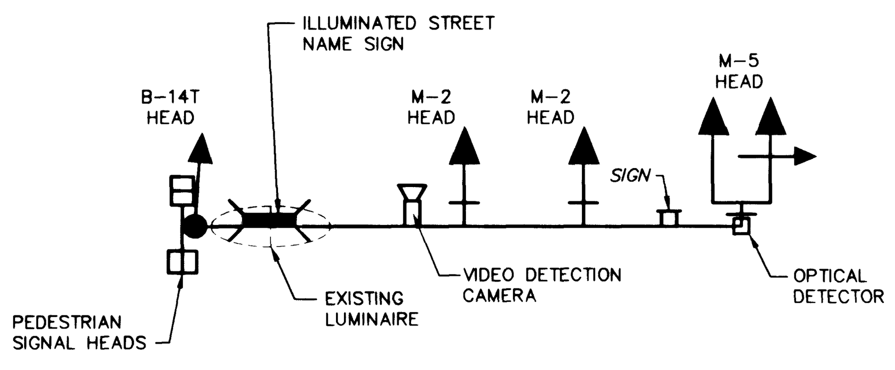
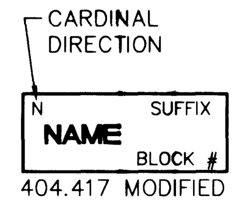
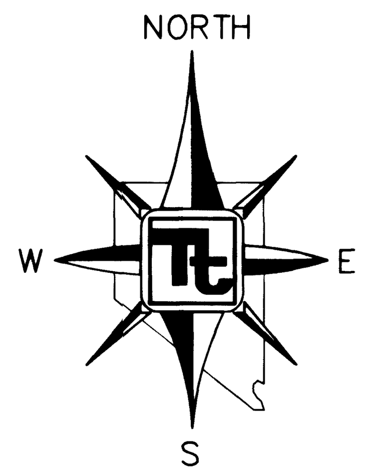


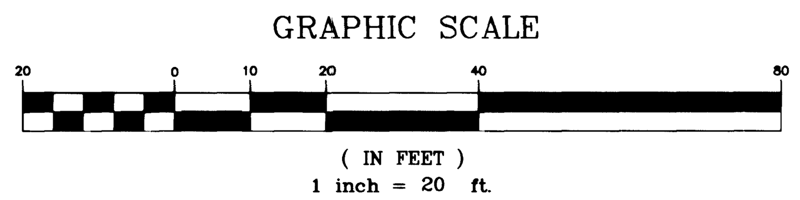
TRAFFIC SIGNAL ASSEMBLY (TYPICAL)

INTERNALLY ILLUMINATED STREET SIGN SCHEDULE				
POLE	STREET NAME	SUFFIX / CARDINAL	SIGN WIDTH	BLOCK #
(A)	**JOHN HERBERT**	BLVD.	8'	N/A
(B)	**BUFFALO**	DRIVE	8'	N/A
(C)	**JOHN HERBERT**	BLVD.	8'	N/A
(D)	**BUFFALO**	DRIVE	8'	N/A

