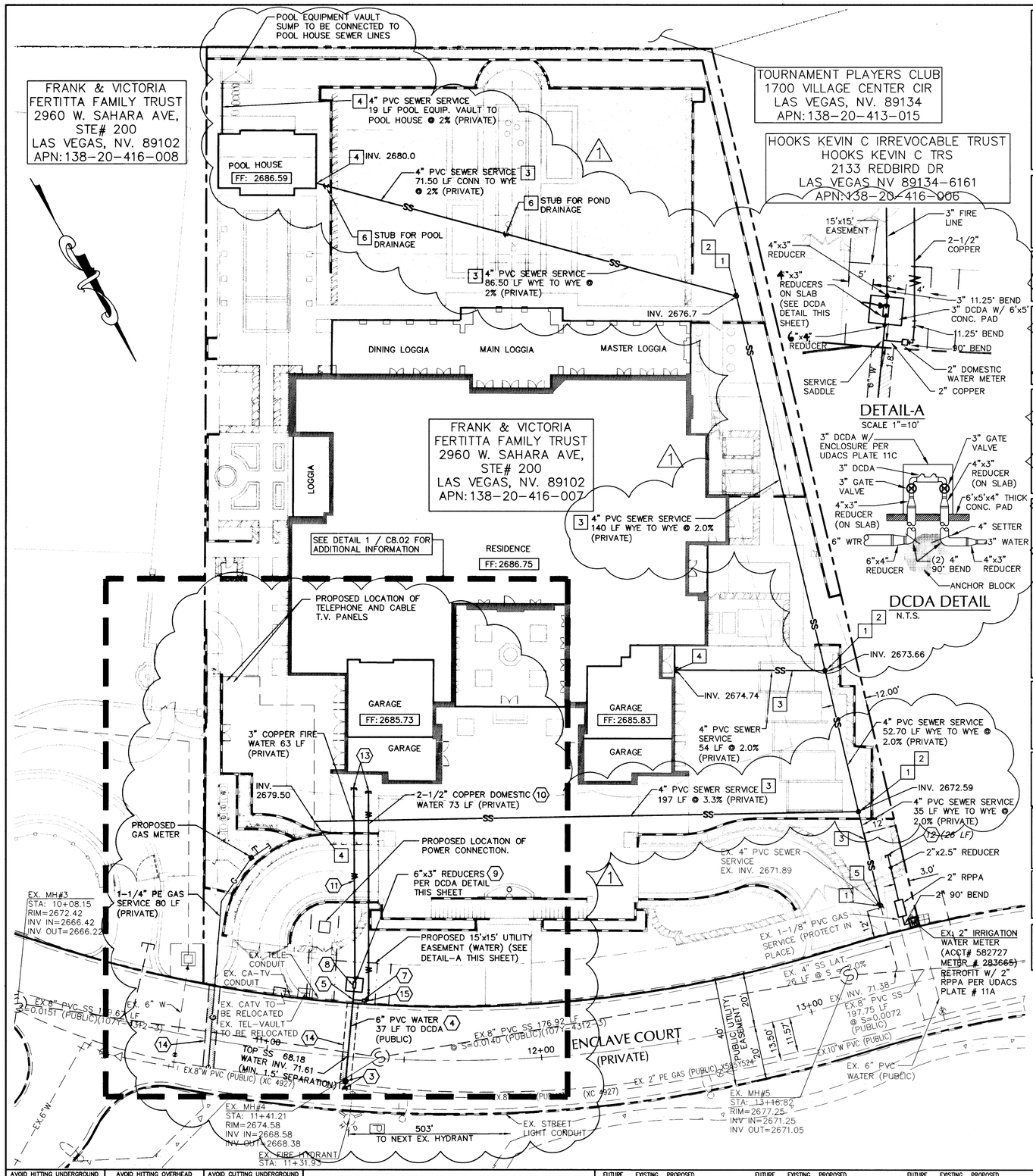


WATER CROSSING NOTE:

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:

A. EXTRA HEAVY CAST IRON OR DUCTILE IRON PIPE
B. WATER SUPPLY QUALITY
C. 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.

