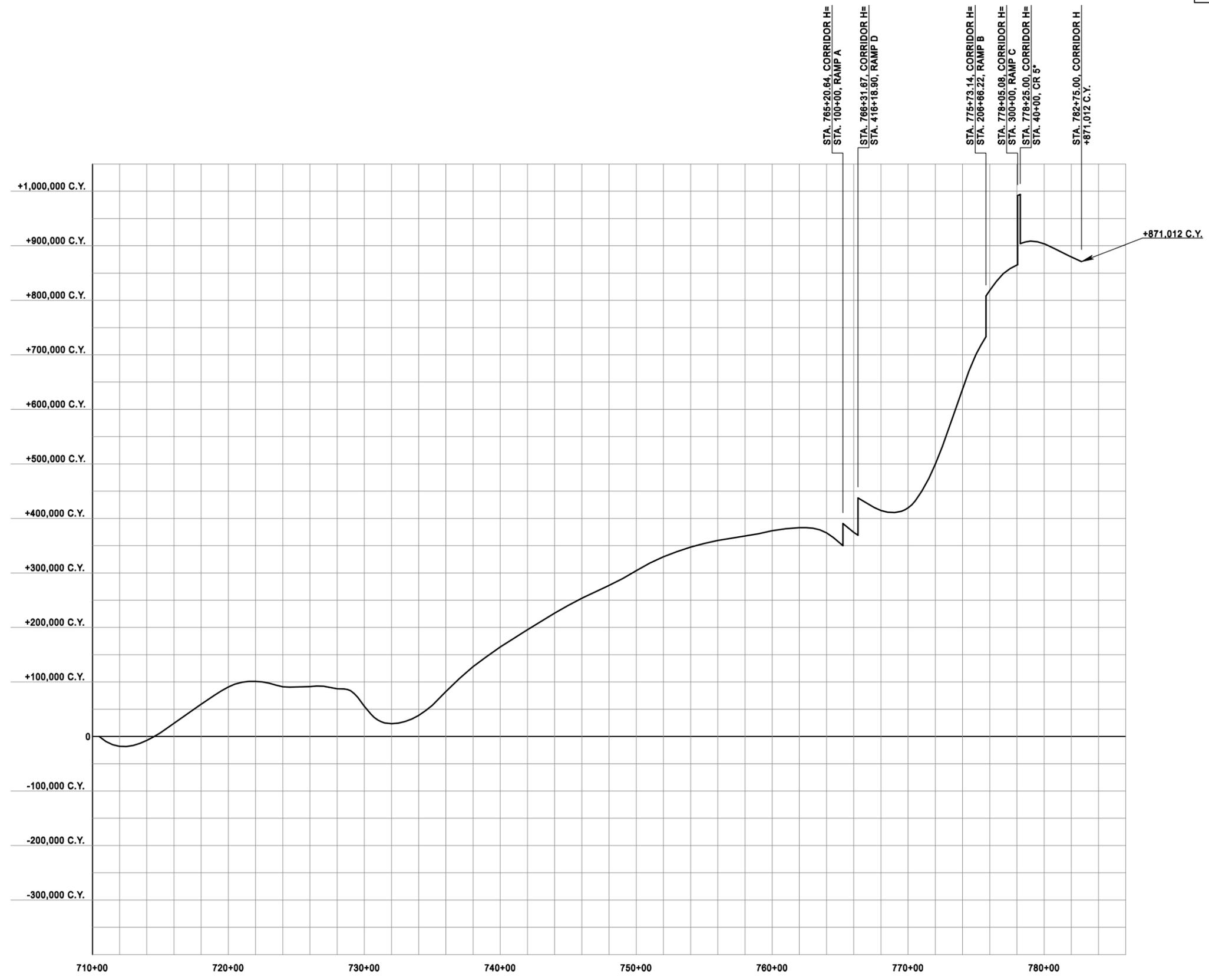
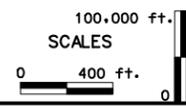


Public Roads Div.	State Dist. No.	State Project No.	Federal Project No.	Fiscal Year	County	Sheet No.	Total Sheets
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CORRIDOR H MASS DIAGRAM

\* INCLUDED DRWY #4 VOLUME



REVISION NUMBER	SHEET NUMBER	REVISION	DATE	BY

NEFF, LONGEST, & BEAM and ASSOC., LLC  
 300 Capitol Street, 5th Kanawha Valley Building  
 Charleston, WV 25301

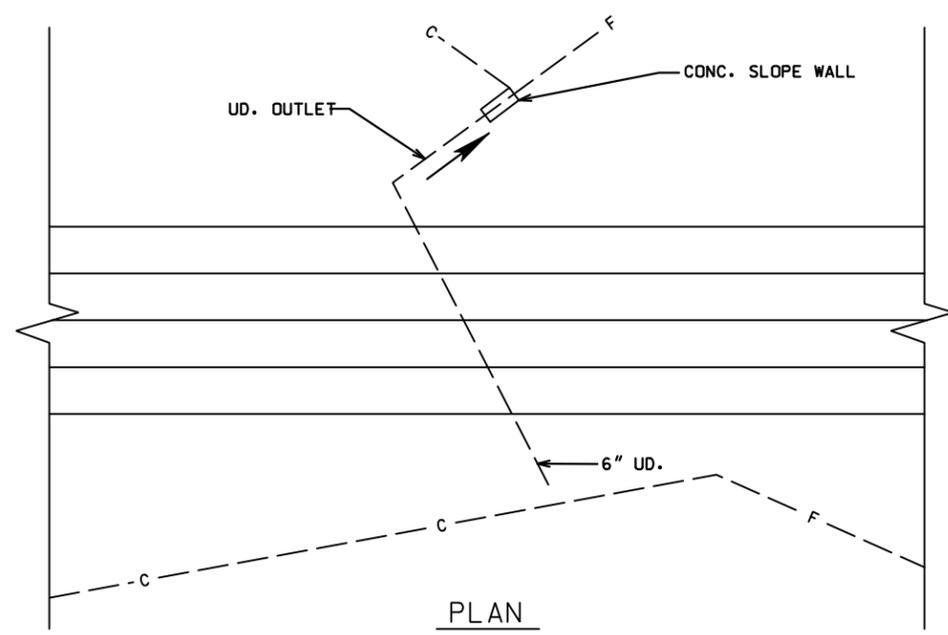
THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

**MASS DIAGRAM**

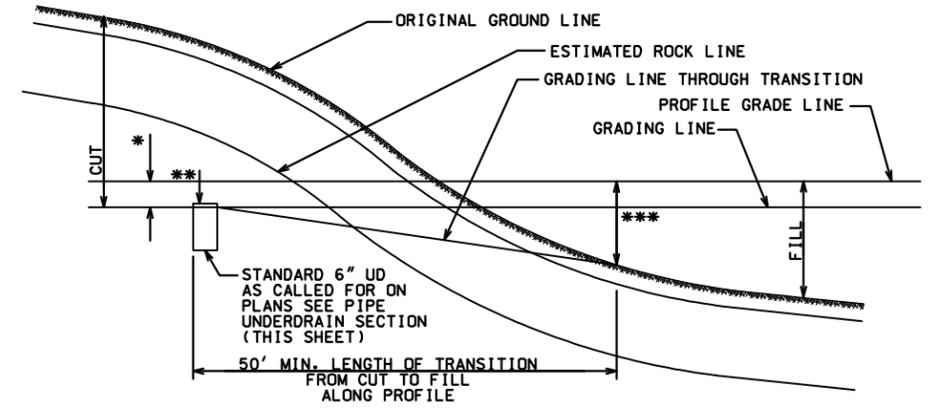
5/15/2007



Public Roads Div.	State Dist. No.	State Project No.	Federal Project No.	Fiscal Year	County	Sheet No.	Total Sheets
W.V.	05	X312-H-93.37	APD-0484 (236)C	2006	GRANT	25	389

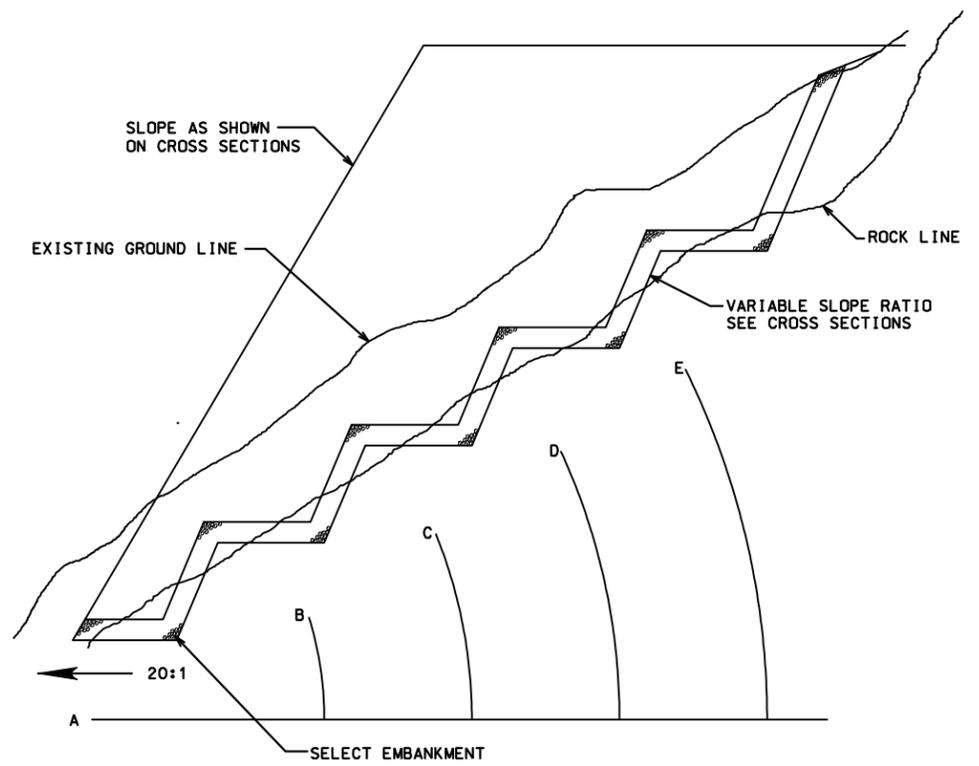
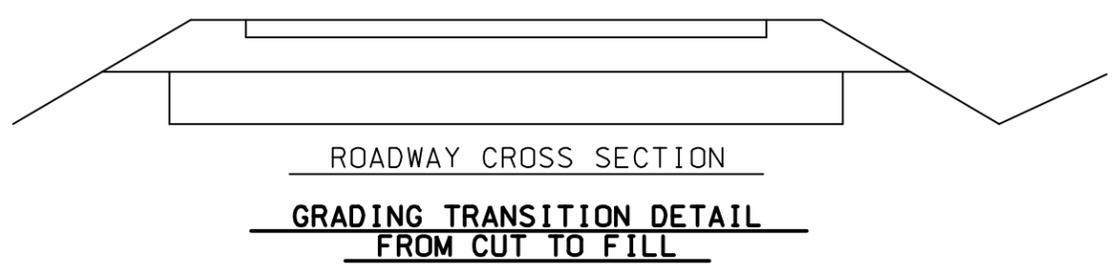


\* LOCATION OF ALL GRADING TRANSITIONS WILL BE FIELD ADJUSTED



- \* THICKNESS AS SHOWN ON TYPICAL SECTION (INCLUDES PAVEMENT, BASE COURSE AND SUBGRADE.)
- \*\* TOP OF UNDERDRAIN TRENCH TO MATCH BOTTOM OF BASE OR FREE DRAINING BASE COURSE.
- \*\*\* TYPICAL SECTION THICKNESS PLUS 3'.

