



EXHIBIT A-4

PLANS

NORTHERN KENTUCKY WATER DISTRICT

SUB-DISTRICT 'O'

WATER MAIN EXTENSION

KENTON COUNTY, KENTUCKY

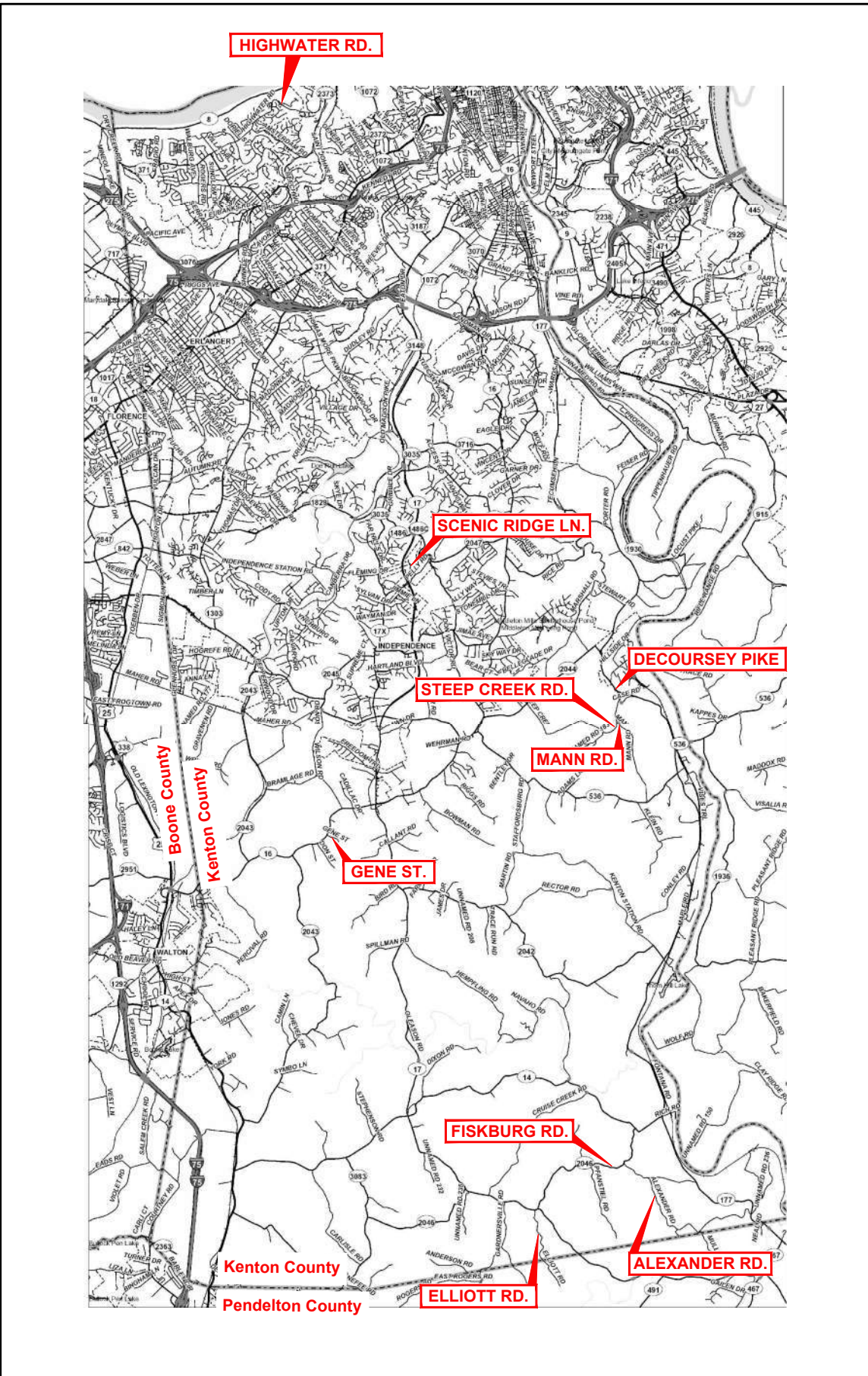
231591

NORTHERN KENTUCKY WATER DISTRICT OFFICIALS

PRESIDENT / CEO
LINDSEY RECHTIN, CPA

COMMISSIONERS
JODY R. LANGE (Chair)
DOUGLAS C. WAGNER (Vice-Chair)
NICHOLAS E. WINNIKE (Secretary)
GARY E. HOLLAND (Treasurer)
FRED A. MACKE, JR. (Commissioner)
JOSEPH J. KOESTER (Commissioner)

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VICINITY MAP

NORTHERN KENTUCKY WATER DISTRICT SPECIFICATIONS

THE LATEST STANDARD SPECIFICATIONS AND DRAWINGS OF THE NORTHERN KENTUCKY WATER DISTRICT FOR THE INSTALLATION OF WATER MAIN AND METER PITS SHALL GOVERN ALL WATER MAIN CONSTRUCTION ITEMS ON THIS PROJECT.

KENTUCKY TRANSPORTATION CABINET SPECIFICATIONS

THE LATEST STANDARD SPECIFICATIONS OF THE KENTUCKY TRANSPORTATION CABINET, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS THERETO AND KENTON COUNTY SUBDIVISION REGULATIONS SHALL GOVERN THIS IMPROVEMENT.

SOURCE OF OUNDARY AND TOPOGRAPHIC INFORMATION

THE TOPOGRAPHIC INFORMATION SHOWN ON THESE PLANS IS BASED UPON A SURVEY BY CT CONSULTANTS, INC.
THE BOUNDARY INFORMATION SHOWN ON THESE PLANS IS BASED ON PLANNING AND DEVELOPMENT SERVICES (P.D.S.) G.I.S. MAPPING.



JAMES M. SHUMATE P.E. #18156

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ISSUED FOR:	BID	NO	REVISION	DATE
ISSUE DATE:	APRIL 2025			
SCALE:	AS SHOWN			
DESIGNED BY:	JCOR			
DRAWN BY:	JCOR			
CHECKED BY:	JSHU			

NORTHERN KENTUCKY WATER DISTRICT
SUBDISTRICT 'O'
-KENTON COUNTY -

TITLE SHEET

PROJECT NO. 231591	
DISCIPLINE CIVIL	
SHEET NAME TTL	
SHEET 1	OF 28

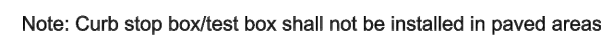



GENERAL NOTES		UTILITY NOTES		WATER DISTRICT GENERAL NOTES		MAINTENANCE OF TRAFFIC NOTES		SYMBOL LEGEND	
<div><div>1.</div><div>ALL CONSTRUCTION SHALL CONFORM TO THESE PLANS AND SPECIFICATIONS. THE LATEST EDITION OF THE NORTHERN KENTUCKY WATER DISTRICT STANDARD SPECIFICATIONS AND DRAWINGS AND THE KENTON COUNTY SUBDIVISION REGULATIONS AND THE KENTUCKY DEPARTMENT OF HIGHWAYS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.</div></div> <div><div>2.</div><div>ALL DISTURBED AREAS ARE TO BE RESTORED (SEEDED AND MULCHED) BY THE CONTRACTOR AND SHALL PROCEED WITH JOB PROGRESSION. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR REMOVING ANY EXCESS MATERIALS AT THE SITE AND MAINTAINING ALL SEEDED AND MULCHED AREAS UNTIL PROJECT COMPLETION AND FINAL INSPECTION PER KDOT SPEC. 212. A RESIDENTIAL YARD SHALL BE RESTORED WITHIN TWENTY-ONE (21) DAYS AFTER CONSTRUCTION.</div></div> <div><div>3.</div><div>ALL APPLICABLE RECOMMENDATIONS IN KENTUCKY'S BEST MANAGEMENT PRACTICES MANUAL SHALL BE FOLLOWED BY THE CONTRACTOR, INCLUDING SEEDING OF DISTURBED GROUND.</div></div> <div><div>4.</div><div>RIGHT-OF-WAY AND PROPERTY LINES SHOWN ARE PLOTTED FROM PLANNING AND DEVELOPMENT SERVICES (PDS) G.I.S. MAPPING AND ARE APPROXIMATE AND NOT THE RESULT OF A FIELD BOUNDARY SURVEY.</div></div> <div><div>5.</div><div>THE CONTRACTOR SHALL LIMIT THEIR WORK AREA TO THE EASEMENTS AND RIGHTS-OF-WAY SHOWN ON THESE PLANS UNLESS WRITTEN PERMISSION IS GIVEN BY THE PROPERTY OWNER AND APPROVED BY FORT N.K.W.D.</div></div> <div><div>6.</div><div>ALL OSHA, STATE AND LOCAL SAFETY REGULATIONS SHALL BE FOLLOWED DURING CONSTRUCTION.</div></div> <div><div>7.</div><div>NO CONSTRUCTION SHALL COMMENCE UNTIL ALL STATE, COUNTY AND LOCAL PERMITS HAVE BEEN ISSUED AS REQUIRED</div></div> <div><div>8.</div><div>THE CONTRACTOR SHALL COORDINATE ALL WORK WITHIN THE PUBLIC RIGHT OF WAY WITH THE KENTUCKY TRANSPORTATION CABINET AND KENTON COUNTY AND ANY LOCAL MUNICIPALITY. LOCAL TRAFFIC MUST BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION UNLESS OTHERWISE NOTED IN THESE PLANS.</div></div> <div><div>9.</div><div>ADDITIONAL BMP'S AND EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED AS DEMONSTRATED NECESSARY. COST ABOVE SHALL BE INCLUDED IN LUMP SUM BID FOR EROSION CONTROL AND WATER POLLUTION CONTROL.</div></div> <div><div>10.</div><div>ALL CONSTRUCTION WORK SHALL BE IN CONFORMANCE WITH THE RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL INVESTIGATION REPORT PREPARED BY G.A.I. CONSULTANTS DATED FEBRUARY 2024.</div></div>		<div><div>1.</div><div>THIS PLAN SHOWS THE APPROXIMATE LOCATION OF UNDERGROUND UTILITIES (GAS, WATER, STORM SEWER, SANITARY SEWER, TELEPHONE, ELECTRIC, ETC.). THE PREPARER DOES NOT GUARANTEE THEIR ACCURACY OR CORRECTNESS. THE INFORMATION PROVIDED SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE UTILITY AS WELL AS THE SERVICE LATERALS AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL PRACTICE CARE DURING THE GRADING AND TRENCH EXCAVATION AND SHALL BE RESPONSIBLE FOR REPLACING ANY SERVICES THAT ARE DAMAGED DURING CONSTRUCTION AT THEIR EXPENSE.</div></div> <div><div>2.</div><div>PRIOR TO ANY EXCAVATION OVER AN EXISTING UTILITY LINE OR SERVICE, CONTRACTOR SHALL HAND EXCAVATE TO EXPOSE THE UTILITY AND DETERMINE LOCATION AND DEPTH. NOTIFY ENGINEER IMMEDIATELY OF ANY CONFLICTS.</div></div> <div><div>3.</div><div>TOPS OF EXISTING AND PROPOSED CASTING ELEVATIONS ARE SUBJECT TO FINAL ADJUSTMENTS AS APPROVED BY THE ENGINEER AND REQUIREMENTS OF UTILITY OWNER. THIS WORK WILL BE INCIDENTAL TO THE CONTRACT.</div></div> <div><div>4.</div><div>FORTY-EIGHT (48) HOURS BEFORE EXCAVATION IS TO COMMENCE, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING AGENCIES: THE KENTUCKY UTILITY PROTECTION SERVICE AND ALL OTHER UTILITIES THAT MAY HAVE UNDERGROUND UTILITIES INVOLVING THIS PROJECT AND ARE NON-MEMBERS OF KENTUCKY UNDERGROUND PROTECTION.</div></div>		<div><div>1.</div><div>THE EXISTING WATER MAIN ELEVATION AND LOCATION AT THE CONNECTION POINT WITH THE PROPOSED MAIN WAS ASSUMED AND HAS NOT BEEN FIELD VERIFIED. PRIOR TO COMMENCEMENT OF ANY WATER MAIN WORK, THE CONTRACTOR SHALL DIG A TEST HOLE AT THE CONNECTION POINT TO LOCATE EXISTING WATER MAIN AS TO LOCATION AND ELEVATION. THE EXISTING WATER MAIN LOCATION MAY REQUIRE SOME FIELD ADJUSTMENT TO THE PROPOSED WATER MAIN INCLUDING ADJUSTING THE DEPTH OF THE PROPOSED WATER MAIN. COST OF DOING THE ABOVE SHALL BE INCIDENTAL TO THE PERTINENT WATER MAIN ITEM.</div></div> <div><div>2.</div><div>COST OF TRIMMING OR CLEARING ANY TREES, BUSHES, ETC. SHALL BE INCIDENTAL TO THE OVERALL CONTRACT PRICE AND SHALL BE APPROVED BY N.K.W.D. AND THE PROPERTY OWNER ALONG WITH COUNTY OR STATE WHEN REQUIRED.</div></div> <div><div>3.</div><div>THE UTILITY INFORMATION SHOWN ON THE PLANS IS BASED ON INFORMATION RECEIVED FROM OTHERS AND HAS NOT BEEN VERIFIED BY THE ENGINEER OR OWNER. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF THE UTILITIES AND TO COORDINATE ANY IMPACT CAUSED BY THE PROPOSED WORK WITH ALL UTILITY OWNERS AND/OR THEIR CONTRACTORS. THE CONTRACTOR WILL BE REQUIRED TO DIG TEST HOLES AT ALL UTILITY CROSSINGS TO LOCATE THE UTILITY AS TO BOTH LOCATION AND ELEVATION AND WILL BE REQUIRED TO REALIGN AND ADJUST THE ELEVATION OF THE PROPOSED WATER MAIN TO AVOID THE UTILITY. COST OF ALL THE ABOVE SHALL BE INCIDENTAL TO THE OVERALL CONTRACT PRICE.</div></div> <div><div>4.</div><div>UNLESS SPECIFICALLY INSTRUCTED OTHERWISE, RETURN ALL REMOVED WATER EQUIPMENT INCLUDING, FIRE HYDRANTS, VALVES, AND WATER METERS TO NORTHERN KENTUCKY WATER DISTRICT (N.K.W.D.).</div></div> <div><div>5.</div><div>WATERLINES CROSSING UNDER OR OVER SEWER LINES (DEFINED AS ANY SANITARY/COMBINED SEWER, SEPTIC TANK OR SUBSOIL TREATMENT SYSTEM) MUST MAINTAIN A MINIMUM VERTICAL CLEARANCE OF 18" AND ONE FULL LENGTH OF PIPE SHALL BE LOCATED SO BOTH JOINTS ARE AS FAR FROM THE SEWER AS POSSIBLE. SPECIAL STRUCTURAL SUPPORT FOR THE WATER AND SEWER PIPES MAY BE REQUIRED.</div></div> <div><div>6.</div><div>CONTRACTOR IS RESPONSIBLE FOR KEEPING FIELD NOTES THAT PROVIDE SUFFICIENT DATA FOR PREPARING "RECORD DRAWINGS" UPON COMPLETION OF CONSTRUCTION.</div></div> <div><div>7.</div><div>ALL WATER MAIN CONSTRUCTION SHALL CONFORM TO THE NORTHERN KENTUCKY WATER DISTRICT SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A CURRENT COPY OF THE NORTHERN KENTUCKY WATER DISTRICT'S STANDARD DRAWINGS.</div></div> <div><div>8.</div><div>ALL MATERIAL FOR THE PROP. WATER MAIN INSTALLATION INCLUDING ALL FITTINGS, BLOCKING, ETC., SHALL BE INCLUDED IN THE CONTRACTOR'S UNIT PRICE FOR WATER MAIN.</div></div> <div><div>9.</div><div>COST OF ALL TRENCHING, PIPE, PIPE BEDDING, BACKFILL, YARD RESTORATION AND TEMPORARY PAVEMENT, DRIVEWAY AND SIDEWALK RESTORATION SHALL BE PART OF THE COST OF INSTALLING THE WATER MAIN. PERMANENT DRIVEWAY RESTORATION, SIDEWALK RESTORATION, CURB RESTORATION AND STREET RESTORATION WILL BE SEPARATE PAY ITEMS AND INCLUDE INCIDENTALS SUCH AS MAIL BOX, STREET SIGN, AND FENCE REMOVAL AND REPLACEMENT.</div></div> <div><div>10.</div><div>THE PROPOSED WATER MAIN SHALL BE CLASS 50 DUCTILE IRON PIPE OR D.R. 18 C900 PVC AS SHOWN ON THE PLANS. WITHIN STATE ROUTE R/W, PIPE MATERIAL SHALL BE CLASS 52 DUCTILE IRON.</div></div> <div><div>11.</div><div>PROPOSED WATER MAIN SHALL BE THOROUGHLY CLEANED, FLUSHED, AND DISINFECTED, AS PER NORTHERN KENTUCKY WATER DISTRICT'S SPECIFICATIONS.</div></div> <div><div>12.</div><div>PRESSURE TESTING SHALL BE DONE AS PER NORTHERN KENTUCKY WATER DISTRICT'S SPECIFICATIONS.</div></div> <div><div>13.</div><div>FOR THRUST BLOCKING REFER TO THE NORTHERN KENTUCKY WATER DISTRICT'S STANDARD DRAWING NUMBERS 104 AND 104A.</div></div> <div><div>14.</div><div>THE PROPOSED WATER MAIN SHALL HAVE A HORIZONTAL SEPARATION OF AT LEAST 3'-0" (MEASURED FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE) FROM ANY GAS MAIN.</div></div> <div><div>15.</div><div>A 10' MINIMUM LATERAL SEPARATION BETWEEN WATER MAINS AND SEWERS (DEFINED AS ANY SANITARY/COMBINED SEWER, SEPTIC TANK OR SUBSOIL TREATMENT SYSTEM) AND SEWER MANHOLES, MEASURED FROM THE OUTSIDE DIAMETER TO OUTSIDE, MUST BE MAINTAINED UNLESS A VARIANCE IS GRANTED FROM THE D.O.W.</div></div> <div><div>16.</div><div>ALL NEW WATER SERVICES SHALL BE 3/4" (OR MATCH EXISTING, AS INDICATED ON THE PLANS) TYPE K COPPER WITH 5/8" OR 2" WATER METERS (UNLESS OTHERWISE NOTED) MATERIAL PROVIDED BY THE NORTHERN KENTUCKY WATER DISTRICT. ALL RECONNECTED WATER SERVICES SHALL BE 3/4" OR 2" TYPE K COPPER.</div></div> <div><div>17.</div><div>THE CONTRACTOR SHALL COORDINATE ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY WITH KYTC, KENTON COUNTY AND/OR ANY LOCAL MUNICIPALITY. TRAFFIC MUST BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. MAINTENANCE OF TRAFFIC SHALL CONFORM TO THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" REQUIREMENTS. NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS WORK AND SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.</div></div> <div><div>18.</div><div>CONNECT SERVICE LINE (3/4" THRU 2"). INCLUDES THE LABOR, EQUIPMENT, EXCAVATION, BEDDING, BACKFILL, ASPHALT PAVEMENT, CONCRETE PAVEMENT, CONCRETE CURB, CONCRETE WALK AND YARD RESTORATION TO INSTALL THE SERVICE LINE AT THE LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED, IN ACCORDANCE WITH THE SPECIFICATIONS AND STANDARD DRAWINGS, COMPLETE AND READY FOR USE. LEAD SERVICE LINES ENCOUNTERED BY THE EXCAVATION SHALL BE REPLACED FROM THE MAIN TO AND INCLUDING THE METER VAULT AND METER SETTING. ALL SERVICE LINE MATERIAL WILL BE SUPPLIED BY NKWD. PAID EACH (EA).</div></div> <div><div>19.</div><div>THE CONTRACTOR SHALL COORDINATE WITH THE NORTHERN KENTUCKY WATER DISTRICT FOR FIELD INSPECTIONS.</div></div> <div><div>20.</div><div>FORTY-EIGHT (48) HOURS BEFORE EXCAVATION IS TO COMMENCE, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING AGENCIES: THE KENTUCKY UTILITY PROTECTION SERVICE AND ALL OTHER UTILITIES THAT MAY HAVE UNDERGROUND UTILITIES INVOLVING THIS PROJECT AND ARE NON-MEMBERS OF KENTUCKY UNDERGROUND PROTECTION.</div></div> <div><div>21.</div><div>NO CONSTRUCTION SHALL COMMENCE UNTIL ALL KYTC, COUNTY AND/OR LOCAL PERMITS HAVE BEEN ISSUED AS REQUIRED.</div></div> <div><div>22.</div><div>CONTRACTOR IS RESPONSIBLE FOR DEWATERING TRENCH DURING INSTALLATION OF THE WATER MAIN.</div></div> <div><div>23.</div><div>THE COST OF TESTING THE MAIN, TEMPORARY FLUSHING DEVICES, TEMPORARY PLUG AND BLOCKS, AND ABANDONING THE EXISTING MAIN SHALL BE INCIDENTAL TO THE PROJECT.</div></div> <div><div>24.</div><div>ALL PAVEMENT SHALL CONFORM TO THE LATEST EDITION OF THE KENTUCKY DEPARTMENT OF HIGHWAYS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND KENTON COUNTY SUBDIVISION REGULATIONS.</div></div>					
STORM & SANITARY NOTES		WATER NOTES		EROSION CONTROL LEGEND					
<div><div>1.</div><div>ALL STORM AND SANITARY ITEMS SHALL BE IN ACCORDANCE WITH THE LATEST SPECIFICATIONS AND DETAILS FROM SD1. METAL PIPE MATERIALS SHALL NOT BE USED UNLESS OTHERWISE SPECIFIED ON THESE PLANS.</div></div> <div><div>2.</div><div>CONTRACTOR SHALL BE REQUIRED TO MAINTAIN STORM AND SANITARY SEWER FLOW THROUGHOUT THE PROJECT. FOR THE DURATION OF CONSTRUCTION, ALL COST FOR THE ABOVE SHALL BE INCIDENTAL TO THE CONTRACT.</div></div> <div><div>3.</div><div>IF REQUIRED, CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND SCHEDULING STORM AND SANITARY SEWER INSPECTIONS AS SET OUT IN THE PRECONSTRUCTION MEETING.</div></div> <div><div>4.</div><div>CONNECTIONS INTO EXISTING OR PROPOSED STORM OR SANITARY SEWER STRUCTURES OR PIPES SHALL BE COMPLETED BY A CERTIFIED TAPPER BY SD1.</div></div>		<div><div>1.</div><div>ALL WORK RELATING TO WATER MAINS OR WATER SERVICE LINES SHALL BE COMPLETED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE NORTHERN KENTUCKY WATER DISTRICT (NKWD).</div></div> <div><div>2.</div><div>CONTRACTOR MAY NOT USE WATER FROM FIRE HYDRANTS WITHOUT PRIOR PERMISSION FROM NKWD</div></div>		<div><div>(IP)</div><div>INLET PROTECTION (SEE DETAIL)</div></div> <div><div>(SF)</div><div>SILT FENCE (SEE DETAIL)</div></div>					
GAS NOTES		ELECTRIC NOTES		HATCH LEGEND					
<div><div>1.</div><div>CONTRACTOR IS TO PROVIDE CONSTANT STABLE SUPPORT FOR THE WATER MAIN TRENCH EXCAVATION (ie SHEETING, SHORING, ETC.) TO PROTECT ALL ADJACENT EXISTING UTILITIES, STORM SEWER PIPE AND STRUCTURES AND THE EXISTING ROADWAY FROM ANY MOVEMENT. (NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS WORK. ANY COSTS ASSOCIATED WITH TRENCH SUPPORT SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE ASSOCIATED WATER MAIN.</div><div>TRENCH SUPPORT FAILURE RESULTING IN ADVERSE IMPACT TO EXISTING UTILITIES SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.</div></div> <div><div>2.</div><div>TRENCH EXCAVATION AND OPEN, UNBACKFILLED LENGTH OF WATER MAIN TRENCH SHALL BE LIMITED AS NECESSARY ALONG THE ROADWAY IN ORDER TO PREVENT MOVEMENT OF, OR DAMAGE TO THE SURROUNDING GROUND SURFACE, NEARBY STRUCTURES/INFRASTRUCTURE AND THE EXISTING ROADWAY PAVEMENT.</div><div>TRENCH EXCAVATION SHALL ALSO BE LIMITED TO THE CONTRACTOR'S ABILITY TO PROVIDE TRENCH BOXES FOR SUPPORT. UNDER NO CIRCUMSTANCES SHALL TRENCH EXCAVATION EXCEED LENGTH OF SUPPORT AVAILABLE.</div></div>				<div><div>1-1/2" ASPHALT PAVEMENT MILL AND OVERLAY AREA - SEE DETAIL SHEET G-05</div><div>TRENCH RESTORATION - ASPHALT PAVEMENT - SEE DETAIL SHEET G-05</div><div>TRENCH RESTORATION - CONCRETE PAVEMENT - SEE DETAIL SHEET G-05</div><div>TRENCH RESTORATION - 8" AGGREGATE PAVEMENT - SEE DETAIL SHEET G-05</div><div>CONTROL DENSITY FILL - PAVT TRENCH</div><div>CONCRETE DRIVEWAY REPLACEMENT - SEE DETAIL SHEET G-05</div><div>CONCRETE WALK REPLACEMENT - SEE DETAIL SHEET G-05</div><div>ASPHALT DRIVEWAY REPLACEMENT - SEE DETAIL SHEET G-05</div><div>GRAVEL DRIVEWAY REPLACEMENT - SEE DETAIL SHEET G-05</div><div>CHANNEL LINING, CLASS II - SEE DETAIL SHEET G-05</div></div>					
GENERAL TRENCH EXCAVATION NOTES				HATCH LEGEND					
<div><div>1.</div><div>CONTRACTOR IS TO PROVIDE CONSTANT STABLE SUPPORT FOR THE WATER MAIN TRENCH EXCAVATION (ie SHEETING, SHORING, ETC.) TO PROTECT ALL ADJACENT EXISTING UTILITIES, STORM SEWER PIPE AND STRUCTURES AND THE EXISTING ROADWAY FROM ANY MOVEMENT. (NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS WORK. ANY COSTS ASSOCIATED WITH TRENCH SUPPORT SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE ASSOCIATED WATER MAIN.</div><div>TRENCH SUPPORT FAILURE RESULTING IN ADVERSE IMPACT TO EXISTING UTILITIES SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.</div></div> <div><div>2.</div><div>TRENCH EXCAVATION AND OPEN, UNBACKFILLED LENGTH OF WATER MAIN TRENCH SHALL BE LIMITED AS NECESSARY ALONG THE ROADWAY IN ORDER TO PREVENT MOVEMENT OF, OR DAMAGE TO THE SURROUNDING GROUND SURFACE, NEARBY STRUCTURES/INFRASTRUCTURE AND THE EXISTING ROADWAY PAVEMENT.</div><div>TRENCH EXCAVATION SHALL ALSO BE LIMITED TO THE CONTRACTOR'S ABILITY TO PROVIDE TRENCH BOXES FOR SUPPORT. UNDER NO CIRCUMSTANCES SHALL TRENCH EXCAVATION EXCEED LENGTH OF SUPPORT AVAILABLE.</div></div>				<div><div>(IP)</div><div>INLET PROTECTION (SEE DETAIL)</div></div> <div><div>(SF)</div><div>SILT FENCE (SEE DETAIL)</div></div>					

DATE		REVISION		NO		BID		ISSUED FOR:		PROJECT NO.		DISCIPLINE		SHEET NAME		SHEET		OF	
							APRIL 2025	AS SHOWN	JCOR	JCOR	JSHU	231591	CIVIL	G-01	2	28			

NORTHERN KENTUCKY WATER DISTRICT SUBDISTRICT 'O' -KENTON COUNTY -		GENERAL NOTES AND LEGEND	
PROJECT NO.		231591	
DISCIPLINE		CIVIL	
SHEET NAME		G-01	
SHEET	OF		
2	28		

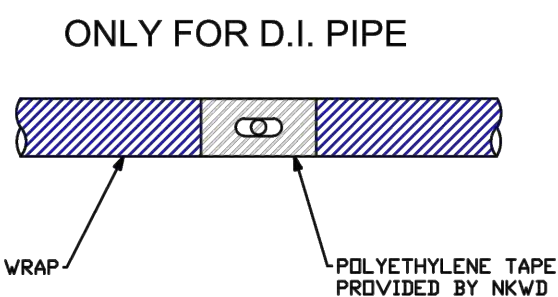
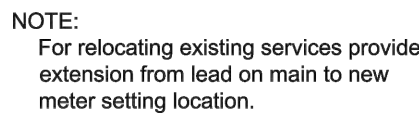
EXISTING GAS LINE		PROPOSED GAS LINE	
EXISTING GAS SERVICE		PROPOSED GAS SERVICE	
EXISTING ELECTRIC (UNDERGROUND / OVERHEAD)		PROPOSED ELECTRIC (UNDERGROUND / OVERHEAD)	
EXISTING CABLE (UNDERGROUND / OVERHEAD)		PROPOSED CABLE (UNDERGROUND / OVERHEAD)	
EXISTING TELEPHONE (UNDERGROUND / OVERHEAD)		PROPOSED TELEPHONE (UNDERGROUND / OVERHEAD)	
EXISTING WATER MAIN		PROPOSED WATER MAIN	
EXISTING WATER SERVICE		PROPOSED WATER SERVICE	
EXISTING STORM SEWER		PROPOSED STORM SEWER	
EXISTING ROOF DRAIN		PROPOSED UNDERDRAIN	
EXISTING SANITARY SEWER		PROPOSED UNDERDRAIN / DOWNSPOUT COLLECTOR COMBO	
EXISTING SANITARY FORCE MAIN		PROPOSED SANITARY SEWER	
EXISTING FIBER OPTICS		PROPOSED SANITARY FORCE MAIN	
EXISTING FENCE		PROPOSED FIBER OPTICS	
EXISTING CONTOURS (MAJOR)		PROPOSED FENCE	
EXISTING CONTOURS (MINOR)		PROPOSED CONTOURS (MAJOR)	
EXISTING RIGHT OF WAY		PROPOSED CONTOURS (MINOR)	
EXISTING PROPERTY LINE		PROPOSED RIGHT OF WAY	
EXISTING EASEMENT		PROPOSED PROPERTY LINE	
EXISTING GUARDRAIL		PROPOSED EASEMENT	
EXISTING TREE LINE		PROPOSED GUARDRAIL	
EXISTING ROCK WALL		PROPOSED TREE LINE / CLEARING LIMITS	
		PROPOSED DISTURBED LIMITS	
EXISTING FLAGPOLE		PROPOSED FLAGPOLE	
EXISTING MAILBOX		PROPOSED MAILBOX	
EXISTING SIGN		PROPOSED SIGN	
EXISTING CABLE PEDESTAL		PROPOSED CABLE PEDESTAL	
EXISTING ELECTRIC PEDESTAL		PROPOSED ELECTRIC PEDESTAL	
EXISTING PULL BOX		PROPOSED PULL BOX	
EXISTING GROUND LIGHT		PROPOSED GROUND LIGHT	
EXISTING LIGHT POLE		PROPOSED LIGHT POLE	
EXISTING ELECTRIC METER		PROPOSED ELECTRIC METER	
EXISTING ELECTRIC MANHOLE		PRPOSED ELECTRIC MANHOLE	
EXISTING GAS METER		PROPOSED GAS METER	
EXISTING GAS VALVE		PROPOSED GAS VALVE	
EXISTING GAS BOX		PROPOSED GAS BOX	
EXISTING UTILITY POLE		PROPOSED UTILITY POLE	
EXISTING GUY WIRE / ANCHOR		PROPOSED GUY WIRE / ANCHOR	
EXISTING SANITARY MANHOLE		PROPOSED SANITARY MANHOLE	
EXISTING SANITARY CLEANOUT		PROPOSED SANITARY CLEANOUT	
EXISTING STORM MANHOLE		PROPOSED STORM MANHOLE	
EXISTING SINGLE / DOUBLE CURB INLET		PROPOSED SINGLE / DOUBLE CURB INLET	
EXISTING CATCH BASIN		PROPOSED CATCH BASIN	
EXISTING STORM CLEANOUT		PROPOSED STORM CLEANOUT	
EXISTING TELEPHONE MANHOLE		PROPOSED TELEPHONE MANHOLE	
EXISTING TELEPHONE PEDESTAL		PROPOSED TELEPHONE PEDESTAL	
EXISTING FIRE HYDRANT		PROPOSED FIRE HYDRANT	
EXISTING WATER METER		PROPOSED WATER METER	
EXISTING WATER VALVE		PROPOSED WATER VALVE	
EXISTING BUSHES / TREES		REMOVE EXISTING BUSH / TREE	
EXISTING SURVEY BENCHMARK		PROPOSED SLOPE DIRECTION	
TEST BORING LOCATION			



