

**ADDENDUM No. 1**

Date: **April 29, 2014**

City of Austin

Project Name: **Waller Creek Tunnel Project – 8th Street Creek Side Inlet Facility Rebid**

CIP ID# **6521.006**

This Addendum forms a part of Contract and clarifies, corrects or modifies original Bid Documents, dated **April 14, 2014**. Acknowledge receipt of this addendum in space provided on bid form. Failure to do so may subject bidder to disqualification.

A. Project Manual Revisions:

1. Delete (in its entirety), Section 00300U – Unit Price Bid Form and replace with the attached Section 00300U – Unit Price Bid Form (15 pages). Changes to this document include:
  - a. All precast manholes changed to polymer concrete
  - b. 36" FRPM WW pipe changed to PVC
2. Delete (in its entirety), Section 00400 – Statement of Bidders Experience and replace with the attached Division1, Section 00400 – Attachment of Bidders Experience (7 pages). Changes to this document include:
  - a. Deletion of Post-Bid Requirements: Attachment E, F, H, and J
3. Delete (in its entirety), Section 00830BC – Wage Rates and Payroll Reporting. No replacement pages are issued with this item.
4. Delete (in its entirety), Section 01040 – Project Coordination and replace with the attached Section 01040 – Project Coordination (3 Pages).
  - a. Deletion of Tunnel related language.
5. Delete (in its entirety), Section 01505 – Construction & Demolition Waste Management and replace with the attached Section 01505 – Construction & Demolition Waste Management (9 Pages).
  - a. Clarification on numbering in section 3.4.
6. Delete (in its entirety), Special Provision SP506 – Special Provision to Standard Specification 506 Manholes and replace with the attached Special Provision SP506 – Special Provision to Standard Specification 506 Manholes (5 Pages). Changes to this document include:
  - a. Addition of polymer concrete structures requirements to Standard Specification 00506, via Special Provision.

B. Drawing Revisions:

None.

This addendum consists of 41 page(s)/sheet(s).

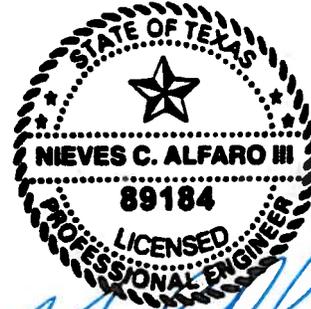


Approved by OWNER



Approved by ENGINEER/ARCHITECT

END



**Bidding Requirements, Contract Forms and Conditions of the Contract**  
**UNIT PRICE BID FORM**  
Section 00300U

The undersigned, in compliance with the Invitation for Bids for construction of the following Project:

**Waller Creek Tunnel Project – 8th St. Creek Side Inlet Facility REBID**

(CIP ID# 6521.006) (IFB# 6100 CLMC456A) for the City of Austin, Texas, having examined the Project Manual, Drawings and Addenda, the site of the proposed Work and being familiar with all of the conditions surrounding construction of the proposed Project, having conducted all inquiries, tests and investigations deemed necessary and proper; hereby proposes to furnish all labor, permits, material, machinery, tools, supplies and equipment, and incidentals, and to perform all Work required for construction of the Project in accordance with the Project Manual, Drawings and Addenda within the time indicated for the following prices of:

Note: The Bidder will enter the line item subtotal in the "Amount" column below, which is the product of the estimated "Quantity" multiplied by the "Unit Price". Any mathematical errors will be corrected for the purpose of determining the correct Amount to be entered in the Bid Form. The Amounts, including any corrected Amounts, will then be totaled to determine the actual amount of the Bid.

<b>Bid Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Item Description</b>	<b>Unit Price</b>	<b>Amount</b>
101S-C	1	LS	Preparing Right of Way	\$_____	\$_____
104S-G	1	LS	Remove Miscellaneous P.C. Concrete	\$_____	\$_____
201S	1420	SY	Subgrade Preparation	\$_____	\$_____
210S-A	273	CY	Flexible Base	\$_____	\$_____
315S-A2.5	745	SY	Surface Milling, 2.5" thickness (TxDOT ROW)	\$_____	\$_____
315S-A3	2,042	SY	Surface Milling, 3" thickness (COA ROW)	\$_____	\$_____
340S-A	42	TON	Hot Mix Asphaltic Concrete Pavement, Type C (COA ROW)	\$_____	\$_____
340S-B-2C	622	SY	Hot Mix Asphaltic Concrete Pavement, 2 inches, Type C (TxDOT ROW)	\$_____	\$_____

340S-B-2.5D	1,420	SY	Hot Mix Asphaltic Concrete Pavement, 2.5 inches, Type D (Post Construction Parking Lot Repair)	\$_____	\$_____
360S-A-7	245	SY	7 In. Concrete Pavement	\$_____	\$_____
402S-A	1,070	CY	Controlled Low Strength Material	\$_____	\$_____
403S-CY	2.7	CY	Pier Caps – Class S Concrete	\$_____	\$_____
420S-A	52	LF	Drilled Shaft, 30 In. Dia.	\$_____	\$_____
430S-A	522	LF	P.C. Concrete Curb and Gutter (Excavation)	\$_____	\$_____
SP430S-G	100	LF	TxDOT Type II Curb and Gutter	\$_____	\$_____
432S-5	3035	SF	New P.C. Concrete Sidewalks, 5 Inch thickness	\$_____	\$_____
432SR-5	1635	SF	Reconstruct Concrete Sidewalks to 5 Inch thickness, including removal of existing Sidewalk	\$_____	\$_____
432S-RP-1	6	EA	P.C. Sidewalk Curb Ramp with Pavers (Type 1)	\$_____	\$_____
432S-PRC-1	290	LF	Pedestrian Railing (Standard 707S-1)	\$_____	\$_____
432S-SAC-5	1	EA	Streetscape Street Light	\$_____	\$_____
433S-C	220	SF	Type II P.C. Concrete Driveway (COA ROW)	\$_____	\$_____
433S-T	150	SF	Type II P.C. Concrete Driveway (TxDOT ROW)	\$_____	\$_____
439S	14	EA	Parking Lot Bumper Curbs	\$_____	\$_____

505S-B1	10	LF	Encasement Pipe 24" Dia., Type Steel Split Casing	\$_____	\$_____
505S-B2	64	LF	Encasement Pipe 24" Dia., Steel (Sch 60)	\$_____	\$_____
506S-ABSW	1	EA	Abandonment of Existing Manholes	\$_____	\$_____
506S EDMSW8	10	VF	Extra Depth of Manhole, 8' Dia.	\$_____	\$_____
506S EDMSW9	5	VF	Extra Depth of Manhole, 9' Dia.	\$_____	\$_____
506S CNWW	1	EA	Connection to Existing 4' DIA. Manhole	\$_____	\$_____
506S JWW6'x5'	1	EA	Junction Box, 6 Ft. x 5 Ft.	\$_____	\$_____
506S MSW-5	1	EA	Standard Pre-Cast Manhole w/Pre-cast Base, 5' Dia.	\$_____	\$_____
506S SLWW	9	VF	Structural Lining of 4' Dia. Manhole	\$_____	\$_____
506S SSW8	1	EA	Special Manhole, 8' Dia.	\$_____	\$_____
506S SSW9	1	EA	Special Manhole, 9' Dia.	\$_____	\$_____
SP506 EDMWW-4	1	VF	Extra Depth Polymer Concrete Manhole, 4' Dia.	\$_____	\$_____
SP506 EDMWW-7	7	VF	Extra Depth Polymer Concrete Manhole, 7' Dia.	\$_____	\$_____
SP506 EDMWW-8	2	VF	Extra Depth Polymer Concrete Manhole, 8' Dia.	\$_____	\$_____

