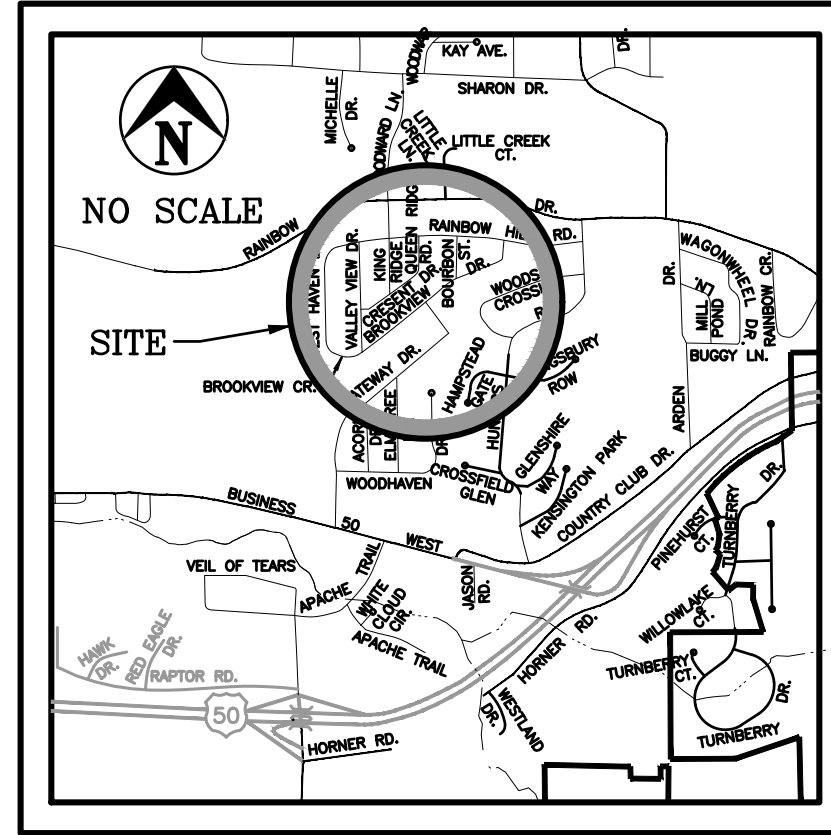


BROOKVIEW DRIVE/GATEWAY DRIVE STORMWATER IMPROVEMENTS

SE 1/4, SEC. 6, T44N, R12W
COLE COUNTY, MISSOURI



SHEET INDEX

- 1 COVER SHEET
- 2 TOPOGRAPHIC SURVEY & DEMOLITION PLAN
- 3 SITE LAYOUT PLAN
- 4 PROFILES & DETAILS

SITE LOCATION MAP

BEARING BASE: GPS TIES TO MISSOURI STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NAD83
VERTICAL DATUM: CITY OF JEFFERSON AND COUNTY OF COLE VERTICAL DATUM SYSTEM NAVD 1988

UTILITY COMPANIES
 PWS# #1: WATER
 CENTURYLINK: FIBER OPTIC, TELEPHONE, TV
 MEDIACOM TELEPHONE, TV
 AMEREN MISSOURI ELECTRIC
 THREE RIVERS ELEC. COOP.: ELECTRIC
 AMEREN MISSOURI GAS
 CITY OF JEFFERSON SEWER



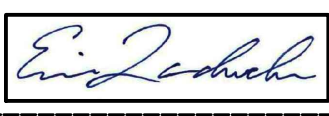
| CONTROL/BENCHMARK TABLE | | | | |
|-------------------------|-----------|------------|------------|-------------|
| Point # | Elevation | Northing | Easting | Description |
| 896 | 734.43 | 1003219.10 | 1702121.63 | RP |
| 897 | 728.63 | 1003129.17 | 1702237.10 | RP |
| 898 | 731.79 | 1003250.53 | 1702277.60 | RP |
| 899 | 735.39 | 1003264.45 | 1702115.42 | RP |
| 996 | 734.57 | 1003351.05 | 1702228.01 | RPIP |
| 1734 | 735.32 | 1003360.70 | 1702217.00 | RP |
| 3300 | 722.31 | 1003044.00 | 1702134.90 | RP |

LEGEND

| | | | | | |
|--------------------------------|-------|---|-------|------------------|-------|
| EXISTING (Light or Dashed) | ----- | TEL. PEDESTAL | ----- | MAIL BOX | ----- |
| PROPOSED (Heavy or Solid) | ===== | POWER POLE | ----- | PROPERTY CORNER | ----- |
| EASEMENT | ----- | GUY WIRE | ----- | TREE | ----- |
| CENTERLINE | ----- | WATER VALVE | ----- | SANITARY MANHOLE | ----- |
| APPROX. EXISTING PROPERTY LINE | ----- | FIRE HYDRANT | ----- | GAS VALVE | ----- |
| SECTION LINE | ----- | WATER METER | ----- | LIGHT POLE | ----- |
| FENCE | ----- | STREET SIGN | ----- | SATELLITE DISH | ----- |
| ELECTRIC LINE | ----- | ABBREVIATIONS: E-ELECTRIC, FO-FIBER OPTIC, G-GAS, S-SAN SEWER | | | |
| FIBER OPTIC LINE | ----- | SC-SIGNAL CABLE, T-TELEPHONE, W-WATER | | | |
| GAS LINE | ----- | PL-PROPERTY, CL-CENTER, R/W-RIGHT OF WAY | | | |
| SAN. SEWER LINE | ----- | Ø-DIAMETER, R-RADIUS, (R)-REMOVALS | | | |
| TELEPHONE LINE | ----- | UG-UNDERGROUND, O-OVERHEAD, UIP-USE IN PLACE | | | |
| WATER LINE | ----- | | | | |



UTILITY STATEMENT:
 THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM VISIBLE FIELD SURVEY INFORMATION AND MISSOURI ONE-CALL MARKINGS IN PUBLIC RIGHT-OF-WAYS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED, ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE AND ONE-CALL MARKINGS. WHERE UTILITY ELEVATIONS ARE SHOWN ON THE PLANS, THE SURVEYOR HAS PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

