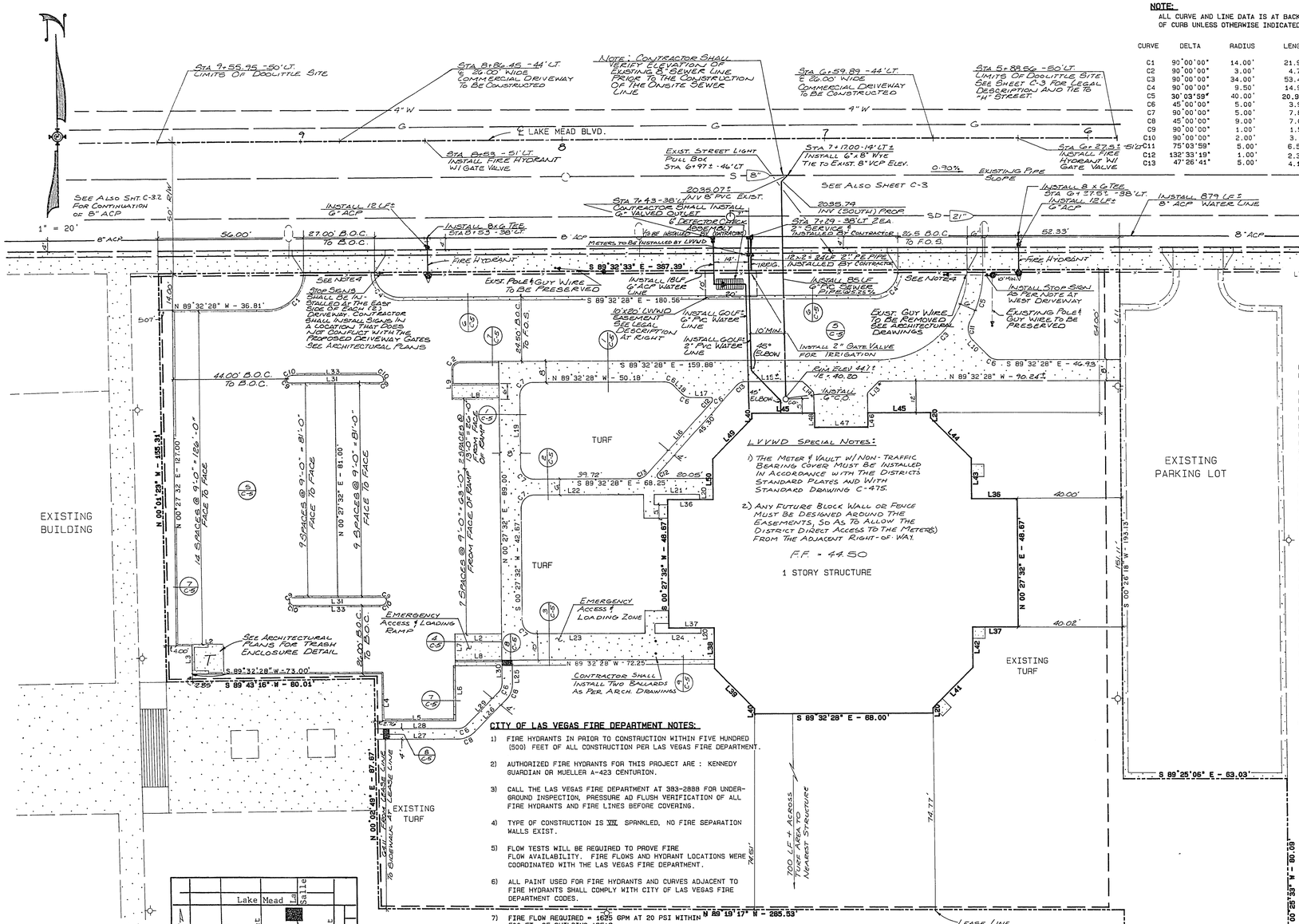


NOTE:
ALL CURVE AND LINE DATA IS AT BACK OF CURB UNLESS OTHERWISE INDICATED.