SP506 MWW-4	1	EA	Pre-cast Polymer Concrete Manhole w/Pre-cast Base, 4' Dia.	\$ _____	\$ _____
SP506 MWW-5	1	EA	Pre-cast Polymer Concrete Manhole w/Pre-cast Base, 5' Dia.	\$ _____	\$ _____
SP506 MFWW-7	3	EA	Flat Top Pre-cast Polymer Concrete Manhole w/Pre-cast Base, 7' Dia.	\$ _____	\$ _____
SP506 MFWW-8	1	EA	Flat Top Pre-cast Polymer Concrete Manhole w/Pre-cast Base, 8' Dia.	\$ _____	\$ _____
SP506 MF1WW-8	1	EA	Flat Top Pre-cast Polymer Concrete Manhole w/ CIP Base, 8' Dia.	\$ _____	\$ _____
SP506 MWW-RE	3	EA	Remove Existing Manhole	\$ _____	\$ _____
508S- IG2'x2'	1	EA	Inlet, Grated - 2' x 2'	\$ _____	\$ _____
SP508S-8SI	1	LS	8th Street Creek Side Inlet Debris Screening Structure and Dam	\$ _____	\$ _____
509S-1	1,541	LF	Trench Excavation Safety Protective Systems (all depths)	\$ _____	\$ _____
510-AWRJ6- PVC	54	LF	Factory Restrained Joint Pipe, 6" dia., C900 PVC (all depths), including Excavation and Backfill	\$ _____	\$ _____
510-AWRJ6- DIP	62	LF	Factory Restrained Joint Pipe, 6" Dia., Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$ _____	\$ _____
510-AWW8- PVC	19	LF	Pipe, 8" Dia.PVC SDR 26 (all depths), including Excavation and Backfill	\$ _____	\$ _____

510-AWW12-PVC	58	LF	Pipe, 12" Dia. PVC SDR 26 (all depths), including Excavation and Backfill	\$_____	\$_____
510-AWW18-PVC	26	LF	Pipe, 18" Dia. PVC DR 26 (all depths), including Excavation and Backfill	\$_____	\$_____
510-AWW36-PVC	272	LF	Pipe, 36" Dia PVC (All Depths), Including Excavation and Backfill	\$_____	\$_____
510-AWW18-DIP	109	LF	Pipe, 18" Dia. DIP Class 350 (all depths), including Excavation and Backfill	\$_____	\$_____
510-BW 2x12 Dia	6	EA	Connecting New Water Service, 2" dia. Water Service to 12" dia. Water Line	\$_____	\$_____
510-JR6x12Dia	1	EA	Wet Connections, 6" Dia X 12" Dia	\$_____	\$_____
510-FW	21	LF	Concrete Trench Cap, 3 Ft. Width	\$_____	\$_____
510-KW	0.4	TON	Ductile Iron Fittings	\$_____	\$_____
SP510-SW 2x12 Dia	1	EA	Connecting New Water Service to Existing Water Line (2" Dia. Service to 12" Dia. Water Line)	\$_____	\$_____
510-ASD18	40	LF	Pipe, 18" Dia RCP Class III (All Depths), Including Excavation and Backfill	\$_____	\$_____
510-ASD30	56	LF	Pipe, 30" Dia. RCP Class III (All Depths), Including Excavation and Backfill	\$_____	\$_____
510-ASD72	550	LF	Pipe, 72" Dia RCP Class IV (All Depths), Including Excavation and Backfill	\$_____	\$_____

SP510-VIDEO	550	LF	Video Inspection of Newly Installed Box Culverts and Storm Drain Pipe	\$_____	\$_____
511S-A6	2	EA	Valves, Gate Type, 6" Diameter	\$_____	\$_____
511S-B	2	EA	Fire Hydrants (See Standard No. 511S-17)	\$_____	\$_____
SP591S-E	1	LS	Ecological Weir Structure	\$_____	\$_____
SP602S-A	1,420	SY	Buffalo Grass Sodding with Blue Gramma Overseed	\$_____	\$_____
SP609S-B	828	SY	Native Grassland – Upland Facultative Seeding	\$_____	\$_____
610S-B	300	LF	Protective Fencing Type B Wood Fence (Typical Application-high damage potential)	\$_____	\$_____
623S	2340	SF	Dry Stack Rock Wall	\$_____	\$_____
628S-B	460	LF	Sediment Containment Dikes with filter fabric	\$_____	\$_____
628S-D	6	EA	Filter Curb Inlet Protection (Existing Inlet)	\$_____	\$_____
639S	50	LF	Rock Berm	\$_____	\$_____
642S	80	LF	Silt Fence for Erosion Control	\$_____	\$_____
700S-TM	1	LS	Total Mobilization Payment	\$_____	\$_____
701S-T	440	LF	Temporary Fence with Privacy Screening, 8 Foot High, Wood Plank	\$_____	\$_____

SP701S-CP8x16	1	EA	Temporary Chain Link Vehicular Double Swing Gate with Privacy Screening, 8 Foot x 16 Foot	\$_____	\$_____
SP701S-WI	20	LF	Wrought Iron Fence, 5 Foot High	\$_____	\$_____
720S-A	2,250	LB	Structural Steel	\$_____	\$_____
802S-B C.I.P.	2	EA	C.I.P. Project Sign	\$_____	\$_____
803S-MO	16	MO	Barricades, Signs, and Traffic Handling	\$_____	\$_____
860S-C	600	LF	Pavement Marking Paint (Reflectorized), 4-Inch, Solid White	\$_____	\$_____
863S-4	4	EA	Reflectorized Pavement Markers (Type II-B-B)	\$_____	\$_____
863S-5	47	EA	Reflectorized Pavement Markers (Type II-C-R)	\$_____	\$_____
871S-AR4BW	500	LF	Replace Reflectorized Type I Thermoplastic Pavement Markings, 4 inches in width, 90 mils in thickness, broken white line in color	\$_____	\$_____
871S-AR4SW	413	LF	Replace Reflectorized Type I Thermoplastic Pavement Markings, 4 inches in width, 90 mils in thickness, white in color	\$_____	\$_____
871S-AR12	521	LF	Replace Reflectorized Type I Thermoplastic Pavement Markings, 12 inches in width, 90 mils in thickness, white in color	\$_____	\$_____
871S-AR24	60	LF	Replace Reflectorized Type I Thermoplastic Pavement Markings, 24 inches in width, 90 mils in thickness, white in color	\$_____	\$_____

873S-E	40	EA	Class E, Raised Pavement Markings, I-R Type	\$_____	\$_____
875S-A4A	742	LF	Pavement Surface Preparation for Existing Pavement Surface 4 inches in width, for Asphalt Surface Type	\$_____	\$_____
875S-A4C	192	LF	Pavement Surface Preparation for Existing Pavement Surface 4 inches in width, for Concrete Surface Type	\$_____	\$_____
875S-A12A	521	LF	Pavement Surface Preparation for Existing Pavement Surface 12 inches in width, for Asphalt Surface Type	\$_____	\$_____
875S-A24A	60	LF	Pavement Surface Preparation for Existing Pavement Surface 24 inches in width, for Asphalt Surface Type	\$_____	\$_____
SS02151-A12Dia	57	LF	Abandoning Pipe, 12" diameter PVC	\$_____	\$_____
SS02151-A36Dia	95	LF	Abandoning Pipe, 36" diameter RCP	\$_____	\$_____
SS02151-A6Dia	610	LF	Abandoning Pipe, 6" diameter CI	\$_____	\$_____
SS02151-A18Dia	120	LF	Abandoning Pipe, 18" diameter RCP	\$_____	\$_____
SS02151-A30Dia	7	LF	Abandoning Pipe, 30" diameter RCP	\$_____	\$_____
SS02151-A72Dia	25	LF	Abandoning Pipe, 72" diameter RCP	\$_____	\$_____
SS02151-B6Dia	114	LF	Removing Pipe, 6" diameter CI	\$_____	\$_____

