

STREET LIGHTING NOTE

ALL STREET LIGHT INSTALLATIONS SHALL CONFORM TO THE STANDARD DETAILS AND SPECIFICATIONS OF THE CITY OF LAS VEGAS, AND SHALL ALSO CONFORM TO THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OF OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, LATEST EDITION, UNLESS OTHERWISE NOTED. SEE UNIFORM STANDARD DRAWING NO. 319.

WATER-SEWER/STORM DRAIN CROSSING

THE FOLLOWING REQUIREMENTS MUST BE MET IN THE EVENT OF A WATER-SEWER/STORM DRAIN CROSSING:

- WHEN PROTECTION OF THE WATER LINE IS CONSIDERED, THE MINIMUM VERTICAL DISTANCE OF 18 INCHES MUST BE MAINTAINED WHEN THE WATERLINE IS INSTALLED OVER THE SEWER/STORM LINE. IF THIS DISTANCE CANNOT BE MAINTAINED BECAUSE OF PHYSICAL OBSTRUCTIONS OR THE WATERLINE MUST BE PLACED UNDER THE SEWER/STORM LINE, THE SEWER/STORM LINE MUST BE CONSTRUCTED WITH ANY ONE OF THE FOLLOWING:
 - A. EXTRA HEAVY CAST IRON OR DUCTILE IRON PIPE.
 - B. WATER SUPPLY QUALITY MATERIAL.
 - C. ENGAGEMENT WITH 4 INCHES MINIMUM CONCRETE SLEEVING OR WITH WATER QUALITY PIPE.
- EACH OF THESE PROCEDURES MUST BE EXTENDED FOR 10 FEET ON EITHER SIDE OF THE WATERLINE AT 90 DEGREES TO THE CROSSING.

SEWER NOTES

- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE DESIGN & CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS AND THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OF OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA, AS AMENDED. IN ALL CASES, THESE STANDARDS SHALL SUPERSEDE THE UNIFORM STANDARD SPECIFICATIONS. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF THE CONTENTS OF THE ABOVE SPECIFICATION BOOKS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM CONSTRUCTION AS PER PLANS. ANY ADDITIONS, DELETIONS OR CHANGES SHALL FIRST MEET WITH THE APPROVAL OF THE CONTROLLING AGENCY.
- CHISEL "S" OR "C" IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.
- POLYMER (PVC) SEWER PIPE SHALL MEET ASTM D-3034 SDR35 SPECIFICATIONS, INSTALLED WITH SAND BEDDING AND BACKFILL OF TYPE II GRAVEL.
- ALL MANHOLES IN PAVED STREETS, 80' R/W AND LARGER, SHALL HAVE CONCRETE COLLARS.
- TEE SADDLES SHALL BE USED TO CONNECT SEWER LATERALS TO EXISTING MAIN LINES UP TO 12" DIA. SIZE. CONNECTION TO 15" OR LARGER MAINS SHALL REQUIRE SPECIAL PROCEDURES.
- SEWER MAIN CROSSING OVER A WATER MAIN OR LESS THAN 18" UNDER A WATER MAIN MUST BE REINFORCED CONCRETE ENCASED FOR A DISTANCE NOT LESS THAN TEN FEET (10') TO EACH SIDE OF THE CENTERLINE OF THE WATER MAIN. SEE WATER-SEWER/STORM DRAIN CROSSING NOTE THIS SHEET.
- ALL CONTRACTORS INSTALLING SEWER MAINS THAT WILL BE UNDER THE JURISDICTION OF THE CONTROLLING AGENCY MUST BE CLASS "A" CONTRACTORS.

BENCHMARK

CLV BENCHMARK: 11.90361NWB, EL. 2289.592 RIVET & PLATE IN TOP OF CURB, APPROXIMATELY 1/4 MILE NORTH OF WASHBURN ROAD ON JONES BLVD., EAST SIDE.

