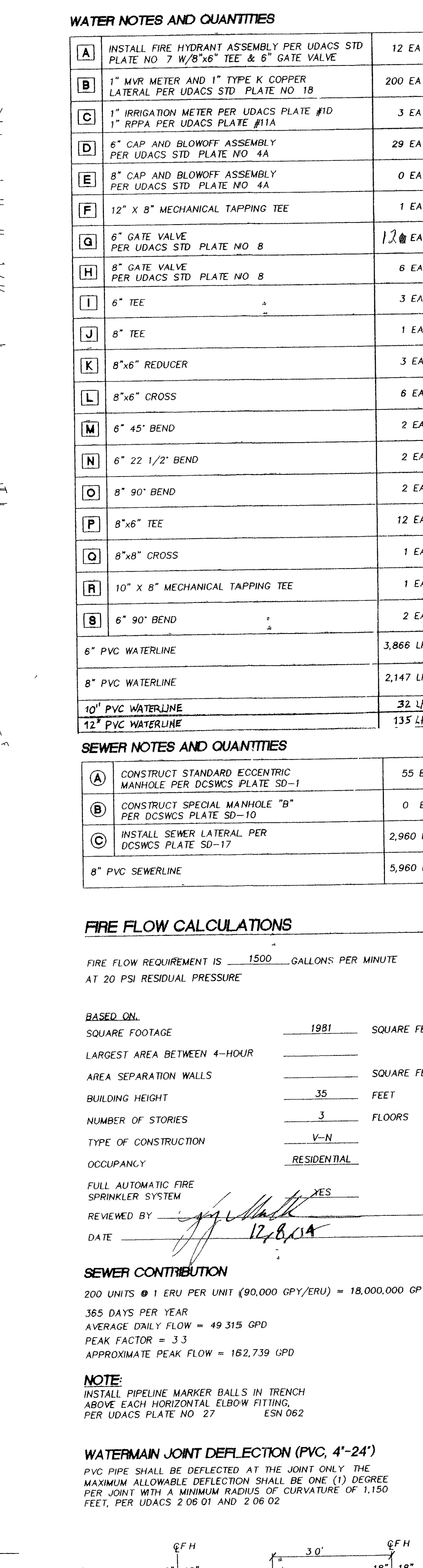




SEWER NOTES AND QUANTITIES		
(A)	CONSTRUCT STANDARD ECCENTRIC MANHOLE PER DCSWCS PLATE SD-1	55 E
(B)	CONSTRUCT SPECIAL MANHOLE "B" PER DCSWCS PLATE SD-10	0 E
(C)	INSTALL SEWER LATERAL PER DCSWCS PLATE SD-17	2,960
8" PVC SEWERLINE		5,960

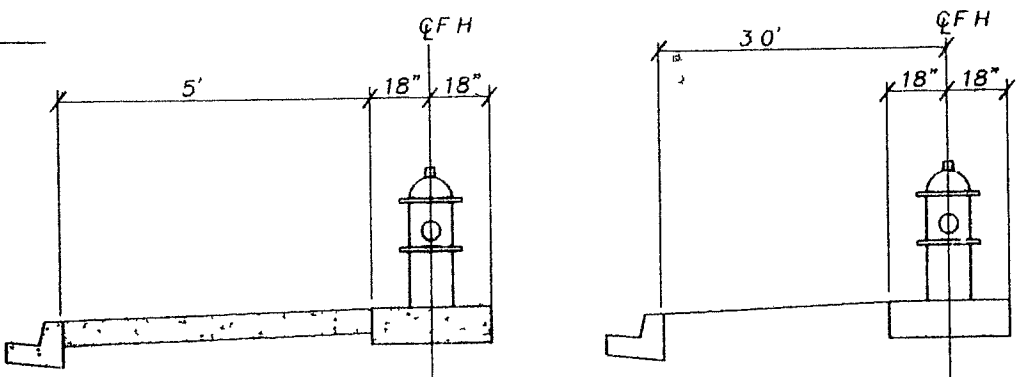
FIRE FLOW REQUIREMENT IS 1500 GALLONS PER MINUTE
AT 20 PSI RESIDUAL PRESSURE

BASED ON:	
SQUARE FOOTAGE	1981
LARGEST AREA BETWEEN 4-HOUR	
AREA SEPARATION WALLS	
BUILDING HEIGHT	35
NUMBER OF STORIES	3
TYPE OF CONSTRUCTION	V-N
OCCUPANCY	RESIDENTIAL

