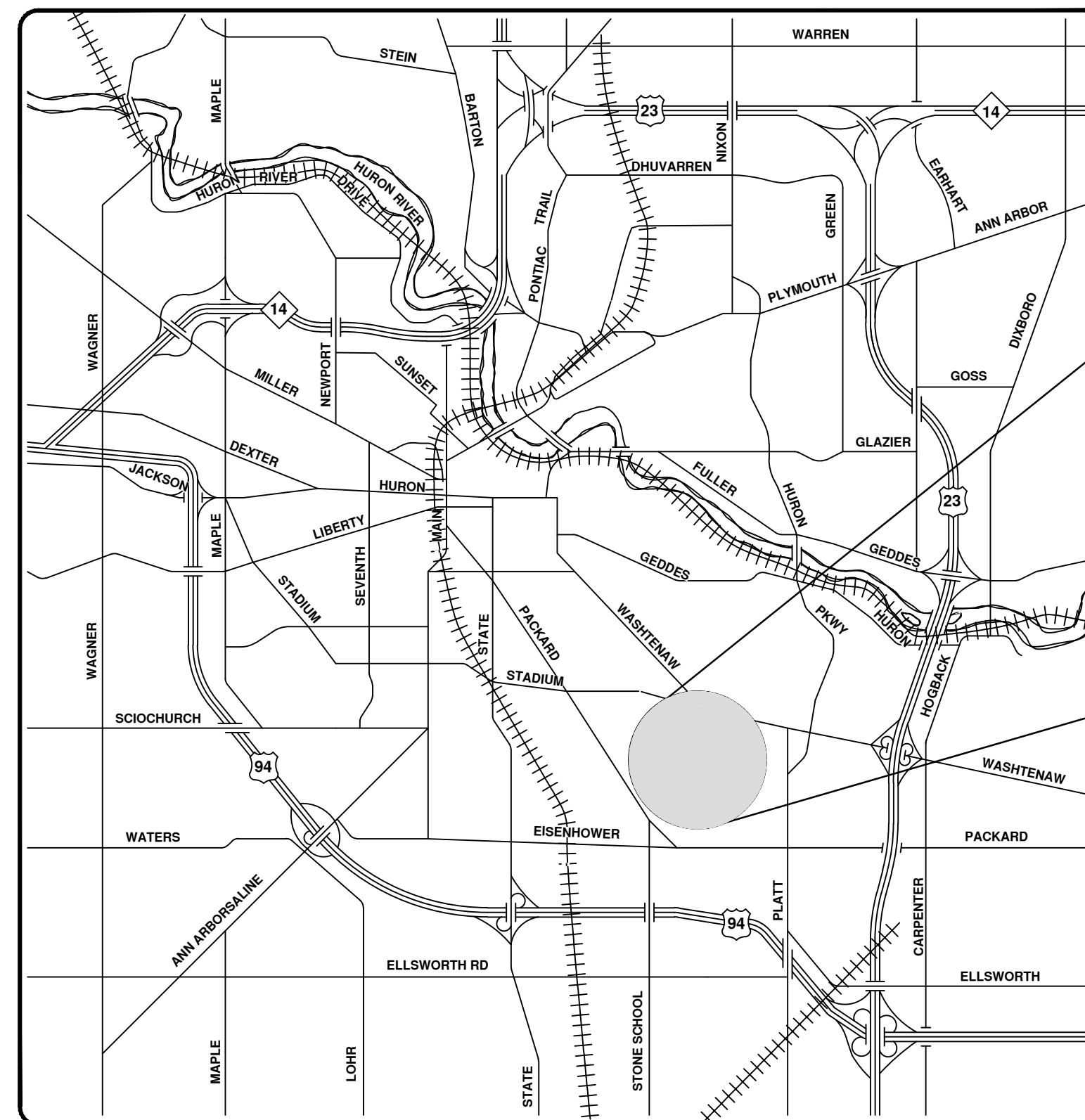




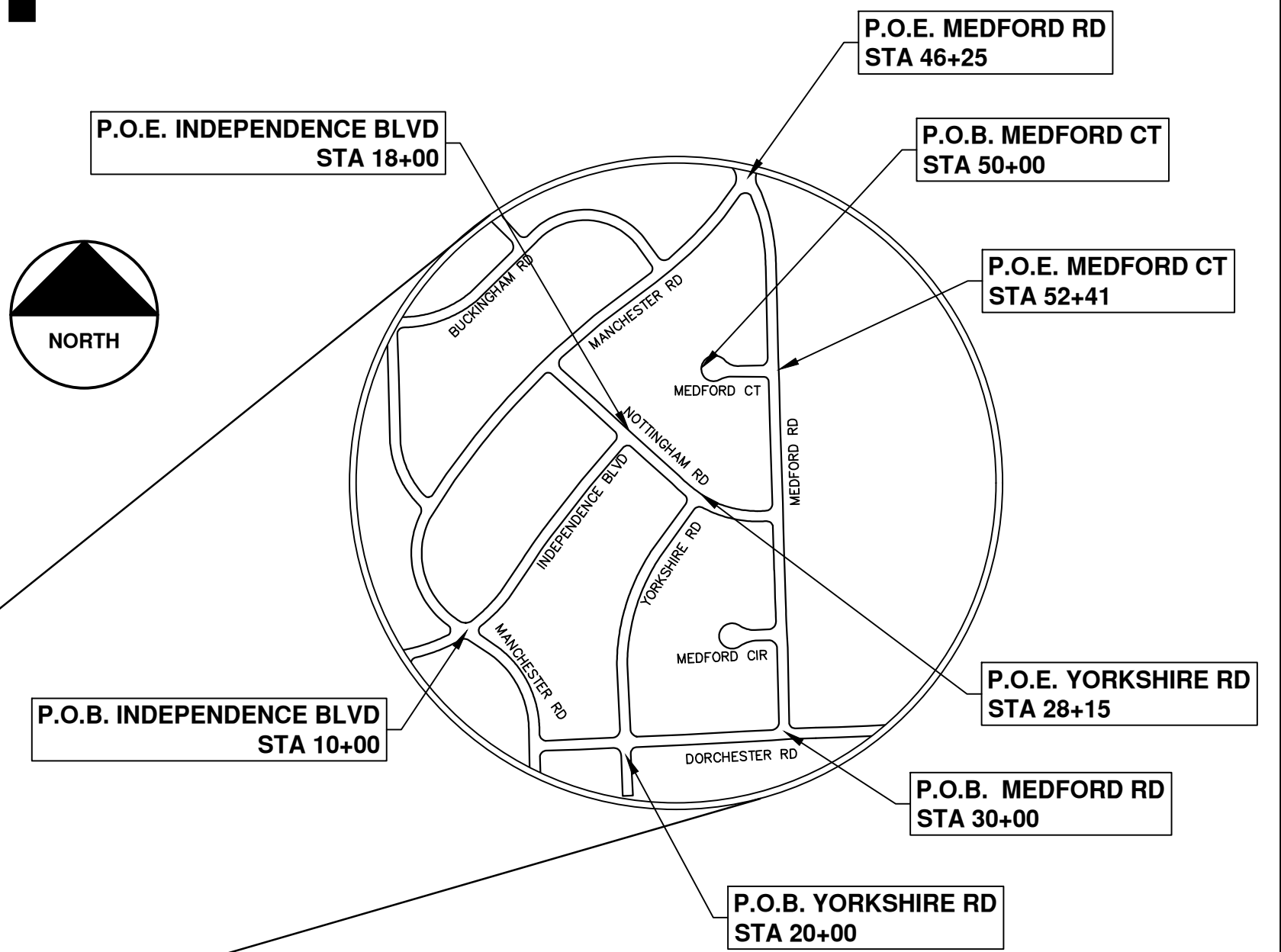
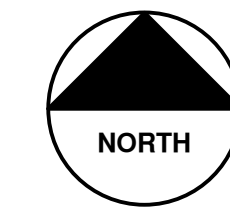
CITY OF ANN ARBOR ENGINEERING

YORKSHIRE, INDEPENDENCE, & MEDFORD WATER MAIN REPLACEMENT PROJECT

RFQ No. 24-17, File No. 2023-24



VICINITY MAP



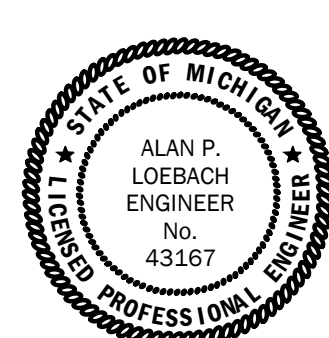
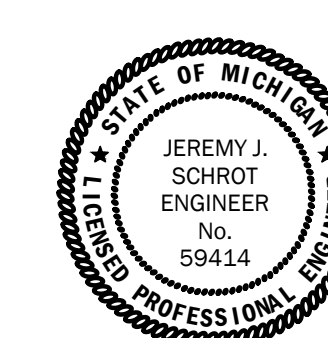
NOTES:


FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174 OF 2013, THE CONTRACTOR SHALL CALL 811 OR 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS, PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

THE UNDERGROUND LOCATIONS SHOWN FOR NATURAL GAS, TELEPHONE, ELECTRICAL POWER, CABLE TV AND FIBER OPTIC LINES ARE APPROXIMATE. THE CITY OF ANN ARBOR ASSUMES NO RESPONSIBILITY FOR THEIR ACCURATE REPRESENTATION IN THIS DRAWING. MISS DIG MUST BE CONTACTED PRIOR TO CONSTRUCTION TO LOCATE THESE UTILITIES.

THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO THE 1994 EDITION OF THE CITY OF ANN ARBOR PUBLIC SERVICES DEPARTMENT STANDARD SPECIFICATIONS, ITS DETAILS, WHICH ARE INCLUDED BY REFERENCE, AND THIS PROJECT'S CONTRACT DOCUMENTS. THE OMISSION OF ANY CURRENT STANDARD DETAIL DOES NOT RELIEVE THE CONTRACTOR FROM THIS REQUIREMENT.

Sheet Number	Sheet Title
1	COVER SHEET
2	GENERAL NOTES
3	LEGEND
4	EXISTING STRUCTURE TABLES
5	ALIGNMENT SHEET - 1
6	ALIGNMENT SHEET - 2
7	ALIGNMENT SHEET - 3
8	TYPICAL SECTIONS - 1
9	TYPICAL SECTIONS - 2
10	TYPICAL SECTIONS - 3
11	TYPICAL SECTIONS - 4
12	REMOVAL PLAN - INDEPENDENCE BLVD STA 10+00 TO STA 18+00
13	WATER MAIN PLAN & PROFILE - INDEPENDENCE BLVD STA 10+00 TO 14+25
14	CONSTRUCTION PLAN - INDEPENDENCE BLVD STA 10+00 TO 14+25
15	PROFILE SHEET - INDEPENDENCE BLVD STA 10+00 TO 14+25
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17	CONSTRUCTION PLAN - INDEPENDENCE BLVD STA 14+25 TO 18+00
18	PROFILE SHEET - INDEPENDENCE BLVD STA 14+25 TO 18+00
19	REMOVAL PLAN - YORKSHIRE RD STA 20+00 TO 28+15
20	WATER MAIN PLAN & PROFILE - YORKSHIRE RD STA 20+00 TO 24+50
21	CONSTRUCTION PLAN - YORKSHIRE RD STA 20+00 TO 24+50
22	PROFILE SHEET - YORKSHIRE RD STA 20+00 TO 24+50
23	WATER MAIN PLAN & PROFILE - YORKSHIRE RD STA 24+50 TO 28+15
24	CONSTRUCTION PLAN - YORKSHIRE RD STA 24+50 TO 28+15
25	PROFILE SHEET - YORKSHIRE RD STA 24+50 TO 28+15
26	REMOVAL PLAN - MEDFORD RD STA 30+00 TO 38+50
27	REMOVAL PLAN - MEDFORD RD STA 38+50 TO 46+25
28	WATER MAIN PLAN & PROFILE - MEDFORD RD STA 34+50 TO 38+50
29	CONSTRUCTION PLAN - MEDFORD RD STA 34+50 TO 38+50
30	PROFILE SHEET - MEDFORD RD STA 34+50 TO 38+50
31	WATER MAIN PLAN & PROFILE - MEDFORD RD STA 38+50 TO 42+50
32	CONSTRUCTION PLAN - MEDFORD RD STA 38+50 TO 42+50
33	PROFILE SHEET - MEDFORD RD STA 38+50 TO 42+50
34	WATER MAIN PLAN & PROFILE - MEDFORD RD STA 42+50 TO 46+25
35	CONSTRUCTION PLAN - MEDFORD RD STA 42+50 TO 46+25
36	PROFILE SHEET - MEDFORD RD STA 42+50 TO 46+25
37	REMOVAL PLAN - MEDFORD CT STA 50+00 TO STA 52+41
38	WATER MAIN PLAN & PROFILE - MEDFORD CT STA 50+00 TO STA 52+41
39	CONSTRUCTION PLAN - MEDFORD CT STA 50+00 TO STA 52+41
40	DETAIL GRADING - INDEPENDENCE BLVD
41	DETAIL GRADING - YORKSHIRE RD
42	DETAIL GRADING - MEDFORD RD
43	DETAIL GRADING - MEDFORD CT
44	PAVEMENT MARKINGS - 1
45	PAVEMENT MARKINGS - 2
46	DETOUR PLAN
47	DETAIL SHEET - CONCRETE SPEED HUMP

PREPARED UNDER THE SUPERVISION OF		CITY APPROVAL	
 ALAN LOEBACH, P.E. PROJECT MANAGER		 JEREMY J. SCHROT ENGINEER No. 59414	
3 / 7 / 2024 DATE		3 / 7 / 2024 DATE	

 Know what's below. Call before you dig.	
CITY OF ANN ARBOR PUBLIC SERVICES 301 EAST HURON STREET P.O. BOX 8647 ANN ARBOR MI 48106-8647 www.aagov.org	CITY OF ANN ARBOR PUBLIC SERVICES 301 EAST HURON STREET P.O. BOX 8647 ANN ARBOR MI 48106-8647 www.aagov.org
CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING WATER MAIN REPLACEMENT AND ROADWAY CONSTRUCTION ON INDEPENDENCE BLVD, YORKSHIRE RD, MEDFORD RD AND MEDFORD CT	CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING WATER MAIN REPLACEMENT AND ROADWAY CONSTRUCTION ON INDEPENDENCE BLVD, YORKSHIRE RD, MEDFORD RD AND MEDFORD CT
SCALE DRAWING No. 2023-24-1	SHEET No. 1 OF 47

J:\AA\Design\AA23005 - YIM Water Main Replacement\Ann Arbor Cads\Plan Production\AA23005_NOT.dwg - _a2_standard bw.stb - Plot Date: 3/7/2024 12:21:24 PM

CONSTRUCTION NOTES:

- Driveways and entrances to buildings, real property, and the like shall not be blocked except for short durations and only when approved by the Engineer. Vehicular and pedestrian access shall be maintained at all times. It shall be the Contractor's responsibility to coordinate all necessary driveway closures with the property owner(s) and resident(s) in the areas of construction.
- The location and depth of all existing utilities and service leads are to be field verified by the Contractor prior to construction.
- Location and depth of utilities as depicted on the plans is approximate and shown according to the best information available. It is the Contractor's responsibility to excavate ahead and adjust depth of conflict utilities accordingly. Any damage to utilities is the Contractor's responsibility to avoid and/or repair as necessary.
- The Contractor is to take special care to protect the existing water main and be responsible for maintaining consistent water service.
- During non-working hours no trench shall remain open; any open trench shall be properly secured with protective fencing. This work shall be included in the item of work "General Conditions".
- Trenches for new water services shall be excavated to MIOSHA and City of Ann Arbor Public Works requirements.
- City of Ann Arbor Public Works will install the corporation and copper service lead(s) to transfer the connection(s). If an existing water service is found to be failing or is not copper, the lead will be replaced to the curb box by Public Works.
- For the installation of corporations, or any other related activities, the Contractor shall not receive additional compensation for delays due to the scheduling of or coordination with the City of Ann Arbor Public Works.
- The Contractor shall backfill trenches in accordance with Trench Detail specified on plans. This work shall be included in the item of work "Excavate and Backfill for Water Service Tap and Lead". All concrete removals and replacements required for this work will be paid for separately.
- All ductile iron pipe and fittings shall be polyethylene wrapped per ANSI/AWWA C105/A21.5.
- Cor-blw bolts to be used at all mechanical water main joints at hydrants and Megalug fittings
- The Contractor shall construct, flush, and bacteriologically test the water main per Detailed Specification "Water Main Installation and Testing" and as approved by the Engineer. All chlorinated water shall be discharged directly into an approved sanitary sewer. The Contractor shall supply all necessary hoses, fittings and the like to accomplish this work.
- Water main fittings, other than those specifically listed as separate pay items, which are required to complete the work, such as blow-off assemblies, concrete thrust blocks, solid sleeves and mechanical plugs, shall not be paid for separately, but shall be included in the pipe pay items.
- "No Parking" signs shall be installed by the Contractor at locations as approved or directed by the Engineer. All signs shall be installed in accordance with the detailed specifications.
- Postal delivery and refuse pickup service shall be maintained at all times by the Contractor.
- All fittings, hydrants, valves and castings removed during construction are the property of the City of Ann Arbor. The Contractor within 48 hours shall deliver to City of Ann Arbor Public Works Facility at the W.R. Wheeler Service Center located at 4251 Stone School Road.
- Where street curbs are undetermined due to construction activities, they shall be removed and replaced as directed by the Engineer.
- The Contractor shall be responsible for the continuous maintenance of the temporary road surface and soil erosion control measures within the construction area until the full completion of the project. This work shall be included in the item of work "General Conditions".
- All curb, sidewalk, driveway approach removals shall be approved by Engineer before the work is done.
- Sawed sewer pipe connections shall be coupled with a Fernco flexible coupling and a stainless steel shear ring.
- The location of material stock piles and on-site staging areas to be approved by the Engineer.
- For mainline paving, the width of the mat for each pass of the paver shall be not less than 10.5' or greater than 15', as directed by the Engineer. The Engineer will direct the layout of the longitudinal joints during construction.
- All structures shall receive new castings as directed by the Engineer, as specified on the standard casting schedule. The existing castings are the property of the City of Ann Arbor. The Contractor shall deliver to City of Ann Arbor Public Works Facility at the W.R. Wheeler Service Center located at 4251 Stone School Road.
- Payment for drainage structure sumps, where specified, shall be included in the payment for the various drainage structure sizes and or types.
- Where sewer pipes of different sizes or materials are joined, Fernco flexible couplings with stainless steel shear rings shall be used. The Contractor's purchase price for these devices, including shipping, shall be paid as an extra. Prior to payment for this item, the Contractor shall submit receipts for the Engineer's review and approval. All other costs associated with the installation of these devices shall be included in the payment for the sewer.
- Where sewer and water main are to be removed & replaced or added, all pipe shall be installed using Trench Detail detailed in the specifications or shown on Plans. Backfill for sewer and water construction shall be MDOT Granular Material, Class II, Modified.
- Existing street name, guide, and regulatory signs, and mailboxes which conflict with the proposed construction shall be removed prior to construction, stored in a manner which will prevent damage, and re-set in locations as directed by the Engineer. This work will not be paid for separately, but shall be included in "Machine Grading, Modified"
- In areas where edge drain cannot be installed in accordance with City of Ann Arbor Detail SD-TD-11, the edge drain shall be installed at the depth as indicated on the plans, or as directed by Engineer. In no case shall the edge drain be installed at a grade less than 0.50% or at a depth of less than 2' below top of proposed pavement.

TEMPORARY SEEDING:

- SEED IN ACCORDANCE WITH PROJECT DRAWINGS AND SPECIFICATIONS.
 - ANY DISTURBED AREA NOT PAVED, SEEDED, MULCHED, SODDED OR BUILT UPON BY NOVEMBER 15TH OR JUNE 30TH IS TO BE TEMPORARILY STABILIZED PER SPECIFICATIONS.
- THE ESTIMATED COST OF SOIL EROSION AND SEDIMENTATION CONTROL MEASURES, TOPSOIL, SEEDING, AND MULCH = \$xxx,xxx
- ESTIMATE OF EXCAVATION AND FILL FROM EXISTING TO FINAL GRADE:
 • EXCAVATION = 6240 CY, FILL = 6799 CY
- ON SITE SOILS PER THE USDA SOIL SURVEY OF WASHTENAW COUNTY, MICHIGAN:
 • Sb - SEBEWA LOAM - IN DEPRESSION AREAS, BROAD LOW-LYING AREA, AND DRAINAGEWAYS OF OUTWASH PLAINS, VALLEY TRAINS, AND TERRACES. SLOPE IS 0% TO 2%
 • FoB - FOX SANDY LOAM - IN UPLAND AREAS AND ON OUT WASH PLAINS, KAMES, VALLEY TRAINS, TERRACES, AND MORAINES. SLOPES ARE UNIFORM OR SHORT AND COMPLEX.
 • MdA - MATHERTON SANDY LOAM - IN DEPRESSION AREAS, BROAD LOW-LYING AREAS, AND ALONG DRAINAGEWAYS, OUTWASH PLAINS, VALLEY TRAINS, AND TERRACES. NEARLY LEVEL TO GENTLY SLOPING.
 • MfA - METAMORA SANDY LOAM - IN DEPRESSION AREAS, BROAD, LOW-LYING AREAS, AND ALONG DRAINAGEWAYS OF TILL PLAINS AND MORAINES.
 • NaB - NAPPANEE SILTY CLAY LOAM - ON FOOT SLOPES AND ALONG DRAINAGEWAYS OF TILL PLAINS, MORAINES, AND LAKE PLAINS. NEARLY LEVEL TO GENTLY SLOPING.

TOTAL AREA OF PROPOSED DISTURBANCE = 3.37 AC	
0.73 AC	- INDEPENDENCE BLVD
0.78 AC	- YORKSHIRE RD
1.60 AC	- MEDFORD RD
0.26 AC	- MEDFORD CT

CITY OF ANN ARBOR STANDARDS USED	
DRAWING NO.	SHEET TITLE
SD-GU-1	STANDARD CASTING SCHEDULE
SD-GU-2	SPECIAL STRUCTURE COVER WATER
SD-GU-3	SPECIAL STRUCTURE COVER STORM
SD-GU-4	SPECIAL STRUCTURE COVER SANITARY
SD-GU-5	MANHOLE CASTING ADJUSTMENT
SD-GU-6	VALVE AND MONUMENT BOX ADJUST
SD-GU-7	MANHOLE AND VALVE/MONUMENT BOX LOWERING
SD-GU-8	STRUCTURE PLATE
SD-W-1	FIRE HYDRANT ASSEMBLY
SD-W-2	THRUST BLOCK
SD-W-3	PRECAST GATE WELL
SD-W-7	POLYETHYLENE ENCASUREMENT
SD-CG-1	BARRIER CURB AND GUTTER
SD-DS-1	TYPE M DRIVE APPROACH
SD-DS-4	SIDEWALK AND CURB & GUTTER JOINTS
SD-DS-5	SIDEWALK CROSS SECTION
SD-SESC-1	INLET PROTECTION
SD-SESC-3	SILT FENCE
SD-SESC-4	MULCH BLANKET
SD-SESC-6	STANDARD SESC NOTES
SD-SESC-7	SEQUENCE OF SESC MEASURES
SD-TD-1	UTILITY TRENCH - TYPE 1
SD-TD-3.1	UTILITY TRENCH SURFACE RESTORATION
SD-TD-4	TYPICAL EDGE DRAIN TRENCH
MDOT STANDARDS USED	
DRAWING NO.	SHEET TITLE
R-15-G	COVER K
R-18-F	COVER Q
R-28-K	CURB RAMP AND DETECTABLE WARNING DETAILS
R-29-J	DRIVEWAY OPENINGS & APPROACHES, AND CONCRETE SIDEWALK
R-83-C	UTILITY TRENCHES

PERMITS REQUIRED TO BE OBTAINED BY THE CONTRACTOR PRIOR TO THE BEGINNING OF CONSTRUCTION.	
PERMIT	ISSUING AUTHORITY
LANE CLOSURE PERMIT*	CITY OF ANN ARBOR ENGINEERING
"NO PARKING" SIGNS PERMIT*	CITY OF ANN ARBOR ENGINEERING
GRADING/SOIL EROSION & SEDIMENTATION CONTROL PERMIT*	CITY OF ANN ARBOR CUSTOMER SERVICE
RIGHT-OF-WAY PERMIT*	CITY OF ANN ARBOR CUSTOMER SERVICE
* NO COST TO CONTRACTOR	

PERMITS REQUIRED TO BE OBTAINED BY THE CITY OF ANN ARBOR PRIOR TO THE BEGINNING OF CONSTRUCTION.	
PERMIT	ISSUING AUTHORITY
EGLE WATER MAIN CONSTRUCTION PERMIT	MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

CONTACT INFORMATION		
PUBLIC UTILITIES	OWNER	CONTACT
WATER		
SANITARY		
STORM	CITY OF ANN ARBOR PUBLIC WORKS W.R. WHEELER SERVICE CENTER 4251 STONE SCHOOL ROAD ANN ARBOR, MI 48108	(734) 794-6350
FORESTRY		
SIGNS		MARK MORENO (734) 794-6361
SIGNALS		
STREET LIGHTS		
PRIVATE UTILITIES	OWNER	CONTACT
GAS	DTE ENERGY 3150 E. MICHIGAN AVE, YPSILANTI TOWNSHIP, MI 48198	ROBERT CZAPIEWSKI (734) 544-7818
ELECTRIC	DTE ENERGY WESTERN WAYNE SERVICE CENTER 8001 HAGGERTY ROAD BELLEVILLE, MI 48111	ANTHONY IGNASIAK (734) 397-4447
CABLE	COMCAST 27800 FRANKLIN ROAD SOUTHFIELD, MI 48034	RON SOUTHERLAND (313) 999-8300
PHONE	AT&T 550 S. MAPLE ROAD ANN ARBOR, MI 48103	MARC GOODSELL (313) 405-0574
FIBER OPTIC	MCI 2800 N. GLENFILLE ROAD RICHARDSON, TX 75082	DEAN BOYERS (972) 729-6016
FIBER OPTIC	WINDSTREAM 1295 S LINDEN ROAD, SUITE B FLINT, MI 48532	GREG SERICH (810) 244-3500
STREET LIGHTING	DTE ENERGY 8001 HAGGERTY ROAD BELLEVILLE, MI 48111	LANCE ALLEY (734) 397-4188

MISCELLANEOUS OR AS-NEEDED QUANTITIES		
Item	Quantity	Unit
General Conditions, Max. \$114,000.00	1	LS
Project Supervision, Max. \$114,000.00	1	LS
Project Clean-Up and Restoration	1	LS
Digital Audio Visual Coverage	1	LS
Erosion Control, Inlet Protection, Fabric Drop	31	Ea
Erosion Control, Silt Fence	500	Ft
Minor Traffic Control, Max \$91,000.00	1	LS
Traffic Regulator Control	1	LS
Subgrade Undercutting, Type III	100	Cyd
Exploratory Excavation, SD-TD-1, (0-10' Deep)	5	Ea
Embankment, CIP	100	Cyd
6 In., Class 56 DIP w/polywrap, SD-TD-1	20	Ft
8 In., Class 56 DIP w/polywrap, SD-TD-1	50	Ft
12 In., Class 56 DIP w/polywrap, SD-TD-1	20	Ft
6 In. 45' DIP Bend	5	Ea
6 In. 22.5' DIP Bend	10	Ea
8 In. 45' DIP Bend	10	Ea
8 In. 11.25' DIP Bend	10	Ea
Excavate & Backfill For Water Service Tap And Lead	50	Ft
Temporary Water Main Line Stop, 8 In. or less	10	Ea
Conc. Sidewalk, 4 In.	500	Sft
Subbase, CIP	10	Cyd
Aggregate Base, 8 In., 21AA, CIP	300	Syd

PROJECT NAME BENCHMARKS		
BM #	ELEV	DESCRIPTION
100	846.973	SET BENCHTIE IN THE NORTH FACE OF UTILITY POLE WITH LIGHT. LOCATED AT THE SOUTHWEST CORNER OF INDEPENDENCE BOULEVARD AND NOTTINGHAM ROAD.
101	876.857	FOUND NAIL IN THE WEST FACE OF UTILITY POLE WITH LIGHT. LOCATED AT THE SOUTHEAST CORNER OF INDEPENDENCE BOULEVARD AND MANCHESTER ROAD.
110	848.431	SET MAG NAIL IN EAST FACE OF UTILITY POLE. LOCATED ON THE WEST SIDE OF YORKSHIRE ROAD IN FRONT OF HOUSE #2330.
111	862.065	SET MAG NAIL IN THE NORTH FACE OF UTILITY POLE. LOCATED AT THE SOUTHEAST CORNER OF YORKSHIRE ROAD AND DORCHESTER ROAD.
120	843.816	SET MAG NAIL IN THE NORTHEAST FACE OF UTILITY POLE. LOCATED AT THE SOUTHWEST CORNER OF MEDFORD ROAD AND NOTTINGHAM ROAD.
121	871.367	SET MAG NAIL IN THE NORTHEAST FACE OF UTILITY POLE. LOCATED AT THE SOUTHWEST CORNER OF MEDFORD ROAD AND MEDFORD COURT.
122	866.581	FOUND NAIL IN THE SOUTHEAST FACE OF UTILITY POLE WITH LIGHT. LOCATED AT THE NORTHWEST CORNER OF MANCHESTER ROAD AND MEDFORD ROAD.

Know what's below. Call before you dig.

		AL/JS	AL/JS	
		JU/RD/JSA	JU/JAC	
	3/7/2024	10/16/2023		
	FINAL PLAN SUBMITTAL	30% SUBMITTAL		
	2	1		REV.

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
 YORKSHIRE, INDEPENDENCE, & MEDFORD
 WATER MAIN REPLACEMENT PROJECT
 GENERAL NOTES

CITY OF ANN ARBOR PUBLIC SERVICES
 301 EAST HURON STREET
 P.O. BOX 8647
 ANN ARBOR MI 48107-8647
 www.aagov.org

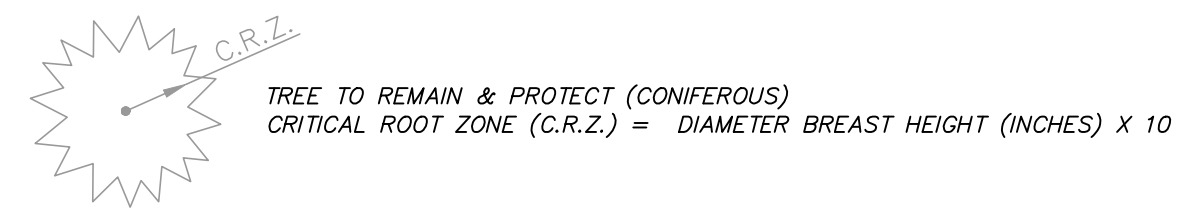
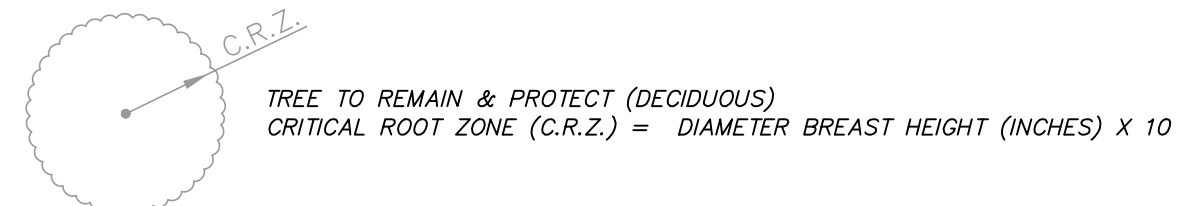
CITY OF ANN ARBOR PUBLIC UTILITIES
 301 EAST HURON STREET
 ANN ARBOR MI 48107-8647
 www.aagov.org

SCALE: NTS
 SHEET No.

DRAWING No.
 2023-24-2

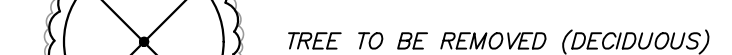
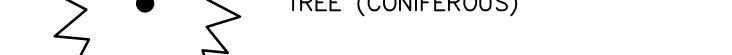
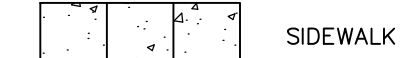
EXISTING LEGEND

EX = EXISTING		
FIRE HYDRANT	WATER MAIN	
GATE VALVE IN BOX	WATER MAIN ABANDONED	
GATE VALVE IN WELL	STORM SEWER	
STOP BOX	STORM SEWER ABANDONED	
WATER VAULT	SANITARY SEWER	
WELL	SANITARY SEWER ABANDONED	
CATCH BASIN (SQ)	GAS MAIN	
CATCH BASIN (RD)	GAS MAIN (DEAD)	
STORM MANHOLE	ELECTRICAL OVER HEAD	
NON-CURB CATCH BASIN (SQ)	ELECTRICAL UNDER GROUND	
END SECTION	ELECTRICAL DUCT BANK	
SANITARY MANHOLE	TELEPHONE OVER HEAD	
CLEAN-OUT	TELEPHONE UNDER GROUND	
POST	TELEPHONE DUCT BANK	
PEDESTRIAN SIGNAL	CABLE TV OVER HEAD	
SIGN	CABLE TV UNDER GROUND	
HAND HOLE	FIBER OPTIC	
ORNAMENTAL LIGHT	FIBER OPTIC DUCT BANK	
FLOOD LIGHT	BOUNDARY	
UNKNOWN MANHOLE	BUILDING	
TELEPHONE MANHOLE	CENTERLINE OF DITCH	
TELEPHONE RISER	CENTERLINE/CROWN OF ROAD	
GAS VALVE	CONTOUR MAJOR	
GAS VENT	CONTOUR MINOR	
GAS BOX	EDGE OF WATER	
ELECTRICAL RISER	FLOODPLAIN	
TRANSFORMER	FENCE	
UTILITY POLE	GRAVEL	
LAMP POLE	GUARDRAIL	
GUY ANCHOR	STONE WALL	
GUY POLE	R.O.W.	
MONITORING WELL	TREELINE	
MAILBOX	WETLAND	
SOIL BORING	EDGE OF BRUSH	
TRAVERSE POINT	HEDGE	
BENCH MARK		
IRON PIPE		
MON BOX		



PROPOSED LEGEND

PROP = PROPOSED		
HYDRANT (PLAN)	WATER MAIN	
WATER GATE WELL	STORM SEWER	
REDUCER	SANITARY SEWER	
WATER GATE VALVE	FIBER OPTIC	
WATER STOP BOX	ELECTRICAL	
WATER VAULT	CENTERLINE OF DITCH	
INLET	CENTERLINE OF ROAD	
DOUBLE INLET	FENCE	
INLET JUNCTION CHAMBER	GRAVEL	
ROUND CATCH BASIN	SILT FENCE	
STORM MANHOLE	PROTECTIVE FENCE	
DRAIN ARROW	GUARDRAIL	
FLARED END SECTION	LOT/JUNIT	
SANITARY MANHOLE	CURB	
CLEAN-OUT	TEMPORARY GRADING PERMIT	
BARREL	CONTOUR MAJOR	
SIGN	CONTOUR MINOR	
PUSH BUTTON	WATER EASEMENT	
HAND HOLE	STORM EASEMENT	
	SANITARY EASEMENT	
	R.O.W.	
	LIMITS OF CONSTRUCTION	
	LIMIT OF GRADING	
	STONE WALL	



Know what's below. Call Before you dig.

AL/JS	AL/JS	AL/JS	CHECKED
JJ/RD/SA	JJ/RD/SA	JJ/AC	DRAWN
3/7/2024	10/16/2023	DATE	
2	1	REV	
FINAL PLAN SUBMITTAL	30% SUBMITTAL	DESCRIPTION	

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48106-8647
www.aagov.org



CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
YORKSHIRE, INDEPENDENCE, & MEDFORD
WATER MAIN REPLACEMENT PROJECT
LEGEND

SCALE: NTS	
DRAWING No.	2023-24-3

EXISTING WATER STRUCTURE TABLE		
STRUCTURE NAME	STRUCTURE SIZE	RIM ELEV.
GV-01	6"	875.30
GV-02	12"	N.S.
GV-03	12"	N.S.
GV-04	6"	846.47
GV-05	12"	861.92
GV-06	12"	861.41
GV-07	8"	859.35
GV-08	6"	860.86
GV-09	6"	843.43
GV-10	4"	870.88
GV-11	6"	871.38
GV-12	6"	866.10
GV-13	6"	865.87

* N.S. = NOT SURVEYED

EXISTING STORM SEWER STRUCTURE TABLE			
STRUCTURE NAME	STRUCTURE TYPE	RIM ELEV.	INVERT ELEVATION, SIZE & DIRECTION
STM-01	4' CB	N.S.	12" E 872.50
STM-02	4' CB	N.S.	12" SE 872.50
STM-03	4' MH	876.50	12" SW 871.50 12" SE 871.50 12" W 871.50 12" NW 871.50 12" NE 871.50 15" NE 871.04
STM-04	4' CB	N.S.	12" NW 872.50
STM-05	4' CB	876.41	12" SW 872.71
STM-06	4' MH	872.78	15" SW 863.38 15" NE 863.38
STM-07	4' CB	851.57	12" NW 846.51
STM-08	4' MH	852.28	21" SE 845.33 15" SW 844.10 21" NE 843.86
STM-09	4' CB	851.58	12" SE 846.04 21" NW 845.98
STM-10	4' CB	846.00	12" SE 840.16 12" N 840.00
STM-11	4' CB	846.04	12" NW 840.78
STM-12	4' MH	845.77	12" S 838.91 12" NW 839.91 36" NW 837.59 21" SW 838.55 36" SE 837.55
STM-13	4' CB	846.45	12" NE 839.75 12" SE 839.71
STM-14	4' CB	846.50	12" SW 840.55
STM-15	4' CB	861.29	12" E 856.39 12" NW 856.39
STM-16	4' CB	861.32	12" W 856.92
STM-17	4' MH	861.47	12" W 853.37 12" W 856.07 12" SE 856.07 15" E 853.37
STM-18	4' CB	861.48	12" N 856.88 12" E 856.88
STM-19	4' CB	861.71	12" S 857.31
STM-20	4' CB	846.86	12" NW 842.46
STM-21	4' CB	846.74	12" SE 841.74 12" NW 841.74
STM-22	4' MH	847.50	12" SE 841.70 12" NE 840.41
STM-23	4' CB	844.40	12" SE 838.90 12" N 838.90
STM-24	4' CB	844.37	12" NW 839.37
STM-25	4' MH	844.45	12" NW 838.65 12" SW 838.65 12" S 838.65
STM-26	4' CB	844.21	12" NE 838.81 12" SE 838.81

* N.S. = NOT SURVEYED

EXISTING STORM SEWER STRUCTURE TABLE			
STRUCTURE NAME	STRUCTURE TYPE	RIM ELEV.	INVERT ELEVATION, SIZE & DIRECTION
STM-27	4' CB	844.27	12" SW 839.00
STM-28	4' Inlet Junction	846.91	36" E 838.92
STM-29	4' Inlet Junction	N.S.	36" W 835.94 36" E 835.94
STM-30	4' Inlet Junction	N.S.	36" W 835.36 12" NE 838.00 36" SE 835.36
STM-31	4' Inlet Junction	844.65	36" NW 835.04 12" N 837.00 48" S 834.64
STM-32	4' Inlet Junction	844.26	12" N 837.89 12" SW 838.49
STM-33	4' Inlet Junction	844.43	12" S 840.26
STM-34	4' Inlet Junction	846.07	12" E 841.10 12" NE 841.10 12" S 841.10
STM-35	4' Inlet Junction	845.92	12" E 841.26 12" W 841.25
STM-36	4' Inlet Junction	845.98	12" W 841.51
STM-37	4' Inlet Junction	857.96	12" E 851.00 12" S 849.02
STM-38	4' Inlet Junction	856.95	12" E 851.09 12" W 851.09
STM-39	4' Inlet Junction	857.23	12" W 852.07
STM-40	4' MH	872.12	12" W 861.27 12" N 861.27
STM-41	4' Inlet Junction	870.90	12" W 864.27
STM-42	4' MH	871.22	12" S 860.57 12" N 860.57
STM-43	4' MH	869.43	12" S 860.48 12" N 860.48
STM-44	4' MH	866.90	12" S 860.00 12" N 860.00
STM-45	4' MH	872.31	12" S 859.70 12" N 861.20 12" NW 859.70
STM-46	4' Inlet Junction	866.65	12" NE 861.50 12" S 861.20
STM-47	4' Inlet Junction	866.47	12" N 860.50
STM-48	4' Inlet Junction	866.52	12" SW 861.90
STM-49	4' Inlet Junction	866.86	12" S 860.01 12" N 859.91
STM-50	4' MH	866.85	12" SE 859.00 12" S 859.00 15" NE 859.00
STM-51	4' Inlet Junction	868.57	12" E 866.93
STM-52	4' MH	868.65	12" W 867.01 12" E 862.71

SANITARY SEWER STRUCTURE TABLE			
STRUCTURE NAME	STRUCTURE TYPE	RIM ELEV.	INVERT ELEVATION, SIZE & DIRECTION
SAN-01	4' MH	876.66	8" SE 865.51 8" SW 865.65 8" NW 865.51
SAN-02	4' MH	869.76	8" NE 859.08
SAN-03	4' MH	852.60	8" SW 841.54 8" NE 841.53
SAN-04	4' MH	846.18	8" SW 835.52 8" NW 835.46 8" SE 835.42
SAN-05	4' MH	860.95	8" E 849.85 8" W 849.85
SAN-06	4' MH	859.40	8" N 850.40
SAN-07	4' MH	860.30	8" S 846.21 8" N 846.21
SAN-08	4' MH	860.30	8" S 841.84 8" N 841.85
SAN-09	4' MH	847.42	8" S 837.38 8" NE 837.38
SAN-10	4' MH	845.00	8" SW 834.80 8" NW 844.38 8" SE 834.80
SAN-11	4' MH	N.S.	8" NW 834.25 8" E 834.25
SAN-12	4' MH	N.S.	8" W 833.86 8" E 833.86
SAN-13	4' MH	844.72	8" W 833.52 8" N 845.29 8" S 845.29
SAN-14	4' MH	867.35	8" S 866.12
SAN-15	4' MH	871.40	8" W 859.00 8" N 858.99
SAN-16	4' MH	869.97	8" S 858.57 8" N 858.57
SAN-17	4' MH	868.15	8" S 857.54 8" NW 857.54
SAN-18	4' MH	865.69	8" SE 857.19 8" NE 857.19 8" SW 857.19
SAN-19	4' MH	870.36	8" E 860.46

* N.S. = NOT SURVEYED



AL/US	AL/US	CHECKED
JJ/RD/SA	JJ/AC	DRAWN
3/7/2024	10/16/2023	DATE
FINAL PLAN SUBMITTAL	30% SUBMITTAL	DESCRIPTION
2	1	REV.

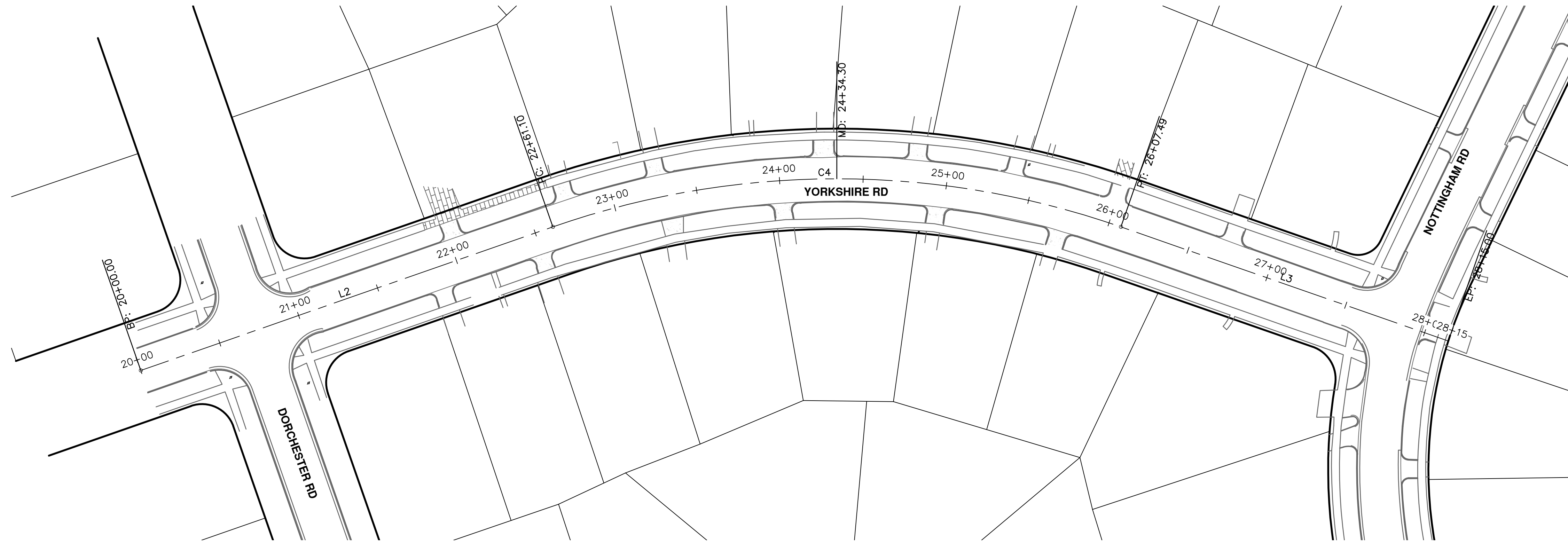
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WATER MAIN REPLACEMENT PROJECT
EXISTING STRUCTURE TABLES

SCALE: NTS
DRAWING No. 2023-24-4

J:\AA\Design\AA23005 - YIM Water Main Replacement\Ann Arbor Cadd\Source Drawings\Align-Corridor\AA23005_Align.dwg Dwg Created: 1-Nov-23 - _a2 standard bw.stb - Plot Date: 7-Mar-24



Line Table: Alignments

Line #	Length	Direction	Start Point	End Point
L1	176.46	N40° 38' 24.99"E	(13300424.44,275619.69)	(13300539.37,275753.60)
L2	261.10	N2° 37' 55.01"W	(13300518.60,274832.81)	(13300506.61,275093.64)
L3	207.51	N35° 48' 24.99"E	(13300603.66,275419.43)	(13300725.06,275587.71)

Curve Table: Alignments

Curve #	Radius	Length	Chord Direction	Start Point	End Point
C1	434.95	127.14	N59° 40' 52.38"E	(13300011.51,275164.95)	(13300120.87,275228.90)
C2	429.37	137.66	N41° 24' 00.21"E	(13300120.87,275228.90)	(13300211.52,275331.72)
C3	2467.44	358.45	N36° 28' 42.67"E	(13300211.52,275331.72)	(13300424.44,275619.69)
C4	516.32	346.39	N16° 35' 14.99"E	(13300506.61,275093.64)	(13300603.66,275419.43)

BENCHMARKS

BM#	ELEV	DESCRIPTION
100	846.973	SET BENCHMARK IN THE NORTH FACE OF UTILITY POLE WITH LIGHT. LOCATED AT THE SOUTHWEST CORNER OF INDEPENDENCE BOULEVARD AND NOTTINGHAM ROAD.
101	876.867	FOUND NAIL IN THE WEST FACE OF UTILITY POLE WITH LIGHT. LOCATED AT THE SOUTHEAST CORNER OF INDEPENDENCE BOULEVARD AND MANCHESTER ROAD.
110	848.431	ST MAG NAIL IN EAST FACE OF UTILITY POLE. LOCATED ON THE WEST SIDE OF YORKSHIRE ROAD IN FRONT OF HOUSE #2330.
111	862.065	SET MAG NAIL IN THE NORTH FACE OF UTILITY POLE. LOCATED AT THE SOUTHEAST CORNER OF YORKSHIRE ROAD AND DORCHESTER ROAD.
120	843.816	SET MAG NAIL IN THE NORTHEAST FACE OF UTILITY POLE. LOCATED AT THE SOUTHWEST CORNER OF MEDFORD ROAD AND NOTTINGHAM ROAD.



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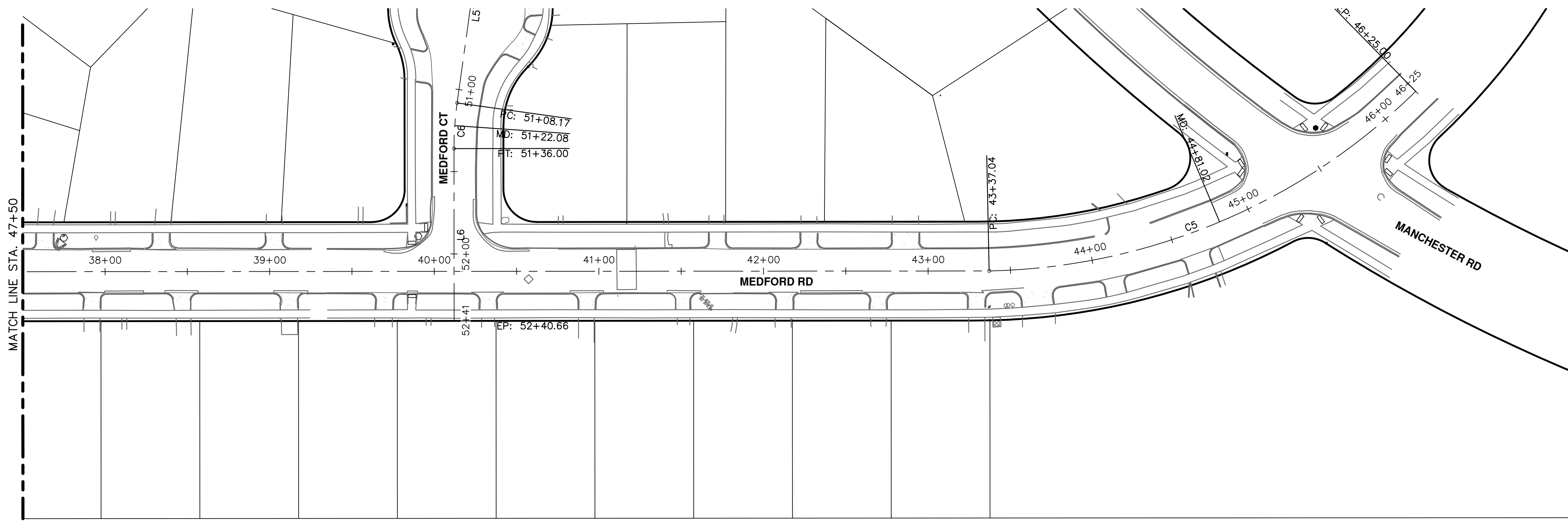


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WATER MAIN REPLACEMENT PROJECT

SCALE: 1" = 40'
DRAWING No. 2023-24-5

REV.	DATE	DESCRIPTION
2	3/7/2024	FINAL PLAN SUBMITTAL
1	10/16/2023	30% SUBMITTAL

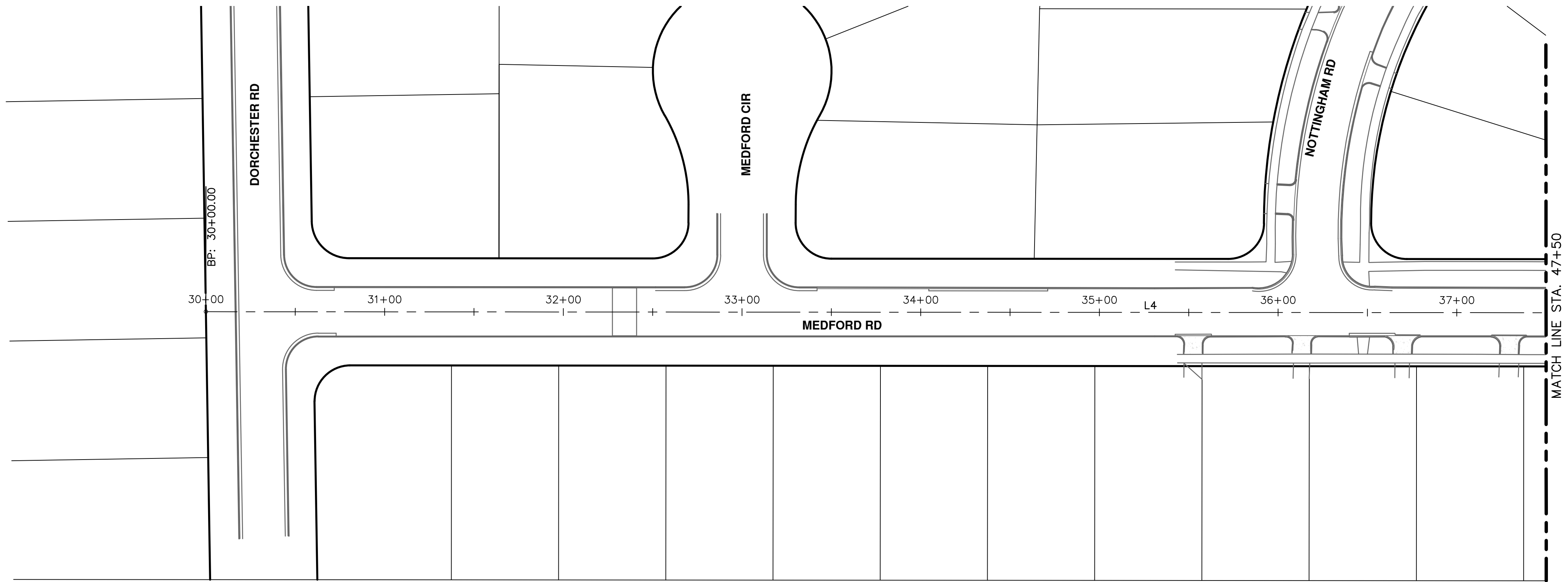
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Line #	Length	Direction	Start Point	End Point
L4	1337.04	N1° 41' 26.94"W	(13300944.53,274893.67)	(13300905.08,276230.12)

Curve #	Radius	Length	Chord Direction	Start Point	End Point
C5	381.47	287.96	N24° 28' 28.53"W	(13300905.08,276230.12)	(13300788.59,276486.03)

BM#	ELEV	DESCRIPTION
120	843.816	SET MAG NAIL IN THE NORTHEAST FACE OF UTILITY POLE. LOCATED AT THE SOUTHWEST CORNER OF MEDFORD ROAD AND NOTTINGHAM ROAD.
121	871.367	SET MAG NAIL IN THE NORTHEAST FACE OF UTILITY POLE. LOCATED AT THE SOUTHWEST CORNER OF MEDFORD ROAD AND MEDFORD COURT.
122	866.581	FOUND NAIL IN THE SOUTHEAST FACE OF UTILITY POLE WITH LIGHT. LOCATED AT THE NORTHWEST CORNER OF MANCHESTER ROAD AND MEDFORD ROAD.



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YORKSHIRE, INDEPENDENCE, & MEDFORD WATER MAIN REPLACEMENT PROJECT

ALIGNMENT SHEET - 2

SCALE: 1" = 40'

DRAWING No. 2023-24-6


SHEET No. 6 OF 47



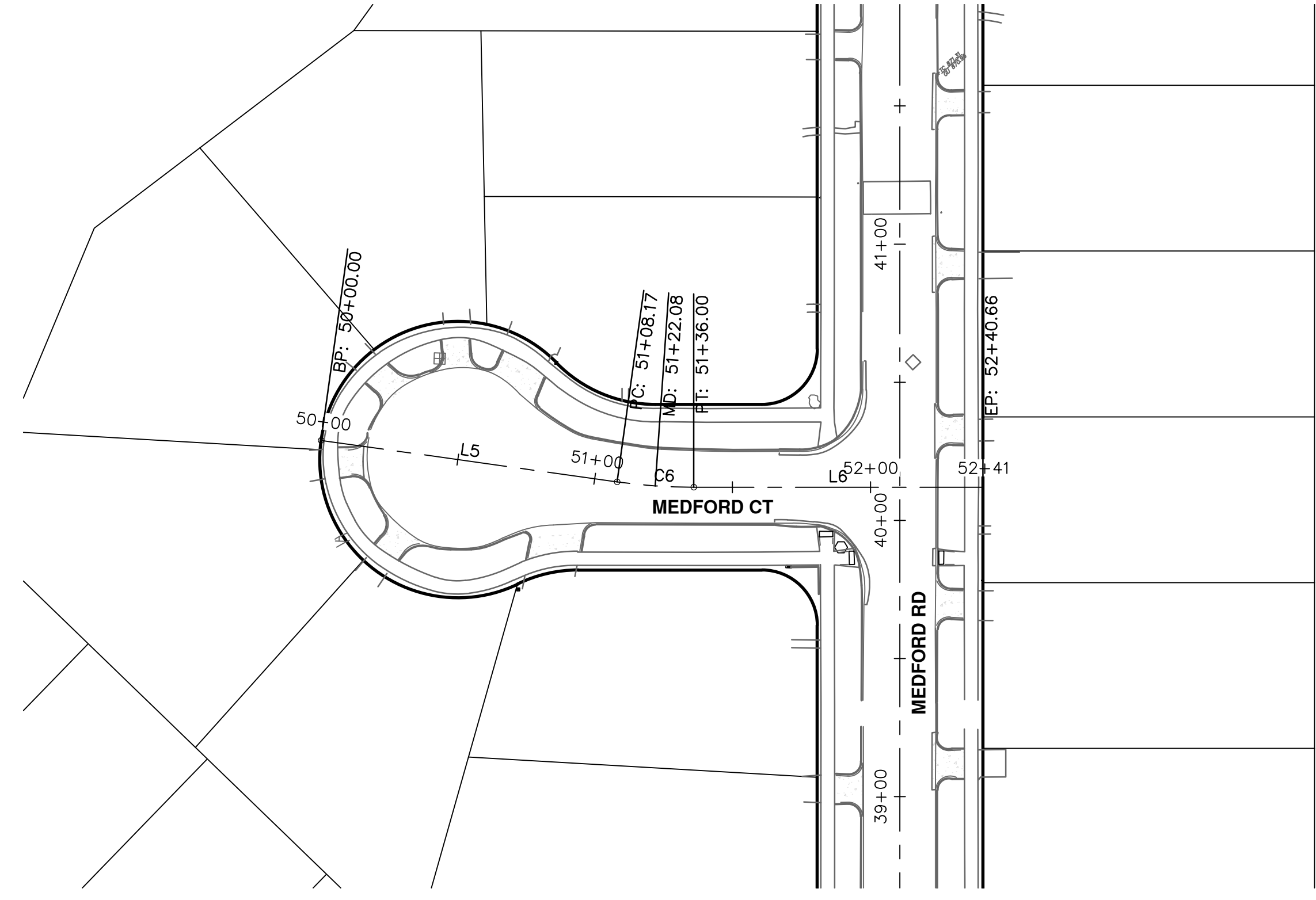
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REV.	DATE	DESCRIPTION
2	3/7/2024	FINAL PLAN SUBMITTAL
1	10/16/2023	30% SUBMITTAL

AL/JS	AL/JS	CHECKED
JJ/RD/SA	JJ/RD/SA	DRAWN
AL/JS	AL/JS	CHECKED



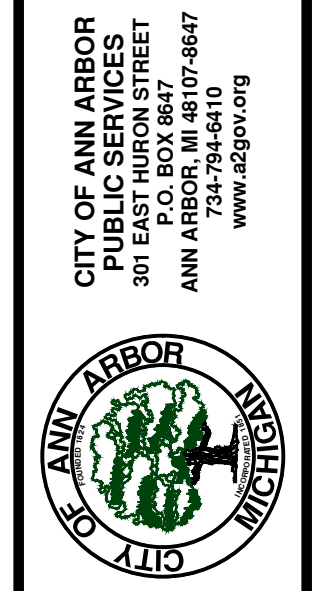
Know what's below.
Call Before you dig.



Line Table: Alignments				
Line #	Length	Direction	Start Point	End Point
L5	108.17	S83° 42' 55.91"E	(13300704.80,275915.99)	(13300812.32,275904.15)
L6	104.67	N88° 18' 44.99"E	(13300840.10,275903.04)	(13300944.73,275906.12)

Curve Table: Alignments					
Curve #	Radius	Length	Chord Direction	Start Point	End Point
C6	200.00	27.83	S87° 42' 05.46"E	(13300812.32,275904.15)	(13300840.10,275903.04)

BENCHMARKS		
BM#	ELEV	DESCRIPTION
121	871.367	SET MAG NAIL IN THE NORTHEAST FACE OF UTILITY POLE. LOCATED AT THE SOUTHWEST CORNER OF MEDFORD ROAD AND MEDFORD COURT.

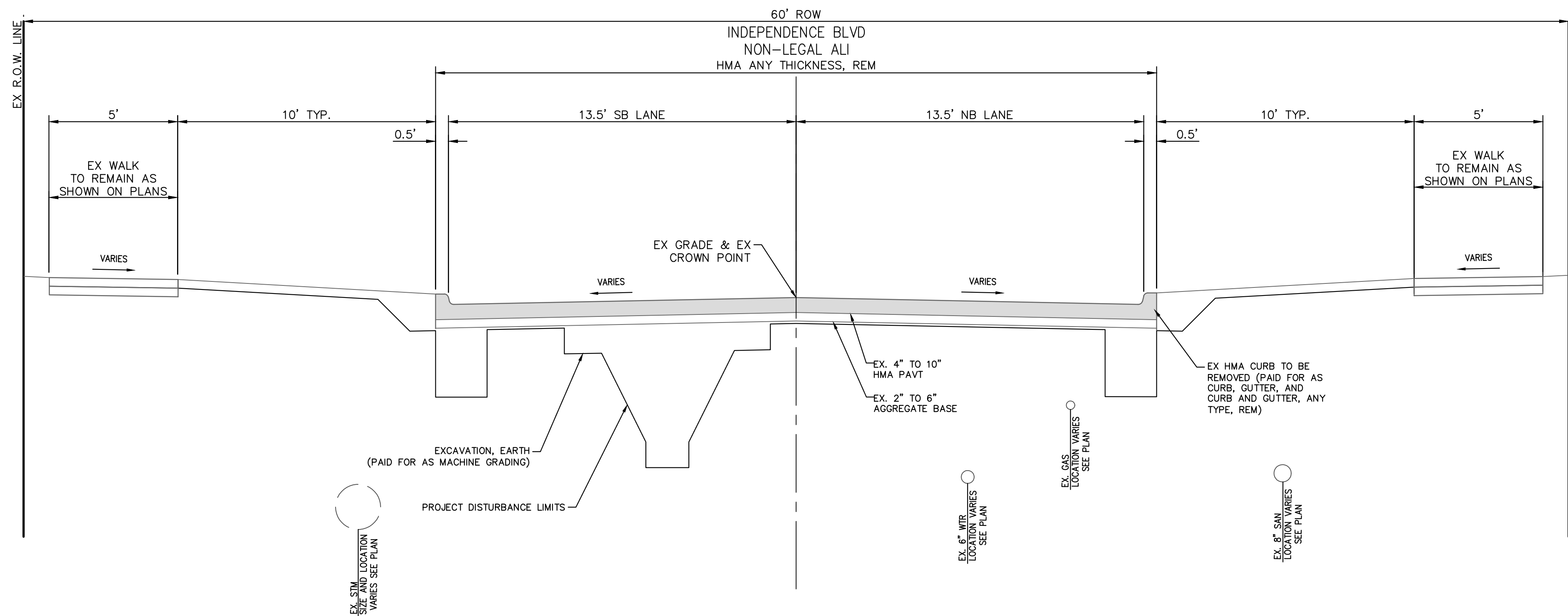


REV	DESCRIPTION	DATE	DRAWN	CHECKED
2	FINAL PLAN SUBMITTAL	3/7/2024	JJ/RD/SA	AL/JS
1	30% SUBMITTAL	10/16/2023	JJ/AC	AL/JS

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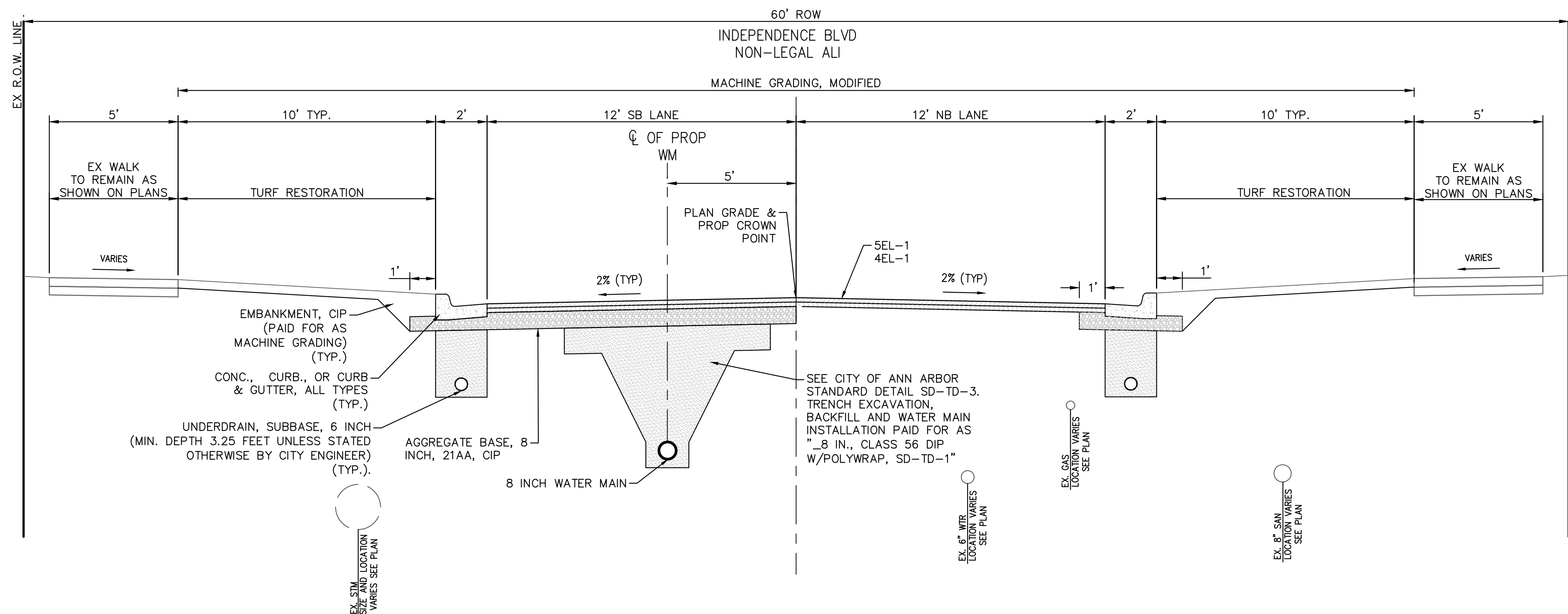
Know what's below.
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J:\AA\Design\AA23005 - YIM Water Main Replacement\Ann Arbor Cads\Plan Production\AA23005_TYP.dwg Dwg Created: 29-Feb-24 - _o2_standard bw.sib - Plot Date: 7-Mar-24



EXISTING INDEPENDENCE DR TYPICAL SECTION

SECTION APPLIES TO:
STA 11+25 TO STA 17+31



PROPOSED INDEPENDENCE DR TYPICAL SECTION

SECTION APPLIES TO:
STA 11+25 TO STA 17+31

HMA APPLICATION ESTIMATE				
IDENT NO.	ITEM	RATE LBS PER SYD	PERFORMANCE GRADE	REMARKS
5EL-1	HMA, 5EL	220	58-28	MAINLINE TOP COURSE - AWI 260
4EL-2	HMA, 4EL	220	58-28	MAINLINE LEVELING COURSE
	* BOND COAT	0.05-0.15 GAL		



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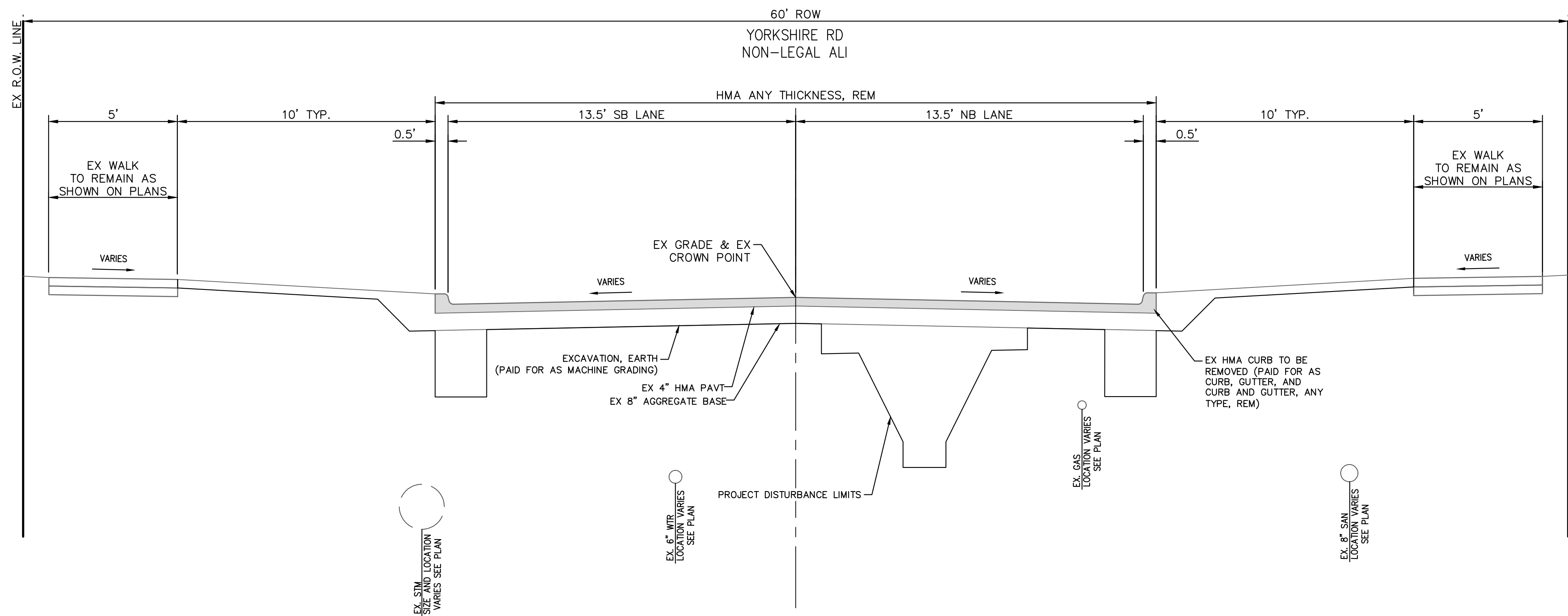
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WATER MAIN REPLACEMENT PROJECT

SCALE PLAN: 1" = 3'
DRAWING No. 2023-24-8

SHEET No.

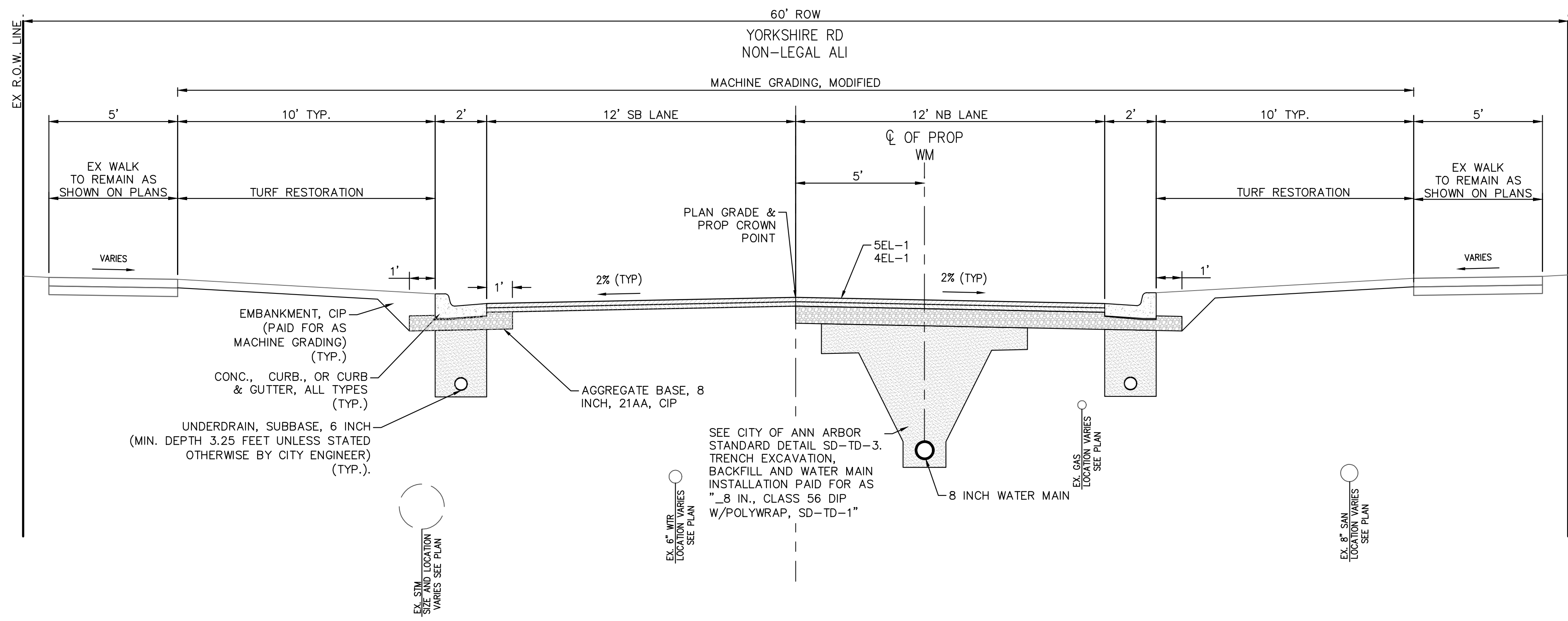
REV.	DATE	DESCRIPTION	DRAWN	CHECKED
2	3/7/2024	FINAL PLAN SUBMITTAL	JJ/RD/SA	AL/JS
1	10/16/2023	30% SUBMITTAL	JJ/AC	AL/JS

J:\AA\Design\AA23005 - YIM Water Main Replacement\Ann Arbor Cads\Plan Production\AA23005_TYP.dwg Dwg Created: 29-Feb-24 - _a2_standard bw.stb - Plot Date: 7-Mar-24



EXISTING YORKSHIRE RD TYPICAL SECTION

SECTION APPLIES TO:
STA 21+10 TO STA 27+56



PROPOSED YORKSHIRE RD TYPICAL SECTION

SECTION APPLIES TO:
STA 21+10 TO STA 27+56

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

YORKSHIRE, INDEPENDENCE, & MEDFORD

WATER MAIN REPLACEMENT PROJECT

SCALE PLAN: 1" = 3'

DRAWING No. 2023-24-9

811
Know what's below.
Call before you dig.

REV.	DESCRIPTION	DATE	DRAWN	CHECKED
2	FINAL PLAN SUBMITTAL	3/7/2024	JJ/RD/SA	AL/JS
1	30% SUBMITTAL	10/16/2023	JJ/AC	AL/JS

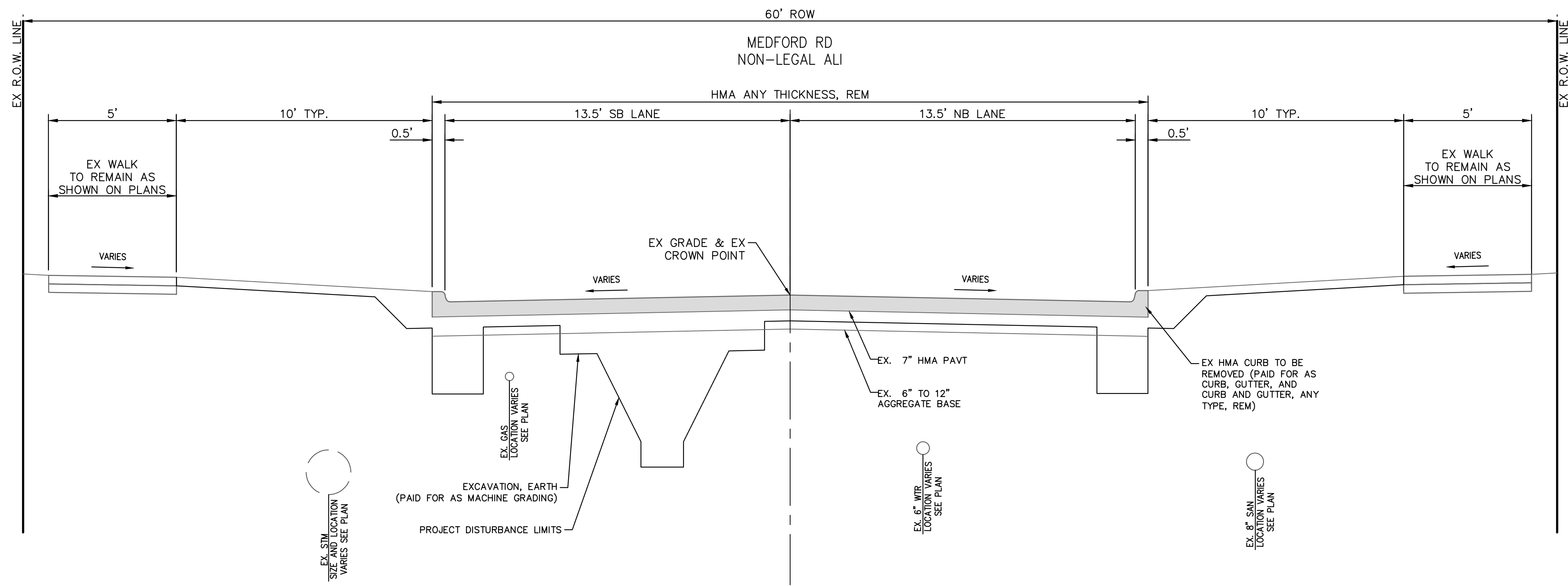
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MICHIGAN

TYPICAL SECTIONS - 2

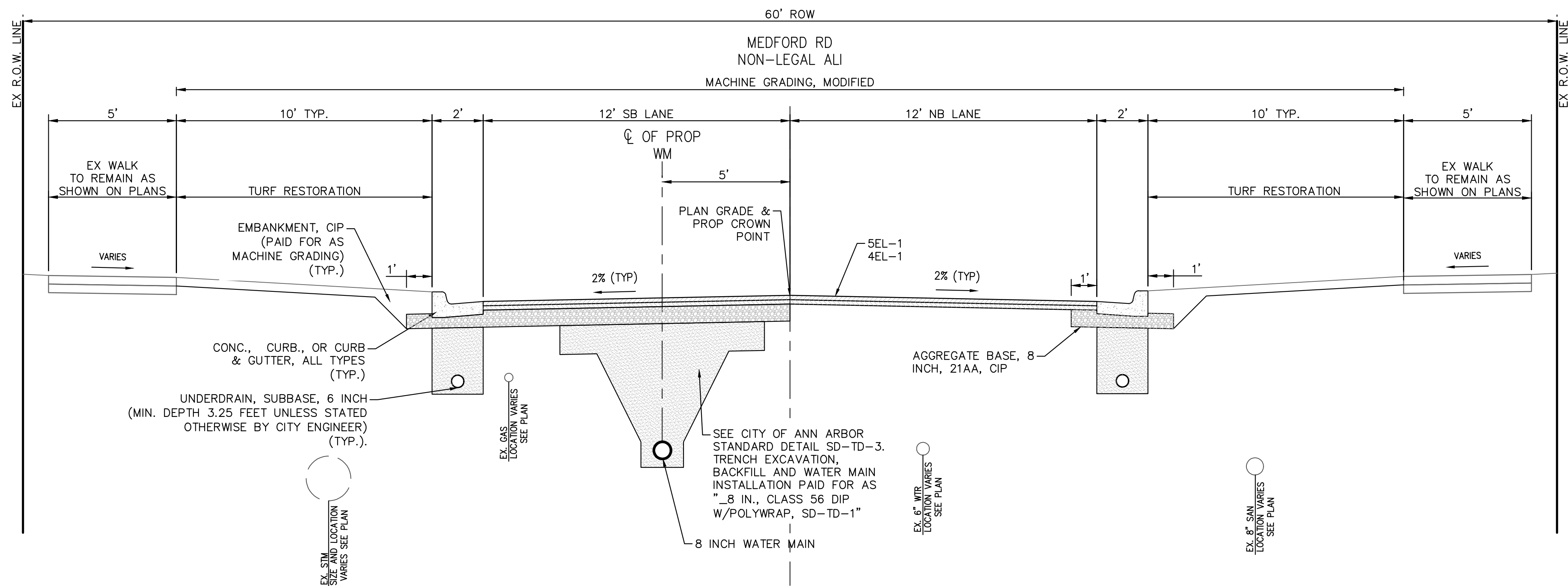
SHEET No. 9 OF 47

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EXISTING MEDFORD RD TYPICAL SECTION

SECTION APPLIES TO:
STA 35+19 TO STA 45+06



PROPOSED MEDFORD RD TYPICAL SECTION

SECTION APPLIES TO:
STA 35+19 TO STA 45+06



Know what's below.
Call before you dig.

REV.	DESCRIPTION	DATE	DRAWN	CHECKED
2	FINAL PLAN SUBMITTAL	3/7/2024	JJ/RD/SA	AL/JS
1	30% SUBMITTAL	10/16/2023	JJ/AC	AL/JS

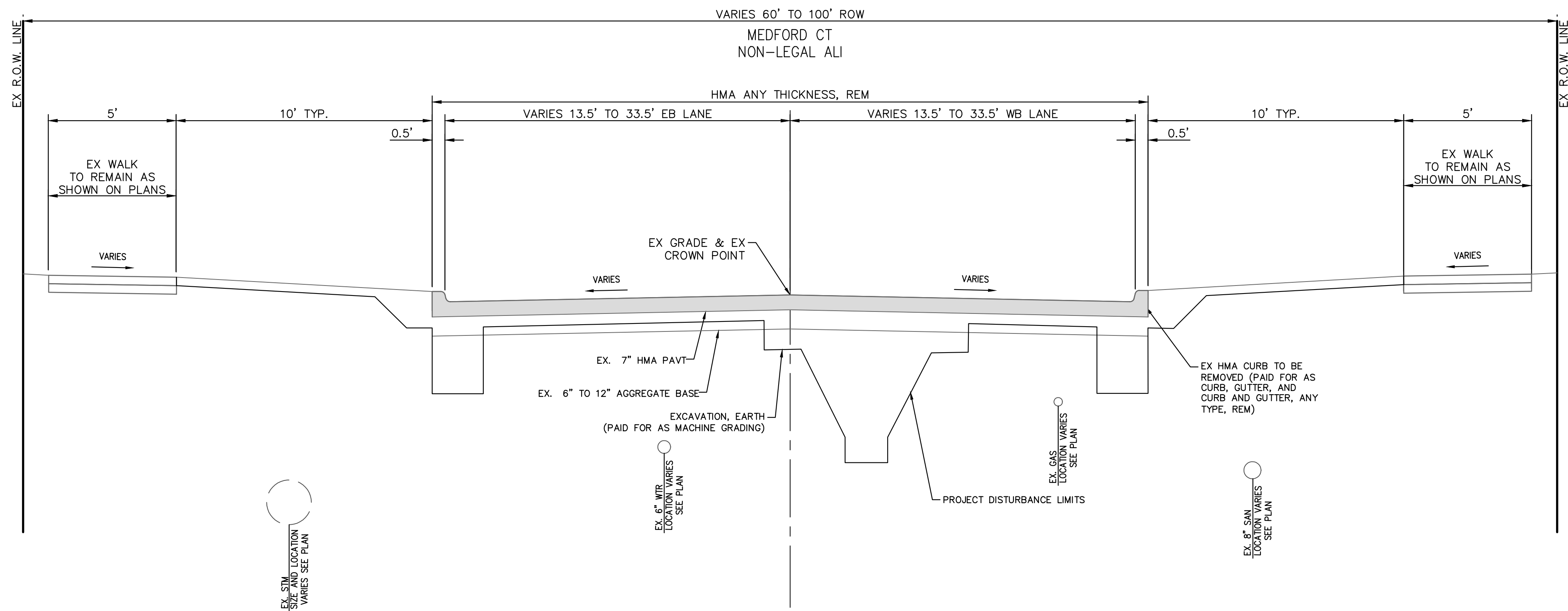
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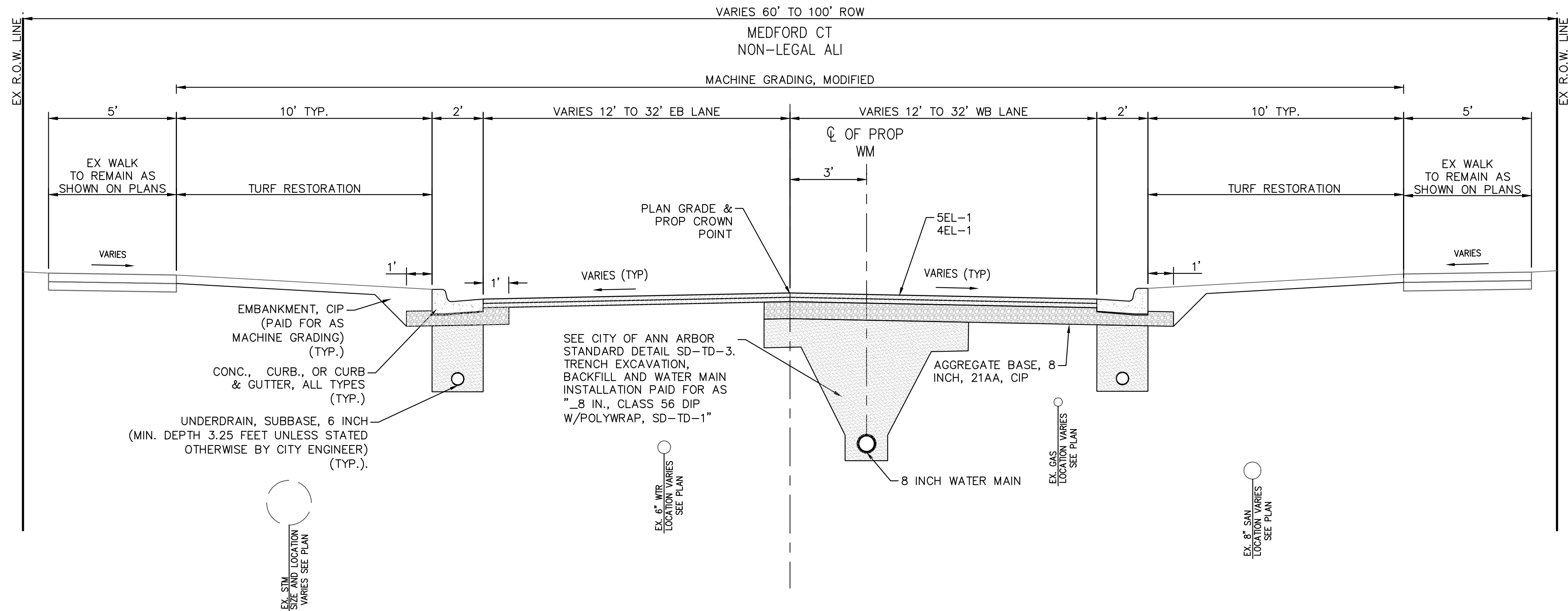
SCALE PLAN: 1" = 3'
DRAWING No. 2023-24-10

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EXISTING MEDFORD CT TYPICAL SECTION

SECTION APPLIES TO:
STA 50+18 TO STA 51+77



PROPOSED MEDFORD CT TYPICAL SECTION

SECTION APPLIES TO:
STA 50+18 TO STA 51+77



Know what's below.
Call before you dig.

