

GENERAL UTILITY NOTES

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT ALL EXISTING UTILITIES BEFORE CONSTRUCTION.
- THE LOCATION OF ALL UTILITIES SHALL BE DETERMINED BY THE CONTRACTOR'S RESPONSIBILITY TO MAKE DAMAGE TO THE SAME DURING THE COURSE OF CONSTRUCTION.
- ALL EXISTING MANHOLES, VALVE BOXES, AND UTILITY BOXES WITHIN THE LIMITS OF CONSTRUCTION SHALL BE ADJUSTED TO GRADE AS NECESSARY.
- REFER TO S.P. & E. DRAWINGS FOR THE EXACT LOCATION AND SIZE OF BUILDING SERVICE LATERALS.
- CONCRETE WATER MAINS SHALL BE 48" P.V.C. OF APPROVED EQUAL AND SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITION OF THE NATIONAL PLUMBING CODE.
- THE QUANTITY ESTIMATES SHOWN HEREON ARE APPROXIMATE AND ARE BASED ON THE INFORMATION FURNISHED FOR THIS PROJECT. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES AND SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE SAME DURING THE COURSE OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE SAME DURING THE COURSE OF CONSTRUCTION.
- PRIVATE AND PUBLIC UTILITIES AS SHOWN ON THE PLANS REPRESENT AVAILABLE RECORD DATA AND THEIR SIZE AND LOCATION HAVE NOT BEEN VERIFIED IN THE FORM OF PROFESSIONAL SURVEY EXPLANATION BUT ARE BELIEVED TO SURFACE CORRECTLY.

CLV FIRE DEPARTMENT NOTES

- ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE CITY OF LAS VEGAS FIRE DEPARTMENT "STANDARD SPECIFICATIONS" AND ORDINANCE #2077.
- AUTOMATIC HYDRANTS FOR THIS PROJECT ARE:
 - 1. 4" RPPA
 - 2. 4" RPPA
 - 3. 4" RPPA
- ON ANY NEW HOME OR BUILDING INSTALLATION ACCESSIBLE FIRE HYDRANTS SHALL BE INSTALLED BEFORE CONSTRUCTION COMPLETION. CONCRETE AND GROUND FIRE HYDRANTS SHALL BE 6" OR 8" CONCRETE PIPE WITH AN ACQUAIRE WATER SUPPLY.
- CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT THE CENTER OF EACH FIRE HYDRANT TO THE POINT AS REQUIRED BY ORDINANCE #2077 TO IDENTIFY FIRE HYDRANT LOCATIONS.
- FALL THE LAST WORK BUILDING DEPARTMENT AT 2:30 PM FOR UNDERGROUND INSPECTION. PREPARE AND FURNISH EXPLANATION OF ALL FIRE HYDRANTS AND FIRE LINES BEFORE COVERING.
- PLACING OF THE CURBS AND HYDRANT AND ANY WORK NECESSARY FOR PROTECTION OF HYDRANTS FROM PHYSICAL DAMAGE FOR PROTECTION #2077 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 MAIN AND FIRE HYDRANT. THE PERMIT AND CONTRACTOR MATERIALS AND TEST CERTIFICATES FOR UNDERGROUND PIPING WORK SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER PRIOR TO ANY WORK BEGINNING.
- A FLOOD TEST MUST BE WITNESSED BY THE FIRE DEPARTMENT PRIOR TO ACCEPTANCE FOR PROTECTION OF RECORDS ON-SITE BY THE CONTRACTOR.
- ALL ON-SITE FIRE MAIN MATERIALS MUST BE 1" LISTED AND APPROVED.
- FIRE HYDRANT SPACING:
 - 1. 150 FEET UNIMPROVED AND 300 FEET IMPROVED.
 - 2. 150 FEET UNIMPROVED AND 300 FEET IMPROVED.
 - 3. 150 FEET UNIMPROVED AND 300 FEET IMPROVED.
- NO FIRE HYDRANT SHALL BE LOCATED WITHIN THE REQUIRED RADIUS OF A CURB OR WITHIN 30 FEET OF THE PERIMETER OF THE RADIUS OF THE CURB OR SAC.
- NO FIRE HYDRANT SHALL BE LOCATED WITHIN 4 FEET OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREET LIGHT OR ANY OTHER OBSTRUCTION.
- NOT MORE THAN 2 HYDRANTS CAN BE OUT OF SERVICE DUE TO A SINGLE MAIN BREAK.
- THE TURNING RADIUS FOR ANY FIRE APPARATUS ACCESS ROAD AND/OR FIRE LANE, PUBLIC OR PRIVATE SHALL BE LESS THAN 40 FEET (OUTSIDE RADIUS) AND 22 FEET INSIDE RADIUS.
- A FIRE APPARATUS ROAD SHALL BE REQUIRED WHEN ANY PORTION OF AN EXTENSIVE ROAD IS TO BE CONSTRUCTED WITHIN THE CITY OF LAS VEGAS FIRE DEPARTMENT JURISDICTION. SEE EXCEPTIONS IN SPEC. SECTION 10.01.01 AND 10.01.02.
- ALL FIRE LINES AND APPARATUS ACCESS ROADS AND/OR FIRE LINES SHALL BE PROVIDED WITH AN APPROVED FIREMAIN AND/OR FIRE LINES.
- ELECTRICALLY CONTROLLED ACCESS LANE SHALL BE PROVIDED WITH AN APPROVED ACCESS LANE FOR RECEIVING SYSTEM AND SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF LAS VEGAS SPECIFICATIONS FOR AUTOMATIC VEHICLE ACCESS GATE.

