



CONSTRUCTION LEADERS

LETTER OF TRANSMITTAL	
DATE: April 15, 2015	PCL JOB NO: 5515002
ATTN: Chris Barker	TRANSMITTAL NO: 057

To: **State of Vermont Agency of Transportation**
One National Life Drive

(802) 828-0053

Re: Hartford Lateral Slide
Project No.: IM 091-2(79)
Contract ID.: 12A132

County: Windsor

PCL FILE NO: 5515002-38

WE ARE SENDING Attached Under separate cover via Email & SP the following:

Shop drawings Prints Plans Samples Specifications

Copy of Letter Change Order Other

COPIES	SPEC.	REVISION	DESCRIPTION
1	501.32, Drawings Sheet 92		HPC Class AA Mix Design for Above Beam Haunch

TRANSMITTED for as checked below:

For approval Approved as submitted Resubmit **1** 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

Remarks:

The included HPC Class AA mix design is to be used above the beam haunch (in between the deck panels). This replaces information previously submitted under Submittal 028.1 Type IV Mortar.

Please return an email of this approved submittal to Erich Heymann (ewheymann@pcl.com) and Jeremy Mackling (jmackling@pcl.com).

We request the review and return of this submittal within **14 days**. Please advise if this request cannot be met so we can plan accordingly.

By: **Erich Heymann**, Project Engineer

COPY TO: Project Files



CONSTRUCTION LEADERS

**SUBMITTAL NO. : 38
HPC Class AA Mix Design**

Item No.	Specification	Description
1	501.32, Drawings Sheet 92	HPC Class AA Mix Design for Above Beam Haunch

**PROJECT:
HARTFORD LATERAL SLIDE
PROJECT NO.: IM 091-2(79)
CONTRACT ID.: 12A132**

**OWNER:
STATE OF VERMONT AGENCY OF TRANSPORTATION**

**ENGINEER OF RECORD:
STATE OF VERMONT AGENCY OF TRANSPORTATION**

**CONTRACTOR:
PCL CIVIL CONSTRUCTORS, INC.**

APRIL 15, 2015

**STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIAL AND RESEARCH SECTION - STRUCTURAL CONCRETE UNIT**

STRUCTURAL CONCRETE MIX DESIGN SUBMISSION

Concrete class: HPC AA
 Additional Description _____
 Ready Mix Supplier: CARROLL CONCRETE - W LEBANON, NH - RT 12A
 Designed By Scott Jordan
 Design strength _____ 4000 _____ PSI
 Mix Design Style: Conventional
 Agg weight - SSD or Dry: SSD

Agency Use Only	
Mix ID	HP00-AA-0
Mix Design #	
Approved by	
Approved Date	
Spec Book Year	2011

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:		Specific Gravity _____	_____ lb/cy	_____ cf
701.02	Source: _____ Brand Name: _____			
Cement Type III:		Specific Gravity _____	_____ lb/cy	_____ cf
701.04	Source: _____ Brand Name: _____			
Blended Cement:		Specific Gravity <u>2.980</u>	<u>705</u> lb/cy	<u>3.79</u> cf
701.06	Source: <u>LAFARGE - TERCEM - MONTREAL, EAST PLANT</u> Brand Name: _____			
Cement with Slag:		Specific Gravity _____	_____ lb/cy	_____ cf
701.07	Source: _____ Brand Name: _____			
Pozzolan:		Specific Gravity _____	_____ lb/cy	_____ cf
725.03(a)	Source: _____ Brand Name: _____			
Fly Ash:		Specific Gravity _____	_____ lb/cy	_____ cf
725.03(a)	Source: _____ Brand Name: _____			
Silica Fume:		Specific Gravity _____	_____ lb/cy	_____ cf
725.03(b)	Source: _____ Brand Name: _____			
Slag:		Specific Gravity _____	_____ lb/cy	_____ cf
725.03(c)	Source: _____ Brand Name: _____			
Water			<u>32</u> gals	<u>267.04</u> lb/cy
Air Content Target			<u>7.0</u> %	<u>4.28</u> cf
Coarse Aggregate 3/8"	Absorption <u>0.90</u>	Specific Gravity <u>2.880</u>	<u>1365</u> lb/cy	<u>7.60</u> cf
704.02A	Source: <u>LEBANON CRUSHED STONE - W LEBANON, NH</u>			
Coarse Aggregate 3/4"	Absorption _____	Specific Gravity _____	_____ lb/cy	_____ cf
704.02B	Source: _____			
Coarse Aggregate 1 1/2"	Absorption _____	Specific Gravity _____	_____ lb/cy	_____ cf
704.02C	Source: _____			
Fine Aggregate:	Absorption <u>1.40</u>	Specific Gravity <u>2.700</u>	<u>1590</u> lb/cy	<u>9.44</u> cf
704.01	Source: <u>LEBANON CRUSHED STONE - W LEBANON, N</u> Fineness Modulus <u>2.78</u>			
Air Entrainment Admixture		Specific Gravity _____	<u>1</u> oz/cy	
725.02(b)	Source: <u>MASTER BUILDERS INC - MESQUITE, TX</u> Brand Name: <u>MasterAir AE 200/MicroAir</u>			
Retarder Admixture:		Specific Gravity _____	<u>0.5</u> oz/cwt	
725.02(c)	Source: <u>MASTER BUILDERS INC - MESQUITE, TX</u> Brand Name: <u>MasterSet R100</u>			
High Range Water Reducer Admixture:		Specific Gravity _____	<u>4</u> oz/cwt	
725.02(h)	Source: <u>MASTER BUILDERS INC - MESQUITE, TX</u> Brand Name: <u>MasterGlenium 7500</u>			
Other Admixtures:		Specific Gravity _____	_____ gal/cy	_____ cf
	Source: _____ Brand Name: _____			
	Source: _____ Brand Name: _____	Specific Gravity _____	_____ oz/cwt	_____ cf
	Source: _____ Brand Name: _____			
	Source: _____ Brand Name: _____	Specific Gravity _____	_____	_____ cf
TOTAL		<u>47.560</u>	<u>3927</u> lb	<u>27.00</u> cf
Maximum Water/Cementitious Ratio		<u>0.40</u>		
Maximum Water (gal/cy)		<u>33.8</u>		
Slump Min/Max (inch)		<u>4.0</u> min	<u>7.0</u> max	
Air Content Min/Max (%)		<u>5.5</u> min	<u>8.5</u> max	
Design Unit Wt. (lb/cf)		<u>145.45</u>		

Notes: