PROJECT REFERENCE NO. R-2552AA /R-2552AB

SHEET NO. I–A

ROADWAY DESIGN ENGINEER

SHEET NUMBER SHEET TITLE SHEET - R-2552AA / R-2552AB INDEX OF SHEETS, GENERAL NOTES AND LIST OF STANDARDS - R-2552AA / R-2552AB CONVENTIONAL SYMBOLS - R-2552AA / R-2552AB PART 1 R-2552AA TITLE SHEET- R-2552AA **SURVEY CONTROL SHEETS** 1-A THROUGH 1-B 1-C **CENTERLINE COORDINATE LIST** PAVEMENT SCHEDULE, TYPICAL SECTIONS, WEDGING DETAILS, UNDERCUT DETAILS, AND 2 THROUGH 2-F DETAILS SHOWING MILLING AND FILLING **EXISTING CONCRETE RUMBLE STRIPS ON I-40** 2-G THROUGH 2-H STRUCTURE TYPICAL SECTIONS 2-I THROUGH 2-J **BRIDGE SKETCH DETAILS** -Y4- DETOUR (CORNWALLIS ROAD) 2-K DETAIL OF IMPROVEMENTS TO THE INTERSECTION OF WHITE OAK RD. AND HEBRON CHURCH RD. **DITCH DETAILS** 2-M THROUGH 2-N DETAIL OF TEMPORARY MEDIAN CROSSOVERS ON I-40 2-0 TRAFFIC FORCASTS 2-Q DETAIL OF GUIDE FOR GRADING SUBGRADE 2-R THROUGH 2-S DETAILS OF REINFORCED BRIDGE APPROACH FILLS DETAIL OF METHOD OF SHOULDER CONSTRUCTION DETAIL OF ASPHALT SHOULDERS MILLED RUMBLE STRIPS 2-V DETAIL OF CONCRETE PAVEMENT JOINTS **DETAIL OF EXPANSION JOINT LAYOUT** 2-W 2-X DETAIL OF DOWEL ASSEMBLY 2-Y THROUGH 2-Z DETAIL OF CONCRETE SHOULDERS RUMBLE STRIPS DETAIL OF DRAINAGE INSTALLTION IN SHOULDER 2-AA BERM GUTTER - DRAINAGE STR. NO. 76 DETAIL OF ENDWALL AND SLUICE GATE FOR **375MM TO 1200MM PIPE** 2-AC **DETAIL OF CONCRETE RISER** DETAIL OF REBAR TRASH RACK & BLOCKOUT TRASH RACK 2-AD 2-AE DETAIL OF DROP INLET INSTALLTION IN **EXPRESSWAY GUTTER** 2-AF THROUGH 2-AI DETAILS OF PRECAST REINFORCED CONCRETE DETAIL OF SINGLE FACED BARRIER PIER PROTECTION WITH 75MM COVER **DETAILS OF GUARDRAIL INSTALLATION** 2-AK THROUGH 2-AN 2-AO THROUGH 2-AP DETAILS OF STRUCTURE ANCHOR UNITS 2-AQ DETAIL OF GUARDRAIL ANCHOR UNIT TYPE B-77 2-AR THROUGH 2-AW DETAILS OF CABLE GUIDERAIL **DETAIL OF 14.0M MEDIAN GUIDERAIL TRANSITIONS** 2-AWA WITH SUPERELEVATION AND / OR FALSE SUMPS 2-AX DETAIL OF STANDARD HAZARDOUS SPILL BASIN 2-AY DRAWDOWN STRUCTURE DETAIL 2-AZ DETAIL OF OUTLET STRUCTURE 2-BA THROUGH 2-BD STORMWATER DETENTION/HAZARDOUS SPILL DETAILS OF PAVEMENT TYPES AND LIMITS AT EXIT AND ENTRANCE RAMPS SUMMARY OF QUANTITIES 3 (3 SHEETS 3-A THROUGH'3-J **SUMMARY OF DRAINAGE QUANTITIES** SUMMARIES OF SHOULDER DRAINS, SHOULDER BERM GUTTER, REMOVAL OF EXISTING ASPHALT PAVEMENT, EXPRESSWAY GUTTER, BERM DITCH CONST., BREAKING OF EXISTING ASPHALT PAVEMENT, AND WOVEN WIRE FENCE 3-K 3-L THROUGH 3-M **GUARDRAIL SUMMARY** DOUBLE FACED CABLE GUIDERAIL SUMMARY 3-O **SUMMARY OF EARTHWORK** PARCEL INDEX SHEET 4 THROUGH 16 **PLAN SHEETS** 17 THROUGH 43 PROFILE SHEETS TRAFFIC CONTROL PLANS - R-2552AA / R-2552AB TCP-1 THROUGH TCP-47 PM-1 THROUGH PM-16 PAVEMENT MARKING PLANS - R-2552AA / R-2552AB EC-1 THROUGH EC-32 **EROSION CONTROL PLANS**

