

| PROJECT REFERENCE NO. | SHEET N |
|-----------------------|---------|
| R-4904 | I-A |

INDEX OF SHEETS

STANDARD DRAWINGS

GENERAL NOTES

| | | 2012 SPECIFICATIONS |
|------------------|---|--|
| SHEET NUMBER | SHEET | EFFECTIVE: 01-17-2012 REVISED: 07-30-2012 |
| 1 | TITLE SHEET | GRADE LINE: GRADING AND SURFACING: |
| 1 - A | INDEX OF SHEETS | THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED |
| 1 –B 2 –2 A | CONVENTIONAL SYMBOLS PAVEMENT SCHEDULE, | SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. GRADE LINES MAY BE ADJUSTED AT THEIR BEGINNING AND ENDING AND AT STRUCTURES AS DIRECTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN. |
| | TYPICAL SECTIONS, AND WEDGING DETAILS | GRADING: |
| 3 | SUMMARY OF QUANTITIES | THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED OR FUTURE SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. GRADE LINES MAY BE ADJUSTED AT THEIR BEGINNING AND ENDING AND AT STRUCTURES AS DIRECTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN. |
| J | SUMMART OF QUANTITIES | CLEARING: |
| 3A | SUMMARY OF GUARDRAIL, EARTHWORK SUMMARY, | CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II. |
| | AND ASPHALT PAVEMENT REMOVAL SUMMARY | SUPERELEVATION: |
| | NEWOVAL SUMMANT | ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.04 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS. SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. |
| 4 | PLAN SHEET | SHOULDER CONSTRUCTION: |
| 5 | PROFILE SHEET | ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.01 |
| TMP-1 THRU TMP-5 | TRAFFIC CONTROL PLANS | SIDE ROADS: |
| EC-1 THRU EC-4 | EROSION CONTROL PLANS | 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 INVOLVED. |
| | | DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. 848.03 AT LOCATIONS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER. |
| X-1 THRU X-19 | CROSS-SECTIONS | STREET TURNOUT: |
| X 1 1111(0 X 13 | 01033 32011013 | STREET RETURNS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 848.04 USING THE RADII NOTED ON PLANS. |
| | | 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. |
| | | SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC WILL BE PAID FOR AS "EXTRA WORK" IN ACCORDANCE WITH SECTION 104-7. |
| | | SUBSURFACE PLANS: |
| | | NO SUBSURFACE PLANS ARE AVAILABLE ON THIS PROJECT. THE CONTRACTOR SHOULD MAKE HIS OWN INVESTIGATION AS TO THE SUBSURFACE CONDITIONS. |
| | | UTILITIES: |
| | | UTILITY OWNERS ON THIS PROJECT ARE Duke Energy |
| | | ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS. |
| | | RIGHT-OF-WAY MARKERS: |
| | | ALL RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED BY OTHERS. |

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch -N. C. Department of Transportation - Raleigh, N. C., Dated January, 2012 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO. TITLE DIVISION 2 - EARTHWORK

200.02 Method of Clearing - Method II

200.03 Method of Clearing - Method III

225.02 Guide for Grading Subgrade - Secondary and Local

DIVISION 3 - PIPE CULVERTS

300.01 Method of Pipe Installation

310.02 Parallel Pipe End Section - Precast Concrete Section for 15" to 24" Pipe

310.03 Cross Pipe End Section - Precast Concrete Section for 18" to 30" Pipe

310.04 Parallel Pipe End Section - Prefabricated Steel Section for 15" to 24" Pipe

310.05 Cross Pipe End Section - Prefabricated Steel Section for 18" to 30" Pipe

310.10 Driveway Pipe Construction

DIVISION 4 - MAJOR STRUCTURES

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 (Sheet 2 of 3 is no longer applicable)

DIVISION 6 - ASPHALT BASES AND PAVEMENTS

654.01 Pavement Repairs

DIVISION 7 - CONCRETE PAVEMENTS AND SHOULDERS

700.01 Concrete Pavement Joints - Construction and Contraction Joints

DIVISION 8 - INCIDENTALS

806.01 Concrete Right-of-Way Marker

838.01 Concrete Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew

838.05 Concrete 'L' Endwall for Single Pipe Culverts - 15" thru 48" Pipe

838.45 Notes for Reinforced Concrete Endwall - Std. Dwg 838.21 thru 838.40

840.00 Concrete Base Pad for Drainage Structures

840.03 Frame, Grates and Hood - for Use on Standard Catch Basin

840.14 Concrete Drop Inlet - 12" thru 30" Pipe

840.15 Brick Drop Inlet - 12" thru 30" Pipe

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

840.17 Concrete Grated Drop Inlet Type 'A' - 12" thru 72" Pipe

840.18 Concrete Grated Drop Inlet Type 'B' - 12" thru 36" Pipe

840.19 Concrete Grated Drop Inlet Type 'D' - 12" thru 36" Pipe

840.29 Frames and Narrow Slot Flat Grates

840.34 Traffic Bearing Junction Box - for Use with Pipes 42" and Under

840.35 Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates

840.36 Traffic Bearing Grated Drop Inlet - for Steel (840.37) Double Frame and Grates

840.37 Steel Grate and Frame

840.45 Precast Drainage Structure

840.46 Traffic Bearing Precast Drainage Structure 840.71 Concrete and Brick Pipe Plug

840.72 Pipe Collar

846.01 Concrete Curb. Gutter and Curb & Gutter

846.02 Drop Inlet Installation in Expressway Gutter

848.02 Driveway Turnout - Radius Type

848.03 Driveway Turnout - Drop Curb Type

862.01 Guardrail Placement

862.02 Guardrail Installation

862.03 Structure Anchor Units (Details in Lieu of Standard Drawing as March 2013 Letting)

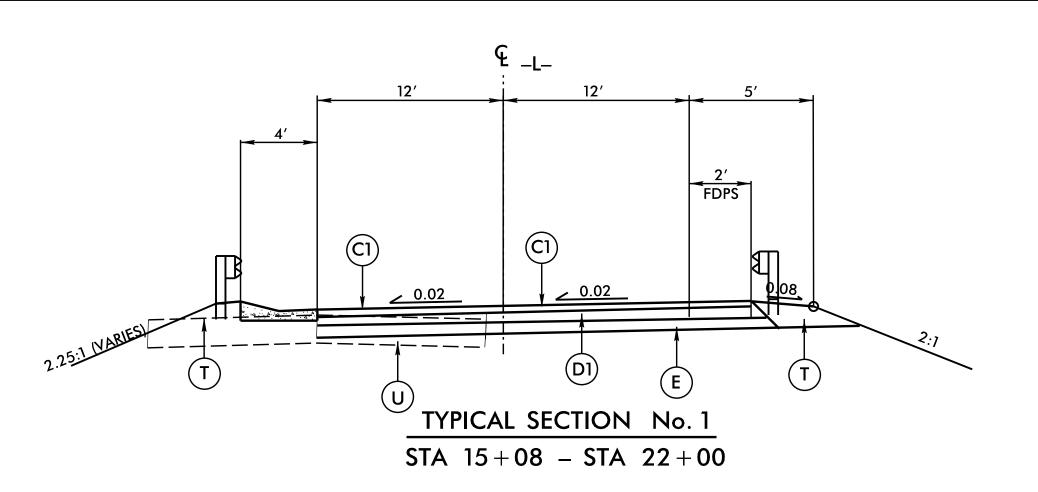
Note: Not to Scale

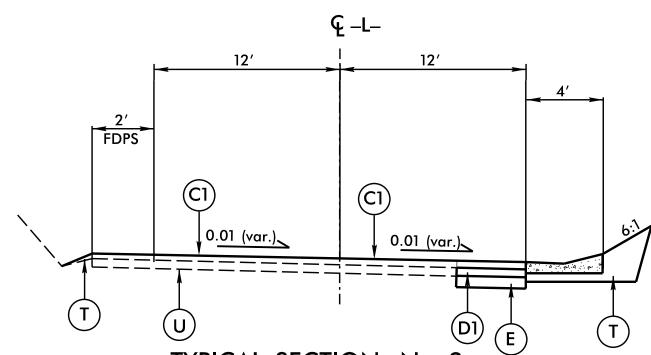
*S.U.E. = Subsurface Utility Engineering

