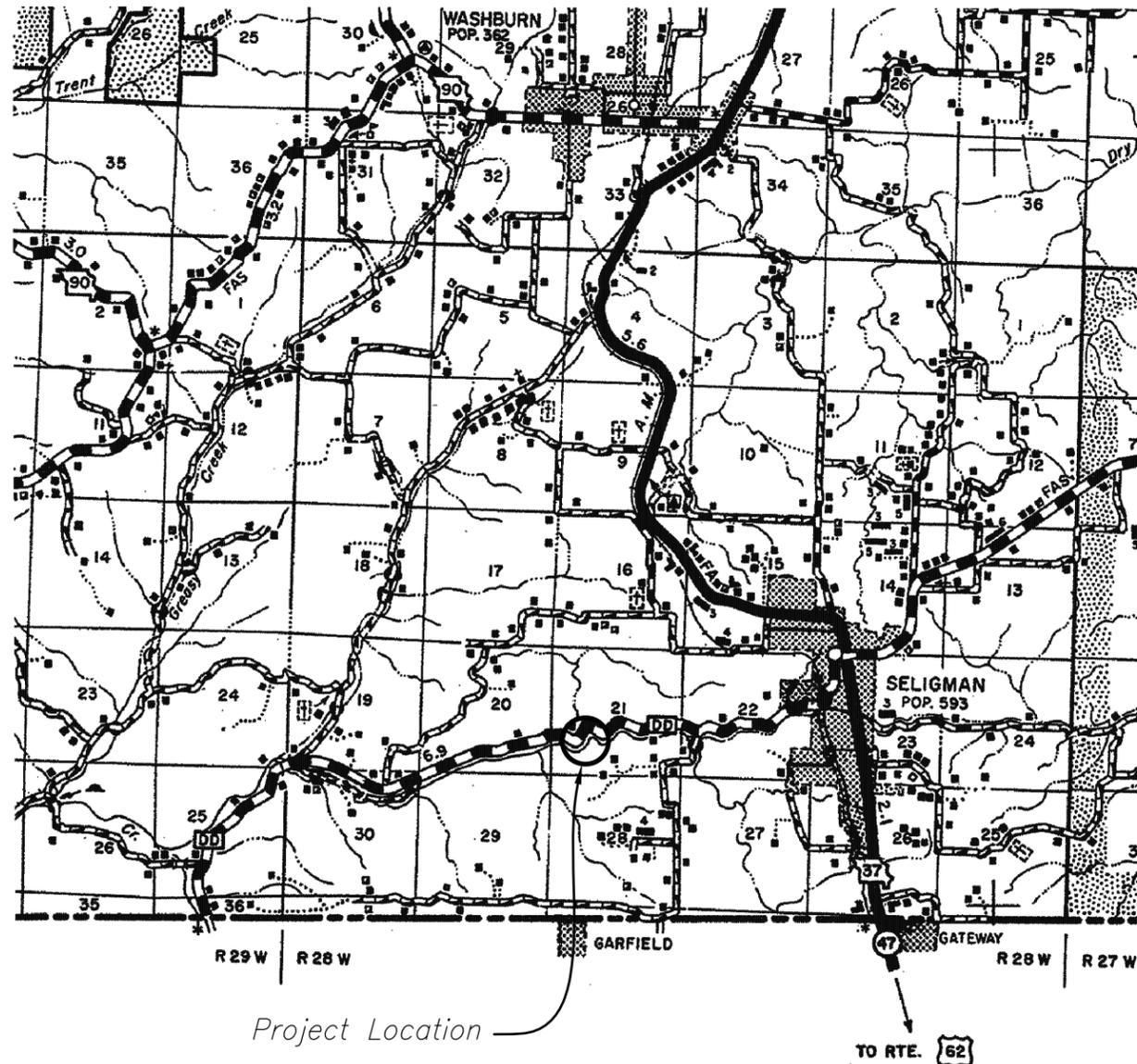


Seligman Branch Bank Stabilization DSR 009-10-003 EWP Project

Section 21 Township 21N, Range 28W
Lat=36°31'13"N; Long=93°58'22"W
Barry County, Missouri



LOCATION IN MISSOURI



NOTES:

1. Missouri law requires that any person making or beginning any excavation notify all underground facility owners/operators which may be affected by said excavation at least two but not more than ten working days in advance, except in the case of an emergency. A "working day" is everyday, except Saturday, Sunday, or a legally declared local, state or federal holiday.
2. To make this notification and locate all utilities at the site or on ingress / egress roads prior to excavation, contact the Missouri One Call system and submit a locate request. The phone number for the Missouri One Call System is 800-344-7483 (1-800-DIG-RITE).
3. Excavation and associated work shall be limited to items shown on the plans. All work shall meet the requirements of Corps of Engineers General Permit (GP) 41.
4. The contact numbers for technical assistance concerning the plan set are as follows:

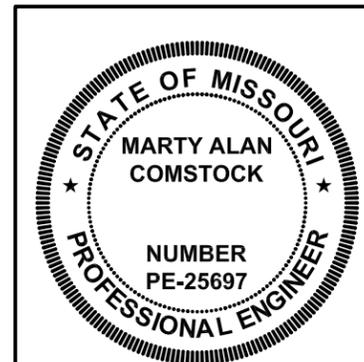
Sponsor Liaison: Skip Shaller, MoDOT Engineer 417-476-5684
Government Liaison: John Feistner, USDA Engineer 417-831-5246 x123



The contractor is responsible for having all utilities located at the work site or on ingress road prior to beginning work.
Missouri One Call Number is 800-344-7483 or 1-800-DIG-RITE.

