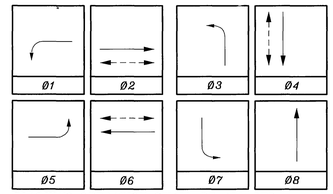
CONDUCTOR TABLE

CONTROL FUNCTION	CONDUCTORS	CONDUCTOR RUNS 1	2	3	4	5	6	7	8
VEHICLE & PEDESTRIAN HEADS, PEDESTRIAN PUSH BUTTONS, SPARES & COMMONS	12CSC	1	2	3	4	9	1	3	1
	3CSC	–	1	2	3	6	1	1	1
		–	–	–	–	–	–	–	–
		–	–	–	–	–	–	–	–
DETECTOR CABLE	#16/2	–	–	–	–	–	–	–	–
PHASE 1		–	–	–	–	1	–	1	–
PHASE 2		–	–	–	2	2	–	–	–
PHASE 3		–	2	2	2	2	–	–	–
PHASE 4		–	–	–	–	2	2	–	–
PHASE 5		–	–	–	2	2	–	–	–
PHASE 6		–	–	–	–	3	–	3	–
PHASE 7		–	–	–	–	1	1	–	–
PHASE 8		–	1	1	1	1	–	–	–
TOTALS		–	2	2	6	13	3	4	–
INTERCONNECT CABLE	6PR. #19	1	1	1	1	1	–	–	–
RR PRE-EMPT	3CSC	1	1	1	1	1	–	–	–
I.I.S.N.S.	#12	–	–	2	2	–	–	2	–
LUMINAIRES	#8	2	2	2	2	–	–	2	–
SIGNAL SERVICE	#6	–	–	–	–	2	–	–	–
CONDUIT SIZE		2" (E)	3" (N)	3" (N)	3.5" (N)	2-3" (N)	2" (E)	3" (N)	2" (N)

(E)=EXISTING (N)=NEW

NOTE:
SIGNAL SYSTEM SHALL HAVE NEW CSC CABLES AND NEW CONDUCTORS.

PHASE DIAGRAM



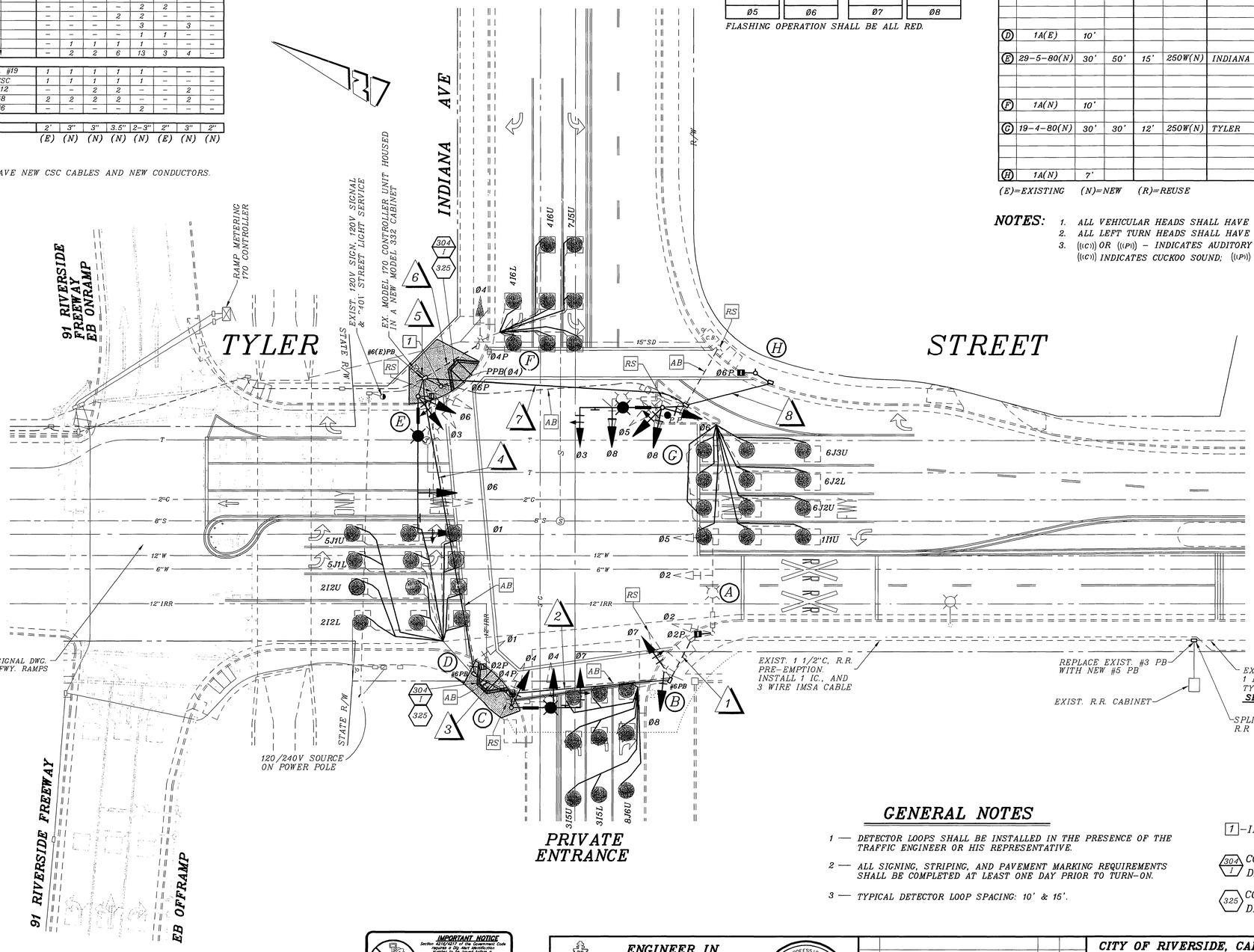
FLASHING OPERATION SHALL BE ALL RED.

