



PUBLIC WORKS
Engineering

DATE:
May 5, 2025

TO:
Plan Holders
Contractors

FROM:
Jenna Richardson
918-596-9637
jennarichardson@cityoftulsa.org

EMAIL TRANSMITTAL

ADDENDUM NO. 2

**PROJECT NO. TD-23-0003 TRAFFIC SIGNAL N. PEORIA AVE.
AND MOHAWK BLVD.**

Number of pages: 10

All addenda to the contract documents should be denoted on the
last page of the Proposal in the space provided.

Thank you,
Contract Administration



PUBLIC WORKS
Engineering

DATE:
May 5, 2025

**ADDENDUM NO. 2
TO
PROJECT NO. TD-23-0003
TRAFFIC SIGNAL N. PEORIA AVE. & MOHAWK BLVD.**

This Addendum No. 2 consisting of two (2) items and one (1) clarification, submitted by Traffic Engineering Consultants, Inc., 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. **All addenda to the contract documents should be denoted on the last page of the Proposal in the space provided.**

This Addendum No. 2 consists of the following:

1. The attached documents list the detailed items that have been modified in Addendum No. 2. These documents shall be inclusive and apply to this project.
2. 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/> for Project No. TD-23-0003 Traffic Signal N. Peoria Ave. & Mohawk Blvd. It is the Bidders responsibility to download the revised Proposal.

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

CITY OF TULSA


Paul D. Zachary, P.E.
Deputy Director

HAS/DDH/JR



**ADDENDUM NO. 2
TO
PROJECT NO. TD-23-0003
TRAFFIC SIGNAL N. PEORIA AVE. & MOHAWK BLVD.**

Date: May 3, 2025

This Addendum No. 2 consisting of two (2) items and one (1) clarification, submitted by Traffic Engineering Consultants, Inc. 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. **All addenda to the contract documents should be denoted on the last page of the Proposal in the space provided.**

This Addendum No. 2 consists of the following:

1. ITEM 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/> for Project No. TD-23-0003. It is the Bidders responsibility to download the revised Proposal.
2. ITEM Remove Sheet 3 and replace with Sheet 3a in Plan set.
3. CLARIFICATION Bid Item #45, Video Detection, the Econolite OptiVu is an acceptable product to the Traffic Operations Approved Products List (APL) as an or equal.

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

Traffic Engineering Consultants, Inc.

Esther M. Shaw-Smith, PE, PTOE
Principal



**ELECTRONIC BID PROPOSAL INSTRUCTIONS - EXCEL SPREADSHEET
PROJECT NO. TD-23-0003**

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: Traffic Engineering Consultants, Inc., 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 Project No. TD-23-0003. 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
TRAFFIC SIGNAL
N. PEORIA & MOHAWK BLVD.
PROJECT NO. TD-23-0003**

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 90 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

THE BID PROPOSAL INCLUDES A ROADWAY BASE BID AND A TRAFFIC BASE BID. IT SHOULD BE NOTED THAT THE LOWEST RESPONSIBLE TOTAL BID SHALL BE DETERMINED BY THE ROADWAY BASE BID AND TRAFFIC BASE BID.

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

BID FORM
TRAFFIC SIGNAL
N. PEORIA AVE. & MOHAWK BLVD.
PROJECT NO. TD-23-0003

ITEM NUMBER	SPEC NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY	DATA INPUT UNIT PRICE	AMOUNT
BASE BID - ROADWAY						
1	202(A)	UNCLASSIFIED EXCAVATION	CY	2		\$0.00
2	221	TEMPORARY EROSION CONTROL	LS	1		\$0.00
3	230(A)	SOLID SLAB SODDING	SY			\$0.00
4	610(A)	4" CONCRETE SIDEWALK	SY	14		\$0.00
5	610(A)	4" STAMPED CONCRETE SIDEWALK	SY	7		\$0.00
6	619(B)	REMOVAL OF SIDEWALK	SY	16		\$0.00
7	COT 334	CONSTRUCTION AS-BUILT	LSUM	1		\$0.00
8	COT 335	CONTRACTOR QUALITY CONTROL	LSUM	1		\$0.00
BASE BID - ROADWAY SUBTOTAL						\$0.00

