THE STATE OF DELAWARE

DEPARTMENT OF TRANSPORTATION

OFFICE OF TRANSPORTATION SOLUTIONS

PLANS AND SPECIFICATIONS FOR

CONTRACT NUMBER - T201106302.01 SOUTH MAINTENANCE

FEDERAL AID NUMBER - NONE PRIMAVERA ID – 11-06302

CONTRACT TITLE - PAVEMENT & REHABILITATION – SOUTH II-II, 2011

PLANS PREPARED BY: Paul Farkas

DESIGN TECHNICIAN

UNOFFICAL WEBSITE COPY

DATE RECOMMENDED: 2/8/2011

Bradford L Salmon

GROUP ENGINEER, CONSTRUCTION

DATE RECOMMENDED: 2-26-11

James T Pappas III

ASSIST. DIRECTOR, DESIGN

JAMES T. PAPPAS III LICENSED No. 10571 DELAWARE PROFESSIONAL ENGINEER

DATE RECOMMENDED: 2-28-11

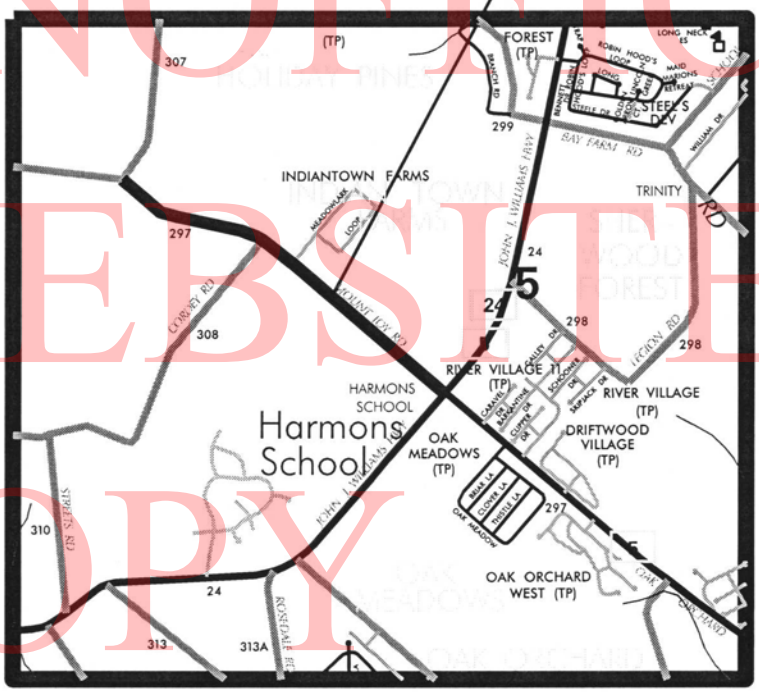
Natalie Barnhart

CHIEF ENGINEER

NATALIE M. BARNHART REGISTERED No. 9629 DELAWARE PROFESSIONAL ENGINEER

LOCATION MAP

Location 1

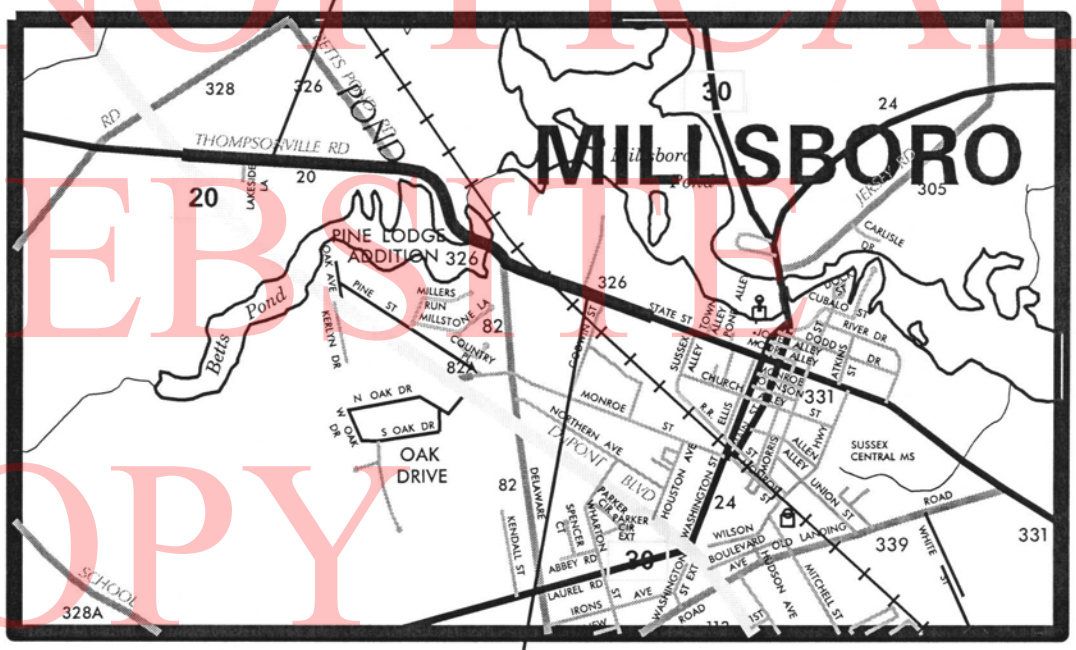


UNOFFICAL WEBSITE COPY

LOCATION MAP

Location 3

UNOFFICAL WEBSITE COPY



Location 2

GENERAL CONTRACT PLAN NOTES

REVISED 1/11

GENERAL

1. CONSTRUCTION OF THIS CONTRACT SHALL CONFORM TO DELAWARE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED AUGUST 2001 AS AMENDED BY THE SUPPLEMENTAL SPECIFICATIONS, THE SPECIAL PROVISIONS, THE MOST RECENT STANDARD CONSTRUCTION DETAILS, DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THESE PLANS.

2. THE PURPOSE OF THIS CONTRACT IS TO MAKE GENERAL IMPROVEMENTS TO ROADS AND/OR STREETS WITHIN THE DISTRICT HEREIN SPECIFIED. DEPENDING ON FUND AVAILABILITY, THE DEPARTMENT RESERVES THE RIGHT TO ADD OR DELETE LOCATIONS AND/OR QUANTITIES FOR THIS CONTRACT. SUCH LOCATION OR QUANTITY ADDITIONS OR DELETIONS SHALL NOT BE CAUSE FOR AN INCREASE OR DECREASE IN ANY CONTRACT UNIT BID PRICES. NO ITEM PRICES ARE TO BE RENEGOTIATED DUE TO EITHER AN INCREASE OR DECREASE IN QUANTITY USAGE RESULTING FROM SAID ADDITIONS OR DELETIONS.