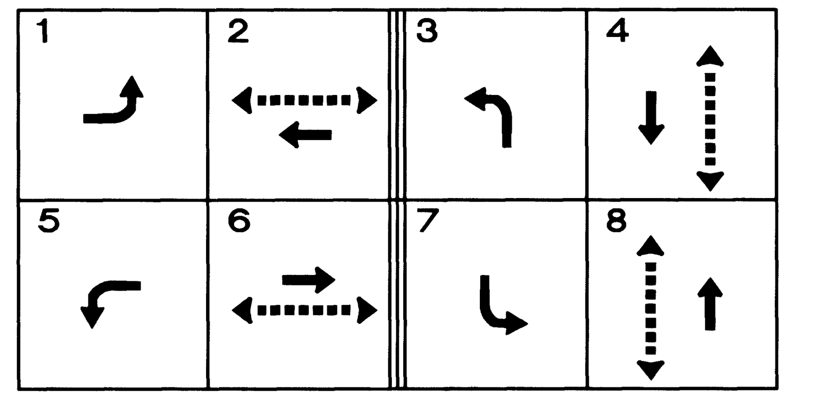


NOTE:
CONTRACTOR TO OBTAIN CORRECT STREETNAME AND BLOCK NUMBER FROM CURRENT PLANNING 229-6301, PRIOR TO ORDERING SIGNS

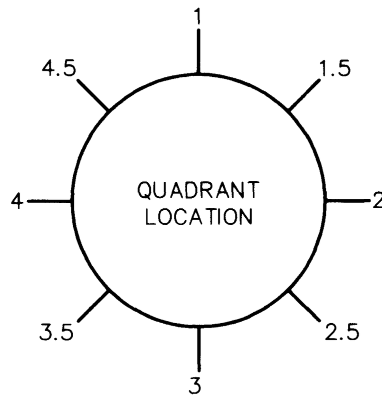




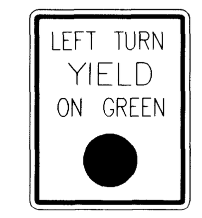
STANDARD PHASE ORIENTATION



NOTE:
CONFLICT FLASH – ALL RED
EACH MOVEMENT IS A SEPERATE PHASE



R3-4



R10-12

POLE AND EQUIPMENT SCHEDULE

NO.	STATION	POLE TYPE	SIGNAL ARM QUAD	SIGNAL ARM LENGTH	LUM. ARM QUAD	LUM. ARM LENGTH	SIGNALS (VEH) QUAD	SIGNALS (VEH) TYPE	SIGNALS (PED) QUAD	SIGNALS (PED) TYPE	PUSH-BUTTON QUAD	PUSH-BUTTON ARROW	FOUNDATION TYPE	REMARKS
(A)	STA 26+90.69 53.58 LT. BUFFALO DR.	XX-A 30'-0"	2.5	55'	2.5	15'	4.5 MA MA	B-14T 3:M-2 M-5	4.5	W-3T	2.5 1.5	RIGHT LEFT	"L" PER U.S.D. 404.209	
(B)	STA 27+92.55 74.17 LT. BUFFALO DR.	XX-A 30'-0"	3.5	40'	3.5	15	2.5 MA MA MA	B-14T M-2 M-2 M-5	1.5	W-3T	3.5 2.5	RIGHT LEFT	"L" PER U.S.D. 404.209	
(C)	STA 27+89.40 54.84 RT. BUFFALO DR.	XX-A 30'-0" (E)	4.5	55'	4.5	15'(E)	3.5 MA MA	B-14T 3:M-2 M-5	2.5	W-3T	4.5 3.5	RIGHT LEFT	"L" PER U.S.D. 404.209 (E)	
(D)	STA 26+97.68 58.57 RT. BUFFALO DR.	XX-A 30'-0" (E)	1.5	40'	1.5	15'(E)	4.5 MA MA MA	B-14T M-2 M-2 M-5	3.5	W-3T	1.5 4.5	RIGHT LEFT	"L" PER U.S.D. 404.209 (E)	

