

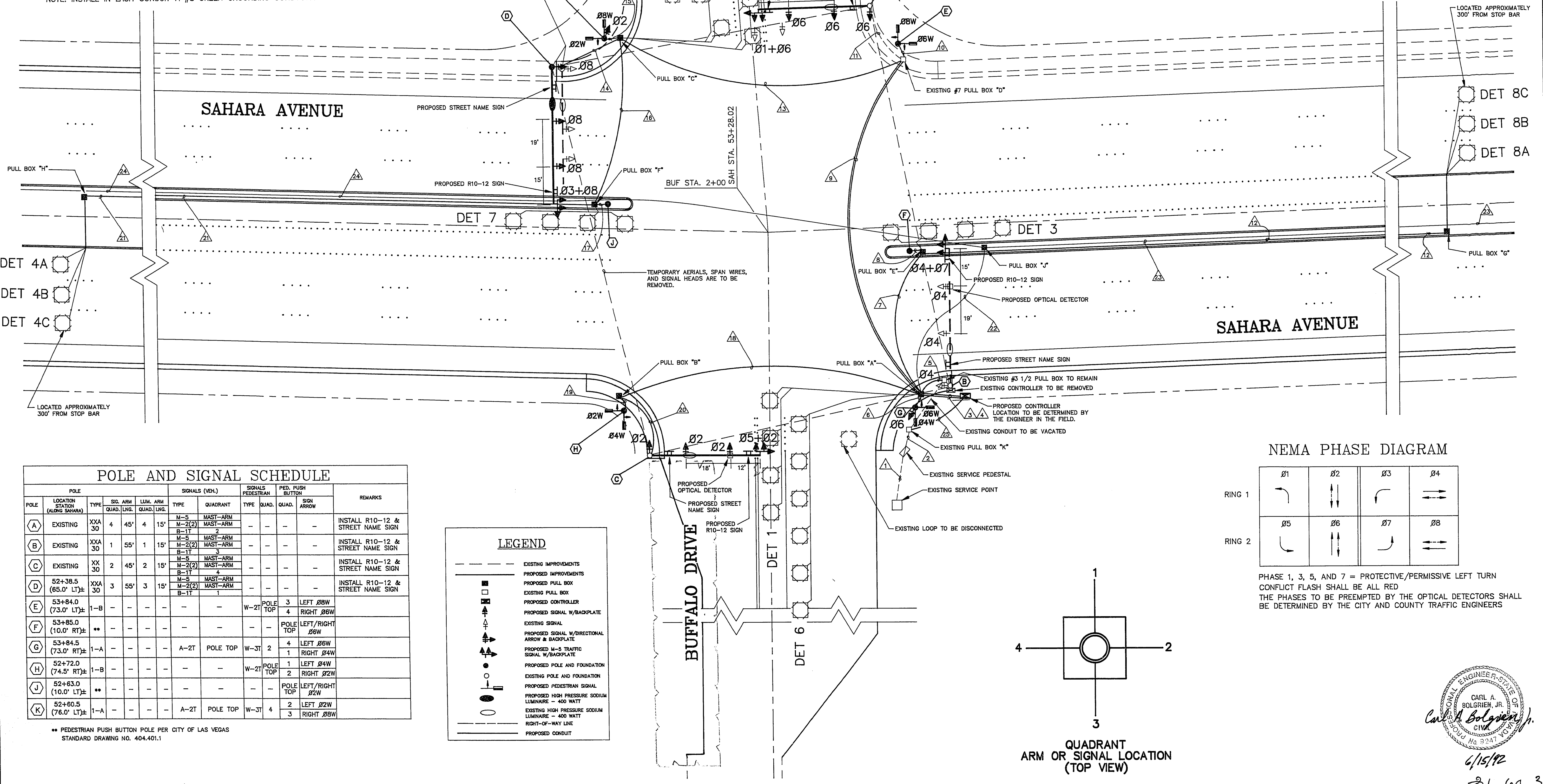
TRAFFIC SIGNAL SPECIAL NOTES

- INSTALL CROSSWALKS AND STOP LINES. SEE DETAIL SHEET T-5.
- INSTALL OPTICAL DETECTORS ON POLES B AND C.
- PROVIDE SINGLE CHANNEL LOOP AMPLIFIER.
- DETECTORS 1, 3, 5, AND 7 ARE FOUR 6' X 6' LOOPS. SEE C.L.V. STD. DRAWING 404.827.
- DETECTORS 4A, 4B, 4C, 8A, 8B, AND 8C ARE 6' X 6' LOOPS. EACH LOOP IS TO HAVE ITS OWN LEAD-IN CABLE. SEE C.L.V. DRAWING 404.825.
- DETECTORS 2 AND 6 ARE SIX 6' X 6' LOOPS. SEE C.L.V. STD. DRAWING 404.826.
- PULL BOXES "A" AND "D" ARE #7; PULL BOXES "B", "C", "E", "F", AND "J" ARE #5; AND PULL BOXES "G", "H", AND EXISTING PULL BOX "K" ARE #3 1/2.
- PROVIDE 4 INTERNALLY ILLUMINATED STREET SIGN NAMES, DOUBLE FACED, DIAMOND GRADE. "SAHARA", POLES A & C "BUFFALO", POLES B & D SEE DRAWING 404.416 AND 404.417 FOR DETAILS. THE HOT LEAD SHALL BE CONNECTED TO THE LOAD SIDE OF THE LUMINAIRE P.E. CONTROL OF THE RELATED STREETLIGHT. THE NEUTRAL WIRE SHALL BE CONNECTED TO THE STREET-LIGHT NEUTRAL AT THE STREETLIGHT HEAD.
- INSTALL NEW TYPE "M" CABINET WITH FOUNDATION AND A NEW 88 CONTROLLER. MAINTAIN OPERATION OF THE SIGNAL FROM THE EXISTING CONTROLLER ON POLE B UNTIL IT IS SAFE TO TRANSFER CONTROL TO THE NEW CONTROLLER.
