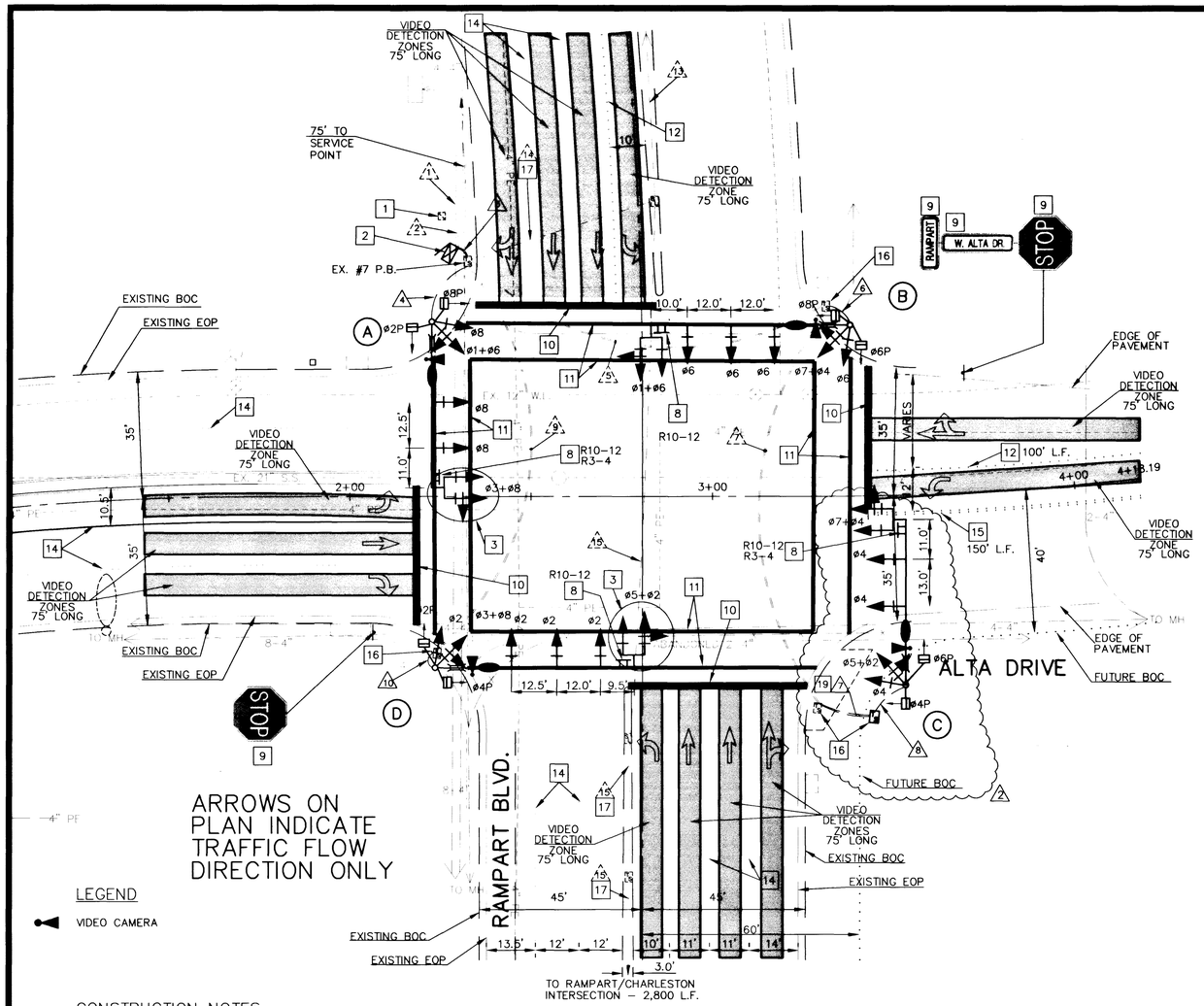


ARROWS ON PLAN INDICATE TRAFFIC FLOW DIRECTION ONLY

LEGEND

VIDEO CAMERA

CONSTRUCTION NOTES

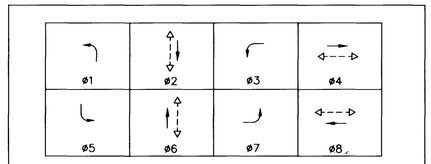
1. EXISTING SERVICE PEDESTAL TO REMAIN IN PLACE. VERIFY THE FOLLOWING EQUIPMENT: 120/240 V, 1ø, 32, (1) 200A 2P MAIN CKT BKR, (1) 60A 1P CONTROLLER CKT BKR, AND (1) 30A 1P INTERSECTION LIGHTING CKT BKR, PROVIDE SAME AS NEEDED. CONTACT NEVADA POWER FOR SERVICE CONNECTION. CONTRACTOR SHALL PROVIDE ALL NECESSARY EQUIPMENT, IF ANY, FOR ADDITIONAL SERVICE CONNECTION PER NEVADA POWER SPECIFICATIONS.
2. INSTALL TYPE J FOUNDATION PER CCA. STD. DWG. #404.213. INSTALL 2070N (8 PHASE) CONTROLLER IN TYPE VIII "R" CABINET PER CLV SPECIFICATIONS WITH EXHAUST FAN AND THERMOSTAT CONTROL, PER CCA. STD. DWG. #404.307, CABINET SHALL HAVE PAINTED WHITE FINISH, INSIDE AND OUT. ALL NECESSARY AMPLIFIER UNITS, VIDEO PROCESSING MODULES, LIGHT CONTROL UNITS, SWITCHES, OPTICOM, FLASHERS, AREA WIDE COMPUTER CONTROL, ETC. SHALL BE WIRED IN CABINET TO ACTIVATE THE PHASE OPERATION AS SHOWN THE CONTRACTOR SHALL PREPARE AS BUILT DRAWINGS UPON COMPLETION OF PROJECT DETAILING ANY CHANGES TO CONTROLLER OPERATION. CABINET SHALL BE ORIENTED SO THAT MAINTENANCE PERSONNEL SHALL BE FACING TRAFFIC WHEN SERVICING OR AS DIRECTED BY THE ENGINEER. LOCATE AND MODIFY EXISTING CONDUIT RUN 2 AS NEEDED TO PROVIDE SERVICE CONDUIT INTO CONTROLLER.
3. INSTALL 3M MODEL 722 OPTICOM SENSORS (OR APPROVED EQUAL) ON THE TRAFFIC SIGNAL HEAD. RUN OPTICOM DETECTOR CABLE, 3M MODEL 138 (OR APPROVED EQUAL), FROM THE CONTROLLER TO POLES A AND D AS SHOWN IN THE CONDUIT AND CONDUCTOR SCHEDULE. WIRE CONTROLLER AND PROVIDE TWO (2) OPTICOM MODEL 562 PHASE SELECTORS (OR APPROVED EQUAL) IN CABINET FOR PREEMPTION OPERATION.
4. INSTALL DOUBLE-SIDED INTERNALLY ILLUMINATED STREET NAME SIGN WITH BLOCK NUMBER. MOUNT STREET NAME SIGN ONTO MAST ARM PER CCA. STD. DWG. #404.416 AND #404.417 AND AS DIRECTED BY THE ENGINEER. SEE STREET NAME SIGN SCHEDULE FOR TEXT AND SIZE DETAILS.
5. CONDUITS SHALL BE INSTALLED IN TRENCH SUCH THAT THE TOP OF CONDUIT SHALL HAVE A MIN. COVER OF 24" BELOW ADJACENT EDGE OF PAVEMENT OR ORIGINAL GROUND, WHICHEVER IS LOWER IN ELEVATION. ALL CONDUITS INSTALLED THAT ARE NOT UTILIZED IN THE SIGNAL WIRING SHALL HAVE MECHANICALLY SEALED CAPS AND SHALL HAVE A PULL ROPE PROPERLY ANCHORED AT EACH END.
