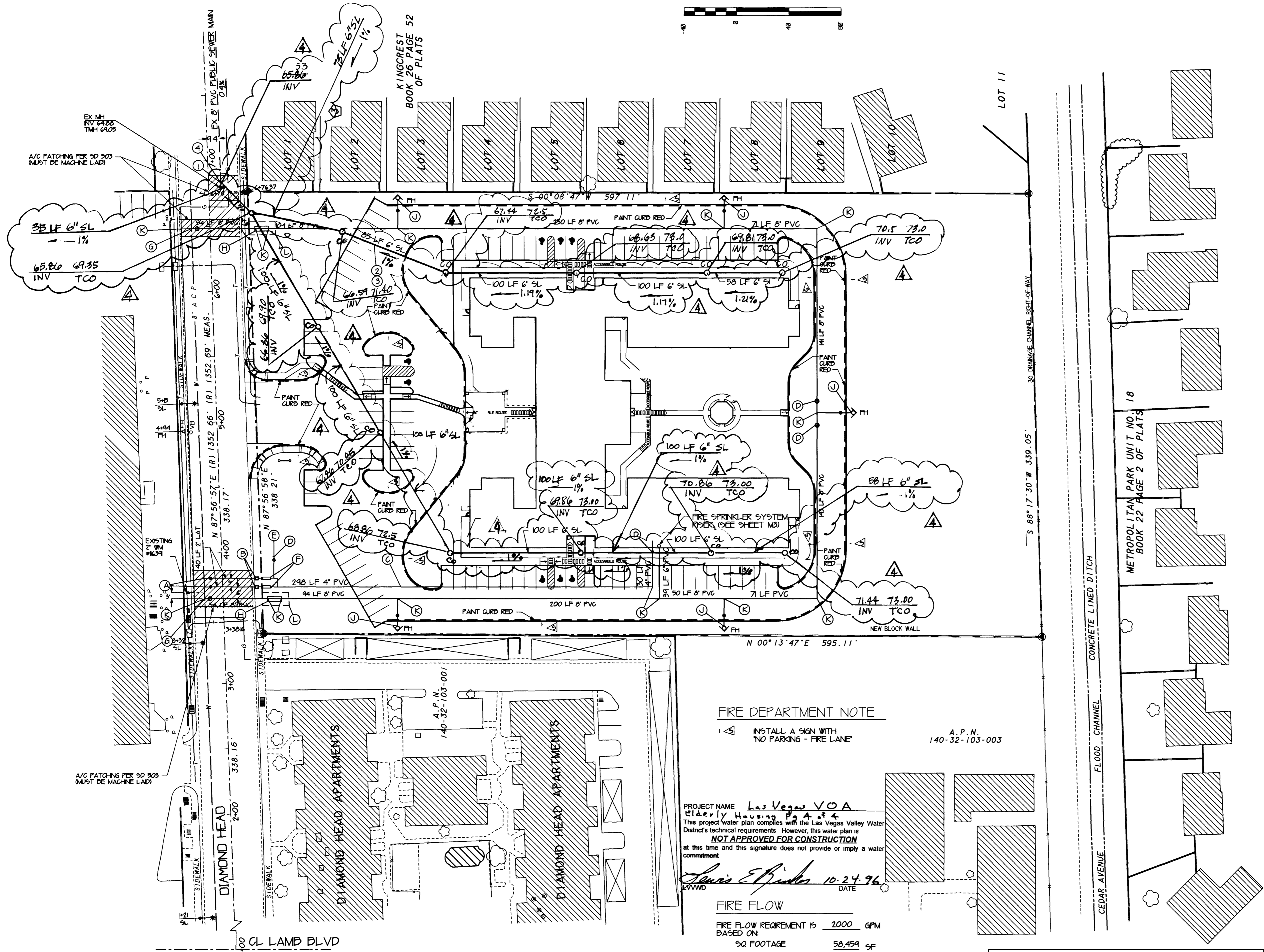
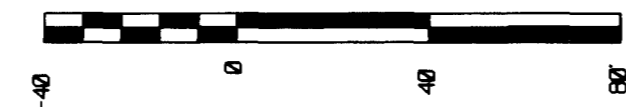


NORTH  
SCALE 1" = 40'



SEWER LEGEND

- ① - SERVICE CONNECTION TO EX-8" VCP MAN USE SADDLE TYPE CONNECTION SUPPORTED BY CONCRETE ENCASEMENT PER STD DWG #50-17
- ② - PIPE BEDDING PER STD DWG #50-14
- ③ - TRENCHING PER STD DWG #50-16
- ④ - THRUST BLOCKS PER STD DWG #50-14
- ⑤ - CONCRETE ENCASEMENT F LESS THAN 18" SEPARATION WITH WATER MAIN