PROFILE



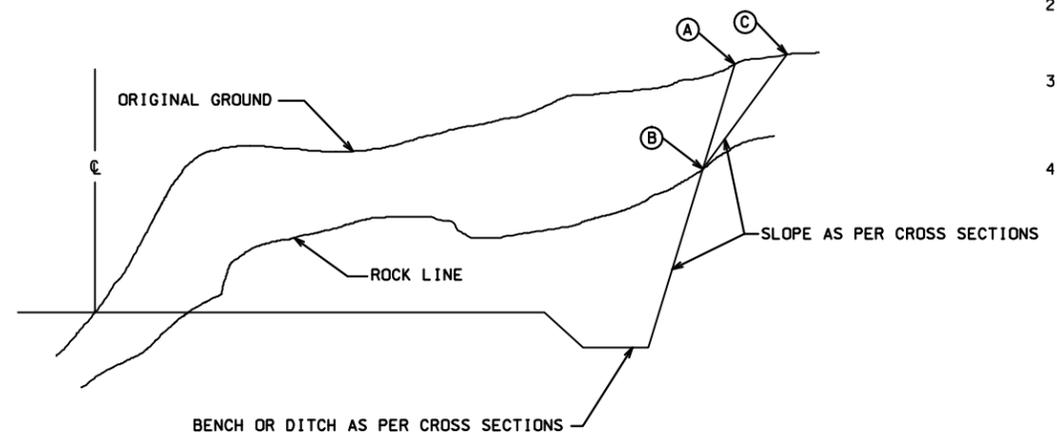
**TYPICAL FILL BENCH IN ROCK**

**FILL BENCH NOTES**

1. FILL BENCHES SHALL BE PROVIDED IN AREAS SHOWN ON CROSS SECTIONS
2. ALL LETTERED OR NUMBERED FILL BENCHES ARE TO BE CONSTRUCTED ON ROCK OR SHALE
3. THE MINIMUM WIDTH OF ANY BENCH SHALL BE 12 FEET
4. ALL BENCHES SHALL SLOPE AT 20:1 RATIO TOWARD THE TOE OF THE EMBANKMENT, BENCHES SHALL BE HORIZONTAL LONGITUDINALLY UNLESS OTHERWISE SHOWN ON THE CROSS SECTIONS.
5. SHOULD FILL BENCH EXCAVATION EXCEED 5 FEET BELOW TEMPLATE ELEVATIONS SHOWN ON THE CROSS SECTIONS, MATERIALS CONTROL, SOILS AND TESTING DIVISION SHOULD BE NOTIFIED TO EVALUATE SUBSURFACE CONDITIONS.

**NOTES**

1. AREAS TO BE TREATED ARE INDICATED ON THE CROSS SECTIONS.
2. THE INITIAL CUT SHOULD BEGIN AT OR NEAR POINT (A) AND CONTINUE ALONG SLOPE 'AB' UNTIL ROCK IS ENCOUNTERED.
3. AFTER THE SOIL/ROCK CONTACT HAS BEEN ESTABLISHED, A SOIL SLOPE 'CB' NOT FLATTER THAN 2:1 IS EXCAVATED WHICH WILL TERMINATE ON ROCK AT POINT (B).
4. AFTER SLOPE 'CB' IS CONSTRUCTED, THE EXCAVATION OF THE REMAINDER OF THE CUT WILL CONTINUE DOWN FROM POINT (B).



**TYPICAL BROKEN-BACK SOIL SLOPE DETAIL**

5/15/2007

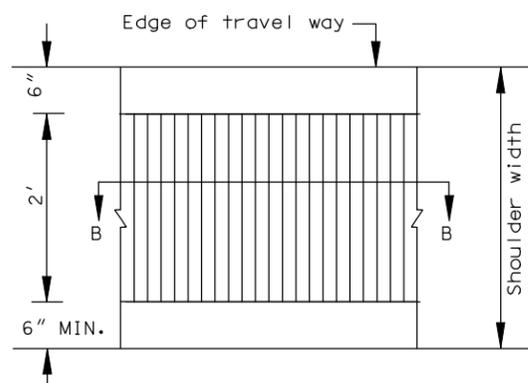
REVISION NUMBER	SHEET NUMBER	REVISION	DATE	BY

NEFF, LONGEST, & BEAM and ASSOC., LLC  
300 Capitol Street, 5th Kanawha Valley Building  
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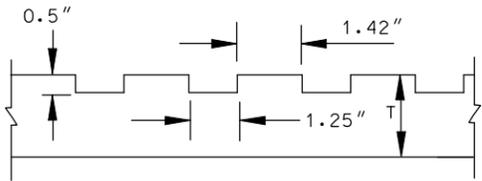
THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**GRADING TRANSITION  
DETAIL**

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**RUMBLE STRIP FOR HOT MIX ASPHALT SHOULDERS**  
NOT TO SCALE



ALTERNATE SECTION B-B  
(SAWED RUMBLE STRIP)

**RUMBLE STRIP NOTES**

RUMBLE STRIP PLACEMENT WILL BE CONTINUOUS ON HOT-MIX ASPHALT SHOULDERS, EXCEPT AS NOTED BELOW.

RUMBLE STRIPS SHALL NOT BE PLACED AT THE FOLLOWING AREAS FOR NON-FREEWAY PROJECTS, ONLY:  
ON SHOULDERS OF NARROW CLIMBING LANES THAT ARE 5' OR LESS IN WIDTH, RIGHT OF TRAFFIC FLOW; IN THE SHOULDER TRANSITION AREA, RIGHT OF TRAFFIC FLOW, BETWEEN A FULL PAVED SHOULDER WIDTH OF 10' AND NARROW BRIDGE WIDTH OF 4'.

RUMBLE STRIPS WIDTH DEPENDING ON WHETHER THEY ARE ROLLED OR SAWED / MILLED WILL BE BETWEEN 16"-24".

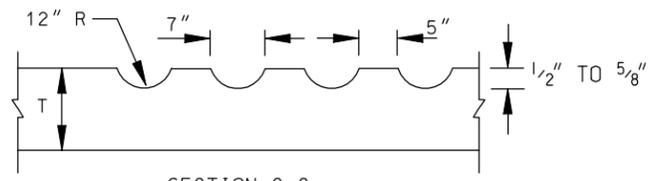
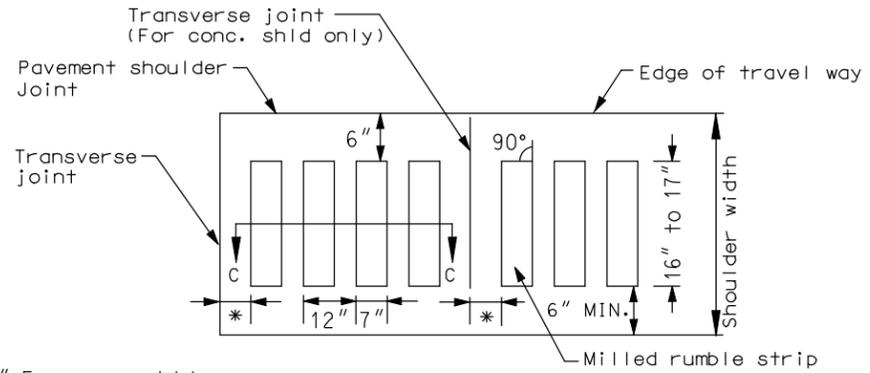
RUMBLE STRIPS MAY BE SAWED / MILLED OR ROLLED. THE TOP OF THE RUMBLE STRIPS WILL BE NO HIGHER THAN THE TOP SURFACE OF THE PAVEMENT. ANY FAULTY OR INCORRECTLY INSTALLED RUMBLE STRIPS WILL BE CORRECTED BY THE CONTRACTOR AT HIS EXPENSE.

SAW / MILL OR ROLL SHOULDER RUMBLE STRIPS AS INDICATED BY USING A MACHINE CAPABLE OF PROVIDING A SMOOTH CUT WITHOUT TEARING OR SNAGGING, AND PRODUCING RUMBLE STRIPS AS INDICATED. EQUIP MACHINE WITH GUIDES TO PROVIDE UNIFORMITY AND CONSISTENCY IN ALIGNMENT OF EACH CUT WITH RESPECT TO ROADWAY. SAWED / MILLED OR ROLLED SHOULDER RUMBLE STRIPS TO HAVE FINISH DIMENSIONS WITHIN TOLERANCES SPECIFIED. SAW / MILL OR ROLL SHOULDER RUMBLE STRIPS ON NEW CONCRETE SHOULDERS AFTER CURING. ALIGNMENT OF PATTERN EDGE WILL BE RANDOMLY VERIFIED AND CHECKED. DISCONTINUE SAW / MILL OR ROLL OPERATIONS IF SATISFACTORY RESULTS ARE NOT BEING OBTAINED AND SUBMIT AN ALTERNATE CONSTRUCTION PLAN TO THE ENGINEER FOR APPROVAL. AT END OF EACH WORKING DAY, MOVE ALL EQUIPMENT TO A LOCATION AS DIRECTED WHERE IT PRESENTS NO HAZARD TO ROADWAY TRAFFIC. REMOVE AND DISPOSE OF SAWED / MILLED OR ROLLED MATERIAL IN COMPLIANCE WITH APPLICABLE STATE REGULATIONS. REMOVE DEBRIS FROM AREAS DISTURBED BY SAWING / MILLING OR ROLLING OPERATION BEFORE OPENING ROADWAY TO TRAFFIC.

**RUMBLE STRIPS IN PAVED SHOULDERS:**

- RUMBLE STRIPS SHALL BE SAWED / MILLED OR ROLLED TYPE PLACED IN SHOULDERS UNDER THE FOLLOWING CONDITIONS, IN ACCORDANCE WITH THIS SPECIAL DETAIL SHEET;
- TYPICAL SHOULDER WIDTH IS 8' OR MORE;
  - MEDIAN SHOULDERS ON DIVIDED HIGHWAYS. IF SHOULDER WIDTH IS 3' OR GREATER;
  - SHOULDERS ADJACENT TO ONE WAY RAMPS WHICH CONNECT TO ARTERIAL HIGHWAYS, IF TYPICAL SHOULDER IS 3' OR GREATER.

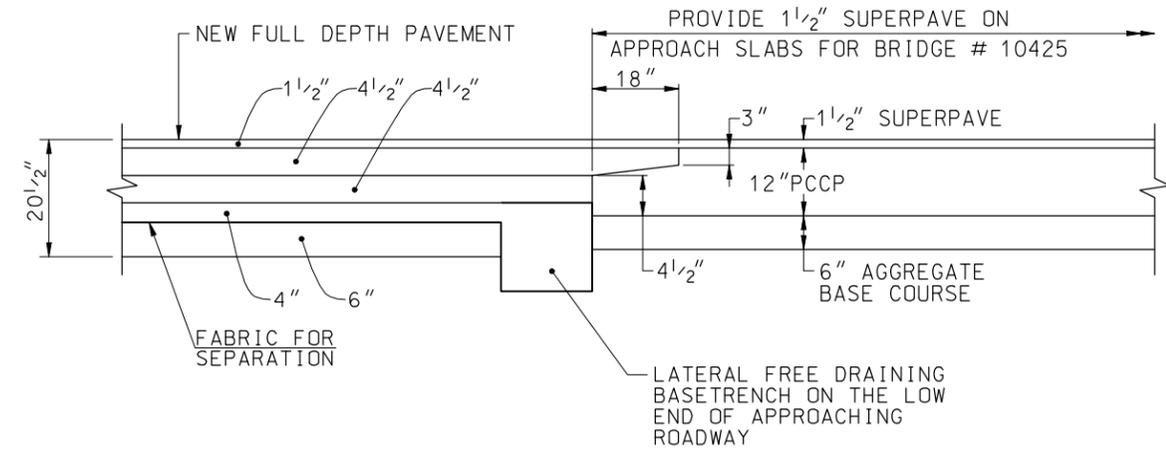
COST FOR RUMBLE STRIPS SHALL BE BID AS ITEM 410001-001 ROLLED RUMBLE STRIP OR ITEM 410001-002 SAWED RUMBLE STRIP PER LINEAR FOOT.



