

# WARREN BRF 013-4(32)

## CONTRACTOR FABRICATED PBU UNITS

ROBERT M. SUTHERLAND, P.C.  
 ENGINEERS-SURVEYORS-MATERIAL TESTING  
 PLATTSBURGH NEW YORK

- SHEET 1: PBU PLAN
- SHEET 2: PBU PLAN UNITS 1 & 2
- SHEET 3: PBU PLAN UNITS 3 & 4
- SHEET 4: PBU TYPICAL DETAILS
- SHEET 5: CLOSURE POUR DETAILS
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- SHEET 11: CONCRETE MIX DESIGN
- SHEET 12: BRIDGE ANCHORAGE

REV	REVISION	DATE

**REVISIONS**

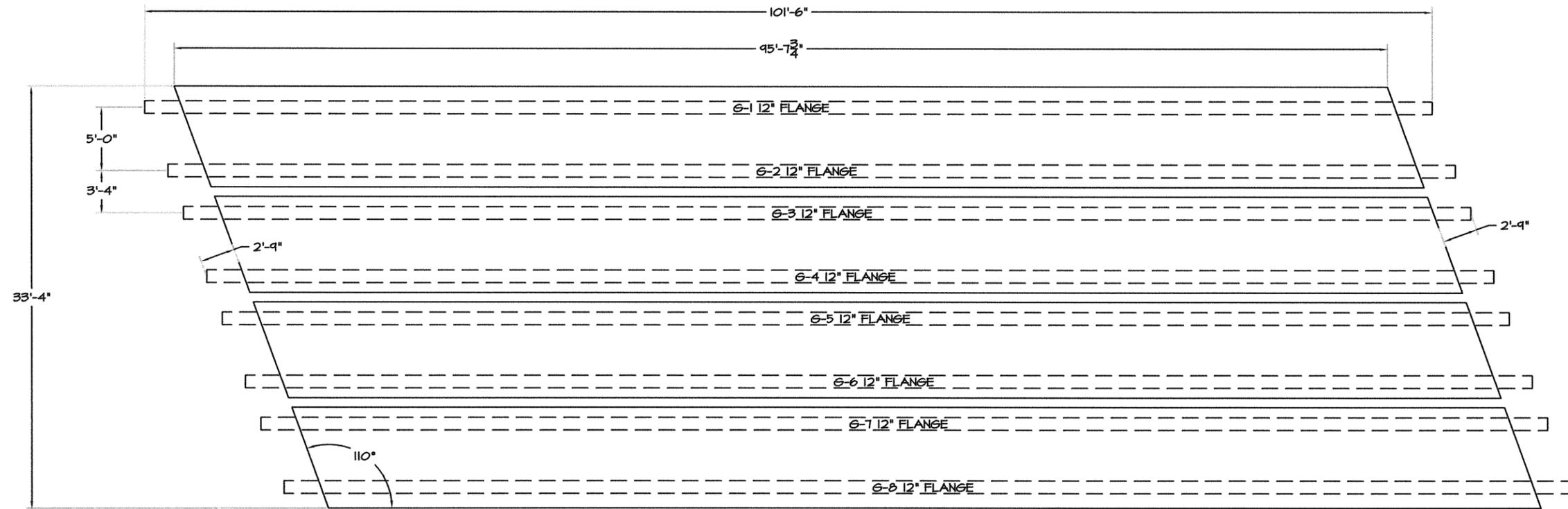
**PROJECT**  
 WARREN BRF  
 013-4(32)  
 VT ROUTE 100  
 WARREN, VT

**CLIENT**  
 LUCK BROTHERS, INC.  
 TRADE ROAD  
 PLATTSBURGH, NY 12901

**SHEET TITLE**  
 PRE-CAST BRIDGE UNIT  
 COVER SHEET / INDEX

**DRAWN BY:** KTW  
**CHECKED BY:** TL  
**DATE:** 04/28/14  
**SHEET NO.:**

COVER



REV	REVISION	DATE

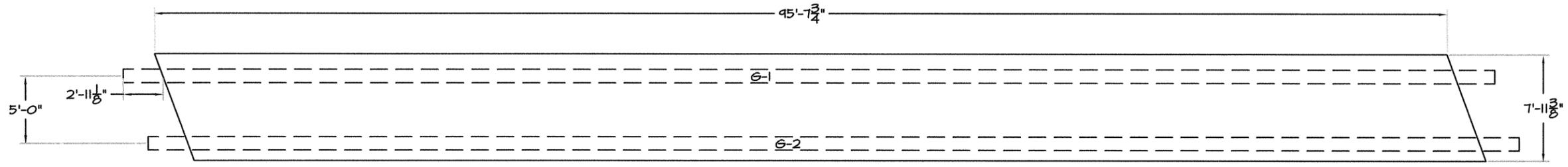
REVISIONS

PROJECT  
 WARREN BRIDGE  
 013-4(32)  
 VT ROUTE 100  
 WARREN, VT

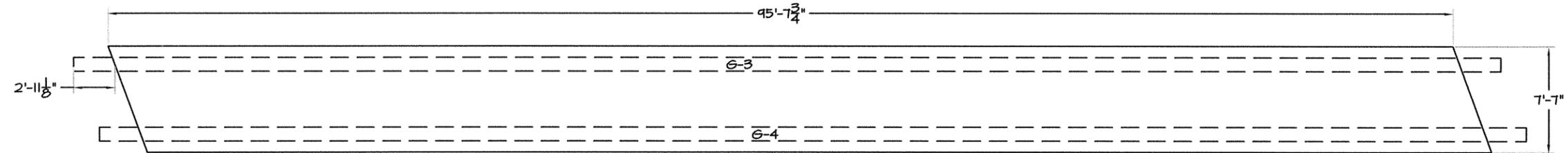
CLIENT  
 LUCK BROTHERS, INC.  
 TRADE ROAD  
 PLATTSBURGH, NY 12901

SHEET TITLE  
 PRE-CAST BRIDGE UNIT  
 PLAN

DRAWN BY: KTW  
 CHECKED BY: TL  
 DATE: 04/28/14  
 SHEET NO:



PBU #1 EXTERIOR UNIT



PBU #2 INTERIOR UNIT

REV	REVISION	DATE

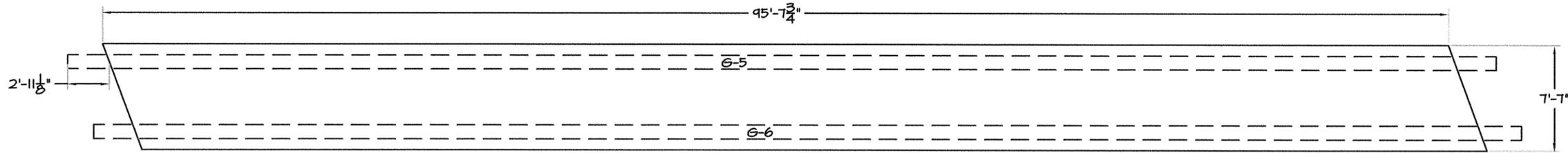
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 WARREN BRIDGE  
 013-4(32)  
 VT ROUTE 100  
 WARREN, VT

