FED. ROAD DIST. NO	STATE	FA PROJ.NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.	STPG-214B(075)AG		1	13

REVISION DESCRIPTION	DATE
2 Added Federal Aid Project No. to title block.	2 Aug 2016
3 Changed project number on all sheets, from STPG-214D(075)AG, to , STPG-214B(075)AG.	18 Aug 2016

STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED

TRAFFIC SIGNAL

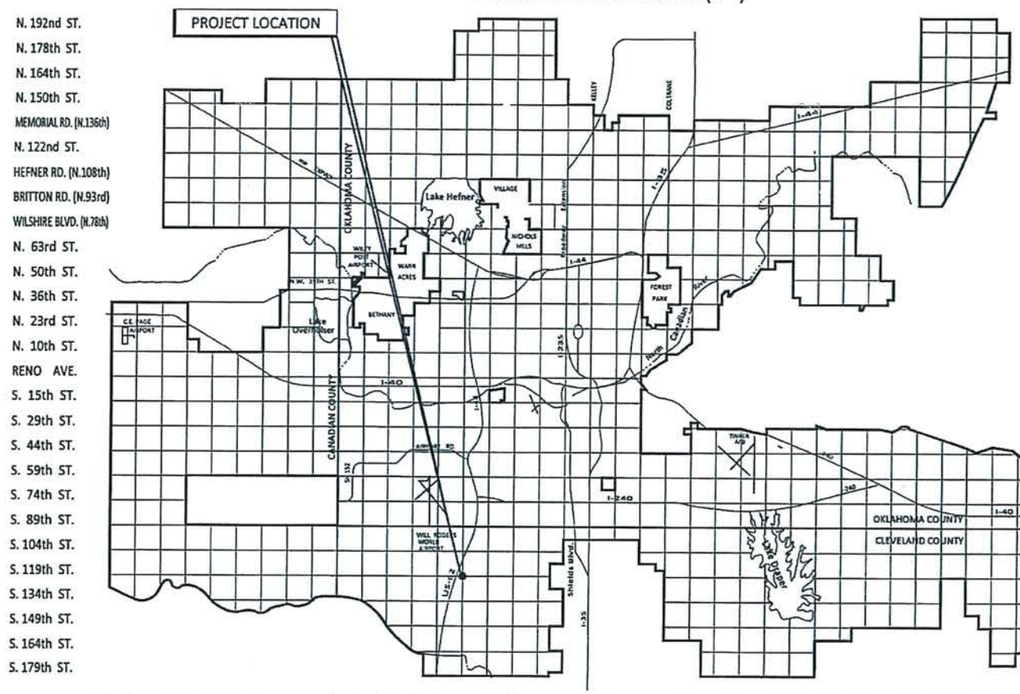
FEDERAL AID PROJECT NO. STPG-214B(075)AG 3

CLEVELAND COUNTY

CONSTRUCT TRAFFIC SIGNAL AT PORTLAND AVE & SW 119th ST
INSTALL TRAFFIC SIGNAL
STATE JOB NO. 31566(04)

DESIGN DATA S. PORTLAND AVE.	
ADT 2015	3,000
ADT 2030	4,000
DHV	400
D	55%
T % DHV	2
T % ADT	2
T3 % ADT	2
V	40 MPH

DESIGN DATA SW 119th ST	
ADT 2015	12,600
ADT 2030	17,000
DHV	1,700
D	55%
T % DHV	2
T % ADT	2
T3 % ADT	2
V	45 MPH



PROJECT LENGTH - PROJECT LIES ENTIRELY WITHIN THE URBAN/CORPORATE LIMITS OF O.K.C.

EQUATIONS - NONE
EXCEPTIONS - NONE

OKLAHOMA CITY

POPULATION : 579,999

CONVENTIONAL SYMBOLS

- UNDERGROUND CONDUIT (INTERCONNECT)
- PROPOSED ROAD
- RAILROADS
- RANGE & TOWNSHIP
- SECTION LINES
- QUARTER SECTION LINES
- FENCES
- GROUND LINE
- EXISTING ROADS
- BASE LINE
- GRADE LINES
- TELEPHONE & TELEGRAPH
- POWER LINES
- OIL WELLS
- BUILDINGS
- DRAINAGE STRUCTURES - IN PLACE
- DRAINAGE STRUCTURES - NEW
- Pres.R/W — RIGHT-OF-WAY LINES - EXISTING
- R/W — RIGHT-OF-WAY LINES - NEW
- RIGHT-OF-WAY MARKERS - IN PLACE
- RIGHT-OF-WAY MARKERS - REMOVE & RESET
- RIGHT-OF-WAY MARKERS - NEW
- CONTROLLED ACCESS
- RIGHT-OF-WAY FENCE

CONVENTIONAL SIGNS

- p — INTERSTATE HIGHWAY
- o — U.S. HIGHWAY
- STATE HIGHWAY

EXISTING

- DETECTOR LOOP
- CONTROLLER
- PULL BOX
- CONDUIT
- MAST ARM & POLE W/SIGNAL INDICATIONS
- WALK & DON'T WALK INDICATION
- SIGNAL INDICATION
- SIGNAL INDICATION W/BACK-PLATE
- PEDESTAL POLE W/SIGNAL & WALK & DON'T WALK INDICATIONS
- COMBINATION - TRAFFIC SIGNAL & STREET LIGHT ON ONE POLE

2009 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION ENGLISH GOVERN.
APPROVED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, JAN 4, 2010

INDEX OF SHEETS

THE FOLLOWING STANDARDS WILL BE REQUIRED ON THIS PROJECT:

PMAP1- 2-00	TCS1-1 01
SA1-1 02	TCS3-1 01
ID1-1 00	TCS5-1 00
ID2-1 00	TCS9-1 01
TSSS1-1 00	TCS10-1 00
PWD1- 2 00	TCS11-1 01
CFD1-2 00	TCS12-1 00
TSSP1-1 00	TCS14-1 00
CC1-1 00	TCS15-1 00
SCD1-1 00	SNS1-1- 02
PBD1-1 00	CCD1-1-00
TEWD1- 2 01	
PM1-1 02	
PM2-1 01	
PM3-1 02	
PM5-1 00	
PM6-1 00	

APPROVED BY CITY OF OKLAHOMA CITY

100%

JAMES WELCH, P.E. DATE 3/31/16
REG. P.E. No. 27463

LICENSED PROFESSIONAL ENGINEER
JAMES WELCH
27463
OKLAHOMA

OKLAHOMA DEPARTMENT OF TRANSPORTATION	DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION
DATE APPROVED	DATE APPROVED
BY	BY
CHIEF ENGINEER	DIVISION ADMINISTRATOR

S.W.O. FEDERAL AID PROJECT NO. STPG-214B (075)AG 2 3 Sheet No. 1 of 11

CLEVELAND COUNTY

		PAY QUANTITIES			
ITEM		DECRIPTION		UNIT	TOTAL
0100 ROADWAY					
609(B)	0384	COMBINED CURB AND GUTTER (8" BARRIER)	(8)	LF	24
610(A)	0602	4" CONCRETE SIDEWALK	(8)	SY	124
619(B)	4792	REMOVAL OF SIDEWALK	(8)(31)(32)	SY	47
0305 TRAFFIC SIGNAL					
802(B)	8342	2" PVC SCH. 40 PLASTIC CONDUIT TRENCHED	(24)	LF	180
802(B)	8344	3" PVC SCH. 40 PLASTIC CONDUIT BORED	(24)	LF	205
802(B)	8346	3" PVC SCH. 40 PLASTIC CONDUIT TRENCHED	(24)	LF	115
803(A)	8065	PULL BOX (SIZE I)	(8)(11)(12)(19)	EA	3
803(A)	8066	PULL BOX (SIZE II)	(8)(11)(12)(19)	EA	1
804(A)	2915	STRUCTURAL CONCRETE		CY	13
804(B)	2916	REINFORCING STEEL		LB	1969
806(A)	8736	POLE & 50' T.S. MST. ARM (G.STL.)	(8)(12)(20)	EA	1
806(A)	8738	POLE & 55' T.S. MST. ARM (G.STL.)	(8)(12)(20)	EA	3
806(B)	8894	10' MTG. HT. TS PED. POLE (G.STL.)	(8)(12)(20)	EA	8
810(A)	3118	SERVICE POLE	(23)	EA	1
811	8040	1/C NO. 6 ELECTRICAL CONDUCTOR	(24)	LF	200
825	8550	TRAFFIC SIGNAL CONTROLLER ASSEMBLY	(12)(14)(15)(16)(17)(30)	EA	1
830	8000	PEDESTRIAN PUSH BUTTON	(26)(28)(30)	EA	8
831	8231	1 WAY 3SEC. ADJ. SIG. HD. S-6	(13)(18)	EA	8
831	8295	1 WAY 2SEC. ADJ. PED. SIG. HD. S-20	(13)(29)	EA	8
833	3030	BACKPLATE		EA	16
834(A)	8207	5/C TRAFFIC SIGNAL ELECTRICAL CABLE	(24)	LF	1265
834(A)	8210	12/C TRAFFIC SIGNAL ELECTRICAL CABLE	(24)	LF	1120
834(B)	8220	2/C SHIELDED LOOP DETECTOR LEAD-IN CABLE	(24)	LF	150
850(C)	8118	MAST ARM MOUNTED SIGNS (ALUM.)		SF	48
856(A)	8530	TRAFFIC STRIPE (MULTI-POLYMER) (4"WIDE)		LF	1100
856(A)	8555	TRAFFIC STRIPE (MULTI-POLYMER) (24"WIDE)		LF	690
857(F)	8006	PAVEMENT MARKING REMOVAL (TRAFFIC STRIPE)	(31)	LF	690
880(J)	8905	CONSTRUCTION TRAFFIC CONTROL	(4)(5)(6)(22)(27)	L.SUM	1
840(A)	8592	E.P.S. OPTICAL EMITTER △1	(21)	EA	1
840(B)	8593	E.P.S. OPTICAL DETECTOR △1	(21)	EA	4
840(C)	8594	E.P.S. OPTICAL DETECTOR CABLE △1	(21)	LF	750
840(D)	8595	E.P.S. 2 CHANNEL PHASE SELECTOR △1	(21)	EA	2
882(A)	8306	PORT. CHANGEABLE MESSAGE SIGN	(27)	SD	4
890	7700	(PL) TRAFFIC ITEMS	(25)	L.SUM	1
0640 CONSTRUCTION					
641	1399	MOBILIZATION		L.SUM	1

