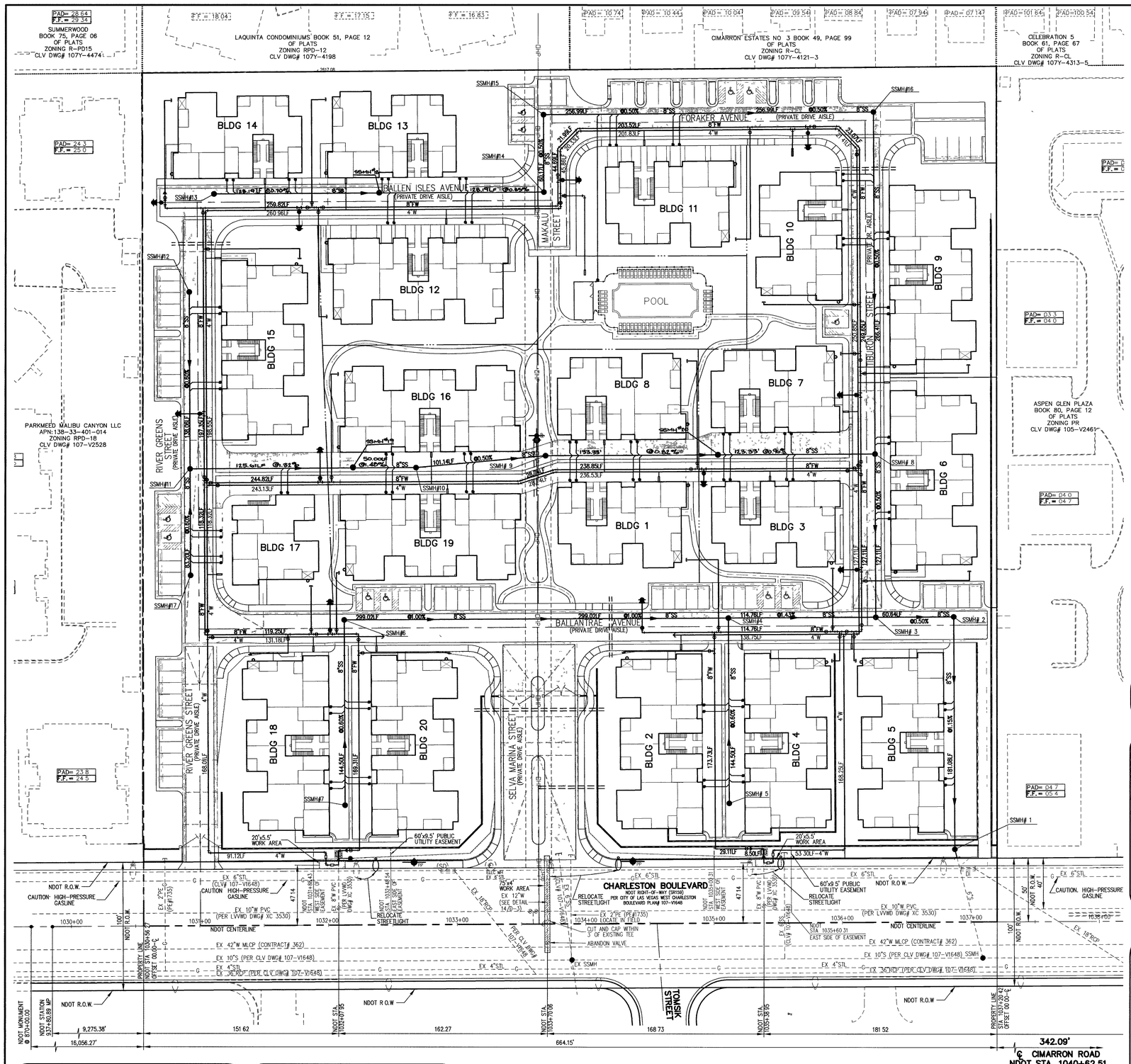


NOTES

1. NDOT ENCROACHMENT PERMIT REQUIRED FOR ALL WORK PERFORMED IN THE NDOT AND NEVADA STATE RIGHT-OF-WAY
2. ALL SEWER/STORM DRAINS CROSSING WATER LINE 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.

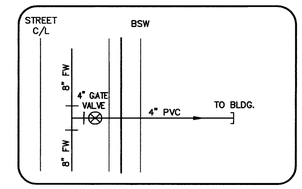
NORTH

SCALE 1"=40'

GRAPHIC SCALE

40 0 40 80 160

(IN FEET)
1 inch = 40 ft.