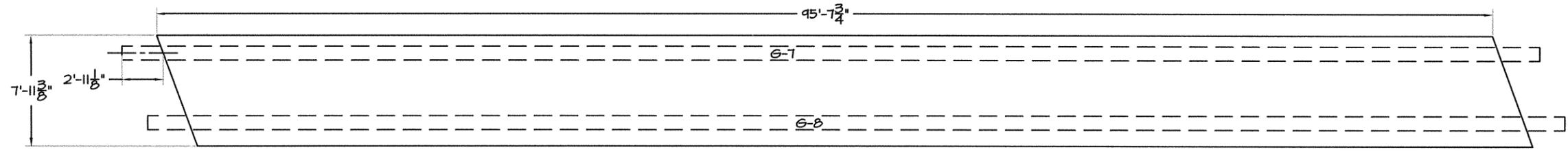
CLIENT  
 LUCK BROTHERS, INC.  
 TRADE ROAD  
 PLATTSBURGH, NY 12901

SHEET TITLE  
 PRE-CAST BRIDGE UNIT  
 PBU #1 AND #2

DRAWN BY: KTW  
 CHECKED BY: TL  
 DATE: 04/28/14  
 SHEET NO:



PBU #3 INTERIOR UNIT



PBU #4 EXTERIOR UNIT

REV	REVISION	DATE

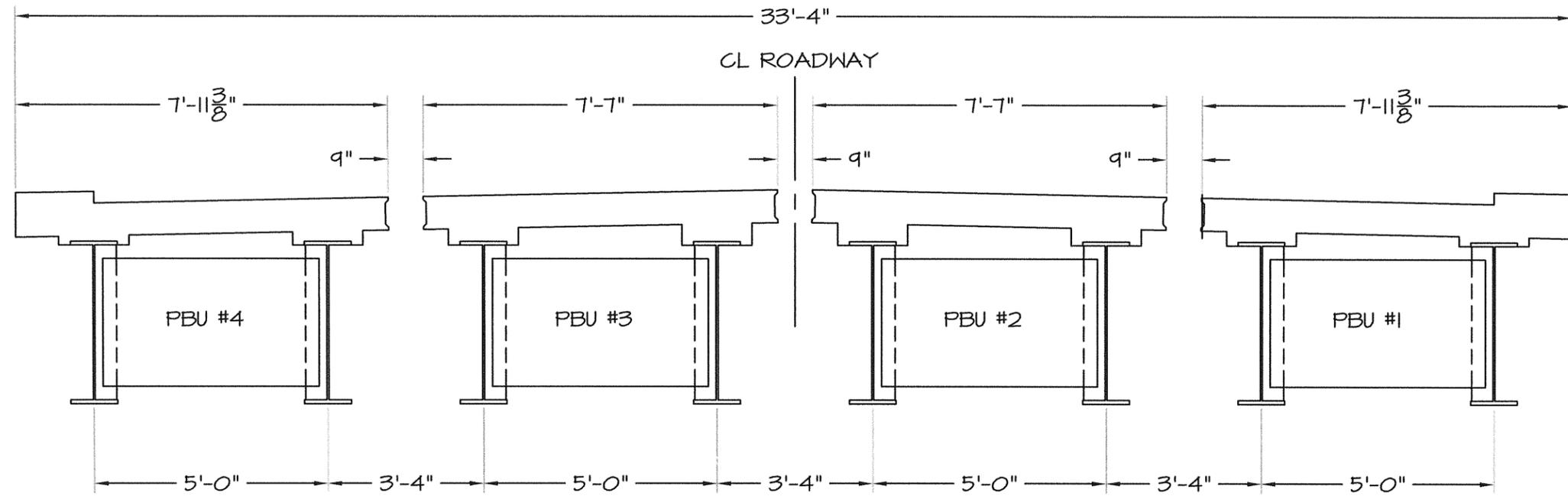
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 WARREN, VT

CLIENT  
 LUCK BROTHERS, INC.  
 TRADE ROAD  
 PLATTSBURGH, NY 12901

SHEET TITLE  
 PRE-CAST BRIDGE UNIT  
 PBU #3 AND #4

DRAWN BY: KTW  
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 DATE: 04/28/14  
 SHEET NO:



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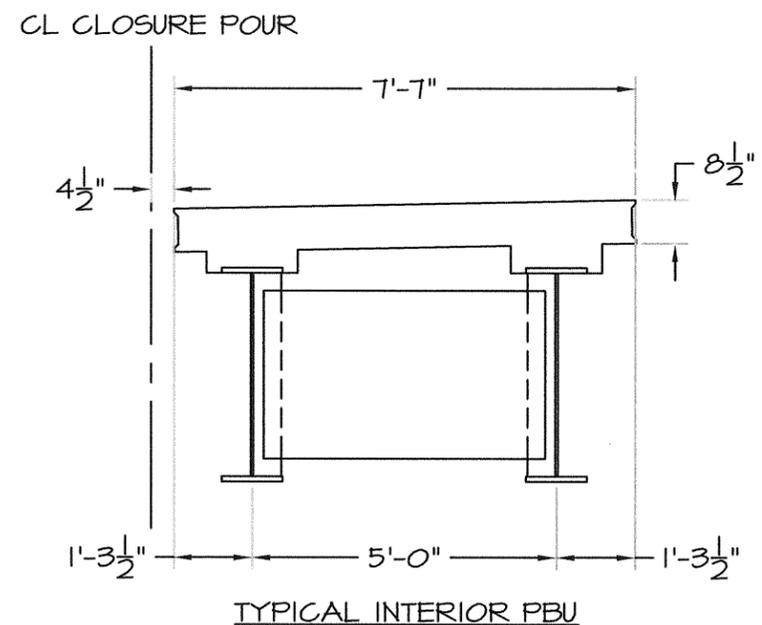
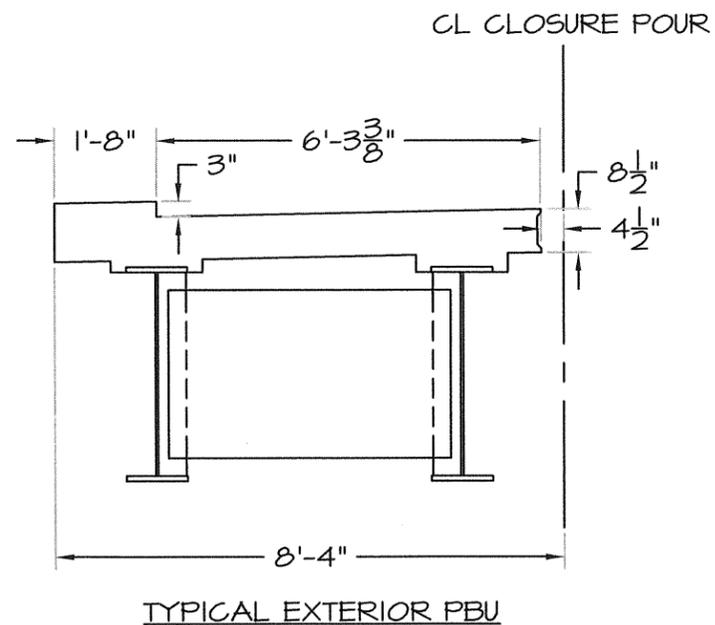
REVISIONS

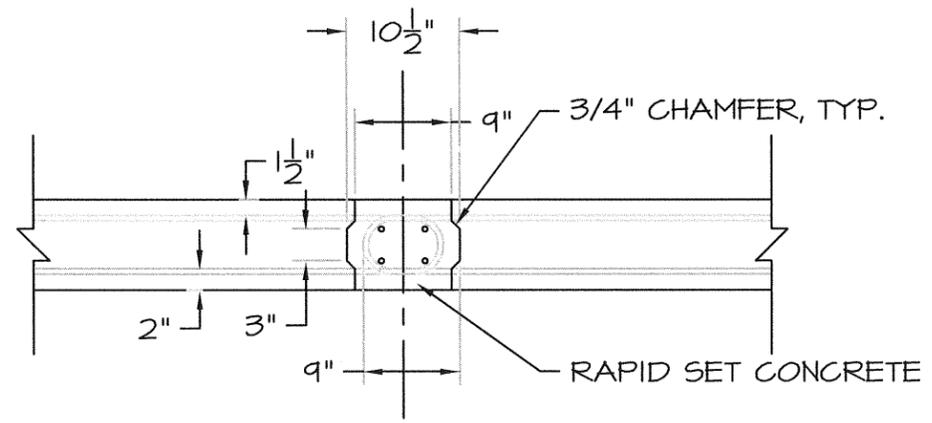
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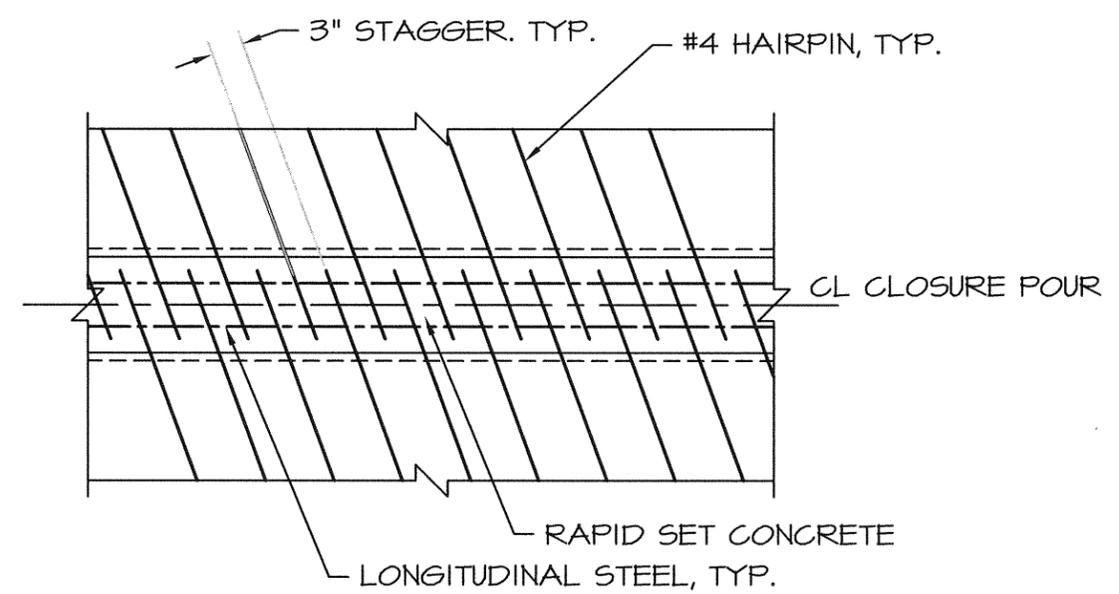
SHEET TITLE  
 PRE-CAST BRIDGE UNIT  
 PBU DETAILS

DRAWN BY: KTW  
 CHECKED BY: TL  
 DATE: 04/28/14  
 SHEET NO:





CLOSURE POUR SECTION



CLOSURE POUR PLAN

REV	REVISION	DATE

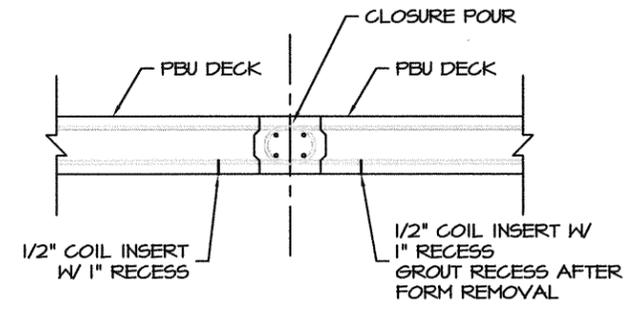
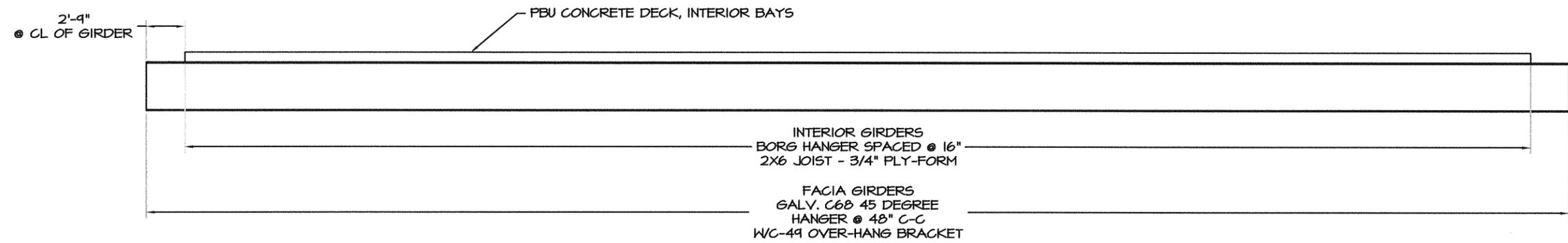
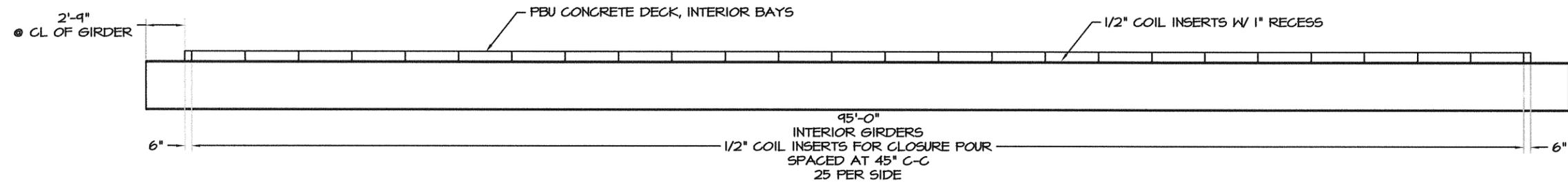
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 013-4(32)  
 VT ROUTE 100  
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CLIENT  
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SHEET TITLE  
 PRE-CAST BRIDGE UNIT  
 CLOSURE POUR DETAILS

