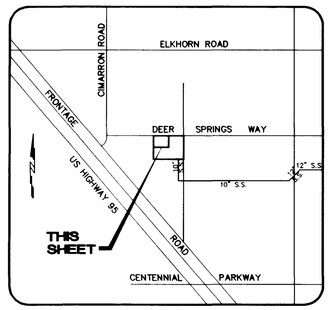


KEY MAP

GRAPHIC SCALE

20 0 10 20 40

1" = 20'

CURB TO BE PAINTED RED "NO PARKING – FIRE LANE" (TYPICAL)

SEWER MANHOLE DATA TABLE

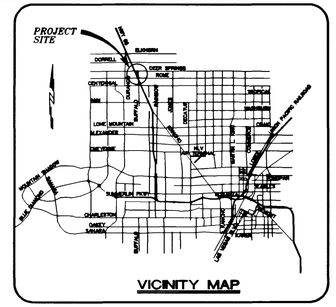
SMH #	TMH	INV. IN	INV. OUT	NORTHING	EASTING
EX.	17.7±	09.93	09.73	809555.42	750085.34
1	20.1±	15.01	14.81	809881.55	750092.73
2	21.3±	15.70	15.50	809882.39	749976.21
3	21.9±	16.45	16.25	809993.30	749978.72
4	22.8±	16.80	16.60	810021.82	749971.07
5	23.5±	17.44	17.24	810003.73	749901.53
6	28.3±	22.58	22.38	810000.50	749654.33
7	29.5±	24.40	24.20	810020.82	749492.64
8	30.4±	24.82	24.62	810029.67	749472.03

SEWER CLEANOUT DATA TABLE

CO #	TCO	INV. IN	INV. OUT	NORTHING	EASTING
1	22.2±	17.16	16.96	810050.65	749983.48
2	22.6±	17.56	17.56	810129.22	749968.93
3	23.0±	18.16	17.96	810207.79	749954.37
4	23.3±	18.48	18.48	810270.62	749961.31
5	24.0±	19.00	18.80	810333.46	749968.25
6	24.3±	19.68	19.48	810430.55	749970.45
7	24.5±	20.06	20.06	810506.03	749972.16
8	25.3±	---	20.32	810558.85	749973.36
9	25.2±	20.28	20.08	810432.34	749891.57
10	26.3±	---	21.14	810439.05	749848.93
11	26.4±	21.43	21.43	810084.49	749753.17
12	27.0±	22.38	22.18	810156.24	749753.69
13	28.5±	23.42	23.22	810181.66	749720.40
14	31.0±	24.62	24.42	810281.63	749722.66
15	32.0±	25.32	25.12	810381.58	749719.57
16	32.5±	25.86	25.66	810449.26	749713.55
17	30.4±	---	26.36	810541.24	749752.78
18	22.6±	---	15.83	809898.74	750052.99
19	26.1±	---	17.21	809927.55	749934.50
20	23.4±	---	19.37	810078.98	750057.25
21	23.4±	---	19.37	810080.93	750054.27
22	27.0±	---	20.77	810240.33	749862.93
23	26.1±	---	21.34	810267.83	749865.96
24	27.0±	---	20.85	810222.38	749872.52
25	27.1±	---	21.00	810223.98	749862.95
26	24.4±	---	20.37	810234.21	750030.65

SEWER CLEANOUT DATA TABLE

CO #	TCO	INV. IN	INV. OUT	NORTHING	EASTING
27	24.5±	---	20.55	810244.15	750031.75
28	28.8±	---	20.85	810440.12	749875.82
29	29.6±	---	21.90	810471.10	749834.91
30	29.7±	---	22.07	810466.79	749826.65
31	25.2±	---	21.52	810444.88	750042.65
32	25.3±	---	21.58	810449.38	750042.75
33	25.2±	---	22.49	810633.08	750032.16
34	20.0±	---	23.24	810668.05	750032.08
35	27.0±	---	23.24	810666.36	750029.74
36	24.6±	---	18.58	810054.94	749902.85
37	27.9±	---	22.99	810051.30	749690.08
38	29.6±	---	24.78	809932.88	749625.58
39	30.0±	---	24.85	809932.90	749620.62
40	30.9±	---	24.78	810061.87	749579.88
41	30.4±	---	24.49	810183.43	749673.21
42	31.7±	---	24.55	810187.95	749673.00
43	32.8±	---	25.79	810409.06	749710.55
44	33.0±	27.45	27.25	810452.94	749642.93
45	33.3±	29.12	29.12	810480.00	749572.07
46	33.0±	---	30.33	810499.50	749520.98
47	35.0±	---	31.53	810557.09	749516.78
48	33.6±	---	26.67	810503.98	749718.82
49	29.6±	27.78	27.78	810603.15	749745.03
50	32.6±	---	29.03	810658.11	749737.32
51	34.2±	---	29.01	810659.32	749739.31



