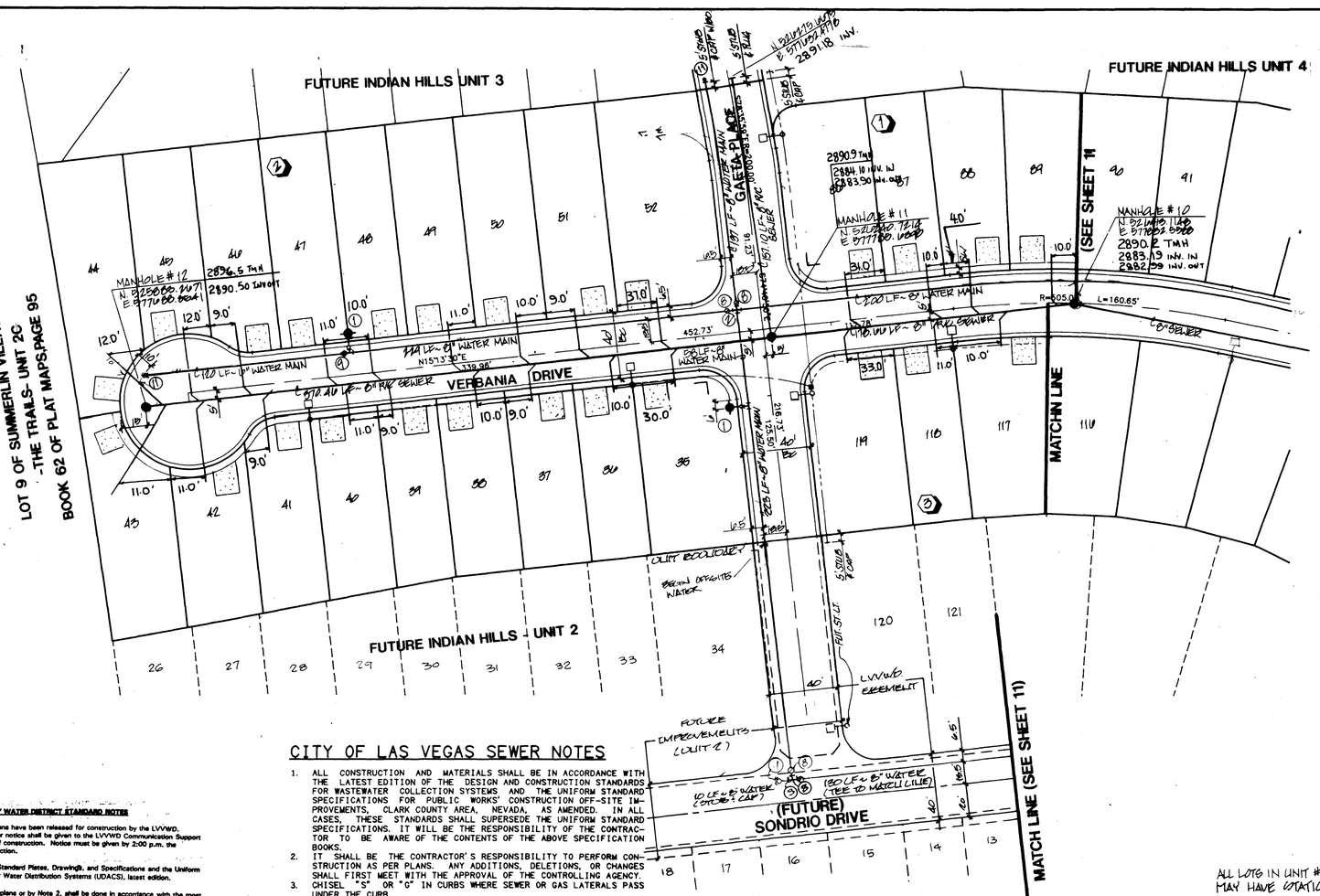
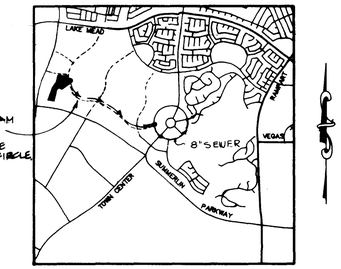




NOTE:
DOWNSTREAM 8" SEWER TO VILLAGE CENTER CIRCLE.

