

**CITY OF LAS VEGAS GENERAL NOTES**

- All construction and materials shall be in accordance with the "Uniform Standard Specifications for Public Works Construction Off-Site Improvements, Clark County Area Nevada", latest issues, the "Uniform Standard Drawings for Public Works Construction, Clark County Area Nevada", latest revised edition, the "Summerlin Improvement Standards" for work in the Summerlin area, and other applicable approved standards issued by the controlling agency, the Uniform Building Code, and all local city codes and ordinances applicable, except as noted on this sheet as "Deviations from Standards".
- The existence and location of any overhead or underground utility lines, pipes, or structures shown on these plans are approximate and for record purposes. Existing utilities as shown from CLV Plans Library are approximate and for record purposes. Existing utilities are located on plans only for the convenience of the Contractor. Existing utility service laterals may not be shown on the plans. The Contractor shall, at his own expense, locate all underground and overhead interferences which may affect his operation during construction and shall take all necessary precautions to avoid damage to same. The Contractor shall use extreme caution when working near overhead utilities so as to safely protect all personnel and equipment, and shall be responsible for all cost and liability in connection therewith.
- The Contractor shall take all precautionary measures necessary to protect existing utility lines, structures and street improvements which are to remain in place, from damage, and all such improvements or structures damaged by the Contractor's operations shall be repaired or replaced satisfactory to the City Engineer and owning utility company at the expense of the Contractor.
- All construction shall be as shown on these plans, any revisions shall have the prior written approval of the City Engineer.
- Type V cement shall be used in all off-site concrete work. Concrete to be 3000 P.S.I. minimum @ 28 days. Mix designs to be approved by the City, prior to the use on the project.
- Permits are required for any work in the public Right-of-way. The Contractor shall secure all permits and inspections required for this construction.
- Expansion joints required, maximum every 300' in extruded-type curb.
- AC pavement to be one-half inch (1/2") above lip of all gutters after compaction, except at sidewalk ramps and cross gutters.
- Curb and gutter found to be unacceptable to the City of Las Vegas shall be removed and replaced per standard drawing 218.
- Sidewalk ramps shall be constructed in each quadrant of an intersection per standard drawing 235. Exact location of ramps may be adjusted in the field by a City Inspector.
- Contractor shall provide all necessary horizontal and vertical transitions between new construction and existing surfaces to provide for proper drainage and for ingress and egress to new construction. The extent of transitions to be as shown on plans.
- Exact location of all sawcut lines may be adjusted or determined in the field by a City of Las Vegas Engineer if location on plans is not clearly shown, or existing pavement condition requires relocations.
- The Contractor shall take all precautions necessary to protect existing permanent survey monuments. Any monuments disturbed shall be replaced and adjusted per available records in accordance with N.R.S. Statute No. 825.550.
- Utility company meter boxes, manhole lids, valve covers, etc., shall be located out of driveways, driveway aprons, flowlines, and cross gutters unless written approval is granted by the utility company and the City Engineer. **Wall Notes:**
- All walls, new or existing, are only shown on civil plans for the purpose of reviewing grading relationships; flood control and sight distance at intersections. New walls require a separate permit and inspection by the Building Department.
- Asphalt mix design must be submitted and approved by the City Engineer prior to the placement of Asphalt within City Right of Way.
- Contractor shall adjust all new and existing inlets, valve boxes, manhole rims, and sewer clean outs, etc. to finish grade as applicable whether or not they are shown on the plans.
- Materials, handling and placement of Portland Cement Concrete shall be in accordance with applicable sections of NDOT or the Clark County Area Specifications (as applicable) and the plans and details shown hereon.

**CITY OF LAS VEGAS GRADING NOTES**

- In the event that any unforeseen conditions not covered by these notes are encountered during grading operations, the Owner/Engineer shall be immediately notified for direction.
- It shall be the responsibility of the Contractor to perform all necessary cuts and fills within the limits of this project and the related off-site work, so as to generate the desired subgrade, finish grades and slopes shown.
- Contractor shall take full responsibility for all excavation. Adequate shoring shall be designed and provided by the Contractor to prevent undermining of any adjacent features or facilities and/or caving of the excavation.
- The Contractor is warned that an earthwork balance sheet is not necessarily the intent of this project. Any additional material required or leftover material following earthwork operations becomes the responsibility of the Contractor.
- The Grading Contractor is responsible to coordinate with the owner to provide for the requirements of the project Storm Water Pollution Prevention Plan (SWPPP) and associated permit.
- Contractor shall grade to the lines and elevations shown on the plans within the following horizontal and vertical tolerances and degrees of compaction, in the areas indicated:
 

	Horizontal	Vertical
A. Pavement Area Subgrade	0.1"	+0.0" to -3.1"
B. Engineered Fill	0.5"	+0.1" to -3.1"
- Compaction testing will be performed by the owner or his representative. Contractor shall comply with the requirements of the Engineer.
- All cut and fill slopes shall be protected until effective erosion control has been established.
- The use of potable water without a special permit for building or construction purposes including consolidation of backfill or dust control is prohibited. The Contractor shall obtain all necessary permits for construction water.
- The Contractor shall maintain the streets, sidewalks and all other public right-of-way in a clean, safe and usable condition. All spills of soil, rock or construction debris shall be promptly removed from the publicly owned property during construction and upon completion of the project. All adjacent property, private or public shall be maintained in a clean, safe and usable condition.
- In the event that any temporary construction item is required that is not shown on these drawings, such item shall be provided as directed by the City Engineer at no expense to the City of Las Vegas. Temporary construction includes ditches, berms, road signs and barricades, etc.

