ADDENDUM #1 – August 17, 2015

WEST VIRGINIA PARKWAYS AUTHORITY

PLANS SPECIFICATIONS AND CONTRACT DOCUMENTS FOR

CONTRACT NO: DM-1-16
ROADWAY DRAINAGE MITIGATION

MERCER COUNTY, WV

REPLACE THE FOLLOWING SHEETS:

Plans

- **Sheet 3 Summary of Quantities**
  -Revised concrete pavement thickness.

- **Sheet 4 Estimate of Quantities**
  -Revised concrete pavement thickness.

- **Sheet 6 Special Details (Medians, Shoulders and Ditches)**
  - Added notes to clarify underdrain pipe material type.

- **Sheet 7 Special Details (Type G Inlet Modification and Joint Sealing)**
  - Revised callout to clarify underdrain pipe material type.
  - Revised sheet note #2.

- **Sheet 8 Special Details (Transverse Underdrain)**
  - Revised callout to clarify underdrain pipe material type.
  -Added note for dowels into existing concrete pavement.

Specs

- **Sheet 4 Schedule of Items**
  -Revised concrete pavement thickness

WEST VIRGINIA PARKWAYS AUTHORITY

Gregory C. Barr

Gregory C. Barr
General Manager

Schedule of Items
Contract DM-1-16
Bluestone Drainage Mitigation

ITEM	PRIN/ ALT	DESCRIPTION	UNITS	DM-1-16 QUANTITY	UNIT PRICE	TOTAL
204001-000		Mobilization	LS	1		
207001-001		Unclassified Excavation	CY	4,496		
207032-000		Fabric for Subgrade Drainage	SY	17,517		
229001-000		Shoulders and Ditches	MI	2.6		
307001-001		Aggregate Base Course, Class VII	CY	3,598		
307001-001		Aggregate Base Course, Class II	CY	904		
409002-001		Bituminous Material	GAL	700		
506001-002		Extra High Early Strength Concrete Pavement Repair, 24 IN, HX	SY	533		
605012-001		Adjust Type G Inlet	EA	16		
606020-001A		Aggregate Filled Transverse Underdrain	EA	10		
636011-001		Traffic Control Device	UNIT	28,990		
636012-010		Project Traffic Control Device Cleaning	EA	1		
636013-001		Individual Traffic Control Device Cleaning	EA	60		
636014-001		Flagger	HR	240		
636014-002		Traffic Director	HR	120		
636021-001		Electric Arrow	DAY	10		
636022-001		Changeable Message Sign	DAY	10		
636025-001		Warning Lights, Type B	DAY	461		
636028-001		Shadow Vehicle	DAY	50		
636030-001		Speed Monitoring Trailer	DAY	10		
642031-001		Ditch Check	EA	24		
642040-001		Inlet Protection	EA	16		
GRAND TOTAL BID		WORDS			FIGURES	

HNTB, Corp

Fiscal Year	County	Sheet No.	Total Sheets
2016	MERCER	3	17

SUMMARY OF QUANTITIES

ITEM		DESCRIPTION	UNITS	QUANTITY
204001-000		Mobilization	LS	1
207001-001		Unclassified Excavation	CY	4,496
207032-000		Fabric for Subgrade Drainage	SY	17,517
229001-000		Shoulders and Ditches	MI	2.6
307001-001		Aggregate Base Course, Class VII	CY	3,598
307001-001		Aggregate Base Course, Class II	CY	904
409002-001		Bituminous Material	GAL	700
506001-002		Extra High Early Strength Concrete Pavement Repair, 24 IN, 10'	SY	533
605012-001		Adjust Type G Inlet	EA	16
606020-001A		Aggregate Filled Transverse Underdrain	EA	10
636011-001		Traffic Control Device	UNIT	28,990
636012-010		Project Traffic Control Device Cleaning	EA	1
636013-001		Individual Traffic Control Device Cleaning	EA	60
636014-001		Flagger	HR	240
636014-002		Traffic Director	HR	120
636021-001		Electric Arrow	DAY	10
636022-001		Changeable Message Sign	DAY	10
636025-001		Warning Lights, Type B	DAY	461
636028-001		Shadow Vehicle	DAY	50
636030-001		Speed Monitoring Trailer	DAY	10
642031-001		Ditch Check	EA	24
642040-001		Inlet Protection	EA	16

