

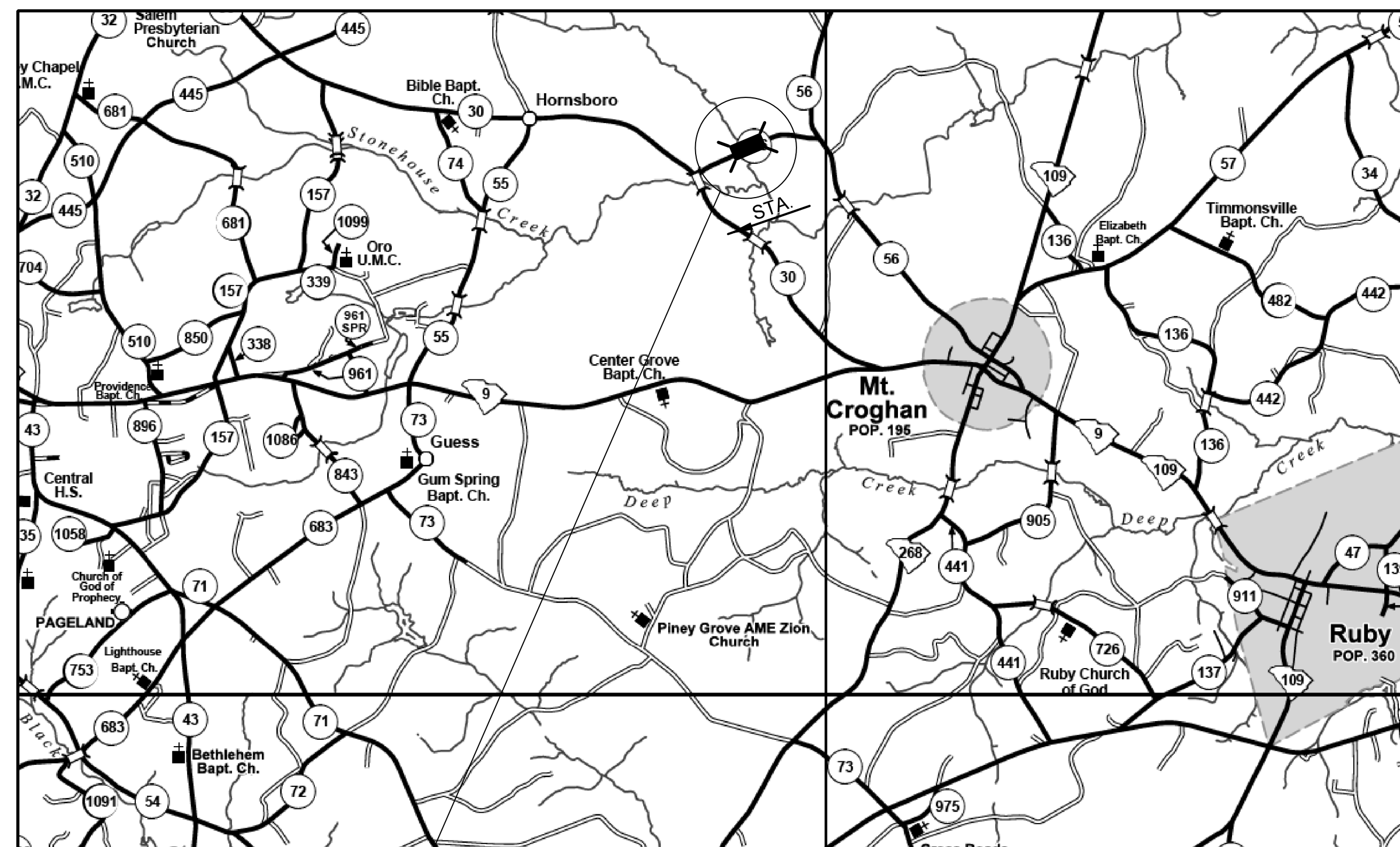


PROPOSED PLANS
FOR
CHESTERFIELD COUNTY
PROJECT ID P041956
STATE ROUTE S-13-130 (RUDOLPH SIKES RD)
REPLACE BRIDGE OVER CLAY CREEK