BASE BID - TRAFFIC						
9	601	PULL BOX SIZE II	EA	6		\$0.00
10	601	PULL BOX SIZE III	EA	2		\$0.00
11	602	2" PVC SCH. 40 PLASTIC CONDUIT (TRENCHED)	LF	95		\$0.00
12	602	3" PVC SCH. 40 PLASTIC CONDUIT (TRENCHED)	LF	330		\$0.00
13	602	2-3" HDPE SCH. 40 CONTINUOUS CONDUIT (DIRECTIONAL BORE)(OUTSIDE IDL)	LF	830		\$0.00
14	603	24" SIGNAL FOOTING S-18/24	EA	1		\$0.00
15	603	30" SIGNAL FOOTING S-30/36	EA	1		\$0.00
16	603	36" SIGNAL FOOTING S-42/50	EA	4		\$0.00
17	603	24" PEDESTAL FOOTING F-1	EA	6		\$0.00
18	607	SERVICE TO SIGNAL STANDARD	EA	2		\$0.00
19	607	OVERHEAD SERVICE TO SERVICE POLE	EA	2		\$0.00
20	608	OVERHEAD SIGN	SF	101		\$0.00
21	610	TRAFFIC SIGNAL CONTROLLER CABINET ASSEMBLY	EA	2		\$0.00
22	611	2#12 UF ELECTRICAL CONDUCTOR WITH GROUND	LF	1650		\$0.00
23	611	2#14 SHIELDED ELECTRICAL CONDUCTOR	LF	90		\$0.00
24	611	4#14 TRAFFIC SIGNAL ELECTRICAL CABLE	LF	140		\$0.00
25	611	7#14 TRAFFIC SIGNAL ELECTRICAL CABLE	LF	1350		\$0.00
26	611	20#14 TRAFFIC SIGNAL ELECTRICAL CABLE	LF	860		\$0.00
27	611	GREEN #12 THHN ELECTRICAL CONDUCTOR	LF	1275		\$0.00
28	611	GREEN #6 THHN ELECTRICAL CONDUCTOR	LF	900		\$0.00
29	611	CAT 6 ETHERNET CABLE	LF	510		\$0.00
30	612	CABINET BASE, APRON AND GUARD	EA	2		\$0.00
31	613	AUDIBLE PEDESTRIAN PUSH BUTTON STATION AND SIGN	EA	8		\$0.00
32	613	AUDIBLE PEDESTRIAN PUSH BUTTON CONTROL CARD/UNIT	EA	2		\$0.00
33	613	AUDIBLE PEDESTRIAN PUSH BUTTON CONFIG/PROGRAMMING DEVICE	EA	2		\$0.00
34	614	LED 3 SECTION TRAFFIC SIGNAL HEAD (#36)	EA	12		\$0.00
35	614	LED 4 SECTION TRAFFIC SIGNAL HEAD (#S-13L)(FLTYA)	EA	2		\$0.00
36	614	LED ICC PEDESTRIAN HEAD (#33)	EA	8		\$0.00
37	614	BACKPLATES	EA	14		\$0.00
38	615	BASE COVERS	EA	12		\$0.00
39	617	36" MODULAR TRAF. SIGNAL MAST ARM AND POLE W/LUM EXT	EA	1		\$0.00
40	617	42" MODULAR TRAF. SIGNAL MAST ARM AND POLE W/LUM EXT	EA	1		\$0.00
41	617	46" MODULAR TRAF. SIGNAL MAST ARM AND POLE W/LUM EXT	EA	1		\$0.00
42	617	24" MODULAR TRAF. SIGNAL MAST ARM AND POLE W/O LUM EXT	EA	1		\$0.00
43	617	46" MODULAR TRAF. SIGNAL MAST ARM AND POLE W/O LUM EXT	EA	2		\$0.00
44	617	10" PEDESTAL POLE	EA	6		\$0.00
45	620	VIDEO DETECTION SYSTEM	EA	2		\$0.00
46	622	WIRELESS TRAFFIC SIGNAL COMMUNICATIONS SYSTEM	EA	2		\$0.00
47	623	BATTERY BACKUP SYSTEM	EA	2		\$0.00
48	625	REMOVAL OF TRAFFIC ITEMS	EA	2		\$0.00
49	626	TRAFFIC SIGNAL MAINTENANCE	HR	2		\$0.00
50	626	SIGNAL MODIFICATIONS FOR LANE CLOSURES (PER SIGNALIZED INTERSECTION)	EA	2		\$0.00
51	641	MOBILIZATION	EA	1		\$0.00
52	642	CONSTRUCTION STAKING- LEVEL II	EA	1		\$0.00
53	855 (A)	TRAFFIC STRIPE (THERMOPLASTIC) (4" WIDE)	LF	2470		\$0.00
54	855 (A)	TRAFFIC STRIPE (THERMOPLASTIC) (24" WIDE)	LF	715		\$0.00
55	855 (B)	TRAFFIC STRIPE (THERMOPLASTIC) (ARROWS)	EA	17		\$0.00
56	880	ARROW DISPLAY	SD	360		\$0.00
57	880	SIGNS TO 6.25 SF	SD	720		\$0.00
58	880	SIGNS 6.25 TO 15.99SF	SD	540		\$0.00
59	880	SIGNS 16.0 SF & OVER	SD	720		\$0.00
60	880	BARRICADES (TYPE III)	SD	540		\$0.00
61	880	TYPE A LIGHT	SD	2700		\$0.00
62	880	DRUMS	SD	900		\$0.00
63	880	TRAFFIC CONTROL EQUIPMENT REMOVAL	L.SUM	1		\$0.00
64	SPE	GRABBER TUBES	SD	1800		\$0.00
65	SPE	CCTV CAMERA, PAN/TILT/ZOOM	EA	2		\$0.00
66	857(F)	PAVEMENT MARKING REMOVAL (TRAFFIC STRIPE)	LF	700		\$0.00
67	SPE	OWNER ALLOWANCE	EA	10000		\$0.00
BASE BID - TRAFFIC SUBTOTAL						\$0.00