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

| | | | | | WATER: | |
|--|--|---------------------|--|-------------------|---|--------------|
| DOLLAD ADJECT AND DRODERTY | RAILROADS: | | | | Water Manhole ————— | ® |
| BOUNDARIES AND PROPERTY: | Standard Gauge | CSX TRANSPORTATION | | | Water Meter ——————————————————————————————————— | 0 |
| State Line — — — — — — — — — — — — — — — — — — — | RR Signal Milepost | _ | | | Water Valve ————— | 8 |
| | Switch — | MILEPOST 35 SWITCH | EXISTING STRUCTURES: | | Water Hydrant ———— | • |
| Township Line | RR Abandoned | SMITCH | MAJOR: | | Recorded U/G Water Line ———— | |
| City Line ———————————————————————————————————— | RR Dismantled | | Bridge, Tunnel or Box Culvert | CONC | Designated U/G Water Line (S.U.E.*) | |
| Reservation Line ———————————————————————————————————— | KK Dismanned | | Bridge Wing Wall, Head Wall and End Wall | -) CONC WW [| Above Ground Water Line | |
| Property Line | RIGHT OF WAY: | | MINOR: | • | | |
| Existing Iron Pin | Baseline Control Point ————— | • | Head and End Wall — | CONC HIE | TV: | |
| Property Corner — — — — — — — — — — — — — — — — — — — | Existing Right of Way Marker ———— | Δ | Pipe Culvert ————— | | TV Satellite Dish ———— | « |
| Property Monument — | Existing Right of Way Line ———— | | Footbridge — | | TV Pedestal — | |
| Parcel/Sequence Number — | Proposed Right of Way Line ———— | | Drainage Box: Catch Basin, DI or JB ——— | | TV Tower — | ⊗ |
| Existing Fence Line ———————————————————————————————————— | Proposed Right of Way Line with | | Paved Ditch Gutter | | U/G TV Cable Hand Hole ———— | ₩ |
| Proposed Woven Wire Fence | Iron Pin and Cap Marker | | Storm Sewer Manhole — | | Recorded U/G TV Cable ————— | _ |
| Proposed Chain Link Fence | Proposed Right of Way Line with Concrete or Granite Marker | | Storm Sewer Mulliole | | Designated U/G TV Cable (S.U.E.*) | |
| Proposed Barbed Wire Fence | Existing Control of Access ———— | | Siorin Sewer - | • | Recorded U/G Fiber Optic Cable ———— | |
| Existing Wetland Boundary | Proposed Control of Access — | | UTILITIES: | | Designated U/G Fiber Optic Cable (S.U.E.*)— | |
| Proposed Wetland Boundary — — — — — | Existing Easement Line | | POWER: | | Designated U/G Fiber Optic Cable (S.U.E.*)— | 14 70 |
| Existing Endangered Animal Boundary | Proposed Temporary Construction Easement - | _ | Existing Power Pole | 1 | CAS | |
| Existing Endangered Plant Boundary ——————— | Proposed Temporary Drainage Easement— | | | | GAS: Gas Valve | • |
| BUILDINGS AND OTHER CULTURE: | Proposed Permanent Drainage Easement — | | Proposed Power Pole | _ | Gas Valve ———————————————————————————————————— | ♦ |
| Gas Pump Vent or U/G Tank Cap — O | Proposed Permanent Utility Easement ——— | | Existing Joint Use Pole | _ | | ₩ |
| Sign — | Proposed Fermanent Utility Easement ———— | PUE —— | Proposed Joint Use Pole | | Recorded U/G Gas Line | |
| Well — | ROADS AND RELATED FEATUR | PES: | Power Manhole - | | Designated U/G Gas Line (S.U.E.*)——— | |
| Small Mine ** | Existing Edge of Pavement | | Power Line Tower | | Above Ground Gas Line ———— | #70 00S |
| Foundation — | Existing Curb | | Power Transformer — | | | |
| | Proposed Slope Stakes Cut — | | U/G Power Cable Hand Hole | | SANITARY SEWER: | |
| | Proposed Slope Stakes Fill ———— | | H-Frame Pole | | Sanitary Sewer Manhole ———— | • |
| Cemetery 1 | Proposed Wheel Chair Ramp | (FCB) | Recorded U/G Power Line ———————————————————————————————————— | · | Sanitary Sewer Cleanout ————— | - |
| Building | Proposed Wheel Chair Ramp Curb Cut —— | (EC) | Designated U/G Power Line (S.U.E.*) | | U/G Sanitary Sewer Line ————— | ss |
| School — | Curb Cut for Future Wheel Chair Ramp — | (CFP) | | | Above Ground Sanitary Sewer ———— | |
| Church — | Existing Metal Guardrail | _ | TELEPHONE: | | Recorded SS Forced Main Line | |
| Dam — | Proposed Guardrail ———————————————————————————————————— | | Existing Telephone Pole | · -• - | Designated SS Forced Main Line (S.U.E.*) — | rss |
| HYDROLOGY: | Existing Cable Guiderail | | Proposed Telephone Pole - | · • | | |
| Stream or Body of Water — | Proposed Cable Guiderail | | Telephone Manhole | • 👨 | MISCELLANEOUS: | |
| Hydro, Pool or Reservoir — | Equality Symbol | | Telephone Booth | . 3 | Utility Pole —————— | • |
| Jurisdictional Stream | | • | Telephone Pedestal ———————————————————————————————————— | . 🔳 | Utility Pole with Base ————— | • |
| Buffer Zone 1 Bz 1 | Pavement Removal ———————————————————————————————————— | ****** | Telephone Cell Tower | . 🙏 | Utility Located Object ————— | • |
| Buffer Zone 2 BZ 2 | VEGETATION: | | U/G Telephone Cable Hand Hole ———— | . 🖫 | Utility Traffic Signal Box ————— | 5 |
| Flow Arrow— | Single Tree | - & | Recorded U/G Telephone Cable ————— | | Utility Unknown U/G Line ———— | |
| Disappearing Stream — | Single Shrub | | Designated U/G Telephone Cable (S.U.E.*)— | | U/G Tank; Water, Gas, Oil ————— | |
| Spring — | Hedge — | | Recorded U/G Telephone Conduit | | A/G Tank; Water, Gas, Oil ————— | |
| Wetland | Woods Line | | Designated U/G Telephone Conduit (S.U.E.*) | | U/G Test Hole (S.U.E.*) — | • |
| Proposed Lateral, Tail, Head Ditch — | Orchard — | | Recorded U/G Fiber Optics Cable | | Abandoned According to Utility Records —— | AATUR |
| False Sump — | Vineyard — | - Vineyard | Designated U/G Fiber Optics Cable (S.U.E.*) | | End of Information ————— | E.O.I. |
| • | | | _ 10.g | | | 2.0 |

