

CURVE DATA TABLE

| CURVE | ARC | DELTA | RADIUS | TAN LENGTH |
|-------|-------|-------------|--------|------------|
| C1 | 9.55 | 0° 38' 07" | 995.00 | 4.95 |
| C2 | 31.35 | 89° 03' 09" | 251.00 | 24.78 |
| C3 | 29.80 | 90° 55' 41" | 15.00 | 15.24 |

LINE DATA TABLE

| LINE | BEARING | DISTANCE |
|------|----------------|----------|
| L1 | N 6° 19' 07" W | 25.00 |

LAS VEGAS FIRE DEPARTMENT

FIRE FLOW REQUIREMENT IS 2,100 GALLONS PER MINUTE AT 20 POUNDS PER SQUARE INCH RESIDUAL BASED ON:

AREA SEPARATION FIRE WALLS MUST BE IDENTIFIED.

SQUARE FOOTAGE SEE TABLE

LARGEST AREA BETWEEN AREA SEPARATION WALLS

HEIGHT 35' MAX. (2 STORIES)

TYPE OF CONSTRUCTION TYPE V

EXPOSURES 10' MIN.

SPRINKLER SYSTEM N/A

OCCUPANCY LOW HAZARD

ROOF CONSTRUCTION NOT DATED

REVIEWED BY:

DATE:

CPH REQUIRED WITHIN 500 FT. OF ALL BUILDING AREAS.

FIRE DEPARTMENT NOTES

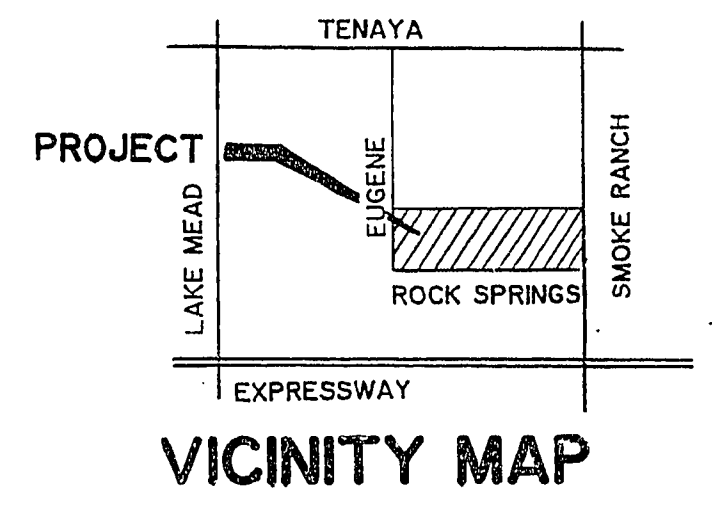
- ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE CITY OF LAS VEGAS FIRE DEPARTMENT "HYDRANT SPECIFICATIONS", "HYDRANT INSTALLATION SPECIFICATIONS" AND ORDINANCE #3318.
- AUTHORIZED HYDRANTS FOR THIS PROJECT ARE:
A - KENNEDY GUARDIAN
B - MULLER A-43 CENTURIAN
C - CLM MODEL 244 REDALLON
- ON ANY NEW HOME OR BUILDING CONSTRUCTION, 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.
- CONTRACTOR SHALL PLACE A GREEN REFLECTIVE MARKER AT CENTER-LINE OF STREET ADJACENT TO FIRE HYDRANTS.
- CALL THE LAS VEGAS FIRE DEPARTMENT AT 983-2888 FOR UNDERGROUND INSPECTION, PRESSURE AND FLUSH VERIFICATION OF ALL ON-SITE FIRE HYDRANTS AND FIRE LINES BEFORE COVERING.
- PAINTING OF THE CURBS AND HYDRANT AND ANY WORK NECESSARY FOR PROTECTION OF HYDRANTS FROM PHYSICAL DAMAGE PER ORDINANCE #318 SHALL BE COMPLETED BEFORE APPROVAL BY THE CITY OF LAS VEGAS FIRE DEPARTMENT.
- A PERMIT IS REQUIRED FROM THE FIRE DEPARTMENT FOR WATER LINE AND FIRE HYDRANT INSTALLATIONS ON THE PRIVATE SIDE OF THE METER.
- A FLOW TEST MUST BE WITNESSED BY THE FIRE DEPARTMENT FOR VERIFICATION OF ON-SITE WATER SUPPLY.
- ALL ON-SITE FIRE MAIN MATERIALS MUST BE U.L. LISTED AND P.M. APPROVED.
- FIRE HYDRANT SPACING:
RESIDENTIAL - 600 FT. MAXIMUM
COMMERCIAL, INCLUDING MULTI-FAMILY - 500 FT. MAXIMUM
- FIRE HYDRANTS SHALL BE LOCATED WITHIN 500 FT. OF ANY CONSTRUCTION OR COMBUSTIBLE OPEN STORAGE.
- NO FIRE HYDRANT SHALL BE LOCATED WITHIN THE REQUIRED RADIUS OF A CUL-DE-SAC OR WITHIN 20 FT. OF THE PERIMETER OF THE RADIUS OF THE CUL-DE-SAC.
- NO FIRE HYDRANT SHALL BE LOCATED WITHIN 6 FT. OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREET LIGHT OR ANY OTHER OBSTRUCTION.
- ENSURE THAT FIRE HYDRANTS ARE CONNECTED TO A DEPENDABLE WATER SUPPLY CAPABLE OF SUPPLYING THE REQUIRED FIRE FLOW.

