

LAS VEGAS VALLEY WATER DISTRICT NOTES

- No work shall begin on the water plans until they have been released for construction by the LVVWD. following approval of the plans, notice shall be given to the LVVWD 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 LVVWD latest standard plates, drawings, and specifications.
- All work, except as modified hereon 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 Offsite 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 titled "3502-Copper Water Tubing."
- 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 degrees	2.5 degrees	2.5 degrees
14-16 inch	2 degrees	1.5 degrees	1.5 degrees
18-24 inch	N/A	1.5 degrees	1.5 degrees

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 driveway and valley gutters.
- Detector tap 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 LVVWD Central Stores.

INSTALLATION OF METER AND VAULT

The meter(s) and vault(s) with non-traffic bearing cover(s) shall be installed in accordance with the District's standard plate 18A and with standard vault drawing C-475, latest revision.

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 to the vault(s) from the adjacent right-of-way.

① WATER/SEWER CROSSINGS

The following requirements must be met in the event of a water-sewer/storm line crossing:

When protection of the waterline is considered, the minimum vertical distance of 18 inches must be maintained when the waterline is installed over the sewer/storm line. If this distance cannot be maintained because of physical obstructions or the waterline must be placed under the sewer/storm line, the sewer/storm line must be constructed with any one of the following:

- Extra heavy cast iron or ductile iron pipe.
- Water supply quality material.
- Encasement, with 4 inches minimum concrete sleeving or with water quality pipe.

Each of these provisions must be extended for 10 feet on either side of the waterline at 90 degrees to the crossing.

