

NOTIFICATION OF ADDENDUM

ADDENDUM NO. 1

DATED 7/31/2012

Control	3256-01-097
Project	NH 2012(713)
Highway	BW 8
County	HARRIS

Ladies/Gentlemen:

Attached please find an addendum on the above captioned project. Included in the attachment is an addendum notification which details the changes and the respective proposal pages which were added and/or changed.

Except for new bid insert pages, it is unnecessary to return any of the pages attached.

Bid insert pages must be returned with the bid proposal submitted to the Department, unless your firm is submitting a bid using a computer print out. The computer print out must be changed to reflect the new bid item information.

Contractors and material suppliers, etc. who have previously been furnished informational proposals are not being furnished a copy of the addendum. If you have a subcontractor on the above project, please advise them of this addendum. Acknowledgment of this addendum is not requested if your company has been issued a proposal stamped "This Proposal Issued for Informational Purposes."

You are required to acknowledge receipt of this addendum on the Addendum Acknowledgement form contained in your bid proposal by placing a mark in the box next to the respective addendum.

Failure to Acknowledge receipt of this addendum in your bid proposal will result in your bid not being read.

SUBJECT: PLANS AND PROPOSAL ADDENDUMS

PROJECT: NH 2012(713)

CONTROL: 3256-01-097

COUNTY: HARRIS

LETTING: 08/08/2012

REFERENCE NO: 0726

PROPOSAL ADDENDUMS

- X PROPOSAL COVER
- X BID INSERTS (SH. NO.: 1 through 5)
- X GENERAL NOTES (SH. NO.: e & g)

- X SPEC LIST (SH. NO.: 1 & 2 of 2 of 2)
- _ SPECIAL PROVISIONS:)
- ADDED:

DELETED:

- X SPECIAL SPECIFICATIONS:
- ADDED: 3257

DELETED: 3213

- X OTHER: plan sheets 2,3,9,10,11,13,13a-13d & 44a

DESCRIPTION OF ABOVE CHANGES
(INCLUDING PLANS SHEET CHANGES)

Proposal

Cover: Revised number of working days

Bid Inserts:.

1 of 5 - Added Item 438-2002 and revised qty for Item 361-2006,
revised quantity for Item 502-2001.

5 of 5 - Removed Item 3213-2001 and replaced with Item 3257-2001

5 of 5 - Revised quantity for Item 6834-2001

General Notes:

Sheet E - Added Table to ITEM 502

SHEET G - Changed Item 3213 to Item 3257, and revised the third
paragraph.

Plan Sheets:

Sheet 2 - Index of Sheets - Added Sheets 13A, 13B, 13C, 13D, and 44A

Sheet 3 - Typical Section - Changed Item 3213 to Item 3257 on both
Northbound and Southbound BW 8 Typical Sections, and modified Note 1.

Sheet 9 - Added Two-Lane Closure Table to Item 502.

Sheet 10 - Changed Item 3213 to Item 3257 and modified the 3rd paragraph.

DESCRIPTION OF ABOVE CHANGES (CONTINUED)
(INCLUDING PLANS SHEET CHANGES)

Sheet 11 - See Bid Items changes above

Sheet 13 - See Bid Item changes above

Sheets 13A through 13D and Sheet 44A - Added

Spec List:

Sheet 1 of 2 - Added Item 438

Sheet 2 of 2 - Removed Item 3213 and added Item 3257 and reference items.

Control	3256-01-097
Project	NH 2012(713)
Highway	BW 8
County	HARRIS

PROPOSAL TO THE TEXAS TRANSPORTATION COMMISSION

2004 SPECIFICATIONS

WORK CONSISTING OF DIAMOND GRINDING CONCRETE PAVEMENT HARRIS COUNTY, TEXAS

The quantities in the proposal are approximate. The quantities of work and materials may be increased or decreased as considered necessary to complete the work as planned and contemplated.

This project is to be completed in 60 working days and will be accepted when fully completed and finished to the satisfaction of the Executive Director or designee.

Provide a proposal guaranty in the form of a Cashier's Check, Teller's Check (including an Official Check) or Bank Money Order on a State or National Bank or Savings and Loan Association, or State or Federally chartered Credit Union made payable to the Texas Transportation Commission in the following amount:

THIRTEEN THOUSAND (Dollars) (\$13,000)

A bid bond may be used as the required proposal guaranty. The bond form may be detached from the proposal for completion. The proposal may not be disassembled to remove the bond form. The bond must be in accordance with Item 2 of the specifications.

Any addenda issued amending this proposal and/or the plans that have been acknowledged by the bidder, become part of this proposal.