CURVE	DELTA	RADIUS	LENGTH	CHORD	TANGENT
C1	90°00'00"	14.00'	21.99'	19.80'	14.00'
C2	90°00'00"	3.00'	4.71'	4.24'	3.00'
C3	90°00'00"	34.00'	53.41'	48.08'	34.00'
C4	90°00'00"	9.50'	14.92'	13.44'	9.50'
C5	30°03'59"	40.00'	20.99'	20.75'	10.74'
C6	45°00'00"	5.00'	3.93'	3.83'	2.07'
C7	90°00'00"	5.00'	7.85'	7.07'	5.00'
C8	45°00'00"	9.00'	7.07'	6.89'	3.73'
C9	90°00'00"	1.00'	1.57'	1.41'	1.00'
C10	90°00'00"	2.00'	3.14'	2.83'	2.00'
C11	75°03'59"	5.00'	6.55'	6.09'	3.84'
C12	132°33'19"	1.00'	2.31'	1.83'	2.28'
C13	47°26'41"	5.00'	4.14'	4.02'	2.20'

LINE	BEARING	DISTANCE
L1	N 00°26'41" E	30.33'
L2	S 89°32'28" E	18.00'
L3	S 00°27'32" W	11.33'
L4	S 00°27'32" W	18.50'
L5	S 89°32'28" E	28.00'
L6	N 00°27'32" E	23.00'
L7	N 00°27'32" E	10.00'
L8	N 89°32'28" W	18.00'
L9	N 00°27'32" E	11.33'
L10	S 44°32'28" E	9.13'
L11	N 00°26'18" E	34.00'
L13	S 45°27'32" W	*
L14	N 44°32'28" W	*
L15	N 89°32'28" W	*
L16	S 43°00'51" W	37.15'
L17	N 89°32'28" W	7.65'
L18	N 44°32'28" W	4.34'
L19	S 00°27'32" W	26.66'
L20	N 00°27'32" E	2.00'
L21	N 89°32'28" W	17.33'
L22	N 89°32'28" W	41.92'
L23	S 89°32'28" E	41.92'
L24	S 89°32'28" E	17.33'
L25	S 00°27'32" W	9.25'
L26	S 45°27'32" W	17.31'
L27	N 89°32'28" W	31.46'
L28	S 89°32'28" E	31.74'
L29	N 45°27'32" E	17.31'
L30	N 00°27'32" E	8.75'
L31	S 89°32'28" E	35.00'
L32	N 00°00'00" E	0.00'
L33	N 89°32'28" W	33.00'
L34	N 89°32'28" W	35.00'
L35	S 89°32'28" E	33.00'
L36	N 89°32'28" W	17.33'
L37	S 89°32'28" E	17.33'
L38	S 00°27'32" W	15.33'
L39	S 44°32'28" E	21.67'
L40	S 00°27'32" W	2.00'
L41	N 45°27'32" E	21.67'
L42	N 00°27'32" E	15.33'
L43	N 00°27'32" E	15.34'
L44	N 44°32'28" W	21.67'
L45	N 89°32'28" W	24.00'
L46	S 00°27'32" W	5.33'
L47	N 89°32'28" W	20.00'
L48	N 00°27'32" E	5.33'
L49	S 45°27'32" W	21.67'
L50	S 00°27'32" W	15.34'
L51	N 00°27'32" E	12.00'
L52	S 00°26'18"* W	33.50'

*SEE ARCHITECTURAL DRAWINGS FOR EXACT CONFIGURATION OF CONCRETE NEAR COLUMNS

ESTIMATE OF QUANTITIES:

DESCRIPTION	AMOUNT	UNIT
ONSITE		
1" MAX. CRUSHED AGGREGATE	7	CY
4" PERFORATED PVC PIPE	115	LF
6" PVC WATERLINE	60	LF
2" PVC WATERLINE	60	LF
6" PVC SEWERLINE	48	LF
6" SANITARY SEWER CLEAN OUT	1	EA
"A" TYPE CURB	563	LF
"L" TYPE CURB & GUTTER	211	LF
4" THICK CONCRETE SIDEWALK	4742	SF
6" THICK ACCESS RAMP	990	SF
6" THICK TRASH ENCLOSURE PAD	144	SF
6" THICK CONCRETE DRAIN	198	SF
3" THICK ASPHALT CONCRETE PAVEMENT	2440	SY
BASE COURSE	480	CY
STOP SIGN	2	EA
4.5 FT ± 8' RETAINING WALL	140	LF
6" PVC DRAIN PIPE	29	LF
OFFSITE		
8" ACP WATERLINE	1706	LF
6" ACP WATERLINE	42	LF
8" X 6" TEE	2	EA
6" DETECTOR CHECK ASSEMBLY	1	EA
FIRE HYDRANT	2	EA
6" VALVED OUTLET	1	EA
6" PVC SEWERLINE	37	LF
6"x 6" WYE	1	EA
6" THICK CONCRETE COMMERCIAL DRIVEWAY	408	SF
REINFORCED "L" TYPE GUTTER AT COMMERCIAL ENTRANCE	68	LF
3" THICK ASPHALT CONCRETE PAVEMENT	940	SY
BASE COARSE FOR OFFSITE PAVEMENT SECTION	417	CY
8" X 8" MECHANICAL TAPPING TEE	1	EA
8" X 6" REDUCER	1	EA
6" GATE VALVE	2	EA

LEGAL DESCRIPTION
L.V.V.W.D. EASEMENT

AN EASEMENT FOR THE PURPOSE OF CONSTRUCTION AND MAINTENANCE OF WATER FACILITIES LOCATED IN A PORTION OF SECTION 21, TOWNSHIP 20 SOUTH, RANGE 61 EAST, M.D.M., LAS VEGAS, CLARK COUNTY, NEVADA, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF THE SOUTHEAST 1/4 OF SAID SECTION 21; THENCE ALONG THE NORTH LINE OF SAID SOUTHEAST 1/4, NORTH 89°32'33" WEST, A DISTANCE OF 727.00 FEET; THENCE SOUTH 00°26'18" WEST, A DISTANCE OF 50.00 FEET, TO THE TRUE POINT OF BEGINNING; THENCE SOUTH 00°26'18" WEST, A DISTANCE OF 10.00 FEET; THENCE NORTH 89°32'33" WEST, A DISTANCE OF 20.00 FEET; THENCE NORTH 00°26'18" EAST, A DISTANCE OF 10.00 FEET; THENCE SOUTH 89°32'33" EAST, A DISTANCE OF 20.00 FEET, TO THE POINT OF BEGINNING.

CITY OF LAS VEGAS FIRE DEPARTMENT NOTES:

1) FIRE HYDRANTS IN PRIOR TO CONSTRUCTION WITHIN FIVE HUNDRED (500) FEET OF ALL CONSTRUCTION PER LAS VEGAS FIRE DEPARTMENT.
2) AUTHORIZED FIRE HYDRANTS FOR THIS PROJECT ARE : KENNEDY GUARDIAN OR MUELLER A-423 CENTURION.
3) CALL THE LAS VEGAS FIRE DEPARTMENT AT 383-2888 FOR UNDER-GROUND INSPECTION, PRESSURE AD FLUSH VERIFICATION OF ALL FIRE HYDRANTS AND FIRE LINES BEFORE COVERING.
4) TYPE OF CONSTRUCTION IS VN, SPRNKLED, NO FIRE SEPARATION WALLS EXIST.
5) FLOW TESTS WILL BE REQUIRED TO PROVE FIRE FLOW AVAILABILITY. FIRE FLOWS AND HYDRANT LOCATIONS WERE COORDINATED WITH THE LAS VEGAS FIRE DEPARTMENT.
6) ALL PAINT USED FOR FIRE HYDRANTS AND CURVES ADJACENT TO FIRE HYDRANTS SHALL COMPLY WITH CITY OF LAS VEGAS FIRE DEPARTMENT CODES.
7) FIRE FLOW REQUIRED - 1625 GPM AT 20 PSI WITHIN 500 FT. OF BUILDING AREAS.