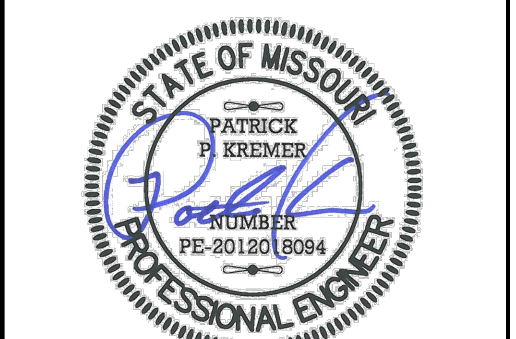
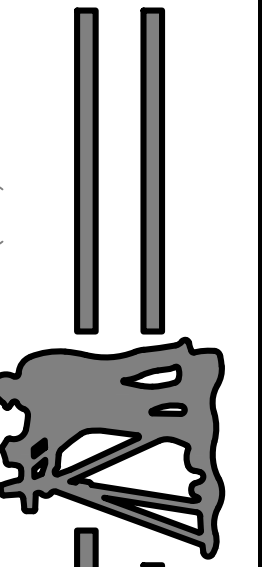
APPROVED BY: 
 Eric Landwehr, P.E.
 County Engineer
 Date: 6/9/2020

PRINTS ISSUED

JUNE 9, 2020

REVISIONS:

Central Missouri Professional Services, Inc.
 ENGINEERING - SURVEYING - MATERIALS TESTING
 2500 E. McCARTY
 JEFFERSON CITY, MISSOURI 65101
 (573) 634-3455
 (573) 634-8898



6/9/2020
 Patrick P. Kremer, PE - Engineer
 MO# PE-2012018094

STORMWATER IMPROVEMENT
 PLAN
 COLE COUNTY PUBLIC WORKS
 BROOKVIEW AND GATEWAY DRIVE
 JEFFERSON CITY, COLE COUNTY, MISSOURI

CMPS JOB No. 10-054

DRN. BY: PPK
 CKD. BY: RMB

SCALE:

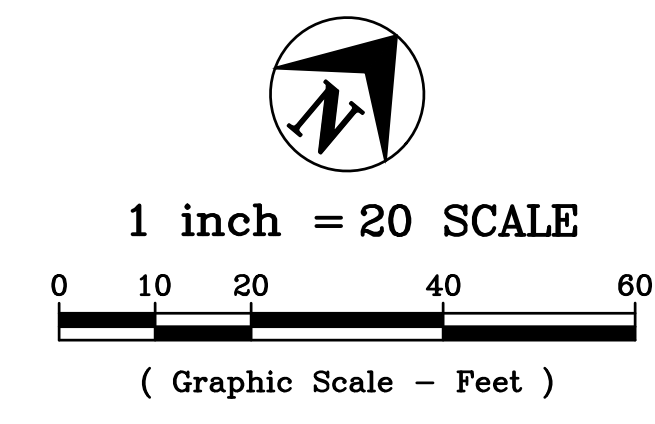
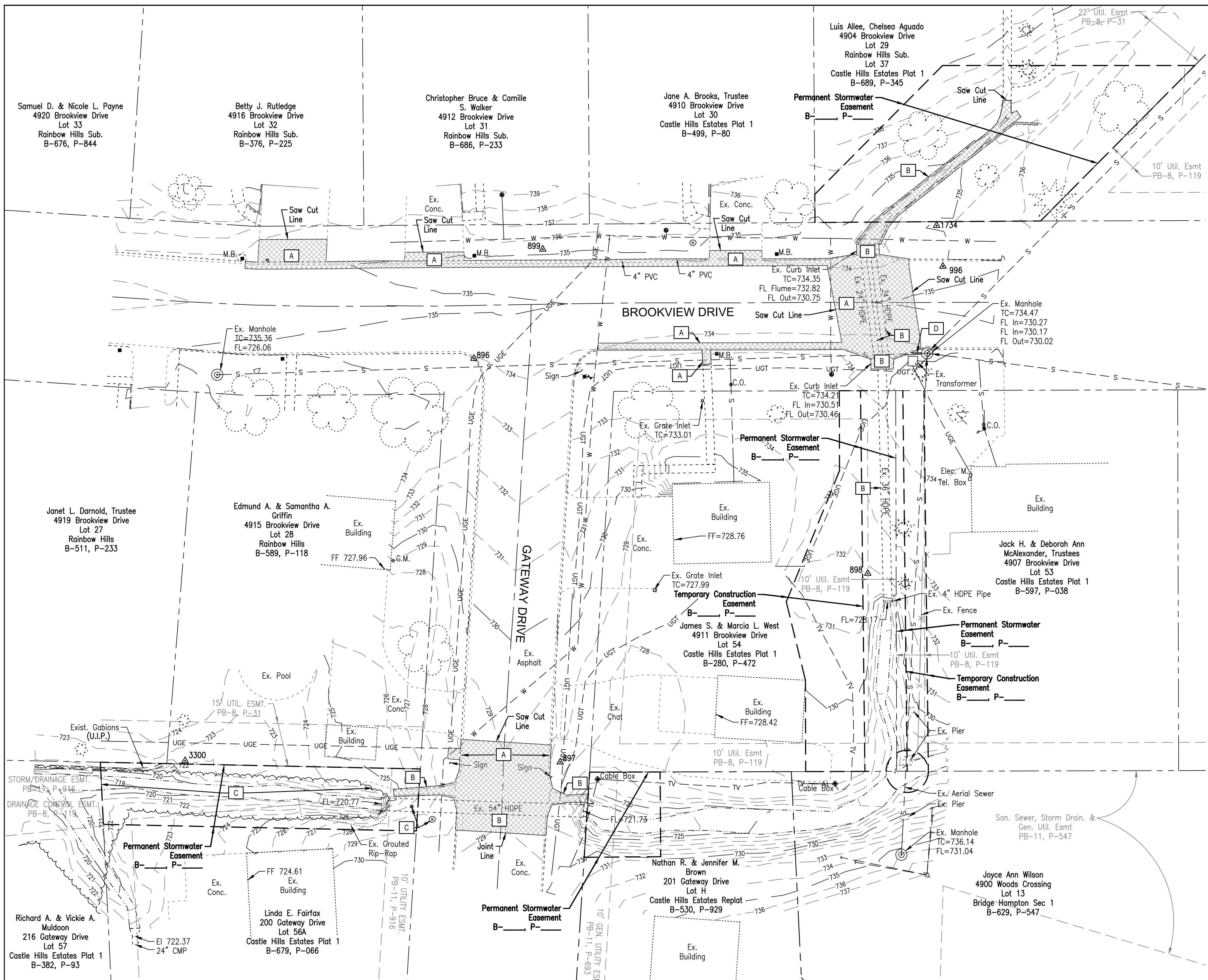
SHEET TITLE

COVER SHEET

SHEET NUMBER

1

OF 4 SHEETS



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.