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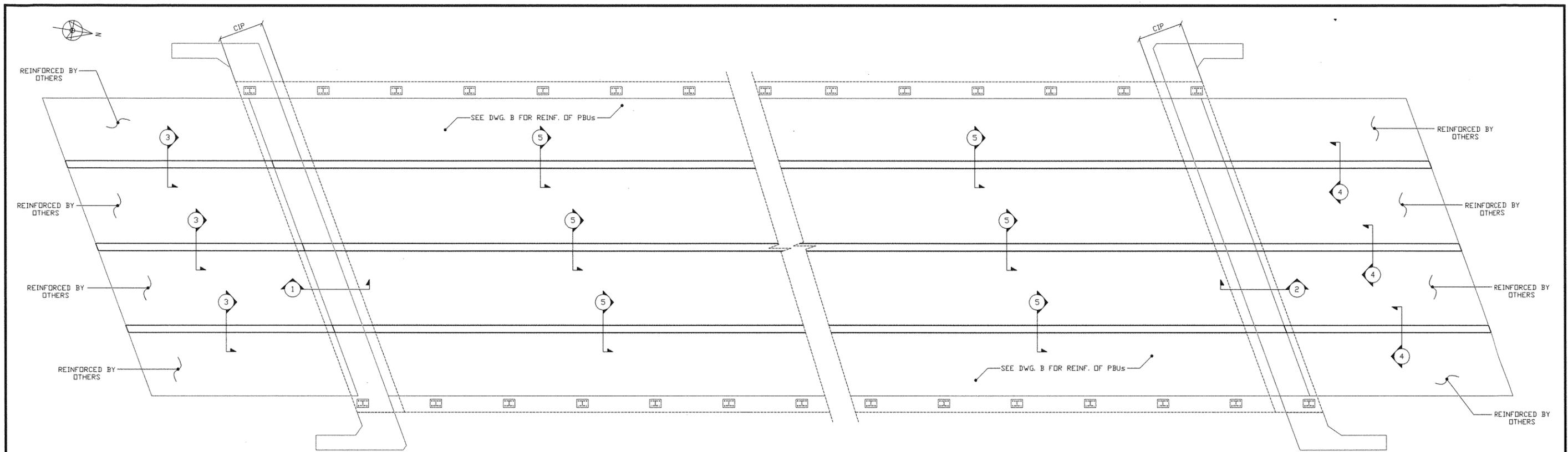
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 013-4(32)  
 VT ROUTE 100  
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CLIENT  
 LUCK BROTHERS, INC.  
 TRADE ROAD  
 PLATTSBURGH, NY 12901

SHEET TITLE  
 PBU CLOSURE POUR  
 COIL INSERT LAYOUT

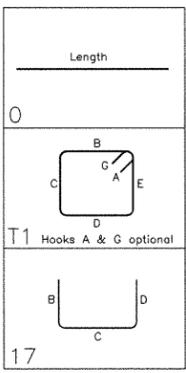
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 CHECKED BY: TL  
 DATE: 04/28/14  
 SHEET NO:



Drawing Sheet : A

Bar Mark	Qty	Size	Total Length	Type	'A'	'B'	'C'	'D'	'E'	'F'	'G'	'H'	'J'	'K'	'O'	'R'
51A102	12	#5	19'-7"			19'-7"										
51A501	* 14	#5	35'-0"			35'-0"										
51A502	8	#5	35'-0"			35'-0"										
51A503	16	#5	7'-1"			7'-1"										
51A504	12	#5	3'-0"			3'-0"										
51A550	18	#5	14'-10"	T1	0'-5 1/2"	3'-4 1/2"	3'-7"	3'-4 1/2"	3'-7"		0'-5 1/2"					
51A551	18	#5	14'-6"	T1	0'-5 1/2"	3'-4 1/2"	3'-5"	3'-4 1/2"	3'-5"		0'-5 1/2"					
51A553	* 12	#5	30'-0"			30'-0"										
51A554	12	#5	19'-0"			19'-0"										
52A102	12	#5	19'-7"			19'-7"										
52A501	14	#5	35'-0"			35'-0"										
52A502	8	#5	35'-0"			35'-0"										
52A503	16	#5	7'-1"			7'-1"										
52A504	12	#5	3'-0"			3'-0"										
52A550	18	#5	14'-10"	T1	0'-5 1/2"	3'-4 1/2"	3'-7"	3'-4 1/2"	3'-7"		0'-5 1/2"					
52A551	18	#5	14'-6"	T1	0'-5 1/2"	3'-4 1/2"	3'-5"	3'-4 1/2"	3'-5"		0'-5 1/2"					
61A650	* 37	#6	7'-2"	17		3'-7"	3'-7"									
62A650	* 37	#6	7'-2"	17		3'-7"	3'-7"									
81A801	* 22	#8	2'-0"			2'-0"										
82A801	* 22	#8	2'-0"			2'-0"										

\* BARS FOR TESTING PURPOSES INCLUDED



**ALL DUAL COATED REINF. DENOTED (Z)**

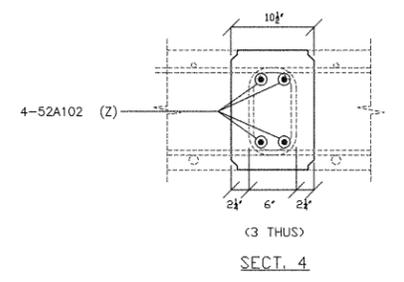
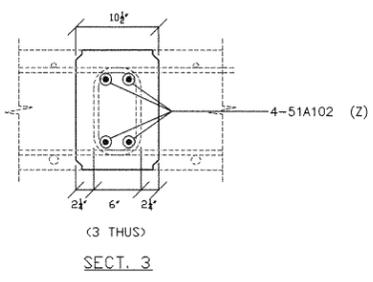
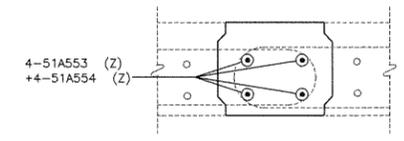
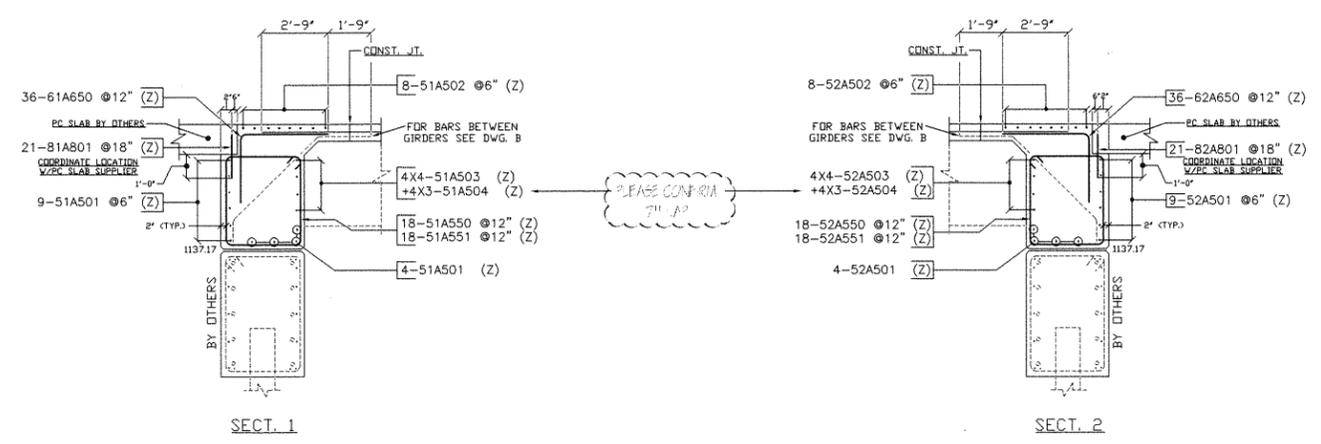
**LEGEND:**  
 CONT.-CONTINUOUS  
 TRANS.-TRANSVERSE  
 DWLS.-DOWELS  
 VERTS.-VERTICAL  
 HORIZ.-HORIZONTAL  
 T&B -TOP & BOTTOM  
 I.F.-INNER FACE  
 O.F.-OUTER FACE  
 E.E.-EACH END  
 E.F.-EACH FACE  
 F.F.-FRONT FACE  
 R.F.-REAR FACE  
 E.W.-EACH WAY  
 O.C.-ON CENTER  
 L.W.-LONG WAY  
 S.W.-SHORT WAY

