THE STATE OF DELAWARE

DEPARTMENT OF TRANSPORTATION

OFFICE OF TRANSPORTATION SOLUTIONS

PLANS AND SPECIFICATIONS FOR

CONTRACT NUMBER - T201106303.01 SOUTH MAINTENANCE

FEDERAL AID NUMBER - NONE PRIMAVERA ID – 11-06303

CONTRACT TITLE - PAVEMENT & REHABILITATION – SOUTH II-III, 2011 PAGE 1 OF 29

PLANS PREPARED BY: Paul Farkas

DESIGN TECHNICIAN

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DATE RECOMMENDED: 2/8/2011

Bradford L Salmon

GROUP ENGINEER, CONSTRUCTION

DATE RECOMMENDED: 2-26-11

James T Pappas IV

ASSIST. DIRECTOR, DESIGN

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

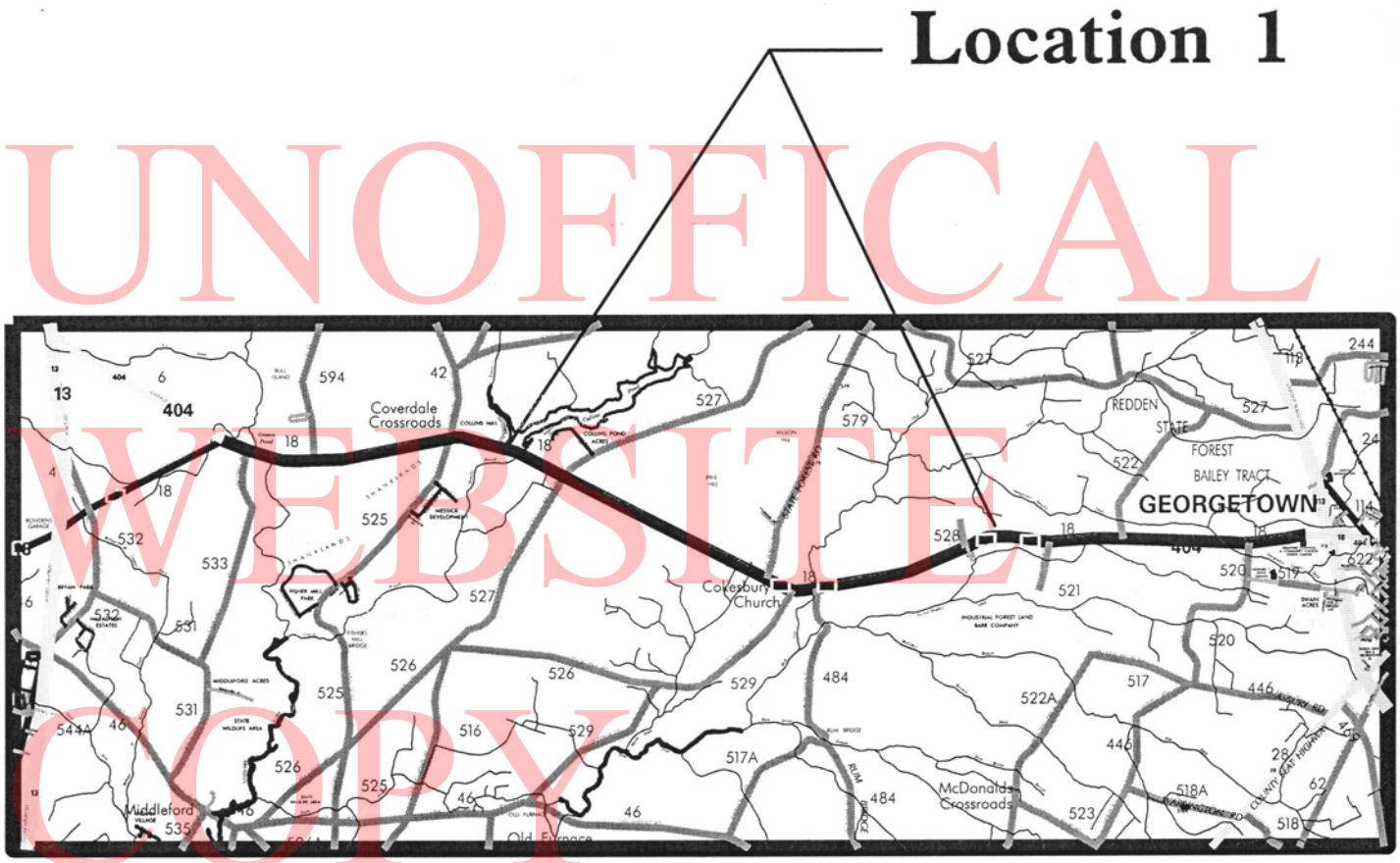
DATE RECOMMENDED: 2-28-11

Natalie Barnhart

CHIEF ENGINEER

NATALIE M. BARNHART REGISTERED No. 9629 DELAWARE PROFESSIONAL ENGINEER

LOCATION MAP



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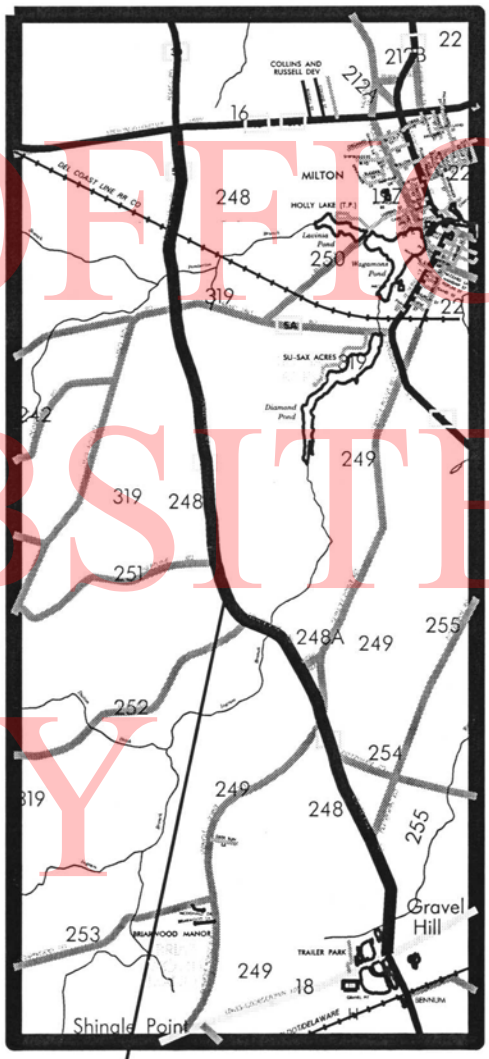
LOCATION MAP



