

U-4010

TIP PROJECT:

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

**PLAN FOR PROPOSED
TRAFFIC CONTROL, MARKING & DELINEATION
DURHAM COUNTY**

| | |
|--|--------------------|
| STATE PROJECT REFERENCE NO. U-4010 | SHEET NO. TCP-1 |
|--|--------------------|

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - ROADWAY DESIGN UNIT-N.C. DEPARTMENT OF TRANSPORTATION-RALEIGH, N.C., DATED JULY 2006 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

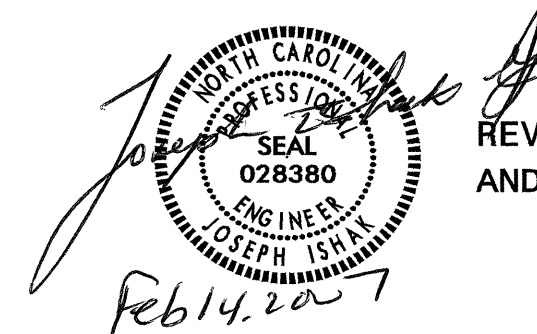
| STD. NO. | TITLE |
|----------|---|
| 1101.02 | TEMPORARY LANE CLOSURES |
| 1101.03 | TEMPORARY ROAD CLOSURES |
| 1101.05 | WORK ZONE VEHICLE ACCESSES |
| 1101.11 | TRAFFIC CONTROL PLAN DESIGN TABLES |
| 1110.01 | STATIONARY WORK ZONE SIGNS |
| 1110.02 | PORTABLE WORK ZONE SIGNS |
| 1115.01 | FLASHING ARROW PANELS |
| 1130.01 | DRUM |
| 1135.01 | CONES |
| 1145.01 | BARRICADES |
| 1150.01 | FLAGGING DEVICES |
| 1165.01 | TRUCK MOUNTED IMPACT ATTENUATOR |
| 1180.01 | SKINNY DRUM |
| 1205.01 | PAVEMENT MARKINGS - LINE TYPES & OFFSETS |
| 1205.02 | PAVEMENT MARKINGS - 2 LANE & MULTILANE ROADWAYS |
| 1205.04 | PAVEMENT MARKINGS - INTERSECTIONS |
| 1205.05 | PAVEMENT MARKINGS - TURN LANES |
| 1205.07 | PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS |
| 1205.08 | PAVEMENT MARKINGS - SYMBOLS & WORD MESSAGES |
| 1205.09 | PAVEMENT MARKINGS - PAINTED ISLANDS |
| 1205.11 | PAVEMENT MARKINGS - RAILROAD CROSSINGS |
| 1250.01 | PAVEMENT MARKER SPACING |
| 1251.01 | RAISED PAVEMENT MARKERS (TEMPORARY & PERMANENT) |
| 1262.01 | GUARDRAIL END DELINEATION |
| 1264.01 | OBJECT MARKERS |

INDEX OF SHEETS

| SHEET NO. | TITLE |
|---------------|---|
| TCP-1 | LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, AND INDEX OF SHEETS |
| TCP-2 | TEMP. PAV'T. MARKING SCHEDULE |
| TCP-3 | PROJECT NOTES |
| TCP-4 | PHASE I OVERVIEW AND PHASING |
| TCP-5 | PHASE I DETAIL |
| TCP-6 | PHASE II OVERVIEW AND PHASING |
| TCP-7 & TCP-8 | PHASE II DETAILS |
| TCP-9 | DETOUR DETAIL |
| TCP-10 | PHASE III OVERVIEW AND PHASING |
| TCP-11 | PHASE III DETAIL |
| TCP-12 | DETAIL DRAWING FOR WORK ZONE SIGNS |
| PM-1 & 2 | FINAL PAV'T MARKINGS AND FINAL PAV'T MARKING SCHEDULE |

LEGEND

- GENERAL**
- DIRECTION OF TRAFFIC FLOW
 - NORTH ARROW
 - PROPOSED PVMT. EXIST. PVMT.
 - WORK AREA
 - REMOVAL OF EXISTING PAVEMENT
- TRAFFIC CONTROL DEVICES**
- TYPE I BARRICADE
 - TYPE II BARRICADE
 - TYPE III BARRICADE
 - CONE
 - DRUM SKINNY DRUM
 - FLASHING ARROW PANEL (TYPE C)
 - STATIONARY SIGN
 - PORTABLE SIGN
 - STATIONARY OR PORTABLE SIGN
 - WARNING FLAGS
 - CRASH CUSHION
 - CHANGEABLE MESSAGE SIGN
 - TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
 - POLICE
 - FLAGGER
- PAVEMENT MARKINGS**
- CRYSTAL/CRYSTAL PAVEMENT MARKER
 - YELLOW/YELLOW PAVEMENT MARKER
 - CRYSTAL/RED PAVEMENT MARKER
 - PAVEMENT MARKING SYMBOLS



REVISED FEBRUARY 2007, TO MEET THE 2006 ROADWAY STANDARDS AND REVISE INDEX OF SHEETS.

| | | |
|---|---|--|
| <p>PLAN REVIEWED BY: N.C.D.O.T. TRAFFIC CONTROL, MARKING & DELINEATION SECTION</p> <p>J. S. BOURNE, P.E. TRAFFIC CONTROL ENGINEER</p> <p>J. ISHAK, P.E. TRAFFIC CONTROL PROJECT ENGINEER</p> <p>H. A. LAWANDOS TRAFFIC CONTROL PROJ. DESIGN ENGINEER</p> <p>J. FUTRELL TRAFFIC CONTROL DESIGN ENGINEER</p> | <p>APPROVED: _____ DATE: _____</p> <p>NOT A CERTIFIED DOCUMENT AS TO THE ORIGINAL DOCUMENT BUT ONLY AS TO THE REVISIONS - THIS DOCUMENT ORIGINALLY ISSUED AND SEALED BY MARK ACUFF, P.E., #14344, ON 04-05-04</p> | <p>PLAN PREPARED FOR N.C.D.O.T. BY:</p> <p>M. S. ACUFF, P.E. PROJECT ENGINEER</p> <p>G. E. PARKER DESIGN ENGINEER</p> <p>B. L. MARIOTTE DESIGN TECHNICIAN</p> |
|---|---|--|

KO & ASSOCIATES, P.C.
Consulting Engineers
1011 SCHAUB DR. SUITE #202
RALEIGH, N.C. 27606


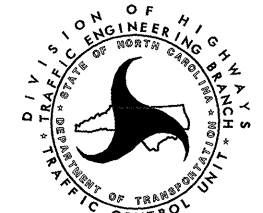
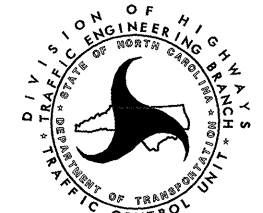
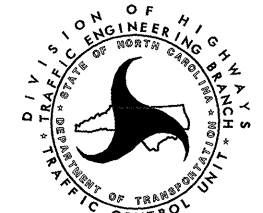
TEMP. PAV'T MARKING SCHEDULE

| SYMBOL | DESCRIPTION | QUANTITY BREAKDOWN | PAY ITEM | TOTAL QUANTITY |
|-----------------------------|-------------------------------------|-----------------------|------------------|-------------------|
| PAVEMENT MARKING LINES | | | | |
| PA | WHITE EDGELINE 2X | 5503 LF | PAINT (4") | 41021 LF |
| PC | 10' WHITE SKIP 2X | 4184 LF | | |
| PD | 2' WHITE MINISKIP 2X | 197 LF | | |
| PE | WHITE SOLID LANE LINE 2X | 1686 LF | | |
| PF | 10' YELLOW SKIP 2X | 115 LF | | |
| PH | YELLOW SINGLE CENTER LINE 2X | 458 LF | | |
| PI | YELLOW DOUBLE CENTER LINE 2X | 28878 LF | | |
| PV | YELLOW DIAGONAL 2X | 475 LF | | |
| P3 | WHITE LINE, RR X 2X | 946 LF | PAINT (16") | 946 LF |
| P4 | WHITE STOP BAR 2X | 1472 LF | PAINT (24") | 1472 LF |
| PAVEMENT MARKING CHARACTERS | | | | |
| QI | ALPHANUMERIC CHARACTERS 2X | 52 EA | PAINT CHARACTERS | 52 EA |
| PAVEMENT MARKING SYMBOLS | | | | |
| QA | LEFT TURN ARROW 2X | 20 EA | PAINT SYMBOL | 78 EA |
| QB | RIGHT TURN ARROW 2X | 6 EA | | |
| QC | STRAIGHT ARROW 2X | 34 EA | | |
| QD | COMBO. STRAIGHT/LEFT TURN ARROW 2X | 6 EA | | |
| QE | COMBO. STRAIGHT/RIGHT TURN ARROW 2X | 12 EA | | |
| PAVEMENT MARKERS | | | | |
| MH | YELLOW & YELLOW | 104 EA | TEMPORARY RAISED | 266 EA |
| MI | CRYSTAL & RED | 162 EA | | |

NOTE: FOR EACH PAINT PAVEMENT MARKING ITEM, 1X IMPLIES A SINGLE APPLICATION, 2X IMPLIES TWO APPLICATIONS, AND 3X IMPLIES THREE APPLICATIONS.

D:\TRAFFIC\U-4010\DOX UNSEALED\PLAN\TMS.dgn 01/21/2004 01:42:24 PM

Plans prepared by:
RO & ASSOCIATES, P.C.
Consulting Engineers
101 SCHAU DR., SUITE #202
RALEIGH, N.C. 27606
For Division of Highways

| | | | | | | | | | | | | | | |
|--|---|---|-------------|---|-----------|-------|--|-----------------|--|-------------------|--|---------------------|--|--|
| APPROVED: <i>Mark Acuff</i> DATE: 04/05/04 <div style="text-align: center;">  SEAL </div> | <h3>TEMPORARY PAVEMENT MARKING SCHEDULE</h3> | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>SCALE: NONE</td> <td rowspan="4" style="text-align: center;">  </td> <td>REVISIONS</td> </tr> <tr> <td>DATE:</td> <td></td> </tr> <tr> <td>DWG. BY: B.L.M.</td> <td></td> </tr> <tr> <td>DESIGN BY: G.E.P.</td> <td></td> </tr> <tr> <td>REVIEWED BY: M.S.A.</td> <td></td> <td></td> </tr> </table> | SCALE: NONE |  | REVISIONS | DATE: | | DWG. BY: B.L.M. | | DESIGN BY: G.E.P. | | REVIEWED BY: M.S.A. | | |
| SCALE: NONE |  | REVISIONS | | | | | | | | | | | | |
| DATE: | | | | | | | | | | | | | | |
| DWG. BY: B.L.M. | | | | | | | | | | | | | | |
| DESIGN BY: G.E.P. | | | | | | | | | | | | | | |
| REVIEWED BY: M.S.A. | | | | | | | | | | | | | | |

GENERAL NOTES

A) ADAPT THE TRAFFIC CONTROL PLANS, WHEN DIRECTED BY THE ENGINEER, TO MEET FIELD CONDITIONS TO PROVIDE SAFE AND EFFICIENT TRAFFIC MOVEMENT. CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS AND ROADWAY DETAILS ARE NOT ATTAINABLE, OR RESULT IN DUPLICATE, OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING OR REMOVAL OF DEVICES.

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

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

| ROAD NAME | DAY AND TIME RESTRICTIONS |
|-------------------------|-------------------------------------|
| NC 98 (HOLLOWAY STREET) | 6:00AM TO 7:00PM MONDAY THRU SUNDAY |

C) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

| ROAD NAME |
|-------------------------|
| NC 98 (HOLLOWAY STREET) |

HOLIDAY

- FOR ANY EVENT THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 31ST TO 7:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A SATURDAY OR A SUNDAY, THEN UNTIL 7:00 P.M. THE FOLLOWING TUESDAY.
- FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 7:00 P.M. MONDAY.
- FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 7:00 P.M. TUESDAY.
- FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE DAY AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A SATURDAY OR SUNDAY, THEN BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.
- FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 7:00 P.M. TUESDAY.
- FOR THANKSGIVING, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 7:00 P.M. MONDAY.
- FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00 P.M. THE FOLLOWING MONDAY AFTER THE WEEK OF CHRISTMAS.

D) DO NOT STOP TRAFFIC OR CLOSE ROADS AS FOLLOWS:

| ROAD NAME | DAY AND TIME RESTRICTIONS |
|-------------------------|--|
| NC 98 (HOLLOWAY STREET) | 6:00 AM TO 11:00 PM MONDAY THRU SUNDAY |

E) DO NOT STOP TRAFFIC FOR MORE THAN 15 MINUTES AS FOLLOWS:

| ROAD NAME | OPERATIONS |
|-------------------------|--|
| NC 98 (HOLLOWAY STREET) | FINAL TRAFFIC SIGNAL MAST ARM INSTALLATION |

F) DO NOT CONDUCT SINGLE VEHICLE HAULING AS FOLLOWS:

| ROAD NAME | DAY AND TIME RESTRICTIONS |
|-------------------------|--|
| NC 98 (HOLLOWAY STREET) | 11:00 AM TO 4:00 PM MONDAY THRU SUNDAY |

G) DO NOT CONDUCT MULTI-VEHICLE HAULING AS FOLLOWS:

| ROAD NAME | DAY AND TIME RESTRICTIONS |
|-------------------------|---------------------------------------|
| NC 98 (HOLLOWAY STREET) | 6:00 AM TO 7:00 PM MONDAY THRU SUNDAY |

H) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVELWAY UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR OTHERWISE DIRECTED BY THE ENGINEER.

