

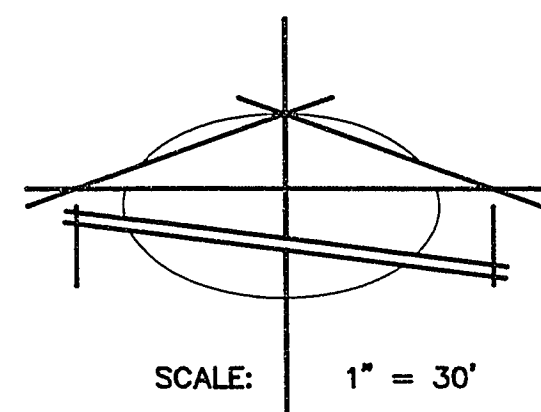
VICINITY MAP
NO SCALE

UTILITY NOTE

THE LOCATION OF UNDERGROUND UTILITIES SHOWN HEREON HAS BEEN DETERMINED FROM SURFACE EVIDENCE OF THEIR EXISTENCE OR FROM INFORMATION OBTAINED FROM THE UTILITY COMPANIES. THE ENGINEER ACCEPTS NO LIABILITY FOR THE EXISTENCE OR NON-EXISTENCE OF UTILITY LINES. CONTRACTORS AND OTHERS USING THIS MAP MUST CONFIRM THE LOCATION OF UNDERGROUND LINES OR STRUCTURES WITH THE UTILITY COMPANIES PRIOR TO COMMENCING ANY EXCAVATION.

LEGEND

- PROPERTY LINE
- STREET CENTERLINE
- NEW CONCRETE
- NEW AC PAVEMENT
- BUILDING LINE
- EXIST. WALL



FIRE DEPT. NOTES

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE CITY OF LAS VEGAS FIRE DEPARTMENT "HYDRANT SPECIFICATIONS", "HYDRANT INSTALLATION SPECIFICATIONS" AND ORDINANCE #3545.
2. AUTHORIZED HYDRANTS FOR THIS PROJECT ARE:
 - A. KENNEDY GUARDIAN
 - B. MUELLER A-423 CENTURIAN
 - C. GLOW MODEL 2548 MEDALLION
3. ON ANY NEW HOME OR BUILDING INSTALLATION, ACCESSIBLE FIRE HYDRANTS SHALL BE INSTALLED BEFORE COMBUSTIBLE CONSTRUCTION COMMENCES AND SAID FIRE HYDRANTS SHALL BE IN GOOD WORKING WITH AN ADEQUATE WATER SUPPLY. CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT CENTERLINE OF STREET ADJACENT TO FIRE HYDRANT AS REQUIRED IN ORDINANCE #3545 TO IDENTIFY FIRE HYDRANT LOCATIONS.
4. CALL THE LAS VEGAS BUILDING DEPARTMENT AT 799-2071 FOR UNDERGROUND INSPECTION, PRESSURE AND FLUSH VERIFICATION OF ALL FIRE HYDRANTS AND FIRE LINES BEFORE COVERING.
5. PAINTING OF THE CURBS AND HYDRANT AND ANY WORK NECESSARY FOR PROTECTION OF HYDRANTS FROM PHYSICAL DAMAGE PER ORDINANCE #3545 SHALL BE COMPLETED BEFORE APPROVAL BY THE CITY OF LAS VEGAS FIRE DEPARTMENT.
6. A PERMIT IS REQUIRED FROM THE FIRE DEPARTMENT FOR ON-SITE WATER LINE AND FIRE HYDRANT INSTALLATIONS. THE PERMIT AND CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER PRIOR TO ANY WORK BEGINNING.
7. A FLOW TEST MUST BE WITNESSED BY THE FIRE DEPARTMENT PRIOR TO OCCUPANCY FOR VERIFICATION OF REQUIRED ON-SITE WATER SUPPLY.
8. ALL ON-SITE FIRE MAIN MATERIALS MUST BE U.L. LISTED AND F.M. APPROVED.
9. FIRE HYDRANT SPACING:
 - RESIDENTIAL - 500 FEET UNSPRINKLERED, 600 FEET SPRINKLERED
 - COMMERCIAL INCLUDING MULTI-FAMILY - 300 FEET UNSPRINKLERED, 400 FEET SPRINKLERED
10. NO FIRE HYDRANT 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.
11. NO FIRE HYDRANT SHALL BE LOCATED WITHIN 6 FEET OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREET LIGHT OR ANY OTHER OBSTRUCTION.
12. NOT MORE THAN 2 HYDRANTS CAN BE OUT OF SERVICE DUE TO A SINGLE MAIN BREAK.
13. 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.
14. 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 UPC 88, SECTION 10.207).
15. ALL DEAD END FIRE APPARATUS ACCESS ROADS AND/OR FIRE LANES PUBLIC OR PRIVATE IN EXCESS OF 150 FEET IN LENGTH SHALL BE PROVIDED WITH AN APPROVED TURNAROUND AREA.