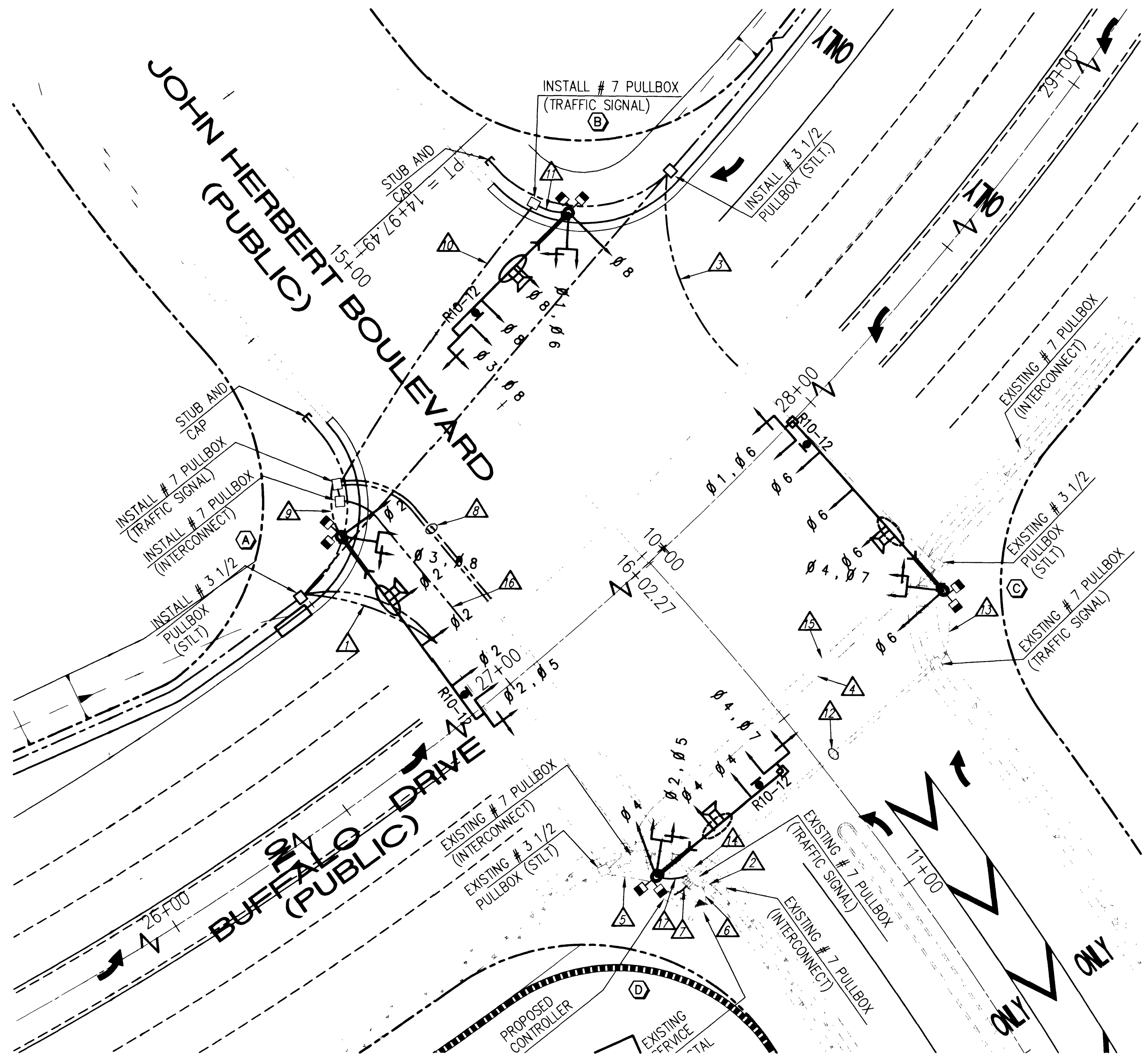
(E) EXISTING

CONDUIT AND CABLE SCHEDULE

CONTINUOUS PULL	FROM	TO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
EXISTING STREET LIGHTING CIRCUITS–LEAVE IN PLACE AND OVER PULL AS NEEDED *			X		X	X	X												
4 #4 AWG THW 2WHT/2 BLK 1 #8 AWG THW GREEN (GND)	ELEC. SVC. PEDESTAL	CONTROLLER CABINET						X											
25 COND #14, 2 #10, 1 #8 8281 COAX VIDEO 3 #16 COND., PVC JACKETED	CONTROLLER CABINET	POLE A							X	X	X								
25 COND #14, 2 #10, 1 #8 8281 COAX VIDEO 3 #16 COND., PVC JACKETED	CONTROLLER CABINET	POLE B							X	X		X	X						
25 COND #14, 2 #10, 1 #8 EMERG. VEH. PREEMPT CABLE 8281 COAX VIDEO 3 #16 COND., PVC JACKETED	CONTROLLER CABINET	POLE C							X					X	X				
25 COND #14, 2 #10, 1 #8 EMERG. VEH. PREEMPT CABLE 8281 COAX VIDEO 3 #16 COND., PVC JACKETED	CONTROLLER CABINET	POLE D							X										
INTERCONNECT 1–25 PAIR #22 AWG	CONTROLLER CABINET	ANN/TENAYA CONTROLLER		X					X							X	X	X	X
CONDUIT RUN, SIZE AND NUMBER			2"	3"	2"	2"	2@3"	3"	5@3"	2@3"	3"	3"	3"	2@3"	3"	3"	3"	3"	3"
EXISTING (E), NEW (N), OR PARTIALLY EXISTING (P)**			P	E	P	E	E	E	P	P	N	N	N	E	E	E	P	E	E