REV.	DATE	DESCRIPTION	DRAWN	CHECKED
2	3/7/2024	FINAL PLAN SUBMITTAL	JJ/RD/SA	AL/JS
1	10/16/2023	30% SUBMITTAL	JJ/AC	AL/JS

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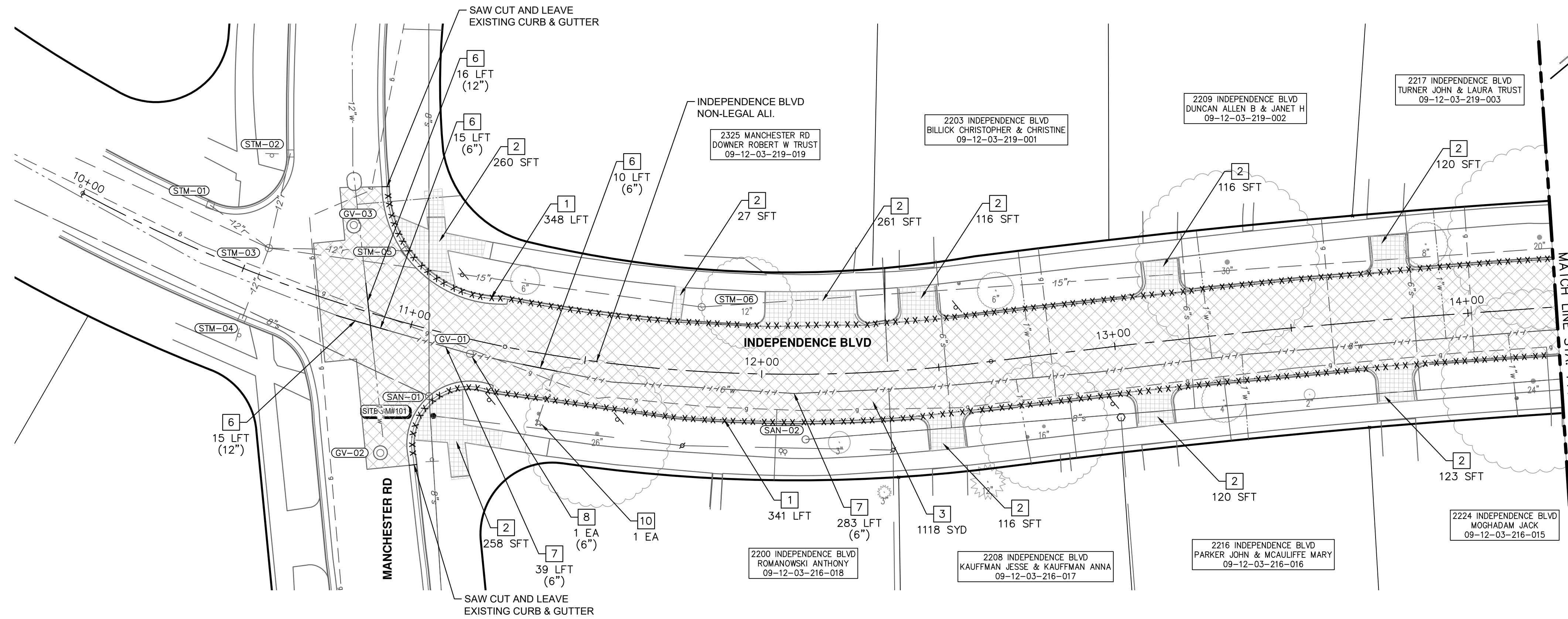


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WATER MAIN REPLACEMENT PROJECT

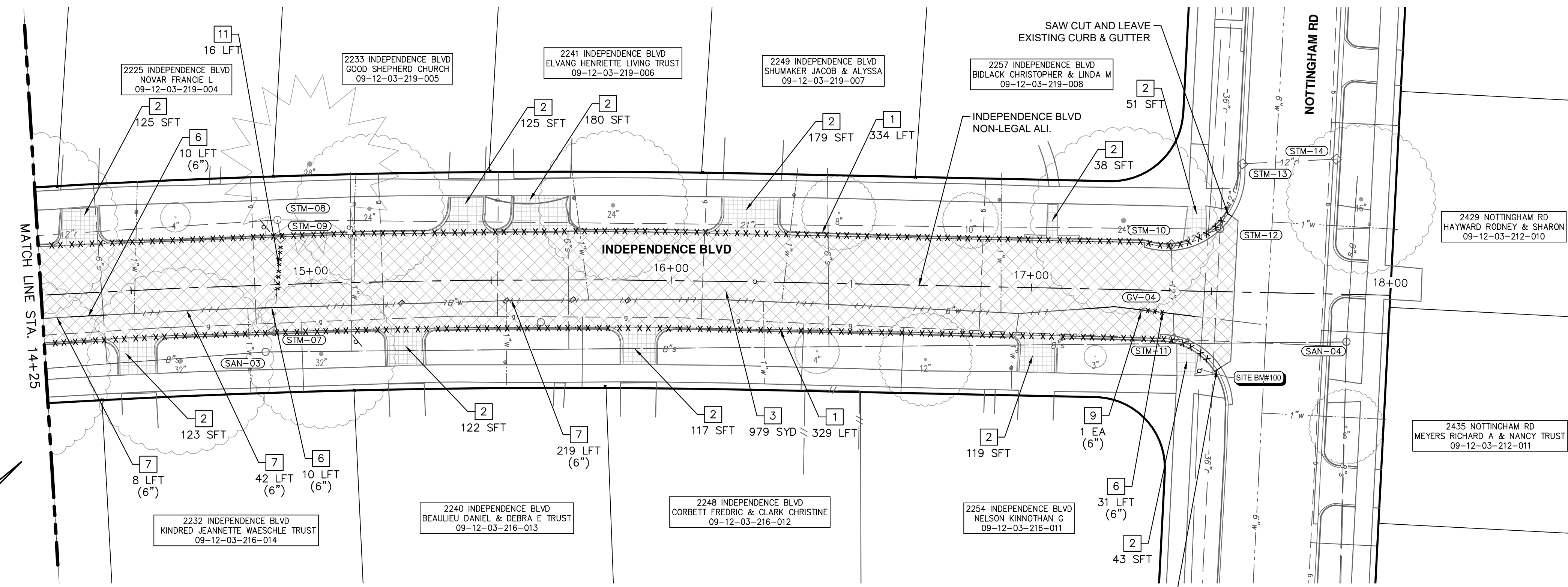
TYPICAL SECTIONS - 4

SCALE PLAN: 1" = 3'
DRAWING No. 2023-24-11

J:\AA\Design\AA23005 - YIM Water Main Replacement\Ann Arbor Cods\Plan Production\AA23005_Rem_INDEPENDENCE.dwg Dwg Created: 5-Mar-24 -_02 standard bw.stb - Plot Date: 7-Mar-24



REMOVAL PLAN - INDEPENDENCE BLVD - STA 10+00 TO STA 14+25



REMOVAL PLAN - INDEPENDENCE BLVD - STA 14+25 TO STA 18+00

REMOVAL HATCH KEY

[Hatched Box]	HMA SURFACE, REM
[Grid Pattern]	SIDEWALK AND RAMPS, REMOVE DRIVEWAY APPROACH, REMOVE
[Dashed Line]	CURB AND GUTTER, ANY TYPE OR SIZE, REM, MODIFIED
[Dotted Line]	CURB AND GUTTER, ANY TYPE OR SIZE, REM, MODIFIED
[Long Dash]	WATER MAIN PIPE, REM
[Short Dash]	WATER MAIN PIPE, ABANDON

REMOVAL KEY

KEY	DESCRIPTION
1	CURB, CUTTER, AND CURB AND GUTTER, ANY TYPE, REM
2	SIDEWALK AND RAMPS, REMOVE* DRIVEWAY APPROACH, REMOVE*
3	HMA ANY THICKNESS, REM*
4	COLD MILLING HMA SURFACE
5	STORM SEWER PIPE, 12 IN. DIA., REM
6	WATER MAIN PIPE, _ IN. DIA., REM
7	WATER MAIN PIPE, _ IN. DIA., ABANDON
8	GATE VALVE IN BOX, _ IN. DIA., ABANDON
9	GATE VALVE IN BOX, _ IN. DIA., REM
10	FIRE HYDRANT ASSEMBLY, REM

*SAWCUT FULL DEPTH AT REMOVAL LIMITS

REMOVAL QUANTITIES - THIS SHEET

Item	Quantity	Unit
HMA, Any Thickness, Rem	2097	Syd
Curb, Gutter, and Curb and Gutter, Any Type, Rem	1347	Ft
Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	2739	Sft
Storm Sewer Pipe, 12 In. Dia., Rem	16	Ft
Fire Hydrant Assembly, Rem	1	Ea
Water Main Pipe, 6 In. Dia., Abandon	591	Ft
Water Main Pipe, 6 In. Dia., Rem	71	Ft
Water Main Pipe, 12 In. Dia., Rem	26	Ft
Gate Valve in Box, 6 In. Dia., Abandon	1	Ea
Gate Valve in Box, 6 In. Dia., Rem	1	Ea



REV.	DATE	DESCRIPTION
2	3/7/2024	FINAL PLAN SUBMITTAL
1	10/16/2023	30% SUBMITTAL

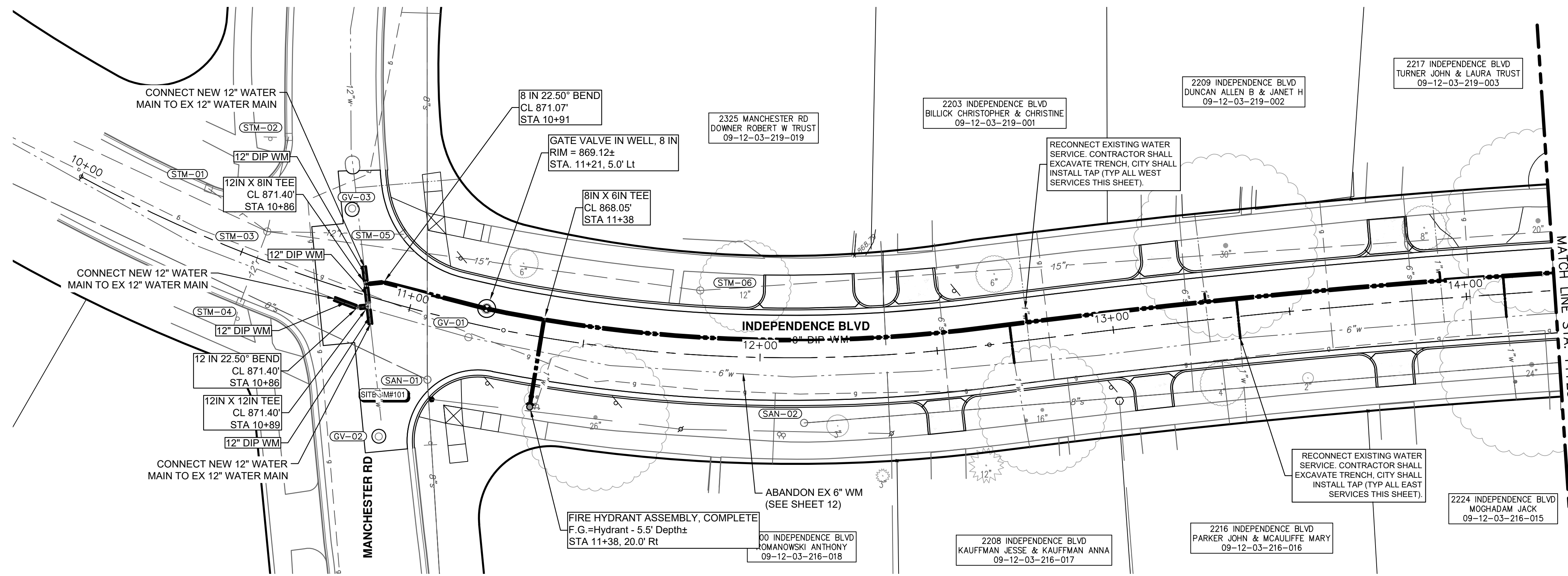
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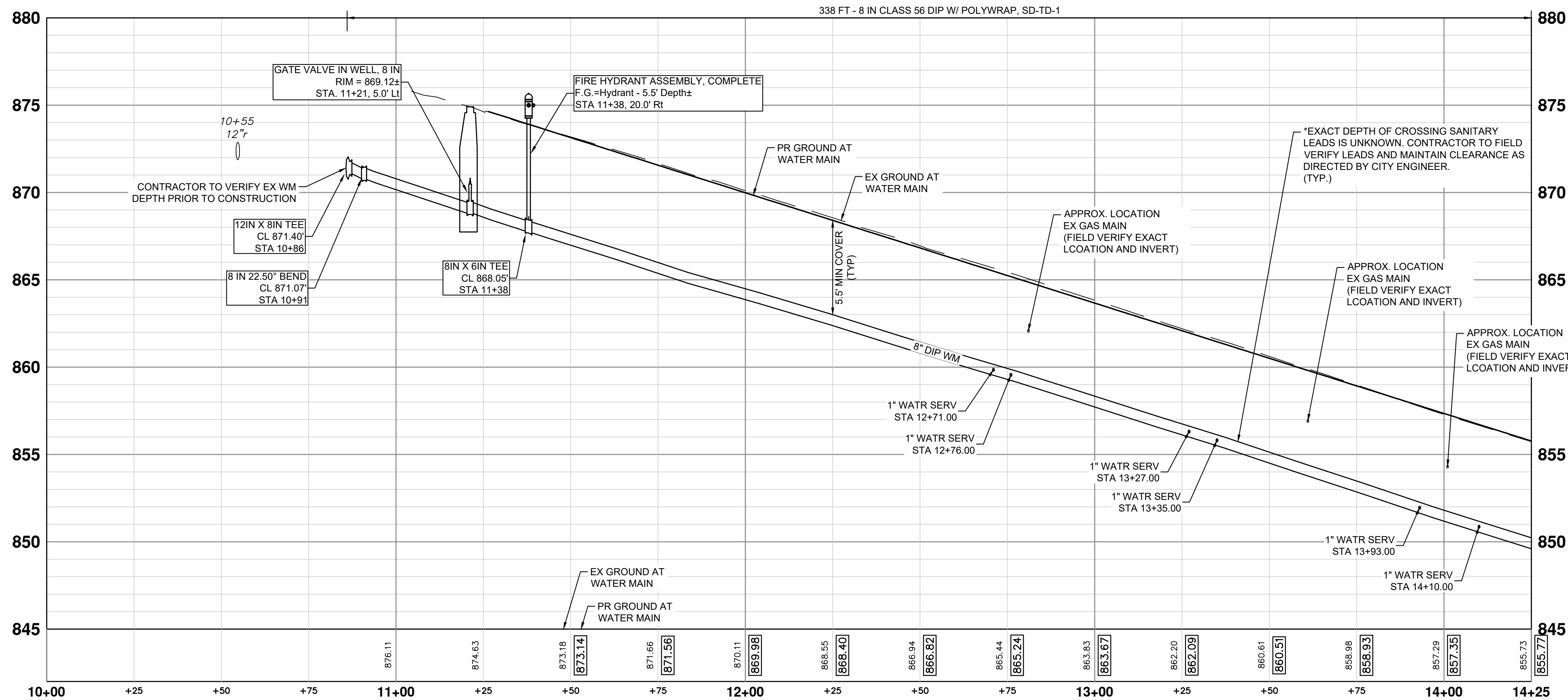
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WATER MAIN REPLACEMENT PROJECT
REMOVAL PLAN - INDEPENDENCE BLVD STA 10+00 TO STA 18+00

SCALE: 1" = 20'
DRAWING NO. 2023-24-12
SHEET NO.

J:\AA\Design\AA23005 - YIM Water Main Replacement\Ann Arbor Cods\Plan Production\AA23005_Watr_INDEPENDENCE.dwg Dwg Created: 5-Mar-24 - _a2 standard bw.stb - Plot Date: 7-Mar-24



WATER MAIN PLAN - INDEPENDENCE BLVD - STA 10+00 TO STA 14+25



WATER MAIN PROFILE - INDEPENDENCE BLVD - STA 10+00 TO STA 14+25

NOTES

1. CONNECTIONS TO EXISTING WATER MAINS SHALL BE INCLUDED IN THE UNIT PRICES FOR THE WATER MAIN PER ARTICLE 11, SUBSECTION 00 (WATER MAIN AND APPURTENANCES) OF THE CITY OF ANN ARBOR 2024 STANDARD SPECIFICATIONS FOR CONSTRUCTION

WATERMAIN QUANTITIES - THIS SHEET

Item	Quantity	Unit
6 In., Class 56 DIP w/polywrap, SD-TD-1	22	Ft
8 In., Class 56 DIP w/polywrap, SD-TD-1	338	Ft
12 In., Class 56 DIP w/polywrap, SD-TD-1	27	Ft
8 In. 22.5\"/>		



REV.	DATE	DESCRIPTION	DRAWN	CHECKED
2	3/7/2024	FINAL PLAN SUBMITTAL	JJ/RD/SA	AL/JS
1	10/16/2023	30% SUBMITTAL	JJ/AC	AL/JS

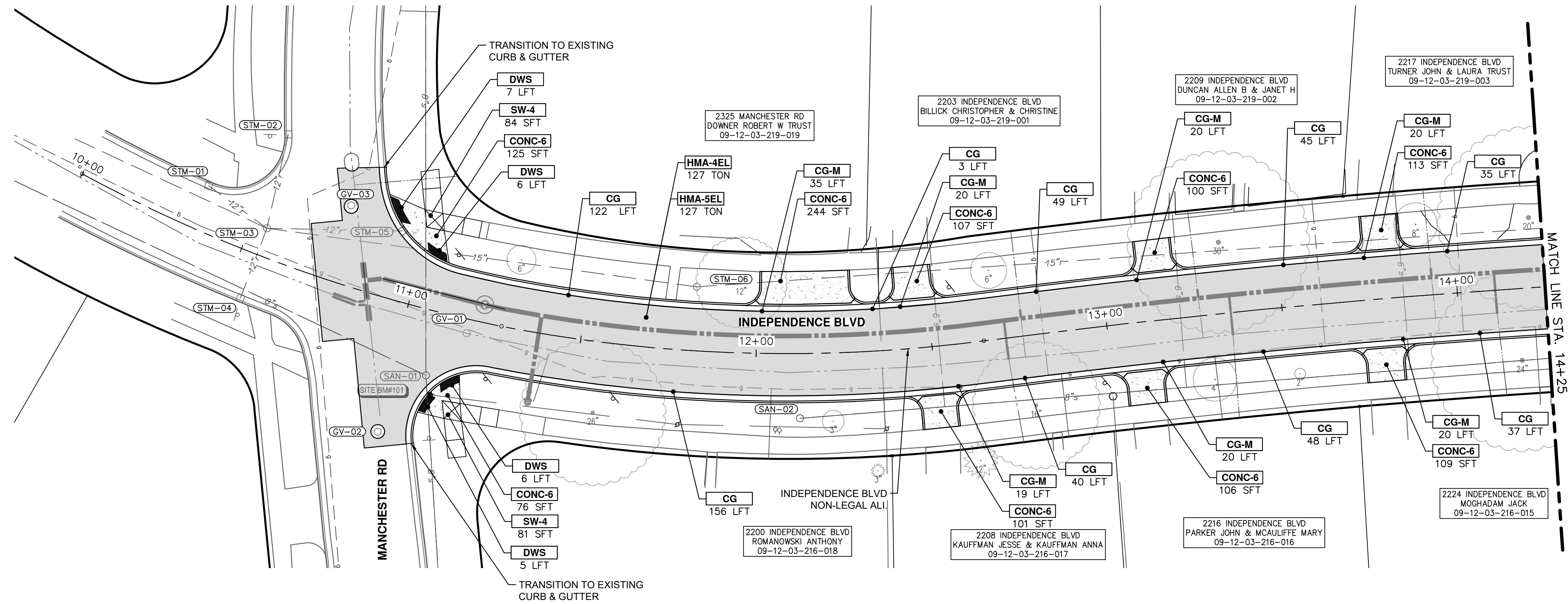
CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48106-1667
www.aagov.org



CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
YORKSHIRE, INDEPENDENCE, & MEDFORD
WATER MAIN REPLACEMENT PROJECT
WATER MAIN PLAN & PROFILE - INDEPENDENCE BLVD STA 10+00 TO STA 14+25

SCALE PLAN: 1" = 20'
PROFILE: 1" = 4'
DRAWING No. 2023-24-13

J:\AA\Design\AA23005 - YIM Water Main Replacement\Ann Arbor Cads\Plan Production\AA23005_PPrd_INDEPENDENCE.dwg Dwg Created: 4-Mar-24 - _a2_standard bw.stb - Plot Date: 7-Mar-24



CONSTRUCTION PLAN - INDEPENDENCE BLVD - STA 10+00 TO STA 14+25

PAVING HATCHING KEY

	PROPOSED HMA
	PROPOSED CONCRETE
	PROPOSED CURB AND GUTTER

CONSTRUCTION KEY

KEY	DESCRIPTION
HMA-4EL	HMA, 4EL
HMA-5EL	HMA, 5EL
CG	CONC, CURB OR CURB & GUTTER, ALL TYPES AGGREGATE BASE, 8 IN. 21AA, CIP
CG-M	CON, DRIVEWAY OPENING, TYPE M AGGREGATE BASE, 8 IN. 21AA, CIP
SW-4	CONC, SIDEWALK, 4 IN. AGGREGATE BASE, 6 INCH, LIMESTONE
CONC-6	CONC, SIDEWALK, DRIVE APPROACH, OR RAMP, 6 IN. AGGREGATE BASE, 6 IN. 21AA, CIP
CONC-8	CONC, SIDEWALK, DRIVE APPROACH OR RAMP, 8 IN. AGGREGATE BASE, 6 IN. 21AA, CIP
DWS	DETECTABLE WARNING SURFACE
STM-P#	12 IN., CL IV RCP STORM SEWER, SD-TD-1 PIPE UNDERCUT & BACKFILL, STORM

CONSTRUCTION QUANTITIES - THIS SHEET

Item	Quantity	Unit
Machine Grading, Modified	3.6	Sta
Sanitary Structure Cover	1	Ea
Sanitary Structure Cover, Adjust	1	Ea
Storm Structure Cover	1	Ea
Storm Structure Cover, Adjust	1	Ea
Underdrain, Subbase, 6 inch	689	Ft
Water Structure Cover	1	Ea
Water Structure Cover, Adjust	1	Ea
Subbase, CIP	6	Cyd
Aggregate Base, 6 In., 21AA, CIP	114	Syd
Aggregate Base, 8 In., 21AA, CIP	625	Syd
HMA, 4EL	127	Ton
HMA, 5EL	127	Ton
Conc, Curb or Curb & Gutter, All Types	535	Ft
Conc, Driveway Opening, Type M	154	Ft
Conc, Sidewalk, 4 In.	165	Sft
Conc, Sidewalk, Drive Approach, or Ramp, 6 In.	1082	Sft
Detectable Warning Surface	24	Ft
Turf Restoration	630	Syd

811
Know what's below.
Call Before you dig.

AL/JS	AL/JS	CHECKED
JJ/RD/SA	JJ/AC	DRAWN
3/7/2024	10/16/2023	DATE
2	1	REV.
FINAL PLAN SUBMITTAL	30% SUBMITTAL	DESCRIPTION

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PUBLIC SERVICES
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ANN ARBOR MI 48107-0864
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CITY OF ANN ARBOR
ENGINEERING
YORKSHIRE, INDEPENDENCE, & MEDFORD
WATER MAIN REPLACEMENT PROJECT
CONSTRUCTION PLAN - INDEPENDENCE BLVD STA 10+00 TO STA 14+25

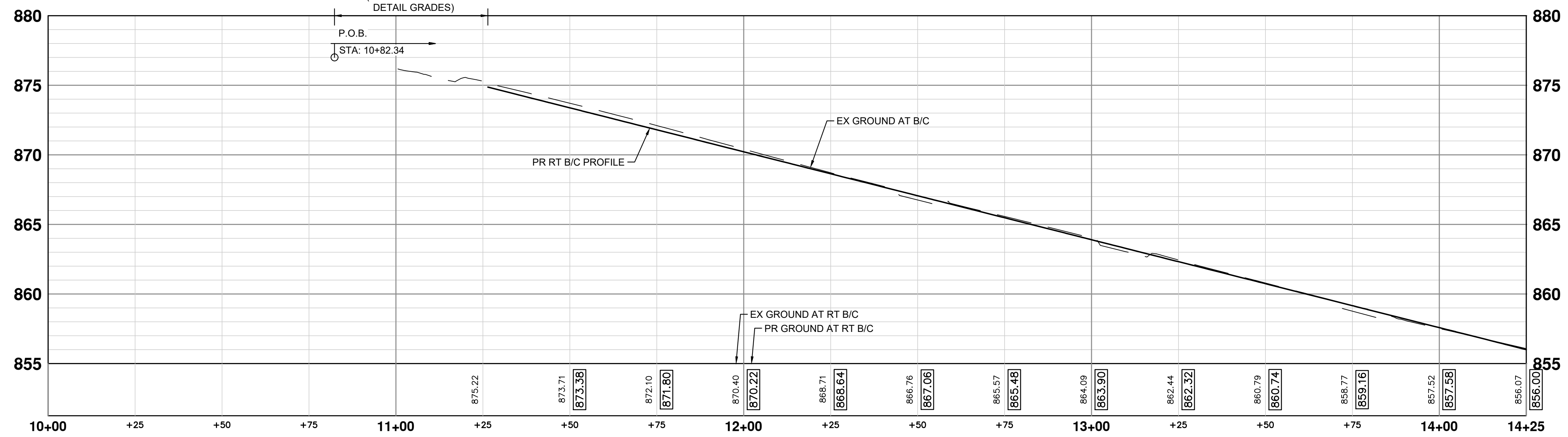
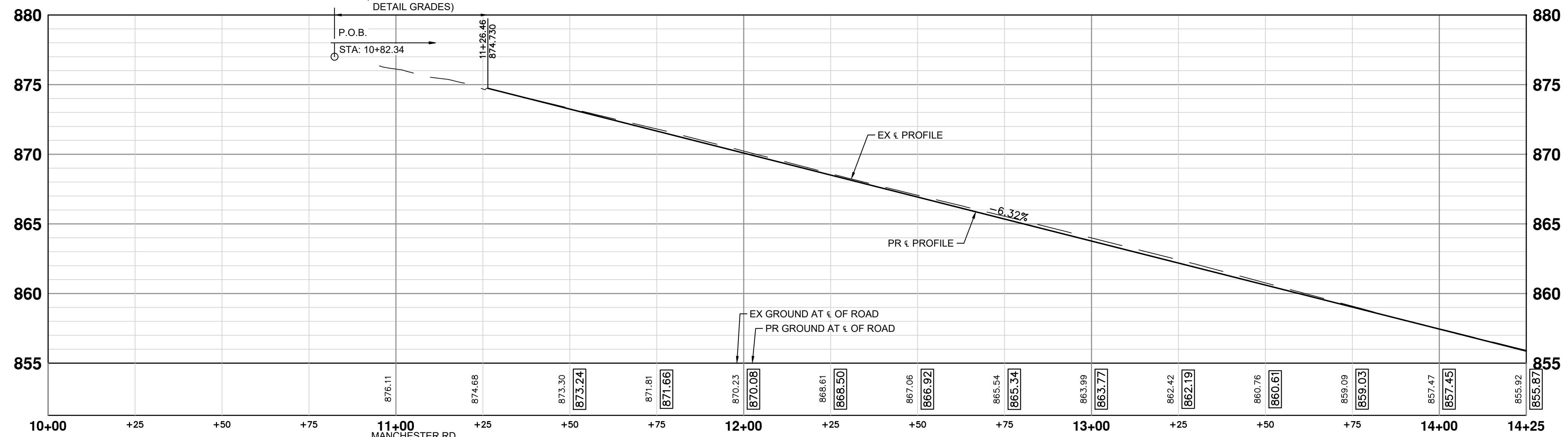
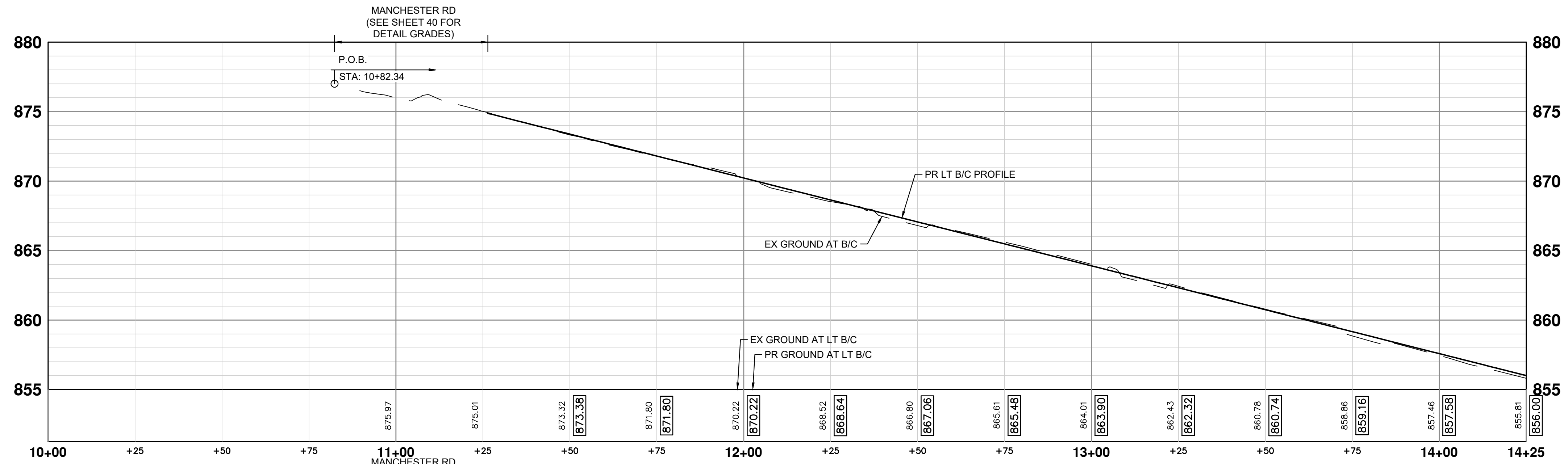
SCALE PLAN: 1" = 20'
PROFILE: 1" = 4'

DRAWING No.
2023-24-14

SHEET No.

14 OF 47

J:\AA\Design\AA23005 - YIM Water Main Replacement\Ann Arbor Cods\Plan Production\AA23005_RPR_INDEPENDENCE.dwg Dwg Created: 21-Feb-24 - _o2_standard bw.stb - Plot Date: 7-Mar-24



INDEPENDENCE BLVD PROFILES - STA 10+00 TO STA 14+25



REV.	DESCRIPTION	DATE	DRAWN	CHECKED
2	FINAL PLAN SUBMITTAL	3/7/2024	JJ/RD/SA	AL/JS
1	30% SUBMITTAL	10/16/2023	JJ/AC	AL/JS

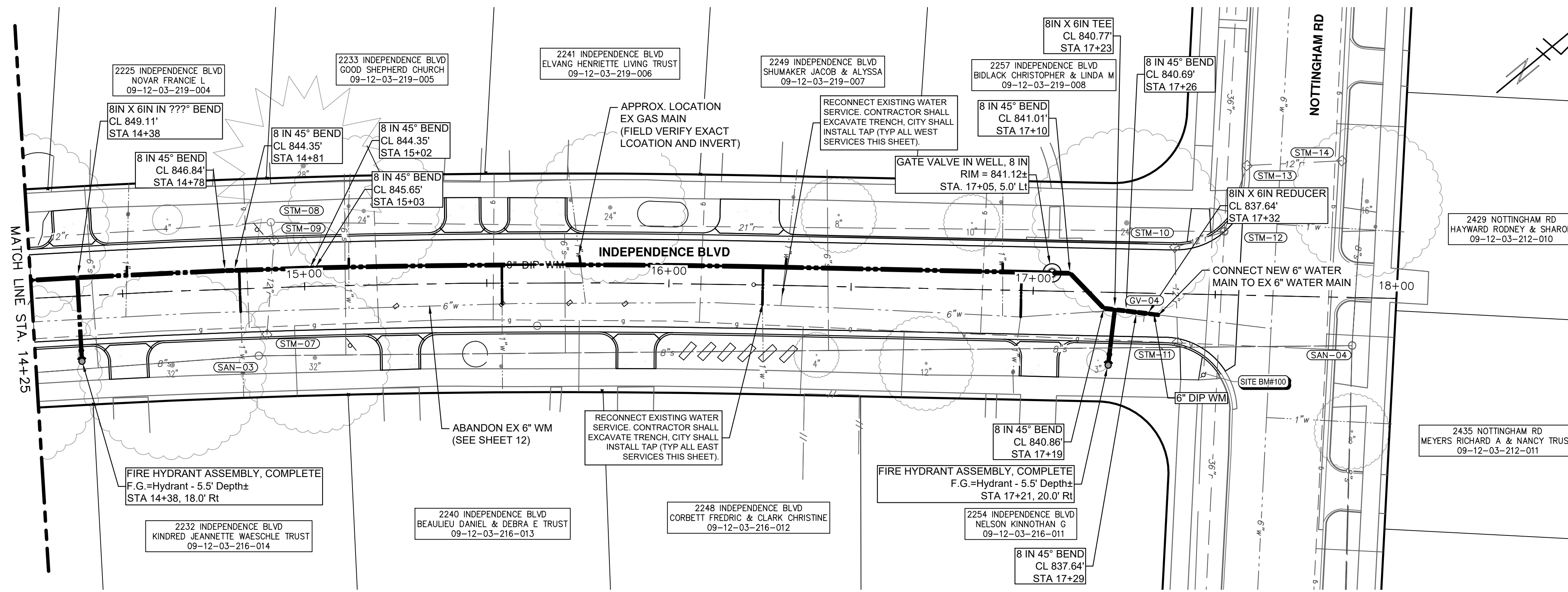
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PUBLIC SERVICES
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ANN ARBOR MI 48106-8647
www.aagov.org



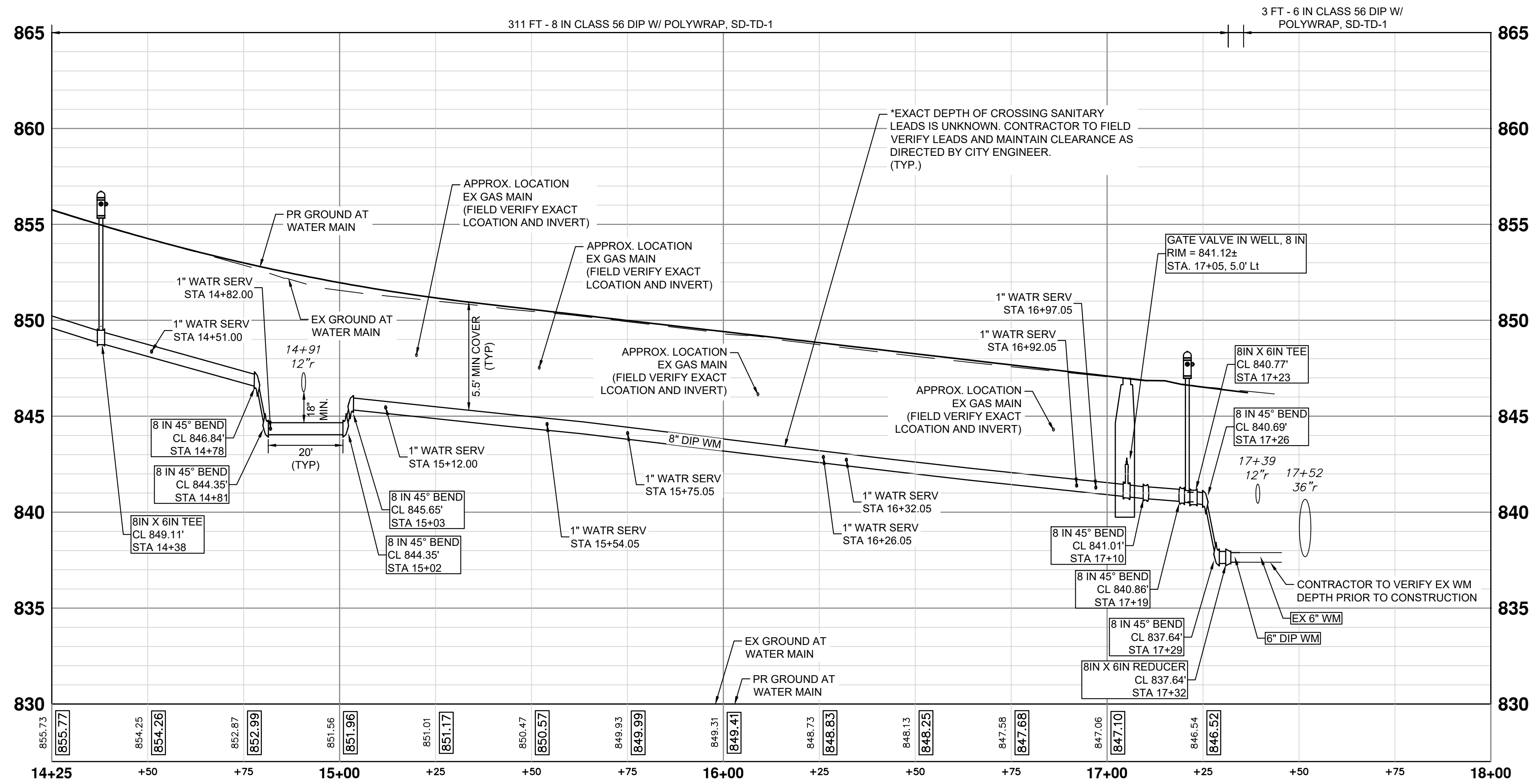
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YORKSHIRE, INDEPENDENCE, & MEDFORD
WATER MAIN REPLACEMENT PROJECT
PROFILE SHEET - INDEPENDENCE BLVD STA 10+00 TO STA 14+25

SCALE HORIZONTAL: 1" = 20' VERTICAL: 1" = 5'
DRAWING No. 2023-24-15

J:\AA\Design\AA23005 - YIM Water Main Replacement\Ann Arbor Cods\Plan Production\AA23005_Watr_INDEPENDENCE.dwg Dwg Created: 5-Mar-24 - _a2 standard bw.stb - Plot Date: 7-Mar-24



WATER MAIN PLAN - INDEPENDENCE BLVD - STA 14+25 TO STA 18+00



WATER MAIN PROFILE - INDEPENDENCE BLVD - STA 14+25 TO STA 18+00

NOTES

1. CONNECTIONS TO EXISTING WATER MAINS SHALL BE INCLUDED IN THE UNIT PRICES FOR THE WATER MAIN PER ARTICLE 11, SUBSECTION 00 (WATER MAIN AND APPURTENANCES) OF THE CITY OF ANN ARBOR 2024 STANDARD SPECIFICATIONS FOR CONSTRUCTION

WATERMAIN QUANTITIES - THIS SHEET

Item	Quantity	Unit
6 In., Class 56 DIP w/polywrap, SD-TD-1	36	Ft
8 In., Class 56 DIP w/polywrap, SD-TD-1	311	Ft
8 In. 45° DIP Bend	8	Ea
8 In. X 6 In. DIP Reducer	1	Ea
8 In. X 8 In. X 6 In. DIP Tee	2	Ea
Gate Valve In Well, 8 In.	1	Ea
Excavate & Backfill For Water Service Tap And Lead	57	Ft
Fire Hydrant Assembly, Complete	2	Ea



Know what's below. Call Before you dig.

REV.	DATE	DRAWN	CHECKED	DESCRIPTION
2	3/7/2024	JJ/RD/SA	AL/JS	FINAL PLAN SUBMITTAL
1	10/16/2023	JJ/AC	AL/JS	30% SUBMITTAL

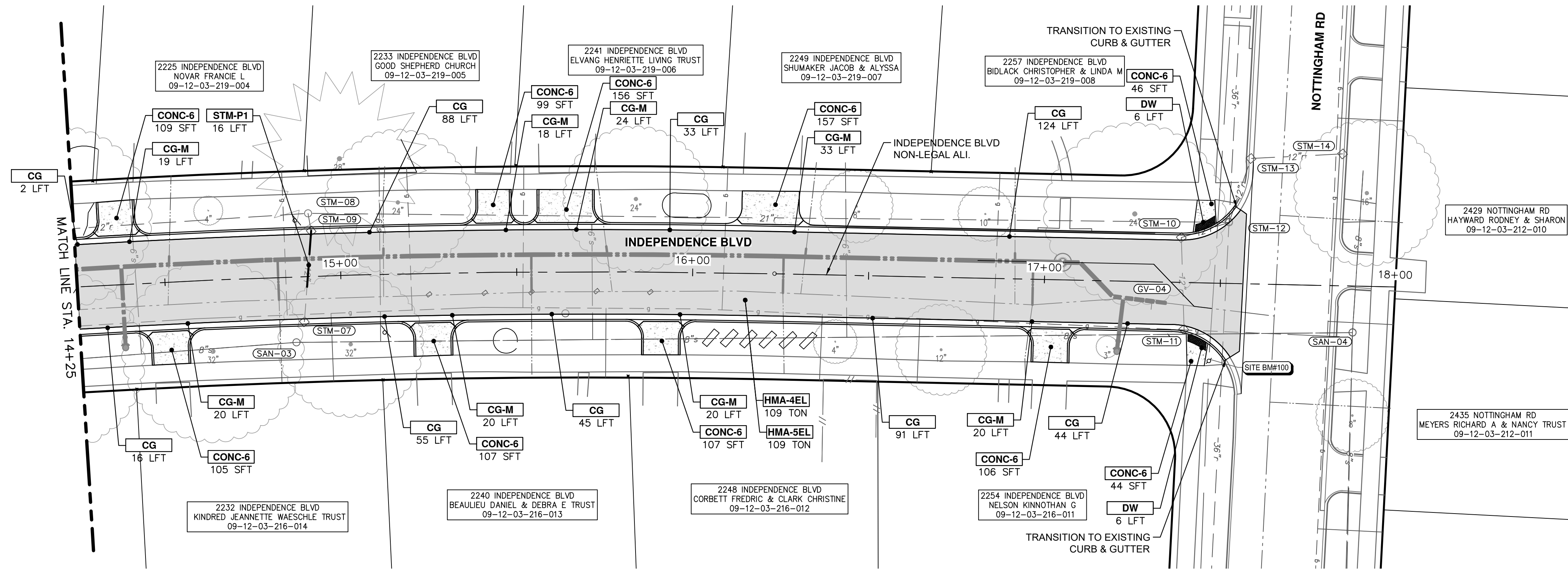
CITY OF ANN ARBOR
PUBLIC SERVICES
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P.O. BOX 8647
ANN ARBOR MI 48107-8647
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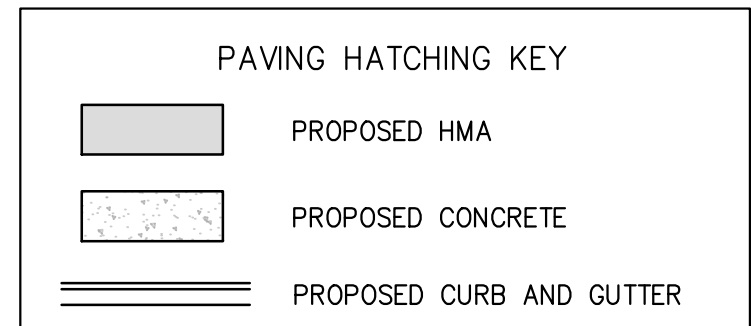
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YORKSHIRE, INDEPENDENCE, & MEDFORD
WATER MAIN REPLACEMENT PROJECT
WATER MAIN PLAN & PROFILE - INDEPENDENCE BLVD STA 14+25 TO STA 18+00

SCALE PLAN: 1" = 20'
PROFILE: 1" = 4'
DRAWING No. 2023-24-16
SHEET No.