6. INTERSECTION LIGHTING LUMINARIES SHALL BE 400 WATT HIGH PRESSURE SODIUM WITH M-C-III DISTRIBUTION COMPLETE WITH 120V MAGNETIC REGULATOR TYPE BALLAST, CHARCOAL OPTICAL FILTER AND INDIVIDUAL PHOTOCELL CONTROL (G.E. NO. M400A2 CUTOFF TYPE OR APPROVED EQUAL).
7. MOUNT VIDEO DETECTION CAMERA ON LUMINAIRE ARM OF POLES A, B, C, AND D FOR ø8+ø3, ø6+ø1, ø4+ø7, AND ø2+ø5, RESPECTIVELY.
8. INSTALL MAST ARM SIGN. (TYPE AS SHOWN ON PLAN AND SIGN DETAIL.)
9. EXISTING STOP SIGN TO BE REMOVED AND DELIVERED TO CITY OF LAS VEGAS YARD AT 3100 E. BONANZA. CALL 229-6331 24 HOURS IN ADVANCE. LEAVE NAME SIGN ERECT UNTIL ILLUMINATED ST. NAME SIGNS ARE INSTALLED.
10. INSTALL COLD POLYMER STOP BAR (24" WIDE ONE PIECE, 3M TYPE N440 WITH TYPE E44 ADHESIVE. OR APPROVED EQUAL). SEE GENERAL NOTES. EXACT LOCATION TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
11. INSTALL COLD POLYMER CROSSWALK LINES, WHITE PER CCA. STD. DWG. #254.1 (12" WIDE ONE PIECE, 3M TYPE N440 WITH TYPE E44 ADHESIVE, OR APPROVED EQUAL) SEE GENERAL NOTES. EXACT LOCATION TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
12. INSTALL ADDED TURN LANE LINE PER CCA STD. DWG. #246.
13. INSTALL TYPE 5 TYPICAL LANE LINE DELINEATION PER CCA. STD. DWG. #244A.
14. EXISTING PAVEMENT MARKING TO REMAIN.
15. INSTALL TYPE 1 CENTER LINE PER CCA STD. DWG. #244.
16. EXISTING #5 PULL BOXES TO BE REPLACED BY #7 PULL BOXES WITH TWO PULL BOXES STACKED PER LOCATION.
17. MODIFY EXISTING INTERCONNECT CABLE (25 PAIR) TO CONNECT TO NEW CONTROLLER, THROUGH MODIFIED CONDUIT NETWORK, FROM EXISTING CONTROLLER AT RAMPART/CHARLESTON BLVD. INTERSECTION. REMOVE ENOUGH SLACK FROM INTERCONNECT CABLE ON FORT APACHE AND RAMPART TO ALLOW CONNECTION TO ALTA SIGNAL USING EXISTING INTERCONNECT CABLE. THE CONTRACTOR SHALL EXTEND ALL INTERCONNECT CABLE INTO CABINET(S) AT LOCATION OF PUNCH BLOCK FOR LVACTS STAFF TO PUNCH DOWN INTO CABINET.
18. FOR "DALLAS" LEFT TURN PHASING: CIRCULAR INDICATIONS IN THE 5 SECTION LEFT TURN HEADS SHALL BE PROVIDED WITH GEOMETRICALLY PROGRAMMED (GPL) LOUVERS AND SHALL BE DRIVEN BY CONTROLLER OVERLAP A (ø2 & ø6) FOR THE SOUTHBOUND TO EASTBOUND TURN INDICATION AND CONTROLLER OVERLAP B (ø2 & ø6) FOR THE NORTHBOUND TO WESTBOUND TURN INDICATION.
19. EXTEND EXISTING 2-3" CONDUITS TO NEW PULL BOX LOCATION.

