JOSEPH P. CARRARA & SONS, INC.

LETTER OF TRANSMITTAL

2464 CASE STREET
MIDDLEBURY, VERMONT 05753

TEL (802) 388-6363
FAX (802) 388-9010

DATE : **March 14, 2014**	JOB NO. : **23419-013**
ATTENTION : **Mr. Kevin Ture** *KTure@wmschultz.com*	
RE : **Vermont Route 73**	
Rochester, Vermont	
Rochester BRF 0162 (16) Bridge No. 15	
Rochester BRF 0162 (17) Bridge No. 16	
Transmittal #1	**Precast Concrete**

TO: **W.M. Schultz Construction, Inc.**
831 Route 67 PO Box 2620
Ballston Spa, New York 12020

518-885-0060

WE ARE SENDING YOU [x] Attached [ ] Under separate cover via **Email** the following items:

[x] Shop Drawings [ ] Prints [ ] Plans [ ] Samples [ ] Specifications

[ ] Copy of Letter [ ] Change Order [ ] Other:

COPIES	DATE	NO.	DESCRIPTION
1	3/14/14	-	**J. P. Carrara & Sons' Precast Framing and Individual Piece Detail Drawings, Bridge No. 15:**
			"For Approval" Drawings: C1, F1 - F5, NB1 - NB11, AB1 - AB5, AS1 - AS3,
			WW1, WW2, & M1 - M3
1	3/14/14	-	**J. P. Carrara & Sons' Precast Framing and Individual Piece Detail Drawings, Bridge No. 16:**
			"For Approval" Drawings: C1, F1 - F5, NB1 - NB6, AB1 - AB5, AS1 - AS3,
			WW1, WW2, M1, & M2

THESE ARE TRANSMITTED as checked below :

[x] For approval [ ] Approved as submitted [ ] Resubmit ____ copies for approval

[ ] For your use [ ] Approved as noted [ ] Submit ____ copies for distribution

[ ] As requested [ ] Returned for corrections [ ] Return ____ corrected prints

[ ] For review and comment [ ] ____

[ ] FOR BIDS DUE ____ 20 ____ [ ] PRINTS RETURNED AFTER LOAN TO US

REMARKS **Kevin,**

Attached please find our precast framing drawings and individual piece details for the precast/prestressed concrete NEXT Beams, abutment walls, pier caps, wingwalls, and approach slabs, which are submitted for approval on the project.

Please contact us at 802-388-6363 with any questions.

COPY TO :

SIGNED : Michael Weigand

If enclosures are not as noted, please notify us at once.

NEXT BEAM GENERAL NOTES

1. MIN. CONCRETE STRENGTH AT 28 DAYS SHALL BE 7,000 PSI.
2. MIN. CONCRETE STRENGTH AT STRESS TRANSFER SHALL BE 5,500 PSI.
3. REINFORCING STEEL SHALL BE GR-60, ASTM A-615 (AASHTO M31) AND SHALL ADHERE TO THE REQUIREMENTS OF LEVEL II (DUAL COATED) REINFORCING STEEL IN ACCORDANCE WITH SECTION 507 OF THE NEW JERSEY DOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
4. PRESTRESSING STRANDS SHALL CONFORM TO ASTM A-416 (AASHTO M203) AND SHALL CONSIST OF 0.60"ø x 270 KSI 7-WIRE LOW RELAXATION STRANDS.
5. PRESTRESSING STRANDS SHALL EACH BE PULLED TO HAVE A NET TENSION OF 44.0 K AFTER ACCOUNTING FOR CHUCK SLIPPAGE. TENSION SHALL BE VERIFIED BY MEASURING STRAND ELONGATION. (SEE EXAMPLE ELONGATION CALCULATION AND TENSIONING PROCEDURE, THIS SHEET.)
6. ENDS OF PRESTRESSING STRANDS SHALL BE CUT FLUSH WITH END OF NEXT BEAM STEMS (UNLESS NOTED OTHERWISE) AND EPOXY PAINTED.
7. ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4".
8. THE TOP OF BEAMS SHALL RECEIVE A SMOOTH FLOAT FINISH (UNLESS NOTED OTHERWISE).
9. SHEAR KEY SURFACES SHALL BE BLASTED CLEAN.
10. BEAMS SHALL BE HANDLED AND ERECTED USING THE LIFTING LOOPS ONLY. RIGGING SHALL BE CONFIGURED SUCH THAT EQUAL FORCES ARE APPLIED TO EACH OF THE LIFTING LOOPS AT EACH END OF THE BEAM. THE PINS OF THE SHACKLES SHALL BE PLACED THOUGH THE LIFTING LOOPS. SEE DETAIL, THIS SHEET. BEAMS SHALL BE STORED AND TRANSPORTED WITH TIMBER SUPPORTS WITHIN 3'-0" OF THE BEAM ENDS, UNLESS APPROVED BY J.P. CARRARA & SONS, INC.
11. MATERIAL SPECIFICATION AND MIX DESIGN SHALL CONFORM TO VERMONT SPEC. P510.02 AND P510.05 RESPECTIVELY.

    DESIGN MIX: J.P.C. BRIDGE MIX #430M (5 GAL./CY DCI)
12. QUALITY CONTROL PROCEDURES ARE IN ACCORDANCE WITH PCI REQUIREMENTS. J.P. CARRARA & SONS, INC. IS A PCI CERTIFIED PLANT.
13. CURING METHOD: AS SOON AS THE TOP OF BEAM IS FINISHED, A COVER OF INSULATED POLY. THE DESIRED CURING TEMPERATURE RANGE SHALL NOT DROP BELOW 70°F. THE TEMPERATURE SHALL BE RECORDED BY AUTOMATIC SENSOR INSTRUMENTS ON GRAPH CHARTS, SPACED NOT MORE THAN 100' APART AND WILL CONTINUE UNTIL RELEASE STRENGTH IS ACHIEVED. EACH CHART SHALL BE MARKED WITH THE CASTING DATED AND LOCATION OF THE RECORDER. IF NECESSARY TO MAINTAIN CASTING BED TEMPERATURE PRIOR TO CONCRETE PLACEMENT OR TO ACCELERATE EARLY AGE STRENGTH GAIN, EXTERNAL RADIANT HEAT MAY BE EMPLOYED VIA HOT WATER DUCTS BENEATH AND WITHIN THE PERIPHERY OF THE CASTING BED. MAXIMUM CURING TEMPERATURE SHALL NOT EXCEED PCI SPECIFIED LIMITS.
14. OWNER SHALL PROVIDE APPROPRIATE WATERPROOFING TO GROUTED SHEAR KEYS. J.P. CARRARA & SONS, INC. SHALL NOT BE HELD LIABLE FOR PROBLEMS ASSOCIATED WITH MOISTURE INFILTRATING GROUTED SHEAR KEYS.
15. PRECAST CONCRETE CURB SHALL HAVE A RUBBED FINISH IN ACCORDANCE WITH 507 OF THE NEW JERSEY DOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION

ABUTMENT, WING WALL, & APPROACH SLAB GENERAL NOTES

1. MIN. CONCRETE STRENGTH AT 28 DAYS SHALL BE 5,000 PSI.
2. MIN. CONCRETE STRENGTH AT STRIPPING SHALL BE 3,500 PSI.
3. REINFORCING STEEL IN THE ABUTMENTS & APPROACH SLABS SHALL BE GR-60, ASTM A-615 (AASHTO M31) AND SHALL ADHERE TO THE REQUIREMENTS OF LEVEL I REINFORCING STEEL IN ACCORDANCE WITH SECTION 507 OF THE NEW JERSEY DOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

   REINFORCING STEEL IN THE WING WALLS SHALL BE GR-60, ASTM A-615 (AASHTO M31) AND SHALL ADHERE TO THE REQUIREMENTS OF LEVEL II (DUAL COATED) REINFORCING STEEL IN ACCORDANCE WITH SECTION 507 OF THE NEW JERSEY DOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (UNLESS NOTED OTHERWISE
4. THE TOP OF ABUTMENTS, APPROACH SLABS, & WING WALLS SHALL RECEIVE A SMOOTH FLOAT FINISH (UNLESS NOTED OTHERWISE).
5. SHEAR KEY SURFACES SHALL BE BLASTED CLEAN.
6. PRECAST CONCRETE UNITS SHALL BE HANDLED AND ERECTED USING THE LIFTING INSERTS ONLY. THE MINIMUM SLING ANGLE FROM THE HORIZONTAL SHALL BE 60°. NON-PRESTRESSED UNITS SHALL BE STORED & TRANSPORTED WITH TIMBER SUPPORTS AT 5th POINTS, UNLESS APPROVED BY J.P. CARRARA & SONS, INC.
7. MATERIAL SPECIFICATION AND MIX DESIGN SHALL CONFORM TO VERMONT SPEC. P510.02 AND P510.05 RESPECTIVELY.

   DESIGN MIX:

WING WALLS:	J.P.C. BRIDGE MIX #425M NO DCI
APPROACH SLABS:	J.P.C. BRIDGE MIX #425M NO DCI
ABUTMENTS:	J.P.C. BRIDGE MIX #445M
8. QUALITY CONTROL PROCEDURES ARE IN ACCORDANCE WITH PCI REQUIREMENTS. J.P. CARRARA & SONS, INC. IS A PCI CERTIFIED PLANT.
9. CURING METHOD: AS SOON AS THE TOP OF PRECAST CONCRETE UNITS ARE FINISHED, A COVER OF RIGID INSULATION AND POLY WILL BE PLACED OVER THE UNIT. NATURAL CURE WITH NO EXTERNAL HEAT APPLIED.
10. ABUTMENT POST-TENSIONING SEQUENCE:

    A. ERECT PRECAST CONCRETE ABUTMENTS, AND POST-TENSION CENTER TENDON TO APPROXIMATELY 5,000 LBS.

    B. GROUT SHEAR KEY.

    C. ONCE SHEAR KEY GROUT HAS ATTAINED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI; POST-TENSION TENDONS TO 32,000 LBS.

STRAND TENSIONING PROCEDURE:

1. PULL EACH STRAND INITIALLY TO 3,000* LBS. AND MARK STRAND.
2. THEN PULL EACH STRAND TO A TOTAL TENSION OF 45,026* LBS. AND MEASURE ELONGATION AFTER SEATING. IT MUST BE BETWEEN 19"* AND 21"*.

   * NOTE: FORCES READ ON STRESSING JACK GAUGES MUST BE MADE TO CORRESPOND TO ABOVE VALUES BASED ON CALIBRATION DATA FOR SPECIFIC JACK USED.

EXAMPLE PRESTRESSING STRAND ELONGATION CALC. AND TENSIONING

(NOT TO BE USED FOR CONSTRUCTION)

SIZE & GRADE: 0.60"ø x 270 KSI
AREA: 0.217 IN^2
TENSION: 44,000 LB. EACH STRAND
GRIP-TO-GRIP: 252'-0" = 252.00'
Es = 28,600,000 PSI (ASSUMED FOR THESE CALCULATIONS; VALUE TO BE OBTAINED FOR STRAND SPOOL ACTUALLY USED)

EXAMPLE:

$$\Delta = \frac{PL}{AE} = \frac{(44{,}000 - 3{,}000) \times 252.00 \times 12}{0.217 \times 28{,}600{,}000} = 19.977"$$

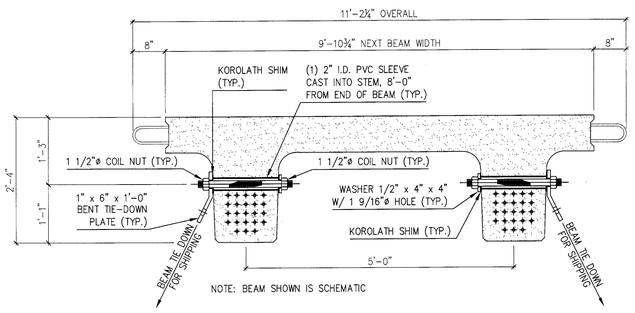
THEREFORE: (TOLERANCES € 5%)

Δ UPPER LIMIT = 1.05 x 19.977" = 20.98" = 21"
Δ LOWER LIMIT = 0.95 x 19.977" = 18.98" = 19"

EXTRA FORCE REQUIRED TO COMPENSATE FOR 1/2" CHUCK SLIPPAGE:

$$\Delta P = \frac{0.5 \times 41{,}000}{19.977} = 1{,}026 \text{ LBS.}$$

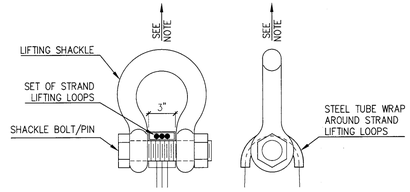
TOTAL TENSIONING FORCE = 44,000 + 1,026 = 45,026 LBS.



NOTE: BEAM SHOWN IS SCHEMATIC

NEXT BEAM 28D HOLD-DOWN DETAIL FOR SHIPPING

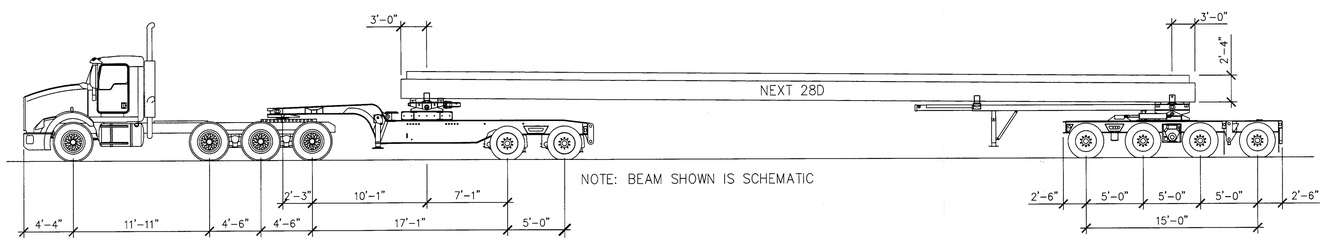
N.T.S.



NOTE: BEAMS AND ABUTMENTS SHALL BE HANDLED AND ERECTED USING THE LIFTING LOOPS ONLY. RIGGING SHALL BE CONFIGURED SUCH THAT EQUAL FORCES ARE APPLIED TO EACH SET OF LIFTING LOOPS AT EACH END OF THE BEAM. SHACKLE BOLT/PIN SHALL BE PLACED UNDER LIFT LOOPS AS SHOWN. DESIGN AND CONFIGURATION OF RIGGING BY PURCHASER.

LIFTING SHACKLE DETAILS

N.T.S.



NOTE: BEAM SHOWN IS SCHEMATIC

SHIPPING ELEVATION

N.T.S.

SUBMITTED
MAR 14 2014
J. P. CARRARA & SONS, INC.
MIDDLEBURY, VT 05753

APPROVAL STAMP:

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
2464 CASE STR., MIDDLEBURY, VERMONT 05753 Phone:(802)388-6361 Fax:(802)388-9010

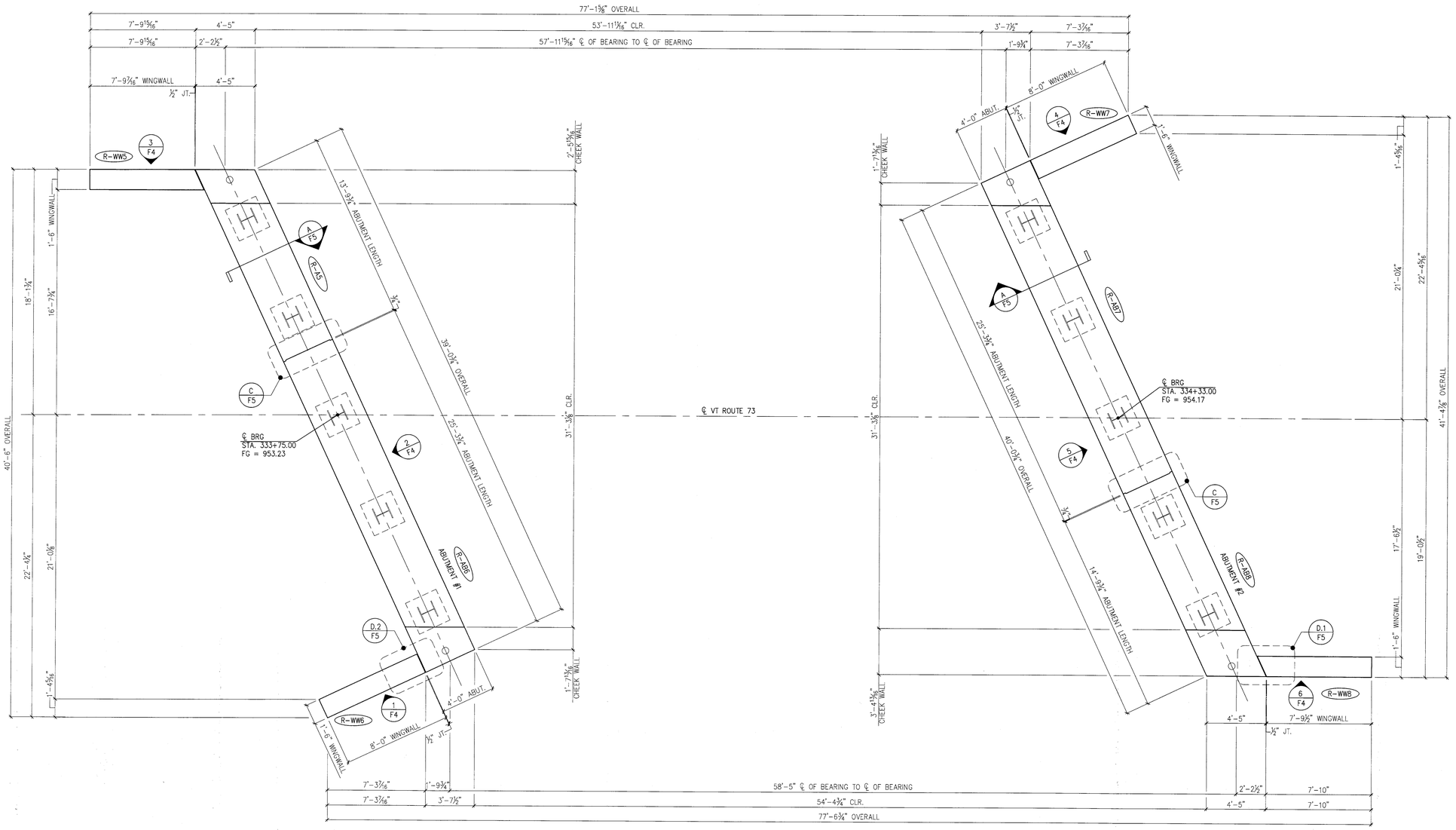
W.M. SCHULTZ CONSTRUCTION, INC.
PO BOX 2620
BALLSTON SPA, NY 12020

Eriksson technologies
813.989.3317
TAMPA, FL LRFD.COM

© 2014 ERIKSSON TECHNOLOGIES, INC. ALL RIGHTS RESERVED

STATE OF VERMONT AGENCY OF TRANSPORTATION COUNTY OF WINDSOR	DATE: MAR. 14, 2014 SCALE: NOTED
TOWN OF ROCHESTER VT ROUTE 73 (RURAL MAJOR COLLECTOR) BRIDGE NO.: 15 PROJECT NO.: BRF 0162 (16)	CHKD: DFTM: AAT/RWS JJ/KLT JOB NO: 23419-013
BRIDGE 16 COVER SHEET	DWG. NO: C1

S:\Engineering Services\Carrara\14002 Rochester BR 15 & 16\Production Drawings\AutoCAD Files\Bridge 16\C1.dwg, 3/14/2014 4:19:38 PM



1/F1 PRECAST CONCRETE ABUTMENT AND WINGWALL LAYOUT

1/4" =1'-0"

SUBMITTED
MAR 14 2014
J.P. CARRARA & SONS, INC.
MIDDLEBURY, VT 05753

APPROVAL STAMP:

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
2464 CASE STR., MIDDLEBURY, VERMONT 05753 Phone:(802)388-6361 Fax:(802)388-9010

W.M. SCHULTZ CONSTRUCTION, INC.
PO BOX 2620
BALLSTON SPA, NY 12020

STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF WINDSOR

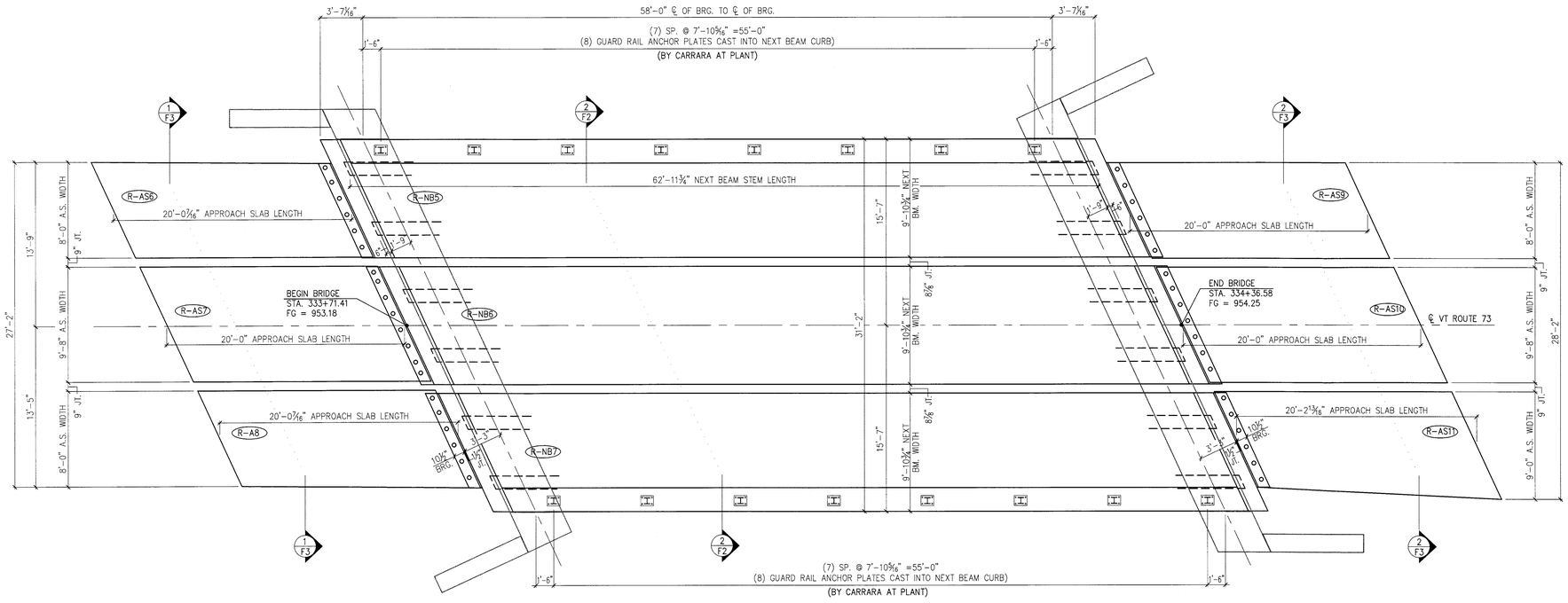
TOWN OF ROCHESTER
VT ROUTE 73 (RURAL MAJOR COLLECTOR)
BRIDGE NO.: 16 PROJECT NO.: BRF 0162 (17)

SUPERSTRUCTURE PLANS

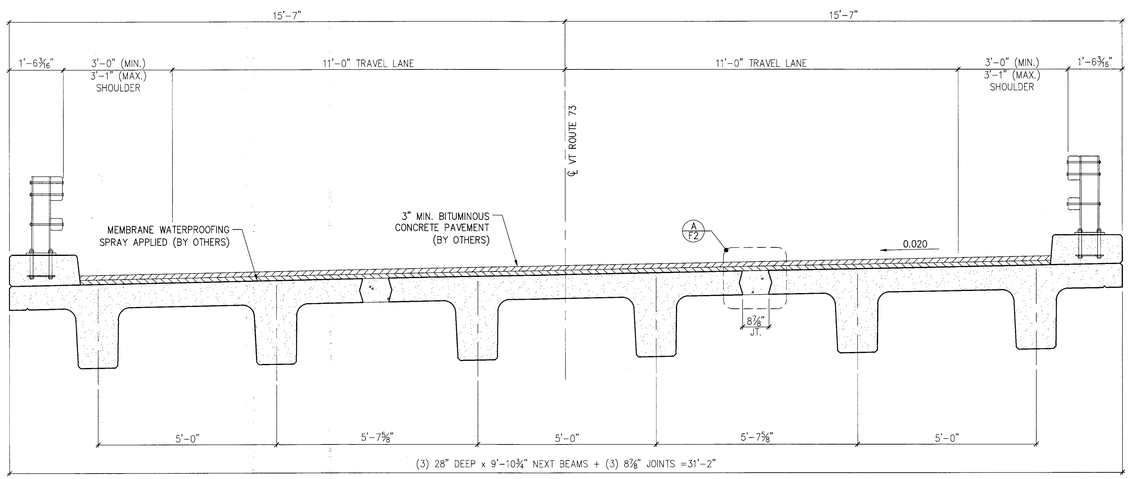
DATE:	MAR. 14, 2014
SCALE:	NOTED
CHKD:	DFTM: AAT/RWS JJ/KLT
JOB NO:	23419-013
DWG. NO:	F1

Eriksson technologies
813.989.3317
TAMPA, FL LRFD.COM
© 2014 ERIKSSON TECHNOLOGIES, INC. ALL RIGHTS RESERVED

