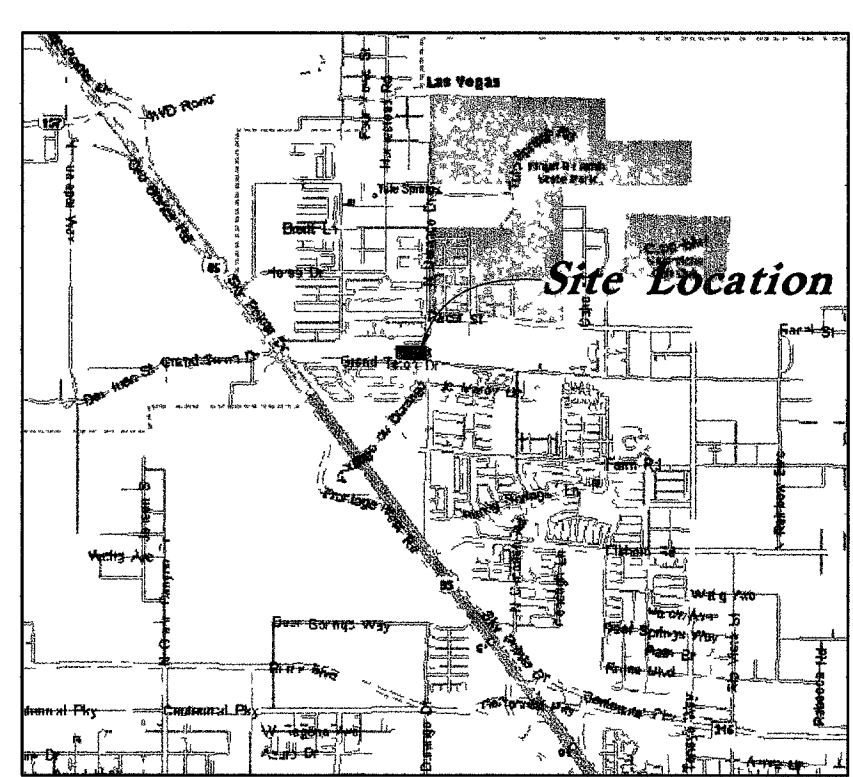
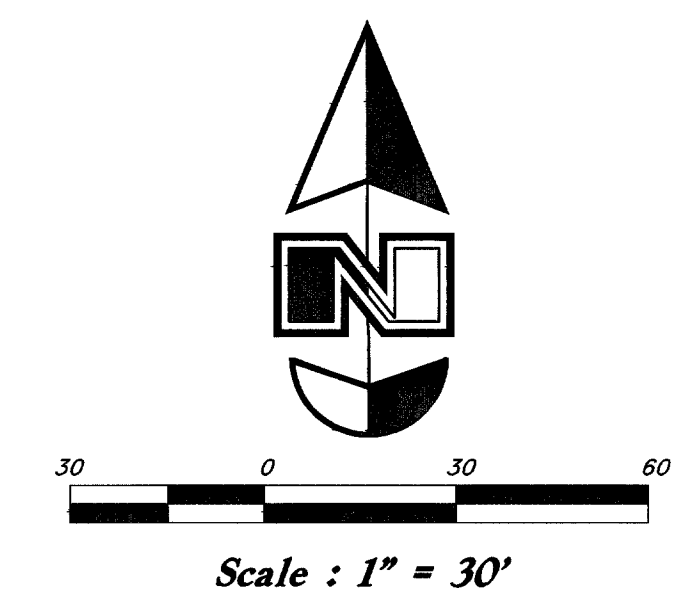
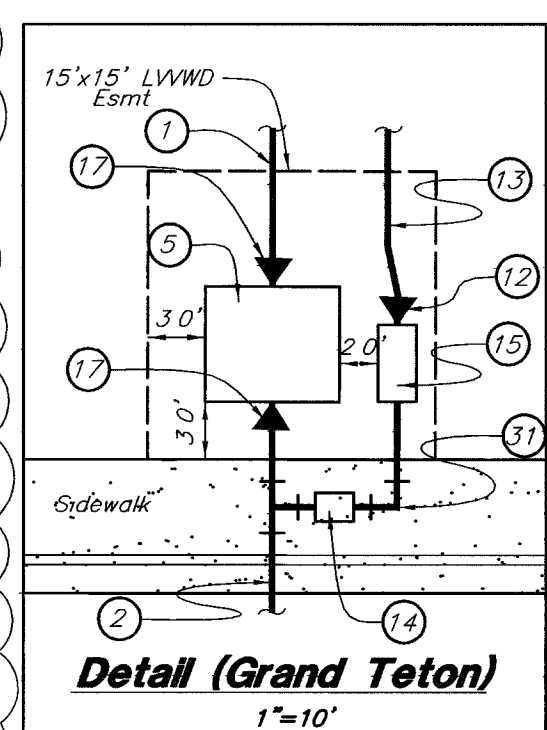