J:\AA\Design\AA23005 - YIM Water Main Replacement\Ann Arbor Cods\Plan Production\AA23005_PPrd_INDEPENDENCE.dwg Dwg Created: 4-Mar-24 - _a2_standard_bw.stb - Plot Date: 7-Mar-24



CONSTRUCTION PLAN - INDEPENDENCE BLVD - STA 14+25 TO STA 18+00



CONSTRUCTION KEY	
KEY	DESCRIPTION
HMA-4EL	HMA, 4EL
HMA-5EL	HMA, 5EL
CG	CONC, CURB OR CURB & GUTTER, ALL TYPES AGGREGATE BASE, 8 IN. 21AA, CIP
CG-M	CON, DRIVEWAY OPENING, TYPE M AGGREGATE BASE, 8 IN. 21AA, CIP
SW-4	CONC, SIDEWALK, 4 IN. AGGREGATE BASE, 6 INCH, LIMESTONE
CONC-6	CONC, SIDEWALK, DRIVE APPROACH, OR RAMP, 6 IN. AGGREGATE BASE, 6 IN. 21AA, CIP
CONC-8	CONC, SIDEWALK, DRIVE APPROACH OR RAMP, 8 IN. AGGREGATE BASE, 6 IN. 21AA, CIP
DWS	DETECTABLE WARNING SURFACE
STM-P#	12 IN., CL IV RCP STORM SEWER, SD-TD-1 PIPE UNDERCUT & BACKFILL, STORM

CONSTRUCTION QUANTITIES - THIS SHEET		
Item	Quantity	Unit
Machine Grading, Modified	3.4	Sta
12 In., CL IV RCP Storm Sewer, SD-TD-1	16	Ft
Pipe Undercut & Backfill, Storm	25	Cyd
Storm Structure Cover	5	Ea
Storm Structure Cover, Adjust	5	Ea
Underdrain, Subbase, 6 inch	672	Ft
Water Structure Cover	1	Ea
Water Structure Cover, Adjust	1	Ea
Subbase, CIP	2	Cyd
Aggregate Base, 6 In., 21AA, CIP	123	Syd
Aggregate Base, 8 In., 21AA, CIP	612	Syd
HMA, 4EL	109	Ton
HMA, 5EL	109	Ton
Conc, Curb or Curb & Gutter, All Types	498	Ft
Conc, Driveway Opening, Type M	174	Ft
Conc, Sidewalk, Drive Approach, or Ramp, 6 In.	1036	Sft
Detectable Warning Surface	12	Ft
Turf Restoration	600	Syd

PROPOSED DRAINAGE PIPE TABLE					
PIPE NAME	SIZE (INCH)	LENGTH (FEET)	INVERT (UPSTREAM)	INVERT (DOWNSTREAM)	SLOPE
STM-P1	12	16	846.33	846.04	1.81%

AL/JS	AL/JS	CHECKED
JJ/RD/SA	JJ/RD/SA	DRAWN
3/7/2024	10/16/2023	DATE
2	1	REV.
FINAL PLAN SUBMITTAL	30% SUBMITTAL	DESCRIPTION

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
YORKSHIRE, INDEPENDENCE, & MEDFORD
WATER MAIN REPLACEMENT PROJECT

SCALE PLAN: 1" = 20'

PROFILE: 1" = 4'

DRAWING No. 2023-24-17

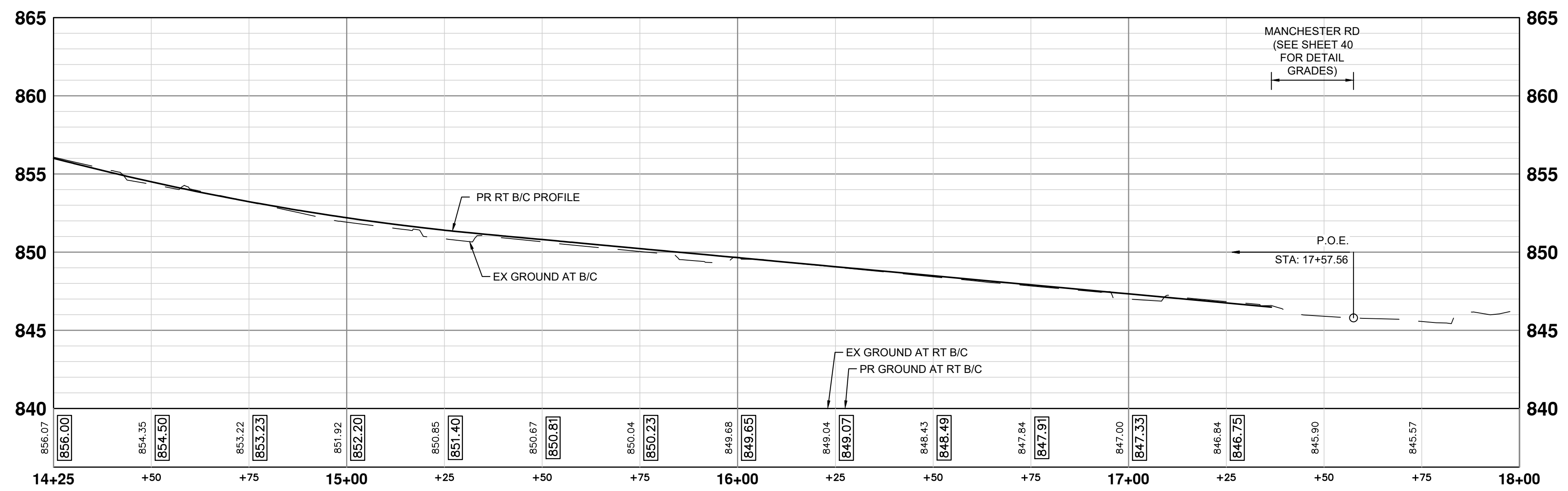
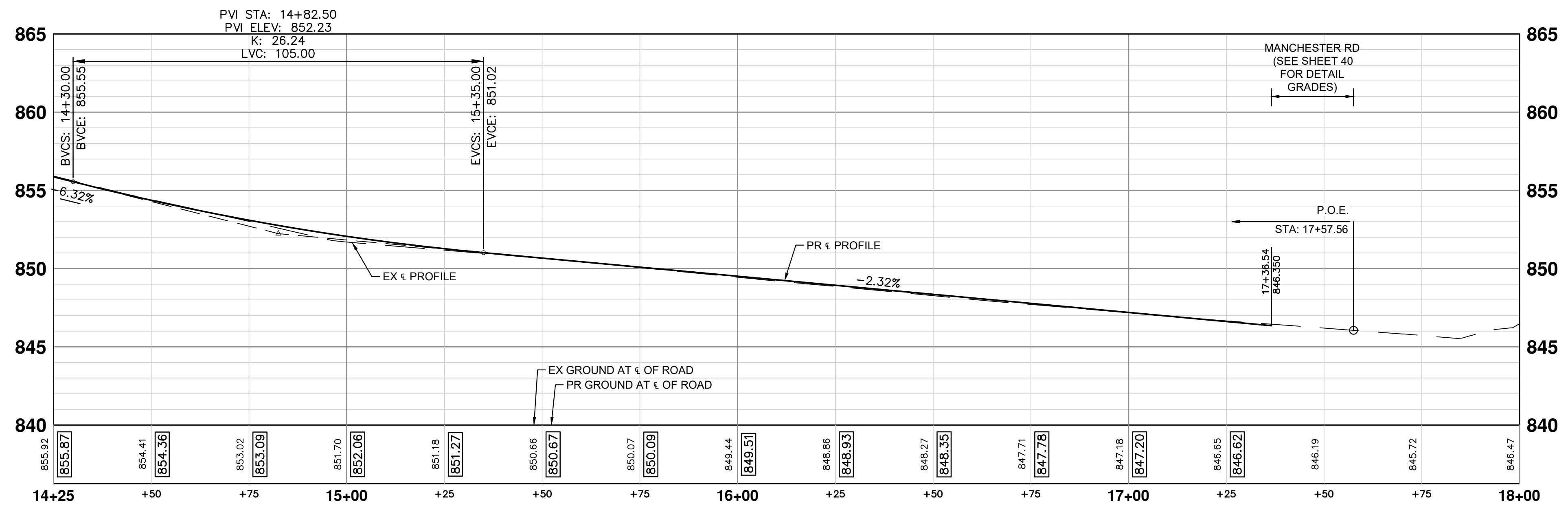
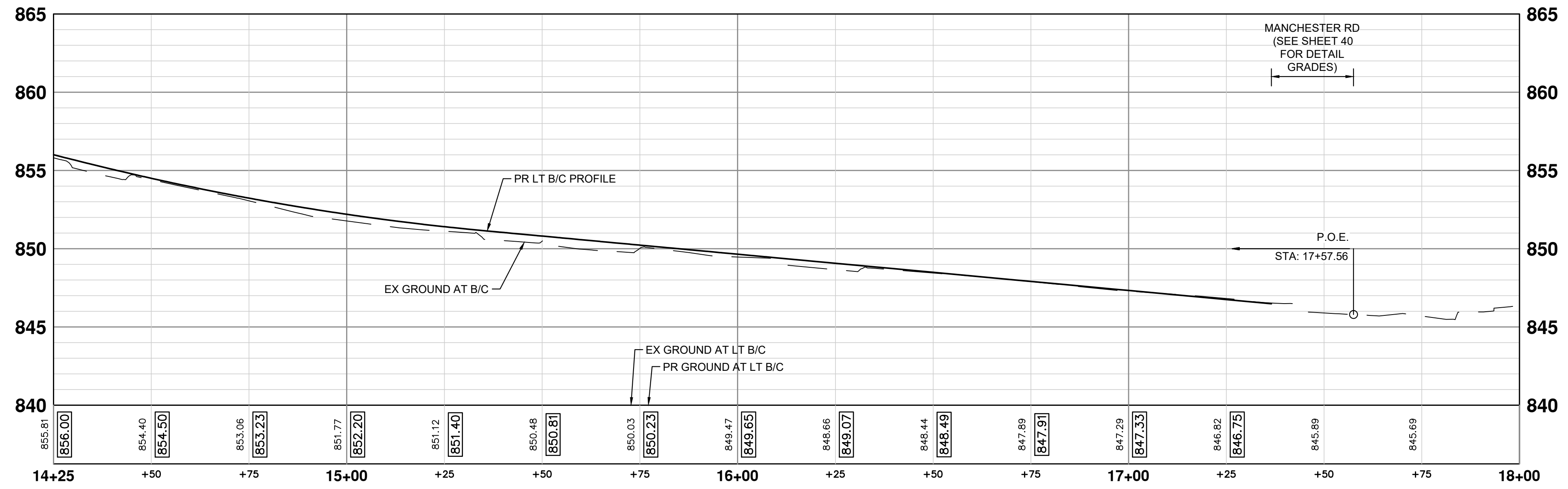
SHEET No. 17 OF 47

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

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CONSTRUCTION PLAN - INDEPENDENCE BLVD STA 14+25 TO STA 18+00

J:\AA\Design\AA23005 - YIM Water Main Replacement\Ann Arbor Cods\Plan Production\AA23005_RPR_INDEPENDENCE.dwg Dwg Created: 21-Feb-24 - _o2 standard bw.stb - Plot Date: 7-Mar-24



INDEPENDENCE BLVD PROFILES - STA 14+25 TO STA 18+00



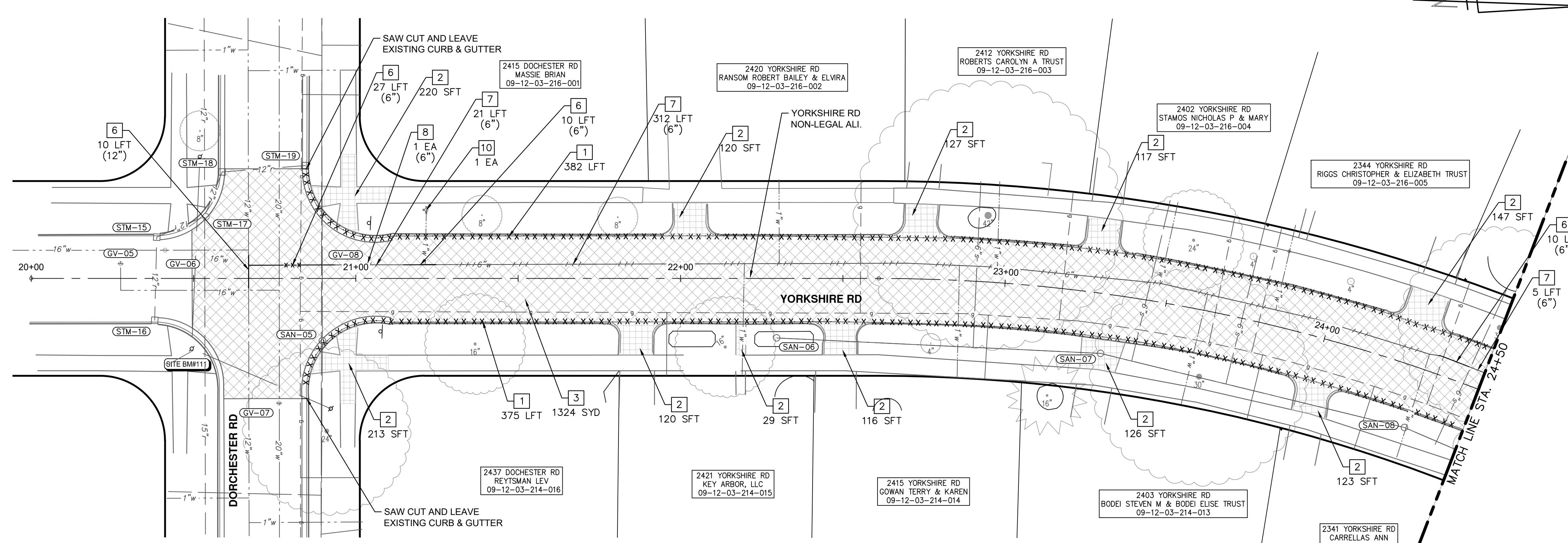
REV.	DESCRIPTION	DATE	DRAWN	CHECKED
2	FINAL PLAN SUBMITTAL	3/7/2024	JJ/RD/SA	AL/JS
1	30% SUBMITTAL	10/16/2023	JJ/AC	AL/JS

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PUBLIC SERVICES
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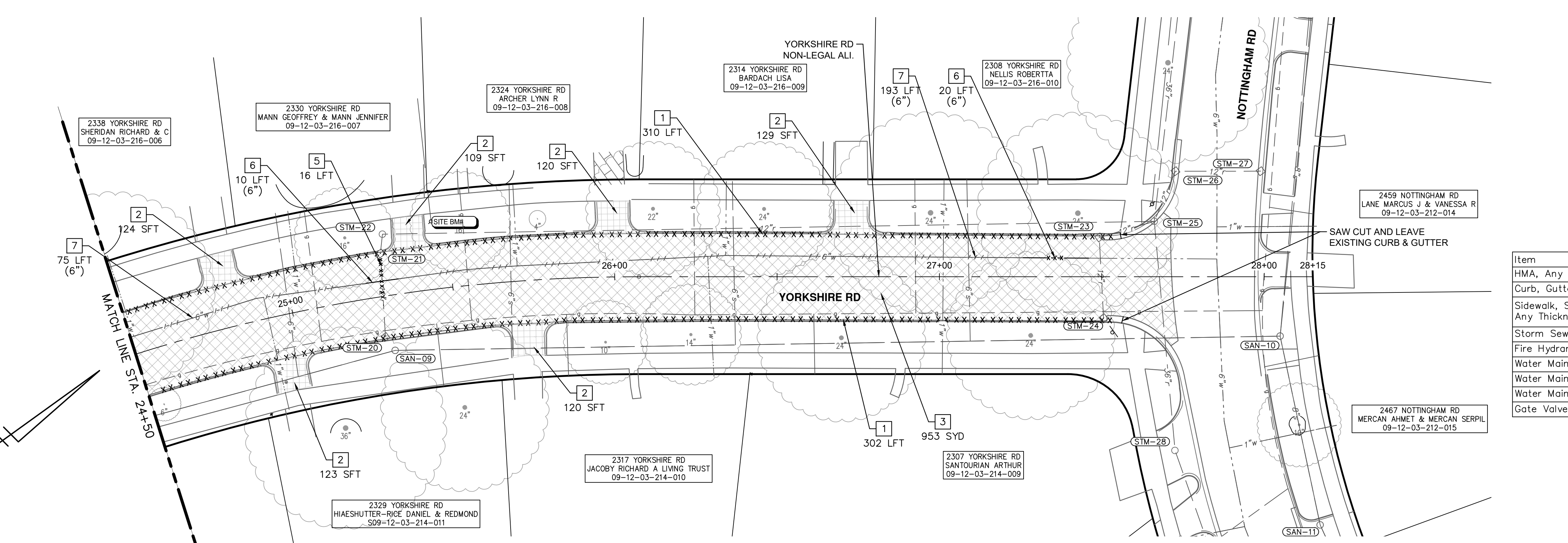
CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
YORKSHIRE, INDEPENDENCE, & MEDFORD
WATER MAIN REPLACEMENT PROJECT
PROFILE SHEET - INDEPENDENCE BLVD STA 14+25 TO STA 18+00

SCALE HORIZONTAL: 1" = 20' VERTICAL: 1" = 5'
DRAWING No. 2023-24-18

J:\AA\Design\AA23005 - YIM Water Main Replacement\Ann Arbor Cods\Plan Production\AA23005_Rem_YORKSHIRE.dwg Dwg Created: 5-Mar-24 - _02_standard bw.stb - Plot Date: 7-Mar-24



REMOVAL PLAN - YORKSHIRE RD - STA 20+00 TO STA 24+50



REMOVAL PLAN - YORKSHIRE RD - STA 24+50 TO STA 28+15

REMOVAL HATCH KEY

[Hatch Pattern]	HMA SURFACE, REM
[Hatch Pattern]	SIDEWALK AND RAMPS, REMOVE DRIVEWAY APPROACH, REMOVE
[Hatch Pattern]	CURB AND GUTTER, ANY TYPE OR SIZE, REM, MODIFIED
[Hatch Pattern]	CURB AND GUTTER, ANY TYPE OR SIZE, REM, MODIFIED
[Hatch Pattern]	WATER MAIN PIPE, REM
[Hatch Pattern]	WATER MAIN PIPE, ABANDON


REMOVAL KEY

KEY	DESCRIPTION
1	CURB, CUTTER, AND CURB AND GUTTER, ANY TYPE, REM
2	SIDEWALK AND RAMPS, REMOVE* DRIVEWAY APPROACH, REMOVE*
3	HMA ANY THICKNESS, REM*
4	COLD MILLING HMA SURFACE
5	STORM SEWER PIPE, 12 IN. DIA., REM
6	WATER MAIN PIPE, _ IN. DIA., REM
7	WATER MAIN PIPE, _ IN. DIA., ABANDON
8	GATE VALVE IN BOX, _ IN. DIA., ABANDON
9	GATE VALVE IN BOX, _ IN. DIA., REM
10	FIRE HYDRANT ASSEMBLY, REM

*SAWCUT FULL DEPTH AT REMOVAL LIMITS


REMOVAL QUANTITIES - THIS SHEET

Item	Quantity	Unit
HMA, Any Thickness, Rem	2277	Syd
Curb, Gutter, and Curb and Gutter, Any Type, Rem	1369	Ft
Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	2183	Sft
Storm Sewer Pipe, 12 In. Dia., Rem	16	Ft
Fire Hydrant Assembly, Rem	1	Ea
Water Main Pipe, 6 In. Dia., Abandon	606	Ft
Water Main Pipe, 6 In. Dia., Rem	77	Ft
Water Main Pipe, 12 In. Dia., Rem	10	Ft
Gate Valve in Box, 6 In. Dia., Abandon	1	Ea



Know what's below.
Call Before you dig.

REV.	DATE	DESCRIPTION
2	3/7/2024	FINAL PLAN SUBMITTAL
1	10/16/2023	30% SUBMITTAL



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**YORKSHIRE, INDEPENDENCE, & MEDFORD
WATER MAIN REPLACEMENT PROJECT**

REMOVAL PLAN - YORKSHIRE RD STA 20+00 TO STA 28+15

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

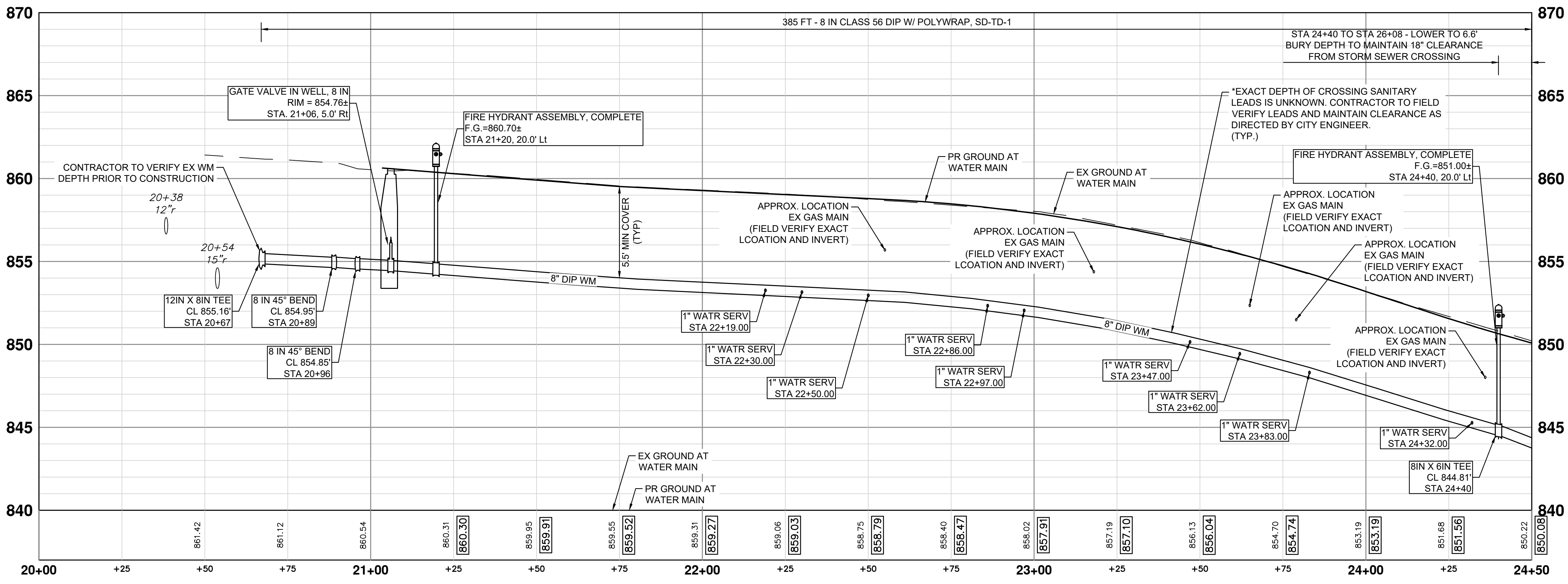
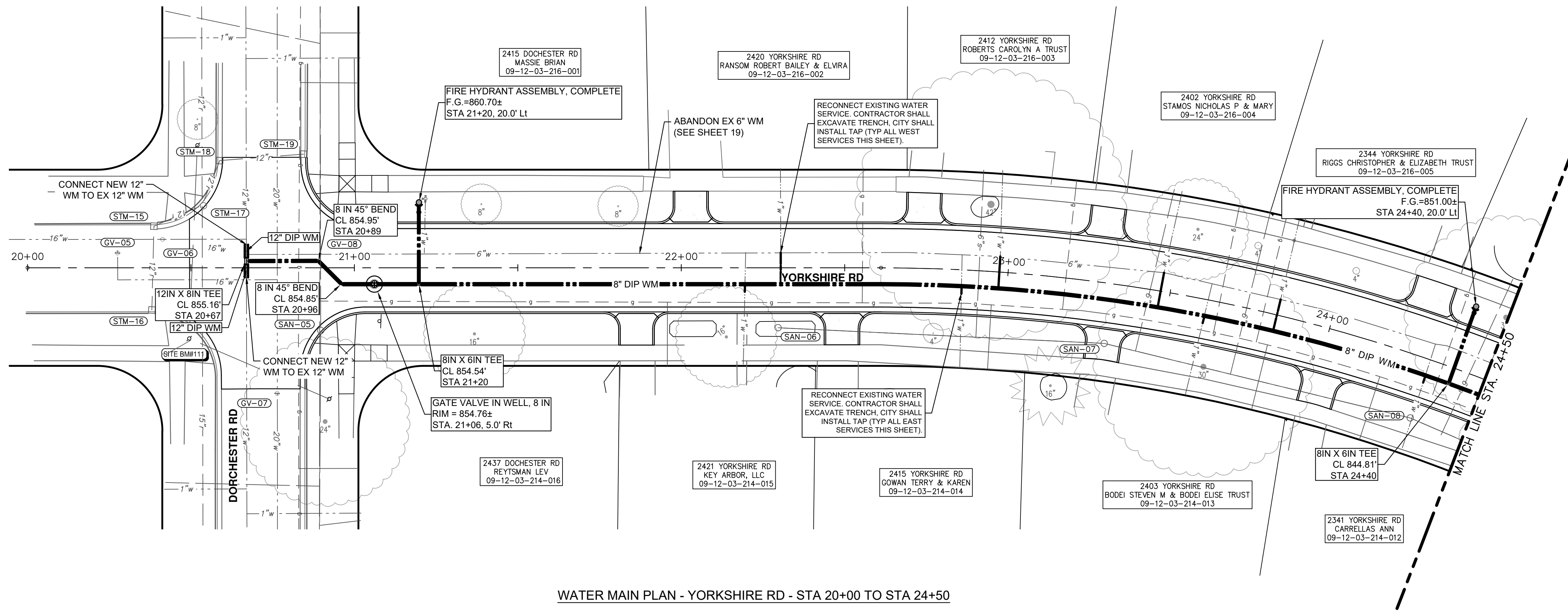
SCALE: 1" = 20'

DRAWING No. 2023-24-19

SHEET No.

19 OF 47

J:\AA\Design\AA23005 - YIM Water Main Replacement\Ann Arbor Cods\Plan Production\AA23005_Watr_YORKSHIRE.dwg Dwg Created: 5-Mar-24 - _02_standard bw.stb - Plot Date: 7-Mar-24




NOTES

- CONNECTIONS TO EXISTING WATER MAINS SHALL BE INCLUDED IN THE UNIT PRICES FOR THE WATER MAIN PER ARTICLE 11, SUBSECTION 00 (WATER MAIN AND APPURTENANCES) OF THE CITY OF ANN ARBOR 2024 STANDARD SPECIFICATIONS FOR CONSTRUCTION


WATERMAIN QUANTITIES - THIS SHEET

Item	Quantity	Unit
6 In., Class 56 DIP w/polywrap, SD-TD-1	44	Ft
8 In., Class 56 DIP w/polywrap, SD-TD-1	385	Ft
12 In., Class 56 DIP w/polywrap, SD-TD-1	10	Ft
8 In. 45° DIP Bend	2	Ea
8 In. X 8 In. X 6 In. DIP Tee	2	Ea
12 In. X 12 In. X 8 In. DIP Tee	1	Ea
Gate Valve in Well, 8 In.	1	Ea
Excavate & Backfill For Water Service Tap And Lead	60	Ft
Fire Hydrant Assembly, Complete	2	Ea



Know what's below.
Call Before you dig.

REV.	DATE	DESCRIPTION	DRAWN	CHECKED
2	3/7/2024	FINAL PLAN SUBMITTAL	JJ/RD/SA	AL/JS
1	10/16/2023	30% SUBMITTAL	JJ/AC	AL/JS



CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
YORKSHIRE, INDEPENDENCE, & MEDFORD
WATER MAIN REPLACEMENT PROJECT

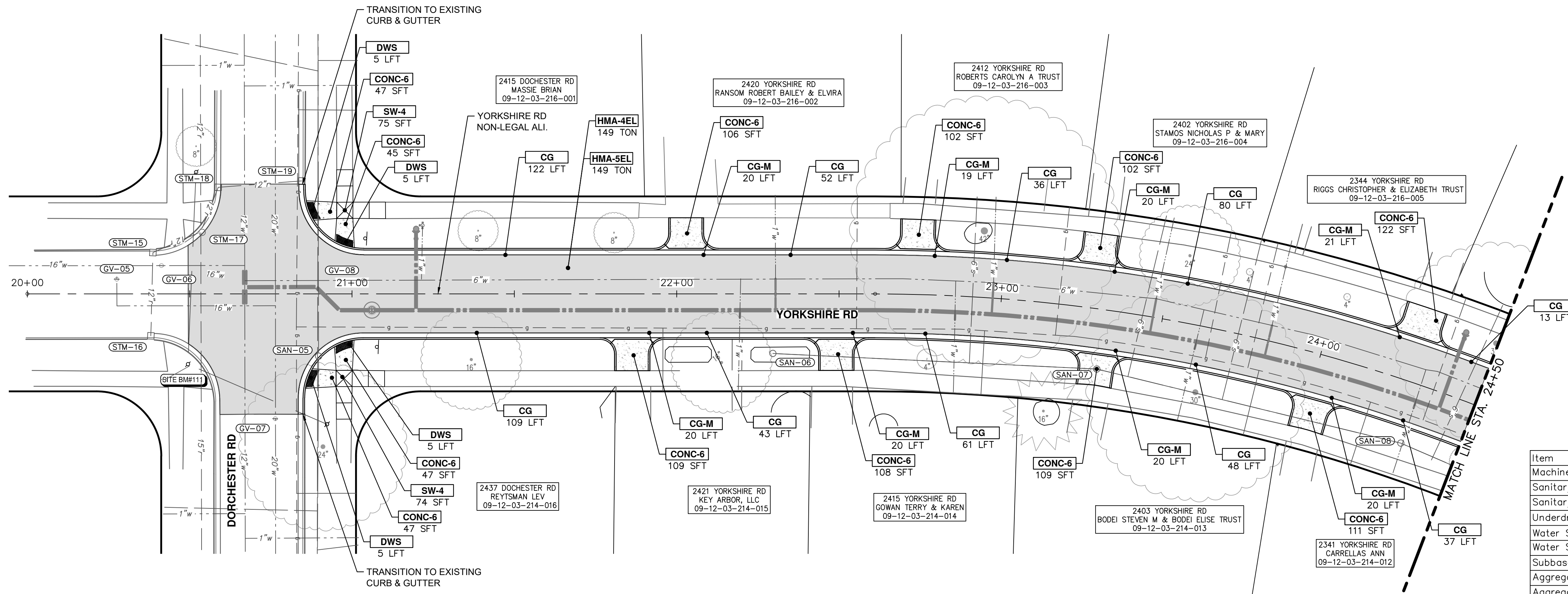
WATER MAIN PLAN & PROFILE - YORKSHIRE RD STA 20+00 TO STA 24+50

SCALE PLAN: 1" = 40'
 PROFILE: 1" = 4'

DRAWING No. 2023-24-20

SHEET No. 20 OF 47

J:\AA\Design\AA23005 - YIM Water Main Replacement\Ann Arbor Cods\Plan Production\AA23005_PPrd_YORKSHIRE.dwg Dwg Created: 5-Mar-24 - _c2_standard bw.stb - Plot Date: 7-Mar-24



PAVING HATCHING KEY

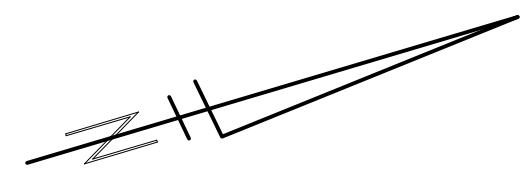
[Hatched Box]	PROPOSED HMA
[Dotted Box]	PROPOSED CONCRETE
[Double Line]	PROPOSED CURB AND GUTTER

CONSTRUCTION KEY

KEY	DESCRIPTION
HMA-4EL	HMA, 4EL
HMA-5EL	HMA, 5EL
CG	CONC, CURB OR CURB & GUTTER, ALL TYPES AGGREGATE BASE, 8 IN. 21AA, CIP
CG-M	CON, DRIVEWAY OPENING, TYPE M AGGREGATE BASE, 8 IN. 21AA, CIP
SW-4	CONC, SIDEWALK, 4 IN. AGGREGATE BASE, 6 INCH, LIMESTONE
CONC-6	CONC, SIDEWALK, DRIVE APPROACH, OR RAMP, 6 IN. AGGREGATE BASE, 6 IN. 21AA, CIP
CONC-8	CONC, SIDEWALK, DRIVE APPROACH OR RAMP, 8 IN. AGGREGATE BASE, 6 IN. 21AA, CIP
DWS	DETECTABLE WARNING SURFACE
STM-P#	12 IN., CL IV RCP STORM SEWER, SD-TD-1 PIPE UNDERCUT & BACKFILL, STORM

CONSTRUCTION QUANTITIES - THIS SHEET

Item	Quantity	Unit
Machine Grading, Modified	23.5	Sta
Sanitary Structure Cover	1	Ea
Sanitary Structure Cover, Adjust	1	Ea
Underdrain, Subbase, 6 inch	761	Ft
Water Structure Cover	1	Ea
Water Structure Cover, Adjust	1	Ea
Subbase, CIP	4	Cyd
Aggregate Base, 6 in., 21AA, CIP	124	Syd
Aggregate Base, 8 in., 21AA, CIP	452	Syd
HMA, 4EL	149	Ton
HMA, 5EL	149	Ton
Conc, Curb or Curb & Gutter, All Types	601	Ft
Conc, Driveway Opening, Type M	160	Ft
Conc, Sidewalk, 4 in.	149	Sft
Conc, Sidewalk, Drive Approach, or Ramp, 6 in.	1055	Sft
Detectable Warning Surface	20	Ft
Turf Restoration	4180	Syd



CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

YORKSHIRE, INDEPENDENCE, & MEDFORD
WATER MAIN REPLACEMENT PROJECT

CONSTRUCTION PLAN - YORKSHIRE RD STA 20+00 TO STA 24+50

SCALE PLAN: 1" = 20'
PROFILE: 1" = 4'

DRAWING No. 2023-24-21

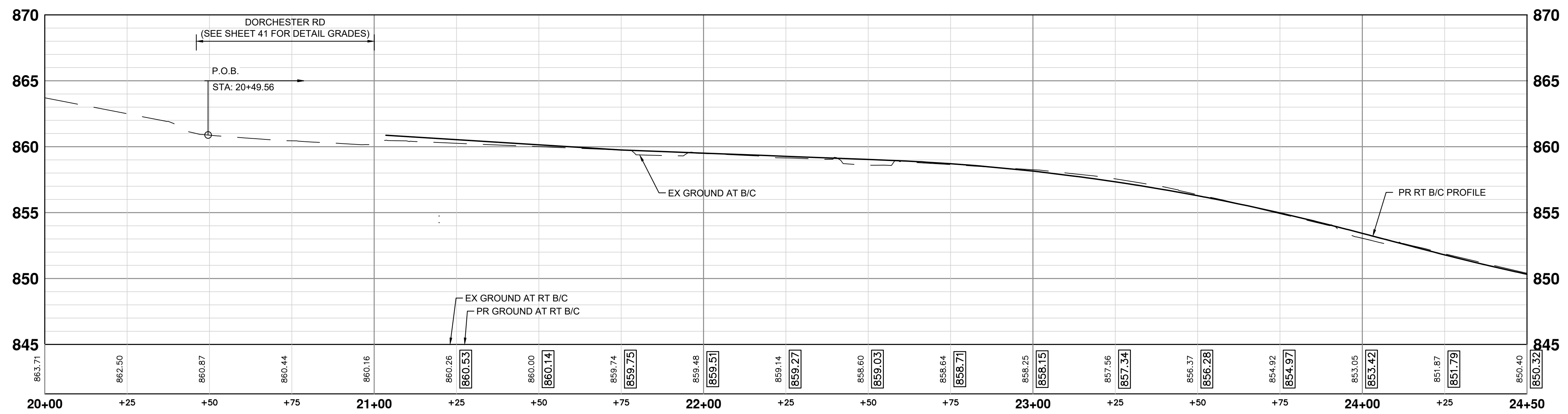
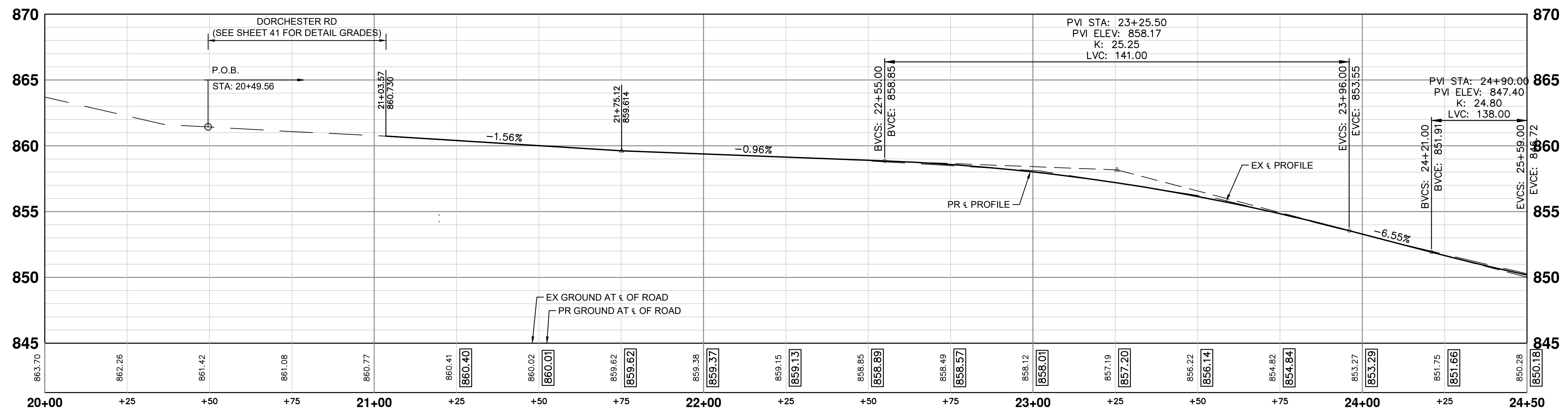
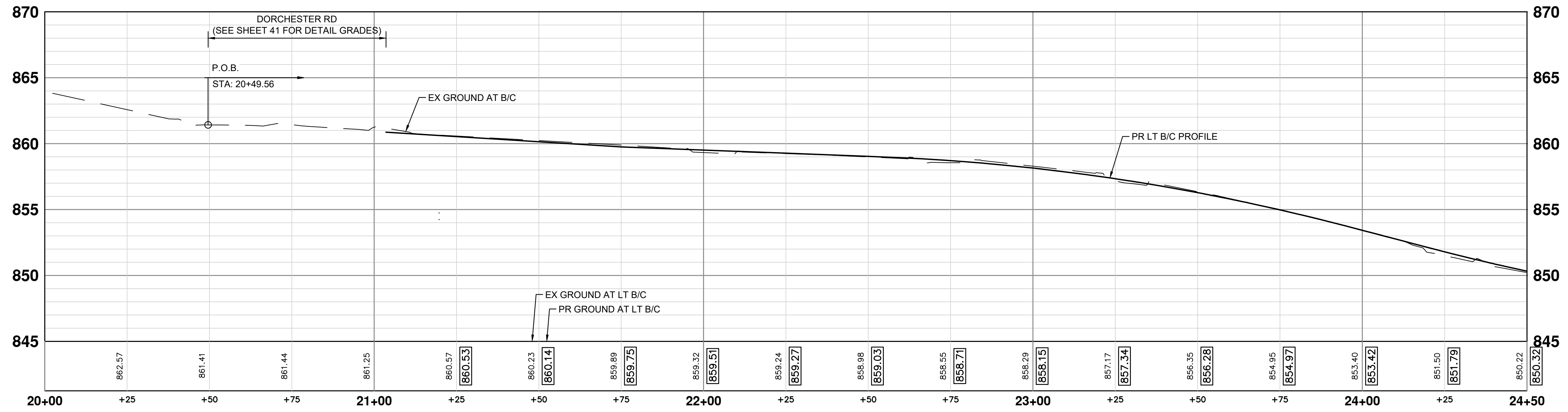
SHEET No. 21 OF 47

811
Know what's below.
Call Before you dig.

AL/JS	AL/JS	CHECKED
JJ/RD/SA	JJ/AC	DRAWN
3/7/2024	10/16/2023	DATE
2	1	REV.
FINAL PLAN SUBMITTAL	30% SUBMITTAL	DESCRIPTION

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PUBLIC SERVICES
301 EAST HURON STREET
P.O. BOX 8647
ANN ARBOR MI 48107-8647
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J:\AA\Design\AA23005 - YIM Water Main Replacement\Ann Arbor Cods\Plan Production\AA23005_RPR_YORKSHIRE.dwg Dwg Created: 22-Feb-24 - _a2 standard bw.stb - Plot Date: 7-Mar-24



YORKSHIRE RD PROFILES - STA 20+00 TO STA 24+50



REV.	DESCRIPTION	DATE	DRAWN	CHECKED
2	FINAL PLAN SUBMITTAL	3/7/2024	JJ/RD/SA	AL/JS
1	30% SUBMITTAL	10/16/2023	JJ/AC	AL/JS

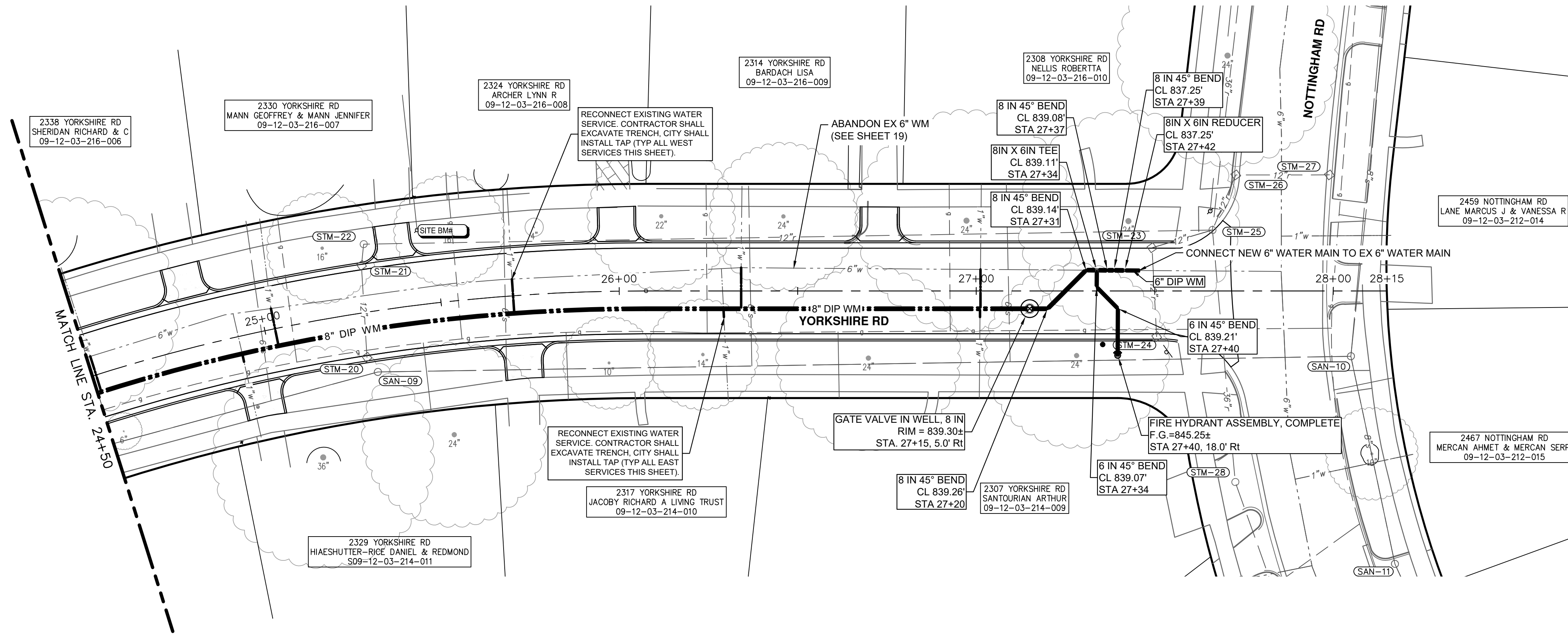
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301 EAST HURON STREET
ANN ARBOR, MI 48106-0647
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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
YORKSHIRE, INDEPENDENCE, & MEDFORD
WATER MAIN REPLACEMENT PROJECT
PROFILE SHEET - YORKSHIRE RD STA 20+00 TO STA 24+50

SCALE HORIZONTAL: 1" = 20' VERTICAL: 1" = 5'