DOUBLE CHECK DETECTOR ASSEMBLY (DCDA) (1) 3" DCDA

THE DOUBLE DETECTOR CHECK ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH 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.

NOTE:

ALL WATER FACILITIES CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE "UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS" (UDACS), LATEST EDITION.

NOTE:

FIRE SERVICE AND DOMESTIC WATER, AS APPROVED ON THIS PLAN, ARE INTENDED SPECIFICALLY FOR THE LOT AND USE SHOWN, AND ARE NOT INTENDED TO SERVE ADDITIONAL PARCELS AND/OR LOTS. IF THE PARCEL AND/OR LOTS SHOWN ON THIS PLAN ARE FURTHER DIVIDED TO CREATE ADDITIONAL PARCELS OR LOTS, THE OWNER IS REQUIRED TO PROVIDE FIRE AND DOMESTIC SERVICE TO EACH.

REDUCED PRESSURE PRINCIPLE ASSEMBLY (1) 2" RPPA

APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLATE No. 11A. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVVWD. ANY BLOCK WALL OR OTHER MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) 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.

NOTE (UTILITIES):

AS OF THE SUBMITTAL DATE ON THESE SEWER IMPROVEMENT PLANS, THE DOWNSTREAM CONNECTION POINT AS SHOWN ON THESE DRAWINGS HAS NOT BEEN CONSTRUCTED BY "OTHERS" AND/OR THE SEWER CONSTRUCTION BY "OTHERS" HAS NOT BEEN ACCEPTED BY THE CITY. FOR THIS PROJECT, THE DEVELOPER HAS CHOSEN TO DEPEND ON THE WORK BY "OTHERS." AT SOLE RISK, THE DEVELOPER MAY CONSTRUCT THEIR UTILITIES AS SHOWN ON THESE APPROVED PLANS PRIOR TO THE COMPLETION OF WORK BY "OTHERS," BUT OCCUPANCY PERMIT RELEASE WILL NOT BE GIVEN BY THE CITY UNTIL THE UTILITY BY "OTHERS" HAS BEEN CONSTRUCTED AND ACCEPTED BY THE CITY. IF THE WORK BY "OTHERS" IS ABANDONED OR NOT COMPLETED FOR ANY REASON, THIS PROJECT SHALL BE RESPONSIBLE FOR ANY OR ALL OF THE FOLLOWING: (1) PROVIDING RESUBMITTED AND APPROVED MAIN LINE EXTENSION DESIGN PLANS; (2) THE CONSTRUCTION OF ADDITIONAL MAIN LINE UTILITIES TO CONNECT TO AND EXISTING ACCEPTED PUBLIC UTILITY HAVING CAPACITY TO SERVE THIS PROJECT; (3) PROVIDING RIGHT-OF-WAY OR EASEMENTS AS NEEDED.

WATER MAIN JOINT DEFLECTION (PVC, 4" - 24")

PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIOUS OF CURVATURE OF 1,150 FEET, PER UDACS 2.06.01 AND 2.06.02. FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

NOTE

ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.19 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CORSSING AND CLEARANCES.

GENERAL NOTE:

IT IS THE CONTRACTORS RESPONSIBILITY TO FILE A NOTICE OF INTENT/REQUEST TO BE INCLUDED IN THE STORM WATER GENERAL PERMIT, AND SUBMIT THE ASSOCIATED STROMWATER POLLUTION PREVENTION PLAN (SPPP) AS REQUIRED BY FEDERAL LAW, AND MONITORED BY THE NEVADA DIVISION OF ENVIRONMENTAL PROTECTION.

APPROVED FOR CONSTRUCTION 1st approved 4/17/07

LAS VEGAS VALLEY WATER DISTRICT PROJECT # 113901 — 11-20-07 DATE

SANITARY SEWER ESTIMATED FLOW RATES:

DAILY AVERAGE	27,605 GPD
PEAK FLOW	101,880 GPD

FIRE FLOW CALCULATIONS:

FIRE FLOW REQUIREMENTS IS: 1,500 GALLONS PER MINUTE AT 20 PSI RESIDUAL PRESSURE.

