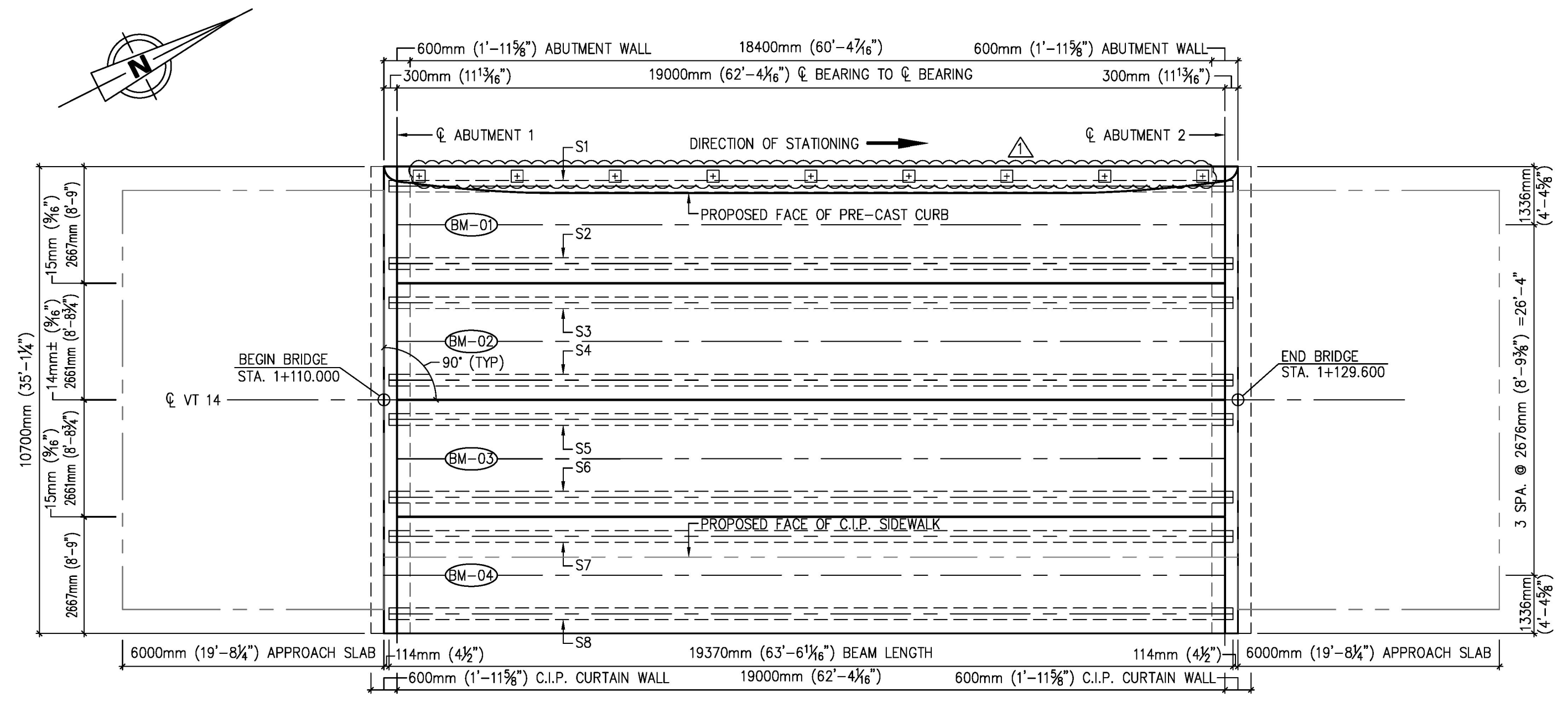
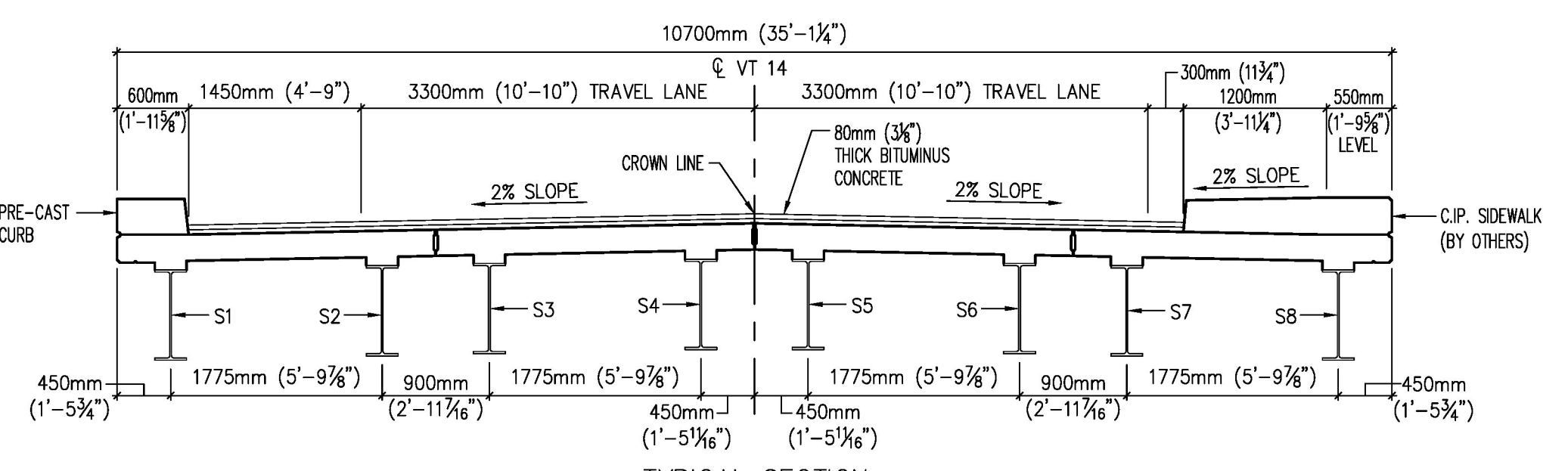


