

OWENS	
WASHINGTON	
BOHANZA	

REVISIONS
10 May 93 - Move
Pr. of Connection
3' NORTH, INSTALLED
2-455 W/T, B.S.
116 510-93

VICINITY MAP

SCALE
1" = 40'

DRAWN BY
R. SHEESE

LAS VEGAS VALLEY WATER DISTRICT STANDARD NOTES

- No work shall begin on the water plans until they have been released for construction by the LVWD. Following approval of the plans, notice shall be given to the LVWD Customer Service Department (870-4194) 48 hours prior to actual construction, and 24 hours prior to an inspection.
- Call Before You Dig 1-800-227-2600.
- All work shall conform to LVWD latest standard plates, drawings, and specifications.
- All work, except as modified herein or by Note 3, shall be done in accordance with the most current draft or addition of the Uniform Standard Specifications for Public Works Construction Office Improvements, Clark County Area.
- District approved service saddles or tapped collars shall be required on all 3/4" and 1" service laterals. Service saddles only shall be permitted on 1-1/2" and 2" service laterals. Double tapped collars are not permitted.
- COPPER SERVICE LATERALS: All 3/4" to 2" service laterals shall be of copper tubing in accordance with the District's specifications and standard plates.
- The maximum allowable joint deflection for ACP and Ductile iron pipe shall be as follows:

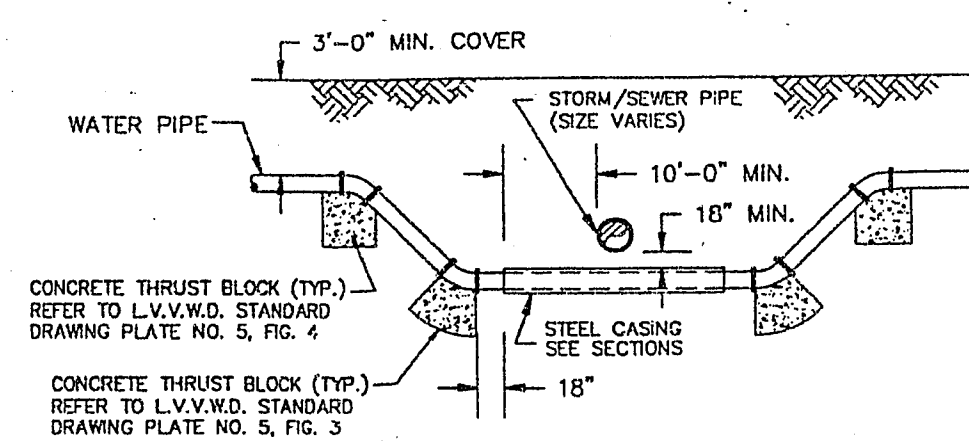
Pipe sizes	ACP	Ductile iron slip joint	Ductile iron mechanical joint
6 inch	2.5 degrees	2.5 degrees	3.5 degrees
8 - 12 inch	2.5	2.5	2.5
14 - 16 inch	2.0	1.5	1.5
18 - 24 inch	W/A	1.5	1.5

On PVC pipe, the maximum offset for a 20' length of factory belled pipe shall be 16 inches for 6" pipe, 12 inches for 8" pipe, and 9 inches for 10" and 12" pipe.

If these offsets conflict with the pipe manufacturers recommendation, the more stringent requirement shall apply.

- All water meter boxes shall be located outside of driveway areas.
- All valves shall be located outside of driveways and valley gutters.
- Detector tape shall be required in accordance with Standard Plate No. 27 where indicated, and as follows:
 - over all mains not installed 6 feet from back of curb,
 - over all service laterals not installed at right angles to main.
- All water mains shall be pressure tested at 200 psi for a continuous two hour period, in accordance with District Standards.
- All water mains shall be disinfected, flushed, and an acceptable Health Sample obtained, prior to the connection of the water main(s) and/or lateral(s) to the District's System.
- Contractor to obtain all meters 2" and smaller from LVWD Central Stores. Telephone 250-3152 forty-eight (48) hours prior to pickup.