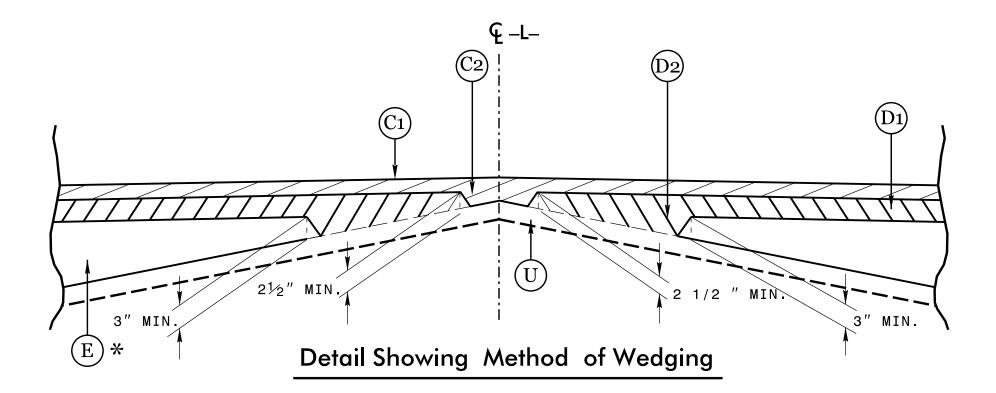




TYPICAL SECTION No. 2

STA 10+00 - STA 15+08

| R-4904 ROADWAY DESIGN ENGINEER PAVEMENT DESIGN ENGINEER | SHEET NO. | NO. | PROJECT REFERENCE |
|---|-----------|-----|-------------------|
| | 2A | | R-4904 |
| | | P | ROADWAY DESIGN |
| | | | |



| | PAVEMENT SCHEDULE |
|----|--|
| C1 | ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, APPLIED IN 2 LIFTS OF 2" EACH (4" TOTAL), AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD. |
| C2 | VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 2" IN DEPTH. |
| D1 | ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD (3") |
| D2 | VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2½" IN DEPTH OR GREATER THAN 4" IN DEPTH. |
| E | ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 912 LBS. PER SQ. YD |
| Т | EARTH MATERIAL |
| U | EXISTING PAVEMENT |

OJECT REFERENCE NO. SHEET NO.

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

SUMMARY OF QUANTITIES

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS
ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT DNOO219

| Item # | Section # | Item Description | Quantity | Units |
|--------------|-----------|---|----------|-------|
| 0000100000-N | 800 | MOBILIZATION | 1.00 | LS |
| 0022000000-E | 225 | UNCLASSIFIED EXCAVATION ^ CY | 8,000.00 | CY |
| 0063000000-N | SP | GRADING ^ LS | 1.00 | LS |
| 0106000000-E | 230 | BORROW | 4,500.00 | CY |
| 0156000000-E | 250 | REMOVAL OF EXISTING ASPHALT PAVEMENT ^ SY | 3,700.00 | SY |
| 0335400000-Е | 305 | 24" DRAINAGE PIPE ^ LF | 16.00 | LF |
| 0335500000-Е | 305 | 30" DRAINAGE PIPE ^ LF | 16.00 | LF |
| 1489000000-E | 610 | BASE COURSE, B25.0B | 1,734.00 | TONS |
| 1498000000-E | 610 | INTERMEDIATE COURSE, 119.0B | 839.00 | TONS |
| 1519000000-E | 610 | SURFACE COURSE, S9.5B | 639.00 | TONS |
| 1520000000-E | SP | LEVELING COURSE, S9.5B | 206.00 | TONS |
| 1575000000-E | 620 | ASPHALT BINDER FOR PLANT MIX | 168.00 | TONS |
| 2352000000-N | 840 | FRAME WITH GRATE, STD 840.**** ^ EA | 1.00 | EA |
| 2577000000-E | 846 | CONCRETE EXPRESSWAY GUTTER ^ LF | 2,000.00 | LF |
| 3030000000-Е | 862 | STEEL BM GUARDRAIL ^ LF | 2,600.00 | LF |
| 3150000000-N | 862 | ADDITIONAL GUARDRAIL POSTS ^ EA | 5.00 | EA |
| 3195000000-N | 862 | GUARDRAIL ANCHOR UNITS, TYPE AT-1 ^ EA | 1.00 | EA |
| 3270000000-N | SP | GUARDRAIL ANCHOR UNITS, TYPE 350 ^ EA | 3.00 | EA |
| 3360000000-Е | 863 | REMOVE EXISTING GUARDRAIL ^ LF | 225.00 | LF |
| 4400000000-E | 1110 | WORK ZONE SIGNS (STATIONARY) | 48.00 | SF |
| 4430000000-N | 1130 | DRUMS | 30.00 | EA |
| 4445000000-E | 1145 | BARRICADES (TYPE III) | 16.00 | LF |
| 4450000000-N | 1150 | FLAGGER | 900.00 | HR |
| 4685000000-E | 1205 | THERMOPLASTIC PAVEMENT MARKINGLINES (4", 90 MILS) | 2,798.00 | LF |
| 4686000000-E | 1205 | THERMOPLASTIC PAVEMENT MARKING LINES (4", 120 MILS) | 2,746.00 | LF |
| 600000000-Е | 1605 | TEMPORARY SILT FENCE ^ LF | 600.00 | LF |
| 6036000000-E | 1631 | MATTING FOR EROSION CONTROL ^ SY | 100.00 | SY |
| 6084000000-E | 1660 | SEED & MULCHING | 1.50 | AC |

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

| PROJECT REFERENCE NO. | SHEET NO. |
|-----------------------|-----------|
| I <i>D-4004</i> I | I ₹A |

SUMMARY OF EARTHWORK

| STATION | STATION | UNCL. EXCAV. | EMBANK. +% | BORROW | WASTE |
|---------|---------|-----------------|---------------|--------|-------|
| 12 + 00 | 12 + 50 | | | | 104 |
| 12 + 50 | 13 + 00 | | | | 296 |
| 13 + 00 | 13 + 50 | | | | 364 |
| 13 + 50 | 14 + 00 | | | | 271 |
| 14 + 50 | 15 + 00 | | | | 364 |
| 15 + 00 | 15 + 50 | | | | 760 |
| 15 + 50 | 16 + 00 | | | | 921 |
| 16 + 00 | 16 + 50 | | | | 618 |
| 16 + 50 | 17 + 00 | | | | 562 |
| 17 + 00 | 17 + 50 | | | | 740 |
| 17 + 50 | 18 + 00 | | | | 703 |
| 18 + 00 | 18 + 50 | | | | 572 |
| 18 + 50 | 19 + 00 | | | | 333 |
| 19 + 50 | 20 + 00 | | | | 122 |
| 20 + 50 | 21+00 | | | | 170 |
| 21+00 | 21 + 50 | | | | 178 |
| SUBT | OTALS: | | | | 7662 |
| 16 + 50 | 17 + 00 | | | 463 | |
| 17 + 00 | 17 + 50 | | | 950 | |
| 17 + 50 | 18 + 00 | | | 986 | |
| 18 + 00 | 18 + 50 | | | 726 | |
| 18 + 50 | 19 + 00 | | | 705 | |
| SUBT | OTALS: | | | 4295 | |
| GRAND | TOTALS: | | | 4295 | 7662 |
| S/ | AY: | 1 | | 4500 | 8000 |

PAVEMENT REMOVAL SUMMARY

| SURVEY LINE | STATION | STATION | LOCATION LT/RT/CL | YD ² |
|----------------|---------|---------|----------------------|-----------------|
| L | 10 + 00 | 23 + 52 | CL | 3605.33 |
| | | | | |
| | | | | |
| | | | TOTAL | 3605.33 |
| | | | TOTAL: | 3003.33 |
| | | | SAY: | 3610 |

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL.

TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.

FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL.

W = TOTAL WIDTH OF FLARE FROM BEGINNING OF TAPER TO END OF GUARDRAIL.

