

ADDENDUM NO. 1

**PLEASANT VALLEY ROAD – N. INDIANA TO N. BRIGHTON
PROJECT TP1411**

Federal Project No. STP-3323(407)

GLADSTONE, MISSOURI

DATE: October 5, 2016

This Addendum forms a part of the Contract described above. The original Contract Documents and any prior addenda remain in force and effect except as modified by the following which shall take precedence over any provisions in the prior documents.

Addendum No. 1:

The City of Kansas City (KCMO) has elected to use LED streetlights in lieu of high pressure sodium. Please note the following changes to the Project Manual and Project Drawings:

Project Manual:

Bid Form

- Substitute Bid Form contained herein for the Bid Form contained in the original Project Manual.
- Performance specifications for LED Roadway Luminaires in KCMO may be viewed at: <http://www.gladstone.mo.us/documents/rfp/Archive/2016/pleasant-valley-road/>

Project Drawings:

Sheets 98 of 248, 207 of 248, 212 of 248 and 214 of 248

- Substitute pages included herein for the corresponding pages of the original bid document set.

Each Bidder shall acknowledge receipt of this addendum by fixing his signature below, by noting this addendum on his Proposal, and by attaching this addenda to his/her Bid.

City of Gladstone , 7010 N. Holmes, Gladstone, Missouri 64118

ACKNOWLEDGEMENT

The undersigned acknowledges receipt of this addendum and the Bid submitted is in accordance with information, instructions and stipulations set forth herein.

Bidder _____

By: _____

Date: _____

BID FORM (MODIFIED PER ADDENDUM NO. 1)

ITEM NO	DESCRIPTION	UNIT	EST. QUANT.	PRICE	TOTAL
BASE BID					
1	Mobilization	EA	1		
2	Surveying and Construction Staking	EA	1		
3	Clearing, Grubbing, & Demolition	EA	1		
4	Unclassified Excavation	CY	81,389		
5	Embankment (Includes 15% for Shrinkage)	CY	122,326		
6	Subgrade Compaction (9")	SY	36,999		
7	Richland Real Estate – Subgrade Compaction (9") (*NP)	SY	988		
8	Aggregate Base Course (6" - Roadway)	SY	31,946		
9	Aggregate Base Course (4" - Commercial) (*NP)	SY	958		
10	Concrete Roundabout Apron (8" Colored)	SY	446		
11	Concrete Median (6" Colored)	SY	237		
12	Concrete Roundabout Pavement (10")	SY	1,945		
13	Cold Milling (2")	SY	324		
14	Asphaltic Concrete Base: RC-Type 1-01 (8" - Roadway)	TON	12,276		
15	Asphaltic Concrete Surface: Type 5-01 (2" - Roadway)	TON	3,071		

ITEM NO	DESCRIPTION	UNIT	EST. QUANT.	PRICE	TOTAL
BASE BID					
16	Asphaltic Concrete Base: RC-Type 1-01 (4" - Roadway)	TON	758	_____	_____
17	Asphaltic Concrete Base: RC- Type 1-01 (4" - Commercial)	TON	276	_____	_____
18	Richland Real Estate – Asphaltic Concrete Base: RC- Type 5-01 (4" – Commercial) (*NP)	TON	194	_____	_____
19	Asphaltic Concrete Surface: RC-Type 5-01 (2" - Commercial)	TON	366	_____	_____
20	Richland Real Estate – Asphaltic Concrete Surface: RC-Type 5-01 (2" Commercial) (*NP)	TON	137	_____	_____
21	Concrete Curb & Gutter (All Types)	LF	11,184	_____	_____
22	Richland Real Estate – Concrete Curb & Gutter (All Types)	LF	467	_____	_____
23	Concrete Straight Curb (Roundabout)	LF	736	_____	_____
24	3" Apron Curb	LF	292	_____	_____
25	Concrete Residential Drive (6")	SY	540	_____	_____
26	Concrete Commercial Drive (8")	SY	1,291	_____	_____
27	Gravel Residential Drive (6")	SY	52	_____	_____
28	Concrete Sidewalk (4")	SY	5,194	_____	_____

