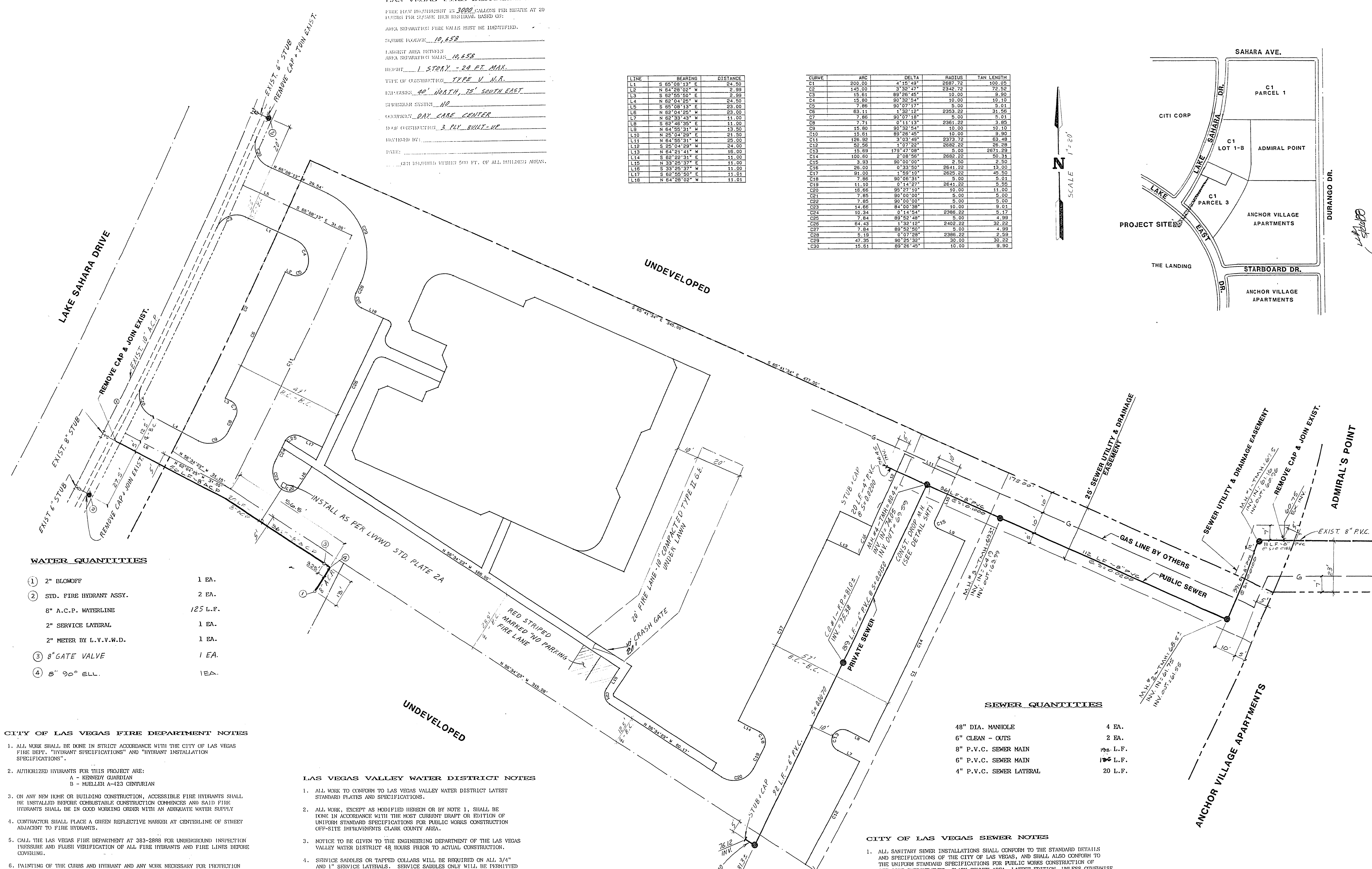


LAS VEGAS FIRE DEPARTMENT
 FIRE FLOW REQUIREMENT IS 3000 GALLONS PER MINUTE AT 20
 FEET PER SQUARE FOOT HEIGHT, BASED ON:
 AREA SEPARATION FIRE WALLS BE IDENTIFIED.
 NUMBER OF STORIES: 10, 658
 LARGEST AREA DETACHED
 AREA SEPARATION WALLS: 10, 658
 HEIGHT: 1 STORY - 28 FT. MAX.
 TYPE OF CONSTRUCTION: TYPE V N.R.
 EXISTING: 40' NORTH, 70' SOUTH EAST.
 SPECIAL SYSTEM: NO
 OCCUPANCY: DAY CARE CENTER
 DATE OF CONSTRUCTION: 3. MAY BUILT-UP
 PROVIDED BY:
 (SEE DETAIL SHEET 500 FT. OF ALL BUILDING AREAS.)

