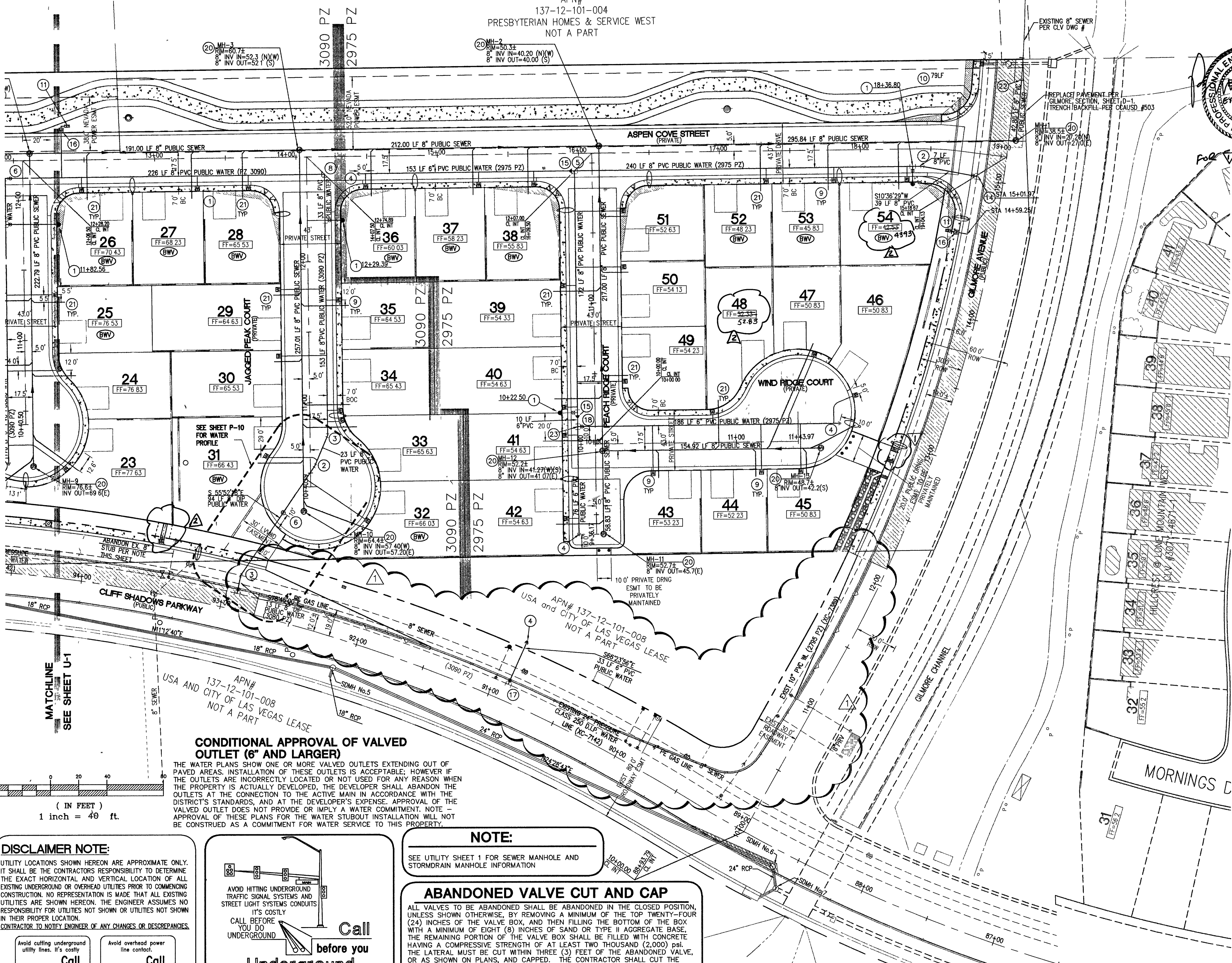




- LEGEND:**
- PROPOSED PVC SEWER MAIN WITH 4" MANHOLE (SIZE AS SHOWN)
 - PROPOSED PVC WATER MAIN AND GATE VALVE (SIZE AS SHOWN)
 - PROPOSED FIRE HYDRANT ASSEMBLY
 - EXISTING PVC SEWER MAIN WITH EXISTING MANHOLE
 - EXISTING STORM DRAIN MAIN WITH EXISTING MANHOLE
 - EXISTING PVC WATER MAIN AND GATE VALVE
 - PROPOSED 4" SEWER LATERAL AND CLEANOUT
 - PROPOSED 1" WATER SERVICE LATERAL WITH 5/8" METER
 - EXISTING FIRE HYDRANT ASSEMBLY
 - 20' SEWER EASEMENT
 - BACK WATER VALVE

- WATER CONSTRUCTION NOTES**
- FIRE HYDRANT ASSEMBLY PER UDACS PLATE 7 (INCLUDES TEE AND GATE VALVE)
 - INSTALL 8" 11 1/4" BEND
 - INSTALL 22 1/2" BEND
 - INSTALL 6" OR 8" CAP & 2" BLOW OFF ASSEMBLY PER UDACS PLATE 4
 - INSTALL 8" TEE
 - INSTALL 8" GATE VALVE
 - INSTALL 8" 45° BEND
 - INSTALL 8" 90° BEND
 - INSTALL 1" WATER SERVICE LATERAL WITH 5/8" METER PER UDACS PLATE No. 18
 - INSTALL 2-4" IRRIGATION SLEEVES
 - INSTALL 1" R.P.P.A. PER UDACS PLATE 11A
 - INSTALL 1" WATER SERVICE WITH 3/4" METER PER UDACS PLATE No. 18
 - INSTALL 24"x8" TAPPING TEE AND 8" TAPPING VALVE
 - INSTALL 10"x8" MJ TAPPING TEE AND 8" TAPPING VALVE
 - INSTALL 8"x6" REDUCER
 - INSTALL 5/8" IRRIGATION WATER METER PER UDACS PLATE No. 18
 - INSTALL 24"x6" MJ TAPPING TEE AND 6" TAPPING VALVE
