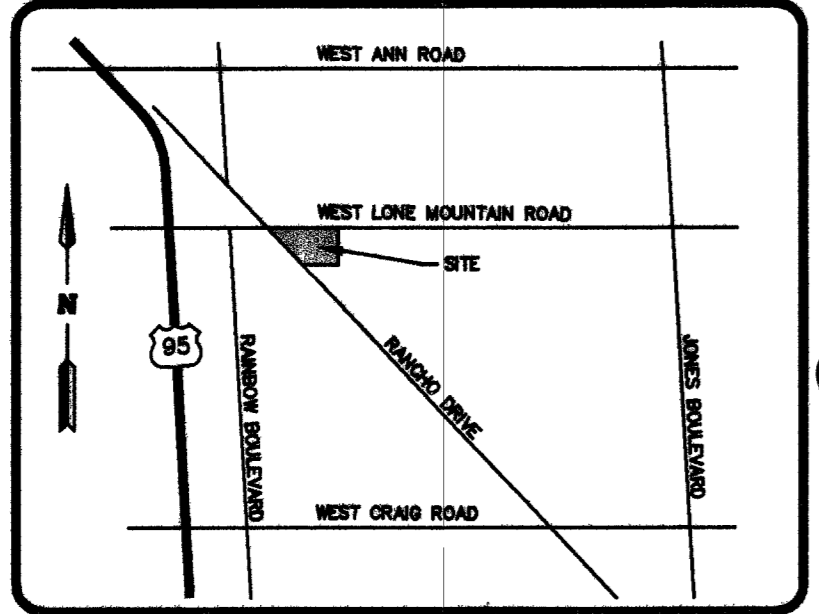


**CALL before you DIG**  
1-800-227-2600

**CALL before you Overhead**  
1-702-593-6111

UNDERGROUND SERVICE (USA)  
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.

UNDERGROUND SERVICE (USA)  
AVOID OVERHEAD POWER LINES. CONTACT. IT'S COSTLY.



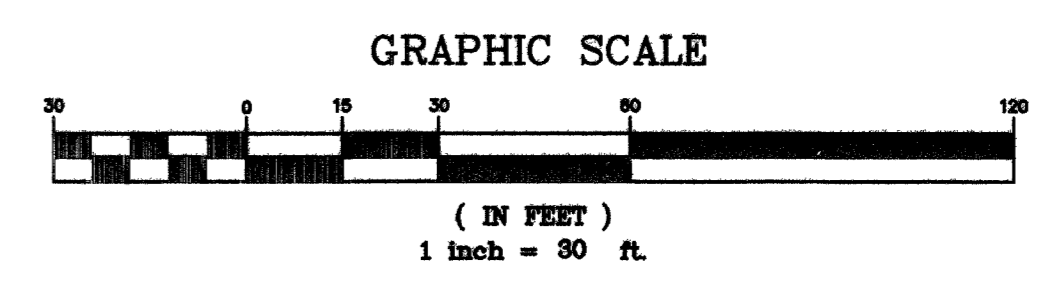
**CONSTRUCTION NOTES**

- LOCATION OF UNDERGROUND UTILITIES ON THE DRAWINGS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR IN THE LOCATION SHOWN ON THE DRAWINGS.
- N/A
- FOR GEOTECHNICAL REQUIREMENTS REFERENCE REPORT OF GEOTECHNICAL EXPLORATION REPORT FOR CROARO STORAGE UNITS AS PREPARED BY TERRACON (PROJECT NO. 84035170, DATED DECEMBER 3, 2003) AND AN ADDENDUM TO THE GEOTECHNICAL EXPLORATION REPORT DATED SEPTEMBER 29, 2004.
- INSTALL 1" METER PER PLATE 1-D OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS, 2003.
- INSTALL 1" BACKFLOW PREVENTION REDUCED PRESSURE PRINCIPLE ASSEMBLY PER PLATE NO. 11A OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS, 2003. PER STANDARD NOTE BELOW.
- INSTALL 8" DOUBLE CHECK DETECTOR ASSEMBLY PER PLATE 11C OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS, 2003.
- AT STATION 18+82.15 AND 18+91.52 INSTALL 16" x 8" TEE AND 8" GATE VALVE PER UDACS PLATES NO. 3 AND 8.
- AT STATION 18+33.83 INSTALL 1" SERVICE SADDLE WITH CORPORATION STOP PER UDACS PLATE NO. 1D

- CONTRACTOR TO INSTALL RESTRAIN JOINTS FOR 16" PVC WATER LINE 110' FROM VALVE (16" AMERICAN FLOW CONTROL SEALS 2500 AS PER 15-5 SPUR GEAR). MIN 5' COVER REQUIRED. REMOVE CAP AND BLOW OFF PER UDACS PLATE NO. 4A, NOTE NO. 1, AND CONNECT TO EXISTING 16" MAIN.
- FIRE HYDRANT ASSEMBLYS TO BE INSTALLED IN ACCORDANCE WITH UDACS STANDARD PLATE NO. 7, SHEETS 1 & 2. NO FIRE HYDRANT SHALL BE LOCATED WITHIN 25 FEET OF ANY STRUCTURE OR 8 FEET OF A DRIVEWAY, POWER POLE, LIGHT STANDARD, OR ANY OTHER OBSTRUCTION.
- ALL SANITARY SEWER TO BE CONSTRUCTED OF WATER SUPPLY QUALITY MATERIALS AND MEETING AWWA STANDARDS INSTALLED PER 2.19.02.B1 THROUGH B3.
- PROPOSED 10' x 15' LVWD EASEMENT
- AT STATION 20+11.19 INSTALL 10" STUB, CAP, BLOW OFF AND GATE VALVE PER UDACS PLATE NO. 4A.
- AT STATION 12+49.40 BEGIN TRENCH PER CCAUSD NO. 504 FOR INSTALLATION OF 16" WATERLINE.
- ADJUST MANHOLE TO MATCH PROPOSED ASPHALTIC PAVEMENT GRADE.
- CONTRACTOR TO RELOCATE EXISTING POWER POLE NO CLOSER THAN 6' FROM END OF CURB RETURN.
- CONTRACTOR TO FIELD VERIFY ADA CLEARANCE OF 36" IN FRONT OF EXISTING POWER POLE IF EXISTING POWER POLE DOES NOT MEET CLEARANCE, IT MUST BE RELOCATED TO MEET ADA REQUIREMENTS.
- SEE PLUMBING DRAWINGS FOR CONTINUATION OF SAND-OIL INTERCEPTOR.
- INSTALL 8" GATE VALVE
- REMOVE CAP + BLOW OFF PER UDACS PLATE NO. 4A, NOTE NO. 1, AND CONNECT TO EX. 12" MAIN WITH 1/2" REDUCER

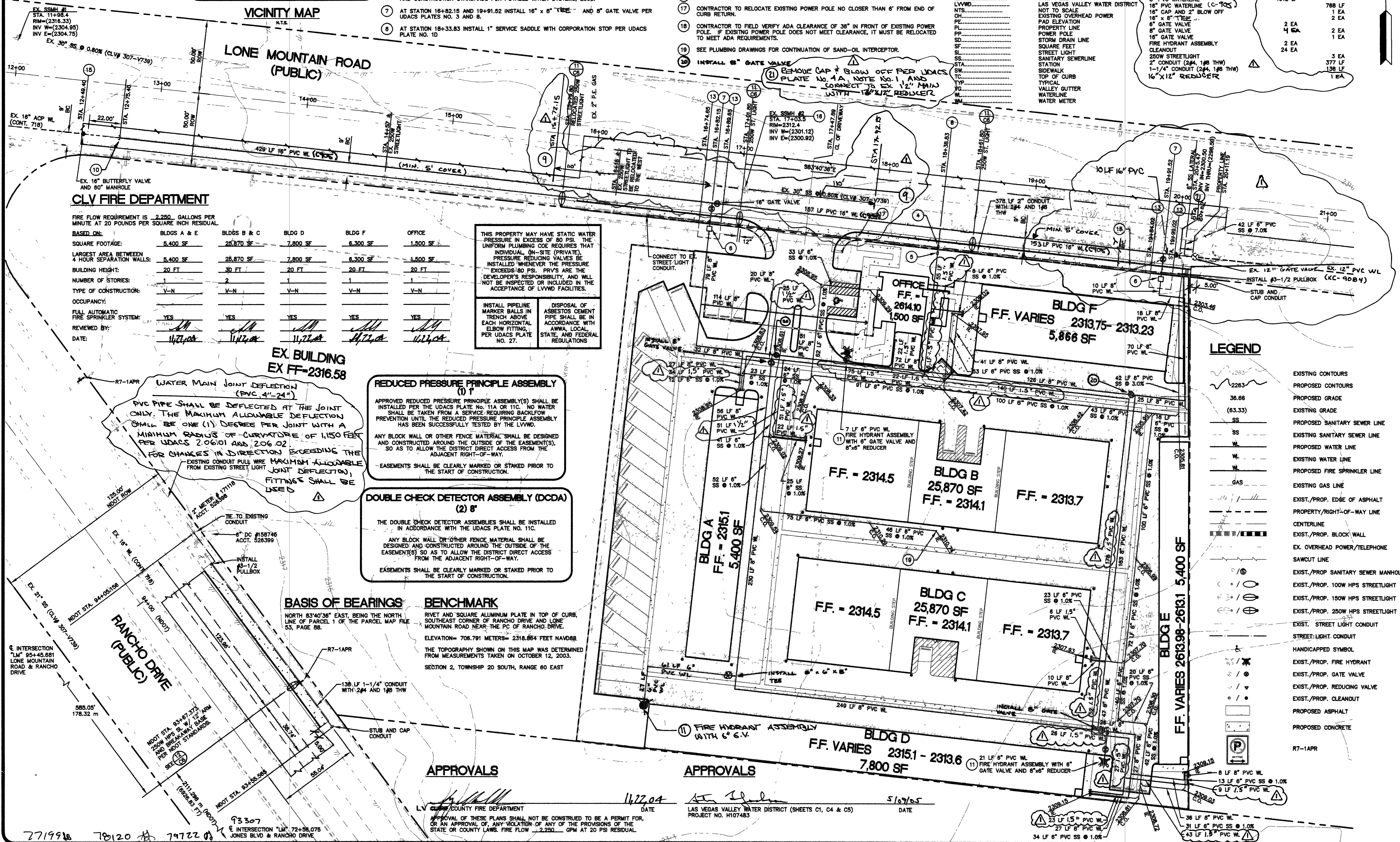
**ABBREVIATIONS**

AC	ASPHALTIC CONCRETE
BCR	BEGINNING OF CURB RETURN
BSW	BACK OF SIDEWALK
CC	CLARK COUNTY
CLV	CITY OF LAS VEGAS
CO	CITY OF NORTH LAS VEGAS
COH	CITY OF HENDERSON
CL	CENTERLINE
CD	SEWER CLEANOUT
CONC	CONCRETE
EAC	EXISTING ASPHALTIC CONCRETE
EOR	END OF CURB RETURN
ED	EDGE OF PAVEMENT
ETC	EXISTING TOP OF CURB
EX	EXISTING
FL	FINISHED FLOOR
FLW	FLOWLINE
GB	GRADE BREAK
HP	HIGH POINT
IE	INVERT ELEVATION
LVWD	LAS VEGAS VALLEY WATER DISTRICT
NTS	NOT TO SCALE
OLV	EXISTING OVERHEAD POWER
PE	PAD ELEVATION
PL	PROPERTY LINE
PP	POWER POLE
SD	STORM DRAIN LINE
SF	SQUARE FEET
SL	STREET LIGHT
SS	SANITARY SEWERLINE
STN	STATION
SW	SIDEWALK
TOP	TOP OF CURB
TYP	TYPICAL
WL	WATERLINE
WM	WATER METER



**QUANTITIES**

	PRIVATE	PUBLIC
1" METER		1 EA
1" RPPA	1 EA	
8" DCCA	2 EA	
1" SERVICE SADDLE WITH CORP. STOP		1 EA
1/2" WATERLINE	820 LF	
8" PVC WATERLINE	971 LF	
16" PVC WATERLINE (C-705)	1612 LF	
16" CAP AND 2" BLOW OFF		788 LF
16" GATE VALVE		1 EA
16" x 8" TEE		2 EA
8" GATE VALVE	4 EA	2 EA
16" GATE VALVE		1 EA
FIRE HYDRANT ASSEMBLY	2 EA	3 EA
CLEANOUT	24 EA	
250W STREETLIGHT		377 LF
2" CONDUIT (244, 1#8 THW)		138 LF
1-1/4" CONDUIT (244, 1#8 THW)		1 EA
16" x 12" REDUCER		



**CLV FIRE DEPARTMENT**

FIRE FLOW REQUIREMENT IS 2,250 GALLONS PER MINUTE AT 20 POUNDS PER SQUARE INCH RESIDUAL.

BASED ON:	BLDGS A & E	BLDGS B & C	BLDG D	BLDG F	OFFICE
SQUARE FOOTAGE:	5,400 SF	25,870 SF	7,800 SF	6,300 SF	1,500 SF
LARGEST AREA BETWEEN 4 HOUR SEPARATION WALLS:	5,400 SF	25,870 SF	7,800 SF	6,300 SF	1,500 SF
BUILDING HEIGHT:	20 FT	30 FT	20 FT	20 FT	20 FT
NUMBER OF STORIES:	2	2	1	1	1
TYPE OF CONSTRUCTION:	V-N	V-N	V-N	V-N	V-N
OCCUPANCY:					
FULL AUTOMATIC FIRE SPRINKLER SYSTEM:	YES	YES	YES	YES	YES
REVIEWED BY:	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
DATE:	11/27/04	11/27/04	11/27/04	11/27/04	11/27/04

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. PRVS ARE THE DEVELOPER'S RESPONSIBILITY, AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVWD FACILITIES.

INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 27.

DISPOSAL OF ASBESTOS CEMENT PIPE SHALL BE IN ACCORDANCE WITH AWWA, LOCAL STATE, AND FEDERAL REGULATIONS.

**REDUCED PRESSURE PRINCIPLE ASSEMBLY (1) 1"**

APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLATE NO. 11A OR 11C. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE 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.

EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

**DOUBLE CHECK DETECTOR ASSEMBLY (DCCA) (2) 8"**

THE DOUBLE CHECK DETECTOR ASSEMBLYS SHALL BE INSTALLED IN ACCORDANCE WITH THE UDACS PLATE NO. 11C.

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.

**BASIS OF BEARINGS**

NORTH 83°40'36" EAST, BEING THE NORTH LINE OF PARCEL 1 OF THE PARCEL MAP FILE 53, PAGE 88.

**BENCHMARK**

RIVET AND SQUARE ALUMINUM PLATE IN TOP OF CURB, SOUTHEAST CORNER OF RANCHO DRIVE AND LONE MOUNTAIN ROAD NEAR THE PC OF RANCHO DRIVE.

ELEVATION= 706.791 METERS= 2318.664 FEET NAVD83

THE TOPOGRAPHY SHOWN ON THIS MAP WAS DETERMINED FROM MEASUREMENTS TAKEN ON OCTOBER 12, 2003.

SECTION 2, TOWNSHIP 20 SOUTH, RANGE 60 EAST

**APPROVALS**

LV CLV COUNTY FIRE DEPARTMENT  
DATE: 11/27/04

LAS VEGAS VALLEY WATER DISTRICT (SHEETS C1, C4 & C5)  
PROJECT NO. H107483  
DATE: 5/10/05

**LUCHESSI - GALATI ARCHITECTS**  
PROJECT DEVELOPER: SUITE A  
500 PLOTT ROAD, SUITE A  
LAS VEGAS, NV 89102  
P: (702) 283-7111  
F: (702) 283-7111

**APN 138-02-102-001**  
**CROARO STORAGE UNITS**

**UTILITY PLAN**

**LEGEND**

- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPOSED GRADE
- EXISTING GRADE
- PROPOSED SANITARY SEWER LINE
- EXISTING SANITARY SEWER LINE
- PROPOSED WATER LINE
- EXISTING WATER LINE
- PROPOSED FIRE SPRINKLER LINE
- EXISTING GAS LINE
- EXIST./PROP. EDGE OF ASPHALT PROPERTY/RIGHT-OF-WAY LINE
- CENTERLINE
- EXIST./PROP. BLOCK WALL
- EX. OVERHEAD POWER/TELEPHONE SAWCUT LINE
- EXIST./PROP. SANITARY SEWER MANHOLE
- EXIST./PROP. 100W HPS STREETLIGHT
- EXIST./PROP. 150W HPS STREETLIGHT
- EXIST./PROP. 250W HPS STREETLIGHT
- EXIST. STREET LIGHT CONDUIT
- STREET-LIGHT CONDUIT
- HANDICAPPED SYMBOL
- EXIST./PROP. FIRE HYDRANT
- EXIST./PROP. GATE VALVE
- EXIST./PROP. REDUCING VALVE
- EXIST./PROP. CLEANOUT
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- R7-1APR

**SCALE**  
HORIZONTAL: 1" = 30'  
VERTICAL: N/A

**SHEET**  
C4  
4 OF 6 SHEETS  
CLV DWG# 107483

**PROFESSIONAL ENGINEER - STATE OF NEVADA**  
**KENNETH J. ERLANGER**  
CIVIL  
No. 9678  
11/27/04

EXP. DATE 12/31/2006