SECTION C-C  
(MILLED RUMBLE STRIP)

\* 7" ± 1/2" For conc. shld.  
2" ± 1/2" For asphalt shld.

**MILLED RUMBLE STRIP FOR PORTLAND CEMENT AND HOT MIX ASPHALT SHOULDERS**  
NOT TO SCALE



**TYPE H JOINT**  
NOT TO SCALE

**NEFF, LONGEST, & BEAM and ASSOC., LLC**  
300 Capitol Street, 511 Kanawha Valley Building  
Charleston, WV 25301

THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PAVEMENT SPECIAL DETAILS**

REVISION NUMBER	SHEET NUMBER	REVISION	DATE	BY

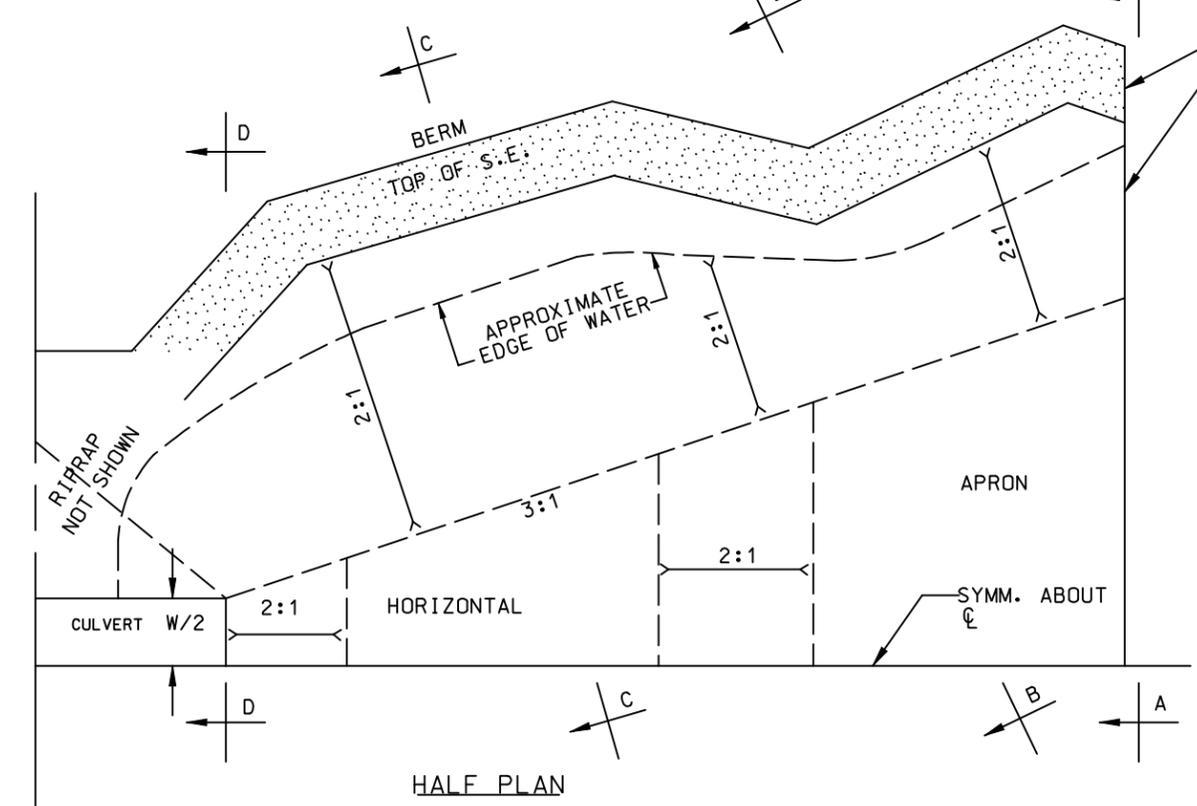
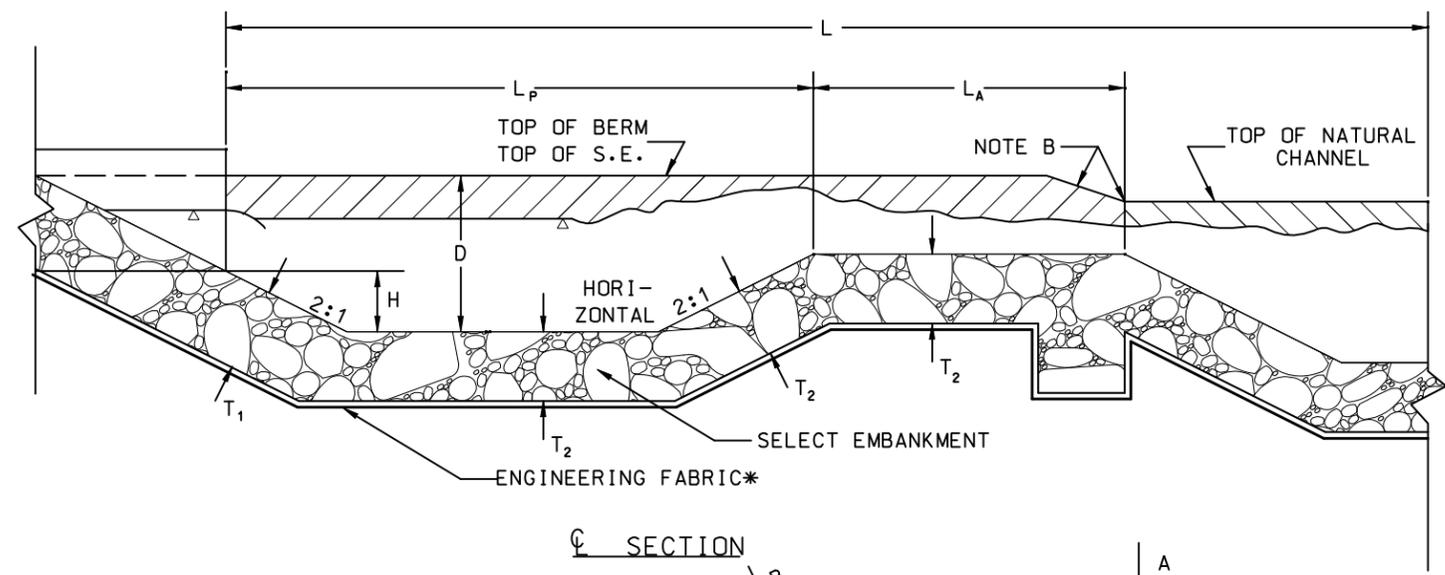
7/2/2007

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W.V.	05	X312-H-93.37	APD-0484 (236)C	2006	GRANT	26 A	389

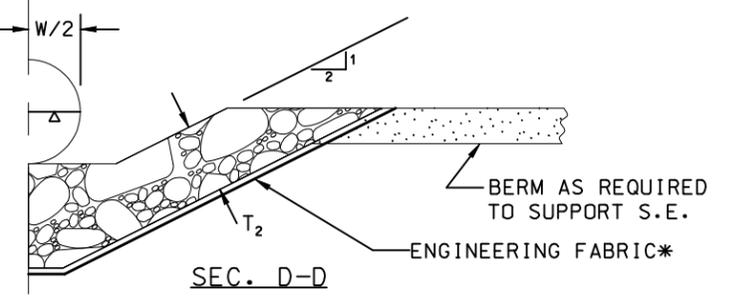
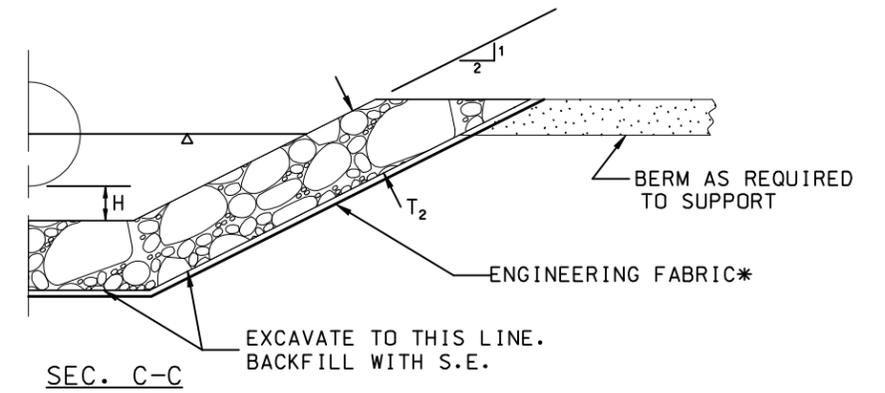
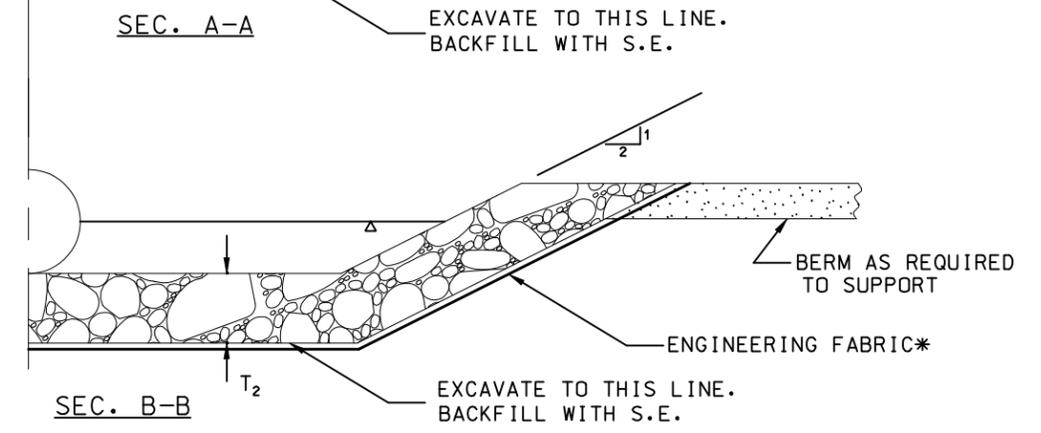
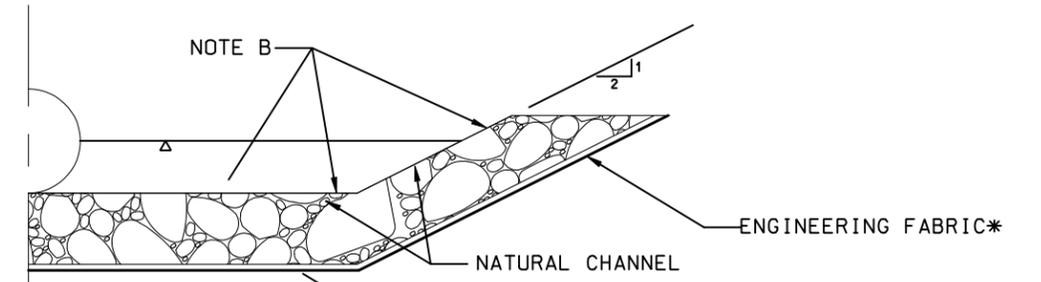
NOTE: IN CERTAIN LOCATIONS, SEDIMENT BASINS HAVE BEEN OR WILL BE CONSTRUCTED WHERE SCOUR BASINS ARE REQUIRED. THOSE SEDIMENT BASINS ARE TO BE MAINTAINED UNTIL THE PROJECT IS DEVELOPED TO A STAGE WHICH WILL MINIMIZE OR NEGATE THE NEED FOR THOSE BASINS. AT THAT TIME, THE BASINS MAY BE REMOVED TO ALLOW CONSTRUCTION OF THE SCOUR BASINS.

