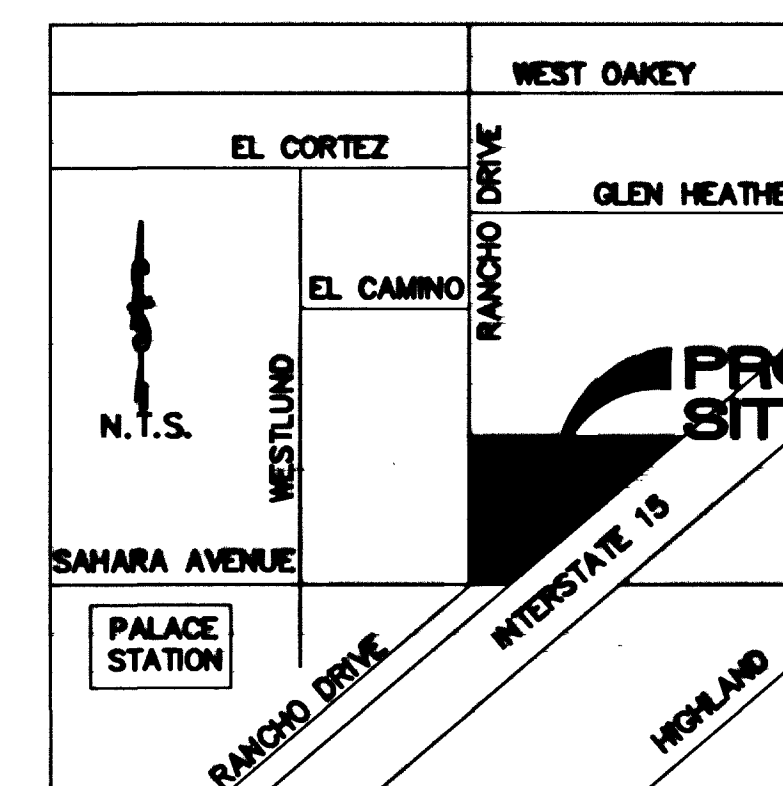




VICINITY MAP

NOTE

ALL DIMENSIONS TO UTILITIES ARE TO CENTERLINE OF PIPES UNLESS INDICATED OTHERWISE.

CONTRACTORS SHALL VERIFY HORIZONTAL AND VERTICAL ALIGNMENT OF EXISTING UTILITIES AND TO NOTIFY THE DESIGN ENGINEER IMMEDIATELY ON ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

ALL EXISTING UTILITY STRUCTURES WITHIN CONSTRUCTION AREA SHALL BE ADJUSTED TO MATCH FINISHED GRADE (I.E. WY. BOX, WMH, ANNOUE BOX, PH, TEL. BOX, ETC.)

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS PROJECT IS GRID NORTH, AS DEFINED BY THE NEVADA COORDINATE SYSTEM OF 1983 (NCS83), EAST ZONE, AS DETERMINED BY PUBLISHED VALUES BY NATIONAL GEODETIC SURVEY - HIGH ACCURACY REFERENCE NETWORK AS SHOWN BY MAP ON FILE IN FILE 88, PAGE 53 OF SURVEYS IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE

BENCHMARK

CITY OF LAS VEGAS BENCHMARK STATION 7C11 45WS

DESCRIPTION
A RIVET & PLATE IN THE TOP OF CURB ON THE NORTHEAST RETURN OF RANCHO ROAD AND SAHARA AVENUE
NAVD '88 ELEV. = 632.6872 METERS (2075.74 FEET)

WATER CONSTRUCTION NOTES

No.	ITEM
1	INSTALL 8" DCDA PER UDACS PLATE NO. 208
2	INSTALL 2" METER PER UDACS PLATE NO. 10
3	INSTALL 2" RPPA PER UDACS PLATE NO. 11A
4	INSTALL 2" SERVICE LATERAL
5	INSTALL 8" FIRE SPRINKLER LINE
6	8"x10" REDUCER
7	90° ELBOW PER SIZE INDICATED
8	STUB AND CAP

