OJ. REFERENCE NO.	SHEET NO.
BR-0051	TMP-03

## TEMPORARY TRAFFIC CONTROL PHASING

## PHASE I

- STEP 1: USING RSD 1101.01 AND TMP-04, INSTALL WORK ZONE ADVANCE WARNING SIGNS.
- STEP 2: INSTALL AND COVER DETOUR SIGNS FOR -L- (SPEER BRIDGE RD).
  (SEE SHEETS TMP-02B AND TMP-02C).
- STEP 3: USING RSD 1101.02 (SHEET 4 OF 14) AND RSD 1101.04, PERFORM THE FOLLOWING:
  - -- FILL MILLED RUMBLE STRIPS ON BOTH SHOULDERS OF -Y- (US 421) IN BOTH DIRECTIONS.
  - -- PLACE TEMPORARY PAVEMENT MARKINGS & MARKERS ON -Y- (US 421) (IN BOTH DIRECTIONS), FOR REDUCED LANE WIDTHS (SHIFTED TOWARDS OUTSIDE SHOULDERS). (SEE SHEET TMP-04).
- STEP 4: USING RSD 1101.03 (SHEET 7 OF 14) AND RSD 1101.04, INSTALL TEMPORARY CONCRETE BARRIER ON BOTH SHOULDERS OF US 421 (IN BOTH DIRECTIONS), THEN REMOVE EXISTING GUARDRAIL ALONG INSIDE LANES OF -Y- (US 421) (IN BOTH DIRECTIONS). (SEE SHEET TMP-04).
- STEP 5: USING FLAGGERS, REMOVE CONCRETE ISLANDS ON -L- (SPEER BRIDGE RD) AT RAMPS -RPA- AND -RPC- AND PATCH PAVEMENT. PLACE TEMPORARY PAVEMENT MARKINGS AND DRUMS FOR TEMPORARY TRAFFIC PATTERN. (SEE SHEET TMP-04).
  - NOTE: MAINTAIN MINIMUM LANE WIDTHS OF 12' WITH TEMPORARY TRAFFIC PATTERN ON -L- (SPEER BRIDGE RD) AT RAMPS. (SEE SHEET TMP-04.
  - UNCOVER SIGNS PLACED IN STEP 2, PLACE BARRICADES TO CLOSE THE EXISTING BRIDGE, AND DETOUR -L- (SPEER BRIDGE RD) TRAFFIC OFF-SITE, USING RSD 1101.03 (SHEET 2 OF 9), AND SHEET TMP-02B.
- STEP 6: USING RSD 1101.03 (SHEET 7 OF 9) DURING ALLOWABLE CLOSURE HOURS, REMOVE BRIDGE DECK AND GIRDERS OVER -Y- (US 421).

EXISTING BRIDGE DECK AND GIRDER REMOVAL:

- -- US 421 WB: UTILIZE RAMPS -RPA- AND -RPB- TO RETURN TRAFFIC TO US 421 WB. OPEN WESTBOUND LANES OF US 421 TO TRAFFIC AT THE END OF EACH NIGHT (SEE SHEET TMP-04).
- -- US 421 EB: UTILIZE RAMPS -RPC- AND -RPD- TO RETURN TRAFFIC TO US 421 EB. OPEN EASTBOUND LANES OF US 421 TO TRAFFIC AT THE END OF EACH NIGHT (SEE SHEET TMP-04).
- STEP 7: WORKING AWAY FROM TRAFFIC, AND BEHIND TEMPORARY CONCRETE BARRIER, INSTALL SHORING, REMOVE EXISTING SUBSTRUCTURE AND CONSTRUCT PROPOSED SUBSTRUCTURE AS SHOWN ON SHEET TMP-04 AND STRUCTURAL PLANS.
- STEP 8: USING RSD 1101.02 (SHEET 4 OF 14), RSD 1101.04, AND SHEET TMP-04, PERFORM THE FOLLOWING:
  - -- REMOVE TEMPORARY SHORING PLACED IN STEP 7.
  - -- CONSTRUCT SLOPE PROTECTION.
  - --INSTALL GUARDRAIL IN EXISTING LOCATION ON US 421.
- STEP 9: USING RSD 1101.03 (SHEET 7 OF 14) AND RSD 1101.04, REMOVE TEMPORARY CONCRETE BARRIER ON -Y- (US 421) (IN BOTH DIRECTIONS), REMOVE TEMPORARY PAVEMENT MARKINGS AND INSTALL PERMANENT PAVEMENT MARKINGS AND RUMBLE STRIPS PER THE ORIGINAL TRAFFIC PATTERN AND RETURN TRAFFIC TO ITS ORIGINAL PATTERN.