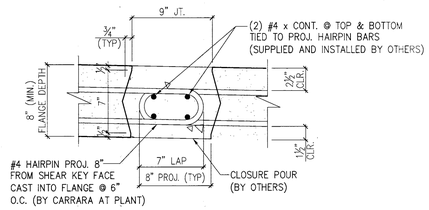
S:\Engineering Services\Carrara\14002 Rochester BR 15 & 16\Production Drawings\AutoCAD Files\Bridge 16\BR 16 - FR-1 (2).dwg, 3/14/2014 4:19:42 PM



1/F2 APPROACH SLAB & PRESTRESSED NEXT BEAM LAYOUT
3/16" =1'-0"



2/F2 NEXT BEAM TRANSVERSE SECTION
1/2" =1'-0"



A/F2 NEXT BEAM CLOSURE POUR
1 1/2" =1'-0"

SUBMITTED
MAR 14 2014
J.P. CARRARA & SONS, INC.
MIDDLEBURY, VT 05753

APPROVAL STAMP:

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
2464 CASE STR., MIDDLEBURY, VERMONT 05753 Phone:(802)388-6361 Fax:(802)388-9010

W.M. SCHULTZ CONSTRUCTION, INC.
PO BOX 2620
BALLSTON SPA, NY 12020

STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF WINDSOR

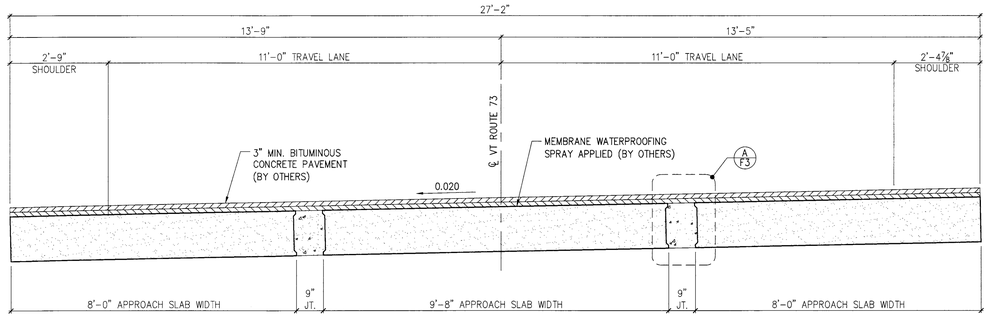
TOWN OF ROCHESTER
VT ROUTE 73 (RURAL MAJOR COLLECTOR)
BRIDGE NO.: 16 PROJECT NO.: BRF 0162 (17)

SUPERSTRUCTURE PLANS & SECTIONS

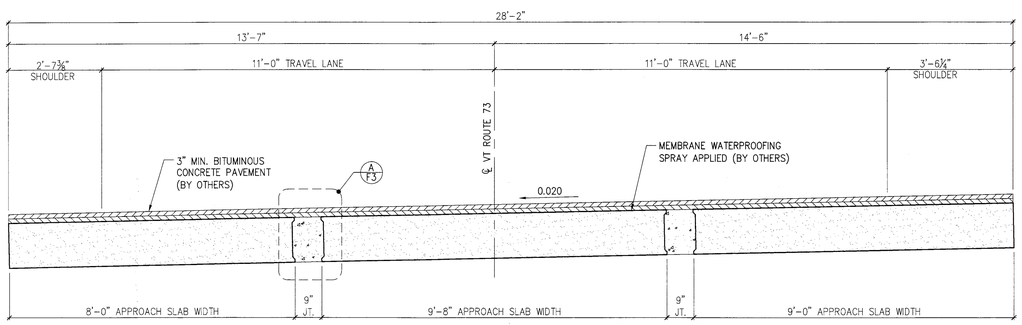
DATE:	MAR. 14, 2014
SCALE:	NOTED
CHKD:	DFTM: AAT/RWS JJ/KLT
JOB NO:	23419-013
DWG. NO:	F2

Eriksson technologies
813.989.3317
TAMPA, FL LRFD.COM
© 2014 ERIKSSON TECHNOLOGIES, INC. ALL RIGHTS RESERVED

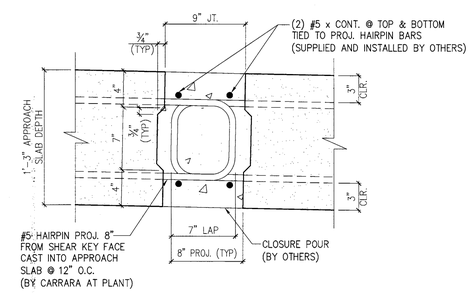
S:\Engineering Services\Carrara\14002 Rochester BR 15 & 16\Production Drawings\AutoCAD Files\Bridge 16\BR 16 - FR-1 (2).dwg, 3/14/2014 4:19:43 PM



1 / F3 APPROACH SLAB TRANSVERSE SECTION
1/2" =1'-0"



2 / F3 APPROACH SLAB TRANSVERSE SECTION
1/2" =1'-0"



A / F3 APPROACH SLAB CLOSURE POUR
1 1/2" =1'-0"

SUBMITTED
MAR 14 2014
J. P. CARRARA & SONS, INC
MIDDLEBURY, VT 05753

APPROVAL STAMP:

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
2464 CASE STR., MIDDLEBURY, VERMONT 05753 Phone:(802)388-6361 Fax:(802)388-9010

W.M. SCHULTZ CONSTRUCTION, INC.
PO BOX 2620
BALLSTON SPA, NY 12020

Eriksson technologies
813.989.3317
TAMPA, FL LRFD.COM

© 2014 ERIKSSON TECHNOLOGIES, INC. ALL RIGHTS RESERVED

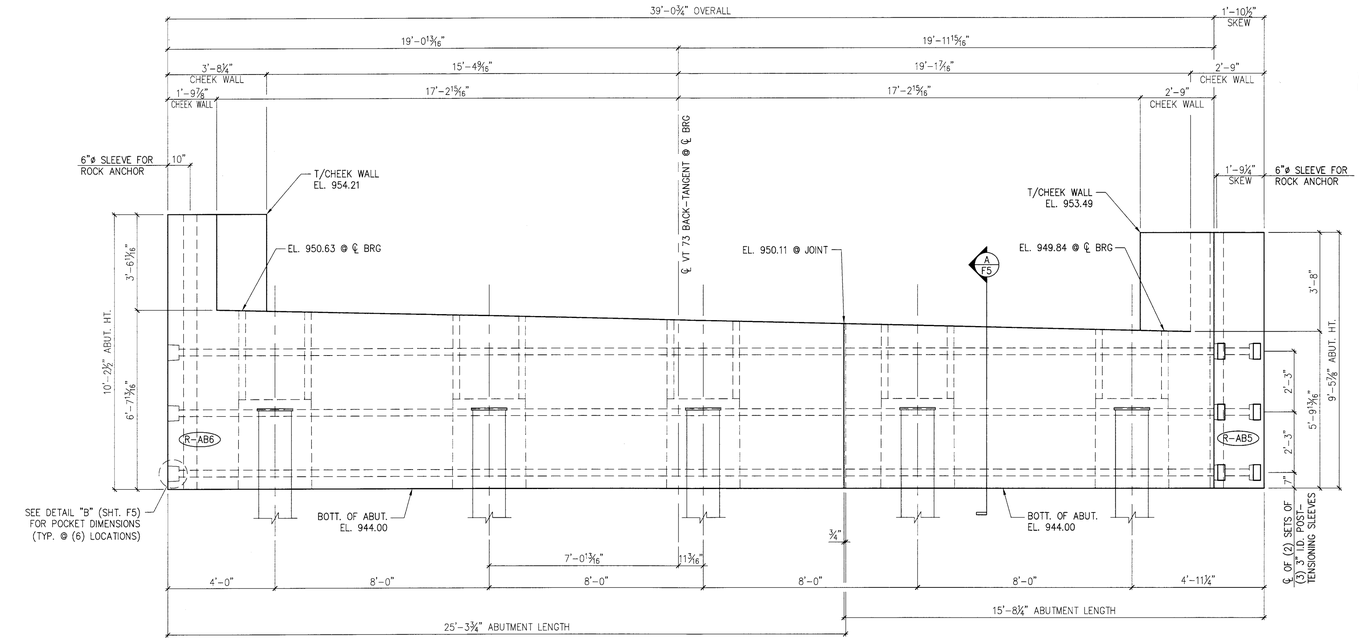
STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF WINDSOR

TOWN OF ROCHESTER
VT ROUTE 73 (RURAL MAJOR COLLECTOR)
BRIDGE NO.: 16 PROJECT NO.: BRF 0162 (17)

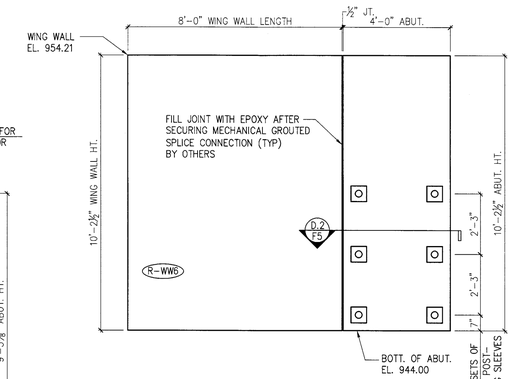
TRANSVERSE SECTIONS & DETAILS

DATE:	MAR. 14, 2014
SCALE:	NOTED
CHKD:	DFTM: AAT/RWS JJ/KLT
JOB NO:	23419-013
DWG. NO:	F3

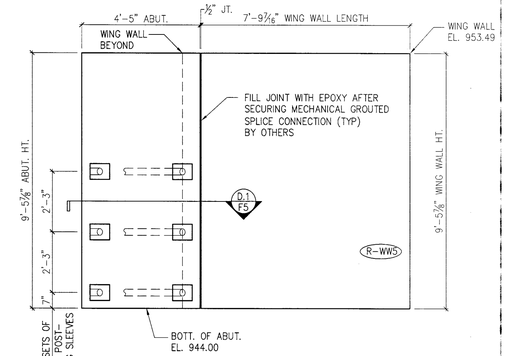
S:\Engineering Services\Carrara\14002 Rochester BR 15 & 16\Production Drawings\AutoCAD Files\Bridge 16\BR.16 - FR-1 (2).dwg, 3/14/2014 4:19:44 PM



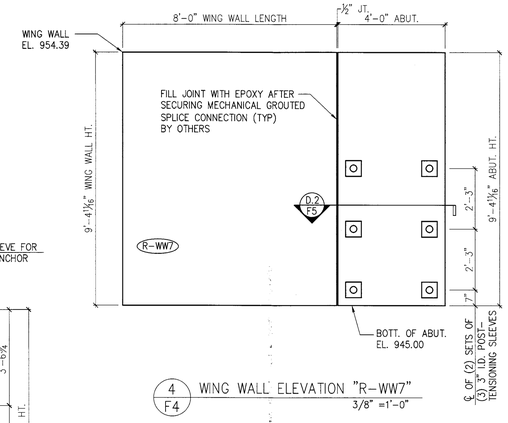
2 F4 ABUTMENT #3 ELEVATION
3/8" =1'-0"



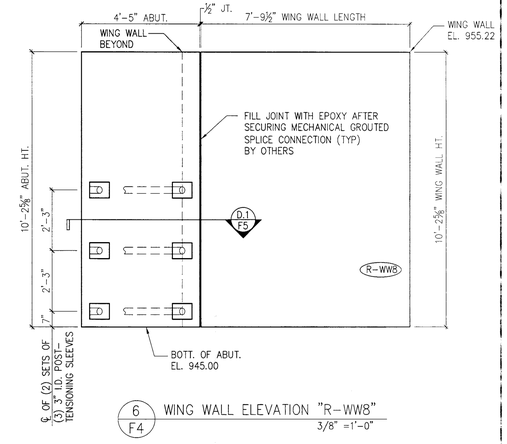
1 F4 WING WALL ELEVATION "R-WW6"
3/8" =1'-0"



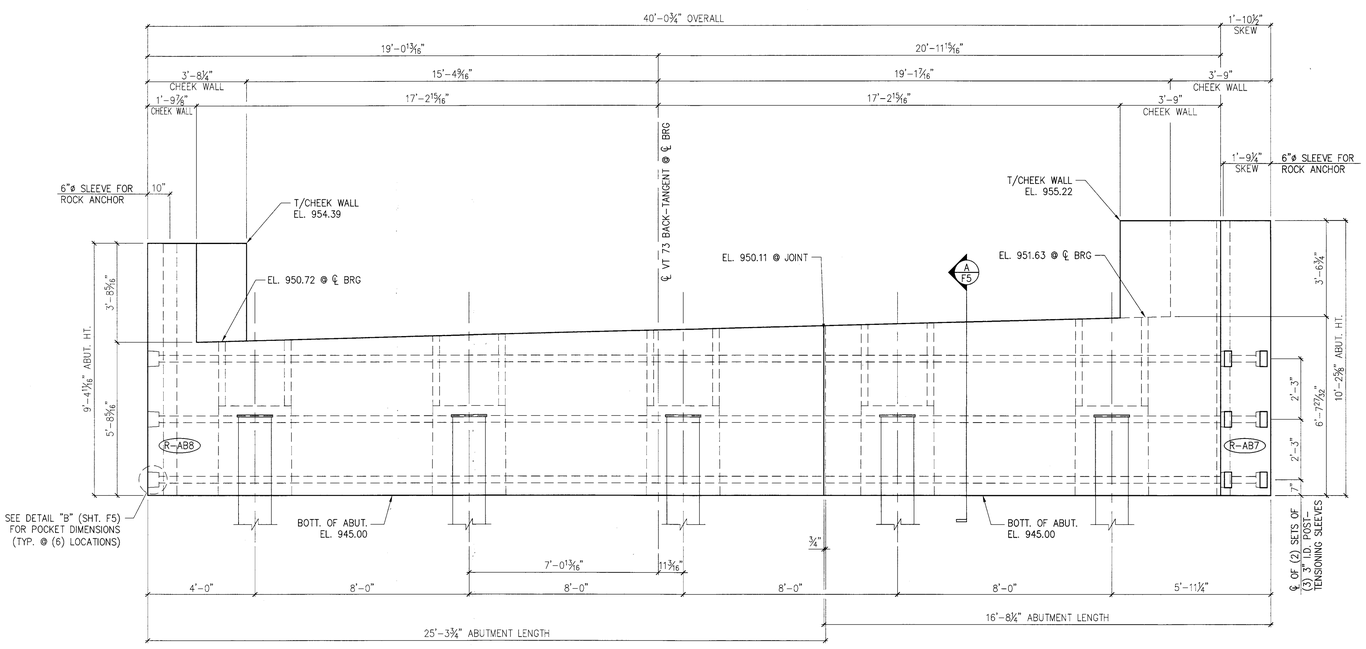
3 F4 WING WALL ELEVATION "R-WW5"
3/8" =1'-0"



4 F4 WING WALL ELEVATION "R-WW7"
3/8" =1'-0"



6 F4 WING WALL ELEVATION "R-WW8"
3/8" =1'-0"



5 F4 ABUTMENT #4 ELEVATION
3/8" =1'-0"

SUBMITTED
MAR 14 2014
J. P. CARRARA & SONS, INC.
MIDDLEBURY, VT 05753

APPROVAL STAMP:

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
2464 CASE STR., MIDDLEBURY, VERMONT 05753 Phone:(802)388-6361 Fax:(802)388-9010

W.M. SCHULTZ CONSTRUCTION, INC.
PO BOX 2620
BALLSTON SPA, NY 12020

STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF WINDSOR

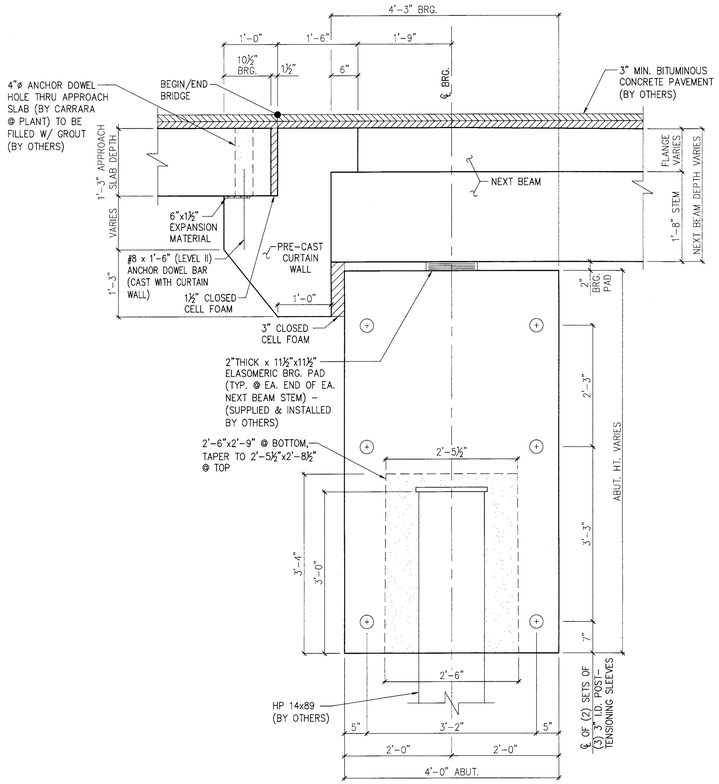
TOWN OF ROCHESTER
VT ROUTE 73 (RURAL MAJOR COLLECTOR)
BRIDGE NO.: 16 PROJECT NO.: BRF 0162 (17)

ABUTMENT ELEVATIONS

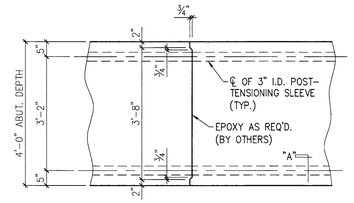
DATE: MAR. 14, 2014
SCALE: NOTED
CHKD: DFTM: AAT/RWS JJJ/KLT
JOB NO: 23419-013
DWG. NO: F4

Eriksson technologies
813.989.3317
TAMPA, FL LRFD.COM
© 2014 ERIKSSON TECHNOLOGIES, INC. ALL RIGHTS RESERVED

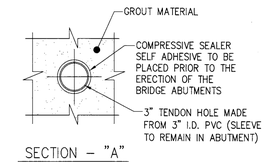
S:\Engineering Services\Carrara\14002 Rochester BR 15 & 16\Production Drawings\AutoCAD Files\Bridge 16\BR 16 - FR-1 (2).dwg, 3/14/2014 4:19:45 PM



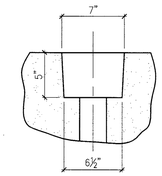
A / F5 BEARING SECTION
NEXT BEAM STEM BEARING 3/4" =1'-0"



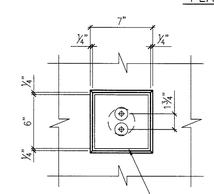
C / F5 MATCH CAST SECTION @ P.T. SLEEVE
1/2" =1'-0"



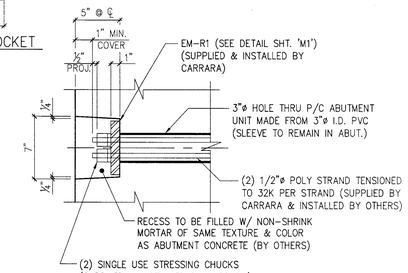
SECTION - "A"
1 1/2" =1'-0"



PLAN OF POCKET

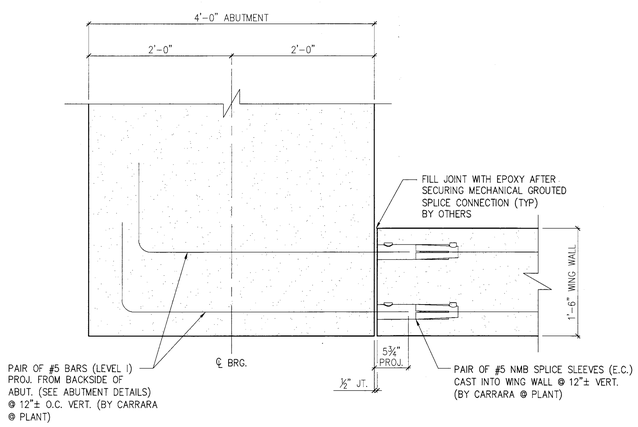


ABUTMENT ELEVATION

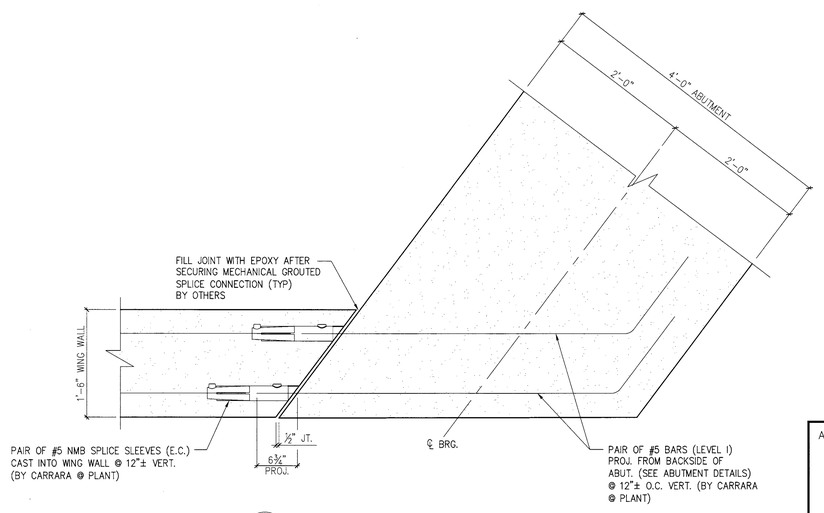


SECTION AT CENTERLINE

DETAIL - "B"
1 1/2" =1'-0"



D.1 / F5 WING WALL CONNECTION DETAIL
1" =1'-0"



D.2 / F5 WING WALL CONNECTION DETAIL
1" =1'-0"

SUBMITTED
MAR 14 2014
J. P. CARRARA & SONS, INC.
MIDDLEBURY, VT 05733

APPROVAL STAMP:

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
2464 CASE STR., MIDDLEBURY, VERMONT 05753 Phone:(802)388-6361 Fax:(802)388-9010

W.M. SCHULTZ CONSTRUCTION, INC.
PO BOX 2620
BALLSTON SPA, NY 12020

Eriksson technologies
813.989.3317
TAMPA, FL LRFD.COM

© 2014 ERIKSSON TECHNOLOGIES, INC. ALL RIGHTS RESERVED

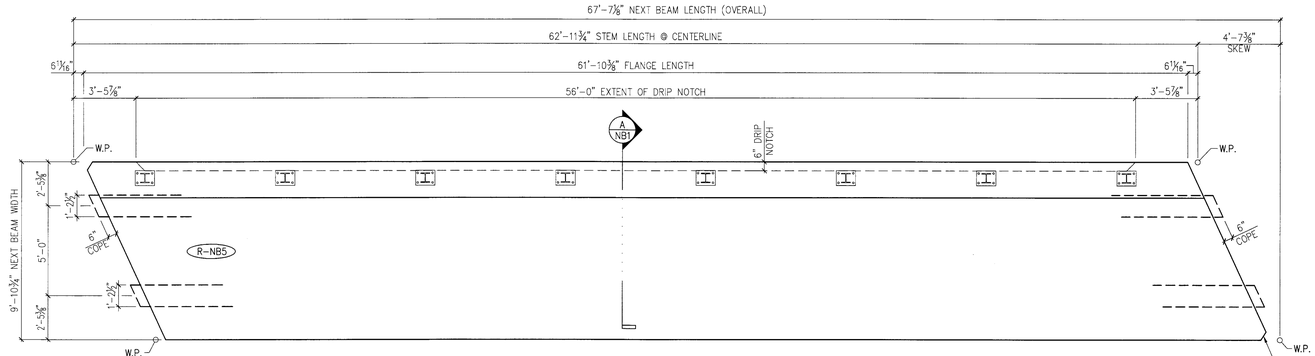
STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF WINDSOR

TOWN OF ROCHESTER
VT ROUTE 73 (RURAL MAJOR COLLECTOR)
BRIDGE NO.: 16 PROJECT NO.: BRF 0162 (17)

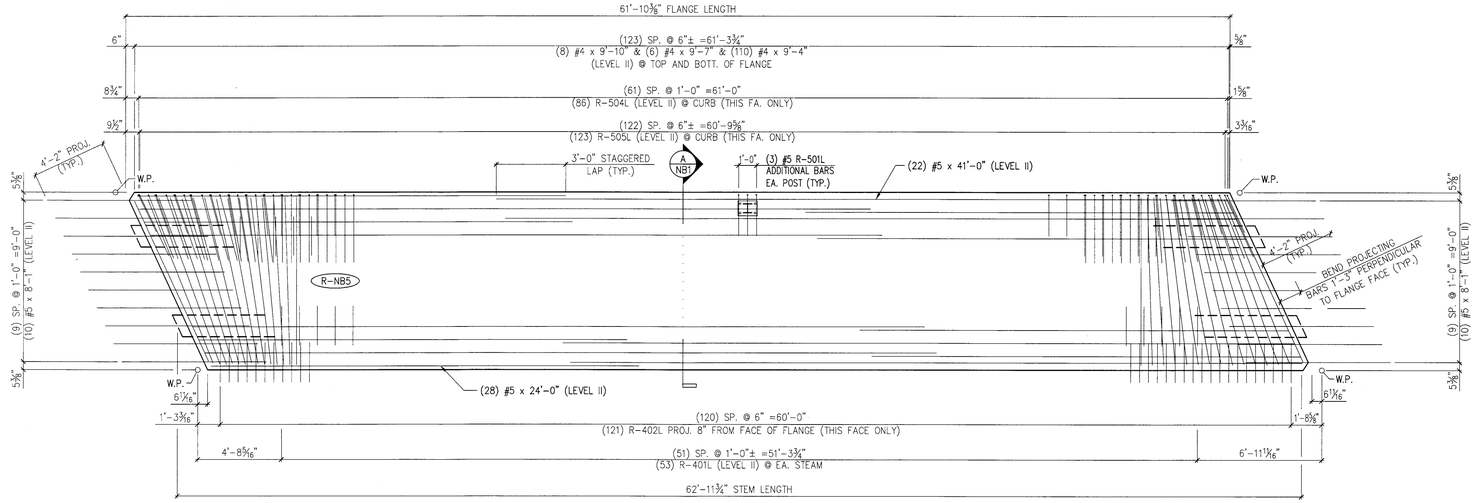
ABUTMENT DETAILS

DATE:	MAR. 14, 2014
SCALE:	NOTED
CHKD:	DFTM: AAT/RWS JJ/KLT
JOB NO:	23419-013
DWG. NO:	F5

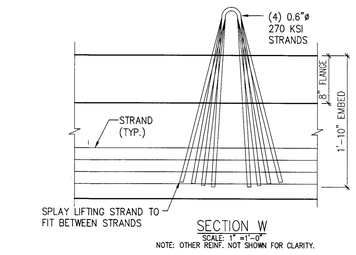
S:\Engineering Services\Carrara\14002 Rochester BR 15 & 16\Production Drawings\AutoCAD Files\Bridge 16\BR.16 - FR-1 (2).dwg, 3/14/2014 4:19:47 PM



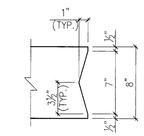
1 NB1 DIMENSIONAL PLAN VIEW IN FORM
1/4" =1'-0"



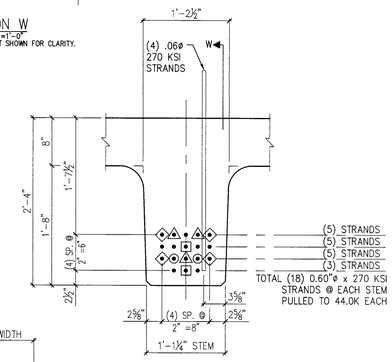
2 NB1 REINFORCING PLAN VIEW IN FORM
ALL DIMENSIONS INDICATED ARE PARALLEL OR PERPENDICULAR TO ℄ OF STEMS U.N.O.
1/4" =1'-0"



SECTION W
SCALE: 1" =1'-0"
NOTE: OTHER REINF. NOT SHOWN FOR CLARITY.