DRAWING No.
2023-24-22

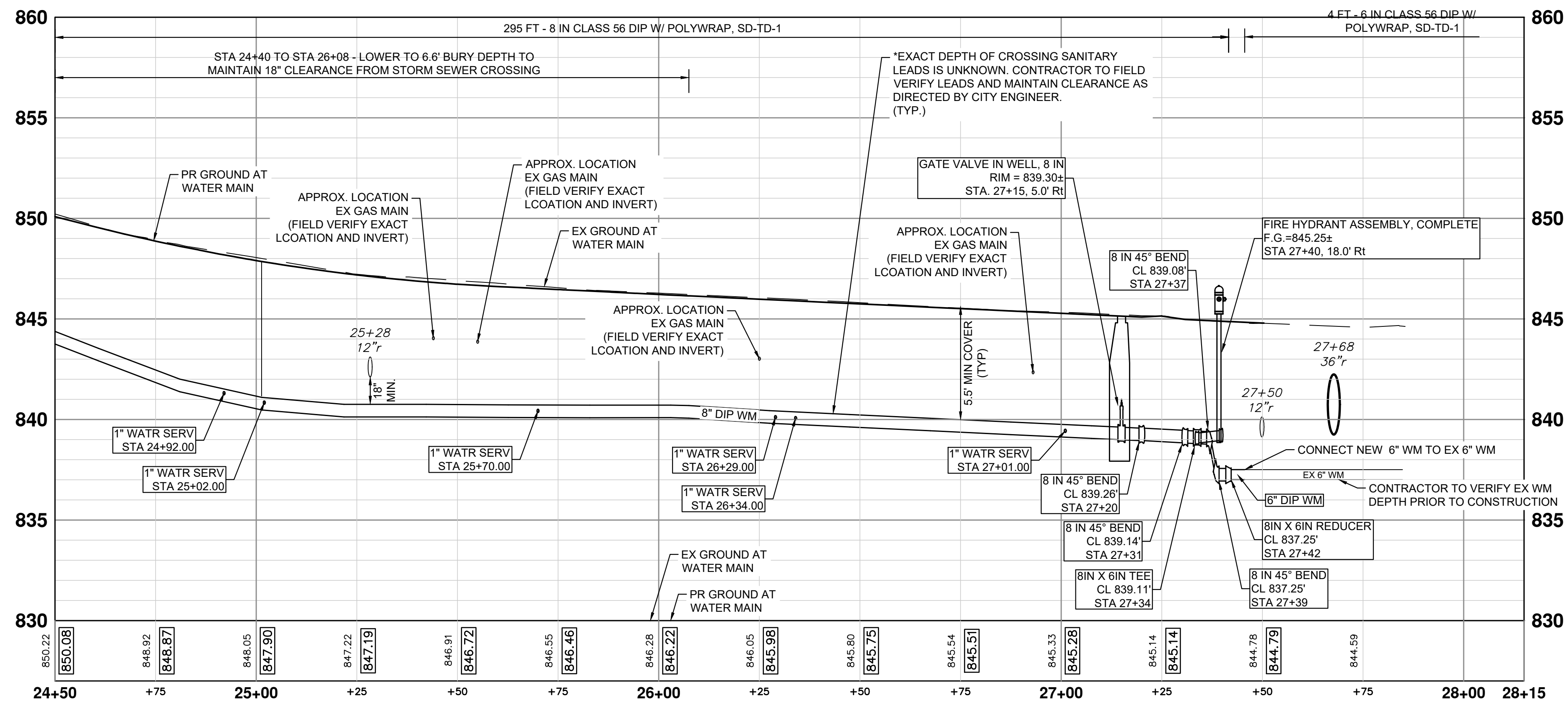
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WATER MAIN PLAN - YORKSHIRE RD - STA 24+50 TO STA 28+15

NOTES

1. CONNECTIONS TO EXISTING WATER MAINS SHALL BE INCLUDED IN THE UNIT PRICES FOR THE WATER MAIN PER ARTICLE 11, SUBSECTION 00 (WATER MAIN AND APPURTENANCES) OF THE CITY OF ANN ARBOR 2024 STANDARD SPECIFICATIONS FOR CONSTRUCTION



WATER MAIN PROFILE - YORKSHIRE RD - STA 24+50 TO STA 28+15

WATERMAIN QUANTITIES - THIS SHEET

Item	Quantity	Unit
6 In., Class 56 DIP w/polywrap, SD-TD-1	28	Ft
8 In., Class 56 DIP w/polywrap, SD-TD-1	295	Ft
6 In. 45° DIP Bend	2	Ea
8 In. 45° DIP Bend	4	Ea
8 In. X 6 In. DIP Reducer	1	Ea
8 In. X 8 In. X 6 In. DIP Tee	1	Ea
Gate Valve In Well, 8 In.	1	Ea
Excavate & Backfill For Water Service Tap And Lead	50	Ft
Fire Hydrant Assembly, Complete	1	Ea

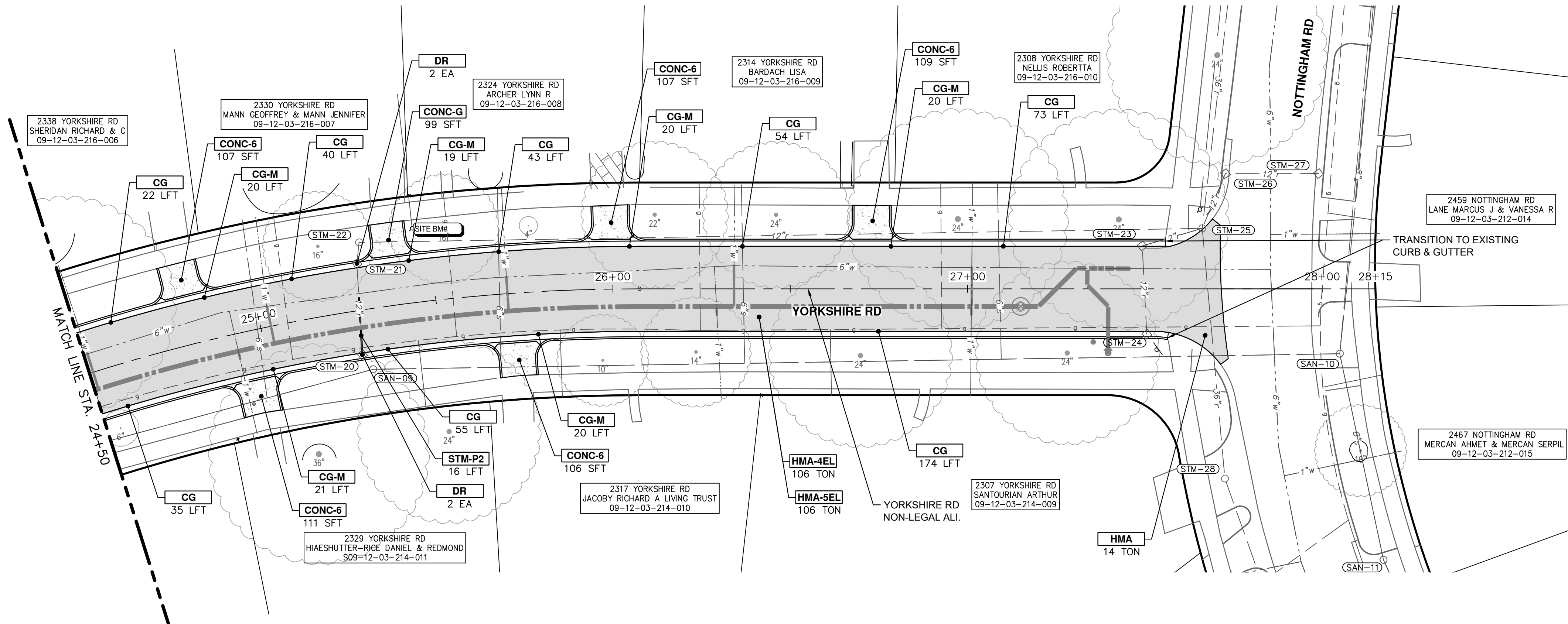


REV.	DATE	DESCRIPTION
2	3/7/2024	FINAL PLAN SUBMITTAL
1	10/16/2023	30% SUBMITTAL

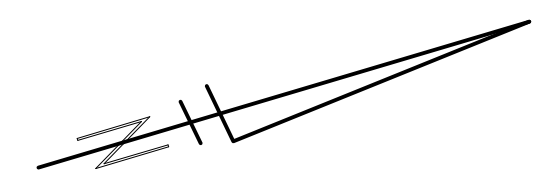
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J:\AA\Design\AA23005 - YIM Water Main Replacement\Ann Arbor Cadd\Plan Production\AA23005_PPrd_YORKSHIRE.dwg Dwg Created: 5-Mar-24 - _c2 standard bw.stb - Plot Date: 7-Mar-24



CONSTRUCTION PLAN - YORKSHIRE RD - STA 24+50 TO STA 28+15



PAVING HATCHING KEY

	PROPOSED HMA
	PROPOSED CONCRETE
	PROPOSED CURB AND GUTTER

CONSTRUCTION KEY

KEY	DESCRIPTION
HMA-4EL	HMA, 4EL
HMA-5EL	HMA, 5EL
CG	CONC, CURB OR CURB & GUTTER, ALL TYPES AGGREGATE BASE, 8 IN. 21AA, CIP
CG-M	CON, DRIVEWAY OPENING, TYPE M AGGREGATE BASE, 8 IN. 21AA, CIP
SW-4	CONC, SIDEWALK, 4 IN. AGGREGATE BASE, 6 INCH, LIMESTONE
CONC-6	CONC, SIDEWALK, DRIVE APPROACH, OR RAMP, 6 IN. AGGREGATE BASE, 6 IN. 21AA, CIP
CONC-8	CONC, SIDEWALK, DRIVE APPROACH OR RAMP, 8 IN. AGGREGATE BASE, 6 IN. 21AA, CIP
DWS	DETECTABLE WARNING SURFACE
STM-P#	12 IN., CL IV RCP STORM SEWER, SD-TD-1 PIPE UNDERCUT & BACKFILL, STORM

CONSTRUCTION QUANTITIES - THIS SHEET

Item	Quantity	Unit
Machine Grading, Modified	3.3	Sta
12 In., CL IV RCP Storm Sewer, SD-TD-1	16	Ft
Pipe Undercut & Backfill, Storm	25	Cyd
Storm Structure Cover	5	Ea
Storm Structure Cover, Adjust	5	Ea
Underdrain, Subbase, 6 inch	616	Ft
Water Structure Cover	1	Ea
Water Structure Cover, Adjust	1	Ea
Aggregate Base, 6 In., 21AA, CIP	83	Syd
Aggregate Base, 8 In., 21AA, CIP	580	Syd
HMA, 4EL	106	Ton
HMA, 5EL	106	Ton
Conc, Curb or Curb & Gutter, All Types	496	Ft
Conc, Driveway Opening, Type M	120	Ft
Conc, Sidewalk, Drive Approach, or Ramp, 6 In.	639	Sft
Turf Restoration	580	Syd

PROPOSED DRAINAGE PIPE TABLE

PIPE NAME	SIZE (INCH)	LENGTH (FEET)	INVERT (UPSTREAM)	INVERT (DOWNSTREAM)	SLOPE
STM-P2	12	16	842.46	842.01	2.79%



NO.	DATE	DESCRIPTION	BY	CHECKED
2	3/7/2024	FINAL PLAN SUBMITTAL	JJ/RD/SA	AL/JS
1	10/16/2023	30% SUBMITTAL	JJ/AC	AL/JS

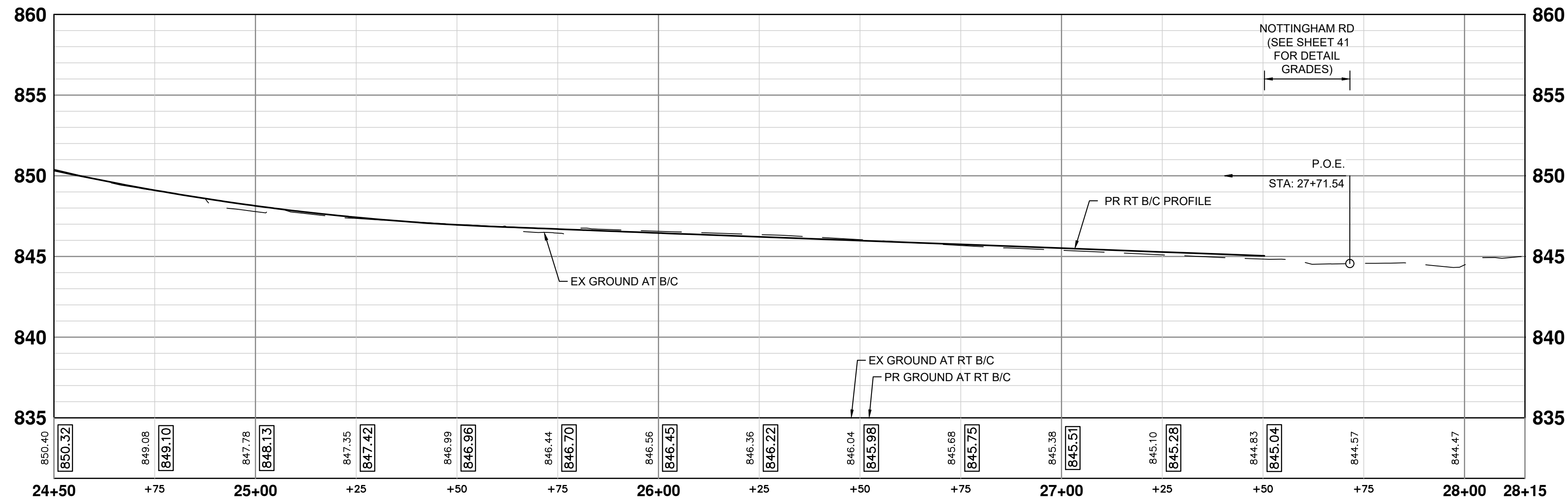
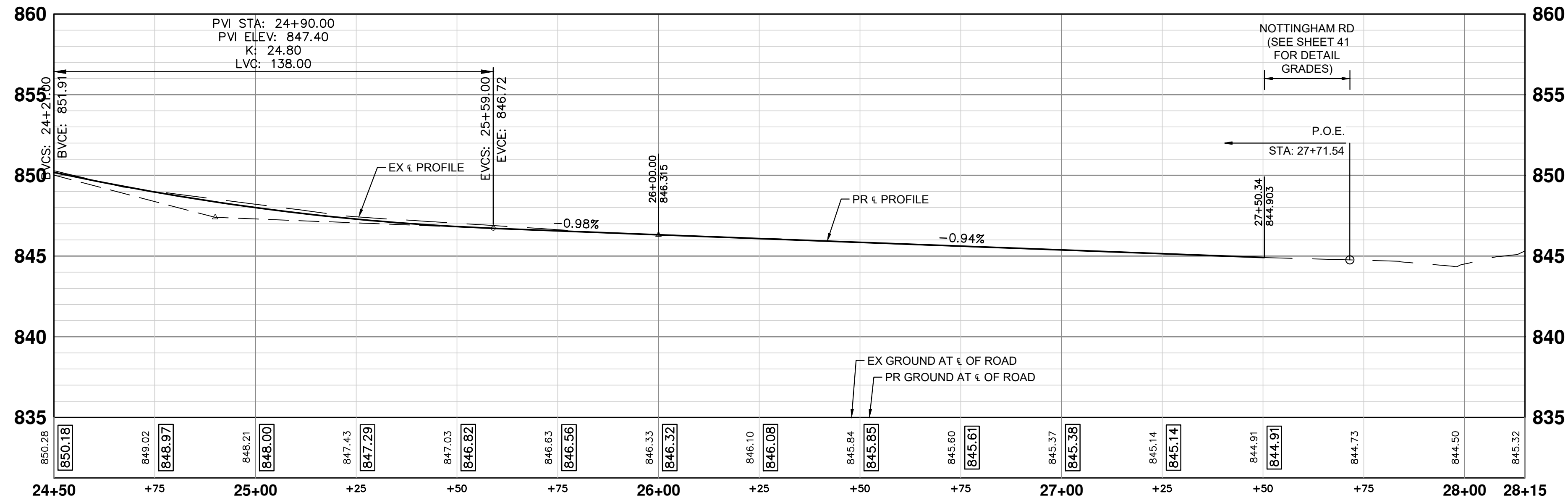
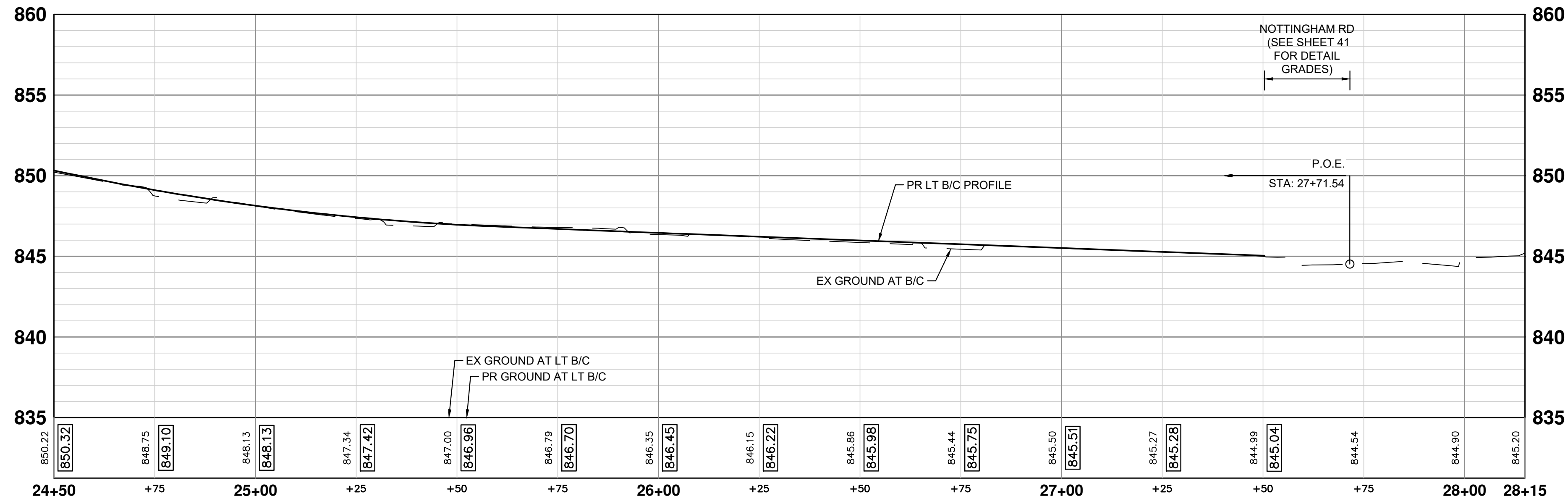
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WATER MAIN REPLACEMENT PROJECT
CONSTRUCTION PLAN - YORKSHIRE RD STA 24+50 TO STA 28+15

SCALE PLAN: 1" = 20'
PROFILE: 1" = 4'
DRAWING No. 2023-24-24

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YORKSHIRE RD PROFILES - STA 24+50 TO STA 28+15



REV.	DATE	DRAWN	CHECKED
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1	10/16/2023	JJ/AC	AL/JS

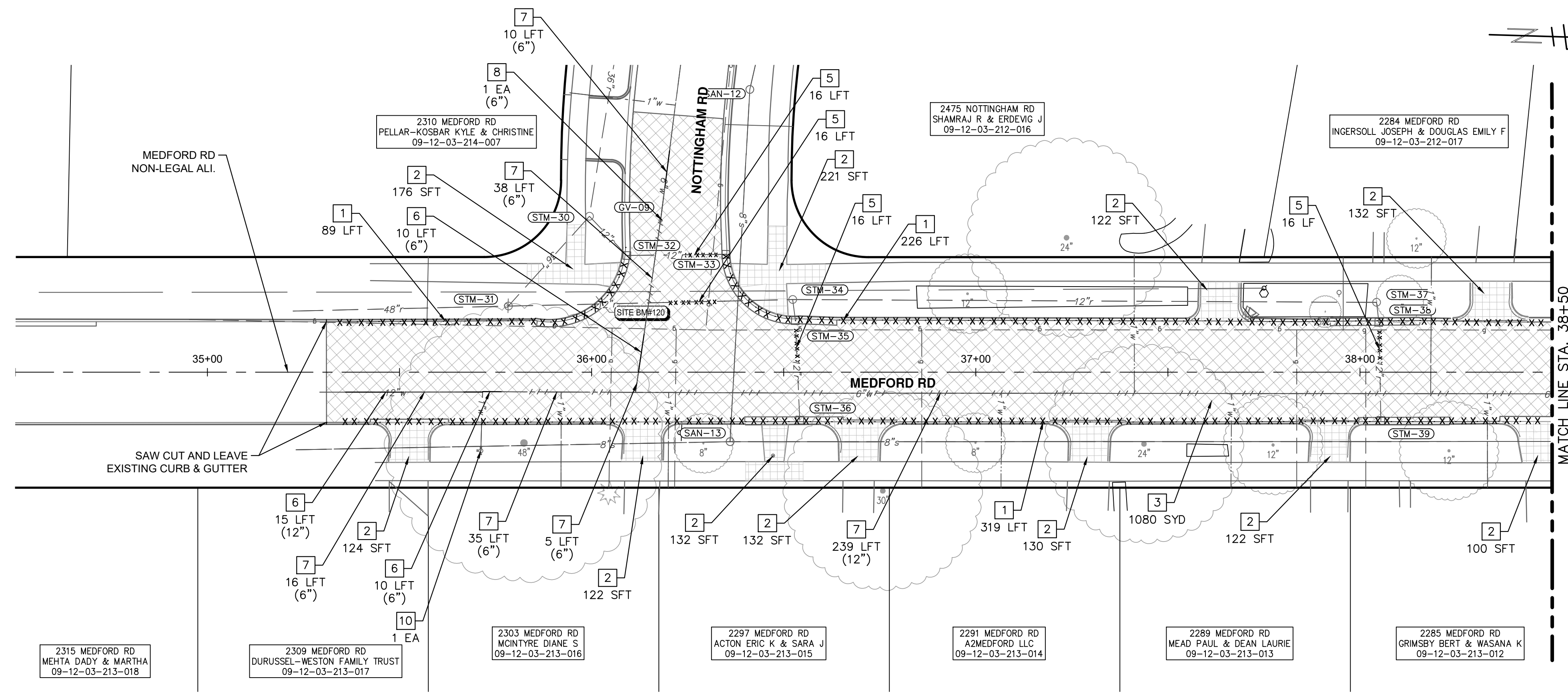
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PUBLIC SERVICES
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ANN ARBOR MI 48106-8647
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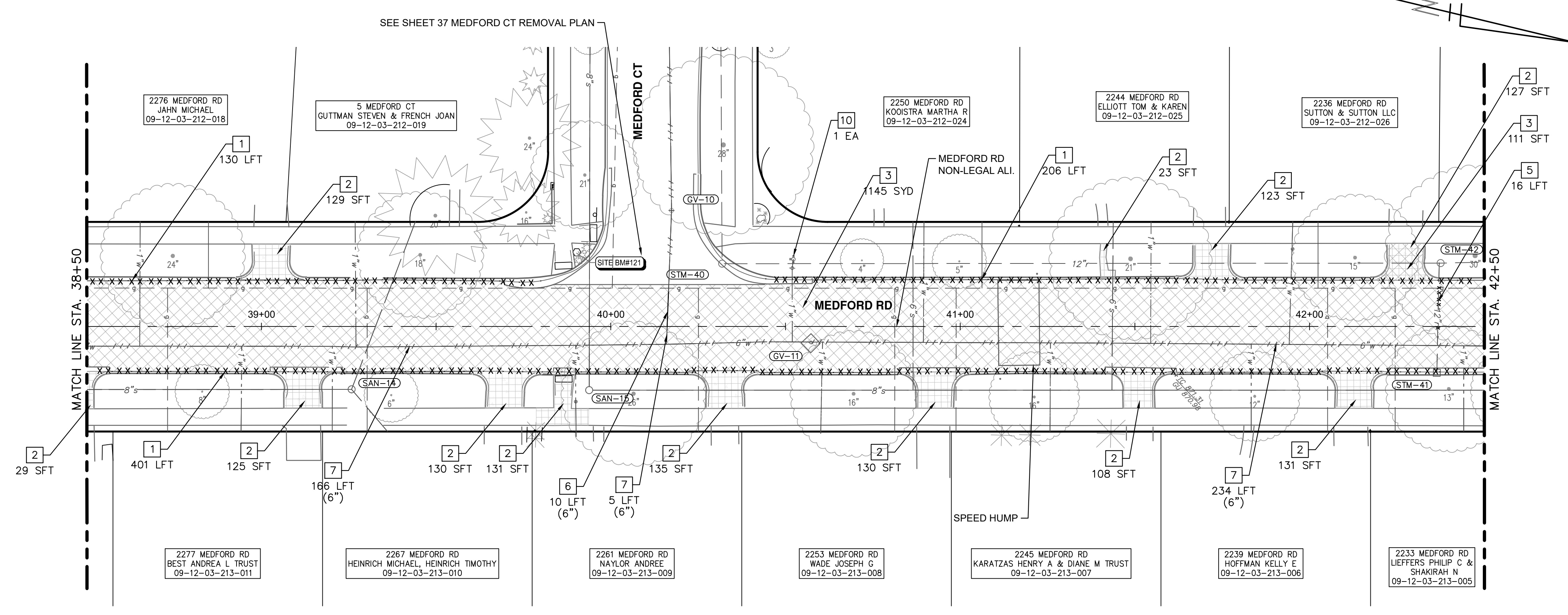
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YORKSHIRE, INDEPENDENCE, & MEDFORD
WATER MAIN REPLACEMENT PROJECT
PROFILE SHEET - YORKSHIRE RD STA 24+50 TO STA 28+15

SCALE HORIZONTAL: 1" = 20' VERTICAL: 1" = 5'
DRAWING No. 2023-24-25

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REMOVAL PLAN - MEDFORD RD - STA 34+50 TO STA 38+50



REMOVAL PLAN - MEDFORD RD - STA 38+50 TO STA 42+50

REMOVAL QUANTITIES - THIS SHEET

Item	Quantity	Unit
HMA, Any Thickness, Rem	2226	Syd
Curb, Gutter, and Curb and Gutter, Any Type, Rem	1371	Ft
Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	2834	Sft
Storm Sewer Pipe, 12 In. Dia., Rem	64	Ft
Fire Hydrant Assembly, Rem	2	Ea
Water Main Pipe, 6 In. Dia., Abandon	748	Ft
Water Main Pipe, 6 In. Dia., Rem	30	Ft
Water Main Pipe, 12 In. Dia., Rem	15	Ft
Gate Valve in Box, 6 In. Dia., Abandon	2	Ea

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AL/JS
JJ/RD/SA
JJ/AC
JJ/AC
DATE
DESCRIPTION
REV.

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3/7/2024
10/16/2023
DRAWN
CHECKED

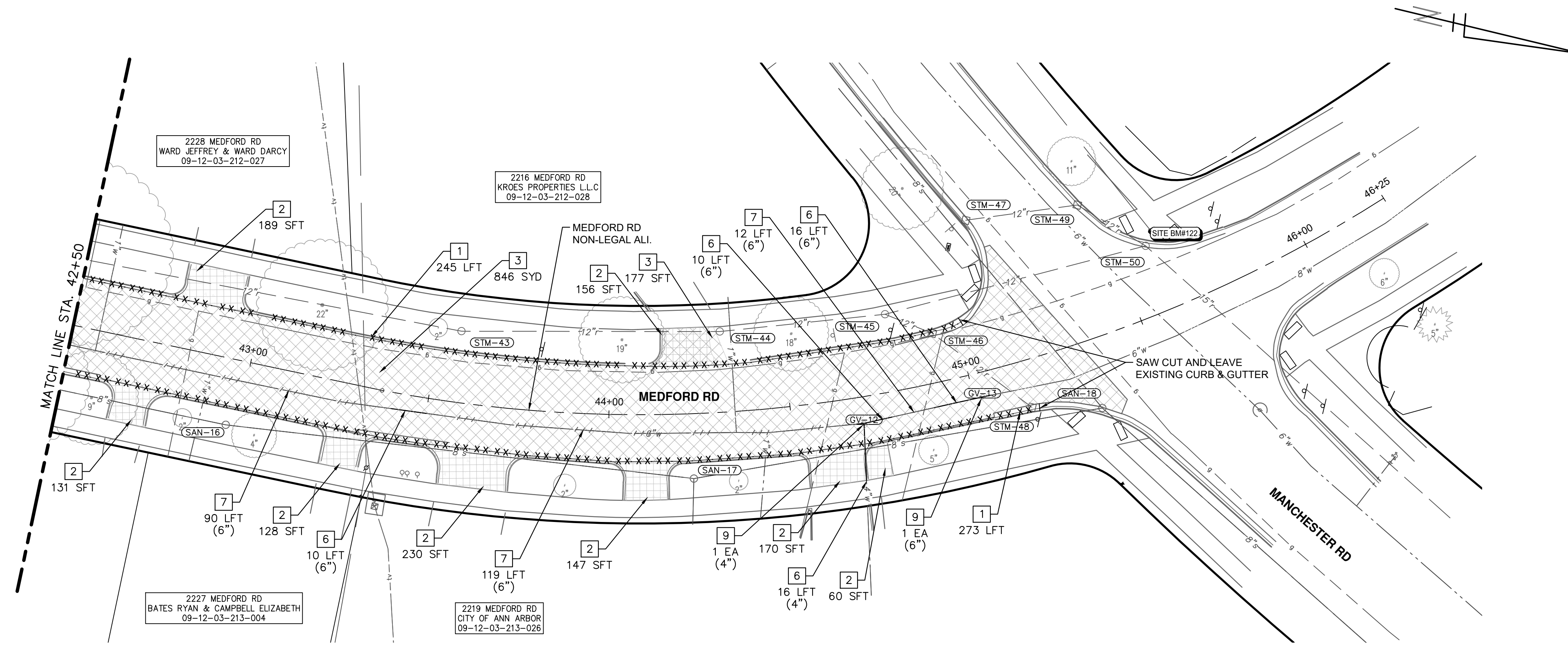
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YORKSHIRE, INDEPENDENCE, & MEDFORD
WATER MAIN REPLACEMENT PROJECT

REMOVAL PLAN - MEDFORD RD - STA 34+50 TO STA 42+50

SCALE: 1" = 20'
DRAWING No.
2023-24-26

SHEET No.
26 OF 47

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REMOVAL PLAN - MEDFORD RD - STA 42+50 TO STA 46+25

REMOVAL QUANTITIES - THIS SHEET

Item	Quantity	Unit
HMA, Any Thickness, Rem	867	Syd
Curb, Gutter, and Curb and Gutter, Any Type, Rem	518	Ft
Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	1211	Sft
Water Main Pipe, 6 In. Dia., Abandon	221	Ft
Water Main Pipe, 4 In. Dia., Rem	23	Ft
Water Main Pipe, 6 In. Dia., Rem	46	Ft
Gate Valve in Box, 4 In. Dia., Rem	1	Ea
Gate Valve in Box, 6 In. Dia., Rem	1	Ea



REV.	DATE	DESCRIPTION	DRAWN	CHECKED
2	3/7/2024	FINAL PLAN SUBMITTAL	JJ/RD/SA	AL/JS
1	10/16/2023	30% SUBMITTAL	JJ/AC	AL/JS

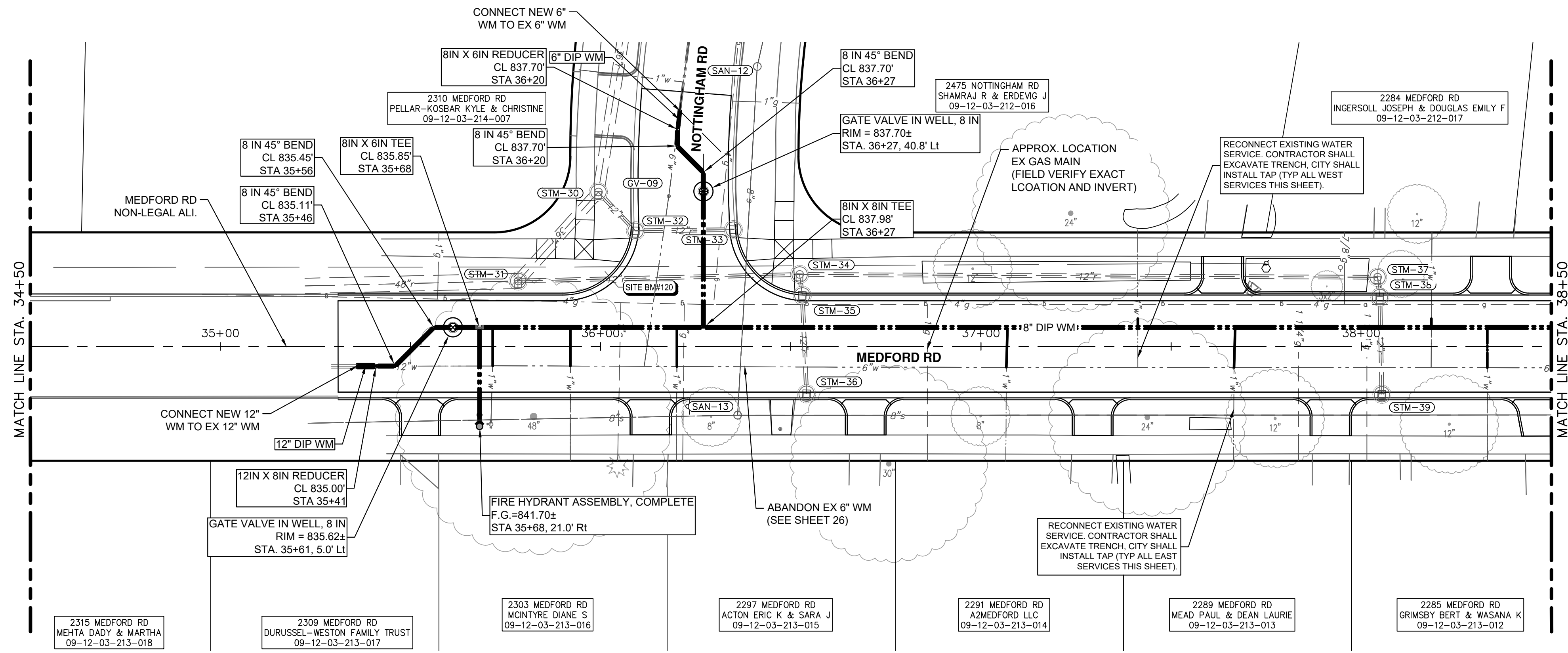
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WATER MAIN REPLACEMENT PROJECT
REMOVAL PLAN - MEDFORD RD - STA 42+50 TO STA 46+25

SCALE: 1" = 20'
DRAWING No. 2023-24-27

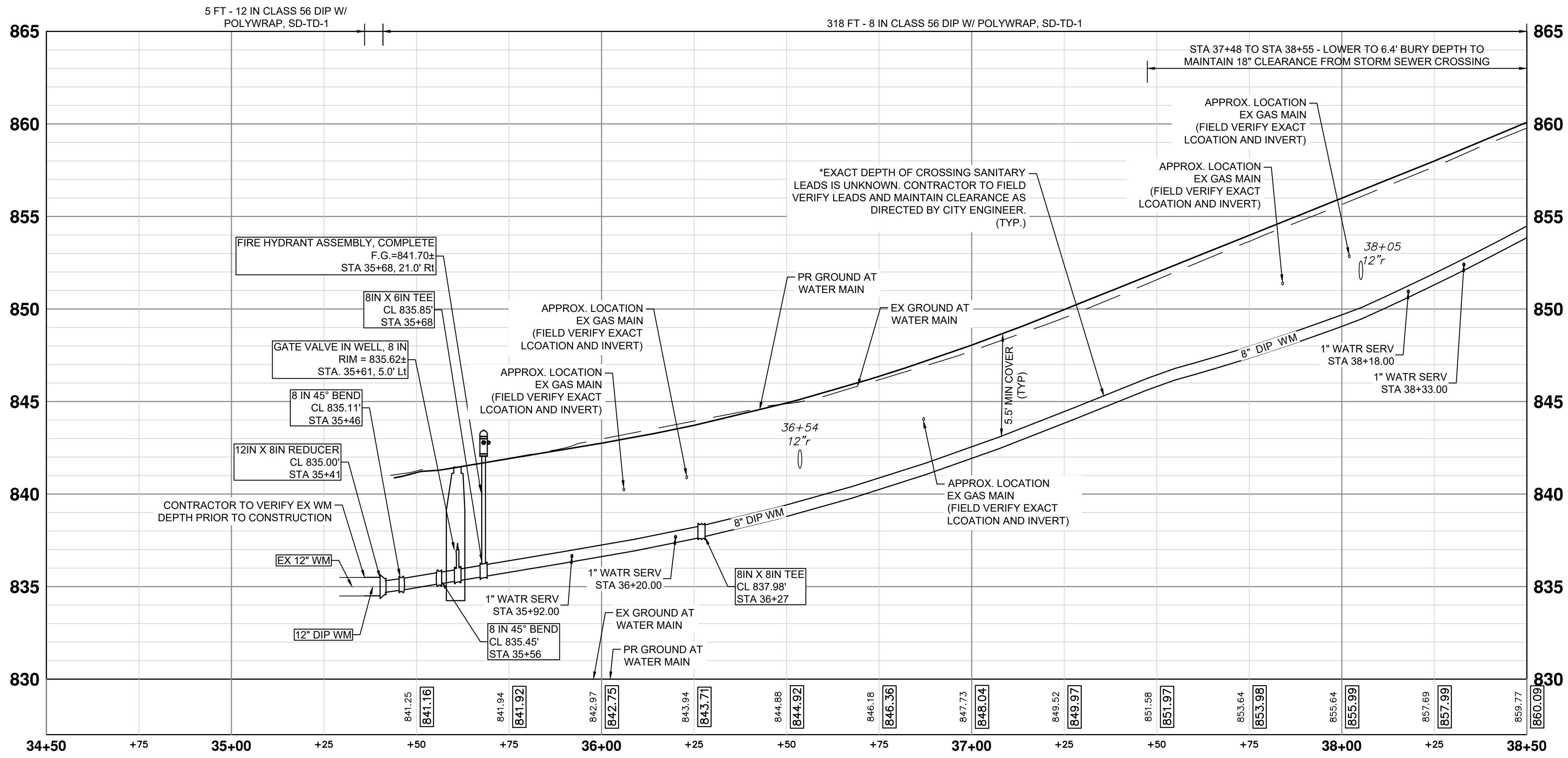
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WATER MAIN CONSTRUCTION PLAN - MEDFORD RD - STA 34+50 TO STA 38+50

NOTES

1. CONNECTIONS TO EXISTING WATER MAINS SHALL BE INCLUDED IN THE UNIT PRICES FOR THE WATER MAIN PER ARTICLE 11, SUBSECTION 00 (WATER MAIN AND APPURTENANCES) OF THE CITY OF ANN ARBOR 2024 STANDARD SPECIFICATIONS FOR CONSTRUCTION



WATER MAIN CONSTRUCTION PROFILE - MEDFORD RD - STA 34+50 TO STA 38+50

WATERMAIN QUANTITIES - THIS SHEET

Item	Quantity	Unit
6 in., Class 56 DIP w/polywrap, SD-TD-1	27	Ft
8 in., Class 56 DIP w/polywrap, SD-TD-1	318	Ft
12 in., Class 56 DIP w/polywrap, SD-TD-1	5	Ft
8 in. 45° DIP Bend	1	Ea
8 in. X 6 in. DIP Reducer	1	Ea
12 in. X 8 in. DIP Reducer	1	Ea
8 in. X 8 in. X 6 in. DIP Tee	1	Ea
8 in. X 8 in. X 8 in. DIP Tee	1	Ea
Gate Valve in Well, 8 In.	2	Ea
Excavate & Backfill For Water Service Tap And Lead	65	Ft
Fire Hydrant Assembly, Complete	1	Ea



REV.	DATE	DESCRIPTION	AL/JS	AL/JS	CHECKED
2	3/7/2024	FINAL PLAN SUBMITTAL	JJ/RD/SA	JJ/RD/SA	DRAWN
1	10/16/2023	30% SUBMITTAL	JJ/AC	JJ/AC	DRAWN

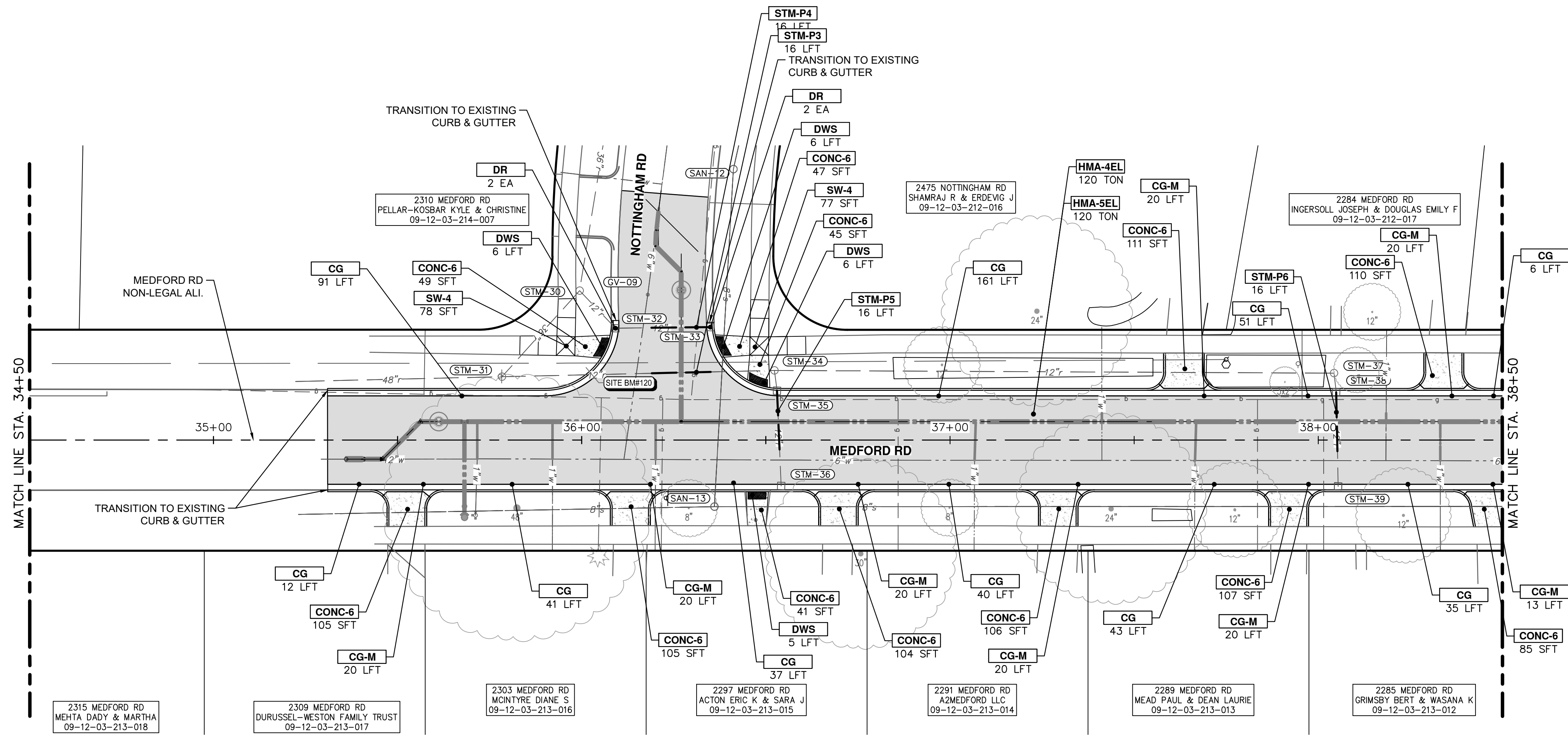
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YORKSHIRE, INDEPENDENCE, & MEDFORD
WATER MAIN REPLACEMENT PROJECT
WATER MAIN PLAN & PROFILE - MEDFORD RD STA 34+50 TO STA 38+50

SCALE PLAN: 1" = 20'
PROFILE: 1" = 4'
DRAWING No. 2023-24-28

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CONSTRUCTION PLAN - MEDFORD RD - STA 34+50 TO STA 38+50

PAVING HATCHING KEY

[Hatched Box]	PROPOSED HMA
[Dotted Box]	PROPOSED CONCRETE
[Double Line]	PROPOSED CURB AND GUTTER