N. KY. WATER DISTRICT TRACING WIRE INSTALLATION DETAIL	REVISION	BY	DATE
DRAWN BY: SAR			
APPROVED: 			
DATE: 8/3/2014			
STANDARD DRAWING NO:		111	



N. K.Y. WATER DISTRICT		REVISION	BY	DATE
ENCASEMENT PIPE DETAIL		1	REVISION	8/5/2014
DRAWN BY: SAR				
APPROVED: RH				
DATE: 8/5/2014				
STANDARD DRAWING NO: 114				



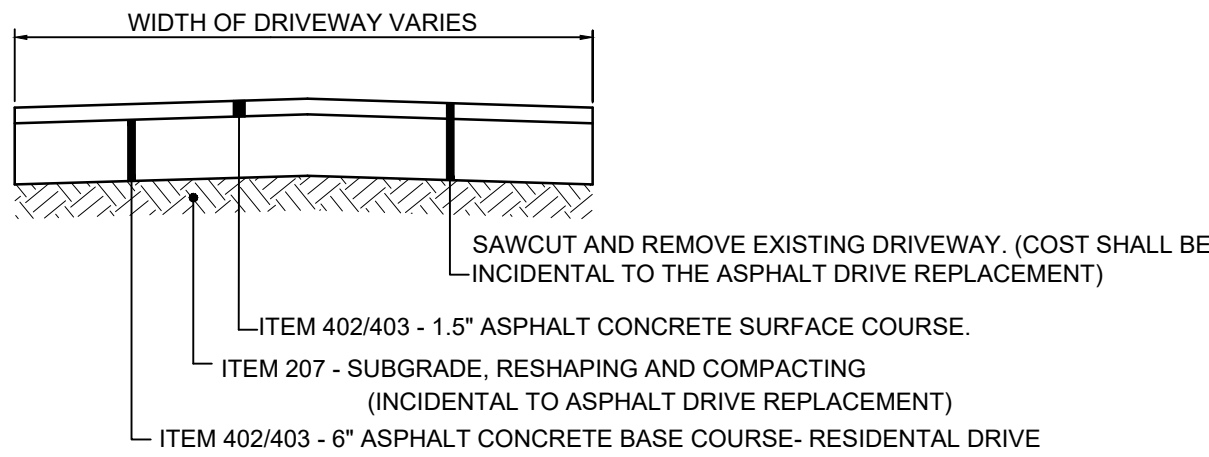
N. KY. WATER DISTRICT		REVISION	BY	DATE
DRAWN BY: SAR	5/8" & 1" METER SETTING COPPER			
APPROVED BY: <i>RH</i>				
DATE: 8/5/2014				
STANDARD DRAWING NO:	107			



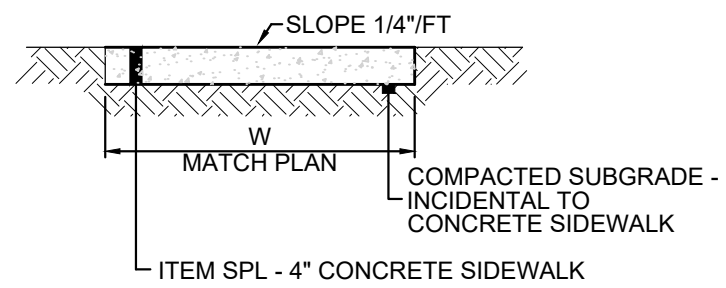
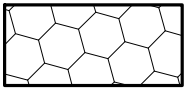
ISSUED FOR:	BID	NO	REVISION	DATE
ISSUE DATE:	APRIL 2025	-	-	-
SCALE:	AS SHOWN			
DESIGNED BY:	JCOR			
DRAWN BY:	JCOR			
CHECKED BY:	JSHU			

**NORTHERN KENTUCKY WATER DISTRICT
SUBDISTRICT 'O'
-KENTON COUNTY -**

PROJECT NO.	
231591	
DISCIPLINE	
CIVIL	
SHEET NAME	
G-04	
SHEET	OF
5	28

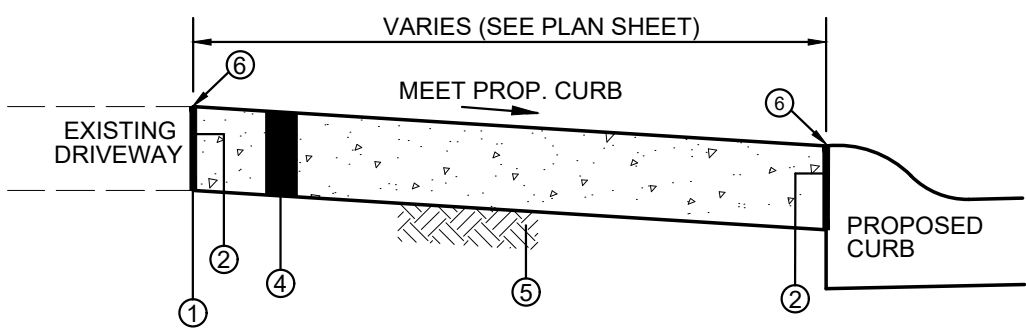
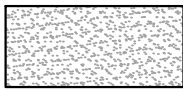


ASPHALT DRIVEWAY REPLACEMENT
N.T.S.

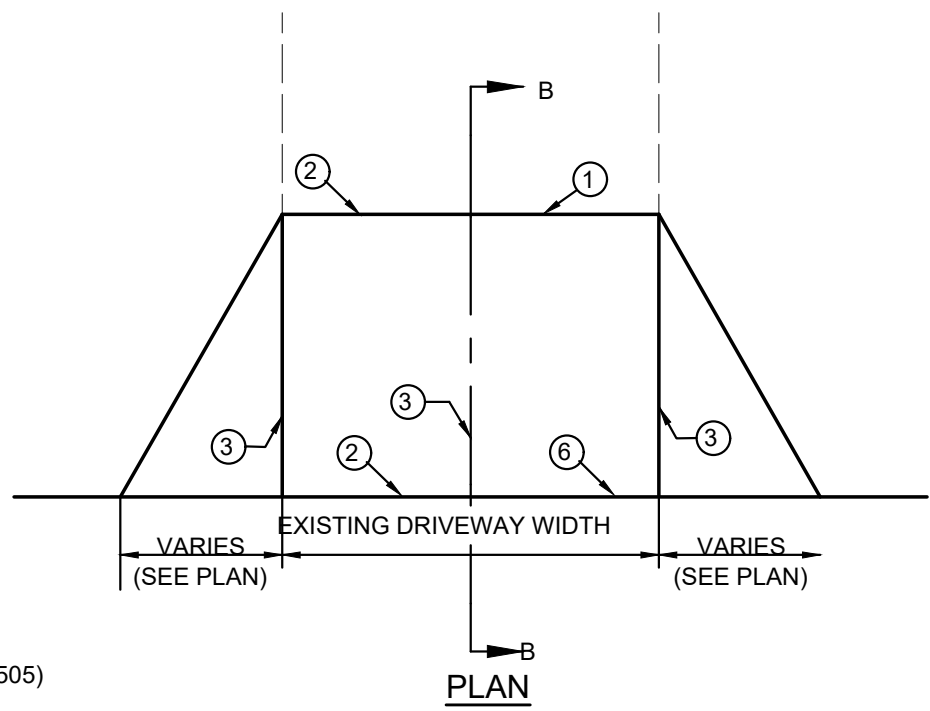


4" CONCRETE SIDEWALK
REPLACEMENT DETAIL

(SAWCUTTING AND REMOVAL OF EXISTING CONCRETE SIDEWALK AND EXCAVATION TO PROPOSED SUBGRADE INCIDENTAL TO SIDEWALK REPLACEMENT)

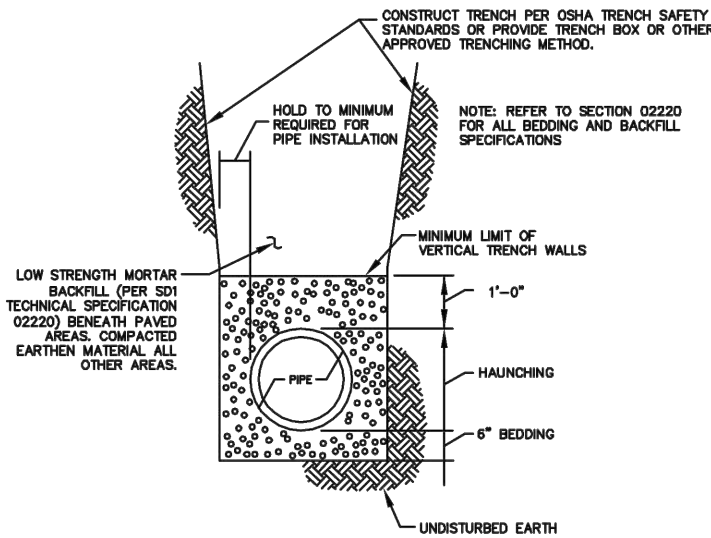
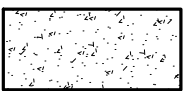


- SECTION B-B
- 1 SAWCUT AT NEAREST JOINT AND REMOVE EXISTING CONCRETE PAVEMENT (INCIDENTAL TO ITEM 505)
 - 2 1" PREFORMED EXPANSION JOINT MATERIAL (FLEXIBLE FOAM-CERAMAR BY W.R. MEADOWS OR APPROVED EQUAL)
 - 3 TOOLED JOINT
 - 4 ITEM 505 - 6" CONCRETE DRIVEWAY/APRON (OR MATCH EXISTING WHICHEVER IS GREATER)
 - 5 COMPACTED SUBGRADE (INCIDENTAL TO ITEM 505 - 6" CONCRETE DRIVEWAY/APRON)
 - 6 SEAL JOINT WITH GRAY SELF LEVELING SEALANT (SIKA FLEX OR APPROVED EQUAL)

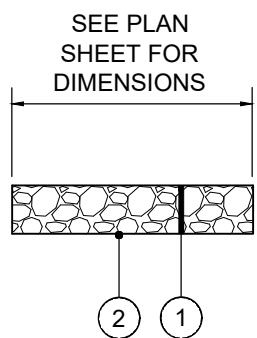


NOTE:
1. ANY YARD AREA DISTURBED BY THE CONSTRUCTION OF THE DRIVEWAY APRON SHALL BE RESTORED WITH TOPSOIL, SEED AND MULCH (INCIDENTAL TO CONCRETE DRIVEWAY APRON REPLACEMENT).
2. ALL EXCAVATION REQUIRED FOR THE PLACEMENT OF THE PROPOSED DRIVEWAY SHALL BE INCIDENTAL TO CONCRETE DRIVEWAY REPLACEMENT BID ITEM.

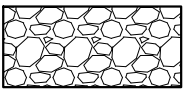
CONCRETE DRIVEWAY REPLACEMENT
N.T.S.



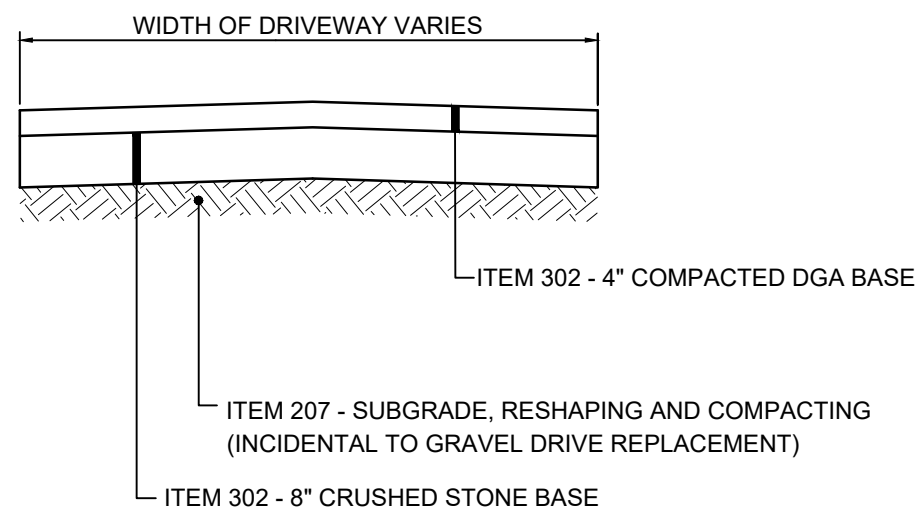
STORM TRENCH DETAIL
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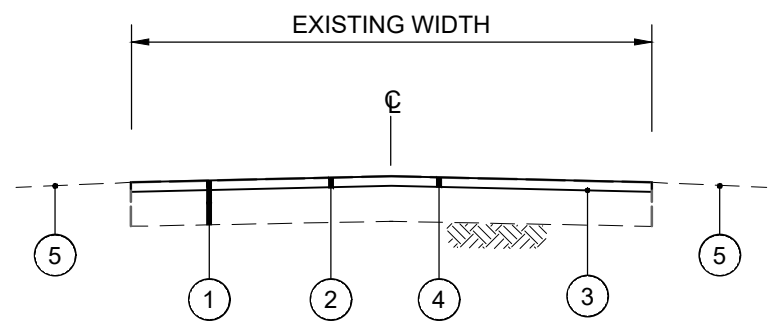
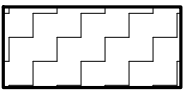
ROCK CHANNEL PROTECTION
N.T.S.



- 1 ITEM 703 - 18" CHANNEL LINING, KYTC CLASS II
- 2 NON WOVEN GEOTEXTILE FILTER FABRIC

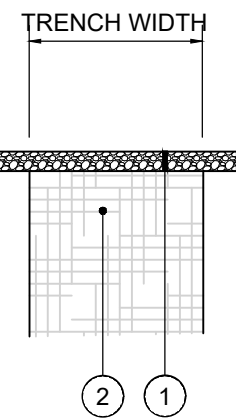
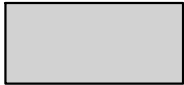


GRAVEL DRIVEWAY REPLACEMENT
N.T.S.

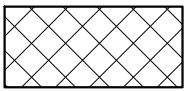


- 1 EXISTING ASPHALT PAVEMENT
- 2 ITEM 408 - ASPHALT MILLING (1.5" TYP.)
- 3 ITEM 406 - TACK COAT @ 0.1 GAL/SY (INCIDENTAL TO ITEM 403)
- 4 ITEM 402/403 - 1-1/2" ASPHALT PAVEMENT SURFACE
- 5 DO NOT DISTURB YARD AREA

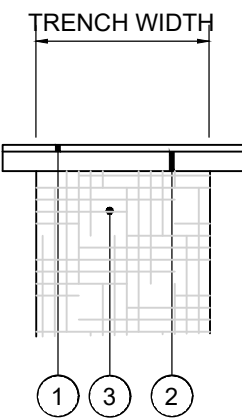
TYPICAL PAVEMENT RESURFACING SECTION
N.T.S.



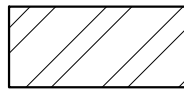
AGGREGATE ROADWAY REPLACEMENT SECTION
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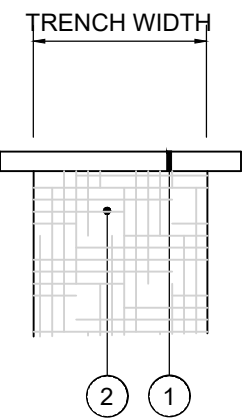
- 1 ITEM 302 - 4" DGA LIFT OVER 8" CRUSHED STONE BASE, (LESS THAN 7% FINES) COMPACTED TO 100% (ASTM D698).
- 2 CONTROL DENSITY FILL PER NKWD SPECIFICATIONS (SEE DETAIL SHEET (G-02)



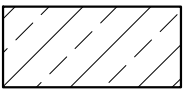
ASPHALT ROADWAY REPLACEMENT SECTION
N.T.S.



- 1 ITEM 402/403 - 1.5" ASPHALT CONCRETE SURFACE COURSE
- 2 ITEM 402/403 - 7.75" ASPHALT CONCRETE BASE (OR MATCH EXISTING)
- 3 CONTROL DENSITY FILL PER NKWD SPECIFICATIONS (SEE DETAIL SHEET (G-02)



CONCRETE ROADWAY REPLACEMENT SECTION
N.T.S.



- 1 ITEM SPL - 8" PORTLAND CEMENT CONCRETE PAVEMENT - PER KENTON COUNTY SUBDIVISION REGULATIONS (OR MATCH EXISTING WHICHEVER IS GREATER)
- 2 CONTROL DENSITY FILL PER NKWD SPECIFICATIONS (SEE DETAIL SHEET (G-02)

NOTE:
GENE STREET HAS AN ADDITIONAL 1.5" ASPHALT OVERLAY ON THE CONCRETE PAVEMENT

verdantas

2161 CHAMBER CENTER DRIVE
FORT MITCHELL, KENTUCKY 41017
TEL: (859) 525-0544
WWW.VERDANTAS.COM

ISSUED FOR:	BID NO	REVISION	DATE
APRIL 2025			
AS SHOWN			
JCOR			
JCOR			
JSHU			

NORTHERN KENTUCKY WATER DISTRICT
SUBDISTRICT 'O'
-KENTON COUNTY -

DETAILS

PROJECT NO.	231591
DISCIPLINE	CIVIL
SHEET NAME	G-05
SHEET	OF
6	28

SEDIMENT BASINS

DEFINITION
A TEMPORARY BARRIER OR DAM CONSTRUCTED ACROSS A WATERCOURSE OR AT OTHER SUITABLE LOCATION TO RETAIN SEDIMENT AND OTHER WATERBORNE DEBRIS.

SCOPE
THIS STANDARD ESTABLISHES MINIMUM ACCEPTABLE QUALITY FOR THE DESIGN AND CONSTRUCTION OF TEMPORARY SEDIMENT BASINS FORMED BY AN EMBANKMENT, EXCAVATION OR A COMBINATION OF EMBANKMENT AND EXCAVATION. THE STANDARD IS LIMITED TO SITES WHERE:

- FAILURE OF THE STRUCTURE WOULD NOT RESULT IN LOSS OF LIFE; DAMAGE TO HOMES; COMMERCIAL OR INDUSTRIAL BUILDINGS; DAMAGE TO HIGHWAYS OR RAILROADS OR INTERRUPTION OF USE OR SERVICE OF PRIVATE UTILITIES.
- THE HEIGHT OF DAM IS 25 FEET OR LESS, AS MEASURED FROM THE NATURAL STREAMBED AT THE CENTERLINE OF DAM TO THE TOP OF DAM.
- THE TOTAL VOLUME OF STORAGE IS 150 ACRE-FEET OR LESS.
- THE DRAINAGE AREA IS 100 ACRES OR LESS.
- THE BASIN WILL BE REMOVED WITHIN A THREE-YEAR PERIOD AFTER CONSTRUCTION.

PURPOSE
TEMPORARY SEDIMENT BASINS ARE USED AS A MEANS OF TRAPPING AND STORING SEDIMENT FROM ERODING AREAS IN ORDER TO PROTECT DOWNSTREAM AREAS FROM DAMAGE RESULTING FROM SEDIMENTATION AND WATERBORNE DEBRIS.

CONDITIONS WHERE PRACTICE APPLIES
TEMPORARY SEDIMENT BASINS APPLY WHERE PHYSICAL SITE CONDITIONS OR OTHER RESTRICTIONS PRECLUDE THE INSTALLATION OF EROSION CONTROL MEASURES TO ADEQUATELY CONTROL EROSION AND SEDIMENTATION. IT MAY BE USED DOWNSLOPE FROM CONSTRUCTION OPERATIONS WHICH EXPOSE AREAS TO EROSION. TEMPORARY SEDIMENT BASINS WILL BE REMOVED AFTER THE EXPOSED AREAS ARE ADEQUATELY PROTECTED AGAINST EROSION BY VEGETATIVE OR MECHANICAL MEANS.

COMPLIANCE WITH LAWS AND REGULATIONS
DESIGN AND CONSTRUCTION SHALL COMPLY WITH ALL LOCAL LAWS, ORDINANCES, RULES AND REGULATIONS.

LOCATION
TO IMPROVE THE EFFECTIVENESS OF THE BASIN, IT SHOULD BE LOCATED SO AS TO INTERCEPT THE LARGEST POSSIBLE AMOUNT OF RUNOFF FROM THE DISTURBED AREA. THE BEST LOCATIONS ARE GENERALLY LOW AREAS AND NATURAL DRAINAGEWAYS BELOW DISTURBED AREAS. DRAINAGE INTO THE BASIN CAN BE IMPROVED BY THE USE OF DIVERSION DIKES AND DITCHES. THE BASIN MUST NOT BE LOCATED IN A LIVE STREAM BUT SHOULD BE LOCATED TO TRAP SEDIMENT-LADEN RUNOFF BEFORE IT ENTERS THE STREAM. THE BASIN SHOULD NOT BE LOCATED WHERE ITS FAILURE WOULD RESULT IN THE LOSS OF LIFE OR IN INTERRUPTION OF THE USE OR SERVICE OF PUBLIC UTILITIES OR ROADS.

MULTIPLE USE
SEDIMENT BASINS MAY BE DESIGNED AS PERMANENT STRUCTURES TO REMAIN IN PLACE AFTER CONSTRUCTION IS COMPLETED. SITE CONDITIONS MAY MAKE THE USE OF THESE STRUCTURES DESIRABLE FOR STORMWATER DETENTION PURPOSES. WHEREVER THESE STRUCTURES ARE TO BECOME PERMANENT, OR IF THEY EXCEED THE SIZE LIMITATIONS OF THE DESIGN CRITERIA, THEY MUST BE DESIGNED AS PERMANENT PONDS BY A QUALIFIED PROFESSIONAL ENGINEER. PERMANENT PONDS ARE BEYOND THE SCOPE OF THESE STANDARDS AND SPECIFICATIONS. THE PERMANENT STRUCTURES MUST BE SUBMITTED WITH CONSTRUCTION DRAWINGS FOR REVIEW AND ACCEPTANCE BY THE CITY ENGINEER.

MAINTENANCE BASINS SHALL BE CHECKED WEEKLY AND CLEANED WHEN NO LONGER EFFECTIVE.

STORM DRAIN INLET PROTECTION

DEFINITION
A SEDIMENT FILTER INSTALLED AROUND A STORM DRAIN INLET OR CURB INLET TO REDUCE SEDIMENT DISCHARGE.

PURPOSE
TO PREVENT SEDIMENT FROM ENTERING THE STORM DISCHARGE SYSTEMS PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED DRAINAGE AREA. DIFFERENT TYPES OF STRUCTURES ARE APPLICABLE TO DIFFERENT CONDITIONS.

STORM WATER POLLUTION PREVENTION NOTES

- SANITATION DISTRICT NO. 1 IS TO BE CONTACTED 72 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITY AT 869-578-6892
- ALL EROSION AND SEDIMENTATION CONTROL SHALL BE PERFORMED AS SHOWN ON THE PLANS, AND SHALL BE IN COMPLIANCE WITH THE LATEST CONSTRUCTION ACTIVITY "NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM" RULES AND REGULATIONS.
- A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND A COPY OF THE "NOTICE OF INTENT" (NOI) SHALL BE KEPT ON SITE.
- AN AMENDMENT OF THE SWPPP IS REQUIRED WHENEVER A CHANGE IN DESIGN, CONSTRUCTION, AND OPERATION OR MAINTENANCE HAS A SIGNIFICANT EFFECT ON THE POTENTIAL FOR THE DISCHARGE OF POLLUTANTS, OR IF THE SWPPP PROVES TO BE INEFFECTIVE IN ACHIEVING THE GENERAL OBJECTIVES OF THE SWPPP.
- THE CONTRACTOR SHALL ALSO MAINTAIN THE FOLLOWING RECORDS ON SITE:
A. GENERAL CONTRACTOR AND/OR SUBCONTRACTOR SWPPP CERTIFICATIONS
B. THE DATE, TIME, AND EXACT LOCATION OF THE INSPECTION, AND THE NAME OF THE INSPECTOR
C. AN ASSESSMENT OF THE CONDITION OF THE EROSION CONTROLS
D. A DESCRIPTION OF ANY EROSION CONTROL IMPLEMENTATION AND MAINTENANCE PERFORMED
E. A DESCRIPTION OF THE PRESENT PHASE OF CONSTRUCTION AT THE SITE
- CONSTRUCTION SEQUENCE
 - ALL PERIMETER SILT FENCE, INLET PROTECTION AND OTHER EROSION CONTROLS SHALL BE IN PLACE BEFORE ANY OTHER EARTH MOVING ACTIVITIES BEGIN.
 - THE CONTRACTOR SHALL CLEAR AND GRUB ONLY THE AREAS PLANNED FOR EARTH MOVING.
 - REMOVE TOPSOIL, STOCKPILE IT, AND INSTALL SILT FENCE AROUND PERIMETER.
 - SEED SOIL STOCKPILE WITH PERENNIAL RYE GRASS AND MULCH WITH STRAW IF NO TO BE DISTURBED FOR MORE THAN 21 DAYS.
 - INSTALL STORM INLET AND CULVERT PROTECTION IMPACTED BY WATER MAIN CONSTRUCTION.
 - ESTABLISH A TEMPORARY SEEDING ON ALL BARE AREAS THAT ARE TO REMAIN UNDISTURBED FOR MORE THAN 21 DAYS. SEED WITH PERENNIAL RYE GRASS MULCH WITH STRAW.
 - IMMEDIATE AFTER TOPSOIL HAS BEEN PLACED, STABILIZE THE SAME SURFACE AREA WITH FINAL SEED AND MULCH 7 DAYS AFTER REACHING FINAL GRADE.
 - AFTER THE VEGETATION HAS BECOME WELL ESTABLISHED, REMOVE TEMPORARY EROSION OR SEDIMENT CONTROL PRACTICES.
- EROSION CONTROLS MUST BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF 0.5" OR GREATER RAINFALL. REMOVE ACCUMULATED SEDIMENT FROM EROSION CONTROLS.
- TEMPORARY SEEDING SHALL BE PERENNIAL RYE GRASS (40 LB / ACRE) AND MULCH AT 3 BALES OF STRAW PER 1000 S.F.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING BORROW MATERIAL ONSITE AND / OR DISPOSING OF EXCESS MATERIAL OFF SITE AS REQUIRED TO MEET INDICATED DESIGN ELEVATIONS.
- DEBRIS SHALL BE COLLECTED WITHIN PROPERTY LIMITS WEEKLY OR AS NEEDED FOR PUBLIC SAFETY. SURROUNDING STREETS AFFECTED BY THE CONSTRUCTION SHALL BE CLEANED DAILY OR AS NEEDED FOR PUBLIC SAFETY. SEE CONSTRUCTION ENTRANCE DETAIL IN SWPPP DETAILS SHEET.
- THE CONSTRUCTION OF BMPs SHALL BE REVISED OR ADDED IF DEEMED NECESSARY PER SECTION 1000 OF THE SANITATION DISTRICT 1 REGULATIONS.
- CONTACT SANITATION DISTRICT NO. 1 72 HOURS PRIOR TO INSTALLATION OF THE WATER QUALITY FEATURE.

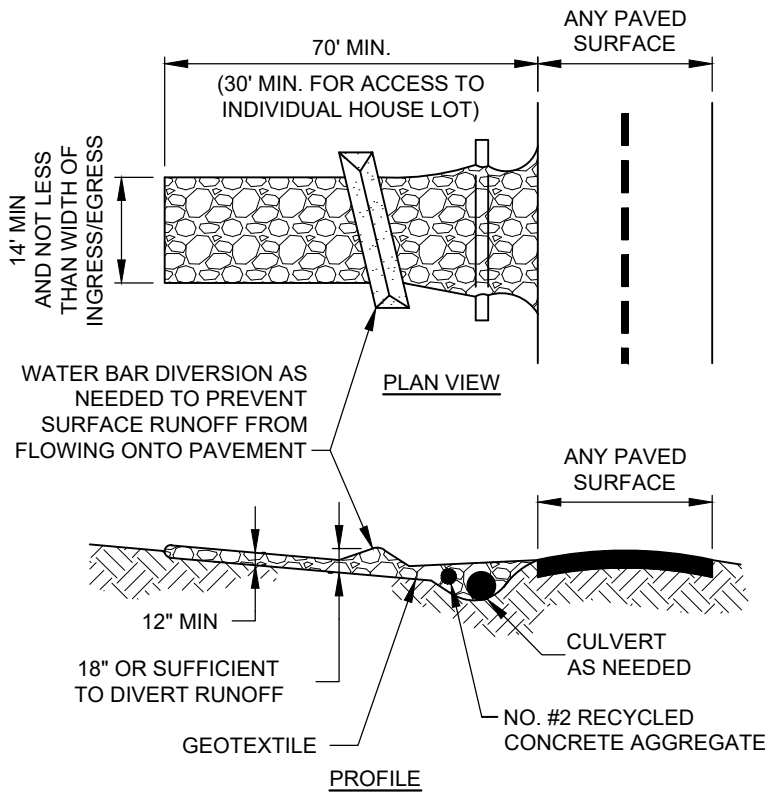
NOTES:

- SUBSOILING SHALL OCCUR WHEN SOIL MOISTURE IS LOW ENOUGH TO ALLOW THE SOIL TO CRACK OR FRACTURE. SUBSOILING IS NOT PERMITTED ON SLIP-PRONE AREAS.
- THE SITE SHALL BE GRADED TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION AND SEEDING.
- TOPSOIL SHALL BE APPLIED WHERE NEEDED TO ESTABLISH VEGETATION.
- THE SEEDBED SHALL BE PREPARED BY APPLYING AGRICULTURAL GROUND LIMESTONE OR FERTILIZER AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST, APPLY LIME AT 2 TONS/AC. OR FERTILIZER AT 500 LB/AC. OF 10-10-10 OR 12-12-12 ANALYSIS. LIME AND FERTILIZER SHALL BE WORKED INTO THE SOIL TO A DEPTH OF 3".
- APPLY SEED UNIFORMLY ON FIRM, MOIST SEED BED.
- SEEDING SHOULD BE APPLIED FROM MARCH 1 TO MAY 31 OR AUGUST 1 TO SEPTEMBER 30. IF SEEDING OCCURS OUTSIDE OF THESE DATES, ADDITIONAL MULCH AND IRRIGATION MAY BE REQUIRED TO ENSURE A MINIMUM OF 80% GERMINATION. TILLAGE FOR SEEDBED PREPARATION SHALL OCCUR WHEN THE SOIL IS DRY ENOUGH TO CRUMBLE AND NOT FORM RIBBONS WHEN COMPRESSED BY HAND.
- SEEDING SHOULD NOT BE APPLIED FROM OCTOBER 1 TO NOVEMBER 20 BECAUSE SEEDS MAY GERMINATE, BUT WILL NOT SURVIVE THE WINTER. USE THE FOLLOWING METHODS FOR DORMANT SEEDING:
 - FROM OCTOBER 1 TO NOVEMBER 20, INCREASE THE SEEDING RATE BY 50%. PREPARE THE SEED BED, ADD LIME AND FERTILIZER, MULCH AND ANCHOR.
 - FROM NOVEMBER 20 TO MARCH 15, ONLY IF SOIL CONDITIONS PERMIT, INCREASE THE SEEDING RATE BY 50%. PREPARE THE SEED BED, ADD LIME AND FERTILIZER, APPLY THE SEED MIXTURE, MULCH AND ANCHOR.
- APPLY MULCH MATERIAL IMMEDIATELY AFTER SEEDING.
- PERMANENT SEEDING SHALL INCLUDE IRRIGATION TO ESTABLISH VEGETATION DURING DRY OR HOT WEATHER OR ON ADVERSE SITE CONDITIONS AS NEEDED. AVOID EXCESSIVE IRRIGATION AND MONITOR TO PREVENT EROSION AND DAMAGE FROM RUNOFF.
- PERMANENT SEEDING SHALL NOT BE CONSIDERED ESTABLISHED FOR AT LEAST 1 FULL YEAR FROM THE TIME OF PLANTING. DURING THIS PERIOD, INSPECT FOR SOIL EROSION OR PLANT LOSS AND REPAIR BARE OR SPARSE AREAS, FILL GULLIES, RE-FERTILIZE, RE-SEED OR RE-MULCH AS NEEDED.
- A MINIMUM OF 70% GROWTH DENSITY, BASED ON A VISUAL INSPECTION, MUST EXIST FOR AN ADEQUATE PERMANENT VEGETATIVE PLANTING.