*EXISTING STREET LIGHTING CIRCUITS SHALL ALL REMAIN AS CURRENTLY INSTALLED. NEW CABLES WILL HAVE TO BE OVER PULLED IN SOME CONDUIT RUNS. THESE EXISTING CIRCUITS ARE SHOWN BUT NOT DETAILED IN THIS SCHEDULE.

**CONTRACTOR TO VERIFY LOCATION



CITY OF LAS VEGAS STANDARD TRAFFIC SIGNAL NOTES

1. ALL WORK PERFORMED ON ANY TRAFFIC SIGNAL COMPONENT MUST BE UNDER THE DIRECT ON-SITE SUPERVISION OF AN IMSA CERTIFIED TECHNICIAN. EFFECTIVE MARCH 30, 2000 THE LEVEL OF CERTIFICATION REQUIRED IS LEVEL I, AND THE LEVEL OF CERTIFICATION REQUIRED SHALL BE INCREASED TO LEVEL II EFFECTIVE MARCH 30, 2001.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ALL EXISTING UTILITIES. THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES TO VERIFY IN THE FIELD THE LOCATIONS OF THEIR INSTALLATIONS 72 HOURS PRIOR TO CONSTRUCTION.
   CALL–BEFORE–YOU–OVERHEAD 1–702–593–6111
   CALL–BEFORE–YOU–DIG 1–800–227–2600
3. ALL TRAFFIC SIGNAL INSTALLATIONS SHALL CONFORM TO THE UNIFORM STANDARD DRAWINGS SPECIFICATIONS AND SPECIAL PROVISIONS FOR PUBLIC WORKS' CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA, VOLUMES I AND II, ADOPTED BY THE REGIONAL TRANSPORTATION COMMISSION APRIL 8, 1992 WITH ALL SUBSEQUENT REVISIONS. (REVISIONS THRU MAY 11, 2000)
4. SERVICE SHALL HAVE 1–60 AMP SINGLE POLE BREAKER FOR SIGNAL, AND ONE 40 AMP SINGLE POLE BREAKERS FOR STREET LIGHTS. SERVICE SHALL BE 200 AMP PADMOUNT
5. LINE SIDE OF METER TO BE WIRED WITH THREE #3/0 AWG THW. LOAD SIDE SHALL BE WIRED WITH FOUR #4 AWG THW (2 BLACK, 2 WHITE) AND ONE #8 AWG THW (GREEN).
6. LUMINARIES ON ALL SIGNAL POLES SHALL BE 400 WATT HIGH PRESSURE SODIUM CUTOFF (G.E. M400A) WITH MC–111 DISTRIBUTION. EACH LUMINAIRE SHALL HAVE AN INDIVIDUAL 1000 WATT P.E. CONTROL. FOR LUMINARIES THERE SHALL BE 2(TWO)–#4 AWG THW CONDUCTOR FROM THE SERVICE TO THE CABINET. IN THE CABINET, THE #4 AWG THW CONDUCTORS SHALL BRANCH OFF INTO #10 AWG THW CONDUCTORS INDIVIDUALLY FUSED WITH 10 AMP FUSES. THERE SHALL BE NO SPLICES BETWEEN THE CABINET AND LUMINAIRES FIXTURES.
7. THE INTERNALLY ILLUMINATED STREET NAME SIGN SHALL BE WIRED TO THE LUMINARIES PHOTO CELL FOR CONTROL WITH #10 AWG THW COPPER STRANDED WIRE (TYPICAL). IN THE EVENT THERE IS NO LUMINAIRE ON THE TRAFFIC SIGNAL POLE, THE 1000 WATT P.E. CONTROL SHALL BE MOUNTED ON THE POLE CAP
8. CHECK CONDUIT AND CABLE SCHEDULE FOR CONDUIT, CABLE, AND WIRE SIZE. VERIFY ALL EXISTING CONDUIT RUNS.
9. ALL PULLBOXES SHALL BE IN ACCORDANCE WITH UNIFORM STANDARD DRAWINGS NO. 404.110, NO. 404.120, AND NO. 404.130.
10. TRAFFIC SIGNAL CABLE SHALL BE 15 OR 25 CONDUCTOR #14 AWG SOLID (TYPICAL) CABLE AND SHALL CONFORM TO IMSA SPEC. NO. 20–1.
11. PEDESTRIAN PUSH BUTTONS SHALL BE AUDIBLE TACTILE TYPE IN ACCORDANCE WITH THE CITY OF LAS VEGAS SPECIAL PROVISIONS TO SECTION 623 OF THE CCA USS. PUSH BUTTON SIGNS SHALL BE 9" X 12" WITH FULL MOUNTING BRACKETS. ALL PUSH BUTTONS TO BE MOUNTED 42" ABOVE SIDEWALK. THE MAXIMUM HORIZONTAL REACH DISTANCE IS TO BE 24". SIDEWALK RAMPS WILL BE ACCORDING TO U.S.D. NO. 235 (1–4) DATED 12–14–00.
