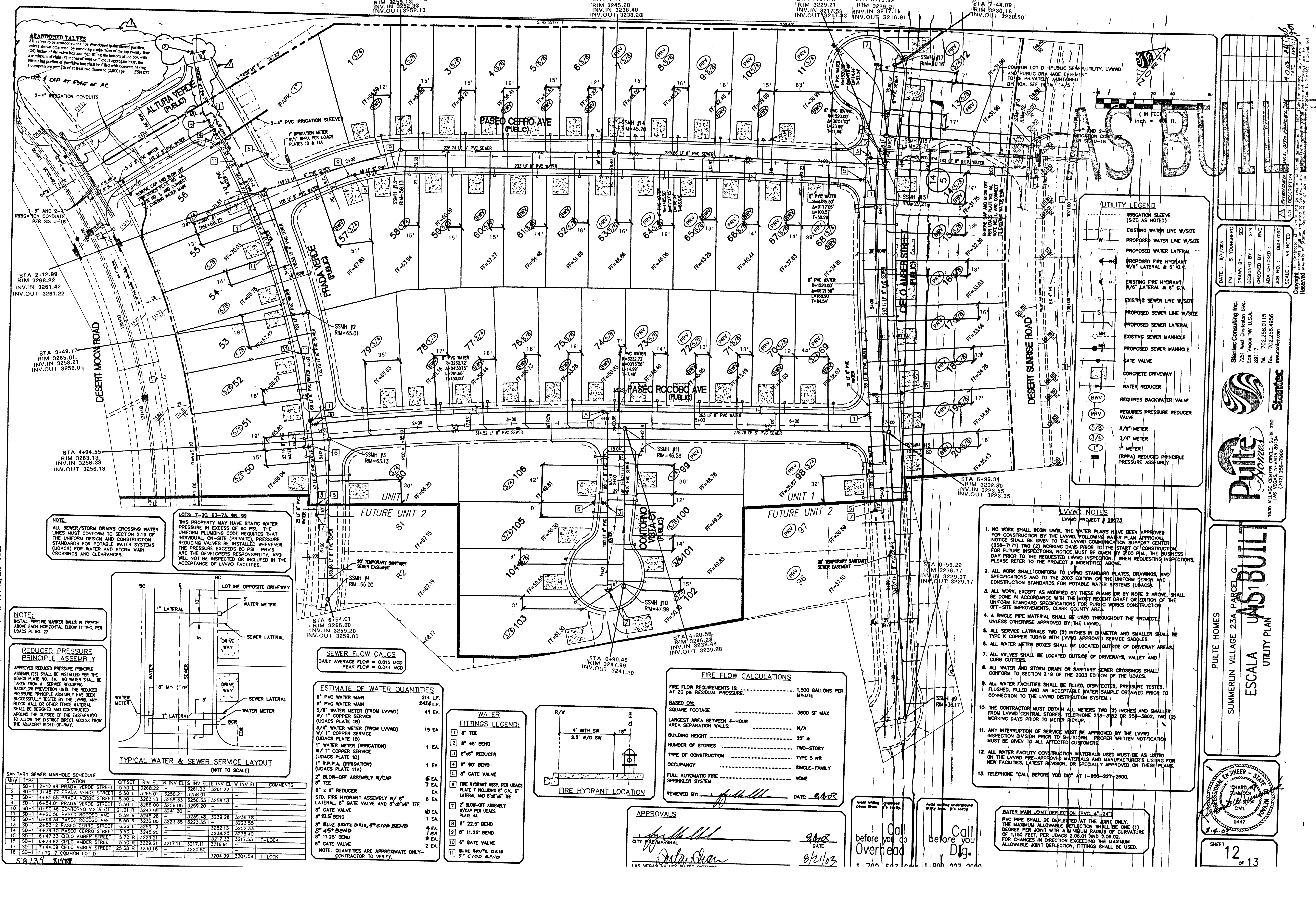


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NOTE:
ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.19 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.

NOTE:
INSTALL PRELIMINARY MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 27.

REDUCED PRESSURE PRINCIPLE ASSEMBLY

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 LVVMD. ANY BLOCK WALL OR OTHER FORCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY.

LOT 7-20, 63-73, 98-99

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. PRVS ARE THE DEVELOPER'S RESPONSIBILITY, AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVVMD FACILITIES.