Location 2

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LOCATION MAP

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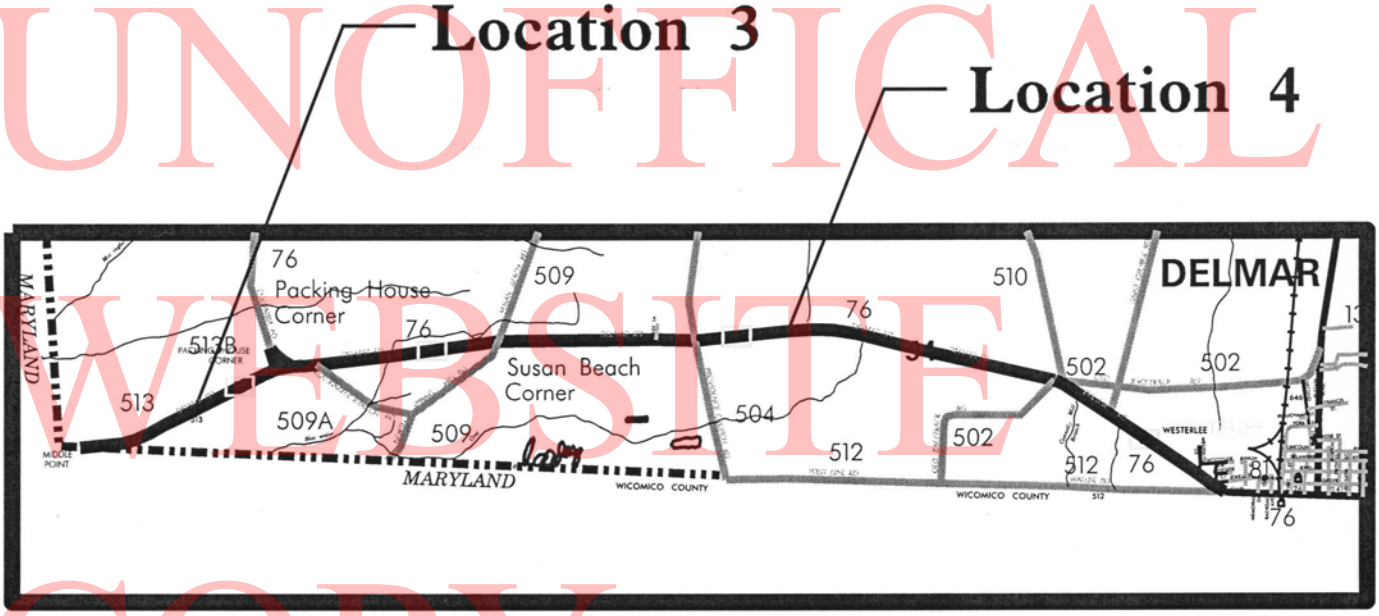

GENERAL CONTRACT PLAN NOTES

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

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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

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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

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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.

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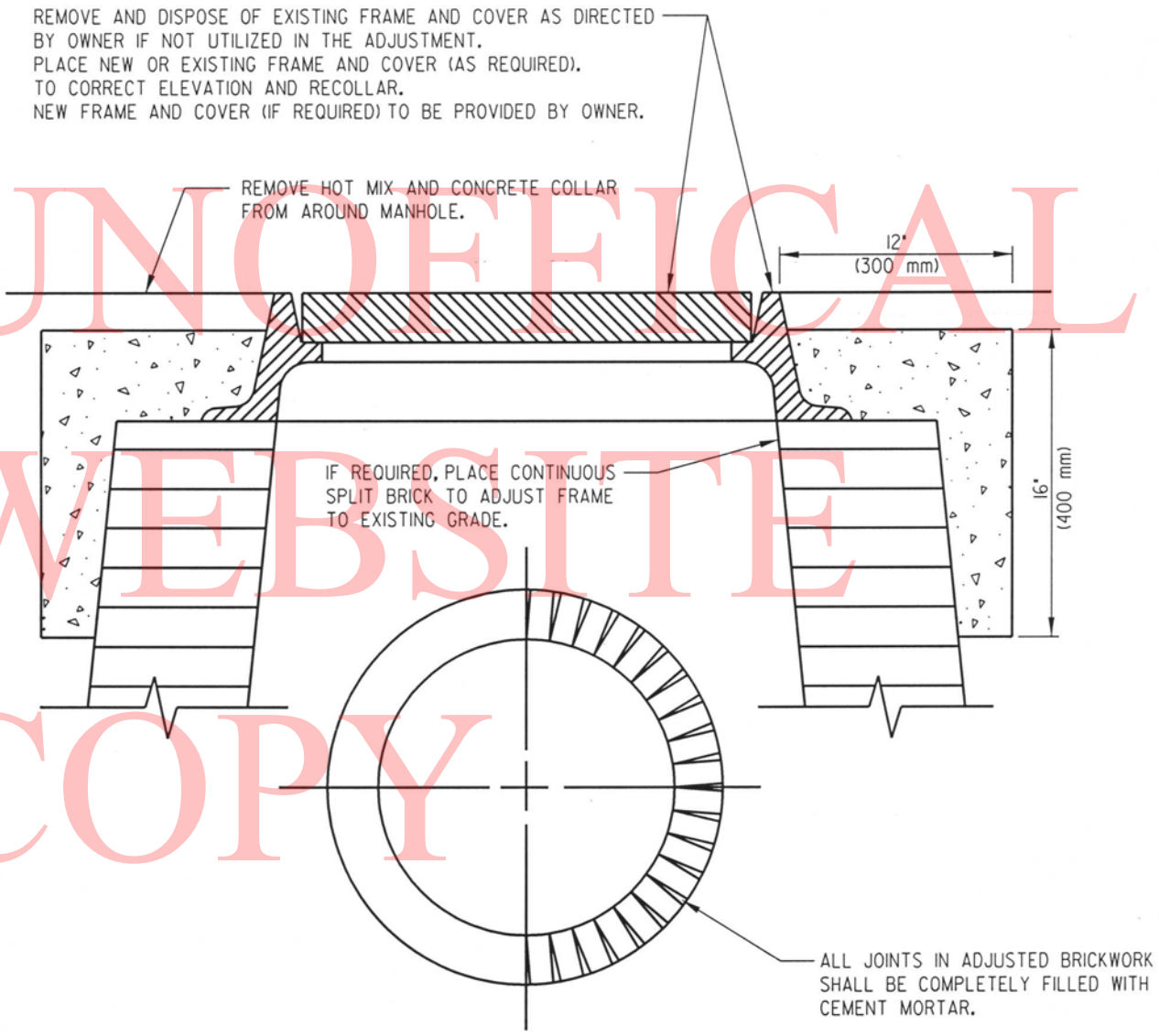
DETAILS SHEET