G = GATING IMPACT ATTENUATOR TYPE 350

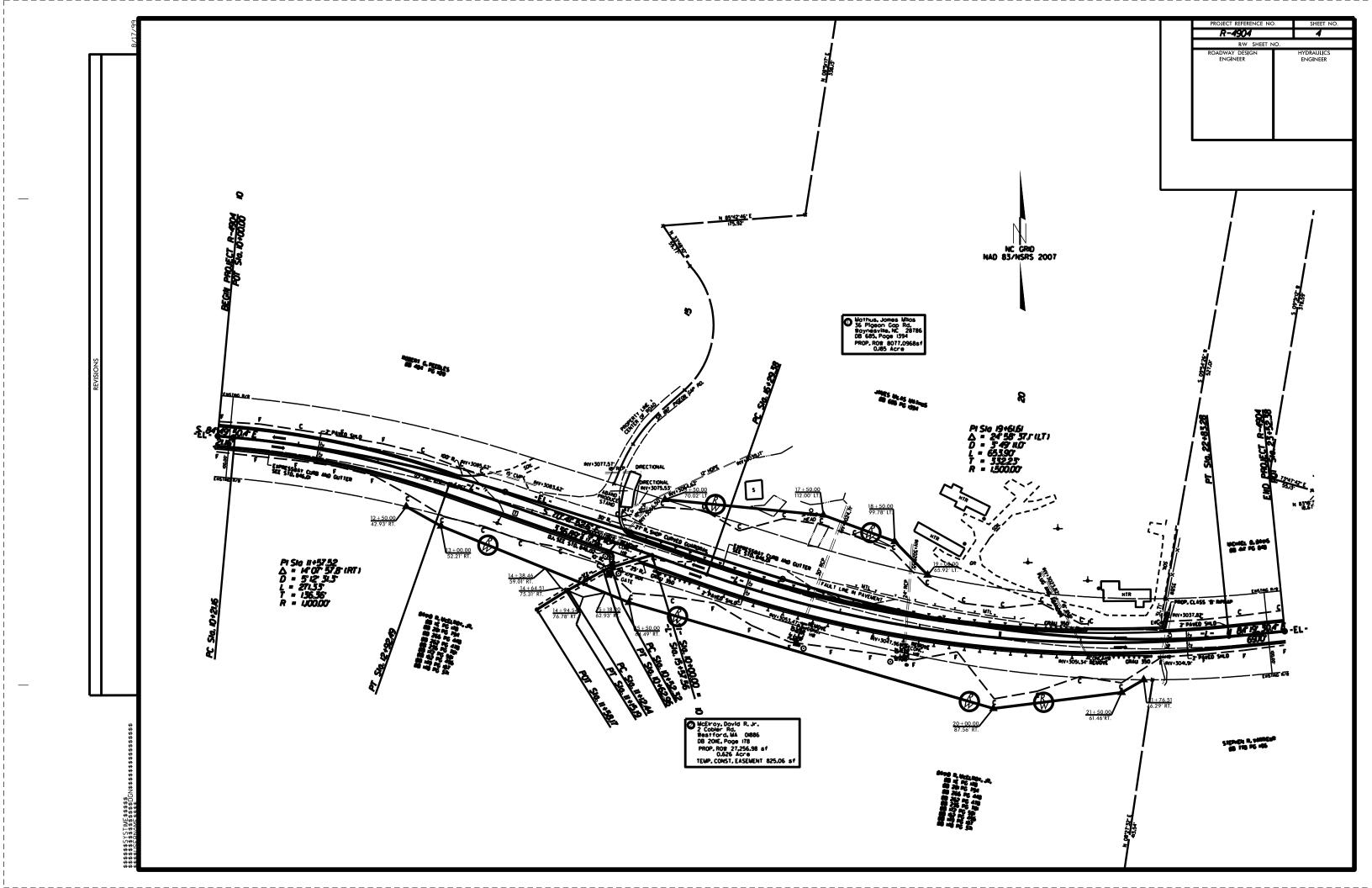
NG = NON-GATING IMPACT ATTENUATOR TYPE 350

GUARDRAIL SUMMARY

| NG = NC | ON-GATING IMPACT | ATTENUATOR TYPE 350 | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
|----------|------------------|---------------------|----------|----------|----------------|-----------------|-----------------|-----------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------|----|-------------|-------|------|----------|-------|------|---------------------------------|----------|------------------------------------|----------------------------|---------|
| SURVEY | BEG. STA. | END STA. | LOCATION | | LENGTH | | WARRA | NT POINT | "N" DIST. | TOTAL SHOUL. | FLARE | LENGTH | , | W | | | | ANC | HORS | | | | IMPACT ATTENUATO TYPE 350 | r single | REMOVE | REMOVE AND STOCKPILE | |
| LINE | BEG. SIA. | END STA. | LOCATION | STRAIGHT | SHOP CURVED | DOUBLE FACED | APPROACH END | TRAILING END | FROM E.O.L. | WIDTH | APPROACH END | TRAILING END | APPROACH END | TRAILING END | XI MOD | хі | GRAU 350 | M-350 | XIII | VI OD | BIC . | AT–1 | EA G N | | REMOVE EXISTING IL GUARDRAII | EXISTING GUARDRAIL | REMARKS |
| <u> </u> | 15 + 06 | 15 + 32 | L | | 26 | | | | 4′ | 6′ | | | | | | | | | | | | 1 | | | | | |
| | 15 + 32 | 20+48 | L | 516 | | | | | 4′ | 6′ | | | | | | | 1 | | | | | | | | | | |
| | 15 + 64 | 21 + 91 | R | 627 | | | | | 4' | 6′ | | | | | | | 2 | | | | | | | | | | |
| | 17 + 98 | 20+30 | L | | | | | | | | | | | | | | | | | | | | | | 225′ | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| - | | | | | | | | | | | | | | | | | | | | | | | | | | | , |

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48" & UNDER)

| 99 99 99 11 | SIZE HICKNESS R GAUGE | LOCATION (LT,RT, OR CL) | ROM STRUCTURE NO. | OI | INVERT ELEVATION | INVERT ELEVATION | SLOPE CRITICAL | (UNL | CLAS ESS N | OTED | OTHE | RWISE) | 48" | 4 4 | 18" 18" | MINOL (UNLE: | is NO | ATED (| C.S. PI OTHER | WISE) | 42" | 48 | 3″ | _ | HDP | IIZED E PIPE | OR C.S. F OR , TYPE | PIPE, T | YPE IR | 18" | DE DRAIN MPE | DE DRAIN PIPE | ide drain pipe | STD (l h OTI | O. 838.0 O. 838.0 OR O. 838.0 JUNILESS NOTED HERWIS | BO (SE) | ACH (0' THRU 5.0') FOR DRAI | - + TOTAL L.F. F. TOTAL L.F. F. T. ALA QUANTITY SHA | AND ABOVE W 'A' + (1.3 X | ID. 840.01 OK SID. 840.02 | STA | RAME, (AND H NDARE | HOOD D 840 | 0.03 | | STD. 840.14 OR STD. 840.15 | FRAME & GRATE STD. 840.16 | TYPE "A" STD 84017 OP 840.24 | TYPE """ CTD 04010 | .I. TYPE "B" STD. 840.18 OR 840.2) | .I. TYPE "D" STD. 840.19 | I. FRAME WITH GRATE STD. 840.22 | D.I. FRAME WITH TWO GRATES STD. 840.2 | I. (N.S.) FRAME WITH GRATE STD. 840.24 | I. (N.S.) FRAME WITH TWO GRATES STD. | STD. 840.31 OR 840.32 | | | | ir. Steel elbows no. & size | 4C. COLLARS CL. "B" C.Y. STD 840.72 | NC. & BRICK PIPE PLUG, C.Y. STD. 840.71 | VAL LIN.FT. | C.B. N.D.I. D.I. G.D.I. G.D.I. J.B. M.H. T.B.D. T.B.J.I | (N.S.) | NARRO DROP I GRATEE GRATEE (NARRO JUNCTI MANHO TRAFFIO | D DRO D DRO DW SLO ON BO DLE D BEAR | OP INLET OT) | ROP I NI | |
|--|-----------------------|-------------------------|-------------------|----|------------------|------------------|----------------|------|---------------|------|------|--------|-----|-----|---------|-----------------|-------|--------|------------------|-------|-----|----|----|---|-----|-----------------|------------------------------|---------|--------|-----|--------------|---------------|----------------|-----------------------|---|------------|-----------------------------|---|--------------------------|---------------------------|-----|-----------------------|---------------|------|---|----------------------------|---------------------------|------------------------------|--------------------|------------------------------------|--------------------------|---------------------------------|---------------------------------------|--|--------------------------------------|-----------------------|--|--|----------|-----------------------------|-------------------------------------|---|-------------|---|--------|--|--|--------------|-----------------|--|
| \$ \$ \$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | S | 18″ SI | 24" S | | | | PER B | 5.0′ T | 0.01 | رُو: ۗ | Е | F | G | | 1 | ٥ | ٥ | | 5 5 | | G.D | G.E | G.E | G.E | 1'9 | J.B. | | | <u> </u> | 8 | 8 | 8 | PIPE | | | REM | ARKS | | | |
| -L- | - 15 + 0 6 | RT | 1 | | | | | | 12′ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | | | | | | | | | | | | | | | \Box | | | | | | | |
| .%L- | - 17 + 61 | RT | 2 | | | | | | | 2 | 24′ | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | \Box | | | | | Ť | | |
| \$\$ \$\$ \$£ \$£ | - 18 + 83 | RT | 3 | | | | | | | 16′ | | | | | | | | | | | | | | T | | | | | | | | | | 1 | | | | | | | T | | | | | | | | | | T | | | | | | | | | | | | | | | | | | | |
| ~ ₩ | — 10 + 53 | CL | 4 | 1 | | | | 26 | 51 | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ≥ + + + + + + + + + + + + + + + + + + + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | П | \Box | | | | | | | |