LOCATION MAP

GRAPHIC SCALE

1" = 40'

ESTIMATE OF QUANTITIES

WATER:

①	FIRE HYDRANT ASSEMBLY	6 EA.
②	8" CROSS	1 EA.
③	8" TEE	3 EA.
④	8" 90° BEND	5 EA.
⑤	8" 45° BEND	2 EA.
⑥	8" 22½° BEND	3 EA.
⑦	8" 11¼° BEND	4 EA.
⑧	8" GATE VALVE	10 EA.
⑨	8" × 6" REDUCER	1 EA.
⑩	6" GATE VALVE	2 EA.
⑪	2" BLOW-OFF ASSEMBLY	2 EA.
	1" WATER SERVICE WITH 5/8" METER	90 EA.
	8" WATER MAIN	3579 LF.
	6" WATER MAIN	120 LF.

SEWER:

●	STANDARD MANHOLE	12 EA.
	4" SEWER LATERAL	1280 LF.
	WYES	92 EA.*
	8" PVC SEWER MAIN	1906 LF.

* INCLUDES 14 WYES FOR FUTURE USE

STREETLIGHT:

	TYPE 3B	18 EA.
■	#3½ PULL BOX	5 EA.
	1¼" PVC CONDUIT W/WIRES	1026 LF.
POC	POINT OF CONNECTION	
	DRIVEWAY LOCATION (SCHEMATIC ONLY)	
	STREET NAME SIGN	14 EA.
	STOP SIGN	5 EA.

WATER: (OFFSITE)

①	MECHANICAL METER & 8" GATE VALVE	1 EA.
⑧	8" GATE VALVE	3 EA.
⑥	8" TEE	2 EA.
④	8" 90° BEND	1 EA.
	8" WATER MAIN	540 LF.
⑪	2" BLOW-OFF ASSEMBLY	1 EA.

LAS VEGAS VALLEY WATER DISTRICT STANDARD NOTES

1. No work shall begin until the water plans have been released for construction by the LVVWD. Following water plan approval, 48 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.
2. All work shall conform the LVVWD's Standard Plates, Drawings, and Specifications and the Uniform Design and Construction Standards for Water Distribution Systems (UDACS), latest edition.
3. 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 Offsite Improvement, Clark County Area.
4. A single pipe material shall be used throughout the project unless otherwise approved by the LVVWD.
5. All service laterals two (2) inches in diameter and smaller shall be copper tubing with LVVWD approved service saddles.
6. All water meter boxes shall be located outside of driveway areas.
7. All valves shall be located outside of driveways, valley and curb gutters.
8. The following requirements must be met in the event a water line and sanitary or storm sewer line cross:

   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:

   a. Potable Water supply quality material.
   b. Encasement, with four (4) inch concrete (minimum)
   c. 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.
9. 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.
10. 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.
11. The contractor must obtain all metals two (2) inches and smaller from LVVWD Central Stores, Telephone 258-3182 forty-eight (48) hours prior to pickup.
12. 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 feeds be installed, without LVVWD reimbursement. Any temporary service feed must have prior LVVWD approval.
13. 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.

SSLR19 Revised April 25, 1995

CITY OF LAS VEGAS SEWER NOTES

1. 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.
2. 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.
3. CHISEL "S" OR "G" IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.
4. POLYVINYL (PVC) SEWER PIPE SHALL MEET ASTM D-3034 SDR 35 SPECIFICATIONS, INSTALLED WITH SAND BEDDING AND BACKFILL OF TYPE II GRAVEL.
5. ALL MANHOLES IN PAVED STREETS 80' R/W AND LARGER, SHALL HAVE CONCRETE COLLARS.
6. 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.
7. 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.
8. ALL CONTRACTORS INSTALLING SEWER MAINS THAT WILL BE UNDER THE JURISDICTION OF THE CONTROLLING AGENCY MUST BE CLASS "A" CONTRACTORS.
9. 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 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:

A. EXTRA HEAVY CAST IRON OR DUCTILE IRON PIPE
B. WATER SUPPLY QUALITY MATERIAL
C. ENCASEMENT WITH 4 INCHES MINIMUM OF CONCRETE OR SLEEVING WITH WATER QUALITY PIPE

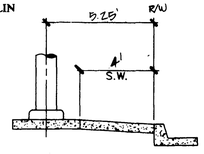
EACH OF THESE PROVISIONS MUST BE EXTENDED FOR 10 FEET ON EITHER SIDE OF THE WATERLINE AT 90 DEGREES TO THE CROSSING.