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.

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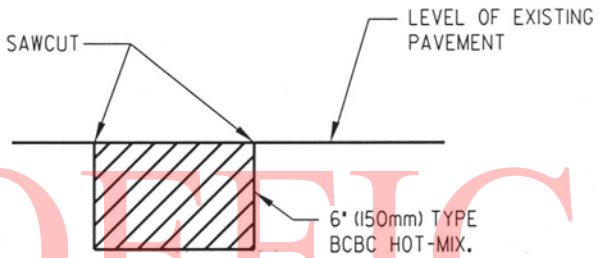
DETAILS SHEET



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.

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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

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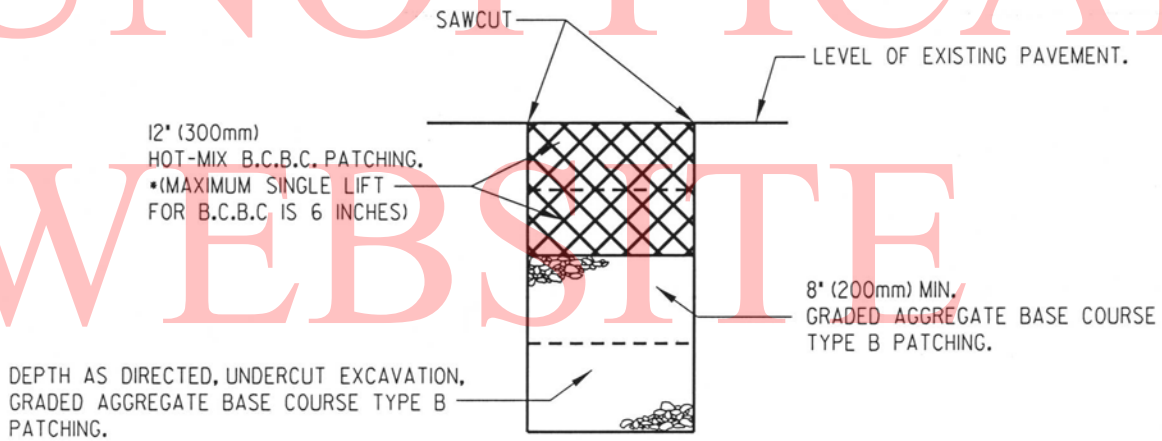

HOT-MIX PATCH CONCRETE DETAIL

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.

DETAILS SHEET

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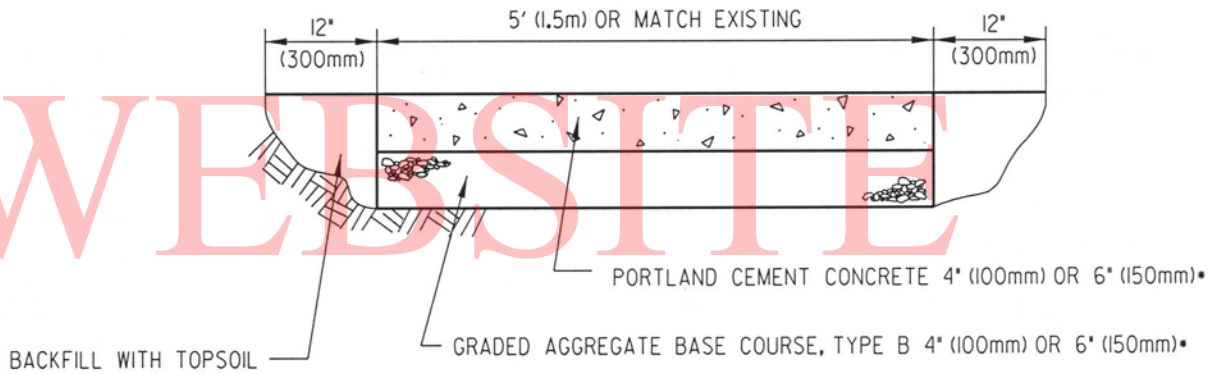

P.C.C. SIDEWALK

N.T.S.