BASED ON:

SQUARE FOOTAGE (TOTAL)	22,905	SQUARE FEET
LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION WALLS:	N/A	SQUARE FEET
BUILDING HEIGHT:	33'-2"	
NUMBER OF STORIES:	2	
TYPE OF CONSTRUCTION:	V-A	
OCCUPANCY:	SINGLE FAMILY	
FULL AUTOMATIC FIRE SPRINKLER SYSTEM:	YES	

REVIEW BY: 11/16/07

DATE:

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 INCH = 20 FT

BASIS OF BEARING

SOUTH 89°30'09" WEST BEING THE BEARING OF THE NORTH OF THE NORTHEAST QUARTER (NE 1/4) OF SECTION 29, TOWNSHIP, RANGE 60, M.D.M., AS SHOWN BY MAP THEREOF ON FILE FILE 54, PAGE 82 OF PARCEL MAPS IN THE CLARK COUNTY RECORDER'S OFFICE, CLARK COUNTY, NEVADA.

BENCHMARK

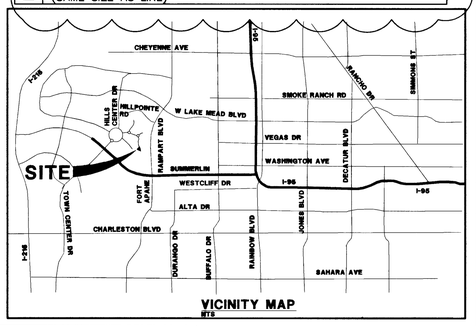
CITY OF LAS VEGAS BM OLV00 19E6
A RIVET AND PLATE IN TOP OF CURB AT VILLAGE CENTER AND HILLS CENTER ON NORTH EDGE OF ROUNDABOUT
ELEVATION=2689.87' (819.6912M) (NAVD 88)

SEWER CONSTRUCTION NOTES

No.	ITEM *SS STD. PER DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS
1	INSTALL CLEAN OUT PER UPC SECTION 707 (CLEAN OUT SIZE SAME AS LINE SIZE) WHERE CLEANOUT OCCURS IN PAVEMENT INSTALL A TRAFFIC BEARING LID
2	INSTALL WYE WITH 45° BEND
3	INSTALL 4" DIA. PVC (SDR-35) SEWER LATERAL
4	SEE PLUMBING PLAN FOR CONTINUATION
5	REMOVE PLUG & CONNECT
6	INSTALL WYE AND CAP FOR FUTURE EXPANSION

WATER CONSTRUCTION NOTES

No.	ITEM *UDACS PLATE NO. PER UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS
1	REMOVE STUB AND CONNECT
2	NOT USED
3	INSTALL 8" X 6" MJ TAPPING SLEEVE WITH 6" TAPPING VALVE PER UDACS PLATE 22
4	INSTALL 6" WATER LINE PVC (PUBLIC)
5	INSTALL SERVICE SADDLE AND NEW SERVICE INSTALLATION FOR 2" METER PER UDACS PLATE 1D
6	NOT USED
7	INSTALL 2" DOMESTIC WATER METER PER UDACS PLATES 1D
8	INSTALL 3" DCDA PER UDACS PLATE NO. 11C ON 6'x5' CONCRETE PAD
9	INSTALL 6" X 3" REDUCER PER DCDA DETAIL THIS SHEET
10	INSTALL 2-1/2" COPPER DOMESTIC WATER (PRIVATE) SERVICE LINE
11	INSTALL 3" COPPER FIRE WATER (PRIVATE) SERVICE LINE
12	INSTALL 2 1/2" COPPER LINE (PRIVATE) & CAP FOR LANDSCAPE IRRIGATION
13	SEE PLUMBING PLAN FOR CONTINUATION
14	TRENCH SECTION PER UDACS PLATE NO. 6B. MATCH EXISTING SURFACE GRADE
15	INSTALL 90° BEND WITH THRUST BLOCK PER UDACS PLATE NO. 5. (SAME SIZE AS LINE)



VICINITY MAP
NTS

CLV FIRE MARSHAL — 11/16/07 DATE

NOTE:

FOR STORM DRAIN INFORMATION REFER TO GRADING SHEETS.