DEMOLITION NOTES:

- A** REMOVE EXISTING ASPHALT PAVEMENT, CONCRETE PAVEMENT, CONCRETE CURB AND GUTTER AND SIDEWALK.
- B** REMOVE EXISTING STORMWATER INLETS, PIPES, CONCRETE FLUME AND LANDSCAPE TIMBERS.
- C** REMOVE TREES AND SHRUBS.
- D** REMOVE SECTION OF EXISTING 8" TRUSS PIPE.

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STATE OF MISSOURI
PROFESSIONAL ENGINEER
PATRICK P. KREMER
PE-2012018094
6/9/2020
Patrick P. Kremer, PE - Engineer
MO# PE-2012018094

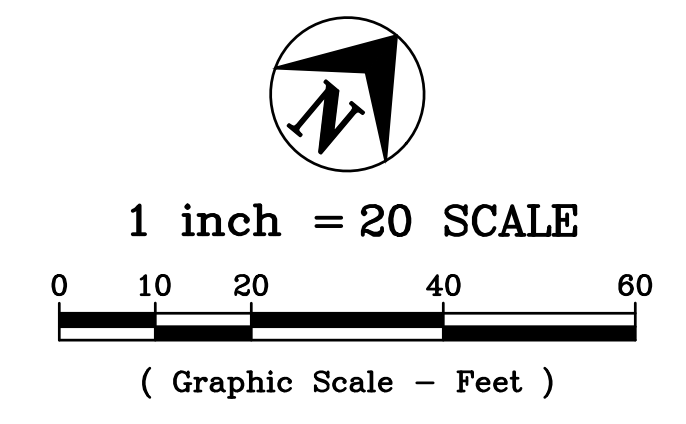
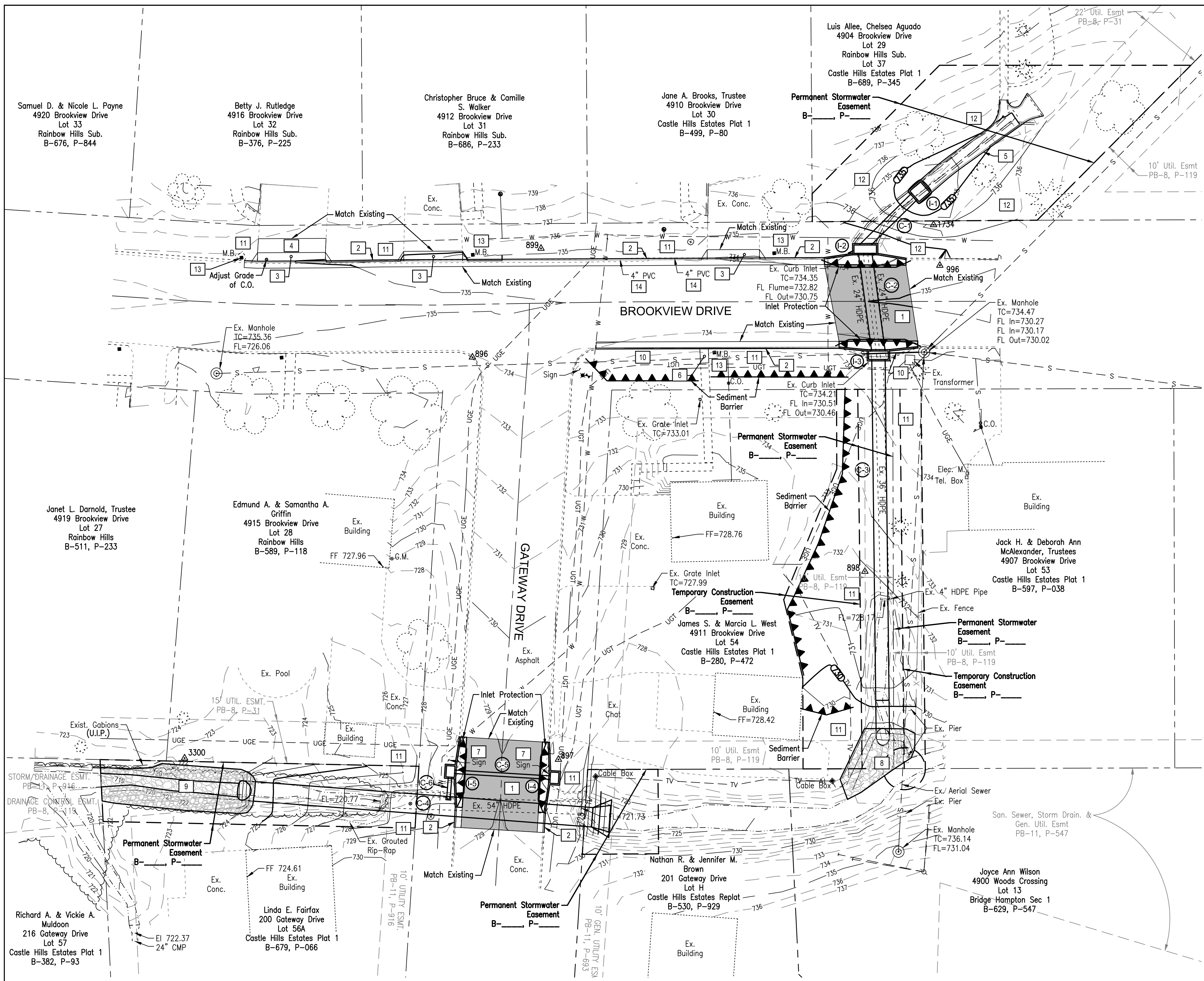
STORMWATER IMPROVEMENT PLAN
COLE COUNTY PUBLIC WORKS
BROOKVIEW AND GATEWAY DRIVE
JEFFERSON CITY, COLE COUNTY, MISSOURI

CMPS JOB No. 10-054
DRN. BY: PPK CKD. BY: RMB
SCALE: 1"=20'
SHEET TITLE
TOPOGRAPHIC SURVEY & DEMOLITION PLAN
SHEET NUMBER
2
OF 4 SHEETS

