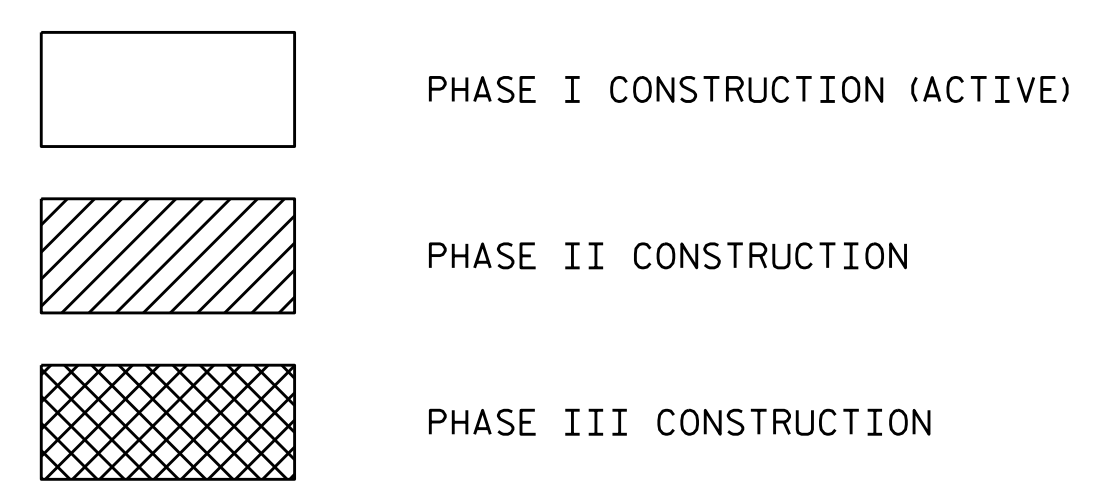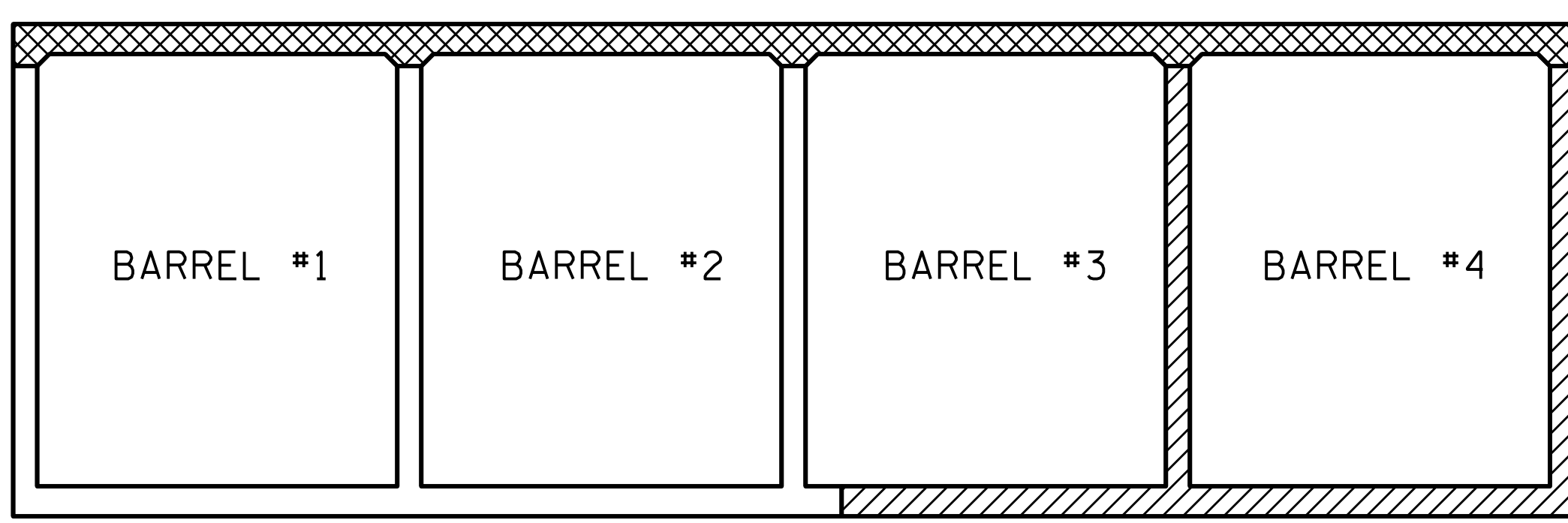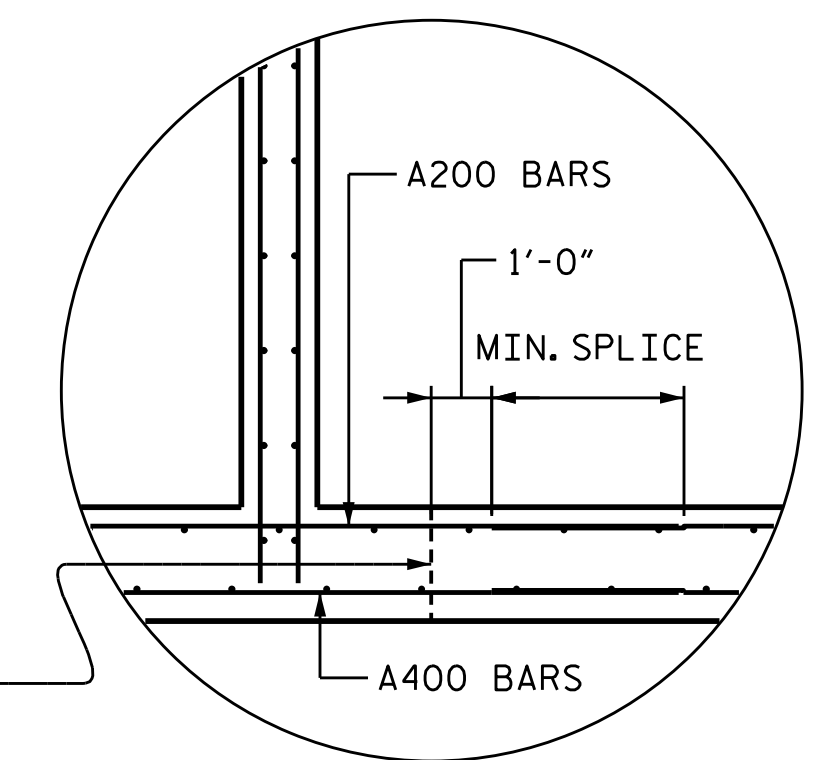**NOTES:**

THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARY BRACING INTERIOR AND EXTERIOR WALLS OF THE CULVERT AFTER PHASE I IS COMPLETED. TEMPORARY BRACING MAY BE REMOVED UPON COMPLETION OF PHASE III.
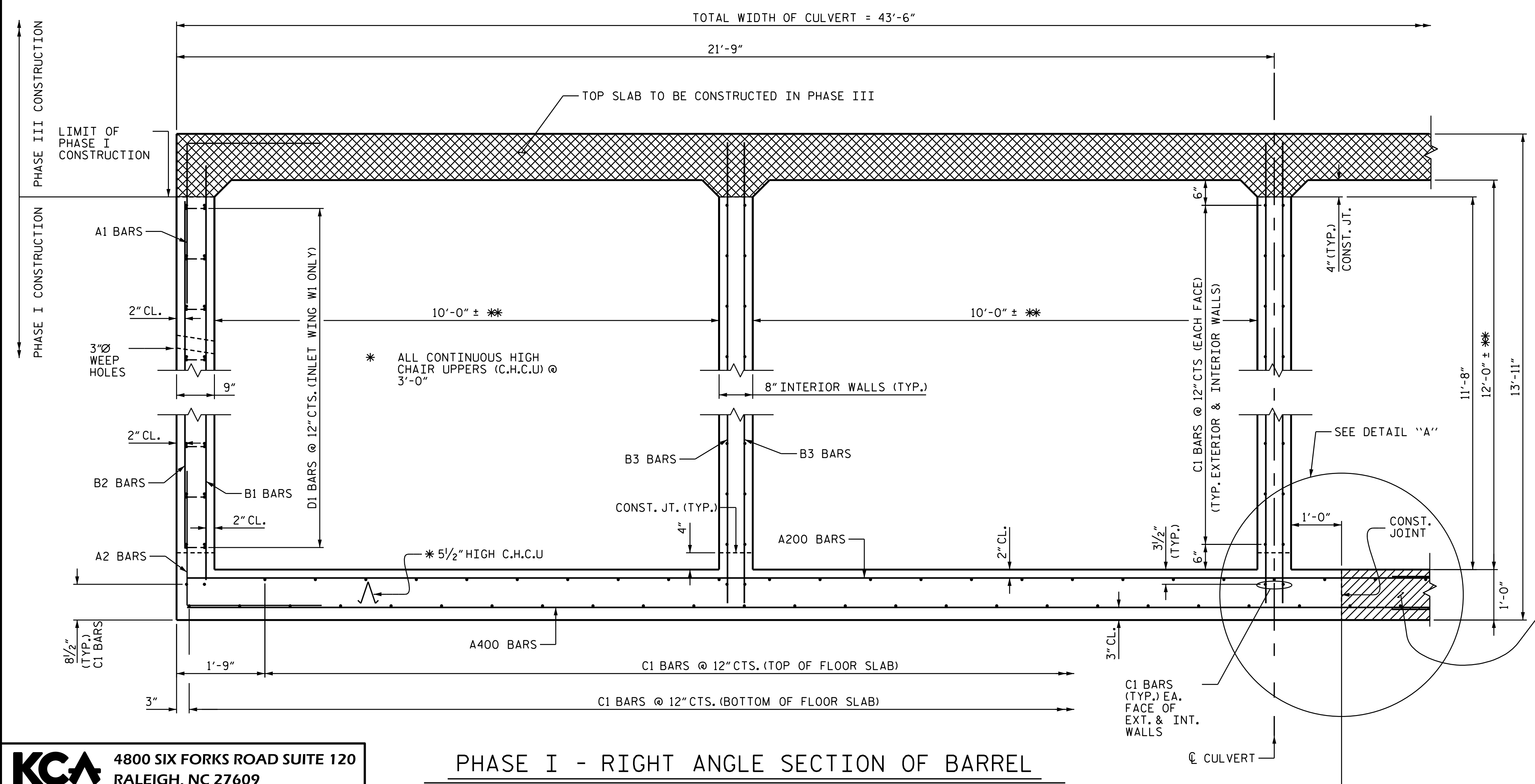
✳✳ MATCH EXISTING CULVERT DIMENSIONS

