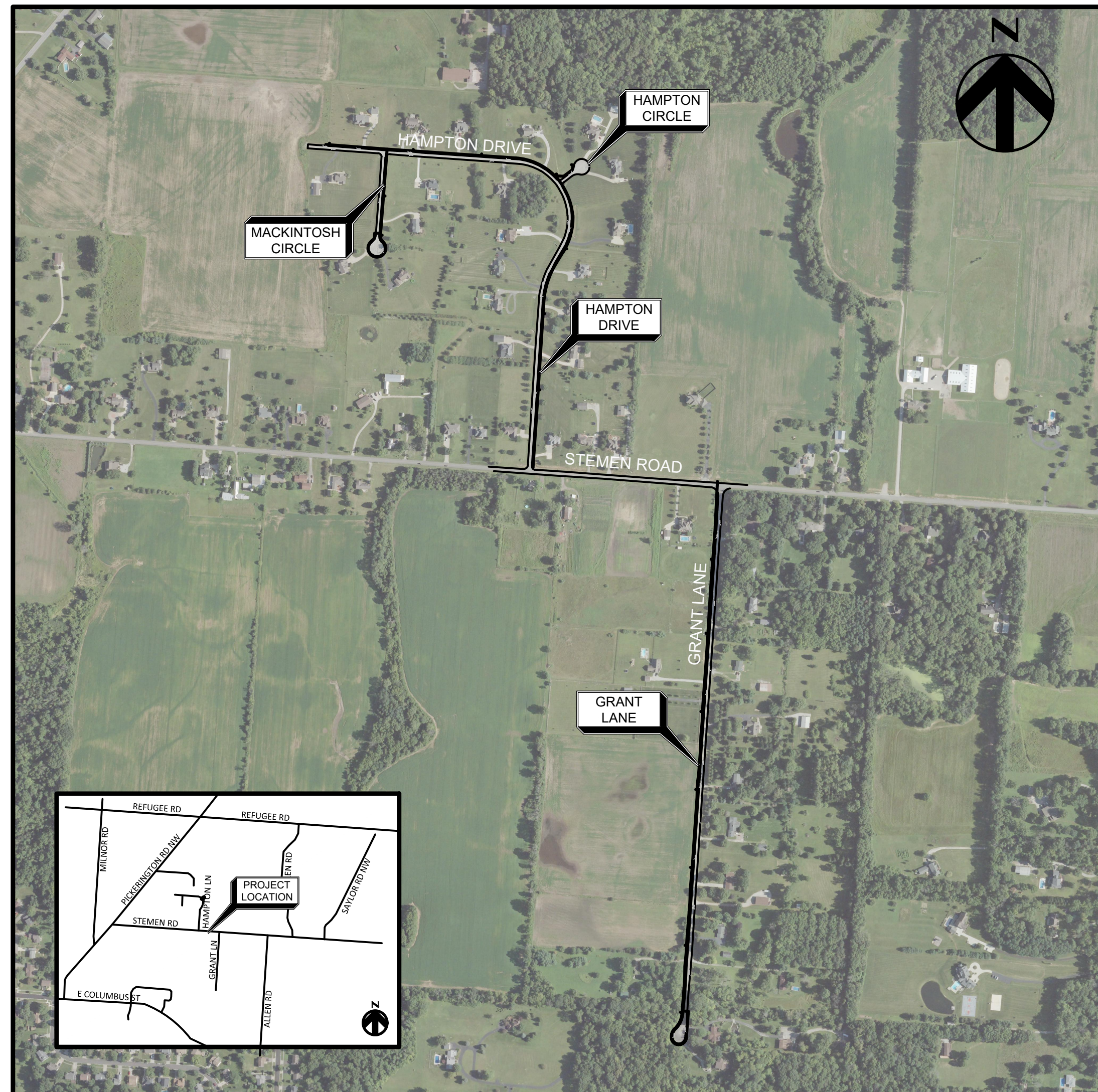


FAIRFIELD COUNTY



Fairfield County

Grant Lane and Hampton Drive Waterline

General / Civil

Project No.
10318453

Violet Township, Ohio
October 2021

INDEX OF DRAWINGS

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EARTH DISTURBED AREA

TOTAL EDA:	0.71 ACRES
CHANGE IN IMPERVIOUS AREA	0 ACRES

BOARD OF COUNTY COMMISSIONERS

STEVE DAVIS
DAVID L. LEVACY
JEFF FIX

Approved by:


SIGNATURES FOR CONCURRENCE ONLY, TECHNICAL DETAILS ARE RESPONSIBILITY OF ENGINEER

DIRECTOR OF UTILITIES _____ DATE _____

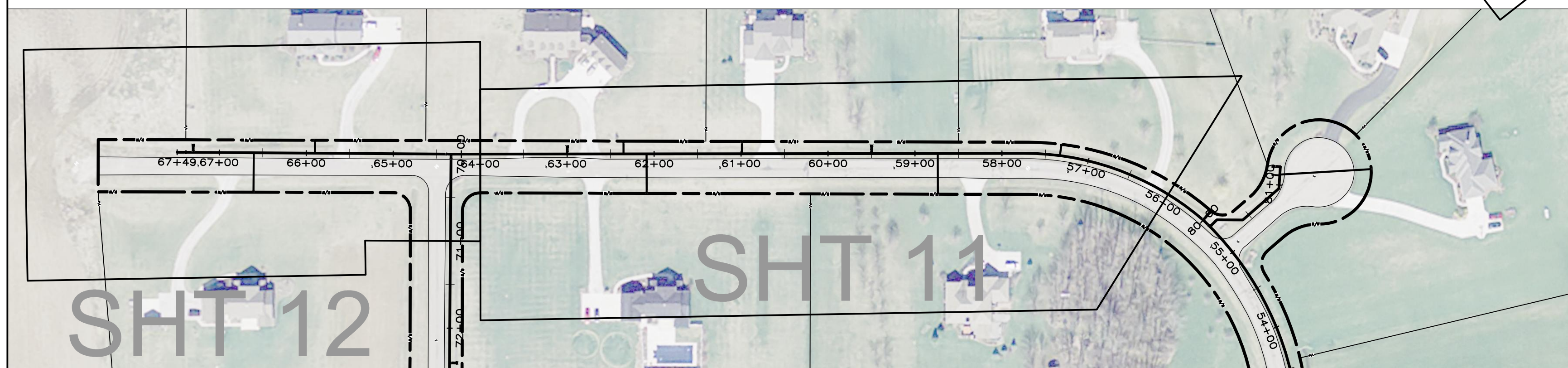
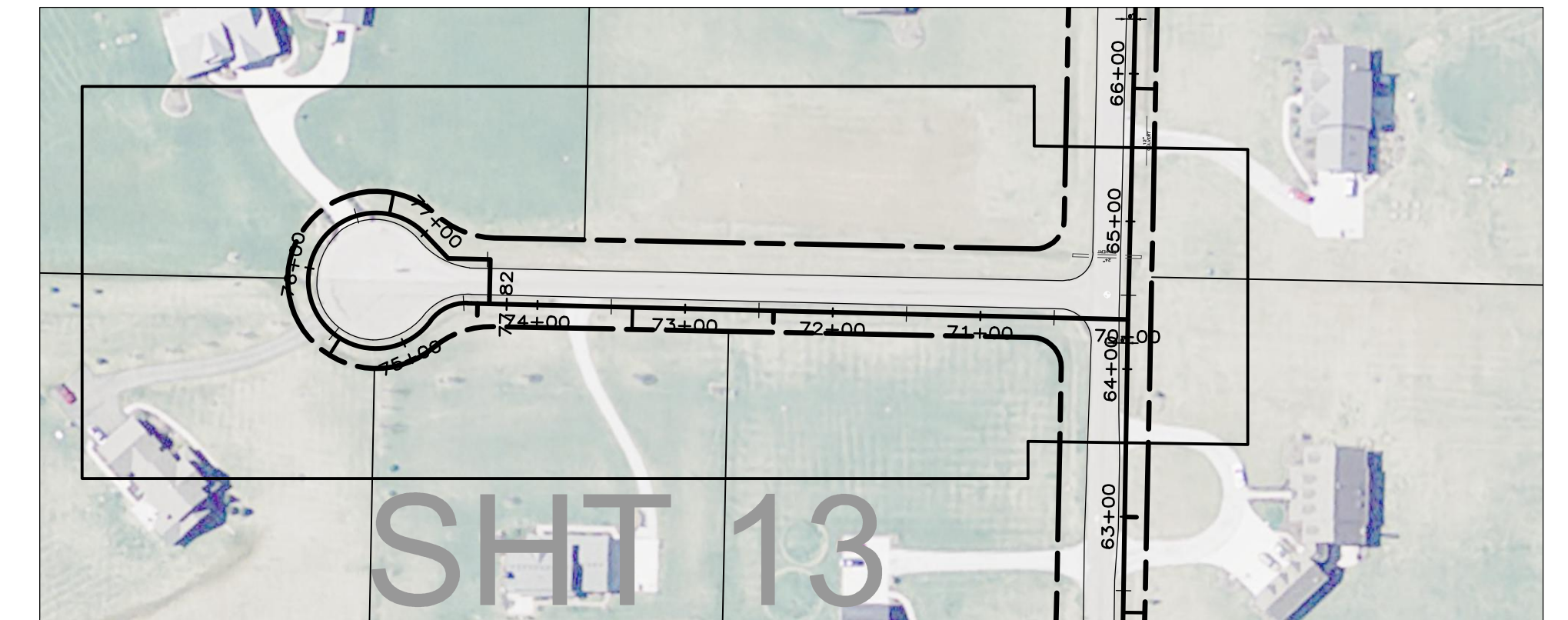
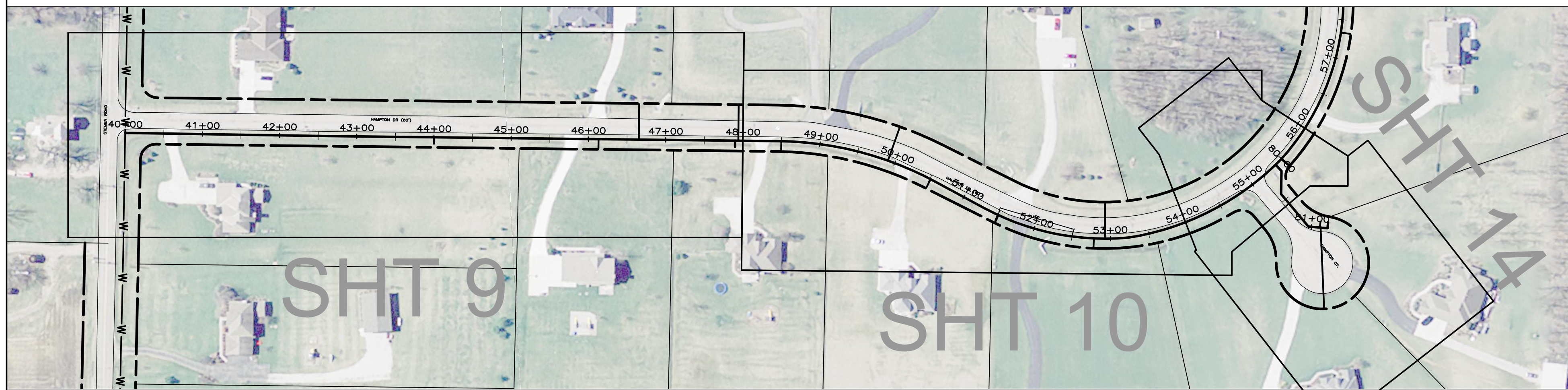
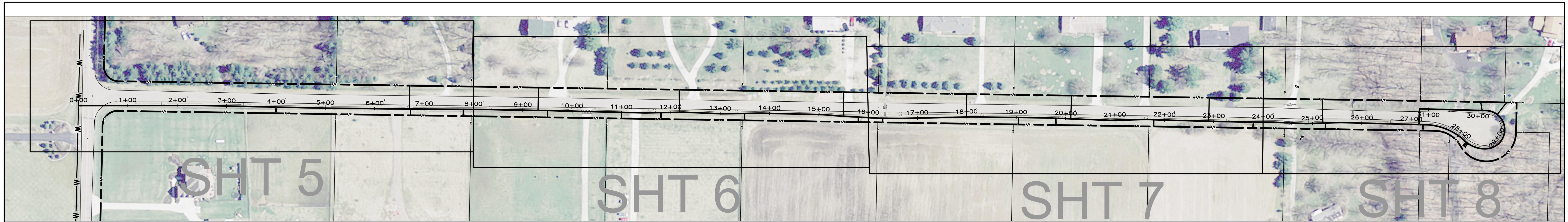
BY RESOLUTION NO. _____ DATE _____
FAIRFIELD COUNTY COMMISSIONERS

APPROVED BY LETTER: _____ DATE _____
OHIO ENVIRONMENTAL PROTECTION AGENCY

ISSUED FOR BIDDING: _____
ISSUED FOR CONSTRUCTION: _____
RECORD DRAWING: _____

 _____ DATE 10/7/21
LEE CHARLES TOUREK, PE, E-78930





SYMBOLS	
	BENCH MARK
	EX. SIGN
	EX. STORM MANHOLE
	EX. STORM CATCH BASIN
	EX. CURB & GUTTER INLET
	EX. FIRE HYDRANT
	EX. PRESSURE RELEASE VALVE
	EX. WATER VALVE
	EX. PULL BOX
	EX. FLAG POLE
	PR. FIRE HYDRANT
	PR. WATER MAIN VALVE
	PR. WATER SERVICE VALVE

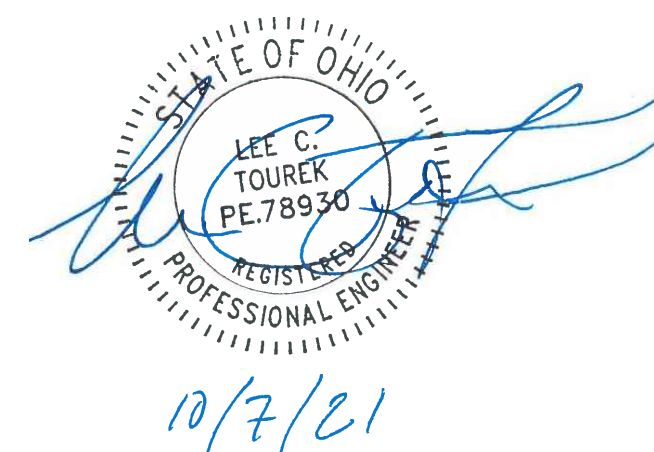
ABBREVIATIONS	
(ATG)	ADJUST TO GRADE
C	COPPER
DI	DUCTILE IRON
(DND)	DO NOT DISTURB
E/P	EDGE OF PAVEMENT
EX	EXISTING
FH	FIRE HYDRANT
GAS	GAS MAIN
(L)	LONG SERVICE TRANSFER
NF	NOT FOUND
PVMT	PAVEMENT
(RTT)	RESTRAIN TO TEE
(S)	SHORT SERVICE TRANSFER
STM	STORM SEWER
(TBA)	TO BE ABANDONED
(TBL)	TO BE LOWERED
(TBR)	TO BE REMOVED
UGE	UNDERGROUND ELECTRIC
WM	WATER MAIN
WS	WATER SERVICE
W/L	WATER LINE

LINE TYPES	
	CENTERLINE OF ROAD
	EX. PROPERTY LINE
	EX. RIGHT-OF-WAY
	EX. GAS
	EX. STORM
	EX. WATER
	EX. UNDERGROUND ELECTRIC
	EX. FENCE
	PROPOSED WATER MAIN
	PROPOSED WATER SERVICE



ISSUE	DATE	DESCRIPTION
A	10/7/21	ISSUED FOR BID

PROJECT MANAGER	LEE C. TOUREK
DESIGN BY	LCT
DRAWN BY	DRF
APPROVED BY	MRI
PROJECT NUMBER	10318453



**GRANT LANE AND HAMPTON DRIVE
WATERLINE PROJECT
FAIRFIELD COUNTY, OHIO**



INDEX MAP

FILENAME | Grant Lane Plan Set.dwg
SCALE | 1" = 100'

GENERAL NOTES

G-1 GENERAL: The current Fairfield County Construction and Material Specifications (FCMS), including all supplements thereto, with the requirements of Fairfield County in force on the date of contract, shall govern all materials, methods of construction and workmanship involved in the improvements shown on these plans, except as such specifications are modified by the following specifications or by the construction details set forth herein. Any modification to the specifications or changes to the work as shown on these plans must have prior written approval of the County Sanitary Engineer.

G-2 WORK LIMITS: The Contractor shall confine his activities to the Project Site under development, existing rights-of-way, construction easements and permanent easements, and shall not trespass upon other private property without the written consent of the property owner. Approval of these plans is contingent upon all easements required for construction of the work being secured or platted, and furnished to the County Sanitary Engineer.

G-3 MISCELLANEOUS WORK: All items of work called for on the plans for which no specific method of payment is provided shall be performed by the Contractor and the cost of same shall be included in the price bid for the various related items.

G-4 FIELD TILE: All field tile and other drainage tile broken during excavation shall be replaced to its original condition or connected either to a curb sub-drain or a storm sewer system, as directed by the County Sanitary Engineer or his representative.

G-5 SURPLUS EXCAVATION: The Contractor shall properly dispose of all surplus excavation.

G-6 EXISTING UTILITIES: The information shown concerning existing utilities is not represented, warranted or guaranteed to be complete or accurate. It shall be the Contractor's responsibility to physically locate and verify in the field, all utility locations and elevations, whether shown on the plans or not, prior to the beginning of construction operations. The Contractor shall support, protect, and restore all existing utilities and associated items to the satisfaction of the utility owner. The Contractor shall notify all utility owners, in accordance with Section 153.64 of the Ohio Revised Code, at least forty-eight (48) hours prior to the beginning of any work, to request utility locations, to coordinate the work, and to keep the utility owners apprised of the construction schedule and requirements until all work is completed. The Contractor shall provide the County Sanitary Engineer with evidence of having notified the utility owners of the construction work and schedule prior to beginning any work.

Notice shall be given to the Ohio Utilities Protection Service (800-362-2764) for the member utilities. The Fairfield County Utilities Department is a member utility for water and sanitary sewer utilities. The Fairfield County Engineer (740-652-2300) and local governmental entity responsible for storm sewers are not members of a registered underground protection service and must be contacted directly.

G-7 SAFETY OF CONSTRUCTION: Compliance with the Occupational Safety and Health Act of 1970, as amended and applicable OSHA regulations is required of all contractors on the project. Each Contractor and Subcontractor is responsible to implement, maintain and supervise all safety requirements, precautions and programs in connection with the work.

G-8 NOTIFICATION: The Contractor shall notify the County Sanitary Engineer (614-322-5200) seventy-two (72) hours, excluding weekends and holidays, prior to the start of construction of water and/or sanitary sewer utilities. When construction is suspended for more than seven days,

the Contractor shall notify the County Sanitary Engineer seventy-two (72) hours, excluding weekends and holidays, prior to resuming construction. Construction shall not start prior to the required notice being given.

G-9 CLEAN-UP: The tracking of mud, dirt or debris upon any public roadway is prohibited and any such occurrence shall be cleaned up immediately by the Contractor. The Contractor shall clean up all debris and materials resulting from the construction operation and restore all surfaces, structures, ditches, and property to its original condition and to the satisfaction of the County Sanitary Engineer.

G-10 PERMITS: The Contractor shall obtain any and all necessary permits prior to beginning construction. All work shall be performed in accordance with the applicable Federal, State and County regulations and requirements.

G-11 CROSSINGS: All water mains and services shall be constructed with at least 10 feet horizontal separation and at least an 18 inch vertical separation from all sanitary and storm sewers. When the 10 foot or 18 inch clearance cannot be obtained, the sanitary or storm sewer shall be constructed of waterline materials as approved in the County's Construction and Material Specifications, and/or the waterline must be relocated or lowered as directed by the County Sanitary Engineer.

G-12 TRAFFIC CONTROL: A subdivision street, unless it is also a County or State highway, may be closed to through traffic one (1) block at a time from 8:00 a.m. to 4:00 p.m. Monday through Friday. The Contractor shall submit a plan and schedule for detouring traffic ten (10) days prior to the closing of any street. Any temporary closing of a street does not relieve the Contractor of the responsibility to provide access to the property by emergency vehicles, mail/delivery vehicles and the owners. Where it is anticipated that work will close a street, the Contractor shall inform the residents to be affected, County Sheriff's Office, Township Fire Department, County Sanitary Engineer, County Engineer, applicable School District, and other applicable City and Township entities as to the extent, nature, and time of the anticipated work. No street shall be closed until the schedule is approved by the County Engineer. Adequate lights, signs, and barricades shall be used, as required in Item 614 of the ODOT Construction and Material Specifications and OMUTCD, to safeguard the traveling public at all times. All trenches shall be backfilled or securely plated within the public right-of-way during non-working hours.

G-13 CURB MARKINGS: The Fairfield County Utilities Department requires that the letters "V" for water main valve, "W" for water service line and "S" for sanitary sewer service line be embedded in the concrete curb. For standard curbs, the letter is to be located in the center on the top flat portion of the curb. For rolled curbs, the top of the letter is to be located on the face of the curb within one and one-half (1-1/2) inches of the crest. The letter is to be at least two (2) inches wide, three (3) inches high and one quarter (1/4) inch deep. The letter "V" is to be located on the curb immediately adjacent to all water main valves. The letters "W" and "S" are to be located directly over the house service lines.

G-14 SEDIMENT AND EROSION CONTROL: The Contractor shall be solely responsible for providing necessary and adequate measures for proper control of erosion and sediment runoff from the site along with proper maintenance and inspection in compliance with the NPDES General Permit for Storm Water Discharge Associated with Construction Activity. All sediment and erosion control measures required in the plans, the Fairfield County Construction and Material Specifications, and the Ohio EPA Storm Water Regulations and General Permit shall be in place and operational prior to construction beginning in the work area.

G-15 PROHIBITED CONSTRUCTION ACTIVITIES: The following construction activities are prohibited on the project.

- Using any substance other than water to control dust.
- Tracking of mud, dirt and debris onto any public roadway.
- Open burning of project debris without a permit. The Contractor is responsible for obtaining the permit or disposing of the trees and stumps.
- Pumping of sediment-laden water from trenches or other excavations into any surface waters, any stream corridors, any wetlands, or storm sewers.
- Discharging pollutants – such as chemicals, fuels, lubricants, bituminous materials, raw sewage – and other harmful waste into or alongside rivers, streams, impoundments or into natural or man-made channels leading thereto.
- Storing construction equipment and vehicles and/or stockpiling construction materials on property, public or private, not previously specified for said purposes.
- Disposing of excess or unsuitable excavated material in wetlands or floodplains, even with the permission of the property owner.
- Indiscriminate, arbitrary, or capricious operation of equipment in any stream corridors, wetlands, surface waters, or outside the easement area.
- Permanent or unspecified alteration of the flow line of a stream.
- Removal of trees and bushes, or damaging vegetation outside the limits of the construction area.
- Disposal of trees, brush and other debris in any stream corridors, any wetlands, any surface waters or at unspecified locations.

G-16 RECORD DRAWINGS: One (1) set of record construction drawings and a computer disk in AutoCAD format and .tiff or .pdf format shall be provided to the Fairfield County Utilities Department as soon as all public improvements are completed and prior to final acceptance.

WATERLINE NOTES

W-1 CONNECTING WATERLINES: The connection of proposed waterlines to existing waterlines shall be done in a manner that will cause a minimum of inconvenience to those with affected services. Work concerning the disconnection and reconnection of existing waterlines shall be done between the hours of 10:00 p.m. and 5:00 a.m., or as directed by the County Sanitary Engineer. No such work shall begin until the Township Fire Department, County Sanitary Engineer, County Sheriff's Office and residents whose services will be affected are all notified at least seventy-two (72) hours prior to the connection, of the extent, nature and time of the anticipated work, nor until the method and schedule of such work has been approved by the County Sanitary Engineer.

W-2 SERVICE LOCATIONS: All water services shall be located near the lot line unless otherwise noted, and shall be laid at least 10 feet horizontally from the sanitary sewer service and in a separate trench. A permit for each water service must be obtained from the Fairfield County Utilities Department, prior to making any connection from the water main or water service box to any existing or proposed building.

W-3 CONFLICTS: When conflicts in grade between waterlines and sewers are found during construction, the waterlines shall be lowered, unless directed otherwise by the County Sanitary Engineer. A minimum vertical separation of 18 inches, measured from the outside of each pipe, shall be maintained.

W-4 MINIMUM DEPTH: Water lines shall be laid with a minimum of four (4) feet of cover from the final proposed ground or pavement grade to the top of the waterline.

W-5 LINE CROSSINGS: At all points of crossing of water mains and sewers, the backfill shall be granular material between the deeper and shallower pipe. The minimum horizontal separation between water mains and all sanitary and storm sewers shall be ten (10) feet measured from the outside of each pipe. The minimum vertical separation at crossings of water mains and all sewers shall be 18 inches measured from the outside of each pipe.

W-6 DISINFECTION: All water mains shall be cleaned and disinfected in accordance with the applicable sections of AWWA Specification C651. Special attention is directed to the requirements of flushing and chlorinating valves and fire hydrants. Results of the disinfection tests shall be furnished to the County Sanitary Engineer prior to acceptance of the system.

W-7 TESTING: A hydrostatic test, as required in Section 7.3 of AWWA Specification C605 for PVC Pipe or Section 5.2 of AWWA Specification C600 for Ductile Iron Pipe as applicable, shall be applied to the water main. If there are indications of leaks under this pressure test, the Contractor shall locate and repair all leaks at the contractor's expense until the leakage is within the specified allowance. All bends, joint deflections and hydrants shall have concrete backing, and all valves shall have concrete supports, in accordance with the Standard Construction Drawings. Final water pressures testing for acceptance to be conducted after all other utilities are installed in new development areas.

W-8 FIRE HYDRANTS: Fire hydrants shall be American Flow Control Model MK-73 or Mueller Super Centurion 250 Model A-421, as shown on Standard Drawing W-20, and be installed as per Standard Drawings W-21, W-22, W-23 and W-24. Fire hydrants and lids of watch valve boxes shall be thoroughly cleaned and prepped, be primed with one coat Tnemec Uni-bond DF Series Gray and be painted with two coats Tnemec Enduratone Series 1028 Chilean Red for the top coats. Hydrants shall be of the same manufacturer as consistent within a subdivision or service area.

W-9 CURB AND VALVE BOXES: Curb boxes shall be located 12 inches from the property line or easement line for short services and 12 inches from the property line on long services, unless otherwise shown on the plans. All curb box and valve box tops shall be adjusted to be 3" above final surface grades. The Contractor shall furnish and place, as directed, a stake made of 4" x 4" treated hardwood lumber at all curb boxes and valve boxes, extending a minimum of 3 feet above final surface grades with the final 2 feet pointed cove blue. All curb and valve box lids shall be thoroughly cleaned and prepped, be primed with one coat Tnemec Uni-bond DF Series Gray and be painted with two coats Tnemec Enduratone Series 1028 Cove Blue for the top coats.

W-10 VALVE EXTENSION: If the top of the operating nut is lower than 36 inches below finished grade, an extension stem shall be furnished to bring the top of the operating nut to between 24 inches and 36 inches of finished grade elevation.

