FAX TRANSMITTAL

Date: March 2, 2021

To: Plan Holders

Company: Contractors

Number of Pages: 13 (Including Cover)

From: Anika Ture - Contract Administration
Telephone No. 918-596-9637
Fax No. 918-699-3470
Email – ature@cityoftulsa.org

RE: **PROJECT NO. 173120 T.O. 21 FEMA FLOOD DAMAGE**
PROJECTS 115010, 116205, 117880, 126333, 126335, 126336

ADDENDUM NO. 5

Please fax or email a signed cover sheet 918-699-3470 to or karmenrice@cityoftulsa.org as acknowledgement of receipt.

Thank you,

_____ _____ _____

Signature **Company** **Date**

CITY OF Tulsa
A New Kind of Energy.

ENGINEERING SERVICES DEPARTMENT

March 2, 2021

ADDENDUM NO. 5
TO
PROJECT NO. 173120 T.O. 21 FEMA FLOOD DAMAGE PROJECTS 115010, 116205, 117880, 126333, 126335, 126336

This Addendum No. 5 consisting of (1) item and three (3) clarifications, submitted by Meshek & Associates, is hereby made a part of the Contract Documents to the same extent as though it were originally included therein, and shall supersede anything contained in the Plans and Specifications with which it might conflict. **This entire Addendum shall be attached to the Index Sheet of the Contract Documents, recorded on Page 6a. of the proposal, and submitted with bid. Failure to do so shall result in the bid being deemed non-responsive.**

This Addendum No. 5 consists of the following:

The attached documents list the detail items that have been modified in Addendum No. 5. These documents shall be inclusive and apply to this project.

All other provisions of the Plans and Specifications shall remain in full force and effect.

CITY OF TULSA

for Paul D. Zachary, P.E.
City Engineer

HAS/BC/AT/at

2317 South Jackson Avenue • Tulsa, OK 74107 • Office 918.596.9565 • Fax 918.596.7277
www.cityoftulsa.org

March 2, 2021

ADDENDUM NO. 5
TO
FEMA FLOOD DAMAGE PROJECT
PROJECTS NO. [115010, 116205, 117860, 126333, 126335, 126336]

This Addendum No. 5, consisting of one (1) updated Bid Proposal Form and three (3) clarifications submitted by Meshek & Associates, is hereby made a part of the Contract Documents to the same extent as though it were originally included therein, and shall supersede anything contained in the Plans and Specifications with which it might conflict. **This Addendum shall be attached to the Index Sheet of the Contract Documents and submitted with the bid. Failure to do so shall result in the bid being deemed non-responsive.**

This Addendum No. 5 consists of the following:

PROPOSAL

1. Delete the existing Proposal in its entirety and replace with the revised Proposal found at https://www.cityoftulsa.org/government/departments/engineering-services/construction-bids/. It is the Bidder's responsibility to download the revised Proposal onto their existing thumb drive.

CLARIFICATIONS

1. Updated electronic bid proposal form to include 120 calendar days to completely construct and finish all the work due to added complexity and additional pay items for Non-Participating portion of the project.

2. Updated Sheet 2 – GENERAL CONSTRUCTION NOTES & PAY ITEMS to include additional pay items and pay item notes for Non-Participating portion of the project.

3. Updated Sheet 12 – FEMA SITE ZINK PARK – SITE 4 to include additional pay items for Non-Participating portion of the project.

All other provisions of the Plans and Specifications shall remain in full force and effect.

BY: _____ DATE/SEAL: _____

Benjamin W. Fletcher, PE

ELECTRONIC BID PROPOSAL INSTRUCTIONS - EXCEL SPREADSHEET

PROJECTS NO. [115010, 116205, 117860, 126333, 126335, 126336]

FEMA FLOOD DAMAGE

Please read the following instructions carefully.

1. After opening this file re-save it as your company's name.
2. Open the BID FORM Sheet from the tabs below.
3. Input the unit price of the appropriate pay item in the cells highlighted in blue.
4. Review all data input and check calculations to ensure accuracy of Bid.
5. Print 1hardcopy of the "PROPOSAL" tab, BID FORM and the "SIGNATURE PAGE" tab.
6. Complete and sign the "Signature Page" document.
6. Submit hardcopy and electronic disk with Contract Documents and Specifications for Bid opening date.

AGREEMENT FOR USING ELECTRONIC BID PROPOSAL

By and Between: Meshek & Associates, LLC, (ENGINEER) and RECIPIENT. The enclosed electronic media is provided pursuant to your request and is for your limited use in connection with your submittal of Bid Proposal for Projects No. [115010, 116205, 117860, 126333, 126335, 126336]. In no event shall the information be used for any other purpose or be released to third parties without the written consent of the ENGINEER. In the event of a discrepancy between the hard copy and this electronic media at delivery or in the future, the hard copy shall govern. ENGINEER hereby disclaims any and all liability for the consequences from use of the electronic media and makes no warranty or guarantee of accuracy. RECIPIENT shall assume full responsibility for the uses and consequences of the electronic media. It is agreed that ENGINEER has and retains ownership of the electronic media. ENGINEER does not warrant or guarantee that the electronic data is compatible with RECIPIENT'S computer hardware or software, and ENGINEER'S responsibility for the electronic media is limited to replacement of defective media for a period of thirty (30) days after delivery to RECIPIENT. !!! By opening and using this FILE, You AGREE to these TERMS AND CONDITIONS!!!

PROPOSAL
PROJECTS NO. [115010, 116205, 117860, 126333, 126335, 126336]
FEMA FLOOD DAMAGE

TO: HONORABLE MAYOR
CITY OF TULSA, OKLAHOMA

THE UNDERSIGNED BIDDER, having carefully examined the drawings, specifications, and other Contract Documents of the above project presently on file in the City Clerk, City of Tulsa Oklahoma:

CERTIFIES THAT he has inspected the site of the proposed work and has full knowledge of the extent and character of the work involved, construction difficulties that may be encountered, and materials necessary for construction, class and type of excavation, and all other factors affecting or which may be affected by the specified work; and

CERTIFIES THAT he has not entered into collusion with any other bidder or prospective bidder relative to the project and/or bid: and

HEREBY PROPOSES: to enter into a contract to provide all necessary labor, materials, equipment and tools to completely construct and finish all the work required by the Contract Documents referred to therein; to complete said work within __120__calendar days after the work order is issued; and to accept in full payment therefore the amount set forth below for all work actually performed as computed by the Engineers as set forth in the Contract.