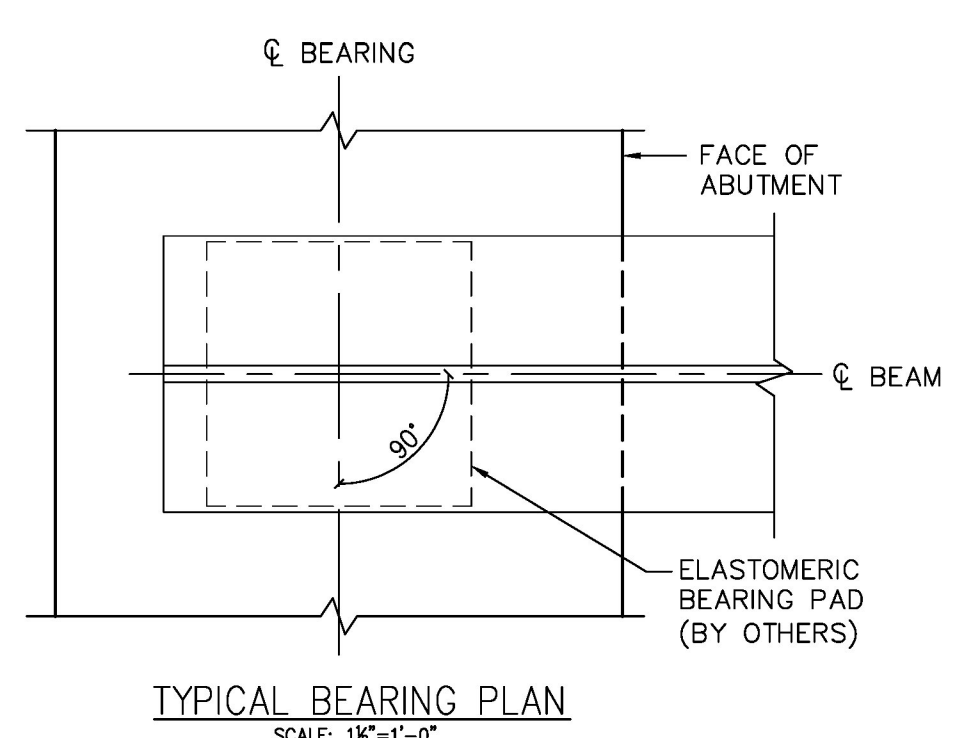
S:\Engineering Services\Slaw\East Montpelier VTP\Production Drawings\AutoCAD Files\FR-1.dwg, 4/21/2011 4:31:19 PM