Avoid cutting underground utility lines. It's costly.
Call before you Dig.
1-702-227-2600
UNDERGROUND SERVICE (USA)

FIREWATER LINE

FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENT IS 1625 gallons per minute at 20 psi residual pressure

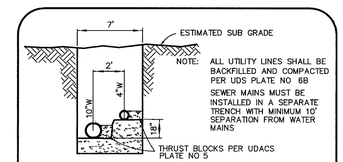
Based on:

SQUARE FOOTAGE:	13651	SF
LARGEST AREA BETWEEN 1-HOUR AREA SEPARATION WALLS:	1525	SF
BUILDING HEIGHT:	29	FEET
NUMBER OF STORIES:	2	
TYPE OF CONSTRUCTION:	TYPE V-B	
FULL AUTOMATIC FIRE SPRINKLER SYSTEM:	YES	

LEGEND

FIRE LANE

WORK PERFORMED WITHIN NDOT R.O.W.



NOTE: ALL UTILITY LINES SHALL BE BACKFILLED AND COMPACTED PER UDS PLATE NO 6B
SEWER MAINS MUST BE INSTALLED IN A SEPARATE TRENCH WITH MINIMUM 10' SEPARATION FROM WATER MAINS

TRENCH DETAIL
FOR TWO ADJACENT WATER LINES
NOT TO SCALE

CONSTRUCTION NOTES:

SANITARY SEWER NOTES:

- (A) VERIFY SIZE, LOCATION AND INVERT OF EXISTING IMPROVEMENTS
- (B) INSTALL 8" PVC SANITARY SEWER LINE
- (C) CONSTRUCT 48" SEWER MANHOLE PER DCSWSC STD. DWG SD-1
- (D) SEWER LATERAL TO BE 4" C900 WATER QUALITY PIPE PER UDACS 219.03.B2 WITH 4" CLEAN-OUT PER DETAIL 15/D-3
- (E) INSTALL 4" PVC SANITARY SEWER LATERAL WITH 4" CLEAN-OUT PER DETAIL 15/D-3
- (F) ABANDON EXISTING 6" SEWER LINE BY PRESSURE GROUTING LINE WITH APPROVED GROUT OR SAND. PLUG END AT EXISTING MANHOLE PRIOR TO ABANDONMENT.

WATER NOTES

1. INSTALL 4" PVC WATER LINE
2. INSTALL 2" GATE VALVE
3. INSTALL 4" TEE
4. INSTALL 4" 45° ELBOW
5. INSTALL 4" 90° ELBOW
6. INSTALL 2" PVC LATERALS (TYP)
7. INSTALL 4"x2" TEE
8. INSTALL FIRE HYDRANT ASSEMBLY BEHIND SIDEWALK PER UDACS PLATE 7, CONDITION G
9. POINT OF CONNECTION 5' OFF BLDG
10. REMOVE CAP AND BLOW-OFF AND CONNECT
11. INSTALL 6" DCDA PER UDACS PLATE NO. 11C
12. INSTALL 2" DOMESTIC METER PER UDACS PLATE NO. 1D
13. INSTALL 8" GATE VALVE
14. INSTALL 4" GATE VALVE
15. INSTALL 8" 45° ELBOW
16. INSTALL 4" 22.5° ELBOW
17. INSTALL 4" PVC W/CAP (FIREWATER)
18. INSTALL FIRE DEPARTMENT CONNECTION (FDC) W/4" PVC C900CL200 (FROM FIRE RISER ROOM)
19. INSTALL FIRE WATER LINE PER UDACS 2.19 02 B1,B2, AND B3a.
20. INSTALL 2" 90° ELBOW
21. INSTALL 8" FIRE LINE
22. INSTALL 8" 90° ELBOW
23. INSTALL 8" TEE
24. INSTALL 8"X4" REDUCER
25. INSTALL 8" 22.5° ELBOW
26. INSTALL 2" RPPA PER UDACS PLATE NO 11A
27. INSTALL 4" CAP WITH 2" BLOW-OFF ASSEMBLY PER UDACS PLATE NO. 4A
28. 2-4" SCHEDULE 35 PVC IRRIGATION SLEEVES
29. INSTALL 8"X6" REDUCER
30. INSTALL 2" BRASS 90° ELBOW
31. INSTALL 12"x6" REDUCER

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

NDOT OCCUPANCY PERMIT REQUIREMENTS

Plans for the project show proposed work within existing NDOT right-of-way. The Las Vegas Valley Water District (LVVWD) will submit application for Encroachment permit after plan approval. NDOT requires that the following information be included on the plans:

- Street name (NDOT right-of-way identified as SR159, etc)
- NDOT right-of-way boundary identified and clearly stated
- NDOT trench detail or bore detail
- Major cross streets
- NDOT stationing
- Underlying fee ownership of parcel
- Distance from work location to major cross street
- Dimension of trench or work area
- Identify NDOT centerline

Engineer to coordinate with NDOT @ 702-385-6509 to determine if right-of-way is owned by NDOT or only maintained by NDOT. If right-of-way is only maintained by NDOT, the Engineer/Developer will provide LVVWD with easement for right-of-way for under surface installation prior to water plan approval.

