

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

|                             |           |
|-----------------------------|-----------|
| STATE PROJECT REFERENCE NO. | SHEET NO. |
| U-3304                      | TCP-1     |

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

**LEGEND**

**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                         |
| 1101.04  | TEMPORARY SHOULDER CLOSURES                     |
| 1101.05  | WORK ZONE VEHICLE ACCESSES                      |
| 1101.11  | TRAFFIC CONTROL DESIGN TABLES                   |
| 1110.01  | STATIONARY WORK ZONE SIGNS                      |
| 1110.02  | PORTABLE WORK ZONE SIGNS                        |
| 1115.01  | FLASHING ARROW PANELS                           |
| 1130.01  | DRUMS   |
| 1135.01  | CONES   |
| 1145.01  | BARRICADES                                      |
| 1150.01  | FLAGGERS  |
| 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                  |
| 1205.06  | PAVEMENT MARKINGS - THRU LANE DROPS             |
| 1205.08  | PAVEMENT MARKINGS - SYMBOLS & WORD MESSAGES     |
| 1205.09  | PAVEMENT MARKINGS - PAINTED ISLANDS             |
| 1250.01  | PAVEMENT MARKER SPACING                         |
| 1251.01  | RAISED PAVEMENT MARKERS (PERMANENT & TEMPORARY) |
| 1253.01  | SNOWPLOWABLE RAISED PAVEMENT MARKERS            |
| 1261.01  | GUARDRAIL & BARRIER DELINEATOR SPACING          |
| 1261.02  | GUARDRAIL & BARRIER DELINEATOR TYPES            |
| 1262.01  | GUARDRAIL END DELINEATION                       |

**INDEX OF SHEETS**

| SHEET NO.          | TITLE  |
|--------------------|--|
| TCP-1              | LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND AND INDEX OF SHEETS                 |
| TCP-2 AND TCP-3    | PROJECT NOTES  |
| TCP-4              | PHASE I OVERVIEW AND PHASING   |
| TCP-5 THRU TCP-9   | PHASE I, DETAIL 1  |
| TCP-10 AND TCP-11  | PHASE I, DETAIL 2  |
| TCP-12             | PHASE II OVERVIEW AND PHASING  |
| TCP-13 AND TCP-14  | PHASE II, DETAIL 1   |
| TCP-15 AND TCP-16  | PHASE II, DETAIL 2   |
| TCP-17 THRU TCP-19 | PHASE II, DETAIL 3   |
| TCP-20             | PHASE III OVERVIEW AND PHASE III AND IV PHASING  |
| TCP-21 THRU TCP-23 | PHASE III, DETAIL 1  |
| TCP-24             | -Y1-, NC 62 DETOUR   |
| TCP-25             | DETAIL DRAWING FOR TWO-WAY UNDIVIDED AND URBAN FREEWAYS ADVANCED WORK ZONE WARNING SIGNS |
| PM-1               | TEMP. / FINAL PAVEMENT MARKING SCHEDULE  |
| PM-2 THRU PM-5     | FINAL PAVEMENT MARKING PLAN  |

- GENERAL**
- DIRECTION OF TRAFFIC FLOW
  - NORTH ARROW
  - PROPOSED PVMT. EXIST. PVMT.
  - PROPOSED CONSTRUCTION
  - REMOVAL OF EXISTING PAVEMENT
- TRAFFIC CONTROL DEVICES**
- TYPE III BARRICADE
  - CONE
  - 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

U-3304

TIP PROJECT:

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|  |                                       |   |                                  |   |
|--|---------------------------------------|---|----------------------------------|---|
| PLAN REVIEWED BY: WORK ZONE TRAFFIC CONTROL UNIT |                                       | APPROVED: <i>Michael T. Rzepka</i><br>DATE: 2-18-08 | PLAN PREPARED FOR N.C.D.O.T. BY: | KO & ASSOCIATES, P.C.<br>Consulting Engineers<br>521 KINGDOM WAY, SUITE 300 RALEIGH, NC 27607<br>(919) 852-0000 |
| J. S. BOURNE, P.E.                               | TRAFFIC CONTROL ENGINEER              | SEAL<br>  | M. T. RZEPKA, P.E.               | PROJECT ENGINEER  |
| G. L. GETTIER, P.E.                              | TRAFFIC CONTROL PROJECT ENGINEER      |   | G. E. PARKER                     | DESIGN ENGINEER   |
| J. W. GILSTRAP                                   | TRAFFIC CONTROL PROJ. DESIGN ENGINEER |   | B. L. MARIOTTE                   | DESIGN TECHNICIAN   |
|  | TRAFFIC CONTROL DESIGN ENGINEER       |   |                                  |   |
|  | TRAFFIC CONTROL DESIGN TECHNICIAN     |   |                                  |   |

# GENERAL NOTES

# PROJECT NOTES

**KO & ASSOCIATES, P.C.**  
 Consulting Engineers  
 5121 KINGDOM WAY, SUITE 100 RALEIGH, N.C. 27607  
 (919) 881-6966

|                     |           |
|---------------------|-----------|
| PROJ. REFERENCE NO. | SHEET NO. |
| U-3304              | TCP-2     |

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 UNDESIRE 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:

| ROAD NAME                | DAY AND TIME RESTRICTIONS  |
|--------------------------|--|
| SR 1146, KIRKPATRICK RD. | 7:00AM - 9:00AM MONDAY - FRIDAY<br>4:00PM - 6:00PM MONDAY - FRIDAY |
| NC 62                    | 7:00AM - 7:00PM MONDAY - FRIDAY                                    |

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

ROAD NAME

SR 1146, KIRKPATRICK RD.  
NC 62

HOLIDAY

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

C) DO NOT STOP TRAFFIC AS FOLLOWS:

| ROAD NAME                | DAY AND TIME RESTRICTIONS  | DURATION AND OPERATION   |
|--------------------------|--|--|
| SR 1146, KIRKPATRICK RD. | 7:00AM - 9:00AM MONDAY - FRIDAY<br>4:00PM - 6:00PM MONDAY - FRIDAY | 15 MINUTES FOR TRAFFIC OPERATIONS<br>15 MINUTES FOR TRAFFIC OPERATIONS |
| NC 62                    | 7:00AM - 7:00PM MONDAY - FRIDAY                                    | 15 MINUTES FOR TRAFFIC OPERATIONS                                      |

D) 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

- E) 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.
- F) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN 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.
- G) 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.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10FT 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.

- H) 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.
- I) 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.
- J) PROVIDE TRAFFIC CONTROL FOR APPROPRIATE LANE CLOSURES FOR SURVEYING DONE BY THE DEPARTMENT.



PAVEMENT EDGE DROP OFF REQUIREMENTS

K) 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.

|   |                      |   |
|---|----------------------|---|
| APPROVED: <i>Michael T. Riebel</i> DATE: 2-18-08                                      | <b>PROJECT NOTES</b> |   |
|  | SCALE: NONE          |  |
|   | DATE: 12-07          |   |
|   | DWG. BY: B.L.M.      |   |
|   | DESIGN BY: G.E.P.    |   |
| REVIEWED BY: M.T.R.   | REVISIONS            | CADD FILE   |

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# PROJECT NOTES

## GENERAL NOTES (CONT'D)

- L) 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) 200 FT. IN ADVANCE AND A MINIMUM OF EVERY 2,000 FT. THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

- N) 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.
- O) PROVIDE PERMANENT SIGNING.
- P) PROVIDE DETOUR SIGNING WITHIN AND OFF THE PROJECT LIMITS.
- Q) COVER OR REMOVE ALL DETOUR SIGNS WITHIN AND OFF THE PROJECT LIMITS WHEN DETOUR IS NOT IN OPERATION.
- R) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

TRAFFIC CONTROL DEVICES

- S) 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. WHEN SKINNY DRUMS ARE ALLOWED, REFER TO SECTION 1180 OF STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES OR AS SHOWN IN THE PLANS.
- T) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.
- U) 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

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

| <u>ROAD NAME</u> | <u>MARKING</u> | <u>MARKER</u>       |
|------------------|----------------|---------------------|
| ALL              | THERMOPLASTIC  | SNOWPLOWABLE RAISED |

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

| <u>ROAD NAME</u> | <u>MARKING</u> | <u>MARKER</u>    |
|------------------|----------------|------------------|
| ALL              | PAINT          | TEMPORARY RAISED |

- X) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.
- Y) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- Z) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

TEMPORARY / FINAL SIGNALS

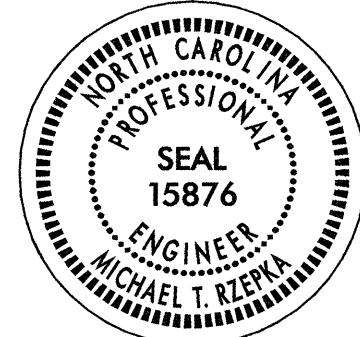
- AA) SHIFT AND REVISE ALL SIGNAL HEADS AS SHOWN ON THE SIGNAL PLANS.

MISSCELLANEOUS

- BB) POLICE MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS, AS DIRECTED BY ENGINEER.

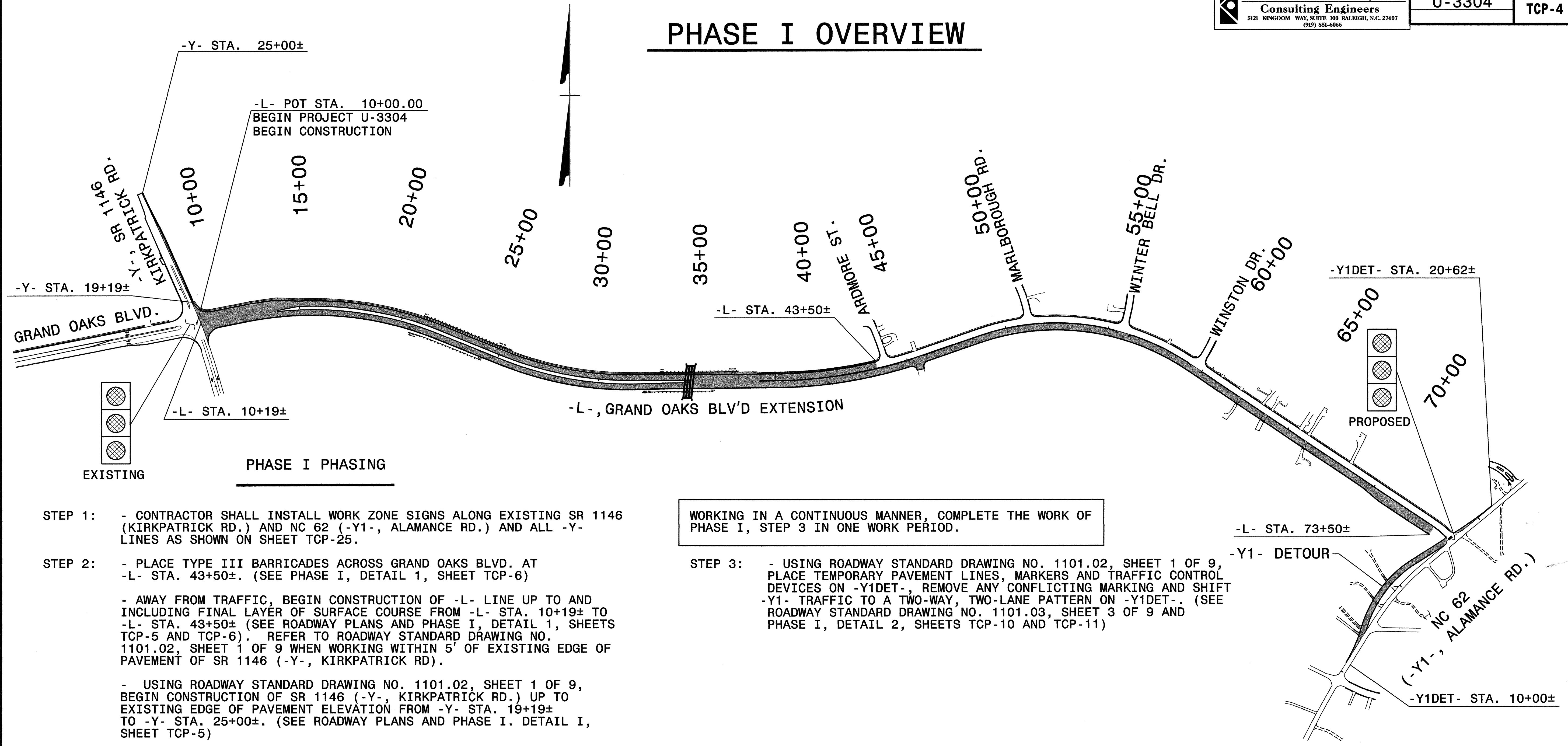
## LOCAL NOTES

- 1) WHEN CONSTRUCTING DRAINAGE STRUCTURES ADJACENT TO TRAFFIC, INSTALL TEMPORARY STEEL PLATES, AS DIRECTED BY THE ENGINEER. MAY WORK EACH LOCATION INDEPENDENTLY OR CONCURRENTLY, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. WORK IN A CONTINUOUS MANNER TO PERFORM THE WORK IN THE FOLLOWING SEQUENCE, STEPS 'A' THRU 'E'.
- A: CLOSE THE APPROPRIATE TRAVEL LANE TO TRAFFIC USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 1 OF 9.
- B: CONSTRUCT PROPOSED STRUCTURE OR INSTALL PRE-CAST DRAINAGE STRUCTURE AS SHOWN IN CONSTRUCTION PLANS AND COVER WITH STEEL PLATES TO PROTECT STRUCTURE DURING CURING.
- C: OPEN TRAVEL LANE TO EXISTING TRAFFIC PATTERN BY THE END OF EACH WORK PERIOD.
- D: WHEN PROPERLY CURED, CLOSE THE APPROPRIATE TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 1 OF 9. BACKFILL & PAVE, IF REQUIRED, UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT (SEE CONSTRUCTION PLANS).
- E: OPEN TRAVEL LANE TO EXISTING TRAFFIC PATTERN BY THE END OF EACH WORK PERIOD.

| APPROVED: <i>Michael T. Rzewski</i> DATE: 2-18-08<br><br> | <b>PROJECT NOTES (CONT'D)</b>   |           |  |  |  |
|--|---|-----------|--|--|--|
| SCALE: NONE<br>DATE: 12-07<br>DWG. BY: B.L.M.<br>DESIGN BY: G.E.P.<br>REVIEWED BY: M.T.R.  | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: center;">REVISIONS</th> </tr> <tr> <td style="height: 20px;"> </td> </tr> <tr> <td style="height: 20px;"> </td> </tr> <tr> <td style="height: 20px;"> </td> </tr> </table> | REVISIONS |  |  |  |
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# PHASE I OVERVIEW



## PHASE I PHASING

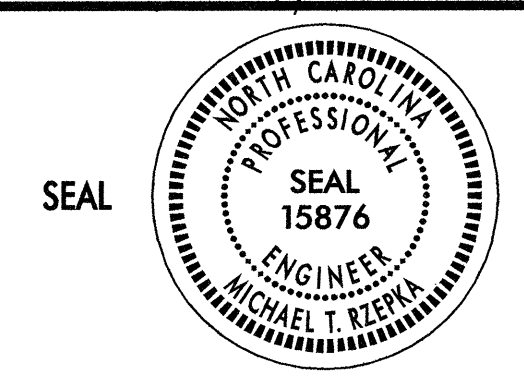
- STEP 1:** - CONTRACTOR SHALL INSTALL WORK ZONE SIGNS ALONG EXISTING SR 1146 (KIRKPATRICK RD.) AND NC 62 (-Y1-, ALAMANCE RD.) AND ALL -Y- LINES AS SHOWN ON SHEET TCP-25.
- STEP 2:** - PLACE TYPE III BARRICADES ACROSS GRAND OAKS BLVD. AT -L- STA. 43+50±. (SEE PHASE I, DETAIL 1, SHEET TCP-6)
- AWAY FROM TRAFFIC, BEGIN CONSTRUCTION OF -L- LINE UP TO AND INCLUDING FINAL LAYER OF SURFACE COURSE FROM -L- STA. 10+19± TO -L- STA. 43+50± (SEE ROADWAY PLANS AND PHASE I, DETAIL 1, SHEETS TCP-5 AND TCP-6). REFER TO ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 1 OF 9 WHEN WORKING WITHIN 5' OF EXISTING EDGE OF PAVEMENT OF SR 1146 (-Y-, KIRKPATRICK RD).
- USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 1 OF 9, BEGIN CONSTRUCTION OF SR 1146 (-Y-, KIRKPATRICK RD.) UP TO EXISTING EDGE OF PAVEMENT ELEVATION FROM -Y- STA. 19+19± TO -Y- STA. 25+00±. (SEE ROADWAY PLANS AND PHASE I, DETAIL I, SHEET TCP-5)
- USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 1 OF 9, PLACE TEMPORARY PAVEMENT MARKING LINES, REMOVE EXISTING PAVEMENT MARKING LINES WHICH CONFLICT WITH NEW MARKINGS AND SHIFT GRAND OAKS BLVD. TRAFFIC TO THE LEFT AS SHOWN IN PHASE I, DETAIL 1, SHEETS TCP-6 THRU TCP-8.
- USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 1 OF 9, BEGIN CONSTRUCTION OF RIGHT SIDE OF -L- LINE (SEE LOCAL NOTE 1) UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE FROM -L- STA. 43+50± TO -L- STA. 73+50±. (SEE ROADWAY PLANS AND PHASE I, DETAIL 1, SHEETS TCP-6 THRU TCP-8).
- USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 1 OF 9, CONSTRUCT -Y1- (NC 62, ALAMANCE RD.) DETOUR (SEE LOCAL NOTE 1) FROM -Y1DET- STA. 10+00± TO -Y1DET- STA. 20+62±. (SEE PHASE I, DETAIL 1, SHEETS TCP-8 AND TCP-9).
- MAY BEGIN CONSTRUCTION/INSTALLATION OF PROPOSED AND REVISED SIGNALS (SEE SIGNAL PLANS).

