

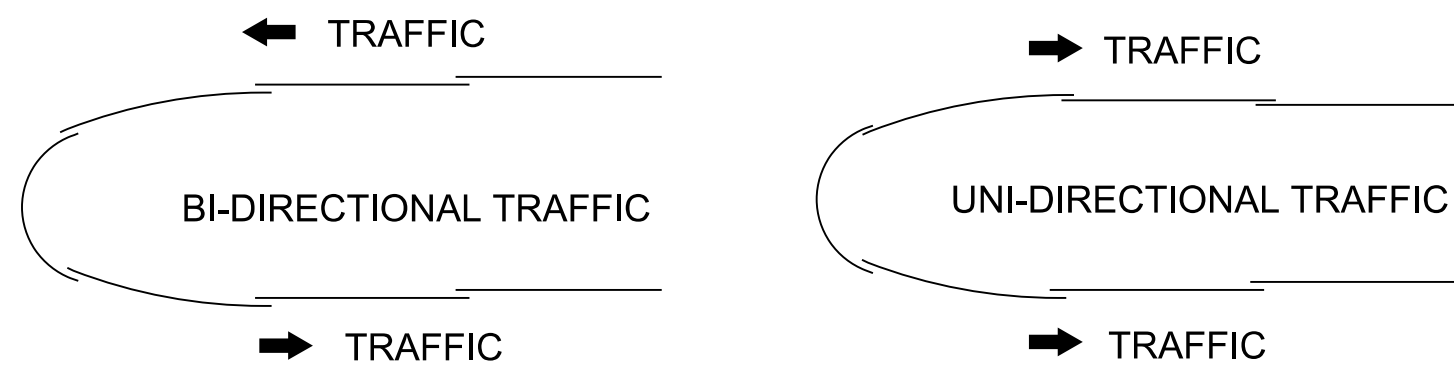
- ~ NOTES ~**
- 100 ON THE PLAN SHEETS, THE DESIGNER MUST DOCUMENT THE APPROXIMATE STATION AND OFFSET, OR APPROXIMATE COORDINATES FOR THE CENTER OF POSTS 5A AND 5B. THESE VALUES ARE INTENDED TO SERVE AS GUIDANCE FOR CONSTRUCTION LAYOUT AND SHOULD ALLOW FOR TYPICAL CONSTRUCTION TOLERANCES. REFER TO SHEET 3 FOR INSTALLATION DETAILS AND BULLNOSE TERMINAL LAYOUT.
- 101 U-BOLT CABLE CLIPS (3 PER CABLE) SPACED OUT ON NOSE, TO HOLD CABLE TO BACKSIDE OF THE RAIL.
- 102 NOSE CABLE WITH SWAGGED END BUTTONS.
- 103 NOSE CABLE ANCHOR BRACKET (BACKSIDE OF SPLICE).
- 104 THE SLACK IN THE NOSE CABLES SHALL BE EVENLY DISTRIBUTED BETWEEN THE CABLE CLIP FASTENERS AND POST NO. 1 ON EITHER SIDE OF THE NOSE.
- 105 MODIFIED THRIE-BEAM (BULLNOSE) MINIMUM WORKING WIDTH 4' - 6". GUARDRAIL-STEEL W BEAM-S FACE MINIMUM WORKING WIDTH 5' - 0".
- GRADING INSIDE W-BEAM GUARDRAIL OR MODIFIED THRIE-BEAM (BULLNOSE) GUARDRAIL BEYOND POST 12 MAY BE ADJUSTED FOR DRAINAGE, PROVIDED THERE IS A MINIMUM OF 2' OF FILL BEHIND THE POSTS TO ENSURE ADEQUATE SUPPORT FOR THE SYSTEM.
- 106 MINIMUM WIDTH OF SYSTEM FROM POST 5 TO POST 12 IS 14' - 9 1/4" MEASURED FROM FACE OF GUARDRAIL TO FACE OF GUARDRAIL.
- 107 FIXED OBJECT OR OTHER OBSTACLE.
- 108 PARTS E1 THROUGH E4 ARE THRIE-BEAM RAILS. SEE SHEET 9 FOR DETAILS.
- E1 SLOTTED THRIE-BEAM RAIL (POST 1B TO POST 1A)
- E2 SLOTTED THRIE-BEAM RAIL (POST 1 TO POST 5)
- E3 SLOTTED THRIE-BEAM RAIL (POST 5 TO POST 8)
- E4 UNBENT STANDARD THRIE-BEAM RAIL (POST 8 TO POST 12 AND BEYOND POST 12 WHEN MODIFIED THRIE-BEAM (BULLNOSE) USED)
- 109 BEYOND POST 12, EITHER MODIFIED THRIE-BEAM (BULLNOSE) OR W-BEAM GUARDRAIL MAY BE CONSTRUCTED. BOTH OPTIONS ARE PAID PER LINEAR FOOT. INDICATE THE SELECTED TYPE IN THE ROADWAY PLANS.
- 110 MODIFIED THRIE-BEAM (BULLNOSE) IS SHOWN IN PLAN VIEW - TYPICAL BULLNOSE LAYOUT. TRANSITIONING TO W-BEAM GUARDRAIL WILL HAVE A DIFFERENT LAYOUT. SEE SHEET 4 DETAIL B.
- 111 SEE SHEET 6 FOR DETAILS ON THE INSTALLATION OF DELINEATOR REFLECTORS.
- 112 SEE SHEET 5 FOR MEDIAN GRADING.
- 113 THRIE-BEAM RAILS MAY NEED TO BE FIELD BENT TO FIT THE LOCATION.
- 114 IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2". MINIMUM DIAMETER OF THE ROCK REMOVAL IS 12" DIAMETER. BACKFILL WITH CUTTING SPOILS, PLACING GRANULAR MATERIAL, OR SMALL ROCK (#9 OR #57 STONE) IN THE BOTTOM 2 1/2" FOR DRAINAGE. THE REMOVAL OF ROCK AND BACKFILL MATERIAL IS INCIDENTAL.

