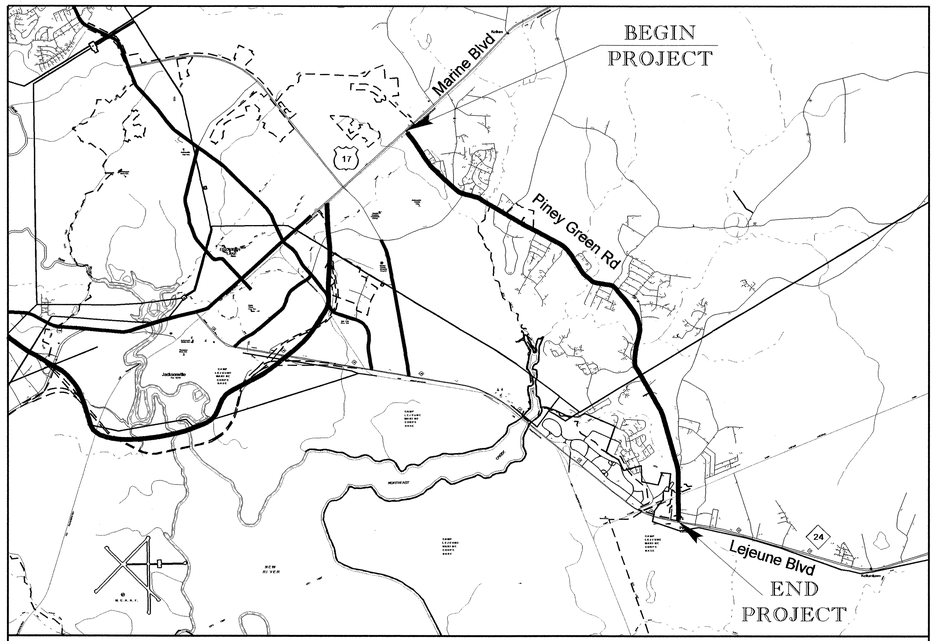
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

ONSLOW COUNTY



VICINITY MAP

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TMP-1B - TMP-1D	TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES, GENERAL NOTES, AND LOCAL NOTES)
TMP-2	PORTABLE CONCRETE BARRIER AT TEMPORARY SHORING LOCATIONS
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TMP-4	PHASE I OVERVIEW
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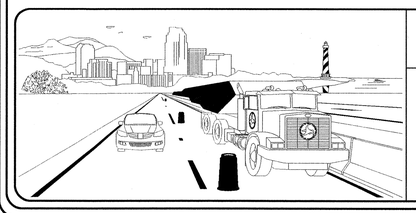
SD-1	TEMPORARY SIGN DESIGN

Part 2 of 4

SHEET NO.
TMP-1

TIP PROJECT: U-3810

PLAN PREPARED FOR N.C.D.O.T. BY:
ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326



N.C.D.O.T. WORK ZONE TRAFFIC CONTROL
1561 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1561
750 N. GREENFIELD PARKWAY, GARNER, NC 27529 (DELIVERY)
PHONE: (919) 773-2800 FAX: (919) 771-2745

J. STUART BOURNE, P.E. STATE TRAFFIC MANAGEMENT ENGINEER
STEVE KITE, P.E. TRAFFIC CONTROL PROJECT ENGINEER
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DAVID BISSETTE, P.E. TRAFFIC CONTROL DESIGN ENGINEER

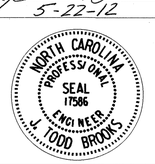
J. TODD BROOKS, P.E.
TRAFFIC CONTROL
PROJECT ENGINEER

JONATHAN WILES
TRAFFIC CONTROL
PROJECT DESIGN ENGINEER

BRANDON SCOTT
TRAFFIC CONTROL
DESIGN ENGINEER

APPROVED: J. Todd Brooks
DATE: 5-22-12

SEAL



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PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-1A

ROADWAY STANDARD DRAWINGS

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

STD. NO.	TITLE
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUM
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1160.01	TEMPORARY CRASH CUSHION
1165.01	WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION
1170.01	POSITIVE PROTECTION
1180.01	SKINNY-DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES & OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE & MULTI-LANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKINGS - LANE DROPS
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.10	PAVEMENT MARKINGS - SCHOOL AREAS
1205.11	PAVEMENT MARKINGS - RAILROAD CROSSINGS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION

LEGEND

GENERAL

- DIRECTION OF TRAFFIC FLOW
- DIRECTION OF PEDESTRIAN TRAFFIC FLOW
- EXIST. PVMT.
- NORTH ARROW
- PROPOSED PVMT.
- WORK AREA
- REMOVAL
- WEDGING/OVERLAY OF EXIST
- TEMPORARY PAVEMENT
- GRADING & EMBANKMENT UP TO EDGE AND ELEVATION OF EXISTING TRAVEL WAY

TRAFFIC CONTROL DEVICES

- BARRICADE (TYPE III)
- CONE
- DRUM — SKINNY DRUM — TUBULAR MARKER
- TEMPORARY CRASH CUSHION
- FLASHING ARROW BOARD (TYPE C)
- FLAGGER
- LAW ENFORCEMENT
- TRUCK MOUNTED ATTENUATOR (TMA)
- PORTABLE CHANGEABLE MESSAGE SIGN
- PORTABLE CONCRETE BARRIER (P.C.B.)
- WATER FILLED BARRIER (W.F.B.)
- ORANGE CONSTRUCTION FENCING

TEMPORARY SIGNING

- PORTABLE SIGN
- STATIONARY SIGN
- STATIONARY OR PORTABLE SIGN

SIGNALS

- EXISTING
- PROPOSED
- TEMPORARY

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

PAVEMENT MARKERS

- CRYSTAL/CRYSTAL
- CRYSTAL/RED
- YELLOW/YELLOW

PAVEMENT MARKING SYMBOLS

- PAVEMENT MARKING SYMBOLS

TEMPORARY PAVEMENT MARKING

PA	WHITE EDGE LINE	PAINT (4")	LF
PB	YELLOW EDGE LINE	PAINT (4")	LF
PC	10 FT. WHITE SKIP	PAINT (4")	LF
PD	2 FT. WHITE MINISKIP	PAINT (4")	LF
PE	WHITE LANE LINE	PAINT (4")	LF
PF	YELLOW CENTER LINE	PAINT (4")	LF
PG	2 FT. YELLOW MINISKIP	PAINT (4")	LF
PH	10 FT. YELLOW SKIP	PAINT (4")	LF
PI	YELLOW DOUBLE CENTER LINE	PAINT (4")	LF
PS	WHITE DIAGONAL	PAINT (12")	LF
PX	WHITE CROSSWALK LINE	PAINT (8")	LF
P1	WHITE GORELINE	PAINT (8")	LF
P3	WHITE LINE, RR CROSSBUCK	PAINT (16")	LF
P4	WHITE STOP BAR	PAINT (24")	LF
QA	LEFT TURN ARROW MARKING SYMBOLS	PAINT	EA
QB	RIGHT TURN ARROW MARKING SYMBOLS	PAINT	EA
QC	STRAIGHT ARROW MARKING SYMBOLS	PAINT	EA
QD	COMBO. STRT / LT ARROW MARKING SYMBOLS	PAINT	EA
QE	COMBO. STRT / RT ARROW MARKING SYMBOLS	PAINT	EA
QF	COMBO. LT / RT ARROW MARKING SYMBOLS	PAINT	EA
QG	LEFT/RIGHT/STRAIGHT/ MARKING SYMBOLS	PAINT	EA
QI	ALPHANUMERIC CHARACTERS	PAINT CHARACTER	EA
MH	YELLOW & YELLOW, TEMPORARY RAISED PAVEMENT MARKER		EA
MI	CRYSTAL & RED, TEMPORARY RAISED PAVEMENT MARKER		EA
RA	WHITE EDGE LINE	REMOVABLE TAPE (4")	LF
RB	YELLOW EDGE LINE	REMOVABLE TAPE (4")	LF
RD	2 FT. WHITE MINISKIP	REMOVABLE TAPE (4")	LF
RE	WHITE LANE LINE	REMOVABLE TAPE (4")	LF
RF	YELLOW CENTER LINE	REMOVABLE TAPE (4")	LF
RI	YELLOW DOUBLE CENTER LINE	REMOVABLE TAPE (4")	LF

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

APPROVED: DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER T. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

ROADWAY STANDARD DRAWINGS & LEGEND

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PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-1B

MANAGEMENT STRATEGIES

PINEY GREEN ROAD CONSTRUCTION SUMMARY

PINEY GREEN ROAD WILL BE CONSTRUCTED USING A COMBINATION OF TEMPORARY PAVEMENT, LANE CLOSURES, WEDGING UNDER TRAFFIC, TEMPORARY PORTABLE CONCRETE BARRIER, WATER-FILLED BARRIER, TEMPORARY SHORING FOR CULVERT AND BRIDGE WORK, TEMPORARY TRAFFIC SIGNALS, TEMPORARY PEDESTRIAN DETOURS AND MULTIPLE TRAFFIC SHIFTS.

FOR SOME ROADS THAT INTERSECT PINEY GREEN ROAD, LIMITED OFF-SITE DETOURS WILL BE USED DURING OVERNIGHT AND WEEKEND PERIODS TO CONSTRUCT LARGE PIPE CROSSINGS, GRADE CHANGES AND TIE-INS.

COORDINATION WITH THE RAIL ROADMASTER AND THE RESIDENT IS CRUCIAL FOR THE STAGED CONSTRUCTION OF THE RAILROAD GRADE CROSSING OF PINEY GREEN ROAD NEAR NC 24 (FREEDOM WAY).

LANE CLOSURES, TRAFFIC PATTERN SWITCHES, AND DETOURS WILL NEED TO BE COORDINATED CLOSELY WITH THE CLASS SCHEDULES AND ACTIVITIES OF THREE PUBLIC SCHOOLS IN THE CORRIDOR, ESPECIALLY WHITE OAK HIGH SCHOOL, AS WELL AS EVENTS ASSOCIATED WITH NEARBY MARINE CORPS BASE CAMP LEJEUNE.

COUNTRY CLUB ROAD CONSTRUCTION SUMMARY

COUNTRY CLUB ROAD WILL BE CONSTRUCTED USING A COMBINATION OF LANE CLOSURES, WEDGING UNDER TRAFFIC, TEMPORARY TRAFFIC SIGNALS, AND AN OFFSITE DETOUR.

US 17 (MARINE BLVD) CONSTRUCTION SUMMARY

US 17 (MARINE BLVD) WILL BE CONSTRUCTED USING A COMBINATION OF LANE CLOSURES, WEDGING UNDER TRAFFIC, TEMPORARY TRAFFIC SIGNALS, AND MINOR TRAFFIC SHIFTS.

NC 24 (FREEDOM WAY) CONSTRUCTION SUMMARY

NC 24 (FREEDOM WAY) WILL BE CONSTRUCTED USING A COMBINATION OF LANE CLOSURES,TEMPORARY TRAFFIC SIGNALS, AND MINOR TRAFFIC SHIFTS.

GENERAL NOTES

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

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

TIME RESTRICTIONS

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

ROAD NAME	DAY AND TIME RESTRICTIONS
SR 1406 PINEY GREEN RD	MONDAY THROUGH SUNDAY 6:00 A.M. TO 10:00 P.M.
US 17 NORTH MARINE BLVD	MONDAY THROUGH FRIDAY 6:00 A.M. TO 7:00 P.M.
NC 24 FREEDOM WAY	MONDAY THROUGH SUNDAY 6:00 A.M. TO 7:00 P.M.
SR 1430 COUNTRY CLUB ROAD	MONDAY THROUGH FRIDAY 7:00 A.M. TO 7:00 P.M.
WHITE OAK HIGH SCHOOL DRIVEWAYS SR 1860 HUNTERS TRAIL	SCHOOL DAYS 6:00 A.M. TO 9:00 A.M. AND 2:00 P.M. TO 4:00 P.M.

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

ROAD NAME

SR 1406 PINEY GREEN ROAD

HOLIDAY

1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 31st AND 10:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 10:00 P.M. THE FOLLOWING TUESDAY.
3. FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 10:00 P.M. MONDAY.
4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 10:00 P.M. TUESDAY.
5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 10:00 P.M. THE DAY AFTER INDEPENDENCE DAY.

   IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 10:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.
6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 10:00 P.M. TUESDAY.
7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY AND 10:00 P.M. MONDAY.
8. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 10:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.
9. FOR WHITE OAK HIGH SCHOOL HOME FOOTBALL GAMES, OCCURRING AT WHITE OAK HIGH SCHOOL BETWEEN THREE (3) HOURS BEFORE THE START AND TWO (2) HOURS AFTER THE END OF THE FOOTBALL GAME.

ROAD NAME

US 17 NORTH MARINE BLVD
NC 24 FREEDOM WAY

HOLIDAY

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

APPROVED: DATE: 3/6/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17595 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

TRANSPORTATION OPERATIONS PLAN

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

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PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-1C

GENERAL NOTES CONTINUED

LANE AND SHOULDER CLOSURE REQUIREMENTS

C) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.

D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING 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 10 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.

E) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRANSPORTATION MANAGEMENT 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.

F) 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.

G) DO NOT INSTALL MORE THAN 2 SIMULTANEOUS LANE CLOSURES IN ANY ONE DIRECTION ON PINEY GREEN ROAD.

H) PROVIDE A MINIMUM OF 1 MILE BETWEEN LANE CLOSURES, MEASURED FROM THE END OF ONE CLOSURE TO THE FIRST SIGN OF THE NEXT LANE CLOSURE.

PAVEMENT EDGE DROP OFF REQUIREMENTS

I) 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.

J) 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) 500 FT IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

L) 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.

M) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRANSPORTATION MANAGEMENT PLANS.

PROVIDE SIGNING REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRANSPORTATION MANAGEMENT PLANS.

N) COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION.

COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.

O) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

P) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 500 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC BARRIER

Q) INSTALL TEMPORARY BARRIER ACCORDING TO THE TRANSPORTATION MANAGEMENT PLANS A MAXIMUM OF TWO (2) WEEKS PRIOR TO BEGINNING WORK IN ANY LOCATION. ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION PROCEED IN A CONTINUOUS MANNER TO COMPLETE THE PROPOSED WORK IN THAT LOCATION UNLESS OTHERWISE STATED IN THE TRANSPORTATION MANAGEMENT PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE.

ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION AND NO WORK IS PERFORMED BEHIND THE TEMPORARY BARRIER FOR A PERIOD LONGER THAN TWO (2) MONTHS, REMOVE / RESET TEMPORARY BARRIER AT NO COST TO THE DEPARTMENT UNLESS OTHERWISE STATED IN THE TRANSPORTATION MANAGEMENT PLANS, TEMPORARY BARRIER IS PROTECTING A HAZARD, OR AS DIRECTED BY THE ENGINEER.

INSTALL TEMPORARY BARRIER WITH THE TRAFFIC FLOW BEGINNING WITH THE UPSTREAM SIDE OF TRAFFIC. REMOVE TEMPORARY BARRIER AGAINST THE TRAFFIC FLOW BEGINNING WITH THE DOWNSTREAM SIDE OF TRAFFIC.

INSTALL AND SPACE DRUMS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH) TO CLOSE OR KEEP THE SECTION OF THE ROADWAY CLOSED UNTIL THE TEMPORARY BARRIER CAN BE PLACED OR AFTER THE TEMPORARY BARRIER IS REMOVED.

R) PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER AT ALL TIMES DURING THE INSTALLATION AND REMOVAL OF THE BARRIER BY EITHER A TRUCK MOUNTED ATTENUATOR (MAXIMUM 72 HOURS) OR A TEMPORARY CRASH CUSHION.

PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER FROM ONCOMING TRAFFIC AT ALL TIMES BY A TEMPORARY CRASH CUSHION UNLESS THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER IS OFFSET FROM ONCOMING TRAFFIC AS FOLLOWS OR AS SHOWN IN THE PLANS: (SEE ALSO 1101.05)

POSTED SPEED LIMIT	MINIMUM OFFSET
40 OR LESS	15 FT
45 - 50	20 FT
55	25 FT
60 MPH or HIGHER	30 FT

TRAFFIC CONTROL DEVICES

S) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT, 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.

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.

APPROVED: DATE: 8/6/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

TRANSPORTATION OPERATIONS PLAN

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

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U-3810	TMP-1D

GENERAL NOTES CONTINUED

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

ROAD NAME	MARKING	MARKER
PINEY GREEN ROAD	PAINT	TEMPORARY RAISED
US 17 (MARINE BLVD)	PAINT	TEMPORARY RAISED
NC 24 (FREEDOM WAY)	PAINT	TEMPORARY RAISED
ALL OTHER -Y-LINES	PAINT	NONE

W) 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.

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

Y) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

Z) TRACE THE PROPOSED MONOLITHIC ISLAND LOCATIONS WITH PROPER COLOR PAVEMENT MARKINGS PRIOR TO INSTALLATION. PLACE DRUMS/SKINNY DRUMS TO DELINEATE ANY PROPOSED MONOLITHIC ISLANDS BEFORE INSTALLATION

MISCELLANEOUS

AA) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.

PEDESTRIANS

BB) ALL WHEELCHAIR RAMP LOCATIONS SHALL BE DERIVED FROM STATIONING SHOWN ON PAVEMENT MARKING PLANS OR AS DIRECTED BY THE ENGINEER IN COORDINATION WITH THE SIGNING AND DELINEATION UNIT.

CC) CONTRACTOR SHALL MAINTAIN SIDEWALK ACCESS AT ALL TIMES AS STATED IN THE PHASING. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TEMPORARY SIDEWALKS (CONCRETE, ASPHALT, OR OTHER SUITABLE MATERIAL AS APPROVED BY THE ENGINEER) AT ALL LOCATIONS WHERE THE OPEN PEDESTRIAN TRAVELWAY HAS BEEN REMOVED FOR CONSTRUCTION OPERATIONS (UTILITIES, DRAINAGE, ETC.).

DD) MAINTAIN REASONABLE AND SAFE PEDESTRIAN ACCESS TO ALL BUSINESSES, SCHOOLS AND DWELLINGS IN AREAS AFFECTED BY CONSTRUCTION AT ALL TIMES.

EE) REFER TO MUTCD SECTION 6D.01, "PEDESTRIAN CONSIDERATIONS" AND SECTION 6D.02, "ACCESSIBILITY CONSIDERATIONS" FOR ADDITIONAL REQUIREMENTS AND CONSIDERATIONS FOR MAINTAINING PEDESTRIAN MOBILITY THROUGH WORK AREA.

FF) WHEN CONSTRUCTION ACTIVITIES WILL BLOCK PEDESTRIAN ACCESS TO PEDESTRIAN SIGNAL PUSHBUTTONS, NOTIFY THE ENGINEER AT LEAST 24 HOURS IN ADVANCE OF SUCH WORK TO HAVE THE TRAFFIC SIGNAL PLACE ON PEDESTRIAN RECALL.

LOCAL NOTES

LN-1 CONSTRUCT TEMPORARY/PERMANENT LATERAL WEDGING BETWEEN NEWLY CONSTRUCTED PAVEMENT AND EXISTING PAVEMENT TO MAINTAIN POSITIVE DRAINAGE OF EXISTING PAVEMENT (I.E., PREVENT PONDING OF WATER) AND PREVENT DROP-OFF BETWEEN NEW AND EXISTING PAVEMENT AS DIRECTED BY THE ENGINEER.

LN-2 WHILE TRAFFIC IS BEING MAINTAINED IN A TEMPORARY TWO WAY PATTERN ON JUST ONE SIDE OF A PROPOSED MEDIAN THAT IS UNDER CONSTRUCTION, MAINTAIN ACCESS TO FRONTING PROPERTIES AND DRIVEWAYS ON THE OTHER SIDE OF THE MEDIAN BY PROVIDING TEMPORARY OPENINGS (I.E., GAPS IN CURB AND GUTTER) AND CONSTRUCTING TEMPORARY TIE-INS THROUGH MEDIANS AS DIRECTED BY THE ENGINEER. OBTAIN THE ENGINEER'S APPROVAL OF LOCATIONS FOR TEMPORARY MEDIAN OPENINGS.

LN-3 PARTIALLY CONSTRUCT DRAINAGE BOX FOR PROPOSED D.I. OR C.B. TO AN INTERIM ELEVATION BELOW GRADE, COVER WITH TEMPORARY TRAFFIC BEARING COVER, BACKFILL AND PATCH PAVEMENT.

LN-4 COORDINATE WITH EMERGENCY SERVICES FOR TEMPORARY ROAD CLOSURES ON -Y- LINES OR ANY OTHER ACTIVITY WHICH WOULD PREVENT FIRE/EMS SERVICES FROM TRAVELING ON PROJECT ROADWAYS.

DO NOT CLOSE THE FOLLOWING -Y- LINES AT THE SAME TIME:

* CLAYTON RD (-Y6-) AND MIKE LOOP RD (-Y7-)
* SHOREHAM DR (-Y11-) AND COURTLAND RD (-Y13-)
* LYNCHBURG DR (-Y17-), NORTH AND SOUTH LEGS
* TONI DR (-Y27-) AND COLONIAL DR (-Y28-)
* LYNCHBURG DR (-Y17-), NORTH LEG, AND HALLTOWN RD (-Y18-)
* SHEFFIELD RD (-Y32-) AND WALNUT CREEK RD (-Y34-)

LN-5 USE CONES PLACED WITH BASES ABUTTING ONE ANOTHER TO PROVIDE A PEDESTRIAN PATH ACROSS A PORTION OF THE CONSTRUCTION AREA SO THAT PEDESTRIAN TRAFFIC CAN ACCESS NEWLY CONSTRUCTED SIDEWALK.

LN-6 RELAP EXISTING GUARDRAIL OR INSTALL TEMPORARY GUARDRAIL FOR CHANGE IN DIRECTION OF TRAFFIC ADJACENT TO GUARDRAIL. TEMPORARY APPROACH ANCHOR UNITS MAY BE NECESSARY.

APPROVED: DATE: 8/6/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

TRANSPORTATION OPERATIONS PLAN

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310 RALEIGH, NORTH CAROLINA 27609 (919) 876-6888 NCBEES #F-0326

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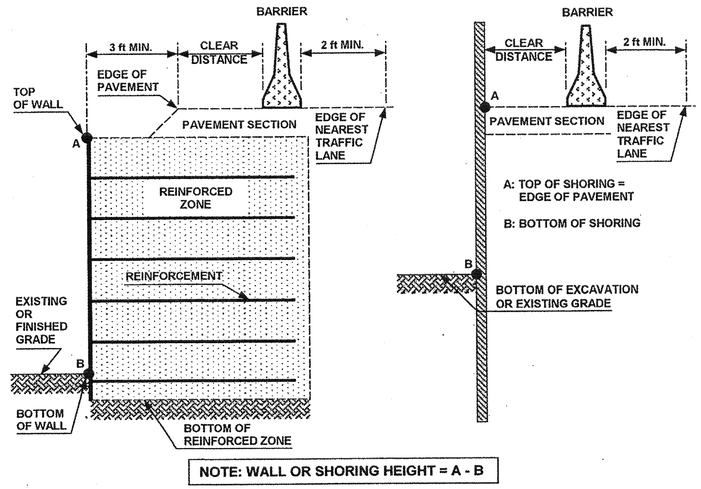

FIGURE A

NOTES

1- REFER TO THE TRAFFIC CONTROL PLANS FOR SHORING LOCATIONS AND SOIL PARAMETERS.

2- REFER TO THE "TEMPORARY SHORING" PROJECT SPECIAL PROVISION FOR MORE INFORMATION ABOUT TEMPORARY SHORING, MEASUREMENT AND PAYMENT.

3- PROVIDE PORTABLE CONCRETE BARRIER TO PROTECT TEMPORARY SHORING IF SHORING IS LOCATED WITHIN THE CLEAR ZONE AS DEFINED IN THE AASHTO ROADSIDE DESIGN GUIDE. DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE. (CONTACT NCDOT PAVEMENT MANAGEMENT UNIT FOR APPLICABLE PAVEMENT DESIGN).

4- BASED ON THE CLEAR DISTANCE, OFFSET, DESIGN SPEED AND PAVEMENT TYPE, CHOOSE AN UNANCHORED PCB, ANCHORED PCB OR AN OREGON BARRIER FROM THE TABLE SHOWN IN FIGURE B. FOR TRAFFIC LANES AND PORTABLE CONCRETE BARRIER LOCATED ABOVE AND BEHIND TEMPORARY SHORING, THE FOLLOWING ARE DEFINED AS:

CLEAR DISTANCE - HORIZONTAL DISTANCE FROM THE BACK FACE OF THE BARRIER TO THE EDGE OF PAVEMENT FOR TEMPORARY MSE WALL OR TO THE FACE OF NON-ANCHORED TEMPORARY SHORING AS SHOWN IN FIGURE A.

OFFSET - HORIZONTAL DISTANCE FROM THE FRONT FACE OF THE BARRIER TO CENTERLINE OF THE FURTHEST TRAFFIC LANE AS SHOWN IN FIGURE B FOR 3 TRAFFIC LANES.

5- AT THE CONTRACTOR'S OPTION OR IF THE MINIMUM REQUIRED CLEAR DISTANCE IS NOT AVAILABLE, SET AN UNANCHORED PCB AGAINST THE TRAFFIC SIDE OF THE SHORING AND DESIGN SHORING FOR TRAFFIC IMPACT OR USE THE "SURCHARGE CASE WITH TRAFFIC IMPACT" FOR THE STANDARD TEMPORARY SHORING. DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE. (CONTACT NCDOT PAVEMENT MANAGEMENT UNIT FOR APPLICABLE PAVEMENT DESIGN).

6- USE NCDOT PORTABLE CONCRETE BARRIER (PCB) IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1170.01 AND SECTION 1170 OF THE STANDARD SPECIFICATIONS.

7- USE OREGON TALL F-SHAPE CONCRETE BARRIER IN ACCORDANCE WITH DETAIL DRAWING AND SPECIAL PROVISION OBTAINED FROM: WORK ZONE TRAFFIC CONTROL UNIT WEB PAGE.

8- UNLESS NOTED OTHERWISE ON THE PLANS, SET PORTABLE CONCRETE BARRIER WITH A MINIMUM DISTANCE OF 2 FT BETWEEN THE FRONT FACE OF THE BARRIER AND THE EDGE OF THE NEAREST TRAFFIC LANE AS SHOWN IN FIGURE A.

9- FOR PORTABLE CONCRETE BARRIER ABOVE AND BEHIND TEMPORARY MSE WALLS, PROVIDE A MINIMUM DISTANCE OF 3 FT BETWEEN THE EDGE OF PAVEMENT AND THE WALL FACE AS SHOWN IN FIGURE A. IF THESE MINIMUM REQUIRED DISTANCES ARE NOT AVAILABLE, CONTACT THE ENGINEER.

10- TABLE SHOWN IN FIGURE B IS BASED ON NCDOT RESEARCH PROJECT NO. 2005-010 WITH VEHICLE TYPE USED FOR NCHRP 350 CRASH TESTS. BARRIER DEFLECTIONS AND RESULTING MINIMUM REQUIRED CLEAR DISTANCES MIGHT VARY SIGNIFICANTLY FOR LARGER HEAVIER VEHICLES, RUNS OF BARRIER LESS THAN 200' IN LENGTH AND WET OR DRY PAVEMENT.

MINIMUM REQUIRED CLEAR DISTANCE, inches

Barrier Type	Pavement Type	Offset * ft	Design Speed, mph <30	31-40	41-50	51-60	61-70	71-80
Unanchored PCB	Asphalt	<8	24	26	29	32	36	40
		8-14	26	28	31	35	38	42
		14-20	27	29	34	36	39	43
		20-26	28	31	35	38	40	44
		26-32	29	32	36	39	42	45
		32-38	30	34	38	41	43	46
		38-44	31	34	41	43	45	48
		44-50	31	35	41	43	46	49
		50-56	32	36	42	44	47	50
		>56	32	36	42	45	47	51
	Concrete	<8	17	18	21	22	25	26
		8-14	19	20	23	25	26	29
		14-20	22	22	24	26	28	31
		20-26	23	24	26	27	30	34
		26-32	24	25	27	28	32	35
		32-38	24	26	27	30	33	36
		38-44	25	26	28	30	34	37
		44-50	26	26	28	32	35	37
		50-56	26	26	28	32	35	38
		>56	26	27	29	32	36	38
Anchored PCB or Oregon Barrier	Asphalt	All Offsets	24 for All Design Speeds					
Anchored PCB or Oregon Barrier	Concrete (including bridge approach slabs)	All Offsets	12 for All Design Speeds					

* See Figure Below

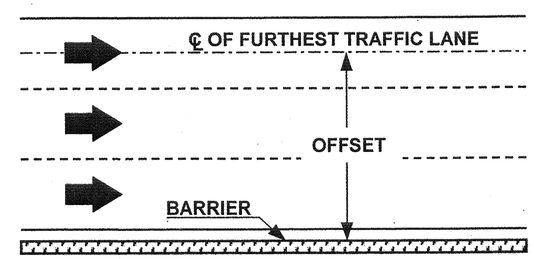

FIGURE B

APPROVED:_____ DATE:_____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 028380 ENGINEER JOSEPH E. CAPPELLI

September 2010

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PORTABLE CONCRETE BARRIER
AT
TEMPORARY SHORING LOCATIONS

TEMPORARY SHORING DATA

SHORING LOCATION NO. 1

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM STATION 51+32± -L-, 7.0 FT LEFT, TO STATION 52+04± -L-, 7.0 FT LEFT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS:

UNIT WEIGHT (γ) = 120 LB/CF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 LB/SF

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 51+32± -L-, 7.0 FT LEFT, TO STATION 52+04± -L-, 7.0 FT LEFT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

SHORING LOCATION NO. 2

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM STATION 166+91± -L-, 10.0 FT LEFT, TO STATION 167+87± -L-, 10.0 FT LEFT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUND WATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 LB/SF
GROUND WATER ELEVATION = 2 FT±

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 166+91± -L-, 10.0 FT LEFT, TO STATION 167+87± -L-, 10.0 FT LEFT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 166+91± -L-, 10.0 FT LEFT, TO STATION 167+87± -L-, 10.0 FT LEFT.

THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH A SEALED DOCUMENT FROM THE GEOTECHNICAL ENGINEERING UNIT. THE DOCUMENT WAS SUBMITTED TO THE WZTC SECTION ON JUNE 14, 2012 AND SEALED BY A PROFESSIONAL ENGINEER, THEIN T. ZAN, LICENSE # 30943.

SHORING LOCATION NO. 3

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM STATION 274+27± -L-, 7.0 FT RIGHT, TO STATION 275+08± -L-, 7.0 FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUND WATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 LB/SF
GROUND WATER ELEVATION = 10 FT±

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 274+27± -L-, 7.0 FT RIGHT, TO STATION 275+08± -L-, 7.0 FT RIGHT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DO NOT USE A TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 274+27± -L-, 7.0 FT RIGHT, TO STATION 275+08± -L-, 7.0 FT RIGHT.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING WHEN APPLICABLE FROM STATION 274+27± -L-, 7.0 FT RIGHT, TO STATION 275+08± -L-, 7.0 FT RIGHT. SEE STANDARD DRAWING NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFFERED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION 274+27± -L-, 7.0 FT RIGHT, TO STATION 275+08± -L-, 7.0 FT RIGHT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

SHORING LOCATION NO. 4

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM STATION 329+36± -L-, 1.0 FT RIGHT, TO STATION 330.03± -L-, 1.0 FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS:

UNIT WEIGHT (γ) = 120 LB/CF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 LB/SF

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 329+36± -L-, 1.0 FT RIGHT, TO STATION 330.03± -L-, 1.0 FT RIGHT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

IT MAY BE PREFFERED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION 329+36± -L-, 1.0 FT RIGHT, TO STATION 330.03± -L-, 1.0 FT RIGHT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

APPROVED: DATE: 06-26-12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 30864 ENGINEER DAVID W. BISSETTE

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

TEMPORARY SHORING DATA

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TEMPORARY SHORING DATA

SHORING LOCATION NO. 5

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM STATION 51+32± -L-, 1.0 FT RIGHT, TO STATION 52+04± -L-, 1.0 FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS:

UNIT WEIGHT (γ) = 120 LB/CF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 LB/SF

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 51+32± -L-, 1.0 FT RIGHT, TO STATION 52+04± -L-, 1.0 FT RIGHT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DO NOT USE A CANTILEVER, BRACE AND/OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION 51+32± -L-, 1.0 FT RIGHT, TO STATION 52+04± -L-, 1.0 FT RIGHT.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 51+32± -L-, 1.0 FT RIGHT, TO STATION 52+04± -L-, 1.0 FT RIGHT. SEE STANDARD DRAWING NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

SHORING LOCATION NO. 6

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM STATION 166+91± -L-, 17.0 FT LEFT, TO STATION 167+87± -L-, 17.0 FT LEFT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS:

UNIT WEIGHT (γ) = 120 LB/CF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 LB/SF

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 166+91± -L-, 17.0 FT LEFT, TO STATION 167+87± -L-, 17.0 FT LEFT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

SHORING LOCATION NO. 7

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM STATION 167+36± -L-, 61.2 TO 59.5 FT LEFT, TO STATION 167+50± -L-, 61.2 TO 59.5 FT LEFT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS:

UNIT WEIGHT (γ) = 120 LB/CF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 LB/SF

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 167+36± -L-, 61.2 TO 59.5 FT LEFT, TO STATION 167+50± -L-, 61.2 TO 59.5 FT LEFT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DO NOT USE A CANTILEVER, BRACE AND/OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION 167+36± -L-, 61.2 TO 59.5 FT LEFT, TO STATION 167+50± -L-, 61.2 TO 59.5 FT LEFT.

SHORING LOCATION NO. 8

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM STATION 274+28± -L-, 2.0 FT LEFT, TO STATION 275+09± -L-, 2.0 FT LEFT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUND WATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 LB/SF
GROUND WATER ELEVATION = 10 FT±

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 274+28± -L-, 2.0 FT LEFT, TO STATION 275+09± -L-, 2.0 FT LEFT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DO NOT USE A CANTILEVER, BRACE AND/OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION 274+28± -L-, 2.0 FT LEFT, TO STATION 275+09± -L-, 2.0 FT LEFT.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 274+28± -L-, 2.0 FT LEFT, TO STATION 275+09± -L-, 2.0 FT LEFT. SEE STANDARD DRAWING NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH A SEALED DOCUMENT FROM THE GEOTECHNICAL ENGINEERING UNIT. THE DOCUMENT WAS SUBMITTED TO THE WZTC SECTION ON JUNE 14, 2012 AND SEALED BY A PROFESSIONAL ENGINEER, THEIN T. ZAN, LICENSE # 30943.

APPROVED: DATE: 06-26-12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 30864 ENGINEER DAVID W. BISSETTE

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

TEMPORARY SHORING DATA

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TEMPORARY SHORING DATA

SHORING LOCATION NO. 9

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM STATION 329+31± -L-, 6.0 FT RIGHT, TO STATION 330+10± -L-, 6.0 FT RIGHT, FOR THE FOLLOWING ASSUMED SOIL PARAMETERS:

UNIT WEIGHT (γ) = 120 LB/CF
FRICTION ANGLE (ϕ) = 30 DEGREES
COHESION (c) = 0 LB/SF

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 329+31± -L-, 6.0 FT RIGHT, TO STATION 330+10± -L-, 6.0 FT RIGHT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DO NOT USE A CANTILEVER, BRACE AND/OR ANCHORED SHORING FOR TEMPORARY SHORING FROM STATION 329+31± -L-, 6.0 FT RIGHT, TO STATION 330+10± -L-, 6.0 FT RIGHT.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM STATION 329+31± -L-, 6.0 FT RIGHT, TO STATION 330+10± -L-, 6.0 FT RIGHT. SEE STANDARD DRAWING NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH A SEALED DOCUMENT FROM THE GEOTECHNICAL ENGINEERING UNIT. THE DOCUMENT WAS SUBMITTED TO THE WZTC SECTION ON JUNE 14, 2012 AND SEALED BY A PROFESSIONAL ENGINEER, THEIN T. ZAN, LICENSE # 30943.

APPROVED: DATE: 06-26-12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 30864 ENGINEER DAVID W. BISSETTE

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

TEMPORARY SHORING DATA

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dwbissettei AT TE26340L

PHASING

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-3

PHASE I

TO EXPEDITE AND SUBSTANTIALLY COMPLETE CONSTRUCTION IN HEAVILY TRAVELED ROADWAY SECTIONS AT EACH END OF THE PROJECT, PHASE I HAS BEEN SUBDIVIDED INTO THREE DISTINCT *AREAS.* UNLESS OTHERWISE NOTED IN THE PLANS OR DIRECTED BY THE ENGINEER, WORK MAY BE PERFORMED IN MORE THAN ONE AREA SIMULTANEOUSLY. REFER TO THE PHASE I OVERVIEW ON TMP-4 FOR THE GENERAL BOUNDARIES OF AREAS 1, 2 AND 3.

AREA 1

PINEY GREEN RD (-L-)
FROM US 17 (MARINE BLVD) (-Y-) TO MIKE LOOP RD (-Y10-)
AND US 17 (MARINE BLVD) (-Y-)

THE CONTRACTOR SHALL COMPLETE ALL WORK IN AREA 1, PHASE I, STEPS 1 THROUGH 9, WITHIN 210 CALENDAR DAYS. [SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES]

STEP 1: USING RSD 1101.02, SHEETS 1 AND 2:

* CONSTRUCT TEMPORARY WIDENING ALONG RIGHT SIDE OF PINEY GREEN RD FROM STA 38+12 +/- TO STA 51+75+/- -L- AS SHOWN ON TMP-5 [SEE ROADWAY PLANS].
* REVISE PAVEMENT MARKINGS AND SHIFT TRAFFIC ON PINEY GREEN RD INTO TEMPORARY TWO-LANE, TWO-WAY PATTERN BETWEEN IRIS LANE (-Y7-) AND COURTLAND RD (-Y13-) AS SHOWN ON TMP-6 AND TMP-7. [SEE SECTION A-A ON TMP-6].

STEP 2: USING RSD 1101.02, SHEET 1, CONSTRUCT THE FOLLOWING ALONG LEFT SIDE OF PINEY GREEN RD FROM MIKE LOOP ROAD (-Y7-) TO STA 49+31+/- -L- AS SHOWN ON TMP-6 AND TMP-7 AND SECTION A-A:

* PROPOSED 42-INCH DRAINAGE TRUNK LINE AND CATCH BASINS
* PROPOSED CURB AND GUTTER AND SIDEWALK, INCLUDING SOUTHEAST RADIUS OF -Y7- INTERSECTION AND PAVEMENT WIDENING UP TO EDGE AND ELEVATION OF EXISTING PAVEMENT FROM -Y7- TO STA 41+60 +/- (-L-).

WHEN CONSTRUCTING 42-INCH PIPE ACROSS MIKE LOOP RD (-Y7-), TEMPORARILY CLOSE MIKE LOOP RD (-Y7-) AT PINEY GREEN RD DURING A NON-PEAK TRAFFIC PERIOD AND DETOUR TRAFFIC VIA MIKE LOOP RD (-Y10-) AS SHOWN ON TMP-121. BACKFILL EXCAVATIONS, PATCH PAVEMENT, AND REOPEN MIKE LOOP RD (-Y7-) BY THE END OF EACH WORK PERIOD. [SEE LOCAL NOTE LN-4]

STEP 3: USING RSD 1101.02, SHEET 1, WEDGE THE LEFT SIDE OF PINEY GREEN RD UP TO BUT NOT INCLUDING FINAL SURFACE LAYER FROM -Y7- TO STA 49+31+/- -L- AS SHOWN ON TMP-6 AND TMP-7 [SEE SECTION A-A].

STEP 4: USING RSD 1101.02, SHEET 1, REVISE PAVEMENT MARKINGS AND SHIFT TRAFFIC ON PINEY GREEN RD INTO TEMPORARY TWO-LANE, TWO-WAY PATTERN CENTERED ON EXISTING PAVEMENT (SEE SECTION B1-B1 ON TMP-8) BETWEEN US 17 (MARINE BLVD) (-Y-) AND MIKE LOOP RD/IRIS LN (-Y7-) AS SHOWN ON TMP-9 THRU TMP-11 AND ON LEFT SIDE OF PINEY GREEN RD (SEE SECTION C-C ON TMP-11) BETWEEN MIKE LOOP RD/IRIS LN (-Y7-) AND MIKE LOOP RD (-Y10-) AS SHOWN ON TMP-11 AND TMP-22.

STEP 5: REVISE TRAFFIC SIGNAL AT INTERSECTION OF US 17 (MARINE BLVD) (-Y-) AND PINEY GREEN RD (-L-).

USING RSD 1101.02, SHEET 1, CONSTRUCT LEFT SIDE OF PINEY GREEN RD UP TO EDGE AND ELEVATION OF EXISTING FROM US 17 (MARINE BLVD) (-Y-) TO MIKE LOOP RD (-Y7-) AS FOLLOWS [SEE TMP-9 THRU TMP-11]:

A) PERFORM SHALLOW UNDERCUT EXCAVATION, THEN TEMPORARILY BACKFILL EDGE OF PAVEMENT TO ELIMINATE DROPOFF PRIOR TO REOPENING ADJACENT LANE TO TRAFFIC. [SEE SECTION B1-B1 ON TMP-8]

B) REMOVE BACKFILL MATERIAL AND CONSTRUCT PROPOSED PAVEMENT WIDENING UP TO EDGE AND ELEVATION OF EXISTING TRAVELWAY. [SEE SECTION B1-B1 ON TMP-8]

WHEN CONSTRUCTING 42-INCH PIPE ACROSS CLAYTON RD (-Y6-), TEMPORARILY CLOSE CLAYTON RD (-Y6-) AT PINEY GREEN RD DURING A NON-PEAK TRAFFIC PERIOD AND DETOUR TRAFFIC VIA LINDA DR (-Y4-) AS SHOWN ON TMP-121. BACKFILL EXCAVATIONS, PATCH PAVEMENT, AND REOPEN MIKE LOOP RD (-Y7-) BY THE END OF EACH WORK PERIOD. [SEE LOCAL NOTE LN-4]

USING RSD 1101.02, SHEET 3 TO TEMPORARILY CLOSE RIGHT LANE, CONSTRUCT OUTSIDE PAVEMENT WIDENING UP TO EDGE AND ELEVATION OF EXISTING PAVEMENT ON BOTH SIDES US 17 (MARINE BLVD) (-Y-) FROM STA 12+60 -Y- TO PINEY GREEN RD (-L-) AND ON RIGHT SIDE ONLY FROM PINEY GREEN RD (-L-) TO STA 24+60 -Y-. [SEE SHEETS TMP-9 AND TMP-12]

STEP 6: USING RSD 1101.02, SHEET 1, CONSTRUCT RIGHT SIDE OF PINEY GREEN RD UP TO EDGE AND ELEVATION OF EXISTING FROM US 17 (MARINE BLVD) (-Y-) TO STA 39+40 -L- (JUST EAST OF IRIS LN -Y7-) AS FOLLOWS [SEE TMP-13 THRU TMP-15]:

A) PERFORM SHALLOW UNDERCUT EXCAVATION, THEN TEMPORARILY BACKFILL EDGE OF PAVEMENT TO ELIMINATE DROPOFF PRIOR TO REOPENING ADJACENT LANE TO TRAFFIC. [SEE SECTION B2-B2 ON TMP-8]
B) REMOVE BACKFILL MATERIAL AND CONSTRUCT PROPOSED PAVEMENT WIDENING UP TO EDGE AND ELEVATION OF EXISTING TRAVELWAY. [SEE SECTION B2-B2 ON TMP-8]

USING RSD 1101.02, SHEET 3 TO TEMPORARILY CLOSE RIGHT LANE, CONSTRUCT OUTSIDE PAVEMENT WIDENING UP TO EDGE AND ELEVATION OF EXISTING PAVEMENT ON LEFT SIDE OF US 17 (MARINE BLVD) (-Y-) FROM PINEY GREEN RD (-L-) TO STA 28+00+/- -Y- AS FOLLOWS [SEE SHEET TMP-13 AND TMP-16]:

A) PERFORM SHALLOW UNDERCUT EXCAVATION, THEN TEMPORARILY BACKFILL EDGE OF PAVEMENT TO ELIMINATE DROPOFF PRIOR TO REOPENING ADJACENT LANE TO TRAFFIC. [SEE SECTION E-E, STEP A ON TMP-17]
B) REMOVE BACKFILL MATERIAL AND CONSTRUCT PROPOSED PAVEMENT WIDENING UP TO EDGE AND ELEVATION OF EXISTING TRAVELWAY. [SEE SECTION E-E, STEP B ON TMP-17]

USING RSD 1101.02, SHEET 3 TO TEMPORARILY CLOSE LEFT LANES, CONSTRUCT PROPOSED MEDIAN (INCLUDING MEDIAN DRAINAGE) AND US 17 SB LEFT TURN LANE UP TO EDGE AND ELEVATION OF EXISTING PAVEMENT OF US 17 (MARINE BLVD) (-Y-) NORTH OF PINEY GREEN RD (-L-) AS FOLLOWS [SEE SHEET TMP-13 AND TMP-16]:

A) PERFORM SHALLOW UNDERCUT EXCAVATION FOR LEFT TURN LANE, THEN TEMPORARILY BACKFILL EDGE OF PAVEMENT TO ELIMINATE DROPOFF PRIOR TO REOPENING ADJACENT LANE TO TRAFFIC. [SEE SECTION D-D, STEP A ON TMP-17]
B) REMOVE BACKFILL MATERIAL AND CONSTRUCT PROPOSED PAVEMENT WIDENING FOR LEFT TURN LANE UP TO EDGE AND ELEVATION OF EXISTING TRAVELWAY. [SEE SECTION D-D, STEP B ON TMP-17]

STEP 7: USING RSD 1101.02, SHEET 1, WEDGE ACROSS ALL LANES OF PINEY GREEN RD (-L-) UP TO BUT NOT INCLUDING FINAL SURFACE LAYER FROM US 17 (MARINE BLVD) (-Y-) TO MIKE LOOP RD/IRIS LN (-Y7-). REPLACE TEMPORARY PAVEMENT MARKINGS AND RESTORE TWO-LANE, TWO TRAFFIC BY THE END OF EACH WEDGING OPERATION. [SEE SECTION B3-B3 ON TMP-8]

STEP 8: REVISE TRAFFIC SIGNAL AT INTERSECTION OF US 17 (MARINE BLVD) (-Y-) AND PINEY GREEN RD (-L-).

USING RSD 1101.02, SHEET 3, REVISE PAVEMENT MARKINGS ON US 17 (MARINE BLVD) (-Y-) AS FOLLOWS [SEE TMP-18 AND TMP-21]:

* PLACE TEMPORARY MARKINGS TO EXTEND SB LEFT TURN LANE;
* REVISE LOCATIONS OF STOP BAR AND PAVEMENT ARROWS ON BOTH US 17 NB AND US 17 SB APPROACHES TO PINEY GROVE RD
* PLACE TEMPORARY MARKINGS ON NB RIGHT TURN LANE

USING RSD 1101.02, SHEET 1, PLACE TEMPORARY MARKINGS ON PINEY GREEN RD (-L-) AS SHOWN ON TMP-18 THRU TMP-20 AND SHIFT SINGLE EB AND WB TRAFFIC LANES INTO SPLIT PATTERN ON NEW OUTSIDE LANES AS SHOWN IN SECTION B3-B3 ON TMP-8. WITH ADJACENT LEFT LANES TEMPORARILY CLOSED TO TRAFFIC, CONSTRUCT PROPOSED RAISED MEDIANS ON PINEY GREEN RD BETWEEN US 17 (MARINE BLVD) (-Y-) AND MIKE LOOP RD/IRIS LN (-Y7-).

USING RSD 1101.02, SHEET 3 TO TEMPORARILY CLOSE LEFT LANES, CONSTRUCT PROPOSED PAVED SHOULDER, RAISED MEDIAN AND EXTENDED NB LEFT TURN LANE ON US 17 (MARINE BLVD) (-Y-) FROM PINEY GREEN RD (-L-) TO STA 28+00+/- -Y- AS FOLLOWS [SEE TMP-18 AND TMP-21]:

A) PERFORM SHALLOW UNDERCUT EXCAVATION FOR NB LEFT TURN LANE, THEN TEMPORARILY BACKFILL EDGE OF PAVEMENT TO ELIMINATE DROPOFF PRIOR TO REOPENING ADJACENT LANE TO TRAFFIC.
B) REMOVE BACKFILL MATERIAL AND CONSTRUCT PROPOSED PAVEMENT WIDENING FOR NB LEFT TURN LANE UP TO EDGE AND ELEVATION OF EXISTING TRAVELWAY.

STEP 9: REVISE TRAFFIC SIGNAL AT INTERSECTION OF US 17 (MARINE BLVD) (-Y-) AND PINEY GREEN RD (-L-).

USING RSD 1101.02, SHEETS 1, 2 AND 3, REVISE PAVEMENT MARKINGS ON PINEY GREEN ROAD (-L-) TO PHASE II TEMPORARY MULTI-LANE, DIVIDED PATTERN BETWEEN US 17 (MARINE BLVD) (-Y-) AND MIKE LOOP RD/IRIS LN (-Y7-) AS SHOWN ON TMP-61 THRU TMP-63.

USING RSD 1101.02, SHEET 3 TO ALTERNATELY CLOSE LANES, REVISE PAVEMENT MARKINGS ON US 17 (MARINE BLVD) (-Y-) TO PHASE II TEMPORARY TRAFFIC PATTERN AS SHOWN ON TMP-60 AND TMP-61.

STEP 10: BEGIN CONSTRUCTING PROPOSED RIGHT HALF OF PINEY GREEN RD FROM STA 39+40+/- -L- (EAST OF IRIS LN -Y7-) TO WEST SIDE OF MARIAN PL (-Y9-) UP TO BUT NOT INCLUDING FINAL SURFACE LAYER. [SEE TMP-11, TMP-15, TMP-20, AND TMP-22]

USING RSD 1101.02, SHEET 1, INSTALL P.C.B. WITH CRASH CUSHIONS AND TEMPORARY SHORING ON RIGHT SIDE OF PINEY GREEN RD (-L-) FOR BOX CULVERT CONSTRUCTION AT STA 51+68+/- -L- AS SHOWN IN SECTION F-F AND IN INSET A ON TMP-22. ONCE SHORING AND P.C.B. ARE INSTALLED, CONSTRUCT RIGHT HALF OF PROPOSED BOX CULVERT.

STEP 11: INSTALL PHASE II TEMPORARY SHORING AND BACKFILL OVER NEWLY CONSTRUCTED RIGHT HALF OF CULVERT AT STA 51+68+/- -L-. CONSTRUCT PROPOSED RIGHT HALF OF PINEY GREEN RD (-L-) FROM EAST SIDE OF MARIAN PL (-Y9-) TO STA 54+00 +/- -L-, EXCLUDING MARIAN PL, UP TO BUT NOT INCLUDING FINAL SURFACE LAYER. [SEE INSET B ON TMP-22]

THE CONTRACTOR SHALL COMPLETE ALL WORK IN AREA 1, PHASE I, STEPS 12 AND 13 WITHIN 14 CALENDAR DAYS.

STEP 12: TEMPORARILY CLOSE MARIAN PL (-Y9-) AT PINEY GREEN RD (-L-) AND DETOUR TRAFFIC VIA COUNTRY CLUB DRIVE AND IRIS LANE (-Y7-) AS SHOWN ON TMP-121.

BEHIND ROAD CLOSURE ON MARIAN PLACE, RECONSTRUCT MARIAN PL (-Y9-) AND ITS TIE-IN TO PINEY GREEN RD (-L-). RIGHT SIDE WIDENING, UP TO BUT NOT INCLUDING FINAL SURFACE LAYER, INCLUDING TEMPORARY TIE BETWEEN -Y9- AND EXISTING PINEY GREEN RD. [SEE INSET B ON TMP-22]

STEP 13: REOPEN MARIAN PL (-Y9-) AT PINEY GREEN RD (-L-) AND DISCONTINUE DETOUR.

APPROVED: DATE: 8/6/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17686 ENGINEER TODD BROOKS

DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

PHASING
PHASE I
AREA 1

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RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

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AREA 2

PINEY GREEN RD (-L-)
FROM MIKE LOOP RD (-Y10-) TO STA 335+50
AND COUNTRY CLUB RD (-Y14-)

STEP 1:

TRAFFIC SIGNALS

BEGIN REVISING EXISTING TRAFFIC SIGNALS AT THE FOLLOWING INTERSECTIONS ALONG PINEY GREEN RD -L-:

* COUNTRY CLUB ROAD (-Y14)
* CREEDMOOR ROAD (-Y20-)
* BALSAM ROAD (-Y21-)/WHITE OAK HIGH SCHOOL

PINEY GREEN RD (-L-)

AWAY FROM TRAFFIC, BEGIN CONSTRUCTION OF THE FOLLOWING ON PINEY GREEN RD:

* PROPOSED BRIDGE OVER NORTHEAST CREEK ON RIGHT SIDE BETWEEN STA 83+24 +/- AND STA 86+31 +/- -L-. [SEE SHEET TMP-26]
* PERMANENT WETLAND MITIGATION AREA ON LEFT SIDE OF BETWEEN STA 228+00 +/- AND STA 233+42 +/- -L-. [SEE SHEET TMP-40]
* PROPOSED BRIDGE OVER LITTLE NORTHEAST CREEK ON LEFT SIDE BETWEEN STA 233+72 +/- AND STA 234+97 +/- -L- AND UPSTREAM HALF OF PROPOSED FLOOD CONTROL PIPES NORTH OF NEW BRIDGE. [SEE SHEET TMP-40]

BEGIN CONSTRUCTING PROPOSED RIGHT HALF OF PINEY GREEN RD (-L-) AS MUCH AS POSSIBLE AWAY FROM TRAFFIC AND UP TO BUT NOT INCLUDING FINAL SURFACE LAYER IN THE FOLLOWING AREAS:

* STA 54+00 +/- TO STA 56+11 +/- -L- [SEE TMP-7]
* STA 57+00 +/- TO STA 61+93 +/- -L- [SEE TMP-7 AND TMP-22]
* STA 62+78 +/- TO STA 65+50 +/- -L- [SEE TMP-22 AND TMP-23]
* STA 68+30 +/- TO STA 83+24 +/- -L- [SEE TMP-23 THRU TMP-26]
* STA 86+31 +/- TO STA 159+21 +/- -L- [SEE TMP-26 THRU TMP-31]

USING RSD 1101.02, SHEETS 1 AND 2, CONSTRUCT TEMPORARY WIDENING ALONG LEFT SIDE OF PINEY GREEN RD FROM STA 93+70 +/- -L- TO HALLTOWN RD (-Y18-) AS SHOWN ON TMP-27 AND IN SECTION H-H. [SEE ROADWAY PLANS]. ONCE TEMPORARY WIDENING IS COMPLETE, USE USING RSD 1101.02, SHEETS 1 AND 2 TO REVISE MARKINGS AND SHIFT TRAFFIC INTO TEMPORARY 3-LANE PATTERN ON LEFT SIDE OF PINEY GREEN RD FROM STA 93+11 +/- -L- (WEST OF HALLTOWN RD) TO STA 106+57 +/- -L- (EAST OF CREEDMOOR RD) AS SHOWN ON TMP-27 AND TMP-28 AND IN SECTIONS H-H AND I-I.

-Y- LINES ON RIGHT SIDE OF PINEY GREEN RD

USING RSD 1101.02, SHEET 1, BEGIN CONSTRUCTING THE DRAINAGE, INTERSECTION RADII AND TIE-INS FOR THE FOLLOWING -Y-LINES ON THE RIGHT SIDE OF PINEY GREEN RD UP TO BUT NOT INCLUDING FINAL SURFACE LAYER IN CONJUNCTION WITH PINEY GREEN RD RIGHT SIDE WIDENING:

-Y17- LYNCHBURG DRIVE (SOUTH LEG) [SEE TMP-26] (SEE NOTES BELOW)
-Y20- CREEDMOOR ROAD [SEE TMP-27]
-Y21- BALSAM ROAD [SEE TMP-29]
-Y22- YAUPON DRIVE [SEE TMP-29]
-Y23- WHITE OAK BOULEVARD [SEE TMP-29]
-Y24- HEMLOCK DRIVE [SEE TMP-30] (SEE NOTES BELOW)

TO CONSTRUCT SKEWED PIPE ACROSS LYNCHBURG DR (-Y17-), TEMPORARILY CLOSE SOUTH LEG OF LYNCHBURG DR (-Y17-) AT PINEY GREEN RD (-L-) DURING NON-PEAK TRAFFIC PERIODS AND DETOUR TRAFFIC VIA CREEDMOOR RD (-Y20-) AS SHOWN ON TMP-122. BACKFILL EXCAVATION, PATCH PAVEMENT AND REOPEN LYNCHBURG DR BY THE END OF EACH WORK PERIOD. [SEE TMP-26]

TO REMOVE EXISTING MEDIAN ON HEMLOCK DR, TEMPORARILY CLOSE HEMLOCK DR (-Y24-) AT PINEY GREEN RD (-L-) DURING NON-PEAK TRAFFIC PERIODS AND DETOUR TRAFFIC VIA BALSAM DR AND WHITE OAK BLVD (-Y24-) AS SHOWN ON TMP-122. REMOVE EXISTING MEDIAN, BACKFILL AND DELINEATE FORMER MEDIAN LOCATION WITH DRUMS AND A TEMPORARY YELLOW EDGE LINE. DO NOT CONSTRUCT PROPOSED DIRECTIONAL MEDIAN UNTIL PHASE III. [SEE TMP-30]

COUNTRY CLUB RD (-Y14-)

USING RSD 1101.02, SHEETS 1 AND 2, BEGIN CONSTRUCTION OF WIDENING ALONG COUNTRY CLUB RD (-Y14-) UP TO EDGE AND ELEVATION OF EXISTING PAVEMENT FROM PINEY GREEN RD (-L-) TO STA 27+00 AS FOLLOWS [SEE TMP-23]:

A) PERFORM SHALLOW UNDERCUT EXCAVATION, THEN TEMPORARILY BACKFILL EDGE OF PAVEMENT TO ELIMINATE DROPOFF PRIOR TO REOPENING ADJACENT LANE TO TRAFFIC.
B) REMOVE BACKFILL MATERIAL AND CONSTRUCT UP TO EDGE AND ELEVATION OF EXISTING TRAVELWAY PROPOSED PAVEMENT WIDENING FROM STA 20+50 +/- TO STA 27+00 +/- -Y14- AND EMBANKMENT ONLY FROM PINEY GREEN RD (-L-) TO STA 20+50 +/- -Y14-.

LYNCHBURG DR (NORTH LEG) (-Y17-)

DURING NON-PEAK TRAFFIC PERIODS, CONSTRUCT 54" PIPE ACROSS LYNCHBURG DR BY TEMPORARILY CLOSING LYNCHBURG DR (-Y17-) AT PINEY GREEN RD (-L-) AND DETOURING TRAFFIC VIA WESTMORELAND DR AND HALLTOWN RD (-Y18-) AS SHOWN ON TMP-124. REOPEN LYNCHBURG DR BY THE END OF EACH WORK PERIOD, MAINTAINING TRAFFIC ON INCIDENTAL STONE BASE AS NECESSARY. [SEE TMP-26]

STEP 2: USING RSD 1101.02, SHEETS 1 AND 2, INSTALL PORTABLE CONCRETE BARRIER (P.C.B.) AND ASSOCIATED CRASH CUSHIONS ALONG RIGHT SIDE OF PINEY GREEN RD FROM STA 93+50 +/- (WEST OF HALLTOWN RD) TO STA 102+19 +/- -L- (CREEDMOOR RD) AS SHOWN IN SECTIONS H-H AND I-I ON TMP-27. ONCE P.C.B. AND CRASH CUSHIONS ARE IN PLACE, BEGIN CONSTRUCTING ADDITIONAL WIDENING FOR PHASE II TEMPORARY LANES BEHIND BARRIER AS SHOWN IN SECTIONS H-H AND I-I ON TMP-27.

USING RSD 1101.02, SHEETS 1 AND 2, PERFORM THE FOLLOWING WORK ON COUNTRY CLUB RD (-Y14-) AS SHOWN ON SEE TMP-23:

* COMPLETE WIDENING UP TO EDGE AND ELEVATION FROM STA 20+50 +/- TO STA 27+00 -Y14-
* WEDGE COUNTRY CLUB RD UP TO BE NOT INCLUDING FINAL SURFACE LAYER FROM STA 20+50 +/- TO STA 27+00 -Y14-.
* WEDGE A LONGITUDINAL TRANSITION FROM THE NEWLY WEDGED PAVEMENT AT STA 20+50 TO EXISTING PAVEMENT AT STA 17+80 +/- -Y14- AS DIRECTED BY THE ENGINEER.
* REPLACE ALL EXISTING PAVEMENT MARKINGS ON -Y14- THAT WERE COVERED BY THE WEDGING OPERATIONS.

INSTALL AND COVER ROAD CLOSURE AND DETOUR SIGNING FOR UPCOMING TEMPORARY CLOSURE OF COUNTRY CLUB RD (-Y14-) AS SHOWN ON TMP-124.

ONE WEEK PRIOR TO COUNTRY CLUB RD (-Y14-) TEMPORARY CLOSURE AND DETOUR, INSTALL CHANGEABLE MESSAGE SIGNS ON NB AND SB COUNTRY CLUB RD NEAR ITS INTERSECTION WITH PINEY GREEN RD AND ACTIVATE WITH MESSAGES SHOWN ON TMP-23 TO WARN MOTORISTS OF UPCOMING ROAD CLOSURE.

THE CONTRACTOR SHALL COMPLETE ALL WORK IN AREA 2, PHASE I, STEPS 3 THROUGH 6, WITHIN 30 CONSECUTIVE CALENDAR DAYS BETWEEN JUNE 15 AND AUGUST 15. [SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES]

STEP 3: TEMPORARILY CLOSE COUNTRY CLUB RD -Y14- TO THROUGH TRAFFIC BETWEEN WESTERN BLVD AND PINEY GREEN RD (-L-) AND DETOUR TRAFFIC VIA WESTERN BOULEVARD, US 17 (MARINE BLVD) (-Y-), AND PINEY GREEN ROAD (-L-) AS FOLLOWS [SEE TMP-24 AND TMP-124]:

* UNCOVER PREVIOUSLY INSTALLED ROAD CLOSURE AND DETOUR SIGNS
* INSTALL TYPE III BARRICADES TO TEMPORARILY CLOSE COUNTRY CLUB RD (-Y14-) TO THROUGH TRAFFIC BETWEEN BEECH TREE RD AND PINEY GREEN RD.
* CLOSE WB LEFT TURN LANE ON PINEY GREEN RD (-L-) APPROACHING COUNTRY CLUB RD WITH DRUMS SPACED 10-FT C-C.
* REVISE TRAFFIC SIGNAL AT INTERSECTION OF PINEY GREEN RD AND COUNTRY CLUB RD.

UNCOVER ROAD CLOSURE SIGNS AND PLACE TYPE III BARRICADES AS SHOWN ON TMP-27 TO TEMPORARILY CLOSE COURTLAND RD (-Y13-) FROM STA 13+00 +/- -Y13- TO PINEY GREEN RD (-L-). (SEE TMP-24)

STEP 4: WITH COUNTRY CLUB RD CLOSED TO THROUGH TRAFFIC, CONSTRUCT THE FOLLOWING AS SHOWN ON TMP-24:

* PARTIALLY CONSTRUCT PROPOSED DI 939 AND DI 940 BELOW GRADE, COVER WITH TRAFFIC-BEARING COVER, BACKFILL AND PATCH PAVEMENT (SEE LOCAL NOTE LN-3). CONSTRUCT ASSOCIATED DRAINAGE.
* A MINIMUM OF 33 FEET OF PROPOSED PAVEMENT AT PROPOSED GRADE UP TO BUT NOT INCLUDING FINAL SURFACE LAYER FROM STA 20+50 +/- -Y14- TO PINEY GREEN RD (-L-). [SEE SECTION G-G, SHEET TMP-24]
* TEMPORARY DRIVEWAY TIES TO REVISED GRADE USING INCIDENTAL STONE.

USING RSD 1101.02, SHEETS 1 AND 2, WEDGE PINEY GREEN RD (-L-) PAVEMENT THROUGH COUNTRY CLUB RD (-Y14-) INTERSECTION UP TO BUT NOT INCLUDING FINAL SURFACE LAYER IN CONJUNCTION WITH COUNTRY CLUB RD CONSTRUCTION ON RIGHT SIDE TO PROVIDE A SMOOTH TIE-IN FOR -Y14-. (SEE LOCAL NOTE LN-1)

WHILE COURTLAND RD (-Y13-) IS CLOSED TO THROUGH TRAFFIC, CONSTRUCT A MINIMUM OF 20 FEET OF PROPOSED PAVEMENT AT PROPOSED GRADE AND CONSTRUCT TEMPORARY DRIVEWAY TIES TO NEW GRADE USING INCIDENTAL STONE BASE. (SEE TMP-24)

STEP 5: PLACE TEMPORARY MARKINGS AND DRUMS ON COUNTRY CLUB RD (-Y14-) BETWEEN BEECH TREE ROAD AND PINEY GREEN RD (-L-) AS SHOWN ON TMP-25.

STEP 6: REVISE TRAFFIC SIGNAL AT INTERSECTION OF PINEY GREEN RD (-L-) AND COUNTRY CLUB RD (-Y14-).

REMOVE BARRICADES, COVER ROAD CLOSURE AND DETOUR SIGNS AND REOPEN COUNTRY CLUB RD (-Y14-) AND COURTLAND RD (-Y13-) TO THROUGH TRAFFIC IN TEMPORARY PATTERNS SHOWN ON TMP-25. REMOVE DRUMS AND REOPEN WB LEFT TURN LANE ON PINEY GREEN RD (-L-) AT COUNTRY CLUB RD.

APPROVED: DATE: 8/6/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASING PHASE I AREA 2

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(919) 876-6888 NCBEES #F-0326

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STEP 7:

COUNTRY CLUB RD (-Y14-) AND COURTLAND RD (-Y13-)

A) USING RSD 1101.02, SHEETS 1 AND 2, CONSTRUCT REMAINDER OF WIDENING ON BOTH SIDES OF COUNTRY CLUB RD (-Y14-) FROM STA 20+50 +/- -Y14- TO PINEY GREEN RD (-L-) UP TO BUT NOT INCLUDING FINAL SURFACE LAYER, INCLUDING PERMANENT DRIVEWAYS AND THE PINEY GREEN ROAD INTERSECTION RADII. (SEE TMP-25)

USING RSD 1101.02, SHEET 1, CONSTRUCT REMAINDER OF WIDENING ON BOTH SIDES OF COURTLAND RD (-Y13-) FROM STA 13+00 +/- -Y13- TO PINEY GREEN RD (-L-) UP TO BUT NOT INCLUDING FINAL SURFACE LAYER, INCLUDING PERMANENT DRIVEWAYS AND THE PINEY GREEN ROAD INTERSECTION RADII. (SEE TMP-25)

THE CONTRACTOR SHALL WORK IN A CONTINUOUS MANNER TO COMPLETE THE WORK REQUIRED IN AREA 2, PHASE I, STEP 7B WITHIN 14 CALENDAR DAYS.

B) INSTALL ROAD CLOSURE AND DETOUR WARNING SIGNS AND TYPE III BARRICADES TO TEMPORARILY CLOSE SHOREHAM DR (-Y11-) AT ITS INTERSECTION WITH PINEY GREEN RD (-L-) AND DETOUR TRAFFIC VIA COUNTRY CLUB DR AND MARIAN PL (-Y9-) AS SHOWN ON TMP-121.

WITH SHOREHAM DR (-Y11-) CLOSED TO THROUGH TRAFFIC, CONSTRUCT THE FOLLOWING TO RAISE THE GRADE OF THE SHOREHAM DR TIE-IN TO PINEY GREEN RD (-L-) [SEE TMP-22]:

i) CONSTRUCT WIDENING ALONG RIGHT SIDE OF PINEY GREEN RD (-L-) UP TO BUT NOT INCLUDING FINAL SURFACE LAYER FROM STA 56+11 +/- AND STA 57+00 +/- -L-, INCLUDING -Y11- INTERSECTION RADII AND TEMPORARY TIE-IN BETWEEN -Y11- AND EXISTING PINEY GREEN RD (-L). (SEE TMP-22)

ii) RECONSTRUCT AT REVISED GRADE THE SHOREHAM DR (-Y11-) TIE-IN TO RIGHT-SIDE WIDENING ON PINEY GREEN RD (-L-). (SEE TMP-22).

iii) REOPEN SHOREHAM DR (-Y11-) TO THROUGH TRAFFIC AND DISCONTINUE DETOUR.

C) BEGIN REVISING EXISTING TRAFFIC SIGNALS AT THE FOLLOWING INTERSECTIONS ALONG PINEY GREEN RD (-L-):

* OLD 30 ROAD (-Y29-)
* HUNTERS TRAIL (-Y39-)
* ROCK RUN ROAD (-Y48-)

PINEY GREEN RD (-L-)

USING RSD 1101.02, SHEETS 1 AND 2, INSTALL PORTABLE CONCRETE BARRIER (P.C.B.) AND ASSOCIATED CRASH CUSHIONS AND TEMPORARY SHORING FOR THE FOLLOWING BOX CULVERT LOCATIONS:

* STA 167+39 +/- -L- LEFT SIDE [SEE TMP-32 AND SECTION J-J]
* STA 274+68 +/- -L- LEFT SIDE [SEE TMP-43 AND SECTION L-L]

ONCE P.C.B. AND TEMORARY SHORING HAVE BEEN INSTALLED, BEGIN CULVERT CONSTRUCTION.

BEGIN CONSTRUCTING PROPOSED LEFT HALF OF PINEY GREEN RD (-L-) AS MUCH AS POSSIBLE AWAY FROM TRAFFIC AND UP TO BUT NOT INCLUDING FINAL SURFACE LAYER IN THE FOLLOWING AREAS:

* STA 169+23 +/- TO STA 184+25 +/- -L- [SEE TMP-32 & TMP-33]
* STA 185+75 +/- TO STA 200+78 +/- -L- [SEE TMP-33 THRU TMP-35]
* STA 201+58 +/- TO STA 213+00 +/- -L- [SEE TMP-35 THRU TMP-36]
* STA 234+97 +/- TO STA 273+50 +/- -L- [SEE TMP-40 THRU TMP-43]
* STA 275+50 +/- TO STA 279+50 +/- -L- [SEE TMP-43 THRU TMP-44]
* STA 296+00 +/- TO STA 321+25 +/- -L- [SEE TMP-44 THRU TMP-49 AND TMP-48 THRU TMP-49

USING RSD 1101.02, SHEETS 1 AND 2, CONSTRUCT TEMPORARY PAVEMENT WIDENING ALONG LEFT SIDE OF PINEY GREEN ROAD IN THE FOLLOWING LOCATIONS TO FACILITATE DRAINAGE TRUNK LINE AND CULVERT CONSTRUCTION [SEE ROADWAY PLANS]:

* STA 213+83 +/- TO STA 221+25 +/- -L- [SEE TMP-37]
* STA 279+91 +/- TO STA 294+52 +/- -L- [SEE TMP-44]
* STA 326+18 +/- TO STA 331+48 +/- -L- [SEE TMP-50]

OLD 30 RD (-Y29-)

CONSTRUCT RELOCATED OLD 30 RD (-Y29-) AS MUCH AS POSSIBLE AWAY FROM TRAFFIC. (SEE TMP-33)

ROCK RUN RD (-Y48-)

USING RSD 1101.02, SHEETS 1 AND 2, BEGIN CONSTRUCTING DRAINAGE AND PROPOSED WIDENING ON ROCK RUN RD (-Y48-) UP TO EDGE AND ELEVATION OF EXISTING TRAVEL WAY. [SEE TMP-49]

-Y- LINES ON LEFT SIDE OF PINEY GREEN RD

USING RSD 1101.02, SHEET 1, BEGIN CONSTRUCTING THE DRAINAGE, INTERSECTION RADII AND TIE-INS FOR THE FOLLOWING -Y- LINES ON THE LEFT SIDE OF PINEY GREEN RD (-L-) UP TO BUT NOT INCLUDING FINAL SURFACE LAYER IN CONJUNCTION WITH PINEY GREEN ROAD LEFT SIDE WIDENING:

-Y31- VICTORIA ROAD [SEE TMP-35]
-Y34- WALNUT CREEK ROAD [SEE TMP-36]
-Y41- MARSHALL CHAPEL ROAD [SEE TMP-42]
-Y43- BRIDGE SIDE DRIVE [SEE TMP-43]

THE CONTRACTOR SHALL WORK IN A CONTINUOUS MANNER TO COMPLETE THE WORK REQUIRED IN AREA 2, PHASE I, STEP 7D WITHIN 14 CALENDAR DAYS.

(D) INSTALL ROAD CLOSURE AND DETOUR WARNING SIGNS AND TYPE III BARRICADES TO TEMPORARILY CLOSE SHEFFIELD DR (-Y32-) AT ITS INTERSECTION WITH PINEY GREEN RD (-L-) AND DETOUR TRAFFIC VIA PRINCETON DR AND VICTORIA RD (-Y31-) AS SHOWN ON TMP-123.

WITH SHEFFIELD DR (-Y32-) CLOSED TO THROUGH TRAFFIC, CONSTRUCT THE FOLLOWING TO RAISE THE GRADE OF THE SHEFFIELD DR TIE-IN TO PINEY GREEN RD (-L-):

i) CONSTRUCT WIDENING ALONG LEFT SIDE OF PINEY GREEN RD (-L-) UP TO BUT NOT INCLUDING FINAL SURFACE LAYER FROM STA 200+78 +/- AND STA 201+58 +/- -L-, INCLUDING -Y32- INTERSECTION RADII AND TEMPORARY TIE-IN BETWEEN -Y32- AND EXISTING PINEY GREEN RD (-L). (SEE TMP-35)

ii) RECONSTRUCT AT REVISED GRADE THE SHEFFIELD DR (-Y32-)TIE-IN TO LEFT-SIDE WIDENING ON PINEY GREEN RD (-L-). (SEE TMP-35)

iii) REOPEN SHEFFIELD DR (-Y32-) TO THROUGH TRAFFIC AND DISCONTINUE DETOUR.

STEP 8: USING RSD 1101.02, SHEET 1, SHIFT TRAFFIC ONTO TEMPORARY WIDENING ON LEFT SIDE OF PINEY GREEN ROAD FROM STA 211+30 +/- -L- TO STA 220+30 +/- -L- AS SHOWN ON TMP-38 AND SECTION K-K. ONCE TRAFFIC HAS BEEN SHIFTED, CONSTRUCT DRAINAGE TRUNK LINE RUNNING ALONG RIGHT SIDE OF PINEY GREEN ROAD. USING RSD 1101.02, SHEET 1, CONSTRUCT PROPOSED 48-INCH PIPE ACROSS PINEY GREEN ROAD AT STA 225+00 -L-.

USING RSD 1101.02, SHEET 1, SHIFT TRAFFIC ONTO TEMPORARY WIDENING ON LEFT SIDE OF PINEY GREEN ROAD FROM STA 279+30 +/- -L- TO STA 295+10 +/- -L- AS SHOWN ON TMP-45. ONCE TRAFFIC HAS BEEN SHIFTED, CONSTRUCT DRAINAGE TRUNK LINE RUNNING ALONG RIGHT SIDE OF PINEY GREEN ROAD ALONG WITH CORRESPONDING CURB AND GUTTER AND PAVEMENT WIDENING. WEDGE THE ADJACENT EXISTING PAVEMENT UP TO BUT NOT INCLUDING FINAL SURFACE LAYER IN CONJUNCTION WITH RIGHT SIDE PAVEMENT WIDENING. (SEE LOCAL NOTE LN-1)

USING RSD 1101.02, SHEETS 1 AND 2, REVISE PAVEMENT MARKINGS AND SHIFT TRAFFIC INTO TEMPORARY TWO-LANE, TWO-WAY PATTERN, INSTALL PORTABLE CONCRETE BARRIER (P.C.B.) AND ASSOCIATED CRASH CUSHIONS AND TEMPORARY SHORING FOR THE PROPOSED BOX CULVERT CONSTRUCTION ON RIGHT SIDE OF PINEY GREEN RD AT STA 329+70 +/- -L- [SEE TMP-51, INSET A AND SECTION N-N]. ONCE TRAFFIC HAS BEEN SHIFTED AND P.C.B. AND SHORING HAVE BEEN INSTALLED, BEGIN CONSTRUCTION OF RIGHT SIDE OF PROPOSED BOX CULVERT AND RIGHT SIDE WIDENING ON PINEY GREEN ROAD FROM STA 330+50 +/- TO STA 334+00 +/- -L-.

STEP 9: USING RSD 1101.02, SHEETS 1 AND 2, REVISE PAVEMENT MARKINGS AND SHIFT PINEY GREEN RD TRAFFIC BACK ONTO EXISTING PAVEMENT IN TEMPORARY TWO-LANE, TWO-WAY PATTERN BETWEEN STA 211+30 +/- -L- AND STA 223+30 +/- -L- AS SHOWN ON TMP-36 AND TMP-39. BEGIN WIDENING ON LEFT SIDE OF PINEY GREEN RD UP TO BUT NOT INCLUDING FINAL SURFACE LAYER FROM STA 213+00 -L- TO 227+00 -L- [SEE TMP-39].

USING RSD 1101.02, SHEET 1, REVISE PAVEMENT MARKINGS AND SHIFT TRAFFIC INTO TEMPORARY TWO-LANE, TWO-WAY PATTERN ON RIGHT SIDE OF PINEY GREEN ROAD BETWEEN STA 279+30 +/- -L- AND STA 295+30+/- -L- AS SHOWN ON TMP-46. BEGIN WIDENING ON LEFT SIDE OF PINEY GREEN RD UP TO BUT NOT INCLUDING FINAL SURFACE LAYER FROM STA 279+50 -L- TO STA 296+00 -L- [SEE TMP-46]. INSTALL AND COVER ROAD CLOSURE AND DETOUR SIGNING FOR UPCOMING TEMPORARY CLOSURE OF OLD 30 ROAD (-Y29-) AS SHOWN ON TMP-34 (STEP B) AND TMP-125.

THE CONTRACTOR SHALL COMPLETE ALL WORK IN AREA 2, PHASE I, STEPS 10 THROUGH 12 BETWEEN 7:00 PM ON FRIDAY AND 6:00 AM ON THE IMMEDIATELY FOLLOWING MONDAY. [SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES]

STEP 10: TEMPORARILY CLOSE OLD 30 ROAD (-Y29-) TO THROUGH TRAFFIC BETWEEN CORNELL DRIVE AND PINEY GREEN RD AND DETOUR TRAFFIC VIA CORNELL DRIVE, VICTORIA ROAD (-Y30-), AND PINEY GREEN ROAD AS FOLLOWS [SEE TMP-34, STEP B, AND TMP-125]:

* UNCOVER PREVIOUSLY INSTALLED ROAD CLOSURE AND DETOUR SIGNS
* INSTALL TYPE III BARRICADES TO TEMPORARILY CLOSE OLD 30 RD (-Y29-) TO THROUGH TRAFFIC BETWEEN CORNELL DRIVE AND PINEY GREEN RD (-L-).
* CLOSE EB LEFT TURN LANE ON PINEY GREEN RD (-L-) APPROACHING OLD 30 RD WITH DRUMS SPACED 10-FT C-C.
* DEACTIVATE EXISTING TRAFFIC SIGNAL AT INTERSECTION OF PINEY GREEN RD AND EXISTING OLD 30 ROAD.

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

APPROVED: DATE: 2/6/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASING PHASE I AREA 2

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STEP 11: COMPLETE INSTALLATION OF NEW TRAFFIC SIGNAL AT THE INTERSECTION OF PINEY GREEN RD (-L-) AND OLD 30 RD (-Y29-).

COMPLETE DRAINAGE ON OLD 30 ROAD AND CONSTRUCT TIE-IN BETWEEN EXISTING AND RELOCATED OLD 30 ROAD AS SHOWN ON TMP-34, STEP B. BEGIN REMOVAL OF EXISTING OLD 30 ROAD PAVEMENT.

PLACE PAVEMENT MARKINGS ON OLD 30 ROAD FROM STA 11+73 -Y29- TO PINEY GREEN RD (-L-). [SEE TMP-34, STEP C]

USING RSD 1101.02, SHEET 1 AND 2, REVISE PAVEMENT MARKINGS ON PINEY GREEN ROAD AT THE RELOCATED OLD 30 ROAD/CHARLES RD (-Y29-) INTERSECTION AS SHOWN ON TMP-34, STEP C.

STEP 12: ACTIVATE NEW TRAFFIC SIGNAL AT INTERSECTION OF PINEY GREEN RD (-L-) AND OLD 30 RD/CHARLES RD (-Y29-). REMOVE BARRICADES, COVER ROAD CLOSURE AND DETOUR SIGNS AND REOPEN OLD 30 ROAD (-Y29-) TO TRAFFIC. REMOVE DRUMS AND REOPEN EB LEFT TURN LANE ON PINEY GREEN RD AT OLD 30 ROAD.

STEP 13: CONSTRUCT LEFT SIDE OF PINEY GREEN ROAD ACROSS FORMER OLD 30 RD TIE-IN UP TO BUT NOT INCLUDING FINAL SURFACE LAYER FROM STA 184+25 +/- TO STA 185+75 +/- *L-. COMPLETE REMOVAL OF FORMER OLD 30 ROAD PAVEMENT. [SEE TMP-34, STEP C]

USING RSD 1101.02, SHEET 1 AND 2, COMPLETE WIDENING OF ROCK RUN RD (-Y48-) AND THEN WEDGE AND RESURFACE UP TO BUT NOT INCLUDING FINAL SURFACE LAYER. [SEE TCP-49] REPLACE EXISTING MARKINGS ON ROCK RUN RD FOLLOWING WEDGING AND RESURFACING.

COMPLETE CONSTRUCTION OF BOX CULVERT SEGMENTS AS FOLLOWS:

- LEFT SIDE OF BOX CULVERT AT STA 167+39 -L- [SEE TMP-32]
- LEFT SIDE OF BOX CULVERT AT STA 274+68 -L- [SEE TMP-43]
- RIGHT SIDE OF BOX CULVERT AT STA 329+70 -L- [SEE TMP-51]

UPON COMPLETION OF THE ABOVE BOX CULVERT SEGMENTS, USE RSD 1101.02, SHEETS 1 AND 2, TO CONSTRUCT THE FOLLOWING OVER THE TOP OF THE COMPLETED CULVERT SEGMENTS AS FOLLOWS:

- TEMPORARY ON-SITE DETOUR FROM STA 12+25 +/- -L DET- TO STA 14+00 +/- -L DET-. [SEE ROADWAY PLANS AND INSET B ON TMP-32]
- PROPOSED LEFT SIDE OF PINEY GREEN RD UP TO BUT NOT INCLUDING FINAL SURFACE LAYER FROM STA 273+50+/- -L- TO STA 275+50 +/- -L-.[SEE INSET B ON TMP-43]
- PROPOSED RIGHT SIDE OF PINEY GREEN RD UP TO BUT NOT INCLUDING FINAL SURFACE LAYER FROM STA 329+00+/- -L- TO STA 330+50 +/- -L-.[SEE INSET B ON TMP-51]

USING RSD 1101.02, SHEETS 1 AND 2, WEDGE EXISTING PINEY GREEN RD PAVEMENT TO SMOOTHLY TIE INTO THE LEFT SIDE WIDENING AT NEAR THE HUNTERS TRAIL (-Y39-) INTERSECTION FROM STA 245+22 +/- -L- TO STA 255+13 +/- -L- AS SHOWN ON TMP-41 AND TMP-42. (SEE LOCAL NOTE LN-1).

