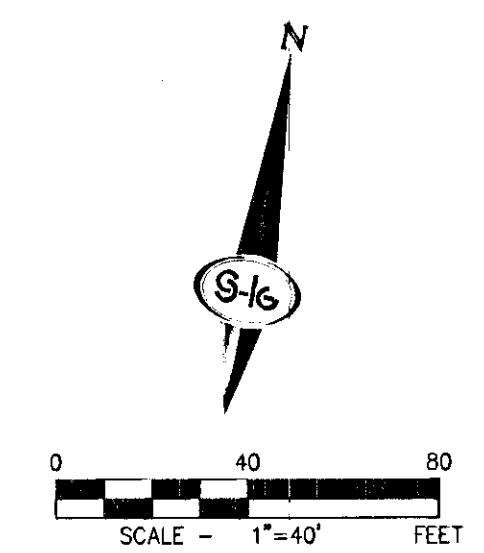
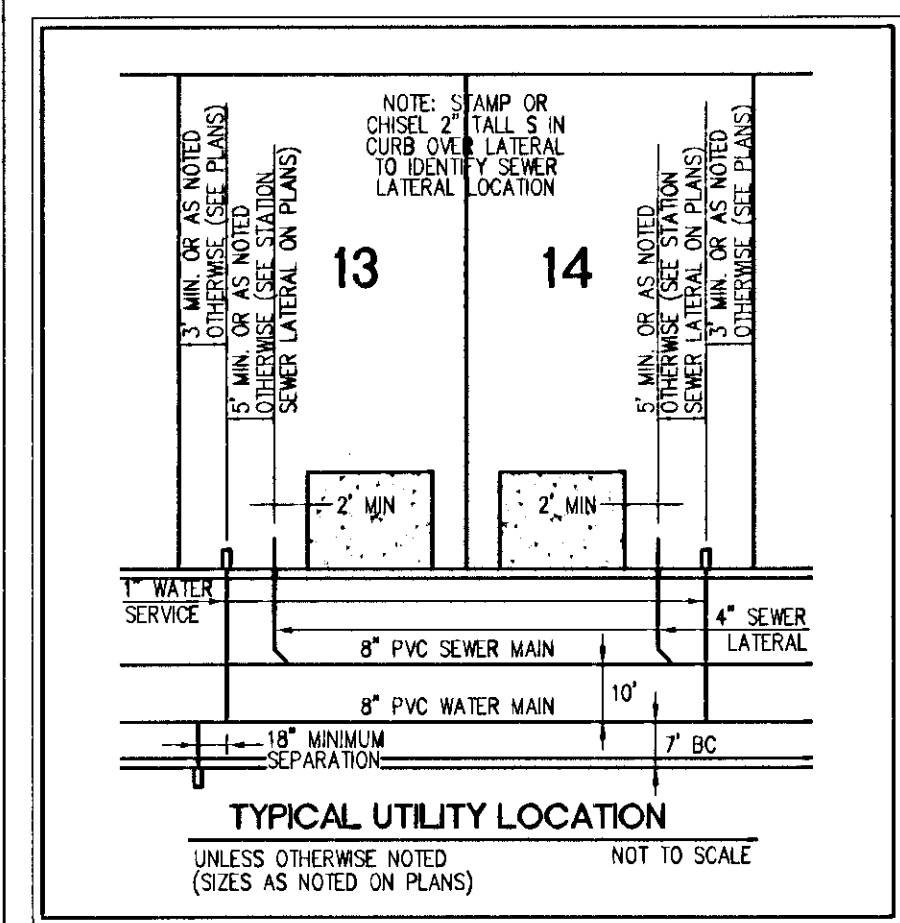
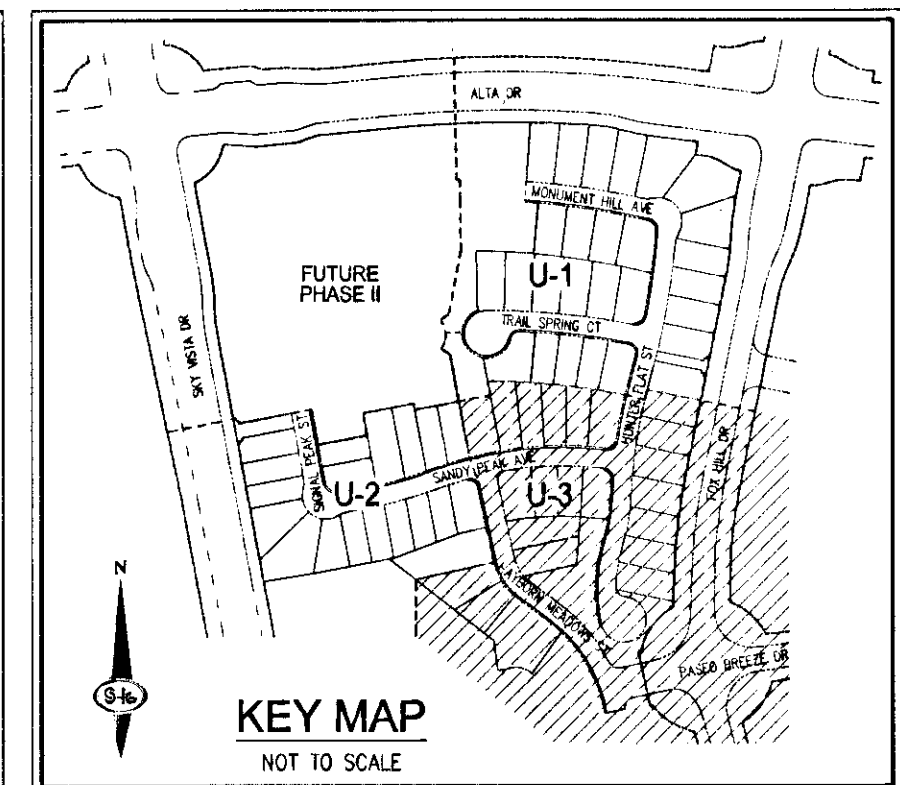