REVISION DESCRIPTION	DATE
△1 DESCRIPTION CORRECTIONS.	20 JUL 16
△1 Changed project number on all sheets, from STPG-214B(075)AG, to , STPG-214B(075)AG.	18 Aug 2016

GENERAL CONSTRUCTION NOTES

(1) SYMBOLS AND LEGENDS ARE DIAGRAMMATIC ONLY AND LOCATIONS SHALL BE ADJUSTED FOR EXISTING FIELD CONDITIONS, BUT NO MAJOR ALTERATIONS OR RELOCATIONS WILL BE MADE WITHOUT FIRST CONSULTING WITH THE TRAFFIC ENGINEER DIVISION AT (405) 297-2531.

(2) ALL BROKEN CONCRETE, WASTE MATERIAL, AND DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR, AND SHALL BE REMOVED FROM THE LIMITS OF THE PROJECT AND DISPOSED OF IN AN AREA APPROVED BY THE ENGINEER. NO PAYMENT WILL BE MADE FOR THE DISPOSAL OF THIS MATERIAL.

(3) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE HE MAY INFLICT TO THE EXISTING UNDERGROUND UTILITIES WITHIN THE PROJECT AREA AS A RESULT OF HIS DIGGING, TRENCHING, BORING, ETC.... PRIOR TO DIGGING NEAR THE UTILITIES, THE CONTRACTOR SHALL CALL FOR A LIST OF ALL UNDERGROUND FACILITIES REGISTERED IN THE AREA OF CONSTRUCTION LISTED WITH THE FOLLOWING AGENCIES:
THE "OKIE" NOTIFICATION CENTER 811 OR 1-800-522-6543 OR WWW.CALLOKIE .COM
OR THE LOCAL COUNTY CLERK'S OFFICE.
DEPTH OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

(4) THE CONTRACTOR IS RESPONSIBLE FOR THE PROMPT REPLACEMENT AND/OR REPAIR OF ALL TRAFFIC CONTROL DEVICES AND APPURTENANCES DAMAGED OR DISTURBED DUE TO CONSTRUCTION.

(5) THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF ALL PAVEMENT MARKINGS THAT WILL BE IN CONFLICT WITH THE PROPOSED WORK.

(6) A WORK ZONE PERMIT MUST BE OBTAINED FROM THE TRAFFIC MANAGEMENT DIVISION AT LEAST TWO (2) WORKING DAYS PRIOR TO THE START OF WORK AND/OR PLACING OR REMOVING ANY BARRICADES OR MODIFYING EXISTING TRAFFIC CONTROL DEVICES. CALL (405) 297-2531 TO OBTAIN AN APPLICATION.

(7) ALL WORK NOT CLASSIFIED AS A CONTRACT PAY ITEM SHALL BE CONSIDERED INCIDENTAL CONSTRUCTION. THE COST FOR SUCH WORK SHALL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS

(8) THE CONTRACTOR SHALL GRADE THE AREA ADJACENT TO THE SIDEWALK AND TRAFFIC SIGNAL POLES FOR APPEARANCE, EASE OF MAINTENANCE AND DRAINAGE. ALL DISTURBED AREAS SHALL BE SEEDED BY THE CONTRACTOR.

GENERAL INTENT NOTES

(9) THE PLANS AND REFERENCED CONSTRUCTION SPECIFICATIONS DESCRIBE THE WORK COMPLETED AND IDENTIFY THE WORK TO BE DONE AND THE MATERIALS NECESSARY FOR CONSTRUCTION. THESE PLANS ARE INTENDED TO BE FULLY EXPLANATORY. THE PLAN AND SPECIFICATION DOCUMENTS SHALL BE CONSTRUCTED AND INTERPRETED AS A WHOLE AND THEREFORE, ANYTHING SHOWN, INDICATED OR SPECIFIED IN ONE AND NOT THE OTHER, SHALL BE INTERPRETED AS BEING SHOWN, INDICATED OR SPECIFIED IN BOTH.

(10) MINOR DEVIATIONS FROM THE DESIGN LAYOUT ARE ANTICIPATED AND SHALL BE CONSIDERED INCIDENTAL AND INCLUDED AS AN ORDINARY PART OF THE WORK. NO CHANGES THAT ALTER THE CHARACTER OF THE WORK CAN BE MADE OR WILL BE PERMITTED BY THE OWNER WITHOUT THE ISSUANCE OF A CHANGE ORDER.

(11) NO PLEA OF IGNORANCE OF EXISTING CONDITIONS OR OF DIFFICULTIES OR CONDITIONS ENCOUNTERED IN THE EXECUTION OF THE WORK WILL BE ACCEPTED AS AN EXCUSE FOR ANY FAILURE OR OMISSION ON THE PART OF THE CONTRACTOR TO FULFILL EVERY DETAIL OF ALL OF THE REQUIREMENTS IN THE CONTRACT DOCUMENTS GOVERNING THE WORK.

The City of Oklahoma City
Public Works Department
Traffic Management Division

△1 PROJECT NO. STPG-214B(075)AG

JOB PIECE NO. 31566(04)

DESIGNED BY: xxx
DRAWN BY: TVN
APPROVED BY: XXXX
DATE: MM/DD/YY

PAY QUANTITIES AND NOTES
S PORTLAND AVE & SW 119th ST

REVISION DESCRIPTION	DATE
1 Changed project number on all sheets, from STPG-214D(075)AG, to , STPG-214B(073)AG.	18 Aug 2016

TRAFFIC SIGNAL PAY QUANTITY NOTES

(12) CONTRACTOR SHALL SUPPLY A TRAFFIC SIGNAL CABINET AND CONTROLLER MANUFACTURED BY NAZTEC, INC. THAT SHALL OPERATE AS SHOWN ON THE SIGNAL PLANS AND DETAIL SHEETS. PROVIDE SERIES 900 ATC CONTRLLER

(13) LIGHT EMITTING DIODE (LED) LAMPS WITH SPADE TAB CONNECTIONS SHALL BE USED IN LIEU OF INCANDESCENT TRAFFIC SIGNAL LAMPS. THE LED MODULES SHALL MEET THE REQUIREMENTS IN THE INSTITUTE OF TRAFFIC ENGINEERS (I.T.E.) STANDARD ENTITLED "VEHICLE TRAFFIC CONTROL SIGNAL HEADS - LIGHT EMITTING DIODE (LED) CIRCULAR SIGNAL SUPPLEMENT" (VTCSH-LED). LED LENSES SHALL BE DIALIGHT, GELCORE,DURALIGHT OR AN APPROVED EQUAL. WHEN LIT, ALL LED MODULES SHALL APPEAR TO DRIVERS TO BE INCANDESCENT BULB TYPE SIGNALS. THE WARRANTY FROM DEFECTIVE WORKMANSHIP AND MATERIALS SHALL BE FIVE (5) YEARS FROM THE DATE OF THE PROJECT'S FINAL ACCEPTANCE.