SHEET INDEX

- Sheet -1- Cover Sheet
- Sheet -2- Existing Condition
- Sheet -3- Planned Construction
- Sheet -4- Plan View
- Sheet -5- Cross Section Data
- Sheet -6- Project Volumes

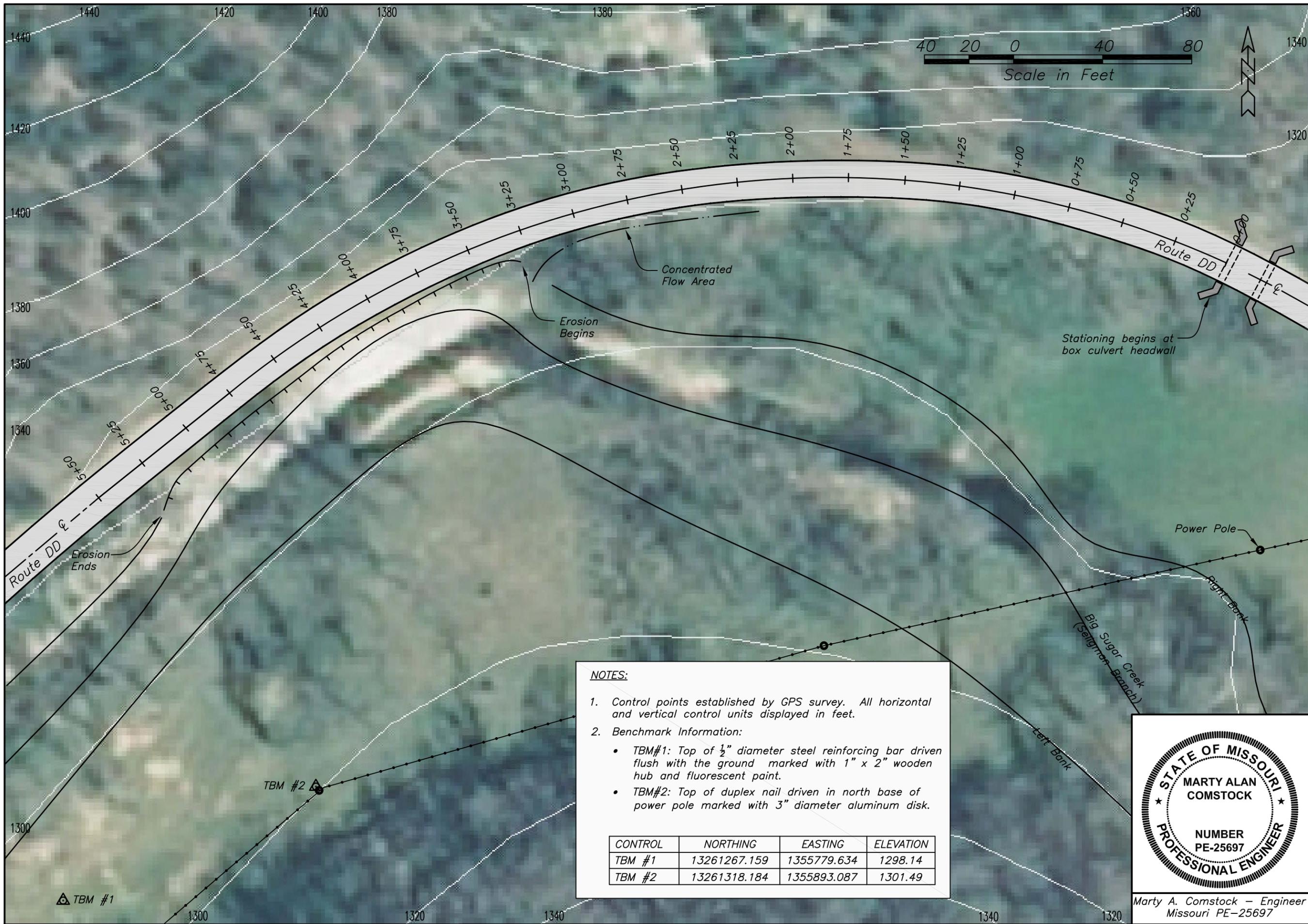


Marty A. Comstock - Engineer
Missouri PE-25697

Designed	MAC	Date	10/10
Drawn	MJM - MAC		10/10
Checked	DLW		11/10
Approved			

COVER SHEET
 Seligman Branch Bank Stabilization
 DSR 009-10-003
 Barry County, Missouri

United States Department of Agriculture Natural Resources Conservation Service NRCS Springfield Area Office 688 S. State Hwy. B, Suite 100, Springfield, MO 65802 (417)831-5246
File Name
Drawing Name
Sheet 1 of 6



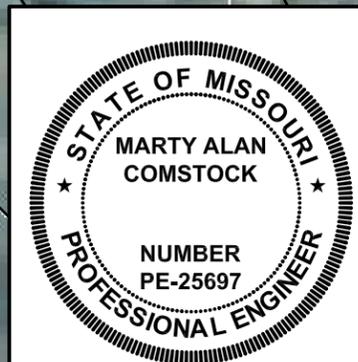
Date	10/10
Designed	MAC
Drawn	MJM - MAC
Checked	DLW
Approved	

EXISTING CONDITION - PLAN VIEW
Seligman Branch Bank Stabilization
 DSR 009-10-003
 Barry County, Missouri

NOTES:

- Control points established by GPS survey. All horizontal and vertical control units displayed in feet.
- Benchmark Information:
 - TBM#1: Top of 1/2" diameter steel reinforcing bar driven flush with the ground marked with 1" x 2" wooden hub and fluorescent paint.
 - TBM#2: Top of duplex nail driven in north base of power pole marked with 3" diameter aluminum disk.