LINE	BEARING	DISTANCE
L1	S 65°08'13" E	24.50
L2	N 64°28'00" W	2.50
L3	S 65°50'50" E	2.50
L4	N 65°04'25" W	24.50
L5	S 65°08'13" E	23.00
L6	N 65°04'25" W	23.00
L7	N 65°33'43" W	11.00
L8	S 65°48'35" E	11.00
L9	N 64°55'31" W	13.50
L10	N 25°04'28" E	21.50
L11	N 64°55'31" W	23.00
L12	S 25°04'28" E	24.00
L13	N 64°21'41" W	18.00
L14	S 65°25'31" E	11.00
L15	N 33°25'37" W	11.00
L16	S 33°25'37" W	11.00
L17	S 65°50'50" E	11.01
L18	N 64°28'02" W	11.01

CURVE	ARC	DELTA	RADIUS	TAN LENGTH
C1	200.00	4°15'49"	2687.72	100.05
C2	145.00	3°32'17"	2342.72	72.52
C3	15.61	89°26'45"	10.00	9.90
C4	15.80	90°39'54"	10.00	10.10
C5	7.85	90°27'17"	5.00	5.01
C6	63.11	1°32'12"	2353.22	31.56
C7	7.85	90°07'18"	5.00	5.01
C8	7.71	0°11'13"	2361.22	3.85
C9	15.80	90°32'54"	10.00	10.10
C10	15.81	89°26'45"	10.00	9.90
C11	128.92	3°03'48"	2373.72	63.48
C12	52.56	1°07'22"	2682.22	26.28
C13	15.69	178°47'08"	5.00	2871.29
C14	100.60	2°08'56"	2682.22	50.31
C15	9.93	90°00'00"	2.50	2.50
C16	26.00	0°33'50"	2641.22	13.05
C17	91.00	1°59'10"	2625.22	45.50
C18	7.86	90°08'31"	5.00	5.01
C19	11.19	0°14'27"	2641.22	5.25
C20	16.66	95°27'10"	10.00	11.00
C21	7.85	90°00'00"	5.00	5.00
C22	7.85	90°00'00"	5.00	5.00
C23	14.66	84°00'38"	10.00	9.01
C24	19.34	0°14'54"	2386.22	5.12
C25	7.84	89°52'48"	5.00	4.99
C26	64.43	1°32'18"	2402.22	32.22
C27	7.84	89°52'48"	5.00	4.99
C28	5.19	0°07'28"	2386.22	2.59
C29	47.35	90°25'32"	35.00	30.22
C30	15.61	89°26'42"	10.00	9.90



- WATER QUANTITIES**
- ① 2" BLOWOFF 1 EA.
 - ② STD. FIRE HYDRANT ASSY. 2 EA.
 - 8" A.C.P. WATERLINE 125 L.F.
 - 2" SERVICE LATERAL 1 EA.
 - 2" METER BY L.V.V.W.D. 1 EA.
 - ③ 8" GATE VALVE 1 EA.
 - ④ 8" 90° ELL. 1EA.

- SEWER QUANTITIES**
- 48" DIA. MANHOLE 4 EA.
 - 6" CLEAN - OUTS 2 EA.
 - 8" P.V.C. SEWER MAIN 198 L.F.
 - 6" P.V.C. SEWER MAIN 106 L.F.
 - 4" P.V.C. SEWER LATERAL 20 L.F.

- CITY OF LAS VEGAS FIRE DEPARTMENT NOTES**
- ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE CITY OF LAS VEGAS FIRE DEPT. "HYDRANT SPECIFICATIONS" AND "HYDRANT INSTALLATION SPECIFICATIONS".
 - AUTHORIZED HYDRANTS FOR THIS PROJECT ARE:
 A - KENNEDY GUARDIAN
 B - MUELLER A-423 CENTURIAN
 - ON ANY NEW HOME OR BUILDING CONSTRUCTION, ACCESSIBLE FIRE HYDRANTS SHALL BE INSTALLED BEFORE COMPLETION OF CONSTRUCTION COMMENCES AND SAID FIRE HYDRANTS SHALL BE IN GOOD WORKING ORDER WITH AN ADEQUATE WATER SUPPLY.
 - CONTRACTOR SHALL PLACE A GREEN REFLECTIVE MARKER AT CENTERLINE OF STREET ADJACENT TO FIRE HYDRANTS.
 - CALL THE LAS VEGAS FIRE DEPARTMENT AT 383-2888 FOR UNDERGROUND INSPECTION PRESSURE AND FLASH VERIFICATION OF ALL FIRE HYDRANTS AND FIRE LINES BEFORE COVERING.
 - PAINTINGS OF THE CURBS AND HYDRANT AND ANY WORK NECESSARY FOR PROTECTION OF HYDRANTS FROM PHYSICAL DAMAGE PER THE "HYDRANT INSTALLATION SPECIFICATIONS" SHALL BE COMPLETED BEFORE APPROVAL OF THE HYDRANTS BY THE CITY OF LAS VEGAS FIRE DEPARTMENT.
 - FIRE HYDRANT SPACING:
 RESIDENTIAL 500 FT. MAXIMUM
 COMMERCIAL 500 FT. MAXIMUM
 - NO FIRE HYDRANT SHALL BE LOCATED WITHIN 6' OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREET LIGHT OR ANY OTHER OBSTRUCTION.
 - NO FIRE HYDRANT SHALL BE LOCATED WITHIN THE REQUIRED RADIUS OF A CUL-DE-SAC OR WITHIN 20' OF THE PERIMETER OF THE RADIUS OF THE CUL-DE-SAC.
 - CALL BEYER FOR DIG - 1-800-227-2600.