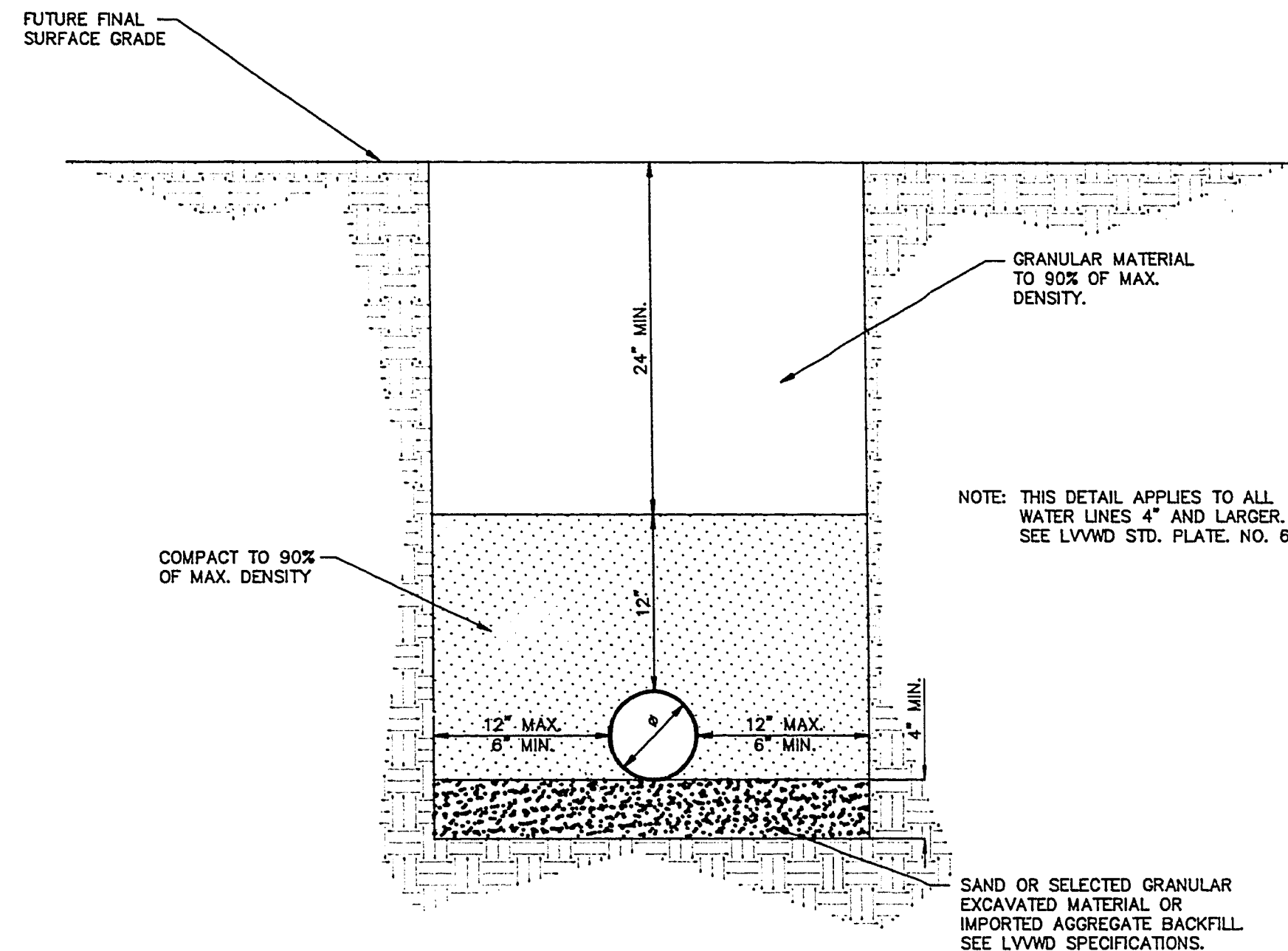
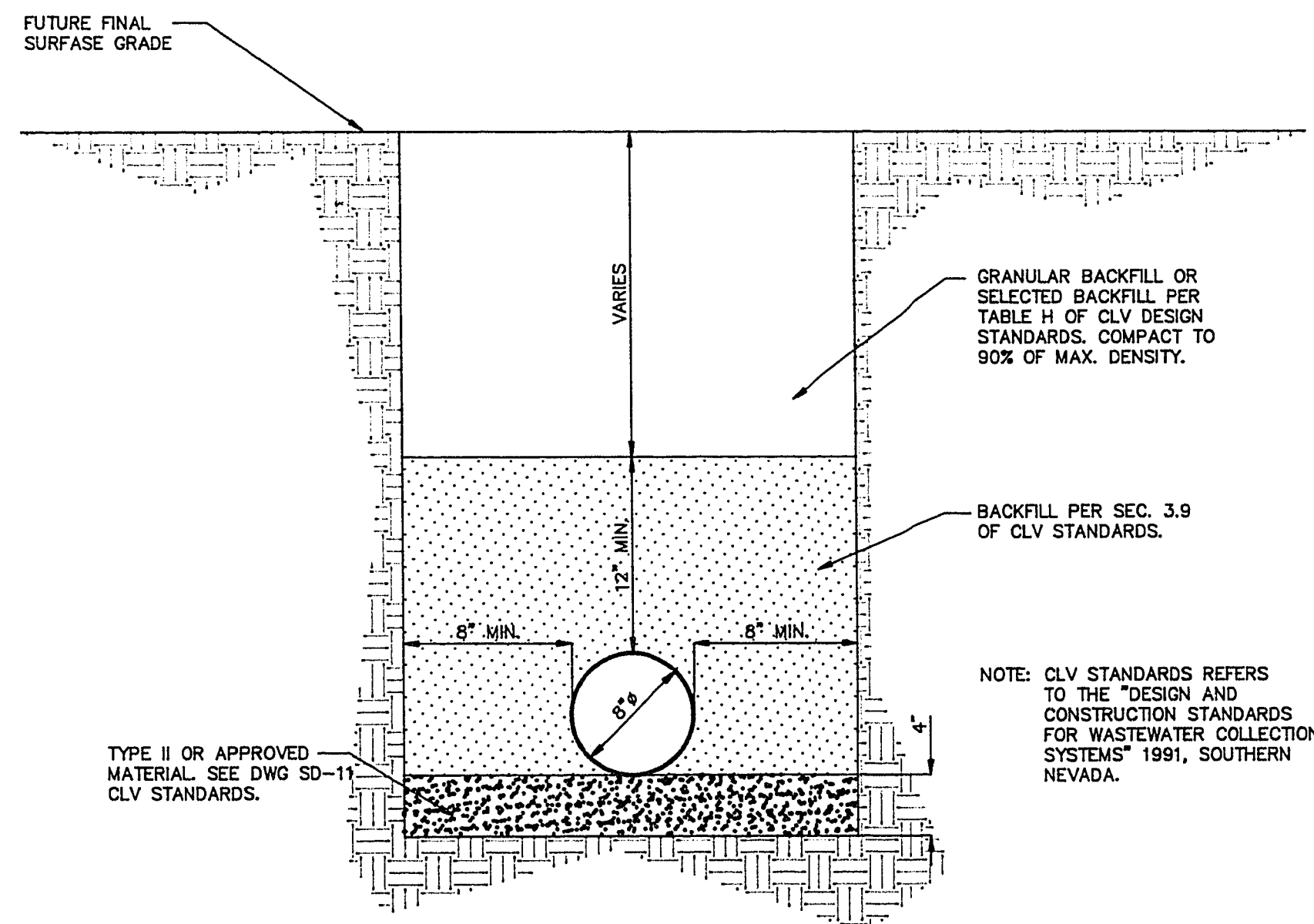
CITY OF LAS VEGAS SEWER NOTES