REFORESTATION PLANS

SIGNING PLANS - R-2552AA / R-2552AB

UTILITY CONSTRUCTION PLANS

UTILITIES BY OTHERS PLANS

STRUCTURE PLANS

INDEX OF SHEETS

PART 2 R-2552AB TITLE SHEET- R-2552AB 1-A THROUGH 1-B SURVEY CONTROL SHEETS CENTERLINE COORDINATE LIST PAVEMENT SCHEDULE, TYPICAL SECTIONS, WEDGING DETAILS, AND UNDERCUT DETAILS 2 THROUGH 2-C 2-D DRAINAGE DITCH DETAILS 2-E DETAIL OF CONCRETE RISER 2-F DETAIL OF REBAR TRASH RACK AND BLOCKOUT 2-G DETAIL OF ENDWALL AND SLUICE GATE FOR **375MM TO 1200MM PIPE** 2-H DETAIL OF DRAWDOWN STRUCTURE DETAIL OF OUTLET STRUCTURE (CONCRETE **2-I** RISER W/ TRASH RACK) DETAIL OF STORMWATER DETENTION / 2-J THROUGH 2-L HAZARDOUS SPILL BASIN 2-M DETAIL OF GUIDE FOR GRADING SUBGRADE (INTERSTATE AND FREEWAY) 2-N THROUGH 2-O DETAIL OF REINFORCED BRIDGE APPROACH FILLS DETAIL OF ASPHALT SHOULDER MILLED **RUMBLE STRIPS** 2-Q THROUGH 2-T DETAIL OF GUARDRAIL INSTALLATION 2-U THROUGH 2-V **DETAIL OF STRUCTURE ANCHOR UNITS** (GUARDRAIL ANCHOR UNIT, TYPE III) 2-W THROUGH 2-BB DETAIL OF CABLE GUIDERAIL DETAIL OF 14.0M MEDIEAN GUIDERAIL TRANSITIONS WITH SUPERELEVATION AND / OR FALSE SUMPS 2-CC 2-DD **DETAIL OF INTERSECTIONS** 3-A THROUGH 3-F SUMMARY OF DRAINAGE (FOR PIPES 1200MM AND UNDER) SUMMARY OF DRAINAGE (FOR PIPES 1350MM 3-G AND OVER) 3-H GUARDRAIL AND GUIDERAIL SUMMARY 3-1 SUMMARY OF 1200MM WOVEN WIRE FENCE SUMMARY OF SHOULDER DRAINS, SUMMARY OF INCIDENTAL MILLING ASPHALT PAVEMENT AND SUMMARY OF ASPHALT PAVEMENT REMOVAL 3-J **SUMMARY OF EARTHWORK** PARCEL INDEX SHEET 4 THROUGH 15 PLAN SHEETS 16 THROUGH 33 PROFILE SHEETS EC-1 THROUGH EC-28 **EROSION CONTROL PLANS** REFORESTATION DETAILS SIG-1 THROUGH SIG-19 TRAFFIC SIGNAL PLANS UC-1 THROUGH UC-9 **UTILITY CONSTRUCTION PLANS** UO-1 THROUGH UO-5 **UTILITIES BY OTHERS** C-1 THROUGH C-8 **CULVERT PLANS** S-1 THROUGH S-170 STRUCTURE PLANS R-2552AA/R-2552AB X-A **CROSS SECTIONS INDEX- R-2552AA** X-B THROUGHX-D CROSS SECTION SUMMARY - R-2552AA X-1 THROUGH X-99 CROSS SECTIONS - R-2552AA X-1 THROUGH X-2 **CROSS SECTION SUMMARY - R-2552AB** X-3 THROUGH X-128 **CROSS SECTIONS - R-2552AB**

