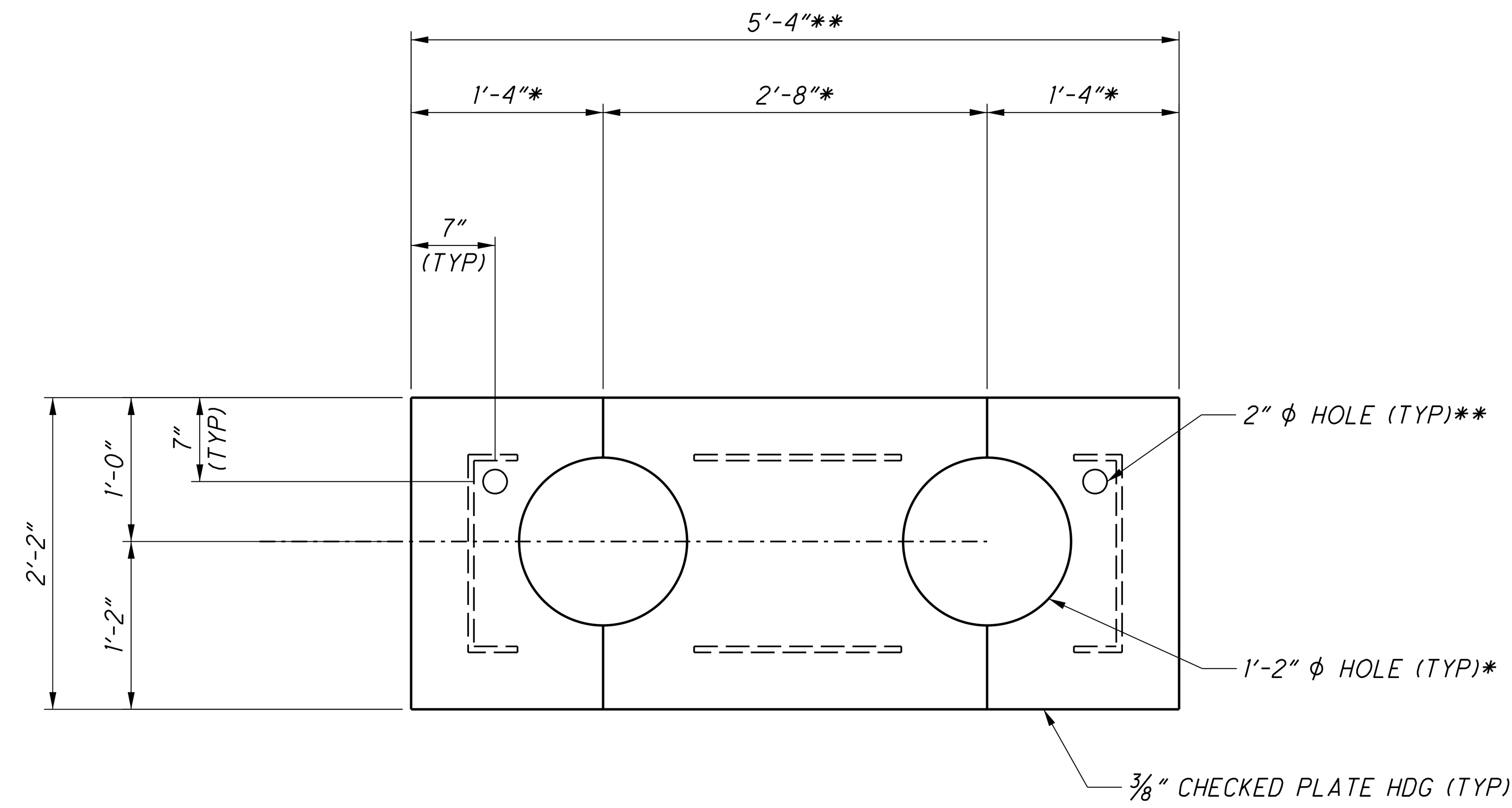
PUMP STATION DETAILS

5/31/2022
\\MSGFILESRV\MSGData\Projects\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_29_Pump_Station_Details.dgn



HATCH PLAN VIEW

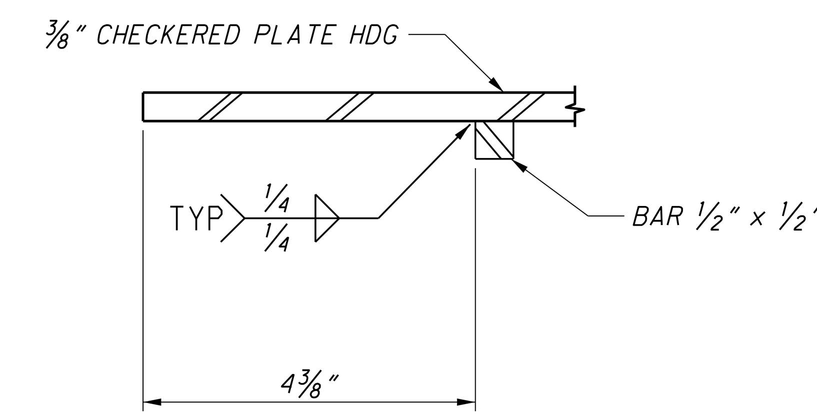
SCALE: 1/4" = 1'-0"



* FABRICATE COVER TO FIT DISCHARGE PIPES
** PROVIDE CONDUIT FITTING FOR POWER/CONTROL CABLE, COORDINATE WITH ELECTRICAL REQUIREMENTS.

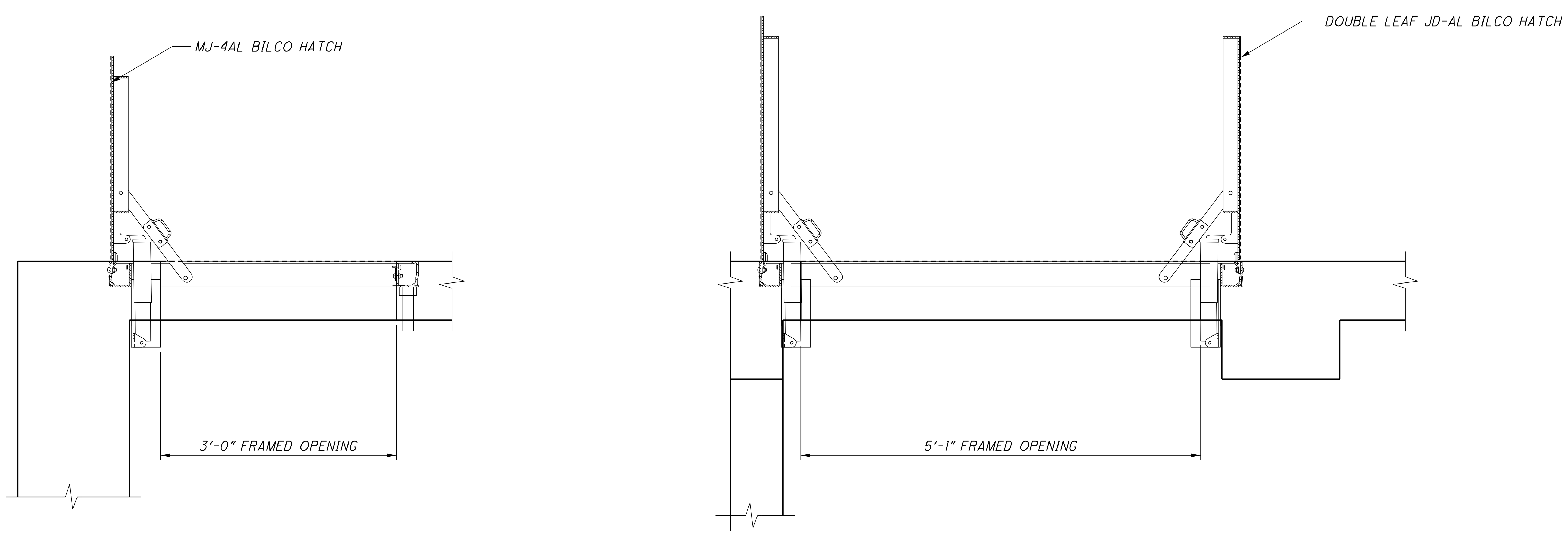
DISCHARGE PIPE COVER

SCALE: 1" = 1'-0"



DISCHARGE PIPE COVER WELD DETAIL

SCALE: 6" = 1'-0"



TYPICAL HATCH SECTIONS

SCALE: 1" = 1'-0"

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

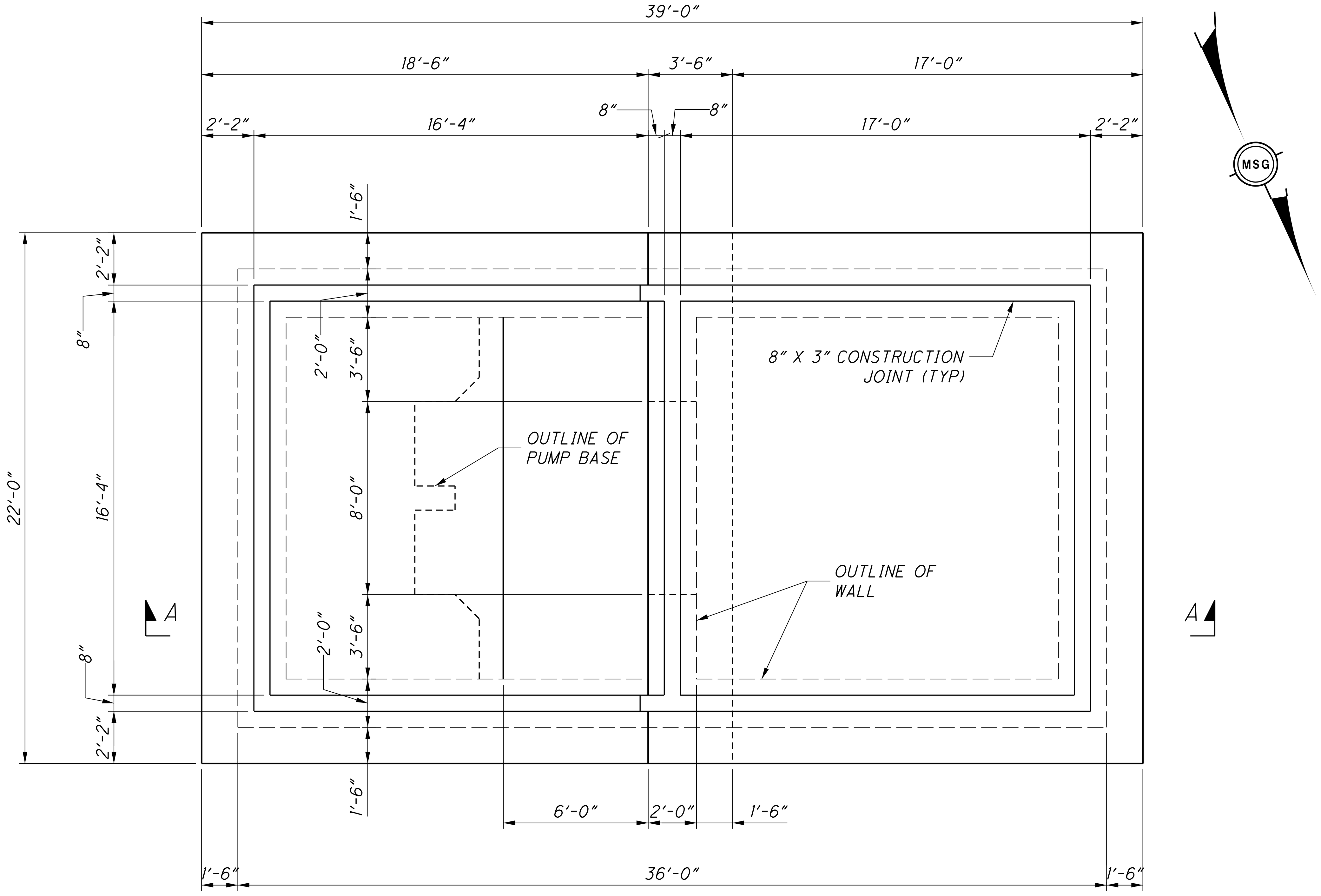
Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com
1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

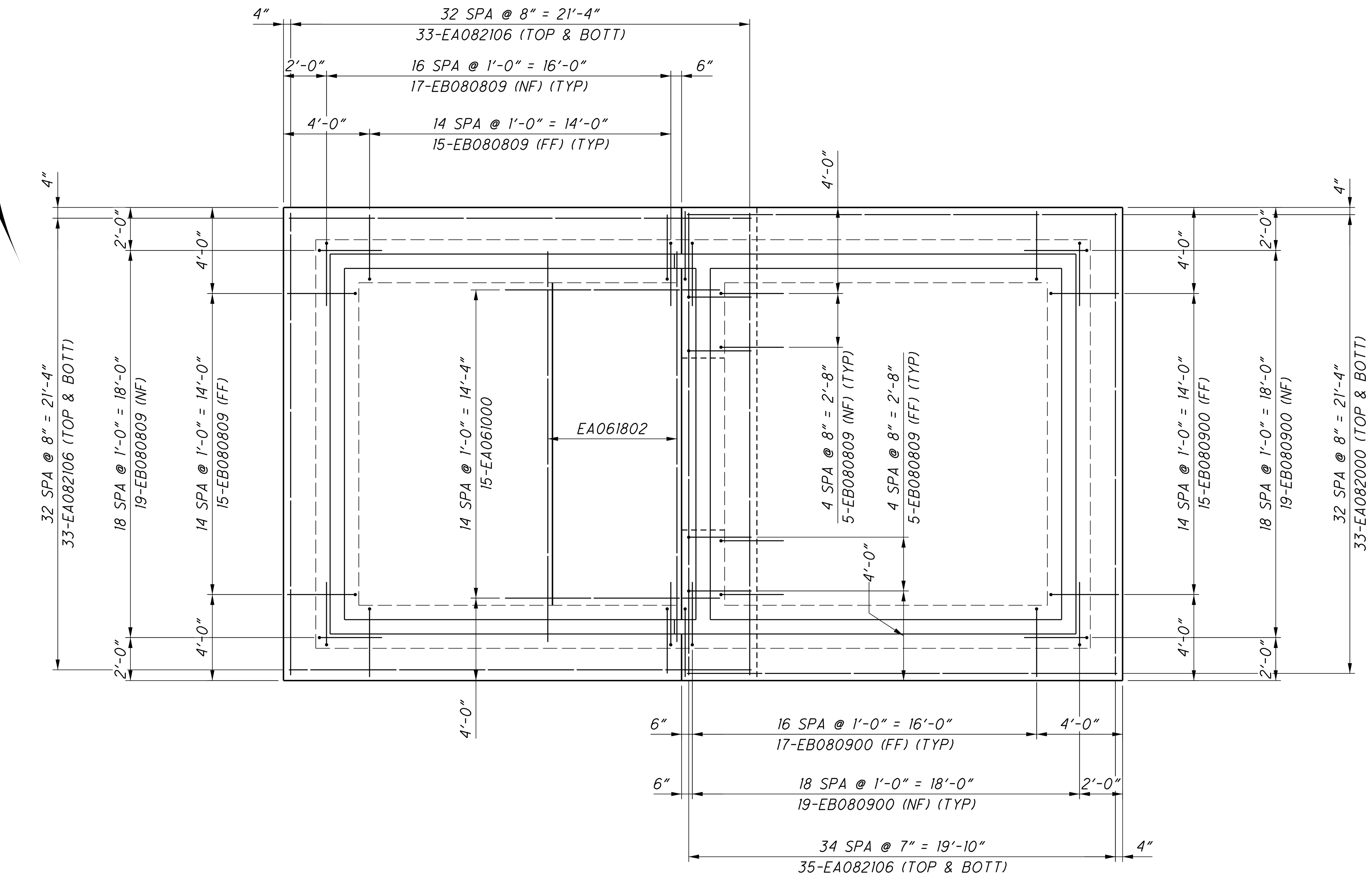
MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

PUMP STATION DETAILS



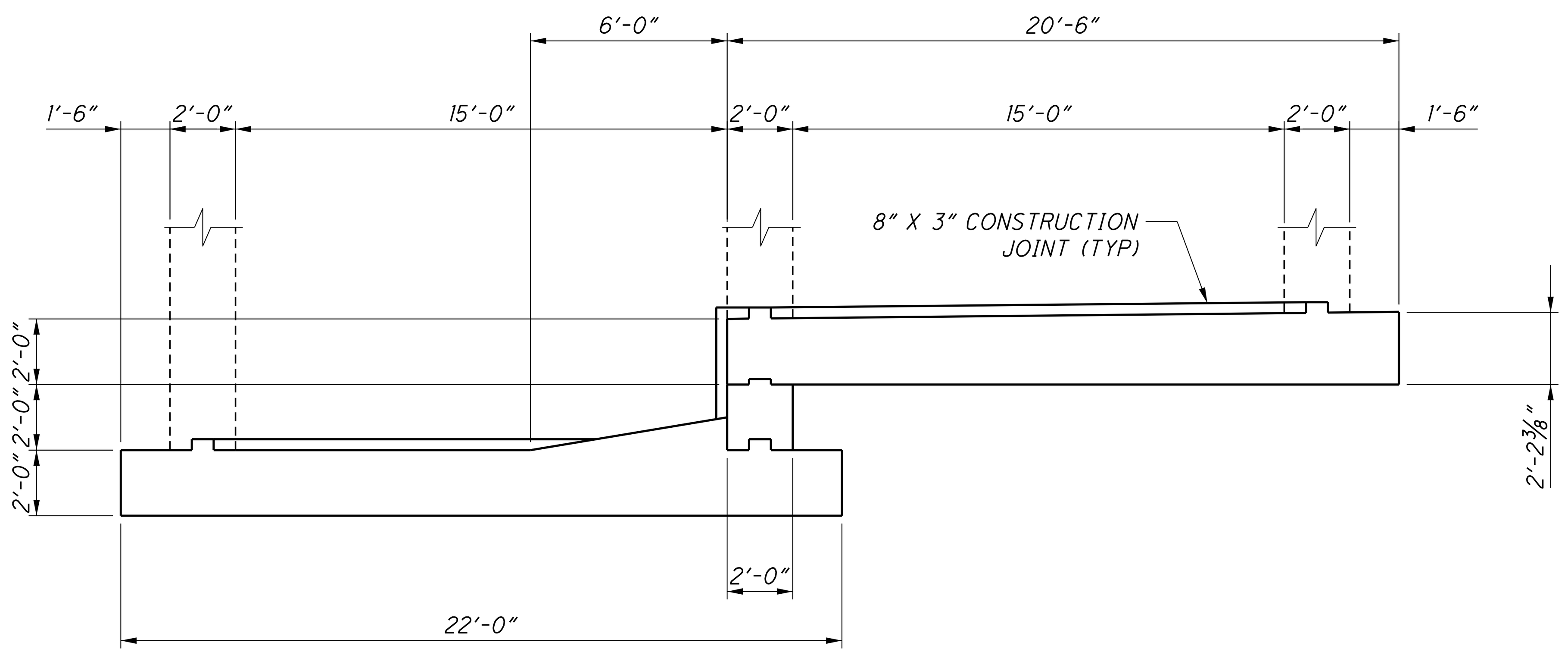
FOUNDATION PLAN

SCALE 1/4" = 1'-0"



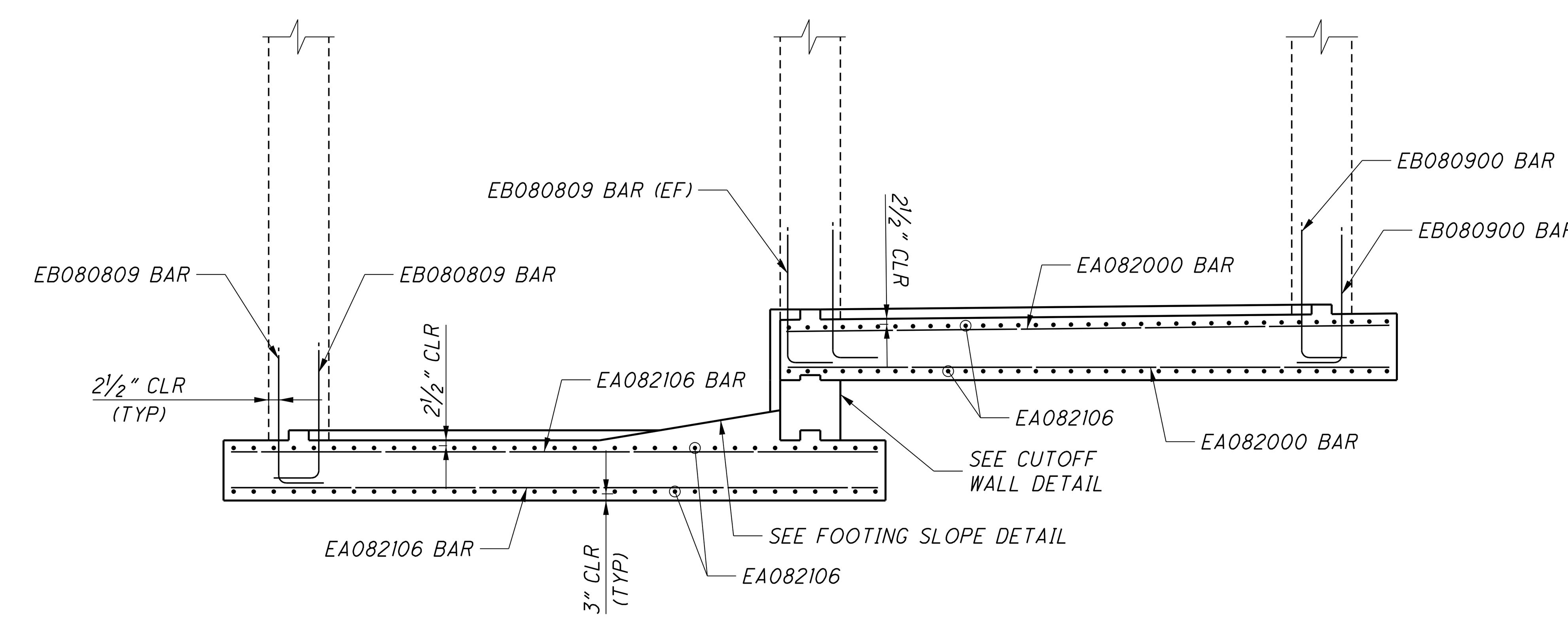
FOUNDATION PLAN

SCALE 1/4" = 1'-0"
SHOWING REINFORCEMENT



SECTION A-A

SCALE 1/4" = 1'-0"



SECTION A-A

SCALE 1/4" = 1'-0"
SHOWING REINFORCEMENT

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL 734-289-2200
FAX 734-289-2345

PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

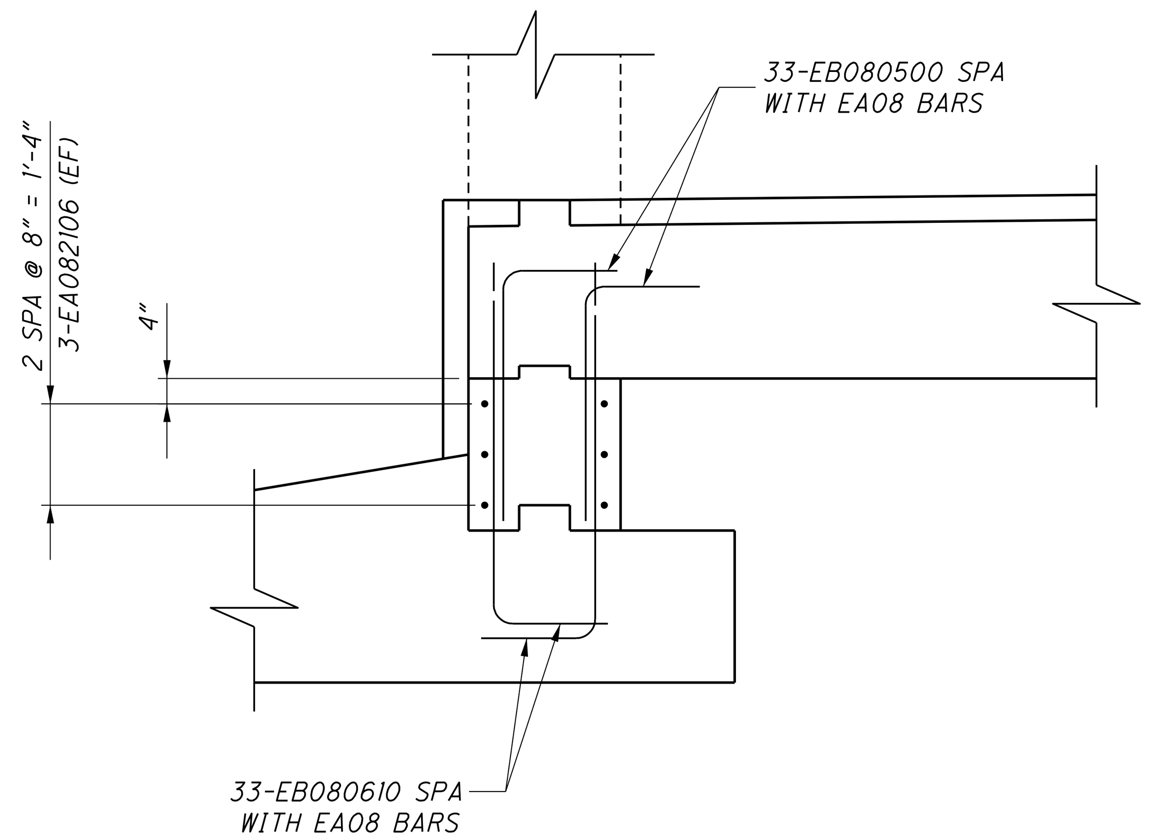
PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

PUMP STATION DETAILS

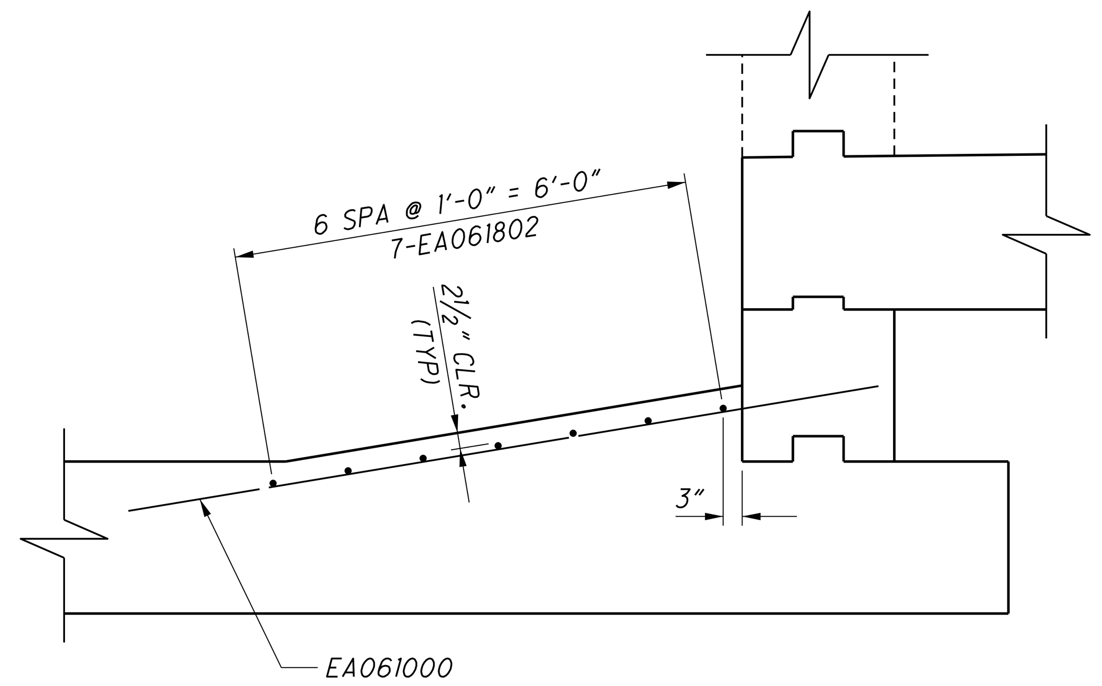
31 / 58

5/31/2022
\\MSGFILESRV\MSGData\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_31_Pump_Station_Details.dgn



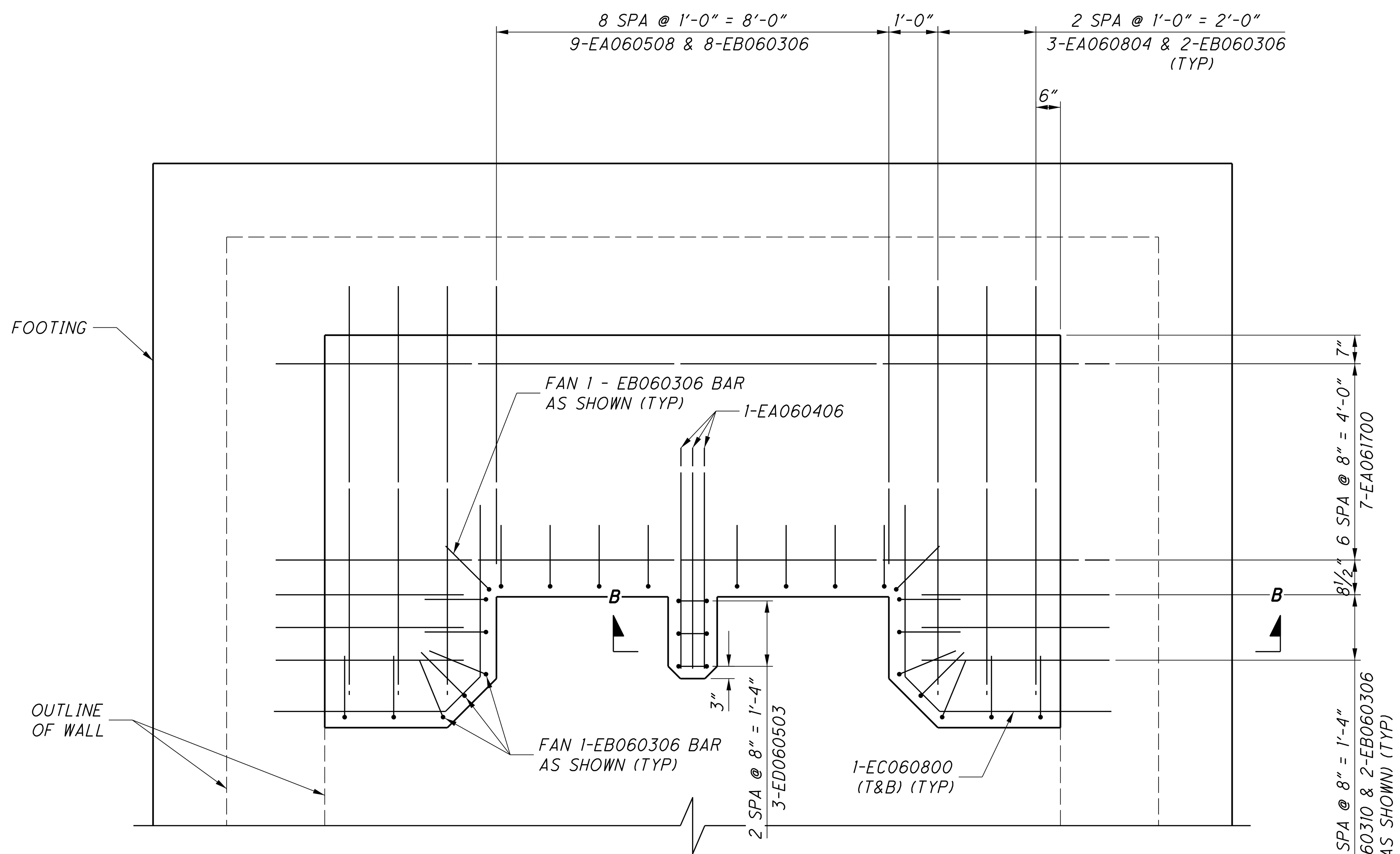
CUTOFF WALL DETAIL

SCALE 1/2" = 1'-0"



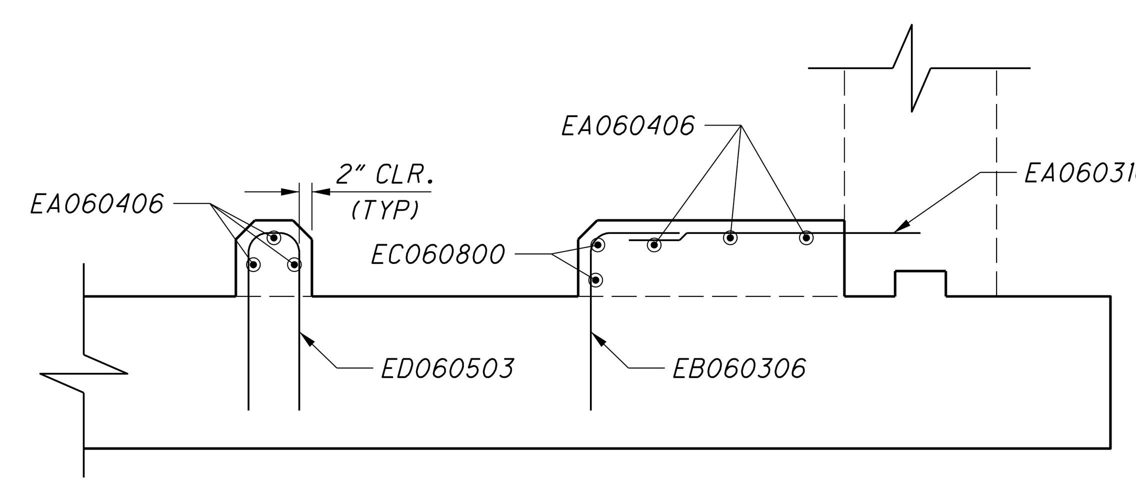
FOOTING SLOPE DETAIL

SCALE 1/2" = 1'-0"



PUMP BASE PLAN

SCALE 1/2" = 1'-0"
PUMP WALL OUTLINE AND REINFORCING NOT SHOWN



SECTION B-B

SCALE 1/2" = 1'-0"

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

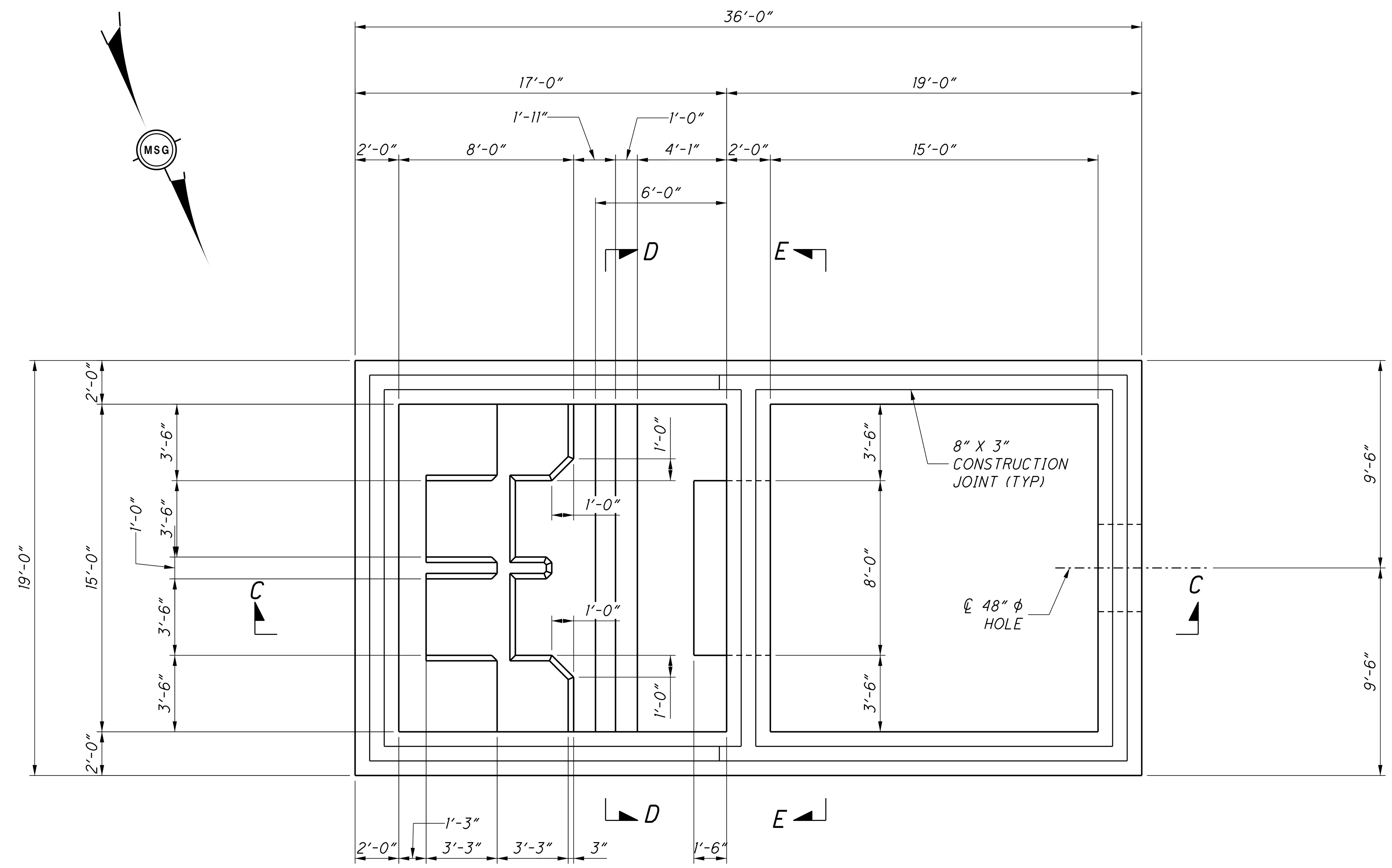
PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.ManniksmithGroup.com

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

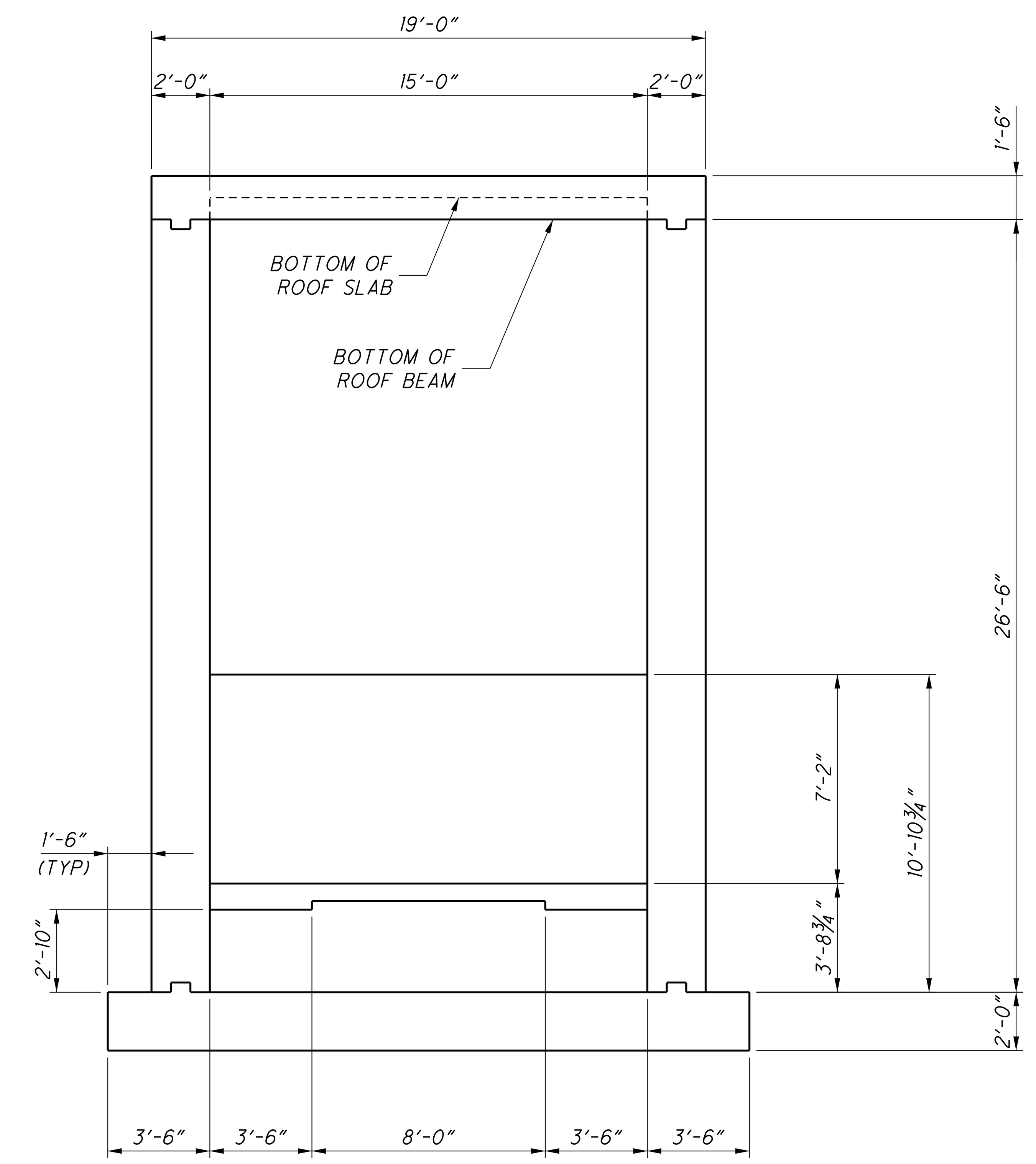
PUMP STATION DETAILS



WALL PLAN

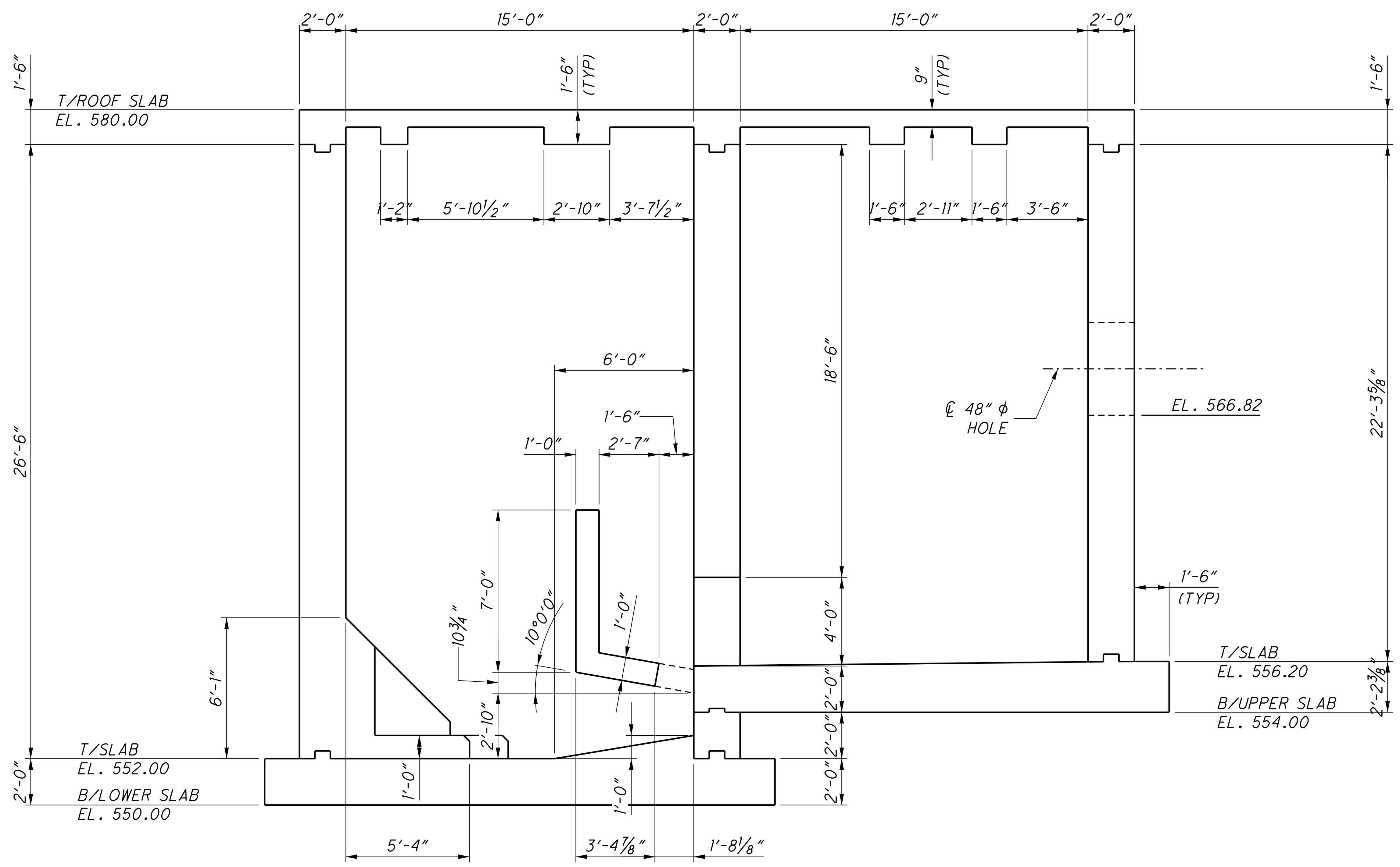
SCALE: 1/4" = 1'-0"

ROOF SLAB AND FOUNDATION NOT SHOWN



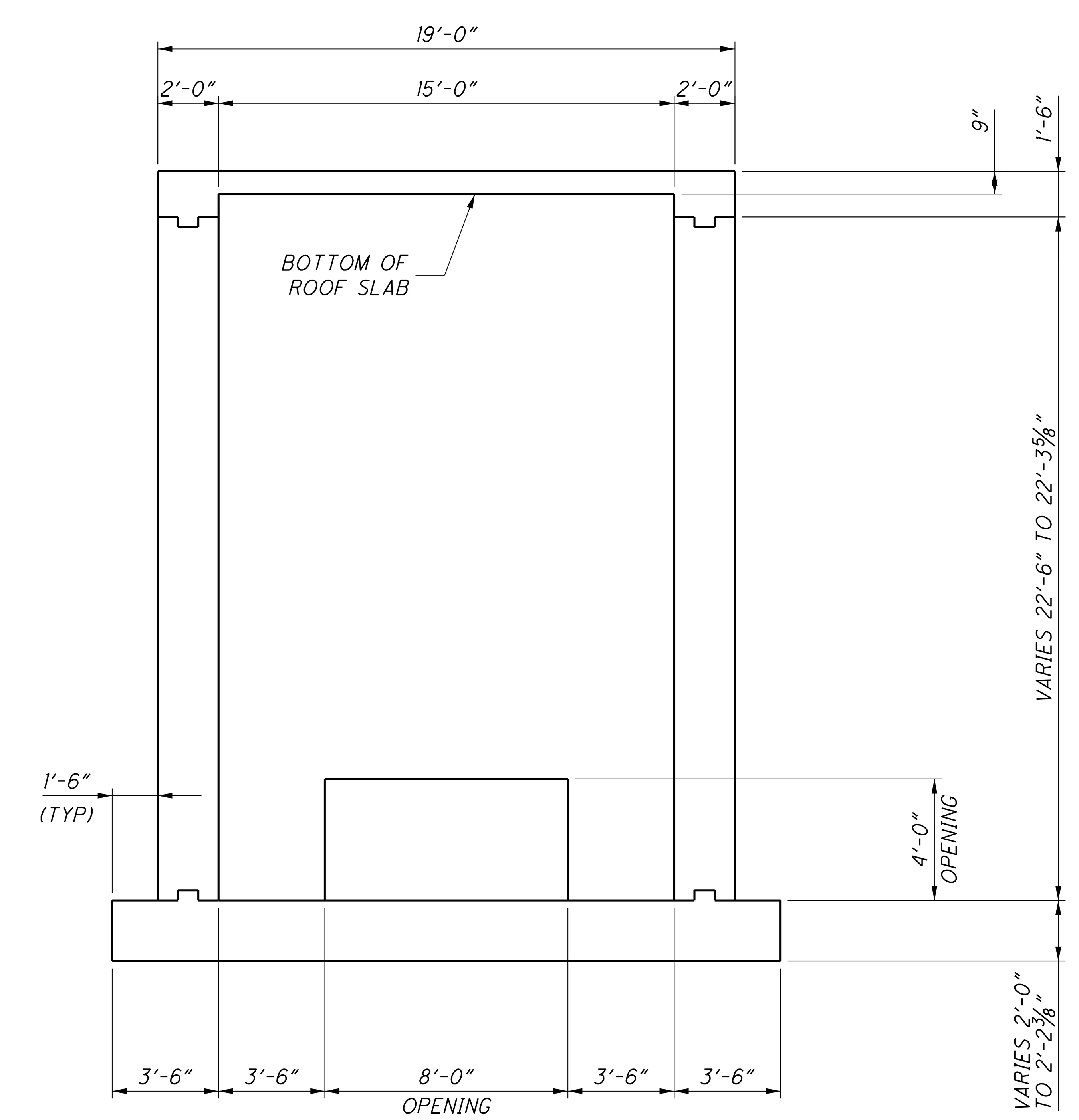
SECTION D-D

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



SECTION C-C

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



SECTION E-E

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

5/31/2022

\\MSGFILESRV\MSGData\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_33_Pump_Station_Details.dgn

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

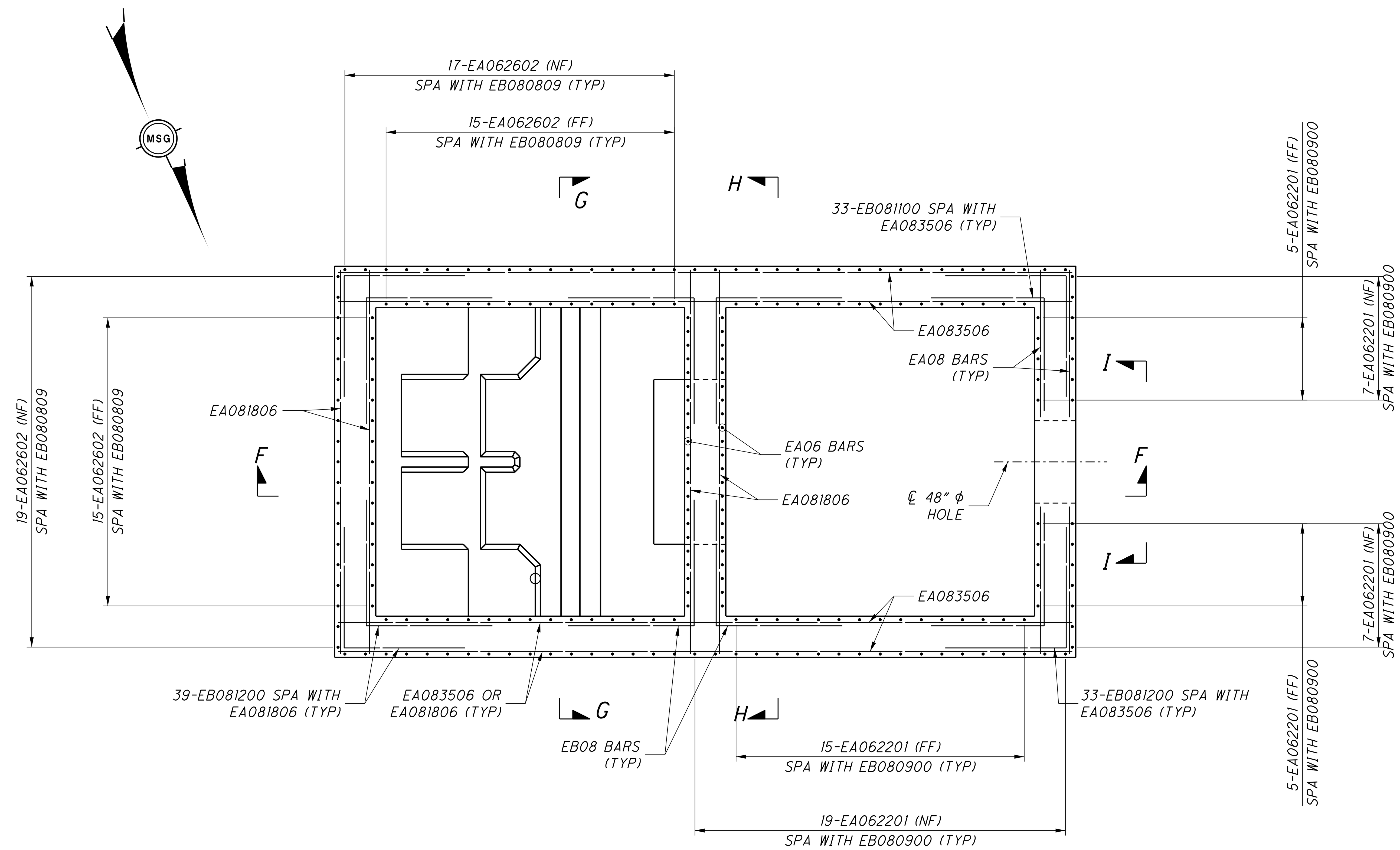
Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com
1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

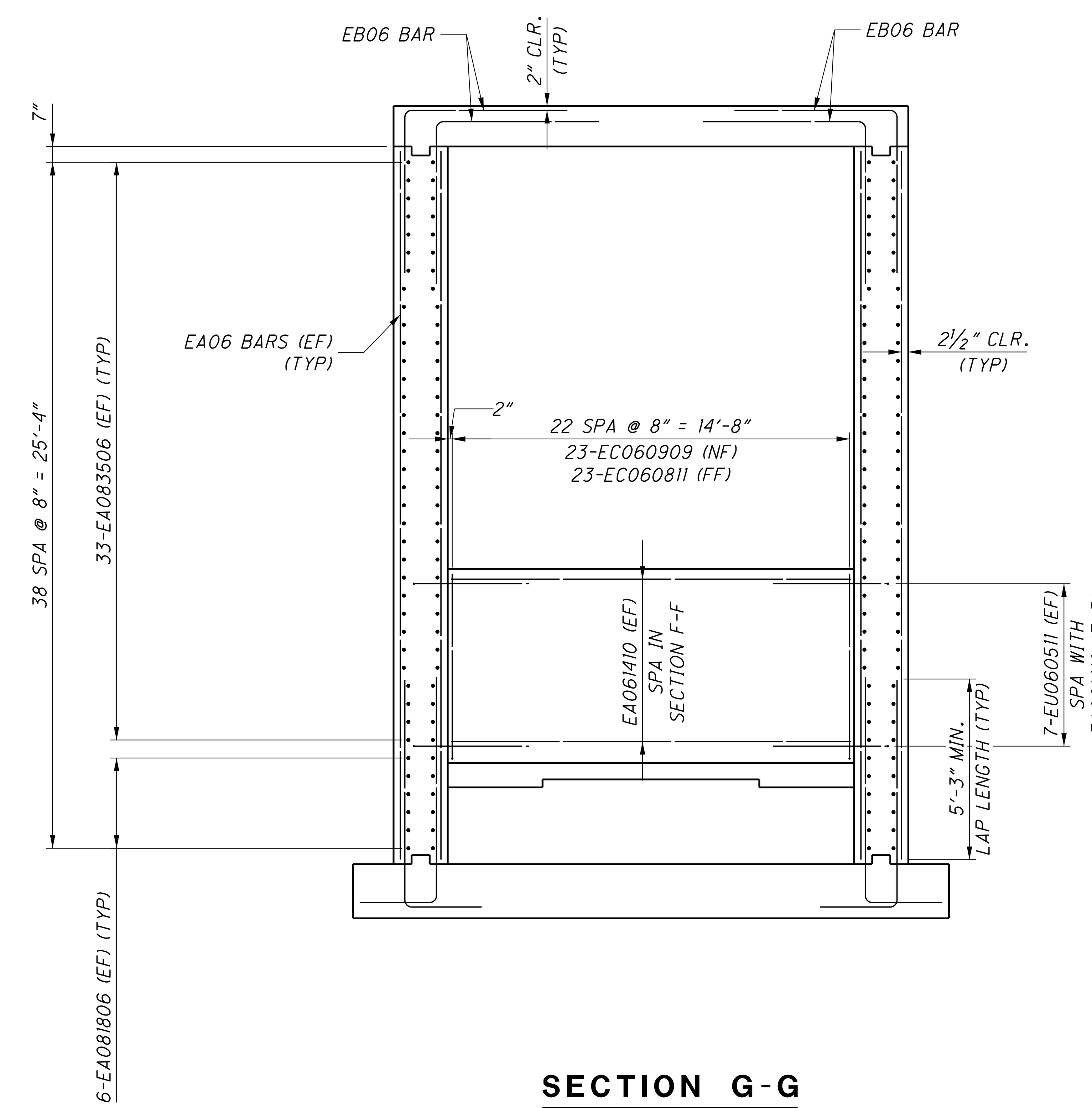
MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

PUMP STATION DETAILS



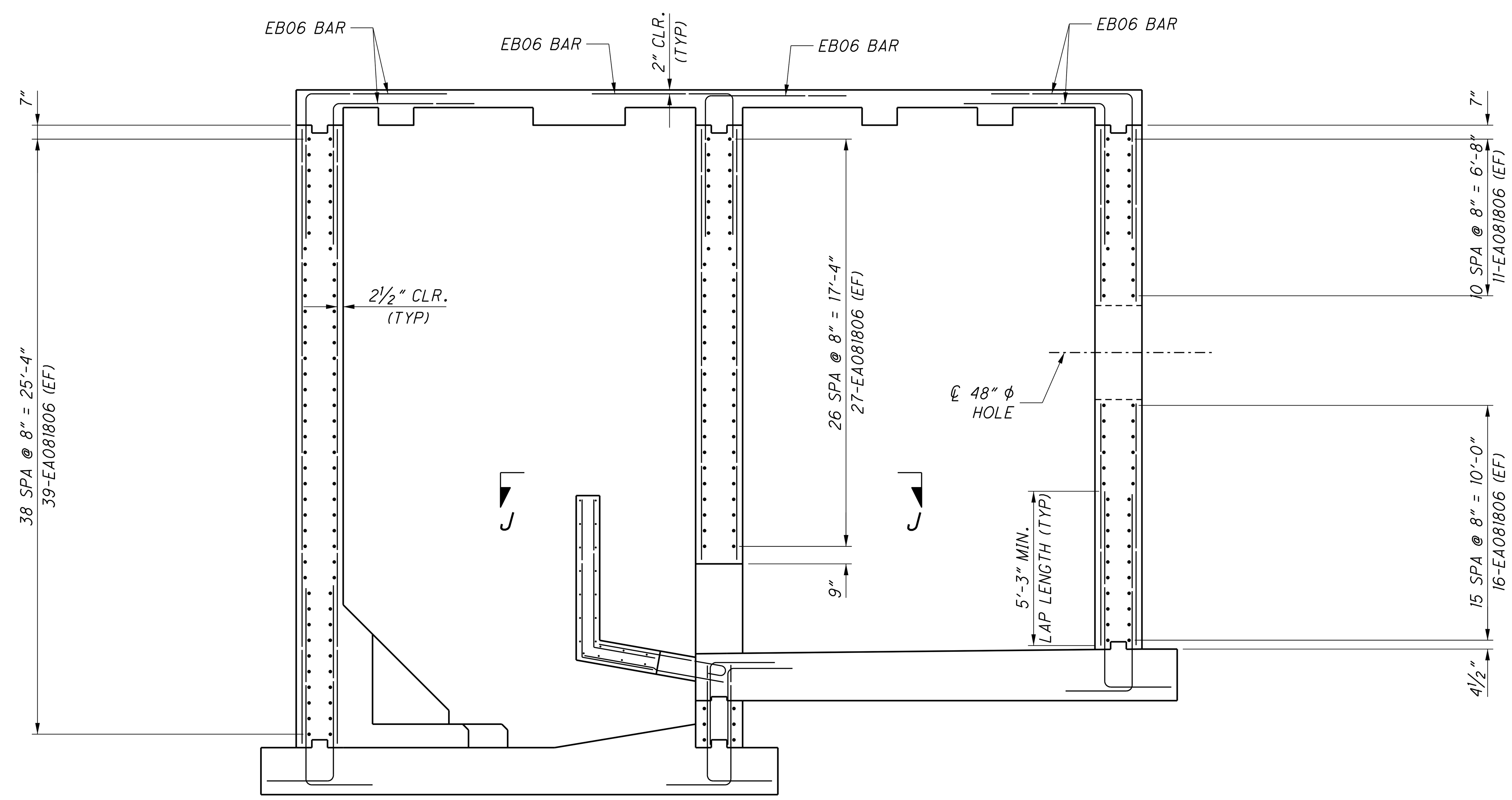
PLAN

SCALE: 1/4" = 1'-0"
ROOF SLAB AND FOUNDATION NOT SHOWN
FOR EB08 BARS INTO ROOF SLAB, SEE SHT. 41



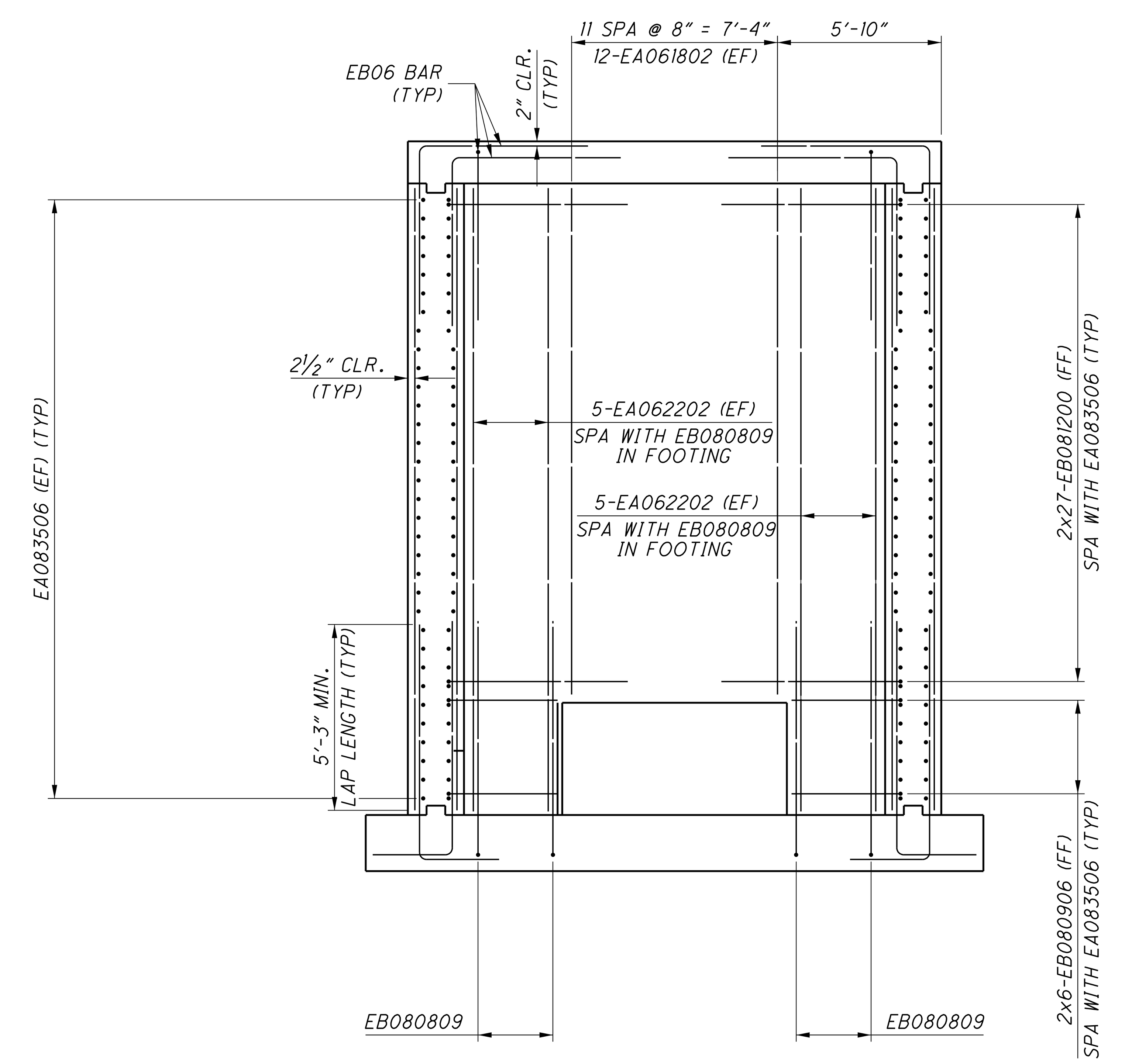
SECTION G-G

SCALE: 1/4" = 1'-0"
ROOF AND FLOOR SLAB REINFORCING NOT SHOWN FOR CLARITY



SECTION F-F

SCALE: 1/4" = 1'-0"
ROOF AND FLOOR SLAB REINFORCING NOT SHOWN FOR CLARITY



SECTION H-H

SCALE: 1/4" = 1'-0"
ROOF AND FLOOR SLAB REINFORCING NOT SHOWN FOR CLARITY

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com
1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

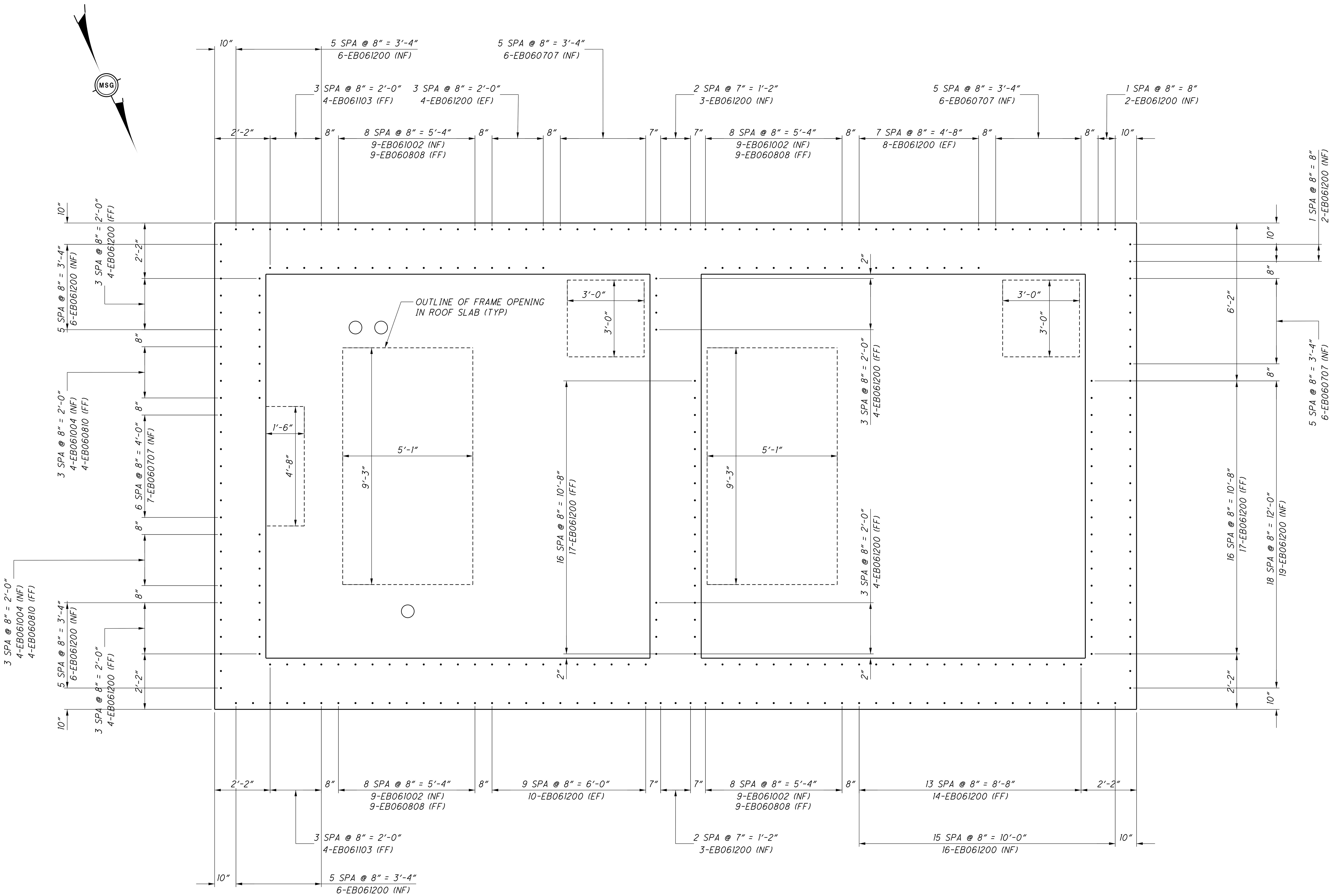
PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

PUMP STATION DETAILS

5/31/2022
\\MSGFILESRV\MSGData\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_34_Pump_Station_Details.dgn



WALL PLAN

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

SHOWING EB BARS IN THE WALL AT THE LEVEL OF THE ROOF SLAB

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

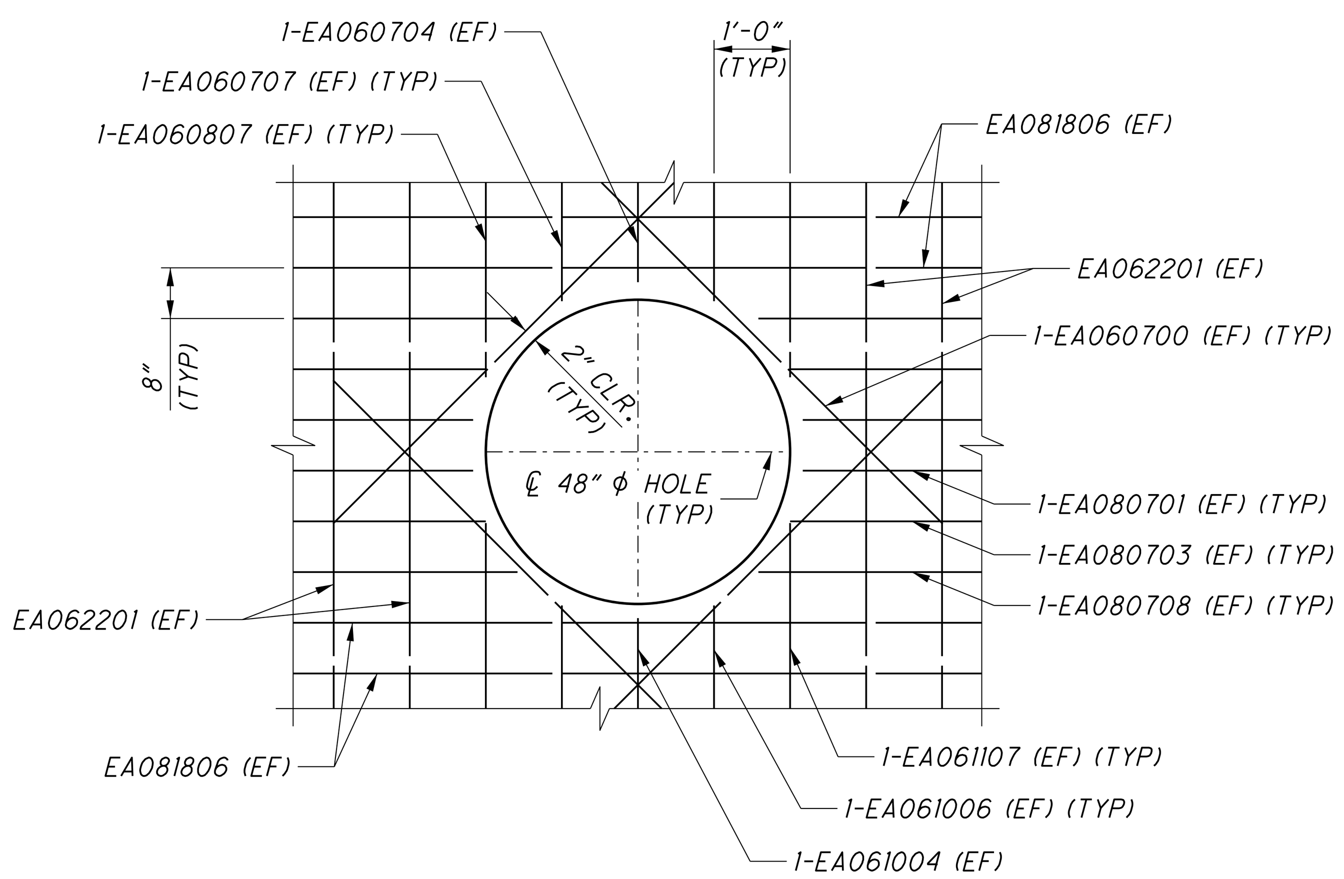
Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
100 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

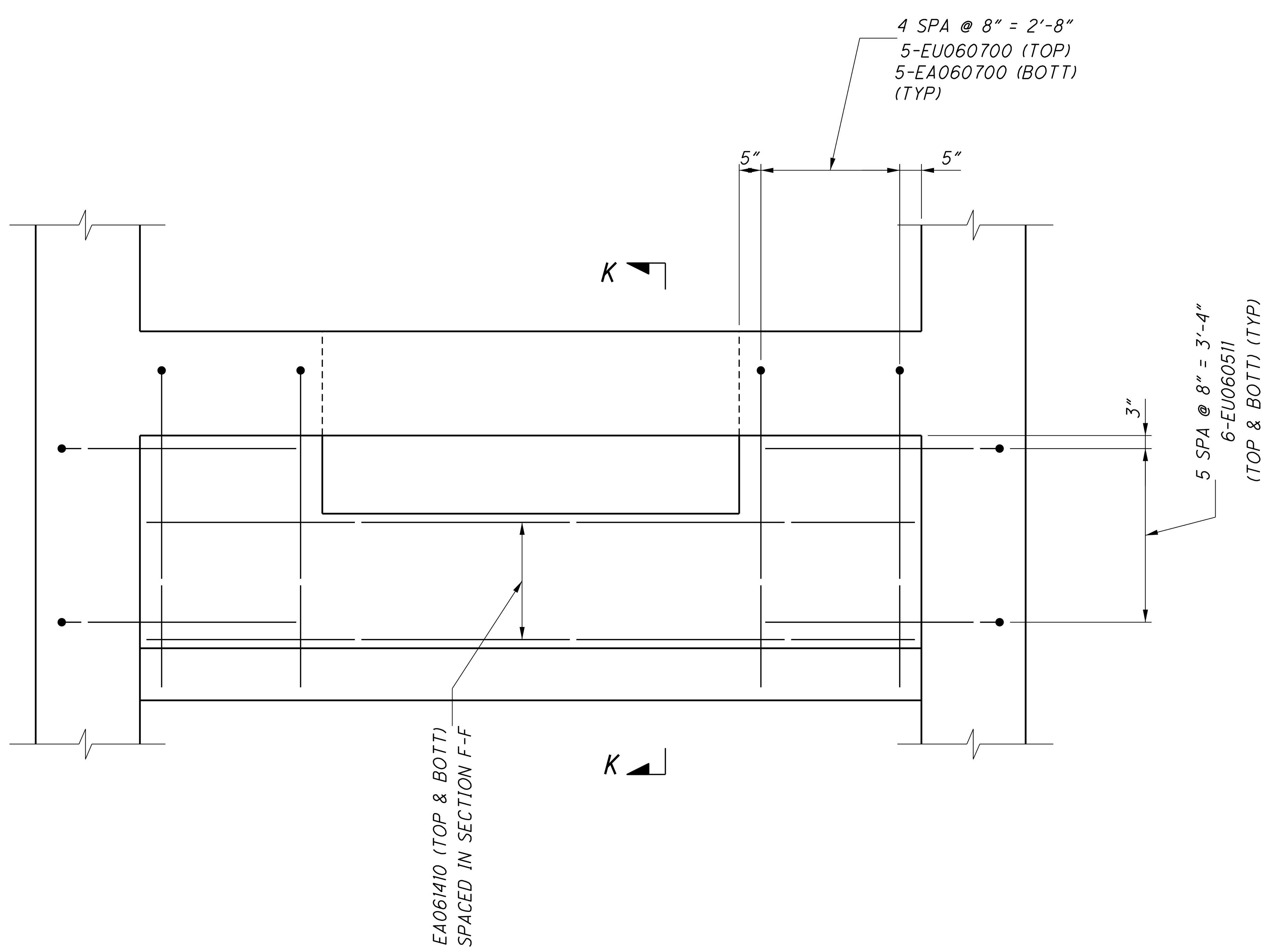
PUMP STATION DETAILS

5/31/2022
\\MSGFILESRV\MSGData\Projects\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_35_Pump_Station_Details.dgn



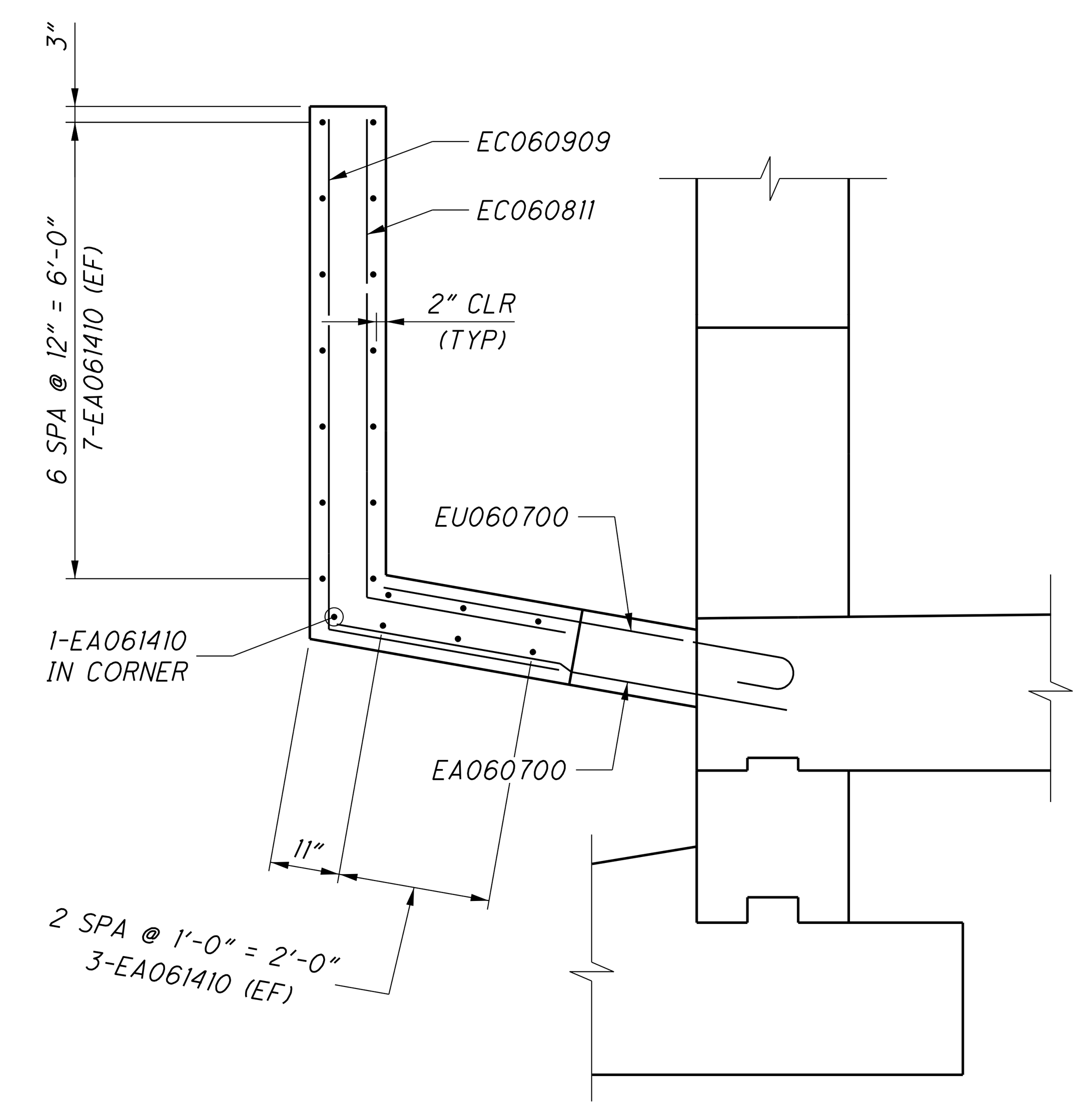
VIEW I-I

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



VIEW J-J

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



SECTION K-K

SCALE: 1/2" = 1'-0"
EU060511 BARS NOT SHOWN

5/31/2022

\\MSGFILESRV\MSGData\Projects\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_36_Pump_Station_Details.dgn

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

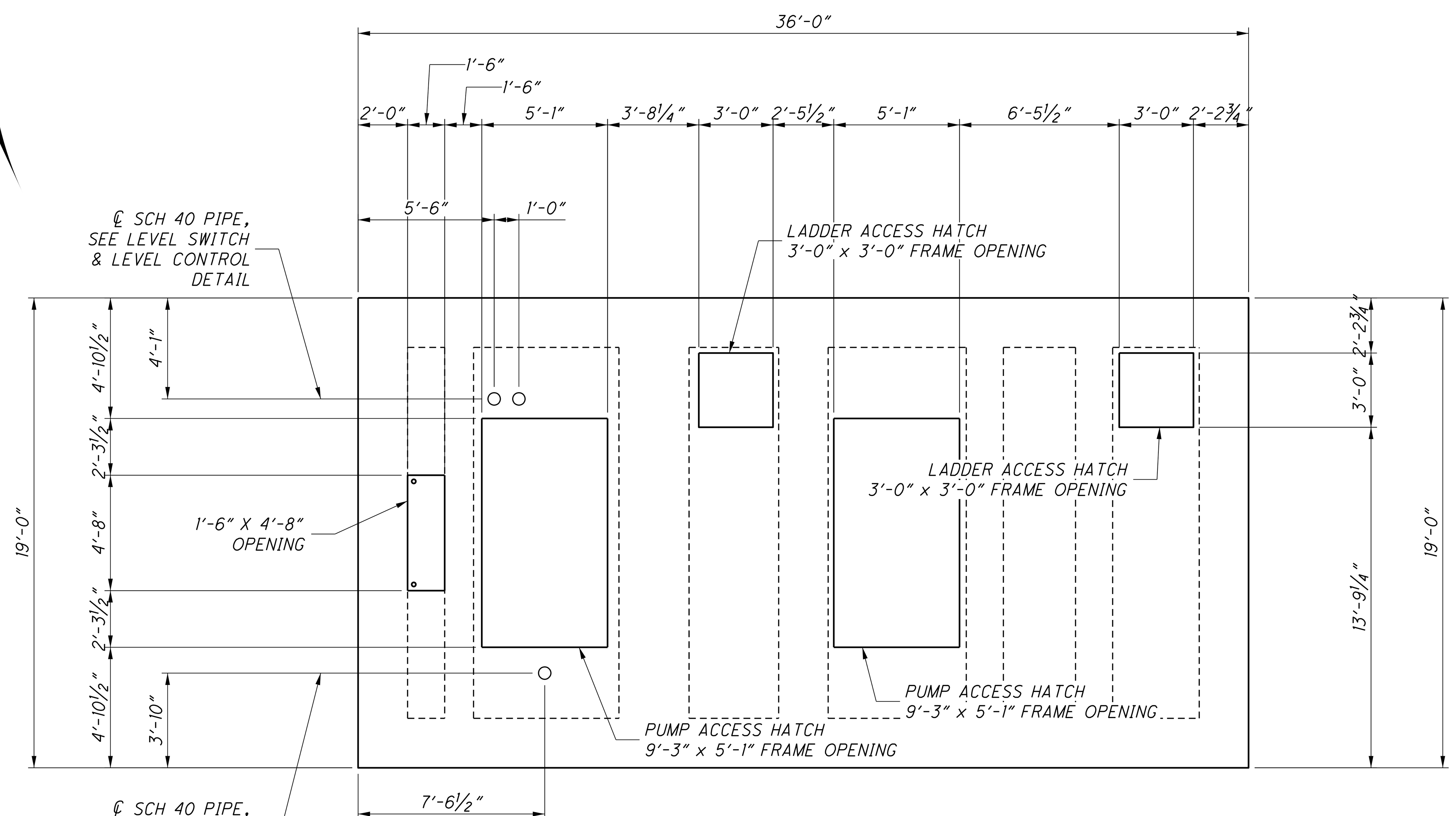
PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

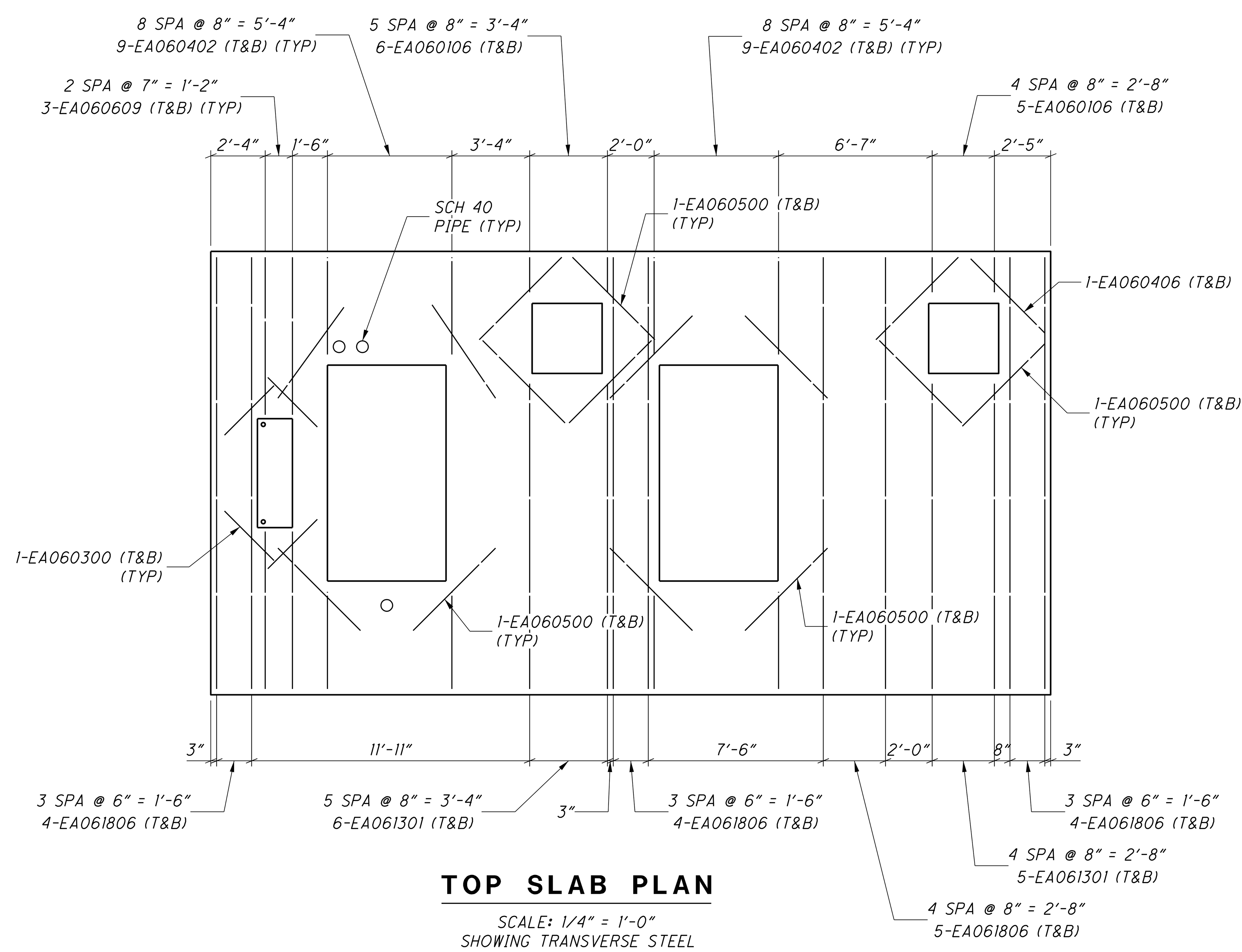
MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

PUMP STATION DETAILS



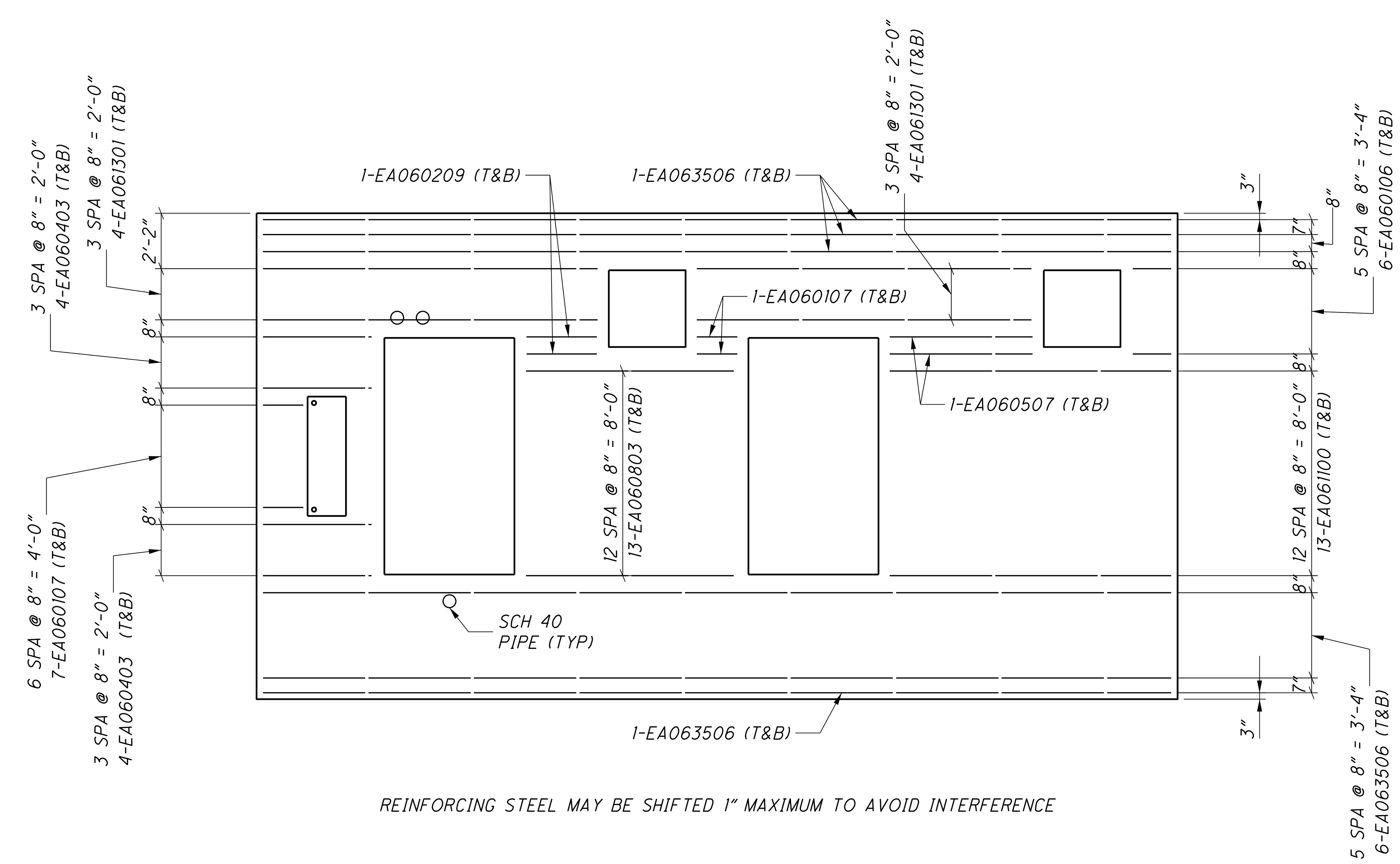
TOP SLAB PLAN

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



TOP SLAB PLAN

SCALE: 1/4" = 1'-0"
SHOWING TRANSVERSE STEEL



REINFORCING STEEL MAY BE SHIFTED 1" MAXIMUM TO AVOID INTERFERENCE

TOP SLAB PLAN

SCALE: 1/4" = 1'-0"
SHOWING LONGITUDINAL STEEL

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

Manik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.ManikSmithGroup.com

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

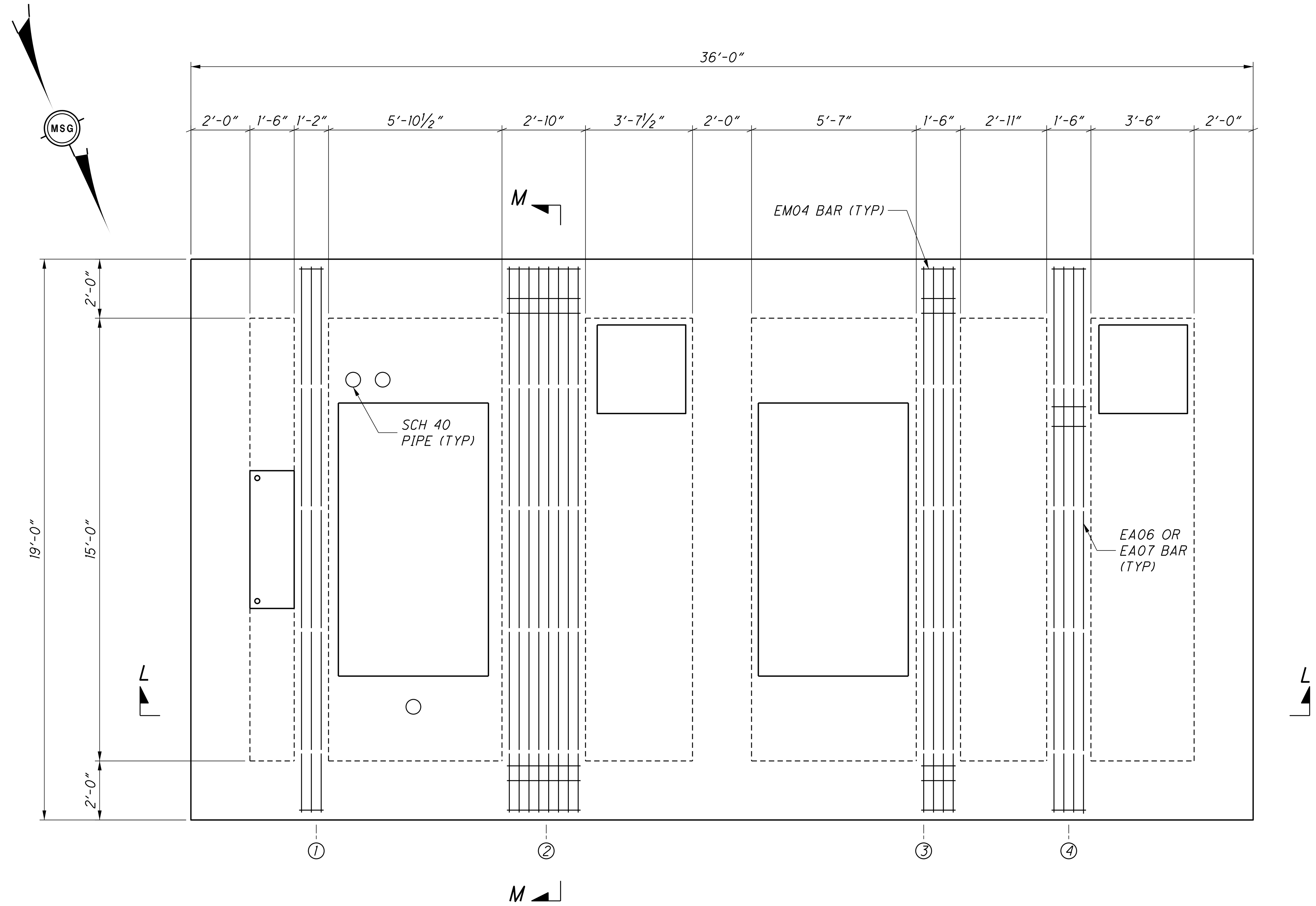
PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

PUMP STATION DETAILS

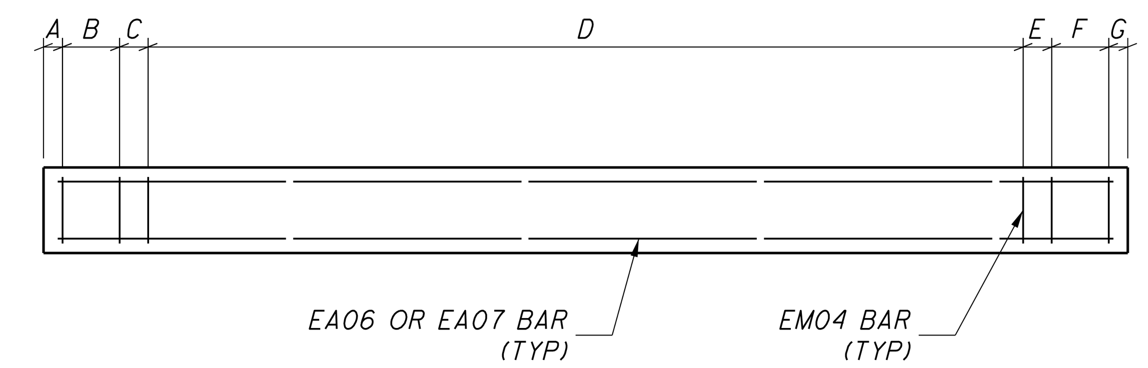
5/31/2022
\\MSGFILESRV\MSGData\Projects\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_37_Pump_Station_Details.dgn



ROOF BEAM PLAN

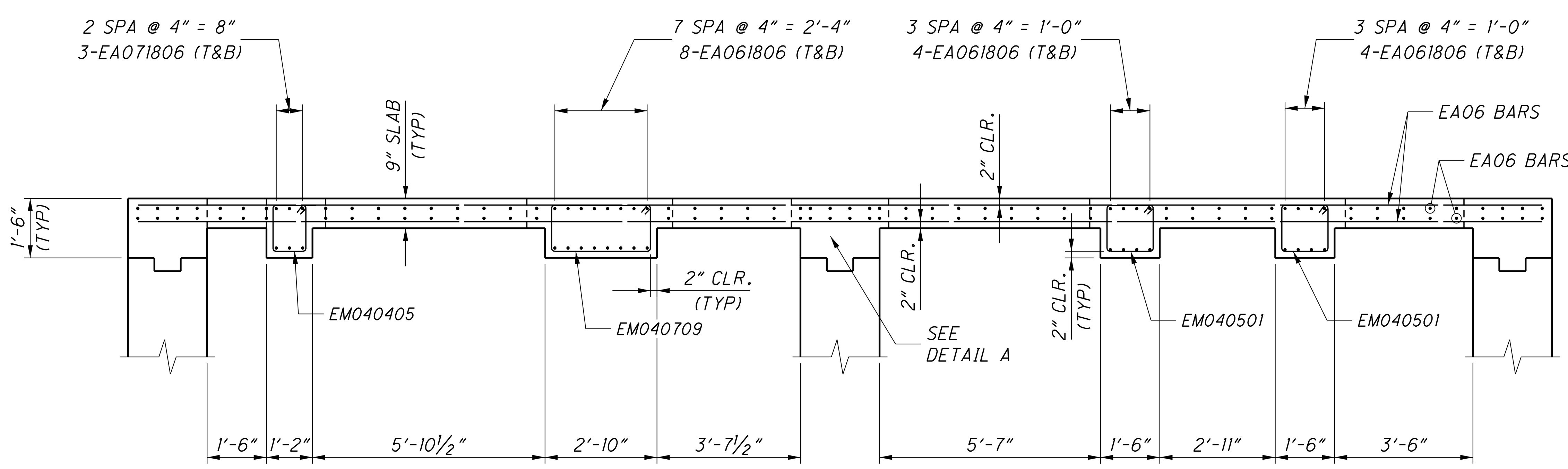
SCALE: ⅜" = 1'-0"