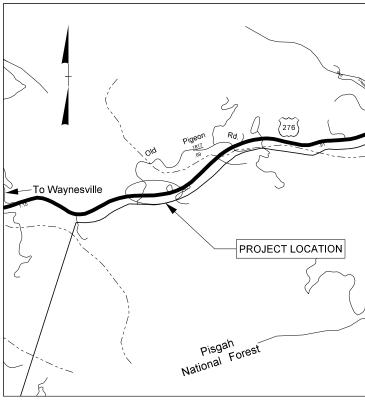


STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

HAYWOOD COUNTY





VICINITY MAP

US276 FROM APPROXIMATELY 3.2 MILES EAST OF WAYNESVILLE NEAR THE EAST END OF PIGEON GAP ROAD, SR 1817

N.C.D.O.T. WORK ZONE TRAFFIC CONTROL 1561 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1561 750 N. GREENFIELD PARKWAY, GARNER, NC 27529 (DELIVERY) PHONE: (919) 773-2800 FAX: (919) 771-2745 J. S. BOURNE, P.E. STATE TRAFFIC MANAGEMENT ENGINEER TRAFFIC CONTROL PROJECT ENGINEER TRAFFIC CONTROL PROJECT DESIGN ENGINEER TRAFFIC CONTROL DESIGN ENGINEER



INDEX OF SHEETS

| SHEET NO. | TITLE |
|-----------|--|
| TMP-1 | TITLE SHEET, VICINITY MAP AND INDEX OF SHEETS |
| TMP-1A | LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND LEGEND |
| TMP-1B | TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES, GENERAL NOTES AND LOCAL NOTES) |
| TMP-3 | TEMPORARY TRAFFIC CONTROL PHASING |
| TMP-4 | TEMPORARY TRAFFIC CONTROL PHASE I DETAIL |
| TMP-5 | TEMPORARY TRAFFIC CONTROL PHASE II DETAIL |

APPROVED: DATE:

SEAL

TMP-1

PROJECT

ROADWAY STANDARD DRAWINGS

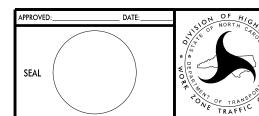
THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

| STD. NO. | TITLE |
|--------------------|--|
| | |
| 1101.01 | WORK ZONE WARNING SIGNS |
| 1101.02 | TEMPORARY LANE CLOSURES |
| 1101.03 | TEMPORARY ROAD CLOSURES |
| 1101.04 | TEMPORARY SHOULDER CLOSURES |
| 1101.05 | WORK ZONE VEHICLE ACCESSES |
| 1101.06 | WARNING SIGNS FOR BLASTING ZONES |
| 1101.11 | TRAFFIC CONTROL DESIGN TABLES |
| 1110.01 | STATIONARY WORK ZONE SIGNS |
| 1110.02 | PORTABLE WORK ZONE SIGNS |
| 1115.01 | FLASHING ARROW BOARDS |
| 1130.01 | DRUMS |
| 1135.01 | CONES |
| 1145.01 | BARRICADES |
| 1150.01 | FLAGGING DEVICES |
| 1160.01 | TEMPORARY CRASH CUSHION |
| 1165.01 | WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION |
| 1170.01 | PORTABLE CONCRETE BARRIER |
| 1180.01 | SKINNY - DRUM |
| 1205.01 | PAVEMENT MARKINGS - LINE TYPES AND OFFSETS |
| 1205.02 | PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS |
| 1205.03 | PAVEMENT MARKINGS - EXITS AND ENTRANCE RAMPS |
| 1205.04 | PAVEMENT MARKINGS - INTERSECTIONS |
| 1205.05 | PAVEMENT MARKINGS - TURN LANES |
| 1205.06 | PAVEMENT MARKINGS - LANE DROPS |
| 1205.07 | PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS |
| 1205.08 | PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES |
| 1205.09 | PAVEMENT MARKINGS - PAINTED ISLANDS |
| 1205.10 | PAVEMENT MARKINGS - SCHOOL AREAS |
| 1205.11 | PAVEMENT MARKINGS - RAILROAD CROSSINGS |
| 1205.12 | PAVEMENT MARKINGS - BRIDGES |
| 1205.13 | PAVEMENT MARKINGS - LANE REDUCTIONS |
| 1250.01 | RAISED PAVEMENT MARKERS - INSTALLATION SPACING |
| 1251.01 | RAISED PAVEMENT MARKERS - (PERMANENT AND TEMPORARY) |
| 1261.01 | GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING |
| 1261.02 | GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING GUARDRAIL END DELINEATION |
| 1262.01 1264.01 | OBJECT MARKERS - TYPES |
| | OBJECT MARKERS - TYPES OBJECT MARKERS - INSTALLATION |
| 1264.02 | ODDECT MAUVELS - THETATION |

LEGEND

TRAFFIC CONTROL DEVICES **GENERAL** DIRECTION OF TRAFFIC FLOW BARRICADE (TYPE III) DIRECTION OF PEDESTRIAN TRAFFIC FLOW ---- EXIST. PVMT. DRUM SKINNY DRUM O TUBULAR MARKER NORTH ARROW TEMPORARY CRASH CUSHION FLASHING ARROW BOARD PROPOSED PVMT. FLAGGER TEMP. SHORING (LOCATION PURPOSES ONLY) LAW ENFORCEMENT WORK AREA TRUCK MOUNTED ATTENUATOR (TMA) CHANGEABLE MESSAGE SIGN REMOVAL TEMPORARY SIGNING PORTABLE SIGN USER DEFINED (IF NEEDED) STATIONARY SIGN STATIONARY OR PORTABLE SIGN USER DEFINED (IF NEEDED) PAVEMENT MARKERS SIGNALS CRYSTAL/CRYSTAL OPROPOSED E TEMPORARY CRYSTAL/RED EXISTING ◆ YELLOW/YELLOW PAVEMENT MARKINGS PAVEMENT MARKING SYMBOLS ----EXISTING LINES PAVEMENT MARKING SYMBOLS ----TEMPORARY LINES

TEMPORARY PAVEMENT MARKING



ROADWAY STANDARD DRAWINGS & LEGEND

GENERAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

| ROA | D NAME | DAY AND TIME RESTRICTIONS |
|-----|---------|---------------------------------|
| 1. | US 276 | 7:00AM – 8:30AM MONDAY - FRIDAY |
| 2. | SR 1817 | 7:00AM – 8:30AM MONDAY - FRIDAY |

HOLIDAY

- 1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- 2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 8:00 A.M. DECEMBER 31st TO 6:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 6:00 P.M. THE FOLLOWING TUESDAY.
- 3. FOR EASTER, BETWEEN THE HOURS OF 8:00 A.M. THURSDAY AND 6:00 P.M. MONDAY.
- 4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 8:00 A.M. FRIDAY TO 6:00 P.M. TUESDAY.
- 5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 8:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 6:00 P.M. THE DAY AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 8:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 6:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.