TOTAL BASE BID **\$0.00**

**SUMMARY SHEET
TRAFFIC SIGNAL
PEORIA AVE. & MOHAWK BLVD.
PROJECT NO. TD-23-0003**

BASE BID-ROADWAY.....	\$0.00
BASE BID-TRAFFIC.....	\$0.00
TOTAL BASE BID	\$0.00

SIGNATURE PAGE
TRAFFIC SIGNAL
N. PEORIA AVE MOHAWK BLVD.
PROJECT NO. TD-23-0003

TOTAL BASE BID

\$0.00

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):

**TRAFFIC SIGNAL
N. PEORIA AVE. & MOHAWK BLVD.
PROJECT NO. TD-23-0003**

ITEM NUMBER	SPEC NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY
BASE BID - ROADWAY				
1	202(A)	UNCLASSIFIED EXCAVATION	CY	2
2	221	TEMPORARY EROSION CONTROL	LS	1
3	230(A)	SOLID SLAB SODDING	SY	10
4	610(A)	4" CONCRETE SIDEWALK	SY	14
5	610(A)	4" STAMPED CONCRETE SIDEWALK	SY	7
6	619(B)	REMOVAL OF SIDEWALK	SY	16
7	COT 334	CONSTRUCTION AS-BUILT	LSUM	1
8	COT 335	CONTRACTOR QUALITY CONTROL	LSUM	1
BASE BID - TRAFFIC				
9	601	PULL BOX SIZE II	EA	6
10	601	PULL BOX SIZE III	EA	2
11	602	2" PVC SCH. 40 PLASTIC CONDUIT (TRENCHED)	LF	95
12	602	3" PVC SCH. 40 PLASTIC CONDUIT (TRENCHED)	LF	330
13	602	2-3" HDPE SCH. 40 CONTINUOUS CONDUIT (DIRECTIONAL BORE)(OUTSIDE IDL)	LF	830
14	603	24" SIGNAL FOOTING S-18/24	EA	1
15	603	30" SIGNAL FOOTING S-30/36	EA	1
16	603	36" SIGNAL FOOTING S-42/50	EA	4
17	603	24" PEDESTAL FOOTING F-1	EA	6
18	607	SERVICE TO SIGNAL STANDARD	EA	2
19	607	OVERHEAD SERVICE TO SERVICE POLE	EA	2
20	608	OVERHEAD SIGN	SF	101
21	610	TRAFFIC SIGNAL CONTROLLER CABINET ASSEMBLY	EA	2
22	611	2#12 UF ELECTRICAL CONDUCTOR WITH GROUND	LF	1650
23	611	2#14 SHIELDED ELECTRICAL CONDUCTOR	LF	90
24	611	4#14 TRAFFIC SIGNAL ELECTRICAL CABLE	LF	140
25	611	7#14 TRAFFIC SIGNAL ELECTRICAL CABLE	LF	1350
26	611	20#14 TRAFFIC SIGNAL ELECTRICAL CABLE	LF	860
27	611	GREEN #12 THHN ELECTRICAL CONDUCTOR	LF	1275
28	611	GREEN #6 THHN ELECTRICAL CONDUCTOR	LF	900
29	611	CAT 6 ETHERNET CABLE	LF	510
30	612	CABINET BASE, APRON AND GUARD	EA	2
31	613	AUDIBLE PEDESTRIAN PUSH BUTTON STATION AND SIGN	EA	8
32	613	AUDIBLE PEDESTRIAN PUSH BUTTON CONTROL CARD/UNIT	EA	2
33	613	AUDIBLE PEDESTRIAN PUSH BUTTON CONFIG/PROGRAMMING DEVICE	EA	2
34	614	LED 3 SECTION TRAFFIC SIGNAL HEAD (#36)	EA	12
35	614	LED 4 SECTION TRAFFIC SIGNAL HEAD (#S-13L)(FLTYA)	EA	2
36	614	LED ICC PEDESTRIAN HEAD (#33)	EA	8
37	614	BACKPLATES	EA	14
38	615	BASE COVERS	EA	12
39	617	36' MODULAR TRAF. SIGNAL MAST ARM AND POLE W/LUM EXT	EA	1
40	617	42' MODULAR TRAF. SIGNAL MAST ARM AND POLE W/LUM EXT	EA	1
41	617	46' MODULAR TRAF. SIGNAL MAST ARM AND POLE W/LUM EXT	EA	1
42	617	24' MODULAR TRAF. SIGNAL MAST ARM AND POLE W/O LUM EXT	EA	1
43	617	46' MODULAR TRAF. SIGNAL MAST ARM AND POLE W/O LUM EXT	EA	2
44	617	10' PEDESTAL POLE	EA	6
45	620	VIDEO DETECTION SYSTEM	EA	2
46	622	WIRELESS TRAFFIC SIGNAL COMMUNICATIONS SYSTEM	EA	2
47	623	BATTERY BACKUP SYSTEM	EA	2
48	625	REMOVAL OF TRAFFIC ITEMS	EA	2
49	626	TRAFFIC SIGNAL MAINTENANCE	HR	2
50	626	SIGNAL MODIFICATIONS FOR LANE CLOSURES (PER SIGNALIZED INTERSECTION)	EA	2
51	641	MOBILIZATION	EA	2
52	642	CONSTRUCTION STAKING	EA	2
53	855 (A)	TRAFFIC STRIPE (THERMOPLASTIC) (4" WIDE)	LF	2470
54	855 (A)	TRAFFIC STRIPE (THERMOPLASTIC) (24" WIDE)	LF	715
55	855 (B)	TRAFFIC STRIPE (THERMOPLASTIC) (ARROWS)	EA	17
56	880	ARROW DISPLAY	SD	360
57	880	SIGNS TO 6.25 SF	SD	720
58	880	SIGNS 6.25 TO 15.99SF	SD	540
59	880	SIGNS 16.0 SF & OVER	SD	720
60	880	BARRICADES (TYPE III)	SD	540
61	880	TYPE A LIGHT	SD	2700
62	880	DRUMS	SD	900
63	880	TRAFFIC CONTROL EQUIPMENT REMOVAL	L.SUM	1
64	SPE	GRABBER TUBES	SD	1800
65	SPE	CCTV CAMERA, PAN/TILT/ZOOM	EA	2
66	857(B)	PAVEMENT MARKING REMOVAL (TRAFFIC STRIPE)	LF	700
67	SPE	OWNER ALLOWANCE	EA	10000

