CONSTRUCTION NOTES: (THIS SHEET)

[1] CONTRACTOR SHALL PROTECT IN PLACE TYPE 332 CABINET & FOUNDATION. REMOVE AND SALVAGE EXISTING 170–ATC ASSEMBLY. CONTRACTOR SHALL FURNISH AND INSTALL MODEL 2070 CONTROLLER ASSEMBLY IN AN EXISITNG TYPE 332 ANODIZED ALUMINUM CABINET.

[2] CONTRACTOR SHALL PROVIDE AND INSTALL AN UNINTERRUPTED POWER SUPPLY (UPS) UNIT PER THE SPECIAL PROVISIONS. THE UPS UNIT AND BATTERIES SHALL BE INSTALLED IN A CABINET, EXTERNALLY MOUNTED TO THE CONTROLLER CABINET.

[3] EXISTING ONE (1) GTT MODEL No. 722 EMERGENCY VEHICLE PRE–EMPTION DETECTOR ASSEMBLY (INCLUDING MOUNTING HARDWARE AND CABLE).

[4] EXISTING POLE TO BE REMOVED & SALVAGED COMPLETE. FOUNDATION TO BE REMOVED AND CONTRACTOR TO DISPOSE.

[5] FURNISH AND INSTALL #6 PULLBOX AS SHOWN.

[6] REMOVE AND RELOCATE SIGNAL FACILITIES AS SHOWN COMPLETE. FOUNDATION TO BE REMOVED AND CONTRACTOR TO DISPOSE.

[7] N/A.

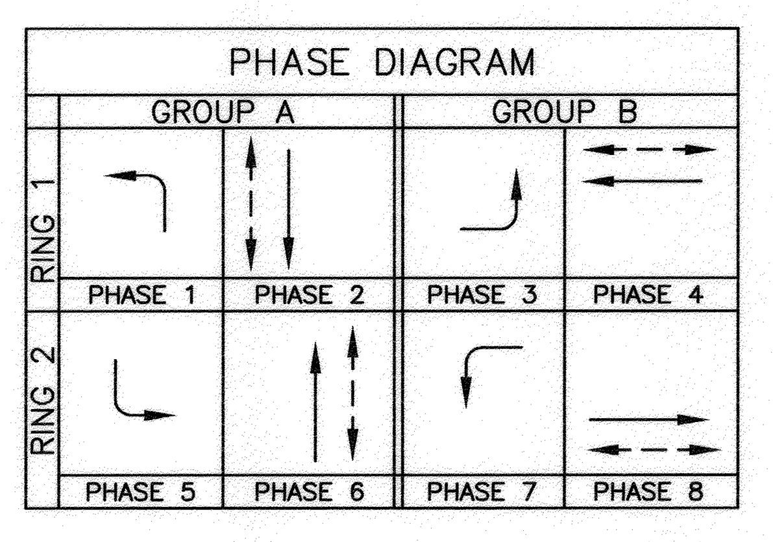
[8] ~~CONTRACTOR SHALL INSTALL 2" CONDUIT, APPROXIMATELY 1,000 LF TO MASSACHUSETTS AVENUE. CONTRACTOR SHALL INSTALL 1 EACH 24 STRAND SINGLE MODE FIBER OPTIC CABLE. COIL 10' OF SLACK IN EACH PULL BOX. PULL BOXES SHALL BE SPACED AT APPROXIMATELY 400'.~~