By signing the proposal the bidder certifies:

1. the only persons or parties interested in this proposal are those named and the bidder has not directly or indirectly participated in collusion, entered into an agreement or otherwise taken any action in restraint of free competitive bidding in connection with the above captioned project.
2. in the event of the award of a contract, the organization represented will secure bonds for the full amount of the contract.
3. the signatory represents and warrants that they are an authorized signatory for the organization for which the bid is submitted and they have full and complete authority to submit this bid on behalf of their firm.
4. that the certifications and representations contained in the proposal are true and accurate and the bidder intends the proposal to be taken as a genuine government record.

• **Signed: ****

(1) _____ (2) _____ (3) _____

Print Name:

(1) _____ (2) _____ (3) _____

Title:

(1) _____ (2) _____ (3) _____

Company:

(1) _____ (2) _____ (3) _____

- Signatures to comply with Item 2 of the specifications.

**Note: Complete (1) for single venture, through (2) for joint venture and through (3) for triple venture.

*** When the working days field contains an asterisk (*) refer to the Special Provisions and General Notes.**

NOTICE TO CONTRACTORS

ANY CONTRACTORS INTENDING TO BID ON ANY WORK TO BE AWARDED BY THIS DEPARTMENT MUST SUBMIT A SATISFACTORY “AUDITED FINANCIAL STATEMENT” AND “EXPERIENCE QUESTIONNAIRE” AT LEAST TEN DAYS PRIOR TO THE LETTING DATE.

UNIT PRICES MUST BE SUBMITTED IN ACCORDANCE WITH ITEM 2 OF THE STANDARD SPECIFICATIONS OR SPECIAL PROVISION TO ITEM 2 FOR EACH ITEM LISTED IN THIS PROPOSAL.

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	361	2006	001	FULL-DEPTH REPAIR CRCP (13") DOLLARS and CENTS	SY	1,400.000	1
	438	2002		CLEAN AND SEAL EXIST JOINTS DOLLARS and CENTS	LF	64,000.000	2
	500	2001	005	MOBILIZATION DOLLARS and CENTS	LS	1.000	3
	502	2001	033	BARRICADES, SIGNS AND TRAFFIC HAN- DLING DOLLARS and CENTS	MO	4.000	4
	662	2001		WK ZN PAV MRK NON-REMOV (W) 4" (BRK) DOLLARS and CENTS	LF	16,005.000	5
	662	2004		WK ZN PAV MRK NON-REMOV (W) 4" (SLD) DOLLARS and CENTS	LF	80.000	6
	662	2014		WK ZN PAV MRK NON-REMOV (W) 12" (SLD) DOLLARS and CENTS	LF	200.000	7
	662	2016		WK ZN PAV MRK NON-REMOV (W) 24" (SLD) DOLLARS and CENTS	LF	100.000	8
	666	2015	014	REFL PAV MRK TY I (W) 6" (BRK)(100MIL) DOLLARS and CENTS	LF	17,505.000	9
	666	2018	014	REFL PAV MRK TY I (W) 6" (DOT)(100MIL) DOLLARS and CENTS	LF	440.000	10

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	666	2024	014	REFL PAV MRK TY I (W) 6" (SLD)(100MIL) DOLLARS and CENTS	LF	1,437.000	11
	666	2036	014	REFL PAV MRK TY I (W) 8" (SLD)(100MIL) DOLLARS and CENTS	LF	5,131.000	12
	666	2042	014	REFL PAV MRK TY I (W) 12"(SLD)(100MIL) DOLLARS and CENTS	LF	3,442.000	13
	666	2048	014	REFL PAV MRK TY I (W) 24"(SLD)(100MIL) DOLLARS and CENTS	LF	750.000	14
	666	2054	014	REFL PAV MRK TY I (W) (ARROW) (100MIL) DOLLARS and CENTS	EA	23.000	15
	666	2069	014	REFL PAV MRK TY I(W)(DBL ARROW)(100MIL) DOLLARS and CENTS	EA	9.000	16
	666	2072	014	REFL PAV MRK TY I(W)(ENTR GORE)(100MIL) DOLLARS and CENTS	EA	5.000	17
	666	2075	014	REFL PAV MRK TY I(W)(EXIT GORE)(100MIL) DOLLARS and CENTS	EA	5.000	18
	666	2093	014	REFL PAV MRK TY I(W)(UTURN ARW)(100MIL) DOLLARS and CENTS	EA	6.000	19
	666	2096	014	REFL PAV MRK TY I (W) (WORD) (100MIL) DOLLARS and CENTS	EA	32.000	20

