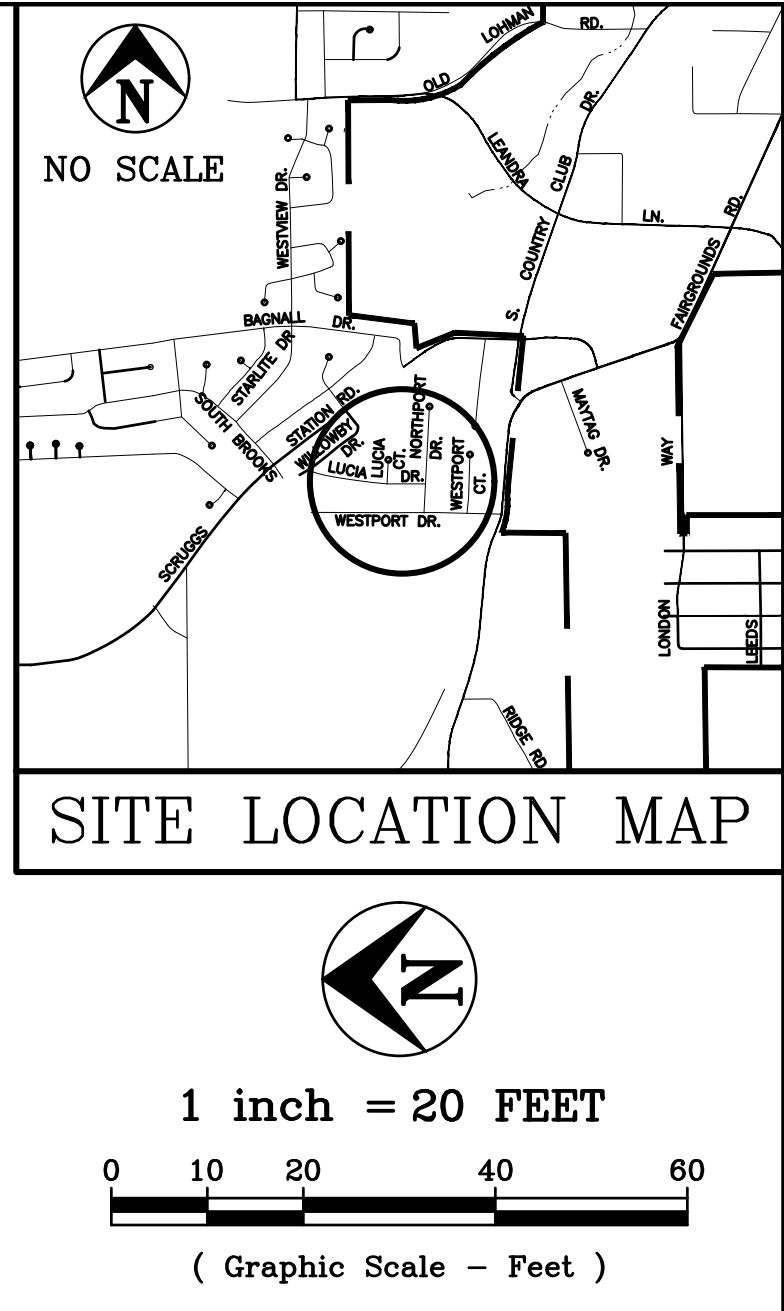


LEGEND

- EXISTING (Light or Dashed)
 - PROPOSED (Heavy or Solid)
 - EASEMENT
 - CENTERLINE
 - APPROX. EXISTING PROPERTY LINE
 - FENCE
 - ELECTRIC LINE
 - GAS LINE
 - SAN. SEWER LINE
 - TELEPHONE LINE
 - WATER LINE
-
- TEL. PEDESTAL
 - WATER VALVE
 - WATER METER
 - STREET SIGN
 - MAIL BOX
 - TREE
-
- ABBREVIATIONS: E-ELECTRIC, G-GAS, S-SAN SEWER, T-TELEPHONE, W-WATER PL-PROPERTY, CL-CENTER, R-RADIUS, UG-UNDERGROUND, O-OVERHEAD, LS-LIFT STATION



PRINTS ISSUED
6/2/23
REVISIONS:

Central Missouri Professional Services, Inc.
ENGINEERING - SURVEYING - MATERIALS TESTING
2500 E. MCCARTY
JEFFERSON CITY, MISSOURI 65101
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(573) 634-8898

Central Missouri Professional Services, Inc.
Missouri State Certificate of Authority #001589

STATE OF MISSOURI
PAUL SAMSON
NUMBER
PE 000216730
PROFESSIONAL ENGINEER
6/2/23
Paul Samson, PE - Engineer
MO# PE-2002016730

STORM DRAINAGE IMPROVEMENTS
COLE COUNTY PUBLIC WORKS
NORTHPORT DR. & WESTPORT DR.
COLE COUNTY, MISSOURI

CMPS JOB No. 21-125
DRN. BY: PPK/PLS CKD. BY: P.L.S.
SCALE: 1"=20'
SHEET TITLE
TOPOGRAPHIC SURVEY & DEMOLITION PLAN
SHEET NUMBER
1
OF 4 SHEETS

