

REFERENCE: B-5893

PROJECT: 48086

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
GEOTECHNICAL ENGINEERING UNIT

| STATE | STATE PROJECT REFERENCE NO. | SHEET NO. | TOTAL SHEETS |
|-------|-----------------------------|-----------|--------------|
| N.C. | B-5893 | 1 | 5 |

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| 1 | TITLE SHEET |
| 2 | LEGEND (SOIL & ROCK) |
| 3 | SITE PLAN |
| 4 | CROSS SECTIONS |
| 5 | BORE LOGS |

STRUCTURE
SUBSURFACE INVESTIGATION

COUNTY MITCHELL
PROJECT DESCRIPTION REPLACE BRIDGE #019
ON NC 226 OVER CUB CREEK

SITE DESCRIPTION _____

CAUTION NOTICE

THE SUBSURFACE INFORMATION AND THE SUBSURFACE INVESTIGATION ON WHICH IT IS BASED WERE MADE FOR THE PURPOSE OF STUDY, PLANNING AND DESIGN, AND NOT FOR CONSTRUCTION OR PAY PURPOSES. THE VARIOUS FIELD BORING LOGS, ROCK CORES AND SOIL TEST DATA AVAILABLE MAY BE REVIEWED OR INSPECTED IN RALEIGH BY CONTACTING THE N. C. DEPARTMENT OF TRANSPORTATION, GEOTECHNICAL ENGINEERING UNIT AT 1919 707-6850. THE SUBSURFACE PLANS AND REPORTS, FIELD BORING LOGS, ROCK CORES AND SOIL TEST DATA ARE NOT PART OF THE CONTRACT.

GENERAL SOIL AND ROCK STRATA DESCRIPTIONS AND INDICATED BOUNDARIES ARE BASED ON A GEOTECHNICAL INTERPRETATION OF ALL AVAILABLE SUBSURFACE DATA AND MAY NOT NECESSARILY REFLECT THE ACTUAL SUBSURFACE CONDITIONS BETWEEN BORINGS OR BETWEEN SAMPLED STRATA WITHIN THE BOREHOLE. THE LABORATORY SAMPLE DATA AND THE IN SITU (IN-PLACE) TEST DATA CAN BE RELIED ON ONLY TO THE DEGREE OF RELIABILITY INHERENT IN THE STANDARD TEST METHOD. THE OBSERVED WATER LEVELS OR SOIL MOISTURE CONDITIONS INDICATED IN THE SUBSURFACE INVESTIGATIONS ARE AS RECORDED AT THE TIME OF THE INVESTIGATION. THESE WATER LEVELS OR SOIL MOISTURE CONDITIONS MAY VARY CONSIDERABLY WITH TIME ACCORDING TO CLIMATIC CONDITIONS INCLUDING TEMPERATURES, PRECIPITATION AND WIND, AS WELL AS OTHER NON-CLIMATIC FACTORS.

THE BIDDER OR CONTRACTOR IS CAUTIONED THAT DETAILS SHOWN ON THE SUBSURFACE PLANS ARE PRELIMINARY ONLY AND IN MANY CASES THE FINAL DESIGN DETAILS ARE DIFFERENT. FOR BIDDING AND CONSTRUCTION PURPOSES, REFER TO THE CONSTRUCTION PLANS AND DOCUMENTS FOR FINAL DESIGN INFORMATION ON THIS PROJECT. THE DEPARTMENT DOES NOT WARRANT OR GUARANTEE THE SUFFICIENCY OR ACCURACY OF THE INVESTIGATION MADE, NOR THE INTERPRETATIONS MADE, OR OPINION OF THE DEPARTMENT AS TO THE TYPE OF MATERIALS AND CONDITIONS TO BE ENCOUNTERED. THE BIDDER OR CONTRACTOR IS CAUTIONED TO MAKE SUCH INDEPENDENT SUBSURFACE INVESTIGATIONS AS HE DEEMS NECESSARY TO SATISFY HIMSELF AS TO CONDITIONS TO BE ENCOUNTERED ON THE PROJECT. THE CONTRACTOR SHALL HAVE NO CLAIM FOR ADDITIONAL COMPENSATION OR FOR AN EXTENSION OF TIME FOR ANY REASON RESULTING FROM THE ACTUAL CONDITIONS ENCOUNTERED AT THE SITE DIFFERING FROM THOSE INDICATED IN THE SUBSURFACE INFORMATION.

