

# A d d e n d u m

Iowa Department of Transportation  
Office of Contracts

Date of Letting: June 18, 2013  
Date of Addendum: June 13, 2013

<b>B.O.</b>	<b>Proposal ID</b>	<b>Proposal Work Type</b>	<b>County</b>	<b>Project Number</b>	<b>Addendum</b>
152	25-0802-230	HMA Paved Shoulder - New	Dallas	IMX-080-2(230)99--02-25	18jun152.a01

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Notice: Only the bid proposal holders receive this addendum and responsibility for notifying any potential subcontractors or suppliers remains with the proposal holder.

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Make the following changes to the PROPOSAL SCHEDULE OF PRICES:

Add Proposal Line No. 0481: 2527-9263109 PAINTED PAVEMENT MARKING,  
WATERBORNE OR SOLVENT-BASED, STA 2,372.140

If the above changes are not made, they will be made as shown here.

Add the following to the SPECIAL PROVISIONS LIST and PROPOSAL SPECIAL PROVISIONS TEXT:

SP-120075 MOVABLE TEMPORARY TRAFFIC BARRIER JUNE 18, 2013

SP-120076 PORTABLE DYNAMIC MESSAGE SIGN JUNE 18, 2013

Make the following correction to the plan: ESTIMATE REFERENCE INFORMATION:

ITEM NO. 1: 2102-2625000 EMBANKMENT IN PLACE

Replace the current ESTIMATE REFERENCE INFORMATION with:

Item for installation of steel beam guardrail and high tension cable guardrail. Quantity includes 2,659 cu. yds for Division 1 and 16,338 cu. yds for Division 2, see Detail 8101, Tab. 107-23, 107-24 and sheet C.10. 14,564 cu. yds of material is associated with the detail on sheet C.10. The embankment in place material used for grading these areas shall be free of rocks and debris and suitable for the establishment of vegetation as approved by the Engineer. Materials shall be furnished by the Contractor. No shrink or overhaul is included with this item.

Add following to SHEET C.1 STANDARD ROAD PLANS: TAB 105-4

04-16-13	PM-110 LINE TYPES
04-16-13	PM-310 ENTRANCE AND EXIT RAMPS
04-16-13	TC-433 PAVEMENT MARKING OPERATIONS

Add the attached SHEET NUMBER C.11 to the plans.

Add the attached SP-120075 and SP-120076 to the proposal.





**SPECIAL PROVISIONS  
FOR  
MOVABLE TEMPORARY TRAFFIC BARRIER**

**Dallas County  
IMX-080-2(230)99--02-25**

**Effective Date  
June 18, 2013**

**THE STANDARD SPECIFICATIONS, SERIES 2012, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE SPECIAL PROVISIONS AND THEY SHALL PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.**

**120075.01 DESCRIPTION.**

This work consists of furnishing, installing, maintaining, relocating, and removing Movable Temporary Traffic Barrier at the locations shown in the contract documents or as directed by the Engineer.

**120075.02 MATERIALS.**

- A.** Furnish Movable Temporary Traffic Barrier that:
  - 1. Is capable of being moved onto and off of the traveled portion of the roadway on a daily basis.
  - 2. Exhibits a dynamic deflection of less than 7.0 feet during NCHRP Report 350 Test 3-11 or AASHTO Manual for Assessing Safety Hardware (MASH) Test 3-11 for impacts into unanchored barrier sections.
  - 3. Is eligible for reimbursement under the Federal-aid highway program, as determined by FHWA's Office of Safety.
  
- B.** The following non-proprietary barriers will also be considered acceptable if the Contractor can demonstrate, to the satisfaction of the Engineer, the ability to move the barrier onto and off of the traveled portion of the roadway.
  - 1. Steel TBR (Standard Road Plan BA-400)
  - 2. Concrete TBR (Standard Road Plan BA-401)
  
- C.** If a proprietary barrier system is furnished, supply the Engineer with three copies of the manufacturer's current installation manual.