**CITY OF LAS VEGAS STREETLIGHT NOTES**

- All street lighting installations shall be in accordance with the street lighting plans, the "Uniform Standard Specifications for Public Works Construction Off-Site Improvements, Clark County Area, Nevada", Latest Revision, and the "Uniform Standard Drawings for Public Works Construction Off-Site Improvements, Clark County Area, Nevada", Latest Revision.
- No deviation of street light, pull box, conduits (etc.) locations shall be permitted without written approval of the Traffic/Electrical Field Operations Division and the City Engineer. Any deviation from the plan location will require compliance with section 823.1.0.3 (e) of the specifications.
- All existing street lighting shall remain operational during construction.
- All empty conduit shall have pull strings installed prior to final inspection.
- Any structure such as stock walls, chain link fences, retaining walls, etc., shall leave a minimum clearance of eighteen inches (18") to the face of street lighting pole on all sides when streetlight is installed behind sidewalk, and shall at no time completely enclose the street lighting pole.
- As-built drawings shall be supplied to the Electrical Services Section prior to any pre-final inspection. The as-built drawing needs to be stamped as-built and signed by the preparer.
- Service point shall be coordinated with Nevada Power Company, and wherever possible, be located near the center of the circuit. Service points shall be shown on the plans.
- It shall be assumed that in the absence of an existing, workable circuit to attach to, all installations shall require a new service for operation of the circuit.
- Whenever there is an overhead utility that may conflict with the installation of street lighting circuits and/or poles, those conflicts must be resolved between the developer and the utilities involved before streetlight bases are installed at no expense to the City of Las Vegas.
- The Contractor shall furnish complete service to transformers and control systems if required on plans.

**Call before you Dig**  
 Avoid hitting overhead lines. Call before you dig.  
 Call 811  
 1-800-227-2800  
 CLARK COUNTY AREA ORDINANCE  
 1-702-658-7544

**Call before you Dig**  
 Avoid hitting overhead lines. Call before you dig.  
 Call 811  
 1-800-227-2800  
 CLARK COUNTY AREA ORDINANCE  
 1-702-658-7544