- NOTES:
1. THE INFORMATION CONTAINED HEREIN IS NOT IMPLIED OR GUARANTEED BY THE N. C. DEPARTMENT OF TRANSPORTATION AS ACCURATE NOR IS IT CONSIDERED PART OF THE PLANS, SPECIFICATIONS OR CONTRACT FOR THE PROJECT.
 2. BY HAVING REQUESTED THIS INFORMATION, THE CONTRACTOR SPECIFICALLY WAIVES ANY CLAIMS FOR INCREASED COMPENSATION OR EXTENSION OF TIME BASED ON DIFFERENCES BETWEEN THE CONDITIONS INDICATED HEREIN AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

PERSONNEL

CD JOHNSON

DC ELLIOTT

DO CHEEK

CJ COFFEY

INVESTIGATED BY DM MULLEN

DRAWN BY DM MULLEN

CHECKED BY JC KUHNE

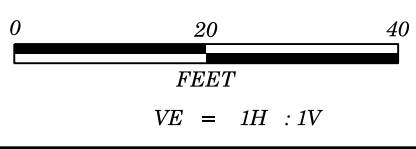
SUBMITTED BY JC KUHNE

DATE 6/3/2019

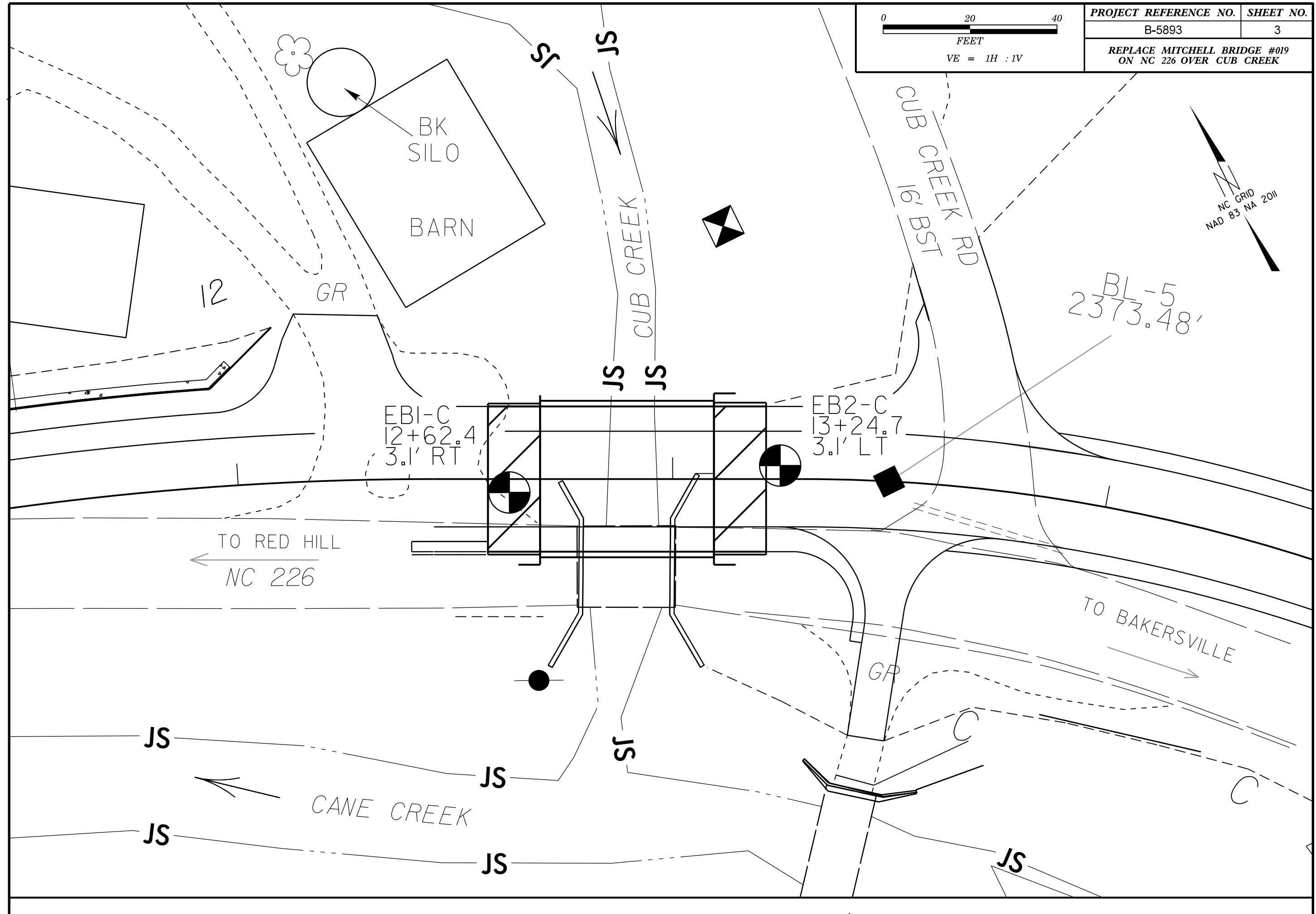
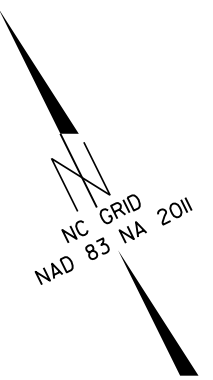