12. THE ROUTING AND TERMINATION OF CONDUITS AND THE PLACING OF POLES AND CABINETS SHALL BE AS INDICATED ON THE PLANS. ALL CHANGES SHALL BE APPROVED BY THE ENGINEER.
13. MAST ARM R10–12 SIGNS TO BE ADJACENT (NO GAP) TO THE M–5 SIGNAL HEAD.
14. INSTALL TYPE VIII CABINET. THIS IS COMMONLY REFERRED TO AS AN "R" CABINET THE CABINET SHALL CONFORM TO THE UNIFORM STANDARD DRAWINGS SPECIFICATIONS AND SPECIAL PROVISIONS, CLARK COUNTY AREA, NEVADA. INSTALL CABINET NEAR THE R.O.W. LINE OR AS SHOWN IN THE DRAWINGS.
15. THE CONTRACTOR SHALL SUPPLY A 2070N CONTROLLER TO THE CITY OF LAS VEGAS TRAFFIC SIGNAL REPAIR SHOP, FOURTEEN DAYS PRIOR TO SIGNAL TURN–ON, FOR TESTING PURPOSES. THE CONTRACTOR SHALL DELIVER THE CONTROLLER TO, AND PICKUP THE CONTROLLER AT 2801 E. CHARLESTON BOULEVARD. CONTRACTOR SHALL NOTIFY THE TRAFFIC SIGNAL REPAIR SHOP (229–6075) SEVEN DAYS PRIOR TO PICKUP. ALL 2070N CONTROLLERS SHALL BE COMPATIBLE WITH AND FUNCTION PROPERLY WITH OS9 1996 OPERATION SYSTEM; THE LATEST REVISION OF THE "NEXT PHASE INTERSECTION MANAGEMENT SOFTWARE" (GARDNER TRANSPORTATION SYSTEM) AND THE ICONS (GARDNER TRANSPORTATION SYSTEM) GENERAL SOFTWARE.
16. CONTRACTOR SHALL POTHOLE SIGNAL POLE LOCATIONS PRIOR TO ORDERING OF POLES.
17. ALL MAST ARMS TO BE HOT–DIP GALVANIZED BY THE MANUFACTURER. THE MAST ARM IS TO BE FABRICATED WITH END TENON ONLY. THE END TENON SHALL BE FACTORY INSTALLED AND THE REMAINING TETONS SHALL BE FABRICATED IN THE FIELD AT THE LOCATION SHOWN ON THE PLANS OR AS DIRECTED BY THE TRAFFIC ENGINEER AND/OR HIS AUTHORIZED REPRESENTATIVE. FOR TENON FABRICATION DETAILS SEE CLARK COUNTY AREA U.S.D. NO. 404.406 SHEET 2. ALL WELDING SHALL CONFORM TO AWS D 2.0, "SPECIFICATION FOR WELDED HIGHWAYS AND RAILWAY BRIDGES," AND TO ANY ADDITIONAL REQUIREMENTS OF SECTION 623 T.02.09 OF THE SPECIFICATIONS. ALL EXPOSED WELDS, SHALL BE PAINTED AS PROVIDED FOR FOR REPAIRING DAMAGED GALVANIZED SURFACES.
18. ALL VEHICLE AND PEDESTRIAN SIGNAL INDICATIONS SHALL HAVE LIGHT EMITTING DIODE (LED) TYPE INDICATIONS, IN CONFORMANCE TO CITY OF LAS VEGAS SPECIAL PROVISIONS TO SECTION 623 OF CCA USS.
19. ALL VEHICLE DETECTION WILL BE VIDEO IMAGE DETECTION. EITHER ITERIS VANTAGE PLUS OR AUTO SCOPE 2004 VIDEO DETECTION SYSTEM MUST BE INSTALLED. EACH VIDEO CAMERA WILL POWER (3/16 COND. PVC JACKETED) AND 8281 COAXIAL CABLE DIRECTLY FROM THE CABINET. CAMERAS WILL BE MOUNTED PER THE MANUFACTURER'S RECOMMENDATIONS AND PER CLV TRAFFIC ENGINEER APPROVAL. "BNC" CONNECTORS ARE THE ONLY ACCEPTABLE TERMINATION OF CABLES.
20. IF THE IMPROVEMENTS NECESSITATE THE OBLITERATION, TEMPORARY CONSTRUCTION, TEMPORARY REMOVAL, OR RELOCATION OF ANY EXISTING TRAFFIC PAVEMENT MARKING, SUCH PAVEMENT MARKING SHALL BE RESTORED OR REPLACED AT THE CONTRACTORS EXPENSE TO THE SATISFACTION OF THE CITY.
21. INTERCONNECT CABLE SHALL BE 25 PAIR OF #22 AWG SHIELD SPECIFICATION REA PE 39.
22. THE CONTRACTOR SHALL INSTALL CROSSWALKS, STOP BARS AND SIGNS AS IDENTIFIED ON THE PLANS.