TRAFFIC BARRIER

I) INSTALL WATER-FILLED BARRIER ACCORDING TO MANUFACTURERS INSTRUCTIONS.

INSTALL WATER-FILLED BARRIER WITH THE TRAFFIC FLOW, BEGINNING WITH THE UPSTREAM SIDE OF TRAFFIC. REMOVE WATER-FILLED BARRIER AGAINST THE TRAFFIC FLOW, BEGINNING WITH THE DOWNSTREAM SIDE OF TRAFFIC.

PROJECT NOTES

LANE AND SHOULDER CLOSURE REQUIREMENTS

- J) 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.
- K) 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.
- L) 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.
- M) DO NOT WORK SIMULTANEOUSLY, ON BOTH SIDES OF AN OPEN TRAVELWAY, WITHIN THE SAME LOCATION, ON A TWO-LANE, TWO-WAY ROAD.
- N) DO NOT INSTALL MORE THAN ONE LANE CLOSURE, IN ANY ONE DIRECTION, ON NC 98 (HOLLOWAY STREET).

PAVEMENT EDGE DROP OFF REQUIREMENTS

- O) 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 A 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.
- P) DO NOT EXCEED A DIFFERENCE OF 1.5 inches IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 500 FT IN ADVANCE AND A MINIMUM OF ONCE EVERY MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

- R) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 100 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

WHEN NO WORK IS BEING CONDUCTED FOR A PERIOD LONGER THAN ONE WEEK, REMOVE OR COVER ALL ADVANCE WORK ZONE WARNING SIGNS, AS DIRECTED BY THE ENGINEER, AT NO COST TO THE DEPARTMENT.
- S) PROVIDE PERMANENT SIGNING.
- T) PROVIDE DETOUR SIGNING WITHIN AND OFF THE PROJECT LIMITS.
- U) COVER OR REMOVE ALL DETOUR SIGNS WITHIN AND OFF THE PROJECT LIMITS WHEN A DETOUR IS NOT IN OPERATION.
- V) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

TRAFFIC CONTROL DEVICES

- W) WHEN USING ROADWAY STANDARD NO. 1101.02, CONES MAY BE USED IN LIEU OF DRUMS ON NC 98 (HOLLOWAY STREET).
- X) SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH), EXCEPT 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY, WHEN LANE CLOSURES ARE NOT IN EFFECT.
- Y) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY. STAGGER OR OVERLAP BARRICADES TO ALLOW FOR INGRESS OR EGRESS.
- Z) PLACE SETS OF THREE DRUMS PERPENDICULAR TO THE EDGE OF THE TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC. THESE DRUMS SHALL BE IN ADDITION TO CHANNELIZING DEVICES.

PAVEMENT MARKINGS AND MARKERS

AA) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:

| ROAD NAME | MARKING | MARKER |
|-----------|---------------|------------------|
| ALL ROADS | THERMOPLASTIC | PERMANENT RAISED |

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

| ROAD NAME | MARKING | MARKER |
|-----------|---------|------------------|
| ALL ROADS | PAINT | TEMPORARY RAISED |

- CC) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- DD) REPLACE ANY PAVEMENT MARKINGS THAT HAVE BEEN DAMAGED BY THE END OF EACH DAY'S OPERATION.
- EE) TRACE THE EDGE OF PROPOSED MONOLITHIC ISLANDS WITH THE PROPER COLOR PAVEMENT MARKING PRIOR TO INSTALLATION OF A PROPOSED MONOLITHIC ISLAND.
- FF) PLACE AT LEAST TWO APPLICATIONS OF PAINT ON NEW ASPHALT WITH TEMPORARY TRAFFIC PATTERNS WHICH WILL REMAIN IN PLACE OVER THREE (3) MONTHS. PLACE ADDITIONAL APPLICATIONS OF PAINT UPON SUFFICIENT DRYING TIME, AS DETERMINED BY THE ENGINEER.

TEMPORARY/FINAL SIGNALS

- GG) NOTIFY THE ENGINEER TWO (2) MONTHS BEFORE A TRAFFIC SIGNAL INSTALLATION BY OTHERS IS REQUIRED.
- HH) SHIFT AND REVISE ALL SIGNAL HEADS AS SHOWN ON THE SIGNAL PLANS.

DEPARTMENT FURNISHED DEVICES

- II) THE DEPARTMENT WILL HAVE AVAILABLE (2) CHANGEABLE MESSAGE SIGNS AND 650 FT. OF WATER FILLED BARRIER FOR TRAFFIC CONTROL USE ON THE PROJECT. TRANSPORT THE CHANGEABLE MESSAGE SIGNS AND WATER FILLED BARRIER FROM THE NCDOT COUNTY MAINTENANCE FACILITY LOCATED AT 3910 GUESS ROAD IN DURHAM TO THE PROJECT.

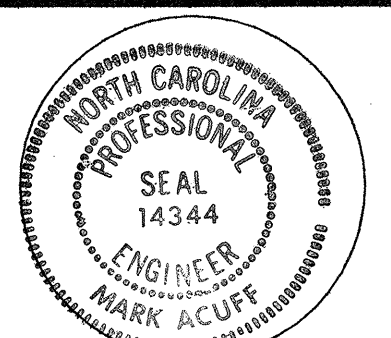
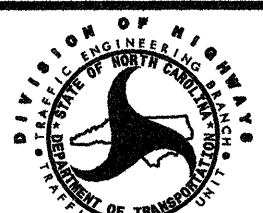
DELIVER THE CHANGEABLE MESSAGE SIGNS AND WATER FILLED BARRIER TO THE NCDOT COUNTY MAINTENANCE FACILITY LOCATED AT 3910 GUESS ROAD IN DURHAM WHEN THE DEVICES ARE DEEMED OF NO FURTHER USE ON THE PROJECT.

MISCELLANEOUS

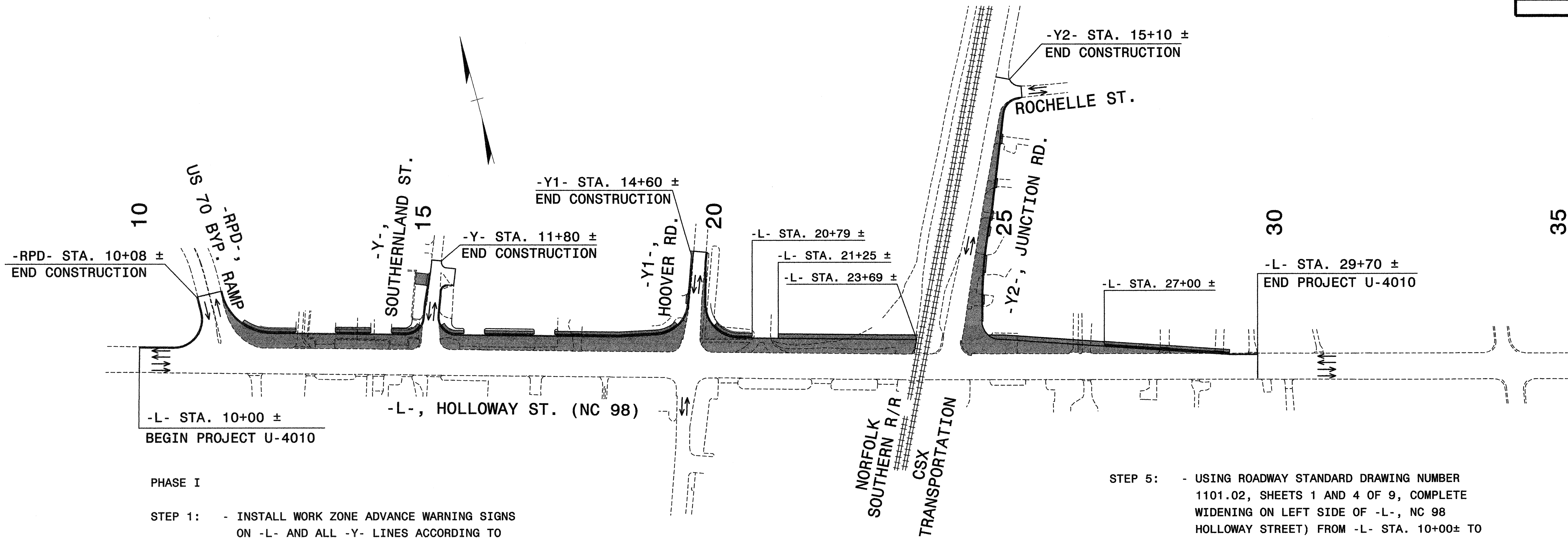
JJ) POLICE MAY BE USED TO MAINTAIN TRAFFIC THROUGH INTERSECTIONS.

LOCAL NOTES

- EXISTING RAILROAD SIGNAL EQUIPMENT OWNED BY CSX TRANSPORTATION SHALL REMAIN IN PLACE AND FUNCTIONAL UNTIL THE PROPOSED RAILROAD SIGNAL EQUIPMENT HAS BEEN INSTALLED AND MADE FUNCTIONAL, UNLESS OTHERWISE NOTED IN PLANS. THE CONTRACTOR WILL BE REQUIRED TO COORDINATE WITH CSX TRANSPORTATION IN LOCATING EXISTING UNDERGROUND RAILROAD UTILITIES AND THE REMOVAL AND INSTALLATION OF SIGNAL EQUIPMENT. (SEE SPECIAL PROVISIONS FOR CSX TRANSPORTATION CONTACT INFORMATION)
- QUEUING OF VEHICLES ACROSS RAIL TRACKS SHALL NOT BE PERMITTED. FLAGGER(S) SHALL BE PROVIDED AT THE HIGHWAY - RAIL GRADE CROSSING TO PREVENT VEHICLES FROM STOPPING WITHIN THE HIGHWAY - RAIL GRADE CROSSING.

| | | | |
|---|-------------------|---|-----------|
| APPROVED: <i>Mark Acuff</i> | DATE: 12/11/03 | PROJECT NOTES | |
|  | | | |
| SCALE: NONE | DATE: 5-29-03 |  | REVISIONS |
| DWG. BY: B.L.M. | DESIGN BY: B.L.M. | | |
| REVIEWED BY: M.S.A. | | | |
| | | | |

Plans prepared by:
KO & ASSOCIATES, P.C.
Consulting Engineers
101 SCHUBB DR., SUITE #202
RALEIGH, N.C. 27606
For Division of Highways



PHASE I

- STEP 1:** - INSTALL WORK ZONE ADVANCE WARNING SIGNS ON -L- AND ALL -Y- LINES ACCORDING TO SHEET TCP-12.
- STEP 2:** - USING ROADWAY STANDARD DRAWING NUMBER 1101.02, SHEETS 1 AND 4 OF 9 (SEE LOCAL NOTE 2), BEGIN REMOVAL OF EXISTING DRAINAGE AND INSTALLATION OF PROPOSED DRAINAGE AS REQUIRED IN THE ROADWAY PLANS. DRAINAGE STRUCTURES LOCATED IN THE EXISTING PAVEMENT SHALL BE CONSTRUCTED UP TO THE EXISTING PAVEMENT ELEVATION AND COVERED WITH A TRAFFIC BEARING STEEL PLATE, AS NEEDED. (SEE ROADWAY DESIGN PLANS)
- REMOVE LANE CLOSURE AT THE END OF EACH WORKDAY AND RESTORE TO EXISTING TRAFFIC PATTERN.
- INSTALL AND ACTIVATE TEMPORARY TRAFFIC SIGNALS AT THE FOLLOWING LOCATIONS: (SEE SIGNAL PLANS)
- L-, NC 98 (HOLLOWAY STREET) AND US 70 BYP. RAMP "D"
 - L-, NC 98 (HOLLOWAY STREET) AND -Y1- (HOOVER ROAD)
 - L-, NC 98 (HOLLOWAY STREET) AND -Y2-, SR 1838 (JUNCTION ROAD)
- USING ROADWAY STANDARD DRAWING 1101.03, SHEET 9 OF 9 AND FLAGGERS/POLICE AT -Y- LINES, MAY BEGIN INSTALLATION OF FINAL TRAFFIC SIGNAL AT NC 98 AND US 70 EASTBOUND RAMP AS DIRECTED BY ENGINEER.

- STEP 3:** - USING ROADWAY STANDARD DRAWING NUMBER 1101.02, SHEETS 1 AND 4 OF 9, CONSTRUCT WIDENING ON LEFT SIDE OF -L-, NC 98 (HOLLOWAY STREET) FROM -L- STA. 10+00± TO -L- STA. 29+70± AND WIDENING ON BOTH SIDES OF -Y- (SOUTHERLAND STREET) AND -Y1- (HOOVER ROAD) AND WIDENING ON RIGHT SIDE OF -Y2-, SR 1838 (JUNCTION ROAD) UP TO EXISTING PAVEMENT ELEVATION (EXCLUDING PROPOSED CURB AND GUTTER FROM -L- STA. 20+79± TO -L- STA. 27+00±) (SEE SHEET TCP- 5 AND LOCAL NOTES 1 AND 2)
- REMOVE LANE CLOSURE AT THE END OF EACH WORKDAY AND RESTORE TO EXISTING TRAFFIC PATTERN.
- STEP 4:** - USING ROADWAY STANDARD DRAWING NUMBER 1101.02, SHEETS 1 AND 4 OF 9, PAVE/WEDGE EXISTING -L-, NC 98 (HOLLOWAY STREET) UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE FROM -L- STA. 10+00± TO EXISTING RAILROAD CROSSING (-L- STA. 23+69±), INCLUDING -Y- (SOUTHERLAND STREET) AND -Y1- (HOOVER ROAD). (SEE LOCAL NOTE 2)
- REMOVE LANE CLOSURE AT THE END OF EACH WORKDAY AND RESTORE TO EXISTING TRAFFIC PATTERN.