**BID ITEMS AND UNIT TO BID**

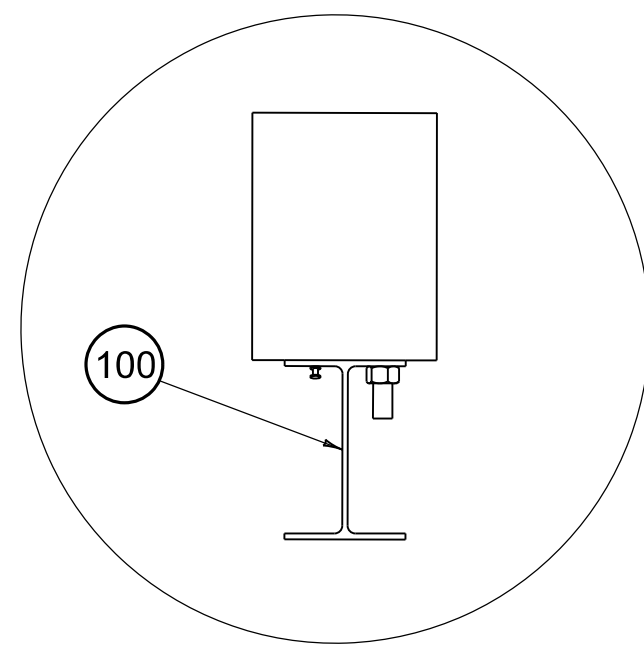
THRIE-BEAM BULLNOSE TERMINAL EACH

**BID ITEMS AS APPLICABLE**

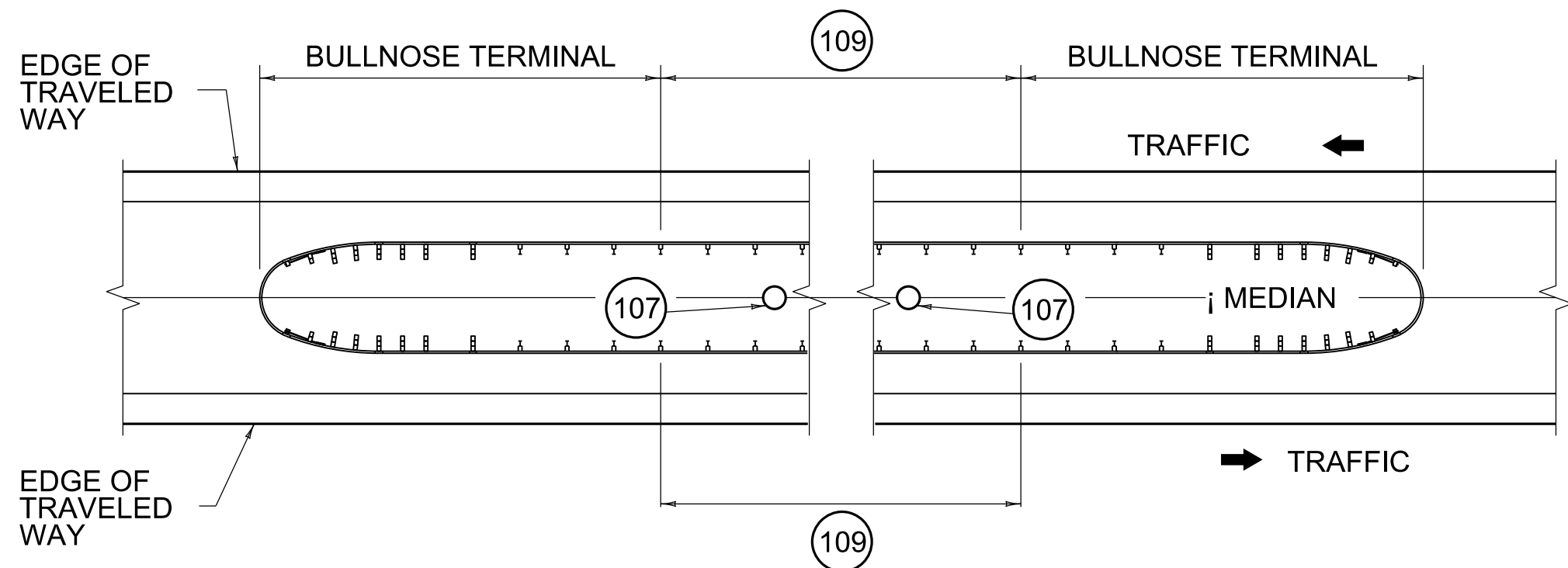