PERMANENT SEEDING FERTILIZATION AND MOWING CHART				
MIXTURE	FORMULA	LB/ AC.	TIME	MOW
CREeping RED FESCUE DOMESTIC RYEGRASS KENTUCKY BLUEGRASS	10-10-10	500	FALL, YEARLY, OR AS NEEDED	≥3"
TALL FESCUE	10-10-10	500		≥4"
TURF-TYPE FESCUE	10-10-10	500		
CROWN VETCH FESCUE	0-20-20	400	SPRING, AND YEARLY AFTER ESTABLISHED	DO NOT MOW
FLAT PEA FESCUE	0-20-20	400		

PERMANENT SEEDING SPECIES SELECTION			
SEED MIX	SEED RATE LB/AC.	NOTES:	
GENERAL USE			
CREeping RED FESCUE DOMESTIC RYEGRASS KENTUCKY BLUEGRASS	20 - 40 10 - 20 20 - 40	FOR CLOSE MOWING AND WATERWAYS WITH ≤2.0 FT./SEC. VELOCITY	
TALL FESCUE	40 - 50		
TURF-TYPE FESCUE	90		
STEEP BANKS OR CUT SLOPES			
TALL FESCUE	40 - 50		
CROWN VETCH TALL FESCUE	10 - 20 20 - 30	DO NOT SEED LATER THAN AUGUST	
FLAT PEA TALL FESCUE	20 - 25 20 - 30	DO NOT SEED LATER THAN AUGUST	
ROAD DITCHES AND SWALES			
TALL FESCUE	40 - 50		
TURF-TYPE FESCUE KENTUCKY BLUEGRASS	90 5		
LAWN			
KENTUCKY BLUEGRASS PERENNIAL RYEGRASS	100 - 120 100 - 120		
KENTUCKY BLUEGRASS CREeping RED FESCUE	100 - 120 100 - 120	FOR SHADED AREAS	

PERMANENT SEEDING DETAIL
SCALE: NONE



NOTES:

- PLACE GEOTEXTILE OVER THE ENTIRE AREA PRIOR TO PLACING STONE MEETING THE MIN. SPECIFICATIONS:
 - TENSILE STRENGTH ≥ 200 LBS.
 - PUNCTURE STRENGTH ≥ 80 PSI
 - TEAR STRENGTH ≥ 50 LBS.
 - BURST STRENGTH ≥ 320 PSI
 - ELONGATION ≥ 20%
 - EQUIVALENT OPENING SIZE ≤ 0.6 MM
 - PERMITTIVITY ≥ 0.001 CM/SEC
- APPLY ADDITIONAL STONE AS CONDITIONS DEMAND AND REPLENISH STONE WHEN THE DEPTH IS LESS THAN 6". REMOVE AND REPLACE IF STONES BECOMES MUD-LADEN.
- IMMEDIATELY REMOVE MUD DROPPED, WASHED OR TRACKED ONTO ROADS OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS BY SCRAPING OR SWEEPING.
- CONSTRUCTION ENTRANCES SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES OR TO PREVENT OFF-SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION SITE SHALL BE RESTRICTED FROM MUDDY AREAS.

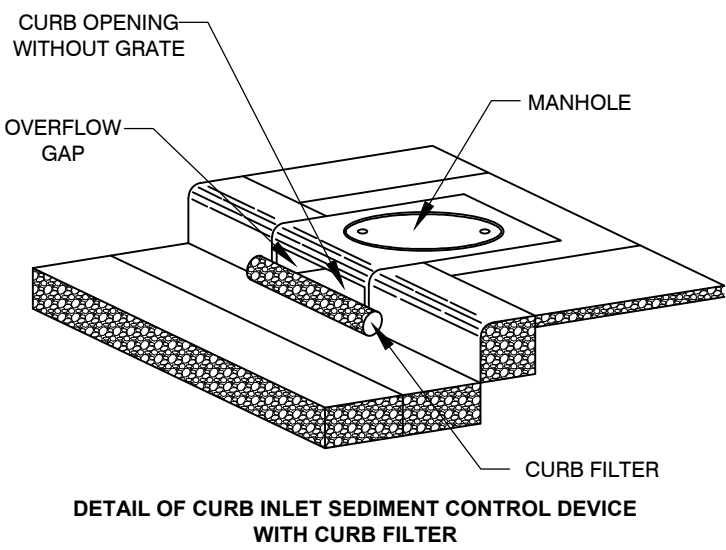
CONSTRUCTION ENTRANCE
SCALE: NONE

NOTES:

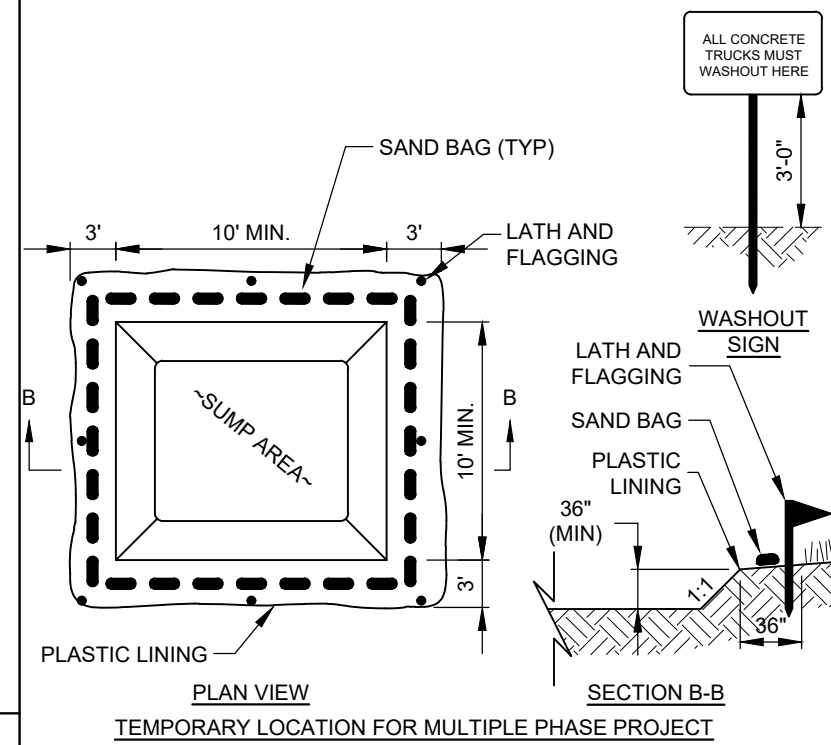
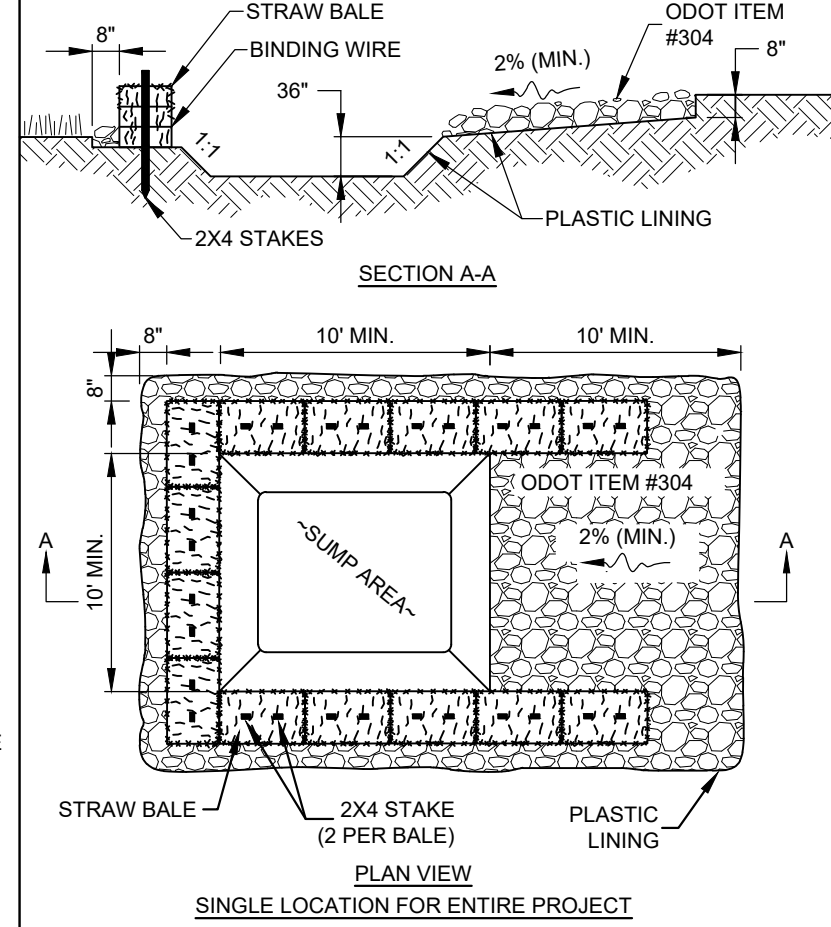
- THE SEED BED SHALL BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION.
- SOIL AMENDMENTS MAY BE REQUIRED TO ESTABLISH ADEQUATE VEGETATION. PERFORM SOIL TESTS ON THE SITE TO PREDICT THE NEED FOR LIME AND FERTILIZER.
- APPLY SEED UNIFORMLY. COVER BROADCASTED SEED BY RAKING OR DRAGGING AND THEN LIGHTLY TAMPING INTO PLACE.
- APPLY MULCHING IMMEDIATELY AFTER SEEDING.
- SEEDING SHALL BE INSPECTED FOR BARE SPOTS AND WASHOUTS, AND RESEED AS NECESSARY.

TEMPORARY SEEDING SPECIES SELECTION			
DATES	SPECIES	LB/1,000 SF	LB/AC.
MARCH 1 TO AUGUST 15	OATS	3	128
	TALL FESCUE	1	40
	PERENNIAL RYEGRASS	1	40
AUGUST 16 TO NOVEMBER 1	PERENNIAL RYEGRASS	2	40
	TALL FESCUE	1	40
	RYE	3	112
NOVEMBER 1 TO SPRING	TALL FESCUE	1	40
	PERENNIAL RYEGRASS	1	40
	WHEAT	3	120
NOVEMBER 1 TO SPRING	TALL FESCUE	1	40
	PERENNIAL RYEGRASS	1	40
	TALL FESCUE	2	40
NOVEMBER 1 TO SPRING	PERENNIAL RYEGRASS	1	40
	TALL FESCUE	1	40
	ONLY MULCH OR DORMANT SEEDING.		

TEMPORARY SEEDING DETAIL
SCALE: NONE



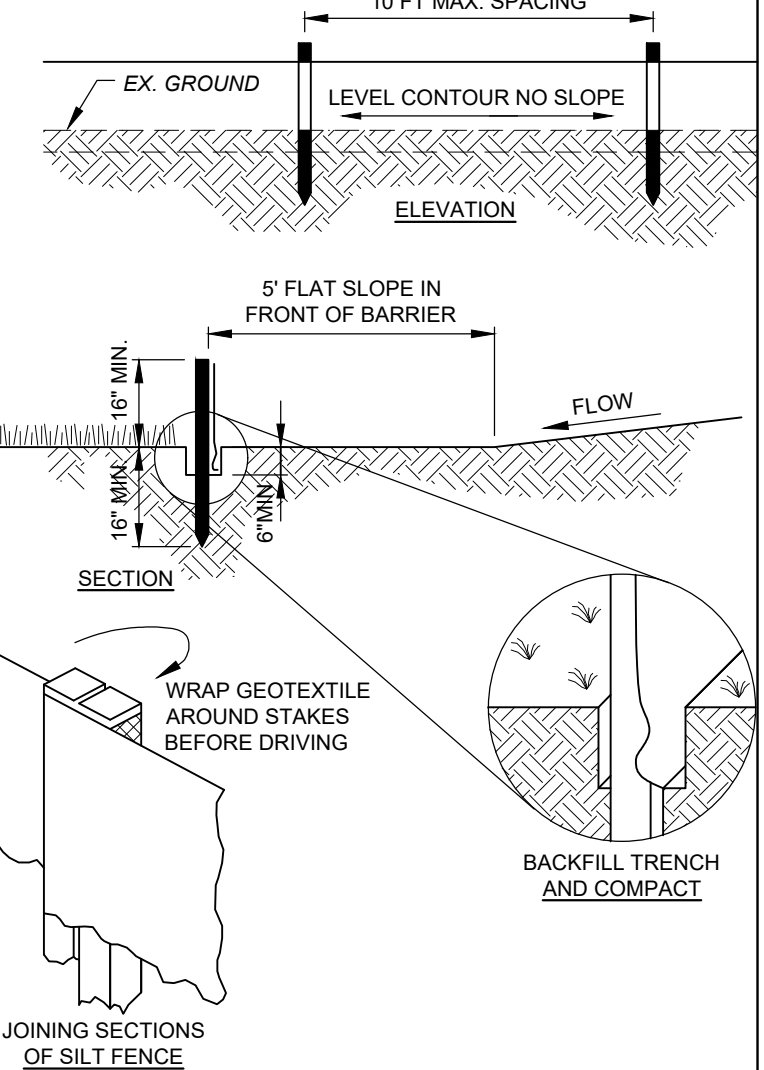
DANDY CURB
SCALE: NONE



NOTES:

- WASHOUT PIT SHALL BE LOCATED 100' MINIMUM FROM INLETS, STREAMS, WETLANDS AND ANY OTHER SURFACE WATERS.
- ALL EXCESS CONCRETE AND CONCRETE WASHOUT, INCLUDING FROM HAND MIXERS AND LIGHT EQUIPMENT, SHALL BE DISPOSED OF IN THE CONCRETE WASHOUT AREA. DISPOSAL OF EXCESS CONCRETE OR CONCRETE WASHOUT ON THE GROUND, OR IN STORM DRAINS, DITCHES OR WATER BODIES, IS PROHIBITED.
- CONCRETE WASHOUT AREA SHALL BE SUFFICIENT SIZE TO CONTAIN CONCRETE WASTE GENERATED. FOR LARGER SITES, MULTIPLE CONCRETE WASHOUT AREAS MAY BE REQUIRED.
- IF CONCRETE WASHOUT AREA IS LOCATED AWAY FROM A PAVED SURFACE, CONSTRUCT A GRAVEL ACCESS ROUTE EQUAL IN COMPOSITION TO THE CONSTRUCTION ENTRANCE.
- PLASTIC LINING SHALL BE DOUBLE-LINED, CONTINUOUS 10-MIL POLYETHYLENE SHEETING FREE OF HOLES, TEARS OR OTHER DEFECTS, AND INSTALLED ON A SMOOTH, LEVEL SURFACE, FREE OF ROCKS OR DEBRIS.
- CONCRETE WASHOUT SIGNAGE SHALL BE CLEARLY VISIBLE AND LOCATED WITHIN 30 FEET OF EACH WASHOUT AREA.
- CONCRETE WASHOUT AREAS SHALL BE COVERED DURING INCLEMENT WEATHER TO PREVENT OVERFLOWS.
- PREFABRICATED, PORTABLE AND RE-USABLE CONCRETE WASHOUT CONTAINERS ARE ACCEPTABLE, BUT MUST BE SPECIFICALLY DESIGNED FOR CONCRETE WASHOUT USE.
- CONCRETE WASHOUT AREA SHALL BE INSPECTED DAILY TO CHECK FOR DAMAGE AND TO DETERMINE IF IT NEEDS CLEANED OR REPLACED. ANY DAMAGE TO THE SIDEWALLS OR POLYETHYLENE SHEETING SHALL BE REPAIRED IMMEDIATELY. THE CONCRETE WASHOUT AREA SHALL BE CLEANED OR REPLACED WHEN IT IS 75% FULL. THE POLYETHYLENE SHEETING SHALL BE REPLACED AFTER EACH CLEANING.
- SAW CUT CONCRETE, RESIDUE FROM SAW CUT, AND GRINDINGS SHALL BE DISPOSED OF IN THE WASHOUT PIT.

CONCRETE WASHOUT DETAIL
SCALE: NONE

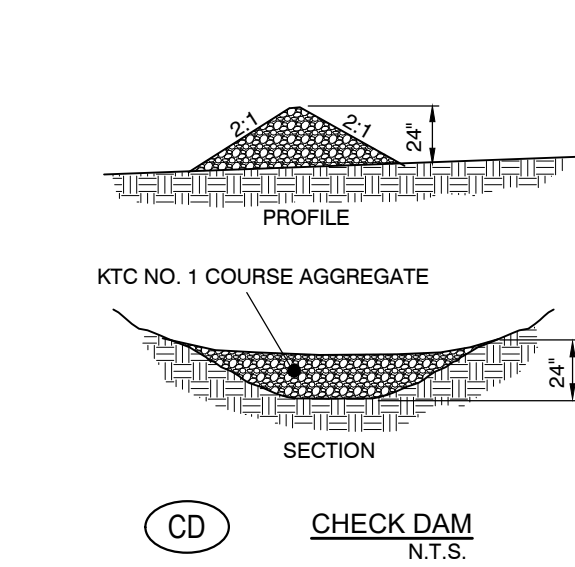


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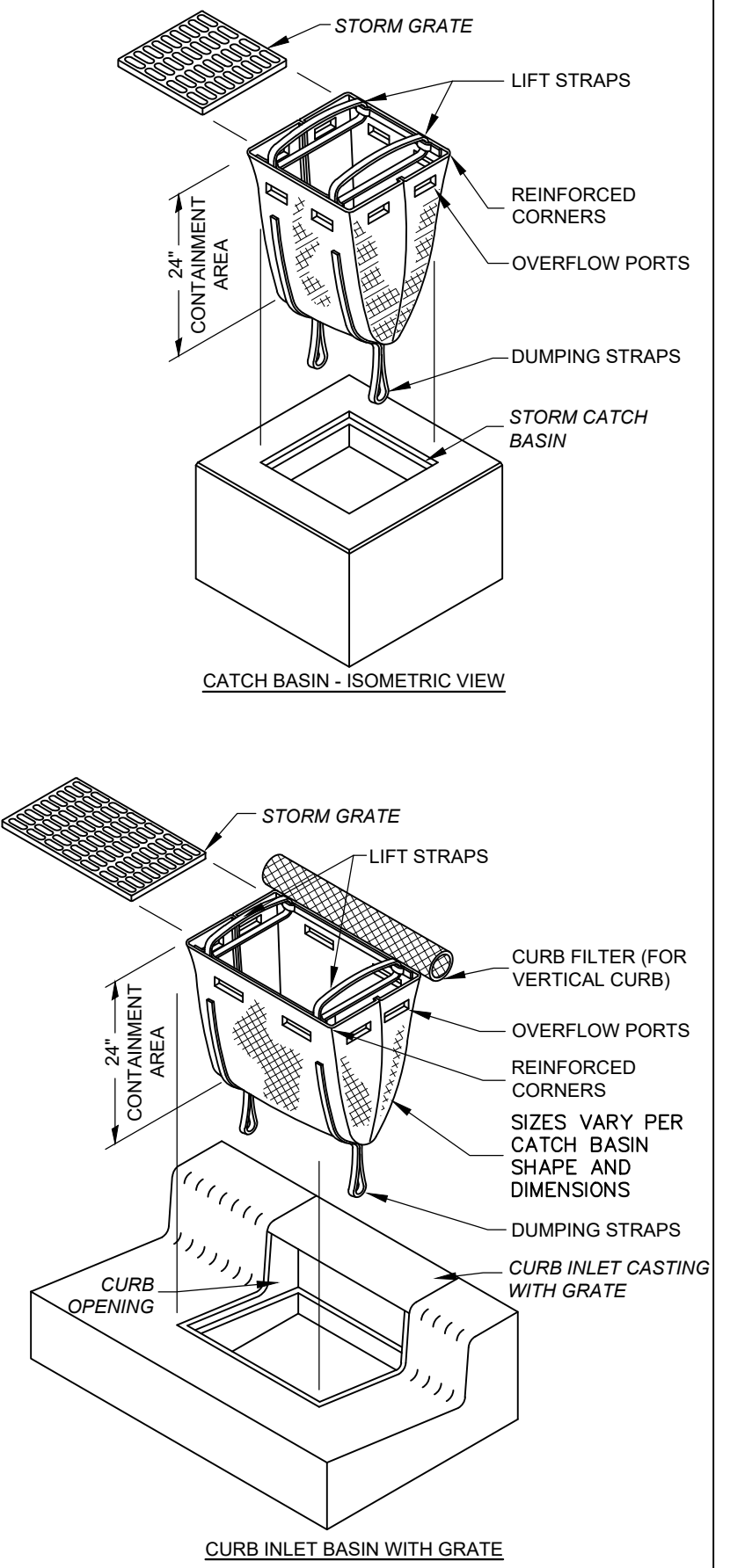
- PRESERVE VEGETATION FOR 5 FEET, OR AS MUCH AS POSSIBLE, UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE RE-ESTABLISHED WITHIN 7 DAYS FROM SILT FENCE INSTALLATION.
- SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. PERFORM ONE OF THE FOLLOWING IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW:
 - CHANGE THE LAYOUT OF THE SILT FENCE.
 - REMOVE ACCUMULATED SEDIMENT.
 - INSTALL OTHER PRACTICES.

FABRIC PROPERTIES	VALUES	TEST METHOD
GRAB TENSILE STRENGTH	90 LB. MIN	ASTM D-1682
MULLEN BURST STRENGTH	190 PSI MIN	ASTM D-3786
SLURRY FLOW RATE	0.3 GAL./MIN./S.F. MAX.	
EQUIVALENT OPENING SIZE	40-80	US STD. SIEVE CW-02215
ULTRAVIOLET RADIATION STABILITY	90% MIN	ASTM-G-26

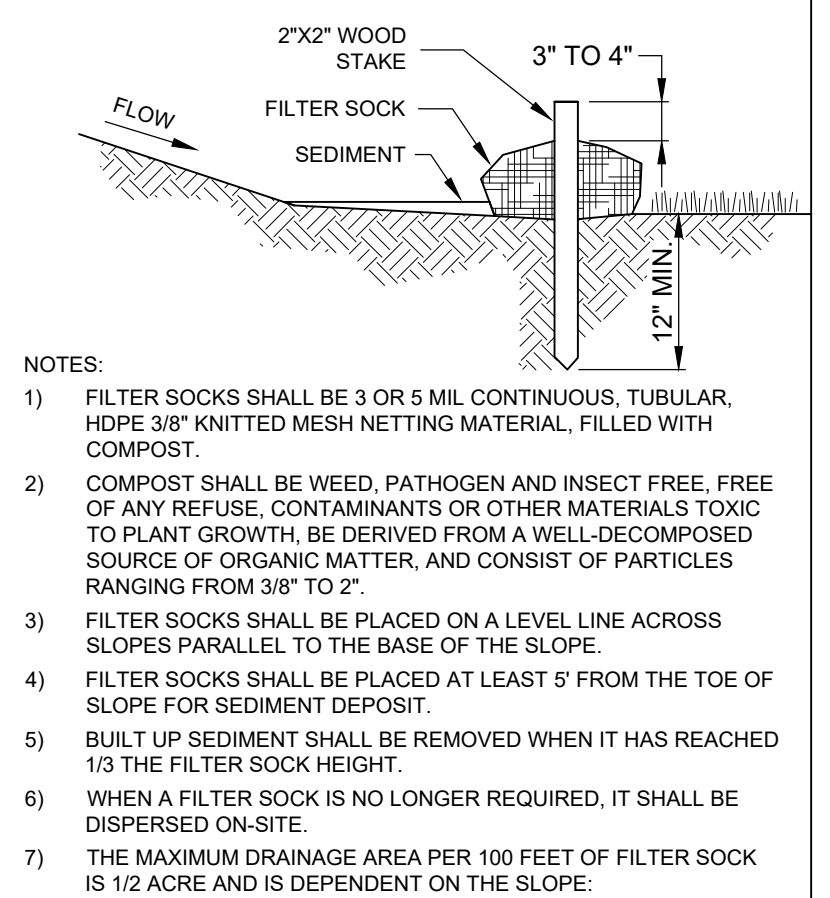
SILT FENCE
SCALE: NONE



CD



STORM DRAIN INLET PROTECTION DETAIL
SCALE: NONE



MAX. SLOPE LENGTH ABOVE FILTER SOCK					
SLOPE	RATIO (H:V)	8'	12'	18'	24'
0% - 2%	0 - 50:1	125'	250'	300'	350'
2% - 10%	50:1 - 10:1	100'	125'	200'	250'
10% - 20%	10:1 - 5:1	75'	100'	150'	200'

FILTER SOCK DETAIL
SCALE: NONE

verdantas

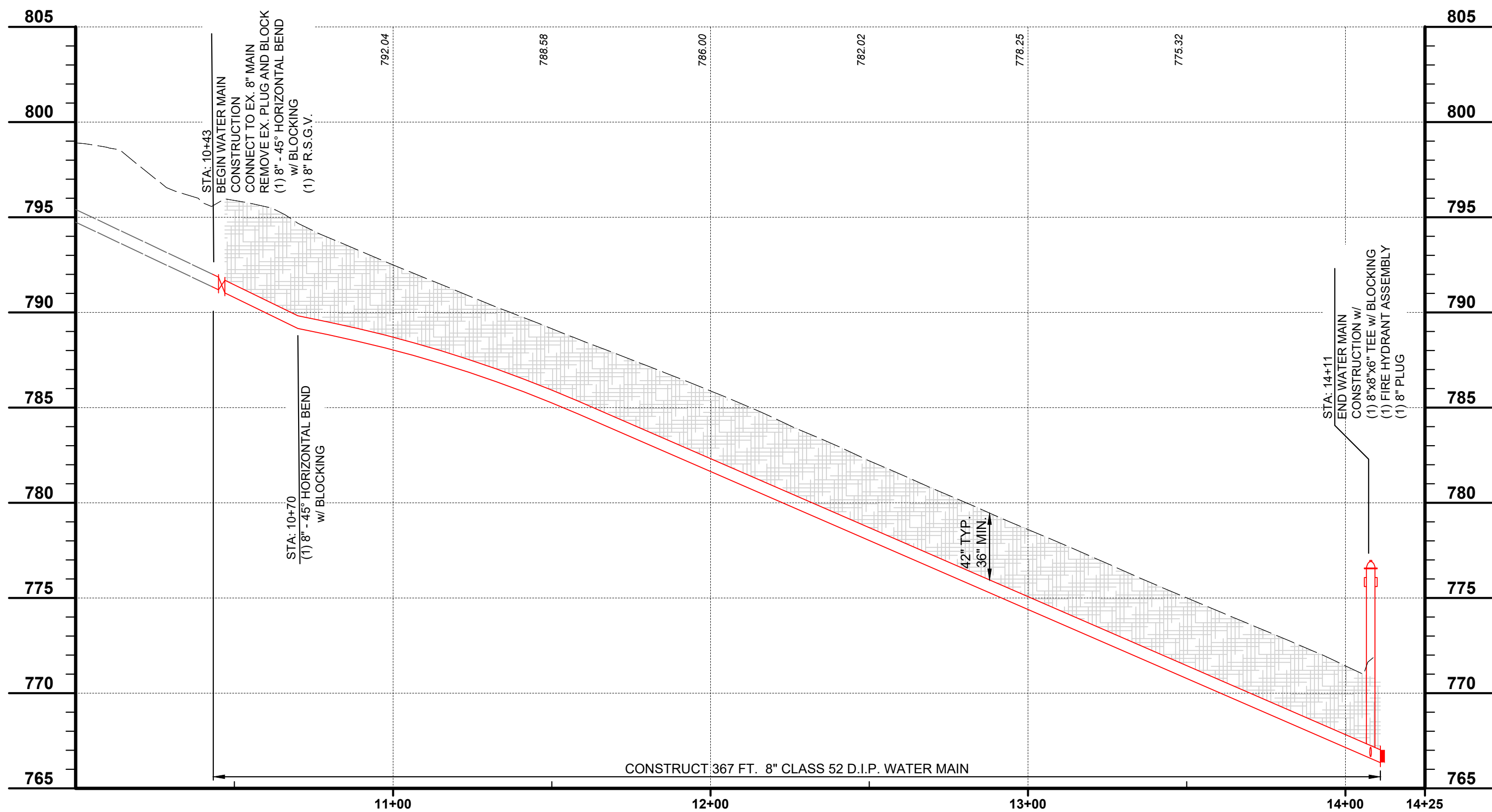
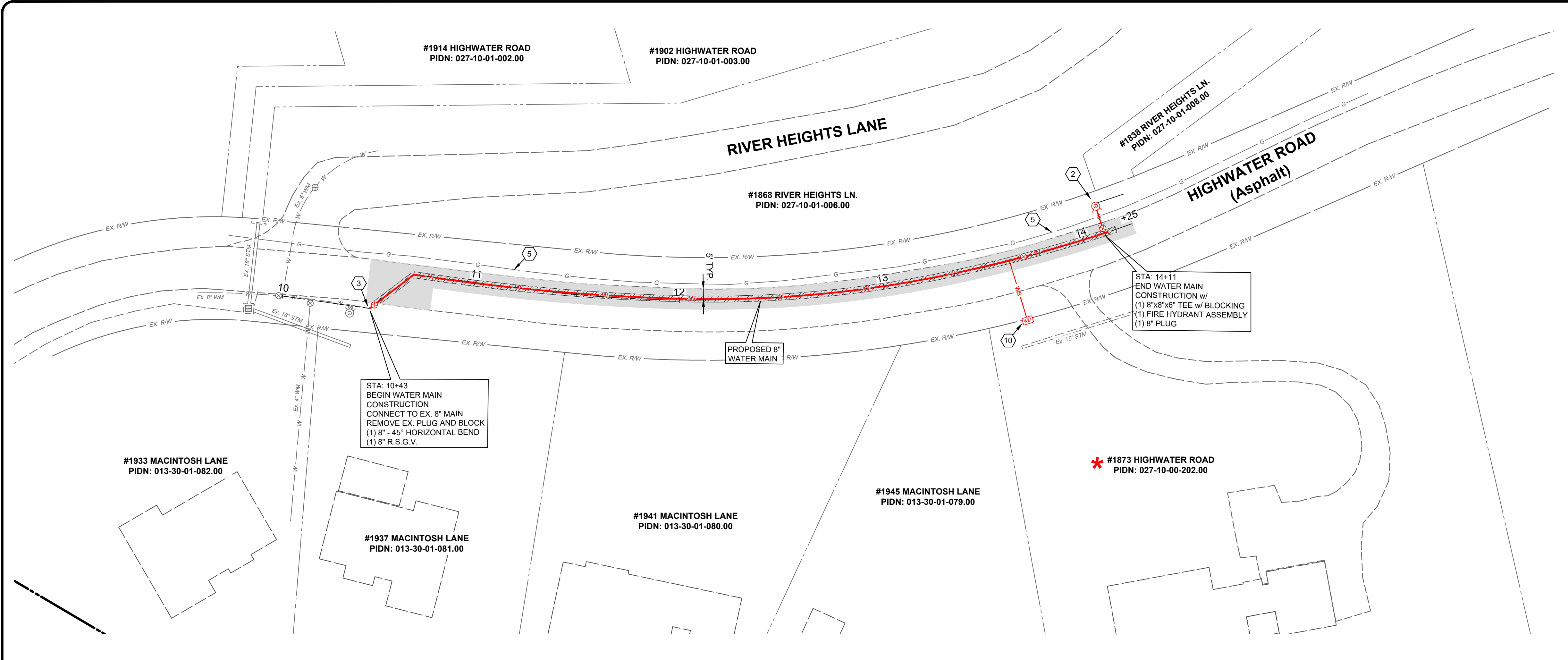
2161 CHAMBER CENTER DRIVE
FORT MITCHELL, KENTUCKY 41017
TEL. (859) 525-0544
WWW.VERDANTAS.COM