- STEP 5:** - USING ROADWAY STANDARD DRAWING NUMBER 1101.02, SHEETS 1 AND 4 OF 9, COMPLETE WIDENING ON LEFT SIDE OF -L-, NC 98 (HOLLOWAY STREET) FROM -L- STA. 10+00± TO -L- STA. 23+69± AND WIDENING ON BOTH SIDES OF -Y- (SOUTHERLAND STREET) AND -Y1- (HOOVER ROAD) UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE. (SEE LOCAL NOTE 2)
- USING ROADWAY STANDARD DRAWING NUMBER 1101.02, SHEET 4 OF 9, CONSTRUCT 7.75' OF TEMPORARY WIDENING ON LEFT SIDE OF -L-, NC 98 (HOLLOWAY STREET) FROM -L- STA. 21+25± TO EXISTING RAILROAD CROSSING (-L- STA. 23+69±) (SEE SECTION A-A, SHEET TCP- 5)
- REMOVE LANE CLOSURE AT THE END OF EACH WORKDAY AND RESTORE TO EXISTING TRAFFIC PATTERN.
- STEP 6:** - INSTALL TEMPORARY TRAFFIC SIGNALS AT THE FOLLOWING INTERSECTIONS:
- L-, NC 98 (HOLLOWAY STREET) AND US 70 BYP. RAMP "D"
 - L-, NC 98 (HOLLOWAY STREET) AND -Y1- (HOOVER ROAD)
 - L-, NC 98 (HOLLOWAY STREET) AND -Y2-, SR 1838 (JUNCTION ROAD)

LEGEND


PROPOSED CONSTRUCTION

APPROVED: *Mark Acuity* DATE: 12/11/06

SEAL

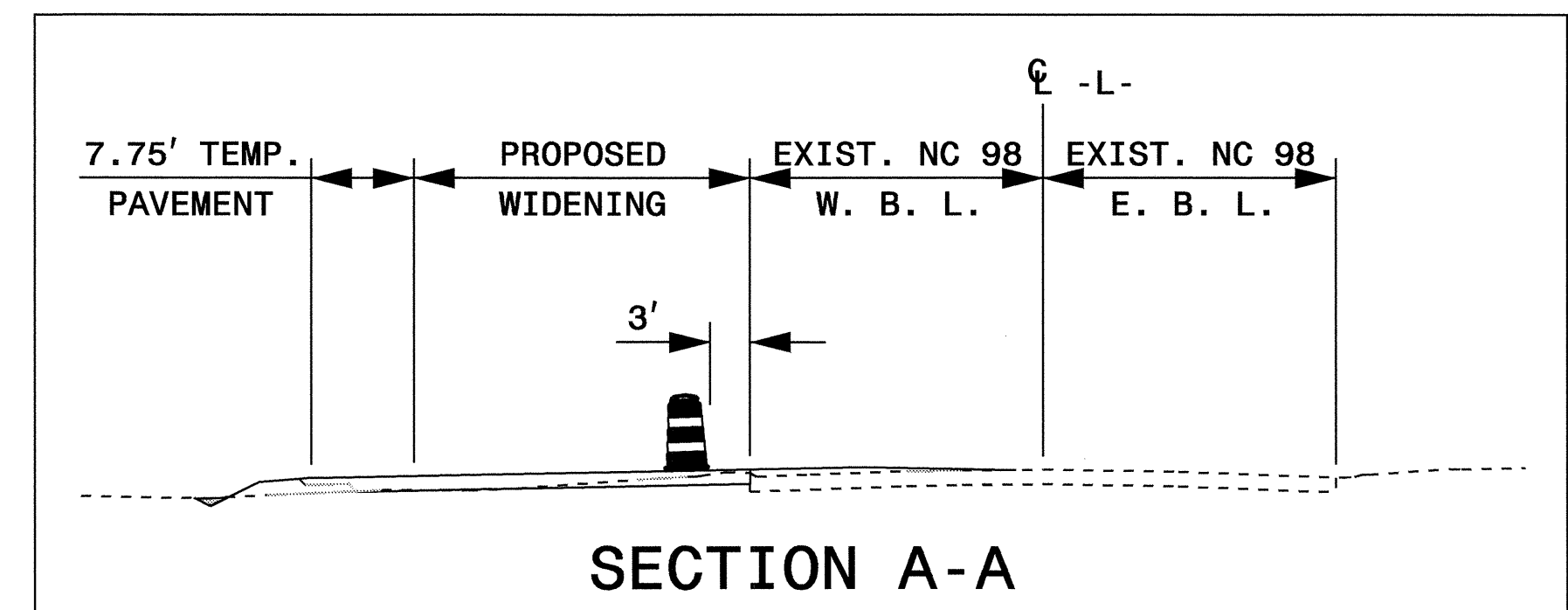
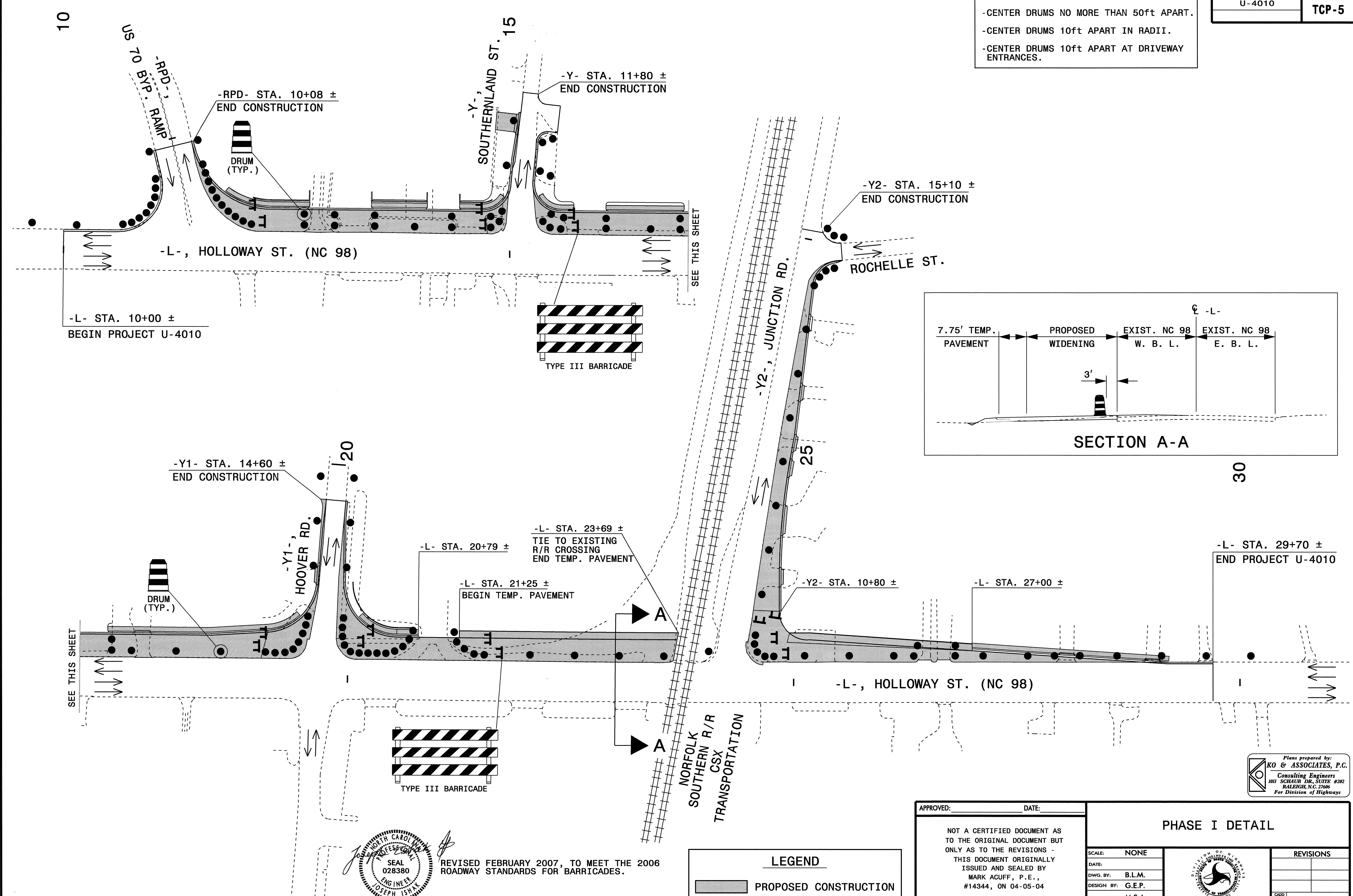


PHASE I OVERVIEW AND PHASING

| | | |
|---------------------|---|-----------|
| SCALE: NONE |  | REVISIONS |
| DATE: | | |
| DWG. BY: B.L.M. | | |
| DESIGN BY: G.E.P. | | |
| REVIEWED BY: M.S.A. | | |

Plans prepared by:
KO & ASSOCIATES, P.C.
 Consulting Engineers
 1011 SCHAUB DR. SUITE #202
 RALEIGH, N.C. 27606
 For Division of Highways

NOTES:
 -CENTER DRUMS NO MORE THAN 50ft APART.
 -CENTER DRUMS 10ft APART IN RADII.
 -CENTER DRUMS 10ft APART AT DRIVEWAY ENTRANCES.



Professional Engineer Seal for Joseph Istaitieh, License No. 028380, State of North Carolina. Includes a handwritten date: Feb 19, 2007.

REVISED FEBRUARY 2007, TO MEET THE 2006 ROADWAY STANDARDS FOR BARRICADES.

LEGEND
 [Gray Box] PROPOSED CONSTRUCTION

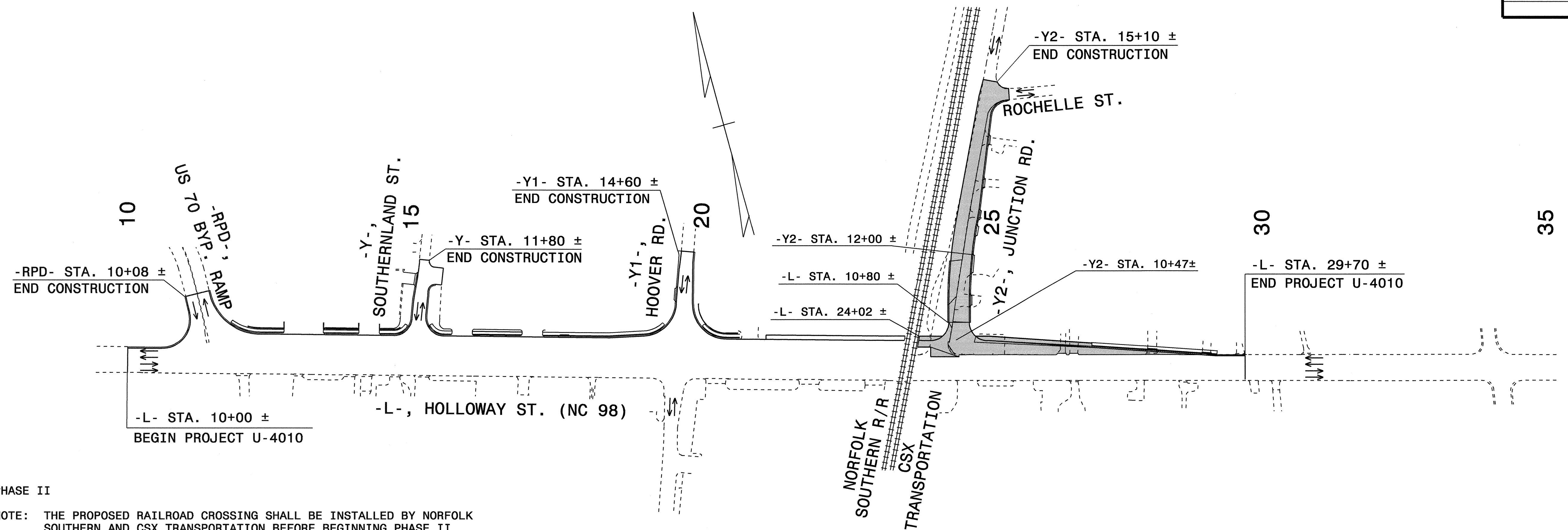
APPROVED: _____ DATE: _____
 NOT A CERTIFIED DOCUMENT AS TO THE ORIGINAL DOCUMENT BUT ONLY AS TO THE REVISIONS - THIS DOCUMENT ORIGINALLY ISSUED AND SEALED BY MARK ACUFF, P. E., #14344, ON 04-05-04

PHASE I DETAIL

| SCALE: NONE | | <table border="1"> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table> | REVISIONS | | | | | | | | | |
|---------------------|--|---|-----------|--|--|--|--|--|--|--|--|--|
| REVISIONS | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| DATE: _____ | | | | | | | | | | | | |
| DWG. BY: B.L.M. | | | | | | | | | | | | |
| DESIGN BY: G.E.P. | | | | | | | | | | | | |
| REVIEWED BY: M.S.A. | | | | | | | | | | | | |

Plans prepared by: **KO & ASSOCIATES, P.C.**
 Consulting Engineers
 1011 SCHAUB DR., SUITE #202
 RALEIGH, N.C. 27606
 For Division of Highways

\$FILES \$STATES \$TIMES



PHASE II

NOTE: THE PROPOSED RAILROAD CROSSING SHALL BE INSTALLED BY NORFOLK SOUTHERN AND CSX TRANSPORTATION BEFORE BEGINNING PHASE II. (SEE LOCAL NOTE 1)

THE INSTALLATION OF THE PROPOSED RAILROAD SIGNAL EQUIPMENT SHALL BE COMPLETED BY RAILROAD COMPANIES BEFORE BEGINNING PHASE II. (SEE LOCAL NOTE 1)

STEP 1: - INSTALL ALL OFF SITE DETOUR SIGNING AS SHOWN ON SHEET TCP-9. IF WORK IS NOT PURSUED WITHIN THREE DAYS OF SIGN INSTALLATION, THE SIGNS SHALL BE COVERED OR REMOVED IN A METHOD APPROVED BY THE ENGINEER ACCORDING TO STANDARD SPECIFICATION SECTION 1110.