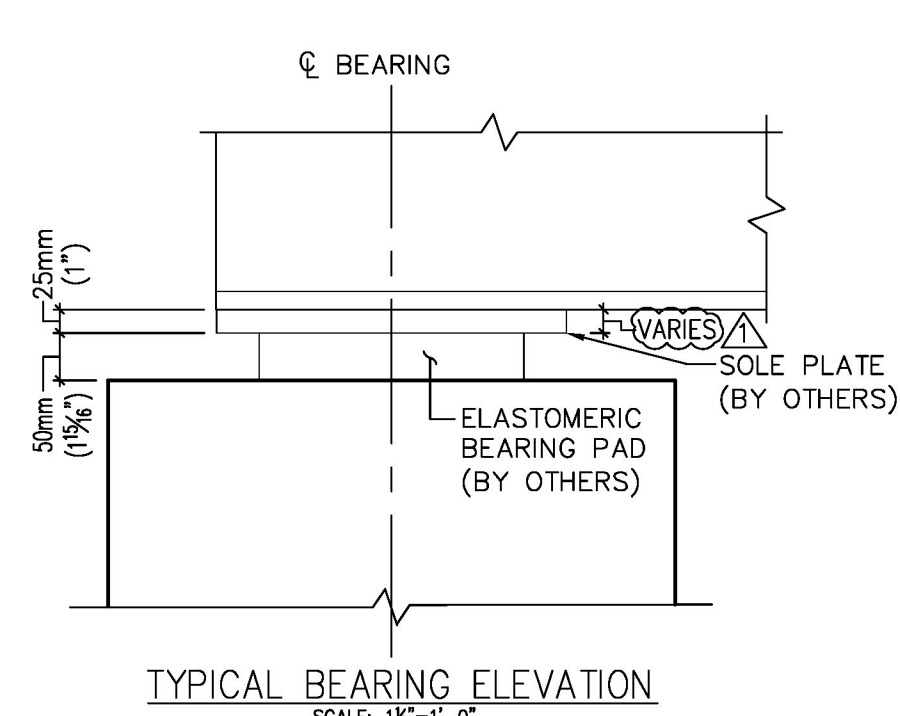
FRAMING PLAN
SCALE: 1/8"=1'-0"



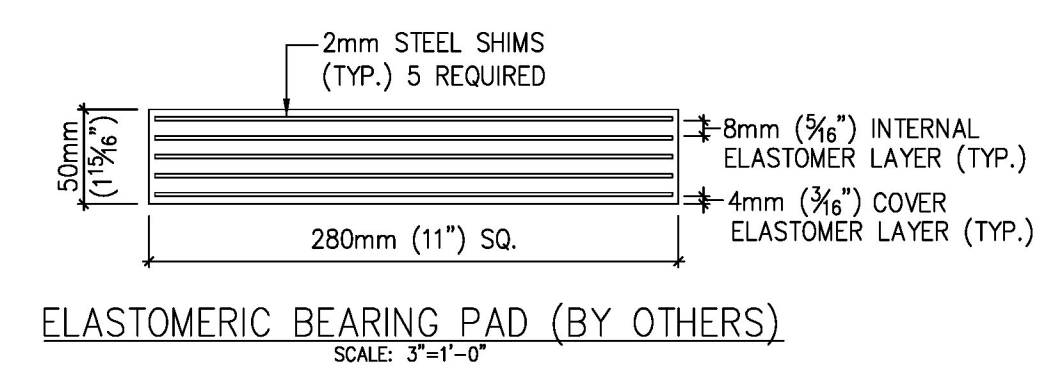
TYPICAL SECTION
SCALE: 3/8"=1'-0"