DATE	REVISION	NO	ISSUED FOR:	BID	JSHU	JCOR	JCOR	JCOR	JCOR
APRIL 2025			AS SHOWN						

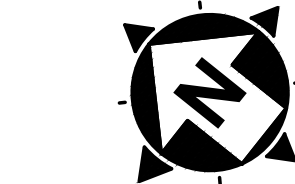
NORTHERN KENTUCKY WATER DISTRICT
SUBDISTRICT 'O'
-KENTON COUNTY -

EROSION CONTROL DETAILS

PROJECT NO.	
231591	
DISCIPLINE	
CIVIL	
SHEET NAME	
G-06	
SHEET	OF
7	28



SCALE:
H: 1" = 30'
V: 1" = 5'



0' 30' 60'
SCALE: 1" = 30'

CONSTRUCTION NOTES

- 1 MAINTAIN MANAGEABLE VERTICAL CLEARANCE BETWEEN THE PROPOSED WATER MAIN AND THE EXISTING STORM SEWER, WATER MAIN, TELEPHONE DUCTS, AND GAS MAIN. CONSTRUCT ALL SANITARY SEWER CROSSINGS PER N.K.W.D. SPECIFICATIONS ITEM 1-14. MAINTAIN MINIMUM 18" BETWEEN THE PROPOSED WATER MAIN AND THE EXISTING SANITARY SEWER. ACTUAL ELEVATION UNKNOWN. CONTRACTOR TO EXCAVATE & VERIFY ACTUAL LOCATION, SIZE AND ELEVATION OF EXISTING UTILITY PRIOR TO BEGINNING WATER MAIN CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION OF ANY POTENTIAL CONFLICT. NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS WORK AND THE COST SHALL BE INCLUDED IN THE BID ITEM FOR WATER MAIN.
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- 3 CONNECT TO EXISTING WATER MAIN (ACTUAL ELEVATION UNKNOWN). CONTRACTOR TO VERIFY DEPTH PRIOR TO CONSTRUCTION.
- 4 CHANNEL LINING, CLASS II (18") w/ NON-WOVEN GEOTEXTILE FILTER FABRIC
- 5 CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF UTILITY PRIOR TO EXCAVATION ACTIVITY AND NOTIFY ENGINEER AND N.K.W.D. OF CONFLICTS. (** SEE NOTE)
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- 7 CONTRACTOR TO SUPPORT UTILITY POLE DURING PIPE INSTALLATION (** SEE NOTE)
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- 9 REMOVE AND REPLACE MAILBOX (** SEE NOTE)
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- 13 TREE TO BE REMOVED

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HATCH LEGEND

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- TRENCH RESTORATION - 8" AGGREGATE PAVEMENT
- CONTROL DENSITY FILL - PAVT TRENCH
- CONCRETE DRIVEWAY REPLACEMENT - SEE DETAIL SHEET
- CONCRETE WALK REPLACEMENT - SEE DETAIL SHEET
- ASPHALT DRIVEWAY REPLACEMENT - SEE DETAIL SHEET
- GRAVEL DRIVEWAY REPLACEMENT - SEE DETAIL SHEET
- CHANNEL LINING, CLASS II - SEE DETAIL SHEET

* DENOTES PROPERTY WITH NEW SERVICE AND METER SETTING

verdantas

2161 CHAMBER CENTER DRIVE
FORT MITCHELL, KENTUCKY 41017
TEL: (859) 525-0544
WWW.VERDANTAS.COM

NORTHERN KENTUCKY WATER DISTRICT
SUBDISTRICT 'O'
-KENTON COUNTY -

HIGHWATER ROAD

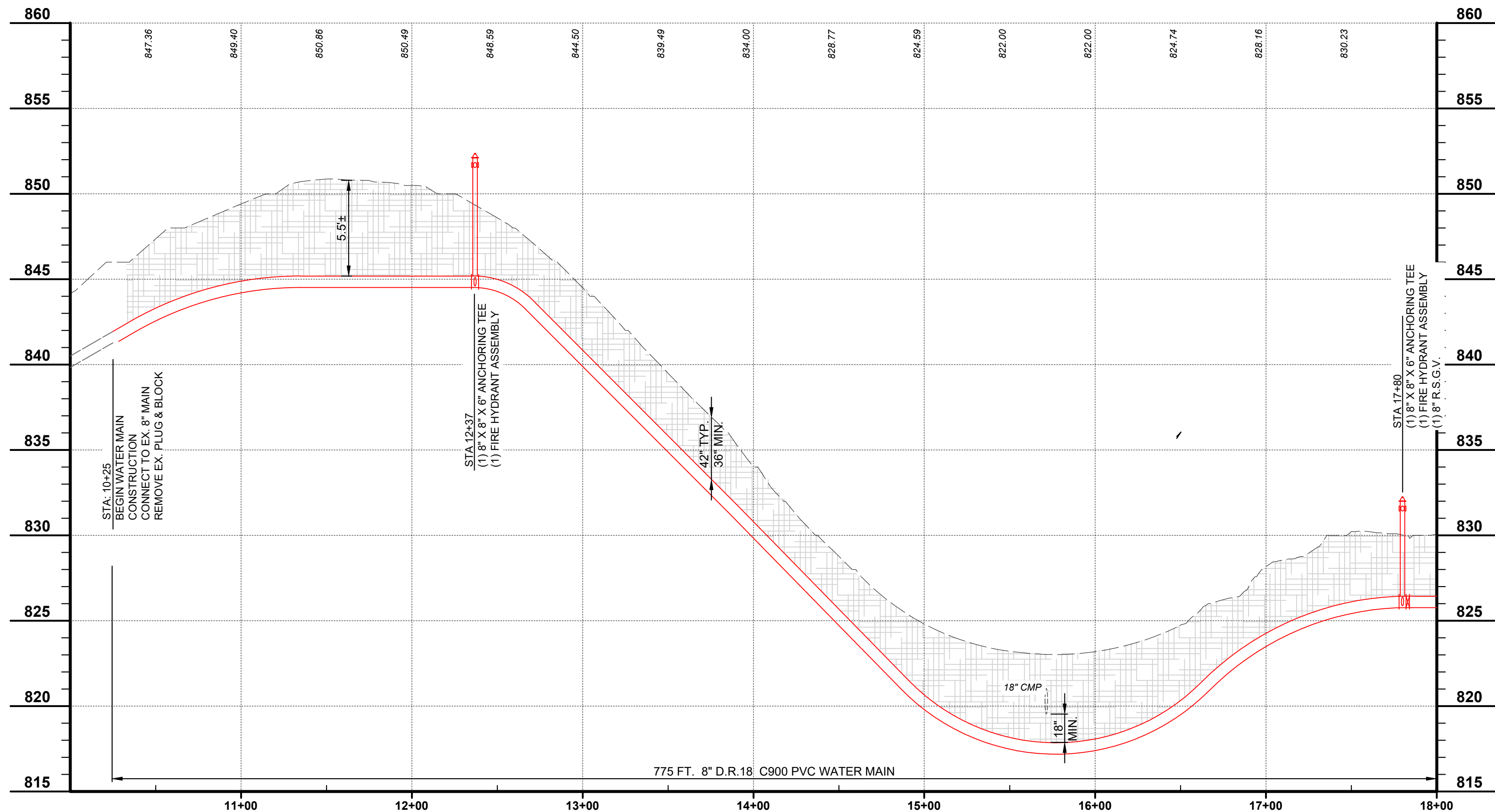
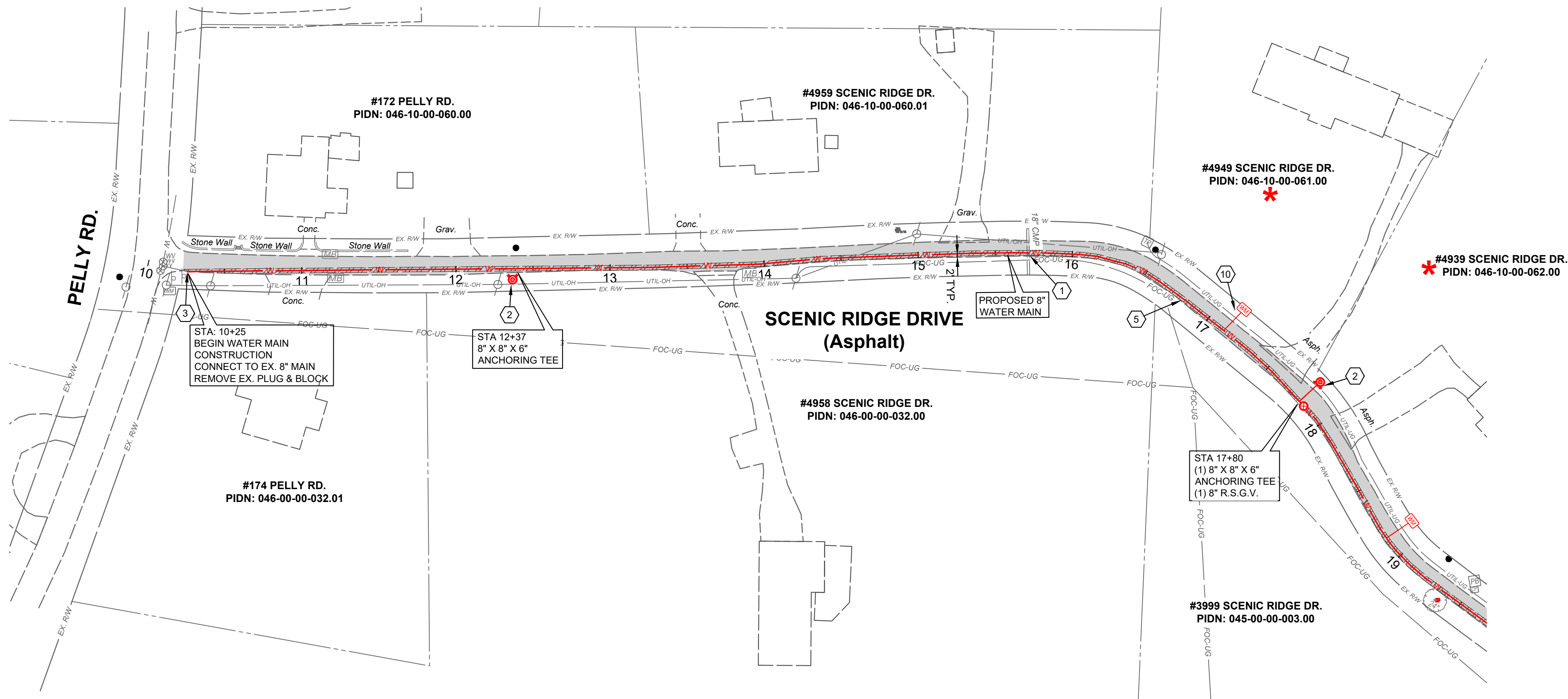
PROJECT NO.
231591

DISCIPLINE
CIVIL

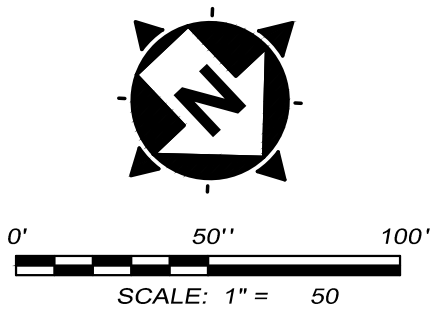
SHEET NAME
C-01

SHEET
8

OF
28



SCALE:
H: 1" = 50'
V: 1" = 5'



CONSTRUCTION NOTES

1. MAINTAIN MANAGEABLE VERTICAL CLEARANCE BETWEEN THE PROPOSED WATER MAIN AND THE EXISTING STORM SEWER, WATER MAIN, TELEPHONE DUCTS, AND GAS MAIN. CONSTRUCT ALL SANITARY SEWER CROSSINGS PER N.K.W.D. SPECIFICATIONS ITEM 1.14. MAINTAIN MINIMUM 18" BETWEEN THE PROPOSED WATER MAIN AND THE EXISTING SANITARY SEWER, ACTUAL ELEVATION UNKNOWN. CONTRACTOR TO EXCAVATE & VERIFY ACTUAL LOCATION, SIZE AND ELEVATION OF EXISTING UTILITY PRIOR TO BEGINNING WATER MAIN CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION OF ANY POTENTIAL CONFLICT. NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS WORK AND THE COST SHALL BE INCLUDED IN THE BID ITEM FOR WATER MAIN.
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3. CONNECT TO EXISTING WATER MAIN (ACTUAL ELEVATION UNKNOWN). CONTRACTOR TO VERIFY DEPTH PRIOR TO CONSTRUCTION.
4. CHANNEL LINING, CLASS II (18") w/ NON-WOVEN GEOTEXTILE FILTER FABRIC
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6. DO NOT DISTURB
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12. DRIVEWAY RESTORATION (SEE DETAILS)
13. TREE TO BE REMOVED

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- CONTROL DENSITY FILL - PAV'T TRENCH
- CONCRETE DRIVEWAY REPLACEMENT - SEE DETAIL SHEET
- CONCRETE WALK REPLACEMENT - SEE DETAIL SHEET
- ASPHALT DRIVEWAY REPLACEMENT - SEE DETAIL SHEET
- GRAVEL DRIVEWAY REPLACEMENT - SEE DETAIL SHEET
- CHANNEL LINING, CLASS II - SEE DETAIL SHEET

* DENOTES PROPERTY WITH NEW SERVICE AND METER SETTING

verdantas

2161 CHAMBER CENTER DRIVE
FORT MITCHELL, KENTUCKY 41017
TEL (859) 525-0544
WWW.VERDANTAS.COM

NORTHERN KENTUCKY WATER DISTRICT
SUBDISTRICT 'O'
-KENTON COUNTY -

SCENIC RIDGE DRIVE
STA. 10+25 TO STA. 18+00

PROJECT NO.
231591

DISCIPLINE

CIVIL

SHEET NAME

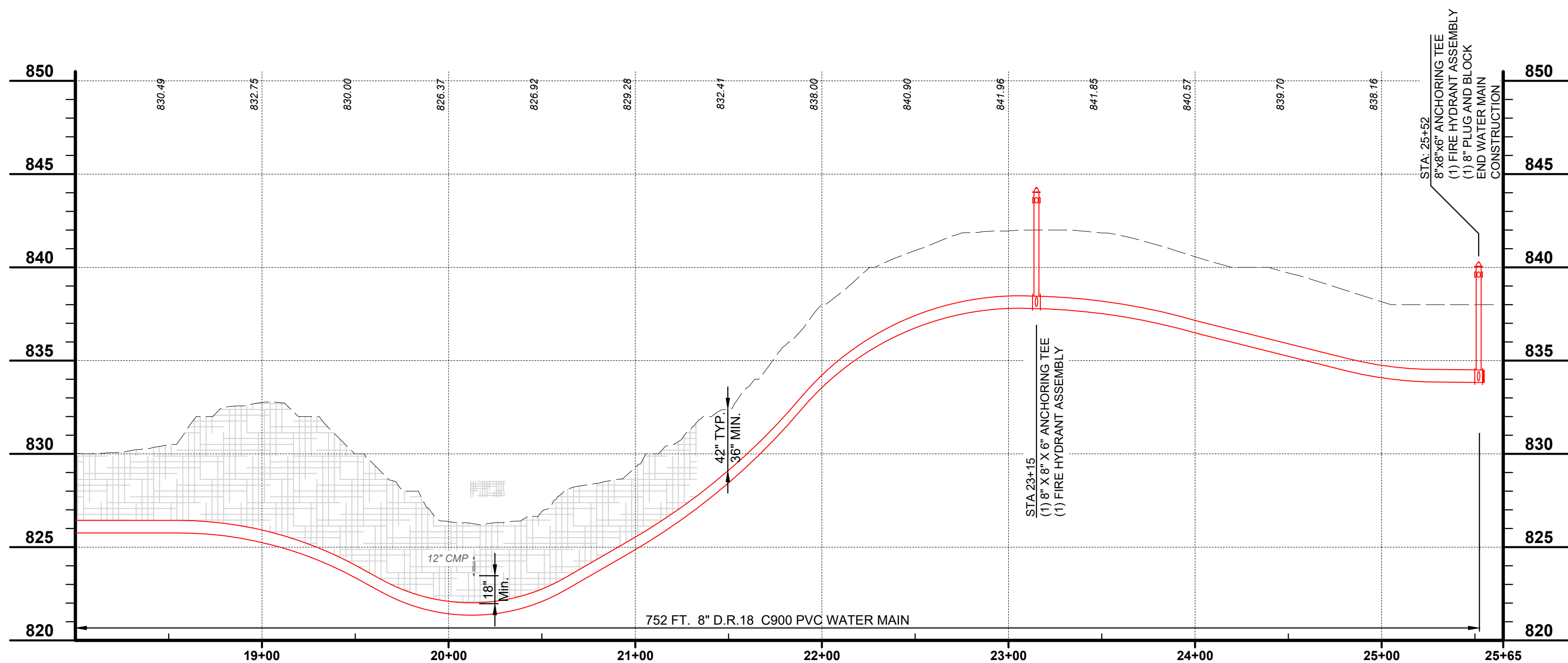
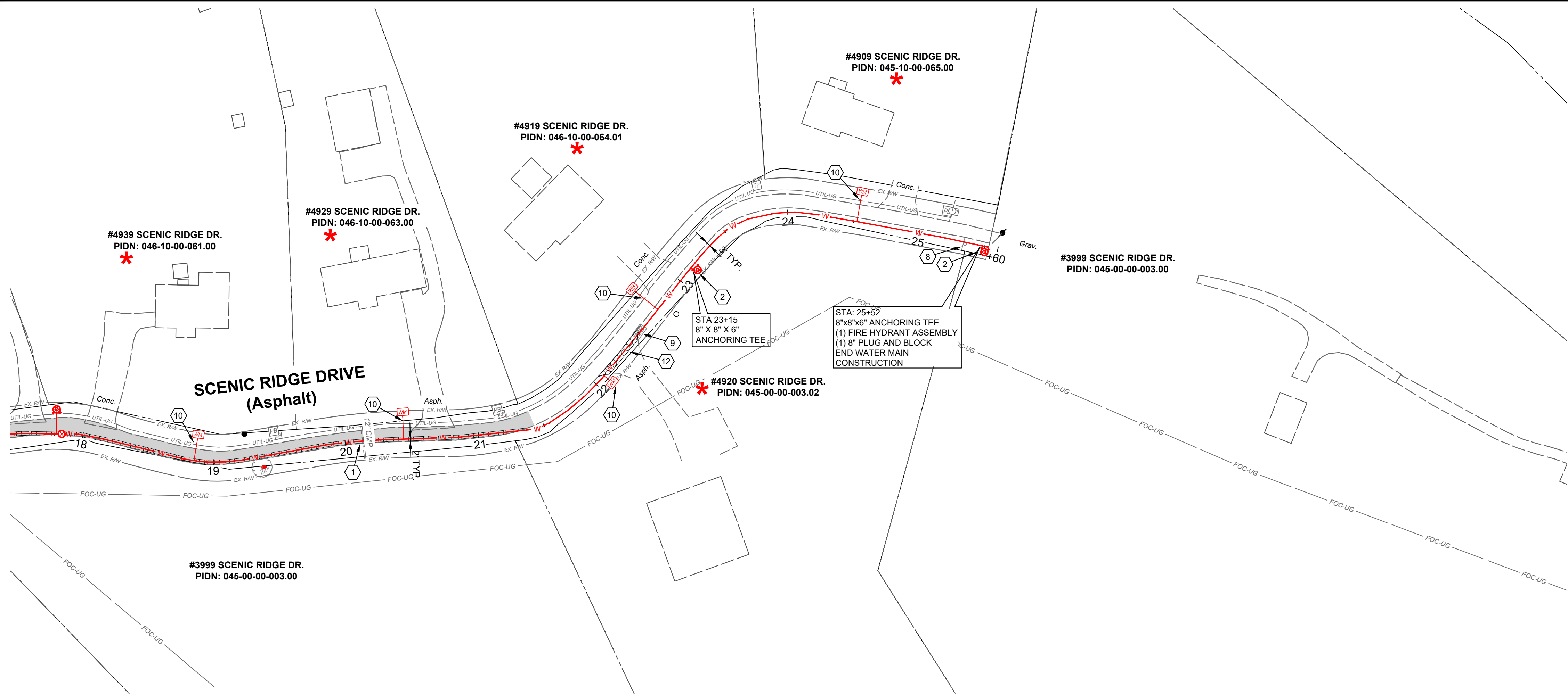
C-02

SHEET

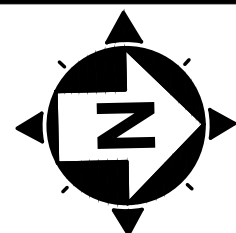
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OF

28



SCALE:
H: 1" = 50'
V: 1" = 5'



0' 50' 100'
SCALE: 1" = 50'

CONSTRUCTION NOTES

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- 13 TREE TO BE REMOVED

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HATCH LEGEND

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- GRAVEL DRIVEWAY REPLACEMENT - SEE DETAIL SHEET
- CHANNEL LINING, CLASS II - SEE DETAIL SHEET

* DENOTES PROPERTY WITH NEW SERVICE AND METER SETTING

verdantas

2161 CHAMBER CENTER DRIVE
FORT MITCHELL, KENTUCKY 41017
TEL (859) 525-0544
WWW.VERDANTAS.COM

ISSUED FOR:	BID	NO	REVISION	DATE
APRIL 2025	AS SHOWN	JCOR	JCOR	JSHU
ISSUE DATE:	SCALE:	DESIGNED BY:	DRAWN BY:	CHECKED BY:
APRIL 2025	AS SHOWN	JCOR	JCOR	JSHU

NORTHERN KENTUCKY WATER DISTRICT
SUBDISTRICT 'O'
-KENTON COUNTY -

SCENIC RIDGE DRIVE
STA. 18+00 to STA. 25+60

PROJECT NO.

231591

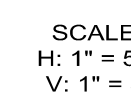
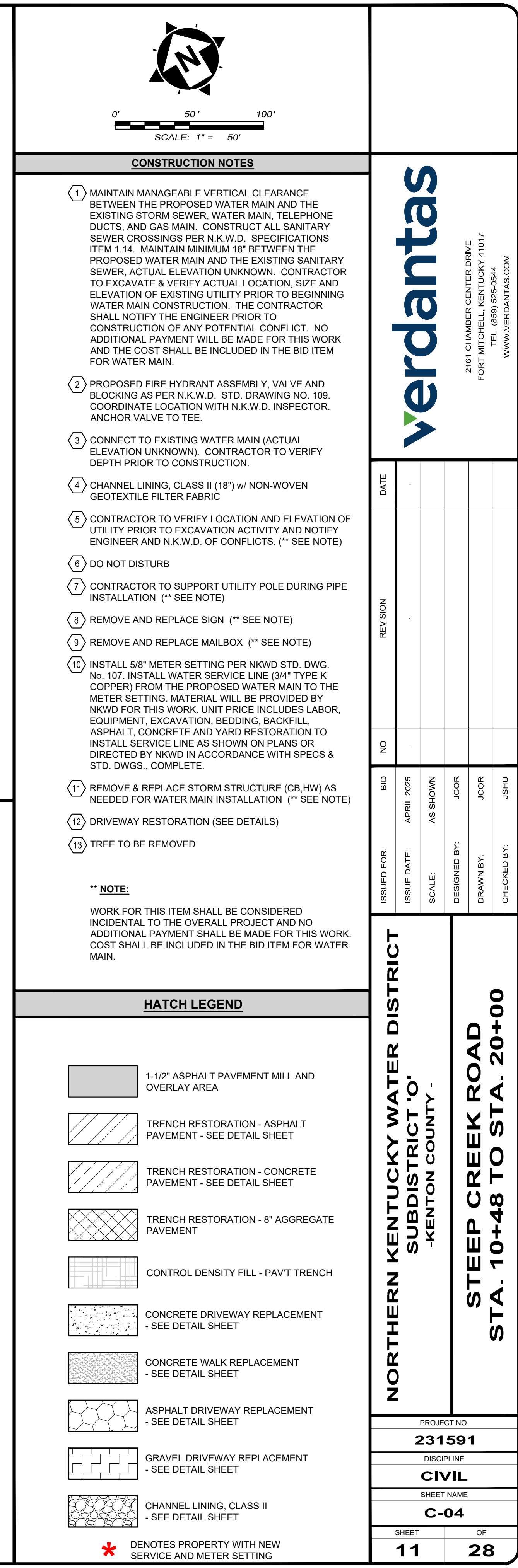
DISCIPLINE

CIVIL

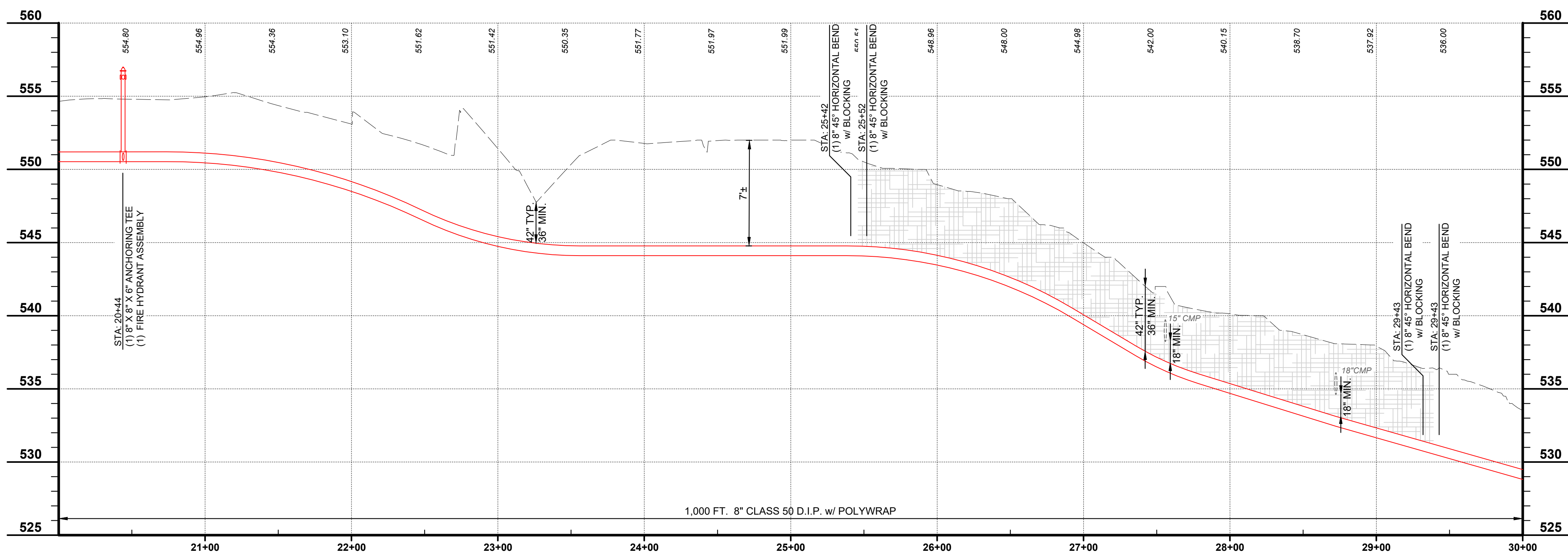
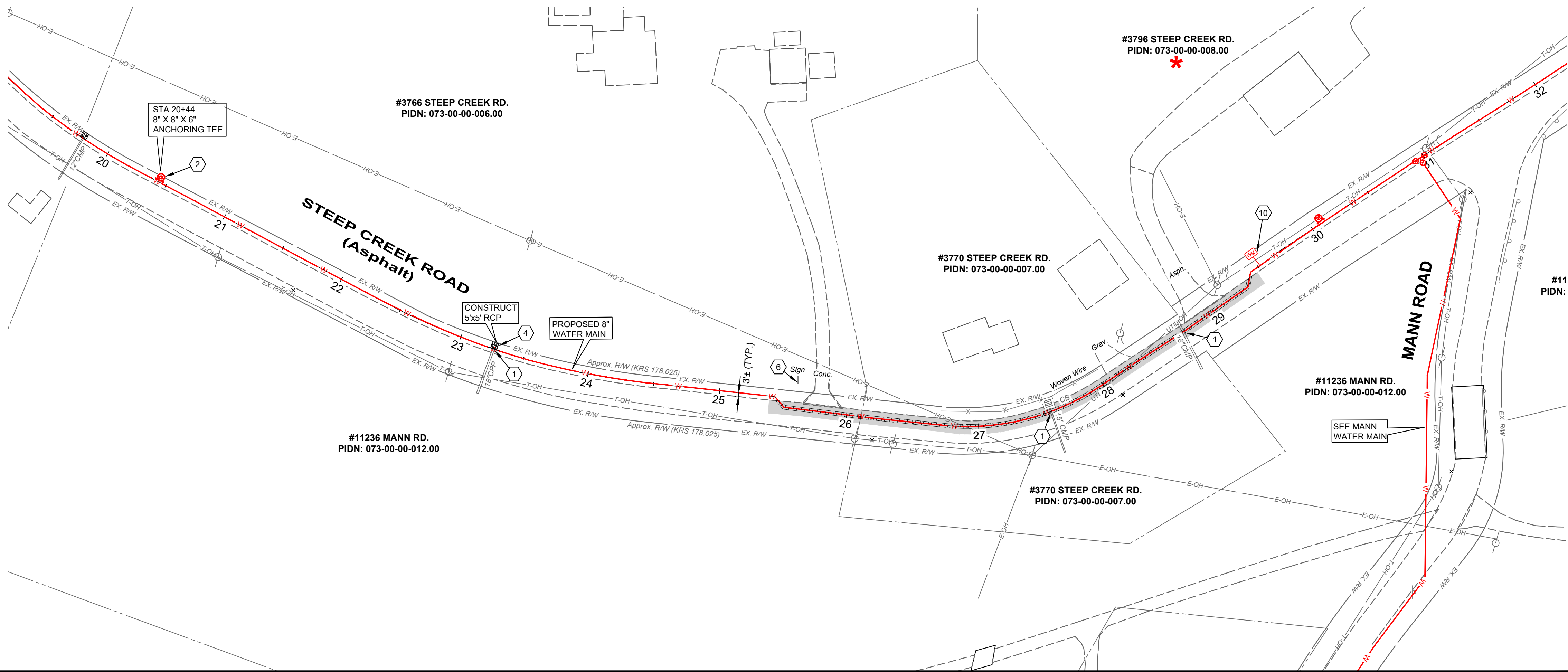
SHEET NAME

C-03

SHEET	OF
10	28



 DENOTES PROPERTY WITH NEW SERVICE AND METER SETTING



SCALE:
H: 1" = 50'
V: 1" = 5'



0' 50' 100'
SCALE: 1" = 50'