**CITY OF LAS VEGAS FIRE AND RESCUE GENERAL NOTES**

- All work shall be done in strict accordance with the City of Las Vegas Fire Department's Ordinance # 5687, "Hydrant Specifications", and "Hydrant Installation Specification".
- Authorized fire hydrants for this project are:
  - A. Kennedy - Guardian models K81A and K81D
  - B. Mueller - Super Centurion 250 model A-423
  - C. Claw - Mediation model F-2546LVD
  - D. Troy Valve - Patriot model PT8100N Nevada Hybrid
  - E. U.S. Pipe - Metroflow M-03
- On any residential or commercial installations fire hydrants shall be installed and fire apparatus access roads shall be maintained before commencement of any combustible construction. All fire hydrants shall be in good working order and shall be capable of delivering the required fire flow.
- To identify the fire hydrant locations, contractor shall place a blue reflective marker at the center line of street adjacent to the fire hydrants as required by Ordinance # 5687.
- All underground inspections, pressure and flush verifications of all fire hydrants and fire lines, shall be conducted before covering the lines. Call the City of Las Vegas Inspection Hot-line at 229-2071 to request an inspection by the City of Las Vegas Fire Department.
- Painting of the curbs and fire hydrants and all other work necessary as required by Ordinance # 5687, for the protection of fire hydrants from physical damage, shall be completed before approval by the City of Las Vegas Fire Department.
- A permit is required from the City of Las Vegas Fire Department for the on-site water lines and fire hydrants. The permit and contractor's material and test certificate for underground piping form shall be obtained from the Fire Protection Engineer before commencement of work.
- Private fire hydrants shall be painted red.
- Prior to the final occupancy, a flow test must be witnessed by the City of Las Vegas Fire Department to verify availability of the required fire flow.
- All on-site underground water mains and materials shall be U.L. listed, A.W.W.A. approved, and shall be rated for the appropriate working pressure.
- Fire hydrant spacing shall be: Residential - 500 feet unspinkered; 600 feet sprinklered. Commercial - 300 feet unspinkered; 400 feet sprinklered.
- Where new water mains are extended along streets or new streets are installed where fire hydrants are not needed for protection of the structures, fire hydrants shall be installed at maximum 1,000 foot spacing, to provide for transportation hazards. Where streets are provided with median dividers or have four or more traffic lanes and have a traffic count of more than 30,000 per day, hydrants are required on each side of the street spaced at 500 feet on an alternating basis.
- No fire hydrants 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.
- No fire hydrants shall be located within 6 feet of any curb return, driveway, power pole, streetlight or any other obstruction.
- The maximum distance from a fire hydrant to a one-two family dwelling shall not exceed 300 feet, as measured by an approved route.
- The maximum distance from a fire hydrant to a Fire Department Connection (FDC) shall not exceed 100 feet, as measured by an approved route.
- The maximum distance from a fire hydrant to the end of a dead-end street shall not exceed 200 feet.
- Two sources of supply are required whenever there are 4 or more fire hydrants/sprinkler lead-ins are installed on a single system. Sectional control valves shall be installed so that no more than 2 fire hydrants can be out of service due to a break in a water main.
- All fire apparatus access roads shall be paved to provide all-weather driving capabilities, and shall be designed and maintained to support the imposed loads of the fire apparatus.
- The gradient for the fire apparatus access roads shall not exceed 12%. Angles of approach and angles of departure shall not exceed 6% for 25 feet prior to or after the grade change. Adjacent to the structures gradient shall not exceed 6%.
- The turning radius of the fire apparatus access roads shall be no less than 52 feet outside and 28 feet inside turning radius.
- Vertical clearance of all fire apparatus access roads shall be not less than 13 feet 6 inches.
- Fire department access roads in all residential developments (except for the apartment buildings) shall have a minimum unobstructed width of not less than 36 feet flow line to the flow line (this width may be reduced to 24 feet, if all buildings fronting the street are sprinklered) for main residential streets, with parking permitted on both sides of the street. Private drive aisles, driveways, etc. shall be allowed to be reduced to a minimum width of 24 feet wide flow line to the flow line when serving no more than 8 residences, and when on street parking is disallowed.
- A fire department access road shall extend to within 50 feet of a single exterior door providing access to the interior of the building.
- A fire apparatus access road shall be required when any portion of an exterior wall of the first story is located more than 150 feet from a fire department vehicle access. This distance could be increased to 250 feet if the building is sprinklered.
- Approved secondary fire apparatus access shall be provided for 100 or more dwelling units, road(s) with dead-ends or with a single point of access in excess of 600 feet, and for all commercial, industrial, and multi-family residential developments.
- All dead-end fire apparatus access roads and or fire lanes, public or private, in excess of 150 feet in length shall be provided with an approved turn around area having a minimum diameter of 81 feet.
- All fire apparatus access roads shall be marked by placing approved signs at the start of the designated fire lane, one sign at the end of the fire lane and with signs at intervals 100 feet along all designated fire lanes. Signs to be placed on both sides of an access roadway if needed to prevent parking on either side. Signs to be installed no higher than 10 feet or less than 8 feet from roadway level. The curb along or on the pavement or cement if a curb is not provided shall be painted with a red weather resistant paint in addition to the signs.
- Electrically controlled access gates shall be provided with an approved emergency vehicle detector/receiver system. Said system shall be installed in accordance with the City of Las Vegas guidelines for Automatic Emergency Vehicle Access Gates.

- Where new water mains are extended along streets or new streets are installed where fire hydrants are not needed for protection of the structures, fire hydrants shall be installed at maximum 1,000 foot spacing, to provide for transportation hazards. Where streets are provided with median dividers or have four or more traffic lanes and have a traffic count of more than 30,000 per day, hydrants are required on each side of the street spaced at 500 feet on an alternating basis.
- No fire hydrants 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.
- No fire hydrants shall be located within 6 feet of any curb return, driveway, power pole, streetlight or any other obstruction.
- The maximum distance from a fire hydrant to a one-two family dwelling shall not exceed 300 feet, as measured by an approved route.
- The maximum distance from a fire hydrant to a Fire Department Connection (FDC) shall not exceed 100 feet, as measured by an approved route.
- The maximum distance from a fire hydrant to the end of a dead-end street shall not exceed 200 feet.
- Two sources of supply are required whenever there are 4 or more fire hydrants/sprinkler lead-ins are installed on a single system. Sectional control valves shall be installed so that no more than 2 fire hydrants can be out of service due to a break in a water main.
- All fire apparatus access roads shall be paved to provide all-weather driving capabilities, and shall be designed and maintained to support the imposed loads of the fire apparatus.
- The gradient for the fire apparatus access roads shall not exceed 12%. Angles of approach and angles of departure shall not exceed 6% for 25 feet prior to or after the grade change. Adjacent to the structures gradient shall not exceed 6%.
- The turning radius of the fire apparatus access roads shall be no less than 52 feet outside and 28 feet inside turning radius.
- Vertical clearance of all fire apparatus access roads shall be not less than 13 feet 6 inches.
- Fire department access roads in all residential developments (except for the apartment buildings) shall have a minimum unobstructed width of not less than 36 feet flow line to the flow line (this width may be reduced to 24 feet, if all buildings fronting the street are sprinklered) for main residential streets, with parking permitted on both sides of the street. Private drive aisles, driveways, etc. shall be allowed to be reduced to a minimum width of 24 feet wide flow line to the flow line when serving no more than 8 residences, and when on street parking is disallowed.
- A fire department access road shall extend to within 50 feet of a single exterior door providing access to the interior of the building.
- A fire apparatus access road shall be required when any portion of an exterior wall of the first story is located more than 150 feet from a fire department vehicle access. This distance could be increased to 250 feet if the building is sprinklered.
- Approved secondary fire apparatus access shall be provided for 100 or more dwelling units, road(s) with dead-ends or with a single point of access in excess of 600 feet, and for all commercial, industrial, and multi-family residential developments.
- All dead-end fire apparatus access roads and or fire lanes, public or private, in excess of 150 feet in length shall be provided with an approved turn around area having a minimum diameter of 81 feet.
- All fire apparatus access roads shall be marked by placing approved signs at the start of the designated fire lane, one sign at the end of the fire lane and with signs at intervals 100 feet along all designated fire lanes. Signs to be placed on both sides of an access roadway if needed to prevent parking on either side. Signs to be installed no higher than 10 feet or less than 8 feet from roadway level. The curb along or on the pavement or cement if a curb is not provided shall be painted with a red weather resistant paint in addition to the signs.
- Electrically controlled access gates shall be provided with an approved emergency vehicle detector/receiver system. Said system shall be installed in accordance with the City of Las Vegas guidelines for Automatic Emergency Vehicle Access Gates.