Basis of Award
IT SHOULD BE NOTED THAT THE LOWEST RESPONSIBLE BID SHALL BE DETERMINED BY THE TOTAL BASE BID.

Note: - **Item numbers omitted are not a part of the Contract.**

PROPOSAL FOR
PROJECTS NO. [115010, 116205, 117860, 126333, 126335, 126336]
FEMA FLOOD DAMAGE

PROJECT NO. 115010 PAY QUANTITIES

ITEM NUMBER	SPEC NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY	DATA INPUT UNIT PRICE	AMOUNT
1	202(D)	UNCLASSIFIED BORROW	CY	250		
2	220	SWPPP DOCUMENTATION AND MANAGEMENT	EA	1		
3	230(A)	SOLID SLAB SODDING	SY	100		
4	303(A)	AGGREGATE BASE TYPE A	CY	7		
5	411(B)	SUPERPAVE, TYPE S3 (PG 64-22 OK)	CY	5		
6	411(C)	SUPERPAVE, TYPE S4 (PG 64-22 OK)	CY	2		
7	601(B)	TYPE I-A PLAIN RIPRAP	CY	250		
8	880(J)	CONSTRUCTION TRAFFIC CONTROL	EA	1		
					PROJECT NO. 115010 SUBTOTAL	

PROJECT NO. 116205 PAY QUANTITIES

ITEM NUMBER	SPEC NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
9	202(D)	UNCLASSIFIED BORROW	CY	949		
10	220	SWPPP DOCUMENTATION AND MANAGEMENT	EA	1		
11	221(I)	REMOVAL OF SEDIMENT	EA	94		
12	230(A)	SOLID SLAB SODDING	SY	554		
13	326(B)	GEOGRID REINFORCEMENT	SY	85		
14	601(A)	TYPE I PLAIN RIP RAP	TON	165		
15	601(D)	TYPE II SP. PLAIN RIPRAP	TON	19		
16	609(A)	CONCRETE CURB (8" BARRIER-INTEGRAL)	LF	23		
17	613(A)	12" R.C.PIPE CLASS III	LF	200		
18	613(A)	15" R.C.PIPE CLASS III	LF	130		
19	613(A)	18" R.C.PIPE CLASS III	LF	374		
20	613(A)	24" R.C.PIPE CLASS III	LF	48		
21	613(A)	36" R.C. PIPE CLASS III	LF	8		
22	613(L)	18" PREFAB. CULVERT END SECTION, ROUND	EA	2		
23	643	(PL) 54" AUTOMATIC FLAP GATE (REMOVE AND REPLACE	EA	2		
24	880(J)	CONSTRUCTION TRAFFIC CONTROL	EA	1		
25	SPECIAL	TYPE I PCC PATCH (ARTERIAL)	SY	229		
26	SPECIAL	TYPE I APC PATCH (NON-ARTERIAL)	SY	44		
					PROJECT NO. 116205 SUBTOTAL	

PROJECT NO. 117860 PAY QUANTITIES						
ITEM NUMBER	SPEC NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
27	202(D)	UNCLASSIFIED BORROW	CY	42		
28	202(F)	EMBANKMENTS	CY	62		
29	220	SWPPP DOCUMENTATION AND MANAGEMENT	EA	1		
30	230(A)	SOLID SLAB SODDING	SY	36		
31	411	ASPHALT CONCRETE	CY	1		
32	504(H)	ELASTOMERIC MORTAR	CY	0.11		
33	510(A)	RETAINING WALL	LS	7		
34	601(B)	TYPE I-A RIPRAP	CY	8		
35	610(D)	REMOVE & RELAY BRICK/STONE SIDEWALK	CY	17		
36	619(B)	REMOVAL OF ASPHALT PAVEMENT	CY	1		
37	880(J)	CONSTRUCTION TRAFFIC CONTROL	EA	1		
38	SPECIAL	ELECTRONIC CONTROLS FOR FOUNTAIN PUMP	EA	1		
PROJECT NO. 117860 NON-PARTICIPATING PAY QUANTITIES						
38A	611(A)	MANHOLE (4' DIA.), COMPLETE IN PLACE	EA	3		
38B	611(B)	ADD'L DEPTH IN MANHOLE (VF)	VF	18		
38C	611(G)	INLET, SDI TYPE 2 W/ BAR GRATE, COMPLETE IN PLACE	EA	3		
38D	COT 215	(SP) 18" CORRUGATED POLYPROPYLENE PIPE (CPP), COMPLETE IN PLACE	LF	48		
38E	COT 215	(SP) 24" CORRUGATED POLYPROPYLENE PIPE (CPP), COMPLETE IN PLACE	LF	122		
38F	SPECIAL	OUTFALL STRUCTURE, COMPLETE IN PLACE	EA	1		
					PROJECT NO. 117860 SUBTOTAL	

PROJECT NO. 126333 PAY QUANTITIES						
ITEM NUMBER	SPEC NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
39	202(D)	UNCLASSIFIED BORROW	CY	2611		
40	220	SWPPP DOCUMENTATION AND MANAGEMENT	EA	1		
41	221(I)	REMOVAL OF SEDIMENT	CY	11		
42	230(A)	SOLID SLAB SODDING	SY	3294		
43	326(B)	GEOGRID REINFORCEMENT	SY	1050		
44	509(D)	CLASS C CONCRETE	CY	5		
45	601(B)	TYPE I-A PLAIN RIPRAP	CY	207		
46	613(A)	15" R.C.PIPE CLASS III (COMPLETE IN PLACE)	LF	200		
47	613(A)	18" R.C.PIPE CLASS III (COMPLETE IN PLACE)	LF	135		
48	613(A)	21" R.C.PIPE CLASS III (COMPLETE IN PLACE)	LF	20		
49	613(A)	24" R.C.PIPE CLASS III (COMPLETE IN PLACE)	LF	60		
50	613(A)	30" R.C.PIPE CLASS III (COMPLETE IN PLACE)	LF	138		
51	613(A)	42" R.C.PIPE CLASS III (COMPLETE IN PLACE)	LF	6		
52	613(B)	18" CORR. GALV. STEEL PIPE (COMPLETE IN PLACE)	LF	28		
53	613 (L)	15" PREFAB. CULVERT END SECTION, OROUND	EA	3		
54	613 (L)	18" PREFAB. CULVERT END SECTION, ROUND	EA	2		
55	613 (L)	30" PREFAB. CULVERT END SECTION, ROUND (REMOVE AND REPLACE)	EA	1		
56	613(L)	42" PREFAB. CULVERT END SECTION, ROUND (REMOVE AND REPLACE)	EA	2		
57	880(J)	CONSTRUCTION TRAFFIC CONTROL	EA	1		
58	SPECIAL	TYPE I PCC PATCH (ARTERIAL)	SY	108		
59	SPECIAL	TYPE I APC PATCH (NON-ARTERIAL)	SY	95		
					PROJECT NO. 126333 SUBTOTAL	

