- 1. SEE CROSS SECTIONS FOR SPECIAL DITCHES AND BACKSLOPES.
- 2. THE REMOVAL OF BITUMINOUS SURFACING LESS THAN 6 INCH THICKNESS NOT ON A 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 REMOVED IN CONJUNCTION WITH THE BASE SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR PAVEMENT REMOVAL OF THE TYPE SPECIFIED.
- 3. THE FINAL TOP FOUR INCHES OF SOIL IN ANY RIGHT-OF-WAY AREA DISTURBED BY THE CONTRACTOR MUST BE CAPABLE OF SUPPORTING VEGETATION. THE SOIL MUST BE FROM THE A HORIZON (ZERO TO 2' DEEP) OF SOIL PROFILES OF LOCAL SOILS.
- 4. IT IS ESTIMATED THAT 17,247 CUBIC YARDS OF EARTH WILL BE HAULED TO THE JOB FROM OUTSIDE THE PROJECT LIMITS. A SHRINKAGE FACTOR OF 25% HAS BEEN USED.
- 5. ALL BORROW/WASTE/USE SITES MUST BE APPROVED BY THE DEPARTMENT PRIOR TO REMOVING ANY MATERIAL FROM THE PROJECT OR INITIATING ANY EARTHMOVING ACTIVITIES, INCLUDING TEMPORARY STOCKPILING OUTSIDE THE LIMITS OF
- 6. 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 PROJECTS WITHOUT BEING TESTED WILL NOT BE
- 7. 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 THE 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 BACKFILLED 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.
- 8. THE SUBGRADE ON THIS PROJECT, EXCLUSIVE OF ROCK CUT AREAS IS SCHEDULED TO BE IMPROVED TO A 12" DEPTH ACCORDING TO MECHANISTIC PAVEMENT DESIGN. THE AREAS SCHEDULED TO BE IMPROVED TO A DEPTH GREATER THAN 12" ARE ESTIMATED BASED ON THE ORIGINAL GEOTECHNICAL INVESTIGATION. THE SUBGRADE SHALL BE PROCESSED IN ACCORDANCE WITH ARTICLE 301.04 OF THE STANDARD SPECIFICATIONS BEFORE THE ENGINEER SHALL DETERMINE THE LIMITS AND THE ADDITIONAL THICKNESS OF IMPROVEMENT REQUIRED, IF ANY. ANY ADDITIONAL UNDERCUTTING REQUIRED AFTER THIS EVALUATION SHALL BE PAID FOR AS EARTH EXCAVATION.
- 9. 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 CAO2 GRADATION. ALL AGGREGATE SUBGRADE THICKNESSES GREATER THAN 12 INCHES SHALL BE CONSTRUCTED OF CSO2.
- 10. 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 M (\*200 SIEVE). THE 110% OF OPTIMUM MOISTURE LIMIT MAY BE WAIVED IN FREE-DRAINING GRANULAR MATERIAL WHEN APPROVED BY THE ENGINEER.
- 11. THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

	6 INCH FULL DEPTH PAVEMENT OR TEMPORARY PAVEMENT		RESURFACING / COMPOSITE WIDENING **		SHOULDERS •••		MULTIUSE PATH
MIXTURE USES(S)	2" SURFACE	4" BINDER	2" SURFACE	1" LEVEL BINDER	2" TOP LIFT	LOWER LIFTS	2" SURFACE
PG:	PG 64-22	PG 64-22	PG 64-22	PG 64-22	PG 64-22	PG 64-22	PG 64-22
DESIGN AIR VOIDS	4.0 @ N50	4.0 @ N50	4.0 @ N50	4.0 @ N50	3 @ N50	2 @ N50	3.0 @ N50
MIXTURE COMPOSITION (GRADATION	IL 9.5	IL 19.0	IL 9 <b>.</b> 5	IL 9.5 or IL 9.5FG •	IL 9.5, 9.5FG	BAM or IL 19.0	IL 9.5FG •
FRICTION ANGLE	D	N/A	D	N/A	U	N/A	N/A
20 YEAR ESAL	0.1	0.1	0.9	0.9	N/A	N/A	0
MIX UNIT WEIGHT	112 LBS/SY/IN		112 LBS/SY/IN		112 LBS/SY/IN		

- ON PROJECTS WITH LESS THAN 2000 TONS OF LEVELING BINDER, GROWTH CURVE WILL BE USED FOR DENSITY AND IL 9.5 MAY BE USED.
- \*\* SEE TYPICAL SECTIONS FOR PCC THICKNESS.
- \*\*\* WHEN REQUIRED.
- 12. THE CONTRACTOR WILL BE REQUIRED TO FURNISH 5-1/2" HIGH BRASS STENCILS AS APPROVED BY THE 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 6" INSIDE THE PAVEMENT MARKING EDGE SO THEY CAN BE READ FROM THE SHOULDER. THIS WORK WILL BE INCLUDED IN THE COST OF THE FINAL PAVEMENT SURFACE.
- 13. REFLECTIVE CRACK CONTROL SHALL BE PLACED ON THE EXISTING SURFACE PRIOR TO ANY RESURFACING, UNLESS PAVEMENT IS MILLED THEN IT WILL BE PLACED ON THE BINDER COURSE.