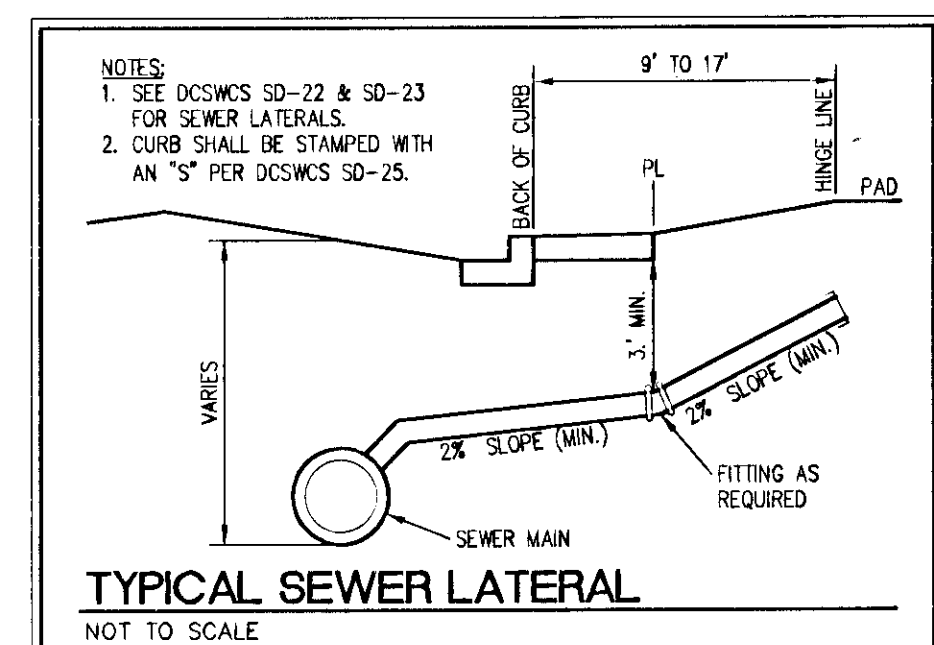
**EXISTING SERVICES**  
 IF ANY OF THE EXISTING SERVICES ARE INCORRECTLY LOCATED OR NOT USED FOR ANY REASON, THE DEVELOPER SHALL ABANDON THE LATERALS AT THE CONNECTION TO THE ACTIVE MAIN IN ACCORDANCE WITH THE UDCAS STANDARDS, AND AT THE DEVELOPER'S EXPENSE.