SS02151-B8Dia	31	LF	Removing Pipe, 8" diameter DI	\$_____	\$_____
SS02151-C12Dia	142	LF	Removing Pipe, 12" diameter RCP	\$_____	\$_____
SS02151-B12Dia	86	LF	Removing Pipe, 12" diameter PVC	\$_____	\$_____
SS02151-C36Dia	153	LF	Removing Pipe, 36" diameter RCP	\$_____	\$_____
SS02231-A	8	EA	Existing Tree Watering, Fertilizing and Trimming	\$_____	\$_____
SS02490-BC	3	EA	Landscape Planting for 6" Bald Cypress, Complete, In Place	\$_____	\$_____
SS02490-F	5	EA	Planting Anacacho Orchid, 15 Gallon	\$_____	\$_____
SS02490-G-AB	3	EA	Planting American Beautyberry, 5 Gallon	\$_____	\$_____
SS02490-G-N	52	EA	Planting Nolina, 5 Gallon	\$_____	\$_____
SS02490-G-SPP	11	EA	Planting Spineless Prickly Pear, 5 Gallon	\$_____	\$_____
SS02490-G-C	27	EA	Planting Coralberry, 5 Gallon	\$_____	\$_____
SS02490-H-MF	17	EA	Planting Mexican Feathergrass, 1 Gallon	\$_____	\$_____
SS02490-H-RY	23	EA	Planting Red Yucca, 1 Gallon	\$_____	\$_____
SS02490-H-TC	47	EA	Planting Turk's Cap, 1 Gallon	\$_____	\$_____

SS02490-H-SP	75	EA	Planting Silver Ponyfoot, 1 Gallon	\$_____	\$_____
SS02490-H-GM	35	EA	Planting Gulf Muhly, 1 Gallon	\$_____	\$_____
SS02490-H-BM	19	EA	Planting Big Muhly, 1 Gallon	\$_____	\$_____
SS02490-H-MTL	29	EA	Planting Mixed Trailing Lantana, 1 Gallon	\$_____	\$_____
SS02490-LO	2	EA	Landscape Planting for 4" Live Oak, Complete, In Place	\$_____	\$_____
SS02490-MP	2	EA	Landscape Planting for 1.5" Mexican Plum, Complete, In Place	\$_____	\$_____
SS02490-P	1	EA	Landscape Planting for 3" Pecan, Complete, In Place	\$_____	\$_____
SS02490-TR	2	EA	Landscape Planting for 2" Texas Redbud, Complete, In Place	\$_____	\$_____
SS02491-A	393	EA	Wetland Plantings	\$_____	\$_____
SS02536	85	LF	Fusible PVC Pipe, 18" Dia., including fusion and installation	\$_____	\$_____
SS02832	1	LS	MSE Wall, between Stem Walls	\$_____	\$_____
SS02980-A	12	MO	Landscape Establishment	\$_____	\$_____
SS05210	9700	LB	Joist Girders	\$_____	\$_____
SS05500-1	1	EA	112" x 122" Aluminum Double Door Hatch for Trash Removal Nets	\$_____	\$_____

SS05500-2	6	EA	96" x 112" Aluminum Double Door Hatch for Shaft Equipment Access	\$_____	\$_____
SS05535-1	3	EA	3' x 3' Access Hatch w/ Protective Grating	\$_____	\$_____
SS06610	112	LF	Hand Rails in 8 <sup>th</sup> St. Structure	\$_____	\$_____
SS06611	264	SF	Grating, kick plates and framing for ladders and trash nets platforms	\$_____	\$_____
SS06620	76	VLF	Aluminum Ladders Inside 8 <sup>th</sup> St. Structure	\$_____	\$_____
SS06630-1	1	LS	Stop Log System, 2-foot width	\$_____	\$_____
SS06630-2	1	LS	Stop Log System, 6-foot width	\$_____	\$_____
SS11900-1	1	LS	In-Line Netting Floatables Collection System	\$_____	\$_____
SS11900-2	1	LS	Installation of In-Line Netting Collection System	\$_____	\$_____
SS11900-3	14	EA	Replacement Nets	\$_____	\$_____

**ALLOWANCES**

Allowance #1 Permit Resolution.....	\$7,500
Allowance #2 Communication Utility Relocation.....	\$20,000
Allowance #3 Temporary Parking.....	\$25,000
<b>TOTAL ALLOWANCES:</b> .....	<b>\$52,500</b>

**TOTAL BID (INCLUDING ALLOWANCES):** ..... \$\_\_\_\_\_

In the event of a mathematical error, the correct product, determined by using the "Unit Price" and "Quantity", and the correct sum, determined by totaling the correct line item Amounts, will prevail over the amount entered by the Bidder. The unit prices shown above will be the unit prices used to tabulate the Bid and used in the Contract, if awarded by the City.

Notes:

- For a more detailed explanation of Bid allowances, see Section 1020.

Optional Information on Bid Prices Submitted by Computer Printout

In lieu of handwritten unit prices in figures in ink on the Bid forms above, Bidders, at their option, may submit an original computer printout sheet bearing certification by, and signature for, the Bidding firm. The unit prices shown on acceptable printouts will be the unit prices used to tabulate the Bid and used in the Contract if awarded by the City. As a minimum, computer printouts must contain all information and in the format shown on the attached page: "Example of Bid Prices Submitted by Computer Printout" form.

If a computer printout is used, the Bidder must still execute that portion of the unit price Bid form which acknowledges the Bid Guaranty, Time of Completion, Liquidated Damages, and all addenda that may have been issued.

Bids with unit prices by computer printout may be rejected, if:

1. The computer printout does not include the required certification, set forth in the attached "Example".
2. The computer printout is not signed in the name of the firm to whom the Project Manual was issued.
3. The computer printout is non-responsive or otherwise omits required Bid items or includes items not shown on the Bid forms in the Project Manual.
4. The other required Bid documents issued by the City are not fully executed as provided above.
5. The signed Section 00300U is not returned with the signed computer printout.

If the Bid submitted by the Bidder contains both the form furnished by the City, completed according to the instructions, and also a computer printout, completed according to the instructions, unit prices of only one will be considered. In this situation, the unit Bid prices shown on the computer printout will be used to determine the Bid.

**BID GUARANTY:** A Bid guaranty must be enclosed with this Bid, as required in Section 00020 or Section 00020S, in the amount of not less than five percent (5%) of the total Bid. Following the Bid opening, submitted Bids may not be withdrawn for a period of (120) Calendar Days. Award of Contract will occur within this period, unless mutually agreed between the parties. The Bid guaranty may become the property of the OWNER, or the OWNER may pursue any other action allowed by law, if:

- Bidder withdraws a submitted Bid within the period stated above;
- Bidder fails to submit the required post Bid information within the period specified in Section 00020S or 00100, or any mutually agreed extension of that period;
- or Bidder fails to execute the Contract and furnish the prescribed documentation (bonds, insurance, etc.) needed to complete execution of the Contract within five (5) Working Days after notice of award, or any mutually agreed extension of that period.

**GEOTECHNICAL BASELINE ACKNOWLEDGEMENT:** The undersigned bidder certifies that he/she has read and understands the Geotechnical Data Report, the Reflection Survey Report, and

all other geological and geotechnical information and data as provided in the Contract Documents, including all Addenda.

**TIME OF COMPLETION:** The undersigned Bidder agrees to commence work on the date specified in the written "Notice to Proceed" to be issued by the OWNER and to **substantially** complete construction of the improvements, as required by the Project Manual, Drawings and Addenda for the Work within **two hundred (200) Calendar Days**. **If a Substantial Completion date has been specified, the Bidder further agrees to reach Final Completion within one hundred and twenty (120) Calendar Days after Substantial Completion as required by the Project Manual, Drawings and Addenda for the work.** The Bidder further agrees that should the Bidder fail to **substantially complete the Work or to finally** complete the Work within the number of days indicated in the Bid or as subsequently adjusted, Bidder shall pay the liquidated damages for each consecutive day thereafter as provided below; unless the OWNER elects to pursue any other action allowed by law.