(14) ELECTRONIC COPIES OF THE TRAFFIC SIGNAL CABINET SHEET FOR THE INTERSECTION(S) ON THIS PROJECT SHALL BE PROVIDED. CONTRACTOR SHALL INSTRUCT NAZTEC TO DEVELOP SUCH COPIES AND PROVIDE THEM TO THE CITY OF OKLAHOMA CITY, TRAFFIC MANAGEMENT DIVISION. COST TO BE INCLUDED IN THIS ITEM

(15) AN INNOVATIVE TECHNOLOGY MODEL #HS-P-SP-120A-30A-RH PROTECTOR TRANSIENT VOLTAGE SURGE SUPPRESSOR OR EQUIVALENT SHALL BE INSTALLED BETWEEN THE AC POWER AND CABINET. THE SUPPRESSOR SHALL BE MOUNTED ON THE SIDE OF THE CABINET IMMEDIATELY ADJACENT TO THE AC TERMINAL BLOCK.

(16) CONTROLLER MUST BE A BLE TO COMMUNICATE OVER THE EXISTING CITY OF OKLAHOMA CITY VERIZON CELLULAR SYSTEM VIA A SIERRA AIRLINK GX450 MODEM, CISCO 890 SERIES INTEGRATED SERVICE ROUTER, RACKMOUNT KIT FOR ROUTER, SIX (6) FEET OF STRAIGHT-THROUGH YELLOW ETHERNET CABLE, CISCO 890 SERIES IOS UNIVERSAL ANTENNA PLUS AP-GX450 MIMO ANTENNA (WHITE) PURCHASED THROUGH THE CITY OF OKLAHOMA CITY'S EXISTING CONTRACT WITH TURN KEY MOBILE AND INSTALLED BY THE CONTRACTOR ALL DEVICES INSTALLED MUST BE COMPATIBLE WITH EXISTING CITY CELLULAR SYSTEM. THE CITY WILL VERIFY COMMUNICATION EXISTS WITH THE CONTROLLER AT THIS LOCATION PRIOR TO FINAL ACCEPTANCE. COST OF ALL EQUIPMENT AND INSTALLATION NECESSARY TO ESTABLISH COMMUNICATION WITH CITY OF OKLAHOMA CITY CELLULAR SYSTEM SHALL BE INCLUDED IN THE COST OF THIS ITEM. ELECTRONIC COPIES OF THE CONTROLLER CABINET SHEET SHALL BE PROVIDED TO THE CITY OF OKLAHOMA CITY VIA NAZTEC. COST TO BE INCLUDED IN THIS ITEM.

THIS ITEM SHALL INCLUDE A "MMU TO TS2 CONTROLLER DATA CABLE", NAZTEC PART NUMBER 10225 - 2103.

(17) CONTROLLER CABINET SHALL INCLUDE AN EXTENSION BASE WITH AN HEIGHT OF 15 INCHES AND BASE DIMENSIONS AND FINISH TO MATCH THE CABINET INSTALLED.

(18) CONTRACTOR SHALL COVER NEW SIGNAL HEADS WITH TRAFFIC SIGN AND SIGNAL COVER CONCEPTS MODEL 3VLC COVERS OR APPROVED EQUAL WHEN SIGNAL HEADS HAVE BEEN INSTALLED ON MAST ARMS. SIGNAL HEADS ARE TO REMAIN COVERED UNTIL TRAFFIC SIGNALS HAVE BEEN TURNED ON. REMOVED COVERS TO BECOME THE PROPERTY OF THE CITY OF OKLAHOMA CITY. COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

(19) CONCRETE PULL BOXES SHALL HAVE A POLYMER CONCRETE COVER, FRAME AND BODY AND A MINIMUM LOAD RATING OF 20,000 LBS. POLYMER CONCRETE PULL BOXES SHALL BE ARMORCAST, QUAZITE OR AN APPROVED EQUAL. FIBERGLASS AND/OR PLASTIC PULL BOXES OR COMPOSITES OF SAME WILL NOT BE ACCEPTED.

(20) SIGNAL POLE HANDHOLE COVERS SHALL BE ONE PIECE FORMED FROM ABS PLASTIC, PEARL GRAY IN COLOR AND SHALL BE SUITABLE FOR EXPOSURE TO SUNLIGHT AND ALL WEATHER CONDITIONS. HANDHOLE COVERS SHALL LATCH WITH TWO SCREW LATCHES AND SHALL FIT TIGHTLY TO THE ENCLOSURE RING TO CREATE A RAINPROOF SEAL. LATCH SCREWS SHALL BE ¼-20 STAINLESS STEEL FLAT SOCKET HEAD SCREWS WITH TAMPER-RESISTANT FEATURES.

(21) THE PRIORITY CONTROL SYSTEM SHALL INTERFACE WITH THE TRAFFIC CONTROLLER TO GIVE EMERGENCY VEHICLES APPROACHING THE INTERSECTION A GREEN SIGNAL INDICATION WITH ALL OTHER INDICATIONS BEING RED. THE SYSTEM SHALL BE CAPABLE OF TWO PRIORITY LEVELS AND LOG THE LAST 1000 EVENTS WITH TIME DATE STAMP. EMITTER SHALL BE SELECTIABLE TO TRANSMIT UP TO 1000 VEHICLE CODES. ALL EQUIPMENT IN THE SYSTEM SHALL MEET NEMA ENVIRONMENTAL STANDARDS. THE MANUFACTURER OR MANUFACTURER'S REPRESENTATIVE SHALL PROVIDE ASSISTANCE TO THE CONTRACTOR OR AGENCY INSTALLING THE EQUIPMENT AS TO THE BEST LOCATION FOR THE DETECTOR PLACEMENT AT EACH INTERSECTION INVOLVED WITH THE PROJECT. ALL EQUIPMENT MUST BE PLAINLY MARKED AS TO THE MANUFACTURER OF THE EQUIPMENT AND PROVIDE CLEAR INDENTIFICATION AS TO THE MANUFACTURER'S MODEL AND SERIAL NUMBER OF EACH UNIT.

NEMA CERTIFICATION AND TEST REPORTS SHALL BE PROVIDED UPON REQUEST BY THE ENGINEER.

THE PRIORITY CONTROL SYSTEM PROVIDED ON THIS PROJECT SHALL BE COMPLETELY COMPATIBLE WITH THE ITS SYSTEM BEING USED BY THE CITY OF OKLAHOMA CITY.

(22) CONSTRUCTION TRAFFIC CONTROL WILL BE INSTALLED IN A MANNER APPROVED BY THE ENGINEER, IN ACCORDANCE WITH CHAPTER VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION, AND APPLICABLE O.D.O.T. 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. (NOTE FOR CONSULTANT OR DESIGNER: THIS NOTE SHALL BE USED WHEN TRAFFIC CONTROL IS A LUMP SUM PAY ITEM.)

(23) SEE SERVICE POLE SCHEDULE; FOR ADDITIONAL INFORMATION CONCERNING THE SERVICE POLE, CONTACT THE FOLLOWING PRIOR TO INSTALLATION:
PERSON'S NAME ..... STUART CHAI
WITH THE COMPANY/CITY OF..... OKLAHOMA CITY TRAFFIC MANAGEMENT DIVISION
COMPANY'S/CITY'S TELEPHONE NO. ..... (405) 297-2531

(24) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITY. SEE THE 2009 SPECIFICATIONS FOR HIGHWAY CONSTRUCTION

The City of Oklahoma City
Public Works Department
Traffic Management Division

PROJECT NO. STPG-214B(075)AG

JOB PIECE NO. 31566(04)

DESIGNED BY: XXX
DRAWN BY: TVN
APPROVED BY: XXXX
DATE: MM/DD/YY

PAY QUANTITIES AND NOTES
S PORTLAND AVE & SW 119th ST

TRAFFIC SIGNAL PAY QUANTITY NOTES

REVISION DESCRIPTION	DATE
1 Changed project number on all sheets, from STPG-214B(075)AG, to: STPG-214B(075)AG	16 Aug 2016

(25) THIS BID ITEM CONSISTS OF THE INSTALLATION OF FOUR MAST ARM MOUNTED INTEGRATED THERMAL TRAFFIC SENSORS, ASSOCIATED WIRING/CABLES, INTERFACE PANELS, NEMA TS-2 SDLC CONTROLLER INTERFACE MODULES AND ALL OTHER NECESSARY ITEMS OF WORK FOR A COMPLETE OPERATIONAL VEHICLE DETECTION SYSTEM. THE INTEGRATED THERMAL TRAFFIC SENSORS SHALL UTILIZE FORWARD LOOKING INFRARED CAMERA TECHNOLOGY AND DETECTION PROCESSING WITHIN THE SINGLE SENSOR WITHOUT REQUIRING DETECTION PROCESSORS IN THE TRAFFIC CONTROLLER CABINET, AND SHALL BE ABLE TO DETECT AND REPORT PRESENCE OF VEHICLES 24 HOURS PER DAY WITHOUT NEEDING ARTIFICIAL LIGHTING IN ALL WEATHER AND NATURAL LIGHTING CONDITIONS WITHIN A 17, 25, 35, OR 90 DEGREE FIELD OF VIEW INTEGRATED THERMAL TRAFFIC SENSORS SHALL BE ABLE TO DETECT AND REPORT PRESENCE IN CURVED LANES AND AREAS WITH ISLANDS AND MEDIANS. THE INTEGRATED THERMAL TRAFFIC SENSORS SHALL UTILIZE ONLY THREE CONDUCTOR WIRES FOR POWER AN D COMMUNICATIONS AND SHALL NOT REQUIRE COAXIAL CABLE. FIELD SETUP SHALL BE DONE USING A SETUP COMPUTER RUNNING MICROSOFT WINDOWS 7/WINDOWS 8 OR A TOUCH-SCREEN TABLET RUNNING WINDOWS SURFACE PRO OPERATING SYSTEM. INTERFACE SOFTWARE SHALL BE PROVIDED TO TH E CITY AT NO ADDITIONAL COST. CONTRACTOR SHALL NOT BE REQUIRED TO PROVIDE A SETUP COMPUTER OR TABLET UNLESS SPECIFICALLY CALLED OUT ELSEWHERE IN THE PROJECT SPECIFICATIONS.