- WATER NOTES**
- 8" PVC WATER PIPE (2745 WP2)
  - 8" DIP WATER PIPE (2745 WP2)
  - 8" DIP WATER PIPE (CLASS 53)
  - 8" x 8" TEE PER UDCAS PLATE NO. 31
  - 8" x 6" TEE PER UDCAS PLATE NO. 31
  - 8" x 6" REDUCER PER UDCAS PLATE NO. 31
  - 5 DEGREE BEND WITH RESTRAINED JOINTS
  - 11.25 DEGREE BEND PER UDCAS PLATE NO. 31
  - 22.5 DEGREE BEND PER UDCAS PLATE NO. 31
  - 45 DEGREE BEND PER UDCAS PLATE NO. 31 (SEE PROFILE FOR STATION OF BENDS)
  - 90 DEGREE BEND PER UDCAS PLATE NO. 31
  - 8" GATE VALVE WITH VALVE BOX PER UDCAS PLATE NO. 30 & 39
  - 2" AND 2" BLOW-OFF VALVE PER UDCAS PLATE NO. 39
  - FIRE HYDRANT ASSEMBLY W/8" GATE VALVE PER UDCAS PLATE NO. 40
  - INSTALL BLUE REFLECTIVE RAISED PAVEMENT MARKERS
  - 1" COPPER SERVICE W/ 3/4" METER PER UDCAS PLATE NO. 2
  - 1" COPPER SERVICE W/ 1" IRRIGATION METER AND 1" BRPA PER UDCAS PLATE NO. 4 & 3 (BRASS BETWEEN METER AND BRPA)
  - COPPER SERVICE W/ 1" METER PER UDCAS PLATE NO. 4
  - FIELD VERIFY LOCATION, CUT, AND CONNECT TO EXISTING WATER
  - 1 DEGREE MAXIMUM JOINT DEFLECTION PER UDCAS SECTION 2.07
  - POINT OF CURVATURE OF WATER MAIN USING 1" JOINT DEFLECTIONS PER UDCAS SECTION 2.07.01
  - INSTALL 2 - 4" IRRIGATION SLEEVES
  - INSTALL PVC TO DIP COUPLER
- SEWER NOTES**
- 8" PVC SANITARY SEWER PIPE
  - 8" C-900 WATER QUALITY SANITARY SEWER PIPE
  - 48" DIAMETER SANITARY SEWER MANHOLE WITH PRECAST BASE PER DCOWS SD-1A
  - 8" SANITARY SEWER CAP (SEE DETAIL 19 SHEET D-2 FOR THURST BLOCK DETAIL)
  - FIELD VERIFY AND CONNECT TO EX STUB
  - INSTALL 4" SANITARY SEWER LATERAL, PLUG AND 4" POST PER DCOWS SD-22
  - INSTALL 4" SANITARY SEWER LATERAL, PLUG AND 4" POST PER DCOWS SD-22 AND SD-25
  - PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY PROVIDED
- SEE SHEET C-2 FOR LEGEND, ABBREVIATIONS AND QUANTITIES



**DISCLAIMER NOTE**  
 EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND 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 IN THEIR PROPER LOCATION.



**REDUCED PRESSURE PRINCIPLE ASSEMBLY** (1) 1" APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDCAS PLATE NO. 8. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVWD. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE ASSEMBLY(S) TO ALLOW THE DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY. EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

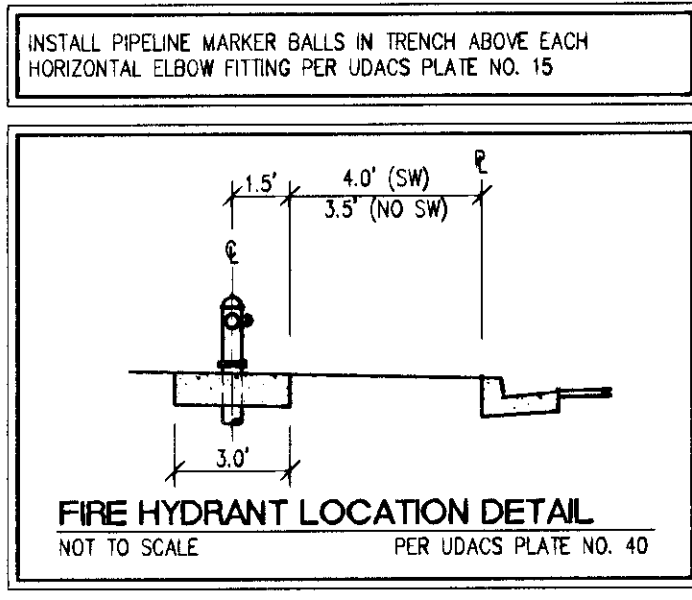
**WATER MAIN JOINT DEFLECTION (PVC 4" - 24")**  
 PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDCAS 2.07.01 AND 2.07.02.

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

Call before you Dig  
 1-800-227-2600  
 1-702-455-6000

Call before you do UnderGround  
 1-702-455-6000  
 1-702-432-5300

CALL BEFORE YOU DO OVERHEAD  
 1-702-227-2929



**BENCHMARK**  
 RIVET & PLATE IN TOP OF CURB IN THE SOUTHEAST CORNER OF DESERT MOON ROAD & DESERT SUNRISE ROAD, 7LV09345M6A NAVD 88 ELEV = 1006.289 METERS = 3301.47 FEET

**BASIS OF BEARING**  
 NORTH 05°59'55" WEST, BEING THE BEARING OF THE WEST LINE OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF ON FILE IN BOOK 143, PAGE 47 OF PLATS IN THE CLARK COUNTY RECORDER'S OFFICE, NEVADA.