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	666	2120	014	REFL PAV MRK TY I (Y) 6" (SLD)(100MIL) DOLLARS and CENTS	LF	2,680.000	21
	666	2155	014	REF PAV MRK TY II (W) 12" (SLD) DOLLARS and CENTS	LF	1,200.000	22
	666	2188	014	REF PAV MRK TY II (Y) (MED NOSE) DOLLARS and CENTS	EA	6.000	23
	666	2190	014	PAVEMENT SEALER 6" DOLLARS and CENTS	LF	1,500.000	24
	666	2191	014	PAVEMENT SEALER 8" DOLLARS and CENTS	LF	5,131.000	25
	666	2193	014	PAVEMENT SEALER 12" DOLLARS and CENTS	LF	3,442.000	26
	666	2195	014	PAVEMENT SEALER 24" DOLLARS and CENTS	LF	750.000	27
	666	2216	014	REF PAV MRK TY I (BLACK)6"(BRK)(100MIL) DOLLARS and CENTS	LF	17,505.000	28
	666	2219	014	PAVEMENT SEALER (ARROW) DOLLARS and CENTS	EA	23.000	29
	666	2220	014	PAVEMENT SEALER (WORD) DOLLARS and CENTS	EA	32.000	30
	666	2224	014	PAVEMENT SEALER (DBL ARROW) DOLLARS and CENTS	EA	9.000	31

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	666	2230	014	PAVEMENT SEALER UTURN ARROW DOLLARS and CENTS	EA	6.000	32
	672	2015	034	REFL PAV MRKR TY II-A-A DOLLARS and CENTS	EA	84.000	33
	672	2017	034	REFL PAV MRKR TY II-C-R DOLLARS and CENTS	EA	1,290.000	34
	677	2002		ELIM EXT PAV MRK & MRKS (6") DOLLARS and CENTS	LF	6,057.000	35
	677	2003		ELIM EXT PAV MRK & MRKS (8") DOLLARS and CENTS	LF	5,131.000	36
	677	2005		ELIM EXT PAV MRK & MRKS (12") DOLLARS and CENTS	LF	3,442.000	37
	677	2007		ELIM EXT PAV MRK & MRKS (24") DOLLARS and CENTS	LF	750.000	38
	677	2008		ELIM EXT PAV MRK & MRKS (ARROW) DOLLARS and CENTS	EA	23.000	39
	677	2009		ELIM EXT PAV MRK & MRKS (DBL ARROW) DOLLARS and CENTS	EA	9.000	40
	677	2010		ELIM EXT PAV MRK & MRKS (ENTR GORE) DOLLARS and CENTS	EA	5.000	41
	677	2011		ELIM EXT PAV MRK & MRKS (EXIT GORE) DOLLARS and CENTS	EA	5.000	42

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	677	2013		ELIM EXT PAV MRK & MRKS (MED NOSE) DOLLARS and CENTS	EA	6.000	43
	677	2016		ELIM EXT PAV MRK & MRKS (UTURN ARR) DOLLARS and CENTS	EA	6.000	44
	677	2018		ELIM EXT PAV MRK & MRKS (WORD) DOLLARS and CENTS	EA	32.000	45
	3257	2001		CONTINUOUS DIAMOND GRINDING OF CONC PMT DOLLARS and CENTS	SY	122,753.000	46
	6834	2001		PORTABLE CHANGEABLE MESSAGE SIGN DOLLARS and CENTS	DAY	75.000	47
	7622	2001		FIBER REINFORCED POLYMER PATCH MATE- RIAL DOLLARS and CENTS	LB	23,150.000	48

Project Number:

Sheet

County: Harris

Control: 3256-01-097

Highway: Beltway 8

GENERAL NOTES:

General:

If fixed features require, the governing slopes shown may vary between the limits shown and to the extent determined by the Engineer.

The following standard detail sheet has been modified:

EC(1)-09 MOD

References to manufacturer's trade name or catalog numbers are for the purpose of identification only. Similar materials from other manufacturers are permitted if they are of equal quality, comply with the specifications for this project, and are approved, except for roadway illumination, electrical, and traffic signal items.

The cost for materials, labor, and incidentals to provide for traffic across the roadway and for ingress and egress to private property in accordance with Section 7.7 of the standard specifications is subsidiary to the various bid items. Restore access roadways to their original condition upon completing construction.

Procure permits and licenses, which are to be issued by the City, County, or Municipal Utility District.

General: Site Management

Mark stations every 100 ft. and maintain the markings for the project duration. Remove the station markings at the completion of the project. This work is subsidiary to the various bid items.

Do not mix or store materials, or store or repair equipment, on top of concrete pavement or bridge decks unless authorized by the Engineer. Permission will be granted to store materials on surfaces if no damage or discoloration will result.

Personal vehicles of employees are not permitted to park within the right of way, including sections closed to public traffic. Employees may park on the right of way at the Contractor's office, equipment, and materials storage yard sites.

Assume ownership of debris and dispose of at an approved location. Do not dispose of debris on private property unless approved in writing by the District Engineer.

Control the dust caused by construction operations. For sweeping the base material in preparation for laying asphalt and for sweeping the finished concrete pavement, use one of the following types of sweepers or equal:

Tricycle Type

Truck Type - 4 Wheel

Tricycle Type
 Wayne Series 900
 Elgin White Wing
 Elgin Pelican

Truck Type - 4 Wheel
 M-B Cruiser II
 Wayne Model 945
 Mobile TE-3
 Mobile TE-4
 Murphy 4042

General: Traffic Control and Construction

When design details are not shown on the plans, provide signs and arrows conforming to the latest "Standard Highway Sign Designs for Texas" manual.