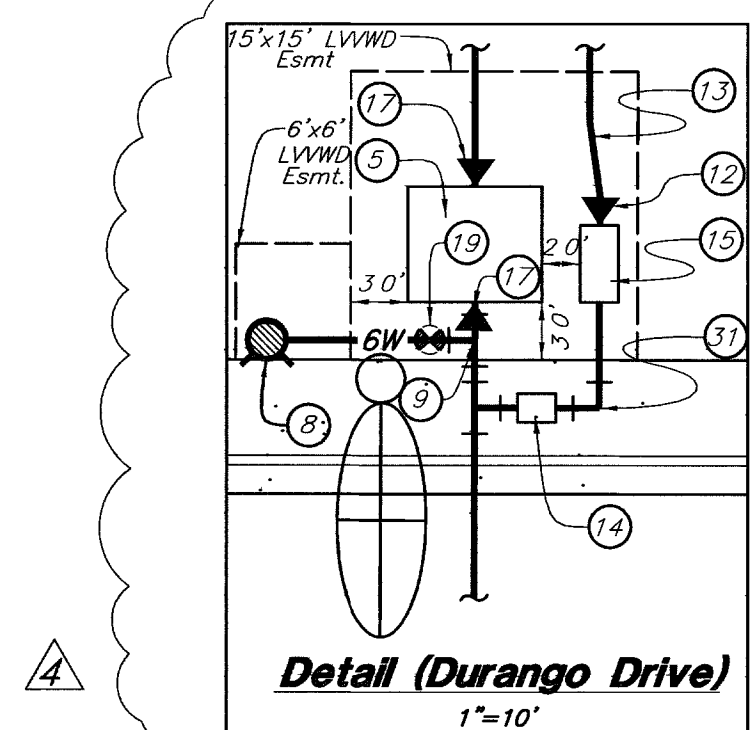
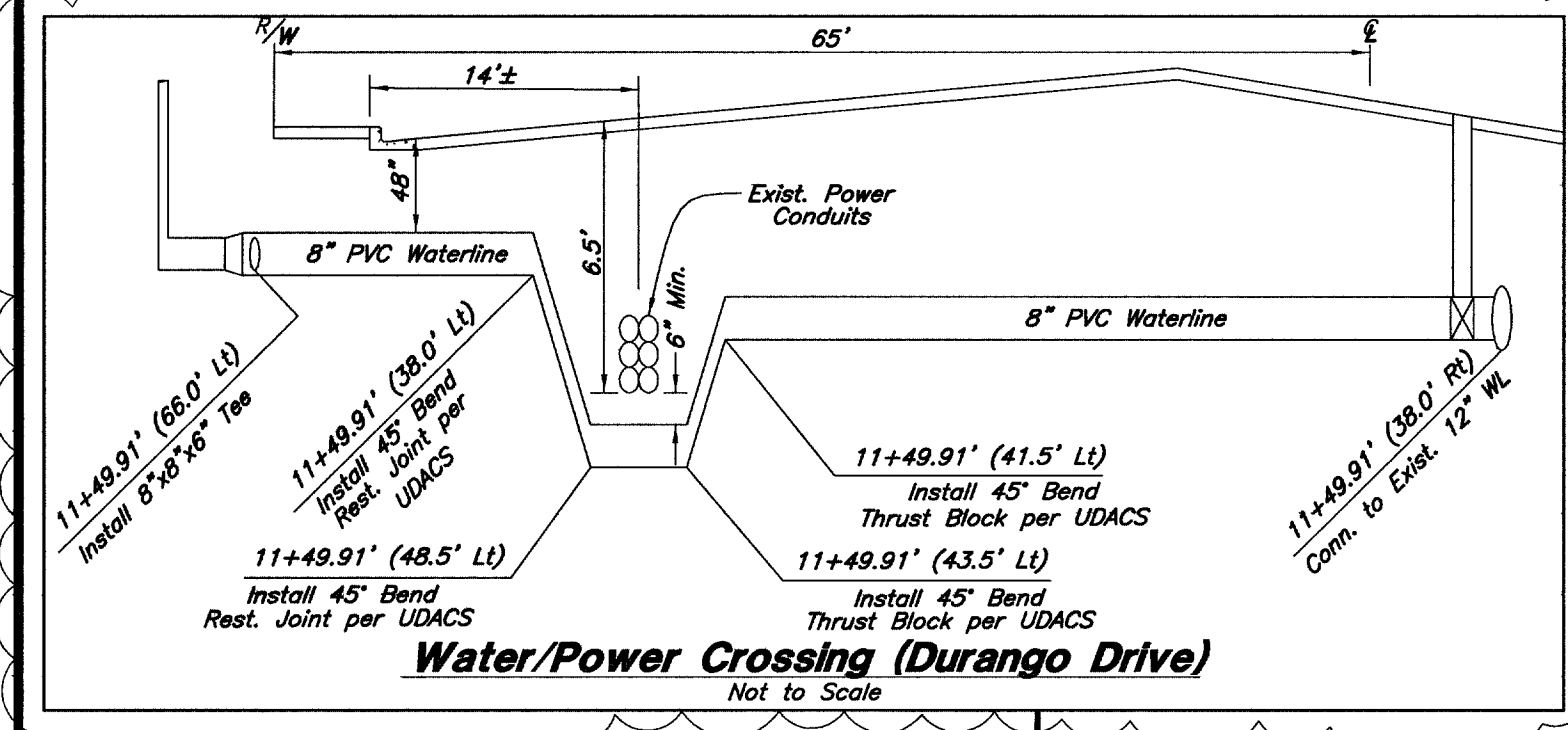