APPROVED BY: 
Eric Landwehr, P.E.
County Engineer
Date: 6/9/2020

 **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.



SITE IMPROVEMENT NOTES:

- 1 CONCRETE PAVEMENT. CONCRETE TO BE 6" PAVEMENT ON 3" MODOT TYPE 5 BASE. CONCRETE PER CITY OF JEFFERSON STREET SPECIFICATIONS.
- 2 CONCRETE CURB AND GUTTER. PER CITY OF JEFFERSON STANDARDS.
- 3 RESIDENTIAL DRIVE APPROACH, PER CITY OF JEFFERSON STANDARDS. 6" CONCRETE ON 3" OF MODOT TYPE 5 BASE. CONCRETE PER CITY OF JEFFERSON STREET SPECIFICATIONS.
- 4 RESIDENTIAL DRIVE APRON, PER CITY OF JEFFERSON STANDARDS. 6" CONCRETE ON 3" OF MODOT TYPE 5 BASE. CONCRETE PER CITY OF JEFFERSON STREET SPECIFICATIONS.
- 5 CONSTRUCT CONCRETE FLUME. TIE EXISTING FLUME TO NEW. MATCH EXISTING. SEE DETAIL.
- 6 4" CONCRETE SIDEWALK.
- 7 REMOVE AND REPLACE SIGNS. PER COUNTY STANDARDS.
- 8 INSTALL TYPE 3 ROCK DITCH LINER. PER MODOT SPECIFICATIONS FOR HIGHWAY CONSTRUCTION. APPROXIMATELY 14 CUBIC YARDS.
- 9 INSTALL TYPE 3 ROCK DITCH LINER. PER MODOT SPECIFICATIONS FOR HIGHWAY CONSTRUCTION. APPROXIMATELY 30 CUBIC YARDS.
- 10 REPLACE SECTION OF EXISTING 8" TRUSS PIPE WITH 8" DUCTILE IRON PIPE THROUGH INLET. PROVIDE PROPER FITTINGS TO MAKE CONNECTION BACK TO TRUSS PIPE.
- 11 SEED, FERTILIZE AND MULCH ALL DISTURBED AREAS. IMPORT 4" OF TOP SOIL WHERE NECESSARY TO BRING GRADE TO WITHIN 2" OF TOP OF CURB.
- 12 PLACE BLACK BEAUTY TALL FESCUE SOD TO EXTENTS OF LAND DISTURBANCE.
- 13 REMOVE AND REPLACE MAILBOXES AS REQUIRED.
- 14 CONNECT DOWNSPOUT PIPING TO DISCHARGE TO FLOWLINE OF CURB. PER CITY OF JEFFERSON DOWNSPOUT DRAIN CURB DETAIL.

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6/9/2020
Patrick P. Kremer, PE - Engineer
MO# PE-2012018094