WORKING IN A CONTINUOUS MANNER, COMPLETE THE WORK OF PHASE I, STEP 3 IN ONE WORK PERIOD.

- STEP 3:** - USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 1 OF 9, PLACE TEMPORARY PAVEMENT LINES, MARKERS AND TRAFFIC CONTROL DEVICES ON -Y1DET-, REMOVE ANY CONFLICTING MARKING AND SHIFT -Y1- TRAFFIC TO A TWO-WAY, TWO-LANE PATTERN ON -Y1DET-. (SEE ROADWAY STANDARD DRAWING NO. 1101.03, SHEET 3 OF 9 AND PHASE I, DETAIL 2, SHEETS TCP-10 AND TCP-11)

| LEGEND |                       |
|--------|-----------------------|
|        | PROPOSED CONSTRUCTION |

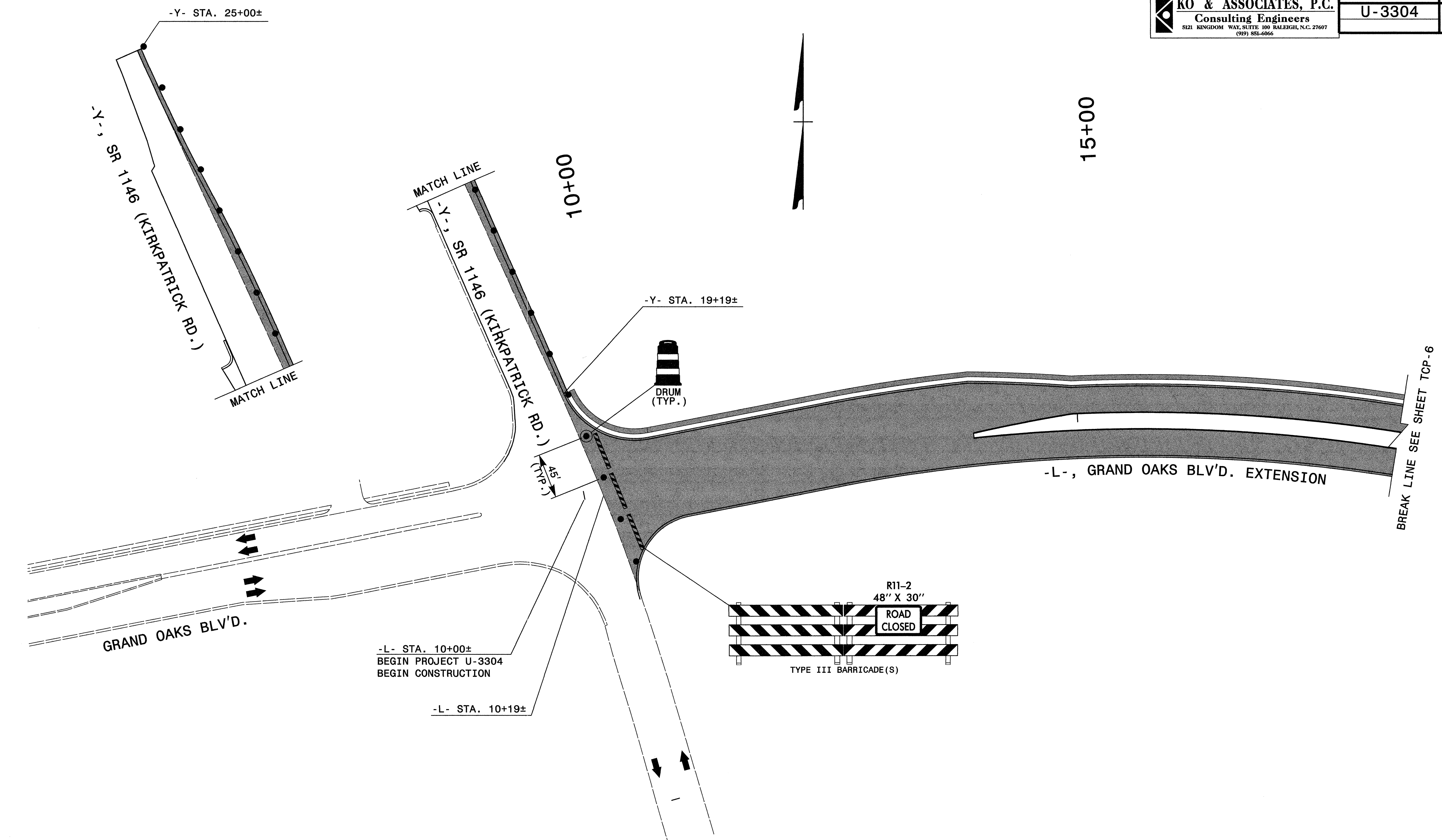
APPROVED: *Michael T. Kieper* DATE: 3-7-08




## PHASE I OVERVIEW & PHASING

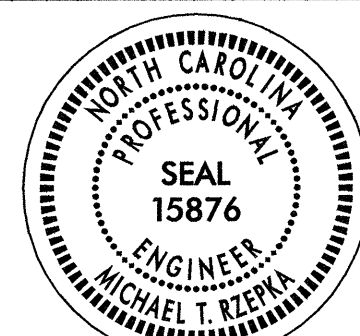
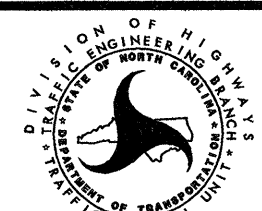
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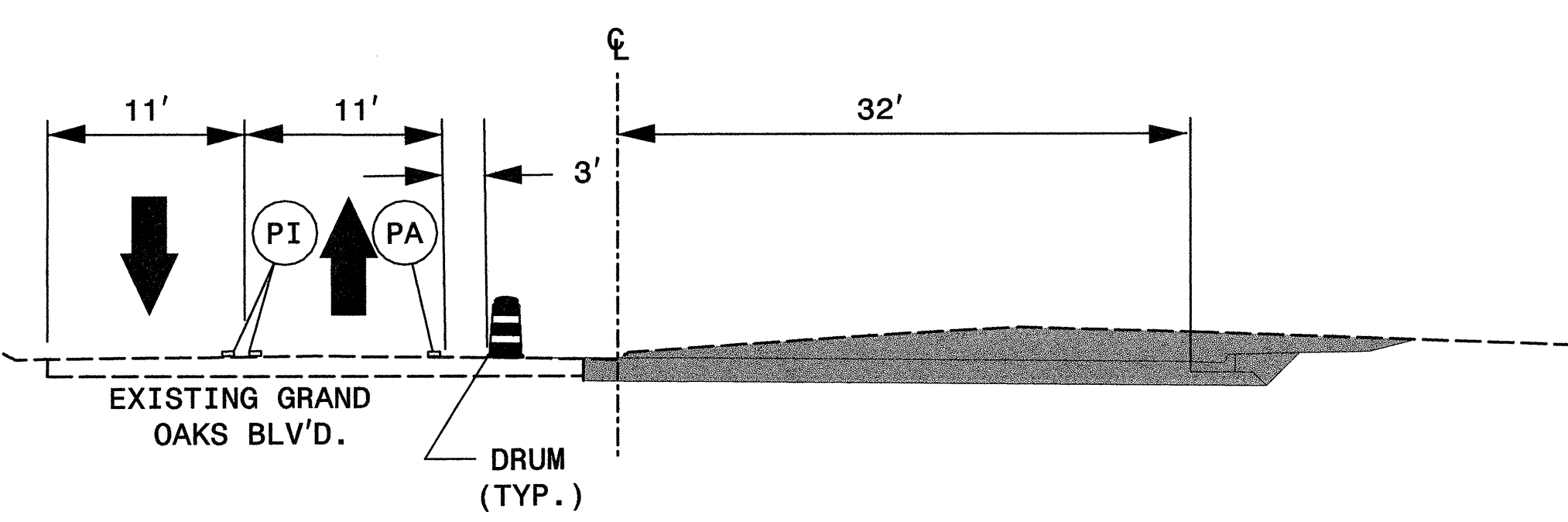
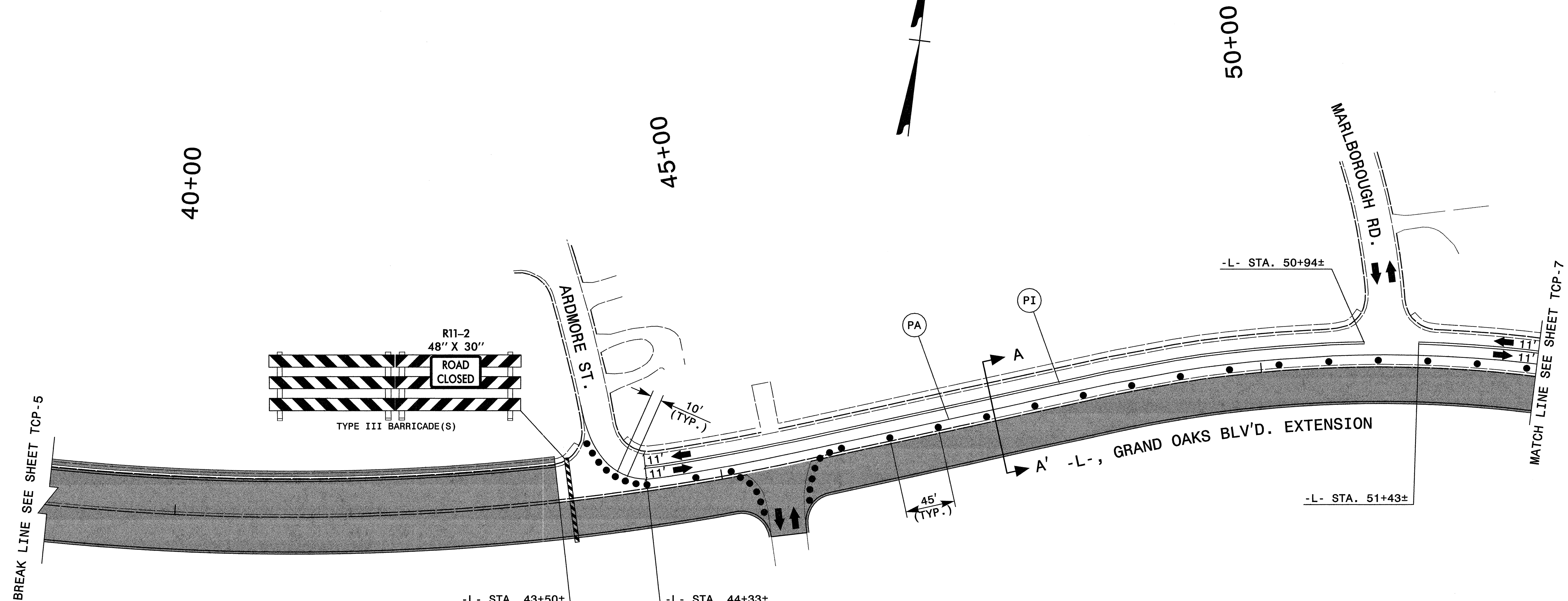




**LEGEND**

 PROPOSED CONSTRUCTION

|   |                |   |  |   |  |           |  |  |  |  |  |
|---|----------------|---|--|---|--|-----------|--|--|--|--|--|
| APPROVED: <i>Michael T. Rzepka</i> DATE: 3-7-08 |                |    |  | <b>PHASE I DETAIL 1</b>   |  |           |  |  |  |  |  |
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**TYPICAL SECTION A-A'**  
 (-L- STA. 47+50±)

**LEGEND**

|  |                       |
|--|-----------------------|
|  | PROPOSED CONSTRUCTION |
|--|-----------------------|

**TEMPORARY PAVEMENT MARKING SCHEDULE**

|                                |
|--------------------------------|
| PA - WHITE EDGELINE            |
| PI - YELLOW DOUBLE CENTER LINE |

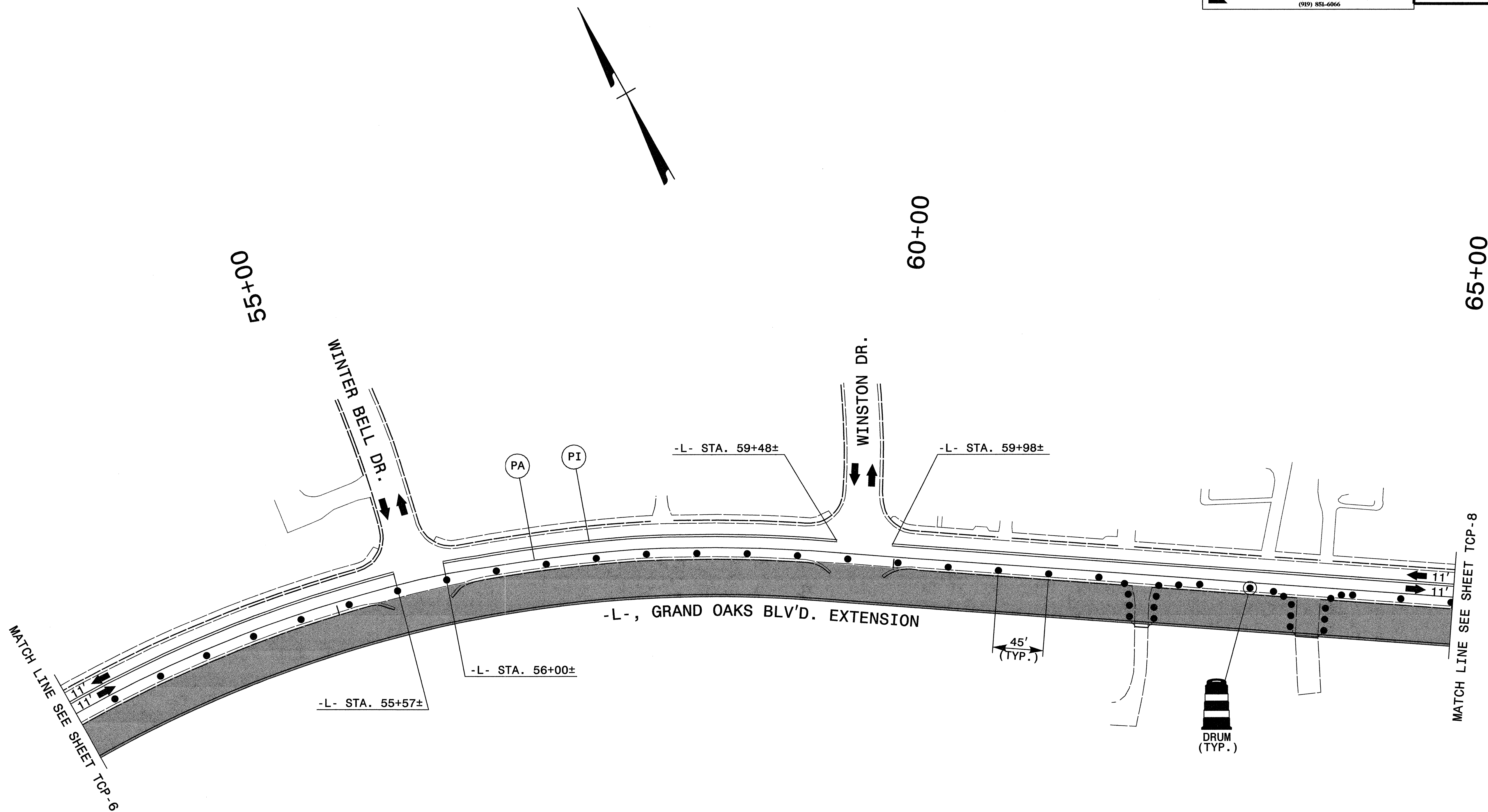
APPROVED: *Michael T. Rzepka* DATE: 2-18-08

SEAL

**PHASE I DETAIL 1**

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| DATE: 12-07      |           |   |           |  |  |  |
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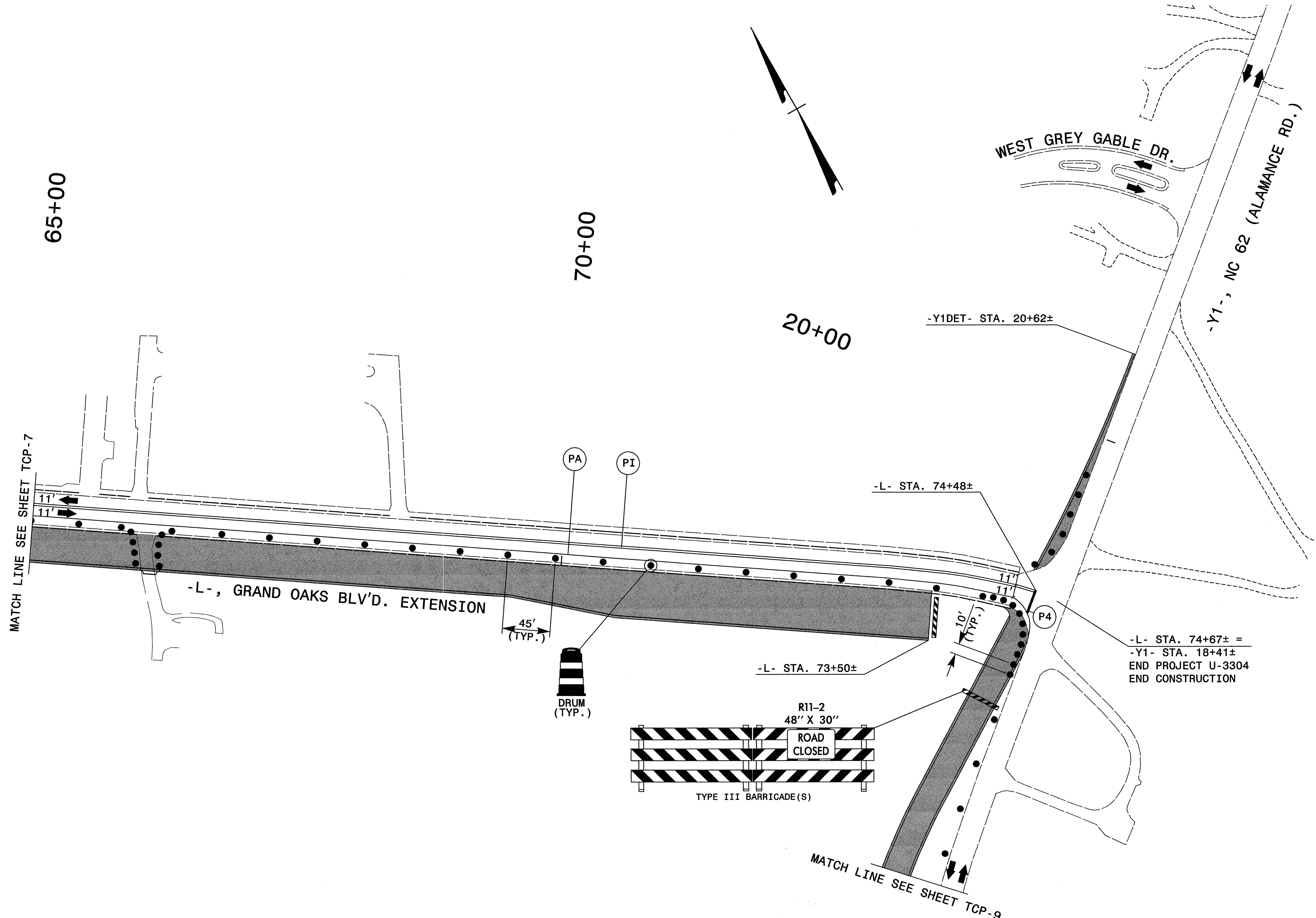
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|--------|-----------------------|
|        | PROPOSED CONSTRUCTION |

| TEMPORARY PAVEMENT MARKING SCHEDULE |                             |
|-------------------------------------|-----------------------------|
| PA                                  | - WHITE EDGELINE            |
| PI                                  | - YELLOW DOUBLE CENTER LINE |