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HNTB CORPORATION
ENGINEERS ARCHITECTS PLANNERS

REVISION NUMBER	SHEET NUMBER	REVISION	DATE	BY
1		ADDENDUM #1	8-17-15	BMK

WEST VIRGINIA TURNPIKE
CONTRACT DM-1-16

SUMMARY OF QUANTITIES

Fiscal Year	County	Sheet No.	Total Sheets
2016	MERCER	4	17

DITCH REMEDIATION

LOCATION STATION	LOCATION STATION	ITEM 207001-001 UNCLASSIFIED EXCAVATION CY	ITEM 207032-000 FABRIC FOR SUBGRADE DRAINAGE SY	ITEM 229001-000 SHOULDERS AND DITCHS MI	ITEM 307001-001 AGGREGATE BASE COURSE CLASS VII CY	ITEM 307001-001 AGGREGATE BASE COURSE CLASS II CY	REMARKS
518+50	570+00	1908	7439	1.0	1526	382	MEDIAN
512+00	531+00	704	2745	0.4	563	141	NB RT SHOULDER
537+00	544+50	278	1084	0.2	223	56	NB RT SHOULDER
551+50	560+20	323	1257	0.2	258	65	NB RT SHOULDER
563+00	568+00	187	727	0.1	150	38	NB RT SHOULDER
569+50	571+00	56	217	0.1	45	12	NB RT SHOULDER
572+00	576+50	167	650	0.1	134	34	NB RT SHOULDER
572+50	577+00	167	650	0.1	134	34	MEDIAN
583+30	586+50	119	463	0.1	95	24	NB LT SHOULDER
SUB-TOTAL		3909	15232	2.3	3128	786	
15% CONTINGENCY		587	2285	0.3	470	118	
TOTAL		4496	17517	2.6	3598	904	

MAINTENANCE OF TRAFFIC SUMMARY

ITEM	DESCRIPTION	UNITS	QUANTITY	REMARKS
636011-001	Traffic Control Device	UNIT	28.990	
636012-010	Project Traffic Control Device Cleaning	EA	1	
636013-001	Individual Traffic Control Device Cleaning	EA	60	
636014-001	Flagger	HR	240	
636014-002	Traffic Director	HR	120	
636021-001	Electric Arrow	DAY	10	
636022-001	Changeable Message Sign	DAY	10	
636025-001	Warning Lights, Type B	DAY	461	
636028-001	Shadow Vehicle	DAY	50	
636030-001	Speed Monitoring Trailer	DAY	10	

FULL DEPTH CONCRETE PAVEMENT REPLACEMENT

LOCATION	LANE	LENGTH FT	ITEM 506001-002 24" SY	REMARKS
PROJECT	LT&RT	10	533	10 TRANSVERSE UD's @ 10' WIDE

TRAFFIC CONTROL DEVICES QUANTITIES

DEVICE	DESCRIPTION	VALUE IN UNITS	EACH	UNITS
1	SIGNS ON PERMANENT MOUNTS AND BARRICADES 16 S.F. OR GREATER	180	24	4.320
2	SIGNS ON PERMANENT MOUNTS AND BARRICADES LESS THAN 16 S.F. (END RD. WORK)	90	2	180
3	SIGNS ON PERMANENT POSTS (FINES DOUBLED SIGNS) MOT NOTE #17	300	2	600
4	SIGNS ON PERMANENT POSTS (GEAB SIGN)	300	2	600
5	SIGNS ON PERMANENT POSTS (SPEED LIMIT SIGNS) MOT NOTE #9	300	4	1,200
6	SIGNS ON PERMANENT POSTS (PVMT ELEV SIGNS)	300	0	0
7	BARRICADES - TYPE I	35	0	0
8	BARRICADES - TYPE II	60	0	0
9	BARRICADES - TYPE III	90	1	90
10	DRUMS / GRABBER CONES	40	550	22,000
11	CONES	5	0	0
12	VERTICAL PANELS OR GROUND MOUNTED DELINIATORS	10	0	0
13	BARRIER OR GUARDRAIL MOUNTED DELINEATORS (TO BE BID INCIDENTAL TO THE COST OF THE BARRIER OR GUARDRAIL)	0	0	0
	TOTAL ITEM 636011-001			28.990