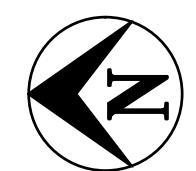
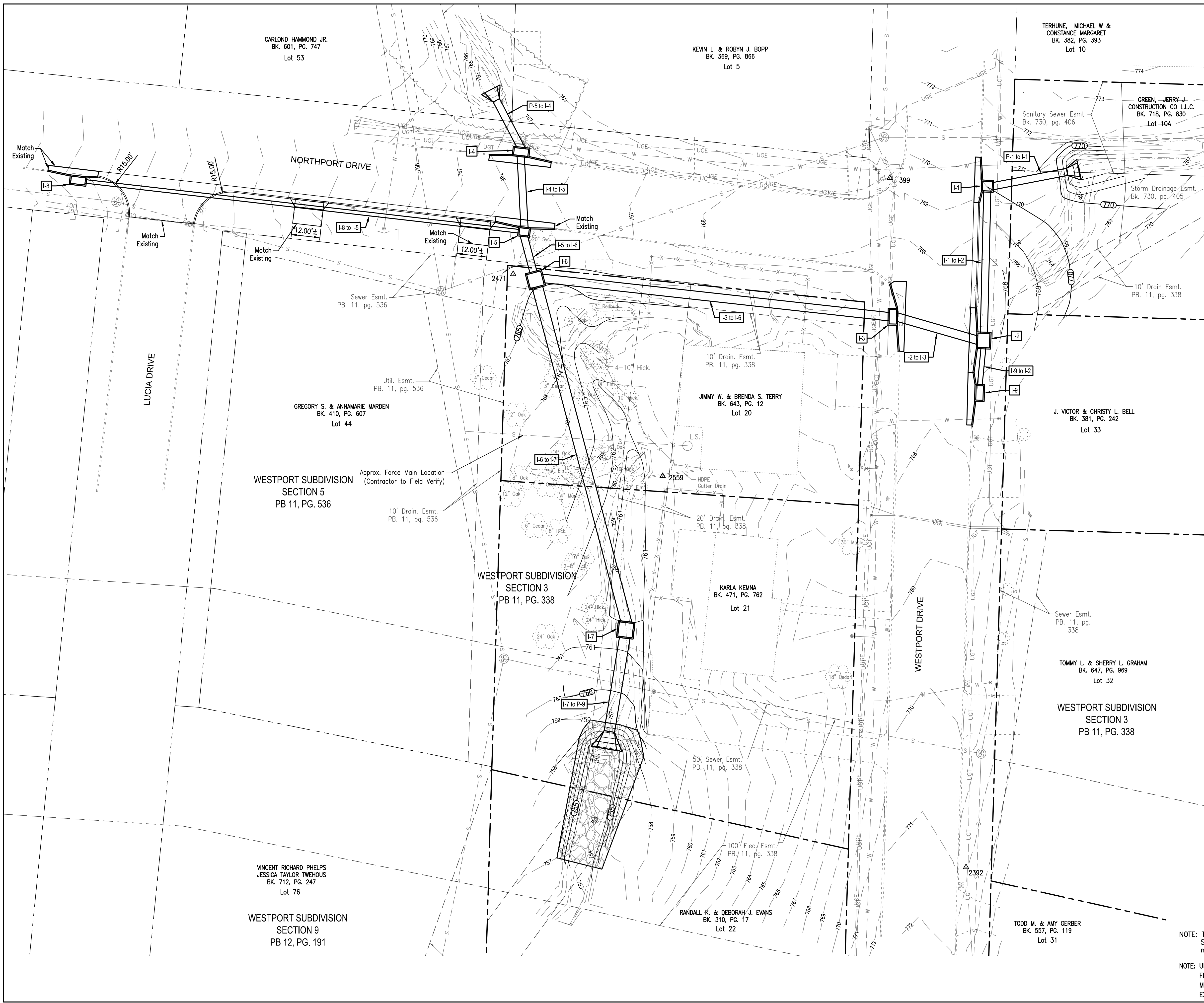
CALL BEFORE YOU DIG - DRILL - BLAST
1-800-344-7483 (TOLL FREE)

MISSOURI ONE CALL SYSTEM, INC.

NOTE: The Contractor will be responsible to call the Missouri One Call System 1-800-344-7483 and have the underground utilities marked or remarked prior to any construction.

NOTE: UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES, HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.

P:\2021\21-125\21-125.dwg, 6/2/23 11:52:37 AM



1 inch = 20 FEET



(Graphic Scale - Feet)

GENERAL NOTES:

1. Location of existing utilities shown on the plan are from best information available. Exact location and completeness are not guaranteed. Prior to construction the Contractor shall contact all utility companies concerned. (1-800-DIG-RITE Missouri One Call) If this data is not complete, make test pits and other field locations necessary in order to determine the exact locations of the concerned utilities. Any existing utilities, structures, trees, or other objects which could interfere with the correct completion of the project are also to be located by the Contractor. Any conflicts are to be addressed to the County Engineer prior to construction. Additional work resulting from a failure to initially address these items will be at the expense of the Contractor.
2. Contractor to be responsible for the protection of new and existing structures, vegetation, or improvements. No trees outside cuts and fills are to be removed without the approval of the Engineer. No fill is to be placed around existing trees. Damages resulting from construction activities are to be repaired by Contractor at no additional cost to Owner. Any damages shall be brought to the immediate attention of the Engineer.
3. All written dimensions, coordinates, bearings, and other written data govern. Prior to starting work all data is to be verified by the contractor.
4. Consult County Engineer regarding proposed changes, relocation, or modifications prior to the start of work.
5. Concrete removals shall be to existing joints. The new concrete is to match the existing concrete.
6. All fill under pavement is to have 95% compaction. All cut areas under pavement are to be treated as the final lift of fill and compacted to 95%. Non compressible fill materials such as crushed rock with minimal fines may be used instead of compacted fill in trenches.