SEWER CONSTRUCTION NOTES

No.	ITEM
1	48" DIA. SEWER MANHOLE PER STD. DWG. NO. SD-1
2	INSTALL 8" DIA. PVC (SDR-35) SEWER MAIN
3	INSTALL 4" DIA. PVC (SDR-35) SEWER MAIN

WATER CROSSING NOTE

WHEN PROTECTION OF THE WATERLINE IS CONSIDERED, THE MINIMUM VERTICAL DISTANCE OF EIGHTEEN INCHES (18") MUST BE MAINTAINED WHEN THE WATER LINE IS INSTALLED OVER THE SEWER/STORM LINE. IF THIS DISTANCE CANNOT BE MAINTAINED BECAUSE OF PHYSICAL OBSTRUCTIONS OR THE WATER LINE MUST BE PLACED UNDER THE STORM/SEWER LINE, THE STORM/SEWER LINE MUST BE CONSTRUCTED WITH ANY OF THE FOLLOWING:

- EXTRA HEAVY CAST IRON OR DUCTILE IRON PIPE
- WATER SUPPLY QUALITY
- ENCASEMENT WITH 4 INCHES MINIMUM OF CONCRETE OR SLEEVING WITH WATER QUALITY PIPE.

EACH OF THESE PROVISIONS MUST BE EXTENDED FOR TEN FEET (10') ON BOTH SIDES OF THE WATER LINE AT 90 DEGREES TO THE CROSSING.

INSTALLATION OF DOUBLE CHECK DETECTOR ASSEMBLY

THE DOUBLE CHECK DETECTOR ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH THE UDACS PLATE 208. 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. EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

FIRE HYDRANT AND LATERAL RELOCATION

WHERE SHOWN ON THE DRAWING(S), THE CONTRACTOR SHALL ABANDON THE EXISTING FIRE HYDRANT(S) BY REMOVING BOTH THE UPPER AND LOWER BARRELS OF THE FIRE HYDRANT SO THAT NO PORTION OF THE REMAINING FIRE HYDRANT ASSEMBLY IS CLOSER THAN TWO (2) FEET TO THE EXISTING GRADE. THE INSTALLATION OF A PLUG MAY BE PERMITTED, WITH THE DISTRICT APPROVAL. A CONCRETE THRUST BLOCK SHALL BE INSTALLED AT ALL CUT AND CAP LOCATIONS IN ACCORDANCE WITH THE PROVISIONS OF UDACS PLATE NO. 5. THE EXISTING CONCRETE FIRE HYDRANT PAD SHALL BE REMOVED.



GRAPHIC SCALE

(IN FEET)
1 inch = 50 ft.

LAS VEGAS FIRE DEPARTMENT

FIRE FLOW REQUIREMENT IS 2875 GALLONS PER MINUTE AT 20 POUNDS PER SQUARE INCH RESIDUAL BASED ON:

SQUARE FOOTAGE	71,873 sq
LARGEST AREA BETWEEN 4' HOUR AREA SEPARATION WALLS	35,936
HEIGHT	30 feet
NUMBER OF STORIES	2 floors
TYPE OF CONSTRUCTION	II-N
OCCUPANCY	II
FULL AUTOMATIC FIRE SPRINKLER SYSTEM	YES
REVIEWED BY:	LAS VEGAS FIRE DEPT.

REDUCED PRESSURE PRINCIPLE ASSEMBLY

APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER UDACS PLATE NO. 11A. NO WATER SHALL BE TAKEN FROM A SERVICE PRESSURE BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVVMD.

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.

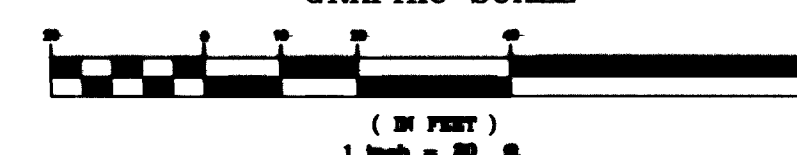
NOTE

THIS PROJECT 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. PRV'S ARE THE DEVELOPER'S RESPONSIBILITY AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVVMD FACILITIES.