- RELOCATE M-2 SIGNAL HEADS ON POLE B AND ADD M-5 SIGNAL HEAD, R10-12 SIGN, AND STREET NAME SIGN.
- REPLACE EXISTING MAST ARM ON POLE C WITH A NEW 45' MAST ARM. INSTALL NEW M-5 SIGNAL HEAD, TWO M-2 SIGNAL HEADS, R10-12 SIGN, AND STREET NAME SIGN ON MAST ARM.
- INSTALL NEW POLE D ON A TYPE "L" FOUNDATION WITH A 55' MAST ARM. ONE M-5, TWO M-2, AND ONE B-17 SIGNAL HEADS; R10-12 SIGN; STREET NAME SIGN; AND A LUMINAIRE. ALL THESE ITEMS ARE NEW. THE EXISTING POLE D AND ITS ATTACHMENTS SHALL BE REMOVED. THE EXISTING TYPE "H" FOUNDATION SHALL BE REMOVED TO A LEVEL BELOW THE BOTTOM OF THE SIDEWALK. PROVIDE NEW CONDUIT TO THE NEW FOUNDATION.
- POLE FOUNDATION

(A)	TYPE "L" (EXIST)	(F)	TYPE "A"
(B)	TYPE "L" (EXIST)	(G)	TYPE "C"
(C)	TYPE "H" (EXIST)	(H)	TYPE "C"
(D)	TYPE "L"	(I)	TYPE "A"
(E)	TYPE "C"	(K)	TYPE "C"
- ALL EQUIPMENT THAT IS REMOVED SHALL BE RETURNED TO THE CITY OF LAS VEGAS, 3100 E. BONANZA ROAD.
- PROVIDE BLOCK NUMBER SIGNS PER C.L.V. STD. DRAWING 404.420 ON THE FOLLOWING POLES:
 "W 7600", POLE A
 "S 2500", POLE B
 "W 7700", POLE C
 "S 2400", POLE D
- THE USE OF THE WORD "PROPOSED" IN CONJUNCTION WITH AN ITEM ON THIS PLAN MEANS THAT ITEM IS TO BE INSTALLED UNDER THIS CONTRACT.