ESTIMATE OF QUANTITIES

FIRE HYDRANT	28 EA.
12" PVC	2,296 L.F.
10" PVC	1,176 L.F.
8" PVC	11,342 L.F.
6" PVC	11,718 L.F.
12"x8" CROSS	2 EA.
8"x8" CROSS	4 EA.
12"x10" TEE	1 EA.
12"x8" TEE	2 EA.
8"x8" TEE	3 EA.
8"x6" TEE	5 EA.
6"x6" TEE	2 EA.
12" VALVE	6 EA.
8" VALVE	30 EA.
6" VALVE	30 EA.
12"x8" REDUCER	1 EA.
10"x8" REDUCER	1 EA.
8"x8" REDUCER	1 EA.
8" 90° BEND	2 EA.
8" 45° BEND	17 EA.
8" 22 1/2° BEND	9 EA.
8" 11 1/4° BEND	13 EA.
6" 22 1/2° BEND	2 EA.
12" CAP	8 EA.
8" CAP	6 EA.
BLOWOFF ASSEMBLY	3 EA.
WITH R.P.A.	3 EA.
3/4" SERVICE W/METER BOX	230 EA.
3/4" METER BY L.V.V.W.D.	230 EA.
1" SERVICE W/METER BOX	5 EA.
1" METER BY L.V.V.W.D.	5 EA.

TRAFFIC SIGN QUANTITIES

STOP SIGN	6 EA.
STREET SIGN	27 EA.
1" S (45°/22.5°)	4 EA.
TYPE I CENTERLINE	353 L.F.

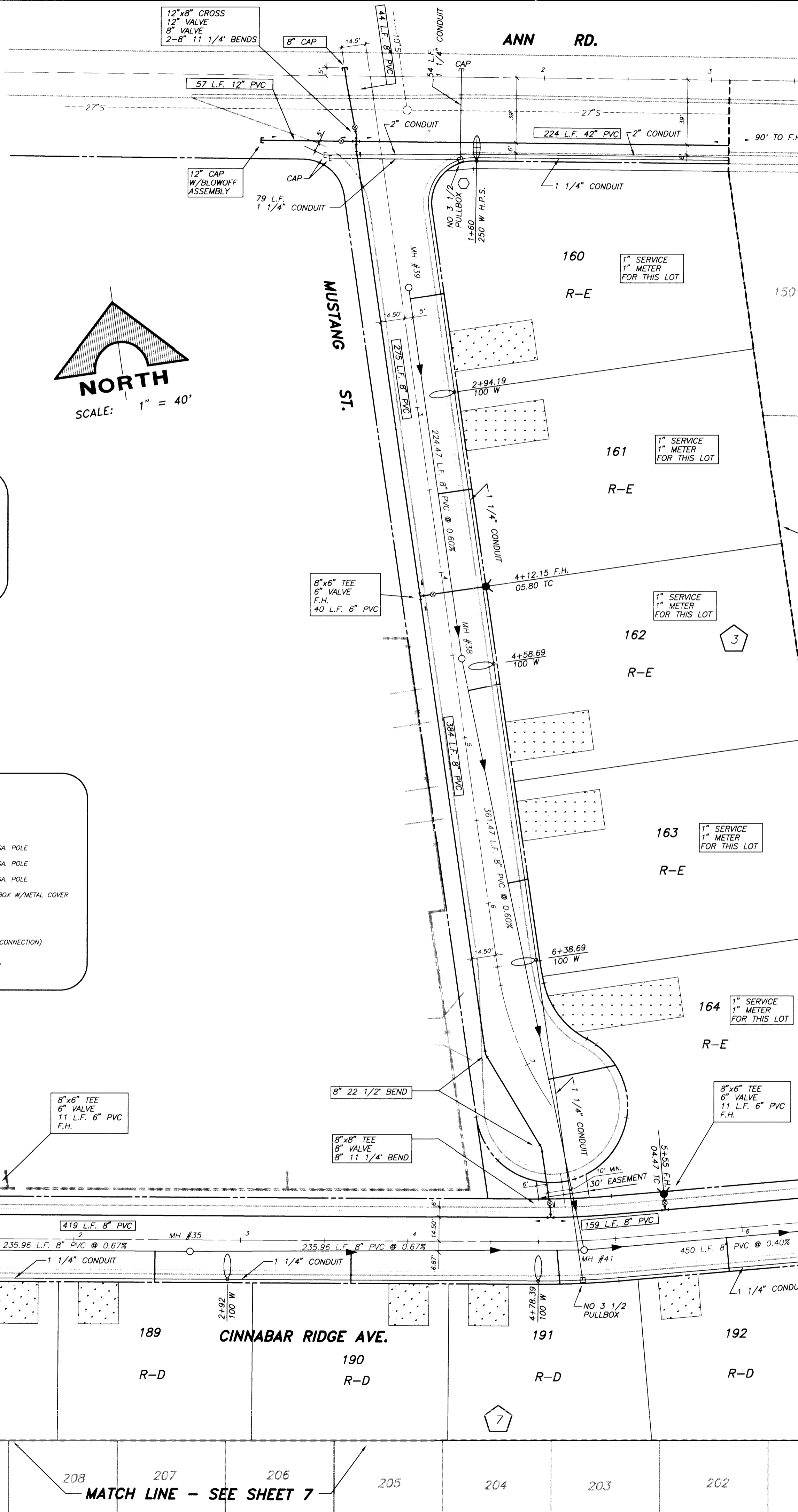
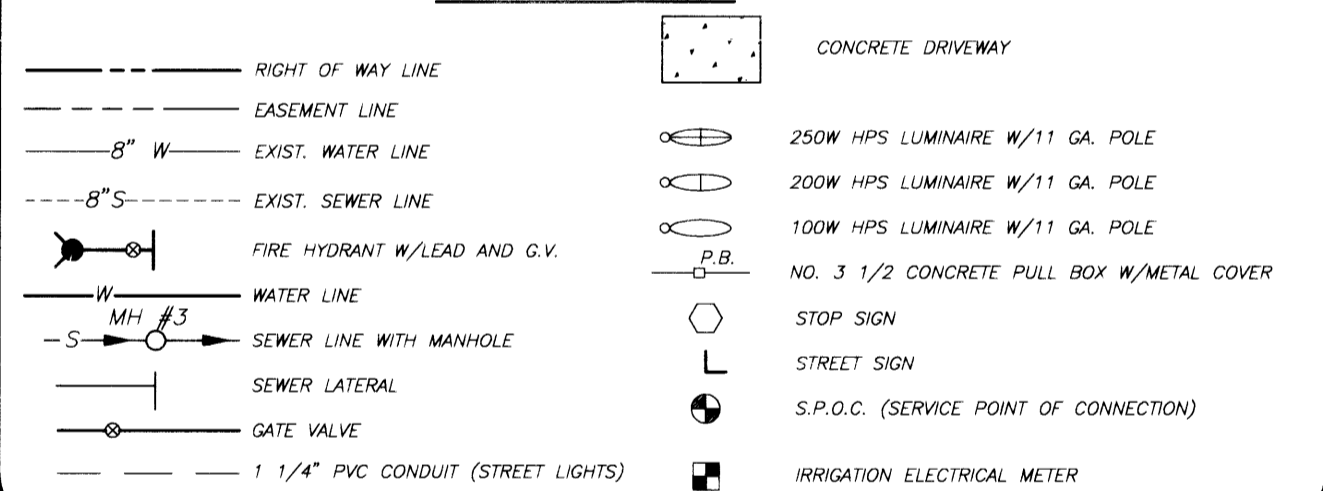
REDUCED PRESSURE PRINCIPLE ASSEMBLY - 3 LOCATIONS

APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE DISTRICT'S STANDARD PLATE NO. 11. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVWD.

ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S), SO AS TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY.

NOTE:
CONTRACTOR TO VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. ANY DISCREPANCIES WITH THE PLANS SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER.

LEGEND



LAS VEGAS VALLEY WATER DISTRICT STANDARD NOTES

- NO WORK SHALL BEGON ON THE WATER PLANS UNTIL THEY HAVE BEEN RELEASED FOR CONSTRUCTION BY THE LVWD. FOLLOWING APPROVAL OF THE PLANS, NOTICE MUST BE GIVEN TO THE LVWD CUSTOMER SERVICE DEPARTMENT (870-4194) 48 HOURS PRIOR TO ACTUAL CONSTRUCTION AND 24 HOURS PRIOR TO AN INSPECTION.
- CALL BEFORE YOU DIG 1-800-227-2600.
- ALL WORK SHALL CONFORM TO LVWD LATEST STANDARD PLATES, DRAWINGS AND SPECIFICATIONS.
- ALL WORK, EXCEPT AS MODIFIED HEREON OR BY NOTE 3, SHALL BE DONE IN ACCORDANCE WITH THE MOST CURRENT DRAFT OR ADDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OPPOSITE IMPROVEMENTS, CLARK COUNTY AREA.
- DISTRICT APPROVED SERVICE SADDLES OR TAPPED COLLARS WILL BE REQUIRED ON ALL 3/4" AND 1" SERVICE LATERALS. SERVICE SADDLES ONLY WILL BE PERMITTED ON 1 1/2" AND 2" SERVICE LATERALS. DOUBLE TAPPED COLLARS ARE NOT PERMITTED.
- CORNER SERVICE LATERALS: ALL 3/4" TO 2" SERVICE LATERALS SHALL BE 90° CORNER TURNS IN ACCORDANCE WITH THE DISTRICT'S SPECIFICATIONS AND STANDARD PLATES.
- THE MAXIMUM ALLOWABLE JOINT DEFLECTION FOR ACP AND DUCTILE IRON PIPE SHALL BE AS FOLLOWS:

PIPE SIZE	ACP	DUCTILE IRON
8" DIA.	2.5 DEGREES	2.5 DEGREES
10" DIA.	2.5 DEGREES	2.5 DEGREES
14" DIA.	2 DEGREES	1.5 DEGREES
18" DIA.	N/A	1.5 DEGREES
- ON PVC PIPE, THE MAXIMUM OFFSET FOR A 20' LENGTH OF FACTORY BELLED PIPE SHALL BE 17 INCHES FOR A 6" PIPE, 12 INCHES FOR 8" PIPE, 11 INCHES FOR 10" PIPE AND 9" FOR 12" PIPE.
- ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
- ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS AND VALLEY GUTTERS.
- DETECTION TAPE IS REQUIRED IN ACCORDANCE WITH STANDARD PLATE NO. 27 WHERE INDICATED, AND AS FOLLOWS:
 - A) OVER ALL MAINS NOT INSTALLED 8 FEET FROM BACK OF CURB.
 - B) OVER ALL ACCEPTABLE WATER SAMPLE OBTAINED FROM THE DISTRICT.
- ALL WATER MAINS ARE TO BE PRESSURED TESTED AT 200 PSI FOR A CONTINUOUS TWO HOUR PERIOD.
- ALL WATER MAINS AND LATERALS SHALL BE DISINFECTED AND FLUSHED, AND AN ACCEPTABLE WATER SAMPLE OBTAINED FROM THE DISTRICT.
- CONTRACTOR TO OBTAIN ALL METERS 2" AND SMALLER FROM L.V.V.W.D. CENTRAL STORES. TELEPHONE 258-3152 FORTY-EIGHT (48) HOURS PRIOR TO PICKUP.