**DEVIATIONS FROM STANDARDS**

NONE

**CONSTRUCTION NOTE**

BID DOCUMENTS INCLUDE FULLY ENGINEERED PLANS FOR VORTEX, POLYGON, USA SHADE AND STINGER WELDING. IF THE CONTRACTOR PROVIDES ANY OTHER APPROVED MANUFACTURER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ENGINEERING AND PERMITTING OF THESE ITEMS AND ANY COSTS ASSOCIATED AS SET FORTH IN THE TECHNICAL SPECIFICATION SECTION 01 10 00.

PROJECT NAME: **CLY SANDHILL OWENS PARK**  
 (SHEETS C1.01, C.2, & C.7)  
 This project water plan complies with the Las Vegas Valley Water District's technical requirements. However, this water plan is

**NOT APPROVED FOR CONSTRUCTION** by

at this time and this signature does not provide or imply a warranty.

*Bong Long* 10/26/09  
 LVVWD DATE  
 ESN 052 REVISED 09/01/04

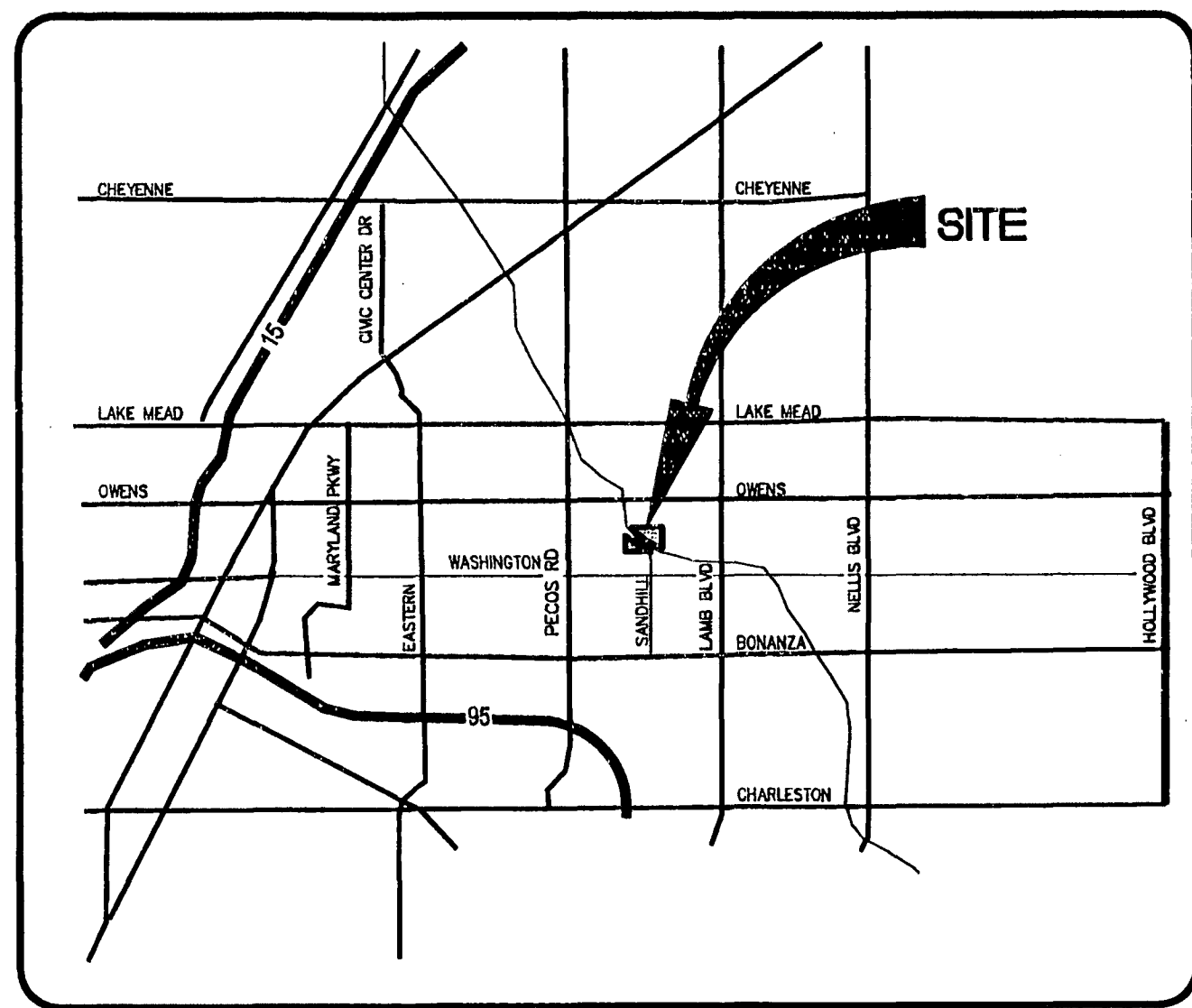
**CITY OF LAS VEGAS SEWER NOTES**

- All construction and materials shall be in accordance with the latest edition of the Design and Construction Standards for Wastewater Collection Systems and the Uniform Standard Specifications for Public Works Construction Off-Site Improvements, Clark County Area, Nevada, as amended. It will be the responsibility of the Contractor to be aware of the contents of the above specifications.
- It shall be the Contractor's responsibility to perform construction as per plans. Any additions, deletions, or changes shall first meet with the approval of the City Engineer.
- 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, installed with sand bedding and backfill of Type I aggregate base.
- All manholes paved in streets eighty (80) foot R/W and larger shall have concrete collars. Streets less than eighty (80) foot R/W will require retrofit if paving does not conform to city standards at the manhole.
- The saddles shall be used to connect sewer laterals to existing main lines up to twelve inch (12") diameter. Connections to sixteen inch (16") or larger mains shall require special procedures. In line "Y" shall be used on lines twelve inches (12") or above.
- Water mains shall be protected in accordance with LVVWD Standards whenever a sewer main crosses over a water main or the sewer is less than eighteen inch (18") under a water main.
- All Contractors installing sewer mains that will be under the jurisdiction of the City of Las Vegas must be State of Nevada Class "A" Contractors.
- The City of Las Vegas will not accept any sewer mains which have a vertical deflection of more than one tenth (0.1) of a foot from the approved construction plan at any location. Sewer mains found to exceed this tolerance have to be repaired or removed or replaced to the satisfaction of the City Engineer prior to acceptance by the City of Las Vegas.
- Installation of curved sewer requires the use of C-900 pipe which allows for pipe deflection at the joints.

**CITY OF LAS VEGAS TRAFFIC NOTES**

- ALL CONSTRUCTION SIGNING, BARRICADE, AND TRAFFIC DELINEATION SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.