**FOR APPROVAL**

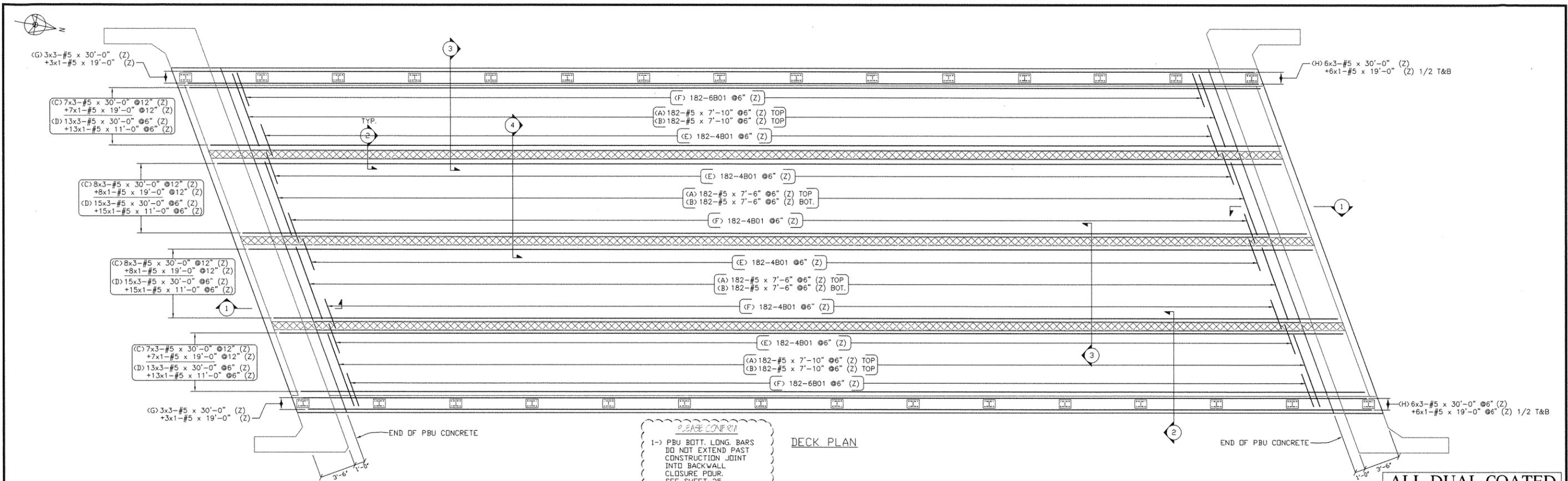
ELEVATIONS & DIMENSIONS SHOWN ON THIS DWG. ARE FOR REINF. DETAILING PURPOSES ONLY AND ARE NOT INTENDED FOR CONSTRUCTION.

REINF. BARS ASTM A615 GRADE 60 DUAL COATED

VERIFICATION OF UNCLEAR INFORMATION MAY BE REQUESTED ON THIS DRAWING. SHOULD VERIFICATION BE LEFT UN-ADDRESSED IT WILL REMAIN AS SHOWN AND ASSUME TO BE CORRECT.



8			
5			
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3			
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1	3-3-14	FOR APPROVAL	
DATE	REV.#	SENT FOR	
<b>DIMENSION</b>			
DIMENSION FABRICATORS INC.			
VTAOT WARREN BR# 013-4(32) PRECAST			
STRUCTURE	BRIDGE 166 ROUTE 100 (MINOR ARTERIAL)		
LOCATION	WARREN, VT		
ARCHITECT			
ENGINEER			
CUSTOMER	LUCK BROTHERS INC.		
DRAWN BY	ED	DATE	3/3/14
CHK'D BY		DATE	
DATE	3/3/14	DR #	8747
DRAWING COVERS			DRAWING #
LEVEL 2 ABUTMENT			A
DUAL COATED CIP REINFORCING			



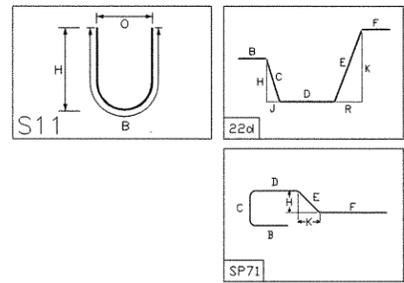
**BASE CONCRETE**  
 1-> PBU BOT. LONG. BARS DO NOT EXTEND PAST CONSTRUCTION JOINT INTO BACKWALL CLOSURE POUR. SEE SHEET 25  
 2-> PBU TRANSVERSE BARS DO NOT CONTINUE INTO ABUTMENT CLOSURE POUR. SEE SHEET 25

**DECK PLAN**

**ALL DUAL COATED REINF. DENOTED (Z)**

Release Number: 006

BAR LIST																
Bar Mark	Qty	Size	Total Length	Type	'A'	'B'	'C'	'D'	'E'	'F'	'G'	'H'	'J'	'K'	'O'	'R'
4B01	1092	#4	6'-8 1/2"	S11		6'-8 1/2"						3'-3"			0'-4 1/2"	
5B01	72	#5	9'-0"	22D			2'-0"	5'-9"	1'-3"			1'-5"	1'-5"	0'-10 1/4"		0'-10 1/4"
6B01	364	#6	6'-7 1/2"	SP71		1'-3"	0'-7 1/2"	1'-2 3/4"	0'-4 1/4"	3'-2"		0'-3"		0'-3"		



**LEGEND:**  
 CONT.-CONTINUOUS  
 TRANS.-TRANSVERSE  
 DWLS.-DOWELS  
 VERTS.-VERTICAL  
 HORIZ.-HORIZONTAL  
 T&B -TOP & BOTTOM  
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 E.F.-EACH FACE  
 F.F.-FRONT FACE  
 R.F.-REAR FACE  
 E.W.-EACH WAY  
 D.C.-ON CENTER  
 L.W.-LONG WAY  
 S.W.-SHORT WAY

**NOTES:**  
 MIN. LAP FOR LONGITUDINAL #5 BARS = 1'-9"

**FOR APPROVAL**

ELEVATIONS & DIMENSIONS SHOWN ON THIS DWG. ARE FOR REINF. DETAILING PURPOSES ONLY AND ARE NOT INTENDED FOR CONSTRUCTION.