INLET ADJUSTMENTS

STATION	LOCATION	ITEM 605012-001 ADJUST INLET TYPE G EA
518+50	MEDIAN DITCH	1
518+70	NB DITCH	1
521+00	MEDIAN DITCH	1
522+00	NB DITCH	1
524+50	MEDIAN DITCH	1
528+00	NB DITCH	1
528+50	MEDIAN DITCH	1
534+00	MEDIAN DITCH	1
540+50	MEDIAN DITCH	1
545+00	MEDIAN DITCH	1
547+00	MEDIAN DITCH	1
549+50	MEDIAN DITCH	1
553+50	MEDIAN DITCH	1
558+50	MEDIAN DITCH	1
562+00	MEDIAN DITCH	1
566+00	MEDIAN DITCH	1
TOTAL		16

PROJECT EQUATIONS

BACK STATION	AHEAD STATION	LOCATION
512+00.00	511+97.342	NB
567+02.878	567+05.526	NB
591+33.787	590+90.228	NB

TRANSVERSE UNDERDRAIN

LOCATION	SLOPE-WALLS (FOR INFORMATION ONLY)	MODIFIED COMBINED SLOPE-WALLS (FOR INFORMATION ONLY)	4" PERF OUTLET PIPE (FOR INFORMATION ONLY)	ITEM 606020-001A AGGREGATE FILLED TRANSVERSE UNDERDRAIN EACH	REMARKS
AS DETERMINED BY THE ENGINEER	10		10	10	TRANSVERSE UNDERDRAINS
WHERE SHOWN IN PLANS	4	5			DITCH OUTLETS
TOTAL	14	5	10	10	

REVISION NUMBER	SHEET NUMBER	REVISION	DATE	BY
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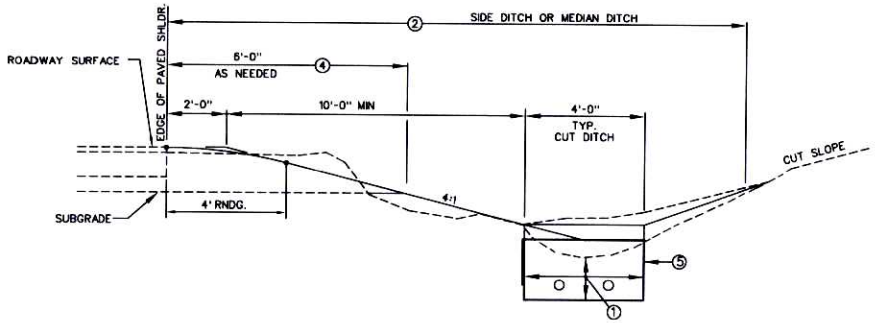
ENGINEERS ARCHITECTS PLANNERS

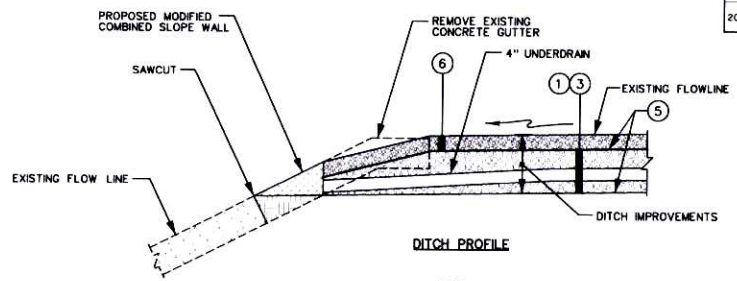
WEST VIRGINIA TURNPIKE
CONTRACT DM-1-16

ESTIMATE OF QUANTITIES

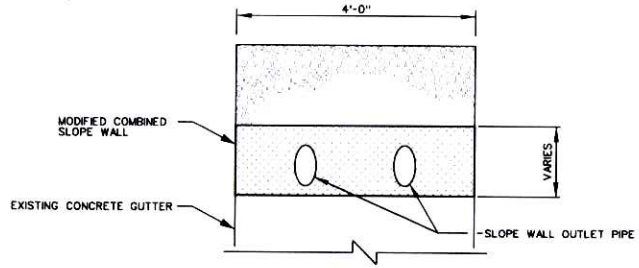
Fiscal Year	County	Sheet No.	Total Sheets
2016	MERCER	6	17