**WAIVER OF ATTORNEY FEES:** In submitting its bid, in consideration for the waiver of its right to attorney's fees by the OWNER, the Bidder knowingly and intentionally agrees to and shall waive the right to attorney's fees under Section 271.153 of the Texas Local Government Code in any administrative proceeding, alternative dispute resolution proceeding, or litigation arising out of or connected to any Contract awarded pursuant to this solicitation process.

**LIQUIDATED DAMAGES:** The Bidder understands and agrees that the timely completion of the described Work is of the essence. The Bidder and OWNER further agree that the OWNER's actual damages for delay caused by failure to timely complete the Project are difficult, if not impossible to measure. However, with respect to the additional administrative and consultant costs to be incurred by OWNER, the reasonable estimate of such damages has been calculated and agreed to by OWNER and Bidder. Therefore, the Bidder and the OWNER agree that for each and every **Calendar Day** the Work or any portion thereof, remains incomplete after the **Substantial Completion** date as established by the above paragraph, "Time of Completion", payment will be due to the Owner in the amount of **Five Thousand** dollars **(\$5,000.00)** per **Calendar Day** as liquidated damages, not as a penalty, but for delay damages to the OWNER. **If both Substantial and Final Completion dates have been specified, the Bidder and the OWNER further agree that for each and every Calendar Day the Work or any portion thereof, remains incomplete after the Final date as established by the above paragraph, "Time of Completion", payment will be due to the OWNER in the amount of Five Thousand** dollars **(\$5,000.00)** per **Calendar Day** as liquidated damages, not as a penalty, but for delay damages to the OWNER. Such amount shall be deducted by the OWNER from any Contract payment due. In the event of a default or breach by the CONTRACTOR and demand is made upon the surety to complete the project, in accordance with the Contract Documents, the surety shall be liable for liquidated damages pursuant to the Contract Documents in the same manner as the CONTRACTOR would have been.

OWNER reserves the right to reject any or all Bids and to waive any minor informality in any Bid or solicitation procedure (a minor informality is one that does not affect the competitiveness of the Bids).

The undersigned acknowledges receipt of the following addenda:

- Addendum No. 1 dated \_\_\_\_\_ Received \_\_\_\_\_
- Addendum No. 2 dated \_\_\_\_\_ Received \_\_\_\_\_
- Addendum No. 3 dated \_\_\_\_\_ Received \_\_\_\_\_
- Addendum No. 4 dated \_\_\_\_\_ Received \_\_\_\_\_
- Addendum No. 5 dated \_\_\_\_\_ Received \_\_\_\_\_

Secretary, \*if Bidder is a Corporation

Bidder

(Seal)

Authorized Signature

Title

Date

Address

Telephone Number / FAX Number

Email Address for Person Signing Bid

Email Address for Bidder's Primary Contact Person

\* Copy of Corporate Resolution and minutes with certificate of officer of Bidder as to authority of signatory to bind Bidder is to be signed and dated no earlier than one week before Bid date, and attached to this document.

EXAMPLE: BID PRICES SUBMITTED BY COMPUTER PRINTOUT

<b>Project Name:</b>
<b>CIP ID #:</b>
<b>IFB #:</b>

<i>Bid Item #</i>	<i>Bid Item Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Unit Bid Price</i>	<i>Total Amount</i>
<b>Total Bid:</b>					

(YOUR FIRM'S NAME) certifies that the unit prices shown on this completed computer printout for all of the bid items and the alternates contained in this proposal are the unit prices intended and that its Bid will be tabulated using these unit prices and no other information from this printout. (YOUR FIRM'S NAME) acknowledges and agrees that the total bid amount shown will be read as its total bid. *In the event of a mathematical error*, the correct product, determined by using the "Unit Price" and "Quantity", and the correct sum, determined by totaling the correct line item Amounts, will prevail over the amount entered by the Bidder.

Signed: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**End**

**Bidding Requirements, Contract Forms and Conditions of the Contract**  
**STATEMENT OF BIDDERS EXPERIENCE**  
Section 00400

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**Project Name:** Waller Creek Tunnel Project – 8<sup>th</sup> Street Creek Side Inlet Facility-REBID

**IFB Number:** 6100 CLMC456A

**CIP ID Number:** 6521.006

**Bidder must complete all Attachments to Section 00400 clearly and comprehensively. If necessary, responses may be continued on separately attached sheets.**

To be considered a responsive bidder, Bidder must complete and submit Attachments A, B, C, and D with its Bid in accordance with Article 7, Section 00100. The Bidder agrees that, in addition to determining the apparent low Bid, the Owner will consider the responsibility of the Bidders in awarding a Contract for this Project. If none of the three (3) apparent low Bidders are deemed responsible, the OWNER may notify the next three (3) lowest apparent Bidders, until a Contract is awarded. Any information in Attachments A through D that indicates the Bidder or a "Subcontractor" is not responsible or that might negatively impact a Bidder's ability to complete the Work within the Contract Time and for the Contract Price may result in the Bid being rejected.

The Bidder is responsible for the accuracy and completeness of all of the information provided by the Bidder or a proposed Subcontractor in response to this Invitation for Bids.

**BID SUBMITTALS**

**ATTACHMENT A – BIDDER'S INFORMATION**

**ATTACHMENT B – EXPERIENCE REQUIREMENTS**

**ATTACHMENT C – PROJECT MANAGER AND SUPERINTENDENT EXPERIENCE**

**ATTACHMENT D – BIDDER'S AUTHENTICATION**

**POST-BID SUBMITTALS**

**None.**

**ATTACHMENT A**  
**BIDDER'S INFORMATION**

(Complete and submit with the Bid)

IFB Number: 6100 CLMC456A

CIP ID Number: 6521.006

A. *Name of Bidder:* \_\_\_\_\_

B. *Bidder's Permanent Address:* \_\_\_\_\_

C. *Bidder's Phone No.:* (        ) \_\_\_\_\_ - \_\_\_\_\_

D. *Number of years in business under current company name:* \_\_\_\_

*(Note: Bidder must have been in existence for a minimum of one (1) year under its current company name. Changes in company name during the experience period are acceptable, if the continuity of the company can be demonstrated. Attach separate documentation, if applicable.)*

If Bidder answers "YES" for any of questions E through H, Bidder must attach separate sheets with a brief description or explanation of the answer and provide pertinent contact information (parties' names, addresses and telephone numbers).

E. *Has the Bidder ever defaulted on a contract?*

YES (\_\_\_) NO (\_\_\_)

F. *Are there currently any pending judgments, claims, or lawsuits against the Bidder?*

YES (\_\_\_) NO (\_\_\_)

G. *Does Bidder currently have any pending claims, judgments or lawsuits against any prior client?*

YES (\_\_\_) NO (\_\_\_)

H. *Is the Bidder or its principals involved in any bankruptcy or reorganization proceedings?*

YES (\_\_\_) NO (\_\_\_)

**ATTACHMENT B**

**EXPERIENCE REQUIREMENTS (GENERAL CONTRACTOR)**

(Complete and submit with the Bid)

**IFB Number:** 6100 CLMC456A

**CIP ID Number:** 6521.006

**GENERAL CONTRACTOR EXPERIENCE**

Bidder must list and describe Bidder's (not proposed subcontractors') construction experience as a general contractor for a minimum of three (3) successfully completed projects of comparable size, scope and complexity to the Work described in the Contract Documents. Bidders should refer to the 1.2 Description of Work section in contract document 01010 Summary of Work to determine what is reasonably comparable. Decisions on "comparability" are at the complete discretion of the OWNER.

Bidder must have completed the projects within the past five (5) years.