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

DETAILS SHEET

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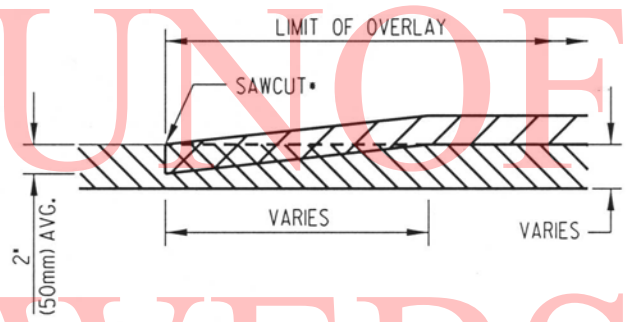


LEGEND

— PROPOSED OVERLAY

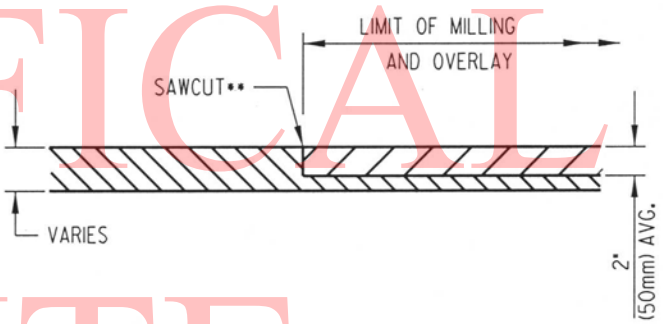
— EXISTING PAVEMENT

— 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

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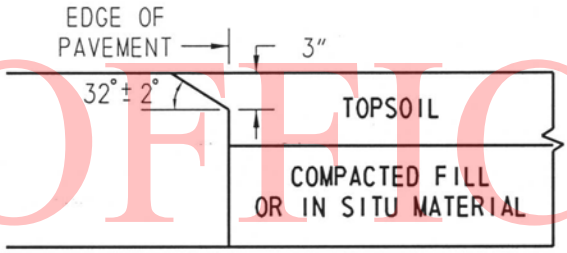
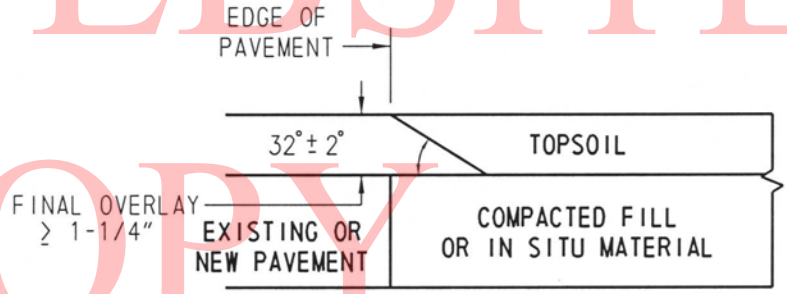


CONCRETE PAVEMENTS
NOT TO SCALE



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.

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LOCATION 1 **LEWES-GEORGETOWN HWY (GEORGETOWN) FROM HMJ EAST OF 18/6/404 CANNON RD SPLIT (S6) TO HMJ WEST OF US113, DUPONT BLVD (S113)**

LENGTH 14630.4 m 48000 L.F. AADT 11313

GENERAL IMPROVEMENTS

HMP PATCHING (CONCRETE), 4" COLD IN PLACE RECYCLING AND 2" WARM-MIX FULL WIDTH OVERLAY.

COMMENTS:

Please see attached sheets for comments

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MATERIAL ESTIMATE FOR LOCATION 1

212001	UNDERCUT EXCAVATION, PATCHING	20.00 C.Y.
302005	GRADED AGGREGATE BASE COURSE, TYPE B	131.00 TON
302008	GRADED AGGREGATE BASE COURSE, TYPE B, PATCHING	178.00 C.Y.
401636	COLD RECYCLED BITUMINOUS PAVEMENT	512,000.00 SY-IN
401667	SUPERPAVE, BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22 PATCHING	552.00 TON
401696	ENTRANCE, DRIVEWAY AND INTERSECTING STREET PAVING SURCHARGE	184.00 TON
401713	EMULSIFIED ASPHALT	214,722.00 GAL
401801	WMA, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 64-22 (CARBONATE STONE)	11,910.00 TON
401830	WMA, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 70-22 (NON- CARBONATE STONE)	14,545.00 TON
402000	HOT-MIX BITUMINOUS CONCRETE AND/OR COLD-LAID BITUMINOUS CONCRETE (TRM)	10.00 TON
406002	HOT-MIX PATCHING, CONCRETE	16,000.00 SY-IN
705002	P.C.C. SIDEWALK, 6"	63.00 S.F.
710002	ADJUSTING AND REPAIRING EXISTING MANHOLE	4.00 EACH
720573	ADJUSTING GUARDRAIL HEIGHT	3,000.00 L.F.
732004	TOPSOIL (TON)	1,320.00 TON
734013	PERMANENT GRASS SEEDING, DRY GROUND	16,000.00 S.Y.
735534	SOIL RETENTION BLANKET MULCH, TYPE 4	16,000.00 S.Y.
743003	ARROWPANELS, TYPE C	60.00 EA-DY
743004	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	14.00 EA-DY
743007	** TRAFFIC OFFICERS	600.00 HOUR
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	60.00 EA-DY
743052	** FLAGGER, SUSSEX COUNTY, STATE	2,400.00 HOUR
743064	** FLAGGER, SUSSEX COUNTY, STATE, OVERTIME	360.00 HOUR
746774	SUPPLY AND INSTALLATION OF LOOP DETECTOR WIRE	600.00 L.F.
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLASTIC	769.00 S.F.
748019	TEMPORARY MARKINGS, PAINT, 4"	312,000.00 L.F.
748026	TEMPORARY MARKINGS, PAINT SYMBOL/LEGEND	1,538.00 S.F.

LOCATION 1 **LEWES-GEORGETOWN HWY (GEORGETOWN) FROM HMJ EAST OF 18/6/404 CANNON RD SPLIT (S6) TO HMJ WEST OF US113, DUPONT BLVD (S113)**

LENGTH 14630.4 m 48000 L.F. AADT 11313

GENERAL IMPROVEMENTS

HMP PATCHING (CONCRETE), 4" COLD IN PLACE RECYCLING AND 2" WARM-MIX FULL WIDTH OVERLAY.