STIRRUP SPACING							
BEAM	A	B	C	D	E	F	G
1	4"	44 SPA @ 5" = 18'-4", 45-EM040405	-	-	-	-	4"
2	4"	2 SPA @ 6" = 1'-0", 3-EM040709	6"	23 SPA @ 8" = 15'-4", 24-EM040709	6"	2 SPA @ 6" = 1'-0", 3-EM040709	4"
3	4"	2 SPA @ 6" = 1'-0", 3-EM040501	6"	23 SPA @ 8" = 15'-4", 24-EM040501	6"	2 SPA @ 6" = 1'-0", 3-EM040501	4"
4	4"	13 SPA @ 12" = 13'-0", 14-EM040501	8"	7 SPA @ 8" = 4'-8", 8-EM040501	-	-	4"



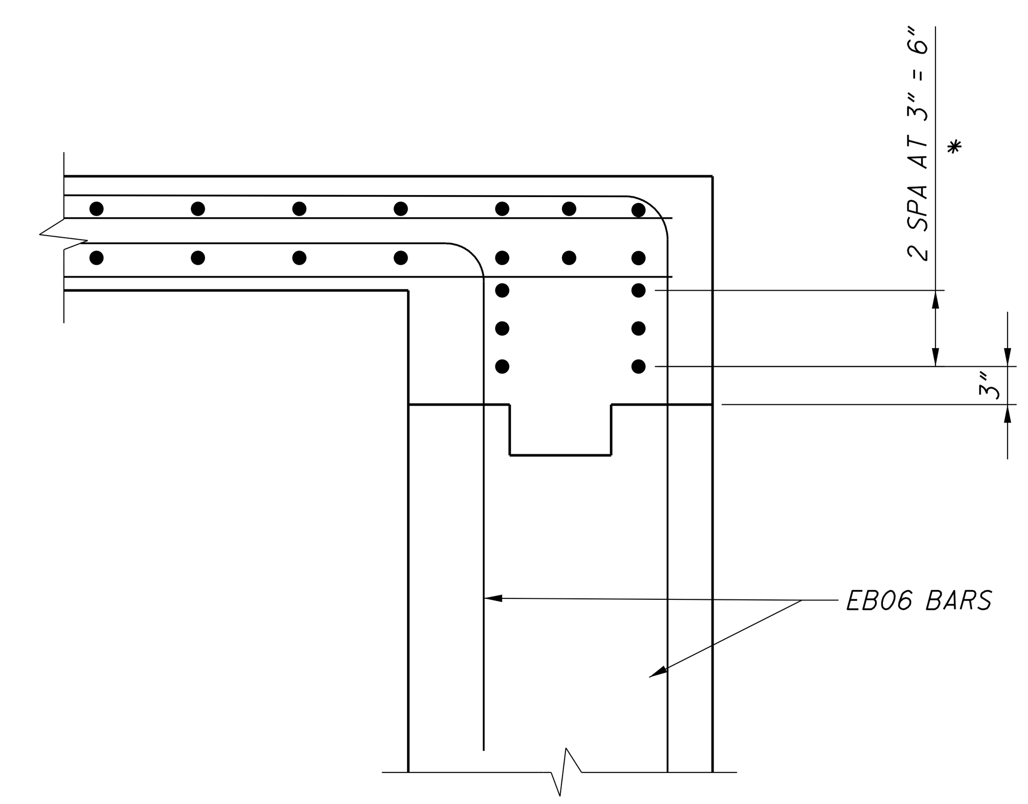
SECTION M-M

STIRRUP SPACING DIAGRAM
REFER TO STIRRUP SPACING TABLE
ABOVE FOR SPACING



SECTION L-L

SCALE: ⅜" = 1'-0"



DETAIL A

SCALE: 1" = 1'-0"

* 3 - EA081806 (E.F.) N-S DIRECTION (TYP 3 LOCATIONS)
3 - EA083506 (E.F.) E-W DIRECTION (TYP 2 LOCATIONS)

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

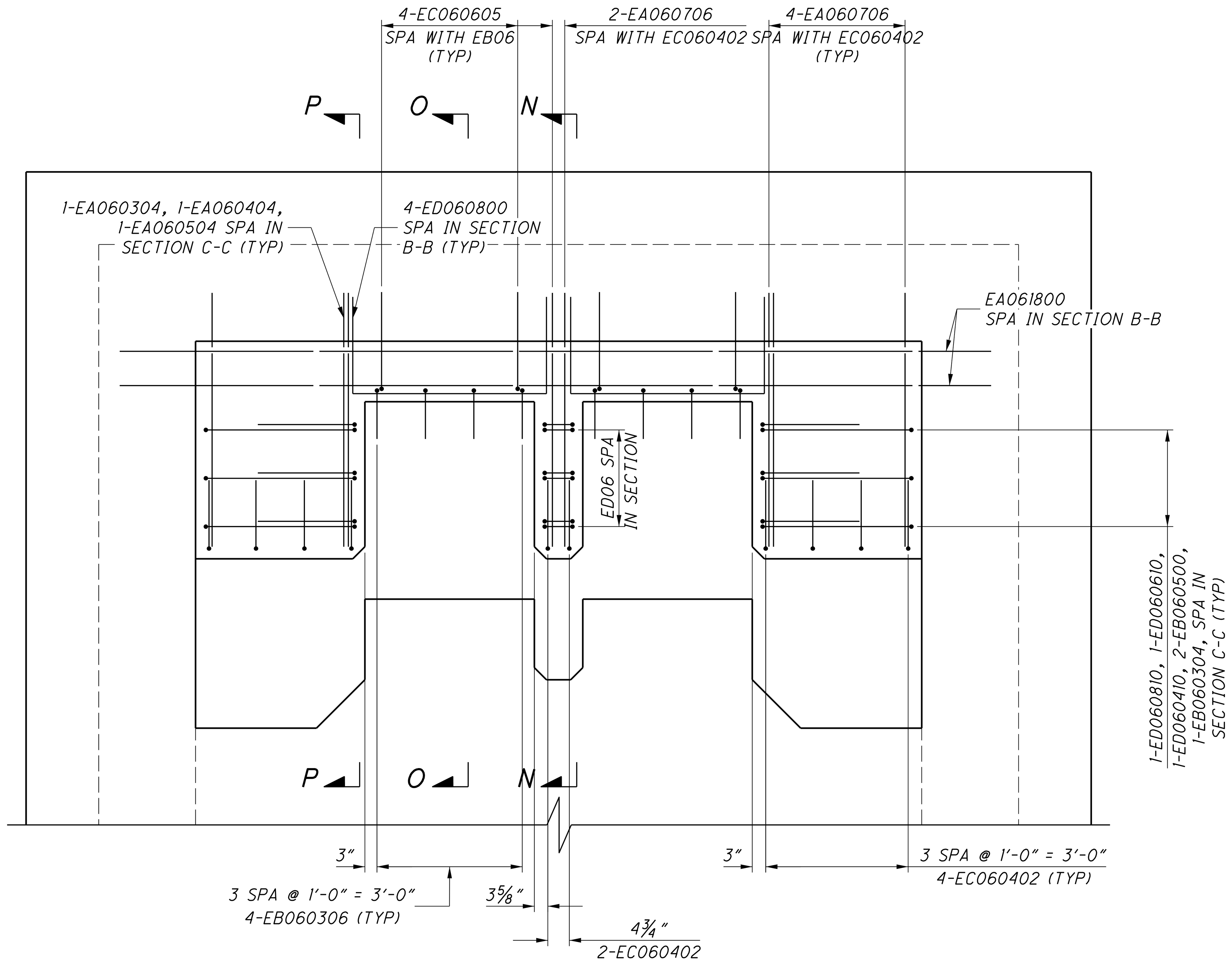
PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

ManikSmith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.ManikSmithGroup.com

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

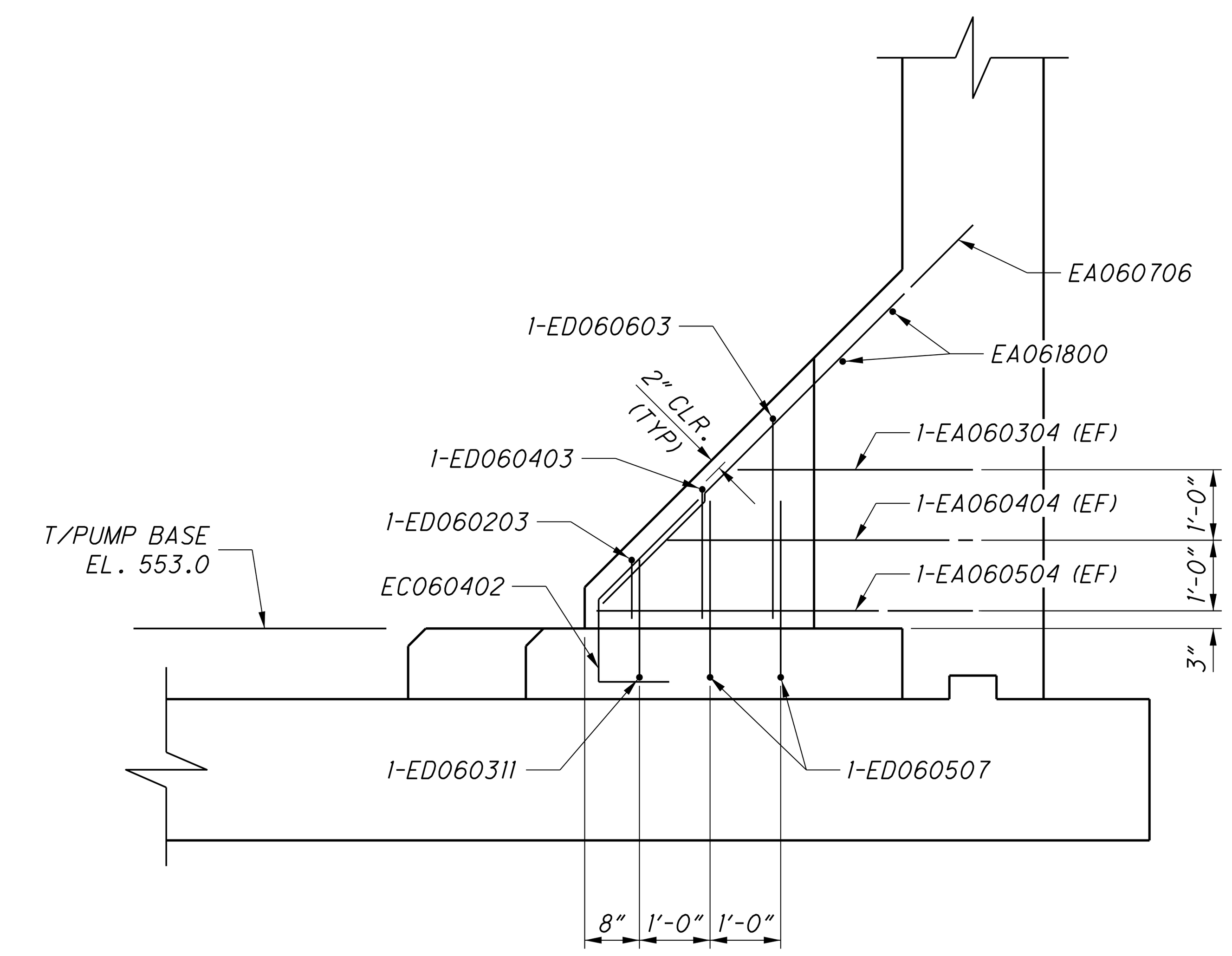
MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

PUMP STATION DETAILS



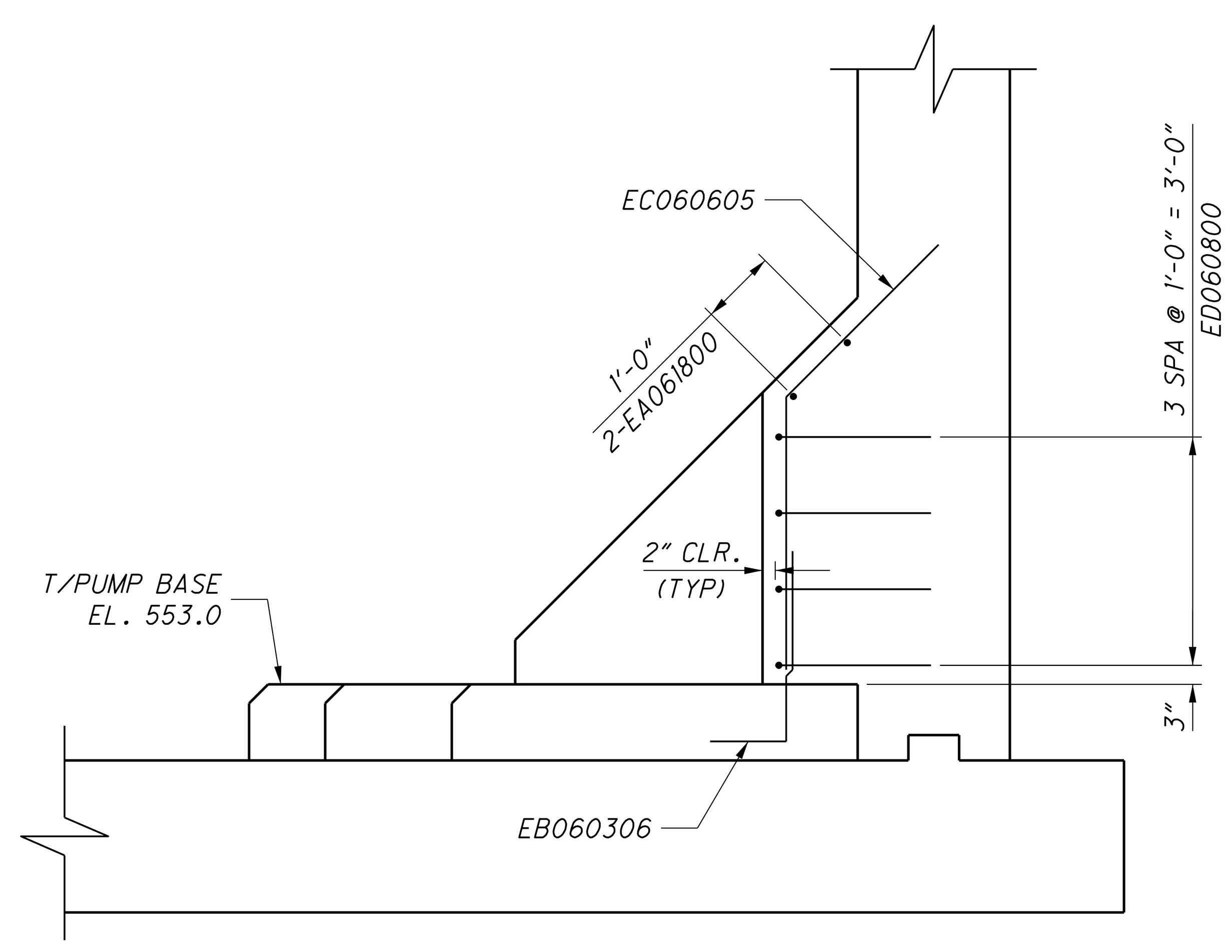
PUMP WALL PLAN

SCALE 1/2" = 1'-0"



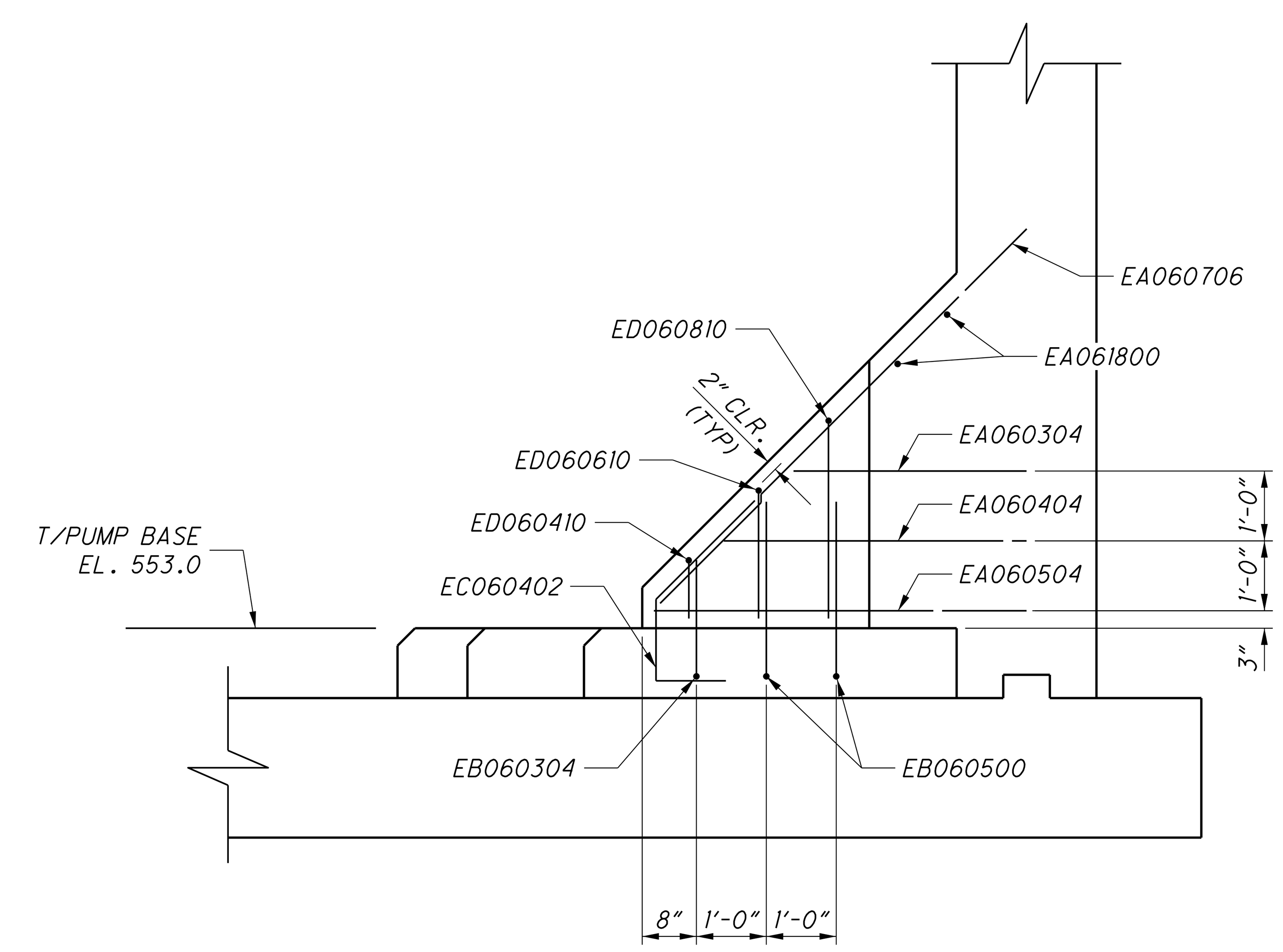
SECTION N-N

SCALE 1/2" = 1'-0"



SECTION O-O

SCALE 1/2" = 1'-0"



SECTION P-P

SCALE 1/2" = 1'-0"

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

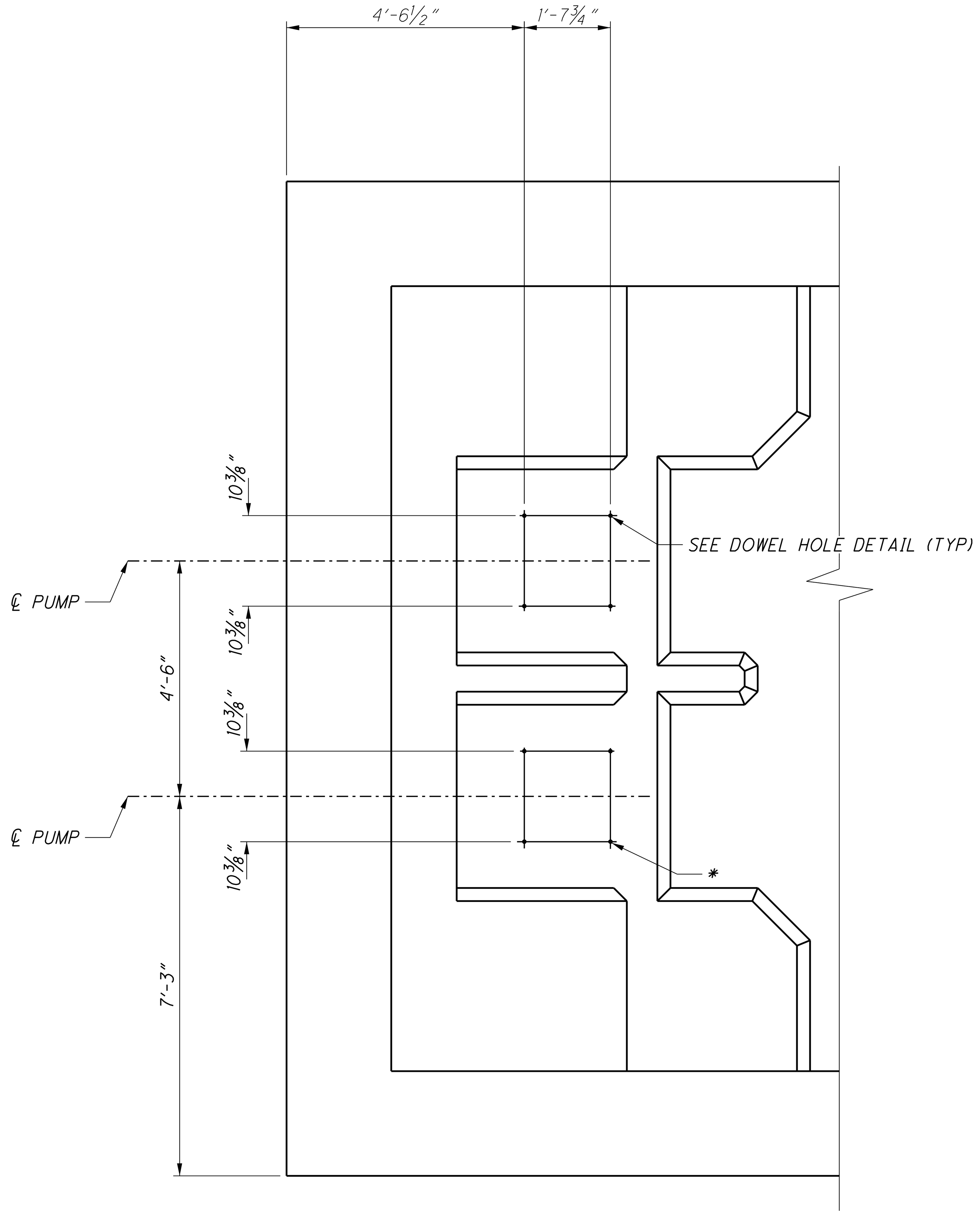
PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

PUMP STATION DETAILS

5/31/2022

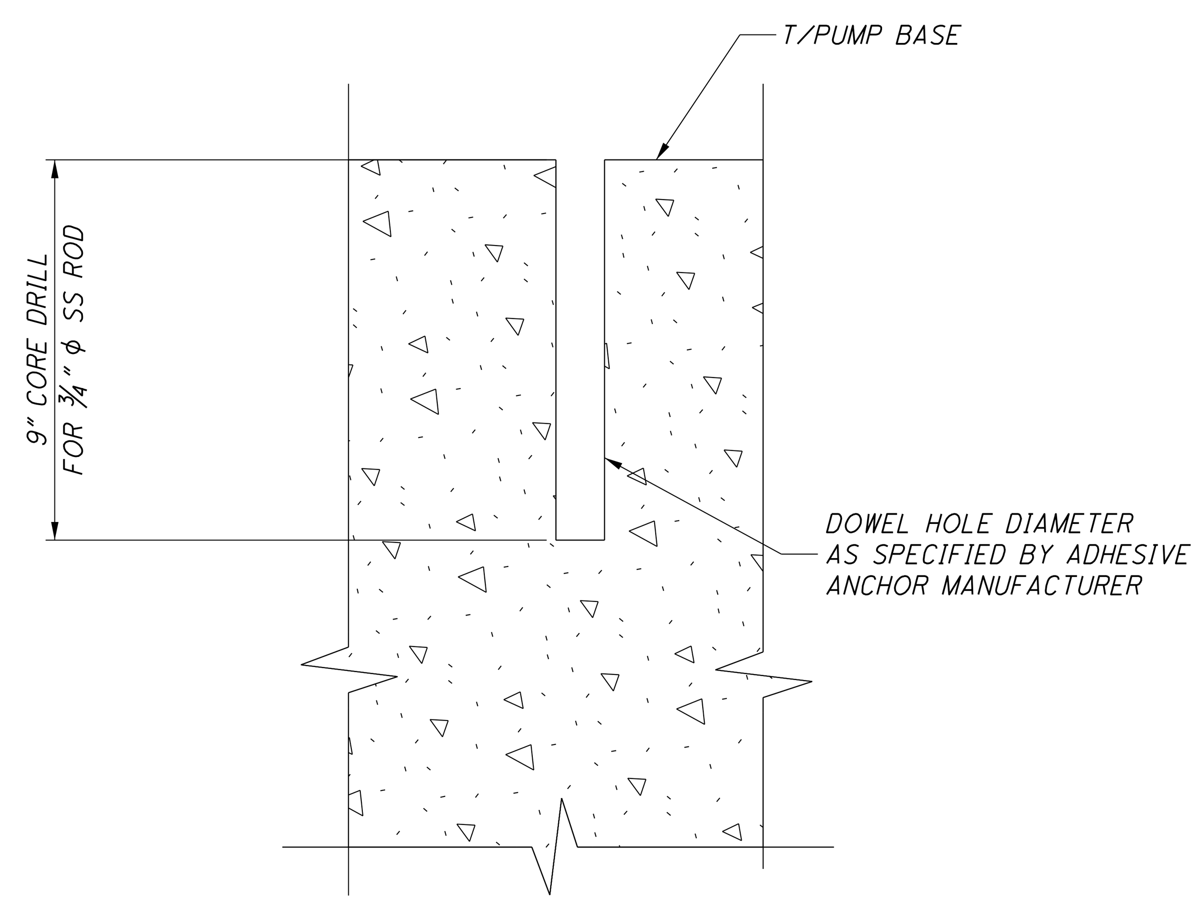
\\MSGFILESRV\MSGData\Projects\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_39_Pump_Station_Details.dgn



PUMP ANCHOR LAYOUT

SCALE: ½" = 1'-0"

* ¾" ϕ x 1'-2" LONG SS THREADED ROD WITH FLAT WASHER, SPLIT RING LOCKWASHER, AND ELASTIC STOP NUT.



DOWEL HOLE DETAIL

SCALE: 2" = 1'-0"

ADHESIVE ANCHOR SYSTEM SHALL BE HILTI RE-500 V3 EPOXY ADHESIVE ANCHOR SYSTEM OR AN APPROVED EQUIVALENT. CONTRACTOR SHALL OBTAIN TRAINING FROM ADHESIVE ANCHOR MANUFACTURER PRIOR TO START OF WORK.

5/31/2022

\\MSGFILESRV\MSGData\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_40_Pump_Station_Details.dgn

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

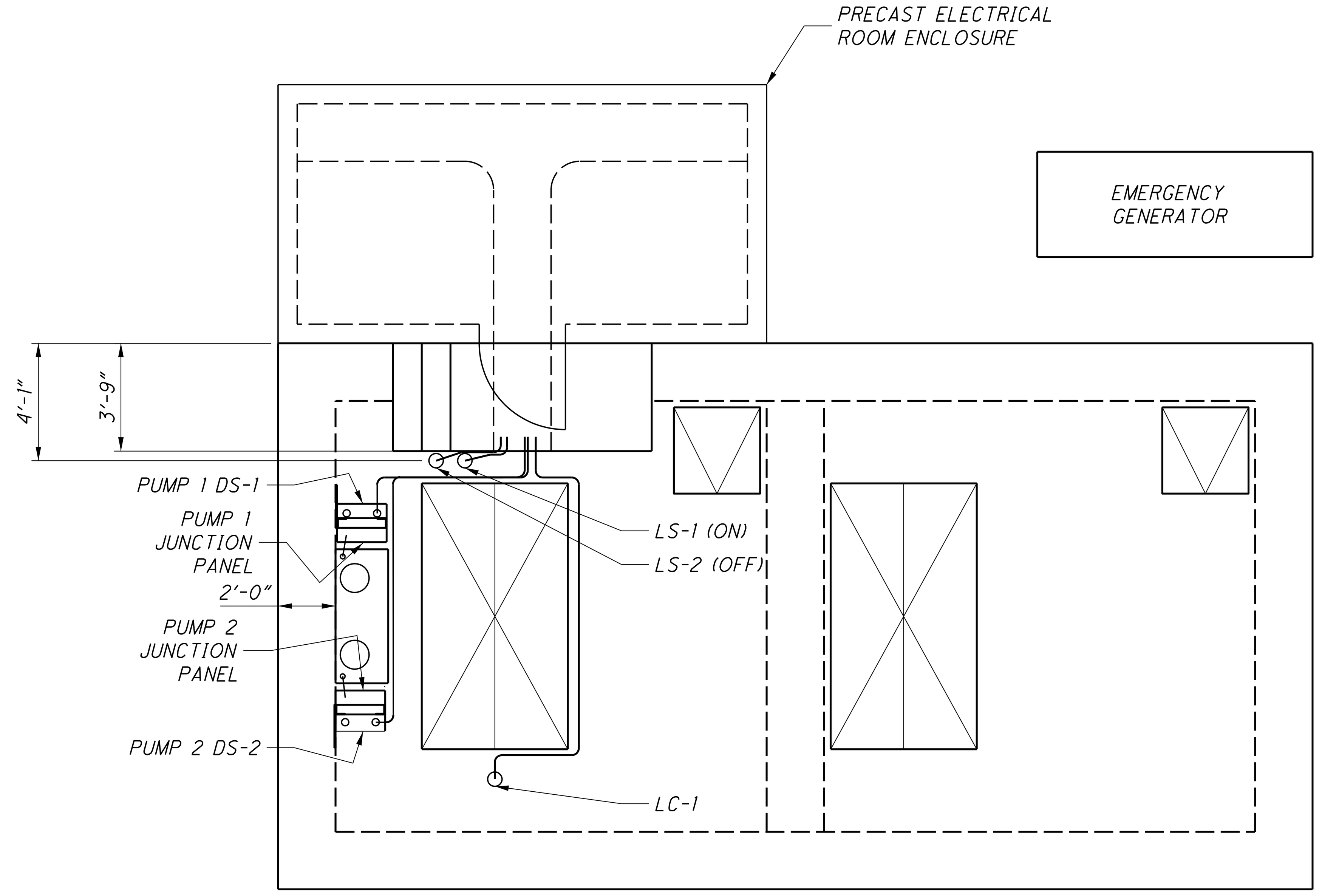
Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com
1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

PUMP STATION DETAILS

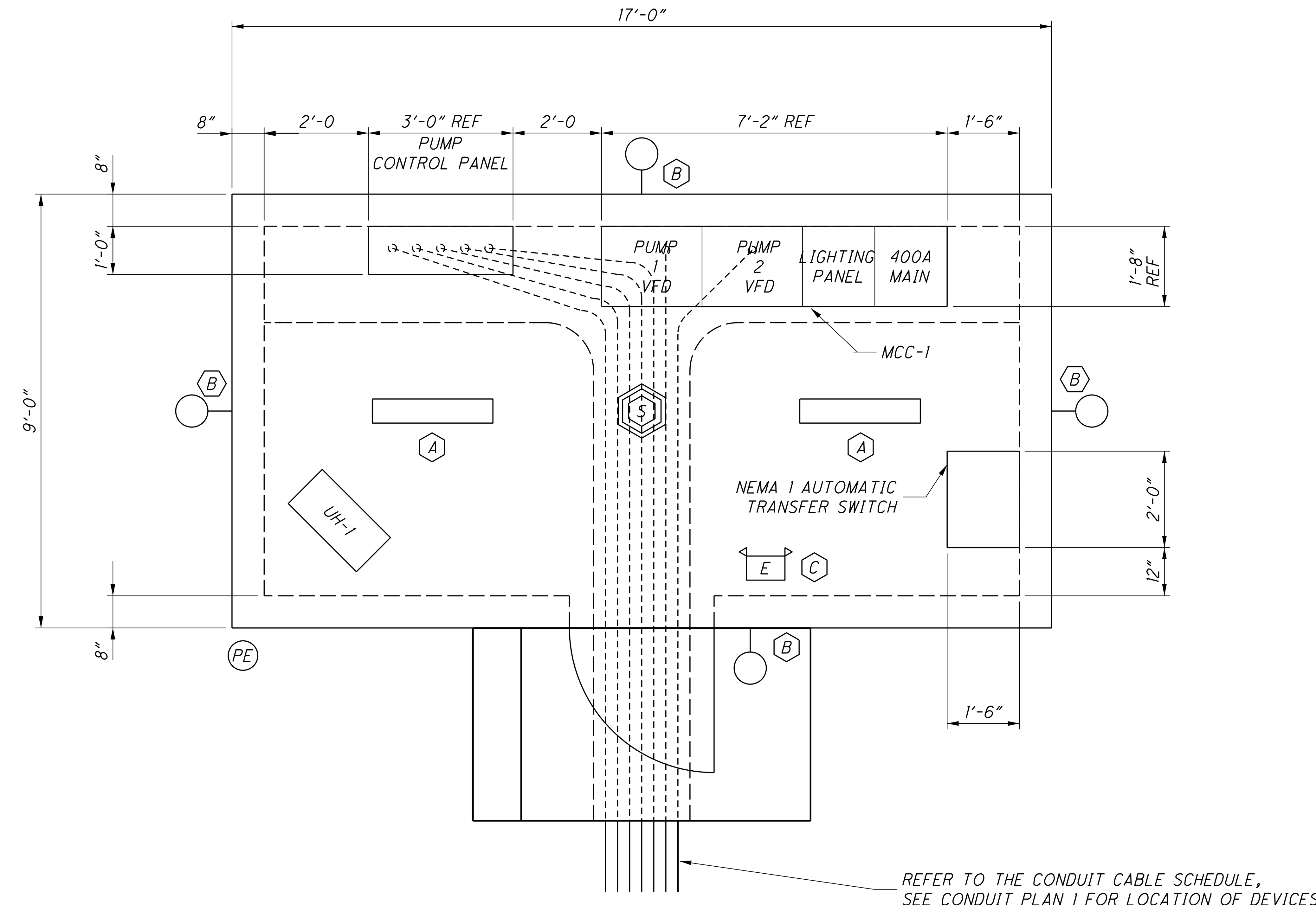


CONDUIT PLAN 1

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

REFR TO CONDUIT AND CABLE SCHEDULE THIS SHEET
SEE ELECTRICAL ROOM PLAN THIS SHEET

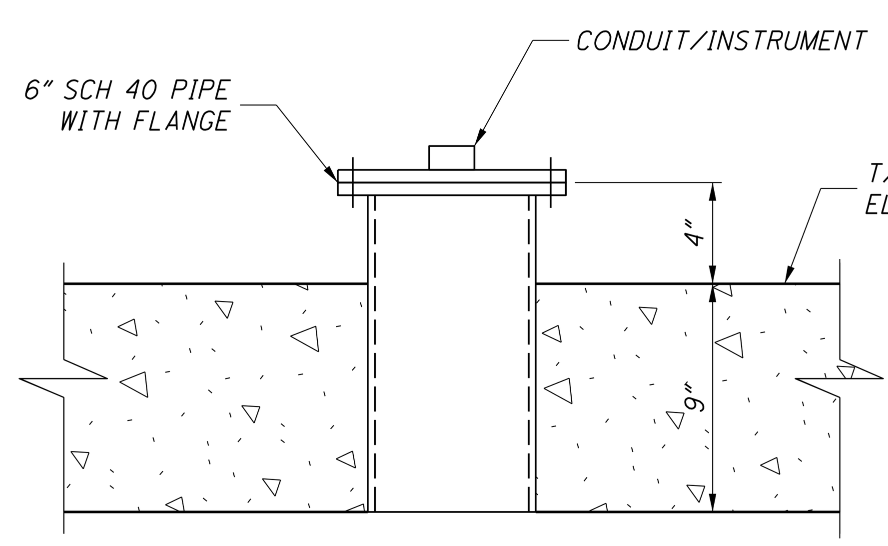
DEVICES
LS = LEVEL SWITCH
LC = LEVEL CONTROL
DS = DISCONNECT SWITCH



ELECTRIC ROOM PLAN

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

PUMP SYSTEM CONDUIT CABLE SCHEDULE								
Conduit Tag	Device	FROM	TO	No Conduits	No of Wires	Wire Size	Conduit Size	Conduit Length
			POWER					
1A	Power Feed to Pump 1`	Pump 1 VFD	Pump 1 DS-1	1	4	3 #4 1#8 GRND	1 1/2"	30'
1B	Power Feed to Pump 2	Pump 2 VFD	Pump 2 DS-2	1	4	3 #4 1#8 GRND	1 1/2"	30'
2A	Power Feed	Pump 1 DS-1	Junction Panel JP-1	1	4	3 #4 1#8 GRND	1 1/2"	3'
2B	Power Feed	Pump 2 DS-2	Junction Panel - JP-2	1	4	3 #4 1#8 GRND	1 1/2"	3'
3A	Pump Power - Flexible Cable by Pump manufacture	JP-1	Pump 1	1	4	by manufacture	TBD	50'
3B	Pump Power - Flexible Cable by Pump manufacture	JP-2	Pump 2	1	4	by manufacture	TBD	50'
			CONTROL					
10A	Level Control	Pump Control Panel	LC-1	1	1	6 #14 wires	3/4"	40'
10B	Level Switch - ON	Pump Control Panel	LS-1	1	1	6 #14 wires	3/4"	20'
10C	Level Switch - OFF	Pump Control Panel	LS-2	1	1	6 #14 wires	3/4"	20'
11A	Pump 1 Controls	Pump Control Panel	Junction Panel JP-1	1	1	6 #14 wires	3/4"	30'
11B	Pump 2 Controls	Pump Control Panel	Junction Panel JP-2	1	1	6 #14 wires	3/4"	30'
12A	Pump Control - Flexible Cable by Pump manufacture	JP-1	Pump 1	1	TBD	by manufacture	TBD	50'
12B	Pump Control - Flexible Cable by Pump manufacture	JP-2	Pump 2	1	TBD	by manufacture	TBD	50'



LEVEL SWITCH AND LEVEL CONTROL DETAIL

SCALE: 2" = 1'-0"

5/31/2022

\\MSGFILESRV\MSGData\Projects\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_41_Electrical_Details.dgn

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL 734-289-2200
FAX 734-289-2345

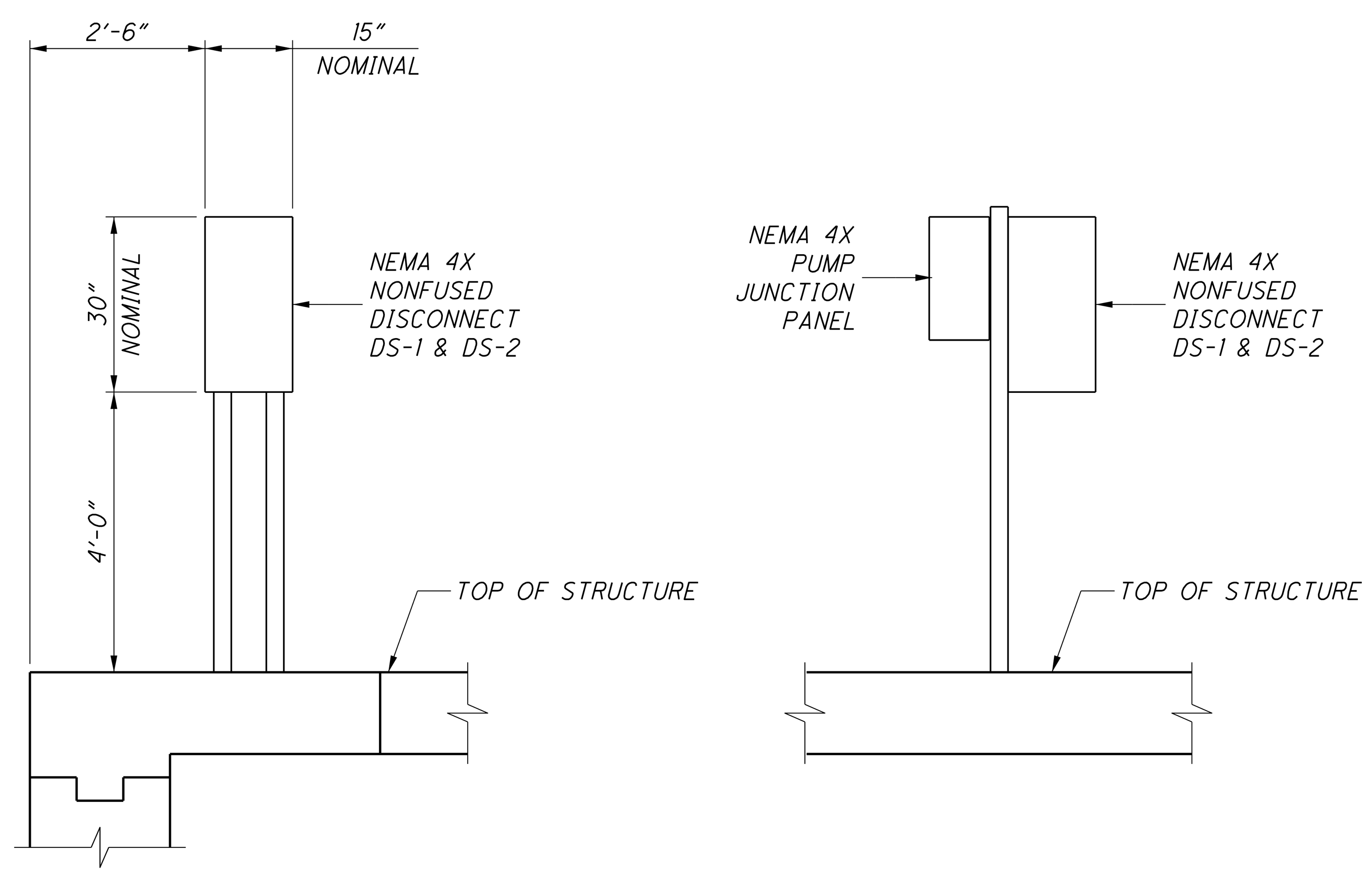
PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.ManniksmithGroup.com

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

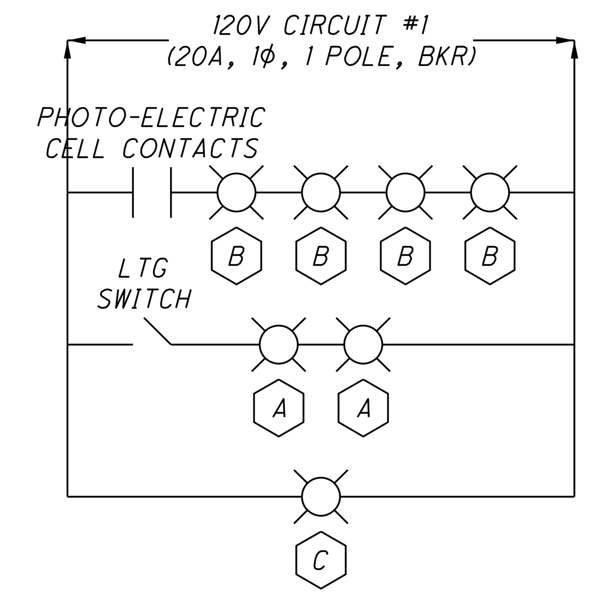
MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

ELECTRICAL DETAILS

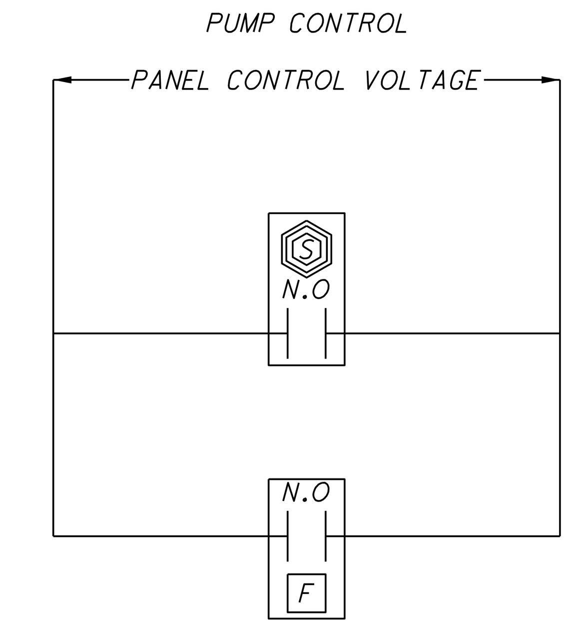


PUMP DISCONNECT / JUNCTION PANEL DETAIL

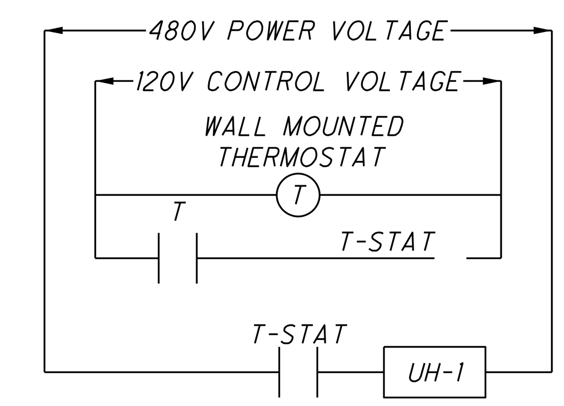
SCALE: NONE



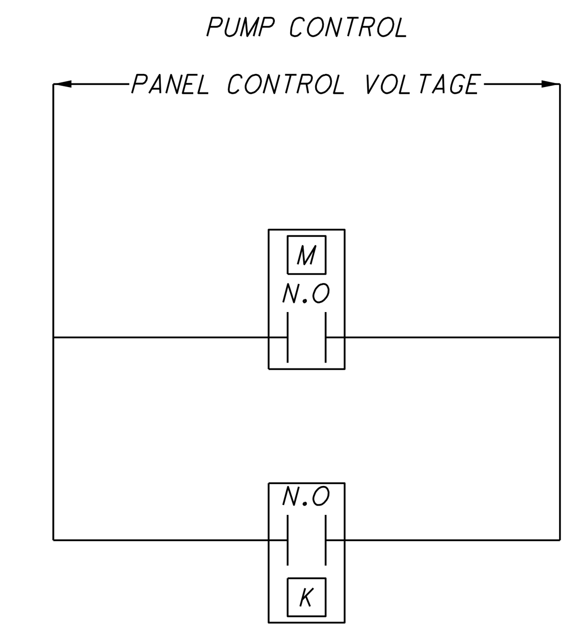
LIGHTING CIRCUIT SCHEMATIC DIAGRAM



FIRE ALARM SCHEMATIC DIAGRAM



UNIT HEATERS UH-1 & UH-2 SCHEMATIC DIAGRAM

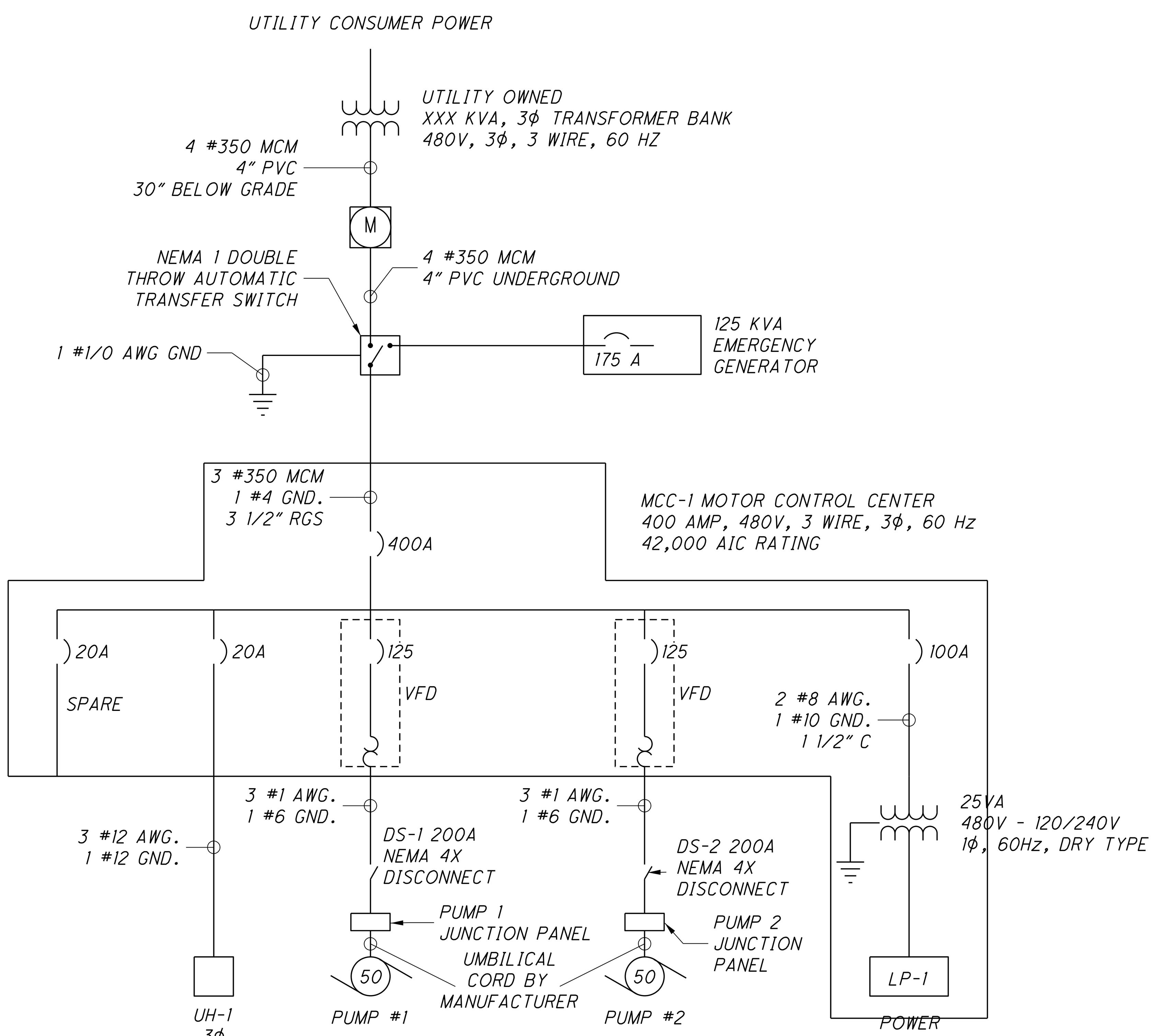


UNAUTHORIZED ENTRY ALARM WITH KEYED DEFEAT SCHEMATIC DIAGRAM

UNIT HEATER SCHEDULE			
MANUFACTURER	MODEL	WATTAGE	MOUNTING
KING (STAINLESS STEEL)	KBS	5000	CEILING MOUNTED

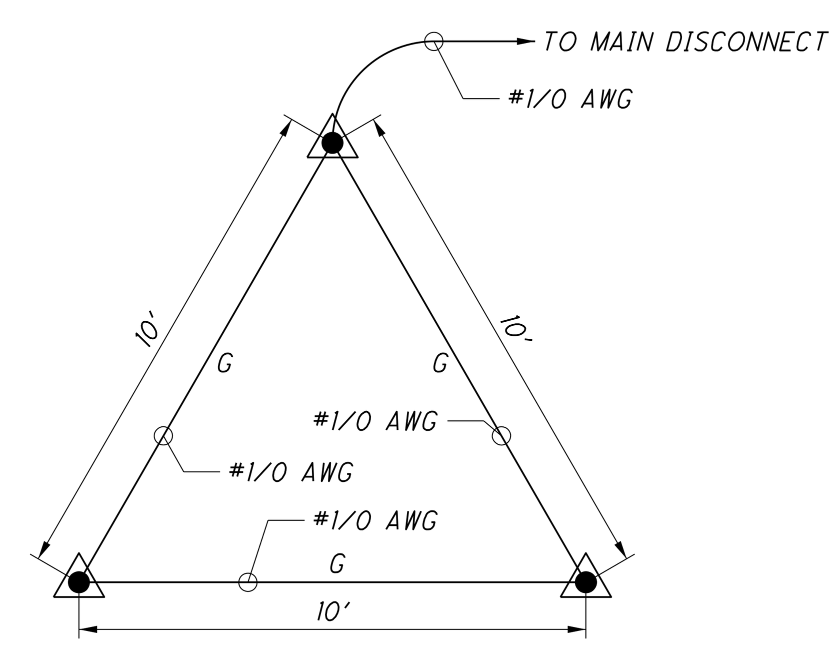
LUMINAIRE SCHEDULE					
TYPE	MANUFACTURER	CATALOG NUMBER	VOLTAGE	LAMPS	MOUNTING
A	LITHONIA	FEM L48 6000LM	120	FURNISHED	CEILING MOUNTED
*B	LITHONIA	TWP LED ALO 50K	120	FURNISHED	WALL MOUNTED
C	LITHONIA	EU2CLED	120	FURNISHED	WALL MOUNTED

1. TYPE *B WALL PACK LUMINARE TO BE PROVIDED WITH GLARE SHIELD (TYP.)



SINGLE LINE DIAGRAM

1. ALL EQUIPMENT GROUNDING SHALL BE PER ARTICLE 250
2. MANUFACTURE SHALL PROVIDE THE ABOVE MOTOR CONTROL WITH VFD FOR PUMP 1 AND 2



GROUND TRIANGLE

1. ALL GROUND RODS SHALL BE ¾" x 10' COPPER WITH A MINIMAL BURIAL OF 8' BELOW GRADE.
2. GROUND ELECTRODE SHALL BE 1/0 AWG UNSPLICED.
3. ALL CONNECTIONS BELOW GRADE SHALL BE EXOTHERMIC.

