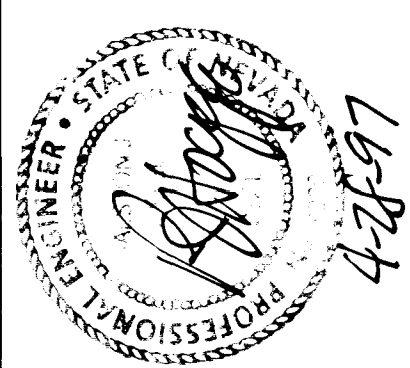


FIRE FLOW CALCULATIONS
FIRE FLOW REQUIREMENT IS 500 GPM
RESIDENCE SQUARE FOOTAGE IS < 3600 SF
LARGEST AREA BETWEEN 4 HR SEP WALLS < 3600 SF
MAX BLDG HT - 2 STORES
MAX NUMBER OF STORES - 2
TYPE CONSTRUCTION - 5-N
OCCUPANCY - RESIDENTIAL
AUTO FIRE SPRINKLING SYSTEM - NA

- LEGEND
- ROW LINE
 - BOUNDARY LINE
 - STREET CL
 - LOT LINE
 - EXISTING
- ① LOT NUMBER
② BLOCK NUMBER
GH GUARD HOUSE
125A, 240V SP-R00G
100W HP.S.
ALEXANDER
250W HP.S.
SEWER LINE
SEWER MANHOLE
SEWER FLOW
WATERLINE
GATE VALVE
LINEAL FEET
PRIVATE DRIVE
PUBLIC UTILITY EASEMENT
EXISTING
TOP OF CURB
FINISH GRADE
GRADE BREAK
DRAINAGE FLOW
END OF ROAD MARKERS
STREET SIGN
#5 PULL BOX
1" SERVICE LATERAL
W/ 3/4" METER PER
UDAGS PL. NO. D
4" SEWER LATERAL
PER STD DWG #50-17
3/4" RPPA
8" 90° ELL
8" X 8" X 8" TEE
8" X 8" X 6" TEE
8" X 6" REDUCER

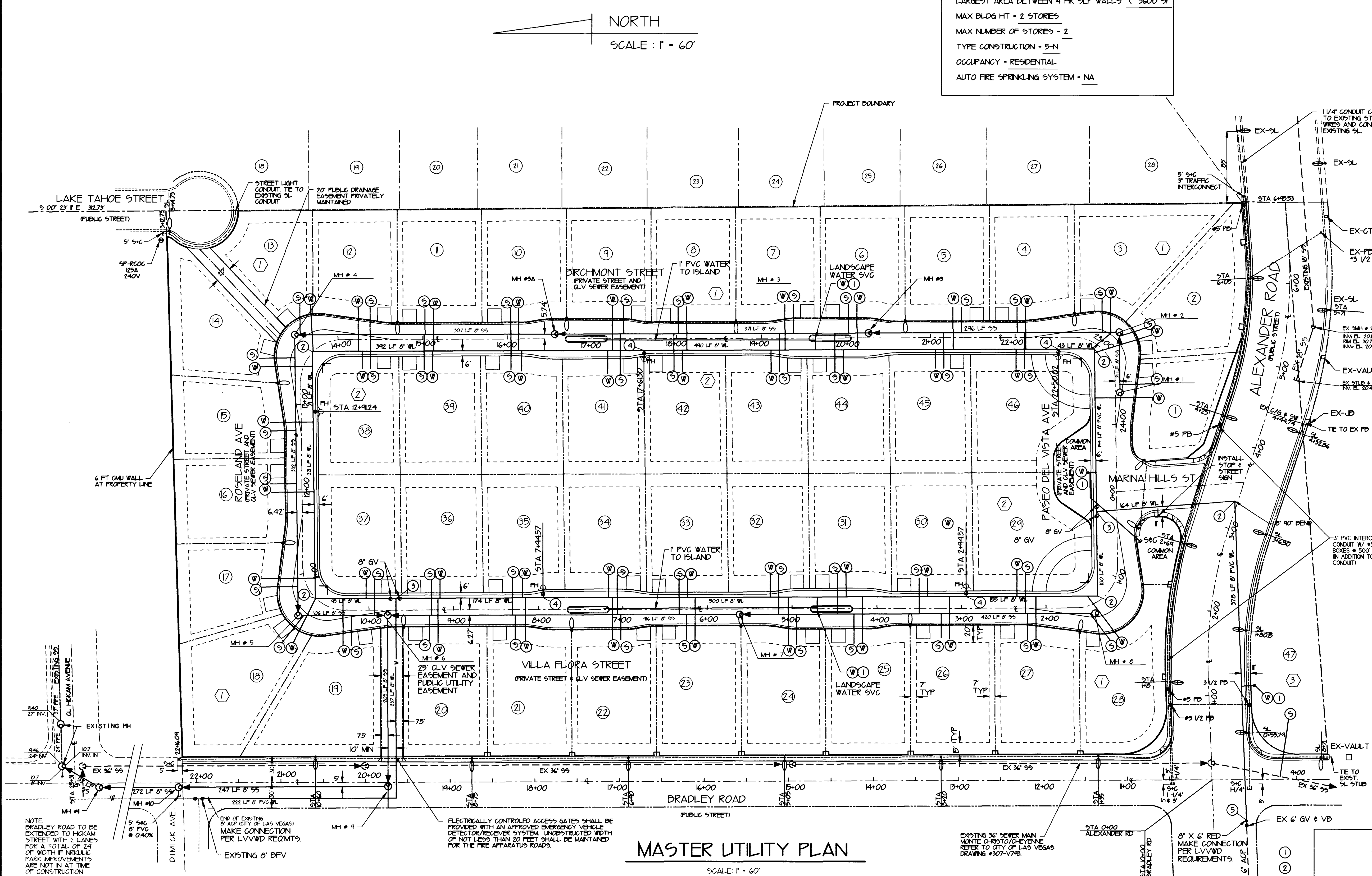
CIVIL ENGINEER
RALSTON JAMES HOGGE, PE
1577 FOOTHILL DR. SUITE #1
BOULDER CITY, NEVADA 89005
(702) 295-2690 FAX (702) 295-4653