Design Reference for these plans is the:

LVB

Supplemental Design Criteria For Low Volume Bridge Replacement Projects



Approximate Location of Bridge is

Latitude 34°-47'-40" N
Longitude 80°-15'-31" W

-N-

3 DAYS BEFORE DIGGING IN SOUTH CAROLINA

CALL 811

SOUTH CAROLINA 811 (SC811)
WWW.SC811.COM
ALL UTILITIES MAY NOT BE A MEMBER OF SC811

ASSET ID NOT ASSIGNED

TRAFFIC DATA

2025 ADT 135 V.P.D.

2045* ADT 195* V.P.D.

TRUCKS 5%

*DESIGN TRAFFIC DATA

LAYOUT

| | | |
|-------------------------|-------|-------|
| NET LENGTH OF ROADWAY | 0.000 | MILES |
| NET LENGTH OF BRIDGES | 0.019 | MILES |
| NET LENGTH OF PROJECT | 0.019 | MILES |
| LENGTH OF EXCEPTIONS | 0.000 | MILES |
| GROSS LENGTH OF PROJECT | 0.019 | MILES |

NOTE: EXCEPT AS MAY OTHERWISE BE SPECIFIED ON THE PLANS OR IN THE SPECIAL PROVISIONS, ALL MATERIALS AND WORKMANSHIP ON THIS PROJECT SHALL CONFORM TO THE SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (2007 EDITION) AND THE STANDARD DRAWINGS FOR ROAD CONSTRUCTION IN EFFECT AT THE TIME OF LETTING.

CONSULTING ENGINEERING FIRM

HNTB

HNTB CORPORATION
SC License No. 265
343 E. Six Forks Rd., Suite 200, Raleigh, N.C. 27609