- FOR LABOR DAY, BETWEEN THE HOURS OF 8:00 A.M. FRIDAY AND 6:00 P.M. TUESDAY.
- 7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 8:00 A.M. TUESDAY TO 6:00 P.M. MONDAY.
- 8. FOR CHRISTMAS, BETWEEN THE HOURS OF 8:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 6:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

9. FOR LEAF SEASON, FROM THE THURSDAY CLOSEST TO OCTOBER 7^{TH} TO THE MONDAY CLOSEST TO NOVEMBER 4^{TH} , NO ROAD CLOSURES ARE ALLOWED BETWEEN 6 AM AND 7 PM MONDAY THROUGH THURSDAYS, NOR FROM 6 AM TO 9 PM ON FRIDAYS, SATURDAYS, OR SUNDAYS.

B) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVELWAY UNLESS THE HAULING OPERATION IS PROTECTED BY BARRIER OR GUARDRAIL OR AS DIRECTED BY THE ENGINEER.

LANE AND SHOULDER CLOSURE REQUIREMENTS

- C) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.
- D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.
- E) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- F) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
- G) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.
- H) DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION ON US 276 RD.
- PROVIDE TRAFFIC CONTROL FOR APPROPRIATE LANE CLOSURES FOR SURVEYING DONE BY THE DEPARTMENT.

PAVEMENT EDGE DROP OFF REQUIREMENTS

J) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:

BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.

K) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) IN ADVANCE.

TRAFFIC PATTERN ALTERATIONS

L) NOTIFY THE ENGINEER TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

- M) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- N) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS.
- O) COVER OR REMOVE ALL SIGNS AND DEVICES
- P) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- Q) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) IN ADVANCE OF THE UNEVEN AREA AS DIRECTED BY THE ENGINEER.
- R) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT, 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.
- X) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

PAVEMENT MARKINGS AND MARKERS

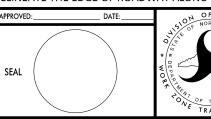
T) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

| ROAD NAME | MARKING | MARK | | |
|-----------|---------|--------|--|--|
| 1 US 276 | PAINT | RAISED | | |

 U) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

MISCELLANEOUS

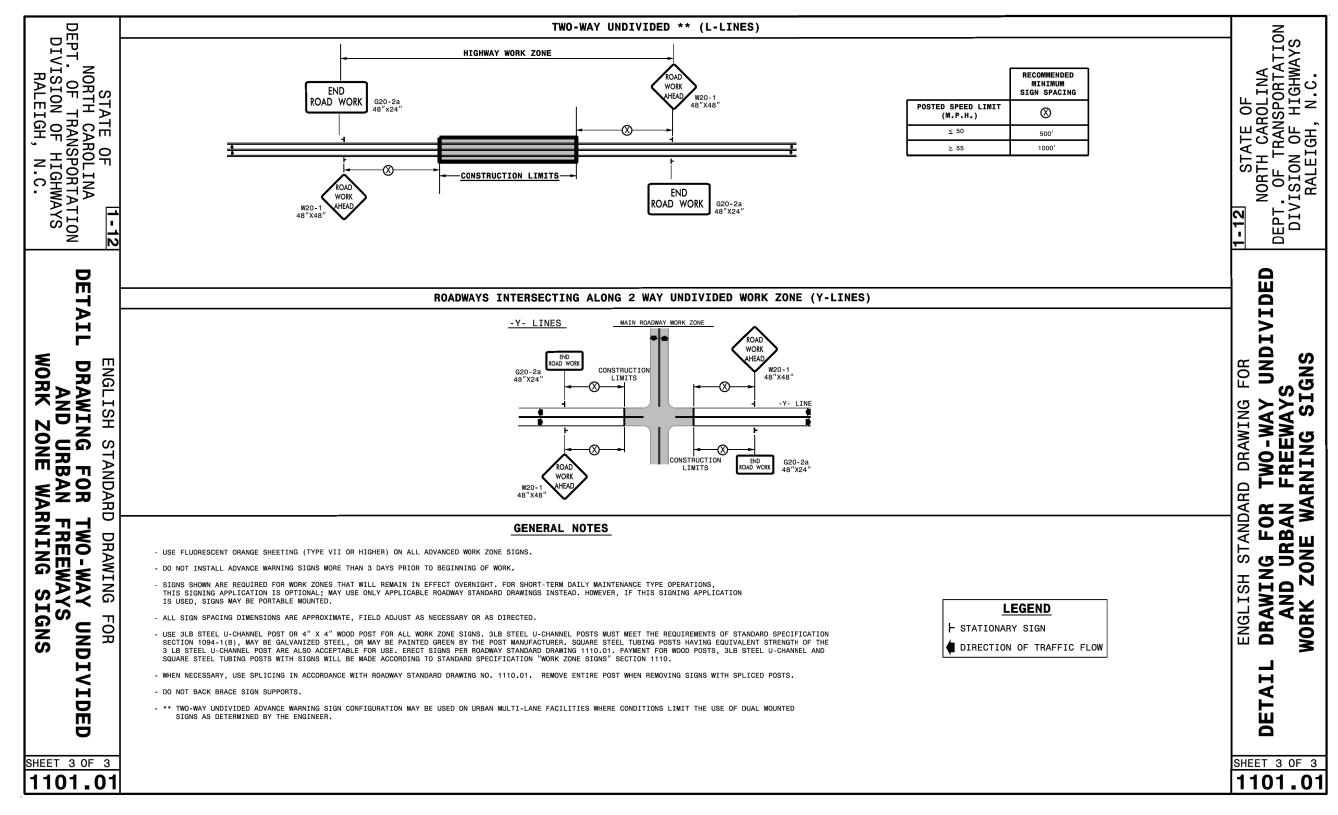
V) IN THE EVENT A TIE-IN CANNOT BE MADE IN ONE DAY'S TIME, BRING THE TIE-IN AREA TO AN APPROPRIATE ROADWAY ELEVATION AS DETERMINED BY THE ENGINEER. PLACE BLACK ON ORANGE "LOOSE GRAVEL" SIGNS (W8-7) AND BLACK ON ORANGE "PAVEMENT ENDS" SIGNS (W8-3) X FT/MI AND X FT/MI RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.

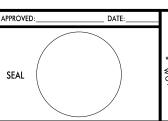


TRANSPORTATION OPERATIONS PLAN

IXR-4904 - Waynesville Mtn User:sjwilliams

PROJ. REFERENCE NO. SHEET NO. R-4904 TMP-2







TRANSPORTATION
OPERATIONS
PLAN

TRAFFIC CONTROL PHASING

THE FOLLOWING ROADWAY NOTES ARE APPLICABLE FOR PHASE I AND PHASE II

CONTRACTOR SHALL CONSTRUCT ALL PAVEMENT (TEMPORARY AND/OR PROPOSED) TO MAINTAIN DRAINAGE AND NOT POND WATER IN THE TRAFFIC LANES. NOTE:

ADVANCE WARNING SIGNS SHALL BE INSTALLED A MINIMUM OF 3 DAYS PRIOR TO THE ONSET OF CONSTRUCTION. NOTE:

NOTE: CONTRACTOR SHALL PLACE TRAFFIC BACK INTO TWO WAY TRAFFIC PATTERN AT

THE END OF EACH WORK PERIOD.