PRELIMINARY
NOT FOR BIDS OR CONSTRUCTION

SYMBOLS	
	TRANSFORMER
	CIRCUIT BREAKER
	DISCONNECT
S	SMOKE DETECTOR
M	MAGNETIC CONTACT DOOR SECURITY
F	FIRE ALARM PULL SYSTEM
K	KEYED OUTDOOR CONTACT SWITCH

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

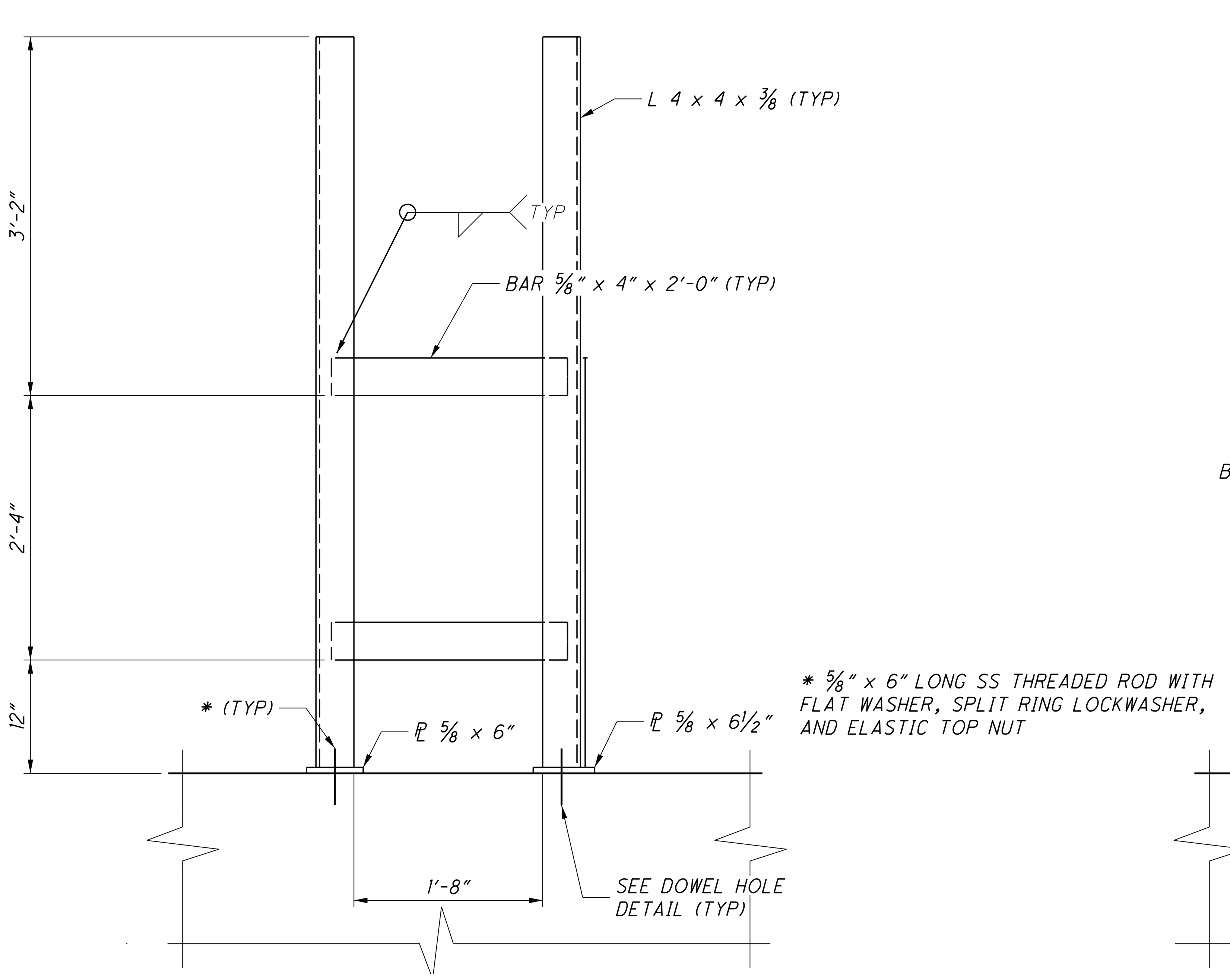
Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

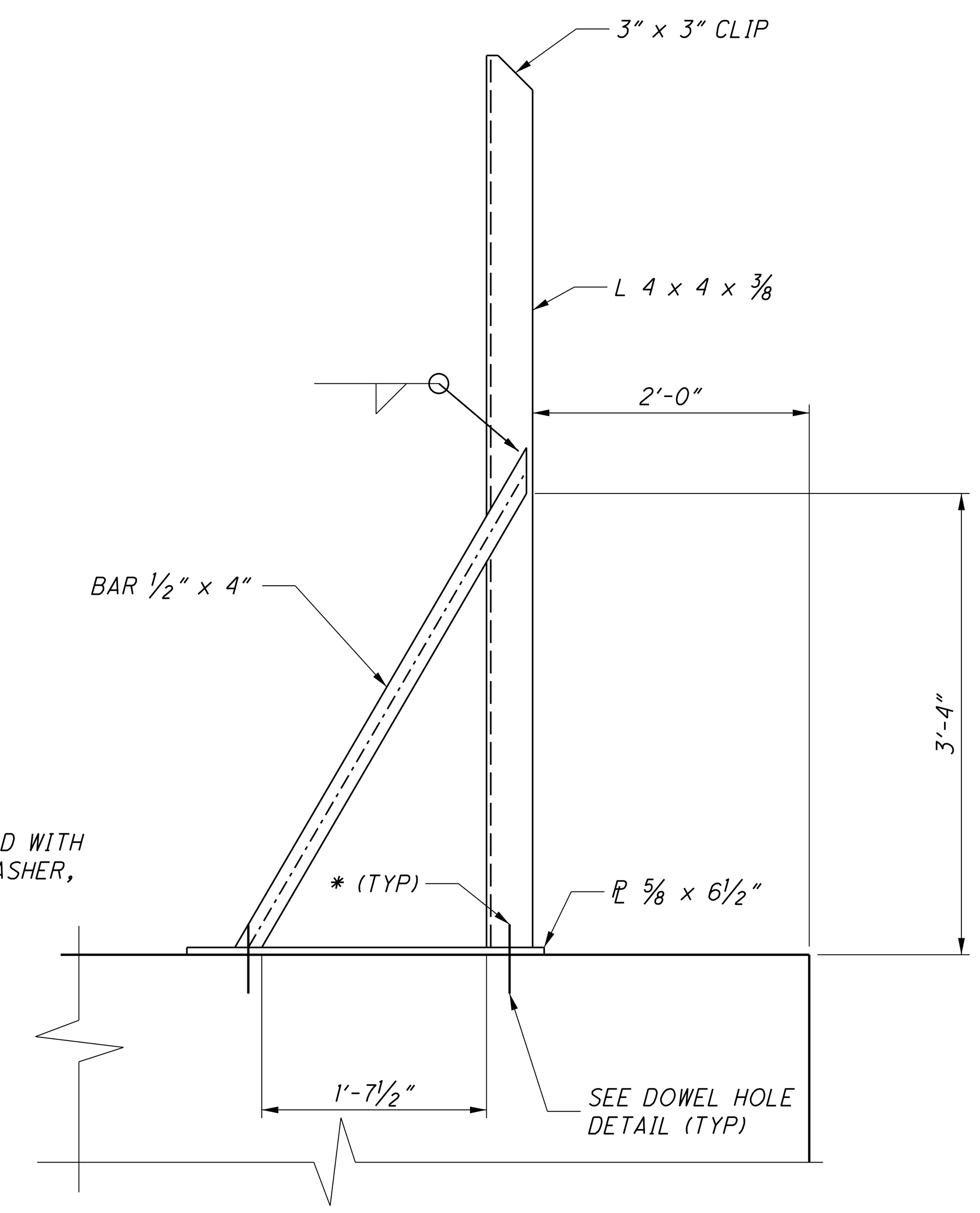
MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

ELECTRICAL DETAILS

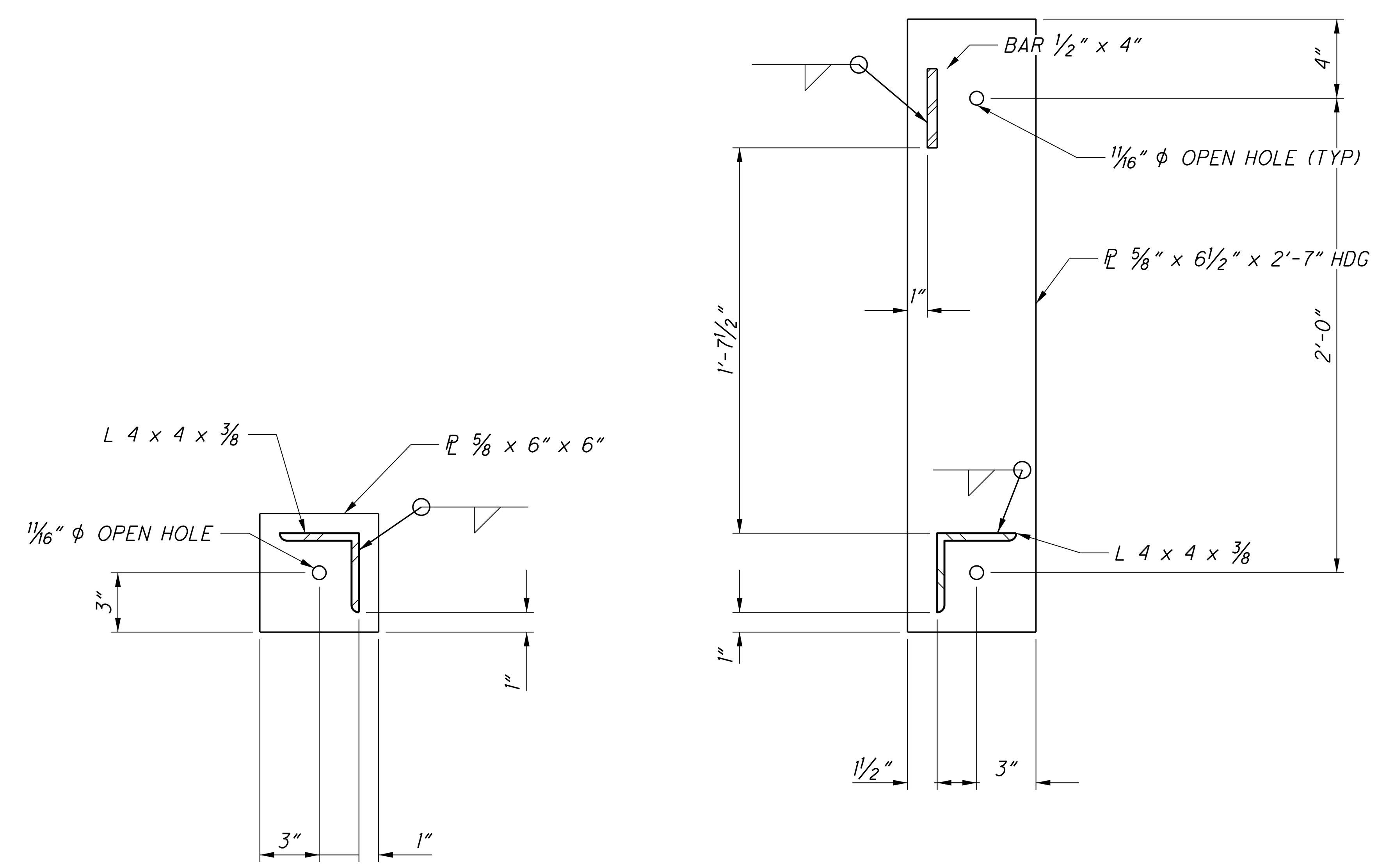


BRACKET ELEVATION

SOUTH BRACKET SHOWN, NORTH BRACKET OPPOSITE HAND



BRACKET SIDE VIEW



BRACKET BASE PLATES

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

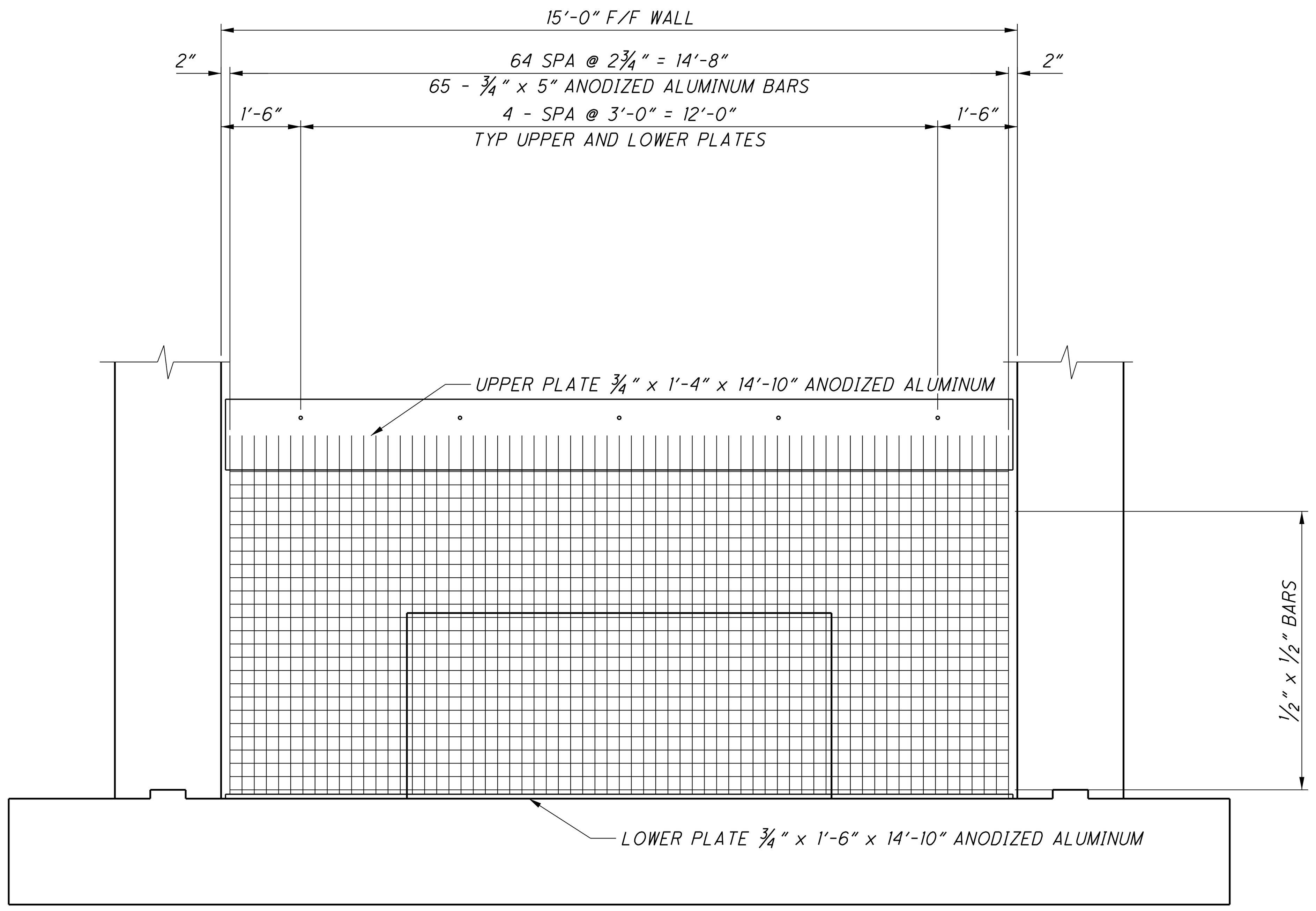
PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

ELECTRICAL DETAILS

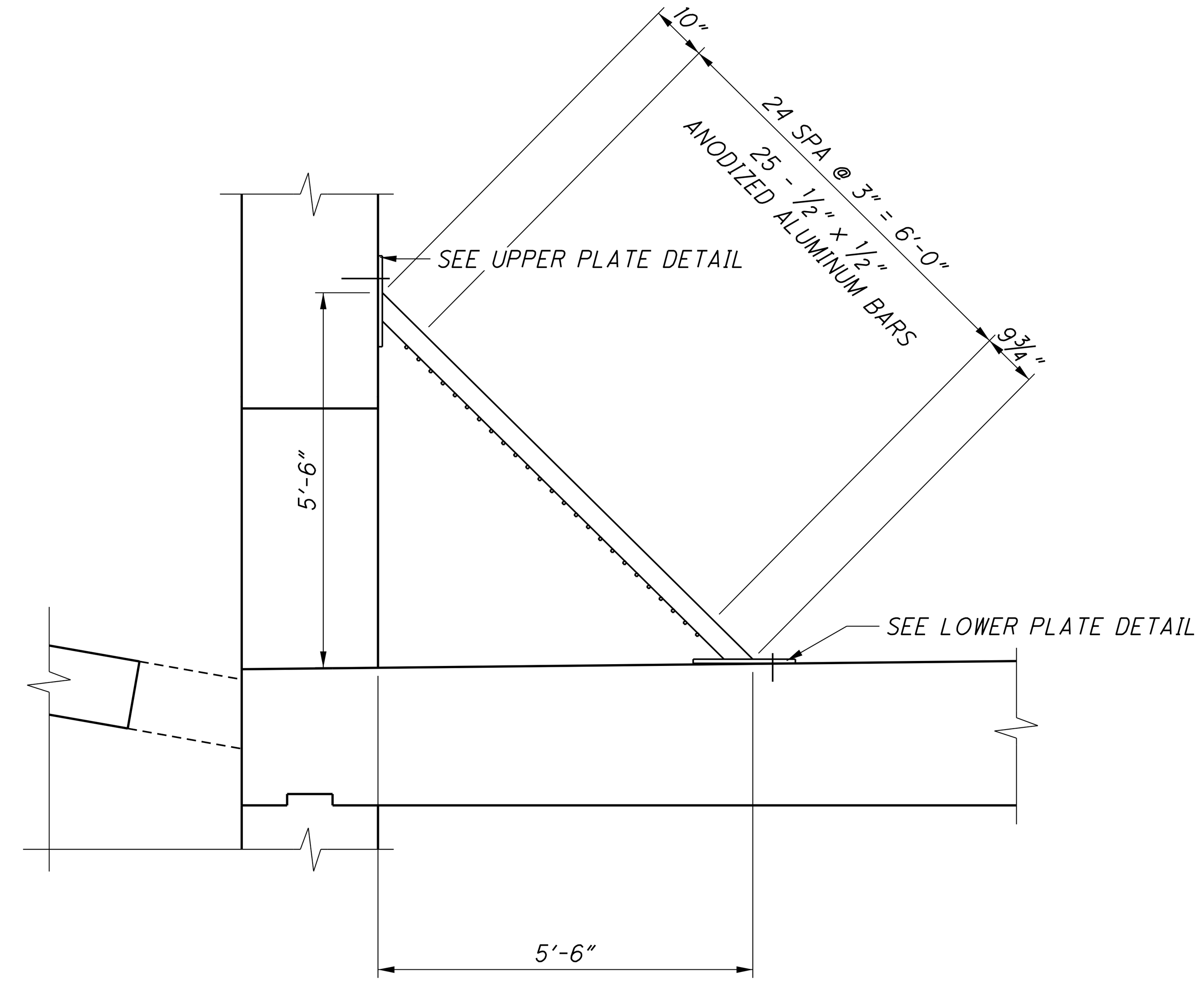
5/31/2022

\\MSGFILESRV\MSGData\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_43_Electrical_Details.dgn



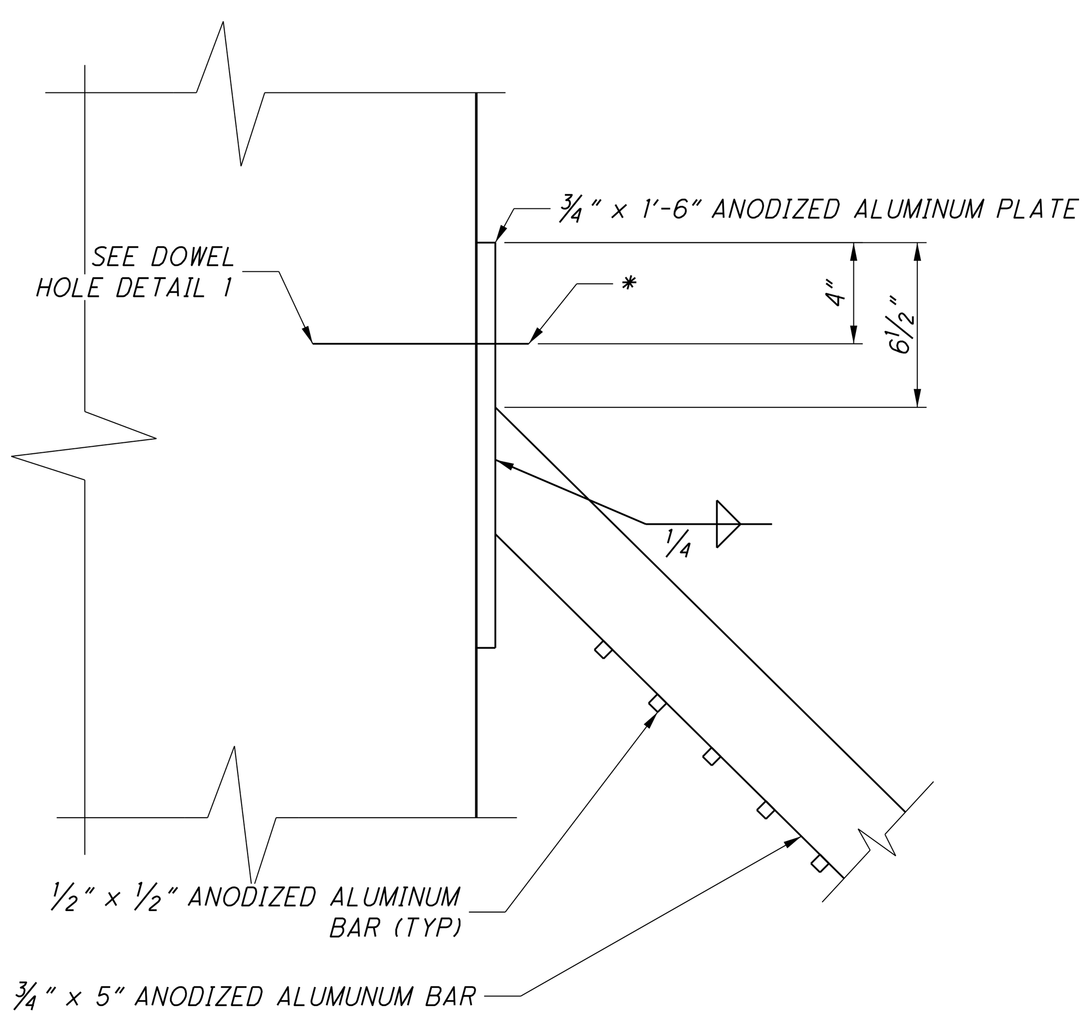
BAR RACK ELEVATION

SCALE: ½" = 1'-0"



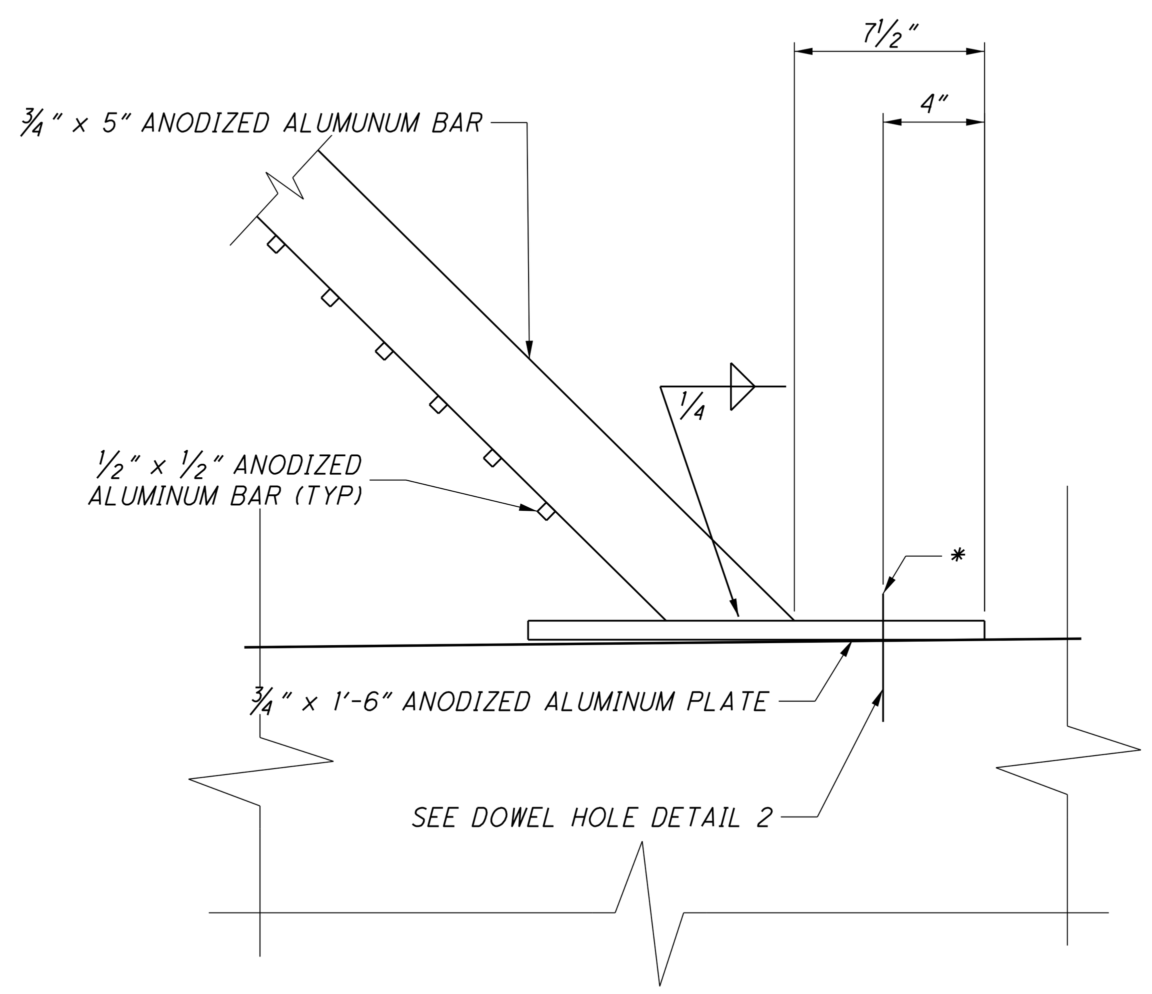
BAR RACK SECTION

SCALE: ½" = 1'-0"



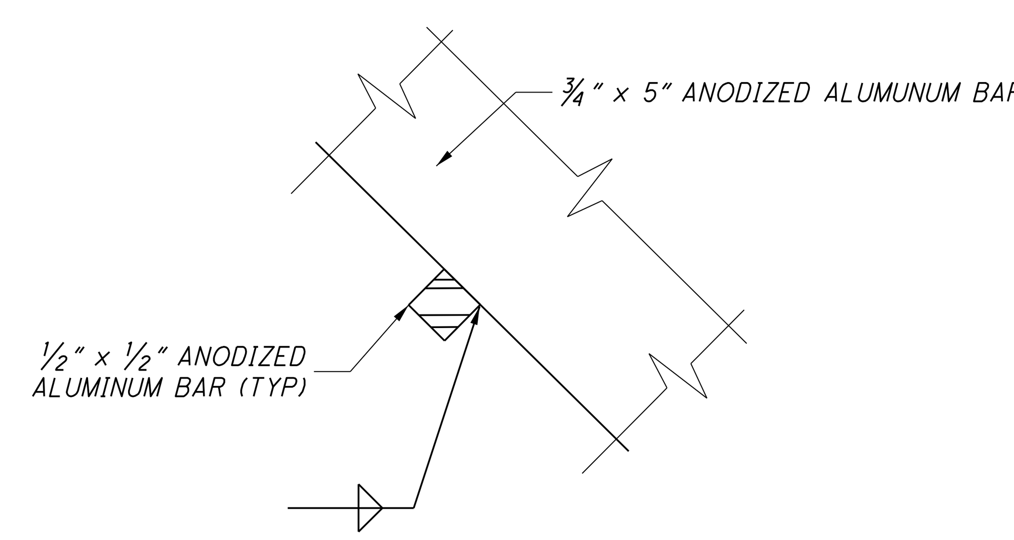
UPPER PLATE DETAIL

SCALE: 2" = 1'-0"



LOWER PLATE DETAIL

SCALE: 2" = 1'-0"



TYPICAL BAR WELD

SCALE: 8 = 1'-0"

* ¾" x 11" LONG SS THREADED ROD
FLAT WASHER, SPLIT RING LOCK WASHER,
AND ELASTIC STOP NUT (TYP)

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

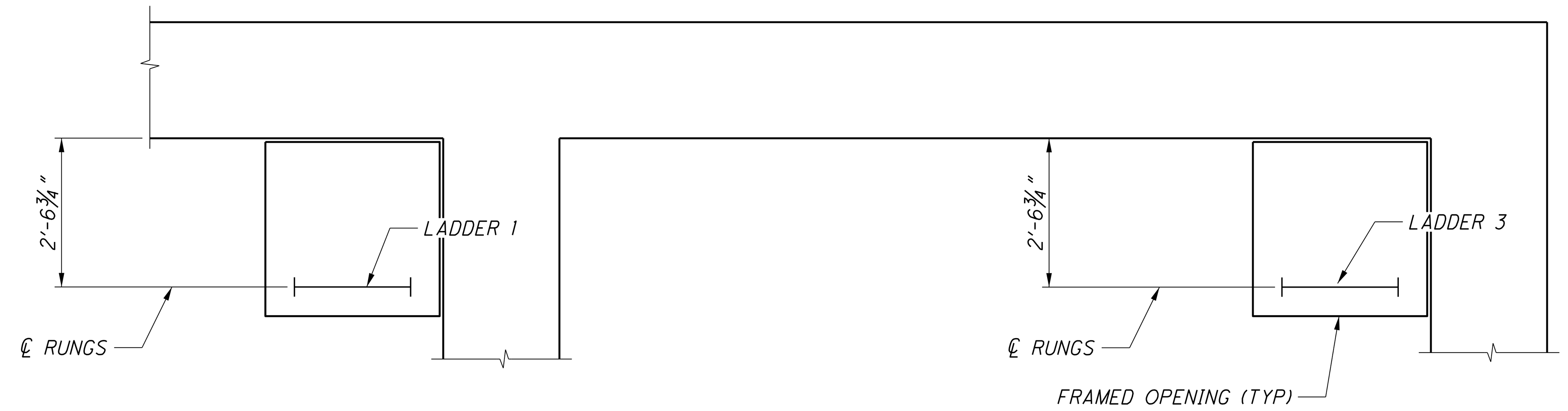
Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

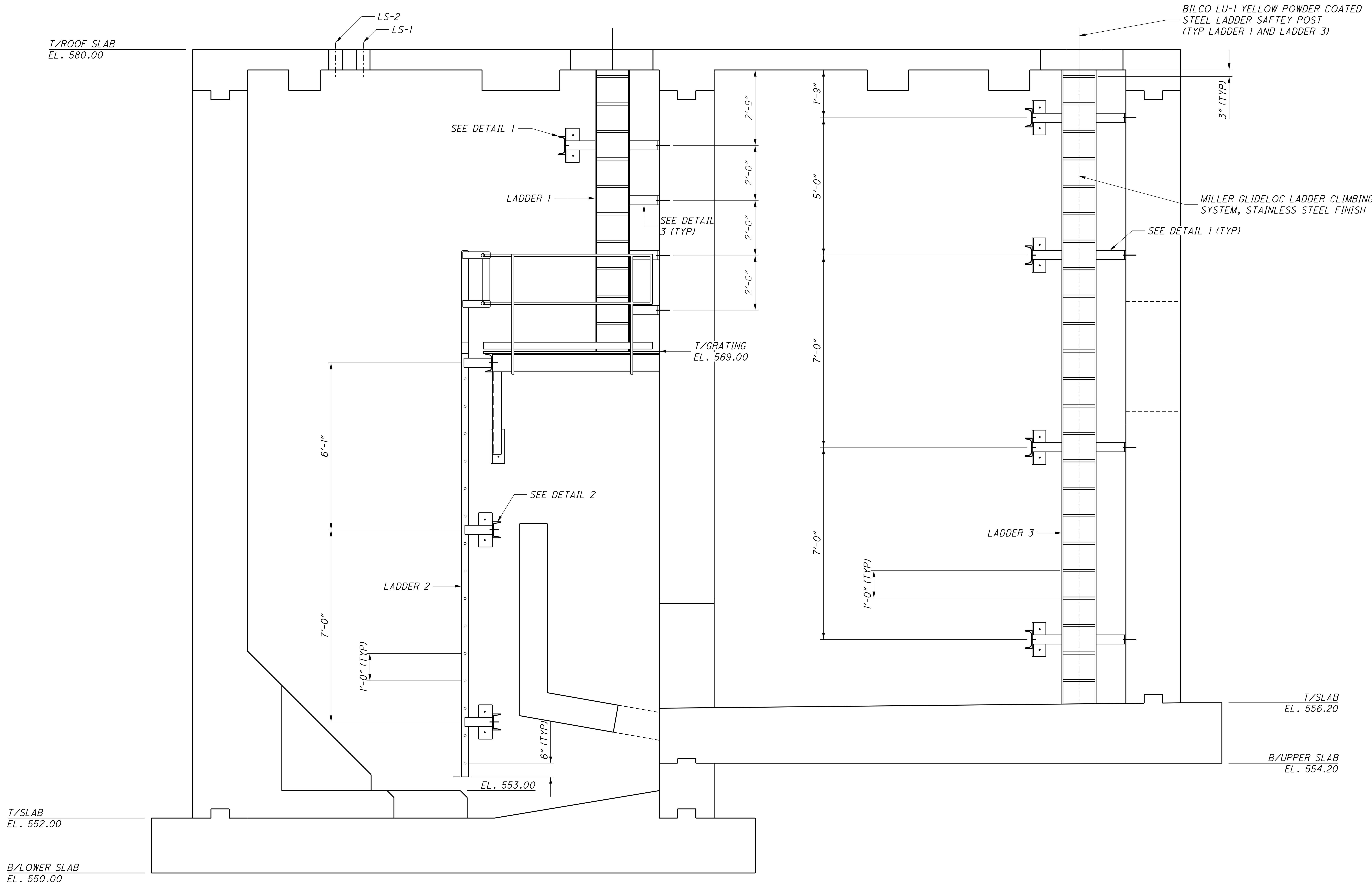
GRATE DETAILS

5/31/2022
\\MSGFILESRV\MSGData\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_44_Grate_Details.dgn



PLAN OF LADDERS 1 AND 3

SCALE: ½" = 1'-0"



LADDER ELEVATION

SCALE: ½" = 1'-0"

5/31/2022

\\MSGFILESRV\MSGData\Projects\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_45_Ladder1_Details.dgn

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

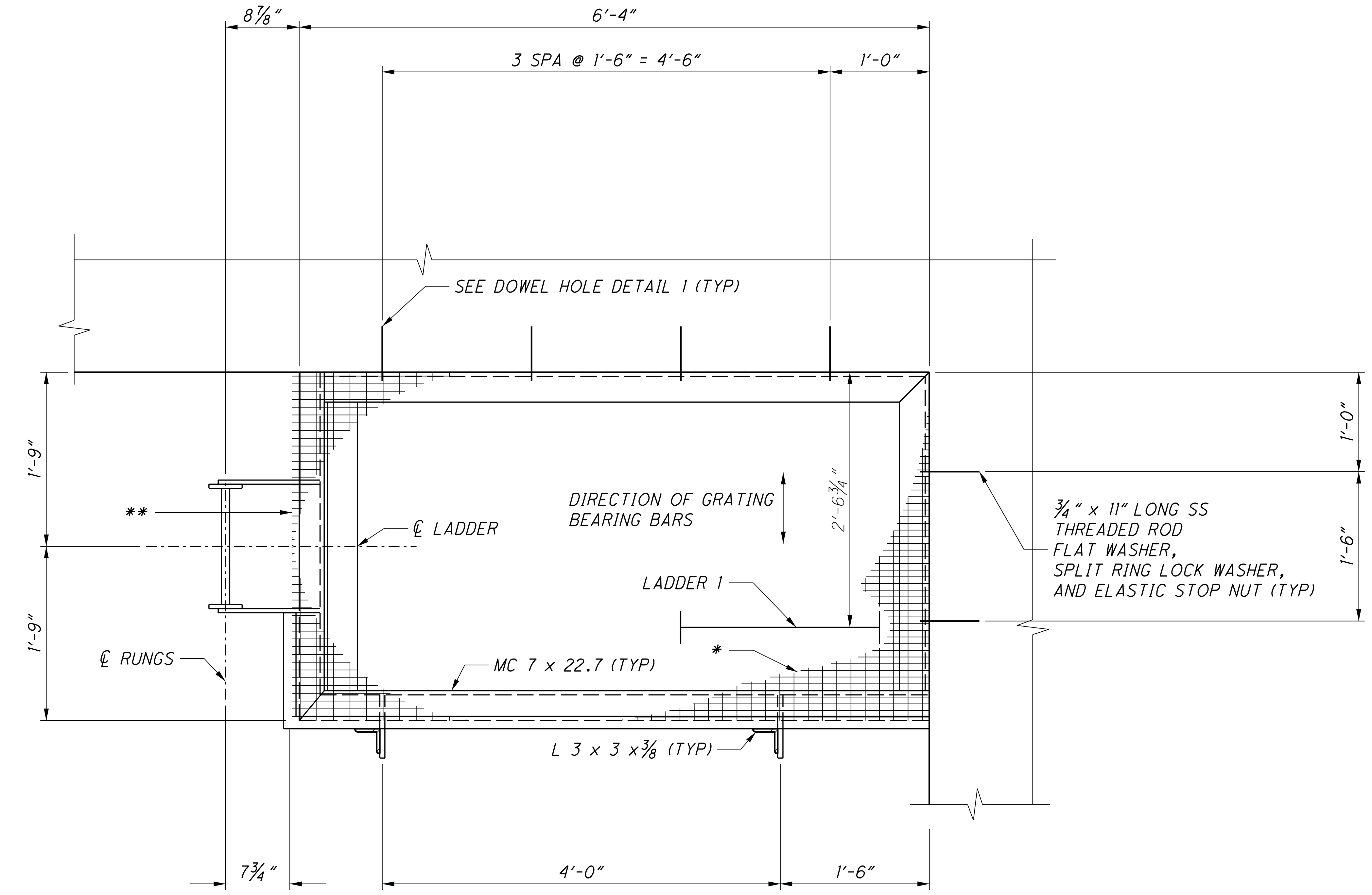
TECHNICAL SKILL.
CREATIVE SPIRIT.

Mannik Smith GROUP
www.MannikSmithGroup.com

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

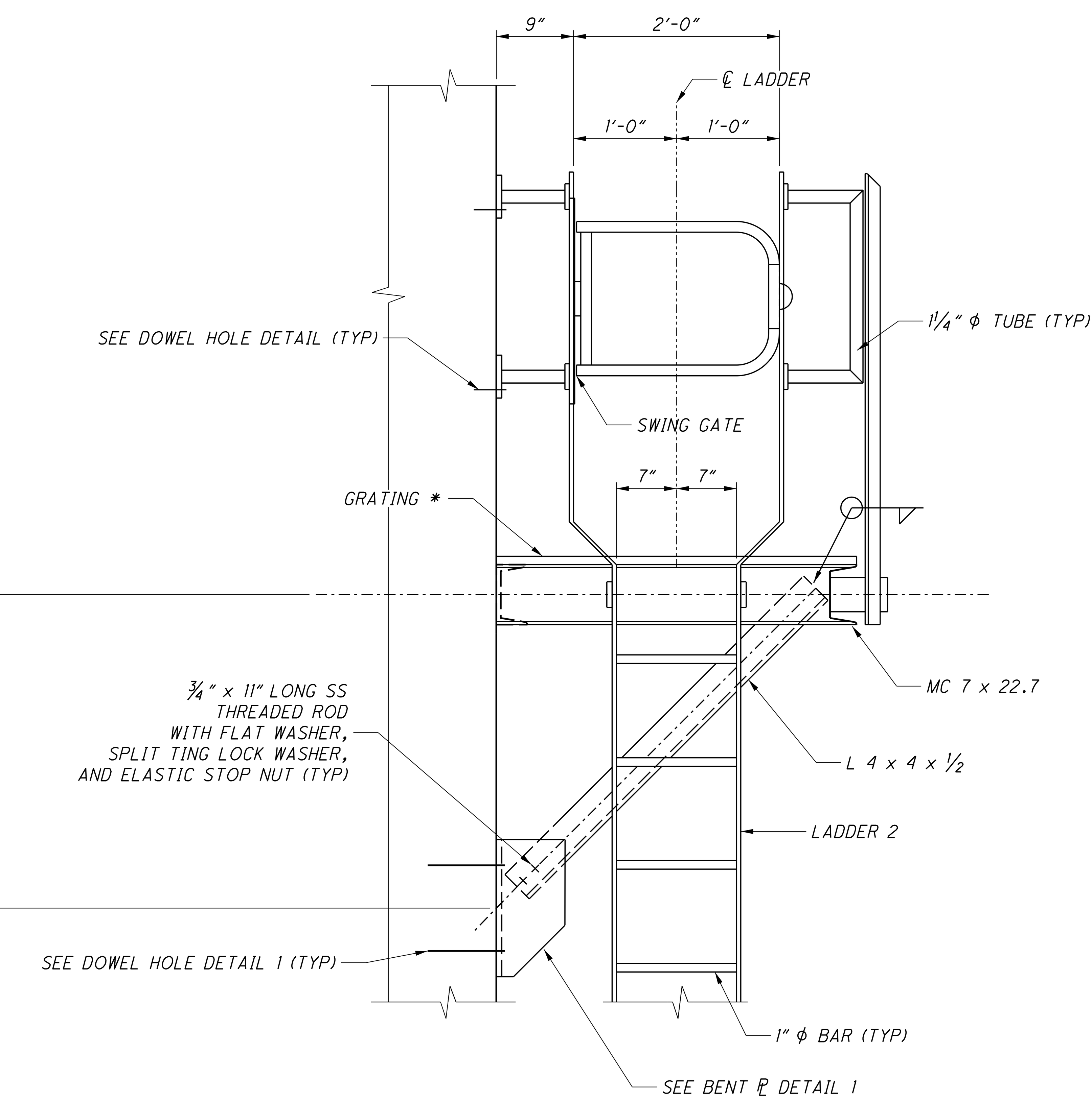
MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

LADDER DETAILS



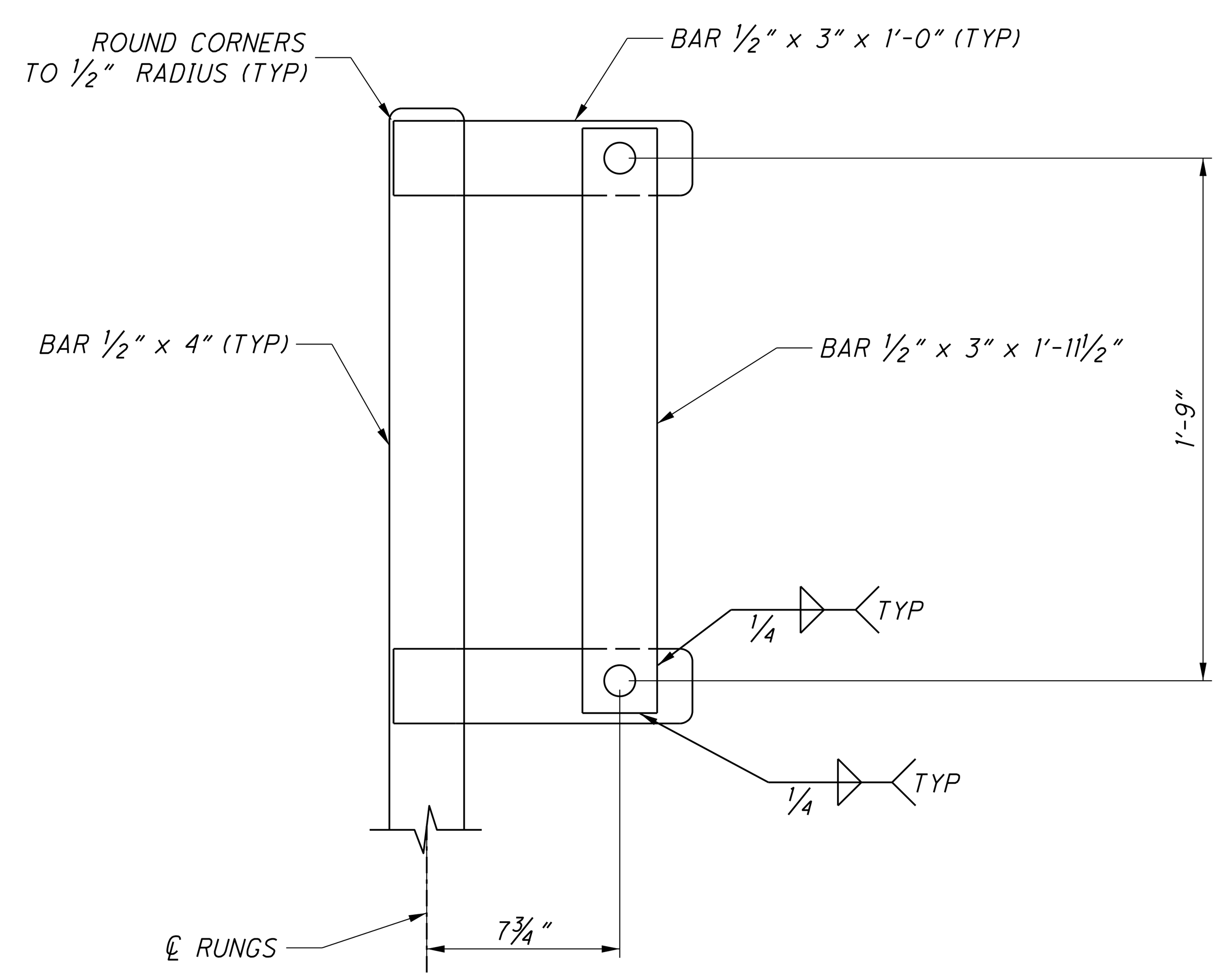
PLATFORM PLAN

SCALE: 1" = 1'-0"



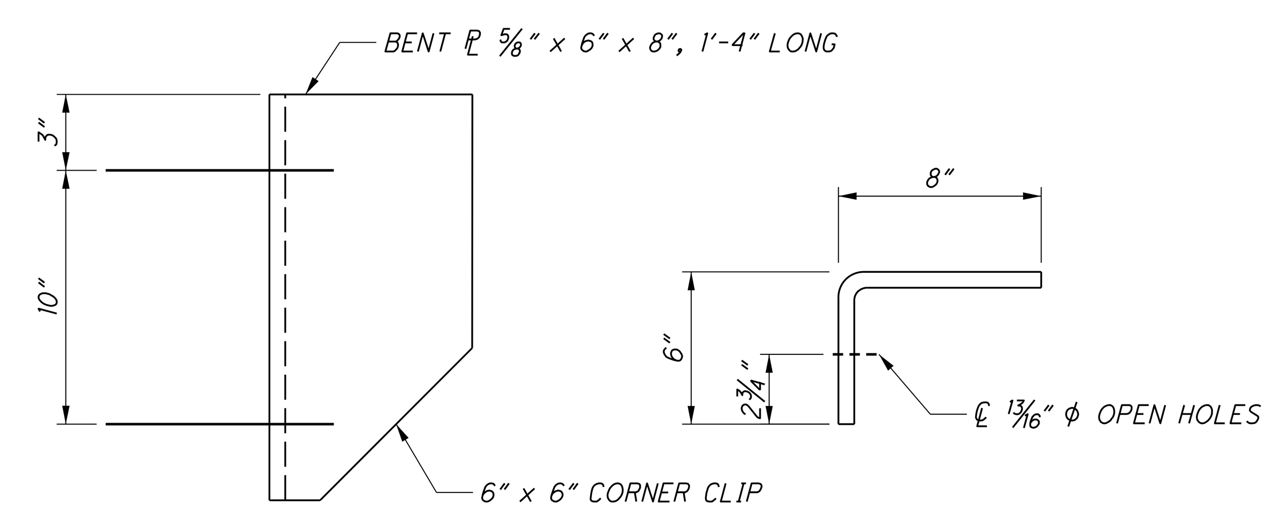
PLATFORM SECTION

SCALE: 1" = 1'-0"



SWING GATE MOUNT

SCALE: 1" = 1'-0"



NOTE: FABRICATE CONNECTION TO L 4x4 BLIND. THE CONTRACTOR SHALL FIELD DRILL 13/16" ϕHOLES THRU BENT PLATE USING OPEN HOLES IN L 4x4 AS A TEMPLATE.