NOTE A - ALL STONE SHOWN FOR THIS BASIN IS TO BE SELECT EMBANKMENT (NOTED S.E.) WITH D50 SIZE AS SPECIFIED IN THE TABLE. SEE QUANTITY TABLES FOR SCOUR BASIN DIMENSIONS.

NOTE B - WARP BASIN TO CONFORM TO NATURAL STREAM CHANNEL. TOP OF S.E. IN FLOOR OF BASIN SHOULD BE AT THE SAME ELEVATION OR LOWER THAN NATURAL CHANNEL BOTTOM AT SEC. A-A.



NOTE:  
W = DIAMETER FOR PIPE CULVERT  
W = BARREL WIDTH FOR BOX CULVERT  
W = SPAN LENGTH FOR AN ARCHED CULVERT



\* THE ENGINEERING FABRIC SHALL MEET THE REQUIREMENTS OF SECTION 207034 IN THE STANDARD SPECIFICATIONS, ADOPTED 2000. THE COST OF ALL ENGINEERING FABRIC NECESSARY TO CONSTRUCT THE REQUIRED SCOUR BASINS SHALL BE INCLUDED IN THE COST FOR ITEM 211002-000, ROCK BORROW EXCAVATION. SELECT EMBANKMENT MAY BE AVAILABLE ON SITE AFTER REMOVAL OF SEDIMENT BASINS.

**SPECIAL DETAIL**

NEFF, LONGEST, & BEAM and ASSOC., LLC  
300 Capitol Street, 5th Floor, Kanawha Valley Building  
Charleston, WV 25301

THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

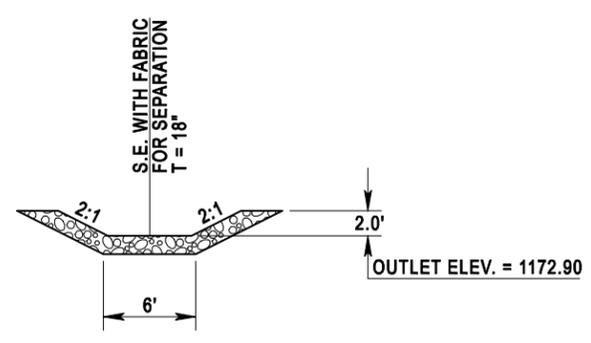
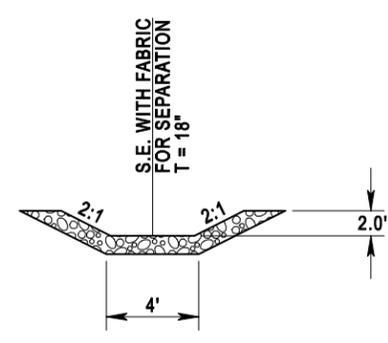
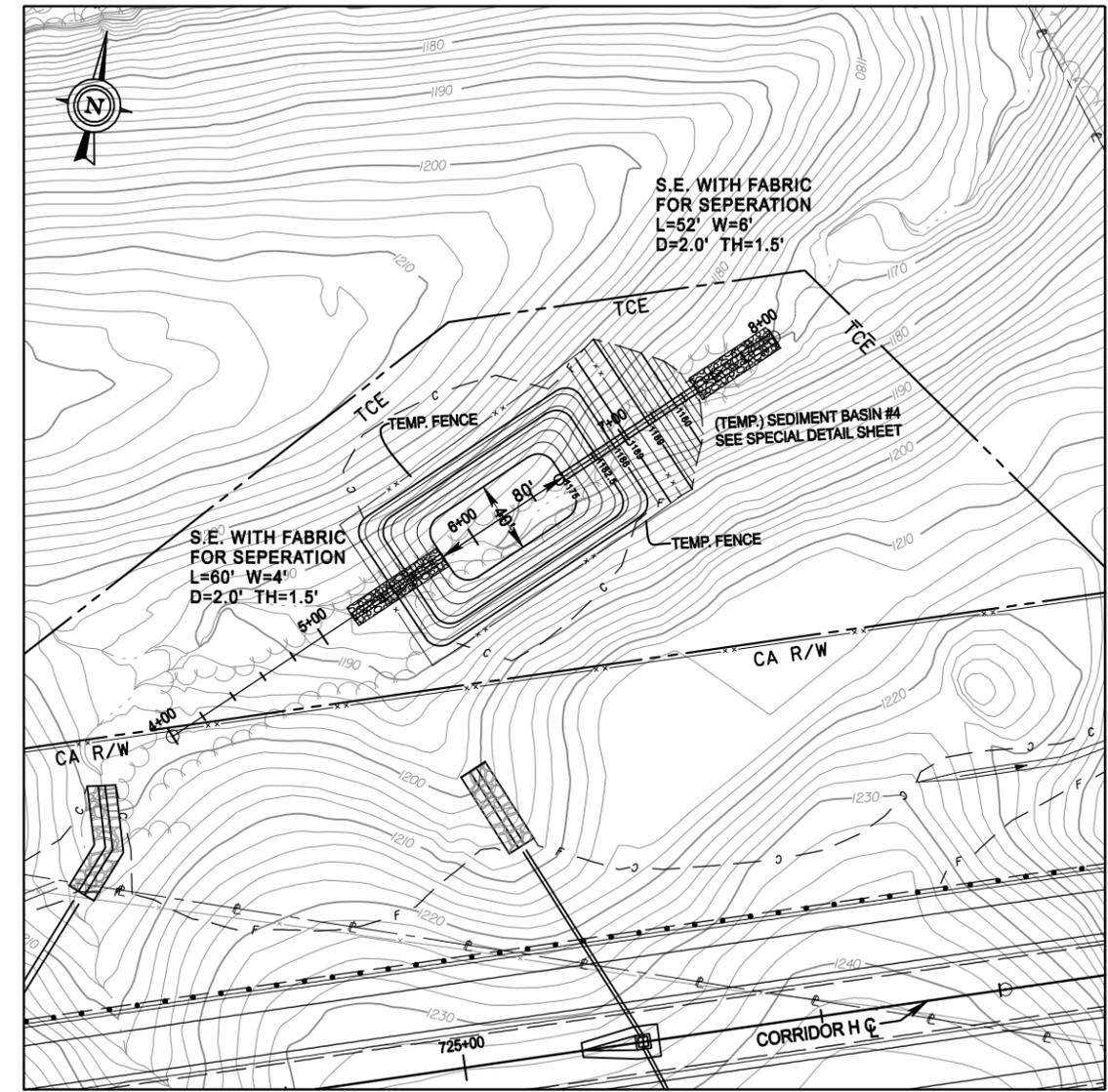
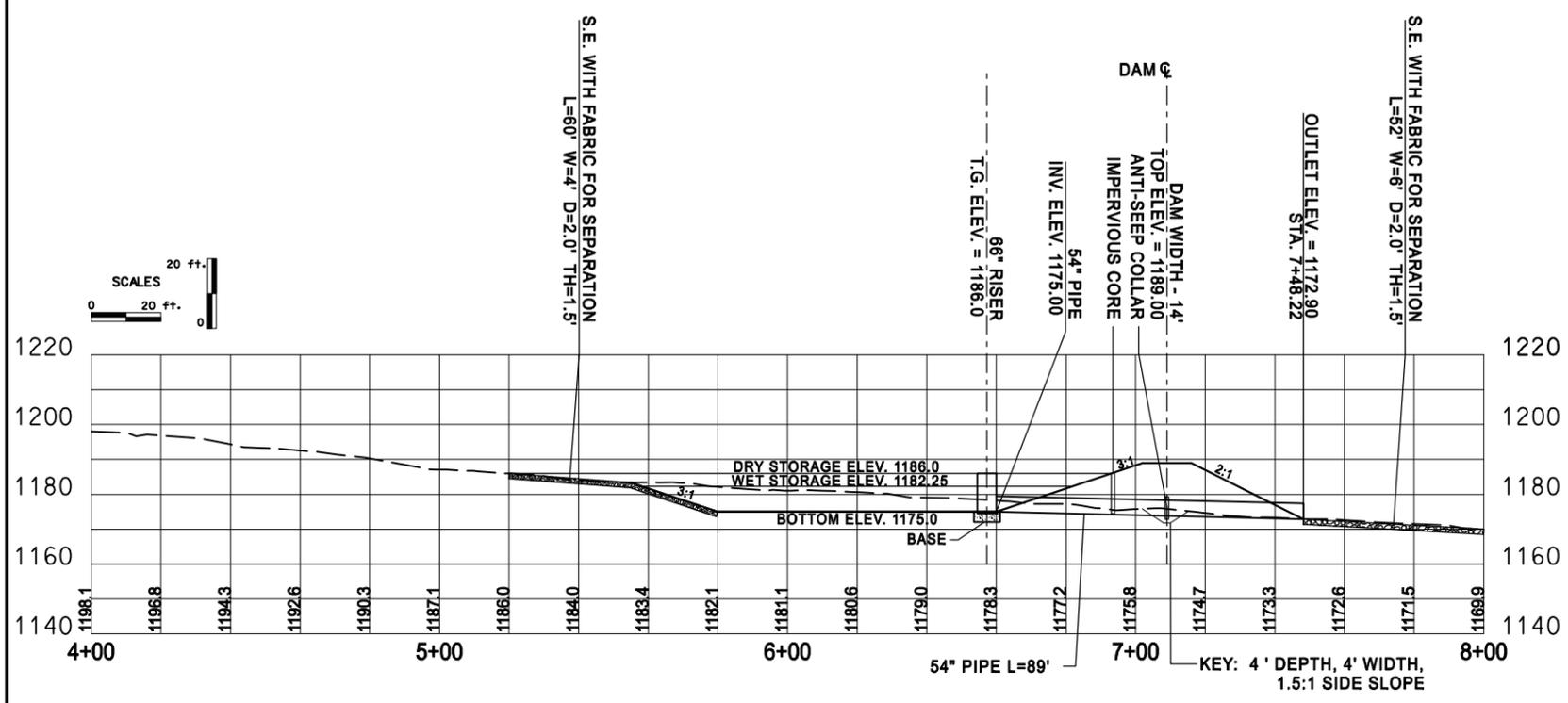
**SCOUR BASIN DETAIL**

REVISION NUMBER	SHEET NUMBER	REVISION	DATE	BY

6/4/2007

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<b>SEDIMENT BASIN (DAM) # 4</b>	<b>STA. 725+65 L</b>
CONTRIBUTING DRAINAGE AREA	= 21.11 AC
STORAGE REQUIRED	= 75,996 CF
STORAGE PROVIDED	= 84,106 CF
BOTTOM ELEVATION	= 1175.00
CREST ELEVATION	= 1189.00



STATION	NORTHING	EASTING
4+00	232795.4307	2083715.5101
8+00	233070.6850	2084005.7429

EARTHWORK VOLUME SEDIMENT BASIN # 04	
EXCAVATION	= 2702
EMBANKMENT	= 1832
WASTE MATERIAL	= 870
FOR INFORMATION ONLY	

**CONCRETE BASE FOR THE RISER:**

THE CONCRETE BASE SHALL BE AT LEAST 18" THICK WITH THE RISER IMBEDDED 6" INTO THE BASE. THE BASE SHALL BE SQUARE WITH EACH DIMENSION 1' GREATER THAN RISER DIAMETER.