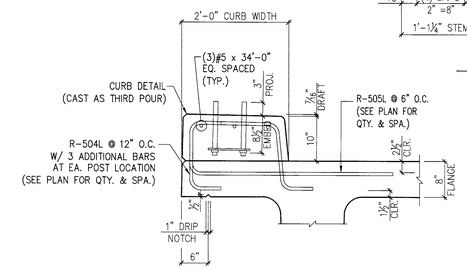
DETAIL – "A"
1 1/2" =1'-0"



DETAIL – "C" (STEM STRAND PATTERN)
1" =1'-0"

PRESTRESSING NOTATIONS

- DENOTES STRAIGHT STRANDS TO BE CUT FLUSH WITH EA. END OF EA. STEM
- DENOTES STRAIGHT STRANDS TO PROJECT 1'-6" FROM EA. END OF EA. STEM
- DENOTES STRAIGHT STRANDS TO BE DEBONDED 6" FROM EA. END OF EA. STEM
- DENOTES STRAIGHT STRANDS TO BE DEBONDED 8'-0" FROM EA. END OF EA. STEM
- DENOTES STRAIGHT STRANDS TO BE DEBONDED 12'-0" FROM EA. END OF EA. STEM



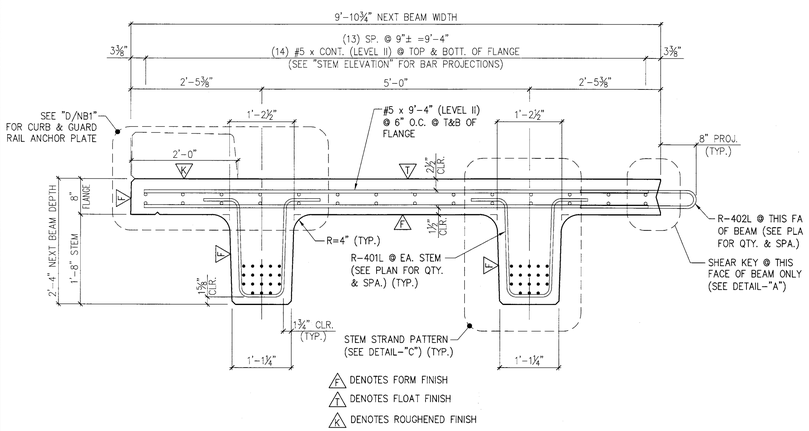
D NB1 REINFORCING @ CURB
3/4" =1'-0"

DETENSIONING SCHEDULE
N.T.S.

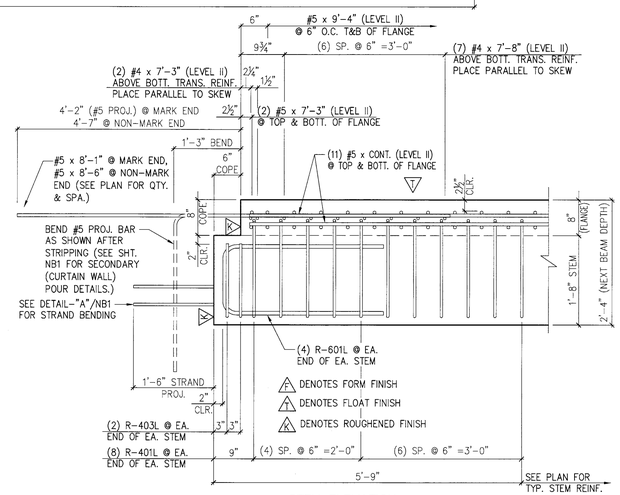
MARK: R-NB5	QTY.: 1	WT.: 49.0 T	VOL.: 24.15 cy
TOTAL WITH CURTAIN WALLS & CURB –		WT.: 17.0 T	VOL.: 8.41 cy

MATERIAL LIST / NEXT BEAM

ITEM	MARK	DESCRIPTION	QTY.
1	R-401L	#4 BENT BAR (LEVEL II, DUAL COATED)	128
2	R-402L	#4 BENT BAR (LEVEL II, DUAL COATED)	121
3	R-403L	#4 BENT BAR (LEVEL II, DUAL COATED)	8
4			
5	R-501L	#5 BENT BAR (LEVEL II, DUAL COATED)	86
6	R-502L	#5 BENT BAR (LEVEL II, DUAL COATED)	123
7			
8		#4 x 9'-4" (LEVEL II, DUAL COATED)	16
9		#4 x 9'-7" (LEVEL II, DUAL COATED)	12
10		#4 x 9'-10" (LEVEL II, DUAL COATED)	220
11		#5 x 24'-0" (LEVEL II, DUAL COATED)	28
12		#5 x 41'-0" (LEVEL II, DUAL COATED)	28
13			
14	R-601L	#6 BENT BAR (LEVEL II, DUAL COATED)	8



A NB1 DIMENSIONAL & REINFORCING SECTION
3/4" =1'-0"



STEM ELEVATION

B NB1 END BLOCK STEM REINFORCING DETAILS
3/4" =1'-0"

SUBMITTED
MAR 14 2014
J. P. CARRARA & SONS, INC.
MIDDLEBURY, VT 05753

APPROVAL STAMP:

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
2464 CASE STR., MIDDLEBURY, VERMONT 05753 Phone:(802)388-6361 Fax:(802)388-9010

W.M. SCHULTZ CONSTRUCTION, INC.
PO BOX 2620
BALLSTON SPA, NY 12020

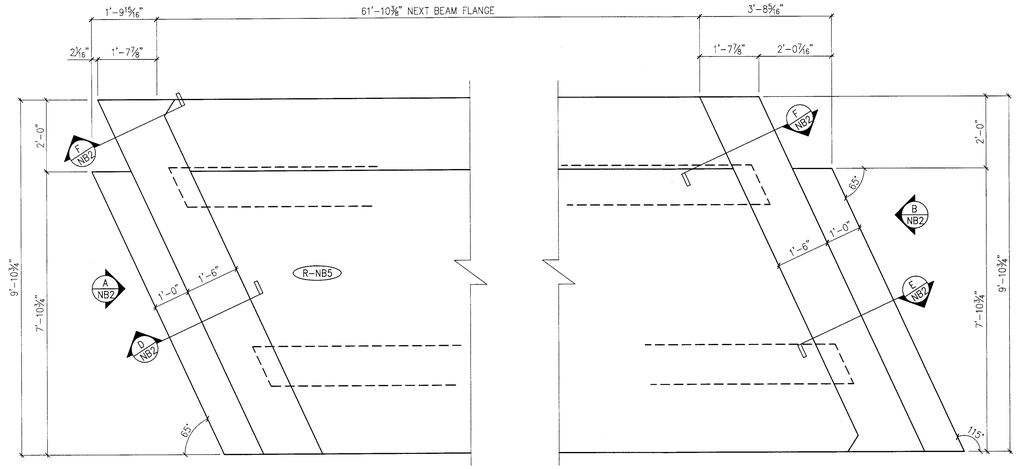
STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF WINDSOR

TOWN OF ROCHESTER
VT ROUTE 73 (RURAL MAJOR COLLECTOR)
BRIDGE NO.: 16 PROJECT NO.: BRF 0162 (17)

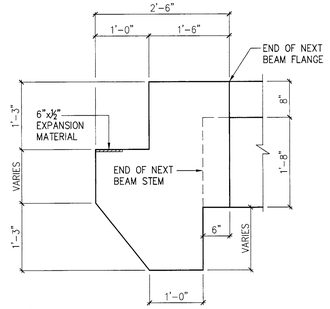
DATE: MAR. 14, 2014
SCALE: NOTED
CHKD: DFTM: AAT/RWS JJJ/KLT
JOB NO: 23419-013
DWG. NO: NB1

Eriksson technologies
813.989.3317
TAMPA, FL LRFD.COM
© 2014 ERIKSSON TECHNOLOGIES, INC. ALL RIGHTS RESERVED

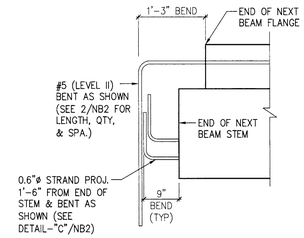
S:\Engineering Services\Carrara\14002 Rochester BR 15 & 16\Production Drawings\AutoCAD Files\Bridge 16\BR_16 - R-NB1.dwg, 3/14/2014 4:19:50 PM



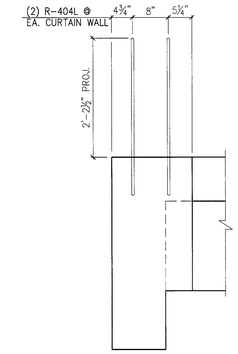
1 NB2 CURTAIN WALL PLAN VIEW IN FORM
(CAST AS SECONDARY POUR, AFTER DETENSIONING) 1/2" =1'-0"



C NB2 DIMENSIONAL CURTAIN WALL SECTION
3/4" =1-0"

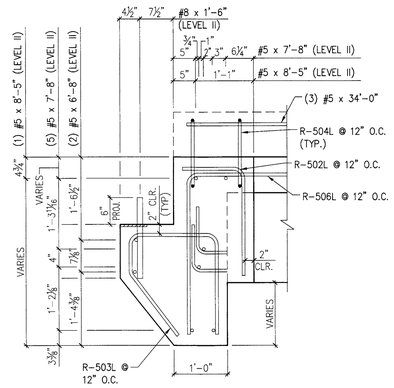


DETAIL "A" – END OF NEXT BEAM (TYP.)
(PRIOR TO CASTING CURTAIN WALL) 3/4" =1'-0"

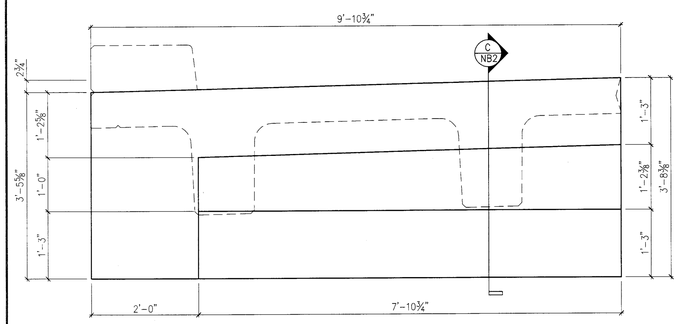


F NB2 CURTAIN WALL SECTION
3/4" =1-0"

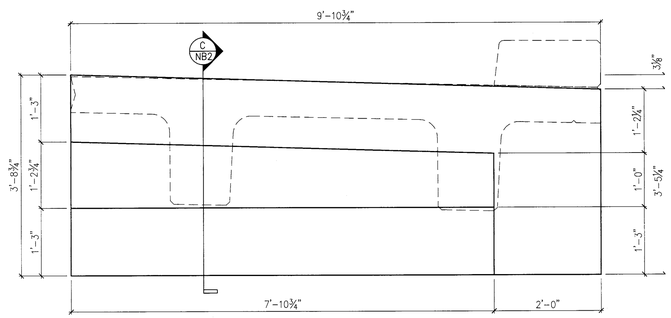
NOTE: OTHER REINF. NOT SHOWN FOR CLARITY.



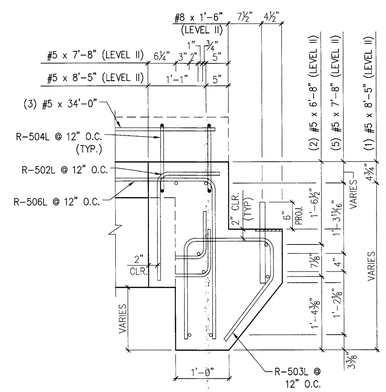
D NB2 REINFORCING CURTAIN WALL SECTION
3/4" =1-0"



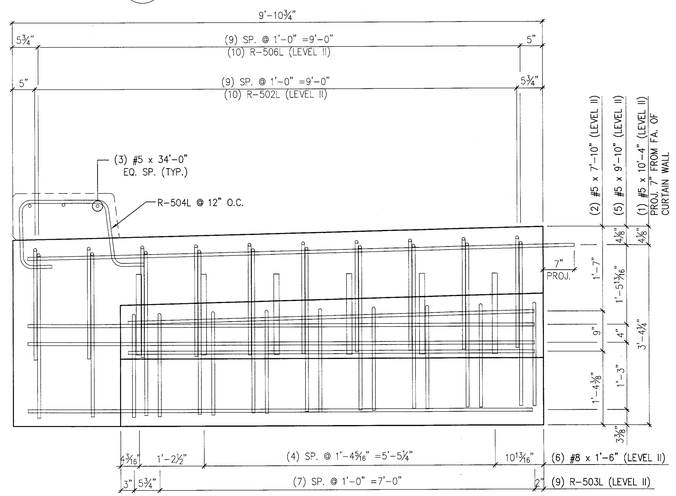
A NB2 DIMENSIONAL CURTAIN WALL ELEVATION @ ABUT. #1
3/4" =1-0"



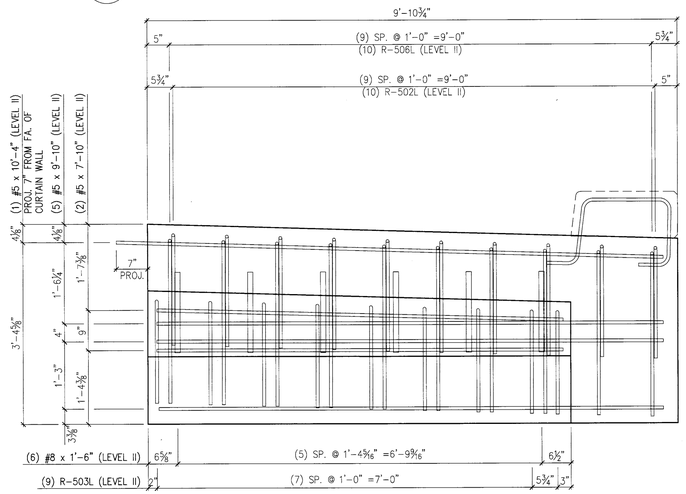
B NB2 DIMENSIONAL CURTAIN WALL ELEVATION @ ABUT. #2
3/4" =1-0"



E NB2 REINFORCING CURTAIN WALL SECTION
3/4" =1-0"



A NB2 REINFORCING CURTAIN WALL ELEVATION @ ABUT. #1
3/4" =1-0"



A NB2 REINFORCING CURTAIN WALL ELEVATION @ ABUT. #1
3/4" =1-0"

SUBMITTED
MAR 14 2014
J.P. CARRARA & SONS, INC
MIDDLEBURY, VT 05753

MARK:	R-NB5	QTY.: 1	WT.: 8.0 T	VOL.: 3.96 cy

MATERIAL LIST / CURTAIN WALLS

ITEM	MARK	DESCRIPTION	QTY.
1	R-404L	#4 BENT BAR (LEVEL II, DUAL COATED)	4
2			
3	R-502L	#5 BENT BAR (LEVEL II, DUAL COATED)	20
4	R-504L	#5 BENT BAR (LEVEL II, DUAL COATED)	4
5	R-506L	#5 BENT BAR (LEVEL II, DUAL COATED)	20
6	R-508L	#5 BENT BAR (LEVEL II, DUAL COATED)	18
7			
8		#5 x 7'-10" (LEVEL II, DUAL COATED)	4
9		#5 x 9'-10" (LEVEL II, DUAL COATED)	10
10		#5 x 10'-4" (LEVEL II, DUAL COATED)	2
11		#5 x 34'-0" (LEVEL II, DUAL COATED)	6
12			
13		#8 x 1'-6" (LEVEL II, DUAL COATED)	12
14			

APPROVAL STAMP:

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
2484 CASE STR., MIDDLEBURY, VERMONT 05753 Phone:(802)388-6361 Fax:(802)388-9010

W.M. SCHULTZ CONSTRUCTION, INC.
PO BOX 2620
BALLSTON SPA, NY 12020

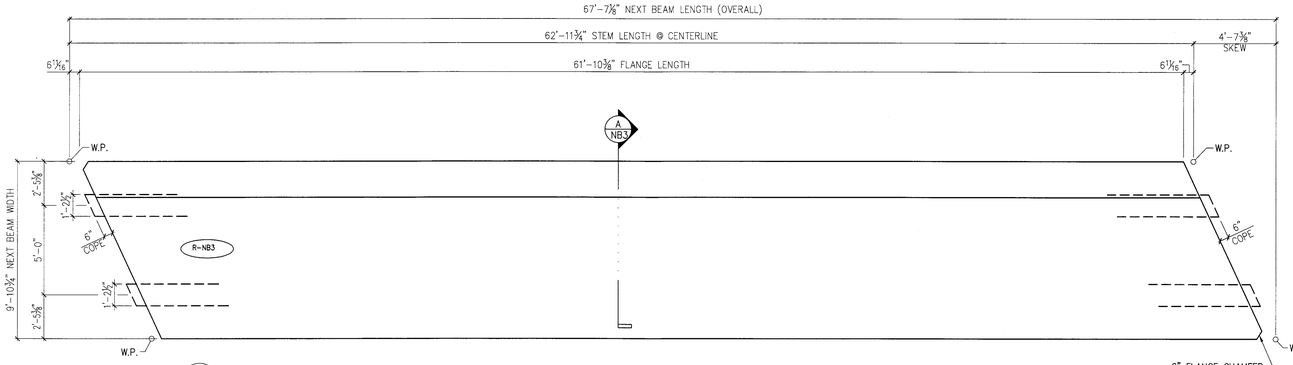
STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF WINDSOR

TOWN OF ROCHESTER
VT ROUTE 73 (RURAL MAJOR COLLECTOR)
BRIDGE NO.: 16 PROJECT NO.: BRF 0162 (17)

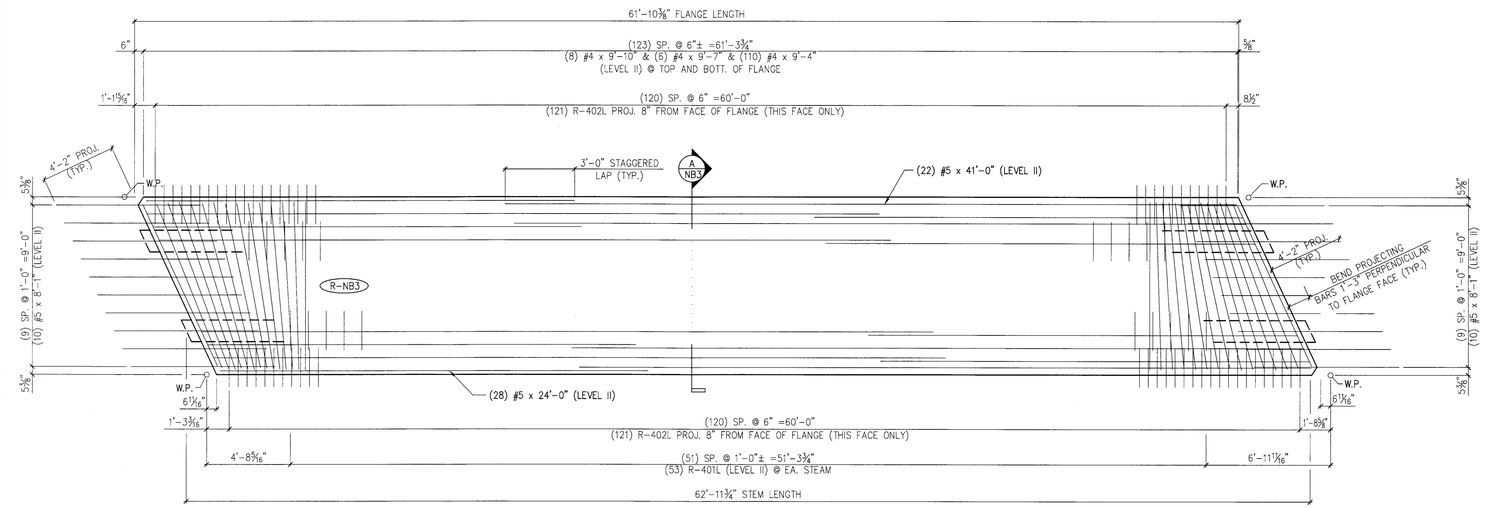
DATE: MAR. 14, 2014
SCALE: NOTED
CHKD: DFTM: NAT/RWS JLJ/KLT
JOB NO: 23419-013
DWG. NO: NB2

Eriksson technologies
813.989.3317
TAMPA, FL LRFD.COM
© 2014 ERIKSSON TECHNOLOGIES, INC. ALL RIGHTS RESERVED

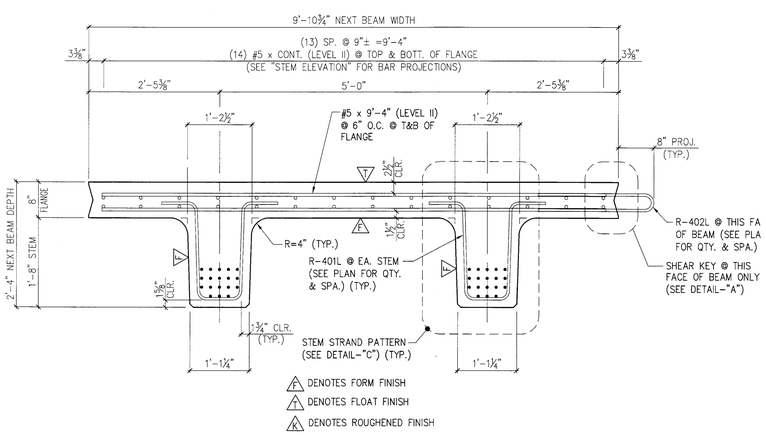
S:\Engineering Services\Carrara\14002 Rochester BR 15 & 16\Production Drawings\AutoCAD Files\Bridge 16\BR 16 - R-NB1.dwg, 3/14/2014 4:19:53 PM



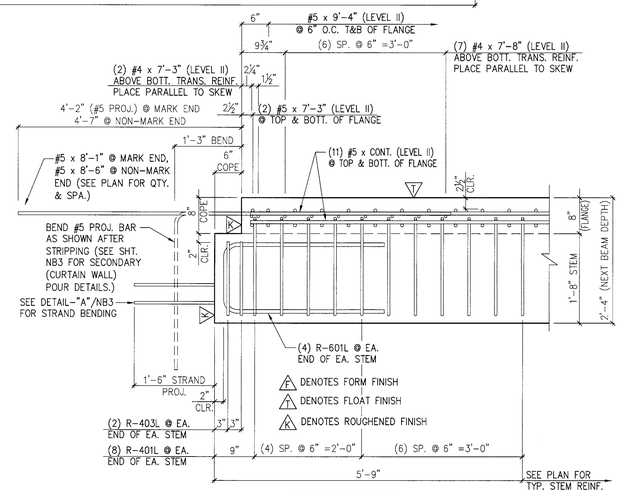
1 NB3 DIMENSIONAL PLAN VIEW IN FORM
1/4" =1'-0"



2 NB3 REINFORCING PLAN VIEW IN FORM
ALL DIMENSIONS INDICATED ARE PARALLEL OR PERPENDICULAR TO ℄ OF STEMS U.N.O.
1/4" =1'-0"

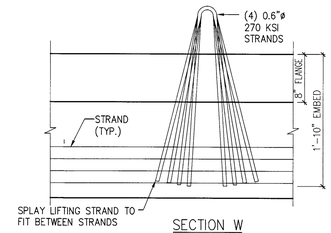


A NB3 DIMENSIONAL & REINFORCING SECTION
3/4" =1'-0"

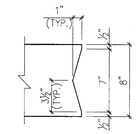


STEM ELEVATION

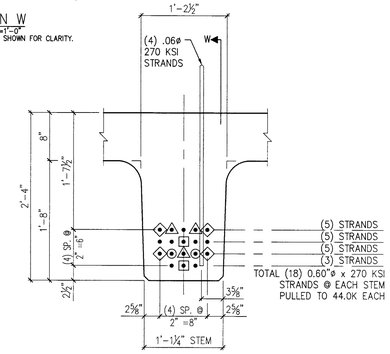
B NB3 END BLOCK STEM REINFORCING DETAILS
3/4" =1'-0"



SECTION W
SCALE: 3" =1'-0"
NOTE: OTHER REINF. NOT SHOWN FOR CLARITY.



