

LEGEND/ESTIMATE OF QUANTITIES

WATER		
①	STD. FIRE HYDRANT (INCLUDES PIPES, VALVE, TEE, & RISER)	2 EA.
②	8" GATE VALVE	5 EA.
③	8" TEE	0 EA.
④	8" 90° BEND	3 EA.
⑤	8"x6" REDUCER	3 EA.
⑥	2" B.O. ASSEMBLY	6 EA.
⑦	8"x6" TAPPING TEE W/ 6" VALVE	3 EA.
⑧	8"x12" BEND	1 EA.
⑨	12"x12"x8" TEE	1 EA.
⑩	8"x8" TAPPING TEE	2 EA.
—	3/4" WATER SERVICE W/ 5/8" METERS	59 EA.
—	8" WATER MAIN	293 L.F.
—	6" WATER MAIN	994 L.F.
—	12" WATER MAIN	266 L.F.

ABANDON SERVICE/METER

SEWER		
●	STD. MANHOLE	10 EA.
—	8" SEWER MAIN	1182 L.F.
—	4" SERVICE LATERALS	1503 L.F.
—	WYES	49 EA.

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 ORDINANCE #3944.
- AUTHORIZED HYDRANTS FOR THIS PROJECT ARE:
 - KENNEDY GUARDIAN
 - MUELLER A-423 CENTURIAL
 - CLOW MODEL 2548 MEDALLION
- ON ANY NEW HOME OR BUILDING INSTALLATION, 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 BLUE REFLECTIVE MARKER AT CENTERLINE OF STREET ADJACENT TO FIRE HYDRANT AS REQUIRED IN ORDINANCE #3944 TO IDENTIFY THE FIRE HYDRANT LOCATIONS.
- CALL THE LAS VEGAS FIRE DEPARTMENT AT 229-2071 FOR UNDERGROUND INSPECTION, PRESSURE AND FLUSH VERIFICATION OF ALL FIRE HYDRANTS AND FIRE LINES BEFORE COVERING.
- PAINTING OF THE CURBS AND HYDRANTS AND ANY WORK NECESSARY FOR PROTECTION OF HYDRANTS FROM PHYSICAL DAMAGE PER ORDINANCE #3944 SHALL BE COMPLETED BEFORE APPROVAL BY THE CITY OF LAS VEGAS FIRE DEPARTMENT.
- A PERMIT IS REQUIRED FROM THE FIRE DEPARTMENT FOR ON-SITE WATER LINE AND FIRE HYDRANT. THE PERMIT AND CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER PRIOR TO ANY WORK BEGINNING.
- PRIVATE FIRE HYDRANTS SHALL BE PAINTED RED.
- A FLOW TEST MUST BE WITNESSED BY THE FIRE DEPARTMENT PRIOR TO OCCUPANCY FOR VERIFICATION OF REQUIRED ON-SITE WATER SUPPLY.
- ALL ON-SITE FIRE MAIN MATERIALS MUST BE U.L. LISTED AND A.W.W.A. APPROVED.
- FIRE HYDRANT SPACING:
 - RESIDENTIAL - 500 FEET UNSPRINKLERED, 1,000 FEET SPRINKLERED COMMERCIAL INCLUDING MULTI-FAMILY - 300 FEET SPRINKLERED, 600 FEET SPRINKLERED
- WHERE NEW WATER MAINS ARE EXTENDED ALONG STREETS, WHERE HYDRANTS ARE NOT NEEDED FOR PROTECTION OF STRUCTURES, FIRE HYDRANTS SHALL BE SPACED AT MAXIMUM 1,000 FOOT SPACING TO PROVIDE FOR TRANSPORTATION HAZARDS.
- 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.
- NO FIRE HYDRANT SHALL BE LOCATED WITHIN 6 FEET OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREET LIGHT OR ANY OTHER OBSTRUCTION.
- TWO SOURCES OF SUPPLY ARE REQUIRED WHENEVER THERE ARE 4 OR MORE HYDRANTS INSTALLED ON A SINGLE SYSTEM.
- NOT MORE THAN 2 HYDRANTS CAN BE OUT OF SERVICE DUE TO A SINGLE MAIN BREAK.
- FIRE APPARATUS ACCESS ROADS SHALL HAVE AN UNOBSTRUCTED WIDTH OF NOT LESS THAN 20 FEET PROVIDED NO PARKING IS ALLOWED, NOT LESS THAN 28 FEET IF PARALLEL PARKING IS ALLOWED ON ONE SIDE, AND NOT LESS THAN 35 FEET IF PARALLEL PARKING IS ALLOWED ON BOTH SIDES. VERTICAL CLEARANCE SHALL BE NOT LESS THAN 13 FEET 6 INCHES.
- THE TURNING RADIUS FOR ANY FIRE APPARATUS ACCESS ROAD AND/OR FIRE LANE, PUBLIC OR PRIVATE, SHALL BE NOT LESS THAN 45 FEET OUTSIDE RADIUS AND 22 FEET INSIDE RADIUS.
- A FIRE APPARATUS 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 (SEE EXCEPTIONS IN UFG 94, SECTION 902.2).
- 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. SEE ORDINANCE #3944.
- 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 OF 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 6 FEET FROM ROADWAY LEVEL. THE CURBS ALONG OR ON THE PAVEMENT OR CEMENT IF CURB IS NOT PRESENT, 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.