FIRE DEPARTMENT NOTES

- ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE CITY OF LAS VEGAS FIRE DEPARTMENT "HYDRANT SPECIFICATIONS", "HYDRANT INSTALLATION SPECIFICATIONS" AND ORDINANCE #3677.
- AUTHORIZED HYDRANTS FOR THIS PROJECT ARE:
 - A - KENNEDY GUARDIAN
 - B - MUELLER A-423 CENTURION
 - C - CUM MODELS 2548 MELLORIAN
- ON ANY NEW HOME OR BUILDING INSTALLATION, ACCESSIBLE FIRE HYDRANTS SHALL BE INSTALLED BEFORE COMPLETION OF CONSTRUCTION. COMMERCIAL AND SMOKE-FREE HYDRANTS SHALL BE IN GOOD WORKING ORDER WITH AN ADEQUATE WATER SUPPLY.
- CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT CENTER-LINE OF STREET ADJACENT TO FIRE HYDRANT AS REQUIRED IN ORDINANCE #3677 TO IDENTIFY FIRE HYDRANT LOCATIONS.
- CALL THE LAS VEGAS BUILDING DEPARTMENT AT 229-2071 FOR UNDERGROUND INSPECTION, PRESSURE AND FLUSH VERIFICATION OF ALL FIRE HYDRANTS AND FIRE LINES BEFORE COVERING.
- PROTECTION OF THE CURBS AND HYDRANT AND ANY WORK NECESSARY FOR PROTECTION OF HYDRANTS FROM PHYSICAL DAMAGE PER ORDINANCE #3677 SHALL BE COMPLETED BEFORE APPROVAL BY THE CITY OF LAS VEGAS FIRE DEPARTMENT.
- A PERMIT IS REQUIRED FROM THE FIRE DEPARTMENT FOR ON-SITE WATER LINE AND FIRE HYDRANT THE PERMIT AND CONTRIBUTORS MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER PRIOR TO ANY WORK BEING DONE.
- A FLOW TEST MUST BE WITNESSED BY THE FIRE DEPARTMENT PRIOR TO OCCUPANCY FOR VERIFICATION OF REQUIRED ON-SITE WATER SUPPLY.
- ALL ON-SITE FIRE MAIN MATERIALS MUST BE LIST U.L. AND A.N.S.I. APPROVED.
- FIRE HYDRANT SPACING:
 - RESIDENTIAL - 500 FEET UNSPRINKLERED, 600 FEET SPRINKLERED
 - COMMERCIAL, INCLUDING MULTI-FAMILY - 300 FEET UNSPRINKLERED, 400 FEET SPRINKLERED
- NO FIRE HYDRANTS SHALL BE LOCATED WITHIN THE REQUIRED RADIUS OF A CUL-DE-SAC OR WITHIN 20 FEET OF THE PERIMETER OF THE RADIUS OF THE CUL-DE-SAC.
- NO FIRE HYDRANT SHALL BE LOCATED WITHIN 6 FEET OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREET LIGHT OR ANY OTHER OBSTRUCTION.
- NOT MORE THAN 2 HYDRANTS CAN BE OUT OF SERVICE DUE TO A SINGLE MAIN BREAK.
- THE TURNING RADIUS FOR ANY FIRE APPARATUS ACCESS ROAD AND/OR FIRE LANE, PUBLIC OR PRIVATE, SHALL BE NOT LESS THAN 45 FEET OUTSIDE RADIUS AND 22 FEET INSIDE RADIUS.
- A FIRE APPARATUS ROAD SHALL BE REQUIRED WHEN ANY PORTION OF AN EXTERIOR WALL OF THE FIRST STORY IS LOCATED MORE THAN 150 FEET FROM A FIRE DEPARTMENT VEHICLE ACCESS. (SEE EXCEPTIONS IN LFC 88, SECTION 10.207).
- ALL DEAD END FIRE APPARATUS ACCESS ROADS AND/OR FIRE LINES PUBLIC OR PRIVATE OR PRIVATE IN EXCESS OF 150 FEET IN LENGTH SHALL BE PROVIDED WITH AN APPROVED TURNAROUND AREA. SEE ORDINANCE #3677.

LAS VEGAS FIRE DEPARTMENT

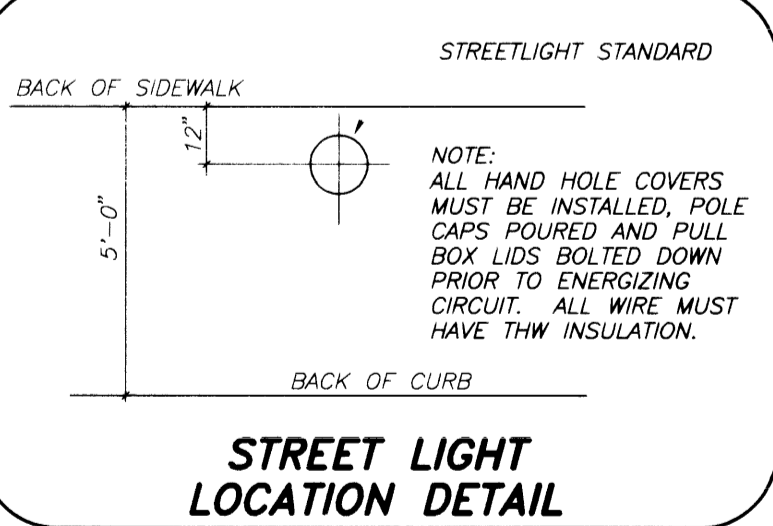
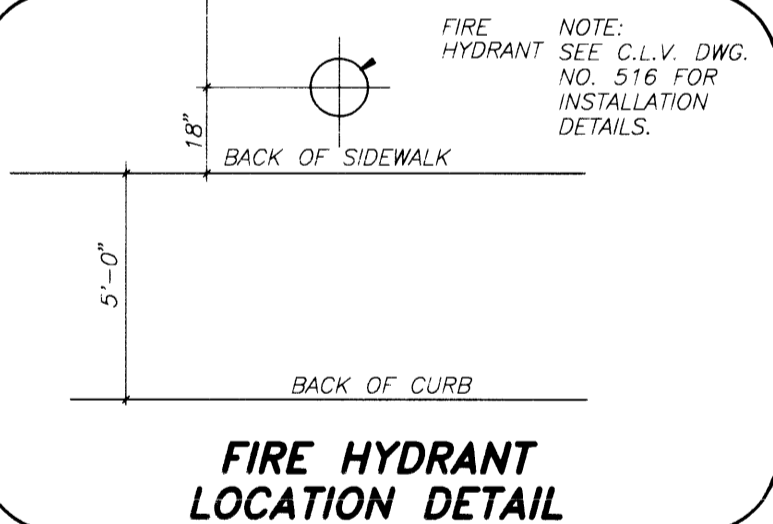
Fire flow Requirement is 1500 gallons per minute at 20 pounds per square inch residual.