CONSTRUCTION KEY

KEY	DESCRIPTION
HMA-4EL	HMA, 4EL
HMA-5EL	HMA, 5EL
CG	CONC, CURB OR CURB & GUTTER, ALL TYPES AGGREGATE BASE, 8 IN. 21AA, CIP
CG-M	CON, DRIVEWAY OPENING, TYPE M AGGREGATE BASE, 8 IN. 21AA, CIP
SW-4	CONC, SIDEWALK, 4 IN. AGGREGATE BASE, 6 INCH, LIMESTONE
CONC-6	CONC, SIDEWALK, DRIVE APPROACH, OR RAMP, 6 IN. AGGREGATE BASE, 6 IN. 21AA, CIP
CONC-8	CONC, SIDEWALK, DRIVE APPROACH OR RAMP, 8 IN. AGGREGATE BASE, 6 IN. 21AA, CIP
DWS	DETECTABLE WARNING SURFACE
STM-P#	12 IN., CL IV RCP STORM SEWER, SD-TD-1 PIPE UNDERCUT & BACKFILL, STORM

CONSTRUCTION QUANTITIES - THIS SHEET

Item	Quantity	Unit
Machine Grading, Modified	4.0	Sta
12 In., CL IV RCP Storm Sewer, SD-TD-1	16	Ft
Pipe Undercut & Backfill, Storm	25	Cyd
Storm Structure Cover	1	Ea
Storm Structure Cover, Adjust	1	Ea
Underdrain, Subbase, 6 inch	754	Ft
Water Structure Cover	1	Ea
Water Structure Cover, Adjust	1	Ea
Subbase, CIP	1	Cyd
Aggregate Base, 6 In., 21AA, CIP	124	Syd
Aggregate Base, 8 In., 21AA, CIP	738	Syd
HMA, 4EL	127	Ton
HMA, 5EL	127	Ton
DS_Conc, Speed Hump	1	Ea
Conc, Curb or Curb & Gutter, All Types	569	Ft
Conc, Driveway Opening, Type M	185	Ft
Conc, Sidewalk, Drive Approach, or Ramp, 6 In.	1038	Sft
Detectable Warning Surface	5	Ft
Turf Restoration	720	Syd

PROPOSED DRAINAGE PIPE TABLE

PIPE NAME	SIZE (INCH)	LENGTH (FEET)	INVERT (UPSTREAM)	INVERT (DOWNSTREAM)	SLOPE
STM-P3	12	16	840.14	839.25	5.54%
STM-P4	12	16	840.26	838.79	9.21%
STM-P5	12	16	841.41	841.26	0.97%
STM-P6	12	16	851.70	851.09	3.83%

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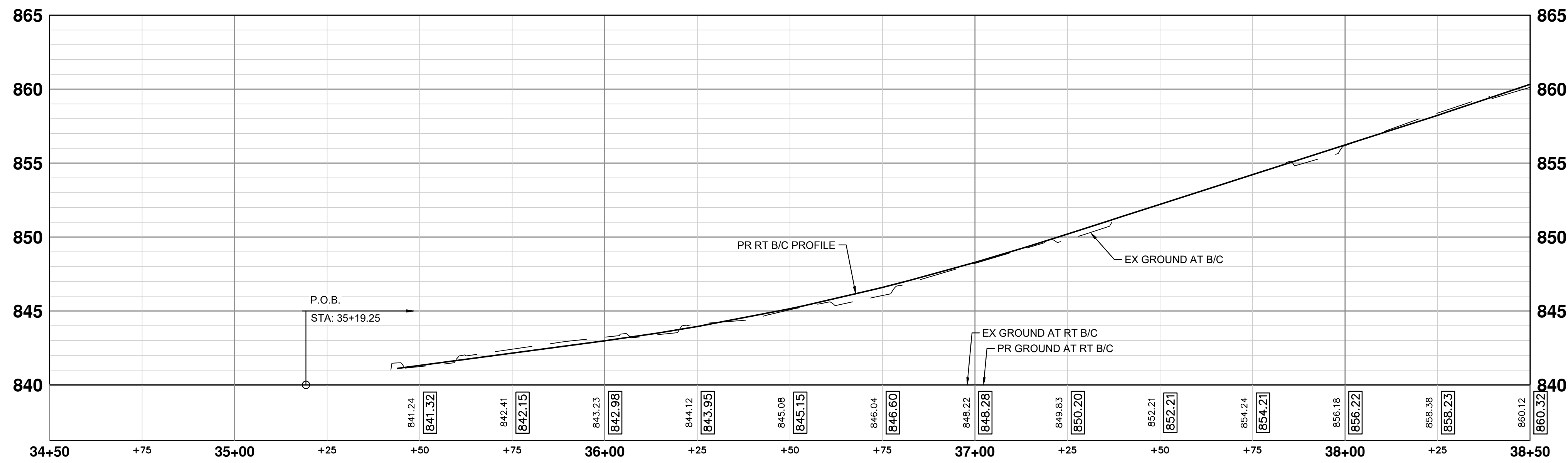
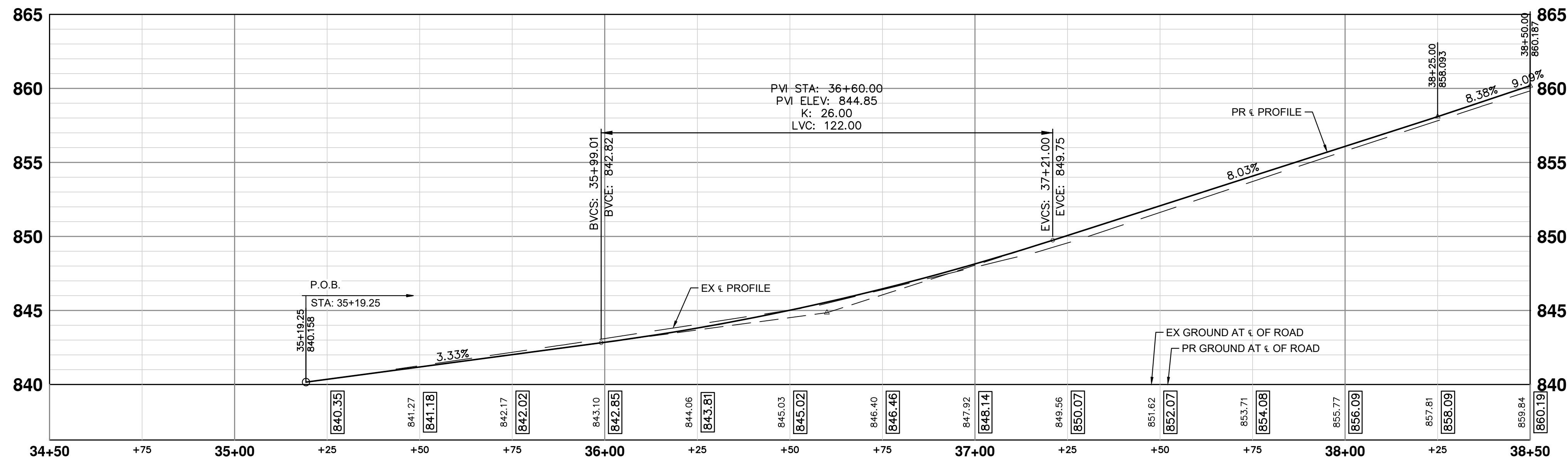
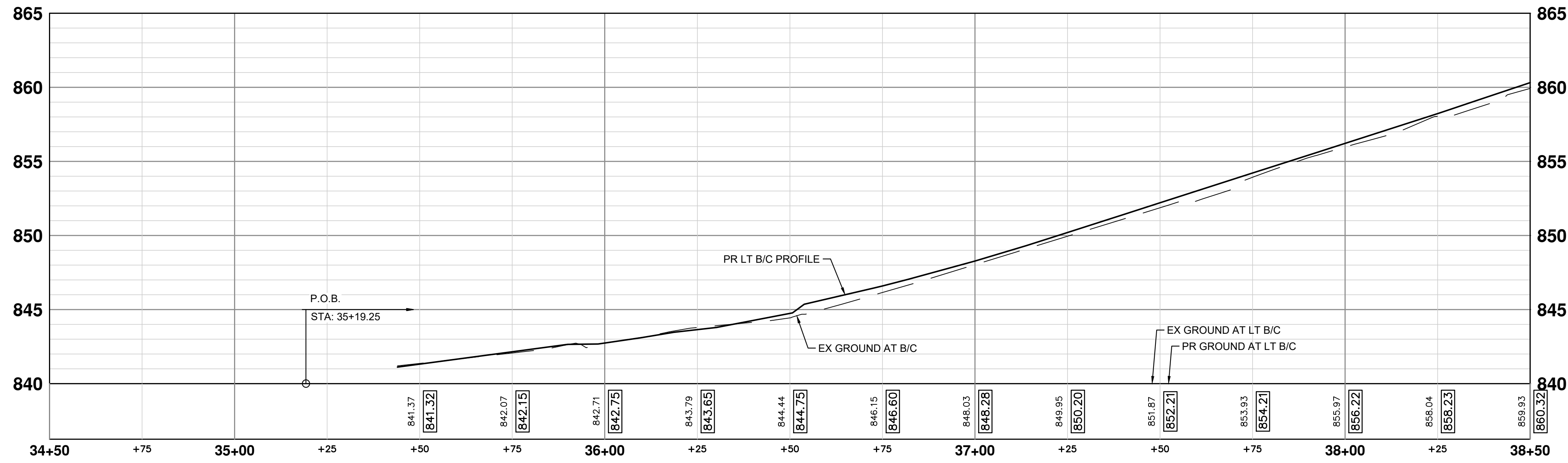
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YORKSHIRE, INDEPENDENCE, & MEDFORD
WATER MAIN REPLACEMENT PROJECT
CONSTRUCTION PLAN - MEDFORD RD - STA 34+50 TO STA 38+50

REV.	DATE	DESCRIPTION
2	3/7/2024	FINAL PLAN SUBMITTAL
1	10/16/2023	30% SUBMITTAL

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SCALE PLAN: 1" = 20'
PROFILE: 1" = 4'
DRAWING No. 2023-24-29
SHEET No. 29 OF 47

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MEDFORD RD PROFILES - STA 34+50 TO STA 38+50



Know what's below. Call Before you dig.

REV.	DESCRIPTION	DATE	DRAWN	CHECKED
2	FINAL PLAN SUBMITTAL	3/7/2024	JJ/RD/SA	AL/JS
1	30% SUBMITTAL	10/16/2023	JJ/AC	AL/JS

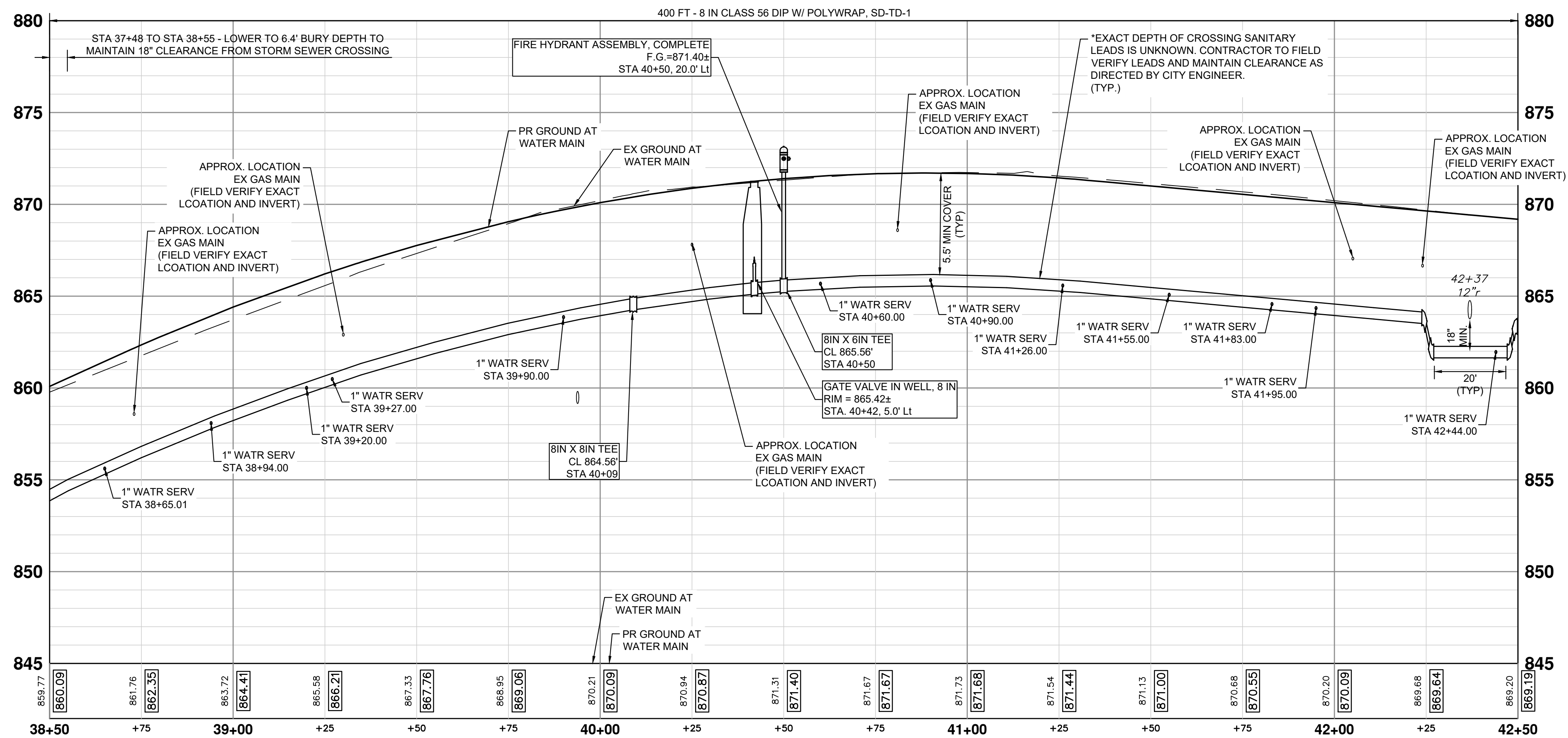
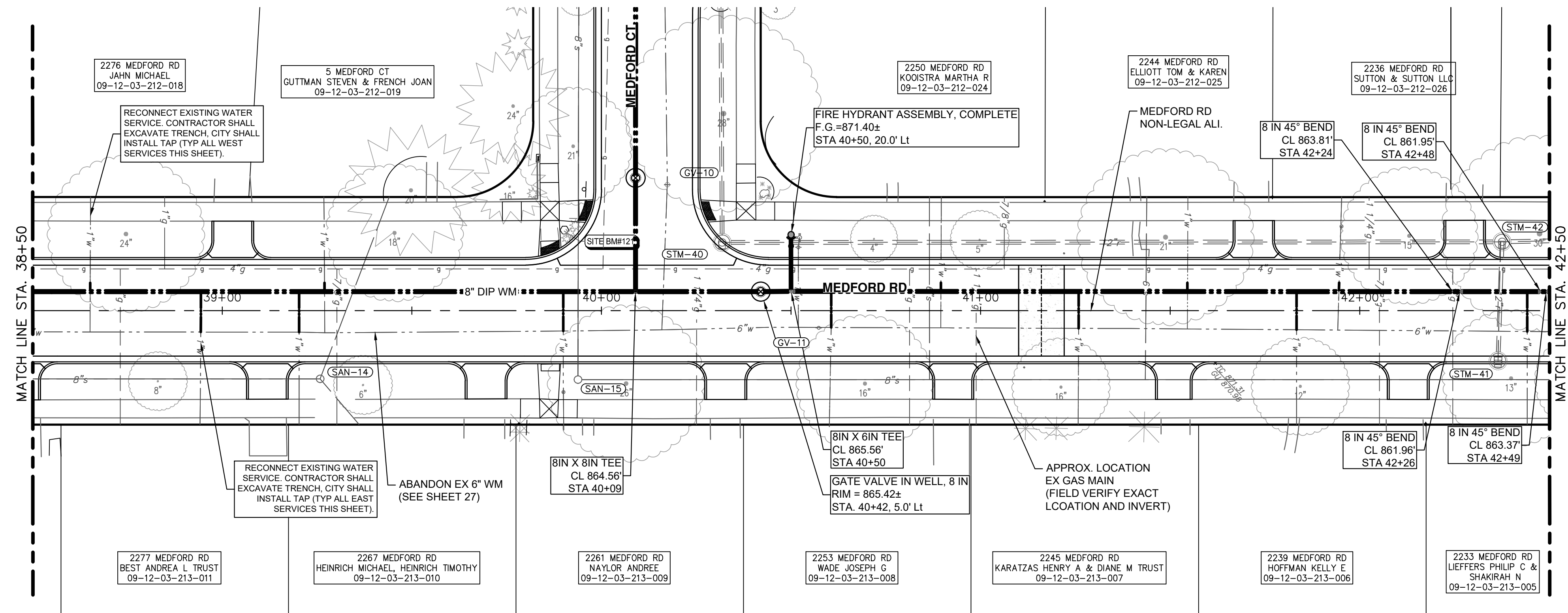
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WATER MAIN REPLACEMENT PROJECT
PROFILE SHEET - MEDFORD RD STA 34+50 TO STA 38+50

SCALE HORIZONTAL: 1" = 20' VERTICAL: 1" = 5'
DRAWING No. 2023-24-30

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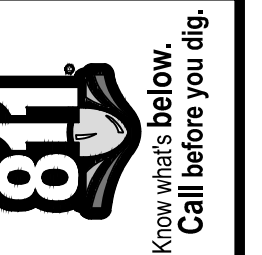


NOTES

- CONNECTIONS TO EXISTING WATER MAINS SHALL BE INCLUDED IN THE UNIT PRICES FOR THE WATER MAIN PER ARTICLE 11, SUBSECTION 00 (WATER MAIN AND APPURTENANCES) OF THE CITY OF ANN ARBOR 2024 STANDARD SPECIFICATIONS FOR CONSTRUCTION

WATERMAIN QUANTITIES - THIS SHEET

Item	Quantity	Unit
6 In., Class 56 DIP w/polywrap, SD-TD-1	12	Ft
8 In., Class 56 DIP w/polywrap, SD-TD-1	400	Ft
8 In. 45° DIP Bend	4	Ea
8 In. X 8 In. X 6 In. DIP Tee	1	Ea
8 In. X 8 In. X 8 In. DIP Tee	1	Ea
Gate Valve In Well, 8 In.	1	Ea
Excavate & Backfill For Water Service Tap And Lead	82	Ft
Fire Hydrant Assembly, Complete	1	Ea



REV.	DATE	DESCRIPTION
2	3/7/2024	FINAL PLAN SUBMITTAL
1	10/16/2023	30% SUBMITTAL

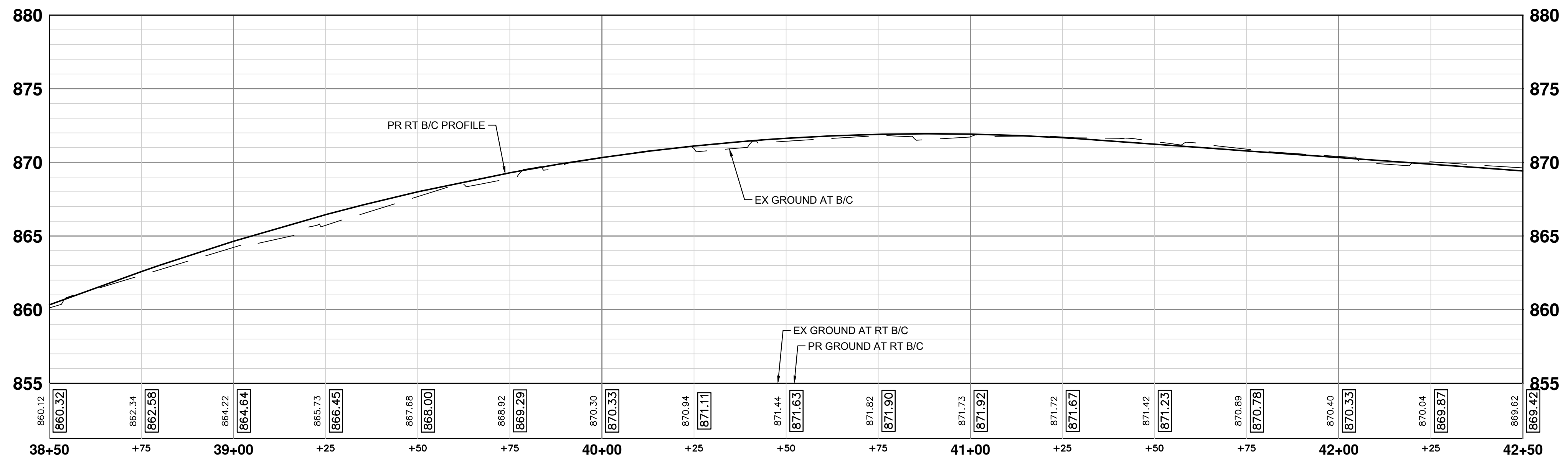
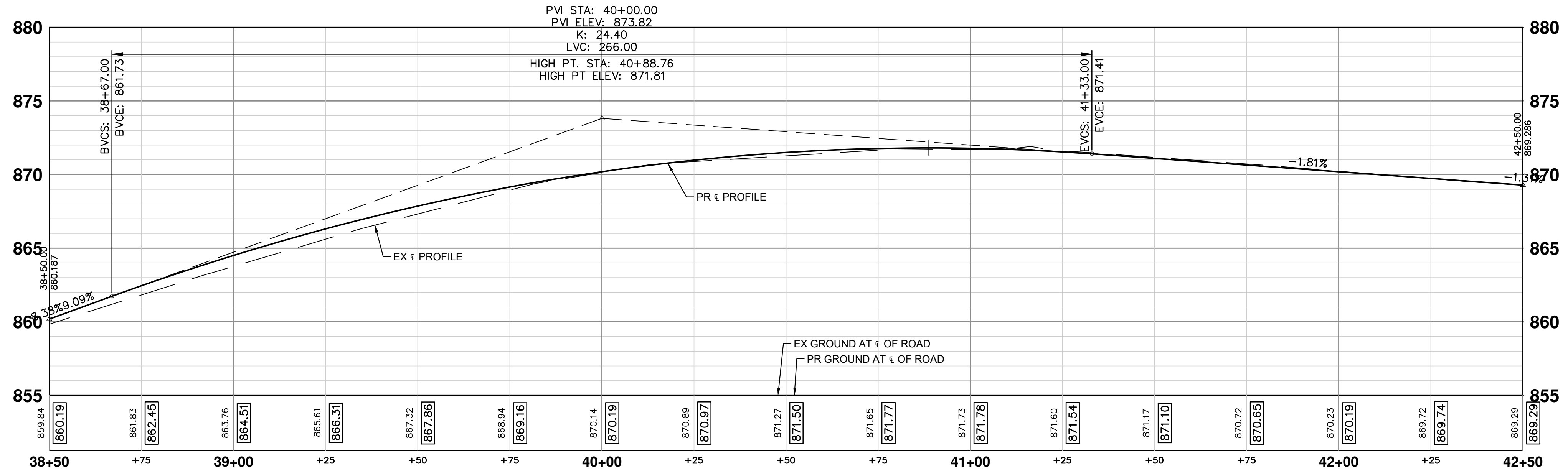
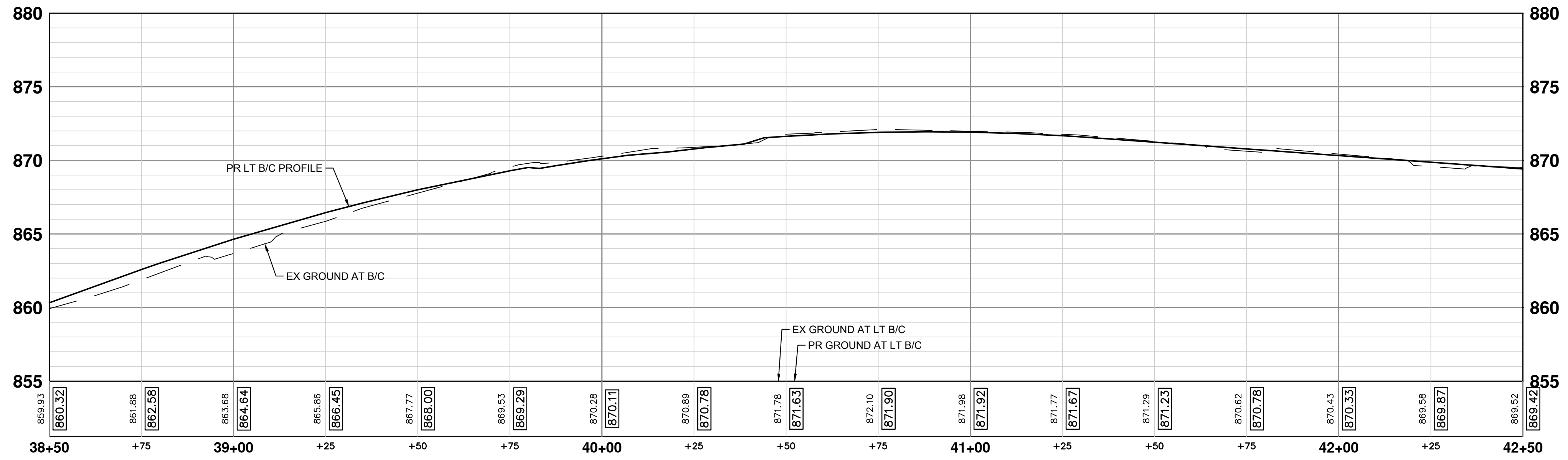
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WATER MAIN REPLACEMENT PROJECT
WATER MAIN PLAN & PROFILE - MEDFORD RD STA 38+50 TO STA 42+50

SCALE PLAN: 1" = 20'
PROFILE: 1" = 4'
DRAWING NO.: 2023-24-31

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MEDFORD RD PROFILES - STA 38+50 TO STA 42+50



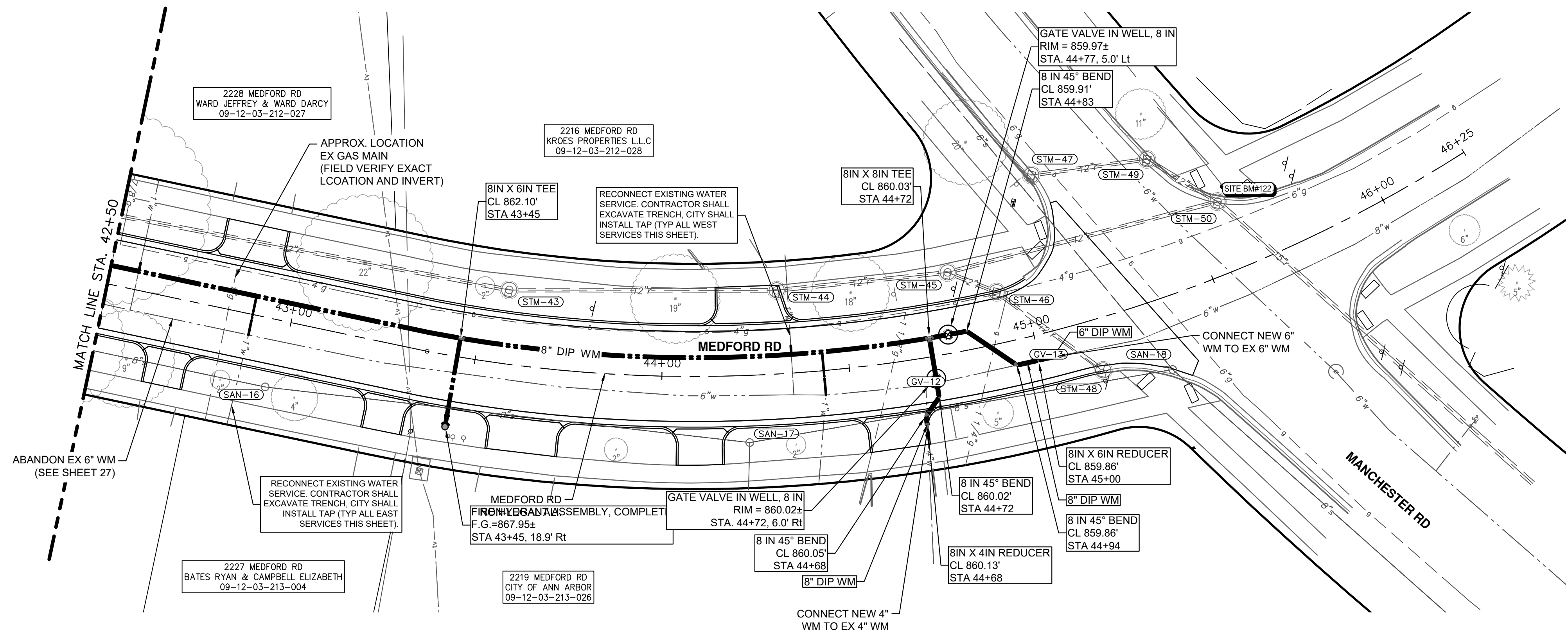
REV.	DESCRIPTION	DATE	DRAWN	CHECKED
2	FINAL PLAN SUBMITTAL	3/7/2024	JJ/RD/SA	AL/JS
1	30% SUBMITTAL	10/16/2023	JJ/AC	AL/JS

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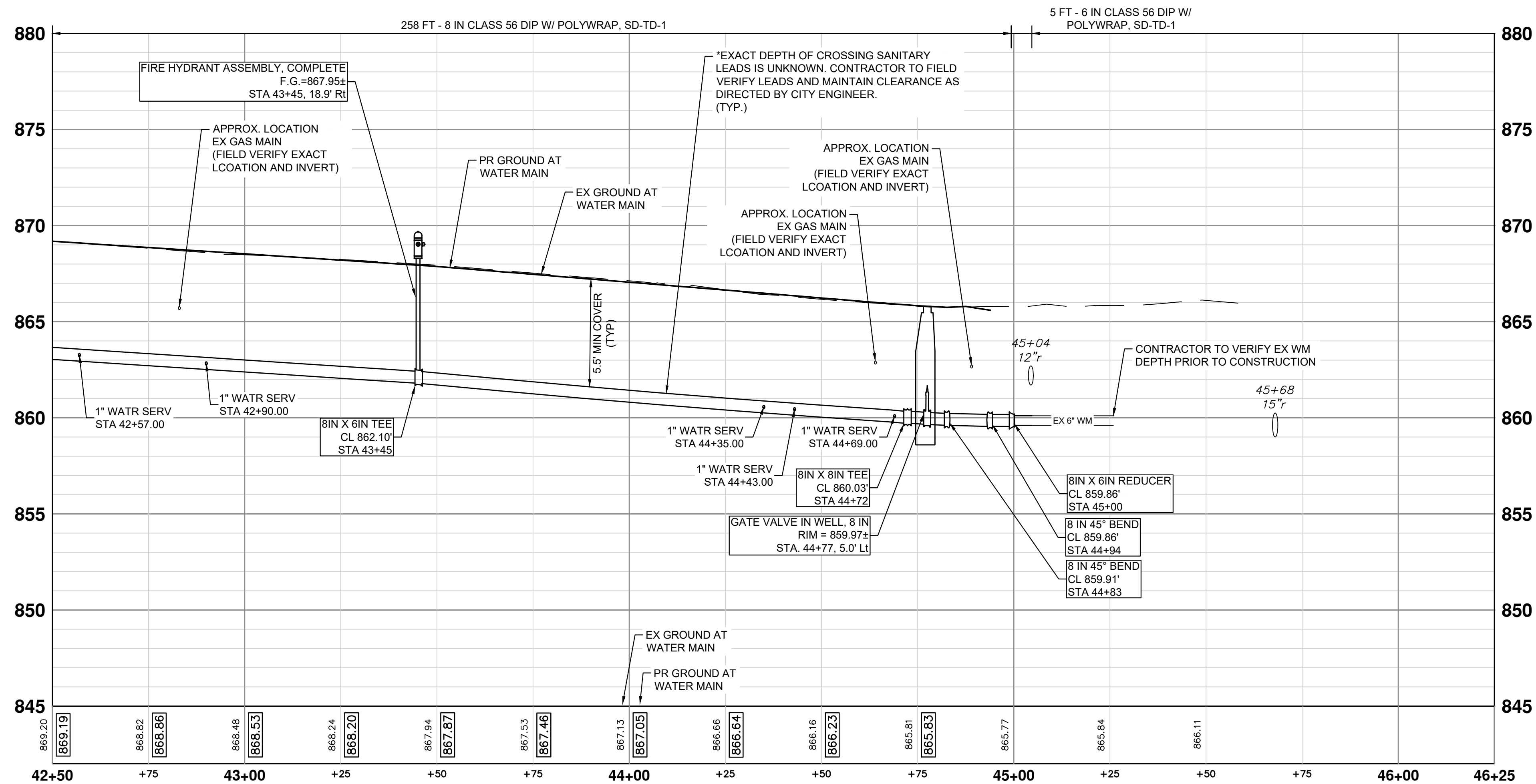
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WATER MAIN REPLACEMENT PROJECT
 PROFILE SHEET - MEDFORD RD STA 38+50 TO STA 42+50

SCALE HORIZONTAL: 1" = 20' VERTICAL: 1" = 5'
 DRAWING No. 2023-24-33

J:\AA\Design\AA23005 - YIM Water Main Replacement\Ann Arbor Cods\Plan Production\AA23005_Watr_MEDFORDRD.dwg Created: 5-Mar-24 - _a2 standard bw.stb - Plot Date: 7-Mar-24



WATER MAIN CONSTRUCTION PLAN - MEDFORD RD - STA 42+50 TO STA 46+25



WATER MAIN CONSTRUCTION PROFILE - MEDFORD RD - STA 42+50 TO STA 46+25

NOTES

1. CONNECTIONS TO EXISTING WATER MAINS SHALL BE INCLUDED IN THE UNIT PRICES FOR THE WATER MAIN PER ARTICLE 11, SUBSECTION 00 (WATER MAIN AND APPURTENANCES) OF THE CITY OF ANN ARBOR 2024 STANDARD SPECIFICATIONS FOR CONSTRUCTION

WATERMAIN QUANTITIES - THIS SHEET

Item	Quantity	Unit
6 in., Class 56 DIP w/polywrap, SD-TD-1	26	Ft
8 in., Class 56 DIP w/polywrap, SD-TD-1	280	Ft
8 in. 45' DIP Bend	1	Ea
8 in. X 4 in. DIP Reducer	1	Ea
8 in. X 6 in. DIP Reducer	1	Ea
8 in. X 8 in. X 6 in. DIP Tee	1	Ea
8 in. X 8 in. X 8 in. DIP Tee	1	Ea
Gate Valve In Well, 8 in.	2	Ea
Excavate & Backfill For Water Service Tap And Lead	25	Ft
Fire Hydrant Assembly, Complete	1	Ea



REV.	DATE	DESCRIPTION	DRAWN	CHECKED
1	10/16/2023	30% SUBMITTAL	JJ/AC	AL/JS
2	3/7/2024	FINAL PLAN SUBMITTAL	JJ/RO/SA	AL/JS

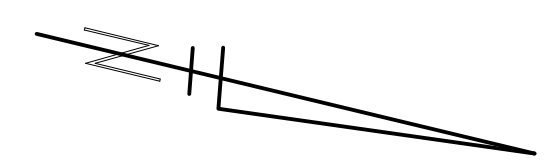
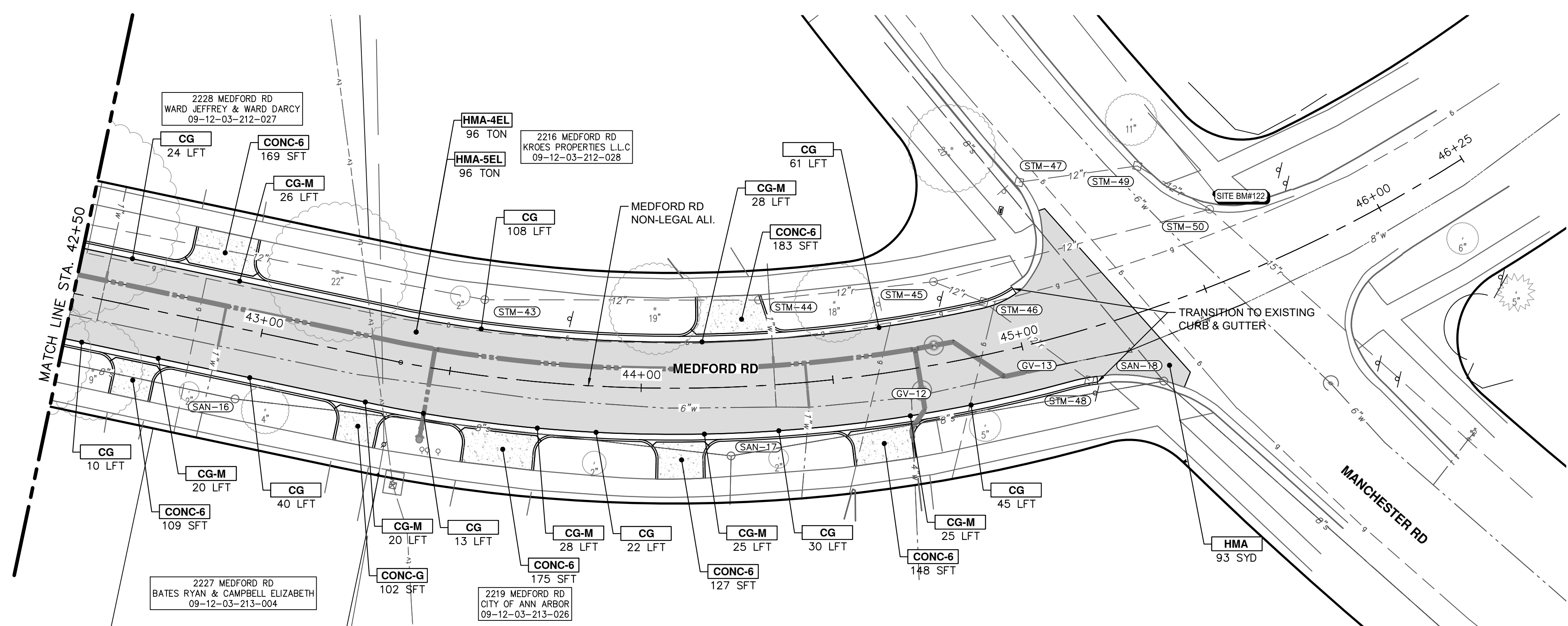
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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
YORKSHIRE, INDEPENDENCE, & MEDFORD
WATER MAIN REPLACEMENT PROJECT
WATER MAIN PLAN & PROFILE - MEDFORD RD STA 42+50 TO STA 46+25

SCALE PLAN: 1" = 40'
PROFILE: 1" = 4'
DRAWING No. 2023-24-34

J:\AA\Design\AA23005 - YIM Water Main Replacement\Ann Arbor Cods\Plan Production\AA23005_PPrd_MEDFORDRD.dwg Dwg Created: 7-Mar-24 - _a2 standard bw.stb - Plot Date: 7-Mar-24



PAVING HATCHING KEY

[Hatched Pattern]	PROPOSED HMA
[Dotted Pattern]	PROPOSED CONCRETE
[Double Line]	PROPOSED CURB AND GUTTER

CONSTRUCTION KEY

KEY	DESCRIPTION
HMA-4EL	HMA, 4EL
HMA-5EL	HMA, 5EL
CG	CONC. CURB OR CURB & GUTTER, ALL TYPES AGGREGATE BASE, 8 IN. 21AA, CIP
CG-M	CON, DRIVEWAY OPENING, TYPE M AGGREGATE BASE, 8 IN. 21AA, CIP
SW-4	CONC. SIDEWALK, 4 IN. AGGREGATE BASE, 6 INCH, LIMESTONE
CONC-6	CONC. SIDEWALK, DRIVE APPROACH, OR RAMP, 6 IN. AGGREGATE BASE, 6 IN. 21AA, CIP
CONC-8	CONC. SIDEWALK, DRIVE APPROACH OR RAMP, 8 IN. AGGREGATE BASE, 6 IN. 21AA, CIP
DWS	DETECTABLE WARNING SURFACE
STM-P#	12 IN., CL IV RCP STORM SEWER, SD-TD-1 PIPE UNDERCUT & BACKFILL, STORM

CONSTRUCTION QUANTITIES - THIS SHEET

Item	Quantity	Unit
Machine Grading, Modified	2.8	Sta
Storm Structure Cover	2	Ft
Storm Structure Cover, Adjust	2	Ft
Underdrain, Subbase, 6 inch	525	Ft
Water Structure Cover	2	Ft
Water Structure Cover, Adjust	2	Ft
Aggregate Base, 6 In., 21AA, CIP	129	Ft
Aggregate Base, 8 In., 21AA, CIP	463	Ft
HMA, 4EL	96	Ft
HMA, 5EL	96	Ft
Conc, Curb or Curb & Gutter, All Types	353	Ft
Conc, Driveway Opening, Type M	172	Ft
Conc, Sidewalk, Drive Approach, or Ramp, 6 In.	1013	Sft
Turf Restoration	490	Ea

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

YORKSHIRE, INDEPENDENCE, & MEDFORD
WATER MAIN REPLACEMENT PROJECT

CONSTRUCTION PLAN - MEDFORD RD - STA 42+50 TO STA 46+25

SCALE PLAN: 1" = 20'
PROFILE: 1" = 4'

DRAWING No. 2023-24-35

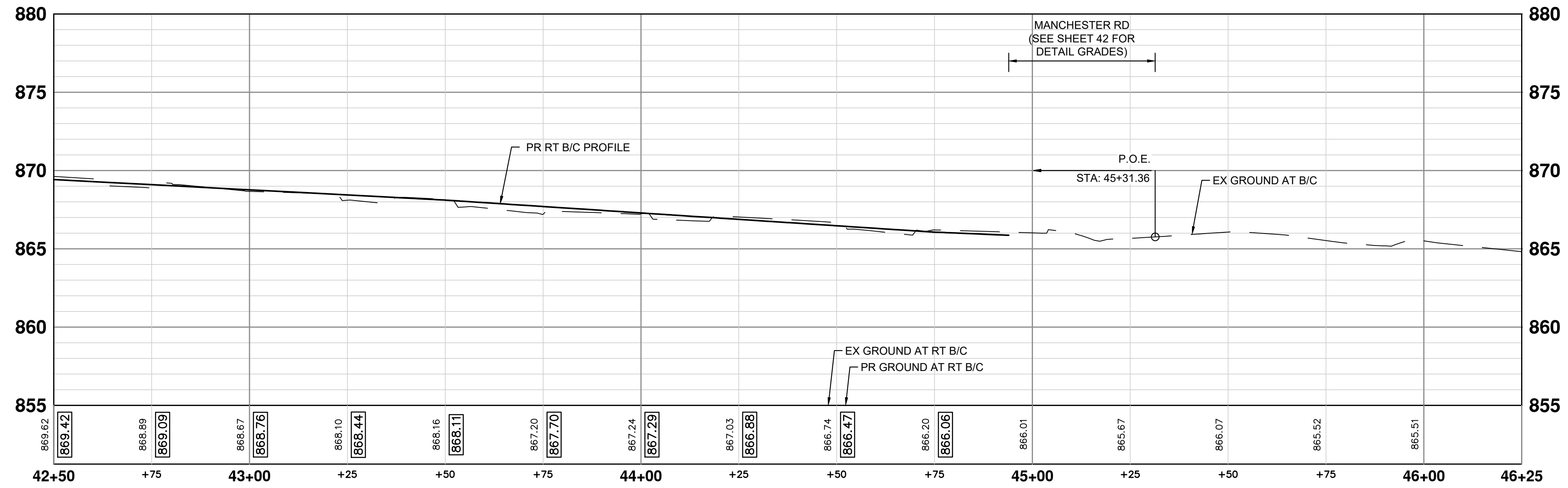
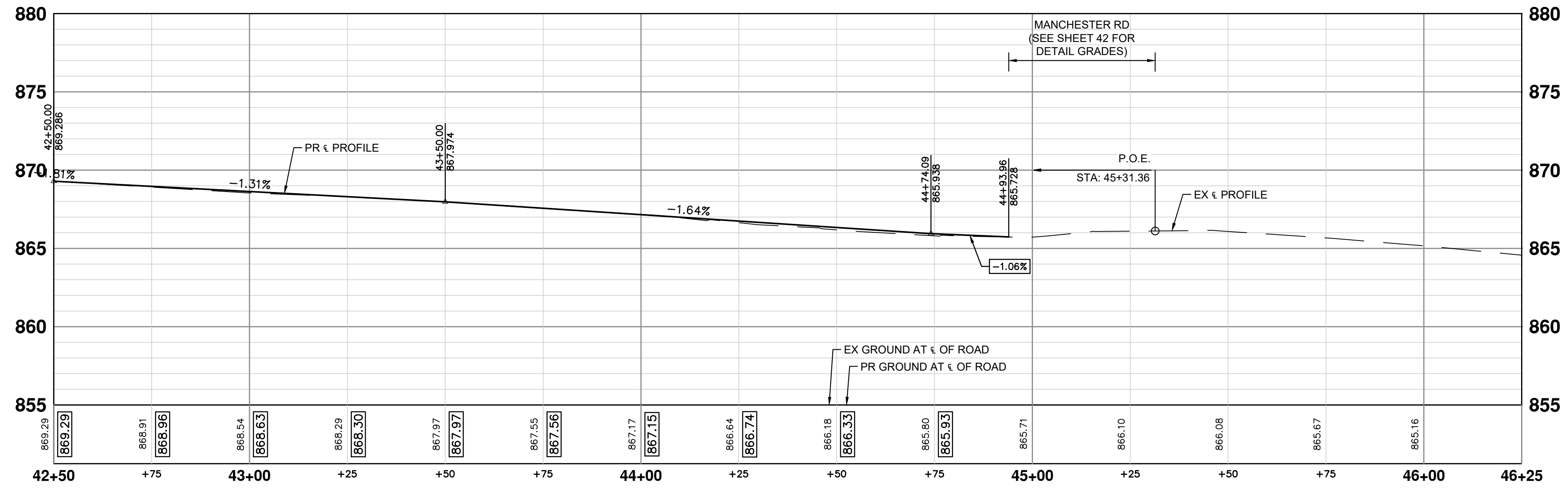
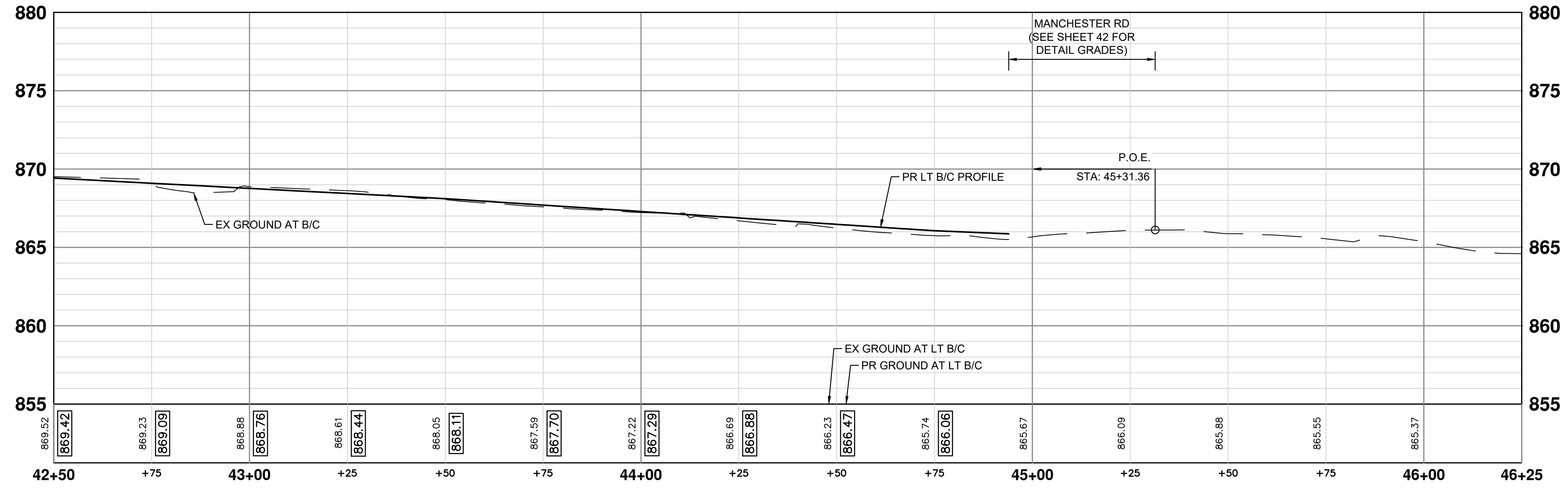
SHEET No. 35 OF 47

811 Know what's below. Call before you dig.

AL/JS	AL/JS	CHECKED
JJ/RD/SA	JJ/AC	DRAWN
3/7/2024	10/16/2023	DATE
FINAL PLAN SUBMITTAL	30% SUBMITTAL	DESCRIPTION
2	1	REV.