 - INSTALL 6" GATE VALVE
 - INSTALL 8"x6" TEE
 - INSTALL 6"x6" TEE

- SEWER CONSTRUCTION NOTES**
- INSTALL 48" SANITARY MANHOLE
 - INSTALL 4" PVC SEWER LATERAL (PRIVATE)
 - REMOVE EXISTING 8" CAP AND CONNECT 8" PVC SEWER

FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENTS IS 1500 GALLONS PER MINUTE AT 20 PSI RESIDUAL PRESSURE.

BASED ON SQUARE FOOTAGE:	1900 SQ. FT.
LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION WALLS:	N/A
BUILDING HEIGHT:	25±
NUMBER OF STORIES:	2 STORY
TYPE OF CONSTRUCTION:	TYPE V-N SINGLE-FAMILY
OCCUPANCY:	
FULL AUTOMATIC SPRINKLER SYSTEM:	NO

REVIEWED BY: *[Signature]* DATE: 3/8/05

METER SUMMARY

METER SIZE	QUANTITY
5/8" METER (DOMESTIC)	54
5/8" METER (IRRIGATION)	3

LEGAL DESCRIPTION

THE EAST HALF (E 1/2) OF THE NORTHEAST QUARTER (NE 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 12, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CLARK COUNTY, NEVADA;

TOGETHER WITH THE EAST HALF (E 1/2) OF THE SOUTHEAST QUARTER (SE 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SAID SECTION 12, CONTAINING AN AREA OF 10 ACRES.

BENCHMARK

CITY OF LAS VEGAS STATION 1LV09 12NWNW

RIVET AND IN CONCRETE PAD (TRANS SW7040) ON THE EAST OF CLIFF SHADOWS +/- 175 FT. NORTH OF ALEXANDER.

