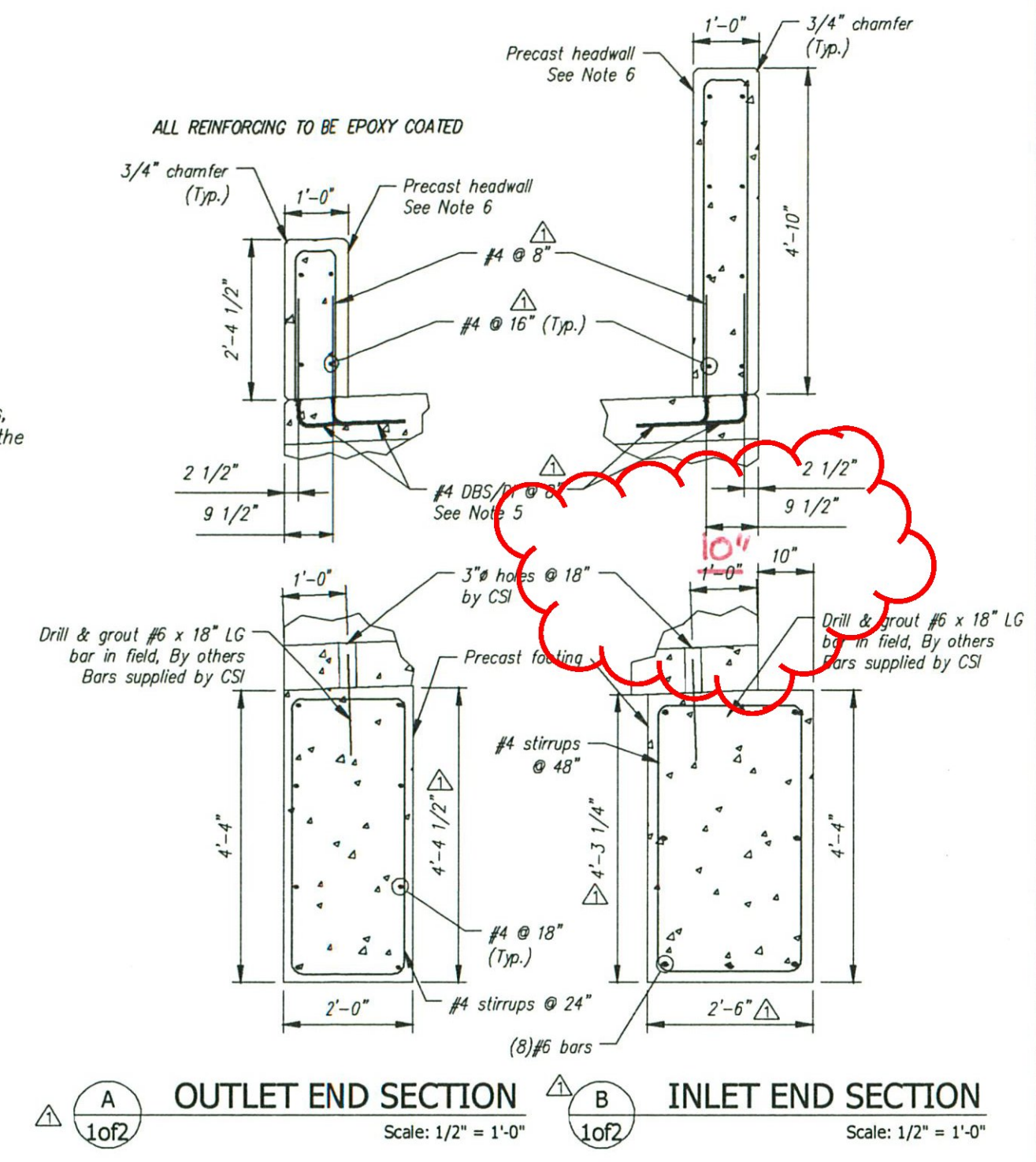


- GENERAL NOTES:**
- Reference Standards:
    - AASHTO LRFD Bridge Design Specifications
    - ASTM C1577
  - Design Parameters:
    - Live load: HL-93
    - Earth Cover: 7.5' to 10.0'
    - Concrete: Design strength  $f'_c = 5000$  psi  
Unit weight = 150 pcf
    - Reinforcing: ASTM A775 (rebar), grade 60, Epoxy  
Unit weight = 140 pcf  
Minimum lateral pressure coefficient .25  
Maximum lateral pressure coefficient .50
    - Cover to reinforcing: 2" headwalls  
1 1/2" elsewhere u.n.o.
  - Dimensions include a joint 1/2" joint creep. Overall length of culvert will vary depending on installation.
  - No dampproofing or waterproofing supplied by CSI.
  - DBS are Dowel Bar Splicers and DI are Dowel Ins. Both are supplied by CSI. DI's for C.I.P. work are to be installed and cut/bent in the field by others as required.
  - Headwalls not designed for impact load.
  - Water repellent by CSI on all exposed faces of culvert, headwalls, and wingwalls. Included is the inside top, bottom and walls for the entire length of the culvert. Water repellent to be Certi-Vex Pensed 244 40% A.M.A.