General: Utilities

Employ responsible care to avoid damaging utility facilities. Depending upon scope and magnitude of planned construction activities, advanced field confirmation by the utility owner or operator may be prudent. Where possible, protect and preserve permanent signs, markers, and designations of underground facilities.

If the Contractor damages or causes damage (breaks, leaks, nicks, dents, gouges, etc.) to the utility, contact the utility facility owner or operator immediately.

Be aware that an operational Computerized Transportation Management System (CTMS) exists within the limits of this project and that the system must remain operational throughout construction. Repair any damage to this system within 8 hours of occurrence at no cost to the Department. In the event of system damage, notify the TxDOT Houston District Maintenance Office (Mr. David Fink at 713-881-3063) within one hour of occurrence. Failure of the Contractor to repair damage to the main fiber optic cable and CCTV cable trunk lines, which convey all corridor information to TranStar, will result in the Contractor being billed for the full cost of emergency repairs.

At least 48 hours before starting work, make arrangements for locating existing Department-owned above ground and underground fiber optic, communications, power, illumination, and traffic signal cabling and conduit. Do this by calling the Department's Houston District Traffic Signal Operations Office at 713-802-5662 to schedule marking of underground lines on the ground. Use caution if working in these areas to avoid damaging or interfering with existing facilities.

If working near power lines, comply with the appropriate sections of Texas State Law and Federal Regulations relating to the type of work involved.

Item 8: Prosecution and Progress

Working days will be computed and charged based on a standard workweek in accordance with Section 8.3.C.2.b.

The Lane Closure Assessment Fee is \$3,000.00 for entrance and exit ramps, and \$1,000.00 for the frontage road (Beltway 8.) This fee applies to the Contractor for closures or obstructions that overlap into restricted hour traffic for each hour or portion thereof, per lane, regardless of the length of lane closure or obstruction. For Restricted Hours subject to Lane Assessment Fee refer to the Item, "Barricades, Signs, and Traffic Handling."

Items 360, 420, and 421: All Concrete Items

For the Department's concrete cylinder split samples, transport the test cylinders to the Houston District Laboratory located at 7600 Washington Avenue in Houston, or to the appropriate Area Laboratory, when applicable. Transporting the test cylinders is subsidiary to the various bid items.

Item 361: Full-Depth Repair of Concrete Pavement

For full depth repair, remove only the quantity of pavement replaceable during the daily allowable work schedule.

Remove loose subbase material and replace it with concrete. Use a bondbreaker, such as a polyethylene sheet, at the interface between the replaced subbase material and the new concrete pavement.

Supply polyethylene fabric on the job site sufficient to cover the area of repair.

Do not place concrete placement if impending weather may result in rainfall or low temperatures that may impair the quality of the finished work.

Repair portions of the concrete pavement surfaces that are damaged while in a plastic state before those areas receive permanent pavement markings and open to traffic. Perform repairs that are structurally equivalent to and cosmetically uniform with adjacent undamaged areas. Do not repair by grouting onto the surface.

Ready mix concrete will be permitted if the equipment and construction methods can produce the desired results. Hand finishing will be permitted.

Perform saw cutting as shown on the plans in accordance with Section 360.4.J, "Sawing Joints." This saw cutting is subsidiary to this bid Item.

Item 502: Barricades, Signs, and Traffic Handling

Use a traffic control plan for handling traffic through the various phases of construction. Follow the phasing sequence unless otherwise agreed upon by the Area Engineer and the Project

County: Harris

Control: 3256-01-097

Highway: Beltway 8

Manager. Ensure this plan conforms to the latest “Texas Manual on Uniform Traffic Control Devices” and the latest Barricade and Construction (BC) Standard Sheets.

Submit changes to the traffic control plan to the Area Engineer. Provide a layout showing the construction phasing, signs, striping, and signalizations for changes to the original traffic control plan.

Furnish and maintain the barricades and warning signs, including the necessary temporary and portable traffic control devices, during the various phases of construction. Place and construct these barricades and warning signs in accordance with the latest “Texas Manual on Uniform Traffic Control Devices” for typical construction layouts.

Cover work zone signs when work related to the signs is not in progress, or when any hazard related to the signs no longer exists.

Keep the delineation devices, signs, and pavement markings clean. This work is subsidiary to the Item, “Barricades, Signs, and Traffic Handling.”

Erect temporary signs when exit ramps are closed or moved to new locations during construction.

Cover or remove the permanent signs and construction signs that are incorrect or that do not apply to the current situation for a particular phase.

Do not mount signs on drums or barricades, except those listed in the latest Barricades and Construction standard sheets.

Use traffic cones for daytime work only. Replace the cones with plastic drums during nighttime hours.