DETAIL – "A"
1 1/2" =1'-0"



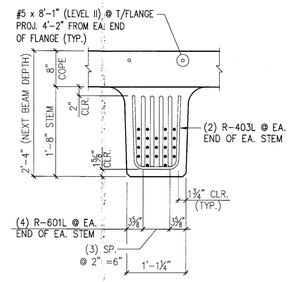
DETAIL – "C" (STEM STRAND PATTERN)
1" =1'-0"

PRESTRESSING NOTATIONS

- DENOTES STRAIGHT STRANDS TO BE CUT FLUSH WITH EA. END OF EA. STEM
- DENOTES STRAIGHT STRANDS TO PROJECT 1'-6" FROM EA. END OF EA. STEM
- DENOTES STRAIGHT STRANDS TO BE DEBONDED 6" FROM EA. END OF EA. STEM
- DENOTES STRAIGHT STRANDS TO BE DEBONDED 6'-0" FROM EA. END OF EA. STEM
- DENOTES STRAIGHT STRANDS TO BE DEBONDED 12'-0" FROM EA. END OF EA. STEM

DETENSIONING SCHEDULE
N.T.S.

SUBMITTED
MAR 14 2014
J. P. CARRARA & SONS, INC.
MIDDLEBURY, VT 05753



STEM SECTION

MARK: R-NB6	QTY.: 1	WT.: 49.0 T	VOL.: 24.15 cy
TOTAL WITH CURTAIN WALLS –		WT.: 10.56 T	VOL.: 5.28 cy

MATERIAL LIST / NEXT BEAM

ITEM	MARK	DESCRIPTION	QTY.
1	R-401L	#4 BENT BAR (LEVEL II, DUAL COATED)	128
2	R-402L	#4 BENT BAR (LEVEL II, DUAL COATED)	242
3	R-403L	#4 BENT BAR (LEVEL II, DUAL COATED)	8
4			
5			
6			
7			
8		#4 x 9'-4" (LEVEL II, DUAL COATED)	16
9		#4 x 9'-7" (LEVEL II, DUAL COATED)	12
10		#4 x 9'-10" (LEVEL II, DUAL COATED)	220
11		#5 x 24'-0" (LEVEL II, DUAL COATED)	28
12		#5 x 41'-0" (LEVEL II, DUAL COATED)	28
13			
14	R-601L	#6 BENT BAR (LEVEL II, DUAL COATED)	8

APPROVAL STAMP:

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
2464 CASE STR., MIDDLEBURY, VERMONT 05753 Phone:(802)388-6361 Fax:(802)388-9010

W.M. SCHULTZ CONSTRUCTION, INC.
PO Box 2620
BALLSTON SPA, NY 12020

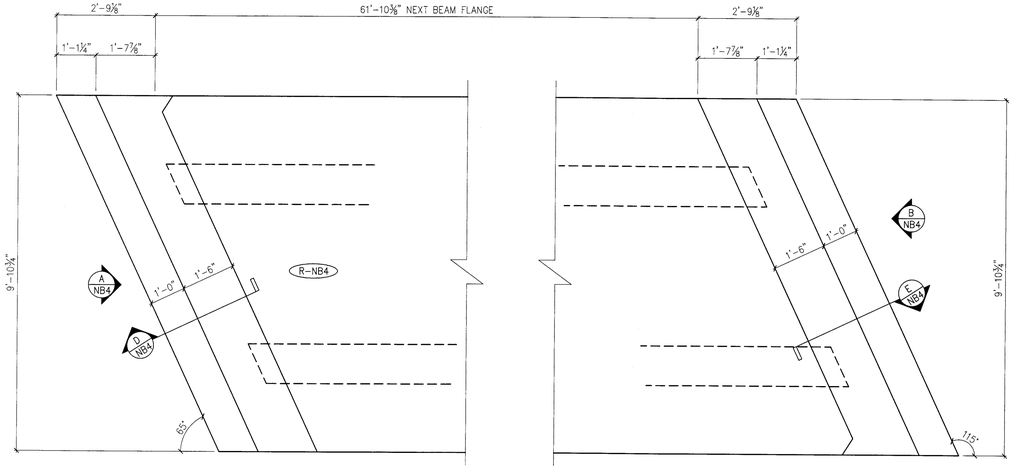
STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF WINDSOR

TOWN OF ROCHESTER
VT ROUTE 73 (RURAL MAJOR COLLECTOR)
BRIDGE NO.: 16 PROJECT NO.: BRF 0162 (17)

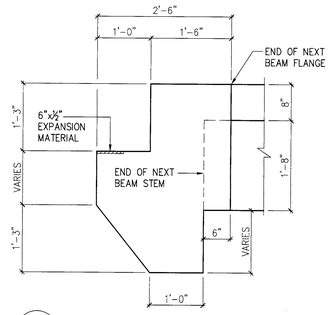
DATE: MAR. 14, 2014
SCALE: NOTED
CHKD: DFTM: AAT/RWS JJ/KLT
JOB NO: 23419-013
DWG. NO: NB3

Eriksson technologies
813.989.3317
TAMPA, FL LRFD.COM
© 2014 ERIKSSON TECHNOLOGIES, INC. ALL RIGHTS RESERVED

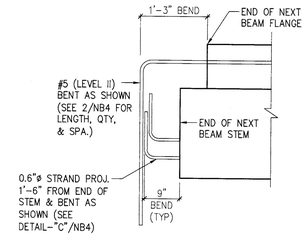
S:\Engineering Services\Carrara\14002 Rochester BR 15 & 16\Production Drawings\AutoCAD Files\Bridge 16\BR. 16 - R-NB2.dwg, 3/14/2014 4:19:56 PM



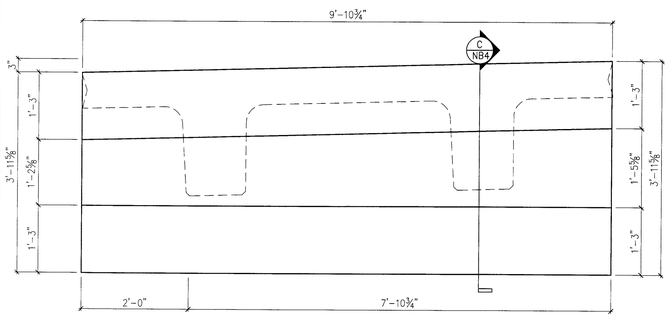
1 NB4 CURTAIN WALL PLAN VIEW IN FORM
(CAST AS SECONDARY POUR, AFTER DETENSIONING) 1/2" =1'-0"



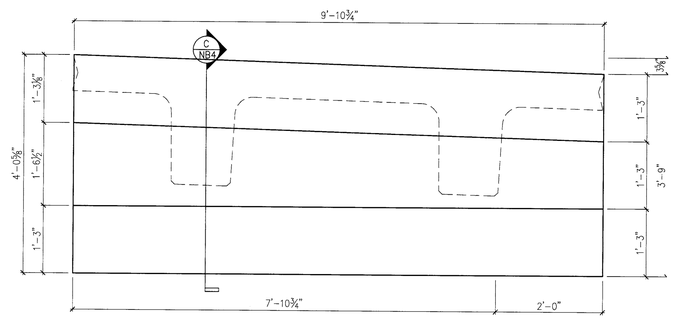
C NB4 DIMENSIONAL CURTAIN WALL SECTION
3/4" =1-0"



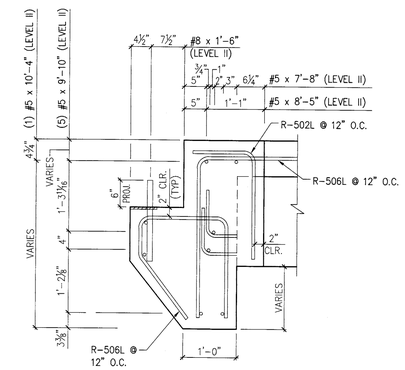
DETAIL "A" – END OF NEXT BEAM (TYP.)
(PRIOR TO CASTING CURTAIN WALL) 3/4" =1'-0"



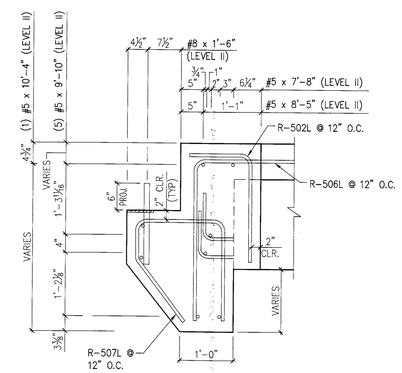
A NB4 DIMENSIONAL CURTAIN WALL ELEVATION @ ABUT. #1
3/4" =1-0"



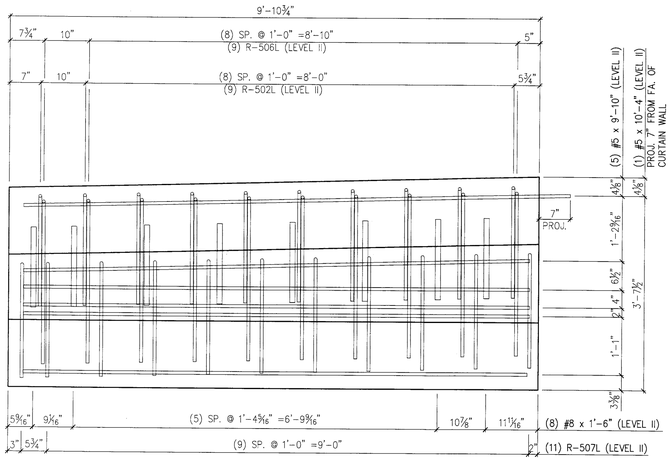
B NB4 DIMENSIONAL CURTAIN WALL ELEVATION @ ABUT. #2
3/4" =1-0"



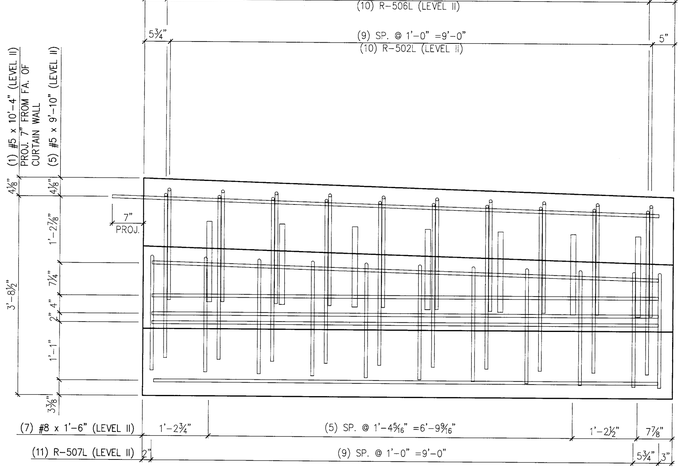
D NB4 REINFORCING CURTAIN WALL SECTION
3/4" =1-0"



E NB4 REINFORCING CURTAIN WALL SECTION
3/4" =1-0"



A NB4 REINFORCING CURTAIN WALL ELEVATION @ ABUT. #1
3/4" =1-0"



A NB4 REINFORCING CURTAIN WALL ELEVATION @ ABUT. #1
3/4" =1-0"

SUBMITTED
MAR 14 2014
J.P. CARRARA & SONS, INC.
MIDDLEBURY, VT 05753

MARK: R–NB6	QTY.: 1	WT.: 8.0 T	VOL.: 3.96 cy

MATERIAL LIST / CURTAIN WALLS

ITEM	MARK	DESCRIPTION	QTY.
1			
2			
3	R–502L	#5 BENT BAR (LEVEL II, DUAL COATED)	20
4	R–506L	#5 BENT BAR (LEVEL II, DUAL COATED)	20
5	R–507L	#5 BENT BAR (LEVEL II, DUAL COATED)	22
6			
7		#5 x 7'–10" (LEVEL II, DUAL COATED)	4
8		#5 x 9'–10" (LEVEL II, DUAL COATED)	10
9		#5 x 10'–4" (LEVEL II, DUAL COATED)	2
10		#5 x 34'–0" (LEVEL II, DUAL COATED)	6
11			
12		#8 x 1'–6" (LEVEL II, DUAL COATED)	15
13			
14			

APPROVAL STAMP:

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
2464 CASE STR., MIDDLEBURY, VERMONT 05753 Phone:(802)388–6361 Fax:(802)388–9010

W.M. SCHULTZ CONSTRUCTION, INC.
PO BOX 2620
BALLSTON SPA, NY 12020

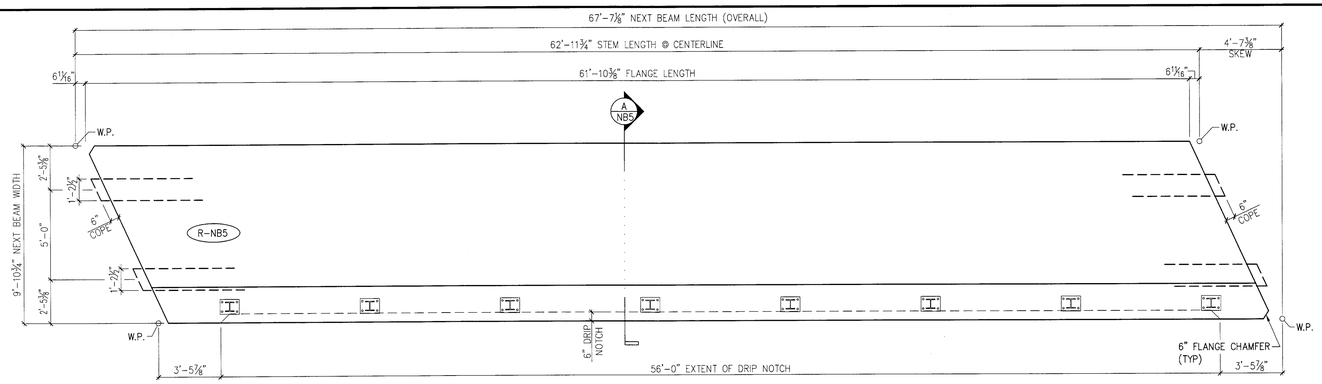
STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF WINDSOR

TOWN OF ROCHESTER
VT ROUTE 73 (RURAL MAJOR COLLECTOR)
BRIDGE NO.: 16 PROJECT NO.: BRF 0162 (17)

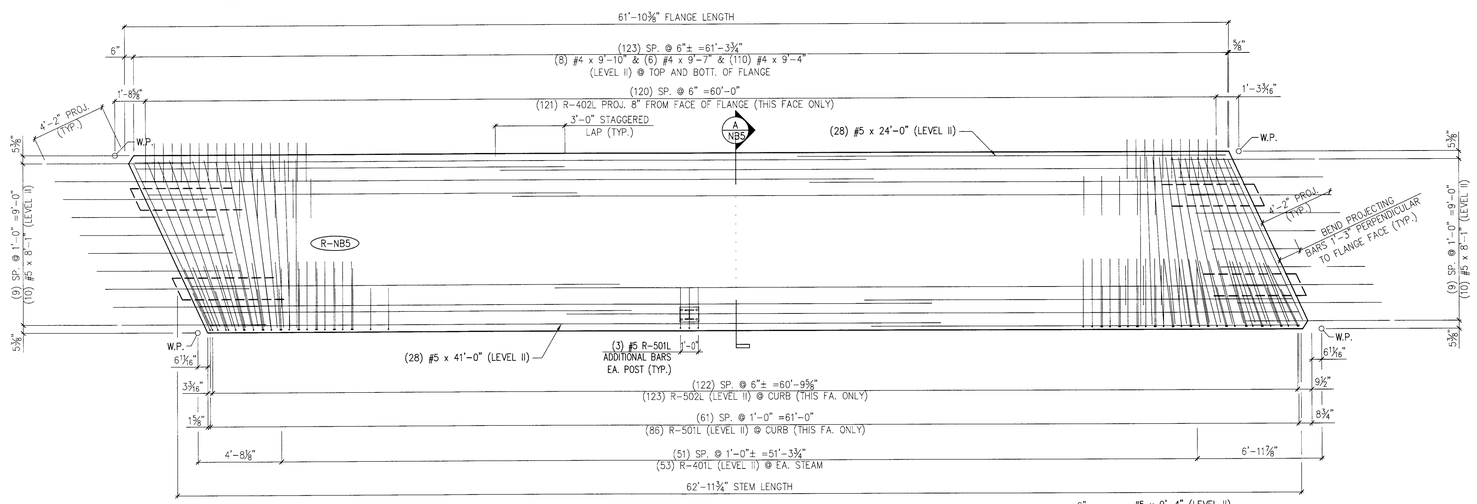
DATE: MAR. 14, 2014
SCALE: NOTED
CHKD: DFTM: AAT/RWS JLJ/KLT
JOB NO: 23419–013
DWG. NO: NB4

Eriksson technologies
813.989.3317
TAMPA, FL LRFD.COM
© 2014 ERIKSSON TECHNOLOGIES, INC. ALL RIGHTS RESERVED

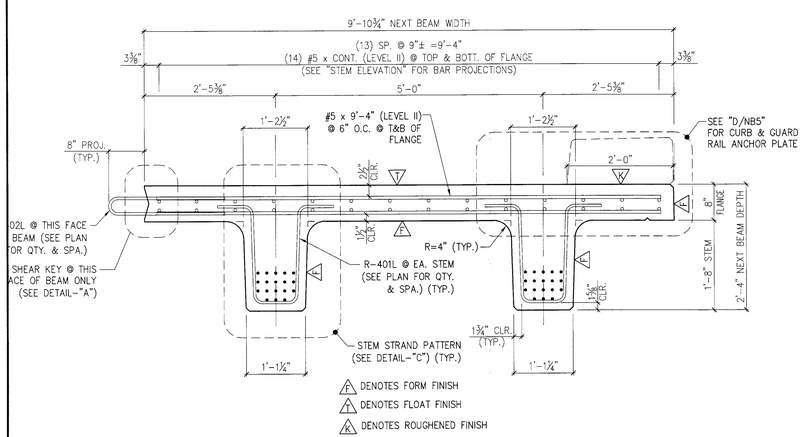
S:\Engineering Services\Carrara\14002 Rochester BR 15 & 16\Production Drawings\AutoCAD Files\Bridge 16\BR_16 - R-NB2.dwg, 3/14/2014 4:19:58 PM



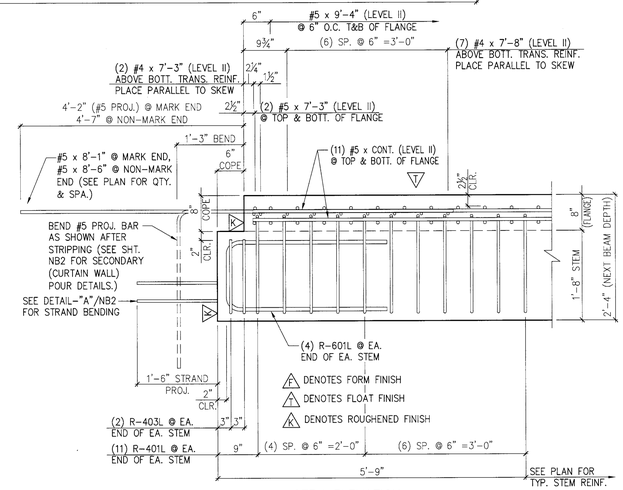
1 NB5 DIMENSIONAL PLAN VIEW IN FORM
1/4" =1'-0"



2 NB5 REINFORCING PLAN VIEW IN FORM
ALL DIMENSIONS INDICATED ARE PARALLEL OR PERPENDICULAR TO ℄ OF STEMS U.N.O.
1/4" =1'-0"

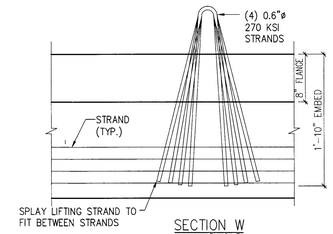


A NB5 DIMENSIONAL & REINFORCING SECTION
3/4" =1'-0"

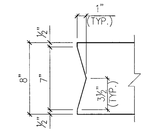


STEM ELEVATION

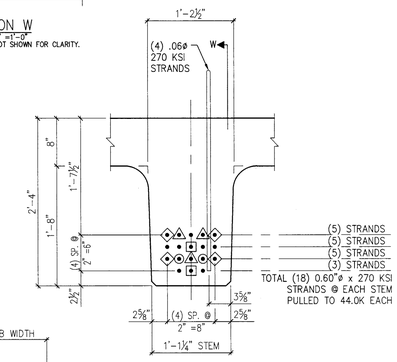
B NB5 END BLOCK STEM REINFORCING DETAILS
3/4" =1'-0"



SECTION W
SCALE: 1" =1'-0"
NOTE: OTHER REINF. NOT SHOWN FOR CLARITY.



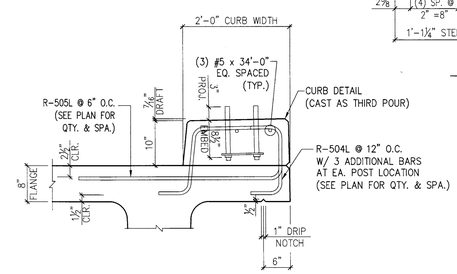
DETAIL – "A"
1 1/2" =1'-0"

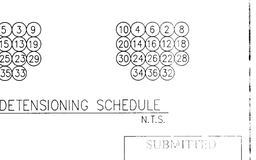


DETAIL – "C" (STEM STRAND PATTERN)
1" =1'-0"

PRESTRESSING NOTATIONS

- DENOTES STRAIGHT STRANDS TO BE CUT FLUSH WITH EA. END OF EA. STEM
- DENOTES STRAIGHT STRANDS TO PROJECT 1'-6" FROM EA. END OF EA. STEM
- DENOTES STRAIGHT STRANDS TO BE DEBONDED 6" FROM EA. END OF EA. STEM
- DENOTES STRAIGHT STRANDS TO BE DEBONDED 8'-0" FROM EA. END OF EA. STEM
- DENOTES STRAIGHT STRANDS TO BE DEBONDED 12'-0" FROM EA. END OF EA. STEM

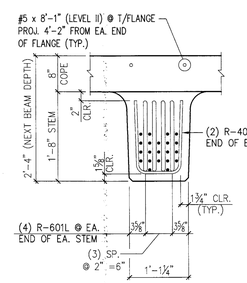




DETENSIONING SCHEDULE
N.T.S.