2/27/2025 C:\NUP\Projects\02 Tulsa Office Projects\TD-993 - SD, Peoria and Mohawk at Gilcrease Expressway - Tulsa, OK\CAD\03-QUANT & NOTES.dgn

TRAFFIC PAY QUANTITIES				
Peoria Avenue & Mohawk Blvd.				
ITEM	SPEC	DESCRIPTION	UNIT	TOTAL
1	COT 601	PULL BOX SIZE I	EA	6
2	COT 601	PULL BOX SIZE II	EA	2
3	COT 602	2" PVC SCH. 40 PLASTIC CONDUIT (TRENCHED)	(COT 602) LF	95
4	COT 602	3" PVC SCH. 40 PLASTIC CONDUIT (TRENCHED)	(COT 602) LF	330
5	COT 602	2-3" HDPE SCH. 40 CONTINUOUS CONDUIT (DIRECTIONAL BORE)(OUTSIDE DLI)	(COT 602) LF	630
6	COT 603	24" SIGNAL FOOTING S-1824	(COT 603) EA	1
6	COT 603	30" SIGNAL FOOTING S-3036	(COT 603) EA	1
7	COT 603	36" SIGNAL FOOTING S-4250	(COT 603) EA	4
8	COT 603	24" PEDESTAL FOOTING F-1	(COT 603) EA	6
9	COT 607	SERVICE TO SIGNAL STANDARD	(COT 607) EA	2
10	COT 607	OVERHEAD SERVICE TO SERVICE POLE	(COT 607) EA	2
11	COT 608	OVERHEAD SIGN	SF	101
12	COT 610	TRAFFIC SIGNAL CONTROLLER CABINET ASSEMBLY	(COT 610) EA	2
13	COT 611	2#12 UF ELECTRICAL CONDUCTOR WITH GROUND	(TP-1) LF	1650
14	COT 611	2#14 SHIELDED ELECTRICAL CONDUCTOR	(TP-1) LF	90
15	COT 611	4#14 TRAFFIC SIGNAL ELECTRICAL CABLE	(TP-1) LF	140
16	COT 611	7#14 TRAFFIC SIGNAL ELECTRICAL CABLE	(TP-1) LF	1350
17	COT 611	20#14 TRAFFIC SIGNAL ELECTRICAL CABLE	(TP-1) LF	880
18	COT 611	GREEN #12 THHN ELECTRICAL CONDUCTOR	(TP-1) LF	1275
19	COT 611	GREEN #6 THHN ELECTRICAL CONDUCTOR	(TP-1) LF	900
20	COT 611	CAT 6 ETHERNET CABLE	(TP-1) LF	510
21	COT 612	CABINET BASE, APRON AND GUARD	EA	2
22	COT 613	AUDIBLE PEDESTRIAN PUSH BUTTON STATION AND SIGN	(COT 613) EA	8
23	COT 613	AUDIBLE PEDESTRIAN PUSH BUTTON CONTROL CARD UNIT	(COT 613) EA	2
24	COT 613	AUDIBLE PEDESTRIAN PUSH BUTTON CONFIG/PROGRAMMING DEVICE	(COT 613) EA	2
25	COT 614	LED 3 SECTION TRAFFIC SIGNAL HEAD (#36)	(COT 614) EA	12
26	COT 614	LED 4 SECTION TRAFFIC SIGNAL HEAD (HS-1DL)(FLTYA)	(COT 614) EA	2
27	COT 614	LED CC PEDESTRIAN HEAD (#33)	(COT 614) EA	8
28	COT 614	BACKPLATES	(COT 614) EA	14
29	COT 615	BASE COVERS	EA	12
30	COT 617	35" MODULAR TRAF. SIGNAL MAST ARM AND POLE W/LUM EXT	(COT 617) EA	1
31	COT 617	42" MODULAR TRAF. SIGNAL MAST ARM AND POLE W/LUM EXT	(COT 617) EA	1
32	COT 617	46" MODULAR TRAF. SIGNAL MAST ARM AND POLE W/LUM EXT	(COT 617) EA	1
32	COT 617	24" MODULAR TRAF. SIGNAL MAST ARM AND POLE W/O LUM EXT	EA	1
33	COT 617	46" MODULAR TRAF. SIGNAL MAST ARM AND POLE W/O LUM EXT	EA	2
34	COT 617	10" PEDESTAL POLE	EA	6
35	COT 620	VIDEO DETECTION SYSTEM	(COT 620) EA	2
36	COT 622	WIRELESS TRAFFIC SIGNAL COMMUNICATIONS SYSTEM	(COT 622) EA	2
37	COT 623	BATTERY BACKUP SYSTEM	EA	2
38	COT 625	REMOVAL OF TRAFFIC ITEMS	(COT 625) EA	2
39	COT 626	TRAFFIC SIGNAL MAINTENANCE	(2) HR	2
40	COT 626	SIGNAL MODIFICATIONS FOR LANE CLOSURES (PER SIGNALIZED INTERSECTION)	EA	2
41	COT 641	MOBILIZATION	(G-2) EA	1
42	COT 642	CONSTRUCTION STAKING - LEVEL II	(G-3.4) EA	1
43	855 (A)	TRAFFIC STRIPE (THERMOPLASTIC) (4" WIDE)	(TS-19) LF	2470
44	855 (A)	TRAFFIC STRIPE (THERMOPLASTIC) (24" WIDE)	(TS-23) LF	715
45	855 (B)	TRAFFIC STRIPE (THERMOPLASTIC) (ARROWS)	EA	17
46	880	ARROW DISPLAY	(TC-25) SD	360
47	880	SIGNS 8.25 SF	(TC-25) SD	720
48	880	SIGNS 8.25 TO 15.99SF	(TC-25) SD	540
49	880	SIGNS 16.0 SF & OVER	(TC-25) SD	720
50	880	BARRICADES (TYPE III)	(TC-25) SD	540
51	880	TYPE A LIGHT	(TC-25) SD	2700
52	880	DRUMS	(TC-25) SD	900
53	880	TRAFFIC CONTROL EQUIPMENT REMOVAL	L SUM	1
54	SPECIAL	GRABBER TUBES	(TC-25) SD	1800
55	SPECIAL	CCTV CAMERA, PAN/TILT/ZOOM	(1) EA	2
56	852 (F)	Remove Marking, Remove (Traffic Signs)	LF	700
57	SPE	OWNER ALLOWANCE	EA	10,000