STORM/SEWER WATER CROSSING DETAIL "A"

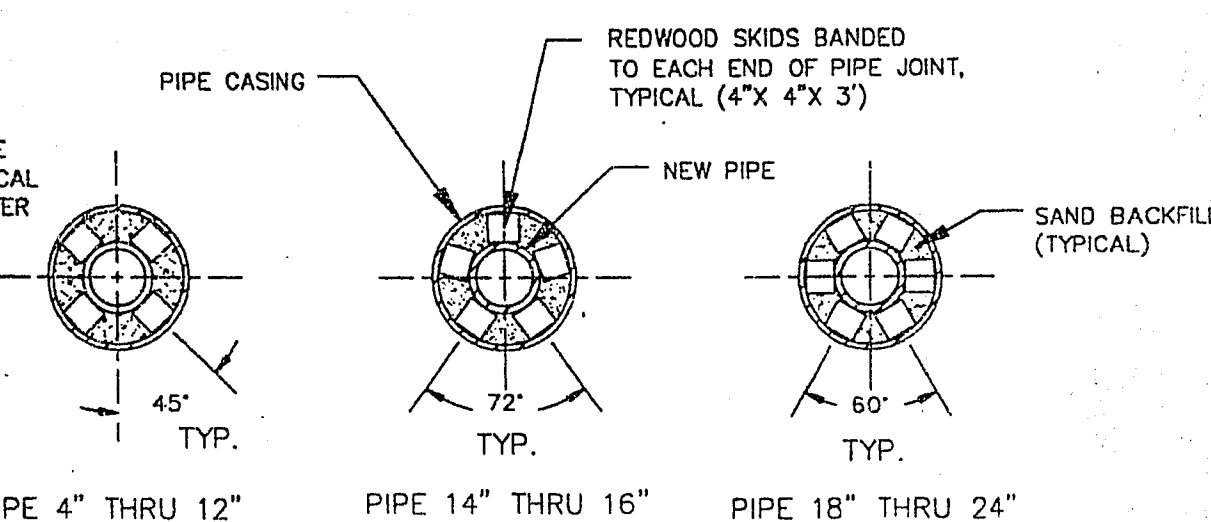


WHERE THE WATER LINE IS LESS THAN 18 INCHES OVER THE SEWER LINE, WHERE THE WATER LINE IS UNDER THE SEWER LINE, AND WHERE THE HORIZONTAL SEPARATION, AS REQUIRED BY THE WATER SUPPLY REGULATIONS, CANNOT BE MAINTAINED BECAUSE OF PHYSICAL OBSTRUCTIONS, THE WATER LINE SHALL BE PROTECTED BY CONSTRUCTION OF THE STORM/SEWER LINE AS FOLLOWS:

- EXTRA HEAVY CAST IRON PIPE;
- WATER SUPPLY QUALITY MATERIALS; OR
- ENCASEMENT WITH FOUR INCHES, MINIMUM, OF CONCRETE OR SLEEVING WITH WATER SUPPLY QUALITY PIPE.

EACH OF THESE PROVISIONS SHALL ALSO BE EXTENDED FOR OTHER THAN 90 DEGREE CROSSINGS TO THE POINT AT WHICH THE TEN FOOT SEPARATION BETWEEN THE WATER AND SEWER LINES IS ACHIEVED (10/SINE OF CROSSING ANGLE.)

TYPICAL CASING SECTION

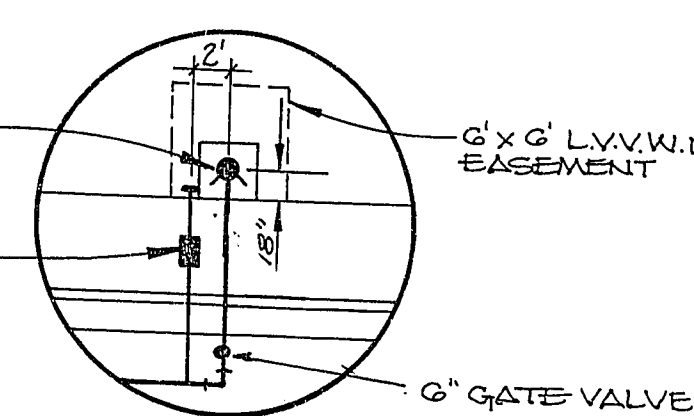


NOTE:
ALL CASINGS ARE TO BE SYMMETRICAL ABOUT THE CENTER LINE OF PIPE.