SUBMITTED
MAR 14 2014
J.P. CARRARA & SONS, INC.
MIDDLEBURY, VT 05753

D NB5 REINFORCING @ CURB
3/4" =1'-0"



STEM SECTION

MARK: R-NB7	QTY.: 1	WT.: 49.0 T	VOL.: 24.15 cy
TOTAL WITH CURTAIN WALLS & CURB –	WT.: 14.68 T	VOL.: 9.22 cy	

MATERIAL LIST / NEXT BEAM

ITEM	MARK	DESCRIPTION	QTY.
1	R-401L	#4 BENT BAR (LEVEL II, DUAL COATED)	128
2	R-402L	#4 BENT BAR (LEVEL II, DUAL COATED)	121
3	R-403L	#4 BENT BAR (LEVEL II, DUAL COATED)	8
4			
5	R-501L	#5 BENT BAR (LEVEL II, DUAL COATED)	86
6	R-502L	#5 BENT BAR (LEVEL II, DUAL COATED)	123
7			
8		#4 x 9'-4" (LEVEL II, DUAL COATED)	16
9		#4 x 9'-7" (LEVEL II, DUAL COATED)	12
10		#4 x 9'-10" (LEVEL II, DUAL COATED)	220
11		#5 x 24'-0" (LEVEL II, DUAL COATED)	28
12		#5 x 41'-0" (LEVEL II, DUAL COATED)	28
13			
14	R-601L	#6 BENT BAR (LEVEL II, DUAL COATED)	8

APPROVAL STAMP:

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
2464 CASE STR., MIDDLEBURY, VERMONT 05753 Phone:(802)388-6361 Fax:(802)388-9010

W.M. SCHULTZ CONSTRUCTION, INC.
PO BOX 2620
BALLSTON SPA, NY 12020

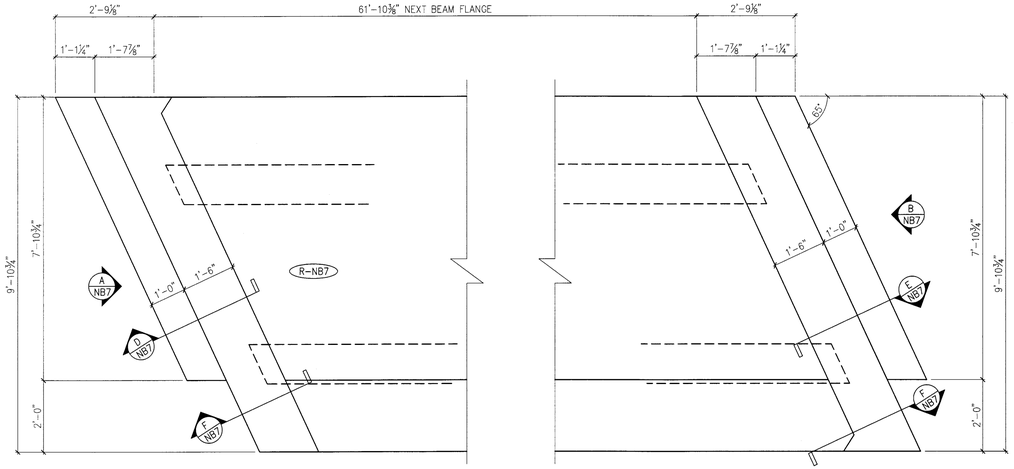
STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF WINDSOR

TOWN OF ROCHESTER
VT ROUTE 73 (RURAL MAJOR COLLECTOR)
BRIDGE NO.: 16 PROJECT NO.: BRF 0162 (17)

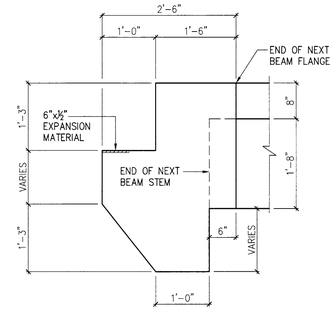
DATE: MAR. 14, 2014
SCALE: NOTED
CHKD: DFTM: AAT/RWS JJ/KLT
JOB NO: 23419-013
DWG. NO: NB5

Eriksson technologies
813.989.3317
TAMPA, FL LRFD.COM
© 2014 ERIKSSON TECHNOLOGIES, INC. ALL RIGHTS RESERVED

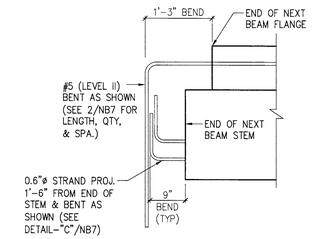
S:\Engineering Services\Carrara\14002 Rochester BR 15 & 16\Production Drawings\AutoCAD Files\Bridge 16\BR 16 - R-NB3.dwg, 3/14/2014 4:20:02 PM



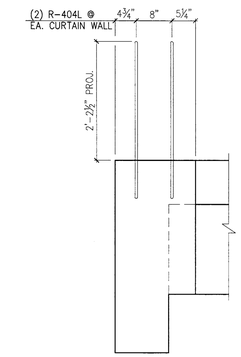
1 NB6 CURTAIN WALL PLAN VIEW IN FORM
(CAST AS SECONDARY POUR, AFTER DETENSIONING) 1/2" =1'-0"



C NB6 DIMENSIONAL CURTAIN WALL SECTION
3/4" =1'-0"

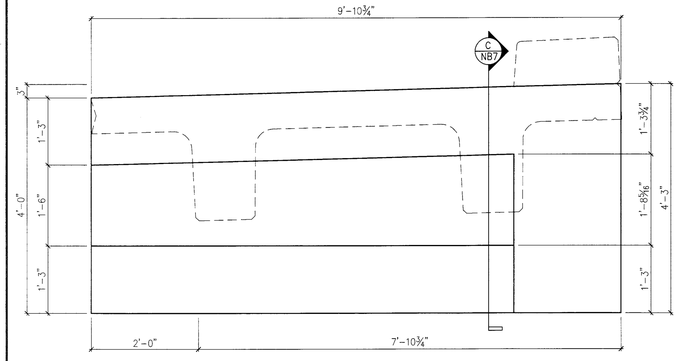


DETAIL "A" – END OF NEXT BEAM (TYP.)
(PRIOR TO CASTING CURTAIN WALL) 3/4" =1'-0"

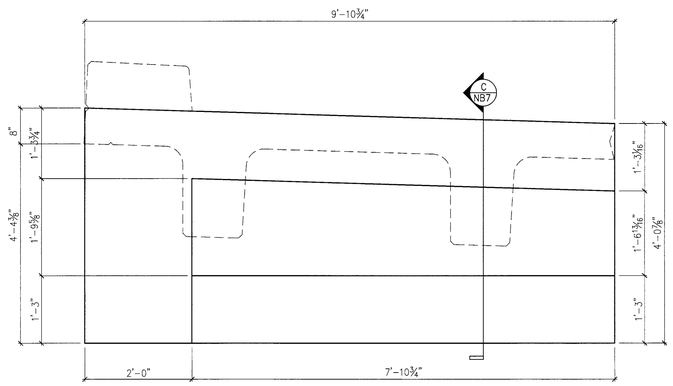


F NB6 CURTAIN WALL SECTION
3/4" =1'-0"

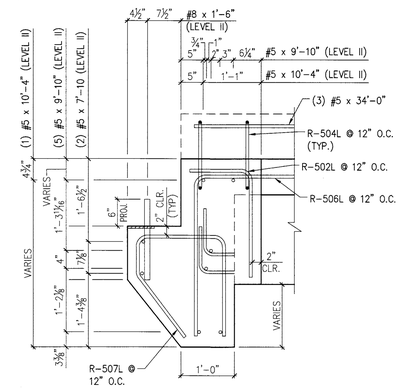
NOTE: OTHER REINF. NOT SHOWN FOR CLARITY.



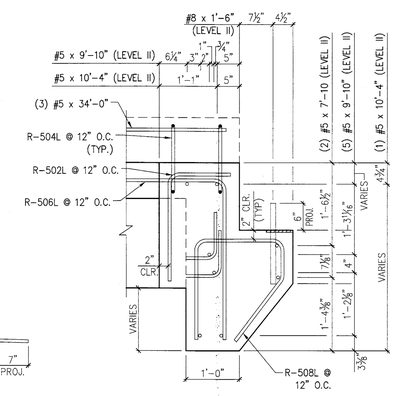
A NB6 DIMENSIONAL CURTAIN WALL ELEVATION @ ABUT. #1
3/4" =1'-0"



B NB6 DIMENSIONAL CURTAIN WALL ELEVATION @ ABUT. #2
3/4" =1'-0"



D NB6 REINFORCING CURTAIN WALL SECTION
3/4" =1'-0"



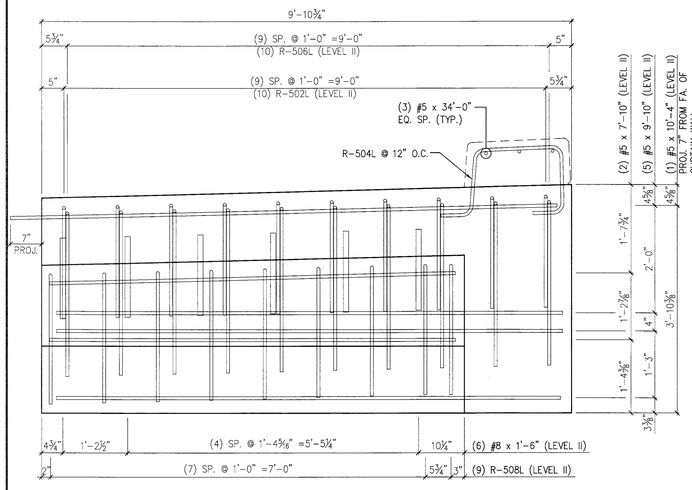
E NB6 REINFORCING CURTAIN WALL SECTION
3/4" =1'-0"

SUBMITTED
MAR 14 2014
J.P. CARRARA & SONS, INC.
MIDDLEBURY, VT 05753

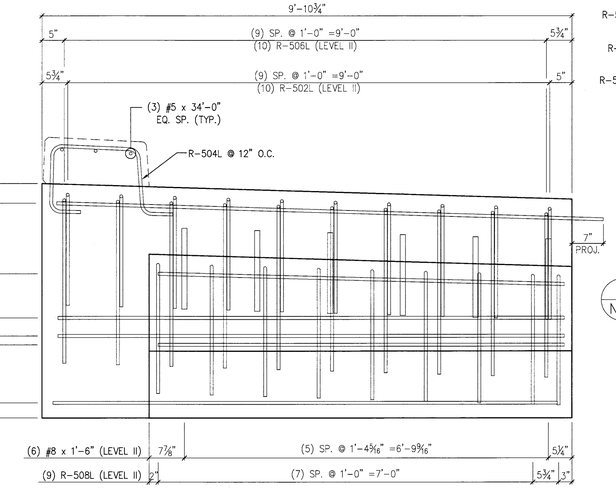
MARK: R-NB7	QTY.: 1	WT.: 8.0 T	VOL.: 3.96 cy

MATERIAL LIST / CURTAIN WALLS

ITEM	MARK	DESCRIPTION	QTY.
1	R-404L	#4 BENT BAR (LEVEL II, DUAL COATED)	4
2			
3	R-502L	#5 BENT BAR (LEVEL II, DUAL COATED)	20
4	R-504L	#5 BENT BAR (LEVEL II, DUAL COATED)	4
5	R-506L	#5 BENT BAR (LEVEL II, DUAL COATED)	20
6	R-508L	#5 BENT BAR (LEVEL II, DUAL COATED)	18
7			
8		#5 x 7'-10" (LEVEL II, DUAL COATED)	4
9		#5 x 9'-10" (LEVEL II, DUAL COATED)	10
10		#5 x 10'-4" (LEVEL II, DUAL COATED)	2
11		#5 x 34'-0" (LEVEL II, DUAL COATED)	6
12			
13		#8 x 1'-6" (LEVEL II, DUAL COATED)	12
14			



A NB6 REINFORCING CURTAIN WALL ELEVATION @ ABUT. #1
3/4" =1'-0"



A NB6 REINFORCING CURTAIN WALL ELEVATION @ ABUT. #1
3/4" =1'-0"

Eriksson technologies
813.989.3317
TAMPA, FL LRFD.COM
© 2014 ERIKSSON TECHNOLOGIES, INC. ALL RIGHTS RESERVED

APPROVAL STAMP:

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
2464 CASE STR., MIDDLEBURY, VERMONT 05753 Phone:(802)388-6361 Fax:(802)388-9010

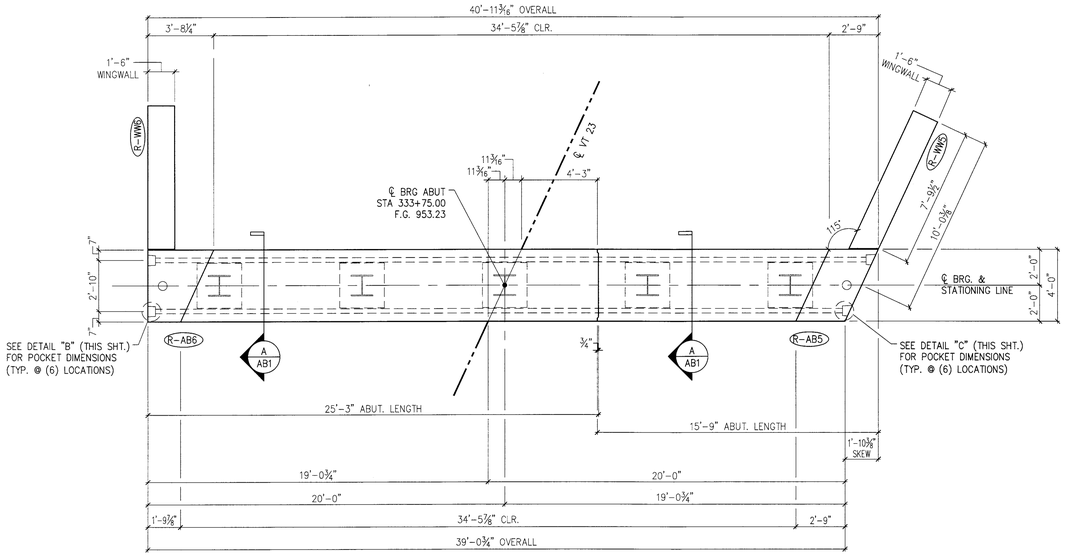
W.M. SCHULTZ CONSTRUCTION, INC.
PO BOX 2620
BALLSTON SPA, NY 12020

STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF WINDSOR

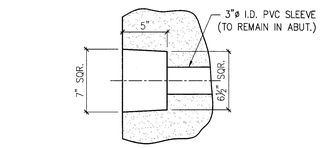
TOWN OF ROCHESTER
VT ROUTE 73 (RURAL MAJOR COLLECTOR)
BRIDGE NO.: 16 PROJECT NO.: BRF 0162 (17)

DATE: MAR. 14, 2014
SCALE: NOTED
CHKD: DFTM: AAT/RWS JJJ/KLT
JOB NO: 23419-013
DWG. NO: NB6

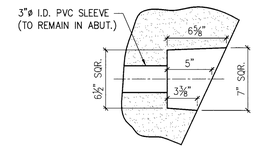
S:\Engineering Services\Carrara\14002 Rochester BR 15 & 16\Production Drawings\AutoCAD Files\Bridge 16\BR 16 - R-NB3.dwg, 3/14/2014 4:20:05 PM



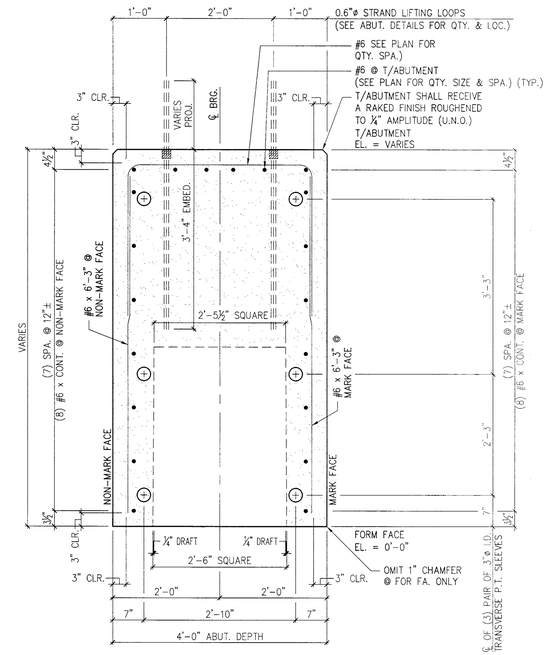
1 / AB1 ABUTMENT ASSEMBLY PLAN
1/4" =1'-0"



DETAIL – "B"
1 1/2" =1'-0"

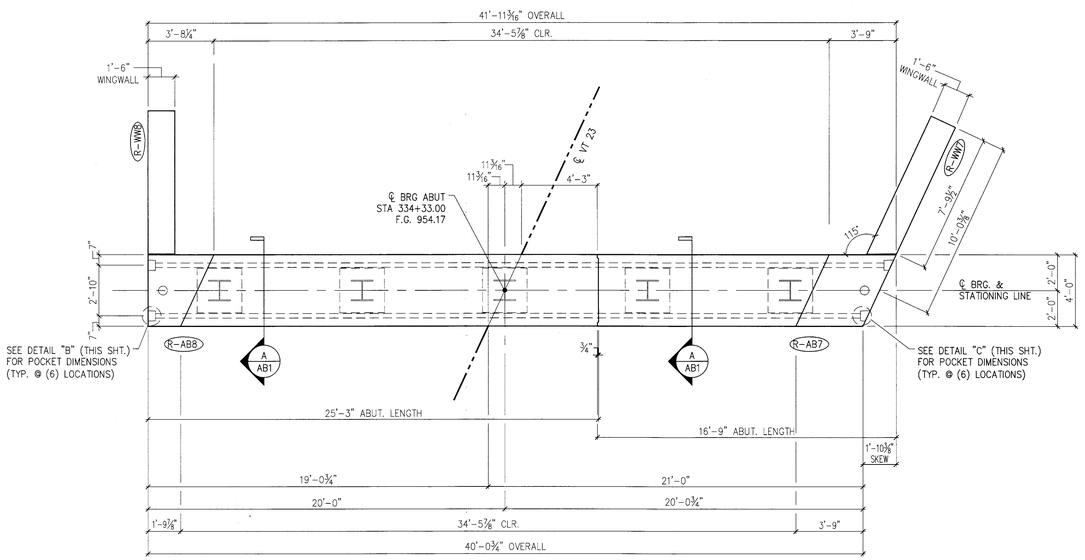


DETAIL – "C"
1 1/2" =1'-0"



A / AB1 ABUTMENT SECTION
3/4" =1'-0"

SHOP NOTE:
ALL EDGES OF ABUTMENT SHALL
RECEIVE A 1" CHAMFER (U.N.O.)



2 / AB1 ABUTMENT ASSEMBLY PLAN
1/4" =1'-0"

SUBMITTED
MAR 14 2014
J. P. CARRARA & SONS, INC.
MIDDLEBURY, VT 05753

APPROVAL STAMP:

Eriksson technologies
813.989.3317
TAMPA, FL LRFD.COM
© 2014 ERIKSSON TECHNOLOGIES, INC. ALL RIGHTS RESERVED

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
2464 CASE STR., MIDDLEBURY, VERMONT 05753 Phone:(802)388-6361 Fax:(802)388-9010

W.M. SCHULTZ CONSTRUCTION, INC.
PO Box 2620
BALLSTON SPA, NY 12020

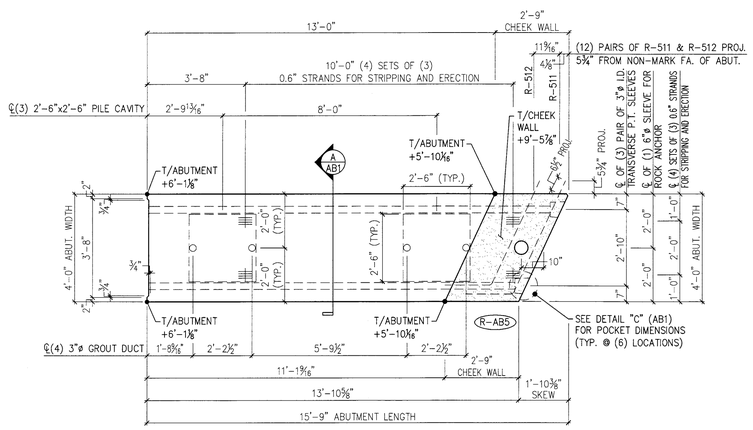
STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF WINDSOR

TOWN OF ROCHESTER
VT ROUTE 73 (RURAL MAJOR COLLECTOR)
BRIDGE NO.: 16 PROJECT NO.: BRF 0162 (17)

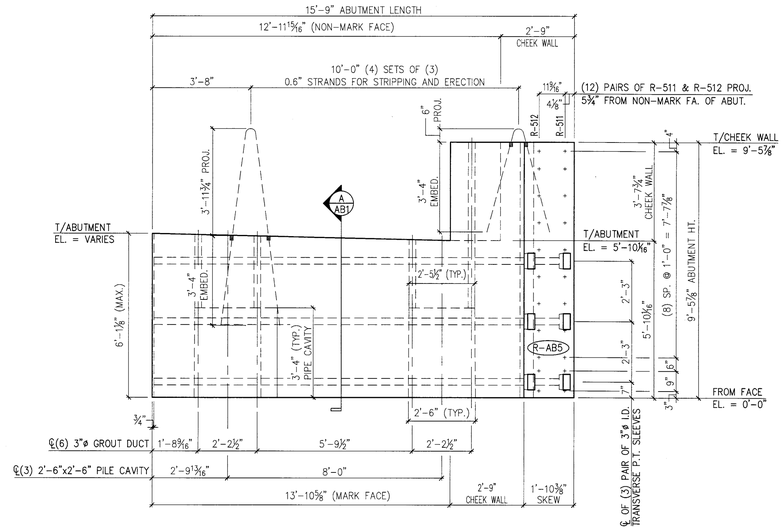
PRECAST ABUTMENT
PLAN, SECTION & DETAILS

DATE:	MAR. 14, 2014
SCALE:	NOTED
CHKD:	DFTM: AAT/RWS JJ/KLT
JOB NO:	23419-013
DWG. NO:	AB1

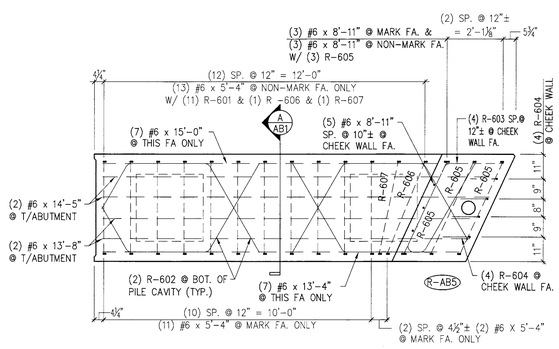
S:\Engineering Services\Carrara\14002 Rochester BR 15 & 16\Production Drawings\AutoCAD Files\Bridge 16\BR 16 - R-AB1.dwg, 3/14/2014 4:20:08 PM



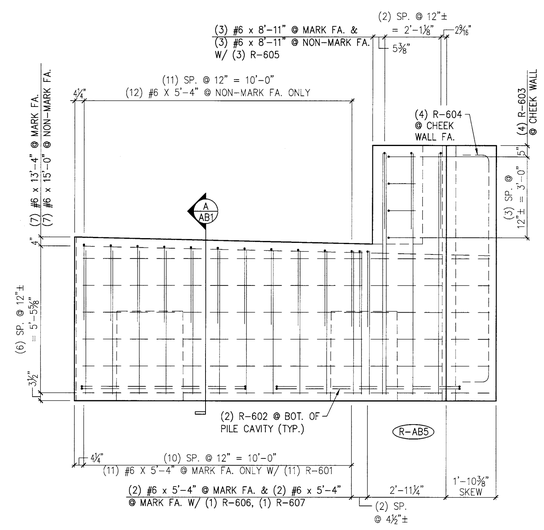
1 / AB2 ABUTMENT DIMENSIONAL PLAN VIEW IN FORM
3/8" =1'-0"



2 / AB2 ABUTMENT DIMENSIONAL PLAN VIEW IN FORM
3/8" =1'-0"



3 / AB2 ABUTMENT REINFORCING PLAN VIEW IN FORM
3/8" =1'-0"



4 / AB2 ABUTMENT REINFORCING MARK FACE ELEV.
3/8" =1'-0"

SUBMITTED
MAR 14 2014
J.P. CARRARA & SONS, INC.
MIDDLEBURY, VT 05753

MARK: R-AB5	QTY.: 1	WT.:	VOL.:

MATERIAL LIST / ABUTMENT

ITEM	MARK	DESCRIPTION	QTY.
1	R-511	#5 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	12
2	R-512	#5 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	12
3			
4	R-601	#6 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	11
5	R-602	#6 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	4
6	R-603	#6 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	4
7	R-604	#6 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	4
8	R-605	#6 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	3
9	R-606	#6 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	1
10	R-607	#6 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	1
11			
12			
13			
14			
15		#6 x 5'-4" (LEVEL I - BLACK REINFORCEMENT)	26
16		#6 x 8'-11" (LEVEL I - BLACK REINFORCEMENT)	11
17		#6 x 13'-4" (LEVEL I - BLACK REINFORCEMENT)	7
18		#6 x 13'-8" (LEVEL I - BLACK REINFORCEMENT)	2
19		#6 x 14'-5" (LEVEL I - BLACK REINFORCEMENT)	2
20		#6 x 15'-0" (LEVEL I - BLACK REINFORCEMENT)	7

APPROVAL STAMP:

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
2464 CASE STR., MIDDLEBURY, VERMONT 05753 Phone:(802)388-6361 Fax:(802)388-9010

W.M. SCHULTZ CONSTRUCTION, INC.
PO BOX 2620
BALLSTON SPA, NY 12020

STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF WINDSOR

DATE: MAR. 14, 2014
SCALE: NOTED

TOWN OF ROCHESTER
VT ROUTE 73 (RURAL MAJOR COLLECTOR)
BRIDGE NO.: 16 PROJECT NO.: BRF 0162 (17)

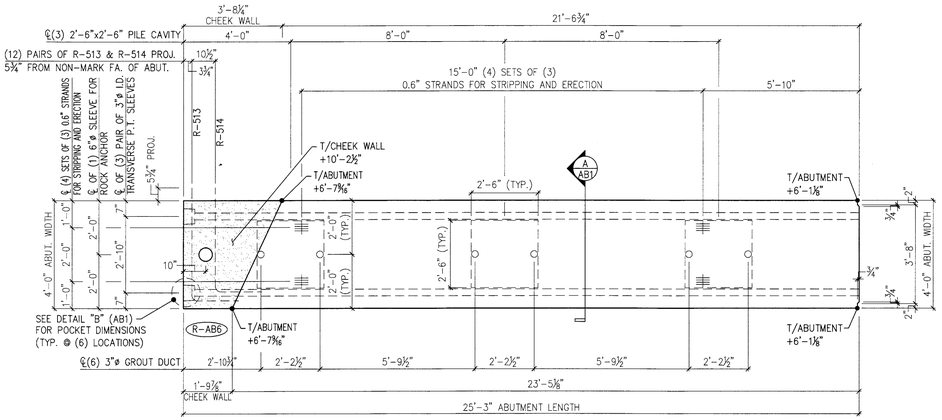
CHKD: DFTM: AAT/RHS JJ/RLT
JOB NO: 23419-013