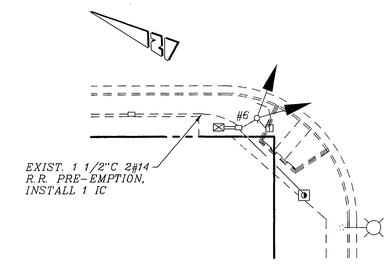
EQUIPMENT SCHEDULE

NO.	SIGNAL STANDARD TYPE	H'GHT	M.A.	LUMINAIRE L.A.	H.P.S.V.	I.I.S.N.S. LEGEND	VEHICLE	PEDESTRIAN	AUDIBLE	PPB PHASE	REMARKS
(A)	24A-4-80(E)	35'	35'(E)	15'(E)	400W(E)	← INDIANA AVE 10200 (E)	MAS(E)				
							MAS(E)				
							SV-1-T(E)	SP-1-T(N)	((ıcı)) (N)		
(B)	1A(N)	10'					TV-2-T(N)			2(N)	
(C)	19-4-80(N)	30'	25'	12'	250W(N)	TYLER ST 3400 (R)	MAS(N)				
							MAS(N)				
							SV-1-T(N)	SP-1-T(N)	((ıPı)) (N)	2(N)	
(D)	1A(E)	10'					TV-1-T(E)	SP-1-T(N)	((ıcı)) (N)	4(N)	
(E)	29-5-80(N)	30'	50'	15'	250W(N)	INDIANA AVE 10200 → (R)	MAS(N)				PPB-SEE CONST. NOTE 1
							MAS(N)				
							SV-2-TB(N)	SP-1-T(N)	((ıcı)) (N)		
(F)	1A(N)	10'					TV-1-T(N)	SP-1-T(N)	((ıPı)) (N)	6(N)	
(G)	19-4-80(N)	30'	30'	12'	250W(N)	TYLER ST 3300 (N)	MAS(N)				
							MAS(N)				
							SV-3-TB(N)				
(H)	1A(N)	7'						TP-1-T(N)	((ıcı)) (N)	6(N)	

(E)=EXISTING (N)=NEW (R)=REUSE

NOTES:
1. ALL VEHICULAR HEADS SHALL HAVE 12" LENSES.
2. ALL LEFT TURN HEADS SHALL HAVE ALL ARROWS.
3. ((ıcı)) OR ((ıPı)) – INDICATES AUDITORY PEDESTRIAN SIGNAL TO BE INSTALLED, ((ıcı)) INDICATES CUCKOO SOUND; ((ıPı)) INDICATES PEEP-PEEP SOUND.





DETAIL -"A"
TYLER ST. & INDIANA AV.(SOUTH) NW CORNER

GENERAL NOTES

1 — DETECTOR LOOPS SHALL BE INSTALLED IN THE PRESENCE OF THE TRAFFIC ENGINEER OR HIS REPRESENTATIVE.