SUPPLIER OF INTEGRATED THERMAL TRAFFIC SENSORS SHALL VERIFY SENSOR FIELD OF VIEW ANGLE REQUIRED FOR INDIVIDUAL APPROACHES BASED ON PROJECT PLANS AND/OR SITE SURVEY PRIOR TO ORDERING EQUIPMENT.

CABINET INTERFACE FOR THE SYSTEM SHALL BE LIMITED TO A POWER/COMMUNICATIONS INTERFACE PANEL, ETHERNET COMMUNICATIONS EDGE CARD USING BROADBAND - OVER - POWER (BPL) TECHNOLOGY, AND A TS-2 SDLC MODULE AND SHALL BE COMPATIBLE WITH STANDARD NEMA TS-1 AND TS-2 LOOP DETECTOR CARD RACKS. TS-2 SDLC MODULE SHALL BE CONFIGURED SO THAT VEHICLE AND BICYCLE DETECTION OUTPUTS ARE ASSIGNED STARTING WITH TS-2 DETECTOR INPUT #17. DETECTOR INPUTS 1 THROUGH 16 ARE RESERVED FOR TECHNICIAN PANEL DETECTOR TEST SWITCHES AND SHALL NOT BE USED FOR INTEGRATED THERMAL TRAFFIC SENSOR INTERFACE.

(26) R10-3E PEDESTRIAN PUSH BUTTON SIGNS SHALL BE USED.

(27) THE CITY OF OKLAHOMA CITY WILL PROVIDE THE SIGNAL CONTROLLER TIMING PLAN. CONTACT THE TRAFFIC MANAGEMENT DIVISION AT LEAST TEN (10) WORKING DAYS PRIOR TO THE ANTICIPATED TURN - ON DATE. THE CONTRACTOR SHALL PROVIDE, PROGRAM AND PLACE TWO (2) CHANGEABLE MESSAGE BOARDS ON SW 119th ST. ADVISING MOTORISTS OF THE IMPENDING SIGNAL TURN ON. THESE SIGNS SHALL BE IN OPERATION AT LEAST TWO (2) WORKING DAYS PRIOR TO THE ANTICIPATED TURN ON DATE AND THE MESSAGE DISPLAYED SHALL BE FURNISHED BY THE TRAFFIC MANAGEMENT DIVISION.

THE CONTRACTOR IS RESPONSIBLE FOR COVERING ALL EXISTING CITY OWNED AND PRIVATELY OWNED STOP SIGN(S) AND RELATED WARNING SIGNS AT THE INTERSECTION AT THE TIME THAT THE TRAFFIC SIGNAL IS AUTHORIZED TO BE TURNED ON.

THE STOP SIGN(S) AND RELATED WARNING SIGNS SHALL BE COVERED WITH AN OPAQUE PLASTIC TARP OR HEAVY PLASTIC SHEETING SECURELY WRAPPED WITH DUCT TAPE SO AS NOT TO BE EASILY REMOVABLE OR BLOWN OFF BY WIND. THE TAPE SHALL ONLY BE APPLIED TO THE COVERING AND NOT DIRECTLY TO THE FACE OR THE BACK OF THE SIGN AFTER THE SIGNAL IS TURNED ON, OKLAHOMA CITY TRAFFIC OPERATIONS WILL REMOVE ALL EXISTING CITY OWNED STOP SIGNS AND RELATED WARNING SIGNS. ALL PRIVATELY OWNED SIGNS WILL BE REMOVED BY OTHERS.

(28) CONTRACTOR SHALL PROVIDE POLORA 2 - WIRE NAVIGATOR ACCESSIBLE PEDESTRIAN SIGNAL PUSH BUTTON OR APPROVED EQUAL.

(29) ONE-WAY ONE SECTION LED COUNTDOWN PEDESTRIAN SIGNAL HEADS SHALL BE USED.

(30) THIS PAY ITEMS HALL INCLUDE ONE CENTRAL CONTROL UNIT COMPATABLE WITH THE POLARA 2 - WIRE NAVIGATOR ACCESSIBLE PEDESTRIAN SIGNAL

(31) THE AMOUNT SHOWN IS AN APPROXIMATION AND THE ACTUAL AMOUNT OF REMOVAL, IF NECESSARY, SHALL BE DETERMINED BY THE ENGINEER.

THE PAVEMENT MARKING TO BE REMOVED SHALL BE CONSIDERED THERMOPLASTIC AND BID ACCORDINGLY.

DURING REMOVAL OF EXISTING STRIPING AND REPLACEMENT WITH NEW STRIPING, PERMANENT STRIPING SHALL BE REPLACED WITHIN 48 HOURS AFTER OLD STRIPING IS REMOVED.

(32) ALL BROKEN CONCRETE, WASTE MATERIAL, AND DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR, AND SHALL BE REMOVED FROM THE LIMITS OF THE PROJECT AND DISPOSED OF IN AN AREA APPROVED BY THE ENGINEER. NO PAYMENT WILL BE MADE FOR THE DISPOSAL OF THIS MATERIAL.

The City of Oklahoma City
Public Works Department
Traffic Management Division

PROJECT NO
STPG-214B(075)AG
1

JOB PIECE NO.
31566(04)

DESIGNED BY: xxx
DRAWN BY: TVN
APPROVED BY: XXXX
DATE: MM/DD/YY

PAY QUANTITIES AND NOTES
S PORTLAND AVE & SW 119th ST

TABLE # 1 SIGNAL HEADS				
SIGNAL HEAD NUMBER	NUMBER AND TYPE	MOUNTING	VISOR	BACK PLATE
1,2,3,4,5,6,7,8	8 - ONEWAY (5-8)	MAST ARM	V-1	B-2
9,10,11,12,13,14,15,16	8 - ONE WAY (5-20)	CLAMP	V-3	B-2

TABLE # 2 MAST ARMS AND POLES			
LOCATION	MOUNTING HEIGHT	MAST ARM LENGETHS	FOUNDATION
D	21'	50'	S-50
A,B,D	21'	55'	S-55
E,F,G,H,I,J,K,L	10'	PED POLE	F-2

TABLE # 3 ELECTRICAL CABLE						
ELECTRICAL CABLE TO CONTROLLER						
A-12C	B-12C	C-12C	D-12C	E-5C/5C	F-5C/5C	
G-5C/5C	H-5C/5C	I-5C/5C	J-5C/5C	K-5C/5C	L-5C/5C	

LEGEND

- 2" ELECT CONDUIT
- 3" ELECT CONDUIT
- SIZE 1 PULL BOX
- SIZE 2 PULL BOX
- CONTROLER
- WALK AND DONT WALK
- SIGNAL HEAD WITH BACKPLATE
- STREET NAME SIGN
- PEDESTRIAN PUSH BUTTON
- TRAFFIC SIGNAL POLE
- PEDESTRIAN POLE
- THERMAL CAMERA
- PREEMPTION
- SIGN

REVISION DESCRIPTION	DATE
1 Changed project number on all sheets, from STPG-214B(075)AG, to , STPG-214B(075)AG	18 Aug 2016

(IN FEET)
1 inch = 20 ft

S. PORTLAND AVE Ø 2 SB

Ø 8 EB

Ø 4 WB

Ø 6 NB

SW. 119TH ST.