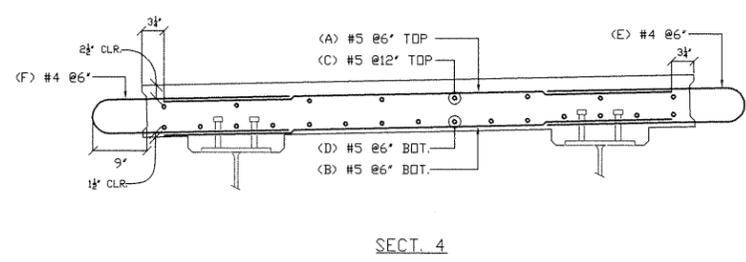
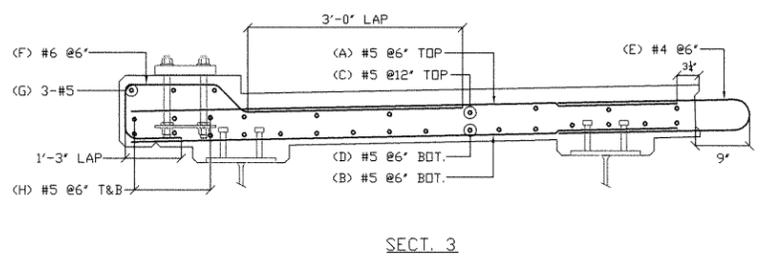
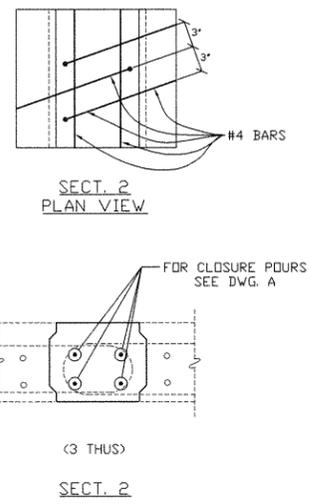
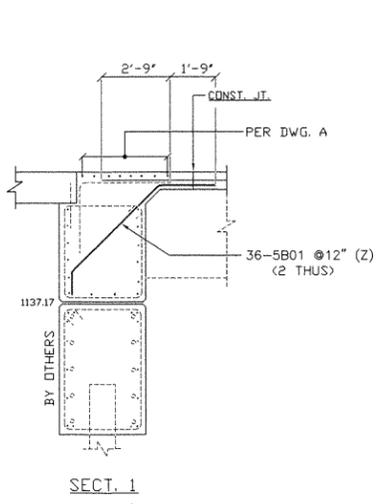
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6			
5			
4			
3			
2			
1	3-3-14	FOR APPROVAL	
	DATE	REV.#	SENT FOR

**DIMENSION**  
 DIMENSION FABRICATORS INC.  
 2000 7th STREET  
 BOULDER, CO. 80501  
 PH: (303) 440-1335  
 FAX: (303) 440-4500  
 www.dimensionfabricators.com

STRUCTURE: VTAOT WARREN BRG 013-4(32)  
 LOCATION: BRIDGE 166 ROUTE 100 (MINOR ARTERIAL) WARREN, VT  
 ARCHITECT:  
 ENGINEER:  
 CUSTOMER: LUCK BROTHERS INC.  
 DRAWN BY: ED  
 DATE: 3/3/14  
 DP #: 8747  
 DRAWING COVERS: PRE-FAB BRIDGE UNITS DUAL COATED REINFORCING  
 DRAWING #: B



QUALITY CONTROL PROCEDURES-PORTABLE BRIDGE UNITS.

1. S.D. IRELAND WILL BE RESPONSIBLE FOR THE CONTRACTOR/SUPPLIER QC TESTING DURING CONCRETE PLACEMENT. S.D. IRELAND WILL SUPPLY AN ON SITE TECHNICIAN TO MONITOR AND DOCUMENT AIR CONTENT, WATER CEMENT RATIO AND SLUMP OF EACH TRUCK. S. D. IRELAND WILL ALSO PRODUCE CONCRETE TEST CYLINDERS FOR 7, 14, 28 DAY STRENGTHS. S.D. IRELAND WILL BE RESPONSIBLE FOR ANY ADJUSTMENTS TO THE CONCRETE AT THE PLANT AND OR IN THE FIELD TO MEET THE REQUIRED SPECIFICATIONS.
2. A PRE-PRODUCTION MEETING SHALL BE HELD BETWEEN THE CONTRACTOR AND RESIDENT ENGINEER BEFORE CONCRETE PLACEMENT.
3. VTRANS WILL RETAIN THEIR RESPONSIBILITIES FOR QUALITY ACCEPTANCE TESTING.
4. FOUR EXTRA CYLINDER SETS PER CONCRETE PLACEMENT SHALL BE TAKEN FOR EARLY STRENGTH BREAKS.
5. ALL INSIDE FORM DIMENSION AND R-BAR SPACING AND CLEARANCES SHALL BE REVIEWED AND DOCUMENTED ON THE PRE-POUR INSPECTION SHEET BY THE CONTRACTOR AND RESIDENT ENGINEER BEFORE CASTING IS COMMENCED. ANY DEFICIENCIES SHALL BE CORRECTED TO MEET THE TOLERANCES BELOW.
6. BEFORE FORMS ARE ERECTED THE CONTRACTOR WILL PROFILE THE GIRDERS AT THE CASTING SITE THIS INFORMATION WILL BE USED TO DETERMINE BLOCKING DISTANCES AS DIRECTED BY THE ENGINEER.
7. FORMS SHALL HAVE A GENEROUS COATING OF FORM OIL APPLIED. CAUTION WILL BE TAKEN NOT TO HAVE PONDING OF FORM OIL IN THE BASE OF THE FORM OR ON ANY R-BAR.
8. ALL PRE-CAST WILL BE INSPECTED BY BOTH THE CONTRACTOR AND THE RESIDENT ENGINEER AND DOCUMENTED ON THE POST POUR INSPECTION SHEET.
9. CURE WILL MEET THE REQUIREMENTS OF SECTION 501.17  
 PORTABLE BRIDGE UNIT DIMENSIONAL TOLERANCES  
 +/- 1/4" - REINFORCING PLACEMENT +/- 1/4" COVER AND CLEARANCE 1" BAR SPACING.  
 LENGTH (EACH UNIT) +/- 3/4" (LENGTH OF ADJACENT UNITS SHOULDN'T VARY BY MORE THAN 3/4")  
 WIDTH +/- 3/8"  
 DEVIATION FROM DIAGONALS +/- 3/4" (HORIZONTAL)  
 DEVIATION SQUARENESS OR SKEW +/- 3/4"  
 HORIZONTAL ALIGNMENT +/- 3/8"
10. FIELD INSTALLATION TOLERANCES:  
 VERTICAL DEVIATION BETWEEN UNITS PRIOR TO GROUTING- +/- 1/4" (VERTICAL DEVIATIONS EXCEEDING 1/4" SHALL BE GROUND WITH DIAMOND CUP WHEELS OR OTHER MECHANICAL METHODS). THE CASTING OF ALL PBU UNITS WILL HAPPEN SIMULTANEOUSLY WITH A SINGLE SCREED MACHINE SPANNING THE ENTIRE WIDTH OF PBU 1-4. THIS SHOULD MINIMIZE ANY IRREGULARITIES IN THE JOINTS DEVIATION IN JOINT WITH- +/- 3/8".
11. EACH PIECE OF PRE-CAST SHALL BE MARKED WITH ITS UNIT NUMBER AND CASTING DATE.
12. CURING WILL MEET THE REQUIREMENTS OF SUBSECTION 501.17 (2) BURLAP CURE. PLACEMENT OF BURLAP WILL FOLLOW THE PROGRESS OF THE SCREED MACHINE FROM A WORK-PLATFORM WITH A LAG TIME NOT TO EXCEED 10 MINUTES. CRB WILL HAVE A POWER WASHER ON SITE FOR THE PURPOSE OF FOGGING AS NECESSARY. THE PROJECT SUPERINTENDENT WILL BE RESPONSIBLE FOR MONITORING THE CURE. ANY ADJUSTMENTS REQUIRED OR REQUESTED BY THE RESIDENT ENGINEER WILL BE MADE TO MAINTAIN THE PROPER CURING OF THE PBU UNITS. CRB WILL CHECK THE CURE DAILY INCLUDING WEEKENDS AND OTHER NON-WORKING DAYS. ALL CURING ACTIVITIES WILL BE DOCUMENTED ON THE CONTRACTORS DAILY REPORT.
13. CONCRETE FINISHING:  
 PBU FINISH WILL BE VIBRATORY SCREED FINISH. THE MORRISON SCREED WILL SPAN THE ENTIRE WIDTH OF THE PBU UNITS AND WILL RESIDE ON THE FASCIA PANELS. DRY RUNS WILL BE PERFORMED AND ADJUSTMENTS WILL BE MADE TO THE SCREED TO THE SATISFACTION OF THE ENGINEER. TOLERANCE FOR SCREED MACHINE +/- 1/4". HAND FINISHING WILL BE ALLOWED ONLY WERE IT IS NOT POSSIBLE TO USE THE SCREED MACHINE. MAGNESIUM BULL FLOATS IF NECESSARY WILL BE USED FROM A WORK BRIDGE POSITIONED BEHIND THE SCREED TO REMOVE ANY IRREGULARITIES IN THE CONCRETES SURFACE.