TRAFFIC SIGNAL GENERAL CONSTRUCTION NOTES

- (A) THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE TRAFFIC SIGNAL IN A PROPER WORKING CONDITION DURING CONSTRUCTION AS DIRECTED BY THE TRAFFIC ENGINEER AND FOR FOLLOWING THE REQUIREMENTS OF COT 626 TRAFFIC SIGNAL CONSTRUCTION AND OPERATION. THE CONTRACTOR SHALL NOT PLACE NEW TRAFFIC SIGNALS INTO OPERATION UNTIL THEY HAVE BEEN PERMITTED, INSPECTED AND APPROVED BY CITY OF TULSA TRAFFIC SIGNAL INSPECTORS, AND THE CITY OF TULSA TRAFFIC OPERATIONS HAS CONTACTED THE UTILITY COMPANY TO SET UP BILLING. TRAFFIC SIGNALS SHALL ONLY BE PUT INTO OPERATION ON TUESDAYS, WEDNESDAYS, AND THURSDAYS. ALL TRAFFIC MATERIALS SHALL MEET THE REQUIREMENTS OF COT 627 PRE-QUALIFICATION FOR TRAFFIC OPERATIONS MATERIALS OR AS DIRECTED BY THE TRAFFIC ENGINEER. CONTRACTORS SHALL MEET THE REQUIREMENTS OF COT 628 SIGNAL AND LIGHTING PROJECT CONTRACTOR EXPERIENCE REQUIREMENTS.
- (B) THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS FOR ELECTRICAL INSPECTION ON ALL SIGNAL AND LIGHTING WORK PER COT SPECIFICATION 626 TRAFFIC SIGNAL CONSTRUCTION AND OPERATION. USE THE FOLLOWING ADDRESSES FOR THE ELECTRICAL PERMIT:
FOR THE NORTHERN INTERSECTION " 3301 N PEORIA AVE E TRF LIGHT"
FOR THE SOUTHERN INTERSECTION " 2900 N PEORIA AVE E TRF LIGHT"
- (C) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF ALL EXISTING TRAFFIC SIGNS AND MARKINGS REMOVED OR DAMAGED AS PART OF THIS PROJECT. ALL SIGNS AND POSTS PROVIDED SHALL BE NEW AND UNMAGGED AND SHALL MEET THE REQUIREMENTS OF COT SPECIFICATION 608 TRAFFIC SIGNS.
- (D) ALL TRAFFIC MATERIALS REMOVED SHALL BE HANDLED PER COT SPEC 625 - REMOVAL OF TRAFFIC ITEMS.
- (E) PAVEMENT MARKINGS SHALL MEET THE REQUIREMENTS OF ODOT STANDARDS AND SPECIFICATIONS FOR PAVEMENT MARKINGS, BUT SHALL BE PROVIDED USING TULSA STANDARD PAVEMENT MARKING LAYOUTS WHEN APPLICABLE. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.