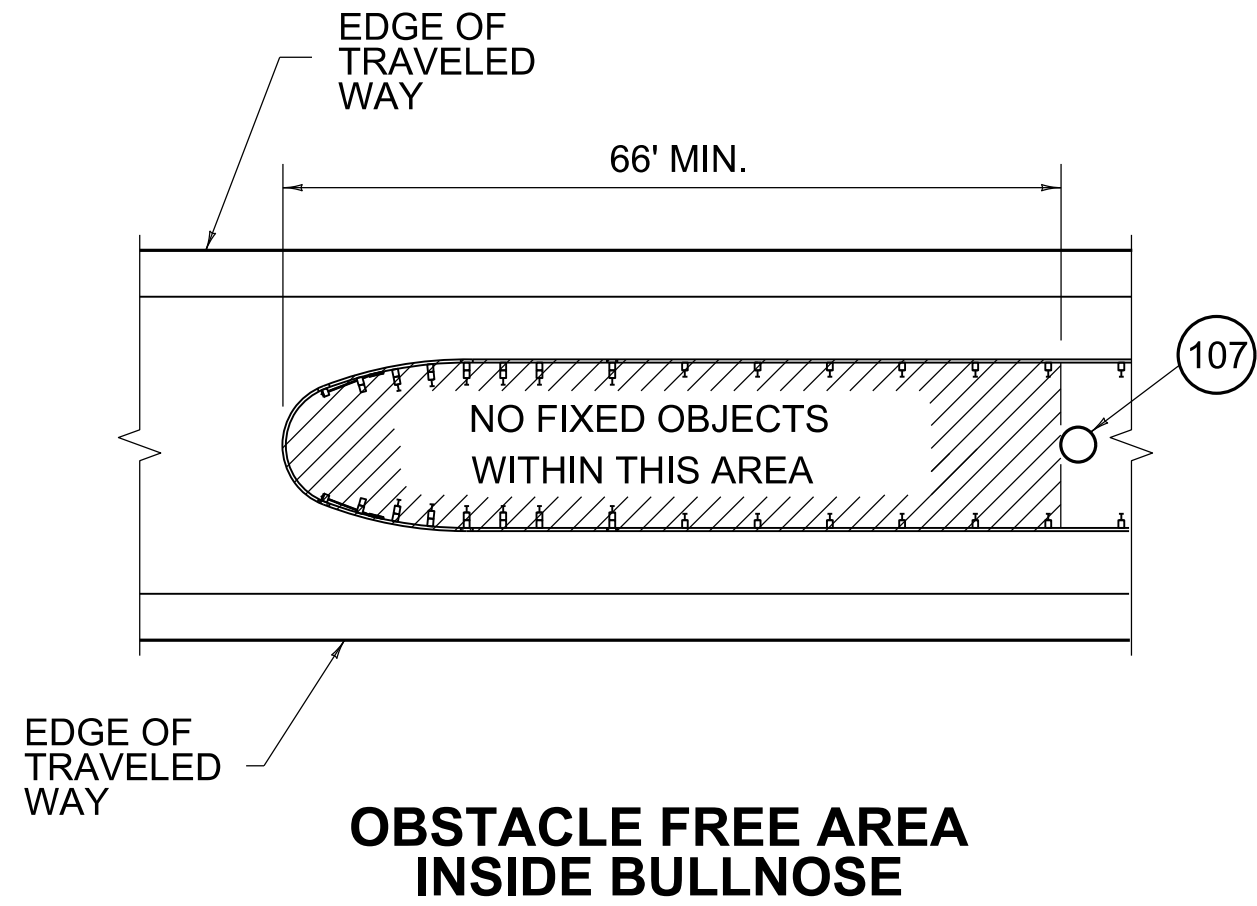
GUARDRAIL-STEEL W BEAM-S FACE LF  
MODIFIED THRIE-BEAM (BULLNOSE) LF  
THRIE BEAM TO W BEAM CONNECTOR EACH