ENGINEER OF RECORD

**CONCEPTUAL
PLANS
NOT FOR
CONSTRUCTION**

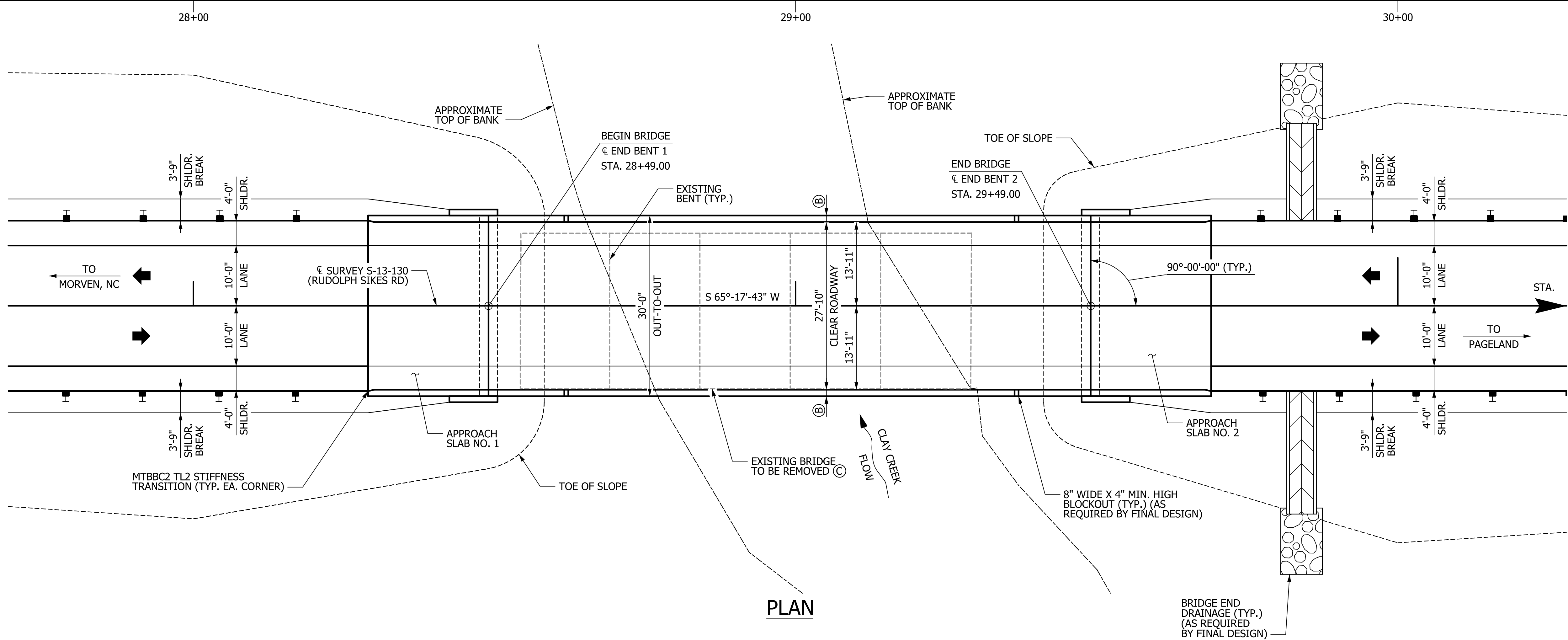
FOR CONSTRUCTION : _____ DATE _____

| | | | | |
|-----------------|------------|------------|-------------|--|
| REVIEWED | | | | |
| DR: | MEW | BJA | 5/23 | |
| | BY | CHK | DATE | |

CADD FILE INFORMATION 3:57:07 PM
PLOTTED DATE: 7/5/2023
FILE NAME: ..\Prep_001_S-130_P041956.t.s.dgn

CADD FILE INFORMATION 8:09:48 AM
PLOTTED DATE: 7/6/2023
FILE NAME: ...\\Prep-002-S-13-130_P041956.bp.dgn

| | |
|-----------------|-----------|
| BRIDGE PLANS ID | SHEET NO. |
| P041956 | 2 |



NOTES:

- (A) PROPOSED PROFILE SET SO THAT THE LOW CHORD SATISFIES THE HYDRAULIC REQUIREMENTS, SET FORTH BY THE RFP.
- (B) INCLUDES 1'-0" MASH BARRIER PARAPET AND 1" SLAB EXTENSION.
- (C) REMOVE AND DISPOSE OF EXISTING 27'-6" x 75'-0" I 5-SPAN SIMPLE CONCRETE SLAB BRIDGE AND APPURTENANCES IN ACCORDANCE WITH SECTION 202.4.2 OF THE STANDARD SPECIFICATIONS.