APPROVED: *Michael T. Rzepka* DATE: 2-18-08

SEAL

| PHASE I DETAIL 1 |             |  |           |  |     |             |  |  |  |  |
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MATCH LINE SEE SHEET TCP-7

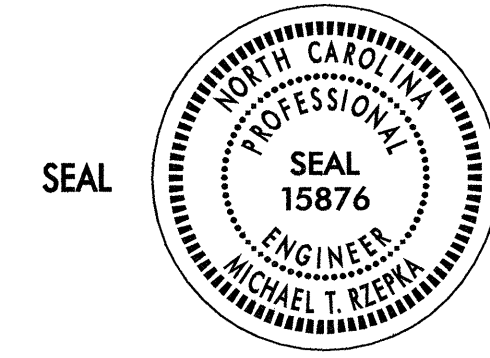
MATCH LINE SEE SHEET TCP-9

-L- STA. 74+67± =  
 -Y1- STA. 18+41±  
 END PROJECT U-3304  
 END CONSTRUCTION

| LEGEND |                       |
|--------|-----------------------|
|        | PROPOSED CONSTRUCTION |

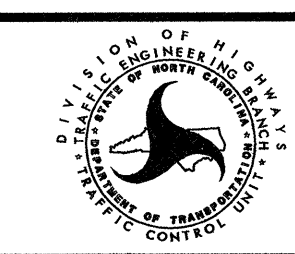
| TEMPORARY PAVEMENT MARKING SCHEDULE |                             |
|-------------------------------------|-----------------------------|
| PA                                  | - WHITE EDGELINE            |
| PI                                  | - YELLOW DOUBLE CENTER LINE |
| P4                                  | - WHITE STOPBAR             |

APPROVED: *Michael T. Rzepka* DATE: 2-18-08



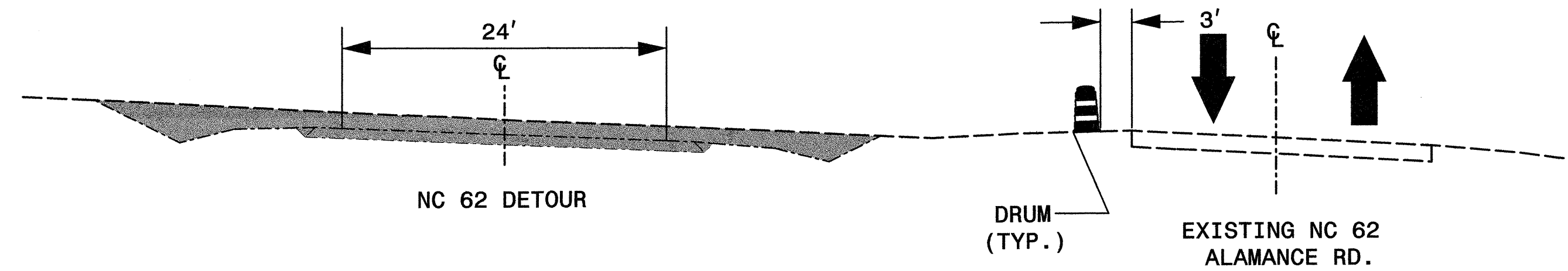
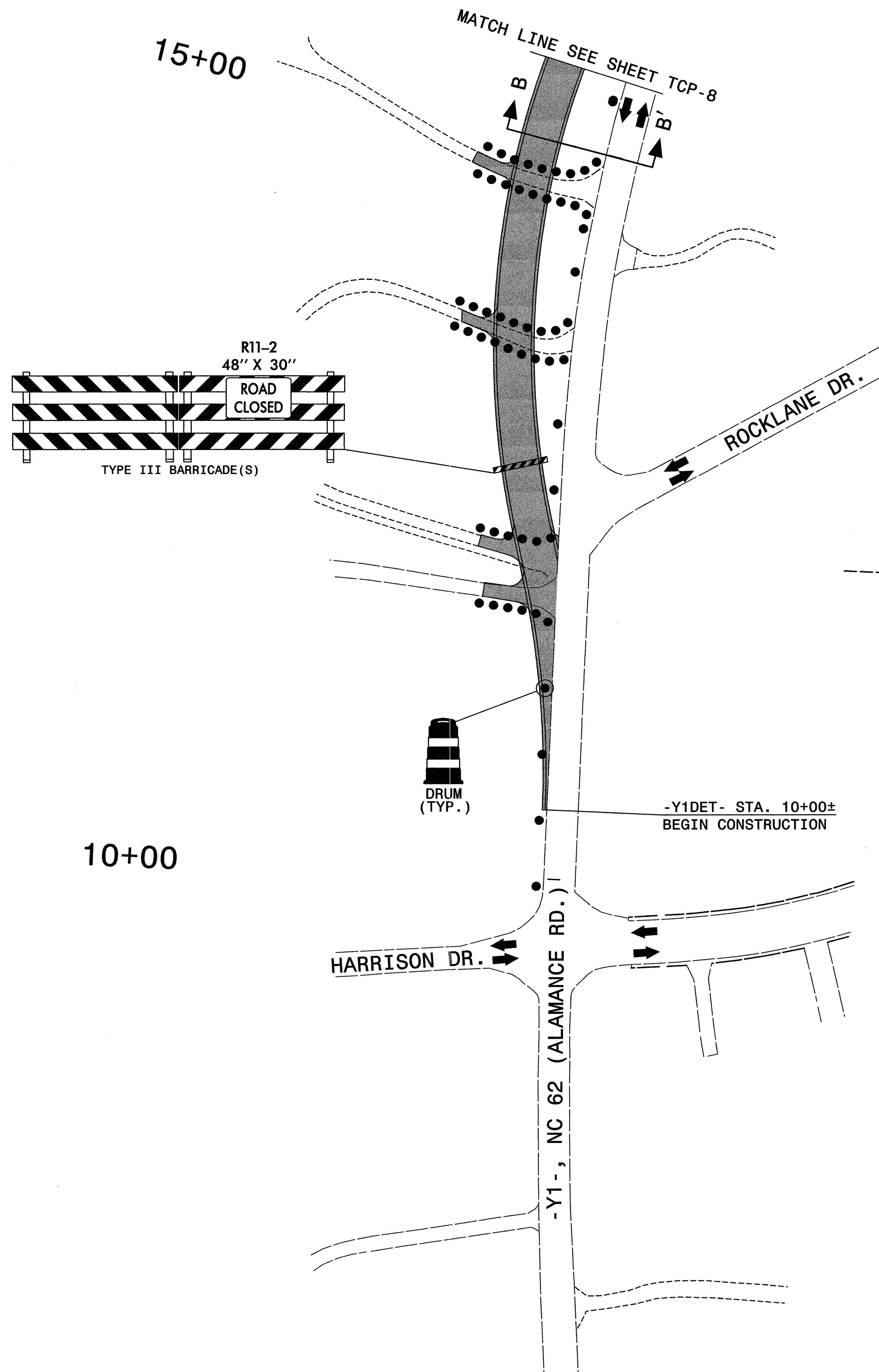
### PHASE I DETAIL 1

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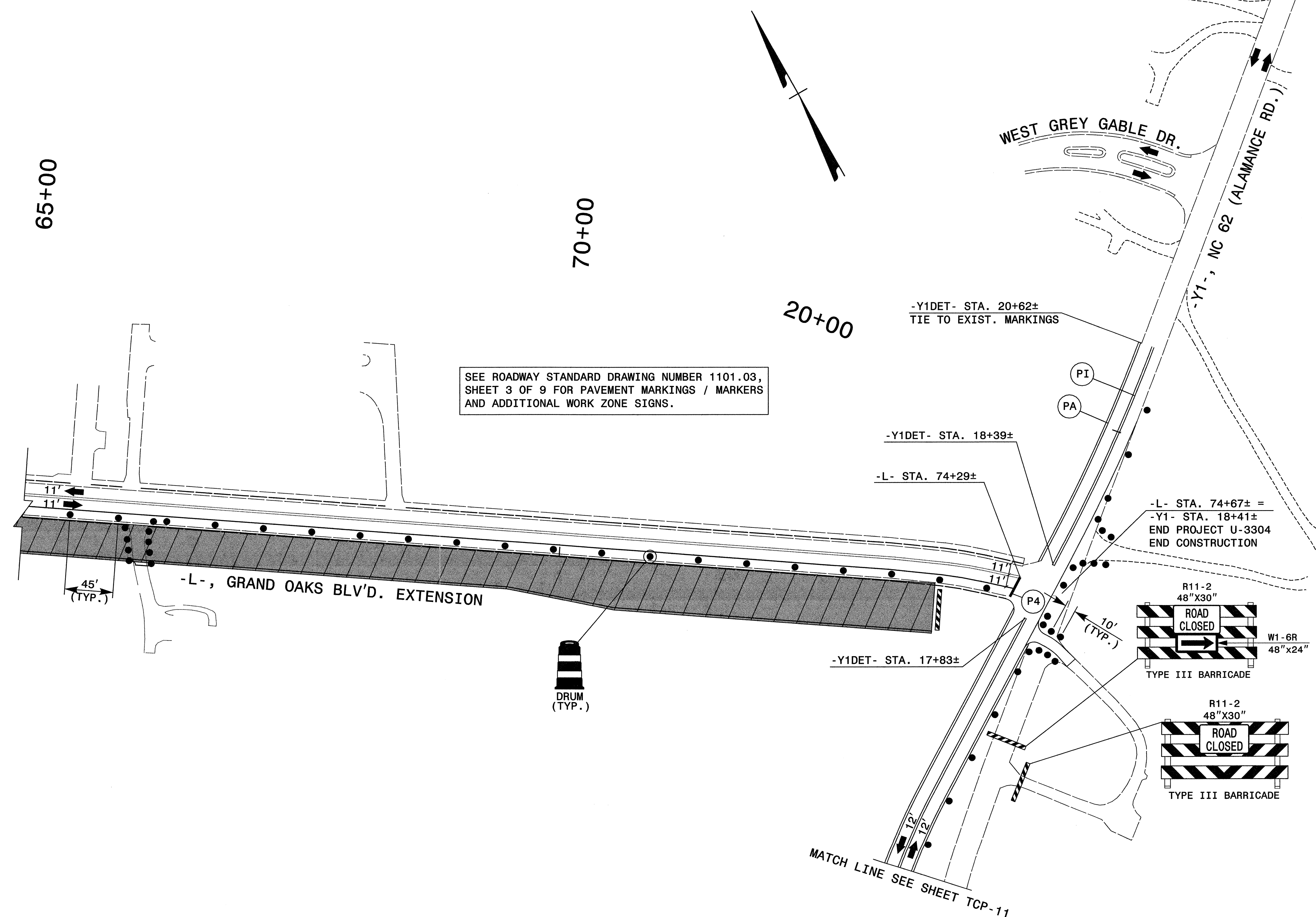




**TYPICAL SECTION B-B'**  
 (-Y1- STA. 15+00±)  
 (-Y1DET- STA. 14+67±)

| LEGEND |                       |
|--------|-----------------------|
|        | PROPOSED CONSTRUCTION |

|  |                         |           |
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| APPROVED: <i>Michael T. Rzewny</i> DATE: 2-18-08 | <b>PHASE I DETAIL 1</b> |           |
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| DATE: 12-07                                      |                         |           |
| DWG. BY: GEP                                     |                         |           |
| DESIGN BY: GEP                                   |                         |           |
| REVIEWED BY: MTR                                 |                         | CADD FILE |



SEE ROADWAY STANDARD DRAWING NUMBER 1101.03, SHEET 3 OF 9 FOR PAVEMENT MARKINGS / MARKERS AND ADDITIONAL WORK ZONE SIGNS.

| LEGEND |                      |
|--------|----------------------|
|        | ONGOING CONSTRUCTION |

| TEMPORARY PAVEMENT MARKING SCHEDULE |                             |
|-------------------------------------|-----------------------------|
| PA                                  | - WHITE EDGELINE            |
| PI                                  | - YELLOW DOUBLE CENTER LINE |
| P4                                  | - WHITE STOPBAR             |

APPROVED: *Michael T. Rzepka* DATE: 7-18-08

SEAL

**PHASE I DETAIL 2**

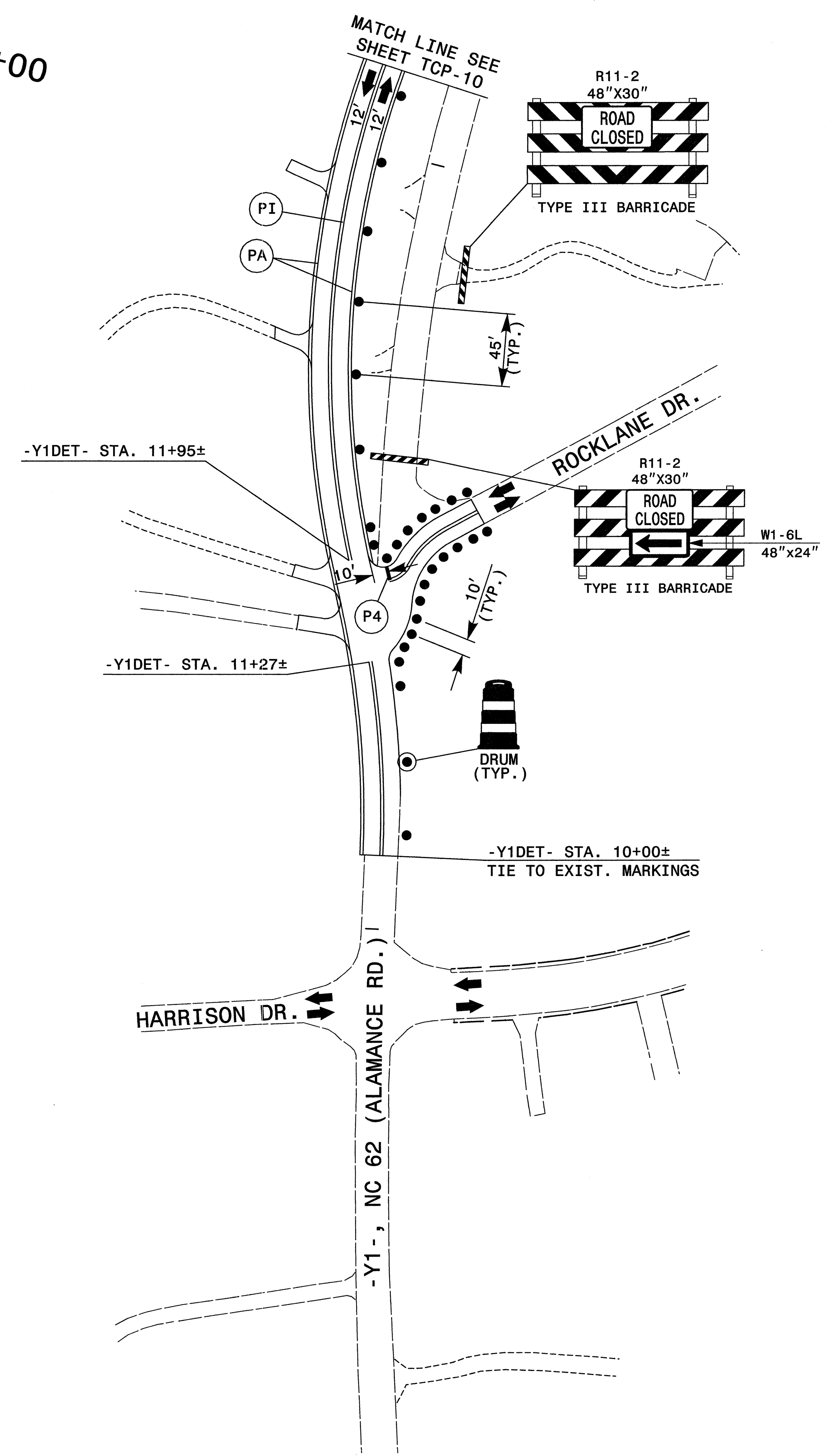
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REVIEWED BY: MTR



15+00

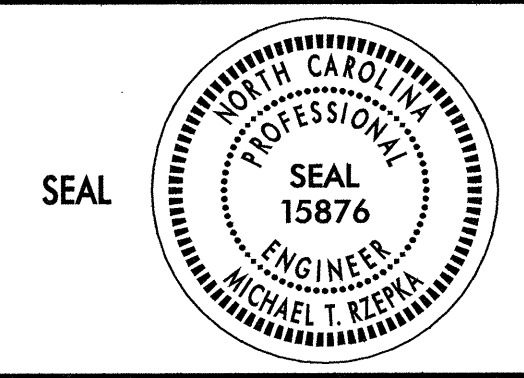
10+00



SEE ROADWAY STANDARD DRAWING NUMBER 1101.03, SHEET 3 OF 9 FOR PAVEMENT MARKINGS / MARKERS AND ADDITIONAL WORK ZONE SIGNS.