DISCLAIMER NOTE

Avoid cutting underground utility lines. It's costly. Call before you Dig 1-800-227-2600 UNDERGROUND SERVICE (USA)

Avoid hitting overhead power lines. It's costly. Call before you Overhead 1-702-593-6111

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

41872

100% SUBMITTAL

REV. | DATE | BY | REVISION

DEPARTMENT OF PUBLIC WORKS ENGINEERING DESIGN SECTION
400 EAST STEWART
LAS VEGAS NV, 89101
(702) 229-5276
CITY ENGINEER: CHARLES KAJKOWSKI, JR., P.E.
PROJECT MANAGER: MARVIN STEIN, P.E.

TETRA TECH, INC.
INFRASTRUCTURE SOUTHWEST GROUP
401 N. Buffalo Dr. Suite 100, Las Vegas, Nevada 89145 (702) 242-4200

SHEET: TRAFFIC SIGNAL PLAN BUFFALO + JOHN HERBERT INT.

TITLE: BUFFALO DRIVE ROADWAY IMPROVEMENTS (SKYPOINTE DRIVE TO WITTIG AVENUE)

DRAWN BY: | QUALITY CONTROL BY:
DESIGNED BY: | QUALITY CONTROL BY:
CHECKED BY: | SCALE: 1"=20'
PROJECT NO. P08863-0001-01

SEAL: REGISTERED PROFESSIONAL ENGINEER STATE OF NEVADA JOSEPH D. THOMASON CIVIL No. 11907 4-1-02

SHEET T2
14 OF 17
DRAWING NO. 107-V3500