**FIRE FLOW CALCULATIONS**  
 FIRE FLOW REQUIREMENT IS 1,750 GALLONS PER MINUTE AT 20 P.S.I. RESIDUAL PRESSURE.

USE/OCCUPANCY	SINGLE FAMILY
TYPE OF CONSTRUCTION (IBC)	TYPE V
AUTOMATIC FIRE SPRINKLERS	NO
SQUARE FOOTAGE	48800
LARGEST AREA BETWEEN 4 HOUR WALLS	N/A
BUILDING HEIGHT	3
NO OF STORIES INCLUDING BASEMENT	2
HIGH PILED COMBUSTIBLE STORAGE	NO
NO OF HYDRANTS INSTALLED	3

**WATER MAIN LINE TABLE**

LINE	SIZE & MATERIAL	LENGTH	BEARING
W1	8" DIP WATER PIPE (2745 WP2)	2.00'	N77°47'00"E
W2	8" DIP WATER PIPE (2745 WP2)	5.67'	N77°47'00"E
W3	8" DIP WATER PIPE (2745 WP2)	30.05'	N77°47'00"E
W4	8" DIP WATER PIPE (2745 WP2)	48.80'	N121°3'00"W
W5	8" DIP WATER PIPE (2745 WP2)	2.48'	N121°3'00"W
W6	8" DIP WATER PIPE (2745 WP2)	24.00'	N121°3'00"W
W7	8" DIP WATER PIPE (2745 WP2)	7.00'	N121°3'00"W
W8	8" DIP WATER PIPE (2745 WP2)	2.00'	N77°47'00"E
W9	8" DIP WATER PIPE (2745 WP2)	8.53'	N77°47'00"E
W10	8" DIP WATER PIPE (2745 WP2)	23.82'	N77°47'00"E
W11	8" DIP WATER PIPE (2745 WP2)	7.17'	N77°47'00"E
W12	8" DIP WATER PIPE (2745 WP2)	46.00'	N77°47'00"E
W13	8" DIP WATER PIPE (2745 WP2)	43.94'	N77°47'00"E
W14	8" DIP WATER PIPE (2745 WP2)	28.60'	N121°10'10"W
W15	8" DIP WATER PIPE (2745 WP2)	2.30'	N121°10'10"W
W16	8" DIP WATER PIPE (2745 WP2)	24.19'	N121°10'10"W
W17	8" DIP WATER PIPE (2745 WP2)	2.20'	N121°10'10"W
W18	8" DIP WATER PIPE (2745 WP2)	5.70'	N121°10'10"W
W19	8" DIP WATER PIPE (2745 WP2)	15.88'	N121°10'10"W
W20	8" DIP WATER PIPE (2745 WP2)	13.98'	N33°15'42"W

\* LENGTHS SHOWN ARE LINEAR LENGTHS. SEE PROFILES FOR ACTUAL PIPE SEGMENT LENGTHS IN LOWERED SECTIONS

VILLAGE 23A  
 PARCEL N  
 GREYSTONE NEVADA LLC  
 APN 137-34-313-001

VILLAGE 23A  
 PARCEL ES-1  
 THE HOWARD HUGHES CORPORATION  
 APN 137-34-312-002

**ESTIMATED AVERAGE DAILY SEWER CONTRIBUTIONS**  
 66 UNITS X 250 GPD/UNIT = 16,500 GPD  
 TOTAL AVERAGE CONTRIBUTION = 16,500 GPD = 0.0165 MGD  
 TOTAL PEAK FLOW = 0.0165 MGD X 3.5 (PEAK FACTOR) = 0.05775 MGD

**SLATER HANIFAN GROUP**  
 CONSULTING ENGINEERS & PLANNERS  
 5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118  
 PHONE (702) 284-5300 FAX (702) 284-5309

**Woodside Homes**  
 BETTER BY DESIGN

**ANDORRA & CASTILLE - PHASE 1**  
**22 - UTILITY PLAN III**

DATE: 10/17/12  
 DRAFTER: DSP  
 DESIGNER: DSP  
 CHECKED: CAL  
 PROJECT NO. WSH1105-001

APPROVED FOR CONSTRUCTION 10-31-12  
 LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER  
 DATE 10/21/12 PROJECT NO. 117428  
 LVWD APPROVED FIRE FLOW 1,750 GPM AT 20 PSI RESIDUAL

**U-3**  
 SHEET 22 OF 25  
 11/14/12  
 10714722-1