PROJECT NO. 126335 PAY QUANTITIES						
ITEM NUMBER	SPEC NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
60	202(D)	UNCLASSIFIED BORROW	CY	687		
61	220	SWPPP DOCUMENTATION AND MANAGEMENT	EA	1		
62	221(I)	REMOVAL OF SEDIMENT	CY	37		
63	230(A)	SOLID SLAB SODDING	SY	409		
64	326(B)	GEOGRID REINFORCEMENT	SY	173		
65	509(D)	CLASS C CONCRETE	CY	2		
66	601(B)	TYPE I-A PLAIN RIPRAP	CY	136		
67	601(H)	TYPE IV GROUTED RIPRAP	CY	74		
68	609	CONCRETE CURB (4" BARRIER-INTEGRAL)	LF	11		
69	613(A)	18" R.C.PIPE CLASS III (COMPLETE IN PLACE)	LF	115		
70	613(A)	24" R.C.PIPE CLASS III (COMPLETE IN PLACE)	LF	132		
71	613(A)	30" R.C.PIPE CLASS III (COMPLETE IN PLACE)	LF	12		
72	613(A)	36" R.C.PIPE CLASS III (COMPLETE IN PLACE)	LF	10		
73	613(A)	48" R.C.PIPE CLASS III (COMPLETE IN PLACE)	LF	8		
74	613(L)	18" PREFAB. CULVERT END SECTION, ROUND	EA	1		
75	619(B)	REMOVAL OF CURB	LF	11		
76	880(J)	CONSTRUCTION TRAFFIC CONTROL	EA	1		
77	SPECIAL	RESET HEADWALL	EA	1		
78	SPECIAL	INTERNAL BAND FOR 24" RCP JOINT SEAL	EA	1		
79	SPECIAL	INTERNAL BAND FOR 54" RCP JOINT SEAL	EA	7		
80	SPECIAL	RESET RCP END SECTION	EA	2		
81	SPECIAL	TYPE I APC PATCH (NON-ARTERIAL)	SY	13		
					PROJECT NO. 126335 SUBTOTAL	

PROJECT NO. 126336 PAY QUANTITIES						
ITEM NUMBER	SPEC NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
82	202(D)	UNCLASSIFIED BORROW	CY	19		
83	220	SWPPP DOCUMENTATION AND MANAGEMENT	EA	1		
84	221(I)	REMOVAL OF SEDIMENT	CY	254		
85	230(A)	SOLID SLAB SODDING	SY	61		
86	326(B)	GEOGRID REINFORCEMENT	SY	25		
87	509(D)	CLASS C CONCRETE	CY	15		
88	601(B)	TYPE I-A PLAIN RIPRAP	CY	25		
89	613(A)	18" R.C.PIPE CLASS III	LF	52		
90	613(L)	18" PREFAB. CULVERT END SECION, ROUND	EA	8		
91	613(L)	24" PREFAB. CULVERT END SECION, ROUND	EA	3		
92	619(B)	REMOVAL OF FENCE	LF	58		
93	624(F)	FENCE-STYLE CLF (4'HIGH, VINYL COATED)	LF	58		
94	880(J)	CONSTRUCTION TRAFFIC CONTROL	EA	1		
95	SPECIAL	TYPE I APC PATCH (NON-ARTERIAL)	SY	38		
					PROJECT NO. 126336 SUBTOTAL	

PROJECTS NO. [115010, 116205, 117860, 126333, 126335, 126336] GRAND TOTAL	

TOTAL BASE BID

_____
Figures

Enclosed is a ( ) Bidder's Surety Bond, ( ) Certified Check, ( ) Cashier's Check for

_____ Dollars ($_____)
Figures

which the City of Tulsa may retain or recover as liquidated damages in the event that the undersigned fails to enter into contract for the work covered by this proposal., provided the Contract is awarded to the undersigned within thirty (30) days, or within ninety (90) days if Federal funds are utilized, from the date fixed for opening of bids and the undersigned fails to execute said Contract and furnish the required bonds and other requirements as called for in these Contract Documents within thirty (30) days after award of Contract.

Dated at Tulsa, Oklahoma, this _____ day of _____, 20__.

Respectfully submitted,

_____
(Complete legal name of company)

_____
(State of Organization)

By: _____
Title:
Printed Name:

ATTEST: _____
Title: Corporate Secretary
Printed Name:
(SEAL)