COMPLETE CONSTRUCTION OF THE FOLLOWING ON PINEY GREEN RD:

- PERMANENT WETLAND MITIGATION AREA ON LEFT SIDE OF PINEY GREEN RD [SEE TMP-40]
- BRIDGE OVER NORTHEAST CREEK [SEE SHEET TMP-26]
- BRIDGE OVER LITTLE NORTHEAST CREEK AND UPSTREAM HALF OF PROPOSED FLOOD CONTROL PIPES. [SEE SHEET TMP-40]
- RIGHT SIDE OF PINEY GREEN RD UP TO BUT NOT INCLUDING FINAL SURFACE LAYER BETWEEN STA 54+00 -L- AND STA 159+21 -L-. [SEE TMP-22 THRU TMP-31]
- LEFT SIDE OF PINEY GREEN RD UP TO BUT NOT INCLUDING FINAL SURFACE LAYER BETWEEN STA 169+23 -L- AND STA 321+25 -L-. [SEE TMP-32 THRU TMP-36, TMP-39 THRU TMP-43, TMP-46 TMP-49]

STEP 13 (CONTINUED):
COMPLETE CONSTRUCTION BEGUN IN PRIOR STEP ON THE FOLLOWING -Y- LINES ON THE LEFT SIDE OF PINEY GREEN ROAD (-L-) UP TO BUT NOT INCLUDING FINAL SURFACE LAYER:

-Y31- VICTORIA RD [SEE TMP-35]
-Y34- WALNUT CREEK RD [SEE TMP-36]
-Y41- MARSHALL CHAPEL RD [SEE TMP-42]
-Y43- BRIDGE SIDE DR [SEE TMP-43]

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APPROVED: DATE: 8/6/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASING PHASE I AREA 2

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PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-3D

AREA 3

PINEY GREEN RD (-L-)
FROM STA 335+50 TO NC 24 (FREEDOM WAY) (-Y53-)
AND
NC 24 (FREEDOM WAY) (-Y53-)

STEP 1: REVISE TRAFFIC SIGNAL AT NC 24 (FREEDOM WAY) (-Y53-).

AWAY FROM TRAFFIC, BEGIN CONSTRUCTION OF NEW RAILROAD SIGNAL AND GATES WHILE MAINTAINING EXISTING RAILROAD SIGNAL AND GATES AT -Y50-. (SEE TMP-52)

AWAY FROM TRAFFIC BORE AND JACK PROPOSED 24-INCH PIPE BENEATH RAILROAD TRACKS (-Y50-) ON RIGHT SIDE OF PINEY GREEN ROAD BETWEEN CB 897 AND CB 901. [SEE TMP-52]

USING RSD 1101.02, SHEETS 1 AND 2, CONSTRUCT THE FOLLOWING UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT ON PINEY GREEN RD (-L-) [SEE TMP-51 THROUGH TMP-53 AND SECTION O-O]:

* LEFT SIDE WIDENING FROM STA 336+30 TO STA 341+90 +/- -L- AND FROM STA 342+22 +/- -L- TO NC 24 (FREEDOM WAY) (-Y53-)
* RIGHT SIDE WIDENING FROM STA 334+00 TO STA 341+90 +/- -L- AND FROM STA 342+53 +/- -L- TO NC 24 (FREEDOM WAY) (-Y53-)

USING RSD 1101.02, SHEET 1, CONSTRUCT 20 FEET OF LEFT SIDE WIDENING ON CARVER DRIVE (-Y49-), INCLUDING N.W. INTERSECTION RADIUS, UP TO BUT NOT INCLUDING FINAL SURFACE LAYER [SEE TMP-52].

USING RSD 1101.02, SHEET 3, CONSTRUCT THE FOLLOWING ON NC 24 (FREEDOM WAY) (-Y53-) [SEE TMP-53 AND TMP-54]:

* PROPOSED DRAINAGE IN MEDIAN
* PROPOSED WIDENING FOR EB LEFT TURN LANE AND WB RIGHT TURN LANE AS FOLLOWS:

  o PERFORM SHALLOW UNDERCUT EXCAVATION, THEN TEMPORARILY BACKFILL EDGE OF PAVEMENT TO ELIMINATE DROPOFF PRIOR TO REOPENING ADJACENT LANE TO TRAFFIC.
  o REMOVE BACKFILL MATERIAL AND CONSTRUCT PROPOSED PAVEMENT WIDENING UP TO EDGE AND ELEVATION OF EXISTING TRAVELWAY.

* PROPOSED MONOLITHIC CONCRETE MEDIAN NOSES

STEP 2: USING RSD 1101.02, SHEETS 1 AND 2, CONSTRUCT THE FOLLOWING [SEE TMP-51 THRU TMP-53]:

* WEDGE THE RIGHT HALF OF PINEY GREEN RD UP TO BUT NOT INCLUDING FINAL SURFACE LAYER FROM STA 334+00 +/- TO STA 336+30 +/- -L-. (SEE LOCAL NOTE LN-1)
* ALTERNATELY WEDGE BOTH THE RIGHT AND LEFT HALVES OF PINEY GREEN RD UP TO BUT NOT INCLUDING FINAL SURFACE LAYER FROM STA 336+30 +/- -L- TO STA 341+90 +/- -L- (JUST NORTH OF -Y50-) AND FROM STA 342+40 +/- -L- (JUST SOUTH OF -Y50-) TO NC 24 (FREEDOM WAY) (-Y53-).
* REPLACE EXISTING MARKINGS IN EXISTING PATTERN.

SHIFT CARVER DR (-Y49-) TRAFFIC INTO TEMPORARY TWO LANE, TWO WAY PATTERN ON NEWLY CONSTRUCTED LEFT SIDE WIDENING AND CONSTRUCT RIGHT SIDE, INCLUDING PROPOSED DRAINAGE AND S.W. INTERSECTION RADIUS [SEE STEP C INSET ON TMP-52].

PLACE TEMPORARY MARKINGS FOR NEXT STEP'S TRAFFIC PATTERN ON LEFT SIDE OF PINEY GREEN RD AS MUCH AS POSSIBLE AWAY FROM TRAFFIC FROM STA 336+43 +/- TO STA 346+74 +/- [SEE TMP-55 FOR NEXT STEP'S MARKINGS]

CONTACT CAMP LEJEUNE/NORFOLK SOUTHERN RAILROAD 30 CALENDAR DAYS IN ADVANCE OF BEGINNING AREA 3, PHASE I, STEP 3 TO COORDINATE SUSPENSION OF TRAIN TRAFFIC ON -Y50- DURING RECONSTRUCTION OF THE GRADE CROSSING.

THE CONTRACTOR SHALL COMPLETE ALL WORK IN AREA 3, PHASE I, STEPS 3 THROUGH 6 DURING THE MONTHS OF JULY AND AUGUST BETWEEN 7:00 P.M. ON A FRIDAY AND 6:00 A.M. ON THE SECOND MONDAY THAT FOLLOWS. [SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES]

STEP 3: WHILE TRAIN TRAFFIC IS TEMPORARILY SUSPENDED ON -Y50-, USE RSD 1101.02 SHEETS 1 AND 2 TO PERFORM THE FOLLOWING (SEE TMP-55):

* DEACTIVATE AND REMOVE THE EXISTING RAILROAD SIGNALS AND GATES AND CONTINUE CONSTRUCTION OF THE NEW SIGNALS AND GATES AT THE -Y50- GRADE CROSSING.
* CONSTRUCT TEMPORARY PAVEMENT ACROSS THE EXISTING RAILROAD TRACKS ON THE LEFT SIDE OF PINEY GREEN RD BETWEEN STA 341+90 +/- AND FROM STA 342+22 +/- -L- TO FILL GAP IN THE RIGHT SIDE WIDENING CONSTRUCTED IN PRIOR STEP.
* COMPLETE PAVEMENT MARKING REVISIONS ON PINEY GREEN RD (-L-) AND SHIFT TRAFFIC INTO TEMPORARY TWO-LANE, TWO-WAY PATTERN ON LEFT SIDE OF PINEY GREEN RD AT -Y50- AS SHOWN ON TMP-55.

STEP 4: AWAY FROM TRAFFIC ON PINEY GREEN RD, PERFORM THE FOLLOWING WORK (SEE TMP-55):

* REMOVE RIGHT HALF OF EXISTING GRADE CROSSING UP TO CENTERLINE OF -L-
* CONSTRUCT PROPOSED 24-INCH PIPE BENEATH RAILROAD TRACKS (-Y50-) ON RIGHT SIDE OF PINEY GREEN RD (IF NOT CONSTRUCTED IN PRIOR STEP)
* CONSTRUCT RIGHT HALF OF PROPOSED NEW GRADE CROSSING UP TO CENTERLINE OF -L-. [SEE SECTION P-P ON TMP-55]
* PLACE TEMPORARY MARKINGS FOR NEXT STEP'S TRAFFIC PATTERN ON RIGHT SIDE OF PINEY GREEN RD AS MUCH AS POSSIBLE AWAY FROM TRAFFIC FROM STA 336+43 +/- TO STA 346+74 +/- -L- [SEE TMP-56 FOR NEXT STEP'S MARKINGS]

STEP 5: USING RSD 1101.02, SHEET 1, REVISE MARKINGS AND SHIFT TRAFFIC TO TEMPORARY TWO-LANE, TWO-WAY PATTERN ON RIGHT SIDE OF PINEY GREEN RD FROM STA 336+43 +/- TO STA 346+74 +/- -L- AS SHOWN ON TMP-56.

AWAY FROM TRAFFIC ON PINEY GREEN RD, PERFORM THE FOLLOWING WORK:

* REMOVE LEFT HALF OF EXISTING GRADE CROSSING UP TO CENTERLINE OF -L-
* CONSTRUCT LEFT HALF OF PROPOSED NEW GRADE CROSSING UP TO CENTERLINE OF -L-. [SEE SECTION Q-Q ON TMP-56]
* PAVE TIE-IN BETWEEN NEW CROSSING SURFACE AND LEFT SIDE PAVEMENT ON EACH SIDE OF GRADE CROSSING TO PROVIDE A SMOOTH TRANSITION FOR VEHICULAR TRAFFIC ON PINEY GREEN RD.
* PLACE TEMPORARY MARKINGS FOR NEXT STEP'S TRAFFIC PATTERN ON LEFT SIDE OF PINEY GREEN RD AS MUCH AS POSSIBLE AWAY FROM TRAFFIC FROM STA 336+43 +/- TO BARBARA AVE (-Y52-) +/- -L- [SEE TMP-57 AND TMP-58 FOR NEXT STEP'S MARKINGS]

COMPLETE CONSTRUCTION OF NEW RAILROAD SIGNAL AND GATES AT -Y50-.

STEP 6: USING RSD 1101.02, SHEETS 1 AND 2, REVISE MARKINGS ON PINEY GREEN RD (-L-) AND SHIFT TRAFFIC INTO THE TEMPORARY SPLIT PATTERN SHOWN ON TMP-57 AND TMP-58 AS FOLLOWS:

A. COMPLETE REVISIONS TO NB MARKINGS AND SHIFT SINGLE LANE OF NB TRAFFIC ONTO OUTSIDE LANE ON LEFT SIDE OF PINEY GREEN RD (-L-).
B. REVISE SB MARKINGS FROM STA 343+65 +/- -L- TO NC 24 (FREEDOM WAY) AND SHIFT SINGLE LANE OF SB TRAFFIC ONTO OUTSIDE LANE ON RIGHT SIDE OF PINEY GREEN RD (-L-).

ACTIVATE NEW RAILROAD SIGNAL AND GATES AND RESUME TRAIN TRAFFIC.

THE CONTRACTOR SHALL COMPLETE ALL WORK IN AREA 3, PHASE I, STEPS 7 AND 8 WITHIN 60 CALENDAR DAYS. [SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES]

STEP 7: WITH ADJACENT LEFT LANES TEMPORARILY CLOSED TO TRAFFIC, CONSTRUCT PROPOSED RAISED MEDIANS ON PINEY GREEN RD BETWEEN STA 340+50 +/- -L- (SOUTH OF -Y49-) AND NC 24 (FREEDOM WAY) (-Y53-). [SEE TMP-57 AND TMP-58]

STEP 8: REVISE TRAFFIC SIGNAL AT NC 24 (FREEDOM WAY) (-Y53-) TO FINAL PATTERN.

USING RSD 1101.02, SHEETS 1 AND 3, PLACE FINAL SURFACE LAYER, TEMPORARY MARKINGS (PAINT), AND TEMPORARY RAISED PAVEMENT MARKERS IN PHASE II TEMPORARY PATTERN ON NC 24 (FREEDOM WAY) (-Y53-) AND ON PINEY GREEN RD BETWEEN CARVER DR (-Y49-) AND NC 24 (-Y53-) AS SHOWN ON TMP-89 THRU TMP-91.

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APPROVED: DATE: 2/6/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASING PHASE I AREA 3

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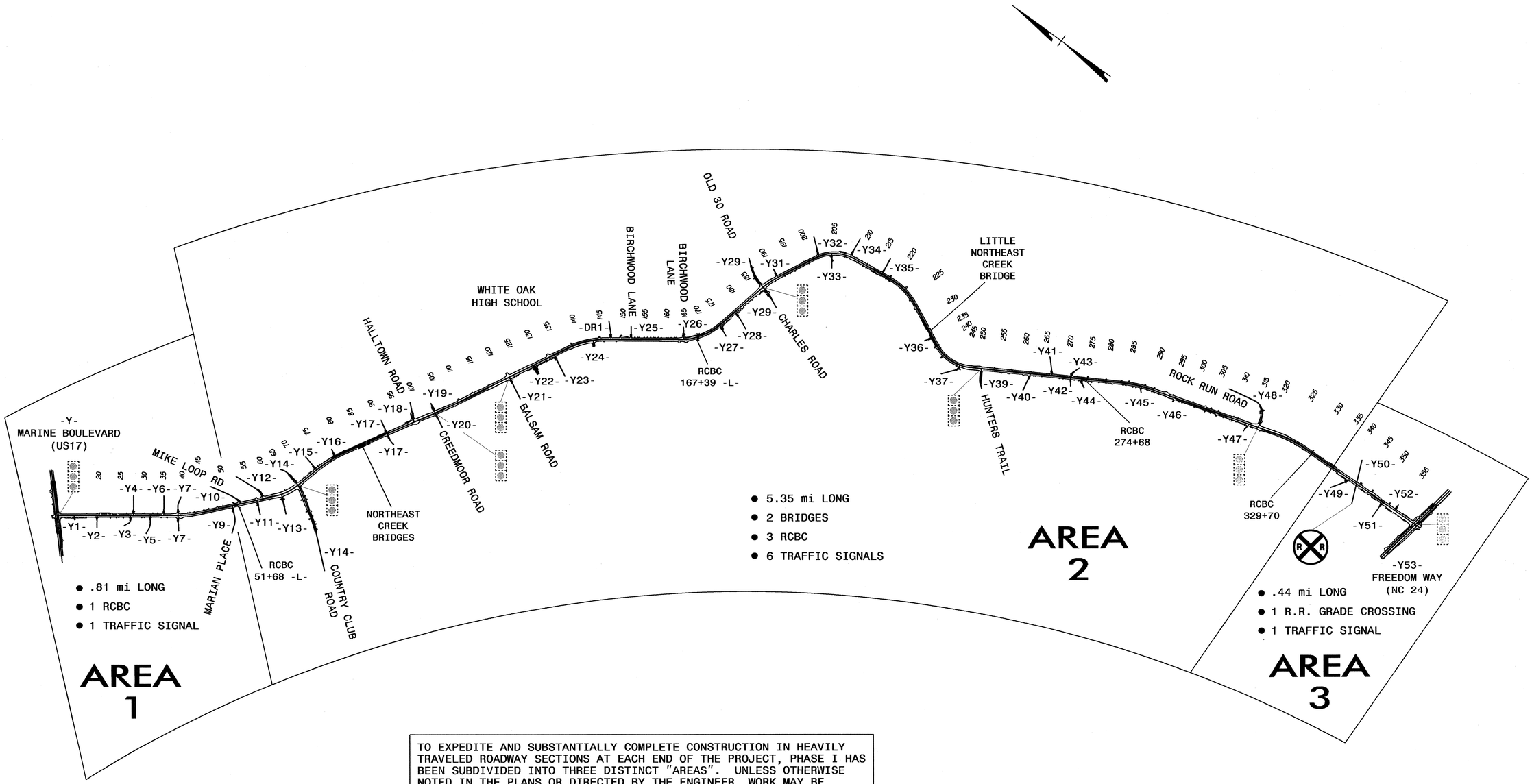
U-3810	TMP-4



- .81 mi LONG
- 1 RCBC
- 1 TRAFFIC SIGNAL

- 5.35 mi LONG
- 2 BRIDGES
- 3 RCBC
- 6 TRAFFIC SIGNALS

- .44 mi LONG
- 1 R.R. GRADE CROSSING
- 1 TRAFFIC SIGNAL

TO EXPEDITE AND SUBSTANTIALLY COMPLETE CONSTRUCTION IN HEAVILY TRAVELED ROADWAY SECTIONS AT EACH END OF THE PROJECT, PHASE I HAS BEEN SUBDIVIDED INTO THREE DISTINCT "AREAS". UNLESS OTHERWISE NOTED IN THE PLANS OR DIRECTED BY THE ENGINEER, WORK MAY BE PERFORMED IN MORE THAN ONE AREA SIMULTANEOUSLY.

APPROVED: [signature] DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I PROJECT AREA OVERVIEW

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

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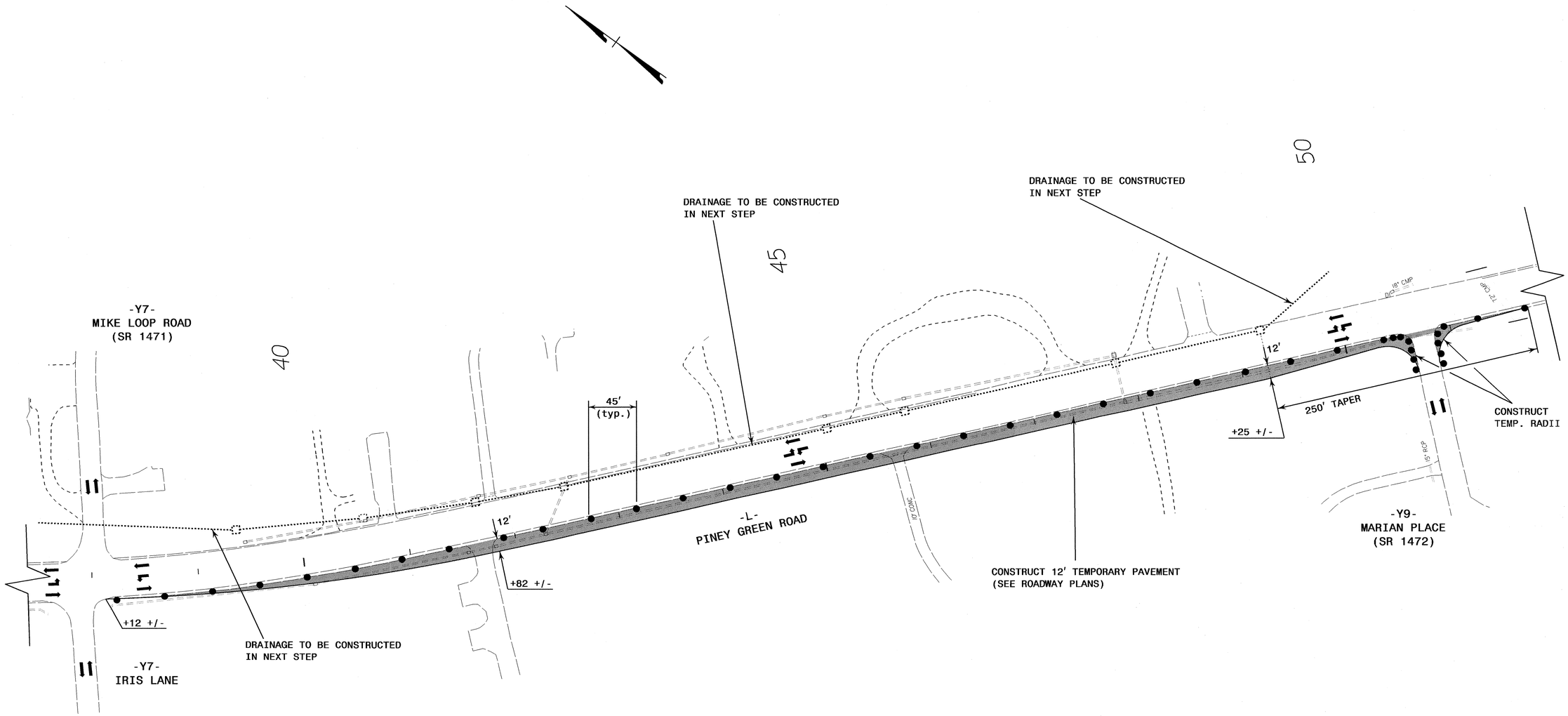

AREA 1

APPROVED: DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

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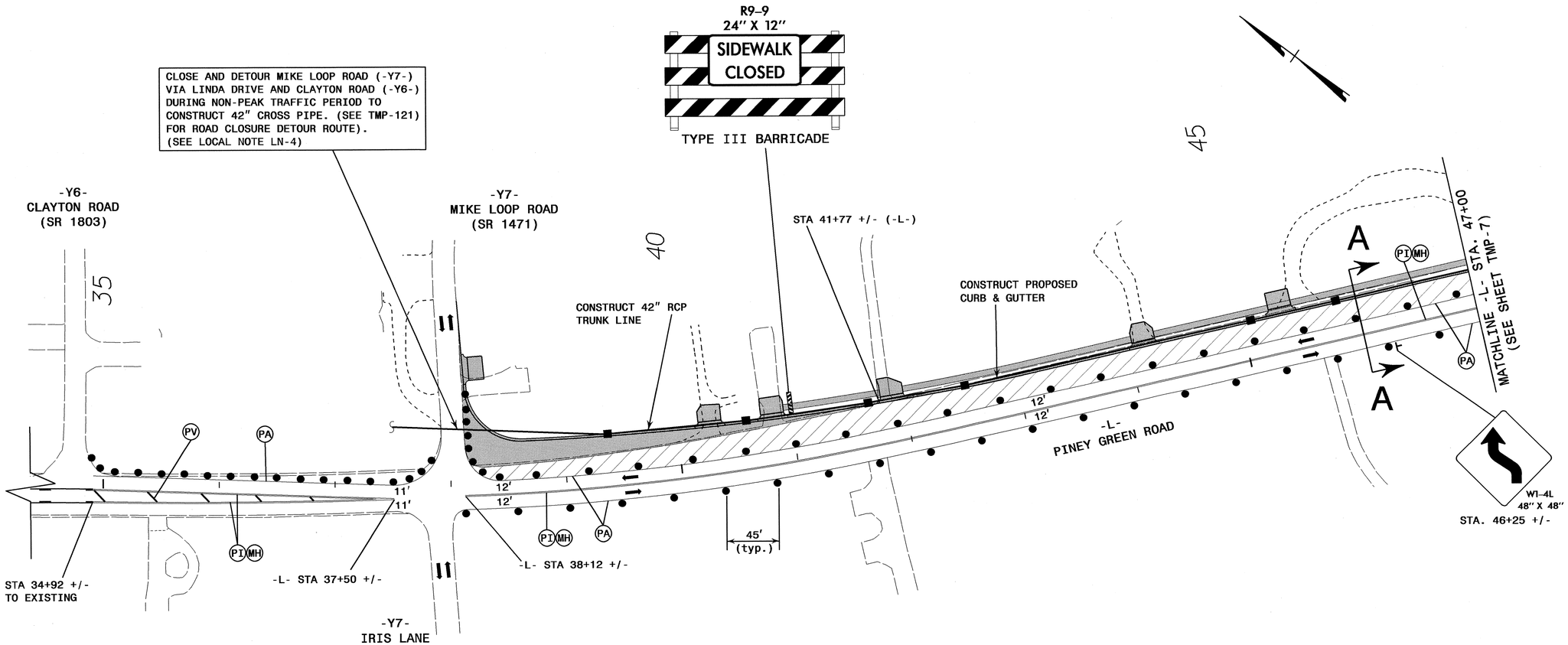
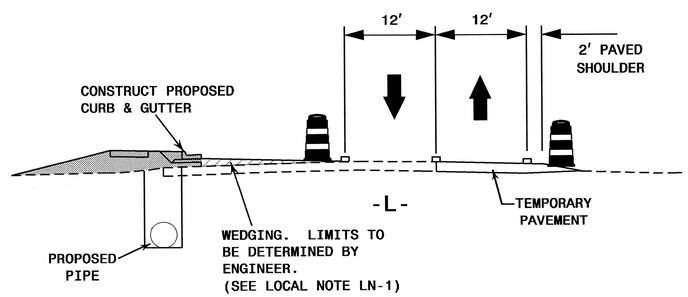
U-3810	TMP-6





SECTION A-A

AREA 1

APPROVED: DATE: 8/6/12

SEAL

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DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

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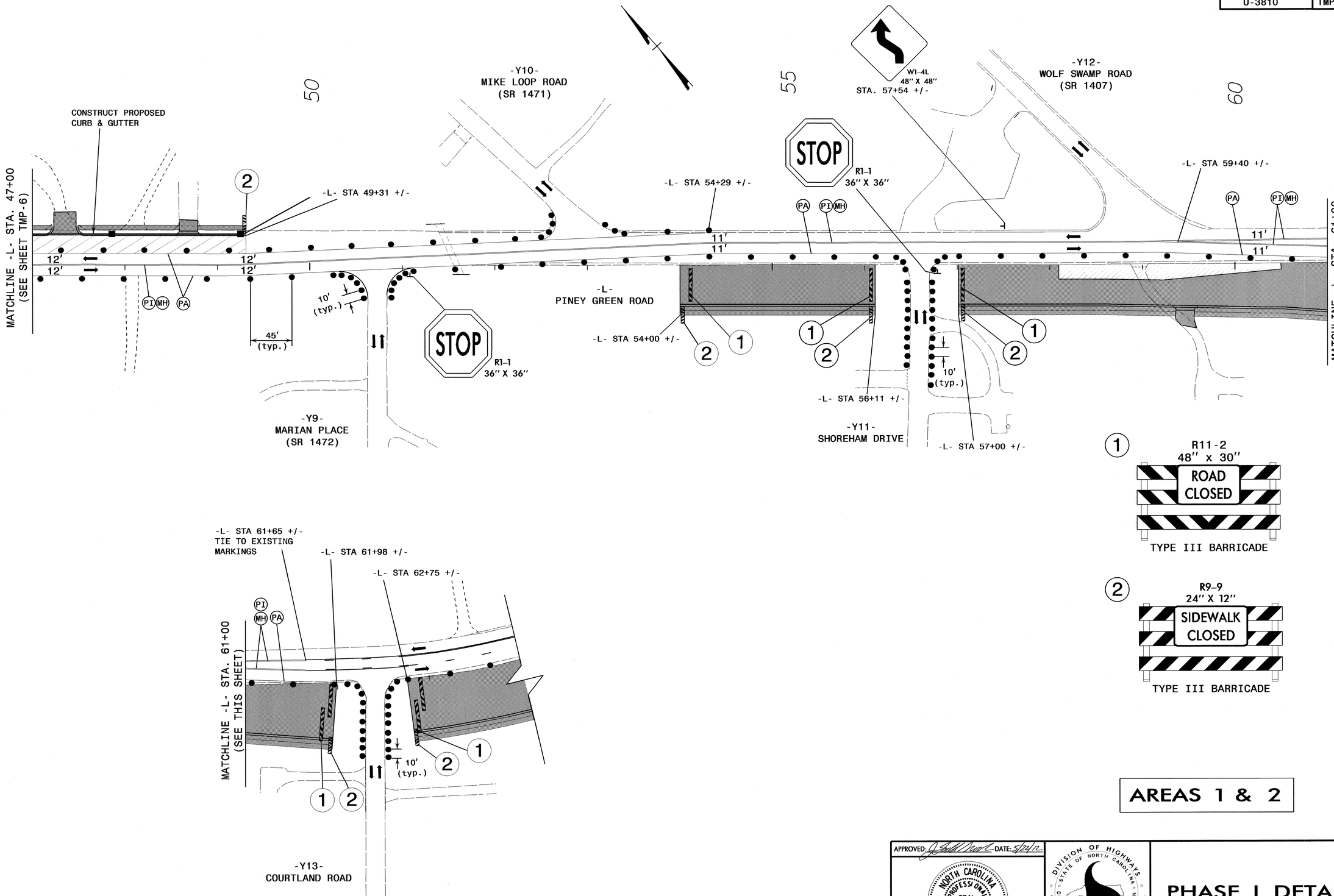
U-3810	TMP-7



AREAS 1 & 2

APPROVED: [signature] DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

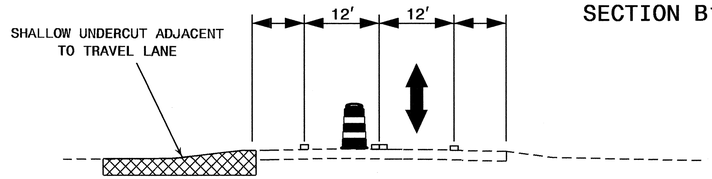
PHASE I DETAIL

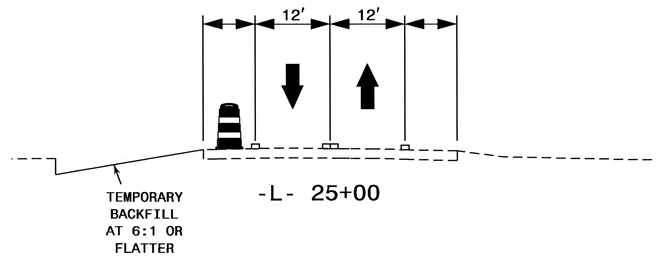
ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

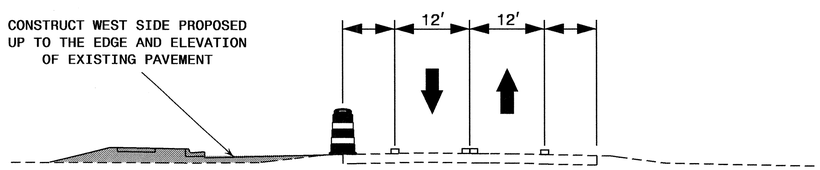
22-MAY-2012 09:58
O:\Transportation\Traffic\Curr\100026110 - U-3810 Piney Green Rd\TCP\U3810_TC_TCP_007.dgn
12054 AT RAL2UA1430YTD

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-8

SECTION B1-B1







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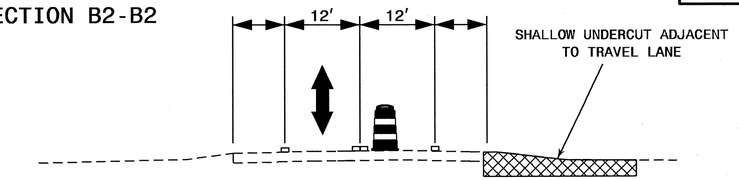

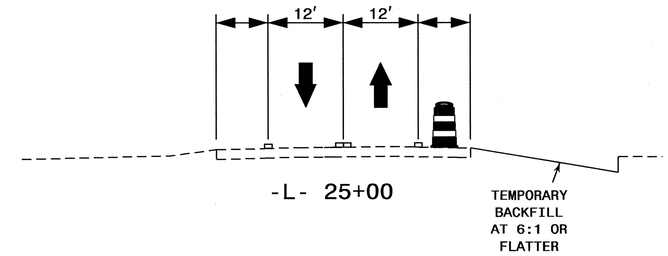

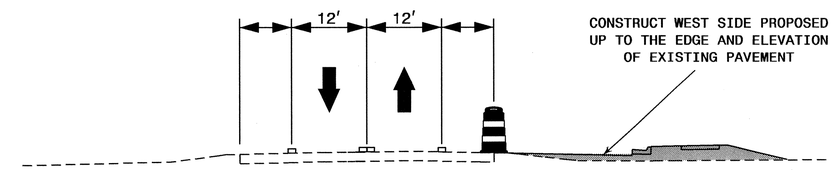

SECTION B3-B3
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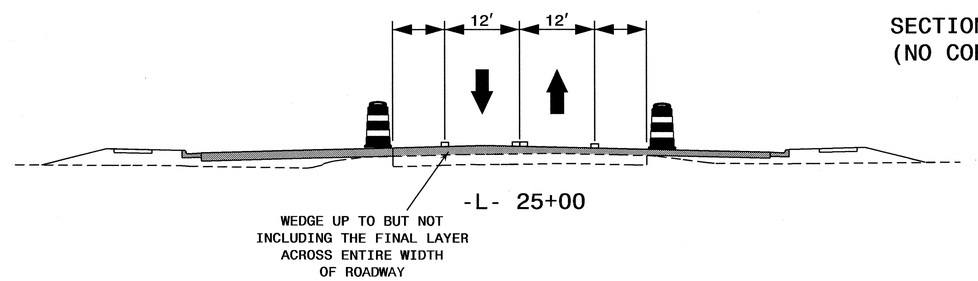
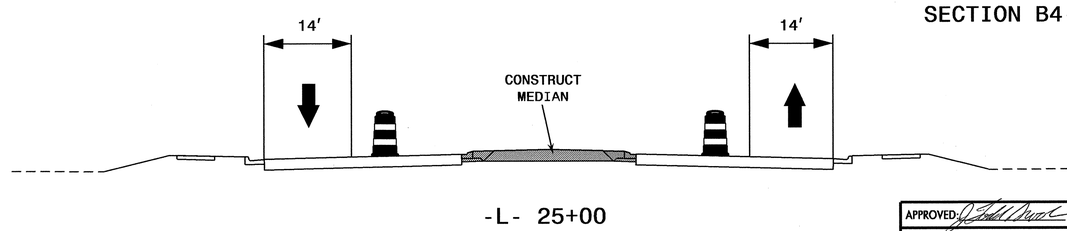
PHASE I, STEP 3



SECTION B4-B4

PHASE I, STEP 4



AREA 1

APPROVED: [signature] DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

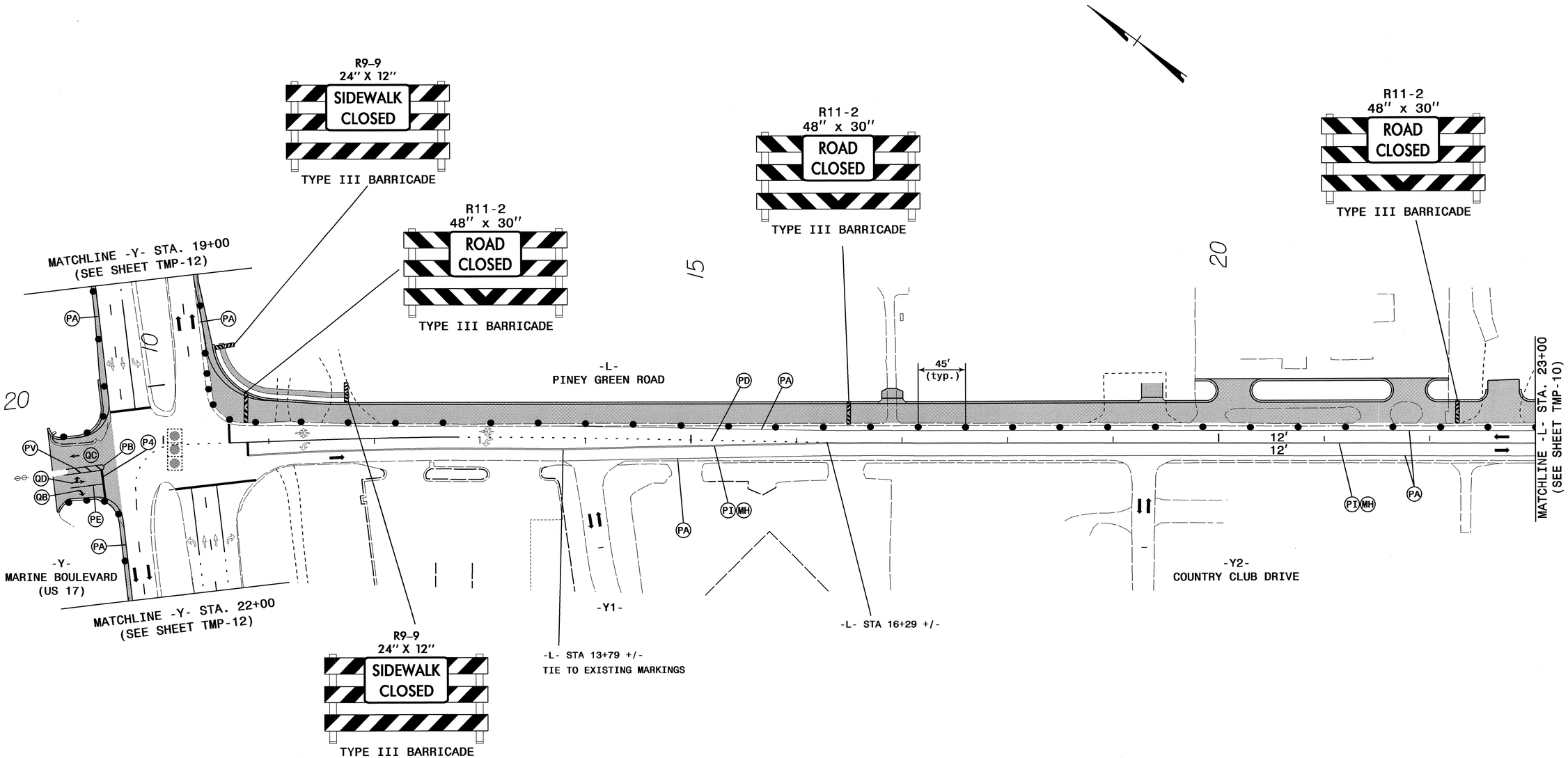
DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:58
O:\Transportation\Traffic\Curr\I00026110 - U-3810 Piney Green Rd\TCP\U3810_TC_TCP_008.dgn
12054 AT RAL2UA1430Y7D

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-9



AREA 1

APPROVED: Todd Brooks DATE: 8/6/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER TODD BROOKS

DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

07-AUG-2012 10:35
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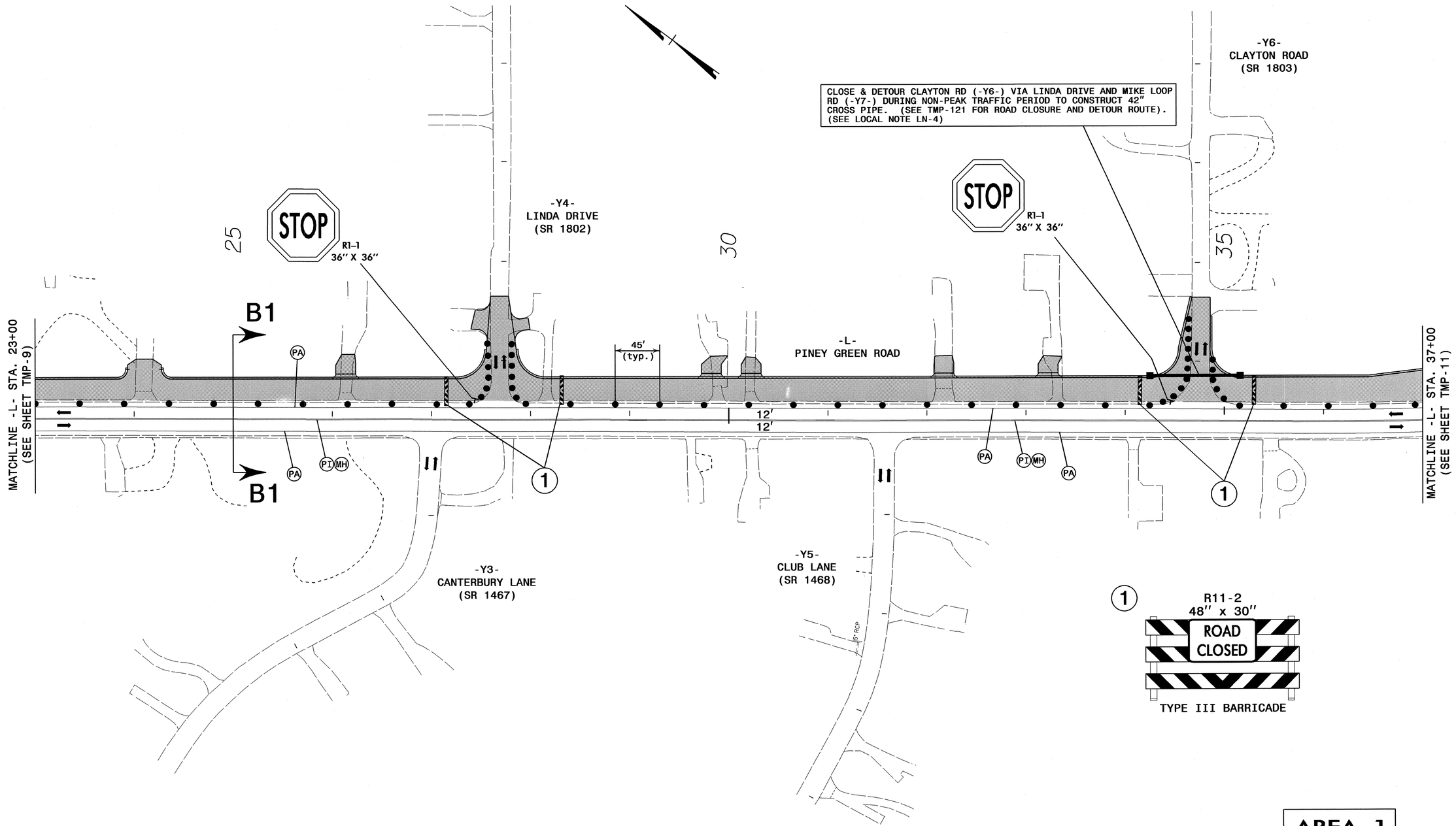
PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-10



AREA 1

APPROVED: DATE: 8/6/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

07-AUG-2012 10:35
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PROJ. REFERENCE NO.	SHEET NO.
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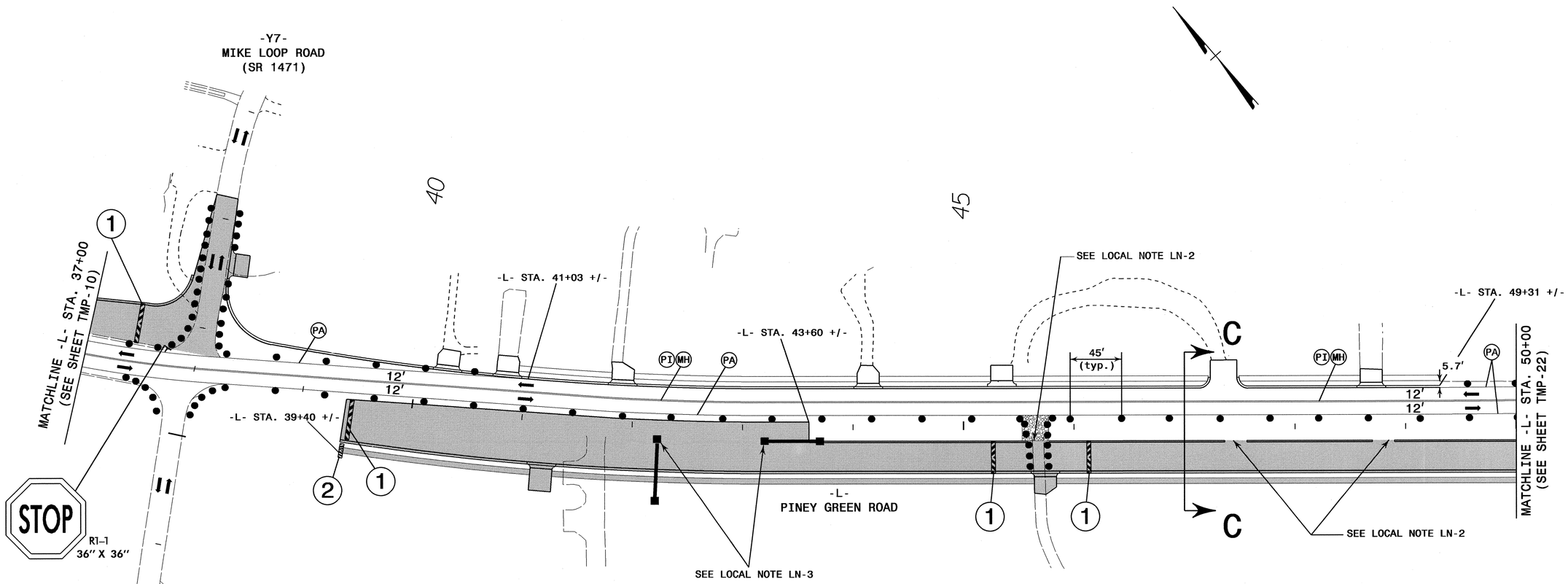

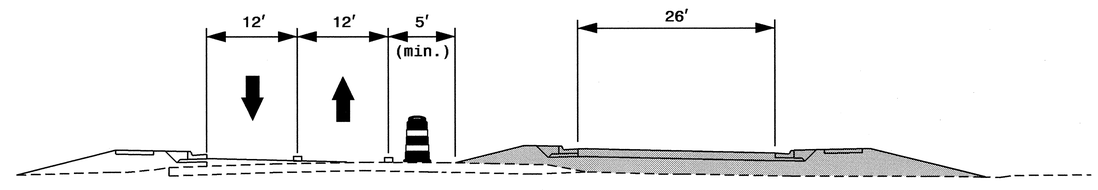

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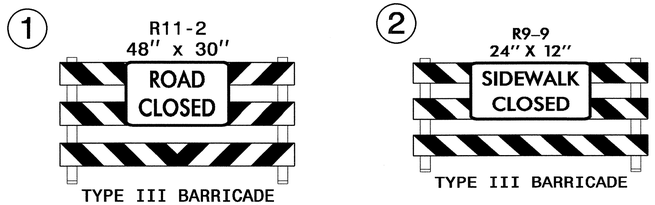
SECTION C-C



TYPE III BARRICADE

TYPE III BARRICADE

AREA 1

APPROVED: DATE: 9/6/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER TODD BROOKS

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

07-AUG-2012 10:43
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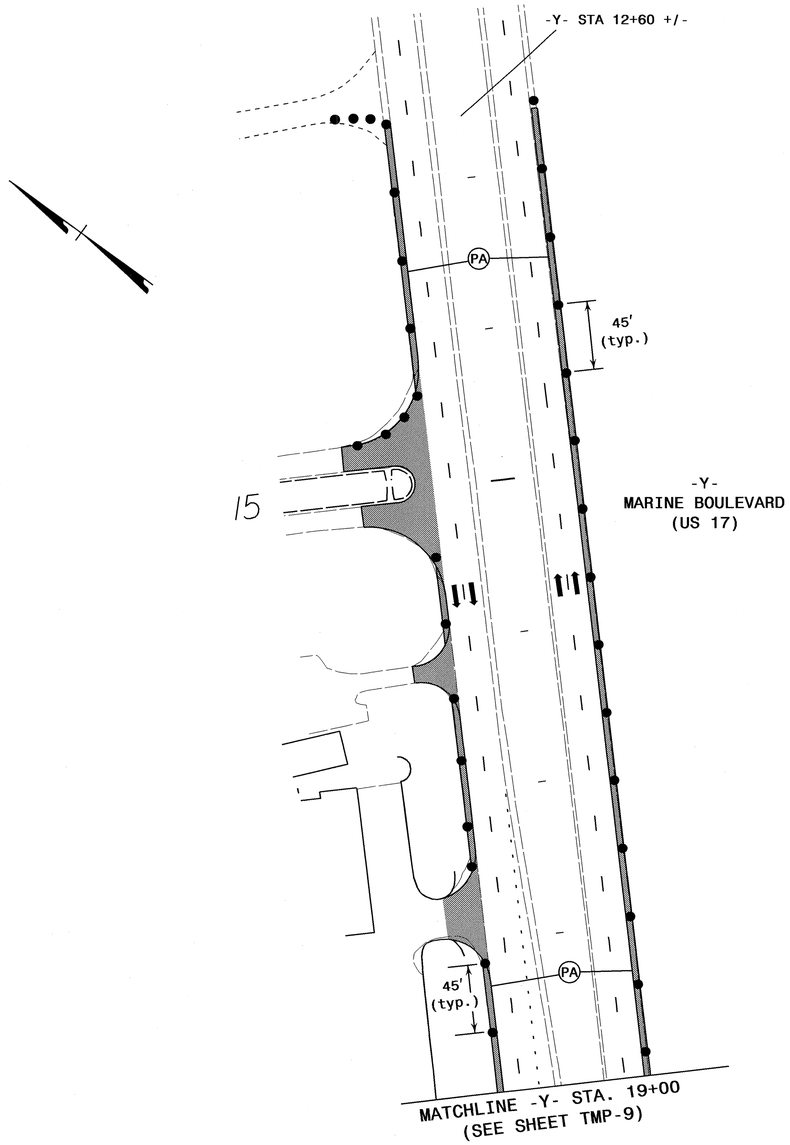
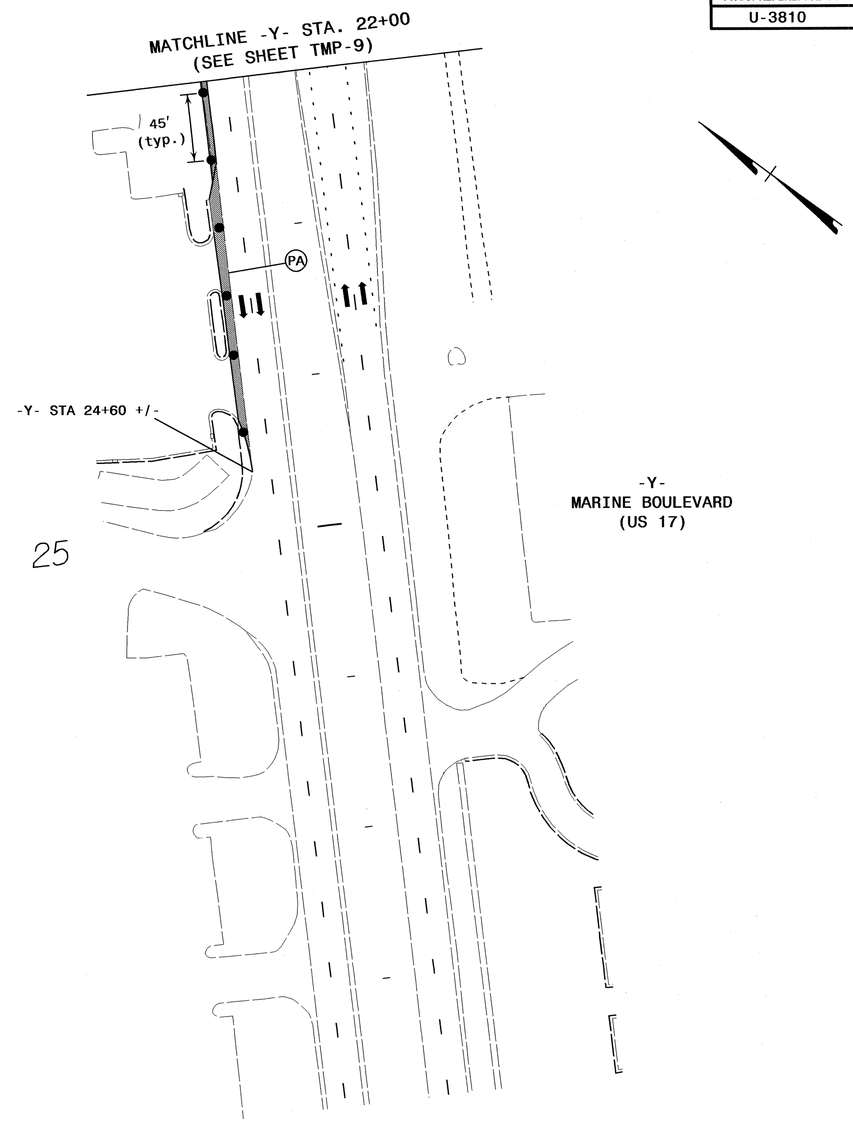
PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-12





AREA 1

APPROVED: J. Todd Brooks DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:58
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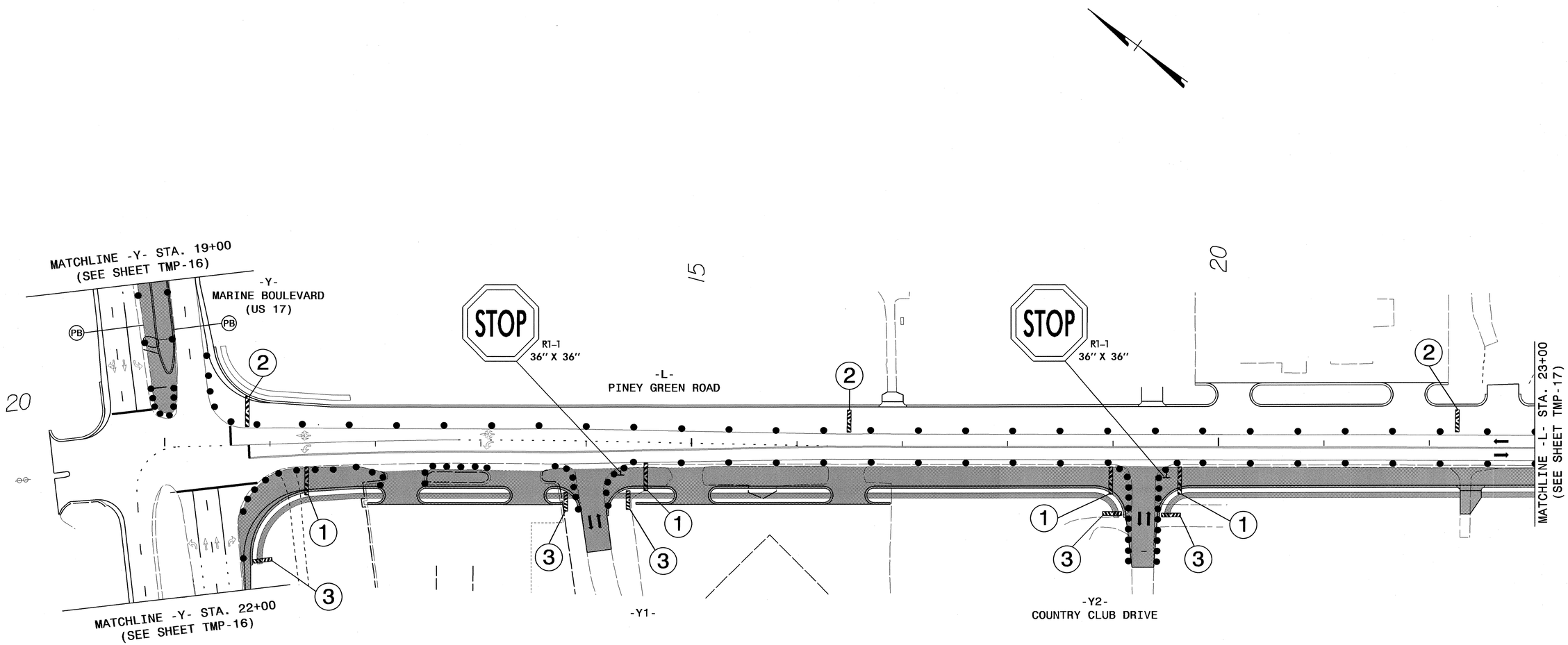
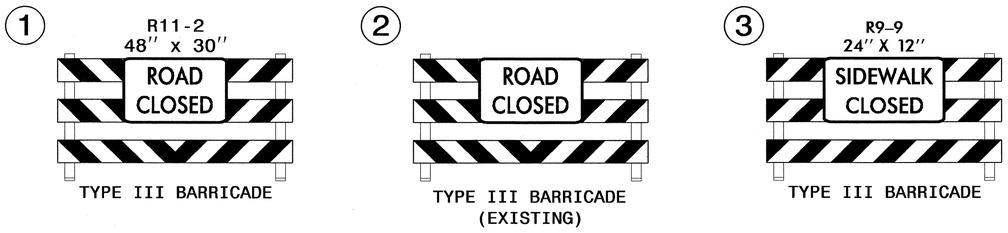
12054 AT RAL2UA1430YTD

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-13





AREA 1

APPROVED: [signature] DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:58
O:\Transportation\Traffic\Curr\100026110 - U-3810 Piney Green Rd\TCP\U3810_TC_TCP_013.dgn
12054 AT RAL2UA1430Y7D

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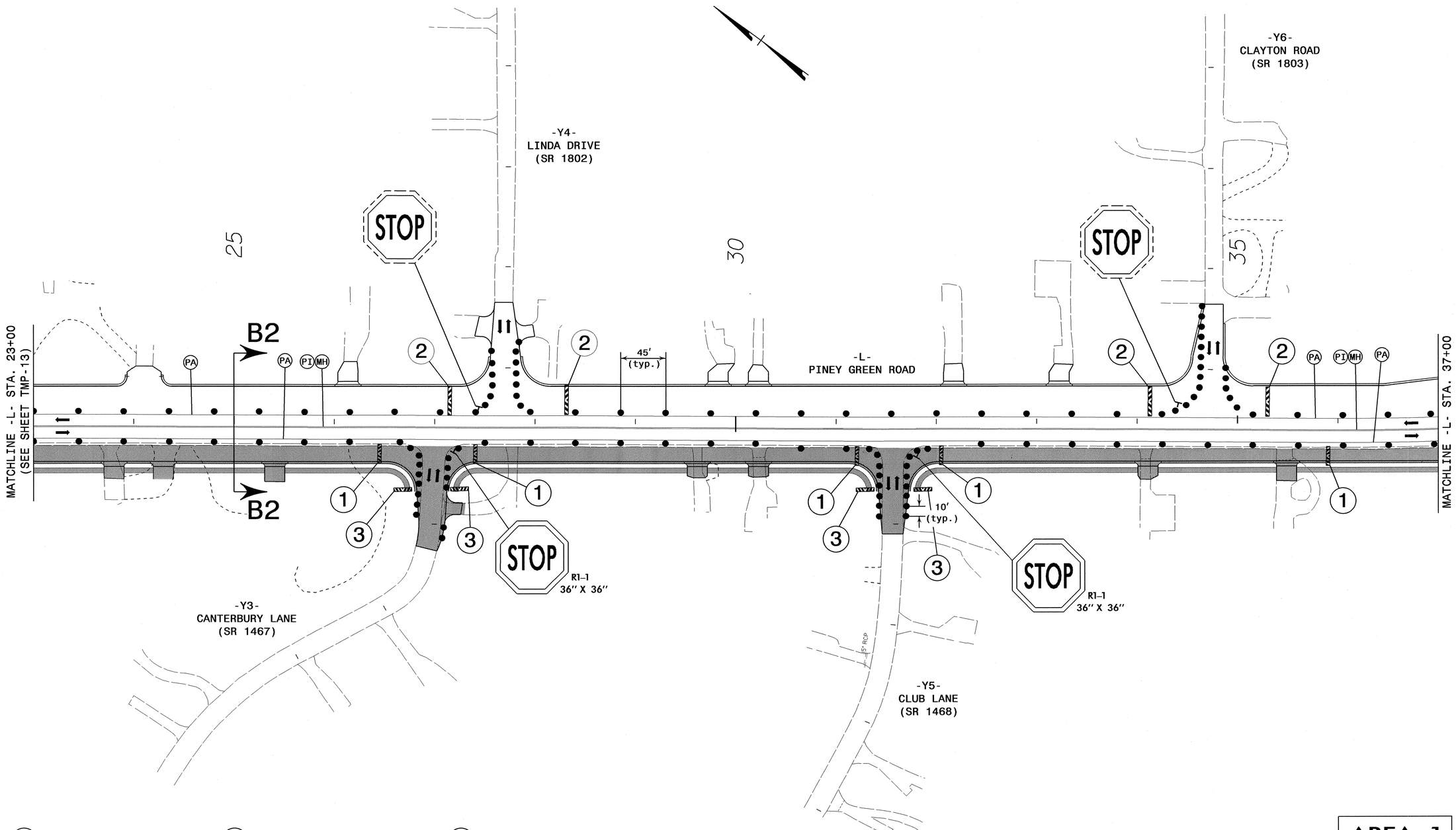
U-3810	TMP-14



1

R11-2
48" x 30"

TYPE III BARRICADE

2

TYPE III BARRICADE
(EXISTING)

3

R9-9
24" X 12"

TYPE III BARRICADE

AREA 1

APPROVED: DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:58
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PROJ. REFERENCE NO.	SHEET NO.
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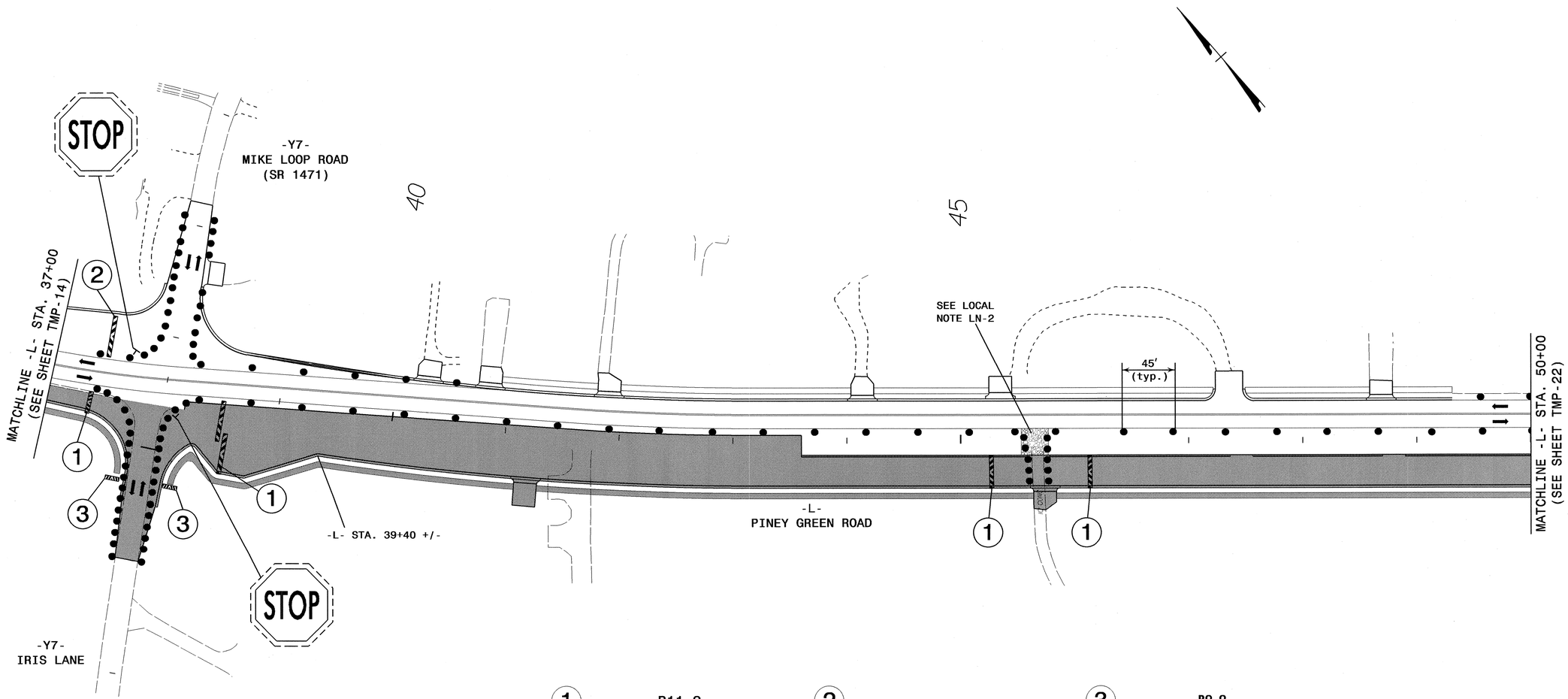

1 R11-2
48" x 30"

TYPE III BARRICADE

2

TYPE III BARRICADE
(EXISTING)

3 R9-9
24" X 12"

TYPE III BARRICADE

AREA 1

APPROVED: [signature] DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:58
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PROJ. REFERENCE NO.	SHEET NO.
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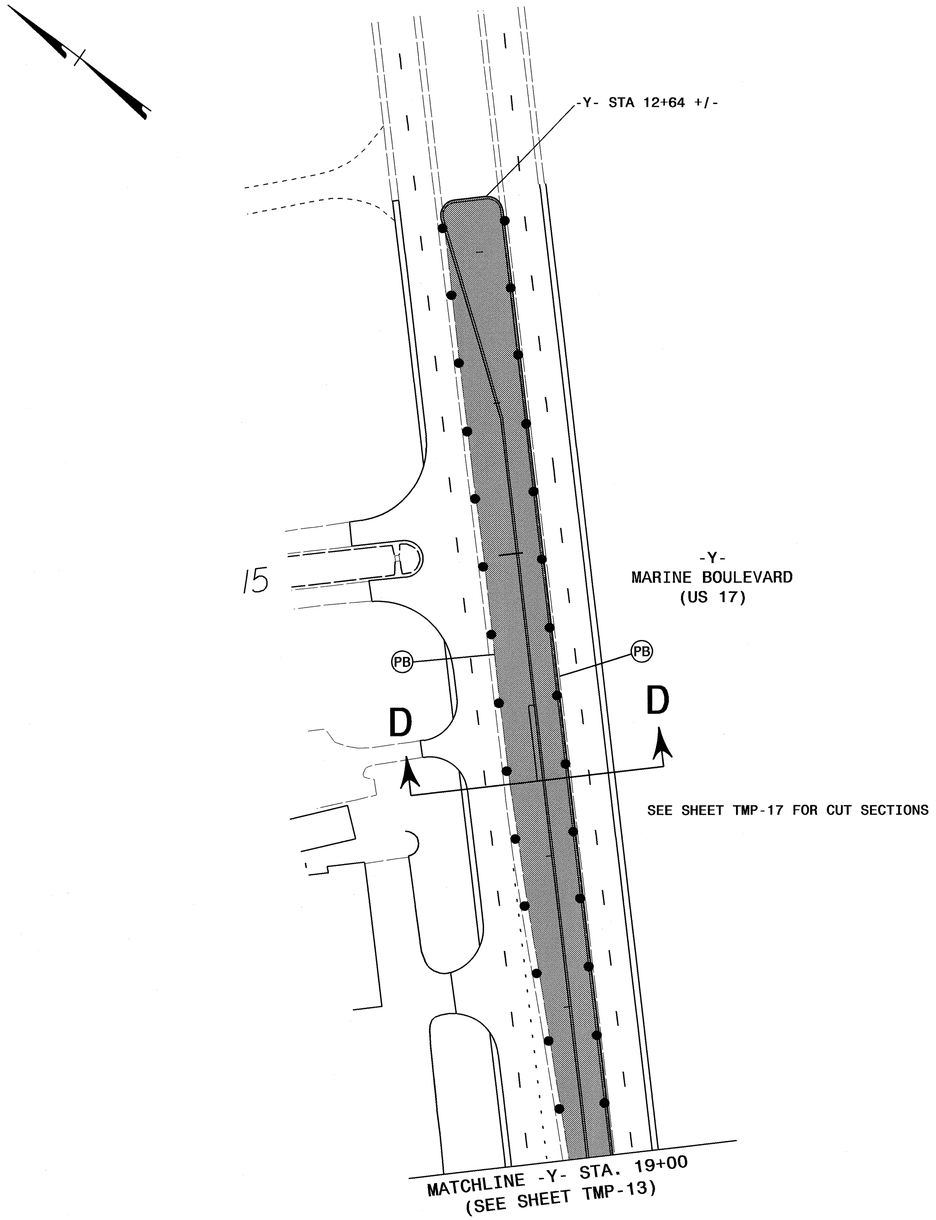
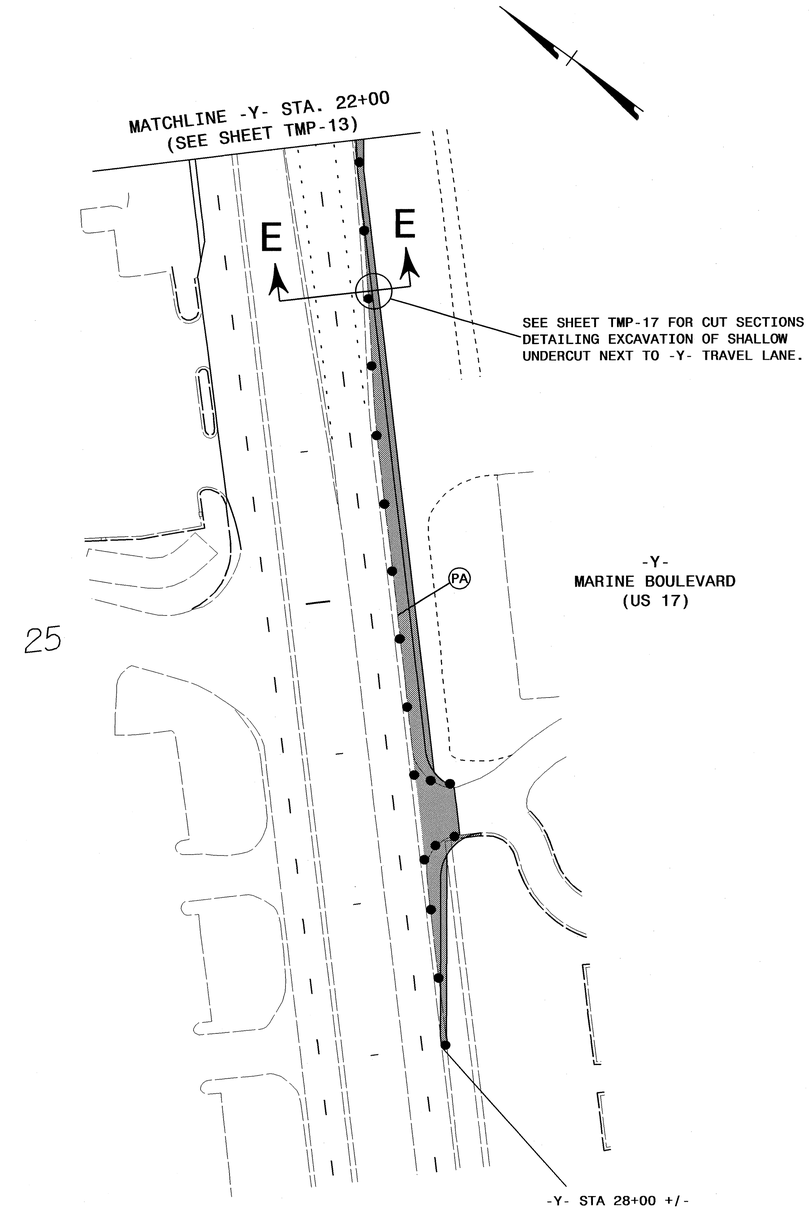
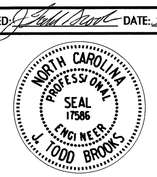


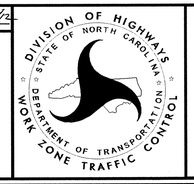


AREA 1

APPROVED: DATE: 5/22/12

SEAL





PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:58
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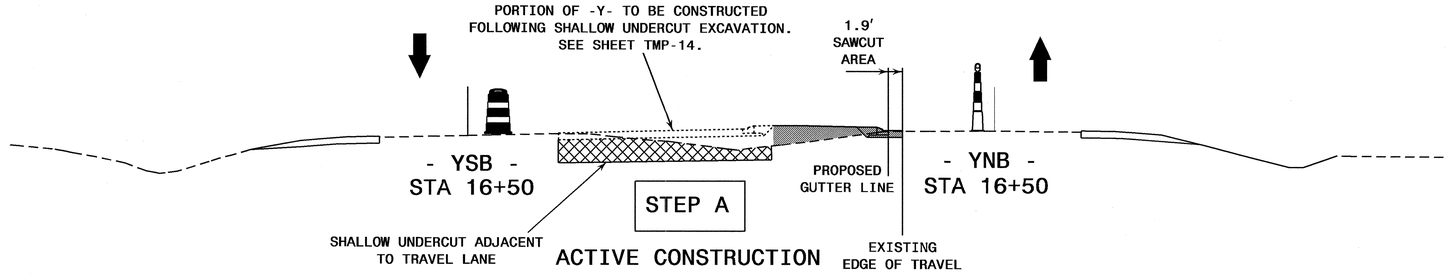
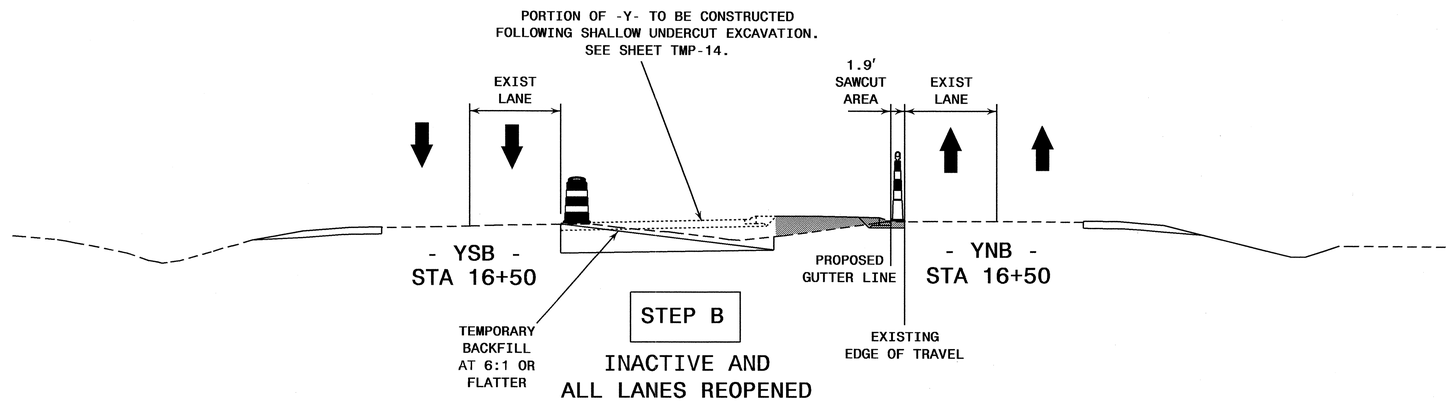
PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-17

CUT SECTION D-D

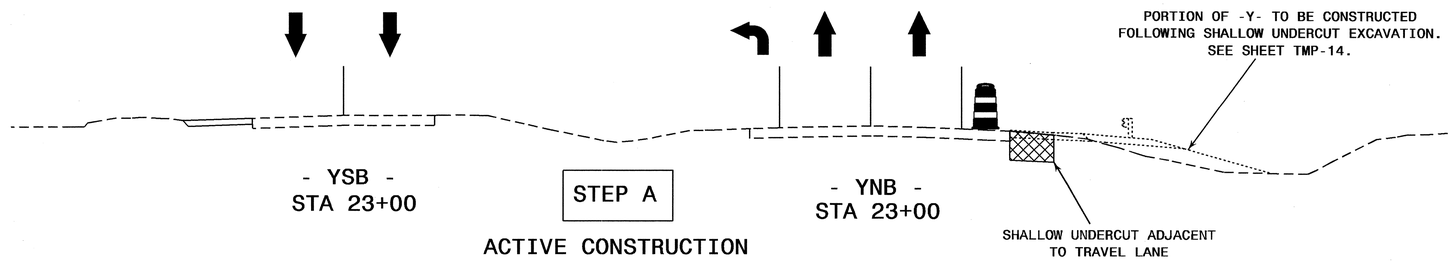
FROM SHEET TMP-11.

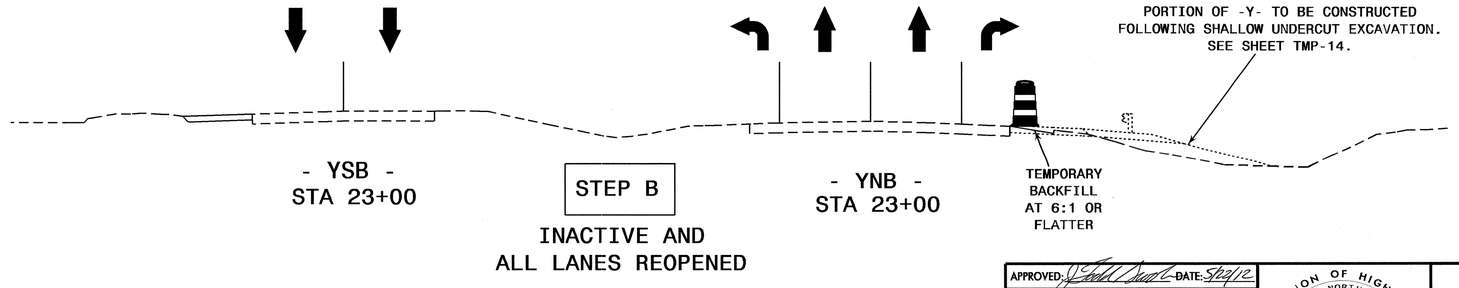




CUT SECTION E-E

FROM SHEET TMP-11.





