

September 5, 2012

**ADDENDUM NO. 2**

Notice to All Persons and Firms Proposing  
to Submit a Bid or Furnish Materials for  
North County Sidewalks  
St. Louis County Project No. SWK-1406  
Federal Project No. STP-5401(660)

The construction contract for this project has been revised as follows:

**No. 1**

Add the following Special Provision:

**1000.10.2 CONCRETE ALKALI SILICA REACTION (ASR) MITIGATION**

Description

This special provision is intended to reduce the risk of a deleterious alkali-silica reaction in concrete exposed to humid or wet conditions. The special provision is not intended or adequate for concrete exposed to potassium acetate, potassium formate, sodium acetate or sodium formate deicers. This specification applies to all cast-in-place, precast, and precast/prestressed concrete exposed to humid or wet conditions that contain Mississippi river sand, Missouri river sand or other fine aggregate that alone or blended have an expansion greater than 0.16 percent per AASHTO T 303. The special provision shall not apply to the dry environment (humidity less than 60 percent) found inside buildings for residential or commercial occupancy.

Cementitious Material Requirements

- A. The cement content shall be as specified for the mix class required in the standard specifications or by the contract documents.
- B. For mix designs currently using Type I Portland cement, the contractor shall include in the concrete mix design, a low-alkali (containing not more than 0.60 percent Na<sub>2</sub>O equivalent, that is, percent Na<sub>2</sub>O + 0.658 x percent K<sub>2</sub>O) Type I/II Portland cement with supplementary cementitious materials in accordance with Sec 2.2.
- C. For mix designs with aggregate that alone or blended have an expansion greater than 0.16 percent per AASHTO T 303, replacement of cement with at least one of the following supplementary cementitious materials per cubic yard of concrete is required. When using more than one supplementary cementitious material, the total cement replacement shall not

exceed 40 percent by total cementitious (cement + supplementary cementitious material) weight:

1. Up to 15 percent Class C Fly Ash in accordance with Sec 1019;
2. Up to 25 percent Ground Granulated Blast-Furnace Steel Slag Grade 120 in accordance with Sec 1018;
3. Up to 4 percent of silica fume in accordance with AASHTO M 307;
4. Up to 5 percent of highly reactive metakaolin in accordance with AASHTO M 321

D. Department Mix Design Review for Alkali-Silica Reactivity

E. No placing of concrete shall begin before the Department has received and reviewed the following at least 21 days prior to placement:

1. Concrete mix design, designed and submitted in accordance with ACI 211.1 [and ACI 211.4R] except as modified by Div 500 or herein.

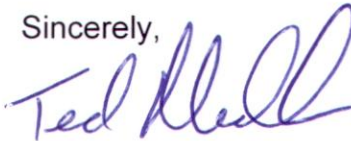
#### Basis of Payment

This will not be paid for directly but shall be considered to be included in the unit prices of the associated concrete items. Acceptance by the Contractor to use the mix design developed or reviewed by the Engineer shall not relieve the Contractor from meeting specification requirements.

#### No. 2

The Addendum Acknowledgement Form for Addendum No. 1 was inadvertently not included and is included as an attachment to this Addendum No. 2.

Sincerely,



for

Daniel R. Naunheim, P.E.  
Division Manager, Design

DRN/KJJ/dmd

*Attachments: Addendum Acknowledgements 1 & 2 (Please sign and return.)*



September 5, 2012

**ADDENDUM ACKNOWLEDGEMENT**

**ADDENDUM NO. 2**

FROM: St. Louis County Department of Highways and Traffic

RE: North County Sidewalks  
St. Louis County Project No. SWK-1406  
Federal Project No. STP-5401(660)

**PACKAGE INCLUDES THIS ACKNOWLEDGEMENT AND  
ADDENDUM NOTICE.**

(3 pages total)

IF YOU DID NOT RECEIVE ALL PAGES, CALL (314) 615-8581.

UPON RECEIPT OF THIS PACKAGE, **PLEASE SIGN AND  
DATE** (IN THE INDICATED LOCATIONS BELOW), AND **FAX  
THIS ACKNOWLEDGEMENT TO THE DEPARTMENT OF  
HIGHWAYS & TRAFFIC AT (314) 615-7648** (Attn: Karen Jones,  
DESIGN DIVISION) TO VERIFY RECEIPT

COMPANY \_\_\_\_\_

RECEIVED BY \_\_\_\_\_

DATE \_\_\_\_\_

September 5, 2012

**ADDENDUM ACKNOWLEDGEMENT**

**ADDENDUM NO. 1**

FROM: St. Louis County Department of Highways and Traffic

RE: North County Sidewalks  
St. Louis County Project No. SWK-1406  
Federal Project No. STP-5401(660)

**PACKAGE INCLUDES THIS ACKNOWLEDGEMENT AND  
ADDENDUM NOTICE AND NOTICE TO CONTRACTORS.**

(3 pages total)

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COMPANY \_\_\_\_\_

RECEIVED BY \_\_\_\_\_

DATE \_\_\_\_\_