ELEVATION = 887.6822 meters (NAVD'88 PUBLISHED) ELEVATION = 2912.34 U.S. SURVEY FEET (NAVD'88 PUBLISHED)

BASIS OF BEARINGS

NORTH 01°08'30" WEST, BEING THE BEARING OF THE WEST LINE OF THE NORTHWEST QUARTER (NW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 12, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN ON THAT CERTAIN MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE IN FILE 120, PAGE 83 OF SURVEYS

GENERAL NOTES

- ALL WATER FACILITIES CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE "UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS" (UDACS), LATEST EDITION.
- WATER AND SEWER SERVICES (LATERALS) SHALL BE INSTALLED A MINIMUM OF FORTY-EIGHT (48) INCHES APART IN SEPARATE TRENCHES. WATER LATERALS SHALL BE A MINIMUM OF TWELVE (12) INCHES ABOVE THE SEWER LATERAL (REF. UNIFORM PLUMBING CODE).
- NEVADA POWER COMPANY ACKNOWLEDGES THAT WE HAVE RECEIVED YOUR PLANS AND WILL PROVIDE SERVICE TO ALL ELECTRICAL NEEDS ASSOCIATED WITH THIS PROJECT. NEVADA POWER COMPANY RESERVES THE RIGHT TO ADDRESS ANY EXISTING OR FUTURE CONFLICTS ONCE THE FINAL DESIGN IS COMPLETED. THE NEW SERVICE AND THE RESOLUTION OF ANY CONFLICTS WILL BE ACCOMPLISHED PURSUANT TO THE NEVADA PUBLIC UTILITY COMMISSION'S RULES AND REGULATIONS.
- ALL PRIVATE STREETS ARE PUBLIC DRAINAGE EASEMENTS, PUBLIC SEWER EASEMENTS AND ARE TO BE PRIVATELY MAINTAINED. ALSO LVWD EASEMENTS AND PUBLIC UTILITY EASEMENTS.
- ALL PRIVATE STREETS ARE PUBLIC DRAINAGE EASEMENTS AND PUBLIC SEWER

R.P.P.A. NOTE - (3) 1"

APPROVED REDUCED PRESSURE PRINCIPAL ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLATE No. 11A. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPAL ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVVWD.

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

Building Information

TYPE OF CONSTRUCTION:	TYPE V-N
TOTAL SQUARE FOOTAGE:	1,900 S.F. (MAX)
NUMBER OF STORIES:	2 STORY
BUILDING USE:	RESIDENTIAL
SPRINKLERED:	NON-SPRINKLERED

CITY OF LAS VEGAS FIRE DEPT.

APPROVED BY: *[Signature]*

APPROVAL OF THESE PLANS SHALL NOT BE CONSIDERED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS.

APPROVAL BY THE FIRE DEPARTMENT HAVING JURISDICTION IS REQUIRED PRIOR TO OBTAINING FINAL APPROVAL FROM THE LVVWD.

FIRE FLOW 1500 GPM AT 20 P.S.I. RESIDUAL 3/8/05 DATE

CUT AND CAP

THE LATERAL MUST BE CUT WITHIN THREE (3) FEET OF THE ABANDONED VALVE, OR AS SHOWN ON PLANS, AND CAPPED. THE CONTRACTOR SHALL CUT THE EXISTING WATER SHOWN ON THE DRAWING, AND INSTALL A CAP COMPLETE WITH THRUST BLOCK, WHERE A JOINT OR COUPLING IN THE EXISTING PIPE IS UNCOVERED AT THE CUT AND CAP LOCATIONS. THE INSTALLATION OF A PLUG MAY BE PERMITTED WITH DISTRICT APPROVAL. A CONCRETE THRUST BLOCK SHALL BE INSTALLED AT ALL CAP OR PLUG LOCATIONS, IN ACCORDANCE WITH THE PROVISIONS OF UDACS PLATE 5.