LAS VEGAS VALLEY WATER DISTRICT GENERAL NOTES:

1) ALL WORK TO CONFORM TO THE LAS VEGAS VALLEY WATER DISTRICT LATEST STANDARD PLATES AND SPECIFICATIONS.
2) ALL WORK, EXCEPT AS MODIFIED HEREON OR BY NOTE NO. 1, SHALL BE DONE IN ACCORDANCE WITH THE MOST CURRENT DRAFT OR EDITION OF UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORK CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA.
3) NOTICE TO BE GIVEN ENGINEERING DEPARTMENT OF THE LAS VEGAS VALLEY WATER DISTRICT 48 HOURS PRIOR TO ACTUAL CONSTRUCTION.
4) SERVICE SADDLES OR TAPPED COLLARS WILL BE REQUIRED ON ALL 3/4-INCH AND 1-INCH SERVICE LATERALS. SERVICE SADDLES ONLY WILL BE PERMITTED ON 1 1/2-INCH AND 2-INCH SERVICE LATERALS. DOUBLE TAPPED COLLARS ARE NOT PERMITTED.
5) ALL LINES TO BE PRESSURE TESTED TO 200 PSI.
6) DEFLECTION ANGLES SHALL NOT EXCEED 2 1/2 DEGREES PER 13 FOOT SECTION OF PIPE FOR PIPE SIZES SMALLER THAN 14-INCHES, AND SHALL NOT EXCEED 2 DEGREES FOR PIPE SIZES BETWEEN 14-INCHES AND 16-INCHES.
7) ALL METERS SHALL BE LOCATED OUTSIDE OF DRIVEWAYS.
8) DETECTOR TAPE REQUIRED IN ACCORDANCE WITH STANDARD PLATE NO. 27 WHERE INDICATED ON THE PLANS AND AS FOLLOWS:
   A. OVER ALL MAINS NOT INSTALLED AT 6 FEET FROM BACK OF CURB.
   B. OVER ALL SERVICE LATERALS NOT INSTALLED AT RIGHT ANGLES TO MAINS.

CALL BEFORE YOU DIG - 1-800-227-2600

CITY OF LAS VEGAS SANITATION NOTES:

1) SERVICES SHALL COMPLY WITH WESTERN PLUMBING CODE AS TO SEPARATION DISTANCE.
2) ALL UNITS TO BE SERVED INDIVIDUALLY AS PER SECTION 313 OF THE UNIFORM PLUMBING CODE.
3) CONTRACTOR SHALL FURNISH THE ENGINEER WITH AS-BUILT DRAWINGS SHOWING THE EXACT LOCATION OF ALL CONNECTIONS.
4) CONCRETE COLLARS TO BE CONSTRUCTED AROUND ALL MANHOLES AND WATER VALVES.
5) CHISEL "S" OR "G" WHEREVER SEWER OR GAS LINES PASS UNDER THE CURB.
6) CALL BEFORE YOUR DIG 1-800-227-2600

NOTE REGARDING ONSITE SPECIFICATONS:

THE CONSTRUCTION AND CHARACTER OF ANY ITEM PROPOSED FOR ONSITE, THAT IS NOT SPECIFICALLY DESCRIBED BY DETAIL OR NOTE, SHALL CONFORM TO DETAILS AND SPECIFICATIONS SET FORTH BY CLARK COUNTY.