TRAFFIC SIGNAL PAY QUANTITY NOTES

- (COT 602) ALL CONDUIT ENDS SHALL BE REAMED AND BUSHINGS SHALL BE INSTALLED PRIOR TO PULLING ANY WIRES.
- (COT 603) POLE FOUNDATIONS SHALL BE CONSTRUCTED ACCORDING TO THE APPLICABLE REQUIREMENTS OF ODOT STANDARD SPECIFICATIONS FOR DRILLED SHAFT FOUNDATIONS AS DIRECTED BY THE TRAFFIC ENGINEER.
- (COT 607) THE INSTALLED SERVICE SHALL BE FULLY OPERATIONAL, AND ANY COSTS CHARGED BY THE UTILITY COMPANY FOR THE SERVICE INSTALLATION SHALL BE PAID BY THE CONTRACTOR AND IS INCLUDED IN THIS PAY ITEM.
- (COT 610) THE TRAFFIC SIGNAL CONTROLLER PROVIDED SHALL BE AN ECONOLITE ATC COBALT CONTROLLER IN A 332 SIGNAL CABINET OR 332S WHERE A BATTERY BACKUP IS INCLUDED. THE CONTROLLER SHALL USE THE EOS VERSION OF SOFTWARE
- CONFLICT MONITOR SHALL BE AN EDI 2018EUP OR APPROVED EQUAL. AN ETHERNET PORT SHALL BE PROVIDED ON THE FRONT PANEL. THE ETHERNET PORT SHALL BE ELECTRICALLY ISOLATED FROM THE MAJ ELECTRONICS AND SHALL PROVIDE MINIMUM OF 1500 VRMS ISOLATION. THE CONNECTER SHALL BE AN RJ-45 EIGHT PIN CONNECTOR. AN HTML BASED CAPABILITY SHALL BE PROVIDED IN THE MONITOR TO CONFIGURE THE NETWORK PARAMETERS OF THE MAJ ETHERNET PORT USING A STANDARD HTML BROWSER. ALL DISPLAY INDICATORS SHALL BE MOUNTED ON THE FRONT PANEL OF THE SIGNAL MONITOR AND SHALL BE WATER CLEAR T-1 PACKAGE, SUPER BRIGHT TYPE LEDs. ALL FAULT LEDS SHALL BE RED EXCEPT THE PWR INDICATOR WHICH SHALL BE GREEN. A SEPARATE RED, YELLOW, AND GREEN INDICATOR SHALL BE PROVIDED FOR EACH CHANNEL.
- INCLUDE 2-19" RACK SHELVES, THAT ARE CHATSWORTH PRODUCTS PART NUMBER 10758-701 OR APPROVED EQUAL. IN ADDITION TO WHAT IS OUTLINED IN COT 610 SPECIFICATION, RACKS SHALL BE DESIGNED TO HOLD SMALL PERIPHERAL EQUIPMENT IN A CENTRAL LOCATION. EACH SHELF TYPICALLY HOLDS TWO UNITS AND ALLOWS A CONVENIENT CABLE RUN DOWN THE INSIDE OF THE RACK CHANNEL. RACK SHALL HOLD EQUIPMENT UP TO 17.35"W X 9.82"D AND MADE OF STRONG, LIGHT WEIGHT ALUMINUM THAT CAN SUPPORT UP TO 50 LB.
- THE CONTROLLER CABINET DOORS SHALL BE EQUIPPED WITH A CL-TC 1 GEN 2 CYBERLOCK CYLINDER AND EITHER A15481RS CCL TRAFFIC CABINET LOCK RH, OR A15481LS CCL TRAFFIC CABINET LOCK LH. THE CONTRACTOR WILL BE REQUIRED TO PURCHASE A CYBERKEY BLUE 3 THAT SHALL BE PROGRAMMED BY TRAFFIC OPERATIONS AT 4015 N HARVARD AVE, TULSA OK 74115.
- THE BATTERY BACKUP SYSTEM SHALL BE ECONOLITE Z2000-48 SUPER CAPACITOR BATTERY MODULES AND DBLXU-48 SERIES DOUBLE CONVERSION UPS.
- (COT 610) THE CONTRACTOR SHALL DELIVER THE SIGNAL CABINET FULLY WIRED AND READY FOR INSTALLATION TO THE COT TRAFFIC OPERATIONS DIVISION FOR INSPECTION AND APPROVAL PRIOR TO INSTALLATION. COT WILL NOTIFY THE CONTRACTOR OF ANY DEFICIENCIES OR APPROVE THE CABINET WITHIN TWO WEEKS PER COT SPECIFICATION 610 FOR TRAFFIC SIGNAL CONTROLLER CABINET ASSEMBLES.
- (COT 610) THE CABINET PROVIDED SHALL BE A STRETCH CABINET MEETING THE CABINET AND DOOR HEIGHT SPECIFICATIONS OF A MCCAIN 332S CABINET. ALL OTHER DIMENSIONS SHALL MEET CURRENT COT STANDARDS AND SPECIFICATIONS.
- (COT 613) THE AUDIBLE PUSH BUTTONS PROVIDED SHALL BE POLARA IN2 WITH EITHER A SHELF MOUNT CONTROL UNIT OR A CARD RACK300 SERIES CONTROL UNIT. PUSH BUTTONS SHALL BE INSTALLED ON POLES SUCH THAT THE PUSH BUTTONS ARE INSTALLED IN ACCORDANCE WITH ADA, PROWAG, AND MUTCD REQUIREMENTS, AND WITHIN 10 INCHES MAXIMUM FROM THE EDGE OF THE LEVEL, ALL-WEATHER SURFACE (SIDEWALK LANDING) AND WITHIN 10 FEET MAXIMUM FROM THE FACE OF THE CURB AT RAMPS. PUSH BUTTONS SHALL BE MOUNTED 42 INCHES ABOVE THE LANDING, ON THE SIDE OF THE POLE CLOSEST TO THE CORRESPONDING CROSSWALK. IF A PUSH BUTTON EXTENDER ARM IS NEEDED, THE EXTENDER ARM SHALL NOT EXCEED 12 INCHES IN LENGTH. WHEN PUSH BUTTONS ARE LOCATED WITHIN 10 FEET OF EACH OTHER, AUDIBLE VOICE MESSAGES SHALL BE USED. THE PUSH BUTTONS SHALL BE FACTORY PROGRAMMED WITH THE FOLLOWING VERBAL MESSAGES:
THE NORTHSOUTH PUSH BUTTONS (4) SHALL BE FACTORY PROGRAMMED WITH THE FOLLOWING VERBAL MESSAGES:
DURING FLASHING DONT WALK AND STEADY DONT WALK- "WAIT"
DURING WALK- "MOHAWK BOULEVARD - WALK SIGN IS ON TO CROSS MOHAWK BOULEVARD"
THE EASTWEST PUSH BUTTONS (4) SHALL BE FACTORY PROGRAMMED WITH THE FOLLOWING VERBAL MESSAGES:
DURING FLASHING DONT WALK AND STEADY DONT WALK- "WAIT"
DURING WALK- "PEORIA AVENUE- WALK SIGN IS ON TO CROSS PEORIA AVENUE"
- (COT 614) HINGES SHALL BE LOCATED TO THE LEFT SIDE FOR 3-SECTION SIGNAL HEADS AND 4-SECTION SIGNAL HEADS, AND TOWARD THE OUTSIDE EDGES FOR A 5-SECTION SIGNAL HEAD.