CITY OF MUSTANG 16" RAW WATER LINE

16" WATER LINE

48" WATER LINE

REMOVED STOP SIGN

REMOVE STOP SIGN

ELECTRONIC CONTROL BOXES

WATER LINE BOX

CONTROLLER

AT&T BOX

OM14" M.P. GAS LINE

POLE "A" STA 10+66 - 55' RT
POLE "B" STA 9+45 - 55' RT
POLE "C" STA 9+25 - 20' LT
POLE "D" STA 10+55 - 56' LT
POLE "E" STA 10+58 - 35' RT
POLE "F" STA 10+40 - 46' RT
POLE "G" STA 9+58 - 47' RT
POLE "H" STA 9+41 - 35' RT
POLE "I" STA 9+47 - 35' LT
POLE "J" STA 9+57 - 35' LT
POLE "K" STA 10+44 - 37' LT
POLE "L" STA 10+59 - 33' LT

TYPE "B" WHEELCHAIR RAMP 5' SIDEWALK

2 TYPE "B" WHEELCHAIR RAMP 5' SIDEWALK

TYPE "TF" WHEELCHAIR RAMP 5' SIDEWALK

OD-1 OD-2 OD-3 OD-4

NOTE:
LOOPS ARE SHOW FOR INFORMATION FOR DETECTION ZONE SETUP.

Center Line stations of crosswalks for crossing SW 119 Street
9+44 and 10+66
Center Line stations of crosswalks for crossing S Portland Avenue
39.5'L and 45' R
Sidewalk on the SW corner shall tie into the existing sidewalk

UTILITIES

- GAS GAS GAS GAS LINE
- TUG TUG TUG TELEPHONE UNDER GROUND
- OHP OHP OHP OVERHEAD POWER LINE
- W W W WATER LINE

The City of Oklahoma City
Public Works Department
Traffic Management Division

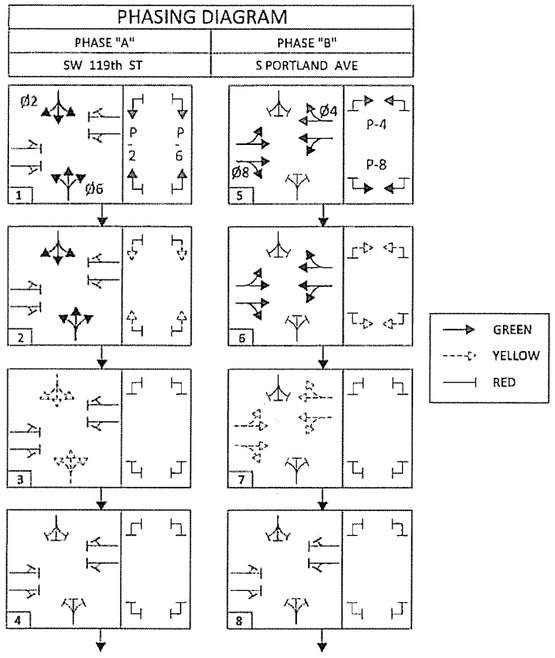
PROJECT NO. STPG-214B(075)AG

JOB PIECE NO. 31566(04)

DESIGNED BY: JAMES R. WELCH
DRAWN BY: TVN
APPROVED BY: 07/16/2015
DATE: 07/16/2015

S. PORTLAND AVE & SW 119th ST
SIGNAL PLAN

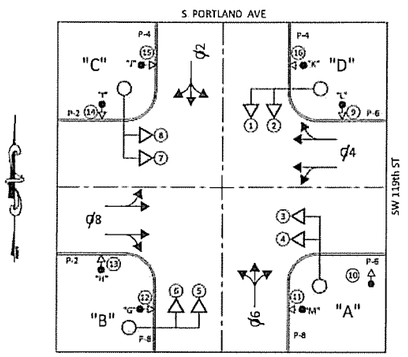
PHASING DIAGRAM



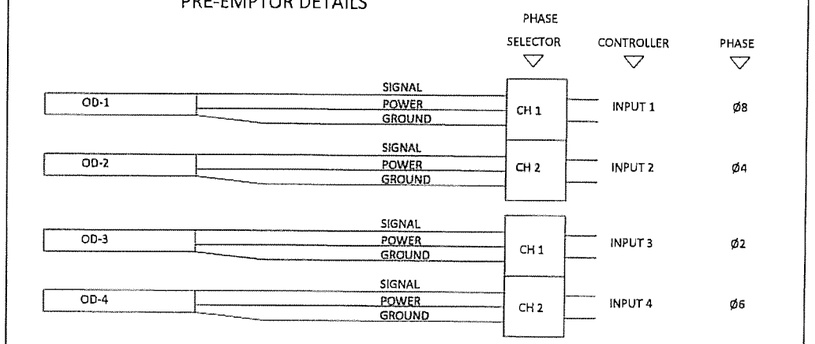
SEQUENCE CHART

DERECTION	BLOCK NO.	PHASE							
		2	4	6	8	P2	P4	P6	P8
		SIGNAL HEAD NO.							
		1,2	3,4	5,6	7,8	9,10	11,12	13,14	15,16
Ø4 & Ø6 ROW, P2 & P6	1	G	R	G	R	W	DW	W	DW
Ø2 & Ø6 ROW, P2 & P6 CLEAR	2	G	R	G	R	FDW	DW	FDW	DW
Ø2 & Ø6 CLEAR	3	Y	R	Y	R	DW	DW	DW	DW
ALL RED	4	R	R	R	R	DW	DW	DW	DW
Ø4 & Ø8 ROW, P4 &P8	5	R	G	R	G	DW	W	DW	W
Ø4 & Ø8 ROW, P4 & P8 CLEAR	6	R	G	R	G	DW	FDW	DW	FDW
Ø4 & Ø8 CLEAR	7	R	Y	R	Y	DW	DW	DW	DW
ALL RED	8	R	R	R	R	DW	DW	DW	DW
FLASHING OPERATION	-	FR	FR	FR	FR	-	-	-	-

REVISION DESCRIPTION	DATE
1 Changed project number on all sheets, from STPG-2140(075)AG, to , STPG-2140(075)AG.	18 Aug 2016



PRE-EMPTOR DETAILS



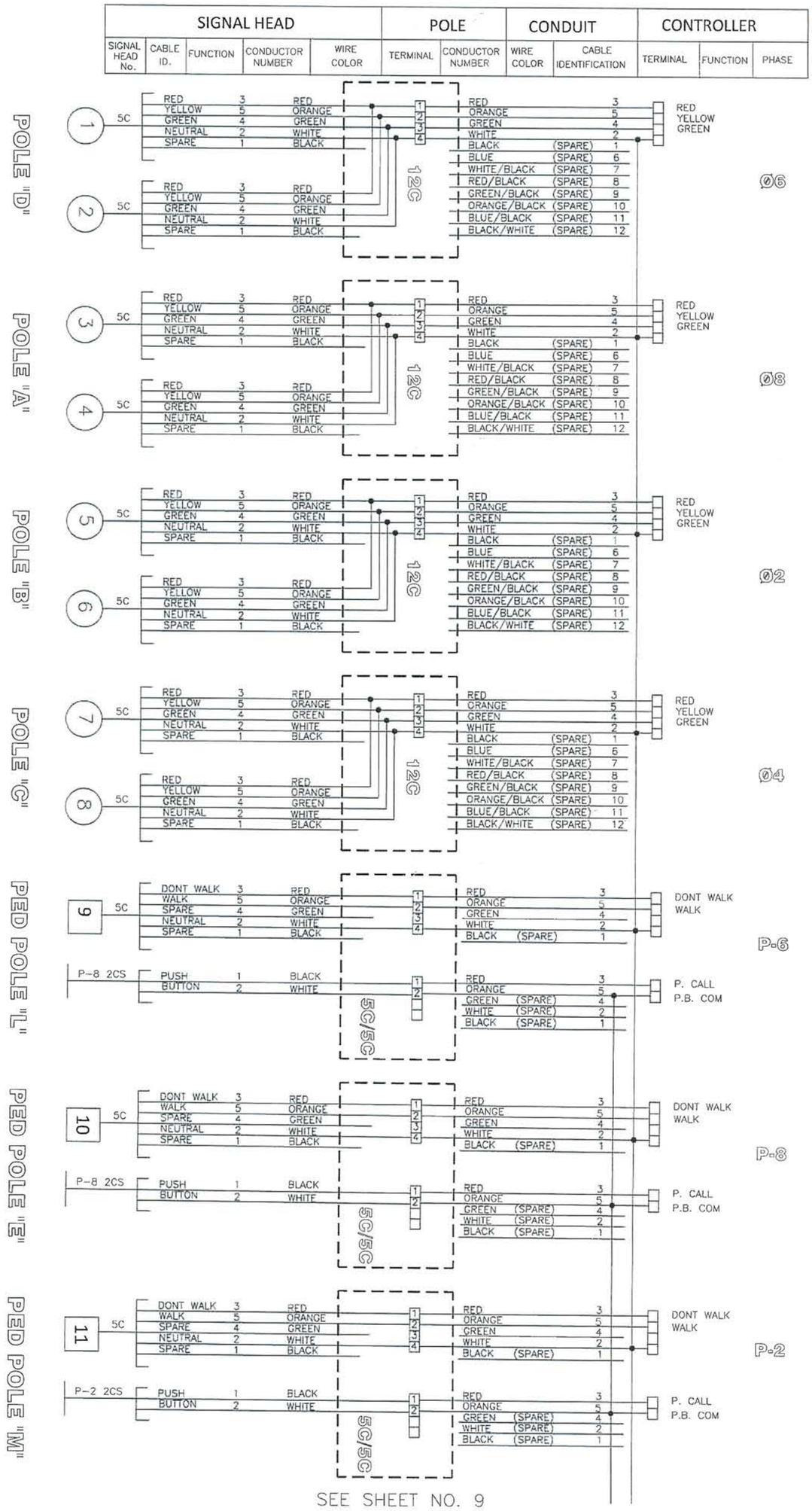
The City of Oklahoma City
Public Works Department
Traffic Management Division