ALL COSTS OF THE CONCRETE BASE FOR THE RISER, SHALL BE INCLUDED IN THE UNIT BID PRICE OF ITEM NO. 642035-001 RISER

THE TOP HALF VOL. OF THE RISER WILL BE PERFORMATED WITH 4 - 1.25" DIA. HOLES PER ELEVATION SPACED 21" VERTICALLY. THIS CONFIGURATION WILL PROVIDE FOR A 48 HOUR DEWATERING OF DRY STORAGE. THE BOTTOM HALF VOL. (ELEV. 1182.25 DOWN) SHALL BE SOLID TO PROVIDE FOR WET STORAGE.

## GRADING PLAN SEDIMENT BASIN (DAM) # 4

THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

# EROSION CONTROL PLAN SHEET

**NEFF, LONGEST, & BEAM and ASSOC., LLC**  
300 Capitol Street, 5th Kanawha Valley Building  
Charleston, WV 25301

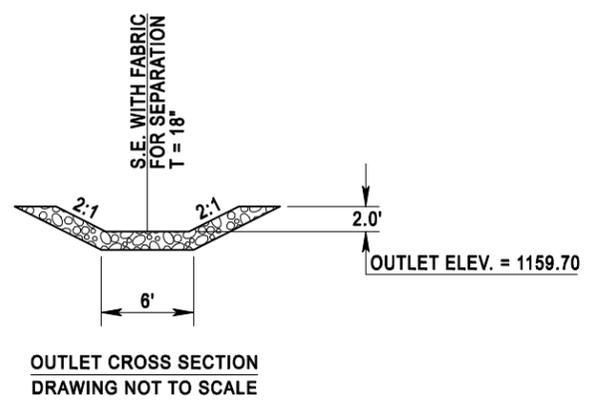
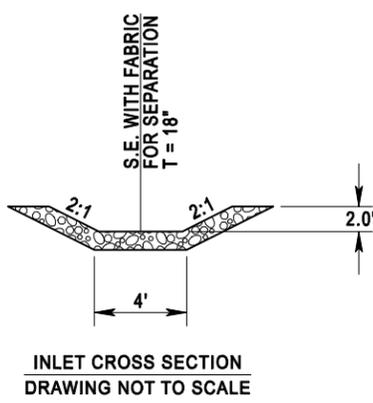
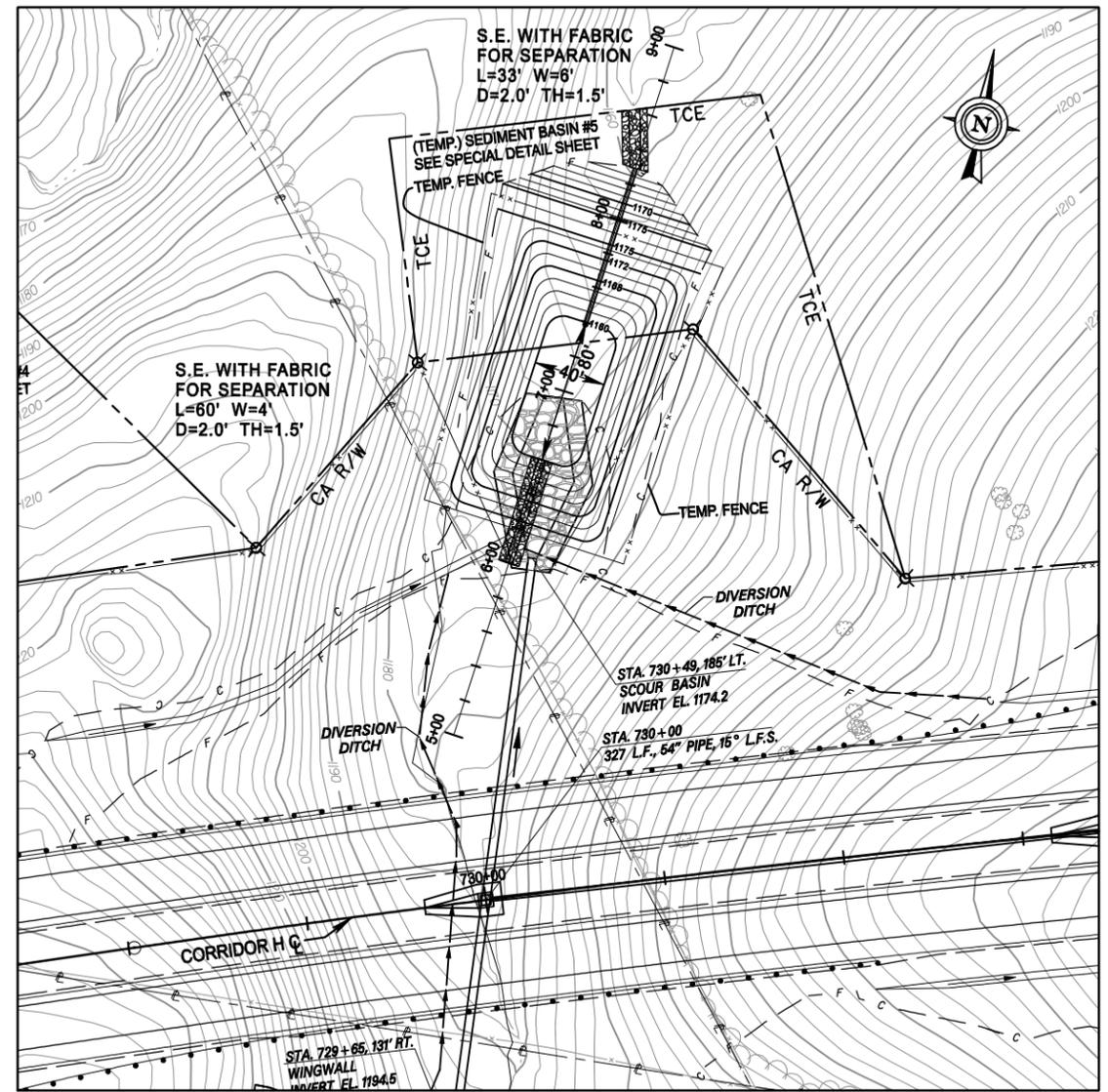
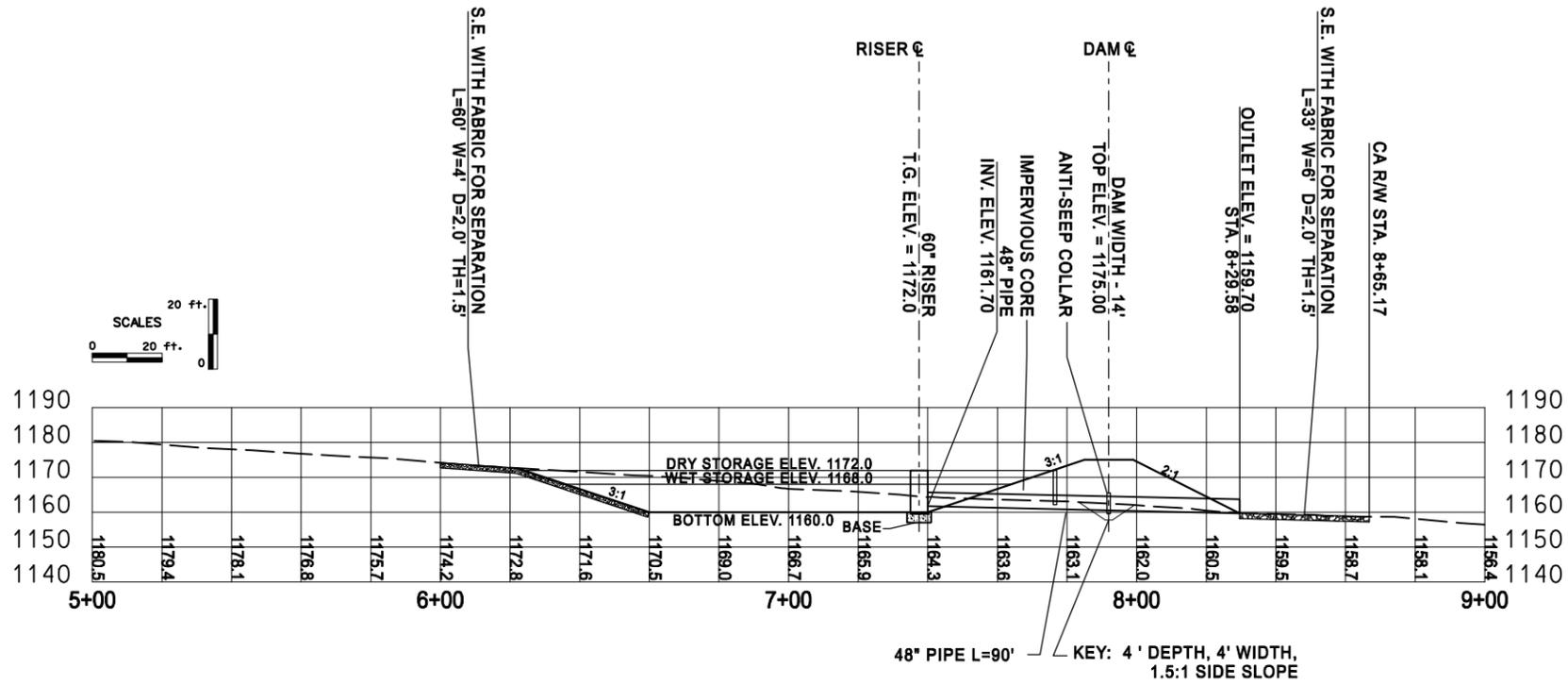
REVISION NUMBER	SHEET NUMBER	REVISION	DATE	BY

NOTE: THIS DETAIL SHEET IS FOR EROSION CONTROL ONLY. SEE PLAN SHEETS FOR ROADWAY, RIGHT OF WAY, AND DRAINAGE DETAIL INFORMATION.

6/4/2007

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<b>SEDIMENT BASIN (DAM) # 5</b>	<b>STA. 730+77 L</b>
CONTRIBUTING DRAINAGE AREA	= 26.27 AC
STORAGE REQUIRED	= 94,572 CF
STORAGE PROVIDED	= 98,424 CF
BOTTOM ELEVATION	= 1160.00
CREST ELEVATION	= 1175.00



STATION	NORTHING	EASTING
5+00	232884.0890	2084349.2429
9+00	233280.3475	2084403.8251

EARTHWORK VOLUME SEDIMENT BASIN # 05	
EXCAVATION	= 2633
EMBANKMENT	= 1612
WASTE MATERIAL	= 1021
FOR INFORMATION ONLY	

**CONCRETE BASE FOR THE RISER:**  
 THE CONCRETE BASE SHALL BE AT LEAST 18" THICK WITH THE RISER IMBEDDED 6" INTO THE BASE. THE BASE SHALL BE SQUARE WITH EACH DIMENSION 1' GREATER THAN RISER DIAMETER.