NOTES

1) SEE ALSO SHEET C-3 C-4 FOR UTILITY DETAILS AND ELEVATIONS.
2) CONTRACTOR SHALL COMPARE CIVIL AND ARCHITECTURAL SITE PLAN AND CLARIFY ANY QUESTIONS PRIOR TO PROCEEDING WITH CONSTRUCTION.
4) CURB AND SIDEWALK GRADE TAPERS AT THE COMMERCIAL ENTRANCES SHALL CONFORM TO LOCAL CODE. CONTRACTOR SHALL CONSTRUCT SAID ENTRANCES.
5) CONTRACTOR SHALL REMOVE AND REPLACE CONCRETE CURB, GUTTER, SIDEWALK, AND ADJACENT ASPHALT CONCRETE ON LAKE MEAD AS NECESSARY IN ORDER TO CONSTRUCT THE TWO COMMERCIAL ENTRANCES AS INDICATED ABOVE.
6) SEE ARCHITECTURAL SITE PLAN FOR PLANTER AND BUILDING ENTRANCE DETAILS.
7) THE PROPOSED FIRE HYDRANT LOCATED EAST OF THE EAST ENTRANCE SHALL BE POSITIONED 10' EAST OF THE EXISTING POWER POLE.
8) SEE ARCHITECTURAL AND ELECTRICAL PLANS FOR INSTRUCTIONS FOR EXISTING ON-SITE LIGHTING.
9) EXPANSION JOINTS AND CONSTRUCTION JOINTS FOR ONSITE CONCRETE WORK SHALL CONFORM TO THE GUIDELINES SET FORTH ON DETAIL SHEET C-5.

APPROVALS:

CITY OF LAS VEGAS CITY ENGINEER	3-14-88 DATE
L.V.V.W.D.	6/3/88 DATE
C.L.V. FIRE MARSHALL	3/10/88 DATE
C.L.V. LAND DEV. & FLOOD CONTROL	3-14-88 DATE
C.L.V. SANITATION DISTRICT	3-9-88 DATE

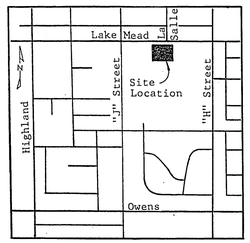
Name of Plan: _____

Water plan as shown will be acceptable.
It is NOT approved for construction.

LVVWD — Date 3/18/88

LEGEND

- EXISTING CONCRETE
- PROPOSED A.C. PAVEMENT
- PROPOSED CONCRETE
- EXISTING STREET LIGHT
- STORM DRAIN MANHOLE
- EXIST. SANITARY SEWER MANHOLE
- PROP. SANITARY SEWER MANHOLE
- EXISTING SANITARY SEWER W/ SIZE INDICATOR
- SANITARY CLEAN OUT
- EXISTING STORM DRAIN
- WATERLINE (DASHED IF EXISTING)
- PROPOSED FIRE HYDRANT ASSEMBLY
- GUY WIRE



VICINITY MAP

THESE DRAWINGS AS INSTRUMENTS OF SERVICES ARE AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT

DO NOT SCALE DRAWINGS

REVISIONS:
3-8-88 Chg. Water Main to 8" Looped Sched. 40 PVC Connect Fire Hydrant AT
6-1-88 Connect East Hydrant All 8" ACP
2" Service & Box Installed By Contractor
Add LVWWD Special Notes
Add Note No. 9 - Only If Applied.
Delete Note No. 3 - Only If Applied.

SUMMIT ENGINEERING CORPORATION
CONSULTING CIVIL ENGINEERS
1298 E. FLAMINGO, SUITE 2, LAS VEGAS, NEVADA 89119 (702) 736-0040

ARTURO CAMBERO & ASSOCIATES, LTD.
architecture • engineering
LAS VEGAS NEVADA

DATE 3-7-88
PROJECT NO. 837882
SHEET NO. C-1
1 OF 5
107-V1565

6-3-88