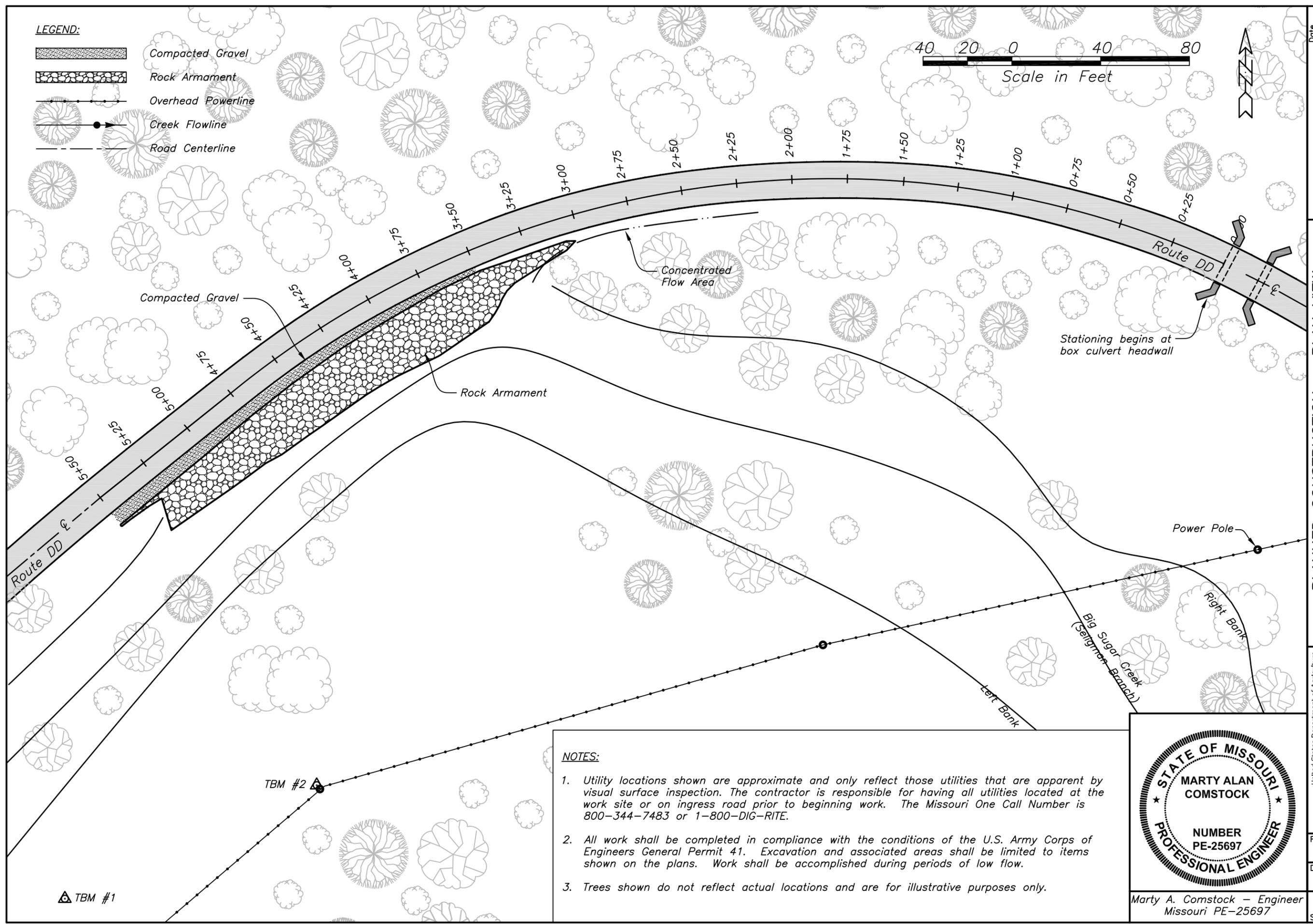
CONTROL	NORTHING	EASTING	ELEVATION
TBM #1	13261267.159	1355779.634	1298.14
TBM #2	13261318.184	1355893.087	1301.49



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NRCS
 Springfield Area Office
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 Springfield, MO 65802 (417)831-5246

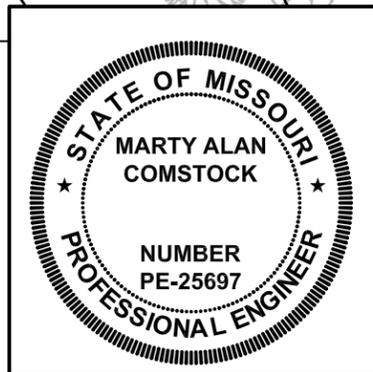
LEGEND:

-  Compacted Gravel
-  Rock Armament
-  Overhead Powerline
-  Creek Flowline
-  Road Centerline



NOTES:

1. Utility locations shown are approximate and only reflect those utilities that are apparent by visual surface inspection. The contractor is responsible for having all utilities located at the work site or on ingress road prior to beginning work. The Missouri One Call Number is 800-344-7483 or 1-800-DIG-RITE.
2. All work shall be completed in compliance with the conditions of the U.S. Army Corps of Engineers General Permit 41. Excavation and associated areas shall be limited to items shown on the plans. Work shall be accomplished during periods of low flow.
3. Trees shown do not reflect actual locations and are for illustrative purposes only.