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MEDFORD RD PROFILES - STA 42+50 TO STA 46+25



REV.	DESCRIPTION	DATE	DRAWN	CHECKED
2	FINAL PLAN SUBMITTAL	3/7/2024	JJ/RD/SA	AL/JS
1	30% SUBMITTAL	10/16/2023	JJ/AC	AL/JS

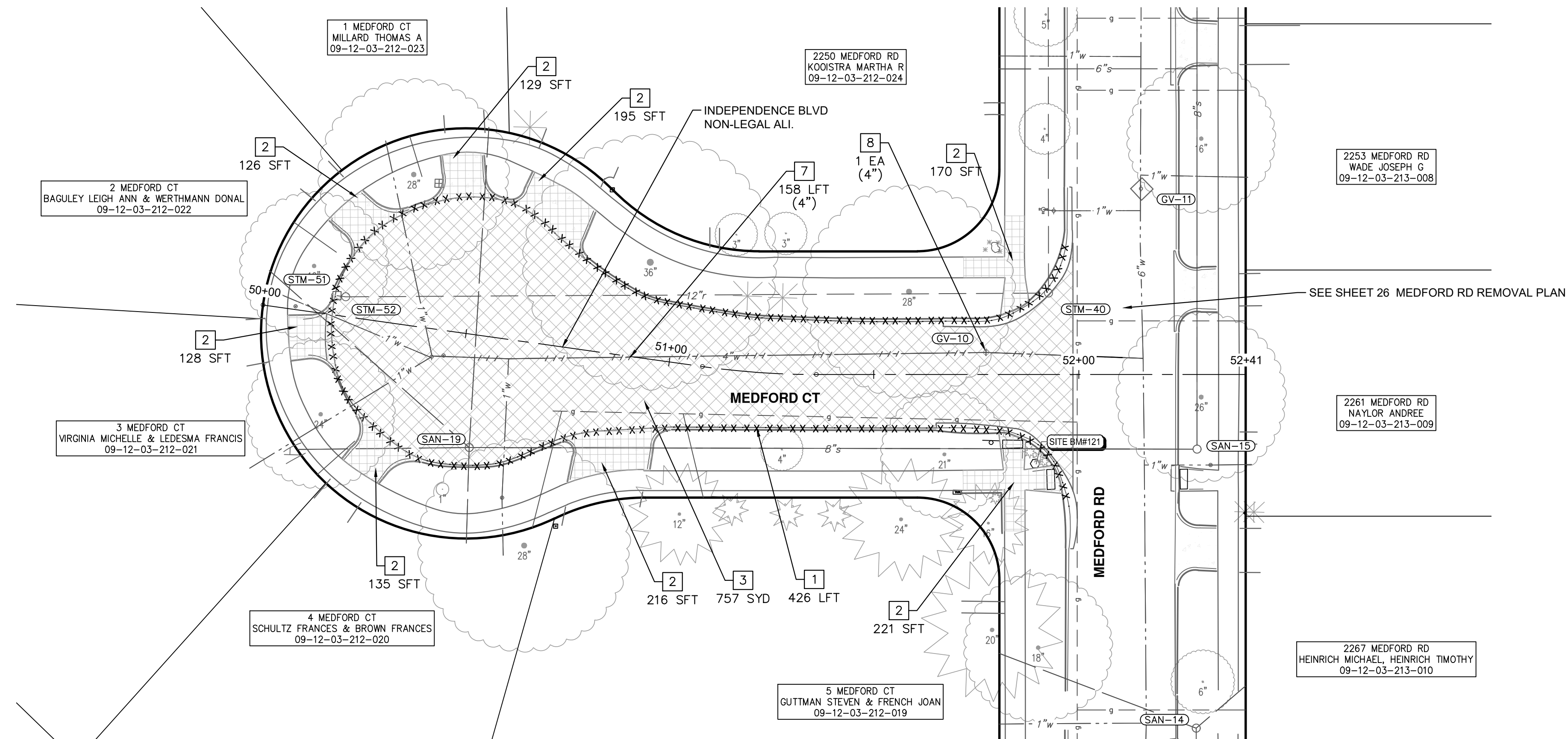
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YORKSHIRE, INDEPENDENCE, & MEDFORD
WATER MAIN REPLACEMENT PROJECT
PROFILE SHEET - MEDFORD RD STA 42+50 TO STA 46+25

SCALE HORIZONTAL: 1" = 20' VERTICAL: 1" = 5'
DRAWING No. 2023-24-36

J:\AA\Design\AA23005 - YIM Water Main Replacement\Ann Arbor Cads\Plan Production\AA23005_Rem_MEDFORDCT.dwg Created: 4-Mar-24 - _c2 standard bw.stb - Plot Date: 7-Mar-24



REMOVAL PLAN - MEDFORD CT - STA 50+00 TO STA 52+41

REMOVAL HATCH KEY

	HMA SURFACE, REM
	SIDEWALK AND RAMPS, REMOVE DRIVEWAY APPROACH, REMOVE
	CURB AND GUTTER, ANY TYPE OR SIZE, REM, MODIFIED
	CURB AND GUTTER, ANY TYPE OR SIZE, REM, MODIFIED
	WATER MAIN PIPE, REM
	WATER MAIN PIPE, ABANDON

REMOVAL KEY

KEY	DESCRIPTION
1	CURB, CUTTER, AND CURB AND GUTTER, ANY TYPE, REM
2	SIDEWALK AND RAMPS, REMOVE* DRIVEWAY APPROACH, REMOVE*
3	HMA ANY THICKNESS, REM*
4	COLD MILLING HMA SURFACE
5	STORM SEWER PIPE, 12 IN. DIA., REM
6	WATER MAIN PIPE, _ IN. DIA., REM
7	WATER MAIN PIPE, _ IN. DIA., ABANDON
8	GATE VALVE IN BOX, _ IN. DIA., ABANDON
9	GATE VALVE IN BOX, _ IN. DIA., REM
10	FIRE HYDRANT ASSEMBLY, REM

*SAWCUT FULL DEPTH AT REMOVAL LIMITS

REMOVAL QUANTITIES - THIS SHEET

Item	Quantity	Unit
HMA, Any Thickness, Rem	757	Syd
Curb, Gutter, and Curb and Gutter, Any Type, Rem	426	Ft
Sidewalk, Sidewalk Ramp, and Driveway Approach, Any Thickness, Rem	1320	Sft
Water Main Pipe, 4 In. Dia., Abandon	158	Ft
Gate Valve in Box, 4 In. Dia., Abandon	1	Ea



AL/JS	AL/JS	CHECKED
JJ/RD/SA	JJ/RD/SA	DRAWN
3/7/2024	10/16/2023	DATE
FINAL PLAN SUBMITTAL	30% SUBMITTAL	DESCRIPTION
2	1	REV.

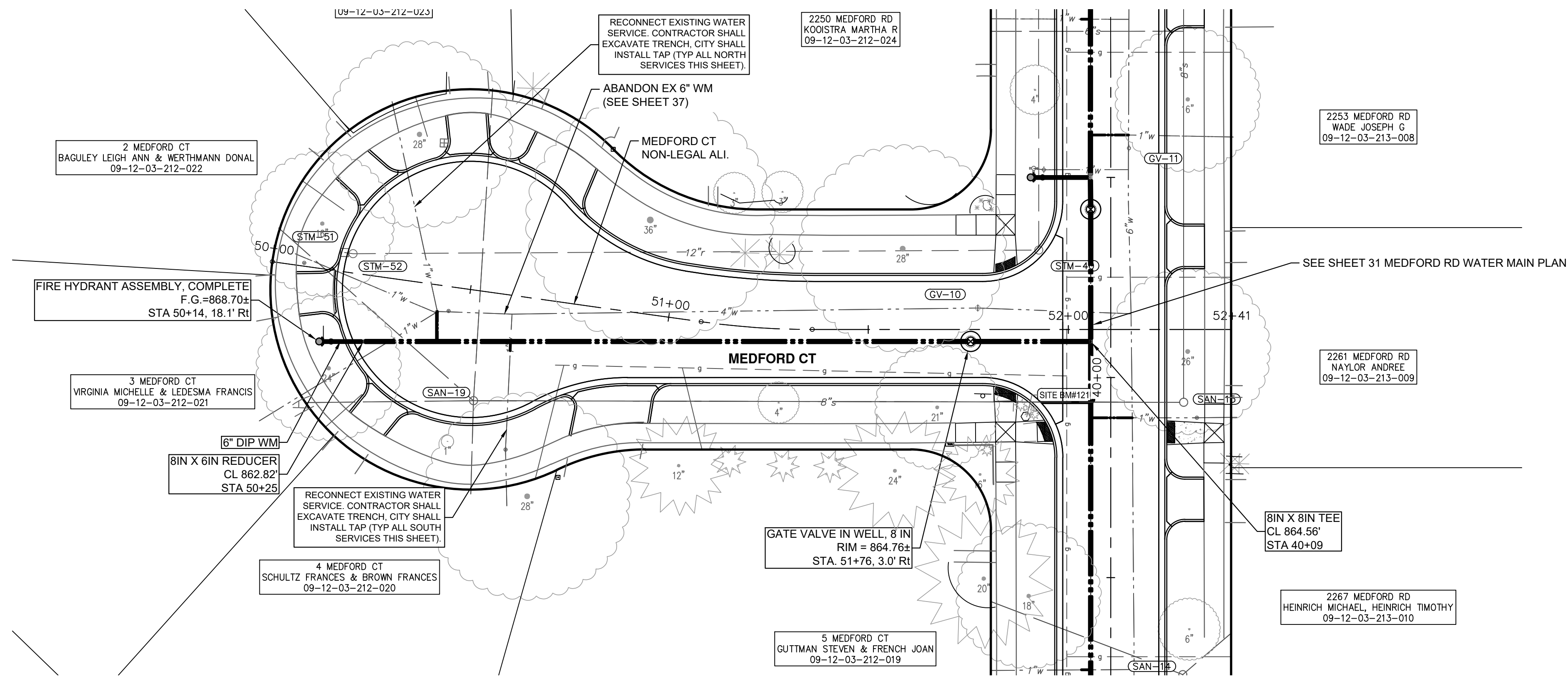
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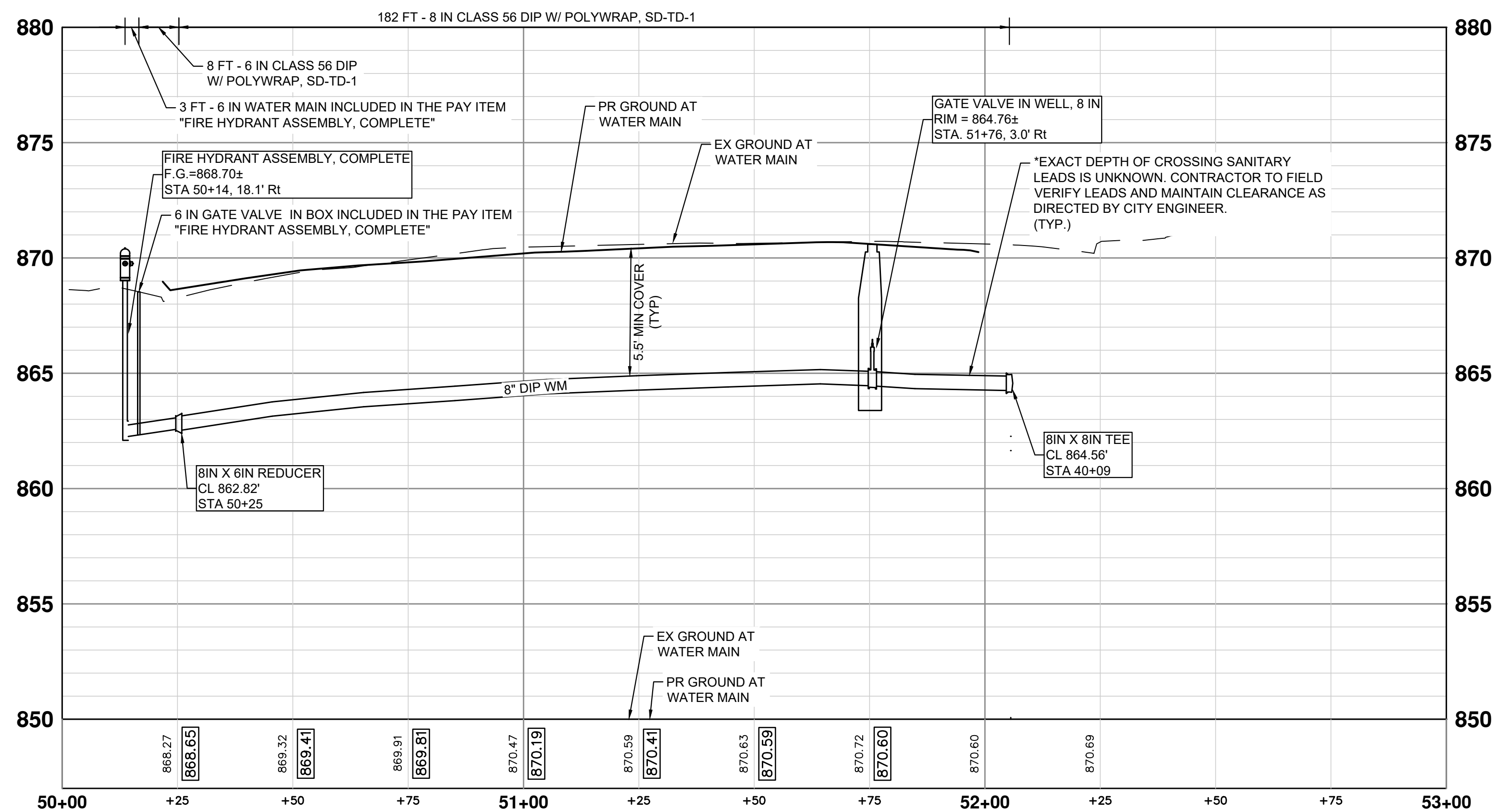
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WATER MAIN REPLACEMENT PROJECT
REMOVAL PLAN - MEDFORD CT - STA 50+00 TO STA 52+41

SCALE: 1" = 20'
DRAWING No. 2023-24-37

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WATER MAIN CONSTRUCTION PLAN - MEDFORD CT - STA 50+00 TO STA 52+41



WATER MAIN CONSTRUCTION PROFILE - MEDFORD CT - STA 50+00 TO STA 52+41

NOTES

- CONNECTIONS TO EXISTING WATER MAINS SHALL BE INCLUDED IN THE UNIT PRICES FOR THE WATER MAIN PER ARTICLE 11, SUBSECTION 00 (WATER MAIN AND APPURTENANCES) OF THE CITY OF ANN ARBOR 2024 STANDARD SPECIFICATIONS FOR CONSTRUCTION

WATERMAIN QUANTITIES - THIS SHEET

Item	Quantity	Unit
6 In., Class 56 DIP w/polywrap, SD-TD-1	8	Ft
8 In., Class 56 DIP w/polywrap, SD-TD-1	182	Ft
8 In. X 6 In. DIP Reducer	1	Ea
8 In. X 8 In. X 8 In. DIP Tee	1	Ea
Gate Valve In Well, 8 In.	1	Ea
Excavate & Backfill For Water Service Tap And Lead	10	Ft
Fire Hydrant Assembly, Complete	1	Ea



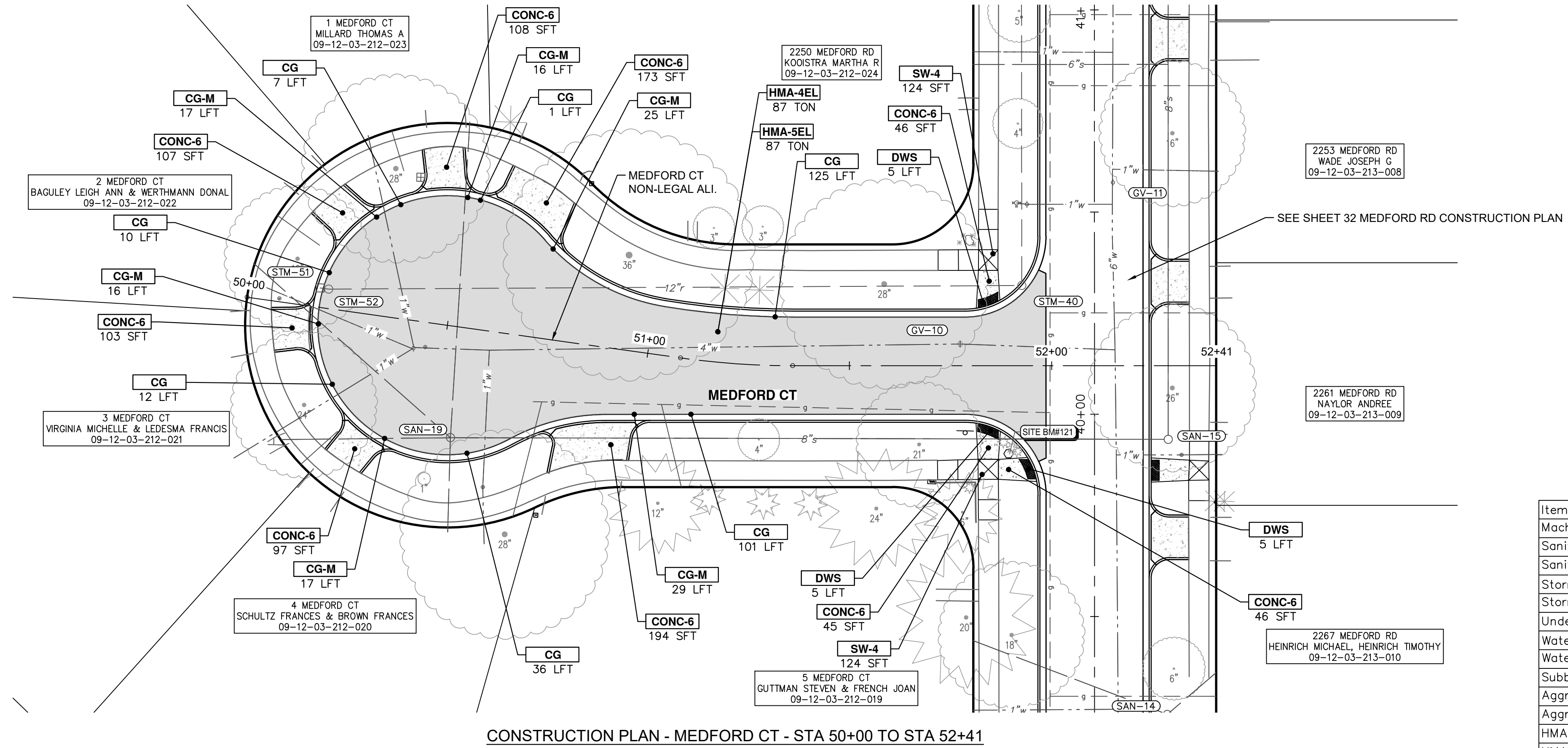
REV.	DESCRIPTION	DATE	DRAWN	CHECKED
2	FINAL PLAN SUBMITTAL	3/7/2024	JJ/RD/SA	AL/JS
1	30% SUBMITTAL	10/16/2023	JJ/AC	AL/JS

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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
YORKSHIRE, INDEPENDENCE, & MEDFORD
WATER MAIN REPLACEMENT PROJECT
WATER MAIN PLAN & PROFILE - MEDFORD CT - STA 50+00 TO STA 52+41
SCALE PLAN: 1" = 20'
PROFILE: 1" = 4'
DRAWING No. 2023-24-38

J:\AA\Design\AA23005 - YIM Water Main Replacement\Ann Arbor Cads\Plan Production\AA23005_PPrd_MEDFORDCT.dwg Created: 5-Mar-24 - _a2 standard bw.stb - Plot Date: 7-Mar-24



CONSTRUCTION PLAN - MEDFORD CT - STA 50+00 TO STA 52+41

PAVING HATCHING KEY

[Hatched Box]	PROPOSED HMA
[Dotted Box]	PROPOSED CONCRETE
[Double Line]	PROPOSED CURB AND GUTTER

CONSTRUCTION KEY

KEY	DESCRIPTION
HMA-4EL	HMA, 4EL
HMA-5EL	HMA, 5EL
CG	CONC, CURB OR CURB & GUTTER, ALL TYPES AGGREGATE BASE, 8 IN. 21AA, CIP
CG-M	CON, DRIVEWAY OPENING, TYPE M AGGREGATE BASE, 8 IN. 21AA, CIP
SW-4	CONC, SIDEWALK, 4 IN. AGGREGATE BASE, 6 INCH, LIMESTONE
CONC-6	CONC, SIDEWALK, DRIVE APPROACH, OR RAMP, 6 IN. AGGREGATE BASE, 6 IN. 21AA, CIP
CONC-8	CONC, SIDEWALK, DRIVE APPROACH OR RAMP, 8 IN. AGGREGATE BASE, 6 IN. 21AA, CIP
DWS	DETECTABLE WARNING SURFACE
STM-P#	12 IN., CL IV RCP STORM SEWER, SD-TD-1 PIPE UNDERCUT & BACKFILL, STORM

CONSTRUCTION QUANTITIES - THIS SHEET

Item	Quantity	Unit
Machine Grading, Modified	2.0	Sta
Sanitary Structure Cover	1	Ea
Sanitary Structure Cover, Adjust	1	Ea
Storm Structure Cover	2	Ea
Storm Structure Cover, Adjust	2	Ea
Underdrain, Subbase, 6 inch	412	Ft
Water Structure Cover	1	Ea
Water Structure Cover, Adjust	1	Ea
Subbase, CIP	7	Cyd
Aggregate Base, 6 In., 21AA, CIP	119	Syd
Aggregate Base, 8 In., 21AA, CIP	314	Syd
HMA, 4EL	173	Ton
HMA, 5EL	173	Ton
Conc, Curb or Curb & Gutter, All Types	292	Ft
Conc, Driveway Opening, Type M	120	Ft
Conc, Sidewalk, 4 In.	248	Sft
Conc, Sidewalk, Drive Approach, or Ramp, 6 In.	919	Sft
Detectable Warning Surface	15	Ft
Turf Restoration	360	Syd

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

YORKSHIRE, INDEPENDENCE, & MEDFORD

WATER MAIN REPLACEMENT PROJECT

CONSTRUCTION PLAN - MEDFORD CT - STA 50+00 TO STA 52+41

SCALE PLAN: 1" = 20'
PROFILE: 1" = 4'

DRAWING No. 2023-24-39

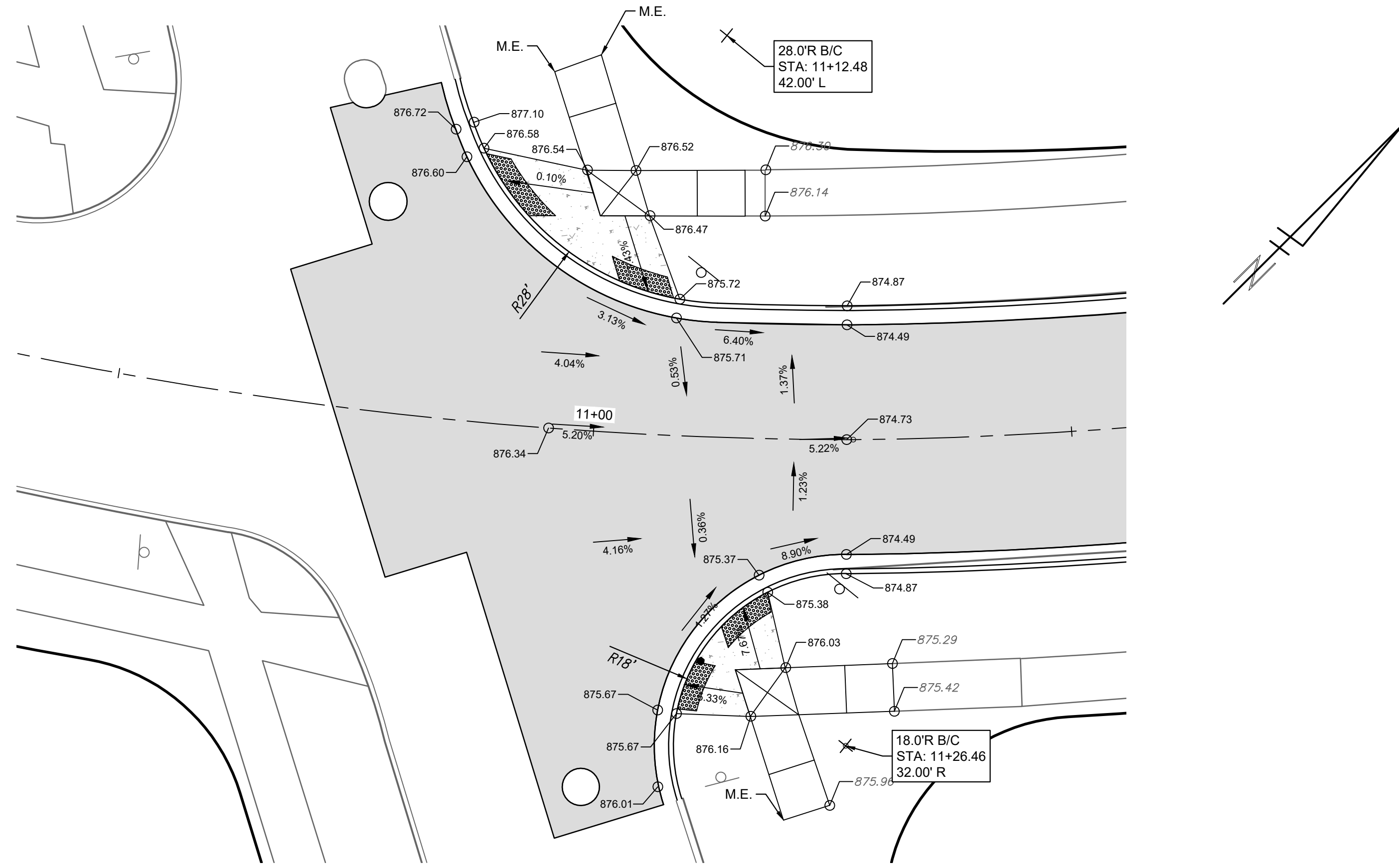
SHEET No. 39 OF 47

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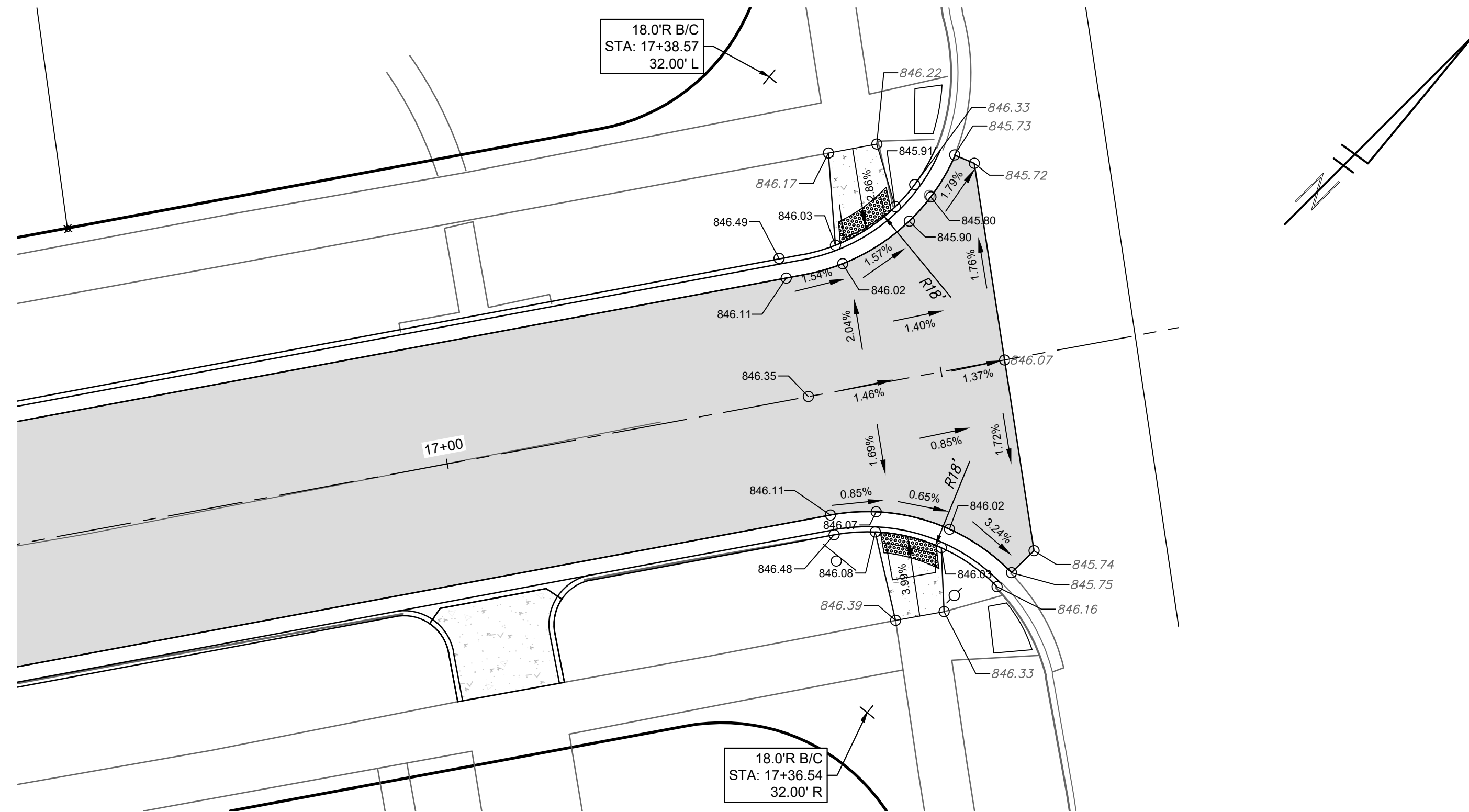
DATE: 10/16/2023
DRAWN: JJJ/AC
CHECKED: JJJ/AS

DESCRIPTION: 30% SUBMITTAL
REV: 1

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DETAIL GRADING - INDEPENDENCE BLVD & MANCHESTER ROAD



DETAIL GRADING - INDEPENDENCE BLVD & NOTTINGHAM ROAD

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
YORKSHIRE, INDEPENDENCE, & MEDFORD
WATER MAIN REPLACEMENT PROJECT

DETAIL GRADING - INDEPENDENCE BLVD

SCALE: 1" = 10'

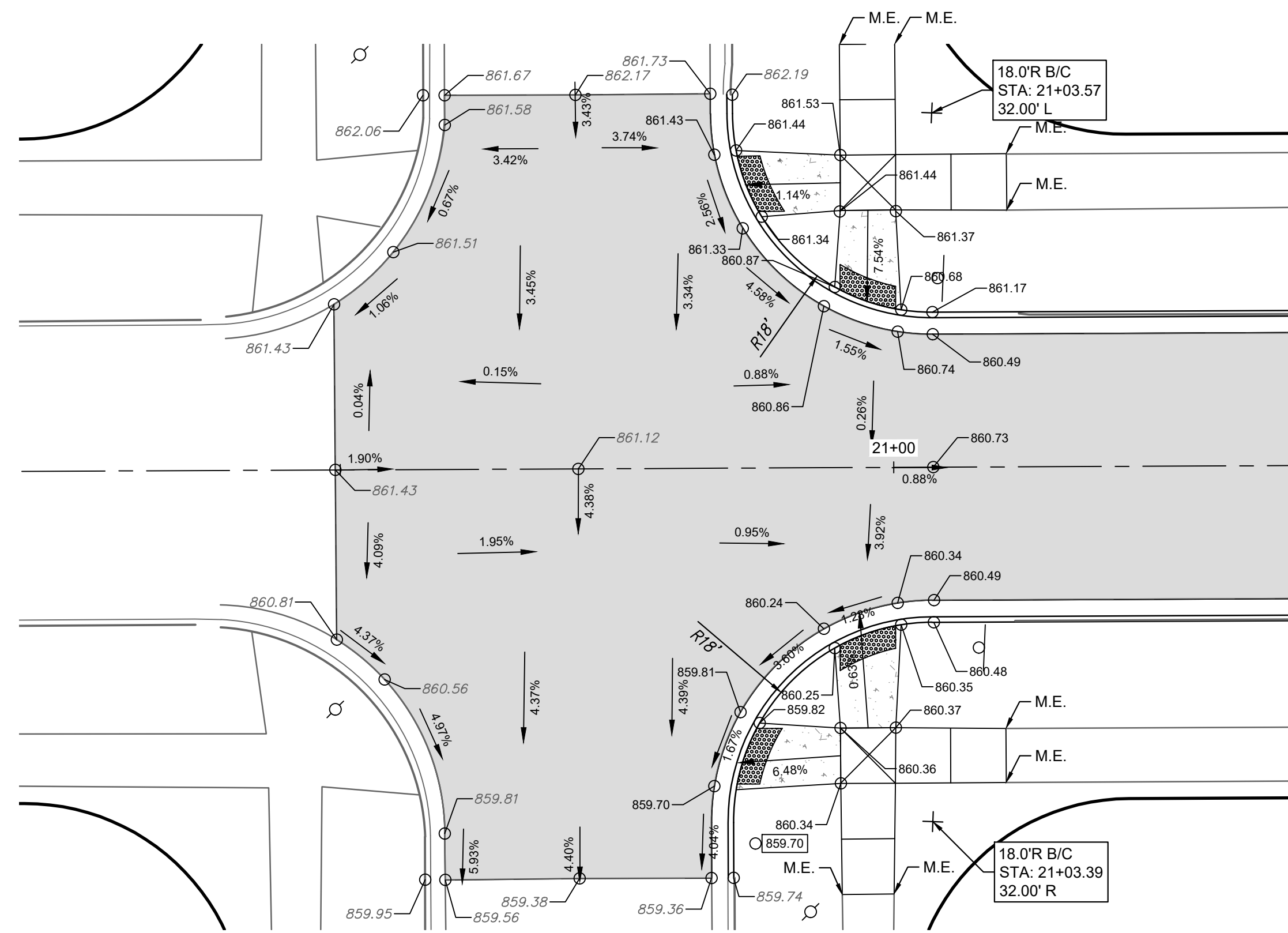
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SHEET No. **40 OF 47**

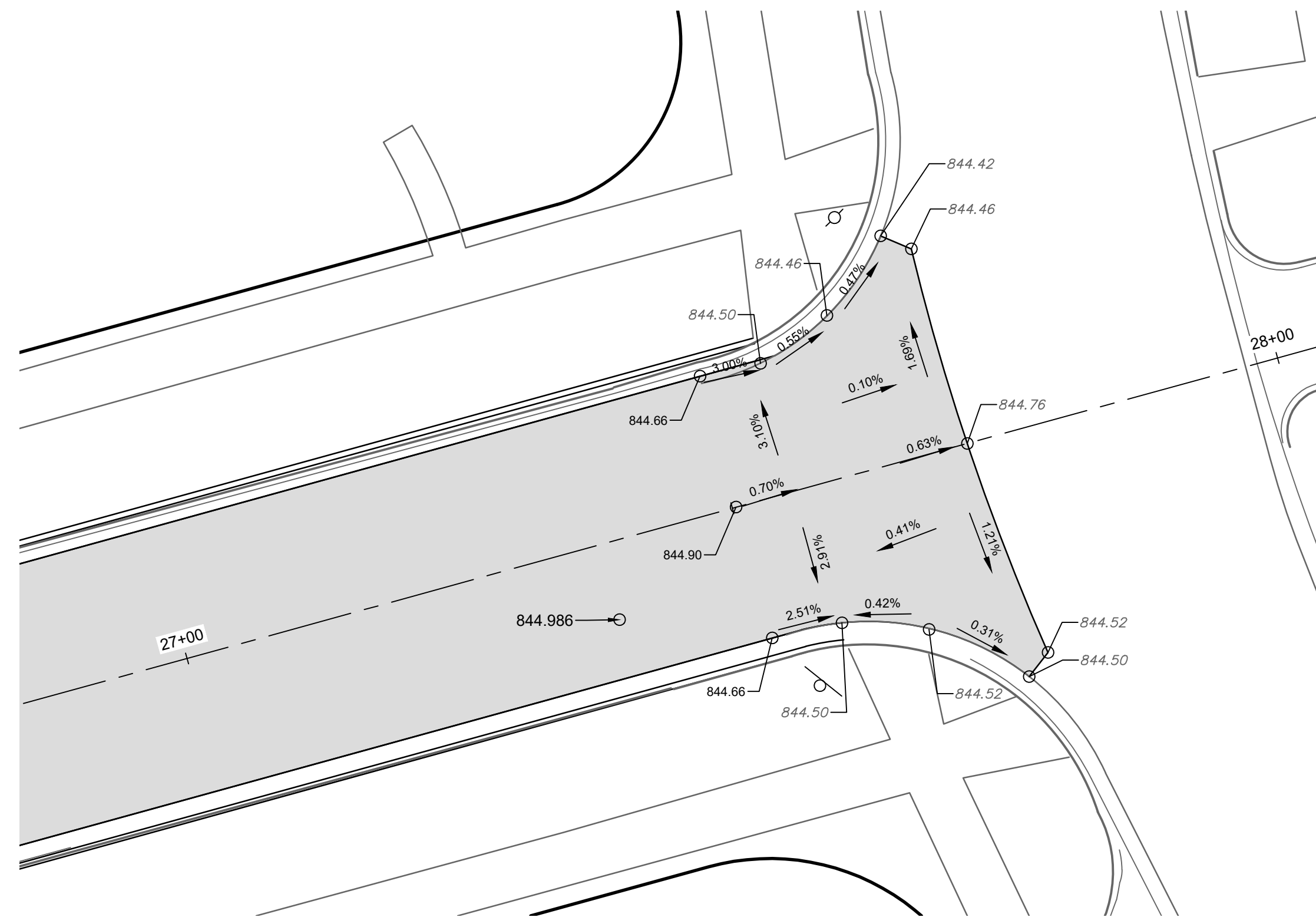
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2	FINAL PLAN SUBMITTAL	3/7/2024	JJ/RD/SA	AL/JS	
1	30% SUBMITTAL	10/16/2023	JJ/AC	AL/JS	

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DETAIL GRADING - YORKSHIRE ROAD & DORCHESTER ROAD



DETAIL GRADING - YORKSHIRE ROAD & NOTTINGHAM ROAD



REV.	DESCRIPTION	DATE	DRAWN	CHECKED
2	FINAL PLAN SUBMITTAL	3/7/2024	JJ/RD/SA	AL/JS
1	30% SUBMITTAL	10/16/2023	JJ/AC	AL/JS