3. THE CONTRACTOR SHALL PROVIDE ALL RESIDENTS AND BUSINESSES WHO LIVE ADJACENT TO THE WORK ZONE A MINIMUM 48 HR. PRIOR WRITTEN NOTICE FOR THE START OF CONSTRUCTION WORK. THIS NOTIFICATION SHALL INCLUDE THE SCOPE OF WORK, WORKING HOURS, ANTICIPATED START AND COMPLETION DATES, CONTRACTOR NAME & ADDRESS, AND DELDOT CONTACT NUMBERS. FAILURE TO GIVE PROPER NOTICE WILL RESULT IN A SUSPENSION OF WORK REQUIRING NOTICE, UNTIL PROPER NOTICE IS PROVIDED. ACCESS TO ALL BUSINESSES AND RESIDENCES WITHIN THE PROJECT LIMITS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THIS CONTRACT. ANY TEMPORARY CLOSURE OF A DRIVEWAY FOR TIE-IN PURPOSES SHALL BE COORDINATED WITH THE ENGINEER AND/OR PROPERTY OWNER IN ADVANCE OF THE CLOSURE.

4. THE CONTRACTOR SHALL SUBMIT THE REQUIRED COPIES OF A DETAILED PROGRESS SCHEDULE (PSC) AS OUTLINED IN STANDARD SPECIFICATION 108.04 PRIOR TO OR AT THE PRECONSTRUCTION MEETING. DETAILS SHALL INCLUDE A DESCRIPTION OF EACH WORK ACTIVITY, THE PLANNED DAYS OF WORK, MULTIPLE CREWS OR SHIFTS, AND SCHEDULED WORKING HOURS. DURING THE CONTRACT, THE CONTRACT SHALL SUBMIT TWO-WEEK (OR AS REQUIRED) "LOOK AHEAD" SCHEDULES TO THE AREA ENGINEER/ MANAGER NO LATER THAN NOON OF EACH THURSDAY. FAILURE TO COMPLY WILL RESULT IN A SUSPENSION OF ALL CONTRACT WORK WITH TIME CHARGES CONTINUING TO BE ASSESSED.

MAINTENANCE OF TRAFFIC AND PAVEMENT MARKINGS

5. AT THE PRECONSTRUCTION MEETING, THE CONTRACTOR SHALL SUBMIT DETAILED DRAWINGS (INCLUDING BUT NOT LIMITED TO EXISTING STRIPING LENGTHS, LANE AND SHOULDER WIDTHS, TURN LANE LENGTHS, LOCATIONS OF STOP BARS, TURN ARROWS, CROSSWALKS AND RAILROAD CROSSINGS) THAT DEPICT THE EXISTING PAVEMENT MARKINGS FOR EACH PROJECT LOCATION. THESE DRAWINGS WILL BE REVIEWED BY THE DEPARTMENT'S TRAFFIC SECTION TO DETERMINE IF ANY CHANGES TO THE FINAL PAVEMENT MARKINGS ARE REQUIRED. FINAL PAVEMENT MARKINGS SHALL CONFORM TO ALL EXISTING PATTERNS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

THE DEPARTMENT WILL PROVIDE STRIPING LAYOUT AT LOCATIONS WHERE NO PAVEMENT MARKINGS PREVIOUSLY EXISTED. IF DEPARTMENT FORCES PROVIDE STRIPING LAYOUT ON LOCATIONS WHERE MARKINGS PREVIOUSLY EXISTED, THEN THE CONTRACTOR SHALL REIMBURSE THE DEPARTMENT FOR THE LAYOUT COSTS.

UNLESS OTHERWISE DIRECTED BY THE ENGINEER, WHITE EDGE LINES SHALL WRAP AROUND THE

UNOFFICIAL WEBSITE COPY

GENERAL CONTRACT PLAN NOTES

RADIUS OF ALL SIDE STREETS AND MAJOR COMMERCIAL ENTRANCES TO A TANGENT POINT. YELLOW CENTERLINES SHALL BE CONTINUOUS AROUND MEDIAN ISLANDS. ALL DOUBLE YELLOW CENTERLINES SHALL BE PLACED IN A 4-6-4 CONFIGURATION (2 EACH, 4" YELLOW STRIPES WITH A 6" GAP BETWEEN).

THE CONTRACTOR SHALL BE REQUIRED TO SHOW PROOF THAT HE HAS SUFFICIENT APPROVED STRIPING MATERIALS ON HAND TO ENSURE STRIPING IS COMPLETED PRIOR TO FULL OPENING ROADWAY TO TRAFFIC.

6. ANY ERRONEOUS MARKING WILL NOT BE PAID FOR AND SHALL BE CORRECTED IMMEDIATELY AT THE CONTRACTORS EXPENSE. ERRONEOUS MARKINGS OR SHADOWS THAT EXCEED ONE (1) INCH IN WIDTH SHALL BE REMOVED BY EITHER SAND OR WATER BLASTING AS DIRECTED BY THE ENGINEER. NO OTHER REMOVAL METHODS WILL BE ALLOWED. A FLAT BLACK PAINT OR DRIVEWAY SEALER SHALL BE APPLIED IN THE AREA OF THE REMOVED MARKING TO MASK THE REPAIR. ANY DAMAGE TO THE PAVEMENT CAUSED BY REMOVAL OF ERRONEOUS MARKINGS SHALL BE REPAIRED / REPLACED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTORS EXPENSE.

7. AT THE END OF EACH DAY'S OPERATION AND BEFORE TRAFFIC IS RETURNED TO UNRESTRICTED ROADWAY USE, TEMPORARY STRIPING SHALL BE UTILIZED AT LOCATIONS THAT REQUIRE PERMANENT STRIPING. TEMPORARY PAVEMENT STRIPING MUST MATCH PERMANENT PAVEMENT STRIPING IN ALL REGARDS. TEMPORARY PAVEMENT MARKINGS SHALL BE PAID AT THE APPLICABLE CONTRACT UNIT PRICE. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE TEMPORARY MARKINGS IN GOOD CONDITION SUCH THAT THE PAVEMENT IS PROPERLY DELINEATED AT ALL TIMES. ANY REFRESHING OF THE TEMPORARY MARKINGS WILL BE AT THE CONTRACTOR'S EXPENSE.

8. ALL WORK SHALL BE PERFORMED IN A MANNER THAT WILL REASONABLY PROVIDE THE LEAST PRACTICABLE OBSTRUCTION TO ALL ROAD USERS, INCLUDING VEHICULAR, PEDESTRIAN AND BICYCLE TRAFFIC, AND SHALL CONFORM TO THE REQUIREMENTS OF THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, PART 6, INCLUDING ALL REVISIONS UP TO THE DATE OF ADVERTISEMENT FOR BIDS.

9. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN, INCLUDING THE NECESSARY NCHRP 350 CERTIFICATIONS FOR ALL DEVICES THAT WILL BE UTILIZED, FOR EACH LOCATION BEFORE THE START OF THE PRE-CONSTRUCTION MEETING. WRITTEN APPROVAL MUST BE RECEIVED BEFORE THE START OF WORK AT EACH AND EVERY LOCATION.

10. ALL TRAFFIC CONTROL DEVICES SHALL BE IN NEW OR REFURBISHED CONDITION AND SHALL BE IN COMPLIANCE WITH THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND NCHRP 350 AS DEFINED IN SECTION "6A.01" OF THE MANUAL. THE DEVICES SHALL BE APPROVED BY THE **DISTRICT SAFETY OFFICER PRIOR TO USE AND SHALL BE MAINTAINED IN GOOD CONDITION FOR THE DURATION OF THE CONTRACT.**

11. TRAFFIC DETECTION LOOPS SHALL BE PLACED IN THE FINAL WEARING SURFACE UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

12. TRAFFIC DETECTION LOOPS THAT ARE CURRENTLY 5'x7' SHALL BE REPLACED WITH LOOPS THAT ARE 6'x6' AT THE SAME LOCATION. STOP BAR DETECTION LOOPS SHALL BE THE SAME SIZE AS CURRENTLY EXISTING, AND SHOULD BE PLACED STARTING TWO FEET BEHIND THE STOP BAR, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. IF SEPARATE SIGNAL PLANS HAVE BEEN DEVELOPED, THE PLANS SUPERSEDE THIS NOTE.

13. EFFECTIVE 1/5/10 THE HORIZONTAL CIRCUMFERENTIAL MARKINGS ON PLASTIC DRUMS SHALL BE

UNOFFICIAL WEBSITE COPY

GENERAL CONTRACT PLAN NOTES

MADE OF FLOURESCENT ORANGE AND WHITE PRISMATIC RETROFLECTIVE SHEETING.

14. ALL PERMANENT WARNING SIGNS SHALL BE MADE OF NCHRP 350 COMPLIANT RIGID MATERIAL.

15. STOP LINES "BARS" SHALL BE PLACED AT ALL STOP SIGNS AND SHALL BE 16 INCHES WIDE AS PER THE MUTCD MANUAL SECTION 3B.16 DelDOT REVISION.

16. ALL CROSSWALKS SHALL BE NO LESS THAN 6 FEET IN WIDTH AS PER THE MUTCD MANUAL SECTION 3B.17 DelDOT REVISION.

PROJECT

17. UNLESS SPECIFIED, OVERLAY WIDTHS SHALL MATCH EXISTING WIDTHS.

18. THE COST OF CLIPPING BACK THE EDGES OF THE ROADWAY, SHOULDERS, AND THE FIRST 3' OF UNPAVED DRIVEWAY ENTRANCES, PICKING UP AND DISPOSING OF WASTE AND EXCESS MATERIAL, AND CLEANING THE EXISTING PAVEMENT PRIOR TO OVERLAY SHALL BE INCIDENTAL TO SECTION 401( ). PREPARING UNPAVED DRIVEWAY ENTRANCES BEYOND THE FIRST 3' SHALL BE PAID UNDER THE APPROPRIATE CONTRACT ITEMS: 202000 AND/OR 30200X.

19. BUTT JOINTS SHALL BE PLACED AT ALL INTERSECTING HOT MIX ROADS AND ANY OTHER LOCATIONS AS DIRECTED BY THE ENGINEER. BUTT JOINTS AT DRAINAGE STRUCTURES NOT TO BE RESURFACED SHALL BE AS PER THE INCLUDED PLAN DETAIL OR LOCATION NOTES. BUTT JOINTS CUT PRIOR TO THE DAY OF THE PAVEMENT OVERLAY SHALL BE RAMPED WITH HOT MIX TRM. IN MILLING AREAS, THERE WILL BE NO SEPARATE PAYMENT FOR BUTT JOINTS. AFTER PAVEMENT MILLING, ALL TRANSVERSE VERTICAL DIFFERENCES, RAISED EDGES OF MANHOLES, CATCH BASINS, WATER VALVE BOXES, ETC...SHALL BE RAMPED WITH HOT-MIX TRM AT A 20:1 OR FLATTER SLOPE PRIOR TO OPENING THE ROADWAY TO TRAFFIC. PAVEMENT MILLINGS WILL NOT BE ALLOWED FOR USE AS RAMPING MATERIAL.

20. TAPER MILLING IS INTENDED FOR MILLING IN THE AREA OF FIXED STRUCTURES (I.E. CURBS GUARDRAIL, ETC.) THE MILLED DEPTH AT THE STRUCTURE SHALL BE THE DEPTH OF THE PROPOSED OVERLAY AND 0" AT A DISTANCE OF +/- 6½' FROM THE STRUCTURE. THE COMPUTED DEPTH FOR PAYMENT PURPOSES IS THE AVERAGE OF THE TWO DEPTHS.

21. ALL MILLED MATERIAL SHALL REMAIN THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE STATED.

22. EXCAVATION FOR P.C.C. CURBS, SIDEWALK OR VALLEY GUTTER SHALL BE INCIDENTAL TO THE BID PRICE FOR THESE RESPECTIVE ITEMS. EXCAVATED MATERIAL, NOT NEEDED ON THE PROJECT, SHALL BE REMOVED FROM THE CONTRACT AT THE CONTRACTORS EXPENSE. ITEM 732XXX, TOPSOIL, SHALL BE USED AS BACKFILL MATERIAL FOR CURB AND SIDEWALK AS DIRECTED BY THE ENGINEER. TOPSOIL SHALL BE SCREENED/SIFTED SO AS NO MATERIAL GREATER THAN .5" IS PRESENT IN MATERIAL USED FOR BACKFILL. AT EACH LOCATION, BACKFILLING SHALL BE PERFORMED IMMEDIATELY UPON REMOVAL OF FORMS FOR CURB OR SIDEWALK WORK. COMPLETE RESTORATION, TOPSOIL, SEEDING, AND REMOVAL OF ALL MATERIALS FOR CURB & GUTTER OR SIDEWALK; SEALING OF VALLEY GUTTERS AND PARGING OF CATCH BASINS, SHALL BE COMPLETED WITHIN SEVEN (7) CALENDAR DAYS OF COMPLETION OF THE ITEM OF WORK. FAILURE TO COMPLY WILL RESULT IN A SUSPENSION OF ALL OTHER CONTRACT WORK WITH TIME CHARGES CONTINUING TO BE ASSESSED.

23. ALL ADJUSTMENTS SHALL BE MADE NO MORE THAN SEVEN (7) CALENDAR DAYS PRIOR TO THE

UNOFFICIAL WEBSITE COPY

GENERAL CONTRACT PLAN NOTES

PLACEMENT OF THE FINAL COURSE OF HOT MIX UNLESS OTHERWISE APPROVED BY THE ENGINEER. FAILURE TO COMPLY WILL RESULT IN A SUSPENSION OF ALL OTHER CONTRACT WORK WITH TIME CHARGES CONTINUING TO BE ASSESSED.

24. ALL PAVING, INCLUDING TURN LANES, SHOULDERS AND INTERSECTIONS, IS TO BE COMPLETED WITHIN SEVEN (7) CALENDAR DAYS FROM THE TIME THE AREA WAS MILLED. FAILURE TO COMPLY WILL RESULT IN A SUSPENSION OF ALL OTHER CONTRACT WORK WITH TIME CHARGES CONTINUING TO BE ASSESSED.

25. THE CONTRACTOR SHALL TAKE CARE IN REMOVING PAVEMENT AROUND UTILITIES, BUTT JOINTS, CURBS, ETC. SO THAT EXISTING PAVEMENT BEYOND THE SPECIFIED DEPTHS IS NOT DAMAGED. ANY DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS MAY RESULT IN PLACING LEVELING COURSES AT THE CONTRACTOR'S EXPENSE. THE REMOVAL AND CLEAN UP OF THE HOT MIX RESIDUE WEDGE REMAINING AFTER MILLING OPERATIONS SHALL BE INCIDENTAL TO THE MILLING ITEM. THE REMOVAL OF EXISTING RAISED PAVEMENT MARKERS (RPM'S) SHALL BE INCIDENTAL TO THE APPLICABLE MILLING AND/OR RECLAMATION ITEMS.