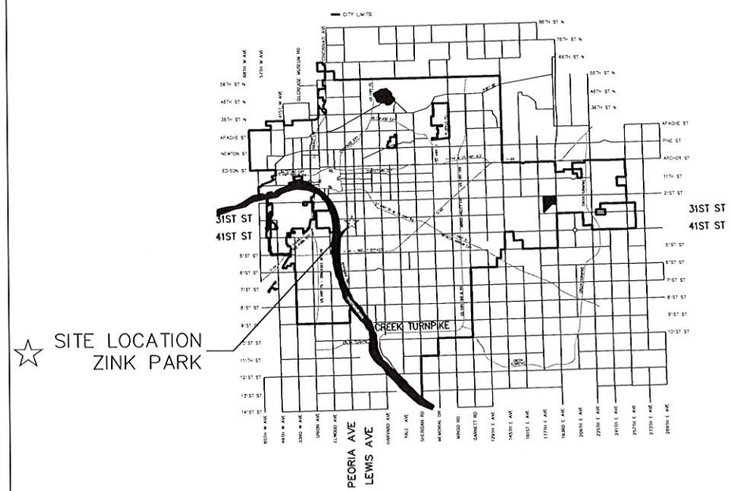
Address:_____
_____
_____
_____
_____

Telephone Number: _____ Fax Number: _____

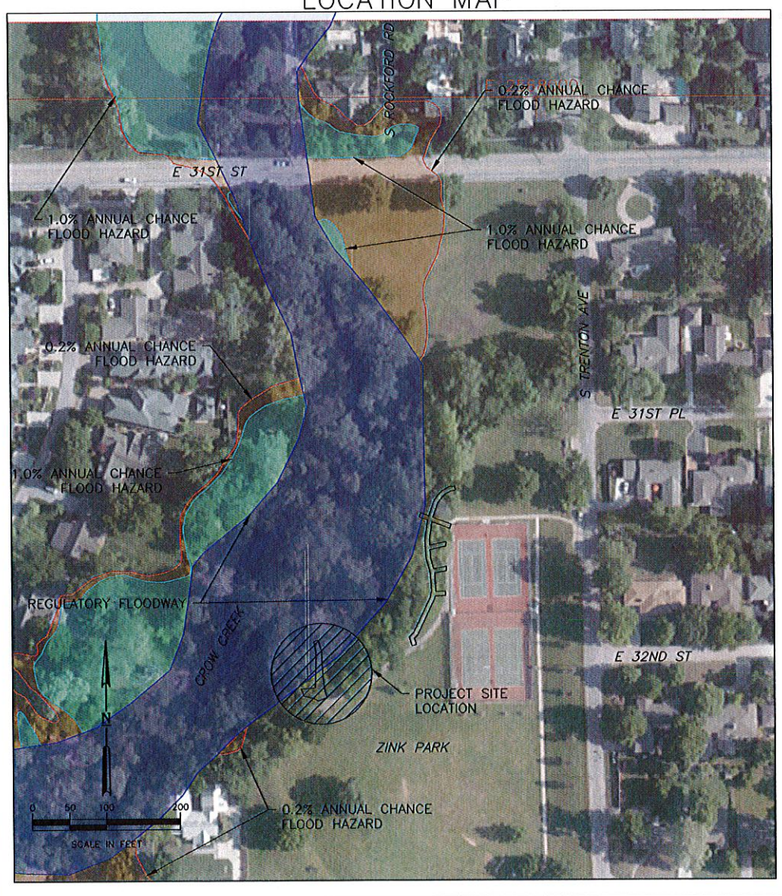
By signing above bidder acknowledges receipt of the following Addenda (give number and date of each):

_____
_____
_____
_____

CITY OF TULSA, OKLAHOMA



LOCATION MAP



ZINK PARK – DAMAGE #331403 (36.11760, -95.97071)
SITE 4

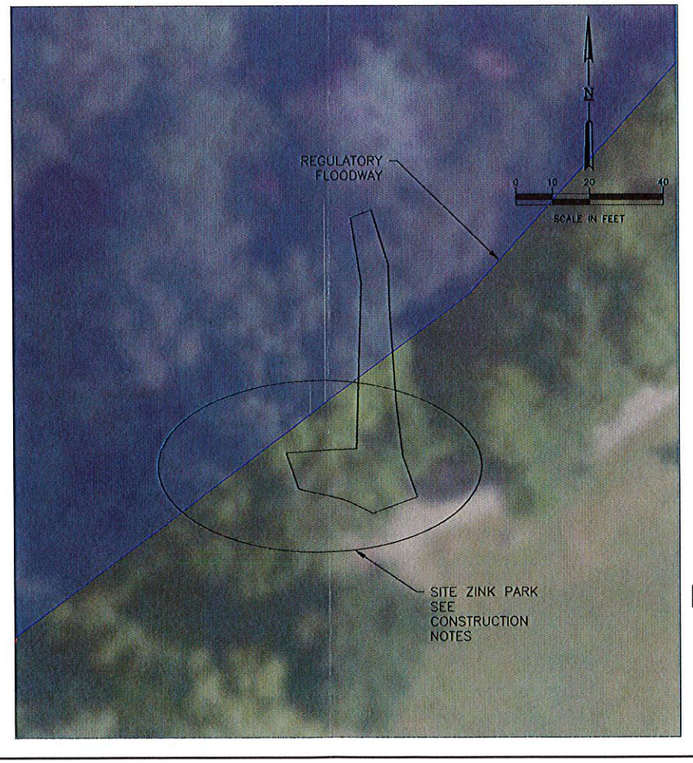
* BASE MATERIAL – 0.22 CY OF CRUSHED STONE BASE MATERIAL FOR STONE WALKWAY, 6 FT LONG X 2 FT WIDE X 6 IN DEEP, HIGH VELOCITY SURFACE WATER FLOODING DISPLACED STONE WALKWAYS AND BASE MATERIALS.
* MORTAR – 0.01 CY OF MORTAR BETWEEN STONES, 5 FT LONG X 2 IN WIDE X 4 IN DEEP, HIGH VELOCITY SURFACE WATER FLOODING DISPLACED STONE WALKWAYS AND BASE MATERIALS.

DI# 331403 - ZINK PARK - SITE 4

ITEM		ITEM DESCRIPTION	NOTES	UNIT	QUANTITY
504(H)	6389	ELASTOMERIC MORTAR	G-1	CY	0.01
610(D)	2679	REMOVE & RELAY BRICK/STONE SIDEWALK	R-1,2,5,6	CY	1.00
		NON-PARTICIPATING			
611(A)	2657	MANHOLE (4' DIA.), COMPLETE IN PLACE	D-1,2,3,4,5	EA	3.00
611(B)	2680	ADD'L DEPTH IN MANHOLE (VF)	D-4	VF	18.00
611(G)		INLET, SDI TYPE 2 W/ BAR GRATE, COMPLETE IN PLACE	D-1,2,3,7,8,9,10	EA	3.00
COT 215		(SP) 18" CORRUGATED POLYPROPYLENE PIPE (CPP), COMPLETE IN PLACE	D-13,14,15 S-19	LF	48.00
COT 215		(SP) 24" CORRUGATED POLYPROPYLENE PIPE (CPP), COMPLETE IN PLACE	D-13,14,15 S-19	LF	122.00
SPECIAL		OUTFALL STRUCTURE, COMPLETE IN PLACE		EA	1.00

SITE PHOTO

ZINK PARK – SITE 4



LEGEND

FEMA SITE AREA

OKIE 811 Know what's below. Call before you dig.