Use shadow vehicles with Truck Mounted Attenuators (TMA) for lane closures during construction. Do not reduce the existing number of lanes open to traffic except as shown on the following time schedule:

**One Lane Closure
Frontage Road (Beltway 8)**

Day	Daytime Closure Hours	Nighttime Closure Hours	Restricted Hours Subject to Lane Assessment Fee
Monday Through Friday	9:00 AM - 3:00 PM	12:00 AM - 5:00 AM 7:00 PM - 12:00 AM	5:00 AM - 9:00AM 3:00 PM - 7:00 PM

**Two Lane Closure
Frontage Road (Beltway 8)**

Day	Daytime Closure Hours	Nighttime Closure Hours	Restricted Hours Subject to Lane Assessment Fee
Monday Through Friday	None	12:00 AM - 5:00 AM 9:00 PM - 12:00 AM	5:00 AM - 9:00PM

Entrance and Exit Ramp Closure

Day	Daytime Closure Hours	Nighttime Closure Hours	Restricted Hours Subject to Lane Assessment Fee
Monday Through Friday	None	12:00 AM - 5:00 AM 10:00 PM - 12:00 AM	5:00 AM - 10:00 PM

**Weekend One/Two Lane Closure
Frontage Road (Beltway 8) &
Entrance and Exit Ramp Closure**

Day	Daytime Closure Hours	Nighttime Closure Hours	Restricted Hours Subject to Lane Assessment Fee
Saturday Through Sunday	None	12:00 AM - 11:00 AM 8:00 PM - 12:00 AM	11:00 AM - 8:00 PM

The above times are approved for the traffic control conditions listed. The Area Engineer may approve other closure times if traffic counts warrant. The Area Engineer may reduce the above times for special events.

Law enforcement assistance will be required for this project and is expected to be required for major traffic control changes and lane closures. Coordinate with local law enforcement and arrange for law enforcement as directed or agreed by the Engineer. Before payment will be made, complete the "Daily Report on Law Enforcement Force Account Work" (Form 318), provided by the Department and submit daily invoices that agree with this form for any day during the month in which approved services were provided.

Provide full-time, off-duty, uniformed, certified peace officers, as part of traffic control operations. The peace officers must be able to show proof of certification by the Texas Commission on Law Enforcement Officers Standards. The cost of the officers is paid for on a force account basis.

County: Harris**Control:** 3256-01-097**Highway:** Beltway 8

A minimum of 7 days in advance of any total closure, notify the Houston District Public Information Office of which roadways, ramps, intersections, or lanes will be closed, the dates they will remain closed, and when they will be opened again to traffic.

A minimum of 7 days in advance of any total closure, place a static message board sign at the location of each total closure which informs the traveling public of the details of the closure.

Provide portable changeable message signs as shown on the Traffic Control Plan and the Special Specification Item, "Portable Changeable Message Signs."

Item 506: Temporary Erosion, Sedimentation and Environmental Control

The use of hay bales is not permitted as Storm Water Pollution Prevention Plan (SW3P) measures.

The Storm Water Pollution Prevention Plan (SW3P) consists of temporary erosion control measures needed and provided for under this Item. This work is paid for by the force account for this Item. Since the disturbed area is less than 5 acres, a "Notice of Intent" (NOI) is not required.

Use appropriate measures to prevent, minimize, and control the spill of hazardous materials in the construction staging area. Remove and dispose of materials in compliance with State and Federal laws.

Item 585: Ride Quality for Pavement Surfaces

Use Surface Test Type B and Pay Adjustment Schedule 2 except for the outside lane. Use Surface Test Type A for the outside lane.

Item 662: Work Zone Pavement Markings

At the end of each day's work, mark roadways that remain open to traffic during construction operations with standard pavement markings, in accordance with the latest "Texas Manual on Uniform Traffic Control Devices."

Item 662: Work Zone Pavement Markings**Item 666: Reflectorized Pavement Markings**

Use Type III glass beads for thermoplastic pavement markings.

Use a 0.100 in. (100 mil) thickness for thermoplastic pavement markings, measured to the top of the thermoplastic, not including the exposed glass beads.

For roadways with asphalt surfaces to be striped with work zone or permanent thermoplastic markings, the Contractor has the option to apply paint and beads markings for a maximum 30-day period until placing the thermoplastic markings, or until starting the succeeding phase of work on the striped area. Maintain the paint and beads markings, at no expense to the

County: Harris**Control:** 3256-01-097**Highway:** Beltway 8

Department, until placing the thermoplastic markings or starting the succeeding phase of work on the striped area. The work zone markings, whether paint and beads or thermoplastic, are paid under the Item, "Work Zone Pavement Markings" and the markings are paid for only once for the given phase of construction.

If using paint and bead markings as described above, purchase the traffic paint from the open market.