MARK	QTY	LENGTH	YDS	WEIGHT
C1	1	4.60	3.80	7.70 TONS
C2	7	7.50	5.19	10.50 TONS
C3	1	4.60	4.79	9.70 TONS



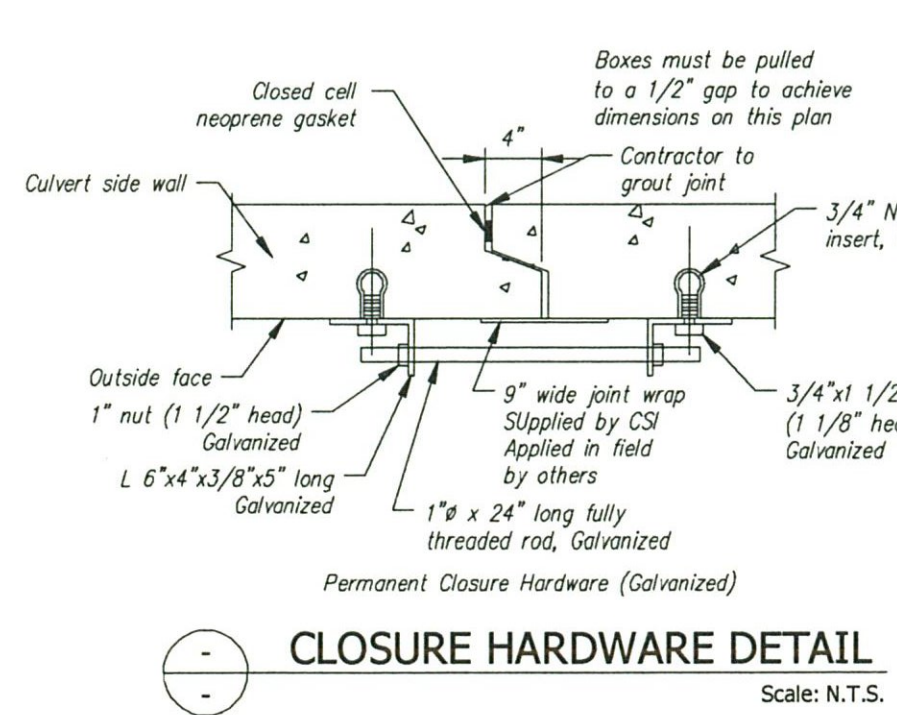
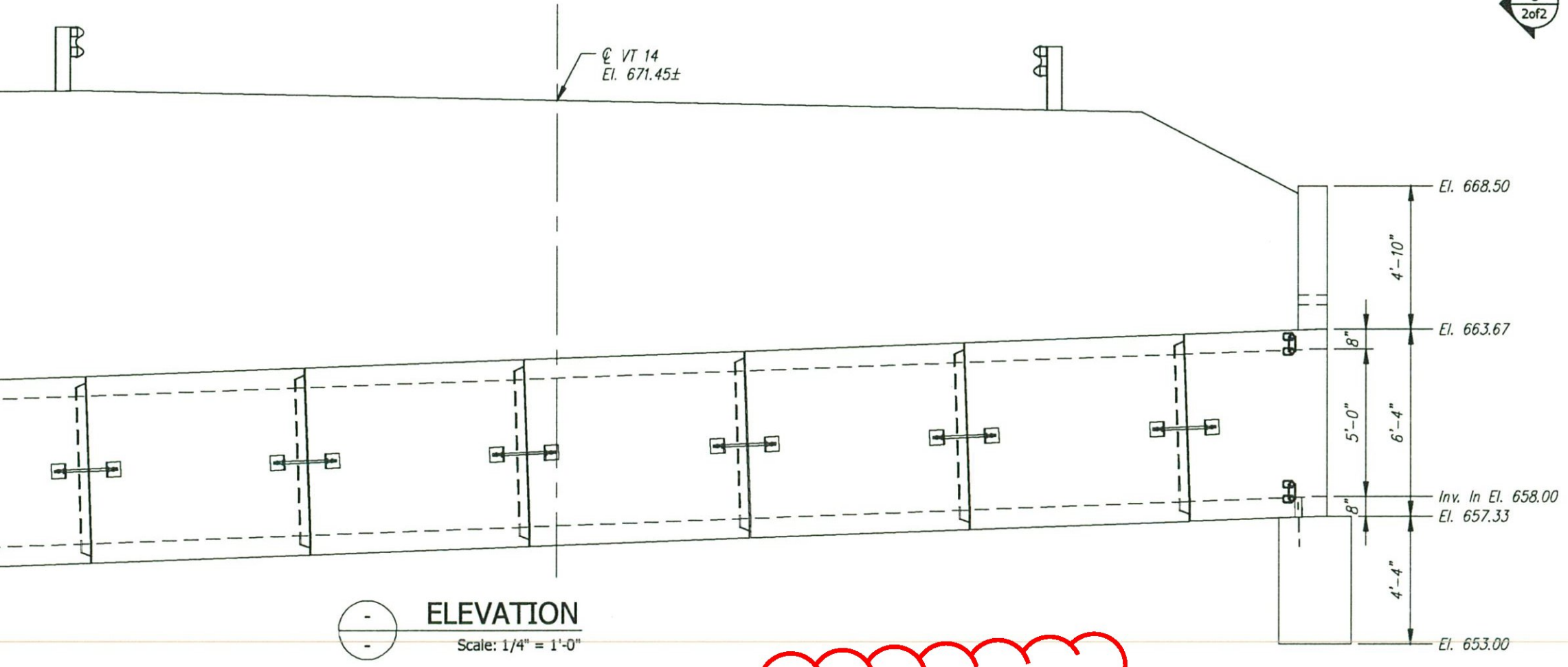
**SHOP DRAWING REVIEW**  
 REVIEW IS ONLY FOR GENERAL CONFORMANCE WITH DESIGN CONCEPT

PROVIDE AS SUBMITTED  
 PROVIDE AS CORRECTED  
 REVISE AND RESUBMIT  
 REJECTED - SEE REMARKS  
 SUBMITTAL NOT REQUIRED - RETURNED WITHOUT REVIEW