DocuSigned by:
D Matt Mullen 6/3/2019
18909BD3CD5410C SIGNATURE DATE

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



| PROJECT REFERENCE NO. | SHEET NO. |
|----------------------------------------------------------|-----------|
| B-5893 | 3 |
| REPLACE MITCHELL BRIDGE #019 ON NC 226 OVER CUB CREEK | |



EBI-C
12+62.4
3.1' RT

EB2-C
13+24.7
3.1' LT

BL-5
2373.48'

TO RED HILL
← NC 226

TO BAKERSVILLE
→

CANE CREEK

CUB CREEK RD
16' BST

CUB CREEK

BK
SILO

BARN

12

GR

Sf

JS

JS

JS

JS

JS

Sf

JS

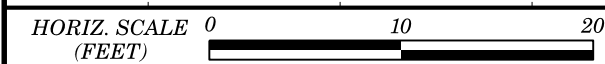
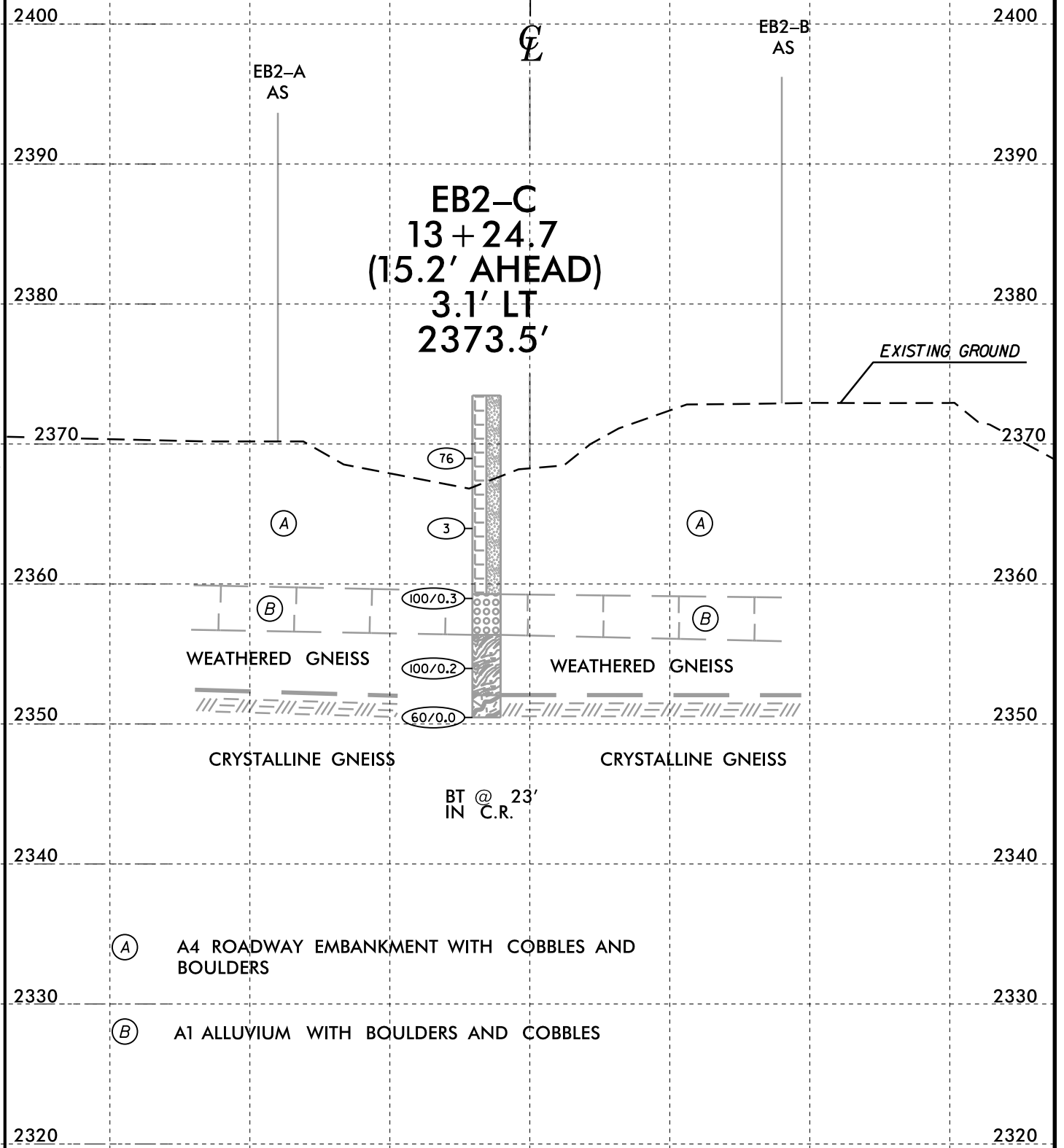
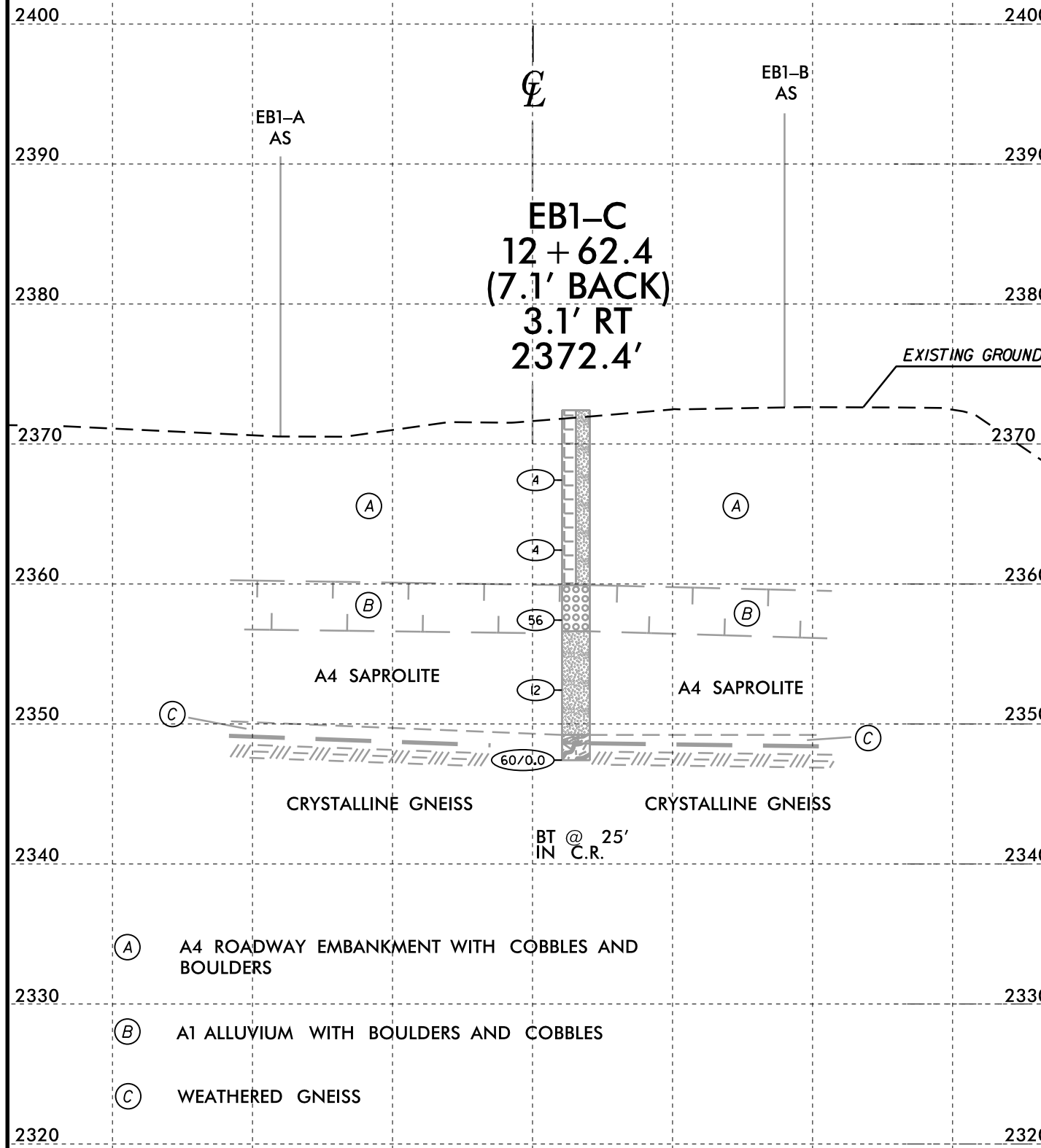
JS