VICINITY MAP

PROJECT BENCHMARK

TBM, T189 3" BRASS CAP USC & GS 50' EAST OF US 95 & 200' ± SOUTH OF CENTENNIAL ON 88 DATUM METER 734.5745=2410.02 FEET
TBM # 1LV9028NNE6

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS PROJECT IS GRID NORTH, AS DEFINED BY THE NEVADA COORDINATE SYSTEM OF 1983 (NCS83), EAST ZONE, (2701), AS DETERMINED BY NORTH LAS VEGAS HARN CONTROL POINTS 700, 704, 714, AS SHOWN ON A RECORD OF SURVEY ON FILE IN THE CLARK COUNTY, NEVADA, RECORDER'S OFFICE IN FILE 82 OF SURVEYS, AT PAGE 52.

Avoid cutting underground utility lines. It's costly.

Call before you Dig 1-800-227-2600

Avoid overhead power line contact

Call before you OVERHEAD 1-702-593-6111

ESTIMATE OF QUANTITIES/LEGEND

WATER	PRIVATE	PUBLIC
① FIRE HYDRANT ASSEMBLY per (udacs plate 7)(INCLUDES 8"x6"TEE & 6"GV)	15 EA.	
② 10"x8" REDUCER	2 EA.	
~~③ 10" - 8" REDUCER~~	~~1 EA.~~	
④ 8"x6" REDUCER	2 EA.	
⑤ 10" GATE VALVE	9 EA.	
⑥ 6" GATE VALVE	2 EA.	
⑦ 10"x10" TEE	2 EA.	
~~⑧ 10"x8"x8" TEE~~	~~1 EA.~~	
⑨ 10"x6" WET TAP	2 EA.	
⑩ 90° BEND	7 EA.	
⑪ 45° BEND	5 EA.	
⑫ 22.5° BEND	4 EA.	
⑬ 11.25° BEND	3 EA.	
~~⑭ 8"x2" FWGT~~	~~2 EA.~~	
⑮ 6"x3" FWGT WITH 8" RPPA PER PLATE 11B	2 EA.	
10" WATER LINE	2614 LF.	
8" WATER LINE	307 LF.	
6" WATER LINE	329 LF.	176 LF.
2" WATER LINE	1161 LF.	

SEWER	
● STANDARD MANHOLE	8 EA.
● CLEANOUT	51 EA.
8" SEWER MAIN	1108 LF.
6" SEWER MAIN	1230 LF.
4" SEWER LATERALS	1352 LF.

SEWER CONTRIBUTION	
AVERAGE FLOW =	0.0510 MGD.
PEAK FLOW =	3.5 MGD.

STREET LIGHTS & SIGNAGE	
200W HPS LUMINAIRE	4 EA.
STOP SIGN	2 EA.
SERVICE POINT & RCOC	1 EA.

SEWER CONNECTION NOTE

A SEGMENT OF THE DOWNSTREAM SEWER SYSTEM THAT WILL SERVE THIS PROJECT HAS NOT BEEN COMPLETED AND/OR ACCEPTED FOR MAINTENANCE BY THE CITY OF LAS VEGAS. ANY WORK DONE ON THIS PROJECT PRIOR TO THE COMPLETION AND/OR ACCEPTANCE OF THE DOWNSTREAM SEWER SYSTEM(S) SHALL BE DONE AT THE DEVELOPER'S OWN RISK. THE CITY OF LAS VEGAS RESERVES THE RIGHT TO PREVENT THE PHYSICAL CONNECTION OF THIS PROJECT INTO THE DOWNSTREAM SEWER SYSTEM UNTIL ALL SEGMENTS HAVE BEEN ACCEPTED FOR MAINTENANCE, OR UNTIL SUCH TIME AS THEY HAVE BEEN DEEMED AVAILABLE FOR SERVICE.