AREA 1

APPROVED: DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:58
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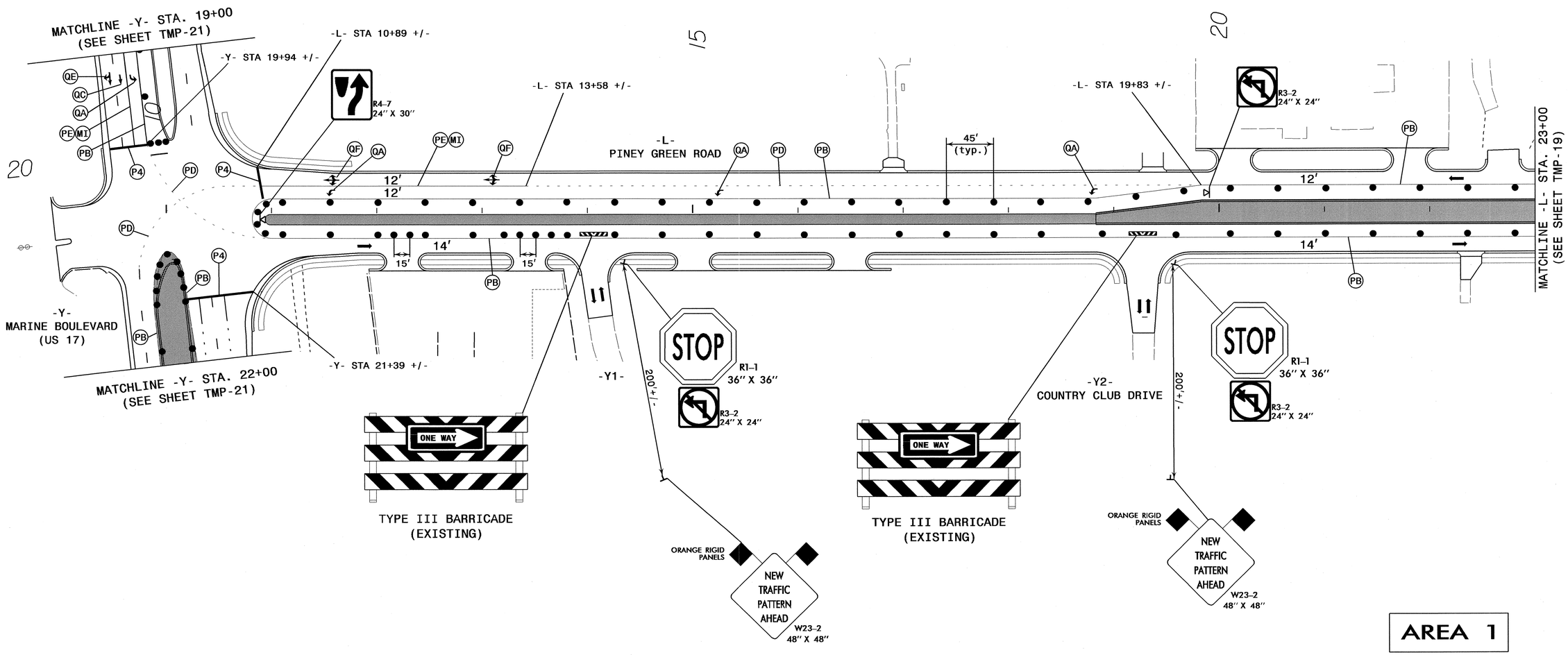
U-3810	TMP-18



AREA 1

APPROVED: DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

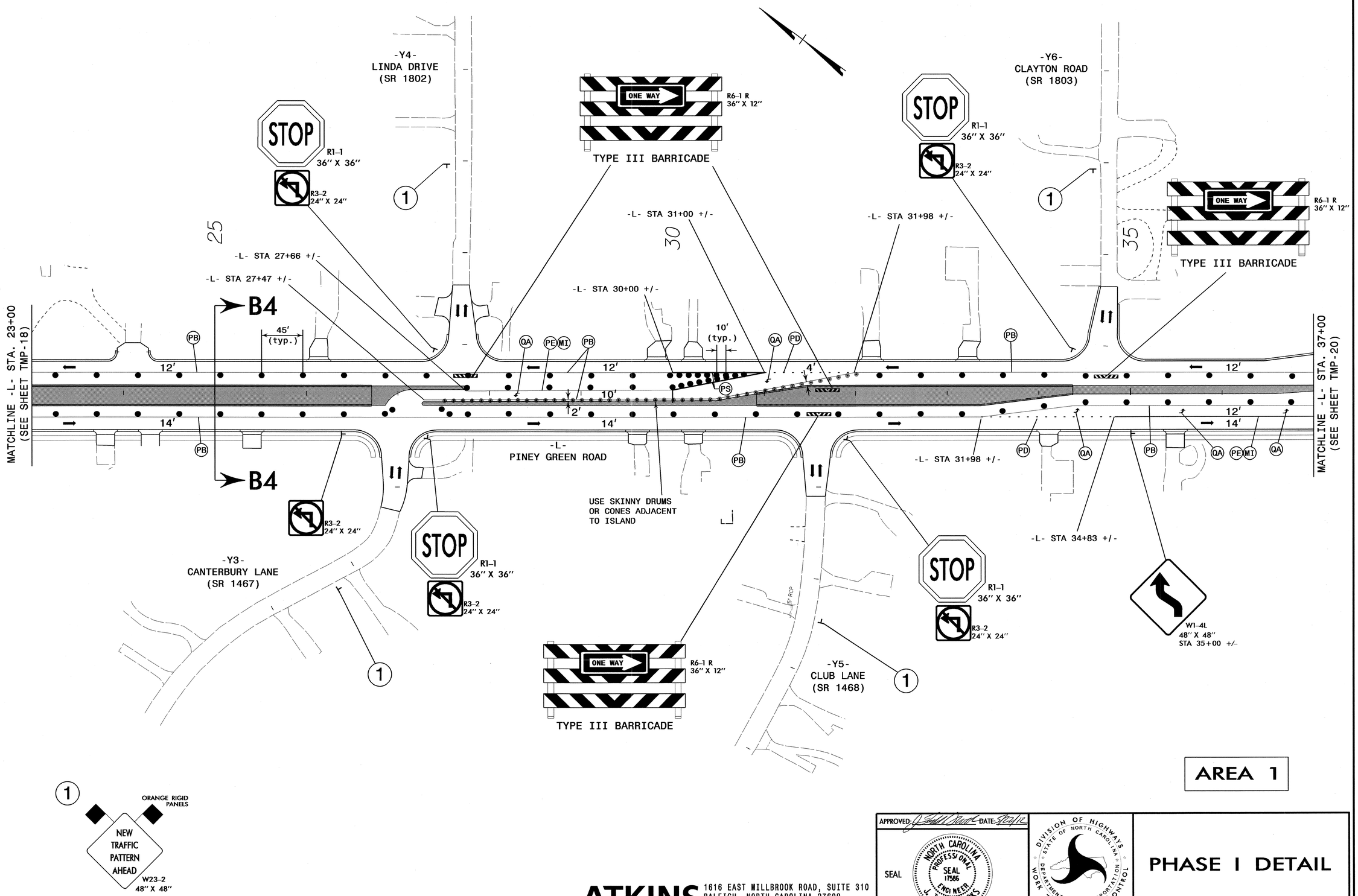
DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:58
G:\Transportation\Traffic\Curr\0002610 - U-3810 Piney Green Rd\TCP\U3810_TC_TCP_018.dgn
12054 AT RAL2UA430Y7D

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-19



AREA 1

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

APPROVED: DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

22-MAY-2012 09:58
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12054 AT RAL2UA1430Y7D

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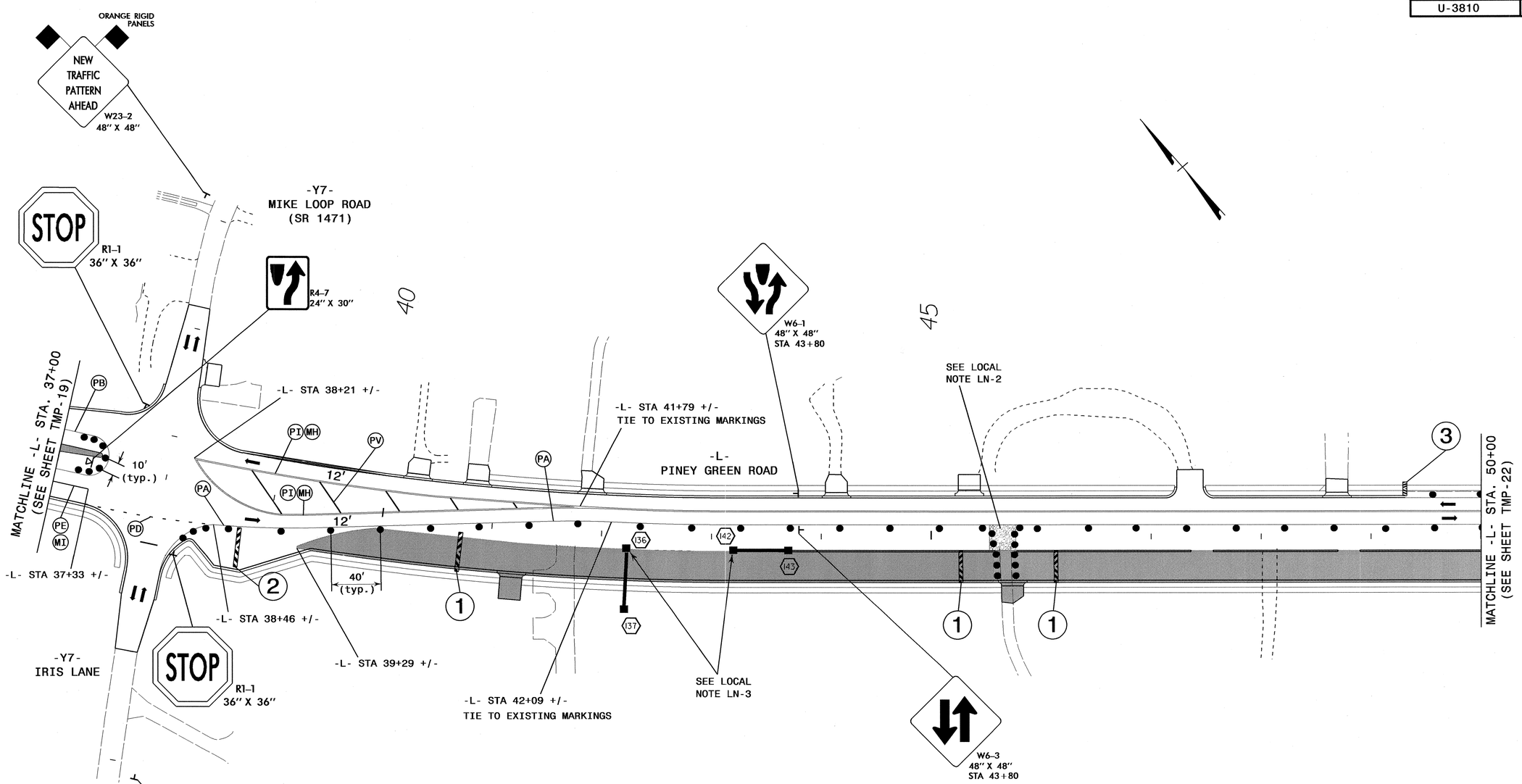

1

R11-2
48" x 30"

TYPE III BARRICADE

2

TYPE III BARRICADE

3

TYPE III BARRICADE
(EXISTING)

AREA 1

APPROVED: J. Todd Brooks DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:58
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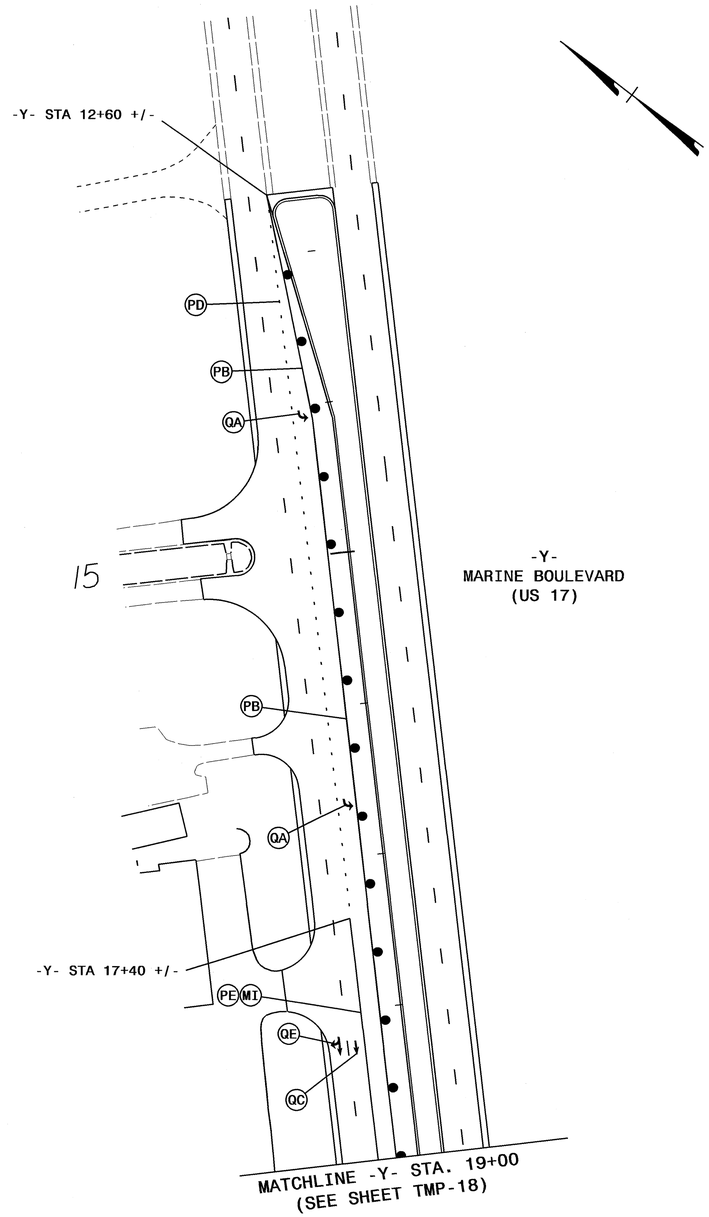
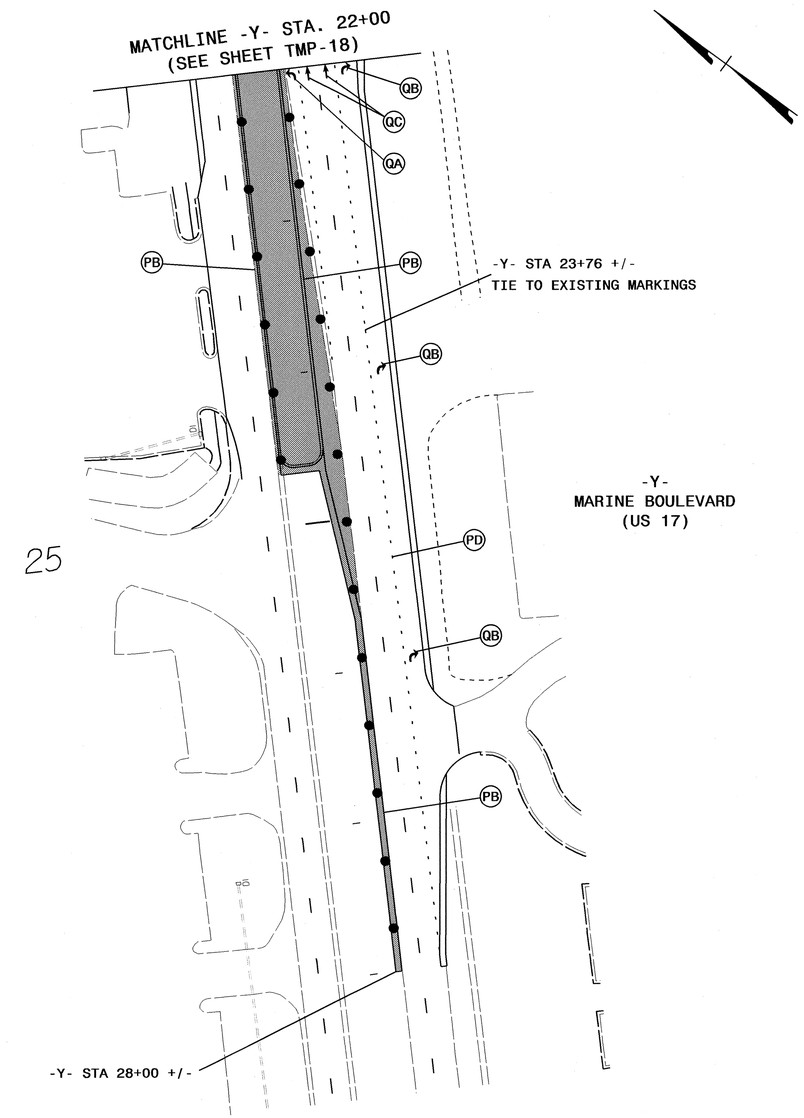
PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-21





AREA 1

APPROVED: J. Todd Brooks DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:58
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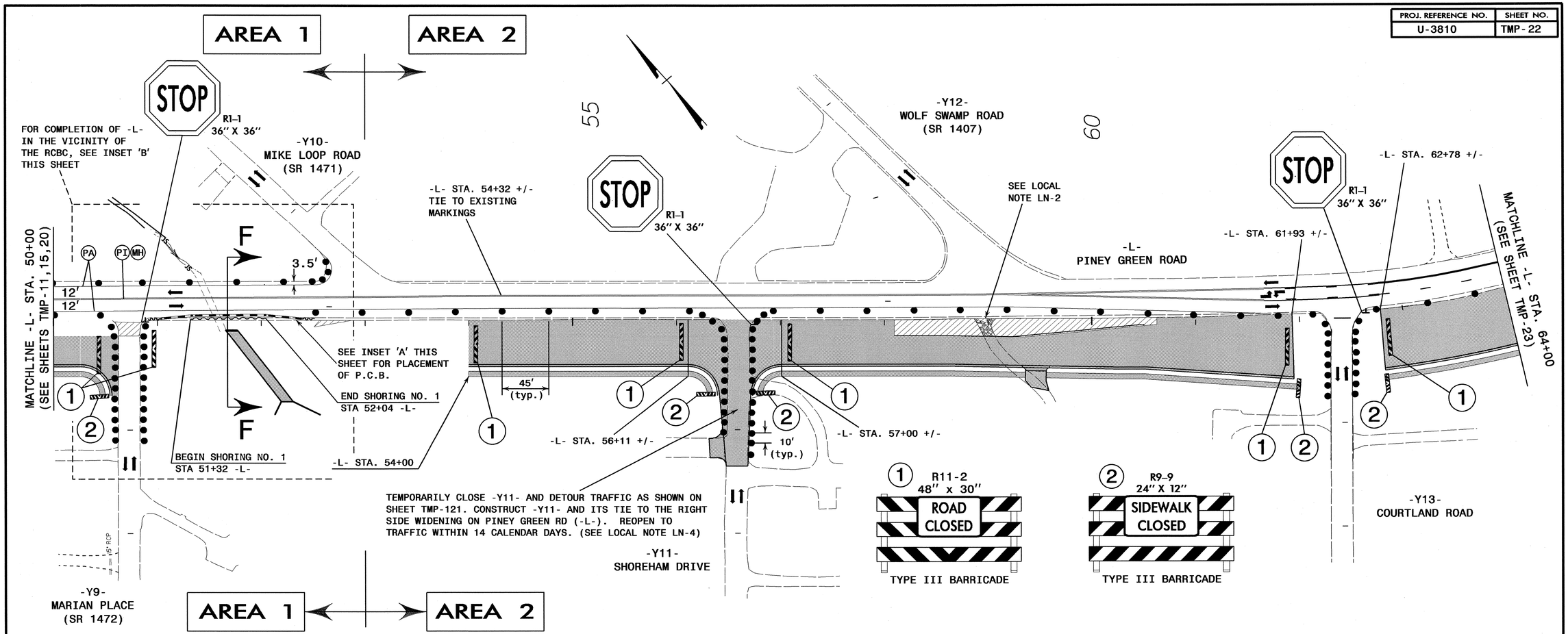
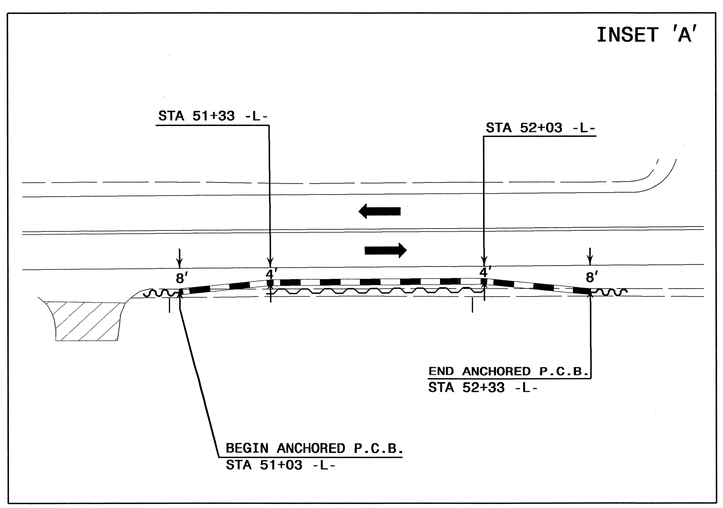
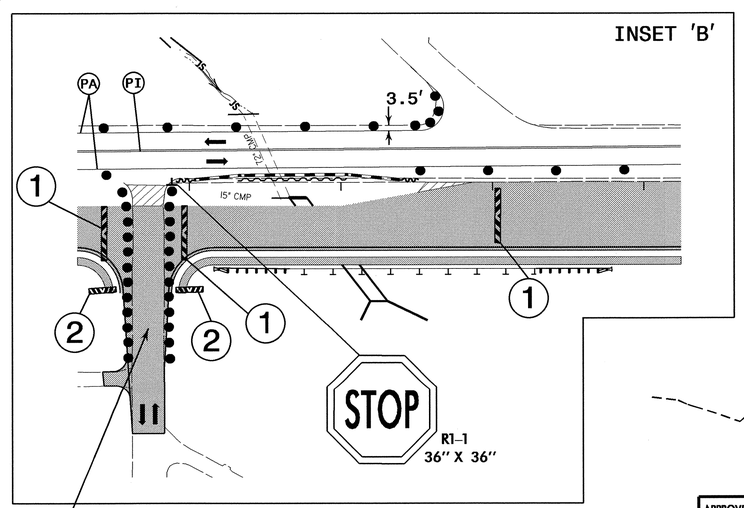
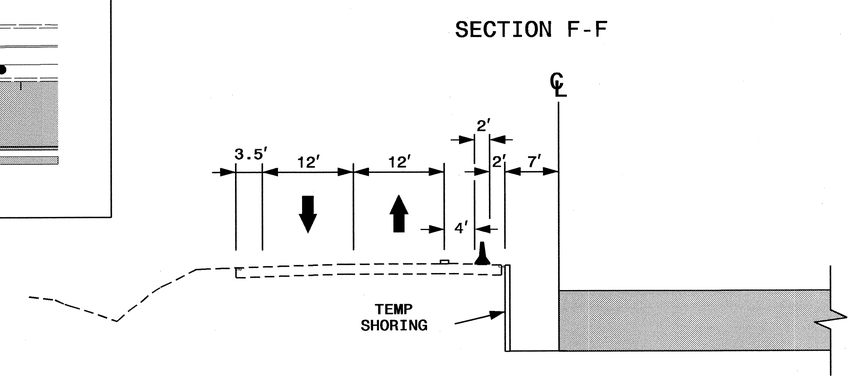
PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-22









TEMPORARILY CLOSE -Y9- AND DETOUR TRAFFIC AS SHOWN ON SHEET TMP-121 TO RE-CONSTRUCT -Y9- AND ITS TIE TO PINEY GREEN RD (-L-) WITHIN 14 CALENDAR DAYS. (SEE LOCAL NOTE LN-4)

AREAS 1 & 2

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310 RALEIGH, NORTH CAROLINA 27609 (919) 876-6888 NCBEES #F-0326

APPROVED: DATE: 9/6/12

SEAL

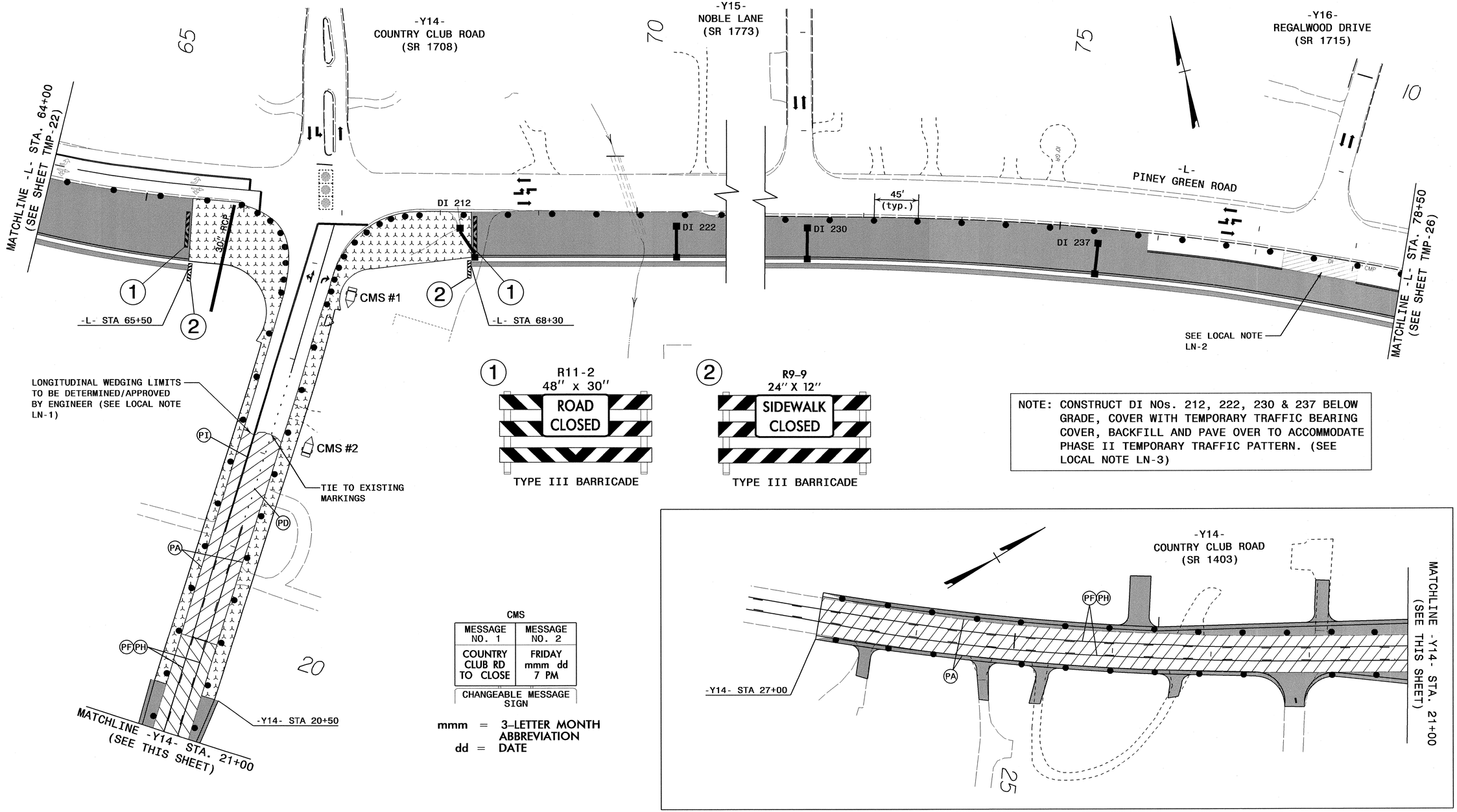
NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

07-AUG-2012 10:36
Q:\Transportation\Traffic\Curr\U0002610 - U-3810 Piney Green Rd\TCP\U3810_TC_TCP_022.dgn
12054 AT RAL2UA430770

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-23



1 R11-2
48" x 30"

TYPE III BARRICADE

2 R9-9
24" X 12"

TYPE III BARRICADE

NOTE: CONSTRUCT DI NOs. 212, 222, 230 & 237 BELOW GRADE, COVER WITH TEMPORARY TRAFFIC BEARING COVER, BACKFILL AND PAVE OVER TO ACCOMMODATE PHASE II TEMPORARY TRAFFIC PATTERN. (SEE LOCAL NOTE LN-3)

CMS

MESSAGE NO. 1	MESSAGE NO. 2
COUNTRY CLUB RD TO CLOSE	FRIDAY mmm dd 7 PM

CHANGEABLE MESSAGE SIGN

mmm = 3-LETTER MONTH ABBREVIATION
dd = DATE

SHADING KEY

- LONGITUDAL PAVEMENT WEDGING
- GRADING & EMBANKMENT UP TO EDGE AND ELEVATION OF EXISTING TRAVEL WAY
- PROPOSED CONSTRUCTION

AREA 2

APPROVED: DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

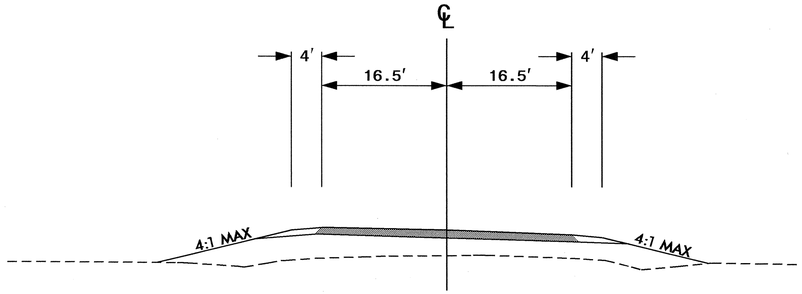
PHASE I DETAIL

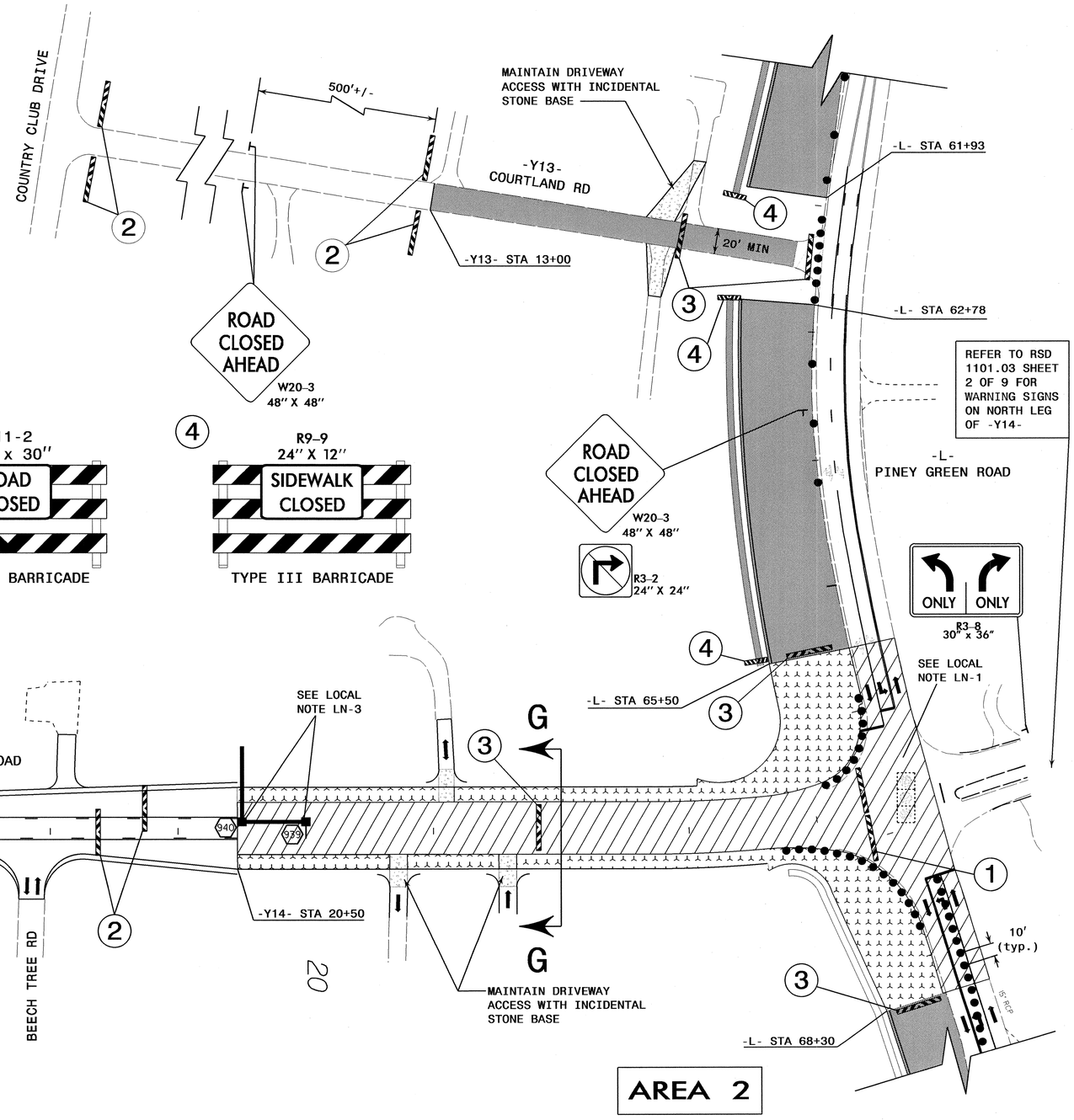
ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 10:19
O:\Transportation\Traffic\Curr\U00026\U - U-3810 Piney Green Rd\TCP\U3810_TC_TCP_023.dgn
12054 AT RALZUA30TTD

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-24

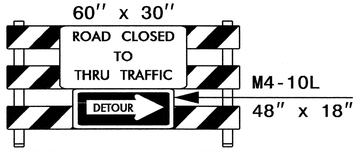
SECTION G-G





1

R11-4
60" x 30"



TYPE III BARRICADE

2

R11-4
60" x 30"

TYPE III BARRICADE

3

R11-2
48" x 30"

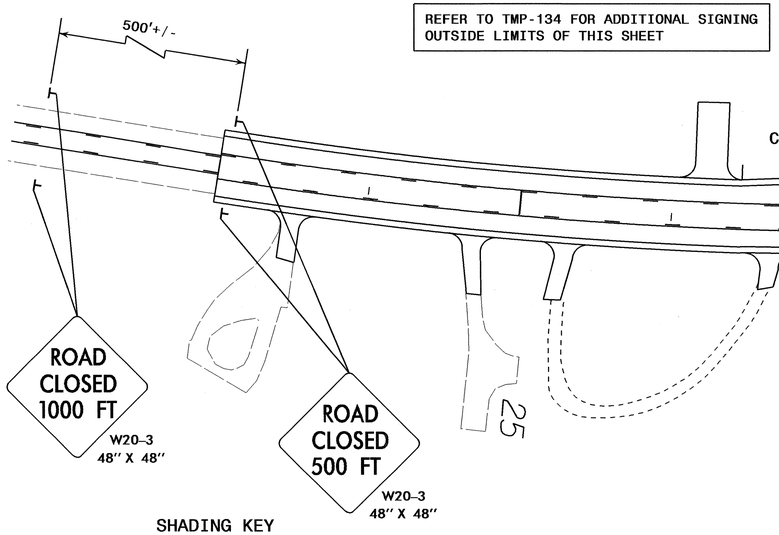
TYPE III BARRICADE

4

R9-9
24" X 12"

TYPE III BARRICADE

REFER TO TMP-134 FOR ADDITIONAL SIGNING OUTSIDE LIMITS OF THIS SHEET



SHADING KEY

- PAVEMENT WEDGING
- GRADING & EMBANKMENT UP TO EDGE AND ELEVATION OF EXISTING TRAVEL WAY
- PROPOSED CONSTRUCTION

AREA 2

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

APPROVED: DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

22-MAY-2012 10:24
G:\Transportation\Traffic\Curr\U0026110 - U-3810 Piney Green Rd\TCP\U3810_TC_TCP_024.dgn
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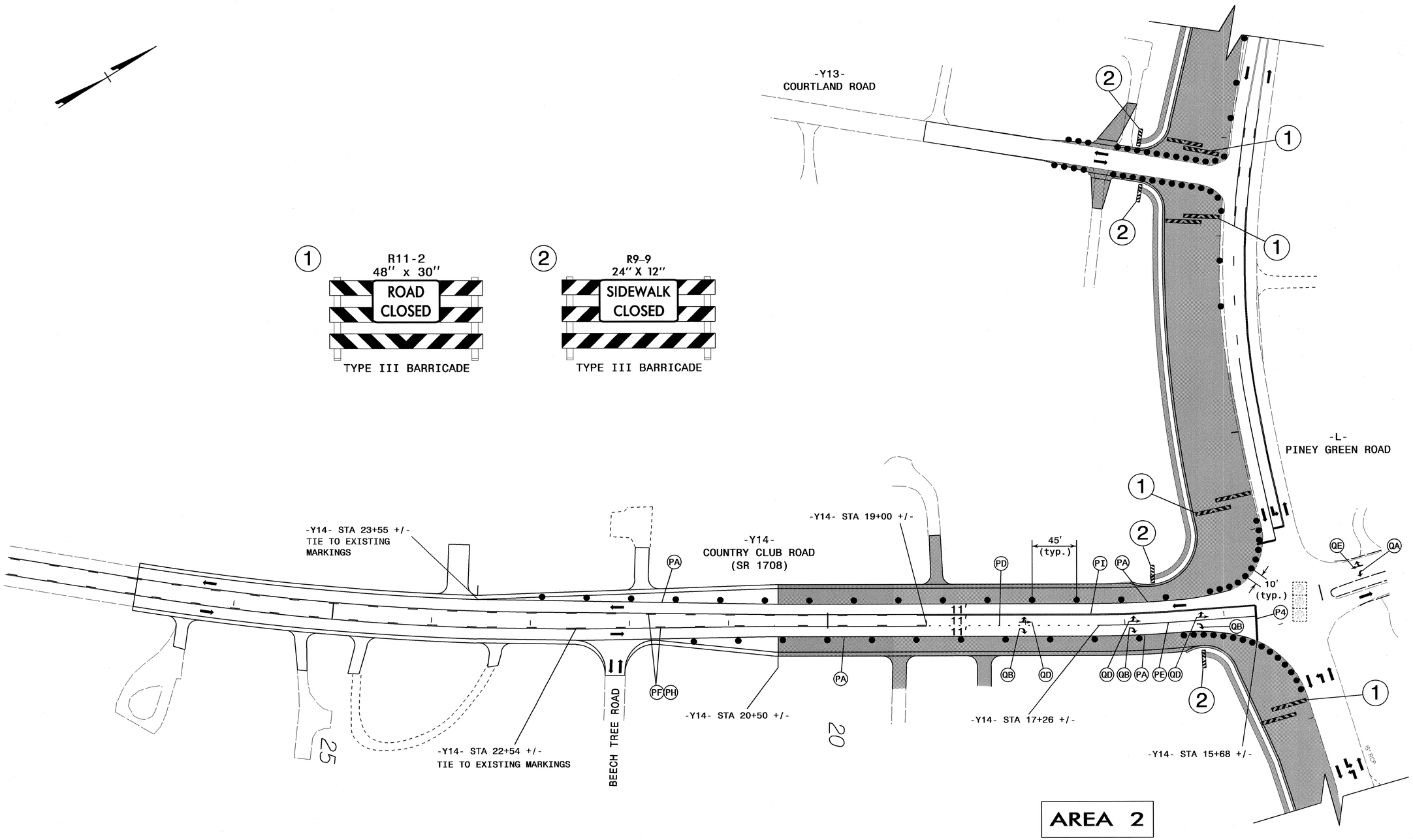
PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-25



AREA 2

APPROVED: DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

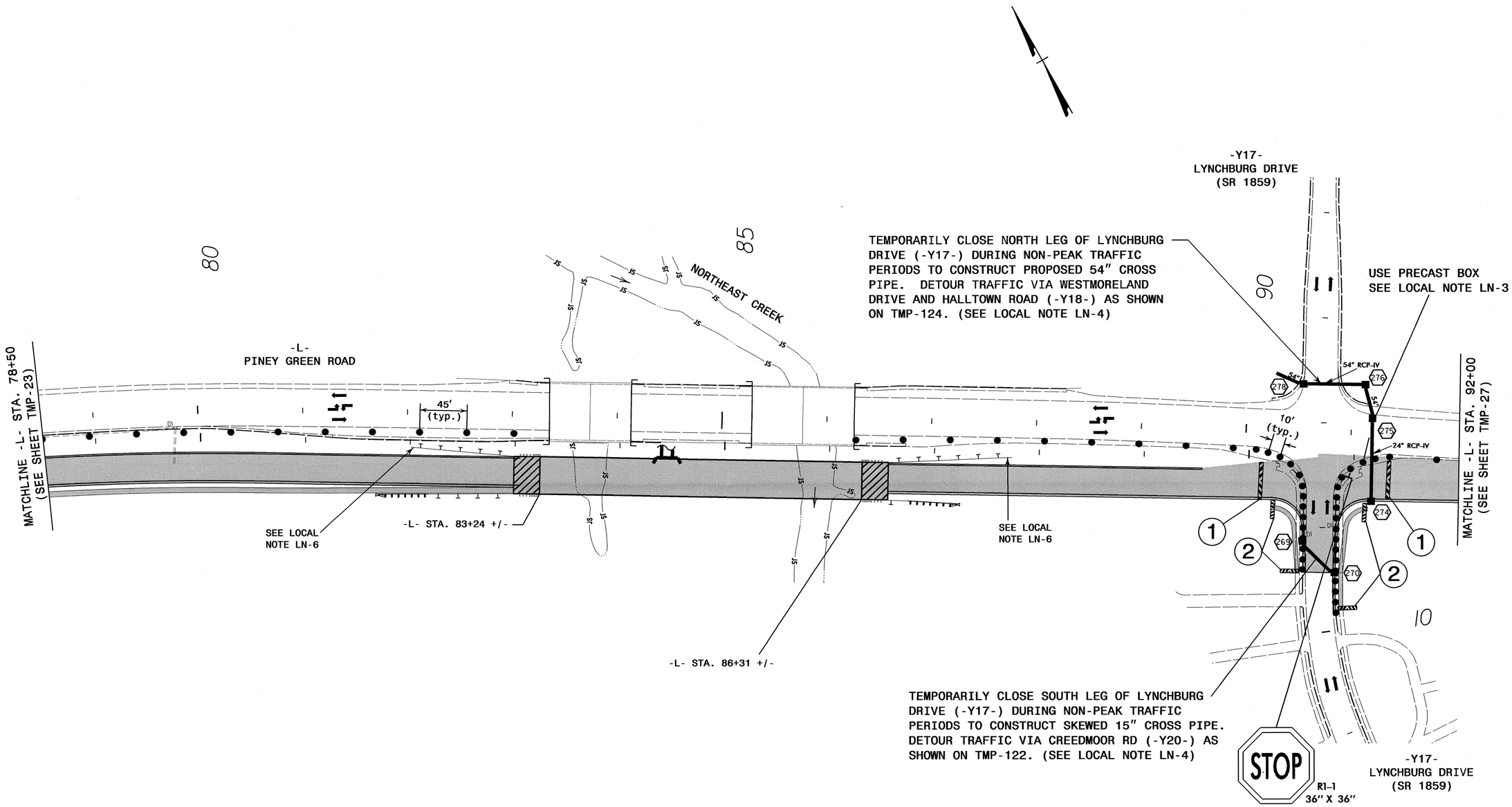
DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

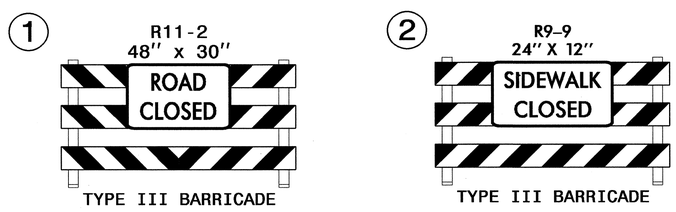
PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:59
O:\Transportation\Traffic\Curr\U00026110 - U-3810 Piney Green Rd\TCP\U3810_TC_TCP_025.dgn
12054 AT RALZUAN30TTD

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-26





AREA 2

APPROVED: DATE: 8/6/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

07-AUG-2012 10:36
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12054 AT RALZUA430TTD

PROJ. REFERENCE NO.	SHEET NO.
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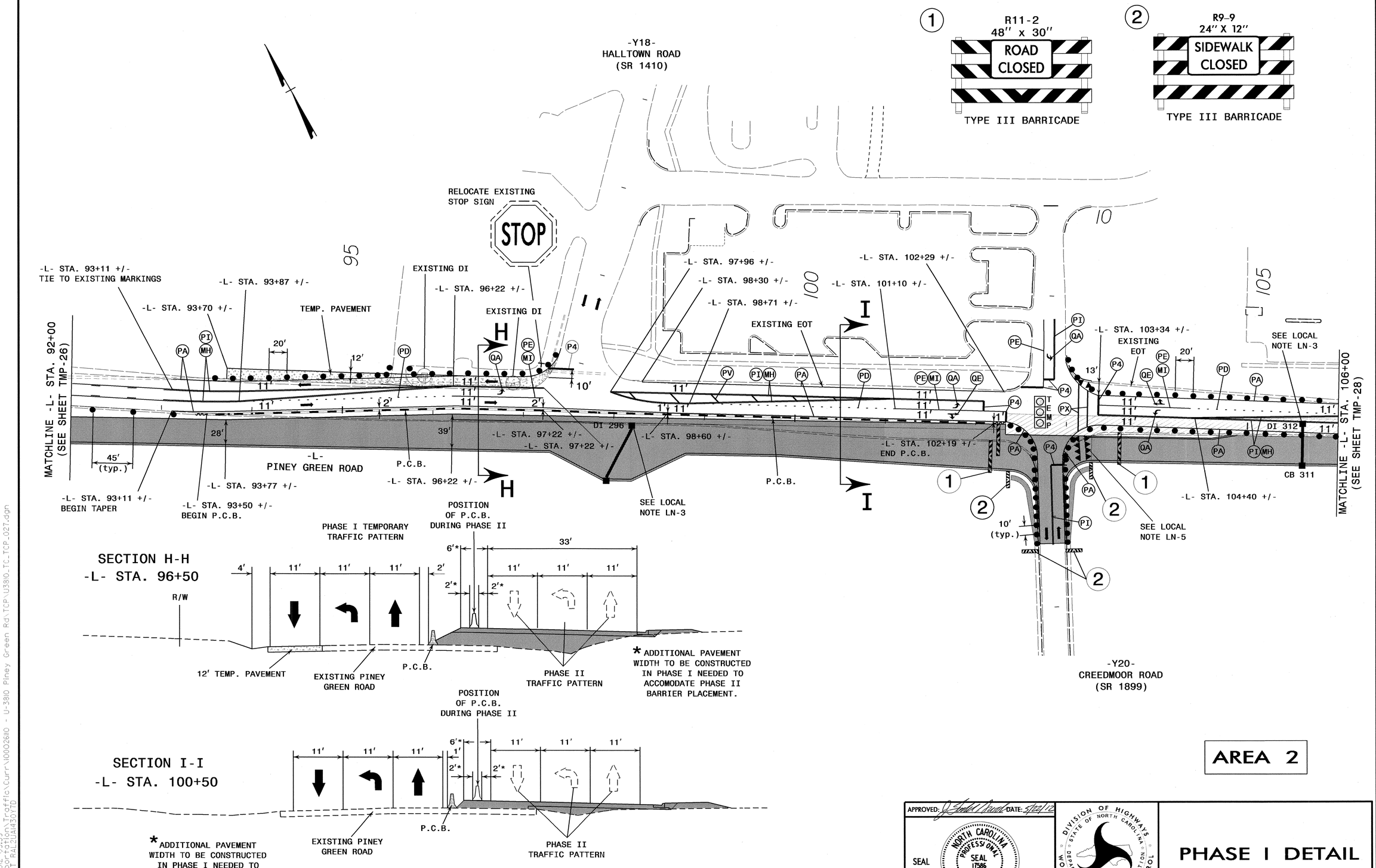

AREA 2

APPROVED: [signature] DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:59
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12054 AT RAL2UA1430YTD

PROJ. REFERENCE NO.	SHEET NO.
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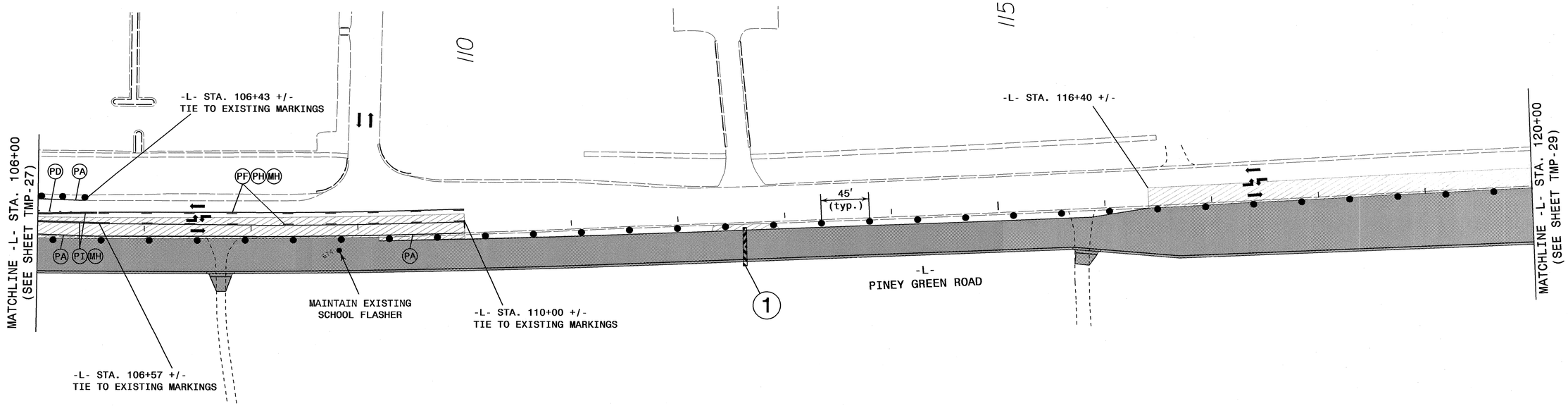

LATERAL PAVEMENT WEDGING
(SEE LOCAL NOTE LN-1)

1

R11-2
48" x 30"

TYPE III BARRICADE

AREA 2

APPROVED: DATE: 5/22/12

SEAL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:59
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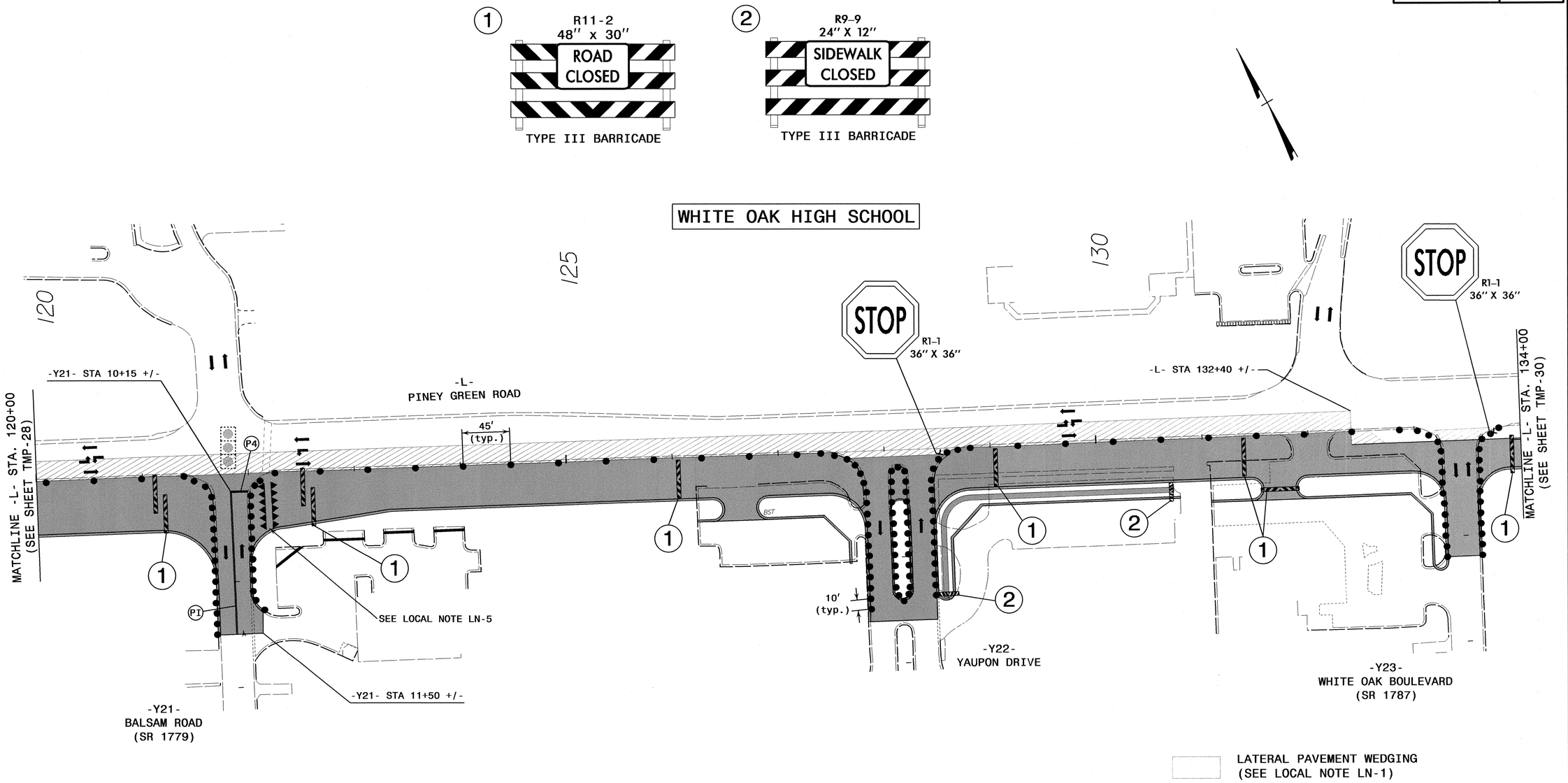
12594 AT RALEUAA3YTD

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-29



AREA 2

APPROVED: DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310 RALEIGH, NORTH CAROLINA 27609 (919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:59
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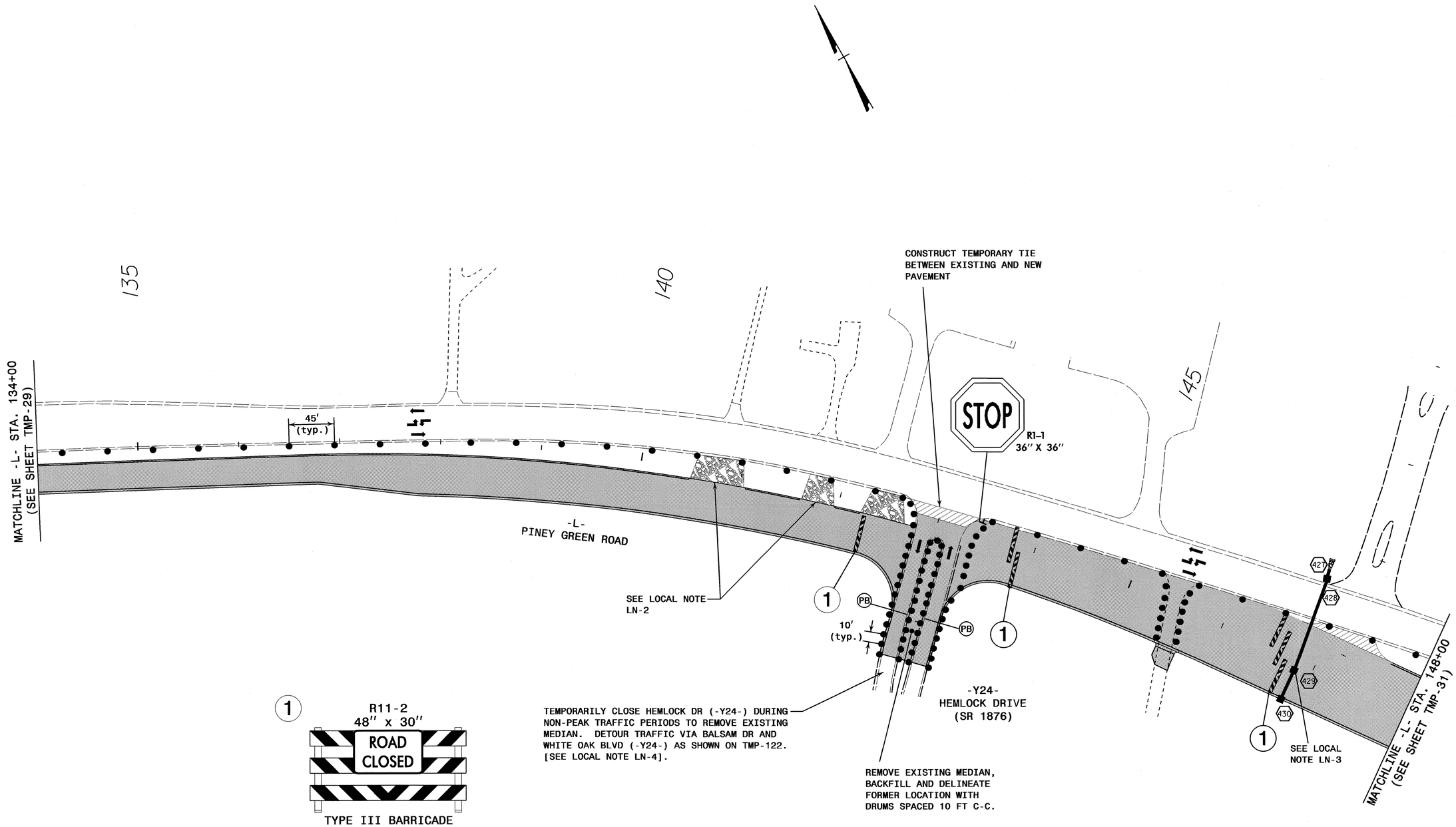
2054 AT RAL2UA450170

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-30



AREA 2

APPROVED: DATE: 8/6/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

07-AUG-2012 10:37
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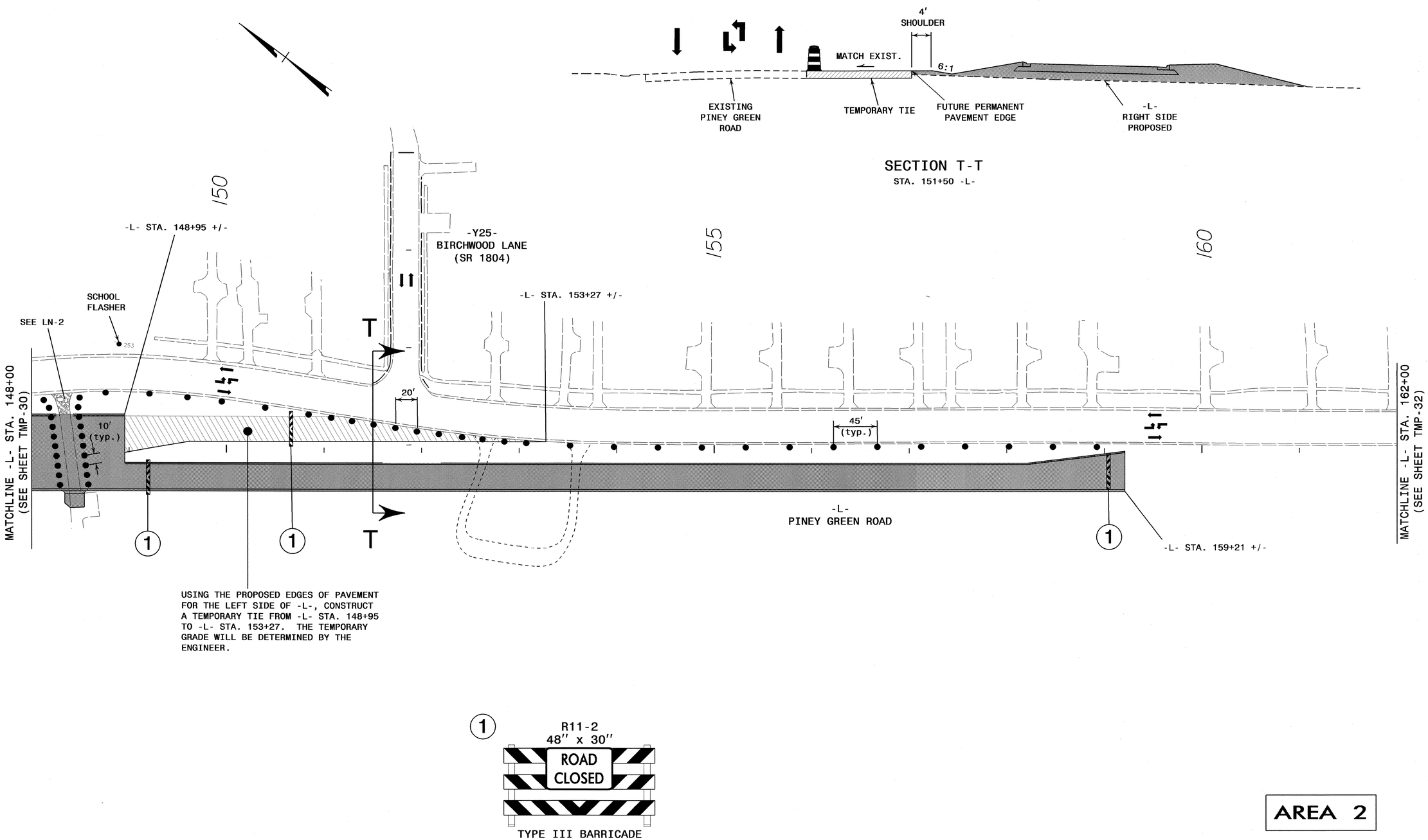
2054 AT RAL2UA430YTD

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-31



AREA 2

APPROVED: [signature] DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

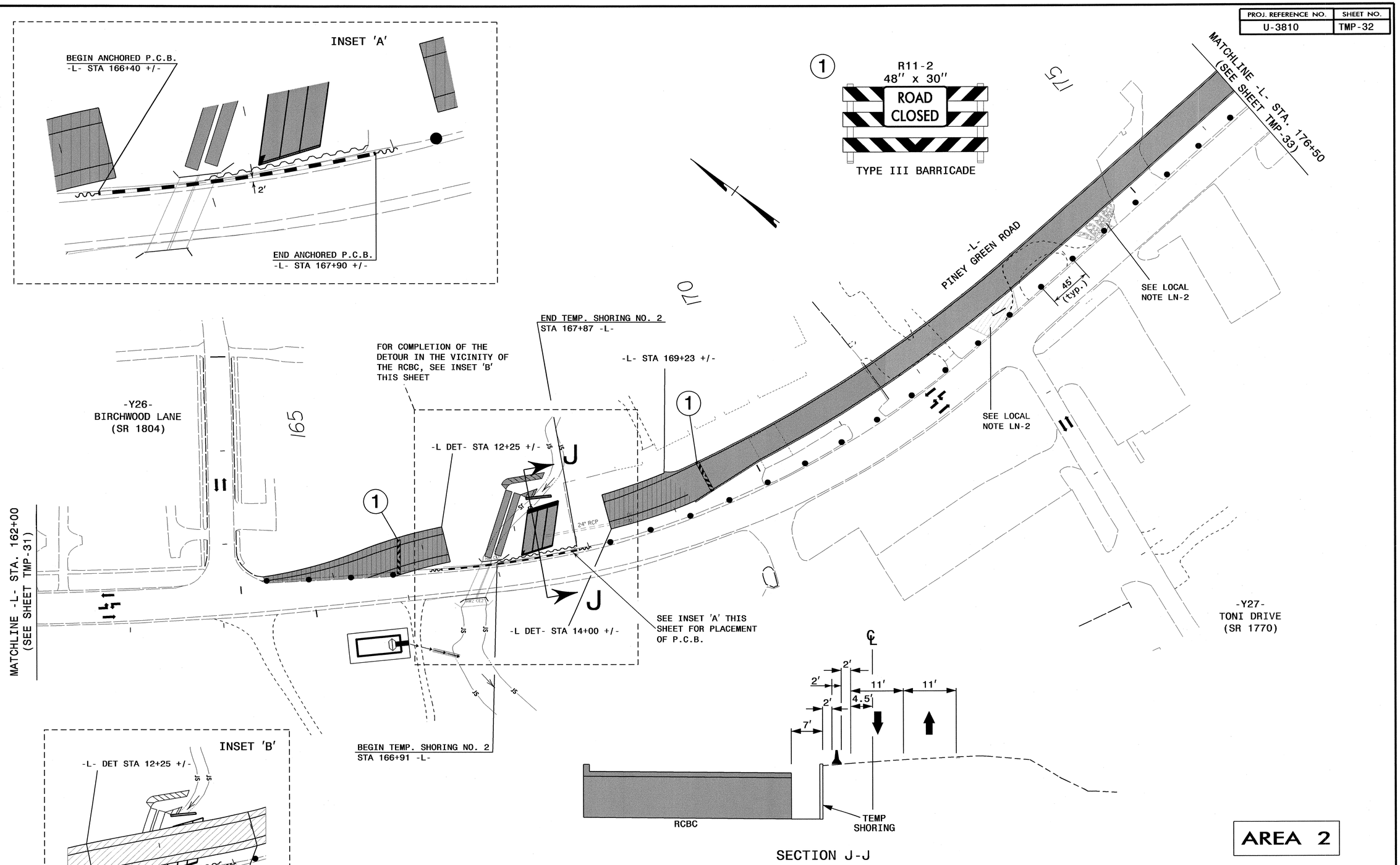
DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:59
O:\Transportation\Traffic\Curr\100026110 - U-3810 Piney Green Rd\TCP\U3810_TC_TCP_031.dgn
12054 AT RAL2UA1430YTD

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-32



AREA 2

APPROVED: DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:59
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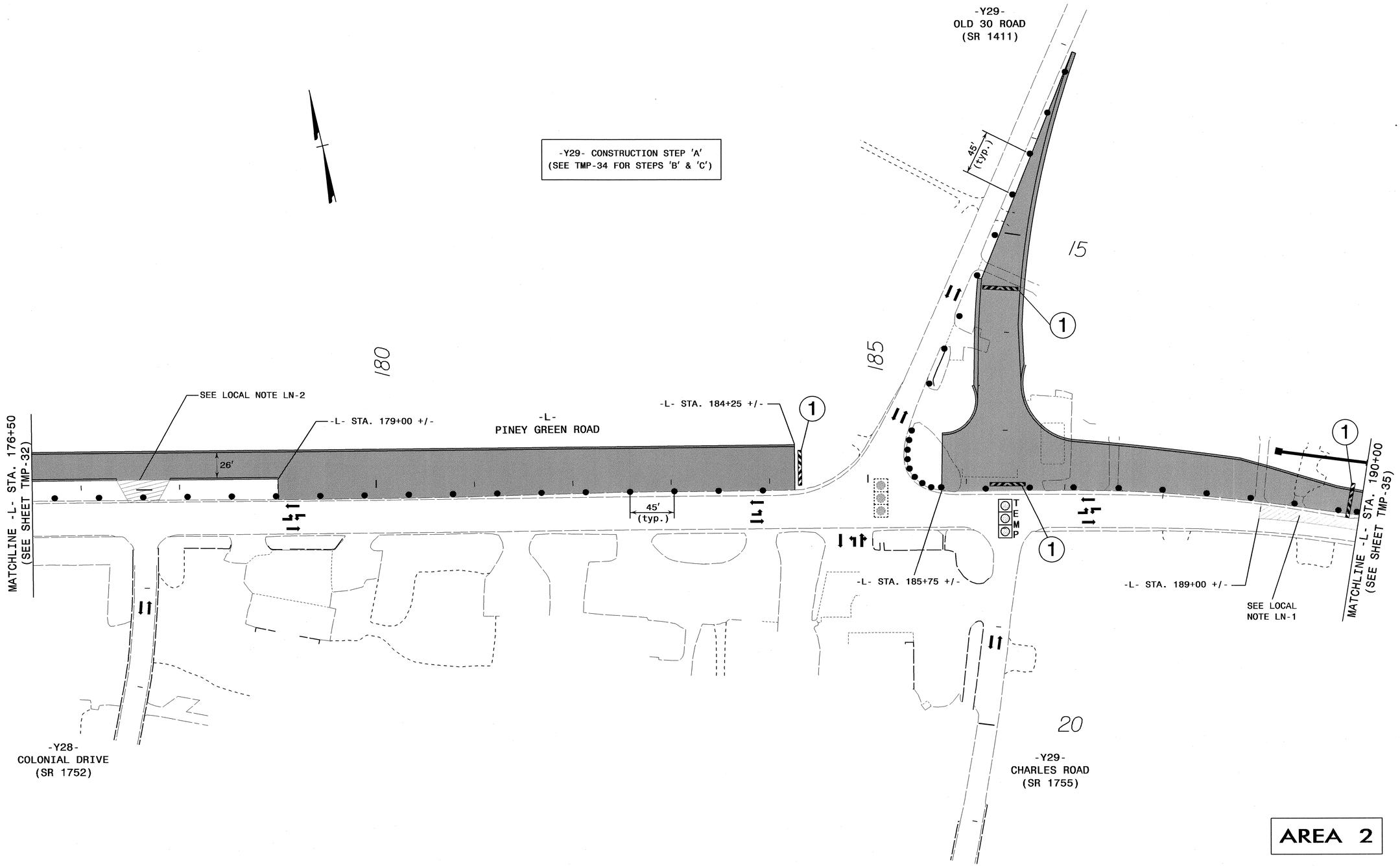
PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-33



AREA 2

APPROVED: [signature] DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:59
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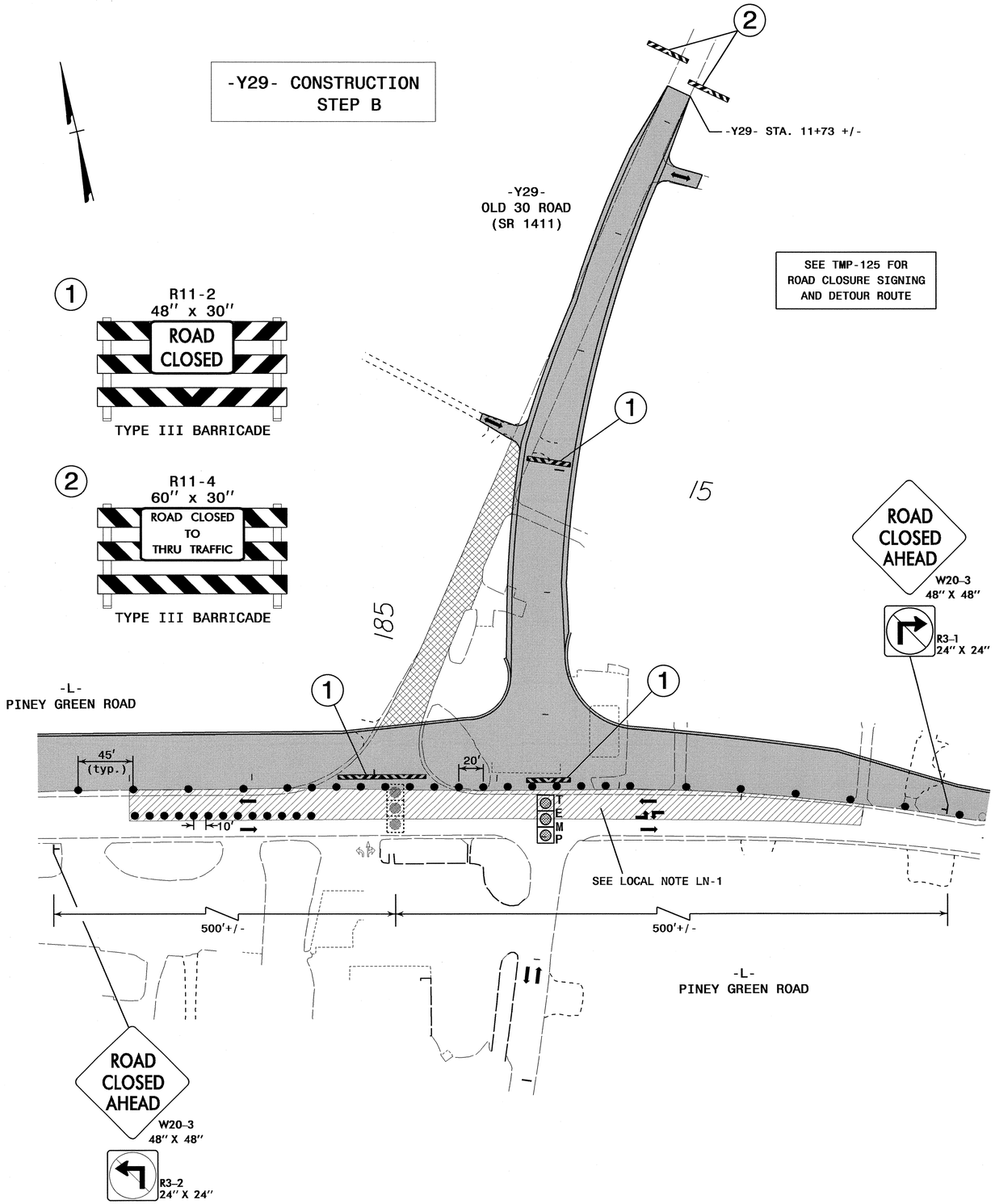
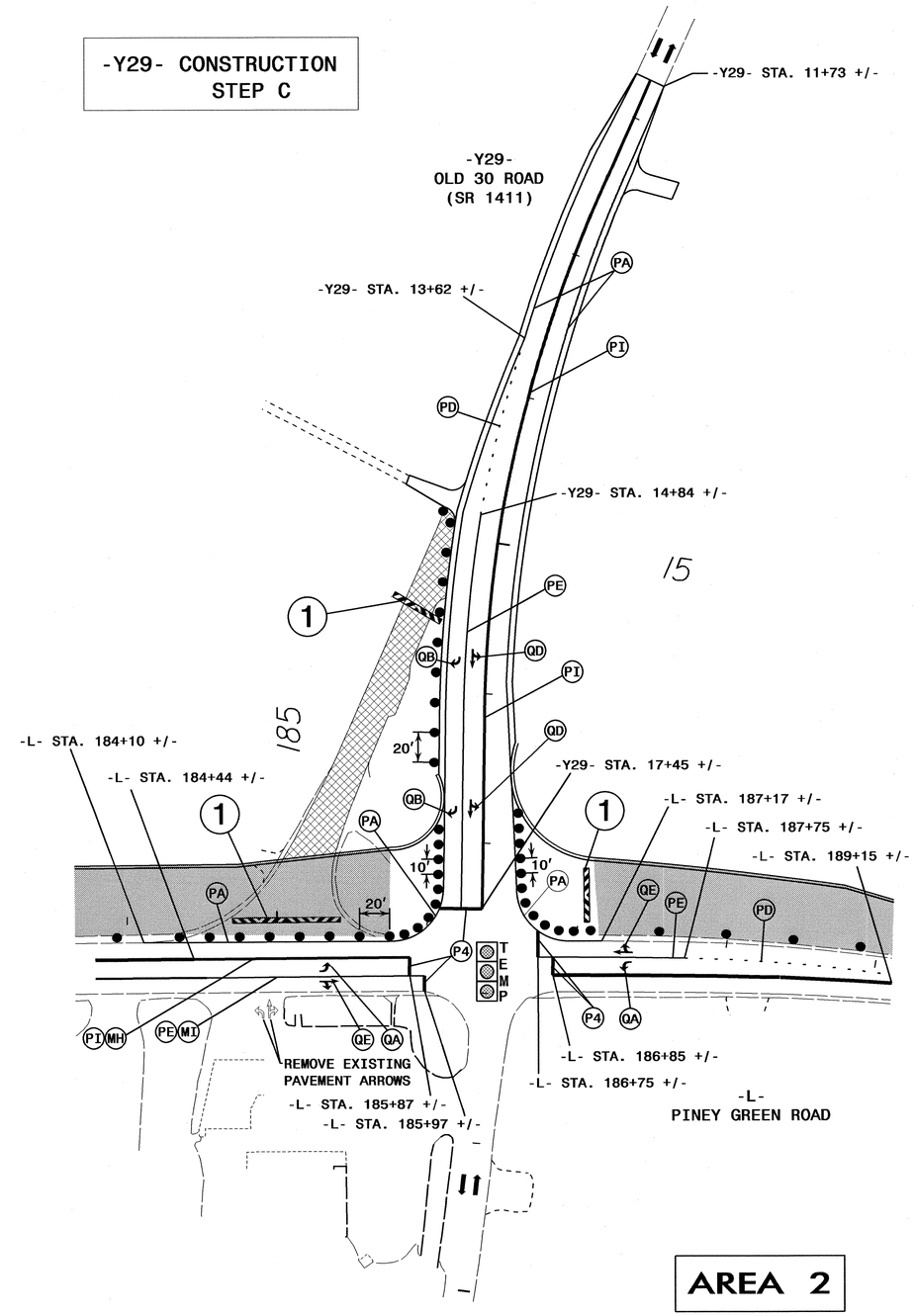
12054 AT RAL2UA1430Y7D

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-34

-Y29- CONSTRUCTION STEP B



-Y29- CONSTRUCTION STEP C



AREA 2

APPROVED: DATE: 8/6/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER TODD BROOKS

DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

07-AUG-2012 10:37
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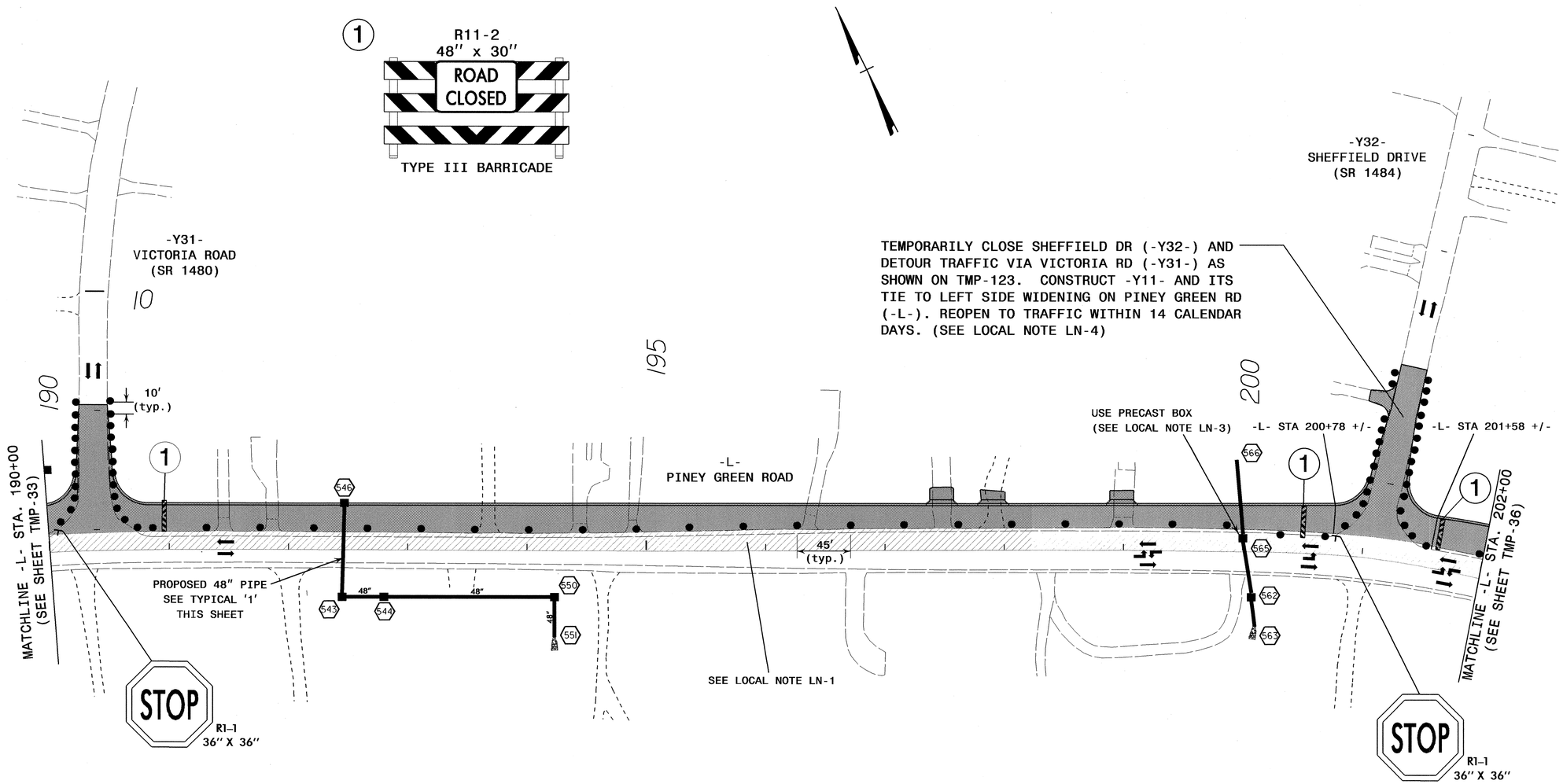
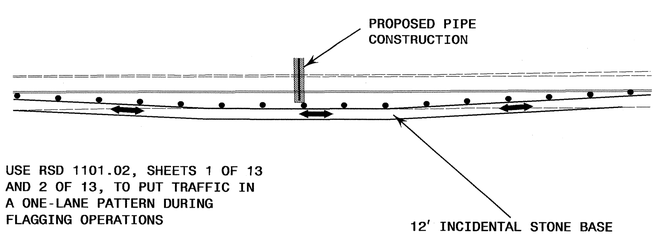
PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-35



TYPICAL '1'

ON-SITE DETOUR
TO BE USED DURING
PIPE PLACEMENT



USE RSD 1101.02, SHEETS 1 OF 13
AND 2 OF 13, TO PUT TRAFFIC IN
A ONE-LANE PATTERN DURING
FLAGGING OPERATIONS

AREA 2

APPROVED: [signature] DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

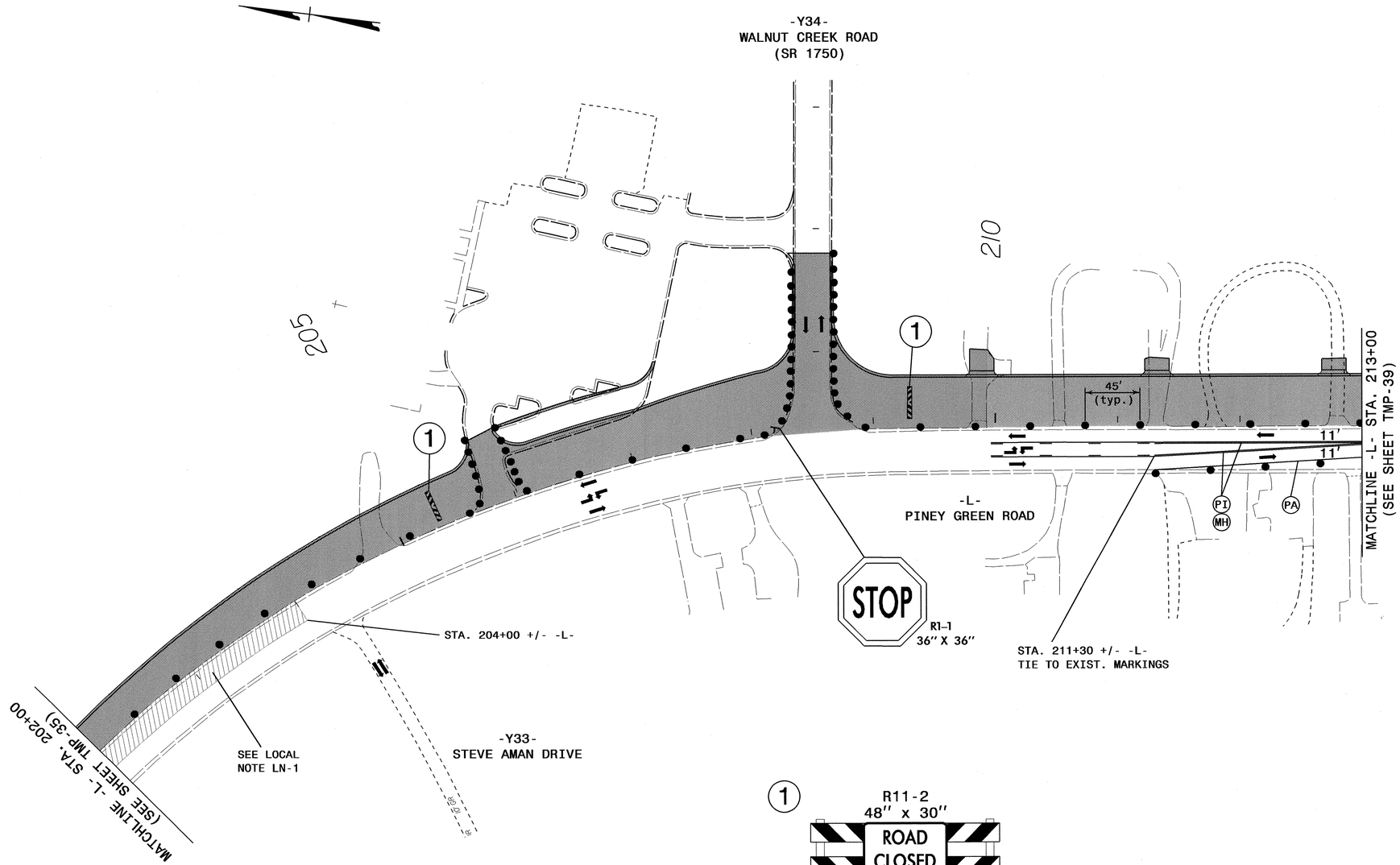
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:59
O:\Transportation\Traffic\Curr\100026110 - U-3810 Piney Green Rd\TCP\U3810_TC_TCP_035.dgn
12054 AT RALEUA1430Y7D

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-36



AREA 2

APPROVED: DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

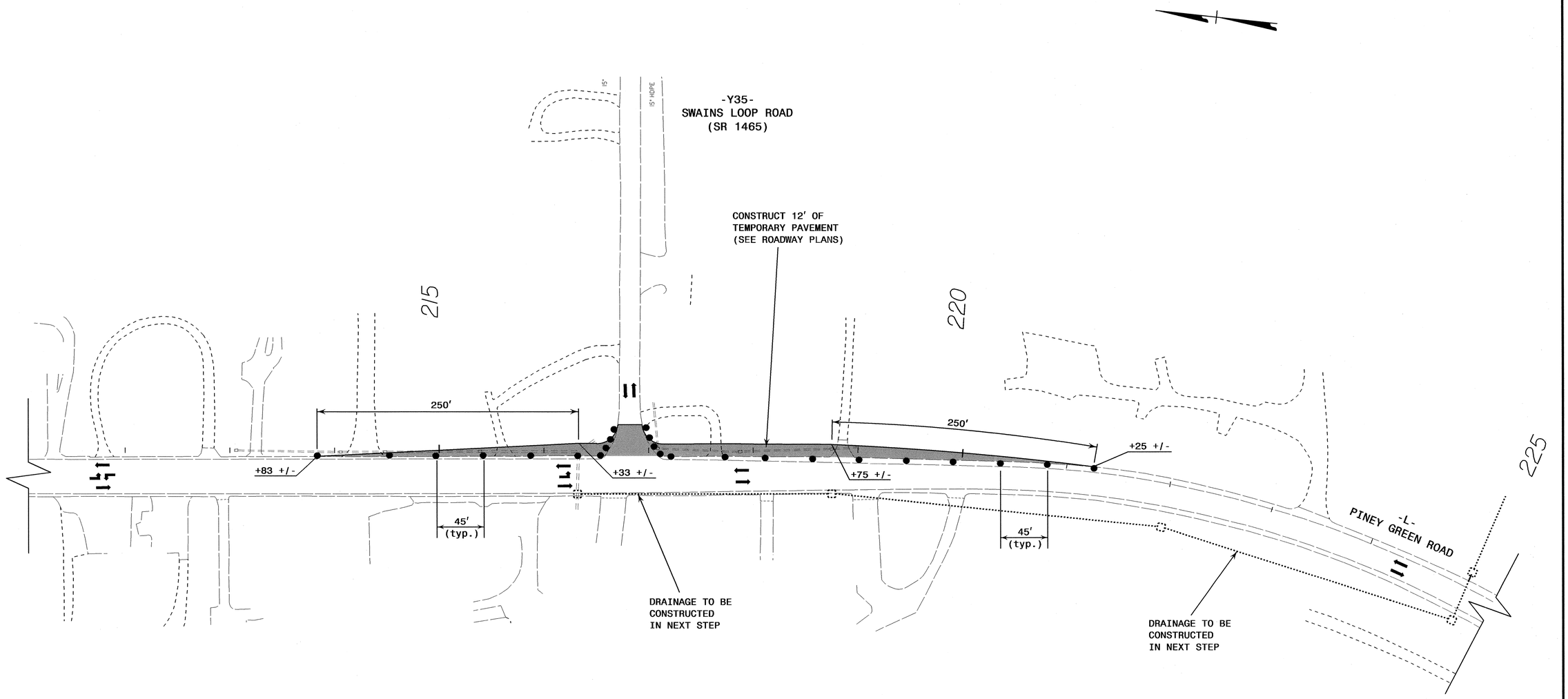
DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:59
O:\Transportation\Traffic\Curr\100026110 - U-3810 Piney Green Rd\TCP\U3810_TC_TCP_036.dgn
12054 AT RAL2UA1430YTD

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-37



AREA 2

APPROVED: DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:59
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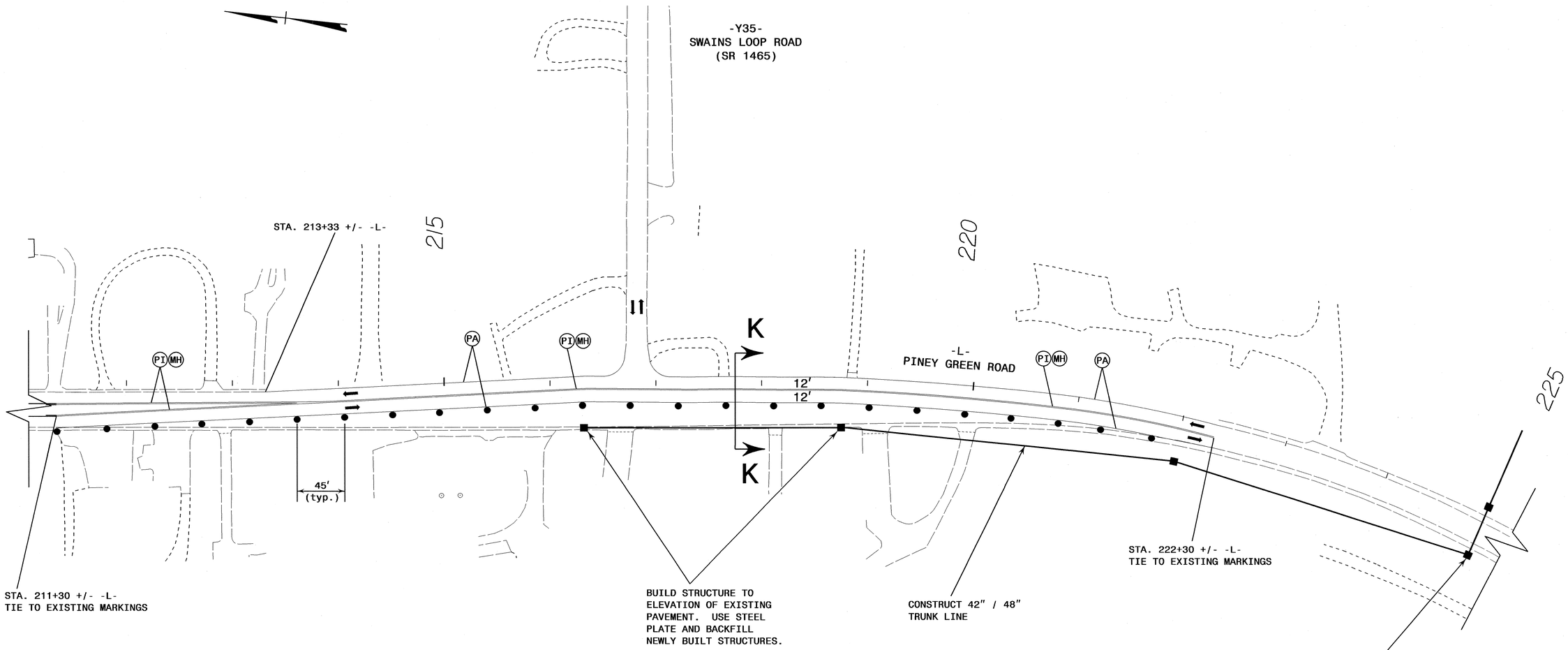
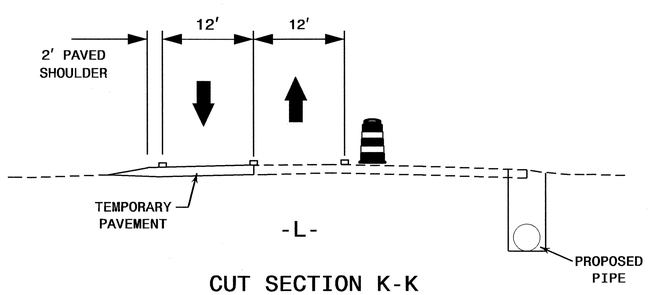
PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-38