OUTSIDE SHOULDER AND SIDE DITCH ADJUSTMENTS

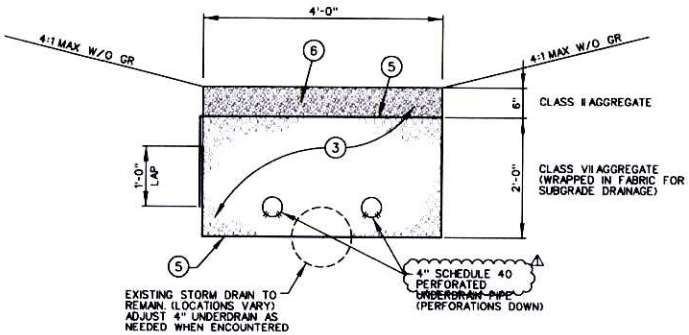


DITCH PROFILE



END VIEW

DITCH IMPROVEMENT TRANSITION TO CONCRETE GUTTER



CUT DITCH OR
MEDIAN DITCH IMPROVEMENTS

NOTES:

1. THE LIMITS OF PAY ITEM 229001-000, SHOULDER AND DITCH, SHALL BE AS INDICATED IN THE QUANTITY TABLES.

2. ITEM 409002-001 BITUMINOUS MATERIAL IS REQUIRED ONLY WHERE THE EXISTING AGGREGATE SHOULDER HAS BEEN DISTURBED, FOR DITCH WORK. BITUMINOUS MATERIAL SHALL BE APPLIED IN LOCATIONS AS DIRECTED BY THE ENGINEER.

3. SEE GENERAL NOTES FOR FERTILIZING, SEEDING AND MULCHING REQUIREMENTS.

4. FOR EACH DRAINAGE AREA STRIP DISTURBED, A MINIMUM OF ONE (1) DITCH CHECK SHALL BE INSTALLED WHERE IT WILL INTERCEPT THE DRAINAGE FROM THE DISTURBED AREA PRIOR TO ITS DISCHARGE. THE DITCH CHECK SHALL BE REMOVED PRIOR TO PLACEMENT OF AGGREGATE. ALL COST FOR THIS WORK SHALL BE INCLUDED IN PAY ITEM 642031-001, DITCH CHECKS.

5. THE COST OF MATERIAL AND CONSTRUCTION OF 4" PERFORATED U.D. PIPE AND MODIFIED CONCRETE SLOPE WALLS ARE INCIDENTAL TO ITEM 307005. NO ADDITIONAL PAYMENT WILL BE MADE.

6. SEE SHEET 9 FOR SLOPE WALL DETAILS.

7. CARE SHALL BE TAKEN SO THAT THE PERFORATED UNDERDRAIN IS NOT DAMAGED DURING INSTALLATION OF AGGREGATE OR SHAPING THE DITCH.

8. ALL UNDERDRAIN PIPE MATERIAL SHALL BE SCHEDULE 40 PVC.

LEGEND

1	207001-000	UNCLASSIFIED EXCAVATION, CY
2	229001-000	SHOULDER AND DITCH, MI
3	307005-001	AGGREGATE BASE COURSE, CLASS VII, CY
4	409002-001	BITUMINOUS MATERIAL (0.50 GAL/SY)
5	207032-000	FABRIC FOR SUBGRADE DRAINAGE, SY
6	307005-001	AGGREGATE BASE COURSE, CLASS II, CY