26. ALL PORTLAND CEMENT CONCRETE MUST BE RECEIVED FROM AN APPROVED PRODUCTION PLANT UNLESS OTHERWISE APPROVED BY THE ENGINEER. ONLY CALIBRATED VOLUMETRIC CONCRETE TRUCKS WILL BE PERMITTED TO PROVIDE ON-SITE MIXTURES. THIS PERTAINS TO BOTH WORK OCCURRING DURING NORMAL WORKING HOURS AND NIGHTTIME RESTRICTED WORK.

27. DRAINAGE INLETS, WHICH ARE 4' GREATER IN DEPTH AND ARE SLATED FOR REPAIR WILL HAVE STEPS INSTALLED IN ACCORDANCE WITH SECTION 708.07 OF THE STANDARD SPECIFICATIONS. PAYMENT SHALL BE INCIDENTAL TO THE UNIT PRICE BID FOR ITEM 710001.

28. THE PORTLAND CEMENT CONCRETE USED WITHIN ITEM 701002 - ADJUST AND REPAIR EXISTING MAN HOLES AND ITEM 750000 - ADJUST WATER VALVE BOX SHALL CONFORM TO THE REQUIREMENTS OF CLASS A CONCRETE AS STATED WITHIN SECTION 503.02 OF THE DEPARTMENT'S STANDARD SPECIFICATIONS.

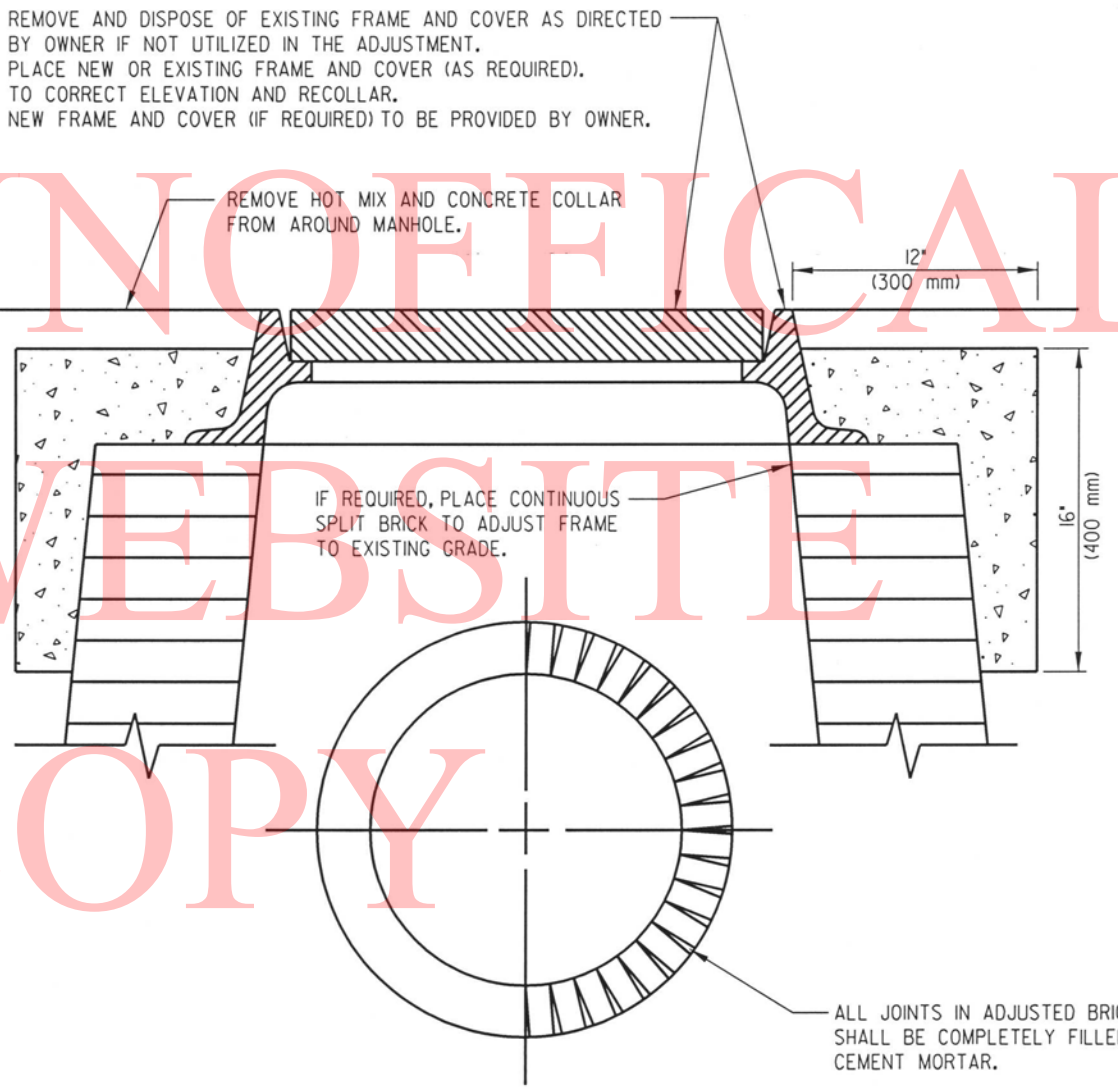
29. THE CONTRACTOR SHALL MAINTAIN ACCESS TO AND ALONG PEDESTRIAN FACILITIES AT ALL TIMES DURING CONSTRUCTION. EARTH, STONE AND GRAVEL SURFACES ARE NOT ACCEPTABLE FOR PROVIDING PEDESTRIAN ACCESS. WHERE PEDESTRIAN ROUTES ARE CLOSED OR BLOCKED, ALTERNATE PEDESTRIAN ACCESS SHALL BE PROVIDED USING CASE 16 OF THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR TO THE SATISFACTION OF THE ENGINEER. **PEDESTRIAN DETOUR ROUTES OR ALTERNATE PEDESTRIAN FACILITIES SHALL CONSIST OF ADA COMPLIANT.FACILITIES TO THE LEVEL OF WHICH EXISTS ON THE PEDESTRIAN ROUTE.** THE COST FOR ANY PROVISIONS SHALL BE INCIDENTAL TO ITEM 763XXX - MAINTENANCE OF TRAFFIC.

30. A AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) CERTIFIED TRAFFIC CONTROL SUPERVISOR SHALL BE REQUIRED FOR ALL LOCATIONS SPECIFIED IN THE CONTRACT PLANS.

UNOFFICIAL WEBSITE COPY

DETAILS SHEET

UNOFICAL WEBSITE COPY

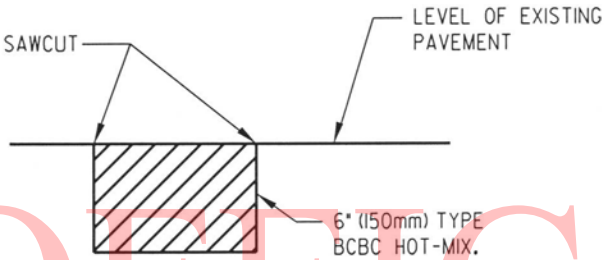


ADJUSTING AND REPAIRING MANHOLE

N.T.S.