PRECAST ABUTMENT DETAILS

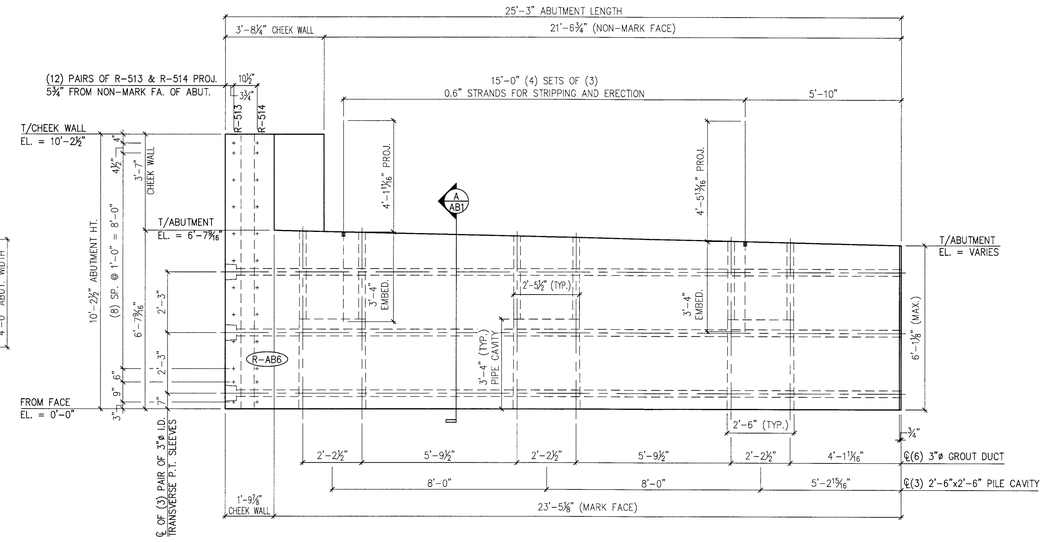
DWG. NO: AB2

Eriksson technologies
813.989.3317
TAMPA, FL LRFD.COM
© 2014 ERIKSSON TECHNOLOGIES, INC. ALL RIGHTS RESERVED

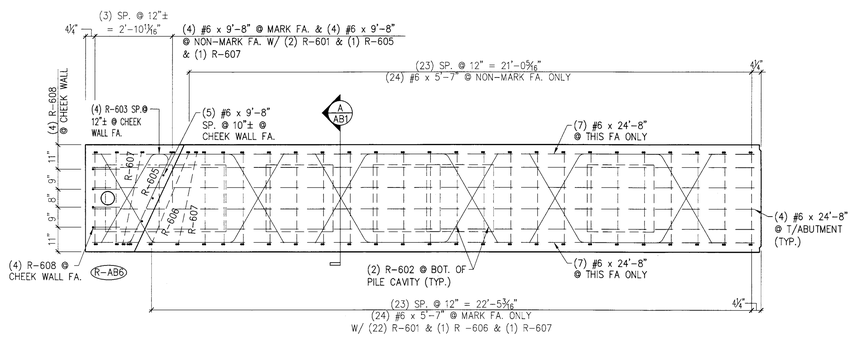
S:\Engineering Services\Carrara\14002 Rochester BR 15 & 16\Production Drawings\AutoCAD Files\Bridge 16\BR 16 - R-AB1.dwg, 3/14/2014 4:20:10 PM



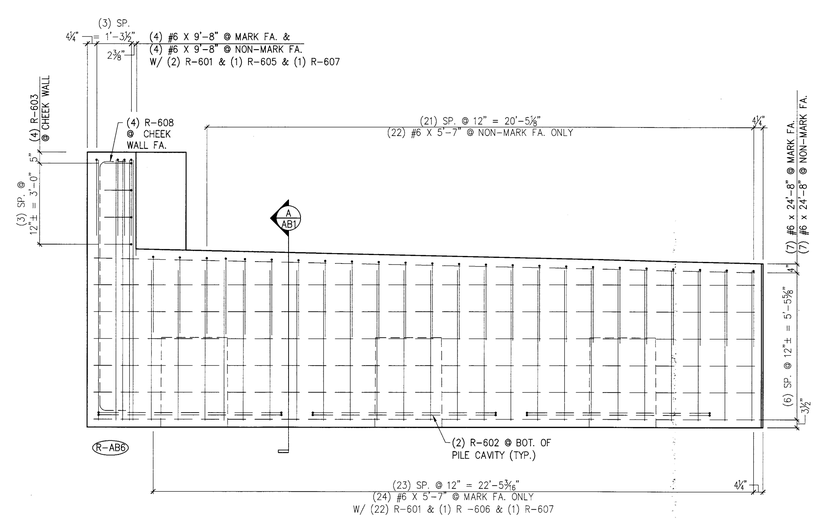
1 / AB3 ABUTMENT DIMENSIONAL PLAN VIEW IN FORM
3/8" =1'-0"



2 / AB3 ABUTMENT DIMENSIONAL PLAN VIEW IN FORM
3/8" =1'-0"



3 / AB3 ABUTMENT REINFORCING PLAN VIEW IN FORM
3/8" =1'-0"



4 / AB3 ABUTMENT REINFORCING MARK FACE ELEV.
3/8" =1'-0"

SUBMITTED
MAR 14 2014
J.P. CARRARA & SONS, INC.
MIDDLEBURY, VT 05753

MARK: R-AB6	QTY.: 1	WT.:	VOL.:

MATERIAL LIST / ABUTMENT

ITEM	MARK	DESCRIPTION	QTY.
1	R-513	#5 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	12
2	R-514	#5 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	12
3			
4	R-601	#6 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	24
5	R-602	#6 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	6
6	R-603	#6 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	4
7	R-605	#6 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	1
8	R-606	#6 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	1
9	R-607	#6 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	2
10	R-608	#6 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	4
11			
12			
13			
14			
15		#6 x 5'-7" (LEVEL I - BLACK REINFORCEMENT)	48
16		#6 x 9'-8" (LEVEL I - BLACK REINFORCEMENT)	13
17		#6 x 24'-8" (LEVEL I - BLACK REINFORCEMENT)	18
18			
19			
20			

APPROVAL STAMP:

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
2464 CASE STR., MIDDLEBURY, VERMONT 05753 Phone:(802)388-6361 Fax:(802)388-9010

W.M. SCHULTZ CONSTRUCTION, INC.
PO BOX 2620
BALLSTON SPA, NY 12020

STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF WINDSOR

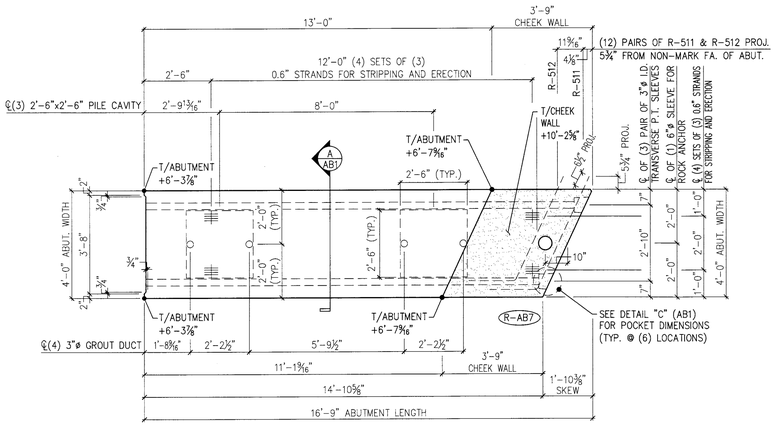
TOWN OF ROCHESTER
VT ROUTE 73 (RURAL MAJOR COLLECTOR)
BRIDGE NO.: 16 PROJECT NO.: BRF 0162 (17)

PRECAST ABUTMENT DETAILS

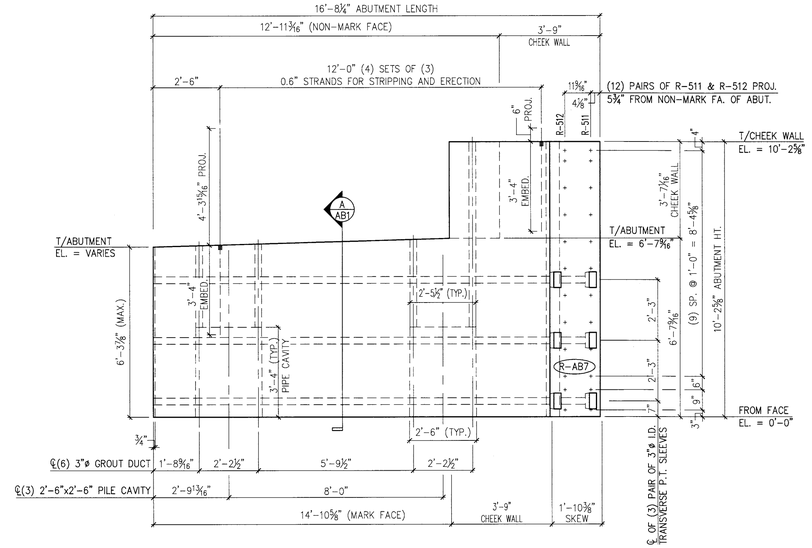
DATE: MAR. 14, 2014
SCALE: NOTED
CHKD: DFTM: AAT/RWS JJJ/KLT
JOB NO: 23419-013
DWG. NO: AB3

Eriksson technologies
813.989.3317
TAMPA, FL LRFD.COM
© 2014 ERIKSSON TECHNOLOGIES, INC. ALL RIGHTS RESERVED

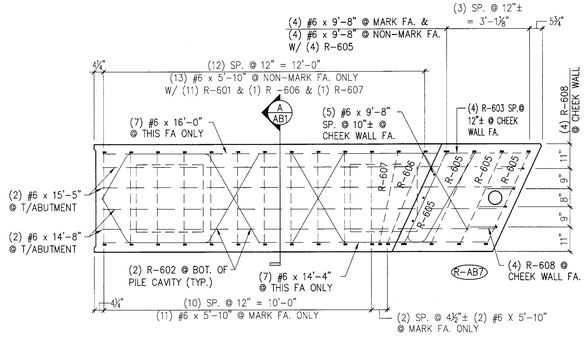
S:\Engineering Services\Carrara\14002 Rochester BR 15 & 16\Production Drawings\AutoCAD Files\Bridge 16\BR 16 - R-AB1.dwg, 3/14/2014 4:20:11 PM



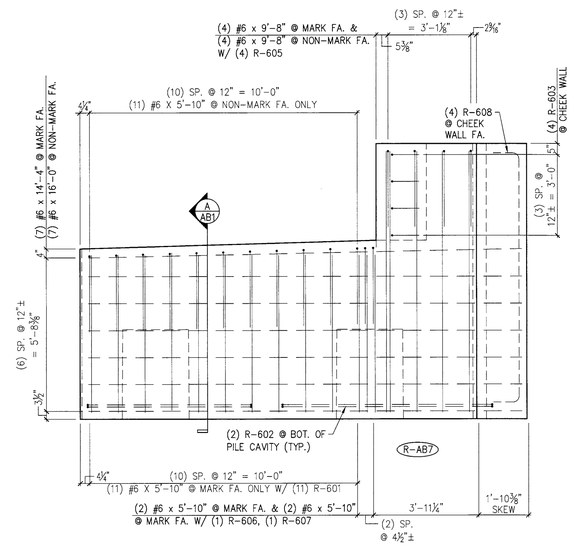
1 AB4 ABUTMENT DIMENSIONAL PLAN VIEW IN FORM
3/8" =1'-0"



2 AB4 ABUTMENT DIMENSIONAL PLAN VIEW IN FORM
3/8" =1'-0"



3 AB4 ABUTMENT REINFORCING PLAN VIEW IN FORM
3/8" =1'-0"



4 AB4 ABUTMENT REINFORCING MARK FACE ELEV.
3/8" =1'-0"

SUBMITTED
MAR 14 2014
J. P. CARRARA & SONS, INC.
MIDDLEBURY, VT 05753

MARK: R-AB7	QTY.: 1	WT.:	VOL.:

MATERIAL LIST / ABUTMENT

ITEM	MARK	DESCRIPTION	QTY.
1	R-511	#5 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	12
2	R-512	#5 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	12
3			
4	R-601	#6 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	11
5	R-602	#6 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	4
6	R-603	#6 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	4
7	R-605	#6 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	4
8	R-606	#6 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	1
9	R-607	#6 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	1
10	R-608	#6 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	4
11			
12			
13			
14			
15		#6 x 5'-10" (LEVEL I - BLACK REINFORCEMENT)	26
16		#6 x 9'-8" (LEVEL I - BLACK REINFORCEMENT)	13
17		#6 x 14'-4" (LEVEL I - BLACK REINFORCEMENT)	7
18		#6 x 14'-8" (LEVEL I - BLACK REINFORCEMENT)	2
19		#6 x 15'-5" (LEVEL I - BLACK REINFORCEMENT)	2
20		#6 x 16'-0" (LEVEL I - BLACK REINFORCEMENT)	7

APPROVAL STAMP:

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
2464 CASE STR., MIDDLEBURY, VERMONT 05753 Phone:(802)388-6361 Fax:(802)388-9010

W.M. SCHULTZ CONSTRUCTION, INC.
PO BOX 2620
BALLSTON SPA, NY 12020

STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF WINDSOR

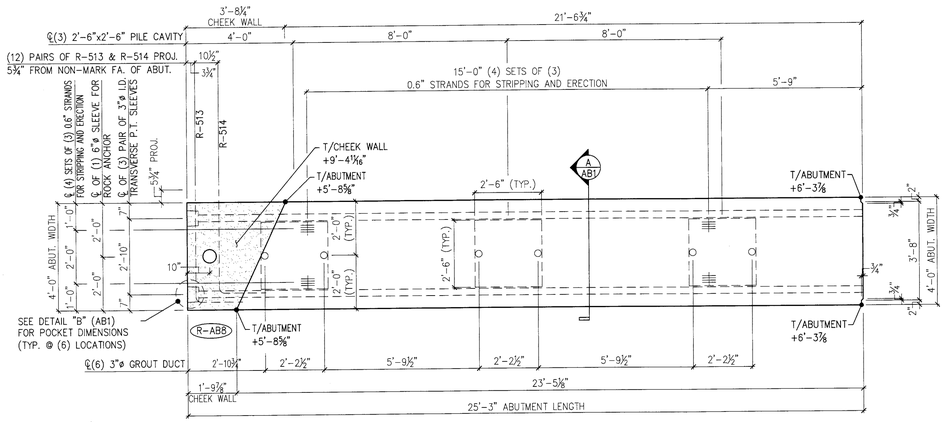
TOWN OF ROCHESTER
VT ROUTE 73 (RURAL MAJOR COLLECTOR)
BRIDGE NO.: 16 PROJECT NO.: BRF 0162 (17)

PRECAST ABUTMENT DETAILS

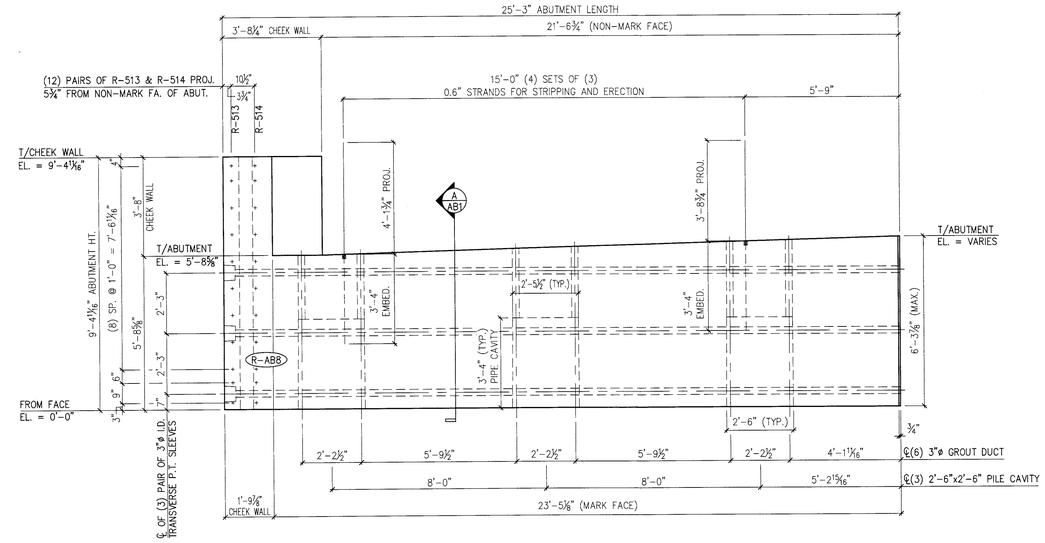
DATE: MAR. 14, 2014
SCALE: NOTED
CHKD: DFTM: AAT/RWS JJ/RLT
JOB NO: 23419-013
DWG. NO: AB4

Eriksson technologies
813.989.3317
TAMPA, FL LRFD.COM
© 2014 ERIKSSON TECHNOLOGIES, INC. ALL RIGHTS RESERVED

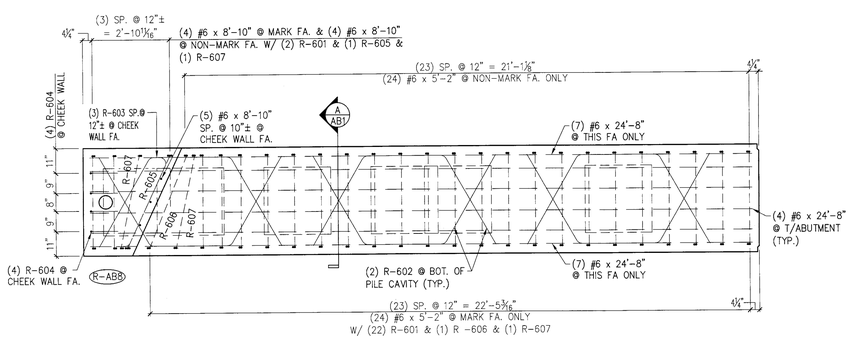
S:\Engineering Services\Carrara\14002 Rochester BR 15 & 16\Production Drawings\AutoCAD Files\Bridge 16\BR 16 - R-AB1.dwg, 3/14/2014 4:20:14 PM



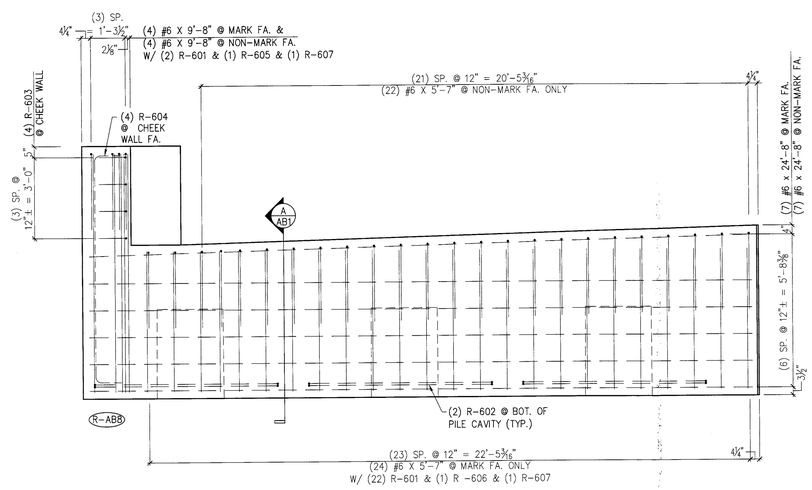
1 AB5 ABUTMENT DIMENSIONAL PLAN VIEW IN FORM
3/8" =1'-0"



2 AB5 ABUTMENT DIMENSIONAL PLAN VIEW IN FORM
3/8" =1'-0"



3 AB5 ABUTMENT REINFORCING PLAN VIEW IN FORM
3/8" =1'-0"



4 AB5 ABUTMENT REINFORCING MARK FACE ELEV.
3/8" =1'-0"

SUBMITTED
MAR 14 2014
J. P. CARRARA & SONS, INC.
MIDDLEBURY, VT 05753

MARK: R-AB8	QTY.: 1	WT.:	VOL.:

MATERIAL LIST / ABUTMENT

ITEM	MARK	DESCRIPTION	QTY.
1	R-513	#5 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	12
2	R-514	#5 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	12
3			
4	R-601	#6 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	24
5	R-602	#6 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	6
6	R-603	#6 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	4
7	R-604	#6 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	4
8	R-605	#6 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	1
9	R-606	#6 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	1
10	R-607	#6 BENT BAR (LEVEL I - BLACK REINFORCEMENT)	2
11			
12			
13			
14			
15		#6 x 5'-2" (LEVEL I - BLACK REINFORCEMENT)	48
16		#6 x 8'-10" (LEVEL I - BLACK REINFORCEMENT)	13
17		#6 x 24'-8" (LEVEL I - BLACK REINFORCEMENT)	18
18			
19			
20			

APPROVAL STAMP:

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
2464 CASE STR., MIDDLEBURY, VERMONT 05753 Phone:(802)388-6361 Fax:(802)388-9010

W.M. SCHULTZ CONSTRUCTION, INC.
PO BOX 2620
BALLSTON SPA, NY 12020

STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF WINDSOR

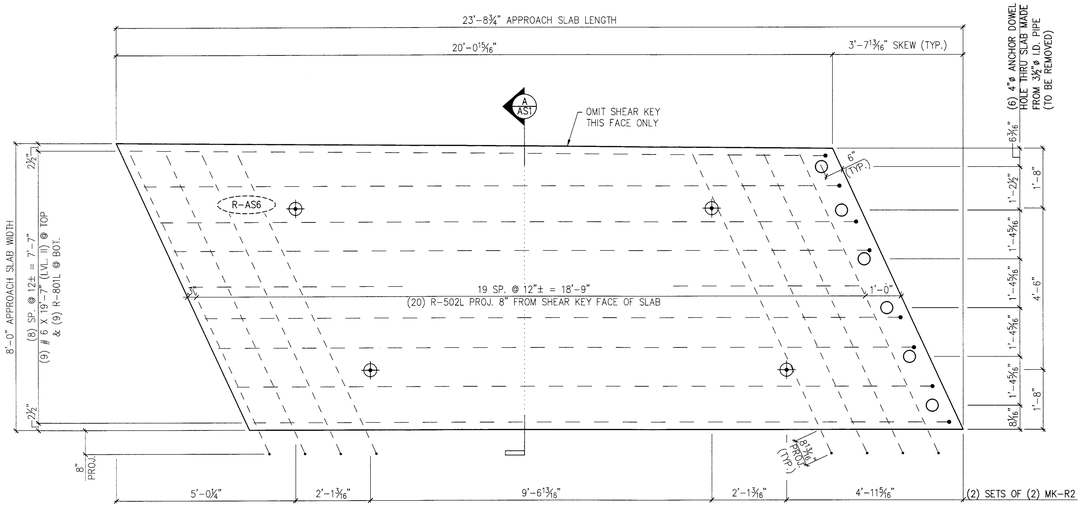
TOWN OF ROCHESTER
VT ROUTE 73 (RURAL MAJOR COLLECTOR)
BRIDGE NO.: 16 PROJECT NO.: BRF 0162 (17)

PRECAST ABUTMENT DETAILS

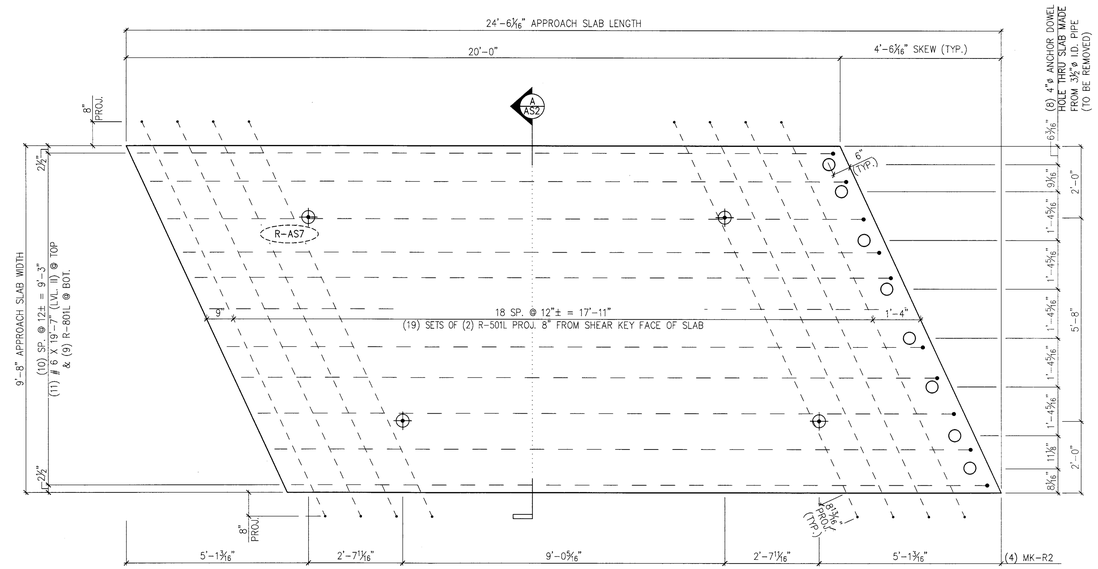
DATE: MAR. 14, 2014
SCALE: NOTED
CHKD: DFTM: AAT/RVS JJJ/KLT
JOB NO: 23419-013
DWG. NO: AB5

Eriksson technologies
813.989.3317
TAMPA, FL LRFD.COM
© 2014 ERIKSSON TECHNOLOGIES, INC. ALL RIGHTS RESERVED

