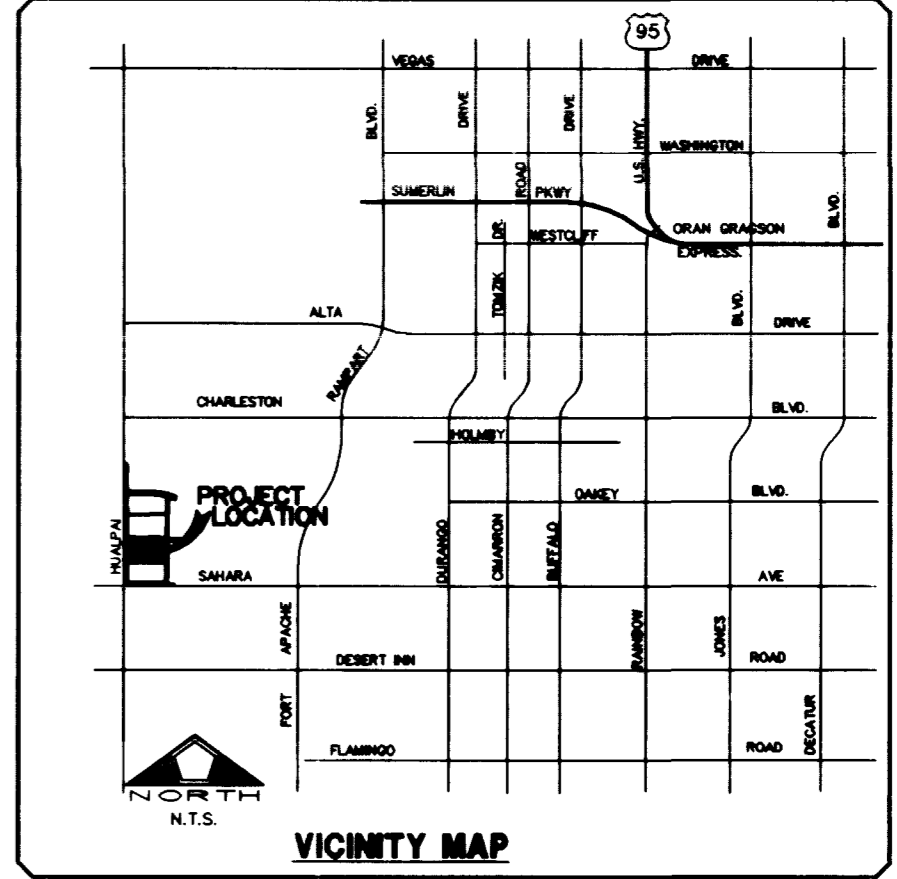


- ### C.L.V. FIRE DEPT. NOTES
- ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE CITY OF LAS VEGAS FIRE DEPARTMENT "HYDRANT SPECIFICATIONS", "HYDRANT INSTALLATION SPECIFICATIONS" AND ORDINANCE #394.
  - AUTORIZED HYDRANTS FOR THIS PROJECT ARE:  
A. KENNEDY GUARDIAN  
B. MUELLER A-423 CENTURIAN  
C. CLOW MODEL 2346 MEDALLION
  - ON ANY NEW HOME OR BUILDING INSTALLATION, ACCESSIBLE FIRE HYDRANTS SHALL BE INSTALLED BEFORE COMPLETION OF CONSTRUCTION AND SAID FIRE HYDRANTS SHALL BE IN GOOD WORKING ORDER WITH AN ADEQUATE WATER SUPPLY.
  - CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT CENTER LINE OF STREET ADJACENT TO FIRE HYDRANT AS REQUIRED IN ORDINANCE #394 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 #394 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 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 UNSPRINKLERED, 600 FEET SPRINKLERED.
  - WHERE NEW WATER MAINS ARE EXTENDED ALONG STREETS, WHERE HYDRANTS ARE NOT NEEDED FOR PROTECTION OF STRUCTURES, 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 CAL-DE-SAC OR OTHER 20 FEET RADIUS OF THE RADIUS OF THE CAL-DE-SAC.
  - NO FIRE HYDRANT SHALL BE LOCATED WITHIN 8 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 FIRE 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 FOR PARKING. FIRE LANE SIGNS SHALL BE PLACED ON BOTH SIDES OF AN ACCESS ROADWAY IF THE PARKING IS ALLOWED ON ONE SIDE, AND NOT LESS THAN 36 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 UPC 94, SECTION 902.2)
  - ALL DEAD END FIRE APPARATUS ACCESS ROADS AND/OR FIRE LINES, PUBLIC OR PRIVATE, IN EXCESS OF 150 FEET IN LENGTH SHALL BE PROVIDED WITH AN APPROVED TURNAROUND AREA. (SEE ORDINANCE #394.)
  - 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 LANE SIGNS TO BE PLACED ON BOTH SIDES OF AN ACCESS ROADWAY IF THE PARKING IS ALLOWED ON EITHER SIDE. SIGNS TO BE INSTALLED NO HIGHER THAN 10 FEET OR LESS THAN 4 FEET FROM ROADWAY LEVEL. THE CURBS ALONG OR ON THE PAVED OR CEMENT IF CURB IS NOT PRESENT, SHALL BE PAINTED WITH A RED WEATHER RESISTANT PAINT IN ADDITION TO THE SIGN.
  - 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.