THE CONTRACTOR SHALL COMPLETE THE WORK REQUIRED OF PHASE II, STEPS 2 THRU 7 IN 45 CONSECUTIVE DAYS. (SEE SPECIAL PROVISIONS AND LIQUIDATED DAMAGES)

NOTE: THE REMOVAL OF THE EXISTING RAILROAD SIGNAL SHALL BE COMPLETED BY RAILROAD COMPANIES WITHIN THIS CONTRACT TIME. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE SCHEDULING OF THIS CONTRACT TIME WITH RAILROAD COMPANIES. (SEE SPECIAL PROVISIONS FOR RAILROAD COMPANIES CONTACT INFORMATION)

STEP 2: - USING TYPE III BARRICADES AND ROADWAY STANDARD DRAWING NUMBER 1101.03, SHEET 1 OF 9, CLOSE -Y2-, SR 1838 (JUNCTION ROAD) BETWEEN -Y2- STA. 12+00± AND -L-, NC 98 (HOLLOWAY STREET). (SEE SHEET TCP-7)

STEP 3: - BEGIN CONSTRUCTION OF -Y2-, SR 1838 (JUNCTION ROAD) UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE FROM -Y2- STA. 10+47± TO -Y2- STA. 15+10±. (SEE SHEET TCP-7) USE FLAGGER(S) AND FLAGGER AHEAD SIGN(S) WHEN WORKING ON -Y2-, SR 1838 (JUNCTION ROAD) BETWEEN -Y2- STA. 12+00± AND -Y2- STA. 15+10± TO MAINTAIN LOCAL TRAFFIC.

- USING ROADWAY STANDARD DRAWING NUMBER 1101.02, SHEET 4 OF 9, PAVE/WEDGE EXISTING -L-, NC 98 (HOLLOWAY STREET) UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE FROM EXISTING RAILROAD CROSSING (-L- STA. 24+02±) TO -L- STA. 29+70±. (SEE LOCAL NOTE 2)

- REMOVE LANE CLOSURE AT THE END OF EACH WORKDAY AND RESTORE TO EXISTING TRAFFIC PATTERN.

STEP 4: - USING ROADWAY STANDARD DRAWING NUMBER 1101.02, SHEET 4 OF 9, COMPLETE WIDENING ON LEFT SIDE OF -L-, NC 98 (HOLLOWAY STREET) FROM -L- STA. 24+16± TO -L- STA. 29+70± UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE. (SEE LOCAL NOTE 2)

- USING ROADWAY STANDARD DRAWING NUMBER 1101.02, SHEET 4 OF 9, CONSTRUCT 11.75' OF THE PROPOSED OUTSIDE WESTBOUND LANE FROM EXISTING RAILROAD CROSSING (-L- STA. 24+02±) TO -L- STA. 24+16± UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE. (SEE SECTION B-B, SHEET TCP-7)

- USING ROADWAY STANDARD DRAWING NUMBER 1101.02, SHEET 4 OF 9, CONSTRUCT 7.75' OF TEMPORARY WIDENING ON LEFT SIDE OF -L-, NC 98 (HOLLOWAY STREET) FROM EXISTING RAILROAD CROSSING (-L- STA. 24+02±) TO -L- STA. 27+00±.

- REMOVE LANE CLOSURE AT THE END OF EACH WORKDAY AND RESTORE TO EXISTING TRAFFIC PATTERN.

STEP 5: - IN ONE CONTINUOUS OPERATION, USING ROADWAY STANDARD DRAWING NUMBER 1101.02, SHEET 4 OF 9, SHIFT -L-, NC 98 (HOLLOWAY STREET) TRAFFIC (4-LANES) TO THE LEFT AS SHOWN ON SHEET TCP-8. PLACE INTERIM PAVEMENT MARKING LINES (PAINT), MARKERS (TEMPORARY RAISED), AND WATER FILLED BARRIER AND REOPEN ALL LANES TO TRAFFIC. (SEE LOCAL NOTE 2)

- ACTIVATE TEMPORARY TRAFFIC SIGNALS AT THE FOLLOWING INTERSECTIONS:

- L-, NC 98 (HOLLOWAY STREET) AND US 70 BYP. RAMP "D"
- L-, NC 98 (HOLLOWAY STREET) AND -Y1- (HOOVER ROAD)

STEP 6: - UPON REMOVAL OF EXISTING RAILROAD SIGNAL EQUIPMENT BY RAILROAD COMPANIES, REMOVE EXISTING CONCRETE FOOTING AS DIRECTED BY ENGINEER AND COMPLETE CONSTRUCTION OF PROPOSED WIDENING FROM EXISTING RAILROAD CROSSING (-L- STA. 24+02±) TO -L- STA. 24+16± UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE. (SEE SECTION C-C, SHEET TCP-8)

- COMPLETE CONSTRUCTION OF -Y2-, SR 1838 (JUNCTION ROAD) UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE WHICH WAS BEGAN IN STEP 3.

STEP 7: - USING ROADWAY STANDARD DRAWING NUMBER 1101.02, SHEET 4 OF 9, REMOVE WATER FILLED BARRIER AND PLACE INTERIM PAVEMENT MARKING LINES (PAINT) AND MARKERS (TEMPORARY RAISED) SHIFTING NC 98 (HOLLOWAY STREET) WESTBOUND TRAFFIC INTO PROPOSED WESTBOUND LANES BETWEEN -L- STA. 20+79± AND -L- STA. 29+20± AS SHOWN ON SHEET TCP-11.

- SIMULTANEOUSLY REMOVE ALL TYPE III BARRICADES AND ALL DETOUR SIGNING AND REOPEN -Y2-, SR 1838 (JUNCTION ROAD) TO 2-LANE, 2-WAY TRAFFIC. ACTIVATE TEMPORARY TRAFFIC SIGNAL AT THE -L-, NC 98 (HOLLOWAY STREET) AND -Y2-, SR 1838 (JUNCTION ROAD) INTERSECTION.

REVISED FEBRUARY 2007, TO MEET THE 2006 ROADWAY STANDARDS. (RSD 1101.02 SHEET 1 OF 9 INSTEAD OF 1 OF 7)

Joseph Ish...

 Feb 14 2007

LEGEND

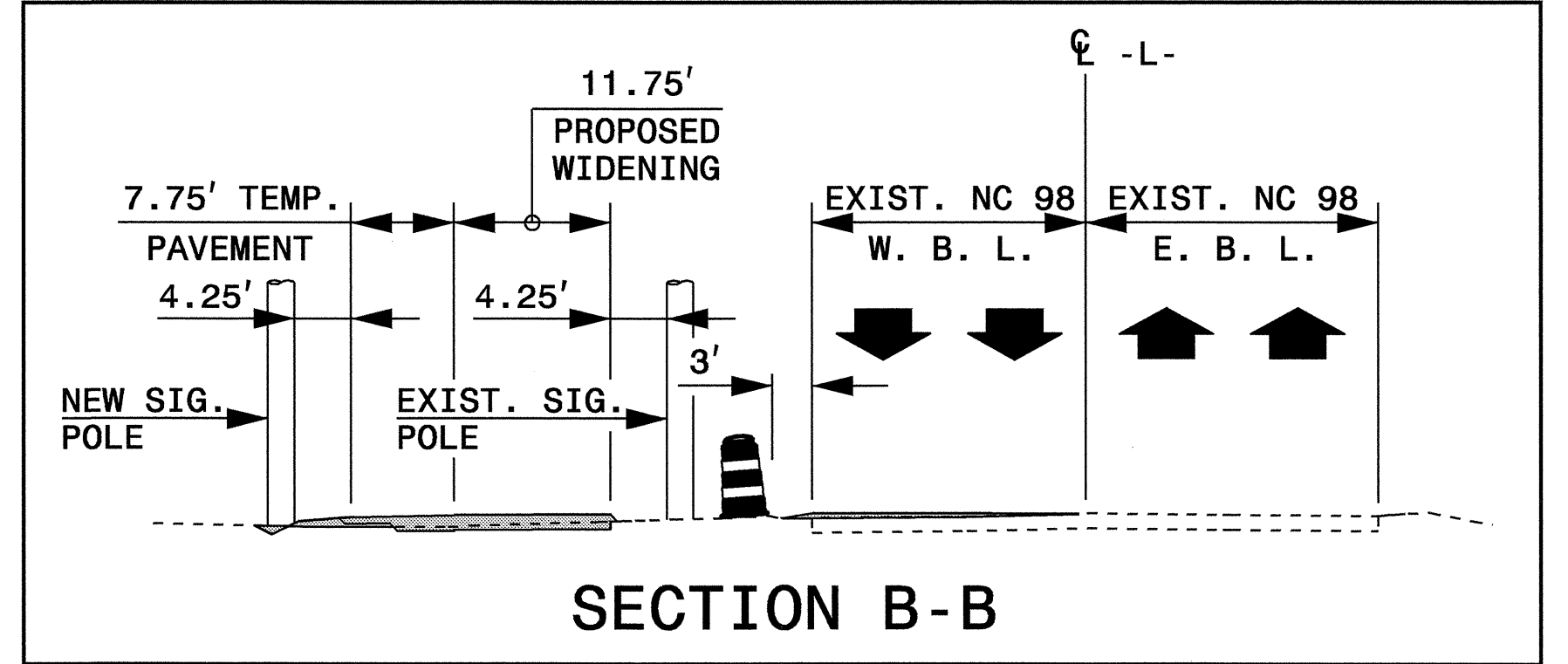
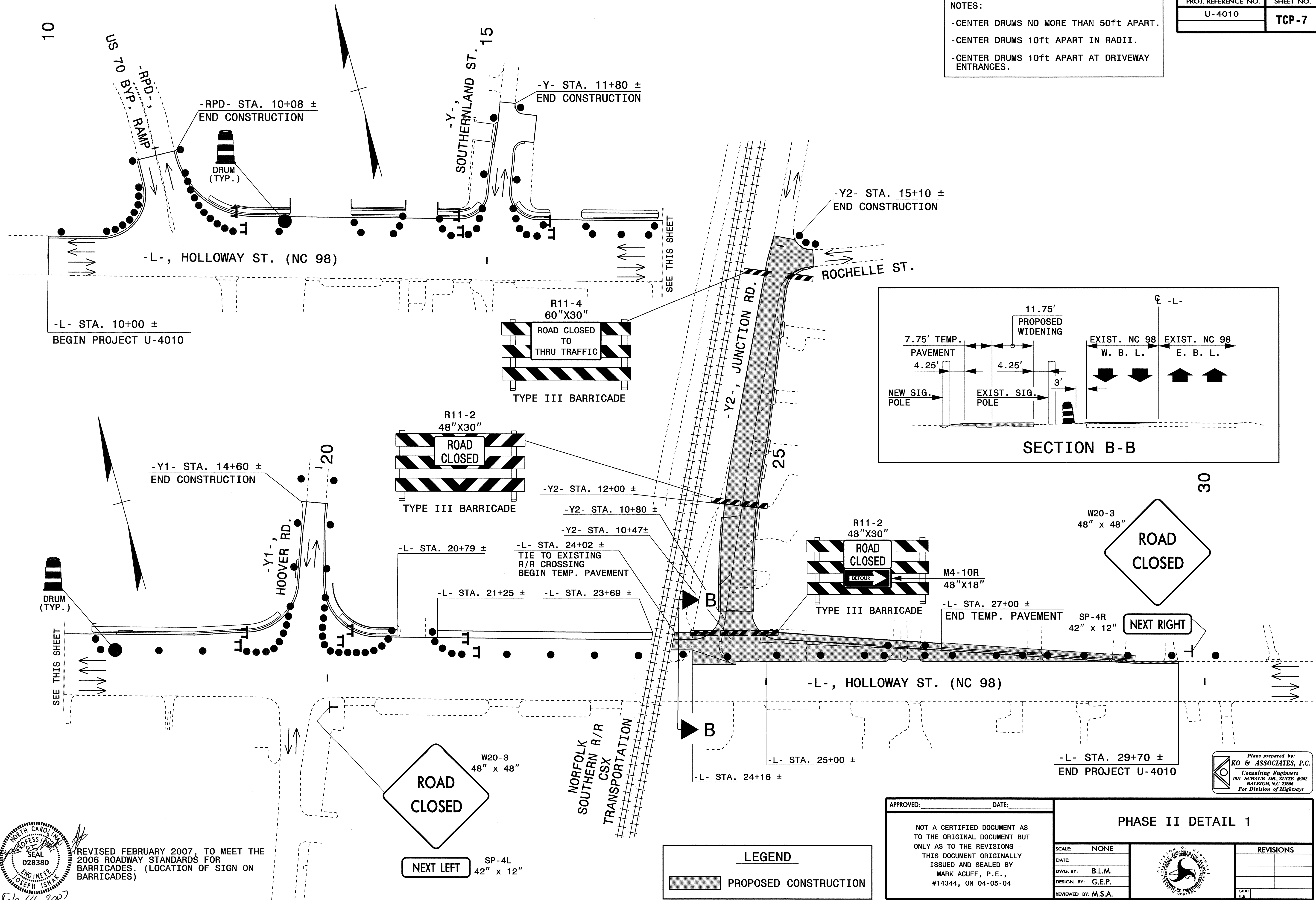
PROPOSED CONSTRUCTION

