BENCHMARK

CITY OF LAS VEGAS NO. 1LV10/8C4, PIN AND PLATE IN TOP OF CURB EAST SIDE OF CRYSTAL WATER WAY @ MARINER COVE.

ELEVATION = 2702.31 FEET (NAVD 88)

BASIS OF BEARING

NORTH 43°57'07"WEST, BEING THE CENTERLINE OF CRYSTAL WATER WAY AS RECORDED IN BOOK 41, PAGE 52 (LAKESIDE CONDOMINIUMS NO. 1) AS FILED IN THE CLARK COUNTY, NEVADA RECORDERS OFFICE.

ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSING AND CLEARANCES

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

LEGEND

- 2263 — EXISTING 1' CONTOURS
- 2265 — EXISTING 5' CONTOURS
- 38.66 — PROPOSED GRADE
- (63.33) — EXISTING GRADE
- SS — PROPOSED SANITARY SEWER LINE
- SS — EXISTING SANITARY SEWER LINE
- WL — PROPOSED WATER LINE
- WL — EXISTING WATER LINE
- WL — PROPOSED FIRE SPRINKLER LINE
- GAS — 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
- HANDICAPPED SYMBOL
- EXIST./PROP. FIRE HYDRANT
- EXIST./PROP. GATE VALVE
- EXIST./PROP. REDUCING VALVE
- EXIST./PROP. CLEANOUT
- PROPOSED CONCRETE

ABBREVIATIONS

AC	ASPHALTIC CONCRETE
BCR	BEGINNING OF CURB RETURN
BSW	BACK OF SIDEWALK
BVC	BEGIN VERTICAL CURVE
CC	CLARK COUNTY
CLV	CITY OF LAS VEGAS
COH	CITY OF HENDERSON
CL	CENTERLINE
CO	SEWER CLEANOUT
CONC	CONCRETE
EAC	EXISTING ASPHALTIC CONCRETE
ECR	END OF CURB RETURN
EG	EXISTING GRADE
EP	EDGE OF PAVEMENT
EX	EXISTING
FF	FINISHED FLOOR
FL	FLOWLINE
GB	GRADE BREAK
HP	HIGH POINT
IE	INVERT ELEVATION
LVVWD	LAS VEGAS VALLEY WATER DISTRICT
NTS	NOT TO SCALE
OH	EXISTING OVERHEAD POWER
PE	PAD ELEVATION
PL	PROPERTY LINE
PP	POWER POLE
SD	STORM DRAIN LINE
SF	SQUARE FEET
SL	STREET LIGHT
SNWA	SOUTHERN NEVADA WATER AUTHORITY
SS	SANITARY SEWERLINE
STA	STATION
SW	SIDEWALK
TC	TOP OF CURB
TF	TOP OF FOOTING
TW	TOP OF WALL
VC	VERTICAL CURVE
VG	VALLEY GUTTER
WL	WATERLINE
WM	WATER METER

COMPACT BACKFLOW PREVENTION ASSEMBLY (1) 8" RPPA

APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLATE No. 56. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKLFOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVVWD.

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.

CLV FIRE DEPARTMENT

MAXIMUM EXISTING BUILDING SIZE FOR VERIFICATION OF THE BACKFLOW PREVENTION DEVICE IS 7500 SF FOR A FIRE FLOW REQUIREMENT OF 2250 GPM

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

BASED ON:

SQUARE FOOTAGE:	7,500 SF
LARGEST AREA BETWEEEN 4 HOUR SEPARATION WALLS:	7,500 SF
BUILDING HEIGHT:	25 FT
NUMBER OF STORIES:	2
TYPE OF CONSTRUCTION:	V-N
OCCUPANCY:	R
FULL AUTOMATIC FIRE SPRINKLER SYSTEM:	NO
REVIEWED BY:	CLV FIRE DEPT
APPROVED DATE:	2/5/14