If the work zone markings become dirty and require cleaning by washing, brushing, compressed air, or other approved methods before applying the Type I thermoplastic markings, this additional cleaning is subsidiary to the Item, "Reflectorized Pavement Markings."

Establish the alignment and layout for work zone striping and permanent striping.

Stripe roadways before opening them to traffic.

Place pavement markings under these items in accordance with details shown on the plans, the latest "Texas Manual on Uniform Traffic Control Devices," or as directed.

When design details are not shown on the plans, provide pavement markings for arrows, words, and symbols conforming to the latest "Standard Highway Sign Designs for Texas" manual.

Item 672: Raised Pavement Markers

Provide epoxy adhesive that is machine-mixed or nozzle-mixed and dispensed. Equip the machine or nozzle with a mechanism to ensure positive mix measurement control.

Item 3257: Diamond Grinding and Grooving Pavement

The contractor is required to verify existing pavement material.

After the diamond grinding is completed, repairs will be made to the concrete pavement either with the Special Specification Item, "Fiber Reinforced Polymer Patching Material for Concrete" or the Item, "Full-Depth Repair of Concrete Pavement" as directed by the Engineer in the field.

Measure ride quality in accordance with Item 585, "Ride Quality for Pavement Surfaces," after completion of grinding and residue removal operations. Use Surface Test Type B and Pay Adjustment Schedule 2 except for the outside lane. Use Surface Test Type A for the outside lane.

Item 7622: Fiber Reinforced Polymer Patching Material

The color of the repair material for concrete pavement will be gray.

Resin and bulking stone will not be mixed prior to placing the material in the spall area.

CONTROL : 3256-01-097
PROJECT : NH 2012(713)
HIGHWAY : BW 8
COUNTY : HARRIS

TEXAS DEPARTMENT OF TRANSPORTATION

GOVERNING SPECIFICATIONS AND SPECIAL PROVISIONS

ALL SPECIFICATIONS AND SPECIAL PROVISIONS APPLICABLE TO THIS PROJECT ARE IDENTIFIED AS FOLLOWS:

STANDARD SPECIFICATIONS: ADOPTED BY THE TEXAS DEPARTMENT OF
----- TRANSPORTATION JUNE 1, 2004.
STANDARD SPECIFICATIONS ARE INCORPORATED
INTO THE CONTRACT BY REFERENCE.

ITEMS 1 TO 9 INCL., GENERAL REQUIREMENTS AND COVENANTS
ITEM 361 FULL-DEPTH REPAIR OF CONCRETE PAVEMENT (300)(340)(360)
(421)(438)(440)
ITEM 438 CLEANING AND SEALING JOINTS AND CRACKS (RIGID PAVEMENT
AND BRIDGE DECKS)
ITEM 500 MOBILIZATION
ITEM 502 BARRICADES, SIGNS, AND TRAFFIC HANDLING (6834)
ITEM 506 TEMPORARY EROSION, SEDIMENTATION, AND ENVIRONMENTAL
CONTROLS
ITEM 662 WORK ZONE PAVEMENT MARKINGS (666)(668)(672)(677)
ITEM 666 REFLECTORIZED PAVEMENT MARKINGS (316)(318)(662)(677)(678)
ITEM 672 RAISED PAVEMENT MARKERS (677)(678)
ITEM 677 ELIMINATING EXISTING PAVEMENT MARKINGS AND MARKERS (300)
(302)(316)

SPECIAL PROVISIONS: SPECIAL PROVISIONS WILL GOVERN AND TAKE
----- PRECEDENCE OVER THE SPECIFICATIONS ENUMERATED
HEREON WHEREVER IN CONFLICT THEREWITH.

REQUIRED CONTRACT PROVISIONS, FEDERAL-AID CONSTRUCTION CONTRACTS
(FORM FHWA 1273, MARCH, 1994)

WAGE RATES

SPECIAL PROVISION "NOTICE TO ALL BIDDERS" (000---003)
SPECIAL PROVISION "NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO
ENSURE EQUAL EMPLOYMENT OPPORTUNITY" (000---004)
SPECIAL PROVISION "STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY
CONSTRUCTION CONTRACT SPECIFICATIONS" (000---006)
SPECIAL PROVISION "CERTIFICATION OF NONDISCRIMINATION IN EMPLOYMENT"

(000---009)

SPECIAL PROVISION "DEPARTMENT DIVISION MAILING AND PHYSICAL ADDRESS"
(000---011)

SPECIAL PROVISION "NOTICE OF CHANGES TO U.S. DEPARTMENT OF LABOR
REQUIRED PAYROLL INFORMATION" (000--1483)

SPECIAL PROVISION "ON-THE-JOB TRAINING PROGRAM" (000--1676)

SPECIAL PROVISION "DISADVANTAGED BUSINESS ENTERPRISE IN FEDERAL AID
CONTRACTS" (000--1966)

SPECIAL PROVISION "PARTNERING" (000--2329)