- THE STREET SIGN CONTRACTOR SHALL OBTAIN STREET NAMES AND BLOCK NUMBERING FROM THE PLANNING DEPARTMENT PRIOR TO CONSTRUCTION.
- BEFORE ANY WORK IS STARTED IN THE RIGHT-OF-WAY, THE CONTRACTOR SHALL INSTALL ALL ADVANCE WARNING SIGNS FOR THE CONSTRUCTION ZONE. THE CONTRACTOR SHALL INSTALL TEMPORARY STOP SIGNS AT ALL NEW STREET ENCROACHMENTS INTO EXISTING CITY STREETS WHERE WARRANTED IMMEDIATELY AFTER FIRST GRADING WORK IS ACCOMPLISHED, AND SHALL MAINTAIN SAID SIGNS UNTIL PERMANENT SIGNS ARE INSTALLED.
- WHEN A DESIGNATED "SAFE ROUTE TO SCHOOL" IS ENCLOSED AROUND BY A CONSTRUCTION WORK ZONE AND PUBLIC WORKS STAFF IDENTIFIES A NEED FOR STUDENTS TO BE ASSISTED IN THE SAFE CROSSING THROUGH THAT WORK ZONE, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE A QUALIFIED "CROSSING GUARD". THE GUARD SHALL BE PRESENT FOR THE FULL DURATION OF THE TIME THAT CHILDREN ARE "LOOKING TO BE PRESENT".
- IF THE IMPROVEMENTS NECESSITATE THE ORIENTATION, TEMPORARY OBSTRUCTION, TEMPORARY REMOVAL OR RELOCATION OF ANY EXISTING TRAFFIC PAVEMENT MARKING, SUCH PAVEMENT MARKING SHALL BE RESTORED OR REPLACED WITH LIKE MATERIALS TO THE SATISFACTION OF THE CITY TRAFFIC ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL PERMANENT SIGNS SHOWN ON THE PLANS. STREET NAME SIGNS SHALL CONFORM IN THEIR ENTIRETY TO CURRENT CITY STANDARDS. ALL OTHER SIGNS SHALL BE STANDARD UNLESS OTHERWISE SPECIFIED ON THE PLANS. ALL SIGN POSTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT CITY STANDARDS.
- WHEN A PROPOSED STREET LIGHT STANDARD IS LOCATED WITHIN FIVE (5) FEET OF ANY PROPOSED SIGN SHOWN ON THE PLANS, THE SIGN SHALL BE MOUNTED ON A SIGNPOST, THE SIGN SHALL BE MOUNTED ON THE STREET LIGHT STANDARD AND THE SIGNPOST SHALL BE ELIMINATED.
- ALL PERMANENT TRAFFIC CONTROL DEVICES CALLED FOR HEREON SHALL BE IN PLACE AND IN FINAL POSITION PRIOR TO ALLOWING ANY PUBLIC TRAFFIC ONTO THE PORTIONS OF THE ROAD(S) BEING IMPROVED HERE UNDER, REGARDLESS OF THE STATUS OF COMPLETION OF PAVING OR OTHER OFF-SITE IMPROVEMENTS CALLED FOR BY THESE PLANS.
- STREET SIGNS AND STOP SIGNS SHALL BE INSTALLED PER CITY STANDARD SPECIFICATIONS FOR PLACEMENT OF STREET NAME SIGNS.
- THE CONTRACTOR SHALL PROVIDE ALL NECESSARY TRAFFIC CONTROL DEVICES AND FLAGGERS TO INSURE THE SAFETY OF THE PUBLIC AND AROUND THE WORK AREA. THE CONTRACTOR SHALL HAVE A CERTIFIED MISSA TRAFFIC CONTROL OPERATOR OR TECHNICIAN ON WORK ZONE SAFETY SPECIALIST SET UP, MAINTAIN AND/OR REMOVE ALL TRAFFIC CONTROL DEVICES IN THE CITY OF LAS VEGAS RIGHT OF WAY.
- WORK IN PUBLIC STREETS, ONCE BEGUN, SHALL BE EXPEDITED TO COMPLETION SO AS TO PROVIDE MINIMUM INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND TO THE TRAVELING PUBLIC.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING CITIZENS AREA TRANSIT (CAT) IF THE CONSTRUCTION INTERRUPTS OR RELOCATES A BUS STOP OR HAS AN