STREET LIGHT NOTE

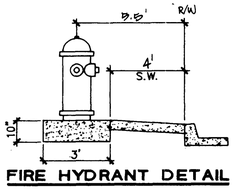
ALL STREET LIGHTING INSTALLATION SHALL CONFORM TO THE SUMMERLIN IMPROVEMENT STANDARDS AND SUMMERLIN STANDARD DRAWINGS.

FIRE DEPARTMENT NOTES

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE CITY OF LAS VEGAS FIRE DEPARTMENT "HYDRANT SPECIFICATIONS", "HYDRANT INSTALLATION SPECIFICATIONS" AND ORDINANCE #3677.
2. AUTHORIZED HYDRANTS FOR THIS PROJECT ARE:
   A. KENNEDY GUARDIAN
   B. MUELLER A-423 CENTURIAN
   C. CLOW MODEL 2546 MEDALLION
3. ON ANY NEW HOME OR BUILDING INSTALLATION, ACCESSIBLE FIRE HYDRANTS SHALL BE INSTALLED BEFORE COMBUSTIBLE CONSTRUCTION COMMENCES AND SAID FIRE HYDRANTS SHALL BE IN GOOD WORKING ORDER WITH AN ADEQUATE WATER SUPPLY.
4. CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT CENTERLINE OF STREET ADJACENT TO FIRE HYDRANT AS REQUIRED IN ORDINANCE #3677 TO IDENTIFY FIRE HYDRANT LOCATIONS.
5. CALL THE LAS VEGAS BUILDING DEPARTMENT AT 229-2071 FOR UNDERGROUND INSPECTION, PRESSURE AND FLUSH VERIFICATION OF ALL FIRE HYDRANTS AND FIRE LINES BEFORE COVERING.
6. PAINTING OF THE CURBS AND HYDRANT AND ANY WORK NECESSARY FOR PROTECTION OF HYDRANTS FROM PHYSICAL DAMAGE, PER ORDINANCE #3677, SHALL BE COMPLETED BEFORE APPROVAL BY THE CITY OF LAS VEGAS FIRE DEPARTMENT.
7. A PERMIT IS REQUIRED FROM THE FIRE DEPARTMENT FOR ON-SITE WATER LINE AND FIRE HYDRANT. THE PERMIT AND CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER PRIOR TO ANY WORK BEGINNING.
8. A FLOW TEST MUST BE WITNESSED BY THE FIRE DEPARTMENT PRIOR TO OCCUPANCY FOR VERIFICATION OF REQUIRED ON-SITE WATER SUPPLY.
9. ALL ON-SITE FIRE MAIN MATERIALS MUST BE U.L. LISTED AND A.W.W.A. APPROVED.
10. FIRE HYDRANT SPACING:
    RESIDENTIAL - 500 FEET UNSPRINKLERED, 600 FEET SPRINKLERED
    COMMERCIAL, INCLUDING MULTI-FAMILY - 300 FEET UNSPRINKLERED, 400 FEET SPRINKLERED.
11. NO FIRE HYDRANT SHALL BE LOCATED WITHIN THE REQUIRED RADIUS OF A CUL-DE-SAC OR WITHIN 20 FEET OF THE PERIMETER OF THE RADIUS OF THE CUL-DE-SAC.
12. NO FIRE HYDRANT SHALL BE LOCATED WITHIN 6 FEET OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREET LIGHT OR ANY OTHER OBSTRUCTION.
13. NOT MORE THAN 2 HYDRANTS CAN BE OUT OF SERVICE DUE TO A SINGLE MAIN BREAK.
14. THE TURNING RADIUS FOR ANY FIRE APPARATUS ACCESS ROAD AND/OR FIRE LANE, PUBLIC OR PRIVATE, SHALL BE NOT LESS THAN 45 FEET OUTSIDE RADIUS AND 22 FEET INSIDE RADIUS.
15. A FIRE APPARATUS ROAD SHALL BE REQUIRED WHEN ANY PORTION OF AN EXTERIOR WALL OF THE FIRST STORY IS LOCATED MORE THAN 150 FEET FROM A FIRE DEPARTMENT VEHICLE ACCESS (SEE EXCEPTIONS IN UFC 01, SECTION 10.203).
16. ALL DEAD END FIRE APPARATUS ACCESS ROADS AND/OR FIRE LANES, PUBLIC OR PRIVATE, IN EXCESS OF 150 FEET IN LENGTH SHALL BE PROVIDED WITH AN APPROVED TURN AROUND AREA. SEE ORDINANCE #3677.
17. ELECTRICALLY CONTROLLED ACCESS GATES SHALL BE PROVIDED WITH AN APPROVED EMERGENCY VEHICLE DETECTOR/RECEIVER SYSTEM. SAID SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF LAS VEGAS GUIDELINES FOR AUTOMATIC EMERGENCY VEHICLE ACCESS GATES.