DETECTOR CHECK NOTES

INSTALLATION OF DETECTOR CHECK AND VAULT

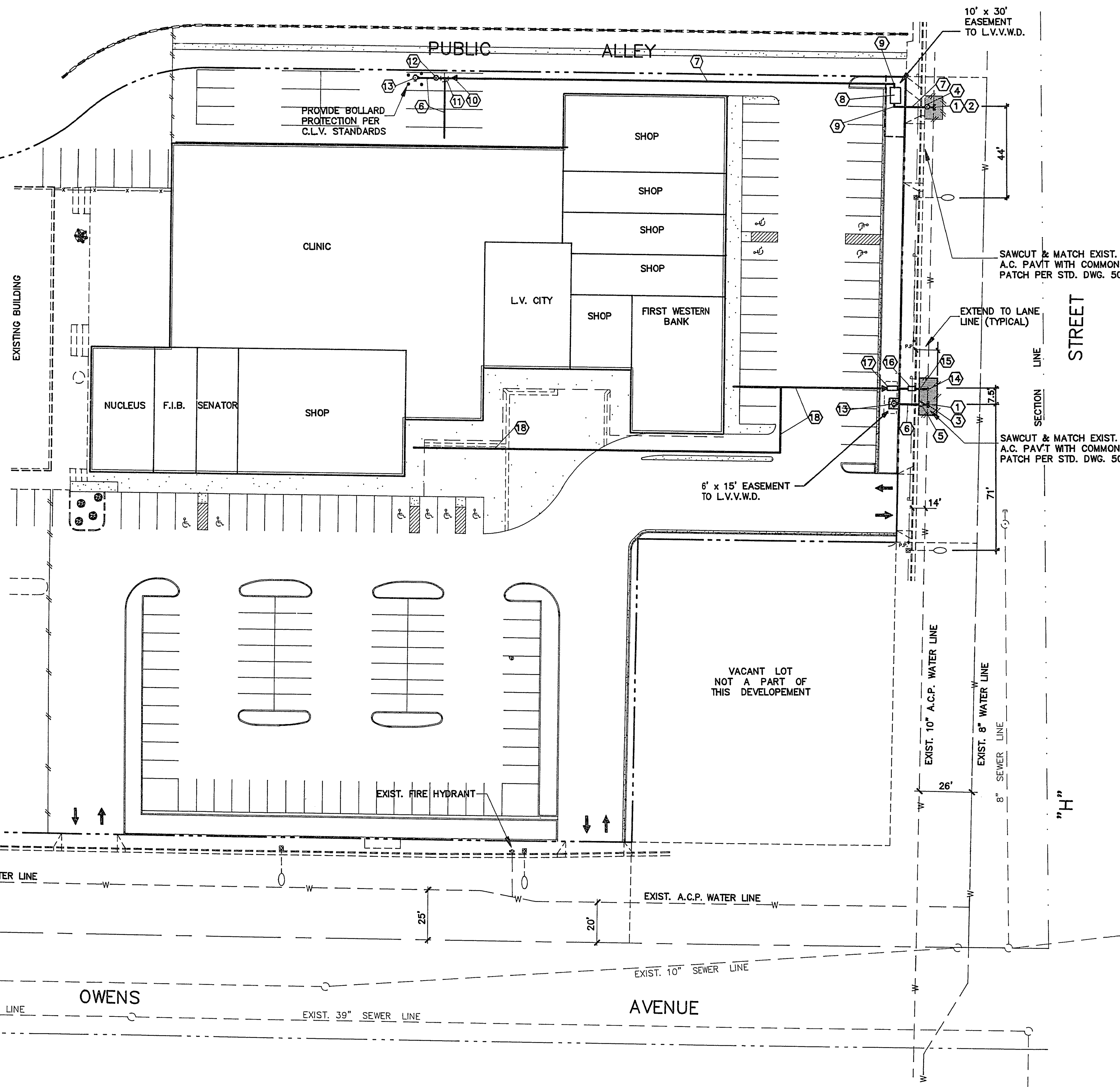
THE DETECTOR CHECK(S) AND VAULT(S) WITH NON-TRAFFIC BEARING COVERS(S) SHALL BE INSTALLED IN ACCORDANCE WITH THE DISTRICT'S STANDARD PLATE NO. 19 AND WITH STANDARD VAULT DRAWING C-475, LATEST REVISION.