CONSTRUCTION NOTES

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* DENOTES PROPERTY WITH NEW SERVICE AND METER SETTING

verdantas

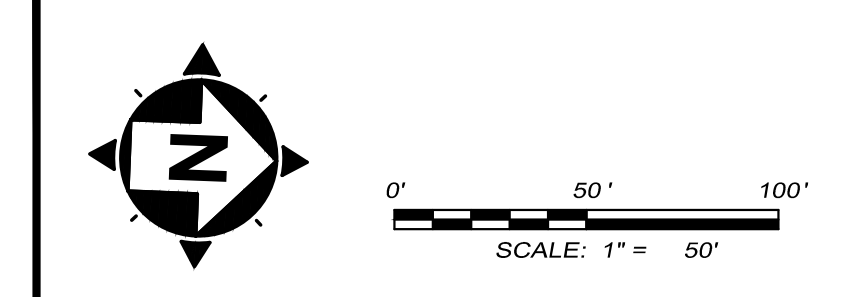
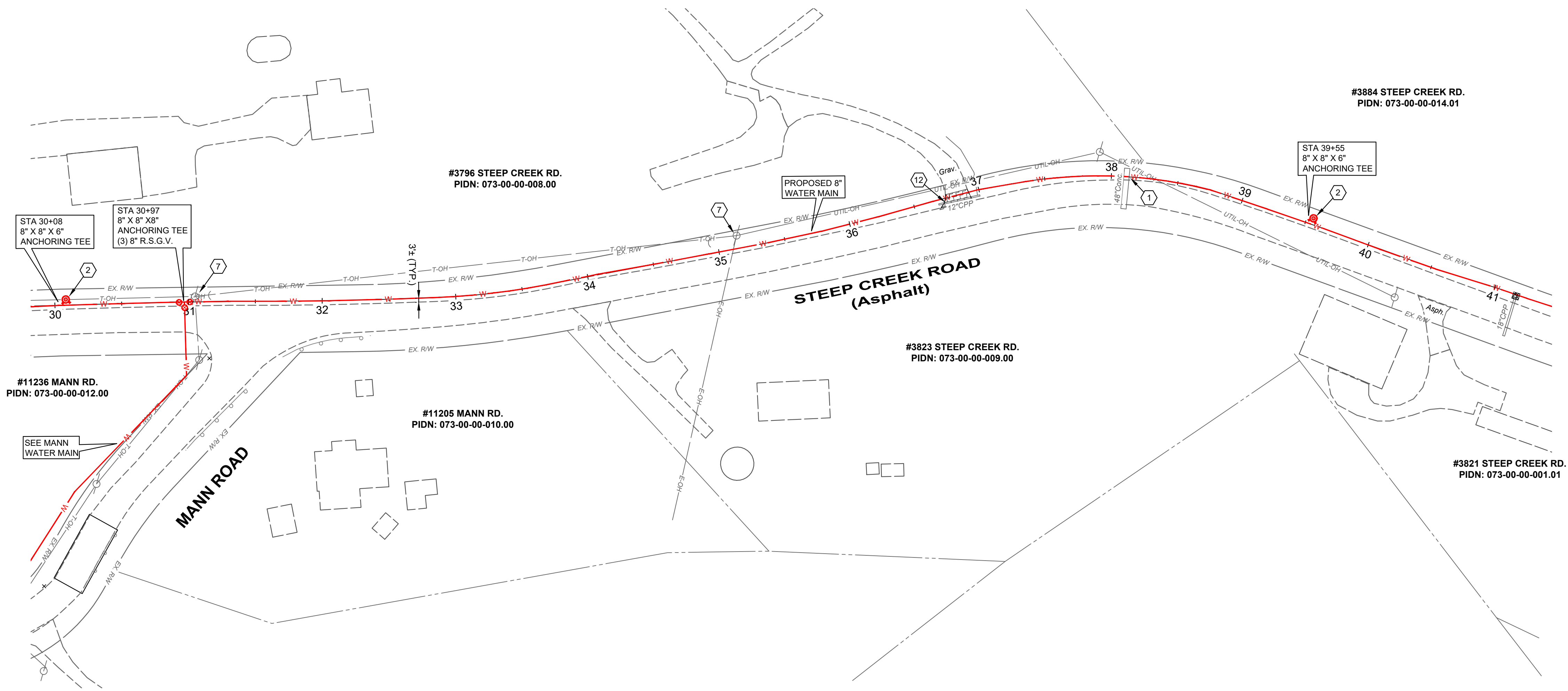
2161 CHAMBER CENTER DRIVE
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ISSUED FOR:	BID	NO	REVISION	DATE
ISSUE DATE:	APRIL 2025			
SCALE:	AS SHOWN			
DESIGNED BY:	JCOR			
DRAWN BY:	JCOR			
CHECKED BY:	JSHU			

NORTHERN KENTUCKY WATER DISTRICT
SUBDISTRICT 'O'
-KENTON COUNTY -

STEEL CREEK ROAD
STA. 20+00 TO STA. 30+00

PROJECT NO.	231591
DISCIPLINE	CIVIL
SHEET NAME	C-05
SHEET	12
OF	28



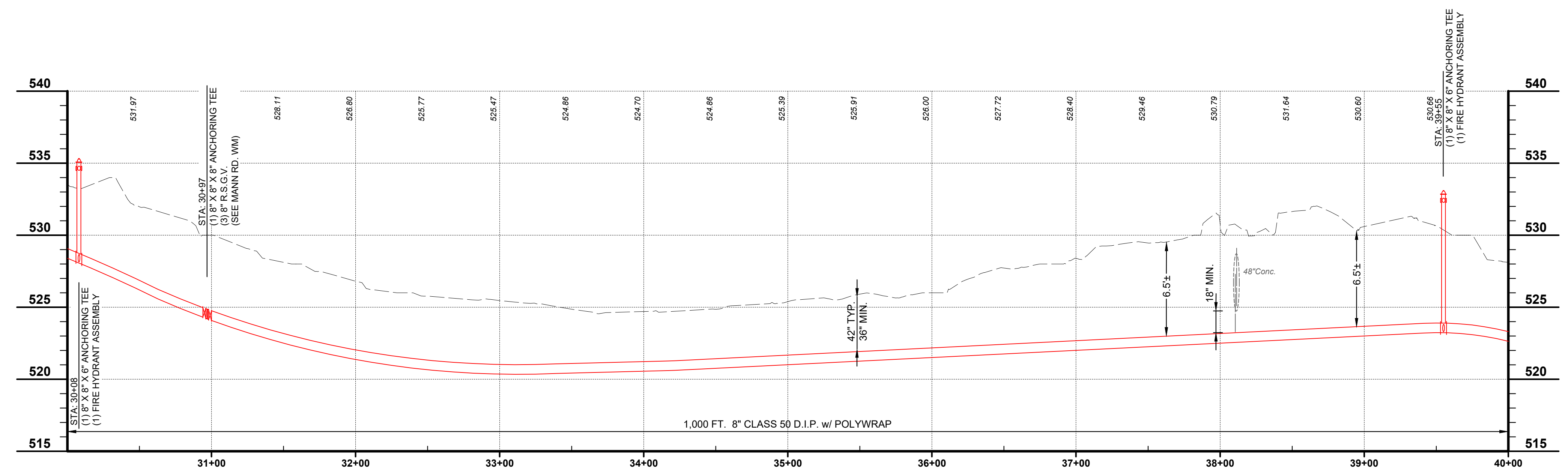
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- 13 TREE TO BE REMOVED

**** NOTE:**
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HATCH LEGEND

- 1-1/2" ASPHALT PAVEMENT MILL AND OVERLAY AREA
- TRENCH RESTORATION - ASPHALT PAVEMENT - SEE DETAIL SHEET
- TRENCH RESTORATION - CONCRETE PAVEMENT - SEE DETAIL SHEET
- TRENCH RESTORATION - 8" AGGREGATE PAVEMENT
- CONTROL DENSITY FILL - PAV'T TRENCH
- CONCRETE DRIVEWAY REPLACEMENT - SEE DETAIL SHEET
- CONCRETE WALK REPLACEMENT - SEE DETAIL SHEET
- ASPHALT DRIVEWAY REPLACEMENT - SEE DETAIL SHEET
- GRAVEL DRIVEWAY REPLACEMENT - SEE DETAIL SHEET
- CHANNEL LINING, CLASS II - SEE DETAIL SHEET
- DENOTES PROPERTY WITH NEW SERVICE AND METER SETTING



SCALE:
H: 1" = 50'
V: 1" = 5'

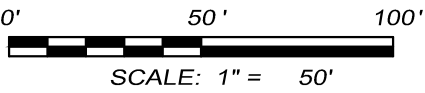
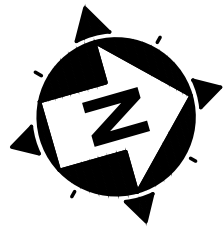
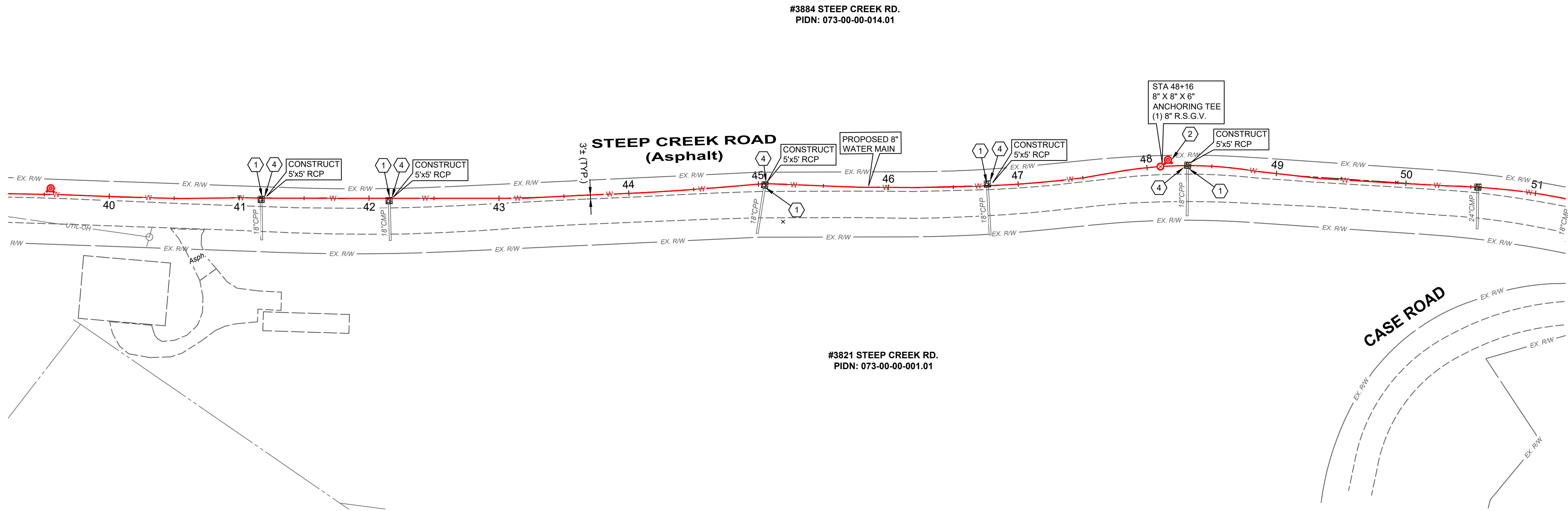
2161 CHAMBER CENTER DRIVE
FORT MITCHELL, KENTUCKY 41017
TEL (859) 525-0544
WWW.VERDANTAS.COM

ISSUED FOR:	BID	NO	REVISION	DATE
APRIL 2025	AS SHOWN	JCOR	JCOR	JSHU

NORTHERN KENTUCKY WATER DISTRICT
SUBDISTRICT 'O'
-KENTON COUNTY -

STEEL CREEK ROAD
STA. 30+00 TO STA. 40+00

PROJECT NO.	DISCIPLINE	SHEET NAME	SHEET	OF
231591	CIVIL	C-06	13	28



CONSTRUCTION NOTES

- 1) MAINTAIN MANAGEABLE VERTICAL CLEARANCE BETWEEN THE PROPOSED WATER MAIN AND THE EXISTING STORM SEWER, WATER MAIN, TELEPHONE DUCTS, AND GAS MAIN. CONSTRUCT ALL SANITARY SEWER CROSSINGS PER N.K.W.D. SPECIFICATIONS ITEM 1.14. MAINTAIN MINIMUM 18" BETWEEN THE PROPOSED WATER MAIN AND THE EXISTING SANITARY SEWER, ACTUAL ELEVATION UNKNOWN. CONTRACTOR TO EXCAVATE & VERIFY ACTUAL LOCATION, SIZE AND ELEVATION OF EXISTING UTILITY PRIOR TO BEGINNING WATER MAIN CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION OF ANY POTENTIAL CONFLICT. NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS WORK AND THE COST SHALL BE INCLUDED IN THE BID ITEM FOR WATER MAIN.
- 2) PROPOSED FIRE HYDRANT ASSEMBLY, VALVE AND BLOCKING AS PER N.K.W.D. STD. DRAWING NO. 109. COORDINATE LOCATION WITH N.K.W.D. INSPECTOR. ANCHOR VALVE TO TEE.
- 3) CONNECT TO EXISTING WATER MAIN (ACTUAL ELEVATION UNKNOWN). CONTRACTOR TO VERIFY DEPTH PRIOR TO CONSTRUCTION.
- 4) CHANNEL LINING, CLASS II (18") w/ NON-WOVEN GEOTEXTILE FILTER FABRIC
- 5) CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF UTILITY PRIOR TO EXCAVATION ACTIVITY AND NOTIFY ENGINEER AND N.K.W.D. OF CONFLICTS. (** SEE NOTE)
- 6) DO NOT DISTURB
- 7) CONTRACTOR TO SUPPORT UTILITY POLE DURING PIPE INSTALLATION (** SEE NOTE)
- 8) REMOVE AND REPLACE SIGN (** SEE NOTE)
- 9) REMOVE AND REPLACE MAILBOX (** SEE NOTE)
- 10) INSTALL 5/8" METER SETTING PER NKWD STD. DWG. No. 107. INSTALL WATER SERVICE LINE (3/4" TYPE K COPPER) FROM THE PROPOSED WATER MAIN TO THE METER SETTING. MATERIAL WILL BE PROVIDED BY NKWD FOR THIS WORK. UNIT PRICE INCLUDES LABOR, EQUIPMENT, EXCAVATION, BEDDING, BACKFILL, ASPHALT, CONCRETE AND YARD RESTORATION TO INSTALL SERVICE LINE AS SHOWN ON PLANS OR DIRECTED BY NKWD IN ACCORDANCE WITH SPECS & STD. DWGS., COMPLETE.
- 11) REMOVE & REPLACE STORM STRUCTURE (CB,HW) AS NEEDED FOR WATER MAIN INSTALLATION (** SEE NOTE)
- 12) DRIVEWAY RESTORATION (SEE DETAILS)
- 13) TREE TO BE REMOVED

** NOTE:

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- GRAVEL DRIVEWAY REPLACEMENT - SEE DETAIL SHEET
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* DENOTES PROPERTY WITH NEW SERVICE AND METER SETTING

SCALE:
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NORTHERN KENTUCKY WATER DISTRICT
SUBDISTRICT 'O'
-KENTON COUNTY -

STEEP CREEK ROAD
sta. 40+00 to sta. 50+00

PROJECT NO.
231591

DISCIPLINE

CIVIL

SHEET NAME

C-07

SHEET

14

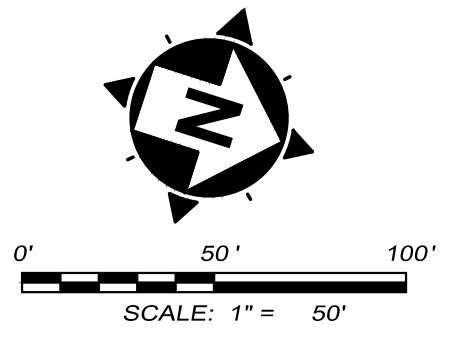
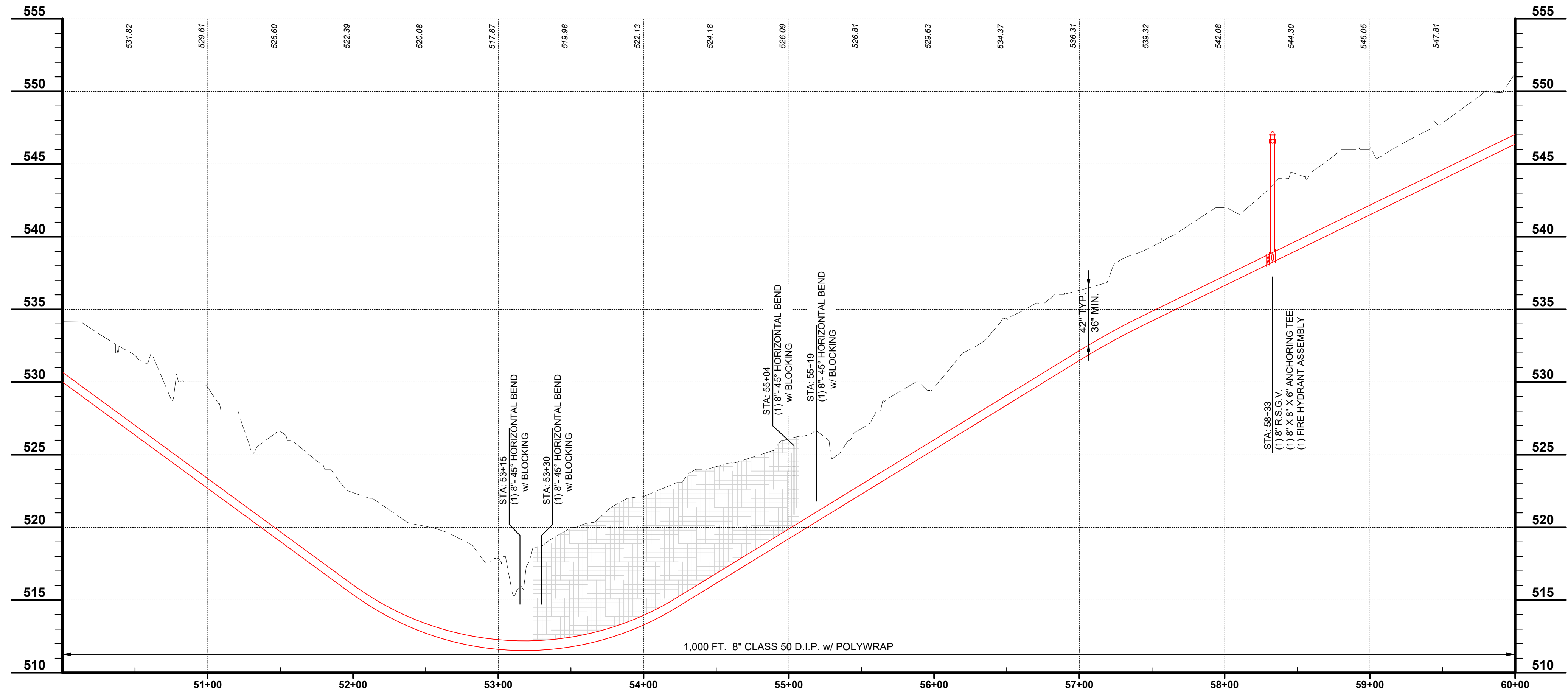
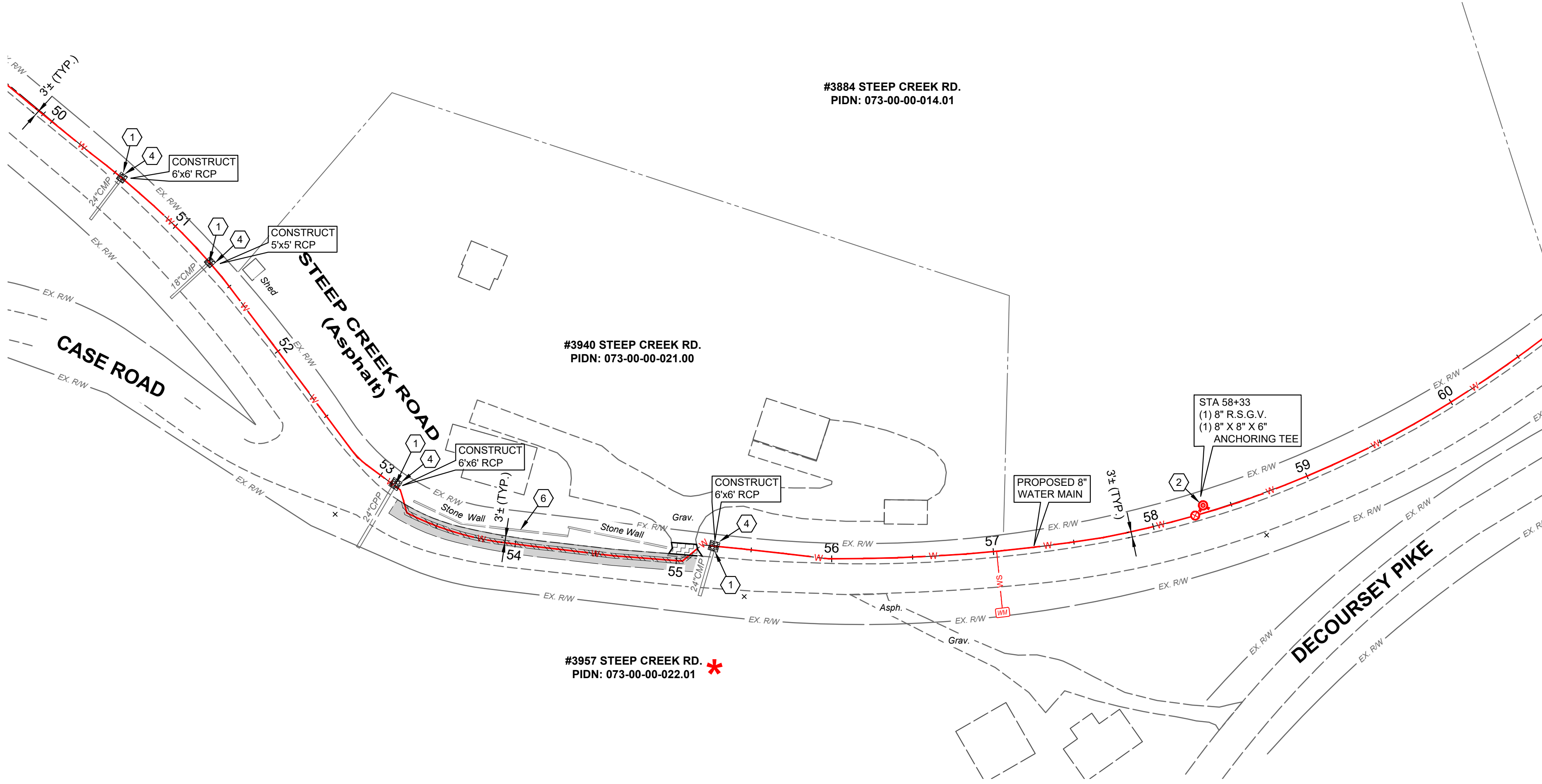
OF

28

ISSUE DATE:	APRIL 2025			
SCALE:	AS SHOWN			
DESIGNED BY:	JCOR			
DRAWN BY:	JCOR			
CHECKED BY:	JCOR			

verdantas

2161 CHAMBER CENTER DRIVE
FORT MITCHELL, KENTUCKY 41017
TEL: (859) 525-0544
WWW.VERDANTAS.COM



CONSTRUCTION NOTES

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- 3 CONNECT TO EXISTING WATER MAIN (ACTUAL ELEVATION UNKNOWN). CONTRACTOR TO VERIFY DEPTH PRIOR TO CONSTRUCTION.
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- GRAVEL DRIVEWAY REPLACEMENT - SEE DETAIL SHEET
- CHANNEL LINING, CLASS II - SEE DETAIL SHEET
- *** DENOTES PROPERTY WITH NEW SERVICE AND METER SETTING



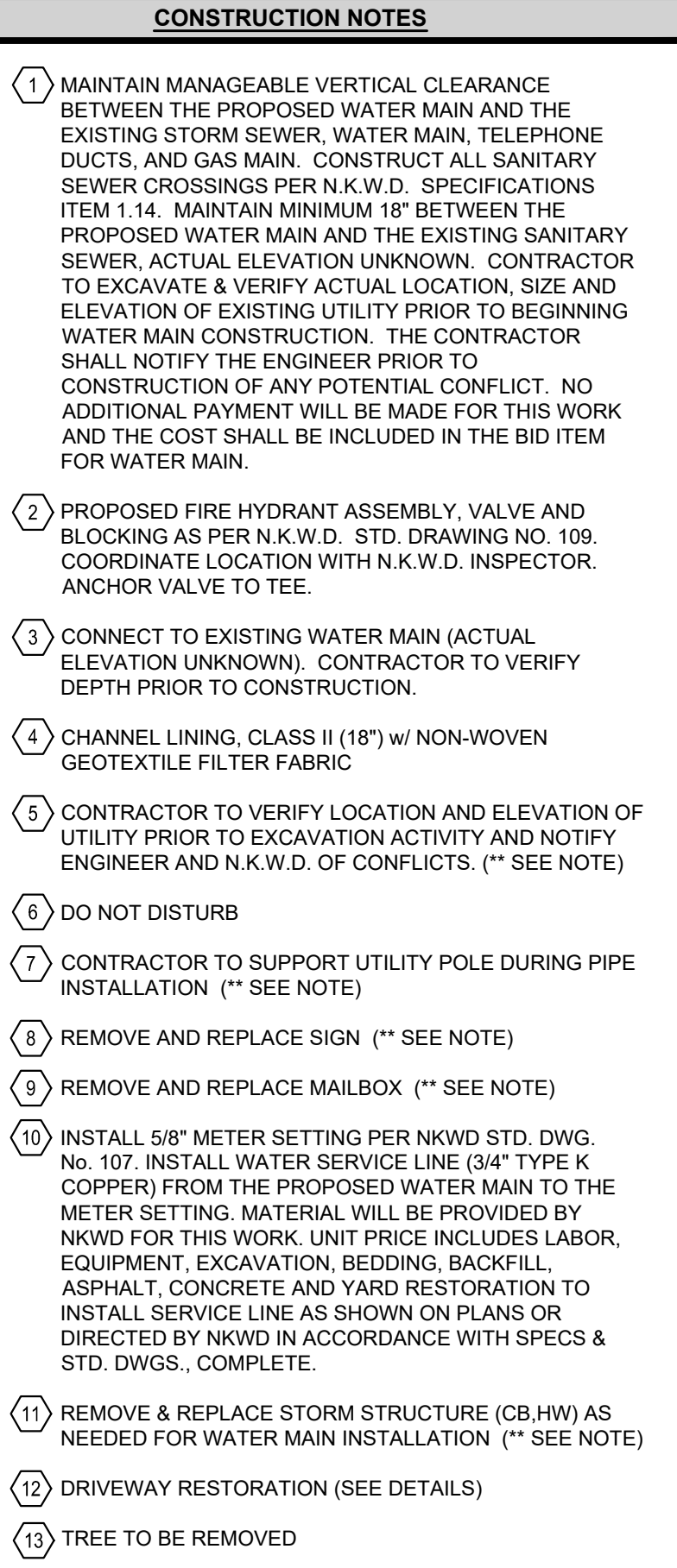
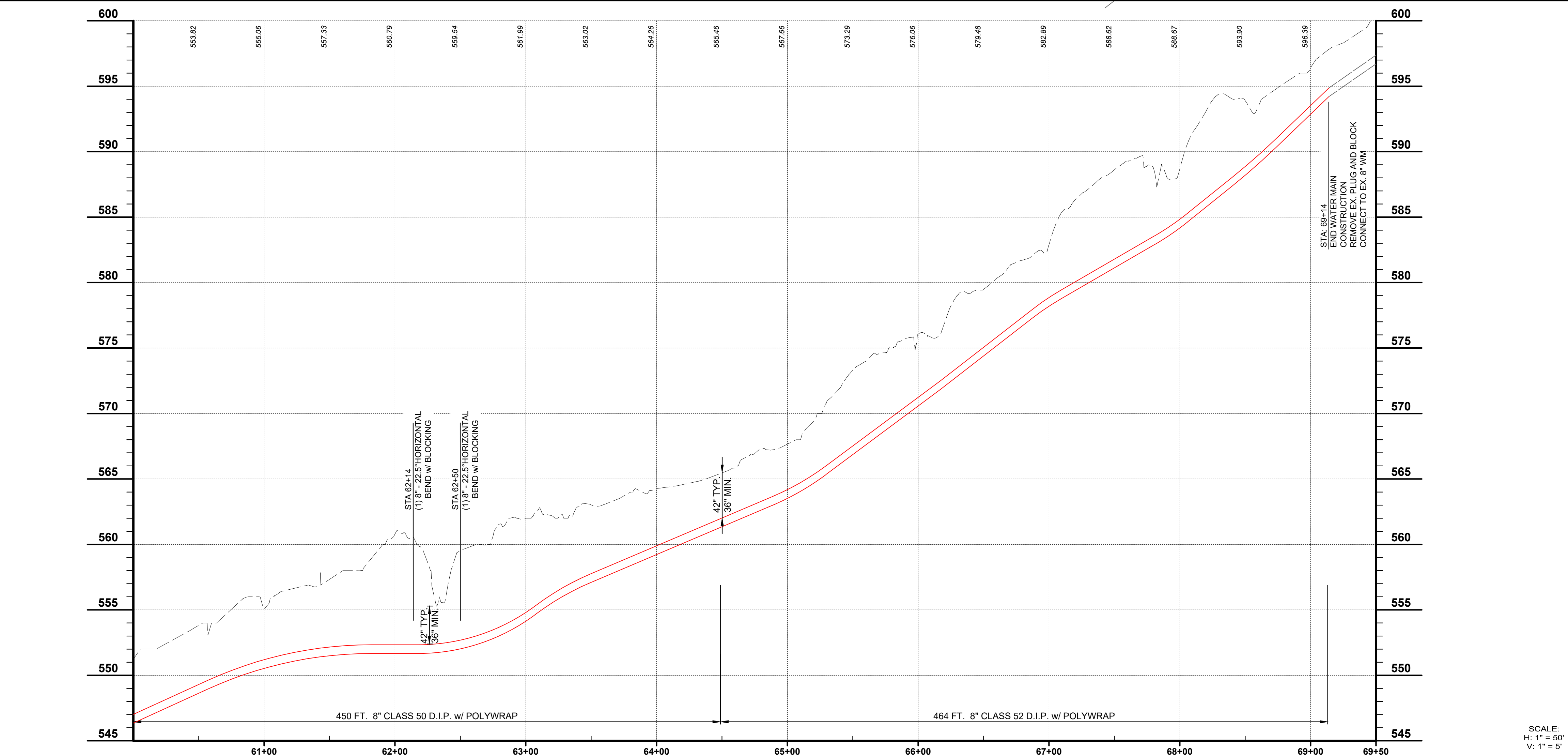
2161 CHAMBER CENTER DRIVE
FORT MITCHELL, KENTUCKY 41017
TEL (859) 525-0544
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ISSUED FOR:	BID	NO	REVISION	DATE
ISSUE DATE:	APRIL 2025			
SCALE:	AS SHOWN			
DESIGNED BY:	JCOR			
DRAWN BY:	JCOR			
CHECKED BY:	JSHU			



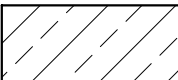

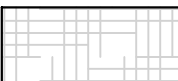

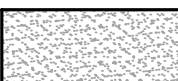
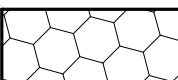
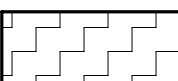
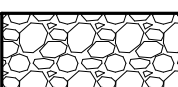
NORTHERN KENTUCKY WATER DISTRICT
SUBDISTRICT 'O'
-KENTON COUNTY -