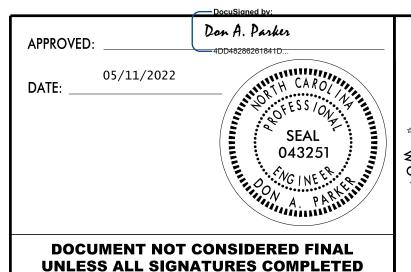
STEP 10: - AWAY FROM TRAFFIC AND USING RSD 1101.03 (SHEET 7 OF 9), AS NECESSARY, DURING ALLOWABLE CLOSURE HOURS, COMPLETE BRIDGE DECK, GIRDERS AND APPROACHES ON -L- (SPEER BRIDGE RD) FROM -L- STA. 16+68 +/- TO STA. 20+70 +/- OVER -Y- (US 421), UP TO, BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE AND PLACE TEMPORARY PAVEMENT MARKINGS IN THE FINAL PATTERN.

PROPOSED BRIDGE DECK AND GIRDER INSTALLATION:

- -- US 421 WB: UTILIZE RAMPS -RPA- AND -RPB- TO RETURN TRAFFIC TO US 421 WB. OPEN WESTBOUND LANES OF US 421 TO TRAFFIC AT THE END OF EACH NIGHT (SEE SHEET TMP-04).
- -- US 421 EB: UTILIZE RAMPS -RPC- AND -RPD- TO RETURN TRAFFIC TO US 421 EB. OPEN EASTBOUND LANES OF US 421 TO TRAFFIC AT THE END OF EACH NIGHT (SEE SHEET TMP-04).
- NOTE: WEDGE AS NEEDED TO MAINTAIN SMOOTH TRANSITION FROM PROPOSED TO EXISTING ON -L- (SPEER BRIDGE RD).
- NOTE: PLACE TEMPORARY PAVEMENT MARKINGS AND/OR UTILIZE CONES TO DELINEATE PROPOSED CONCRETE ISLANDS, FOR FINAL TRAFFIC PATTERN, AS DIRECTED BY THE ENGINEER.
- STEP 11: REMOVE ALL BARRICADES AND DETOUR SIGNS AND RE-OPEN -L-(SPEER BRIDGE RD) TO TRAFFIC.

## PHASE II

- STEP 1 CONSTRUCTION OF RAMPS -RPA- THRU -RPD- MAY BE CONSTRUCTED IN ANY ORDER. BUT SHALL NOT BE CONSTRUCTED CONCURRENTLY.
- STEP 1: USING NIGHTLY RAMP CLOSURES AND SHEET TMP-02C, WEDGE RAMPS
  -RPA-, -RPB-, -RPC- AND -RPD-, UP TO, BUT NOT INCLUDING THE
  FINAL LAYER OF SURFACE COURSE AND PLACE TEMPORARY PAVEMENT
  MARKINGS. (SEE RSD 1101.03 (SHEET 7 OF 9), CONSTRUCTION
  PLANS AND FINAL PAVEMENT MARKING PLAN).
  - NOTE: WEDGE AS NEEDED TO MAINTAIN SMOOTH TRANSITION TO -L- (SPEER BRIDGE RD).
  - NOTE: IN THE EVENT A RAMP CANNOT BE COMPLETED BY THE END OF THE WORK PERIOD, PLACE TEMPORARY PAVEMENT MARKINGS ON INTERIM SURFACE COURSE, IN THE FINAL PATTERN, BEFORE REOPENING TO TRAFFIC.
  - NOTE: PLACE TEMPORARY PAVEMENT MARKINGS AND/OR UTILIZE CONES TO DELINEATE PROPOSED CONCRETE ISLANDS, AS DIRECTED BY THE ENGINEER.
- STEP 2: USING FLAGGERS, PERFORM THE FOLLOWING:
  - -- COMPLETE WEDGING OF -L- (SPEER BRIDGE RD)
  - -- INSTALL CONCRETE ISLANDS AT -RPA- AND -RPC-
  - -- PLACE FINAL LAYER OF SURFACE COURSE ON -L- (SPEER BRIDGE RD) AND RAMPS -RPA-, -RPB-, -RPC- & -RPD-
  - -- PLACE FINAL PAVEMENT MARKINGS ACCORDING TO THE FINAL PAVEMENT MARKING PLAN.
- STEP 3: REMOVE ALL TEMPORARY TRAFFIC CONTROL DEVICES.





TEMPORARY TRAFFIC CONTROL PHASING