CUT SECTION K-K

AREA 2

APPROVED: DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:59
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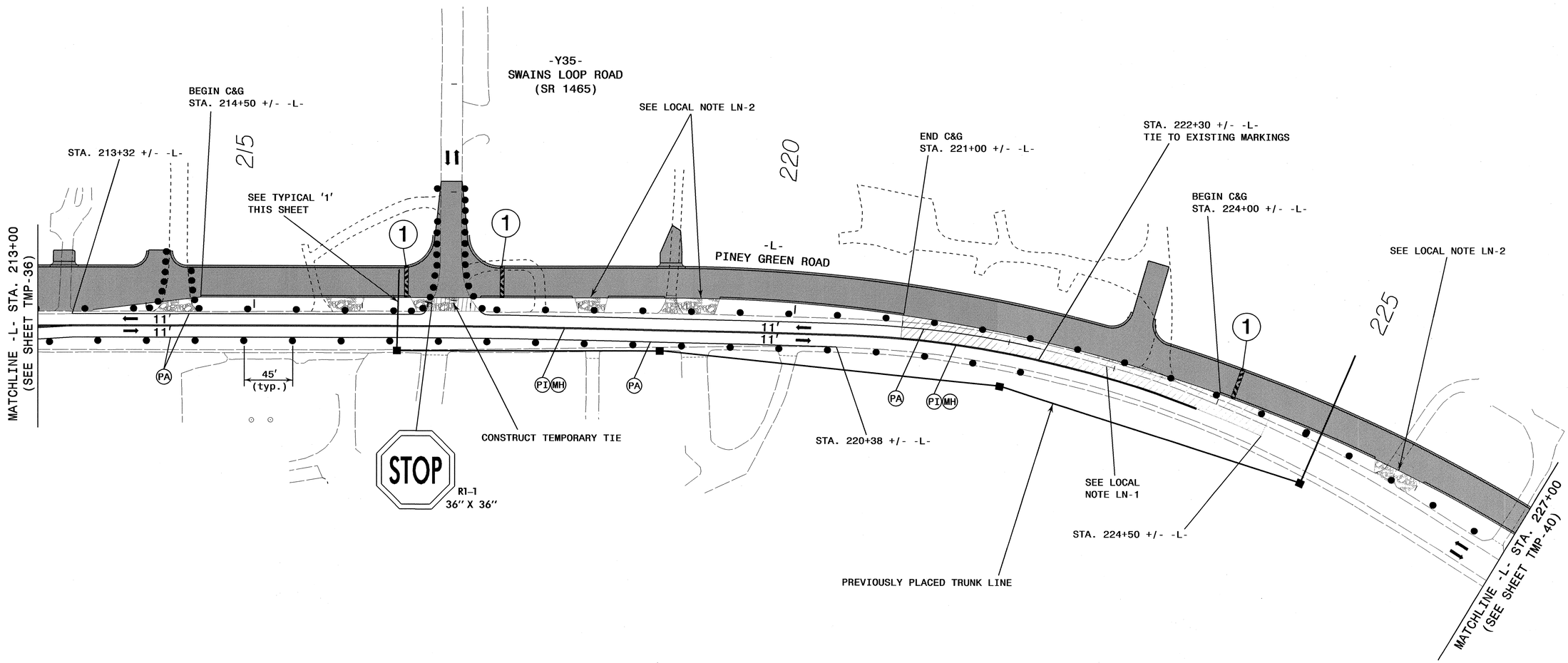
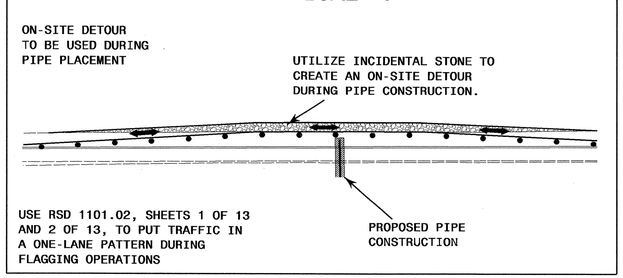
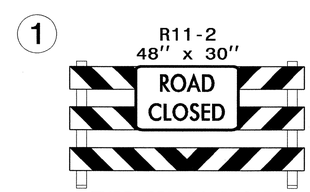
2054 AT RALZDAN30\TD

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-39



TYPICAL '1'





TYPE III BARRICADE

AREA 2

APPROVED: [signature] DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

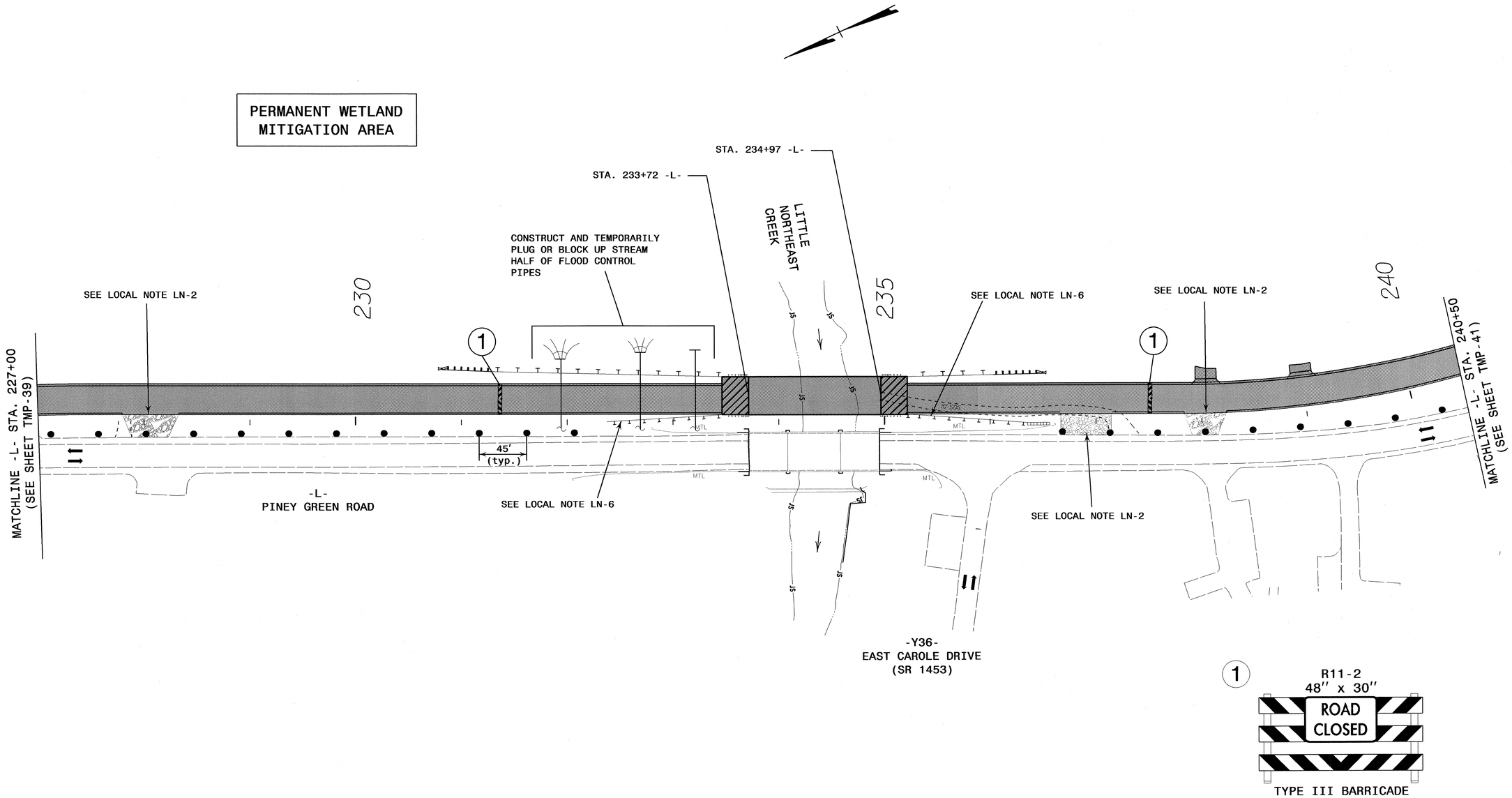
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:59
O:\Transportation\Traffic\Curr\100026110 - U-3810 Piney Green Rd\TCP\U3810_TC_TCP_039.dgn
12054 AT RAL2UA1430YTD

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-40



AREA 2

APPROVED: DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

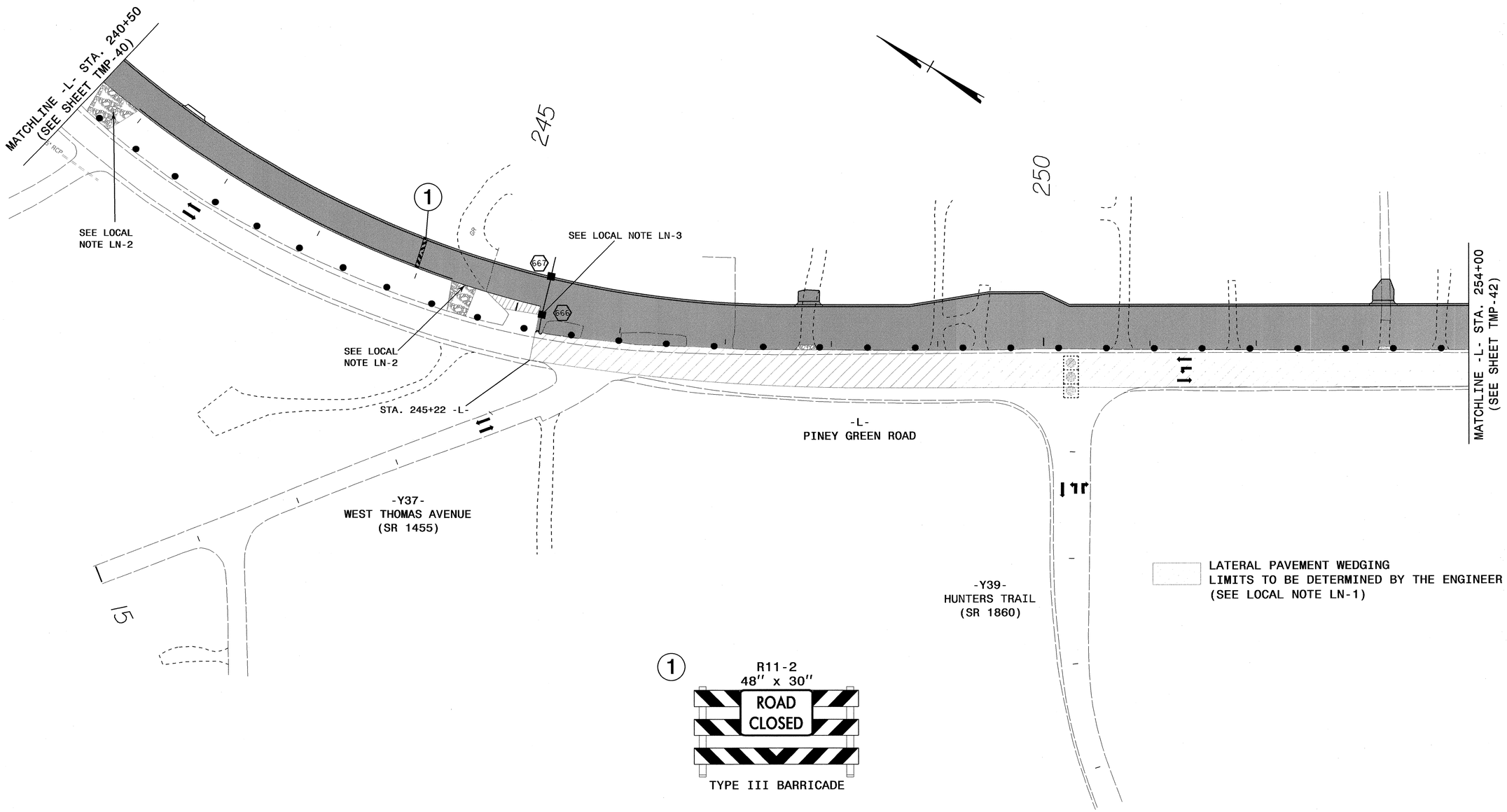
DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:59
O:\Transportation\Traffic\Curr\10002610 - U-3810 Piney Green Rd\TCP\U3810_TC_TCP_040.dgn
12054 AT RAL2UA1430YTD

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-41



AREA 2

APPROVED: DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

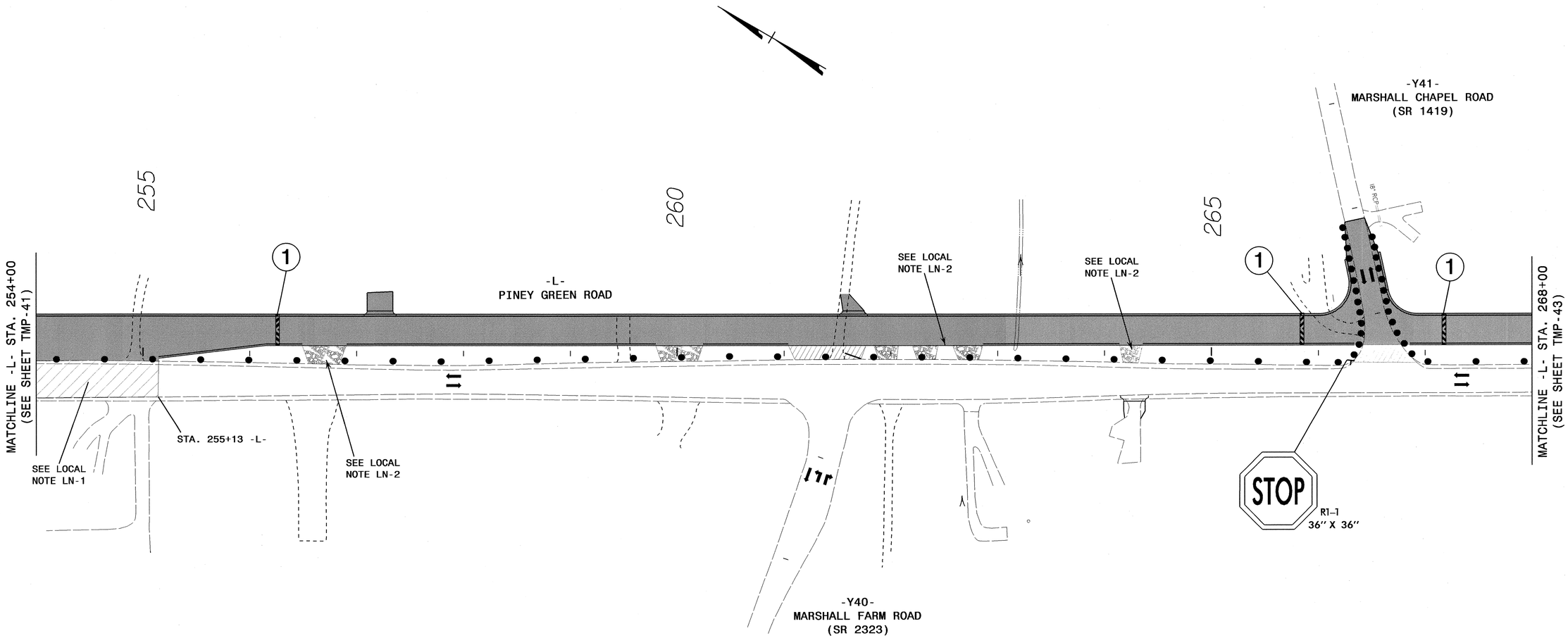
DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

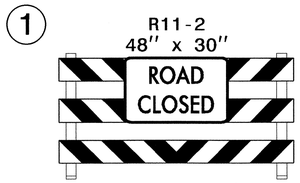
PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:59
O:\Transportation\Traffic\Curr\100026110 - U-3810 Piney Green Rd\TCP\U3810_TC_TCP_041.dgn
12054 AT RAL2UA1430Y7D

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-42





TYPE III BARRICADE

LATERAL PAVEMENT WEDGING
LIMITS TO BE DETERMINED BY THE ENGINEER

AREA 2

APPROVED: J. Todd Brooks DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

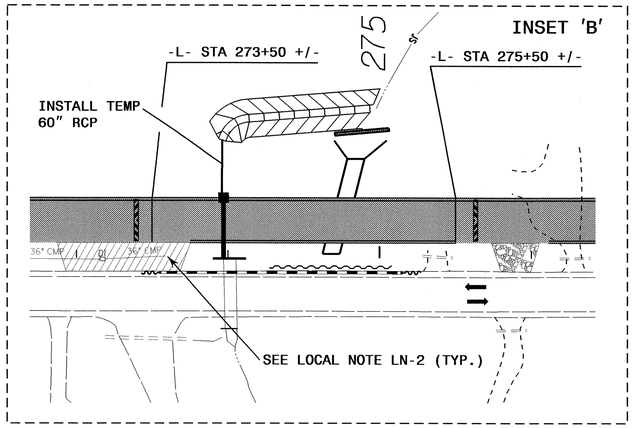
DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

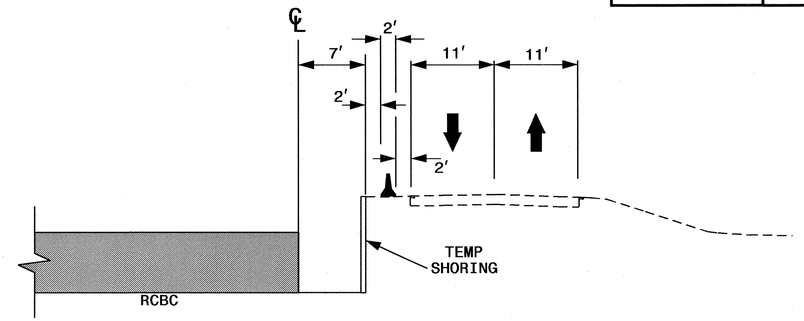
PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

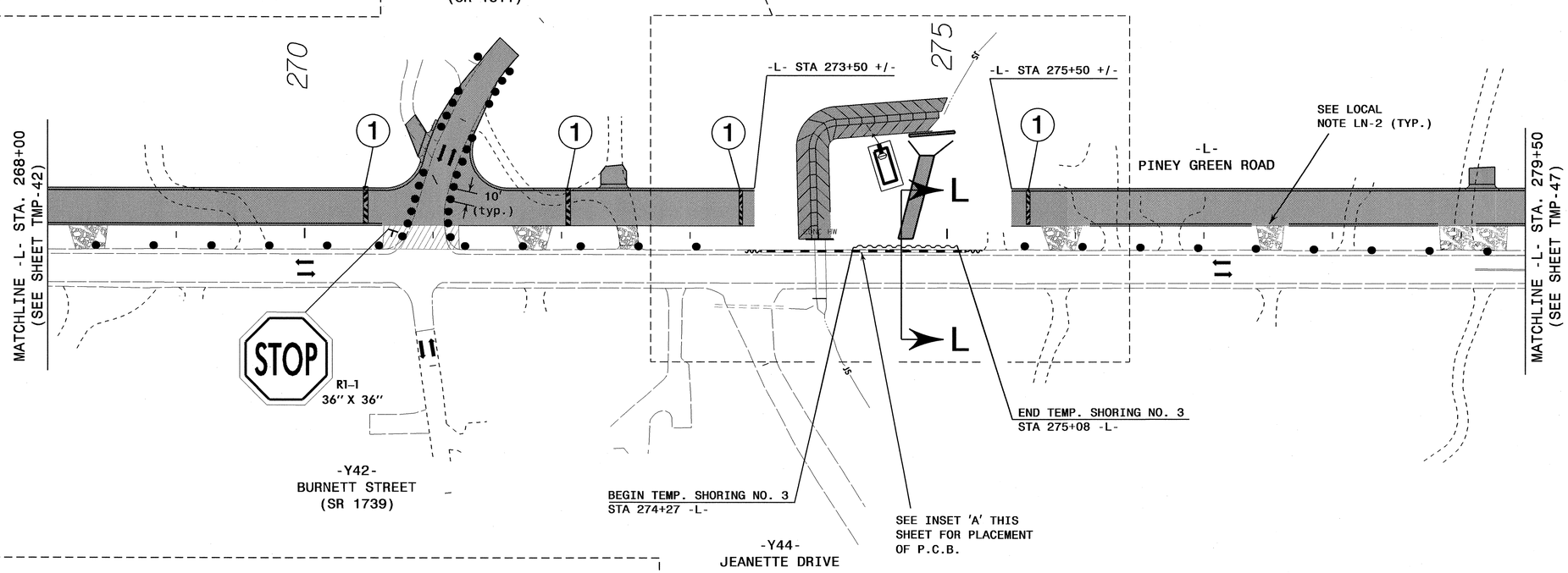
22-MAY-2012 09:59
G:\Transportation\Traffic\Curr\U00026ID - U-3810 Piney Green Rd\TCP\U3810_TC_TCP_042.dgn
12054 AT RALZUA430TD

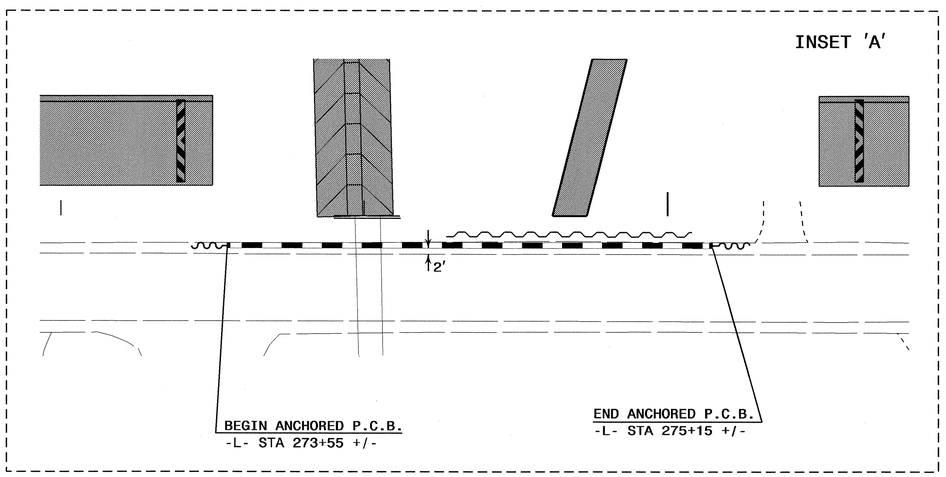
PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-43

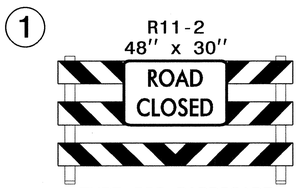




SECTION L-L







TYPE III BARRICADE

AREA 2

APPROVED: J. Todd Brooks DATE: 5/22/12

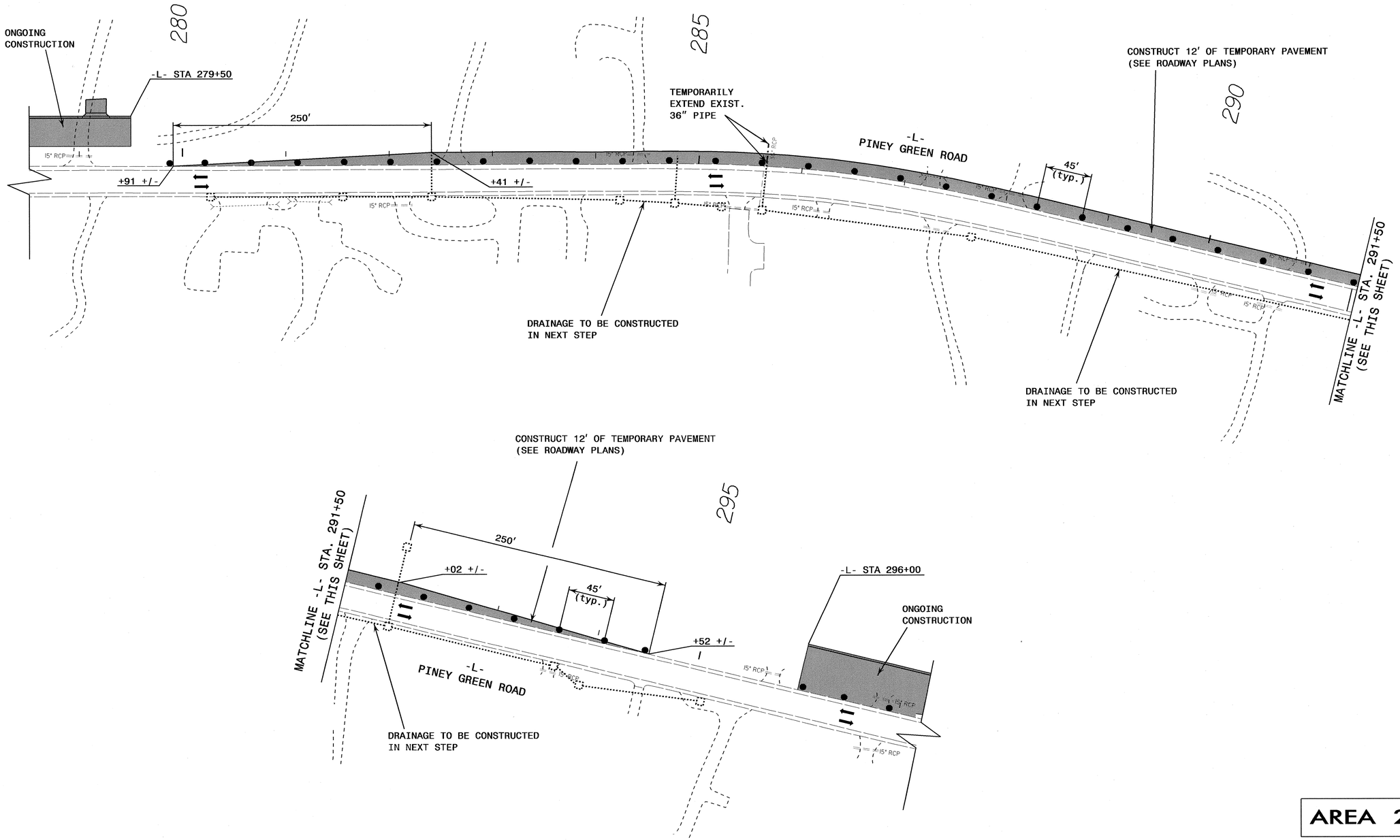
SEAL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:59
U:\Transportation\Traffic\Curr\U0002610 - U-3810 Piney Green Rd\TCP\U3810_TC_TCP_043.dgn
USER: AT-PAL2UAI30TTD

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-44



AREA 2

APPROVED: [signature] DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

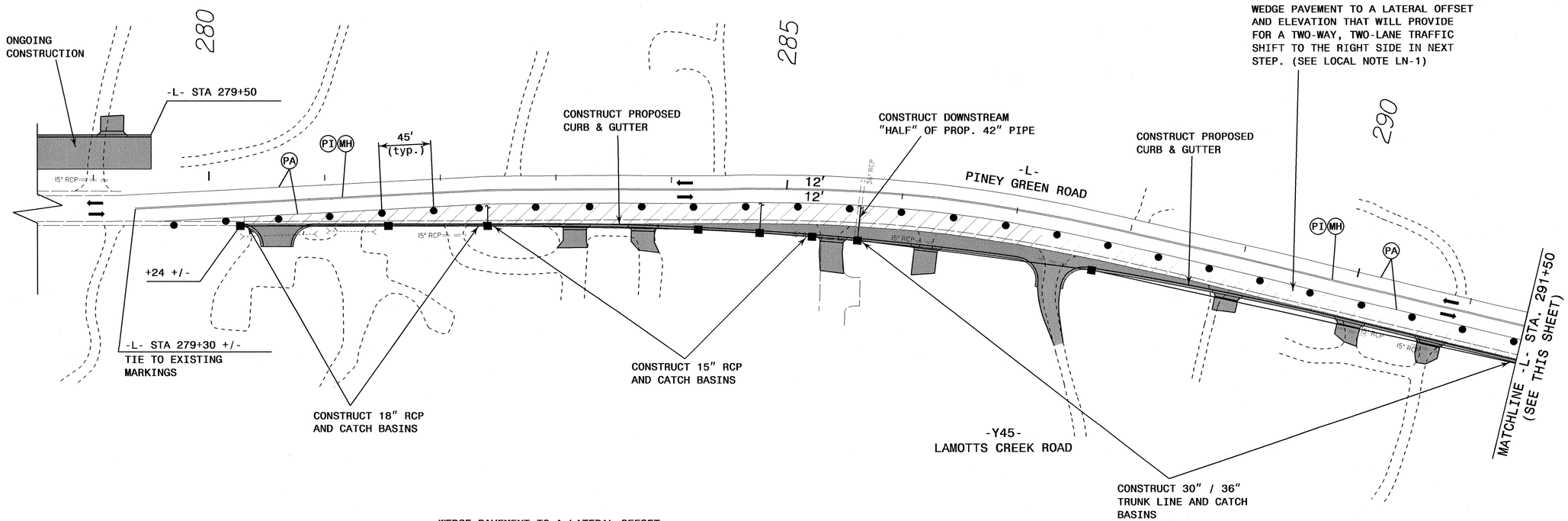
DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

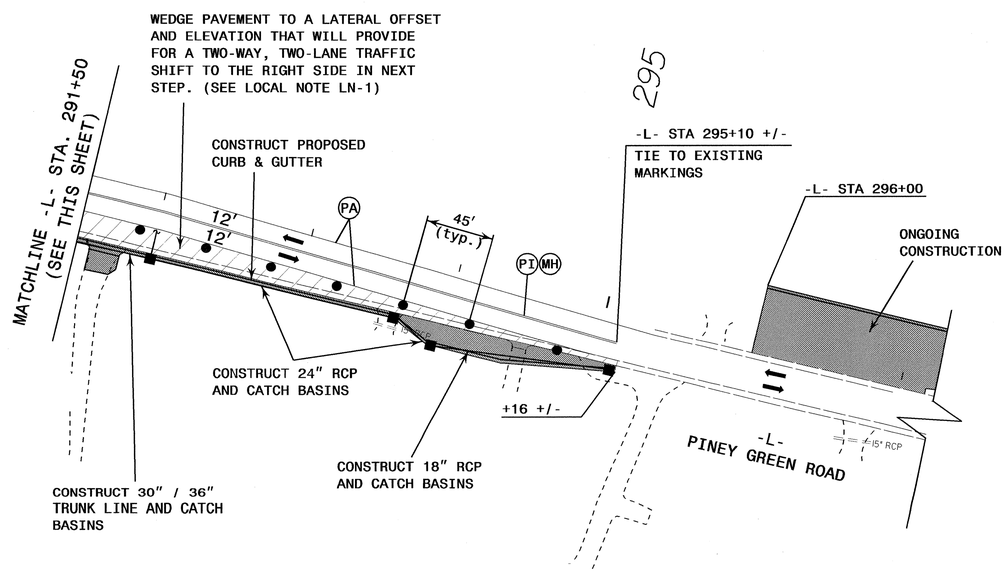
PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310 RALEIGH, NORTH CAROLINA 27609 (919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:59
O:\Transportation\Traffic\Curr\100026110 - U-3810 Piney Green Rd\TCP\U3810_TC_TCP_044.dgn
12054 AT RAL2UA1430YTD

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-45





AREA 2

APPROVED: DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310 RALEIGH, NORTH CAROLINA 27609 (919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:59
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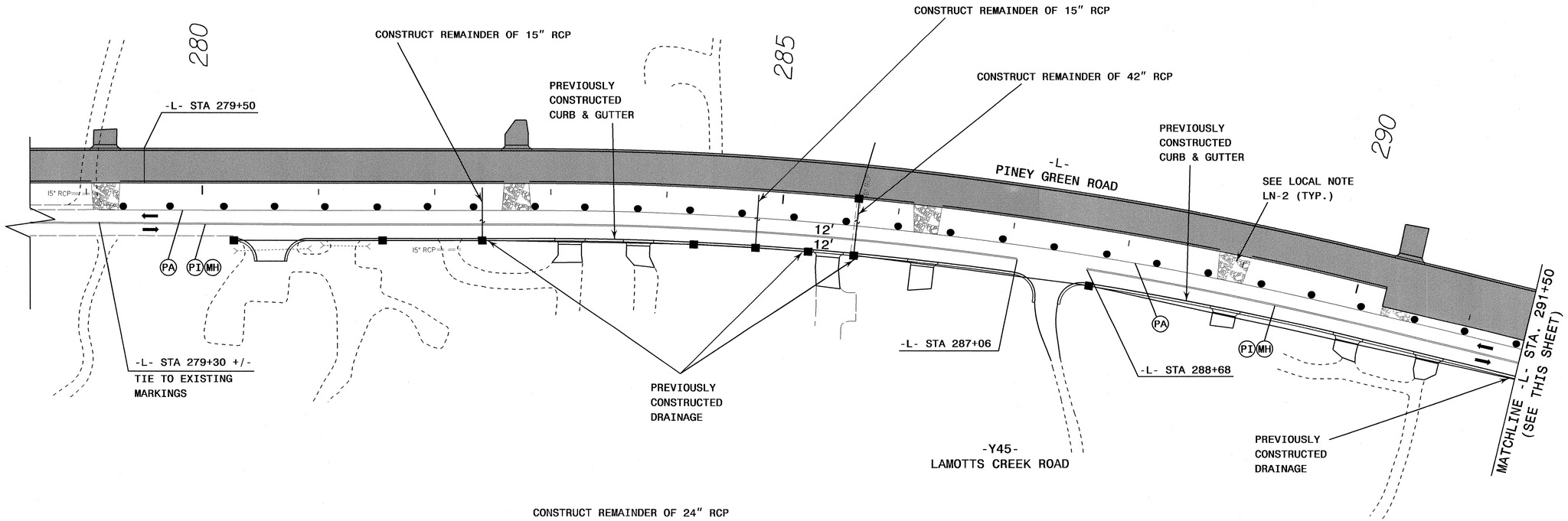
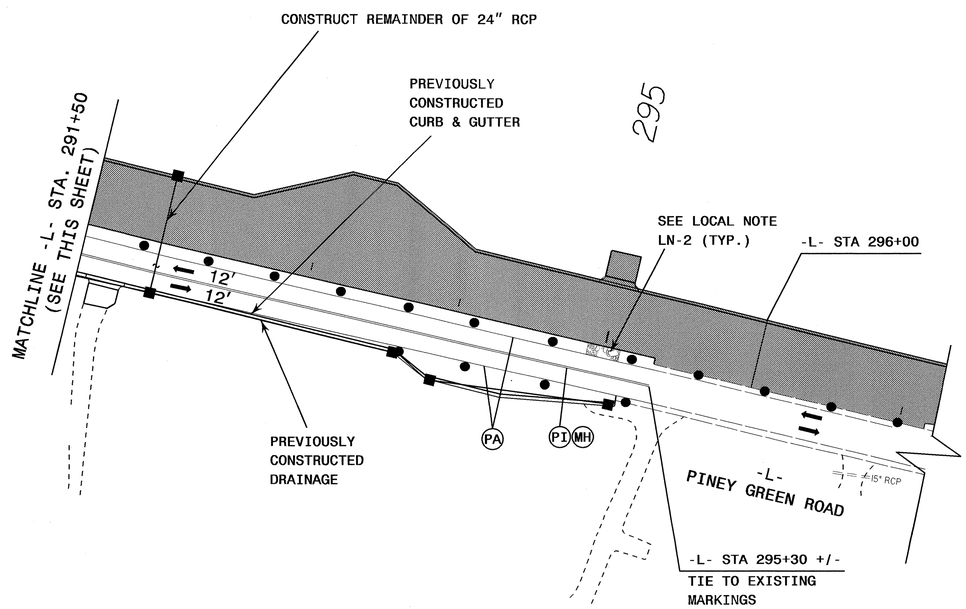
2054 AT RAL2JA14D17D

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-46





AREA 2

APPROVED: [signature] DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

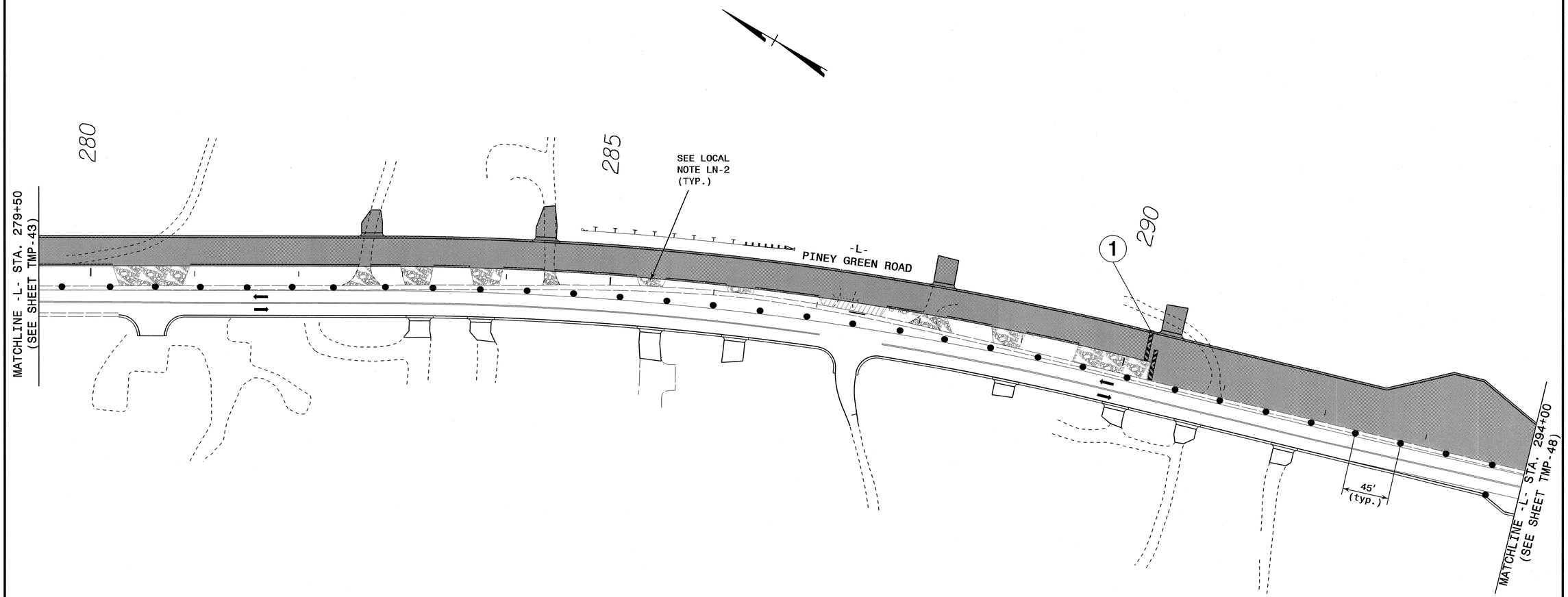
DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

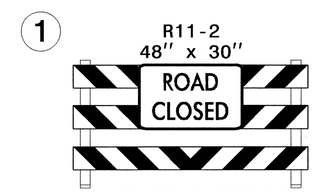
PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:59
O:\Transportation\Traffic\Curr\10002610 - U-3810 Piney Green Rd\TCP\U3810_TC_TCP_046.dgn
12054 AT RAL2UA1430YTD

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-47





TYPE III BARRICADE

AREA 2

APPROVED: [signature] DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:59
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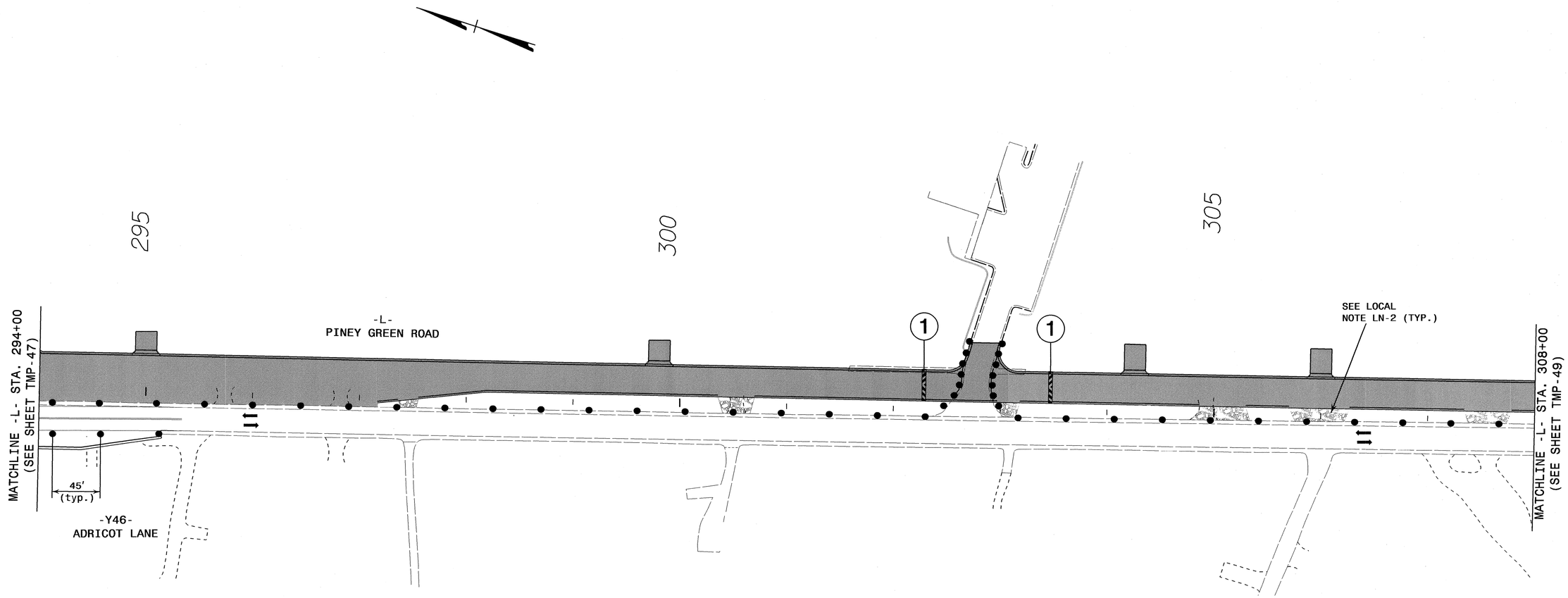
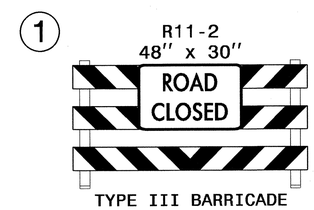
12054 AT RAL2UA1430Y7D

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-48





TYPE III BARRICADE

AREA 2

APPROVED: [signature] DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:59
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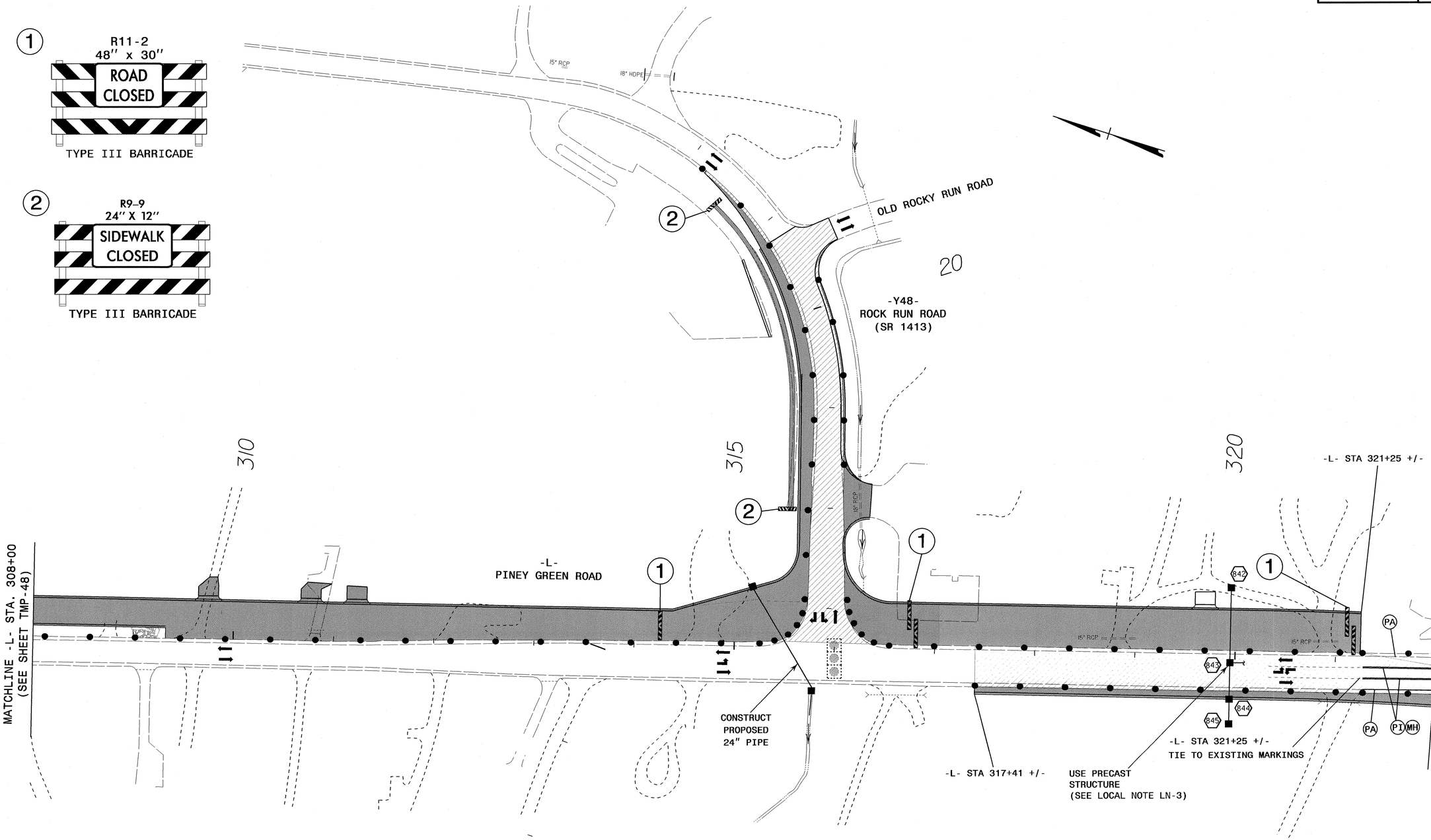
12054 AT RAL2UA1430YTD

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-49



AREA 2

APPROVED: [signature] DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:59
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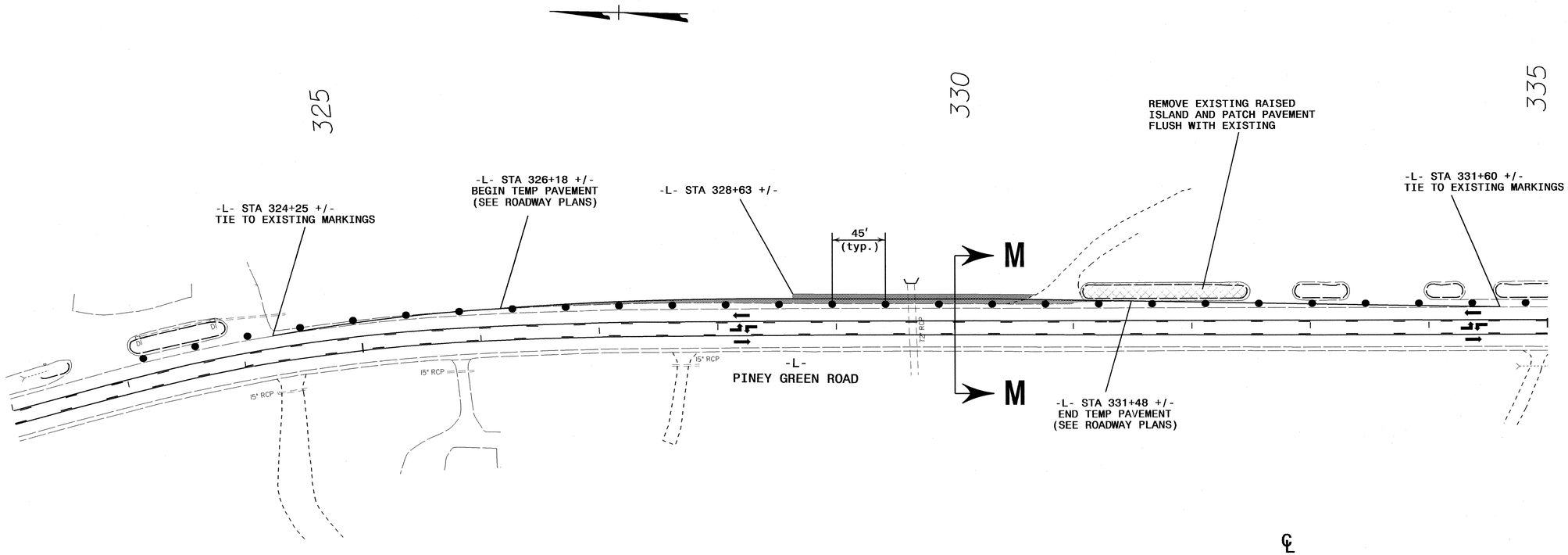
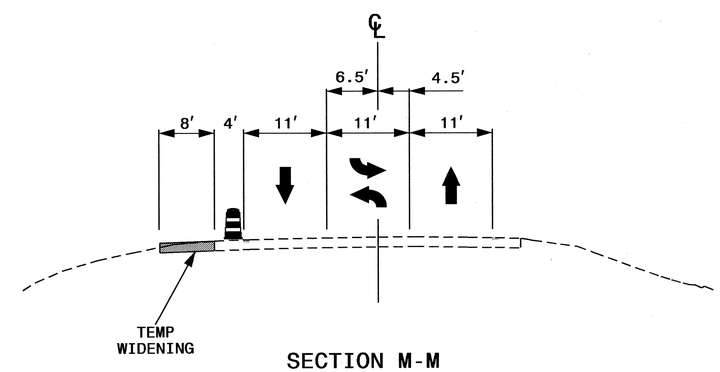
12054 AT RAL2UA1430YTD

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-50





SECTION M-M

AREA 2

APPROVED: DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:59
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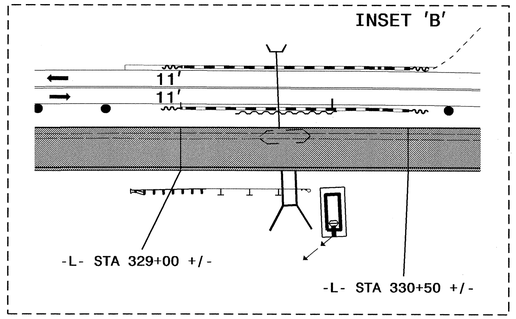
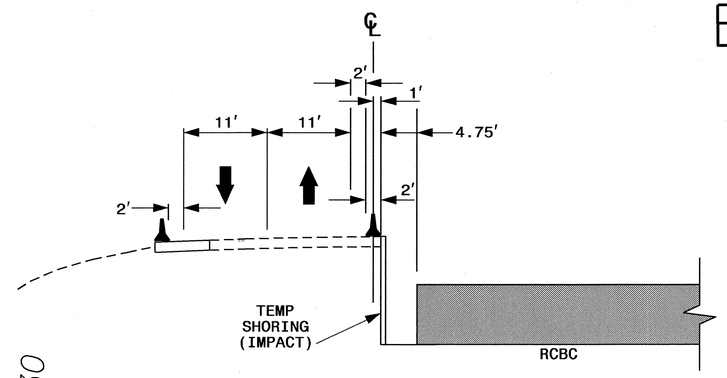
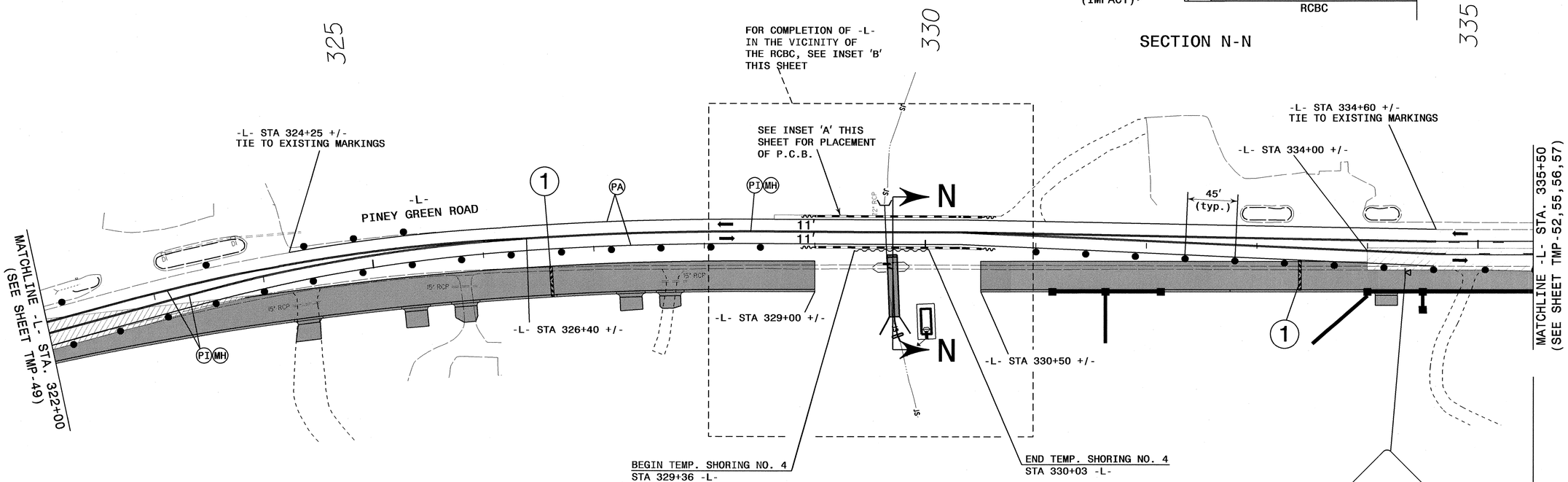
2054 AT RALZUA430YTD

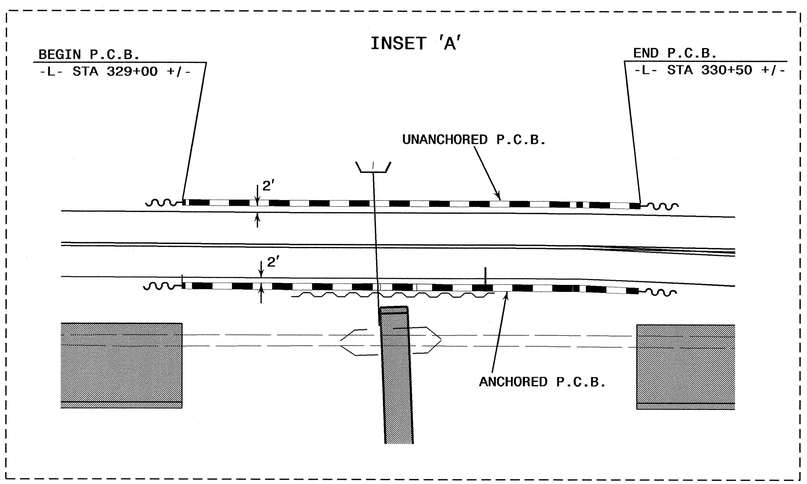
PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-51

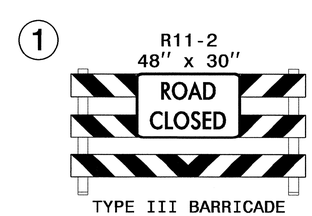




SECTION N-N







TYPE III BARRICADE

AREA 2 ⟷ AREA 3

APPROVED: [signature] DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

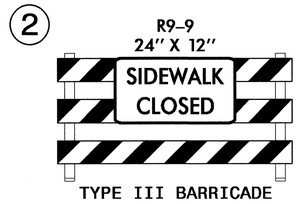
DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

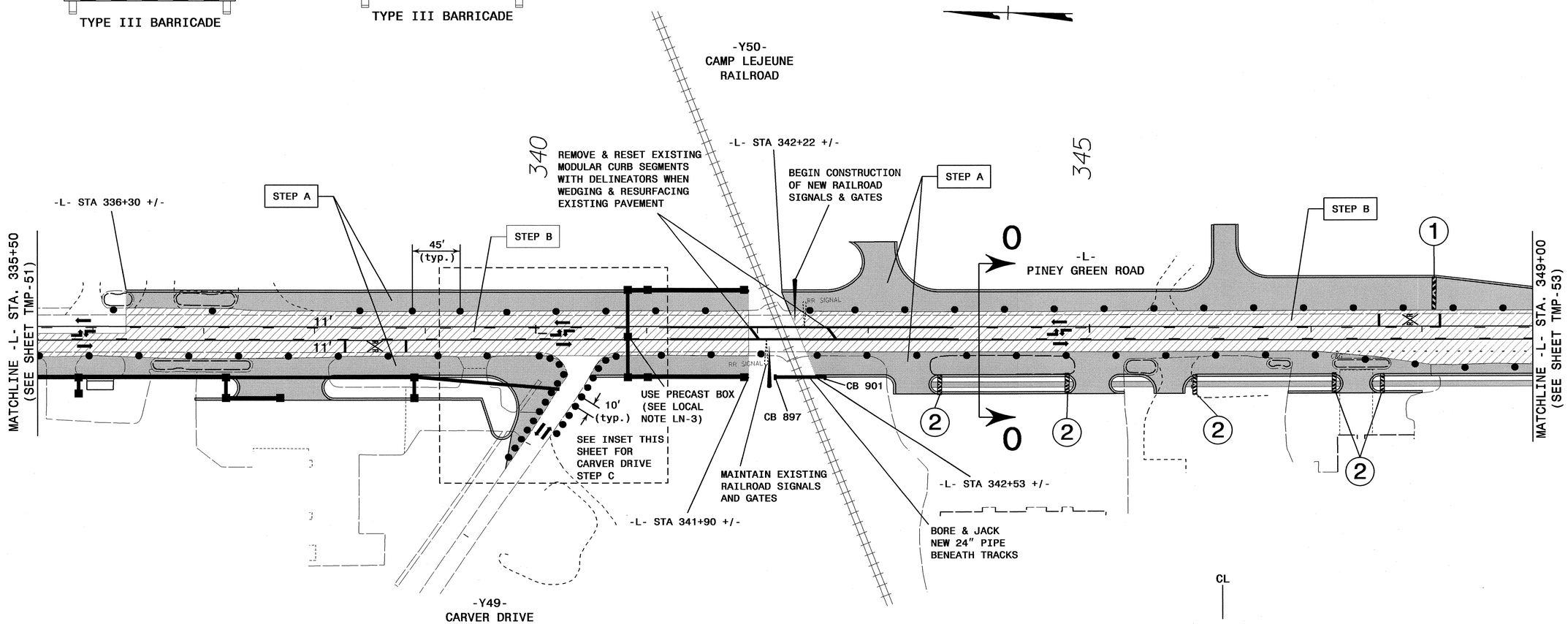
PHASE I DETAIL

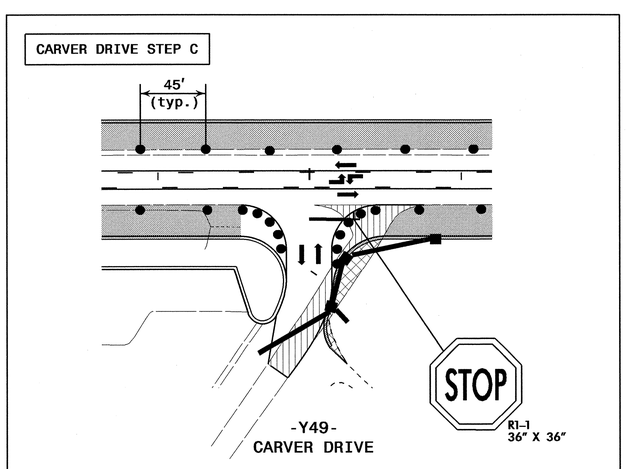
ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

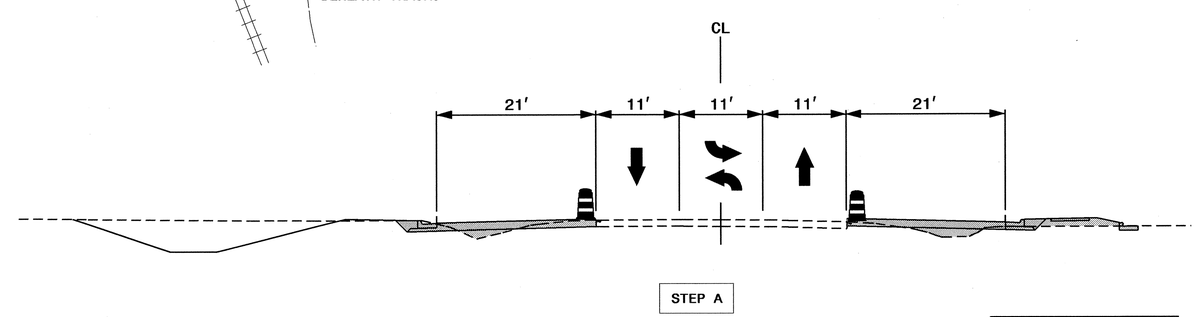
22-MAY-2012 09:59
O:\Transportation\Traffic\Curr\I00026110 - U-3810 Piney Green Rd\TCP\U3810_TC_TCP_051.dgn
12054 AT RAL2UA1430Y7D

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-52









SECTION 0-0

AREA 3

APPROVED: DATE: 8/6/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310 RALEIGH, NORTH CAROLINA 27609 (919) 876-6888 NCBEES #F-0326

07-AUG-2012 10:37
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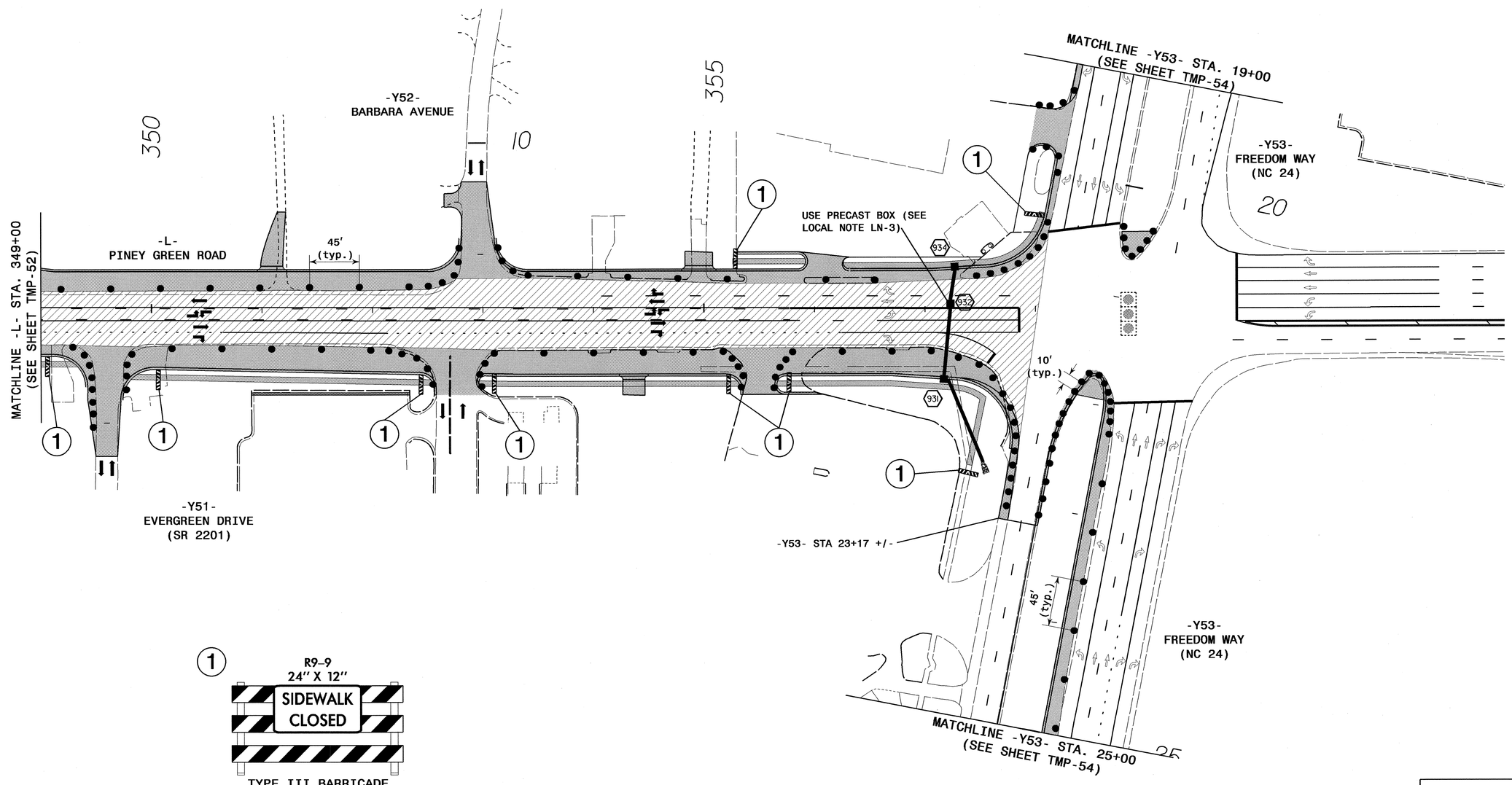
12054 AT RAL2UAI430YTD

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-53



TYPE III BARRICADE

AREA 3

APPROVED: DATE: 8/6/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

07-AUG-2012 10:38
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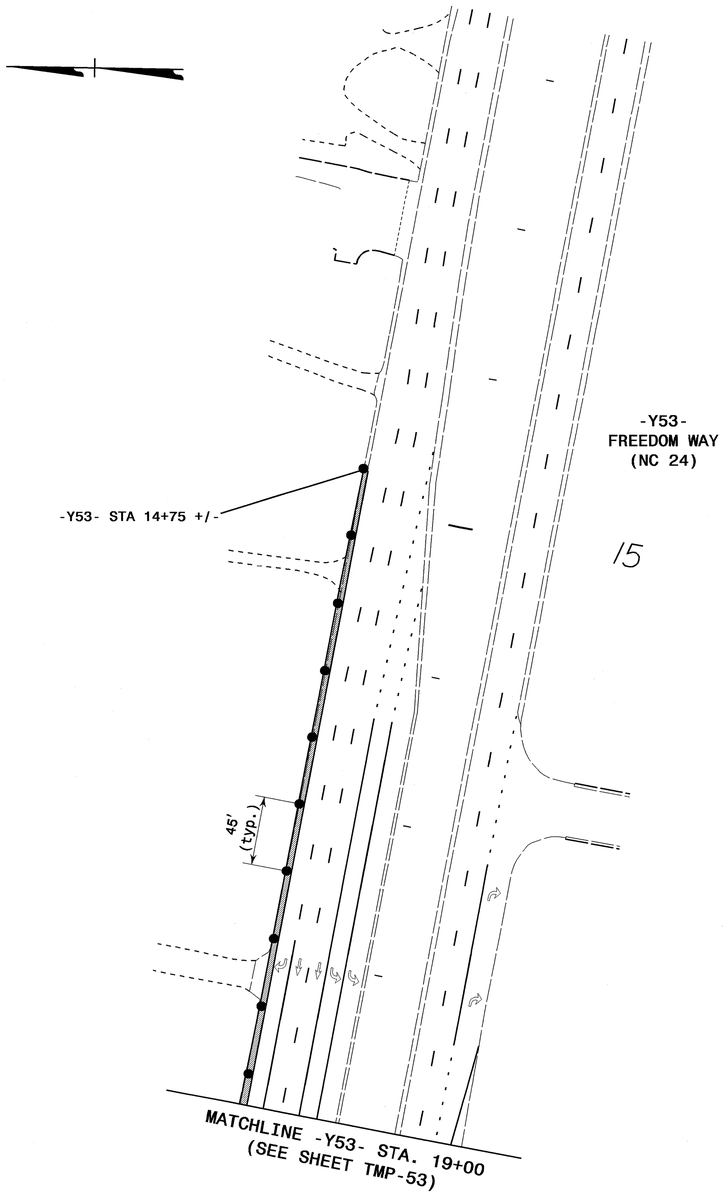
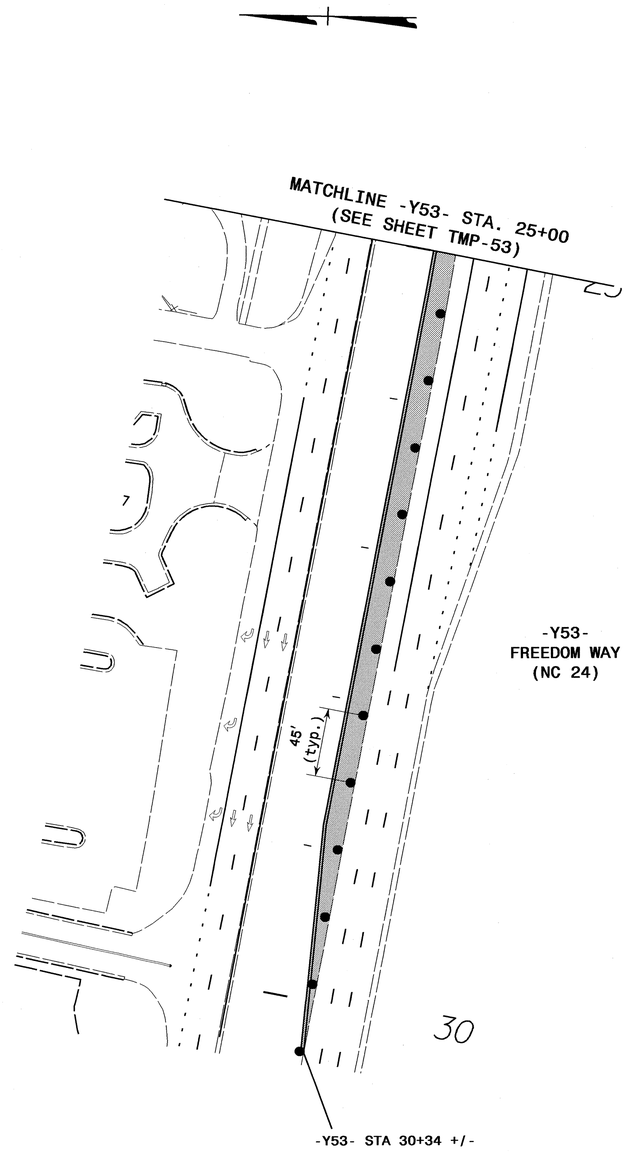
12054 AT RAL2UA430YTD

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-54





AREA 3

APPROVED: DATE: 8/6/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

07-AUG-2012 10:38
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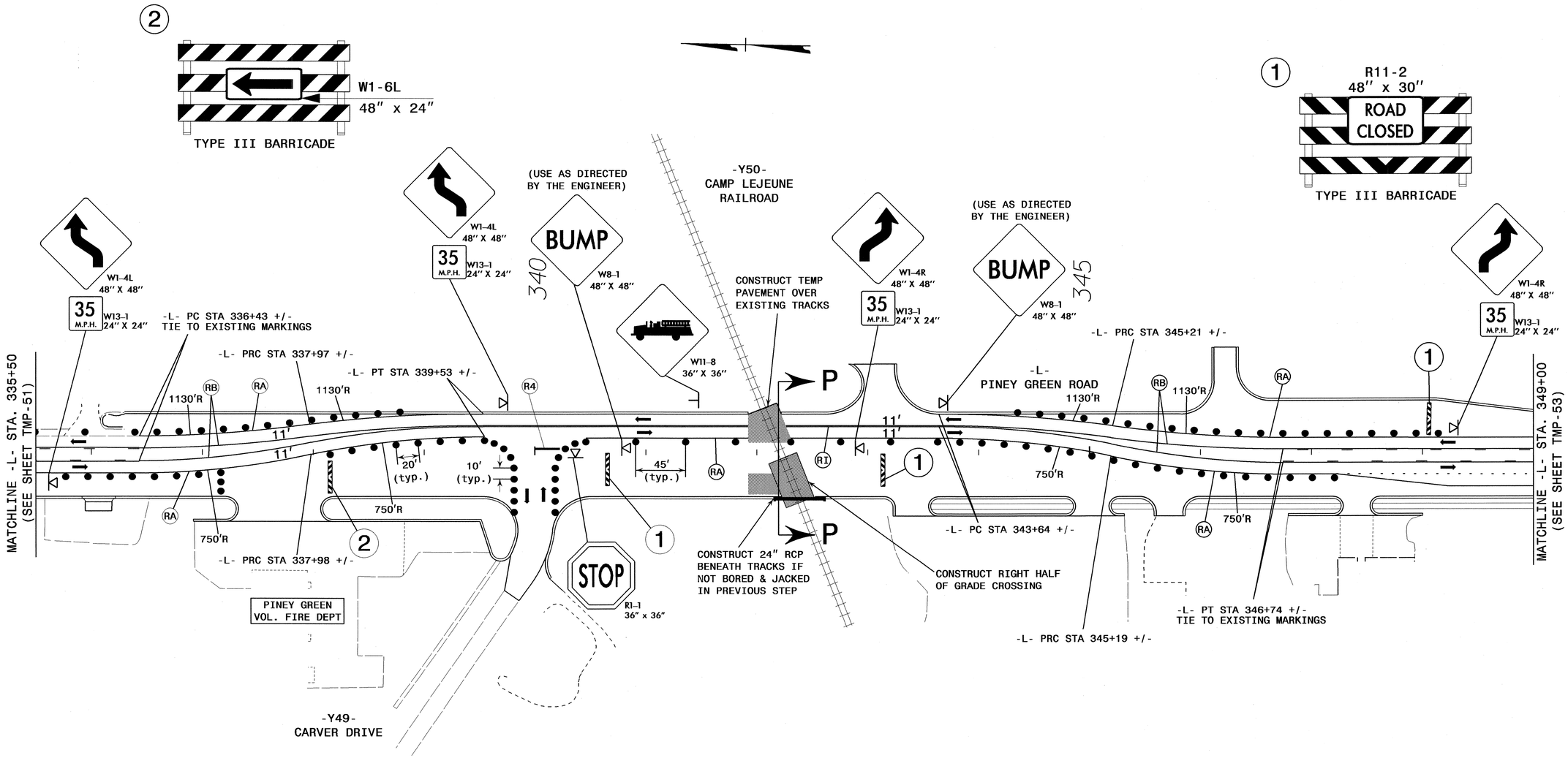
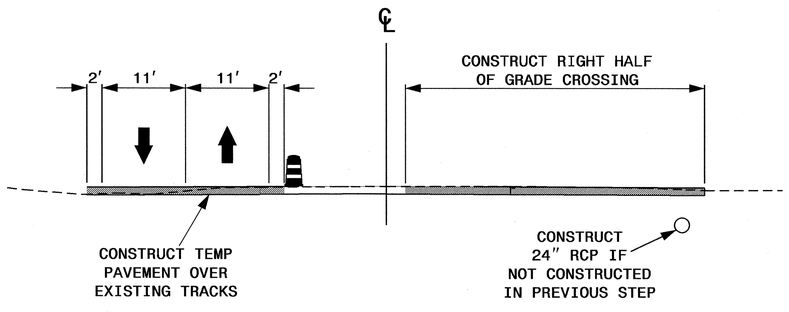
12054 AT RAL2UA1430YTD

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-55





SECTION P-P

AREA 3

STEP C
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APPROVED: [signature] DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:59
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12054 AT RAL2UA1430YTD

PROJ. REFERENCE NO.	SHEET NO.
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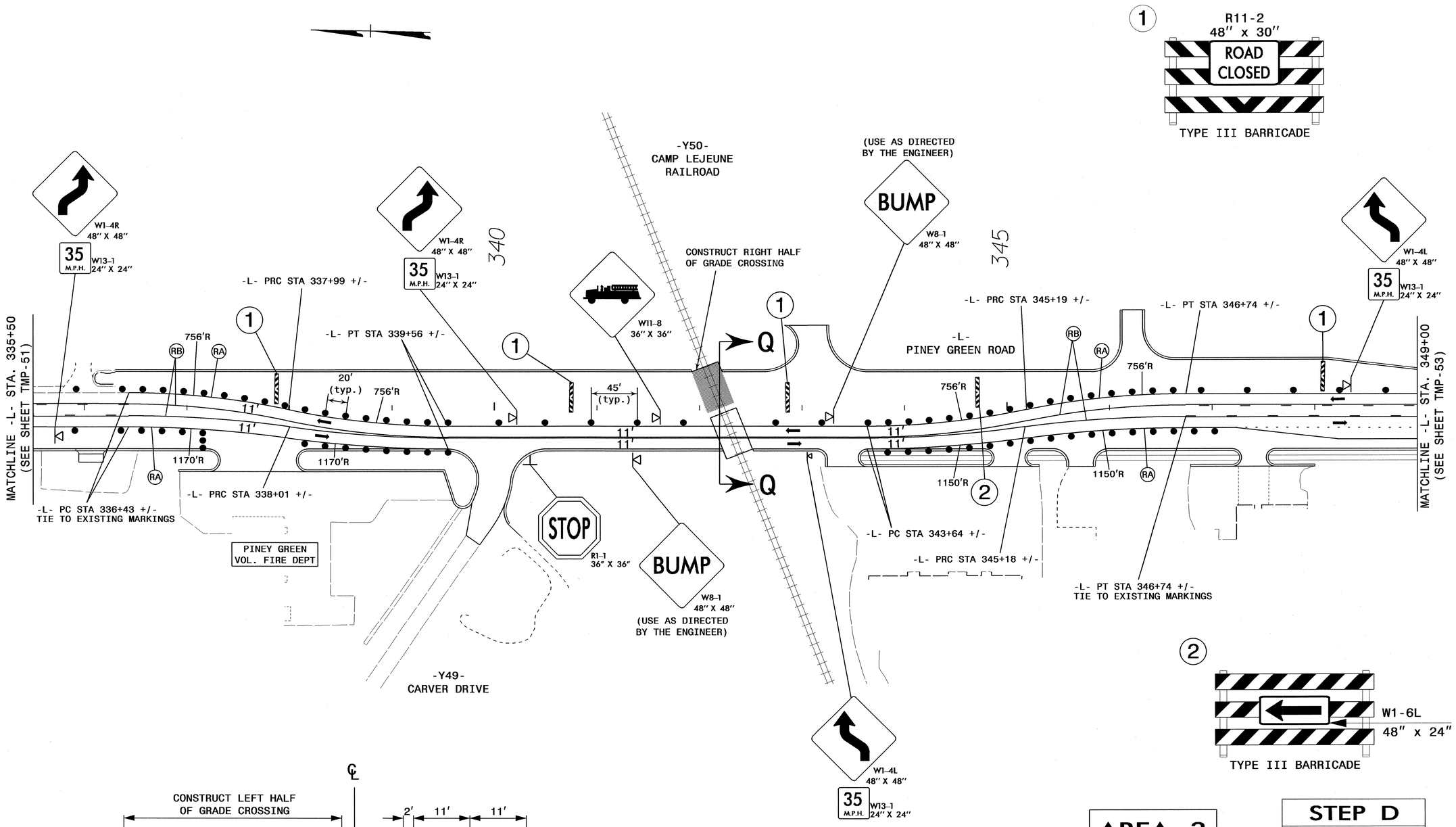

AREA 3

STEP D
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APPROVED: J. Todd Brooks DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:59
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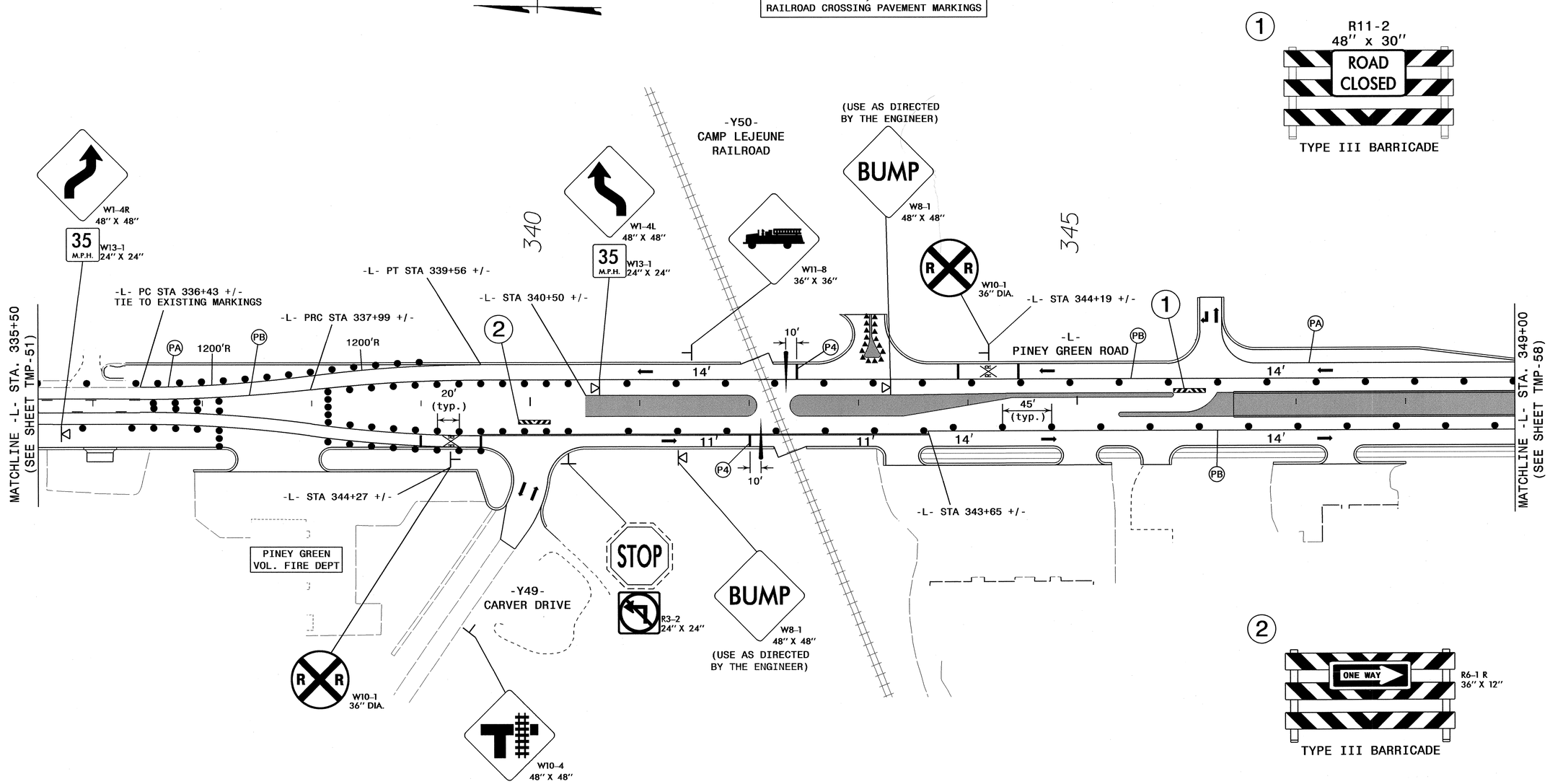
12054 AT RALEIGH\AT\TCP

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-57

SEE RSD 1205.11, SHEET 1 OF 4 FOR RAILROAD CROSSING PAVEMENT MARKINGS



AREA 3

STEP F
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APPROVED: [signature] DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

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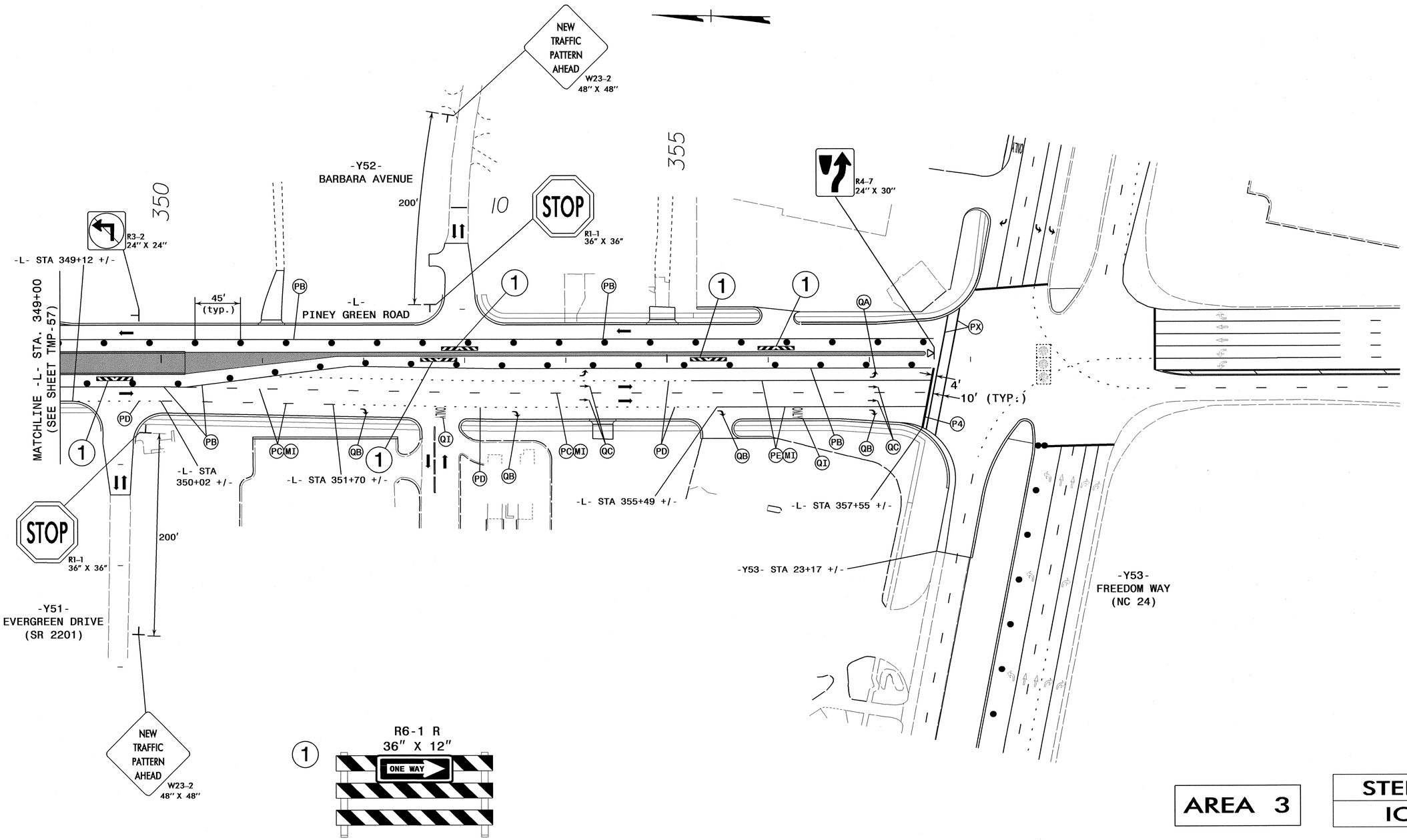
PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-58



AREA 3

STEP F
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APPROVED: [signature] DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

PHASE I DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 10:00
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12054 AT RAL2UA1430YTD

PHASING

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-59

PHASE II

OBJECTIVE: THE GENERAL OBJECTIVE OF PHASE II IS TO SHIFT PINEY GREEN RD TRAFFIC ONTO THE HALF OF PINEY GREEN RD THAT WAS CONSTRUCTED IN PHASE I, THEN BUILD THE OTHER HALF. THIS SHIFT TO THE PHASE II TRAFFIC PATTERN HAS BEEN BROKEN UP INTO TWO PARTS DUE TO THE LENGTH OF THE PROJECT, THE NUMBER OF -Y- LINES AND THE NUMBER OF TRAFFIC SIGNALS. THE INITIAL SHIFT SWITCHES TRAFFIC TO THE PHASE II PATTERN BETWEEN MIKE LOOP RD/IRIS LN (-Y7-) AND BIRCHWOOD LN (-Y26-). (SEE PHASE II, STEP 2 BELOW) THE SECOND SHIFT SWITCHES TRAFFIC TO THE PHASE II PATTERN BETWEEN BIRCHWOOD LN (-Y26-) AND CARVER DR (-Y49-) (SEE PHASE II, STEP 4 BELOW). IT IS ASSUMED THAT PHASE II MARKINGS AND DEVICES ARE PLACED AS MUCH AS POSSIBLE AWAY FROM TRAFFIC DURING THE LAST STEP OF PHASE I TO PREPARE FOR AND EXPEDITE THESE TRAFFIC PATTERN SWITCHES.