WATER LEGEND

- Ⓐ - 2" SERVICE SADDLE & CORPORATION STOP PER LDS PL #1-D
- Ⓑ - 2" SERVICE LATERAL, METER & BOX PER LDS PL #1-D
- Ⓒ - 4" PVC SERVICE TO BUILDING
- Ⓓ - GATE V & VD
- Ⓔ - 2" PVC STUD & GAP FOR LANDSCAPE IRRIGATION
- Ⓕ - 2" BACKFLOW PREVENTION DEVICE REDUCED PRESSURE PRINCIPLE ASSEMBLY PER LDS PL #1-A
- Ⓖ - 8X6 WET TAP TAPPING SLEEVE AND VALVE PER AGENCY REQUIREMENTS
- Ⓗ - 6" DOUBLE CHECK DETECTOR ASSEMBLY (DCCA) FOR ABOVE GROUND INSTALLATION PER LDS PL #20B
- Ⓚ - FIRE HYDRANT, GATE VALVE & VD PER LDS PL #7
- Ⓛ - THRUST BLOCK PER LDS PL #5
- Ⓜ - 10' X 5' EASEMENT

ENGINEER'S ESTIMATE  
PRIVATE SEWER QUANTITIES

6" PVC SEWER LATERAL	1087 LF
6" CLEAN-OUTS	14 EA

WATER QUANTITIES

6" WET TAP, V & VD	2 EA
6" DCCA ASSEMBLIES	2 EA
8" PVC FIRE SERVICE MAN	1232 LF
8" GATE VALVE & VD	2 EA
8" 90° ELLS	10 EA
8" X 8" X 6" TEES	6 EA
6" PVC WATER SVC	649 LF
FIRE HYDRANT ASSEMBLIES	5 EA
2" SVC SADDLE & CS	2 EA
2" METER ASSY & MD	2 EA
2" RPPA	2 EA
2" SVC LATERAL	80 LF
4" PVC CULINARY SVC	320 LF
4" 90° ELL	1 EA
4" GV & VD	1 EA

FIRE DEPARTMENT NOTE

- ① INSTALL A SIGN WITH NO PARKING - FIRE LANE

A.P.N. 140-32-103-003

PROJECT NAME Las Vegas VOA Elderly Housing P.A.#4  
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.

*Steve E. Bunker* 10.24.96 DATE  
L.V.W.D.