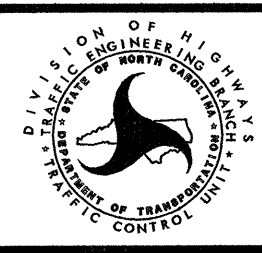
| TEMPORARY PAVEMENT MARKING SCHEDULE |                             |
|-------------------------------------|-----------------------------|
| PA                                  | - WHITE EDGELINE            |
| PI                                  | - YELLOW DOUBLE CENTER LINE |
| P4                                  | - WHITE STOPBAR             |

APPROVED: *Michael T. Rzepka* DATE: 2-18-08



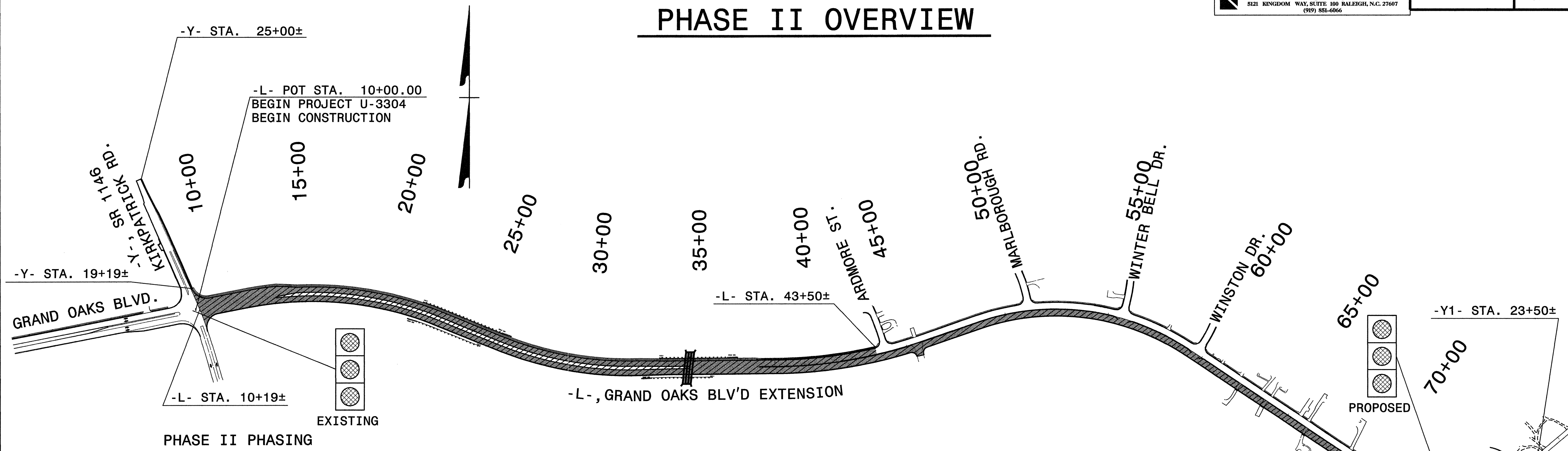
**PHASE I DETAIL 2**

SCALE: NONE  
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 DESIGN BY: GEP  
 REVIEWED BY: MTR



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# PHASE II OVERVIEW



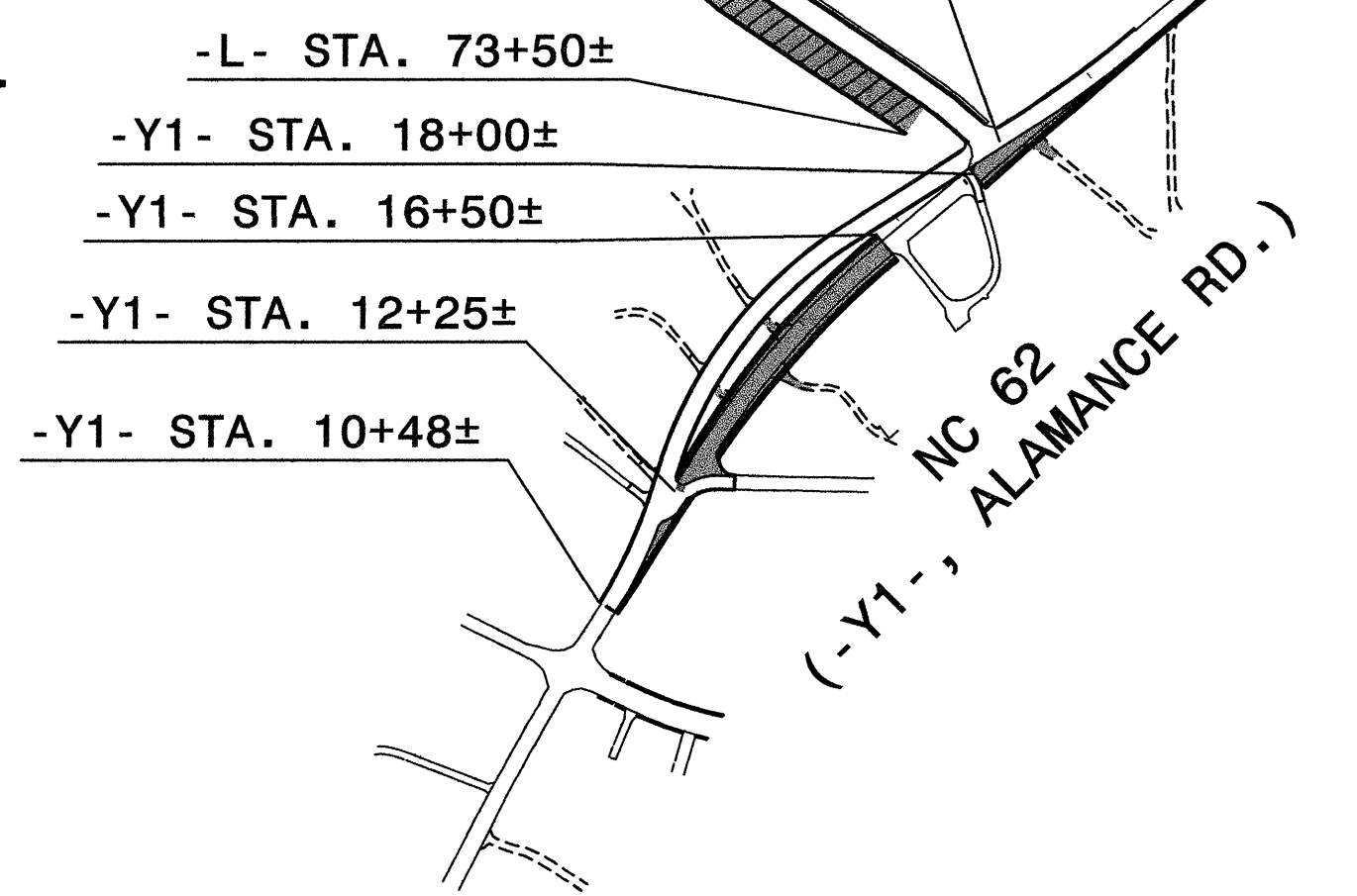
## PHASE II PHASING

- STEP 1:** - CONTINUE ALL WORK STARTED IN PHASE I.
- STEP 2:** - CONSTRUCT PROPOSED NC 62 (-Y1-, ALAMANCE RD.) FULL WIDTH UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE FROM -Y1- STA. 12+25± TO -Y1- STA. 16+50±. USE ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 1 OF 9, WHEN CONSTRUCTION ENCROACHES WITHIN 5' OF DETOUR EDGE OF TRAVELWAY. (SEE ROADWAY PLANS AND PHASE II, DETAIL 1, SHEETS TCP-13 AND TCP-14)
- USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 1 OF 9, CONSTRUCT RIGHT SIDE WIDENING OF NC 62 (-Y1-, ALAMANCE RD.) UP TO EXISTING PAVEMENT ELEVATION FROM -Y1- STA. 10+48± TO -Y1- STA. 12+25± AND FROM -Y1- STA. 18+00± TO -Y1- STA. 23+50± EXCEPT IN AREA OF 36" CROSS PIPE AT -Y1- STA. 22+00±. (SEE PHASE II, DETAIL 1, SHEETS TCP-13 AND TCP-14)
- COMPLETE THE WORK REQUIRED OF PHASE II, STEP 3A THRU 3C FROM 8:00 P.M. FRIDAY TO 6:00 A.M. MONDAY. (SEE SPECIAL PROVISIONS AND LIQUIDATED DAMAGES)
- STEP 3:** - CONSTRUCT PROPOSED NC 62 (-Y1-, ALAMANCE RD) FROM -Y1- STA. 16+50± TO -Y1- STA. 18+00±, INSTALL 36" CROSS PIPE AT -Y1- STA. 22+00±, AND PLACE -Y1- TRAFFIC IN AN INTERIM TRAFFIC PATTERN ON PROPOSED -Y1- ALIGNMENT ACCORDING TO THE FOLLOWING SEQUENCE:
- A.** - USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 1 OF 9 OR ROADWAY STANDARD DRAWING NO. 1101.04, PLACE TYPE III BARRICADES, PORTABLE SIGNS AND CHANGEABLE MESSAGE SIGNS TO CLOSE NC 62 (-Y1-, ALAMANCE RD.) BETWEEN -Y1- STA. 12+00± AND -Y1- STA. 22+20±. ALSO CLOSE EXISTING GRAND OAKS BLV'D. AT -L- STA. 69+00±. (SEE -Y1-, NC 62 DETOUR, SHEET TCP-24 AND ROADWAY STANDARD DRAWING NO. 1101.03, SHEET 1 OF 9)
- B.** - AWAY FROM TRAFFIC, CONSTRUCT -Y1- UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE, INCLUDING REQUIRED UNDERCUT, FROM -Y1- STA. 16+50± TO -Y1- STA. 18+00± AND INSTALL 36" CROSS PIPE INCLUDING RIGHT SIDE WIDENING. MAINTAIN ACCESS TO DRIVEWAYS AFFECTED BY ROAD CLOSURE AND CONSTRUCTION.

- PAVE/WEDGE EXISTING NC 62 AND RIGHT SIDE WIDENING UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE FROM -Y1- STA. 10+48± TO -Y1- STA. 12+25± AND FROM -Y1- STA. 18+00± TO -Y1- STA. 23+50±. PLACE TEMPORARY PAVEMENT MARKING LINES (PAINT) AND MARKERS (TEMPORARY RAISED) ON -Y1-, AS SHOWN IN PHASE II, DETAIL 2, SHEETS TCP-15 AND TCP-16.
- C.** - REMOVE ALL TRAFFIC CONTROL DEVICES CLOSING -Y1- AND GRAND OAKS BLV'D. AND SHIFT TO A TWO-WAY, TWO-LANE PATTERN ON -Y1- AS SHOWN IN PHASE II, DETAIL 2, SHEETS TCP-15 AND TCP-16.
- STEP 4:** - USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 1 OF 9, REMOVE -Y1- DETOUR (AS REQUIRED) AND CONSTRUCT RIGHT SIDE OF -L- LINE UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE FROM -L- STA. 73+50± TO -L- STA. 74+56± (SEE ROADWAY PLANS AND PHASE II, DETAIL 2, SHEET TCP-15).
- USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 1 OF 9, CONSTRUCT LEFT SIDE WIDENING OF NC 62 (-Y1-, ALAMANCE RD.) UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE FROM -Y1- STA. 10+48± TO -Y1- STA. 12+25±. (SEE ROADWAY PLANS AND PHASE II, DETAIL 2, SHEETS TCP-15 AND TCP-16).
- COMPLETE CONSTRUCTION OF RIGHT SIDE OF -L- LINE UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE FROM -L- STA. 43+50± TO -L- STA. 73+50±.

WORKING IN A CONTINUOUS MANNER, COMPLETE THE WORK OF PHASE II, STEP 5 IN ONE WORK PERIOD.

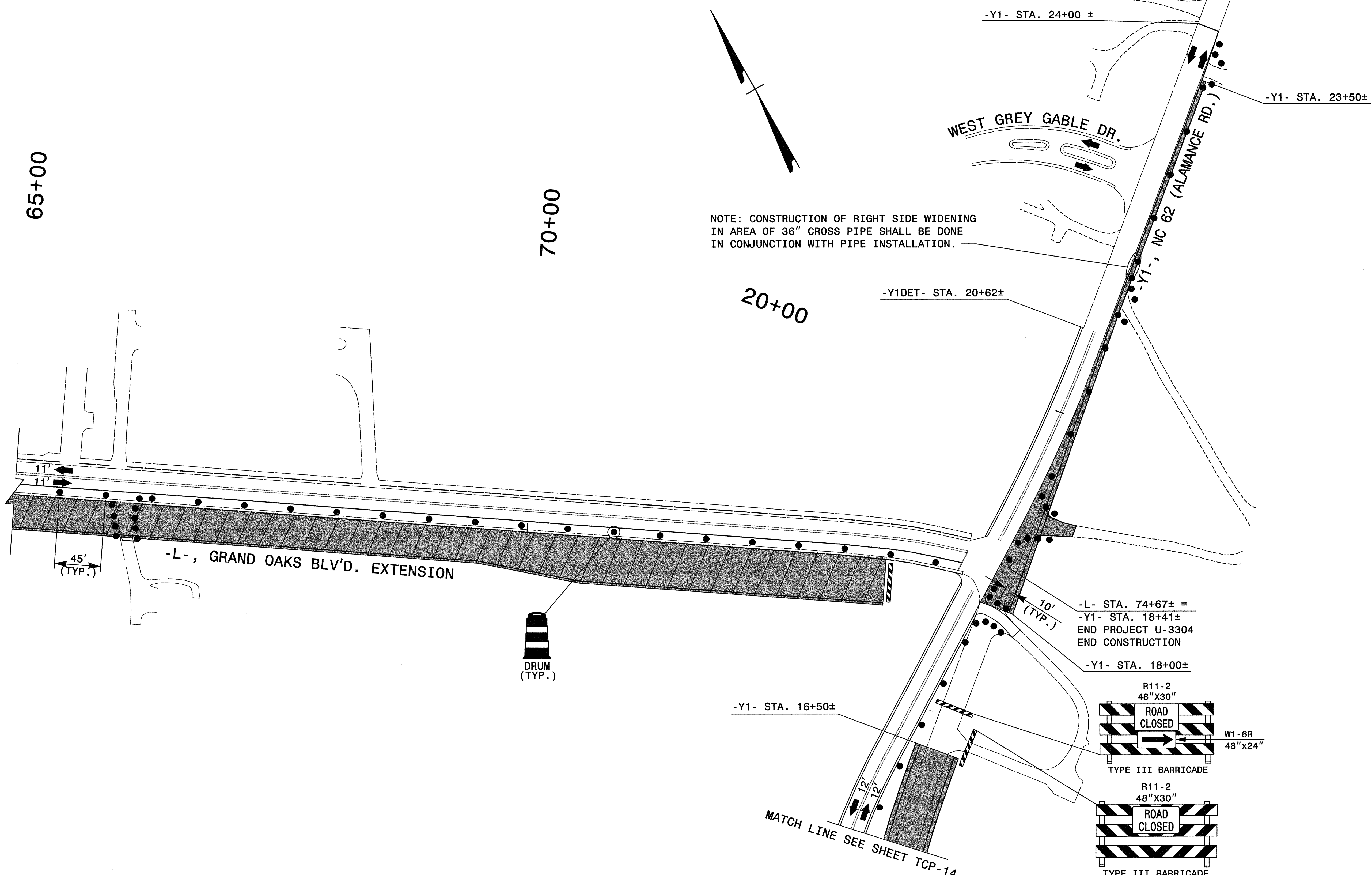
- STEP 5:** - USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 1 OF 9, PLACE TEMPORARY PAVEMENT LINES AND MARKERS ON RIGHT SIDE OF -L- LINE AND SHIFT TO A TWO-WAY, TWO-LANE PATTERN. (SEE PHASE II, DETAIL 3, SHEETS TCP-17 THRU TCP-19)



| LEGEND |                       |
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|        | PROPOSED CONSTRUCTION |
|        | ONGOING CONSTRUCTION  |