STEP 1: BEGIN REVISING SIGNALS TO PHASE II TRAFFIC PATTERN ALONG PINEY GREEN RD (-L-) AT COUNTRY CLUB RD (-Y14), AT CREEDMOOR RD (-Y20-), AT BALSAM RD (-Y21-)/WHITE OAK HIGH SCHOOL, AT OLD 30 RD/CHARLES RD (-Y29-), AT HUNTERS TRAIL (-Y39-), AND AT ROCK RUN ROAD (-Y48-).

INSTALL PHASE II TEMPORARY PAVEMENT MARKINGS AND DEVICES ON PINEY GREEN RD (-L-) RIGHT SIDE PAVEMENT CONSTRUCTED DURING PHASE I AS MUCH AS POSSIBLE AWAY FROM TRAFFIC BETWEEN IRIS LN (-Y7-) AND BIRCHWOOD LN (-Y25-). [SEE TMP-63 THRU TMP-74]

AWAY FROM TRAFFIC, INSTALL P.C.B. AND TEMPORARY SHORING FOR BOX CULVERT AT STA 51+68 +/- -L- AS MUCH AS POSSIBLE AS SHOWN IN INSET A ON TMP-64 AND IN SECTION A-A ON TMP-64.

AWAY FROM TRAFFIC, INSTALL P.C.B. AS MUCH AS POSSIBLE BETWEEN STA 93+75 +/- -L- AND HALLTOWN RD (-Y18-) AND BETWEEN HALLTOWN RD (-Y18-) AND CREEDMOOR RD (-Y20-) AS SHOWN ON TMP-69 AND TMP-70.

THE CONTRACTOR SHALL COMPLETE PHASE II, STEP 2 WITHIN A SINGLE CALENDAR DAY.

STEP 2: USING RSD 1101.02, SHEETS 1 AND 2, SHIFT TRAFFIC ON PINEY GREEN RD (-L-) TO PHASE II TEMPORARY TWO-LANE TWO WAY PATTERN BETWEEN MIKE LOOP RD/IRIS LN (-Y7-) AND BIRCHWOOD LN (-Y26-) AS FOLLOWS [SEE TMP-63, TMP-64, TMP-66 THRU TMP-71, TMP-73 THRU TMP-75]:

A. COMPLETE REVISION OF THE FOLLOWING TRAFFIC SIGNALS ON PINEY GREEN RD TO THEIR INITIAL PHASE II PATTERN IN CONJUNCTION WITH TRAFFIC PATTERN SWITCH:

* COUNTRY CLUB RD (-Y14-)
* CREEDMOOR RD (-Y20-)
* BALSAM RD (-Y21-)

B. REVISE PAVEMENT MARKINGS ON -Y- LINES ON RIGHT SIDE OF PINEY GREEN RD TO PHASE II PATTERN.
C. WHILE MAINTAINING TRAFFIC IN PHASE I PATTERN ON LEFT SIDE OF PINEY GREEN RD, REVISE MARKINGS FOR PHASE II EASTBOUND LANE ON RIGHT SIDE OF PINEY GREEN RD DEPARTING THE IRIS LN (-Y7-) INTERSECTION AS SHOWN ON TMP-63 AND TMP-64.
D. WEDGE TIE-IN BETWEEN NEW PAVEMENT AND EXISTING PAVEMENT FOR PHASE II EASTBOUND LANE BETWEEN STA 151+00 +/- -L- AND STA 154+00 +/- -L- AND COMPLETE TIE-IN OF PHASE II EASTBOUND PAVEMENT MARKINGS AS SHOWN ON TMP-74 AND TMP-75.
E. SHIFT EASTBOUND PINEY GREEN RD TRAFFIC ONTO PHASE II EASTBOUND LANE BETWEEN MIKE LOOP RD/IRIS LN (-Y7-) AND BIRCHWOOD LN (-Y26-).
F. REVISE MARKINGS FOR PHASE II WESTBOUND LANE ON RIGHT SIDE OF PINEY GREEN RD APPROACHING THE IRIS LN (-Y7-) INTERSECTION TO PATTERN SHOWN ON TMP-63 AND TMP-64.
G. COMPLETE INSTALLATION OF P.C.B. BEGUN IN PHASE II, STEP 1 AND RESET TEMPORARY CRASH CUSHIONS ON APPROACH ENDS.
H. COMPLETE TIE-IN OF WESTBOUND PAVEMENT MARKINGS BETWEEN NEW PAVEMENT AND EXISTING PAVEMENT FOR PHASE II WESTBOUND LANE BETWEEN STA 151+00 +/- -L- AND STA 154+00 +/- -L- AS SHOWN ON TMP-74 AND TMP-75.
I. SHIFT WESTBOUND PINEY GREEN RD TRAFFIC ONTO PHASE II WESTBOUND LANE BETWEEN MIKE LOOP RD/IRIS LN (-Y7-) AND BIRCHWOOD LN (-Y26-).
J. CONSTRUCT TEMPORARY TIE-IN BETWEEN EXISTING PAVEMENT ON HALLTOWN RD (-Y18-) AND NEW PAVEMENT ON RIGHT SIDE OF PINEY GREEN RD (-L-) AS SHOWN ON TMP-69.
K. REVISE PAVEMENT MARKINGS ON -Y- LINES ON LEFT SIDE OF PINEY GREEN RD TO PHASE II PATTERN.

STEP 3: BEHIND PREVIOUSLY INSTALLED P.C.B., BEGIN CONSTRUCTION OF BOX CULVERT ON LEFT SIDE OF PINEY GREEN RD (-L-) AT STA 51+68 +/- -L- AS SHOWN ON TMP-64 AND IN SECTION A-A ON TMP-64.

BEGIN CONSTRUCTION OF LEFT SIDE OF PINEY GREEN RD (-L-) UP TO BUT NOT INCLUDING FINAL SURFACE LAYER IN THE FOLLOWING AREAS:

* STA 54+00 +/- TO STA 58+60+/- -L- (SEE TMP-66)
* STA 60+00 +/- TO STA 80+00 +/- -L- (SEE TMP-66 THRU TMP-68)
* STA 90+50 +/- TO STA 118+00 +/- -L- (SEE TMP-69 THRU TMP-71)
* STA 122+45 +/- -L- TO STA 147+71 +/- -L- (SEE TMP-71, TMP-73 AND TMP-74)

BEGIN CONSTRUCTING PROPOSED FLOOD CONTROL PIPES AND HEADWALL BETWEEN THE TWO EXISTING BRIDGES OVER NORTHEAST CREEK ON LEFT SIDE OF PINEY GREEN RD (-L-). [SEE TMP-68]

USING 1101.02, SHEET 1, BEGIN CONSTRUCTION OF -Y- LINES ON LEFT SIDE OF PINEY GREEN RD, BETWEEN STA 54+00 +/- AND STA 147+70 +/- -L-, EXCEPT FOR THE FOLLOWING TO BE CONSTRUCTED IN A LATER STEP:

* MIKE LOOP RD (-Y10-)
* LYNCHBURG DRIVE (NORTH LEG) (-Y17-)
* WHITE OAK HIGH SCHOOL DRIVEWAY (-Y21-)
* HALLTOWN ROAD (-Y18-)

AWAY FROM TRAFFIC, INSTALL PORTABLE CONCRETE BARRIER (P.C.B.) AND TEMPORARY SHORING AS MUCH AS POSSIBLE FOR THE FOLLOWING BOX CULVERT LOCATIONS:

* STA 167+39 +/- -L- RIGHT SIDE [SEE TMP-76 AND SECTION C-C]
* STA 274+68 +/- -L- RIGHT SIDE [SEE TMP-84 AND SECTION D-D]
* STA 329+70 +/- -L- LEFT SIDE [SEE TMP-88 AND SECTION E-E].

INSTALL PHASE II TEMPORARY PAVEMENT MARKINGS AND DEVICES ON PINEY GREEN RD (-L-) AS MUCH AS POSSIBLE AWAY FROM TRAFFIC ON NEW PAVEMENT CONSTRUCTED DURING PHASE I AS FOLLOWS:

* LEFT SIDE PAVEMENT BETWEEN BIRCHWOOD LN (-Y26-) AND ROCK RUN RD (-Y48). [SEE TMP-76 THRU TMP-87]
* RIGHT SIDE PAVEMENT BETWEEN STA 323+00 +/- AND STA 336+30 +/- -L-. [SEE TMP-87 AND TMP-88]

THE CONTRACTOR SHALL COMPLETE PHASE II, STEP 4 WITHIN A SINGLE CALENDAR DAY.

STEP 4: USING RSD 1101.02, SHEETS 1 AND 2, SHIFT TRAFFIC ON PINEY GREEN RD TO PHASE II TEMPORARY TWO-LANE TWO WAY PATTERN BETWEEN BIRCHWOOD LN (-Y26-) AND CARVER DR (-Y49-) AS FOLLOWS [SEE TMP-75 THRU TMP-88]:

A. COMPLETE REVISION OF THE FOLLOWING TRAFFIC SIGNALS ON PINEY GREEN RD TO THEIR INITIAL PHASE II PATTERN IN CONJUNCTION WITH TRAFFIC PATTERN SWITCH:

* OLD 30 RD/CHARLES RD (-Y29-)
* HUNTERS TRAIL (-Y39-)
* ROCK RUN RD (-Y48-)

B. REVISE PAVEMENT MARKINGS ON -Y- LINES ON LEFT SIDE OF PINEY GREEN RD TO PHASE II PATTERN.
C. REVISE WB MARKINGS TO PHASE II PATTERN BETWEEN STA 153+27 +/- -L- AND THE DETOUR OVER THE BOX CULVERT EAST OF BIRCHWOOD LN (-Y26-) [SEE TMP-74 THRU TMP-76] AND TIE PHASE II WB MARKINGS TO EXISTING 3-LANE MARKINGS SOUTH OF ROCK RUN RD INTERSECTION (-Y48-) AT STA 320+00 +/- -L- [SEE TMP-87]
D. COMPLETE INSTALLATION OF P.C.B. AND INSTALL/RESET TEMPORARY CRASH CUSHIONS ALONG PHASE II WB LANE IN BOX CULVERT AREAS.
E. SHIFT WESTBOUND TRAFFIC TO PHASE II WB LANE ON LEFT SIDE OF PINEY GREEN RD (-L-) BETWEEN BIRCHWOOD LN (-Y26-) AND ROCK RUN RD (-Y48-). [SEE TMP-75 THROUGH TMP-87]
F. REVISE EB MARKINGS TO PHASE II PATTERN BETWEEN STA 153+27 +/- -L- AND THE DETOUR OVER THE BOX CULVERT EAST OF BIRCHWOOD LN (-Y26-) [SEE TMP-74 THRU TMP-76] AND TIE PHASE II EB MARKINGS TO EXISTING 3-LANE MARKINGS SOUTH OF ROCK RUN RD INTERSECTION (-Y48-) AT STA 320+00 +/- -L- [SEE TMP-87]
G. COMPLETE INSTALLATION OF P.C.B. AND INSTALL/RESET TEMPORARY CRASH CUSHIONS ALONG PHASE II EB LANE IN BOX CULVERT AREAS.
H. SHIFT EASTBOUND TRAFFIC TO PHASE II EB LANE ON LEFT SIDE OF PINEY GREEN RD (-L-) BETWEEN BIRCHWOOD LN (-Y26-) AND ROCK RUN RD (-Y48-). [SEE TMP-75 THROUGH TMP-87]
I. COMPLETE TIE-IN OF PHASE II EASTBOUND LANE MARKINGS BETWEEN STA 320+00 +/- -L- AND STA 323+07 +/- -L- [SEE TMP-87] AND PHASE II EB MARKINGS TO EB MARKINGS DEPARTING THE CARVER DR (-Y49-) INTERSECTION [SEE TMP-88].
J. SHIFT EB TRAFFIC TO PHASE II EB LANE ON RIGHT SIDE OF PINEY GREEN RD (-L-) BETWEEN STA 320+00 +/- (-L-) AND CARVER DR (-Y49-). [SEE TMP-87 AND TMP-88]
K. COMPLETE TIE-IN OF PHASE II WESTBOUND LANE MARKINGS BETWEEN STA 320+00 +/- -L- AND STA 323+07 +/- -L- [SEE TMP-87] AND AT THE CARVER DR (-Y49-) INTERSECTION [SEE TMP-88 AND TMP-89].
L. SHIFT WB TRAFFIC TO PHASE II WB LANE ON RIGHT SIDE OF PINEY GREEN RD (-L-) BETWEEN STA 320+00 +/- (-L-) AND CARVER DR (-Y49-).

STEP 5:

PINEY GREEN RD (-L-) FROM -Y26- TO -Y49-

A) BEHIND P.C.B. INSTALLED IN PREVIOUS STEP, BEGIN CONSTRUCTING THE FOLLOWING BOX CULVERT LOCATIONS:

* STA 167+39 +/- -L- RIGHT SIDE [SEE TMP-76 AND SECTION C-C]
* STA 274+68 +/- -L- RIGHT SIDE [SEE TMP-84 AND SECTION D-D]
* STA 329+70 +/- -L- LEFT SIDE [SEE TMP-88 AND SECTION E-E]

BEGIN CONSTRUCTION OF RIGHT SIDE OF PINEY GREEN RD (-L-) UP TO BUT NOT INCLUDING FINAL SURFACE LAYER BETWEEN STA 159+21 +/- (-L-) AND STA 317+41 +/- (-L-). [SEE TMP-75 THRU TMP-87]

BEGIN CONSTRUCTION OF LEFT SIDE OF PINEY GREEN RD (-L-) UP TO BUT NOT INCLUDING FINAL SURFACE LAYER FROM STA 321+25 +/- TO STA 328+42 +/- (-L-) AND FROM STA 331+07 +/- TO 336+30 +/- (-L-). [SEE TMP-87 AND TMP-88]

USING RSD 1101.01, SHEET 1, BEGIN CONSTRUCTION OF -Y- LINES ON RIGHT SIDE OF PINEY GREEN RD BETWEEN BIRCHWOOD LN (-Y26-) AND ROCK RUN RD (-Y48-), EXCEPT FOR THE FOLLOWING TO BE CONSTRUCTED IN A LATER STEP:

* TONI DR (-Y27-)
* COLONIAL DR (-Y28-)
* WEST THOMAS AVE (-Y37-)

STEP 5 CONTINUED ON TMP-59A

APPROVED: DATE: 8/6/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17596 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASING PHASE II

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310 RALEIGH, NORTH CAROLINA 27609 (919) 876-6888 NCBEES #F-0326

06-AUG-2012 16:57
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PHASING

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-59A

STEP 5 (CONT.):

B) USING RSD 1101.02, SHEET 1, CONSTRUCT THE FOLLOWING ON WOLF SWAMP RD (-Y12-) AS SHOWN ON TMP-66:

* TEMPORARY 24-IN. PIPE ACROSS EXISTING WOLF SWAMP RD TO TEMPORARILY EXTEND THE PROPOSED 24-IN. PIPE UNDER THE NEW WOLF SWAMP RD (-Y12-) TIE-IN (TO MAINTAIN DRAINAGE UNTIL TRAFFIC CAN BE SHIFTED TO NEW ALIGNMENT IN LATER STEP)
* NEW ALIGNMENT OF WOLF SWAMP RD (-Y12-) UP TO EDGE OF EXISTING -Y12-

ESTABLISH AN ONSITE PEDESTRIAN DETOUR FOR EXISTING PEDESTRIAN PATH ALONG LEFT SIDE OF PINEY GREEN RD BETWEEN THE FOOD LION SHOPPING CENTER AND THE BALSAM RD (-Y21-)/WHITE OAK HIGH SCHOOL DRIVEWAY SHOWN ON TMP-70 AND TMP-71 AS FOLLOWS:

* CONSTRUCT A TEMPORARY CONNECTION BETWEEN THE EXISTING PEDESTRIAN PATH AND THE EXISTING PINEY GREEN RD PAVEMENT. [SEE TMP-71]
* CONSTRUCT A 5-FT. WIDE TEMPORARY PEDESTRIAN PATH USING INCIDENTAL STONE BASE BEHIND THE PROPOSED NEW SIDEWALK AS SHOWN ON TMP-70 AND TMP-71.
* INSTALL ORANGE TEMPORARY CONSTRUCTION FENCING AS SHOWN ON TMP-70 AND TMP-71 TO PREVENT PEDESTRIANS FROM ENTERING CONSTRUCTION AREA.
* INSTALL WATER-FILLED BARRIER (W.F.B.) ON BOTH SIDES OF TEMPORARY WALKWAY UTILIZING THE EXISTING PINEY GREEN RD PAVEMENT AS SHOWN IN SECTION B-B AND TMP-71.
* INSTALL PEDESTRIAN DETOUR SIGNING AND REROUTE PEDESTRIANS TO TEMPORARY PATH.

ONCE PEDESTRIANS HAVE BEEN DETOURED TO TEMPORARY WALKWAYS, CONSTRUCT DRAINAGE, CURB AND GUTTER AND SIDEWALK IN THE NORTHWEST CORNER OF THE INTERSECTION OF PINEY GREEN RD AND WHITE OAK HIGH SCHOOL DRIVEWAY/BALSAM RD (-Y21-). (SEE TMP-71 AND SECTION B-B)

THE CONTRACTOR SHALL COMPLETE ALL WORK IN PHASE II, STEP 5C, BETWEEN 7:00 P.M. ON FRIDAY TO 6:00 A.M. ON THE FOLLOWING MONDAY. [SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES]

C) PERFORM THE FOLLOWING WORK ON HALLTOWN RD (-Y18-) AT PINEY GREEN RD (-L-) USING TEMPORARY WEEKEND ROAD CLOSURE AS FOLLOWS [SEE TMP-69 AND TMP-123]:

i. INSTALL ROAD CLOSURE, DETOUR SIGNS AND BARRICADES AS SHOWN ON TMP-123 TO TEMPORARILY CLOSE HALLTOWN RD (-Y18-) AT PINEY GREEN RD (-L-) AND DETOUR TRAFFIC VIA WESTMORELAND DR AND LYNCHBURG DR (-Y17-). CLOSE EB LEFT TURN LANE ON PINEY GREEN RD USING DRUMS SPACED 10 FT C-C.
ii. CONSTRUCT PROPOSED 48-INCH PIPE ACROSS HALLTOWN RD, BACKFILL TRENCH AND PATCH PAVEMENT. [SEE TMP-69]
iii. WEDGE HALLTOWN RD (-Y18-) TIE IN TO PROPOSED GRADE UP TO BUT NOT INCLUDING FINAL SURFACE LAYER. REPLACE EXISTING PAVEMENT MARKINGS BY THE END OF WORK PERIOD. [SEE TMP-69]
iv. REMOVE BARRICADES AND COVER DETOUR AND ROAD CLOSURE SIGNS AND RE-OPEN HALLTOWN RD.

STEP 6:

A) USING RSD 1101.02, SHEET 1, CONSTRUCT TIE-IN BETWEEN RELOCATED WOLF SWAMP RD (-Y12-) AND EXISTING WOLF SWAMP RD, PLACE MARKINGS AND SHIFT TRAFFIC TO NEW ALIGNMENT [SEE "STEP B" INSET ON TMP-66]

DISCONTINUE PEDESTRIAN DETOUR FROM PRIOR STEP AND REROUTE PEDESTRIANS TO NEWLY CONSTRUCTED SIDEWALK ON THE LEFT SIDE OF PINEY GREEN RD BETWEEN THE FOOD LION SHOPPING CENTER AND WHITE OAK HIGH SCHOOL. [SEE DETAIL "A" ON TMP-72] CLOSE NORTHEAST CORNER OF THE -Y21- INTERSECTION TO PEDESTRIAN TRAFFIC AND REROUTE PEDESTRIANS TO THE NORTHWEST INTERSECTION CORNER. CONSTRUCT PROPOSED NORTHEAST INTERSECTION RADIUS. [SEE DETAIL "A" ON TMP-72]

THE CONTRACTOR SHALL COMPLETE ALL WORK IN PHASE II, STEP 6B, WITHIN 14 CALENDAR DAYS.

B) PERFORM THE FOLLOWING WORK TO CONSTRUCT THE REALIGNED WEST THOMAS AVE (-Y37-) TO PINEY GREEN RD (-L-) USING A TEMPORARY ROAD CLOSURE AS FOLLOWS [SEE TMP-81 AND TMP-123]:

i. INSTALL ROAD CLOSURE, DETOUR SIGNS AND BARRICADES AS SHOWN ON TMP-123 TO TEMPORARILY CLOSE WEST THOMAS AVE (-Y37-) AT PINEY GREEN RD (-L-) AND DETOUR TRAFFIC VIA EAST CAROLE DR (-Y36-). [SEE STEP 'A' ON TMP-81]
ii. OBLITERATE EXISTING TIE-IN AND CONSTRUCT PROPOSED DRAINAGE PIPES ACROSS PROPOSED NEW TIE-IN AND ASSOCIATED CATCH BASINS.
iii. CONSTRUCT PROPOSED INTERSECTION RADII, INCLUDING CURB RETURNS, AND CONSTRUCT NEW TIE-IN BETWEEN EXISTING WEST THOMAS AVE (-Y37-) AND PINEY GREEN RD (-L-) UP TO BUT NOT INCLUDING FINAL SURFACE LAYER. [SEE TMP-81]
iv. REMOVE BARRICADES AND COVER/REMOVE DETOUR AND ROAD CLOSURE SIGNS AND RE-OPEN WEST THOMAS AVE (-Y37-) TO TRAFFIC ON NEW ALIGNMENT. [SEE STEP "B" INSET ON TMP-81]

STEP 7:

A) REOPEN NORTHEAST CORNER OF THE INTERSECTION OF BALSAM RD (-Y21-)/WHITE OAK H.S. DRIVEWAY AND PINEY GREEN RD TO PEDESTRIAN TRAFFIC. CONSTRUCT LEFT SIDE WEDGING AND RESURFACING ON WEST LEG OF THE INTERSECTION. [SEE DETAIL B ON TMP-72]

THE CONTRACTOR SHALL COMPLETE ALL WORK IN PHASE II, STEP 7B, WITHIN 14 CALENDAR DAYS.

B) PERFORM THE FOLLOWING WORK TO CONSTRUCT THE PROPOSED TONI DR (-Y27-) TIE-IN TO PINEY GREEN RD (-L-) AT NEW GRADE USING A TEMPORARY ROAD CLOSURE AS FOLLOWS [SEE TMP-76 AND TMP-122]:

i. INSTALL ROAD CLOSURE, DETOUR SIGNS AND BARRICADES AS SHOWN ON TMP-122 TO TEMPORARILY CLOSE TONI DR (-Y27-) AT PINEY GREEN RD (-L-) AND DETOUR TRAFFIC VIA ELAINE DR AND COLONIAL DR (-Y28-).
ii. CONSTRUCT PROPOSED INTERSECTION RADII, INCLUDING CURB RETURNS, AND CONSTRUCT NEW TIE-IN AT PROPOSED GRADE BETWEEN EXISTING TONI DR (-Y27-) AND PINEY GREEN RD (-L-) UP TO BUT NOT INCLUDING FINAL SURFACE LAYER. [SEE TMP-76]
iii. REMOVE BARRICADES AND COVER/REMOVE DETOUR AND ROAD CLOSURE SIGNS AND RE-OPEN TONI DR (-Y27-) TO TRAFFIC.

THE CONTRACTOR SHALL COMPLETE ALL WORK IN PHASE II, STEP 7C, WITHIN 14 CALENDAR DAYS.

C) PERFORM THE FOLLOWING WORK TO CONSTRUCT THE PROPOSED COLONIAL DR (-Y28-) TIE-IN TO PINEY GREEN RD (-L-) AT NEW GRADE USING A TEMPORARY ROAD CLOSURE AS FOLLOWS [SEE TMP-76 AND TMP-122]:

i. INSTALL ROAD CLOSURE, DETOUR SIGNS AND BARRICADES AS SHOWN ON TMP-122 TO TEMPORARILY CLOSE COLONIAL DR (-Y28-) AT PINEY GREEN RD (-L-) AND DETOUR TRAFFIC VIA WILDA DR AND CHARLIE DR (-Y29-).
ii. CONSTRUCT PROPOSED INTERSECTION RADII, INCLUDING CURB RETURNS, AND CONSTRUCT NEW TIE-IN AT PROPOSED GRADE (UNDERCUT) BETWEEN EXISTING COLONIAL DR (-Y28-) AND PINEY GREEN RD (-L-) UP TO BUT NOT INCLUDING FINAL SURFACE LAYER. [SEE TMP-76]
iii. REMOVE BARRICADES AND COVER/REMOVE DETOUR AND ROAD CLOSURE SIGNS AND RE-OPEN TONI DR (-Y27-) TO TRAFFIC.

D) COMPLETE CONSTRUCTION OF LEFT SIDE OF CULVERT AT STA 51+68 +/- -L-. UPON COMPLETION OF CULVERT, CONSTRUCT PINEY GREEN RD LEFT SIDE PAVEMENT OVER TOP OF NEW CULVERT UP TO BUT NOT INCLUDING FINAL SURFACE LAYER FROM STA 49+30 +/- -L- TO MIKE LOOP RD (-Y10-). [SEE TMP-65, DETAIL A]

STEP 8: USING 1101.02, SHEET 1, REMOVE P.C.B., CONSTRUCT TIE-IN BETWEEN REALIGNED MIKE LOOP RD (-Y10-) AND EXISTING MIKE LOOP RD, THEN SHIFT MIKE LOOP RD (-Y10-) TRAFFIC TO NEW ALIGNMENT AS SHOWN ON TMP-65, DETAIL B. CONSTRUCT EAST SIDE OF MIKE LOOP RD (-Y10-) AND PINEY GREEN RD LEFT SIDE PAVEMENT ACROSS FORMER -Y10- TIE-IN. [SEE TMP-65, DETAIL B]

COMPLETE CONSTRUCTION OF THE FOLLOWING BOX CULVERTS:

* STA 167+39 +/- -L- RIGHT SIDE [SEE TMP-76 AND SECTION C-C]
* STA 274+68 +/- -L- RIGHT SIDE [SEE TMP-84 AND SECTION D-D]
* STA 329+70 +/- -L- LEFT SIDE [SEE TMP-88 AND SECTION E-E]

ONCE THE BOX CULVERTS ABOVE HAVE BEEN COMPLETED, CONSTRUCT THE FOLLOWING OVER THE TOP OF THE COMPLETED CULVERT SEGMENTS:

* PROPOSED RIGHT SIDE OF PINEY GREEN RD UP TO BUT NOT INCLUDING FINAL SURFACE LAYER FROM STA 165+00+/- -L- TO STA 168+00 +/- -L-.[SEE INSET B ON TMP-76]
* PROPOSED RIGHT SIDE OF PINEY GREEN RD UP TO BUT NOT INCLUDING FINAL SURFACE LAYER FROM STA 274+00+/- -L- TO STA 275+50 +/- -L-.[SEE INSET B ON TMP-84]
* PROPOSED LEFT SIDE OF PINEY GREEN RD UP TO BUT NOT INCLUDING FINAL SURFACE LAYER FROM STA 328+42 +/- -L- TO STA 331+07 +/- -L-.[SEE INSET B ON TMP-88]

COMPLETE CONSTRUCTION OF RIGHT SIDE OF PINEY GREEN RD (-L-) UP TO BUT NOT INCLUDING FINAL SURFACE LAYER BETWEEN STA 159+21 +/- (-L-) AND STA 317+41 +/- -L-. [SEE TMP-75 THRU TMP-87]

COMPLETE CONSTRUCTION OF LEFT SIDE OF PINEY GREEN RD (-L-) UP TO BUT NOT INCLUDING FINAL SURFACE LAYER FROM STA 321+25 +/- (-L-) TO 328+42 +/- (-L-) AND FROM 331+07 +/- (-L-) TO 336+30 +/- (-L-). [SEE TMP-87 AND TMP-88]

COMPLETE CONSTRUCTION OF -Y- LINES ON PINEY GREEN RD BETWEEN IRIS LN (-Y7-) AND CARVER DR (-Y49-) UP TO BUT NOT INCLUDING FINAL SURFACE LAYER.

PLACE PHASE III TEMPORARY MARKINGS AS MUCH AS POSSIBLE AWAY FROM TRAFFIC ON PINEY GREEN RD BETWEEN MIKE LOOP RD/IRIS LN (-Y7-) AND CARVER DRIVE (-Y29-). [SEE TMP-93 THRU TMP-120 FOR PHASE III TEMPORARY MARKINGS].

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SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

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PHASING PHASE II

06-AUG-2012 16:58
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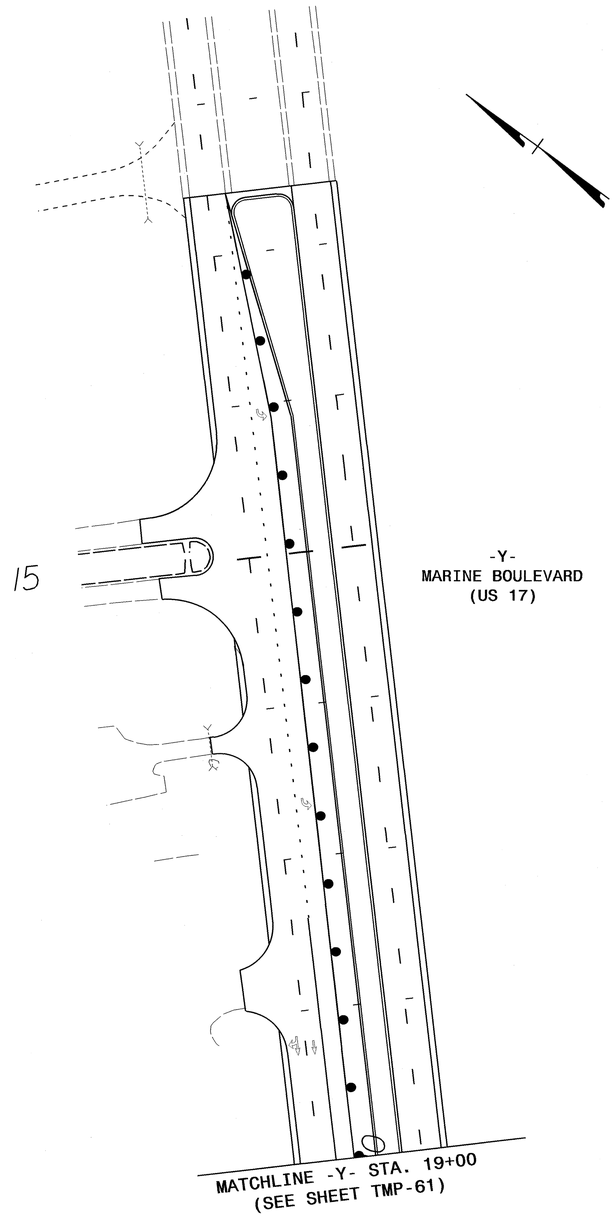

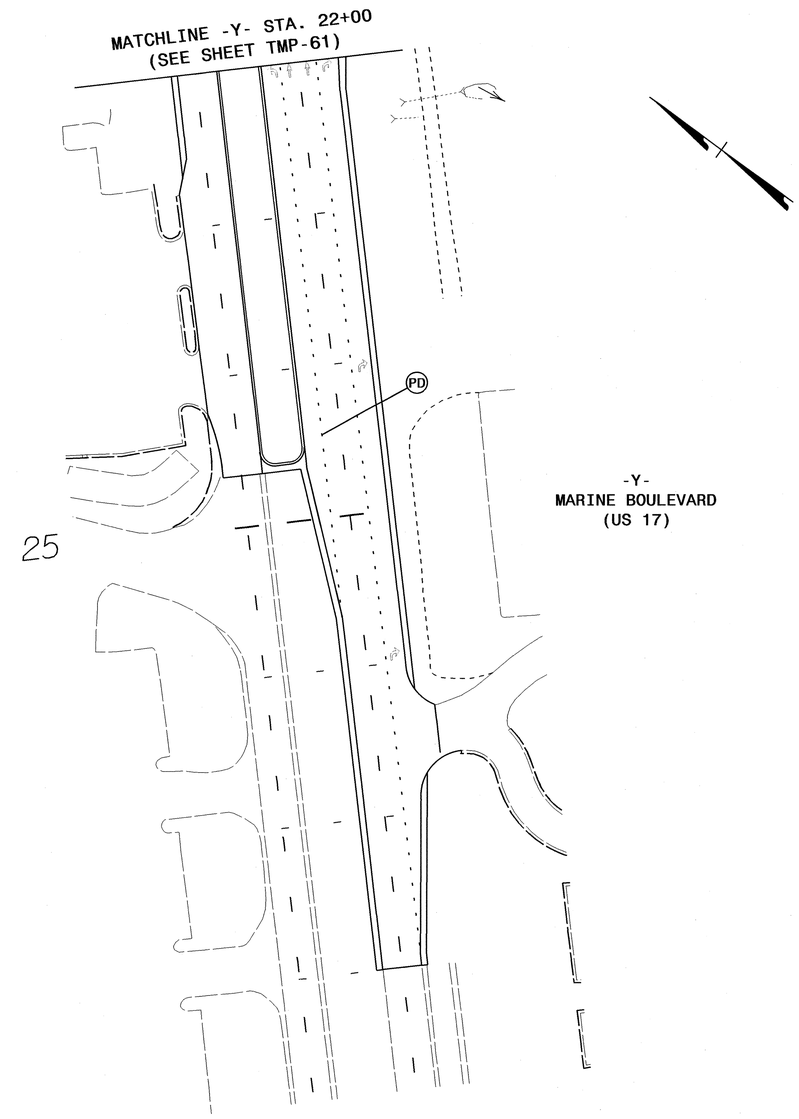

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12054 AT RAL2UA1430YTD

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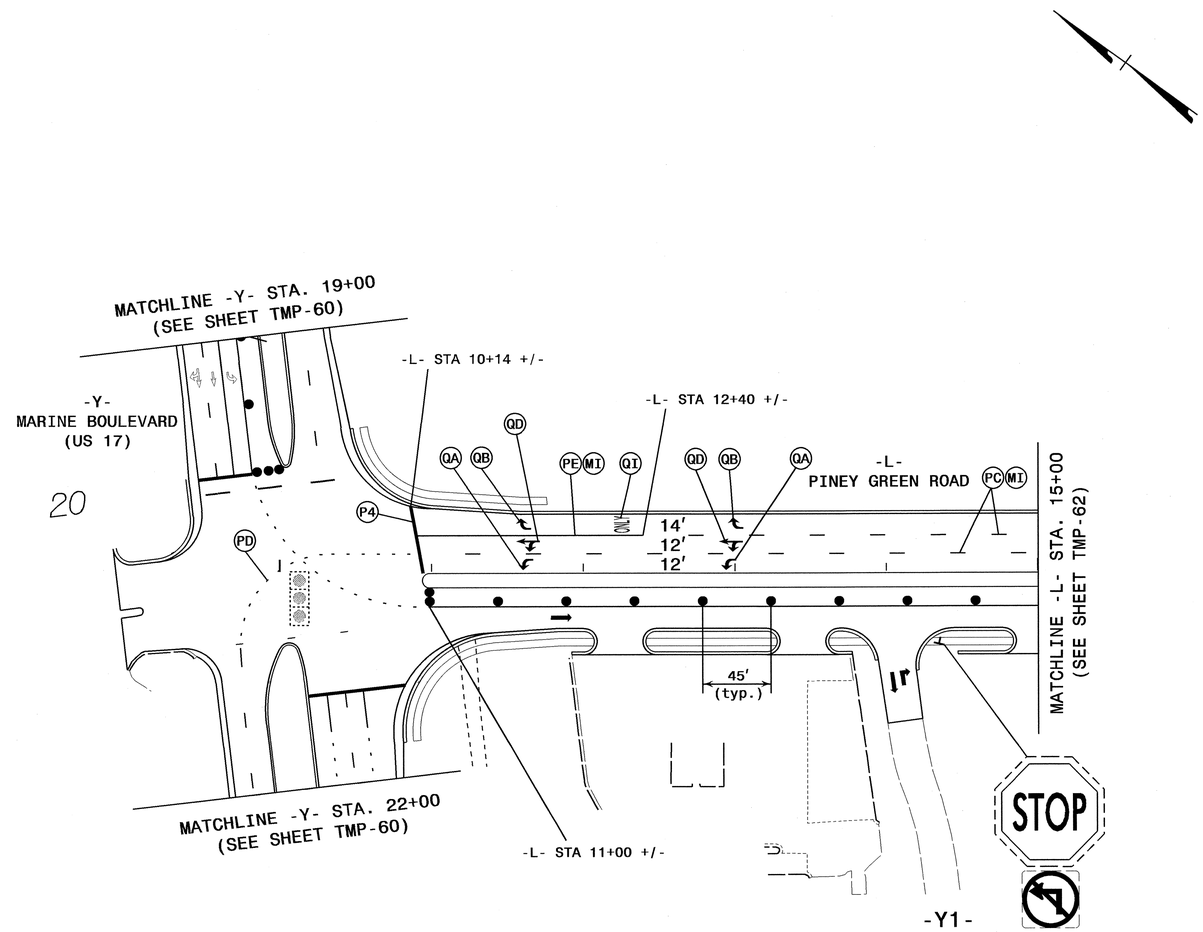
PHASE II DETAIL

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-61



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PHASE II DETAIL

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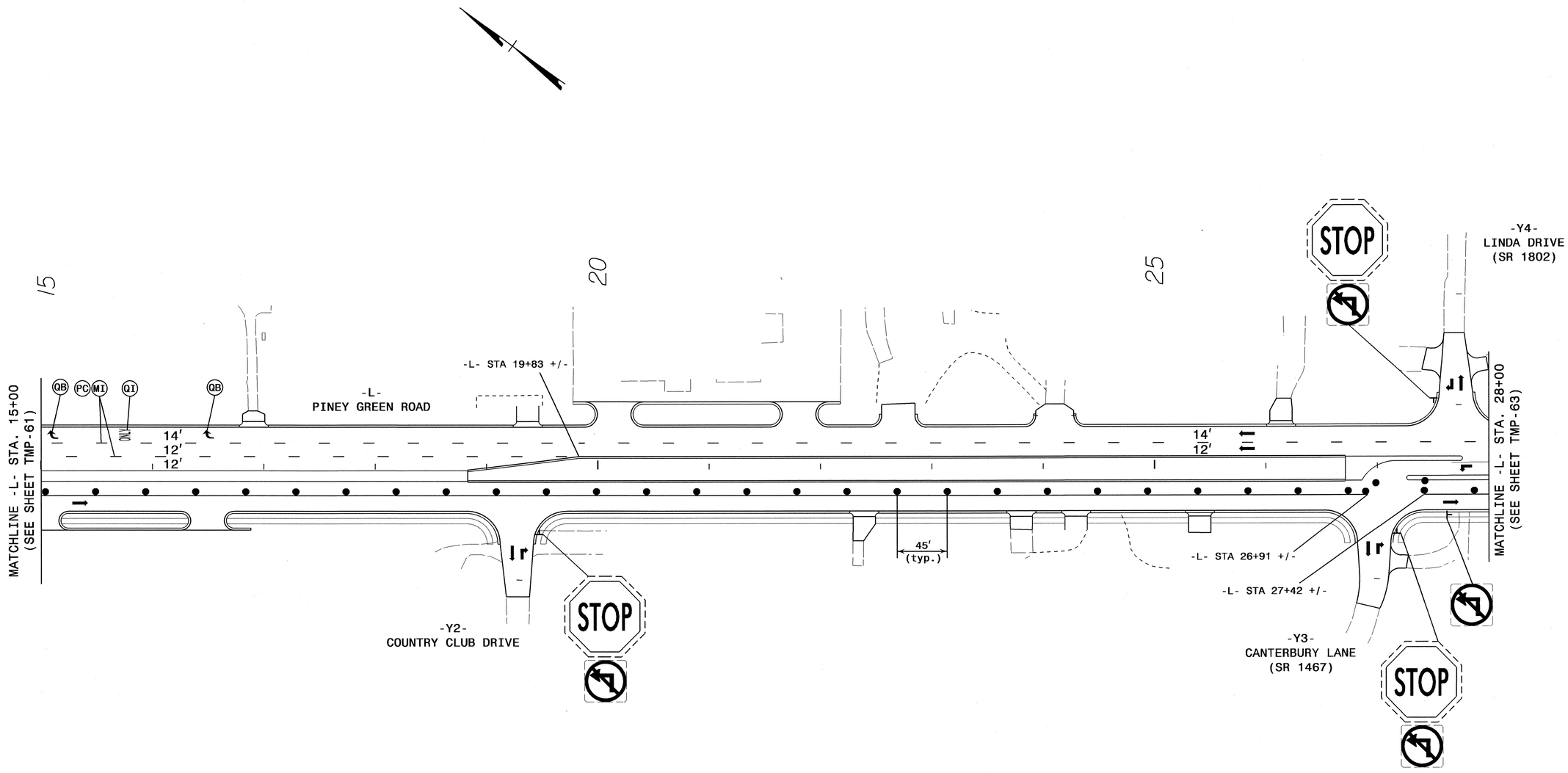

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PHASE II DETAIL

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22-MAY-2012 09:29
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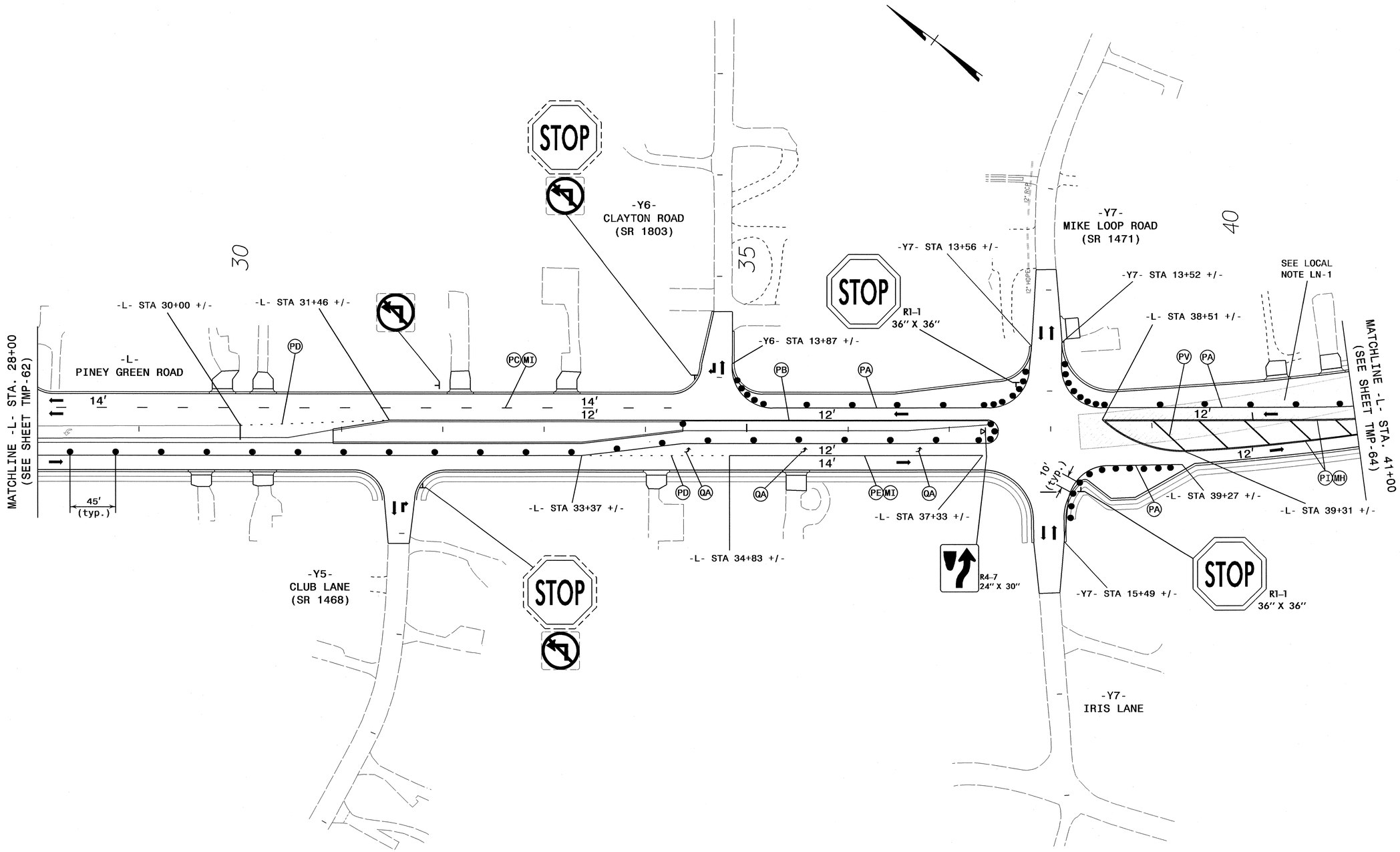

APPROVED: [signature] DATE: 5/22/12

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22-MAY-2012 09:29
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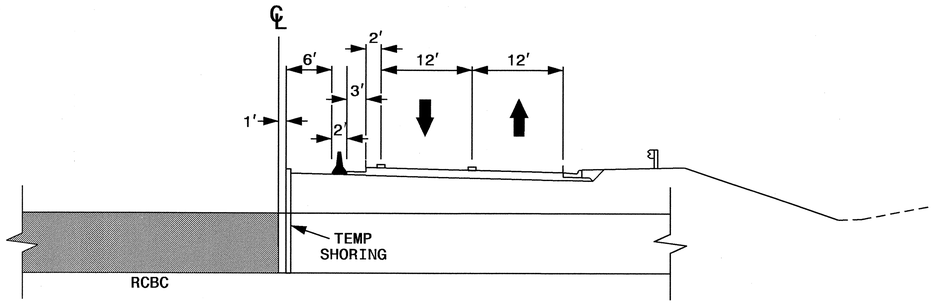

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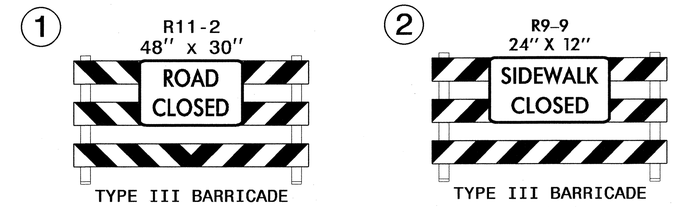

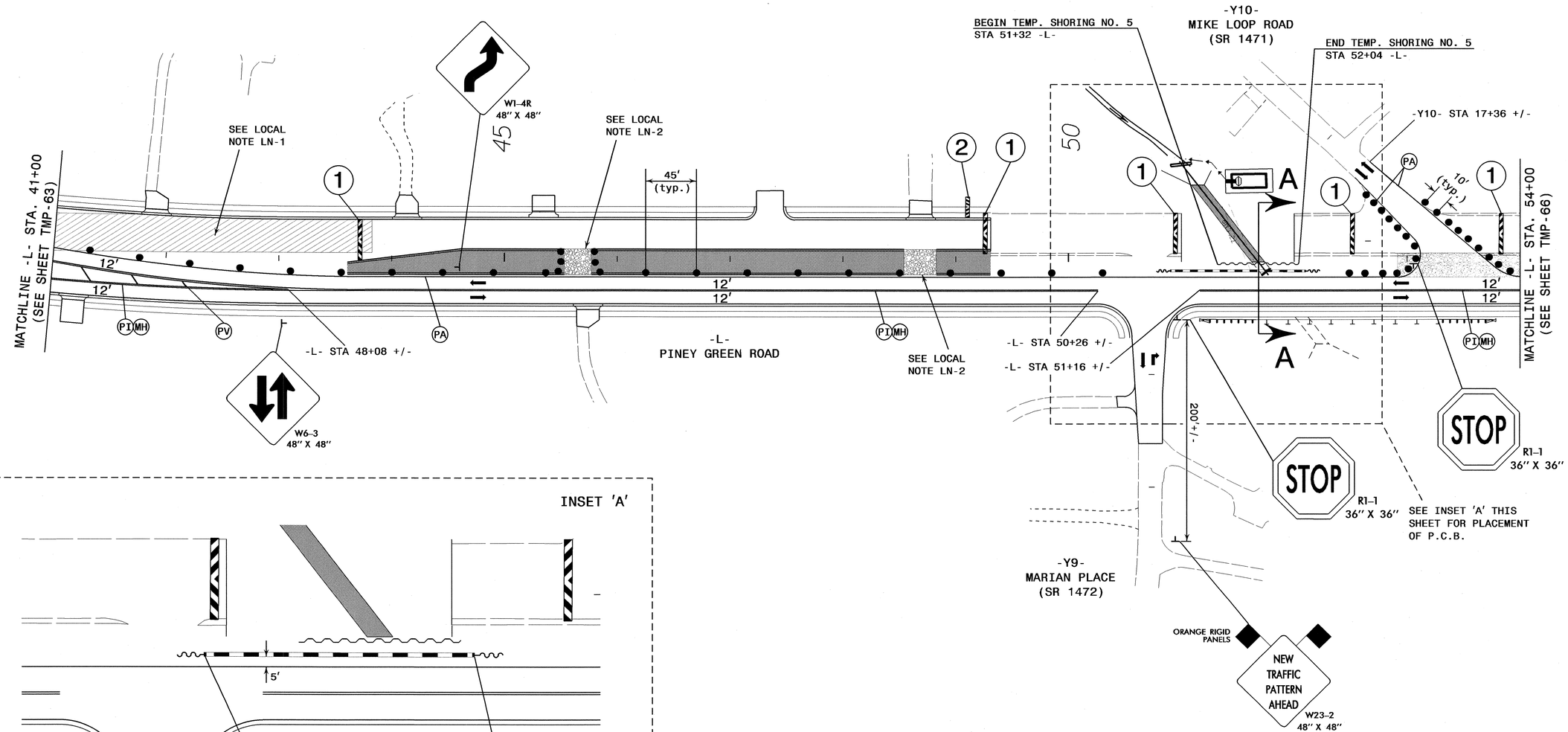

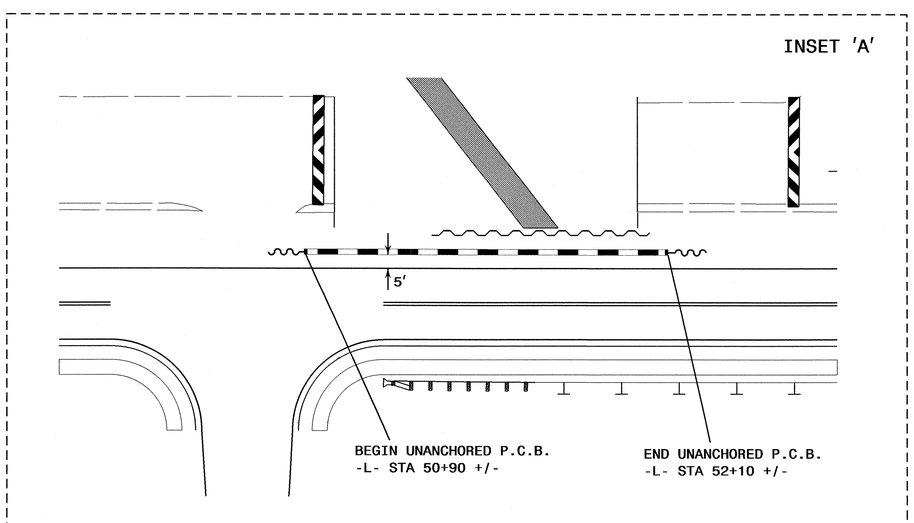

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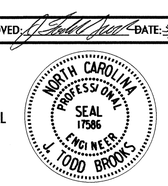

PHASE II DETAIL

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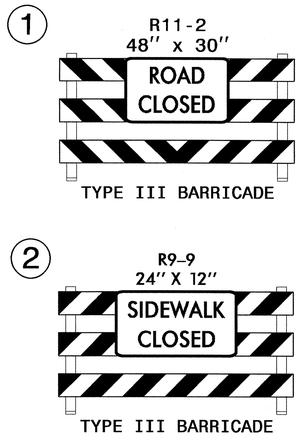
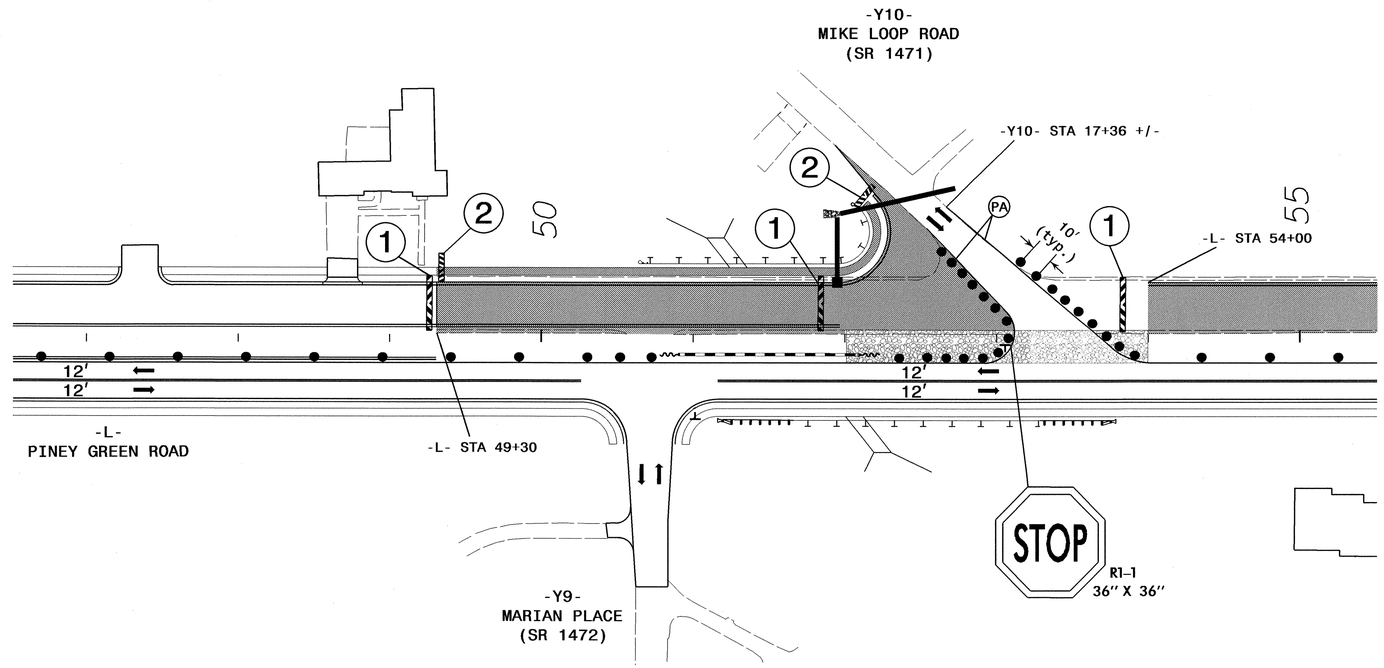
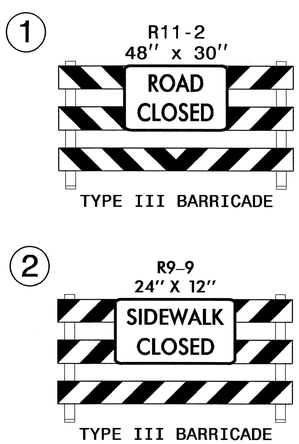
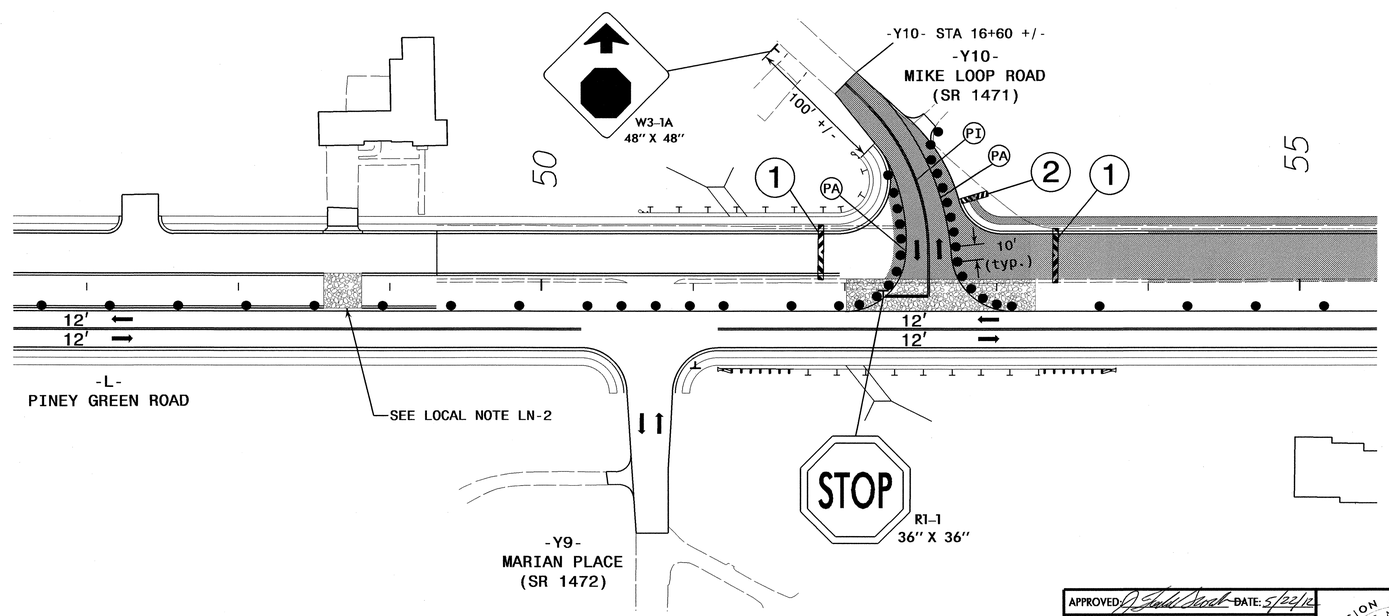
U-3810	TMP-65





DETAIL A





DETAIL B

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PHASE II DETAIL

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22-MAY-2012 09:29
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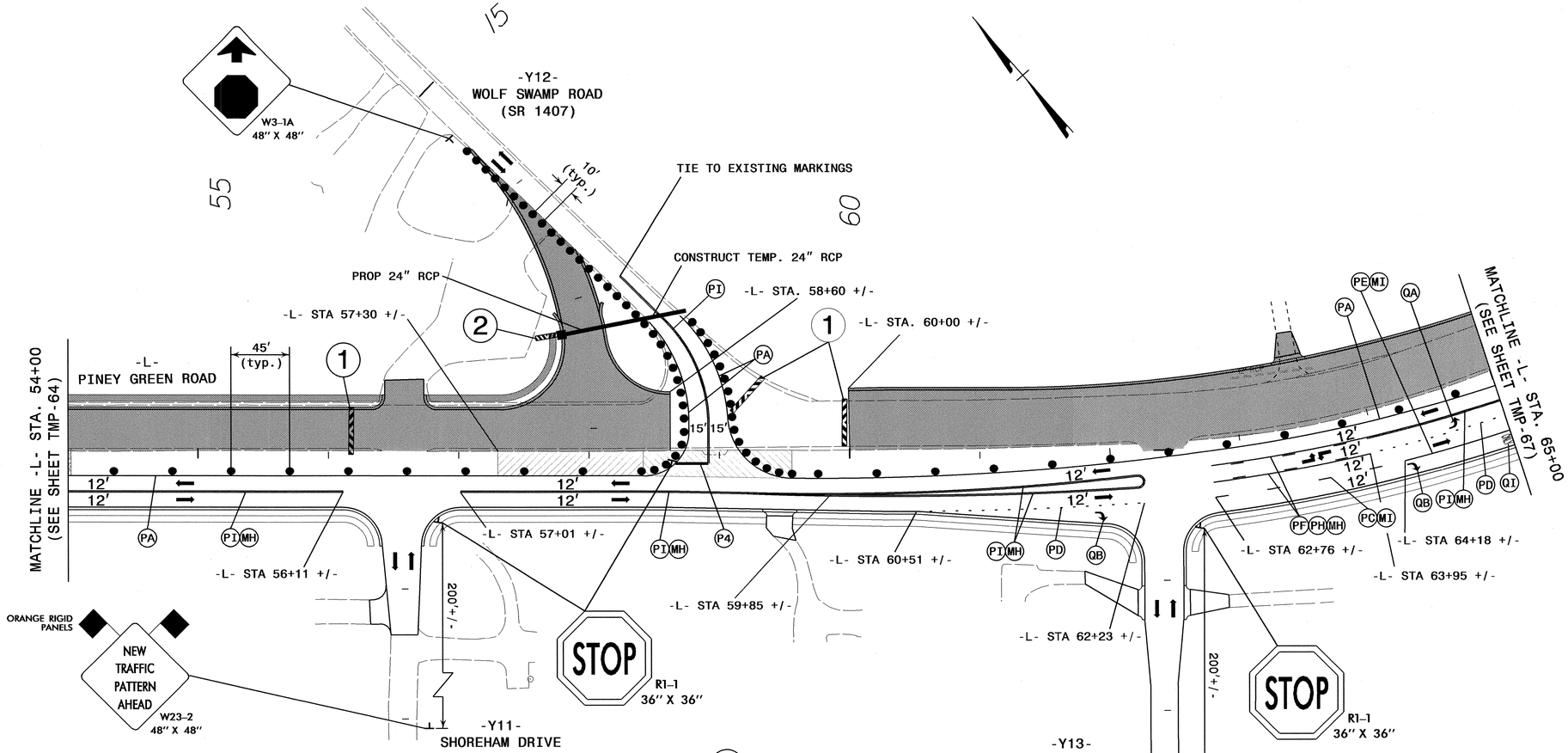
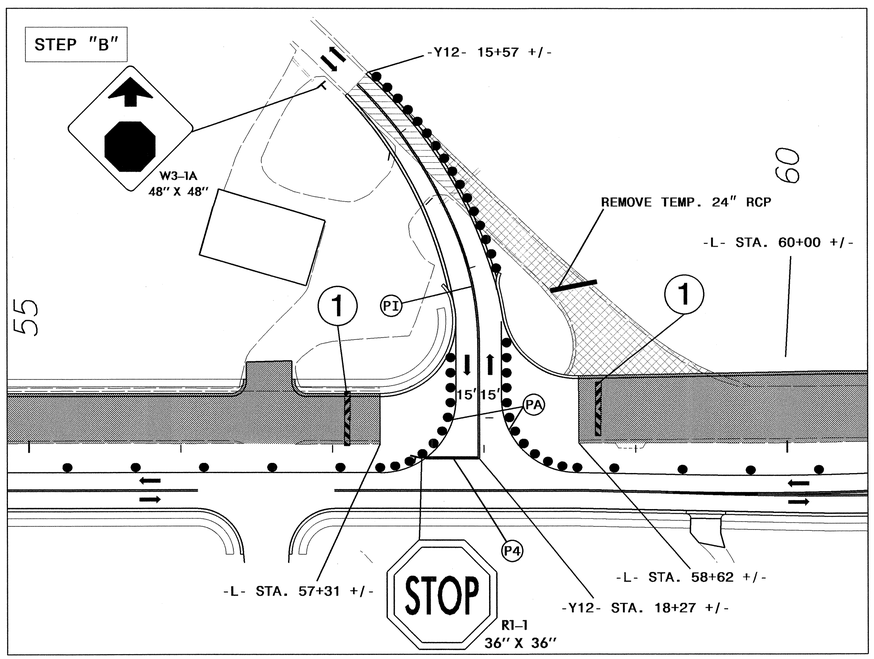
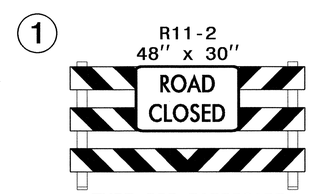
PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-66







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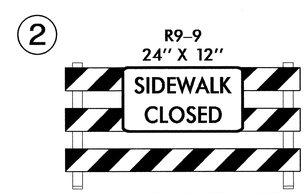

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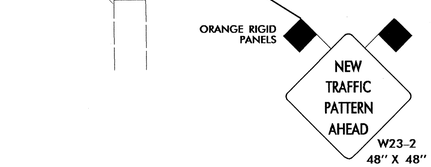

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PHASE II DETAIL

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22-MAY-2012 09:29
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12054 AT RAL2UA1430Y7D

PROJ. REFERENCE NO.	SHEET NO.
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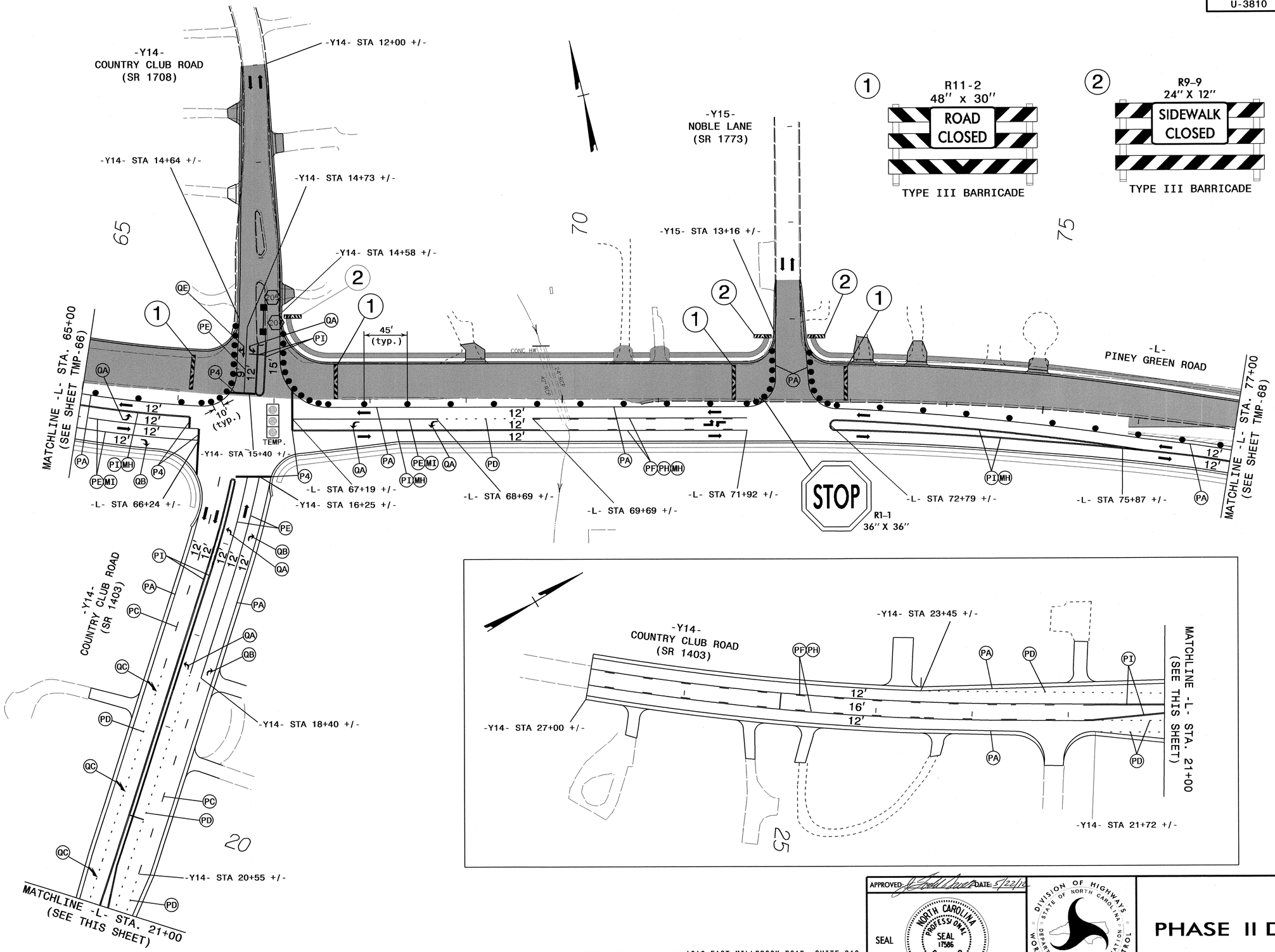

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PHASE II DETAIL

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22-MAY-2012 09:29
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12054 AT RAL2UA1430Y7D

PROJ. REFERENCE NO.	SHEET NO.
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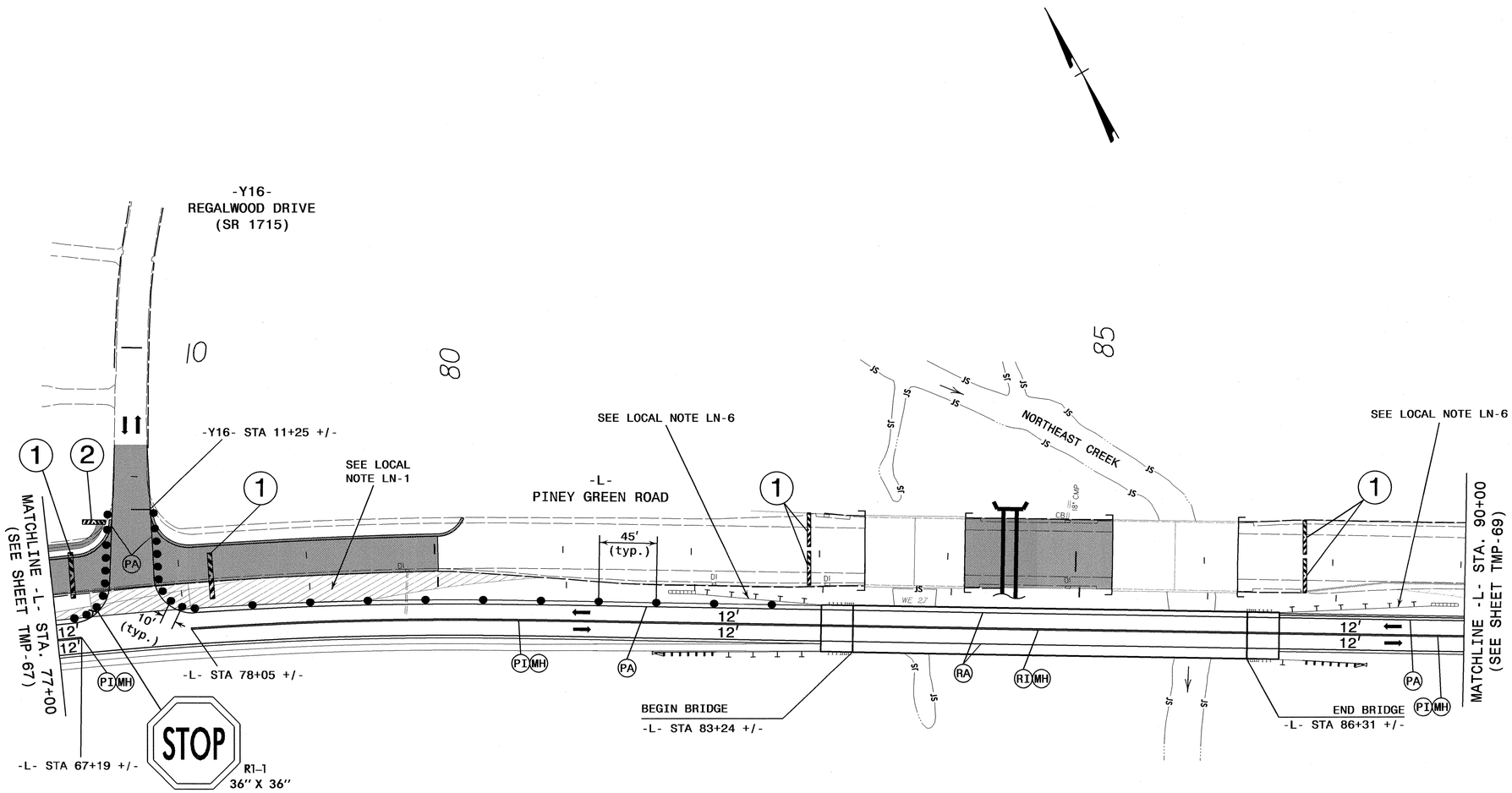

TYPE III BARRICADE

TYPE III BARRICADE

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PHASE II DETAIL

ATKINS
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22-MAY-2012 09:29
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PROJ. REFERENCE NO.	SHEET NO.
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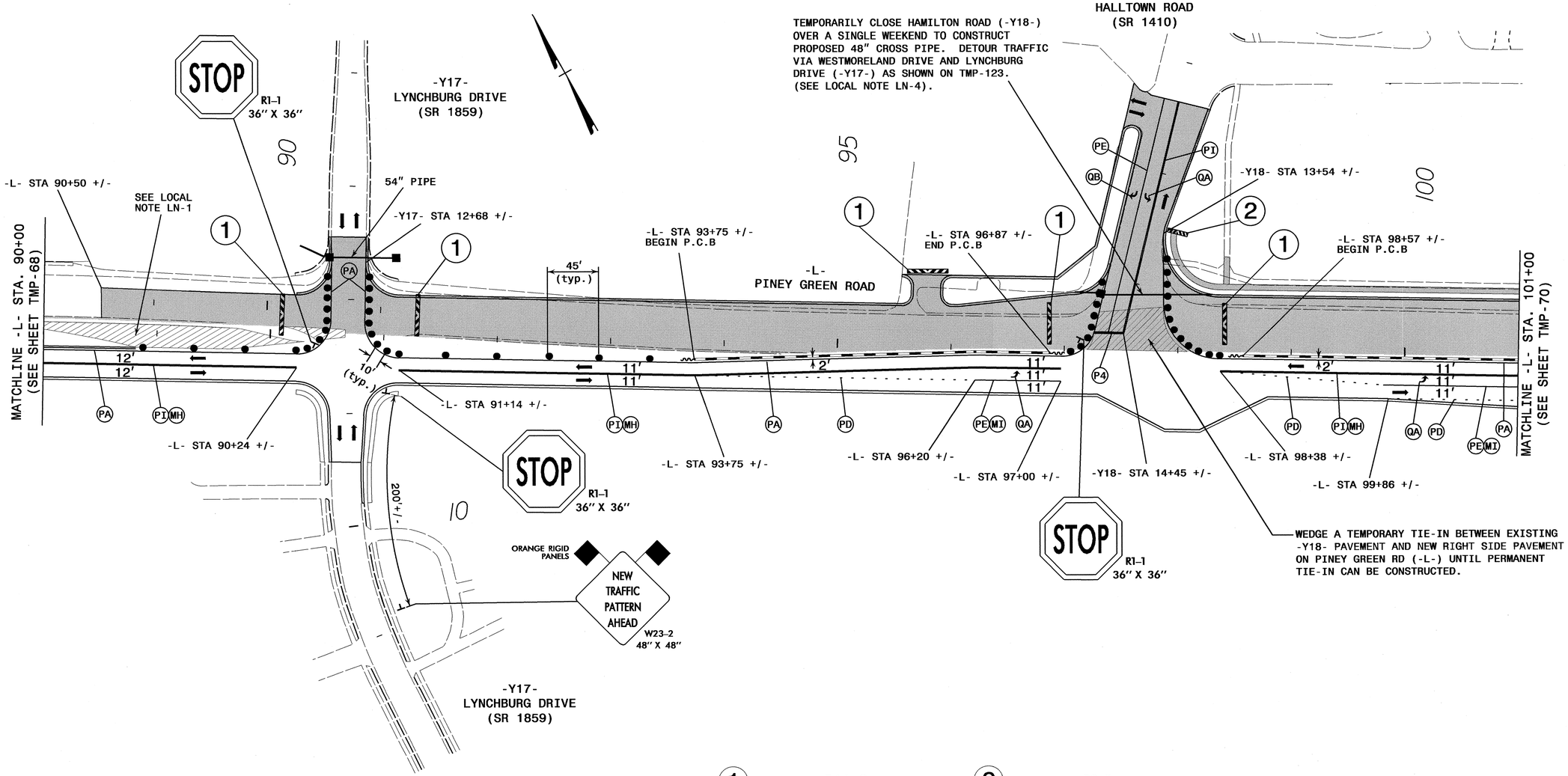

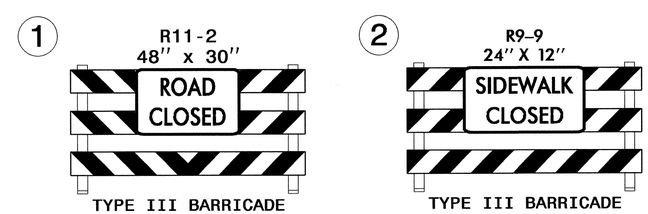

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PHASE II DETAIL

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07-AUG-2012 10:47
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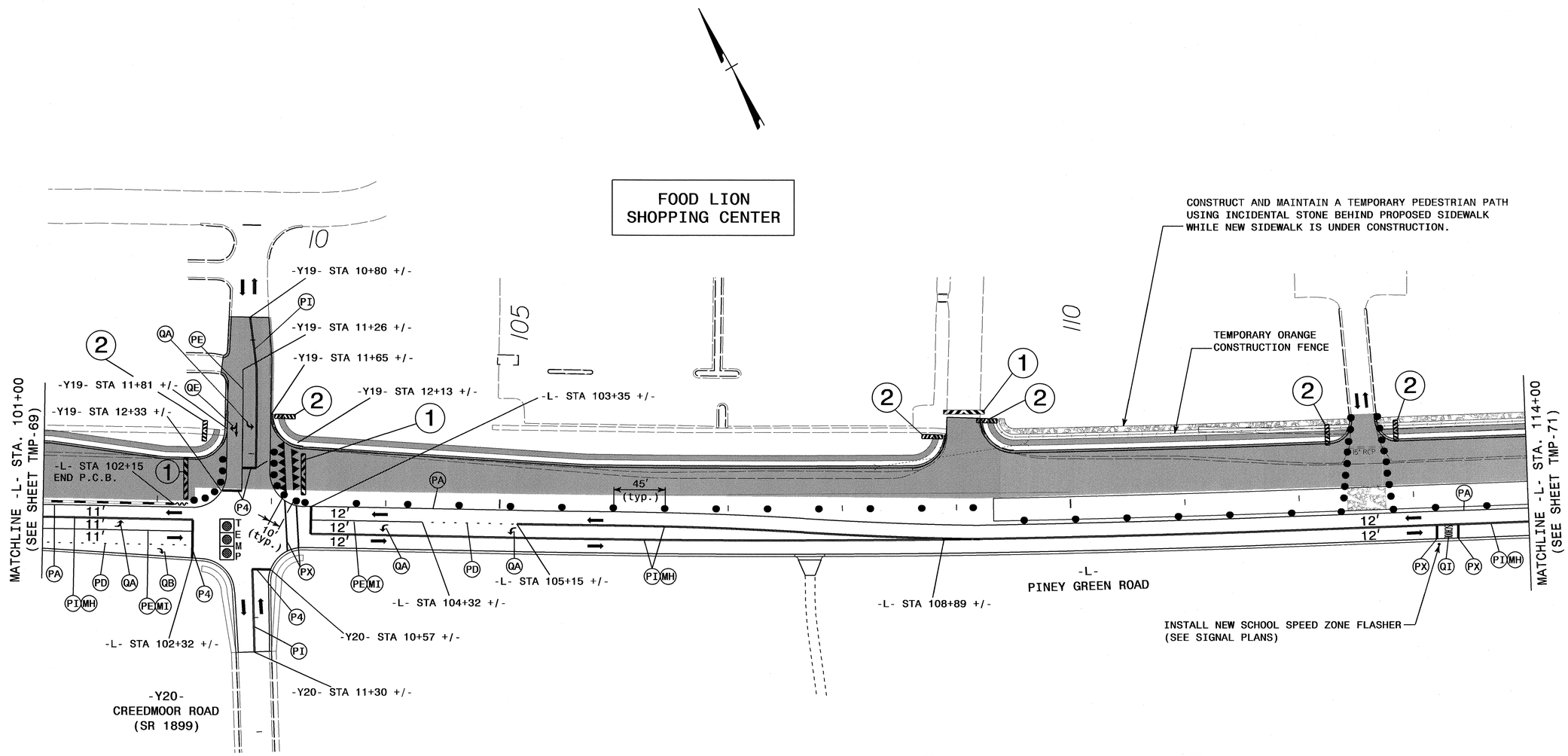
PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-70



1

R11-2
48" x 30"

TYPE III BARRICADE

2

R9-9
24" X 12"

TYPE III BARRICADE

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SEAL

PHASE II DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
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22-MAY-2012 09:29
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USER: ATPRL2JAI430TD

PROJ. REFERENCE NO.	SHEET NO.
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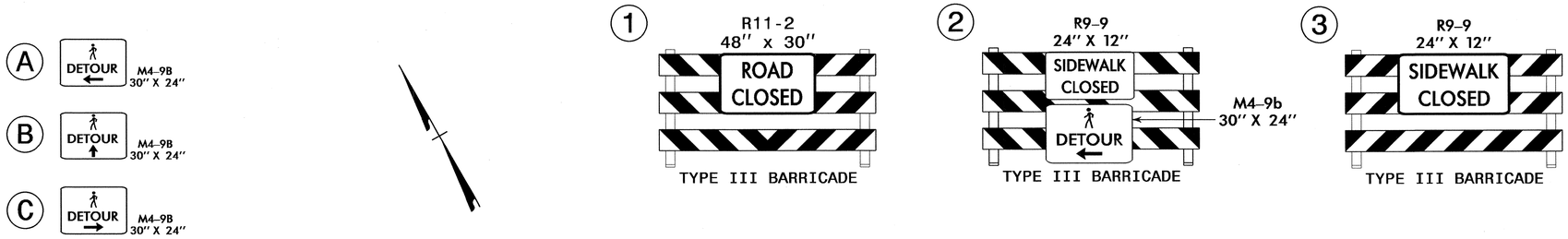

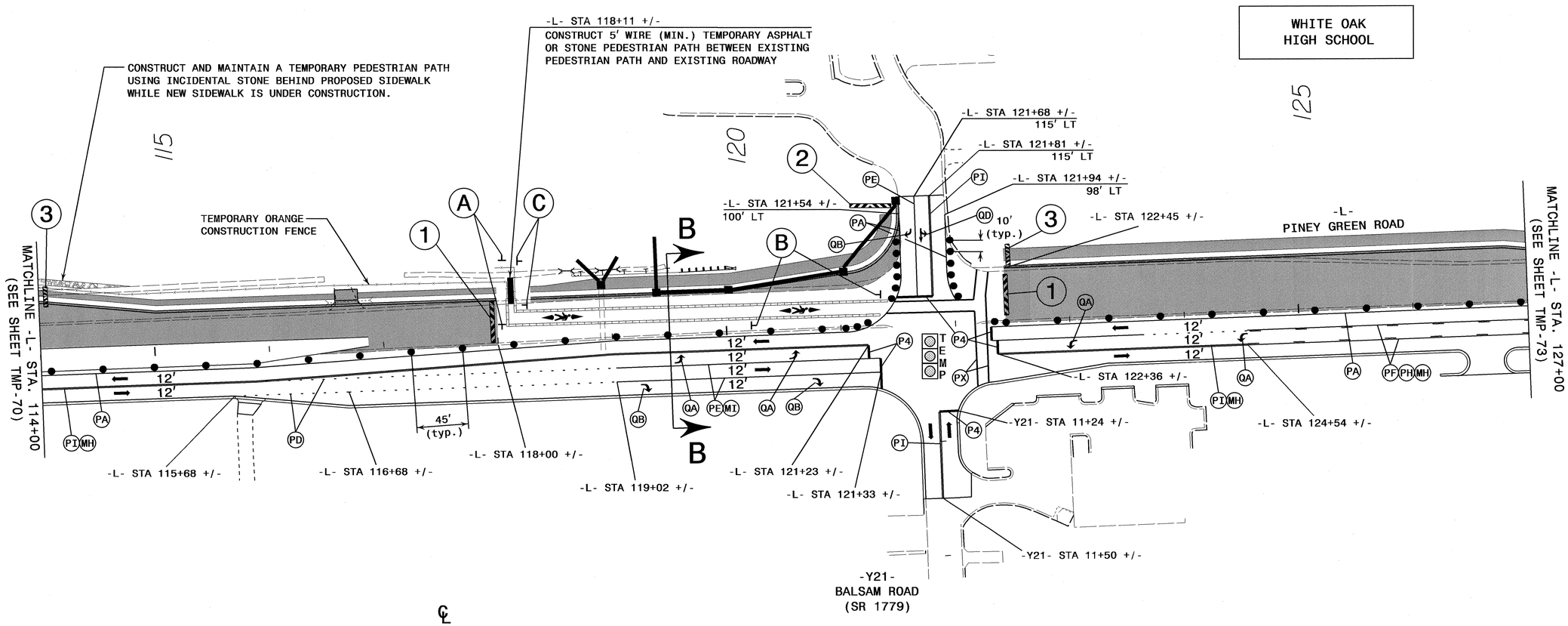

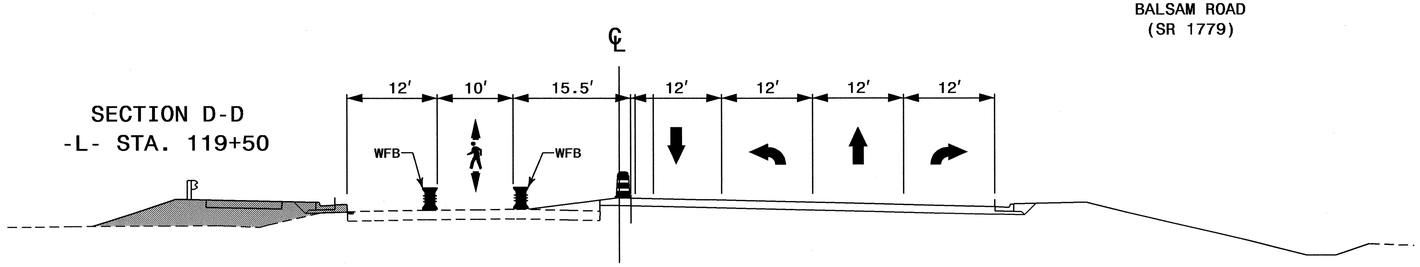

SECTION B-B

APPROVED: DATE: 5/24/12

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PHASE II DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
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22-MAY-2012 09:39
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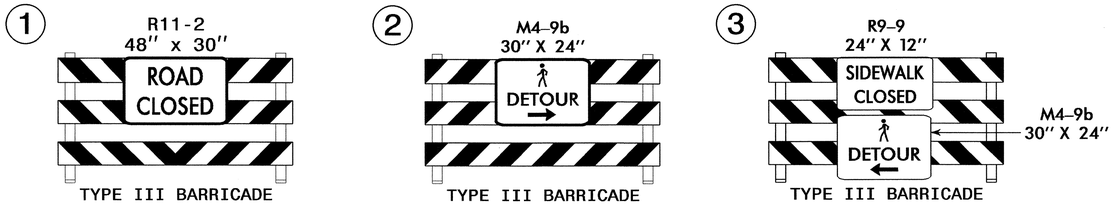
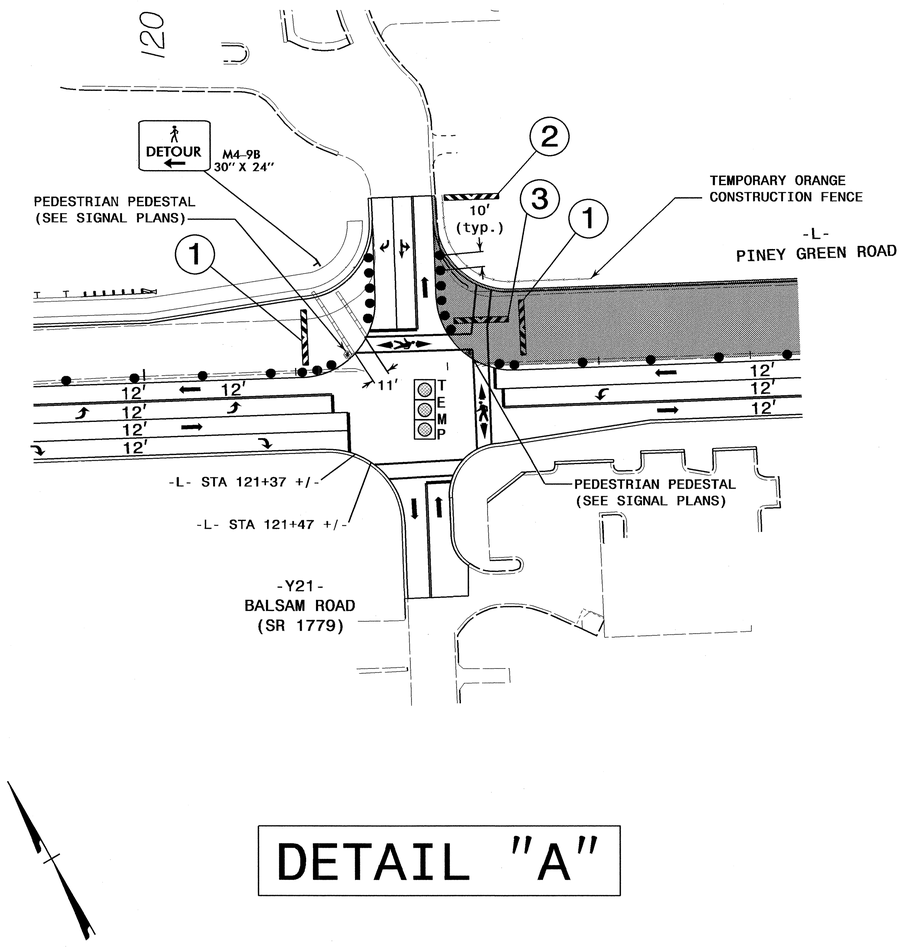
U-3810	TMP-72





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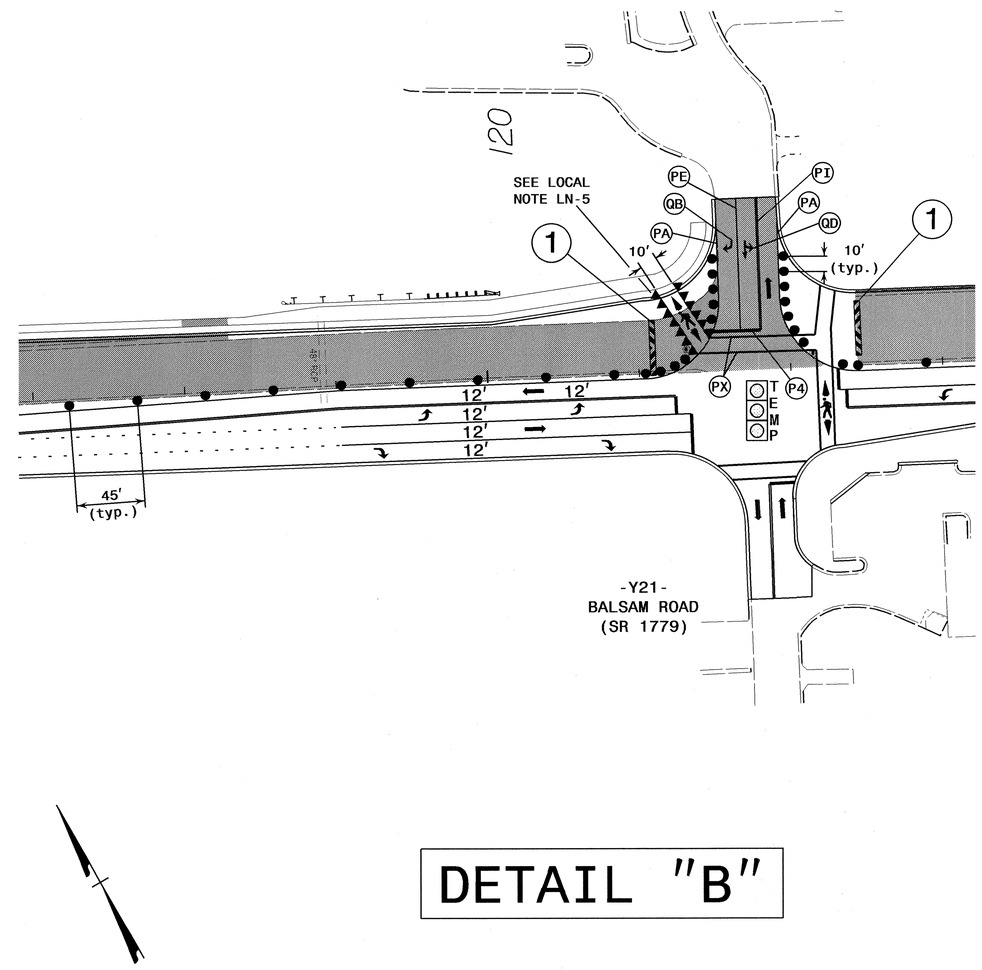

DETAIL "B"

APPROVED: [signature] DATE: 5/22/12

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PHASE II DETAIL

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22-MAY-2012 09:29
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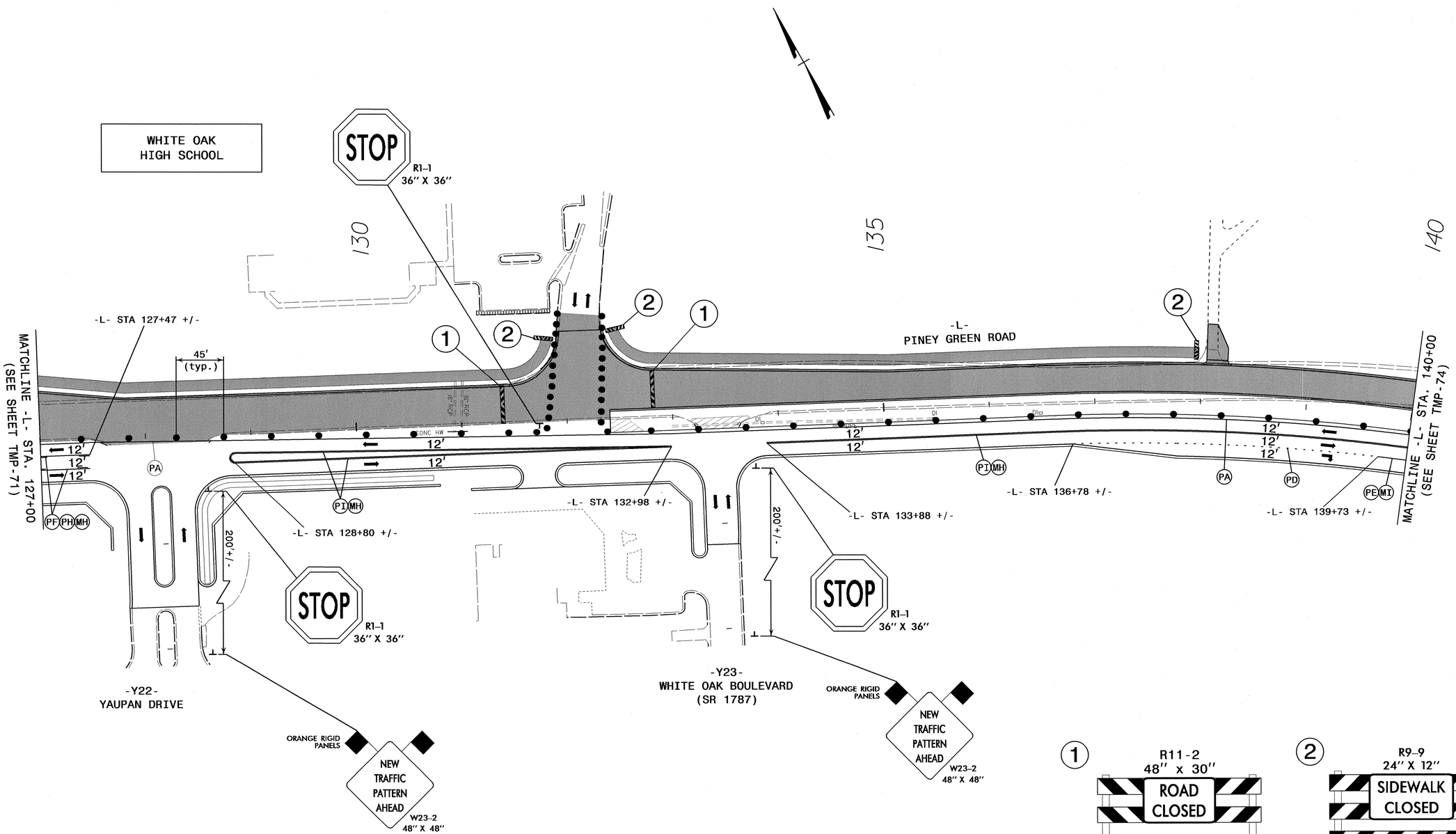
12054 AT RAL2UA1430YTD

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-73



APPROVED: [signature] DATE: 5/22/12

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PHASE II DETAIL

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22-MAY-2012 09:30
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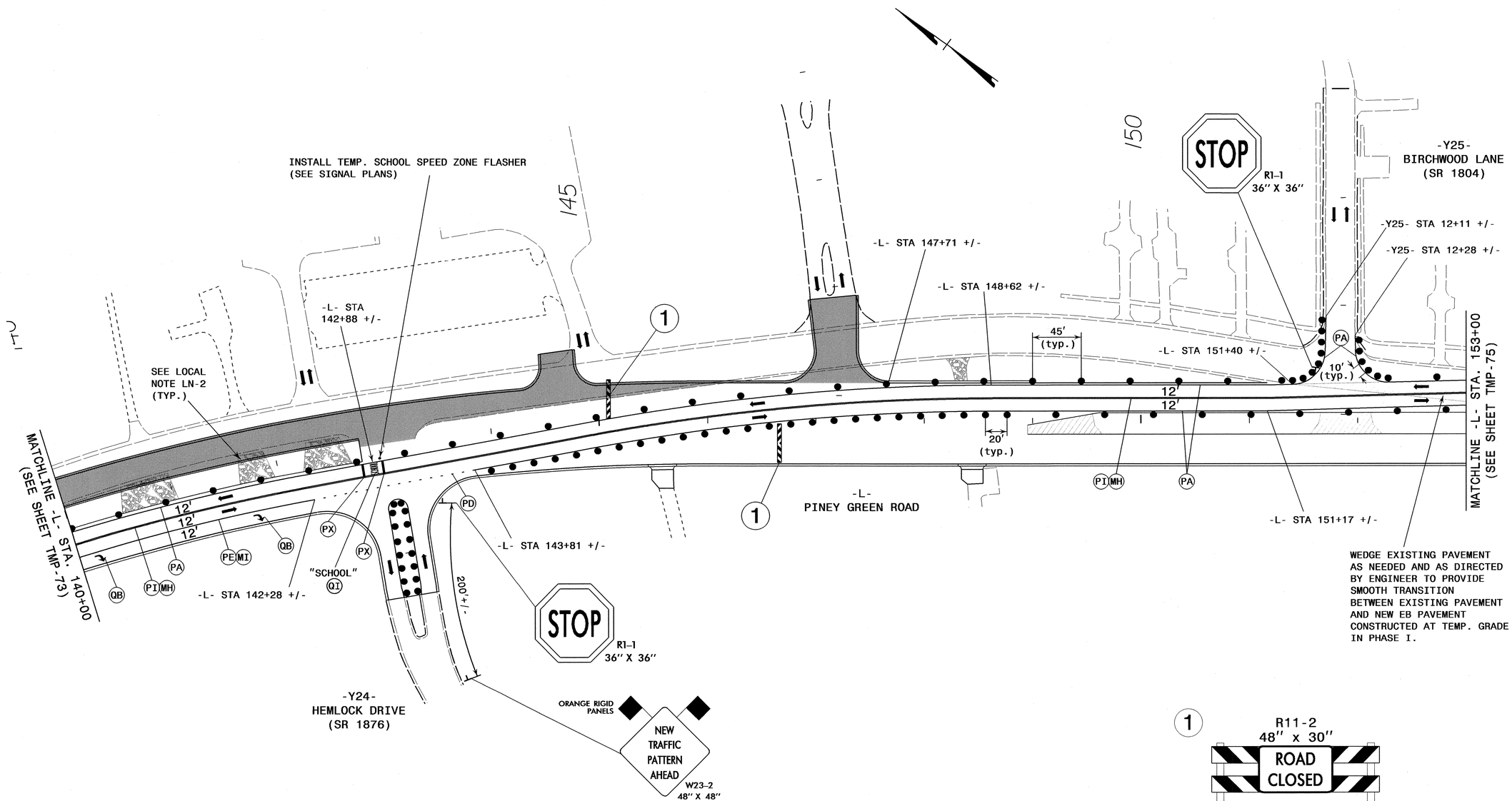
PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-74



APPROVED: [signature] DATE: 5/22/12

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PHASE II DETAIL

ATKINS
1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:30
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12054 AT RAL2UA1430YTD

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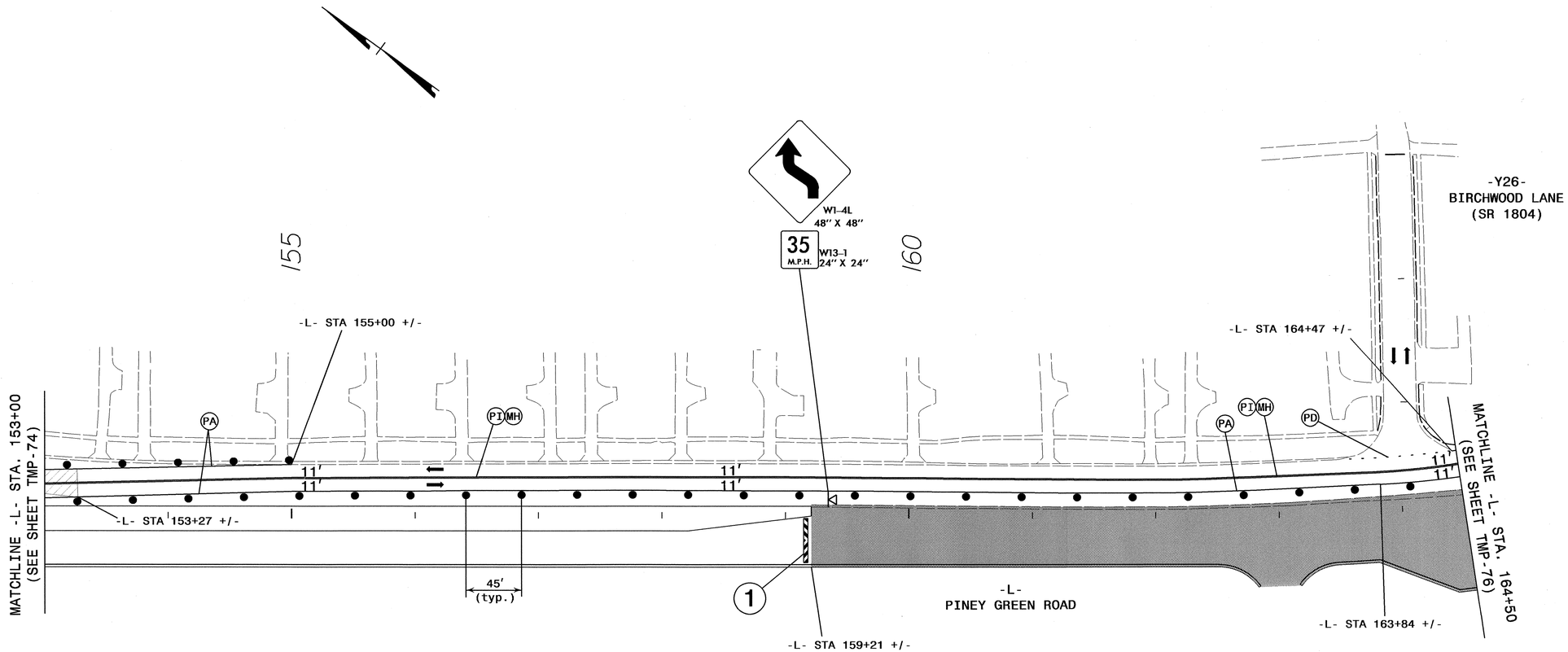

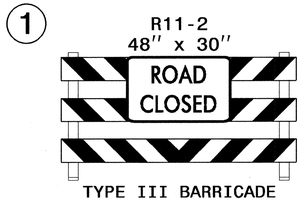

TYPE III BARRICADE

APPROVED: DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

PHASE II DETAIL

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1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:30
O:\Transportation\Traffic\Curr\100026110 - U-3810 Piney Green Rd\TCP\U3810_TC_TCP_075.dgn
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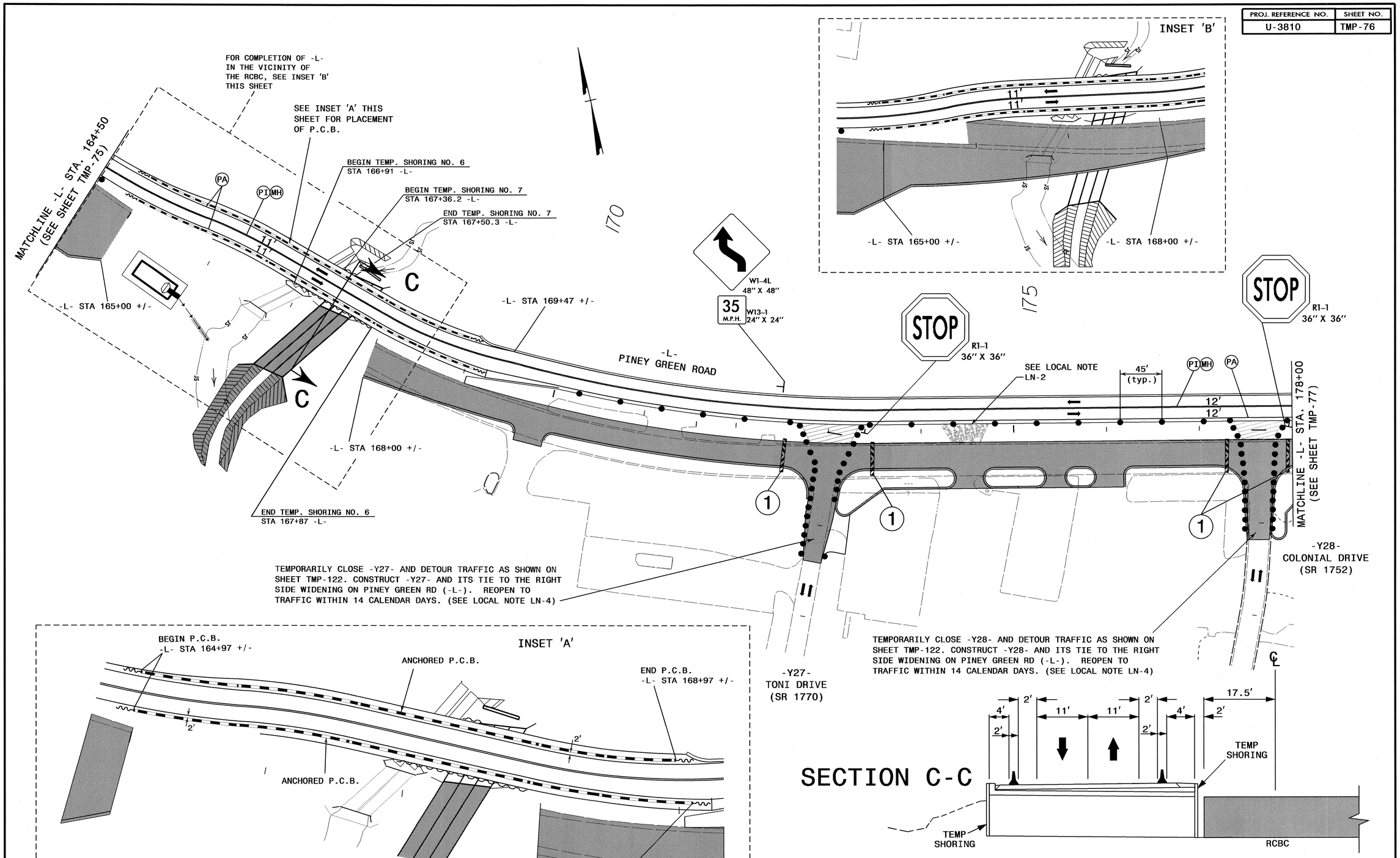
PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-76



APPROVED: [signature] DATE: 5/22/12

SEAL

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PHASE II DETAIL

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RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:30
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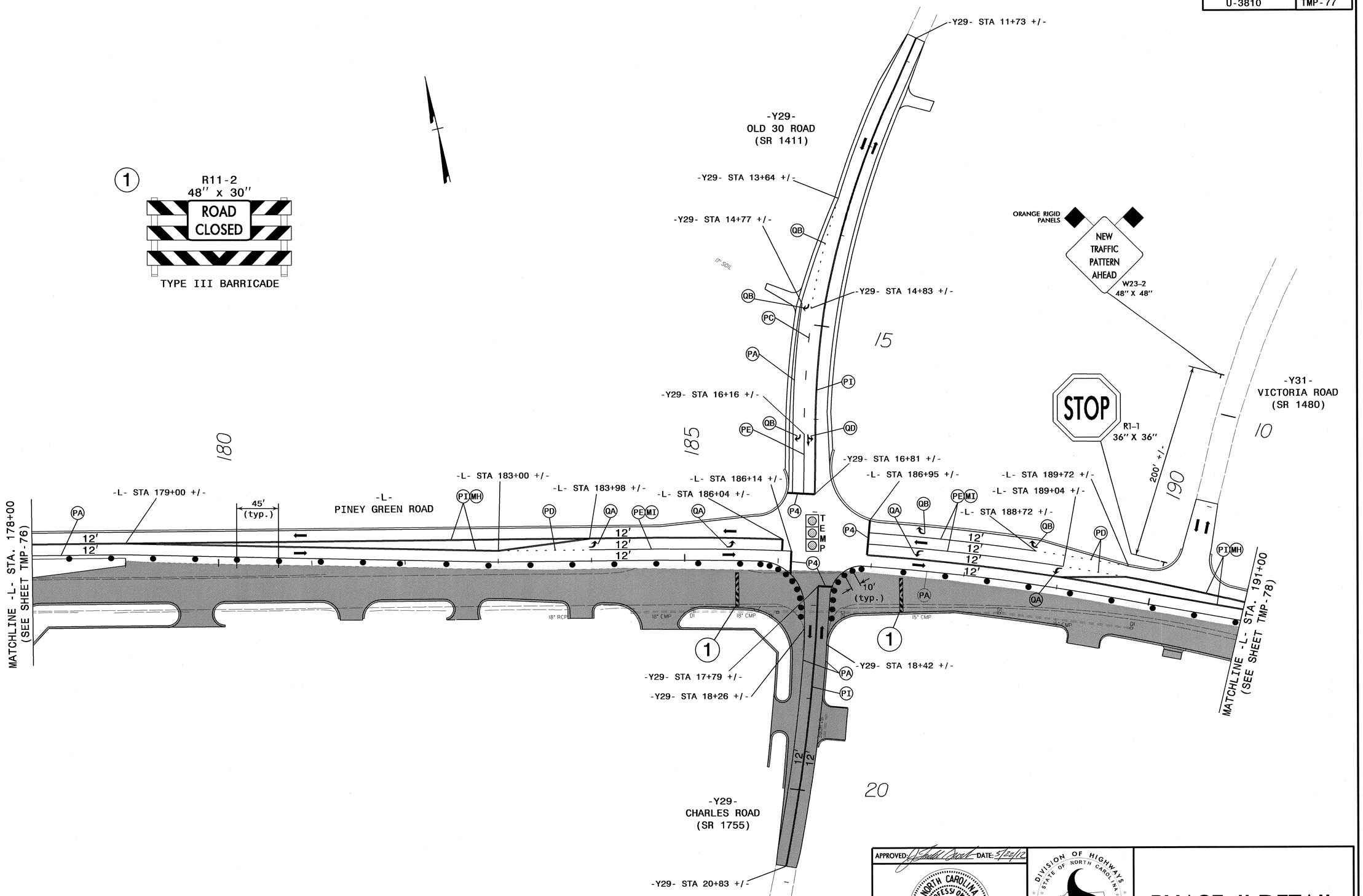

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PHASE II DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:30
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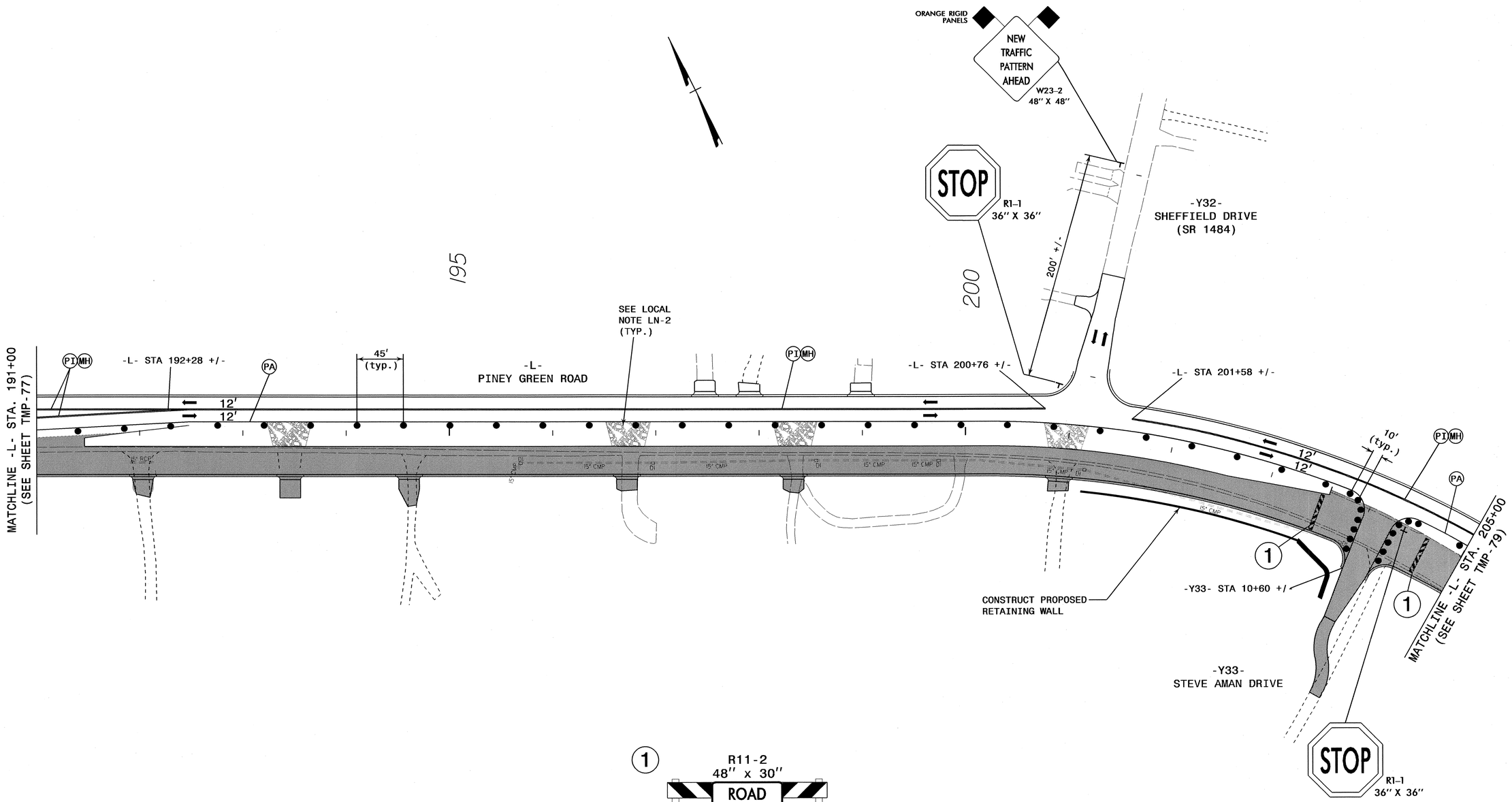

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PHASE II DETAIL

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RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:30
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PROJ. REFERENCE NO.	SHEET NO.
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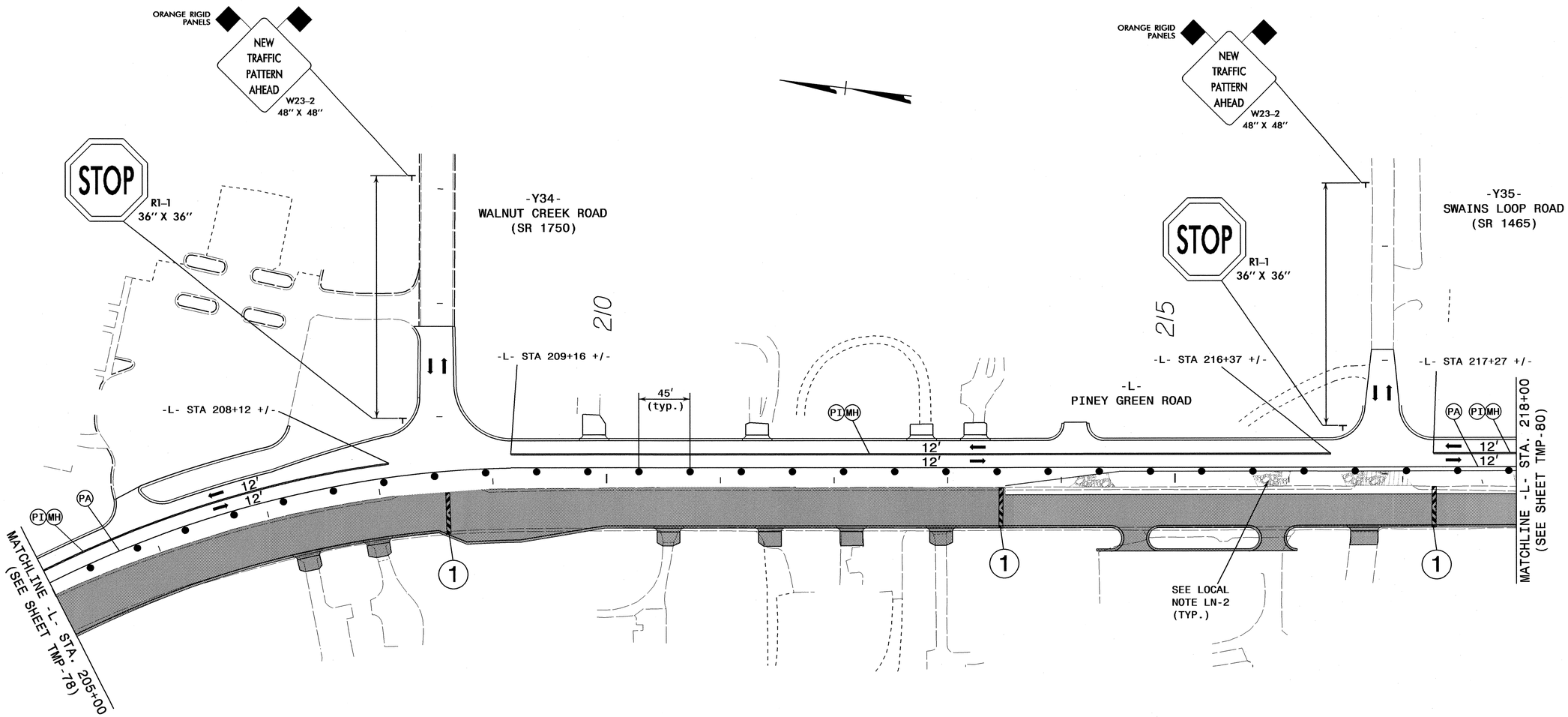

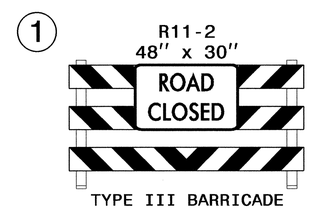

TYPE III BARRICADE

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PHASE II DETAIL

22-MAY-2012 09:30
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PROJ. REFERENCE NO.	SHEET NO.
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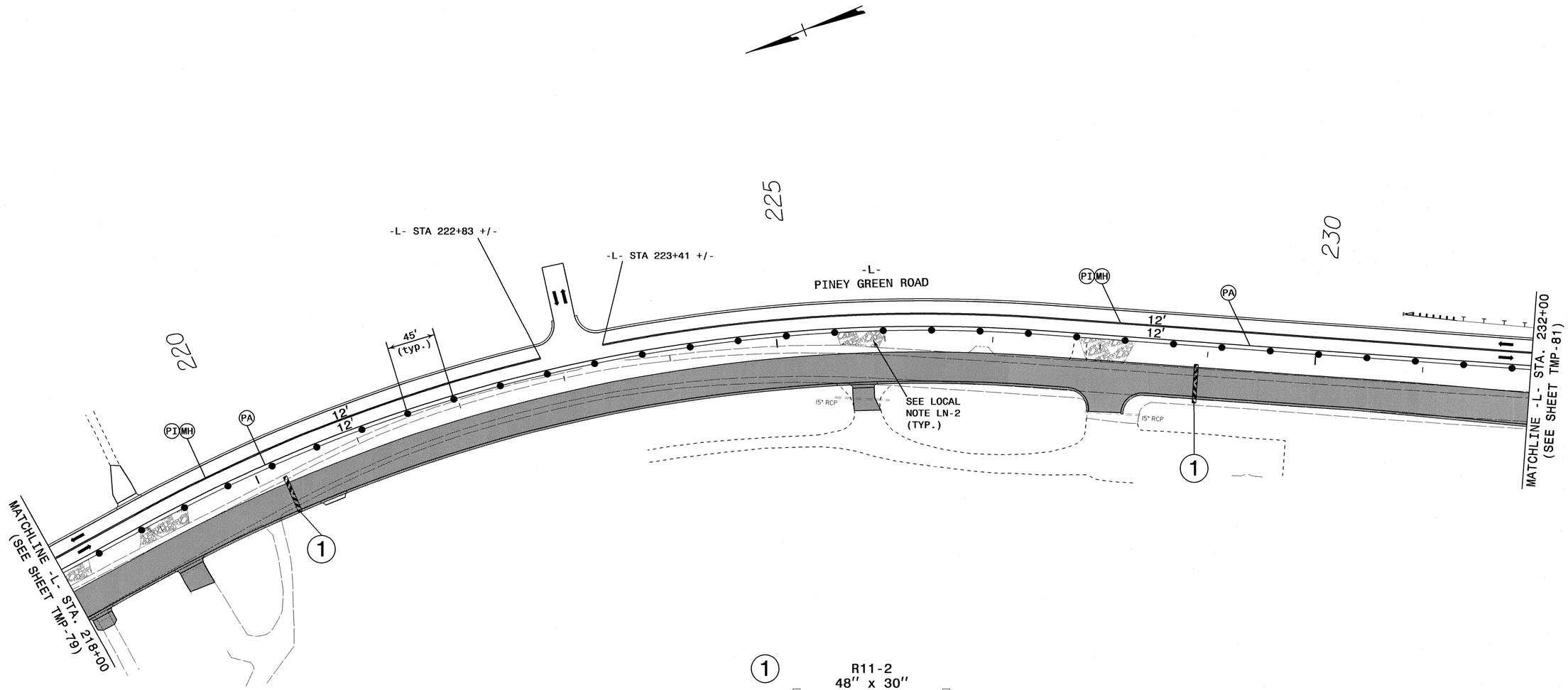

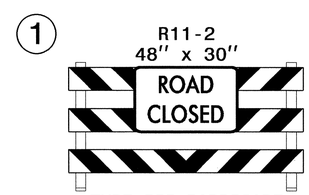

TYPE III BARRICADE

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PHASE II DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
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22-MAY-2012 09:30
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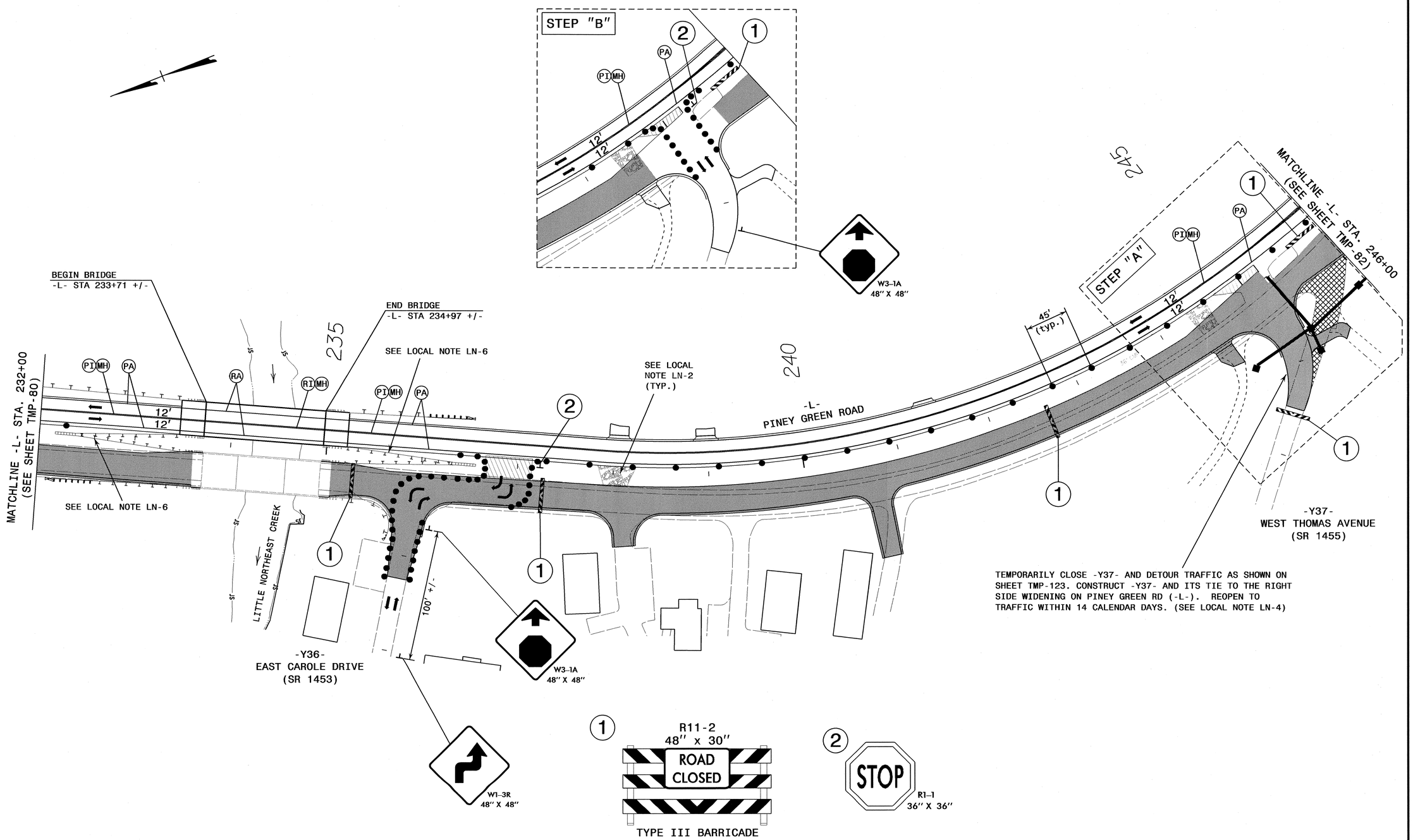

APPROVED: J. Todd Brooks DATE: 5/22/12

SEAL

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PHASE II DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
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(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:30
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PROJ. REFERENCE NO.	SHEET NO.
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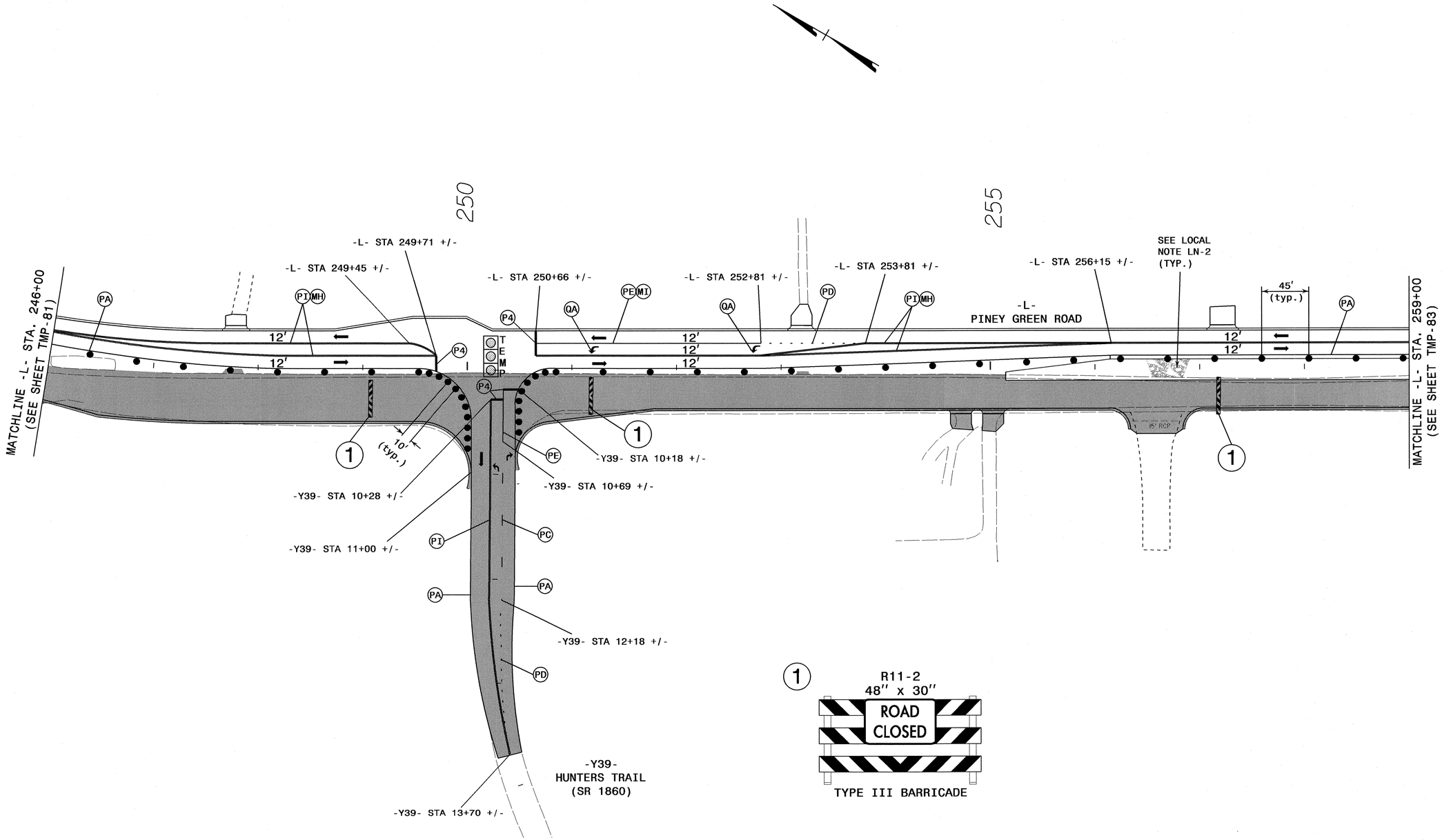

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PHASE II DETAIL

22-MAY-2012 09:30
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12054 AT RAL2UA1430Y7D

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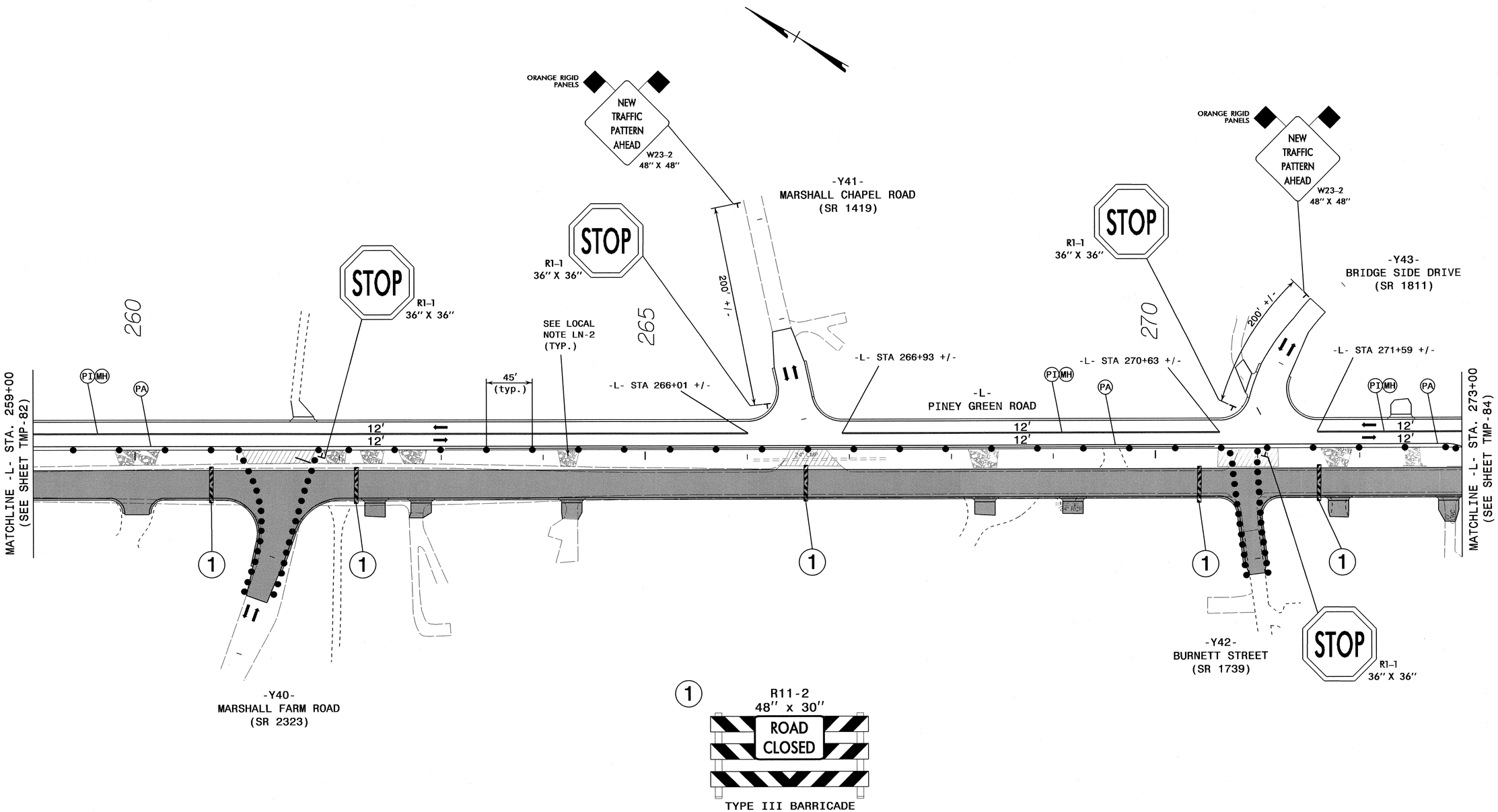

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APPROVED: J. Todd Brooks DATE: 5/22/12

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PHASE II DETAIL

22-MAY-2012 09:30
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PROJ. REFERENCE NO.	SHEET NO.
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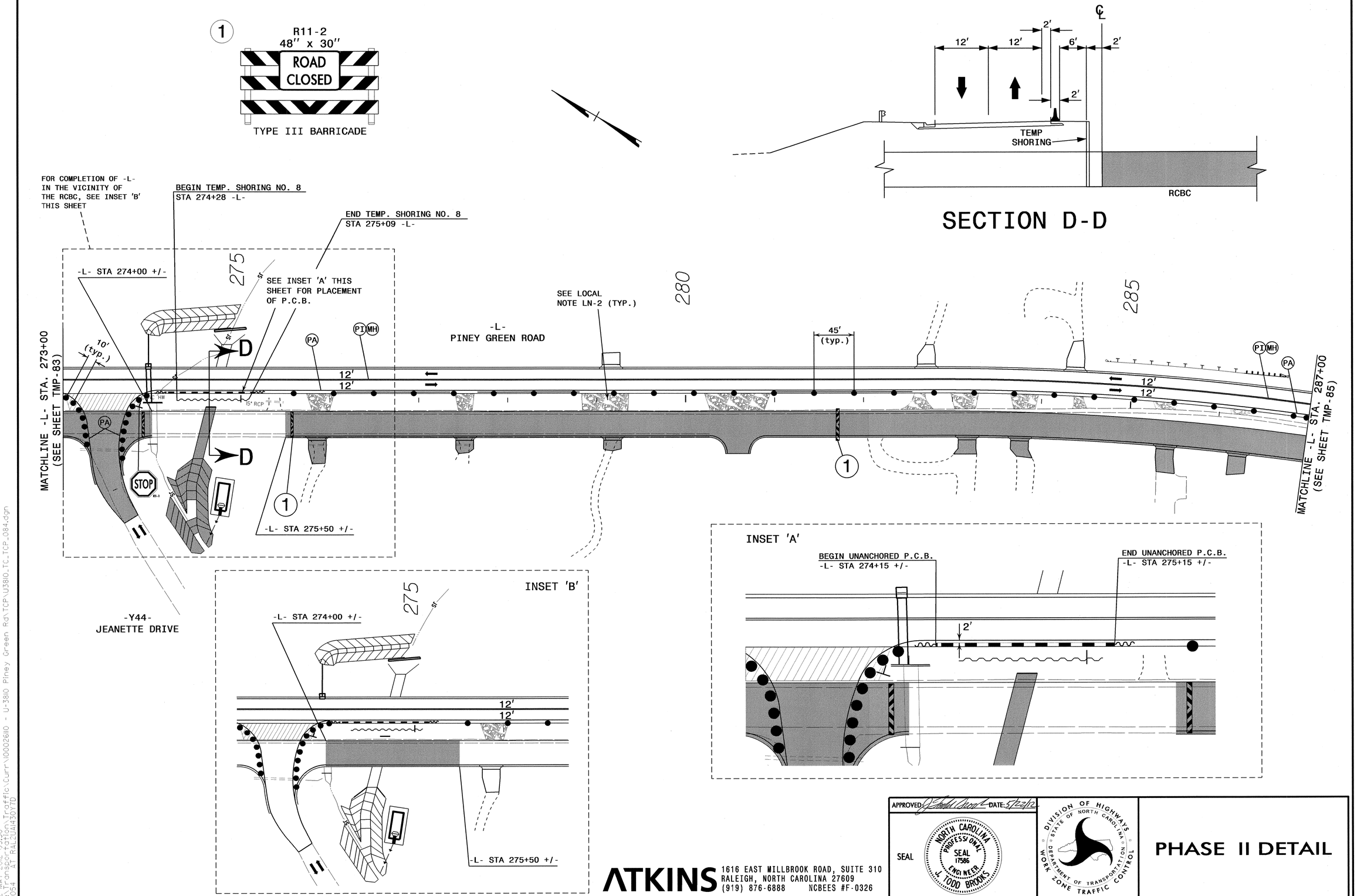

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PHASE II DETAIL

22-MAY-2012 09:30
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12054 AT RAL2UA1430Y7D

PROJ. REFERENCE NO.	SHEET NO.
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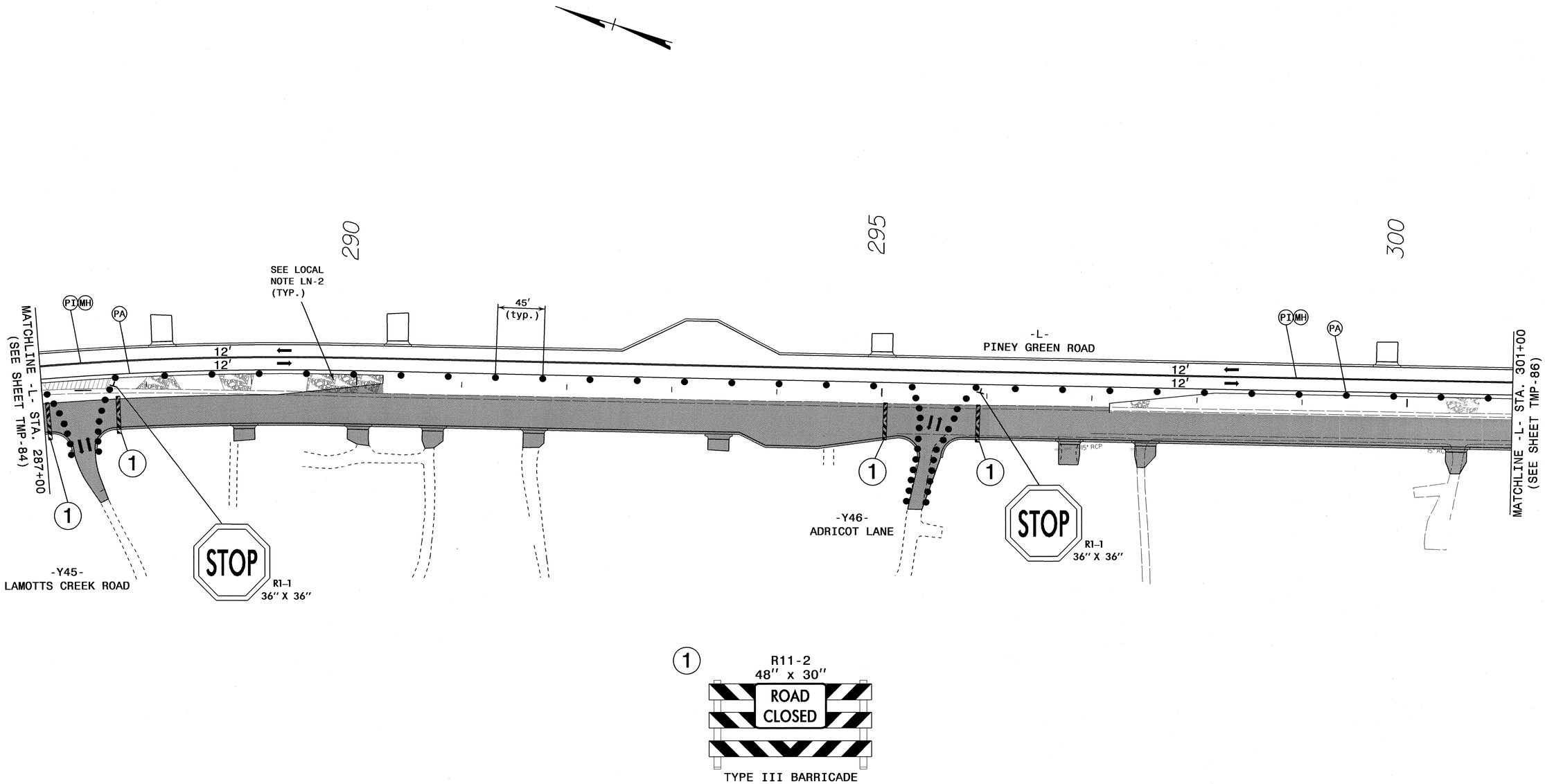

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PHASE II DETAIL

22-MAY-2012 09:30
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PROJ. REFERENCE NO.	SHEET NO.
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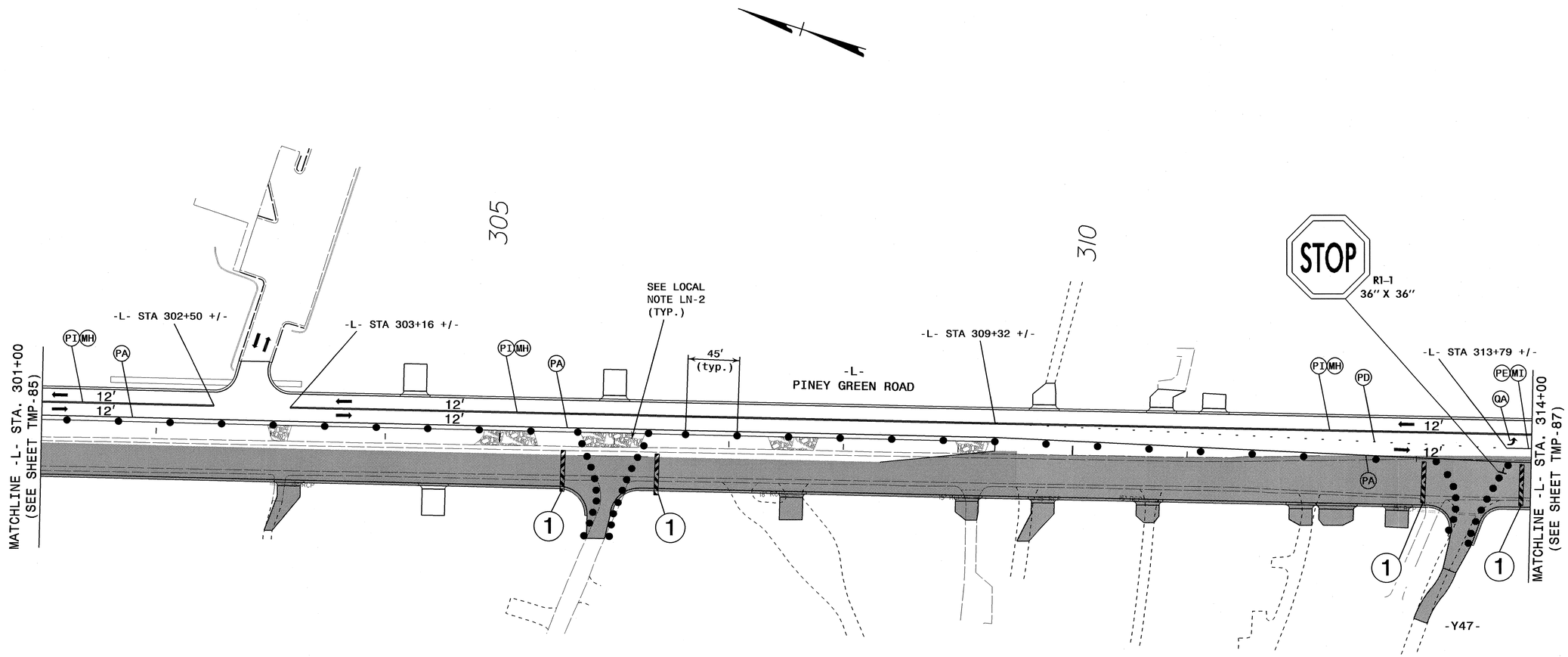

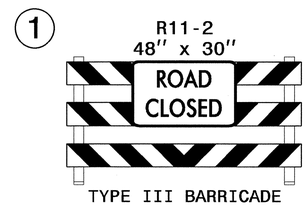

TYPE III BARRICADE

APPROVED: [signature] DATE: 5/22/12

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PHASE II DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:30
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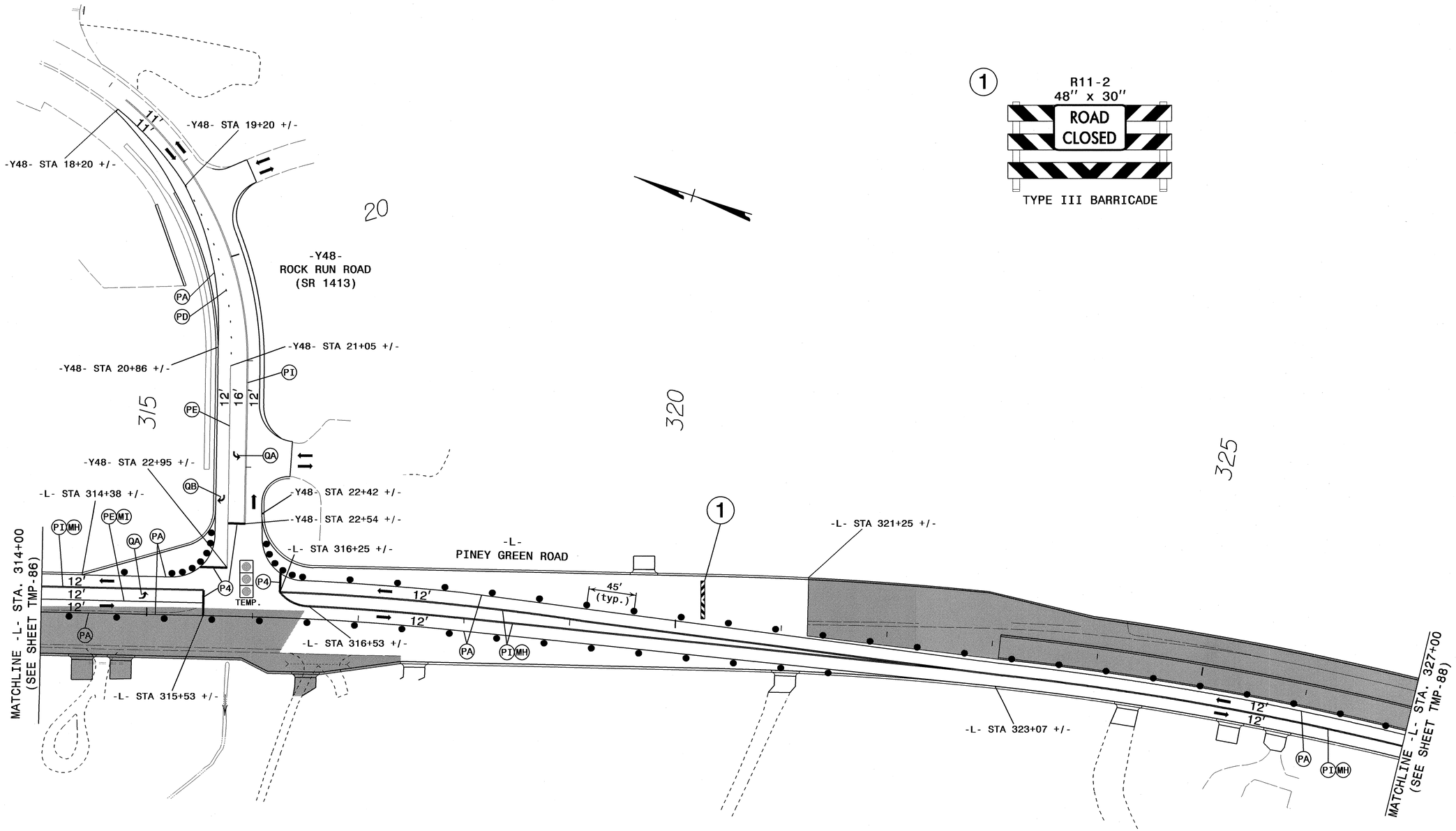

APPROVED: [signature] DATE: 5/22/12

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STATE OF NORTH CAROLINA
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WORK ZONE TRAFFIC CONTROL

PHASE II DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
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(919) 876-6888 NCBEES #F-0326

22-MAY-2012 09:30
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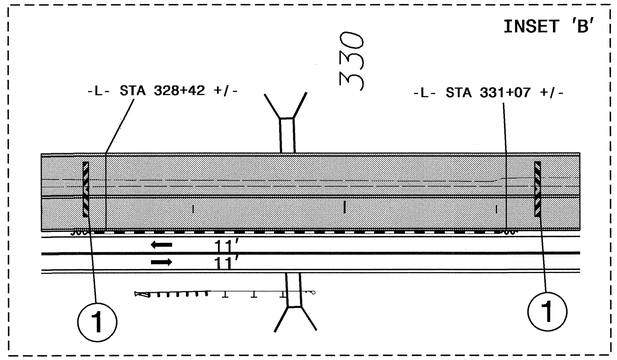

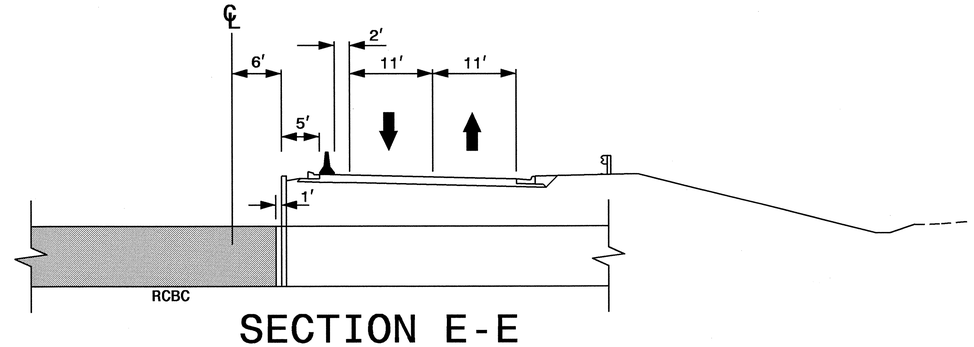

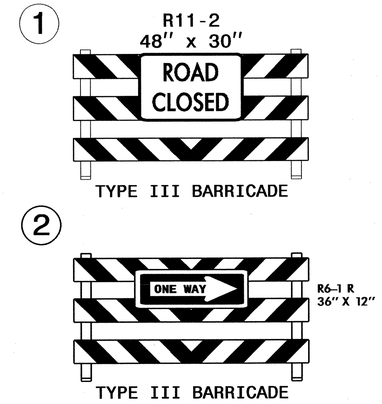

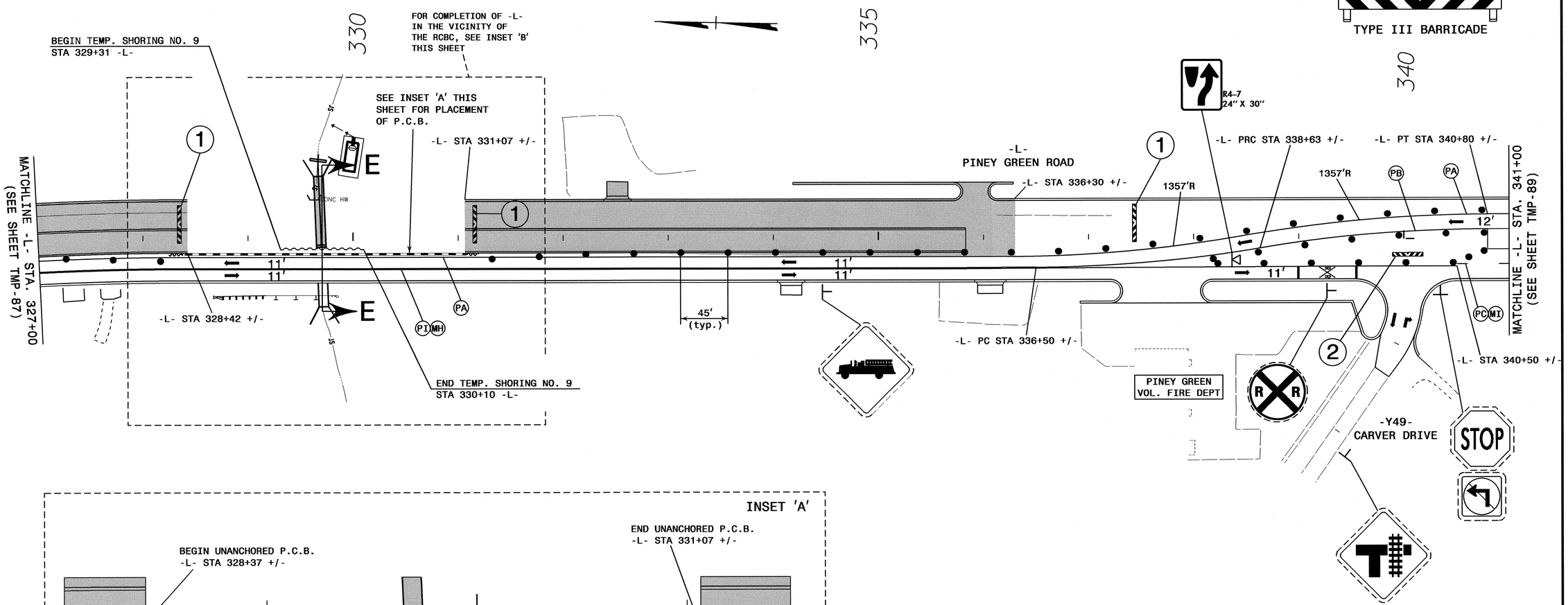

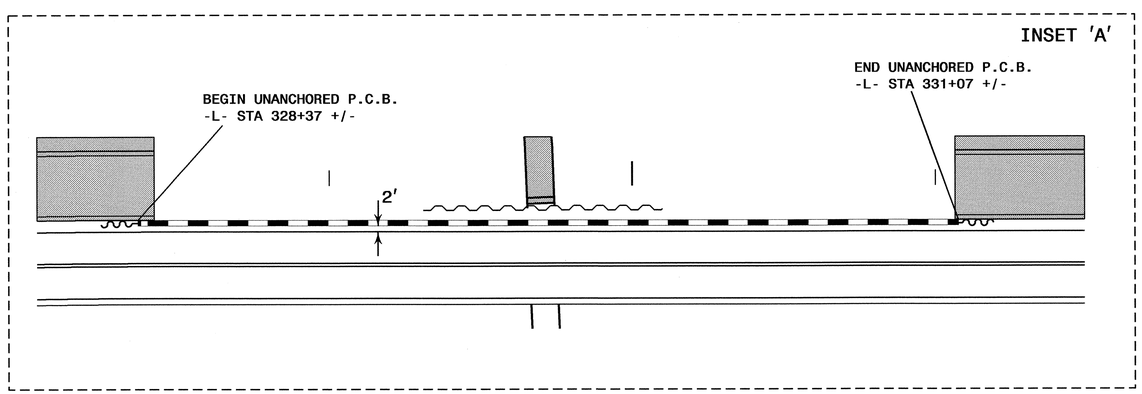

APPROVED: DATE: 8/6/12

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PHASE II DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

07-AUG-2012 10:39
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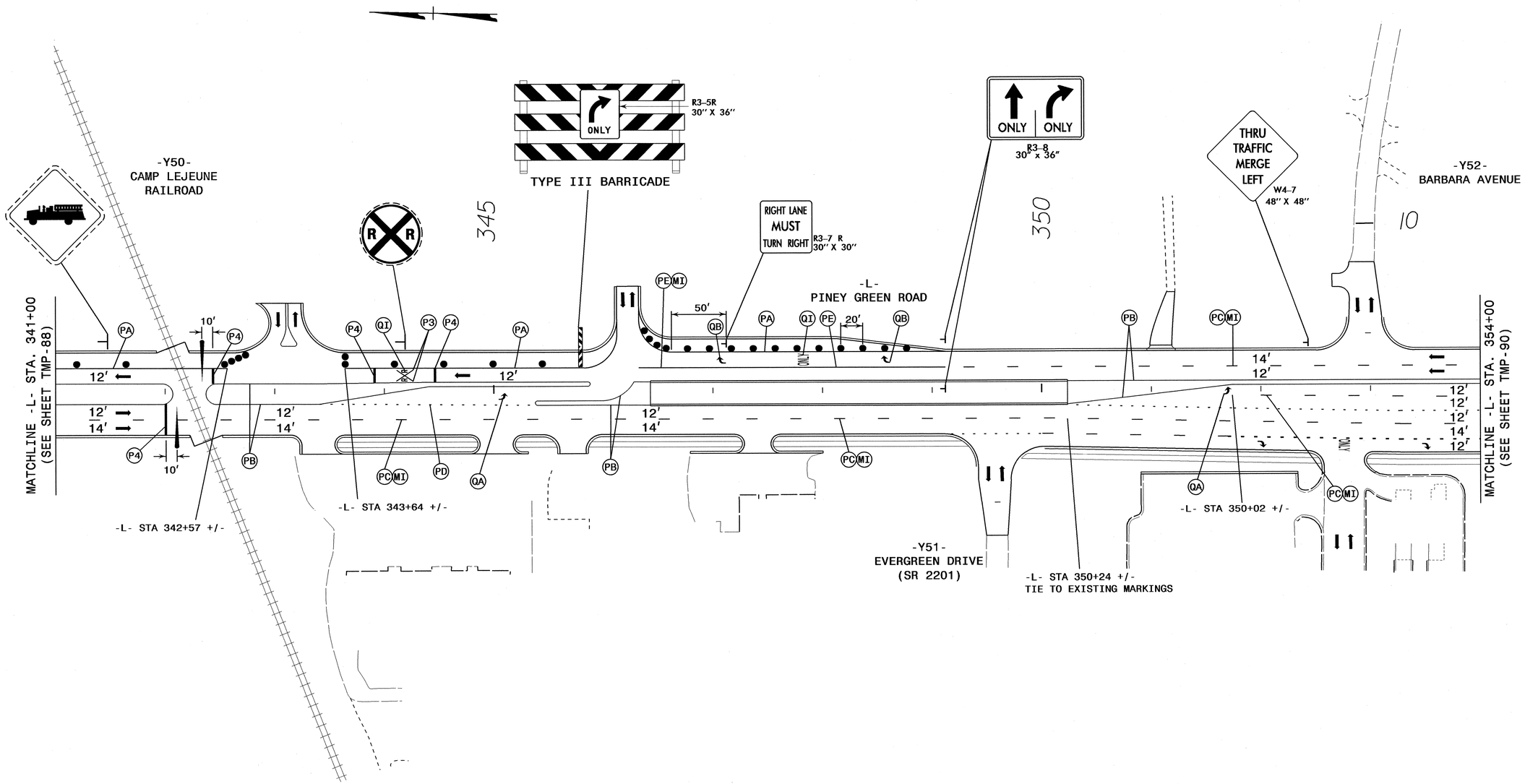
12054 AT RAL2UA130170

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-89

SEE RSD 1205.11, SHEET 1 OF 4 FOR RAILROAD CROSSING PAVEMENT MARKINGS



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PHASE II DETAIL

22-MAY-2012 09:30
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12054 AT RAL2UA1430YTD

PROJ. REFERENCE NO.	SHEET NO.
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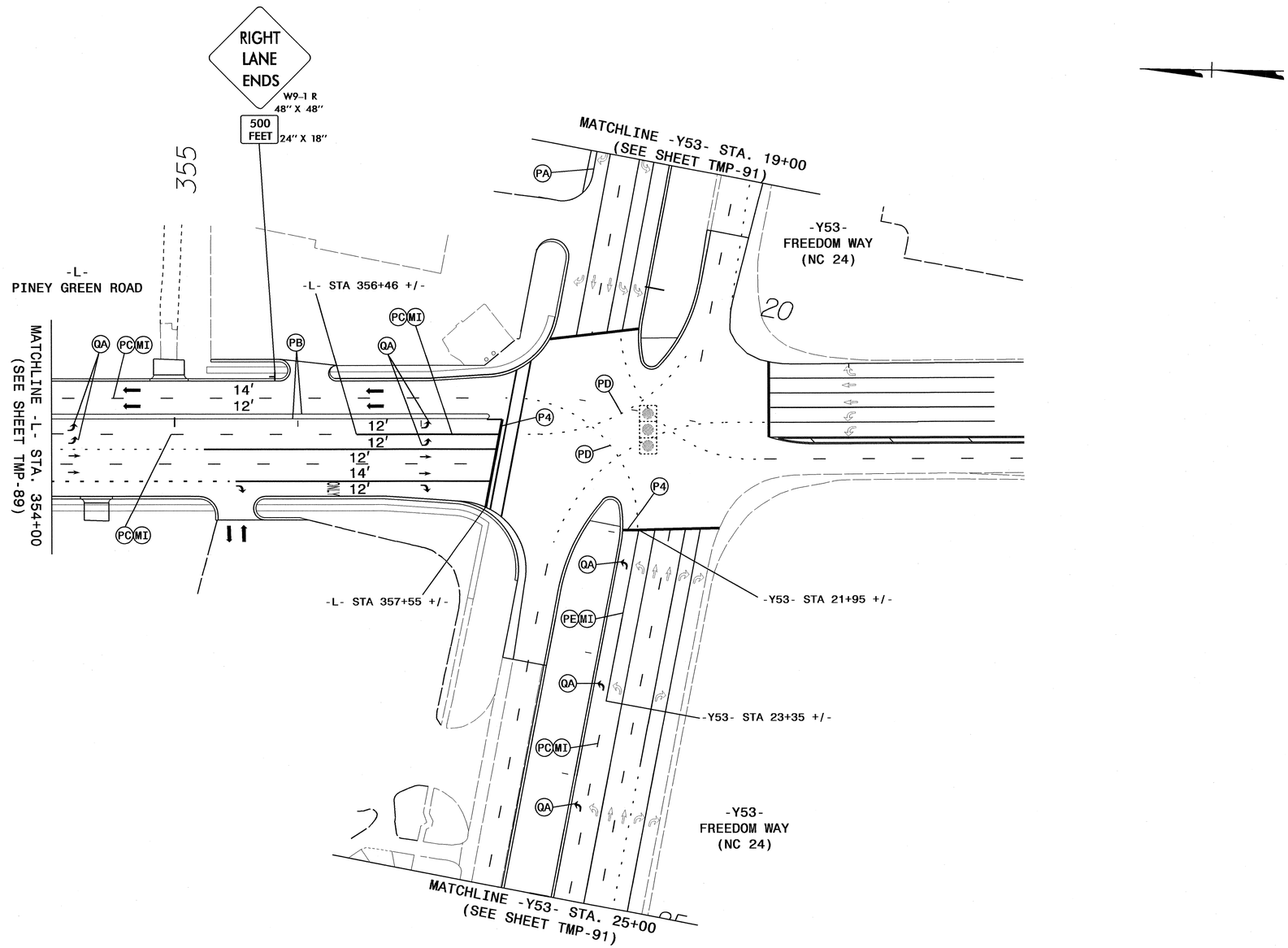

APPROVED: J. Todd Brooks DATE: 5/22/12

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PHASE II DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
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PROJ. REFERENCE NO.	SHEET NO.
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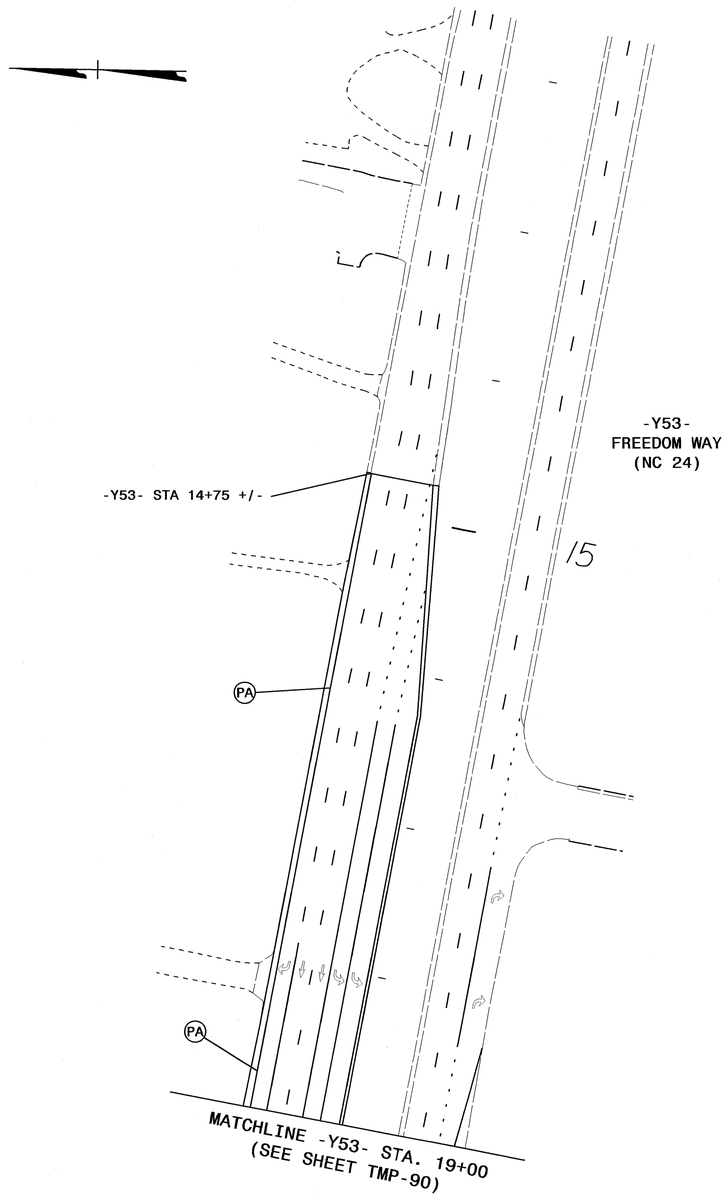

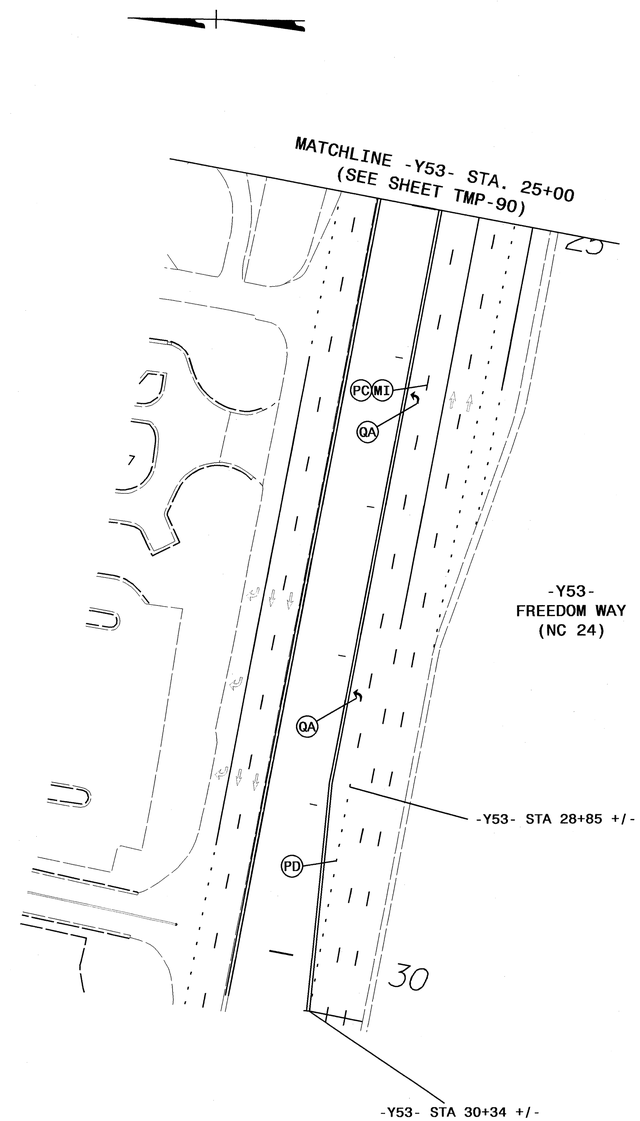

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12054 AT RAL2UA430YTD

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DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE II DETAIL

PHASING

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-92

PHASE III

OBJECTIVE: THE GENERAL OBJECTIVE PHASE III IS TO SHIFT PINEY GREEN RD (-L-) TRAFFIC INTO SPLIT PATTERN ON EACH SIDE OF THE PROPOSED MEDIAN IN ORDER TO COMPLETE THE PROPOSED MEDIANS. ONCE THE MEDIANS ARE COMPLETED, THE FINAL SURFACE LAYER AND FINAL MARKINGS WILL BE PLACED AND ALL LANES WILL BE OPENED TO THE FINAL TRAFFIC PATTERN. THE SHIFT TO THE PHASE III TRAFFIC PATTERN HAS BEEN BROKEN UP INTO TWO PARTS DUE TO THE LENGTH OF THE PROJECT, THE NUMBER OF -Y- LINES AND THE NUMBER OF TRAFFIC SIGNALS. THE FIRST SHIFT SWITCHES TRAFFIC TO THE PHASE III PATTERN BETWEEN MIKE LOOP RD/IRIS LN (-Y7-) AND HEMLOCK DR (-Y24-) [SEE PHASE III, STEP 1 BELOW]. THE SECOND SHIFT SWITCHES TRAFFIC TO THE PHASE III PATTERN BETWEEN HEMLOCK DR (-Y24-) AND CARVER DR (-Y49-) (SEE PHASE III, STEP 2 BELOW). IT IS ASSUMED THAT PHASE III MARKINGS AND DEVICES ARE PLACED AS MUCH AS POSSIBLE AWAY FROM TRAFFIC DURING THE LAST STEP OF PHASE II TO PREPARE FOR AND EXPEDITE THESE TRAFFIC PATTERN SWITCHES.

