

# GENERAL NOTES



1. SEE CROSS SECTIONS FOR SPECIAL DITCHES AND BACKSLOPES.
2. THE REMOVAL OF BITUMINOUS SURFACING LESS THAN 6 INCH THICKNESS NOT ON RIGID TYPE BASE REMOVED IN CONJUNCTION WITH THE BASE SHALL BE REMOVED AS EARTH EXCAVATION. THE REMOVAL OF BITUMINOUS SURFACING ON A RIGID TYPE BASE OR A THICKNESS OF 6 INCHES OR MORE ON A FLEXIBLE BASE SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR PAVEMENT REMOVAL OF THE TYPE SPECIFIED.
3. THE ORIGINAL SOILS REPORT FOR THIS PROJECT WAS DONE ON MARCH 3, 1999 WITH ADDENDUMS ADDED ON DECEMBER 29, 1999, AND APRIL 5, 2002. THE SOILS REPORT AND PROFILES ARE AVAILABLE AT THE DISTRICT OFFICE FOR CONTRACTOR'S REVIEW.
4. ALL EMBANKMENT CONSTRUCTED OF COHESIVE SOIL SHALL BE CONSTRUCTED WITH NOT MORE THAN 110% OF OPTIMUM MOISTURE CONTENT, DETERMINED BY THE STANDARD PROCTOR TEST. COHESIVE SOIL SHALL BE DEFINED AS ANY SOIL WHICH CONTAINS GREATER THAN 10% PARTICLES BY WEIGHT PASSING THE 75 µm (#200 SIEVE). THE OPTIMUM MOISTURE LIMIT MAY BE WAIVED IN FREE-DRAINING GRANULAR MATERIAL WHEN APPROVED BY THE ENGINEER.
5. IF, DURING THE GRINDING OR RESURFACING OPERATIONS, THE EXISTING MAILBOXES BECOME A HINDRANCE, THE CONTRACTOR SHALL BE REQUIRED TO CAREFULLY REMOVE AND REINSTALL THE MAILBOXES AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR INCIDENTAL HOT-MIX ASPHALT SURFACING.
6. IT IS ESTIMATED THAT 46,000 CUBIC YARDS OF EARTH WILL BE HAULED TO THE JOB FROM OUTSIDE THE PROJECT LIMITS. A SHRINKAGE FACTOR OF 25% HAS BEEN USED.
7. ALL BORROW/WASTE/USE SITES MUST BE APPROVED BY THE DEPARTMENT PRIOR TO REMOVING ANY MATERIAL FROM THE PROJECT OR INITIATING ANY EARTH MOVING ACTIVITIES, INCLUDING TEMPORARY STOCKPILING OUTSIDE THE LIMITS OF CONSTRUCTION.
8. PREVIOUSLY PUGMILLED STOCKPILES OF "TYPE A" OLDER THAN 1 MONTH WILL NOT BE APPROVED FOR USE UNTIL A MOISTURE CHECK IS RUN TO VERIFY MOISTURE CONTENT. MATERIAL SHIPPED TO PROJECT WITHOUT BEING TESTED WILL NOT BE ACCEPTED.
9. THE CONTRACTOR SHALL SEED ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS. SEEDING CLASS 4 OR 2A SHALL BE USED, EXCEPT IN FRONT OF PROPERTIES WHERE THE GRASS WILL BE MOWED, THEN USE SEEDING, CLASS 1. CLASS 2A SHALL BE USED ON FRONT SLOPES AND DITCH BOTTOMS. CLASS 4 SHALL BE USED BEHIND TYPE A CUTTER. ON ALL BACKSLOPES AND AREAS BEHIND THE BACKSLOPE, AND BEYOND THE TOE OF FRONT SLOPE ON FILL SECTIONS WITHOUT DITCHES.
10. ALL CORRUGATED METAL PIPE (CMP) REMOVAL IS INCLUDED IN EARTH EXCAVATION.
11. ON FULL DEPTH PAVEMENT, SHOULDER WIDTHS OF 6 FT OR LESS MAY BE PLACED, AT THE CONTRACTOR'S OPTION, SIMULTANEOUSLY WITH THE ADJACENT TRAFFIC LANE FOR BOTH THE BINDER AND SURFACE COURSES, PROVIDED THE CROSS SLOPE OF BOTH THE PAVEMENT AND SHOULDER CAN BE SATISFACTORILY OBTAINED. THE SHOULDER WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD FOR HOT-MIX ASPHALT SHOULDERS OF THE THICKNESS SPECIFIED ON THE PLANS.
12. INSTALL RUMBLE STRIPS IN ALL SHOULDERS IN ACCORDANCE WITH STATE STANDARD 642006. RUMBLE STRIPS SHALL BE PLACED ON SHOULDERS ON BOTH SIDES OF THE PAVEMENT.
13. CONNECTING BANDS FOR CORRUGATED METAL PIPES SHALL BE METAL AND SHALL BE COATED WITH THE SAME MATERIAL AS THE PIPE SECTIONS. THE CONNECTING BANDS SHALL BE A MINIMUM OF 16" WIDE.
14. THE CONTRACTOR SHALL INSTALL A 18" DIAMETER FORMED OPENINGS IN THE CONCRETE MEDIAN SURFACE OF THE ISLAND AS DIRECTED BY THE ENGINEER. ALSO, A 4" DIAMETER FORMED OPENING SHALL BE INSTALLED IN EACH CORNER OF THE ISLAND 1' BEHIND THE BACK OF CURB. ALL EXISTING PAVEMENT SURFACES OF OTHER EXISTING OBSTRUCTIONS BENEATH THESE OPENINGS SHALL BE REMOVED BY THE CONTRACTOR. AFTER THE MEDIAN IS IN PLACE 18" OPENING SHALL CORED DOWN 4" AND FILLED WITH DIRT. ALL COSTS INCURRED SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER SQUARE FOOT FOR CONCRETE MEDIAN SURFACE, 4 INCH.
15. THE ISLANDS ON THIS PROJECT ARE SMALL ISLANDS AS SHOWN ON THE DETAIL OF INTERSECTION DETAILS SHEET IN THE PLANS.
16. PERMANENT SURVEY MARKERS, TYPE II, SHALL BE SET AT INTERVALS OF 1 MILE OR AS DIRECTED BY THE ENGINEER. BRIDGE OR CULVERT PROJECTS SHALL HAVE ONE SURVEY MARKER NEAR THE STRUCTURE. ESTIMATED: 2 EACH.
17. PERMANENT SURVEY MARKERS, TYPE II SHALL BE CAST-IN-PLACE AS SHOWN ON DISTRICT STANDARD 66.2. OPTION 2 WOULD BE TO INSTALL A VAULTED STYLE MONUMENT AS DESCRIBED BY NGS AS 3D MONUMENT (TOP SECURITY SLEEVE ROD MONUMENT), WITH INSTALLATION INSTRUCTIONS PROVIDED BY THE DISTRICT CHIEF OF SURVEYS. IF POURED IN PLACE, THE BOTTOM OF THE MARKER SHALL BE 5'-0" BELOW THE GROUND SURFACE.
18. THE PERMANENT SURVEY MARKERS, IF POSSIBLE, SHALL BE INSTALLED AT THE BEGINNING OF THE JOB AND PROTECTED THROUGHOUT.

19. THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

IL 2- MIXTURE USE(S)	SURFACE N 70	TOP BINDER	LOWER BINDER	SHOULDER	ROT. SHOULDER
P.G.	SBS - P G 64-28	SBS - P G 64-28	P G 64-22	P G 64 - 22	P G 64 - 22
DESIGN AIR VOIDS	4.0 @ N 70	4.0 @ N 70	4.0 @ N 70	3.0 @ N 70	2 @ N 70
MIXTURE COMPOSITION (GRADATION MIXTURE)	IL 9.5	IL 19.0	IL 19	IL 9.5	BAM OR IL 19
FRICTION AGGREGATE	0	N/A	N/A	C	N/A
20 YEAR ESAL	4.3	4.3	4.3	N/A	N/A

  

ROSCOE ROAD	Full Depth Pavement		Shoulders	
Mixture Uses(s):	Surface	Top Lift Binder	Top Lift	All Lower Lifts
PG:	SBS PC64-28	SBS PC 64-28	PG 64-22	PG 64-22
Design Air Voids	4.0 @ N50	4.0 @ N50	3 @ N50	2 @ N50
Mixture Composition (Gradation Mixture)	IL 9.5 or 12.5	IL 19.0	IL 9.5, 12.5, 9.5FC	BAM or IL 19.0
Friction Aggregate	C	N/A	C	N/A
20 Year ESAL	0.4	0.4	N/A	N/A
Mix Unit Weight	112lbs/sy/in		112lbs/sy/in	