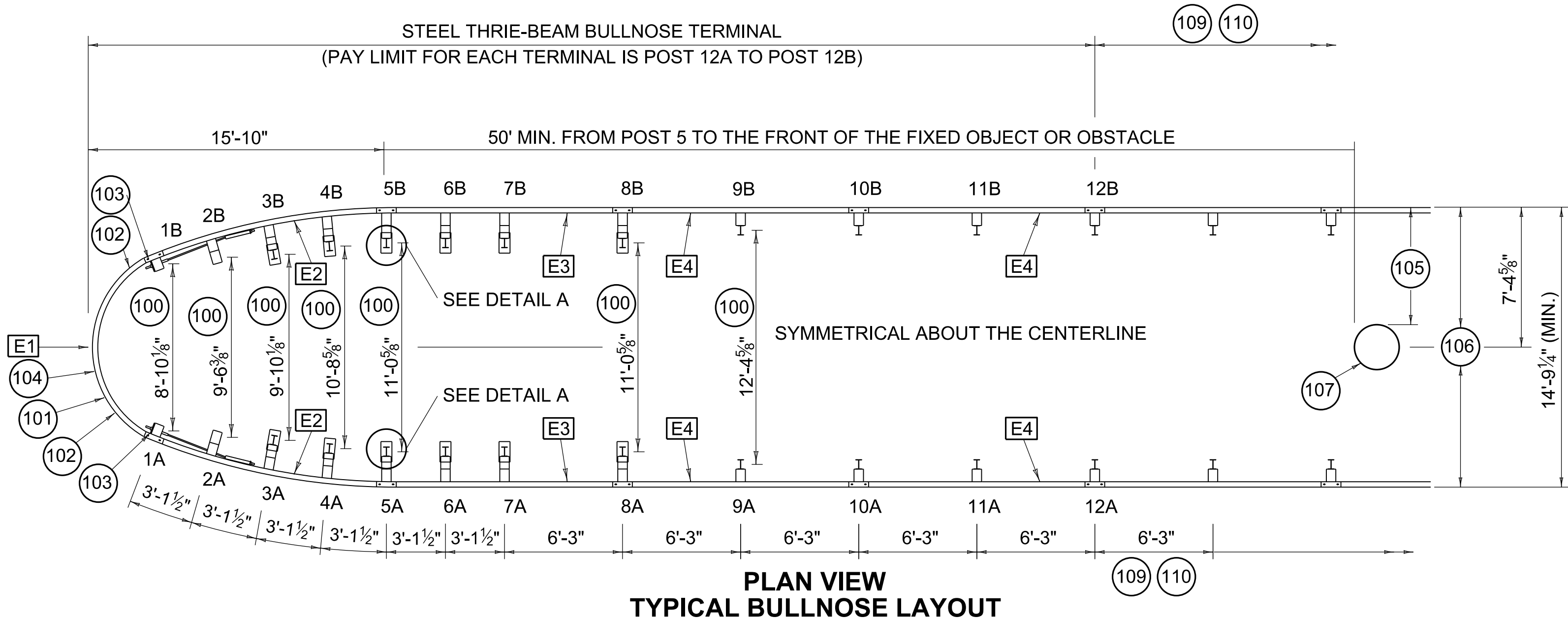
**LAPPING DETAIL**



**DETAIL A**



**MEDIAN FIXED OBJECT SHIELDING PAY LIMITS**



**PLAN VIEW  
TYPICAL BULLNOSE LAYOUT**



COMMONWEALTH OF KENTUCKY  
DEPARTMENT OF HIGHWAYS



STEEL THRIE-BEAM BULLNOSE TERMINAL

SHEET 001: SYMMETRICAL BULLNOSE

STANDARD DRAWING NUMBER  
RBE-210

REVISION DATE: 08/11/2025  
REVISION NUMBER: 0

SUBMITTED *W. J. Lapan* 08-11-2025  
DIVISION DIRECTOR DATE

APPROVED *John Ballinger* 08-11-2025  
STATE HIGHWAY ENGINEER DATE

**BARRIERS**