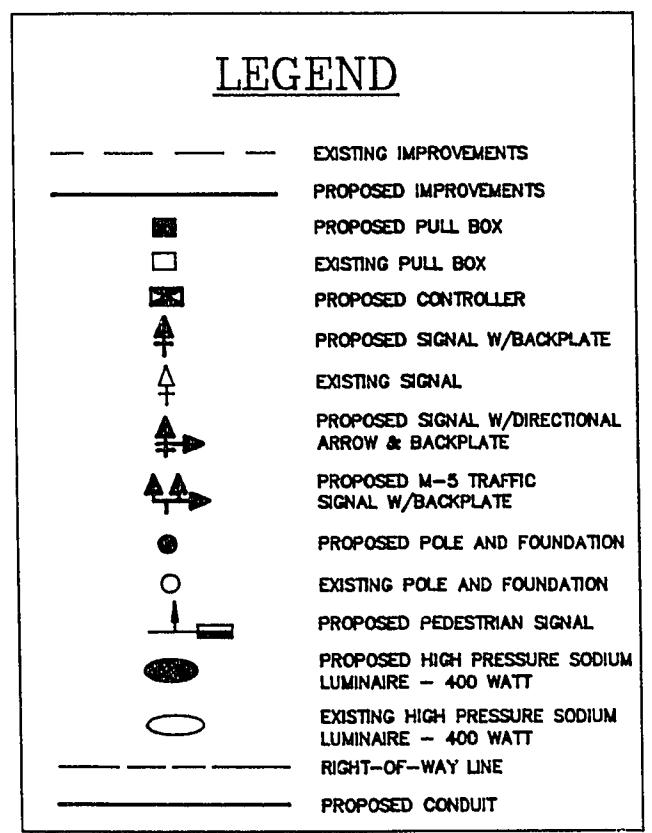
RUN NO.	FROM	TO	CONDUIT SIZE	SIGNAL CABLE		DET. LEADS	LIGHTING CKT	INTERCONNECT	22 AWG PER REA SPEC PE-39
				15 CON 14AWG	25 CON 14AWG				
1	SERVICE POINT	SERVICE PEDESTAL	2"						3-#3/0 THW
2	SERVICE PEDESTAL	EX. PULL BOX "K"	2"						2-#6, 2-#10, 1-#8 THW
3	CONTROLLER	PULL BOX "A"	2"						2 OPTICOM CABLES
4	PULL BOX "A"	POLE B; LUM B	4-3"	6	4	12	4		OPTICOM CABLE
5	PULL BOX "A"	POLE E	2"	1			4		
6	PULL BOX "A"	PULL BOX "E"	3"	1					
7	PULL BOX "A"	PULL BOX "D"	2-3"	3	2	6	2		
8	PULL BOX "D"	POLE E	2"	1			1		
9	PULL BOX "D"	POLE A; LUM A	2"	1			1		
10	PULL BOX "E"	PULL BOX "C"	1 1/2"	2	1	3	1		
11	PULL BOX "C"	PULL BOX "D"	2"	1			1		
12	PULL BOX "C"	POLE K	2"	1			4		
13	PULL BOX "C"	PULL BOX "F"	3"	1					
14	PULL BOX "F"	POLE J	2"	1			1		OPTICOM CABLE
15	PULL BOX "A"	PULL BOX "B"	3"	1	1		1		
16	PULL BOX "B"	POLE H	2"	1			1		OPTICOM CABLE
17	PULL BOX "B"	POLE C; LUM C	2"	1			1		
18	PULL BOX "F"	PULL BOX "H"	1 1/2"			3			
19	PULL BOX "J"	PULL BOX "A"	2"						2
20	TENAYA WAY	PULL BOX "J"	2"						1
21	PULL BOX "J"	CIMARRON DRIVE	2"						1
22	EX. PULL BOX "K"	CONTROLLER	2"						2-#6, 2-#10, 1-#8 THW

* EXISTING CONDUIT RUN AND WIRING
 ** EXISTING CONDUIT RUN
 NOTE: INSTALL IN EACH CONDUIT A #8 GREEN GROUNDING CONDUCTOR.