- STEEL PIPE CASING SHALL BE FABRICATED FROM A MINIMUM OF 1/4" THICK STEEL PLATES, CONFORMING TO THE REQUIREMENTS OF ASTM A283, GRADE B, C, OR D. ALL JOINTS SHALL BE WELDED. INTERIOR JOINTS SHALL BE GROUNDED TO A SMOOTH FINISH. ALL WELDING SHALL BE PERFORMED IN ACCORDANCE WITH ANNA 0201, "ANNA STANDARD FOR FABRICATED ELECTRICALLY WELDED STEEL WATER PIPE." COATINGS FOR STEEL CASING ARE NOT REQUIRED.
- PIPE CASING SHALL BE LAID TRUE TO LINE AND GRADE WITH NO BENDS OR CHANGES IN GRADE FOR THE FULL LENGTH OF THE CASING.
- THE PIPE SHALL BE SUPPORTED AT EACH END OF EACH JOINT WITH SKIDS. THE ANNULAR SPACE BETWEEN THE PIPE AND THE CASING SHALL BE BACKFILLED WITH SAND. AFTER INSTALLATION OF THE PIPE, THE CASING SHALL BE SEALED AT BOTH ENDS WITH MORTARED BRICK OR CEMENT BRICK.

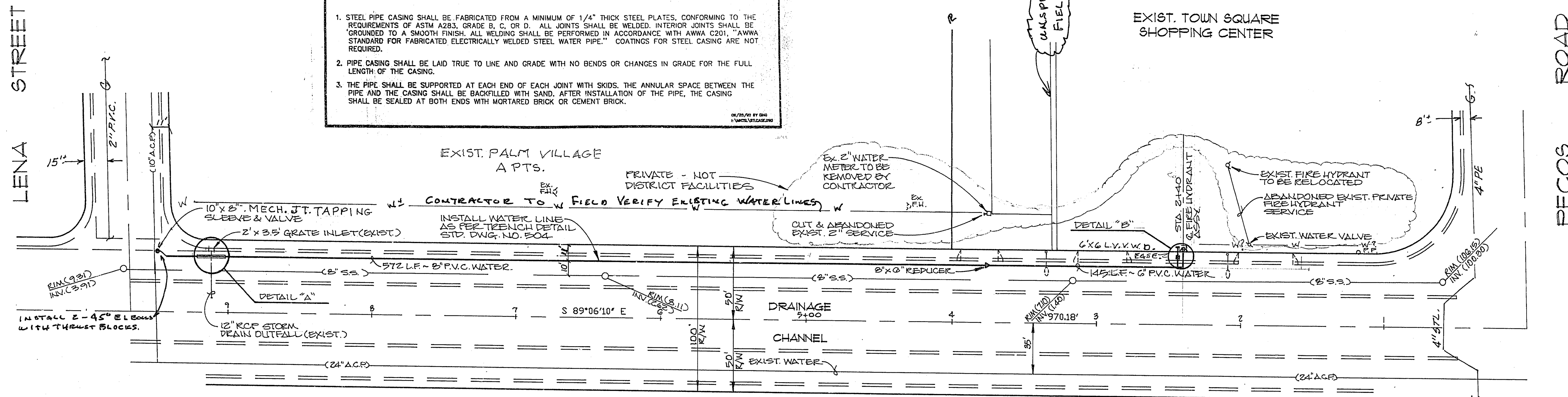
LVVWD ESTIMATED QUANTITIES

- 572 LF. - 8" P.V.C. WATER LINE
145 LF. - 6" P.V.C. WATER LINE
1 EA. - 10" X 8" TAPPING SLEEVE 1 VALVE-MECH. JT. TYPE
1 EA. - 1 1/2" METER (BY CONTRACTOR)
1 EA. - 6" GATE VALVE
1 EA. - 8" X 6" REDUCER
6 EA. - 8" - 45° ELBOWS