REPAIR OF UNITS

1. MINOR DEFECTS IN THE PBU UNITS SHALL BE FIXED USING AN OVERHEAD AND VERTICAL REPAIR MATERIAL FROM THE VERMONT AGENCY OF TRANSPORTATION APPROVED PRODUCTS LIST.
2. CRACKING .01" OR LESS SHALL BE SEALED WITH A PENETRATING SEALING FROM THE VERMONT AGENCY OF TRANSPORTATION APPROVED PRODUCTS LIST.
3. CRACK WIDTHS MEASURING .01"-.08" SHALL BE FILLED WITH AN EPOXY INJECTED CRACK FILLER FROM VERMONT AGENCY OF TRANSPORTATION APPROVED PRODUCT LIST.
4. PRODUCTION SITE HANDLING UNITS SHALL NOT BE LIFTED OR MOVED UNTIL DESIGN STRENGTH HAS BEEN MET.

PRE-ASSEMBLY:

LUCK BROTHERS, INC. WILL BE CASTING THE PBU UNITS OFF SITE. EACH UNIT WILL BE CONSTRUCTED IN A CASTING YARD APPROXIMATELY 2 MILES FROM THE SITE. PBU UNITS WILL BE CAST SIMULTANEOUSLY. THE UNIT WILL BE CAST AT THE SAME TIME WITH ONLY 19" BETWEEN BULK-HEADS. PRE-ASSEMBLY WILL NOT BE REQUIRED.

SHIPPING AND HANDLING:

PBU UNITS WILL BE CONSTRUCTED OFF SITE AND MOVED INTO PLACE ON TRAILERS. THE PBU UNITS WILL BE INSTALLED WITH CRANES AS PER ERECTION PLAN UNDER SEPARATE COVER. DO TO TIME RESTRICTIONS DURING THE BCP ANY REPAIR WORK (IF NEEDED) WILL BE REPAIRED BEFORE THE PBU UNIT ARE IN FINAL PLACEMENT. REPAIRS PRIOR TO FINAL PLACEMENT OF PBU'S DOES NOT RELIEVE THE CONTRACTOR FROM REPAIRING DEFECTS OR DAMAGE (IF NECESSARY) TO THE PBU'S DURING PLACEMENT AND SUBSEQUENT CONSTRUCTION ACTIVITIES.

ROBERT M. SUTHERLAND, P.C.  
 ENGINEERS-SURVEYORS-MATERIAL TESTING  
 PLATTSBURGH NEW YORK

REV	REVISION	DATE

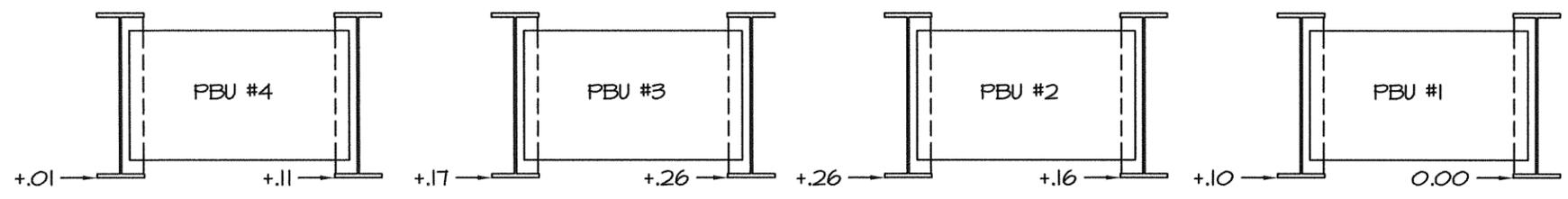
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CLIENT  
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 PLATTSBURGH, NY 12901

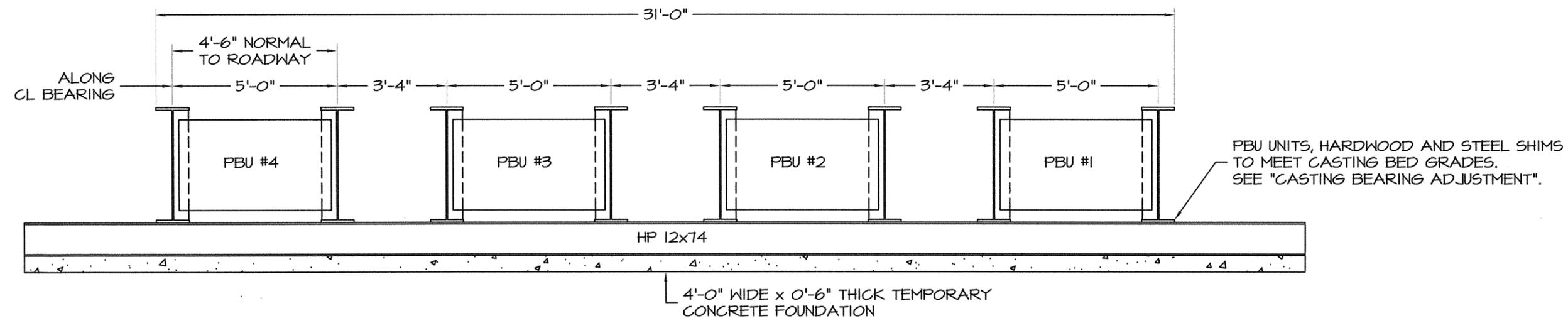
SHEET TITLE  
 QUALITY CONTROL  
 PROCEDURES/PLAN

DRAWN BY: KTW  
 CHECKED BY: TL  
 DATE: 04/28/14  
 SHEET NO:



- CASTING SEQUENCE:
1. POUR 6" THICK BY 4' WIDE CONCRETE PAD AT ENDS ON COMPACTED SUBGRADE
  2. PLACE 12" H-PILE ON CONCRETE PAD
  3. SET INDIVIDUAL PLATE GIRDERS, SHIM TO GRADE.
  4. BOLT AND TORQUE INDIVIDUAL PBU SECTIONS
  5. PROFILE INDIVIDUAL GIRDERS
  6. TIE R-BAR, BUILD BULKHEADS PBU-UNITS 1-4
  7. SET SCREED, TEST RUN
  8. CAST PBU DECK SECTIONS 1-4 SIMULTANEOUSLY

