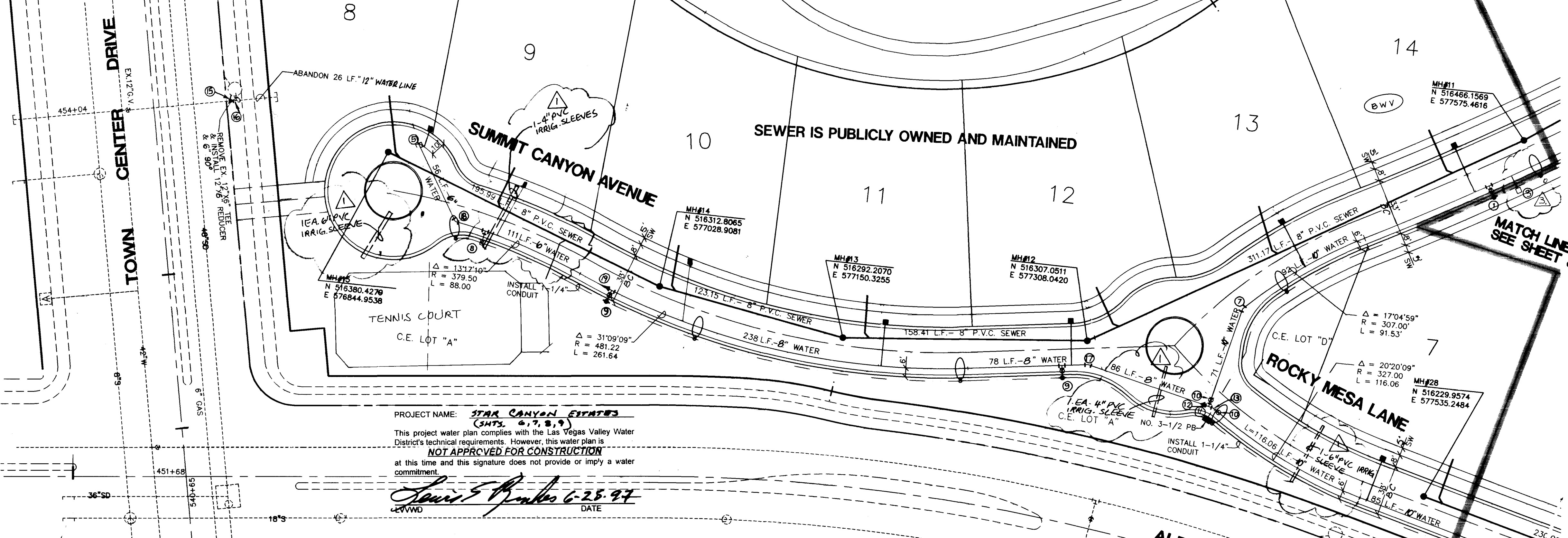
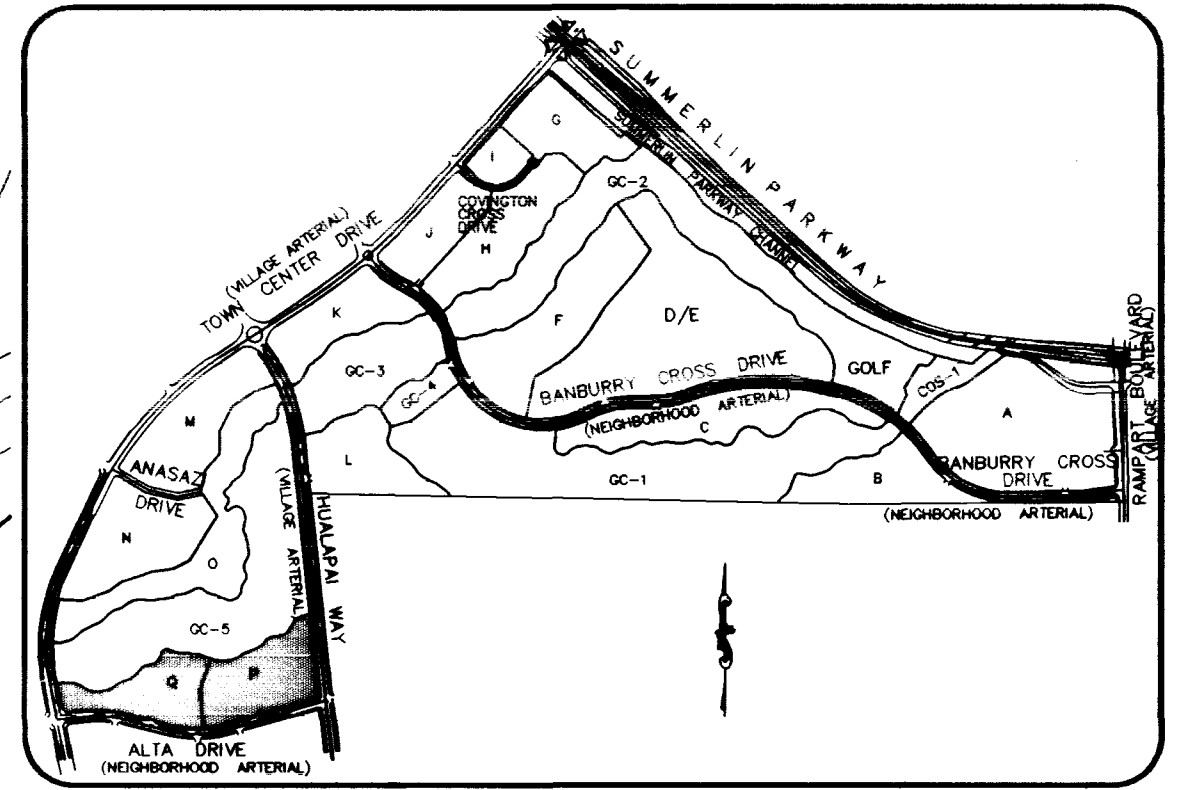