STORMWATER IMPROVEMENT PLAN
COLE COUNTY PUBLIC WORKS
BROOKVIEW AND GATEWAY DRIVE
JEFFERSON CITY, COLE COUNTY, MISSOURI

CMPS JOB No. 10-054
DRN. BY: PPK
CKD. BY: RMB

SCALE: 1"=20'
SHEET TITLE

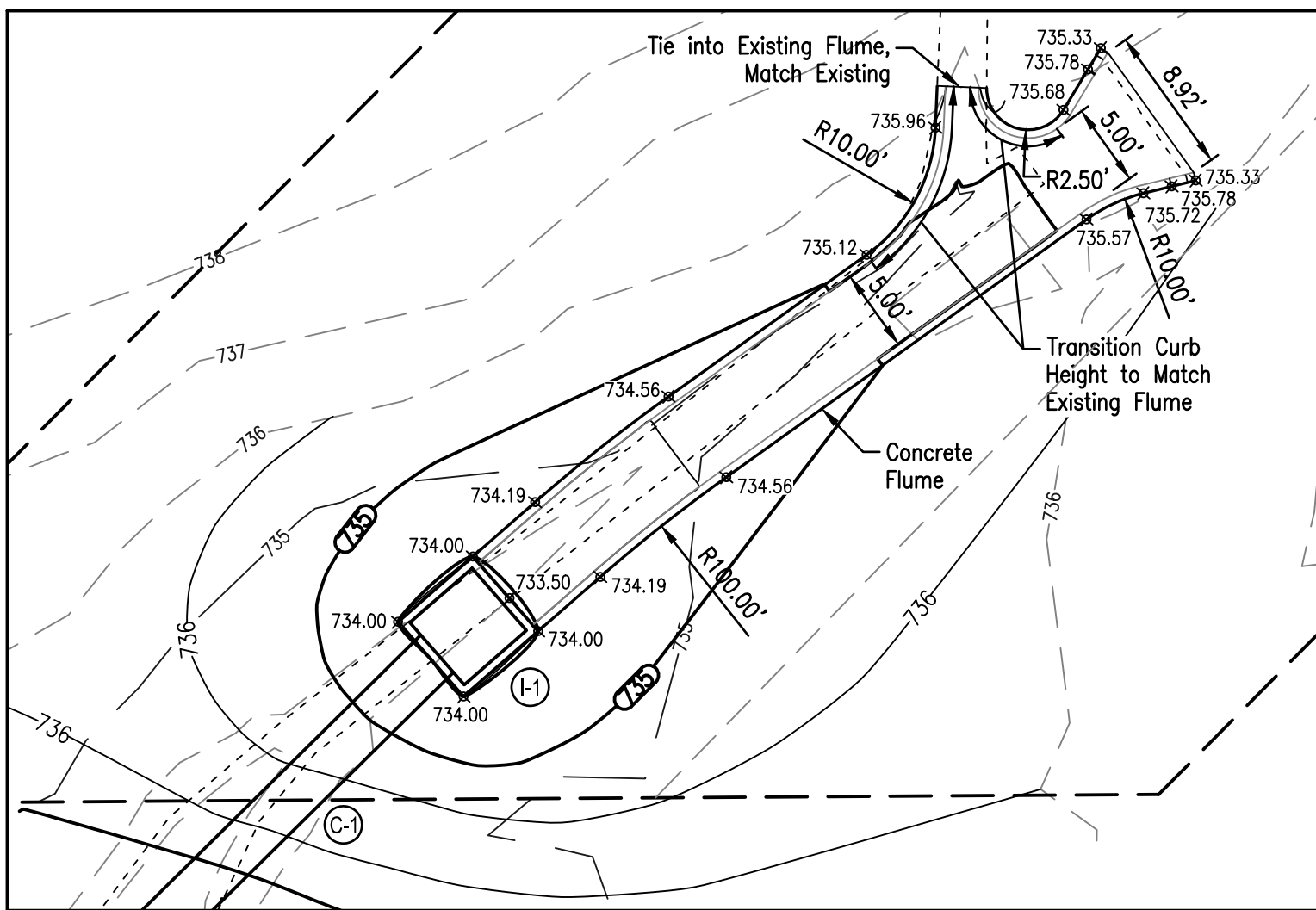
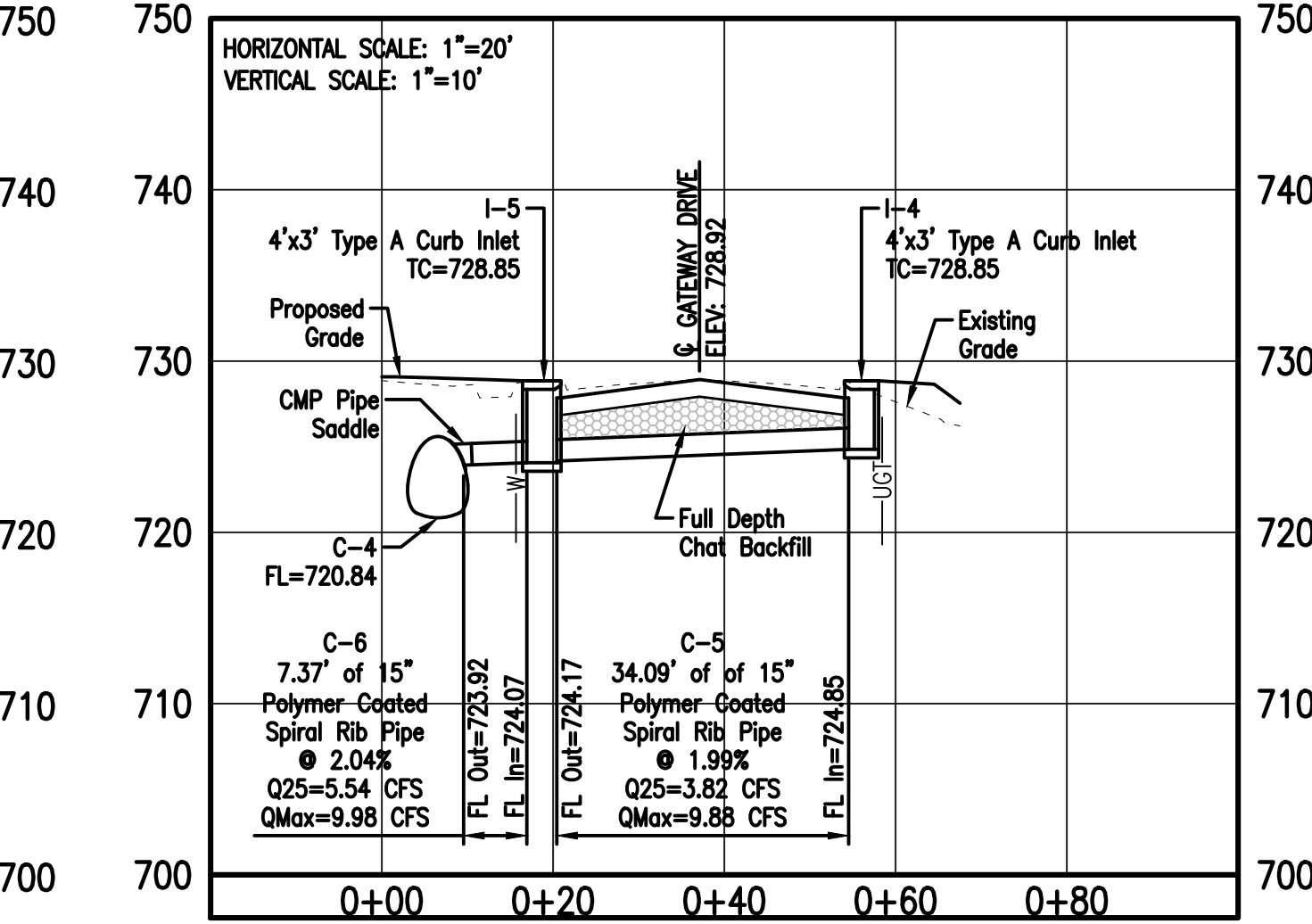
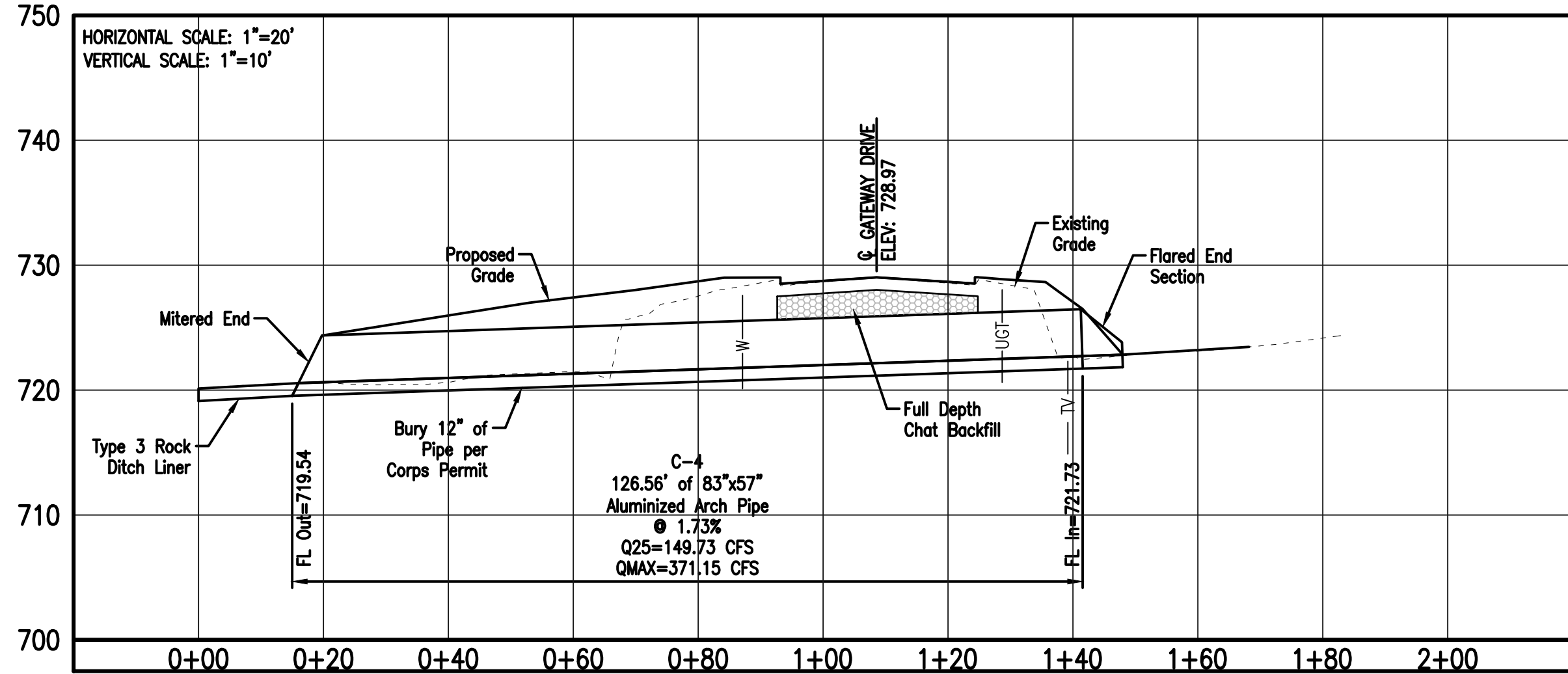
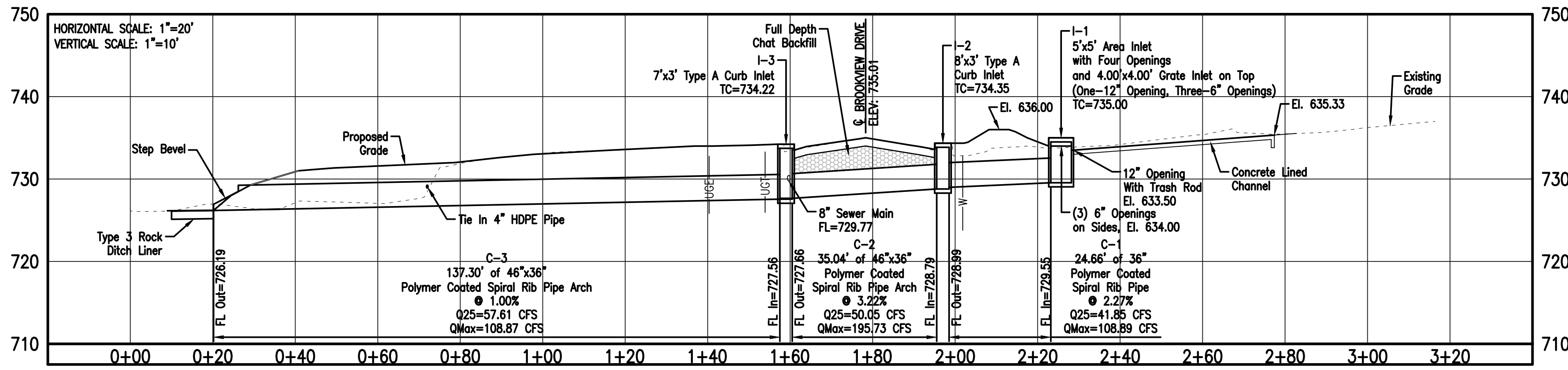
SITE LAYOUT PLAN
SHEET NUMBER

