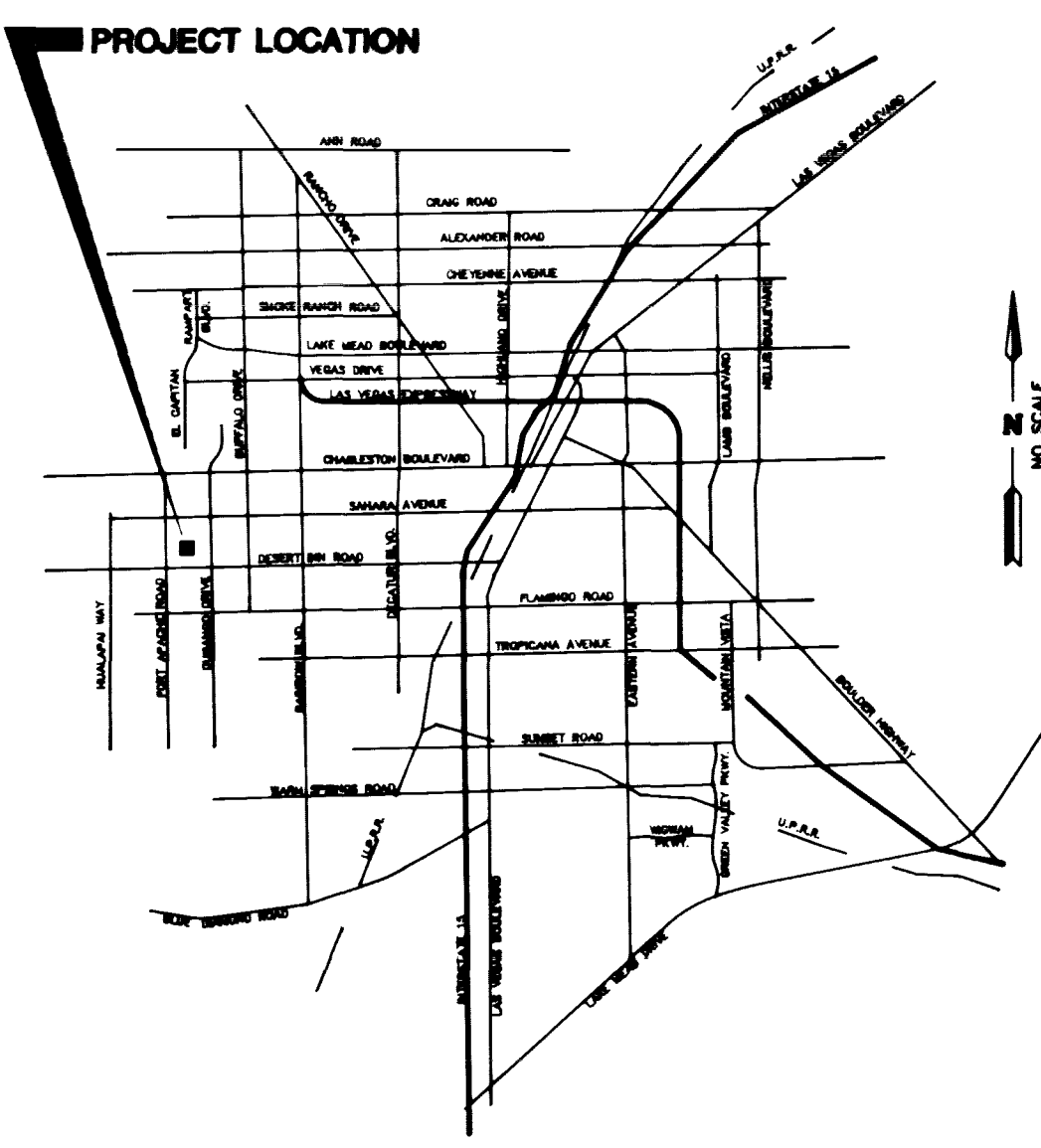