ITEM NO	DESCRIPTION	UNIT	EST. QUANT.	PRICE	TOTAL
BASE BID					
29	Concrete Bicycle Path (4")	SY	4,453		
30	Concrete ADA Sidewalk Ramp (6")	SY	570		
31	Detectable Warning Surface	SF	431		
32	Gladstone Curb Inlet (5'x3')	EA	8		
33	Gladstone Curb Inlet (5'x4')	EA	9		
34	Gladstone Curb Inlet (8'x3')	EA	1		
35	Gladstone Curb Inlet (6'x4')	EA	1		
36	KCMO Curb Inlet CI-1 (5'x3')	EA	1		
37	KCMO Curb Inlet CI-1 (5'x4')	EA	20		
38	KCMO Curb Inlet CI-1 (8'x4')	EA	3		
39	Junction Box JB-1 (4'x4')	EA	1		
40	Junction Box JB-1 (5'x5')	EA	3		
41	Manhole MH-1 (5' Dia.)	EA	2		
42	Area Inlet (4'x4')	EA	1		
43	Area Inlet (5'x5')	EA	1		
44	Area Inlet (6'x6')	EA	1		
45	12" RCP (Class III)	LF	959		
46	15" RCP (Class III)	LF	2,345		
47	18" RCP (Class III)	LF	891		
48	24" RCP (Class III)	LF	619		

ITEM NO	DESCRIPTION	UNIT	EST. QUANT.	PRICE	TOTAL
BASE BID					
49	30" RCP (Class III)	LF	180		
50	36" RCP(Class III)	LF	52		
51	24" RCP (Class IV)	LF	493		
52	30" HDPE	LF	36		
53	12" RCP End Section	EA	2		
54	15" RCP End Section	EA	3		
55	18" RCP End Section	EA	1		
56	24" RCP End Section	EA	4		
57	30" RCP End Section	EA	4		
58	36" RCP End Section	EA	1		
59	Connection to Existing Storm Sewer Structure	EA	2		
60	Pavement Edge Drain System	LF	1,549		
61	MoDOT Type 2 Rock Blanket	SY	1,058		
62	3/4" Type K Copper Water Service Relocation	LF	59		
63	8" C900 PVC DR 18 Water Main with Tracer Wire	LF	427		
64	8" DIP CL52 Water Main with Polywrap	LF	40		
65	10" DIP CL52 Water Main with Polywrap	LF	155		
66	Adjust Water Meter & Pit	EA	3		

ITEM NO	DESCRIPTION	UNIT	EST. QUANT.	PRICE	TOTAL
BASE BID					
67	Adjust Water Valve	EA	2		
68	Adjust Fire Hydrant	EA	3		
69	Fire Hydrant Relocation	EA	1		
70	Irrigation Service Tap & Meter	EA	1		
71	Air Release Valve Removal	EA	1		
72	Fire Hydrant Assembly and Gate Valve Removal	EA	1		
73	KCMO Water Main Removal	LF	300		
74	KCMO 8" DIP CL52 Water Main with Polywrap	LF	166		
75	KCMO 12" DIP CL52 Water Main with Polywrap	LF	172		
76	KCMO Fire Hydrant Assembly	EA	1		
77	KCMO Air Release Assembly & Vault	EA	1		
78	KCMO 8" x 6" Tee	EA	1		
79	KCMO 12" x 8" Tee	EA	1		
80	KCMO 12" x 8" Reducer	EA	1		
81	KCMO 6" 90° Bend	EA	1		
82	KCMO 12" 45° Bend	EA	2		
83	KCMO 12" Gate Valve	EA	2		
84	Large Block Retaining Wall	VSF	2,190		

ITEM NO	DESCRIPTION	UNIT	EST. QUANT.	PRICE	TOTAL
BASE BID					
85	Field Fence	LF	2,500		
86	Relocate Access Control Gate	EA	1		
87	New Access Control Gate	EA	2		
88	Silt Fence	LF	320		
89	Curb Inlet Protection	EA	50		
90	Culvert Inlet Protection	EA	10		
91	Temporary Sediment Trap	CF	35,270		
92	Diversion Ditch	LF	4,085		
93	Rock Check Dam	EA	10		
94	Compost Filter Sock	LF	7,971		
95	Compost Berm	LF	3,418		
96	Temporary Construction Entrance	EA	11		
97	Temporary Traffic Control Signage	SF	718		
98	Type III Barricade	EA	24		
99	Channelization Devices	EA	102		
100	Permanent Traffic Control Signage	SF	373		
101	Permanent Traffic Control Sign Posts	LF	708		
102	4" Solid White Edge Line	LF	732		
103	4" Broken White Lane Line	LF	48		