CONSTRUCTION NOTES

1. LOCATION OF UNDERGROUND UTILITIES ON THE DRAWINGS WERE OBTAINED BY A PROVIDED FIELD SURVEY. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR IN THE LOCATION SHOWN ON THE DRAWINGS.
2. CONTRACTOR TO INSTALL A 8 INCH COMPACT BACKFLOW PREVENTION ASSEMBLY PER UDACS 56 TO TIE INTO EXISTING 8 INCH ACP WATERLINE EXITING FROM THE EXISTING 6" X 3" FMCT.
3. EXISTING 8 INCH WATERLINE TO BE ABANDONED.
4. INSTALL (4) 4 INCH DIAMETER BOLLARDS PER UDACS PLATE NO. 75.
5. THE BACKFLOW PREVENTION RPPA WILL BE A LOW-LOSS COLTS SERIES 400, FEBCO MASTERSERIES 860, OR OTHER LOW-LOSS RPPA AS APPROVED AN PROVIDED (AT THEIR COST) BY THE LVVWD.

QUANTITIES

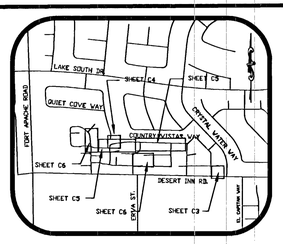
	PUBLIC	PRIVATE
8" COMPACT BACKFLOW PREVENTION ASSEMBLY (UDACS PLATE 56)	1 EA	
8" WATERLINE	3 LF	6 LF
4" DIAMETER TRAFFIC BOLLARDS (UDACS PLATE 75)		4 EA

THESE QUANTITIES ARE FOR PLANS CHECKING PURPOSES ONLY AND SHOULD NOT BE USED BY CONTRACTORS TO DETERMINE FINAL QUANTITIES.