2 — ALL SIGNING, STRIPING, AND PAVEMENT MARKING REQUIREMENTS SHALL BE COMPLETED AT LEAST ONE DAY PRIOR TO TURN-ON.

3 — TYPICAL DETECTOR LOOP SPACING: 10' & 15'.

CONSTRUCTION NOTES

1 – INSTALL NEW PED. PUSH BUTTON (Ø4P) AND POST.

304/1 CONSTRUCT WHEELCHAIR RAMP PER CITY OF RIVERSIDE STANDARD DRAWING NO. 304, TYPE I.

325 CONSTRUCT P.C.C. SIDEWALK PER CITY OF RIVERSIDE STANDARD DRAWING NO. 325.

CONTRACT TE-04-01

IMPORTANT NOTICE
Section 4216/4217 of the Government Code requires a dig alert identification number to be issued before a "Permit" to excavate will be valid. For more information, or to obtain one CALL TOLL FREE
TWO WORKING DAYS BEFORE YOU DIG
UNDERGROUND SERVICE ALERT
1-800-227-2600

ENGINEER IN RESPONSIBLE CHARGE
THOMAS JOHN BOYD
R.C.E. No. 36170
DATE 7/22/04

REGISTERED PROFESSIONAL ENGINEER THOMAS JOHN BOYD No. C 36170 Exp. 6-30-2006 CIVIL STATE OF CALIFORNIA

MARK	REVISIONS	APPR.	DATE

DESIGNED BY R.C.C. DRAWN BY R.C.C. CHECKED BY

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY	BY	DATE
PRINCIPAL ENGINEER		7/21/04
TRAFFIC DIVISION		7/21/04

APPROVED BY
CITY ENGINEER
DATE

TRAFFIC SIGNAL MODIFICATION

TYLER STREET AT INDIANA AVENUE

SCALE: 1" = 20'

ACCT. NO. 9756433214-44030200

X-321A

SHEET 1 OF 1

FILE NAME: X320A-1.DWG

CONDUCTOR TABLE									
AWG	CIRCUIT	RUNS 1	2	3	4	5	6		
#14	Ø 1	3	3	3	3	3	6		
	Ø 2	–	–	–	3	–	6		
	Ø 4	–	3	3	3	3	6		
	Ø 5 (Fut.)								
	Ø 6	3	3	3	3		3		
	Ø 2 PED					2	6		
	Ø 4 PED		2	2	2	2	4		
	Ø 6 PED	2	2	2	2		2		
	Ø 2 PPB					1	2		
	Ø 4 PPB	1	1	1	2	1	4		
	Ø 6 PPB		1	2	2		2		
	SPARES	3	3	3	3	3	6		
	TOTAL	12	18	19	23	15	47		
#12	PPB COMMON	1	1	1	1	1	2		
	I.S.N.S.	2	2	2	2	2	2		
	TOTAL	3	3	3	3	3	4		
2-#12 CABLE	Ø 1 DETECTOR	–	–	–	1		2		
	Ø 2 DETECTOR	–				4	4		
	Ø 4		1	1	1		2		
	Ø 5 (Fut.)								
	Ø 6				2		2		
	TOTAL CABLES	–	1	1	4	4	10		
#8	LUMINAIRE	2	2	2	2	2	2		
#10	SIGNAL COMMON	1	1	1	1	1	2		
#14	PRE-EMPTION	2	2	2	2		2		
CONDUIT SIZE		2"	2 1/2"	2 1/2"	3"	2 1/2"	2-2 1/2"		