| | | | | | | | | | | | | | | |
|--|--------------------------------------|---|-------------|--|-----------|-------|--|-----------------|--|-------------------|--|---------------------|--|--|
| APPROVED: _____ DATE: _____ NOT A CERTIFIED DOCUMENT AS TO THE ORIGINAL DOCUMENT BUT ONLY AS TO THE REVISIONS - THIS DOCUMENT ORIGINALLY ISSUED AND SEALED BY MARK ACUFF, P.E., #14344, ON 04-05-04 | PHASE II OVERVIEW AND PHASING | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>SCALE: NONE</td> <td rowspan="4" style="text-align: center; vertical-align: middle;"> </td> <td>REVISIONS</td> </tr> <tr> <td>DATE:</td> <td></td> </tr> <tr> <td>DWG. BY: B.L.M.</td> <td></td> </tr> <tr> <td>DESIGN BY: G.E.P.</td> <td></td> </tr> <tr> <td>REVIEWED BY: M.S.A.</td> <td></td> <td></td> </tr> </table> | SCALE: NONE | | REVISIONS | DATE: | | DWG. BY: B.L.M. | | DESIGN BY: G.E.P. | | REVIEWED BY: M.S.A. | | |
| SCALE: NONE | | REVISIONS | | | | | | | | | | | | |
| DATE: | | | | | | | | | | | | | | |
| DWG. BY: B.L.M. | | | | | | | | | | | | | | |
| DESIGN BY: G.E.P. | | | | | | | | | | | | | | |
| REVIEWED BY: M.S.A. | | | | | | | | | | | | | | |

Plans prepared by:
KRO & ASSOCIATES, P.C.
 Consulting Engineers
 101 SCHAU DR., SUITE #202
 RALEIGH, N.C. 27606
 For Division of Highways

\$FILES \$DATES \$TIMES

NOTES:
 -CENTER DRUMS NO MORE THAN 50ft APART.
 -CENTER DRUMS 10ft APART IN RADII.
 -CENTER DRUMS 10ft APART AT DRIVEWAY ENTRANCES.



REVISED FEBRUARY 2007, TO MEET THE 2006 ROADWAY STANDARDS FOR BARRICADES. (LOCATION OF SIGN ON BARRICADES)

REVISOR'S SEAL
 PROFESSIONAL ENGINEER
 JOSEPH ISHAK
 028380
 Feb 14, 2007

SP-4L
 42" x 12"
 NEXT LEFT

LEGEND
 PROPOSED CONSTRUCTION

APPROVED: _____ DATE: _____
 NOT A CERTIFIED DOCUMENT AS TO THE ORIGINAL DOCUMENT BUT ONLY AS TO THE REVISIONS - THIS DOCUMENT ORIGINALLY ISSUED AND SEALED BY MARK ACUFF, P.E., #14344, ON 04-05-04

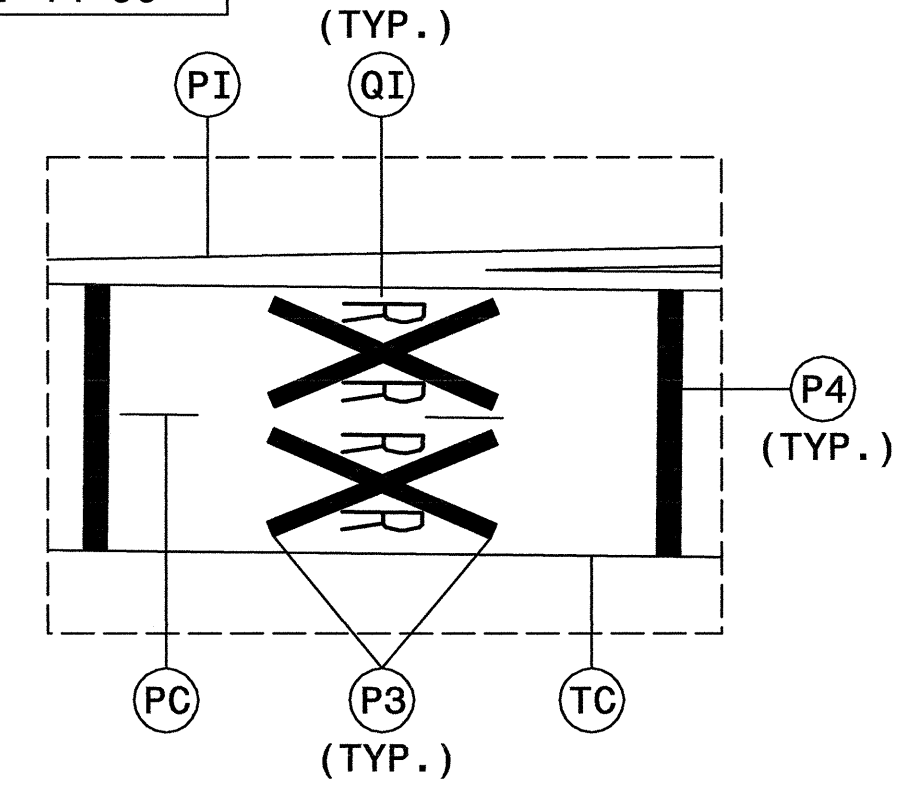
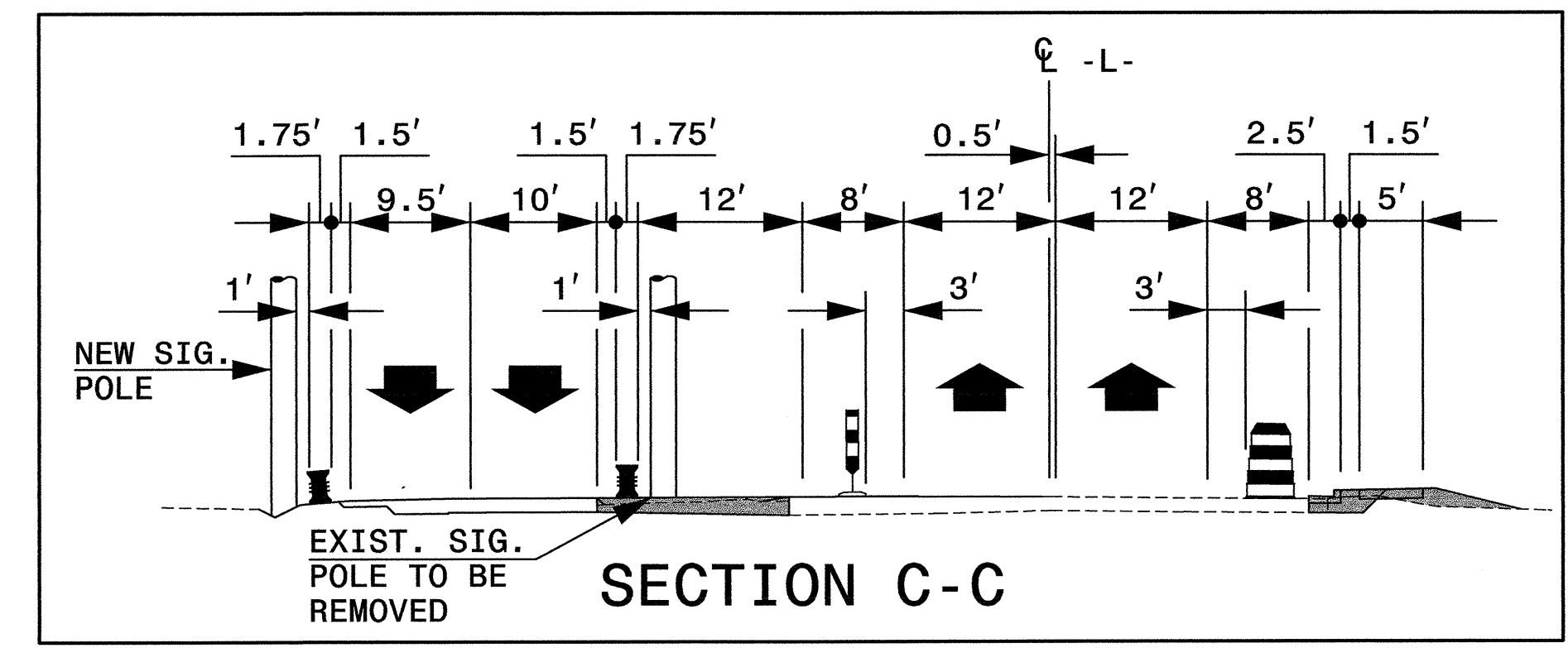
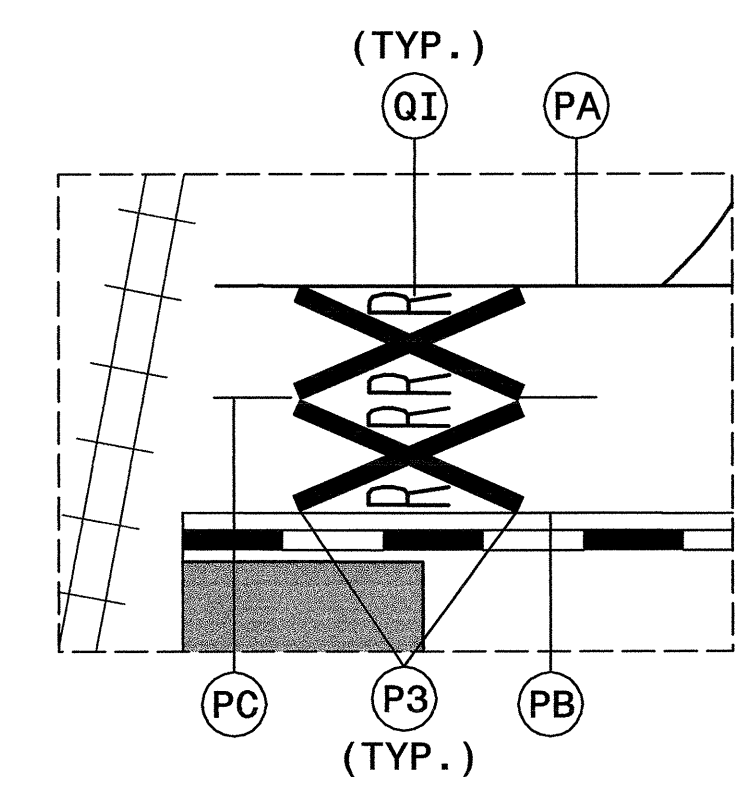
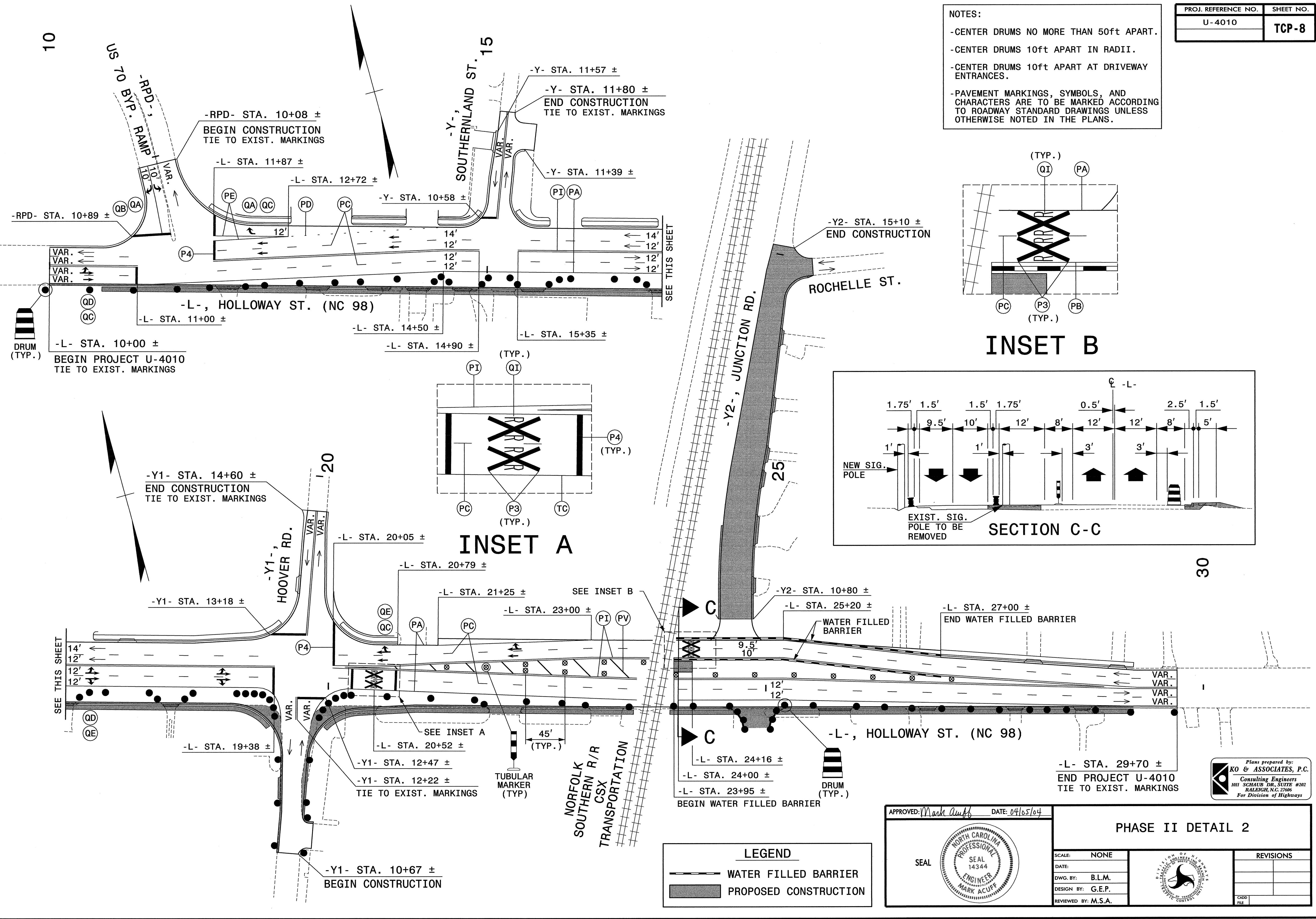
PHASE II DETAIL 1

| | |
|---------------------|-----------|
| SCALE: NONE | REVISIONS |
| DATE: | |
| DWG. BY: B.L.M. | |
| DESIGN BY: G.E.P. | |
| REVIEWED BY: M.S.A. | |