ADVERSE EFFECT ON BUS SERVICE ON THAT STREET TO ARRANGE FOR TEMPORARY RELOCATION OF STOP.



**LAS VEGAS VALLEY WATER DISTRICT (LVVWD) STANDARD NOTES**

- NO WORK SHALL BEGIN UNTIL THE WATER PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE LVVWD. FOLLOWING WATER PLAN APPROVAL, NOTICE SHALL BE GIVEN TO THE LVVWD COMMUNICATION SUPPORT CENTER (258-7171) TWO (2) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION. FOR FUTURE INSPECTIONS, NOTICE MUST BE GIVEN BY 2:00 P.M. THE BUSINESS DAY PRIOR TO THE REQUESTED LVVWD INSPECTION. WHEN REQUESTING INSPECTIONS, PLEASE REFER TO THE PROJECT # IDENTIFIED ABOVE.
- ALL WORK SHALL CONFORM TO LVVWD STANDARD PLATES, DRAWINGS, AND SPECIFICATIONS, AND TO THE 2003 EDITION OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS).
- ALL WORK, EXCEPT AS MODIFIED BY THESE PLANS OR BY NOTE 2 ABOVE, SHALL BE DONE IN ACCORDANCE WITH THE MOST RECENT DRAFT OR EDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFFSITE IMPROVEMENT, CLARK COUNTY AREA.
- A SINGLE PIPE MATERIAL SHALL BE USED THROUGHOUT THE PROJECT UNLESS OTHERWISE APPROVED BY THE LVVWD.
- ALL SERVICE LATERALS TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING WITH LVVWD APPROVED SADDLES.
- ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
- ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS, VALLEY AND CURB GUTTERS.
- ALL WATER AND STORM DRAIN OR SANITARY SEWER CROSSINGS SHALL CONFORM TO SECTION 2.19 OF THE 2003 EDITION OF THE UDACS.
- ALL WATER FACILITIES SHALL BE FILLED, DISINFECTED, PRESSURE TESTED, FLUSHED, FILLED, AND AN ACCEPTABLE WATER SAMPLE OBTAINED, PRIOR TO CONNECTION TO THE LVVWD DISTRIBUTION SYSTEM.
- THE CONTRACTOR MUST OBTAIN ALL METERS TWO (2) INCHES AND SMALLER FROM LVVWD CENTRAL STORES. TELEPHONE 258-3152 OR 258-3802, TWO (2) WORKING DAYS PRIOR TO METER PICKUP.
- ANY INTERRUPTION OF SERVICE MUST BE PERFORMED IN ACCORDANCE WITH UDACS SECTION 3.1.0.1, AND APPROVED BY THE LVVWD INSPECTION DIVISION PRIOR TO SHUTDOWN. PROPER WRITTEN NOTIFICATION MUST BE GIVEN TO ALL AFFECTED CUSTOMERS.
- ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE AS LISTED ON THE LVVWD PRE-APPROVED MATERIALS AND MANUFACTURER'S LISTING FOR NEW FACILITIES, LATEST REVISION, OR SPECIFICALLY APPROVED ON THESE PLANS.
- TELEPHONE "CALL BEFORE YOU DIG" AT "811" OR 1-800-227-2600.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT (PROJECT #116169) DATE 11/19/09  
 (SHEETS C1.01, C.2, & C.7)

**ONLY STANDARD SPECIFICATION AND STANDARD DRAWINGS FOR WATER LINE CONSTRUCTION**

A. ALL WATER IMPROVEMENTS SHOWN ON THESE CONSTRUCTION DRAWINGS SHALL CONFORM TO THE STANDARDS DESCRIBED BELOW, AND IN ORDER OF THE PRECEDENCE SHOWN.