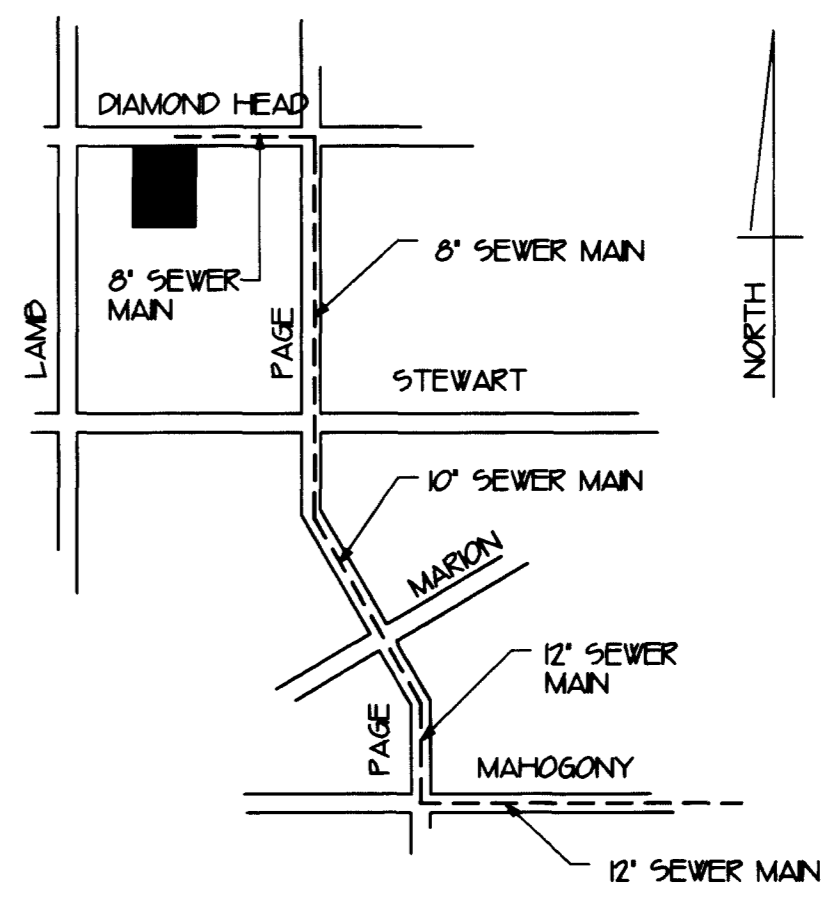
FIRE FLOW

FIRE FLOW REQUIREMENT IS	2000 GPM
BASED ON	
SQ FOOTAGE	58,459 SF
LARGEST AREA BTWN 4 HR AREA SEPARATION WALLS	6000 SQ FT
BUILDING HEIGHT	32 FEET
NUM STORES	2 STORES
TYPE OF CONSTRUCTION	V (NO REQUIREMENTS FOR FIRE RESISTANCE)
OCCUPANCY	R-1 APARTMENT
FULL AUTOMATIC FIRE SPRINKLER SYSTEM	YES

REVIEWED BY *AA*  
DATE 10.23.96

INSTALLATION OF DOUBLE CHECK DETECTOR ASSEMBLY (2) 6" THE DOUBLE CHECK DETECTOR ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH THE LVDAS PLATE 20B  
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

(2) 2" RPPA REQUIRED  
REDUCED PRESSURE PRINCIPLE ASSEMBLY  
APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE LVDAS PLATE NO. 1A. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE L.V.W.D.  
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

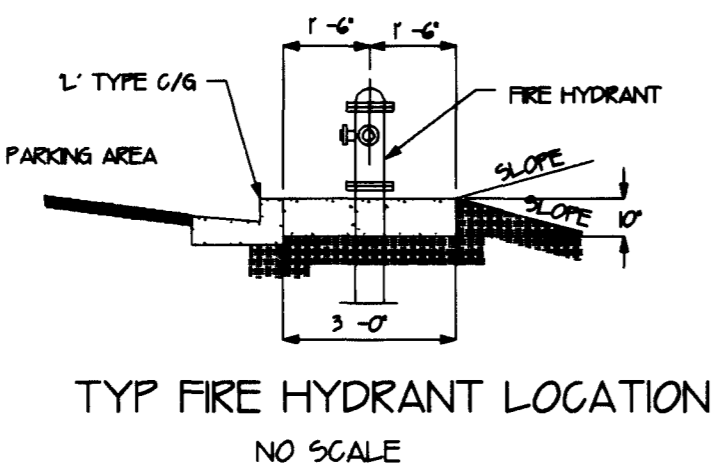


DOWNSTREAM SEWER MAIN SYSTEM  
NO SCALE

APPROVED  
*Gregory P. Kuderis* 4/25/97 DATE  
LAS VEGAS VALLEY WATER DISTRICT  
*Steve E. Bunker* 10.23.96 DATE  
LAS VEGAS FIRE PREVENTION

NOTE  
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. PRVs ARE THE DEVELOPER'S RESPONSIBILITY AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVWD FACILITIES.

NOTE:  
THREE PHASE ELECTRICAL SERVICE IS AVAILABLE ON THE NORTH SIDE OF DIAMOND HEAD BEHIND BACK OF CURB. SINGLE PHASE ELECTRICAL SERVICE IS AVAILABLE ON THE SOUTH SIDE OF DIAMOND HEAD BEHIND BACK OF CURB.



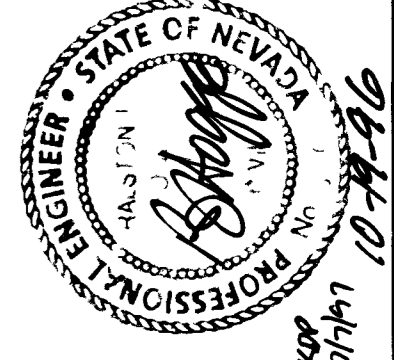
UTILITY PLAN

SCALE: 1" = 40'

SEWER FLOWS

AVERAGE FLOW	- 0.500 GAL/DAY
PEAK FACTOR	- .33
PEAK FLOW	- 44,950 GAL/DAY

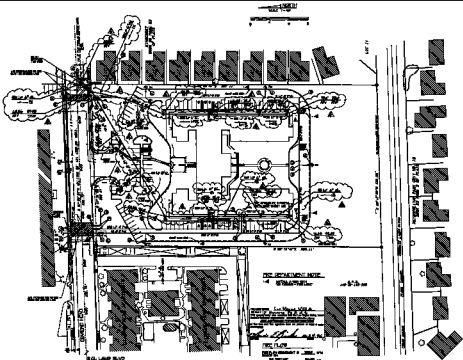
CIVIL ENGINEER  
RALSTON JAMES HOGGE, P.E.  
1577 FOOTHILL DRIVE, SUITE #1  
BOULDER CITY, NEVADA 89005  
(702) 293-2690