ITEM NO	DESCRIPTION	UNIT	EST. QUANT.	PRICE	TOTAL
BASE BID					
104	6" Broken White Lane Line	LF	24		
105	6" Solid White Bike Lane	LF	6,512		
106	6" Solid White Crosswalk Line	LF	620		
107	24" Solid White Stop Bar Line	LF	38		
108	24" Solid Crosswalk Line	LF	280		
109	4" Solid & Broken Yellow Lane Line	LF	8,295		
110	4" Yellow Double Centerline	LF	7,242		
111	12" Solid Yellow Diagonal Line	LF	55		
112	4" Broken Yellow Centerline	LF	126		
113	Left Turn Arrow	EA	16		
114	Bike Symbol	EA	19		
115	Relocate Existing Newcomer's Business Signage	EA	1		
116	Relocate Existing Atkins-Johnson Farm Signage	EA	1		
117	New Big Shoal Creek Cemetery Signage	EA	1		
118	Programmable Message Signs - Owner Retained	EA	2		
119	Type "A" Ecofit LET Light Engine Light Fixture	EA	45		
120	Type "A" Pole 30'-0" Mounting Height	EA	45		

ITEM NO	DESCRIPTION	UNIT	EST. QUANT.	PRICE	TOTAL
BASE BID					
121	Type "A" 8'-0" Arm	EA	45		
122	Type "B" LED luminaire Equivalent to 150 Watt HPS Light Fixture**	EA	15		
123	Type "B" Pole (30'-0")	EA	15		
124	Type "B" Arm (8'-0")	EA	15		
125	1 #10 RHW/USE Internal Pole Wire	LF	5,350		
126	2 # 8 RHH/RHW/USE, 1 #8 GND., 2" CID	LF	3,000		
127	2 # 6 RHH/RHW/USE, 1 #6 GND., 2" CID	LF	3,600		
128	2 # 4 RHH/RHW/USE, 1 #4 GND., 2" CID	LF	1,650		
129	3" HDPE Conduit for KCPL	LF	400		
130	1 #6 AWG Bare Copper Wire	LF	400		
131	4 Circuit Street Lighting Controller	EA	4		
132	Ground Rods	EA	4		
133	Fuse Kits	EA	120		
134	Non-Fused Fuse Kits	EA	60		
135	Cable Retainers	EA	60		
136	Lighting Screw in Pole Base	EA	60		
137	ID Tags	EA	64		

ITEM NO	DESCRIPTION	UNIT	EST. QUANT.	PRICE	TOTAL
BASE BID					
138	Concrete Foundation for Lighting Controller	EA	4		
139	KCP&L Service	EA	4		
140	Trench and Backfill	LF	8,250		
141	Relocating Light Pole and Luminaire	EA	2		
142	Luminaire, Arm, Overhead Cable, and Wood Pole Removal	EA	23		
143	Power Hook Ups for KCP&L Power Sources	EA	4		
144	Strip LED Light for Roundabout Gateway Sign	LF	70		
145	Relocate Existing Solar Pedestrian Light	EA	3		
146	Gateway Signage	VSF	331		
147	Irrigation (Roundabout)	EA	1		
148	Limestone Seat Walls	EA	15		
149	Overstory Trees	EA	106		
150	Understory Trees	EA	14		
151	Deciduous Shrubs	EA	35		
152	Perennials & Grasses	EA	3,635		
153	Seed	AC	13		
154	Sod	SY	15,285		

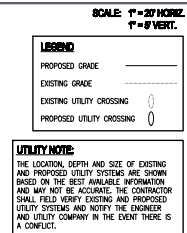
ITEM NO	DESCRIPTION	UNIT	EST. QUANT.	PRICE	TOTAL
BASE BID					
155	Bollard	EA	2	_____	_____
156	Project Information Signs	EA	2	_____	_____
TOTAL BASE BID				_____	