W-11 INSTALLATION IN EMBANKMENT: Where water mains are to be installed in embankment areas, the embankment shall be placed and compacted in accordance with the specifications prior to the installation of the water main. The water main shall be installed with a minimum of four (4) feet of cover in all directions.

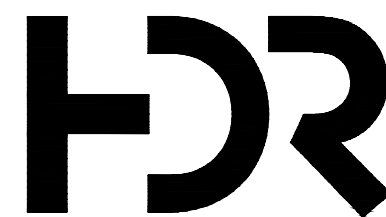
W-12 VALVE OPERATION: Existing valves shall be operated by Fairfield County Utilities personnel only.

W-13 FITTING MARKERS: The contractor shall provide 3M Electronic marking system full range makers at every fitting bend or tee that does not have a valve or every 50' on a straight run. The markers shall be attached to the pipe with a plastic zip tie.

W-14 CONSTRUCTION AND MATERIAL SPECIFICATIONS: All materials and construction shall meet the requirements of the current Fairfield County Construction and Material Specifications, including all supplements thereto. Water main pipe shall be PVC Plastic Pipe, AWWA C900 DR 14, Ductile Iron Pipe Class 53, AWWA C151, Cement lined AWWA C104, with joints conforming to AWWA C111 is an acceptable alternate water main pipe. All bends, joint deflections and fittings shall be backed with concrete. Blue metallic field locator tape of six (6) inch width shall be placed over all water mains, within 12 to 18 inches of finished grade. Copperhead 10 gauge tracer wire (1030 – HS, open trench, 1045-EHS directional drill) shall be laid with the pipe trench and extended into each valve opening. Water main valves shall be AWWA C509 or C515, Resilient Wedge with 250 PSI working pressure, non-rising stem, left hand open valve with rubber "O" packing seals. All bolts to be 304 stainless steel. Water main valves shall be of the same manufacturer as the hydrants in the subdivision or service area. Water service line pipe shall be Phillips DriscoPipe Polyethylene SDR 9, and shall be installed with a cover of four (4) feet. Service saddles to be all stainless steel with full rubber insert. See FCU acceptable service saddles and tapping saddle approved list.

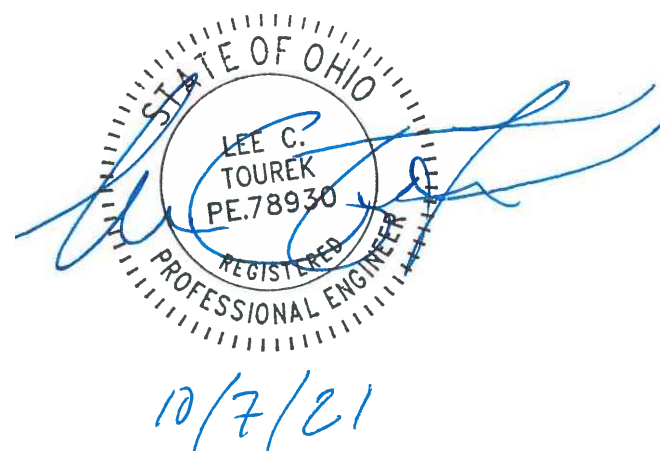
W-15 WATER SYSTEM PRESSURE: The normal working pressure in the water system will not be less than 35 psi. Individual booster pumps are not permitted for any individual service. If the static pressure in the water system at the work area is greater than 80 psi, then a pressure reducing valve shall be required for each house or building.

W-16 TOOLS AND SPARE PARTS: The following tools and spare parts shall be delivered to the County prior to conditional acceptance of the project: One mainline wrench, one probe (six feet), 1 curb box wrench, 1 complete curb box, 1 fire hydrant wrench.



ISSUE	DATE	DESCRIPTION
A	10/7/21	ISSUED FOR BID

PROJECT MANAGER	LEE C. TOUREK
DESIGN BY	LCT
DRAWN BY	DRF
APPROVED BY	MRI
PROJECT NUMBER	10318453



GRANT LANE AND HAMPTON DRIVE
WATERLINE PROJECT
FAIRFIELD COUNTY, OHIO

GENERAL NOTES



FILENAME	Grant Lane Plan Set.dwg
SCALE	NONE

SHEET

3

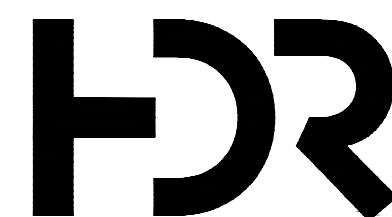
ESTIMATE OF QUANTITIES

REF. NO.	SPEC NO.	ITEM DESCRIPTION	UNIT	QUANTITY	SHEET 5 (GRANT LN)	SHEET 6 (GRANT LN)	SHEET 7 (GRANT LN)	SHEET 8 (GRANT LN)	SHEET 9 (HAMPTON DR)	SHEET 10 (HAMPTON DR)	SHEET 11 (HAMPTON DR)	SHEET 12 (HAMPTON DR)	SHEET 13 (MACKINTOSH CIR)	SHEET 14 (HAMPTON CIR)	ADDITIONAL QUANTITIES
1	304	DRIVEWAY RESTORATION (AGGREGATE BASE)	CY	20	4	3	-	3	-	-	6	4	-	-	-
2	614	MAINTAINING TRAFFIC	LS	1	-	-	-	-	-	-	-	-	-	-	1
3	659	SEEDING AND MULCHING	SY	3,146	354	397	415	330	378	323	381	168	336	63	-
4	638	3 INCH WATER PIPE AND FITTINGS COMPLETE AND IN PLACE	LF	660	-	-	-	416	-	-	-	-	244	-	-
5	638	6 INCH WATER PIPE AND FITTINGS COMPLETE AND IN PLACE	LF	250	16	16	16	8	16	16	16	8	16	122	-
6	638	8 INCH WATER PIPE AND FITTINGS COMPLETE AND IN PLACE	LF	5,486	713	766	800	338	730	623	781	349	388	-	-
7	638	6 INCH VALVE AND APPURTENANCES, COMPLETE AND IN PLACE	EA	18	2	2	2	1	2	2	2	1	2	2	-
8	638	8 INCH VALVE AND APPURTENANCES, COMPLETE AND IN PLACE	EA	11	-	1	1	2	-	2	-	2	3	-	-
9	638	3/4 INCH WATER SERVICE TAP, SHORT, COMPLETE AND IN PLACE	EA	16	1	1	3	2	1	2	3	1	2	-	-
10	638	3/4 INCH WATER SERVICE TAP, LONG, COMPLETE AND IN PLACE	EA	7	-	2	2	-	1	-	1	1	-	-	-
11	638	1 INCH WATER SERVICE TAP, SHORT, COMPLETE AND IN PLACE	EA	9	-	2	-	4	-	1	-	-	1	1	-
12	638	1 INCH WATER SERVICE TAP, LONG, COMPLETE AND IN PLACE	EA	9	1	1	1	1	1	2	1	-	-	1	-
13	638	CURB BOX, COMPLETE AND IN PLACE	EA	41	2	6	6	7	3	5	5	2	3	2	-
14	638	FIRE HYDRANT, COMPLETE AND IN PLACE	EA	17	2	2	2	1	2	2	2	1	2	1	-
15	SPEC	SOIL EROSION AND SEDIMENT CONTROL	LS	1	-	-	-	-	-	-	-	-	-	-	1
16	SPEC	3" HORIZONTAL DIRECTIONAL DRILL	LF	181	-	-	-	95	-	-	-	-	86	-	-
17	SPEC	8" HORIZONTAL DIRECTIONAL DRILL	LF	435	82	34	-	-	65	177	19	-	-	58	-
18	623	CONSTRUCTION LAYOUT STAKES AND SURVEY MONUMENTS	LS	1	-	-	-	-	-	-	-	-	-	-	1

STATE PLANE COORDINATES (OHIO SOUTH ZONE)						
SHEET	DESCRIPTION	STATION	OFFSET	AS BUILT		
				NORTHING	EASTING	C/L ELEV.
5	CONNECT TO EX. 8" VALVE	0+05				
5	8"X6" ANCHORING TEE (FOR HYDRANT)	4+00				
5	6" VALVE (FOR HYDRANT)	4+00	2' RT			
5	FIRE HYDRANT	4+00	8' RT			
5	1" L W.S. 10892 GRANT LANE	6+70				
5	3/4" S W.S. PARCEL ID 0360160600 (GRANT LANE)	6+72				
5	8"X6" ANCHORING TEE (FOR HYDRANT)	7+80				
5	6" VALVE (FOR HYDRANT)	7+80	2' RT			
5	FIRE HYDRANT	7+80	8' RT			
6	3/4" L W.S. 10838 GRANT LANE	6+31				
6	1" S W.S. 10839 GRANT LANE	6+50				
6	1" S W.S. 10785 GRANT LANE	11+00				
6	8"X6" ANCHORING TEE (FOR HYDRANT)	11+80				
6	6" VALVE (FOR HYDRANT)	11+80	2' RT			
6	FIRE HYDRANT	11+80	8' RT			
6	8" VALVE	11+95				
6	1" L W.S. 10784 GRANT LANE	12+18				
6	3/4" S W.S. PARCEL ID 0360160340	13+50				
6	3/4" L W.S. 10730 GRANT LANE	15+51				
6	8"X6" ANCHORING TEE (FOR HYDRANT)	15+80				
6	6" VALVE (FOR HYDRANT)	15+80	2' RT			
6	FIRE HYDRANT	15+80	8' RT			
7	3/4" S W.S. PARCEL ID 0360160330	16+30				
7	3/4" L W.S. 10676 GRANT LANE	17+99				
7	3/4" S W.S. PARCEL ID 0360160320	19+04				
7	8"X6" ANCHORING TEE (FOR HYDRANT)	19+80				
7	6" VALVE (FOR HYDRANT)	19+80	2' RT			
7	FIRE HYDRANT	19+80	8' RT			
7	8" VALVE	19+85				
7	3/4" L W.S. 10622 GRANT LANE	20+10				
7	3/4" S W.S. PARCEL ID 0360160310	21+79				
7	3/4" L W.S. 10568 GRANT LANE	22+90				
7	8"X6" ANCHORING TEE (FOR HYDRANT)	23+80				
7	6" VALVE (FOR HYDRANT)	23+80	2' RT			
7	FIRE HYDRANT	23+80	8' RT			
8	1" L W.S. 10514 GRANT LANE	25+21				
8	1" S W.S. 10515 GRANT LANE	25+26				
8	8"X6" ANCHORING TEE (FOR HYDRANT)	27+16				
8	8" VALVE	27+19				
8	8"X6" TEE	27+24				
8	6" VALVE (FOR HYDRANT)	27+24	2' RT			
8	FIRE HYDRANT	27+24	8' RT			

STATE PLANE COORDINATES (OHIO SOUTH ZONE)						
SHEET	DESCRIPTION	STATION	OFFSET	AS BUILT		
				NORTHING	EASTING	C/L ELEV.
8	8"X3" REDUCER	27+29				
8	2" S W.S. 10465 GRANT LANE	28+78				
8	2" S W.S. 10455 GRANT LANE	28+81				
8	2" S W.S. 10445 GRANT LANE	28+84				
8	3/4" S W.S. 10440 GRANT LANE	29+60				
8	3/4" S W.S. 10460 GRANT LANE	29+91				
8	3" 90 DEGREE HORZ. BEND	31+19				
8	8"X3" REDUCER	31+45				
8	8" VALVE	31+48				
9	CONNECT TO EX. 8" VALVE	40+05				
9	8"X6" ANCHORING TEE (FOR HYDRANT)	44+00				
9	6" VALVE (FOR HYDRANT)	44+00	2' RT			
9	FIRE HYDRANT	44+00	8' RT			
9	3/4" S W.S. 11120 HAMPTON DRIVE	46+13				
9	3/4" L W.S. 11121 HAMPTON DRIVE	46+65				
9	8"X6" ANCHORING TEE (FOR HYDRANT)	47+90				
9	6" VALVE (FOR HYDRANT)	47+90	2' RT			
9	FIRE HYDRANT	47+90	8' RT			
9	1" L W.S. 11125 HAMPTON DRIVE	47+94				
10	3/4" S W.S. 11124 HAMPTON DRIVE	48+50				
10	1" L W.S. 11127 HAMPTON DRIVE	49+90				
10	3/4" S W.S. 11128 HAMPTON DRIVE	50+51				
10	8" VALVE	51+45				
10	8"X6" ANCHORING TEE (FOR HYDRANT)	51+50				
10	6" VALVE (FOR HYDRANT)	51+50	2' RT			
10	FIRE HYDRANT	51+50	8' RT			
10	1" S W.S. 11132 HAMPTON DRIVE	52+78				
10	1" L W.S. 11131 HAMPTON DRIVE	52+93				
10	8"X6" TEE	55+39				
10	8" VALVE	55+42				
10	8"X6" ANCHORING TEE (FOR HYDRANT)	55+50				
10	6" VALVE (FOR HYDRANT)	55+50	2' RT			
10	FIRE HYDRANT	55+50	8' RT			
11	3/4" S W.S. 11144 HAMPTON DRIVE	57+33				
11	1" L W.S. 11145 HAMPTON DRIVE	58+74				
11	8"X6" ANCHORING TEE (FOR HYDRANT)	59+50				
11	6" VALVE (FOR HYDRANT)	59+50	4' RT			
11	FIRE HYDRANT	59+50	8' RT			
11	3/4" S W.S. 11148 HAMPTON DRIVE	60+99				
11	1" L W.S. 11189 HAMPTON DRIVE	62+09				
11	3/4" S W.S. 11204 HAMPTON DRIVE	62+35				
11	8"X6" ANCHORING TEE (FOR HYDRANT)	63+00				
11	6" VALVE (FOR HYDRANT)	63+00	2' RT			
11	FIRE HYDRANT	63+00	8' RT			

STATE PLANE COORDINATES (OHIO SOUTH ZONE)						
SHEET	DESCRIPTION	STATION	OFFSET	AS BUILT		
				NORTHING	EASTING	C/L ELEV.
12	8"X8" TEE	64+34				
12	8" VALVE	64+39				
12	3/4" S W.S. 11260 HAMPTON DRIVE	65+90				
12	3/4" L W.S. 11269 HAMPTON DRIVE	66+60				
12	8"X6" ANCHORING TEE (FOR HYDRANT)	67+30				
12	6" VALVE (FOR HYDRANT)	67+30	2' RT			
12	FIRE HYDRANT	67+30	8' RT			
12	8" VALVE	67+39				
12	8" WATER LINE STUB	67+49				
13	CONNECT TO 8"X8" TEE	70+00				
13	8" VALVE	70+05				
13	8"X6" TEE	72+40				
13	6" VALVE (FOR HYDRANT)	72+40	2' RT			
13	FIRE HYDRANT	72+40	8' RT			
13	3/4" S W.S. 11228 MACINTOSH CIRCLE	73+35				
13	8"X8" TEE	74+33				
13	8" VALVE	74+36				
13	8"X6" TEE	74+41				
13	6" VALVE (FOR HYDRANT)	74+41				
13	FIRE HYDRANT	74+41				
13	8"X3" REDUCER	74+46				
13	3/4" S W.S. 11200 MACINTOSH CIRCLE	75+51				
13	3/4" S W.S. 11207 MACINTOSH CIRCLE	76+72				
13	3" 45 DEGREE HORZ. BEND	77+23				
13	3" 90 DEGREE HORZ. BEND	77+52				
13	8"X3" REDUCER	77+76				
13	8" VALVE	77+79				
13	CONNECT TO 8"X8" TEE	77+84				
14	CONNECT TO 8"X6" TEE	80+00				
14	6" VALVE	80+02				
14	6" 45 DEGREE HORZ. BEND	80+11				
14	6" 45 DEGREE HORZ. BEND	80+41				
14	6" 45 DEGREE HORZ. BEND	80+96				
14	1" S W.S. 11140 HAMPTON CIRCLE	81+11				
14	1" S W.S. 11136 HAMPTON CIRCLE	81+13				
14	6" 90 DEGREE HORZ. BEND (FOR HYDRANT)	81+21				
14	6" VALVE (FOR HYDRANT)	81+21	2' LT			
14	FIRE HYDRANT	81+21	8' LT			
14	6" WATER LINE PLUG	81+22				

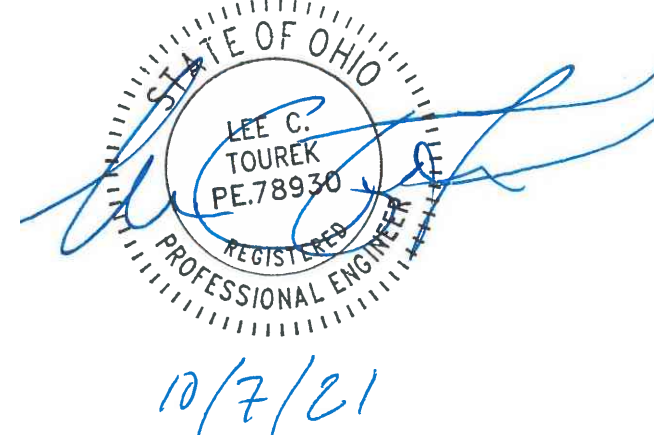


A 10/7/21 ISSUED FOR BID
ISSUE DATE DESCRIPTION

PROJECT MANAGER LEE C. TOUREK

DESIGN BY LCT
DRAWN BY DRF
APPROVED BY MRI

PROJECT NUMBER 10318453



**GRANT LANE AND HAMPTON DRIVE
WATERLINE PROJECT
FAIRFIELD COUNTY, OHIO**

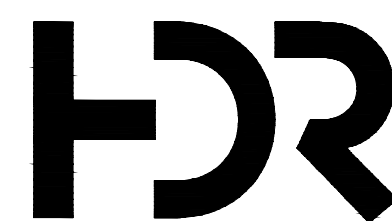
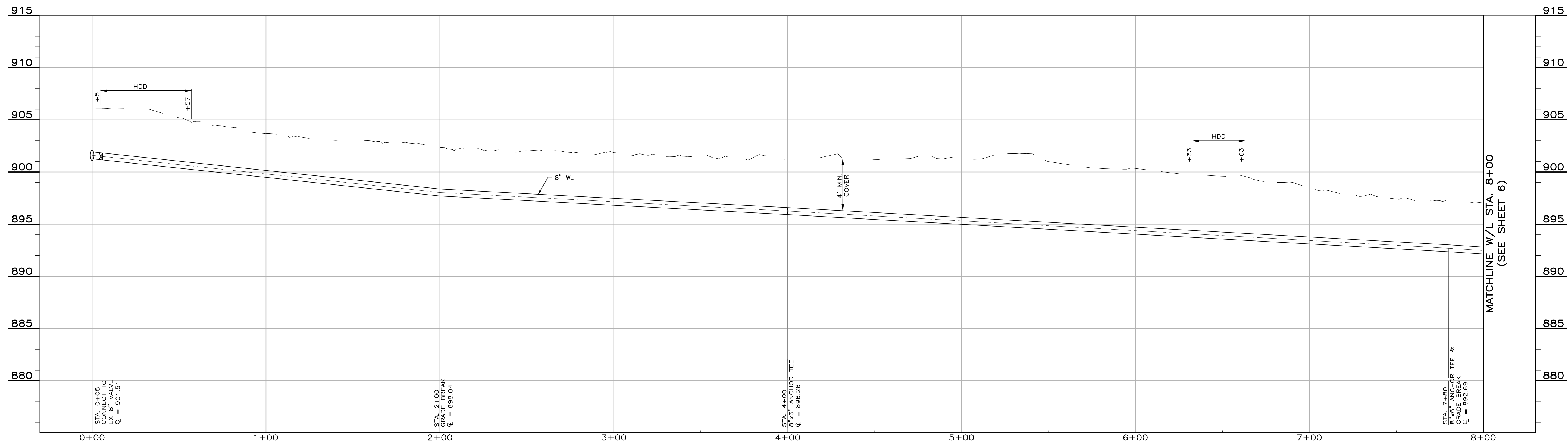
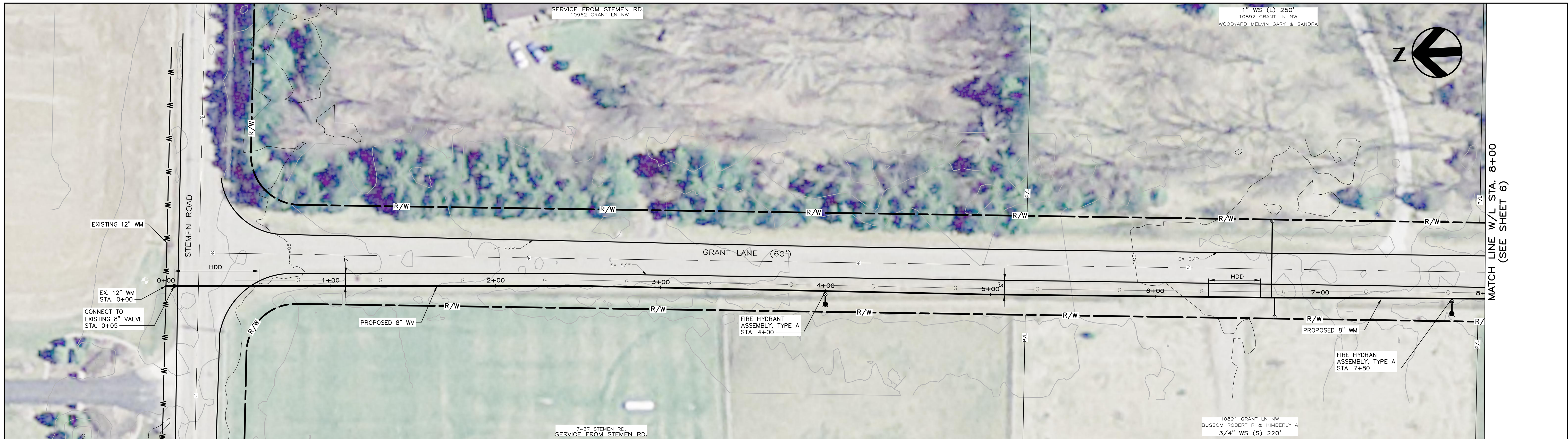
COORDINATE TABLE AND QUANTITIES



FILENAME Grant Lane Plan Set.dwg
SCALE NONE

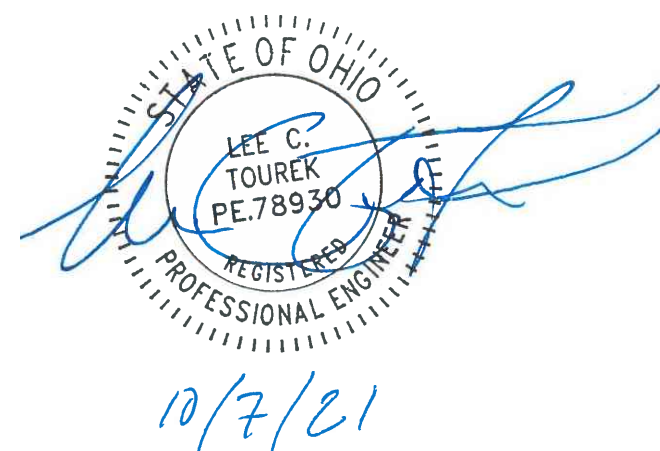
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4



ISSUE	DATE	DESCRIPTION
A	10/7/21	ISSUED FOR BID

PROJECT MANAGER	LEE C. TOUREK
DESIGN BY	LCT
DRAWN BY	DRF
APPROVED BY	MRI
PROJECT NUMBER	10318453



**GRANT LANE AND HAMPTON DRIVE
WATERLINE PROJECT
FAIRFIELD COUNTY, OHIO**

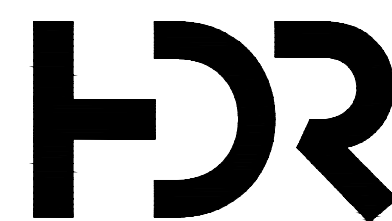
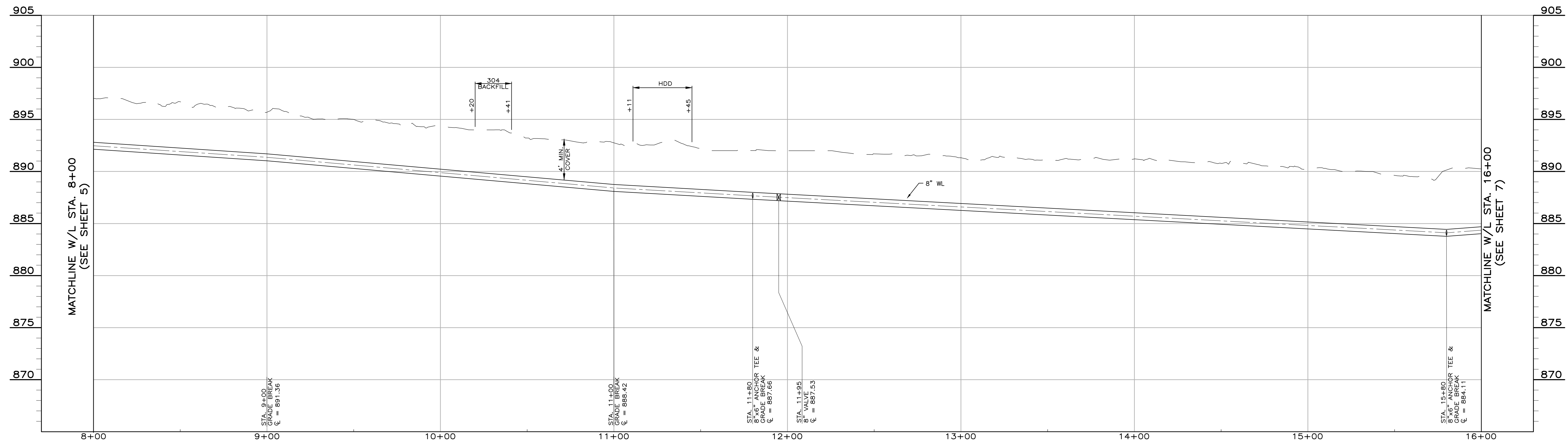
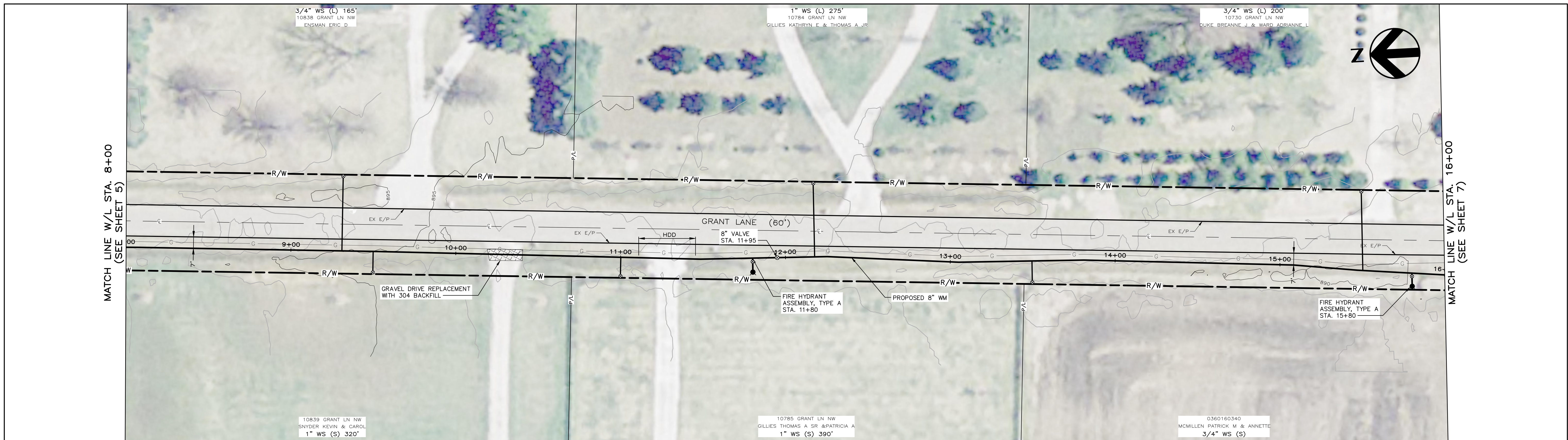