NOTE: MANHOLES IN CONCRETE ROADWAYS SHALL BE SAWCUT FULL DEPTH TO THE SPECIFIED DIMENSION PRIOR TO ANY ADJUSTMENT BEING MADE. THE SAWCUTTING SHALL BE INCIDENTAL TO ITEM 710002.

DETAILS SHEET



HOT MIX PATCH DETAIL

N.T.S.

NOTE: ALL EDGES TO BE SAWCUT. CUTTING BY USE OF AIR HAMMERS MAY BE SUBSTITUTED FOR SAWCUTTING IF THE AREA IS TO BE OVERLAID UNDER THE SAME CONTRACT. THIS DETAIL SHALL BE USED FOR ALL HOT-MIX PATCHES UNLESS OTHERWISE SHOWN ON THE PLANS.

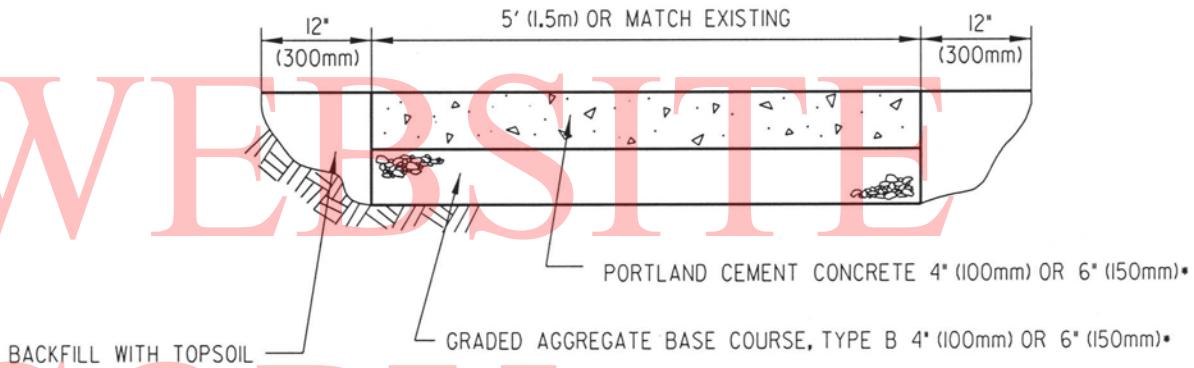
UNOFFICAL WEBSITE COPY

WHEN PCC PATCHING IS REQUIRED ON A COMPOSITE PAVEMENT(HOT-MIX OVER CONCRETE), THE CONTRACTOR MAY ELECT TO ELIMINATE ANY GRADE DIFFERENCE BETWEEN THE TOP OF THE CONCRETE PATCH AND THE TOP OF THE EXISTING HOT-MIX PAVEMENT BY EITHER PLACING HOT-MIX TRM MATERIAL(PAYMENT UNDER ITEM 402000) OR PLACING CONCRETE FLUSH WITH EXISTING HOT-MIX PAVEMENT(ADDITIONAL CONCRETE PAID AS ITEM 503503). IF CONCRETE IS PLACED FLUSH WITH EXISTING HOT-MIX, THE MILLING OF THE CONCRETE WILL BE PAID FOR AS MILLING HOT-MIX.

P.C.C. PATCHING NOTES

DETAILS SHEET

UNOFFICAL WEBSITE COPY

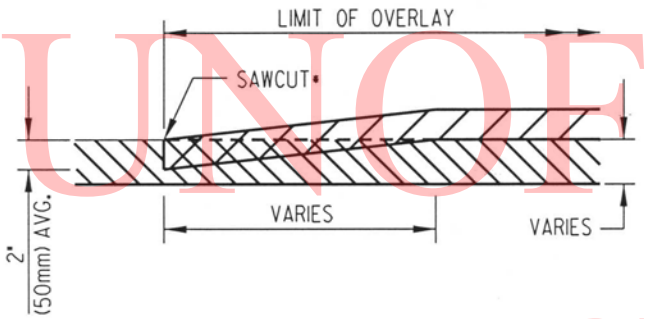


P.C.C. SIDEWALK
N.T.S.

• **NOTE:** 6" (150mm) CONCRETE OVER 6" (150mm) GRADED AGGREGATE TO BE USED FOR DRIVEWAY PLACEMENT

DETAILS SHEET

UNOFFICAL WEBSITE COPY



LEGEND

— PROPOSED OVERLAY

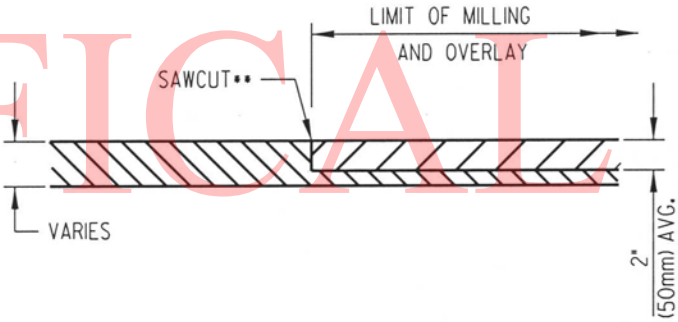
— EXISTING PAVEMENT

— EXISTING PAVEMENT TO BE REMOVED

BUTT JOINT FOR OVERLAY SECTION•

PAYMENT UNDER ITEM 761001.

•SAWCUT IS INCIDENTAL TO ITEM 761001.



LEGEND

— PROPOSED FULL WIDTH MILLING AND HOT MIX OVERLAY

— EXISTING PAVEMENT (TO REMAIN)

HOT MIX JOINT FOR FULL WIDTH MILLING SECTION••

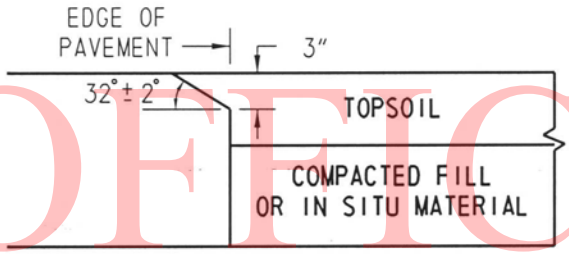
PAYMENT INCIDENTAL TO ITEM 760XXX, MILLING.

••SAWCUT SHALL BE PAID UNDER ITEM 762001.

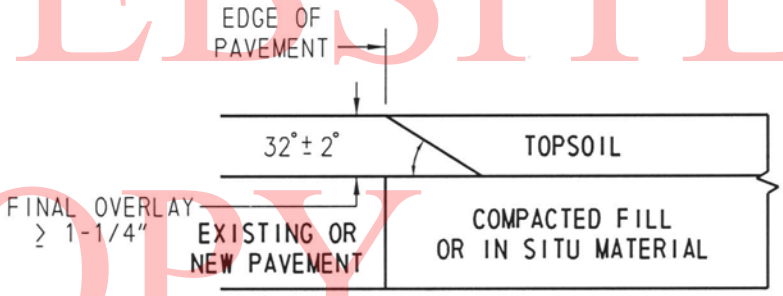
•NOTE: THE FOLLOWING LENGTHS ARE BASED ON THE POSTED SPEED OF THE ROADWAY:
LESS THAN 50 MPH = 20 FT (6m) PER 1" (25mm) OF OVERLAY DEPTH.
EQUAL TO OR GREATER THAN 50 MPH = 30 FT (9.1m) PER 1" (25mm) OF OVERLAY DEPTH.
AT STOP SIGNS = 15 FT (4.6m) PER 1" (25mm) OF OVERALY DEPTH.