ITEM NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	PRICE	TOTAL
BID ALTERNATE “A” (NE 64th Street Mill & Overlay – N. Antioch to New Cul-de-Sac)					
1a	Cold Milling (2”)	SY	4,000	_____	_____
2a	Asphalt Paving Fabric	SY	4,000	_____	_____
3a	Asphaltic Concrete Base: RC-Type 1-01 (8” Roadway)	TON	124	_____	_____
4a	Asphaltic Concrete Surface: RC-Type 5-01 (2” Roadway)	TON	495	_____	_____
5a	Flexible Reflective Delineator Post	EA	5	_____	_____
TOTAL ALTERNATE “A”			_____		
TOTAL BASE BID + BID ALT. “A”			_____		

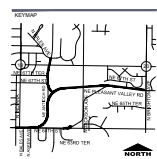
Legend:

*NP = Only local funds will be used. No federal funding will be used in the construction of this item.

**Modified per Addendum No. 1



**WALTON: SENIOR AND ASSOCIATION, 600
WILSON AVENUE, TENTH FLOOR
KANSAS CITY, MISSOURI 64101**

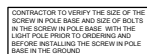


PLEASANT
VALLEY ROAD
IMPROVEMENTS
- N. INDIANA TO
N. BRIGHTON
GLADSTONE AND
KANSAS CITY, MISSOURI
CITY PROJECT NO. TP1411
FEDERAL PROJECT NO. STP-3323(407)



NO. DATE	REVISION
DESIGNED BY	M.J.H.
REVIEWED BY	D.L.B.
DRAWN BY	D.M.B.
PROJECT NUMBER	COS-14002-00
DATE	20 SEPTEMBER 2016

CROSS SECTIONS - NE
PLEASANT VALLEY RD



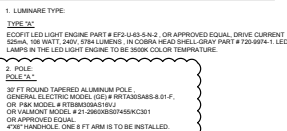
FINISH: HOT DIP GALVANIZING PER ASTM A153 (LATEST REVISION)
2. BASEPLATE TO BE PERPENDICULAR TO SHAFT AXIS [14] AND HOLE
CENTRIC: CONCENTRIC (+/- .08) TO SHAFT AXIS.
STECAL MARK 14-1 LETTERS MANUFACTURER'S NUMBER
AFTER GALVANIZING.
4. PILOT POINT AND SHAFT AXES TO BE CONCENTRIC (.125 MIN AND
.0625 MAX).
5. FLAME CUT SLOTT PERPENDICULAR TO THE BASEPLATE.
CUTTING: TUBING CUT ON CHUCK WITH TURNING TOOL. USE BASEPLATE,
HELIX, AND PILOT POINT ON ALL WELDED AREAS.
7. FLAMECUT PROLEGMENTS PERMISSIBLE: (1) VALVEYS NOT TO
EXCEED .030 IN. DEPTH; (2) NO CRACKS OR FRACTURES OR OTHER
POSSIBLE IRREGULARITIES NOT TO EXCEED 10% ABOVE NOMINAL
WELD SIZE.
8. MANUFACTURER TO HAVE IN EFFECT STUDY RECORD REVIEWED WRITTEN
QUALITY CONTROL PLAN FOR THIS PROJECT. FOLLOW PROCESSES
AND INSPECTION PROCEDURES.
ALL MATERIAL IS TO BE NEW UNIFORM AND MILL TRACABLE
MEETING THE FOLLOWING SPECIFICATIONS:

BASEPLATE: ASTM A516-PLATES REQUIRED HOT ROLLED STEEL
PLATE, CONFORM TO AMS2310 TRADE BAY #429

SHAFT: STEEL PIPE PLAYS SEAMLESS OR STRAIGHT WHELD
GRADE: PER ASTM A242, ALL MATERIALS, STEEL
TYPE OR C-OR GRADE: PER ASTM A242