CITY OF LAS VEGAS SEWER NOTES

- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OF THE CITY OF LAS VEGAS. ALL MATERIALS SHALL BE APPROVED BY THE CITY ENGINEER PRIOR TO CONSTRUCTION.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN CONSTRUCTION PERMITS FROM THE CITY ENGINEER PRIOR TO CONSTRUCTION.
- CONCRETE 18" OR 24" IN DIAMETER SEWER OR GAS LATERALS SHALL PASS UNDER THE CURB.
- POLYETHYLENE GLASS REINFORCED (PFR) SHALL BE USED FOR ALL SEWER LATERALS. ALL MANHOLES IN PAVED STREETS SHALL BE 18" AND LARGER SHALL HAVE CONCRETE COULERS.
- SEE SCHEDULES SHALL BE USED TO CONNECT SEWER LATERALS TO EXISTING MAIN LINES 18" TO 24" IN DIAMETER. CONNECTIONS TO 18" OR LARGER MAINS SHALL INCLUDE SPECIAL PROCEDURES.
- A SEWER MAIN CROSSING OVER A WATER MAIN OR LESS THAN 18" UNDER A WATER MAIN MUST BE PERFORMED UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE NECESSARY PERMITS FROM THE CITY ENGINEER PRIOR TO CONSTRUCTION.
- ALL CONTRACTORS INSTALLING SEWER MAINS SHALL BE UNDER THE JURISDICTION OF THE CONTROLLING AGENCY MUST BE CLASS "A" CONTRACTORS.
- THE CITY OF LAS VEGAS WILL NOT ACCEPT ANY SEWER MAINS WHICH HAVE A VERTICAL DEFLECTION OF MORE THAN ONE THIRTIETH (1/30) OF A FOOT FROM THE APPROVED CONSTRUCTION PLAN. 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.

LAS VEGAS VALLEY WATER DISTRICT NOTES

- NO WORK SHALL BE UNDERTAKEN UNTIL THE WATER PLANS HAVE BEEN RELEASED FOR CONSTRUCTION BY THE LVWD. FOLLOWING WATER PLANS APPROVAL, 48 HOUR NOTICE SHALL BE GIVEN TO THE LVWD. NOTICE MUST BE GIVEN BY 2:00 PM ON THE BUSINESS DAY PRIOR TO A 12 HOUR PERIOD.
- ALL WORK SHALL CONFORM TO LVWD STANDARD PLANS, DRAWINGS, AND SPECIFICATIONS, LATEST EDITION.
- ALL WORK IS DEEMED TO BE APPROVED BY THESE PLANS OR BY NOTE 3 SHALL BE DONE IN ACCORDANCE WITH THE MOST CURRENT EDITION OF THE LVWD STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OF SITE IMPROVEMENTS, 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 OF COPPER TUBING WITH LVWD APPROVED SERVICE SADDLES.
- ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS AND CURB OUTLINES.
- ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS, VALLEYS AND CURB OUTLINES.
- THE FOLLOWING REQUIREMENTS MUST BE MET IN THE EVENT A WATER MAIN LINE AND SANITARY OR STORM SEWER LINE CROSS:
 - A. MINIMUM FORTY-EIGHT (48) INCH VERTICAL SEPARATION OUTSIDE OF DRIVEWAYS MUST BE MAINTAINED WHEN THE WATER MAIN IS INSTALLED OVER THE SANITARY OR STORM SEWER LINE.
 - B. IN SEWER MAINS WITH FIVE (5) INCH OR SMALLER DIAMETERS, THE WATER MAIN SHALL BE PLACED UNDER THE SANITARY OR STORM SEWER LINE. THE SANITARY OR STORM SEWER LINE SHALL BE CONSTRUCTED WITH ONE (1) OF THE FOLLOWING OR AS SHOWN ON THESE PLANS:
 - 1. POTABLE WATER SUPPLY QUALITY MATERIAL.
 - 2. 15" MINIMUM COVER WITH FIVE (5) INCH OR SMALLER DIAMETERS.
 - 3. SLEEPING WITH POTABLE WATER SUPPLY QUALITY PIPE.
- WARNING TAPE SHALL BE REQUIRED OVER ALL MAINS. TAPE SHALL BE 18" WIDE PAPER TAPE AND UNDER SERVICE LATERALS AND ANY SERVICE LATERAL NOT INSTALLED PERPENDICULAR TO THE MAIN IN ACCORDANCE WITH STANDARD PLAN NO. 27.
- ALL WATER FACILITIES SHALL BE FILLED, DROPTIGHT, PRESSURE TESTED, FLOWED AND AN ACCEPTABLE WATER SAMPLE OBTAINED PRIOR TO CONNECTION TO THE LVWD DISTRIBUTION SYSTEM.
- THE CONTRACTOR MUST OBTAIN ALL METERS TWO (2) INCHES AND SMALLER FROM LVWD THROUGH STREET TELEPHONE CUBES PRIOR TO CONSTRUCTION AND MUST OBTAIN ALL METERS TWO (2) INCHES AND SMALLER FROM LVWD THROUGH STREET TELEPHONE CUBES PRIOR TO CONSTRUCTION AND MUST OBTAIN ALL METERS TWO (2) INCHES AND SMALLER FROM LVWD THROUGH STREET TELEPHONE CUBES PRIOR TO CONSTRUCTION.
- CONSTRUCTION MAY INTERRUPT SERVICE WITH LVWD APPROVAL AND PROPER NOTICE. BETWEEN THE HOURS OF 10 AM AND 4 PM SUNDAY THROUGH THURSDAY. CIRCUMSTANCES MAY REQUIRE TEMPORARY SERVICE INTERRUPT THROUGH THURSDAY. ANY TEMPORARY SERVICE INTERRUPT MUST HAVE PRIOR APPROVAL.
- ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE AS LISTED ON THE LVWD'S APPROVED MATERIALS AND MANUFACTURERS LISTING FOR NEW FACILITIES. LATEST EDITION OR SPECIFICALLY APPROVED ON THESE PLANS.

LEGEND & ESTIMATE OF WATER QUANTITIES

① 6" X 6" MECHANICAL JOINT	1 EA
② 6" TAPPING VALVE	1 EA
③ FIRE HYDRANT ASSEMBLY	2 EA
④ 8" BY 6" REDUCER	1 EA
⑤ 6" CAP W/2" BLOW-OFF	1 EA
1" COPPER SERVICE LATERAL	10 EA
8" PVC FROM LVWD	10 EA
6" PVC	426 LF
6" PVC	130 LF
5/8" METER FROM LVWD	1 EA
3/4" RPPA FROM LVWD	1 EA