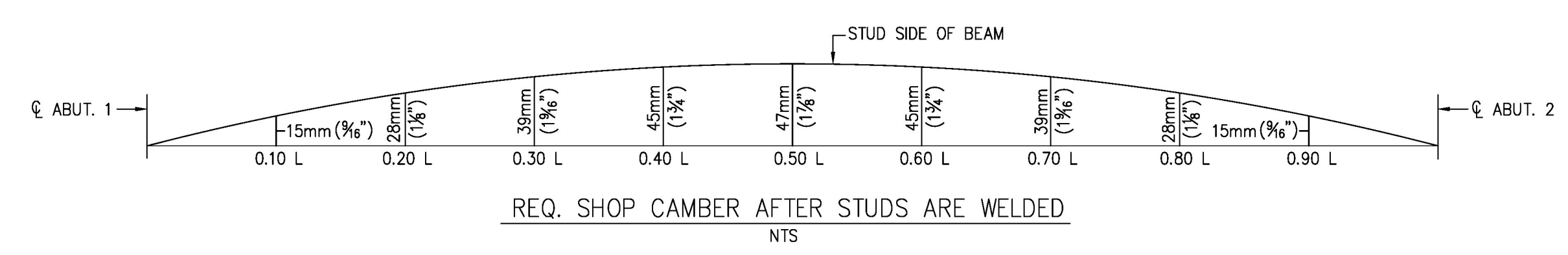
TYPICAL BEARING PLAN
SCALE: 1/8"=1'-0"



TYPICAL BEARING ELEVATION
SCALE: 1/8"=1'-0"



ELASTOMERIC BEARING PAD (BY OTHERS)
SCALE: 3/8"=1'-0"



REQ. SHOP CAMBER AFTER STUDS ARE WELDED
N/S

GENERAL NOTES

SPECIFICATIONS
1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION (2006) AND ITS LATEST REVISIONS & AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 4TH EDITION, 17TH EDITION (2007) AND ITS LATEST REVISIONS & AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, 2ND EDITION (2004), AND ITS LATEST REVISIONS.

DESCRIPTION OF FABRICATION FACILITIES FOR UNIT PRODUCTION
1. ALL CONCRETE TO BE SUPPLIED BY J & R SLAW USING APPROVED MIX (V-63) 4000 PSI.
2. QUALITY CONTROL EQUIPMENT
3. COMPRESSIVE STRENGTH TESTER - FORNEY MODEL F-250F-01
4. HIGH PRESSURE AIR METER - GILSON AR-8

QUALITY ASSURANCE
1. ALL UNITS SHALL BE MANUFACTURED IN ACCORDANCE WITH J & R SLAW QUALITY SYSTEM MANUAL APPROVED BY PCI.
2. ALL PLASTIC AND HARDENED CONCRETE TESTING SHALL BE PERFORMED UNDER J & R SLAW QUALITY ASSURANCE PROGRAM, BY ACI & PCI CERTIFIED TECHNICIANS.
3. CONCRETE TEST CYLINDERS SHALL BE TAKEN AS FOLLOWS:
a. MIN (8) FOR STRIPPING STRENGTH - 4" DIA. X 8" LONG
b. MIN (4) FOR 28 DAY STRENGTH - 4" DIA. X 8" LONG
4. NO UNIT SHALL BE SHIPPED TO THE JOBSITE WITHOUT THE APPROVAL OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION. EACH UNIT SHALL BE MARKED ON THE UNDERSIDE OF THE CONCRETE DECK BY THE INSPECTOR TO INDICATE APPROVAL.
5. ADDITIONAL TESTS TO BE MADE IN ACCORDANCE WITH SPECIAL PROVISIONS SECTION 995 AND THIS NOTE SHEET.
6. ALL CONCRETE TO BE CONSOLIDATED USING INTERNAL VIBRATION.
7. CONCRETE SHALL BE NATURAL CURED. PRODUCT WILL BE COVERED WITH WET BURLAP AND AN IMPERMEABLE COVERING TO RETAIN MOISTURE, UNTIL STRIPPING STRENGTH IS ACHIEVED.

CONCRETE DATA
1. CONCRETE TO MEET THE REQUIREMENTS VERMONT AOT SPECIFICATIONS.
2. CONCRETE COMPRESSIVE STRENGTHS:
a. REMOVAL FROM FORM: 4000 PSI STRIPPING STRENGTH IS ACHIEVED
b. 28 DAY: 4,000 PSI MIN
3. MIX DESIGNS SHALL BE SUBMITTED UNDER A SEPARATE COVER (YIELD: ONE (1) CUBIC YARD);
4. MIX DESIGNS ARE SUBJECT TO CHANGE DUE TO AMBIENT CONDITIONS.
5. SLUMP: 8"-11"
6. MAX. AGGREGATE SIZE: 3/4"
7. TOTAL CEMENTITIOUS MATERIAL: 710 LBS
8. ALL MATERIALS SHALL BE APPROVED BY VERMONT AGENCY OF TRANSPORTATION.
9. ENTRAINED AIR: 6.0% - 8.0%

REINFORCING STEEL
1. ALL CONCRETE REINFORCEMENT SHALL CONFIRM TO AASHTO-M31, GRADE 60, AND SHALL BE EPOXY COATED.