EXISTING CONCRETE GUTTER TO REMAIN

COMPACTED SUBGRADE

MODIFIED COMBINED SLOPE WALL

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HNTB CORPORATION
ENGINEERS ARCHITECTS PLANNERS

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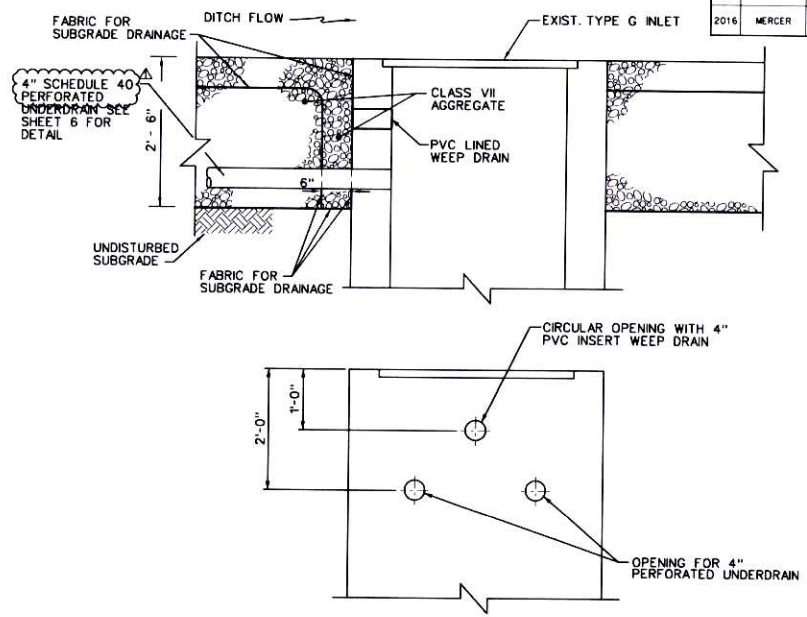
WEST VIRGINIA TURNPIKE
CONTRACT DM-5-16

SPECIAL DETAILS
MEDIANS, SHOULDERS AND DITCHES

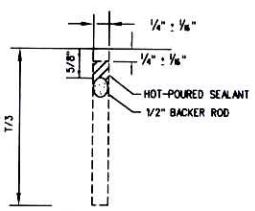
Fiscal Year	County	Sheet No.	Total Sheets
2016	MERCER	7	17

NOTES

1. INLETS IDENTIFIED TO BE MODIFIED SHALL HAVE THE DRAIN MODIFICATION PERFORMED AND INLET HEIGHT SHALL BE LOWERED AS DETERMINED BY THE ENGINEER. PAYMENT FOR INLET HEIGHT ADJUSTMENT AND DRAIN MODIFICATION IS INCLUDED IN ITEM 605012, NO ADDITIONAL PAYMENT WILL BE MADE.
2. INLET HEIGHT ADJUSTMENTS SHALL BE MADE PER SECTION 605.3 OF THE WVDOH SPECIFICATIONS. △1
3. ALL COST OF ADJUSTMENT TO BE MEASURED AS AND INCLUDED IN UNIT BID PRICE FOR ITEM 605012-001.
4. THE CONTRACTOR MAY DRILL HOLES 1/8" LARGER THAN THE U-SHAPED REBAR AND USE A SUITABLE EPOXY IN LIEU OF GROUT.
5. WEEP HOLES SHALL BE SAWN IN THE EXISTING SIDE WALL OF THE INLET AND 4" SCHEDULE 40 PVC PIPE SHALL BE GROUTED INTO THE OPENINGS.
6. ALL TYPE G INLET GRATES ARE TO BE REPLACED ON ADJUSTED INLETS. EXISTING GRATES ARE TO BE REMOVED AND DELIVERED TO NEAREST WVPA MAINTENANCE FACILITY. THE COST OF MATERIALS AND LABOR TO REPLACE THE GRATES SHALL BE INCIDENTAL TO ITEM 605012. NO ADDITIONAL PAYMENT WILL BE MADE.