COMMENTS:

Please see attached sheets for comments

UNOFFICAL WEBSITE COPY

MATERIAL ESTIMATE FOR LOCATION 1

748027	PERMANENT PAVEMENT STRIPING, ALKYD-THERMOPLASTIC, 12"	120.00 L.F.
748502	RAISED/RECESSED PAVEMENT MARKER	600.00 EACH
748506	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, 4"	156,000.00 L.F.
758000	REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT, CURB, SIDEWALK, ETC.	807.00 S.Y.
760502	PAVEMENT MILLING, TAPER CUT	2,000.00 SY-IN
760507	PROFILE MILLING, HOT-MIX	19,556.00 SY-IN
761001	BUTT JOINTS, HOT MIX	1,628.00 S.Y.
762001	SAW CUTTING, HOT MIX	4,140.00 L.F.
762002	SAW CUTTING, CONCRETE, FULL DEPTH	3,023.00 L.F.

** DENOTES FIXED PRICE ITEM

LOCATION 1 **LEWES-GEORGETOWN HWY (GEORGETOWN) FROM HMJ EAST OF 18/6/404 CANNON RD SPLIT (S6) TO HMJ WEST OF US113, DUPONT BLVD (S113)**

COMMENTS:

RECOMMENDED M.O.T. CASE NO. 6 (TRAVEL LANES).
. CASE NO. 2 (SHOULDERS).

RESTRICTED WORK HOURS: 8:00A - 6:00P (MONDAY - THURSDAY).

SUMMER SEASON LANE CLOSURES ARE NOT PERMITTED BETWEEN MAY 23 TO SEPT. 12, 2011.

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

TYPICAL EXISTING PAVEMENT FOR HOT-MIX PATCHING (CONCRETE) IS 4 +/- INCHES OF HOT-MIX OVER 9 +/- INCHES OF P.C.C. CONCRETE.

GABC ITEM AND QUANTITY ARE FOR UNIMPROVED DRIVEWAYS.

ITEM 748027 12" THERMO-PLASTIC SHALL BE USED FOR THE GORE STRIPING.

ADDITIONAL P.C.C. REMOVAL AND 6" SIDEWALK ITEM QUANTITIES IS FOR CONCRETE DRIVEWAYS.

TAPER MILL IN FRONT OF SOME GUARDRAIL & EXISTING CURB AND ADJUST GUARDRAIL HEIGHT AS DIRECTED BY THE FIELD ENGINEER.

HOT-MIX OVERLAY NOTES*

USE 70-22 TYPE C(NC) WARM-MIX FOR TRAVEL LANES.
USE 64-22 TYPE C(C) WARM-MIX FOR SHOULDERS.

COLD IN PLACE RECYCLING OPERATIONS PHASING NOTES**
==========
THE COLD IN PLACE RECYCLING OPERATIONS SHALL BE COMPLETED IN FOUR SEGMENTS. THE OPERATIONS SHALL BE COMPLETED AT THE DESIGNATED WIDTH IN BOTH DIRECTIONS BEFORE MOVING ONTO THE NEXT SEGMENT.

THE CIPR OPERATION IS FOR THE TRAVEL LANES ONLY @ 24 FEET TO MATCH EXISTING WIDTH.

SEGMENTS SHALL BE DESIGNATED AS FOLLOWS;
1. S18/6/404 - S527
2. S527 - S579
3. S579 - S522
4. S522 - HMJ @ US113

**THE PHASING APPLIES ONLY TO THE COLD IN PLACE RECYCLING OPERATION AND DOES NOT APPLY TO THE WARM-MIX OVERLAY AND REMAINING OPERATIONS OF THE PROJECT.

THE REMOVAL OF EXISTING RAISED PAVEMENT MARKERS SHALL BE INCIDENTAL TO THE COLD IN PLACE OPERATION.

2" ROTOMILL FULL WIDTH 100' IN EACH DIRECTION FROM CENTER LINE OF CULVERTS/BRIDGES PRIOR TO RECLAMATION AS DIRECTED BY THE FIELD ENGINEER AND PLACE BACK 2" HOT-MIX

UNOFFICAL WEBSITE COPY

LOCATION 1 LEWES-GEORGETOWN HWY (GEORGETOWN) FROM HMJ EAST OF 18/6/404 CANNON RD SPLIT (S6) TO HMJ WEST OF US113, DUPONT BLVD (S113)

TYPE C FULL WIDTH FINAL OVERLAY.

THIS LOCATION SHALL MEET THE TOLERANCES OF SUBSECTION 401580 - RIDE QUALITY OF HOT-MIX PAVEMENT REQUIREMENTS, AS SPECIFIED IN THE SPECIAL PROVISIONS.

UNOFFICAL WEBSITE COPY

LOCATION 2 **GRAVEL HILL RD (S248) FROM LEWES-GEORGETOWN HWY (S18) TO BEACH HWY, DE16 (S16)**

LENGTH 8625.8400 m 28300.0000 L.F. AADT 5288

GENERAL IMPROVEMENTS

4" COLD IN PLACE RECYCLING AND 2" WARM-MIX TYPE C (64-22,NC) FULL WIDTH OVERLAY.

COMMENTS:

Please see attached sheets for comments

UNOFFICAL WEBSITE COPY

MATERIAL ESTIMATE FOR LOCATION 2

302005	GRADED AGGREGATE BASE COURSE, TYPE B	62.00 TON
401636	COLD RECYCLED BITUMINOUS PAVEMENT	276,711.00 SY-IN
401696	ENTRANCE, DRIVEWAY AND INTERSECTING STREET PAVING SURCHARGE	376.00 TON
401713	EMULSIFIED ASPHALT	103,767.00 GAL
401801	WMA, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 64-22 (CARBONATE STONE)	14,060.00 TON
705505	RESET STONE/BRICK SIDEWALK AND/OR STONE/BRICK ROADWAY	126.00 S.F.
708500	REPLACING CATCH BASIN GRATES	1.00 EACH
708504	REPLACING CATCH BASIN FRAMES	1.00 EACH
710001	ADJUSTING AND REPAIRING EXISTING DRAINAGE INLET	8.00 EACH
716502	CONVERTING EXISTING CATCH BASIN TO DRAINAGE INLET	1.00 EACH
720573	ADJUSTING GUARDRAIL HEIGHT	1,450.00 L.F.
732004	TOPSOIL (TON)	780.00 TON
734013	PERMANENT GRASS SEEDING, DRY GROUND	9,430.00 S.Y.
735534	SOIL RETENTION BLANKET MULCH, TYPE 4	9,430.00 S.Y.
743004	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	14.00 EA-DY
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	60.00 EA-DY
743052	** FLAGGER, SUSSEX COUNTY, STATE	1,350.00 HOUR
743064	** FLAGGER, SUSSEX COUNTY, STATE, OVERTIME	203.00 HOUR
744519	RELOCATION OF EXISTING JUNCTION WELL	1.00 EACH
746774	SUPPLY AND INSTALLATION OF LOOP DETECTOR WIRE	920.00 L.F.
746776	LOOP DETECTOR SPLICE	8.00 EACH
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLASTIC	497.00 S.F.
748019	TEMPORARY MARKINGS, PAINT, 4"	155,650.00 L.F.
748026	TEMPORARY MARKINGS, PAINT SYMBOL/LEGEND	993.00 S.F.
748502	RAISED/RECESSED PAVEMENT MARKER	354.00 EACH
748506	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, 4"	77,825.00 L.F.
760502	PAVEMENT MILLING, TAPER CUT	1,000.00 SY-IN