APPROVAL

[Signature] 3/8/05 DATE

LAS VEGAS VALLEY WATER DISTRICT PROJECT # H-108538

CONDITIONAL APPROVAL OF VALVED OUTLET (6" AND LARGER)

THE WATER PLANS SHOW ONE OR MORE VALVED OUTLETS EXTENDING OUT OF PAVED AREAS. INSTALLATION OF THESE OUTLETS IS ACCEPTABLE; HOWEVER IF THE OUTLETS ARE INCORRECTLY LOCATED OR NOT USED FOR ANY REASON WHEN THE PROPERTY IS ACTUALLY DEVELOPED, THE DEVELOPER SHALL ABANDON THE OUTLETS AT THE CONNECTION TO THE ACTIVE MAIN IN ACCORDANCE WITH THE DISTRICT'S STANDARDS, AND AT THE DEVELOPER'S EXPENSE. APPROVAL OF THE VALVED OUTLET DOES NOT PROVIDE OR IMPLY A WATER COMMITMENT. NOTE: APPROVAL OF THESE PLANS FOR THE WATER STUBOUT INSTALLATION WILL NOT BE CONSTRUED AS A COMMITMENT FOR WATER SERVICE TO THIS PROPERTY.

DISCLAIMER NOTE:

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 OR OVERHEAD 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. CONTRACTOR TO NOTIFY ENGINEER OF ANY CHANGES OR DISCREPANCIES.

Avoid cutting underground utility lines. It's costly.

Call before you Dig

1-800-227-2600 UNDERGROUND SERVICE (USA)

Avoid overhead power line contact.