DETAIL "B"
SCALE: 1" = 10'

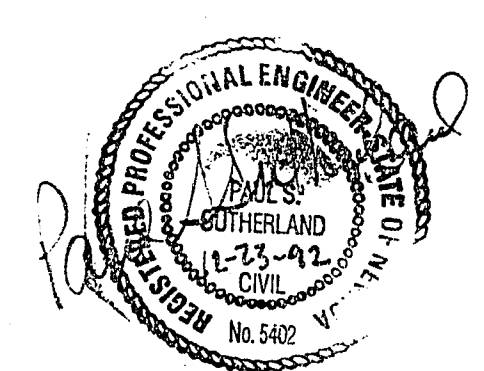
- CITY OF LAS VEGAS
FIRE DEPARTMENT NOTES
- All work shall be done in strict accordance with the City of Las Vegas Fire Department "Hydrant Specifications," "Hydrant Installation Specifications," and "City of Las Vegas Fire Department Notes."
 - Authorized hydrants for this project are:
 - Kennedy Hydrant
 - Model A-413 Hydrant
 - Clow Model 2546 Hydrant
 - Contractor shall place a blue reflective marker on each hydrant to be installed in accordance with the City of Las Vegas Fire Department "Hydrant Specifications."
 - City of Las Vegas Fire Department will provide a hydrant for each hydrant location. The hydrant shall be installed in accordance with the City of Las Vegas Fire Department "Hydrant Installation Specifications."
 - Painting of the hydrant and any work necessary for protection of hydrant from physical damage per Ordinance #2442 shall be completed before approval by the City of Las Vegas Fire Department.
 - A permit is required from the Fire Department for each hydrant location. The permit and inspection material and fee required for the hydrant permit shall be obtained from the Fire Department before installation.
 - A flow test must be performed by the Fire Department prior to acceptance for installation of hydrant. The flow test must be performed by the Fire Department.
 - All hydrant work must be U.S. Standard and P.M. approved.
 - Fire hydrant spacing:
 - Residential - 300 feet maximum, 400 feet preferred
 - Commercial, including multi-family - 300 feet maximum, 400 feet preferred
 - Industrial - 400 feet maximum, 500 feet preferred
 - No fire hydrant shall be located within 6 feet of any building, driveway, power pole, street light or any other obstruction.
 - No more than 3 hydrants can be installed in a single block.
 - The turning radius for any fire hydrant must be 20 feet for fire hydrant, public or private shall be not less than 4 feet radius and 22 feet inside radius.
 - A fire hydrant shall be installed where any portion of an existing road of the fire hydrant is located more than 150 feet from a fire hydrant location. (See Ordinance #2442)
 - All hydrant and fire hydrant work must be done in accordance with the City of Las Vegas Fire Department "Hydrant Specifications."



WASHINGTON AVENUE

APPROVALS

3-23-93
CITY ENGINEER - CITY OF LAS VEGAS
3/2/93
CITY OF LAS VEGAS FIRE DEPARTMENT
3/16/93
LAS VEGAS VALLEY WATER DISTRICT
3-8-93
NEVADA POWER
3-10-93
SOUTHWEST GAS
3-8-93
CENTEL



PAUL S. SUTHERLAND NEVADA P.E. #402

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NOTE:

ALL UTILITIES SHOWN ARE BELIEVED TO BE ACCURATELY LOCATED, BUT THE ACCURACY AND COMPLETENESS OF UTILITY INFORMATION IS NOT GUARANTEED. FOR EXACT LOCATION OF ANY UTILITY SEE THE APPROPRIATE UTILITY OR GOVERNMENTAL AGENCY.

CALL
BEFORE YOU DIG
1-800-227-2600

SIGMA DEVELOPMENT CONSULTANTS, INC.
510 S. MILK BLVD
LAS VEGAS
NEVADA
89106

ENGINEERING SURVEYING PLANNING
386-9910

DWG # WATER
PROJECT FILE DESIGNATION
6-93
SHEET 1 OF ONE

565 2014