STEEL CREEK ROAD
STA. 50+00 TO STA. 60+00

PROJECT NO.	231591
DISCIPLINE	CIVIL
SHEET NAME	C-08
SHEET	15
OF	28




HATCH LEGEND

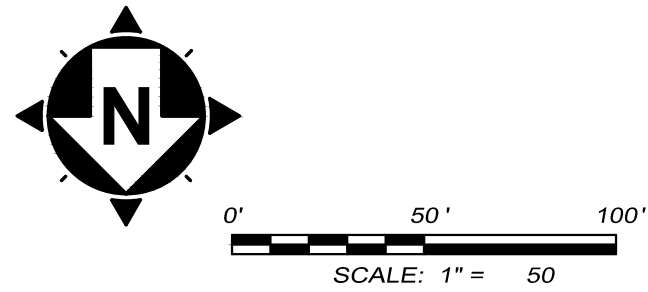
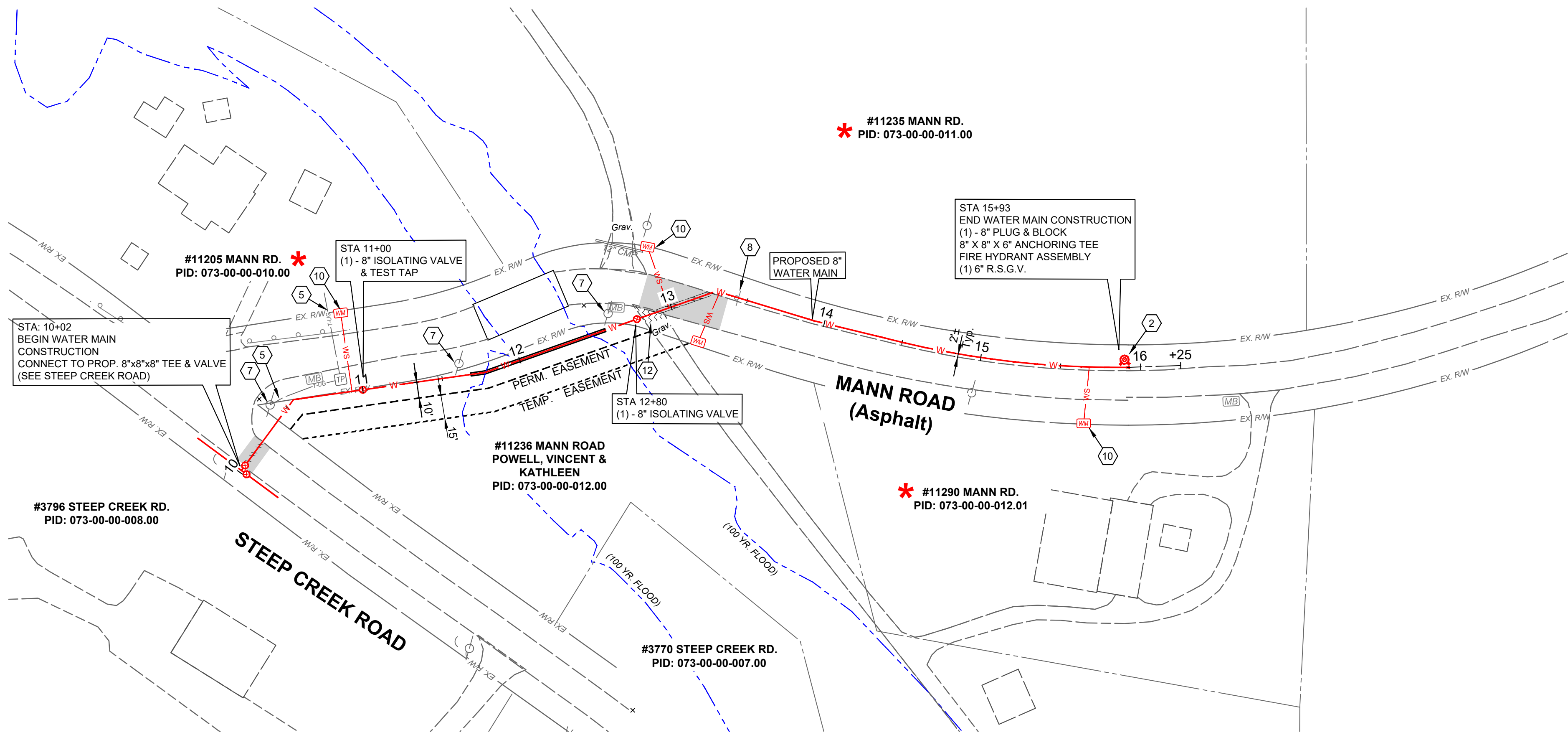
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 DENOTES PROPERTY WITH NEW SURFACE AND METER SETTING

<p>NORTHERN KENTUCKY WATER DISTRICT SUBDISTRICT 'O' -KENTON COUNTY -</p>		<p>ISSUED FOR:</p>		BID	NO	REVISION	DATE
		<p>ISSUE DATE:</p>		APRIL 2025	.		
		<p>SCALE:</p>		AS SHOWN			
		<p>DESIGNED BY:</p>		JCOR			
		<p>DRAWN BY:</p>		JCOR			
		<p>CHECKED BY:</p>		JSHU			
<p>PROJECT NO.</p>		<p>231591</p>					
<p>DISCIPLINE</p>		<p>CIVIL</p>					
<p>SHEET NAME</p>		<p>C-09</p>					
<p>SHEET</p>		<p>OF</p>					
<p>16</p>		<p>28</p>					



2161 CHAMBER CENTER DRIVE
FORT MITCHELL, KENTUCKY 41017
TEL: (899) 525-0544
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CONSTRUCTION NOTES

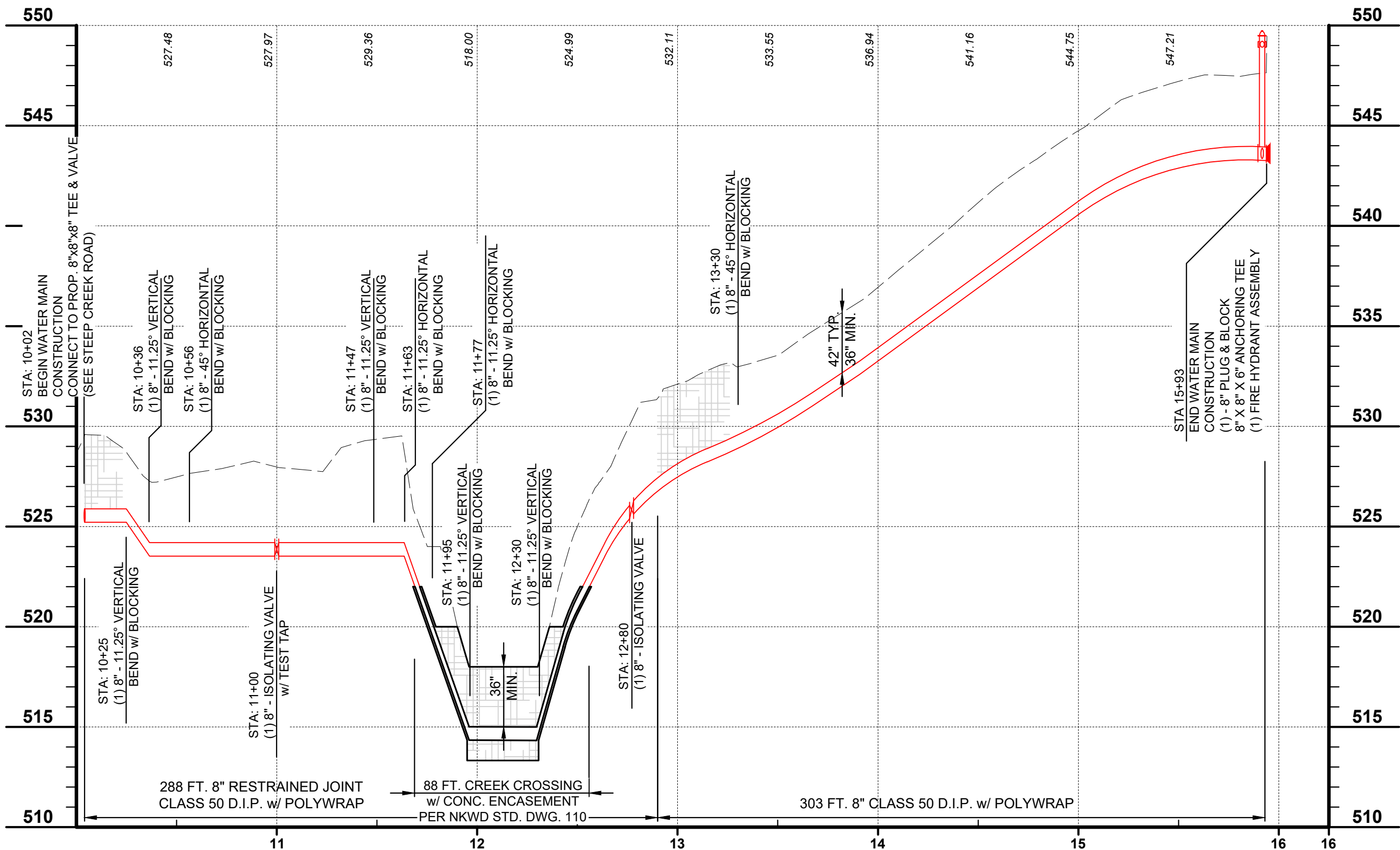
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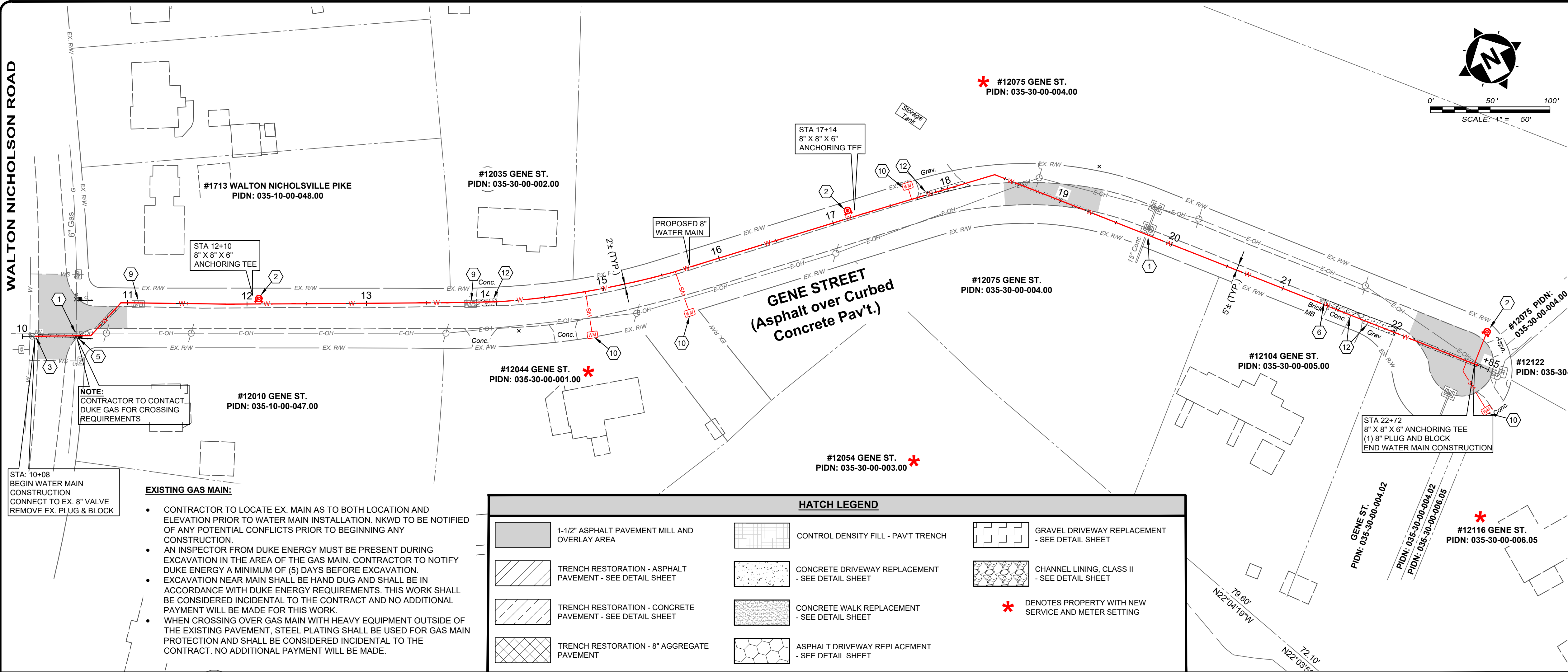
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SCALE:
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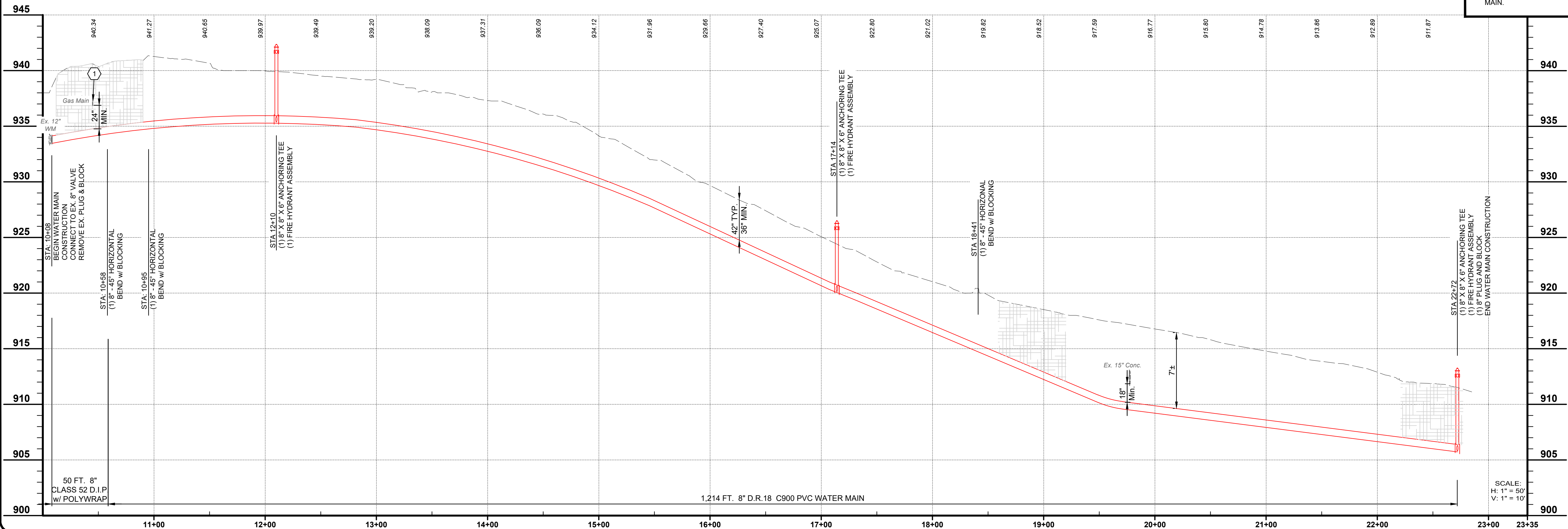


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verdantas

2161 CHAMBER CENTER DRIVE
FORT MITCHELL, KENTUCKY 41017
TEL (859) 525-0544
WWW.VERDANTAS.COM

ISSUED FOR:	BID	REVISION	DATE
ISSUE DATE:	APRIL 2025		
SCALE:	AS SHOWN		
DESIGNED BY:	JCOR		
DRAWN BY:	JCOR		
CHECKED BY:	JSHU		

NORTHERN KENTUCKY WATER DISTRICT
SUBDISTRICT 'O'
-KENTON COUNTY -

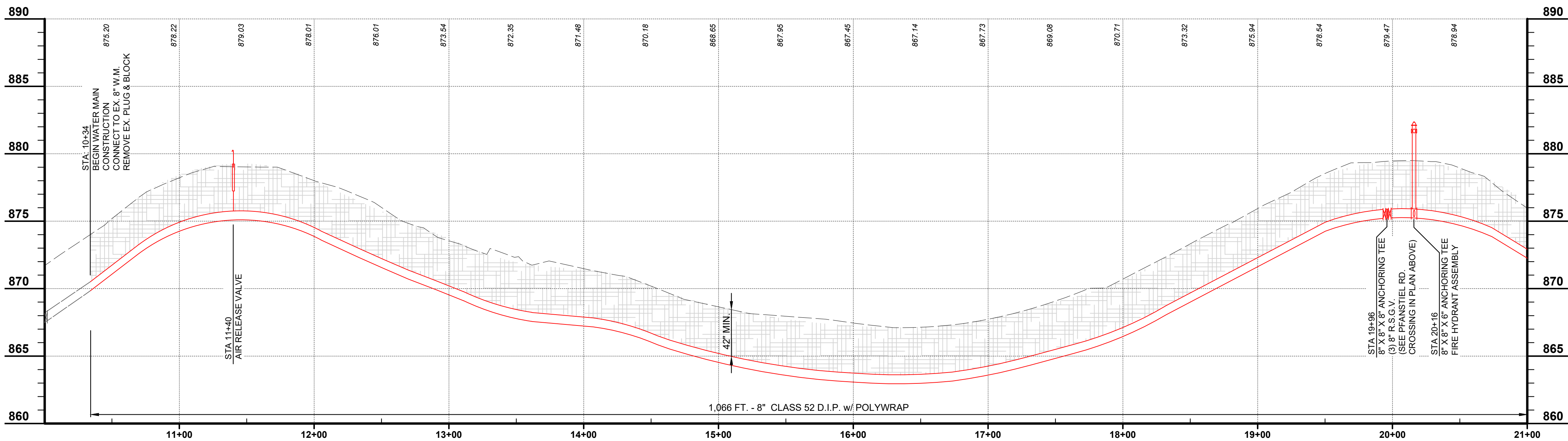
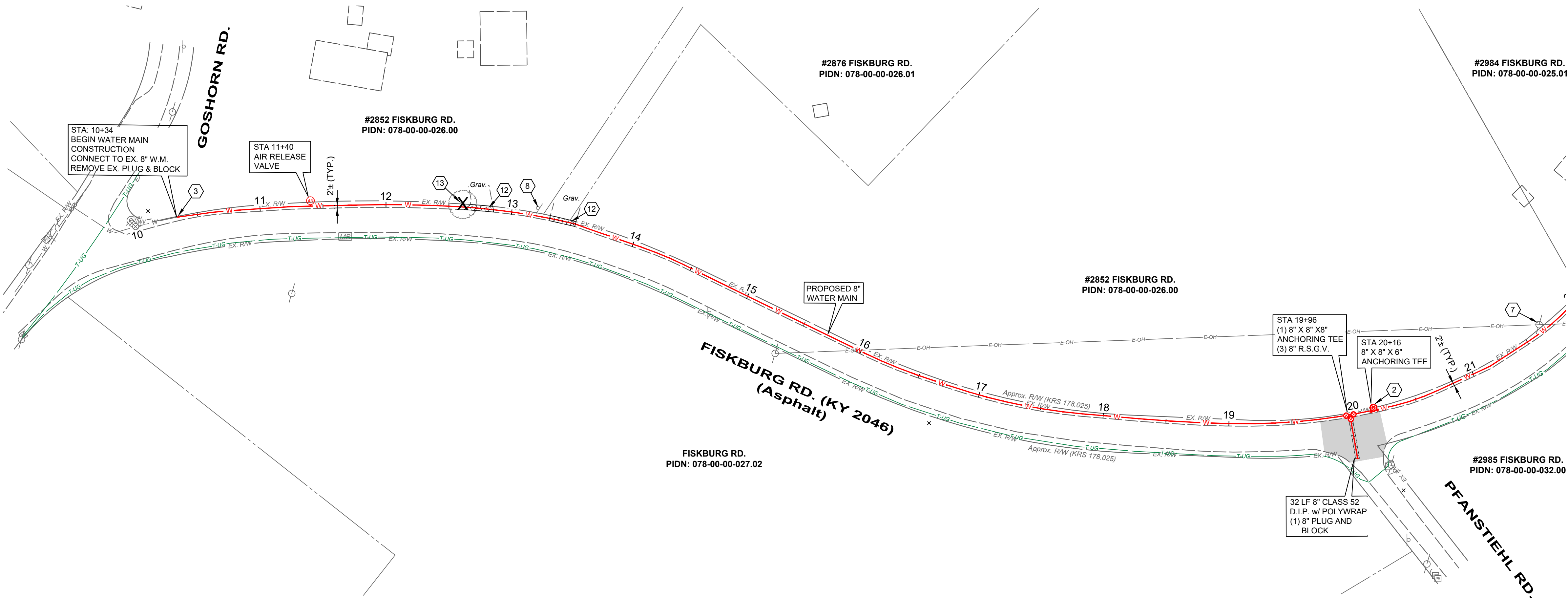
GENE STREET

PROJECT NO.
231591

DISCIPLINE
CIVIL

SHEET NAME
C-11

SHEET 18 OF 28



SCALE:
H: 1" = 50'
V: 1" = 5'



0' 50' 100'
SCALE: 1" = 50'

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- TRENCH RESTORATION - 8" AGGREGATE PAVEMENT
- CONTROL DENSITY FILL - PAV'T TRENCH
- CONCRETE DRIVEWAY REPLACEMENT - SEE DETAIL SHEET
- CONCRETE WALK REPLACEMENT - SEE DETAIL SHEET
- ASPHALT DRIVEWAY REPLACEMENT - SEE DETAIL SHEET
- GRAVEL DRIVEWAY REPLACEMENT - SEE DETAIL SHEET
- CHANNEL LINING, CLASS II - SEE DETAIL SHEET

* DENOTES PROPERTY WITH NEW SERVICE AND METER SETTING

verdantas

2161 CHAMBER CENTER DRIVE
FORT MITCHELL, KENTUCKY 41017
TEL (859) 525-0544
WWW.VERDANTAS.COM

ISSUED FOR:	BID	NO	REVISION	DATE
APRIL 2025	AS SHOWN	JCOR	JCOR	JSHU
ISSUE DATE:	SCALE:	DESIGNED BY:	DRAWN BY:	CHECKED BY:

NORTHERN KENTUCKY WATER DISTRICT
SUBDISTRICT 'O'
-KENTON COUNTY -

FIKSBURG ROAD
STA. 10+00 TO STA. 21+00

PROJECT NO.
231591

DISCIPLINE

CIVIL

SHEET NAME

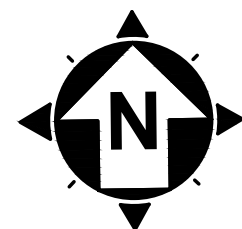
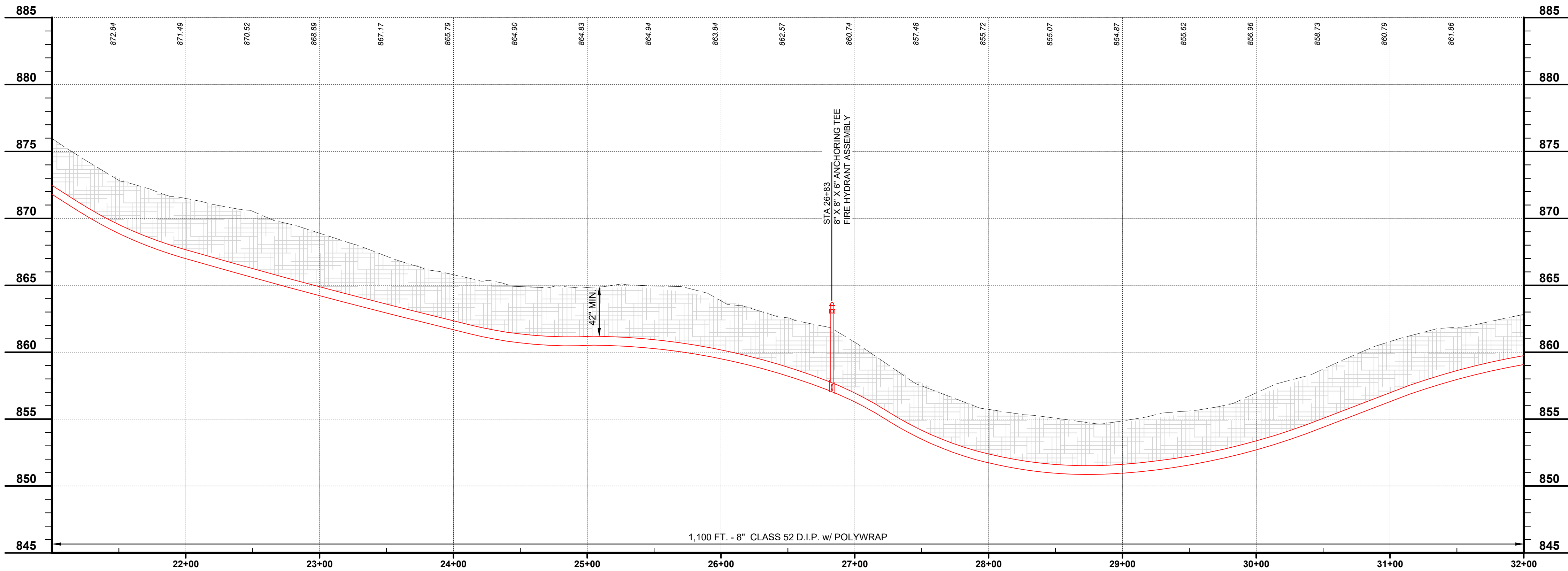
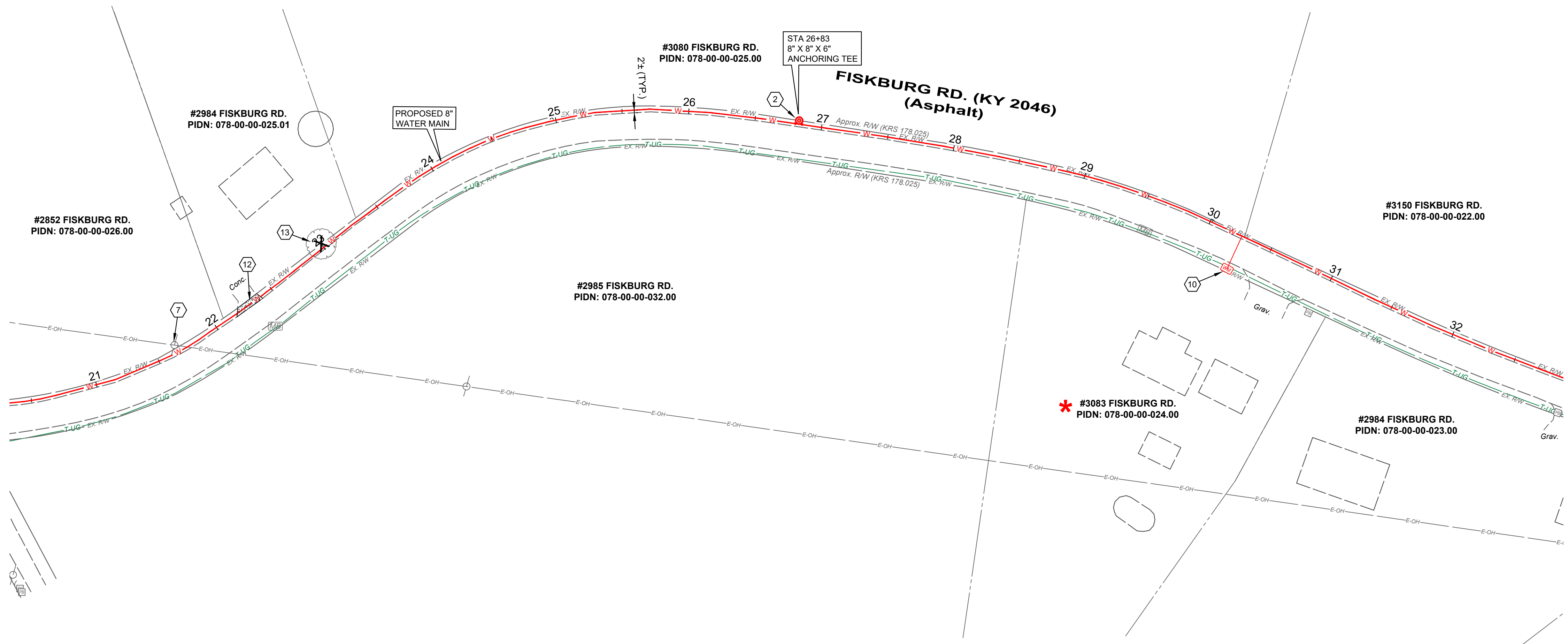
C-12

SHEET

19

OF

28



0' 50' 100'
SCALE: 1" = 50'

CONSTRUCTION NOTES

1. MAINTAIN MANAGEABLE VERTICAL CLEARANCE BETWEEN THE PROPOSED WATER MAIN AND THE EXISTING STORM SEWER, WATER MAIN, TELEPHONE DUCTS, AND GAS MAIN. CONSTRUCT ALL SANITARY SEWER CROSSINGS PER N.K.W.D. SPECIFICATIONS ITEM 1.14. MAINTAIN MINIMUM 18" BETWEEN THE PROPOSED WATER MAIN AND THE EXISTING SANITARY SEWER, ACTUAL ELEVATION UNKNOWN. CONTRACTOR TO EXCAVATE & VERIFY ACTUAL LOCATION, SIZE AND ELEVATION OF EXISTING UTILITY PRIOR TO BEGINNING WATER MAIN CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION OF ANY POTENTIAL CONFLICT. NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS WORK AND THE COST SHALL BE INCLUDED IN THE BID ITEM FOR WATER MAIN.
2. PROPOSED FIRE HYDRANT ASSEMBLY, VALVE AND BLOCKING AS PER N.K.W.D. STD. DRAWING NO. 109. COORDINATE LOCATION WITH N.K.W.D. INSPECTOR. ANCHOR VALVE TO TEE.
3. CONNECT TO EXISTING WATER MAIN (ACTUAL ELEVATION UNKNOWN). CONTRACTOR TO VERIFY DEPTH PRIOR TO CONSTRUCTION.
4. CHANNEL LINING, CLASS II (18") w/ NON-WOVEN GEOTEXTILE FILTER FABRIC
5. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF UTILITY PRIOR TO EXCAVATION ACTIVITY AND NOTIFY ENGINEER AND N.K.W.D. OF CONFLICTS. (** SEE NOTE)
6. DO NOT DISTURB
7. CONTRACTOR TO SUPPORT UTILITY POLE DURING PIPE INSTALLATION (** SEE NOTE)
8. REMOVE AND REPLACE SIGN (** SEE NOTE)
9. REMOVE AND REPLACE MAILBOX (** SEE NOTE)
10. INSTALL 5/8" METER SETTING PER NKWD STD. DWG. No. 107. INSTALL WATER SERVICE LINE (3/4" TYPE K COPPER) FROM THE PROPOSED WATER MAIN TO THE METER SETTING. MATERIAL WILL BE PROVIDED BY NKWD FOR THIS WORK. UNIT PRICE INCLUDES LABOR, EQUIPMENT, EXCAVATION, BEDDING, BACKFILL, ASPHALT, CONCRETE AND YARD RESTORATION TO INSTALL SERVICE LINE AS SHOWN ON PLANS OR DIRECTED BY NKWD IN ACCORDANCE WITH SPECS & STD. DWGS., COMPLETE.
11. REMOVE & REPLACE STORM STRUCTURE (CB,HW) AS NEEDED FOR WATER MAIN INSTALLATION (** SEE NOTE)
12. DRIVEWAY RESTORATION (SEE DETAILS)
13. TREE TO BE REMOVED

** NOTE:

WORK FOR THIS ITEM SHALL BE CONSIDERED INCIDENTAL TO THE OVERALL PROJECT AND NO ADDITIONAL PAYMENT SHALL BE MADE FOR THIS WORK. COST SHALL BE INCLUDED IN THE BID ITEM FOR WATER MAIN.