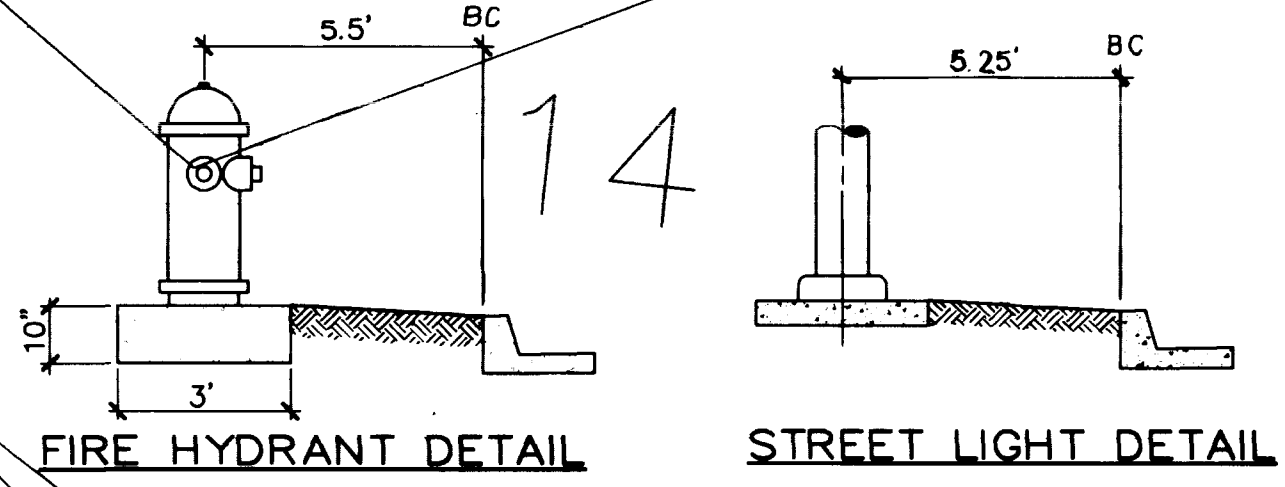
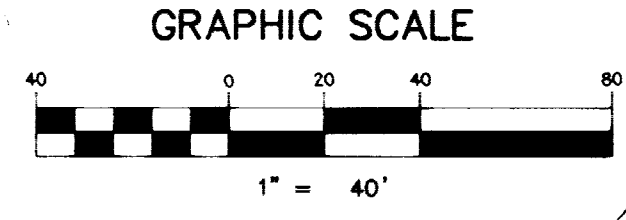