Call before you Overhead

1-702-593-6111 NEVADA POWER DISTRICT AND SAFETY SERVICES DEPARTMENT

Underground

1-702-455-7511

1-702-229-6611

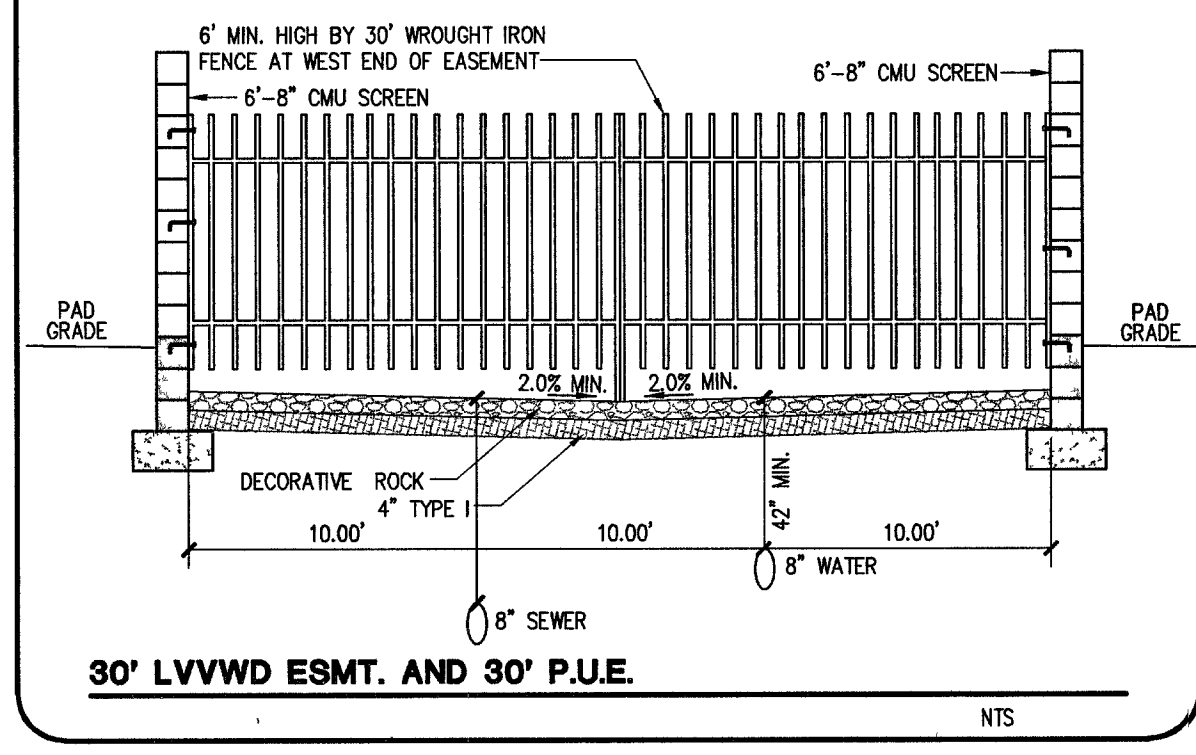