### LEGEND

8" - TEE	1
8" - 90° BEND	2
8" - 1 1/4" BEND	3
2" WATER METER	4
2" DCCA	5
HYDRANT ASSEMBLY	6
8" - VALVE	7
8" DCCA	8
4" VALVE	9
3" VALVE	10
2" SHUT-OFF VALVE	11
4" X 3" REDUCER	12
6" - TEE	13
6" - 90° BEND	14
6" - VALVE	15
8" X 6" REDUCER	16
1" BLOW-OFF	17



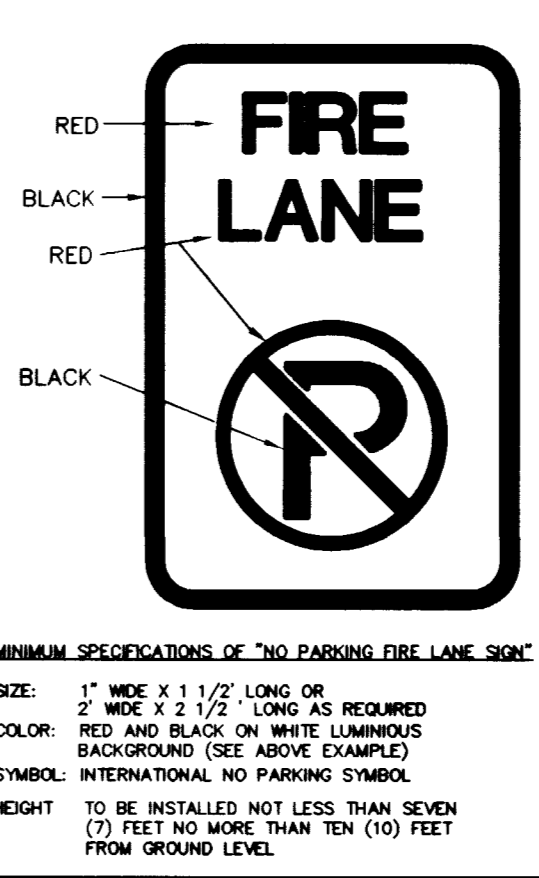
### FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENT IS 2,750 GALLONS PER MINUTE AT 20 POUNDS PER SQUARE INCH RESIDUAL.

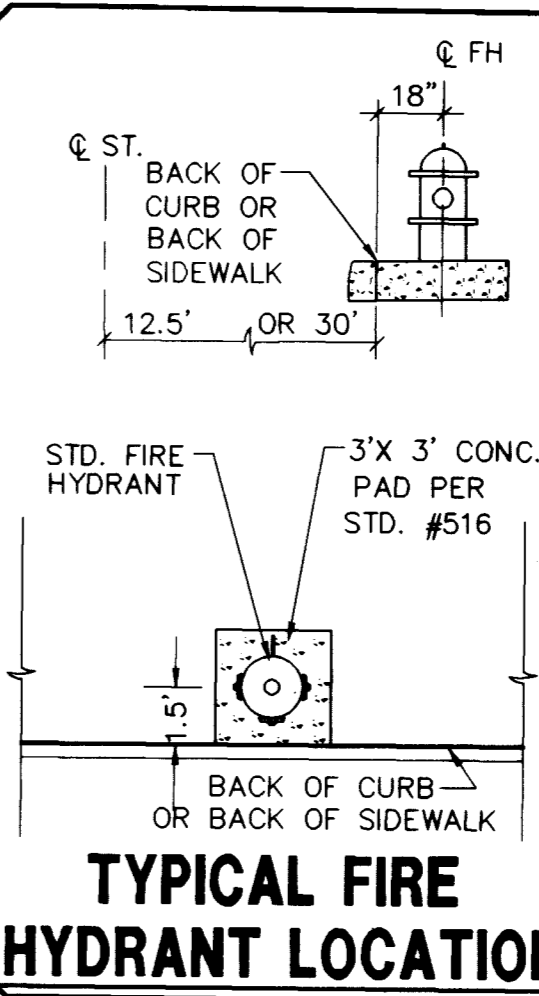
BASED ON:

SQUARE FOOTAGE	10,820 ± SF
LARGEST AREA BETWEEN AREA SEPARATION WALLS	N/A
BUILDING HEIGHT	TWO-STORY
NUMBER OF STORIES	TWO-STORY
TYPE OF CONSTRUCTION	TYPE 5-N
OCCUPANCY	CONDOMINIUM
FULL AUTOMATIC FIRE SPRINKLER SYSTEM	NONE

REVIEWED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_



- ### 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 HOURS NOTICE SHALL BE GIVEN TO THE LVWD COMMUNICATIONS SUPPORT CENTER (258-7171) PRIOR TO THE START OF CONSTRUCTION. NOTICE MUST BE GIVEN BY 2:00 P.M. THE BUSINESS DAY PRIOR TO A LVWD INSPECTION.
  - ALL WORK SHALL CONFORM TO THE LVWD'S 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 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.
  - ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
  - ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS, VALLEYS AND CURB OUTLETS.
  - THE FOLLOWING REQUIREMENTS MUST BE MET IN THE EVENT A WATER LINE AND SANITARY OR STORM SEWER LINE CROSS:  
A. A MINIMUM EIGHTEEN (18) INCH VERTICAL SEPARATION (OUTSIDE TO OUTSIDE) MUST BE MAINTAINED WHEN THE WATER LINE IS INSTALLED OVER THE SANITARY OR STORM SEWER LINE. IF 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:  
a. POTABLE WATER SUPPLY MATERIAL.  
b. ENCASEMENT WITH FOUR (4) INCH CONCRETE (MINIMUM).  
c. SLEEVING WITH POTABLE WATER SUPPLY QUALITY PIPE.  
EACH PROVISION MUST EXTEND ALONG THE SANITARY OR STORM SEWER, ON EITHER SIDE OF THE MAIN, A MINIMUM 10 FOOT DISTANCE PERPENDICULAR TO THE WATER MAIN EXTERIOR.
  - WARNING 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 LVWD PLATE NO. 22.
  - ALL WATER FACILITIES SHALL BE FILLED, DISINFECTED, PRESSURE TESTED, FLUSHED, FILLED AND AN ACCEPTABLE WATER SAMPLE OBTAINED, PRIOR TO CONNECTION TO THE LVWD'S DISTRIBUTION SYSTEM.
  - THE CONTRACTOR MUST OBTAIN ALL METERS TWO (2) INCHES AND SMALLER FROM LVWD CENTRAL STORES. TELEPHONE 258-3152 FORTY-EIGHT (48) HOUR PICKUP.
  - CONSTRUCTION MAY INTERRUPT SERVICE, WITH LVWD APPROVAL AND PROPER NOTIFICATION, BETWEEN THE HOURS OF 10 P.M. AND 6 A.M., SUNDAY THROUGH THURSDAY. OTHER TIMES MAY REQUIRE TEMPORARY SERVICE FEES BE INSTALLED, WITHOUT LVWD REIMBURSEMENT. ANY TEMPORARY SERVICE FEE MUST HAVE LVWD APPROVAL.
  - ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE AS LISTED ON THE LVWD'S PRE-APPROVED MATERIALS AND MANUFACTURERS LISTING FOR NEW FACILITIES. LATEST REVISION, OR SPECIALLY APPROVED ON THESE PLANS.  
LVWDSTD - Revised: April 25, 1995



### ESTIMATE OF WATER QUANTITIES

PUBLIC	
2" WATER METER (FROM LVWD)	2 EA
2" WATER SERVICE	2 EA
2" DOUBLE CHECK VALVE ASSEMBLY	2 EA
8" DOUBLE CHECK DETECTOR ASSEMBLY	2 EA
PRIVATE	
8" PVC WATER MAIN (FIRE LINE)	1508 LF
6" PVC WATER MAIN (FIRE LINE)	445 LF
4" PVC WATER MAIN (DOMESTIC)	1877 LF
3" PVC WATER MAIN (DOMESTIC)	532 LF
2" PVC WATER MAIN (DOMESTIC)	295 LF
8" 90° BEND	12 EA
8" 1 1/4" BEND	8 EA
8" VALVES	4 EA
8" X 6" REDUCER	4 EA
6" TEE	2 EA
6" 90° BEND	2 EA
6" VALVE	3 EA
4" VALVE	10 EA
3" VALVE	4 EA
2" SHUT-OFF VALVE	16 EA
HYDRANT ASSEMBLY	7 EA
1" BLOW-OFF	8 EA

NOTE: THESE QUANTITIES ARE ESTIMATES ONLY. THE CONTRACTOR SHALL VERIFY.