DETAILS SHEET

UNOFFICAL WEBSITE COPY



CONCRETE PAVEMENTS
NOT TO SCALE



HOT-MIX PAVEMENTS AND OVERLAYS
NOT TO SCALE

SAFETY EDGE DETAIL
NOT TO SCALE

DETAILS SHEET

Section 100 Project Note:

Unless otherwise noted on the plans, the Contractor shall, as part of his Project Schedule, submit to the Engineer an estimate of the monthly payments expected to be received on the contract. This will be referenced as the "Monthly Payment Chart".

A chart in Microsoft Excel, Microsoft Word, or hand written format will be acceptable for this purpose. The chart should include, as a minimum, columns for the month, year, and estimated monthly payments. The total of all estimated monthly payments should equal the awarded contract total bid price.

The Engineer may request an updated "Monthly Payment Chart" at his discretion, depending on the accuracy of the initial estimates and according to the overall needs of the Department.

The "Monthly Payment Chart" will not be considered a binding document by either the Contractor or the Department and is considered solely informational.

On projects requiring CPM Schedules, the Contractor may, but is not required to, "Cost Load" the CPM Schedule in order to generate the monthly payment estimates.

Costs to prepare and/or update the "Monthly Payment Chart" are addressed as follows:

a. On Contracts requiring CPM Schedules and Updates, preparation of the initial chart shall be incidental to Item 763508. Updates shall be incidental to Item 763509.

b. On contracts not requiring CPM Schedules, the cost to prepare and update the "Monthly Payment Chart" shall be included in Item 763000, Initial Expense.

UNOFFICAL WEBSITE COPY

DETAILS SHEET

PROJECT SPECIFIC NOTES

- THIS CONTRACT MUST BE SUBSTANTIALLY COMPLETED BY JUNE 30, 2011.
- MULTIPLE CREWS WORKING CONCURRENT LOCATIONS MAY BE NECESSARY TO COMPLETE THE CONTRACT
- THE FOLLOWING LOCATIONS SHALL BE PRIORITIZED FOR CONSTRUCTION AS SHOWN BELOW;

1. LOCATION 1 – MT. JOY/OAK ORCHARD RD*
   a. (WORK DAYS: MONDAY – THURSDAY. *NO WORK SHALL BE PERMITTED FROM THURSDAY MAY 26 TO MONDAY MAY 30.)
   b. THE PRIORITY WORK SCHEDULE IS CONTINGENT UPON THE COMPLETION OF THE SUSSEX COUNTY SEWER PROJECT.
2. LOCATION 2 – STATE ST
   a. (NO LANE RESTRICTIONS SHALL BE PERMITTED BEFORE 8:00A UNTIL AFTER THE LAST DAY OF SCHOOL JUNE 10, 2011.)
3. LOCATION 3 – THOMPSONVILLE RD
   a. (NO LANE RESTRICTIONS SHALL BE PERMITTED BEFORE 8:00A UNTIL AFTER THE LAST DAY OF SCHOOL JUNE 10, 2011.)

UNOFICAL WEBSITE COPY

LOCATION 1 **MT JOY RD (S297) FROM HMJ @ CANNON RD (S307) TO HMJ @ SR 24**

LENGTH 2127.504 m 6980 L.F. AADT 3831

GENERAL IMPROVEMENTS

HM PATCHING AND 2" HOT-MIX TYPE C (64-22,C) OVERLAY.

COMMENTS:

Please see attached sheets for comments

UNOFFICAL WEBSITE COPY

MATERIAL ESTIMATE FOR LOCATION 1

302005	GRADED AGGREGATE BASE COURSE, TYPE B	38.00 TON
401645	SUPERPAVE, TYPE C HOT-MIX, 160 GYRATIONS, PG 64-22 (CARBONATE STONE)	2,093.00 TON
401667	SUPERPAVE, BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22 PATCHING	46.00 TON
401696	ENTRANCE, DRIVEWAY AND INTERSECTING STREET PAVING SURCHARGE	100.00 TON
406001	HOT-MIX PATCHING	800.00 SY-IN
705002	P.C.C. SIDEWALK, 6"	252.00 S.F.
705505	RESET STONE/BRICK SIDEWALK AND/OR STONE/BRICK ROADWAY	180.00 S.F.
732004	TOPSOIL (TON)	191.00 TON
734013	PERMANENT GRASS SEEDING, DRY GROUND	2,313.00 S.Y.
735534	SOIL RETENTION BLANKET MULCH, TYPE 4	2,313.00 S.Y.
743004	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	14.00 EA-DY
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	10.00 EA-DY
743052	** FLAGGER, SUSSEX COUNTY, STATE	300.00 HOUR
743064	** FLAGGER, SUSSEX COUNTY, STATE, OVERTIME	45.00 HOUR
744519	RELOCATION OF EXISTING JUNCTION WELL	2.00 EACH
746774	SUPPLY AND INSTALLATION OF LOOP DETECTOR WIRE	150.00 L.F.
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLASTIC	56.00 S.F.
748019	TEMPORARY MARKINGS, PAINT, 4"	17,300.00 L.F.
748026	TEMPORARY MARKINGS, PAINT SYMBOL/LEGEND	56.00 S.F.
748506	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, 4"	17,300.00 L.F.
750000	ADJUST WATER VALVE BOXES	1.00 EACH
758000	REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT, CURB, SIDEWALK, ETC.	48.00 S.Y.
760502	PAVEMENT MILLING, TAPER CUT	200.00 SY-IN
761001	BUTT JOINTS, HOT MIX	883.00 S.Y.
762001	SAW CUTTING, HOT MIX	1,270.00 L.F.

LOCATION 1 **MT JOY RD (S297) FROM HMJ @ CANNON RD (S307) TO HMJ @ SR 24**

LENGTH 2127.504 m 6980 L.F. AADT 3831

GENERAL IMPROVEMENTS

HM PATCHING AND 2" HOT-MIX TYPE C (64-22,C) OVERLAY.

COMMENTS:

Please see attached sheets for comments

UNOFFICAL

MATERIAL ESTIMATE FOR LOCATION 1

762002	SAW CUTTING, CONCRETE, FULL DEPTH	110.00 L.F.

** DENOTES FIXED PRICE ITEM

WEBSITE COPY

LOCATION 1 MT JOY RD (S297) FROM HMJ @ CANNON RD (S307) TO HMJ @ SR 24

COMMENTS:

PRIORITY LOCATION NO. 1
****

RECOMMENDED M.O.T. CASE NO. 6 (TRAVEL LANES).

DAYTIME WORK HOURS: 8:00A - 6:00P,(WORK DAYS: MONDAY - THURSDAY).