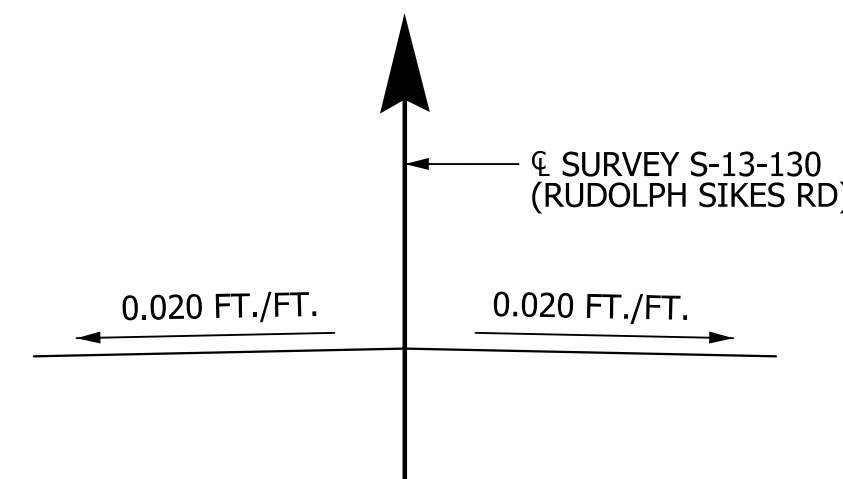
F - DENOTES FIXED BEARING

= EXCAVATE HATCHED AREA

CONTROL POINTS

CP2
ELEVATION = 314.06'
N 1078019.41 E 2222178.38
#5 REBAR

CP3
ELEVATION = 325.79'
N 1078394.66 E 2223035.56
#5 REBAR



TYPICAL THROUGHOUT BRIDGE
SUPERELEVATION SKETCH

VERTICAL CURVE DATA

PVI = 25+90.00 ELEV. 319.86 V.C. = 270'
PVI = 33+40.00 ELEV. 313.76 V.C. = 120'

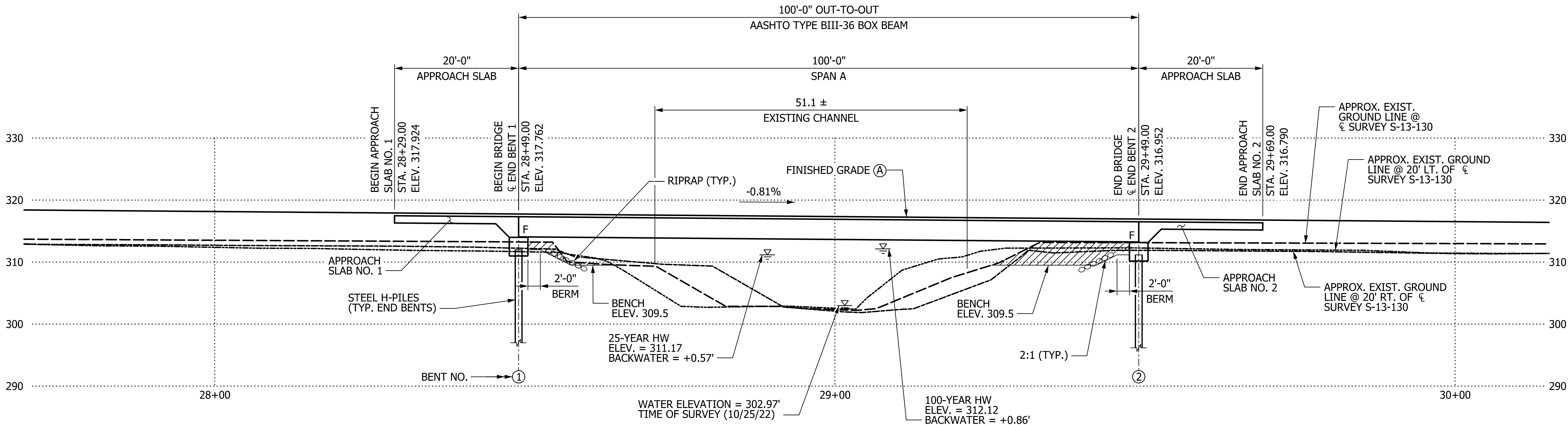
-5.02% -0.81% +1.02%

HYDROLOGY DATA

D.A. = 12.7 SQ. MILES
Q₂₅ = 2,510 CFS
VELOCITY₂₅ = 6.8 FPS
AREA FURNISHED UNDER₂₅ = 348.6 SQ. FT.
Q₁₀₀ = 3,510 CFS
VELOCITY₁₀₀ = 9.3 FPS
AREA FURNISHED UNDER₁₀₀ = 378.0 SQ. FT.