2002 SPECIFICATIONS EFFECTIVE: 01-15-02

GRADING AND SURFACING OR RESURFACING AND WIDENING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES ARE SHOWN, THE PROFILES SHOWN DENOTE THE TOP ELEVATION OF THE EXISTING PAVEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PLACED. GRADE LINES MAY BE ADJUSTED BY THE ENGINEER IN ORDER TO SECURE A

CLEARING:

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY

THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE AREAS IN THE PLANS DESIGNATED SAFETY CLEARING. THE LIMITS ARE AS SHOWN AND THE CLEARING AND GRUBBING IS CONSIDERED A PART OF THE LUMP SUM ITEM FOR "CLEARING AND GRUBBING".

SUPERELEVATION:

ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.04 OR 225.05 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS. SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL

SHOULDER CONSTRUCTION:

ASPHALT AND EARTH SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.01 OR 560.02. CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH DETAILS IN PLANS.

SIDE ROADS:

THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE SUITABLE CONNECTIONS WITH ALL ROADS, STREETS, AND DRIVES ENTERING THIS PROJECT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS

BERM DITCHES:

BERM DITCHES SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 240.01 AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER

UNDERDRAINS:

UNDERDRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 815.03 AT LOCATIONS DIRECTED BY THE ENGINEER.

SHOULDER DRAINS:

SHOULDER DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 816.02 OR 816.03 AND DETAILS IN PLANS AT LOCATIONS DIRECTED BY THE ENGINEER.

GUARDRAIL:

THE GUARDRAIL LOCATIONS SHOWN ON THE PLANS MAY BE ADJUSTED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHOULD CONSULT WITH THE ENGINEER PRIOR TO ORDERING GUARDRAIL MATERIAL

TEMPORARY SHORING:

SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC NOT SHOWN ON THE PLANS WILL BE PAID FOR AT THE CONTRACT PRICE FOR "TEMPORARY SHORING" OR "TEMPORARY SHORING-BARRIER SUPPORTED" DEPENDING UPON THE LOCATION OF THE SHORING.

END BENTS:

THE ENGINEER SHALL CHECK THE STRUCTURE END BENT PLANS, DETAILS, AND CROSS-SECTION PRINCE A DESCRIPTION OF THE SLOPE STAKES FOR THE EMBANKMENT OR EXCAVATION APPROACHING A BRIDGE.

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE:
PROGRESS ENERGY (DISTRIBUTION)
SPRINT CAROLINA TELEPHONE AND TELEGRAPH
TIME WARNER TELECOMMUNICATIONS **BELLSOUTH COMMUNICATIONS** CARDINAL PIPELINE PROGRESS ENERGY (TRANSMISSION) CITY OF RALEIGH JOHNSTON COUNTY

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS, EXCEPT AS SHOWN ON THE PLANS.

RIGHT-OF-WAY MARKERS:

ALL RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED BY OTHERS.

EFF. 01-15-02 REV.11-23-04

ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch N. C. Department of Transportation - Raleigh, N. C., Dated January 15, 2002 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO. TITLE

DIVISION 2 - EARTHWORK 200.03 Method of Clearing - Method III 225.02 Guide for Grading Subgrade - Secondary and Local

225.03 Deceleration and Acceleration Lanes

225.04 Method of Obtaining Superelevation - Two Lane Pavement

225.05 Method of Obtaining Superelevation - Divided Highways

225.07 Grading for False Cut at Grade Separations 225.08 Earth Berm Median Pier Protection

225.09 Guide for Shoulder and Ditch Transition at Grade Separations

240.01 Guide for Berm Ditch Construction

DIVISION 3 - PIPE CULVERTS

300.01 Method of Pipe Installation - Method 'A' 310.10 Driveway Pipe Construction

DIVISION 5 - SUBGRADE, BASES AND SHOULDERS

560.01 Method of Shoulder Construction - High Side of Superelevated Curve - Method I 560.02 Method of Shoulder Construction - High Side of Superelevated Curve - Method II

DIVISION 6 - ASPHALT BASES AND PAVEMENTS 610.03 Guide for Paving Shoulders Under Bridges - Method III