REVISION	BY	DATE
⚠1 ADDED PAY ITEMS	SMC	3/21

PLAN SCALE: 1" = ##'
PROFILE SCALE: HORIZONTAL: N/A; VERTICAL: N/A

DRAWN	KRP	05/20	APPROVED:
DESIGNED	RJP	05/20	
SURVEY	N/A	N/A	
PROJ. MGR.			
LEAD ENGR.			
FIELD MGR.			
RECOMMENDED DESIGN MANAGER			CITY ENGINEER
FILE: DRAWING:			DATE:
ATLAS PAGE NO. 95			SHEET 12 OF 14 SHEETS

FEMA SITE
ZINK PARK – SITE 4

PROJECT #173120-T021-117860

DAMAGE #331403

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
Meshek & Associates, L.L.C.
1437 S. Boulder Avenue, Suite 1550 Tulsa, OK 74119 (918)392-5620

PRINT DATE: 03/02/2021 M:\City_of_Tulsa\17TUL03_On_Call_Stormwater_Services_2017\T0_21_FEMA_Flood_Damage\Design\Working\117860\DAMAGE_331391.dwg

GENERAL (G1 – G10) (11/14/2018)

G-1: LOCATIONS TO BE DETERMINED IN THE FIELD AND WORK TO BE PERFORMED AT THE DIRECTION OF THE FIELD ENGINEER. QUANTITY IS ESTIMATED AND MAY BE OMITTED IN ITS ENTIRETY.

G-2: MAXIMUM OVERALL DOLLAR AMOUNT AND SCHEDULE OF PAYMENTS SHALL BE IN ACCORDANCE SECTION 641 OF THE OKLAHOMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, CURRENT EDITION.
EXCLUDES MOBILIZATION FOR WATERLINE WORK.

G-3: CONSTRUCTION STAKING SHALL INCLUDE SURVEYING AND THE FURNISHING, PLACING, AND MAINTAINING OF THE CONSTRUCTION LAYOUT STAKES NECESSARY FOR THE PROPER COMPLETION AND INSPECTION OF THE ENTIRE PROJECT.

G-4: THE COST TO REPLACE REMOVED OR DAMAGED SECTION CORNERS AND ALL OTHER PERMANENT RIGHT OF WAY MARKERS SHALL BE INCLUDED IN THE PRICE BID FOR THIS ITEM. NO ADDITIONAL PAYMENT WILL BE MADE.

G-5: CONTRACTOR SHALL REPAIR ANY IRRIGATION SYSTEMS DAMAGED OR REQUIRING RELOCATION DURING THE CONSTRUCTION OF THE PROJECT TO THE SATISFACTION OF THE PROPERTY OWNER AND CITY ARBORIST. COST SHALL BE INCLUDED IN THE PRICE BID.

PAY ITEM NOTES (11/14/2018)

EARTHWORK / EROSION CONTROL / SITE PREPARATION (E1 – E11)

E-2: ALL EXISTING DRAINAGE STRUCTURES SHALL BE CLEANED AND CLEARED OF ALL SEDIMENTATION AND DEBRIS TO THE RIGHT OF WAY. COST OF CLEARING SHALL BE INCLUDED IN THE PRICE BID.

E-3: THE CONTRACTOR SHALL BE PAID FOR UNCLASSIFIED EXCAVATION ON THE BASIS OF PLAN QUANTITY, ANY ADDITIONAL EXCAVATION REQUIRED OR OVERRUN OF PLAN QUANTITY WILL BE PAID FOR ON THE BASIS OF UNIT PRICE BID FOR THE ITEM. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SURVEY TO VERIFY ANY ADDITIONAL QUANTITIES.

E-4: UNCLASSIFIED EXCAVATION INCLUDES REMOVAL OF AGGREGATE BASE AND MODIFIED SUBGRADE UNDER EXISTING PAVEMENT TO BE REPAIRED.

E-5: THIS QUANTITY INCLUDES AN ADDITIONAL 10% ABOVE PLAN QUANTITY FOR UNDERCUTTING OF UNSUITABLE SUBGRADE MATERIAL OR ADDITIONAL PATCHING AS DIRECTED BY THE ENGINEER.

E-6: THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROL AND MAINTENANCE OF THE STORM WATER DRAINAGE FROM THE CONSTRUCTION SITE. STORM WATER PONDING ON THE CONSTRUCTION SITE THAT IS THE RESULT OF CONSTRUCTION WILL NOT BE ALLOWED. ALL COST ASSOCIATED WITH STORM WATER MANAGEMENT, AS WELL AS REMOVAL OF ALL SILT AND DEBRIS FROM ALL DRAINAGE STRUCTURES, STORM SEWER PIPES AND APPURTENANCES WITHIN THE PROJECT LIMITS AT END OF PROJECT, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THIS ITEM.

E-7: EROSION PROTECTION SHALL BE PLACED AS FOLLOWS:
A) AROUND INLETS TO PREVENT INFLOW OF ERODED MATERIAL INTO STORM SEWER SYSTEM;
B) IN LOCATIONS THROUGHOUT PROJECT SITE, AS DETERMINED BY THE ENGINEER, TO PREVENT WASH OF ERODED MATERIAL ONTO ADJACENT PROPERTY;
C) FOR ENTIRE DURATION OF PROJECT, WITH MAINTENANCE AND REPLACEMENTS, AS DIRECTED BY THE ENGINEER;
D) WITH PERIODIC REMOVAL OF SEDIMENT IN ACCORDANCE WITH STORMWATER MANAGEMENT PLAN.
ALL COST FOR ITEMS A-D ABOVE SHALL BE INCLUDED IN UNIT PRICE BID FOR THIS ITEM.

E-8: PRICE BID SHALL INCLUDE MAINTENANCE, SEDIMENT REMOVAL, DISPOSAL, AND REMOVAL OF FILTERS AT PROJECT COMPLETION.

E-10: ESTIMATED QUANTITY IS BASED ON SODDING OF ALL DISTURBED AREAS OUTSIDE THE FINAL PAVING LIMITS AND WITHIN THE FINAL GRADING LIMITS AS INDICATED BY THE TOP-OF-CUT/TOE-OF-SLOPE LINE ON THE PLANS (EXCLUDING SURFACES OF STRUCTURES, FIXTURES AND APPURTENANCES). SOD SHALL BE OF LIKE-KIND TO EXISTING SOD. PRICE BID INCLUDES PLACEMENT AND COMPACTION OF SUITABLE BACKFILL. ANY EXISTING GRASSED AREAS BEYOND THE ABOVE STATED LIMITS THAT ARE DAMAGED AS A RESULT OF CONSTRUCTION OPERATIONS SHALL BE RESODDED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S SOLE EXPENSE.