SPECIAL PROVISION "SCHEDULE OF LIQUIDATED DAMAGES" (000--2332)

SPECIAL PROVISION TO ITEM 1 (001---015)

SPECIAL PROVISION TO ITEM 2 (002---017)

SPECIAL PROVISION TO ITEM 3 (003---033)

SPECIAL PROVISION TO ITEM 4 (004---017)

SPECIAL PROVISION TO ITEM 5 (005---004)

SPECIAL PROVISION TO ITEM 6 (006---030)

SPECIAL PROVISION TO ITEM 7 (007---918)

SPECIAL PROVISIONS TO ITEM 8 (008---013)(008---119)

SPECIAL PROVISIONS TO ITEM 9 (009---009)(009---015)

SPECIAL PROVISION TO ITEM 300 (300---039)

SPECIAL PROVISION TO ITEM 302 (302---010)

SPECIAL PROVISION TO ITEM 316 (316---016)

SPECIAL PROVISION TO ITEM 318 (318---010)

SPECIAL PROVISION TO ITEM 340 (340---003)

SPECIAL PROVISION TO ITEM 360 (360---003)

SPECIAL PROVISION TO ITEM 361 (361---001)

SPECIAL PROVISION TO ITEM 421 (421---035)

SPECIAL PROVISION TO ITEM 440 (440---006)

SPECIAL PROVISION TO ITEM 500 (500---005)

SPECIAL PROVISION TO ITEM 502 (502---033)

SPECIAL PROVISION TO ITEM 506 (506---010)

SPECIAL PROVISION TO ITEM 666 (666---014)

SPECIAL PROVISION TO ITEM 672 (672---034)

SPECIAL SPECIFICATIONS:

- ITEM 3257 DIAMOND GRINDING AND GROOVING PAVEMENT (361)(438)(585)
(720)(7622)
- ITEM 6834 PORTABLE CHANGEABLE MESSAGE SIGN
- ITEM 7622 FIBER REINFORCED POLYMER PATCHING MATERIAL (302)

GENERAL: THE ABOVE-LISTED SPECIFICATION ITEMS ARE THOSE UNDER WHICH
----- PAYMENT IS TO BE MADE. THESE, TOGETHER WITH SUCH OTHER
PERTINENT ITEMS, IF ANY, AS MAY BE REFERRED TO IN THE ABOVE-
LISTED SPECIFICATION ITEMS, AND INCLUDING THE SPECIAL
PROVISIONS LISTED ABOVE, CONSTITUTE THE COMPLETE SPECIFI-
CATIONS FOR THIS PROJECT.

SPECIAL SPECIFICATION

3257

Diamond Grinding and Grooving Pavement

- 1. Description.** Diamond grind and groove existing pavement surfaces and remove resulting residue at locations shown on the plans or as directed.
- 2. Equipment.** Provide machinery, tools, and equipment necessary for proper execution of the work.
 - A. Diamond Grinding Equipment.** Utilize diamond grinding equipment that:
 - has diamond blades mounted on a self-propelled machine designed for grinding and texturing pavement;
 - weighs a minimum 35,000 lbs. (grinding head included);
 - has sufficient size to grind a strip at least 4 ft. wide, and can produce overlapping match lines out of the wheel path;
 - will not cause ravels, aggregate fractures, spalls, or disturbance to the transverse or longitudinal joints; and
 - has a positive means of vacuuming the grinding residue from the pavement surface and will leave the pavement in a clean condition.
 - B. Diamond Grooving Equipment.** Utilize diamond grooving equipment that:
 - utilizes diamond blades mounted on a multi-blade arbor on a self-propelled machine, which has been built for grooving of pavement;
 - has a grooving machine with a depth control device that can adjust the cutting head height to maintain the depth of groove specified; and
 - has a grooving machine with devices to control alignment.
- 3. Construction.** Perform and schedule construction operations to produce a neat, uniform finished surface. Transition auxiliary or ramp lane grinding from the edge of the mainline as required to provide drainage and an acceptable riding surface. Complete pavement repair operations, if required, before performing any grinding.

Demonstrate grinding and grooving work to receive approval of the operation procedure and the use of grinding and grooving and residue removing equipment.

- A. Grinding.** Perform grinding in a longitudinal direction beginning and ending at lines perpendicular to the pavement lane lines. Start grinding at the outside edge of the pavement, and continue across the lane surface to the opposite outer edge of the traffic lane or pavement. Grind surfaces on both sides of transverse joints or cracks, and finish the surfaces in essentially the same plane.

Produce a finished cross slope that mirrors the pre-grind cross slope and has no depressions or misalignment of slope greater than 1/4 in. per 12 ft. when measured with a 10-ft. straightedge placed perpendicular to the centerline. Also use the straightedge perpendicular to the centerline to ensure the Contractor does not grind a “W” into the roadway surface when grinding wheel-rutted surfaces. Re grind any areas of deviation. Straightedge requirements will not apply across longitudinal joints or outside the ground area.