Plans prepared by:
 KO & ASSOCIATES, P.C.
 Consulting Engineers
 101 SCHAER DR., SUITE #202
 RALEIGH, N.C. 27605
 For Division of Highways

NOTES:

- CENTER DRUMS NO MORE THAN 50ft APART.
- CENTER DRUMS 10ft APART IN RADII.
- CENTER DRUMS 10ft APART AT DRIVEWAY ENTRANCES.
- PAVEMENT MARKINGS, SYMBOLS, AND CHARACTERS ARE TO BE MARKED ACCORDING TO ROADWAY STANDARD DRAWINGS UNLESS OTHERWISE NOTED IN THE PLANS.



LEGEND

| | |
|--|-----------------------|
| | WATER FILLED BARRIER |
| | PROPOSED CONSTRUCTION |

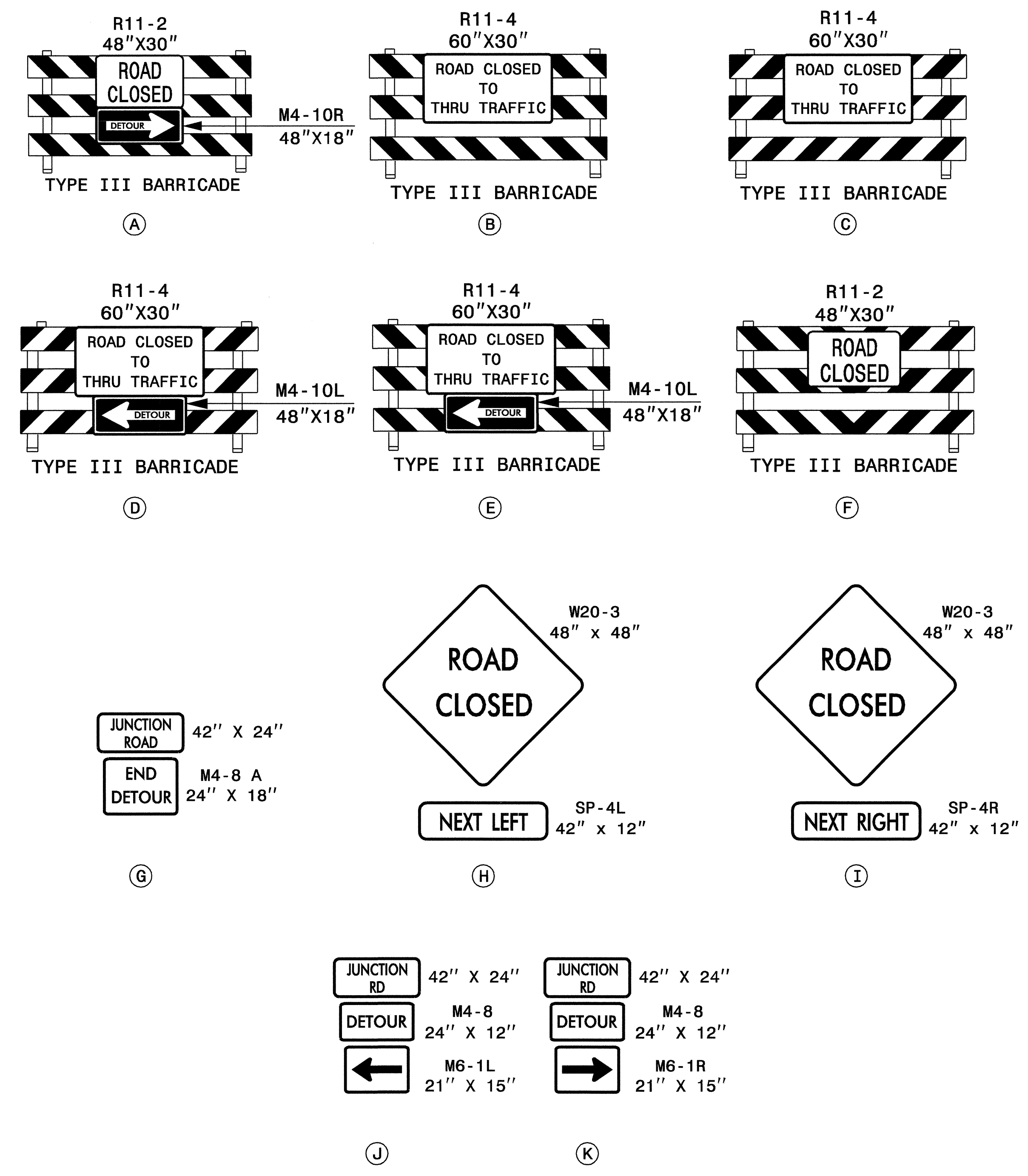
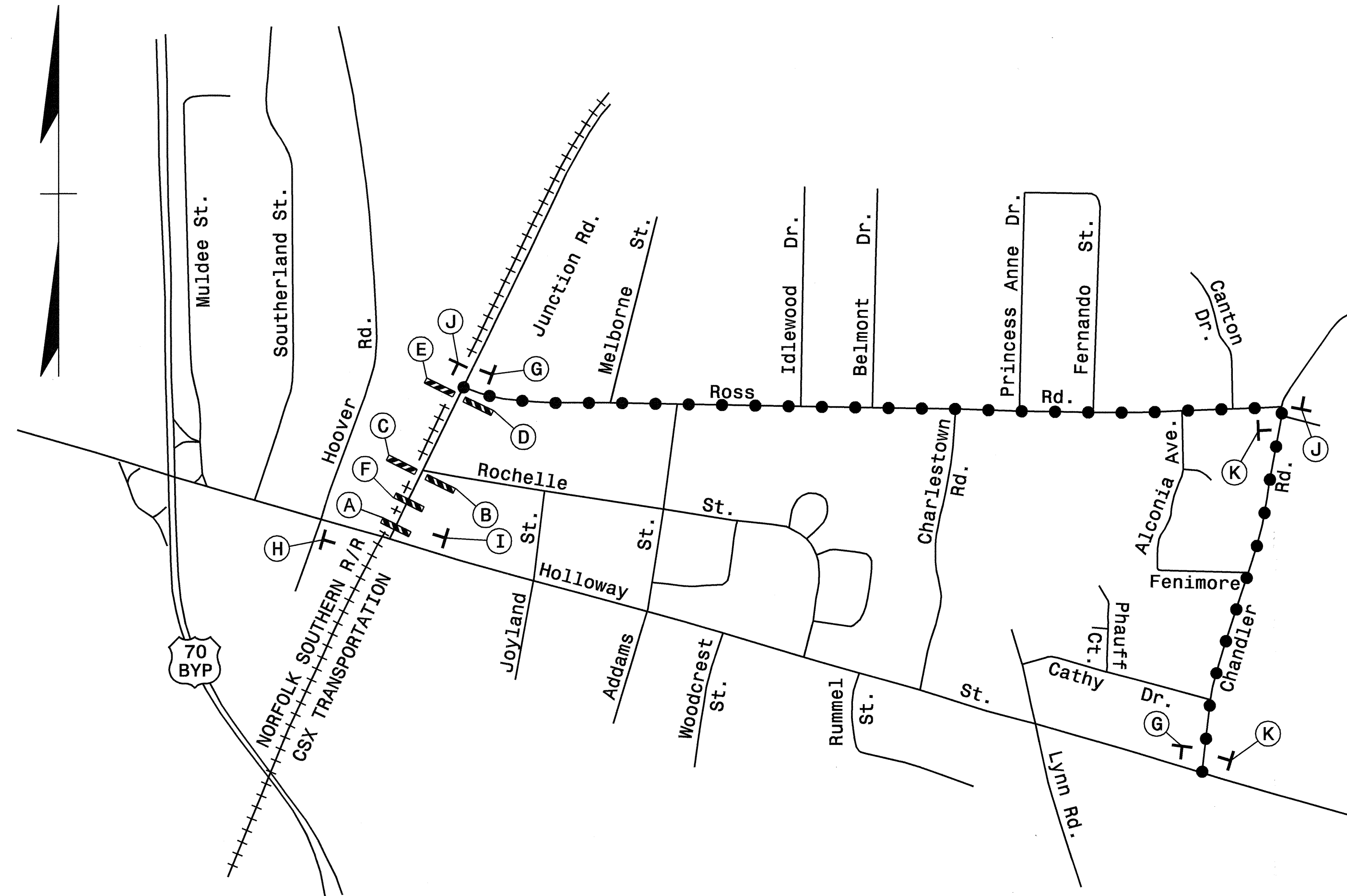
APPROVED: *Mash Acuff* DATE: 04/05/04

SEAL

PHASE II DETAIL 2

| SCALE: NONE | | <table border="1"> <tr><th colspan="2">REVISIONS</th></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table> | REVISIONS | | | | | | | |
|---------------------|-----------|---|-----------|--|--|--|--|--|--|--|
| REVISIONS | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| DATE: | | | | | | | | | | |
| DWG. BY: B.L.M. | | | | | | | | | | |
| DESIGN BY: G.E.P. | | | | | | | | | | |
| REVIEWED BY: M.S.A. | CADD FILE | | | | | | | | | |

I:\TRAFFIC\U-4010\002: UNSEALED\PLAN\DET2.dwg
 04/02/2004 09:28:44 AM



| | | |
|---|---|---|
| SIGN NUMBER: SPO3568 TYPE: D QUANTITY: 1 SIGN WIDTH: 3'-6" HEIGHT: 2'-0" TOTAL AREA: 7.0 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0.38" WIDTH: 0.63" RADIUS: 1.5" NO. Z BARS: LENGTH: | BACKG COLOR: Orange COPY COLOR: Black SYMBOL: X Y WID HT MAT'L: 0.080" (2.0 mm) ALUMINUM | DESIGN BY: F. MURRAY PROJECT ID: ID CHECKED BY: DIV: STD #: DATE: Nov 25, 2003 |
|---|---|---|

USE NOTES: 1,2

- Legend and border shall be direct applied Type III reflective sheeting.
- Legend and border shall be direct applied non-reflective sheeting.
- Shields shall be Type III reflective sheeting on 0.032" (0.8mm) aluminum and demountable.
- Background shall be Type III reflective sheeting.
- Background shall be Type I reflective sheeting.
- Center arrow(s) vertically on sign.
- Bottom panel shall be yellow Type III sheeting. Legend shall be direct applied black non-reflective sheeting. Yellow panel is:

| Letter spacings are to start of next letter | | | | | | | | | | | Series/Size |
|---|------|-----|-----|-----|-----|------|---|-----|-----|-----|-------------|
| | J | U | N | C | T | I | O | N | | | Text Length |
| | 5.3 | 4.3 | 4.6 | 4.6 | 4 | 4 | 2 | 4.7 | 3.4 | 5.3 | D5 31.4 |
| | | R | O | A | D | | | | | | D5 17.2 |
| | 12.4 | 4.3 | 4.5 | 5.1 | 3.4 | 12.4 | | | | | |

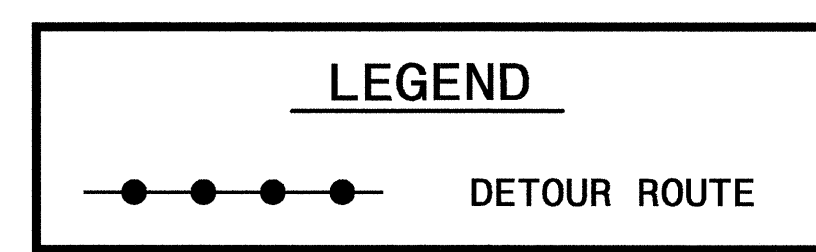
Spacing Factor is 1 unless specified otherwise
FILENAME: FNU_TCP_9
NORTH CAROLINA D.O.T. SIGN DETAIL