**120075.03 CONSTRUCTION.**

- A. Assemble, install, move, and maintain the barrier according to the manufacturer's specifications and the contract documents.
- B. Protect the approach end of the barrier at all times with a Temporary Crash Cushion.
- C. In order to maximize efficiency and minimize damage to bridge decks and pavement, it is intended that barrier located within the traveled portion of the roadway be anchored only at the ends, and only if necessary to limit deflections to less than 7.0 feet.
- D. Ensure crashworthiness of the barrier regardless of its placement on or off the traveled portion of the roadway.
- E. When located near drop-offs or fixed vertical objects, including bridge railings:
  - 1. For proprietary barriers, follow the offset and/or anchoring requirements of the manufacturer.
  - 2. For non-proprietary barriers, refer to the contract documents.
- F. Where anchoring of the barrier is necessary:
  - 1. For proprietary barriers, use a mechanical drop-in type anchor system recommended by the manufacturer that provides equal or greater strength than the anchor system used during crash testing. Adhesive/epoxy grouted anchor systems will not be allowed.
  - 2. For non-proprietary barriers, refer to the contract documents.
- G. Delineate the barrier as follows:
  - 1. For proprietary barriers, furnish barrier markers meeting the requirements of Article 4186.12 of the Standard Specifications. Use markers that match the color of the adjacent edge line. Attach the markers to the barrier every 20 feet in a manner approved by the barrier manufacturer.
  - 2. For non-proprietary barriers, refer to the contract documents.
- H. Repair any holes in the pavement and bridge deck resulting from anchoring of the barrier. Remove any steel to a depth of 2 inches below the riding surface, then blow the hole clean with compressed air. Fill the hole completely with an epoxy resin listed in Materials I.M. 491.19, Appendix A. Do not overfill. Follow the manufacturer's preparation, mixing, and application guidance. Complete repairs within 5 working days of barrier removal.

**120075.04 METHOD OF MEASUREMENT.**

The length of the barrier in place will be measured along the centerline of the barrier. The length measured will be the length required per setup. Measurement will also be made for the length of barrier added to an existing setup when required by the contract documents. Measurement after initial placement will not be made unless it is required by the contract documents to be moved to another traffic control location.

**120075.05 BASIS OF PAYMENT.**

Payment will be the contract unit price per linear foot. Maintenance and movement of the barrier will not be paid for separately, but will be included in the price bid for Movable Temporary Traffic Barrier.



**SPECIAL PROVISIONS  
FOR  
PORTABLE DYNAMIC MESSAGE SIGN**

**Dallas County  
IMX-080-2(230)99--02-25**

**Effective Date  
June 18, 2013**

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**120076.01 DESCRIPTION.**

Furnish, place, and maintain a Portable Dynamic Message Sign (PDMS) at locations specified on the plans. The Contractor maintains possession of the PDMS upon completion of the project.

**120076.02 MATERIALS.**

**A. Sign Design.**

1. A PDMS is defined as all components working together to accomplish the requirements of the specification. These components include, but are not limited to, the LED pixel boards, on-board computer, cellular modem, trailer, mounting equipment, solar panels, batteries, charge controller, etc.
2. The message panel shall be trailer mounted. Message panel mounted at a height of at least 7 feet, measured from the bottom of the sign to the ground directly below. Sign presents a level appearance. Sign is capable of displaying three lines of up to eight characters at one time. Character height is 18 inches and configured using a 7 pixel tall by 5 pixel wide font. Message panel may be configured as character matrix, line matrix or full matrix.
3. Message panel visible from 1/2 mile under both day and night conditions. Letters legible from 750 feet. Message sign shall include automatic dimming for nighttime operation and a power supply capable of providing continuous service for 7 continuous days without recharging.
4. Message panel controlled by an onboard computer capable of:
  - Storing a minimum of 99 programmed messages for instant recall,
  - Being programmed to accept messages created by the operator via an alpha-numeric keyboard, and
  - Being programmed remotely by the Department's National Transportation Communication for Intelligent Transportation Systems Protocols (NTCIP) DMS software.