**PROPOSED
2250 S. RANCHO**

FF 2071.00

NOTE: SEE SHEET MU-1B FOR SEWER SYSTEM

**LAS VEGAS VALLEY WATER DISTRICT NOTES**

LVVMD PROJECT # 20301

- NO WORK SHALL BEGIN UNTIL THE WATER PLANS HAVE BEEN RELEASED FOR CONSTRUCTION BY THE LVVMD. FOLLOWING WATER PLAN APPROVAL, 48 HOURS NOTICE SHALL BE GIVEN TO THE LVVMD 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 LVVMD INSPECTION. WHEN REQUESTING INSPECTIONS, PLEASE REFER TO THE PROJECT # IDENTIFIED ABOVE.
- ALL WORK SHALL CONFORM TO LVVMD'S STANDARD PLATES, DRAWINGS, AND SPECIFICATIONS AND TO 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 LVVMD.
- ALL SERVICE LATERALS TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE COPPER TUBING WITH LVVMD APPROVED SERVICE SADDLES.
- ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
- ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS, VALLEY AND CURB BUTTERS.
- THE FOLLOWING REQUIREMENTS MUST BE MET IN THE EVENT A WATER LINE AND SANITARY OR STORM SEWER LINE CROSS:
 - POTABLE WATER SUPPLY QUALITY MATERIAL.
 - ENCASEMENT WITH FOUR (4) INCH CONCRETE (MINIMUM).
 - SLEEVING WITH POTABLE WATER SUPPLY QUALITY PIPE.
- 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 STANDARD PLATE NO. 27.
- ALL WATER FACILITIES SHALL BE FILLED, DISINFECTED, PRESSURE TESTED, FLUSHED, FILLED AND AN ACCEPTABLE WATER SAMPLE OBTAINED, PRIOR TO CONNECTION TO THE LVVMD'S DISTRIBUTION SYSTEM.
- THE CONTRACTOR MUST OBTAIN ALL METERS TWO (2) INCHES AND SMALLER FORM LVVMD CENTRAL STORES. TELEPHONE 258-3152 FORTY-EIGHT (48) HOURS PRIOR TO PICK-UP.
- CONSTRUCTION MAY INTERRUPT SERVICE, WITH LVVMD APPROVAL AND PROPER NOTIFICATION, BETWEEN THE HOURS OF 10 PM AND 6 AM, SUNDAY THROUGH THURSDAY. CIRCUMSTANCES MAY REQUIRE TEMPORARY SERVICE FEEDS BE INSTALLED, WITHOUT LVVMD REIMBURSEMENT. ANY TEMPORARY SERVICE FEED MUST HAVE PRIOR LVVMD APPROVAL.
- ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE AS LISTED ON THE LVVMD'S PRE-APPROVED MATERIALS AND MANUFACTURERS LISTING FOR NEW FACILITIES, LATEST REVISION, OR SPECIFICALLY APPROVED ON THESE PLANS.

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:

- POTABLE WATER SUPPLY QUALITY MATERIAL.
- ENCASEMENT WITH FOUR (4) INCH CONCRETE (MINIMUM).
- 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.

Call before you Dig.

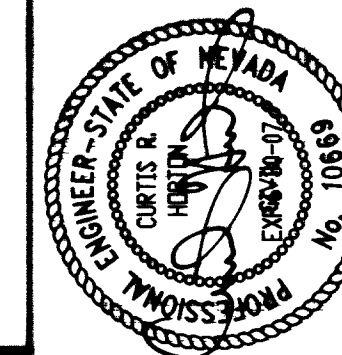
1-800-227-2800

Call before you Overhead.

1-702-227-2829

Underground

1-702-227-2800



COORDINATION, SEWER AND SITE PLAN REVISIONS
DATE
APPROVAL

TKC

The Keith Companies

444 East Main Street, Suite 102, Las Vegas, Nevada 89119
Civil Engineering Land Surveying Mapping Environmental Services
Water Resource Land Planning Civil Engineering

SAHARA RANCHO OFFICE CENTER, LLC
RANCHO OFFICE PARK

BUILDING 2250 UTILITY PLAN

JOB # 5588.00

SHEET NO.:

MU-1A

12 OF 15 SHEETS

4646

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT DATE