ON THE MAIN CONSTRUCTION ROAD AND ALL INTERSECTING ROADS, "ROAD WORK AHEAD AND END" SIGNS FACING THE TRAFFIC SHALL BE PLACED AT 1500', 1000' AND 500' APPROACHING THE WORK ZONE. IN THOSE CASES, WHERE IT IS DIFFICULT TO MEET THE ABOVE CRITERIA BECAUSE OF DISTANCE LIMITATIONS, THE SIGN SHALL BE PLACED AS DIRECTED BY THE FIELD ENGINEER

2" TAPER MILL IN FRONT OF EXISTING CURB.

GABC ITEM 302005 QUANTITY IS FOR UNIMPROVED DRIVEWAYS.

P.C.C. REMOVAL AND 6" SIDEWALK ITEMS IS FOR CONCRETE DRIVEWAYS.

RESETTING OF EXISTING DRIVEWAY PAVERS (AS DIRECTED BY THE FIELD ENGINEER) AT RESIDENTIAL HOUSE #30740 SHALL BE PAID UNDER ITEM 705505.

****
COORDINATION WITH THE ADJACENT CONTRACTOR FOR THE SUSSEX COUNTY SEWER PROJECT MAY BE NECESSARY FOR LANE CLOSURES AND SIGNAGE.

OAK ORCHARD RD IS CONTINGENT ON THE COMPLETION OF THE SUSSEX COUNTY SEWER PROJECT AND MAY BE DELETED FROM THE CONTRACT IF THE ROAD IS NOT READY FOR ROAD CONSTRUCTION.

UNOFFICAL WEBSITE COPY

LOCATION 2 **STATE ST (S326) - (MILLSBORO) FROM 1640LF FROM CENTERLINE OF DE24, WASHINGTON ST (S24) TO THOMPSONVILLE RD (S20)**

LENGTH 1127.76 m 3700 L.F. AADT 3585

GENERAL IMPROVEMENTS

1 1/2" MILLING, PATCHING AND 1 1/2" HOT-MIX TYPE C (64-22,C) OVERLAY.

COMMENTS:

Please see attached sheets for comments

UNOFFICAL WEBSITE COPY

MATERIAL ESTIMATE FOR LOCATION 2

212001	UNDERCUT EXCAVATION, PATCHING	2.00 C.Y.
302005	GRADED AGGREGATE BASE COURSE, TYPE B	20.00 TON
401645	SUPERPAVE, TYPE C HOT-MIX, 160 GYRATIONS, PG 64-22 (CARBONATE STONE)	850.00 TON
401667	SUPERPAVE, BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22 PATCHING	80.00 TON
401696	ENTRANCE, DRIVEWAY AND INTERSECTING STREET PAVING SURCHARGE	74.00 TON
402000	HOT-MIX BITUMINOUS CONCRETE AND/OR COLD-LAID BITUMINOUS CONCRETE (TRM)	5.00 TON
406001	HOT-MIX PATCHING	1,400.00 SY-IN
503001	PATCHING P.C.C. PAVEMENT, 6' TO 15', TYPE A	72.00 S.Y.
503006	DOWEL BARS	144.00 EACH
503503	** PATCHING CONCRETE	425.00 SY-IN
732004	TOPSOIL (TON)	80.00 TON
734013	PERMANENT GRASS SEEDING, DRY GROUND	1,230.00 S.Y.
735534	SOIL RETENTION BLANKET MULCH, TYPE 4	1,230.00 S.Y.
743004	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	14.00 EA-DY
743052	** FLAGGER, SUSSEX COUNTY, STATE	300.00 HOUR
743064	** FLAGGER, SUSSEX COUNTY, STATE, OVERTIME	45.00 HOUR
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLASTIC	225.00 S.F.
748019	TEMPORARY MARKINGS, PAINT, 4"	14,800.00 L.F.
748026	TEMPORARY MARKINGS, PAINT SYMBOL/LEGEND	225.00 S.F.
748506	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, 4"	14,800.00 L.F.
760507	PROFILE MILLING, HOT-MIX	5,550.00 SY-IN
761001	BUTT JOINTS, HOT MIX	650.00 S.Y.
762001	SAW CUTTING, HOT MIX	750.00 L.F.
762002	SAW CUTTING, CONCRETE, FULL DEPTH	270.00 L.F.
763502	MAINTENANCE OF RAILROAD TRAFFIC	1.00 L.S.

LOCATION 2 **STATE ST (S326) - (MILLSBORO) FROM 1640LF FROM CENTERLINE OF DE24, WASHINGTON ST (S24) TO THOMPSONVILLE RD (S20)**

LENGTH 1127.76 m 3700 L.F. AADT 3585

GENERAL IMPROVEMENTS

1 1/2" MILLING, PATCHING AND 1 1/2" HOT-MIX TYPE C (64-22,C) OVERLAY.

COMMENTS:

Please see attached sheets for comments

UNOFFICAL WEBSITE COPY

MATERIAL ESTIMATE FOR LOCATION 2

763621	* CONSTRUCTION ENGINEERING, RE-SURFACING	1.00 L.S.

* DENOTES FIXED QUANTITY ITEM

** DENOTES FIXED PRICE ITEM

LOCATION 2 **STATE ST (S326) - (MILLSBORO) FROM 1640LF FROM CENTERLINE OF DE24, WASHINGTON ST (S24) TO THOMPSONVILLE RD (S20)**

COMMENTS:

PRIORITY LOCATION NO. 2
****

RECOMMENDED M.O.T. CASE NO. 6 (TRAVEL LANES).
. CASE NO. 17A (RAILROAD).

DAYTIME WORK HOURS: 8:00A - 6:00P.

ON THE MAIN CONSTRUCTION ROAD AND ALL INTERSECTING ROADS, "ROAD WORK AHEAD AND END" SIGNS FACING THE TRAFFIC SHALL BE PLACED AT 1500', 1000' AND 500' APPROACHING THE WORK ZONE. IN THOSE CASES, WHERE IT IS DIFFICULT TO MEET THE ABOVE CRITERIA BECAUSE OF DISTANCE LIMITATIONS, THE SIGN SHALL BE PLACED AS DIRECTED BY THE FIELD ENGINEER

GABC ITEM 302005 QUANTITY IS FOR UNIMPROVED DRIVEWAYS.

TYPICAL EXISTING PAVEMENT FOR P.C.C. PATCHING IS 5 +/- INCHES OF HOT-MIX OVER 9 +/- INCHES OF P.C.C. CONCRETE.

MONOLITHIC POURS SHALL NOT BE ACCEPTED FOR P.C.C. CURB AND SIDEWALK INCLUDING ADA CURB RAMPS UNLESS APPROVED BY THE FIELD ENGINEER.

1 1/2" ROTOMILL THRU THE TIMBER GUARDRAIL SECTION ONLY.

TRM HOT-MIX ASPHALT SHALL BE USED ONLY, COLD-MIX ASPHALT(COLD PATCH) WILL NOT BE ACCEPTED.

ALL ROTOMILLED MATERIAL SHALL REMAIN THE PROPERTY OF THE DEPARTMENT OF TRANSPORTATION AND BE DELIVERED TO THE DAGSBORO YARD, AREA 5. CONTACT AND NOTIFY THE YARD SUPERVISOR, WESLEY SCOTT, PHONE NO. (302)732-5489, 1 WEEK PRIOR TO DELIVERY.