**GRANT LANE
WATER LINE PLAN AND PROFILE**

FILENAME | Grant Lane Plan Set.dwg
SCALE | H 1" = 30' / V 1" = 10'

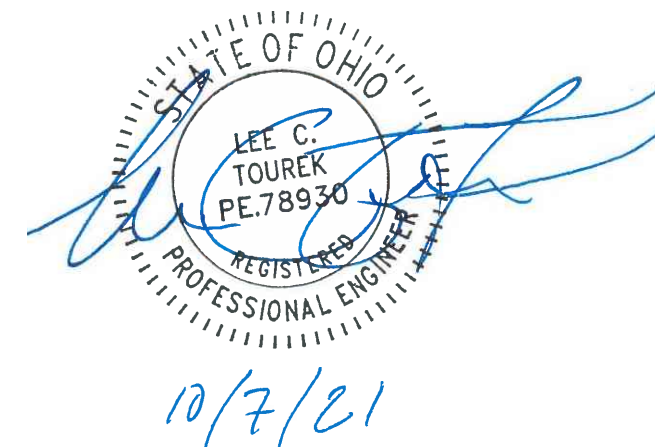
SHEET

5



ISSUE	DATE	DESCRIPTION
A	10/7/21	ISSUED FOR BID

PROJECT MANAGER	LEE C. TOUREK
DESIGN BY	LCT
DRAWN BY	DRF
APPROVED BY	MRI
PROJECT NUMBER	10318453

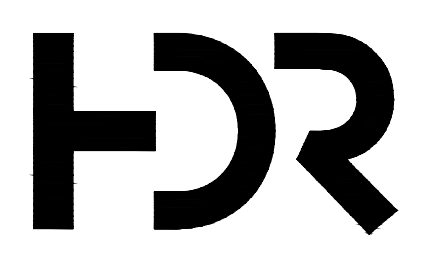
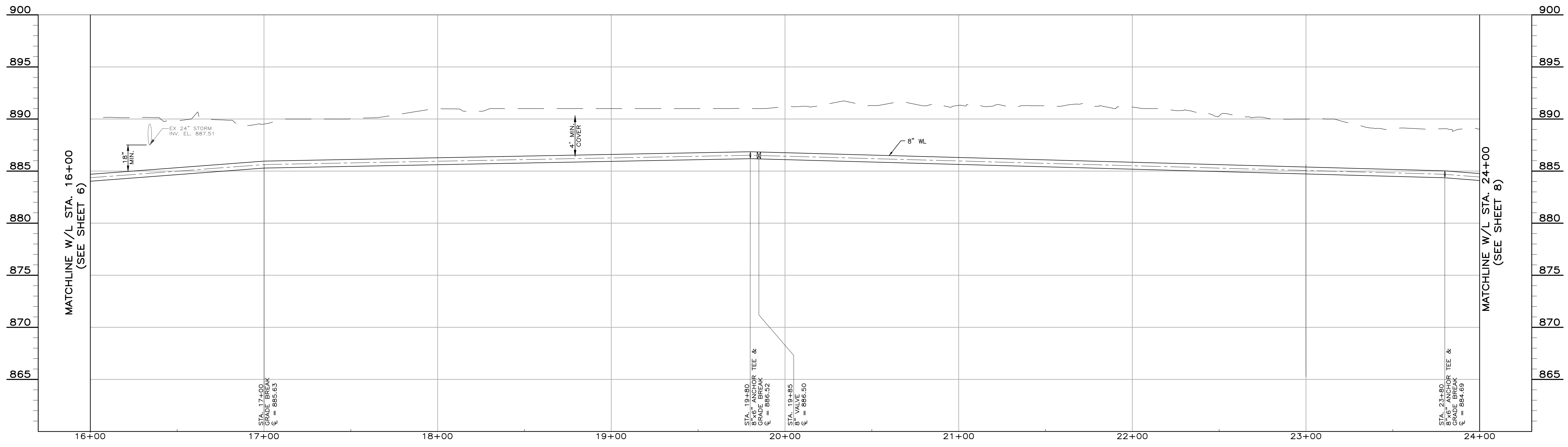
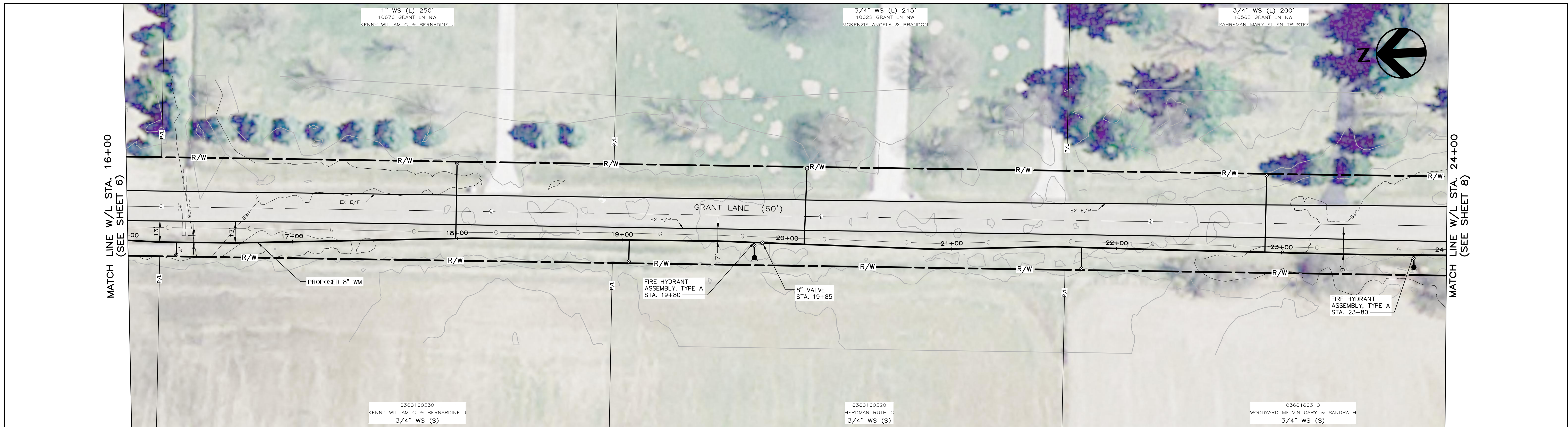


**GRANT LANE AND HAMPTON DRIVE
WATERLINE PROJECT
FAIRFIELD COUNTY, OHIO**

**GRANT LANE
WATER LINE PLAN AND PROFILE**

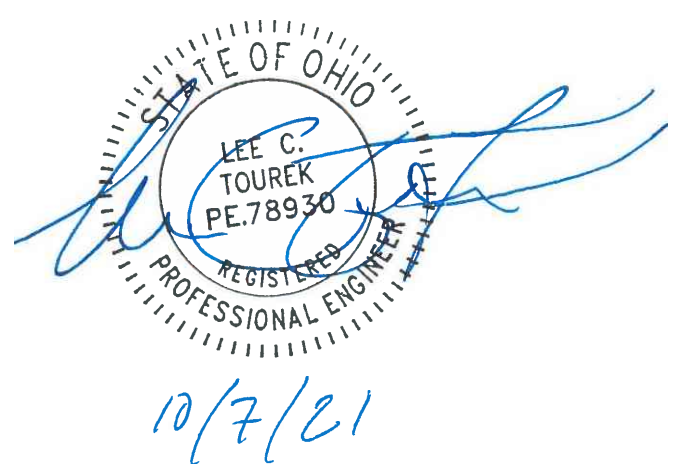


FILENAME | Grant Lane Plan Set.dwg
SCALE | H 1" = 30' / V 1" = 10'



ISSUE	DATE	DESCRIPTION
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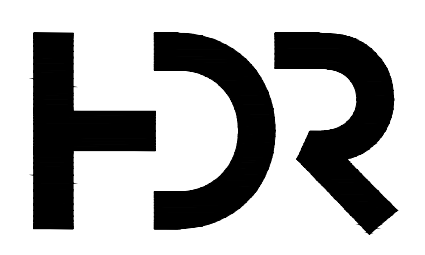
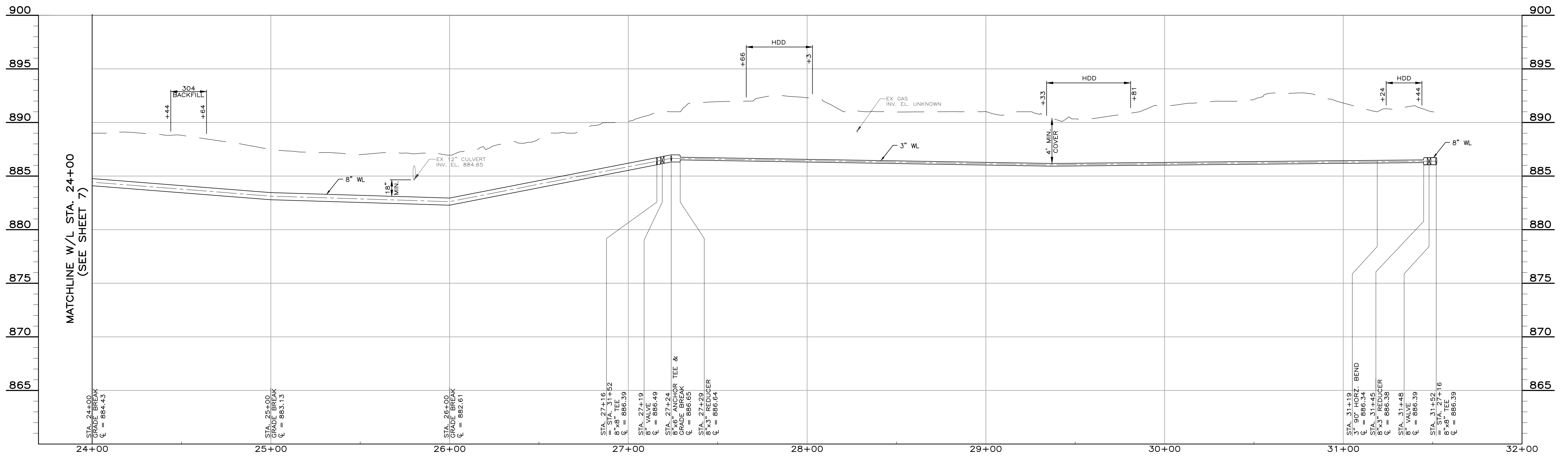
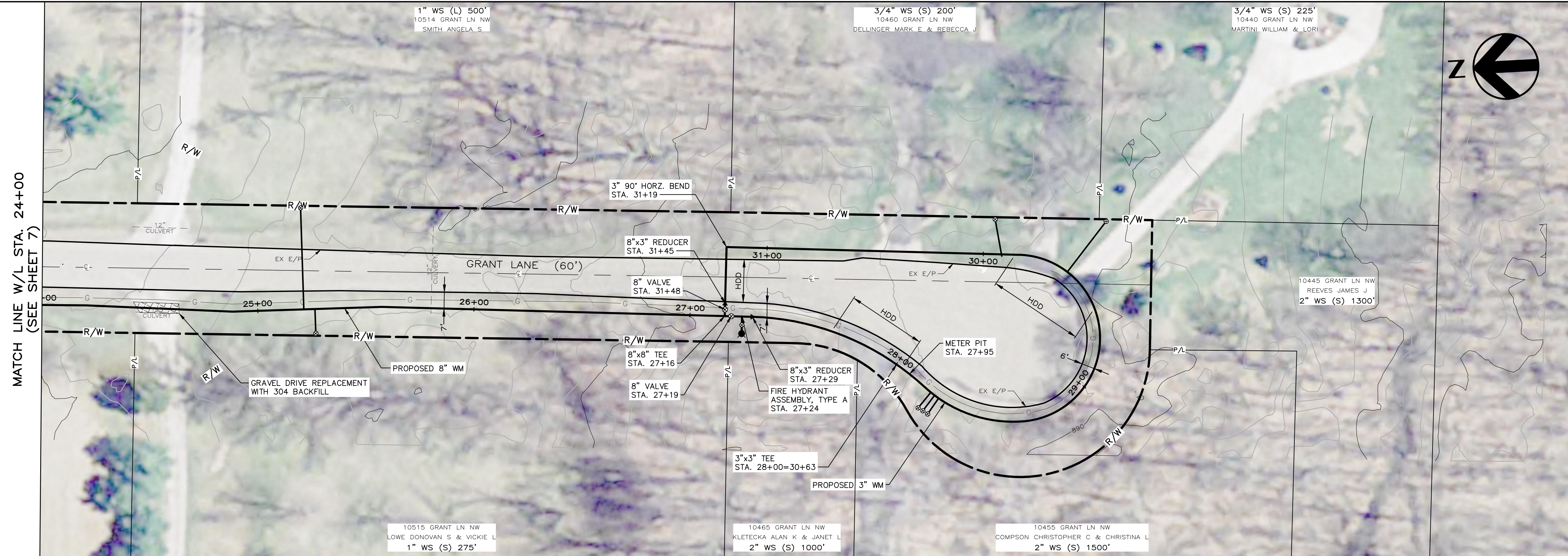
PROJECT MANAGER	LEE C. TOUREK
DESIGN BY	LCT
DRAWN BY	DRF
APPROVED BY	MRI
PROJECT NUMBER	10318453



**GRANT LANE AND HAMPTON DRIVE
WATERLINE PROJECT
FAIRFIELD COUNTY, OHIO**

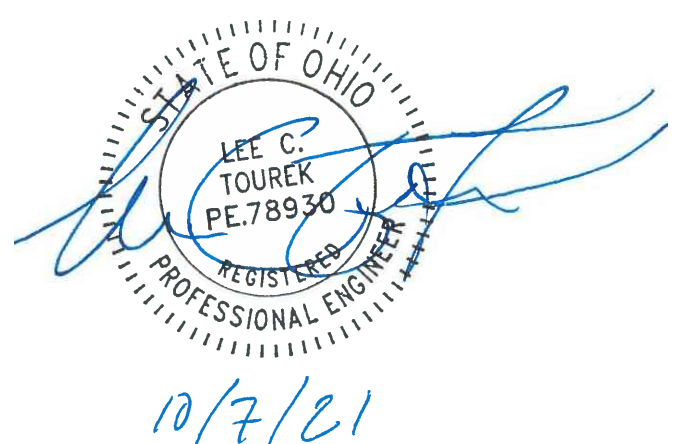
**GRANT LANE
WATER LINE PLAN AND PROFILE**

0 1" 2" FILENAME Grant Lane Plan Set.dwg SHEET 7
SCALE H 1" = 30' / V 1" = 10'



ISSUE	DATE	DESCRIPTION
A	10/7/21	ISSUED FOR BID

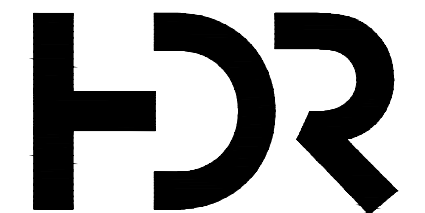
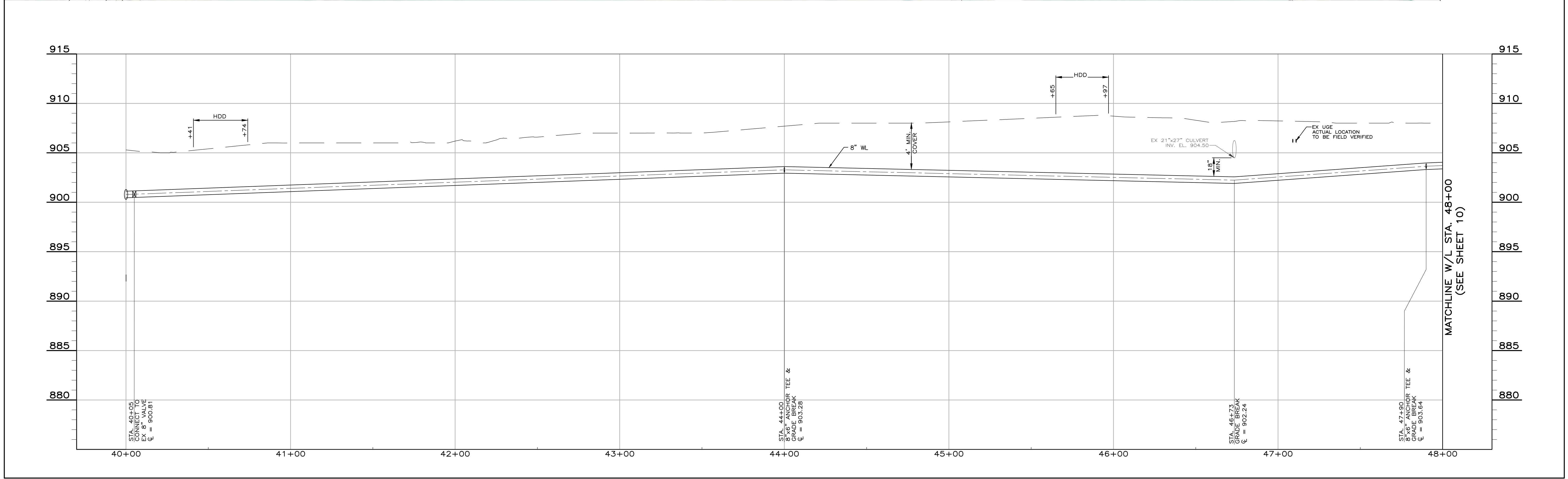
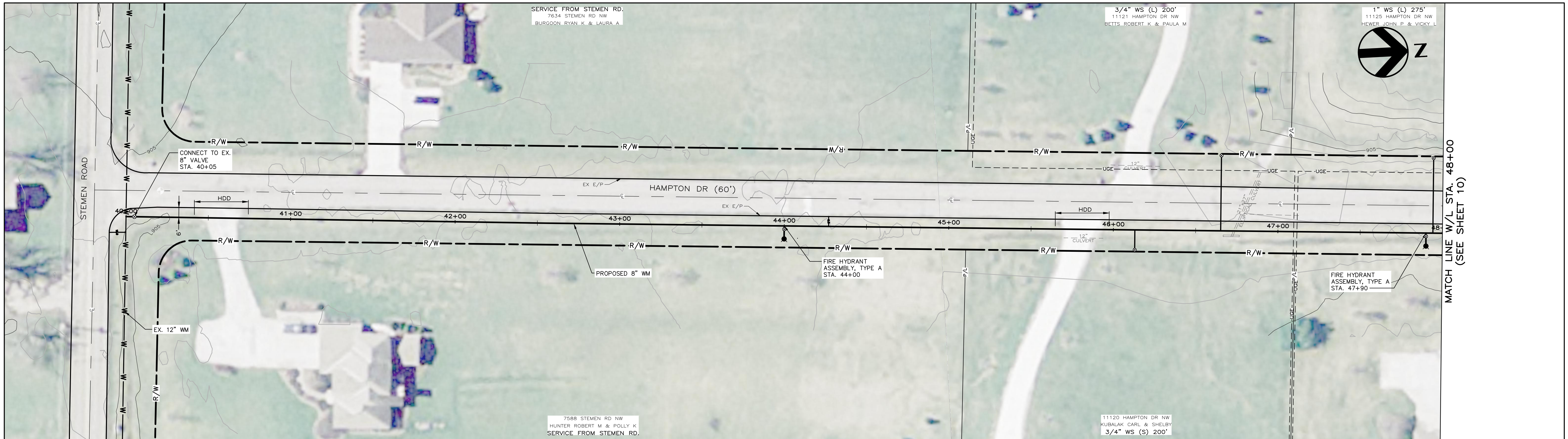
PROJECT MANAGER	LEE C. TOUREK
DESIGN BY	LCT
DRAWN BY	DRI
APPROVED BY	MRI
PROJECT NUMBER	10318453



**GRANT LANE AND HAMPTON DRIVE
WATERLINE PROJECT
FAIRFIELD COUNTY, OHIO**

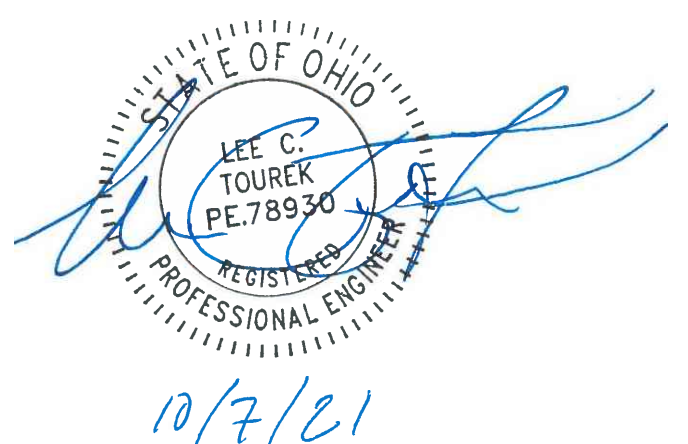
**GRANT LANE
WATER LINE PLAN AND PROFILE**

0 1" 2" FILENAME Grant Lane Plan Set.dwg SHEET 8
SCALE H 1" = 30' / V 1" = 10'



ISSUE	DATE	DESCRIPTION
A	10/7/21	ISSUED FOR BID

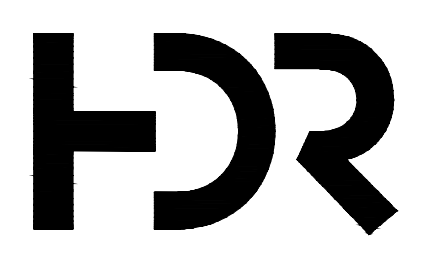
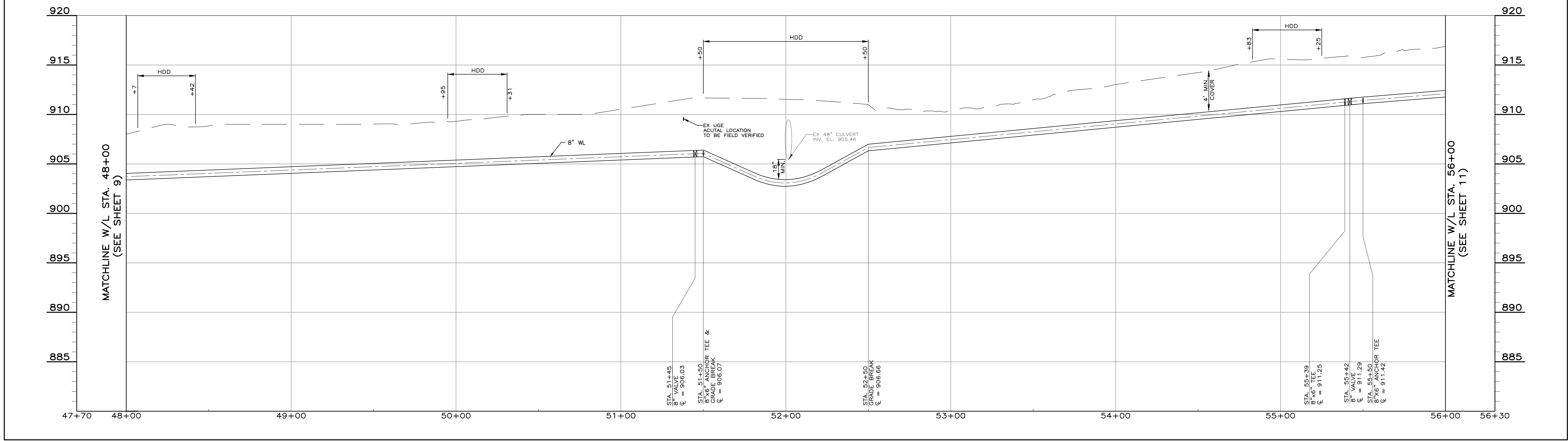
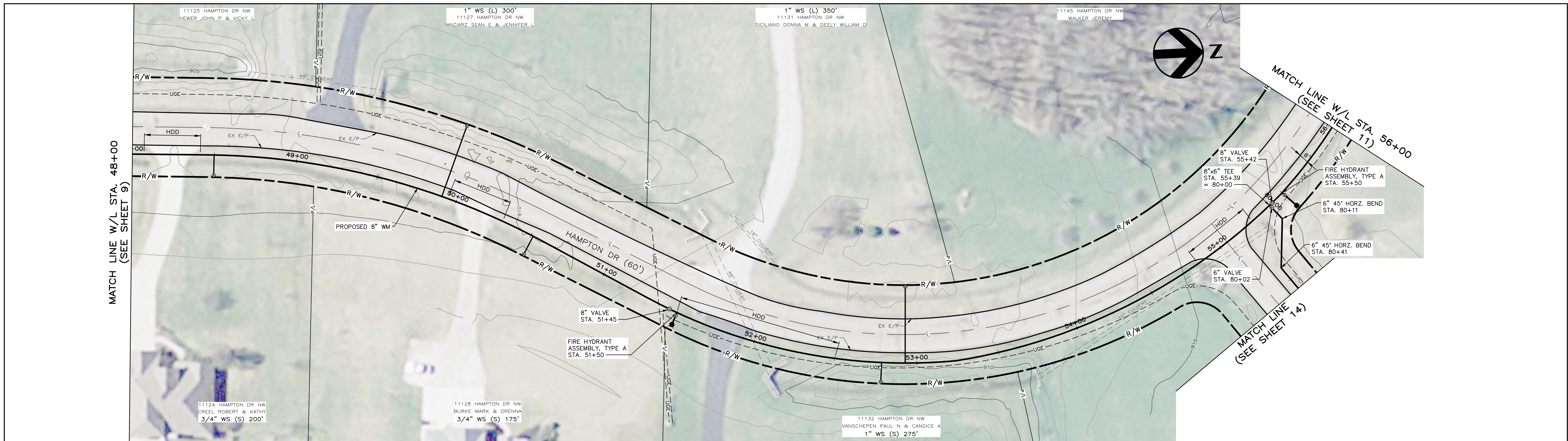
PROJECT MANAGER	LEE C. TOUREK
DESIGN BY	LCT
DRAWN BY	DRF
APPROVED BY	MRI
PROJECT NUMBER	10318453