FIRE FLOW DATA

THE FIRE FLOW REQUIREMENTS IS 2500 GPM AT 20 PSI RESIDUAL PRESSURE.

BASED ON: PERLMAN ARCHITECTS BUILDING PLANS

SQUARE FOOTAGE: 18876 SF

LARGEST AREA BETWEEN 4-HOUR AREA SEPERATION WALLS: N/A

BUILDING HEIGHT: 34'-5 1/2" FEET

NUMBER OF STORIES: 2 FLOORS

TYPE OF CONSTRUCTION: V-1 HOUR

OCCUPANCY: R1

FULL AUTOMATIC FIRE SPRINKLER SYSTEM: N/A

REVIEWED BY: [signature] 6/30/99

DATE:

PROJECT NAME: Deer Springs Apts
Pg C-5 + C-6

This project water plan complies with the Las Vegas Valley Water District's technical requirements. However, this water plan is NOT APPROVED FOR CONSTRUCTION at this time and this signature does not provide or imply a water commitment.

[signature] 7-2-99
LVVWD DATE

APPROVALS:

[signature] 6/30/99
CITY OF LAS VEGAS FIRE MARSHAL DATE

LAS VEGAS VALLEY WATER DISTRICT DATE

[signature] 6-30-99
NEVADA POWER COMPANY DATE

NOTE: CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

THIS PROPERTY MAY HAVE STATIC WATER PRESSURE IN EXCESS OF 80 PSI. THE UNIFORM PLUMBING CODE REQUIRES THAT INDIVIDUAL, ON-SITE (PRIVATE), PRESSURE REDUCING VALVES BE INSTALLED WHENEVER THE PRESSURE EXCEEDS 80 PSI. PRV'S ARE THE DEVELOPER'S RESPONSIBILITY AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVVWD FACILITIES.
CSH.5H

NOTE :
ALL CLEANOUTS LOCATED IN PAVED AREAS WILL BE PROVIDED WITH VALVE BOXES, TRAFFIC BEARING LIDS AND CONCRETE COLLARS.

INSTALLATION OF METER AND VAULT

(2) 6 x 3 FMCT HERSHEY'S MFM II-MCT II OR APPROVED EQUALS AND VAULTS WITH NON-TRAFFIC BEARING COVER(S) SHALL BE INSTALLED IN ACCORDANCE WITH THE UDACS PLATE NO. 21D 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) TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY.
CSH.05M

REDUCED PRESSURE PRINCIPLE ASSEMBLY

(2) 8" RPPA WATTS # 909M1 OR APPROVED EQUAL SHALL BE INSTALLED PER THE UDACS PLATE NO. 11B. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE 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.
CSH.05M

REV	DATE	BY	REVISION

BIG SKY DEVELOPMENT
3320 N. BUFFALO DRIVE
LAS VEGAS, NEVADA 89129
(702) 395-2050

vtn nevada CONSULTING ENGINEERS ● PLANNERS ● LAND SURVEYORS
2727 SOUTH RAINBOW BOULEVARD LAS VEGAS, NEVADA 89102-5148
PH. (702) 873-7550 FAX (702) 362-2597

SHEET: **MASTER UTILITY PLAN**
TITLE: **DEER SPRINGS APARTMENTS**

DRAWN BY:	DESIGNED BY:	CHECKED BY:	PROJECT NO:
dtb	dtb	TEH	5522
MARCH 1999	MARCH 1999	MARCH 1999	SCALE: 1"=20' HORIZ. N/A VERT.