SEWER QUANTITIES ESTIMATE

MANHOLE	3 EA
8" PVC MAIN	512 LF
4" PVC SERVICE LATERAL	10 EA

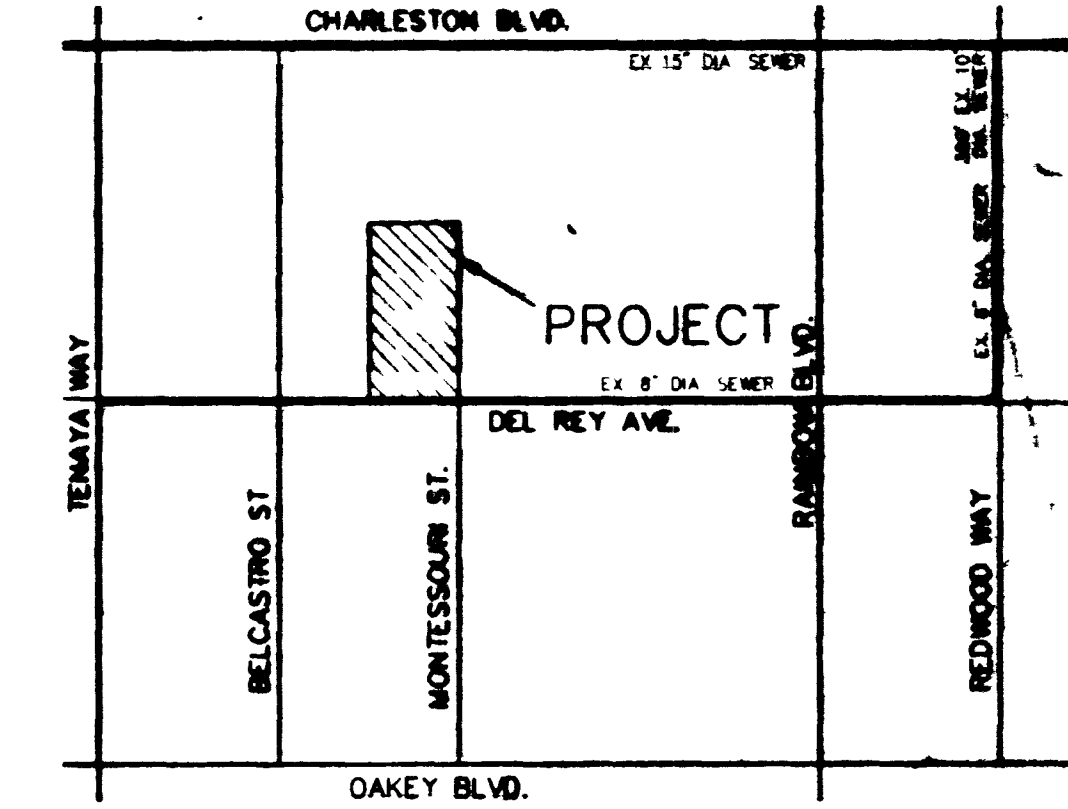
SEWER CONTRIBUTION

10 ERU @ 90,000 GPD EACH
 APPROXIMATE TOTAL GPD TOTAL
 PEAK FACTOR = 3.3
 APPROXIMATE PEAK FLOW = 8,137 GPD

STREET LIGHT QUANTITIES

200 WATT HPS LUMINAIRE	2 EA
1 1/4" PVC CONDUIT	345 LF

2 working days
Call before you Dig
 1-800-227-2600



VICINITY MAP
 N.T.S.