- "CITY OF NORTH LAS VEGAS MUNICIPAL WATER SERVICE DISTRICT SERVICE RULES AND REGULATIONS", LATEST EDITION.
- UDACS SECTION 3.1.0.1, AND APPROVED BY THE LVVWD INSPECTION DIVISION PRIOR TO SHUTDOWN. PROPER WRITTEN NOTIFICATION MUST BE GIVEN TO ALL AFFECTED CUSTOMERS.
- "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA", LATEST EDITION.

B. EXCEPTIONS TO THESE STANDARDS ARE NOTED BELOW:

- NO WATER MAIN MAY BE SHUT DOWN TO MAKE CONNECTIONS WITHOUT PRIOR APPROVAL OF THE CITY OF NORTH LAS VEGAS REPRESENTATIVE.
- MATERIALS USED FOR WATER DISTRIBUTION FACILITIES SHALL BE INCLUDED ON THE "CITY OF NORTH LAS VEGAS APPROVED MATERIALS LIST", LATEST REVISION, OR SPECIFICALLY IDENTIFIED AND APPROVED ON THESE PLANS.
- ALL WATER METERS TWO (2) INCHES AND SMALLER SHALL BE OBTAINED FROM THE CITY OF NORTH LAS VEGAS. REQUESTS FOR WATER METERS MUST BE MADE TO THE NORTH LAS VEGAS UTILITIES DIVISION AT LEAST ONE (1) BUSINESS DAY PRIOR TO PICKUP. (TELEPHONE NUMBER 702)833-1277).
- THE CITY OF NORTH LAS VEGAS' TRENCH BACKFILL POLICY, DATED AUGUST 15<sup>TH</sup> 1996, SHALL BE IMPLEMENTED FOR THIS PROJECT.

C. MODIFICATIONS AND CLARIFICATIONS TO THESE STANDARDS ARE AS NOTED BELOW:

- ALL SERVICE LATERALS TWO (2) INCHES AND SMALLER SHALL BE COPPER TUBING WITH APPROVED SERVICE SADDLES, OPERATION STOPS AND ANGLE METER STOPS SHALL BE THE SAME SIZE AS THE SERVICE LATERAL. ANGLE METER STOPS AND METER SHALL BE CENTERED IN THE METER BOX.
- A SINGLE PIPE MATERIAL SHALL BE USED THROUGHOUT THE PROJECT UNLESS OTHERWISE APPROVED BY THE CITY OF NORTH LAS VEGAS REPRESENTATIVE.
- ALL METER BOXES SHALL BE EQUIPPED WITH TRAFFIC BEARING COVERS AND INSTALLED TO THE FINISH DESIGN GRADE AND ELEVATION. IF SUCH IS NOT SHOWN ON THE PLANS, THE ELEVATION WILL BE ESTABLISHED BY THE CITY OF NORTH LAS VEGAS REPRESENTATIVE.
- ALL VALVES WILL BE LOCATED OUTSIDE OF DRIVEWAYS, VALLEY GUTTERS, AND CURB GUTTERS.
- NO UTILITY BOXES SHALL BE LOCATED IN DRIVEWAY APPROACHES, UNLESS APPROVED BY THE UTILITIES DIVISION.
- ALL NEW FIRE HYDRANTS SHALL HAVE A 5 1/4-INCH VALVE OPENING.
- WARNING TAP SHALL BE REQUIRED ABOVE ALL WATER MAINS, SERVICES LATERALS THAT ARE SIX (6) INCHES AND LARGER, AND ANY SERVICE LATERAL NOT INSTALLED PERPENDICULAR TO THE MAIN LINE.
- ALL WATER MAINS SHALL BE FILLED, PRESSURE TESTED TO 200 PSI, DISINFECTED, FLUSHED, REFILLED AND AN ACCEPTABLE WATER SAMPLE OBTAINED, PRIOR TO CONNECTION TO THE CITY OF NORTH LAS VEGAS' WATER DISTRIBUTION SYSTEM. WATER QUALITY SAMPLES WILL BE COLLECTED BY THE CITY. CONTACT CITY OF NORTH LAS VEGAS UTILITY DIVISION TWENTY-FOUR (24) HOURS IN ADVANCE TO SCHEDULE SAMPLING.
- ALL BACKFLOW PREVENTION ASSEMBLIES SHALL BE TESTED AND CERTIFIED BY THE CITY OF NORTH LAS VEGAS PRIOR TO PLACING THE WATER SYSTEM IN SERVICE. CONTACT CITY OF NORTH LAS VEGAS UTILITY DIVISION TWENTY-FOUR (24) HOURS IN ADVANCE TO SCHEDULE TESTING.
- RECORD DRAWINGS SHALL BE PREPARED, SIGNED AND SUBMITTED TO THE CITY OF NORTH LAS VEGAS REPRESENTATIVE PRIOR TO FINAL ACCEPTANCE OF ANY WATER DISTRIBUTION FACILITIES TO BE OWNED, OPERATED OR MAINTAINED BY THE CITY OF NORTH LAS VEGAS.