LAS VEGAS VALLEY WATER DISTRICT NOTES

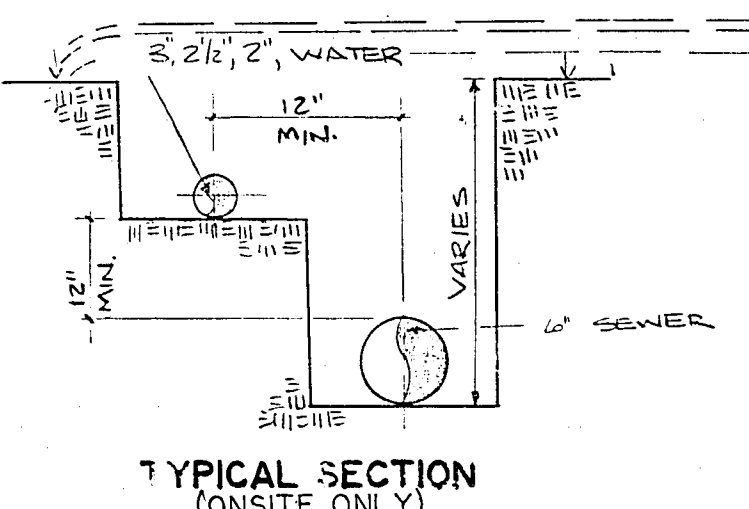
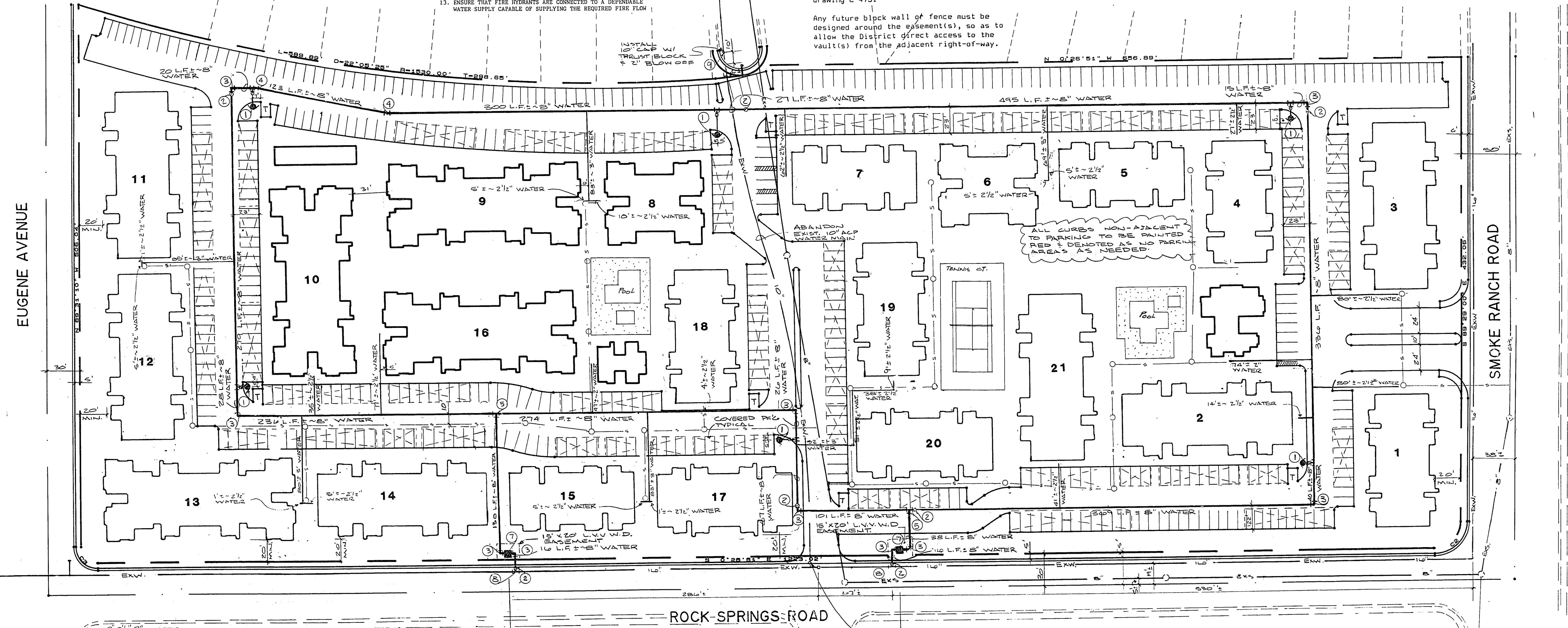
- ALL WORK TO CONFORM TO LAS VEGAS VALLEY WATER DISTRICT LATEST STANDARD PLATES AND SPECIFICATIONS.
- ALL WORK, EXCEPT AS MODIFIED HEREON OR BY NOTE NO. 1, SHALL BE DONE IN ACCORDANCE WITH THE MOST CURRENT DRAFT OR EDITION OF UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS CLARK COUNTY AREA.
- NOTICE TO BE GIVEN ENGINEERING DEPARTMENT OF THE LAS VEGAS VALLEY WATER DISTRICT 48 HOURS PRIOR TO ACTUAL CONSTRUCTION.
- SERVICE SADDLES OR TAPPED COLLARS WILL BE REQUIRED ON ALL 3/4" AND 1" SERVICE LATERALS. SERVICE SADDLES ONLY WILL BE PERMITTED ON 1 1/2" AND 2" SERVICE LATERALS. DOUBLE TAPPED COLLARS ARE NOT PERMITTED.
- ALL LINES TO BE PRESSURE TESTED TO 200 PSI.
- DEFLECTION ANGLE SHALL NOT EXCEED 2 1/2 DEGREES PER 13 FOOT SECTION OF PIPE FOR PIPE SIZES SMALLER THAN 14 INCHES, AND SHALL NOT EXCEED 2 DEGREES FOR PIPE SIZES 14" AND 16".
- ALL METERS SHALL BE LOCATED OUTSIDE OF DRIVEWAYS.
- DETECTOR TAPE REQUIRED IN ACCORDANCE WITH STANDARD PLATE NO. 27 WHERE INDICATED AND AS FOLLOWS:
A. OVER ALL MAINS NOT INSTALLED AT 6 FEET FROM BACK OF CURB.
B. OVER ALL SERVICE LATERALS NOT INSTALLED AT RIGHT ANGLES TO MAINS.
- CALL BEFORE YOU DIG - 1-800-227-2600.