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

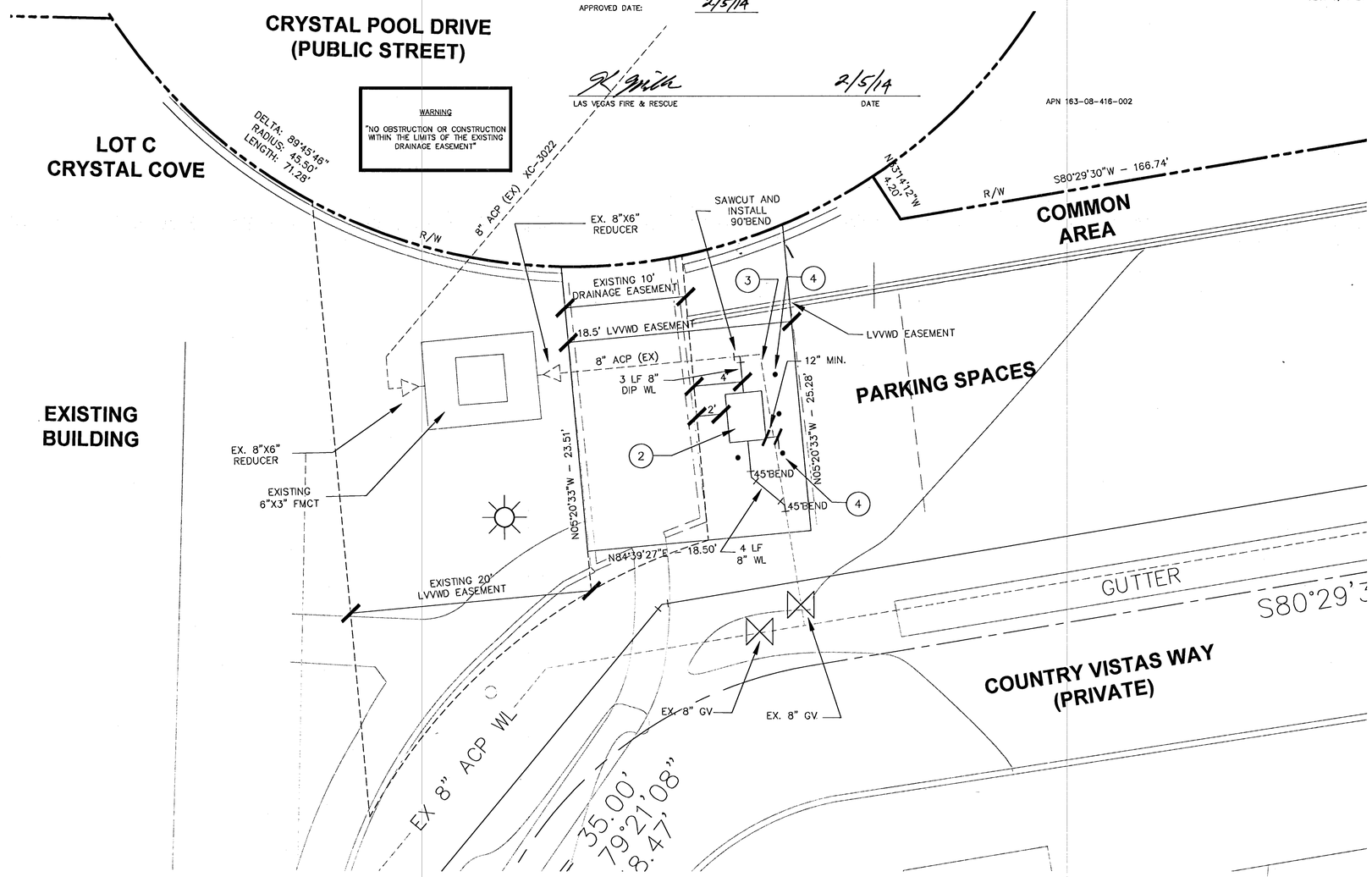


VICINITY MAP

NOT TO SCALE
SEC. 8, T 21 S, R 60 E

N

1" = 10'



WARNING

"NO OBSTRUCTION OR CONSTRUCTION WITHIN THE LIMITS OF THE EXISTING DRAINAGE EASEMENT"

LAS VEGAS FIRE & RESCUE — DATE 2/5/14

THE DISTRICT CANNOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE FUGITIVE WATER THAT MAY IMPEDE CONSTRUCTION AT ALL TIMES. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRIAL SHUTDOWN.

CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.

SINGLE SERVICE UPGRADE

SINGLE WATER SOURCE PROJECTS INVOLVING A METER, VAULT, OR WATER SERVICE UPGRADE WILL REQUIRE THE WATER TO BE SHUT OFF FOR A SUFFICIENT LENGTH OF TIME TO ACCOMPLISH THE WORK PER THE PLANS. THE ENGINEER MAY BE REQUIRED TO PROVIDE FOR A DISTRICT APPROVED TEMPORARY BY-PASS TO SUPPLY THE PROJECT WHILE THE WORK IS BEING COMPLETED.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER

DATE: 02/10/14 PROJECT NO. 121465

LVVWD APPROVED FIRE FLOW 2,250 GPM AT 20 PSI RESIDUAL

H# 48392

CALL before you DIG 811
UNDERGROUND SERVICE (USA) AVOID CUTTING UNDERGROUND UTILITY LINES, IT'S COSTLY

CALL before you Overhead 1-702-227-2929
UNDERGROUND SERVICE (USA) AVOID CUTTING UNDERGROUND UTILITY LINES, IT'S COSTLY

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL AND STREET LIGHT CONDUIT, CONDUITS ARE COSTLY
Call before you UnderGround
1-702-455-7544 CLARK COUNTY TRAFFIC OPERATIONS AND
1-702-432-5300 FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

REV	DATE	BY

LEWIS OPERATING CORP
5240 POLARIS AVE.
LAS VEGAS, NEVADA 89118
(702)891-5260 OFFICE

4222 E. PINECREST CIRCLE
LAS VEGAS, NV. 89121
PH. (702) 597-2988
FAX. (702) 597-0305
ISE CONSULTING ENGINEERS, INC.

SHEET: 6"X3" FMCT BACKFLOW RETROFIT

TITLE: CRYSTAL COVE FMCT BACKFLOW RETROFIT AND ONSITE WATERLINE ADDITION

DRAWN BY: KJE 2/1/14	DESIGNED BY: KJE 2/1/14	CHECKED BY: KJE 2/1/14	PROJECT NO: 2931
			FILE NAME: UT-293-1C3.DWG

SEAL — STAMP 2/1/14

SCALE
HORIZONTAL: 1"=10'
VERTICAL: NA

SHEET C4
4 OF 6 SHEETS

PROJ#/P 0W0# 107V6164