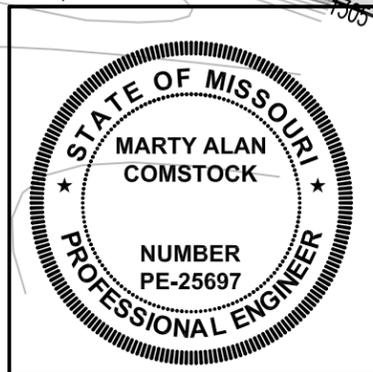
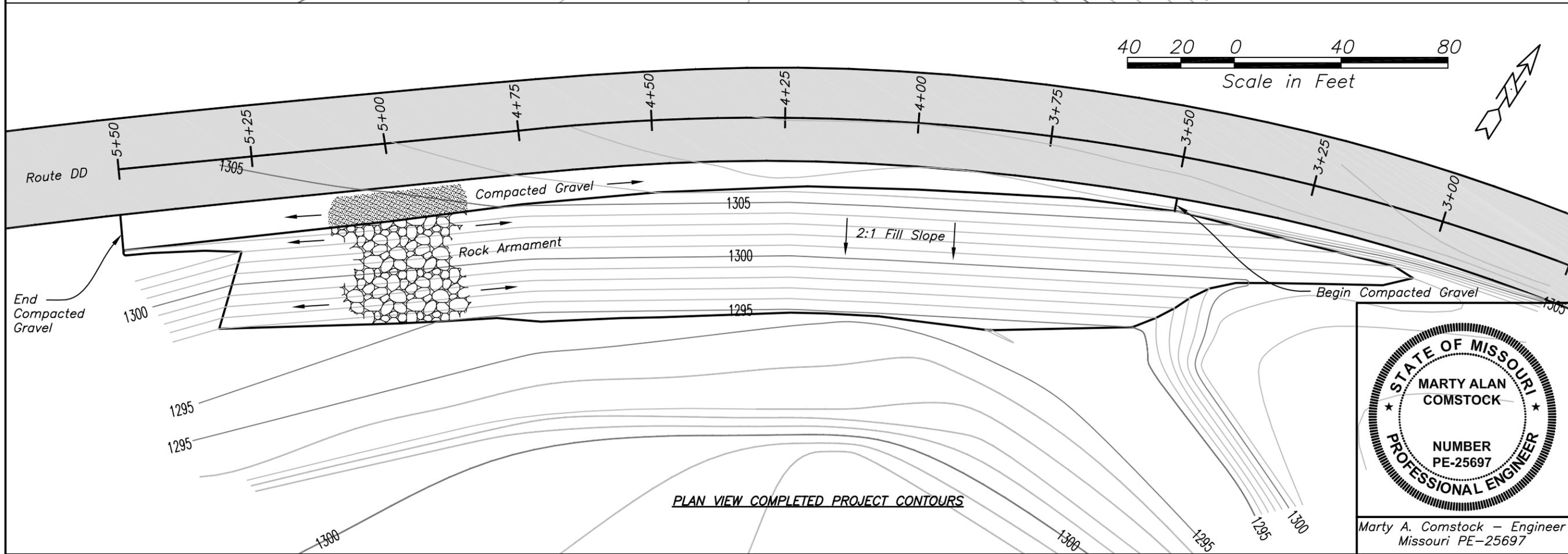
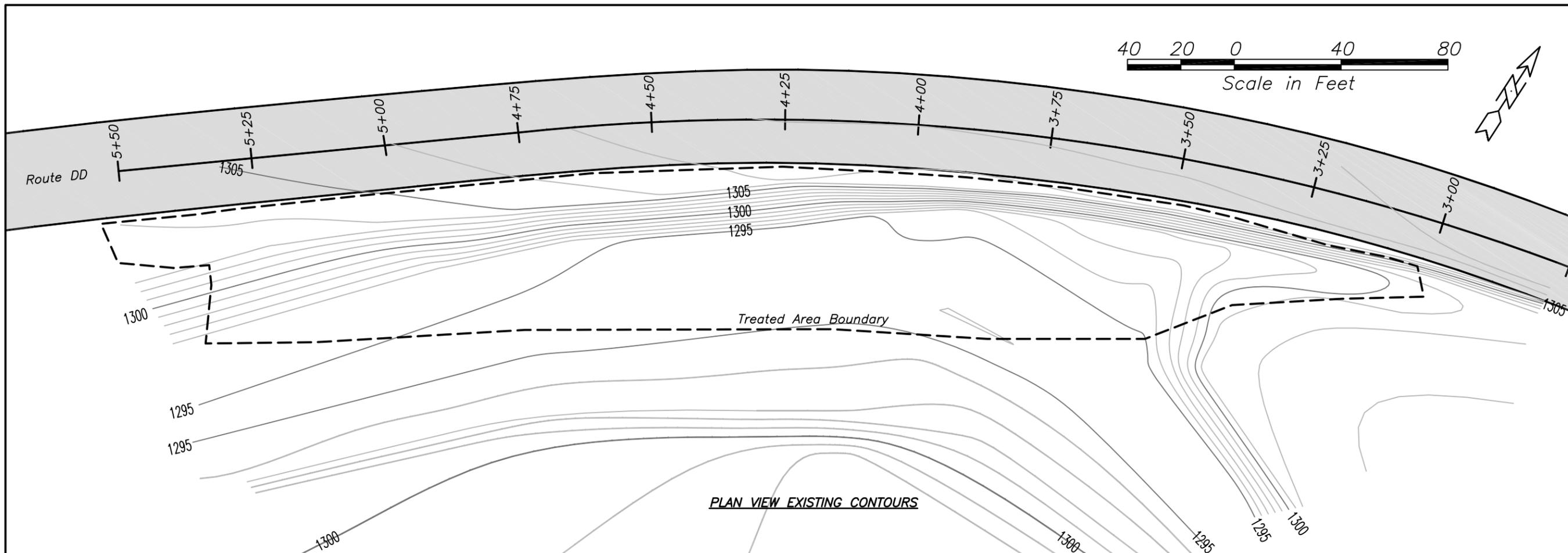
Date	10/10
Designed	MAC
Drawn	MJM - MAC
Checked	DLW
Approved	