E-11: COST OF WATERING AND FERTILIZING SHALL BE INCLUDED. FERTILIZERS SHALL BE 10-20-10 AND SHALL BE APPLIED AT THE RATE OF 1.5 LBS PER 10 SQ YDS. FERTILIZER SHALL BE APPLIED PER SECTION 230.04H OF ODOT STANDARD SPECIFICATIONS. WATERING SHALL BE APPLIED AS NECESSARY UNTIL VEGETATION IS ESTABLISHED OR UNTIL THE WORK IS ACCEPTED AS COMPLETE.

SURFACING / STRUCTURES (S1 - S21)

S-1: TYPE A AGGREGATE BASE WAS ESTIMATED TO BE USED AS THE BASE MATERIAL FOR 90% OF THE PATCHING. QUICK SET FLOWABLE FILL WAS ESTIMATED TO BE USED AS THE BASE MATERIAL FOR 10% OF THE PATCHING. ACTUAL QUANTITIES TO BE DETERMINED BY THE ENGINEER.

S-2: INCLUDES COMPACTION OF AGGREGATE TO 98% AASHTO T180 MODIFIED PROCTOR.

S-3: SEPARATOR FABRIC SHALL BE USED AT ALL PAVEMENT PATCHES AND RECONSTRUCTION SECTIONS. THE SEPARATOR FABRIC SHALL BE CUT AND OVERLAPPED A MINIMUM OF 2 FT AT ALL EDGES OF THE REPAIR.

S-4: FABRIC REINFORCEMENT SHALL BE USED ON OVERLAY AREAS. THE COST OF BITUMINOUS BINDER FOR FABRIC REINFORCEMENT SHALL BE INCLUDED IN THE UNIT COST OF THIS PAY ITEM. THE BITUMINOUS BINDER SHALL MEET ODOT STANDARD SPECIFICATIONS AND THE RECOMMENDATIONS OF THE FABRIC REINFORCEMENT MANUFACTURER.

S-5: THE COST OF TACK COAT, EDGE JOINT SEAL MATERIAL AND SCREENINGS FOR BLOTTING, AND ALL LABOR ASSOCIATED WITH THESE ITEMS, SHALL BE INCLUDED IN ASPHALT CONCRETE.

S-6: ESTIMATED AT 112 LBS PER SQ YD PER 1 INCH THICK.

S-7: ODOT PAY FACTOR FOR AVERAGE LOT DENSITY SHALL NOT BE USED FOR THIS PROJECT. FAILURE TO REACH AVERAGE LOT DENSITY OF 92%-97% WILL RESULT IN REJECTION OF WORK.

S-8: A HIGHER GRADE OF ASPHALT BINDER THAN IS INDICATED ON THE PLANS MAY BE USED, BUT AT NO ADDITIONAL COST TO THE CITY.

BINDER GRADE	MESALs	ADT[1]	NOTES
PG 64-22 OK	3	<5,000	USE WHEN MORE THAN 4-6 INCHES BELOW THE SURFACE. ALSO USE FOR SHOULDERS, DRIVEWAYS, BELOW PCC, AND TEMPORARY CONSTRUCTION
PG 70-28 OK	10	<10,000	USE ONLY IN THE TOP 4-6 INCHES FOR DRIVING LANES
PG 76-28 OK	>=10	>=10,000	USE ONLY IN THE TOP 4-6 INCHES FOR DRIVING LANES
PG 76-28 E	–	–	CONTACT ODOT MATERIALS DIVISION FOR RECOMMENDED USE.
1. USE ADT ONLY WHEN ESAL COMPUTATIONAL DATA IS NOT AVAILABLE. CALCULATE THE DESIGN ESALs BASED ON 20 YEARS.			
2. PG 70-28 OK OR PG 76-28 OK MAY BE DESIRABLE IN HIGH VOLUME AREAS WHERE SLOW, STANDING, OR TURNING TRAFFIC OCCURS, SUCH AS URBAN INTERSECTIONS OR OFF-RAMPS. OFF RAMPS SHOULD AT LEAST USE THE SAME BINDER AS THE MAINLINE.			

S-11: CONCRETE PAVEMENT SHALL BE COMPLETE IN PLACE. NO PARTIAL OR FINAL PAYMENT SHALL BE MADE UNTIL PAVEMENT HAS BEEN SAWED AND SEALED. ANY SECTIONS OF PAVEMENT WITH UNAPPROVED DEVIATIONS FROM THE JOINT LAYOUT PROVIDED IN THE PLANS MAY BE REJECTED AT THE DISCRETION OF THE ENGINEER.

S-12: THE USE OF FLY-ASH IN CONCRETE IS PROHIBITED.

S-13: INCLUDES ALL COST OF SAWED JOINTS AND SEALING OF ALL JOINTS INCLUDING LONGITUDINAL JOINTS.

S-15: THIS ITEM SHALL BE MEASURED AS THE ACTUAL AMOUNT OF CURB AND/OR GUTTER INSTALLED. NO PAYMENT WILL BE MADE FOR CURB AND/OR GUTTER THROUGH DRIVEWAYS AND INLETS.

S-19: STANDARD BEDDING MATERIAL TO BE TYPE A AGGREGATE BASE COMPACTED TO 95% STANDARD PROCTOR DENSITY (AASHTO T-99). TYPE A AGGREGATE BASE IN THE ROADWAY SHALL BE COMPACTED TO 98% MODIFIED PROCTOR (AASHTO T-180).

S-20: QUANTITY SHALL BE MEASURED AND PAID FOR AS FOLLOWS:

A. FOR ANY CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BOX (RCB) LARGER THAN 4' BY 4', USE NEAT LINES THAT ARE 4" BELOW THE BOTTOM OF THE RCB AND 4'-0" BEYOND THE OUTSIDE WALL.

B. UNDER ROADWAY PAY QUANTITY SHALL BE PAID FOR FROM THE BOTTOM OF TRENCH, AS DESCRIBED, TO THE BOTTOM OF ROADWAY AGGREGATE BASE.

S-21: THIS PAY ITEM INCLUDES THE FOLLOWING:

A. SAW CUTTING
B. REMOVAL OF THE EXISTING CONCRETE AND/OR ASPHALTIC CONCRETE ROADWAY (SY)
C. TYPE S4 ASPHALTIC CONCRETE, H.E.S. CONCRETE, AND REINFORCING STEEL COMPLETE AND IN PLACE PER DETAIL
D. SEALING OF EDGES AND TACK COAT

DOES NOT INCLUDE THE FOLLOWING:

A. UNCLASSIFIED EXCAVATION
B. SUBGRADE METHOD B (SY)
C. SEPARATOR FABRIC (SY)
D. AGGREGATE BASE (TYPE A)
E. ASPHALT CONCRETE LEVELING OR SURFACE COURSE

REMOVAL / ADJUSTMENT (R1 - R6)

R-1: WASTE MATERIAL TO BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE IN A MANNER APPROVED BY THE ENGINEER.