BENT PLATE DETAIL 1

SCALE: 2" = 1'-0"

NOTES:

1. ALL STEEL SHALL BE ASTM A36 OR ASTM A572 GRADE 50 MATERIAL. ALL STEEL SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.

*2. GRATING SHALL BE WD SIZE 4C WITH 1"x⅜" BEARING AT 4" CC (OR APPROVED EQUAL). TOP SURFACE OR BEARING BARS SHALL HAVE A SLIP RESISTANT SERRATED SURFACE. GRATING SHALL BE AS MANUFACTURED BY IKG INDUSTRIES. GRATING SHALL BE ASTM A36 HOT ROLLED CARBON STEEL. FINISH SHALL BE HOT DIP FALVANIZED. GRATING BEARING BARS SHALL BE FIELD WELDING EVERY 6TH BAR TO THE SUPPORTS.

**3. INTEGRAL NOSING SHOP WELDED TO STEEL GRATING. NOSING SHALL HAVE A SLIP RESISTANT SURFACE SUCH AS MEBAC NOSING AS MANUFACTURED BY IKG INDUSTRIES.

4. SWING GATE SHALL BE THE UNIVERSAL SWING GATE AS MANUFACTURED BY YELLOWGATE.COM.

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

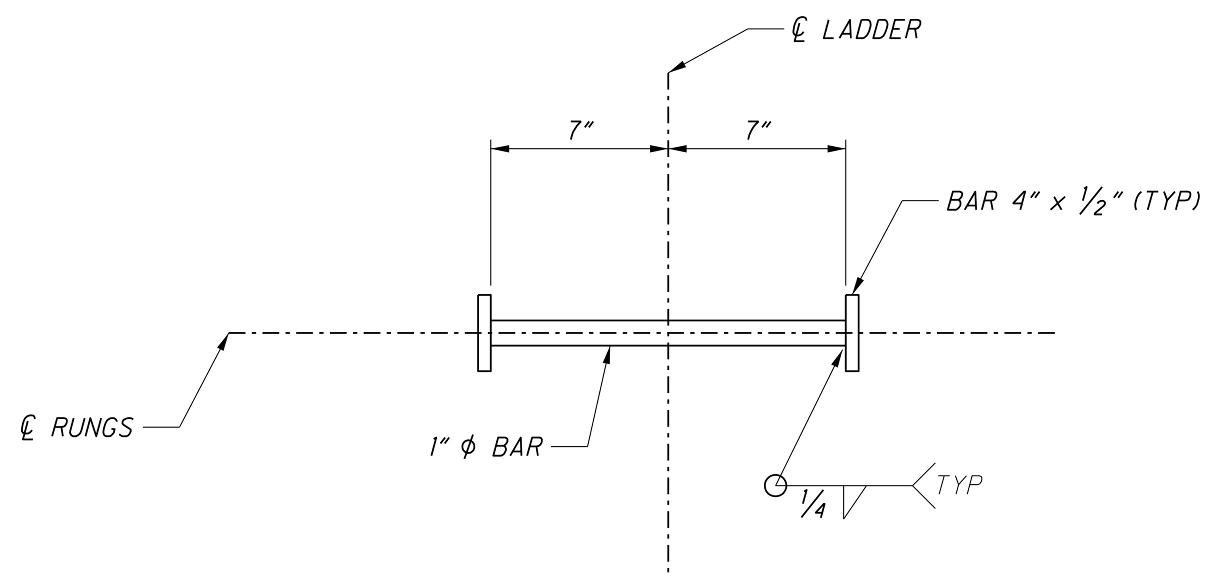
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

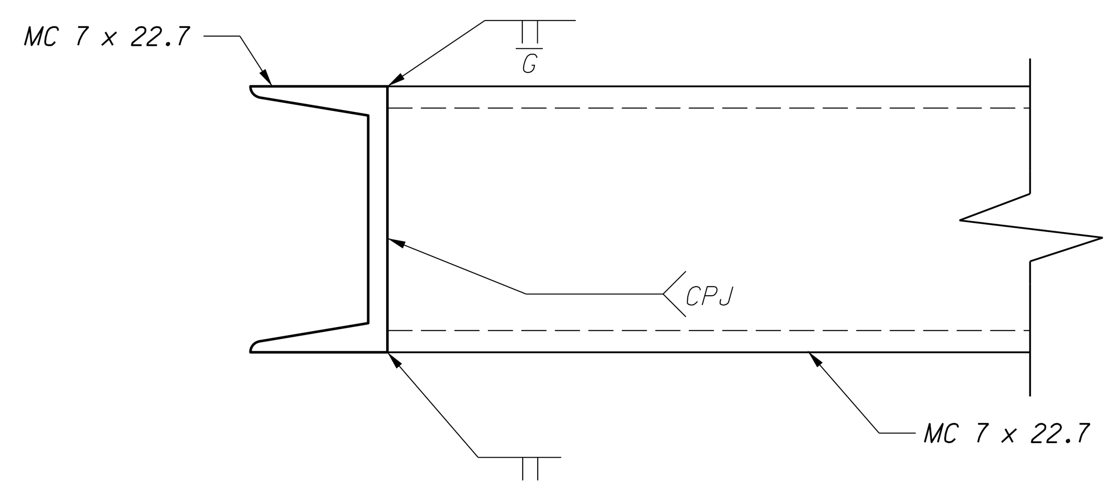
LADDER DETAILS

5/31/2022
\\MSGFILESRV\MSGData\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_46_Ladder2_Details.dgn



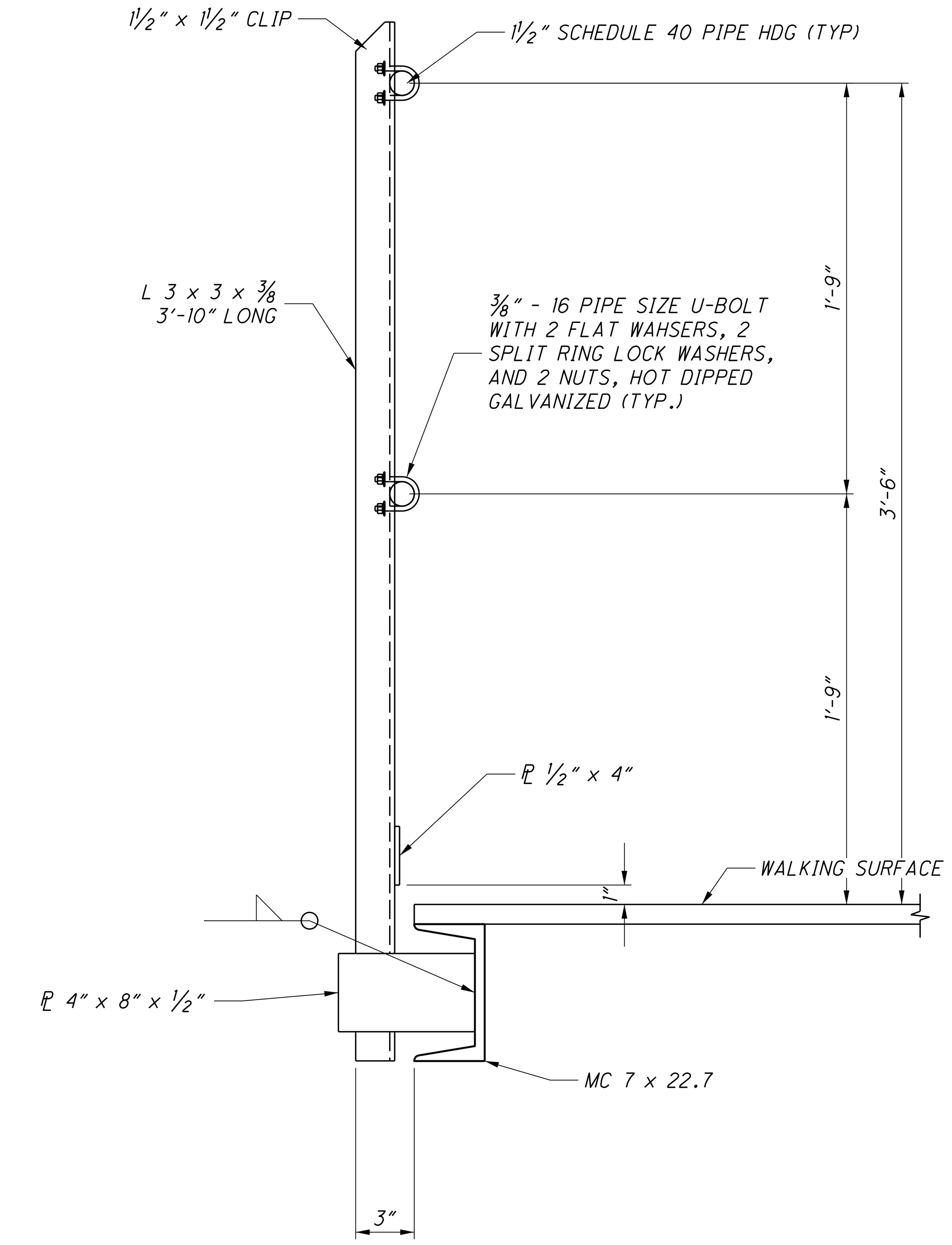
LADDER RUNG DETAIL

SCALE: 2" = 1'-0"



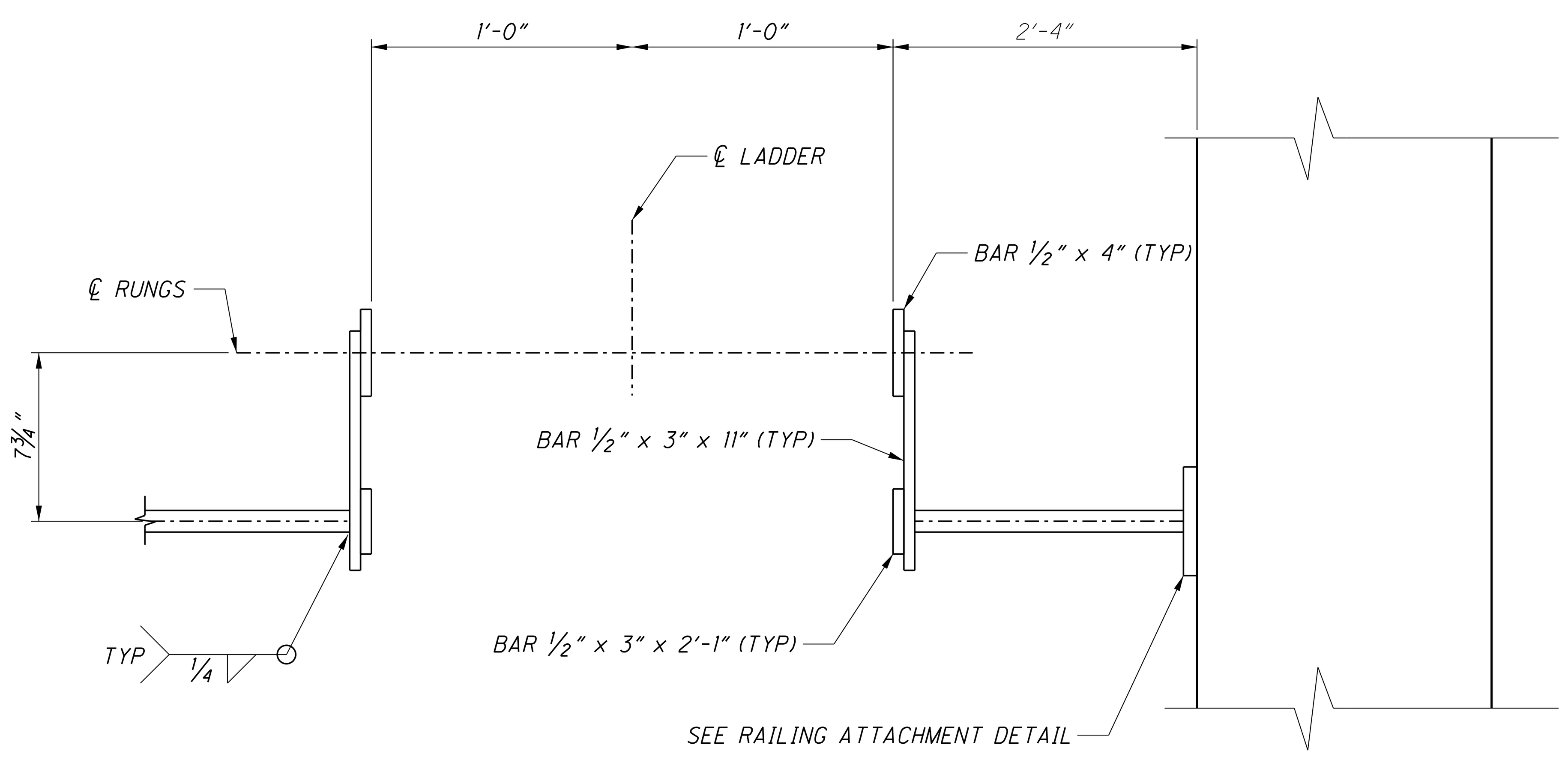
TYPICAL CHANNEL CONNECTION

SCALE: 3" = 1'-0"



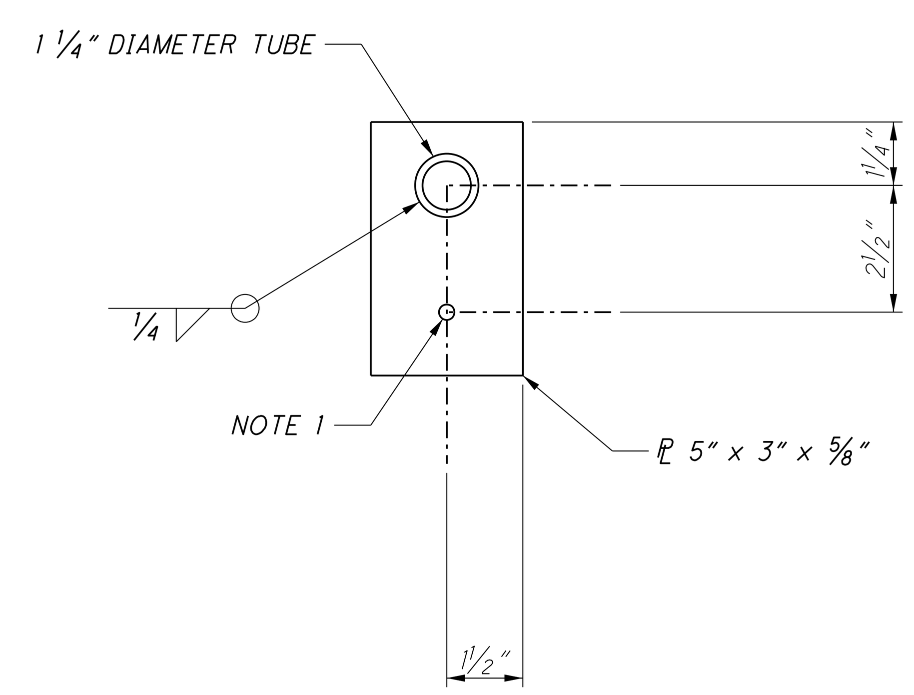
RAILING SECTION

SCALE: 2" = 1'-0"



LADDER 2 DETAIL AT TOP

SCALE: 2" = 1'-0"



RAILING ATTACHMENT DETAIL

SCALE: 4" = 1'-0"

NOTES

1. 11/16" DIAMETER HOLE FOR ⅝" DIAMETER x 6" LONG SS THREADED ROD WITH FLATWASHER, ELASTIC STOP NUT, AND LOCKWASHER

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

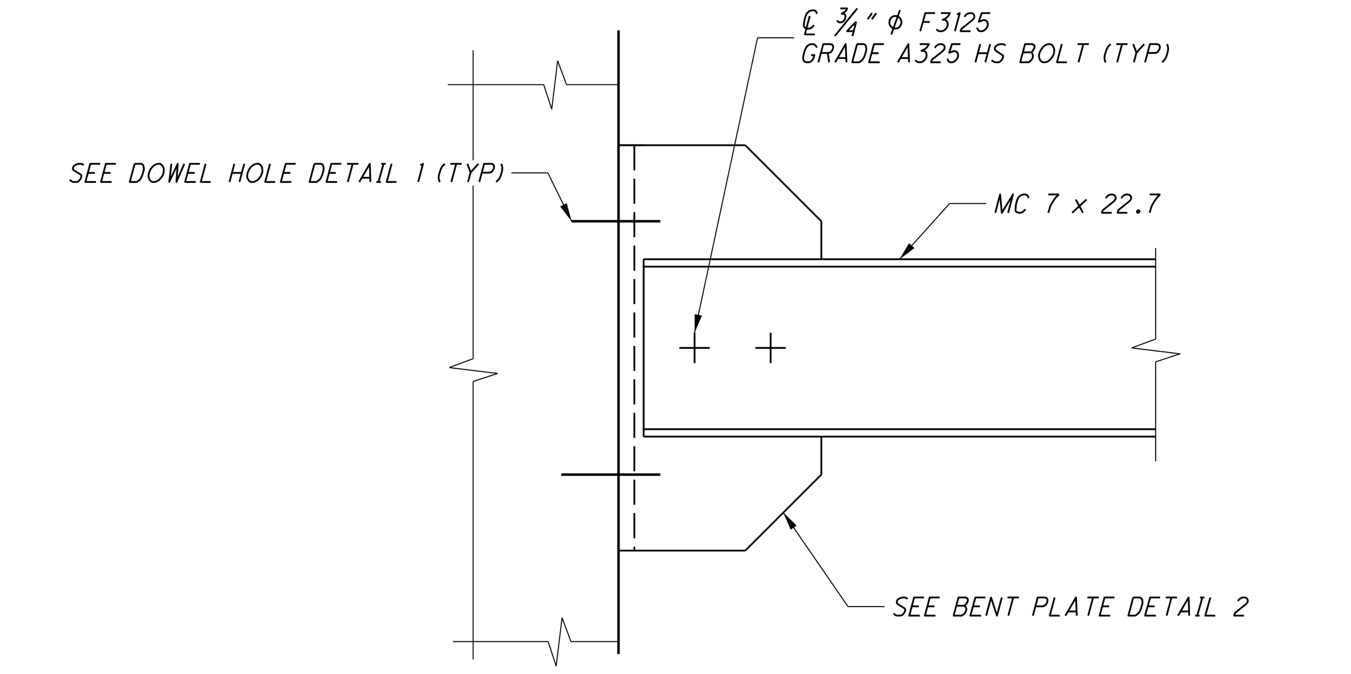
Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

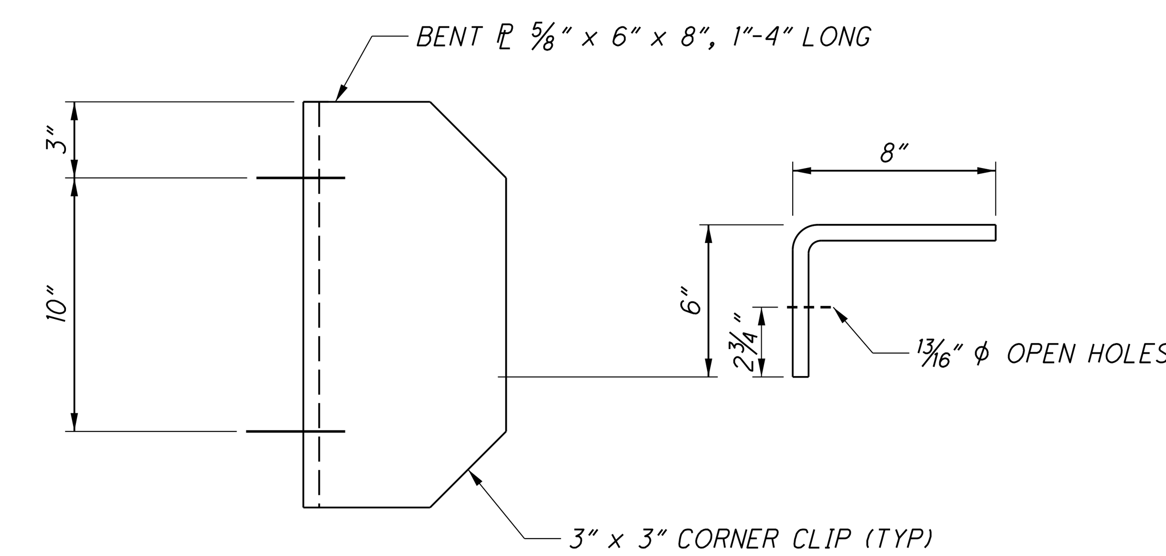
LADDER DETAILS



NOTE: FABRICATE CONNECTION TO C6x20 BLIND.
THE CONTRACTOR SHALL FIELD DRILL 13/16" ϕ HOLES THRU
BENT PLATE USING OPEN HOLES IN MC7 AS A TEMPLATE

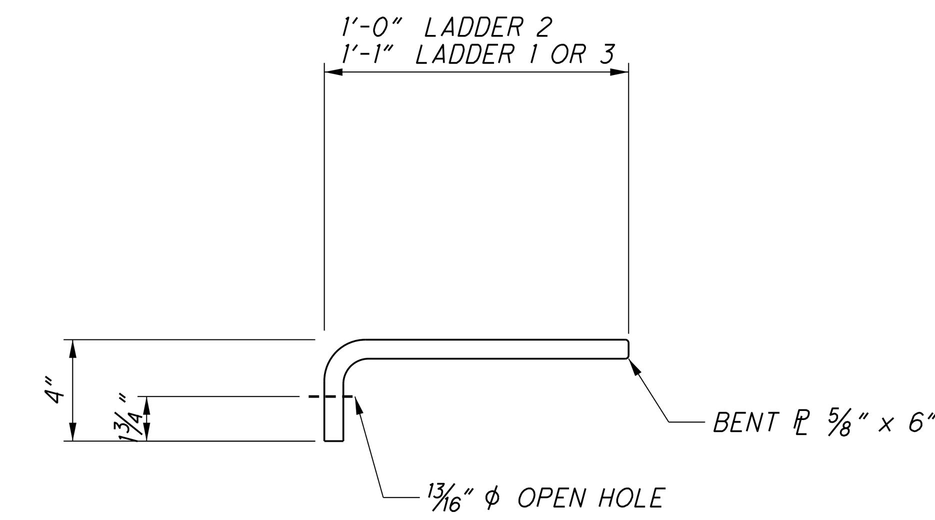
LADDER 1 AND 2 MC 7 WALL CONNECTION

SCALE: 2" = 1'-0"



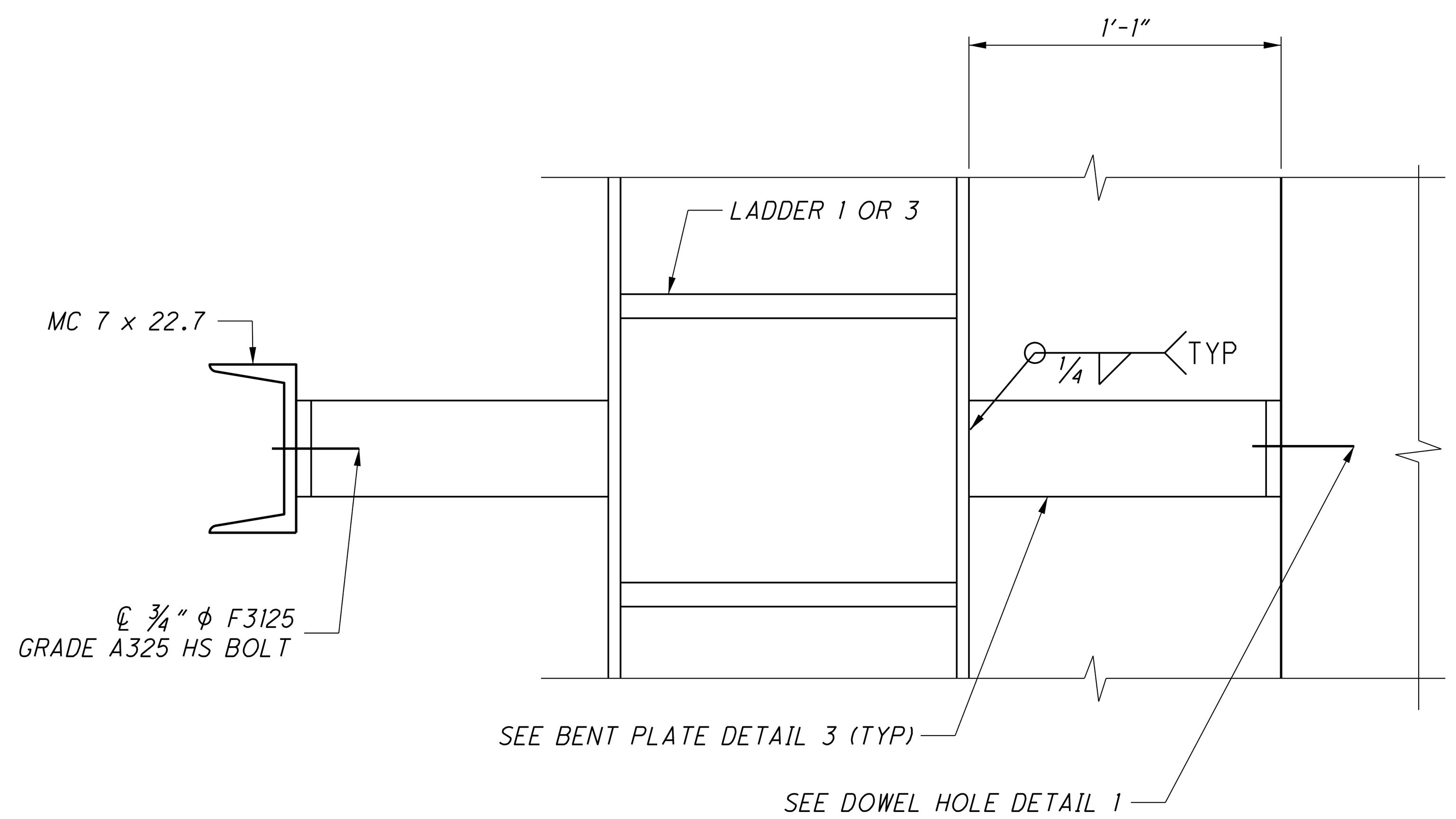
BENT PLATE DETAIL 2

SCALE: 2" = 1'-0"



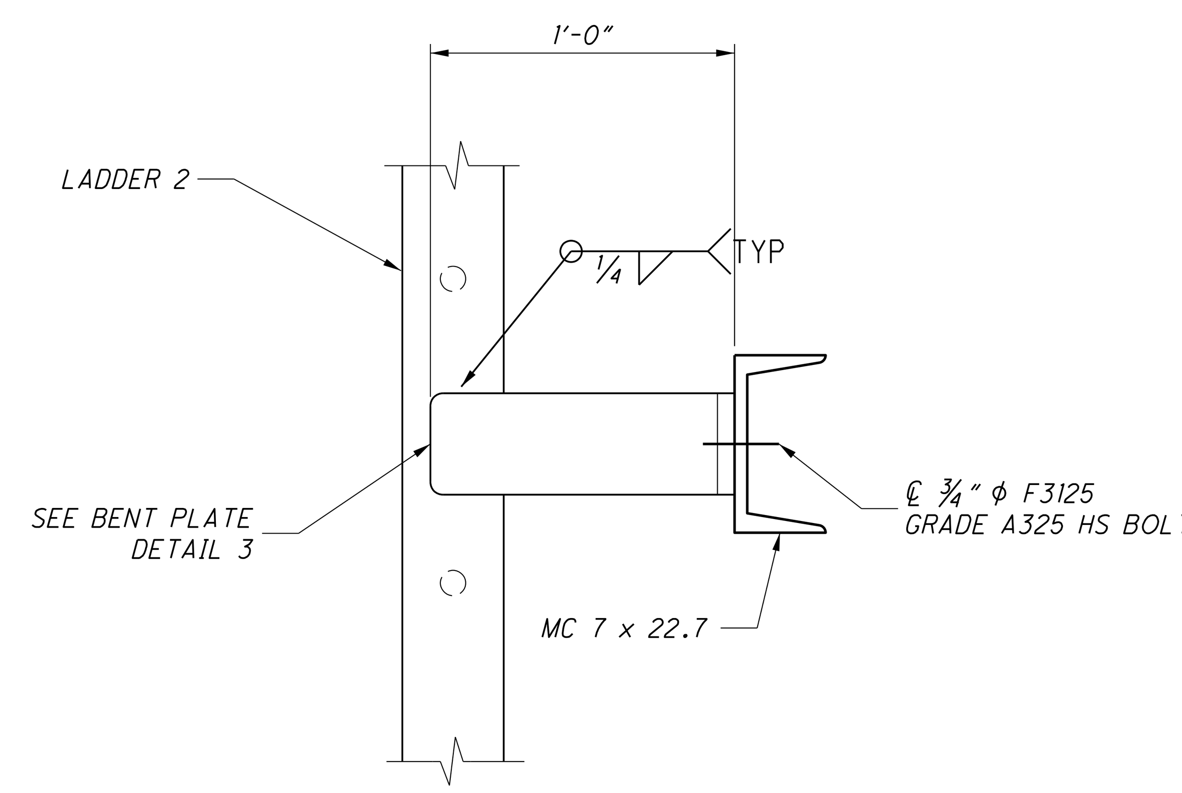
BENT PLATE DETAIL 3

SCALE: 2" = 1'-0"



DETAIL 1

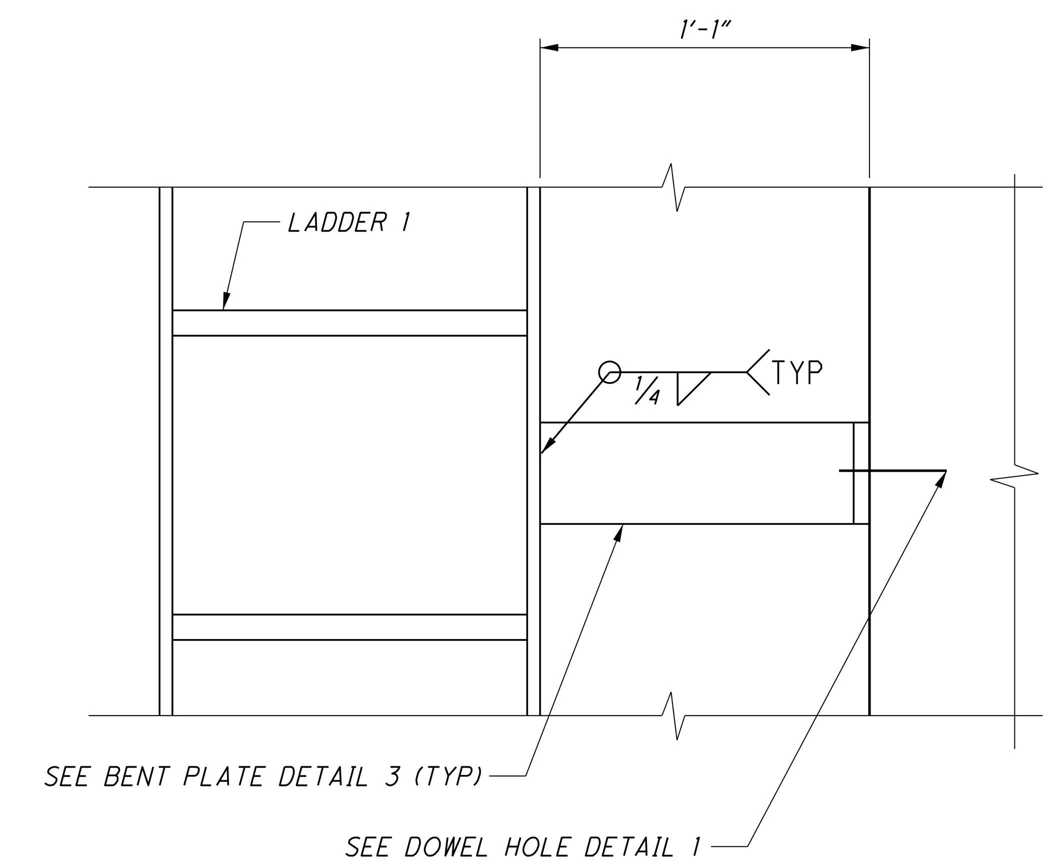
SCALE: 2" = 1'-0"



DETAIL 2

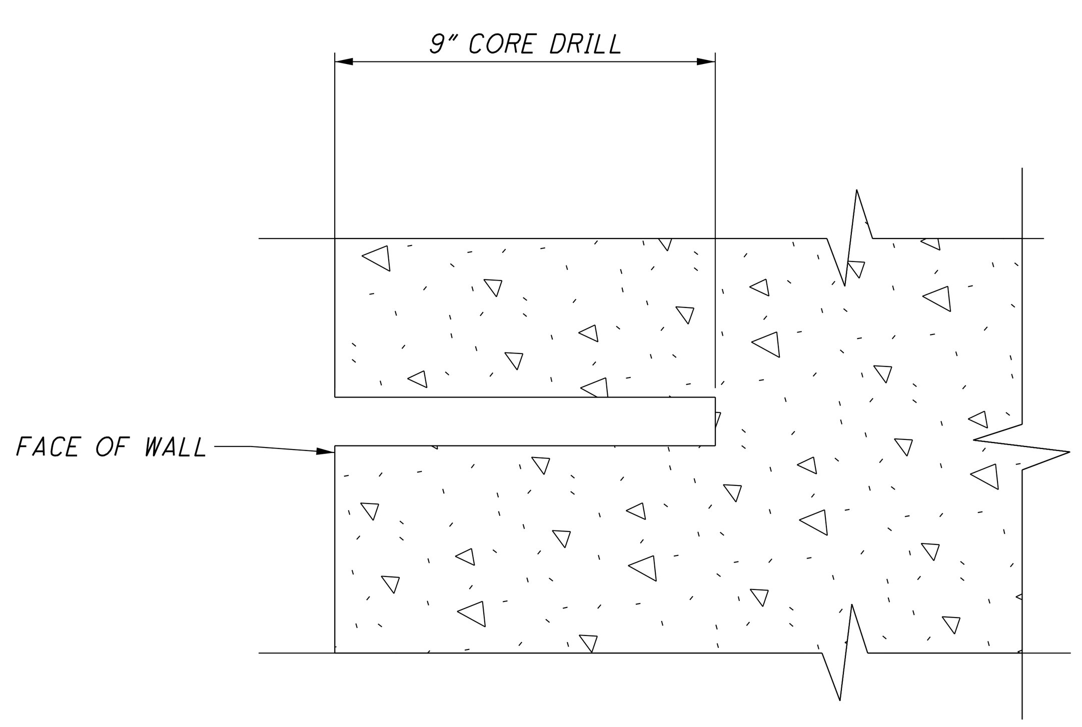
SCALE: 2" = 1'-0"

TYPICAL BOTH SIDES OF LADDER 2



DETAIL 3

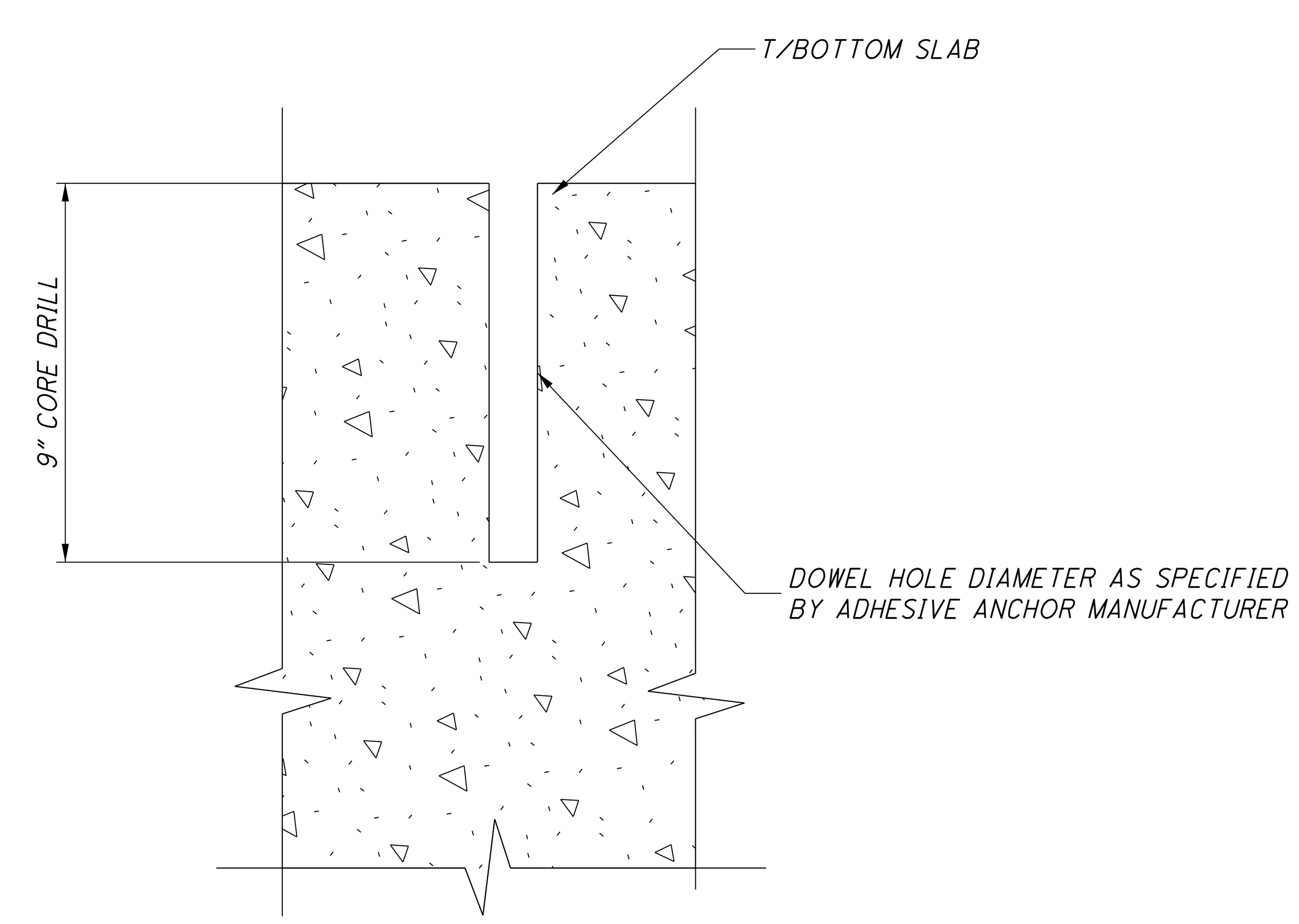
SCALE: 2" = 1'-0"



DOWEL HOLE DETAIL 1

SCALE: 2" = 1'-0"

SEE NOTE 1



DOWEL HOLE DETAIL 2

SCALE: 1" = 1'-0"

SEE NOTE 1

NOTES

1. ADHESIVE ANCHOR SYSTEM SHALL BE HILTI RE-500 V3 EPOXY ADHESIVE ANCHOR SYSTEM OR AN APPROVED EQUIVALENT. CONTRACTOR SHALL OBTAIN TRAINING FROM ADHESIVE ANCHOR MANUFACTURER PRIOR TO START OF WORK.