SITE IMPROVEMENT NOTES:

- 1 REMOVE AND REPLACE CONCRETE PAVEMENT. CONCRETE TO BE 6" PAVEMENT ON 3" MODOT TYPE 5 BASE. CONCRETE PER CITY OF JEFFERSON STREET SPECIFICATIONS. CURB SHALL MATCH EXISTING AND BE POURED MONOLITHICALLY WITH STREET PAVEMENT.
- 2 RESIDENTIAL DRIVE APPROACH, PER CITY OF JEFFERSON STANDARDS. 6" CONCRETE ON 3" OF MODOT TYPE 5 BASE. CONCRETE PER CITY OF JEFFERSON STREET SPECIFICATIONS.
- 3 CONCRETE CURB & GUTTER, PER CITY OF JEFFERSON STD. PLANS.
- 4 REMOVE AND REPLACE MAILBOX. PROVIDE TEMPORARY MAILBOX LOCATION THROUGH DURATION OF WORK.
- 5 REMOVE AND REPLACE SIGN.
- 6 INSTALL TYPE 4 ROCK DITCH LINER PER MODOT SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
- 7 SEED, FERTILIZE AND MULCH ALL DISTURBED AREAS. IMPORT 4" OF TOP SOIL WHERE NECESSARY TO BRING GRADE TO WITHIN 2" OF TOP OF CURB.



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(TOLL FREE)

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Paul Samson, PE - Engineer
MO# PE-2002016730

STORM DRAINAGE IMPROVEMENTS
COLE COUNTY PUBLIC WORKS
NORTHPORT DR. & WESTPORT DR.
COLE COUNTY, MISSOURI

CMPS JOB No. 21-125

DRN. BY: PPK/PLS
CKD. BY: P.L.S.

SCALE: 1"=20'