LOCATION 2 **GRAVEL HILL RD (S248) FROM LEWES-GEORGETOWN HWY (S18) TO BEACH HWY, DE16 (S16)**

LENGTH 8625.84 m 28300 L.F. AADT 5288

GENERAL IMPROVEMENTS

4" COLD IN PLACE RECYCLING AND 2" WARM-MIX TYPE C (64-22,NC) FULL WIDTH OVERLAY.

COMMENTS:

Please see attached sheets for comments

UNOFFICAL WEBSITE COPY

MATERIAL ESTIMATE FOR LOCATION 2

761001	BUTT JOINTS, HOT MIX	3,320.00 S.Y.
762001	SAW CUTTING, HOT MIX	1,300.00 L.F.
762002	SAW CUTTING, CONCRETE, FULL DEPTH	40.00 L.F.

** DENOTES FIXED PRICE ITEM

LOCATION 2 **GRAVEL HILL RD (S248) FROM LEWES-GEORGETOWN HWY (S18) TO BEACH HWY, DE16 (S16)**

COMMENTS:

RECOMMENDED M.O.T. CASE NO. 6 (TRAVEL LANES).
. CASE NO. 2 (SHOULDERS).

DAYTIME WORK HOURS: 8:00A - 3:00P.

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.

TAPER MILL IN FRONT OF ANY EXISTING CURB AND SOME GUARDRAIL. ADJUST GUARDRAIL HEIGHT AS DIRECTED BY THE FIELD ENGINEER.

RESETTING OF EXISTING DRIVEWAY PAVERS (IF DIRECTED BY THE FIELD ENGINEER) AT RESIDENTIAL HOUSE #18565 SHALL BE PAID UNDER ITEM 705505.

COLD IN PLACE RECYCLING OPERATIONS PHASING NOTES**
==========
THE COLD IN PLACE RECYCLING OPERATIONS SHALL BE COMPLETED IN THREE SEGMENTS. THE OPERATIONS SHALL BE COMPLETED AT THE DESIGNATED WIDTH IN BOTH DIRECTIONS BEFORE MOVING ONTO THE NEXT SEGMENT.

THE CIPR OPERATION IS FOR THE TRAVEL LANES ONLY @ 22 FEET TO MATCH EXISTING WIDTH.

SEGMENTS SHALL BE DESIGNATED AS FOLLOWS;
1. DE16 - S241/319
2. S319 - S249
3. S249 - DE9

THE RECYCLING OPERATION DOES INCLUDE SEVERAL TUNR/BYPASS LANES LOCATED WITHIN THE LIMITS. TYPICAL LANE IS 10'W X 150'L.

**THE PHASING APPLIES ONLY TO THE COLD IN PLACE RECYCLING OPERATION AND DOES NOT APPLY TO THE WARM-MIX OVERLAY AND REMAINING OPERATIONS OF THE PROJECT.

THE REMOVAL OF EXISTING RAISED PAVEMENT MARKERS SHALL BE INCIDENTAL TO THE COLD IN PLACE OPERATION.

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LOCATION 3 **DELMAR RD (S513) FROM THE MARYLAND STATE LINE TO DELMAR/COLUMBIA RD (S76)**

LENGTH 2026.92 m 6650 L.F. AADT 1435

GENERAL IMPROVEMENTS

HM PATCHING AND 2" WARM-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	7.00 TON
401665	SUPERPAVE, TYPE C HOT-MIX, 160 GYRATIONS, PG 64-22, PATCHING	30.00 TON
401667	SUPERPAVE, BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22 PATCHING	40.00 TON
401696	ENTRANCE, DRIVEWAY AND INTERSECTING STREET PAVING SURCHARGE	24.00 TON
401801	WMA, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 64-22 (CARBONATE STONE)	2,240.00 TON
401810	WMA, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22	150.00 TON
406001	HOT-MIX PATCHING	1,230.00 SY-IN
732004	TOPSOIL (TON)	183.00 TON
734013	PERMANENT GRASS SEEDING, DRY GROUND	2,217.00 S.Y.
735534	SOIL RETENTION BLANKET MULCH, TYPE 4	2,217.00 S.Y.
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
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLASTIC	28.00 S.F.
748019	TEMPORARY MARKINGS, PAINT, 4"	21,613.00 L.F.
748026	TEMPORARY MARKINGS, PAINT SYMBOL/LEGEND	28.00 S.F.
748502	RAISED/RECESSED PAVEMENT MARKER	84.00 EACH
748506	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, 4"	21,613.00 L.F.
761001	BUTT JOINTS, HOT MIX	212.00 S.Y.
762001	SAW CUTTING, HOT MIX	640.00 L.F.
763501	CONSTRUCTION ENGINEERING	1.00 L.S.

** DENOTES FIXED PRICE ITEM

LOCATION 3 DELMAR RD (S513) FROM THE MARYLAND STATE LINE TO DELMAR/COLUMBIA RD (S76)

COMMENTS:

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

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.