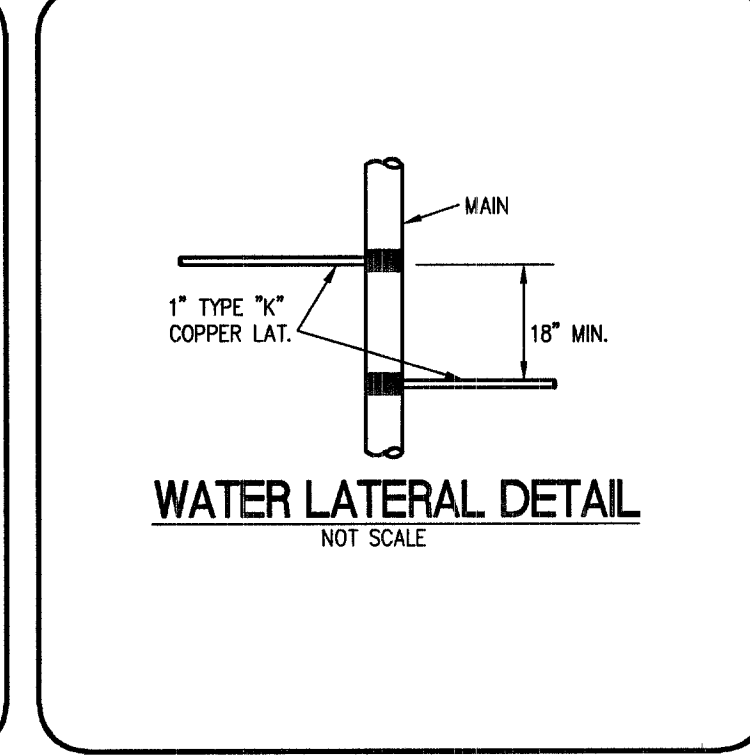
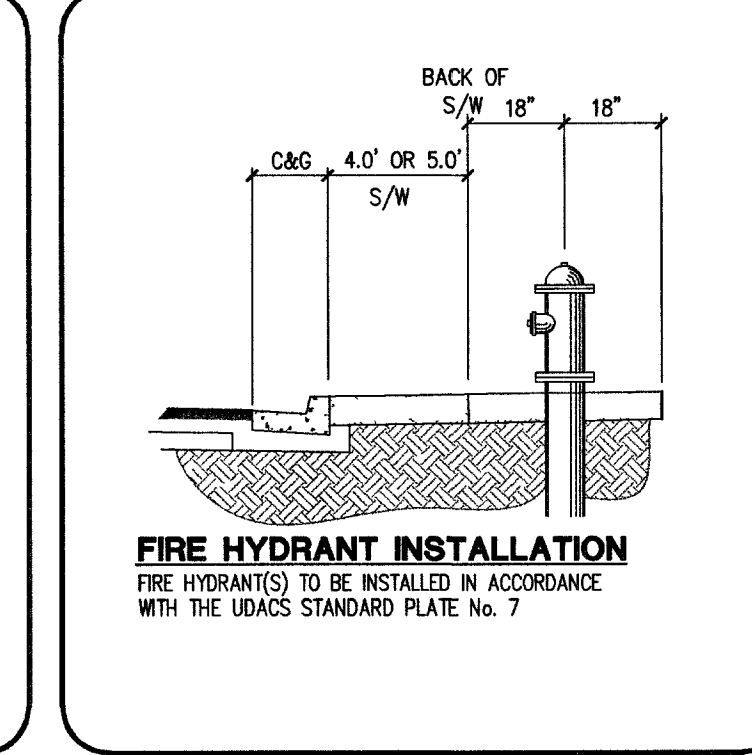
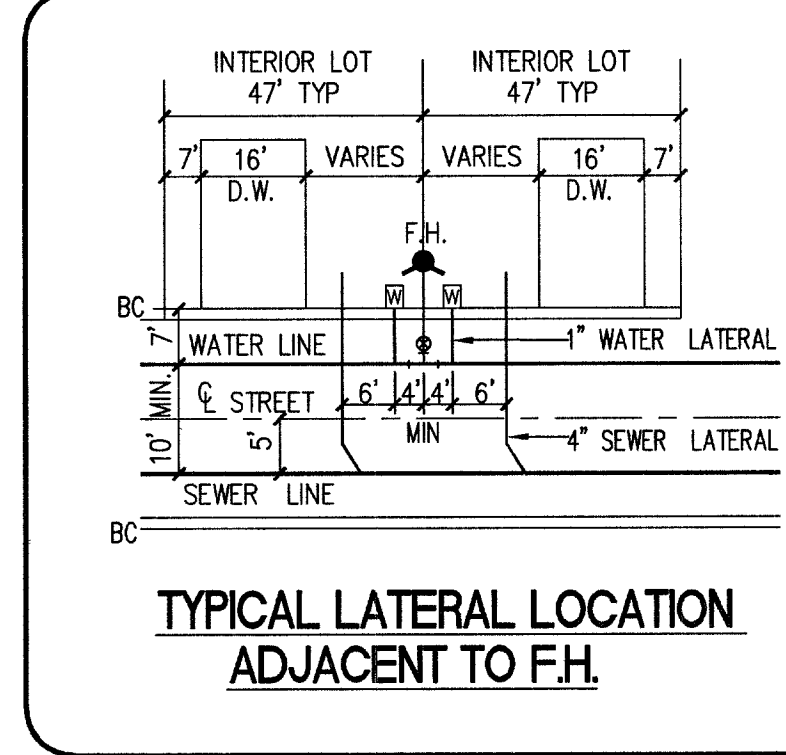
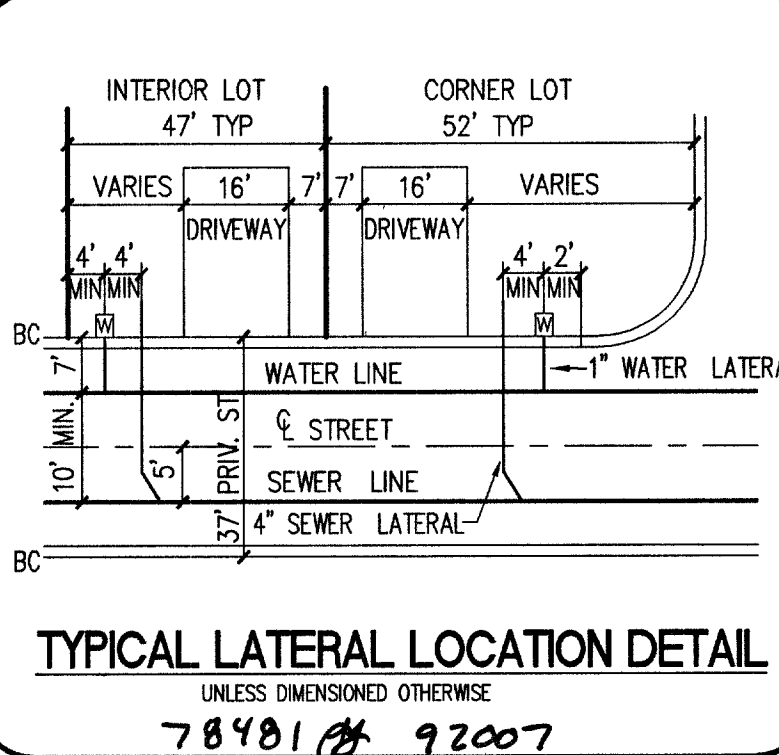
LAS VEGAS AREA COMPUTERIZED MAPS SYSTEM