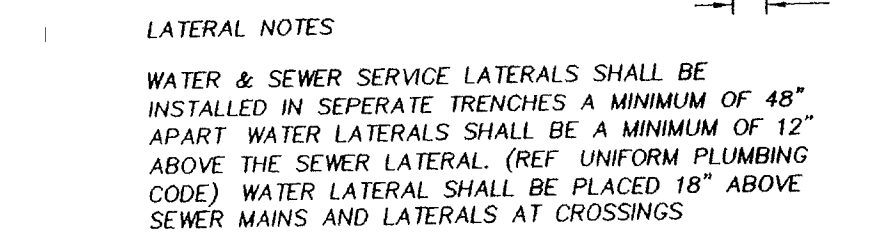
200 UNITS @ 1 ERU PER UNIT (90,000 GPD/ERU) = 18,000,000 GPD
365 DAYS PER YEAR
AVERAGE DAILY FLOW = 49,315 GPD
PEAK FACTOR = 3.3
APPROXIMATE PEAK FLOW = 162,739 GPD

NOTE
INSTALL PIPELINE MARKER BALLS IN TRENCH
ABOVE EACH HORIZONTAL ELBOW FITTING,
PER UDACS PLATE NO 27 ESN 062

PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY THE
MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE
PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1,150
FEET, PER UDACS 2 06 01 AND 2 06 02



TYPICAL FIRE HYDRANT LOCATION W/SIDEWALK NOT TO SCALE



REDUCED PRESSURE PRINCIPLE ASSEMBLY: (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, CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY

EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE
START OF CONSTRUCTION

EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. THE ENGINEER ASSUMES THAT IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN AT THEIR PROPER LOCATIONS.

- 1 NOTIFY THOMASON CONSULTING ENGINEERS IMMEDIATELY OF ANY DISCREPANCIES
THE PLANS OR CONDITIONS IN THE FIELD
- 2 PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL LOCATE AND VERIFY SIZE,
MATERIAL, DEPTH, CONDITION, PRESSURE AND LOCATION OF ALL EXISTING UTILITY
LINES WITHIN THE CONSTRUCTION AREA. THOMASON CONSULTING ENGINEERS
SHALL BE CONTACTED ONCE THE UTILITY IS LOCATED.
- 3 PLANS MAY NOT INDICATE ALL EXISTING UTILITY LINES. CONTRACTOR IS TO
EXERCISE EXTREME CAUTION DURING EXCAVATION ORDER TO AVOID DAMAGING
EXISTING UTILITY LINES. IF UTILITY LINES ARE DAMAGED BY THE
CONTRACTOR, SUCH DAMAGE SHALL BE REPAIRED TO THE SATISFACTION OF THE
OWNER AT THE CONTRACTOR'S EXPENSE.
- 4 CONTRACTOR TO SAWCUT AND REMOVE EXISTING ASPHALT AND CONCRETE AS
NECESSARY FOR UTILITY TRENCHES. BACKFILL AND PATCH ALL TRENCHES
ACCORDING TO CLARK COUNTY STANDARDS.
- 5 ALL WATER FACILITIES CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE
"UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION
SYSTEMS" (UDACS), 2003 EDITION.
- 6 CONTRACTOR TO FIELD VERIFY LOCATION AND INVERT OF MANHOLE PRIOR TO
CONSTRUCTION. THOMASON CONSULTING ENGINEERS SHALL BE CONTACTED ONCE
THIS INFORMATION HAS BEEN OBTAINED.

Steve Fosh
LAS VEGAS VALLEY WATER DISTRICT
PROJECT # H-109368

2/09/05
DATE

T ☐ **THOMASON**
C ☐ **CONSULTING**
E ☐ **ENGINEERS**

MOND AMERICAN HOMES
WHITNEY HEIGHTS

UTILITY PLAN
CITY OF LAS VEGAS

SHEET **U1**
8 OF 33
DRAWING NO
107Y4858

P \001\04005\00104005-UTILITY.dwg 12/8/2004 8 56 43 AM PST