LAS VEGAS FIRE DEPARTMENT

Fire Flow Requirement is 1500 gallons per minute at 20 pounds per square inch residual

Based on: 3600
 Largest area between area separation walls: N/A
 Height: 25'
 Type of Construction: TYPE V - WOOD FRAME
 Exposures: 10'
 Sprinkler System: NO
 Occupancy: R-3
 Roof Construction: TILE
 Rebuilding: No
 Date:

APPROVALS:

[Signature] 6-26-95
 CLV FIRE MARSHALL DATE

[Signature] 8-18-95
 LAS VEGAS VALLEY WATER DISTRICT DATE

[Signature] 6-27-95
 NEVADA POWER CO. DATE

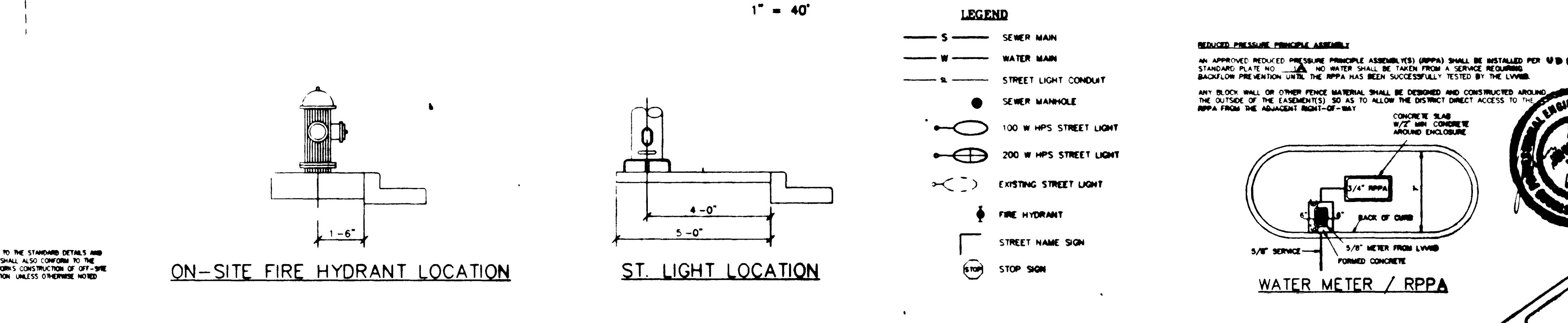
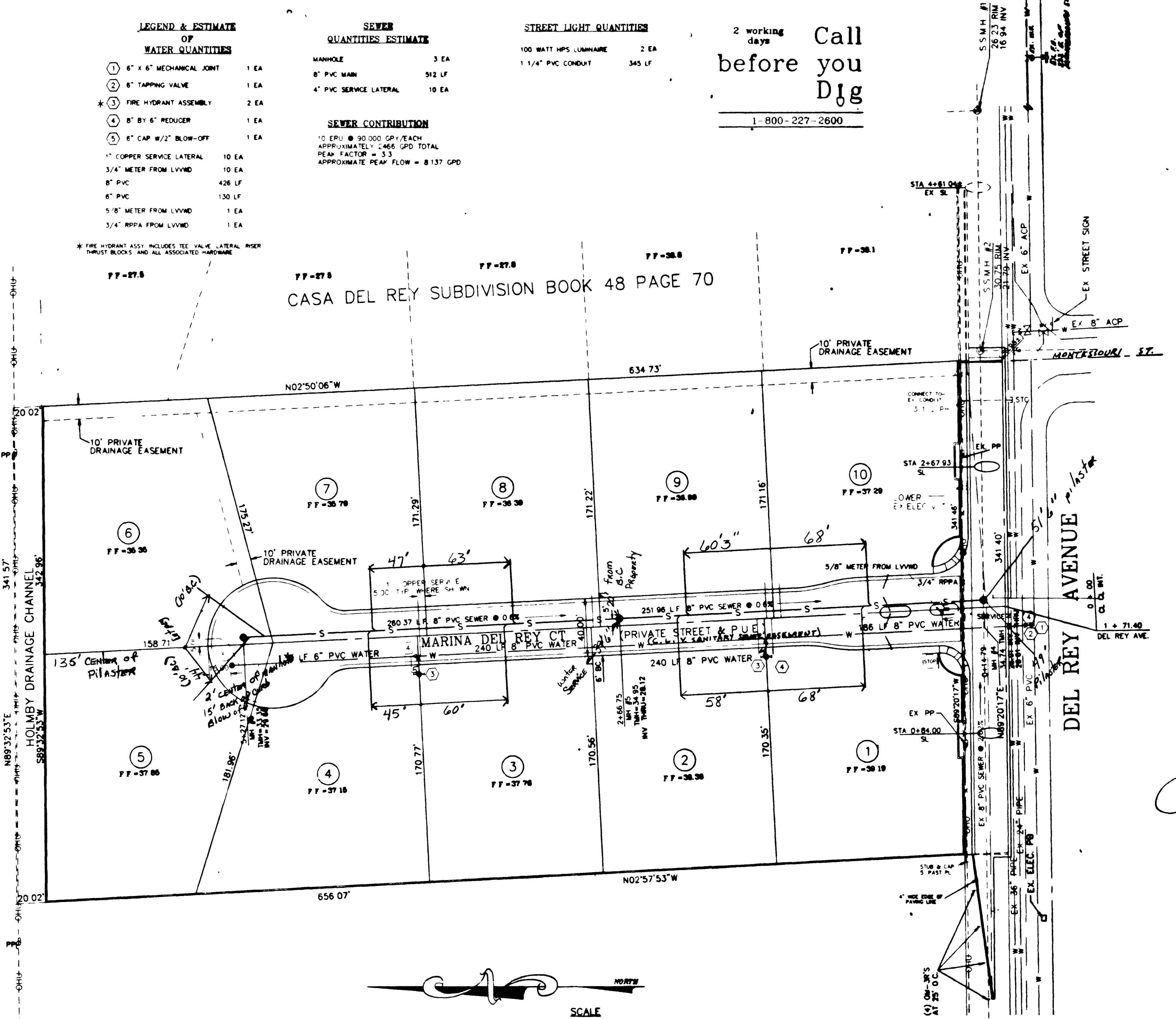
THIS APPROVAL IS ONLY FOR THE PLACEMENT AND CLEARANCE OF STREET LIGHT AND SIGNAL LIGHT INSTALLATIONS