SHEET TITLE

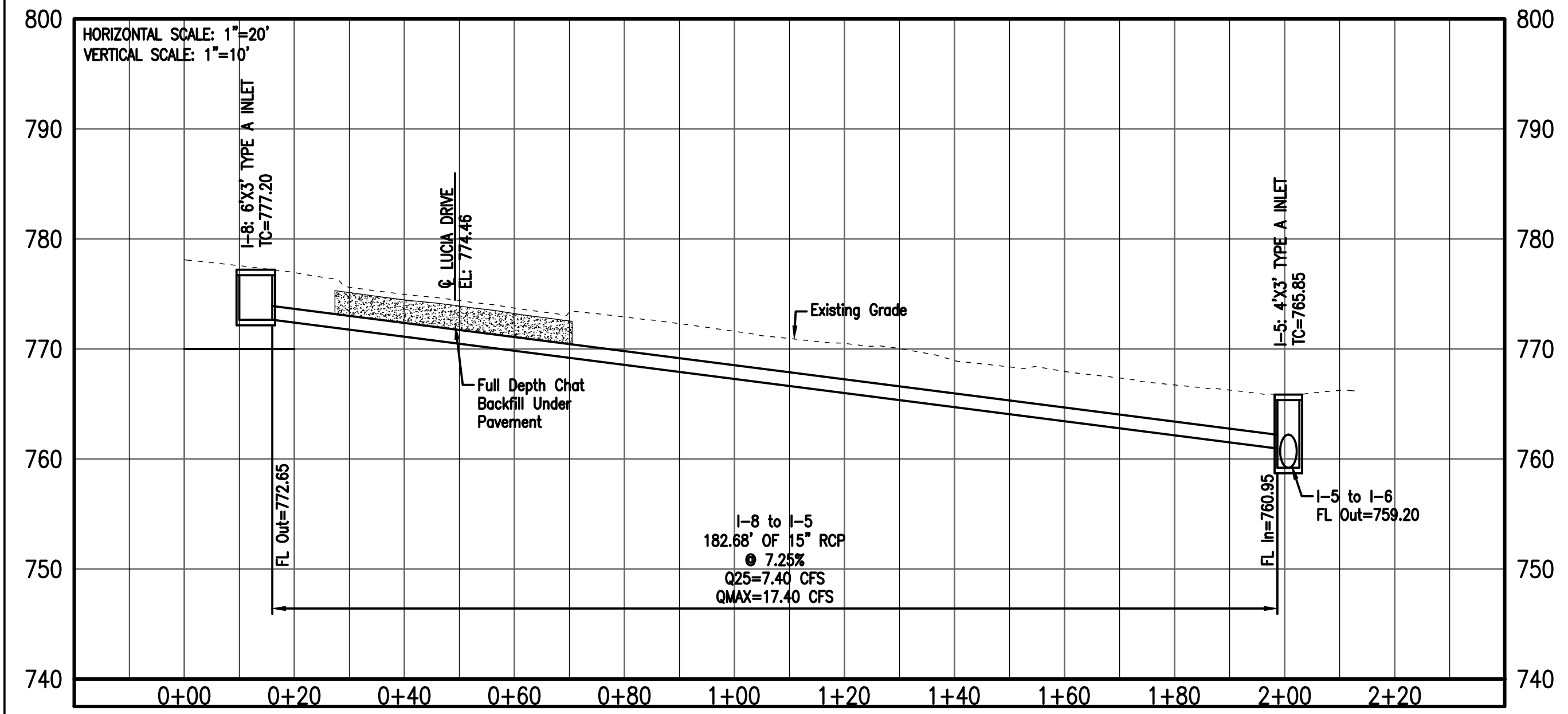
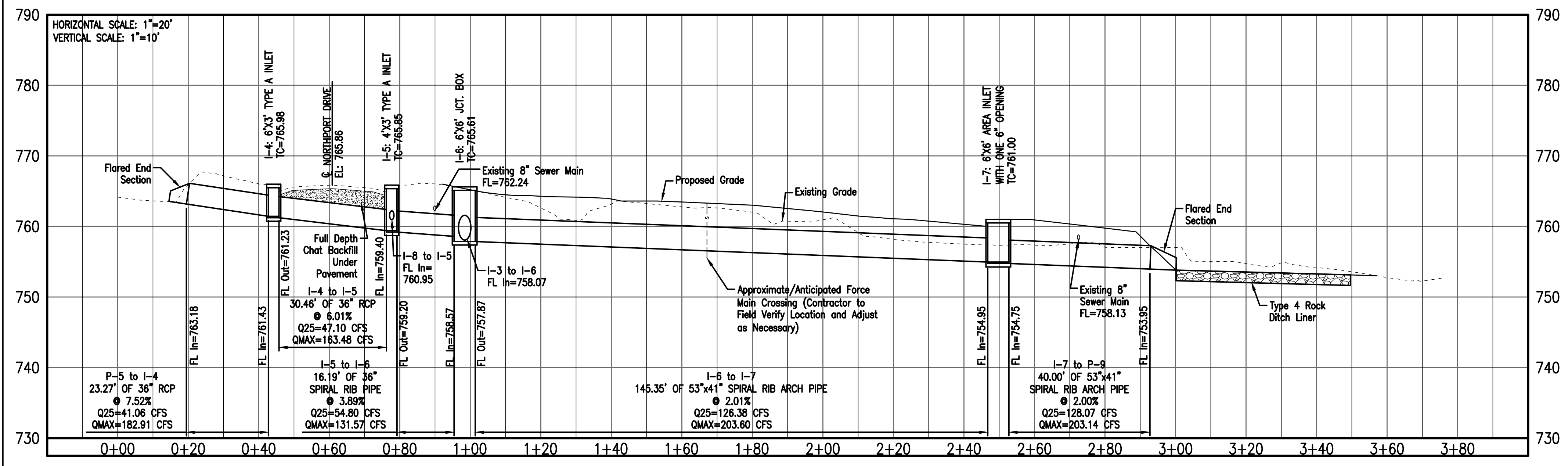
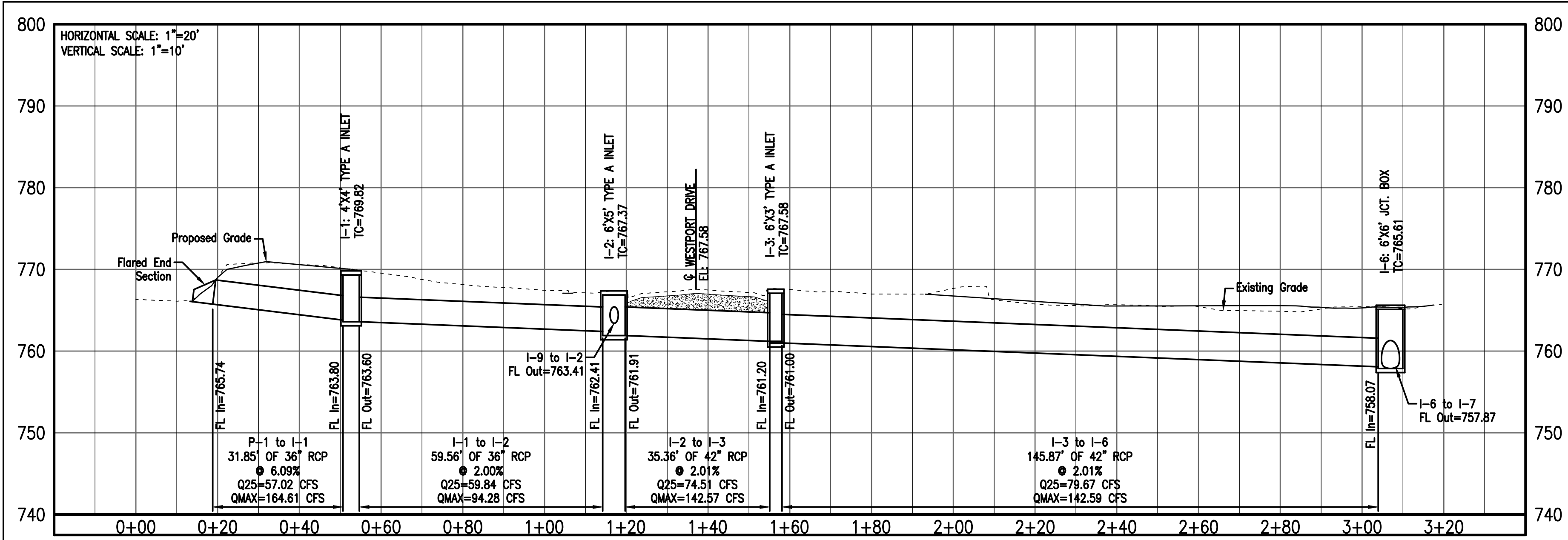
PLAN SHEET