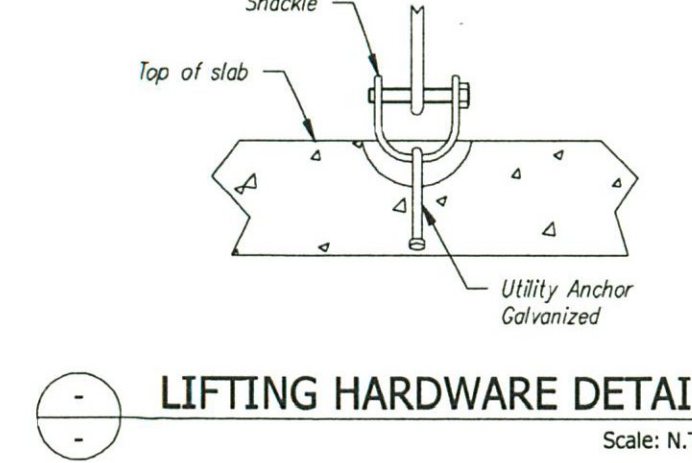
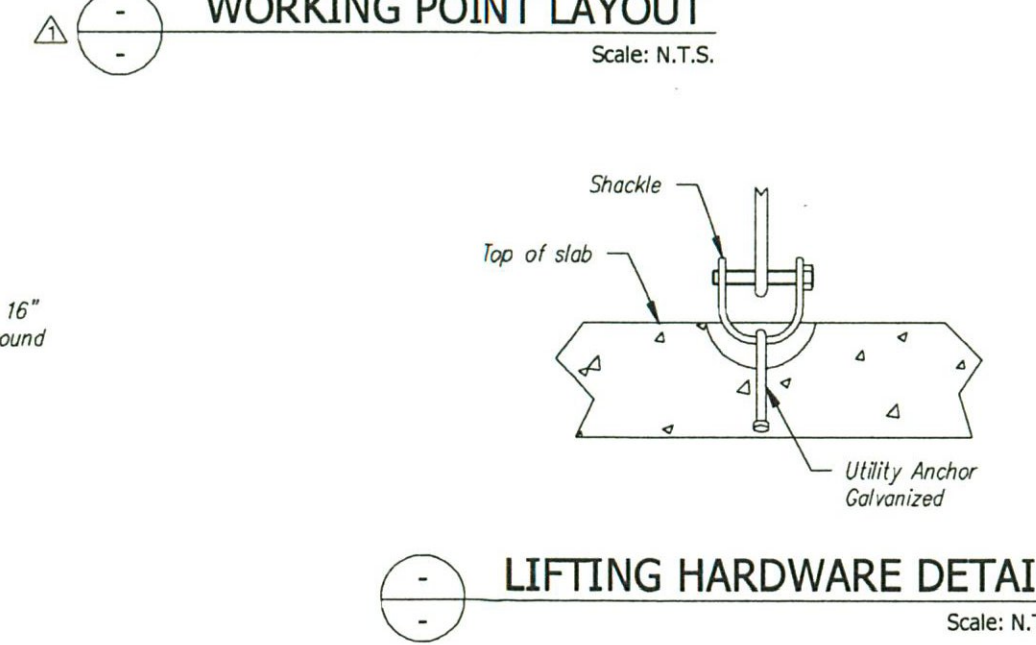
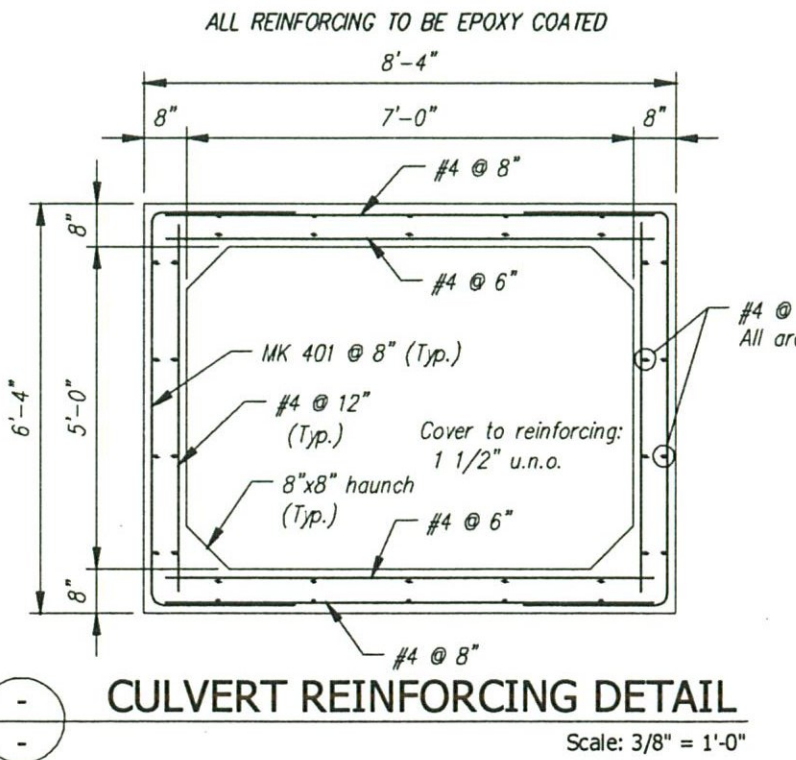
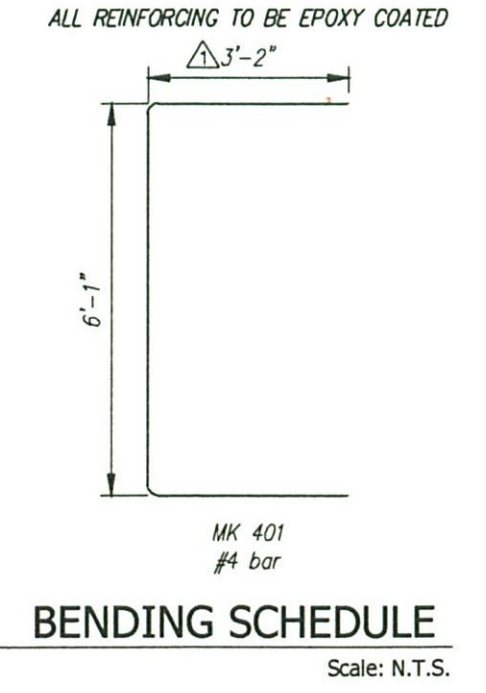
THIS REVIEW IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. ANY ACTION, CORRECTIONS OR COMMENTS SHOWN AND/OR NOTED ARE SUBJECT TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE ACCURACY AND COMPLETENESS OF DETAILS, SUCH AS DIMENSIONS AND QUANTITIES; SUBSTITUTING INSTRUCTIONS FOR INSTALLATION OR PERFORMANCE OF EQUIPMENT OR SYSTEMS; THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES OF CONSTRUCTION, INCLUDING SAFETY PRECAUTIONS AND PROCEDURES; AND THE SELECTION OF FABRICATION PROCESSES. ENGINEER'S APPROVAL OF A SPECIFIC ITEM SHALL NOT INDICATE APPROVAL OF AN ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. FURTHER, ENGINEER'S REVIEW OF CONTRACTOR'S SUBMITTALS SHALL NOT RELIEVE THE CONTRACTOR OF ITS OBLIGATIONS UNDER THE CONTRACT DOCUMENTS WITH RESPECT TO THE FABRICATION AND/OR APPLICATION OF SHOP DRAWINGS.