BEARING ADJUSTMENT FOR CASTING BED



REV	REVISION	DATE

REVISIONS

PROJECT  
 WARREN BRIDGE  
 013-4(32)  
 VT ROUTE 100  
 WARREN, VT

CLIENT  
 LUCK BROTHERS, INC.  
 TRADE ROAD  
 PLATTSBURGH, NY 12901

SHEET TITLE  
 PRE-CAST BRIDGE UNIT  
 PBU-CASTING PLAN

DRAWN BY: KTW  
 CHECKED BY: TL  
 DATE: 04/28/14  
 SHEET NO:

STATE OF VERMONT  
 AGENCY OF TRANSPORTATION  
 MATERIAL AND RESEARCH SECTION - STRUCTURAL CONCRETE UNIT  
 STRUCTURAL CONCRETE MIX DESIGN SUBMISSION

Concrete class: HPC A  
 Additional Description \_\_\_\_\_  
 Ready Mix Supplier: IRELAND CONCRETE - BURLINGTON, VT  
 Designed By: Nate Parry  
 Design strength: 4000 PSI  
 Design by dry weight or saturated surface dry: SSD

Agency Use Only	
Mix ID	HP00-A-0
Mix Design #	
Approved by	
Approved Date	
Spec Book Year	2014

Mix designs are valid for a 12 month period from date of approval or unless there is a change in material, material property or design parameter.

<b>Cement:</b>					
701.02	Source: _____	Specific Gravity	_____ lb/cy	_____	0.00 cf
	Brand Name: _____				
<b>Cement Type III:</b>					
701.04	Source: _____	Specific Gravity	_____ lb/cy	_____	0.00 cf
	Brand Name: _____				
<b>Blended Cement:</b>					
701.05	Source: <u>LAFARGE - TERCEM - MONTREAL, EAST PLANT</u>	Specific Gravity	<u>3.020</u>	<u>611</u> lb/cy	<u>3.24</u> cf
	Brand Name: <u>Terzem 3000</u>				
<b>Cement with Slag:</b>					
701.07	Source: _____	Specific Gravity	_____ lb/cy	_____	0.00 cf
	Brand Name: _____				
<b>Pozzolan:</b>					
725.03(a)	Source: _____	Specific Gravity	_____ lb/cy	_____	0.00 cf
	Brand Name: _____				
<b>Fly Ash:</b>					
725.03(a)	Source: _____	Specific Gravity	_____ lb/cy	_____	0.00 cf
	Brand Name: _____				
<b>Silica Fume:</b>					
725.03(b)	Source: _____	Specific Gravity	_____ lb/cy	_____	0.00 cf
	Brand Name: _____				
<b>Slag:</b>					
725.03(c)	Source: _____	Specific Gravity	_____ lb/cy	_____	0.00 cf
	Brand Name: _____				
<b>Water</b>					
<b>Air Content Target</b>			<u>31.5</u> gals	<u>262.9</u> lb/cy	<u>4.21</u> cf
<b>Coarse Aggregate 3/8"</b>			<u>7.0</u> %		<u>1.89</u> cf
704.02A	Source: _____	Absorption	_____	Specific Gravity	_____ lb/cy
					<u>0.00</u> cf
<b>Coarse Aggregate 3/4"</b>					
704.02B	Source: <u>IRELAND PIT - WILLISTON, VT</u>	Absorption	<u>0.37</u>	Specific Gravity	<u>2.800</u>
					<u>1725</u> lb/cy
					<u>9.87</u> cf
<b>Coarse Aggregate 1 1/2"</b>					
704.02C	Source: _____	Absorption	_____	Specific Gravity	_____ lb/cy
					<u>0.00</u> cf
<b>Fine Aggregate:</b>					
704.01	Source: <u>HINESBURG SAND &amp; GRAVEL - HINESBURG,</u>	Absorption	<u>1.30</u>	Specific Gravity	<u>2.670</u>
		Fineness Modulus	<u>1.90</u>		<u>1298</u> lb/cy
					<u>7.79</u> cf
<b>Air Entrainment Admixture</b>					
725.02(b)	Source: <u>W.R. GRACE &amp; CO. - CAMBRIDGE, MA</u>	Specific Gravity	<u>1.000</u>		<u>3</u> oz/cy
	Brand Name: <u>Darex II AEA</u>				
<b>Retarder Admixture:</b>					
725.02(c)	Source: <u>MASTER BUILDERS INC - MESQUITE, TX</u>	Specific Gravity	<u>1.000</u>		<u>2</u> oz/cwt
	Brand Name: <u>Pozzolith 100 XR</u>				
<b>High Range Water Reducer Admixture:</b>					
725.02(h)	Source: <u>MASTER BUILDERS INC - MESQUITE, TX</u>	Specific Gravity	<u>1.000</u>		<u>6.25</u> oz/cwt
	Brand Name: <u>Glenium 7500</u>				
<b>Other Admixtures:</b>					
	Source: _____	Specific Gravity	_____		<u>0.00</u> cf
	Brand Name: _____				
	Source: _____	Specific Gravity	_____		<u>0.00</u> cf
	Brand Name: _____				
	Source: _____	Specific Gravity	_____		<u>0.00</u> cf
	Brand Name: _____				
		TOTAL	<u>49.990</u>	<u>3897</u> lb	<u>27.00</u> cf

Maximum Water/Cementitious Ratio 0.44  
 Maximum Water (gal/cy) 32.2  
 Slump Min/Max (inch) \_\_\_\_\_ min \_\_\_\_\_ max  
 Air Content Min/Max (%) 5.5 min 8.5 max  
 Design Unit Wt. (lb/cf) 144.33

Notes:

Admixture dosages may vary on the basis of the ambient temperature, travel time, job site conditions and contractors preferred slump.

REV	REVISION	DATE

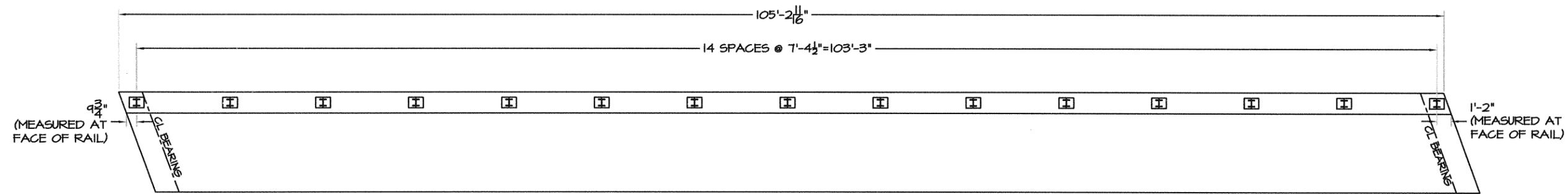
REVISIONS

PROJECT  
 WARREN BRF  
 013-4(32)  
 VT ROUTE 100  
 WARREN, VT

CLIENT  
 LUCK BROTHERS, INC.  
 TRADE ROAD  
 PLATTSBURGH, NY 12901

SHEET TITLE  
 PRE-CAST BRIDGE UNIT  
 CONCRETE MIX DESIGN

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 013-4(32)  
 VT ROUTE 100  
 WARREN, VT

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 LUCK BROTHERS, INC.  
 TRADE ROAD  
 PLATTSBURGH, NY 12901

SHEET TITLE  
 PRE-CAST BRIDGE UNIT  
 ANCHORAGE LAYOUT

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