STRUCTURAL STEEL
1. ALL STRUCTURAL STEEL SHALL MEET THE REQUIREMENTS OF AASHTO M270, GRADE 50 WEATHERING.
2. NO STRUCTURAL STEEL SHALL BE PLACED INTO FORMS UNTIL APPROVED BY VERMONT AOT. EACH FRAME SHALL BE MARKED ON THE WEB OR BOTTOM FLANGE BY THE INSPECTOR TO INDICATE HIS APPROVAL PRIOR TO INSTALLATION IN THE FORM.
3. STRUCTURAL STEEL FABRICATOR: FOSTER-PRECOISE, GEORGETOWN, MA.
4. THE ENDS OF THE BEAM SHALL BE VERTICAL. ALL STIFFENER/CONNECTION PLATES SHALL BE VERTICAL UNDER DEAD LOAD AT THE ENDS. ALL INTERMEDIATE STIFFENER/CONNECTION PLATES SHALL BE VERTICAL UNDER DEAD LOAD.
5. ALL WELDING, WELDING MATERIAL PREPARATION AND ASSEMBLY OF MATERIAL FOR WELDING SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, THE AASHTO/AWS BRIDGE WELDING CODE (ANS/AASHTO/AWS D1.5), AND ALL INTERIM REVISIONS PUBLISHED BY AASHTO AS OF THE BID OPENING DATE.
6. ALL BOLTED CONNECTIONS SHALL BE CONSIDERED SLIP CRITICAL CONNECTIONS WITH CLASS B FAYING SURFACES.

FABRICATION PROCEDURE
1. THESE UNITS SHALL BE CAST IN AN UPRIGHT ORIENTATION.
2. SET STEEL BEAMS ON END SUPPORTS IN A VERTICAL, UPRIGHT POSITION.
3. FORM SHALL BE ASSEMBLED ON TOP OF STEEL BEAMS IN ACCORDANCE WITH THE SHOP DRAWINGS, THE REINFORCING STEEL SHALL THEN BE PLACED IN THE FORM. ALL FORM SIDES SHALL BE VERTICAL.
4. PLACE CONCRETE IN FORM AND SCREED TO PROPER LEVEL.
5. CONCRETE SHALL BE CURED UTILIZING WET BURLAP AND PLASTIC COVERS.
6. FORM MAY BE REMOVED UPON COMPLETION OF THE CURING PERIOD.
7. PRE-ASSEMBLY: THE UNITS SHALL BE PRE-ASSEMBLED AT THE FABRICATOR'S PLANT TO ASSURE PROPER MATCH BETWEEN UNITS BEFORE SHIPPING TO THE PROJECT SITE, TO THE SATISFACTION OF THE AOT. DIMENSIONS SHALL BE PROVIDED TO THE CONTRACTOR FOR SETTING ABUTMENT.
8. THESE UNITS ARE ASSUMED TO BE FABRICATED IN AN UNSUPPORTED STATE. HOWEVER, AT THE OPTION OF THE FABRICATOR, TEMPORARY SHORES MAY BE PLACED UNDER THE BEAMS TO IMPROVE STABILITY DURING FABRICATION. ALL TEMPORARY SHORES MUST BE REMOVED WHILE CONCRETE IS STILL FLUID.

FINISHING
1. DECK TEXTURE TO BE MAXIMUM FLOAT FINISH.
2. UNDERSIDE OF DECK TO RECEIVE FORM FINISH.

HANDLING OF UNITS
1. HANDLING: SWEDGE LIFTING CABLES SHALL BE INSTALLED THROUGH THE HOLES IN THE DECK AND CONNECTED TO 18 TON OR LARGER COFFEE POTS. THE SWEDGE LIFTING CABLES WILL ATTACH TO CONVENTIONAL LIFTING EQUIPMENT. CONTRACTOR'S ERECTION PLAN SHALL INSURE FORCES FROM RIGGING DO NOT EXCEED 18 TONS.
2. SHIPPING: UNITS SHALL BE SHIPPED TO THE JOBSITE ON FLATBED TRAILERS.
3. ERECTION: ALL ERECTION HARDWARE IS BY OTHERS.