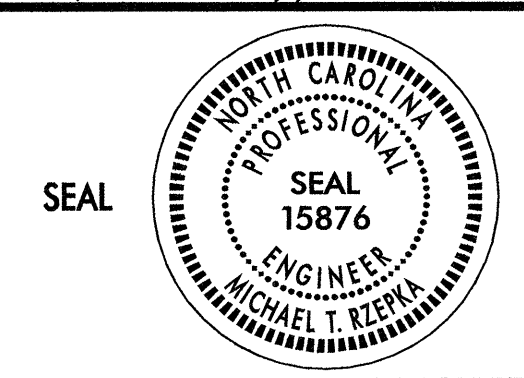
| APPROVED: <i>Michael T. Rzepka</i> DATE: 3-7-08 | <b>PHASE II OVERVIEW &amp; PHASING</b> |  |           |      |  |  |  |  |  |  |
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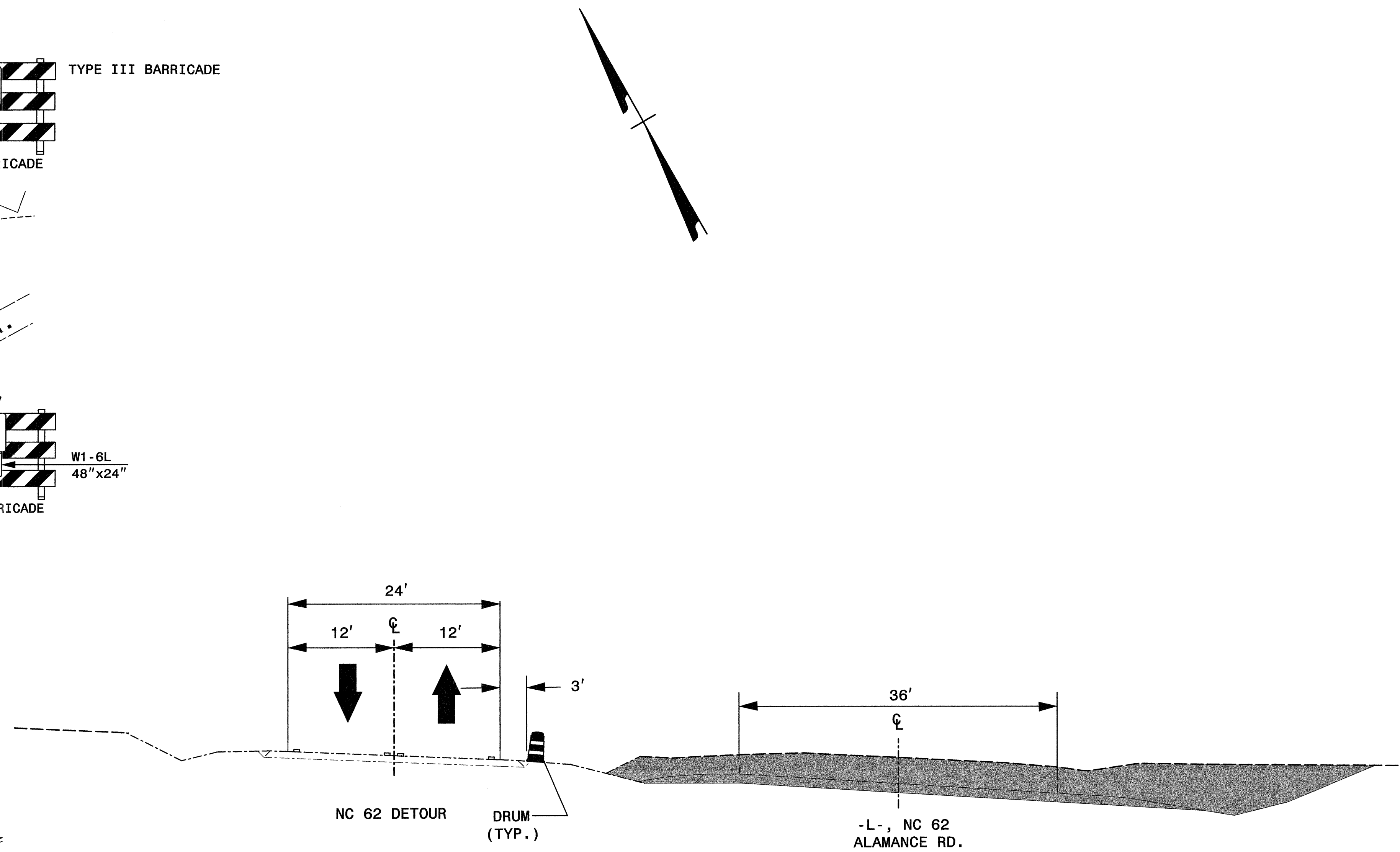
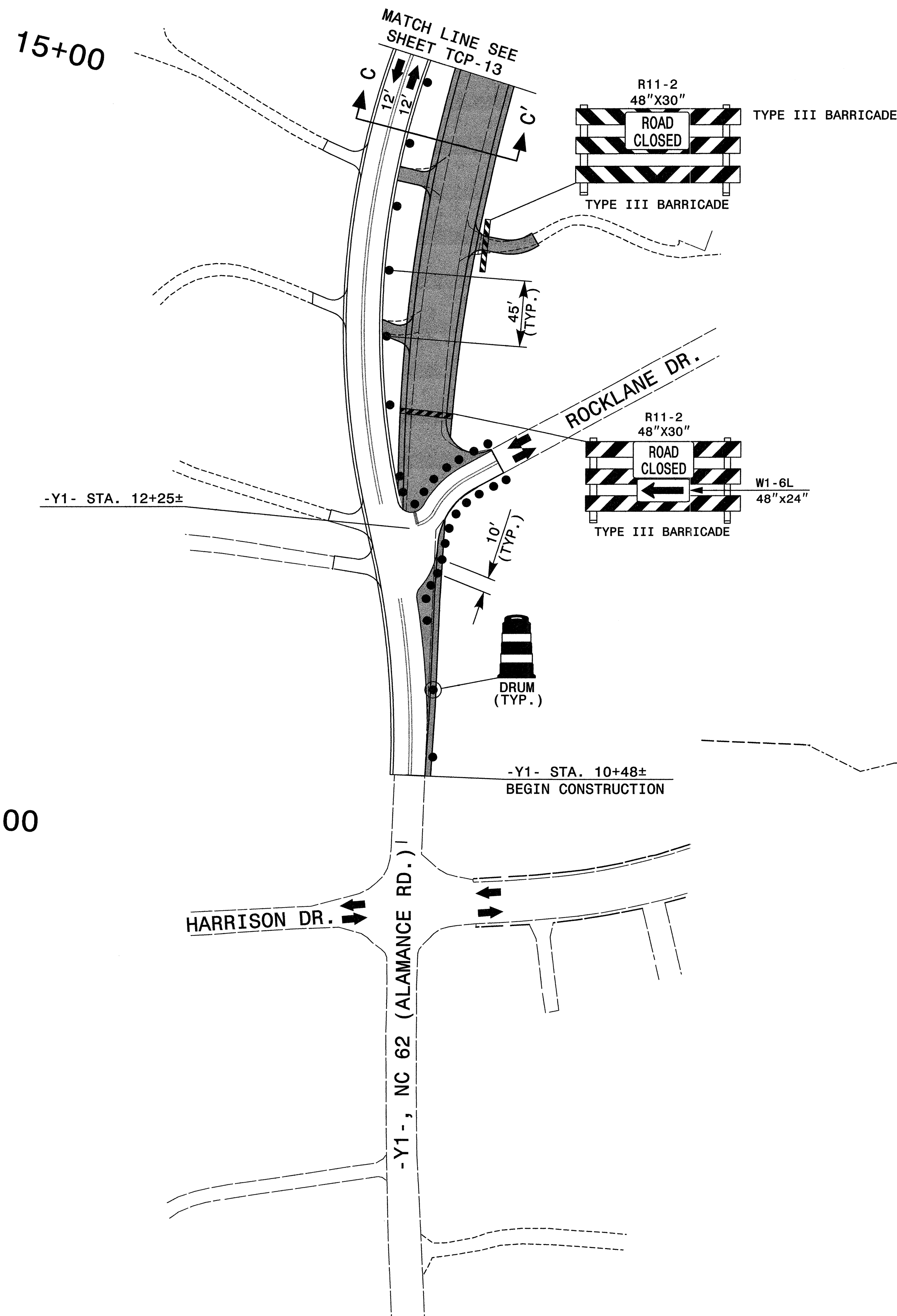
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|        | PROPOSED CONSTRUCTION |
|        | ONGOING CONSTRUCTION  |

APPROVED: *Michael T. Kiepek* DATE: 2-18-00



### PHASE II DETAIL 1


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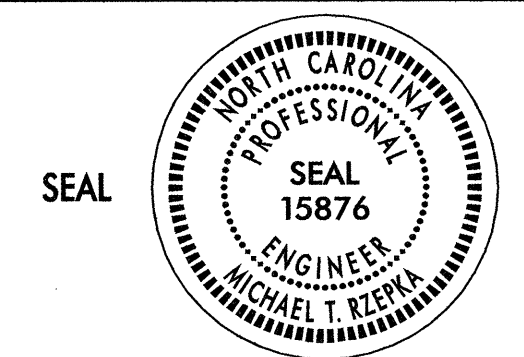
**TYPICAL SECTION C-C'**

(-Y1- STA. 15+00±)  
 (-Y1DET- STA. 14+67±)

**LEGEND**

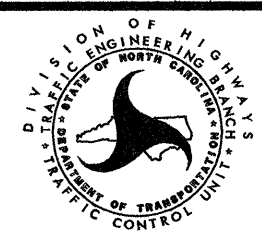
 PROPOSED CONSTRUCTION

APPROVED: *Michael T. Rzepka* DATE: 2-18-08



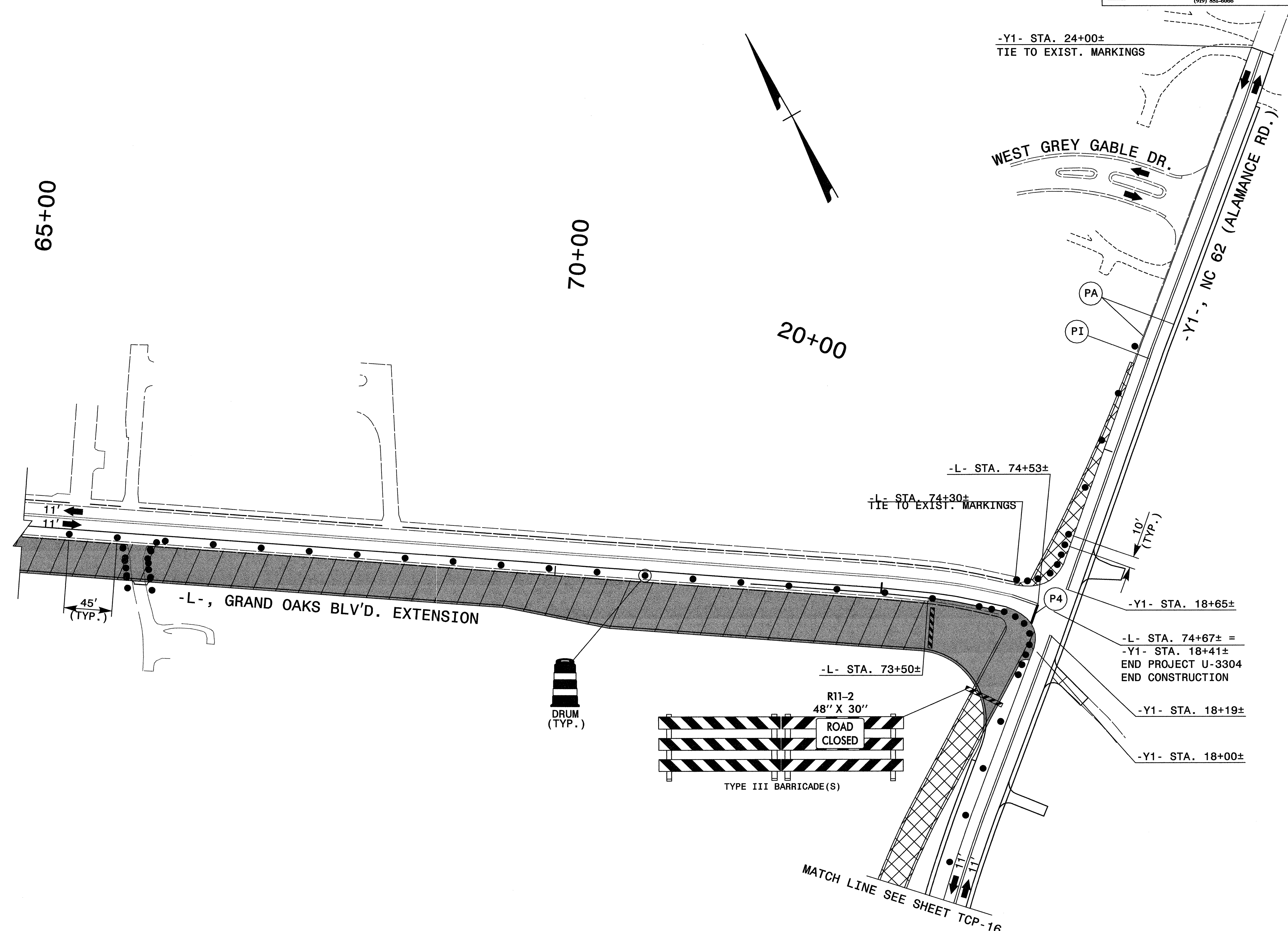
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 DWG. BY: GEP  
 DESIGN BY: GEP  
 REVIEWED BY: MTR



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| LEGEND |                            |
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|        | PROPOSED CONSTRUCTION      |
|        | ONGOING CONSTRUCTION       |
|        | REMOVAL OF EXIST. PAVEMENT |

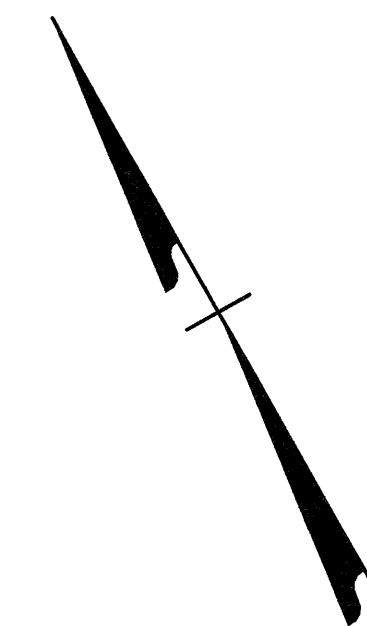
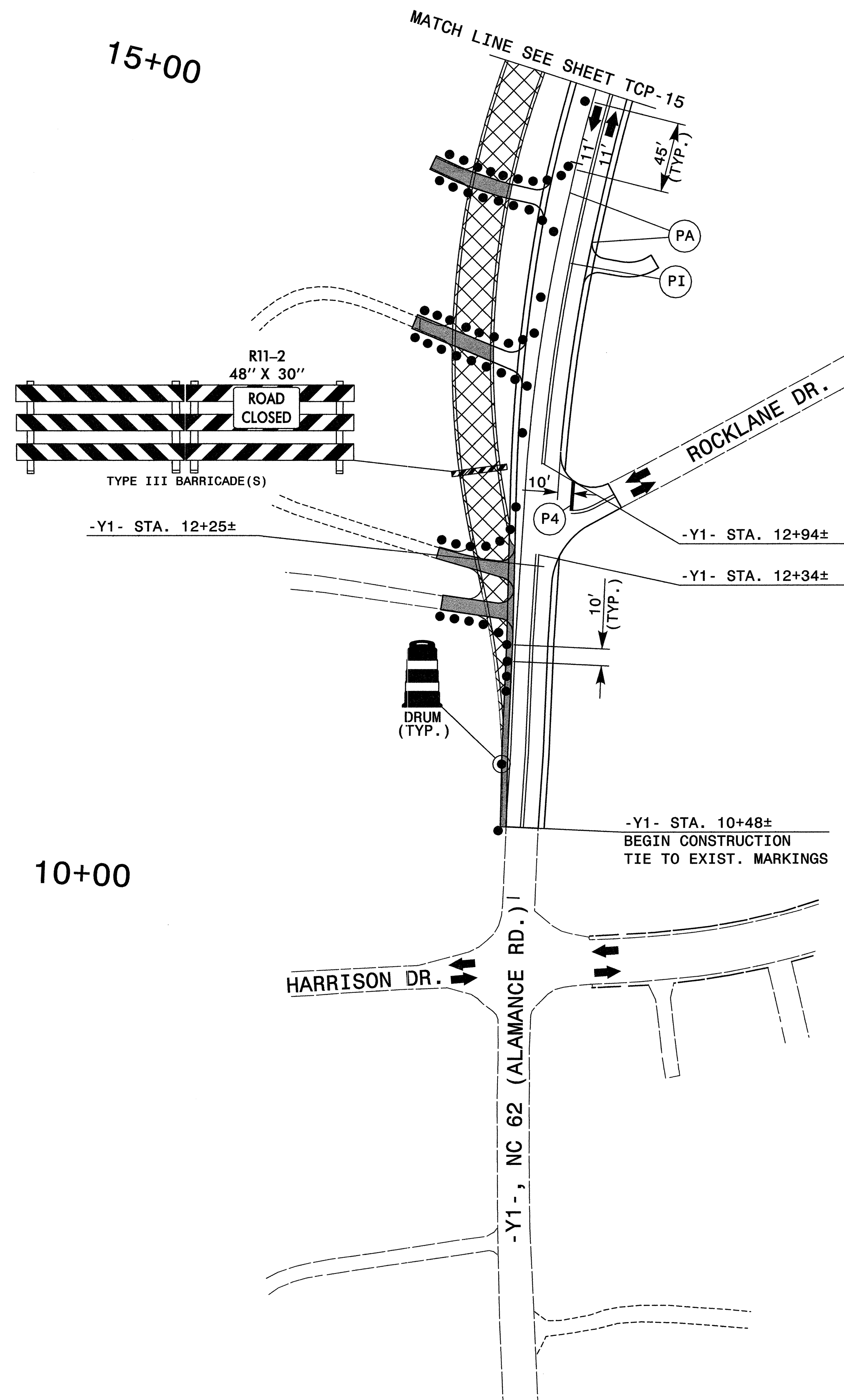
| TEMPORARY PAVEMENT MARKING SCHEDULE |                           |
|-------------------------------------|---------------------------|
| PA                                  | WHITE EDGELINE            |
| PI                                  | YELLOW DOUBLE CENTER LINE |
| P4                                  | WHITE STOPBAR             |