**GRANT LANE AND HAMPTON DRIVE
WATERLINE PROJECT
FAIRFIELD COUNTY, OHIO**

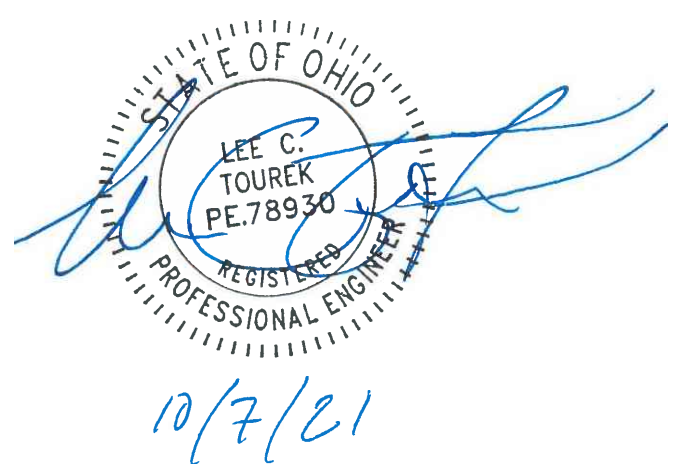
**HAMPTON DRIVE
WATER LINE PLAN AND PROFILE**

0 1" 2" FILENAME | Grant Lane Plan Set.dwg SHEET
SCALE | H 1" = 30' / V 1" = 10' **9**



ISSUE	DATE	DESCRIPTION
A	10/7/21	ISSUED FOR BID

PROJECT MANAGER	LEE C. TOUREK
DESIGN BY	LCT
DRAWN BY	DRF
APPROVED BY	MRI
PROJECT NUMBER	10318453

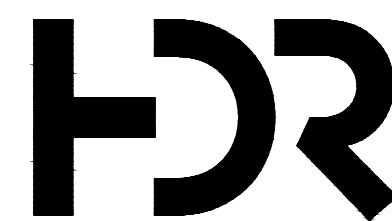
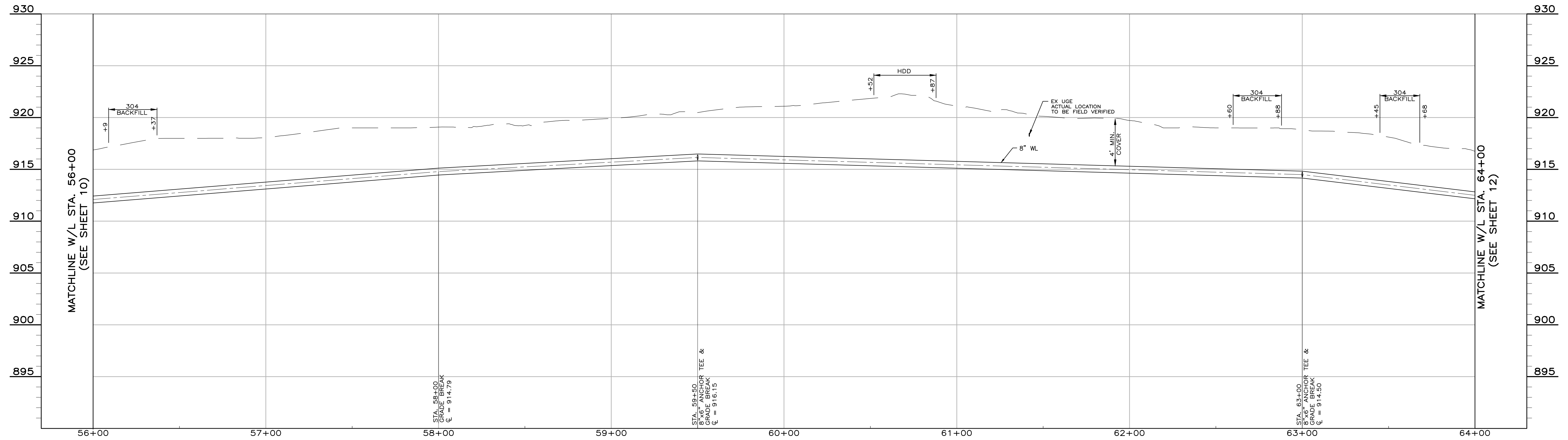
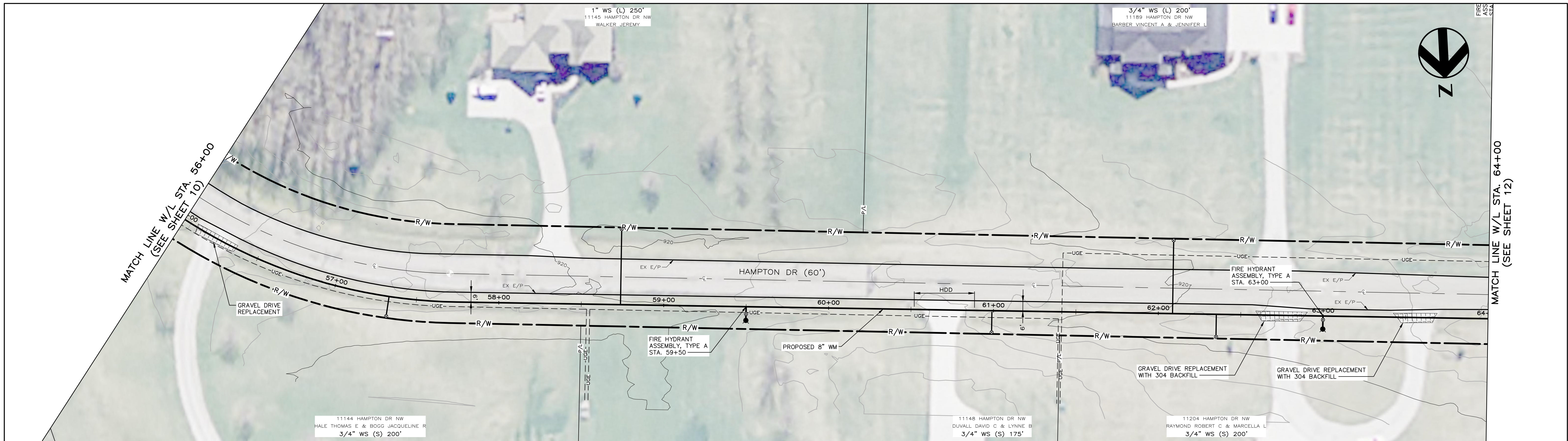


**GRANT LANE AND HAMPTON DRIVE
WATERLINE PROJECT**
FAIRFIELD COUNTY, OHIO

**HAMPTON DRIVE
WATER LINE PLAN AND PROFILE**

0 1" 2" SCALE: H 1" = 30' / V 1" = 10'

FILENAME: Grant Lane Plan Set.dwg
SHEET: 10



ISSUE	DATE	DESCRIPTION
A	10/7/21	ISSUED FOR BID

PROJECT MANAGER	LEE C. TOUREK
DESIGN BY	LCT
DRAWN BY	DRF
APPROVED BY	MRI
PROJECT NUMBER	10318453

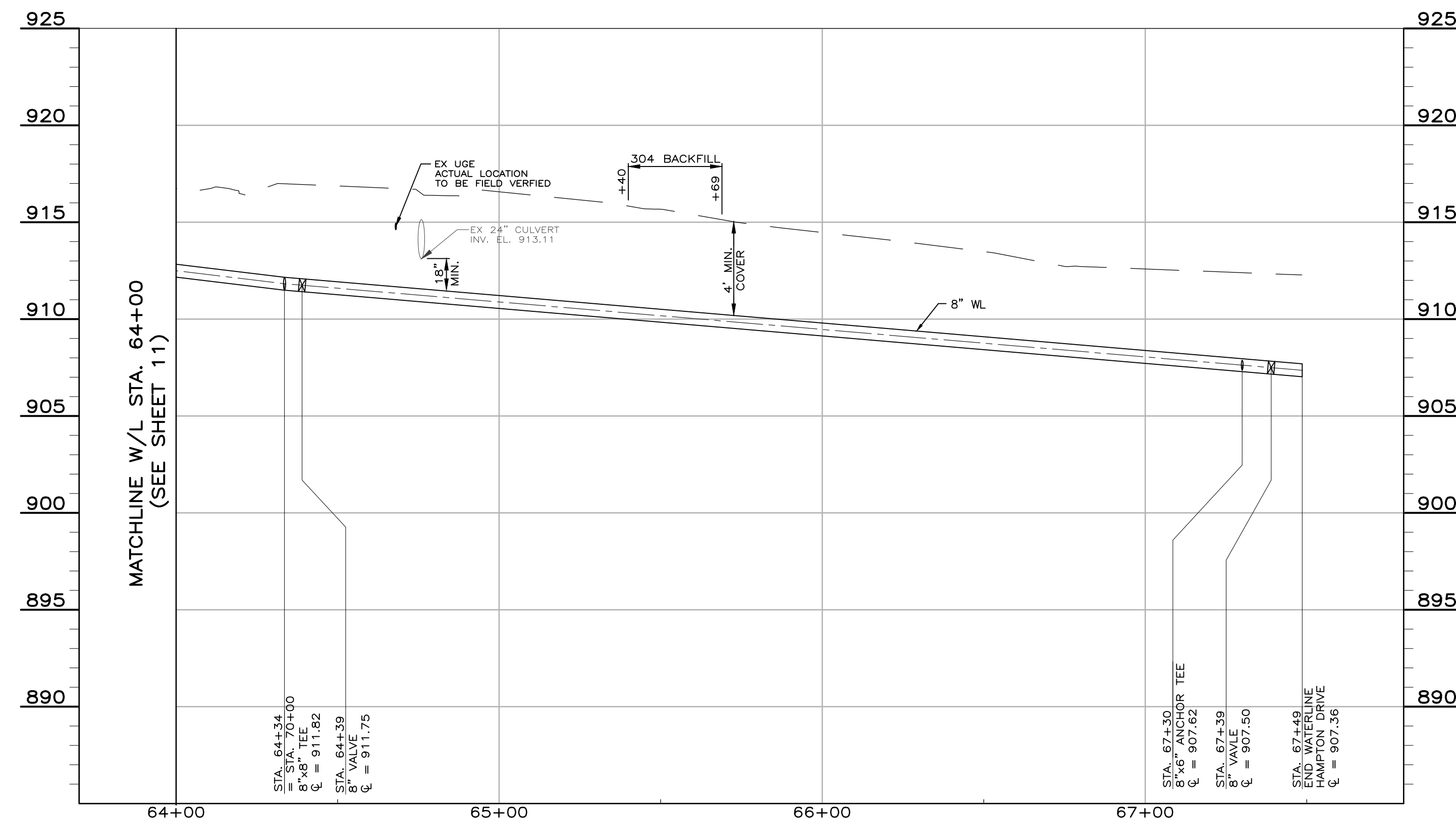
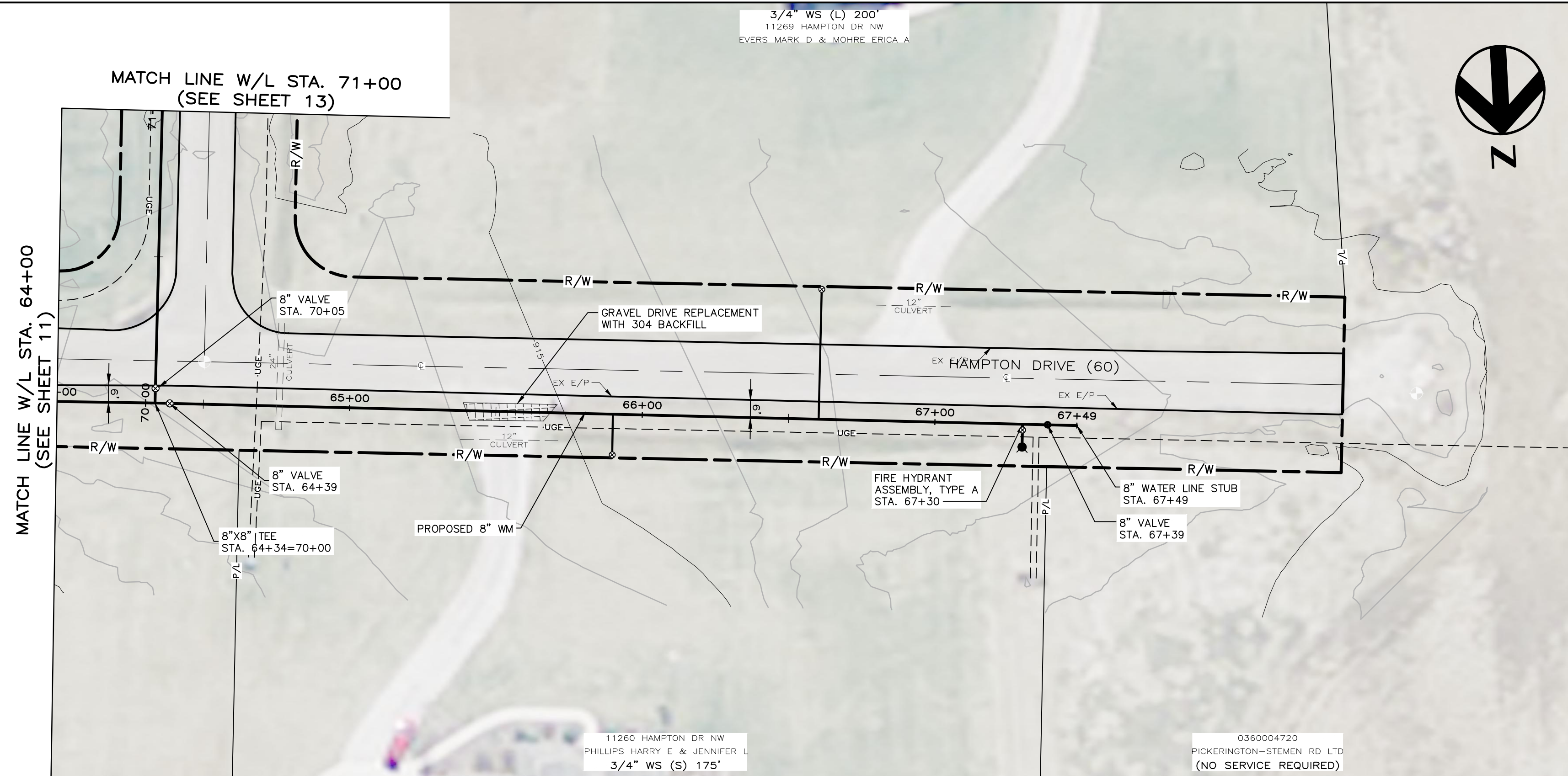


**GRANT LANE AND HAMPTON DRIVE
WATERLINE PROJECT
FAIRFIELD COUNTY, OHIO**



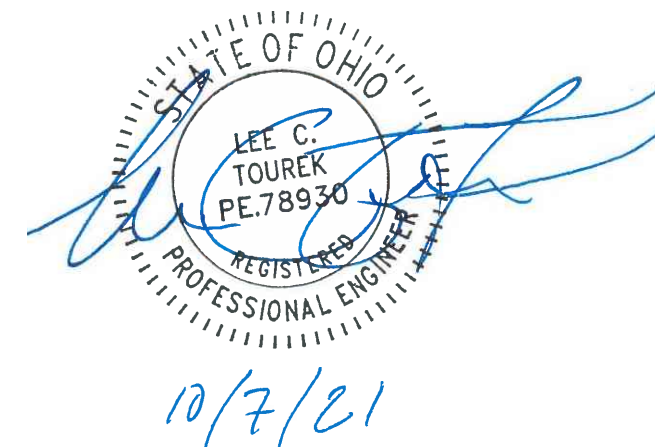
**HAMPTON DRIVE
WATER LINE PLAN AND PROFILE**

FILENAME | Grant Lane Plan Set.dwg
SCALE | H 1" = 30' / V 1" = 10'



ISSUE	DATE	DESCRIPTION
A	10/7/21	ISSUED FOR BID

PROJECT MANAGER	LEE C. TOUREK
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PROJECT NUMBER	10318453

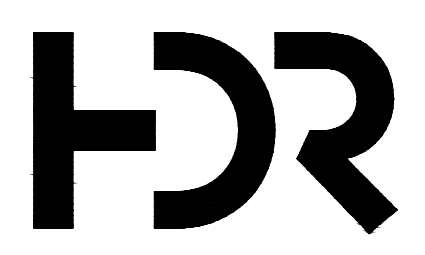
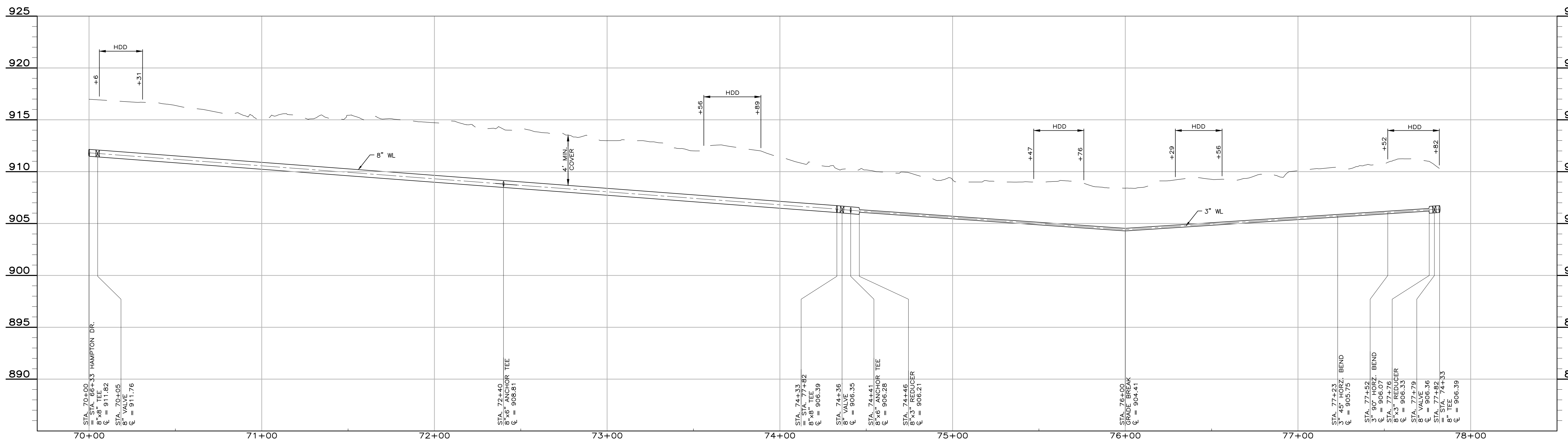
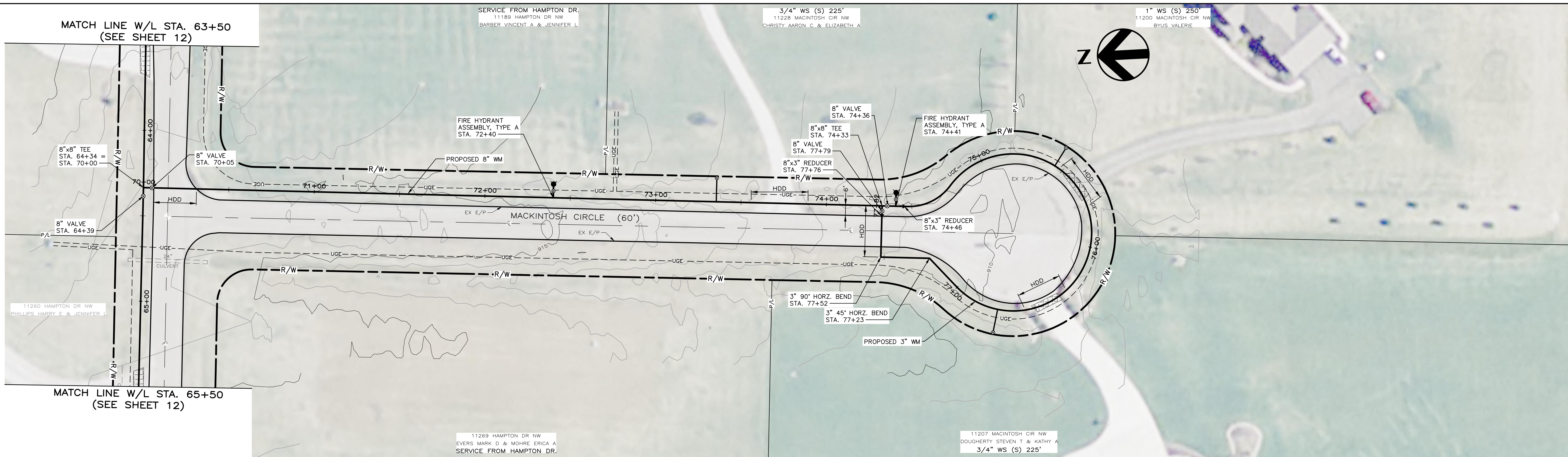


**GRANT LANE AND HAMPTON DRIVE
WATERLINE PROJECT
FAIRFIELD COUNTY, OHIO**

**HAMPTON DRIVE
WATER LINE PLAN AND PROFILE**

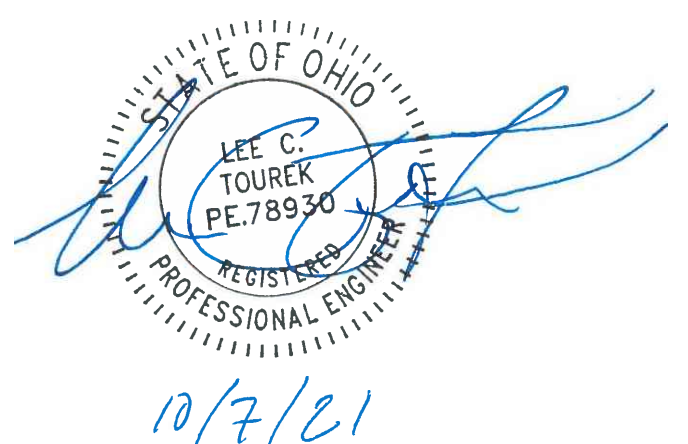


FILENAME | Grant Lane Plan Set.dwg
SCALE | H 1" = 30' / V 1" = 10'



ISSUE	DATE	DESCRIPTION
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PROJECT MANAGER	LEE C. TOUREK
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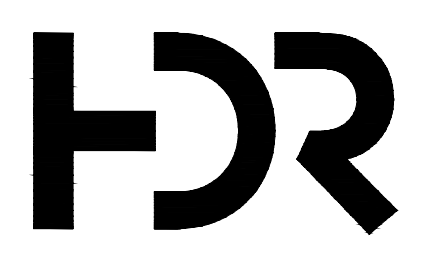
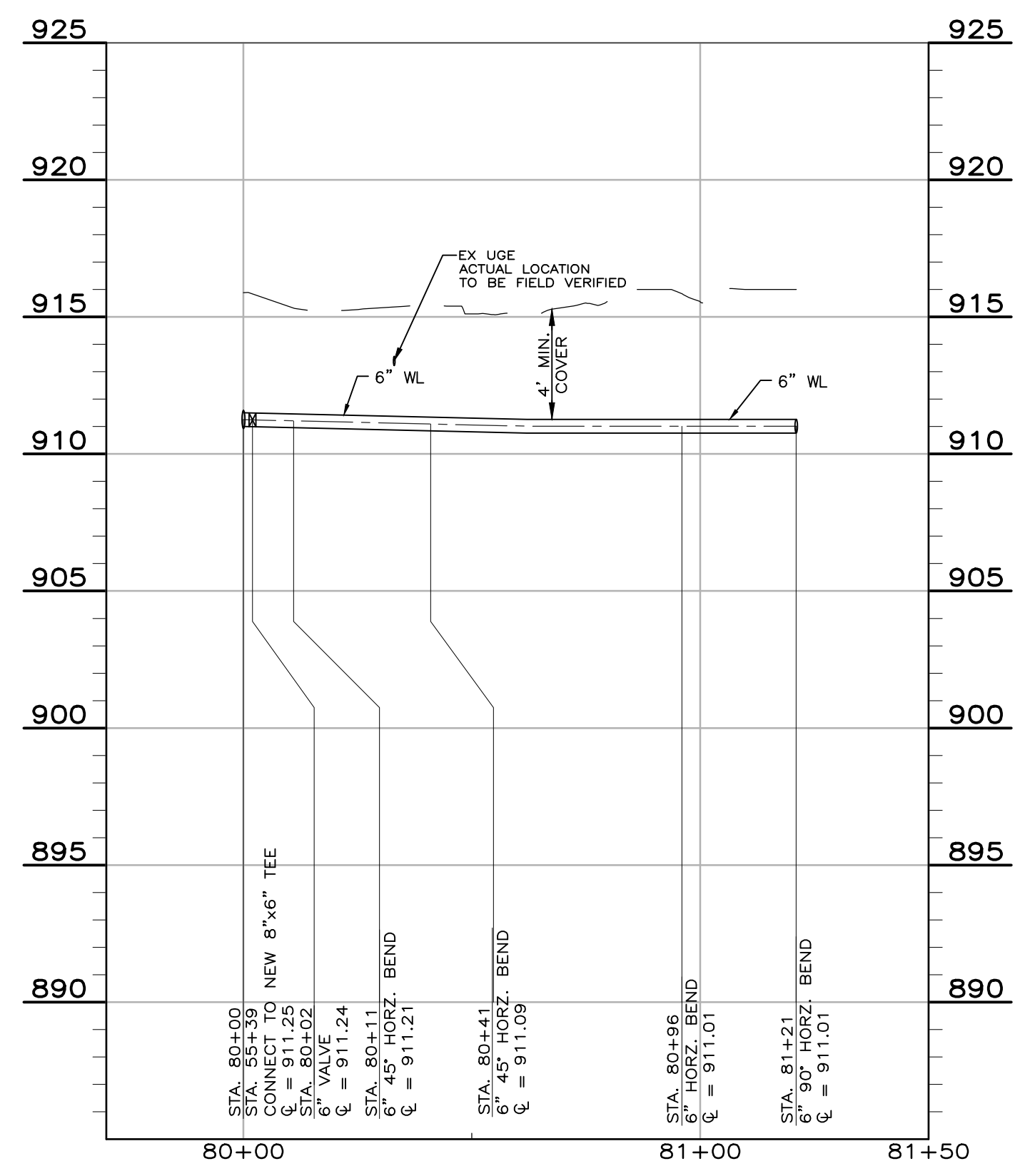
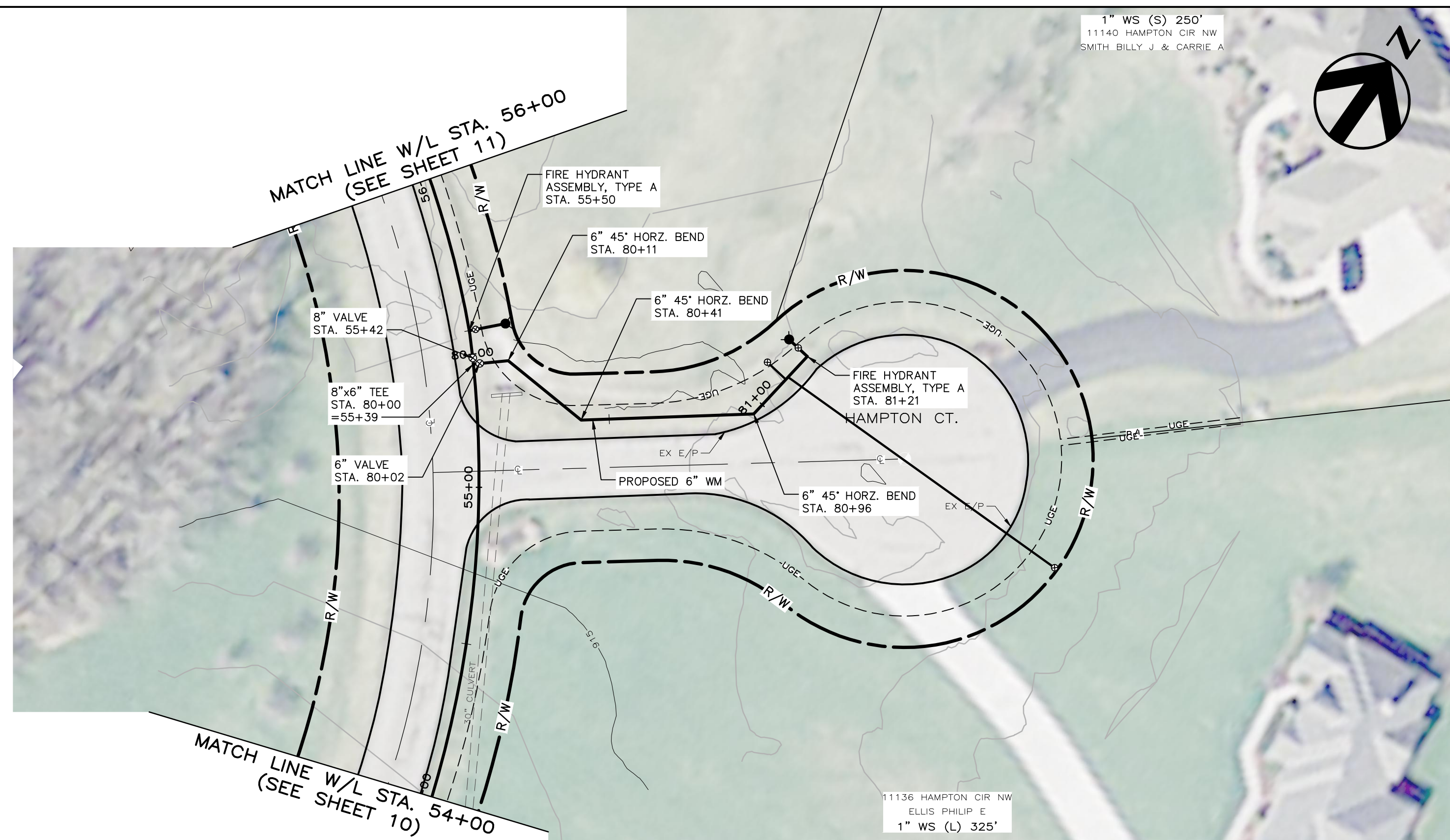
**GRANT LANE AND HAMPTON DRIVE
WATERLINE PROJECT**
FAIRFIELD COUNTY, OHIO