CLD CONSULTING ENGINEERS, INC.  
 540 COMMERCIAL ST.  
 MANDERSON, NEW HAMPSHIRE 03101

DATE: 6/25/14



PE Stamp please



This drawing is based upon information provided from the following documents and/or sources:

Engineer: CLD CONSULTING ENGINEERS  
 Project No: STP SCR(10)  
 Drawings: PROPOSED IMPROVEMENT VT ROUTE 14 (MINOR ARTERIAL)  
 Specifications: PROPOSED IMPROVEMENT VT ROUTE 14 (MINOR ARTERIAL)  
 Other Sources:

Concrete Systems Inc.  
 9 Commercial St., Hudson, N.H. 03051  
 Phone 603-889-4163  
 Fax 603-889-2417

STATE AGENCY  
 VTrans

Drawn by: M SCOTT  
 Checked by: B. KOLAWOLE  
 Approved by:

Date: 05/30/2014  
 Date: 06/02/2014

PROJECT NO. STP SCR(10)

B.U.R. CONSTRUCTION  
 VT ROUTE 14 (MINOR ARTERIAL)  
 BARRE, VT

BOX CULVERT LAYOUT AND DETAILS

Drawing No. C21980-LO1A

Quantity: Project No: STP SCR(10)

SHEET 1 OF 2

Rev.	Date	DESCRIPTION	MS/CV	By
5				
4				
3				
2				
1	06/19/14	Added working points; Misc. revisions	MS/CV	