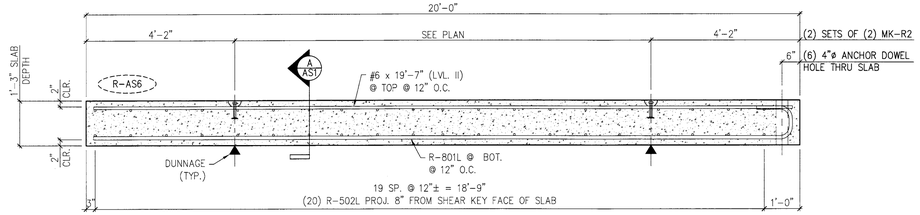
S:\Engineering Services\Carrara\14002 Rochester BR 15 & 16\Production Drawings\AutoCAD Files\Bridge 16\BR 16 - R-AB1.dwg, 3/14/2014 4:20:16 PM



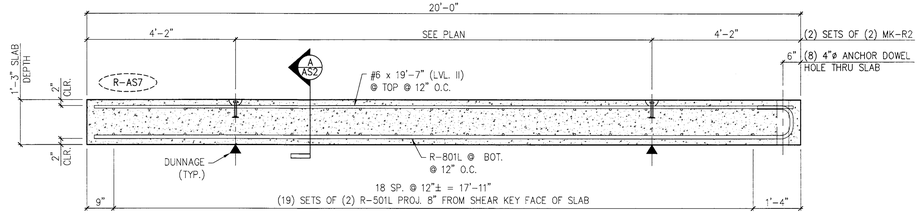
1/AS1 PLAN IN VIEW FORM
1/2" =1'-0"



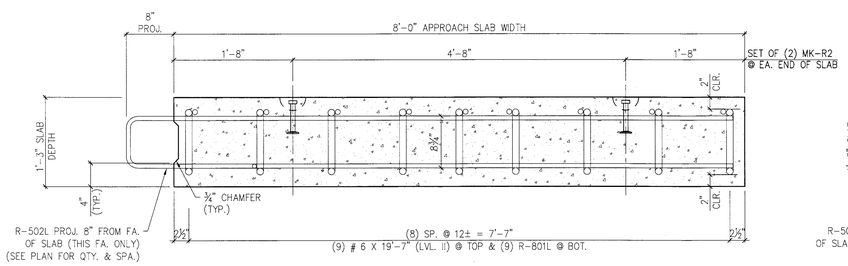
1/AS2 PLAN IN VIEW FORM
1/2" =1'-0"



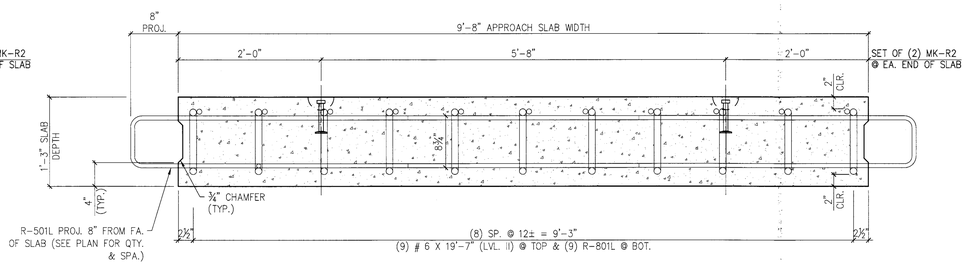
1/AS1 LONGITUDIAL SECTION
1/2" = 1'-0"



1/AS2 LONGITUDIAL SECTION
1/2" = 1'-0"



A/AS1 APPROACH SLAB SECTION
1" = 1'-0"



A/AS2 APPROACH SLAB SECTION
1" = 1'-0"

SUBMITTED
MAR 14 2014
J.P. CARRARA & SONS INC.
MIDDLEBURY, VT 05753

MARK:	R-AS6	QTY.:	1	WT.:	14.9 T	VOL.:	7.33 cy
MARK:	R-AS7	QTY.:	1	WT.:	18.2 T	VOL.:	8.95 cy

MATERIAL LIST / APPROACH SLAB

ITEM	MARK	DESCRIPTION	QTY./WING WALL R-AS1	QTY./WING WALL R-AS2
1	R-501L	#5 BENT BAR (LEVEL I, BLACK REINFORCEMENT)	0	38
2	R-502L	#5 BENT BAR (LEVEL I, BLACK REINFORCEMENT)	20	0
3				
4		#6 x 19'-7" (LEVEL I, BLACK REINFORCEMENT)	9	9
5				
6	R-801L	#8 BENT BAR (LEVEL I, BLACK REINFORCEMENT)	9	9
7				
8	MK-R2	8T x 10" SWIFT LIFT LIFTER	4	4

APPROVAL STAMP:

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
2464 CASE STR, MIDDLEBURY, VERMONT 05753 Phone:(802)388-6361 Fax:(802)388-9010

W.M. SCHULTZ CONSTRUCTION, INC.
PO BOX 2620
BALLSTON SPA, NY 12020

STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF WINDSOR

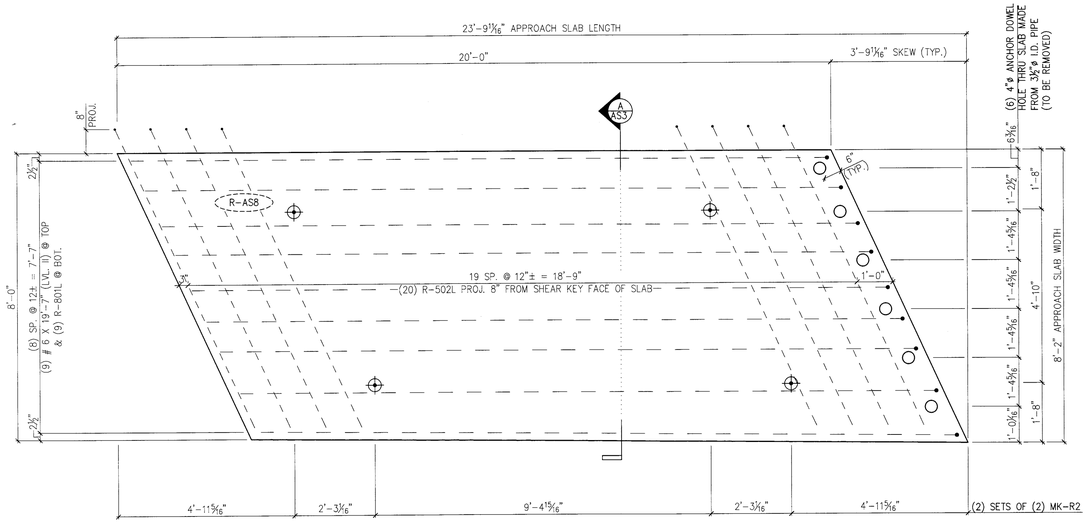
TOWN OF ROCHESTER
VT ROUTE 73 (RURAL MAJOR COLLECTOR)
BRIDGE NO.: 16 PROJECT NO.: BRF 0162 (17)

PRECAST APPROACH SLAB DETAILS

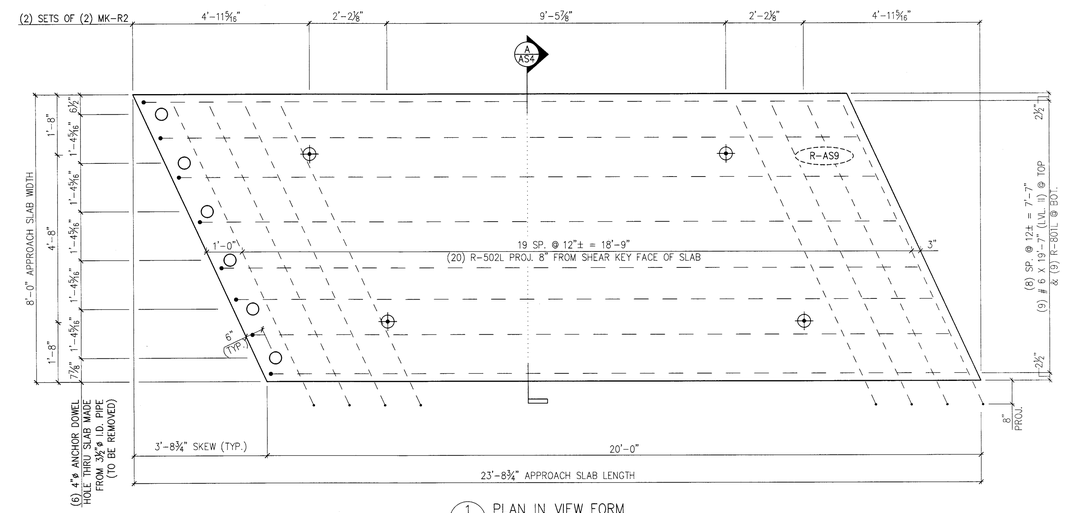
DATE: MAR. 14, 2014
SCALE: NOTED
CHKD: DFTM: AAT/RWS JJJ/KLT
JOB NO: 23419-013
DWG. NO: AS1

Eriksson technologies
813.989.3317
TAMPA, FL LRFD.COM
© 2014 ERIKSSON TECHNOLOGIES, INC. ALL RIGHTS RESERVED

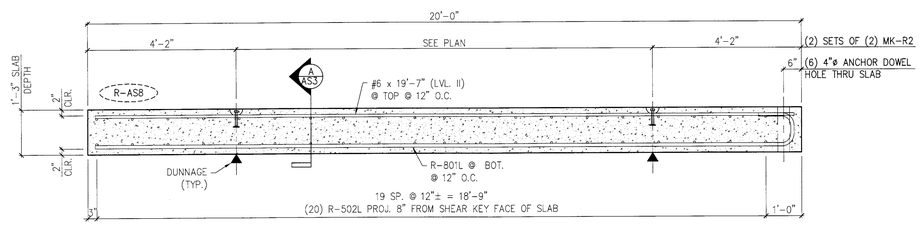
S:\Engineering Services\Carrara\14002 Rochester BR 15 & 16\Production Drawings\AutoCAD Files\Bridge 16\BR 16-AS.dwg, 3/14/2014 4:20:20 PM



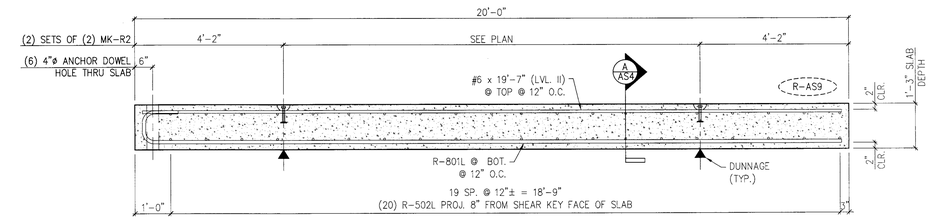
1 AS3 PLAN IN VIEW FORM 1/2" =1'-0"



1 AS4 PLAN IN VIEW FORM 1/2" =1'-0"

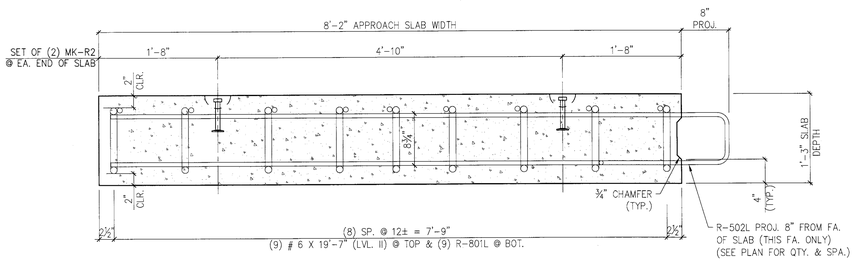


1 AS3 LONGITUDIAL SECTION 1/2" = 1'-0"

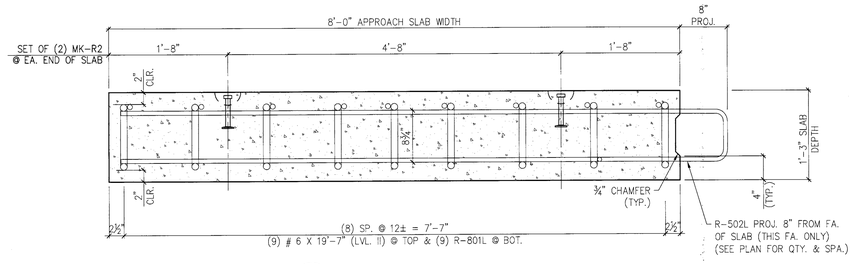


1 AS4 LONGITUDIAL SECTION 1/2" = 1'-0"

SUBMITTED
MAR 14 2014
J. P. CARRARA & SONS, INC.
MIDDLEBURY, VT. 05753



A AS3 APPROACH SLAB SECTION 1" = 1'-0"



A AS4 APPROACH SLAB SECTION 1" = 1'-0"

MARK:	R-AS8	QTY.:	1	WT.:	15.3 T	VOL.:	7.48 cy
MARK:	R-AS9	QTY.:	1	WT.:	15.0 T	VOL.:	7.41 cy

MATERIAL LIST / APPROACH SLAB

ITEM	MARK	DESCRIPTION	QTY./WING WALL	
			R-AS3	R-AS4
1				
2	R-502L	#5 BENT BAR (LEVEL I, BLACK REINFORCEMENT)	20	20
3				
4		#6 x 19'-7" (LEVEL I, BLACK REINFORCEMENT)	9	9
5				
6	R-801L	#8 BENT BAR (LEVEL I, BLACK REINFORCEMENT)	9	9
7				
8	MK-R2	8T x 10" SWIFT LIFT LIFTER	4	4

APPROVAL STAMP:

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
2464 GASE STR., MIDDLEBURY, VERMONT 05753 Phone:(802)388-6361 Fax:(802)388-9010

W.M. SCHULTZ CONSTRUCTION, INC.
PO BOX 2620
BALLSTON SPA, NY 12020

STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF WINDSOR

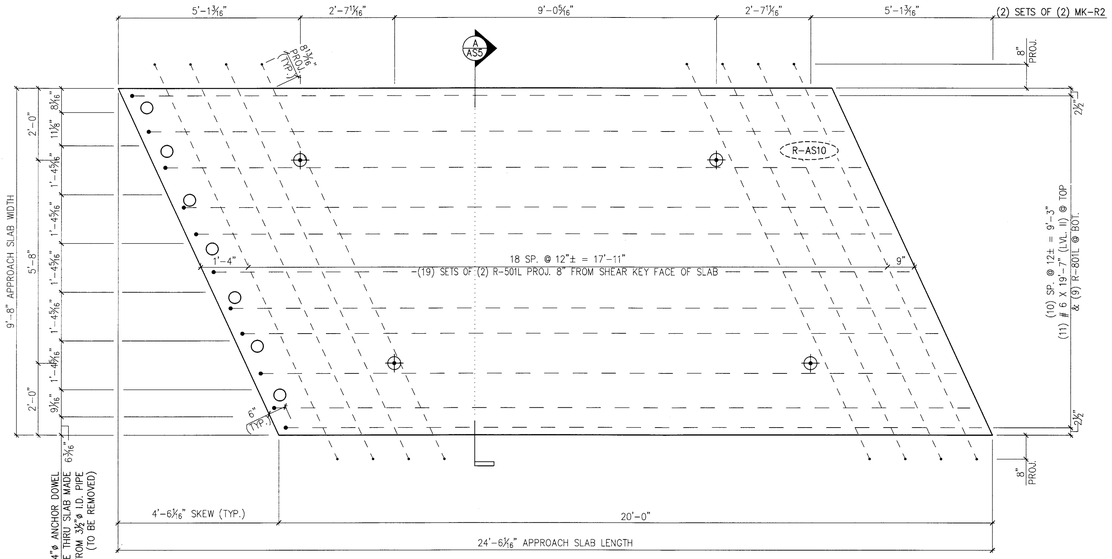
TOWN OF ROCHESTER
VT ROUTE 73 (RURAL MAJOR COLLECTOR)
BRIDGE NO.: 16 PROJECT NO.: BRF 0162 (17)

PRECAST APPROACH SLAB DETAILS

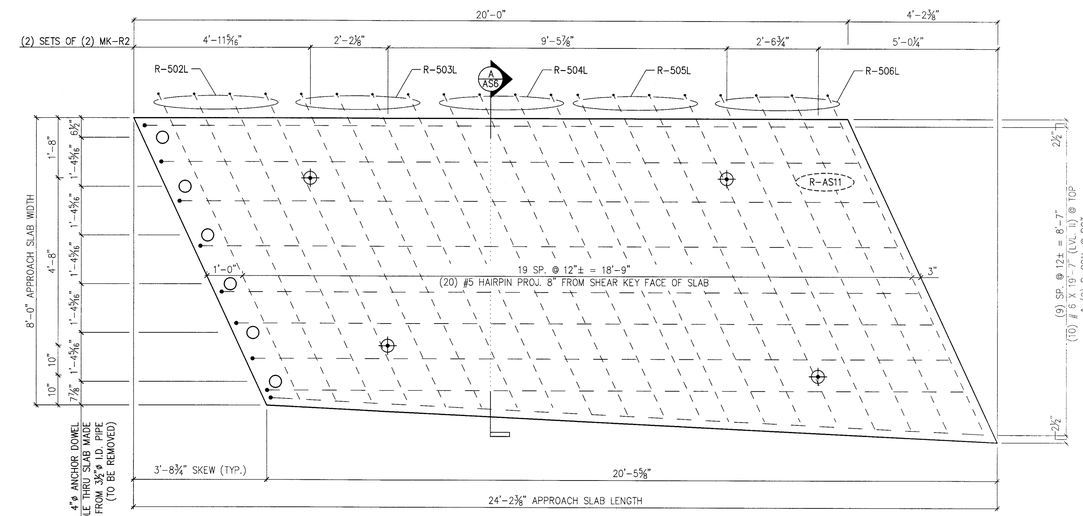
DATE: MAR. 14, 2014
SCALE: NOTED
CHKD: DFTM: AAT/R S JJ/KLT
JOB NO: 23419-013
DWG. NO: AS2

Eriksson technologies
813.989.3317
TAMPA, FL LRFD.COM
© 2014 ERIKSSON TECHNOLOGIES, INC. ALL RIGHTS RESERVED

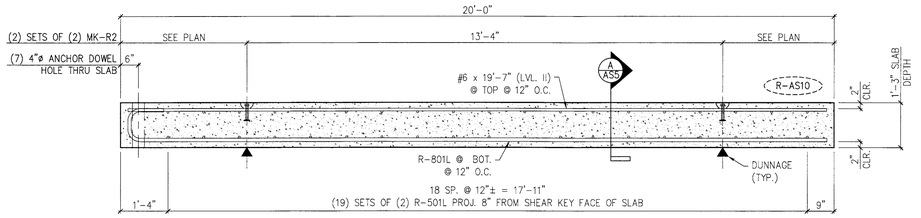
S:\Engineering Services\Carrara\14002 Rochester BR 15 & 16\Production Drawings\AutoCAD Files\Bridge 16\BR 16-AS.dwg, 3/14/2014 4:20:21 PM



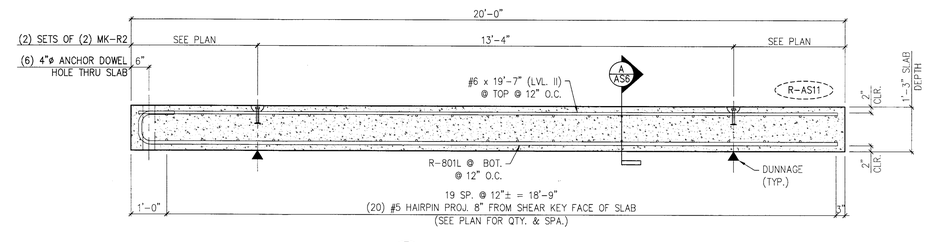
1 / AS5 PLAN IN VIEW FORM
1/2" =1'-0"



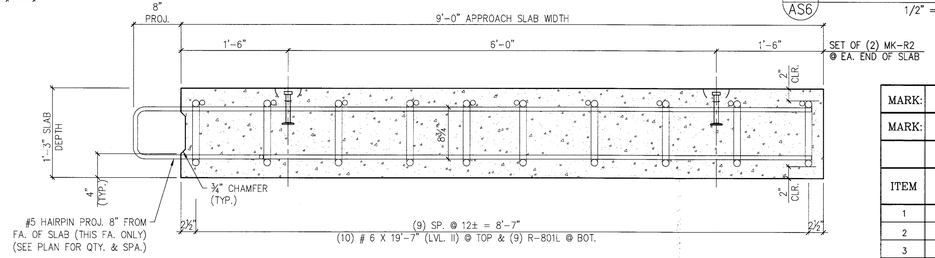
1 / AS6 PLAN IN VIEW FORM
1/2" =1'-0"



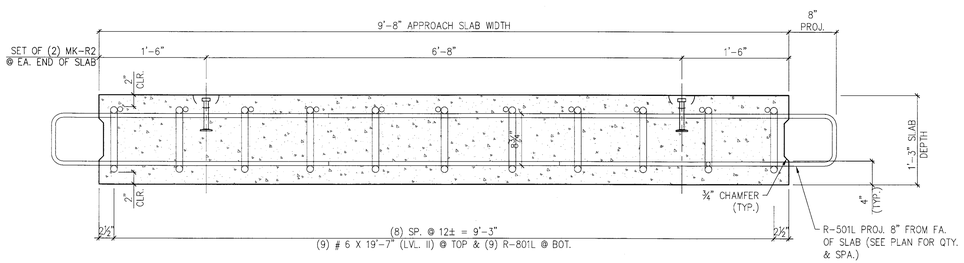
1 / AS5 LONGITUDIAL SECTION
1/2" = 1'-0"



1 / AS6 LONGITUDIAL SECTION
1/2" = 1'-0"



A / AS6 APPROACH SLAB SECTION
1" = 1'-0"



A / AS5 APPROACH SLAB SECTION
1" = 1'-0"

SUBMITTED
MAR 14 2014
J.P. CARRARA & SONS INC.
MIDDLEBURY, VT 05753

MARK:	R-AS10	QTY.:	1	WT.:	18.2 T	VOL.:	8.95 cy
MARK:	R-AS11	QTY.:	1	WT.:	16.0 T	VOL.:	7.87 cy

MATERIAL LIST / APPROACH SLAB

ITEM	MARK	DESCRIPTION	QTY./WING WALL R-AS5	QTY./WING WALL R-AS6
1	R-501L	#5 BENT BAR (LEVEL I, BLACK REINFORCEMENT)	38	0
2	R-502L	#5 BENT BAR (LEVEL I, BLACK REINFORCEMENT)	0	4
3	R-503L	#5 BENT BAR (LEVEL I, BLACK REINFORCEMENT)	0	4
4	R-504L	#5 BENT BAR (LEVEL I, BLACK REINFORCEMENT)	0	4
5	R-505L	#5 BENT BAR (LEVEL I, BLACK REINFORCEMENT)	0	4
6	R-506L	#5 BENT BAR (LEVEL I, BLACK REINFORCEMENT)	0	4
7				
8				
8		#6 x 19'-7" (LEVEL I, BLACK REINFORCEMENT)	9	10
8				
8	R-801L	#8 BENT BAR (LEVEL I, BLACK REINFORCEMENT)	9	10
8				
8	MK-R2	8T x 10" SWIFT LIFT LIFTER	4	4

APPROVAL STAMP:

Eriksson technologies
813.989.3317
TAMPA, FL LRFD.COM
© 2014 ERIKSSON TECHNOLOGIES, INC. ALL RIGHTS RESERVED

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
2464 CASE STR., MIDDLEBURY, VERMONT 05753 Phone:(802)388-6361 Fax:(802)388-9010

W.M. SCHULTZ CONSTRUCTION, INC.
PO BOX 2620
BALLSTON SPA, NY 12020

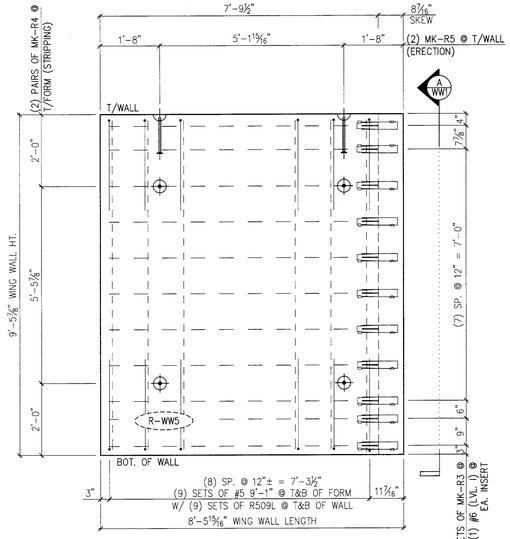
STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF WINDSOR

TOWN OF ROCHESTER
VT ROUTE 73 (RURAL MAJOR COLLECTOR)
BRIDGE NO.: 16 PROJECT NO.: BRF 0162 (17)