Call before you Dig.  
1-800-227-2800

**NOTE**  
ALL STREETS ARE PRIVATE DRIVES, (PRIVATELY MAINTAINED)  
ALL ON-SITE SEWERS ARE PRIVATE SEWERS (PRIVATELY MAINTAINED)

### STREET LIGHTING NOTES (PRIVATE)

STREET LIGHTS WILL BE PRIVATE CUSTOM LIGHTING

- ALL STREET LIGHTING INSTALLATIONS EXCEPT AS NOTED ON THE UTILITY PLANS SHALL CONFORM TO THE IMPROVEMENT STANDARDS, DEPARTMENT OF PUBLIC WORKS, CLARK COUNTY, NEVADA AND THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA. (LATEST EDITION)
- ALL STREET LIGHT POLES SHALL BE CUSTOM
- ALL HANDHOLE COVERS MUST BE INSTALLED, POLE CAPS POURED, AND PULLBOX LIDS BOLTED DOWN PRIOR TO ENERGIZING CIRCUIT. ALL WIRE MUST HAVE THW INSULATION.

### APPROVALS

_____ CITY OF LAS VEGAS - FIRE DEPARTMENT	7-29-96 DATE
_____ LAS VEGAS VALLEY WATER DISTRICT	8-1-96 DATE
_____ NEVADA PRIMER CONTRACTOR	8-8-96 DATE

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

### UTILITY LEGEND

---	EXISTING WATER LINE	---	EXISTING 1-1/4" PVC ST. LT. CONDUIT
- - -	PROPOSED WATER LINE	- - -	PROPOSED 1-1/4" PVC ST. LT. CONDUIT
⊙	EXISTING FIRE HYDRANT	⊙	100W PRIVATE STREET LAMP
⊙	PROPOSED FIRE HYDRANT W/6" G.V.	⊙	PROPOSED NO. 3-1/2 CONCRETE PULL BOX
⊙	GATE VALVE	⊙	CLEAN OUT
---	REDUCER	---	
---	EXISTING SEWER LINE	---	
---	PROPOSED SEWER LINE	---	
---	PROPOSED SEWER LATERAL	---	
⊙	EXISTING SEWER MANHOLE	⊙	PROPOSED SEWER MANHOLE
⊙	PROPOSED SEWER MANHOLE	⊙	PROPOSED SEWER MANHOLE
⊙	STREET NAME SIGN (SEE STD. DWG. #250)	⊙	36" STOP SIGN

### TRAFFIC AND ST. LIGHT & QUANTITIES

⊙	STREET NAME SIGN (PER STD DWG #250)	7 EA
⊙	STREET LIGHT (PRIVATE)	6 EA
---	1-1/4" PVC CONDUIT & WIRE	950 LF
⊙	PULLBOX	8 EA

### DOUBLE CHECK VALVE ASSEMBLY (2-2")

APPROVED DOUBLE CHECK VALVE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLATE 11C. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE DOUBLE CHECK VALVE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVWD.

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 FROM THE ADJACENT RIGHT-OF-WAY.

### INSTALLATION OF DOUBLE CHECK DETECTOR ASSEMBLY (2-8")

THE DOUBLE CHECK DETECTOR ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH THE UDACS PLATE 20B.

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 FROM THE ADJACENT RIGHT-OF-WAY.

DATE: 7/10/96  
DRAWN BY: Daniel Shuler  
CHECKED BY: DANIEL A. RUBIO, P.E. #8925  
JOB NO.: 0147/0010  
SCALE: 1"=40'

RECOMMENDED:  
Daniel Shuler 7/26/96  
DATE

**PENTACORE**  
CIVIL ENGINEERING - LAND SURVEYING - PLANNING  
CONSTRUCTION MANAGEMENT - ADA CONSULTING  
6763 WEST CHARLESTON BOULEVARD  
LAS VEGAS, NEVADA 89102 (702)298-0115

PULTE HOMES  
STONE RIDGE CONDOMINIUMS - PHASE 1  
WATER, TRAFFIC AND UTILITY PLAN

SHEET 3 OF 12  
3077-4494-1