PROJECT NO
STPG-2140(075)AG

JOB PIECE NO
31566(04)

DESIGNED BY: xxx
DRAWN BY: TVN
APPROVED BY: XXXX
DATE: MM/DD/YY

SIGNAL PHASING PLAN
S PORTLAND AVE & SW 119th ST



REVISION DESCRIPTION	DATE
Changed project number on all sheets from STPG-214B(075)AG to STPG-214B(075)AG.	18 Aug 2016

Sheet 7 of 11

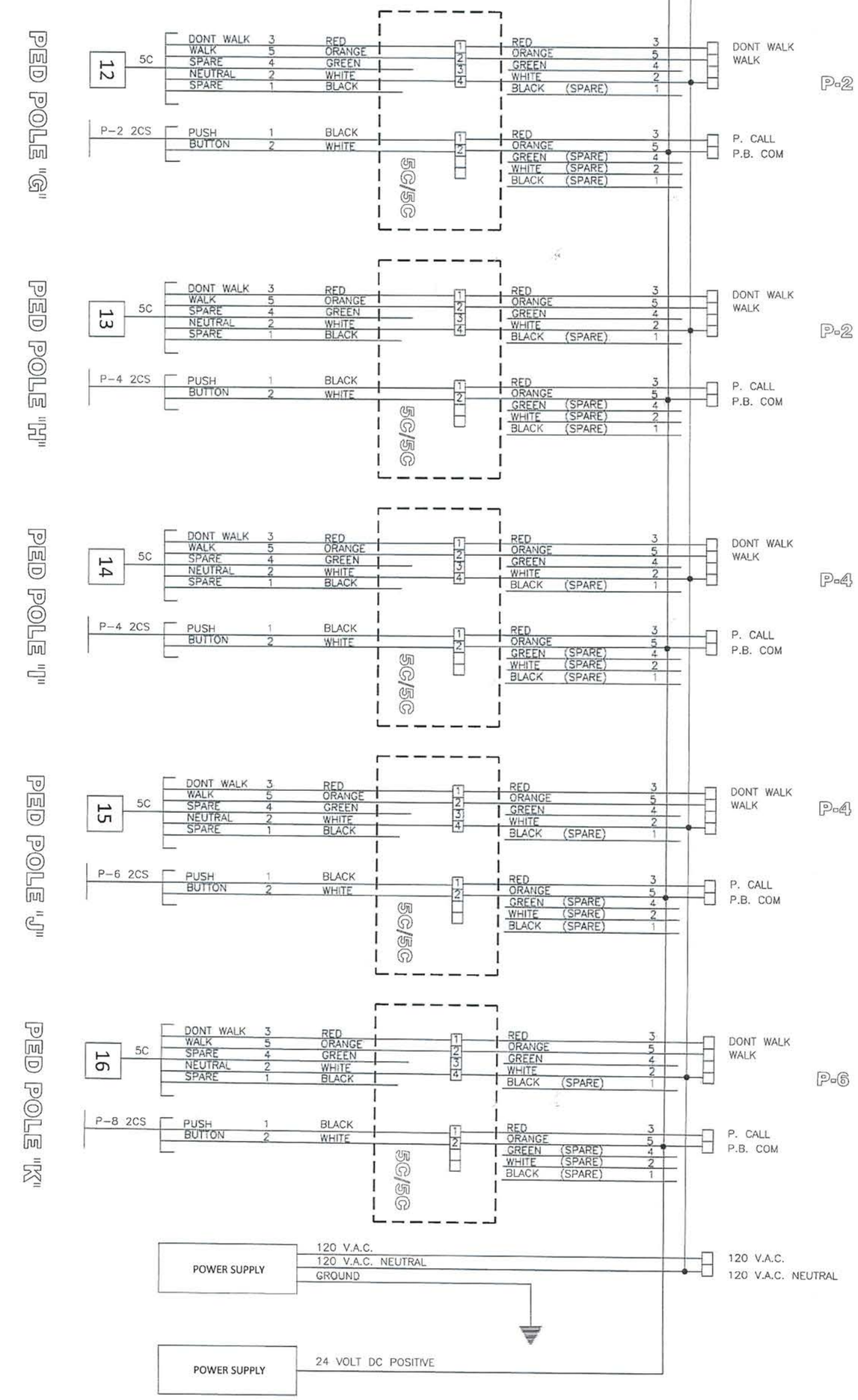
WIRING DIAGRAM
S PORTLAND AVE & SW 119th ST

DESIGNED BY: xxx
DRAWN BY: TVN
APPROVED BY: XXXX
DATE: MM/DD/YY

PROJECT NO. STPG-214B (075)AG

JOB PIECE NO. 31566(04)

The City of
Oklahoma City
Public Works Department
Traffic Management Division



REVISION DESCRIPTION	DATE
Changed project number on all sheets from STPG-214(075)AG to STPG-214B(075)AG.	18 Aug 2016

Sheet 8 of 11

WIRING DIAGRAM
S PORTLAND AVE & SW 119th ST

DESIGNED BY: xxx
DRAWN BY: TVN
APPROVED BY: XXXX
DATE: MM/DD/YY

PROJECT NO. STPG-214B (075)AG

JOB PIECE NO. 31566(04)

The City of
Oklahoma City
Public Works Department
Traffic Management Division

POLE "B"

24"x 72"

POLE "D"

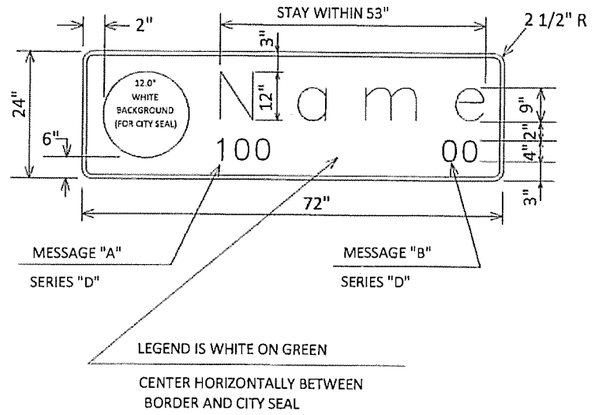
24"x 72"

POLE "A"

24"x 72"

POLE "C"

24"x 72"



MAST ARM STREET MARKER

NOT TO SCALE

SUMMARY OF SIGNS						
MESSAGE	LOCATION	NO. OF SIGNS	LENGTH	HEIGHT	SQ.FT. 1 SIGN AREA	TOTAL SIGN AREA SQ.FT.
SW 119th ST 3700 3600	"D"	1	72"	24"	12	12
SW 119th ST 3600 3700	"B"	1	72"	24"	12	12
Portland Ave 11900 12000	"A"	1	72"	24"	12	12
Portland Ave 12000 11900	"C"	1	72"	24"	12	12
					TOTAL	48

MESSAGE	FONT	LOCATION SIZE	
STREET NAME	HIGHWAY C UPPERCASE 12" LOWERCASE 9"	CENTERED HORIZONTALLY BETWEEN BORDER AND CITY SEAL, 3.0" OFFSET FROM TOP OF SIGN BLANK	12.0"
HUNDRED BLOCKS	HIGHWAY D	ALIGN STREET NAME AND HUNDRED BLOCKS VERTICALLY, 3.0" OFFSET FROM BOTTOM OF SIGN BLANK	4.0"
CITY SEAL		2.0" OFFSET FROM THE LEFT, 6.0" OFFSET FROM THE TOP AND BOTTOM	12.0"
BORDER			1.0"

REVISION DESCRIPTION	DATE
1 Changed project number on all sheets, from STPG-2143(075)AG, to , STPG-2143(075)AG.	18 Aug 2016

The City of Oklahoma City
Public Works Department
Traffic Management Division

PROJECT NO. STPG-2143 (075)AG 1

JOB PIECE NO. 31566(04)

DESIGNED BY: xxx
DRAWN BY: TVN
APPROVED BY: XXXX
DATE: MM/DD/YY

SIGN DETAILS SHEET
S PRTLAND AVE & SW 119th ST

REVISION DESCRIPTION	DATE
1 Changed project number on all sheets, from STPG-214B(075)AG, to:, STPG-214B(075)AG	18 Aug 2016

4" SOLID WHITE

4" DOUBLE YELLOW

S. PORTLAND AVE
Ø 2 SB

POLE "J" P-4
TYPE "B" WHEELCHAIR RAMP 5' SIDEWALK
POLE "G" STA 9+07 - 35' LT
REMOVED STOP SIGN
SIZE I
POLE "F" P-2
POLE "E" STA 9+25 - 50' LT
POLE "I" STA 9+47 - 35' LT
TYPE "B" WHEELCHAIR RAMP 5' SIDEWALK

TYPE "B" WHEELCHAIR RAMP 5' SIDEWALK
POLE "D" STA 10+55 - 56' LT
POLE "K" STA 10+48 - 37' LT
SIZE I
POLE "D" P-4
POLE "L" P-8
POLE "L" STA 10+58 - 37' LT
AT&T BOX
TYPE "B" WHEELCHAIR RAMP 5' SIDEWALK

(IN FEET)
1 inch = 20 ft.