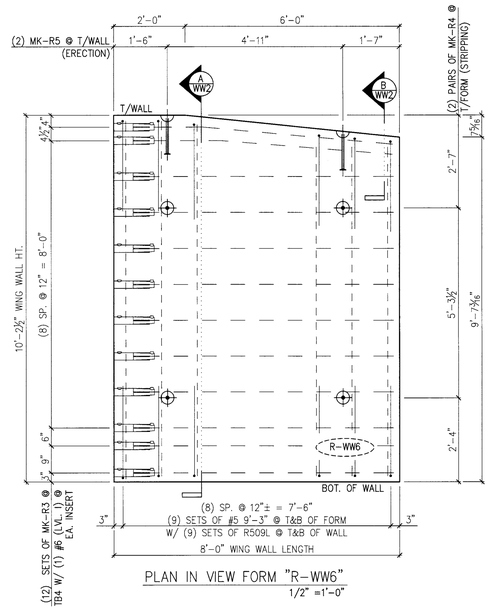
PRECAST APPROACH SLAB DETAILS

DATE: MAR. 14, 2014
SCALE: NOTED
CHKD: DFTM: AAT/RWS JJ/KLT
JOB NO: 23419-013
DWG. NO: AS3

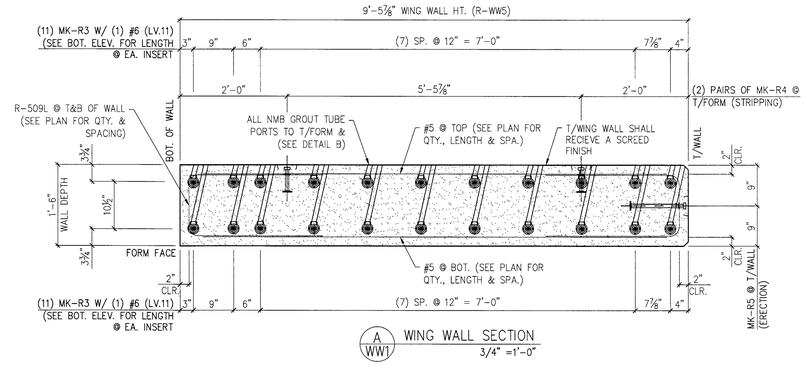
S:\Engineering Services\Carrara\14002 Rochester BR 15 & 16\Production Drawings\AutoCAD Files\Bridge 16\BR 16-AS.dwg, 3/14/2014 4:20:23 PM



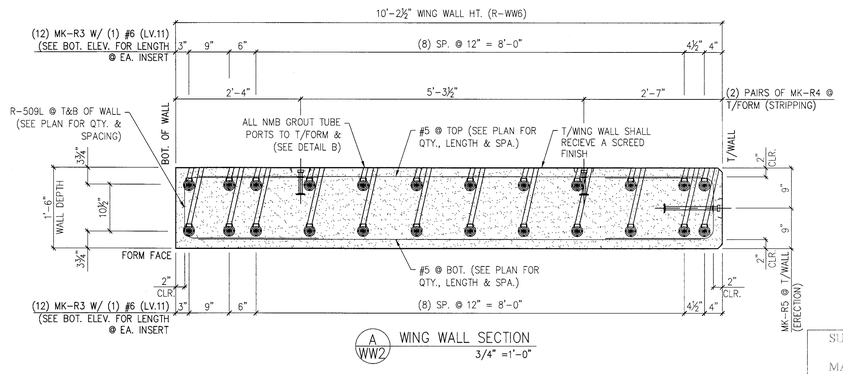
PLAN IN VIEW FORM "R-WW5"
1/2" =1'-0"



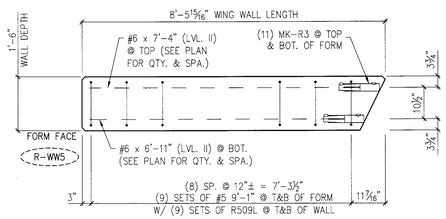
PLAN IN VIEW FORM "R-WW6"
1/2" =1'-0"



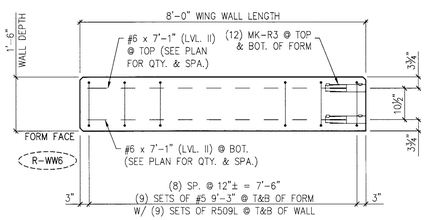
A WW1 WING WALL SECTION
3/4" =1'-0"



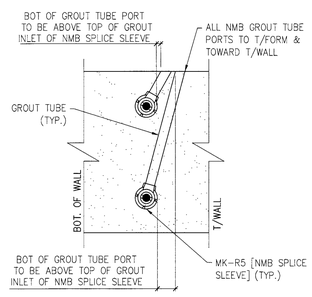
A WW2 WING WALL SECTION
3/4" =1'-0"



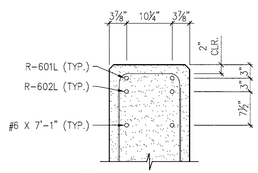
WING WALL BOTTOM ELEVATION
1/2" =1'-0"



WING WALL BOTTOM ELEVATION
1/2" =1'-0"



DETAIL – "B"
1-1/2" =1'-0"



B WW2 SECTION B
3/4" =1'-0"

MARK:	R-WW5	QTY.:	1	WT.:	8.8 T	VOL.:	4.30 cy
MARK:	R-WW6	QTY.:	1	WT.:	9.0 T	VOL.:	4.44 cy

MATERIAL LIST / WING WALL

ITEM	MARK	DESCRIPTION	QTY./WING WALL R-WW1	QTY./WING WALL R-WW2
1	R-507L	#5 BENT BAR (LEVEL II, DUAL COATED)	18	18
2				
3		#5 x 9'-1" (LEVEL II, DUAL COATED)	18	0
4		#5 x 9'-3" (LEVEL II, DUAL COATED)	0	18
5				
6	R-611L	#6 BENT BAR (LEVEL II, DUAL COATED)	0	2
7	R-612L	#6 BENT BAR (LEVEL II, DUAL COATED)	0	2
8				
9				
10		#6 x 6'-11" (LEVEL II, DUAL COATED)	11	0
11		#6 x 7'-1" (LEVEL II, DUAL COATED)	0	20
12		#6 x 7'-4" (LEVEL II, DUAL COATED)	11	0
13				
14	MK-R3	NMB SPLICE SLEEVE 6U-X(PG) (EPOXY COATED)	22	24
15	MK-R4	4T x 9 1/2" SWFT LIFT LIFTER	4	4
16	MK-R5	20T x 19 3/4" SWFT LIFT LIFTER	2	2

SUBMITTED
MAR 14 2014
J.P. CARRARA & SONS, INC
MIDDLEBURY, VT 05753

APPROVAL STAMP:

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
2464 CASE STR., MIDDLEBURY, VERMONT 05753 Phone:(802)388-6361 Fax:(802)388-9010

W.M. SCHULTZ CONSTRUCTION, INC.
PO BOX 2620
BALLSTON SPA, NY 12020

STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF WINDSOR

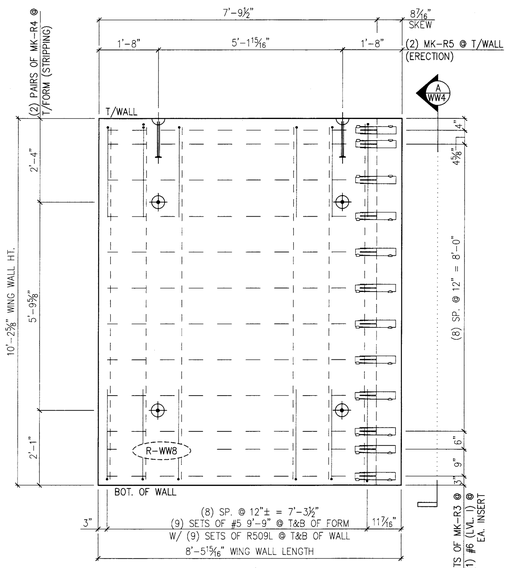
TOWN OF ROCHESTER
VT ROUTE 73 (RURAL MAJOR COLLECTOR)
BRIDGE NO.: 16 PROJECT NO.: BRF 0162 (17)

PRECAST WING WALL DETAILS

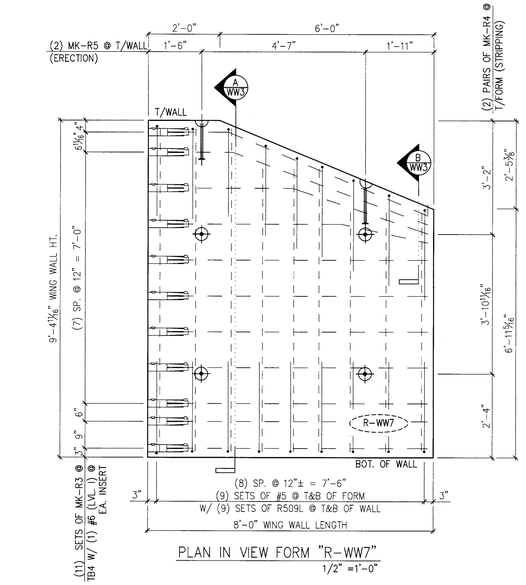
DATE: MAR. 14, 2014
SCALE: NOTED
CHKD: DFTM: AAT/RWS JJ/KLT
JOB NO: 23419-013
DWG. NO: WW1

Eriksson technologies
813.989.3317
TAMPA, FL LRFD.COM
© 2014 ERIKSSON TECHNOLOGIES, INC. ALL RIGHTS RESERVED

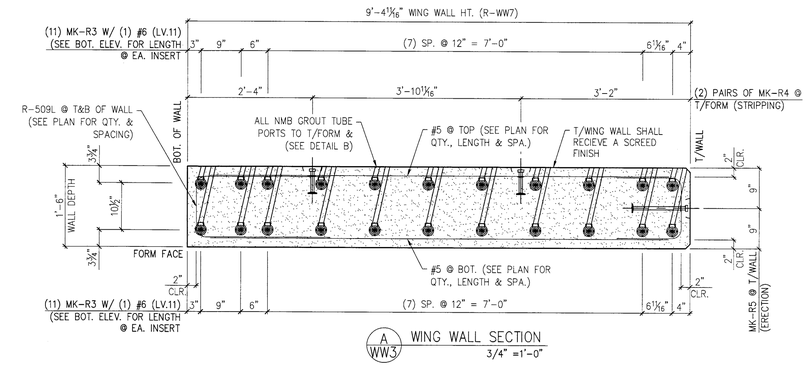
S:\Engineering Services\Carrara\14002 Rochester BR 15 & 16\Production Drawings\AutoCAD Files\Bridge 16\BR 16 - WW.dwg, 3/14/2014 4:20:26 PM



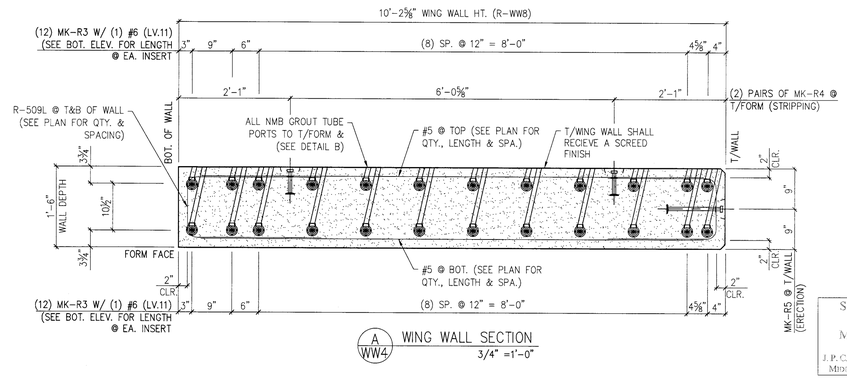
PLAN IN VIEW FORM "R-WW8"
1/2" =1'-0"



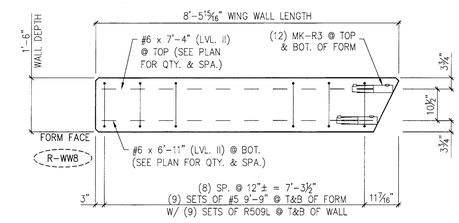
PLAN IN VIEW FORM "R-WW7"
1/2" =1'-0"



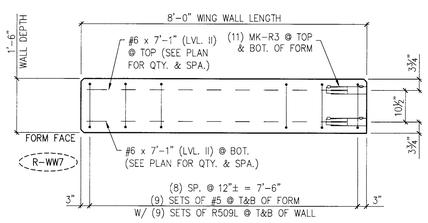
A WW3 WING WALL SECTION
3/4" =1'-0"



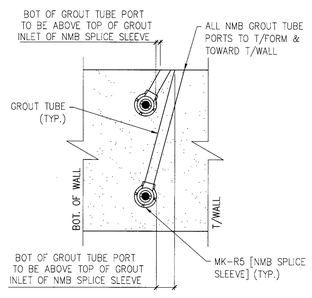
A WW4 WING WALL SECTION
3/4" =1'-0"



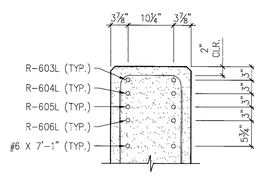
WING WALL BOTTOM ELEVATION
1/2" =1'-0"



WING WALL BOTTOM ELEVATION
1/2" =1'-0"



DETAIL – "B"
1-1/2" =1'-0"



B WW3 SECTION B
3/4" =1'-0"

MARK:	R-WW8	QTY.:	1	WT.:	9.4 T	VOL.:	4.63 cy
MARK:	R-WW7	QTY.:	1	WT.:	7.7 T	VOL.:	3.76 cy

MATERIAL LIST / WING WALL

ITEM	MARK	DESCRIPTION	QTY./WING WALL R-WW4	QTY./WING WALL R-WW3
1	R-507L	#5 BENT BAR (LEVEL II, DUAL COATED)	18	18
2				
3		#5 x 6'-7" (LEVEL II, DUAL COATED)	0	6
4		#5 x 7'-10" (LEVEL II, DUAL COATED)	0	6
5		#5 x 8'-11" (LEVEL II, DUAL COATED)	0	6
6		#5 x 9'-9" (LEVEL II, DUAL COATED)	18	0
7				
8	R-613L	#6 BENT BAR (LEVEL II, DUAL COATED)	0	2
9	R-614L	#6 BENT BAR (LEVEL II, DUAL COATED)	0	2
10	R-615L	#6 BENT BAR (LEVEL II, DUAL COATED)	0	2
11	R-616L	#6 BENT BAR (LEVEL II, DUAL COATED)	0	2
12				
13		#6 x 6'-11" (LEVEL II, DUAL COATED)	12	0
14		#6 x 7'-1" (LEVEL II, DUAL COATED)	0	14
15		#6 x 7'-4" (LEVEL II, DUAL COATED)	12	0
16				
17	MK-R3	NMB SPLICE SLEEVE 6U-X(PG) (EPOXY COATED)	24	22
18	MK-R4	4T x 9 1/2" SWIFT LIFT LIFTER	4	4
19	MK-R5	20T x 19 3/4" SWIFT LIFT LIFTER	2	2

SUBMITTED
MAR 14 2014
J.P. CARRARA & SONS, INC.
MIDDLEBURY, VT 05753

APPROVAL STAMP:

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
2464 CASE STR., MIDDLEBURY, VERMONT 05753 Phone:(802)388-6361 Fax:(802)388-9010

W.M. SCHULTZ CONSTRUCTION, INC.
PO Box 2620
BALLSTON SPA, NY 12020

STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF WINDSOR

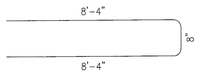
TOWN OF ROCHESTER
VT ROUTE 73 (RURAL MAJOR COLLECTOR)
BRIDGE NO.: 16 PROJECT NO.: BRF 0162 (17)

PRECAST WING WALL DETAILS

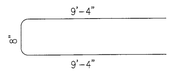
DATE: MAR. 14, 2014
SCALE: NOTED
CHKD: DFTM: AAT/RWS JJJ/KLT
JOB NO: 23419-013
DWG. NO: WW2

Eriksson technologies
813.989.3317
TAMPA, FL LRFD.COM
© 2014 ERIKSSON TECHNOLOGIES, INC. ALL RIGHTS RESERVED

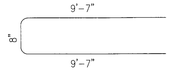
S:\Engineering Services\Carrara\14002 Rochester BR 15 & 16\Production Drawings\AutoCAD Files\Bridge 16\BR 16 - WW.dwg, 3/14/2014 4:20:28 PM



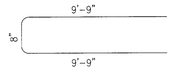
R-501
#5 BENT BAR
(76) REQ'D.



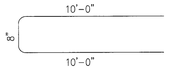
R-502
#5 BENT BAR
(64) REQ'D.



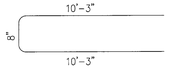
R-503
#5 BENT BAR
(4) REQ'D.



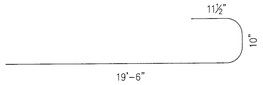
R-504
#5 BENT BAR
(4) REQ'D.



R-505
#5 BENT BAR
(4) REQ'D.



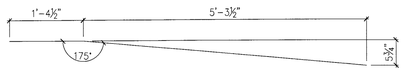
R-506
#5 BENT BAR
(4) REQ'D.



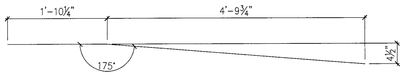
R-801
#6 BENT BAR
(55) REQ'D.

PRECAST APPROACH SLABS

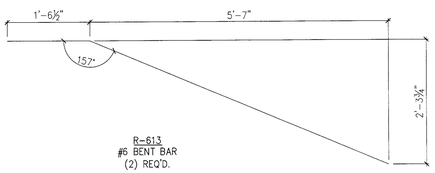
R-507
#5 BENT BAR
(72) REQ'D.



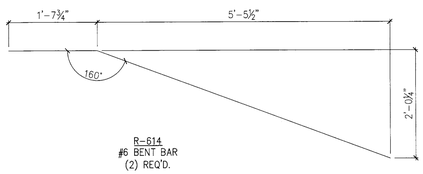
R-611
#6 BENT BAR
(2) REQ'D.



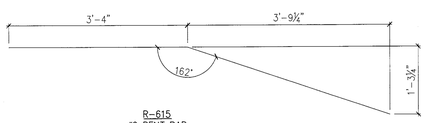
R-612
#6 BENT BAR
(2) REQ'D.



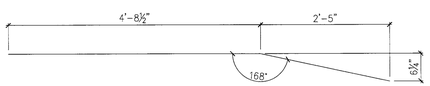
R-613
#6 BENT BAR
(2) REQ'D.



R-614
#6 BENT BAR
(2) REQ'D.



R-615
#6 BENT BAR
(2) REQ'D.



R-616
#6 BENT BAR
(2) REQ'D.

PRECAST WINGWALLS

MISCELLANEOUS MATERIALS

ITEM	MARK	QTY.	DESCRIPTION	REMARKS	
1					PRECAST APPROACH SLABS
2		55	#6 x 19'-7" (LEVEL I, BLACK REINFORCEMENT)		
3					
4					
5					
6	MK-R2	24	8T x 10" SWFT LIFT LIFTER		
7					
8					
9					
10		6	#5 x 6'-7" (LEVEL II, DUAL COATED)		PRECAST WING WALLS
11		6	#5 x 7'-10" (LEVEL II, DUAL COATED)		
12		6	#5 x 8'-11" (LEVEL II, DUAL COATED)		
13		18	#5 x 9'-1" (LEVEL II, DUAL COATED)		
14		18	#5 x 9'-3" (LEVEL II, DUAL COATED)		
15		18	#5 x 9'-9" (LEVEL II, DUAL COATED)		
16					
17		23	#6 x 6'-11" (LEVEL II, DUAL COATED)		
18		34	#6 x 7'-1" (LEVEL II, DUAL COATED)		
19		23	#6 x 7'-4" (LEVEL II, DUAL COATED)		
20					
21					
22	MK-R3	92	NMB SPLICE SLEEVE 6U-X(PG) (EPOXY COATED)		
23	MK-R4	16	4T x 9 1/2" SWFT LIFT LIFTER		
24	MK-R3	8	20T x 19 3/4" SWFT LIFT LIFTER		
25					

SUBMITTED
MAR 14 2014
J.P. CARRARA & SONS, INC.
MIDDLEBURY, VT 05753

APPROVAL STAMP:

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
2464 CASE STR., MIDDLEBURY, VERMONT 05753 Phone:(802)388-6361 Fax:(802)388-9010

W.M. SCHULTZ CONSTRUCTION, INC.
PO BOX 2620
BALLSTON SPA, NY 12020

STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF WINDSOR

DATE: MAR. 14, 2014
SCALE: NOTED

TOWN OF ROCHESTER
VT ROUTE 73 (RURAL MAJOR COLLECTOR)
BRIDGE NO.: 16 PROJECT NO.: BRF 0162 (17)

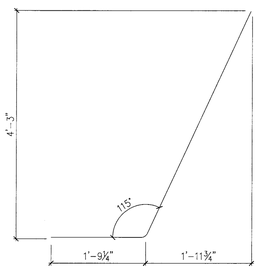
CHKD: DFTM: AAT/RWS JKJ/KLT
JOB NO: 23419-013

MATERIALS LIST

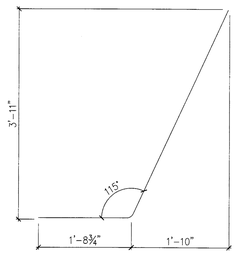
DWG. NO: M1

Eriksson technologies
813.989.3317
TAMPA, FL LRFD.COM
© 2014 ERIKSSON TECHNOLOGIES, INC. ALL RIGHTS RESERVED

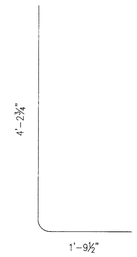
S:\Engineering Services\Carrara\14002 Rochester BR 15 & 16\Production Drawings\AutoCAD Files\Bridge 16\BR 16-M-1.dwg, 3/14/2014 4:20:33 PM



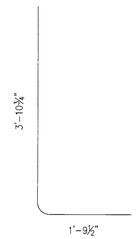
R-511
#5 BENT BAR
(24) REQ'D.



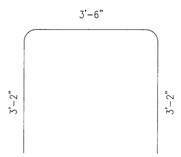
R-512
#5 BENT BAR
(24) REQ'D.



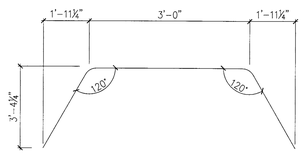
R-513
#5 BENT BAR
(24) REQ'D.



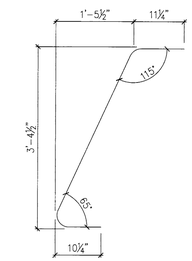
R-514
#5 BENT BAR
(24) REQ'D.



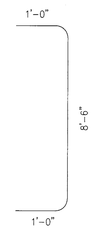
R-601
#6 BENT BAR
(70) REQ'D.



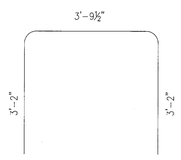
R-602
#6 BENT BAR
(6) REQ'D.



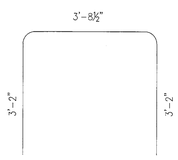
R-603
#6 BENT BAR
(16) REQ'D.



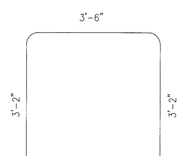
R-604
#6 BENT BAR
(8) REQ'D.



R-605
#6 BENT BAR
(9) REQ'D.



R-606
#6 BENT BAR
(4) REQ'D.



R-607
#6 BENT BAR
(6) REQ'D.

R-608
#6 BENT BAR
(8) REQ'D.

MISCELLANEOUS MATERIALS

ITEM	MARK	QTY.		REMARKS
1		48	#6 x 5'-2" (LEVEL I – BLACK REINFORCEMENT)	
2		26	#6 x 5'-4" (LEVEL I – BLACK REINFORCEMENT)	
3		48	#6 x 5'-7" (LEVEL I – BLACK REINFORCEMENT)	
4		26	#6 x 5'-10" (LEVEL I – BLACK REINFORCEMENT)	
5		13	#6 x 8'-10" (LEVEL I – BLACK REINFORCEMENT)	
6		11	#6 x 8'-11" (LEVEL I – BLACK REINFORCEMENT)	
7		26	#6 x 9'-8" (LEVEL I – BLACK REINFORCEMENT)	
8		7	#6 x 13'-4" (LEVEL I – BLACK REINFORCEMENT)	
9		2	#6 x 13'-8" (LEVEL I – BLACK REINFORCEMENT)	
10		7	#6 x 14'-4" (LEVEL I – BLACK REINFORCEMENT)	
11		2	#6 x 14'-5" (LEVEL I – BLACK REINFORCEMENT)	
12		2	#6 x 14'-8" (LEVEL I – BLACK REINFORCEMENT)	
13		7	#6 x 15'-0" (LEVEL I – BLACK REINFORCEMENT)	
14		2	#6 x 15'-5" (LEVEL I – BLACK REINFORCEMENT)	
15		7	#6 x 16'-0" (LEVEL I – BLACK REINFORCEMENT)	
16		36	#6 x 24'-8" (LEVEL I – BLACK REINFORCEMENT)	
17				
18				
19				

PRECAST ABUTMENT

PRECAST ABUTMENT

SUBMITTED
MAR 14 2014
J.P. CARRARA & SONS, INC.
MIDDLEBURY, VT 05753

APPROVAL STAMP:

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
2464 CASE STR., MIDDLEBURY, VERMONT 05753 Phone:(802)388-6361 Fax:(802)388-9010

W.M. SCHULTZ CONSTRUCTION, INC.
PO BOX 2620
BALLSTON SPA, NY 12020

STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF WINDSOR

TOWN OF ROCHESTER
VT ROUTE 73 (RURAL MAJOR COLLECTOR)
BRIDGE NO.: 16 PROJECT NO.: BRF 0162 (17)

MATERIALS LIST

DATE: MAR. 14, 2014
SCALE: NOTED
CHKD: DFTM: AAT/RWS JJ/KLT
JOB NO: 23419-013
DWG. NO: M2

Eriksson technologies
813.989.3317
TAMPA, FL LRFD.COM
© 2014 ERIKSSON TECHNOLOGIES, INC. ALL RIGHTS RESERVED

S:\Engineering Services\Carrara\14002 Rochester BR 15 & 16\Production Drawings\AutoCAD Files\Bridge 16\BR 16-M-1.dwg, 3/14/2014 4:20:33 PM