CONDUIT AND CONDUCTOR SCHEDULE 5

WIRE & CABLE	FROM	TO	CONDUIT 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
3-No. 4-0 AWG	POWER SERVICE	SERVICE PEDESTAL	X														
4-No. 4 AWG	SERVICE PEDESTAL	CONTROLLER		X													
1-25 COND. No.14 AWG 4-No.10 AWG 2-No.10 COAXILE	CONTROLLER	POLE A			X	X											
1-25 COND. No.14 AWG 4-No.10 AWG 2-No.10 COAXILE	CONTROLLER	POLE B			X		X	X									
1-25 COND. No.14 AWG 4-No.10 AWG 2-No.10 COAXILE	CONTROLLER	POLE C			X		X		X	X							
1-25 COND. No.14 AWG 4-No.10 AWG 2-No.10 COAXILE	CONTROLLER	POLE D			X						X	X					
OPTICOM CABLE	CONTROLLER	POLE A			X	X											
OPTICOM CABLE	CONTROLLER	POLE D			X						X	X					
EXISTING INTERCONNECT	CONTROLLER ALTA	CONTROLLER SUMMERLIN			X										X	X	
NEW INTERCONNECT	CONTROLLER ALTA	CONTROLLER CHARLESTON			X											X	X
PULL ROPE	(NUMBER AS	SHOWN)		1	3	1	3	1	3	1	3	1	1	1	1	1	1
CONDUIT SIZE:			2"	(2")	(2-3")	3"	(2-3")	3"	(2-3")	3"	2"	2"	(2")	(2")	(2")	(2")	

NOTES: – A #8 GREEN GROUND WIRE SHALL BE RUN FROM THE GROUND LUG OF EACH TRAFFIC SIGNAL POLE TO THE CONTROLLER CABINET AND FROM THE CONTROLLER TO THE SERVICE PEDESTAL.