Transition auxiliary and ramp lane grinding from the mainlane edge as directed. Terminate grinding at bridge joints.

Produce a uniform surface with a longitudinal corduroy-type texture that eliminates joint and crack faults. Provide positive lateral surface drainage by maintaining a constant cross-slope across each lane.

- 1. Final Surface Finish.** Produce a pavement surface that is true to grade and uniform in appearance with a longitudinal line-type texture. Cut the line-type texture with corrugations that:

- are parallel to the outside pavement edge;
- present a narrow ridge corduroy type appearance;
- have peaks of the ridges 1/8 in. \pm 1/16 in. higher than the bottoms of the grooves; and
- have evenly spaced ridges with dimensions within the limits of Table 1.

Table 1

Dimensional Limits

Dimension Description	Limestone	Gravel
Land width between grooves, in.	0.090 to 0.110	0.080 to 0.095

Select the number of grooves per foot to produce the previously described surface finish for each aggregate type that may be present in the concrete surface on the project. The Engineer may require removal of unbroken fins at the Contractor’s expense. Grind to produce a pavement with a minimum of 98% of any 100 ft. section of treated surface textured, and to remove the transverse tine texture from existing pavement surfaces. Depressed pavement areas due to subsidence or other existing localized causes will be excluded from this requirement when approved by the Engineer.

- B. Grooving.** Produce longitudinal grooves that are parallel to the pavement centerline. Begin and end longitudinally grooved areas with lines perpendicular to the pavement centerline.

Place longitudinal grooves across the pavement width to within 6 in. of the longitudinal joint or edge of pavement. Construct grooves with a depth of 3/16 in. +/- 1/16 in.; a width of 1/8 in. +/- 1/32 in.; and spaced at 3/4 in. +/- 1/16 in., center to center, unless otherwise shown on the plans.

Do not groove ground asphaltic pavement unless otherwise shown on the plans.

- C. **Repairs.** As directed, perform repairs in accordance with Item 720, "Repair of Spalling in Concrete Pavement," if spalls are 0.25–3 in. in depth. As directed, clean and seal existing joints and cracks in accordance with Item 438, "Cleaning and Sealing Joints and Cracks (Rigid Pavement and Bridge Decks)."
- D. **Smoothness Requirements.** Unless otherwise shown on the plans, measure ride quality in accordance with Item 585, "Ride Quality for Pavement Surfaces."

Depressed pavement areas due to subsidence or other localized causes will be excluded from the smoothness requirements. These areas will be reviewed and approved by the Engineer.

Bumps exceeding 0.3 in. per 25 ft. will not be allowed in the finished ground surface.

- E. **Slurry Removal.** Remove and dispose of residue from the pavement surface in a manner to satisfy environmental regulations. Immediately and continuously, remove the slurry or residue resulting from the grinding operation. Keep pavement in a washed clean condition, free of slipperiness from the slurry, etc. Do not permit the residue to flow across shoulders or lanes occupied by traffic or into gutters or other drainage facilities

4. Measurement.

- A. **Continuous Diamond Grinding of Concrete Pavement.** Continuous diamond grinding of concrete pavement will be measured by the square yard of surface area ground and accepted, within the limits shown on the plans.
- B. **Spot Diamond Grinding of Concrete Pavement.** Spot diamond grinding of concrete pavement will be measured in place at locations determined by the Engineer.
- C. **Continuous Diamond Grinding of Asphaltic Pavement.** Continuous diamond grinding of asphaltic pavement will be measured by the square yard of surface area ground and accepted, within the limits shown on the plans.
- D. **Spot Diamond Grinding of Asphaltic Pavement.** Spot diamond grinding of asphaltic pavement will be measured in place at locations determined by the Engineer.
- E. **Continuous Diamond Grooving of Concrete Pavement.** Continuous diamond grooving of concrete pavement will be measured by the square yard of surface area grooved and accepted, within the limits shown on the plans.
- F. **Spot Diamond Grooving of Concrete Pavement.** Spot diamond grooving of concrete pavement will be measured in place at locations determined by the Engineer.

5. Payment. The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Continuous Diamond Grinding of Concrete Pavement," "Spot Diamond Grinding of Concrete Pavement," "Continuous Diamond Grinding of Asphaltic Pavement," "Spot Diamond Grinding of Asphaltic Pavement," "Continuous Diamond Grooving of Concrete Pavement," or "Spot Diamond Grooving of Concrete Pavement." This price is full compensation for grinding the pavement surface; loading, hauling, and disposing of the residue material; labor; tools; equipment; and incidentals. Demonstration work to receive approval for use of equipment will not be paid for unless work is performed in accordance with the Contract and is accepted.

Repairs to existing pavement, and cleaning and sealing existing joints and cracks will be paid for in accordance with pertinent items or under Force Account as directed.

This page intentionally left blank.