THIS PROPERTY MAY HAVE STATIC WATER PRESSURE IN EXCESS OF 80 PSI. THE UNIFORM PLUMBING CODE REQUIRES THAT INDIVIDUAL, ON-SITE (PRIVATE), PRESSURE REDUCING VALVES BE INSTALLED WHENEVER THE PRESSURE EXCEEDS 80 PSI. PRIVATE VALVES ARE THE DEVELOPER'S RESPONSIBILITY AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVWD FACILITIES.

PROJECT NAME: DEL REY ESTATE

This project water plan complies with the Las Vegas Valley Water District's technical requirements. However, this water plan is NOT APPROVED FOR CONSTRUCTION at this time and this statement does not provide or imply a water commitment.

DEL REY ESTATES AS-BUILT (SEWER)



ON-SITE FIRE HYDRANT LOCATION

ST. LIGHT LOCATION

LEGEND

- S - SEWER MAIN
- W - WATER MAIN
- CL - STREET LIGHT CONDUIT
- - SEWER MANHOLE
- - 100 W HPS STREET LIGHT
- - 200 W HPS STREET LIGHT
- - EXISTING STREET LIGHT
- ⊕ - FIRE HYDRANT
- ⊕ - STREET NAME SIGN
- ⊕ - STOP SIGN

WATER METER / RPPA

REDUCED PRESSURE PRINCIPLE ASSEMBLY (RPPA) SHALL BE INSTALLED FOR 1/2" AND 3/4" ANGLE METER STOP. NO WATER SHALL BE TAKEN FROM A SERVICE LINE UNLESS THE RPPA HAS BEEN SUCCESSFULLY TESTED BY THE LVWD.

ANY RPPA SHALL BE CONSTRUCTED AND MAINTAINED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENTS) SO AS TO ALLOW THE DISTRICT DIRECT ACCESS TO THE RPPA FROM THE ADJACENT RIGHT-OF-WAY.

JOHN R. VEGA CONSULTING ENGINEERS INC.

300 SPRING MOUNTAIN RD. SUITE 100
 LAS VEGAS, NV 89169
 (702) 735-1438

DATE: 6-20-95
 DRAWN BY: JRV
 CHECKED BY: RIL

UTILITY PLAN

SHEET C-2

8219

111-22-2 "As Built" 107Y-4404