3
OF 4 SHEETS

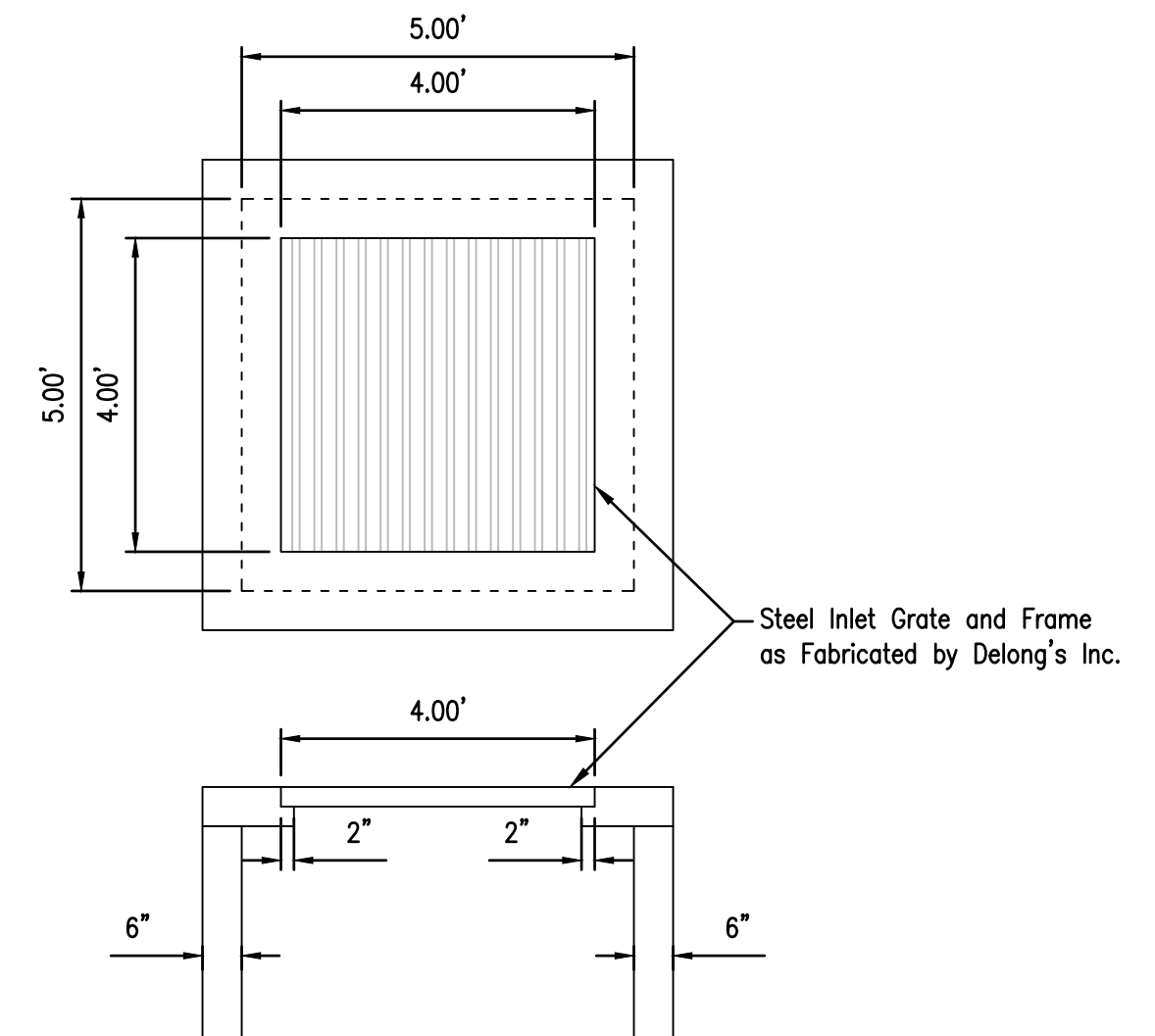
APPROVED BY: Date: 6/9/2020
Eric Landwehr, P.E.
County Engineer