HATCH LEGEND

- 1-1/2" ASPHALT PAVEMENT MILL AND OVERLAY AREA
- TRENCH RESTORATION - ASPHALT PAVEMENT - SEE DETAIL SHEET
- TRENCH RESTORATION - CONCRETE PAVEMENT - SEE DETAIL SHEET
- TRENCH RESTORATION - 8" AGGREGATE PAVEMENT
- CONTROL DENSITY FILL - PAV'T TRENCH
- CONCRETE DRIVEWAY REPLACEMENT - SEE DETAIL SHEET
- CONCRETE WALK REPLACEMENT - SEE DETAIL SHEET
- ASPHALT DRIVEWAY REPLACEMENT - SEE DETAIL SHEET
- GRAVEL DRIVEWAY REPLACEMENT - SEE DETAIL SHEET
- CHANNEL LINING, CLASS II - SEE DETAIL SHEET

* DENOTES PROPERTY WITH NEW SERVICE AND METER SETTING

verdantas

2161 CHAMBER CENTER DRIVE
FORT MITCHELL, KENTUCKY 41017
TEL (859) 525-0544
WWW.VERDANTAS.COM

ISSUED FOR:	BID	NO	REVISION	DATE
APRIL 2025				
SCALE:	AS SHOWN			
DESIGNED BY:	JCOR			
DRAWN BY:	JCOR			
CHECKED BY:	JSHU			

NORTHERN KENTUCKY WATER DISTRICT
SUBDISTRICT 'O'
-KENTON COUNTY -

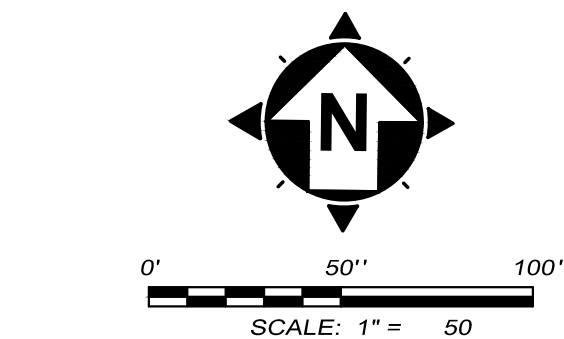
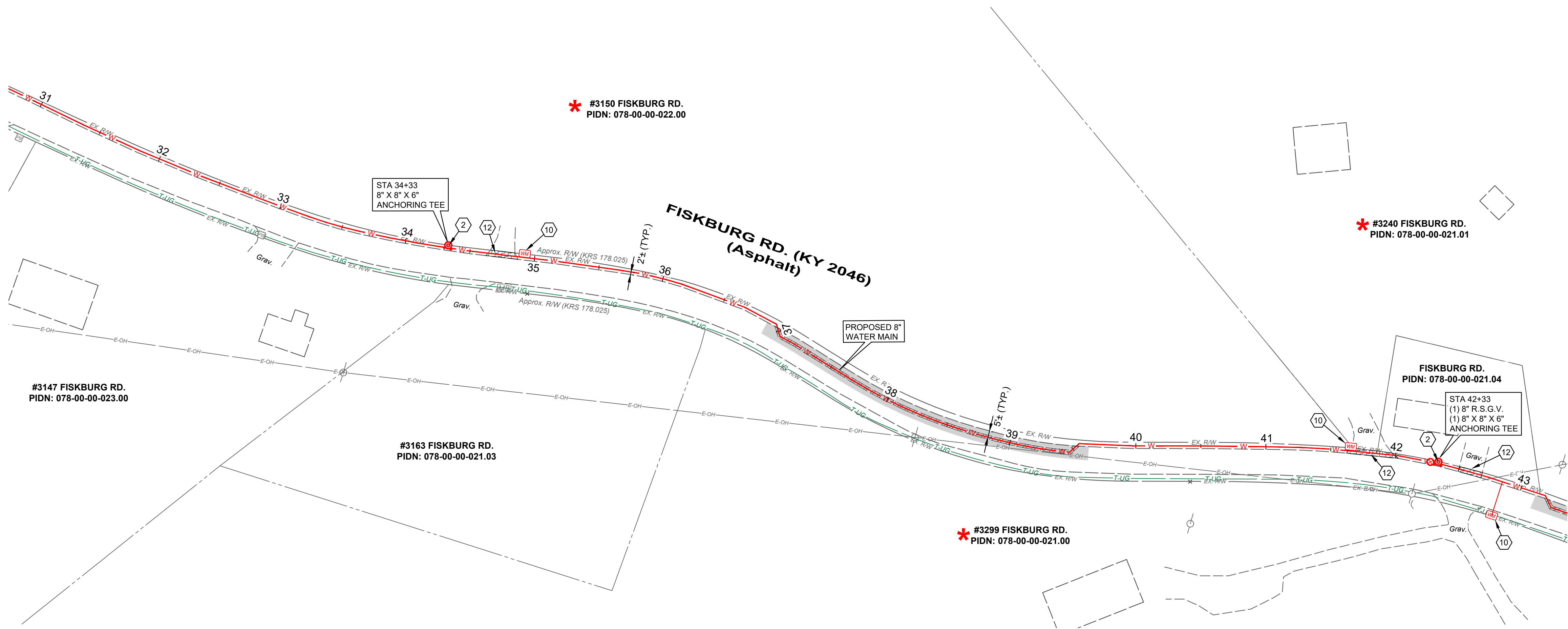
FISKBURG ROAD
STA. 21+00 TO STA. 32+00

PROJECT NO.
231591

DISCIPLINE
CIVIL

SHEET NAME
C-13

SHEET 20 OF 28



CONSTRUCTION NOTES

1. MAINTAIN MANAGEABLE VERTICAL CLEARANCE BETWEEN THE PROPOSED WATER MAIN AND THE EXISTING STORM SEWER, WATER MAIN, TELEPHONE DUCTS, AND GAS MAIN. CONSTRUCT ALL SANITARY SEWER CROSSINGS PER N.K.W.D. SPECIFICATIONS ITEM 1.14. MAINTAIN MINIMUM 18" BETWEEN THE PROPOSED WATER MAIN AND THE EXISTING SANITARY SEWER, ACTUAL ELEVATION UNKNOWN. CONTRACTOR TO EXCAVATE & VERIFY ACTUAL LOCATION, SIZE AND ELEVATION OF EXISTING UTILITY PRIOR TO BEGINNING WATER MAIN CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION OF ANY POTENTIAL CONFLICT. NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS WORK AND THE COST SHALL BE INCLUDED IN THE BID ITEM FOR WATER MAIN.
2. PROPOSED FIRE HYDRANT ASSEMBLY, VALVE AND BLOCKING AS PER N.K.W.D. STD. DRAWING NO. 109. COORDINATE LOCATION WITH N.K.W.D. INSPECTOR. ANCHOR VALVE TO TEE.
3. CONNECT TO EXISTING WATER MAIN (ACTUAL ELEVATION UNKNOWN). CONTRACTOR TO VERIFY DEPTH PRIOR TO CONSTRUCTION.
4. CHANNEL LINING, CLASS II (18") w/ NON-WOVEN GEOTEXTILE FILTER FABRIC
5. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF UTILITY PRIOR TO EXCAVATION ACTIVITY AND NOTIFY ENGINEER AND N.K.W.D. OF CONFLICTS. (** SEE NOTE)
6. DO NOT DISTURB
7. CONTRACTOR TO SUPPORT UTILITY POLE DURING PIPE INSTALLATION (** SEE NOTE)
8. REMOVE AND REPLACE SIGN (** SEE NOTE)
9. REMOVE AND REPLACE MAILBOX (** SEE NOTE)
10. INSTALL 5/8" METER SETTING PER NKWD STD. DWG. No. 107. INSTALL WATER SERVICE LINE (3/4" TYPE K COPPER) FROM THE PROPOSED WATER MAIN TO THE METER SETTING. MATERIAL WILL BE PROVIDED BY NKWD FOR THIS WORK. UNIT PRICE INCLUDES LABOR, EQUIPMENT, EXCAVATION, BEDDING, BACKFILL, ASPHALT, CONCRETE AND YARD RESTORATION TO INSTALL SERVICE LINE AS SHOWN ON PLANS OR DIRECTED BY NKWD IN ACCORDANCE WITH SPECS & STD. DWGS., COMPLETE.
11. REMOVE & REPLACE STORM STRUCTURE (CB,HW) AS NEEDED FOR WATER MAIN INSTALLATION (** SEE NOTE)
12. DRIVEWAY RESTORATION (SEE DETAILS)
13. TREE TO BE REMOVED

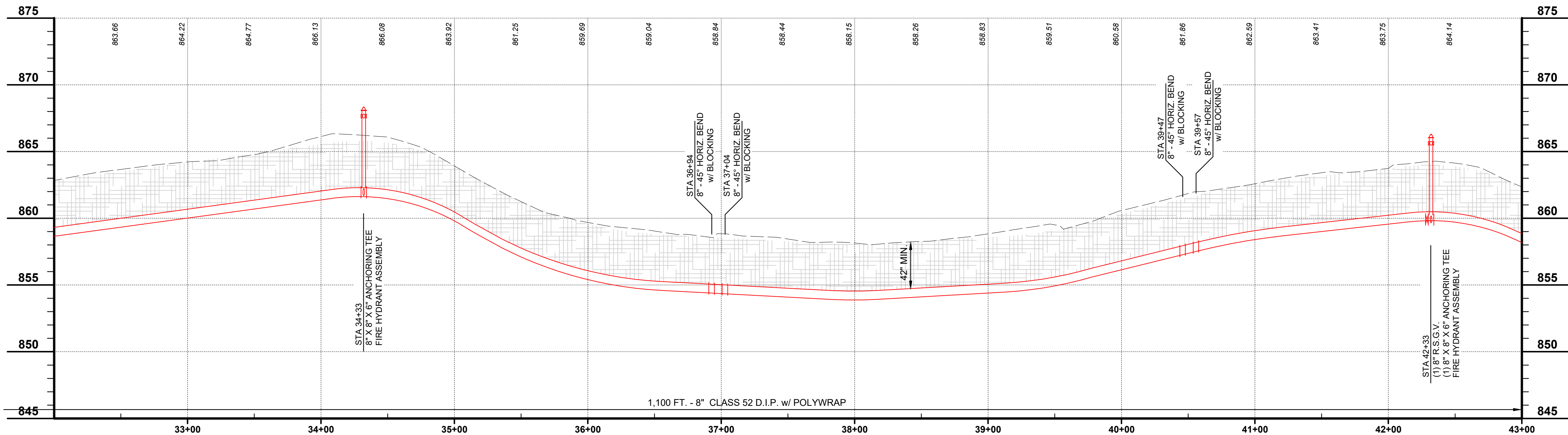
** NOTE:

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HATCH LEGEND

- 1-1/2" ASPHALT PAVEMENT MILL AND OVERLAY AREA
- TRENCH RESTORATION - ASPHALT PAVEMENT - SEE DETAIL SHEET
- TRENCH RESTORATION - CONCRETE PAVEMENT - SEE DETAIL SHEET
- TRENCH RESTORATION - 8" AGGREGATE PAVEMENT
- CONTROL DENSITY FILL - PAV'T TRENCH
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- CONCRETE WALK REPLACEMENT - SEE DETAIL SHEET
- ASPHALT DRIVEWAY REPLACEMENT - SEE DETAIL SHEET
- GRAVEL DRIVEWAY REPLACEMENT - SEE DETAIL SHEET
- CHANNEL LINING, CLASS II - SEE DETAIL SHEET

* DENOTES PROPERTY WITH NEW SERVICE AND METER SETTING



SCALE:
H: 1" = 50'
V: 1" = 5'

verdantas

2161 CHAMBER CENTER DRIVE
FORT MITCHELL, KENTUCKY 41017
TEL (859) 525-0544
WWW.VERDANTAS.COM

NORTHERN KENTUCKY WATER DISTRICT
SUBDISTRICT 'O'
-KENTON COUNTY -

FIKSBURG ROAD
STA. 32+00 TO STA. 43+00

PROJECT NO.

231591

DISCIPLINE

CIVIL

SHEET NAME

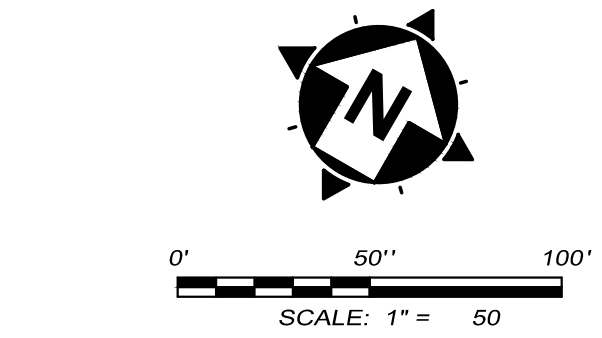
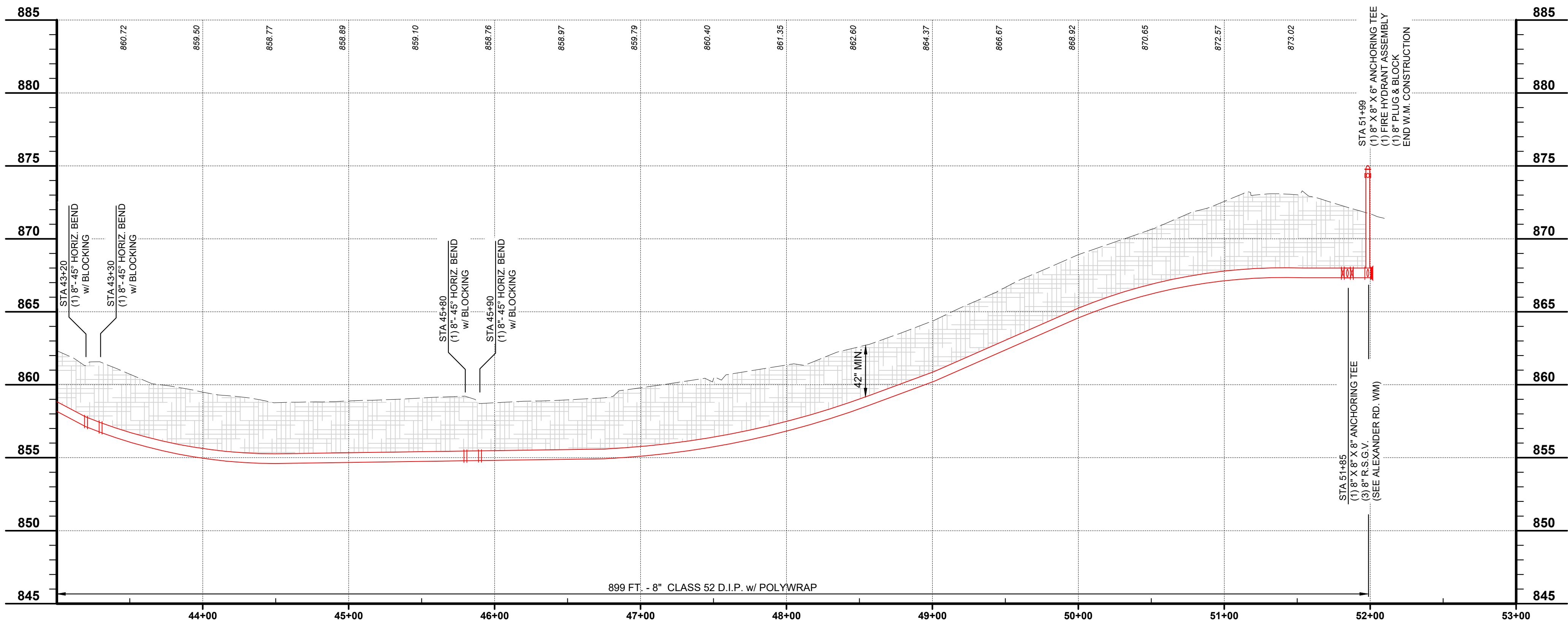
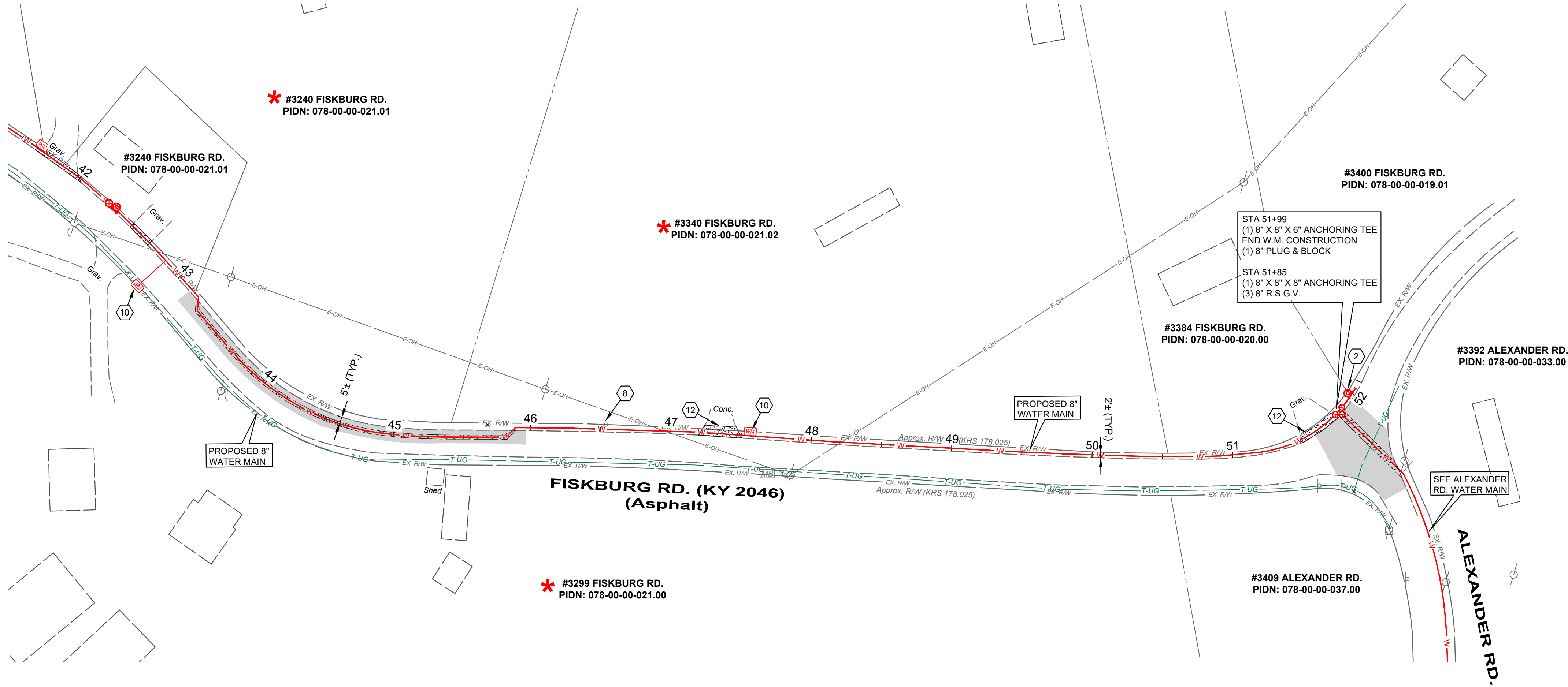
C-14

SHEET

21

OF

28



CONSTRUCTION NOTES

1. MAINTAIN MANAGEABLE VERTICAL CLEARANCE BETWEEN THE PROPOSED WATER MAIN AND THE EXISTING STORM SEWER, WATER MAIN, TELEPHONE DUCTS, AND GAS MAIN. CONSTRUCT ALL SANITARY SEWER CROSSINGS PER N.K.W.D. SPECIFICATIONS ITEM 1.14. MAINTAIN MINIMUM 18" BETWEEN THE PROPOSED WATER MAIN AND THE EXISTING SANITARY SEWER, ACTUAL ELEVATION UNKNOWN. CONTRACTOR TO EXCAVATE & VERIFY ACTUAL LOCATION, SIZE AND ELEVATION OF EXISTING UTILITY PRIOR TO BEGINNING WATER MAIN CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION OF ANY POTENTIAL CONFLICT. NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS WORK AND THE COST SHALL BE INCLUDED IN THE BID ITEM FOR WATER MAIN.
2. PROPOSED FIRE HYDRANT ASSEMBLY, VALVE AND BLOCKING AS PER N.K.W.D. STD. DRAWING NO. 109. COORDINATE LOCATION WITH N.K.W.D. INSPECTOR. ANCHOR VALVE TO TEE.
3. CONNECT TO EXISTING WATER MAIN (ACTUAL ELEVATION UNKNOWN). CONTRACTOR TO VERIFY DEPTH PRIOR TO CONSTRUCTION.
4. CHANNEL LINING, CLASS II (18") w/ NON-WOVEN GEOTEXTILE FILTER FABRIC
5. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF UTILITY PRIOR TO EXCAVATION ACTIVITY AND NOTIFY ENGINEER AND N.K.W.D. OF CONFLICTS. (** SEE NOTE)
6. DO NOT DISTURB
7. CONTRACTOR TO SUPPORT UTILITY POLE DURING PIPE INSTALLATION (** SEE NOTE)
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9. REMOVE AND REPLACE MAILBOX (** SEE NOTE)
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11. REMOVE & REPLACE STORM STRUCTURE (CB,H,W) AS NEEDED FOR WATER MAIN INSTALLATION (** SEE NOTE)
12. DRIVEWAY RESTORATION (SEE DETAILS)
13. TREE TO BE REMOVED

** NOTE:

WORK FOR THIS ITEM SHALL BE CONSIDERED INCIDENTAL TO THE OVERALL PROJECT AND NO ADDITIONAL PAYMENT SHALL BE MADE FOR THIS WORK. COST SHALL BE INCLUDED IN THE BID ITEM FOR WATER MAIN.

HATCH LEGEND

- 1-1/2" ASPHALT PAVEMENT MILL AND OVERLAY AREA
- TRENCH RESTORATION - ASPHALT PAVEMENT - SEE DETAIL SHEET
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- GRAVEL DRIVEWAY REPLACEMENT - SEE DETAIL SHEET
- CHANNEL LINING, CLASS II - SEE DETAIL SHEET

* DENOTES PROPERTY WITH NEW SERVICE AND METER SETTING

verdantas

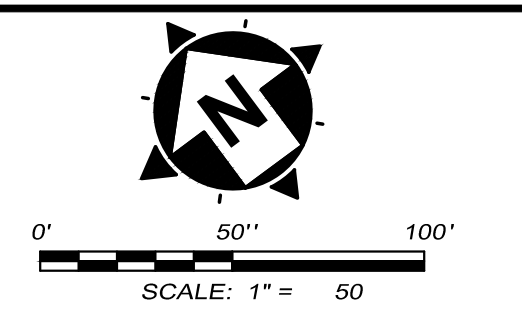
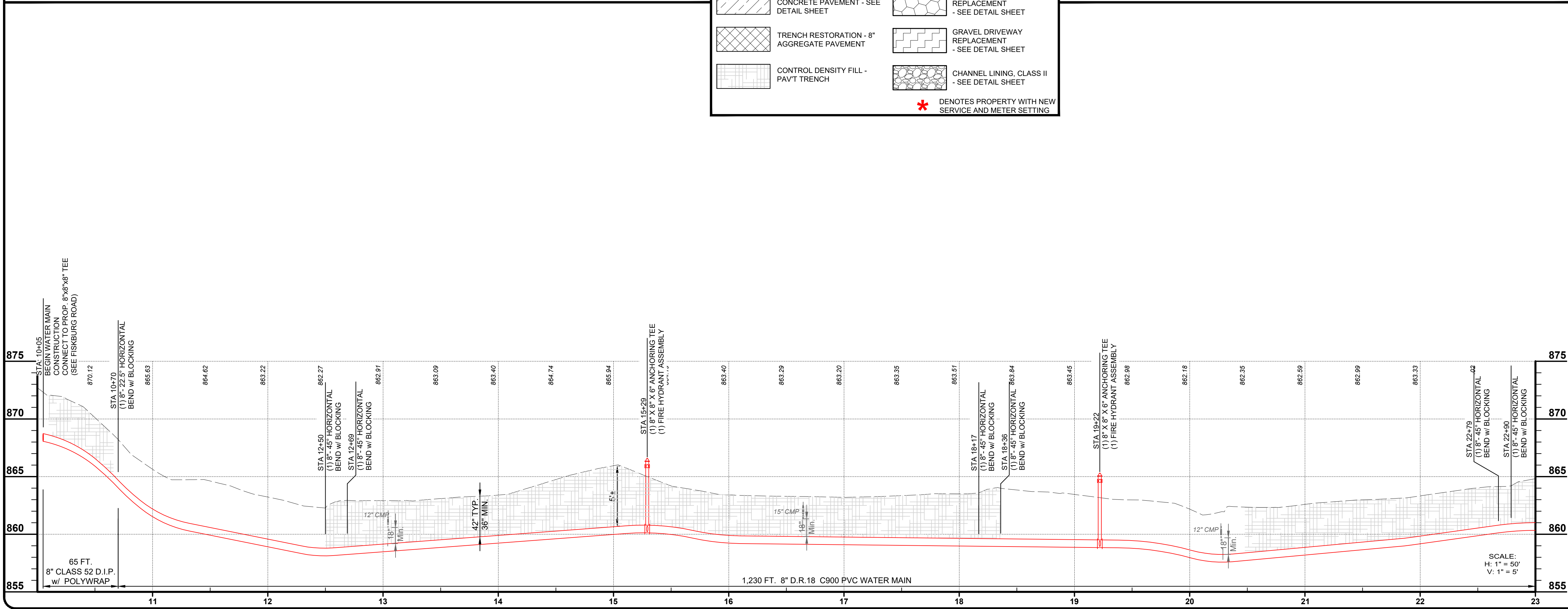
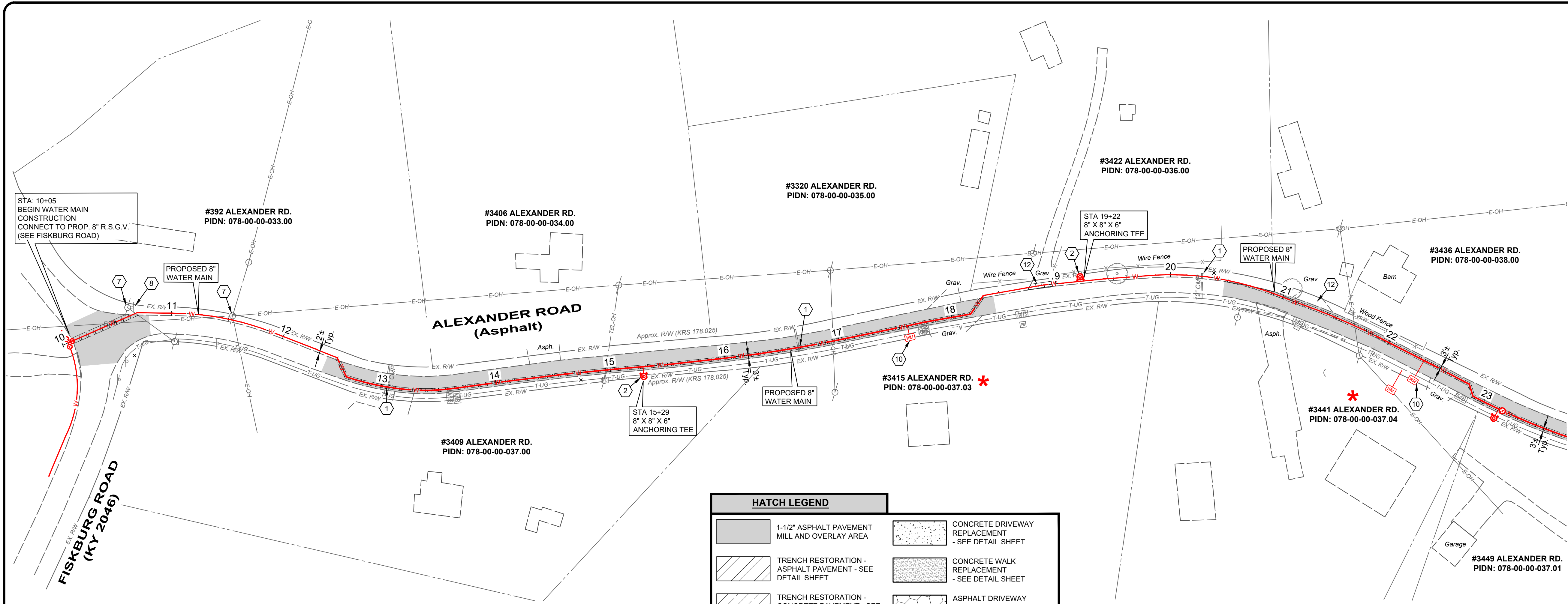
2161 CHAMBER CENTER DRIVE
FORT MITCHELL, KENTUCKY 41017
TEL: (859) 525-0544
WWW.VERDANTAS.COM

ISSUED FOR:	BID	NO	REVISION	DATE
APRIL 2025	AS SHOWN	JCOR	JCOR	JSHU
ISSUE DATE:	SCALE:	DESIGNED BY:	DRAWN BY:	CHECKED BY:

NORTHERN KENTUCKY WATER DISTRICT
SUBDISTRICT 'O'
-KENTON COUNTY -


FIKSBURG ROAD
STA. 43+00 TO STA. 52+27

PROJECT NO.	231591
DISCIPLINE	CIVIL
SHEET NAME	C-15
SHEET	22
OF	28



- CONSTRUCTION NOTES**
- 1 MAINTAIN MANAGEABLE VERTICAL CLEARANCE BETWEEN THE PROPOSED WATER MAIN AND THE EXISTING STORM SEWER, WATER MAIN, TELEPHONE DUCTS, AND GAS MAIN. CONSTRUCT ALL SANITARY SEWER CROSSINGS PER N.K.W.D. SPECIFICATIONS ITEM 1.14. MAINTAIN MINIMUM 18" BETWEEN THE PROPOSED WATER MAIN AND THE EXISTING SANITARY SEWER, ACTUAL ELEVATION UNKNOWN. CONTRACTOR TO EXCAVATE & VERIFY ACTUAL LOCATION, SIZE AND ELEVATION OF EXISTING UTILITY PRIOR TO BEGINNING WATER MAIN CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION OF ANY POTENTIAL CONFLICT. NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS WORK AND THE COST SHALL BE INCLUDED IN THE BID ITEM FOR WATER MAIN.
 - 2 PROPOSED FIRE HYDRANT ASSEMBLY, VALVE AND BLOCKING AS PER N.K.W.D. STD. DRAWING NO. 109. COORDINATE LOCATION WITH N.K.W.D. INSPECTOR. ANCHOR VALVE TO TEE.
 - 3 CONNECT TO EXISTING WATER MAIN (ACTUAL ELEVATION UNKNOWN), CONTRACTOR TO VERIFY DEPTH PRIOR TO CONSTRUCTION.
 - 4 CHANNEL LINING, CLASS II (18") w/ NON-WOVEN GEOTEXTILE FILTER FABRIC
 - 5 CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF UTILITY PRIOR TO EXCAVATION ACTIVITY AND NOTIFY ENGINEER AND N.K.W.D. OF CONFLICTS. (** SEE NOTE)
 - 6 DO NOT DISTURB
 - 7 CONTRACTOR TO SUPPORT UTILITY POLE DURING PIPE INSTALLATION (** SEE NOTE)
 - 8 REMOVE AND REPLACE SIGN (** SEE NOTE)
 - 9 REMOVE AND REPLACE MAILBOX (** SEE NOTE)
 - 10 INSTALL 5/8" METER SETTING PER NKWD STD. DWG. No. 107. INSTALL WATER SERVICE LINE (3/4" TYPE K COPPER) FROM THE PROPOSED WATER MAIN TO THE METER SETTING. MATERIAL WILL BE PROVIDED BY NKWD FOR THIS WORK. UNIT PRICE INCLUDES LABOR, EQUIPMENT, EXCAVATION, BEDDING, BACKFILL, ASPHALT, CONCRETE AND YARD RESTORATION TO INSTALL SERVICE LINE AS SHOWN ON PLANS OR DIRECTED BY NKWD IN ACCORDANCE WITH SPECS & STD. DWGS., COMPLETE.
 - 11 REMOVE & REPLACE STORM STRUCTURE (CB.HW) AS NEEDED FOR WATER MAIN INSTALLATION (** SEE NOTE)
 - 12 DRIVEWAY RESTORATION (SEE DETAILS)
 - 13 TREE TO BE REMOVED