JS

GP

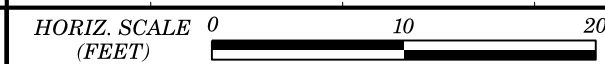
C

C



VE = 1H:1V

SECTION ALONG EB1



VE = 1H:1V

SECTION ALONG EB2

GEOTECHNICAL BORING REPORT

BORE LOG

| WBS 48086.1.1 | | TIP B-5893 | | COUNTY MITCHELL | | GEOLOGIST Elliott, D. C. | | | | | | | | | |
|-------------------------------------------------------------|-----------------|---------------------|-------------------------------|---------------------|-----------------------|--------------------------|-----------------|----|----|-----|-----------|-----|---------------------------|------------|--------|
| SITE DESCRIPTION BRIDGE NO. 19 ON nc 226 OVER CUB CREEK | | | | | | | GROUND WTR (ft) | | | | | | | | |
| BORING NO. EB1-C | | STATION 12+62 | | OFFSET 3 ft RT | | ALIGNMENT L | | | | | | | | | |
| COLLAR ELEV. 2,372.4 ft | | TOTAL DEPTH 25.0 ft | | NORTHING 840,656 | | EASTING 1,058,714 | | | | | | | | | |
| DRILL RIG/HAMMER EFF./DATE AFO6744 CME - 45C 81% 01/29/2016 | | | DRILL METHOD NW Casing w/ SPT | | HAMMER TYPE Automatic | | | | | | | | | | |
| DRILLER Cheek, D. O. | | START DATE 03/03/16 | | COMP. DATE 03/03/16 | | SURFACE WATER DEPTH N/A | | | | | | | | | |
| ELEV (ft) | DRIVE ELEV (ft) | DEPTH (ft) | BLOW COUNT | | | BLOWS PER FOOT | | | | | SAMP. NO. | LOG | SOIL AND ROCK DESCRIPTION | DEPTH (ft) | |
| | | | 0.5ft | 0.5ft | 0.5ft | 0 | 25 | 50 | 75 | 100 | | | | | |
| 2375 | | | | | | | | | | | | | | 2,372.4 | 0.0 |
| 2370 | | | | | | | | | | | | | | | |
| 2365 | 2,367.4 | 5.0 | 2 | 2 | 2 | | | | | | | | M | | |
| 2360 | 2,362.4 | 10.0 | WOH | 2 | 2 | | | | | | | | M | | |
| 2355 | 2,357.4 | 15.0 | 17 | 27 | 29 | | | | | | | | W | | |
| 2350 | 2,352.4 | 20.0 | 1 | 3 | 9 | | | | | | | | M | | |
| | 2,347.4 | 25.0 | 60/0.0 | | | | | | | | | | | | 60/0.0 |

| WBS 48086.1.1 | | TIP B-5893 | | COUNTY MITCHELL | | GEOLOGIST Elliott, D. C. | | | | | | | | | |
|-------------------------------------------------------------|-----------------|---------------------|-------------------------------|---------------------|-----------------------|--------------------------|-----------------|----|----|-----|-----------|-----|---------------------------|------------|--------|
| SITE DESCRIPTION BRIDGE NO. 19 ON nc 226 OVER CUB CREEK | | | | | | | GROUND WTR (ft) | | | | | | | | |
| BORING NO. EB2-C | | STATION 13+25 | | OFFSET 3 ft LT | | ALIGNMENT L | | | | | | | | | |
| COLLAR ELEV. 2,373.5 ft | | TOTAL DEPTH 23.0 ft | | NORTHING 840,633 | | EASTING 1,058,773 | | | | | | | | | |
| DRILL RIG/HAMMER EFF./DATE AFO6744 CME - 45C 81% 01/29/2016 | | | DRILL METHOD NW Casing w/ SPT | | HAMMER TYPE Automatic | | | | | | | | | | |
| DRILLER Cheek, D. O. | | START DATE 03/03/16 | | COMP. DATE 03/03/16 | | SURFACE WATER DEPTH N/A | | | | | | | | | |
| ELEV (ft) | DRIVE ELEV (ft) | DEPTH (ft) | BLOW COUNT | | | BLOWS PER FOOT | | | | | SAMP. NO. | LOG | SOIL AND ROCK DESCRIPTION | DEPTH (ft) | |
| | | | 0.5ft | 0.5ft | 0.5ft | 0 | 25 | 50 | 75 | 100 | | | | | |
| 2375 | | | | | | | | | | | | | | 2,373.5 | 0.0 |
| 2370 | | | | | | | | | | | | | | | |
| 2365 | 2,369.0 | 4.5 | 33 | 27 | 49 | | | | | | | | M | | |
| 2360 | 2,364.0 | 9.5 | WOH | 1 | 2 | | | | | | | | M | | |
| 2355 | 2,359.0 | 14.5 | 100/3 | | | | | | | | | | W | | |
| | 2,354.0 | 19.5 | 100/2 | | | | | | | | | | | | |
| | 2,350.5 | 23.0 | 60/0.0 | | | | | | | | | | | | 60/0.0 |