LEGAL DESCRIPTION

BEING A PORTION OF THE WEST 1/2 OF THE SW 1/4 OF SECTION 21, T 19 S, R 60 E M.D.M. CLV, CLARK COUNTY, NEVADA.

BASIS OF BEARINGS

SOUTH 88°55'31" WEST, BEING THE SOUTH LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 21, T 19 S, R 60 E, M.D.M. CLARK COUNTY, NEVADA, COINCIDENT WITH THE CENTERLINE OF CENTENNIAL PARKWAY, AS SHOWN ON THAT CERTAIN MAP ON FILE IN THE OFFICE OF THE COUNTY RECORDER IN FILE 81 OF PARCEL MAPS AT PAGE 28.

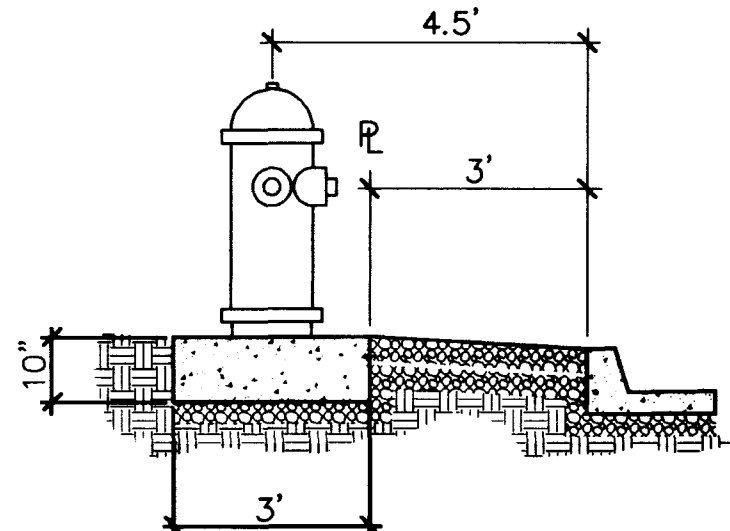
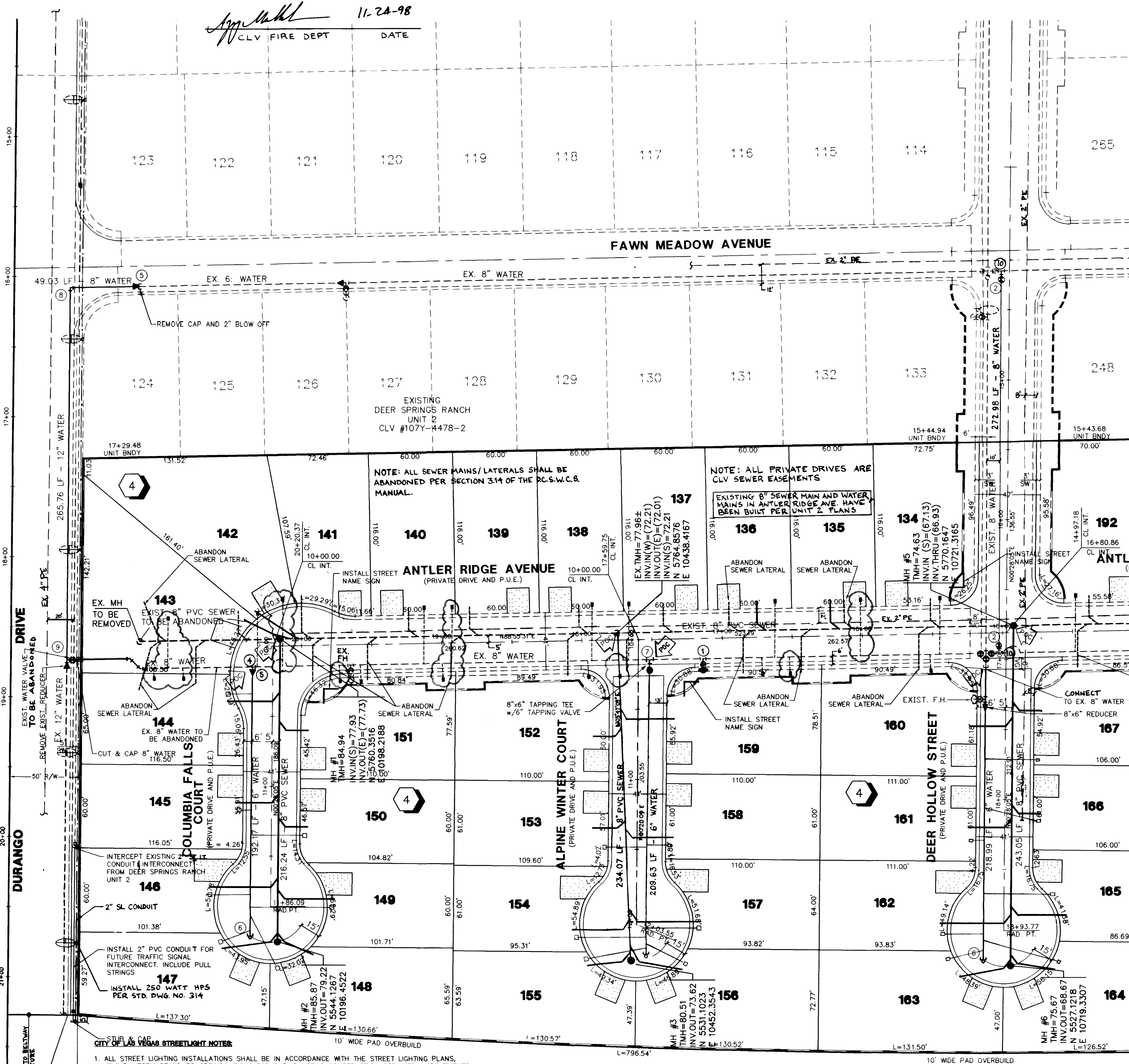
BENCHMARK

CLARK COUNTY BM # 0090 - 21NW6

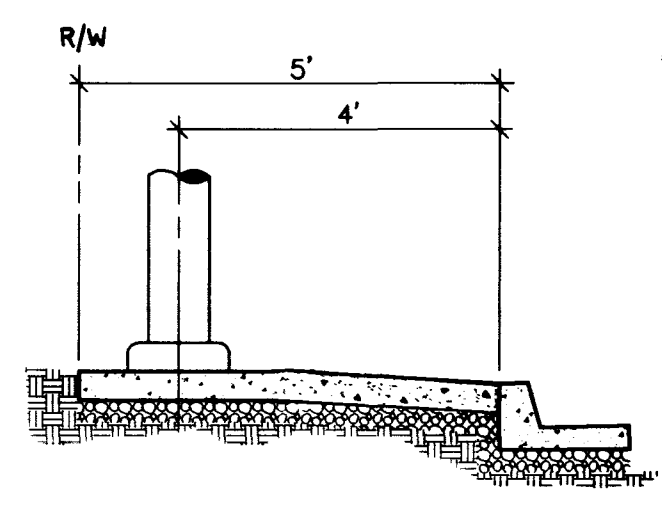
RIVET AND SQUARE ALUMINUM PLATE IN TOP OF CENTER OF HEAD WALL ON THE WEST SIDE OF HIGHWAY - 95, NEAR MILE MARKER 88.95

ELEVATION = 764.787 METERS (NAVD'88)
ELEVATION = 2509.14 U.S. SURVEY FEET (NAVD'88)

11-24-98
CLV FIRE DEPT DATE



FIRE HYDRANT DETAIL
N.T.S.