ALL COSTS OF THE CONCRETE BASE FOR THE RISER, SHALL BE INCLUDED IN THE UNIT BID PRICE OF ITEM NO. 642035-001 RISER

THE TOP HALF VOL. OF THE RISER WILL BE PERFORATED WITH 4 - 1.25" DIA. HOLES PER ELEVATION SPACED 18" VERTICALLY. THIS CONFIGURATION WILL PROVIDE FOR A 50 HOUR DEWATERING OF DRY STORAGE. THE BOTTOM HALF VOL. (ELEV. 1168.0 DOWN) SHALL BE SOLID TO PROVIDE FOR WET STORAGE.

## GRADING PLAN SEDIMENT BASIN (DAM) # 5

THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

# EROSION CONTROL PLAN SHEET

NEFF, LONGEST, & BEAM and ASSOC., LLC  
 300 Capitol Street, 5th Kanawha Valley Building  
 Charleston, WV 25301

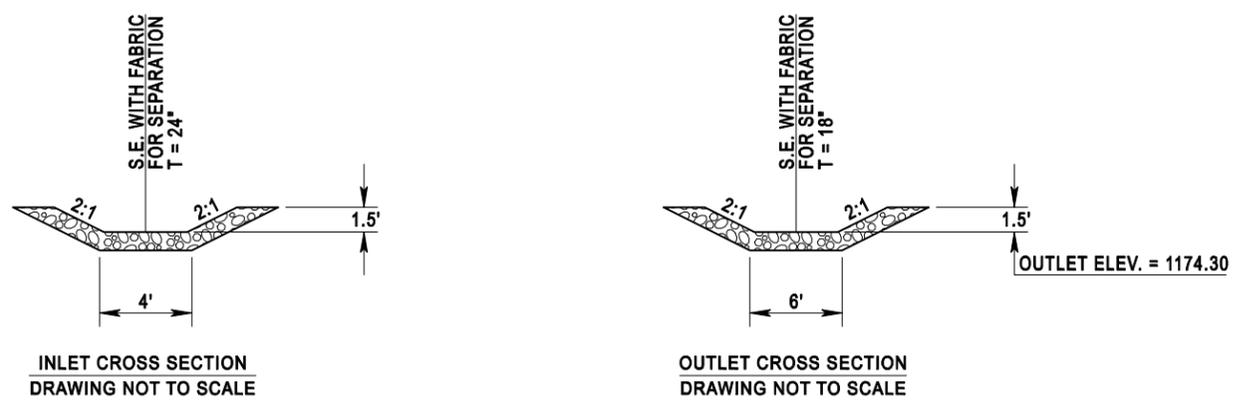
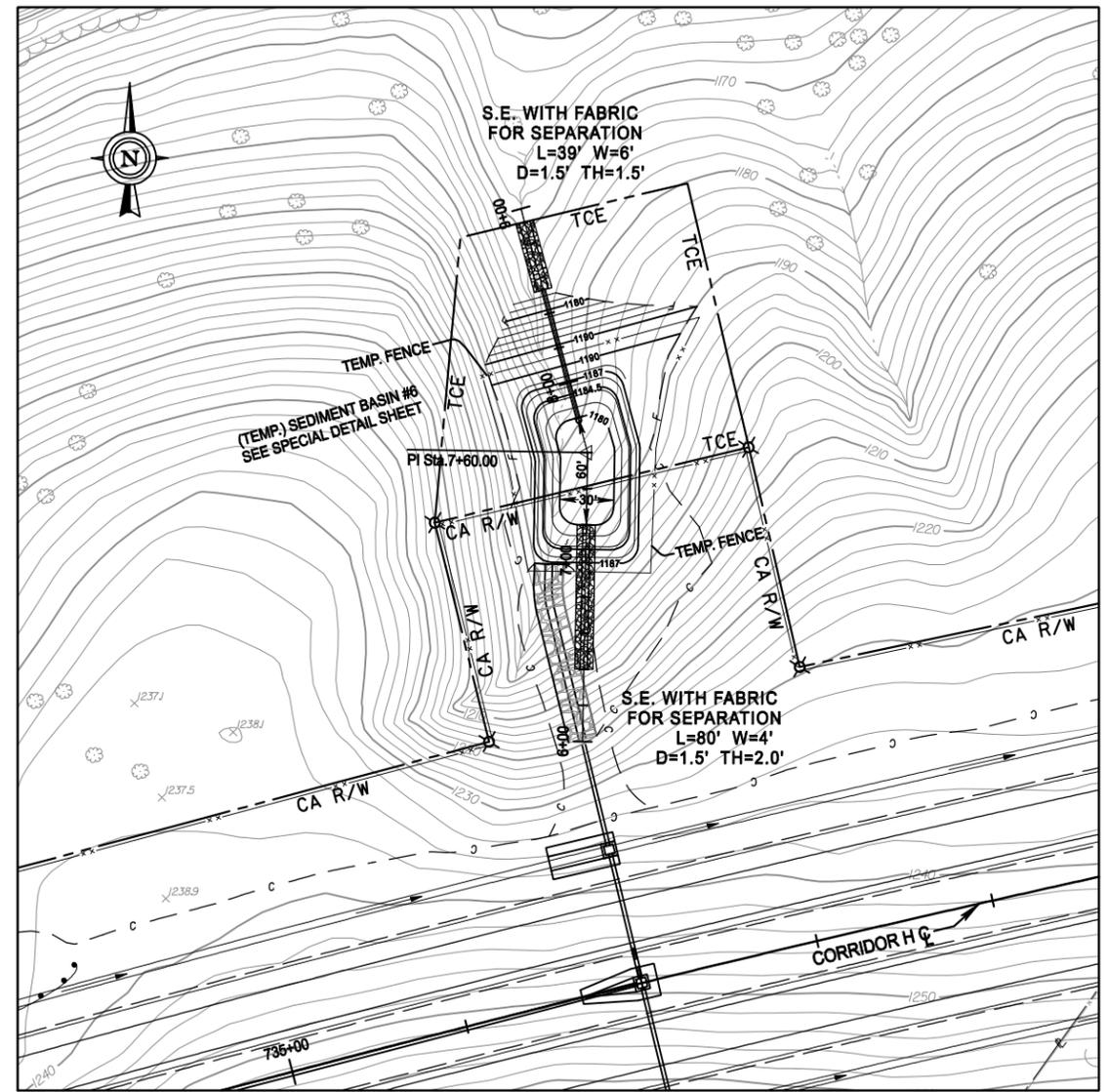
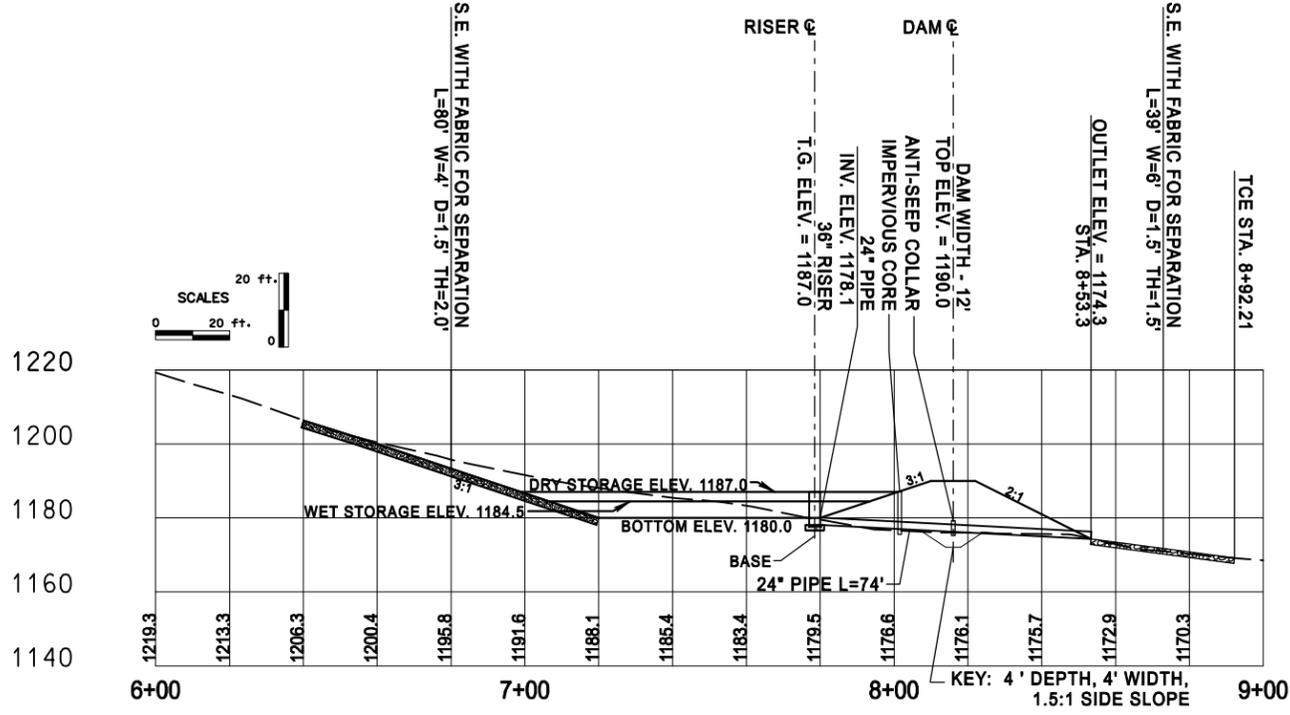
REVISION NUMBER	SHEET NUMBER	REVISION	DATE	BY

NOTE: THIS DETAIL SHEET IS FOR EROSION CONTROL ONLY. SEE PLAN SHEETS FOR ROADWAY, RIGHT OF WAY, AND DRAINAGE DETAIL INFORMATION.

6/4/2007

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<b>SEDIMENT BASIN (DAM) # 6</b>	<b>STA. 737+37 L</b>
CONTRIBUTING DRAINAGE AREA	= 6.64 AC
STORAGE REQUIRED	= 23,904 CF
STORAGE PROVIDED	= 26,404 CF
BOTTOM ELEVATION	= 1180.00
CREST ELEVATION	= 1190.00



STATION	NORTHING	EASTING
6+00	233117.4662	2085024.3060
7+60	233277.4431	2085027.0284
9+00	233412.4898	2084990.1179

EARTHWORK VOLUME SEDIMENT BASIN # 06		
EXCAVATION	=	3520
EMBANKMENT	=	3100
WASTE MATERIAL	=	420
FOR INFORMATION ONLY		

**CONCRETE BASE FOR THE RISER:**

THE CONCRETE BASE SHALL BE AT LEAST 18" THICK WITH THE RISER IMBEDDED 6" INTO THE BASE. THE BASE SHALL BE SQUARE WITH EACH DIMENSION 1' GREATER THAN RISER DIAMETER.

ALL COSTS OF THE CONCRETE BASE FOR THE RISER, SHALL BE INCLUDED IN THE UNIT BID PRICE OF ITEM NO. 642035-001 RISER

THE TOP HALF VOL. OF THE RISER WILL BE PERFORMED WITH 2 - 1.0" DIA. HOLES PER ELEVATION SPACED 9" VERTICALLY. THIS CONFIGURATION WILL PROVIDE FOR A 50 HOUR DEWATERING OF DRY STORAGE. THE BOTTOM HALF VOL. (ELEV. 1084.5 DOWN) SHALL BE SOLID TO PROVIDE FOR WET STORAGE. CLOGGING PROTECTION WILL NEED TO BE PROVIDED.