OVERTOPPING FLOOD

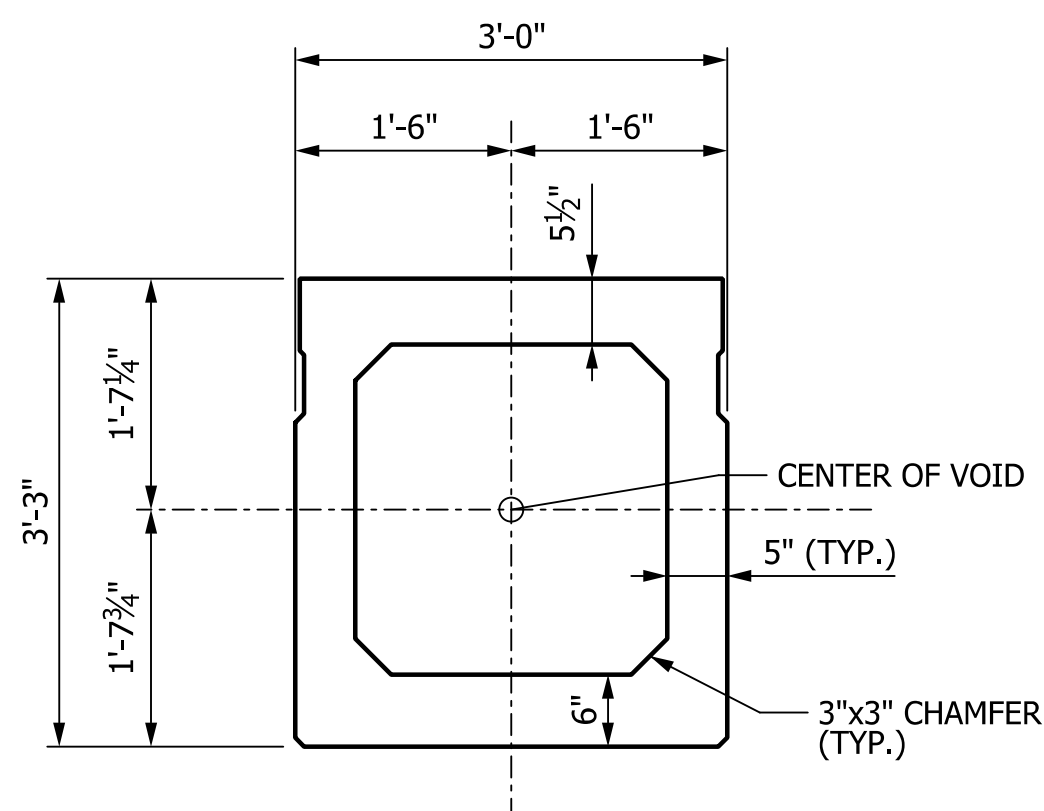
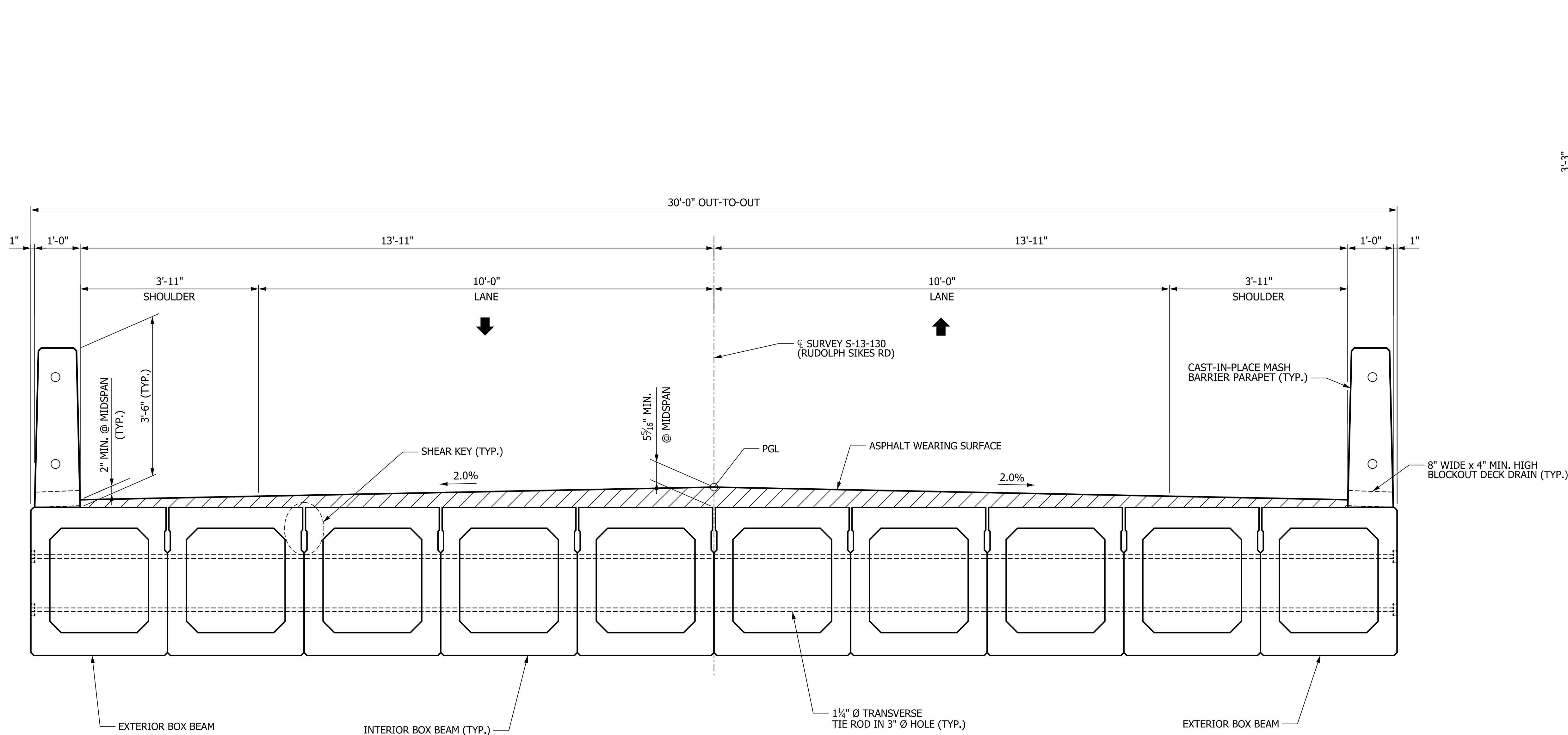
Q = 4,650 CFS
PROBABILITY < 0.2%