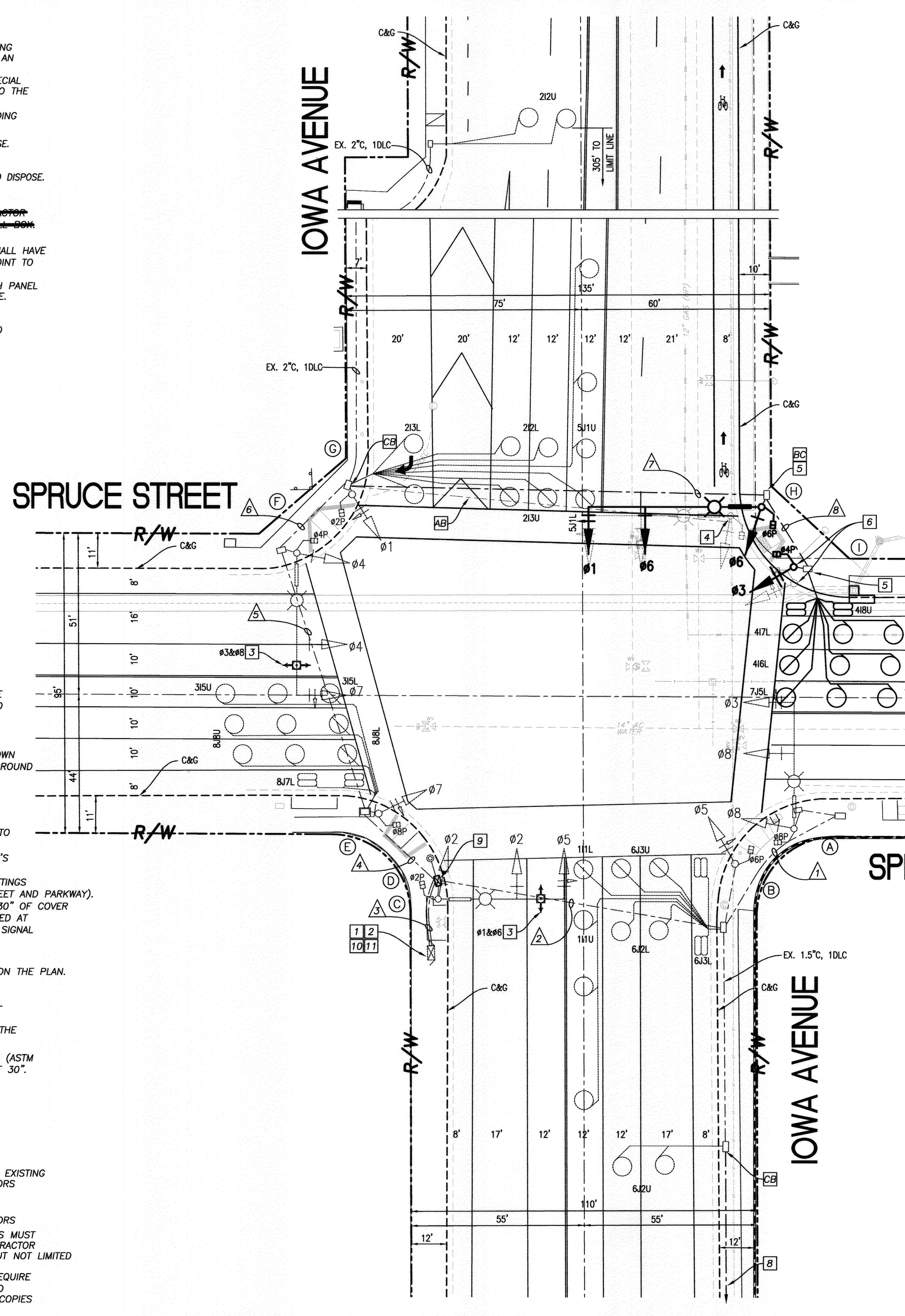
[9] CONTRACTOR SHALL INSTALL NEW P48 VAULT. CONDUITS SHALL BE SIDE ENTRY. FIBER OPTIC CABLES SHALL HAVE 30' OF SLACK AND SHALL BE COILED NEATLY IN THE SIDE OF THE VAULT. REPLACE SIDEWALK PANEL JOINT TO JOINT.

[10] CONTRACTOR SHALL INSTALL A SHELF–MOUNTED FIBER OPTIC DISTRIBUTION UNIT AND FIBER OPTIC PATCH PANEL AT THE CONTROLLER CABINETS OF MARLBOROUGH AVENUE, SPRUCE STREET AND MASSACHUSETTS AVENUE. CONTRACTOR SHALL FURNISH AND INSTALL FIBER OPTIC SWITCHES AND CONNECT CABLES TO PROVIDE A FUNCTIONAL INTERCONNECT SYSTEM.

[11] SPLICE 6–STRAND SINGLE MODE BRANCH CABLES AND INSTALL TO SIGNAL CABINET AT IOWA AVENUE AND MASSACHUSETTS AVENUE.

PHASE DIAGRAM





TRAFFIC SIGNAL GENERAL NOTES:

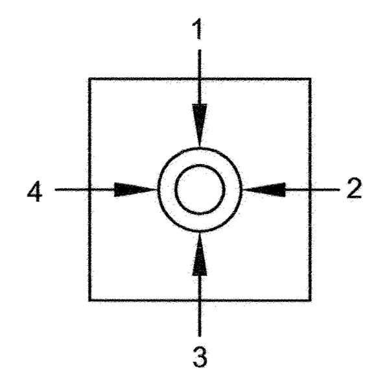
1. ALL ITEMS FURNISHED AND ALL WORK TO BE DONE SHALL CONFORM TO THE REQUIREMENTS OF: THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION (CALTRANS) STANDARD PLANS AND SPECIFICATIONS, DATED 2006; THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES ADOPTED 2014; AND THE SPECIAL PROVISIONS.
2. UTILITIES SHOWN ON THE PLAN ARE CORRECT AND ACCURATE TO THE EXTENT OF AVAILABLE RECORDS. THE CONTRACTOR IS REQUIRED TO TAKE STEPS TO ASCERTAIN THE EXACT LOCATION OF ALL KNOWN SUBSTRUCTURES PRIOR TO DOING WORK THAT MAY DAMAGE OR INTERFERE WITH SUCH FACILITIES ("UNDERGROUND SERVICE ALERT" (800) 227–2600).
3. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS TO NOTIFY ALL AFFECTED AGENCIES AND THE RIVERSIDE UTILITY COMPANIES A MINIMUM OF 48 HOURS PRIOR TO START OF CONSTRUCTION.
4. UNLESS SHOWN OTHERWISE, INDUCTIVE LOOPS SHALL BE MODIFIED TYPE "0" & TYPE "E" WITH 10', 15' AND 30' SPACING IN THE DIRECTION OF TRAVEL. NECESSARY STRIPING SHALL BE LOCATED PRIOR TO POSITIONING LOOPS. LOOPS SHALL BE SEALED WITH HOT MELT SEALANT. SEE DETAIL.
5. CONDUCTOR SCHEDULE IS FURNISHED AS AN INSTALLATION GUIDELINE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE CORRECT CONDUCTORS REQUIRED FOR THE INTENDED OPERATION.
6. CONDUIT BETWEEN ADJOINING PULL BOXES SHALL BE 2" UNLESS SHOWN OTHERWISE. ALL CONDUIT AND FITTINGS SHALL BE RIGID METAL, UNLESS SHOWN OTHERWISE (BURIED IN A MINIMUM OF 30" OF COVER IN THE STREET AND PARKWAY).
7. TRAFFIC SIGNAL INTERCONNECT (SIC) SHALL BE 2" UNLESS SHOWN OTHERWISE, BURIED IN A MINIMUM OF 30" OF COVER IN THE STREET AND PARKWAY. No. 6 PULL BOXES WITH LIDS LABELED "COMMUNICATIONS", SHALL BE SPACED AT 400' AND THE MAXIMUM SIC BENDING RADIUS SHALL NOT EXCEED 45'. SIC CONDUIT SHALL ONLY INCLUDE SIGNAL INTERCONNECT CONDUCTORS.
8. UNDERGROUND SIGNAL CONDUCTORS SHALL NOT BE SPLICED.
9. PULL BOXES SHALL BE No. 6 WITH FIBERLITE LIDS LABELED "TRAFFIC SIGNAL" UNLESS OTHERWISE NOTED ON THE PLAN.
10. PULL BOXES SHALL NOT BE LOCATED IN OR WITHIN I' OF ANY CURB ACCESS RAMP OR DRIVEWAY.
11. THE CONTRACTOR SHALL VERIFY WITH THE ENGINEER THE PRECISE FIELD LOCATIONS OF ALL TRAFFIC SIGNAL EQUIPMENT PRIOR TO THE INSTALLATION.
12. ALL LANDSCAPING WHICH IS DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE CITY AND THE PROPERTY OWNER.
13. NEW MAST ARM MOUNTED SIGN SHALL BE FABRICATED WITH 3M DIAMOND GRADE DG3 REFLECTIVE SHEETING (ASTM TYPE XI) OR APPROVED EQUAL. SIGNS SHALL BE STANDARD SIZE AND HAVE A MINIMUM SIDE DIMENSION OF 30".
14. VEHICLE HEADS SHALL BE 12" LED TYPE. THE HOUSING, BACKPLATES AND VISORS SHALL BE METAL.
15. INTERNALLY ILLUMINATED STREET NAME SIGNS (IISNS) SHALL BE TYPE A. STREET NAME LEGENDS SHALL BE UPPER/LOWER CASE AND SHALL INCLUDE BLOCK NUMBERS AND ROAD NAME SUFFIXES.
16. SALVAGED TRAFFIC SIGNAL EQUIPMENT SHALL BE DELIVERED TO THE CITY OF RIVERSIDE TRAFFIC SIGNAL MAINTENANCE YARD.
17. DAMAGED SIDEWALK CONCRETE SHALL BE REPLACED PER CITY OF RIVERSIDE STANDARD.
18. THE CONTRACTOR SHALL REMOVE ALL UNUSED PULL BOXES AND RE –PAVE SURROUNDING AREA TO MATCH EXISTING OR PROPOSED GRADE. ALL UNUSED CONDUIT SHALL BE ABANDONED AND CAPPED ONCE UNUSED CONDUCTORS ARE REMOVED.
19. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FURNISH AND INSTALL ANY ADDITIONAL LOAD SWITCHES AND/OR DETECTOR CARDS, IF NECESSARY, FOR THE PROPOSED OPERATION. ALL CONTRACTORS
20. ALL CONTRACTORS WORKING ON OR AROUND THE CITY OF RIVERSIDE'S UNDERGROUND ELECTRICAL FACILITIES MUST HAVE THE PROPERLY QUALIFIED PERSONNEL AND EQUIPMENT TO PERFORM THE SPECIFIED WORK. THE CONTRACTOR SWILL BE SOLELY RESPONSIBLE TO ESTABLISH AND MAINTAIN A SAFE WORKING ENVIRONMENT INCLUDING, BUT NOT LIMITED TO WORK AROUND ENERGIZED HIGH VOLTAGE FACILITIES, GAS TESTING OF CONFINED SPACES, TRAFFIC AND PROTECTION. EVERY ENTRY BY ANY PERSONNEL INTO A PUBLIC UTILITIES HIGH VOLTAGE STRUCTURE WILL REQUIRE THE PRESENCE OF A QUALIFIED ELECTRICAL WORKER IN ACCORDANCE WITH Col/OSHA. ALL DEVELOPERS AND CONTRACTORS ARE REQUIRED TO SUBMIT REQUIRED DOCUMENTATION AND FOLLOW REQUIRED PROCEDURES. COPIES OF THE POLICY AND DOCUMENTS MAY BE OBTAINED AT 3901 ORANGE ST. RIVERSIDE, CA OR AT www.RIVERSIOEPUBUCUITILIITIES.COM