PLANNED CONSTRUCTION - PLAN VIEW
Seligman Branch Bank Stabilization
 DSR 009-10-003
 Barry County, Missouri

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File Name
 Drawing Name
 Sheet **3** of **6**

Marty A. Comstock - Engineer
 Missouri PE-25697



Date	10/10
Designed	MAC
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Checked	DLW
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PLAN VIEW

Seligman Branch Bank Stabilization

DSR 009-10-003

Barry County, Missouri

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Natural Resources Conservation Service

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File Name	
Drawing Name	
Sheet	4 of 6

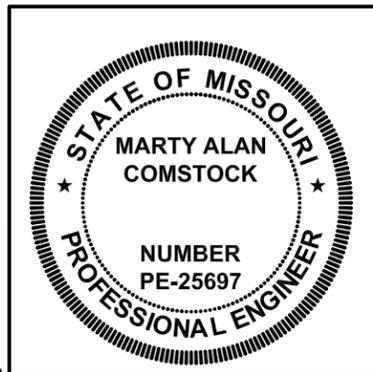
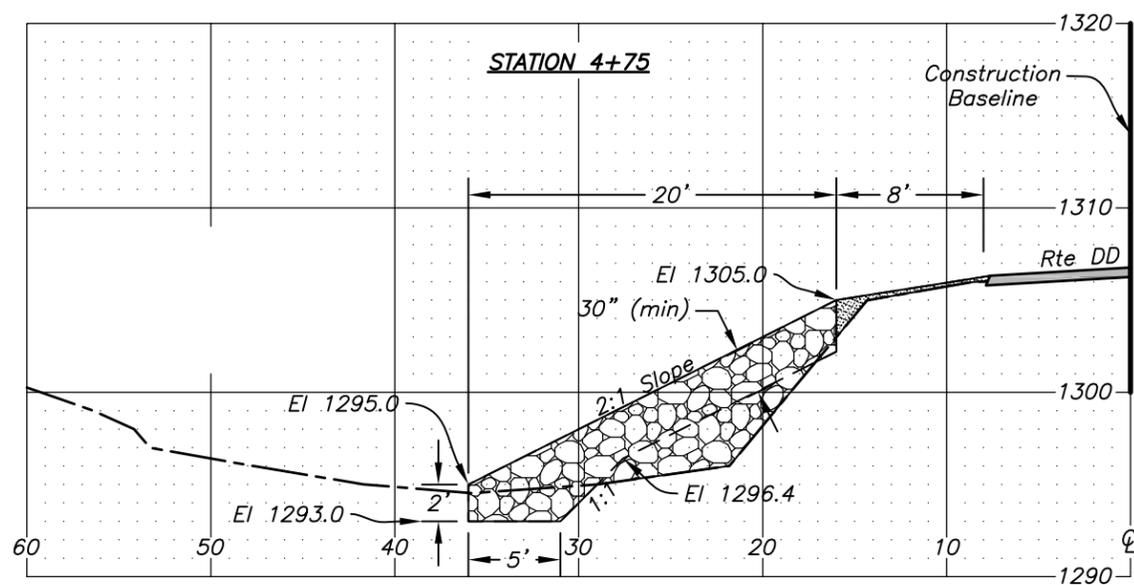
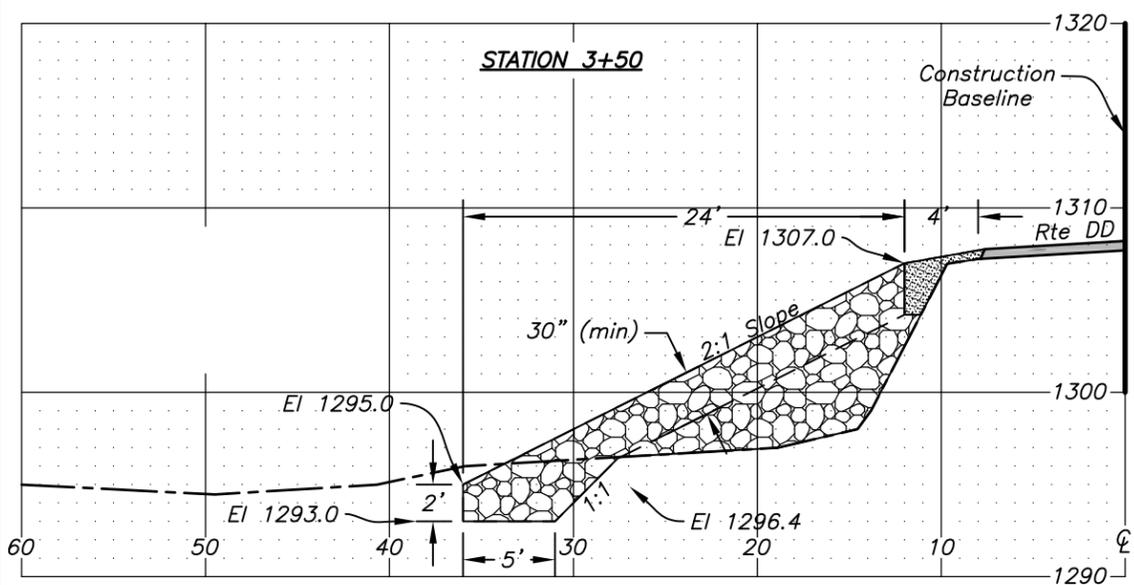
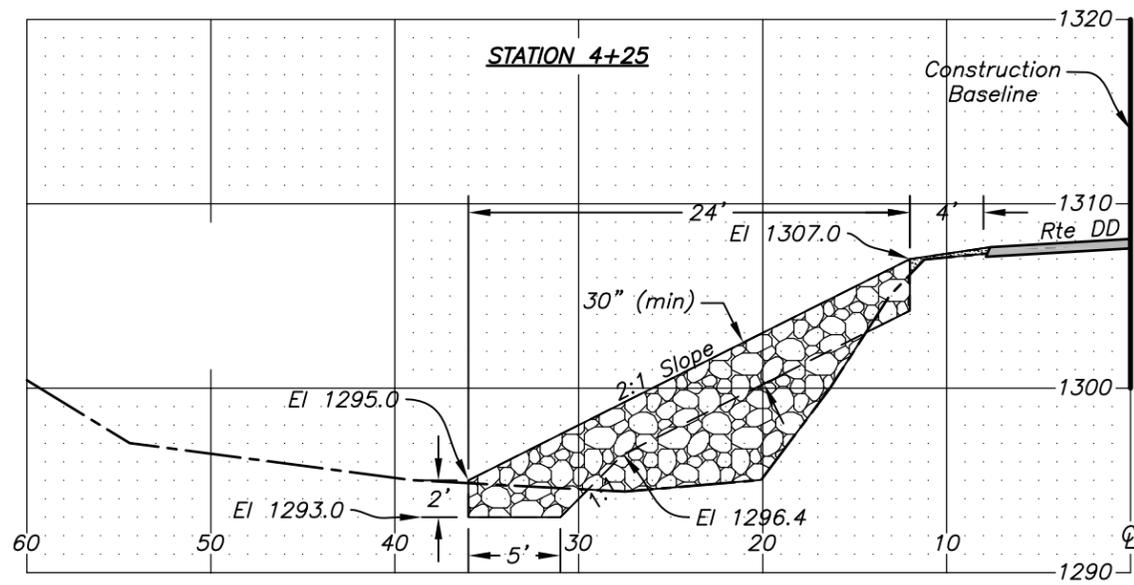
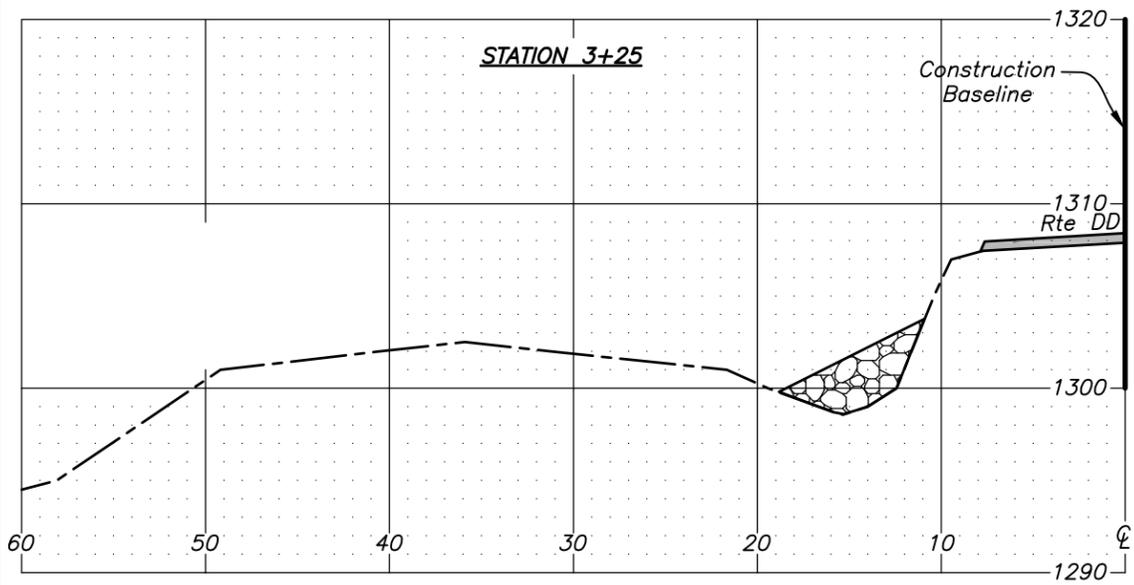
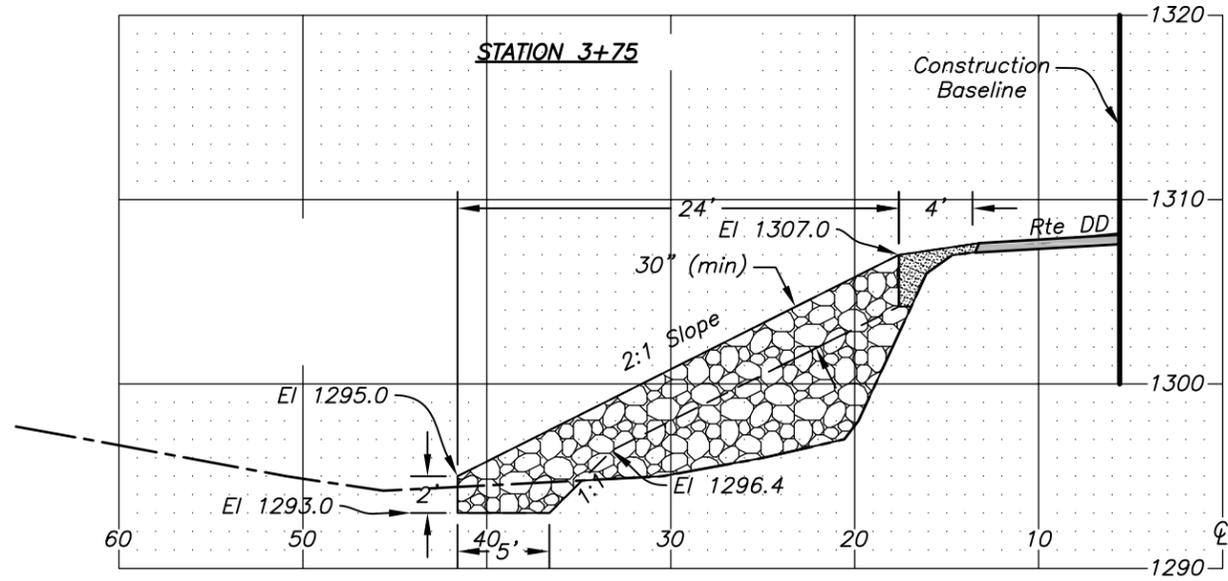
Marty A. Comstock - Engineer Missouri PE-25697