REVISOR'S SEAL
SEAL 028380
ENGINEER
JOSEPH ISHAK
Feb 14 2007

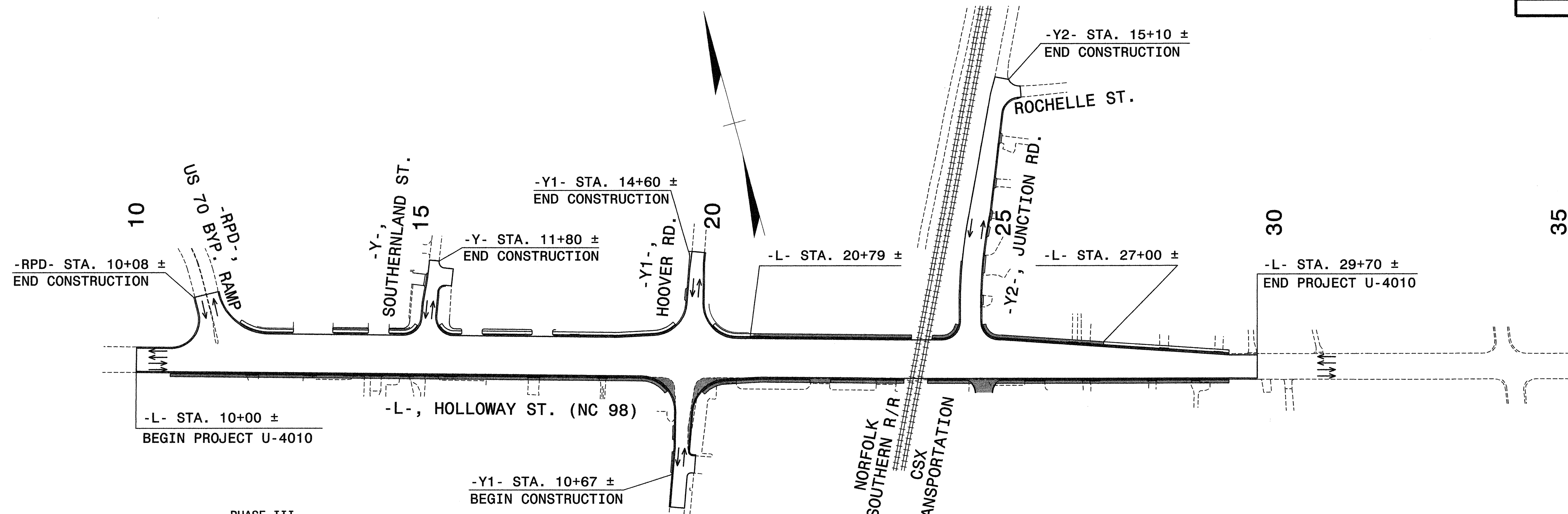
REVISED FEBRUARY 2007, TO MEET THE 2006 ROADWAY STANDARDS FOR BARRICADES. (LOCATION OF SIGN ON BARRICADES)

Plans prepared by:
KO & ASSOCIATES, P.C.
Consulting Engineers
1011 SCHUBB DR. SUITE #202
RALEIGH, N.C. 27606
For Division of Highways

| | |
|--|-----------|
| APPROVED: | DATE: |
| <p>NOT A CERTIFIED DOCUMENT AS TO THE ORIGINAL DOCUMENT BUT ONLY AS TO THE REVISIONS - THIS DOCUMENT ORIGINALLY ISSUED AND SEALED BY MARK ACUFF, P.E., #14344, ON 04-05-04</p> | |
| DETOUR DETAIL | |
| SCALE: NONE | REVISIONS |
| DATE: X | |
| DWG. BY: B.L.M. | |
| DESIGN BY: G.E.P. | |
| REVIEWED BY: M.S.A. | |



\$FILES\$ \$TIMES\$ \$DATES\$



PHASE III

- STEP 1: - CONSTRUCT WIDENING ON RIGHT SIDE OF -L-, NC 98 (HOLLOWAY STREET) FROM -L- STA. 10+00± TO -L- STA. 29+70± (INCLUDING PROPOSED CURB AND GUTTER) UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE. (REFER TO ROADWAY STANDARD DRAWING NUMBER 1101.02, SHEET 4 OF 9, SEE SHEET TCP-11 AND SEE LOCAL NOTE 2)
- USING ROADWAY STANDARD DRAWING NUMBER 1101.02, SHEET 4 OF 9, CONSTRUCT CURB AND GUTTER AND SIDEWALK ON LEFT SIDE OF -L-, NC 98 (HOLLOWAY STREET) FROM -L- STA. 20+79± TO -L- STA. 27+00±. (SEE LOCAL NOTE 2)
- REMOVE LANE CLOSURE AT THE END OF EACH WORKDAY AND RESTORE TO EXISTING TRAFFIC PATTERN.

- STEP 2: - USING ROADWAY STANDARD DRAWING 1101.03, SHEET 9 OF 9 ON -L- (NC 98) AND FLAGGERS/POLICE AT -Y- LINES, INSTALL FINAL TRAFFIC SIGNALS AT THE FOLLOWING INTERSECTIONS: (SEE CONTRACT TIMES AND LIQUIDATED DAMAGES)
- L-, NC 98 (HOLLOWAY STREET) AND US 70 EASTBOUND RAMP
 - L-, NC 98 (HOLLOWAY STREET) AND US 70 BUS. RAMP "D"
 - L-, NC 98 (HOLLOWAY STREET) AND -Y1- (HOOVER ROAD)
 - L-, NC 98 (HOLLOWAY STREET) AND -Y2-, SR 1838 (JUNCTION ROAD)

STEPS 3 AND 4 SHALL BE COMPLETED IN ONE CONTINUOUS OPERATION.

- STEP 3: - USING ROADWAY STANDARD DRAWING NUMBER 1101.02, SHEET 4 OF 9, PLACE NC 98 (HOLLOWAY STREET) EASTBOUND TRAFFIC INTO THE INSIDE LANE. REMOVE INTERIM RIGHT EDGELINE AND REPLACE WITH 10' WHITE SKIP LINE (PAINT) AND MARKERS (TEMPORARY RAISED) AS SHOWN ON SHEET PM-2. (SEE LOCAL NOTE 2)

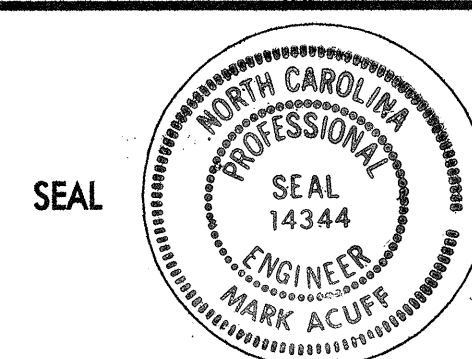
- STEP 4: - USING ROADWAY STANDARD DRAWING NUMBER 1101.02, SHEET 4 OF 9, SHIFT NC 98 (HOLLOWAY STREET) EASTBOUND AND WESTBOUND TRAFFIC INTO THEIR RESPECTIVE OUTSIDE LANES. INSTALL PAVEMENT MARKING LINES AND SYMBOLS (PAINT) AND MARKERS (TEMPORARY RAISED) IN THE CENTER LANES AS SHOWN ON SHEET PM-2. USING 4" DOUBLE YELLOW CENTER LINES (PAINT) OUTLINE THE LOCATIONS OF THE PROPOSED CONCRETE MONOLITHIC ISLANDS. (SEE LOCAL NOTE 2)
- REMOVE LANE CLOSURE, ACTIVATE SIGNALS AND OPEN ALL LANES TO TRAFFIC.

- STEP 5: - USING ROADWAY STANDARD DRAWING NUMBER 1101.02, SHEET 4 OF 9, COMPLETE CONSTRUCTION OF DRAINAGE STRUCTURES LOCATED ALONG THE CONCRETE MONOLITHIC ISLAND BETWEEN -L- STA. 20+00± AND -L- STA. 23+50±. (SEE LOCAL NOTE 2)
- INSTALL CONCRETE MONOLITHIC ISLAND.
- REMOVE LANE CLOSURE AT THE END OF EACH WORKDAY AND RESTORE TO EXISTING TRAFFIC PATTERN.

- STEP 6: - USING ROADWAY STANDARD DRAWING NUMBER 1101.02, SHEETS 1 AND 4 OF 9, PLACE FINAL LAYER OF SURFACE COURSE, FINAL PAVEMENT MARKINGS (THERMOPLASTIC) AND MARKERS (PERMANENT RAISED) ON -L-, NC 98 (HOLLOWAY STREET) AND ALL -Y- LINES. (SEE LOCAL NOTE 2)
- REMOVE LANE CLOSURE AT THE END OF EACH WORKDAY AND RESTORE TO EXISTING TRAFFIC PATTERN.

Plans prepared by:
KO & ASSOCIATES, P.C.
 Consulting Engineers
 1011 SCHAUB DR. SUITE #202
 RALEIGH, N.C. 27606
 For Division of Highways

APPROVED: *Mark Acuff* DATE: 12/11/06



PHASE III OVERVIEW AND PHASING

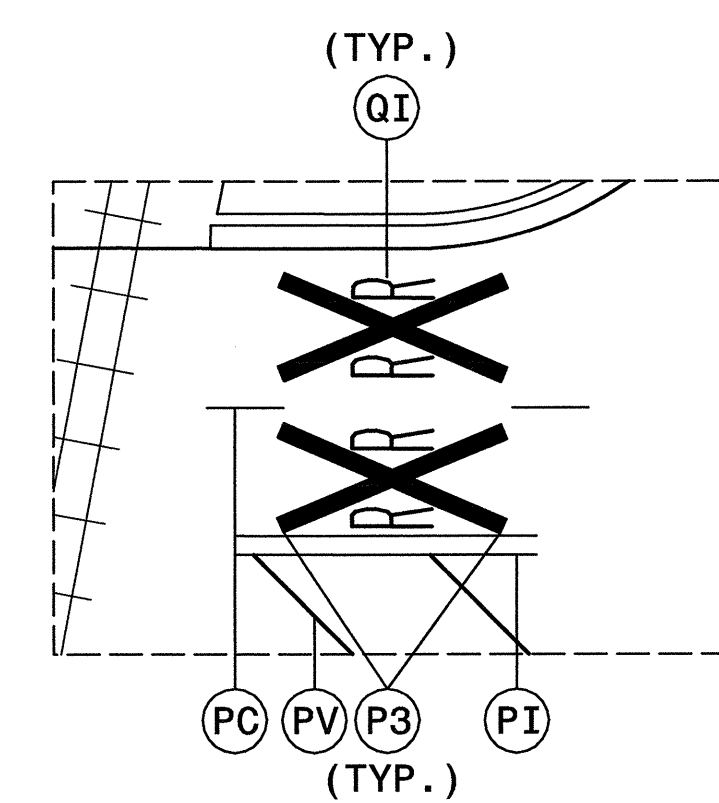
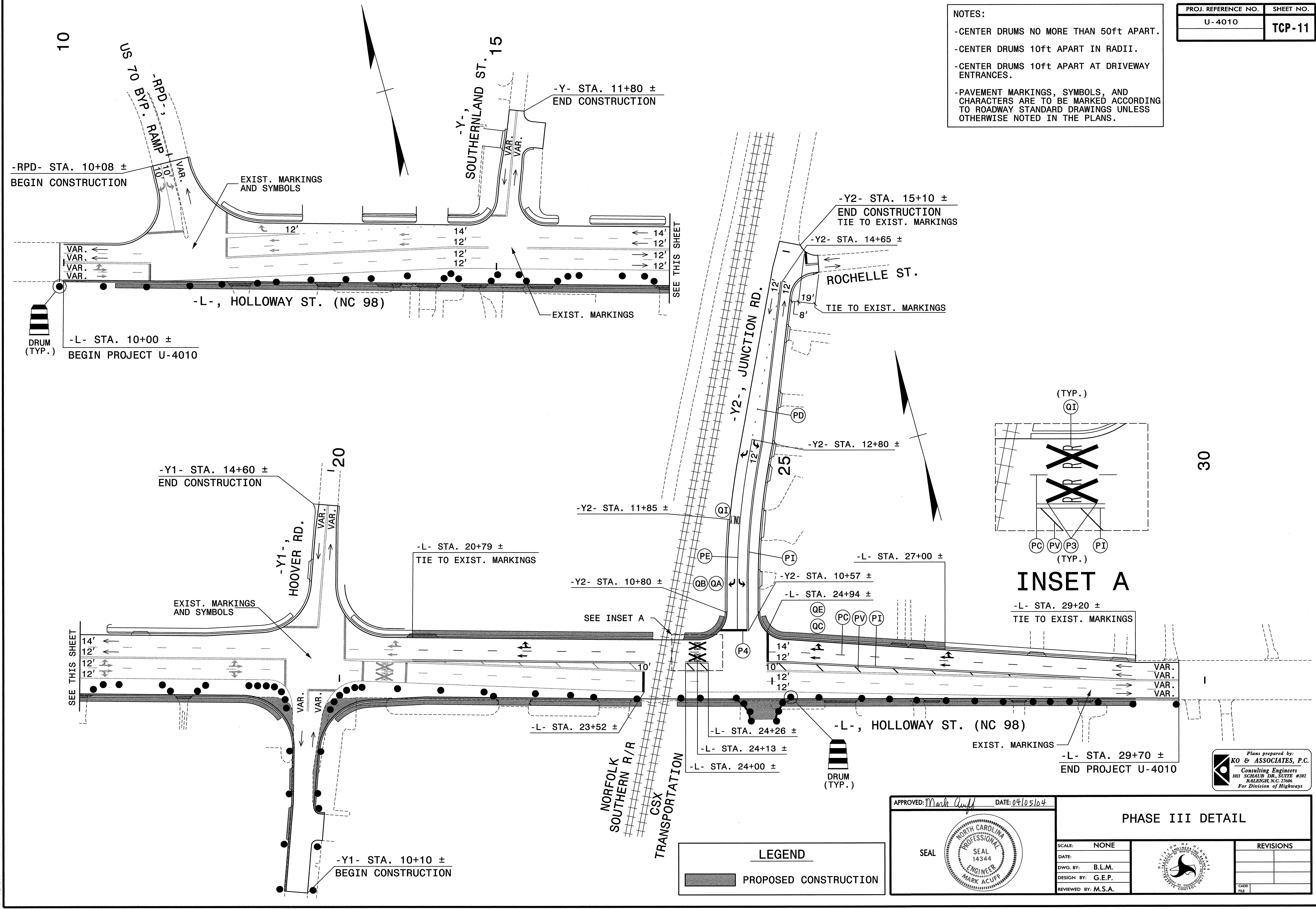
LEGEND

■ PROPOSED CONSTRUCTION

| | | |
|---------------------|--|-----------|
| SCALE: NONE | | REVISIONS |
| DATE: | | |
| DWG. BY: B.L.M. | | |
| DESIGN BY: G.E.P. | | |
| REVIEWED BY: M.S.A. | | |

NOTES:

- CENTER DRUMS NO MORE THAN 50ft APART.
- CENTER DRUMS 10ft APART IN RADII.
- CENTER DRUMS 10ft APART AT DRIVEWAY ENTRANCES.
- PAVEMENT MARKINGS, SYMBOLS, AND CHARACTERS ARE TO BE MARKED ACCORDING TO ROADWAY STANDARD DRAWINGS UNLESS OTHERWISE NOTED IN THE PLANS.