POLE SCHEDULE

LOC	STANDARD TYPE	STANDARD HT.	ARMS SIG.	ARMS LUM.	LUMINAIRE (*) LED	PED PUSH BT. TYPE	PED PUSH BT. PHASE	PED PUSH BT. QUAD	SIGNAL MOUNTING VEHICLE	SIGNAL MOUNTING APS COUNTDOWN PED.	R.S.N.S. MESSAGE		PLACEMENT A	PLACEMENT B
A	26–4–129(80)	30'	40'	12'	400W (N)	B	6	(N)4	2 MAS, SV–1–T	SP–1–T	Iowa	Ave 2800	EX	EX
B	1A	10'	–	–	–	B	8	(N)1	TV–1–T	SP–1–T	–		EX	EX
C	26S–A	35'	40'	15'	400W (N)	B	–	–	2 MAS, SV–1–T	SP–1–T	Spruce	St. 1300	EX	EX
D	PED POST	3'–10"	–	–	–	B	8	(N)1	–	–			EX	EX
E	1A	10'	–	–	–	B	2	(N)2	TV–1–T	SP–1–T	–		EX	EX
F	26–4–161	30'	45'	15'	400W (N)	B	2	(N)2	2 MAS, SV–1–T	SP–1–T	Iowa Av	Ave 2900	EX	EX
G	1A	10'	–	–	–	B	4	(N)3	TV–1–T	SP–1–T	–		EX	EX
H	29–5–100(N)	30'(N)	55'(N)	15'(N)	400W (N)	B	4	(N)3	(N)2 MAS, SV–1–T	SP–1–T(N)	Spruce	St. 1200	6'	6'
I	1A	10'	–	–	–	B	6	(N)4	TV–1–T	SP–1–T	–		18'	4'

EXACT POLE LOCATIONS DETERMINED BY ENGINEER IN THE FIELD.
POTHOLE POLE FOUNDATION LOCATIONS PRIOR TO ORDERING POLES.
(N) = NEW
* = 400W LED EQUIVALENT

1.)PED PUSH BUTTONS SHALL BE 2–WIRE ACCESSIBLE PEDESTRIAN SIGNALS (APS) PER CITY SPECIFICATIONS.