**MACKINTOSH CIRCLE
WATER LINE PLAN AND PROFILE**

0 1" 2" SCALE

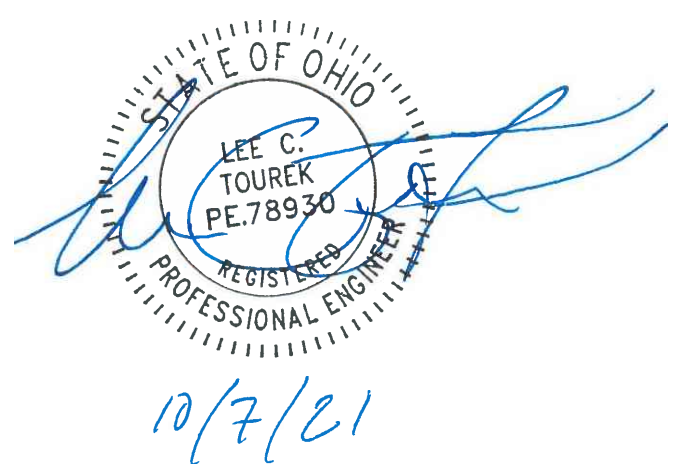
FILENAME | Grant Lane Plan Set.dwg
SCALE | H 1" = 30' / V 1" = 10'

SHEET
13



ISSUE	DATE	DESCRIPTION
A	10/7/21	ISSUED FOR BID

PROJECT MANAGER	LEE C. TOUREK
DESIGN BY	LCT
DRAWN BY	DRF
APPROVED BY	MRI
PROJECT NUMBER	10318453



**GRANT LANE AND HAMPTON DRIVE
WATERLINE PROJECT**
FAIRFIELD COUNTY, OHIO

**HAMPTON CIRCLE
WATER LINE PLAN AND PROFILE**

0 1" 2"

FILENAME | Grant Lane Plan Set.dwg | SHEET | 14

SCALE | H 1" = 30' / V 1" = 10'

NOTES:
 1. BACKFILL ITEM NUMBERS REFER TO STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, CONSTRUCTION AND MATERIAL SPECIFICATIONS.
 2. TYPE A BACKFILL SHALL BE COMPACTED GRANULAR MATERIAL AS SPECIFIED IN ITEM 304 OR 410.
 3. TYPE B BACKFILL SHALL BE NATURAL SOIL FREE FROM STONES LARGER THAN TWO INCHES ACROSS THEIR GREATEST DIMENSION, TOPSOIL, VEGETATION, DEBRIS, RUBBISH OR FROZEN MATERIAL, COMPACTED TO 95% OF ITS MAXIMUM LABORATORY DRY WEIGHT.
 4. TYPE C BACKFILL SHALL BE NATURAL SOIL FREE FROM STONES LARGER THAN TWO INCHES ACROSS THEIR GREATEST DIMENSION, TOPSOIL, VEGETATION, DEBRIS, RUBBISH OR FROZEN MATERIAL, COMPACTED TO 95% OF ITS MAXIMUM LABORATORY DRY WEIGHT.
 5. AGGREGATE FOR BEDDING IS NO. 57, 6, 67, 68, 7, 78, OR 8.
 6. THE EXCAVATED TRENCH WIDTH TWELVE INCHES (12") ABOVE THE CONDUIT MAY BE INCREASED WITHOUT EXTRA COMPENSATION.
 7. RIGID PIPE SHALL BE DUCTILE IRON, THICKNESS CLASS 53, PRESSURE RATING 350, FLEXIBLE PIPE SHALL BE PVC AWWA C-900 DR14 FOR SIZES UP TO 12" AND PVC AWWA C-905 DR18 FOR 14" AND LARGER SIZES.
 8. ENCASEMENT SHALL BE CLASS C CONCRETE.
 9. SECTIONS ARE SYMMETRICAL ABOUT THE CENTERLINE.

20'-0" LIMIT LINES FOR PAYMENT OF SEEDING AND MULCHING
 1'-0" FINISHED GRADE
 WATER LINE
 PAVEMENT REPLACEMENT OR 6" (MIN.) TOPSOIL AS REQUIRED.
 TYPE A COMPACTED GRANULAR BACKFILL 5'-0" OF ROADWAYS
 TYPE B OR C BACKFILL ELSEWHERE
 4'-0" MIN.
 1'-0" (MIN.)
 1'-6" (MAX.)
 METALLIC TAPE SHALL BE INSTALLED ABOVE ALL WATER MAINS AT THE TIME OF BACKFILLING. TAPE SHALL READ "CAUTION: BURIED WATER LINE BELOW". COST SHALL BE INCLUDED IN THE UNIT COST FOR PIPE.
 O.D. PIPE BELL
 12"
 NOTE: GRANULAR BEDDING AND BACKFILL SHALL NOT BE REQUIRED FOR DUCTILE IRON PIPE UNLESS WITHIN LIMITS REQUIRING GRANULAR BACKFILL FOR ROADWAYS AND DRIVEWAYS.
 CLASS C BEDDING OR UNDISTURBED SOIL SHAPED TO FIT BOTTOM OF THE PIPE WITH BELL HOLES CUT OUT AT EACH JOINT, WHEN DUCTILE IRON PIPE IS USED.
 PAYMENT WIDTH OF EXCAVATED TRENCH = PIPE O.D. + 1'-0" (MIN.) PIPE O.D. + 2'-0" (MAX.)

APPROVED: *Kay Morgan* FAIRFIELD COUNTY OHIO
 APPROVAL DATE: JULY 30, 2002 STANDARD CONSTRUCTION DWG.
 REVISION DATE: DRAWING NO. W-1

TABLE OF ALLOWABLE LEAKAGE PER HOUR (For Mech. Joint and Slip Joint Pipe)

Number of Joints	6" Pipe	8" Pipe	12" Pipe	Number of Joints	6" Pipe	8" Pipe	12" Pipe	Number of Joints	6" Pipe	8" Pipe	12" Pipe
1	0.01	0.01	0.02	51	0.51	0.67	1.01	100	1.00	1.32	1.99
2	0.02	0.03	0.04	52	0.52	0.69	1.03	200	1.99	2.65	3.97
3	0.03	0.04	0.06	53	0.53	0.70	1.05	300	2.98	3.97	5.96
4	0.04	0.05	0.08	54	0.54	0.71	1.07	400	3.97	5.30	7.94
5	0.05	0.07	0.10	55	0.55	0.73	1.09	500	4.97	6.62	9.93
6	0.06	0.08	0.12	56	0.56	0.74	1.11				
7	0.07	0.09	0.14	57	0.57	0.75	1.13				
8	0.08	0.11	0.16	58	0.58	0.77	1.15				
9	0.09	0.12	0.18	59	0.59	0.79	1.17				
10	0.10	0.13	0.20	60	0.60	0.79	1.19				
11	0.11	0.15	0.22	61	0.61	0.81	1.21				
12	0.12	0.16	0.24	62	0.62	0.82	1.23				
13	0.13	0.17	0.26	63	0.63	0.83	1.25				
14	0.14	0.19	0.28	64	0.64	0.85	1.27				
15	0.15	0.20	0.30	65	0.65	0.86	1.29				
16	0.16	0.21	0.32	66	0.66	0.87	1.31				
17	0.17	0.23	0.34	67	0.67	0.89	1.33				
18	0.18	0.24	0.36	68	0.68	0.90	1.35				
19	0.19	0.25	0.38	69	0.69	0.91	1.37				
20	0.20	0.26	0.40	70	0.70	0.93	1.39				
21	0.21	0.28	0.42	71	0.71	0.94	1.41				
22	0.22	0.29	0.44	72	0.72	0.95	1.43				
23	0.23	0.30	0.46	73	0.73	0.97	1.45				
24	0.24	0.32	0.48	74	0.74	0.98	1.47				
25	0.25	0.33	0.50	75	0.75	0.99	1.49				
26	0.26	0.34	0.52	76	0.76	1.01	1.51				
27	0.27	0.36	0.54	77	0.77	1.01	1.53				
28	0.28	0.37	0.56	78	0.78	1.03	1.55				
29	0.29	0.38	0.58	79	0.79	1.05	1.57				
30	0.30	0.40	0.60	80	0.80	1.06	1.59				
31	0.31	0.41	0.62	81	0.81	1.07	1.61				
32	0.32	0.42	0.64	82	0.82	1.09	1.63				
33	0.33	0.44	0.66	83	0.83	1.10	1.65				
34	0.34	0.45	0.68	84	0.84	1.11	1.67				
35	0.35	0.46	0.70	85	0.85	1.13	1.69				
36	0.36	0.48	0.72	86	0.86	1.14	1.71				
37	0.37	0.49	0.73	87	0.87	1.15	1.73				
38	0.38	0.50	0.75	88	0.88	1.17	1.75				
39	0.39	0.52	0.77	89	0.89	1.19	1.77				
40	0.40	0.53	0.79	90	0.90	1.19	1.79				
41	0.41	0.54	0.81	91	0.91	1.20	1.81				
42	0.42	0.56	0.83	92	0.92	1.22	1.83				
43	0.43	0.57	0.85	93	0.93	1.23	1.85				
44	0.44	0.58	0.87	94	0.94	1.24	1.87				
45	0.45	0.60	0.89	95	0.95	1.26	1.89				
46	0.46	0.61	0.91	96	0.96	1.27	1.91				
47	0.47	0.62	0.93	97	0.97	1.28	1.93				
48	0.48	0.64	0.95	98	0.98	1.30	1.95				
49	0.49	0.65	0.97	99	0.99	1.31	1.97				
50	0.50	0.66	0.99	100	1.00	1.32	1.99				

FORMULA: $L = \frac{ND^3}{7400}$
 WHERE: L = Leakage (gal./hr.)
 N = Number of Joints
 D = Nominal diameter (in.)
 P = Test Pressure (150psi)

These Calculations Based on the Current AWWA C600 Specifications, Section 4, Hydrostatic Testing.

APPROVED: *Kay Morgan* FAIRFIELD COUNTY OHIO
 APPROVAL DATE: JULY 30, 2002 STANDARD CONSTRUCTION DWG.
 REVISION DATE: DRAWING NO. W-2

PLAN VIEW
 TRENCH WIDTH PIPE DIA. + 2"
 SECTION A-A
 4" MAX.
 D/2 + 12"
 CONCRETE (Vcf=VOLUME IN CUBIC FEET)

NOTES:
 1. BACKING DESIGNED FOR 3000 PSF SOIL BEARING.
 2. CONCRETE TO BE PLACED AGAINST UNDISTURBED EARTH.
 3. PROVIDE CLEARANCE FOR REMOVAL OF BOLTS.
 4. CONCRETE FOR BACKING SHALL BE CLASS C.
 5. REINFORCING STEEL SHALL BE PLACED AS DIRECTED BY THE COUNTY.

APPROVED: *Kay Morgan* FAIRFIELD COUNTY OHIO
 APPROVAL DATE: JULY 30, 2002 STANDARD CONSTRUCTION DWG.
 REVISION DATE: DRAWING NO. W-3

DEGREE OF BEND
 11 1/4° 22 1/2° 45° 90°
 SIZE OF PIPE L" W" H" Vcf L" W" H" Vcf L" W" H" Vcf L" W" H" Vcf

PLAN VIEWS
 90° BENDS
 BENDS LESS THAN 90°

NOTES:
 1. BACKING DESIGNED FOR 3000 PSF SOIL BEARING.
 2. CONCRETE TO BE PLACED AGAINST UNDISTURBED EARTH.
 3. PROVIDE CLEARANCE FOR REMOVAL OF BOLTS.
 4. CONCRETE FOR BACKING SHALL BE CLASS C.
 5. REINFORCING STEEL SHALL BE USED AS DIRECTED BY THE COUNTY.
 6. CONCRETE THRUST BLOCK AND JOINT RESTRAINT MAY BE REQUIRED BY THE COUNTY ON FITTINGS.

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 APPROVAL DATE: JULY 30, 2002 STANDARD CONSTRUCTION DWG.
 REVISION DATE: DRAWING NO. W-4

DEGREE OF BEND
 11 1/4° 22 1/2° 45° 90°
 SIZE OF PIPE L" W" H" Vcf L" W" H" Vcf L" W" H" Vcf L" W" H" Vcf

SECTION A-A
 PLAN VIEW

NOTES:
 1. BACKING SHALL BE CENTERED HORIZONTALLY ON BEND.
 2. CONCRETE SHALL BE PLACED AGAINST UNDISTURBED EARTH.
 3. CONCRETE FOR BACKING SHALL BE CLASS C.
 4. REINFORCING STEEL SHALL BE USED AS DIRECTED BY THE COUNTY.
 5. RESTRAINED JOINTS REQUIRED FOR IDENTIFIED SIZES IN TABLE (SHADED).

APPROVED: *Kay Morgan* FAIRFIELD COUNTY OHIO
 APPROVAL DATE: JULY 30, 2002 STANDARD CONSTRUCTION DWG.
 REVISION DATE: DRAWING NO. W-5

TABLE OF CONCRETE VALVE SUPPORTS

SIZE OF VALVE	L	REQUIRED CONCRETE VOLUME CUBIC FT
3"	15"	0.31
4"	16"	0.33
6"	17"	0.36
8"	20"	0.42
12"	24"	0.50
16"	30"	0.63
20"	36"	0.75
24"	42"	0.88
30"	48"	1.00

NOTE:
 1. ALL CONCRETE SHALL BE CLASS C AS SPECIFIED UNDER ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS.
 2. BACKING SHALL BE DESIGNED FOR 3000 PSF SOIL BEARING.
 3. CONCRETE SHALL BE PLACED AGAINST UNDISTURBED EARTH.
 4. PROVIDE CLEARANCE FOR REMOVAL OF BOLTS.

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 APPROVAL DATE: JULY 30, 2002 STANDARD CONSTRUCTION DWG.
 REVISION DATE: DRAWING NO. W-6

SECTION A-A
 LIFTING RING (SEE DETAIL)
 HARDWOOD OR 1/2" STEEL PLATE
 3/4" CORP. STOP
 VALVE
 6" TYP.
 LIFT RING
 PLAN VIEW
 LIFT RING DETAIL

PIPE DIA. H B L
 6" 8" 1" 10"
 8" 10" 1" 10"
 10" 14" 2" 18"
 12" 18" 3" 18"

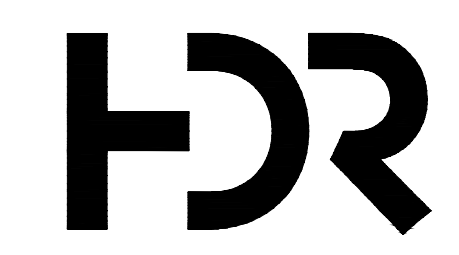
NOTE:
 1. BACKING SHALL BE DESIGNED FOR 4000 PSF SOIL BEARING.
 2. END OF PIPE SHALL BE A WATERTIGHT CAP OR PLUG.
 3. STEEL PLATE SHALL BE GREASED WHERE IN CONTACT WITH CONCRETE BACKER.
 4. CONCRETE SHALL BE PLACED AGAINST UNDISTURBED SOIL.
 5. THOROUGHLY COMPACT BACKFILL BETWEEN VALVE AND END OF PIPE.
 6. CONCRETE FOR BACKING SHALL BE CLASS C.
 7. A #5 BAR SHALL BE INSTALLED AT THE END OF ALL LINES ON THE CENTERLINE OF THE THRUST BLOCK. THE #5 BAR SHALL BE INSTALLED FROM TOP OF THRUST BLOCK TO FINAL GRADE.

APPROVED: *Kay Morgan* FAIRFIELD COUNTY OHIO
 APPROVAL DATE: JULY 30, 2002 STANDARD CONSTRUCTION DWG.
 REVISION DATE: DRAWING NO. W-7

EXISTING GROUND
 BACKFILL WITH GRANULAR BACKFILL TO TOP OF EXISTING UTILITY.
 BACKFILL WITH CONCRETE TO SPRINGLINE OF UPPER UTILITY
 D.I. PIPE
 3'-0" Min.
 WATER LINE
 EXISTING OR PROPOSED UTILITY
 D.I. PIPE
 3'-0" Min.
 DUCTILE IRON M.J. SOLID SLEEVE CLOW F-1014 OR EQUAL (TYPICAL)
 22 1/2° OR 45° DUCTILE IRON M.J. BENDS (TYPICAL)
 ALLOWABLE TRENCH WIDTH
 CONCRETE BACKING PER STANDARD DRAWING W-4

NOTE:
 1. TIME AND DURATION OF SHUT DOWN SHALL BE DETERMINED BY THE COUNTY.
 2. THE CONTRACTOR SHALL NOTIFY ALL WATER CUSTOMERS EFFECTED BY THE PROPOSED WORK AT LEAST 24 HOURS IN ADVANCE OF SHUT DOWN.
 3. ALL BENDS SHALL BE SECURED BY RETAINING GLANDS IN BOTH DIRECTIONS, RODDING OR OTHER METHODS AS APPROVED BY THE COUNTY TO RESTORE THE MAIN TO SERVICE AS SOON AS POSSIBLE.
 4. THE RELOCATED LINES SHALL BE LAID TO THE NEW LINE AND GRADE, TESTED AND DISCONNECTED PRIOR TO SHUT DOWN OF EXISTING MAIN AND CONNECTION OF THE RELOCATED LINES TO THE EXISTING MAIN.
 5. ALL WATER LINES SHALL BE DISINFECTED BY SWABING WITH A 5 PERCENT HYPOCHLORITE SOLUTION IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF AWWA C-651.

APPROVED: *Kay Morgan* FAIRFIELD COUNTY OHIO
 APPROVAL DATE: JULY 30, 2002 STANDARD CONSTRUCTION DWG.
 REVISION DATE: DRAWING NO. W-10