NOTES:

- Beginning of project (BOP) and end of project (EOP) are taken to be 3+00 and 5+50 respectively.
- For total estimates on rock armament, compacted gravel fill, and excavation, refer to Sheet 6.

LEGEND:

-  Existing Road (approximate)
-  Rock Armament
-  Compacted Gravel
-  Existing Ground Line



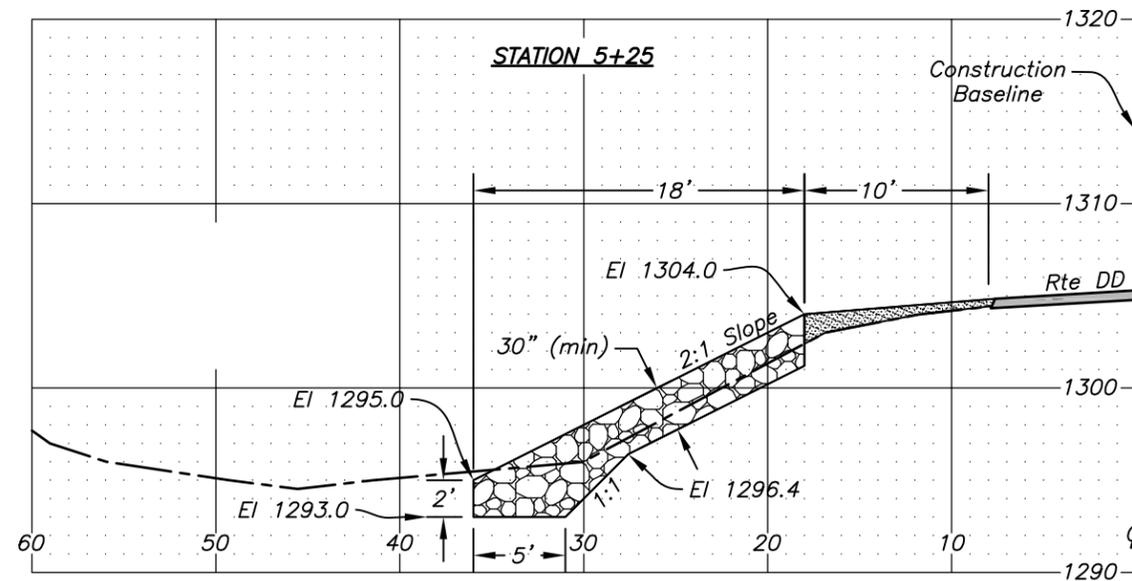
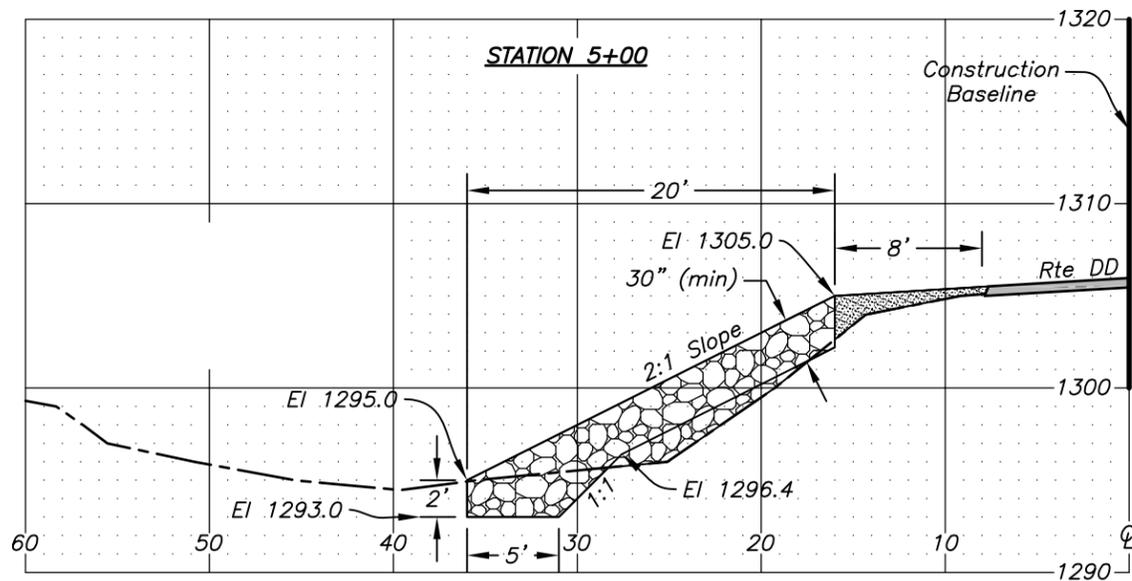
Marty A. Comstock - Engineer
Missouri PE-25697