NOTE: CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.



PROJECT NAME: **STAR CANYON ESTATES**
(SHEETS 6, 7, 8, 9)
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.
James S. [Signature] 6-25-97
DATE

- ### CITY OF LAS VEGAS SEWER NOTES
- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS AND THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS' CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA, AS AMENDED. IN ALL CASES, THESE STANDARDS SHALL SUPERSEDE THE UNIFORM STANDARD SPECIFICATIONS. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF THE CONTENTS OF THE ABOVE SPECIFICATION BOOKS.
 - IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM CONSTRUCTION AS PER PLANS. ANY ADDITIONS, DELETIONS, OR CHANGES SHALL FIRST MEET WITH THE APPROVAL OF THE CONTROLLING AGENCY.
 - CHISEL "S" OR "G" IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.
 - POLYVINYL (PVC) SEWER PIPE SHALL MEET ASTM D-3034 SDR 35 SPECIFICATIONS, INSTALLED WITH SAND BEDDING AND BACKFILL OF TYPE II GRAVEL.
 - ALL MANHOLES IN PAVED STREETS 80' R/W AND LARGER, SHALL HAVE CONCRETE COLLARS.
 - TEE SADDLES SHALL BE USED TO CONNECT SEWER LATERALS TO EXISTING MAIN LINES UP TO 12" DIA. SIZE. CONNECTIONS TO 15" OR LARGER MAINS SHALL REQUIRE SPECIAL PROCEDURES.
 - A SEWER MAIN CROSSING OVER A WATER MAIN OR LESS THAN 18" UNDER A WATER MAIN, MUST BE REINFORCED CONCRETE ENCASED FOR A DISTANCE NOT LESS THAN TEN FEET (10') TO EACH SIDE OF THE CENTERLINE OF THE WATER MAIN.
 - ALL CONTRACTORS INSTALLING SEWER MAINS THAT WILL BE UNDER THE JURISDICTION OF THE CONTROLLING AGENCY MUST BE CLASS "A" CONTRACTORS.
 - THE CITY OF LAS VEGAS WILL NOT ACCEPT ANY SEWER MAINS WHICH HAVE A VERTICAL DEFLECTION OF MORE THAN ONE TENTH (0.1) OF A FOOT FROM THE APPROVED CONSTRUCTION PLANS. SEWER MAINS FOUND TO EXCEED THIS TOLERANCE WILL HAVE TO BE REPAIRED OR REMOVED AND REPLACED TO THE SATISFACTION OF THE CITY ENGINEER PRIOR TO ACCEPTANCE BY THE CITY.

- ### WATER DISTRICT STANDARD NOTES
- NO WORK SHALL BEGIN UNTIL THE WATER PLANS HAVE BEEN RELEASED FOR CONSTRUCTION BY THE LVVWD. FOLLOWING WATER PLAN APPROVAL, 480 HOUR NOTICE SHALL BE GIVEN TO THE LVVWD COMMUNICATION SUPPORT CENTER (258-7171) PRIOR TO THE START OF CONSTRUCTION. NOTICE MUST BE GIVEN BY 2:00 P.M. THE BUSINESS DAY PRIOR TO A LVVWD INSPECTION.
 - ALL WORK SHALL CONFORM TO LVVWD STANDARD PLATES, DRAWINGS, AND SPECIFICATIONS AND THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS (UDACS), LATEST EDITION.
 - ALL WORK, EXCEPT AS MODIFIED BY THESE PLANS OR BY NOTE 2, SHALL BE DONE IN ACCORDANCE WITH THE MOST CURRENT DRAFT OR EDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS' CONSTRUCTION OF SITE IMPROVEMENTS, CLARK COUNTY AREA.
 - A SINGLE PIPE MATERIAL SHALL BE USED THROUGHOUT THE PROJECT UNLESS OTHERWISE APPROVED BY THE LVVWD.
 - ALL SERVICE LATERALS TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE COPPER TUBING WITH LVVWD APPROVED SERVICE SADDLES.
 - ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
 - ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS, VALLEY AND CURB GUTTERS.
 - THE FOLLOWING REQUIREMENTS MUST BE MET IN THE EVENT A WATER LINE AND A SANITARY OR STORM SEWER LINE CROSS, AND ANY SERVICE LATERAL A MINIMUM EIGHTEEN (18) INCH VERTICAL SEPARATION (OUTSIDE TO OUTSIDE) MUST BE MAINTAINED WHEN THE WATER LINE IS INSTALLED OVER THE SANITARY OR STORM SEWER LINE. IF THE VERTICAL SEPARATION CANNOT BE MAINTAINED OR THE WATER LINE MUST BE PLACED UNDER THE SANITARY OR STORM SEWER LINE, THE SANITARY OR STORM SEWER LINE MUST BE CONSTRUCTED WITH ONE OF THE FOLLOWING OR, AS SHOWN ON THESE PLANS:
 - POTABLE WATER SUPPLY QUALITY MATERIAL.
 - ENCASEMENT, WITH FOUR (4) INCH CONCRETE (MINIMUM) SLEEVING WITH POTABLE WATER SUPPLY QUALITY PIPE.
 - EACH PROVISION MUST EXTEND ALONG THE SANITARY OR STORM SEWER, ON EITHER SIDE OF THE MAIN, A MINIMUM 10 FOOT DISTANCE PERPENDICULAR TO THE WATER MAIN EXTERIOR.
 - WARNING TAPE SHALL BE REQUIRED OVER ALL MAINS, ALL SIX (6) INCH DIAMETER AND LARGER SERVICE LATERALS, AND ANY SERVICE LATERAL NOT INSTALLED PERPENDICULAR TO THE MAIN IN ACCORDANCE WITH STANDARD PLATE NO. 27.
 - ALL WATER FACILITIES SHALL BE FILLED, DISINFECTED, PRESSURE TESTED, FLUSHED, FILLED AND AN ACCEPTABLE WATER SAMPLE OBTAINED PRIOR TO CONNECTION TO THE LVVWD'S DISTRIBUTION SYSTEM.
 - THE CONTRACTOR MUST OBTAIN ALL METERS TWO (2) INCHES AND SMALLER FROM LVVWD CENTRAL STORES. TELEPHONE 258-3152 FORTY-EIGHT (48) HOURS PRIOR TO PICKUP.
 - CONSTRUCTION MAY INTERRUPT SERVICE, WITH LVVWD APPROVAL AND PROPER NOTIFICATION, BETWEEN THE HOURS OF 10 PM AND 6 AM SUNDAY THROUGH THURSDAY. CIRCUMSTANCES MAY REQUIRE TEMPORARY SERVICE FEES BE INSTALLED, WITHOUT LVVWD REIMBURSEMENT. ANY TEMPORARY SERVICE FEE MUST HAVE PRIOR LVVWD APPROVAL.
 - ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE AS LISTED ON THE LVVWD'S PRE-APPROVED MATERIALS AND MANUFACTURERS LISTING FOR NEW FACILITIES, LATEST REVISION, OR SPECIFICALLY APPROVED ON THESE PLANS.