HOT-MIX OVERLAY LIMITS INCLUDES THE COLUMBIA RD SIDE SPUR.

THE REMOVAL OF EXISTING RAISED PAVEMENT MARKERS SHALL BE INCIDENTAL TO THE HOT-MIX OVERLAY RECYCLING.

GRADE ELEVATION ADJUSTMENT @ S76

THE EXISTING PAVEMENT GRADE ELEVATION SHALL BE ADJUSTED AS DIRECTED BY THE FIELD ENGINEER.

THE TYPE B HOT-MIX SHALL BE USED TO ADJUST THE EXISTING GRADE ELEVATIONS.

NO SURVEY DATA WILL BE PROVIDED. ALL SURVEY WORK REQUIRED TO FULLY COMPLETE THE WORK IS INCIDENTAL TO ITEM 763501 - CONSTRUCTION ENGINEERING..

HOT-MIX PATCHING NOTES

THE TYPE C PATCHING ITEM 401665 QUANITITY SHALL BE USED FOR PARTIAL DEPTH PATCHING (2" +/-) IN AREAS OF DELAMINATION OF THE EXISTING TOP LIFT AS DIRECTED BY THE FIELD ENGINEER. THIS PATCHING AREA SHALL ALSO BE PAID UNDER ITEM 406001. APPROX. AREA 264 SY (2") = 528 SY-IN.

THE TYPE BCBC PATCHING ITEM 401667 QUANTITY SHALL BE USED FOR FULL DEPTH PATCHING AS SHOWN PER THE DETAILS AS DIRECTED BY THE FIELD ENGINEER. APPROX. AREA 702 SY (6") = 702 SY-IN.

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LOCATION 4 **DELMAR ROAD, SR54 (S76) FROM HMJ @ WALLER RD TO END OF SHOULDER 400' PAST COLUMBIA RD EXT. (END OF SUPER ELEVATION)**

LENGTH 8473.44 m 27800 L.F. AADT 4385

GENERAL IMPROVEMENTS

HM PATCHING - (CONCRETE), 4" COLD IN PLACE RECYCLING AND 2" WARM-MIX FULL WIDTH OVERLAY.

COMMENTS:

Please see attached sheets for comments

UNOFFICAL WEBSITE COPY

MATERIAL ESTIMATE FOR LOCATION 4

212001	UNDERCUT EXCAVATION, PATCHING	27.00 C.Y.
302005	GRADED AGGREGATE BASE COURSE, TYPE B	93.00 TON
302008	GRADED AGGREGATE BASE COURSE, TYPE B, PATCHING	240.00 C.Y.
401636	COLD RECYCLED BITUMINOUS PAVEMENT	271,822.00 SY-IN
401667	SUPERPAVE, BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22 PATCHING	745.00 TON
401696	ENTRANCE, DRIVEWAY AND INTERSECTING STREET PAVING SURCHARGE	299.00 TON
401713	EMULSIFIED ASPHALT	113,997.00 GAL
401801	WMA, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 64-22 (CARBONATE STONE)	6,980.00 TON
401830	WMA, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 70-22 (NON- CARBONATE STONE)	7,730.00 TON
406002	HOT-MIX PATCHING, CONCRETE	21,600.00 SY-IN
705002	P.C.C. SIDEWALK, 6"	126.00 S.F.
732004	TOPSOIL (TON)	765.00 TON
734013	PERMANENT GRASS SEEDING, DRY GROUND	9,267.00 S.Y.
735534	SOIL RETENTION BLANKET MULCH, TYPE 4	9,267.00 S.Y.
743004	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	14.00 EA-DY
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	60.00 EA-DY
743052	** FLAGGER, SUSSEX COUNTY, STATE	1,800.00 HOUR
743064	** FLAGGER, SUSSEX COUNTY, STATE, OVERTIME	270.00 HOUR
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLASTIC	140.00 S.F.
748019	TEMPORARY MARKINGS, PAINT, 4"	208,500.00 L.F.
748026	TEMPORARY MARKINGS, PAINT SYMBOL/LEGEND	280.00 S.F.
748502	RAISED/RECESSED PAVEMENT MARKER	348.00 EACH
748506	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, 4"	104,250.00 L.F.
758000	REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT, CURB, SIDEWALK, ETC.	1,094.00 S.Y.
761001	BUTT JOINTS, HOT MIX	2,641.00 S.Y.
762001	SAW CUTTING, HOT MIX	710.00 L.F.

LOCATION 4 **DELMAR ROAD, SR54 (S76) FROM HMJ @ WALLER RD TO END OF SHOULDER 400' PAST COLUMBIA RD EXT. (END OF SUPER ELEVATION)**

LENGTH 8473.44 m 27800 L.F. AADT 4385

GENERAL IMPROVEMENTS

HM PATCHING - (CONCRETE), 4" COLD IN PLACE RECYCLING AND 2" WARM-MIX FULL WIDTH OVERLAY.

COMMENTS:

Please see attached sheets for comments

UNOFFICAL

MATERIAL ESTIMATE FOR LOCATION 4

762002	SAW CUTTING, CONCRETE, FULL DEPTH	4,090.00 L.F.

** DENOTES FIXED PRICE ITEM

WEBSITE COPY

LOCATION 4 DELMAR ROAD, SR54 (S76) FROM HMJ @ WALLER RD TO END OF SHOULDER 400' PAST COLUMBIA RD EXT. (END OF SUPER ELEVATION)

COMMENTS:

RECOMMENDED M.O.T. CASE NO. 6 (TRAVEL LANES).
. CASE NO. 2 (SHOULDERS).

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.

TYPICAL EXISTING PAVEMENT FOR HOT-MIX PATCHING (CONCRETE) IS 4 +/- INCHES OF HOT-MIX OVER 9 +/- INCHES OF P.C.C. CONCRETE.

GABC ITEM AND QUANTITY ARE FOR UNIMPROVED DRIVEWAYS.

ADDITIONAL P.C.C. REMOVAL AND 6" SIDEWALK ITEM QUANTITIES IS FOR CONCRETE DRIVEWAYS.