5. Physical access to the onboard computer protected by a padlock or other locking handle mechanism. Electronic access to the onboard computer protected by a username and password.

**B. Cellular Communications.**

1. PDMS will be equipped with a cellular modem for remote communications. The cellular service provider shall have data coverage within the project limits. The IP address, communications port, software, and any username/password for web interface shall be supplied to the Engineer for integration into a statewide ITS control software.
2. The cellular modem shall be capable of obtaining its location by global positioning system (GPS) of satellites. Current location from GPS coordinates shall be stored in the cellular modem's memory for retrieval by ITS control software. Modem shall have firewall security protections that limit who and what can communicate to it.
3. Typical monthly data usage by the Contracting Authority is 5 Mb when PDMS is in good working condition. Additional data usage is possible if PDMS requires remote troubleshooting or maintenance.

**C. NTCIP Compliance.**

PDMS onboard computer and operating firmware will be compliant with at least National Transportation Communication for Intelligent Transportation Systems Protocols (NTCIP) 1203 v1.15 supplemented with NTCIP 1203 Amendment 1 v07, (dated July 3, 2001) for the following commands:

- Read configuration data from the sign,
- Send configuration data to the sign,
- Poll the sign (retrieve sign status) both manual and automated with software,
- Activate a message,
- Blank or remove a message,
- Upload fonts, and
- Reset the controller/onboard computer.

**120076.03 CONSTRUCTION.**

**A. Testing and Configuration.**

1. A least one week before the PDMS is deployed to a project for use, a testing and configuration meeting with the Engineer shall be held. Coordination of this meeting will be with the Department's ITS Engineer.
2. Physical and electronic access to PDMS shall be granted to the Engineer.
3. The Engineer, in conjunction with the Contractor, will perform necessary configuration adjustments in the PDMS and cellular modem to allow remote control by the Contracting Authority's NTCIP software.

**B. Operation of Signs by the Engineer.**

1. The Contracting Authority will use their own NTCIP compliant software to activate messages, check the sign's status and perform diagnostic tests.

2. At anytime during the project, the Engineer may remotely activate a message on the PDMS. Any message placed on the PDMS will not be removed or replaced by the Contractor unless requested by the Engineer.

**C. Maintenance of Signs.**

1. Provide preventive maintenance efforts necessary to achieve uninterrupted service.
2. The Engineer will perform remote diagnostic tests of the sign's operational status each morning and notify the Contractor when a problem is detected.
3. Provide unscheduled maintenance or total replacement of sign when sign is unable to display a message adequately within 24 hours of notification. Action must be taken to resolve the following problems if they have been visually observed or confirmed by self diagnostics by the PDMS for 3 continuous days or 7 intermittent days over a 2 week period.
  - a. An entire pixel board is showing a failure.
  - b. Five or more pixel failures over the entire message panel anytime while the sign is deployed for use (blank or displaying a message).
  - c. Two or more pixel failures in any character when displaying a message.
4. If service is not restored within 24 hours, the Engineer will cause such work to be performed as may be necessary to provide this service. The cost for this restoration shall be borne by the Contractor.

**120076.04 METHOD OF MEASUREMENT.**

The Engineer will count the number of days each PDMS is required to be in place along a road and capable of displaying messages to the traveling public by remotely using the Department's NTCIP software. Days when the PDMS is blank and is in good working condition, will be measured. Days when the PDMS is unable to display a message due to cellular or mechanical problems will not be measured. Days when the PDMS is on the roadway and not approved by the Engineer will not be measured.

**120076.05 BASIS OF PAYMENT.**

- A. Payment will be for the contract unit price per calendar day, measured as provided above.
- B. Payment is full compensation for furnishing, placing, and maintenance of PDMS. Payment includes the cost of preventative and unscheduled maintenance, cellular communication, hardware, and power supply.