THE CONTRACTOR SHALL COMPLETE PHASE III, STEP 1 WITHIN A SINGLE CALENDAR DAY.

STEP 1: USING RSD 1101.02, SHEETS 1 AND 2, SHIFT SINGLE LANE OF WB TRAFFIC ONTO OUTSIDE LANE OF NEW WB PAVEMENT ON LEFT SIDE OF PINEY GREEN RD (-L-) FROM MIKE LOOP RD/IRIS LN (-Y7-) TO HEMLOCK DR (-Y24-) AS FOLLOWS [SEE TMP-93 THRU TMP-102]:

A. REVISE THE FOLLOWING TRAFFIC SIGNALS ON PINEY GREEN RD TO THEIR INITIAL PHASE III PATTERN IN CONJUNCTION WITH TRAFFIC PATTERN SWITCH:

* COUNTRY CLUB RD (-Y14-)
* HALLTOWN RD (-Y18-) - ACTIVATE NEW SIGNAL
* CREEDMOOR RD (-Y20-)- DEACTIVATE AND REMOVE EXISTING SIGNAL
* BALSAM RD (-Y21-)

B. REVISE PAVEMENT MARKINGS ON -Y- LINES ON LEFT SIDE OF PINEY GREEN RD TO PHASE III PATTERN.

C. REVISE MARKINGS FOR PHASE III WESTBOUND LANE ON LEFT SIDE OF PINEY GREEN RD APPROACHING THE MIKE LOOP RD / IRIS LN (-Y7-) INTERSECTION TO PHASE III TEMPORARY PATTERN AS SHOWN ON TMP-93 AND TMP-94.

D. USE DRUMS SPACED 10 FT. C-C TO TEMPORARILY CHANNEL WESTBOUND TRAFFIC FROM PHASE II WB LANE AT STA 148+62 +/- L- (SEE PHASE II DETAIL ON TMP-74) TO PHASE III WB LANE AT STA 143+09 +/- -L- (SEE PHASE III DETAIL ON TMP-102).

E. SHIFT SINGLE LANE OF WESTBOUND PINEY GREEN RD TRAFFIC ONTO PHASE III WESTBOUND RIGHT LANE BETWEEN MIKE LOOP RD / IRIS LN (-Y7-) AND HEMLOCK DR (-Y24-).

F. PLACE DRUMS SPACED 45 FT. C-C ALONG FORMER PHASE II WB LANE (PROPOSED LEFT EB LANE) ON RIGHT SIDE OF PINEY GREEN RD (-L-) BETWEEN MIKE LOOP RD/IRIS LN (-Y7-) AND HEMLOCK DR (-Y24-).

G. MAINTAIN SINGLE LANE OF EASTBOUND TRAFFIC IN PHASE II EASTBOUND LANE.

H. REVISE MARKINGS TO PROVIDE PHASE III TEMPORARY EASTBOUND LEFT TURN LANES AT INTERSECTIONS AS SHOWN ON SHOWN ON TMP-94 THRU TMP-101.

THE CONTRACTOR SHALL COMPLETE PHASE III, STEP 2 WITHIN A SINGLE CALENDAR DAY.

STEP 2: USING RSD 1101.02, SHEETS 1 AND 2, SHIFT SINGLE LANE OF EB TRAFFIC ONTO OUTSIDE LANE OF NEW EB PAVEMENT ON RIGHT SIDE OF PINEY GREEN RD (-L-) FROM HEMLOCK DR (-Y24-) TO ROCK RUN RD (-Y48-) AS FOLLOWS [SEE TMP-102 THRU TMP-119]:

A. REVISE OF THE FOLLOWING TRAFFIC SIGNALS ON PINEY GREEN RD TO THEIR INITIAL PHASE III PATTERN IN CONJUNCTION WITH TRAFFIC PATTERN SWITCH:

* OLD 30 RD/CHARLES RD (-Y29-)
* HUNTERS TRAIL (-Y39-)
* ROCK RUN RD (-Y48-)

B. REVISE PAVEMENT MARKINGS ON -Y- LINES ON RIGHT SIDE OF PINEY GREEN RD TO PHASE III PATTERN.

C. REVISE MARKINGS FOR PHASE III EASTBOUND LANE ON RIGHT SIDE OF PINEY GREEN RD BETWEEN STA 142+78 +/- AND STA 148+96 +/- -L- AS SHOWN ON TMP-102.

D. USE DRUMS SPACED 10 FT. C-C TO TEMPORARILY CHANNEL EASTBOUND TRAFFIC FROM PHASE III EB LANE AT STA 315+32 +/- -L- (SEE PHASE III DETAIL ON TMP-119) TO PHASE II EB LANE AT STA 321+25 +/- -L- (SEE PHASE II DETAIL ON TMP-87)

E. SHIFT SINGLE LANE OF EASTBOUND PINEY GREEN RD TRAFFIC ONTO PHASE III EASTBOUND RIGHT LANE BETWEEN HEMLOCK DR (-Y24-) AND ROCK RUN RD (-Y48-).

F. PLACE DRUMS SPACED 45 FT. C-C ALONG FORMER PHASE II EB LANE (PROPOSED LEFT WB LANE) ON LEFT SIDE OF PINEY GREEN RD (-L-) BETWEEN HEMLOCK DR (-Y24-) AND ROCK RUN RD (-Y48-).

G. MAINTAIN SINGLE LANE OF WESTBOUND TRAFFIC IN PHASE II WESTBOUND LANE BETWEEN OLD 30 RD (-Y29-) AND CARVER DR (-Y49-).

H. REVISE WB MARKINGS ON PINEY GREEN RD (-L-) FROM STA 143+09 +/- TO STA 148+96 AS SHOWN ON TMP-102 AND FROM STA 178+36 +/- TO OLD 30 RD (-Y29-) AS SHOWN ON TMP-105.

I. SHIFT WB TRAFFIC INTO TEMPORARY TWO-LANE, TWO-WAY PATTERN BETWEEN STA 148+36 +/- -L- AND OLD 30 RD (-Y29-) AS SHOWN ON TMP-102 THRU TMP-105.

J. REVISE MARKINGS TO PROVIDE PHASE III TEMPORARY LEFT TURN LANES AT INTERSECTIONS AS SHOWN ON SHOWN ON TMP-105 THRU TMP-119.

STEP 3: USING RSD 1101.02, SHEETS 1 AND 2, REVISE MARKINGS ON PINEY GREEN RD (-L-) SOUTH OF ROCKY RUN RD (-Y48-) AND NORTH OF CARVER DR (-Y49-) TO PHASE III TEMPORARY PATTERN AND SHIFT AS SHOWN ON TMP-119 AND TMP-120. SHIFT SINGLE LANE OF WB TRAFFIC ONTO OUTSIDE WB LANE ON NEW LEFT SIDE PAVEMENT BETWEEN ROCKY RUN RD (-Y48-) AND CARVER DR (-Y49-). [SEE TMP-119 AND TMP-120].

CONSTRUCT PROPOSED WESTBOUND PAVEMENT ON LEFT SIDE OF PINEY GREEN RD (-L-) UP TO BUT NOT INCLUDING FINAL SURFACE LAYER FROM STA 148+96 +/- AND STA 169+15 +/- -L- AS SHOWN ON TMP-102 THRU TMP-104. USING RSD 1101.02, SHEET 1, CONSTRUCT BIRCHWOOD LN (-Y26-) AND BIRCHWOOD LN (-Y27-) UP TO BUT NOT INCLUDING FINAL SURFACE LAYER. INSTALL TEMPORARY EB MARKINGS ON LEFT SIDE PAVEMENT PINEY GREEN RD (-L-) AS MUCH AS POSSIBLE AWAY FROM TRAFFIC BETWEEN HEMLOCK DR (-Y24-) AND OLD 30 RD (-Y29-) AS SHOWN ON TMP-106 THRU TMP-109.

STEP 3 (CONTINUED):

TO CONSTRUCT PROPOSED RAISED MEDIAN ON HEMLOCK DR, TEMPORARILY CLOSE HEMLOCK DR (-Y24-) AT PINEY GREEN RD (-L-) DURING NON-PEAK TRAFFIC PERIODS AND DETOUR TRAFFIC VIA BALSAM DR AND WHITE OAK BLVD (-Y24-) AS SHOWN ON TMP-122. [SEE TMP-102]

BEGIN COMPLETING PROPOSED RAISED, C&G MEDIANS AND BEGIN CONSTRUCTING PROPOSED MONOLITHIC MEDIANS FROM MIKE LOOP ROAD (-Y7) TO CARVER DR (-Y49-).

STEP 4: USING 1101.02, SHEET 1, REVISE EB PAVEMENT MARKINGS AND SHIFT SINGLE LANE OF WB TRAFFIC INTO PHASE III TEMPORARY TRAFFIC PATTERN ON OUTSIDE WB LANE BETWEEN HEMLOCK DR (-Y24) AND OLD 30 RD (-Y29-) AS SHOWN ON TMP-106 THRU TMP-109.

COMPLETE CONSTRUCTION OF RAISED MEDIANS AND MONOLITHIC ISLANDS.

STEP 5: USING RSD 1101.02, SHEETS 1, 2 AND 3:

* PLACE FINAL SURFACE LAYER AND FINAL MARKINGS ON PINEY GREEN RD FROM US 17 (-Y) TO CARVER RD (-Y49-), ON ALL -Y- LINES BETWEEN US 17 AND CARVER RD AND US 17 (-Y-). [SEE PAVEMENT MARKING PLANS]
* PLACE FINAL MARKINGS ON PINEY GREEN RD FROM CARVER RD (-Y49-) TO NC 24 (FREEDOM WAY) (-Y53-). [SEE PAVEMENT MARKING PLANS]
* OPEN ALL LANES TO FINAL PATTERN.

APPROVED: J. Todd Brooks DATE: 8/6/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17566 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASING PHASE III

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310 RALEIGH, NORTH CAROLINA 27609 (919) 876-6888 NCBEES #F-0326

06-AUG-2012 17:14
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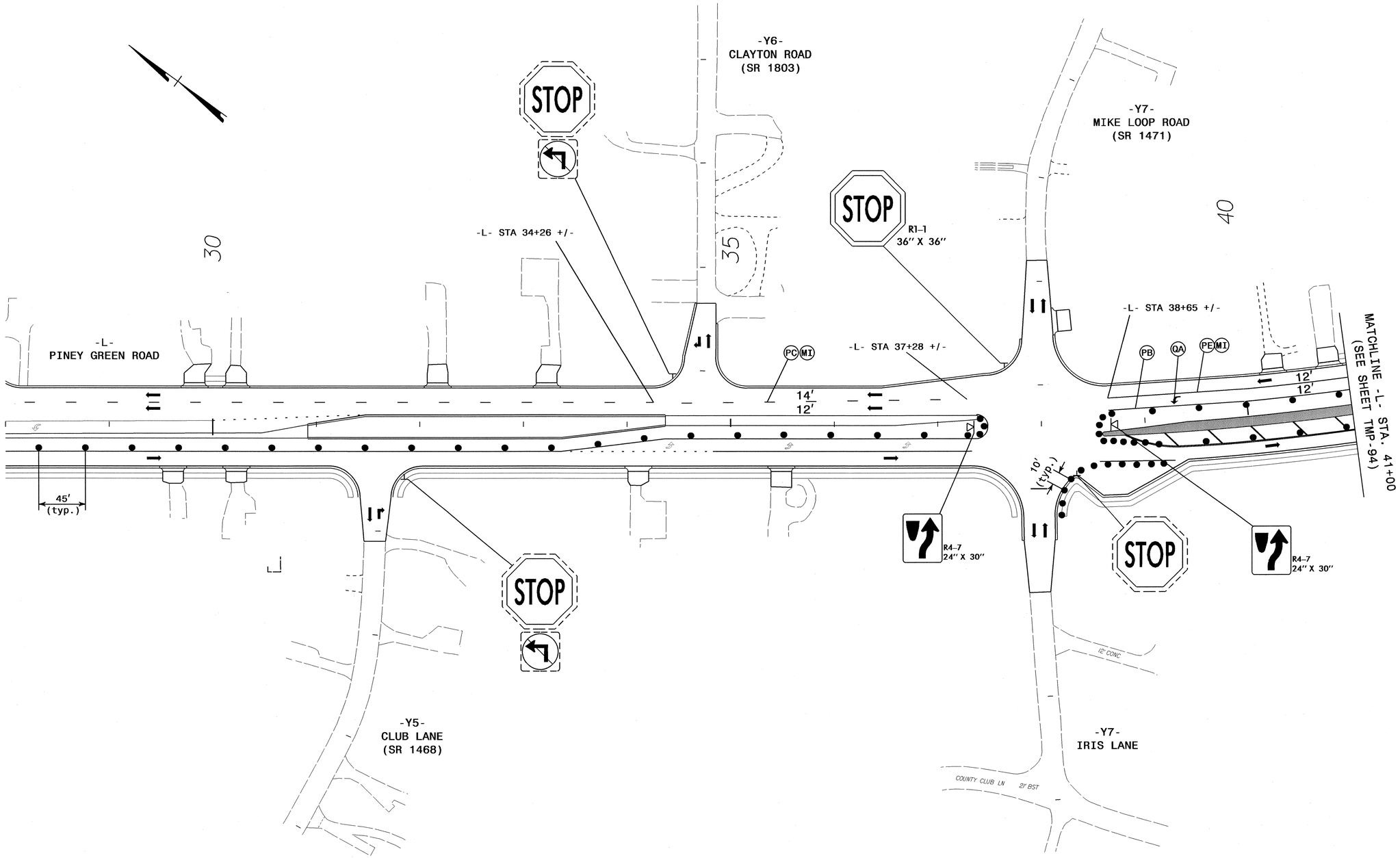
12054 AT RAL20A450770

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-93



APPROVED: DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

PHASE III DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 08:09
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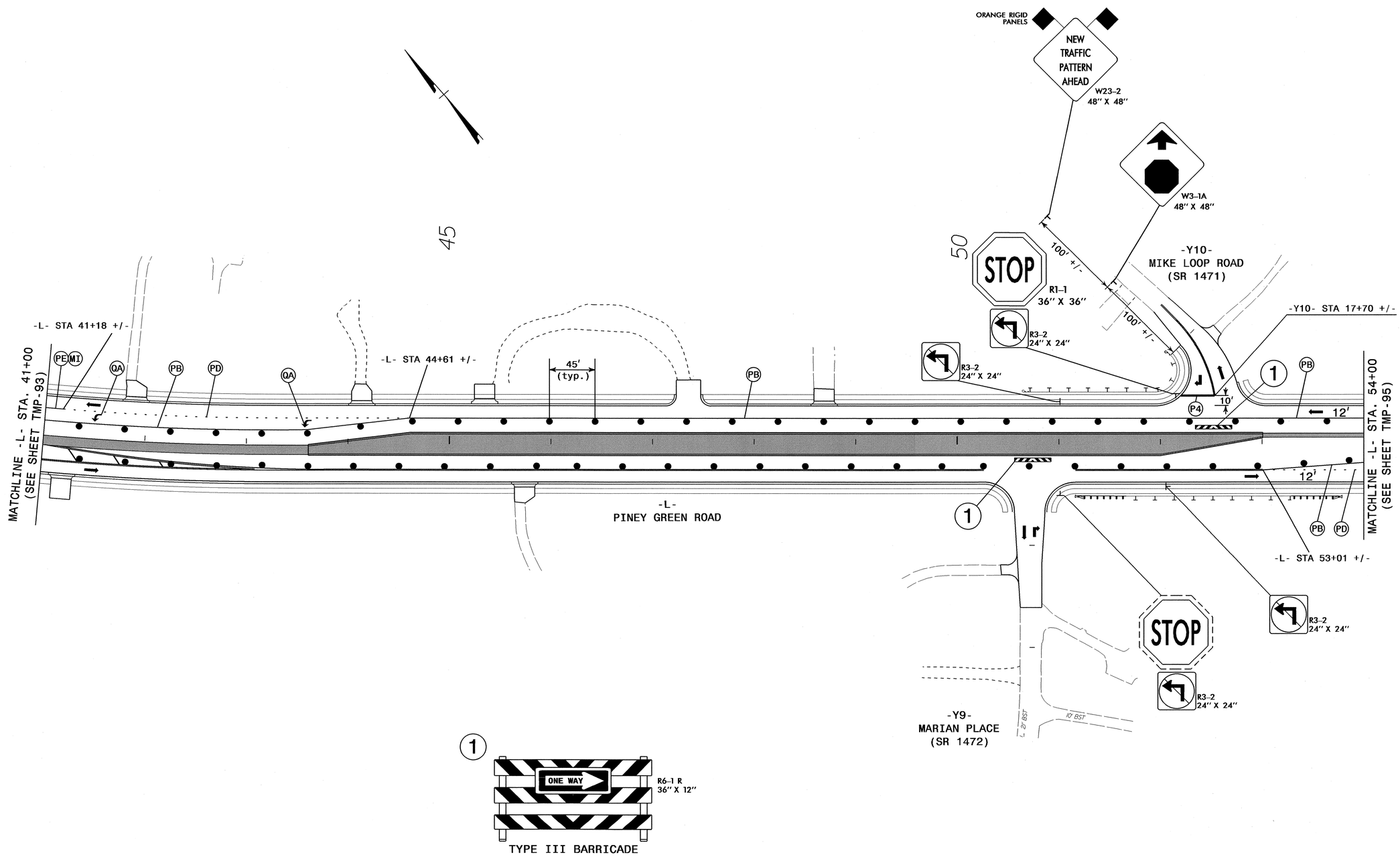
PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-94



APPROVED: [signature] DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE III DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 08:33
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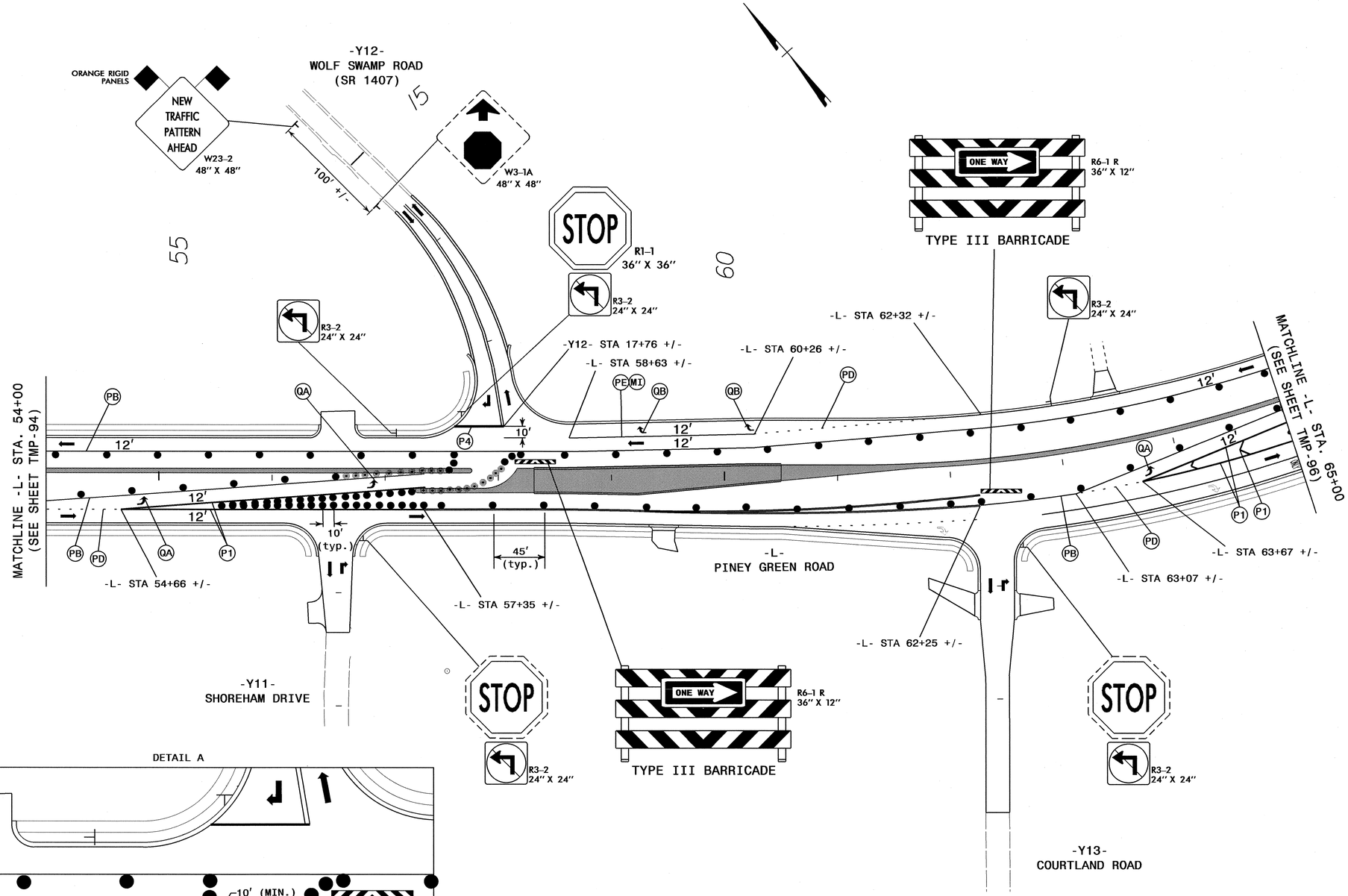
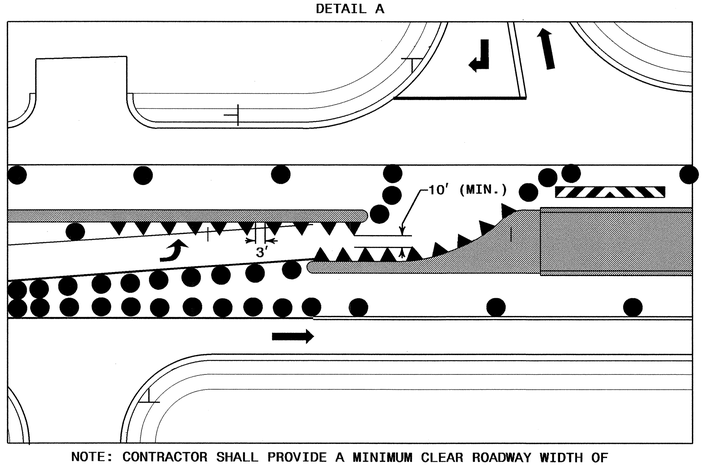
U-3810	TMP-95



DETAIL A



NOTE: CONTRACTOR SHALL PROVIDE A MINIMUM CLEAR ROADWAY WIDTH OF 10', IF MINIMUM WIDTH CAN NOT BE ACHEIVED USING SKINNY DRUMS THEN CONES SHOULD BE USED TO OBTAIN 10' MINIMUM WIDTH.

ATKINS
1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

APPROVED: [signature] DATE: 5/22/12

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DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

PHASE III DETAIL

22-MAY-2012 08:39
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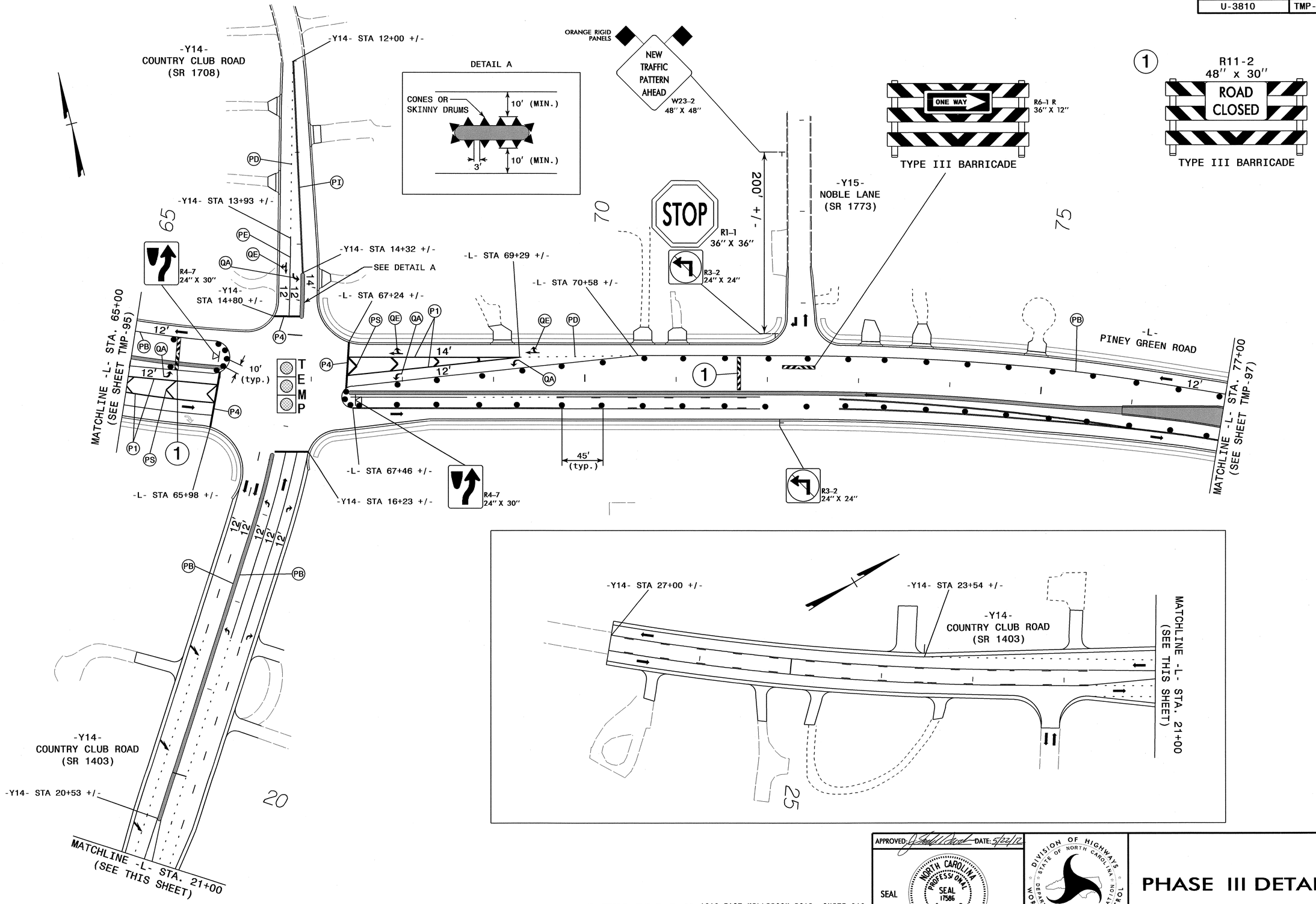
PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-96



APPROVED: [signature] DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

PHASE III DETAIL

ATKINS
1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 08:39
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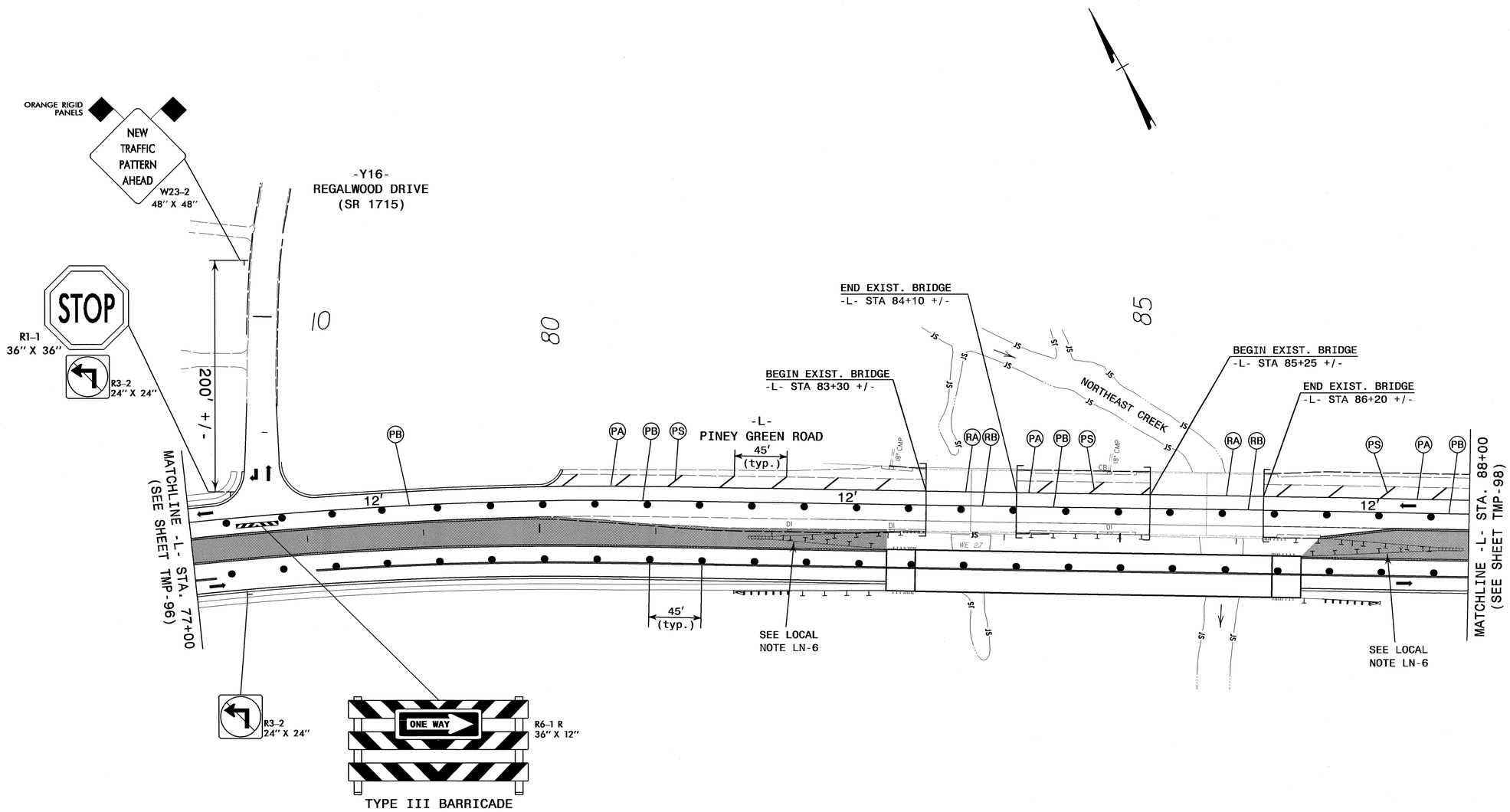
PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-97



APPROVED: DATE: 5/22/12

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NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE III DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 08:12
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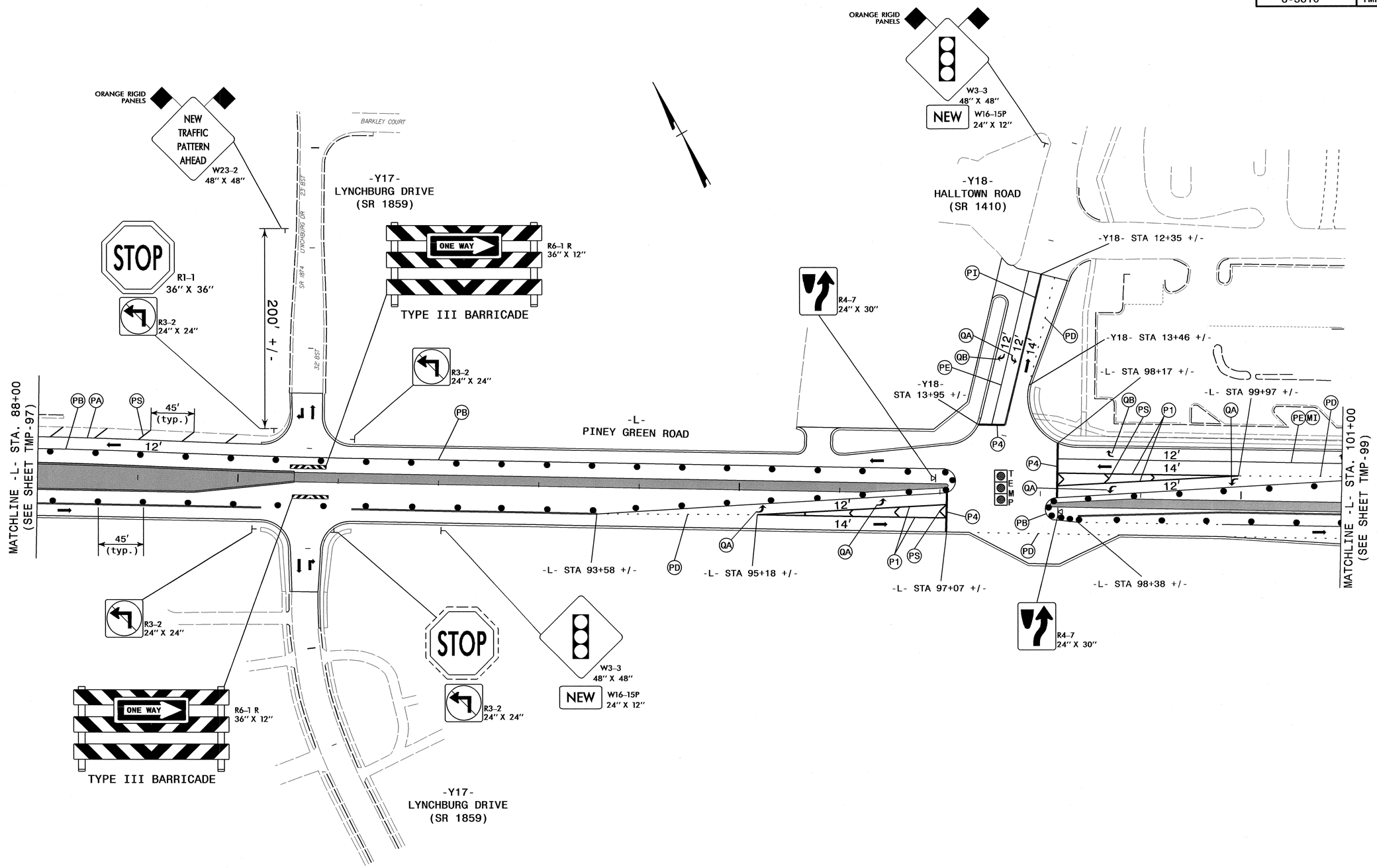
PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-98



APPROVED: DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE III DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310 RALEIGH, NORTH CAROLINA 27609 (919) 876-6888 NCBEES #F-0326

22-MAY-2012 08:12
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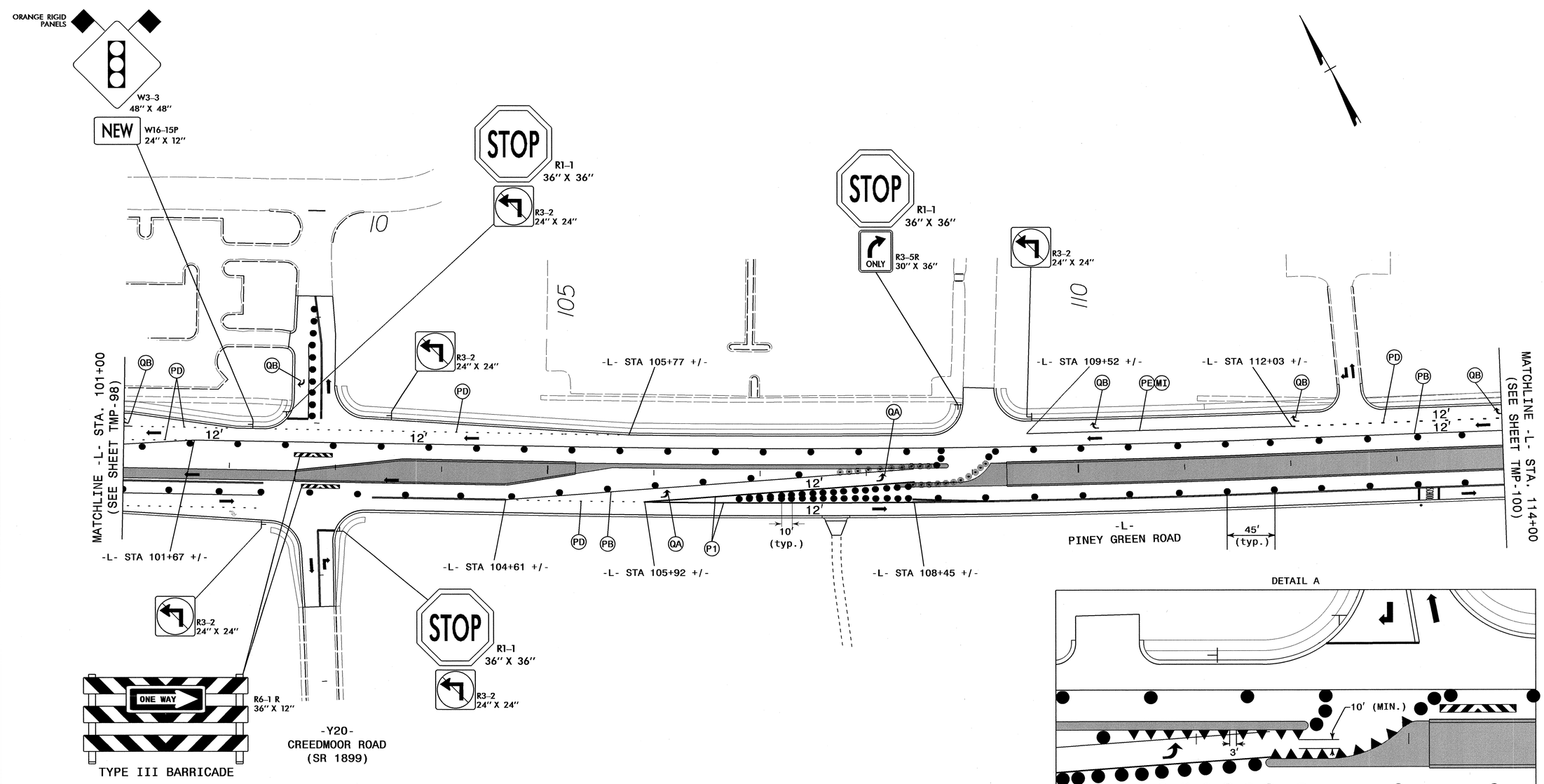
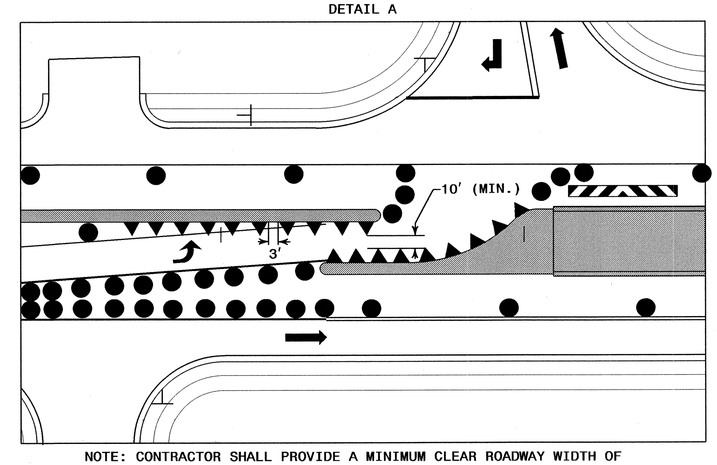
12054 AT RAL2UA1430Y7D

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-99



DETAIL A



NOTE: CONTRACTOR SHALL PROVIDE A MINIMUM CLEAR ROADWAY WIDTH OF 10', IF MINIMUM WIDTH CAN NOT BE ACHEIVED USING SKINNY DRUMS THEN CONES SHOULD BE USED TO OBTAIN 10' MINIMUM WIDTH.

APPROVED: [signature] DATE: 5/22/12

SEAL

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DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE III DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 08:12
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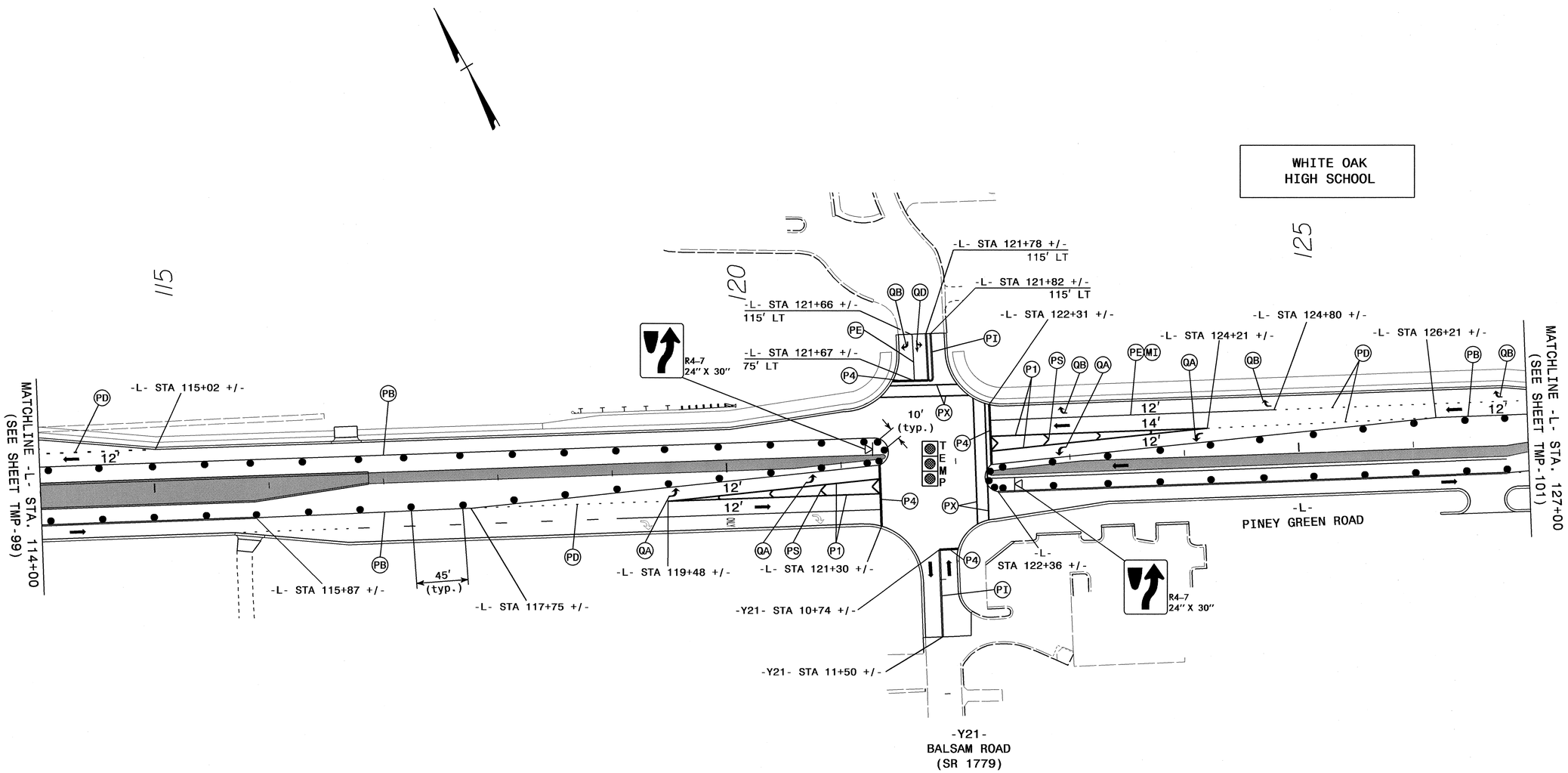
PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-100



ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

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SEAL

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DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE III DETAIL

22-MAY-2012 08:39
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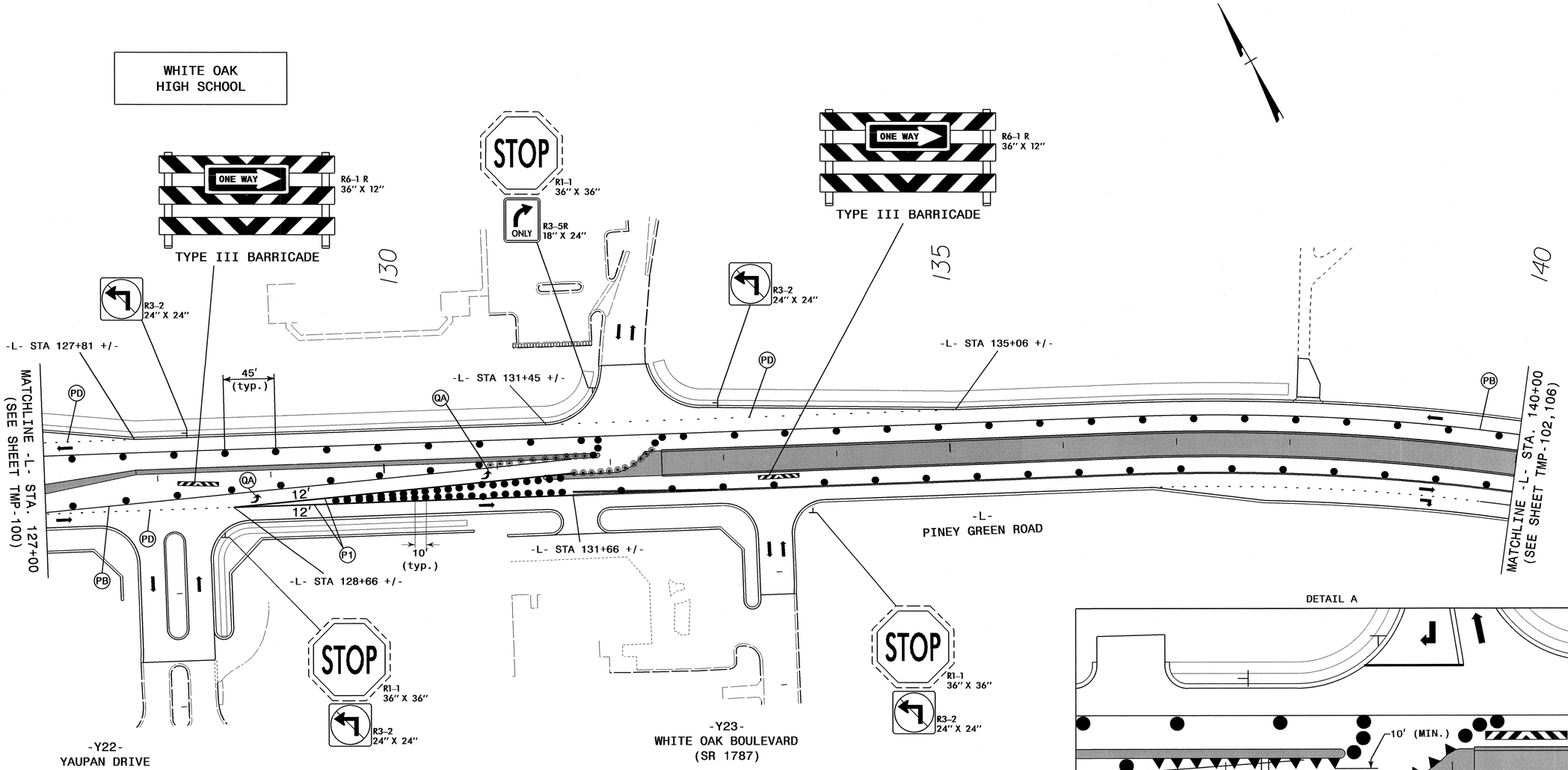
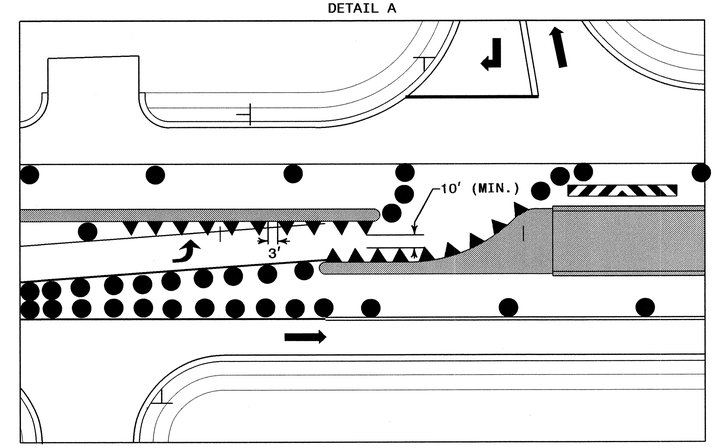
PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-101



DETAIL A



NOTE: CONTRACTOR SHALL PROVIDE A MINIMUM CLEAR ROADWAY WIDTH OF 10', IF MINIMUM WIDTH CAN NOT BE ACHEIVED USING SKINNY DRUMS THEN CONES SHOULD BE USED TO OBTAIN 10' MINIMUM WIDTH.

APPROVED: DATE: 5/22/12

SEAL

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DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE III DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 08:12
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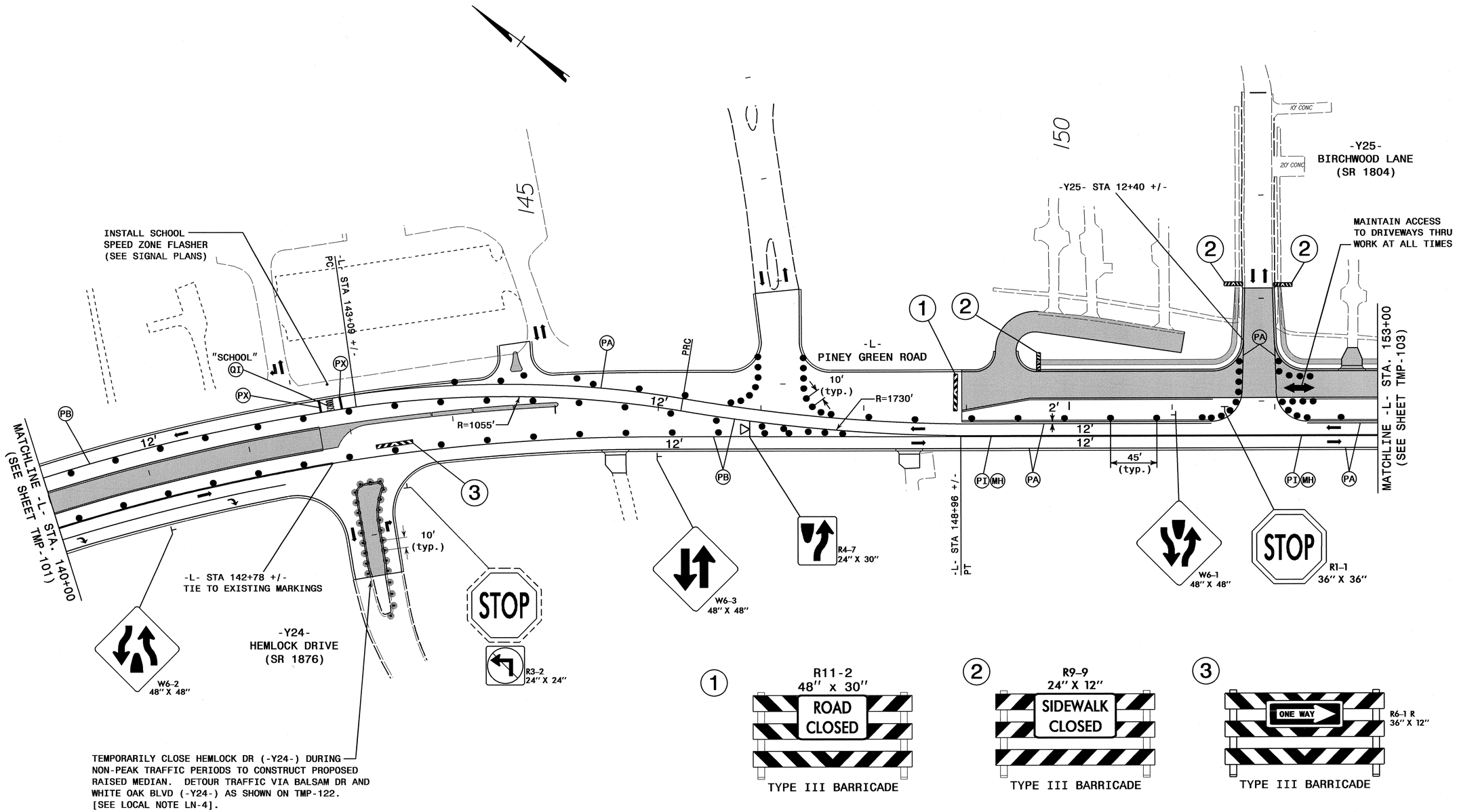
PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-102



APPROVED: [signature] DATE: 8/6/12

SEAL

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DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE III DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310 RALEIGH, NORTH CAROLINA 27609 (919) 876-6888 NCBEES #F-0326

07-AUG-2012 10:39
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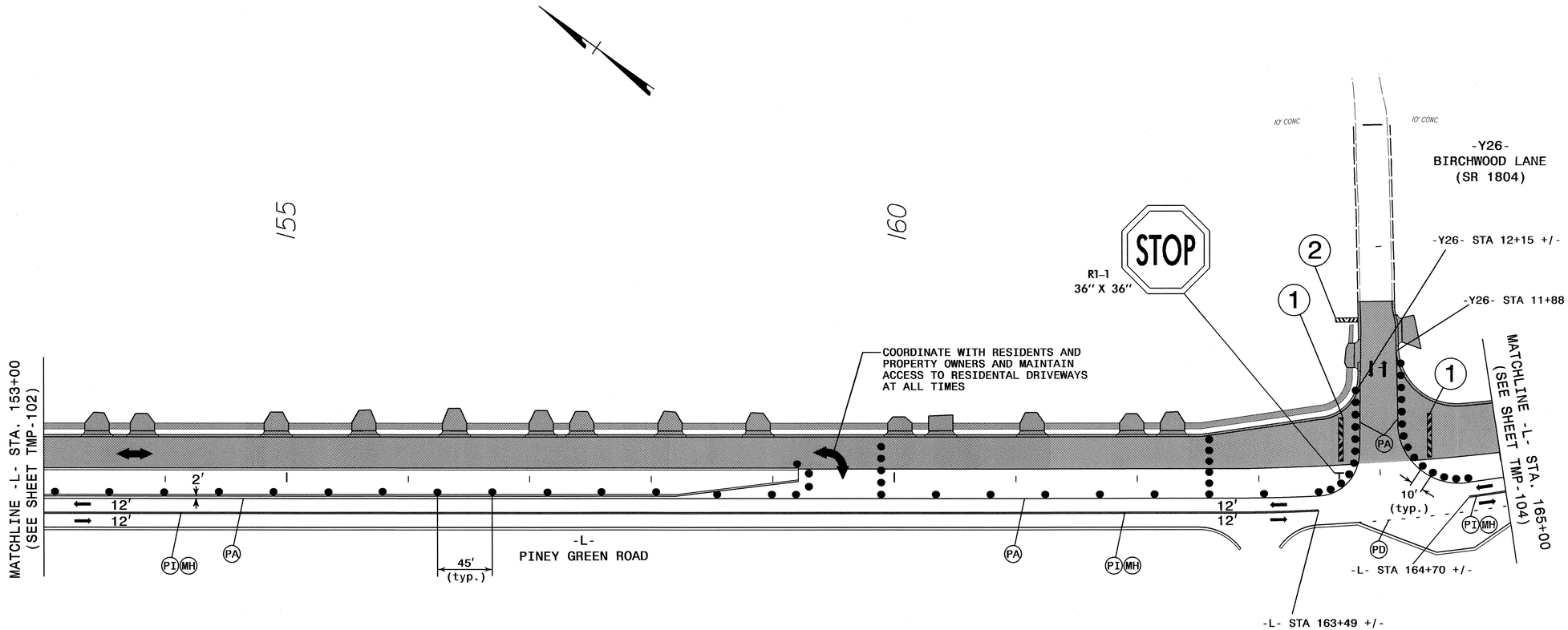

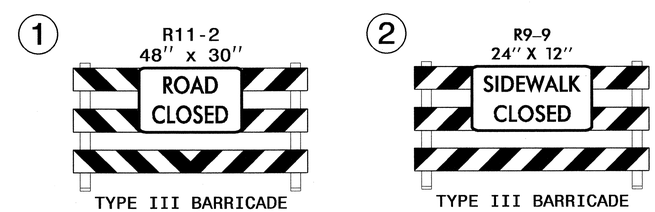

APPROVED: [signature] DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

PHASE III DETAIL

ATKINS
1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 08:12
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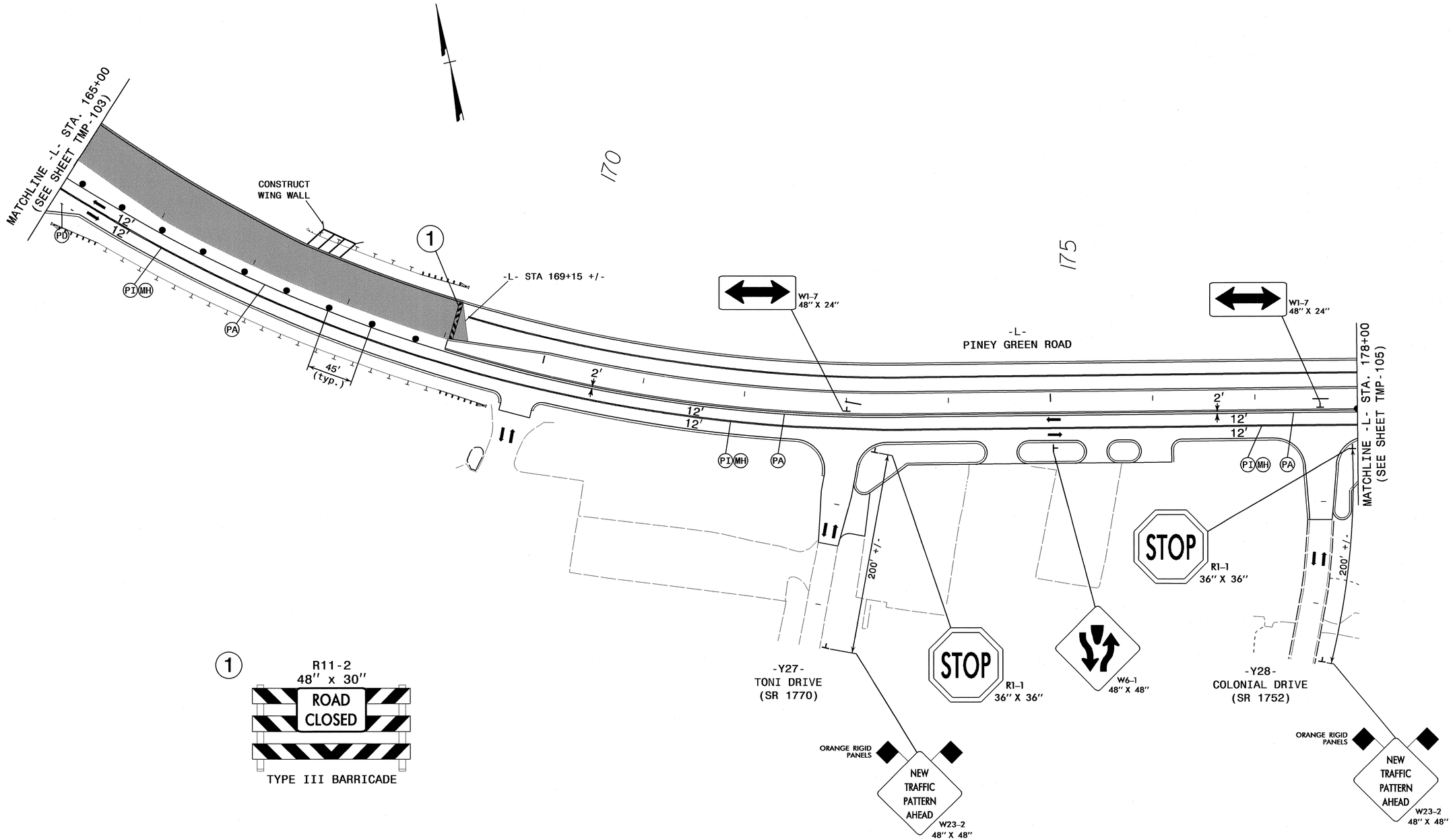
PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-104



APPROVED: [signature] DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

PHASE III DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 08:40
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PROJ. REFERENCE NO.	SHEET NO.
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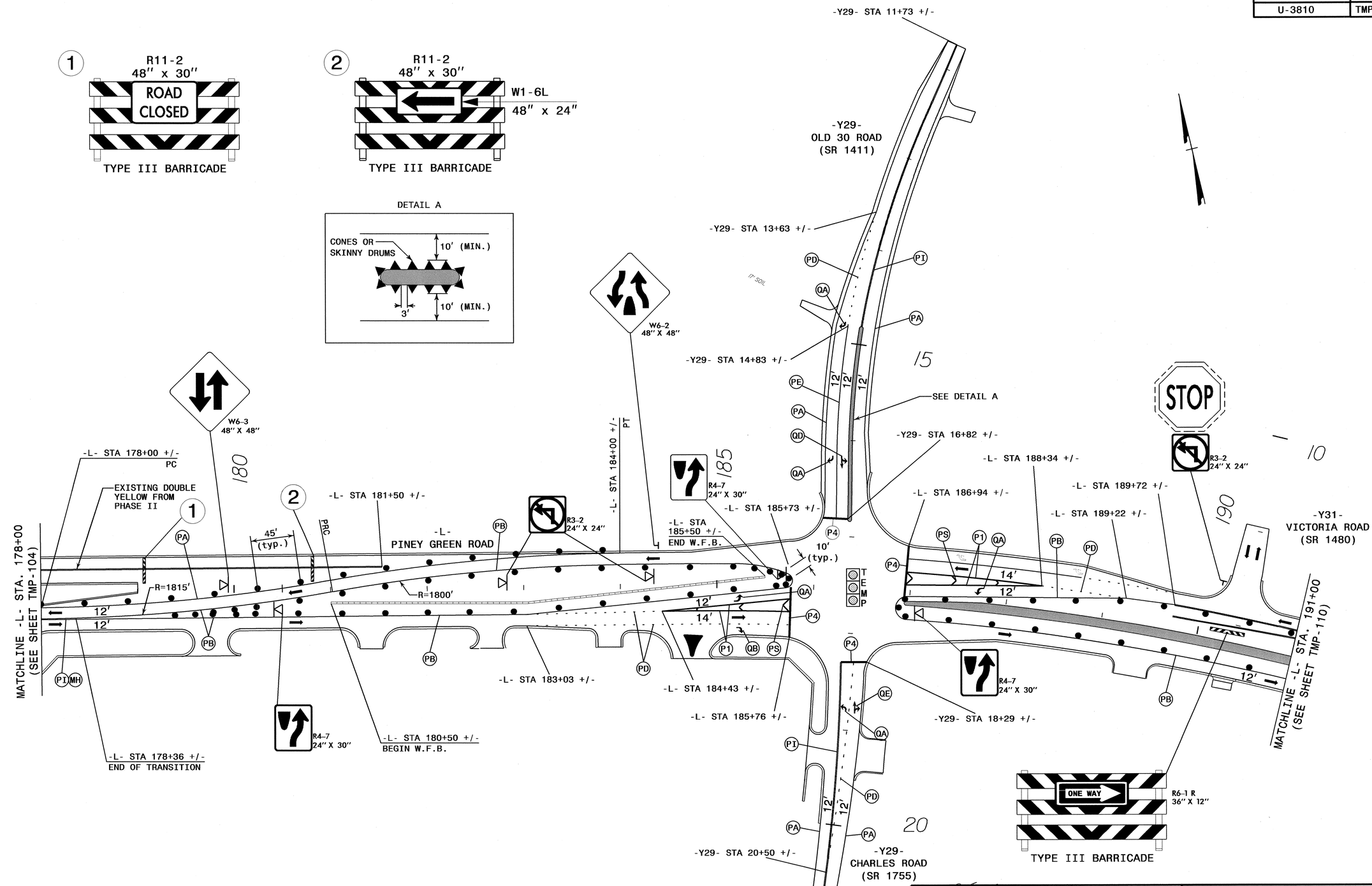

APPROVED: DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE III DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 08:12
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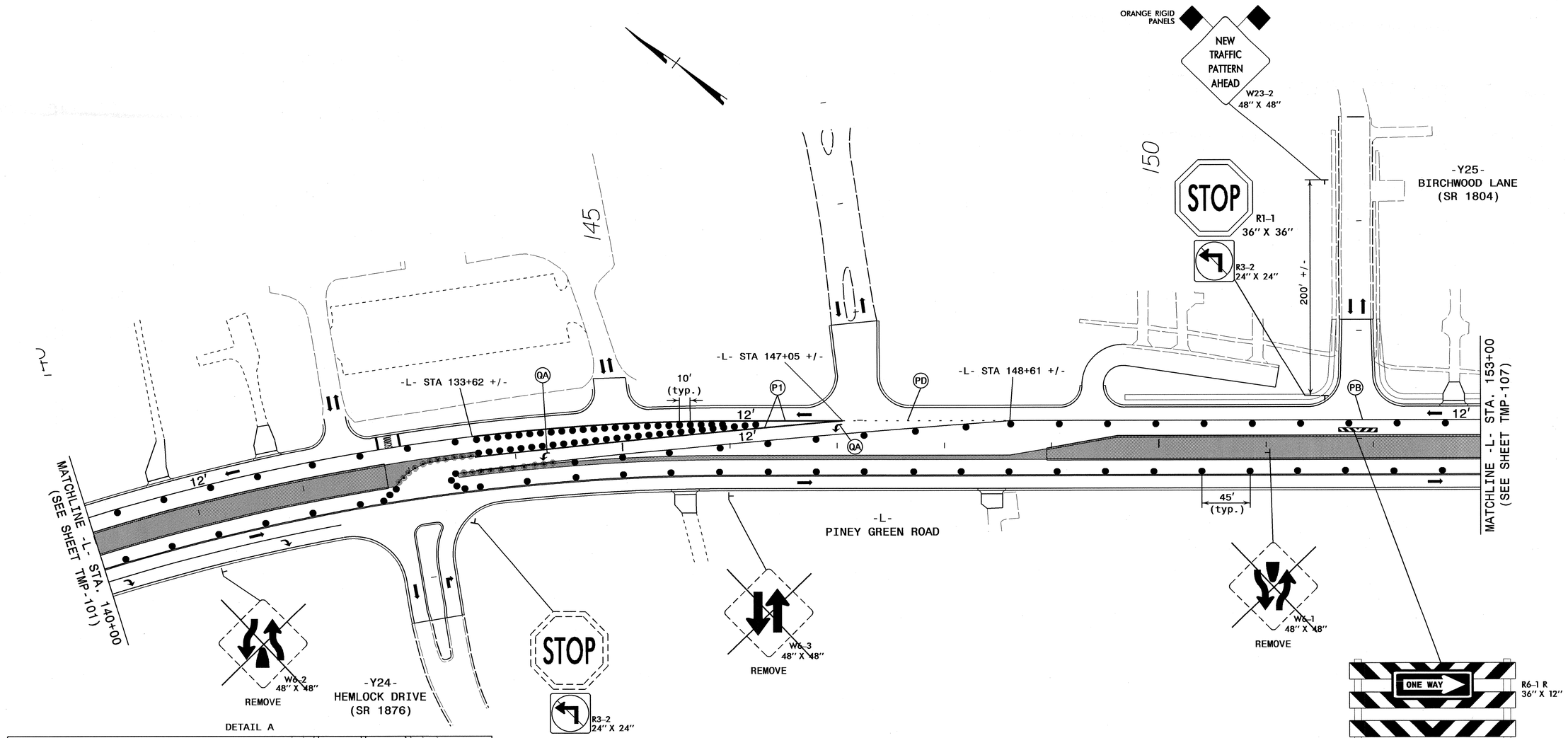
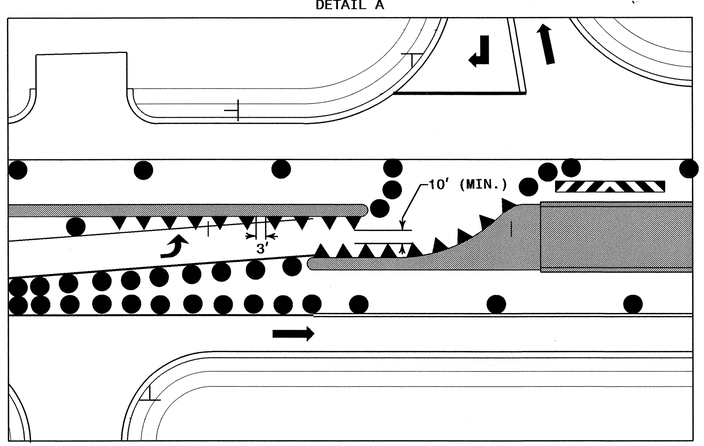
12054 AT RAL2UA1430Y7D

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-106



DETAIL A



NOTE: CONTRACTOR SHALL PROVIDE A MINIMUM CLEAR ROADWAY WIDTH OF 10', IF MINIMUM WIDTH CAN NOT BE ACHEIVED USING SKINNY DRUMS THEN CONES SHOULD BE USED TO OBTAIN 10' MINIMUM WIDTH.