LEGEND & QUANTITIES

- ① STANDARD FIRE HYDRANT W/ASSEMBLY 6
- ② 8" GATE VALVE 7
- ③ 8" 90° ELL 10
- ④ 8" 11 1/2° ELL 2
- ⑤ 8" TEE 2
- ⑥ 8" X 6" REDUCER 0
- ⑦ 8" X 4" FMCT (TO BE INSTALLED BY CONTRACTOR) 2
- ⑧ WET TAP (1/2" X 5") 2
- ⑨ 2" BLOWOFF 1
- 8" PVC OR ACP WATER MAIN 2701 L.F.
- 3" PVC WATER LINE 452 L.F.
- 2 1/2" PVC WATER LINE 627 L.F.
- 2" PVC WATER LINE 126 L.F.



| BLDC TYPE | BLDC #'s | TOTAL SQ. FT. |
|-----------|----------------------|---------------|
| 1 | 4, 5, 7, 15 | 11,534 |
| 2 | 1, 17, 18, 19, 20 | 13,446 |
| 3 | 6, 8 | 9,692 |
| 4 | 2, 3, 11, 12, 13, 21 | 17,070 |
| 5 | 9, 10, 14, 16 | 20,600 |



EXISTING UTILITIES ARE LOCATED ON PLANS FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE ENGINEER BEARS NO RESPONSIBILITY FOR THE LOCATION OF UTILITIES SHOWN OR NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES BEFORE STARTING CONSTRUCTION AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF ALL UTILITIES WITH THE UTILITY COMPANIES.

The meter(s) and vault(s) with non-traffic bearing cover(s), must be installed in accordance with the District's standard plate(s) 21 D and with standard vault drawing C-475.
Any future block wall of fence must be designed around the equipment(s), so as to allow the District's standard plate(s) 21 D and with standard vault drawing C-475.

ABANDONED VALVES
The Contractor shall abandon all existing valves where shown on the drawings by removing a minimum of the top 12 inches of the valve box and then filling the remaining portion of the valve box with concrete having a compressive strength of at least 2,000 psi. All valves to be abandoned shall be abandoned in the closed position unless shown otherwise on the drawings. The Contractor shall then backfill and repave the area disturbed during abandonment of the valve in accordance with the most current draft or edition of Uniform Standard Specifications for Public Works Construction Offsite Improvements Clark County area.

Deane A. Miller 12/14/88
L.V.V.W.D. DATE
David Shadwell 12/14/88
C.L.V. FIRE DEPT. DATE

Call before you Dig.
1-800-227-2600
UNDERGROUND SERVICE USA

REVISION

| | | |
|-----|------|----|
| NO. | DATE | BY |
| | | |

David W. Miller

10-4-88

SOUTHWEST ENGINEERING
LAND PLANNING • SURVEYING • DEVELOPMENT
1725 S. RAINBOW BLVD., STE. 23 • LAS VEGAS, NEVADA 89102
(702) 365-3700

TITLE: MASTER WATER PLAN

PROJECT: THE VERANDAS AT SMOKE RANCH (APARTMENTS)

W.D. No. 880712

BY B. MURNANE

DATE 5/88

SCALE 1" = 50'

SHEET 9 OF 11 SHEETS

107-V1620