SENSOR TABLE	
SENSOR	LOOP DETECTORS
1	1-N-1
2	2-N-6
3	3-N-6
4	1-S-2
5	2-S-2
6	1-E-4 *
7	1-W-4 *
8	2-E-1 *

* = SENSOR SHALL HAVE A SEPARATE OR INTEGRAL MIN. 0-30 SECOND ADJUSTABLE DELAY TIMER

DETECTOR PLACEMENT

POLE SCHEDULE												
	STANDARD				LUMINAIRE	I.S.N.S. LEGEND	SIGNAL MTG.		PED. PUSH BTN.		REMARKS
No.	TYPE	HEIGHT	SIG.M.A.	LUM.M.A.			VEHICLE	PED	TYPE	PHASE	
A	19A-4-70	35'	30'	15'	400W.H.P.S.V.	Indiana Ave. 10200	MAS	SV-2-TD	SP-2-T	B	4	INSTALL TYPE I C.E. CONTROL FOR I.S.N.S. CIRCUIT SWITCHING
B	17A-2-70	35'	20'	15'	400W.H.P.S.V.	Tyler St. 3300	MAS	SV-2-TA	SP-1-T	B	2	
C	19A-2-70	35'	30'	15'	400W.H.P.S.V.	◀ Indiana Ave. 10200	MAS (2)	SV-1-T	SP-1-T	–	–	MAS = PROG. VISIBILITY HEAD
D	1-A	10'	–	–	–	–	–	TV-1-T	–	B	6	12" VEHICULAR INDICATION
E	17A-2-70	35'	15'	15'	250 W.H.P.S.V.	Tyler Ave. 3400	MAS	SV-1-T	SP-1-T	B	6	5 SECTION, R, Gr., Y, Gr. & Y ARROWS
F	1-A	10'	–	–	–	–	–	TV-1-T	SP-1-T	B	4	
G	26-3-70	30'	45'	15'								SEE NOTE AT LOCATION G

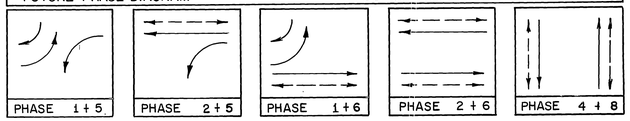
I.S.N.S. = ILLUMINATED STREET NAME SIGN
ARROW SHOWN FOR I.S.N.S. LOCATION (3) SHALL BE ON FRONT SIDE ONLY.
TYPE 1-A 10' POLES ARE TO BE ALUMINUM.

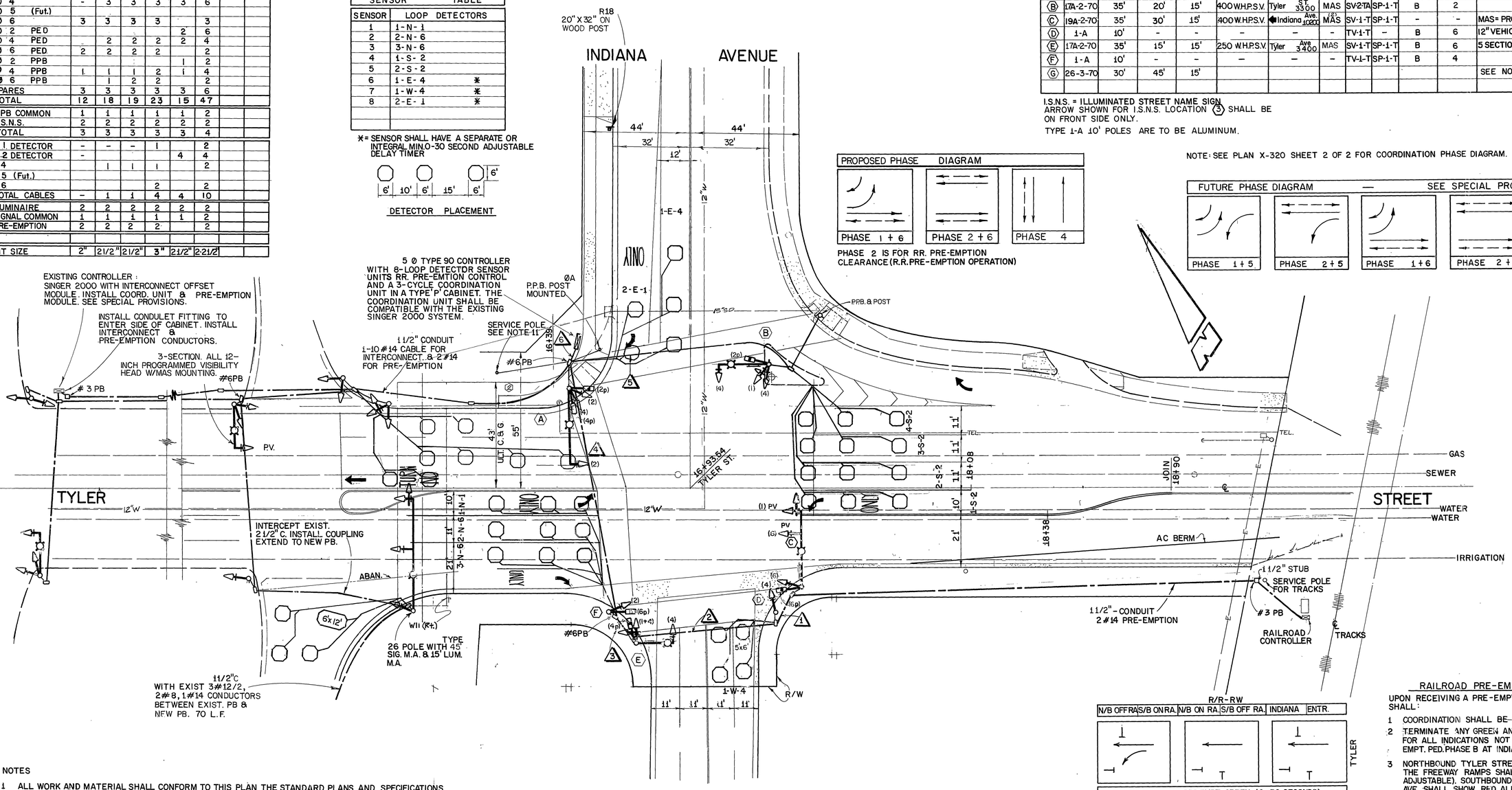
NOTE: SEE PLAN X-320 SHEET 2 OF 2 FOR COORDINATION PHASE DIAGRAM.