SHEET NUMBER

2

OF 4 SHEETS

P:\2021\21-125 CPWP\Northport&Westport\21-125 CPWP\Northport&Westport.dwg, 6/2/2023 11:23:30 AM



Design Storm is 25 yrs																		
Area No.	Inlet No.	Top of Inlet Elev.	Inlet Type	CIJB Depth	Cf	Time of Conc.	Runoff Coeff. "C"	Area (Ac)	Percent Imper. CA	Rainfall Intensity	Inlet Q (cfs)	Gutter Flow	Gutter Slope	Width of Gutter Flow	Inlet Length	Inlet Capacity	Inlet Bypass Flow	Bypass Inlet
1	P-1	-	Pipe End	-	1.00	20.00	0.50	21.76	10.97	5.2	57.02							
2	I-2	767.37	6x5 Curb Inlet	5.46	1.00	5.00	0.40	0.05	0.02	8.3	0.17				6	9.9	0.00	
3	I-1	769.82	4x4 Curb Inlet	6.22	1.00	5.00	0.69	0.79	0.54	8.3	4.50				4	6.6	0.00	
4	I-3	767.58	6x3 Curb Inlet	6.58	1.00	5.00	0.84	1.18	0.99	8.3	8.24				6	9.9	0.00	
5	P-5	-	Pipe End	-	1.00	14.00	0.50	13.36	6.73	6.1	41.06							
6	I-4	765.98	6x3 Curb Inlet	4.75	1.00	5.00	0.84	1.18	0.99	8.3	8.22				6	9.9	0.00	
7A	I-5	765.85	4x3 Curb Inlet	6.65	1.00	5.00	0.84	0.44	0.37	8.3	3.07				4	6.6	0.00	
7B	I-8	777.20	6x3 Curb Inlet	4.55	1.00	5.00	0.84	1.06	0.89	8.3	7.40				6	9.9	0.00	
8	I-7	761.00	6x6 Area Inlet	6.25	1.00	5.00	0.42	0.78	0.33	8.3	2.71				6	9.9	0.00	
9	I-9	768.27	6x5 Curb Inlet	4.00	1.00	12.00	0.40	6.97	2.80	6.5	18.21				6	9.9	8.31	I-2

Design Storm is 25 yrs																		
US Structure	DS Structure	Time of Conc.	Percent Imper. (CA)		Rainfall Intensity	Cf	Pipe Q (cfs)	Storm Drain Length	FL Upstream	FL Downstream	Storm Drain Slope	Storm Drain Dia (in)	Pipe n	Capacity (cfs)	Percent of Capacity	Velocity (ft/s)	Time In Pipe (min)	Head Loss HW (ft)
			Added	Cumul.														
P-1	I-1	20.00	10.97	10.97	5.2	1.00	57.02	31.85	765.74	763.80		36	0.013	164.61	34.6%	23.29	0.02	
I-1	I-2	20.02	0.54	11.51	5.2	1.00	59.84	59.56	763.60	762.41	2.00%	36	0.013	94.28	63.5%	13.34	0.07	
I-2	I-3	20.10	0.02	14.33	5.2	1.00	74.52	35.36	761.91	761.20	2.01%	42	0.013	142.57	52.3%	14.82	0.04	
I-3	I-6	20.14	0.99	15.32	5.2	1.00	79.68	145.87	761.00	758.07	2.01%	42	0.013	142.59	55.9%	14.82	0.16	
P-5	I-4	14.00	6.73	6.73	6.1	1.00	41.06	23.27	763.18	761.43	7.52%	36	0.013	182.91	22.4%	25.88	0.01	
I-4	I-5	14.01	0.99	7.72	6.1	1.00	47.10	30.46	761.23	759.40	6.01%	36	0.013	163.48	28.8%	23.13	0.02	
I-5	I-6	14.04	0.37	8.98	6.1	1.00	54.80	16.19	759.20	758.57	3.89%	36	0.013	131.57	41.6%	18.61	0.01	
I-6	I-7	20.30	0.00	24.31	5.2	1.00	126.39	145.35	757.87	754.95	2.01%	48	0.013	203.60	62.1%	16.20	0.15	
I-7	P-9	20.45	0.33	24.63	5.2	1.00	128.08	40.00	754.75	753.95	2.00%	48	0.013	203.14	63.1%	16.17	0.04	
I-8	I-5	5.00	0.89	0.89	8.3	1.00	7.40	182.68	772.65	759.40	7.25%	15	0.013	17.40	42.5%	14.18	0.21	
I-9	I-2	5.00	2.80	2.80	8.3	1.00	23.26	16.00	764.27	763.41	5.38%	24	0.013	52.45	44.3%	16.69	0.02	

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Paul Samson, PE - Engineer
MO# PE-2002016730

STORM DRAINAGE IMPROVEMENTS
COLE COUNTY PUBLIC WORKS

NORTHPORT DR. & WESTPORT DR.
COLE COUNTY, MISSOURI

CMPS JOB No. 21-125
DRN. BY: PPK/PLS
CKD. BY: P.L.S.
SCALE: AS INDICATED
SHEET TITLE: STORMWATER PROFILES
SHEET NUMBER: 3
OF 4 SHEETS

Plot: 21-125-CPW - Northport & Westport - 125 CPW - Northport & Westport.dwg, 6/2/2023 11:28:44 AM