NO	DATE	REVISIONS	BY	CHK
1	2/6/96	REVISED PER CITY REVIEW		
2	3/10/96	2ND REVISION PER CITY REVIEW		
3	9/20	REVISIONS PER CITY REVIEW		

MASTER UTILITY PLAN
WILLOWDALE PARK
WILLOWDALE PARK INC., 5300 SPRING MTN RD, LAS VEGAS, NEVADA

DATE: APRIL 1 1997
SCALE: 1" = 60'
JOB#
SHEET
OF 12
4



MASTER UTILITY PLAN
SCALE 1" = 60'

SEWER FLOWS:
AVERAGE FLOW - 1500 GAL/DAY
PEAK FLOW - 34,500 GAL/DAY

(4) 3/4" RPPA REQUIRED
REDUCED PRESSURE PRINCIPLE ASSEMBLY
APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDAGS 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 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.

ENGINEER'S ESTIMATE
PUBLIC SEWER QUANTITIES

8" PVC MAIN	3600 LF
48" MANHOLES	12 EA
4" PVC LATERALS	1650 LF
4" WYE/TEE	47 EA
4" 45° ELL	47 EA

WATER QUANTITIES

8" PVC MAIN	3484 LF
8" 90° ELLS	6 EA
8" GATE VALVES & VB	4 EA
1" SERVICE LATERALS	1700 LF
3/4" METER ASSEMBLY & BOX	50 EA
THRUST BLOCKS AS REQUIRED	
3/4" RPPA	4 EA
8" TEE	2 EA
8" X 8" TEE	9 EA
8" X 6" REDUCER	1 EA

APPROVED
[Signature]
CITY OF LAS VEGAS
FIRE DEPARTMENT
First Approval 5/11/96
LAS VEGAS VALLEY WATER DISTRICT
5-8-97
5/18/97
DATE

FIRE HYDRANT DETAIL
NOT TO SCALE

STREET LIGHT DETAIL
NOT TO SCALE

TYPICAL LOT LATERAL
LOCATIONS

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. PRIVATE ARE THE DEVELOPER'S RESPONSIBILITY AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVVWD FACILITIES.



NO. 1000
 THE PLAN SHOWS THE LOCATION OF THE PROPOSED UTILITY LINES AND THE LOCATION OF THE EXISTING UTILITY LINES. THE PLAN ALSO SHOWS THE LOCATION OF THE EXISTING BUILDINGS AND THE LOCATION OF THE EXISTING STREETS. THE PLAN IS A GENERAL PLAN AND DOES NOT SHOW THE EXACT LOCATION OF THE UTILITY LINES. THE PLAN IS A GENERAL PLAN AND DOES NOT SHOW THE EXACT LOCATION OF THE UTILITY LINES.

LEGEND

- 12" WATER MAIN
- 12" SEWER
- 12" GAS
- 12" ELECTRIC
- 12" TELEPHONE
- 12" CABLE
- 12" RAILROAD
- 12" HIGHWAY
- 12" AIRPORT
- 12" CANAL
- 12" DRAINAGE
- 12" FLOOD
- 12" WIND
- 12" EARTHQUAKE
- 12" FIRE
- 12" PEST
- 12" OTHER

MASTER UTILITY PLAN SCALE: 1" = 100'

APPROVED

[Signature]
 DATE: 10/1/80
 BY: [Signature]

**IN 1/4" RPT. REQUIRED
 REDUCED PRESSURE PRINCIPLE ASSEMBLY**

THIS PLAN IS A GENERAL PLAN AND DOES NOT SHOW THE EXACT LOCATION OF THE UTILITY LINES. THE PLAN IS A GENERAL PLAN AND DOES NOT SHOW THE EXACT LOCATION OF THE UTILITY LINES.

**MASTER UTILITY PLAN
 WILLOWDALE PARK**

SHEET 4