NOTE:

ON-SITE WATER LINES AND APPURTENANCES ARE PRIVATE FACILITIES NOT TO OPERATED OR MAINTAINED BY THE CITY OF LAS VEGAS.

NOTE:

SEE NEVADA POWER COMPANY PROJECT # 182656 FOR POWER CONNECTION

NOTE:

SEE ARCHITECTURAL PLANS FOR ALL CONNECTION DETAILS AT THE BUILDINGS.

NOTE:

SEWER LINE DISTANCES ARE TAKEN FROM CENTER OF MANHOLE TO CENTER OF MANHOLE.

MYLAR REPLOT

NO.	DESCRIPTION OF REVISIONS	DATE	INITIALS
1	REVISED WATER, GAS AND POWER LOCATIONS AND REVISED SHEET INDEX NUMBER	10/19/07	EP

SEAL: PROFESSIONAL ENGINEER - STATE OF NEVADA - THOMAS D. MILLER - EXP. 12-31-07 - CIVIL - NO. 15776 — 11-13-07

DATE	08/23/07
JOB NUMBER	2137.02
DESIGN BY	B. CHAMBERLAIN
DRAWN BY	D. BOUMAN
CHECKED BY	T. MILLER P.E.

ENCLAVE LOT 7 RESIDENCE

APN: 138-20-416-007

UTILITY PLAN (SANITARY, WATER AND GAS)

MARTIN & MARTIN
CIVIL ENGINEERS & SURVEYORS
2101 S. JONES BLVD
SUITE 120
LAS VEGAS, NV 89146
PHONE (702) 248-8000
FAX (702) 248-8070

SHEET NUMBER
C5.01
SHEET 7 OF 9

CLV dwg # 107V19947

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL AND STREET LIGHT SYSTEMS. IT'S COSTLY.
CALL BEFORE YOU DO UNDERGROUND WORK
CALL 1-702-455-7511 (CLARK COUNTY TRAFFIC OPERATIONS AND FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION)
CALL 1-702-432-5300

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.
CALL BEFORE YOU DO OVERHEAD WORK
CALL 1-702-227-2929

AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call before you Dig
CALL 1-800-227-2600 UNDERGROUND SERVICE (USA)

MARTIN & MARTIN ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

FUTURE / EXISTING / PROPOSED: SLOPE; GRADING/ELEVATION TAG; STORM MANHOLE; DRAIN INLET; CONTOUR; SCREEN/RETAINING WALL; POWER LINE/POLE; TELEPHONE LINE; METERS/PULL BOXES; UTILITY POLE; STREET LIGHTS; 100 W H.P.S.; 150 W H.P.S.; 200 W H.P.S.; 250 W H.P.S.; AREA LIGHT; FIRE HYDRANT; FIRE DEPARTMENT CONNECTION; WATER VALVE; REDUCER; SEWER MANHOLE; SEWER CLEANOUT; STORM CLEANOUT; GAS VALVE; PL-RIGHT-OF-WAY; PL-ADJACENT; CENTERLINE; EASEMENT LINE; FLOW LINE; WATER LINE; GAS LINE; STORM DRAIN; SANITARY SEWER LINE; AC PAVEMENT; 6" TYPE "A" CURB; 24" TYPE "A" CURB & GUTTER; 30" ROLL CURB; CONCRETE; SIGN POLE; CHAIN LINK FENCE; WIRE FENCE; GUARDRAIL; FINISH FLOOR; MISCELLANEOUS; SAWCUT LINE; LANDSCAPING

#19339