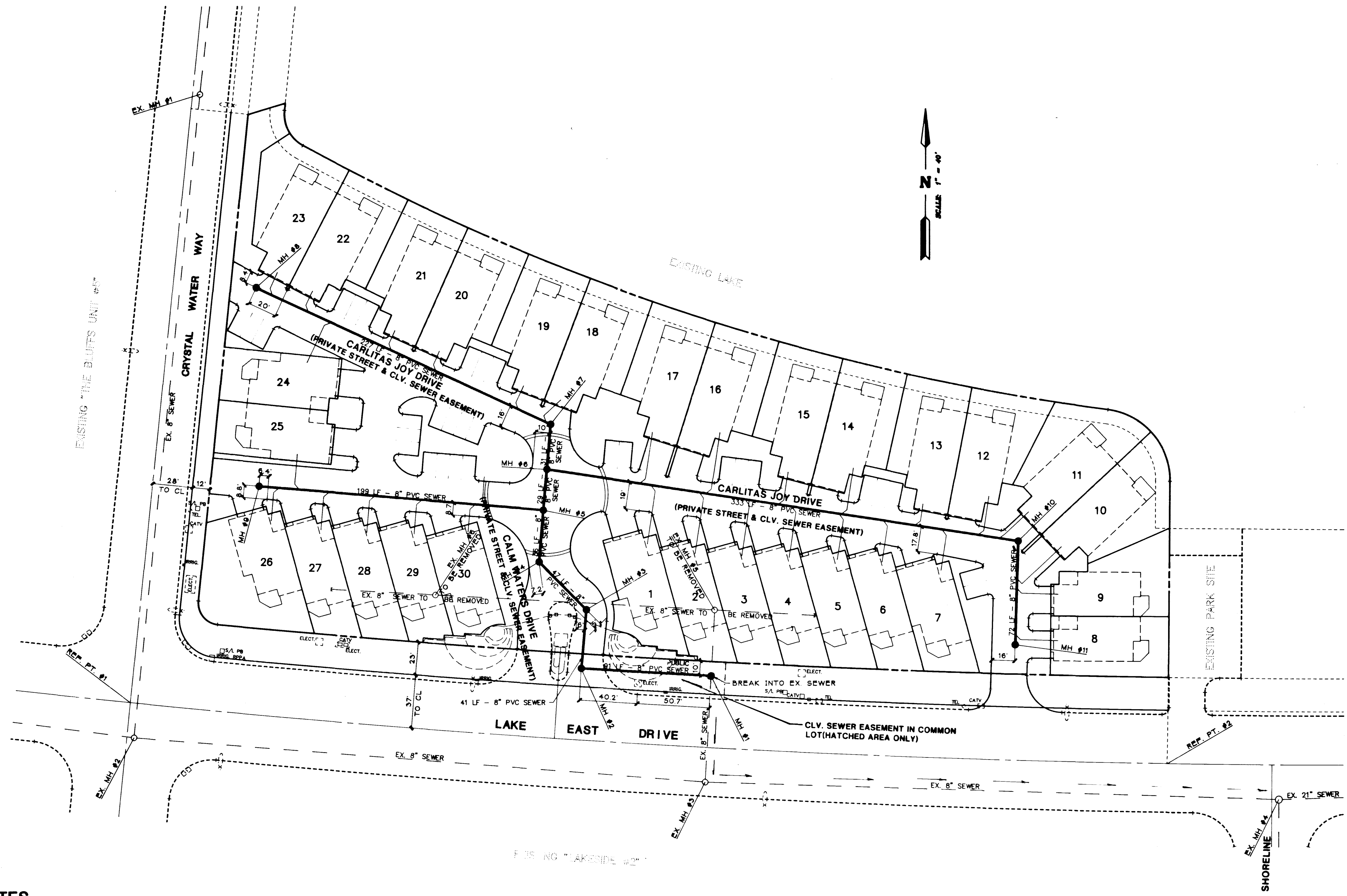