**PROJECT NO. 1**

Name of Project: \_\_\_\_\_

Location: \_\_\_\_\_

OWNER's Name and Address: \_\_\_\_\_

OWNER's Contact Person (Print): \_\_\_\_\_

Phone/Fax No.: \_\_\_\_\_ / \_\_\_\_\_

Initial Contract Price: \_\_\_\_\_

Final Contract Price: \_\_\_\_\_

Contract Start Date: \_\_\_\_\_ (*Date of Notice To Proceed*)

Contract Time: \_\_\_\_\_ ( ) *Calendar Days* ( ) *Working Days*

Contract Substantial Completion Date: \_\_\_\_\_

Actual Substantial Completion Date: \_\_\_\_\_

If contract time extensions were added to the contract as a result of Bidder's responsibilities, provide a short explanation of each.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Project Description and why it is comparable to this Contract:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**PROJECT NO. 3**

Name of Project: \_\_\_\_\_

Location: \_\_\_\_\_

OWNER's Name and Address: \_\_\_\_\_

OWNER's Contact Person (Print): \_\_\_\_\_

Phone/Fax No.: \_\_\_\_\_ / \_\_\_\_\_

Initial Contract Price: \_\_\_\_\_

Final Contract Price: \_\_\_\_\_

Contract Start Date: \_\_\_\_\_ (*Date of Notice To Proceed*)

Contract Time: \_\_\_\_\_ ( ) *Calendar Days* ( ) *Working Days*

Contract Substantial Completion Date: \_\_\_\_\_

Actual Substantial Completion Date: \_\_\_\_\_

If contract time extensions were added to the contract as a result of Bidder's responsibilities, provide a short explanation of each.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Project Description and why it is comparable to this Contract:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**ATTACHMENT C**

**PROJECT MANAGER & SUPERINTENDENT EXPERIENCE**

(Complete and submit with the Bid)

**IFB Number:** 6100 CLMC456A

**CIP ID Number:** 6521.006

Bidder must attach resumes for the Project Manager and Superintendent who will be assigned to this project. The resumes must demonstrate that these individuals have worked on at least three (3) similar, successfully completed projects in the capacity of Project Manager or Superintendent, or other responsible supervisory capacity, as applicable, during the last 10 years.

**Project Manager (name):** \_\_\_\_\_

**Superintendent (name):** \_\_\_\_\_

**(Insert Resumes & Experience)**

**ATTACHMENT D**

(Complete and submit with the Bid)

**IFB Number:** 6100 CLMC456A

**CIP ID Number:** 6521.006

**AUTHENTICATION**

THE STATE OF TEXAS

COUNTY OF TRAVIS

I certify that the responses and information in Attachments A, B, and C are true and correct to the best of my personal knowledge and belief and that I have made no willful misrepresentations in this Section, nor have I withheld any relevant information in my statements and answers to questions. I am aware that the information given may be investigated and I hereby give my full permission for any such investigation and I fully acknowledge that any misrepresentations or omissions in my responses and information may cause my bid to be rejected.

**Bidder's full name and entity status:**

\_\_\_\_\_

\_\_\_\_\_  
**Signature, Authorized Representative of Bidder**

\_\_\_\_\_  
**Title**

\_\_\_\_\_, 20

**Date**

**Division I General Requirements**  
**PROJECT COORDINATION**  
**Section 01040**

**PART 1 - GENERAL**

**1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

**1.2 SUMMARY**

- A. Work under these CONTRACT DOCUMENTS is a part of the Waller Creek Tunnel Project. The Waller Creek Tunnel Project has been divided into construction contracts being awarded for construction of the various parts (tunnel, inlet, outlet, 8<sup>th</sup> Street) that make up the fully functional flood control tunnel. The contract duration of these contracts will overlap and be in parallel. Coordination with all other contractors is a required part of the Work under this CONTRACT to bring the entire system into operation for its intended use.
- B. This Section includes administrative provisions for coordinating construction operations for the Project including, but not limited to, the following:
  - 1. General project coordination procedures.
  - 2. Coordination with:
    - a. Contractor for the Inlet Facility at Waterloo Park,
    - b. Contractor for the Main Tunnel & 4th Street Creek Side Inlet Facility,
    - c. Contractor for the Outlet Facility at Waller Beach,
  - 3. Coordination Drawings.
- C. Related Sections: The following Sections contain requirements that relate to this Section:
  - 1. Section 00700 "General Conditions" and Section 810 "Supplemental General Conditions" for preparing and submitting the Contractor's Construction Schedule.
  - 2. Section 01050 "Grades, Lines, and Levels" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
  - 3. Section 01200 "Project Meeting" for information regarding the preconstruction conference and other project related meetings to occur during the duration for the project.
  - 4. Section 01300 "Submittals" for administrative procedures regarding submittals.
  - 5. Section 01310 "Schedules and Reports" for administrative procedures regarding scheduling and associated updates to the construction progress schedule.

### 1.3 COORDINATION

#### A. Coordination with OWNER

1. Coordination of OWNER's Work by Others: Reference Article 7 of the Contract General Conditions for coordination of OWNER's Work by others and coordinate CONTRACTOR's Work with OWNER or OWNER's designated representative.
2. Other Work may be performed at site by others during scheduled performance of Work under these Contract Documents. OWNER will provide contact names and information for other Contractors as it becomes available.

#### B. Coordination with Other Contracts:

##### 1. General:

- a. This section is intended to provide an overview of general project coordination required by the CONTRACTOR. This section does not supersede requirements of other sections.
- b. Definitions – Waller Creek Tunnel Project:
  - 1) Tunnel: Main Tunnel & 4th Street Creek Side Inlet Facility Project (C.I.P. No. 6521.005)
  - 2) Inlet: Inlet at Waterloo Park (C.I.P. No. 6521.003)
  - 3) Outlet: Waller Beach Site Improvements – Outlet Facility (C.I.P. No. 6521.004)
  - 4) 8th Street: 8<sup>th</sup> Street Creek Side Inlet (C.I.P. No. 6521.006)
- c. OWNER will initiate a pre-coordination meeting upon Notice to Proceed to other contractors associated with the projects identified above. At the pre-coordination meeting, OWNER to provide agenda and list of required information and documents for coordination purposes.
- d. OWNER shall provide for coordination of the activities of the OWNER's own forces and of each separate contractor with the Work of CONTRACTOR, who shall cooperate with them. CONTRACTOR shall participate with other contractors and Owner's Representative in reviewing their construction Progress Schedules when directed to do so. On the basis of such review, CONTRACTOR shall make any revisions to the construction Progress Schedule deemed necessary after a joint review and mutual agreement. The agreed upon construction Progress Schedules shall then constitute the Progress Schedules to be used by CONTRACTOR, separate contractors, and OWNER until subsequently revised.

##### 2. Project Interface:

- a. The work associated with this contract shall include completion and finish-out of all site and facility improvements, including connection to the Shaft that leads to the Main Tunnel. It is the intent of these plans and contract documents that the work associated with this contract shall require the removal initial support structure above the elevation of the tie-in point to the Shaft of the Main Tunnel & 4th Street Creek Side Inlet Facility Contract.