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

APPROVED: DATE: 4/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE III DETAIL

22-MAY-2012 08:12
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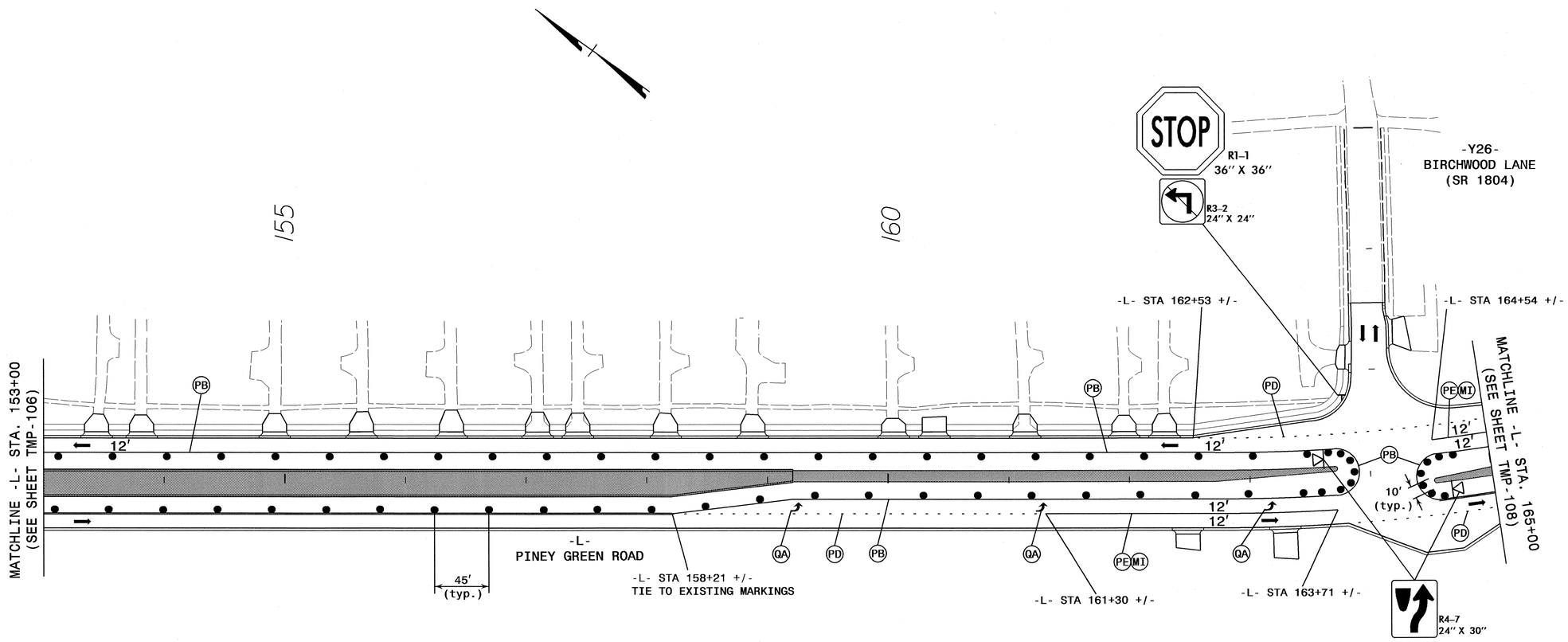
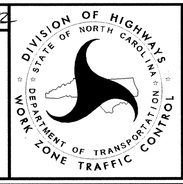
PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-107



APPROVED: J. Todd Brooks DATE: 5/22/12

SEAL



PHASE III DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 08:12
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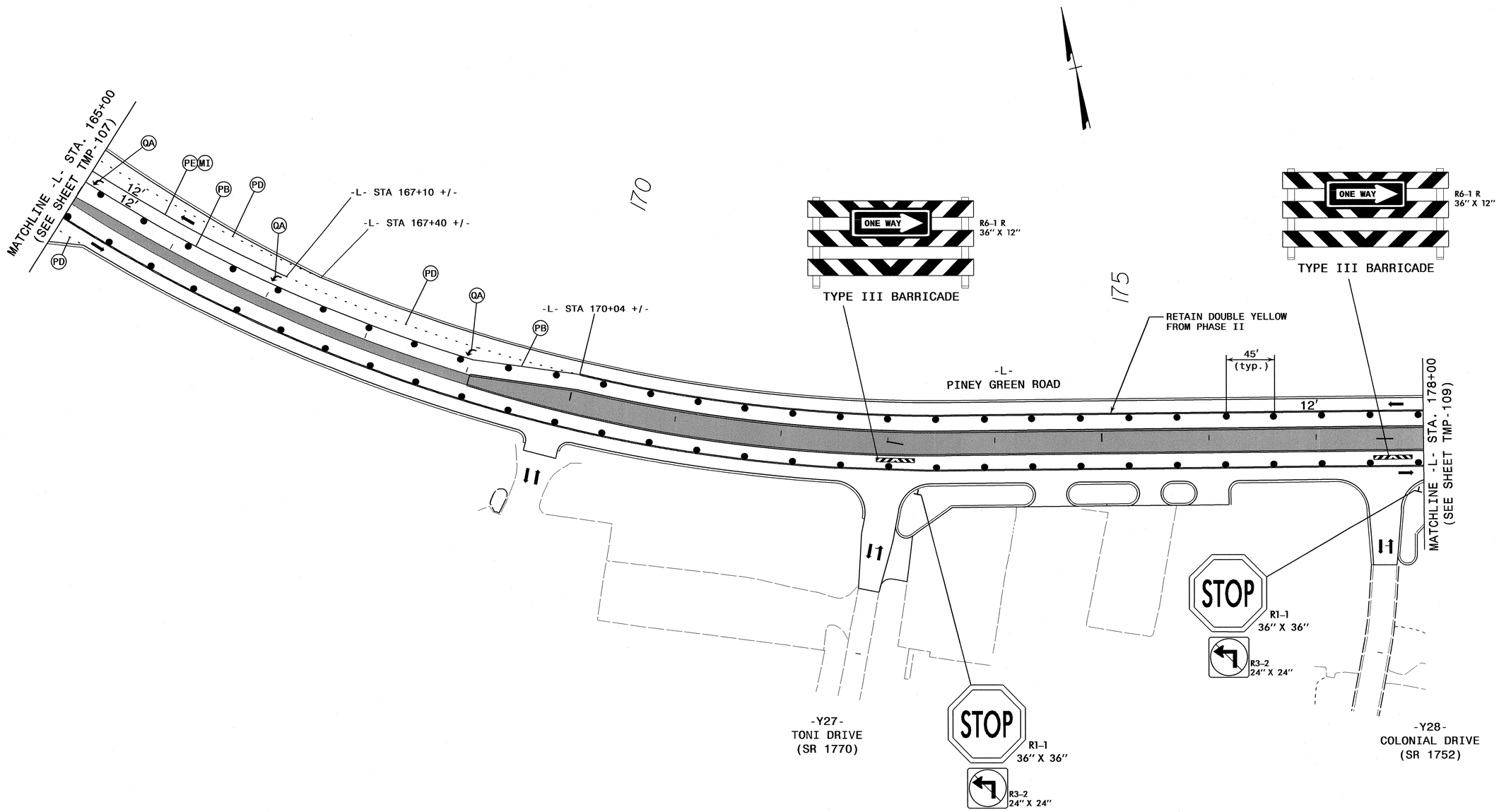
PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-108



APPROVED: DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE III DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 08:12
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PROJ. REFERENCE NO.	SHEET NO.
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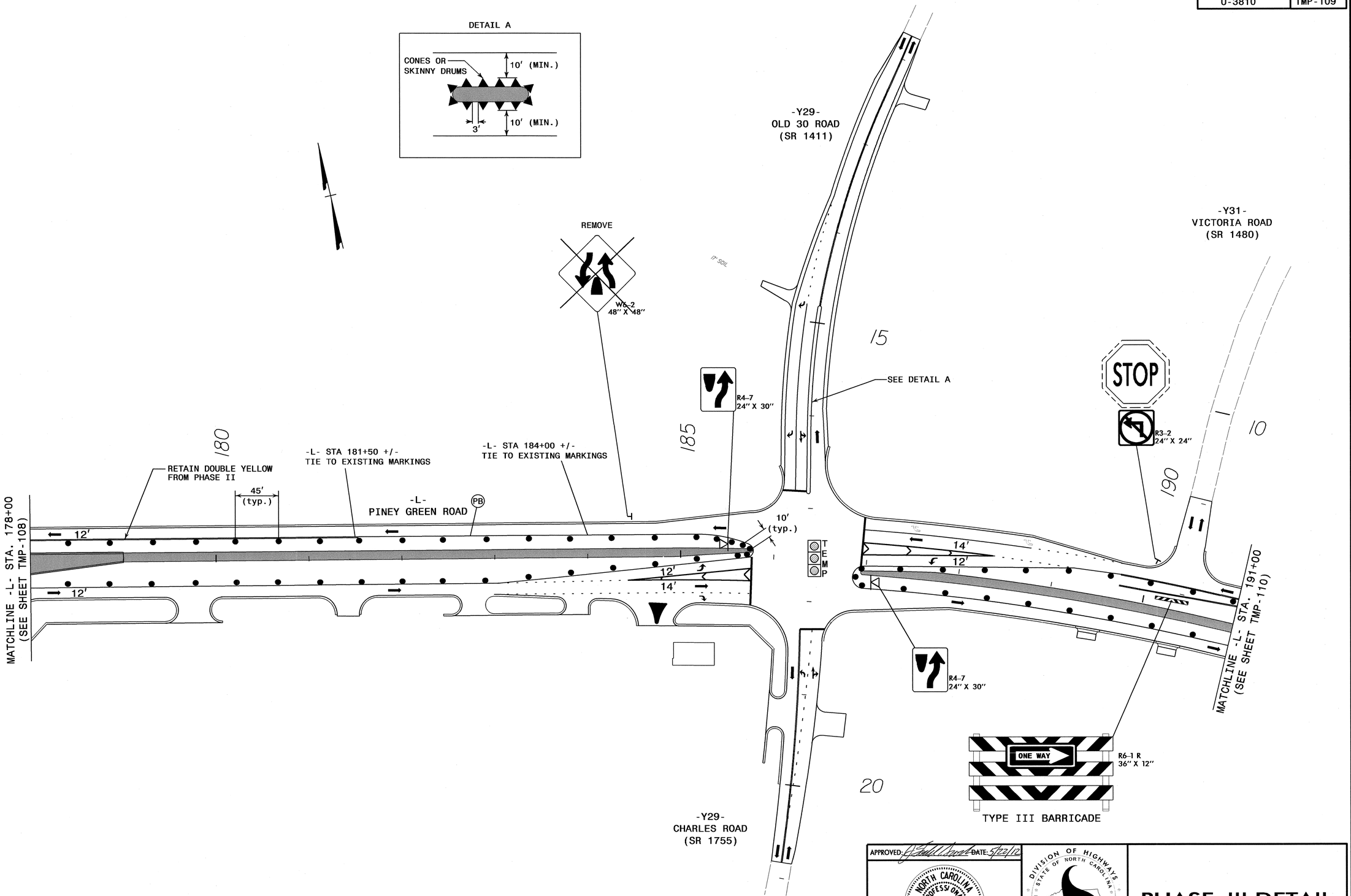


APPROVED: [signature] DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

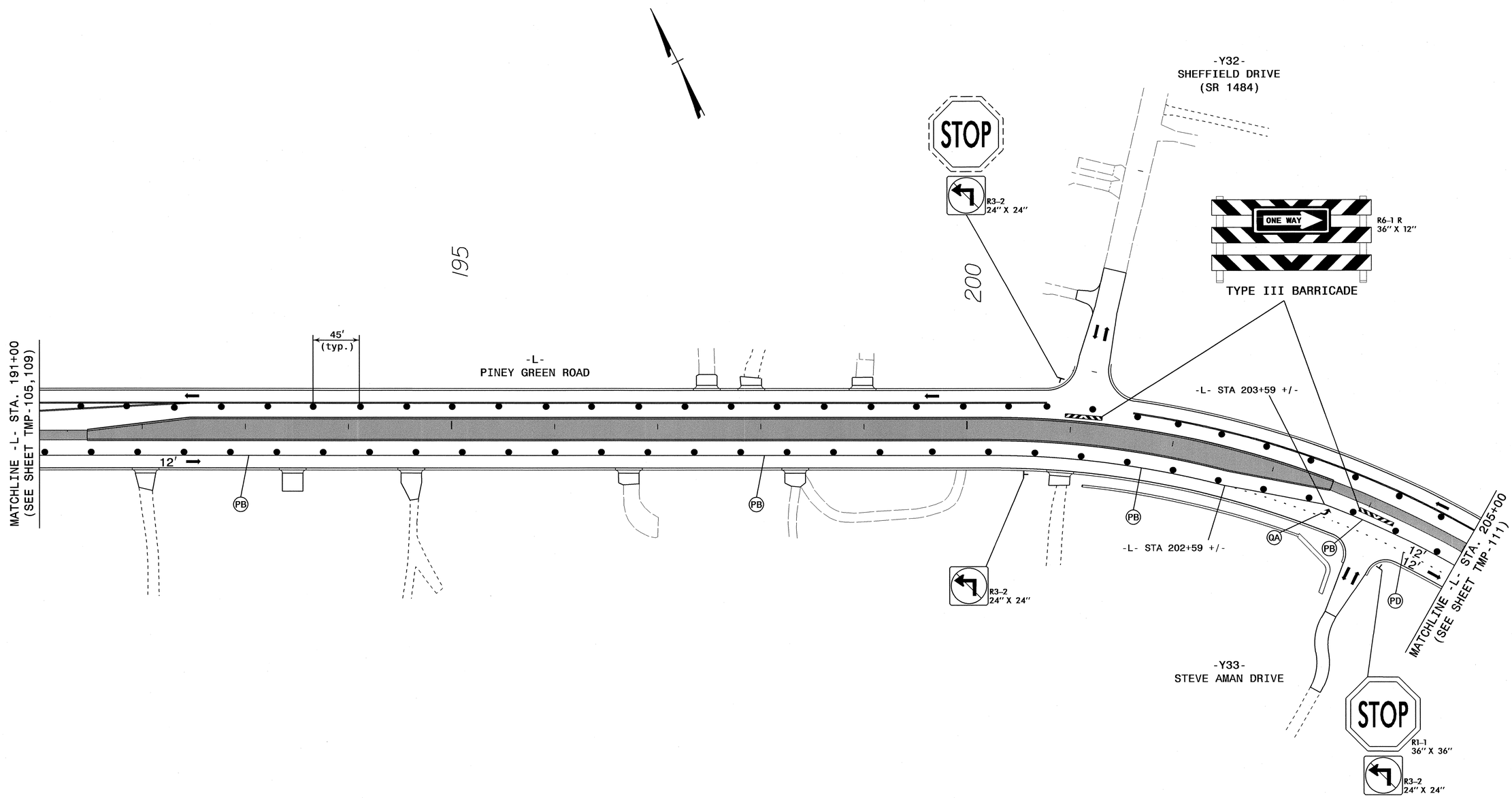
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

PHASE III DETAIL

ATKINS
1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 08:12
O:\Transportation\Traffic\Curr\10002610 - U-3810 Piney Green Rd\TCP\U3810_TC_TCP_109.dgn
12054 AT RAL2UA1430YTD

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-110



ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

APPROVED [signature] DATE: 5/22/12

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DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE III DETAIL

22-MAY-2012 08:12
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PROJ. REFERENCE NO.	SHEET NO.
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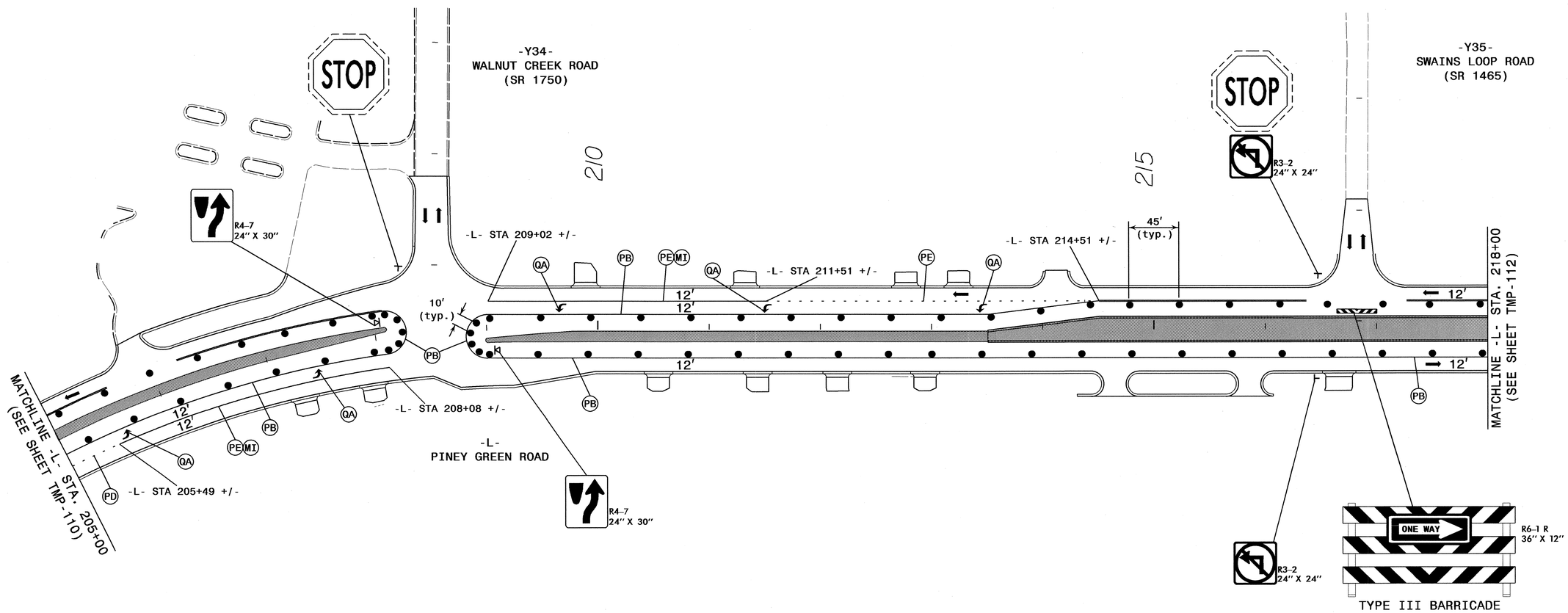

APPROVED: J. Todd Brooks DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE III DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 08:12
G:\Transportation\Traffic\Curr\100026110 - U-3810 Piney Green Rd\TCP\U3810_TC_TCP_111.dgn
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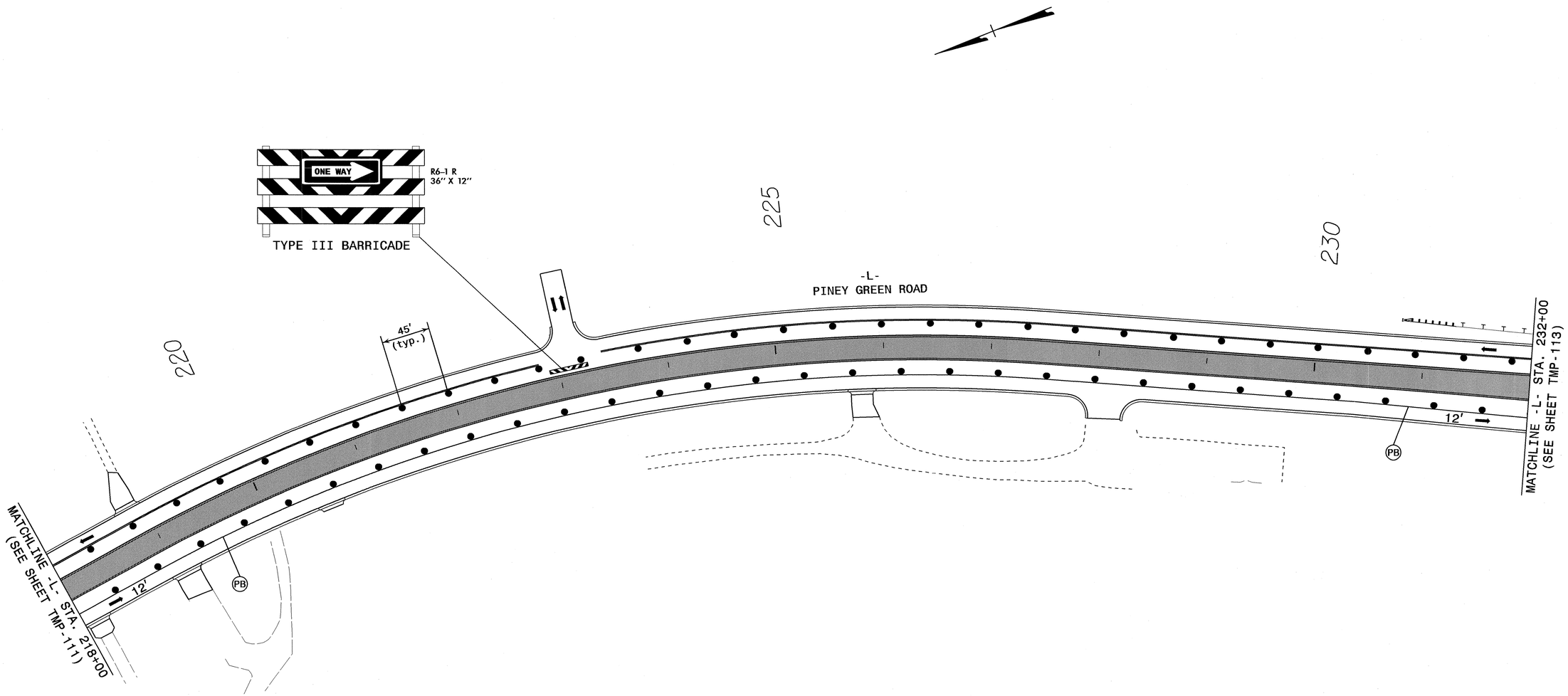
PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-112



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12054 AT RAL2UA1430Y7D

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

APPROVED [signature] DATE: 5/22/12

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NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

PHASE III DETAIL

PROJ. REFERENCE NO.	SHEET NO.
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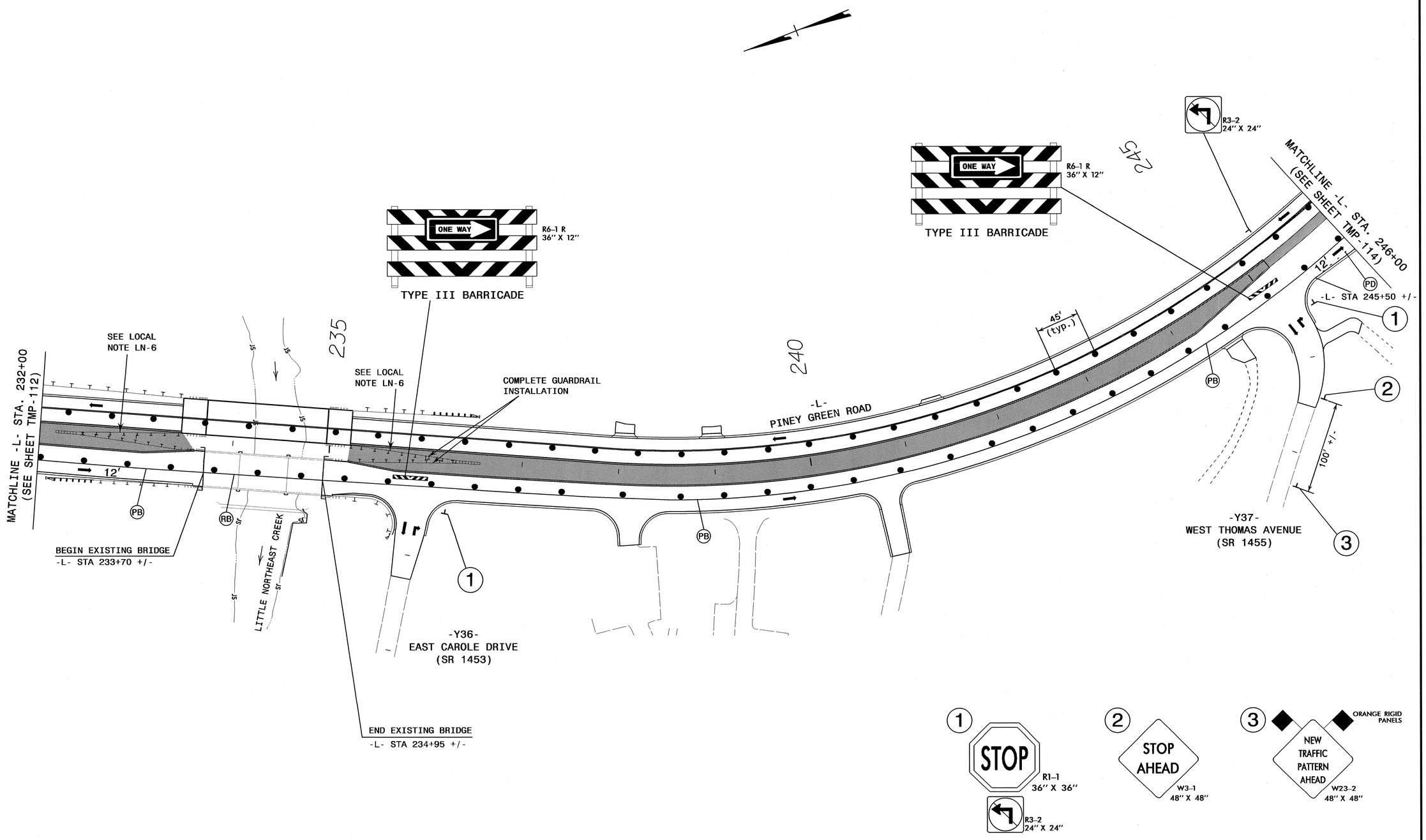

APPROVED: [signature] DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

PHASE III DETAIL

ATKINS
1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 08:12
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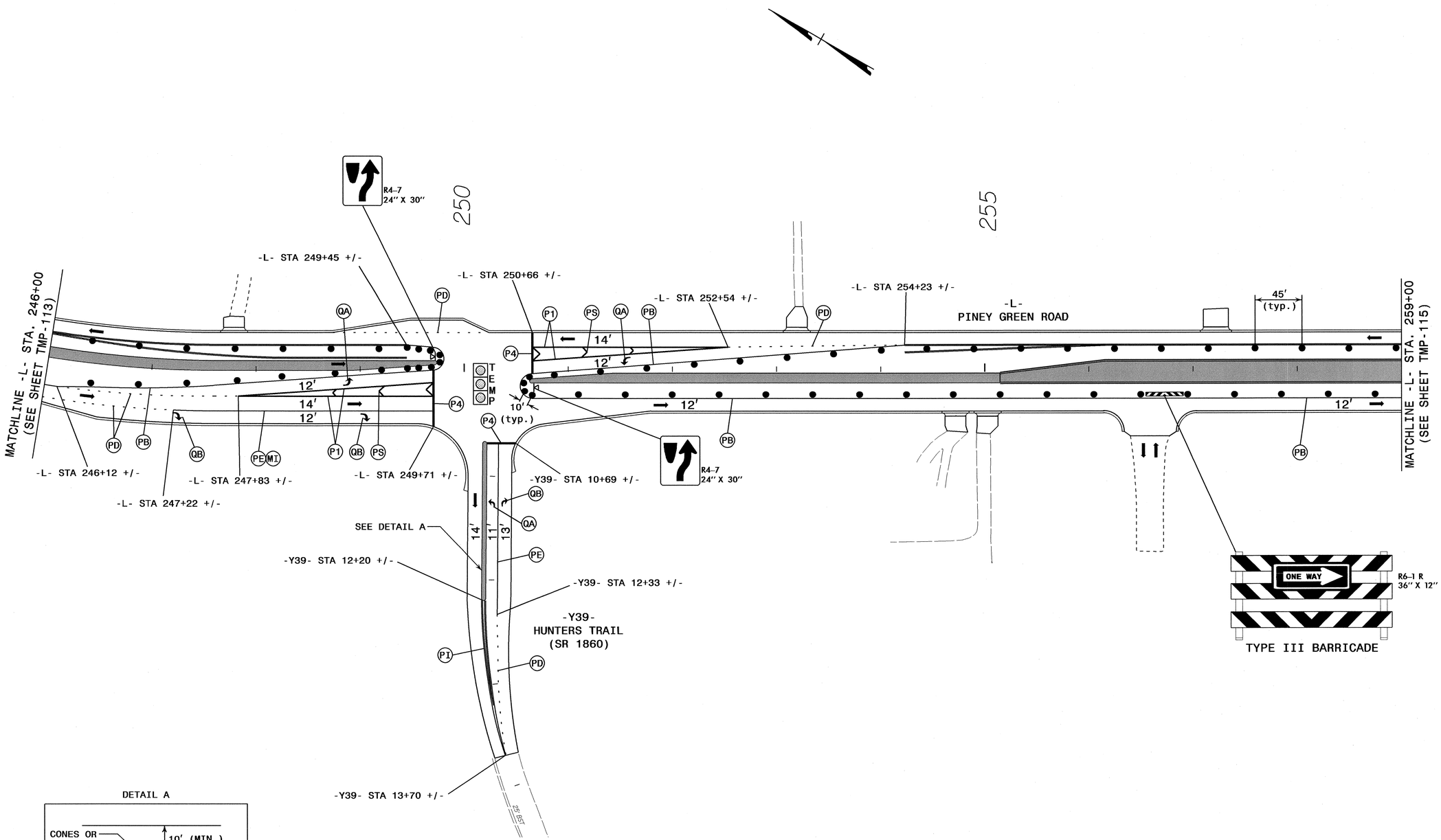
12054 AT RAL2UA1430Y7D

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-114



APPROVED: [signature] DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE III DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 08:12
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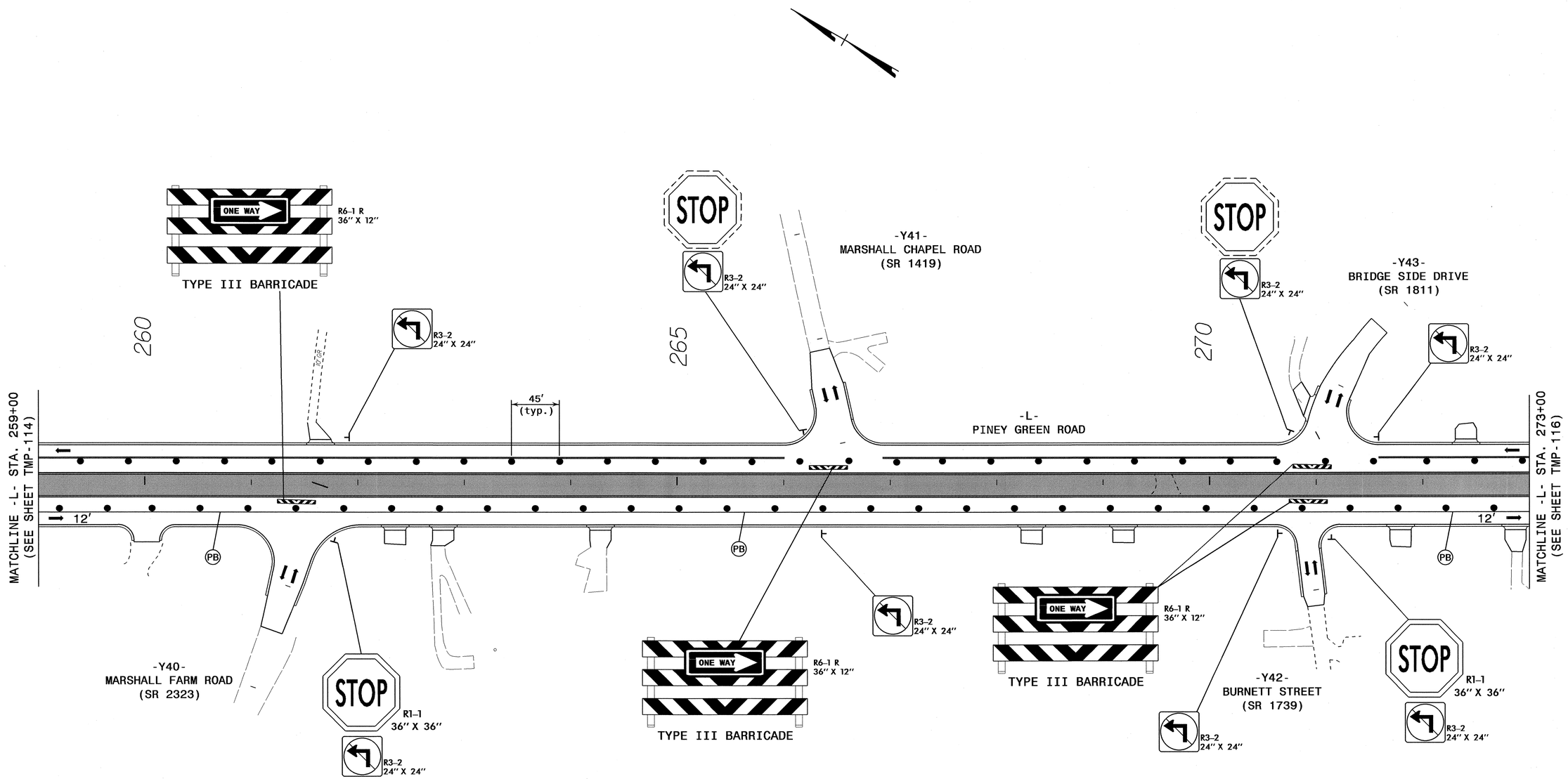
PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-115



ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

APPROVED: [signature] DATE: 5/22/12

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NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE III DETAIL

22-MAY-2012 08:12
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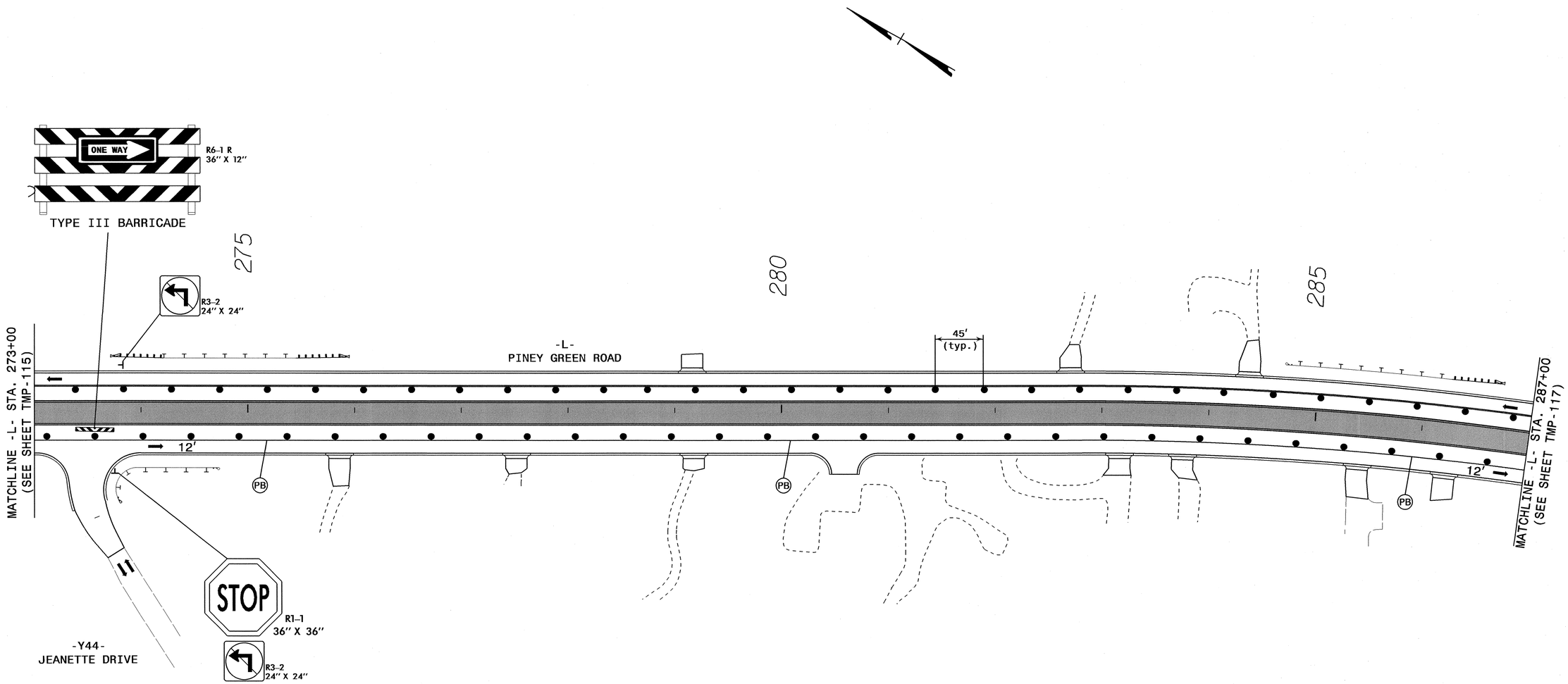

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ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

APPROVED: [signature] DATE: 5/22/12

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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

PHASE III DETAIL

PROJ. REFERENCE NO.	SHEET NO.
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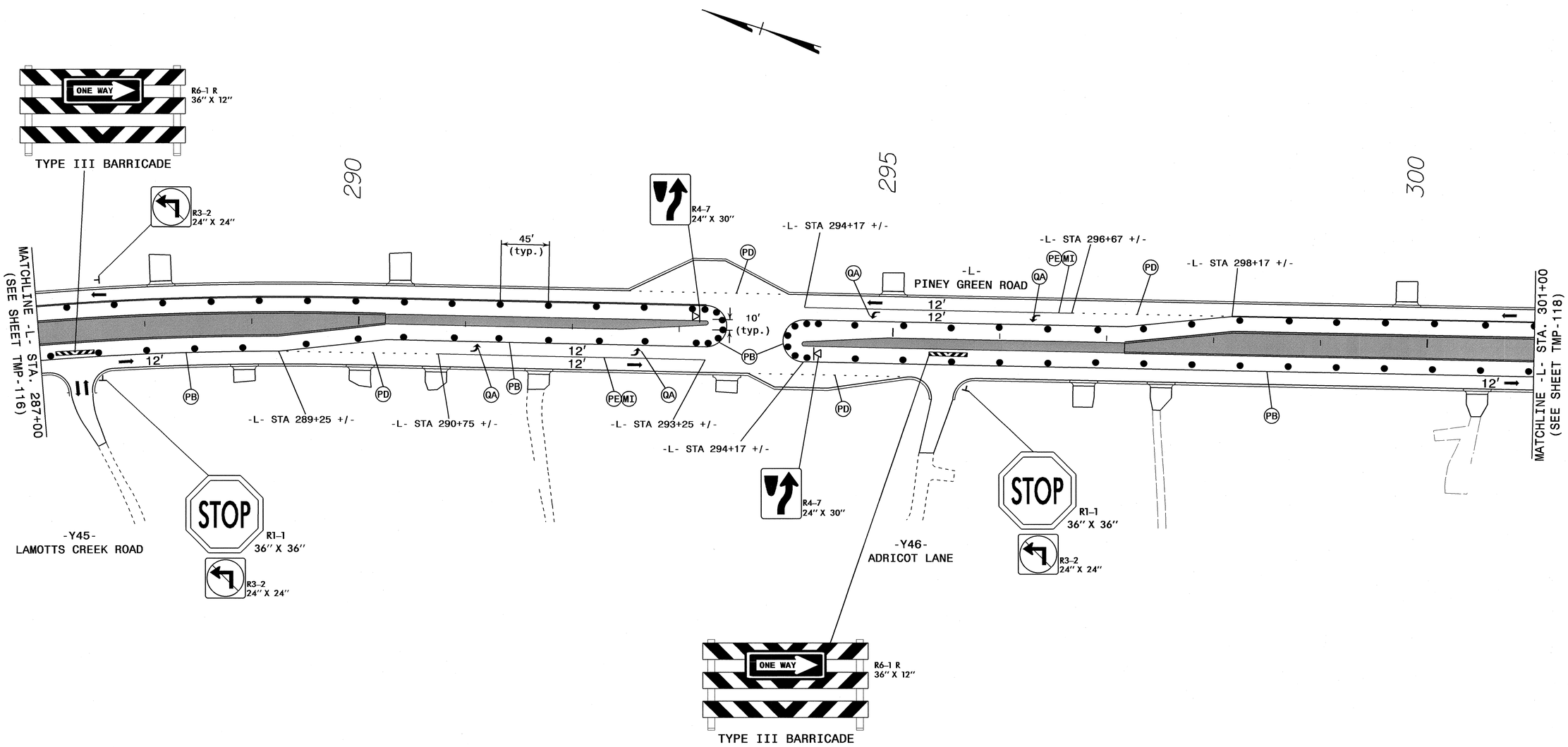

APPROVED: [signature] DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

PHASE III DETAIL

ATKINS
1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 08:12
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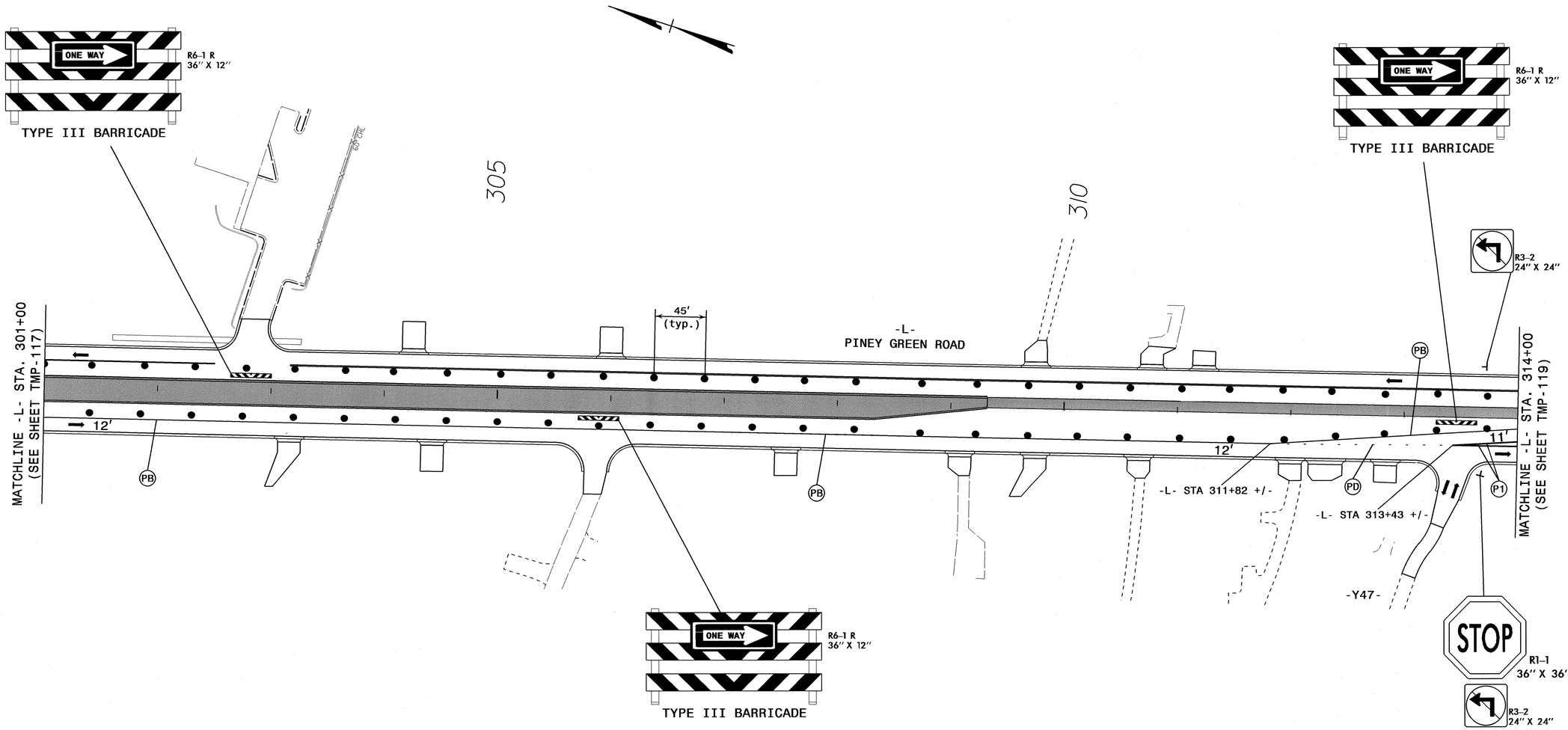
12054 AT RAL2UA1430YTD

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-118



ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

APPROVED: [signature] DATE: 5/22/12

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NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

PHASE III DETAIL

22-MAY-2012 08:12
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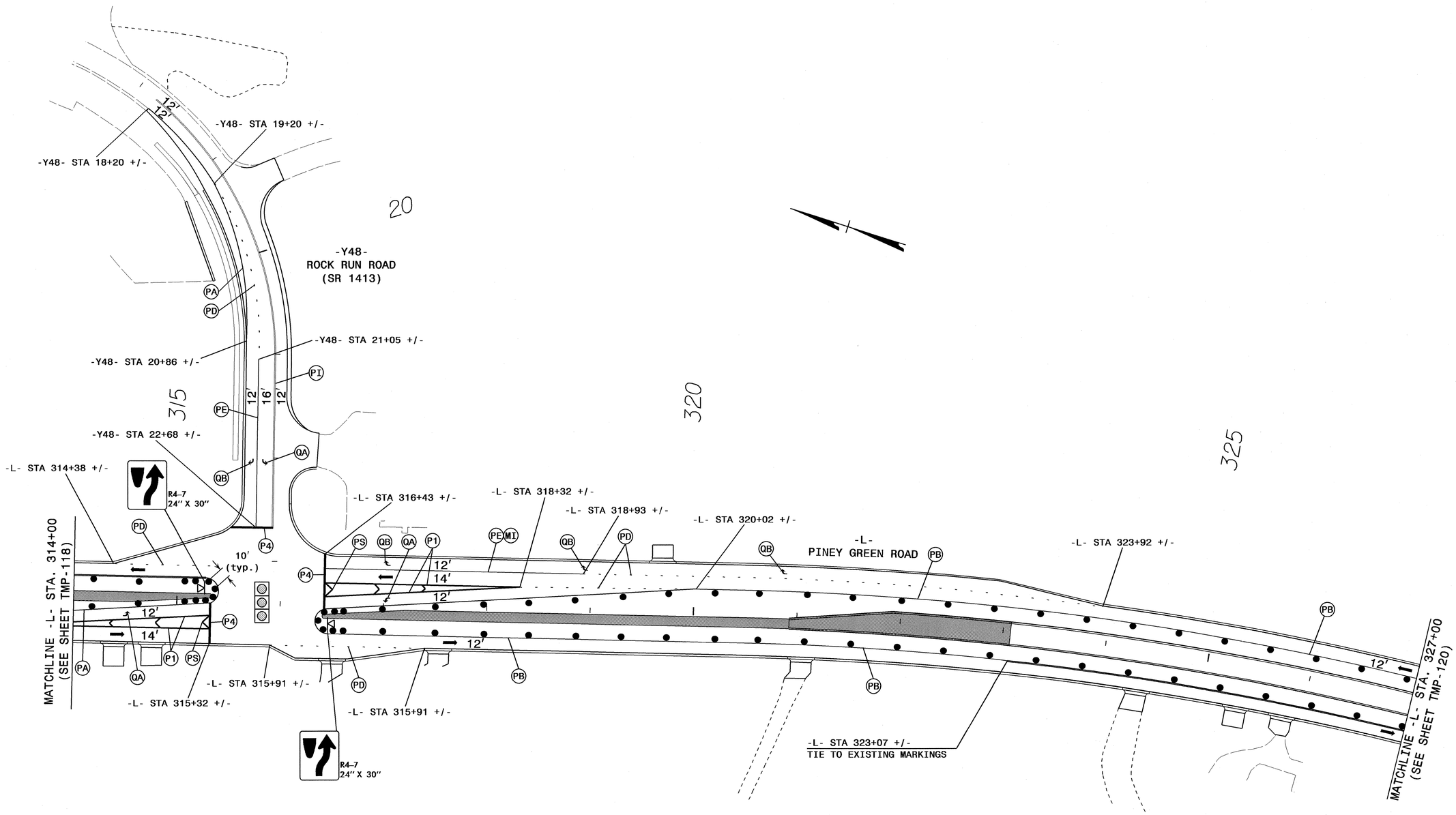

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

APPROVED: DATE: 5/22/12

SEAL

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DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

PHASE III DETAIL

22-MAY-2012 08:12
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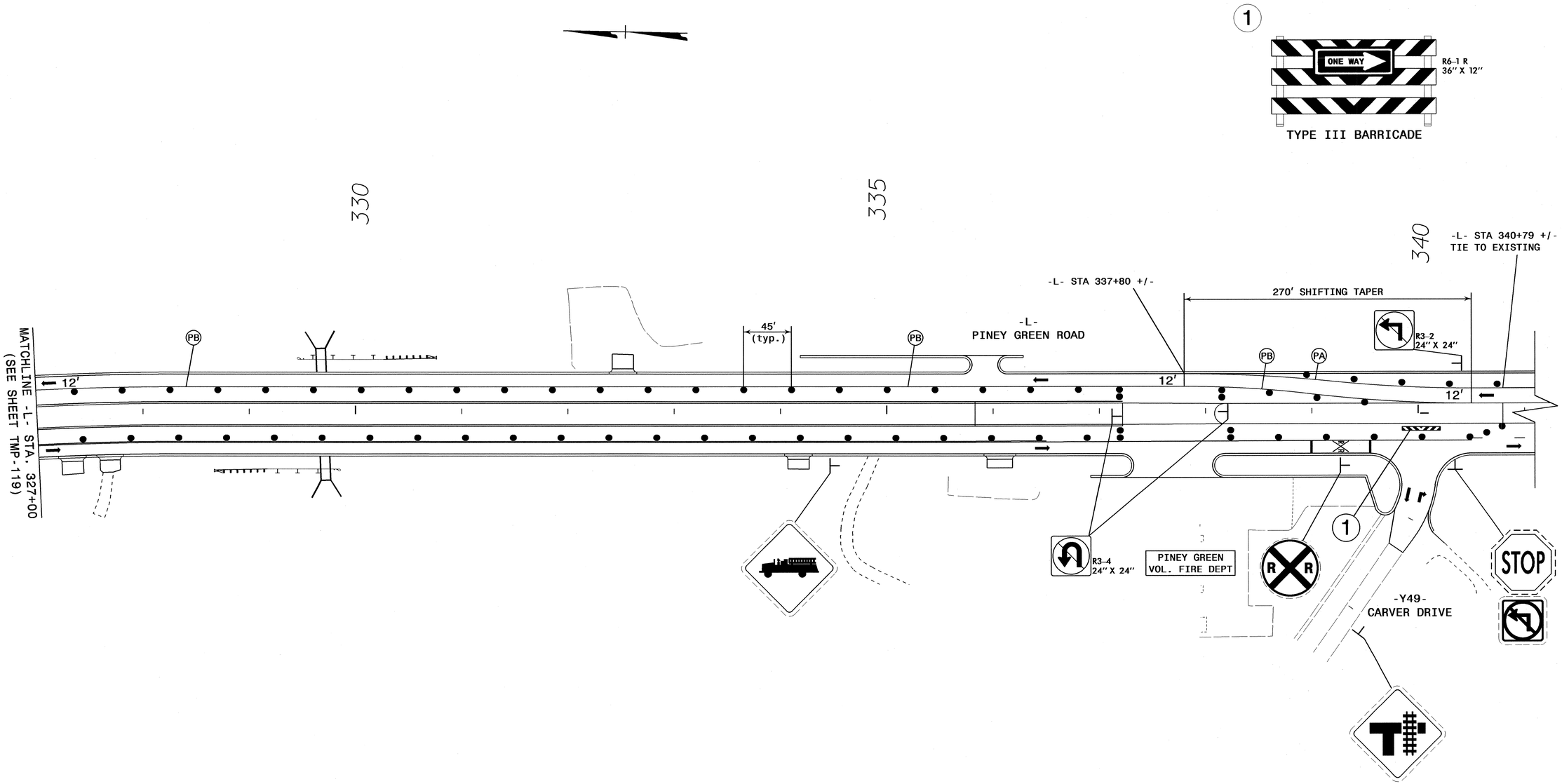
U-3810	TMP-120



APPROVED: DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

PHASE III DETAIL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 08:12
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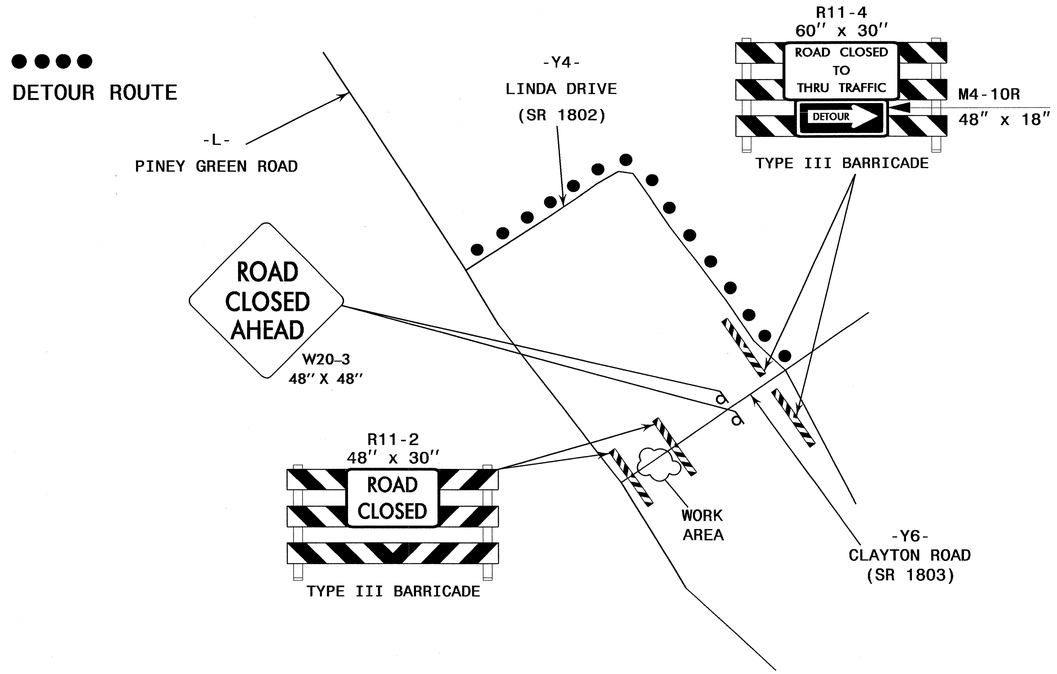
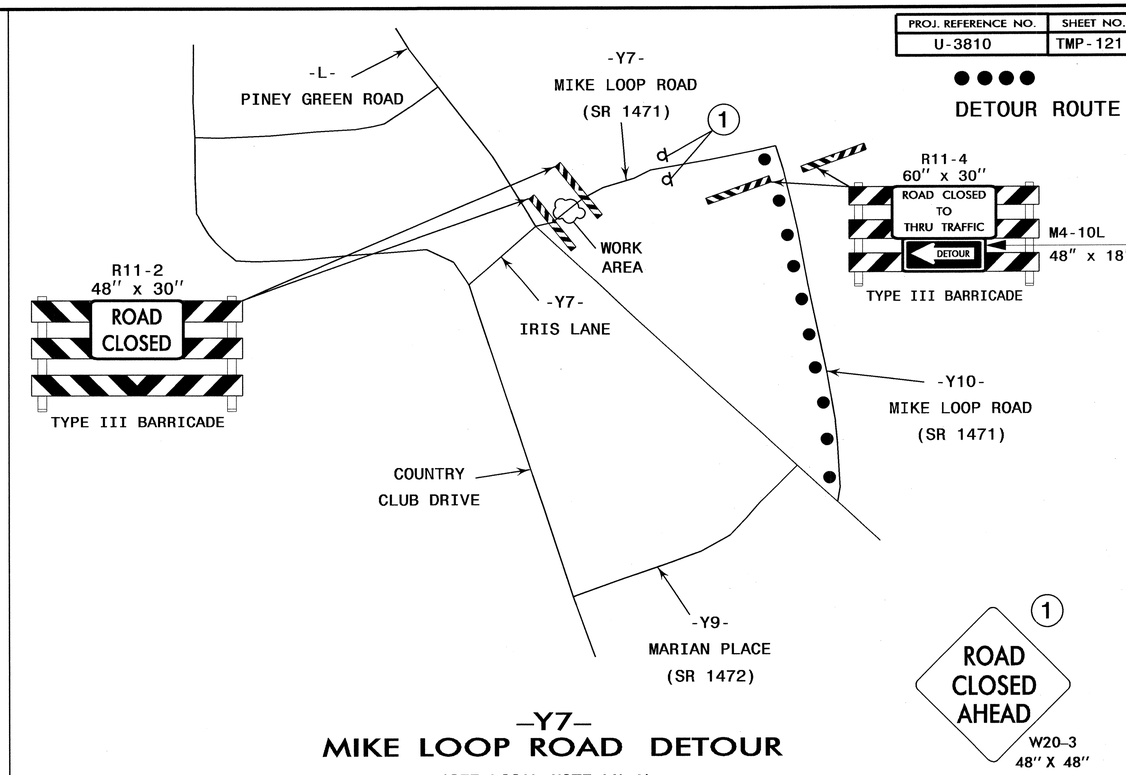
12054 AT RAL2UA1430YTD

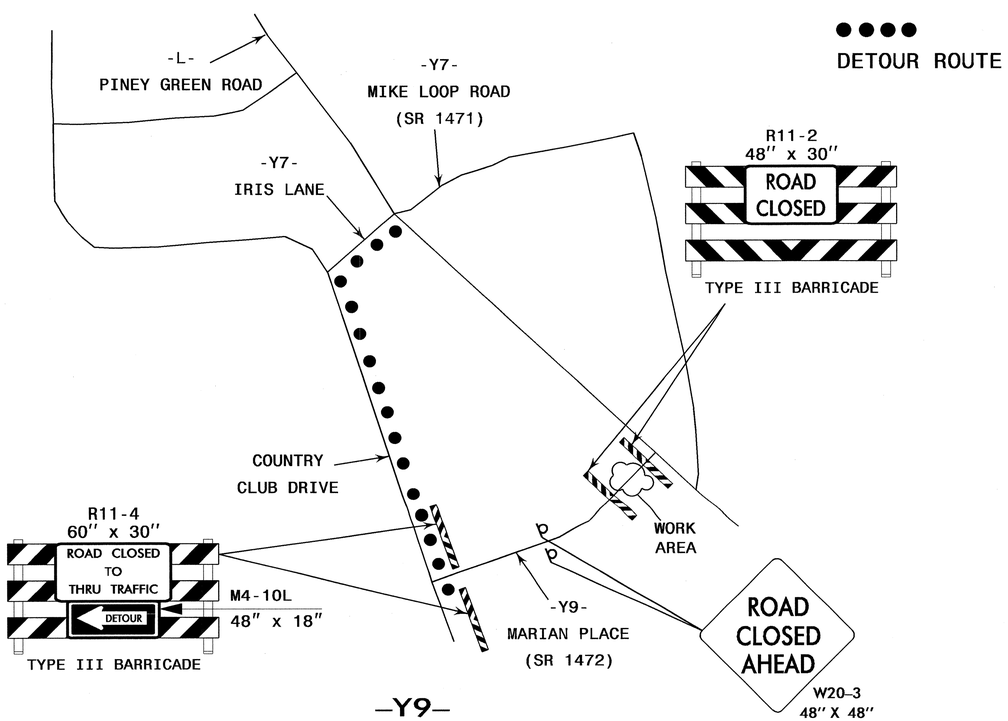
PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-121



-Y6-
CLAYTON ROAD DETOUR
(SEE LOCAL NOTE LN-4)

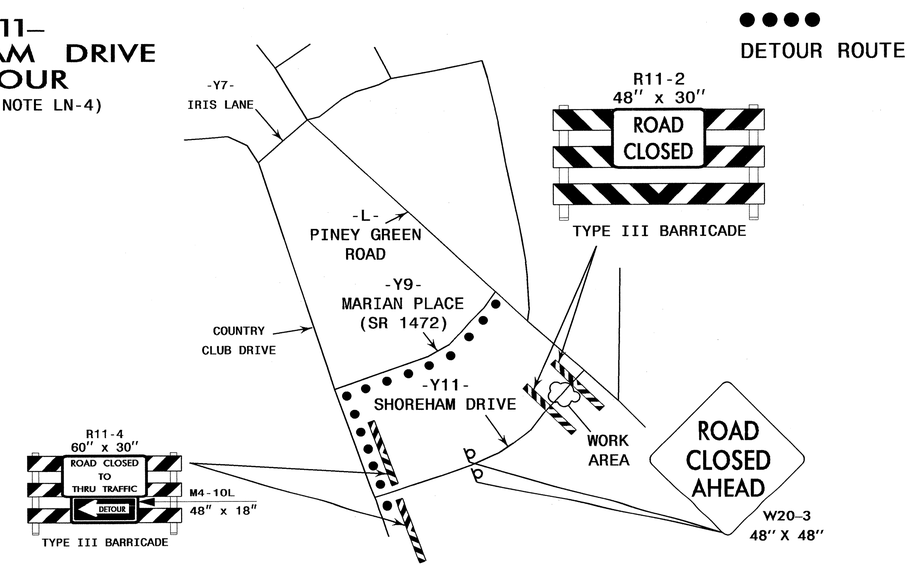


-Y7-
MIKE LOOP ROAD DETOUR
(SEE LOCAL NOTE LN-4)



-Y9-
MARIAN PLACE DETOUR
(SEE LOCAL NOTE LN-4)

-Y11-
SHOREHAM DRIVE DETOUR
(SEE LOCAL NOTE LN-4)



ATKINS
1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

APPROVED: [signature] DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

DETOURS

22-MAY-2012 08:51
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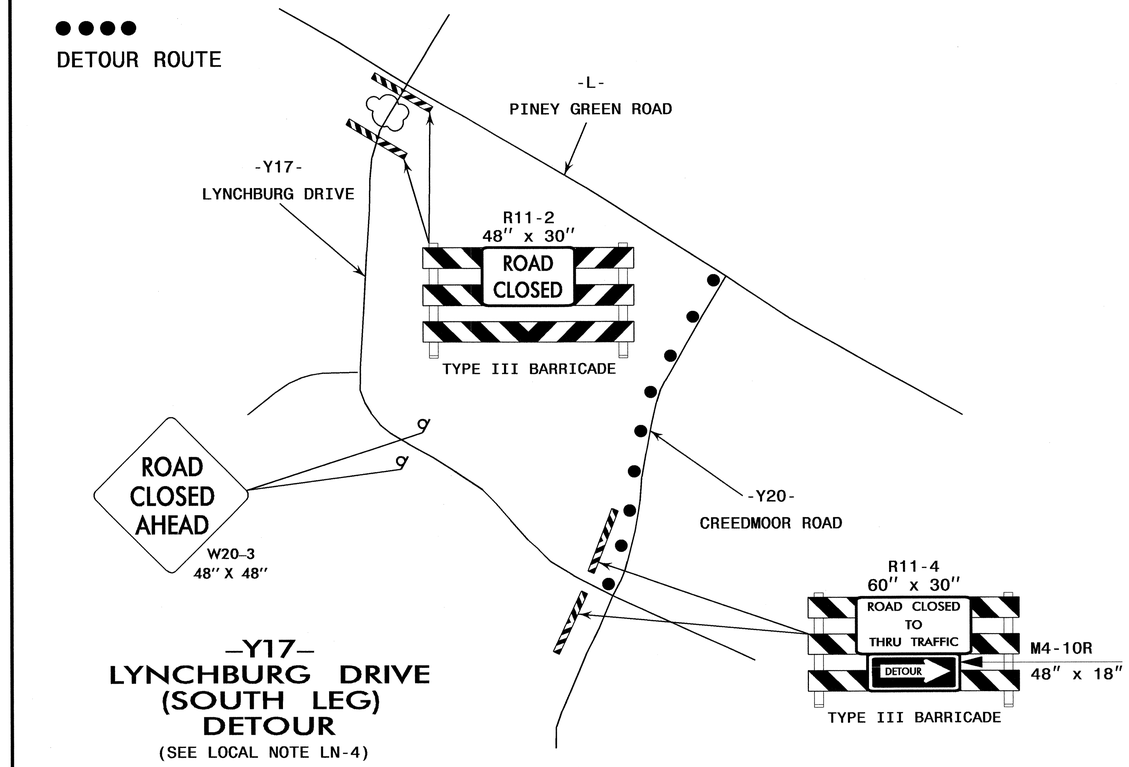
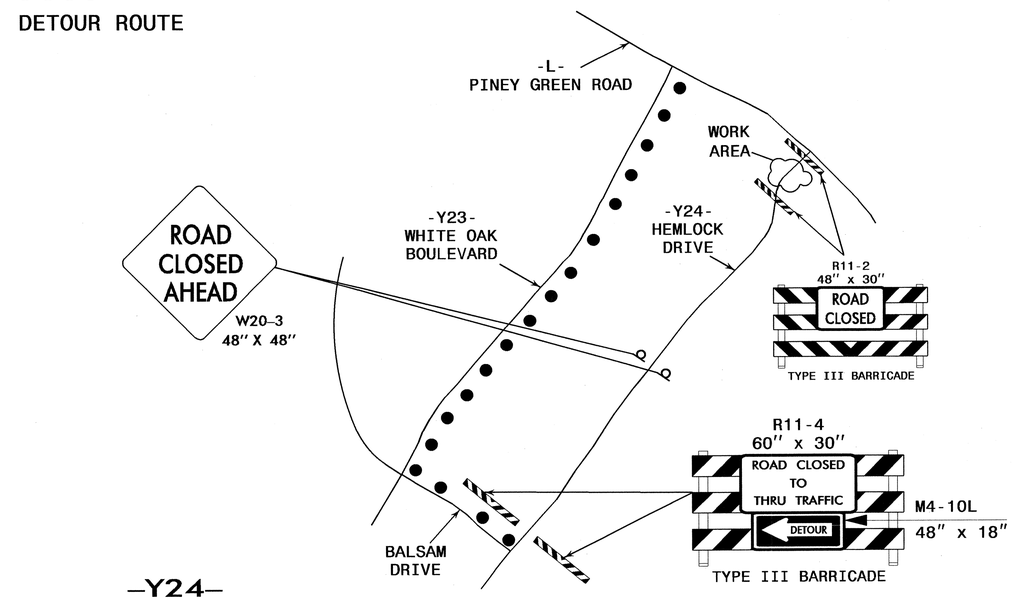
12054 AT RAL2UA1430YTD

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-122



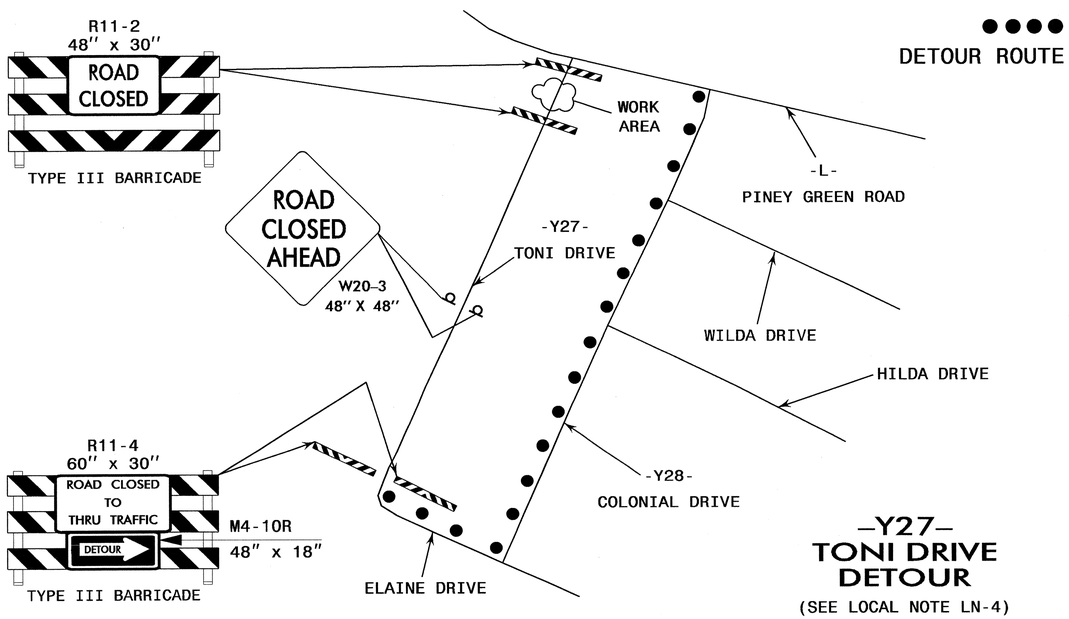
-Y17- LYNCHBURG DRIVE (SOUTH LEG) DETOUR

(SEE LOCAL NOTE LN-4)



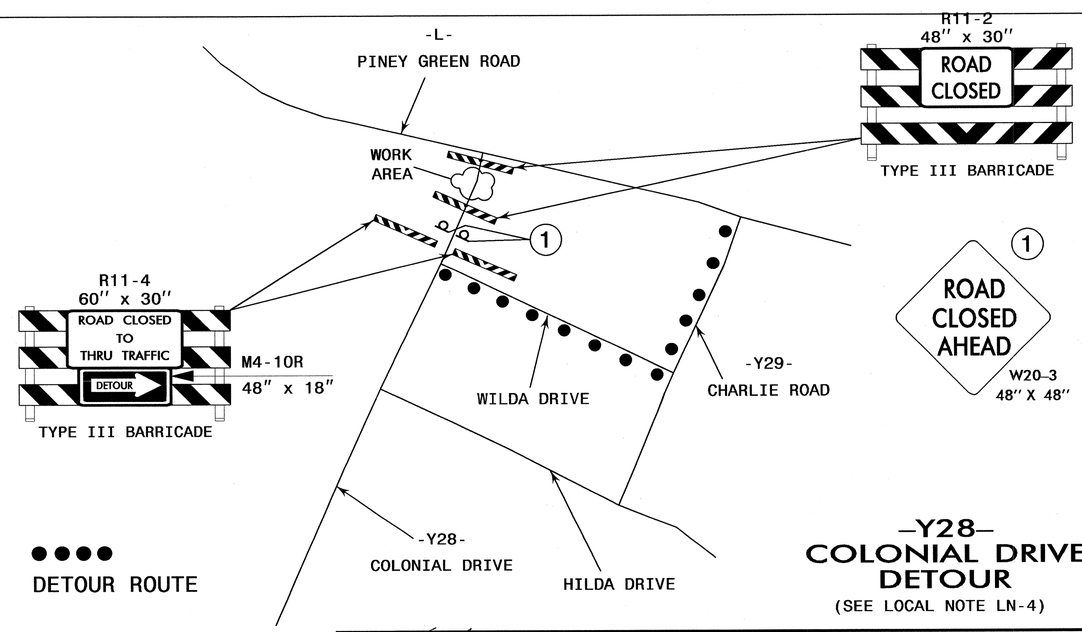
-Y24- HEMLOCK DRIVE DETOUR

(SEE LOCAL NOTE LN-4)



-Y27- TONI DRIVE DETOUR

(SEE LOCAL NOTE LN-4)



-Y28- COLONIAL DRIVE DETOUR

(SEE LOCAL NOTE LN-4)

APPROVED: [signature] DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

DETOURS

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 08:51
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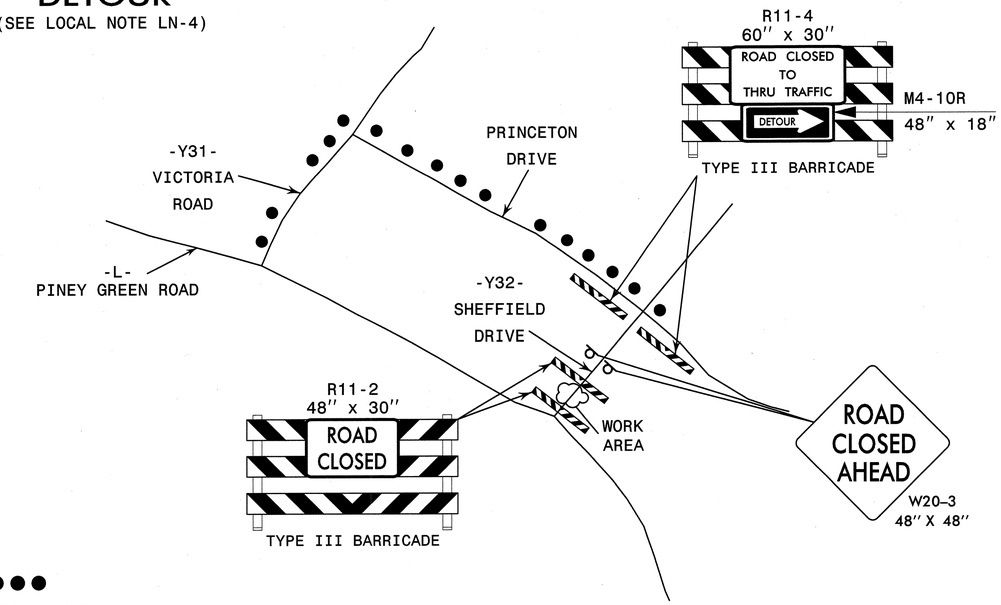
12054 AT RALEUA1430YTD

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-123

–Y32– SHEFFIELD DRIVE DETOUR

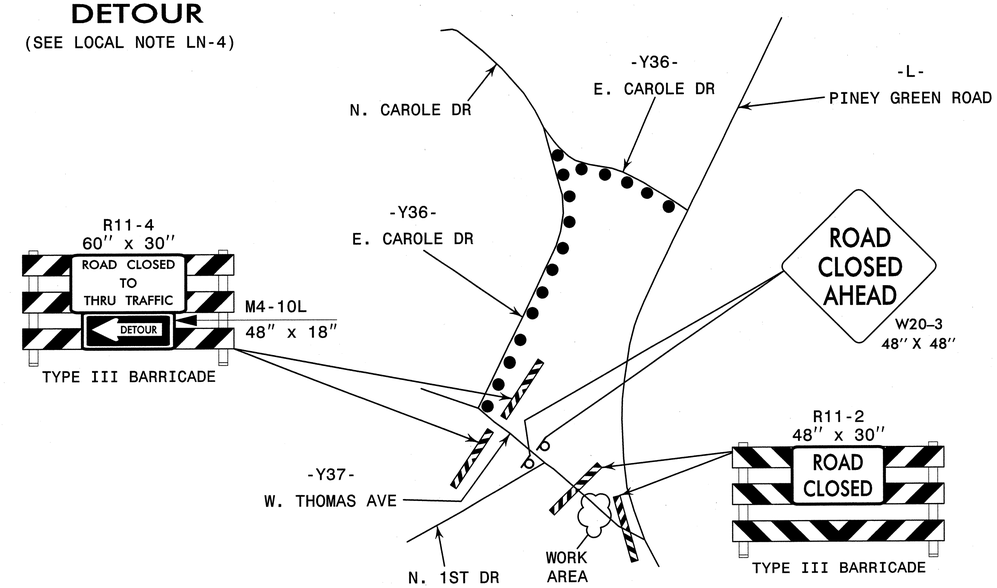
(SEE LOCAL NOTE LN-4)



●●●● DETOUR ROUTE

–Y37– W. THOMAS AVE DETOUR

(SEE LOCAL NOTE LN-4)

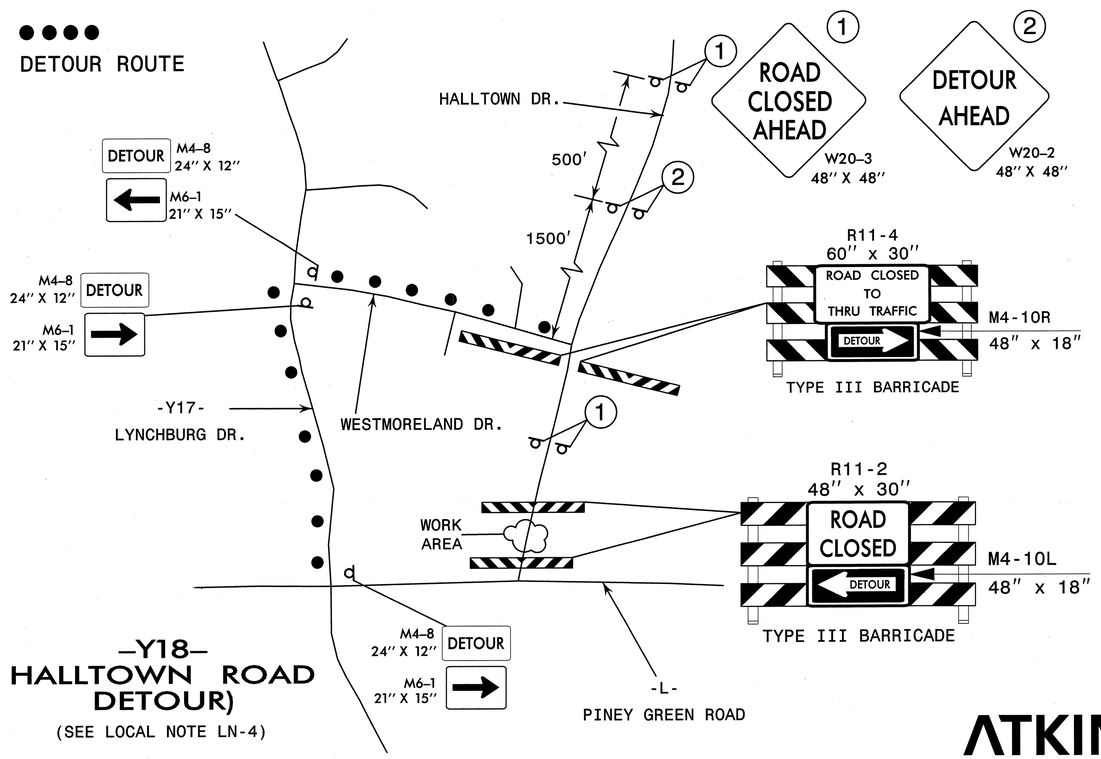


●●●● DETOUR ROUTE

●●●● DETOUR ROUTE

–Y18– HALLTOWN ROAD DETOUR)

(SEE LOCAL NOTE LN-4)



APPROVED: DATE: 2/6/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

DETOURS

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

06-AUG-2012 17:37
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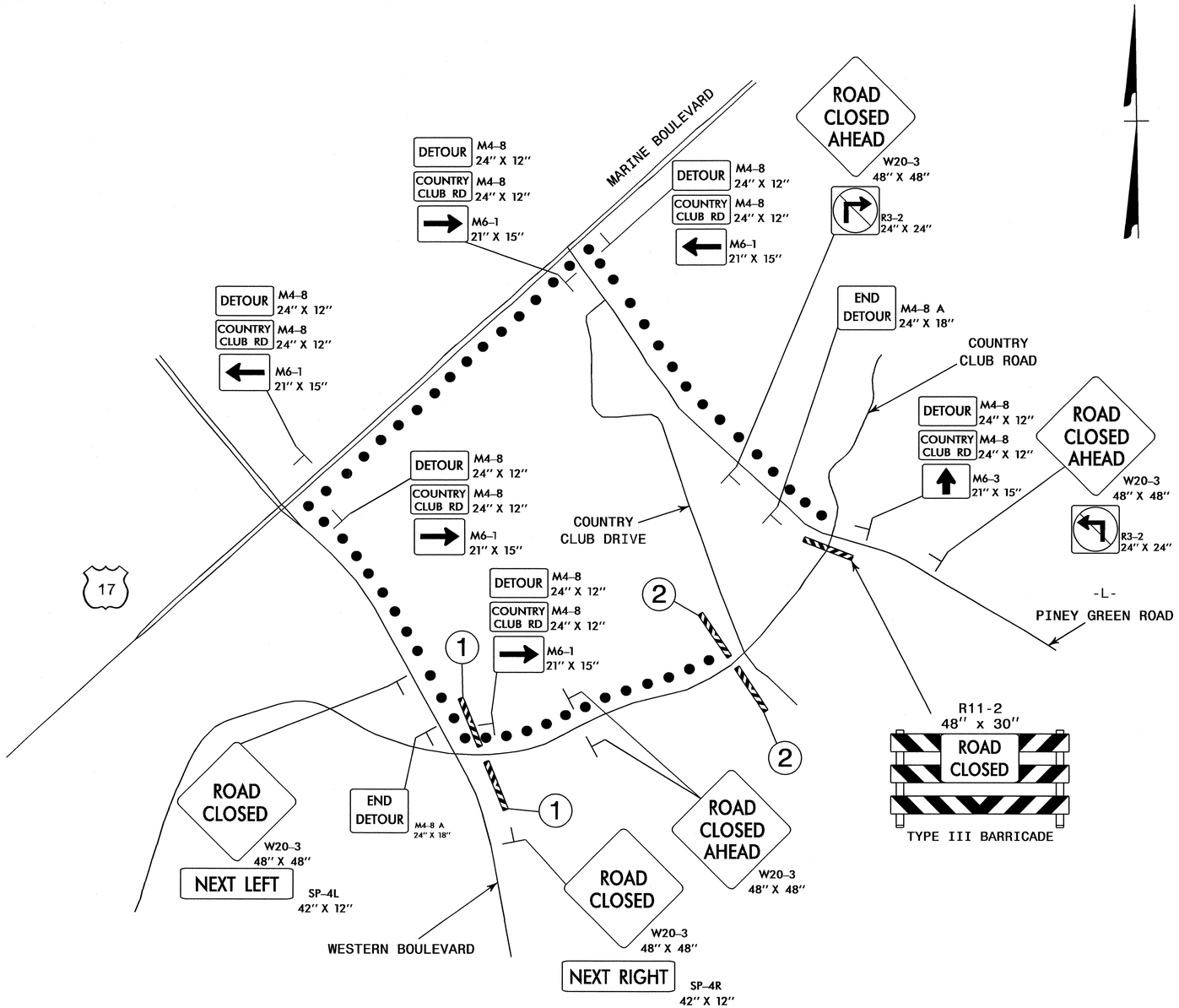
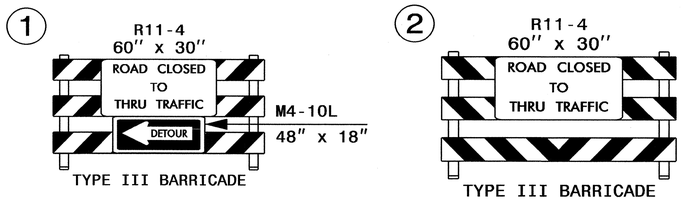
12054 AT RALZUAH30YTD

PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-124

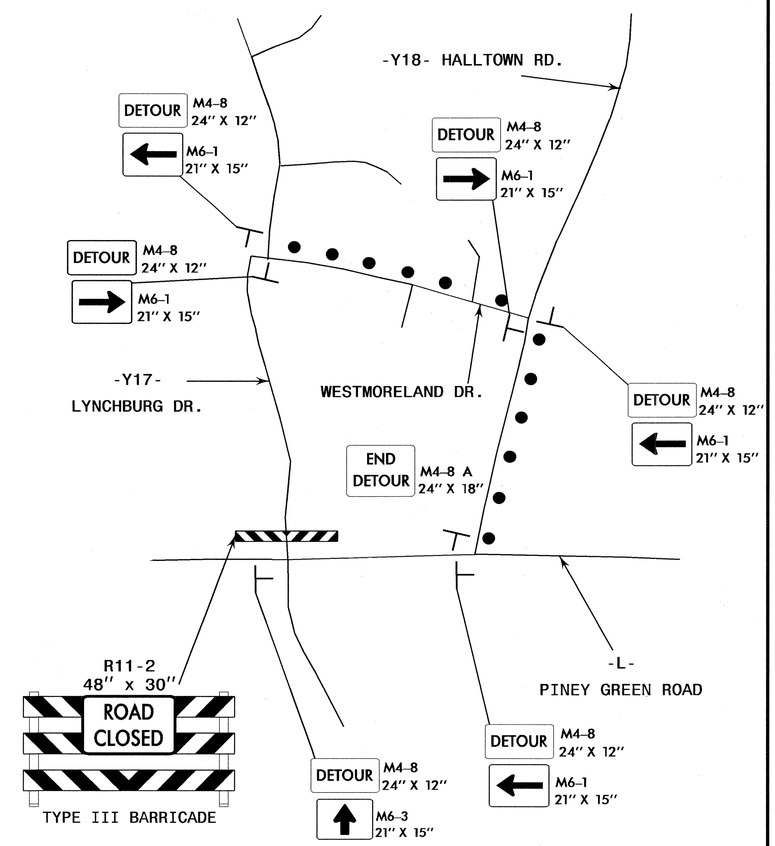
●●●●
DETOUR ROUTE FOR COUNTRY CLUB ROAD





–Y14–
COUNTRY CLUB ROAD DETOUR
(SEE LOCAL NOTE LN-4)

●●●●
DETOUR ROUTE



–Y17–
LYNCHBURG DRIVE
(NORTH LEG)
DETOUR
(SEE LOCAL NOTE LN-4)

APPROVED: [signature] DATE: 5/22/12

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 17586 ENGINEER J. TODD BROOKS

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

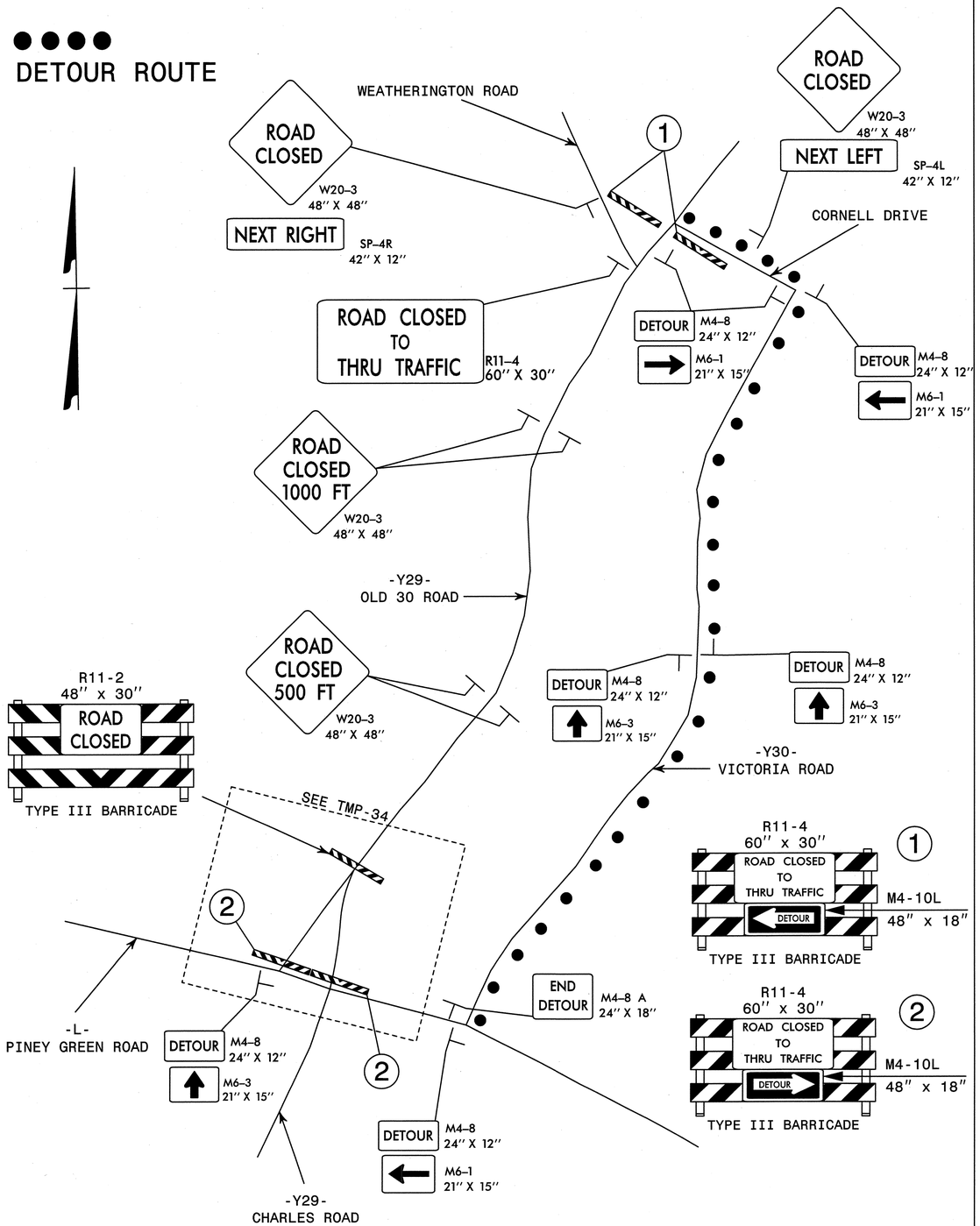
PHASE I
–Y14– & –Y17–
DETOUR

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

22-MAY-2012 08:58
O:\Transportation\Traffic\Curr\100026110 - U-3810 Piney Green Rd\TCP\U3810_TC_TCP_124.dgn
12054 AT RAL2UA143OY7D

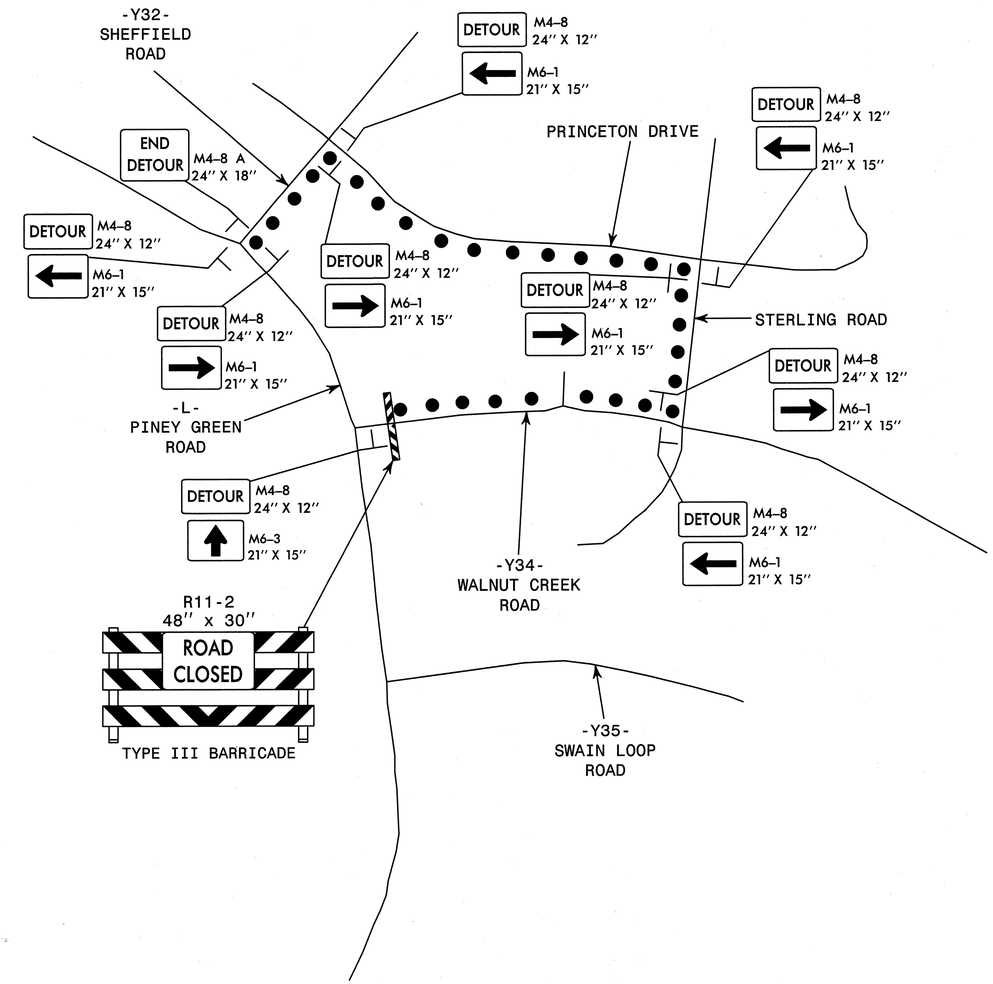
PROJ. REFERENCE NO.	SHEET NO.
U-3810	TMP-125

DETOUR ROUTE



–Y29–
OLD 30 ROAD STEP B DETOUR
(SEE LOCAL NOTE LN-4)

DETOUR ROUTE



–Y34–
WALNUT CREEK ROAD DETOUR
(SEE LOCAL NOTE LN-4)

APPROVED: J. Todd Brooks DATE: 8/6/12

SEAL

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DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 310 RALEIGH, NORTH CAROLINA 27609 (919) 876-6888 NCBEES #F-0326

PHASE I –Y29– & –Y34– DETOUR

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