SW. 119TH ST.

150'
4" DOUBLE YELLOW
Ø 8 EB
50' SOLID WHITE
25' 15' (TYP) 25'

50' SOLID WHITE
Ø 4 WB
4" DOUBLE YELLOW
150'

OD-1
OD-2
OD-3
OD-4
12'

7+00
10+00
13+00

2 TYPE "B" WHEELCHAIR RAMP 5' SIDEWALK
POLE "H" P-2
POLE "H" STA 9+41 - 35' RT
CONTROLLER
SIZE II
POLE "B" STA 9+45 - 55' RT
POLE "C" STA 9+59 - 47' RT
POLE "G" P-9
24" WHITE STOP BAR
3' 2' 2' 4' 8'

2 TYPE "B" WHEELCHAIR RAMP 5' SIDEWALK
POLE "E" STA 10+58 - 38' RT
POLE "E" P-6
POLE "A" STA 10+69 - 55' RT
SIZE I
2 TYPE "B" WHEELCHAIR RAMP 5' SIDEWALK
POLE "F" STA 10+49 - 49' RT
POLE "F" P-9
REMOVE STOP SIGN
NEW 4" WHITE STRIPING

150'
4" DOUBLE YELLOW
Ø 6 NB

Center Line stations of crosswalks for crossing SW 119 Street
9+44 and 10+68
Center Line stations of crosswalks for crossing S Portland Avenue
39.5'L and 45' R
Sidewalk on the SW corner shall tie into the existing sidewalk

The City of
Oklahoma City
Public Works Department
Traffic Management Division

PROJECT NO.
STPG-214B (075)AG

JOB PIECE NO
31566(04)

DESIGNED BY: JAMES R. WELCH
DRAWN BY: TVN
APPROVED BY: 07/15/2015
DATE: 07/15/2015

S. PORTLAND AVE & SW 119th ST
PAVEMENT MARKINGS

REVISION DESCRIPTION	DATE
1 Changed project number on all sheets, from STPG-214D(075)AG, to , STPG-214B(075)AG.	18 Aug 2016

Sta 9+67 - 75' LT
Sta 9+50 - 75' LT
Sta 9+30 - 55' LT
Sta 9+15 - 55' LT
REMOVE EXISTING WHEELCHAIR RAMP
Sta 9+15 - 33' LT
REMOVED STOP SIGN
S. PORTLAND AVE
SW. 119TH ST.
7+00
10+00
REMOVE EXISTING WHEELCHAIR RAMP
Sta 10+50 - 75' LT
Sta 10+50 - 50' LT
(IN FEET)
1 inch = 20 ft
Sta 10+94 - 33' RT
APPROVED ON-SITE SIDEWALK
Sta 9+25 - 50' RT
REMOVE EXISTING WHEELCHAIR RAMP
Sta 9+50 - 75' RT
REMOVE STOP SIGN
Sta 10+75 - 50' RT
Sta 10+50 - 75' RT
Sta 10+94 - 50' RT
Sta 10+33 - 75' RT

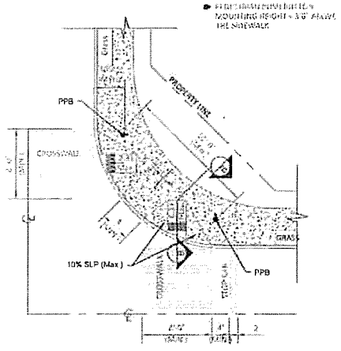
The City of
Oklahoma City
Public Works Department
Traffic Management Division

PROJECT NO.
STPG-214B (075)AG

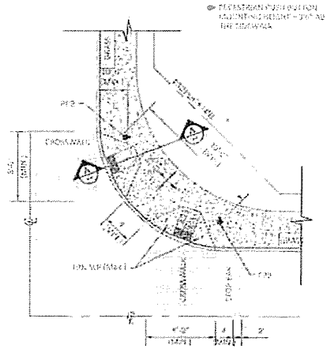
JOB PIECE NO.
31566(04)

DESIGNED BY: JAMES R. WELCH
DRAWN BY: TVN
APPROVED BY: 07/16/2015
DATE: 07/16/2015

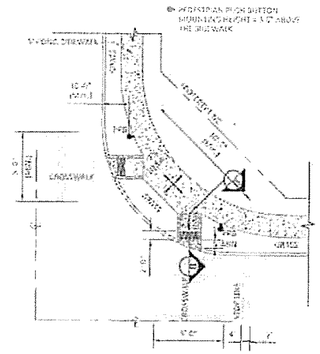
S. PORTLAND AVE & SW 119th ST
RIGHT OF WAY AND DEMOLITION



CURB RAMP
TYPE "A"

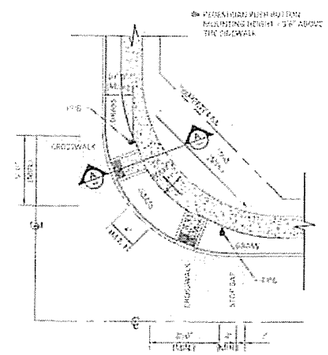


CURB RAMP
TYPE "A-1"

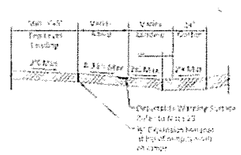


CURB RAMP
TYPE "B"

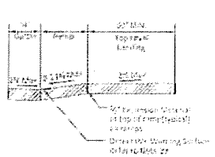
See Detail 1 & 2



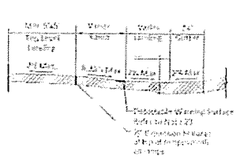
CURB RAMP
TYPE "B-1"



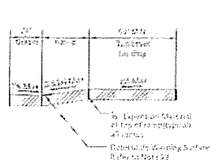
SECTION B-B



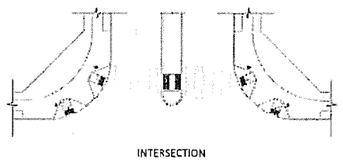
SECTION A-A

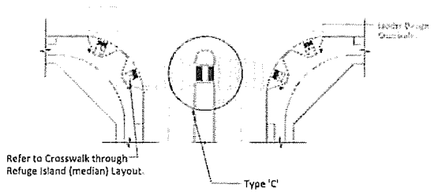


SECTION B-B

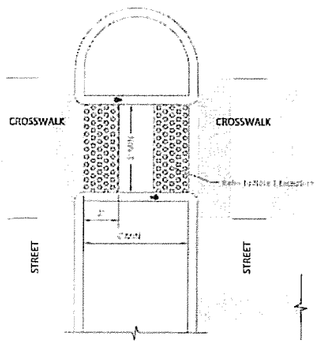


SECTION A-A





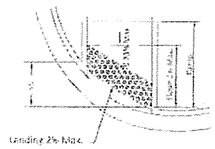
INTERSECTION WITH
REFUGE ISLANDS LAYOUT



STANDARD CROSSWALK THROUGH REFUGE ISLAND (MEDIAN) LAYOUT
TYPE "C"

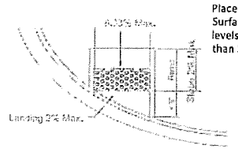
NOTE 1: Exception

Detectable Warning Surface shall not be required on cut through islands where the crossing is controlled by timed signals and is timed for full crossing



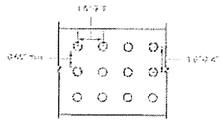
Place Detectable Warning Surface on bottom landing if landing is more than 5' deep at any point.

DETAIL 1

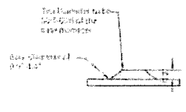


Place Detectable Warning Surface on the bottom if both levels of grade break are less than 5' from back of curb.

DETAIL 2



PLAN
(Enlarged)



ELEVATION
(Enlarged)

DETECTABLE WARNING SURFACE
PATTERN LAYOUT

Detectable Warning Surface Specifications:

- Must provide a Visual Contrast.
- Raised Tactile surfaces used for way finding.
- Detectable Warning Surface shall be installed in a manner such that the domes are parallel to the direction of pedestrian travel.
- Install the Detectable Warning Surface beginning at back of curb.