THIS PAY ITEM SHALL INCLUDE 12 OF THE 3-SECTION BACKPLATES AND 2 OF THE 4-SECTION BACKPLATES. ALL BACKPLATES PROVIDED ON THIS PROJECT SHALL BE ALUMINUM, WITH A DURABLE, FACTORY-APPLIED, NON-REFLECTIVE BLACK FINISH (POWDER COATED, BAKED ENAMEL, OR OTHER STYLE AS APPROVED BY THE TRAFFIC ENGINEER) WITH LOUVERS IN THE BACKPLATE. A 2 INCH WIDE STRIP OF FLUORESCENT YELLOW RETRO-REFLECTIVE TAPE, TYPE IX, SHALL BE USED AT THE FRONT PERMETER OF THE BACKPLATES.

THE PEDESTRIAN SIGNAL HEADS PROVIDED SHALL BE EAGLE 16" PEDESTRIAN SIGNAL HEAD OR APPROVED EQUAL. ALL PEDESTRIAN SIGNAL HEADS SHALL BE INSTALLED ON THE POLES SUCH THAT THE SIGNAL HEADS ARE VISIBLE FROM THE CROSSWALK.

(COT 617) THE CONTRACTOR SHALL SUPPLY LED LUMINAIRES WITH THE FOLLOWING ATTRIBUTES: 15,700 LUMENS, 120 VOLT, MINIMUM 110 LUMENS PER WATT, GRAY (UNLESS BLACK POLES ARE SPECIFIED), TYPE 3 DISTRIBUTION, 4000 KELVIN, WITH SURGE PROTECTION, 7 PIN RECEPTACLE AND LONG LIFE PHOTOCCELL. AMERICAN ELECTRIC LIGHTING IS ATBNIF 14VOLT R3 P7 PCCL OR APPROVED EQUAL.

(COT 620) THE DETECTION SYSTEM SHALL BE ON THE TRAFFIC OPERATIONS APPROVED PRODUCTS LIST (APL). THE DETECTION SYSTEM SHALL BE VIDEO DETECTION AND SHALL DETECT VEHICLES, BICYCLES, AND MOTORCYCLES ON A ROADWAY BY PROCESSING VIDEO DATA THAT PROVIDES VEHICLE PRESENCE, TRAFFIC FLOW DATA, AND EVENT ALARMS, FOR REAL-TIME TRAFFIC CONTROL AND MANAGEMENT SYSTEMS.

DETECTION SYSTEMS SHALL INCLUDE ALL MATERIALS INCLUDING VIDEO DETECTOR CAMERAS, VIDEO CARDS, COMMUNICATIONS CARDS, CABLING, AND OTHER MATERIALS AS NECESSARY TO MAKE DETECTION SYSTEM FULLY OPERATIONAL AT AN INTERSECTION.

DETECTION SYSTEM CAMERAS SHALL BE IP-ADDRESSABLE.

DETECTION SYSTEMS SHALL NOT USE COAXIAL. DETECTION SYSTEMS SHALL USE EITHER A 3-WIRE SYSTEM UTILIZING BROADBAND OVER POWER LINES (BPL) OR CAT 6 ETHERNET CABLE. THE 3-WIRE SYSTEM IS INTENDED TO BE USED TO REDUCE INTERFERENCE IN THE SYSTEM.