### 1.4 SUBMITTALS

- A. Master Communications Plan: CONTRACTOR shall submit a plan documenting communications protocols and procedures related to this CONTRACT, including immediate on-site communications and conveyance of information to OWNER. Plan shall include:
1. type of communication devices to be used
  2. designated Point(s) of Contact
  3. tracking and documentation of communications between Contractor's field staff and Owner's representatives, including formal and informal communications

## PART 2 - PRODUCTS (Not Used)

## PART 3 - EXECUTION

- A. Coordination of Work:
1. CONTRACTOR shall coordinate scheduling and construction operations associated with components of work where applicable as identified below:
    - a. Coordinate scheduling and timing of required administrative procedures, as well as activities of the other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
      - 1) Preparation of Contractor's Construction Schedule.
      - 2) Installation and removal of temporary facilities and controls.
      - 3) Delivery and processing of submittals.
      - 4) Progress meetings.
    - b. Coordinate with OWNER and other Prime Contractors regarding construction operations included within the different contracts that depend on each other for proper installation, connection, and operation. Project coordination efforts shall include, but not be limited to:
      - 1) Coordinate installation of related components with identified contractors to ensure proper operation and maximum accessibility for required maintenance, service, and repair.
      - 2) Make adequate provisions to accommodate items scheduled for later installation.
      - 3) If necessary, CONTRACTOR shall prepare memoranda for distribution to each party involved, outlining special procedures required for coordination and future installation. Include such items as required notices, reports, and list of attendees at meetings.
- B. Project Completion:
- a. CONTRACTOR may request Final Inspection regardless of the status of all other contracts.

END

**Division 1 General Requirements**  
**CONSTRUCTION AND DEMOLITION WASTE**  
**MANAGEMENT**  
Section 01505

**PART 1 – GENERAL**

**1.1 RELATED DOCUMENTS**

1. Division 01 Section 01200 "Project Meetings"
2. Division 01 Section 01500 "Temporary Facilities"
3. Division 00 Section "Hazardous Waste Management"
4. Division 01 Section 01700 "Contract Closeout"
5. Division 02 Section "Demolition" & "Clearing and Grubbing".
6. Division 01 Section 01352 "Sustainable Construction Requirements".

**1.2 SUMMARY**

- A.** The Owner has established that the Project shall minimize the creation of construction and demolition waste on the Project site and shall recycle and/or salvage non-hazardous construction, demolition, and land clearing debris to divert waste from Landfills. See 1.5 Waste Management Goals.
1. All profits resulting from salvaging and recycling shall go to the Contractor.
  2. Where there is little cost difference between recycling/salvaging and land-filling of items, the Contractor is directed to recycle/salvage.
- B.** Hazardous materials are an exception to this Section. Comply with applicable requirements of Local, State and Federal regulations.
- C.** This Section includes administrative and procedural requirements for recycling, salvaging and disposing of non-hazardous demolition and construction waste

**1.3 REFERENCES**

- A.** The standards listed below form a part of this Section to extent referenced. Standards are referred to in the text by basic reference only.
1. Sustainable Building Sourcebook – Austin Energy Green Building: [www.austinenergy.com/Energy%20Efficiency/Programs/Green%20Building/Sourcebook/constructionWasteManagement.htm](http://www.austinenergy.com/Energy%20Efficiency/Programs/Green%20Building/Sourcebook/constructionWasteManagement.htm)
  2. Resource Exchange Network for Eliminating Waste (RENEW), TCEQ (MC-112), Biannual catalog lists materials available and wanted; serves Texas and surrounding states; lists are posted on the Internet: <http://www.tceq.state.tx.us/assistance/P2Recycle/renew/renew.html>
  3. Recycle Texas Online, A service of the Texas Commission on Environmental Quality. Contains information on about 1000 businesses and local governments handling materials from Texas. Organizations' information is self-reported and listings are free of charge. [www.tceq.state.tx.us/assistance/P2Recycle/rtol/rtol.html](http://www.tceq.state.tx.us/assistance/P2Recycle/rtol/rtol.html)
  4. "WasteSpec", Triangle J Council of Governments, Research Triangle Park, NC 27709, (919) 549-9390.

## **1.4 DEFINITIONS**

- A.** Chemical Waste: Includes petroleum products, bituminous materials, salts, acids, alkalis, herbicides, pesticides, organic chemicals, and inorganic wastes.
- B.** Clean: Untreated, unpainted, not contaminated with oils, solvents, caulk, or other materials.
- C.** Disposal: Acceptance of solid wastes at legally permitted and operating facility for the purposes of land-filling.
- D.** Diversion: Avoidance of demolition and construction waste sent for disposal to landfill or incineration. Diversion does not include using materials for landfill, alternate daily cover on landfills, or materials used as fuel in waste-to-energy processes.
- E.** Hazardous Waste: Byproducts of society that can pose a substantial or potential hazard to human health or the environment when improperly managed, and possessing at least 1 of 4 of the following characteristics, or appearing on a special Environmental Protection Agency (EPA) list.
  - 1.** Ignitability.
  - 2.** Corrosivity.
  - 3.** Reactivity.
  - 4.** Toxicity.
- F.** Landfill: Authorized land waste disposal site that is located to minimize waste pollution from runoff and leaching.
- G.** Recycling: The process of sorting, cleansing, treating, and reconstituting solid waste and other discarded materials for the purpose of using the altered form. Recycling does not include burning, incinerating, or thermally destroying waste.
- H.** Return: To give back reusable items or unused products to vendors for credit.
- I.** Reuse: A strategy to return materials to active use in the same or a related capacity.
- J.** Salvage: To remove a waste material from the Project site to another site for resale or reuse by others.
- K.** Source Separation: The act of keeping different types of waste materials separate beginning from the first time they become a waste.
- L.** Toxic: Poisonous to living beings either immediately or after a long period of exposure.
- M.** Trash: Any product or material unable to be reused, returned, recycled, or salvaged.
- N.** Waste: Extra material or material that has reached the end of its useful life in its intended use. Waste includes all materials removed from the Project site to be land-filled, recycled, or salvaged for reuse. Pallets, containers, packaging and packing materials in which construction products are delivered to the Project site are considered waste materials.

## **1.5 WASTE MANAGEMENT GOALS**

- A.** The Owner has established that as much as is economically feasible of the "waste" materials produced as a result of the Work, shall be employed, salvaged, reused, or recycled in order to minimize the impact of construction and demolition waste on landfills and reducing disposal costs.
- B.** Contractor shall employ and encourage practices that ensure the generation of as little waste as possible due to error, poor planning, breakage, mishandling, contamination, or other factors.

- C. Contractor is responsible for knowing and complying with regulatory requirements, including but not limited to Federal, State and local, pertaining to legal disposal of all construction waste materials.
- D. Contractor shall recycle and divert materials for secondary uses whenever economically feasible.
- E. Acceptable methods of diversion include:
  - Recycling, reuse and salvage
  - Donation to nonprofit organizations
  - Removal from jobsite by staff or subcontractors for use (not disposal)
  - Return to supplier
  - Sale to organizations or individuals
- F. The Contractor shall develop a Construction and Demolition Waste Management Plan of non-hazardous construction and demolition waste. The plan shall identify the materials to be diverted from disposal and define the materials to be separated on-site or off-site. Calculations can be done by weight or volume, but must be consistent throughout.

## 1.6 SUBMITTALS

- A. **Waste Management Plan:** A Project-specific plan for the collection, transportation, and disposal of the waste generated at the construction site, shall be submitted for approval within 14 calendar days after notice to proceed, or prior to any waste removal, whichever occurs first. The approved Plan shall be distributed to all subcontractors and the owner and will not relieve the Contractor's responsibility for compliance with applicable environmental regulations.

An example template is included as "Appendix A" to this section.

### 1. The Waste Management Plan shall include the following:

- a. Identify each type of waste material produced as a result of the Work on the Project Site.
- b. Identify each type and quantity of demolished and waste material intended to be recycled, salvaged or reused.
- c. Identify material separation requirements.
- d. Identify location of temporary on-Site storage for recycled and reused materials.
- e. Identify final destination means of transportation for each recycled and reused material.
- f. Identify the name/phone number of the Contractor's on-site coordinator of the Waste Management Plan.
- g. Indicate permit or license and the location of the municipal solid waste landfills and other disposal area(s) to be used.
- h. List of materials that cannot be recycled or reused.