Utility Piping Materials:

All piping to be installed per manufacturers recommendations. Refer to project specifications for more detailed information regarding materials, installation, etc.

Culinary Service Laterals

- 3/4" to 2" diameter pipe - HDPE, SDR-9 (200 psi) PE 3408
- Over 2" diameter pipe - AWWA C-900 Class 150 pipe

Water Main Lines and Fire Lines

- Pipe material as shown on utility plan view or to meet LVWD & city standards.

Sanitary Sewer Lines

- All sewer piping to be Polyvinyl Chloride (PVC) sewer pipe, ASTM D 3034, Type PSM, SDR 35

Sanitary Sewer Notes:

- Coordinate all utility connections to building with plumbing plans and building contractor.
- Verify depth and location of all existing utilities prior to constructing any new utility lines. Notify Civil Engineer of any discrepancies or conflicts prior to any connections being made.

General Utility Notes:

- Coordinate all utility connections to building with plumbing plans and building contractor.
- Verify depth and location of all existing utilities prior to constructing any new utility lines. Notify Civil Engineer of any discrepancies or conflicts prior to any connections being made.
- All catch basin and inlet box grates are to be bicycle proof.
- All inlet boxes located in curb and gutter are to be rectangular and cast in place to ensure proper placement. Pre-cast or square boxes will not be accepted.
- Refer to the site electrical plan for details and locations of electrical lines, transformers and light poles.
- Gas lines, telephone lines, and cable TV lines are not a part of these plans.
- Water meters are to be installed per LVWD standards and specifications. It will be the contractor's responsibility to install all items required.
- Water lines, valves, fire hydrants, fittings etc. are to be constructed as shown. Contractor is responsible, at no cost to the owner, to construct any vertical adjustments necessary to clear sewer, storm drain, or other utilities as necessary including valve boxes and hydrant spools to proper grade.
- All utility structures shall comply with Title 19.12.040 & be placed 3 feet behind sidewalk.

Waterline Construction Notes:

- Const. 8" PVC C-900 Waterline (Private)
- Const. 8" PVC C-900 Waterline (Public)
- Const. 8" Gate Valve per UDACS Plate No. 3 & 8 (Public)
- Const. 8" Gate Valve per UDACS Plate No. 3 & 8 (Private)
- Const. 6" DCCA per UDACS Plate No. 11C (Private)
- Const. 8" 90° Bend
- Const. Fire Hydrant Assembly (Complete) per UDACS Plate No. 7 (Private)
- Const. Fire Hydrant Assembly (Complete) per UDACS Plate No. 7 (Public)
- Const. 8" x 8" x 6" Tee
- Const. 6" PVC C-900 Waterline (Private)
- Const. 6" PVC C-900 Waterline (Public)
- Const. 1" x 2" Reducer
- Const. 2" Waterline (Private)
- Const. 1" Meter & Service per UDACS Plate No. 1D (Public)
- Const. 1" RPPA per UDACS Plate No. 11A (Public)
- Wet Tap Exist. 12" PVC WL. Const. 12" x 12" x 8" Tapping Sleeve w/ 6" Tapping Valve per UDACS Plate No. 22
- Const. 8" x 6" Reducer
- Const. 1.5" Irrigation Service
- Const. 6" Gate Valve per UDACS Plate No. 3 & 8 (Public)
- Not Used
- Not Used
- Not Used
- Const. 2" Submeter in Box (Private)
- Not Used
- Const. 1.5" Submeter in Box (Private)
- Not Used
- Const. 2" 90° Bend
- Const. 8" x 8" x 8" Tee
- Const. 6" 90° Bend
- All Brass Fittings Required
- Wet Tap Exist. 12" PVC WL. Const. 12" x 12" x 6" Tapping Sleeve w/ 6" Tapping Valve per UDACS Plate No. 22
- Const. 8" 45° Bend
- Const. 8" DIP Waterline (Public)
- Cap Exist. Lateral at Main (See Note This Sheet)

Cut & Cap

The lateral must be cut 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 & 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.

Fire Flow Calculations:

Fire Flow Requirement is 1,500 gallons per minute @ 20 PSI residual pressure.

Based On:	Retail A	Retail B	Retail C
Square Footage:	6,500 SF	6,000 SF	5,000 SF
Largest Area Between 4-hour Area Separation Walls:	N/A	N/A	N/A
Building Height:	26'-4"	26'-4"	26'-4"
Number of Stories:	1	1	1
Type of Construction:	V-B	V-B	V-B
Occupancy:	M	M	M
Full Automatic Fire Sprinkler System:	Yes	Yes	Yes

Reviewed by: *[Signature]*
Las Vegas Fire Department

Date: 4/4/07

Approved for Construction

Las Vegas Valley Water District
Proj. 113060

REV	DATE	DESCRIPTION
9	02/06/07	Revised Plan C & Remove Note 10
7	02/14/07	Revised 8" Waterline @ Gas X-ing
5	2/6/07	Revised 8" Waterline X-ing @ SD
4	23 Jan. 2007	Revised Waterline at Durango Drive
3		

Designed by: JR
Drafted by: SP
Client Name: Nova Source

05-118UT

GREAT BASIN ENGINEERING - SOUTH
CONSULTING ENGINEERS and LAND SURVEYORS
2010 North Redwood Road, P.O. Box 16747
Salt Lake City, Utah 84116
Sgt. Lake City (801)521-8529 Ogden (801)394-7288 Fax (801)521-8551

Utility Plan
Durango Center
NW Corner of Durango Drive & Grand Teton Drive
Las Vegas, Nevada

Professional Engineer - State of Nevada
BRET G. WAHLEN
Exp. 6-30-08
No. 11199

21 Aug. 2006
SHEET NO.

C6
10 of 13

107V4699
REPlot

Basis of Bearings
North 89°58'30" West, being the South line of the Southeast quarter (SE 1/4) of section 98, township 19 South, range 60 East, M.D.M., as shown on plat book 98, page 7 on file in the office of the county recorder, Clark County, Nevada.

Benchmark
City of Las Vegas vertical control no. OLV90 17NES rivet and plate in top of curb @ SW corner of Grand Teton & Durango
Elevation - 774.1140 (Meters) / 2539.74 (Feet)
North American Vertical Datum of 1988

Call before you OVERHEAD
1-702-227-2929
OVERHEAD SERVICE ALERT

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

REDUCED PRESSURE PRINCIPLE ASSEMBLY (2) 1" RPPA

Approved Reduced Pressure Principle Assembly shall be installed per the UDACS Plate #11A. 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 easement to allow the District direct access from the adjacent right-of-way.

DOUBLE CHECK DETECTOR ASSEMBLY (DCCA) (2) 6"

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.

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 2.06.02. For changes in direction exceeding the maximum allowable joint deflection, fittings shall be used.

CAUTION :

The location and/or elevation of existing utilities as shown on these plans is based on records of the various utility companies and, where possible, measurements taken in the field. The information is not to be relied on as being exact or complete.

Note:

Install pipeline marker balls in trench above each horizontal elbow fitting. Per UDACS Plate No. 27