EROSION AND SEDIMENT CONTROL NOTES

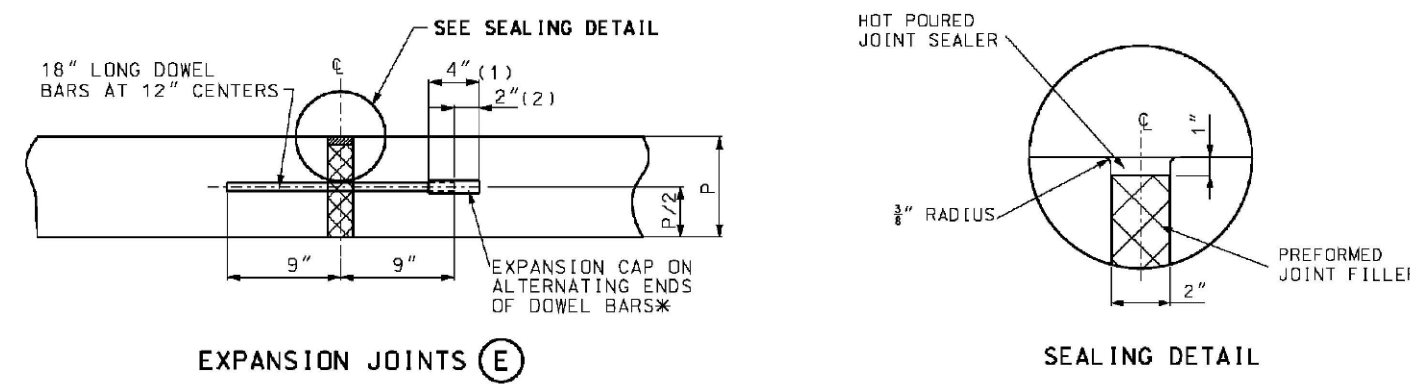
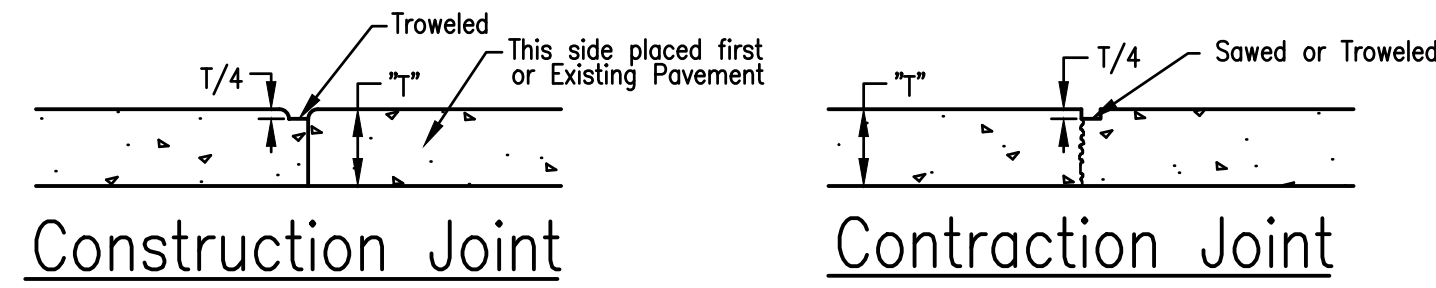
The acreage being disturbed is less than 1 acre and therefore does not require a Missouri DNR Land Disturbance Permit. An abridged SWPPP is outlined below.

The Erosion Control Items and details are not intended to dictate construction phasing but are intended to indicate Best Management Practices that should be in place during various phases of construction. The contractor shall be responsible for updating and modifying the Erosion Control Plan based on his construction sequence, and to address field conditions.

The contractor shall utilize a sedimentation barrier (silt fence or straw wattles) as shown on the plan and be used in place until disturbed areas are stabilized.

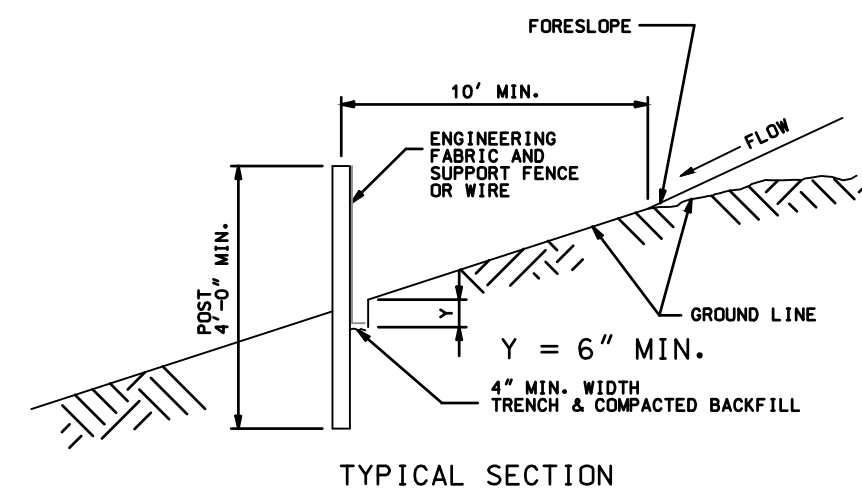
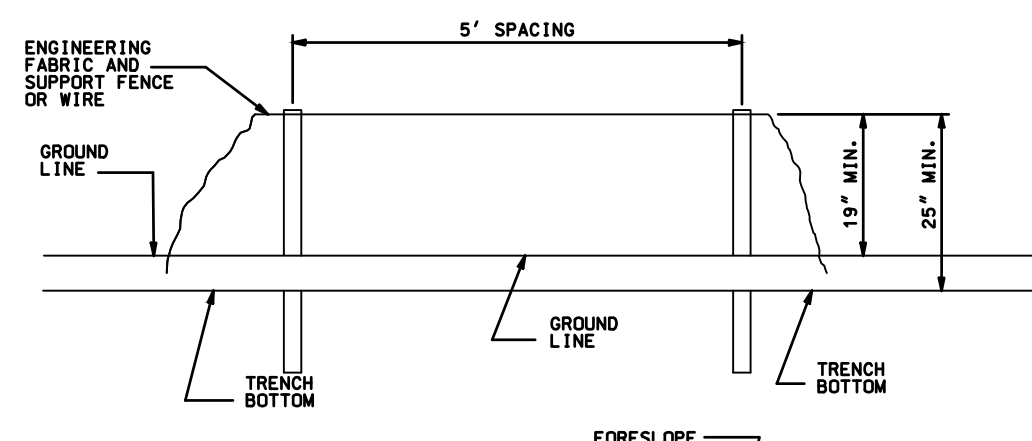
In addition, the contractor is encouraged to reference the document "Protecting Water Quality", January 2011 edition, as Prepared by the Missouri Department of Natural Resources for further guidance on installation and maintenance of construction site erosion, sediment and stormwater control practices.