TYPE G INLET DRAIN MODIFICATION

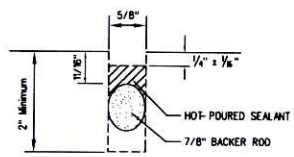


TRANSVERSE OR LONGITUDINAL JOINT DETAIL 1

DETAIL 1 NOTES:

1. IF SEALING AN EXISTING JOINT, REMOVE EXISTING SEALANT FROM JOINT RESERVOIR.
2. FOR BOTH EXISTING AND NEW JOINTS, SANDBLAST OR WATERBLAST BOTH FACES OF JOINT TO A MINIMUM DEPTH OF 1".
3. FOR BOTH EXISTING AND NEW JOINTS, BLOW CLEAN WITH COMPRESSED AIR PRIOR TO PLACING SEALANT.
4. WHEN DRY AND FROST FREE, PLACE BACKER ROD AND HOT-POURED SEALANT AS SHOWN.

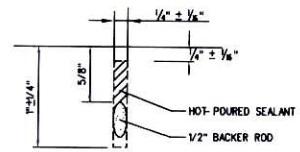
THE DETAIL 1 JOINTS ARE SAWED LONGITUDINAL JOINTS OR TRANSVERSE JOINTS LOCATED BETWEEN TWO MONOLITHICALLY POURED ROADWAYS LANES.



TRANSVERSE JOINT DETAIL ROADWAY AND SHOULDERS DETAIL 2

DETAIL 2 NOTES:

1. EXISTING TRANSVERSE JOINTS ARE NORMALLY PER DETAIL "2" WITH BACKER ROD. WHERE BOND BREAKER TAPE EXISTS, THE JOINT SHALL BE SAWCUT AS SHOWN ABOVE.
2. IF SEALING AN EXISTING JOINT, REMOVE EXISTING SEALANT FROM JOINT RESERVOIR.
3. FOR BOTH EXISTING AND NEW JOINTS, SANDBLAST OR WATERBLAST BOTH FACES OF THE SEALANT RESERVOIR TO A MINIMUM DEPTH OF 1".
4. FOR BOTH EXISTING AND NEW JOINTS, BLOW CLEAN WITH COMPRESSED AIR PRIOR TO PLACING SEALANT.
5. WHEN DRY AND FROST FREE, PLACE BACKER ROD AND HOT-POURED SEALANT AS SHOWN.



LONGITUDINAL JOINT, DETAIL 3

DETAIL 3 NOTES:

1. IF FOR SEALING AN EXISTING JOINT, REMOVE EXISTING SEALANT FROM JOINT RESERVOIR.
2. FOR BOTH EXISTING AND NEW JOINTS, SANDBLAST OR WATERBLAST BOTH FACES OF JOINT.
3. FOR BOTH EXISTING AND NEW JOINTS, BLOW CLEAN WITH COMPRESSED AIR PRIOR TO PLACING SEALANT.
4. WHEN DRY AND FROST FREE, PLACE HOT-POURED SEALANT AS SHOWN.

THE DETAIL 3 JOINTS ARE CONSTRUCTION JOINTS BETWEEN THE EDGES OF THE ROADWAY LANES AND THE CONCRETE SHOULDERS OR LONGITUDINAL CONSTRUCTION JOINTS AT PAVEMENT REPLACEMENT SECTIONS CONSTRUCTED UNDER THIS CONTRACT. DETAIL 3 JOINTS WERE ALSO USED BETWEEN ROADWAY LANES FOR STAGED MULTI-LANE CONSTRUCTION IN SECTIONS WITH THREE OR MORE ROADWAY LANES.

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ENGINEERS ARCHITECTS PLANNERS