XX – INDICATES PROPOSED CONDUIT SIZE
(XX) – INDICATES EXISTING CONDUIT SIZE



FLASH OPERATIONS – ALL RED

PHASE DIAGRAM

OPTICOM PREEMPTION – ø2, ø4, ø6 & ø8

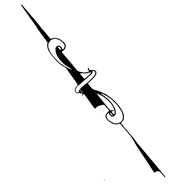
VIDEO DETECTION NOTES

1. THE VIDEO DETECTION SYSTEM FOR THIS PROJECT SHALL BE EITHER PEEK VIDEO TRAK-900 OR AUTOSCOPE 2004ID. THE CITY WILL NOT ACCEPT ANY OTHER VIDEO DETECTION SYSTEM.
2. THE NUMBER OF CAMERAS REQUIRED FOR THE SYSTEM SHALL BE DETERMINED BY THE MANUFACTURER UPON A DETAILED SITE ANALYSIS TO INSURE COMPLETE COVERAGE OF THE MINIMUM REQUIRED DETECTION ZONES SHOWN ON PLAN. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY CAMERAS AND EQUIPMENT AS SPECIFIED BY MANUFACTURER. ALL SYSTEM HARDWARE COMPONENTS SHALL BE WARRANTED BY THE SUPPLIER FOR A MINIMUM PERIOD OF TWO (2) YEARS.
3. THE VIDEO PROCESSING UNIT SHALL HAVE AT LEAST ONE RS-232 AND ONE RS-485 PORT AND SHALL BE CAPABLE OF REMOTE PROGRAMMING VIA A SUPERVISOR COMPUTER WITH MODEM COMMUNICATIONS, AND/OR VIA A DIRECT CABLE CONNECTED TO LOCAL LAPTOP OR PEN BASED COMPUTER. FOR MODEM COMMUNICATIONS, A CITY SUPPLIED MODEM AND TELEPHONE LINE CONNECTION SHALL BE ALL THAT IS REQUIRED TO ACCOMPLISH THE LINK.
4. THE CONTRACTOR SHALL FURNISH ALL OF THE INTERFACE HARDWARE AND SOFTWARE REQUIRED TO OPERATE THE VIDEO DETECTION SYSTEM, INCLUDING THE ON-SITE TRAINING NECESSARY FOR MAINTENANCE OF THE INSTALLED SYSTEM. THE SOFTWARE REQUIRED FOR THE REMOTE SUPERVISOR COMPUTER SHALL BE PROVIDED ALONG WITH THE NECESSARY ON-SITE TRAINING. A PENTIUM 300 MHZ LAPTOP COMPUTER WITH 32 MB RAM, 1.0 GB HARD DRIVE, ONE 3-1/2 -INCH DRIVE, CD-ROM DRIVE, 33.6 KBAUD MODEM CARD, 12-INCH MIN. COLOR ACTIVE MATRIX SCREEN, WINDOWS 95 PLATFORM, INTEGRAL MOUSE, AC ADAPTER, CAR ADAPTER, AND EXTRA BATTERY PACK, SHALL BE PROVIDED AS A MINIMUM. VIDEO DISPLAYED ON THE LAPTOP SHALL BE REAL TIME VIDEO TO EASE SYSTEM CONFIGURATION AND MONITORING. ONE COMPLETE PACKAGE OF HARDWARE AND SOFTWARE SHALL BE PROVIDED FOR EACH TRAFFIC SIGNAL SYSTEM INSTALLED IN THIS PROJECT.