PHASE I

BEFORE BEGINNING CONSTRUCTION, CONTRACTOR SHALL INSTALL ADVANCE WORK ZONE WARNING SIGNS ALONG EXISTING -L- AND ALL -Y- LINES IN ACCORDANCE WITH ROADWAY STANDARD DRAWING 1101.01, SHEET 3. STEP 1:

STEP 2: CONTRACTOR, USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1

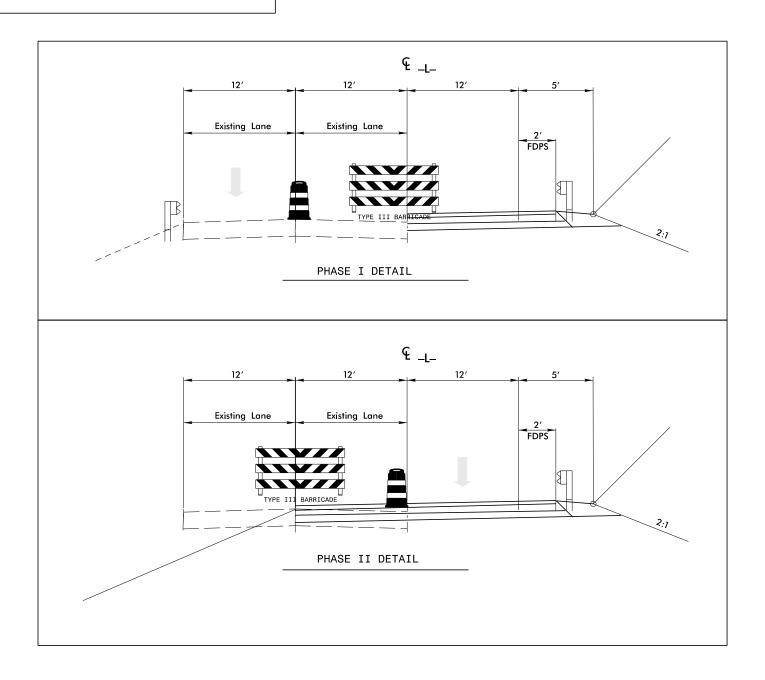
> MAY BEGIN CLEARING/GRUBBING & GRADING OPERATIONS, AND CONSTRUCTION OF PROPOSED RIGHT SIDE OF PROPOSED -L- LINE.

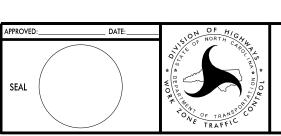
PHASE II

BEFORE BEGINNING CONSTRUCTION, CONTRACTOR SHALL INSTALL ADVANCE WORK ZONE WARNING SIGNS ALONG EXISTING -L- AND ALL -Y- LINES IN ACCORDANCE WITH ROADWAY STANDARD DRAWING 1101.01, SHEET 3. STEP 1:

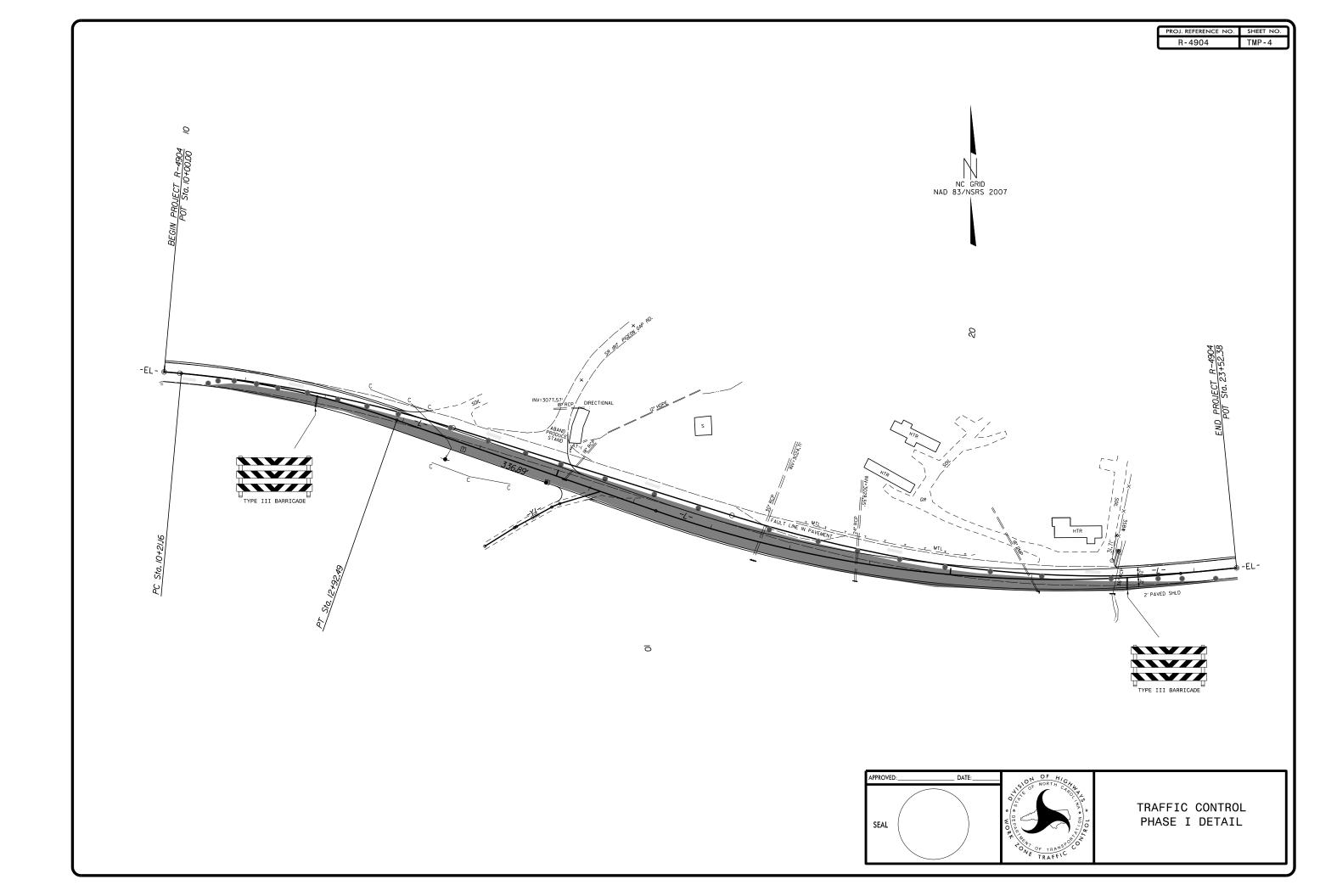
STEP 2: CONTRACTOR, USING ROADWAY STANDARD DRAWING 1101.02, SHEET 1