Date	10/10
Designed	MAC
Drawn	MJM - MAC
Checked	DLW
Approved	

TYPICAL FILL CROSS SECTIONS
Seligman Branch Bank Stabilization
DSR 009-10-003
Barry County, Missouri

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NRCS Natural Resources Conservation Service
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File Name	
Drawing Name	
Sheet	5 of 6



NOTES ON ROCK ARMAMENT:

1. Rock shall be placed such that an appropriate mixture of small and large rock is present throughout the blanket. Larger rock shall be placed at the toe of the rock blanket to form a stable base for fill.
2. The source, type, and gradation of rock shall be reviewed and approved by the government representative prior to procurement or placement.
3. Rock armament will conform to the Missouri Standard Specifications for Highway Construction for a Type 4 ditch liner or may consist of rock that is sound, durable stone conforming to the displayed gradation:
4. Rock tonnage is assumed to be 1.4 tons per cubic yard. Actual tons per cubic yard may vary based on rock source and placed rock blanket density.
5. Rock blanket shall be a minimum of 30" thick measured perpendicular to the slope.

PERCENT PASSING BY SIZE	SIZE (INCHES)
100	2.0 D ₅₀ = 30"
50-80	1.4 D ₅₀ = 21"
25-50	D ₅₀ = 15"
10-30	.5 D ₅₀ = 8"
0-5	.2 D ₅₀ = 3"

ARMAMENT QTY ESTIMATES

STATIONS	Cut (CY)	Gravel(CY)	Rock (CY)	Rock (TN)
BOP to 3+25	0.0	0.0	7.6	10.7
3+25 to 3+50	9.4	2.7	61.7	86.4
3+50 to 3+75	13.7	5.2	116.1	162.5
3+75 to 4+25	25.4	6.1	231.9	324.6
4+25 to 4+75	26.8	4.3	184.4	258.1
4+75 to 5+00	11.6	5.0	71.2	99.7
5+00 to 5+25	20.1	6.9	58.7	82.1
5+25 to EOP	13.5	3.5	25.7	36.0
ARMAMENT TOTALS	121	34	758	1,060

NOTES ON EXCAVATION:

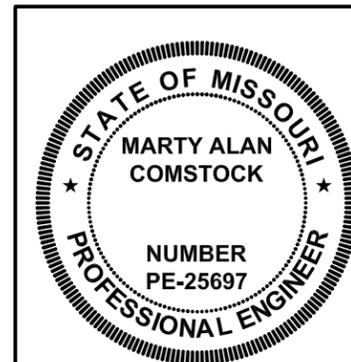
1. Excavate and remove soil below existing ground line as shown to achieve proper armament placement depths.
2. All excavated material will be removed from the site to an approved disposal location. Excavated material will not will not be used as fill.

NOTES ON COMPACTED GRAVEL:

1. Compacted gravel will be placed as shown to provide a smooth transition from the existing road surface edge to the beginning of the rock armament slope.
2. Gravel will be graded such that runoff flows away from the road edge, but shall be no steeper than a 1:10 slope. Compacted gravel depth and width will vary by cross section.
3. Compacted gravel requirements begin at station 3+50 and end at station 5+50.
4. Gravel shall conform to MoDOT Missouri Standard Specifications for Highway Construction Section 1006 for "Gravel A or Crushed Stone B".

ESTIMATED PROJECT QUANTITIES	
Length of Stream Armament	250 feet*
Rock Armament	757 CY
Compacted Gravel	34 CY
Excavation	121 CY

* Measured by stationing along HWY DD according to current draft plan set.



Marty A. Comstock - Engineer
Missouri PE-25697

Date 10/10
Designed MAC
Drawn MJM - MAC
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Approved

TYPICAL FILL CROSS SECTIONS
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