PROPOSED PHASE DIAGRAM

PHASE 2 IS FOR RR. PRE-EMPTION CLEARANCE (R.R. PRE-EMPTION OPERATION)

FUTURE PHASE DIAGRAM — SEE SPECIAL PROVISIONS





PHASE DIAGRAM - PRE EMPT GREEN (0-30 SECONDS)

RAILROAD PRE-EMPTION OPERATION

UPON RECEIVING A PRE-EMPTION CALL THE CONTROLLERS SHALL:

1 COORDINATION SHALL BE LIFTED.

2 TERMINATE ANY GREEN AND DISPLAY YELLOW CLEARANCE FOR ALL INDICATIONS NOT ASSOC WITH THE GREEN PRE-EMPT. PED. PHASE B AT INDIANA SHALL BE TURNED OFF.

3 NORTHBOUND TYLER STREET AT INDIANA AVE. AND THE FREEWAY RAMPS SHALL DISPLAY GREEN (0-30 SECS. ADJUSTABLE). SOUTHBOUND TYLER STREET AT INDIANA AVE. SHALL SHOW RED. ALL OTHER INDICATIONS NOT ASSOCIATED WITH THE GREEN PRE-EMPT SHALL ALSO SHOW RED.

4 FOLLOWING THE PRE-EMPTED GREEN ALL PHASE INDICATIONS (INDIANA & FREEWAY INTERSECTIONS) SHALL FLASH RED.

5 AT THE TERMINATION OF THE PRE-EMPTION THE CONTROLLERS SHALL RESUME NORMAL OPERATION IN PHASE C (PLAN X-320), *PHASE A (PLAN X-321)*

6 COORDINATION SHALL RESUME

NOTES

1 ALL WORK AND MATERIAL SHALL CONFORM TO THIS PLAN THE STANDARD PLANS AND SPECIFICATIONS OF THE CALIFORNIA DEPARTMENT OF TRANSPORTATION AND THE SPECIAL PROVISIONS FOR THIS PROJECT. USE STANDARD PLANS DATED MARCH 1977 AND SPECIFICATIONS DATED JANUARY 1978

2 PULL BOXES SHALL BE No. 5 UNLESS NOTED OTHERWISE.

3 CONDUIT SHALL BE 2" UNLESS NOTED OTHERWISE.

4 FLASHING INDICATIONS SHALL FLASH RED ON ALL PHASES.

5 SIGNAL & LIGHTING SERVICE PER STD. DWGS 612 & 669.

MPA MOHLE, PERRY & ASSOC.

PREPARED BY: R. Henry Mohle Jan. 31, 1979
DESIGN ENGR. R.C.E. 10692 DATE

MARK	REVISIONS	APPR.	DATE
	(R-26/R) STREET IMPROV. S/E CORNER PHL. AS-BUILT PRE SIGNALIZATION TE-793		9-1-87
2	REVISED CONTROLLER CABINET LOCATION		2-1-80
1	Revised conductor schedule & phasing		2-1-80

DESIGNED BY JJS DRAWN BY L.A.T. CHECKED BY R.H.M.