\* On projects with less than 2000 tons Level Binder, Growth Curve will be used for Density and IL 9.5 may be used

20. THE CONTRACTOR WILL BE REQUIRED TO FURNISH 140 mm (5 1/2") HIGH BRASS STENCILS AS APPROVED BY ENGINEER AND INSTALL STATIONING AT 250' INTERVALS. STATIONING SHALL BE PLACED ON BOTH LANES OF 2-LANE HIGHWAYS AND ON THE OUTSIDE LANES IN BOTH DIRECTIONS ON 4-LANE HIGHWAYS. THE STATIONS SHALL BE PLACED 150 mm (6") INSIDE THE PAVEMENT MARKING EDGE SO THEY CAN BE READ FROM SHOULDER. THIS WORK WILL BE INCLUDED IN THE COST OF THE FINAL PAVEMENT SURFACE.
21. GROUNDWATER LEVELS MAY ENCROACH ON THE CONSTRUCTION LIMITS OF SEVERAL CULVERTS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTROL THE GROUNDWATER AND DIVERT THE STREAM FLOW DURING CONSTRUCTION IN ORDER TO KEEP THE CONSTRUCTION AREA FREE OF WATER. THE METHOD OF CONTROLLING THE WATER SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER AND THE COST SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER STRUCTURE OR CULVERT PIPE BEING INSTALLED UNDER ROADWAY.
22. PLACEMENT AND COMPACTION OF THE BACKFILL FOR PROPOSED ACROSS ROAD CULVERTS AND EXISTING ACROSS ROAD CULVERTS THAT ARE REMOVED SHALL CONFORM TO SECTION 502.10 OF THE STANDARD SPECIFICATIONS, EXCEPT THAT MATERIAL SHALL CONFORM TO ARTICLE 208.02 OF THE STANDARD SPECIFICATIONS, AND SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE STANDARD LABORATORY DENSITY. ANY MATERIAL CONFORMING TO THE REQUIREMENTS OF ARTICLE 1003.04 OR 1004.05 WHICH HAS BEEN EXCAVATED FROM THE TRENCHES SHALL BE USED FOR BACKFILLING THE TRENCHES. THE ENTIRE EXCAVATION, WITHIN 2 FEET OUTSIDE OF EACH SHOULDER, SHALL BE BACKILLED WITH TRENCH BACKFILL MATERIAL TO THE BOTTOM OF THE PROPOSED SUBGRADE. IMPERVIOUS MATERIAL SHALL BE USED ON THE OUTER 3 FEET AT EACH END OF THE CULVERT. THIS TRENCH BACKFILL MATERIAL WILL NOT BE MEASURED FOR PAYMENT, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE CLASS OF CONCRETE INVOLVED OR OTHER UNIT PRICE ITEM OF THE WORK FOR WHICH IT IS REQUIRED.
23. THE CONTRACTOR SHALL CLEAN OUT ALL ACROSS ROAD CULVERTS AND STREAM FLOWS TO THE RIGHT-OF-WAY LINES ON THE ENTIRE SECTION. THE COST SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR BOX CULVERT TO BE CLEANED.
24. THE COST OF MAKING SEWER CONNECTIONS TO EXISTING DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE STORM SEWER BEING INSTALLED.
25. THE NEW MANHOLE LIDS ON THIS PROJECT SHALL HAVE THE WORD "STORM", "SANITARY", OR "WATER" ON THE LID. THE WORD TO BE USED IS NOTED ON THE PLANS. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE WORD TO BE USED ON OTHER LIDS NOT NOTED ON THE PLANS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THIS WORK.
26. ALL PROPOSED MANHOLES ON THIS PROJECT SHALL BE CAST IN PLACE OR PRECAST. THIS WORK WILL BE PAID AT THE CONTRACT UNIT PRICE EACH FOR MANHOLE OF THE TYPE AND SIZE SPECIFIED.
27. THE PROPOSED CULVERT PIPES FOR ENTRANCES SHALL BE PLACED IN-LINE WITH THE EXISTING OR PROPOSED DITCH LINE.
28. LATERAL DISTANCES FROM CENTERLINE ON ALL INLETS, MANHOLES ARE TO THE CENTER OF THE INLET OR MANHOLE.
29. THE UNDERDRAIN SYSTEM SCHEDULED ON THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH SECTION 601 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. EXCEPT CA16 SHALL BE USED IN LIEU OF FA1 OR FA2 FOR TRENCH BACKFILL. THE CA16 SHALL BE ACCORDING TO ARTICLE 1004.05 AND ARTICLE 1004.01 OF THE STANDARD SPECIFICATIONS. EXCEPT IN THE TABLE, COURSE AGGREGATE GRADATION, THE PERCENT PASSING THE NO. 16 SIEVE SHALL BE 4±4%. THE TRENCH SHALL BE WRAPPED USING A FABRIC ENVELOPE MEETING THE REQUIREMENTS OF ARTICLE 1080.05 OF THE STANDARD SPECIFICATIONS. FABRIC ENCASING THE PIPE SHALL BE ELIMINATED.
30. EMBANKMENT QUANTITIES FOR THE CONSTRUCTION OF THE TRAFFIC BARRIER TERMINALS AS SHOWN IN THE PLANS ARE INCLUDED IN QUANTITIES FOR EARTH EXCAVATION.