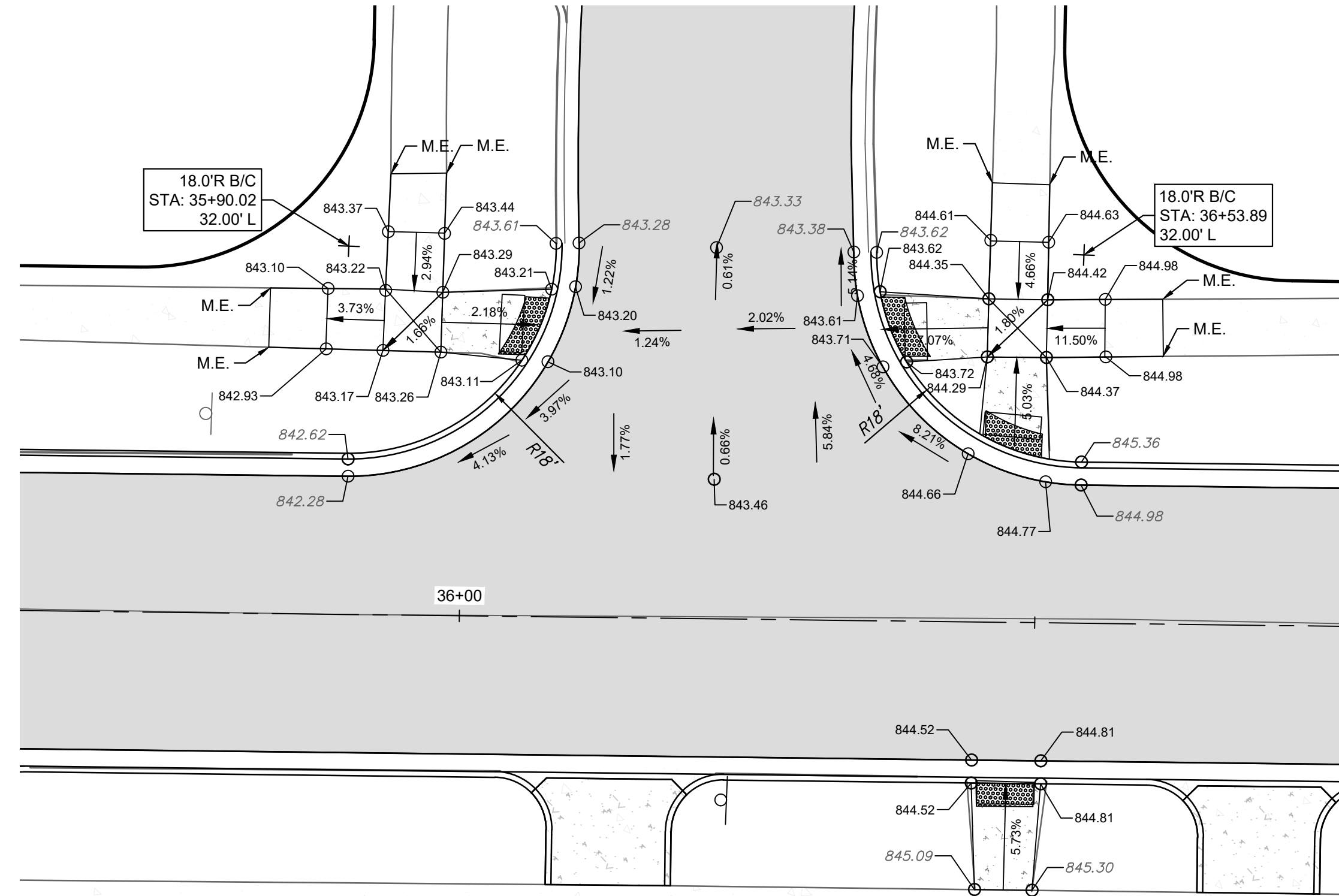
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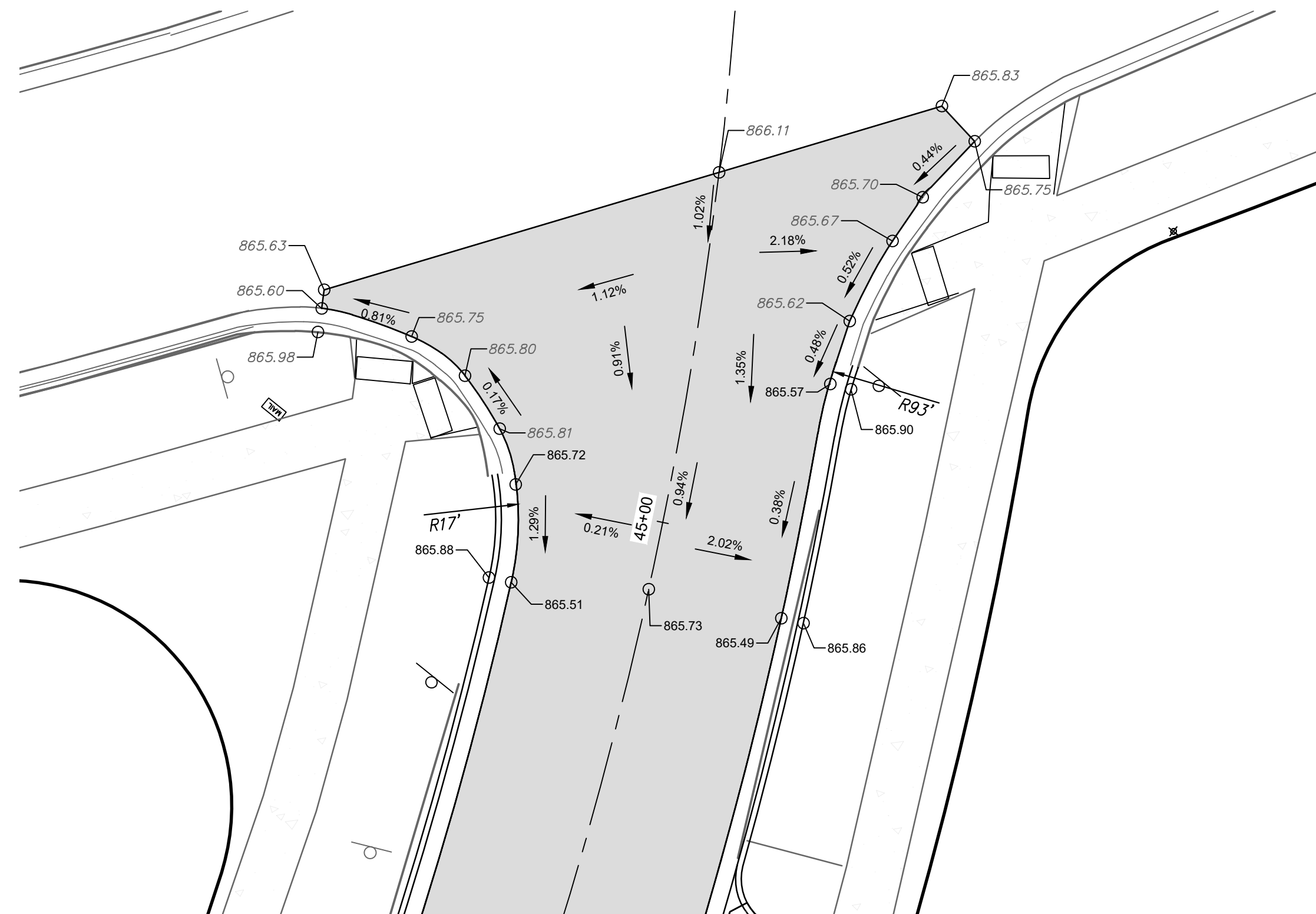
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YORKSHIRE, INDEPENDENCE, & MEDFORD
WATER MAIN REPLACEMENT PROJECT
DETAIL GRADING - YORKSHIRE RD

SCALE: #####
DRAWING No. 2023-24-41

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DETAIL GRADING - MEDFORD ROAD & NOTTINGHAMD ROAD



DETAIL GRADING - MEDFORD ROAD & MANCHESTER ROAD



REV.	DATE	DESCRIPTION	AL/US	CHECKED
2	3/7/2024	FINAL PLAN SUBMITTAL	JJ/RD/SA	AL/US
1	10/16/2023	30% SUBMITTAL	JJ/AC	AL/US
			DATE	DRAWN

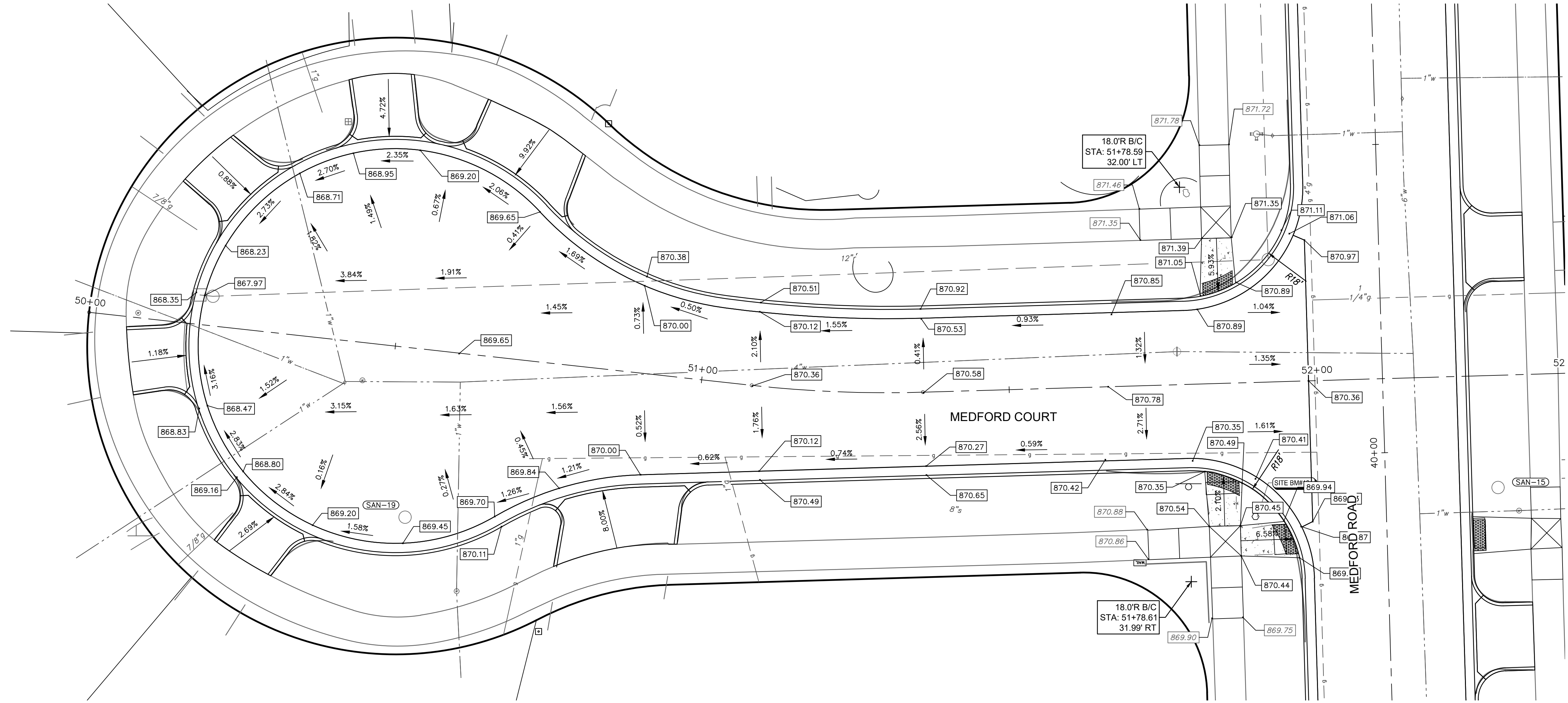
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WATER MAIN REPLACEMENT PROJECT
DETAIL GRADING - MEDFORD RD

SCALE: #####
DRAWING No. 2023-24-42

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DETAIL GRADING - MEDFORD COURT



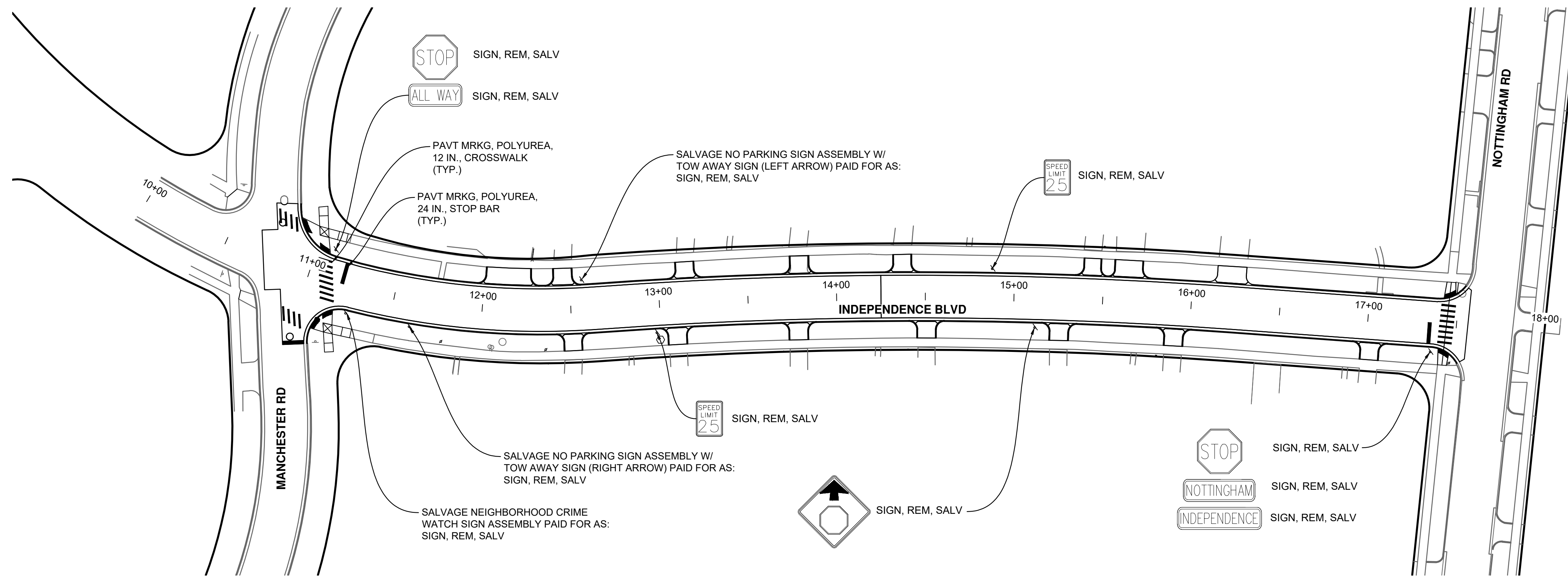
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REV.	DATE	DESCRIPTION
2	3/7/2024	FINAL PLAN SUBMITTAL
1	10/16/2023	30% SUBMITTAL

AL/US	AL/US
JJ/RD/SA	JJ/AC
AL/US	AL/US



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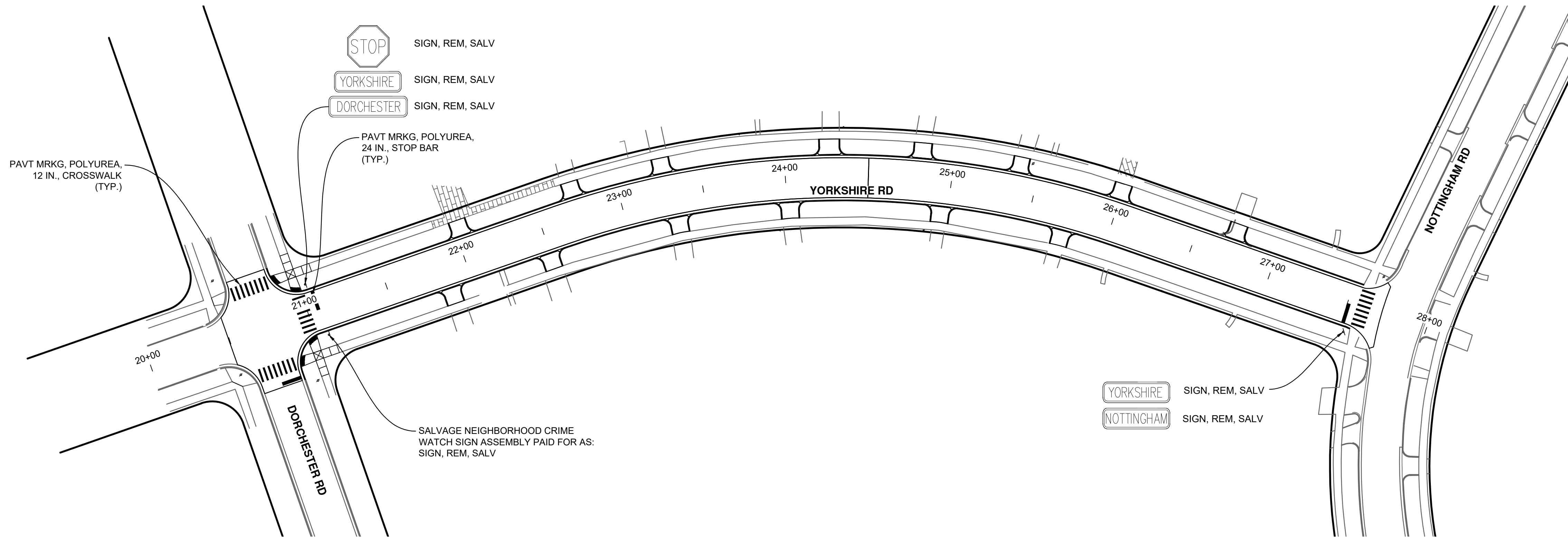
PVEMENT MARKINGS - INDEPENDENCE BLVD

NOTES

- SALVAGE SIGNS TO BE REINSTALLED BY THE CITY OF ANN ARBOR UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

PAVEMENT MARKING QUANTITIES - THIS SHEET

Item	Quantity	Unit
Sign, Rem, Salv	18	Ea
Pavt Mrkg, Polyurea, 12 In., Crosswalk	448	Ft
Pavt Mrkg, Polyurea, 24 In., Stop Bar	72	Ft



PVEMENT MARKINGS - YORKSHIRE ROAD



REV.	DATE	DESCRIPTION	DRAWN	CHECKED
2	3/7/2024	FINAL PLAN SUBMITTAL	JJ/RD/SA	AL/JS
1	10/16/2023	30% SUBMITTAL	JJ/AC	AL/JS

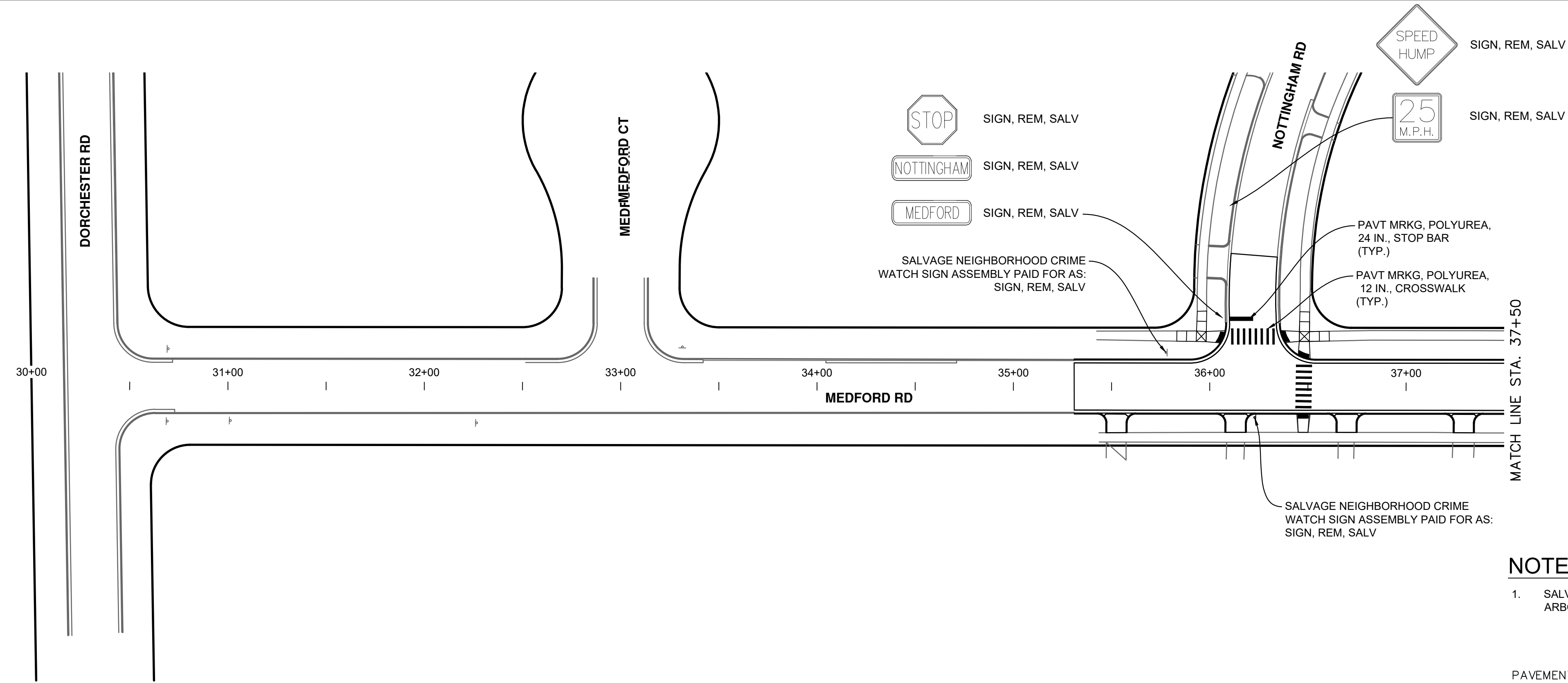
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SCALE: #####
DRAWING No. 2023-24-44
SHEET No. 44 OF 47

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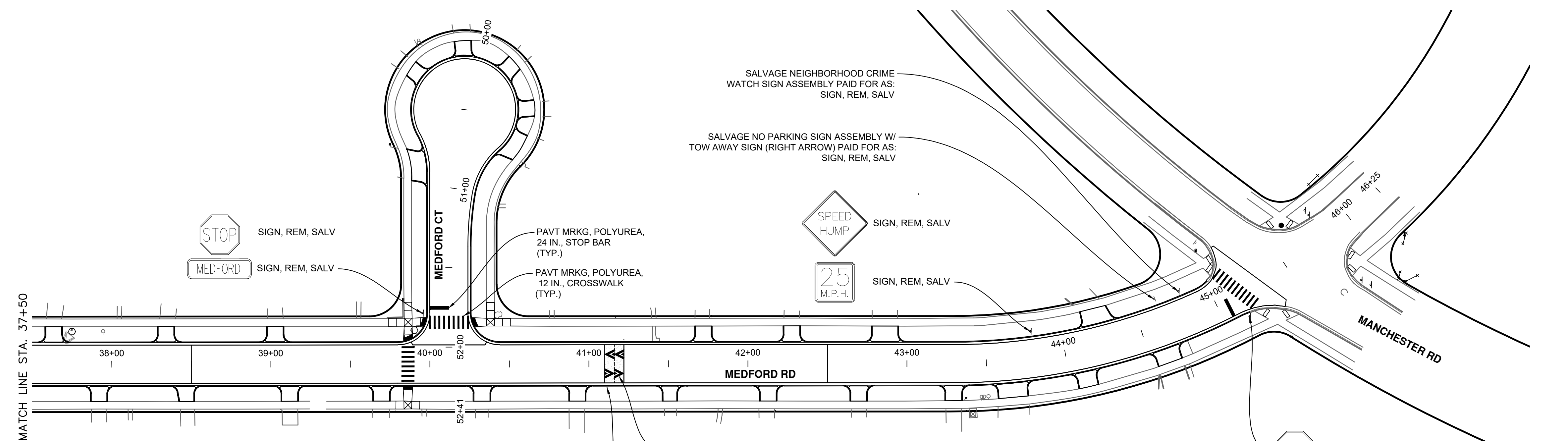
PVEMENT MARKINGS - MEDFORD ROAD

NOTES

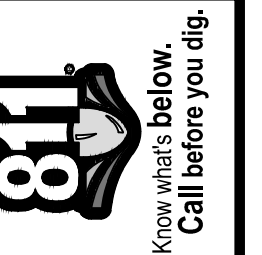
- SALVAGE SIGNS TO BE REINSTALLED BY THE CITY OF ANN ARBOR UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

PAVEMENT MARKING QUANTITIES - THIS SHEET

Item	Quantity	Unit
Sign, Rem, Salv	18	Ea
Pavt Mrkg, Polyurea, 12 In., Crosswalk	352	Ft
Pavt Mrkg, Polyurea, 24 In., Stop Bar	36	Ft
Pavt Mrkg, Polyurea, Speed Hump Chevron, White	4	Ea

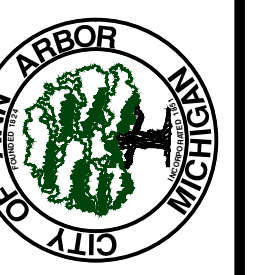


PVEMENT MARKINGS - MEDFORD ROAD



REV	DATE	DESCRIPTION	AL/US	AL/US	CHECKED
2	3/7/2024	FINAL PLAN SUBMITTAL	JJ/RD/SA	AL/US	
1	10/16/2023	30% SUBMITTAL	JJ/AC	AL/US	

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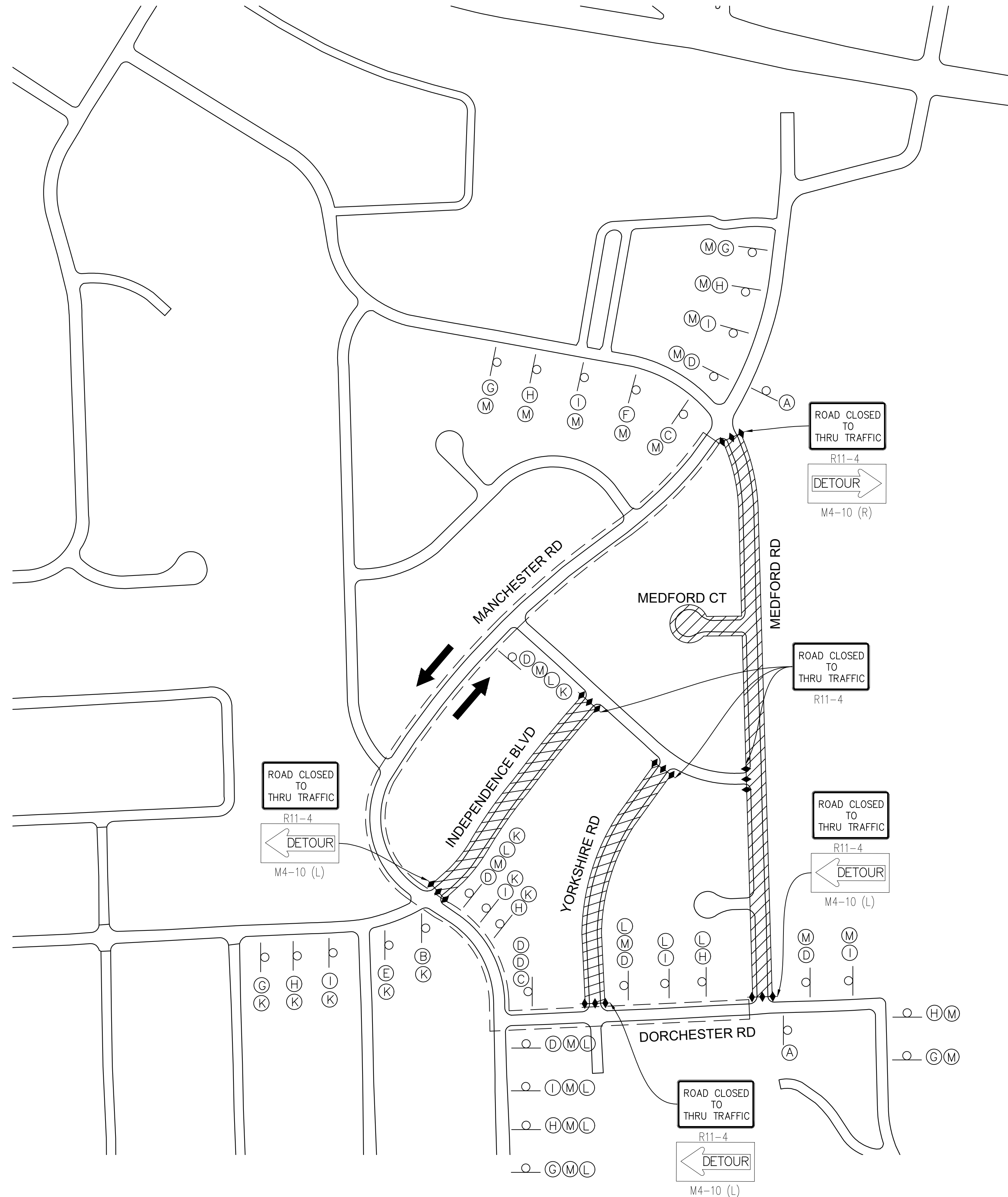


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WATER MAIN REPLACEMENT PROJECT

SCALE: #####
DRAWING No. 2023-24-45

J:\AA\Design\AA23005 - YIM Water Main Replacement\Ann Arbor Cads\Plan Production\AA23005_Dtr.dwg Dwg Created: 5-Mar-24 - _a2 standard bw.stb - Plot Date: 7-Mar-24

(A)	(B)	(C)
(D)	(E)	(F)
(G)	(H)	(I)
(J)	(K)	
(L)	(M)	



PAVEMENT MARKING QUANTITIES - THIS SHEET

Item	Quantity	Unit
Sign, Type B, Temp, Prismatic, Furn & Oper	617.5	Sft
Temporary "No Parking" Sign	100	Ea
Plastic Drum, High Intensity, Lighted, Furn & Oper	100	Ea
Barricade, Type III, High Intensity, Double Sided, Lighted, Furn & Oper	21	Ea
Pedestrian Type II Barricade, Temp, Furn & Oper	4	Ea

*QUANTITY AS-NEEDED OR DIRECTED BY THE ENGINEER

- NOTES**
1. DETOUR NORTH AND SOUTH BOUND MEDFORD ROAD, INCLUDING CLOSURES TO BOTH INDEPENDENCE BOULEVARD AND YORKSHIRE ROAD.
 2. CITY TO COORDINATE WITH TRANSIT COMPANIES FOR DETOUR OF BUS ROUTE ON MEDFORD ROAD.
 3. CONTRACTOR TO COORDINATE WATER MAIN CONNECTIONS AT INTERSECTIONS.
 4. LEAD-IN PLACED AT 450' SPACING.
 5. ADJUST ALL SIGNS AS NECESSARY TO FIT FIELD CONDITIONS.

LEGEND

- TYPE III BARRICADE (3 EA)
- SIGN
- WORK ZONE

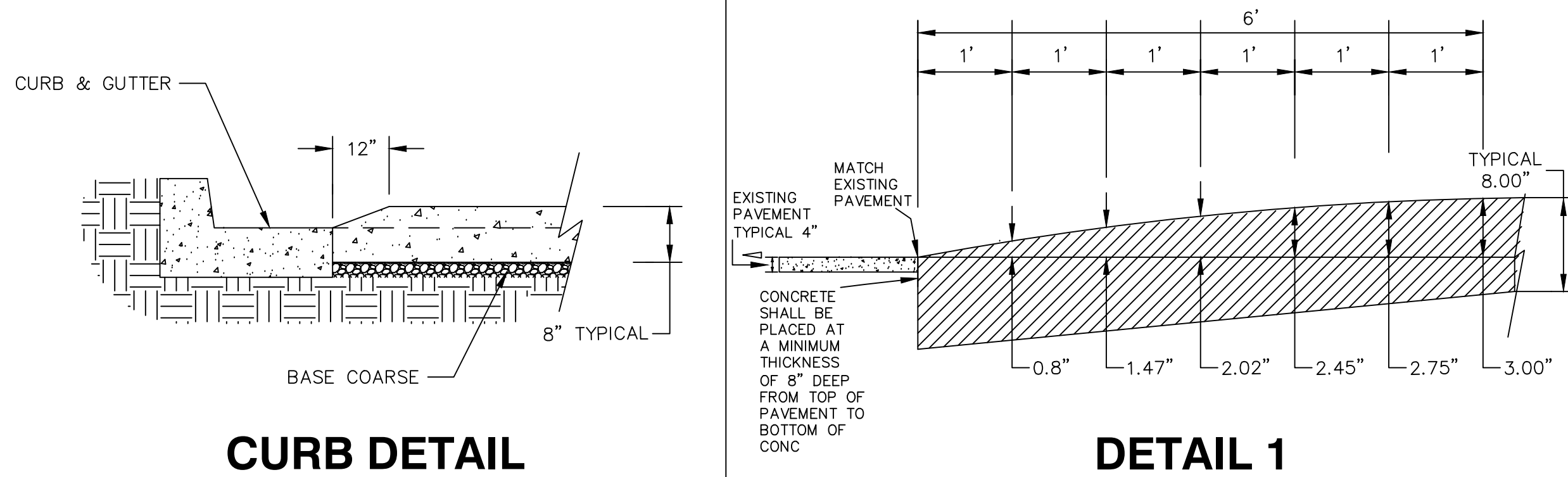
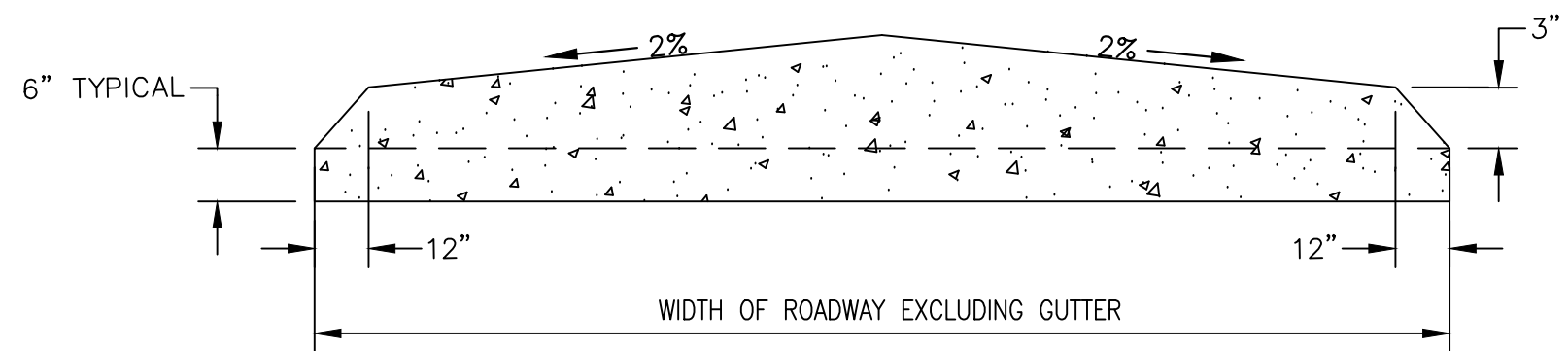
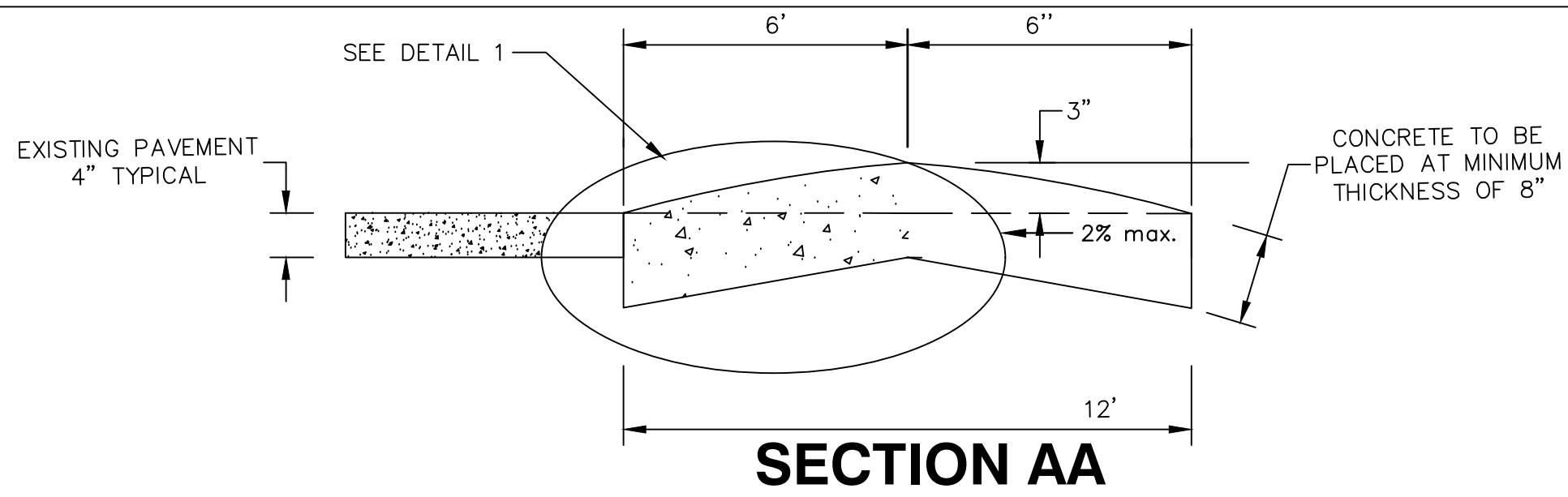
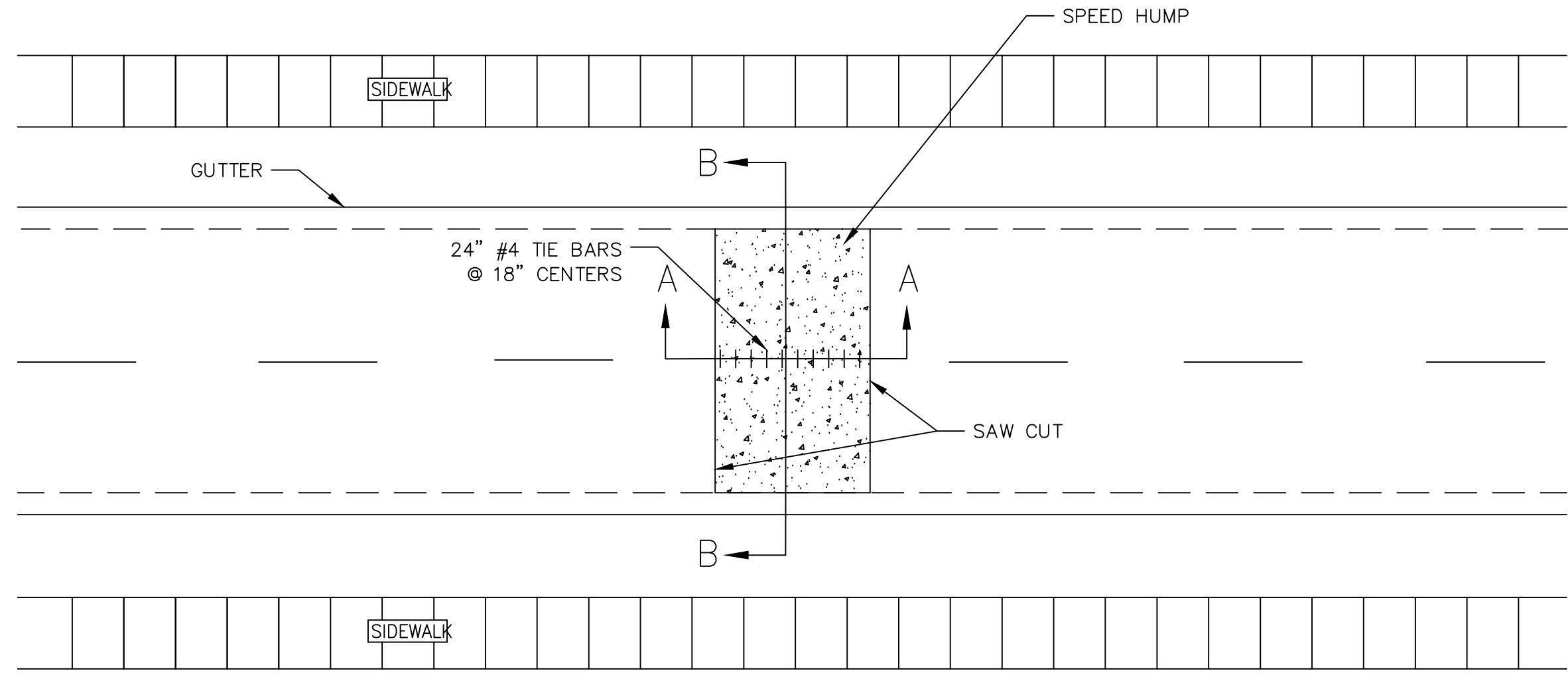
Know what's below.
Call before you dig.

REV.	DATE	DESCRIPTION
2	3/7/2024	FINAL PLAN SUBMITTAL
1	10/16/2023	30% SUBMITTAL

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YORKSHIRE, INDEPENDENCE, & MEDFORD
WATER MAIN REPLACEMENT PROJECT
 DETOUR PLAN

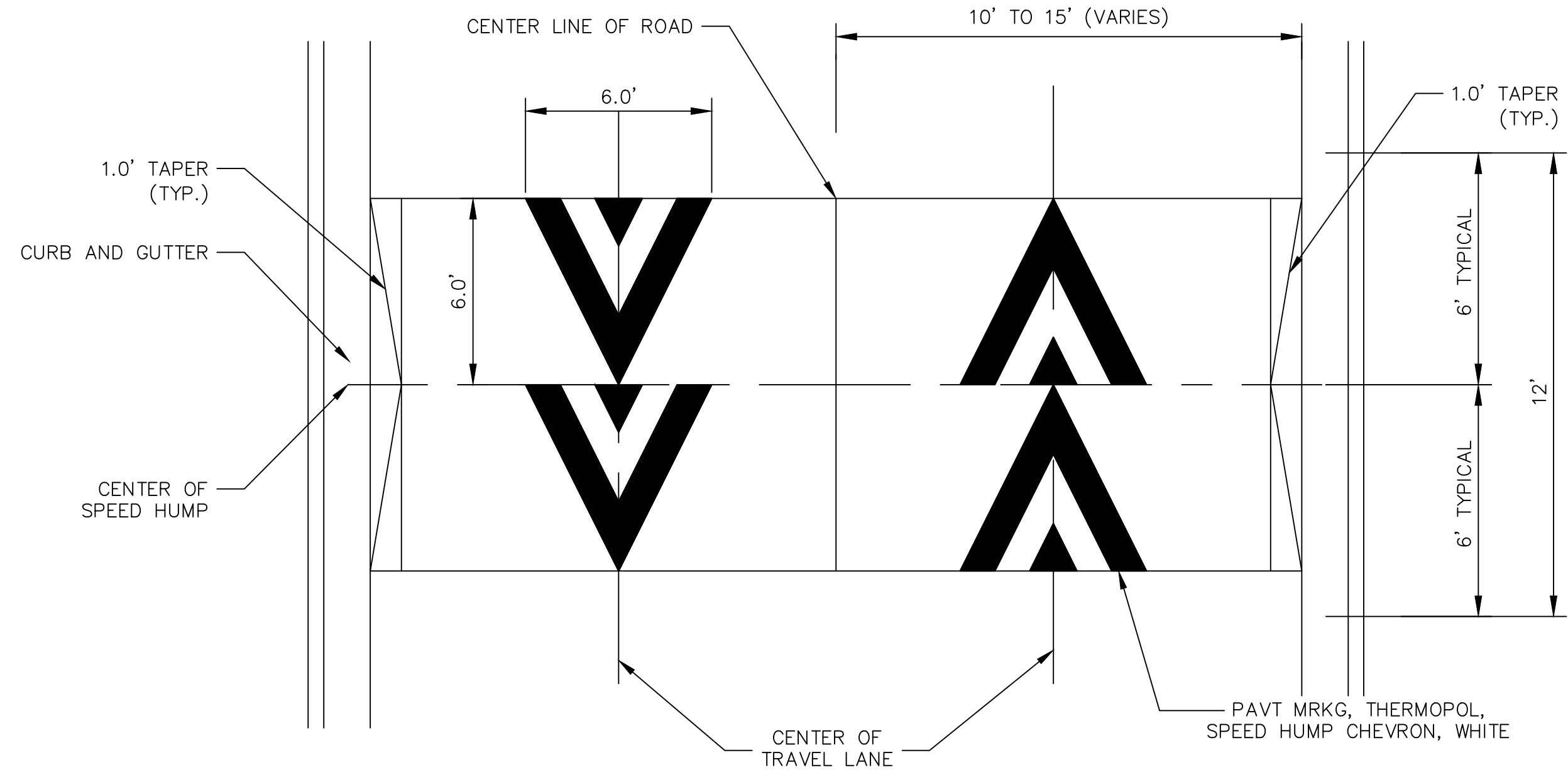
SCALE PLAN: 1" = 175'
 DRAWING No. 2023-24-46
 SHEET No. 46 OF 47

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CONCRETE SPEED HUMP DETAIL

SCALE: NOT TO SCALE



PAVEMENT MARKING DETAIL

SCALE: NOT TO SCALE



Know what's below. Call before you dig.

REV.	DESCRIPTION	DATE	DRAWN	CHECKED
2	FINAL PLAN SUBMITTAL	3/7/2024	JJ/RD/SA	AL/JS
1	30% SUBMITTAL	10/16/2023	JJ/AC	AL/JS

CITY OF ANN ARBOR
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DETAIL SHEET - CONCRETE SPEED HUMP

SCALE: NTS
DRAWING No. 2023-24-47