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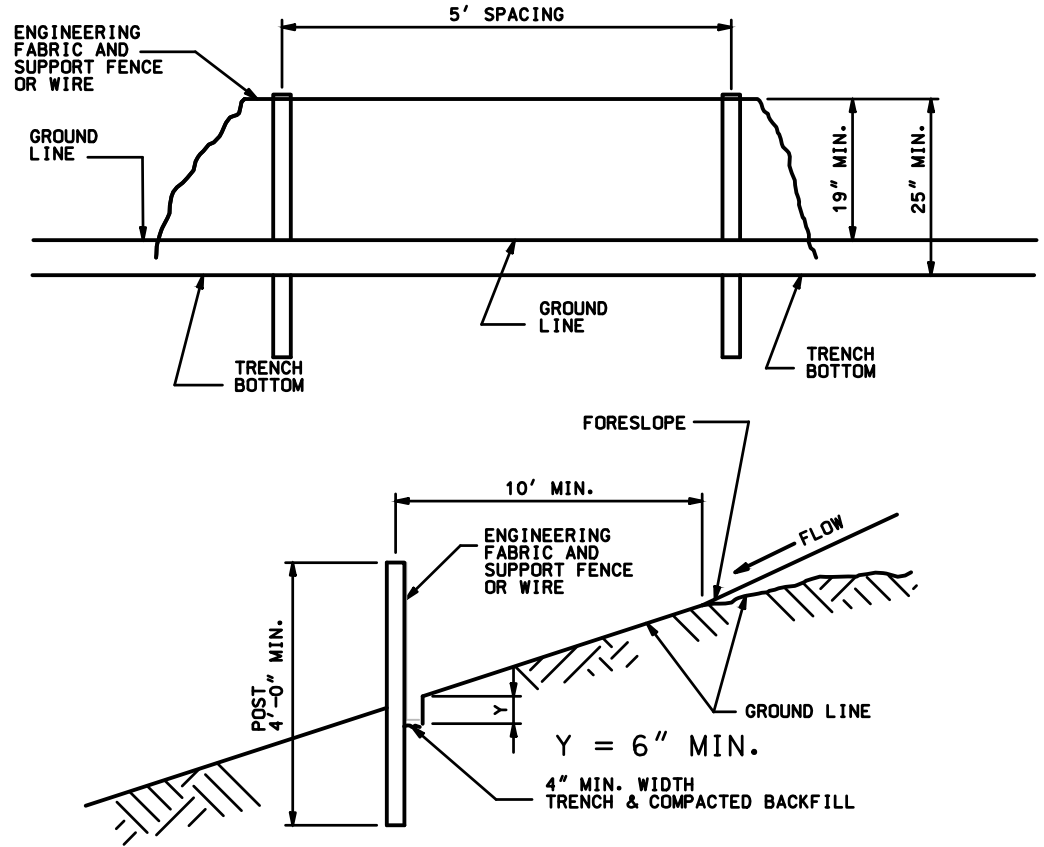
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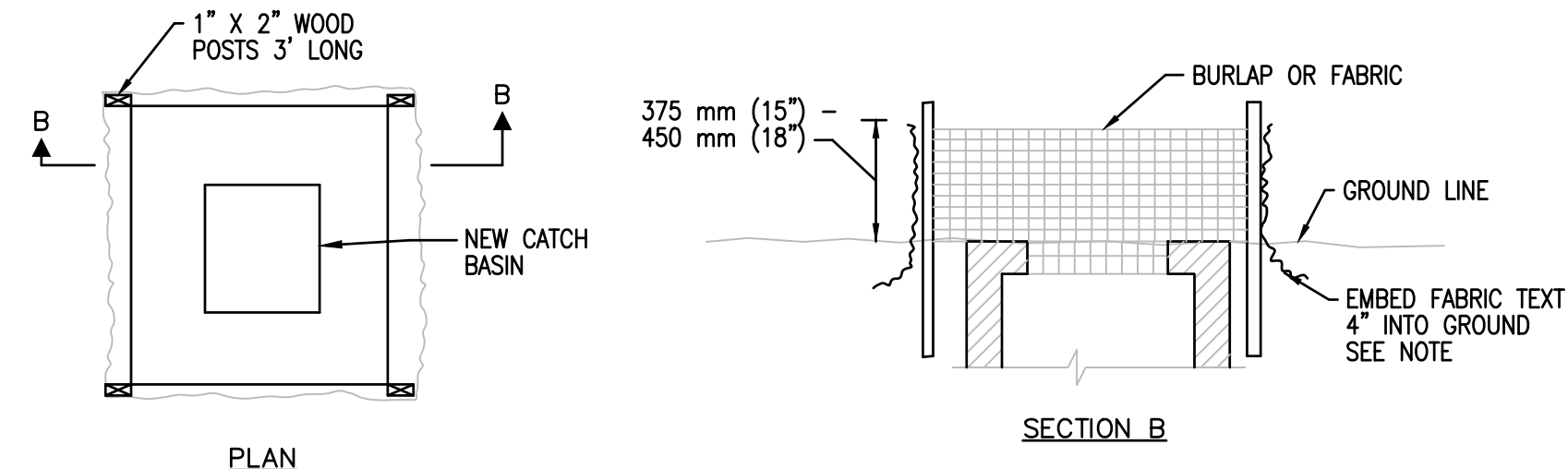
GRATE INLET/FLUME DETAIL
SCALE: 1"=10'