HOT-MIX OVERLAY NOTES*

USE 70-22 TYPE C(NC) WARM-MIX FOR TRAVEL LANES.
USE 64-22 TYPE C(C) WARM-MIX FOR SHOULDERS.

COLD IN PLACE RECYCLING OPERATIONS PHASING NOTES**
==========
THE COLD IN PLACE RECYCLING OPERATIONS SHALL BE COMPLETED IN THREE SEGMENTS. THE OPERATIONS SHALL BE COMPLETED AT THE DESIGNATED FULL WIDTH IN BOTH DIRECTIONS BEFORE MOVING ONTO THE NEXT SEGMENT.

THE CIPR OPERATION IS FOR THE TRAVEL LANES ONLY @ 22 FEET TO MATCH EXISTING WIDTH.

SEGMENTS SHALL BE DESIGNATED AS FOLLOWS;
1. WALLER RD - S502
2. S502 - S504
3. S504 - END OF SHOULDER

**THE PHASING APPLIES ONLY TO THE COLD IN PLACE RECYCLING OPERATION AND DOES NOT APPLY TO THE WARM-MIX OVERLAY AND REMAINING OPERATIONS OF THE PROJECT.

THE REMOVAL OF EXISTING RAISED PAVEMENT MARKERS SHALL BE INCIDENTAL TO THE COLD IN PLACE OPERATION.

THIS LOCATION SHALL MEET THE TOLERANCES OF SUBSECTION 401580 - RIDE QUALITY OF HOT-MIX PAVEMENT REQUIREMENTS, AS SPECIFIED IN THE SPECIAL PROVISIONS.

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CONTRACT QUANTITIES SUMMARY SHEET

212001	UNDERCUT EXCAVATION, PATCHING	47.00 C.Y.
302005	GRADED AGGREGATE BASE COURSE, TYPE B	293.00 TON
302008	GRADED AGGREGATE BASE COURSE, TYPE B, PATCHING	418.00 C.Y.
401636	COLD RECYCLED BITUMINOUS PAVEMENT	1,060,533.00 SY-IN
401665	SUPERPAVE, TYPE C HOT-MIX, 160 GYRATIONS, PG 64-22, PATCHING	30.00 TON
401667	SUPERPAVE, BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22 PATCHING	1,337.00 TON
401696	ENTRANCE, DRIVEWAY AND INTERSECTING STREET PAVING SURCHARGE	883.00 TON
401713	EMULSIFIED ASPHALT	432,486.00 GAL
401801	WMA, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 64-22 (CARBONATE STONE)	35,190.00 TON
401810	WMA, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22	150.00 TON
401830	WMA, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 70-22 (NON- CARBONATE STONE)	22,275.00 TON
402000	HOT-MIX BITUMINOUS CONCRETE AND/OR COLD-LAID BITUMINOUS CONCRETE (TRM)	10.00 TON
406001	HOT-MIX PATCHING	1,230.00 SY-IN
406002	HOT-MIX PATCHING, CONCRETE	37,600.00 SY-IN
705002	P.C.C. SIDEWALK, 6"	189.00 S.F.
705505	RESET STONE/BRICK SIDEWALK AND/OR STONE/BRICK ROADWAY	126.00 S.F.
708500	REPLACING CATCH BASIN GRATES	1.00 EACH
708504	REPLACING CATCH BASIN FRAMES	1.00 EACH
710001	ADJUSTING AND REPAIRING EXISTING DRAINAGE INLET	8.00 EACH
710002	ADJUSTING AND REPAIRING EXISTING MANHOLE	4.00 EACH
716502	CONVERTING EXISTING CATCH BASIN TO DRAINAGE INLET	1.00 EACH
720573	ADJUSTING GUARDRAIL HEIGHT	4,450.00 L.F.
732004	TOPSOIL (TON)	3,048.00 TON
734013	PERMANENT GRASS SEEDING, DRY GROUND	36,914.00 S.Y.
735534	SOIL RETENTION BLANKET MULCH, TYPE 4	36,914.00 S.Y.
743003	ARROWPANELS, TYPE C	60.00 EA-DY
743004	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	42.00 EA-DY
743007	** TRAFFIC OFFICERS	600.00 HOUR

UNOFFICAL WEBSITE COPY

CONTRACT QUANTITIES SUMMARY SHEET

743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	190.00 EA-DY
743052	** FLAGGER, SUSSEX COUNTY, STATE	5,850.00 HOUR
743064	** FLAGGER, SUSSEX COUNTY, STATE, OVERTIME	878.00 HOUR
744519	RELOCATION OF EXISTING JUNCTION WELL	1.00 EACH
746774	SUPPLY AND INSTALLATION OF LOOP DETECTOR WIRE	1,520.00 L.F.
746776	LOOP DETECTOR SPLICE	8.00 EACH
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLASTIC	1,434.00 S.F.
748019	TEMPORARY MARKINGS, PAINT, 4"	697,763.00 L.F.
748026	TEMPORARY MARKINGS, PAINT SYMBOL/LEGEND	2,839.00 S.F.
748027	PERMANENT PAVEMENT STRIPING, ALKYD-THERMOPLASTIC, 12"	120.00 L.F.
748502	RAISED/RECESSED PAVEMENT MARKER	1,386.00 EACH
748506	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, 4"	359,688.00 L.F.
758000	REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT, CURB, SIDEWALK, ETC.	1,901.00 S.Y.
760502	PAVEMENT MILLING, TAPER CUT	3,000.00 SY-IN
760507	PROFILE MILLING, HOT-MIX	19,556.00 SY-IN
761001	BUTT JOINTS, HOT MIX	7,801.00 S.Y.
762001	SAW CUTTING, HOT MIX	6,790.00 L.F.
762002	SAW CUTTING, CONCRETE, FULL DEPTH	7,153.00 L.F.
763000	INITIAL EXPENSE	LUMP SUM
763501	CONSTRUCTION ENGINEERING	1.00 L.S.
763643	MAINTENANCE OF TRAFFIC, ALL INCLUSIVE	LUMP SUM

** DENOTES FIXED PRICE ITEM

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