### GRADING PLAN SEDIMENT BASIN (DAM) # 6

THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

## EROSION CONTROL PLAN SHEET

REVISION NUMBER	SHEET NUMBER	REVISION	DATE	BY

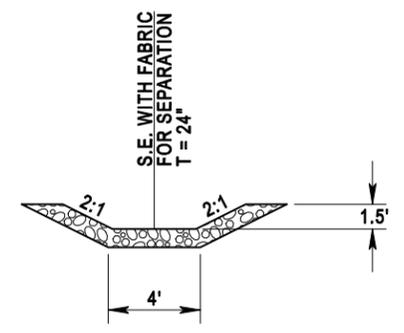
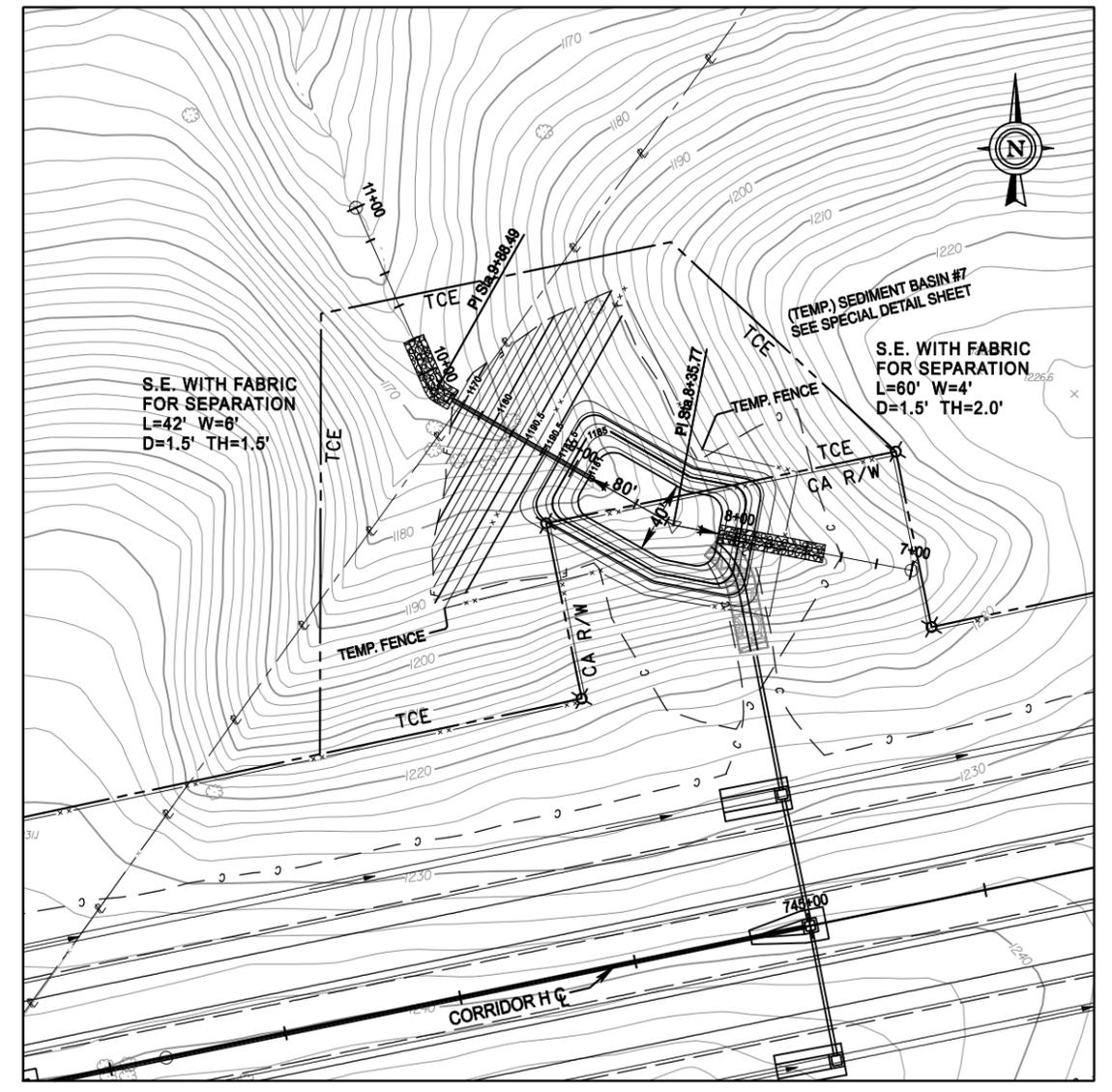
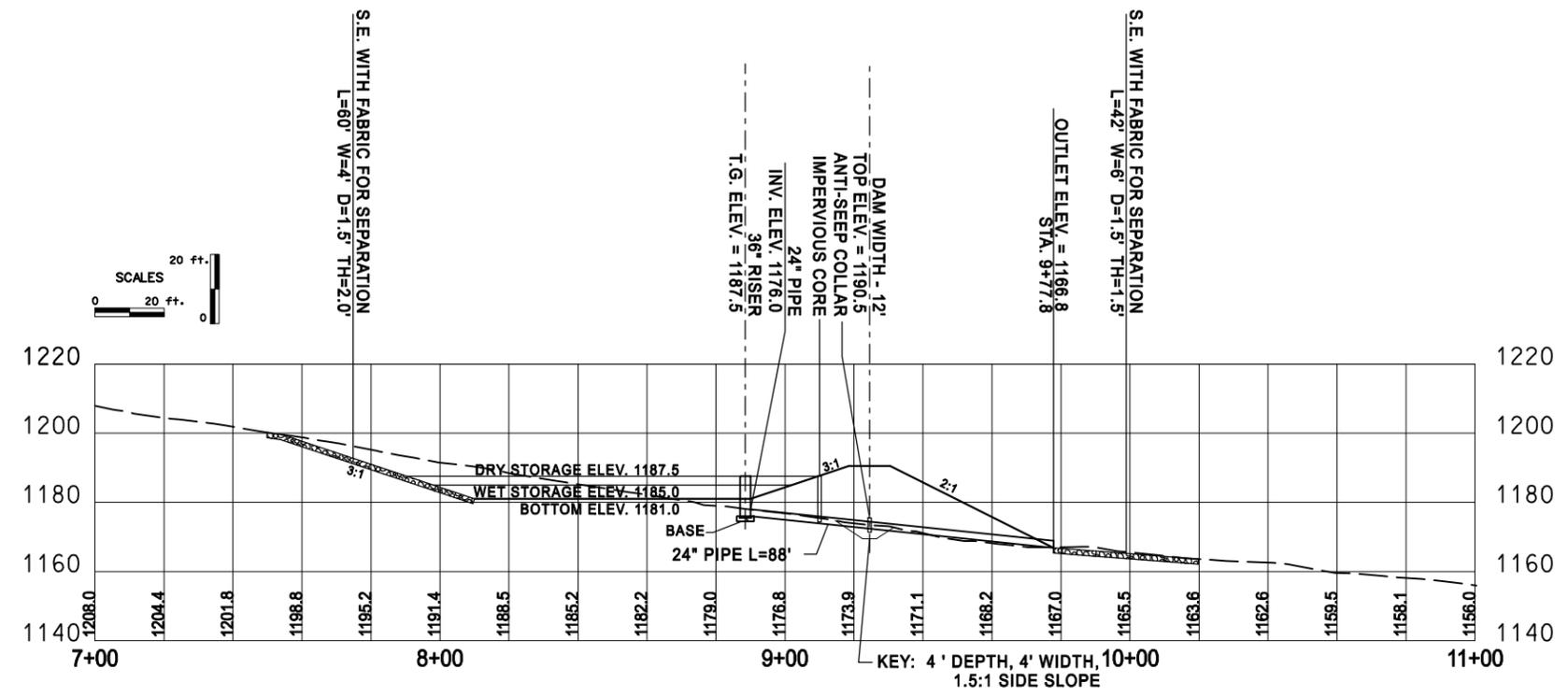
**NEFF, LONGEST, & BEAM and ASSOC., LLC**  
300 Capitol Street, 5th Kanawha Valley Building  
Charleston, WV 25301

NOTE: THIS DETAIL SHEET IS FOR EROSION CONTROL ONLY. SEE PLAN SHEETS FOR ROADWAY, RIGHT OF WAY, AND DRAINAGE DETAIL INFORMATION.

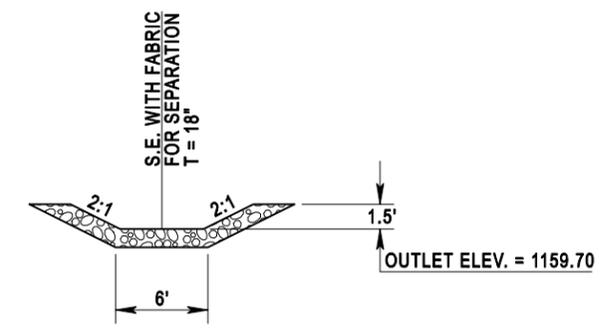
6/4/2007

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W.V.	05	X312-H-93.37	APD-0484 (236)C	2006	GRANT	27 C	389

<b>SEDIMENT BASIN (DAM) # 7</b>	<b>STA. 744+61 L</b>
CONTRIBUTING DRAINAGE AREA	= 8.78 AC
STORAGE REQUIRED	= 31,608 CF
STORAGE PROVIDED	= 35,367 CF
BOTTOM ELEVATION	= 1181.00
CREST ELEVATION	= 1190.50



INLET CROSS SECTION  
DRAWING NOT TO SCALE



OUTLET CROSS SECTION  
DRAWING NOT TO SCALE

STATION	NORTHING	EASTING
7+00	233350.3388	2085895.9663
8+35.77	233375.6863	2085762.5850
9+88.49	233450.9026	2085629.6695
11+00	233552.9653	2085584.7523

EARTHWORK VOLUME SEDIMENT BASIN# 07	
EXCAVATION	= 2633
EMBANKMENT	= 1612
WASTE MATERIAL	= 1021
FOR INFORMATION ONLY	

**CONCRETE BASE FOR THE RISER:**

THE CONCRETE BASE SHALL BE AT LEAST 18" THICK WITH THE RISER IMBEDDED 6" INTO THE BASE. THE BASE SHALL BE SQUARE WITH EACH DIMENSION 1' GREATER THAN RISER DIAMETER.

ALL COSTS OF THE CONCRETE BASE FOR THE RISER, SHALL BE INCLUDED IN THE UNIT BID PRICE OF ITEM NO. 642035-001 RISER

THE TOP HALF VOL. OF THE RISER WILL BE PERFORMED WITH 3 - 1.0" DIA. HOLES PER ELEVATION SPACED 12" VERTICALLY. THIS CONFIGURATION WILL PROVIDE FOR A 52 HOUR DEWATERING OF DRY STORAGE. THE BOTTOM HALF VOL. (ELEV. 1185.0 DOWN) SHALL BE SOLID TO PROVIDE FOR WET STORAGE. CLOGGING PROTECTION WILL NEED TO BE PROVIDED.

**GRADING PLAN SEDIMENT BASIN (DAM) # 7**

THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**EROSION CONTROL  
PLAN SHEET**

REVISION NUMBER	SHEET NUMBER	REVISION	DATE	BY

**NEFF, LONGEST, & BEAM and ASSOC., LLC**  
300 Capitol Street, 5th Kanawha Valley Building  
Charleston, WV 25301

NOTE: THIS DETAIL SHEET IS FOR EROSION CONTROL ONLY. SEE PLAN SHEETS FOR ROADWAY, RIGHT OF WAY, AND DRAINAGE DETAIL INFORMATION.