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 TO THE VAULT(S) FROM ADJACENT RIGHT-OF-WAY.

FIRE DEPT. DATA

SQUARE FOOTAGE 43,837 S.F.
 HEIGHT ONE STORY
 TYPE OF CONSTRUCTION TYPE V - 1 HR.
 SPRINKLER SYSTEM YES
 CALCULATED FIRE FLOW 1900 G.P.M. @ 20 PSI *
 OCCUPANCY OFFICE / RETAIL
 * INCLUDES 50% REDUCTION FOR SPRINKLERS

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



WATER NOTES

1. NO WORK SHALL BEGIN ON THE WATER PLANS UNTIL THEY HAVE BEEN RELEASED FOR CONSTRUCTION BY THE LVVWD. FOLLOWING APPROVAL OF THE PLANS, NOTICE SHALL BE GIVEN TO THE LVVWD CUSTOMER SERVICE DEPARTMENT (870-4194), 48 HOURS PRIOR TO ACTUAL CONSTRUCTION, AND 24 HOURS PRIOR TO AN INSPECTION.
2. CALL BEFORE YOU DIG 1-800-227-2600
3. ALL WORK SHALL CONFORM TO LVVWD LATEST STANDARD PLATES, DRAWINGS AND SPECIFICATIONS.
4. 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 OFFSITE IMPROVEMENTS, CLARK COUNTY AREA.
5. DISTRICT APPROVED SERVICE SADDLES OR TAPPED COLLARS SHALL BE REQUIRED ON ALL 3/4" AND 1" SERVICE LATERALS. SERVICE SADDLES ONLY SHALL BE PERMITTED ON 1-1/2" AND 2" SERVICE LATERALS. DOUBLE TAPPED COLLARS ARE NOT PERMITTED.
6. COPPER SERVICE LATERALS: ALL 3/4" TO 2" SERVICE LATERALS SHALL BE OF COPPER TUBING IN ACCORDANCE WITH THE DISTRICT'S SPECIFICATIONS AND STANDARD PLATES.
7. THE MAXIMUM ALLOWABLE JOINT DEFLECTION FOR ACP AND DUCTILE IRON PIPE SHALL BE AS FOLLOWS:

PIPE SIZES	ACP SLIP JOINT	DUCTILE IRON MECHANICAL JOINT
6 INCH	2.5 DEGREES	2.5 DEGREES
8 - 12 INCH	2.5 DEGREES	2.5 DEGREES
14 - 18 INCH	2.0 DEGREES	1.5 DEGREES
18 - 24 INCH	N/A	1.5 DEGREES
8. ON PVC PIPE, THE MAXIMUM OFFSET FOR A 20' LENGTH OF FACTORY BELLED PIPE SHALL BE 18 INCHES FOR 8" PIPE, 12 INCHES FOR 6" PIPE, AND 9 INCHES FOR 10" AND 12" PIPE.
 IF THESE OFFSETS CONFLICT WITH THE PIPE MANUFACTURER'S RECOMMENDATION, THE MORE STRINGENT REQUIREMENT SHALL APPLY.
9. ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
10. ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS AND VALLEY GUTTERS.
11. DETECTOR TAPE SHALL BE REQUIRED IN ACCORDANCE WITH STANDARD PLATE NO. 27 WHERE INDICATED, AND AS FOLLOWS:
 - a) OVER ALL MAINS NOT INSTALLED 6 FEET FROM BACK OF CURB.
 - b) OVER ALL SERVICE LATERALS NOT INSTALLED AT RIGHT ANGLES TO MAIN
12. ALL WATER MAINS SHALL BE PRESSURE TESTED AT 200 PSI FOR A CONTINUOUS TWO HOUR PERIOD, IN ACCORDANCE WITH DISTRICT STANDARDS.
13. ALL WATER MAINS SHALL BE DISINFECTED, AND FLUSHED, AND AN ACCEPTABLE HEALTH SAMPLE OBTAINED, PRIOR TO THE CONNECTION OF THE WATER MAIN(S) AND/OR LATERAL(S) TO THE DISTRICT'S SYSTEM.
 CONTRACTOR TO OBTAIN ALL METERS 2" AND SMALLER FROM LVVWD CENTRAL STORES. TELEPHONE 258-3152 FORTY-EIGHT (48) HOURS PRIOR TO PICKUP.

ESTIMATED QUANTITIES

	ONSITE	OFFSITE
1 WET TAP		2 EA.
2 10"X 10"X 8" MECHANICAL JOINT TAPPING SLEEVE		1 EA.
3 10"X 10"X 6" TAPPING SLEEVE		1 EA.
4 8" TAPPING VALVE W/BOX & COVER		1 EA.
5 6" TAPPING VALVE W/BOX & COVER		1 EA.
6 6" PVC WATERLINE	30 L.F.	14 L.F.
7 8" PVC WATERLINE	225 L.F.	14 L.F.
8 8" DETECTOR CHECK & VAULT		1 EA.
9 8" 90° ELBOW		2 EA.
10 8"X 6" REDUCER		1 EA.
11 6"X 6" TEE		1 EA.
12 6" NRS GATE VALVE W/ BOX & COVER		1 EA.
13 FIRE HYDRANT ASSEMBLY		2 EA.
14 2" SERVICE SADDLE		1 EA.
15 2" COPPER SERVICE LATERAL		6 L.F.
16 2" WATER METER FROM L.V.V.W.D.		1 EA.
17 2" BACKFLOW PREVENTION DEVICE PER STD. PL #11		1 EA.
18 2 1/2" PVC WATERLINE	294 L.F.	

REDUCED PRESSURE PRINCIPLE ASSEMBLY

AN APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) (RPPA) SHALL BE INSTALLED PER STANDARD PLATE NUMBER 11. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE RPPA HAS BEEN SUCCESSFULLY TESTED BY THE L.V.V.W.D.

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 TO THE RPPA FROM THE ADJACENT RIGHT-OF-WAY.

APPROVALS

[Signature] 4/18/93
 LAS VEGAS VALLEY WATER DISTRICT DATE

[Signature] 4/15/93
 CITY OF LAS VEGAS FIRE MARSHALL DATE

APPD 7-9-93
 REVISIONS
 DATE NO. 4/18/93
 1993
 DATE A.P.R.I.L.
 DESIGN
 DRAWN R.A.J.
 CHECK
 CIVIL ENGINEERS
 LAND PLANNERS
 LAND SURVEYORS
 LAS VEGAS, NEVADA
 1210 HINSON STREET
 (702) 870-8771
 SCALE 1" = 30'
 PREPARED FOR:
 MASANA
 WATER PLAN
 SECTION 21, TOWNSHIP 20 SOUTH, RANGE 61 EAST, M.D.B. & M. CLARK COUNTY NEVADA
 CITY OF LAS VEGAS
 ADDITION TO NUCLEUS PLAZA
 SHEET
 PROL. NO. MASANA