TOLERANCES
1. UNITS SHALL BE FABRICATED AND COMPLY WITH FOLLOWING TOLERANCES:
2. LENGTH: +/- 20mm (3/4")
3. WIDTH: +/- 10mm (3/8")
4. OVERALL DEPTH OF STRUCTURAL SLAB: +10mm (3/8") -6mm (1/4")
5. REINFORCING COVER: TOP MAT AND BOTTOM MAT (BOTTOM MAT IN MOLD): +/- 10mm (3/8")
6. DEVIATION FROM SQUARE - HORIZONTAL DIAGONALS: +/- 20mm (3/4")
7. OVERALL LENGTH OF UNIT: +/- 10mm (3/8")

LABELING
1. EACH UNIT SHALL BE CLEARLY AND PERMANENTLY LABELED (STENCILED) ON THE UNDERSIDE OF THE LEFT END, (AS SITUATED ON THE SHOP DRAWING), OF THE DECK WITH THE FOLLOWING INFORMATION:
a. J & R SLAW CO.
b. DATE OF MANUFACTURE
c. DESIGN RATING - HL-93
d. MARK NUMBER AS SHOWN ON LAYOUT SHEET OF SHOP DRAWINGS

MISCELLANEOUS:
1. CRACK WIDTHS 0.012" - 0.03" SHALL BE EPOXY INJECTED USING (AOT) APPROVED MATERIALS AND PROCEDURES.
2. CRACK WIDTHS LESS THAN 0.012" SHALL BE SEALED WITH A PENETRATING SEALER USING (AOT) APPROVED MATERIALS AND PROCEDURES.
3. A CERTIFICATION OF COMPLIANCE SHALL BE FURNISHED FOR THE SUPPLY OF THE UNITS. A COPY OF THE RESULTS OF ALL TESTS PERFORMED THAT ARE NECESSARY TO ASSURE COMPLIANCE WITH THESE SPECIFICATIONS SHALL ALSO BE PROVIDED.

INSTALLATION:
1. GENERAL: THE UNITS SHALL BE FABRICATED IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE SPECIFICATIONS AND/OR THE SPECIAL PROVISIONS FOR EACH RESPECTIVE ITEM. SUBMIT CONSTRUCTION PROCEDURES AND PERMISSIBLE VARIATIONS OTHER THAN THOSE CONTAINED HEREIN, FOR APPROVAL.

2. ERECTION PROCEDURE: PROVIDE TO THE ENGINEER IN ADVANCE (15 WORKING DAYS) OF ANY ERECTION A DETAILED ERECTION PROCEDURE THAT INDICATES THE METHOD OF ERECTION AND THE EQUIPMENT TO BE USED. THE ERECTION PROCEDURE AND TIME ESTIMATE SHALL BE APPROVED BY THE ENGINEER PRIOR TO THE START OF ANY ERECTION WORK. ANY TEMPORARY CONSTRUCTION AND SUBSEQUENT RESTORATION REQUIRED FOR THE POSITIONING AND SUPPORT OF A CRANE OR CRANES SHALL BE INCLUDED IN THE COST OF THE WORK.

3. BEARING AND BEARING SURFACES: PROVIDE BEARING SURFACES PROPERLY FINISHED TO THE CORRECT ELEVATION TO PROVIDE FULL AND EVEN SUPPORTING SURFACES FOR ALL THE BEARINGS. INSTALL BEARINGS IN ACCORDANCE WITH THE DETAILS SHOWN ON THE PLANS.

4. ERECTION OF UNITS: ERECTION OF UNITS SHALL NOT PROCEED UNTIL SUBSTRUCTURE CONCRETE HAS BEEN CURED FOR THE MINIMUM LENGTH OF TIME AS SPECIFIED IN THE SPECIFICATIONS. INSTALL UNITS TO THE CORRECT LINE AND GRADE AS SHOWN ON THE APPROVED DRAWINGS AND AS INDICATED IN THE APPROVED ERECTION PROCEDURE. AFTER ALL THE UNITS ARE ERECTED, INSPECT THEM TO INSURE THE CORRECTNESS OF THEIR LOCATION. USE APPROVED STEEL SHIMS BETWEEN THE BEARING AND THE STRINGER, TO COMPENSATE FOR MINOR DIFFERENCES IN ELEVATION BETWEEN UNITS AND TO COMPLY WITH APPROACH AND ADJACENT DECK ELEVATIONS.