SEAL
REGISTERED PROFESSIONAL ENGINEER STATE OF NEVADA THOMAS E. HAYES CIVIL No. 9426
6-30-99

SHEET **C5** OF 17 SHEETS
DRAWING NO. 107-V3108

16902

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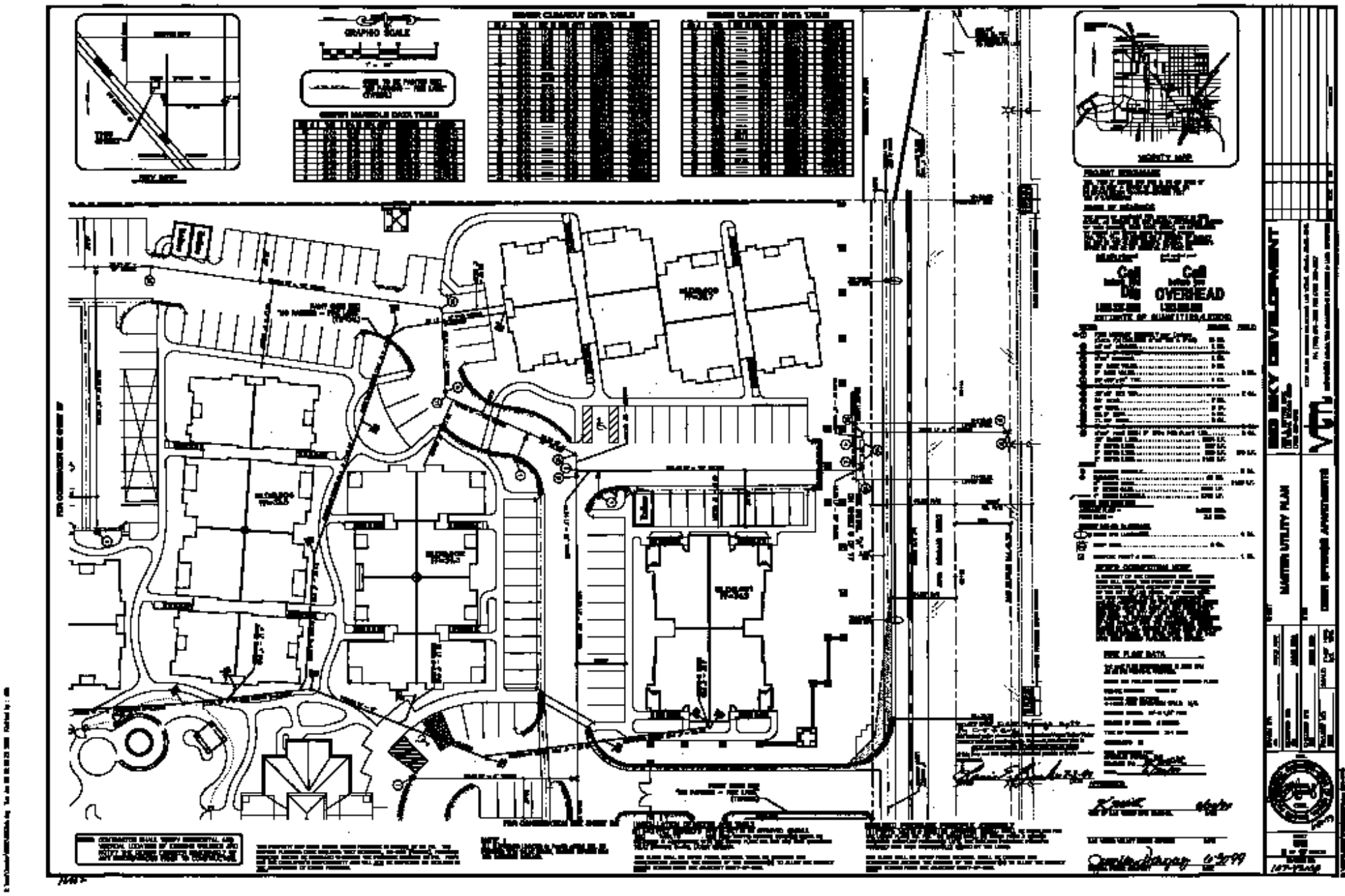
GRAPHIC SCALE
"WEST"
"EAST"
OVERHEAD