- B. **Construction Waste Management Closeout Documentation:** Submit the following upon the completion of The Work and prior to final payment:
  - a. A Summary of Solid Waste Disposal and Diversion (refer example template "Appendix B") prepared and maintained through Project duration, demonstrating that 100% of all non-hazardous construction wastes were recycled, salvaged or disposed of properly and includes as a minimum the following information:

1. Dates
  2. Materials Description and Quantity
  3. Indicate whether recycled, salvaged, reused or sent to landfill for disposal.
  4. Destination or Name and location of accepting facility.
- b. Copies of all receipts, manifests, weight tickets, and other documentation that identify all materials recycled, salvaged, land-filled or incinerated.

## **PART 2 - PRODUCTS**

Not used

## **PART 3 – EXECUTION**

### **3.1 GENERAL**

- A.** Implement the Waste Management Plan as approved by the City of Austin Project Manager. Provide handling, containers, storage, signage, transportation, and other items as required to implement Waste Management Plan during the entire duration of the Contract.
- B.** Satisfy the requirements outlined in Subsection 1.5, Waste Management Goals.

### **3.2 WASTE MANAGEMENT PLAN IMPLEMENTATION**

- A.** Plan Coordinator: Designate an on-site party (or parties) responsible for instructing workers, overseeing implementation and documenting results of the Waste Management Plan for the Project.
- B.** Plan Distribution: Provide copies of the Waste Management Plan to the Contractor's superintendent, each Subcontractor, the Owner, and the Engineer.
- C.** Meetings: Include Construction Waste Management in progress meetings to maintain the Plan for achieving the owners waste management goals:
- D.** Carefully order materials to avoid over supply.
- E.** Protect materials from contamination during handling, storage and transport to meet the requirements of the accepting facilities.
- F.** Assign and label a specific area to facilitate separation of materials for potential recycling, salvage, reuse, return and disposal. This area shall be kept neat and clean and clearly marked in order to avoid contamination of materials.

### **3.3 RECYCLING REQUIREMENTS**

- A.** Materials: In general the contractor is encouraged to recycle the following types of construction waste materials generated during the course of this project, that are not salvaged or reused:
- a. Asphalt concrete pavement.
  - b. Concrete materials.
  - c. Metals, including the following.
    - i. Banding straps.
    - ii. Reinforcing steel.
    - iii. Iron.
    - iv. Brass and Bronze.
    - v. Lead

- vi. Extruded Aluminum.
- vii. Aluminum Sheet.
- viii. Stainless Steel Sheet.
- ix. Steel Studs
- x. Copper Pipe.
- xi. Steel pipe.
- xii. Galvanized steel pipe.

- d. Clean dimensional lumber.
- e. Wood crates and pallets.
- f. Glass and glass containers.
- g. Plastics.
- h. Plumbing fixtures
- i. Electrical conduit.
- j. Electrical wiring.
- k. Cardboard, paper, and packaging.
- l. Beverage containers.

**B. Methods:** The following recycling methods, or a combination of, may be used.

1. On-site separation: Each material to be recycled shall be separated at the Project site and delivered to the recycling markets or directly from the Project site.
  - a. If on-site separation method is used, designate a specific area or areas to facilitate separation of materials for potential reuse, salvage, recycling, and return.
  - b. Maintain recycling and waste bin areas neat and clean and clearly marked, both in Spanish and in English, in order to avoid co-mingling of materials.
  - c. Protect materials from contamination.
2. Off-site separation: Materials to be recycled are delivered unsorted from the Project site to a materials recovery facility or transfer station where recyclable materials are separated from other waste.
  - a. Contractor shall verify that the entity responsible for the off-site separation has a market for all materials required to be recycled from the Project site.
  - b. The same Submittals procedures shall apply.
  - c. Protect materials from contamination.

### **3.4 REUSE**

**A.** Contractor is encouraged to reuse as many demolished and waste materials as possible.

**B.** Reuse of waste materials includes the following:

- a. Salvaging materials scheduled for disposal.
- b. Off-Site storage of waste materials for future reuse by Contractor on other projects.
- c. Returning unused and reusable materials, packaging and pallets, to vendor.
- d. Assemble designated reuse items in a single location safe from damage, for review and approval by the owner's representative.

### **3.5 SALVAGE**

#### **A. Salvage Guidelines:**

1. The contractor is encouraged to salvage as many items as deemed economically possible, considering reduction of land filling fees and possible use by others.
2. Assemble potentially salvageable items in one area and donate or sell to the public after review by the City of Austin Project Manager.
3. All proceeds from the sale of salvaged items shall go to the contractor.

# Appendix A. Sample Construction Waste Management Plan

## Construction Waste Management Plan

**Project:**  
**Contractor:**  
**Date:**  
**Contact:**  
**Phone:**  
**Prepared by:**

*Diversion Goal: Recycle, reuse and/or salvage as much land-clearing and construction waste as is economically feasible.*

### I. Coordination and Training

- a. Name of Contractor's representative responsible for CWM implementation & coordination.
- b. Describe method(s) of waste recycling management – on-site and/or off-site.
- c. Describe how Contractor's staff and subcontractors will be informed regarding proper recycling and separation procedures
- d. Describe and/or show on an attached site map where the temporary waste material storage area(s) will be located, and how will contamination of separated waste materials will be prevented?

### II. Waste Minimization

- a. What waste minimization techniques will be employed during the construction phase?

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- b. Which employees and / or subcontractors will be involved with each technique?

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**III. Construction Waste Analysis (including site / land-clearing materials, as applicable)**

- a. **Diverted Materials:** For each material anticipated to be reused or recycled (diverted from the landfill), provide information to complete the table below. (Note: Whenever possible, attempt to use or donate construction waste materials rather than recycling.)

Material or Item	Storage Method (roll-off, bin, area, on pallet, etc.)	Quantity estimate (no., linear ft., square ft., etc.)	Proposed Recipient

Add rows (or paper pages) as required

- b. **Landfill:** For construction phase trash and materials / items that will not be diverted, complete the following table:

Quantity estimate (weight or volume)	Number and size of roll offs anticipated	Proposed landfill site



**SPECIAL PROVISION To  
Standard Specification 506 (Version 03/15/2011)  
Manholes**

For this project 506 Manholes of the City of Austin Standard Technical Specifications is hereby amended with respect to the clauses cited below. No other clauses or requirements of this Section of the City of Austin Standard Specifications are waived or changed.

**506.2 Qualifications**

ADD the following text:

Currently approved manufacturers of pre-cast polymer concrete structures include US Composite Pipe, Alvarado, Texas.

**506.3 Project Submittals, A. Products and Materials**

ADD the following after the 3<sup>rd</sup> paragraph:

Submittals for polymer concrete structures shall include calculations demonstrating structural designs meet criteria specified by the Engineer. Calculations shall include buoyancy computations, and loading redistribution for any cut-outs, headers, penetrations, etc. Buoyancy calculations shall use a minimum safety factor of 1.2. Wall thickness calculations shall be designed to resist hydrostatic pressures and use a minimum safety factor of 2.0. Calculations shall be sealed by a Professional Engineer licensed in the State of Texas.

ADD the following to the end of subparagraph (1):

Precast manhole drawings will be signed and sealed by a registered or licensed Professional Engineer licensed in the State of Texas and will be subject to review and approval by the Engineer and the City of Austin.

ADD the following:

7. For polymer concrete: mix components and proportions, material sources, materials test results, Manufacturer's written instructions for handling, transporting, storing, and installation and manufacturer's Quality Assurance/Quality Control plan. Manufacturer's QA/QC plan, shall address the following issues:
  - a) Raw material inspection, storage and charging.
  - b) Casting and curing (including mixing criteria and temperature requirements).
  - c) Reinforcement assembly.
  - d) Formwork treatment, assembly and disassembly.
  - e) Finished casting inspection.
  - f) Material rejection.
  - g) Corrective measures.