NO.	DATE	BY	DESCRIPTION	REVISIONS
1	5/16/96	J.A.H.	SET PROPERTY CORNERS AS NOTED AND ADDED REFERENCES	R.A.H.
2	8/2/96	J.A.H.	REVISIONS PER CITY REVIEW	R.A.H.
3	9/26	J.A.H.	REVISIONS PER CITY REVIEW	R.A.H.
4	10/23/96	J.A.H.	REV 6" SEWER LATERALS & ELEV	R.A.H.

UTILITY PLAN  
LAS VEGAS VOA ELDERLY HOUSING  
LAMB BLVD & DIAMOND HEAD  
LAS VEGAS, NEVADA  
PROJECT NO. 121-EE045

DATE 9/26/96  
SCALE: 1" = 40'  
JOB # 96-5-001  
SHEET 4 OF 4



**SEWER LEGEND**

- 12" RIBBON DUCTILE IRON PIPE (RDIP) WITH 2" MANHOLE
- 18" RIBBON DUCTILE IRON PIPE (RDIP) WITH 3" MANHOLE
- 24" RIBBON DUCTILE IRON PIPE (RDIP) WITH 4" MANHOLE
- 30" RIBBON DUCTILE IRON PIPE (RDIP) WITH 5" MANHOLE

**WATER LEGEND**

- 12" RIBBON DUCTILE IRON PIPE (RDIP) WITH 2" MANHOLE
- 18" RIBBON DUCTILE IRON PIPE (RDIP) WITH 3" MANHOLE
- 24" RIBBON DUCTILE IRON PIPE (RDIP) WITH 4" MANHOLE
- 30" RIBBON DUCTILE IRON PIPE (RDIP) WITH 5" MANHOLE
- 36" RIBBON DUCTILE IRON PIPE (RDIP) WITH 6" MANHOLE
- 42" RIBBON DUCTILE IRON PIPE (RDIP) WITH 7" MANHOLE
- 48" RIBBON DUCTILE IRON PIPE (RDIP) WITH 8" MANHOLE
- 54" RIBBON DUCTILE IRON PIPE (RDIP) WITH 9" MANHOLE
- 60" RIBBON DUCTILE IRON PIPE (RDIP) WITH 10" MANHOLE

**STANDARD CONTRACT PRIVATE SEWER GRANTING**  
 1. STANDARD CONTRACT NO. 114

**WATER GRANTING**

1. STANDARD CONTRACT NO. 114  
 2. STANDARD CONTRACT NO. 114  
 3. STANDARD CONTRACT NO. 114  
 4. STANDARD CONTRACT NO. 114



**DOWNSTREAM SEWER LINE SYSTEM**  
IN PLACE

**NO SEWERAGE NOTE**  
 4. SEWERAGE

*Signature*  
 PROJECT ENGINEER

**SCALE**  
 1" = 40'

**NOTE**

1. ALL UTILITIES SHOWN ARE BASED ON RECORD DRAWINGS AND FIELD SURVEY.  
 2. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION.  
 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND GRANTS FROM THE APPROPRIATE AGENCIES.  
 4. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AT ALL TIMES.



**UTILITY PLAN**

SCALE 1" = 40'

**SOURCE PLANS**

DATE: 11/15/00  
 BY: [Signature]

REGISTERED PROFESSIONAL ENGINEER  
**WALTER W. WILSON, P.E.**  
 LICENSE NO. 11452  
 STATE OF NEVADA  
 107-VAF80

**APPROVED**  
 [Signature]  
 PROJECT ENGINEER  
 DATE: 11/15/00  
 SHEET 4 OF 4

**CIVIL ENGINEER**  
 WALTER W. WILSON, P.E.  
 LICENSE NO. 11452  
 STATE OF NEVADA



DATE	SCALE
11/15/00	1" = 40'
COR. NO.	11452
PROJECT	107-VAF80
SHEET	4 OF 4

**UTILITY PLAN**  
 LAS VEGAS VIA BLOOMING HILLS  
 LAS VEGAS AND BLOOMING HILLS  
 LAS VEGAS, NEVADA  
 PROJECT NO. 107-VAF80

DATE: 11/15/00  
 SCALE: 1" = 40'  
 COR. NO.: 11452  
 SHEET: 4 OF 4