POLE SCHEDULE

POLE	LOCATION STATION	POLE TYPE / FOUNDATION TYPE	SIGNAL ARM QUAD	SIGNAL ARM LNG.	LUMINAIRE ARM QUAD	LUMINAIRE ARM LNG.	SIGNALS (VEH.) TYPE	SIGNALS (VEH.) QUAD	SIGNALS (PED.) TYPE	SIGNALS (PED.) QUAD	PED. PUSH BUTTONS QUAD	PED. PUSH BUTTONS ARROW	REMARKS
A	ALTA DRIVE 2+22.46, 48' LT	XX 30' H	3	45'	3	15'	(1)M-5 (2)M-2 (1)B-14T	MA MA 1	W-3T	4	2 3	LT RT	3 4 6 7 8 18
B	ALTA DRIVE 2+23.40, 47' RT	XX-A 30' L	4	55'	4	15'	(1)M-5 (2)M-2 (1)B-14T	MA MA 2	W-3T	2	4 3	RT LT	4 6 7 8 18
C	ALTA DRIVE 3+52.00, 52.5' RT	XX 30' H	1	45'	1	15'	(1)M-5 (2)M-2 (1)B-14T	MA MA 3	W-3T	2	4 1	LT RT	4 6 7 8 18
D	ALTA DRIVE 3+38.48, 47' LT	XX-A 30' L	2	55'	2	15'	(2)M-2 (3)M-2 (1)B-14T	MA MA 4	W-3T	4	1 2	RT LT	3 4 6 7 8 18

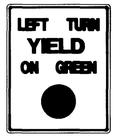
NOTE: VEHICLE SIGNAL HEAD TYPES B-14T SHALL USE SIDE BRACKET MOUNTED ADAPTERS WITH TERMINAL COMPARTMENTS.



GRAPHIC SCALE

20 0 10 20 40

(IN FEET)



R10-12
24" x 30"

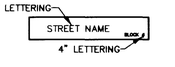
R3-4
24" x 24"

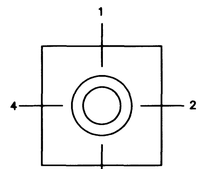
SIGN DETAILS 8

NTS

STREET NAME SIGN SCHEDULE 4

POLE	STREET NAME SIGN AND BLOCK NUMBER	SIZE
A	RAMPART S 500	8' X 1.5'
B	ALTA W 8900	8' X 1.5'
C	RAMPART S 500	8' X 1.5'
D	ALTA W 8900	8' X 1.5'





QUADRANT ARM, SIGNAL, PED BUTTON (TOP VIEW)

REV	DATE	BY	REVISION
2	4/26	CPT	REVISED POLE C LOCATION AND EXTEND EXISTING CONDUIT TO ALLOW FOR FUTURE RIGHT TURN LANE.
1	3/22	CPT	REVISED POLES B AND D TO 55' MAST ARM AND PLACE AT MIDPOINT OF RETURN PER MIKE SCHNIEDER

PECCOLE NEVADA CORP.
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(702) 933-1111

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1500 East Flamingo Road
Suite 210
Las Vegas, Nevada 89119
Tel. No. (702) 734-5666
Fax No. (702) 735-4949
Engineering, Planning, and Environmental Consultants

RAMPART BOULEVARD/ALTA DRIVE

TRAFFIC SIGNAL PLAN

DRAWN BY: CDR/JK	10/26/98
DESIGNED BY: CDR/JK	10/26/98
CHECKED BY: CPT	11/17/98
PROJECT NO: 092191.06	SCALE: 1"=20' HOR.

FINAL
Kimley-Horn and Associates, Inc.
ENGINEERING, PLANNING AND ENVIRONMENTAL CONSULTANTS
Engineer CARSON P. TURNER
P.E. No. 11759 Date 11/17/98

CARSON P. TURNER
REGISTERED PROFESSIONAL ENGINEER
CIVIL
No. 11759
STATE OF NEVADA
5-5-99

SHEET C2.1
4 OF 4 SHEETS

DRAWING NO. ~~19106SG2~~ 107-V3078

SAFETY ALERT
Call Before You Overhead
1-702-593-6111

Avoid cutting underground utility lines. It's costly.
Call before you Dig
1-800-227-2600

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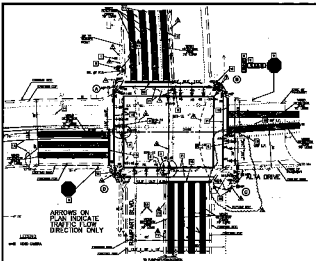
15538 SV



LEGEND

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Call before you Dig

RAMPART BOULEVARD/ALTA DRIVE

TRAFFIC SIGNAL PLAN