ESTIMATED QUANTITIES & LEGEND

WATER		STREET LIGHTING	
① FIRE HYDRANT ASSEMBLY (INCLUDES 10" X 6" TEE, 6" GATE VALVE, 6" PIPE, & 6" RISER)	1 EA	○ STREET LIGHT (100 W. HPS)	35 EA.
② 8"-90° BEND	2 EA	— 1-1/4" STREET LIGHT CONDUIT	6,000 L.F.
③ 1 1/2" METER & RPPA (LANDSCAPE)	2 EA	■ NO. 3-1/2 PULL BOX	4 EA.
④ 3/4" METER & RPPA	1 EA	○ STREET NAME SIGN	6 EA.
⑤ 2" BLOW OFF ASSEMBLY	1 EA	○ STOP SIGN	5 EA.
⑥ 8"-45° BEND	3 EA	○ DRIVEWAY LOCATION (SCHEMATIC ONLY)	
⑦ 8"-22-1/2° BEND	3 EA	○ POINT OF CONNECTION TO EXISTING UTILITIES	
⑧ 1" WATER SERVICE W/ 1" METER/RPPA (LANDSCAPE)	3 EA	○ B.W.V. BACKWATER VALVES	
⑨ FIRE HYDRANT ASSEMBLY (INCLUDES 8" X 6" TEE, 6" GATE VALVE, 6" PIPE & 6" RISER)	2 EA		
⑩ 8" GATE VALVE	13 EA.		
⑪ 10" X 8" REDUCER	3 EA		
⑫ 8" TEE	2 EA		
⑬ 10"-22-1/2° BEND	1 EA.		
⑭ 10"-11-1/4° BEND	2 EA		
⑮ 12" X 8" REDUCER	1 EA.		
⑯ 8" X 6" TEE	1 EA.		
1" WATER SERVICE W/ 1" METER	60 EA.		
8" WATER LINE	402 L.F.		
10" WATER LINE	5,106 L.F.		
10" D.I.P. WATER LINE	64 L.F.		
6" WATER LINE	167 L.F.		
SEWER			
SEWER MANHOLE (4' DIA.)	28 EA.		
WYES (4")	60 EA.		
8" SEWER MAIN	5,410 L.F.		
4" SERVICE LATERAL	2,460 L.F.		
SEWERAGE CONTRIBUTION RATE			
AVERAGE DAILY FLOW	0.0150 MGD		
PEAK FLOW (PF=3.5)	0.0525 MGD		

STREET LIGHT NOTE

ALL STREET LIGHTING INSTALLATION SHALL CONFORM TO SUMMERLIN IMPROVEMENT STANDARDS AND SUMMERLIN STANDARD DRAWINGS.