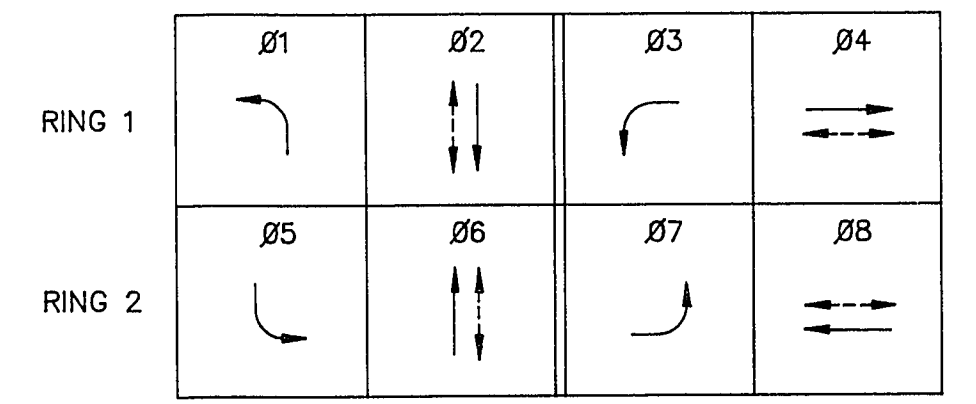


POLE	LOCATION STATION (ALONG SAHARA)	SID. ARM QUAD. LING.	LUM. ARM QUAD. LING.	SIGNALS (VEH.)		SIGNALS PEDESTRIAN		PED. PUSH BUTTON	SIGN ARROW	REMARKS
				TYPE	QUADRANT	TYPE	QUAD.			
(A)	EXISTING	XXA 30	4 45° 4 15°	M-5	MAST-ARM					INSTALL R10-12 & STREET NAME SIGN
(B)	EXISTING	XXA 30	1 55° 1 15°	M-5	MAST-ARM					INSTALL R10-12 & STREET NAME SIGN
(C)	EXISTING	XXA 30	2 45° 2 15°	M-5	MAST-ARM					INSTALL R10-12 & STREET NAME SIGN
(D)	52+38.5 (65.0' LT)±	XXA 30	3 55° 3 15°	M-5	MAST-ARM					INSTALL R10-12 & STREET NAME SIGN
(E)	53+84.0 (73.0' LT)±	1-B	- - - -			W-2T	POLE TOP	3	LEFT Ø8W	
(F)	53+85.0 (10.0' RT)±	**	- - - -					4	RIGHT Ø8W	
(G)	53+84.5 (73.0' RT)±	1-A	- - - -	A-2T	POLE TOP	W-3T	2	4	LEFT Ø8W	
(H)	52+72.0 (74.5' RT)±	1-B	- - - -			W-2T	POLE TOP	2	RIGHT Ø2W	
(J)	52+63.0 (10.0' LT)±	**	- - - -					1	LEFT/RIGHT Ø2W	
(K)	52+60.5 (76.0' LT)±	1-A	- - - -	A-2T	POLE TOP	W-3T	4	2	LEFT Ø2W	
								3	RIGHT Ø8W	

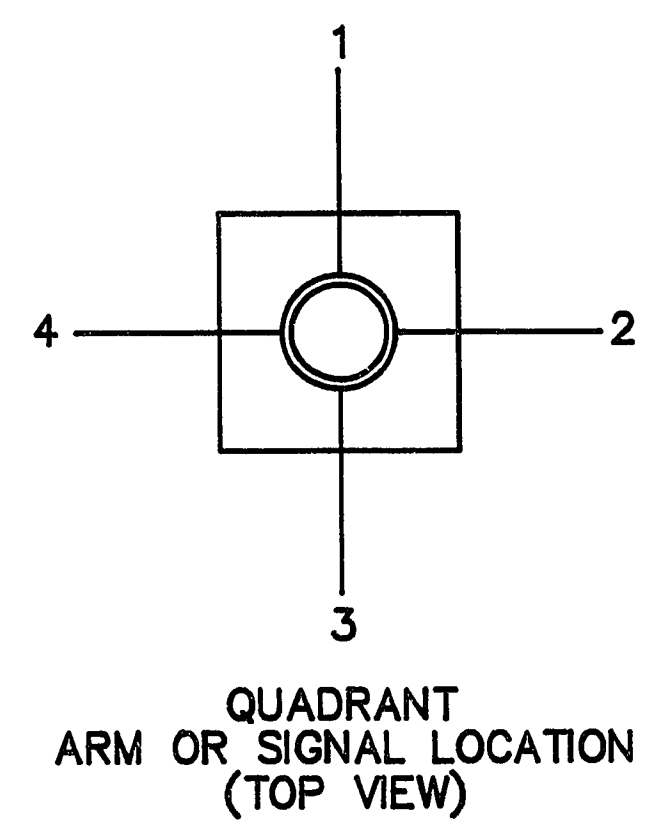
** PEDESTRIAN PUSH BUTTON POLE PER CITY OF LAS VEGAS STANDARD DRAWING NO. 404.401.1



NEMA PHASE DIAGRAM



PHASE 1, 3, 5, AND 7 = PROTECTIVE/PERMISSIVE LEFT TURN
 CONFLICT FLASH SHALL BE ALL RED
 THE PHASES TO BE PREEMPTED BY THE OPTICAL DETECTORS SHALL BE DETERMINED BY THE CITY AND COUNTY TRAFFIC ENGINEERS



REVISION BY DATE

APPROVAL

ES&S ENGINEERS & ARCHITECTS, INC.
 1000 W. BURNING WOOD BLVD., SUITE 100
 LAS VEGAS, NV 89117
 CIVIL ENGINEER
 LICENSE NO. 15181
 SUBMITTED BY: [Signature]
 6/23/92

TITLE

SIGNAL PLAN
 SAHARA AVENUE AT BUFFALO DRIVE

PROJECT

SAHARA AVENUE

W.O. # L1S17
 BY: J.D.T./C.A.B.
 DATE: 06/15/92
 SCALE: 1" = 20'

CIVIL ENGINEER
 CARL A. BOLGRIEN, JR.
 LICENSE NO. 2041
 CIVIL
 6/15/92
 21 60 3

C.L.V. DRAWING NO. 107-V-2036
 T-4 36
 43