SECTION ALONG SURVEY & S-13-130

| CONCEPTUAL PLANS | | HNTB HNTB CORPORATION SC License No. 265 343 E. Six Forks Rd., Suite 200, Raleigh, N.C. 27609 | |
|------------------|--------------|--|------------------------|
| REV. | | SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION | |
| REV. | | | |
| REV. | | | |
| REVIEWED | | BRIDGE PLAN AND PROFILE S-13-130 (RUDOLPH SIKES ROAD) BRIDGE REPLACEMENT OVER CLAY CREEK | |
| QUAN. | | | |
| DR. | DLH BJA 6-23 | | |
| DES. | | | |
| BY | CHK. | DATE | COUNTY CHESTERFIELD |
| | | | ROUTE S-13-130 |

NOT FOR
CONSTRUCTION



INTERIOR BOX BEAM SECTION

TYPICAL SECTION

(LOOKING IN DIRECTION OF STATIONING)

NOT FOR
CONSTRUCTION

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|------------------|-----|------|------|--|-------------------|
| REV. | | | | SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION | |
| REV. | | | | | |
| REV. | | | | | |
| REVIEWED | | | | BRIDGE TYPICAL SECTION S-13-130 (RUDOLPH SIKES ROAD) BRIDGE REPLACEMENT OVER CLAY CREEK | |
| QUAN. | | | | | |
| DR. | DLH | BJA | 6-23 | | |
| DES. | | | | | |
| | BY | CHK. | DATE | COUNTY CHESTERFIELD | ROUTE S-13-130 |