STREET LIGHT DETAIL



FIRE HYDRANT DETAIL

ALL LOTS IN UNIT #1 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. THESE ARE THE DEVELOPERS RESPONSIBILITY AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF L.V.V.W.D. FACILITIES.

SEWER CONTRIBUTION
AVG. 0.0195 M.G.D.
PEAK 0.0312 M.G.D.

LAS VEGAS FIRE DEPARTMENT

FIRE FLOW REQUIREMENT IS 1500 GALLONS/MIN. AT 20 LBS./SQ.IN. RESIDUAL.

BASED ON:

SQUARE FOOTAGE:
LARGEST AREA BETWEEN SEPERATION WALLS: N/A
HEIGHT: N/A
TYPE OF CONSTRUCTION: TYPE V-N
EXPOSURES: N/A
SPRINKLER SYSTEM: NONE
OCCUPANCY: SINGLE FAMILY
ROOF CONSTRUCTION: TILE

REVIEWED BY:

DATE:
PROVIDE FIRE LANE IDENTIFICATION PER CITY ORD. 3677

BENCHMARK

CONTROL POINT "SPANKY" A BRASS CAP SET IN CONCRETE STAMPED "#42", SET BY GC WALLACE ENGINEERING AND USED FOR BENCHMARK FOR SUMMERLIN CONSTRUCTION.

ELEVATION = 2825.38 (NVGD'29)
ELEVATION EQUATION : (NVGD'29) ELEV. +2.437 = NAVD '88 ELEV.

2 working days Call before you Dig 1-800-227-2600

APPROVAL:

LAS VEGAS VALLEY WATER DISTRICT — DATE 7/18/95

CITY OF LAS VEGAS FIRE MARSHALL — DATE 7-18-95

NEVADA POWER COMPANY — DATE 7/18/95

NEVADA POWER COMPANY APPROVAL IS ONLY FOR THE PLACEMENT AND CLEARANCE OF STREET LIGHT AND SIGNAL LIGHT INSTALLATION.

REV	DATE	BY	REVISION
1	6/20/95	CSC	Revised 8" Water Main Unit 2 & Gaeta Loop & Gaeta Cir

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

PLASTER DEVELOPMENT
CITY OF LAS VEGAS

TITLE: SEWER ASBUILTS
PROJECT: INDIAN HILLS UNIT 1

SEAL

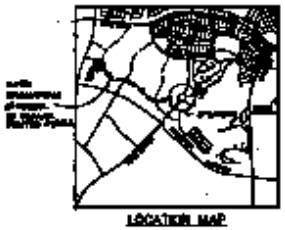
WO NO. 4820
BY JEM
DATE APR.,'95
SCALE 1"= 40'
SHEET 10 OF 16 SHEETS

H:\CAD\LANDEV\4820\4820LAND(BR-U1B)

14180

"As-Built"

307Y-4410-1



LOCATION MAP

GRAPHIC SCALE

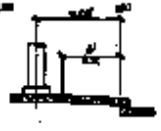
ESTIMATE OF QUANTITIES

CITY OF LAS VEGAS SEWER NOTES

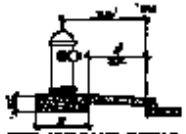
FIRE DEPARTMENT NOTES

WATER CROSSING NOTE

STREET LIGHT NOTE



STREET LIGHT DETAIL



FIRE HYDRANT DETAIL

LAS VEGAS FIRE DEPARTMENT

APPROVAL:

BENCHMARK

Call before you Dig

CONSULTING ENGINEERS • PLANNERS • LAND SURVEYORS

PLANNING DEPARTMENT
CITY OF LAS VEGAS

SEWER ASBUILTS

INDIAN HILLS
UNIT 1

10