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

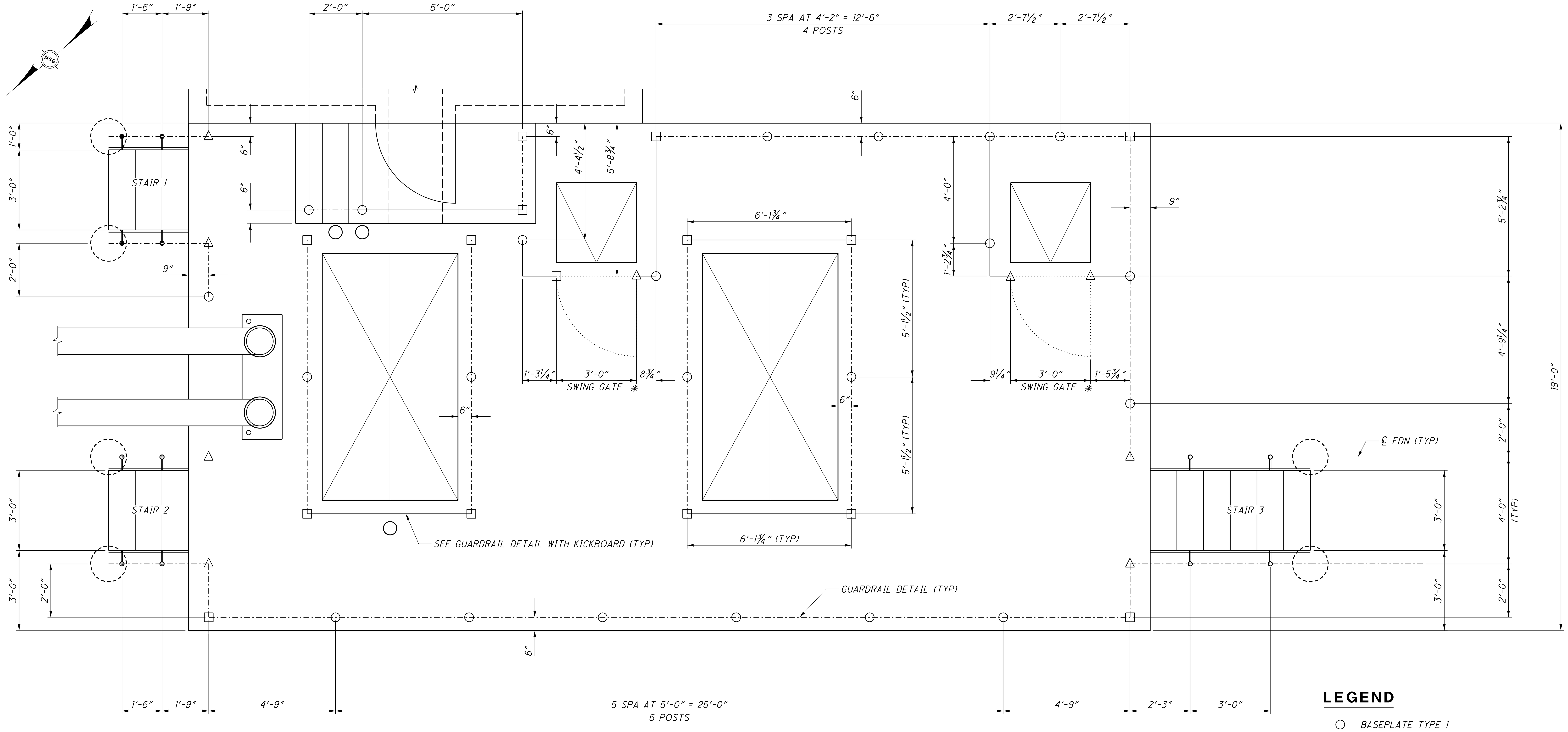
PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
100 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

LADDER DETAILS



GAURDRAIL LAYOUT

SCALE: ½" = 1'-0"

LEGEND

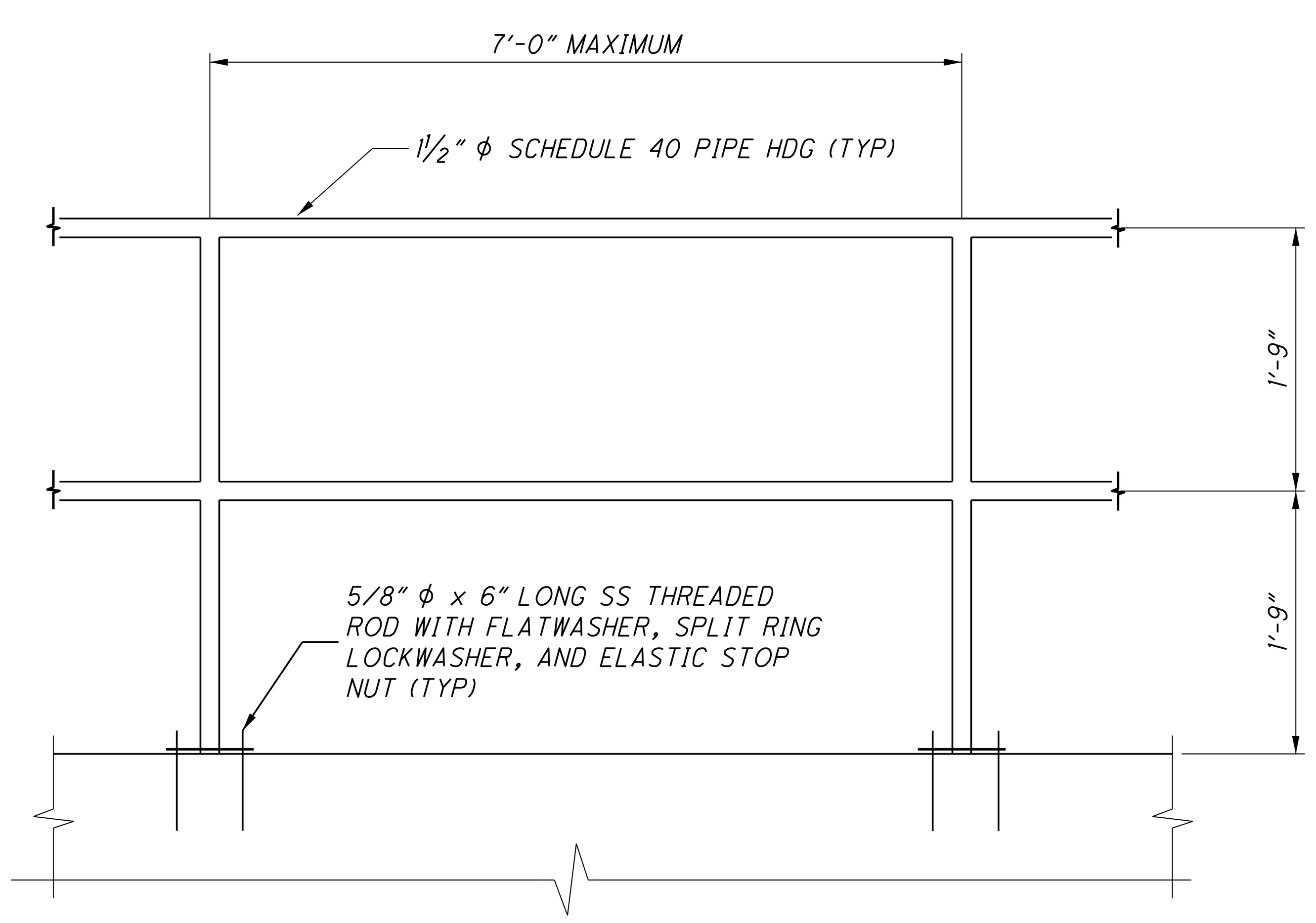
○ BASEPLATE TYPE 1

△ BASEPLATE TYPE 2

□ BASEPLATE TYPE 3

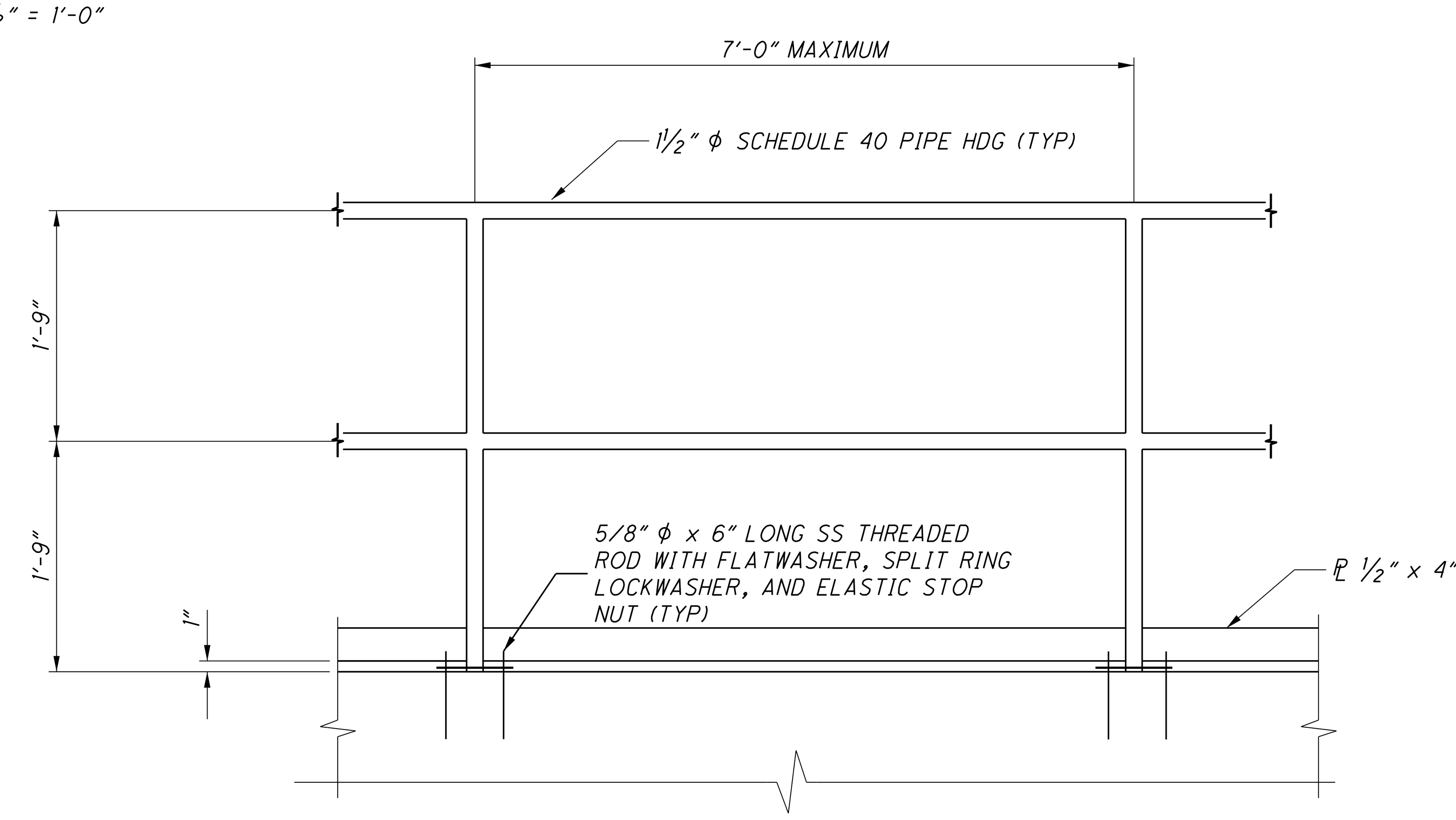
NOTES

* SWING GATE SHALL BE UNIVERSAL SWING GATE AS MANUFACTURED BY YELLOWGATE.COM



GUARDRAIL DETAIL

SCALE: 1" = 1'-0"



GUARDRAIL DETAIL WITH KICKBOARD

SCALE: 1" = 1'-0"

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

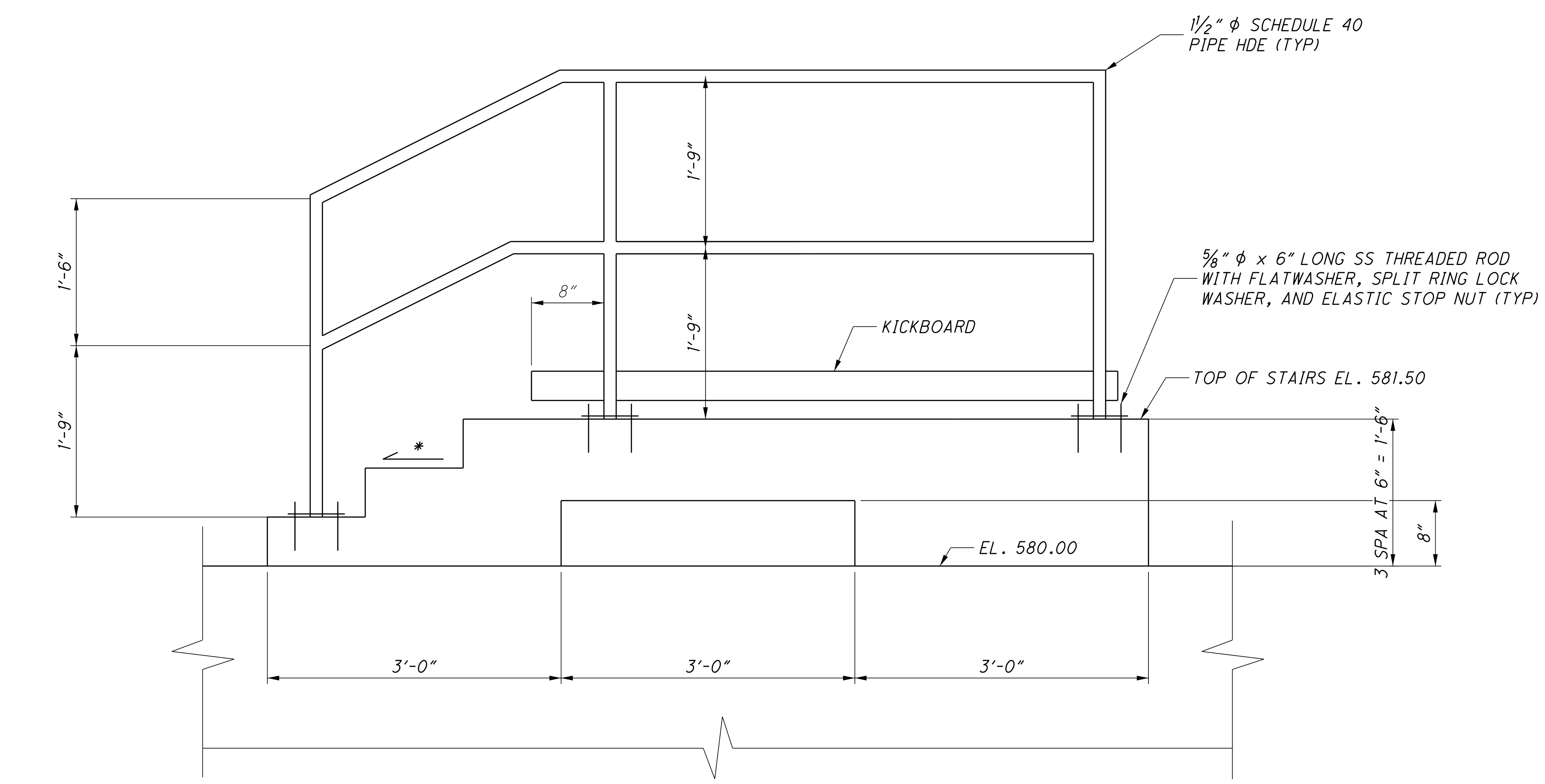
Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

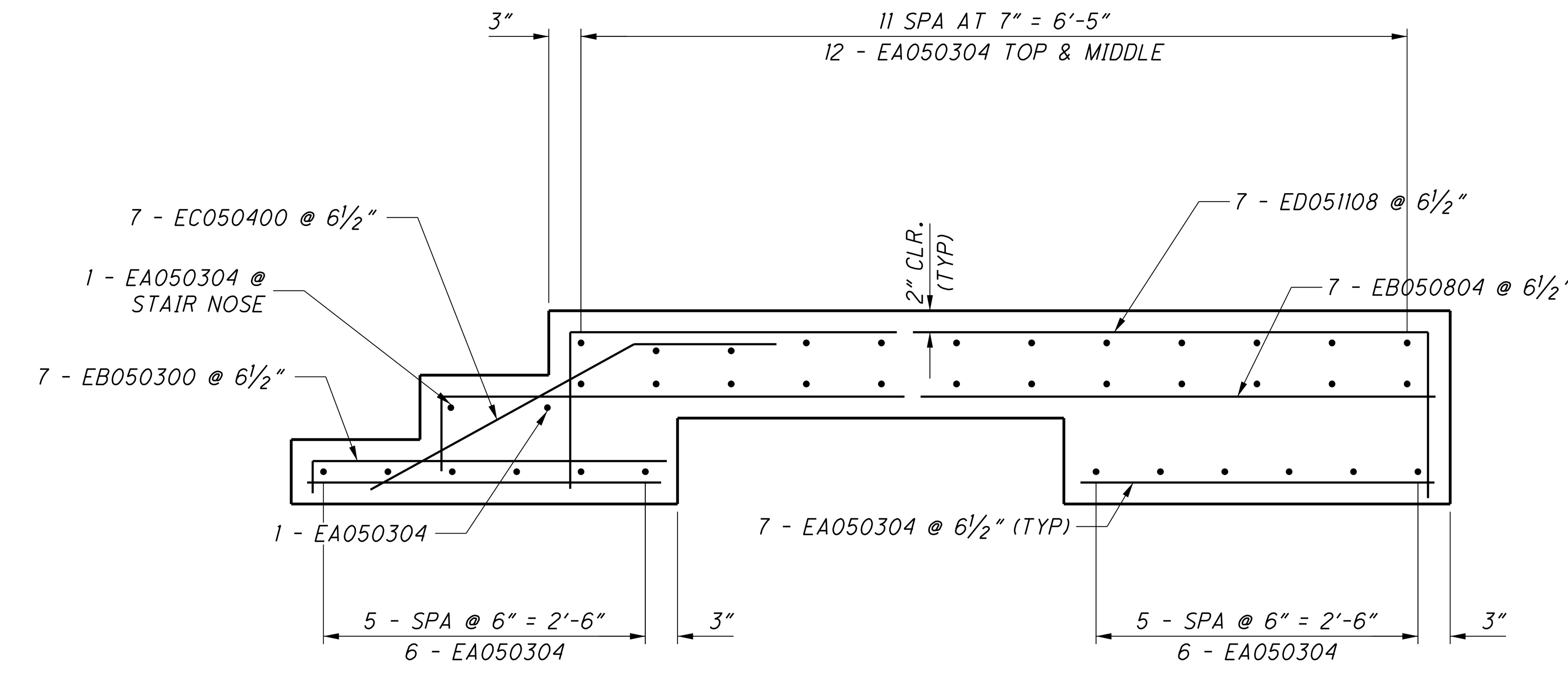
MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

GUARDRAIL DETAILS

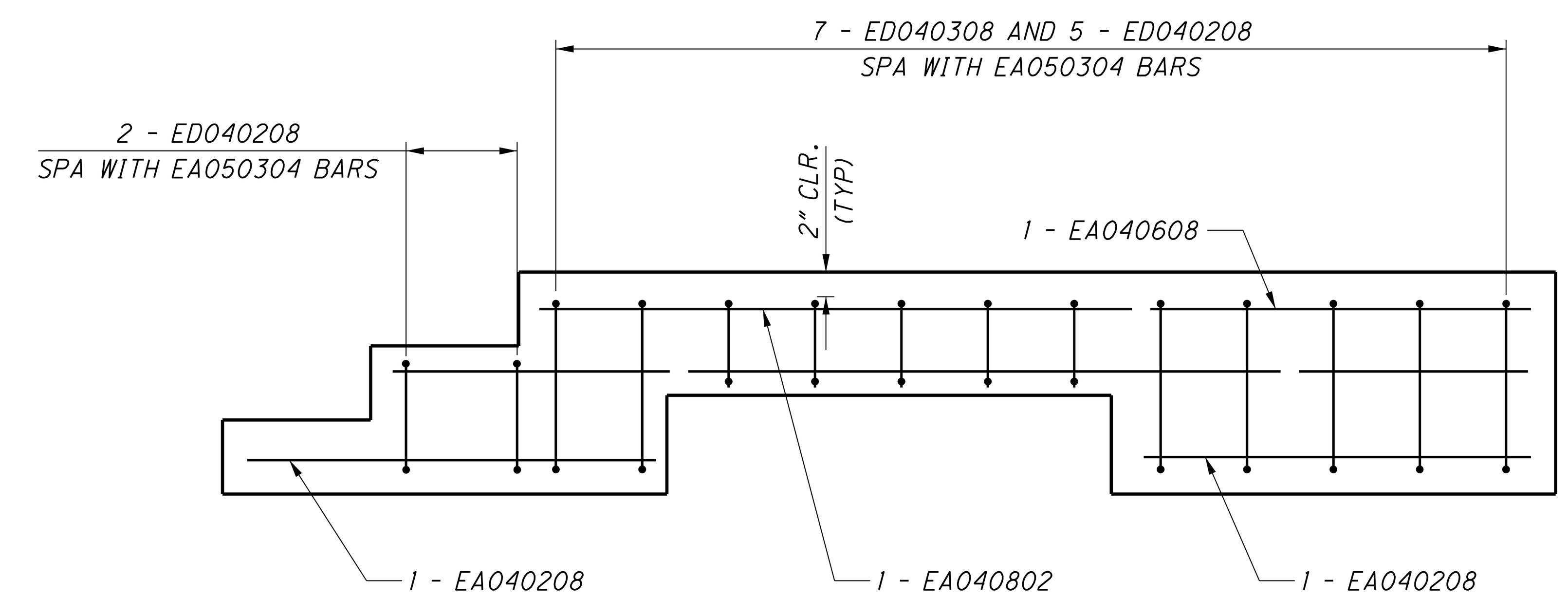


STAIR ELEVATION

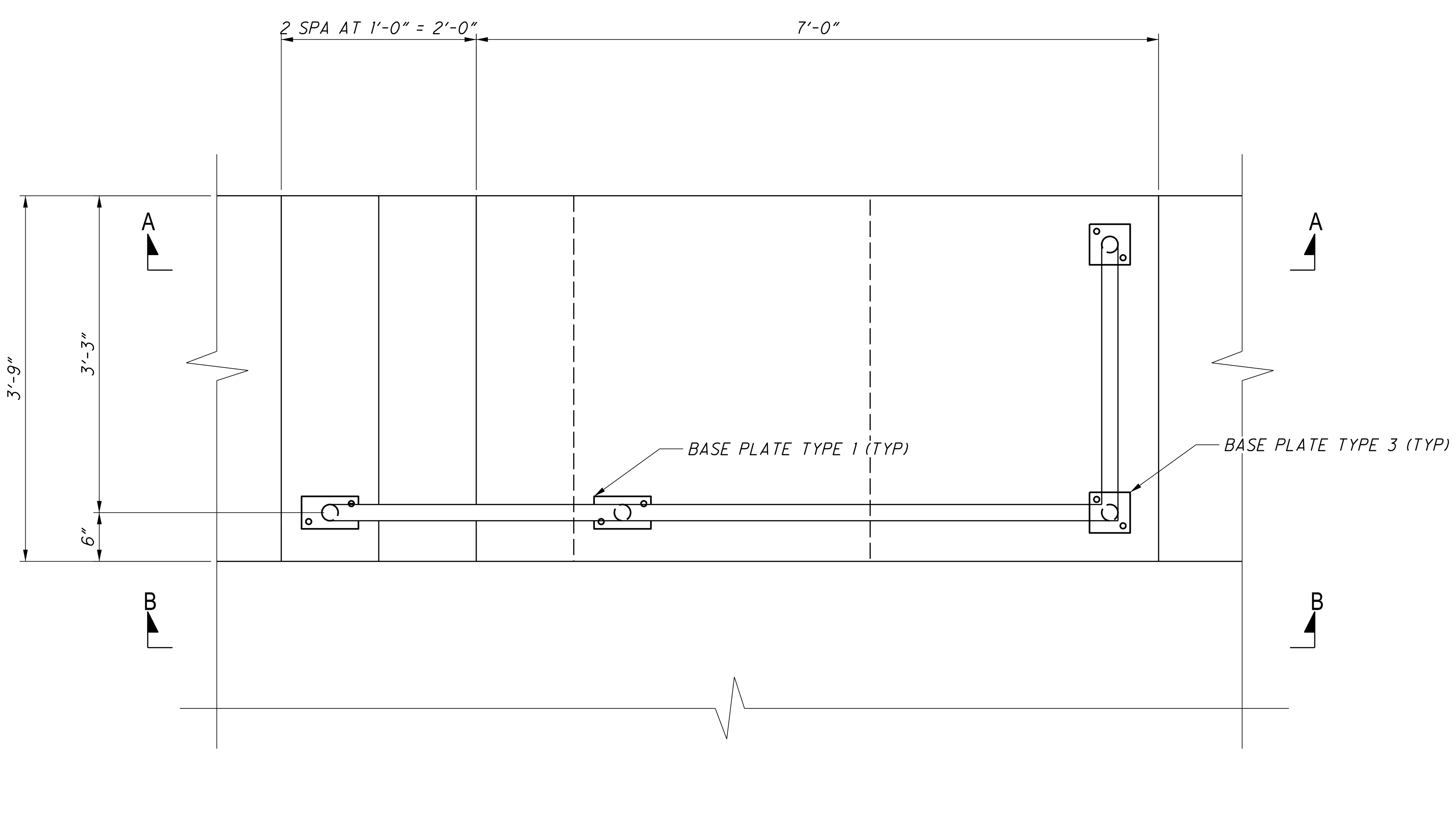
* SLOPE @ ⅛"/FT (TYP)



SECTION A-A



SECTION B-B



STAIR PLAN

5/31/2022

\\MSGFILESRV\MSGData\Projects\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_50_Gaurd Rail_Details.dgn

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

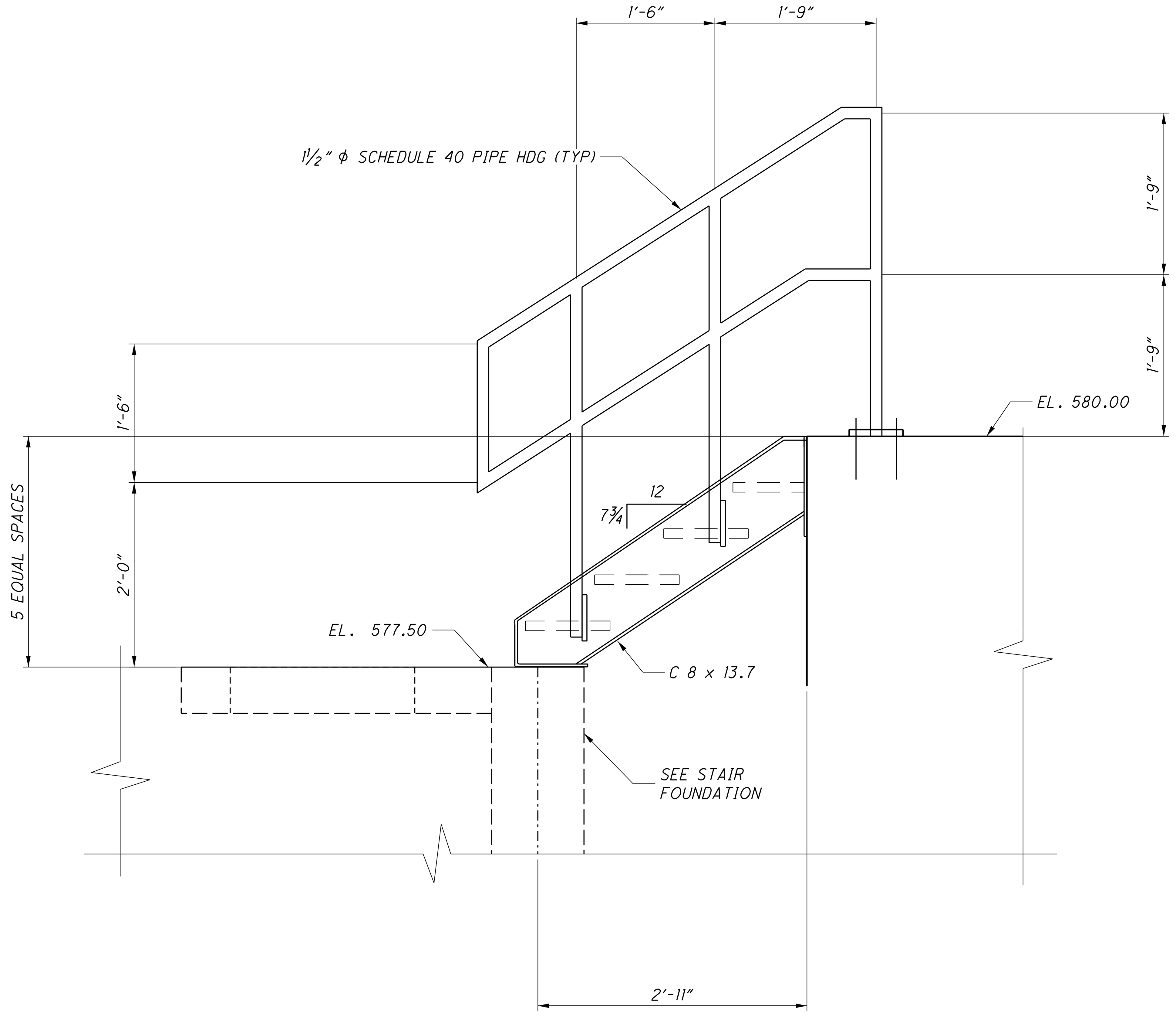
PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

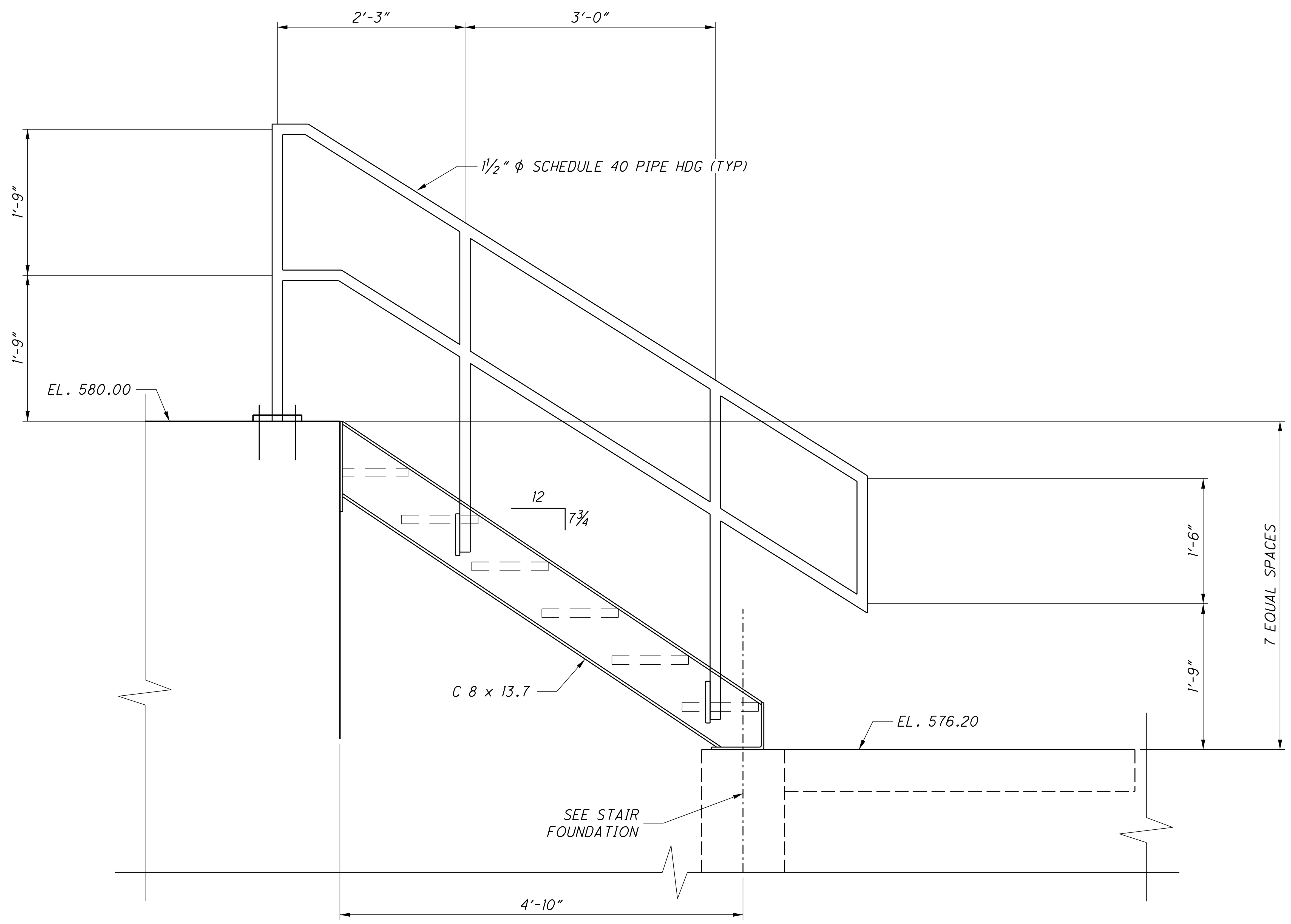
MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

GUARDRAIL DETAILS



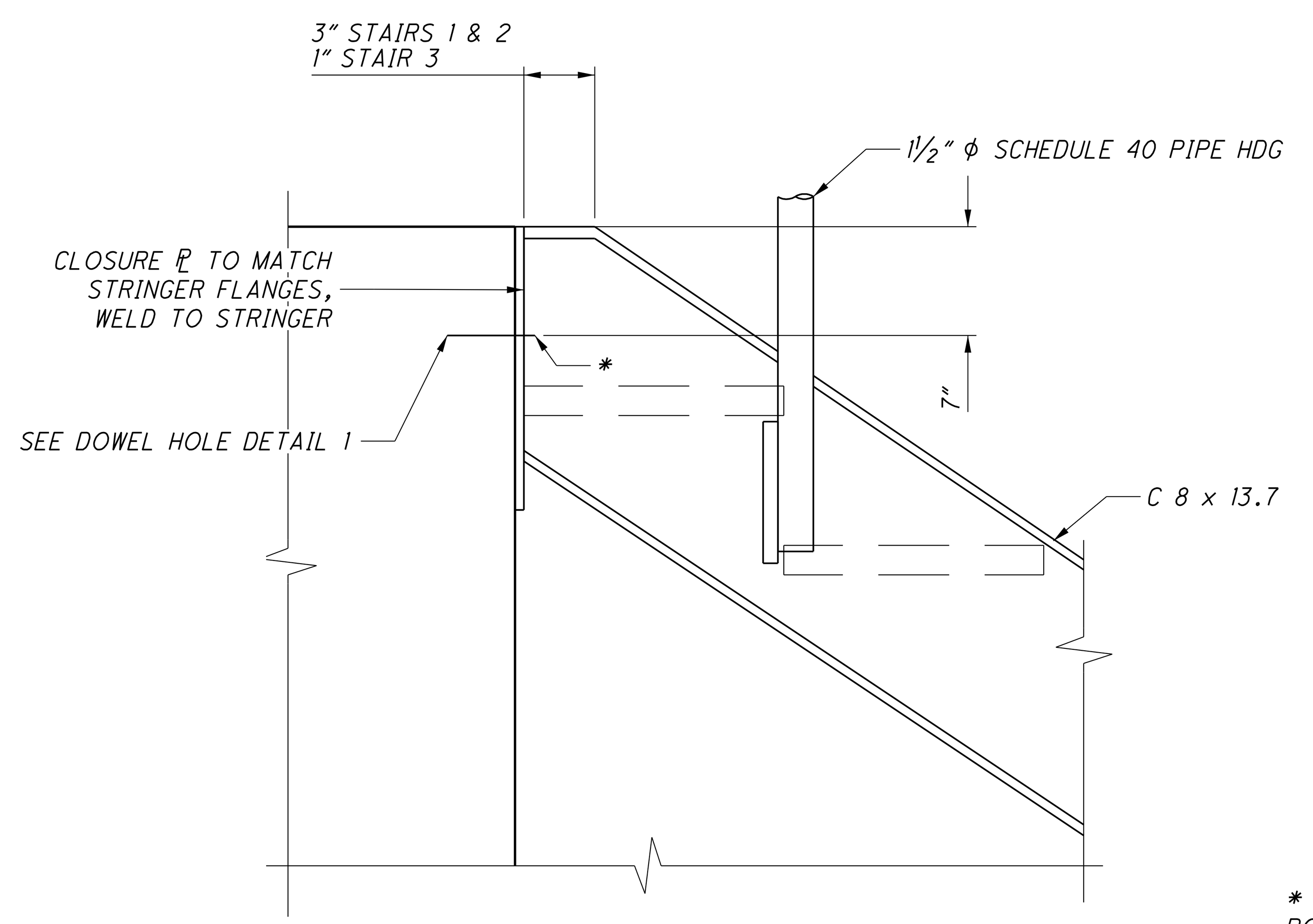
STAIRS 1 AND 2

SCALE: 1" = 1'-0"



STAIR 3

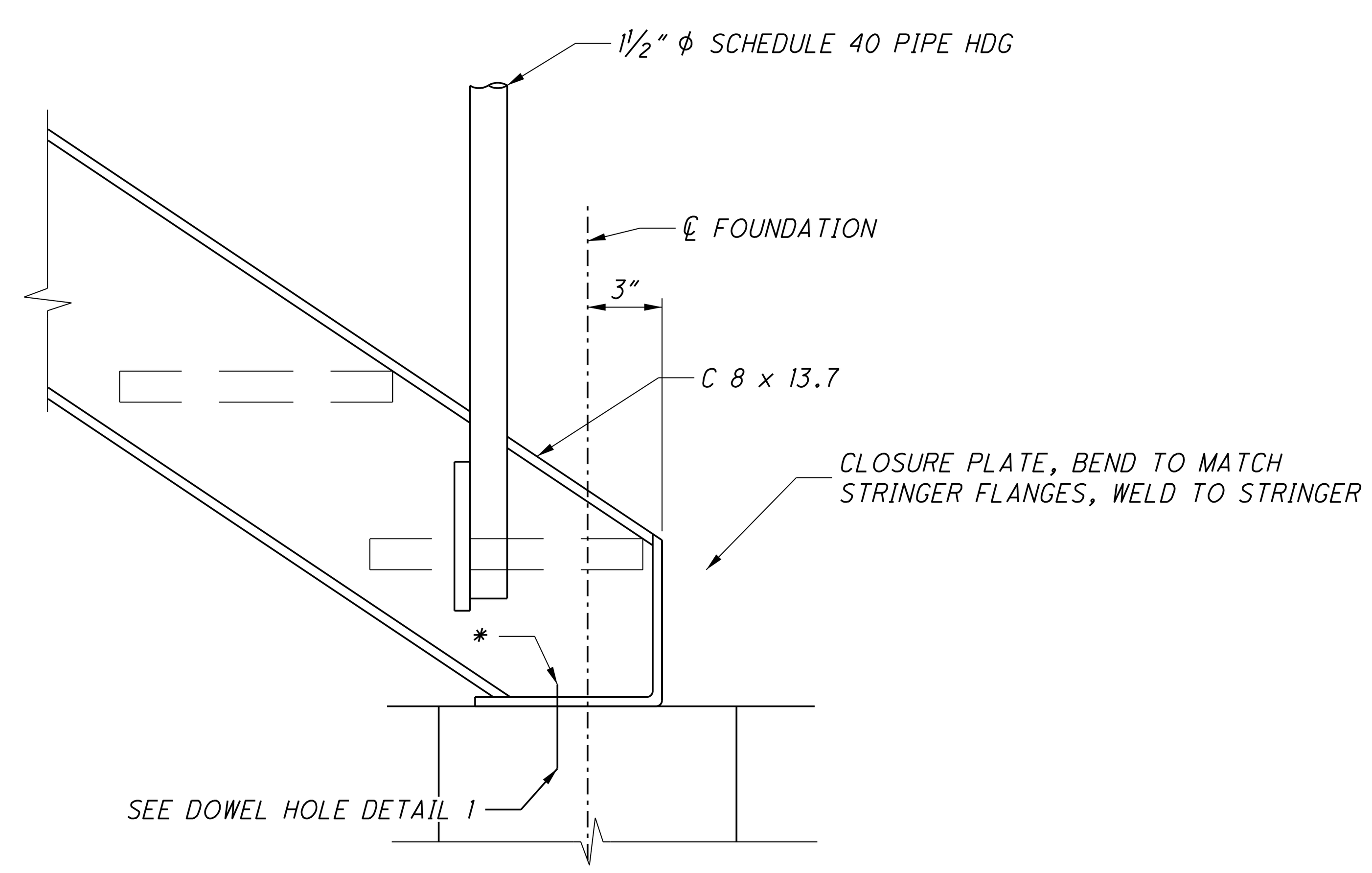
SCALE: 1" = 1'-0"



* ¾" ϕx 1'-0" LONG SS THREADED ROD WITH FLATWASHER, SPLIT RING LOCK WAHSER, AND ELASTIC STOP NUT

TOP OF STAIR CONNECTION

SCALE: 2" = 1'-0"



BOTTOM OF STAIR CONNECTION

SCALE: 2" = 1'-0"

5/31/2022

\\MSGFILESRV\MSGData\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_51_Gaurd_Rail_Details.dgn

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

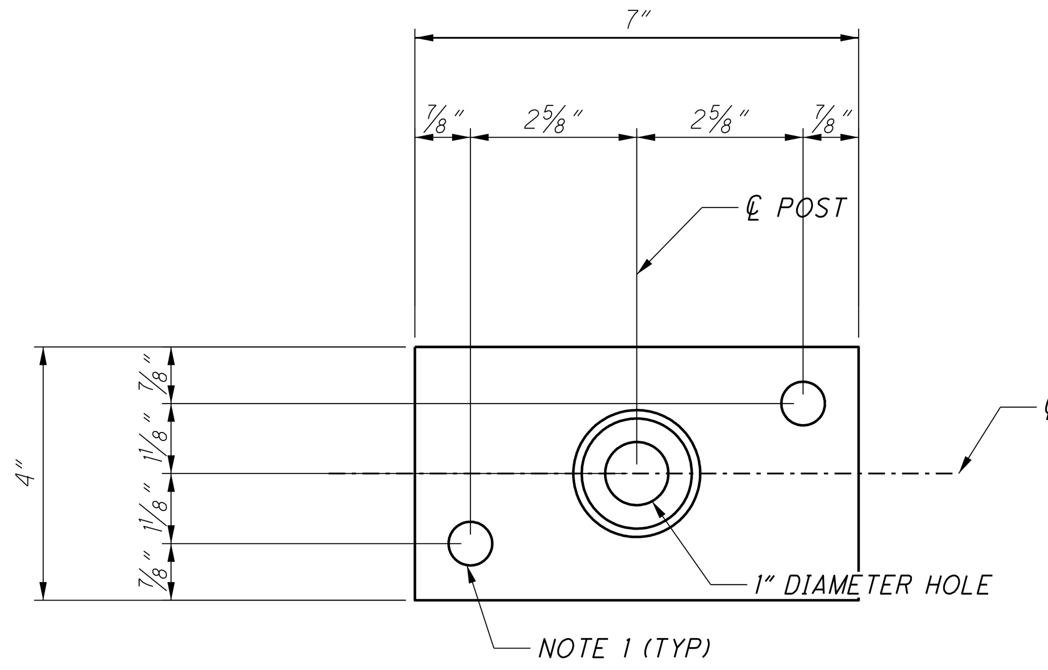
PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

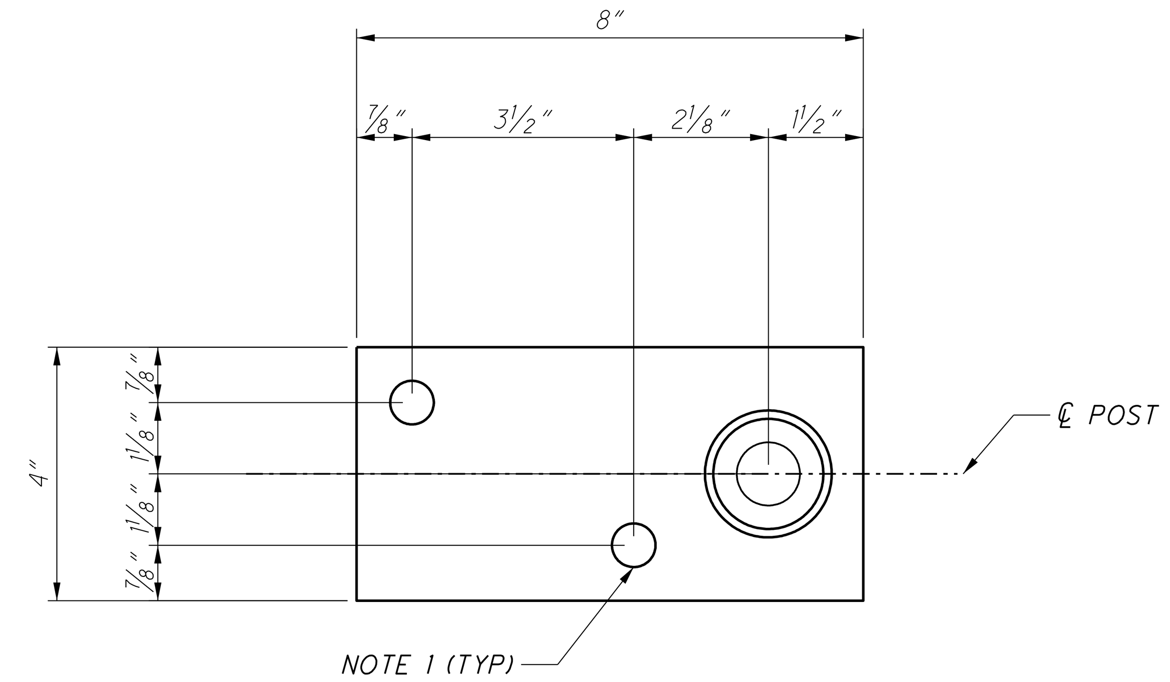
PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