- Contractor shall provide all materials, tools, equipment and labor as necessary to install and maintain adequate erosion and siltation controls required to prevent soil erosion from leaving the project site. It shall be the Contractor's sole responsibility to ensure that methods utilized are adequate and comply with requirements of the specifications and other governmental agencies having jurisdiction over the work.
- The Contractor shall have the responsibility for resolving complaints in the event that complaints or damage claims are filed due to damages occurring adjacent to or downstream from property by sediment resulting from erosion on the project site.
- The Contractor shall install erosion control measures as shown on the drawings prior to beginning earthwork operations.
- The Contractor shall maintain and inspect all sediment control measures during construction as required by all applicable permits.
- All sediment shall remain on site and surrounding streets shall be kept clear of all mud and debris.
- The contractor shall phase grading operations to minimize the amount of disturbed area.
- Sediment Barrier Fence, is to be installed as shown on the plans. The barrier shall be constructed of a continuous line of silt fence or straw wattles securely staked to prevent movement.
- Accumulated sediment shall be removed and the sedimentation barriers maintained as needed to prevent sedimentation bypass of the barrier. Removed sediment shall be disposed of in a location where sediment will not again erode into the construction area or into natural waterways.
- Slopes shall be left in a rough condition during grading operations.
- Stormwater Inlet Sedimentation Barriers are to be installed around inlets upon their installation at locations shown on the plans, if applicable. Inlet barriers shall be block and gravel, secured straw bales, silt fence, or an approved pre-manufactured system.
- Erosion control measures are to remain in place until 70% ground cover has been established.
- Sediment shall be removed from storm water drainage systems. Removed sediment shall be captured and disposed of in a location where sediment will not again erode into the construction area or into natural waterways.
- Contractor shall be responsible for installing any additional erosion control measures as they or the engineer deem necessary. Upon installing additional erosion control measures, or making modifications to the erosion control plan, the contractor shall update Erosion Control Plan.
- Temporary seeding shall be used to stabilize disturbed areas that will not be brought to final grade within 30 days, or when the season is not suitable for permanent seeding. A qualified professional shall be consulted to recommend necessary soil amendments, and seeding mixtures.
- At completion of site grading and other related construction activities, all disturbed areas within the project site shall be seeded, sodded, or landscaped.
- The Contractor shall be responsible for conducting regular site inspections to assure proper function of soil erosion, sedimentation and stormwater control measures. Inspections should be conducted every seven calendar days and within 48 hours of a rainfall event resulting in runoff from the site.