- ALL SANITARY SEWER INSTALLATIONS SHALL CONFORM TO THE STANDARD DETAILS AND SPECIFICATIONS OF THE CITY OF LAS VEGAS, AND SHALL ALSO CONFORM TO THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OF OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, LATEST EDITION, UNLESS OTHERWISE NOTED.
- CHISEL "S" OR "G" IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.
- POLYVINYL (PVC) SEWER PIPE SHALL MEET ASTM D-3034 SDR 35 SPECIFICATIONS, AND INSTALLED WITH SAND BEDDING AND BACKFILL OR TYPE II GRAVEL.
- ALL MANHOLES IN PAVED STREETS 80 FEET R/W AND LARGER, SHALL HAVE CONCRETE COLLARS.
- TEE SADDLES SHALL BE USED TO CONNECT SEWER LATERALS TO EXISTING MAIN LINES UP TO 12" DIAMETER SIZE, CONNECTIONS TO 15" OR LARGER MAINS SHALL REQUIRE SPECIAL PROCEDURES.
- A SEWER MAIN CROSSING OVER A WATER MAIN OR LESS THAN 18" UNDER A WATER MAIN MUST BE REINFORCED CONCRETE ENCASED PIPE FOR A DISTANCE NOT LESS THAN TEN FEET (10') TO EACH SIDE OF THE CENTERLINE OF THE WATER MAIN.
- ALL ONSITE SEWERS ARE TO BE PRIVATELY OWNED AND MAINTAINED.

CITY OF LAST VEGAS FIRE DEPT. NOTES

- ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE CITY OF LAS VEGAS FIRE DEPARTMENT "HYDRANT SPECIFICATIONS" AND "HYDRANT INSTALLATION SPECIFICATIONS", AND ORDINANCE #3318.
- AUTHORIZED HYDRANTS FOR THE PROJECT ARE:
A - KENNEDY GUARDIAN
B - MUELLER A-423 CENTURIAN
C - CLOW MODEL 2546 MEDALLION
- ON ANY NEW HOME OR BUILDING CONSTRUCTION, ACCESSIBLE FIRE HYDRANTS SHALL BE INSTALLED BEFORE COMBUSTIBLE CONSTRUCTION COMMENCES AND SAID FIRE HYDRANTS SHALL BE IN GOOD WORKING ORDER WITH AN ADEQUATE WATER SUPPLY.
- CONTRACTOR SHALL PLACE A GREEN REFLECTIVE MARKER AT CENTERLINE OF STREET ADJACENT TO FIRE HYDRANTS.
- CALL THE LAS VEGAS FIRE DEPARTMENT AT 383-2888 FOR UNDERGROUND INSPECTION, PRESSURE AND FLUSH VERIFICATION OF ALL FIRE HYDRANTS AND FIRE LINES BEFORE COVERING.
- PAINTING OF THE CURBS AND HYDRANT AND ANY WORK NECESSARY FOR PROTECTION OF HYDRANTS FROM PHYSICAL DAMAGE PER THE "HYDRANT INSTALLATION SPECIFICATIONS" SHALL BE COMPLETED BEFORE APPROVAL OF THE HYDRANTS BY THE CITY OF LAS VEGAS FIRE DEPARTMENT.
- FIRE HYDRANT SPACING: RESIDENTIAL 600 FT. MAXIMUM
COMMERCIAL 500 FT. MAXIMUM

