_____ Approved __X__ Approved As Noted
_____ Rejected

This review is only for general conformance with the design concept and the information given in the Construction Documents. Corrections or comments made on the shop drawings during the review do not relieve the Contractor from compliance with the requirements of the Plans and Specifications. Review of a specific item shall not include review of an assembly of which an item is a component. The Contractor is responsible for dimensions to be confirmed and corrected at the job site; information that pertains solely to the fabrication process or to the means, methods, techniques, sequences and procedures of construction; coordination of the Work with that of other trades and performing all Work in a safe and satisfactory manner.

Date 5/29/2014

McFarland Johnson

By D. Kull

Vermont Agency of Transportation
RECEIVED
ON: May 23, 2014
and Checked for
CONFORMANCE
BY: Rob Young DATE: 05/30/2014

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.

Cement: 701.02	Source: / Brand Name:		Specific Gravity		lb/cy	0.00 cf
Cement Type III: 701.04	Source: / Brand Name:		Specific Gravity		lb/cy	0.00 cf
Blended Cement: 701.06	Source: LAFARGE - TERCEM - MONTREAL, EAST PLANT / Brand Name: Tercem 3000		Specific Gravity 3.020	811	lb/cy	3.24 cf
Cement with Slag: 701.07	Source: / Brand Name:		Specific Gravity		lb/cy	0.00 cf
Pozzolan: 725.03(a)	Source: / Brand Name:		Specific Gravity		lb/cy	0.00 cf
Fly Ash: 725.03(a)	Source: / Brand Name:		Specific Gravity		lb/cy	0.00 cf
Silica Fume: 725.03(b)	Source: / Brand Name:		Specific Gravity		lb/cy	0.00 cf
Slag: 725.03(c)	Source: / Brand Name:		Specific Gravity		lb/cy	0.00 cf
Water				31.5 gals	262.9 lb/cy	4.21 cf
Air Content Target				7.0 %		1.89 cf
Coarse Aggregate 3/8" 704.02A	Source:	Absorption	Specific Gravity		lb/cy	0.00 cf
Coarse Aggregate 3/4" 704.02B	Source: IRELAND PIT - WILLISTON, VT	Absorption 0.37	Specific Gravity 2.600	1725	lb/cy	9.67 cf
Coarse Aggregate 1 1/2" 704.02C	Source:	Absorption	Specific Gravity		lb/cy	0.00 cf
Fine Aggregate: 704.01	Source: HINESBURG SAND & GRAVEL - HINESBURG,	Absorption 1.30	Specific Gravity 2.670 Fineness Modulus 1.90	1298	lb/cy	7.79 cf
Air Entrainment Admixture 725.02(b)	Source: W.R. GRACE & CO. - CAMBRIDGE, MA / Brand Name: Darex II AEA		Specific Gravity 1.000	3	oz/cy	
Retarder Admixture: 725.02(c)	Source: MASTER BUILDERS INC - MESQUITE, TX / Brand Name: Pozzolith 100 XR		Specific Gravity 1.000	2	oz/cwt	
High Range Water Reducer Admixture: 725.02(h)	Source: MASTER BUILDERS INC - MESQUITE, TX / Brand Name: Glenium 7500		Specific Gravity 1.000	6.25	oz/cwt	
Other Admixtures:	Source: / Brand Name:		Specific Gravity			0.00 cf
	Source: / Brand Name:		Specific Gravity			0.00 cf
	Source: / Brand Name:		Specific Gravity			0.00 cf
			TOTAL 49.990	3897	lb	27.00 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.

ROBERT M. SUTHERLAND, P
ENGINEERS–SURVEYORS–MATERIAL TESTI
PLATTSBURGH NEW YORK

REV	REVISION	DATE
1	PER REVIEWER COMMENTS	05/22/14

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

DRAWN BY: KTW
CHECKED BY: TL
DATE: 04/28/14
SHEET NO:
10