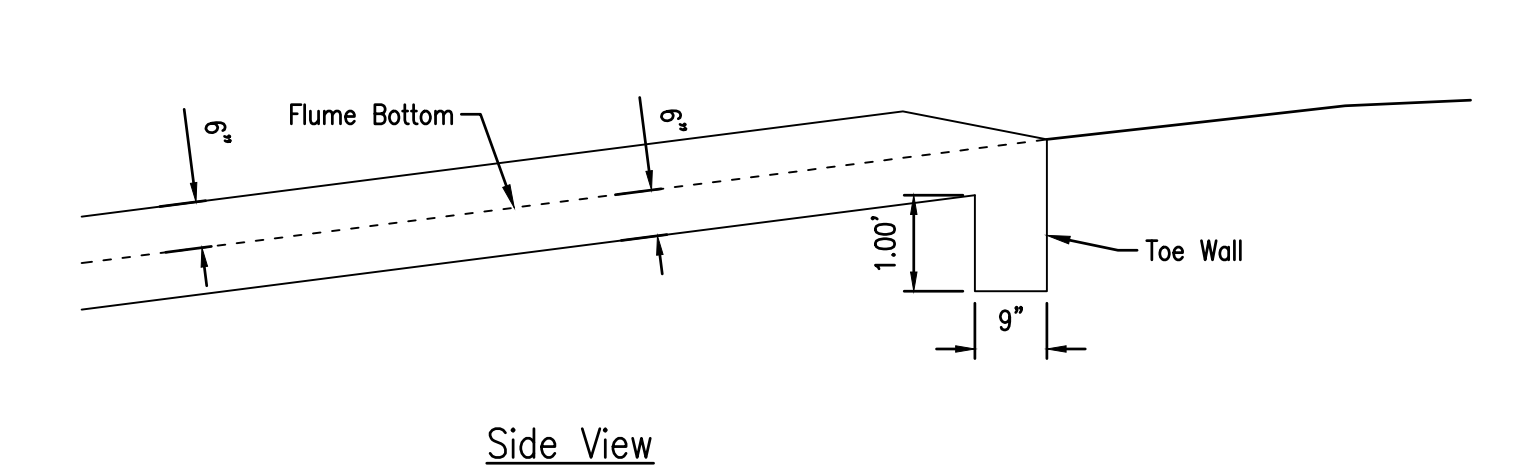
GRATE INLET DETAIL
NOT TO SCALE



SEDIMENT BARRIER-SILT FENCE DETAIL
NOT TO SCALE

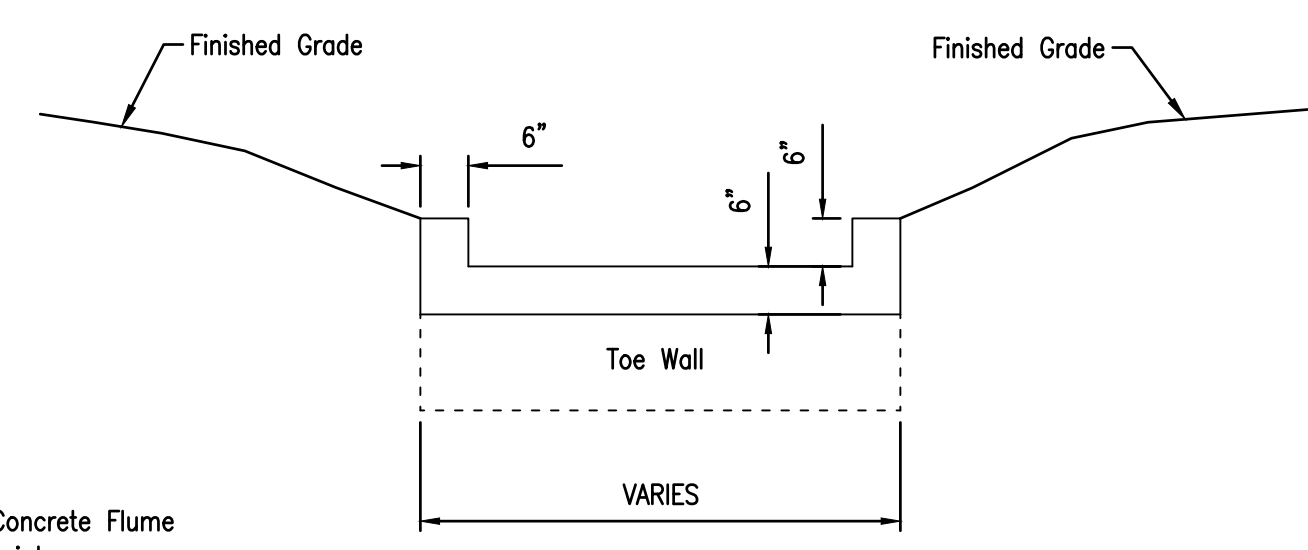


INLET PROTECTION DETAIL
NOT TO SCALE



Side View

Note: Construct Toe Wall at Inlet End of Concrete Flume
Saw Cut Joints at 10' Intervals. Seal all Joints.



Cross Section

CONCRETE FLUME DETAIL
NOT TO SCALE

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.

APPROVED BY: Date: 6/9/2020
Eric Landwehr, P.E.
County Engineer

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Missouri State Certificate of Authority #01568

6/9/2020
Patrick P. Kremer, PE - Engineer
MO# PE-2012018094

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COLE COUNTY PUBLIC WORKS
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JEFFERSON CITY, COLE COUNTY, MISSOURI

CMPS JOB No. 10-054

DRN. BY: PPK CKD. BY: RMB

SCALE: AS INDICATED

SHEET TITLE
PROFILES & DETAILS

SHEET NUMBER

4

OF 4 SHEETS