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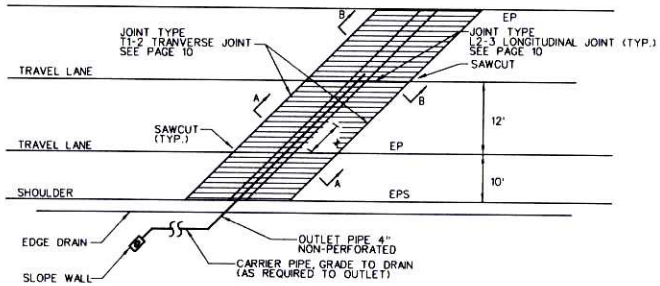
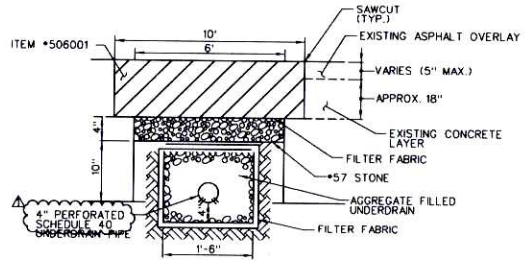
WEST VIRGINIA TURNPIKE
CONTRACT DM-1-16

SPECIAL DETAILS
TYPE G INLET MODIFICATION & JOINT SEALING

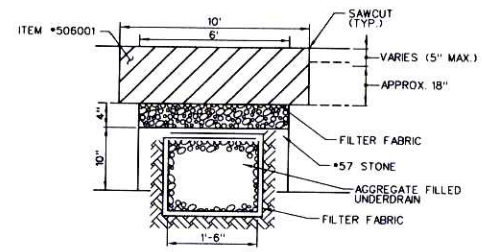
Fiscal Year	County	Sheet No.	Total Sheets
2016	MERCER	8	17



AGGREGATE FILLED TRANSVERSE UNDERDRAIN
ITEM 606020-001A



SECTION A-A



SECTION B-B

NOTES:

1. OUTLET PIPE SHALL BEGIN AT THE CENTERLINE OF THE ROADWAY AND SHALL BE PLACED ON A GRADE PARALLEL TO THE SHOULDER SLOPE 2% MIN. (3% DESIRABLE) GRADE.

2. TRENCH IS TO BE UNDER ENTIRE PAVEMENT AREA WITH OUTLET PIPE ON LOW SIDE ONLY.

3. INVERT ELEVATION AT OUTLET END OF OUTLET PIPE TO BE A MINIMUM OF 6" ABOVE INVERT ELEVATION OF RECEIVING DRAINAGE DITCH OR STRUCTURE.

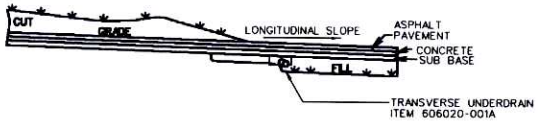
4. PAVEMENT SHALL BE REMOVED AND CONCRETE PLACED TO MATCH EXISTING SURFACE.

5. TRANSVERSE UNDERDRAINS SHALL BE CONSTRUCTED IN AREAS OF APPARENT GROUND WATER SPRING AS DETERMINED BY THE ENGINEER, OR AS INDICATED IN THE PLANS.

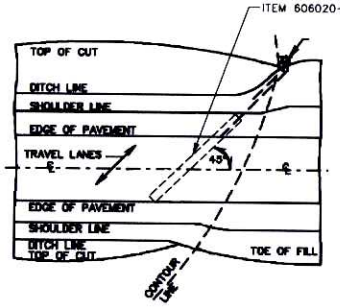
6. COST OF UNDERDRAIN, INSTALLATION AND MATERIALS SHALL BE INCLUDED IN ITEM 606020-001, TRANSVERSE UNDERDRAIN. EACH PAYMENT WILL BE MADE FOR ACTUAL QUANTITY PLACED IN THE FIELD.

1

7. ITEM 506 SHALL BE DOWELED TO BOTH LAYERS OF THE EXISTING CONCRETE PAVEMENT. THE DOWELS SHALL BE PER JOINT TYPE T1-2. IT IS ANTICPIATED TWO LAYERS OF EXISTING CONCRETE PAVEMENT WILL BE ENCOUNTERED (8 INCH AND 10 INCH SECTIONS).



UNDERDRAIN AT LOWER END OF CUTS



PLAN VIEW
PLACEMENT OF UNDERDRAIN
CUT /FILL TRANSITION

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HNTB CORPORATION
ENGINEERS ARCHITECTS PLANNERS

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SPECIAL DETAILS
TRANSVERSE UNDERDRAIN