VICINITY MAP

MANHOLE CONTROL TABLE

MH #	NORTHING	EASTING
1	5018.59	5405.31
2	5023.80	5314.70
3	5064.59	5318.14
4	5098.00	5285.07
5	5133.96	5288.10
6	5162.42	5290.51
7	5193.77	5293.15
8	5289.00	5087.58
9	5150.70	5089.85
10	5112.51	5619.40
11	5040.36	5617.31
EXISTING MANHOLES		
1	5423.30	5048.20
2	4975.62	5002.54
3	4944.73	5401.34
4	4932.76	5801.48
5	5064.55	5407.79
6	5075.02	5213.07
REFERENCE POINTS		
1	5000.00	5000.00
2	4957.54	5723.62



CITY OF LAS VEGAS SEWER NOTES

- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE DESIGN & CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS AND THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA, AS AMENDED. IN ALL CASES, THESE STANDARDS SHALL SUPERCEDE THE UNIFORM STANDARD SPECIFICATIONS. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF THE CONTENTS OF THE ABOVE SPECIFICATION BOOKS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM CONSTRUCTION AS PER PLANS. ANY ADDITIONS, DELETIONS OR CHANGES SHALL FIRST MEET WITH THE APPROVAL OF THE CONTROLLING AGENCY.
- CHISEL "S" OR "G" IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.
- POLYVINYL (PVC) SEWER PIPE SHALL MEET ASTM D-3034 SDR 35 SPECIFICATIONS, INSTALLED WITH SAND BEDDING AND BACKFILL OF 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.
- A SEWER MAIN CROSSING OVER A WATER MAIN OR LESS THAN 18" UNDER A WATER MAIN, MUST BE REINFORCED CONCRETE ENCASED FOR A DISTANCE OF NOT LESS THAN TEN FEET (10') TO EACH SIDE OF THE CENTERLINE OF THE WATER MAIN.
- ALL CONTRACTORS INSTALLING SEWER MAINS THAT WILL BE UNDER THE JURISDICTION OF OF CONTROLLING AGENCY MUST BE CLASS "A" CONTRACTORS.
- The City of Las Vegas will not accept any sewer mains which have a vertical deflection of more than one tenth (0.1) of a foot from the approved construction plans. Sewer mains found to exceed this tolerance will have to be repaired or removed and replaced to the satisfaction of the City Engineer prior to acceptance by the city.

SEWAGE CONTRIBUTION

AVERAGE DAILY FLOW0.005 MGD
PEAK FLOW0.020 MGD

QUANTITY ESTIMATE

4" DIAMETER MANHOLE11 EA
8" SEWER MAIN1105 LF
4" SEWER LATERALS866 LF

NOTE: THESE QUANTITIES ARE ONLY ESTIMATES, CONTRACTOR TO VERIFY.

LATERAL LOCATIONS FROM CORNER OF BUILDINGS
WAS NOT AVAILABLE.

NOTE

EXISTING UTILITY LOCATIONS SHOWN HEREIN ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

WASTEWATER FLOWS

AVE. DAILY FLOW 5250 GPD
PEAK DAILY FLOW 19,807 GPD

BENCHMARK

C.L.V. BENCHMARK #1LV10BS4
RIVET & PLATE IN TOP OF CURB, NW RETURN OF DESERT INN ROAD AND CRYSTAL WATER WAY.
ELEVATION = 2677.406

Call before you Dig.

1-800-227-2600
UNDERGROUND SERVICE (USA)

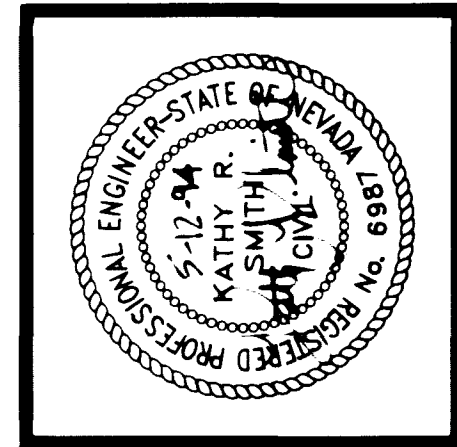
APPROVAL	REV	DATE	BY	REVISION
	1	5-17-94	KN	20-17 SCALE 1/8" = 1'-0" PLAN PRELIMINARY DESIGN
	2	8-15-94	KN	ADDED PRIVATE STREET & PUBLIC SEWER EASEMENT
	3	8-17-94	KN	ADDED PRIVATE STREET & PUBLIC SEWER EASEMENT

MASTER SEWER PLAN
- AS-BUILT -

LAGUNA BAY TOWNHOME ESTATES

TITLE

PROJECT



ESI ENGINEERS AND SURVEYORS INC.
1410 N. LAS VEGAS BLVD., SUITE 100, LAS VEGAS, NV 89101
TEL: 702-735-1111 FAX: 702-735-1112

W.O. # : 755 - 5910
BY : /DSR
DATE : APR 1994
SCALE : 1" = 40'

ESI ENGINEERS AND SURVEYORS INC.
1410 N. LAS VEGAS BLVD., SUITE 100, LAS VEGAS, NV 89101
TEL: 702-735-1111 FAX: 702-735-1112

21-60-08

202-61

307Y-4354