## CONSTRUCTION PHASING
### LOOKING DOWNSTREAM

- BARREL #1
- BARREL #2
- BARREL #3
- BARREL #4

- ☐ PHASE I CONSTRUCTION (ACTIVE)
- ▨ PHASE II CONSTRUCTION
- ▩ PHASE III CONSTRUCTION

## DETAIL "A"
### (SEE MIN. SPLICE LENGTH IN TITLE SHEET)

A200 BARS
1'-0"
MIN. SPLICE
CONST. JOINT
A400 BARS

TOTAL WIDTH OF CULVERT = 43'-6"
21'-9"
TOP SLAB TO BE CONSTRUCTED IN PHASE III

PHASE III CONSTRUCTION
PHASE I CONSTRUCTION
LIMIT OF PHASE I CONSTRUCTION

A1 BARS
2" CL.
3"∅ WEEP HOLES
9"
2" CL.
B2 BARS
B1 BARS
2" CL.
A2 BARS
8½" (TYP.) C1 BARS
1'-9"
3"

D1 BARS @ 12" CTS. (INLET WING W1 ONLY)
10'-0" ± ✳✳
✳ ALL CONTINUOUS HIGH CHAIR UPPERS (C.H.C.U) @ 3'-0"
✳ 5½" HIGH C.H.C.U
A400 BARS
C1 BARS @ 12" CTS. (TOP OF FLOOR SLAB)
C1 BARS @ 12" CTS. (BOTTOM OF FLOOR SLAB)

8" INTERIOR WALLS (TYP.)
B3 BARS — B3 BARS
CONST. JT. (TYP.)
4"
A200 BARS
2" CL.
3½" (TYP.)

10'-0" ± ✳✳
C1 BARS @ 12" CTS (EACH FACE) (TYP. EXTERIOR & INTERIOR WALLS)
6"
4" (TYP.) CONST. JT.
11'-8"
12'-0" ± ✳✳
13'-11"

SEE DETAIL "A"
1'-0"
CONST. JOINT
6"
1'-0"
TO BE CONSTRUCTED IN PHASE II
C1 BARS (TYP.) EA. FACE OF EXT. & INT. WALLS
₵ CULVERT
3" CL.
PHASE I CONSTRUCTION | PHASE II CONSTRUCTION

## PHASE I - RIGHT ANGLE SECTION OF BARREL
(ALL DIMENSIONS ARE SYMMETRICAL ABOUT THE ₵ OF THE CULVERT)
THERE ARE 310 "C" BARS IN SECTION OF BARREL

I HEREBY CERTIFY THESE PLANS ARE THE AS-BUILT PLANS

**PROJECT NO.** U-4405
**CUMBERLAND** COUNTY
**STATION:** 137+99.59 -L-

SHEET 2 OF 18

STATE OF NORTH CAROLINA
**DEPARTMENT OF TRANSPORTATION**
RALEIGH

CULVERT EXTENSION

QUADRUPLE 10 FT. X 12 FT. CONCRETE BOX CULVERT

PHASE I - SECTION DETAILS

KCA
KISINGER CAMPO & ASSOCIATES
4800 SIX FORKS ROAD SUITE 120
RALEIGH, NC 27609
(919) 882-7839

DRAWN BY : DIEGO A. AGUIRRE    DATE : 5-18-18
CHECKED BY : JACOB H. DUKE    DATE : 5-22-18
DESIGN ENGINEER OF RECORD : JACOB H. DUKE    DATE : 5-25-18

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 043777 JACOB H. DUKE

DocuSigned by: Jacob H. Duke
6/13/2018 9:09:59 AM PDT
9CD33ADC66D6400

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

| REVISIONS | | | | | |
|---|---|---|---|---|---|
| NO. | BY: | DATE: | NO. | BY: | DATE: |
| 1 | | | 3 | | |
| 2 | | | 4 | | |

SHEET NO. C1-2
TOTAL SHEETS 18