NOTE:

SEE UTILITY SHEET 1 FOR SEWER MANHOLE AND STORMDRAIN MANHOLE INFORMATION

ABANDONED VALVE CUT AND CAP

ALL VALVES TO BE ABANDONED SHALL BE ABANDONED IN THE CLOSED POSITION, UNLESS SHOWN OTHERWISE, BY REMOVING A MINIMUM OF THE TOP TWENTY-FOUR (24) INCHES OF THE VALVE BOX, AND THEN FILLING THE BOTTOM OF THE BOX WITH A MINIMUM OF EIGHT (8) INCHES OF SAND OR TYPE II AGGREGATE BASE. THE REMAINING PORTION OF THE VALVE BOX SHALL BE FILLED WITH CONCRETE HAVING A COMPRESSIVE STRENGTH OF AT LEAST TWO THOUSAND (2,000) PSI. THE LATERAL MUST BE CUT WITHIN THREE (3) FEET OF THE ABANDONED VALVE, OR AS SHOWN ON PLANS, AND CAPPED. THE CONTRACTOR SHALL CUT THE EXISTING PIPE WHERE SHOWN ON THE DRAWING AND INSTALL A CAP COMPLETE WITH THRUST BLOCK. WHERE A JOINT OR COUPLING IN THE EXISTING PIPE IS UNCOVERED AT THE CUT AND CAP LOCATIONS, THE INSTALLATION OF A PLUG MAY BE PERMITTED WITH DISTRICT APPROVAL. A CONCRETE THRUST BLOCK SHALL BE INSTALLED AT ALL CAP OR PLUG LOCATIONS IN ACCORDANCE WITH THE PROVISIONS OF UDACS PLATE 5, ESN.033



SEWER CONSTRUCTION NOTES

- INSTALL 48" SANITARY MANHOLE
- INSTALL 4" PVC SEWER LATERAL (PRIVATE)
- REMOVE EXISTING 8" CAP AND CONNECT 8" PVC SEWER

APPROVAL

[Signature] 3/8/05 DATE

LAS VEGAS VALLEY WATER DISTRICT PROJECT # H-108538

KBHOME

750 Pict Road, Suite F
Las Vegas, NV 89119
(702) 641-2500

6655 Bermuda Road
Las Vegas, NV 89119
(702) 838-5400 Fax (702) 838-5454

Carter-Burgess

Consultants in Planning, Engineering,
Construction Management, and Related Services

VILLAS • CLIFF SHADOWS

UTILITY PLAN

DRAWN BY: NOV. 2004
DESIGNED BY: NOV. 2004
CHECKED BY: NOV. 2004
PROJECT NO: 241080
SCALE: 1"=40' HORIZ. VERT. N/A

REVISION

REV	DATE	BY
1	12/24/05	WBN
2	12/24/05	WBN
3	12/24/05	WBN
4	12/24/05	WBN
5	12/24/05	WBN
6	12/24/05	WBN
7	12/24/05	WBN
8	12/24/05	WBN
9	12/24/05	WBN
10	12/24/05	WBN
11	12/24/05	WBN
12	12/24/05	WBN
13	12/24/05	WBN
14	12/24/05	WBN
15	12/24/05	WBN
16	12/24/05	WBN
17	12/24/05	WBN
18	12/24/05	WBN
19	12/24/05	WBN
20	12/24/05	WBN
21	12/24/05	WBN
22	12/24/05	WBN
23	12/24/05	WBN
24	12/24/05	WBN
25	12/24/05	WBN
26	12/24/05	WBN
27	12/24/05	WBN
28	12/24/05	WBN
29	12/24/05	WBN
30	12/24/05	WBN
31	12/24/05	WBN
32	12/24/05	WBN
33	12/24/05	WBN
34	12/24/05	WBN
35	12/24/05	WBN
36	12/24/05	WBN
37	12/24/05	WBN
38	12/24/05	WBN
39	12/24/05	WBN
40	12/24/05	WBN
41	12/24/05	WBN
42	12/24/05	WBN
43	12/24/05	WBN
44	12/24/05	WBN
45	12/24/05	WBN
46	12/24/05	WBN
47	12/24/05	WBN
48	12/24/05	WBN
49	12/24/05	WBN
50	12/24/05	WBN
51	12/24/05	WBN
52	12/24/05	WBN
53	12/24/05	WBN
54	12/24/05	WBN