R-2: ALL SAW CUTTING AND REMOVAL SHALL BE INCLUDED IN THE COST OF THE ITEM TO BE ADJUSTED, REMOVED, REPAIRED, OR REPLACED.

R-3: PAY ITEM INCLUDES REMOVAL OF ALL STRUCTURES AND OBSTRUCTIONS WITHIN PROJECT LIMITS NOT SPECIFIED BY OTHER ITEMS OF WORK.

R-4: INCLUDES SAWING NOT INCLUDED IN OTHER ITEMS OF WORK.

R-5: ITEMS TO BE REMOVED MAY OR MAY NOT BE PRESENT IN ANY SPECIFIED CONDITION.

R-6: SHALL INCLUDE ALL COSTS ASSOCIATED WITH PLUGGING/ PATCHING HOLES IN EXISTING STRUCTURES TO REMAIN.

DRAINAGE (D1 - D15)

D-1: THIS ITEM SHALL INCLUDE THE COST OF NEW MANHOLE FRAME AND COVER PER CITY OF TULSA STD NOS.752, 753, 754, 761, 762, 769A, 769B AND 775.

D-2: THE TOTAL COST FOR RUBBERIZED ASPHALT AND/OR SILICONE AT MANHOLES, VALVE BOXES, INLETS, AND INLET APRONS, SHALL BE INCLUDED.

D-3: NO MASONRY STRUCTURES SHALL BE CONSTRUCTED WITHIN THE RIGHT OF WAY.

⚠ D-4: ADDITIONAL DEPTH IN A MANHOLE SHALL BE MEASURED FROM 6FT AS MEASURED FROM THE TOP OF RIM TO THE LOWEST FLOWLINE.

⚠ D-5: ALL MANHOLES SHALL BE COMPLETE IN PLACE. THIS PAY ITEM INCLUDES FRAME, COVER, CONCRETE AND ALL OTHER INCIDENTALS REQUIRED FOR PLACEMENT. ⚠

D-7: INCLUDES THE COST REQUIRED TO MAKE CONNECTION AND REMOVAL OF EXISTING INLETS. THE COST OF PC CONCRETE CURB AND GUTTER THROUGH THE INLET, 5' EACH SIDE OF THE INLET, AND THE PC CONCRETE INLET APRON SHALL BE INCLUDED. GRATE AND FLOWLINE ELEVATIONS SHALL MATCH EXISTING CONDITIONS UNLESS OTHERWISE NOTED IN THE PLANS.

D-8: QUICKSET FLOWABLE FILL SHALL BE USED TO BACKFILL AROUND STREET CURB INLETS AND REINFORCED CONCRETE PIPE, AS NEEDED, AT THE DIRECTION OF THE ENGINEER.

D-9: ALL INLETS, COMPLETE IN PLACE, SHALL BE CAST IN PLACE CONCRETE OR PRECAST CONCRETE. THIS PAY ITEM INCLUDES ANY INLET FRAME(S), GRATE(S), HOOD(S) AND CONCRETE REQUIRED FOR COMPLETE INSTALLATION OF STRUCTURE PER THE CONSTRUCTION DOCUMENTS.

D-10: ADDITIONAL DEPTH QUANTITIES SHALL BE MEASURED AND PAID FOR ALL INLETS EXCEEDING STANDARD DEPTH. STANDARD DEPTHS ARE AS FOLLOWS:

A) CAST IRON CURB INLET: 3.71 VF, MEASURED FROM CENTER ELEVATION OF LOWEST CAST IRON CURB TO FLOWLINE OF OUTLET PIPE.
B) RECESSED CURB INLET: 3.00 VF, MEASURED FROM TOP OF SLAB TO FLOWLINE OF OUTLET PIPE.
C) STANDARD DROP INLET: SEE STANDARD DETAILS 770, 771, 772 AND 773 - VARIES BASED ON PIPE SIZE, MEASURED FROM LOWEST ELEVATION OF INFLOW APRON TO FLOWLINE OF OUTLET PIPE.

D-12: REINFORCED CONCRETE PIPE TO BE CLASS III. ALL REINFORCED CONCRETE PIPE AND MANHOLES TO BE SUPPLIED WITH AN IMNI-FLEX JOINT GASKET OR APPROVED EQUAL. MASTIC JOINT SEALANT SHALL NOT BE ALLOWED.

D-13: THIS PAY ITEM SHALL BE COMPLETE IN PLACE AND SHALL INCLUDE ALL PIPE, STANDARD BEDDING MATERIAL AND TRENCH EXCAVATION, JOINT GASKETS AND ALL OTHER INCIDENTALS. NO ADDITIONAL COST WILL BE MADE. PRIOR TO ACCEPTANCE, INTERIOR OF PIPE SHALL BE INSPECTED FOR DEFECTS USING SELF-PROPELLED MOBILE CLOSED-CIRCUIT CAMERA SYSTEM.

D-14: WHERE CORRUGATED POLYPROPYLENE PIPE CONNECTS TO REINFORCED CONCRETE STRUCTURES, CONTRACTOR SHALL ENSURE CONNECTIONS ARE WATER-TIGHT AND FULLY SEALED AGAINST SOIL INFILTRATION.

D-15: WHERE QUICKSET FLOWABLE FILL IS USED TO BACKFILL AROUND CORRUGATED POLYPROPYLENE PIPE, THE CONTRACTOR SHALL UTILIZE AN ANCHORING SYSTEM APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. ALL COSTS FOR LABOR, EQUIPMENT AND MATERIALS REQUIRED TO IMPLEMENT APPROVED ANCHORING SYSTEM INCLUDED IN PRICE BID FOR CORRUGATED POLYPROPYLENE PIPE.

TRAFFIC (T1 – T7)

T-1: ALL TRAFFIC MATERIALS REMOVED SHALL BE HANDLED PER COT SPECIFICATION 625 REMOVAL OF TRAFFIC ITEMS.

