DocuSign Envelope ID: 14C389DA-0793-445A-B520-89B857D23BA6

THE LOUIS BERGER GROUP, Inc.
1001 Wade Avenue, Suite 400
Raleigh, NC 27605-3322

PROJECT REFERENCE NO.	SHEET NO.
17BP.14.R.48	TMP-1B

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GENERAL NOTES /LOCAL 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.

LANE AND SHOULDER CLOSURE REQUIREMENTS

A) 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.

B) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.

C) 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.

D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.

E) 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.

PAVEMENT EDGE DROP OFF REQUIREMENTS

F) 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.

G) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 200 IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

I) 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.

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

TRAFFIC BARRIER

K) 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.

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.

TRAFFIC CONTROL DEVICES

L) 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.

M) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.

PAVEMENT MARKINGS AND MARKERS

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

ROAD NAME	MARKING	MARKER
-L-	PAINT	NONE

O) 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.

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

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

MISCELLANEOUS

R) IN THE EVENT A TIE-IN CANNOT BE MADE IN ONE DAY'S TIME, BRING THE TIE-IN AREA TO AN APPROPRIATE ROADWAY ELEVATION AS DETERMINED BY THE ENGINEER. PLACE BLACK ON ORANGE "LOOSE GRAVEL" SIGNS (W8-7) AND BLACK ON ORANGE "PAVEMENT ENDS" SIGNS (W8-3) 200 AND 400 RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.

TEMPORARY SHORING

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION 11+90 +/-, 11.5 FEET LEFT TO STATION 12+60 +/-, 11.5 FEET LEFT. SEE STANDARD DRAWING NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

MANAGEMENT STRATEGIES

- DURING CONSTRUCTION, SR 1500 (WATAUGA ROAD) TRAFFIC WILL BE PLACED IN A ONE LANE, TWO WAY PATTERN PER NCDOT.
- SIGNAGE AT THE BEGINNING AND END OF CONSTRUCTION WILL MANAGE SR 1500 TRAFFIC.
- THE CONSTRUCTION OF TIE-INS, TRAFFIC SHIFTS, PLACEMENT OF FINAL SURFACE COURSE AND PAVEMENT MARKINGS WILL BE PERFORMED USING FLAGGERS FOR TWO LANE, ONE WAY TRAFFIC OPERATION.
- MAINTAIN ACCESS TO DRIVEWAY AT 11+80 LT AT ALL TIMES DURING CONSTRUCTION.

PHASING

PHASE I

STEP 1: PRIOR TO CONSTRUCTION OPERATIONS, INSTALL WORK ZONE ADVANCE WARNING SIGNS PER SHEET TMP-3 AND ROADWAY STANDARD DRAWING 1101.01 SHEET 3 OF 3.

STEP 2: WHILE TRAFFIC IS MAINTAINED ON THE EXISTING ROADWAY, COMPLETE THE FOLLOWING (TMP-3):
- CONSTRUCT TEMPORARY PIPE AND TEMPORARY DRAINAGE.
- CONSTRUCT TEMPORARY SHORING.
- CONSTRUCT TEMPORARY DETOUR, USING R.S.D. 1101.02, 1 OF 14, AS NEEDED.
- PLACE PORTABLE CONCRETE BARRIER, TEMPORARY CRASH CUSHIONS AND BARRICADES.

PHASE II

STEP 1: TO BE COMPLETED IN ONE WORK PERIOD USING RDY STD. 1101.02 SHEET 1 OF 14, PERFORM THE FOLLOWING (TMP-4):
-CONSTRUCT/INSTALL TEMPORARY TRAFFIC SIGNAL.
-PLACE TEMPORARY MARKINGS ON EXISTING SR 1500 FOR A TEMPORARY ONE LANE, TWO WAY TRAFFIC PATTERN.
-CONSTRUCT DETOUR TIE-INS TO EXISTING ROADWAY.
-INSTALL ADDITIONAL SIGNS FOR TEMPORARY TRAFFIC SIGNAL, ACTIVATE THE SIGNAL, AND SHIFT TRAFFIC TO TEMPORARY ONE LANE, TWO WAY PATTERN.

STEP 2: WITH TRAFFIC ON TEMPORARY DETOUR, COMPLETE THE FOLLOWING (TMP-4):
-REMOVE EXISTING CULVERT IN ACCORDANCE WITH ROADWAY AND CULVERT PLANS.
-CONSTRUCT PROPOSED CULVERT (SEE CULVERT PLANS).
-CONSTRUCT -L- FROM STA. 10+50± TO -L- STA. 14+18.27± UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE. PLACE ADDITIONAL DRUMS TO DIRECT ONE LANE TRAFFIC WHEN CONSTRUCTING WIDENING FROM -L- STA. 10+50 TO STA. 10+75± AND FROM STA. 13+50+ TO STA. 14+18±. USE TEMPORARY SIGNALS TO STOP TRAFFIC FOR PAVING IN DETOUR TIE AREA.

PHASE III

STEP 1: MAINTAIN THE TEMPORARY TRAFFIC SIGNAL TO PERFORM THE FOLLOWING (TMP-5):
- PLACE TRAFFIC INTO A TEMPORARY ONE- LANE, TWO WAY TRAFFIC PATTERN ACROSS THE PROPOSED STRUCTURE.
- COMPLETE THE REMOVAL OF THE DETOUR AND ASSOCIATED TRAFFIC CONTROL DEVICES.
- PERFORM ALL NECESSARY SHOULDER AND DRAINAGE WORK AWAY FROM TRAFFIC.

STEP 2: TO BE COMPLETED IN ONE WORK PERIOD, CONSTRUCT TIE-INS AND PLACE FINAL LAYER OF SURFACE COURSE AND FINAL PAVEMENT MARKINGS. AT THE END OF THE WORK PERIOD OPEN CULVERT TO FINAL TRAFFIC PATTERN.

STEP 3: COMPLETE THE REMOVAL OF ANY REMAINING TRAFFIC CONTROL DEVICES.

APPROVED:_____ DATE:_____

SEAL
DocuSigned by: G. L. Gettier
E105C86355E34F...
NORTH CAROLINA PROFESSIONAL SEAL 8973 ENGINEER GEORGE L. GETTIER
5/2018

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

TRANSPORTATION OPERATIONS PLAN:
(MANAGEMENT STRATEGIES,
GENERAL NOTES AND LOCAL NOTES
AND PHASING)

REVISIONS

1/25/2018 1:42:50 PM
G:\CKE Projects\CKE21004 Limited Services Division Offices\Group 3\550308\Roadway\Proj\550308_RDY_06_TMP1B.dgn
G:\CADD\Plots\CKE21004\Group 3\CKE21004_Group3-rdy_TMP.tbl