INSET A

LEGEND

■ PROPOSED CONSTRUCTION

APPROVED: *Mark Acuff* DATE: 04/05/04

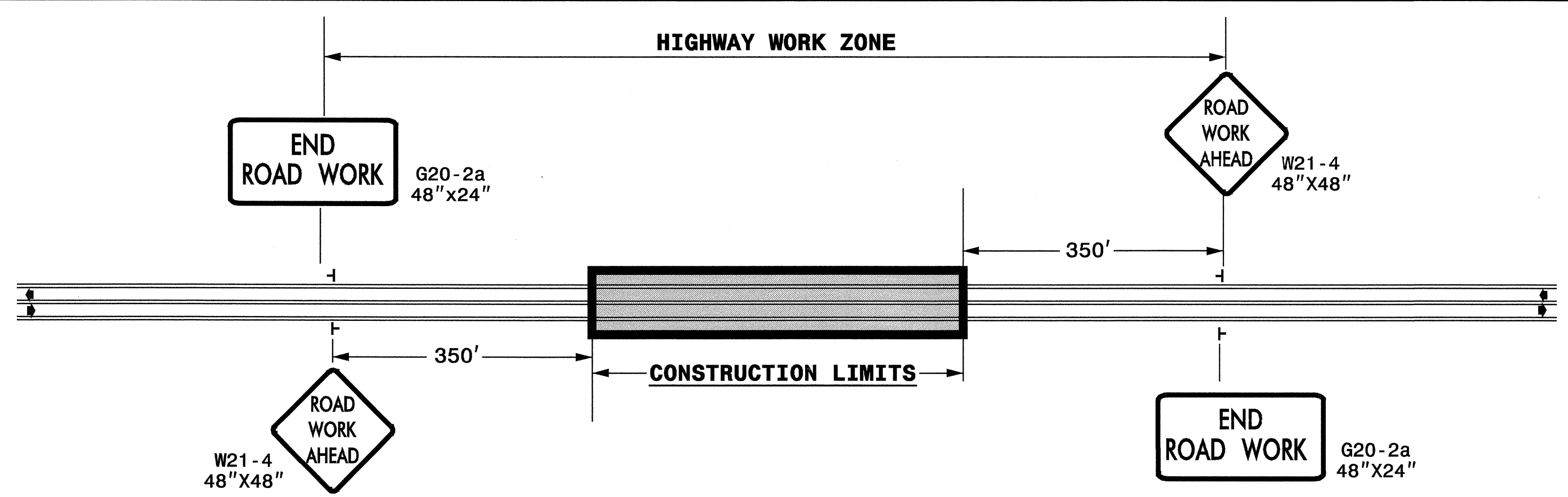
SEAL

| PHASE III DETAIL | | | | | | | |
|-------------------------|---|-----------|--|--|--|--|--|
| SCALE: NONE | | | | | | | |
| DATE: | | | | | | | |
| DWG. BY: B.L.M. | | | | | | | |
| DESIGN BY: G.E.P. | | | | | | | |
| REVIEWED BY: M.S.A. | <table border="1"> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table> | REVISIONS | | | | | |
| REVISIONS | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Plans prepared by:
KO & ASSOCIATES, P.C.
 Consulting Engineers
 101 SCHUBS DR. SUITE #202
 RALEIGH, N.C. 27606
 For Division of Highways

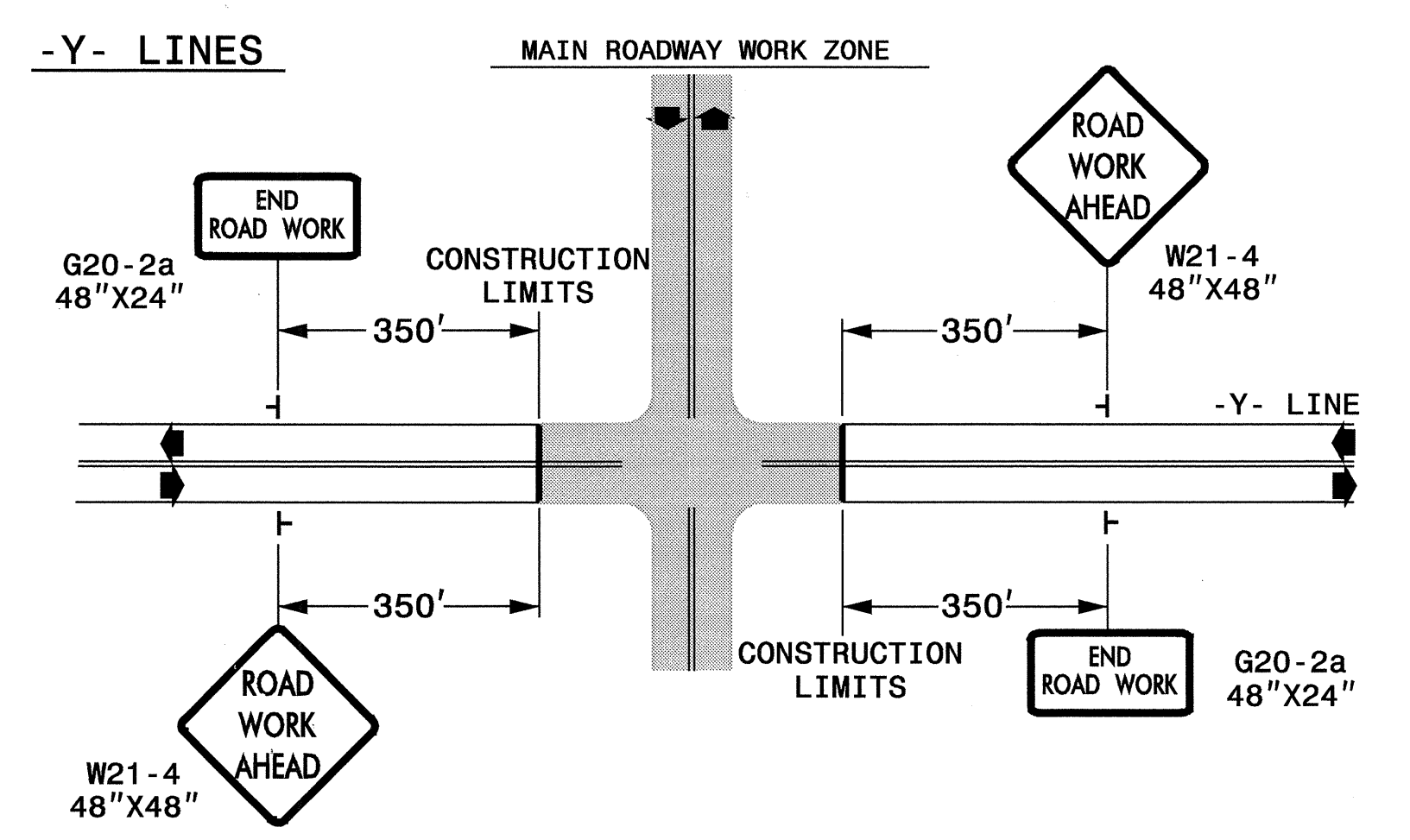
P:\TRAFFIC\U-4010\002 - UNSEALED\PLAN\DET3.dgn
 04/02/2004 09:03:50 AM

TWO-WAY UNDIVIDED ** (L-LINES)



STATE OF NORTH CAROLINA
 DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 RALEIGH, N.C.

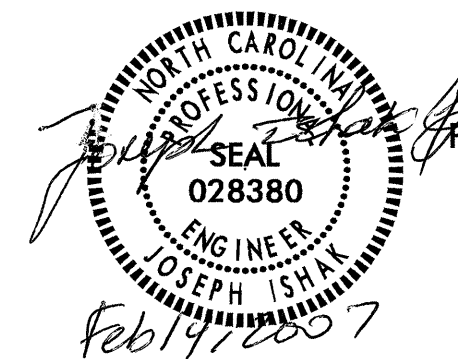
ROADWAYS INTERSECTING ALONG 2 WAY UNDIVIDED WORK ZONE (Y-LINES)



DETAIL DRAWING FOR
 TWO-WAY UNDIVIDED
 WORK ZONE WARNING SIGNS

GENERAL NOTES

- USE FLUORESCENT ORANGE SHEETING (TYPE VII OR HIGHER) ON ALL ADVANCED WORK ZONE SIGNS.
- DO NOT INSTALL ADVANCE WARNING SIGNS MORE THAN 3 DAYS PRIOR TO BEGINNING OF WORK.
- SIGNS SHOWN ARE REQUIRED FOR WORK ZONES THAT WILL REMAIN IN EFFECT OVERNIGHT. FOR SHORT-TERM DAILY MAINTENANCE TYPE OPERATIONS, THIS SIGNING APPLICATION IS OPTIONAL; MAY USE ONLY APPLICABLE ROADWAY STANDARD DRAWINGS INSTEAD. HOWEVER, IF THIS SIGNING APPLICATION IS USED, SIGNS MAY BE PORTABLE MOUNTED.
- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.
- USE 3LB STEEL U-CHANNEL POST OR 4" X 4" WOOD POST FOR ALL WORK ZONE SIGNS. 3LB STEEL U-CHANNEL POSTS MUST MEET THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 1094-1(B), MAY BE GALVANIZED STEEL, OR MAY BE PAINTED GREEN BY THE POST MANUFACTURER. SQUARE STEEL TUBING POSTS HAVING EQUIVALENT STRENGTH OF THE 3 LB STEEL U-CHANNEL POST ARE ALSO ACCEPTABLE FOR USE. ERECT SIGNS PER ROADWAY STANDARD DRAWING 1110.01. PAYMENT FOR WOOD POSTS, 3LB STEEL U-CHANNEL AND SQUARE STEEL TUBING POSTS WITH SIGNS WILL BE MADE ACCORDING TO STANDARD SPECIFICATION "WORK ZONE SIGNS" SECTION 1110.
- WHEN NECESSARY, USE SPLICING IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1110.01. REMOVE ENTIRE POST WHEN REMOVING SIGNS WITH SPLICED POSTS.
- DO NOT BACK BRACE SIGN SUPPORTS.
- ** TWO-WAY UNDIVIDED ADVANCE WARNING SIGN CONFIGURATION MAY BE USED ON URBAN MULTI-LANE FACILITIES WHERE CONDITIONS LIMIT THE USE OF DUAL MOUNTED SIGNS AS DETERMINED BY THE ENGINEER.



REVISED FEBRUARY 2007, TO MEET THE 2006 ROADWAY STANDARDS.

LEGEND

- ┆ STATIONARY SIGN
- ◀ DIRECTION OF TRAFFIC FLOW

SHEET 1 OF 1

| | | |
|--|--|-------------|
| APPROVED: _____ DATE: _____ | DETAIL DRAWING FOR TWO-WAY UNDIVIDED AND URBAN FREEWAYS ADVANCED WORK ZONE WARNING SIGNS | |
| THIS DOCUMENT ORIGINALLY ISSUED AND SEALED BY SEAL MARK ACUFF, P.E., #14344, ON 04-05-04 | SCALE: NONE | REVISIONS |
| | DATE: _____ | 7-98 10/01 |
| | DWG. BY: B.L.M. | 10-98 03/04 |
| | DESIGN BY: G.E.P. | 01/01 11/04 |
| REVIEWED BY: M.S.A. | | |

Plans prepared by:
KO & ASSOCIATES, P.C.
 Consulting Engineers
 101 SCHAUB DR., SUITE #202
 RALEIGH, N.C. 27606
 For Division of Highways

14-FEB-2007 12:00
 \\dot\dfsroot\proj\Traffic\TrafficControl\Top\2way_undiv.&_urban_fr.wys.dgn
 JFutrell AT WZTC24166