TYPICAL WATER & SEWER SERVICE LAYOUT (NOT TO SCALE)

SANITARY SEWER MANHOLE SCHEDULE

M/H#	TYPE	STATION	OFFSET	RIM EL.	N. INV. EL.	S. INV. EL.	N. INV. EL.	S. INV. EL.	COMMENTS
1	SD-1	2+12.99 PRADA VERDE STREET	5.50 L	3268.22	3267.22	3267.22	-	-	
2	SD-1	3+48.77 PRADA VERDE STREET	5.50 L	3265.01	3264.01	3264.01	-	-	
3	SD-1	4+85.55 PRADA VERDE STREET	5.50 L	3263.13	3262.13	3262.13	-	-	
4	SD-1	6+54.01 PRADA VERDE STREET	5.50 L	3266.00	3265.00	3265.00	-	-	
10	SD-1	0+90.46 CONTOURNO VISTAGI	21.01 R	3247.99	3247.99	3247.99	-	-	
11	SD-1	4+20.56 PASEO ROCOSO AVE	5.50 R	3246.28	3245.28	3245.28	-	-	
12	SD-1	6+99.34 PASEO ROCOSO AVE	5.50 R	3232.80	3231.80	3231.80	-	-	
13	SD-1	2+53.32 PASEO CERRO STREET	6.26 L	3259.13	3258.13	3258.13	-	-	
14	SD-1	2+79.46 PASEO CERRO STREET	5.50 L	3245.20	3244.20	3244.20	-	-	
15	SD-1	6+47.33 CIELO AMBER STREET	5.72 R	3229.21	3228.21	3228.21	-	-	
16	SD-1	6+78.82 CIELO AMBER STREET	5.50 R	3229.21	3217.11	3217.11	-	-	T-LOCK
17	SD-1	7+44.09 CIELO AMBER STREET	25.38 R	3230.16	3220.16	3220.16	-	-	
18	SD-1	1+79.17 COMMON LOT D	-	-	-	-	3204.39	3204.59	T-LOCK

SEWER FLOW CALCS
DAILY AVERAGE FLOW = 0.015 MGD
PEAK FLOW = 0.044 MGD

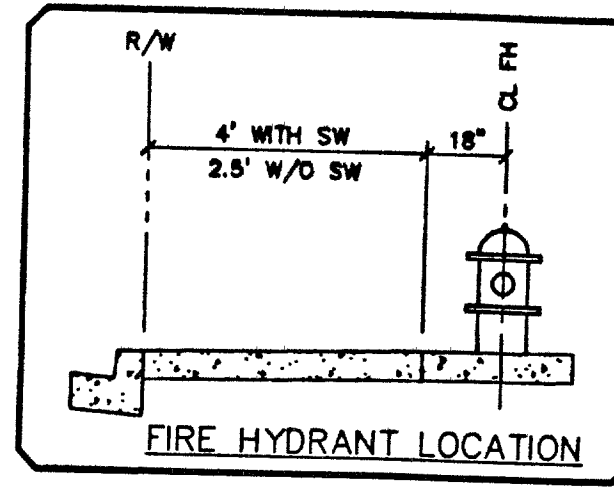
ESTIMATE OF WATER QUANTITIES

ITEM	QUANTITY	UNIT
6" PVC WATER MAIN	214	L.F.
8" PVC WATER MAIN	24	L.F.
5/8" WATER METER (FROM LVVMD)	4	EA.
W/1" COPPER SERVICE (UDACS PLATE 1B)	-	-
3/4" WATER METER (FROM LVVMD)	19	EA.
W/1" COPPER SERVICE (UDACS PLATE 1B)	-	-
1" WATER METER (IRRIGATION)	1	EA.
W/1" COPPER SERVICE (UDACS PLATE 1D)	-	-
1" R.P.A. (IRRIGATION) (UDACS PLATE 11A)	1	EA.
2" BLOW-OFF ASSEMBLY W/CAP	6	EA.
8" TEE	7	EA.
8" x 6" REDUCER	6	EA.
STD. FIRE HYDRANT ASSEMBLY W/ 6" LATERAL, 6" GATE VALVE AND 8"x6" TEE	6	EA.
8" GATE VALVE	10	EA.
8" 22.5" BEND	1	EA.
8" BLUE BRUTE DRAIN, 5" C100 BEND	1	EA.
8" 45° BEND	7	EA.
8" 11.25" BEND	9	EA.
6" GATE VALVE	2	EA.

NOTE: QUANTITIES ARE APPROXIMATE ONLY - CONTRACTOR TO VERIFY.

WATER FITTINGS LEGEND:

- 8" TEE
- 8" 45° BEND
- 8"x6" REDUCER
- 8" 90° BEND
- 8" GATE VALVE
- FIRE HYDRANT ASSY. PER UDACS PLATE 7 INCLUDING 6" G.V., 6" LATERAL AND 8"x6" TEE
- 2" BLOW-OFF ASSEMBLY W/CAP PER UDACS PLATE 1A
- 8" 22.5" BEND
- 8" 11.25" BEND
- 6" GATE VALVE
- BLUE BRUTE DRAIN 5" C100 BEND



FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENTS IS: 1,500 GALLONS PER MINUTE
AT 20 PSI RESIDUAL PRESSURE.