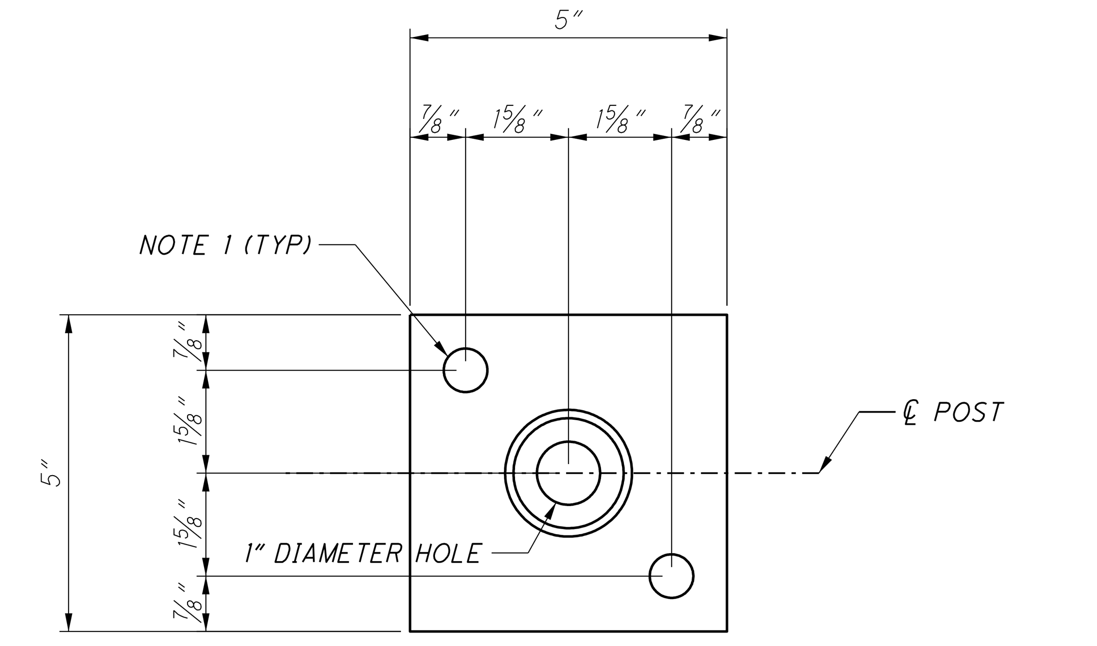
GUARDRAIL DETAILS



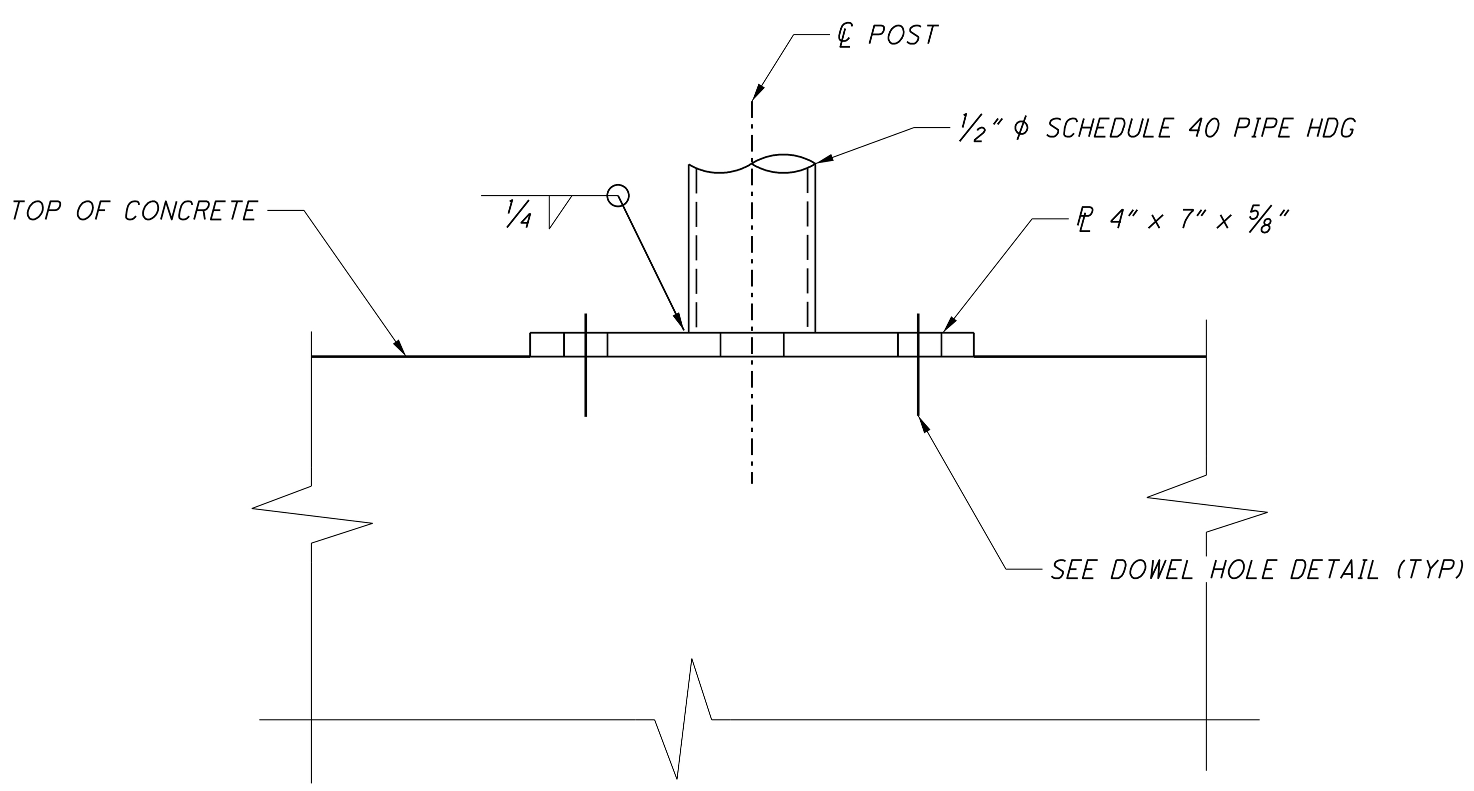
PLAN BASE PLATE TYPE 1



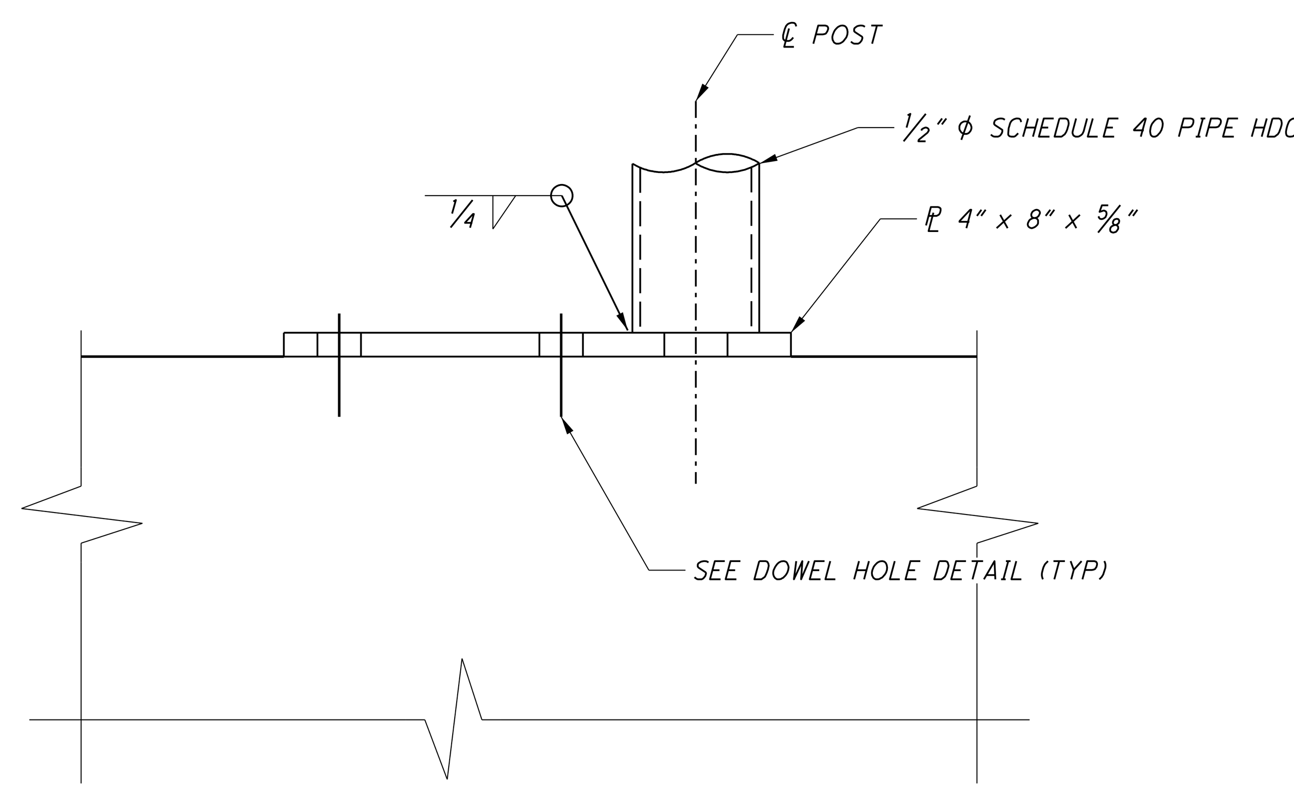
PLAN BASE PLATE TYPE 2



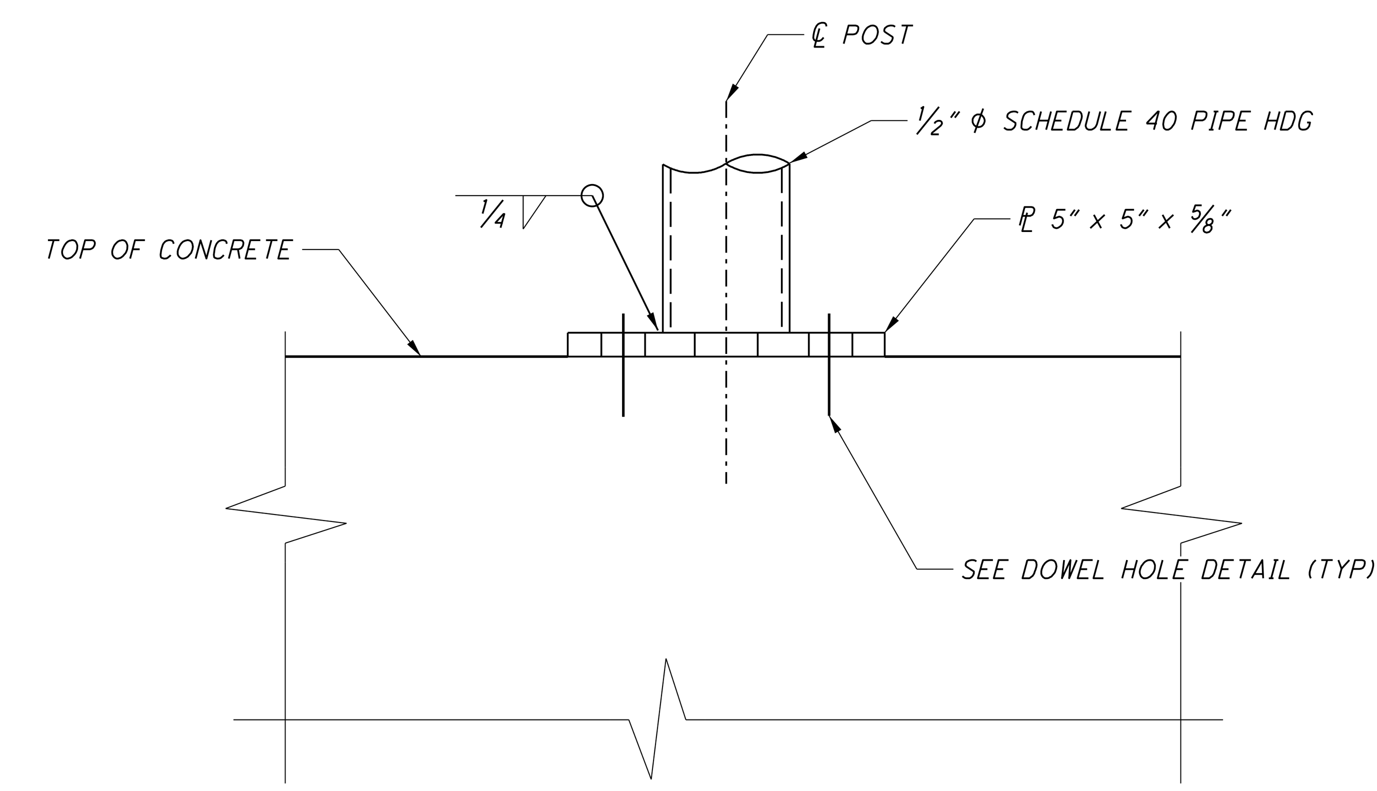
PLAN BASE PLATE TYPE 3



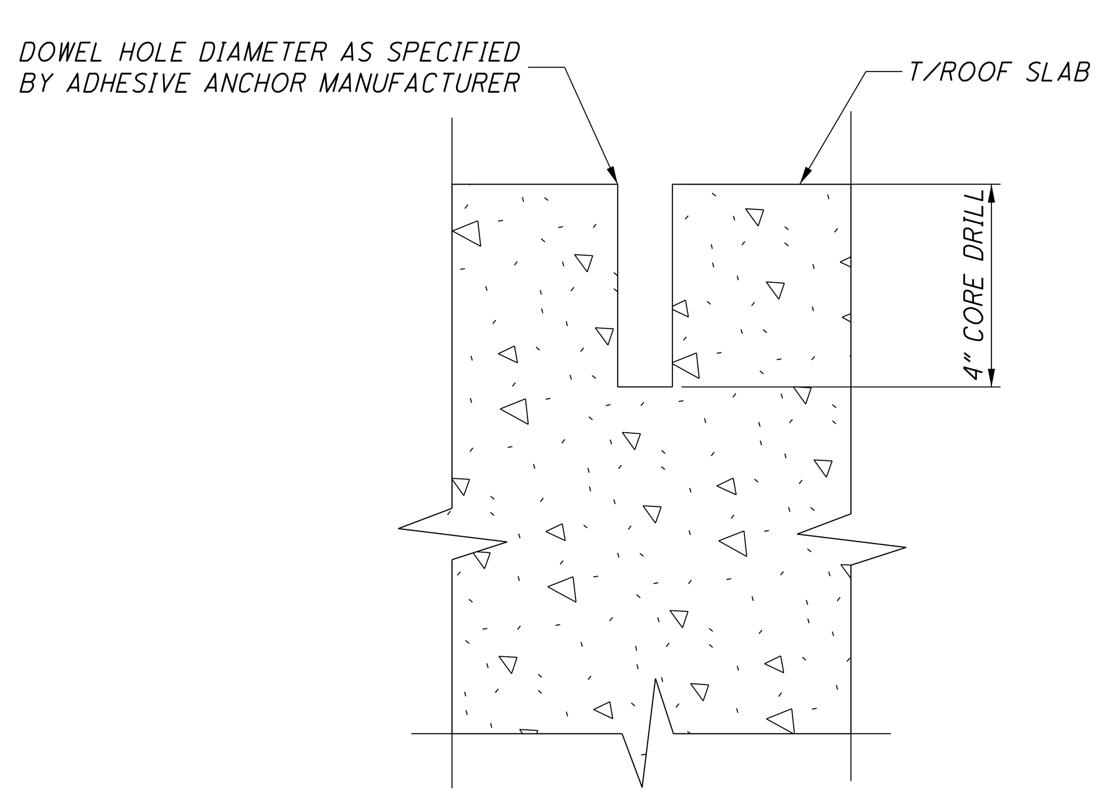
ELEVATION BASE PLATE TYPE 1



ELEVATION BASE PLATE TYPE 2

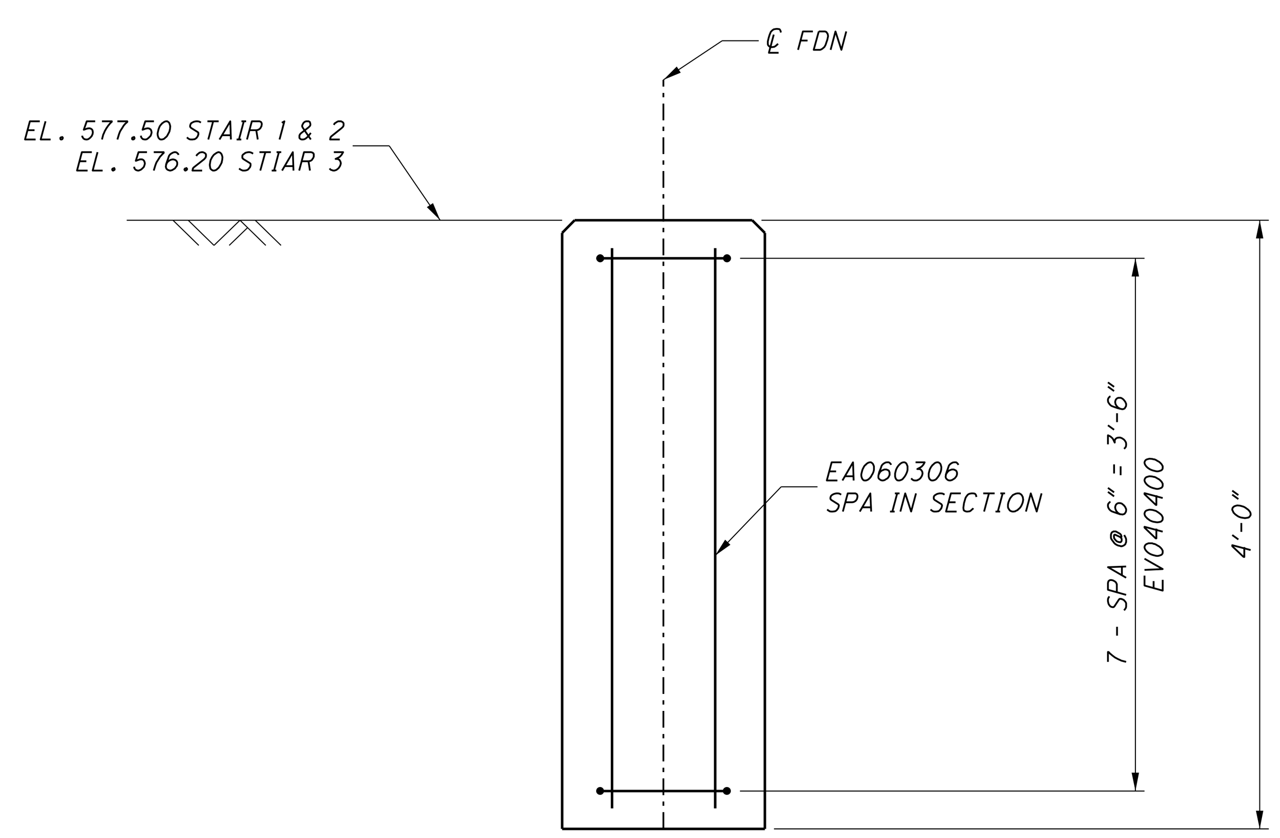


ELEVATION BASE PLATE TYPE 3

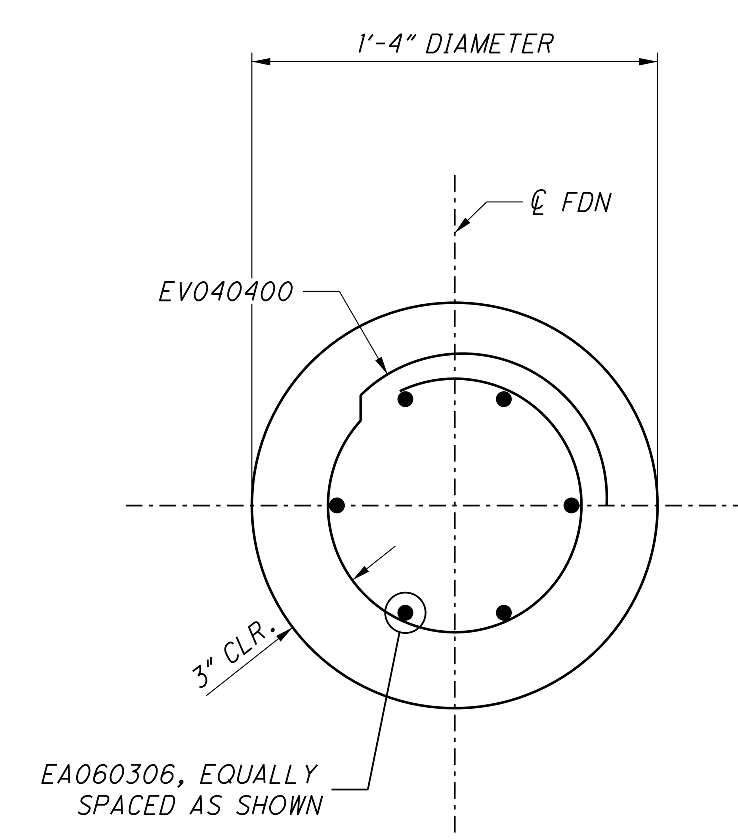


ANCHOR ADHESIVE SYSTEM SHALL BE HILTI RE-500 V3 EPOXY ADHESIVE ANCHOR SYSTEM OR AN APPROVED EQUIVALENT. CONTRACTOR SHALL OBTAIN TRAINING FROM ADHESIVE ANCHOR MANUFACTURER PRIOR TO START OF WORK.

DOWEL HOLE DETAIL



DOWEL HOLE DETAIL



DOWEL HOLE DETAIL

NOTES

1. 11/16" DIAMETER HOLE FOR 5/8" DIAMETER x 6" LONG SS THREADED ROD WITH FLATWASHER, ELASTIC STOP NUT, AND LOCKWASHER

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

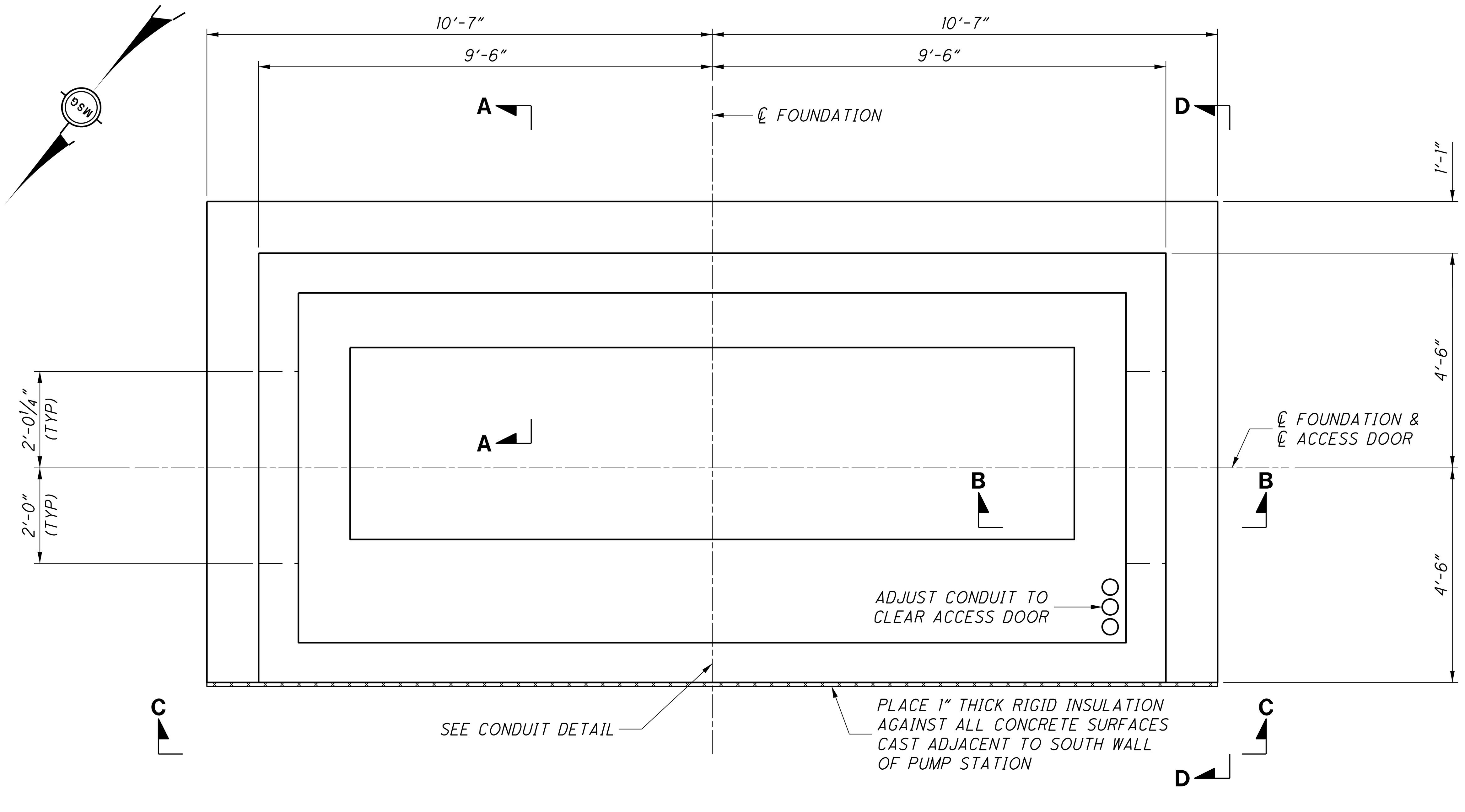
Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

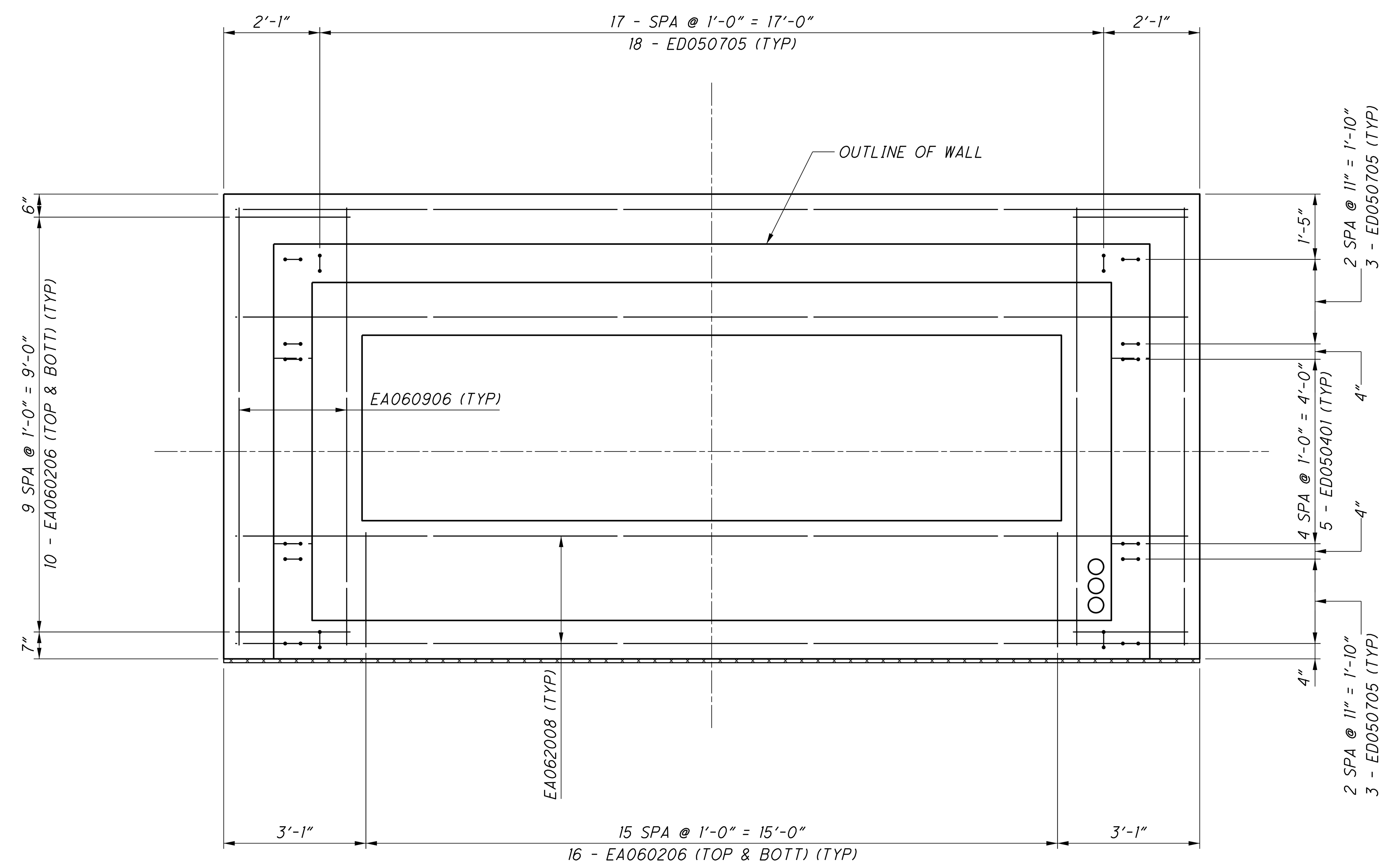
MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

GUARDRAIL DETAILS



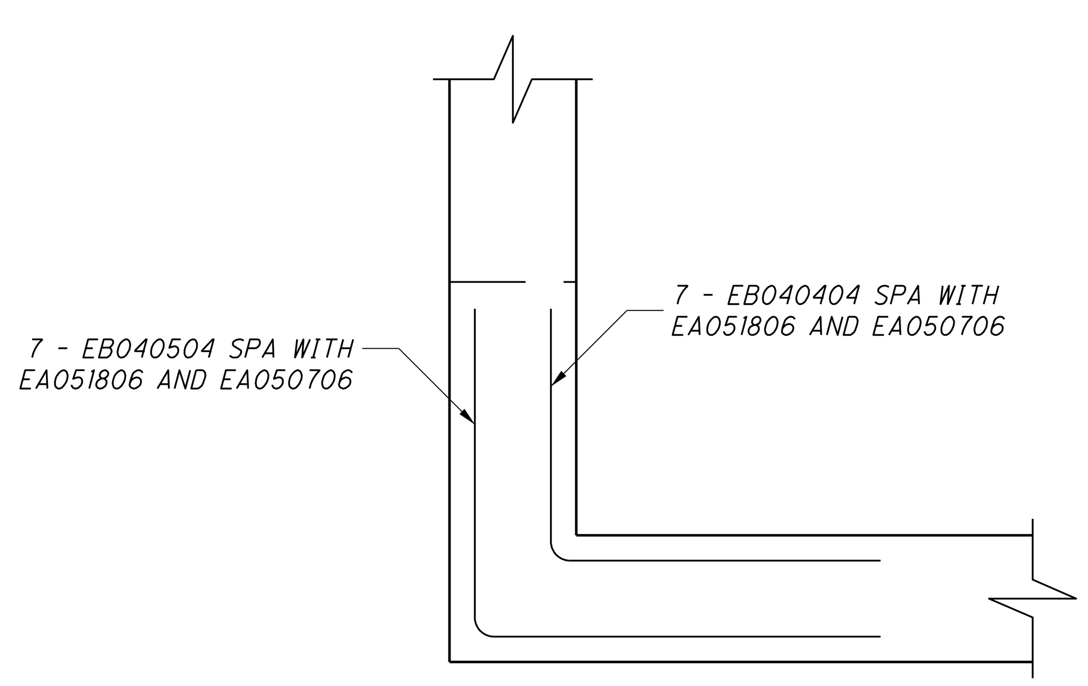
PLAN

SCALE ½" = 1'-0"



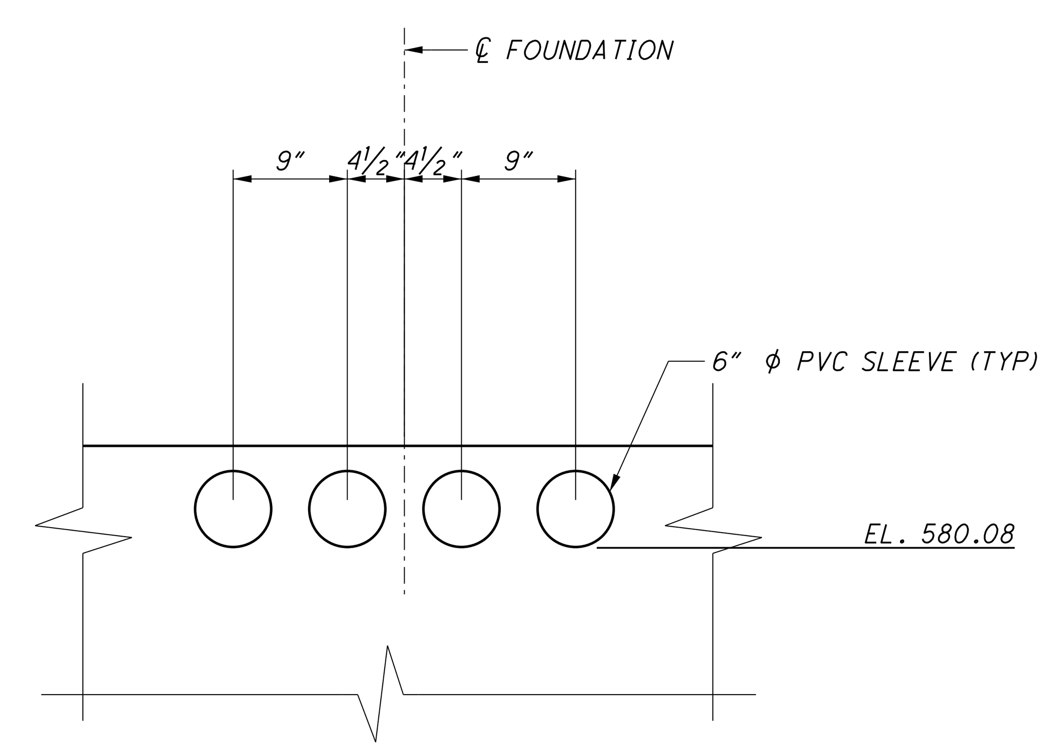
FOOTING PLAN

SCALE ½" = 1'-0"



CORNER DETAIL

SCALE 1" = 1'-0"



CONDUIT DETAIL

SCALE 1" = 1'-0"

NOTES

1. CRAWL SPACE ACCESS DOORS SHALL BE ACUDOR UF-5000 UNIVERSAL FLUSH 24x48. MATERIAL SHALL BE STAINLESS STEEL. LOCK TYPE SHALL BE CYLINDER LOCK AND KEY.

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com
1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

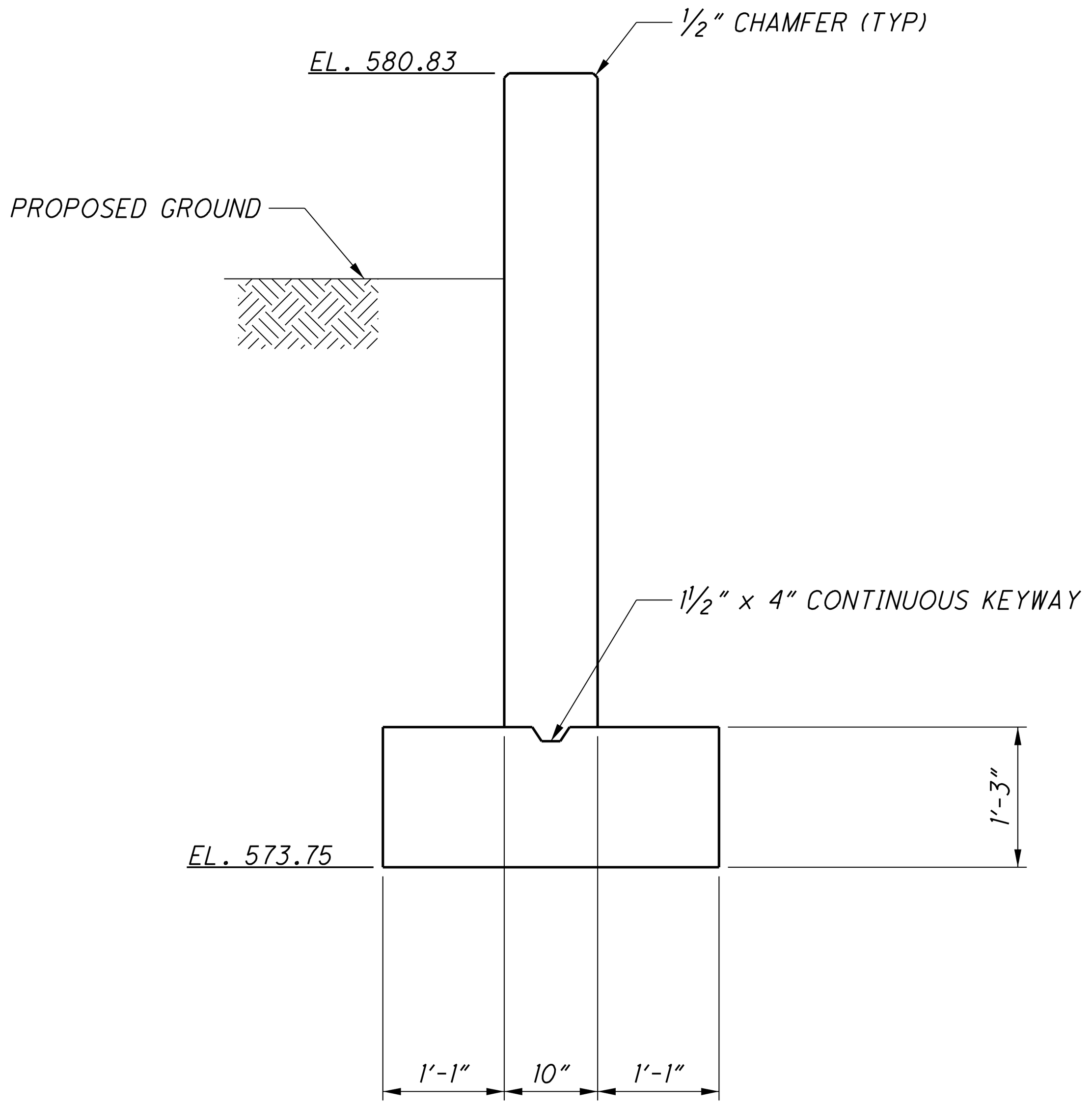
PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

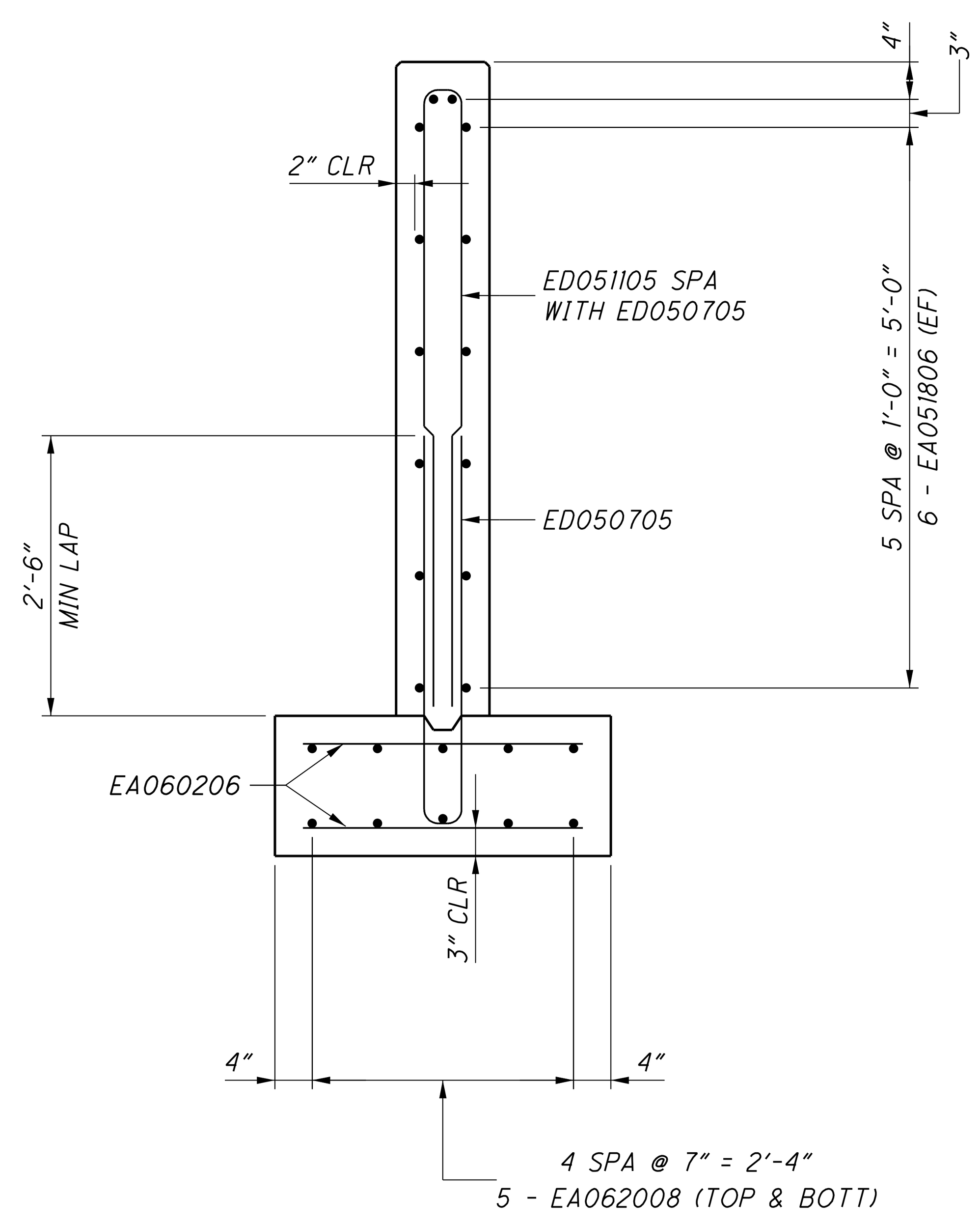
BUILDING FOUNDATION DETAILS

5/31/2022
\\MSGFILESRV\MSGData\Projects\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_53_Building_Foundation_Details.dgn



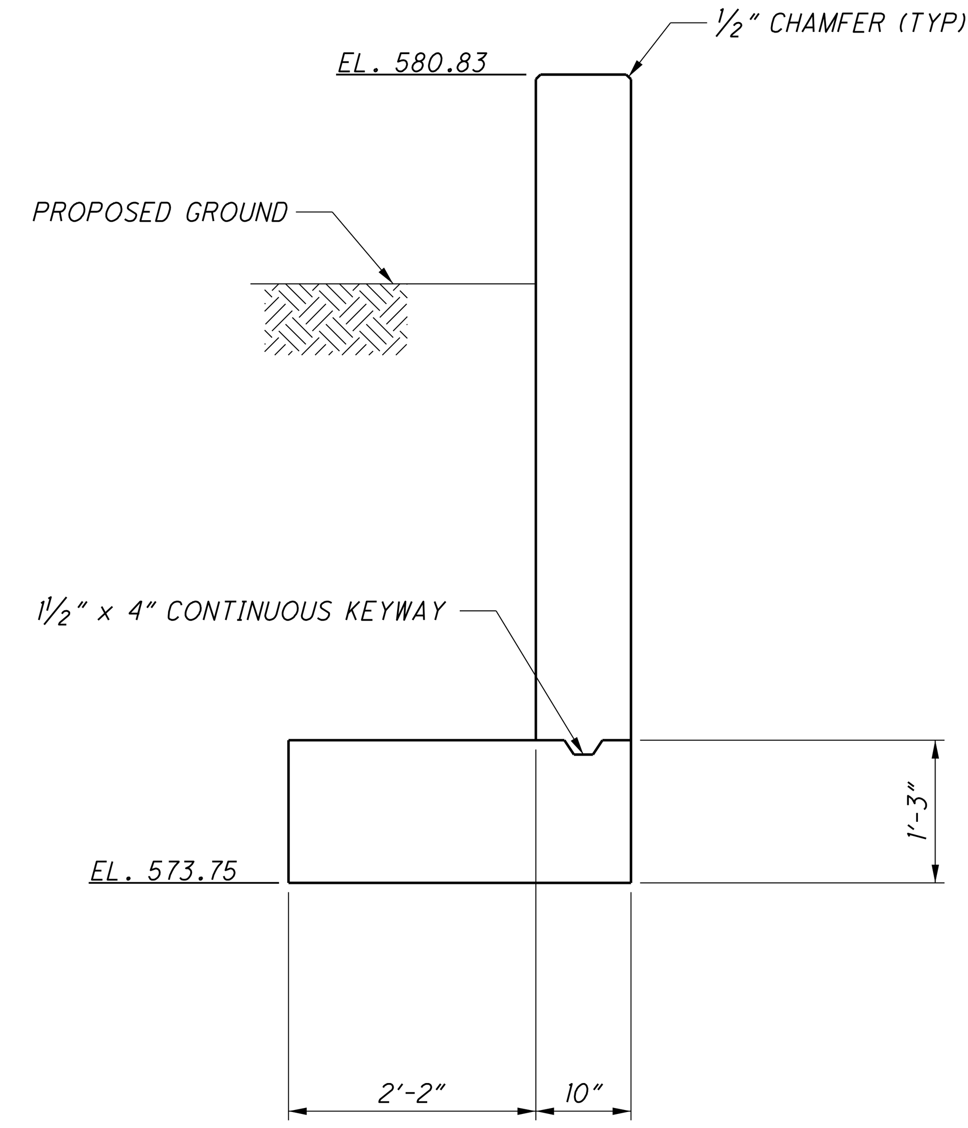
SECTION A-A

SCALE ¾" = 1'-0"



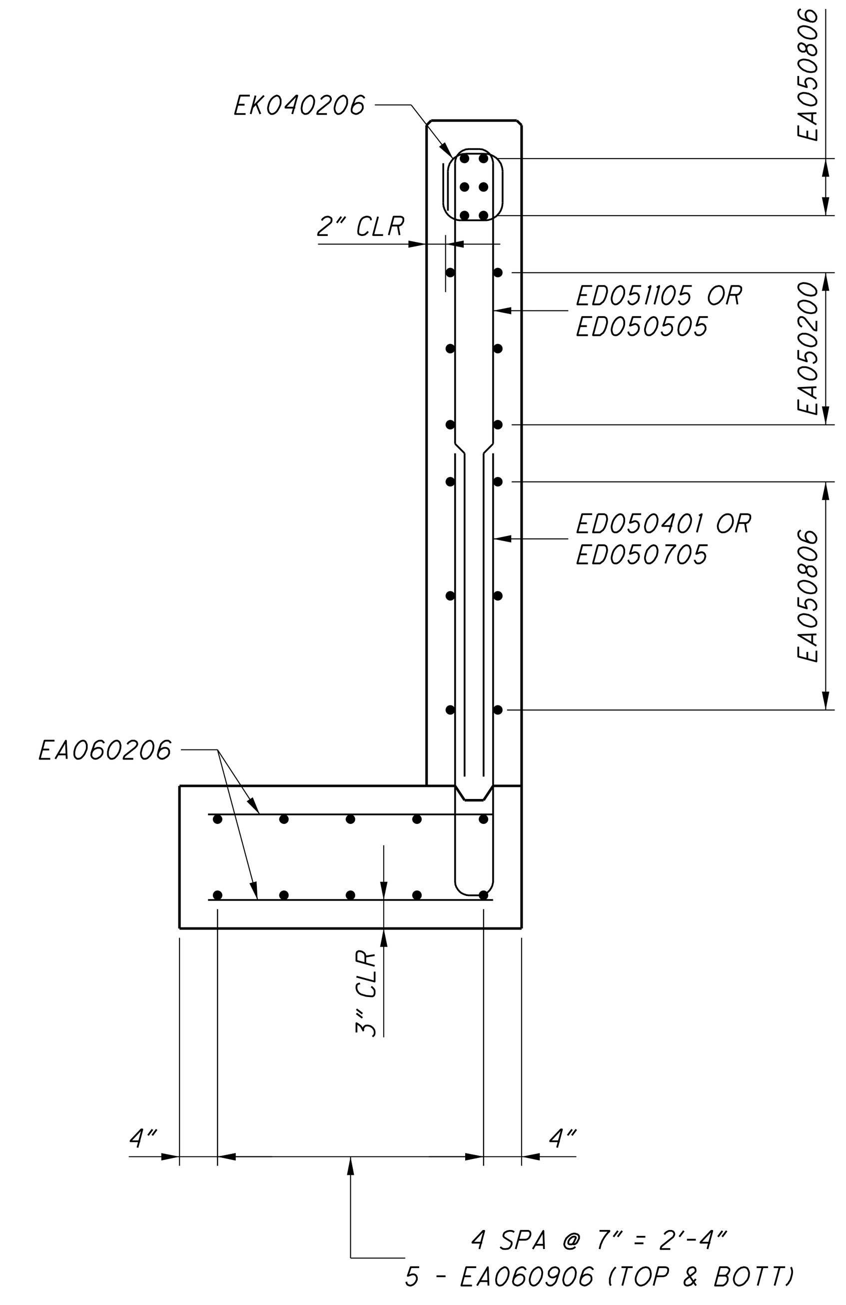
SECTION A-A

SCALE ¾" = 1'-0"
SHOWING REINFORCEMENT



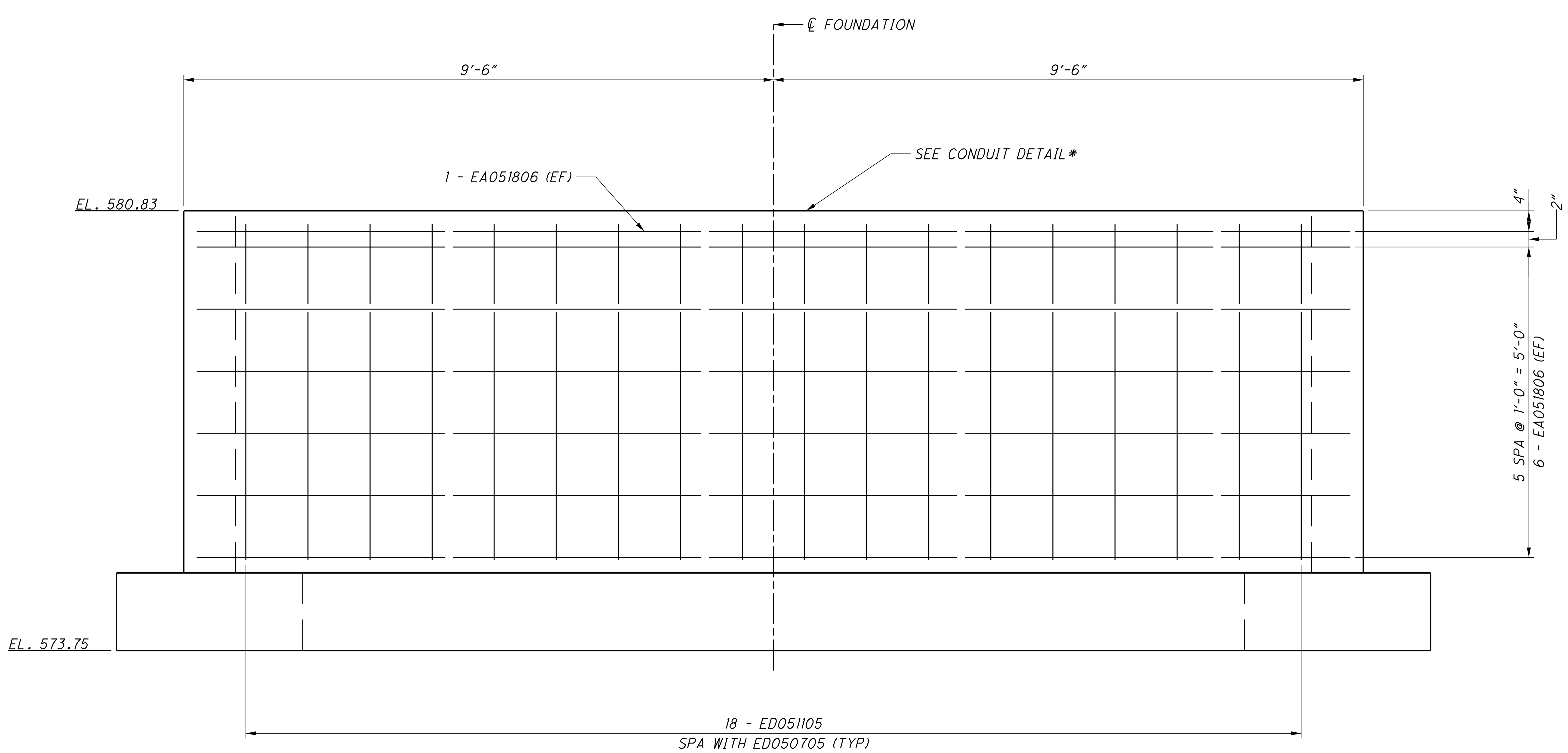
SECTION B-B

SCALE ¾" = 1'-0"



SECTION B-B

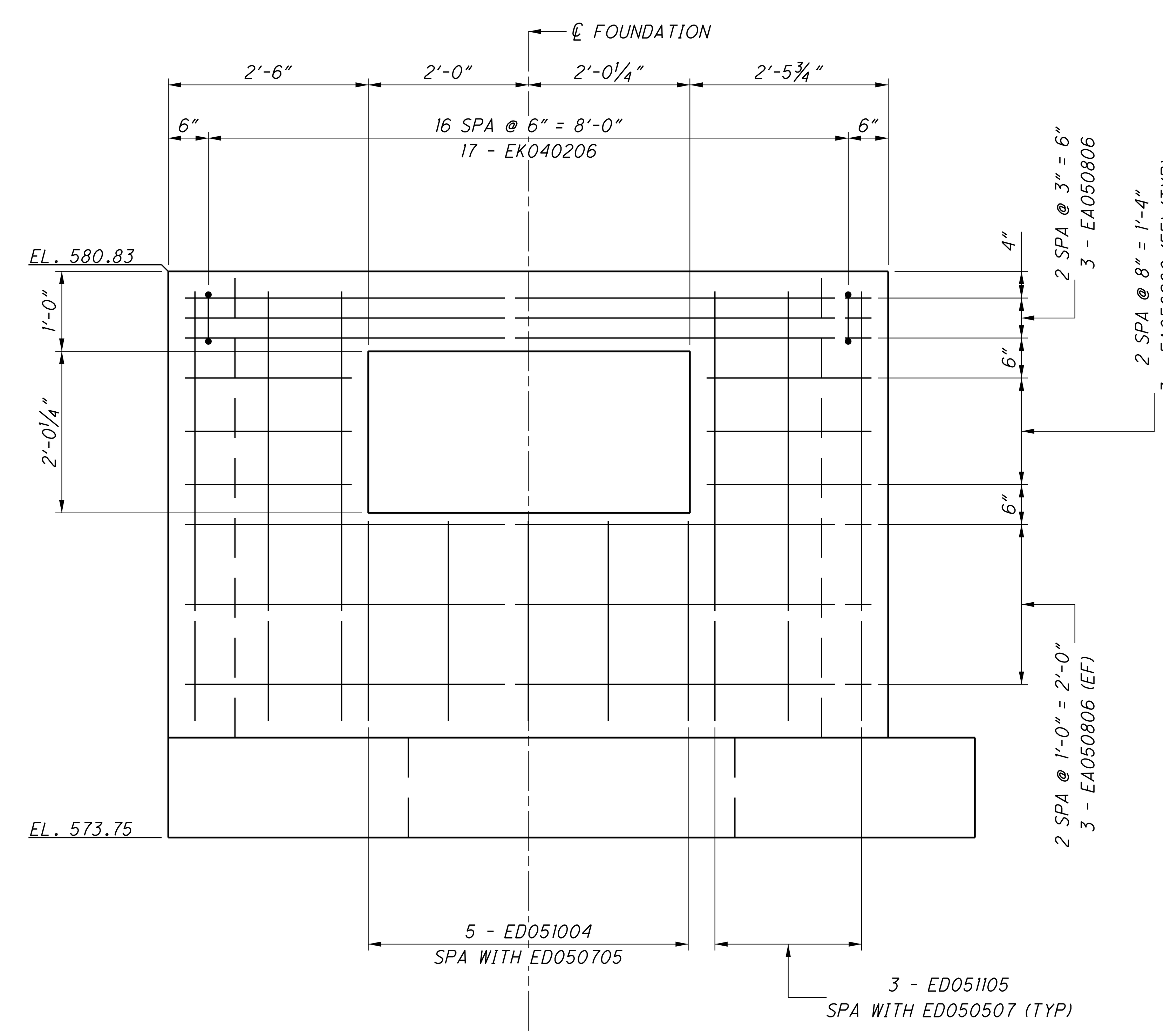
SCALE ¾" = 1'-0"
SHOWING REINFORCEMENT



SECTION C-C

SCALE ¾" = 1'-0"

* ADJUST REINFORCEMENT AS REQUIRED TO CLEAR CONDUITS



SECTION D-D

SCALE ¾" = 1'-0"

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

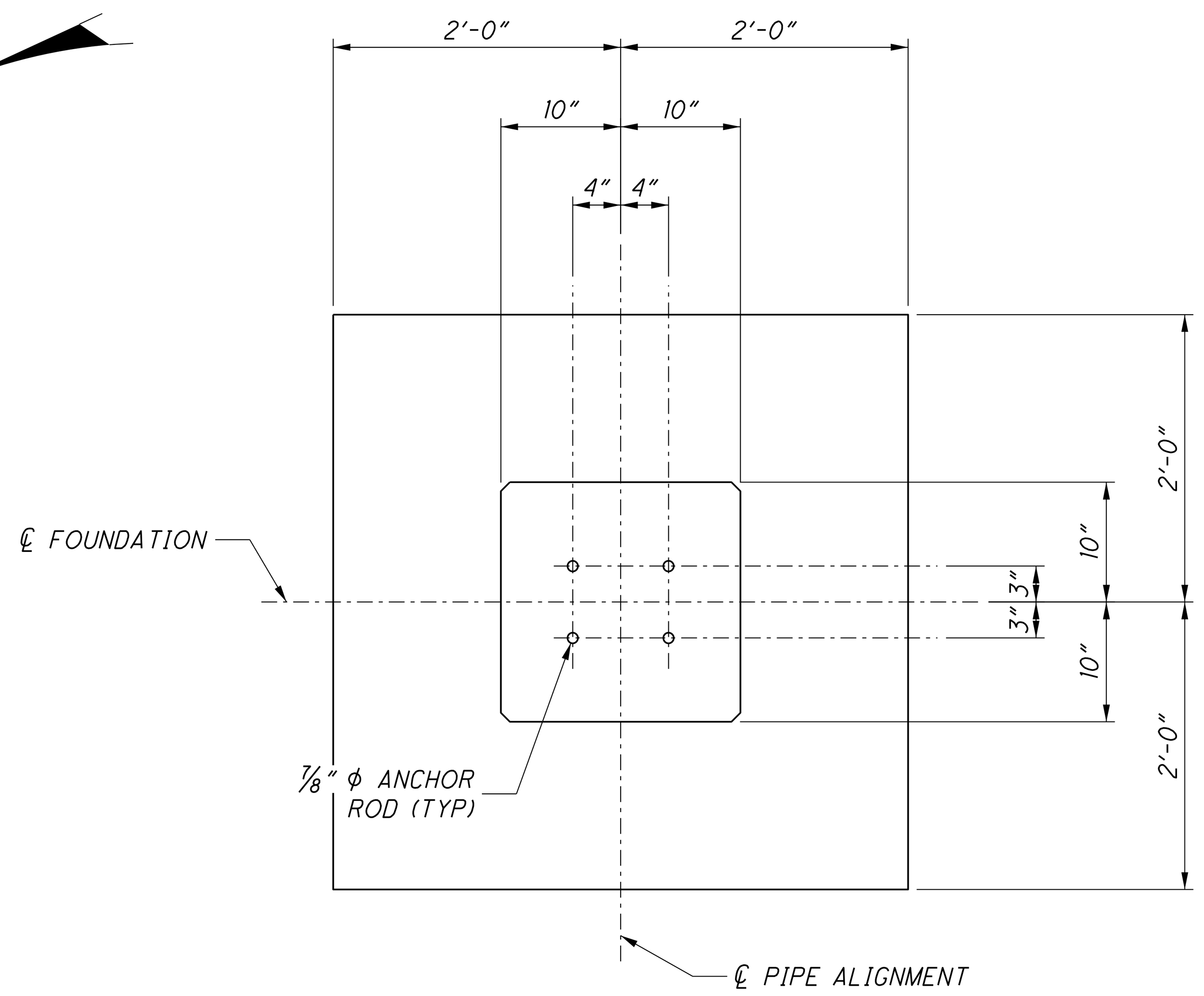
Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com
1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