DIVISION 7 - CONCRETE PAVEMENTS AND SHOULDERS

700.04 Concrete Pavement Header Board 700.05 Tying Proposed Pavement to Existing

710.01 Concrete Pavement - Station Marking

DIVISION 8 - INCIDENTALS

815.03 Pipe Underdrain and Blind Drain 816.01 Concrete Pads - for Shoulder Drain Installation

816.02 Aggregate Shoulder Drain

816.04 Markers for Drainage Structure and Concrete Pad

820.04 Drain Installation in Shoulder Berm Gutter 838.01 Conc. Endwall for Single and Double Pipe Culverts - 375mm thru 1200mm Pipe 90 Skew

838.11 Brick Endwall for Single and Double Pipe Culverts - 375mm thru 1200mm Pipe 90 Skew

838.21 Reinforced Concrete Endwall - for Single 1350mm/1400mm Pipe 90 Skew

838.27 Reinforced Concrete Endwall - for Single 1500mm Pipe 90 Skew

838.33 Reinforced Concrete Endwall - for Single 1650mm Pipe 90 Skew

838.45 Notes for Reinforced Concrete Endwall - Std. Dwg 838.21 thru 838.40 838.51 Reinforced Brick Endwall - for Single 1350mm/1400mm Pipe 90 Skew

838.57 Reinforced Brick Endwall - for Single 1500mm Pipe 90 Skew

838.63 Reinforced Brick Endwall - for Single 1650mm Pipe 90 Skew

838.75 Notes for Reinforced Brick Endwall - Std. Dwg 838.51 thru 838.70

838.80 Precast Endwalls - 300mm thru 1800mm Pipe 90 Skew

840.00 Concrete Base Pad for Drainage Structures

840.04 Concrete Catch Basin with Single and Multiple Pipes - 300mm thru 1200mm Pipe 840.05 Brick Catch Basin with Single and Multiple Pipes - 300mm thru 1200mm Pipe

840.14 Concrete Drop Inlet - 300mm thru 750mm Pipe

840.15 Brick Drop Inlet - 300mm thru 750mm Pipe

840.16 Drop Inlet Frame and Grates - for use with Std. Dwg 840.14 and 840.15

840.17 Concrete Median Drop Inlet Type 'A' - 300mm thru 1800mm Pipe

840.18 Concrete Median Drop Inlet Type 'B' - 300mm thru 900mm Pipe 840.19 Concrete Median Drop Inlet Type 'D' - 300mm thru 900mm Pipe

840.20 Frames and Wide Slot Flat Grates

840.22 Frames and Wide Slot Sag Grates

840.25 Anchorage for Frames - Brick or Concrete

840.26 Brick Median Drop Inlet Type 'A' - 300mm thru 1800mm Pipe

840.27 Brick Median Drop Inlet Type 'B' - 300mm thru 900mm Pipe 840.28 Brick Median Drop Inlet Type 'D' - 300mm thru 900mm Pipe

840.29 Frames and Narrow Slot Flat Grates

840.31 Concrete Junction Box - 300mm thru 1650mm Pipe 840.32 Brick Junction Box - 300mm thru 1650mm Pipe

840.34 Traffic Bearing Junction Box - for Use with Pipes 1050mm and Under 840.41 Spring Box - Concrete or Brick

840.45 Precast Drainage Structure

840.46 Traffic Bearing Precast Drainage Structure

840.66 Drainage Structure Steps

840.71 Concrete and Brick Pipe Plug

840.72 Pipe Collar 846.01 Concrete Curb, Gutter and Curb & Gutter

850.01 Concrete Paved Ditches

850.10 Guide for Berm Drainage Outlet - 400mm and 450mm Pipe

850.11 Guide for Berm Drainage Outlet - 600mm and 800mm Pipe

852.01 Concrete Islands

862.01 Guardrail Placement 866.02 Woven Wire Fence - with Wood Post

876.01 Rip Rap in Channels

876.02 Guide for Rip Rap at Pipe Outlets

876.04 Drainage Ditches with Class 'B' Rip Rap

RF-1 THROUGH RF-2

UC-1 THROUGH UC-7

UO-1 THROUGH UO-9

S-1 THROUGH S-258

SIGN-1 THROUGH SIGN-43