BASED ON:

SQUARE FOOTAGE	3600 SF MAX
LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION WALLS	N/A
BUILDING HEIGHT	25' ±
NUMBER OF STORIES	TWO-STORY
TYPE OF CONSTRUCTION	TYPE 5 NR
OCCUPANCY	SINGLE-FAMILY
FULL AUTOMATIC FIRE SPRINKLER SYSTEM	NONE

REVIEWED BY: *[Signature]* DATE: 9/2/03

APPROVALS

CITY FIRE MARSHAL: *[Signature]*

DATE: 9/2/03

Call before you dig
Call before you dig
Call before you dig

WATER MAIN JOINT DEFLECTION (PVC, 4" - 24")

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. FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

UTILITY LEGEND

- IRRIGATION SLEEVE (SIZE AS NOTED)
- EXISTING WATER LINE W/SIZE
- PROPOSED WATER LINE W/SIZE
- PROPOSED WATER LATERAL
- PROPOSED FIRE HYDRANT W/6" LATERAL & 6" G.V.
- EXISTING FIRE HYDRANT W/6" LATERAL & 6" G.V.
- EXISTING SEWER LINE W/SIZE
- PROPOSED SEWER LINE W/SIZE
- PROPOSED SEWER LATERAL
- EXISTING SEWER MANHOLE
- PROPOSED SEWER MANHOLE
- GATE VALVE
- CONCRETE DRIVEWAY
- WATER REDUCER
- REQUIRES BACKWATER VALVE
- REQUIRES PRESSURE REDUCER VALVE
- 5/8" METER
- 3/4" METER
- 1" METER
- (RPPA) REDUCED PRINCIPLE PRESSURE ASSEMBLY

- LVVMD NOTES**
LVVMD PROJECT # 28073
- NO WORK SHALL BEGIN UNTIL THE WATER PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE LVVMD. FOLLOWING WATER PLAN APPROVAL, NOTICE SHALL BE GIVEN TO THE LVVMD COMMUNICATION SUPPORT CENTER (258-7171) TWO (2) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION. FOR FUTURE INSPECTIONS, NOTICE MUST BE GIVEN BY 2:00 PM, THE BUSINESS DAY PRIOR TO THE REQUESTED LVVMD INSPECTION. WHEN REQUESTING INSPECTIONS, PLEASE REFER TO THE PROJECT # IDENTIFIED ABOVE.
 - ALL WORK SHALL CONFORM TO LVVMD STANDARD PLATES, DRAWINGS, AND SPECIFICATIONS AND TO THE 2003 EDITION OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS).
 - ALL WORK, EXCEPT AS MODIFIED BY THESE PLANS OR BY NOTE 2 ABOVE, SHALL BE DONE IN ACCORDANCE WITH THE MOST RECENT DRAFT OR EDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA.
 - A SINGLE PIPE MATERIAL SHALL BE USED THROUGHOUT THE PROJECT, UNLESS OTHERWISE APPROVED BY THE LVVMD.
 - ALL SERVICE LATERALS TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING WITH LVVMD 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.
 - ALL WATER AND STORM DRAIN OR SANITARY SEWER CROSSINGS SHALL CONFORM TO SECTION 2.19 OF THE 2003 EDITION OF THE UDACS.
 - ALL WATER FACILITIES SHALL BE FILLED, DISINFECTED, PRESSURE TESTED, FLUSHED, FILLED AND AN ACCEPTABLE WATER SAMPLE OBTAINED PRIOR TO CONNECTION TO THE LVVMD DISTRIBUTION SYSTEM.
 - THE CONTRACTOR MUST OBTAIN ALL METERS TWO (2) INCHES AND SMALLER FROM LVVMD CENTRAL STORES. TELEPHONE 258-3152 OR 258-3802, TWO (2) WORKING DAYS PRIOR TO METER PICKUP.
 - ANY INTERRUPTION OF SERVICE MUST BE APPROVED BY THE LVVMD INSPECTION DIVISION PRIOR TO SHUTDOWN. PROPER WRITTEN NOTIFICATION MUST BE GIVEN TO ALL AFFECTED CUSTOMERS.
 - ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE AS LISTED ON THE LVVMD PRE-APPROVED MATERIALS AND MANUFACTURER'S LISTING FOR NEW FACILITIES, LATEST REVISION, OR SPECIALLY APPROVED ON THESE PLANS.
 - TELEPHONE "CALL BEFORE YOU DIG" AT 1-800-227-2600.

AS BUILT

DATE: 8/4/2003
DRAWN BY: S. YOUNGBERG
DESIGNED BY: SES
CHECKED BY: SES
JOB NO.: 8817090
SCALE: AS NOTED

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SHEET 12 OF 13