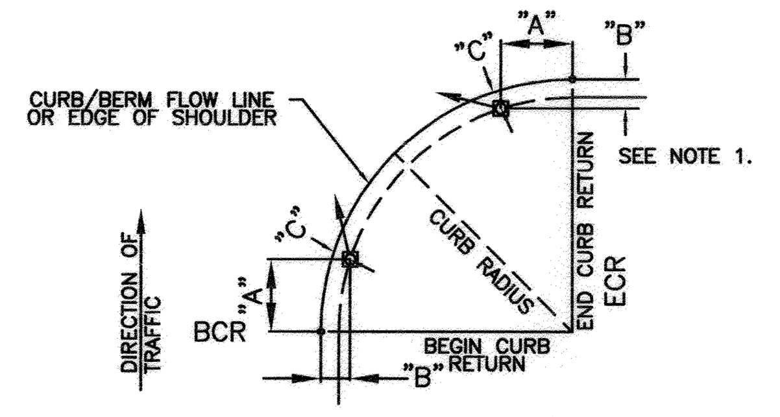


QUADRANT
PUSH BUTTON LOCATION
(TOP VIEW)

CONDUCTOR SCHEDULE

A.W.G. OR CABLE TYPE		(E) 1	(E) 2	(E) 3	(E) 4	(E) 5	(E) 6	(N) 7	(N) 8
CONDUCTOR CABLE 12 / CONDUCTOR CABLE 3	POLE A	1/1	1/1	1/1	–/–	–/–	–/–	–/–	–/–
	POLE B	–/–	1/1	1/1	–/–	–/–	–/–	–/–	–/–
	POLE C	–/–	–/–	1/–	–/–	–/–	–/–	–/–	–/–
	POLE D	–/–	–/–	–/1	–/–	–/–	–/–	–/–	–/–
	POLE E	–/–	–/–	1/1	1/1	–/–	–/–	–/–	–/–
	POLE F	–/–	–/–	1/1	1/1	1/1	1/1	1/1	–/–
	POLE G	–/–	–/–	1/1	1/1	1/1	1/1	1/1	–/–
	POLE H	–/–	–/–	1/1	1/1	1/1	1/1	1/1	–/–
	POLE I	–/–	–/–	1(N)/1(N)	1(N)/1(N)	1(N)/1(N)	1(N)/1(N)	1(N)/1(N)	1(N)/1(N)
TOTAL CABLES 3/12		1/1	2/2	8/8	5/5	4/4	3/3	2/2	1/1
OPTICOM CABLE #138		–	–	4	2	2	–	–	–
#12	I.I.S.N.S.	2	2	2	2	2	2	2	–
10	LUMINAIRE	2	2	2	2	2	2	2	–
TYPE "B" DLC	ø1 DETECTOR	–	2	2	–	–	–	–	–
	ø2 DETECTOR	–	–	4	4	4	4	–	–
	ø3 DETECTOR	–	–	2	2	–	–	–	–
	ø4 DETECTOR	–/	–/	3/2(N)	3/2(N)	3/2(N)	3/2(N)	3/2(N)	3/2(N)
	ø5 DETECTOR	–	–	2	2	2	2	–	–
	ø6 DETECTOR	–	4	4	–	–	–	–	–
	ø7 DETECTOR	–	–	2	2	2	2	2	2
	ø8 DETECTOR	–	–	3	3	–	–	–	–
	TOTAL	–	6	24	18	13	13	7	7
CONDUIT SIZE (INCH)		2"	2.5"	2–3"	3.5"	3.5"	3.5"	3.5"	2"(N)

ALL CONDUCTORS AND CONDUITS ARE EXISTING UNLESS SHOWN (N) = NEW.



TYPICAL SIGNAL POLE PLACEMENT UNLESS DIMENSIONED ON PLANS
SIGNAL STANDARD PLACEMENT DIMENSIONS & EQUIPMENT LOCATIONS

NOTE:
1. FOR "A", "B", AND "C" DIMENSIONS, SEE POLE SCHEDULE, OR AS DIRECTED BY THE ENGINEER.

SCALE: 1" = 20'
0 10 20 40 80 120

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Prescott Sato 1/30/17 6/30/18
PRESCOTT SATO R.C.E. NO. 60277 — DATE — EXP. DATE

REGISTERED PROFESSIONAL ENGINEER — PRESCOTT SATO — No. 60277 — Exp 6/30/18 — CIVIL — STATE OF CALIFORNIA

MARK	REVISIONS	APPR.	DATE

DESIGNED BY Blaine DRAWN BY Blaine CHECKED BY Scott

CITY OF RIVERSIDE, CALIFORNIA
PUBLIC WORKS DEPARTMENT

APPROVED BY	BY	DATE
PRINCIPAL ENGINEER	Fm	2/9/17
CONST. CONTRACT ADMIN.	SH	2/28/17
SURVEYOR		
TRAFFIC DIVISION	G.H.	2-8-17
ENGINEERING MNGR		

APPROVED BY
CITY ENGINEER
DATE 3/1/17

SPRUCE STREET AT IOWA AVENUE
TRAFFIC SIGNAL MODIFICATION PLAN
HORIZONTAL SCALE: 1" = 20'

ACCT. NO.
X-443B
SHEET 1 OF 1