REVISION DESCRIPTION	DATE
1 Changed project number on all sheets, from STPG-214D(075)AG, to, STPG-214B(075)AG.	18 Aug 2016

The City of
Oklahoma City
Public Works Department
Engineering Division

APPROVED BY: ERIC J. MENGER, P.E. CITY ENGINEER — DATE: 10-14-14
DRAWN: VSC
DATE:

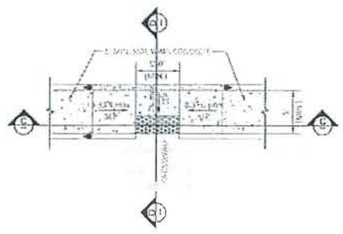
ADA CURB RAMP DETAILS

PROJECT NO. STPG-214B(075)AG 1 JOB PIECE NO. 31566(04)

Drawing Number
D-700
A

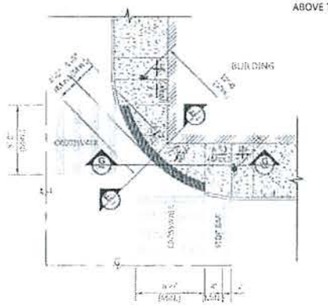
← PEDESTRIAN PUSH BUTTON MOUNTING HEIGHT = 3'6" ABOVE THE SIDEWALK

Curb-Ramp shall be used on narrow sidewalk at mid block locations when standard curb ramp lay-out is not feasible. The 6" curb shall be installed along the edge of the back of sidewalk.



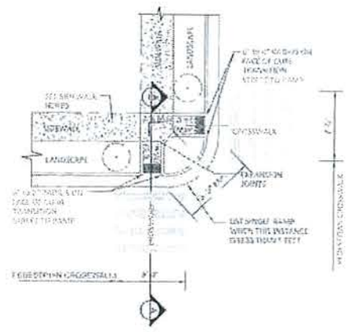
PARALLEL CURB RAMP
TYPE "D"

← PEDESTRIAN PUSH BUTTON MOUNTING HEIGHT = 3'6" ABOVE THE SIDEWALK

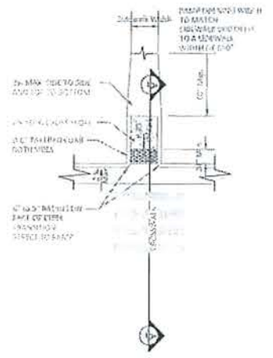


RADIUS CURB RAMP
TYPE "E"
See Detail 3 for Isometric View

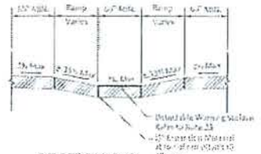
Written approval by the City Engineer is required.



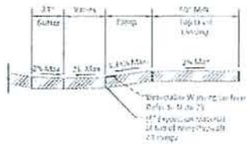
RESIDENTIAL
CURB RAMP
TYPE "F"



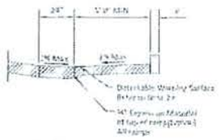
METHOD OF TRANSITIONING A RAMP
WITH DIE OUT CURBS



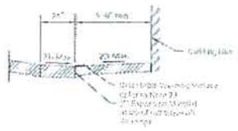
SECTION C-C



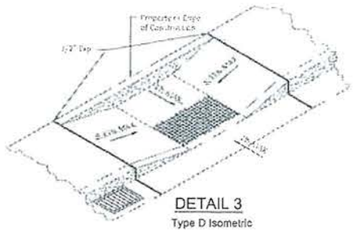
SECTION G-G
TYPE "E"



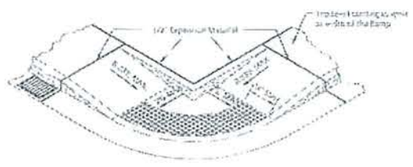
SECTION D-D
See Detail 3 for Isometric View



SECTION E-E
TYPE "E"
See Detail 4 for Isometric View



DETAIL 3
Type D Isometric



DETAIL 4
Type E Isometric

Sidewalk Notes:

1. All work must meet current Americans with Disabilities Act (ADA) requirements.
2. Minimum sidewalk width shall be as follows: residential, 5'-0" at curb, 4'-0" at property line; commercial, 6'-0" at curb, 5'-0" at property line.
3. Sidewalk cross slope shall be a maximum of 2% and a minimum of 1/2% cross slope.
4. Whenever the width of the sidewalk is less than 5'-0", a 5' x 5' passing area with a maximum 2% slope and minimum 1/2% slope in any direction at intervals of 200' shall be installed.
5. Whenever changing direction in a sidewalk, install a 5' x 5' passing area with maximum 2% slope and minimum 1/2% slope in any direction.
6. Objects such as tree branches, signs, water fountains, etc. shall not protrude into the sidewalk more than 4" at the heights between 27" and 80"
7. Sidewalk shall be constructed of 4" thick concrete on top of 2" of 1 1/2" crusher run, ¾" rock screenings, 1 1/2" clean recycled concrete or approved equal.
8. All obstructions into the walk, such as power poles, hydrants, sign posts, etc. must have at least 48" of clear travel space around the obstruction.
9. Sidewalk running grade shall not exceed 5% unless the sidewalk is contained in the R-O-W and then cannot exceed the general grade established for the adjacent street.

General Notes:

10. The non-alternate curb-ramp layout shall be used whenever possible. Any deviation from the standard curb-ramp plans shall be approved by the City Engineer or his designee on a case by case basis.
11. The standard curb-ramp drawings supersede all previous drawings and shall be a part of the new curb ramp standard drawings.
12. All alternate ramps shall be approved by the City Engineer or his designee prior to construction.
13. Seal all joints on sidewalks, landings and ramps. Width of expansion joint shall be ½"

Curb Ramp Notes:

14. A curb ramp is defined as the entire concrete surface which includes the ramp and flared sides. The minimum 4' wide center portion, including the Detectable Warning Surface, shall have a sloped plane of 8.33% (1:12) maximum, and cross slope, not to exceed 2%. The "flared side" of the ramp shall lie on a slope of 10% (1:10) maximum measured along the curb. The curb ramp shall have a surface tolerance of ¼" per 10 foot straight edge maximum.
15. The ramp center line and path of travel should be parallel to the sidewalk whenever possible. The full width of the ramp shall lie within the crosswalk area. It is desirable that the location of the ramp be as close as possible to the center of the crosswalk.
16. Curb Ramps shall not exceed 15' in length.
17. Existing utility boxes and covers shall be adjusted flush with the curb ramp surface and shall not straddle any change in plane or material. Existing utility box frames and covers shall have matching surface finish on the entire frame and cover. New utility boxes shall not be placed within the accessible pathway.
18. The surface of the curb ramp and Detectable Warning Surface material shall be stable, firm and slip resistant. The concrete curb ramp surface shall be broom finished transverse to the axis of the ramp and shall be slightly rougher than the finish of the adjacent sidewalk surface.
19. A level landing 5'-0" deep, with a 2% maximum slope in each direction shall be provided at the upper end of each curb ramp to allow safe egress from the ramp surfaces. The width of the level landing shall be at least as wide as the width of the ramp. A level landing of a minimum of 30" wide x48" deep shall be provided at pedestrian push buttons at signalized crossings.
20. Existing vertical utility poles or street light poles may be incorporated into the flared sides, if necessary. The vertical obstruction shall be a minimum of 6"away from edge of the ramp. Pedestrian crosswalks push button poles, fire department call boxes and other poles with activated devices, may not be placed in the curb-ramp at any time. No new vertical obstructions may be located in the curb ramp or the accessible pathway.
21. Ramp opening shall be the same width as the sidewalk up to 6'-0" wide.
22. Curb Ramp shall be constructed with 8" thick concrete at collector and arterial streets; and with 6" thick concrete at residential streets. All on top of 2" of 1 1/2"crusher run, ⅜" rock screenings, 1 1/2" recycled concrete or approved equal. The 8" or 6" thick concrete will extend a maximum of 8'-8" (maximum) behind the face of curb. The remainder of the ramp will be constructed of 4" thick concrete and paid as sidewalk. All landings and incidental connections will be paid as sidewalk and will be constructed of 4" thick concrete.
23. For new construction all Detectable Warning Surfaces are to be set in concrete. Surface applied domes require special written approval by the City Engineer or his designee

REVISION DESCRIPTION	DATE
1 Changed project number on all sheets, from STPG-214B(075)AG, to , STPG-214B(075)AG.	18 Aug 2016

The City of Oklahoma City
Public Works Department
Engineering Division

APPROVED BY: ERIC J. WEMIGER, P.E. CITY ENGINEER — DATE: 10-14-14
DRAWN: VSC
DATE:

ADA CURB RAMP DETAILS

PROJECT NO. STPG-214B(075)AG △ JOB PIECE NO. 31566(04)

Drawing Number
D-700
B