31. ALL "AGGREGATE SUBGRADE IMPROVEMENT"(SECTION 303), SHALL BE COMPLETED IN ACCORDANCE WITH ARTICLES 311.04, 311.05, 311.05(A), 311.06 AND 311.07. ALL AGGREGATE SUBGRADE THICKNESSES EQUAL TO OR LESS THAN 12 INCHES SHALL BE CONSTRUCTED OF AGGREGATE OF CA02 GRADATION. ALL AGGREGATE SUBGRADE THICKNESSES GREATER THAN 12 INCHES SHALL BE CONSTRUCTED OF CS02.
32. IT IS ANTICIPATED THAT SEVERAL MAILBOXES WILL REQUIRE RELOCATION TO THE APPROACH SIDE OF THE ENTRANCES. WHEN THIS IS DONE, THE CONTRACTOR SHALL BE REQUIRED TO MOUNT THE MAILBOX ON A 4" X 4" WOOD POST 40-INCHES ABOVE THE SHOULDER SURFACE AND EXTENDING TO A MINIMUM OF 24 INCHES INTO THE EMBANKMENT. THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE EARTH EXCAVATION. THERE ARE ESTIMATED 8 MAILBOXES TO BE RELOCATED.
33. USE M-4 CURB ON ISLANDS WHEN LOCATED ADJACENT TO HIGH-SPEED TRAFFIC (50 MPH OR GREATER), EXCEPT USE M-6 ON ISLANDS WHERE TRAFFIC SIGNALS SUPPORTS, SIGN TRUSS SUPPORTS, OR ANY OTHER POST WITH A FOUNDATION GENERALLY LARGER THAN A STANDARD HIGHWAY SIGN IS PROPOSED. A STOP SIGN IS A STANDARD HIGHWAY SIGN.
34. ON LARGE AND INTERMEDIATE ISLANDS, VARIABLE CURB AND GUTTER FLAG WILL BE PAID FOR AS COMBINATION CONCRETE CURB AND GUTTER TYPE M-6.24.
35. ALL FRAMES AND GRATES OF DRAINAGE STRUCTURES TO BE REMOVED OR FILLED SHALL BE CAREFULLY SALVAGED AND SHALL REMAIN THE PROPERTY OF CONTRACTOR.
36. THE CONTRACTOR SHALL SUPPLY THE RESIDENT ENGINEER WITH THE MANUFACTURER'S INSTALLATION REQUIREMENTS FOR ALL TRAFFIC BARRIER TERMINALS BEING USED ON THIS PROJECT.
37. ONE 16d GALVANIZED NAIL SHALL BE USED TO TOE NAIL THE WOOD BLOCK OUT TO THE WOOD POST ON ALL TRAFFIC BARRIER TERMINAL TYPE I SPECIALS.
38. DELINEATORS SHALL BE INSTALLED AS SHOWN IN STANDARD 635001, EXCEPT THAT THE POST SHALL BE ROTATED 180-DEGREES AND ONLY METAL-BACKED DELINEATORS SHALL BE PERMITTED. DELINEATORS SHALL BE PLACED AT THE ENDS OF APPROACH GUARDRAIL TERMINAL SECTIONS, AND AT EACH HEADWALL OR END SECTION OF AN CULVERTS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR DELINEATORS.
39. PAVEMENT MARKING SHALL BE DONE ACCORDING TO STANDARD 780001, EXCEPT AS FOLLOWS:
  1. ALL WORDS, SUCH AS ONLY, SHALL BE 8 FEET HIGH.
  2. ALL NON-FREEWAY ARROWS SHALL BE THE LARGE SIZE.
  3. THE DISTANCE BETWEEN YELLOW NO-PASSING LINES SHALL BE 8 INCHES, NOT 7 INCHES, AS SHOWN IN THE DETAIL OF TYPICAL LANE AND EDGE LINES.