6/4/2007



Public Roads Div.	State Dist. No.	State Project No.	Federal Project No.	Fiscal Year	County	Sheet No.	Total Sheets
W.V.	05	X312-H-93.37	APD-0484 (236)C	2006	GRANT	28	389

**GOVERNING SPECIFICATION**  
 THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS, STANDARD SPECIFICATIONS ROADS AND BRIDGES, ADOPTED 2000, AS AMENDED BY THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS, SUPPLEMENTAL SPECIFICATIONS, DATED JANUARY 1, 2003, THE CONTRACT DOCUMENTS AND THE CONTRACT PLANS ARE THE GOVERNING PROVISIONS APPLICABLE TO THIS PROJECT.

**GENERAL NOTES**

- All trees and shrubs shall be planted with irregular, naturalistic spacing at the densities indicated. Do not plant trees and shrubs in a grid pattern.  
 Tree and shrubs species to be planted in any zone shall be distributed throughout the planting zone.

- All plants shall be treated with a commercially available mycorrhizal inoculant which contains spores of 8 different mycological fungi, to include rhizopogon fungi.  
 This cost to be included in the appropriate plant bid items.

- Any plant substitutions must be approved in writing by the WVDOT\DOH (Mr. Neal Carte, WVDOT - (304) 558-9666.)

- Borrow pits, haulroads, or waste sites will not be permitted within the designated historic property viewshed. Contractor shall protect existing vegetation within viewsheds during operations.

- Continuous rows of Hay Bales or other approved biodegradable equivalent shall be installed in rows perpendicular to slope on all fill slopes at 15' intervals.

- Cut and fill slopes to be landscaped shall have a minimum 24" depth of soil mix applied. Soil mix shall contain a minimum 10% organic matter by weight.

Contractor to notify WVDOT (Mr. Neal Carte (304) 558-9666) to approve organic compost prior to soil application.

- All disturbed planting areas shall be seeded with a temporary seed mix until plants have been installed. The temporary seed mix shall not be type B,D or L. Cost of seeding as described shall be included in the bid item 642004. After plant installation disturbed areas shall be seeded as follows:

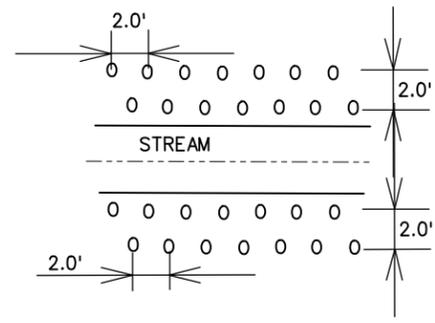
8. Final seed mix: Type warm season grasses.

Sorghastrum nutans	Indiangrass	(10 lb/Ac.)
Lolium Multiflorum	Annual Ryegrass	(15 lb/Ac.)
Panicum Virgatum	Switch Grass	(10 lb/Ac)

- Five working days prior to initiating planting, contractor shall notify WVDOT (Mr. Neal Carte- (304)558-9666) to inspect plant materials and monitor work, and discuss layout issues.

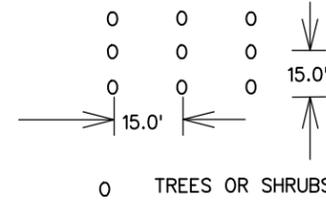
- The preferred soil amendment is mushroom compost other organic amendments may be approved by the WDOH. any proposed organic soil amendment shall be free of non-native seed.

- All plants shall be fertilized when planted. This cost to be included in the appropriate plant bid items.



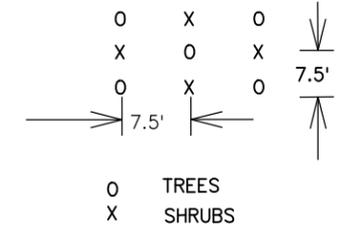
**BLACK WILLOWS PLACEMENT ON BOTH SIDES OF A CREEK OR A DITCH**

N.T.S.



TREES OR SHRUBS SPACED AT 15 FT. CENTER TO CENTER (TYP).  
 ZONE 8 TREES ONLY  
 ZONE 3,5 & 7 SHRUBS ONLY

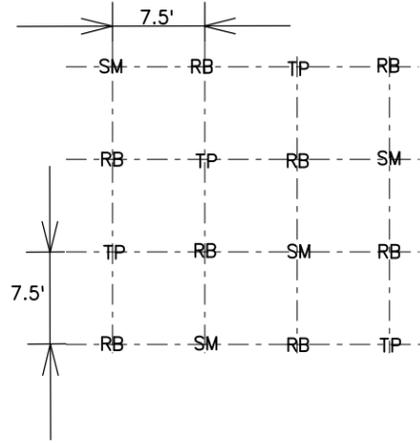
**TREES AND SHRUBS SCHEME**



TREES AND SHRUBS SPACED AT 7.5 FT. CENTER TO CENTER (TYP).  
 (ZONE 1,2 AND 4)

**TREES AND SHRUBS PLACEMENT**

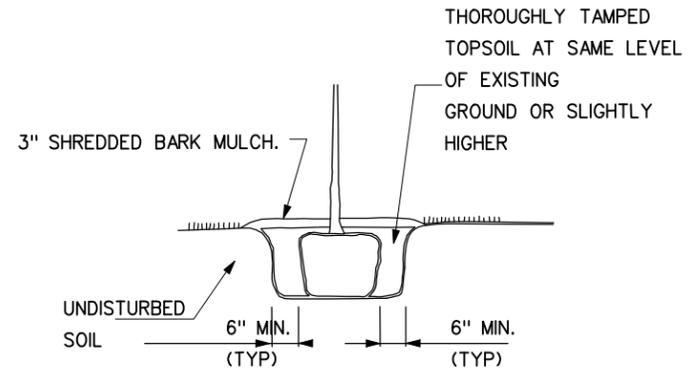
N.T.S.



SUGAR MAPLE SM  
 TULIP TREE TP  
 EASTERN REDBUD RB

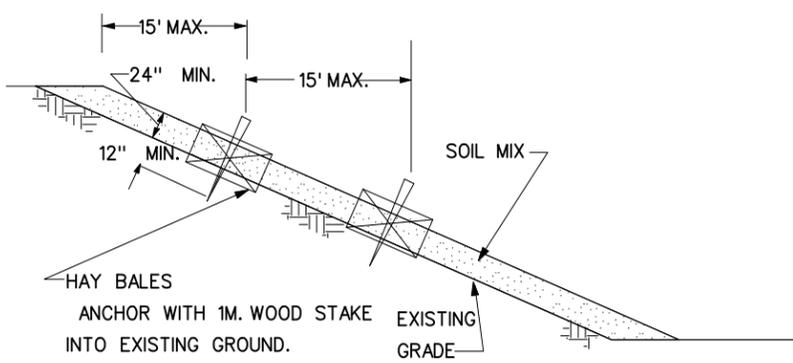
**TREES AND SHRUBS PLACEMENT FOR ZONE 6**

N.T.S.



**TREE OR SHRUB PLANTING (TYPICAL)**

N.T.S.



**STRAW BALE DETAIL FOR LANDSCAPE AREAS**

N.T.S.

Spacing is approximate and shall be staggered and as irregular as possible while distributing all plants throughout a zone.

5/15/2007

**Baker**  
 Michael Baker Jr., Inc.

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**NEFF, LONGEST, & BEAM and ASSOC., LLC**  
 300 Capitol Street, 5th Floor, Kanawha Valley Building  
 Charleston, WV 25301

**THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION**  
 DIVISION OF HIGHWAYS

**PLAN SHEET**

ITEM NUMBER	DESCRIPTION	KEY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	UNIT	QUANTITY
642011-001	HAY OR STRAW BALE						EA	970
651001-001	FURNISHING AND PLACING SOIL MIX						CY	4775
654001-001	DECIDUOUS TREES							
		401	Acer saccharum	Sugar maple	1- Inch CAL.	B & B	EA	198
		402	Robina pseudo-acacia	Black Locust	1- Inch CAL.	B & B	EA	62
		403	Acer rubrum	Red Maple	1- Inch CAL.	B & B	EA	203
		404	Liriodendron tulipifera	Tulip Tree	1- Inch CAL.	B & B	EA	162
		405	Platanus occidentalis	American Sycamore	1- Inch CAL.	B & B	EA	167
		406	Prunus serotina	Black Cherry	1- Inch CAL.	B & B	EA	9
		407	Quercus rubra	Red Oak	1- Inch CAL.	B & B	EA	9
		408	Salix nigra	Black Willow	1"DIA. CUTTING 3 FT. LONG		EA	1496
						TOTAL		2306
654003-001	DECIDUOUS SHRUBS							
		101	Amelanchier arborea	Serviceberry	4 ft - 5 ft HT	B & B	EA	291
		102	Cercis canadensis	Eastern Redbud	4 ft - 5 ft HT	B & B	EA	492
		103	Viburnum prunifolium	Blackhaw Viburnum	4 ft - 5 ft HT	B & B	EA	23
		104	Sambucus canadensis	B. Elderberry	4 ft - 5 ft HT	B & B	EA	158
						TOTAL		964
654005-001	EVERGREEN TREES							
		501	Pinus rigida	Pitch Pine	1- Inch CAL.	B & B	EA	40
654006-001	WATER FOR PLANTS						(1000 GAL.)	414
652003-006	Seed Mixture, Warm Season Grasses						LB.	215
652004-001	Straw/Hay Mulch						Ton	12
652001-001	Agricultural Limestone						Ton	1

Zone	Area SQ. FT.	( Key )	( QTY. )	Total No. of trees In area	( Key )	( QTY. )	Total No. of Shrubs In area
1	71192	403	158		101	158	
		405	158		104	158	
		408	1496				
				1812			316
* 2	15061	401	9		101	23	
		402	9		102	23	
		403	9		103	23	
		404	9				
		405	9				
		406	9				
		407	9				
		501	6				
				69			69
* 3	6307	-	-		101	14	
		-	-		102	14	
							28
4	10559	402	53		102	53	
		501	34				
				87			53
* 5	39300	-	-		101	87	
		-	-		102	87	
							174
* 6	68939	401	153		102	306	
		404	153				
				306			306
* 7	3793	-	-		101	9	
		-	-		102	9	
							18
8	10500	401	36				
		403	36				
				72			

\* Areas to be seeded

SUMMARY			
ITEM NUMBER	DESCRIPTION	QUANTITY	UNIT
642011-001	STRAW BALE	970	EA
651001-001	FURNISHING AND PLACING SOIL MIX	4775	CY
654001-001	DECIDUOUS TREES	2306	EA
654003-001	DECIDUOUS SHRUBS	964	EA
654005-001	EVERGREEN TREES	40	EA
654006-001	WATER FOR PLANTS	414	(1000 GAL.)
652003-006	Seed Mixture, Warm Season Grasses	215	LB.
652004-001	Straw/Hay Mulch	12	Ton
652001-001	Agricultural Limestone	1	Ton
652002-001	Fertilizer, 10-20-10	1	Ton

- NOTES:
1. WATER CALCULATIONS FOR PLANTS ARE BASE ON GALLONS PER DAY (GPD).
  2. WATERING AREAS WHEN RAINFALL IS EXCESSIVE IS NOT PERMITTED DUE TO EROSION CONCERNS.
  3. WATERING TIME SHALL BE DURING EARLY MORNING HOURS.
  4. B&B DENOTES BALLED AND BURLAPPED PLANT MATERIALS. USE OF CONTAINER STOCK IS ACCEPTABLE FOR SHRUBS (DEPENDING ON AVAILABILITY OF NURSERY STOCK).

5/15/2007

**Baker**  
Michael Baker Jr., Inc.

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**LANDSCAPING PLAN**