5. STRUCTURAL STEEL: INSTALL ALL DIAPHRAGMS AND OTHER STRUCTURAL STEEL WORK AS SHOWN ON THE APPROVED WORKING DRAWINGS AFTER THE UNITS ARE IN THEIR FINAL LOCATIONS.

6. MATCHING ELEVATIONS OF UNITS: ADJACENT UNITS SHALL MATCH ELEVATION WITHIN 1/4" VERTICALLY (ALONG LONGITUDINAL EDGES TAKING INTO ACCOUNT DIFFERENCES DUE TO DECK CROSS SLOPE) AND 1/4" VERTICALLY AT THE END OF UNITS, PROVIDED ALL DIAPHRAGMS CAN BE TIGHTENED WITHOUT PERMANENT DEFORMATION OR DAMAGE TO ANY STRUCTURAL COMPONENT. IF THE TOLERANCE IS NOT MET, ADJUST THE UNITS AS INDICATED IN THE PROCEDURES SHOWN ON THE APPROVED WORKING DRAWINGS.

7. CLOSURE POUR: THE SURFACE OF THE LONGITUDINAL JOINT SHALL BE FREE OF ANY MATERIAL SUCH AS OIL, GREASE OR DIRT, WHICH MAY PREVENT BONDING OF THE CONCRETE FILL MATERIAL PRIOR TO PLACEMENT OF THE CONCRETE MATERIAL, FORM THE BOTTOM OF THE JOINT FLUSH WITH THE BOTTOM OF THE SLAB. DO NOT USE BAKER ROD. PLACE CLOSURE CONCRETE AND CURE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

8. SEALING OF LIFTING HOLES: AFTER THE UNITS ARE IN THEIR FINAL LOCATIONS, APPLY BONDING AGENT AND FILL THE LIFTING HOLES WITH CEMENTITIOUS GROUT. PROVIDE A REMOVABLE FORM AT THE BOTTOM SURFACE OF THE DECK TO RETAIN THE CONCRETE.

9. LOADING: UNITS MAY BE LOADED UPON ERECTION AND BEFORE THE CLOSURE POUR IN ACCORDANCE WITH THE APPROVED ERECTION PROCEDURE. ONCE THE CLOSURE POUR IS CAST, NO FURTHER LOADING OF THE UNITS WILL BE ALLOWED UNTIL THE CLOSURE POUR CONCRETE HAS PROPERLY AND FINALLY CURED AND AS APPROVED BY THE ENGINEER. CURE THE CONCRETE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS UNTIL DESIGN STRENGTH HAS BEEN MET.

10. FINAL REPAIRS: AFTER THE INSTALLATION WORK IS COMPLETE, REPAIR REMAINING CONCRETE DEFECTS, HOLES FOR INSERTS AND LIFTING HOLES AND INDICATED AND APPROVED BY THE ENGINEER.

11. TECHNICAL ASSISTANCE: HAVE A REPRESENTATIVE FROM THE FABRICATOR PRESENT AT THE PROJECT SITE, FULL TIME, DURING THE ERECTION OF PREFABRICATED SUPERSTRUCTURE UNITS TO PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR IN THE EVENT UNUSUAL PROBLEMS OR SPECIAL CIRCUMSTANCES ARISE.

DRAWN	CHECKED	ENGINEERED	CHECKED	APPROVED
KL1	04/06/11	JJ	04/06/11	RL

Eriksson technologies 813.989.3317
TAMPA, FL LRFD.COM

J & R SLAW, INC.
438 RIVERVIEW ROAD
LEHIGHTON, PA. 18235
(610)852-2020

STATE OF VERMONT
AGENCY OF TRANSPORTATION
SUPERSTRUCTURE REPLACEMENT
EAST MONTPELIER

BRIDGE NO.: 71
CONTRACT NO.: SLAW #773
CONTRACTOR: AL ST. ONGE CONTRACTING
FED. AID PROJECT NO.: BRF 037-2(B)

REVISIONS

1	PER REVISE & RESUBMIT DRAWINGS RECEIVED ON 04/14/11 & PER SLAW EMAIL ON 04/21/11
---	--

Received Date: 4/22/11
Checked By: Hiram Salls
Approval Type: Approved
Approved By: Chris Williams
Date: 4/26/11