**** NOTE:**
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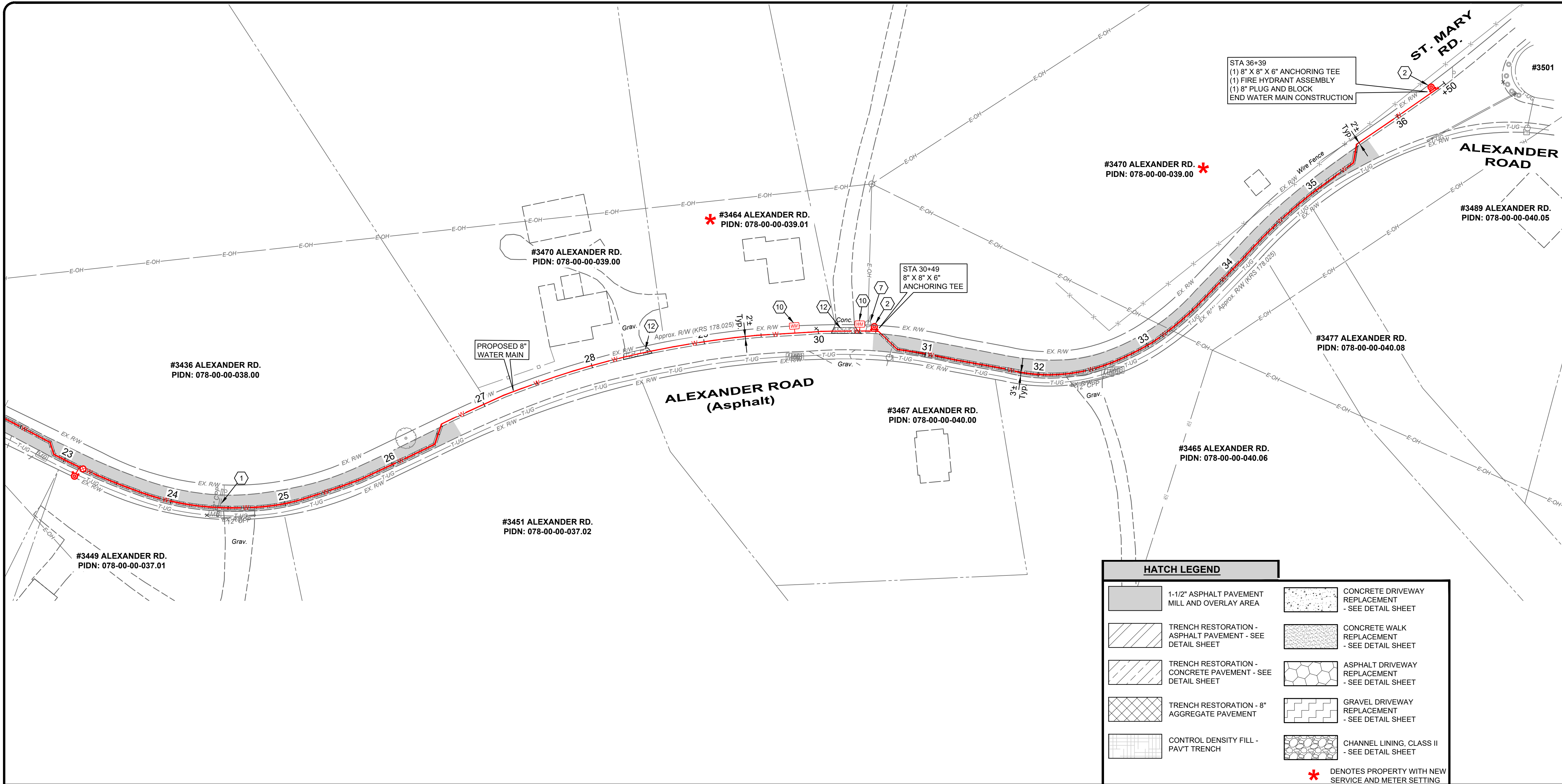
2161 CHAMBER CENTER DRIVE
FORT MITCHELL, KENTUCKY 41017
TEL: (859) 525-0544
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DATE	REVISION	NO	BID	ISSUED FOR:	ISSUE DATE:	SCALE:	DESIGNED BY:	DRAWN BY:	CHECKED BY:
			APRIL 2025	AS SHOWN			JCOR	JCOR	JSHU

NORTHERN KENTUCKY WATER DISTRICT
SUBDISTRICT 'O'
-KENTON COUNTY -

ALEXANDER ROAD
STA. 10+00 TO STA. 23+00

PROJECT NO.	
231591	
DISCIPLINE	
CIVIL	
SHEET NAME	
C-16	
SHEET	OF
23	28

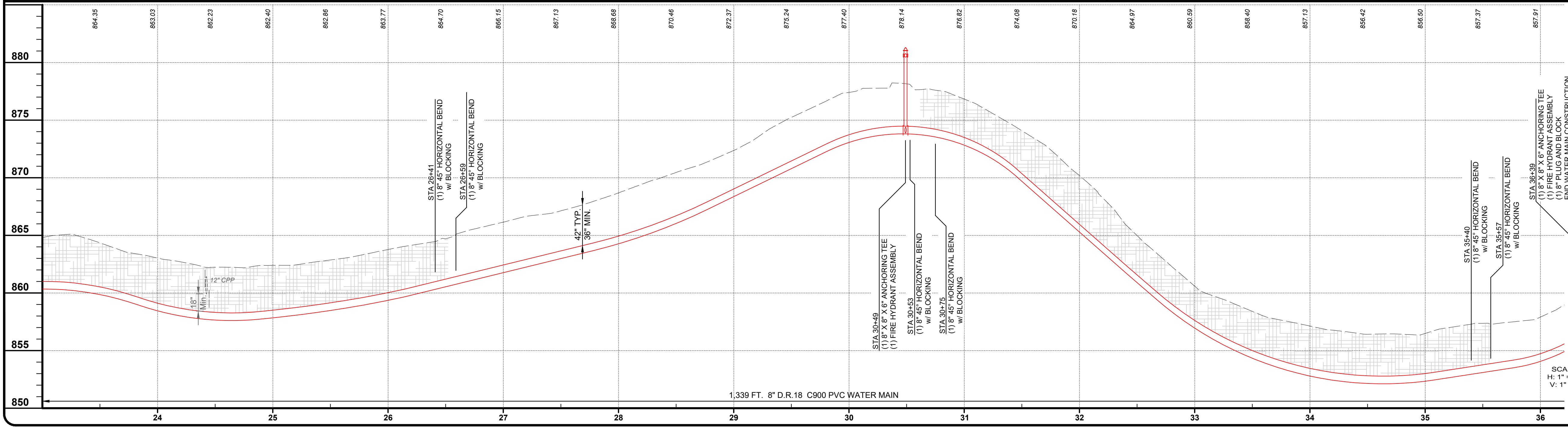


SCALE: 1" = 50'

CONSTRUCTION NOTES

- MAINTAIN MANAGEABLE VERTICAL CLEARANCE BETWEEN THE PROPOSED WATER MAIN AND THE EXISTING STORM SEWER, WATER MAIN, TELEPHONE DUCTS, AND GAS MAIN. CONSTRUCT ALL SANITARY SEWER CROSSINGS PER N.K.W.D. SPECIFICATIONS ITEM 1.14. MAINTAIN MINIMUM 18" BETWEEN THE PROPOSED WATER MAIN AND THE EXISTING SANITARY SEWER, ACTUAL ELEVATION UNKNOWN. CONTRACTOR TO EXCAVATE & VERIFY ACTUAL LOCATION, SIZE AND ELEVATION OF EXISTING UTILITY PRIOR TO BEGINNING WATER MAIN CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION OF ANY POTENTIAL CONFLICT. NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS WORK AND THE COST SHALL BE INCLUDED IN THE BID ITEM FOR WATER MAIN.
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- REMOVE & REPLACE STORM STRUCTURE (CB,HV) AS NEEDED FOR WATER MAIN INSTALLATION (** SEE NOTE)
- DRIVEWAY RESTORATION (SEE DETAILS)
- TREE TO BE REMOVED

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2161 CHAMBER CENTER DRIVE
FORT MITCHELL, KENTUCKY 41017
TEL: (859) 525-0544
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ISSUED FOR:	BID	DATE	REVISION	NO	DATE
ISSUE DATE:	APRIL 2025				
SCALE:	AS SHOWN				
DESIGNED BY:	JCOR				
DRAWN BY:	JCOR				
CHECKED BY:	JSHU				

NORTHERN KENTUCKY WATER DISTRICT
SUBDISTRICT 'O'
-KENTON COUNTY -

ALEXANDER ROAD
STA. 23+00 TO STA. 36+00

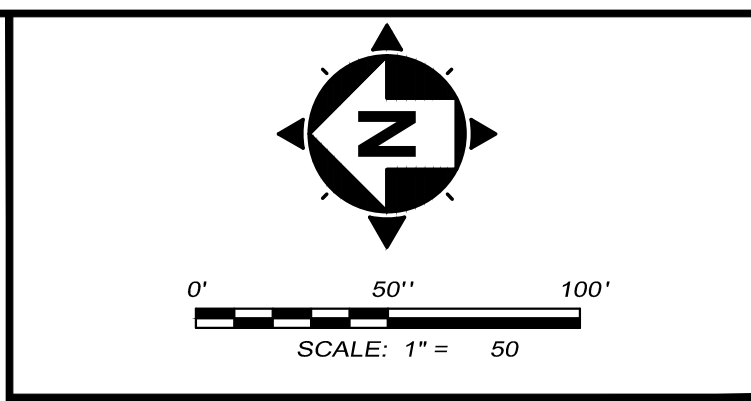
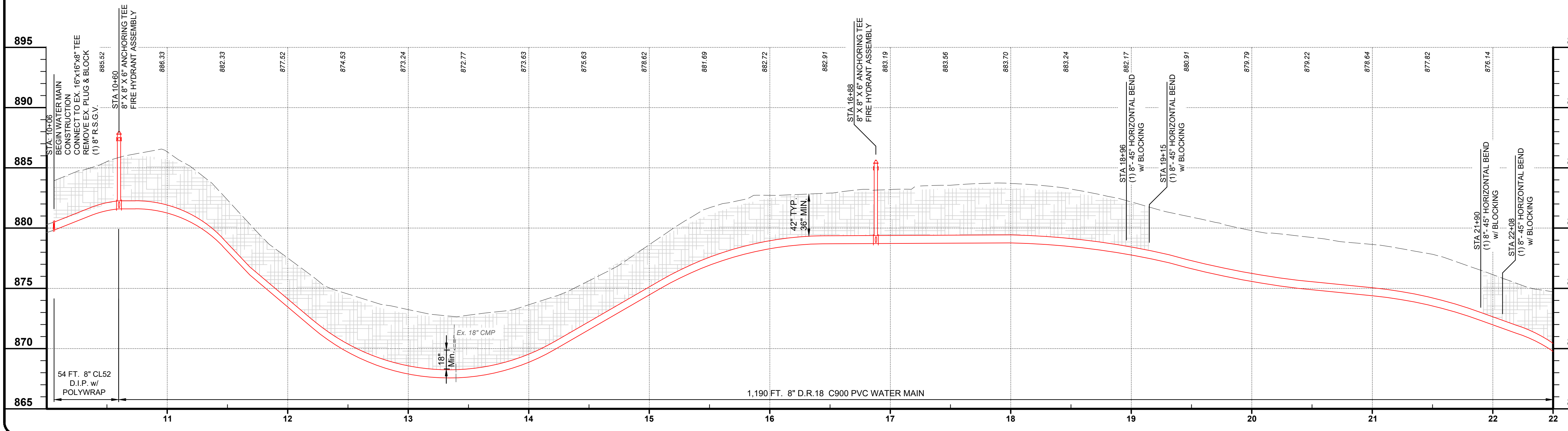
PROJECT NO.
231591

DISCIPLINE
CIVIL

SHEET NAME
C-17

SHEET
24


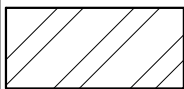
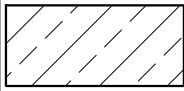
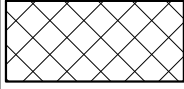
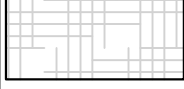
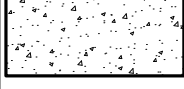

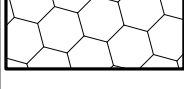
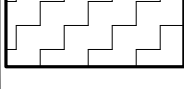
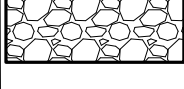

OF
28



- | CONSTRUCTION NOTES | |
|--------------------|--|
| 1 | MAINTAIN MANAGEABLE VERTICAL CLEARANCE BETWEEN THE PROPOSED WATER MAIN AND THE EXISTING STORM SEWER, WATER MAIN, TELEPHONE DUCTS, AND GAS MAIN. CONSTRUCT ALL SANITARY SEWER CROSSINGS PER N.K.W.D. SPECIFICATIONS ITEM 1.14. MAINTAIN MINIMUM 18" BETWEEN THE PROPOSED WATER MAIN AND THE EXISTING SANITARY SEWER. ACTUAL ELEVATION UNKNOWN. CONTRACTOR, TO EXCAVATE & VERIFY ACTUAL LOCATION, SIZE AND ELEVATION OF EXISTING UTILITY PRIOR TO BEGINNING WATER MAIN CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION OF ANY POTENTIAL CONFLICT. NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS WORK AND THE COST SHALL BE INCLUDED IN THE BID ITEM FOR WATER MAIN. |
| 2 | PROPOSED FIRE HYDRANT ASSEMBLY, VALVE AND BLOCKING AS PER N.K.W.D. STD. DRAWING NO. 109. COORDINATE LOCATION WITH N.K.W.D. INSPECTOR. ANCHOR VALVE TO TEE. |
| 3 | CONNECT TO EXISTING WATER MAIN (ACTUAL ELEVATION UNKNOWN). CONTRACTOR TO VERIFY DEPTH PRIOR TO CONSTRUCTION. |
| 4 | CHANNEL LINING, CLASS II (18") w/ NON-WOVEN GEOTEXTILE FILTER FABRIC |
| 5 | CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF UTILITY PRIOR TO EXCAVATION ACTIVITY AND NOTIFY ENGINEER AND N.K.W.D. OF CONFLICTS. (** SEE NOTE) |
| 6 | DO NOT DISTURB |
| 7 | CONTRACTOR TO SUPPORT UTILITY POLE DURING PIPE INSTALLATION (** SEE NOTE) |
| 8 | REMOVE AND REPLACE SIGN (** SEE NOTE) |
| 9 | REMOVE AND REPLACE MAILBOX (** SEE NOTE) |
| 10 | INSTALL 5/8" METER SETTING PER NKWD STD. DWG. No. 109 SERVICE LINE (3/4" TYPE K COPPER) FROM THE PROPOSED WATER MAIN TO THE METER SETTING. MATERIAL WILL BE PROVIDED BY NKWD FOR THIS WORK. UNIT PRICE INCLUDES LABOR, EQUIPMENT, EXCAVATION, BEDDING, BACKFILL, ASPHALT, CONCRETE AND YARD RESTORATION TO INSTALL SERVICE LINE AS SHOWN ON PLANS OR DIRECTED BY NKWD IN ACCORDANCE WITH SPECS & STD. DWGS., COMPLETE. |
| 11 | REMOVE & REPLACE STORM STRUCTURE (CB.HW) AS NEEDED FOR WATER MAIN INSTALLATION (** SEE NOTE) |
| 12 | DRIVEWAY RESTORATION (SEE DETAILS) |
| 13 | TREE TO BE REMOVED |

**** NOTE:**

WORK FOR THIS ITEM SHALL BE CONSIDERED INCIDENTAL TO THE OVERALL PROJECT AND NO ADDITIONAL PAYMENT SHALL BE MADE FOR THIS WORK. COST SHALL BE INCLUDED IN THE BID ITEM FOR WATER MAIN.

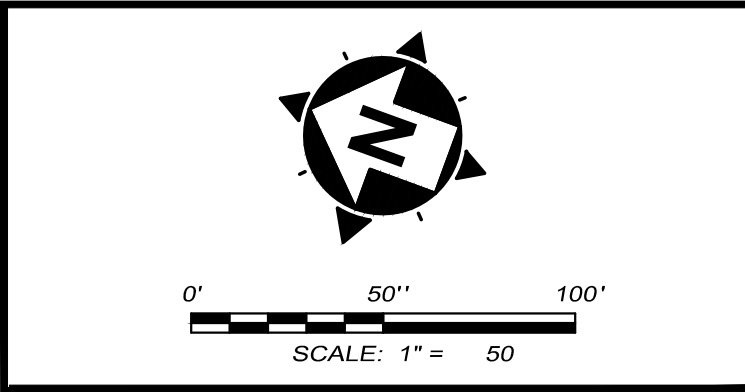
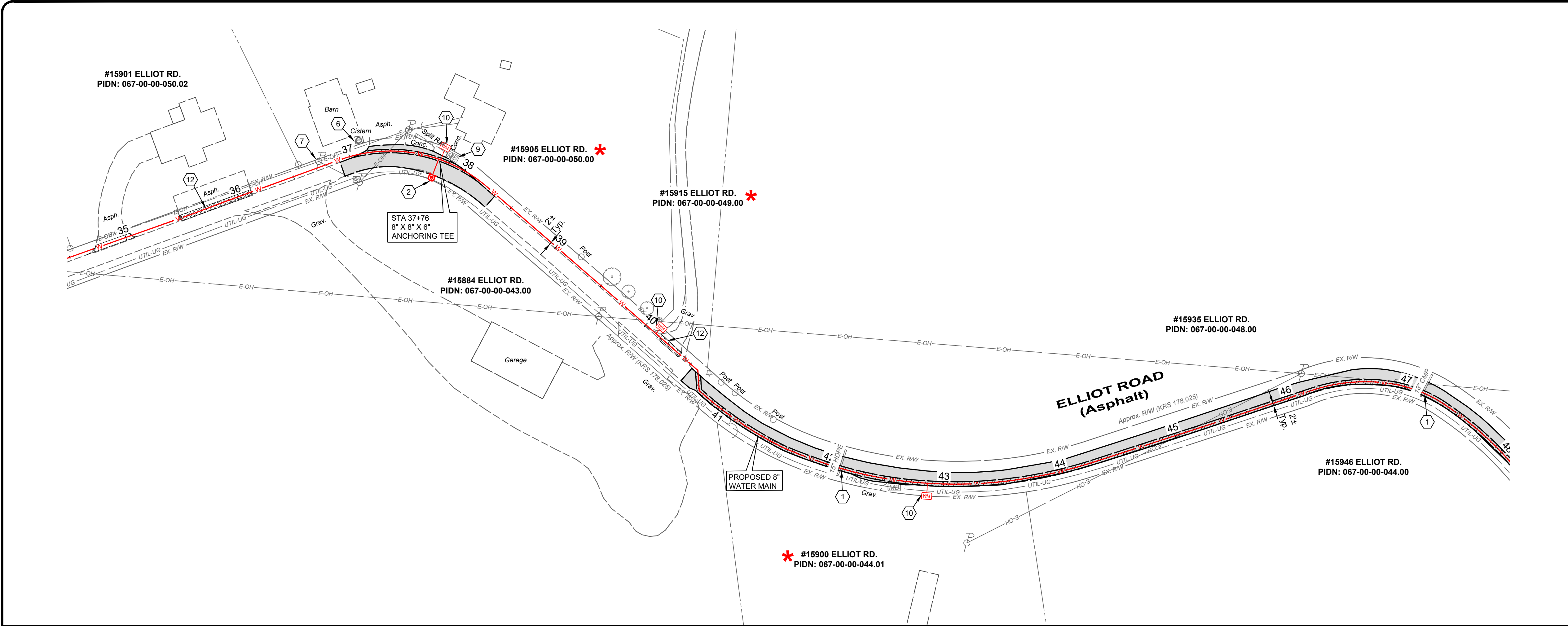
HATCH LEGEND	
	1-1/2" ASPHALT PAVEMENT MILL AND OVERLAY AREA
	TRENCH RESTORATION - ASPHALT PAVEMENT - SEE DETAIL SHEET
	TRENCH RESTORATION - CONCRETE PAVEMENT - SEE DETAIL SHEET
	TRENCH RESTORATION - 8" AGGREGATE PAVEMENT
	CONTROL DENSITY FILL - PAVT TRENCH
	CONCRETE DRIVEWAY REPLACEMENT - SEE DETAIL SHEET
	CONCRETE WALK REPLACEMENT - SEE DETAIL SHEET
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	GRAVEL DRIVEWAY REPLACEMENT - SEE DETAIL SHEET
	CHANNEL LINING, CLASS II - SEE DETAIL SHEET
	DENOTES PROPERTY WITH NEW SERVICE AND METER SETTING

PROJECT NO.		231591	
DISCIPLINE		CIVIL	
SHEET NAME		C-18	
SHEET	OF		
25			28

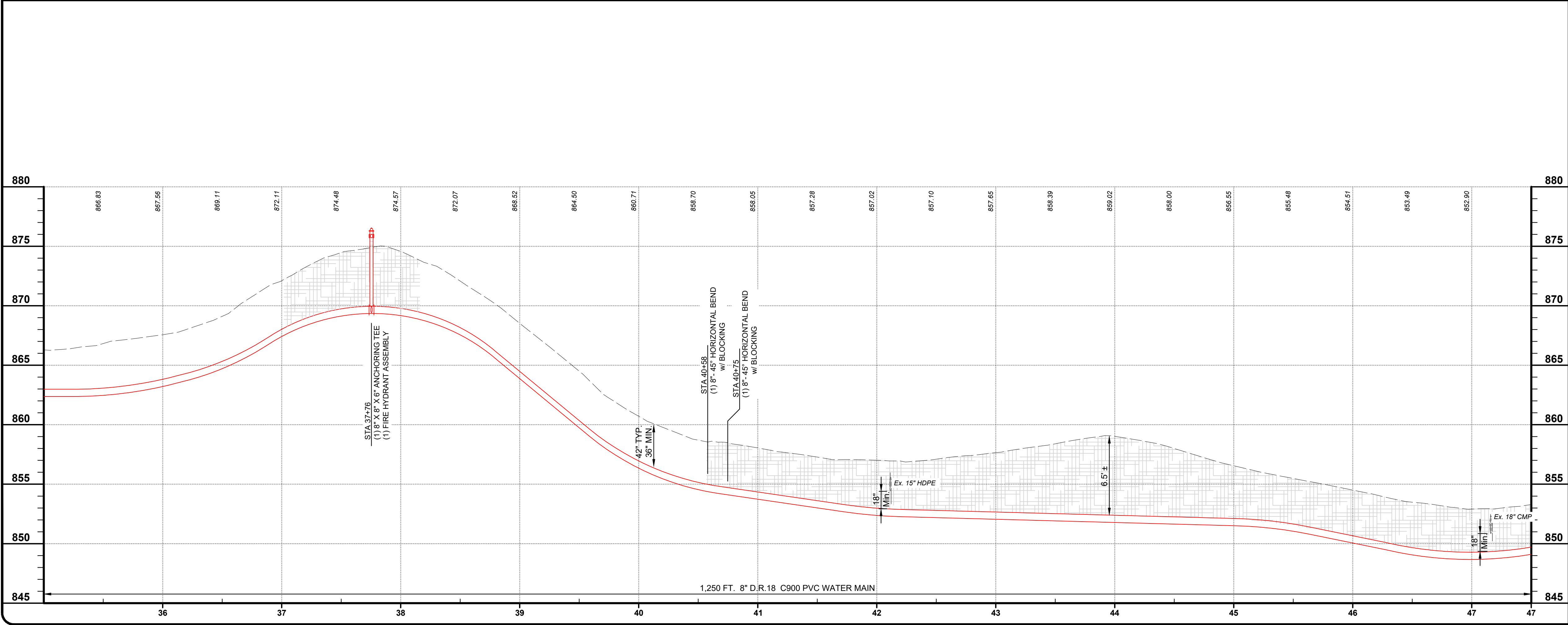
NORTHERN KENTUCKY WATER DISTRICT SUBDISTRICT 'O' -KENTON COUNTY -				ELLIOT ROAD STA. 10+00 TO STA. 22+50			
ISSUED FOR:	BID	NO	REVISION	DATE			
ISSUE DATE:	APRIL 2025						
SCALE:	AS SHOWN						
DESIGNED BY:	JCOR						
DRAWN BY:	JCOR						
CHECKED BY:	JSHU						

verdantas

2161 CHAMBER CENTER DRIVE
FORT MITCHELL, KENTUCKY 41017
TEL. (859) 522-0544
WWW.VERDANTAS.COM



- CONSTRUCTION NOTES**
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ISSUED FOR:	BID
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DESIGNED BY:	JCOR
DRAWN BY:	JCOR
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	CONTROL DENSITY FILL - PAV'T TRENCH
	CONCRETE DRIVEWAY REPLACEMENT - SEE DETAIL SHEET
	CONCRETE WALK REPLACEMENT - SEE DETAIL SHEET
	ASPHALT DRIVEWAY REPLACEMENT - SEE DETAIL SHEET
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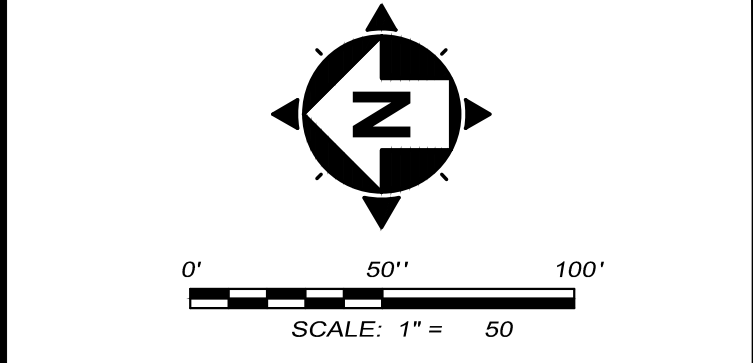
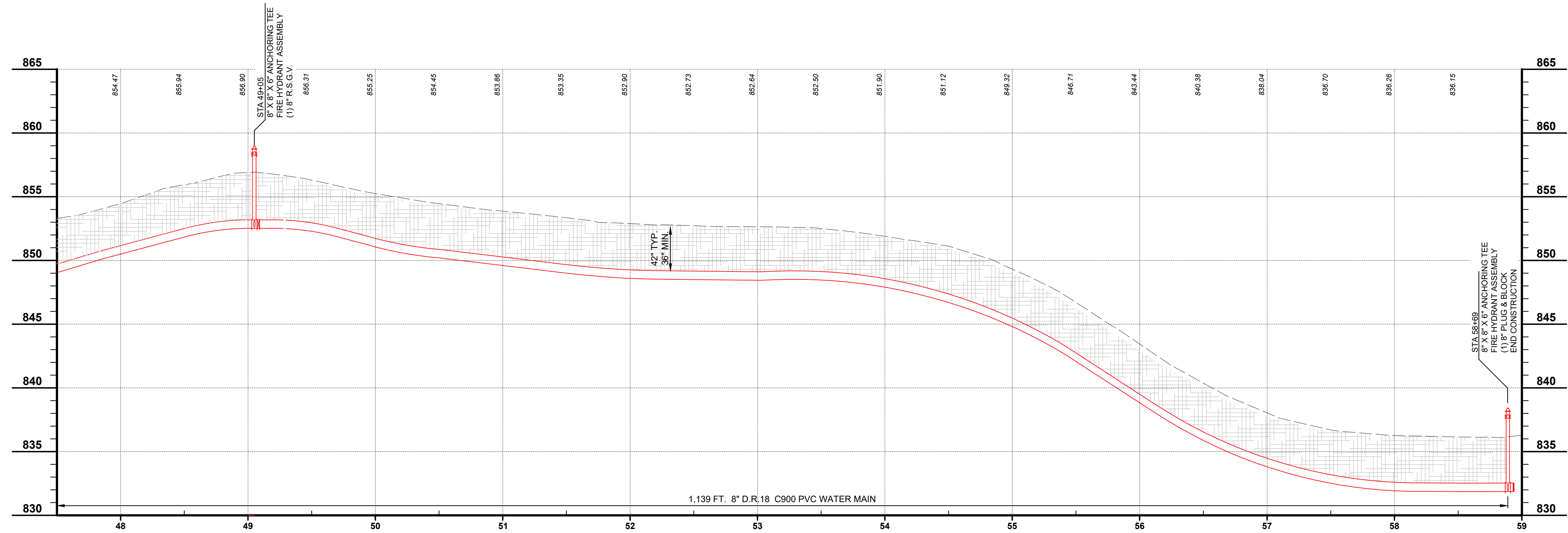
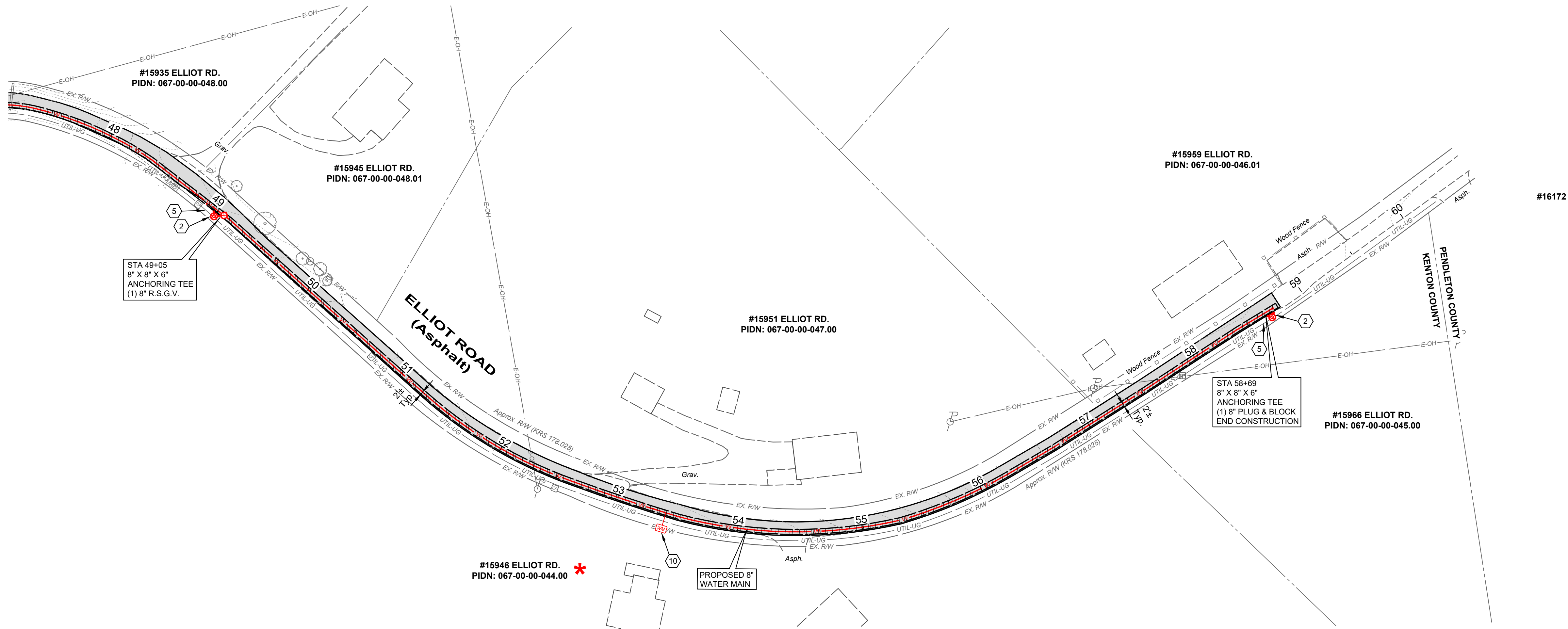
2161 CHAMBER CENTER DRIVE
FORT MITCHELL, KENTUCKY 41017
TEL (859) 525-0544
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DATE	
REVISION	
NO	
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APRIL 2025	
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JCOR	
JCOR	
JSHU	

NORTHERN KENTUCKY WATER DISTRICT
SUBDISTRICT 'O'
-KENTON COUNTY -

ELLIOT ROAD
STA. 35+00 TO STA. 47+50

PROJECT NO.	
231591	
DISCIPLINE	
CIVIL	
SHEET NAME	
C-20	
SHEET	OF
27	28



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NORTHERN KENTUCKY WATER DISTRICT
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ELLIOT ROAD
STA. 47+50 TO STA. 58+69

PROJECT NO. 231591	
DISCIPLINE CIVIL	
SHEET NAME C-21	
SHEET 28	OF 28