- LAS VEGAS VALLEY WATER DISTRICT NOTES**
- ALL WORK TO CONFORM TO LAS VEGAS VALLEY WATER DISTRICT LATEST STANDARD PLATES AND SPECIFICATIONS.
 - ALL WORK, EXCEPT AS MODIFIED HEREON OR BY NOTE 1, SHALL BE DONE IN ACCORDANCE WITH THE MOST CURRENT DRAFT OR EDITION OF UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS CLARK COUNTY AREA.
 - NOTICE TO BE GIVEN TO THE ENGINEERING DEPARTMENT OF THE LAS VEGAS VALLEY WATER DISTRICT 48 HOURS PRIOR TO ACTUAL CONSTRUCTION.
 - SERVICE SADDLES OR TAPPED COLLARS WILL BE REQUIRED ON ALL 3/4" AND 1" SERVICE LATERALS. SERVICE SADDLES ONLY WILL BE PERMITTED ON 1 1/2" AND 2" SERVICE LATERALS. DOUBLE TAPPED COLLARS ARE NOT PERMITTED.
 - ALL LINES TO BE PRESSURE TESTED TO 200 PSI.
 - DEFLECTION ANGLE 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" AND 16".
 - ALL METERS SHALL BE LOCATED OUTSIDE OF DRIVEWAYS.
 - DETECTOR TAPS REQUIRED IN ACCORDANCE WITH STANDARD PLATE NO. 27 WHERE INDICATED 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 BEYER FOR DIG - 1-800-227-2600.

- CITY OF LAS VEGAS SEWER NOTES**
- ALL SANITARY SEWER INSTALLATIONS SHALL CONFORM TO THE STANDARD DETAILS AND SPECIFICATIONS OF THE CITY OF LAS VEGAS, AND SHALL ALSO CONFORM TO THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OF OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, LATEST EDITION, UNLESS OTHERWISE NOTED.
 - CHISEL "S" OR "G" IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.
 - POLYVINYL CHLORIDE (PVC) SEWER PIPE SHALL MEET ASTM D-3034 SER 35 SPECIFICATIONS, AND INSTALLED WITH SAND BEDDING AND BACKFILL OR TYPE II GRAVEL.
 - ALL MANHOLES IN PAVED STREETS 80' R/W AND LARGER, SHALL HAVE CONCRETE COLLARS.
 - TEE SADDLES SHALL BE USED TO CONNECT SEWER LATERALS TO EXISTING MAIN LINES UP TO 12" DIA. SIZE. CONNECTIONS TO 15" OR LARGER MAINS SHALL REQUIRE SPECIAL PROCEDURES.

APPROVALS

David Boxman 3/16/88
 C.L.V. FIRE MARSHAL DATE

David Donnelly 3/17/88
 LAS VEGAS VALLEY WATER DISTRICT DATE

REVISION

REV	DATE	BY
1	3/17/88	G.S.
2	3/15/88	G.S.
3	3/16/88	G.S.
4	3/16/88	G.S.
5	3/16/88	G.S.

ESI ENGINEERS & SURVEYORS INC.
 400 N. LAS VEGAS BLVD. SUITE 200
 LAS VEGAS, NV 89101

DATE: 2/1/88

VALUATION: \$10,000

SUBMITTED BY: *David Boxman*

TITLE: MASTER UTILITY PLAN

PROJECT: THE LAKES TOWN CENTER II CHILD CARE FACILITY

WO NO. 5085
BY G. SPENCER
DATE 1/28/88
SCALE 1"=20'

SHEET 3 OF 4 SHEETS

107-VIS41

53-35