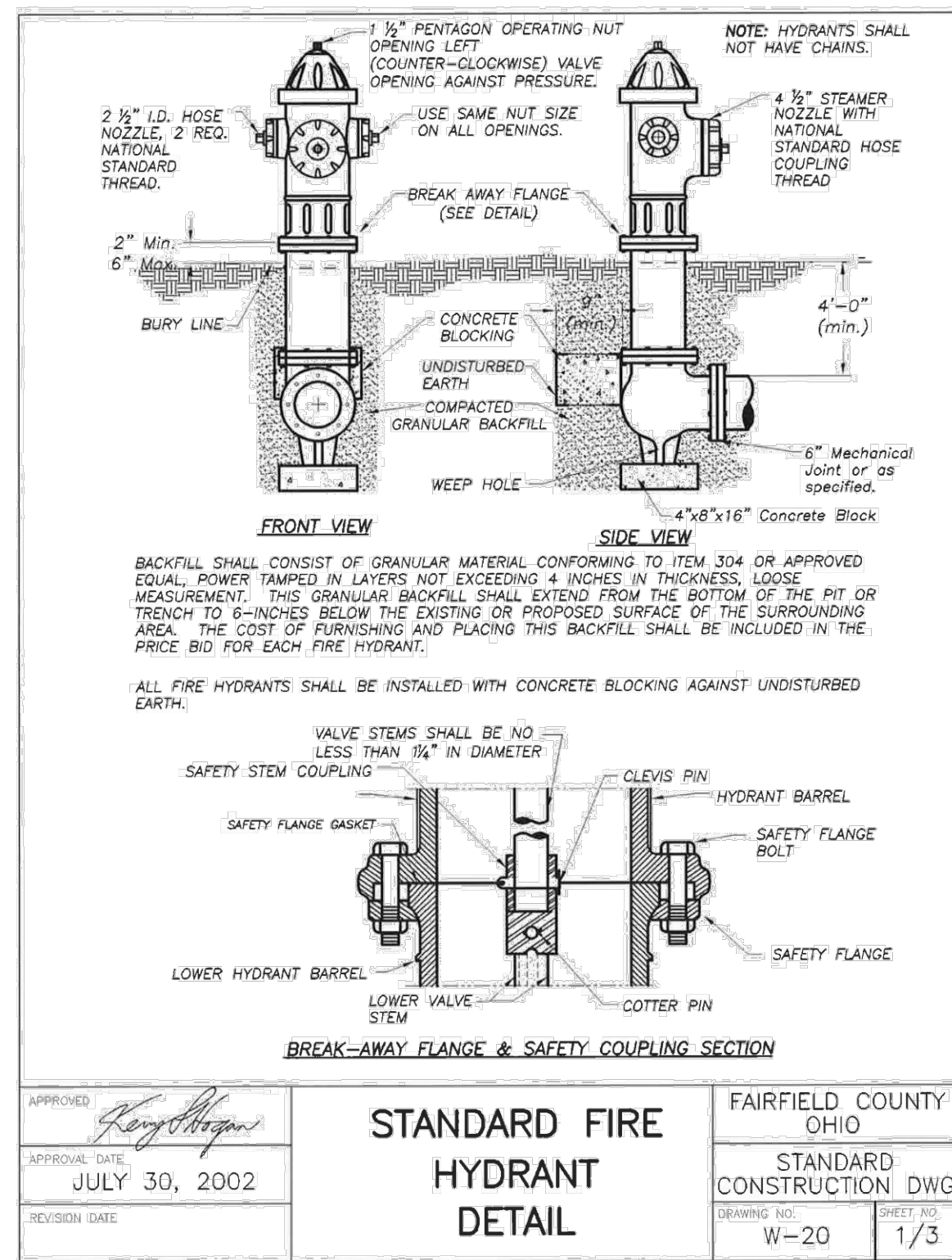
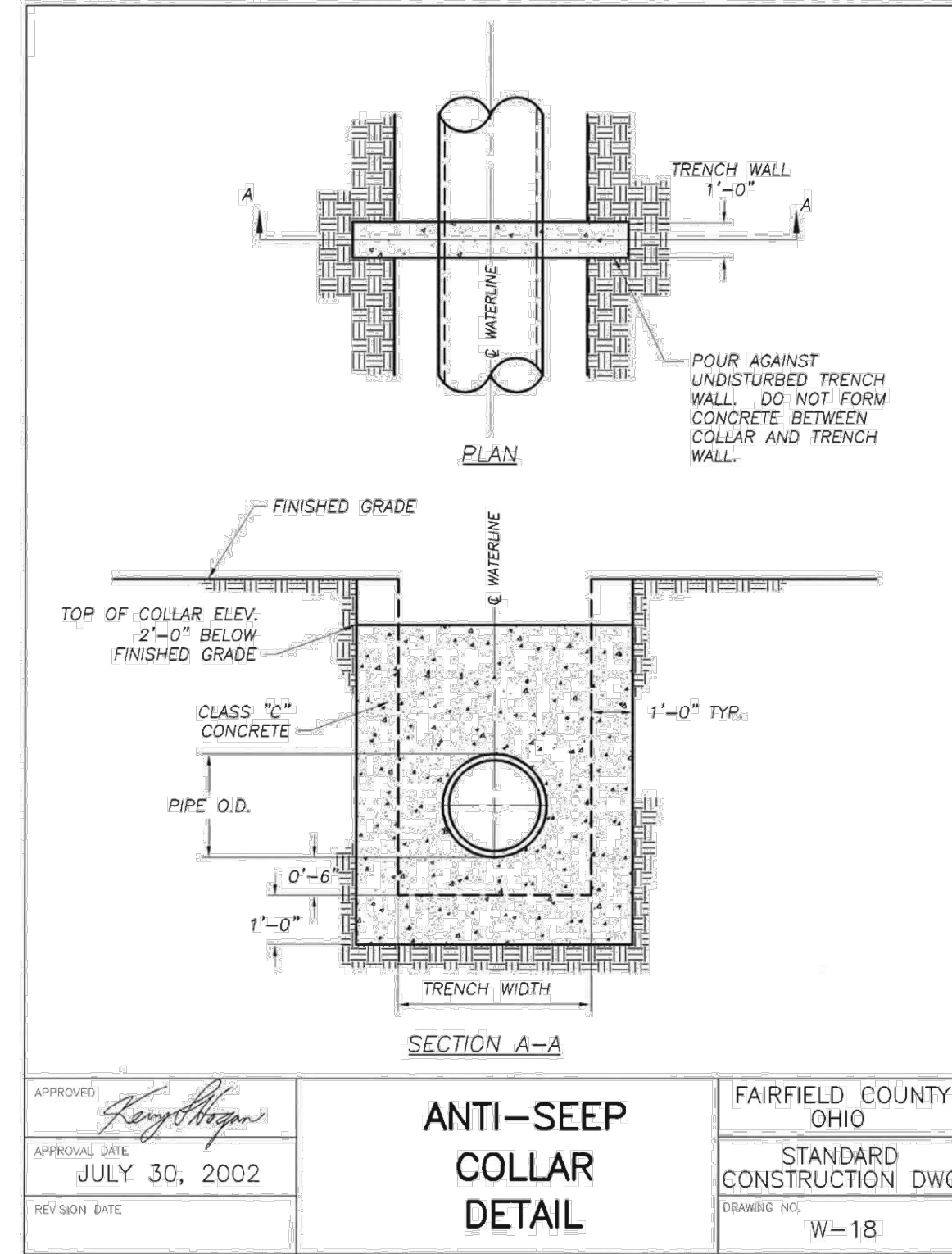
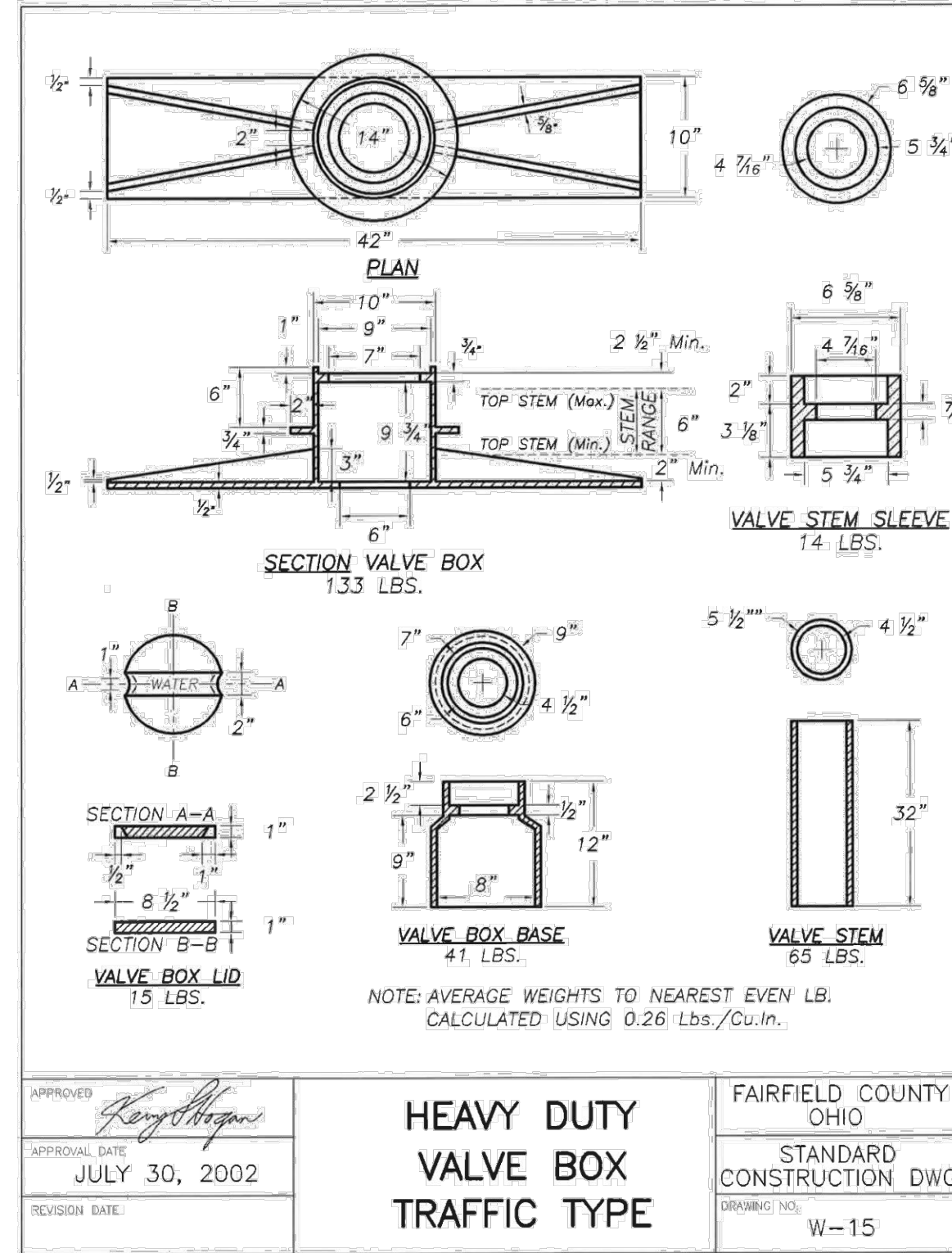
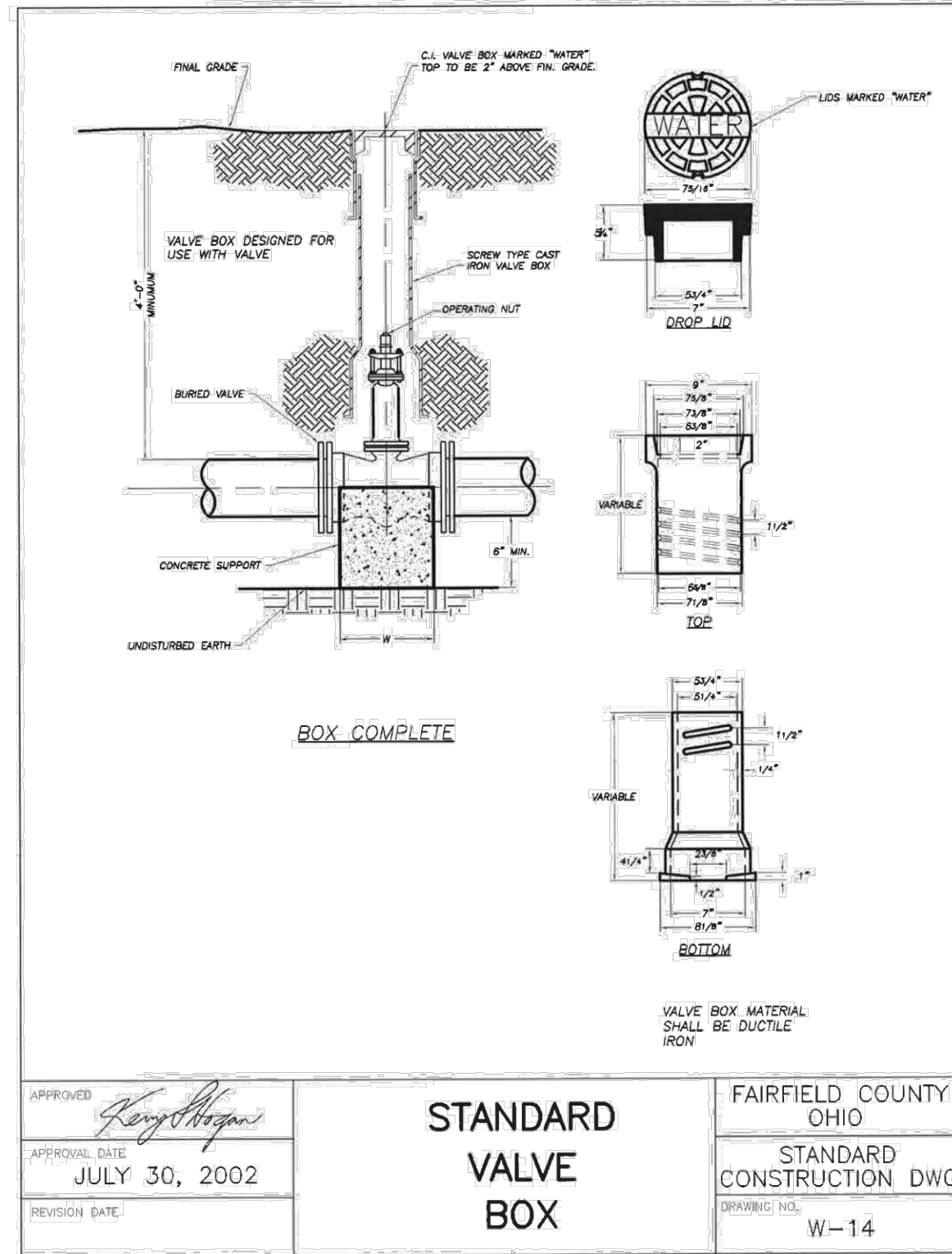
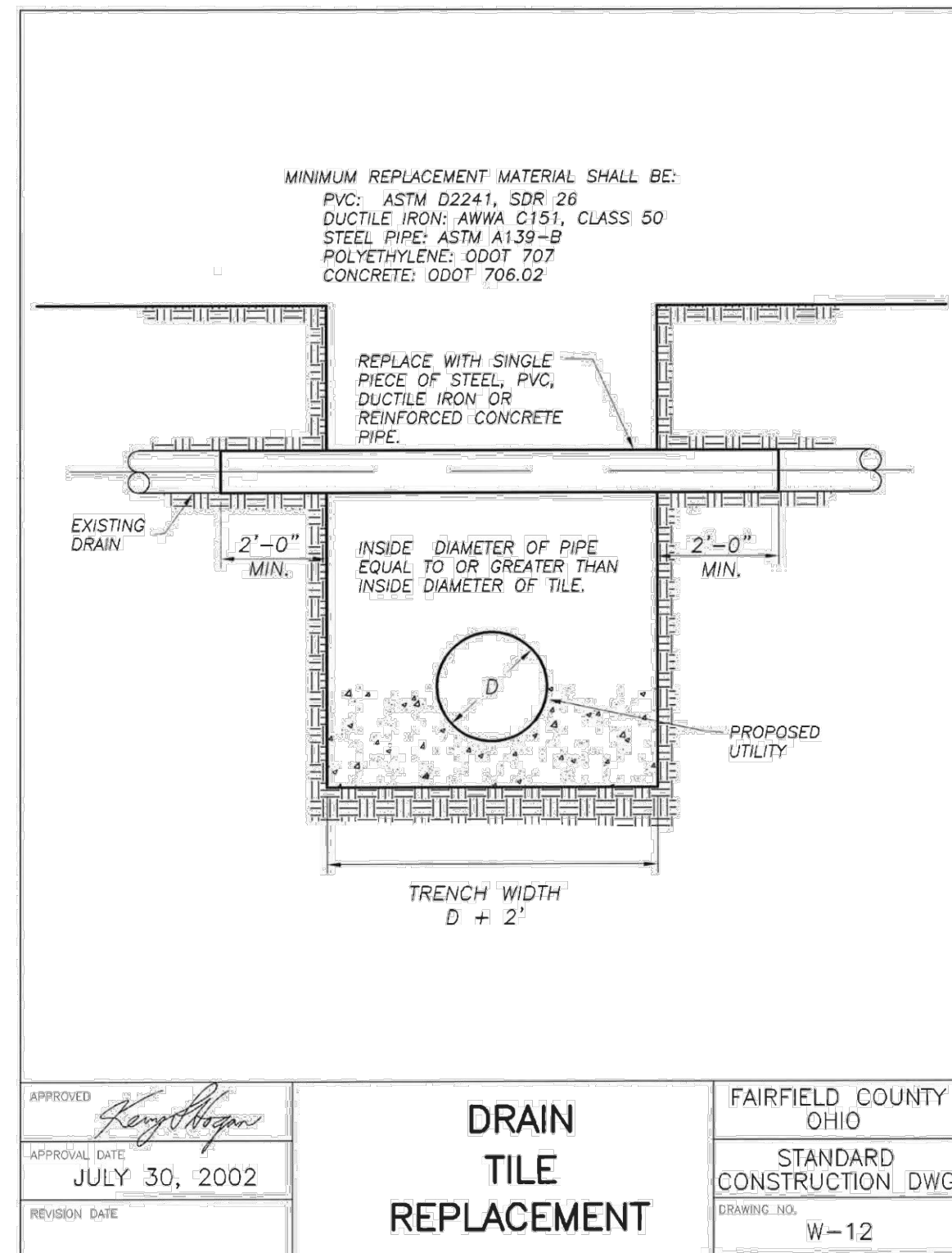
ISSUE	DATE	DESCRIPTION
A	10/7/21	ISSUED FOR BID

PROJECT MANAGER LEE C. TOUREK
 DESIGN BY LCT
 DRAWN BY DRF
 APPROVED BY MRI
 PROJECT NUMBER 10318453



GRANT LANE AND HAMPTON DRIVE
 WATERLINE PROJECT
 FAIRFIELD COUNTY, OHIO

FAIRFIELD COUNTY STANDARD DETAILS



TYPE OF HYDRANT: The hydrant shall be the post type traffic model made of cast iron as shown hereon. It shall have a breaking connection that prevents loss of water when the upper and lower sections are separated by a smashing impact. The hydrant shall be of the compression type with the valve opening in a counter-clockwise direction against the pressure and closing with the pressure. The valve end of the stem or valve rod shall be so constructed as to eliminate contact of dissimilar metals in the presence of moisture.

The stem or valve rod shall be constructed in one continuous length from the valve to the breaking coupling or to the bottom of the extension piece where extensions are required. The stem or valve rod between the valve and operating nut shall be made of steel stock and have a 1 1/4" minimum diameter after machining. The breaking coupling shall fit over the valve rod and be located at the proper point to conform to the breaking connection in the standpipe.

The barrel shall have an area of not less than 120 percent of the valve opening. The type of valve shall be rubber with the diameter of the part in the seal ring being a minimum of 4 1/4". Approved hydrants are Mueller SuperCenturion 250, Model A-421, or American Flow Control, Model MK-73.

All interior working parts of the hydrant including valve and valve seat shall be such that they can be removed through the top of the standpipe without excavation. The upper section of the standpipe above the ground line shall be adjusted so that the nozzle can be rotated to any desired position.

REFERENCE SPECIFICATIONS: All fire hydrants shall conform with the latest American Water Works Association standards, C-502, and the requirements of Fairfield County. All specifications shall refer to the latest effective editions.

APPROVALS AND CERTIFICATION: The supplier or manufacturer shall submit to the County four (4) copies of the results of certified flow tests, run by an independent testing laboratory, and shop drawings with dimensions, material and nomenclature of parts for each type or model of hydrant proposed for use in the County.

Upon approval of the above information by the County, it shall remain on file with the County. Submission of the above materials with each order of fire hydrants is not necessary if approved material is already on file. Submission of new material is required when a deviation in the product, its manufacturer, or the standards is made or requested.

Any fire hydrant, delivered to the project within the County which fail to conform to the requirements herein or approved information on file with the County shall be rejected.

With each delivery shipment of fire hydrants, the hydrant manufacturer shall certify that the hydrants conform to the information approved and on file with the County. The certificate shall include the model or identification numbers of the hydrants being delivered and approval date of the information on file with the County. This documentation does not constitute approval or final acceptance of the specific hydrants delivered.

APPROVED: *Kay Morgan*
 APPROVAL DATE: JULY 30, 2002
 REVISION DATE:

STANDARD FIRE HYDRANT DETAIL

FAIRFIELD COUNTY OHIO
 STANDARD CONSTRUCTION DWG.
 DRAWING NO. W-20 SHEET NO. 2/3

INSPECTION: Prior to installation, all fire hydrants shall be inspected by the County representative. The hydrants shall receive either a conditional acceptance or a rejection. Conditional acceptance shall mean that the hydrants may be installed. Upon installation, each hydrant shall be tested for operation and leaks with a County representative present during the test, and shall receive either operational acceptance or a rejection.

The County reserves the right to reject any and all fire hydrants found to be in non-compliance with any of the requirements stated herein at any time during the acceptance, or above described approval process. Any fire hydrants which are rejected and which can not be brought into compliance with the requirements as stated herein shall be removed from the project site, storage site, or the work at no expense to the County.

The final field acceptance shall govern over any document approval and shall be based on all work being complete; including installation, testing and operation, lubrication and painting.

INSTALLATION: The fire hydrants shall be installed as specified herein and in accordance with the Fairfield County Standard Drawings: Standard Fire Hydrant Detail (W-20), Typical Fire Hydrant Setting Type "A" (W-21), Typical Fire Hydrant Setting Type "A Modified" (W-22), Typical Fire Hydrant Setting Type "B" and "B Modified" (W-23), Fire Hydrant Location Detail (W-24), or as specified by the County.

The base section of all fire hydrants shall be set to an elevation which will be correct for the proposed grade of the street. The elevation is at the established or proposed finished grade, as indicated on the construction drawings, through the installation of hydrant extension sections, as needed.

Prior to operational acceptance, the hydrant nozzle shall be turned away from the street. Upon receiving operational acceptance, the hydrant shall be turned with the steamer nozzle facing the road or street and the hydrant exercised to check the operation and for leaks.

PAINTING: Final paint color shall be Tnemec "Fire Red" Epoxy. All hydrant surfaces above ground shall be cleaned, washed and wire brushed and all surfaces or spots that required touching up shall have one (1) coat of Tnemec primer. When all the surfaces have been primed and are dry, then all hydrant surfaces shall receive two (2) coats of the approved paint. Refer to the current approved edition of the Waterline Notes for the specific paint system, colors, and requirements.

LUBRICATION: All hydrant nozzle threads shall be lubricated with a FDA approved food grade lubricant (Permatex Super Lube or equal).

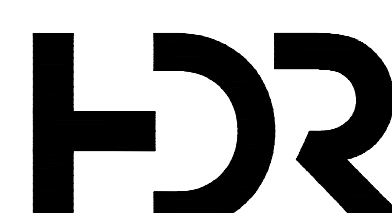
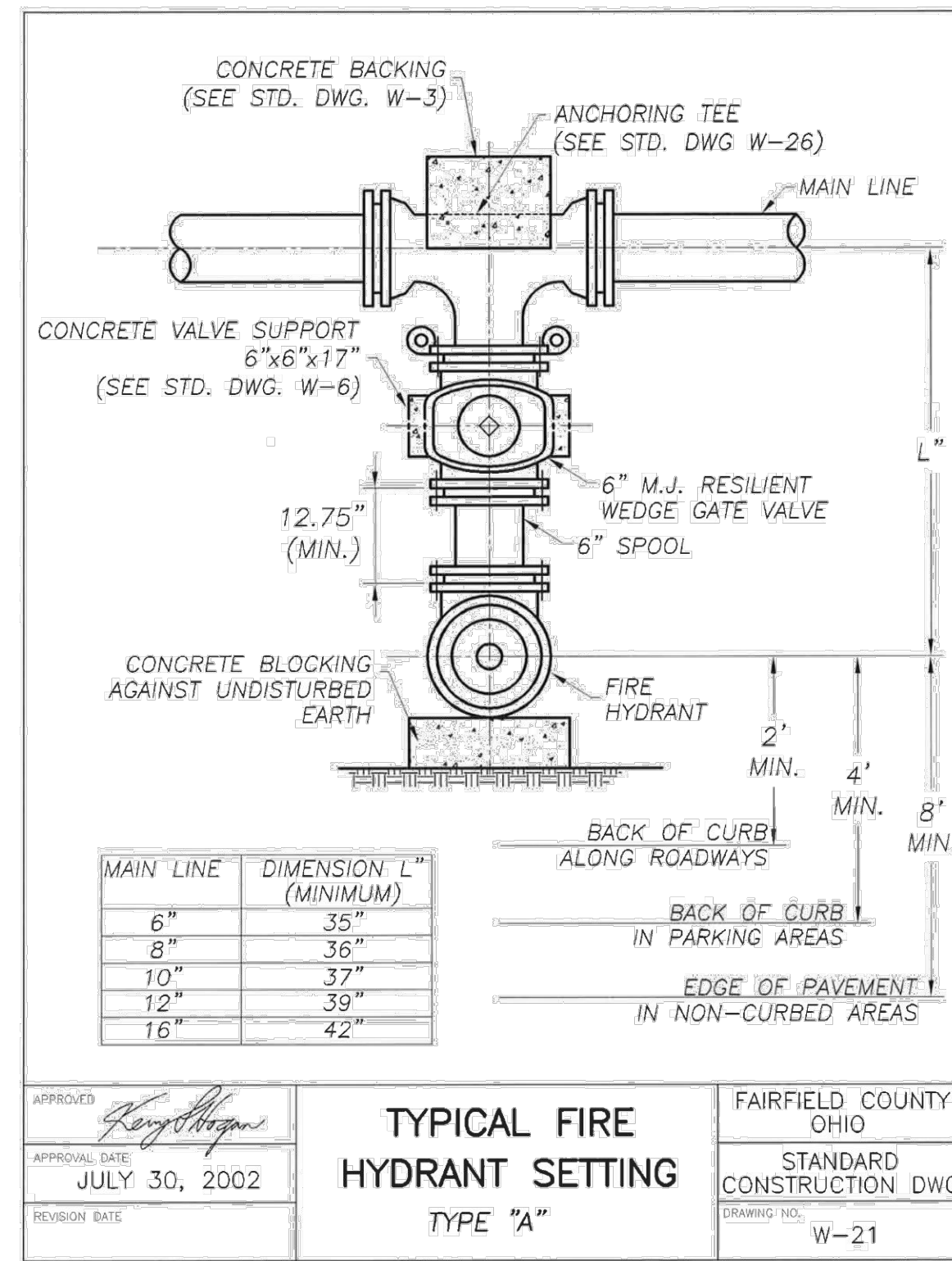
MATERIALS AND WORKMANSHIP: All machined parts shall be true to gauge so that they will be interchangeable between hydrants of the same make and size.

When required, non-adjustable hydrant wrenches, properly sized to the specified operating nut dimensions and fabricated by the hydrant manufacturer, shall be supplied.

APPROVED: *Kay Morgan*
 APPROVAL DATE: JULY 30, 2002
 REVISION DATE:

STANDARD FIRE HYDRANT DETAIL

FAIRFIELD COUNTY OHIO
 STANDARD CONSTRUCTION DWG.
 DRAWING NO. W-20 SHEET NO. 3/3



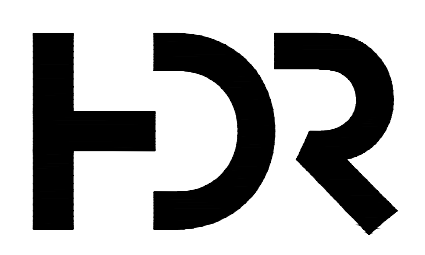
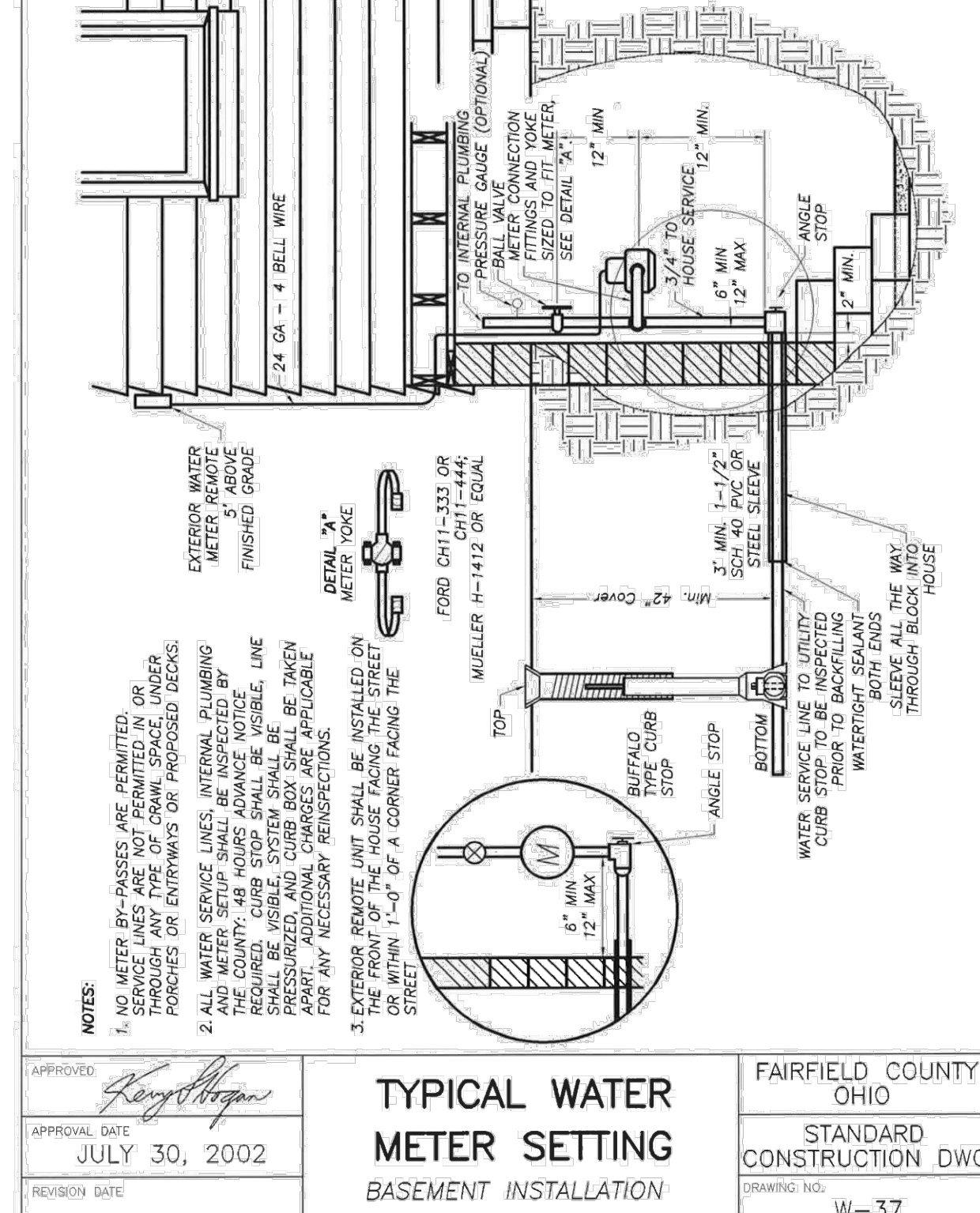
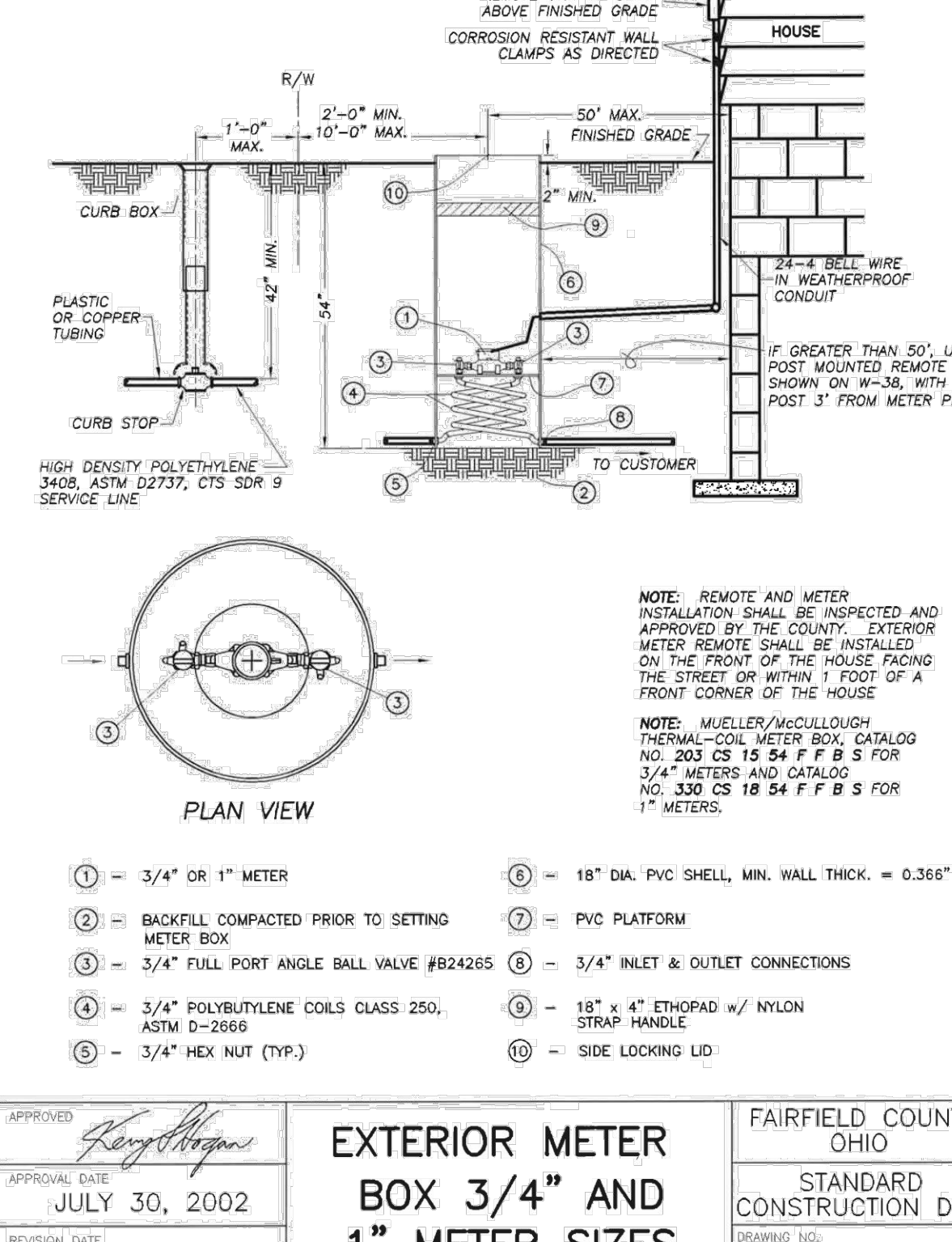
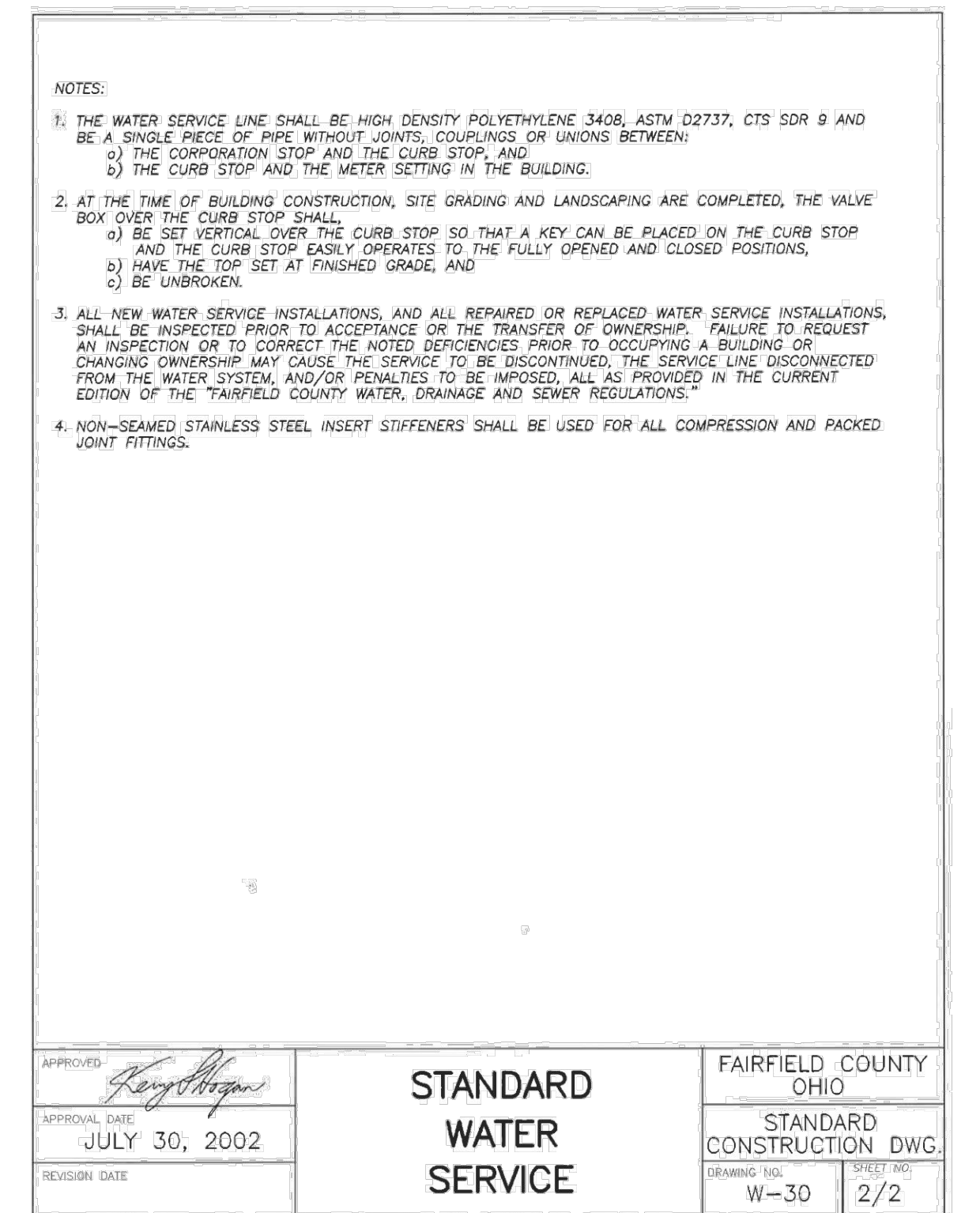
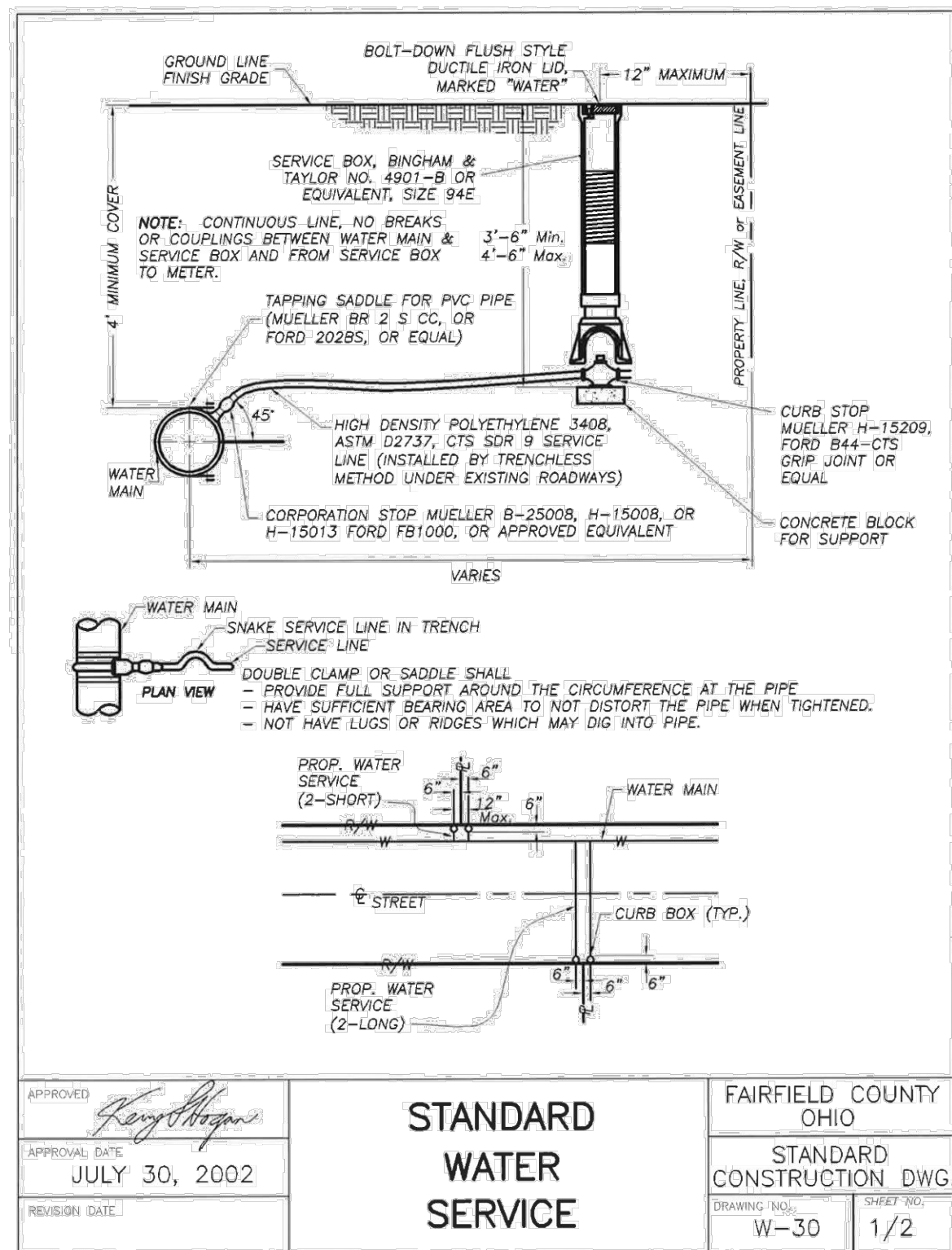
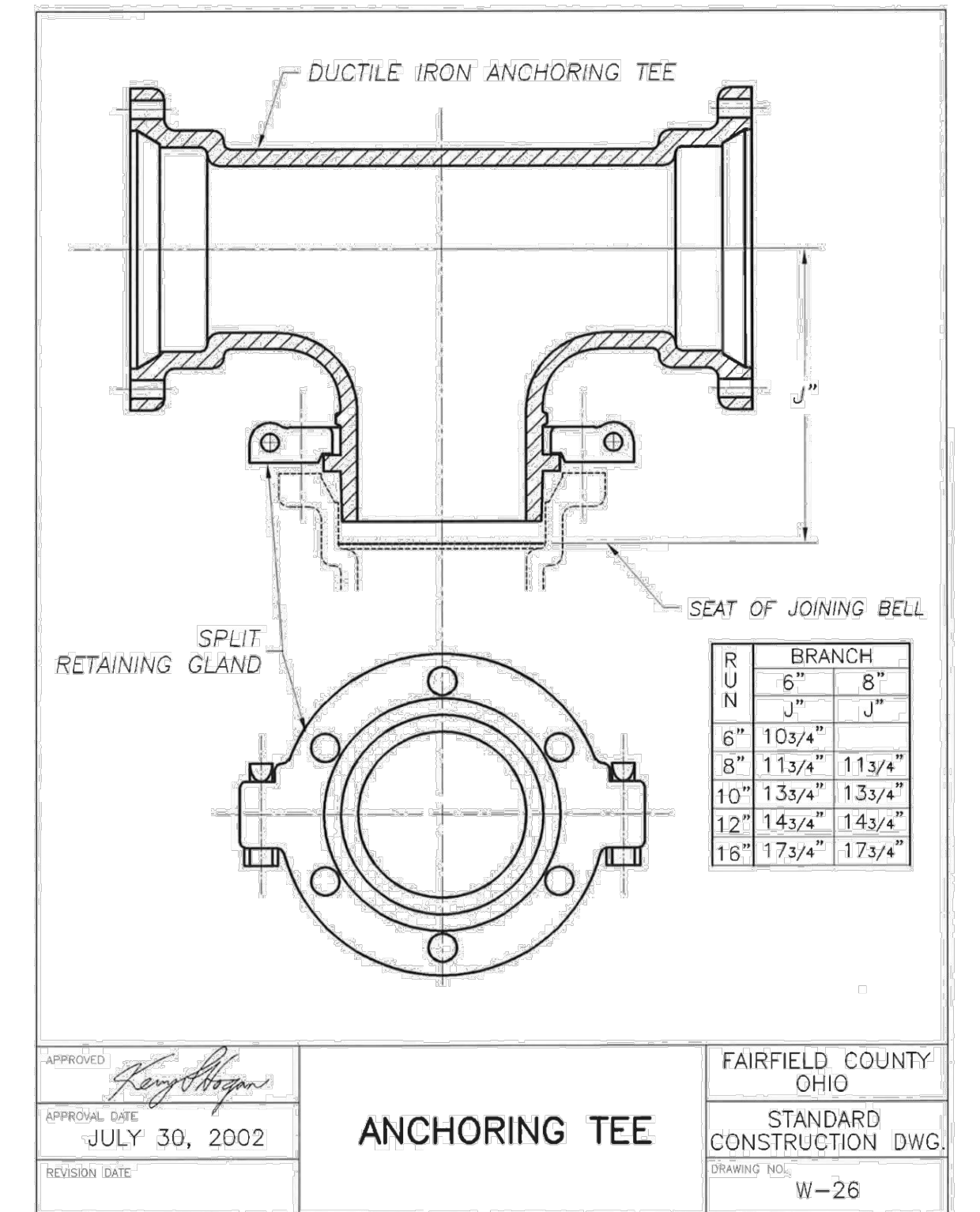
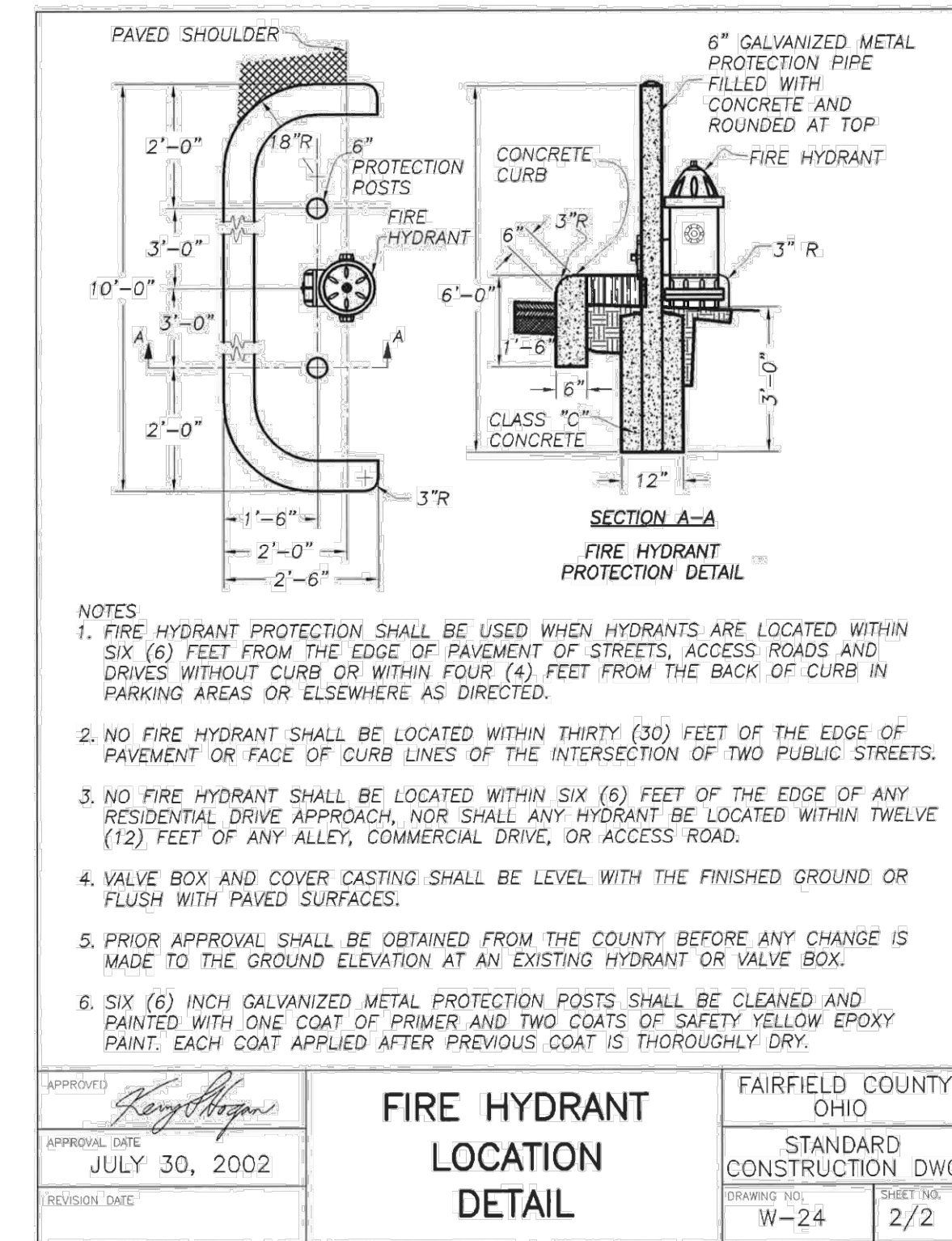
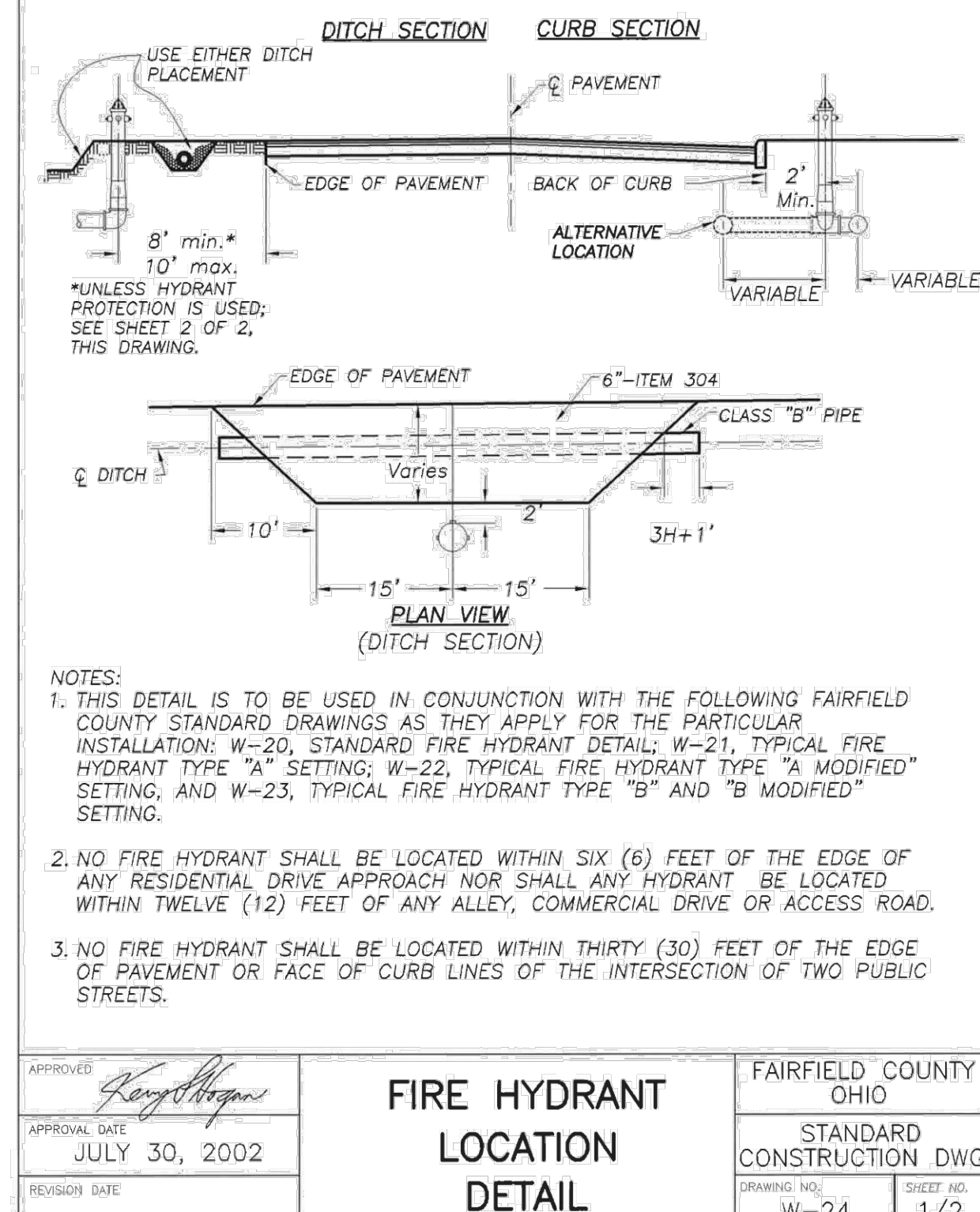
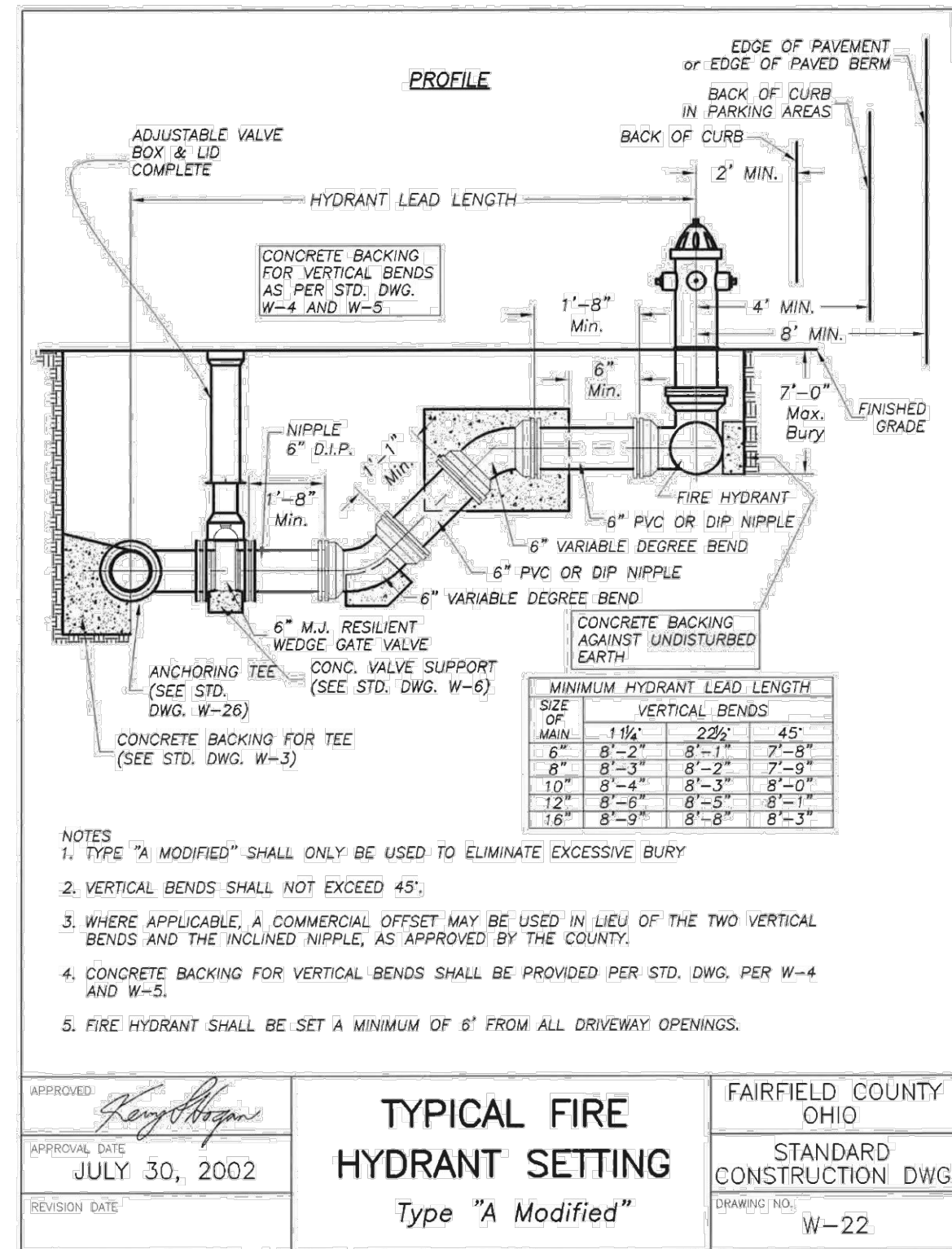
ISSUE	DATE	DESCRIPTION
A	10/7/21	ISSUED FOR BID