REDUCED PRESSURE PRINCIPLE ASSEMBLY

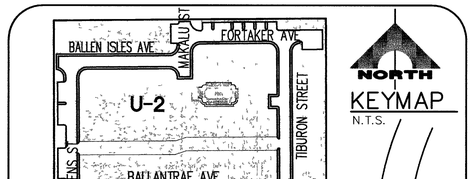
APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLATE NO. 11A NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACK FLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVVWD. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND 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

DOUBLE CHECK DETECTOR ASSEMBLY (DCDA)

The Double Check Detector Assemblies Shall be installed in accordance with the UDACS Plate No 11C.

Any block wall or other fence material shall be designed and constructed around the outside of the easement(s) so as 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



CONSTRUCT PER:
"Uniform Design and Construction Standards for Potable Water Systems" (UDACS) 2003 and the "Design and Construction Standards for Wastewater Collection Systems" (UDS) 1997, Standard Plates where applicable.

APPROVED FOR CONSTRUCTION
CLV FIRE DEPARTMENT 3/29/05 DATE

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT 4/12/05 DATE
PROJECT #09887

NOTE TO CONTRACTOR

INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING PER UDACS PLATE NO. 27.

SEWER CONTRIBUTIONS

AVERAGE: 140 UNIT X 250 GPD/UNIT = 35,000 GPD
PEAK FLOW: 35,000 GPD X 3.4 (PF) = 119,000 GPD

BASIS OF BEARINGS

SOUTH 89°39'53" WEST, BEING THE BEARING OF THE SOUTH LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 33, TOWNSHIP 20 SOUTH, RANGE 60 EAST, M.D.M., AS SHOWN BY MAP THEREOF ON FILE IN BOOK 75, PAGE 06 OF PLATS IN THE COUNTY RECORDER'S OFFICE, CLARK COUNTY, NEVADA.

7884G

BENCHMARK

BM #	DESC.	ELEV. DATUM	ELEV. DATUM
OLV00 3354	CITY OF LAS VEGAS RIVET AND ROUND PLATE IN TOP OF CURB, AT THE NORTHEAST CORNER OF CHARLESTON AND CIMARRON RD.	2594.24 (FEET)	790.725 (METERS)

NEVADA DEPARTMENT OF TRANSPORTATION (NDOT) PERMIT REQUIRED

An approved NDOT Occupancy Permit shall be obtained through the District PRIOR to any construction within the NDOT right-of-way Plans showing work in NDOT right-of-way must show NDOT stationing. The Developer assumes all liability for work conducted under the District obtained permit through warranty expiration

ABANDONED VALVE CUT AND CAP

All valves to be abandoned shall be abandoned in the closed position, unless shown otherwise, by removing a minimum of the top twenty-four (24) inches of the valve box, and then filling bottom of the box with a minimum of eight (8) inches of sand or Type II aggregate base, the remaining portion of the valve box shall be filled with concrete haing a compressive strength of at least two thousand (2,000) psi. The lateral must be cut within three (3) feet of the abandoned valve, or as shown on, plans, and capped. The Contractor shall cut the existing pipe where shown on the drawing and install a cap complete with thrust block. Where a joint or coupling in the existing pipe is uncovered at the cut and cap locations, the installation of a plug may be permitted with District approval. A concrete thrust block shall be installed at all cap or plug locations in accordance with the provisions of UDACS Plate 5
ESN.033 Rev 6/1/04

STATE OF NEVADA
RICK J. READ
Exp. 12/31/2005
No. 15202
PROFESSIONAL ENGINEER
CIVIL
DATE: 3/29/05

REV.	DATE	DESCRIPTION	DATE	AGEN.	APP.	DATE	GCW.	APP.

DESIGN:
DRAWN:
CHECK:
ISSUE DATE:
ISSUE EDITOR:
PLOT DATE: 03-29-05
PLOT TIME: 07 28.52

G. C. WALLACE, INC.
Engineers/Planners/Surveyors
1555 SOUTH RAINBOW BLVD.,LAS VEGAS, NEVADA 89146
TELEPHONE: (702) 804-2000 • FAX: (702) 804-2299
gmodden
G:\784-083-013\dwg\mpro\083-013-U-1.dwg

PULTE HOMES, INC.
CHARLESTON BLM 10 ACRE - FULTON PARK
MASTER UTILITY PLAN

DRAWING
U-1
4 OF 15 SHTS

10774864