HELIX: ASTM A516-STEEL HOT ROLLED STEEL

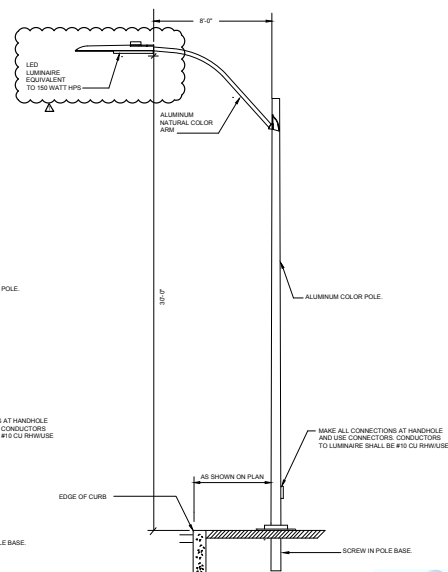
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1. LUMINAIRE TYPE:
TYPE "E": LED LUMINAIRE:
PHILIPS ROUND FOCUS MODEL # RFA-270WZLED-2-R2M-ANV-DMC-RD2-SPW-UC2-0Y3
AMERICAN ELECTRIC LIGHTING (AEL) MODEL # ATB-30B-EC27M-CLC1-4000K-92-GRAY-25-PT
(7 PIN PHOTO CONTROL, RECEPTACLE, DIMMABLE DRIVER INCLUDED,
OR AMERICAN ELECTRIC LIGHTING (AEL) MODEL # ATB-40B-EC27M-CLC1-4000K-25-R2-GRAY-25-PT
(7 PIN PHOTO CONTROL, RECEPTACLE, DIMMABLE DRIVER INCLUDED,
OR GENERAL ELECTRIC (GE) MODEL # E-10S-10-1-4-0-GRAY-T
OR APPROVED EQUAL TO 150 WATT PPS EQUIVALENT, 240V.

2. POLE:
POLE "E":
30" FT ROUND TAPERED ALUMINUM POLE
GENERAL ELECTRIC MODEL # GE#RTA30S-8-01-F,
OR PAK MODEL # RTA30S-8-01-F,
OR VALMONT MODEL # 21-2960X800745K301-K1
OR APPROVED EQUAL
NOTE: MINIMUM ONE (1) FT ARM IS TO BE INSTALLED.

Technical drawing showing the side and front elevations of a luminaire assembly. The side elevation (top) shows a luminaire with a 9' LED ENGINE and a 1/2" HEAD SHELL, connected to a vertical support. The front elevation (bottom) shows the luminaire mounted on a vertical support, with a 1/2" dimension indicating the mounting height. The support is labeled "ALUMINUM NATURAL COLOR POLY" and "ALUMINUM NATURAL COLOR ANOD". The luminaire is labeled "ALUMINUM NATURAL COLOR ANOD". The drawing includes dimensions: 9' 0" for the luminaire length, 1/2" for the mounting height, and 1/2" for the mounting bracket. A note states: "MAKE ALL CONNECTIONS AT THE LUMINAIRE AND USE CONNECTORS CONFORMING TO LUMINAIRE SHALL BE #10". The drawing is labeled "SIDE ELEVATION" and "FRONT ELEVATION".

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212



WALTER P. MURPHY AND ASSOCIATES, INC.
4000 MAIN STREET, TENTH FLOOR
KANSAS CITY, MISSOURI 64111



PLEASANT
VALLEY ROAD
IMPROVEMENTS
- N. INDIANA TO
N. BRIGHTON
GLADSTONE AND
KANSAS CITY, MISSOURI
CITY PROJECT NO. TP1411
FEDERAL PROJECT NO. STP-3323(407)



NO. DATE	REVISION
10-5-2018	ADDENDUM FOR LED LIGHTING
DESIGNED BY	A.A.S.
REVIEWED BY	C.K.B.
DRAWN BY	A.A.S.
PROJECT NUMBER	C08-14002-00
DATE	