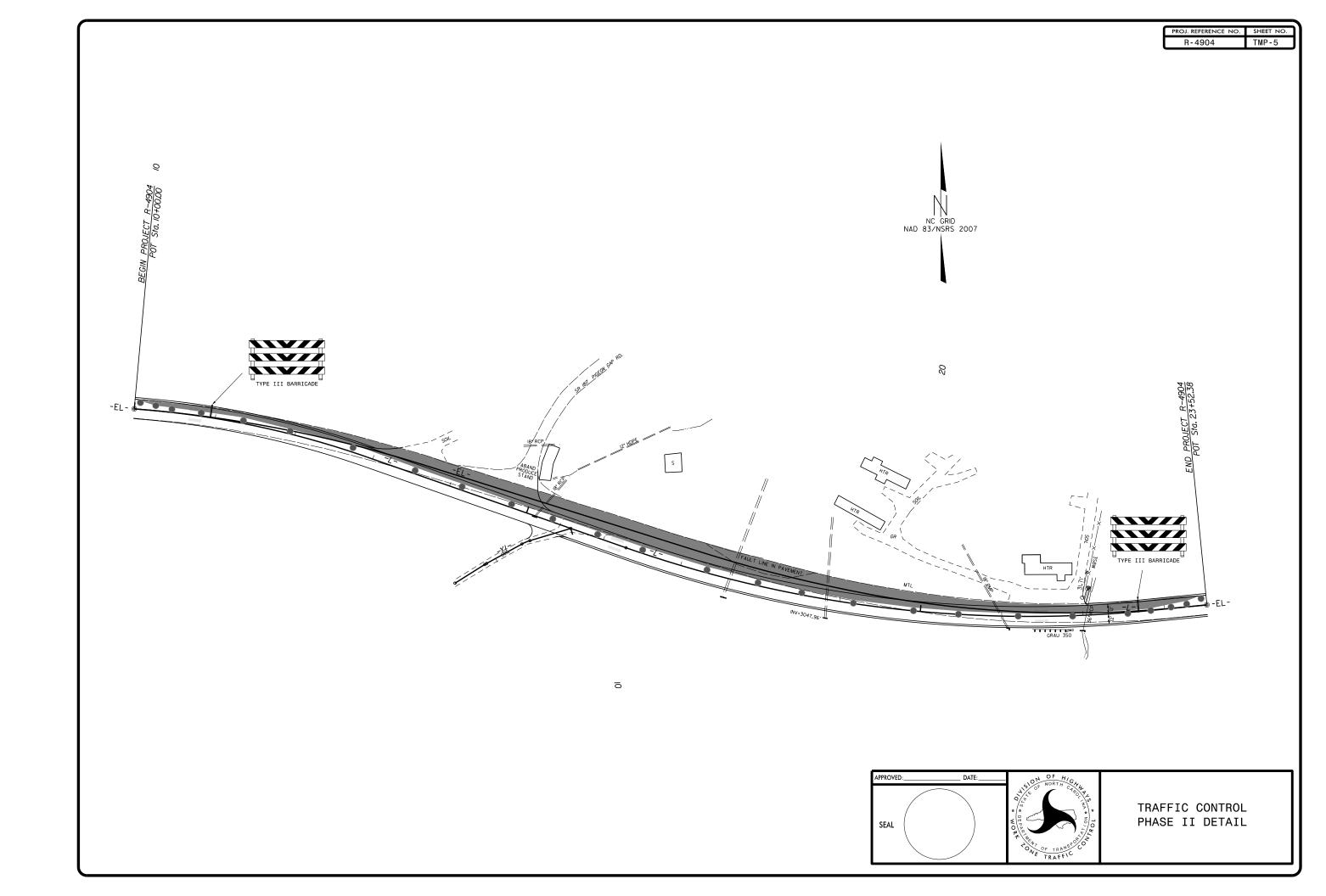
MAY BEGIN CLEARING/GRUBBING & GRADING OPERATIONS, AND CONSTRUCTION OF PROPOSED RIGHT SIDE OF PROPOSED -L- LINE.



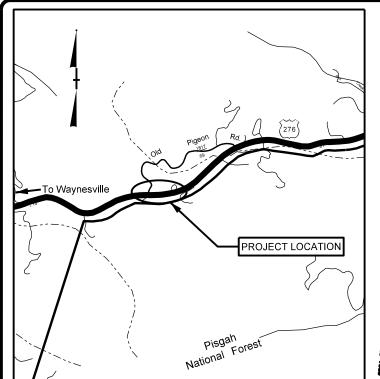


TRAFFIC CONTROL PHASING









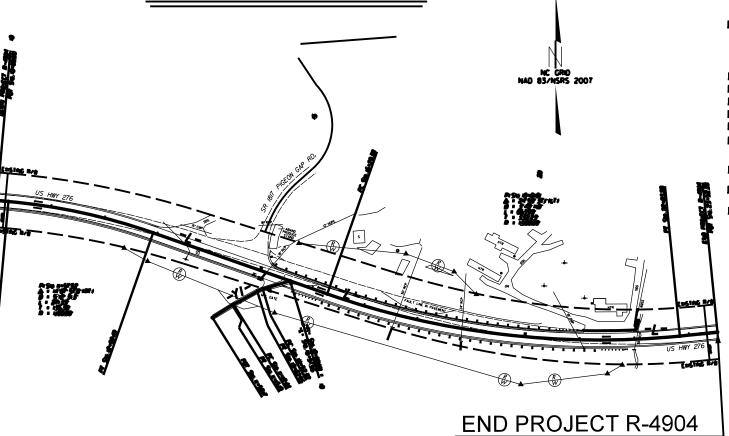
VICINITY MAP

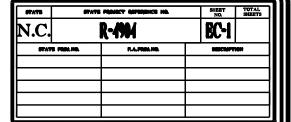
STA. 10+00.00

BEGIN PROJECT R-4904

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

PLAN FOR PROPOSED HIGHWAY EROSION CONTROL R-4904, HAYWOOD COUNTY





EROSION AND SEDIMENT CONTROL MEASURES

Temporary Berms and Slope Drains . . . Silt Basin Type B..... Temporary Rock Silt Check Type-A.....

Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM) Temporary Rock Silt Check Type-B. Wattle / Coir Fiber Wattle....

Wattle / Coir Fiber Wattle with Polyacrylamide (PAM). Temporary Rock Sediment Dam Type-A. . Temporary Rock Sediment Dam Type-B. Rock Pipe Inlet Sediment Trap Type-A...

Rock Pipe Inlet Sediment Trap Type-B. . . . 1630.04 Special Stilling Basin.....

Rock Inlet Sediment Trap:

THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF

CONSTRUCTION.

BO C

GRAPHIC SCALE

PROFILE (HORIZONTAL) 0 50

PROFILE (VERTICAL)

DIVISION 14 DDC DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

> THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011 ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER QUALITY.

Prepared in the Office of:

STA. 23+52.38

DIVISION 14 DDC

253 WEBSTER RD. SYLVA, NC 28779

2012 STANDARD SPECIFICATIONS

1605.01 Temporary Silt Fence 1606.01 Special Sediment Control Fence

1607.01 Gravel Construction Entrance 1622.01 Temporary Berms and Slope Drains 1630.01 Riser Basin 1630.02 Silt Basin Type

1630.03 Temporary Silt Ditch 1630.04 Stilling Basin

1632.02 Rock Inlet Sediment Trap Type B 1632.03 Rock Inlet Sediment Trap Type C Temporary Rock Silt Check Type A 1633.02 Temporary Rock Silt Check Type B

1634.01 Temporary Rock Sediment Dam Type A Temporary Rock Sediment Dam Type B Rock Pipe Inlet Sediment Trap Type A 1635.02 Rock Pipe Inlet Sediment Trap 1640.01 Coir Fiber Baffle

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

| PROJECT REFERENCE N | O. SHEET NO. |
|----------------------------|------------------------|
| R-4904 | EC-2 |
| | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

SOIL STABILIZATION SUMMARY SHEET

TEMPORARY SILT FENCING

MATTING FOR EROSION CONTROL

| CONST | | E POM | TO | | | CONST | MATTING | | | | | |
|--------------------|------|-----------------|---------------|-------|---------------|--------------------|-----------------------|-----------------|---------------|------------|----------|------|
| CONST SHEET NO. | LINE | FROM STATION | TO STATION | SIDE | ESTIMATE (LF) | CONST SHEET NO. | LINE | FROM STATION | TO STATION | SIDE | ESTIMATE | (SY) |
| 4 | -L- | 13+00 | <i>15+10</i> | R | 205 | | | | | | | |
| | | <i>15+07</i> | <i>15+55</i> | L | 60 | MISCELLANE | ous matting to be ins | talled as dire | cted by the | ing ine er | 100 | |
| | | <i>16+3</i> 5 | <i>18+8</i> 5 | L | 250 | | | | | | | |
| | | 22+00 | 22+00 | R | 60 | | | | | | | |
| | | | 506 | TOTAL | 575 | | | | | | | |
| | | | | | 600 | | | | | | | |
| | | | | SAY | 600 | | | | | | | |
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