STREET LIGHT DETAIL
N.T.S.

ABANDONED VALVES
ALL ABANDONED VALVES SHALL BE ABANDONED IN THE CLOSED POSITION UNLESS SHOWN OTHERWISE. BY REMOVING A MINIMUM OF THE TOP 12" OF THE VALVE BOX AND FILLING THE REMAINING PORTION OF THE VALVE BOX WITH CONCRETE HAVING A COMPRESSIVE STRENGTH OF AT LEAST 2,000 PSI.

APPROVED FOR CONSTRUCTION
11/24/98
LAS VEGAS VALLEY WATER DISTRICT

Call before you Dig
1-800-227-2600
Call before you Overhead
1-702-593-6111

LAS VEGAS VALLEY WATER DISTRICT STANDARD NOTES

- NO WORK SHALL BEGIN UNTIL THE WATER PLANS HAVE BEEN RELEASED FOR CONSTRUCTION BY THE LVWD. FOLLOWING WATER PLAN APPROVAL, 48 HOUR NOTICE SHALL BE GIVEN TO THE LVWD COMMUNICATION SUPPORT CENTER (258-7171) PRIOR TO THE START OF CONSTRUCTION. NOTICE MUST BE GIVEN BY 2:00 P.M. OF THE BUSINESS DAY PRIOR TO A LVWD INSPECTION.
- ALL WORK SHALL CONFORM TO THE LVWD STANDARD PLATES, DRAWINGS, AND SPECIFICATIONS, AND THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS (UDACS), LATEST EDITION. ALL WORK, EXCEPT AS MODIFIED BY THESE PLANS OR BY NOTE 2, SHALL BE DONE IN ACCORDANCE WITH THE MOST CURRENT 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 LVWD.
- ALL SERVICE LATERALS TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE COPPER TUBING WITH LVWD APPROVED SERVICE SADDLES.
- WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
- ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS, VALLEY AND CURB GUTTERS.
- THE FOLLOWING REQUIREMENTS MUST BE MET IN THE EVENT A WATER LINE AND A SANITARY OR SEWER LINE CROSS:
 - A MINIMUM OF EIGHTEEN (18) INCH VERTICAL SEPARATION (OUTSIDE TO OUTSIDE) MUST BE MAINTAINED WHEN THE WATER LINE IS INSTALLED OVER THE SANITARY OR STORM SEWER LINE. THE VERTICAL SEPARATION CANNOT BE MAINTAINED OR THE WATER LINE MUST BE PLACED UNDER THE SANITARY OR STORM SEWER LINE, THE SANITARY OR STORM SEWER LINE MUST BE CONSTRUCTED WITH ONE OF THE FOLLOWING OR, AS SHOWN ON THESE PLANS:
 - POTABLE WATER SUPPLY QUALITY MATERIAL
 - ENCASEMENT, WITH FOUR (4) INCH CONCRETE (MINIMUM)
 - SLEEVE WITH POTABLE WATER SUPPLY QUALITY WATER PIPE
 - WARMING TAPE SHALL BE REQUIRED OVER ALL MAINS, ALL SIX (6) INCH DIAMETER AND LARGER SERVICE LATERALS, AND ANY SERVICE LATERAL NOT INSTALLED PERPENDICULAR TO THE MAIN IN ACCORDANCE WITH STANDARD PLATE NO. 27.
- THE CONTRACTOR MUST OBTAIN ALL METERS TWO (2) INCHES AND SMALLER FROM LVWD CENTRAL STORES. TELEPHONE 258-3152. FORTY-FOUR (48) HOURS PRIOR TO PICKUP.
- CONSTRUCTION MAY INTERRUPT SERVICE, WITH LVWD APPROVAL AND PROPER NOTICE, BETWEEN THE HOURS OF 10:00 AM AND 6:00 PM SUNDAY THROUGH THURSDAY. CIRCUMSTANCES MAY REQUIRE TEMPORARY SERVICE FEES BE INSTALLED, WITHOUT LVWD REIMBURSEMENT. ANY TEMPORARY SERVICE FEES MUST HAVE PRIOR LVWD APPROVAL.
- ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE AS LISTED ON THE LVWD'S APPROVED MATERIALS AND MANUFACTURERS LISTING FOR NEW FACILITIES, LATEST REVISION, OR SPECIFICALLY APPROVED ON THESE PLANS.