(COT 622) ETHERNET CABLE USED FOR WIRELESS SIGNAL COMMUNICATIONS SHALL BE INDUSTRIAL GRADE SHIELDED CAT 6, RATED FOR OUTDOOR USE, UNLESS OTHERWISE SPECIFIED IN THE PROJECT PLANS. SHIELDING SHALL BE RISER RATED, POLYOLEFIN INSULATION SHIELD BONDED TO AN OIL RESISTANT AND SUN RESISTANT PVC JACKET. THIS PAY ITEM SHALL INCLUDE APPROXIMATELY 500 LINEAR FEET OF CAT 6 CABLE INSTALLED FROM THE CONTROLLER TO THE SIGNAL POLE. EXCESS CABLE SHOULD BE STORED IN THE HAND HOLE OF THE SIGNAL POLE AND IN PULL BOXES. USE CAUTION WHEN WORKING WITH CAT 6 CABLE NOT TO BEND OR CRIMP THE CABLE.

(COT 625) THIS PAY ITEM INCLUDES THE REMOVAL AND DELIVERY OF THE FOLLOWING EQUIPMENT TO THE CITY OF TULSA TRAFFIC OPERATIONS SHOP AT 3301 N HARVARD AVE, WHICH IS TO REMAIN THE PROPERTY OF THE CITY OF TULSA:

TRAFFIC SIGNAL ITEMS INCLUDE: MULTI-SIDED GALVANIZED TRAFFIC SIGNAL POLES, SIGNAL HEADS, PEDESTRIAN HEADS AND PUSH BUTTONS, BACK PLATES, CONTROLLER CABINET ASSEMBLY, CABINET GUARD, UNMAGGED PULL EQUIPMENT REMOVED EXCEPT FOR THE PULL BOXES, CONDUIT AND WIRE WHICH SHALL BECOME THE PROPERTY OF THE CONTRACTOR. THE PRICE BID SHALL INCLUDE THE REMOVAL OF ALL FOOTINGS BELOW GROUND LEVEL OR AS DIRECTED BY THE ENGINEER, FOOTINGS, GREEN ARM POLES, AND ALL OTHER SIGNAL POLES OTHER THAN THE MULTI-SIDED POLES ARE TO BECOME THE PROPERTY OF THE CONTRACTOR.

(1) THIS PAY ITEM INCLUDES A HIGH-SPEED DOME CAMERA WITH PROGRESSIVE SCAN AND 40X OPTICAL ZOOM MEETING THE SPECIFICATIONS OF THE Q607S-E NETWORK DOME CAMERA (OR APPROVED EQUAL). PAYMENT FOR THIS ITEM SHALL ALSO INCLUDE THE COST OF HOUSING, MOUNTING HARDWARE, AND OTHER APPURTENANCES TO MAKE THE PTZ OPERATIONAL. POWER OVER ETHERNET.

(2) THIS ITEM IS AN ESTIMATED QUANTITY TO BE USED AS DEEMED NECESSARY BY THE ENGINEER.

(TS-19) QUANTITY SHOWN INCLUDES 1350 LF. STRIPE (THERMOPLASTIC) (WHITE) AND 1120 LF. STRIPE (THERMOPLASTIC) (YELLOW) AND WILL BE MEASURED BY THE LINEAR FOOT OF FOUR INCH (4") WIDE TRAFFIC STRIPE.

(TS-23) QUANTITY SHOWN INCLUDES 715 LF. STRIPE (THERMOPLASTIC) (WHITE) AND WILL BE MEASURED BY THE LINEAR FOOT OF TWENTY-FOUR INCH (24") WIDE TRAFFIC STRIPE.

(TP-1) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITY

(TC-25) ALL CONSTRUCTION TRAFFIC CONTROL WILL BE IMPLEMENTED ACCORDING TO CONSTRUCTION PLANS AND ENGINEER IN ACCORDANCE WITH CHAPTER VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CURRENT EDITION) AND COMPLIANT WITH APPLICABLE ODOT STANDARD DRAWINGS. PRICE BID FOR THIS ITEM SHALL BE PAYMENT IN FULL FOR THE INSTALLATION, MAINTENANCE AND SUBSEQUENT REMOVAL OF ALL NECESSARY CONSTRUCTION TRAFFIC CONTROL DEVICES AND PAVEMENT MARKINGS REQUIRED FOR COMPLETION OF THE PROJECT.

ALL SIGNS AND BARRICADES WHICH ARE SHOWN WITH TYPE "A" LIGHTS IN THE STANDARD DRAWINGS SHALL HAVE THE CORRESPONDING LIGHT ATTACHED DURING NON-DAYLIGHT HOURS.

(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.

PROJECT NO. TD-23-0003	
TRAFFIC PAY QUANTITIES & NOTES	
N. PEORIA AVE. & MOHAWK BLVD.	
CITY OF TULSA, OKLAHOMA	
ENGINEERING SERVICES DEPARTMENT	
PLANS AND ESTIMATES PREPARED BY:	TRAFFIC ENGINEERING CONSULTANTS 6931 S. 44TH E. AVE. STE 103 TULSA, OK 74133 PHONE: 918-461-3434 FAX: 918-461-3163
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