T-2: REFLECTORIZED SHEETING ON SIGNS AND BARRICADES SHALL BE OF A CUBIC PRISMATIC TYPE AND SHALL MEET THE SPECIFICATIONS ESTABLISHED FOR ASTM D 4956-01 TYPE IX RETROREFLECTIVE SHEETING. REFLECTORIZED SHEETING ON DRUMS AND TUBE CHANNELIZERS SHALL BE OF A HIGH-INTENSITY TYPE AND SHALL MEET THE SPECIFICATIONS ESTABLISHED FOR ASTM D 4956-01 TYPE III RETROREFLECTIVE SHEETING.

T-3: ALL PLASTIC PAVEMENT MARKINGS SHALL BE EITHER:

EXTRUDED-APPLIED THERMOPLASTIC (USE ON ASPHALT PAVEMENT). THERMOPLASTIC PAVEMENT MARKINGS SHALL ONLY BE APPLIED WHEN THE SURFACE TEMPERATURE EXCEEDS 55°F FOR ALL OF THE SIX HOURS PRIOR TO INSTALLATION AND MAXIMUM WIND GUSTS ARE BELOW 15 MPH AT THE TIME OF APPLICATION. PRICE BID TO INCLUDE FLEX TABS OR LIKE KIND FOR POST CONSTRUCTION LANE MARKING/SEPARATION. MECHANICALLY APPLIED PREFORMED PLASTIC TAPE ("COLD TAPE") WILL NOT BE ACCEPTED.

T-7: PRICE BID FOR THIS ITEM INCLUDES INSTALLATION, MAINTENANCE AND SUBSEQUENT REMOVAL OF PROJECT SIGN.

SPECIAL PAY ITEMS

SP-1: THIS PAY ITEM SHALL INCLUDE THE COST AND REMOVAL OF EQUIVALENT PIPE SIZE PLANTER AND LABOR PER FOOT.

APPLICABLE CITY OF TULSA STANDARD DRAWINGS AND DETAILS REFERENCES:

PAVEMENT CUTS FOR UTILITIES
– STD NO. 711 – STANDARD DETAIL FOR PAVEMENT REMOVAL AND REPLACEMENT
– STD NO. 714 – STANDARD DETAIL FOR PAVEMENT CUTS

ASPHALT PAVEMENT – DETAILS
– STD NO. 730 – STANDARD ASPHALT PAVEMENT CUT AND REPAIR

P.C. CONCRETE PAVEMENT – CURB DETAILS
– STD NO. 727 – CONCRETE PAVEMENT STANDARD DETAILS FOR RESIDENTIAL AND COLLECTOR STREETS

STORM PIPES, DRAINAGE INLETS, GRATES, AND HOODS
– STD NO. 751 – STANDARD PIPE BEDDING DETAIL FOR STORM SEWER
– STD NO. 753 – FRAME AND LID FOR 4' AND 5' I.D. STORMWATER MANHOLE
– STD NO. 754 – FRAME AND LID FOR 6' AND 8' I.D. STORMWATER MANHOLE AND JUNCTION BOXES
⚠ – STD NO. 770 – STANDARD DROP INLET 15", 18", AND 24"
– STD NO. 775 – STANDARD PRECAST CONCRETE STORMWATER MANHOLE

APPLICABLE ODOT STANDARDS:

SMD-3-2 – STANDARD MEDIAN DRAINS

PROJECT NO. 117860
FEMA FLOOD PROJECTS
ROADWAY BASE BID

ITEM NO.	SPEC NO.	DESCRIPTION	NOTES	UNIT	QUANTITY
1	202(D)	UNCLASSIFIED BORROW		CY	42
2	202(F)	EMBANKMENTS	E-3,4,R-1	CY	62
3	220	SWPPP DOCUMENTATION AND MANAGEMENT	E-6	EA	1
4	230(A)	SOLID SLAB SODDING	E-10, 11	SY	36
5	411	ASPHALT CONCRETE	S-5,6,7,8	CY	1
6	504(H)	ELASTOMERIC MORTAR	G-1	CY	0.11
7	510(A)	RETAINING WALL		LS	7
8	601(B)	TYPE I-A RIPRAP		CY	8
9	610(D)	REMOVE & RELAY BRICK/STONE SIDEWALK	R-1, 2, 5, 6	CY	17
10	619(B)	REMOVAL OF ASPHALT PAVEMENT	R-1, 2, 5, 6	CY	1
11	880(I)	CONSTRUCTION TRAFFIC CONTROL		EA	1
12	SPECIAL	ELECTRONIC CONTROLS FOR FOUNTAIN PUMP	T-7	EA	1
		NON-PARTICIPATING			
13	611(A)	MANHOLE (4' DIA.), COMPLETE IN PLACE	D-1,2,3,4,5	EA	3
14	611(B)	ADD'L DEPTH IN MANHOLE (VF)	D-4	VF	18
15	611(G)	INLET, SDI TYPE 2 W/ BAR GRATE, COMPLETE IN PLACE	D-1,2,3,7,8,9,10	EA	3
16	COT 215	(SP) 18" CORRUGATED POLYPROPYLENE PIPE (CPP), COMPLETE IN PLACE	D-13,14,15 S-19	LF	48
17	COT 215	(SP) 24" CORRUGATED POLYPROPYLENE PIPE (CPP), COMPLETE IN PLACE	D-13,14,15 S-19	LF	122
18	SPECIAL	OUTFALL STRUCTURE, COMPLETE IN PLACE		EA	1

GENERAL CONSTRUCTION NOTES & PAY ITEMS

PROJECT #173120-T021-117860

FEMA PROJECT NO. 117860

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY:
Meshek & Associates, L.L.C.
1437 S. Boulder Avenue, Suite 1550 Tulsa, OK 74119 (918)392-5620

REVISION	BY	DATE
⚠ ADDED PAY ITEMS	SMC	3/21
PAY ITEM NOTES		
AND STANDARD		

PLAN SCALE	DRAWN	KRP	05/20
N/A	DESIGNED	RJP	05/20
	SURVEY	N/A	N/A
PROFILE SCALE	PROJ. MGR.		
HORIZONTAL: N/A	LEAD ENGR.		
	FIELD MGR.		
VERTICAL: N/A	RECOMMENDED DESIGN MANAGER		
FILE:	DRAWING:		
ATLAS PAGE NO. ####			

APPROVED:

CITY ENGINEER

DATE:

SHEET 2 OF 14 SHEETS

PRINT DATE: 03/02/2021 M:\City_of_Tulsa\177\0L03_On_Call_Stormwater_Services_2017\TO_21_FEMA_Flood_Damage\Design\Working\117860\DAMAGE_331391.dwg