DISTANCE TO YARD: APPROX. 6 MILES.

M.O.R. NOTES

NORFOLK SOUTHERN
.2 PER DAY (FREIGHT)*
.2 PER NIGHT (FREIGHT)*

*NO PASSENGER SERVICE IS INVOLVED.

THE FINAL OVERLAY WILL TIE INTO THE R/R CROSSING UP TO THE R/R TRACKS.
DO NOT REPLACE HOT-MIX BETWEEN THE TRACK RAILS.

UNOFFICAL WEBSITE COPY

LOCATION 3 **THOMPSONVILLE RD, DE20 (S20) - (MILLSBORO) FROM US113, DUPONT BLVD (S113) TO STATE ST (S326)**

LENGTH 740.664 m 2430 L.F. AADT 2390

GENERAL IMPROVEMENTS

1 1/2" HOT-MIX TYPE C (64-22,C) OVERLAY.

COMMENTS:

Please see attached sheets for comments

UNOFFICAL WEBSITE COPY

MATERIAL ESTIMATE FOR LOCATION 3

302005	GRADED AGGREGATE BASE COURSE, TYPE B	29.00 TON
401645	SUPERPAVE, TYPE C HOT-MIX, 160 GYRATIONS, PG 64-22 (CARBONATE STONE)	712.00 TON
401696	ENTRANCE, DRIVEWAY AND INTERSECTING STREET PAVING SURCHARGE	66.00 TON
708500	REPLACING CATCH BASIN GRATES	3.00 EACH
708504	REPLACING CATCH BASIN FRAMES	3.00 EACH
710001	ADJUSTING AND REPAIRING EXISTING DRAINAGE INLET	3.00 EACH
732004	TOPSOIL (TON)	50.00 TON
734013	PERMANENT GRASS SEEDING, DRY GROUND	810.00 S.Y.
735534	SOIL RETENTION BLANKET MULCH, TYPE 4	810.00 S.Y.
743004	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	14.00 EA-DY
743052	** FLAGGER, SUSSEX COUNTY, STATE	150.00 HOUR
743064	** FLAGGER, SUSSEX COUNTY, STATE, OVERTIME	23.00 HOUR
748019	TEMPORARY MARKINGS, PAINT, 4"	6,683.00 L.F.
748506	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, 4"	6,683.00 L.F.
761001	BUTT JOINTS, HOT MIX	587.00 S.Y.
762001	SAW CUTTING, HOT MIX	270.00 L.F.

** DENOTES FIXED PRICE ITEM

LOCATION 3 **THOMPSONVILLE RD, DE20 (S20) - (MILLSBORO) FROM US113, DUPONT BLVD (S113) TO STATE ST (S326)**

COMMENTS:

PRIORITY LOCATION NO. 3
****

RECOMMENDED M.O.T. CASE NO. 6.

DAYTIME WORK HOURS: 8:00A - 6:00P.

ON THE MAIN CONSTRUCTION ROAD AND ALL INTERSECTING ROADS, "ROAD WORK AHEAD AND END" SIGNS FACING THE TRAFFIC SHALL BE PLACED AT 1500', 1000' AND 500' APPROACHING THE WORK ZONE. IN THOSE CASES, WHERE IT IS DIFFICULT TO MEET THE ABOVE CRITERIA BECAUSE OF DISTANCE LIMITATIONS, THE SIGN SHALL BE PLACED AS DIRECTED BY THE FIELD ENGINEER

GABC ITEM 302005 QUANTITY IS FOR UNIMPROVED DRIVEWAYS.

UNOFFICAL WEBSITE COPY

CONTRACT QUANTITIES SUMMARY SHEET

212001	UNDERCUT EXCAVATION, PATCHING	2.00 C.Y.
302005	GRADED AGGREGATE BASE COURSE, TYPE B	87.00 TON
401645	SUPERPAVE, TYPE C HOT-MIX, 160 GYRATIONS, PG 64-22 (CARBONATE STONE)	3,655.00 TON
401667	SUPERPAVE, BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22 PATCHING	126.00 TON
401696	ENTRANCE, DRIVEWAY AND INTERSECTING STREET PAVING SURCHARGE	240.00 TON
402000	HOT-MIX BITUMINOUS CONCRETE AND/OR COLD-LAID BITUMINOUS CONCRETE (TRM)	5.00 TON
406001	HOT-MIX PATCHING	2,200.00 SY-IN
503001	PATCHING P.C.C. PAVEMENT, 6' TO 15', TYPE A	72.00 S.Y.
503006	DOWEL BARS	144.00 EACH
503503	** PATCHING CONCRETE	425.00 SY-IN
705002	P.C.C. SIDEWALK, 6"	252.00 S.F.
705505	RESET STONE/BRICK SIDEWALK AND/OR STONE/BRICK ROADWAY	180.00 S.F.
708500	REPLACING CATCH BASIN GRATES	3.00 EACH
708504	REPLACING CATCH BASIN FRAMES	3.00 EACH
710001	ADJUSTING AND REPAIRING EXISTING DRAINAGE INLET	3.00 EACH
732004	TOPSOIL (TON)	321.00 TON
734013	PERMANENT GRASS SEEDING, DRY GROUND	4,353.00 S.Y.
735534	SOIL RETENTION BLANKET MULCH, TYPE 4	4,353.00 S.Y.
743004	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	42.00 EA-DY
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	10.00 EA-DY
743052	** FLAGGER, SUSSEX COUNTY, STATE	750.00 HOUR
743064	** FLAGGER, SUSSEX COUNTY, STATE, OVERTIME	113.00 HOUR
744519	RELOCATION OF EXISTING JUNCTION WELL	2.00 EACH
746774	SUPPLY AND INSTALLATION OF LOOP DETECTOR WIRE	150.00 L.F.
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLASTIC	281.00 S.F.
748019	TEMPORARY MARKINGS, PAINT, 4"	38,783.00 L.F.
748026	TEMPORARY MARKINGS, PAINT SYMBOL/LEGEND	281.00 S.F.
748506	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, 4"	38,783.00 L.F.

UNOFFICAL WEBSITE COPY

CONTRACT QUANTITIES SUMMARY SHEET

750000	ADJUST WATER VALVE BOXES	1.00 EACH
758000	REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT, CURB, SIDEWALK, ETC.	48.00 S.Y.
760502	PAVEMENT MILLING, TAPER CUT	200.00 SY-IN
760507	PROFILE MILLING, HOT-MIX	5,550.00 SY-IN
761001	BUTT JOINTS, HOT MIX	2,120.00 S.Y.
762001	SAW CUTTING, HOT MIX	2,290.00 L.F.
762002	SAW CUTTING, CONCRETE, FULL DEPTH	380.00 L.F.
763000	INITIAL EXPENSE	LUMP SUM
763502	MAINTENANCE OF RAILROAD TRAFFIC	1.00 L.S.
763621	* CONSTRUCTION ENGINEERING, RE-SURFACING	1.00 L.S.
763643	MAINTENANCE OF TRAFFIC, ALL INCLUSIVE	LUMP SUM

UNOFFICAL WEBSITE COPY

* DENOTES FIXED QUANTITY ITEM

** DENOTES FIXED PRICE ITEM