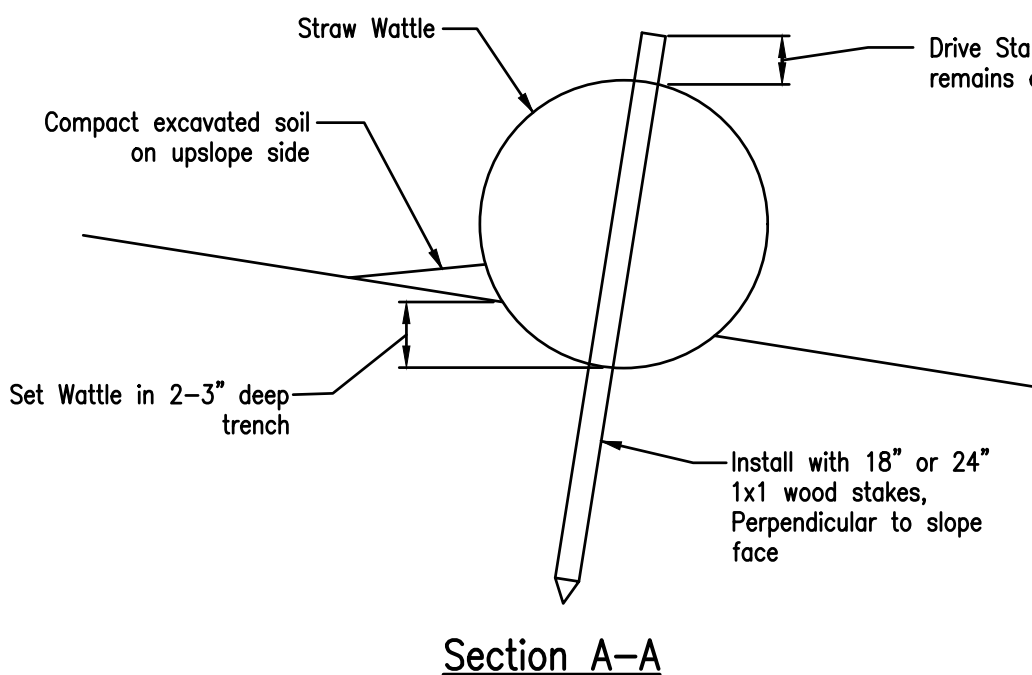


- (1) LENGTH OF CAP
 (2) GAP BETWEEN END OF CAP AND DOWEL.
- * FOR EXPANSION JOINTS FORMED USING A CONSTRUCTION HEADER, THE EXPANSION CAPS SHALL BE INSTALLED ON THE EXPOSED END OF EACH BAR ONCE THE HEADER HAS BEEN REMOVED AND THE JOINT FILLER MATERIAL HAS BEEN INSTALLED.

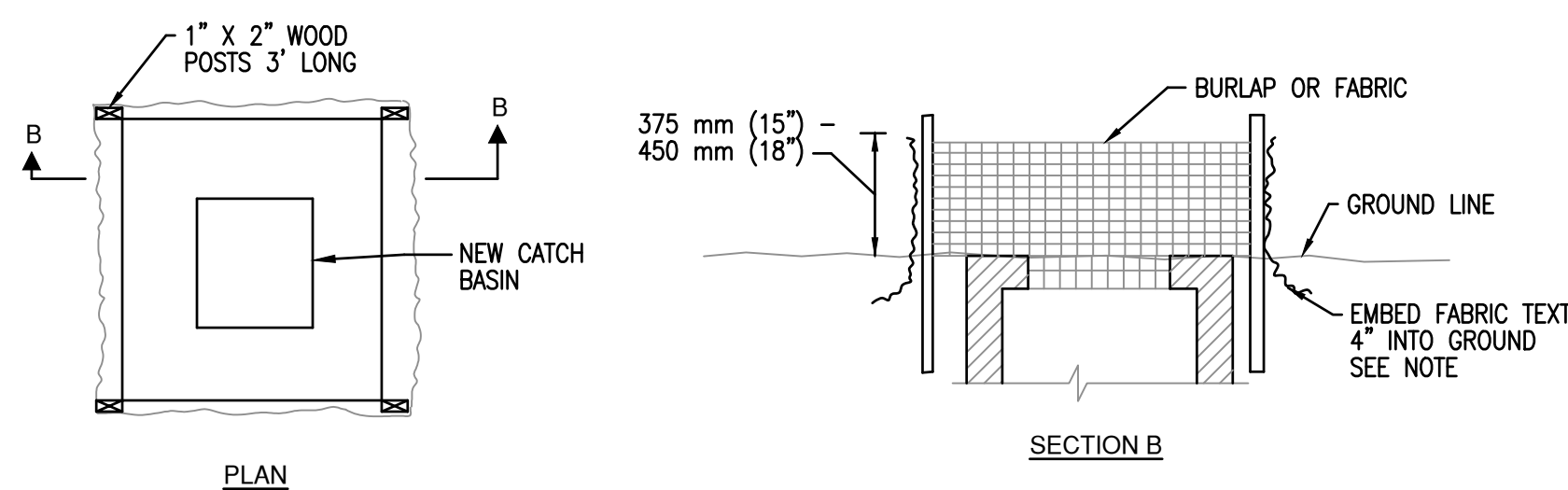
TYPICAL CONCRETE JOINT DETAILS
 NOT TO SCALE



SEDIMENT BARRIER-SILT FENCE DETAIL
 NOT TO SCALE



SEDIMENT BARRIER-STRAW WATTLE DETAIL
 NOT TO SCALE



- NOTE: 1. STRAW BALES MAY BE USED IN LIEU OF FABRIC AROUND CATCH BASINS. BALES SHALL BE EMBEDDED 4" INTO GROUND AND SECURELY STAKED IN PLACE.
2. THE ABOVE DRAWING REPRESENTS A GRATE INLET. USE STRAW BALES, STRAW WATTLES OR EQUIVALENT EROSION CONTROL DEVICE AROUND CURB INLETS AND OTHER INLET DEVICES.
3. WEIGH DOWN STRAW BALES, WATTLES OR OTHER EROSION CONTROL DEVICES WITH SAND BAGS AS NECESSARY TO ALLOW PROPER FUNCTION.

INLET PROTECTION DETAIL
 NOT TO SCALE



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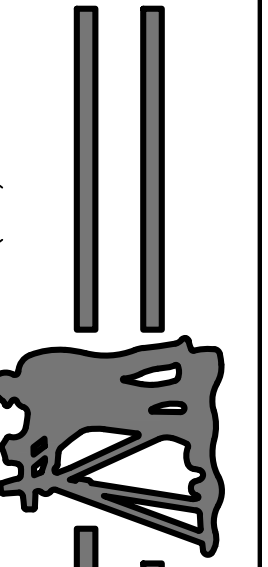
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CMPS JOB No. 21-125

DRN. BY: PPK/PLS
 CKD. BY: P.L.S.

SCALE: AS INDICATED

SHEET TITLE

PROFILES SHEET

SHEET NUMBER

4

OF 4 SHEETS