Based on:

Area	2500
Height	30 FEET
Type of Construction	FRAME/STUCCO
Exposures	N/A
Sprinkler System	NONE
Occupancy	RESIDENTIAL
Roof Construction	TILE

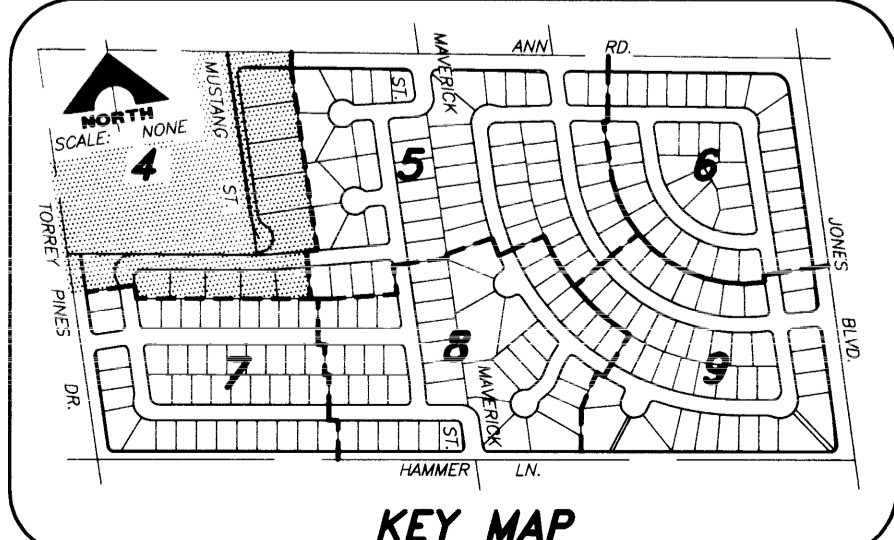
Review By: *J. Espando*
Date: 5/5/14

Call before you Dig.
1-800-227-2600
UNDERGROUND SERVICE (US)



APPROVED FOR CONSTRUCTION
J. Espando Stationer
LAS VEGAS FIRE DEPT. DATE

APPROVED FOR CONSTRUCTION
J. Espando Stationer
LAS VEGAS VALLEY WATER DISTRICT DATE



REVISIONS

NO.	DATE	DESCRIPTION
1	5/5/14	ISSUE FOR PERMIT
2	5/5/14	ISSUE FOR PERMIT
3	5/5/14	ISSUE FOR PERMIT
4	5/5/14	ISSUE FOR PERMIT
5	5/5/14	ISSUE FOR PERMIT
6	5/5/14	ISSUE FOR PERMIT
7	5/5/14	ISSUE FOR PERMIT
8	5/5/14	ISSUE FOR PERMIT
9	5/5/14	ISSUE FOR PERMIT
10	5/5/14	ISSUE FOR PERMIT

REGISTERED PROFESSIONAL ENGINEER
STATE OF NEVADA
J. Espando
No. 10118
S. S. G.

G. C. WALLACE, INC.
Engineering/Architecture
1555 SOUTH RAINBOW BLVD., LAS VEGAS, NEVADA 89102

DEL WEBB OF NEVADA, INC.
COPPER CREST
UTILITY PLAN 1

SHEET
4
OF 40 SHEETS

JOB NO. 770.006
PLOTTED: 05/05/14 4:52 pm DRAWING: C:\CORPORATE\UTILITY\CC-4 BR-148