APPROVED: *Michael T. Reppke* DATE: 2-18-08

SEAL

### PHASE II DETAIL 2

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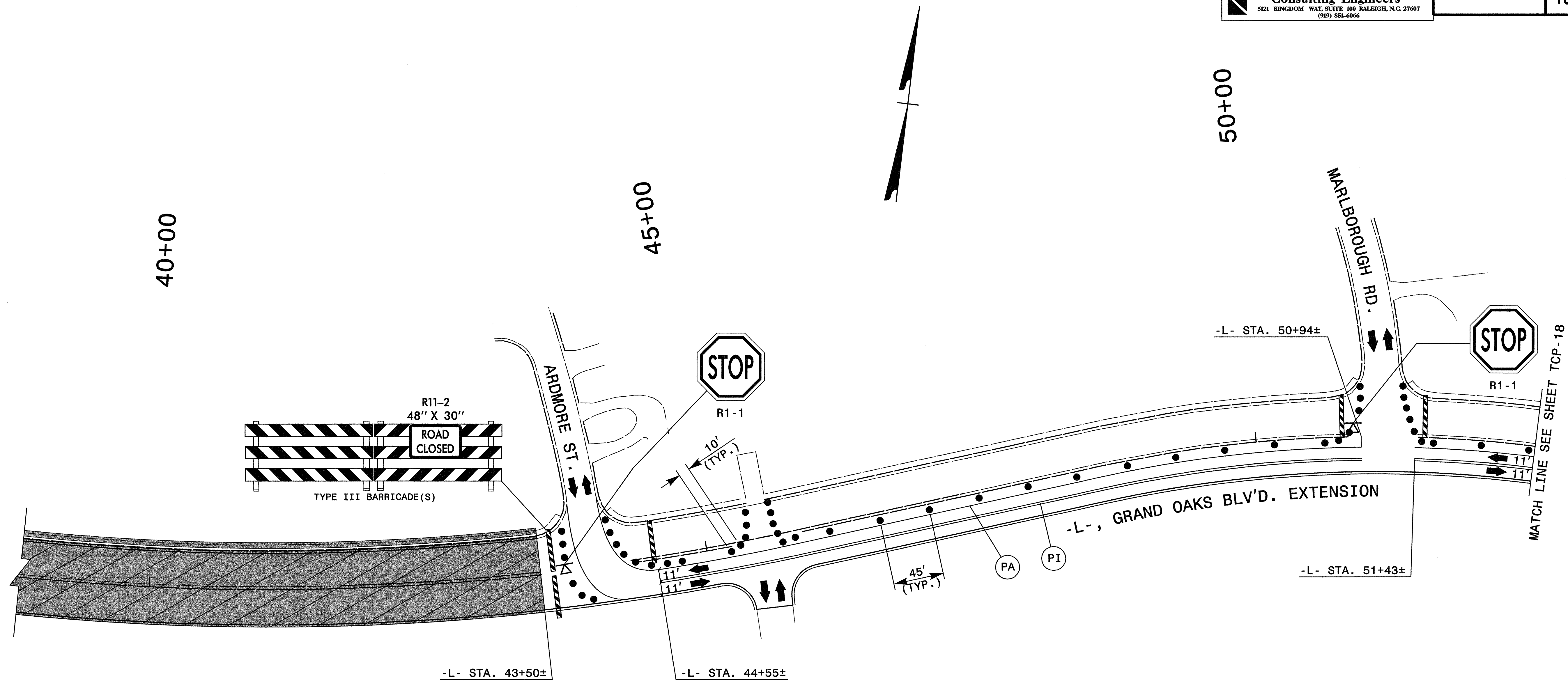


| LEGEND |                            |
|--------|----------------------------|
|        | PROPOSED CONSTRUCTION      |
|        | REMOVAL OF EXIST. PAVEMENT |

| TEMPORARY PAVEMENT MARKING SCHEDULE |
|-------------------------------------|
| PA - WHITE EDGELINE                 |
| PI - YELLOW DOUBLE CENTER LINE      |

|  |                          |           |
|--|--------------------------|-----------|
| APPROVED: <i>Michael T. Rzepka</i> DATE: 2-18-08 | <b>PHASE II DETAIL 2</b> |           |
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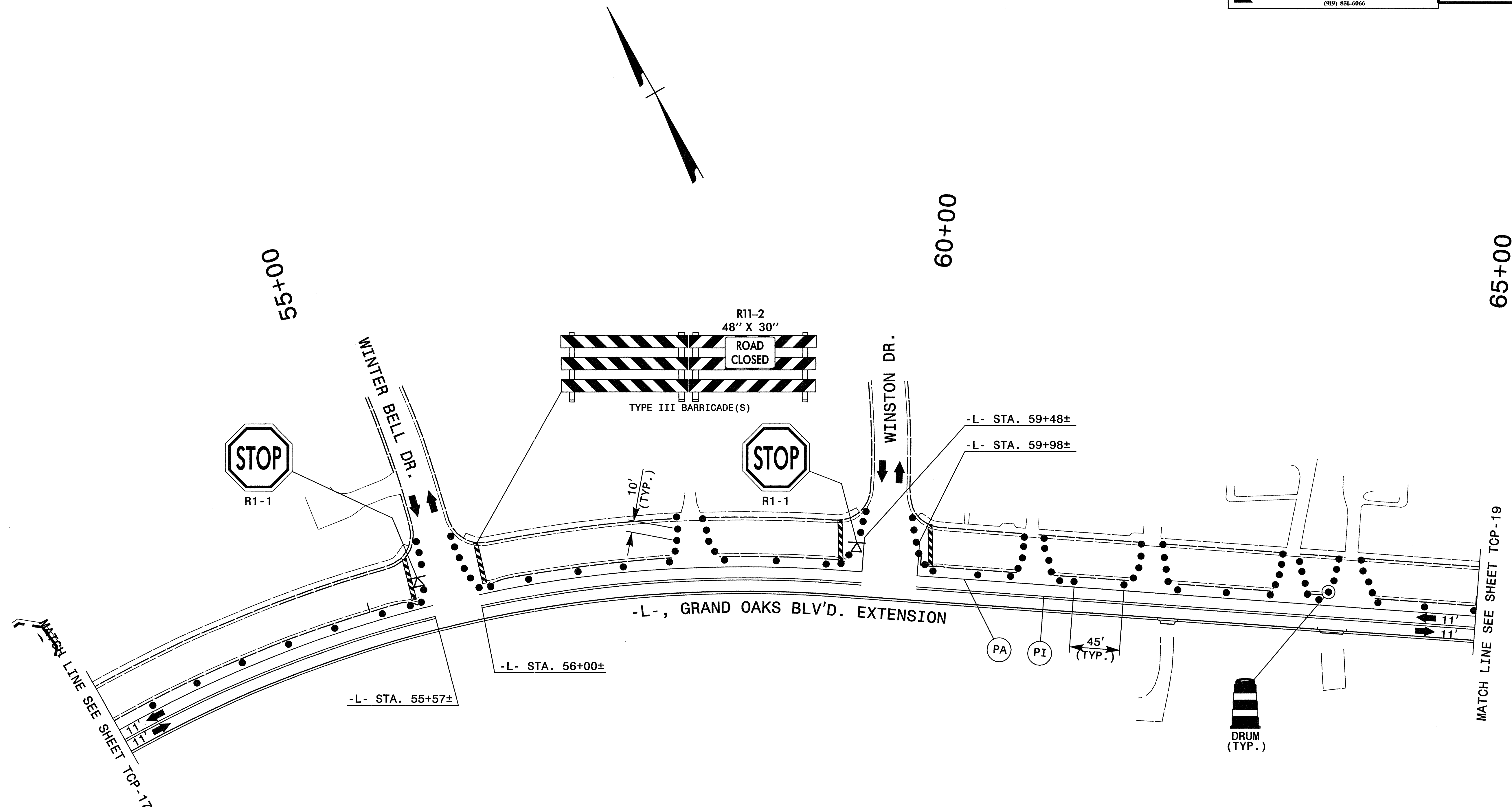
| LEGEND |                      |
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|        | ONGOING CONSTRUCTION |

| TEMPORARY PAVEMENT MARKING SCHEDULE |
|-------------------------------------|
| PA - WHITE EDGELINE                 |
| PI - YELLOW DOUBLE CENTER LINE      |


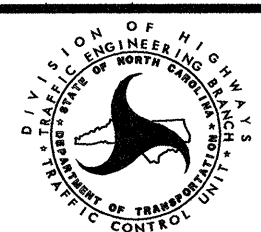
APPROVED: *Michael T. Rzepka* DATE: 2-18-08

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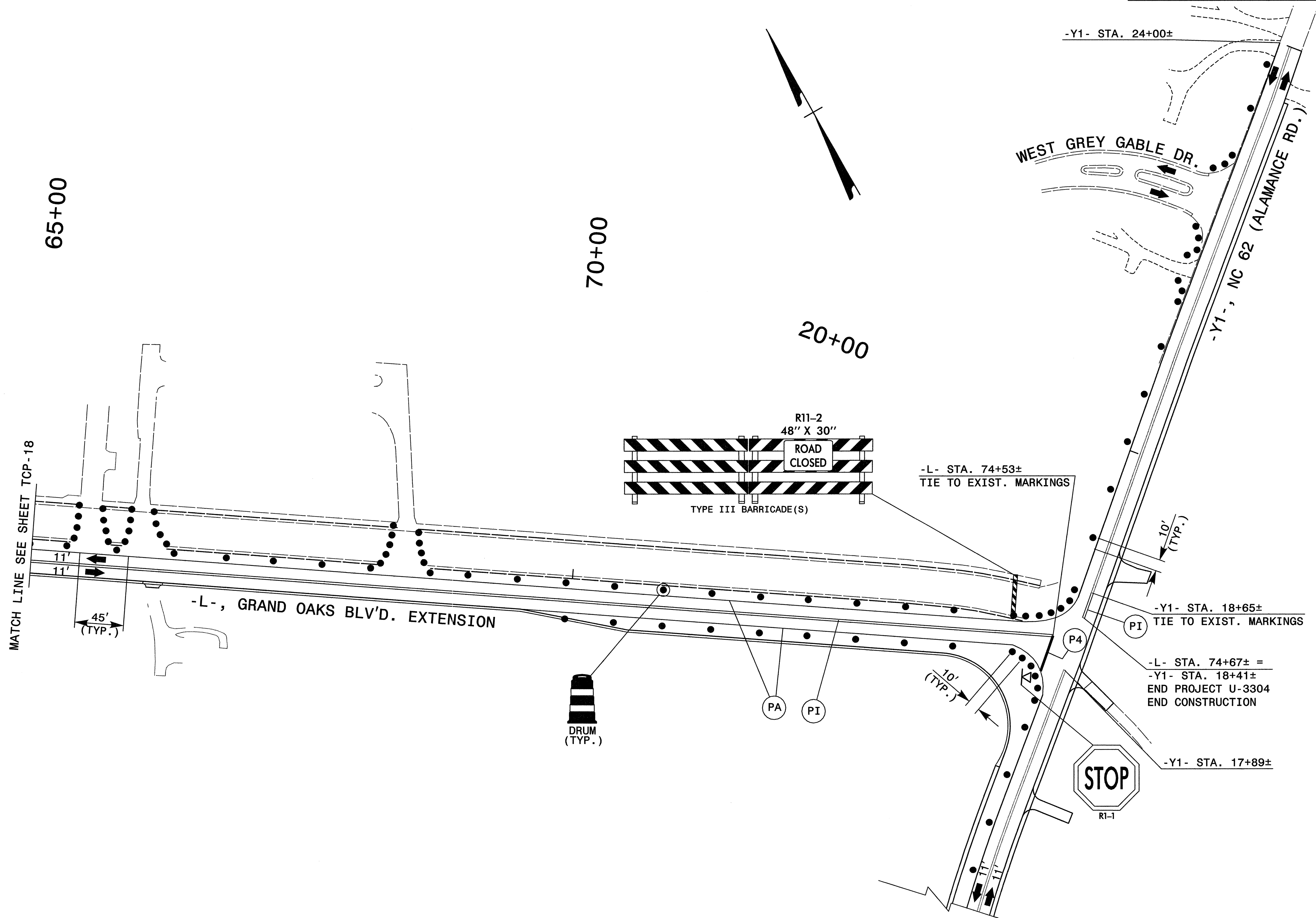
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| DESIGN BY:        | GEP   |           |   |           |  |  |  |
| REVIEWED BY:      | MTR   | CADD FILE |   |           |  |  |  |



| TEMPORARY PAVEMENT MARKING SCHEDULE |                             |
|-------------------------------------|-----------------------------|
| PA                                  | - WHITE EDGELINE            |
| PI                                  | - YELLOW DOUBLE CENTER LINE |

|   |   |           |
|---|---|-----------|
| APPROVED: <i>Michael T. Rzepka</i> DATE: 2-18-08                                      | <h2 style="text-align: center;">PHASE II DETAIL 3</h2>                                |           |
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| DATE: 12-07   |   |           |
| DWG. BY: GEP  |   |           |
| DESIGN BY: GEP  |   |           |
| REVIEWED BY: MTR  |   |           |





| TEMPORARY PAVEMENT MARKING SCHEDULE |                           |
|-------------------------------------|---------------------------|
| PA                                  | WHITE EDGELINE            |
| PI                                  | YELLOW DOUBLE CENTER LINE |
| P4                                  | WHITE STOPBAR             |

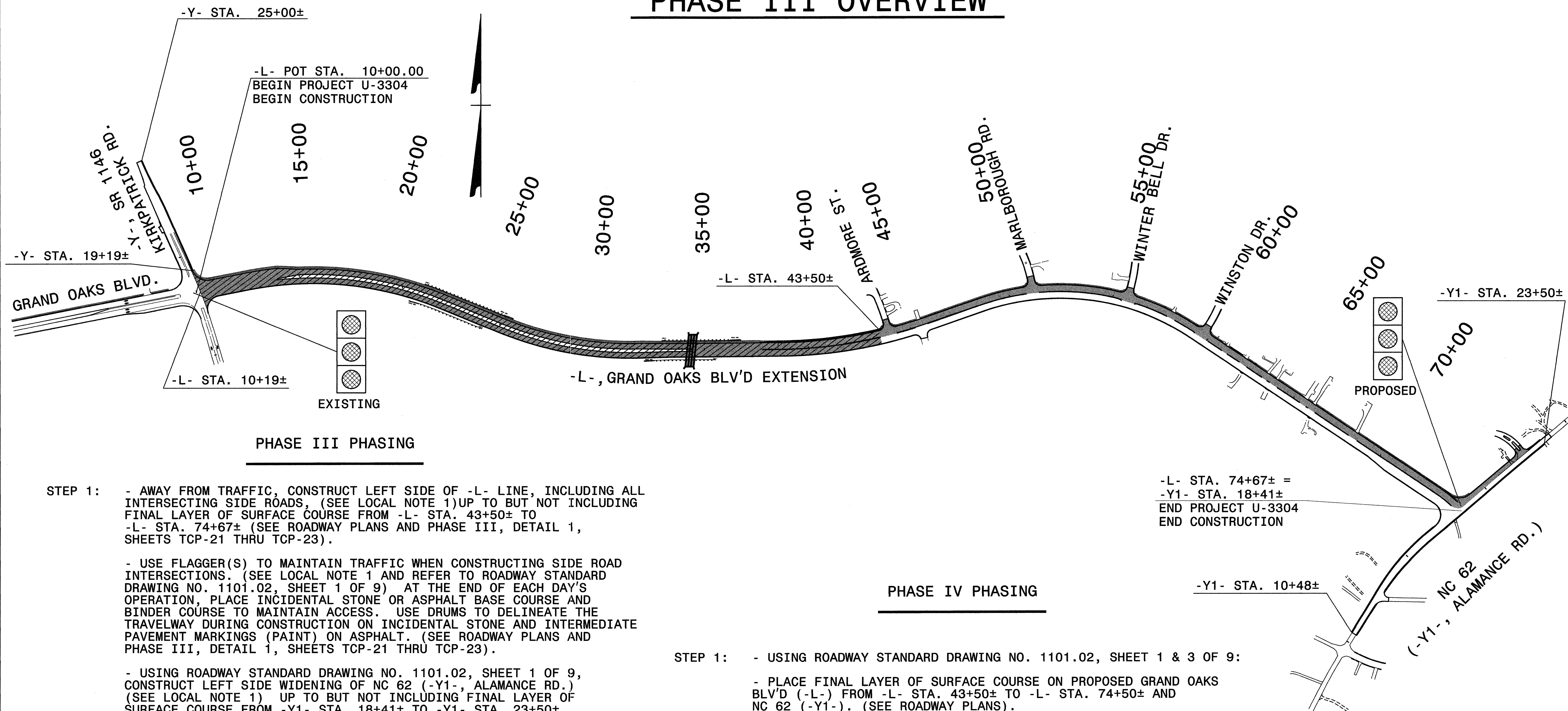
APPROVED: *Michael T. Rzepka* DATE: 2-18-08

SEAL

**PHASE II DETAIL 3**

| SCALE:       | NONE        |           | <table border="1"> <thead> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <th>NO.</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table> | REVISIONS |  | NO. | DESCRIPTION |  |  |  |  |
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| REVISIONS    |             |           |  |           |  |     |             |  |  |  |  |
| NO.          | DESCRIPTION |           |  |           |  |     |             |  |  |  |  |
|              |             |           |  |           |  |     |             |  |  |  |  |
|              |             |           |  |           |  |     |             |  |  |  |  |
| DATE:        | 12-07       |           |  |           |  |     |             |  |  |  |  |
| DWG. BY:     | GEP         |           |  |           |  |     |             |  |  |  |  |
| DESIGN BY:   | GEP         |           |  |           |  |     |             |  |  |  |  |
| REVIEWED BY: | MTR         | CADD FILE |  |           |  |     |             |  |  |  |  |

# PHASE III OVERVIEW



## PHASE III PHASING

**STEP 1:** - AWAY FROM TRAFFIC, CONSTRUCT LEFT SIDE OF -L- LINE, INCLUDING ALL INTERSECTING SIDE ROADS, (SEE LOCAL NOTE 1) UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE FROM -L- STA. 43+50± TO -L- STA. 74+67± (SEE ROADWAY PLANS AND PHASE III, DETAIL 1, SHEETS TCP-21 THRU TCP-23).

- USE FLAGGER(S) TO MAINTAIN TRAFFIC WHEN CONSTRUCTING SIDE ROAD INTERSECTIONS. (SEE LOCAL NOTE 1 AND REFER TO ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 1 OF 9) AT THE END OF EACH DAY'S OPERATION, PLACE INCIDENTAL STONE OR ASPHALT BASE COURSE AND BINDER COURSE TO MAINTAIN ACCESS. USE DRUMS TO DELINEATE THE TRAVELWAY DURING CONSTRUCTION ON INCIDENTAL STONE AND INTERMEDIATE PAVEMENT MARKINGS (PAINT) ON ASPHALT. (SEE ROADWAY PLANS AND PHASE III, DETAIL 1, SHEETS TCP-21 THRU TCP-23).

- USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 1 OF 9, CONSTRUCT LEFT SIDE WIDENING OF NC 62 (-Y1-, ALAMANCE RD.) (SEE LOCAL NOTE 1) UP TO BUT NOT INCLUDING FINAL LAYER OF SURFACE COURSE FROM -Y1- STA. 18+41± TO -Y1- STA. 23+50±. (SEE ROADWAY PLANS AND PHASE III, DETAIL 1, SHEET TCP-23).

**STEP 2:** - COMPLETE CONSTRUCTION OF -L- LINE UP TO AND INCLUDING FINAL LAYER OF SURFACE COURSE FROM -L- STA. 10+19± TO -L- STA. 43+50±

- COMPLETE CONSTRUCTION OF SR 1146 (-Y-, KIRKPATRICK RD.) UP TO EXISTING EDGE OF PAVEMENT ELEVATION FROM -Y- STA. 19+19± TO -Y- STA. 25+00±.

- COMPLETE CONSTRUCTION/INSTALLATION OF PROPOSED AND REVISED SIGNALS. (SEE SIGNAL PLANS)

## PHASE IV PHASING

**STEP 1:** - USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 1 & 3 OF 9:

- PLACE FINAL LAYER OF SURFACE COURSE ON PROPOSED GRAND OAKS BLVD (-L-) FROM -L- STA. 43+50± TO -L- STA. 74+50± AND NC 62 (-Y1-). (SEE ROADWAY PLANS).

- MILL/WEDGE AND PLACE FINAL LAYER OF SURFACE COURSE ON EXISTING SR 1146 (-Y-, KIRKPATRICK ROAD) AND 500' OF EXISTING EASTBOUND LANES OF GRAND OAKS BLVD. AT THE BEGINNING OF PROJECT. (SEE ROADWAY PLANS)

- PLACE FINAL PAVEMENT MARKINGS (THERMOPLASTIC) AND INSTALL SNOWPLOWABLE RAISED MARKERS ON ALL ROADS. (SEE SHEETS PM-1 THRU PM-5)

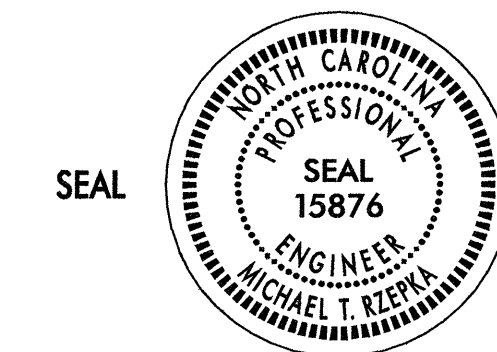
- ACTIVATE PROPOSED AND REVISED TRAFFIC SIGNALS AND OPEN ALL TRAVEL LANES. (SEE SHEETS PM-1 THRU PM-5)

**STEP 2:** - REMOVE ALL TRAFFIC CONTROL DEVICES.

### LEGEND

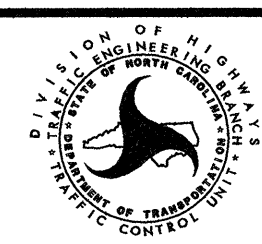
- PROPOSED CONSTRUCTION
- ONGOING CONSTRUCTION

APPROVED: *Muller* DATE: 3-7-08



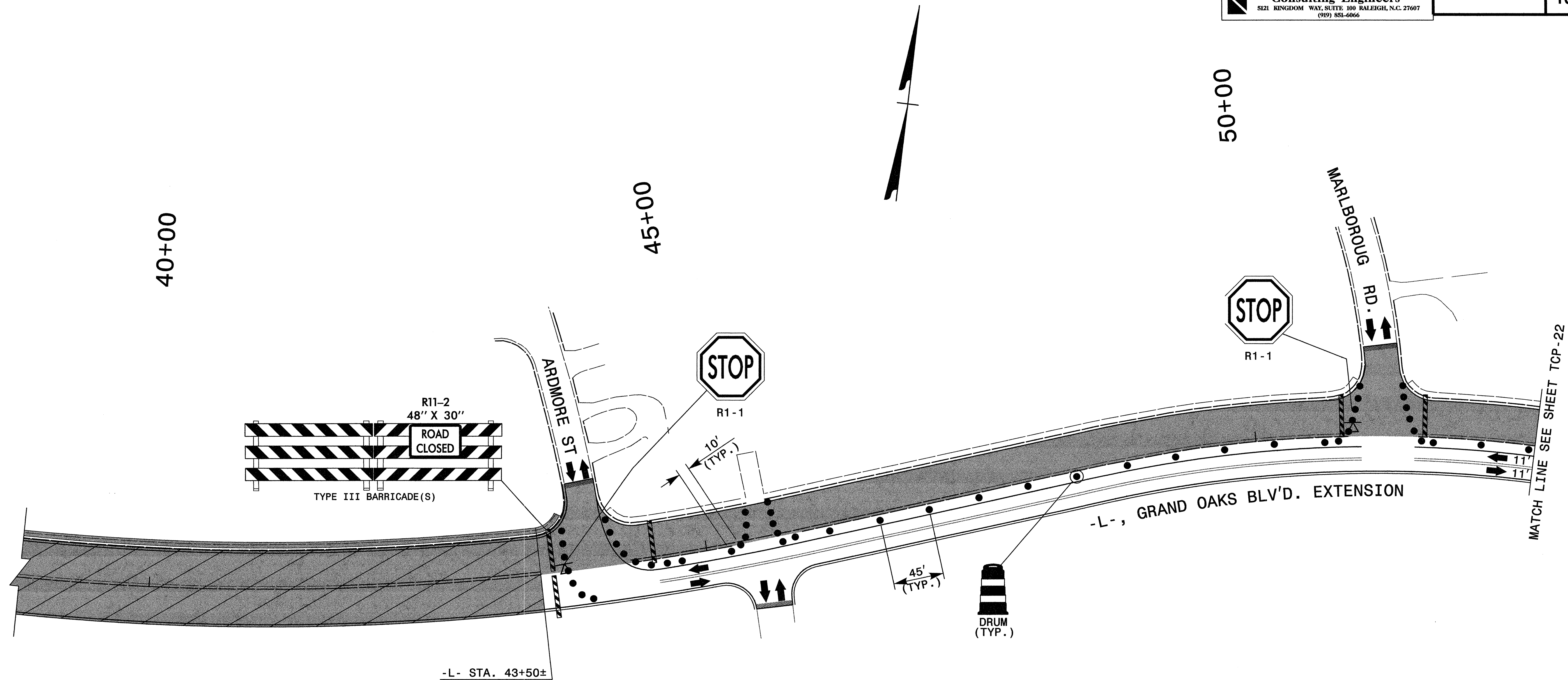
## PHASE III OVERVIEW PHASE III & IV PHASING

SCALE: NONE  
 DATE: 12-07  
 DWG. BY:  
 DESIGN BY: GEP  
 REVIEWED BY: MTR



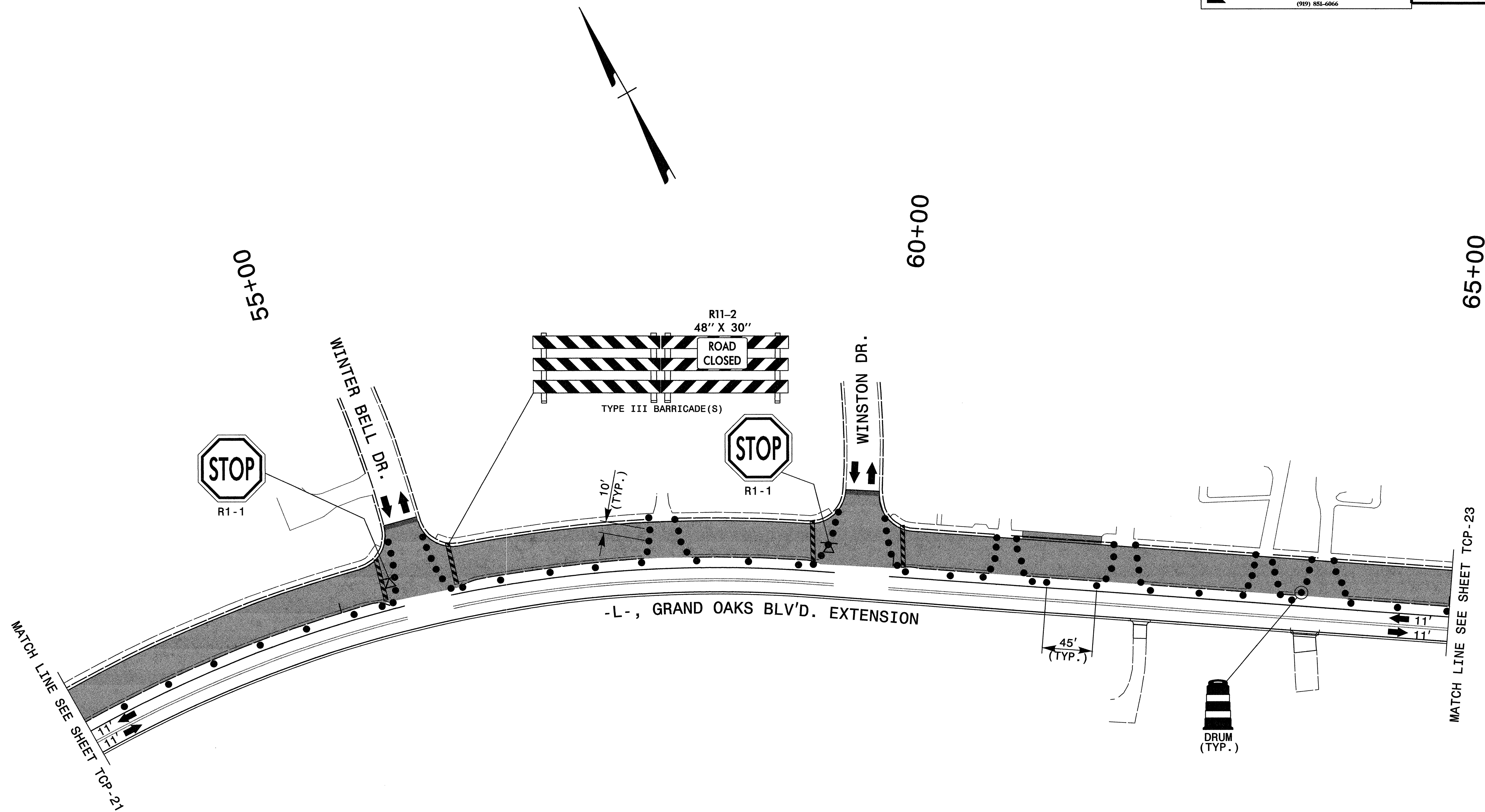
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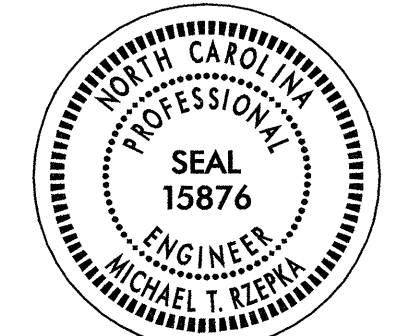
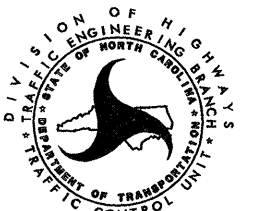


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|        | PROPOSED CONSTRUCTION |
|        | ONGOING CONSTRUCTION  |

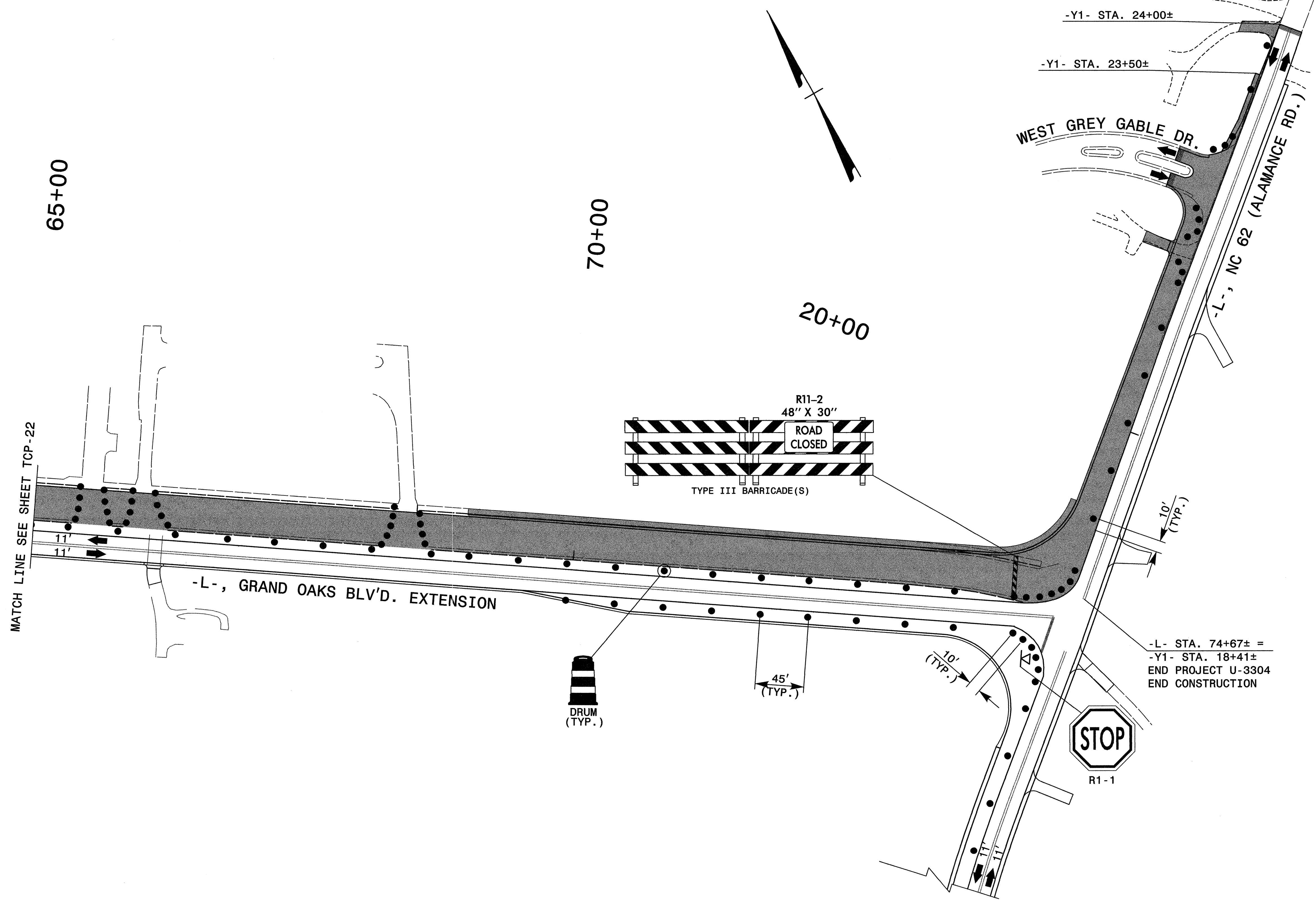
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| APPROVED: <i>Michael T. Rzewny</i> DATE: 2-18-08 | <b>PHASE III DETAIL 1</b> |           |
|  |                           |           |
| SCALE: NONE                                      |                           | REVISIONS |
| DATE: 12-07                                      |                           |           |
| DWG. BY: GEP                                     |                           |           |
| DESIGN BY: GEP                                   |                           |           |
| REVIEWED BY: MTR                                 |                           | CADD FILE |



| LEGEND  |                       |
|---|-----------------------|
|  | PROPOSED CONSTRUCTION |

|   |   |           |
|---|---|-----------|
| APPROVED: <i>Michael Rzepka</i> DATE: 2-18-08   | <h2 style="text-align: center;">PHASE III DETAIL 1</h2>                               |           |
|  |   |           |
| SCALE: NONE   |  | REVISIONS |
| DATE: 12-07   |   |           |
| DWG. BY: GEP  |   |           |
| DESIGN BY: GEP  |   |           |
| REVIEWED BY: MTR  |   |           |





MATCH LINE SEE SHEET TCP-22

65+00

70+00

20+00

-Y1- STA. 24+00±

-Y1- STA. 23+50±

WEST GREY GABLE DR.

-L-, NC 62 (ALAMANCE RD.)

R11-2  
48" X 30"

ROAD  
CLOSED

TYPE III BARRICADE(S)

-L-, GRAND OAKS BLV'D. EXTENSION

DRUM  
(TYP.)

45'  
(TYP.)

10'  
(TYP.)

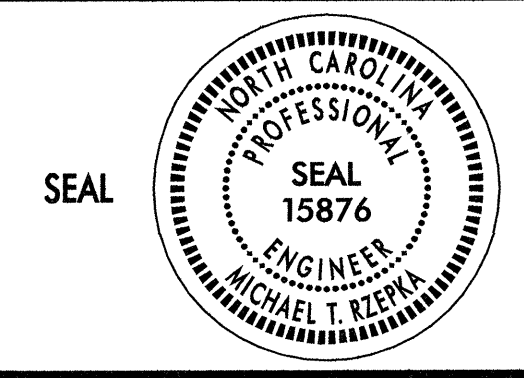
10'  
(TYP.)