PROJECT MANAGER	LEE C. TOUREK
DESIGN BY	LCT
DRAWN BY	DRF
APPROVED BY	MRI
PROJECT NUMBER	10318453



GRANT LANE AND HAMPTON DRIVE WATERLINE PROJECT
FAIRFIELD COUNTY, OHIO

FAIRFIELD COUNTY STANDARD DETAILS



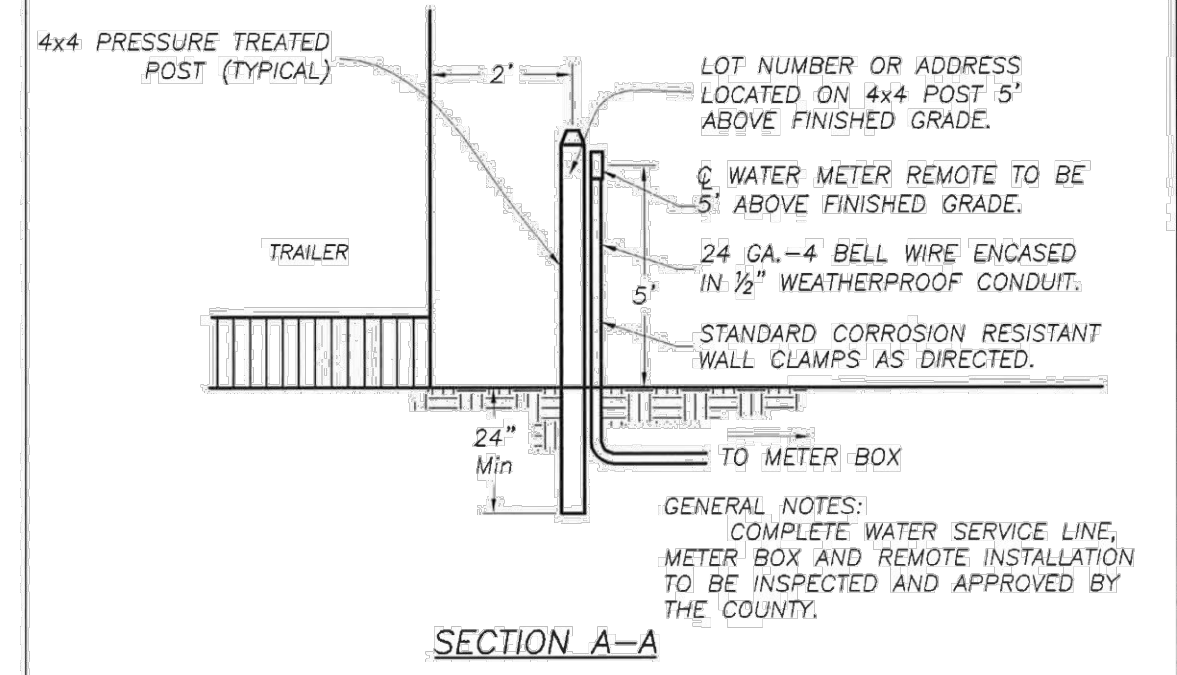
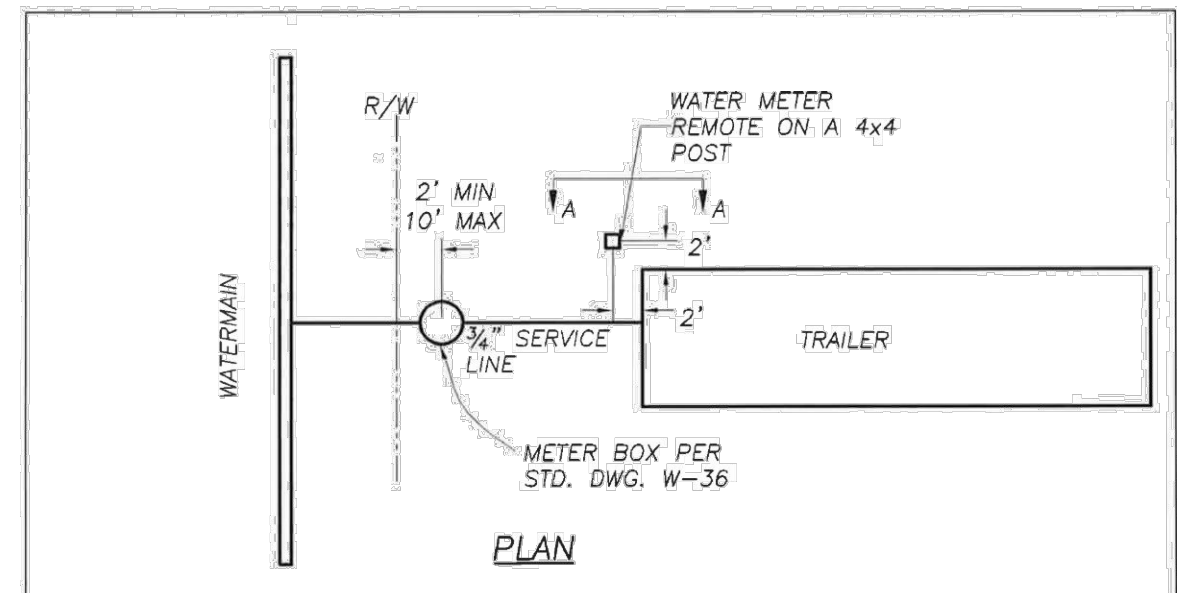
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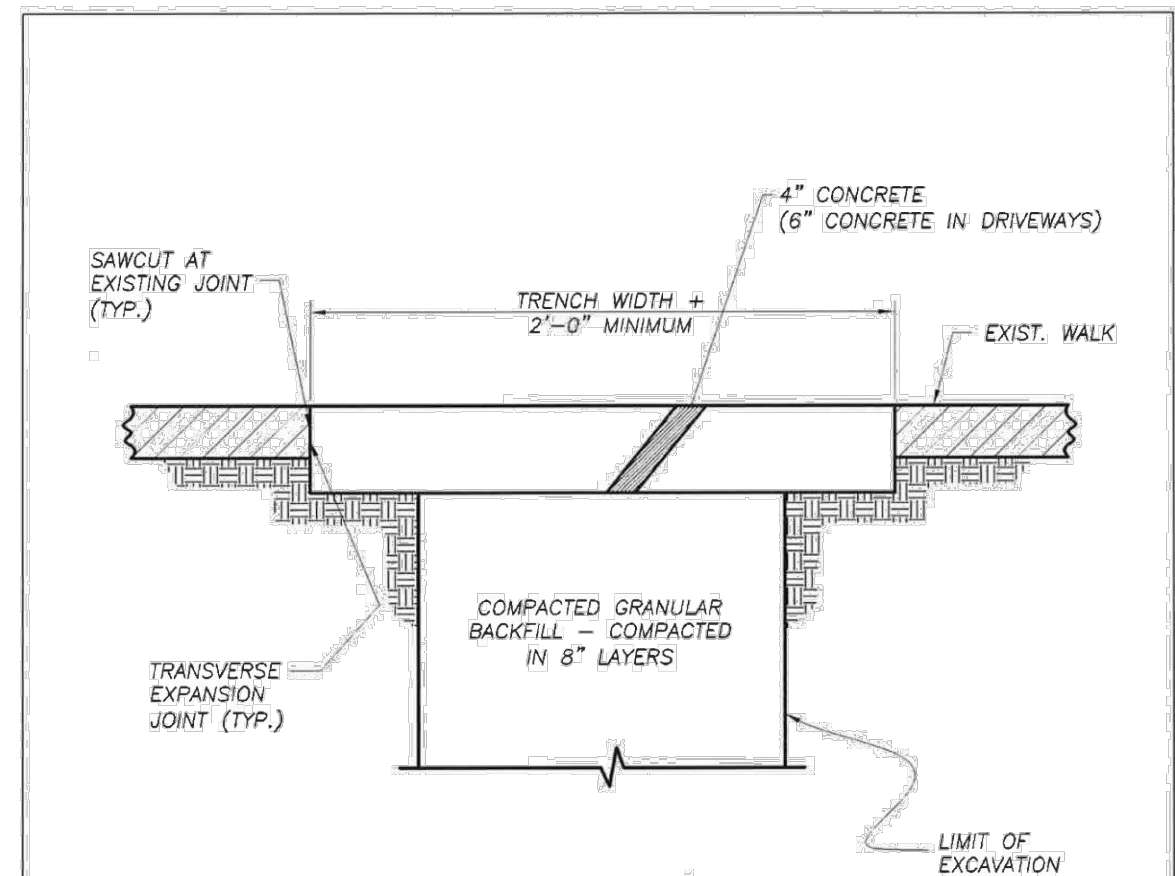


GRANT LANE AND HAMPTON DRIVE WATERLINE PROJECT
FAIRFIELD COUNTY, OHIO

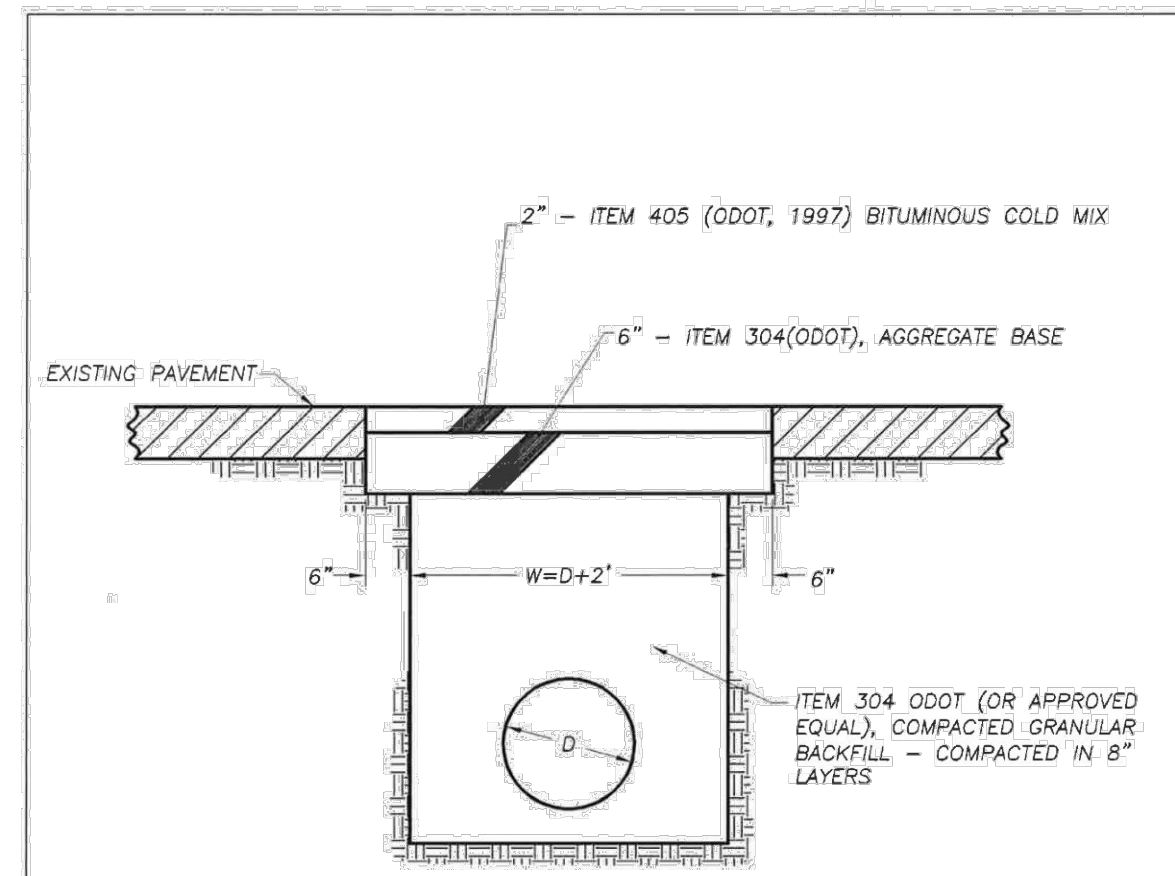
FAIRFIELD COUNTY STANDARD DETAILS



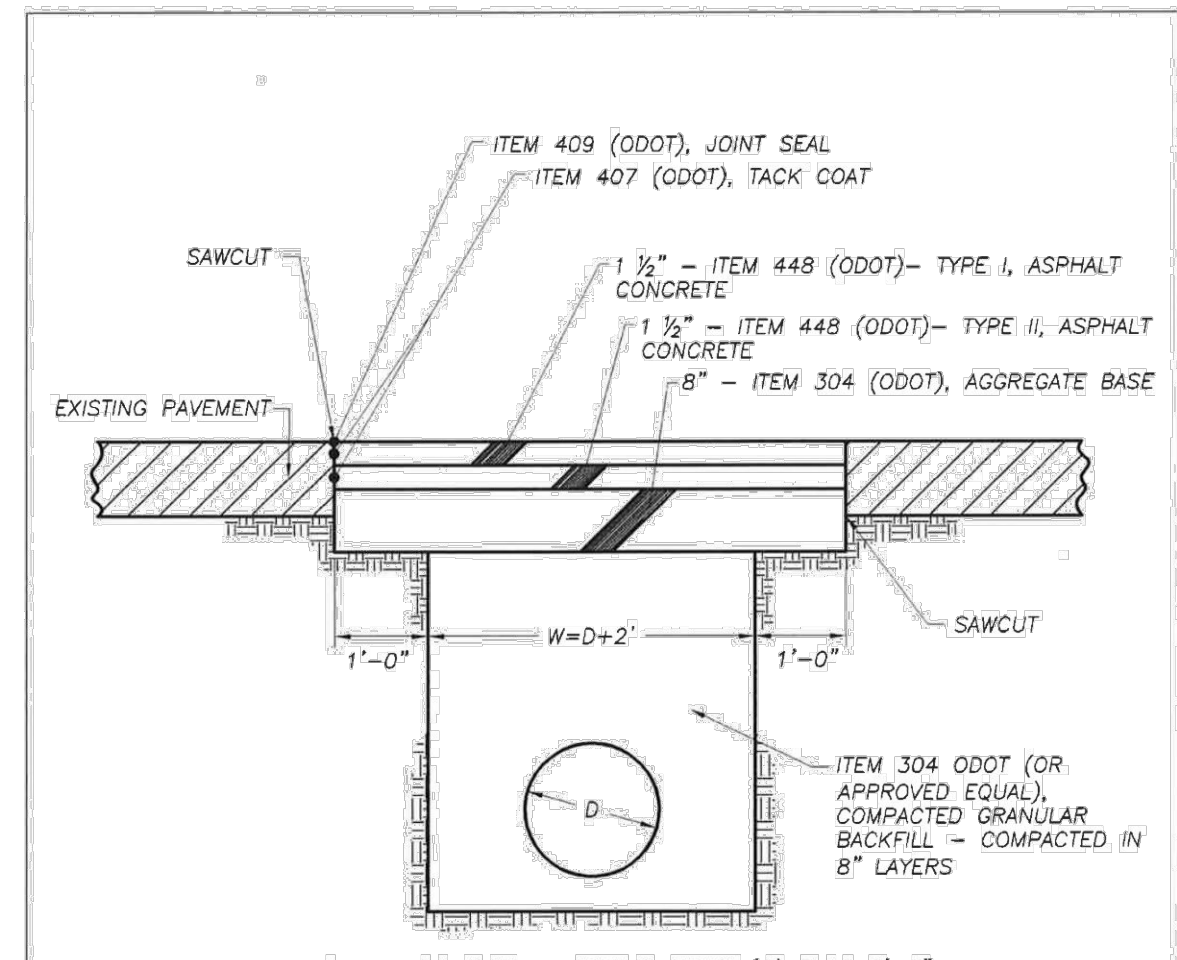
APPROVED: <i>Kerry Morgan</i>	TYPICAL WATER METER SETTING TRAILER INSTALLATION	FAIRFIELD COUNTY OHIO STANDARD CONSTRUCTION DWG. DRAWING NO. W-38
APPROVAL DATE: JULY 30, 2002		
REVISION DATE:		



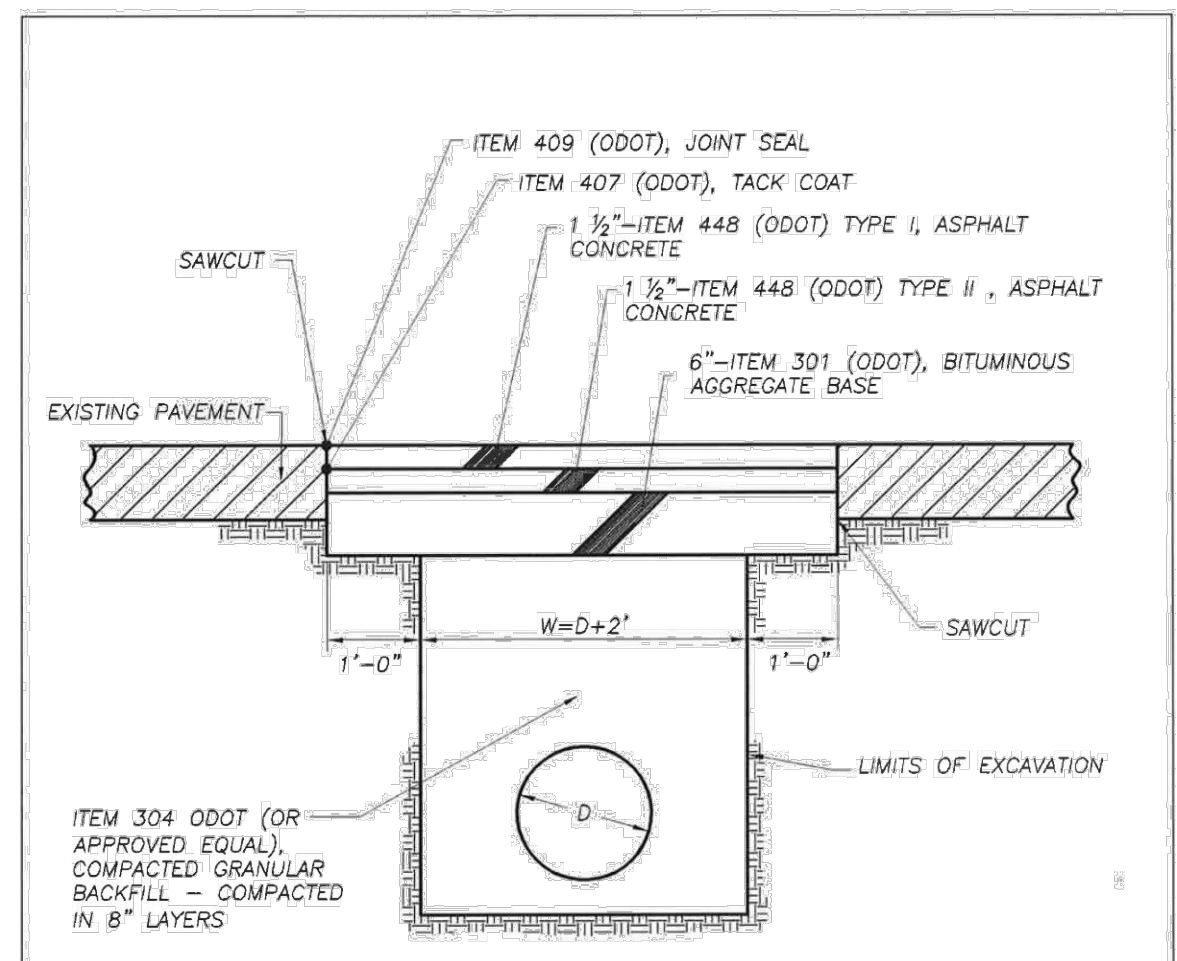
APPROVED: <i>Kerry Morgan</i>	CONCRETE SIDEWALK REPLACEMENT	FAIRFIELD COUNTY OHIO STANDARD CONSTRUCTION DWG. DRAWING NO. W-39
APPROVAL DATE: JULY 30, 2002		
REVISION DATE:		



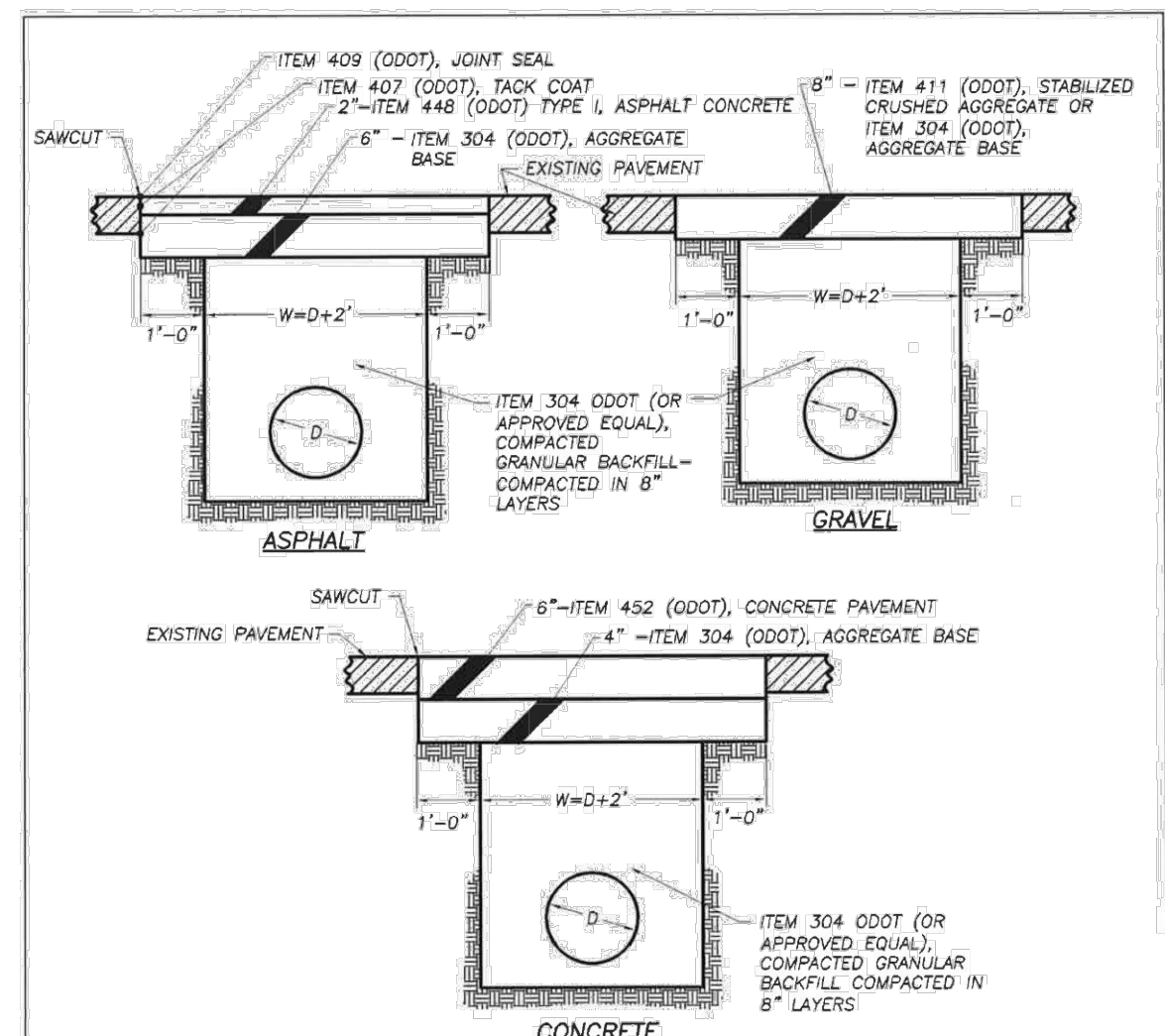
APPROVED: <i>Kerry Morgan</i>	TEMPORARY PAVEMENT REPLACEMENT	FAIRFIELD COUNTY OHIO STANDARD CONSTRUCTION DWG. DRAWING NO. W-40
APPROVAL DATE: JULY 30, 2002		
REVISION DATE:		



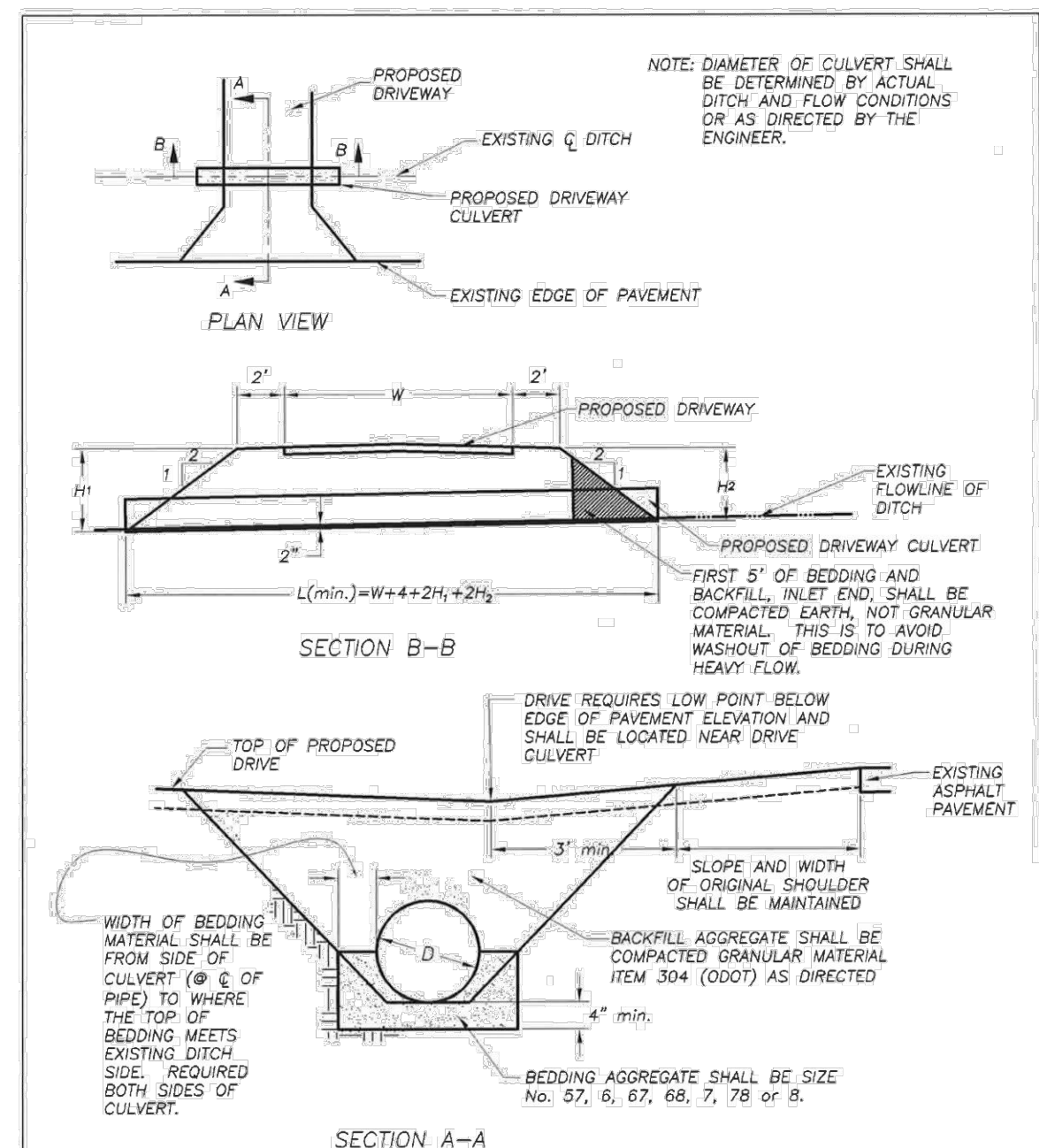
APPROVED: <i>Kerry Morgan</i>	PERMANENT PAVEMENT REPLACEMENT	FAIRFIELD COUNTY OHIO STANDARD CONSTRUCTION DWG. DRAWING NO. W-41	1/2
APPROVAL DATE: JULY 30, 2002			
REVISION DATE:			



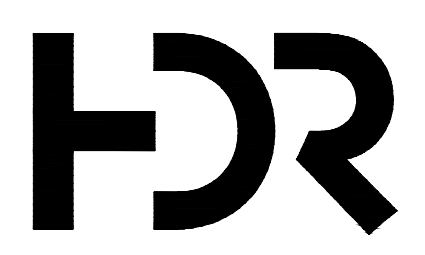
APPROVED: <i>Kerry Morgan</i>	PERMANENT PAVEMENT REPLACEMENT	FAIRFIELD COUNTY OHIO STANDARD CONSTRUCTION DWG. DRAWING NO. W-41	2/2
APPROVAL DATE: JULY 30, 2002			
REVISION DATE:			



APPROVED: <i>Kerry Morgan</i>	DRIVEWAY PAVEMENT REPLACEMENT	FAIRFIELD COUNTY OHIO STANDARD CONSTRUCTION DWG. DRAWING NO. W-42
APPROVAL DATE: JULY 30, 2002		
REVISION DATE:		

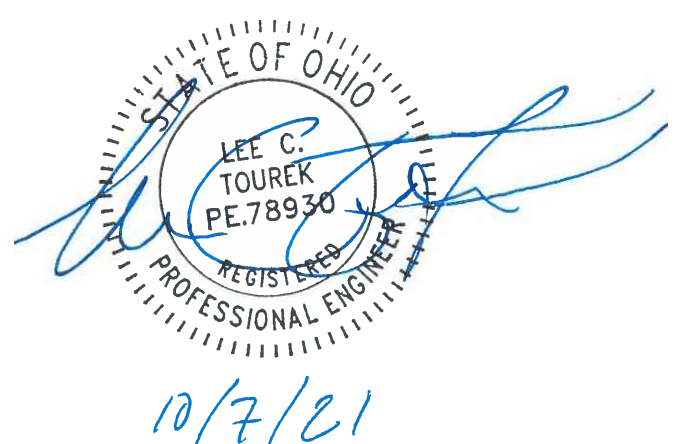


APPROVED: <i>Kerry Morgan</i>	DRIVEWAY CULVERT DETAILS	FAIRFIELD COUNTY OHIO STANDARD CONSTRUCTION DWG. DRAWING NO. W-43
APPROVAL DATE: JULY 30, 2002		
REVISION DATE:		



A	10/7/21	ISSUED FOR BID
ISSUE DATE	DESCRIPTION	

PROJECT MANAGER	LEE C. TOUREK
DESIGN BY	LCT
DRAWN BY	DRF
APPROVED BY	MRI
PROJECT NUMBER	10318453



GRANT LANE AND HAMPTON DRIVE WATERLINE PROJECT
FAIRFIELD COUNTY, OHIO

FAIRFIELD COUNTY STANDARD DETAILS

FILENAME	Standard Details.dwg
SCALE	NONE