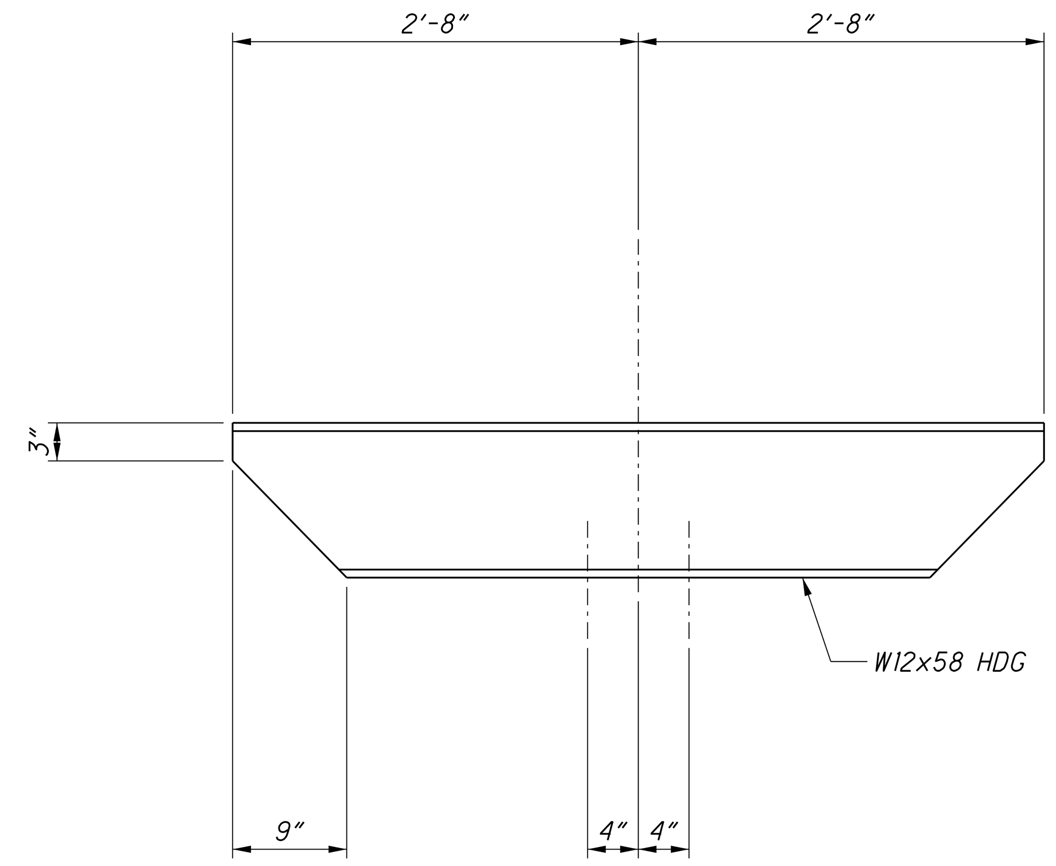
MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

BUILDING FOUNDATION DETAILS



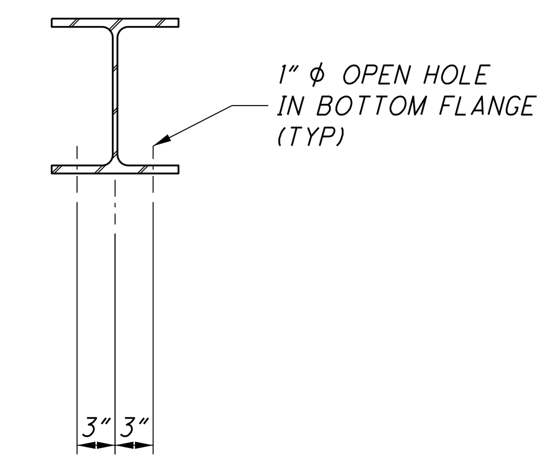
PIPE SUPPORT PLAN

SCALE 1" = 1'-0"



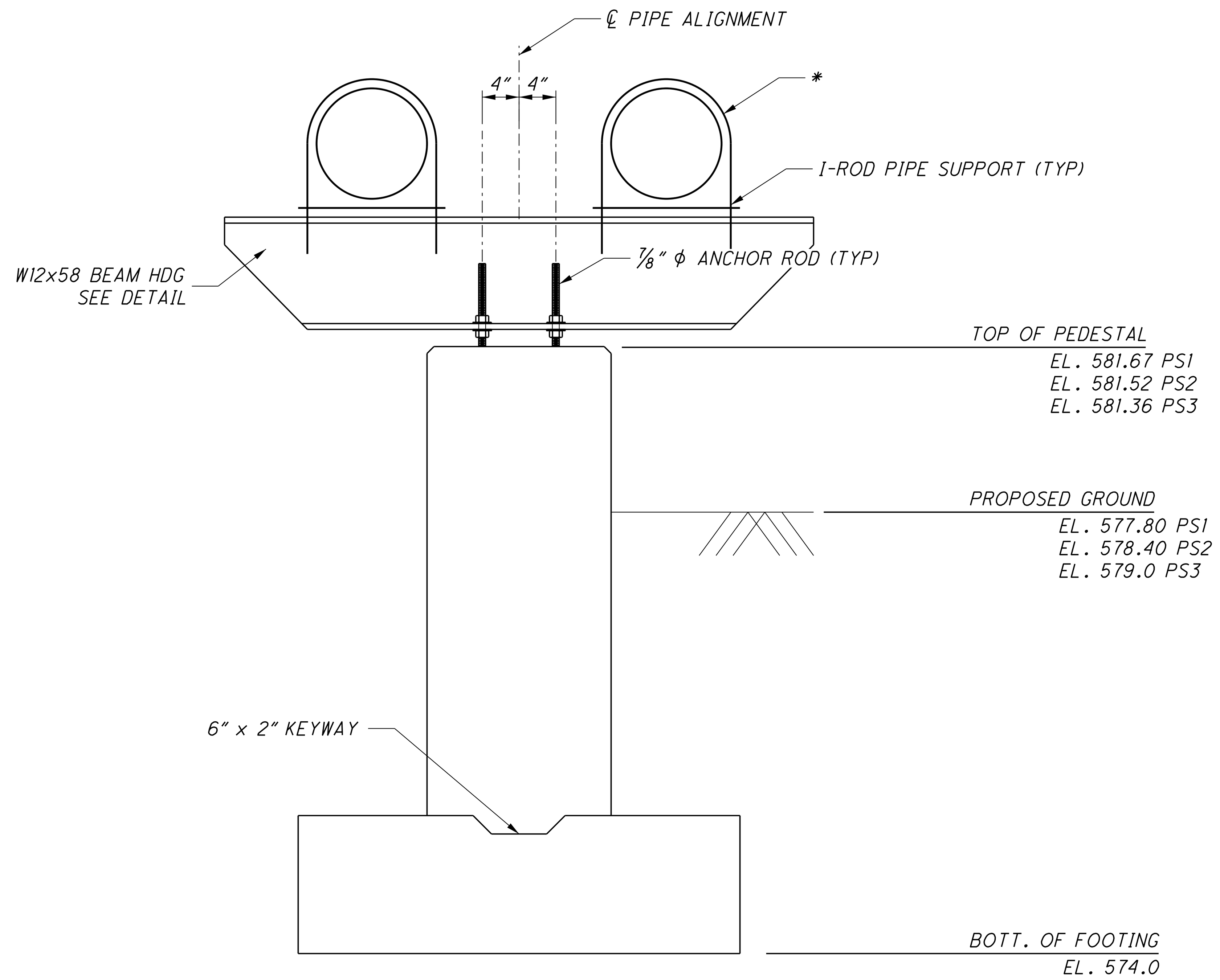
BEAM DETAIL

SCALE 1" = 1'-0"



BEAM SECTION

SCALE 1" = 1'-0"



PIPE SUPPORT ELEVATION

SCALE 1" = 1'-0"

* ⅝"ϕ PIPE CLAMP WITH 2-FLATWASHERS, 2-SPLIT RING LOCKWASHERS, AND 4 HEAVY HEX HEAD NUTS, TYP, HOT DIP GALVANIZE.

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com
1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

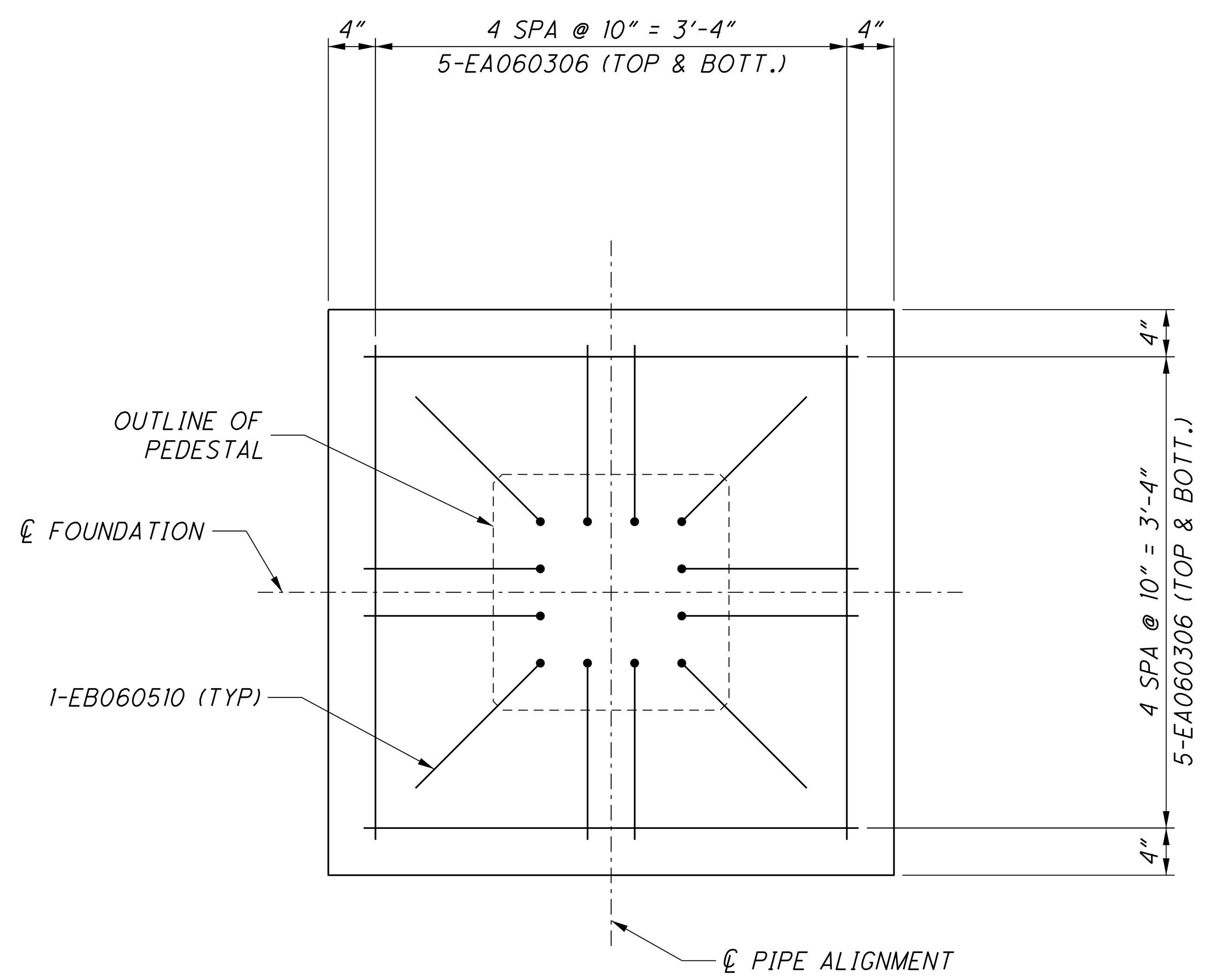
PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

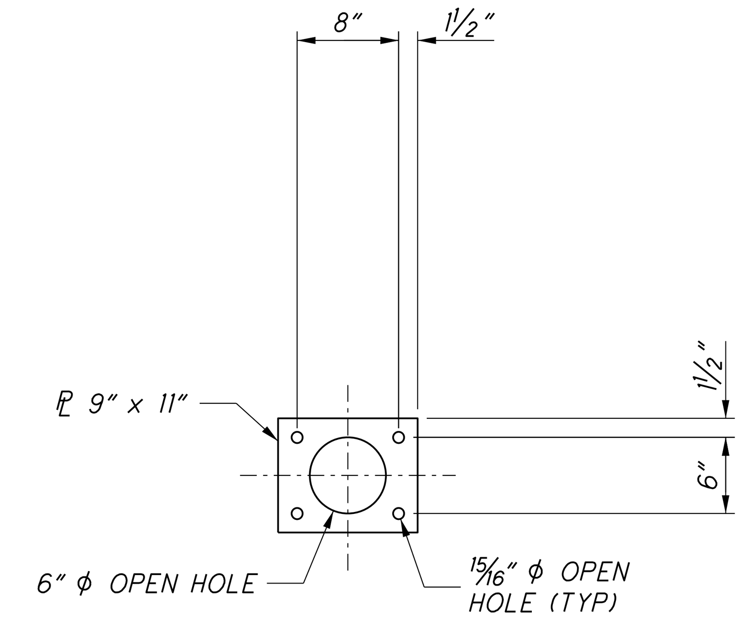
PIPE SUPPORT DETAILS

\\MSGFILESRV\MSGData\Projects\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_55_Pipe_Support_Details.dgn
5/31/2022



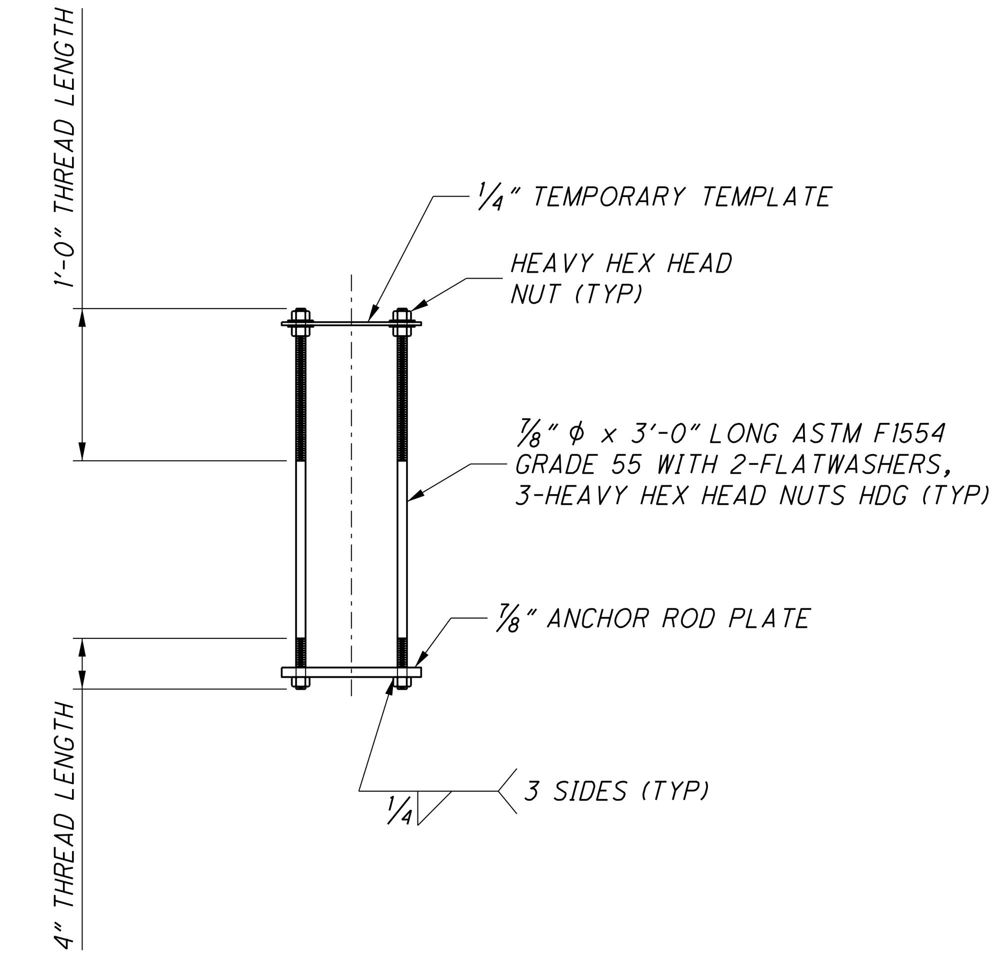
PIPE SUPPORT FOUNDATION PLAN

SCALE 1" = 1'-0"



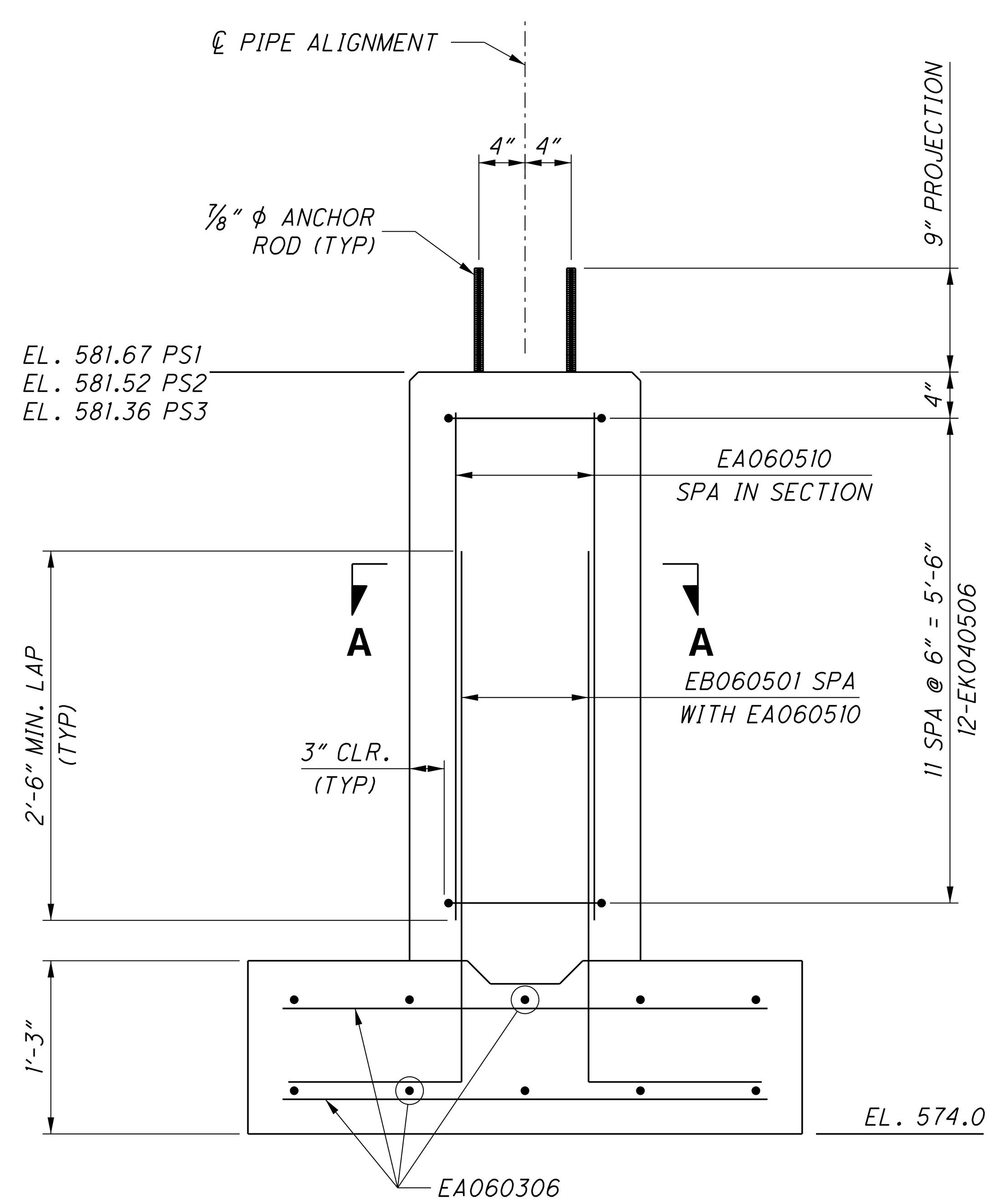
ANCHOR ROD PLATE AND TEMPLATE

SCALE 1" = 1'-0"



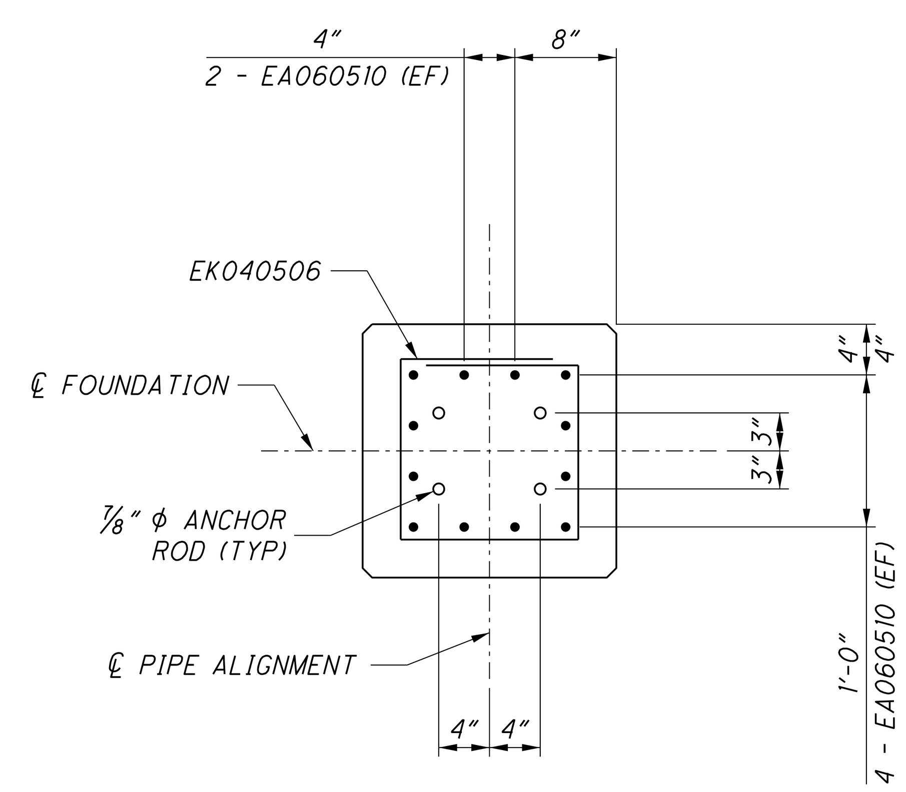
ANCHOR ROD ASSEMBLY

SCALE 1" = 1'-0"



PIPE SUPPORT ELEVATION

SCALE 1" = 1'-0"
SHOWING REINFORCEMENT



SECTION A-A

SCALE 1" = 1'-0"

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

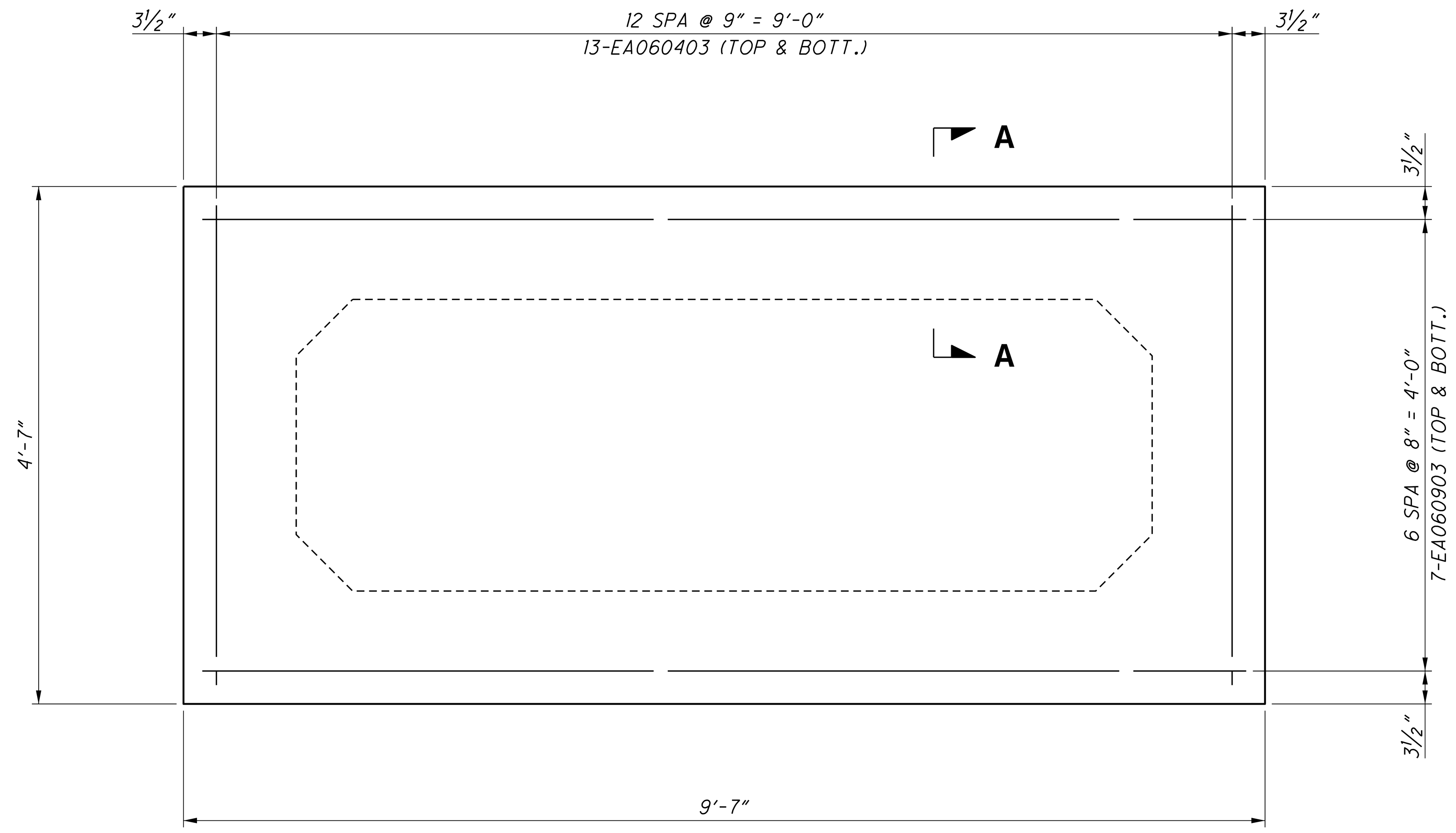
PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

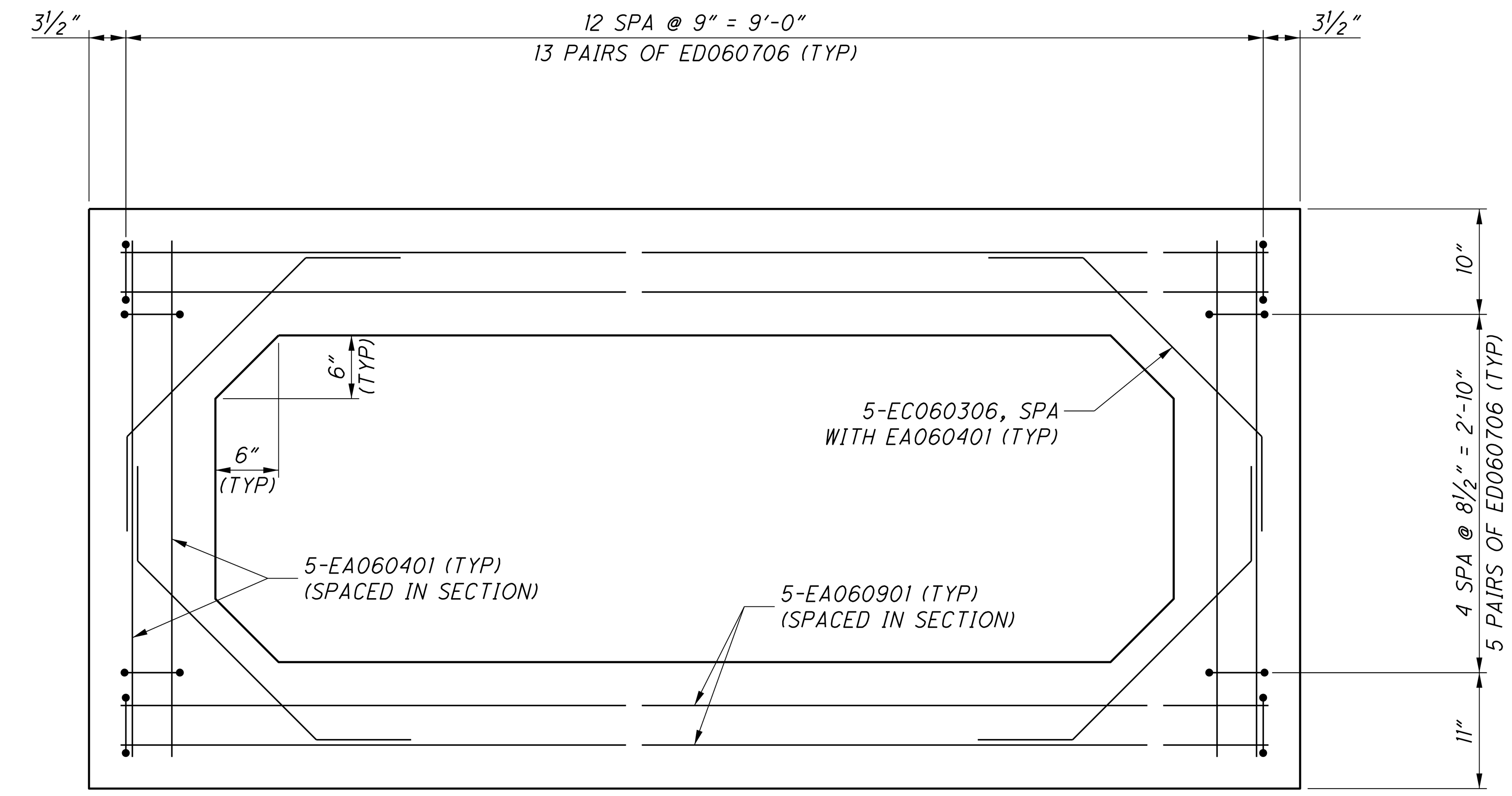
MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

PIPE SUPPORT DETAILS



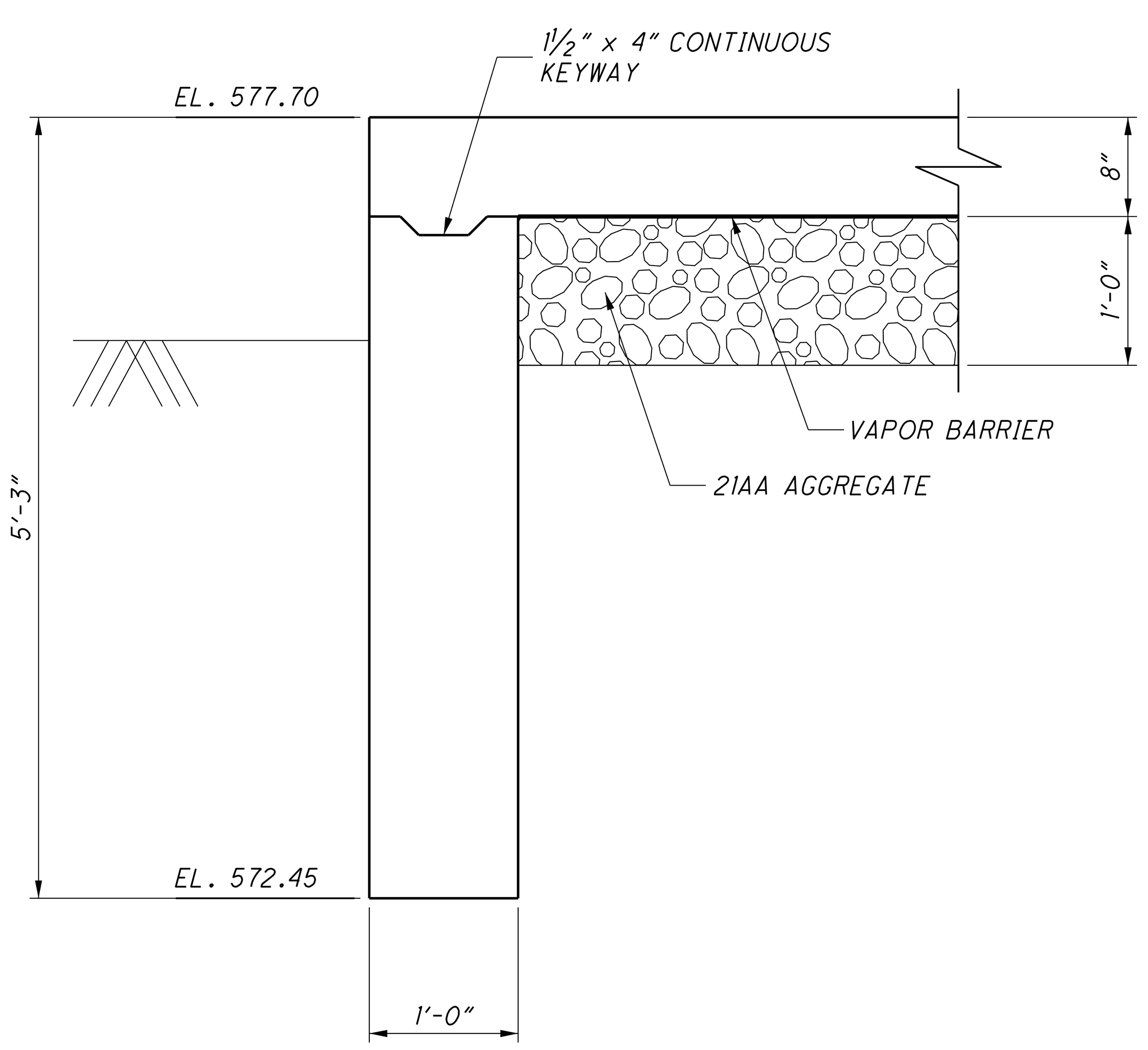
PLAN

SCALE 1" = 1'-0"



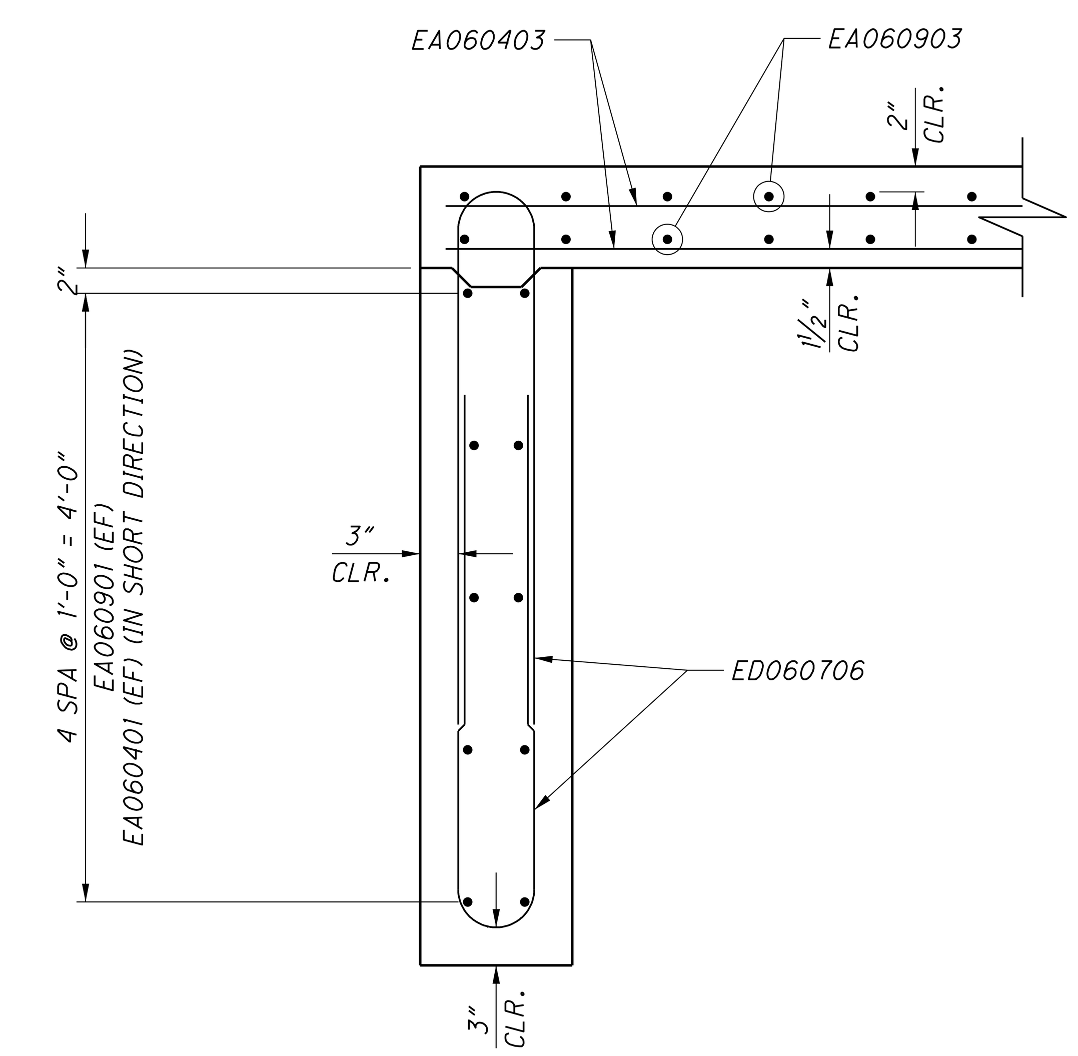
FOUNDATION PLAN

SCALE 1" = 1'-0"



SECTION A-A

SCALE 1" = 1'-0"



SECTION A-A

SCALE 1" = 1'-0"
SHOWING REINFORCEMENT

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL 734-289-2200
FAX 734-289-2345

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

GENERATOR PAD DETAILS

5/31/2022
\\MSGFILESRV\MSGData\Projects\Projects K-O\MCDC0095\CAD\SHEETS\MCDC0095_57_Generator_Pad_Details.dgn

FOOTINGS

BAR	a	b	c	d	e	f	g	h	j	NO REQ'D	TOTAL WT.
EA082000	20'-0"									66	3524
EA082106	21'-6"									208	11940
EB080500	3'-6"	1'-6"								66	881
EB080610	5'-4"	1'-6"								66	1204
EB080809	7'-3"	1'-6"								118	2757
EB080900	7'-6"	1'-6"								106	2547
										SUBTOTAL	22853

WALLS

BAR	a	b	c	d	e	f	g	h	j	NO REQ'D	TOTAL WT.
EA060700	7'-0"									8	84
EA060704	7'-4"									2	22
EA060707	7'-7"									4	46
EA060807	8'-7"									4	52
EA061004	10'-4"									2	31
EA061006	10'-6"									4	63
EA061107	11'-7"									4	70
EA061802	18'-2"									24	655
EA062201	22'-1"									92	3052
EA062202	22'-2"									20	666
EA062602	26'-2"									98	3852
EB060707	6'-0"	1'-7"								25	285
EB060801	6'-0"	2'-1"								5	61
EB060808	6'-0"	2'-8"								36	469
EB060810	6'-0"	2'-10"								8	107
EB061002	6'-0"	4'-2"								36	550
EB061004	6'-0"	4'-4"								8	125
EB061103	6'-0"	5'-3"								8	135
EB061200	6'-0"	6'-0"								188	3389
EA080701	7'-1"									8	151
EA080703	7'-3"									8	155
EA080708	7'-8"									8	164
EA081806	18'-6"									210	10373
EA083506	35'-6"									132	12512
EB080906	6'-0"	3'-6"								24	609
EB081100	5'-6"	5'-6"								66	1938
EB081200	6'-0"	6'-0"								330	10573
										SUBTOTAL	50189

ROOF

BAR	a	b	c	d	e	f	g	h	j	NO REQ'D	TOTAL WT.
EM040405	10"	1'-1 1/2"	10"	1'-1 1/2"	0'-3"	0'-3"				45	133
EM040501	1'-2"	1'-1 1/2"	1'-2"	1'-1 1/2"	0'-3"					52	177
EM040709	3'-7"	1'-1 1/2"	3'-7"	1'-1 1/2"	0'-3"	0'-3"				30	199
EA060106	1'-6"									34	77
EA060107	1'-7"									18	43
EA060209	2'-9"									4	17
EA060300	3'-0"									8	36
EA060402	4'-2"									72	487
EA060403	4'-3"									16	103
EA060406	4'-6"									2	14
EA060500	5'-0"									30	226
EA060507	5'-7"									4	34
EA060609	6'-9"									12	122
EA060807	8'-7"									26	336
EA061106	11'-6"									26	449
EA061301	13'-1"									30	590
EA061806	18'-6"									90	2501
EA063506	35'-6"									20	1066
EA071806	18'-6"									6	167
										SUBTOTAL	6777

CATCHMENT WALL

BAR	a	b	c	d	e	f	g	h	j	NO REQ'D	TOTAL WT.
EA060700	7'-0"									10	105
EA061410	14'-10"									21	468
EC060811	0'-0"	6'-3"	0'-5 1/2"	2'-8"	2'-8"	0'-0"	0'-0"			23	308
EC060909	0'-0"	6'-8"	0'-6 1/2"	3'-0 1/2"	3'-1"	0'-0"	0'-0"			23	337
EU060511	0'-6"	4'-7"	0'-9 1/2"	0'-6"	0'-2 1/4"					52	462
EU060700	0'-6"	5'-8"	0'-9 1/2"	0'-6"	0'-2 1/4"					10	105
										SUBTOTAL	1785

PUMP BASE

BAR	a	b	c	d	e	f	g	h	j	NO REQ'D	TOTAL WT.
EA060310	3'-10"									6	35
EA060406	4'-6"									3	20
EA060508	5'-8"									9	77
EA060804	8'-4"									6	75
EA061700	17'-0"									7	179
EB060306	2'-4"	1'-2"								24	126
EC060800	2'-5 3/4"	1'-0"	2'-5 3/4"	2'-5 3/4"	3'-6"	2'-5 3/4"	3'-6"			4	48
ED060503	2'-4"	0'-7"	2'-4"							3	24
										SUBTOTAL	584

PUMP WALLS

BAR	a	b	c	d	e	f	g	h	j	NO REQ'D	TOTAL WT.
EA060304	3'-4"									4	20
EA060404	4'-4"									4	26
EA060504	5'-4"									4	32
EA060706	7'-6"									10	113
EA061800	18'-0"									2	54
EB060304	1'-8"	1'-8"								2	10
EB060306	2'-6"	1'-0"								8	42
EB060500	2'-6"	2'-6"								4	30
EC060402	1'-5"	1'-2"	0'-0"	1'-0"	1'-0"	1'-5"	2'-0"			10	63
EC060605	2'-0"	3'-7"	0'-0"	0'-0"	0'-0"	2'-0"	2'-10"			8	77
ED060203	0'-10"	0'-7"	0'-10"							1	3
ED060311	1'-8"	0'-7"	1'-8"							1	6
ED060403	1'-10"	0'-7"	1'-10"							1	6
ED060410	0'-10"	3'-2"	0'-10"							2	15
ED060507	2'-6"	0'-7"	2'-6"							2	17
ED060603	2'-10"	0'-7"	2'-10"							1	9
ED060610	1'-10"	3'-2"	1'-10"							2	21
ED060800	2'-0"	4'-0"	2'-0"							8	96
ED060810	2'-10"	3'-2"	2'-10"							2	27
										SUBTOTAL	667

GENERATOR PAD

BAR	a	b	c	d	e	f	g	h	j	NO REQ'D	TOTAL WT.
EA060401	4'-1"									20	123
EA060403	4'-3"									26	166
EA060901	9'-1"									20	273
EA060903	9'-3"									14	195
EC060306	0'-6 3/8"	2'-0"	0'-6 3/8"	0'-6 3/8"	0'-9"	0'-6 3/8"	0'-9"			20	105
ED060706	3'-6"	0'-6"	3'-6"							72	811
										SUBTOTAL	1673

BUILDING FOUNDATION

BAR	a	b	c	d	e	f	g	h	j	NO REQ'D	TOTAL WT.
EB040404	1'-8"	8"								28	81
EB040504	2'-0"	3'-3"								28	100
ED040507	2'-7"	0'-4 3/4"	2'-7"							10	38
EK040206	0'-7"	0'-5"	0'-5"	0'-6"						34	57
EA050200	2'-0"									24	50
EA050806	8'-6"									24	213
EA051806	18'-6"									56	1081
ED050401	1'-10"	0'-4 3/4"	1'-10"							10	43
ED050705	3'-6"	0'-4 3/4"	3'-6"							48	371
ED051105	5'-6"	0'-4 3/4"	5'-6"							48	572
EA060206	2'-6"									104	391
EA060906	9'-6"									20	285
EA062008	20'-8"									20	621
										SUBTOTAL	3903

PIPE SUPPORTS

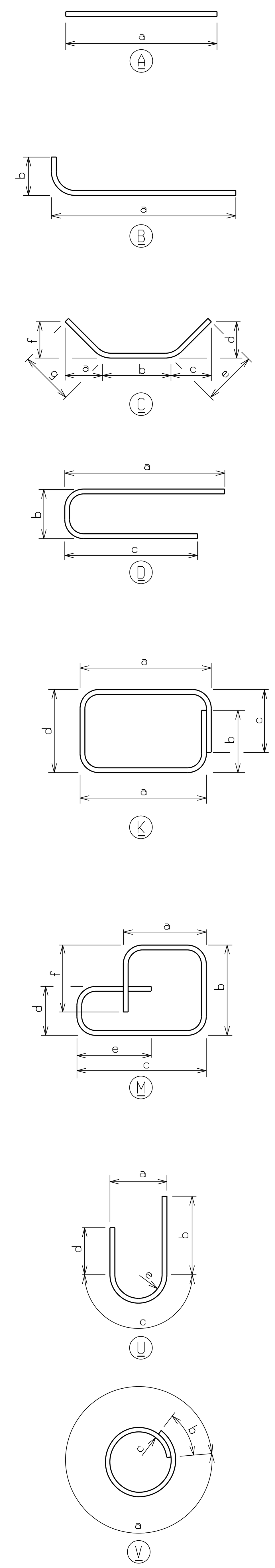
BAR	a	b	c	d	e	f	g	h	j	NO REQ'D	TOTAL WT.
EK040506	1'-2"	1'-0"	1'-0"	1'-2"						36	298
EA060306	3'-6"									60	315
EA060510	5'-10"									36	316
EB060501	3'-10"	1'-3"								36	275
										SUBTOTAL	1204

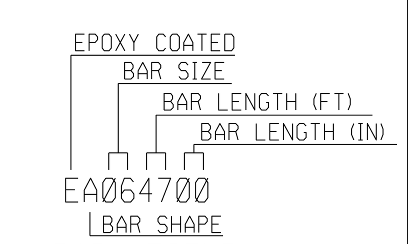
STAIR FDN

BAR	a	b	c	d	e	f	g	h	j	NO REQ'D	TOTAL WT.
EA060306	3'-6"									36	132
EV040400	2'-6"	1'-6"	5"							42	113
										SUBTOTAL	245

STAIR PLATFORM

BAR	a	b	c	d	e	f	g	h	j	NO REQ'D	TOTAL WT.
EA040208	2'-8"									2	4
EA040608	6'-8"									1	5
EA040802	8'-2"									1	6
ED040208	1'-0"	8"	1'-0"							7	13
ED040308	1'-0"	8"	1'-0"							7	15
EA050304	3'-4"									52	182
EB050300	2'-8"	4"								7	22
EB050804	7'-8"	8"								7	65
EC050400	1'-5"	2'-6"				6"	1'-6"			7	30
ED051108	2'-6"	6'-8"	2'-6"							7	86
										SUBTOTAL	428





BAR LEGEND

NOTES

1. REINFORCEMENT SHALL BE BUNDLED AND TAGGED AS TO THE LOCATION AS SHOWN ON THIS SHEET.
2. BAR DIMENSIONS ARE TO THE OUTSIDE FACE OF THE BAR.

NO.	DATE	BY	DESCRIPTION
1	6/1/2022	CBJ	BID PLAN SET

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com
1771 NORTH DIXIE HIGHWAY
MONROE, MI 48162
TEL: 734-289-2200
FAX: 734-289-2345

PROJECT DATE: 6/1/2022
PROJECT NO.: MCDC0095
DRAWN BY: CBJ
CHECKED BY: CMZ

PREPARED FOR:
MONROE COUNTY DRAIN COMMISSIONER
1005 S. RAISINVILLE ROAD
MONROE, MICHIGAN 48161

MONROE CONSOLIDATED DRAIN
MONROE CHARTER TOWNSHIP

STEEL REINFORCEMENT SCHEDULE