**506.4 Materials, D. Reinforcement**

ADD the following after the 1<sup>st</sup> paragraph:

For pre-cast polymer concrete structures, acceptable forms of reinforcement also include: fiber reinforced plastic rebar, welded steel wire mesh and fiberglass mesh provided the size, density and strength meet the reinforcement requirements of the structural design. Manhole reinforcement shall be in accordance with the requirements of ASTM C 478.

1. Bars, Deformed and Plain Billet-Steel, ASTM A 615, Grade 60.
2. FRP Rebar, ACI 440.1R-06

**506.4 Materials, N. High Density Polyethylene Grade Rings**

ADD the following after the 1<sup>st</sup> paragraph:

Grade rings for polymer concrete manholes shall be high density polyethylene.

**506.4 Materials**

ADD the following:

**T. Polymer Concrete**

Polymer concrete used in precast concrete manhole base sections, riser sections and appurtenances shall conform to the raw material requirements as follows:

1. Thermosetting Resins Acceptable materials include polyester or vinyl ester thermosetting resins with styrene monomer, oligomeric vinyl ester resins or epoxy resins. Resin shall be commercial-grade and corrosion resistant, and shall be acceptable for service with 20% sulfuric acid. Polymer concrete products shall have a minimum resin content of 7% by weight.
2. Aggregates and Mineral Fillers - All aggregates shall meet the requirements of ASTM C 33 and be graded to meet the gradation requirements of ASTM C 117. Graded aggregates shall be kiln-dried. All fillers shall be chemically inert and free of organic materials. Acceptable filler materials include: quartz powder, silicates and sand. Fillers shall be dried and graded in accordance with Manufacturer's requirements. Aggregates and fillers shall be properly stored at the Manufacturer's facility to assure temperature and moisture content are controlled prior to use.
3. Additives - Additives such as binders, curing agents, flexibilizers, pigments, and dyes shall be quality components meeting manufacturer's requirements and that are stored in a controlled environment prior to use. Additives shall be dosed in the precise amounts according to the Manufacturer's polymer concrete recipe for the specific manhole(s) to be manufactured. No water or Portland cement containing materials shall be added to polymer concrete mixtures.

**506.5 Construction**

ADD the following:

## M. Precast Polymer Concrete Sections

1. Manholes shall be designed to withstand all live loads and dead loads described in project plans. Dead loads include overburden load, soil side pressure and hydrostatic load. Manhole installations shall be designed to resist buoyancy. It shall be acceptable to use concrete ballast on the exterior of the manhole for buoyancy resistance.
2. Precast polymer concrete manholes shall be manufactured in accordance with the applicable requirements of ASTM C 478. Manufacturer shall prepare raw materials, design mix recipe and undertake curing procedures to maintain the optimum temperature to minimize polymer concrete shrinkage. Polymer concrete manholes shall be shop-precast only.
3. Polymer concrete components shall have a minimum unconfined compressive strength of 9,000 psi when tested in accordance with ASTM C 579. A minimum of three samples shall be tested per manhole or structure to verify polymer concrete meets the compressive strength requirement.
4. Flat polymer concrete covers to enclose large manhole openings shall be designed to be a minimum of 2 feet below grade with smaller risers with cast iron lids that extend to the surface. Flat cover shall support weight of soil as well as cast iron frame and cover and meet HS-20 load rating.
5. Manhole Labeling. Each manhole shall be labeled in at least one location using large, easily legible, permanent letters indicating the nominal size, intended location, Manufacturer's name, and ASTM designation code.
6. Polymer concrete manhole interior and exterior surfaces shall be uncoated.
7. Only minor height adjustments to raise manhole elevations shall be allowed using adjusting rings. Major adjustments or any adjustments to decrease manhole elevation must be reviewed and approved by the Engineer or designated representative.
8. Formwork. - Formwork shall be designed by Manufacturer to meet requirements and be fabricated from quality materials. Formwork shall be cleaned between each use and lined with appropriate release agent as specified by the Manufacturer to achieve the release required for products following disassembly. Assembly shall meet manhole/structure design and dimensional requirements.
9. Dosing and Mixing - Scales and dosing equipment shall be calibrated to provide accurate quantities meeting Manufacturer's mix recipe. Mixing equipment shall be adequate to mix polymer concrete components to quickly achieve a completely wetted and thoroughly mixed concrete so that resin, filler, aggregate and all additives form a homogeneous polymer concrete matrix.
10. Casting and Curing - Components shall be cured at the optimum conditions and for the proper amount of time before disassembling formwork.
11. Finishing Operations - Irregularities, fins, or other projections shall be removed from the precast components so the surface is smooth and uniform. Repairable surface

## N. Removal of Existing Manhole

Below Grade – When called for on the drawings, removal of existing manhole shall mean complete removal of the existing manhole and disposal of the manhole and appurtenances (ring and cover, drop connections, etc.). Backfill and compaction shall conform to Item No. 401, "Structural Excavation and Backfill". Associated pipe abandonment or removal shall be per City of Austin detail or SS02151 Abandonment.

**506.7 Measurement**

DELETE the 2<sup>nd</sup> paragraph and replace with the following:

A "Standard Pre-cast Manhole with Pre-cast Base", "Standard Pre-cast Manhole with Cast-in Place (CIP) Base", "Pre-cast Polymer Concrete Manhole with Pre-cast Base", "Special Manhole", "Drop Manhole with Pre-cast Base", "Pre-cast Polymer Concrete Drop Manhole with Pre-cast Base", "Drop Manhole with Cast-in-Place (CIP) Base", "Centered Tee Manhole", or "Tangent Tee Manhole" will be measured by each structure of the indicated size for the first eight (8) feet of depth.

DELETE the 3<sup>rd</sup> paragraph and replace with the following:

An "Extra Depth Manhole" will be measured by linear vertical foot of Standard Pre-cast Manhole with Pre-cast Base, Standard Pre-cast Manhole with CIP Base, Pre-cast Polymer Concrete Manhole with Pre-cast Base, Pre-cast Polymer Concrete Manhole with CIP Base, Drop Manhole with Pre-cast Base, Pre-cast Polymer Concrete Drop Manhole with Pre-cast Base, Drop Manhole with CIP Base, Special Manhole, Centered Tee Manhole, or Tangent Tee Manhole of the indicated size in excess of eight (8) feet of depth.

ADD the following after the last paragraph:

The extra depth of manhole necessary to install sacrificial concrete will not be measured and payment will be included in the Bid Item which constitutes the complete structure.

The sacrificial concrete and reinforcement will not be measured and payment for furnishing all materials, tools, equipment, labor and incidentals necessary to complete the Work will be included in the Bid Item which constitutes the complete structure.

The connections to existing storm drain pipe and curb inlets will not be measured and payment for furnishing all materials, tools, equipment, labor and incidentals necessary to complete the Work will be included in the Bid Item which constitutes the complete structure.

**506.8 Payment**

ADD the following:

Payment for Removal of Existing Manholes shall be for the work performed as described by this item and will be paid for at the unit bid price per each manhole to be removed. Price shall include full compensation for all materials, labor and equipment necessary to complete the work.

ADD the following pay items:

**Pay Item No. SP506 EDMWW:** Extra Depth Polymer Concrete Manhole, \_\_\_ Dia.  
Per Linear Vert. Foot.

**Pay Item No. SP506 MWW:** Pre-Cast Polymer Concrete Manhole w/Pre-cast Base, \_\_\_ Dia.  
Per Each.

**SPECIAL PROVISION**

**SP506**

**Pay Item No. SP506 MFWW:** Flat Top Pre-cast Polymer Concrete Manhole w/ Pre-cast Base,  
\_\_\_ Dia. Per Each.

**Pay Item No. SP506 MF1WW:** Flat Top Pre-cast Polymer Concrete Manhole w/ CIP Base,  
\_\_\_ Dia. Per Each.

**Pay Item No. SP506 MWW-RE:** Remove Existing Manhole Per Each.

**End**