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY	BY	DATE
PRINCIPAL ENGINEER		4/18
~~PARK DEPARTMENT~~		
TRAFFIC DIVISION		4/18/79
CHIEF P. W. ENGR.		10-5
PUB. UTILITIES		4-18-79

APPROVED BY Robert P. Wilson
DIRECTOR OF PUBLIC WORKS
DATE 4/19/79

TRAFFIC SIGNAL PLAN TYLER AVE. AT INDIANA AVENUE

HORIZ. SCALE: 1" = 20' VERT. SCALE: 1" = 20'

ACCT. NO. 30-576-397-07

X-321

SHEET 1 OF 1

FILE NO.

CONDUCTOR TABLE									
AWG	CIRCUIT	RUNS 1	2	3	4	5	6	10	9
#14	Ø 1	3	3	3	3	3	6		
	Ø 2	-	-	-	3	-	6		
	Ø 4	-	3	3	3	3	6		
	Ø 5 (Fut.)								
	Ø 6	3	3	3	3	1	3		
	Ø 2 PED					2	6		
	Ø 4 PED		2	2	2	2	4		
	Ø 6 PED	2	2	2	2		2		
	Ø 2 PPB					1	3		
	Ø 4 PPB	1	1	1	2	1	4		
	Ø 6 PPB		1	2	2		2		
	SPARES	3	3	3	3	3	6		
	TOTAL	12	18	19	23	16	48		
#12	PPB COMMON	1	1	1	1	1	2		
	I.S.N.S.	2	2	2	2	2	2		
	TOTAL	3	3	3	3	3	4		
2-#12 CABLE	Ø 1 DETECTOR	-	-	-	1		2		
	Ø 2 DETECTOR	-				4	4		
	Ø 4		1	1	1		2		
	Ø 5 (Fut.)								
	Ø 6				2		2		
	TOTAL CABLES	-	1	1	4	4	10		
#8	LUMINAIRE	2	2	2	2	2	2		
#10	SIGNAL COMMON	1	1	1	1	1	2		
#14	PRE-EMPTION	2	2	2	2		2		
#18/10	INTERCONNECT CABLE						1	1	
CONDUIT SIZE		2" (EXIST)	2 1/2" (EXIST)	2 1/2" (EXIST)	3" (EXIST)	2 1/2" (EXIST)	2-2 1/2" (EXIST)	1 1/2" (EXIST)	2" (NEW)

EXISTING SENSOR TABLE		
SENSOR	LOOP DETECTORS	
1	1-N-1	
2	2-N-6	
3	3-N-6	
4	1-S-2	
5	2-S-2	
6	1-E-4	*
7	1-W-4	*
8	2-E-1	*

*= SENSOR WITH INTEGRAL MIN. 0-30 SECOND ADJUSTABLE DELAY TIMER.