BENCHMARK

PROJECT DATUM SUMMERLIN
CLV BENCHMARK NO. CLV083855
RIVT AND PLATE IN TOP OF CURB NORTHEAST RETURN OF CHARESTON BOULEVARD AND HUALPAI.
ELEVATION=2910.05 (SUMMERLIN DATUM)
ELEVATION=887.6503 METERS(2912.23 FEET)=(NAVD 88 DATUM)

FIRE DEPARTMENT NOTES

(SEE SHEET 7)

LOTS REQUIRING BACK WATER VALVE

BLOCK 1
LOTS 2-5,14,16,17,19,21,34

BLOCK 2
LOTS 2-7,16,22,24

LAS VEGAS FIRE DEPARTMENT

FIRE FLOW REQUIREMENT IS 2,250 GALLONS/MIN. AT 20 LBS./SQ.IN. RESIDUAL.

BASED ON:
SQUARE FOOTAGE: 6,600 S.F.
LARGEST AREA BETWEEN SEPERATION WALLS:
HEIGHT: 2 STORY
TYPE OF CONSTRUCTION:
EXPOSURES: 10' MIN.
SPRINKLER SYSTEM: NONE
OCCUPANCY: SINGLE FAMILY RESIDENCE
ROOF CONSTRUCTION: CERAMIC TILE

REVIEWED BY: *J. Miller*
DATE: 6/20/97
PROVIDE FIRE LANE IDENTIFICATION PER CITY ORD #3944

WATER CROSSING NOTE

THE FOLLOWING ARE THE REQUIREMENTS THAT MUST BE MET WHEN THERE IS A WATER-SEWER CROSSING:

WHEN PROTECTION OF THE WATERLINE IS CONSIDERED, THE MINIMUM VERTICAL DISTANCE OF 18 INCHES MUST BE MAINTAINED WHEN THE WATER LINE IS INSTALLED OVER THE SEWER/STORM LINE. IF THIS DISTANCE CANNOT BE MAINTAINED BECAUSE OF PHYSICAL OBSTRUCTIONS OR THE WATERLINE MUST BE PLACED UNDER THE SEWER/STORM LINE, THE SEWER/STORM LINE MUST BE CONSTRUCTED WITH ANY ONE OF THE FOLLOWING:

- EXTRA HEAVY CAST IRON OR DUCTILE IRON PIPE
- WATER SUPPLY QUALITY MATERIAL
- ENCASEMENT WITH 4 INCHES MINIMUM OF CONCRETE OR SLEEVING WITH WATER QUALITY PIPE

EACH OF THESE PROVISIONS MUST BE EXTENDED FOR 10 FEET ON EITHER SIDE OF THE WATERLINE AT 90 DEGREES TO THE CROSSING.

REDUCED PRESSURE PRINCIPLE ASSEMBLY (3) 1"

APPROVED REDUCED PRESSURE PRINCIPLE 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 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 ASSEMBLY(S) TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY.

ESN. 026 2/15/97

Call before you Dig
1-800-227-2600

Call before you OVERHEAD
1-702-593-6111

BRENTWOOD MEMBERS, LLC
CITY OF LAS VEGAS, NEVADA
CONSULTING ENGINEERS • PLANNERS • LAND SURVEYORS
2727 SOUTH RAINBOW BOULEVARD
LAS VEGAS, NEVADA 89102-5148
PHONE (702) 873-7550 FAX (702) 362-2597

DATE: 6-25-97
BY: J. Miller
REV: 1
REVISION: 1

NO. 11907
6-27-97

MASTER UTILITY PLAN
STAR CANYON ESTATES
PARCEL "P-Q"-SUMMERLIN VILLAGE 3

APPROVAL:
James S. [Signature] 6/20/97
LAS VEGAS VALLEY WATER DISTRICT
J. Miller 6/20/97
CITY OF LAS VEGAS FIRE MARSHALL

NO. 5165
BY: JOE T./RTS
DATE: MAR, 1997
SCALE: HORIZ 1"=40'
VERT. NONE
SHEET 6 OF 15 SHEETS