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 5" OR 6" 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 II AGGREGATE BASE.
- ALL MANHOLES PAVED IN STREETS 80' R/W AND LARGER SHALL HAVE CONCRETE COLLARS/STREETS LESS THAN 80' R/W WILL REQUIRE RETROFIT IF PAVING DOES NOT CONFORM TO CITY STANDARDS AT THE MANHOLE.
- TEE SADDLES SHALL BE USED TO CONNECT SEWER LATERALS TO EXISTING MAIN LINES UP TO 12" DIA. CONNECTIONS TO 15" OR LARGER SHALL REQUIRE SPECIAL PROCEDURES. IN LINE "Y" SHALL BE USED ON LINES 12" OR ABOVE.
- A SEWER MAIN CROSSING OVER A WATER MAIN OR LESS THAN 18" UNDER A WATER MAIN, MUST BE REINFORCED CONCRETE ENCASED FOR A DISTANCE NOT LESS THAN TEN FEET (10') TO EACH SIDE OF THE CENTERLINE OF THE 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 PLANS AT ANY LOCATION. SEWER MAINS FOUND TO EXCEED THIS TOLERANCE WILL HAVE TO BE REPAIRED OR REMOVED AND REPLACED TO THE SATISFACTION OF THE CITY ENGINEER PRIOR TO ACCEPTANCE BY THE CITY OF LAS VEGAS.
- INSTALLATION OF CURVED SEWER REQUIRES SPECIAL CONSTRUCTION PROCEDURES AND INSPECTIONS. CONTACT CITY OF LAS VEGAS CONSTRUCTION SERVICES 24 HOURS PRIOR TO INSTALLATION.

ABANDONMENT OF EXISTING SERVICES: 2" AND SMALLER IN CL-19

EXISTING SERVICE LATERALS THAT ARE TO BE ABANDONED FROM THE EXISTING WATER MAIN, SHALL HAVE THE CORPORATION STOP TURNED OFF AT THE MAIN. A MINIMUM OF 12" OF LATERAL OUT NEAR CORPORATION STOPS AND SHALL BE CUT OFF BY THE CORPORATION STOP. IF THE CORPORATION IS DAMAGED BEYOND REPAIR OR PULLED FROM THE EXISTING WATER MAIN, THE MAIN SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, IN A MANNER APPROVED BY THE LVWD. IF THE CORPORATION STOP IS NOT WATER TIGHT THE CONTRACTOR SHALL NOTIFY LVWD COMMUNICATION SUPPORT CENTER (702-258-7171) FOR FURTHER DIRECTION. THE CONTRACTOR SHALL REMOVE THE EXISTING SERVICE METER BOX AND APPURTENANCES, FILL AND GRADE ANY AND ALL RESULTING VOIDS AND REPAIR OR RESTORE TO ORIGINAL CONDITIONS OR BETTER ALL LANDSCAPING, IRRIGATION SYSTEMS, CONCRETE, SIDEWALKS, ASPHALT, OR ANY OTHER ITEMS DAMAGED OR REMOVED DURING THE REMOVAL OF THE EXISTING SERVICE METER BOX.

AMERICAN WEST HOMES, INC.
2700 E. SUNSET ROAD SUITE 5
LAS VEGAS, NV 89120
(702) 356-6454

MASTER UTILITY PLAN
IMPROVEMENT PLANS
CITY OF LAS VEGAS

SHEET

4/98

DESIGNED BY:

CHECKED BY:

PROJECT NO:

4884-3

SCALE: 1"=40'

DATE: 11/24/98

SEAL

UT1

4 OF 14 SHEETS

DRAWING NO.

307Y-4478-3

REVISION

DATE

BY

REVISION