-L- STA. 74+67± =  
-Y1- STA. 18+41±  
END PROJECT U-3304  
END CONSTRUCTION

STOP  
R1-1

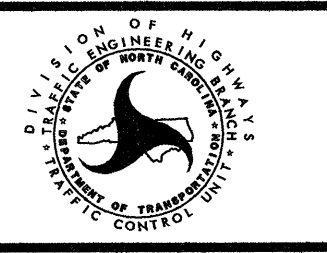
| LEGEND |                       |
|--------|-----------------------|
|        | PROPOSED CONSTRUCTION |

APPROVED: *Michael T. Rzepka* DATE: 3-7-08






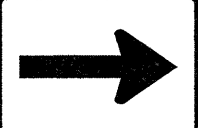


**PHASE III DETAIL 1**




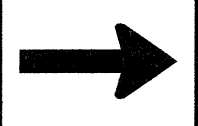


SCALE: NONE  
 DATE: 12-07  
 DWG. BY:  
 DESIGN BY: GEP  
 REVIEWED BY: MTR





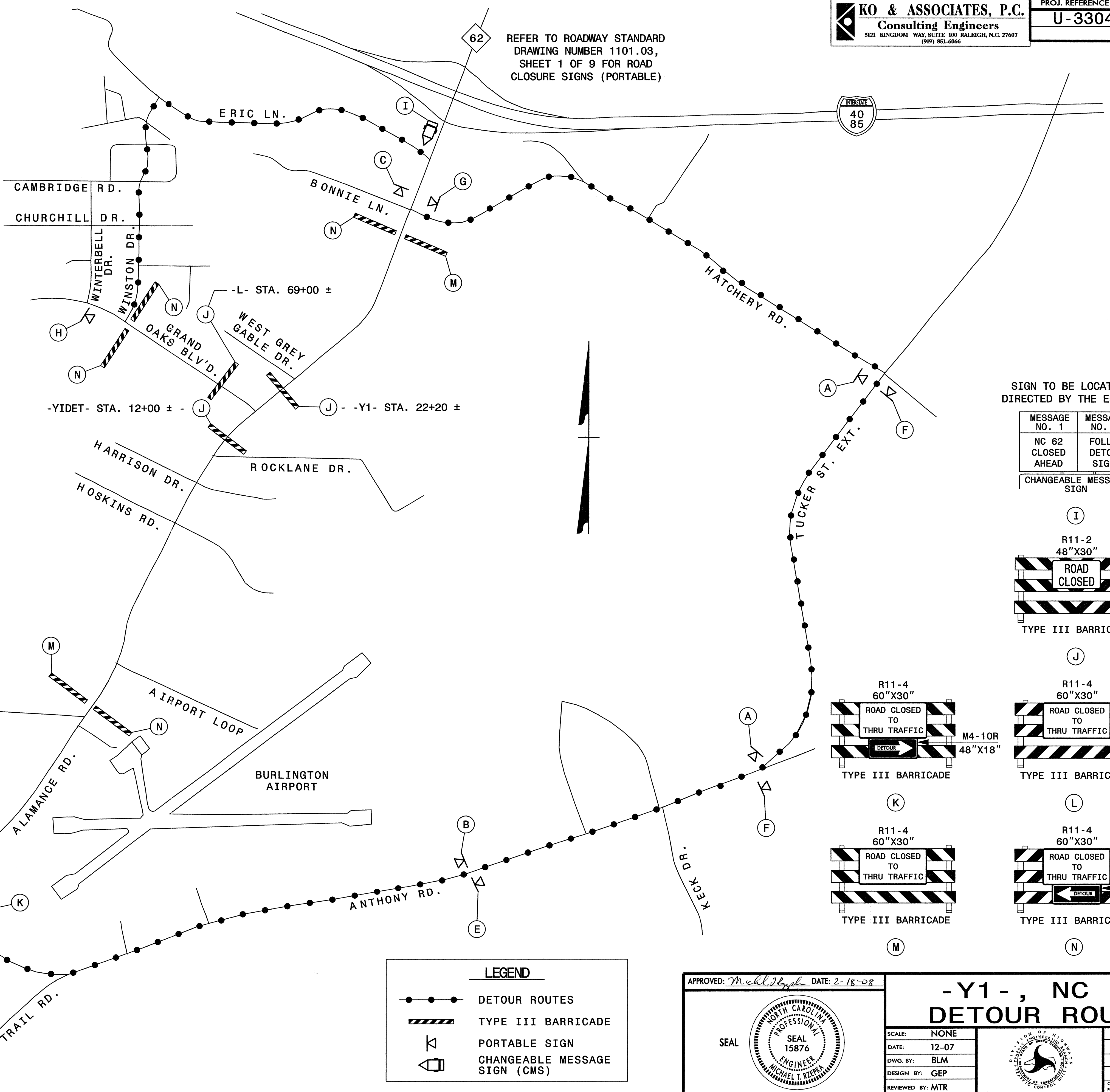
| REVISIONS |  |
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REFER TO ROADWAY STANDARD  
 DRAWING NUMBER 1101.03,  
 SHEET 1 OF 9 FOR ROAD  
 CLOSURE SIGNS (PORTABLE)

|  |  |  |
|--|--|--|
| <b>DETOUR</b><br>M4-8<br>24" X 12"   | <b>DETOUR</b><br>M4-8<br>24" X 12"   | <b>DETOUR</b><br>M4-8<br>24" X 12"   |
| <b>SOUTH</b><br>M3-3<br>24" X 12"  | <b>SOUTH</b><br>M3-3<br>24" X 12"  | <b>SOUTH</b><br>M3-3<br>24" X 12"  |
| <br>M1-5                | <br>M1-5              | <br>M1-5                |
| <br>M6-1 R<br>21" X 15" | <br>M6-3<br>21" X 15" | <br>M6-1 L<br>21" X 15" |
| (A)  | (B)  | (C)  |

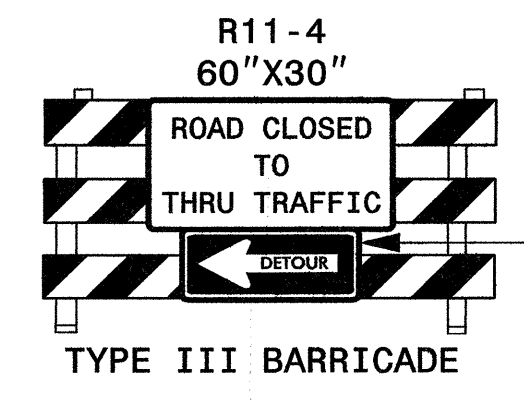
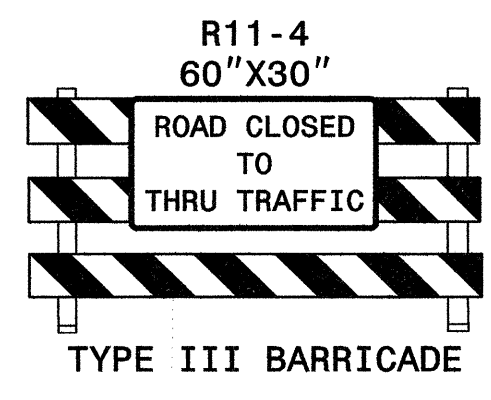
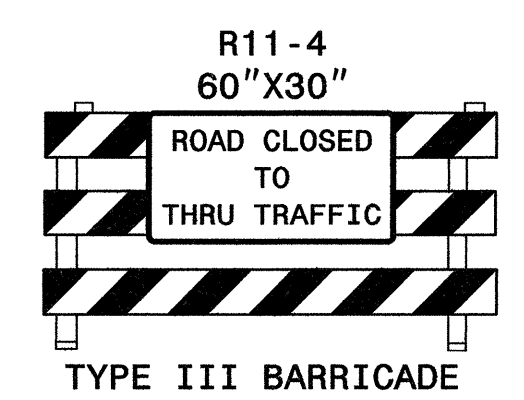
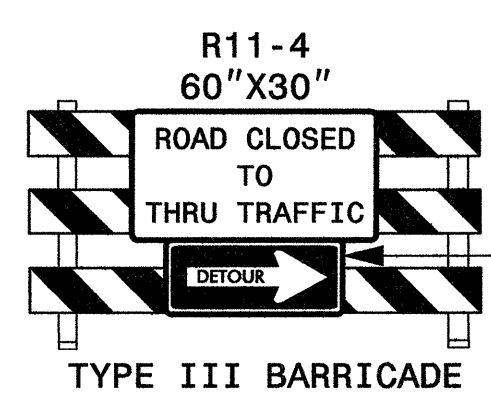
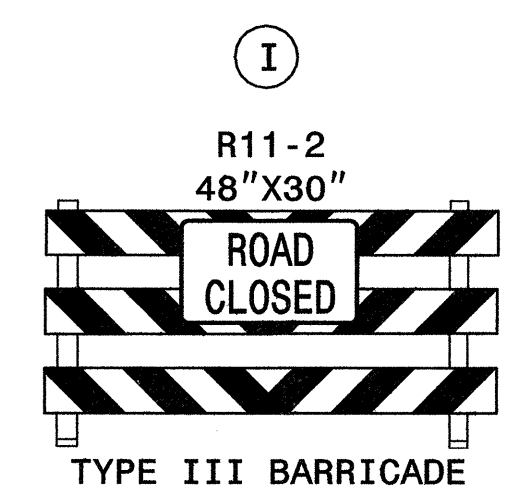
|  |  |  |
|--|--|--|
| <b>DETOUR</b><br>M4-8<br>24" X 12"   | <b>DETOUR</b><br>M4-8<br>24" X 12"   | <b>DETOUR</b><br>M4-8<br>24" X 12"   |
| <b>NORTH</b><br>M3-1<br>24" X 12"  | <b>NORTH</b><br>M3-1<br>24" X 12"  | <b>NORTH</b><br>M3-1<br>24" X 12"  |
| <br>M1-5                | <br>M1-5              | <br>M1-5                |
| <br>M6-1 R<br>21" X 15" | <br>M6-3<br>21" X 15" | <br>M6-1 L<br>21" X 15" |
| (D)  | (E)  | (F)  |

|   |  |
|---|--|
| <br>M1-5 | <br>W20-3<br>48" X 48" |
| <b>END<br/>DETOUR</b><br>M4-8 A<br>24" X 18"  | (G)  |







SIGN TO BE LOCATED AS DIRECTED BY THE ENGINEER

| MESSAGE NO. 1            | MESSAGE NO. 2             |
|--------------------------|---------------------------|
| NC 62<br>CLOSED<br>AHEAD | FOLLOW<br>DETOUR<br>SIGNS |
| CHANGEABLE MESSAGE SIGN  |                           |




REFER TO ROADWAY STANDARD  
 DRAWING NUMBER 1101.03,  
 SHEET 1 OF 9 FOR ROAD  
 CLOSURE SIGNS (PORTABLE)

**LEGEND**

-  DETOUR ROUTES
-  TYPE III BARRICADE
-  PORTABLE SIGN
-  CHANGEABLE MESSAGE SIGN (CMS)

APPROVED: *Michael T. Keppel* DATE: 2-18-08

SEAL



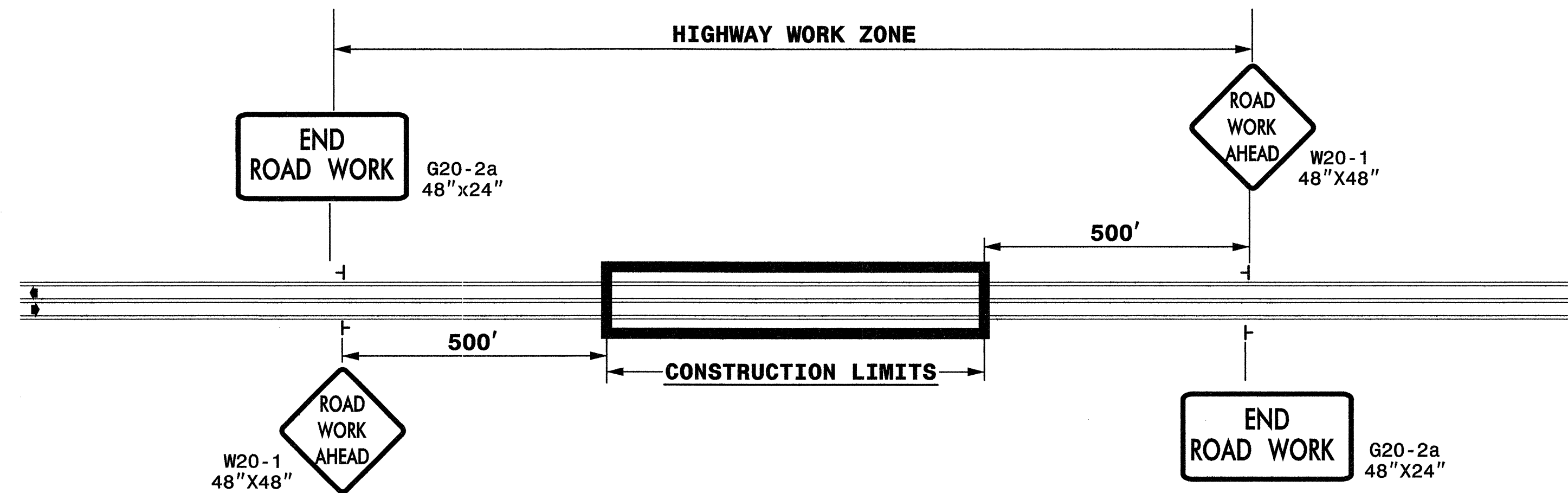
NORTH CAROLINA  
 PROFESSIONAL  
 ENGINEER  
 SEAL  
 15876  
 MICHAEL T. KEPPEL

**-Y1-, NC 62  
DETOUR ROUTE**

|                  |   |           |
|------------------|---|-----------|
| SCALE: NONE      |  | REVISIONS |
| DATE: 12-07      |   |           |
| DWG. BY: BLM     |   |           |
| DESIGN BY: GEP   |   |           |
| REVIEWED BY: MTR |   |           |

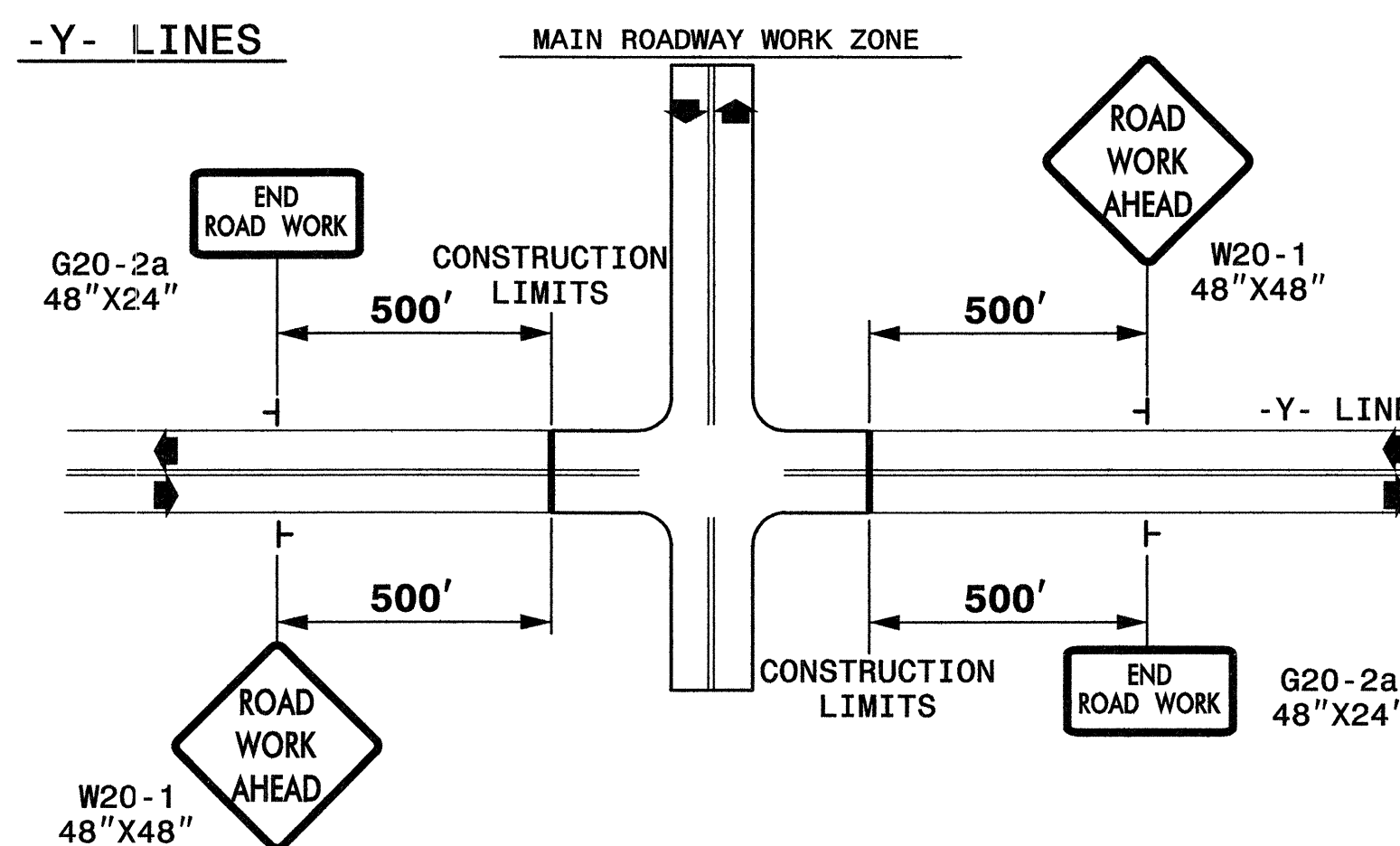


**TWO-WAY UNDIVIDED \*\* (L-LINES)**



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.

**LEGEND**

┆ STATIONARY SIGN

◀ DIRECTION OF TRAFFIC FLOW

SHEET 1 OF 1

|  |  |   |  |  |  |  |
|--|--|---|--|--|--|--|
| APPROVED: <i>Michael T. Kieper</i> DATE: 2-18-08 | DETAIL DRAWING FOR TWO-WAY UNDIVIDED AND URBAN FREEWAYS ADVANCED WORK ZONE WARNING SIGNS |   |  |  |  |  |
| SEAL<br>   | SCALE: NONE  |   |  |  |  |  |
|  | DATE: 12-07  |   |  |  |  |  |
|  | DWG. BY: B.L.M.  |   |  |  |  |  |
|  | DESIGN BY: G.E.P.  |   |  |  |  |  |
| REVIEWED BY: M.T.R.                              | REVISIONS  | <table border="1"> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table> |  |  |  |  |
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