**APPROVALS**

*Cheri Edelman* 11/19/09 DATE  
 CHERI EDELMAN PE# 11514, CITY ENGINEER - CITY OF LAS VEGAS

*Doug Harbin* 11-17-09 DATE  
 DOUG HARBIN ACP, PLANNING MANAGER

*Doug Harbin* 11/19/09 DATE  
 CITY FIRE MARSHAL - CITY OF LAS VEGAS

ONLY UTILITIES DEPARTMENT ENGINEERING SERVICES DIVISION DATE (CALV WATER ONLY)

APPROVAL OF THESE PLANS SHALL NOT BE CONSIDERED TO BE A PERMIT FOR CONSTRUCTION. A COMMITMENT TO SUPPLY WATER AND/OR SEWER SERVICES, OR AN APPROVAL OF ANY VIOLATION OF CITY WATER AND/OR SEWER SERVICE RULES AND REGULATIONS OR DESIGN AND CONSTRUCTION STANDARDS.

LAS VEGAS VALLEY WATER DISTRICT DATE  
 LVVWD PROJECT NO: 116169 (SHEETS: C1.01, C.2, C.7)

**ABBREVIATIONS**

ABAN	ABANDON	ELEV	ELEVATION	RP	RADIUS POINT
ADAAG	AMERICAN DISABILITY ACT ACCESSIBLE GUIDELINE	EMBK	EMBANKMENT	R	RADIUS
AIG	ABANDON IN PLACE	ECR	END OF CURB RETURN	RR	RAILROAD
ALT	ALTERNATE	EC	END OF CURVE	REINF	REINFORCEMENT
ALP	ASBESTOS CEMENT PIPE	EVC	END VERTICAL CURVE	RCB	REINFORCED CONCRETE BOX
AC	ASPHALTIC CONCRETE	EXIST	EXISTING	RCP	REINFORCED CONCRETE PIPE
AVE	AVENUE	FG	FINISH GRADE	RELOC	RELOCATE
BC	BACK OF CURB	FA	FIRE ALARM	RT	RIGHT
BOR	BACK OF CURB RADIUS	FH	FIRE HYDRANT	R/W	RIGHT OF WAY
BVC	BEGINNING VERTICAL CURVE	E	FLOW LINE	RD	ROAD
BM	BENCHMARK	GALV	GALVANIZED	SNWA	SOUTHERN NEVADA WATER AUTHORITY
CDTV	CABLE TELEVISION	GR	GAS PRESSURE REGULATOR	SS	SANITARY SEWER
C-C	CENTER TO CENTER	GB	GAS BREAK	SHT	SHEET
C	CENTERLINE	GO	GRADE BREAK	S/O	SOUTH OF
CBC	CITY OF BOULDER CITY	GUT	GUTTER	SW	SIDEWALK
CC	CITY OF LAS VEGAS	HWM	HEADWALL	SF	SQUARE FEET
COH	CITY OF HENDERSON	IN	INCH	SY	SQUARE YARD
CM	CITY OF MESQUITE	INT	INTERSECTION	STA	STATION
CCNV	CITY OF NORTH LAS VEGAS	INV	INVERT	SHD	STEEL HIGH-PRESSURE PIPE
CCWRD	CLARK COUNTY WATER RECLAMATION DIST.	ISL	ISLAND	SD	STORM DRAIN
CC	CLEAROUT	JB	JUNCTION BOX	STD	STANDARD
CCNC	CONCRETE	LOC	LENGTH OF CURB	STRUCT	STRUCTURE
CCSP	CORNER	LT	LEFT	SURV	SURVEY
CONTS	CONSTRUCT	LF	LINEAR FEET	SL	STREETLIGHT
COR	CORNER	LVVWD	LAS VEGAS VALLEY WATER DIST.	TEMP	TEMPORARY
CMP	CORRUGATED METAL PIPE	MH	MANHOLE	TBA	TO BE ADJUSTED
CSAP	CORRUGATED STEEL ARCH PIPE	MAX	MAXIMUM	TBR	TO BE REMOVED
CSP	CORRUGATED STEEL PIPE	MIN	MINIMUM	TC	TOP OF CURB
C&G	CURB AND GUTTER	MON	MONOLITHIC	TOP	TOP OF PIPE
CIP	CAST IRON PIPE	N/E	NORTH OF	TS	TRAFFIC SIGNAL
COL	COLLUM	N/E, N	NON-EXCLUSIVE UTILITY EASEMENT	TSI	TRAFFIC SIGNAL INTERCONNECT
CO	CUBIC YARD	NTS	NOT TO SCALE	TRANS	TRANSITION
CV	CUBIC FEET	OC	ON CENTER	TY	TYPICAL
CVL	CONCRETE	PMT	POINT OF INTERSECTION	UG	UNDERGROUND
CV	CURB FACE	PRC	POINT OF REVERSE CURVE	VAR	VARIABLE
DEPT	DEPARTMENT	PC	POINT OF CURVE	VERT	VERTICAL
DIA	DIAMETER	PT	POINT OF TANGENCY	VC	VERTICAL CURVE
DR	DRIVEWAY	PCC	POINT OF COMPOUND CURVE	VG	VALLEY GUTTER
DI	DROP INLET	P	POWER POLE	VCP	VERTIFIED CLAY PIPE
ESMT	EASEMENT	W	WATER		