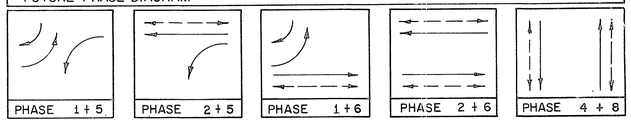
PROPOSED DETECTOR PLACEMENT

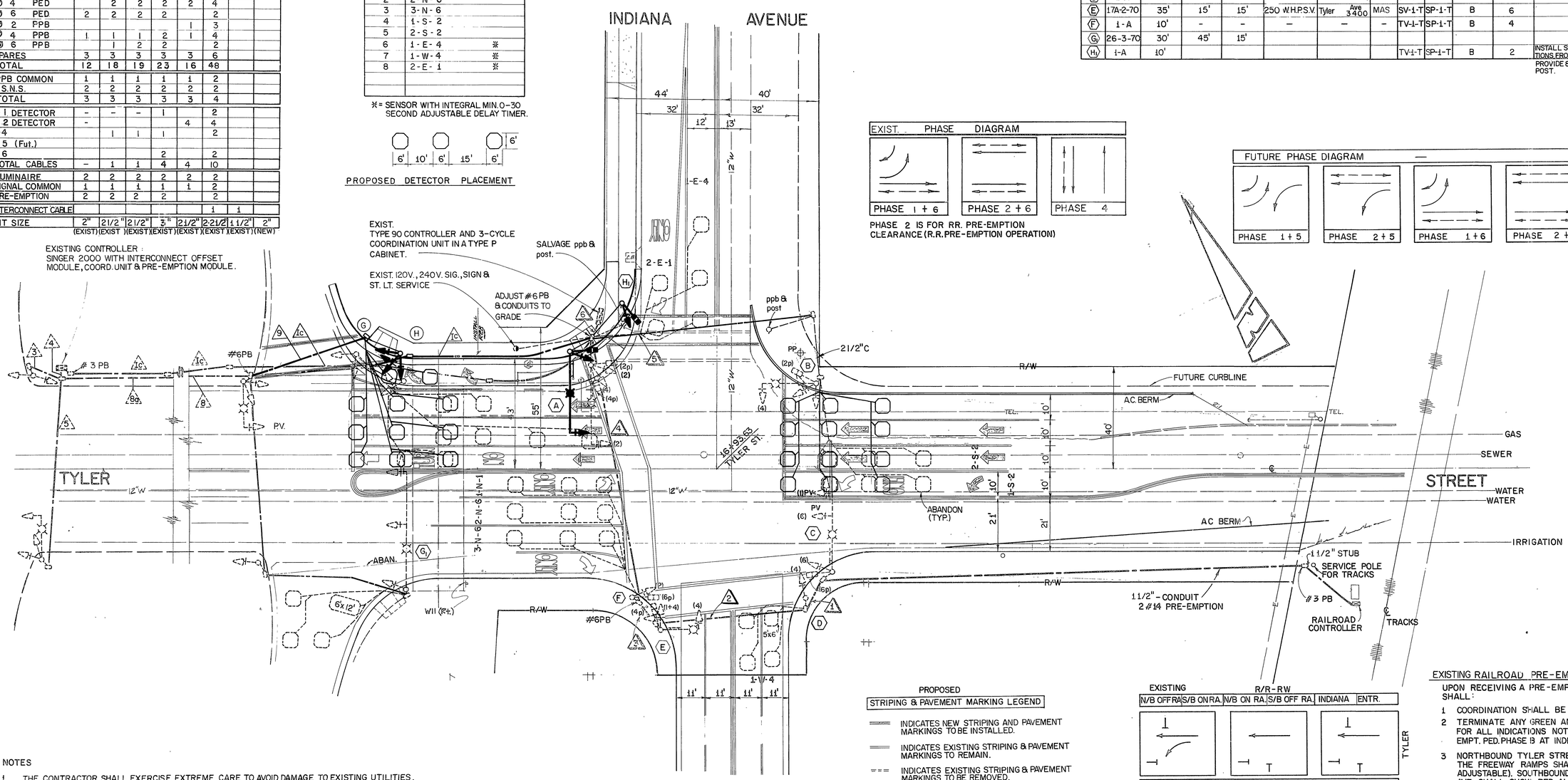
POLE SCHEDULE											
	STANDARD				LUMINAIRE	I.S.N.S. LEGEND	SIGNAL MTG.		PED. PUSH BTN.		REMARKS
No.	TYPE	HEIGHT	SIG.M.A.	LUM.M.A.			VEHICLE	PED	TYPE	PHASE	
A	19A-4-70	35'	30'	15'	400W.H.P.S.V.	Indiana Ave. 10000	MAS	SV-1-T	SP-1-T	B	4	RELOCATE STD. & EQUIP. AS INDICATED. MODIFY FRAMEWORK.
B	17A-2-70	35'	20'	15'	400W.H.P.S.V.	Tyler 3300	MAS	SV-2-TA	SP-1-T			
C	19A-2-70	35'	30'	15'	400W.H.P.S.V.	Indiana Ave. 10000	MAS (EX)	SV-1-T	SP-1-T	-	-	
D	1-A	10'	-	-	-	-	-	TV-1-T	-	B	6	
E	17A-2-70	35'	15'	15'	250 W.H.P.S.V.	Tyler Ave 3400	MAS	SV-1-T	SP-1-T	B	6	
F	1-A	10'	-	-	-	-	-	TV-1-T	SP-1-T	B	4	
G	26-3-70	30'	45'	15'								
H1	1-A	10'						TV-1-T	SP-1-T	B	2	INSTALL STD. FROM LOC. G. INSTALL INDICATIONS FROM LOC. A. MODIFY FRAMEWORK. PROVIDE & INSTALL PPB. SALVAGE PPB. & POST.