## **GENERAL NOTES**

- 14. A NATIONWIDE 404 PERMIT HAS BEEN ISSUED FOR THIS PROJECT AND THE CONDITIONS OF THAT PERMIT MUST BE ADHERED TO.
- 15. THE NEW NUMBERS FOR THE STRUCTURE GOING OVER IL 5 WILL BE 081-0176 AND THE ASSOCIATED MSE WALLS WILL BE
- 16. THE ADDITIONAL THICKNESS OF PROPOSED PAVEMENT REQUIRED TO MATCH THE BRIDGE APPROACH PAVEMENT, SHOWN IN STANDARD 420401, SHALL BE INCLUDED IN THE COST OF THE PROPOSED PAVEMENT AND NOT PAID FOR SEPARATELY.
  - THE ADDITIONAL THICKNESS OF PROPOSED PAVEMENT REQUIRED TO MATCH EXISTING PAVEMENT, SHOWN IN THE TYPICAL SECTIONS, SHALL BE INCLUDED IN THE COST OF THE PROPOSED PAVEMENT AND NOT PAID FOR SEPARATELY.
- 17. BARRIER WALL MARKERS, TYPE B SHALL BE INSTALLED ON THE TOP AND SIDE OF PARAPET WALLS. THE MARKERS SHALL BE ACCORDING TO STANDARD 635011 AND THE COLOR AND SPACING ACCORDING TO STANDARD 635006, EXCEPT THE MINIMUM IS 2
- 18. PRECAST GRATED INLET SPECIALS MAY BE SUBSTITUTED IN LIEU OF CAST-IN-PLACE UNITS WITH FLOORS UPON RECEIPT OF MANUFACTURER'S SHOP DRAWINGS WHICH HAVE BEEN APPROVED BY THE DEPARTMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING NECESSARY DIMENSIONS ON THE EXISTING DRAINAGE STRUCTURE REQUIRED FOR THE ATTACHMENT. NO ADDITIONAL COST FOR THIS SUBSTITUTION SHALL BE ALLOWED.
- 19. THE PROPOSED PIPES FOR ENTRANCES AND SIDE ROADS SHALL BE PLACED IN LINE WITH THE EXISTING OR PROPOSED DITCH
- 20.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 18" WIDE.
- 21.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 AN ESTIMATED 15 MAILBOXES TO BE RELOCATED.
- 22.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 THE INCIDENTAL HOT-MIX ASPHALT SURFACING.
- 23.ALL FRAMES AND GRATES OF DRAINAGE STRUCTURES TO BE REMOVED OR FILLED SHALL BE CAREFULLY SALVAGED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.
- 24. THE COST OF MAKING SEWER CONNECTIONS TO EXISTING DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE VARIOUS CONTRACT UNIT PRICES FOR STORM SEWER.
- 25.LATERAL DISTANCES FROM THE CENTERLINE ON ALL INLETS ARE TO THE FACE OF THE INLET.
- 26. 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.
- 27.ALL PROPOSED MANHOLES ON THIS PROJECT SHALL BE CAST IN PLACE OR PRECAST. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR MANHOLE OF THE TYPE AND SIZE SPECIFIED.
- 28. THE CONTRACTOR SHALL DETERMINE FLOWLINES OF EXISTING SEWER LINES WHICH ARE SHOWN ON THE PLANS AS ESTIMATED OR UNKNOWN. THIS INFORMATION IS NECESSARY BEFORE ORDERING INLETS AND MANHOLES.
- 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 CA 16 SHALL BE USED IN LIEU OF FA 1 OR FA 2 FOR TRENCH BACKFILL. THE CA 16 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 FURNISHED EXCAVATION.
- 31. THE CONTRACTOR SHALL SUPPLY THE RESIDENT ENGINEER WITH THE MANUFACTURER'S INSTALLATION REQUIREMENTS FOR THE TYPE OF STEEL PLATE BEAM GUARDRAIL TERMINAL TYPE 1 SPECIAL (TANGENT).
- 32.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.
- 33.DELINEATORS SHALL BE INSTALLED AS SHOWN IN STANDARD 635001, EXCEPT THAT THE POST SHALL BE ROTATED 180 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 AR CULVERTS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR DELINEATORS.
- 34. 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.
- 35.PAVEMENT MARKING SHALL BE DONE ACCORDING TO STANDARD 780001, EXCEPT AS FOLLOWS:

SCALE:

- ALL WORDS, SUCH AS ONLY, SHALL BE 8 FEET HIGH.
  ALL NON-FREEWAY ARROWS SHALL BE THE LARGE SIZE.
  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.
- CENTERLINE SKIP DASH PAVEMENT MARKING ON MULTI-LANE DIVIDED, MULTI-LANE UNDIVIDED, AND ONE-WAY ROADWAY SHALL BE ACCORDING TO DISTRICT STANDARD 41.1.

USER NAME = espina	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = 9/18/2013	DATE - 9/18/2013	REVISED -
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