* STREET LIGHTING SUMMARY OF QUANTITIES CITY OF GLADSTONE, MO				
ITEM NO.	DESCRIPTION	UNIT	PLAN	QUANTITY
3	TYPE "A" LED LIGHT ENGINE LIGHT FIXTURE	EA	45	45
3	TYPE "A" POLE (30'-0")	EA	45	45
3	TYPE "A" ARM (8'-0")	EA	45	45
4	1 #10 RHW/USE INTERNAL POLE WIRE	LF	6000	6000
6	28R RHW/RHWUSE, 18# GND, 2" COND.	LF	3000	3000
6	28R RHW/RHWUSE, 18# GND, 2" COND.	LF	1350	1350
6	28R RHW/RHWUSE, 18# GND, 2" COND.	LF	1650	1650
8	3" HDPE CONDUIT FOR KCPL	LF	300	300
16	18# AIG BARE COPPER WIRE	LF	300	300
4	CIRCUIT LIGHTING CONTROLLER	EA	3	3
11	GROUND ROD	EA	3	3
12	FUSE KITS	EA	45	45
13	NON-FUSED FUSE KITS	EA	45	45
14	CABLE RETAINERS	EA	45	45
15	LIGHTING SCREW IN POLE BASE	EA	45	45
16	ID TAG	EA	48	48
17	CONCRETE FOUNDATIONS FOR LIGHTING CONTROLLER	EA	3	3
18	KCPL SERVICE	EA	3	3
19	TRENCH AND BACKFILL	LF	6000	6000
20	RELOCATING LIGHT POLE AND LUMINAIRE	EA	2	2
21	POWER HOOK UPS FOR KCPL POWER SOURCES	EA	3	3
22	STRIP LED LIGHT FOR ROUNDABOUT GATEWAY SIGN	LF	70	70

ITEM NO.	DESCRIPTION	UNIT	PLAN QUANTITY
1	TYPE "A" ECOFIT LED LIGHT ENGINE LIGHT FIXTURE	EA	45
2	TYPE "A" POLE (32'-0")	EA	45
3	TYPE "A" RAN (8'-0")	EA	45
4	1" NPS RIGID POLYETHYLENE GLASS FIBER REINFORCED PLASTIC (FRP) POLE W/DC	LF	4000
5	36# RHWRHWSLW. 18' QNO. 2" ID	LF	3000
6	36# RHWRHWSLW. 18' QNO. 2" ID	LF	1500
7	28# RHWRHWSLW. 18' QNO. 2" ID	LF	1650
8	3" HOPE CONDUIT FOR KCPCL	LF	300
9	18# 1/2" BARE COPPER WIRE	LF	300
10	4 CIRCUIT LIGHTING CONTROLLER	EA	3
11	GROUND ROD	EA	3
12	FUSE KITS	EA	80
13	NON-FUSED FUSE KITS	EA	45
14	CABLE RETAINERS	EA	45
15	LIGHTING SCREWS IN POLE BASE	EA	45
16	IS TAG	EA	48
17	CONCRETE FOUNDATIONS FOR LIGHTING CONTROLLER	EA	3
18	KCPCL SERVICE	EA	3
19	TRENCH AND BACKFILL	LF	8000
20	RELOCATING LIGHT POLE AND LUMINAIRE	EA	2
21	POWER HOOK UPS FOR KCPCL POWER SOURCES	EA	3
22	STRIP LED LIGHT FOR ROUNDABOUT GATEWAY SIGN	LF	70

LUMINAIRE REMOVAL SCHEDULE

POLE NO.	POLE TYPE	LAMP TYPE	FEED TYPE
(NH 1239)	WOODSEE NOTE 1	150W LPS	OVERHEAD
(NH 1238)	WOODSEE NOTE 1	150W LPS	OVERHEAD
(NH 1237)	WOODSEE NOTE 1	150W LPS	OVERHEAD
(NH 1236)	WOODSEE NOTE 1	150W LPS	OVERHEAD
(NH 1235)	WOODSEE NOTE 1	150W LPS	OVERHEAD
(NH 1234)	WOODSEE NOTE 1	150W LPS	OVERHEAD
(NH 1233)	WOODSEE NOTE 1	150W LPS	OVERHEAD
(NH 1232)	WOODSEE NOTE 1	150W LPS	OVERHEAD
(NH 1231)	WOODSEE NOTE 1	150W LPS	OVERHEAD
(NH 1230)	WOODSEE NOTE 1	150W LPS	OVERHEAD
(NH 1229)	WOODSEE NOTE 1	150W LPS	OVERHEAD
(NH 1228)	WOODSEE NOTE 1	150W LPS	OVERHEAD
(NH 1227)	WOODSEE NOTE 1	150W LPS	OVERHEAD
(NH 1226)	WOODSEE NOTE 1	150W LPS	OVERHEAD
(NH 1225)	WOODSEE NOTE 1	150W LPS	OVERHEAD
(NH 1224)	WOODSEE NOTE 1	150W LPS	OVERHEAD
(NH 1223)	WOODSEE NOTE 1	150W LPS	OVERHEAD
(NH 1222)	WOODSEE NOTE 1	150W LPS	OVERHEAD
(NH 1221)	WOODSEE NOTE 1	150W LPS	OVERHEAD
(NH 1220)	WOODSEE NOTE 1	150W LPS	OVERHEAD
(NH 1219)	WOODSEE NOTE 1	150W LPS	OVERHEAD
(NH 1218)	WOODSEE NOTE 1	150W LPS	OVERHEAD
(NH 1217)	WOODSEE NOTE 1	150W LPS	OVERHEAD