  4. CENTERLINE SKIP DASH PAVEMENT MARKING ON MULTI-LANE DIVIDED, MULTI-LANE UNDIVIDED, AND ONE-WAY ROADWAY SHALL BE ACCORDING TO DISTRICT STANDARD 411.
40. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COLLECTING AND MAINTAINING AN ELECTRONIC LOG OF ALL STAKEOUT SURVEY THAT IS PERFORMED ON THE JOB, EITHER BY HIM/HER OR ANY SUB-CONTRACTOR PERFORMING THE STAKEOUT. UPON REQUEST, ALL LOGS SHALL BE SUBMITTED TO THE DEPARTMENT. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THIS WORK, BUT SHALL BE CONSIDERED INCLUDED IN THE COST FOR CONSTRUCTION LAYOUT.
41. CADD DATA WILL BE AVAILABLE TO CONTRACTORS AND CONSULTANTS WORKING ON THIS PROJECT. THIS INFORMATION WILL BE PROVIDED UPON REQUEST AS MICROSTATION CADD FILES AND GEOPAK COORDINATE GEOMETRY FILES ONLY. IF DATA IS REQUIRED IN OTHER FORMATS IT WILL YOUR RESPONSIBILITY TO MAKE THESE CONVERSIONS. IF ANY DISCREPANCY OR INCONSISTENCY ARISES BETWEEN THE ELECTRONIC DATA AND THE INFORMATION ON THE HARD COPY, THE INFORMATION ON THE HARD COPY SHOULD BE USED. CONTACT THE DISTRICT'S PROJECT ENGINEER TO REQUEST THESE FILES.
42. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A DESCRIPTION OF LOCATION, ELEVATION, AND COORDINATES FOR EACH PERMANENT SURVEY MARKER. THE HORIZONTAL COORDINATES MUST BE DERIVED BY GPS AND THE ELEVATION DERIVED USING AN ELECTRONIC LEVEL. THE META DATA, SUCH AS THE GEOID USED, (NGS ADJUSTMENT IE: 97 HARN, 03, 07), AND THE BASE POINT(S) NAME OR NUMBER SHALL BE SUBMITTED ALONG WITH A COMPLETE COLLECTION LOG. IF COLLECTED USING RTK METHOD, IT WILL REQUIRE EITHER 3 COLLECTIONS (AVERAGED) FROM 2 DIFFERENT BASES, OR A MINIMUM OF 3 COLLECTIONS (AVERAGED), AT LEAST 2 HOURS APART, FROM THE SAME BASE. IF USING A CORS TYPE NETWORK, THE COLLECTION PROCEDURE SHALL INCLUDE LOCALIZING WITH CHECK SHOTS ON AT LEAST 2 DIFFERENT HARN MONUMENTS BOTH BEFORE AND AFTER COLLECTION. THE LEVEL CIRCUIT SHALL BE RUN FROM FURNISHED MARK TO FURNISHED MARK AND THEN ADJUSTED. THE ERROR OF CLOSURE SHALL BE SUBMITTED WITH THE ELECTRONIC LEVEL NOTES IN A RECOGNIZED FORMAT APPROVED BY THE ENGINEER AND/OR CHIEF OF SURVEYS. THE ENGINEER SHALL SUBMIT THIS INFORMATION TO THE DISTRICT CHIEF OF SURVEYS.

## LEGEND:

BOXED ITEMS INDICATE WORK NOT PAID FOR SEPARATELY, BUT INCLUDED AS PART OF ANOTHER PAY ITEM OR COST ASSOCIATED WITH THE CONTRACT.