EXIST. PHASE DIAGRAM

PHASE 2 IS FOR RR. PRE-EMPTION CLEARANCE (R.R. PRE-EMPTION OPERATION)

FUTURE PHASE DIAGRAM





EXISTING R/R-R/W

N/B OFF RA.	S/B ON RA.	N/B ON RA.	S/B OFF RA.	INDIANA	ENTR.

PHASE DIAGRAM - PRE EMPT GREEN (0-30 SECONDS)

PROPOSED STRIPING & PAVEMENT MARKING LEGEND

- INDICATES NEW STRIPING AND PAVEMENT MARKINGS TO BE INSTALLED.
- INDICATES EXISTING STRIPING & PAVEMENT MARKINGS TO REMAIN.
- INDICATES EXISTING STRIPING & PAVEMENT MARKINGS TO BE REMOVED.

STRIPING QUANTITIES

REMOVALS:
140 S.F.
INSTALLATION:
536 S.F. PAVEMENT MARKINGS
18 L.F. DOUBLE YELLOW
375 L.F. 8" BARRIER STRIPE
64 L.F. 4" DASHED WHITE

EXISTING RAILROAD PRE-EMPTION OPERATION

UPON RECEIVING A PRE-EMPTION CALL THE CONTROLLERS SHALL:

1 COORDINATION SHALL BE LIFTED.
2 TERMINATE ANY GREEN AND DISPLAY YELLOW CLEARANCE FOR ALL INDICATIONS NOT ASSOC. WITH THE GREEN PRE-EMPT. PED. PHASE B AT INDIANA SHALL BE TURNED OFF.
3 NORTHBOUND TYLER STREET AT INDIANA AVE. AND THE FREEWAY RAMPS SHALL DISPLAY GREEN (0-30 SECS. ADJUSTABLE). SOUTHBOUND TYLER STREET AT INDIANA AVE. SHALL SHOW RED. ALL OTHER INDICATIONS NOT ASSOCIATED WITH THE GREEN PRE-EMPT. SHALL ALSO SHOW RED.
4 FOLLOWING THE PRE-EMPTED GREEN ALL PHASE INDICATIONS (INDIANA & FREEWAY INTERSECTIONS) SHALL FLASH RED.
5 AT THE TERMINATION OF THE PRE-EMPTION THE CONTROLLERS SHALL RESUME NORMAL OPERATION IN PHASE C (PLAN X-320), *PHASE A (PLAN X-321).*
6 COORDINATION SHALL RESUME.

NOTES

1 THE CONTRACTOR SHALL EXERCISE EXTREME CARE TO AVOID DAMAGE TO EXISTING UTILITIES.
2 STRIPING SHALL BE DONE BY THE CONTRACTOR.
3 FOR STREET IMPROVEMENTS SEE PLAN R-2486
4. REUSE EXISTING CONDUCTORS UNLESS OTHERWISE NOTED.
5. INSTALL ADDITIONAL PHASE 2 DETECTOR CABLE; 3 EXISTING.
6 LOCATION (H) INSTALL CONDUIT AND NEW CONDUCTORS FROM CONTROLLER CABINET TO POLE.
7 SEE PLAN X-320, SHEET 2, FOR EXISTING CONDUCTORS IN NEW RUN (9)
8 FOR WORK AT LOCATIONS (G) AND (H) SEE PLAN X-320, SHEET 2.

REF DWGS. R-1793, R-2486

MPA MOHLE, PERRY & ASSOC.

PREPARED BY: R. Mohle Jan. 31, 1979
DESIGN ENGR. R.C.E. 10692 DATE

MARK	REVISIONS	APPR.	DATE

DESIGNED BY ____ DRAWN BY ____ CHECKED BY ____

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY	BY	DATE
PRINCIPAL ENGINEER		
TRAFFIC DIVISION		
CHIEF F. W. ENGR.		
FOR. OPERTS		

APPROVED BY
DIRECTOR OF PUBLIC WORKS
DATE

TRAFFIC SIGNAL REVISIONS

TYLER AVE. AT INDIANA AVENUE

HORIZ. SCALE: 1" = 20' VERT. SCALE: 1" = 20'

ACCT. NO. 30-575-399-07

X-321

SHEET 1 OF 1

FILE NO.