- | ★ STREET LIGHTING | | | |
|-------------------------|---|------|---------------|
| SUMMARY OF QUANTITIES | | | |
| CITY OF KANSAS CITY, MO | | | |
| ITEM NO. | DESCRIPTION | UNIT | PLAN QUANTITY |
| 1 | Type "B" LED Light Fixture Equivalent To 150 WATT
HIGH BAY FIXTURE | EA | 15 |
| 2 | Type "E" POLE 8'-0" | EA | 15 |
| 3 | Type "E" ARM 2'-0" | EA | 15 |
| 4 | #10 RW/RVSE INTERNAL POLE WIRE | LF | 1955 |
| 5 | 2#6 RW/RVWUSE .75" DIA. 2' CID | LF | 2250 |
| 6 | 3" HDPE CONDUIT FOR KOPL | LF | 1500 |
| 7 | #16 AWG BRASS COPPER WIRE | LF | 1500 |
| 8 | 4 CIRCUIT LIGHTING CONTROLLER
TWO-CHANNEL | EA | 1 |
| 9 | FUSE KIT | EA | 30 |
| 10 | NON-FUSED FUSE KITS | EA | 15 |
| 11 | CABLE RETAINERS | EA | 15 |
| 12 | LIGHTING SCREW IN POLE BASE | EA | 15 |
| 14 | ID TAG | EA | 16 |
| 15 | CONCRETE FOUNDATIONS FOR LIGHTING CONTROLLER | EA | 1 |
| | KOPL SERVICE | | |
| 17 | TRENCH AND BACKFILL | LF | 2250 |
| | LUMINAIRE, ARM, OVERHEAD CABLE AND
WOOD POLE REMOVAL | LS | 23 |
| 18 | POWER HOOD UPS FOR KOPL POWER SOURCES | EA | 1 |

2 #4 RH/RHW/USE
1 #4 CU GND, 2" ID

2 #4 RH/RHW/USE
1 #4 CU GND, 2" ID

CIRCUIT 1

1.1CT

LIGHTING CONTROLLER

GLADSTONE, MO

SCHEDULE 40 CONDUIT
3" EMPTY PVC

RESISTANCE
25 OH MAXIMUM
1 #4 CU TO GROUND

LIGHT TRANSFORMER
KANSAS CITY POWER & LIGHT

STREET LIGHTING WIRING SCHEMATIC DETAIL

NOT TO SCALE

CITY OF GLADSTONE, MO

2# RH/RHW/USE
1# CU GND, 2" CID

2# RH/RHW/USE
1# CU GND, 2" CID

CIRCUIT 1
LIGHTING CONTROLLER
GLADSTONE, MO

CIRCUIT 2

SCHEDULE 40 CONDUIT
2 BURY PVC

RESISTANCE
25 OHM MAXIMUM
#6 CU TO GROUND RODS

LIGHT TRANSFORMER
KANSAS CITY POWER & LIGHT

STREET LIGHTING WIRING SCHEMATIC DETAIL
NOT TO SCALE
CITY OF GLADSTONE, MO

2# RH RH/RH W/USE
1# RG CU GND 2" CID

2# RH RH/RH W/USE
1# RG CU GND 2" CID

CIRCUIT 1

CIRCUIT 2

LIGHTING CONTROLLER
GLADSTONE, MO

SCHEDULE #0 CONDUIT
3" EMPTY FAC

RESISTANCE
25 OHM MAXIMUM
#6 CU TO GROUND ROCK(S)

LIGHT TRANSFORMER
KANSAS CITY POWER & LIGHT

STREET LIGHTING WIRING SCHEMATIC DETAIL
CITY OF GLADSTONE, MO

NOT TO SCALE

3
214