FIRE HYDRANTS SHALL BE LOCATED WITHIN 500 FT OF ANY CONSTRUCTION OR COMBUSTIBLE OPEN STORAGE, AND SHALL BE INSTALLED PRIOR TO CONSTRUCTION.
- NO FIRE HYDRANT SHALL BE LOCATED WITHIN 6 FEET OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREETLIGHT, OR ANY OTHER OBSTRUCTION.
- NO FIRE HYDRANT SHALL BE LOCATED WITHIN THE REQUIRED RADIUS OF A CUL-DE-SAC OR WITHIN 20 FEET OF THE PERIMETER OF THE RADIUS OF THE CUL-DE-SAC.
- A PERMIT MUST BE OBTAINED FROM THE FIRE DEPARTMENT FOR ONSITE FIRE WATER SYSTEM INSTALLATION PRIOR TO CONSTRUCTION.

TYPICAL TRENCH DETAIL
4-6" WATER LINETYPICAL TRENCH DETAIL
8" SEWER LINE

GENERAL NOTES

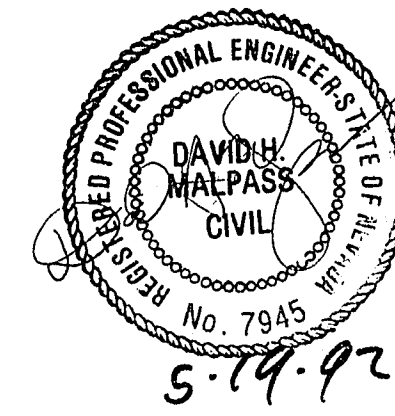
LOCATION OF UNDERGROUND UTILITIES SHOWN ON THE DRAWING WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. NEITHER THE OWNER NOR THE ENGINEER ASSUME ANY RESPONSIBILITY FOR UTILITIES OR STRUCTURES NOT SHOWN OR NOT IN THE LOCATION SHOWN ON THE DRAWINGS.

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING IMPROVEMENTS, WHICH ARE TO REMAIN IN PLACE. SHOULD ANY DAMAGE OCCUR, THE CONTRACTOR SHALL BE LIABLE AND SHALL PROVIDE REPAIR AT HIS EXPENSE AND TO THE APPROVAL OF THE ENGINEER AND THE APPROVAL OF THE DAMAGED PARTY.

APPROVALS

David Malpass 8-10-92
L.V.V.W.D. DATE

AS BUILT



TITLE

NOTES AND
DETAIL SHEET

PROJECT

PROJECT NO. 91-2443
DATE: 5/8/92
SCALE: NONE

SHEET

U3
10 OF 38 SHEETS

650.35-VI

2300 PASEO DEL PRADO SUITE D 108
LAS VEGAS, NEVADA 89102
PHONE (702) 364-1066

THE
M&K
GROUP
ENGINEERS & GEOLOGISTS, INC.

CITY OF LAS VEGAS
DEPARTMENT OF PARKS
AND LEISURE ACTIVITIES

4-I-001 PARK SITE
GOWAN & TORREY PINES

CHILDRENS MEMORIAL PARK