

VICINITY MAP

MANHOLE CONTROL TABLE

MH #	NORTHING	EASTING
1	7492.75	12749.73
2	7840.54	12743.94
3	7846.10	12588.32
4	7427.79	12595.29
5	7862.16	12138.67
6	8097.40	12584.14
7	8106.36	12333.47
8	8115.31	12082.81
9	8178.04	11938.33
10	8473.49	11641.74
REFERENCE POINTS		
1	7835.35	12749.03
2	8117.97	12070.66

SPECIAL NOTE

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.

PROJECTED SEWAGE FLOWS

AVE. DAILY FLOW 20,760 GPD
 PROJ. PEAK FLOW 33,200 GPD

BENCHMARK

OLV00 16NES
 RIVET & PLATE IN TOP OF CURB, SW RETURN
 CHEYENNE & BUFFALO DRIVE.
 ELEVATION = 2366.703

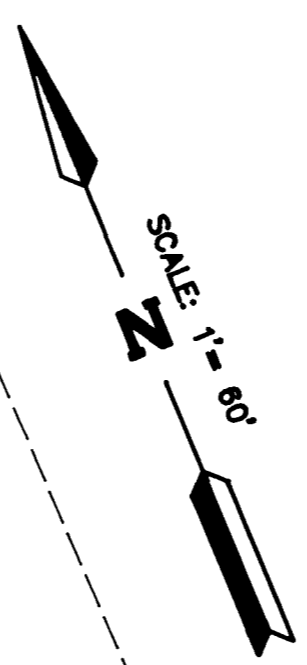
QUANTITY ESTIMATE

4' DIAMETER MANHOLE _____ 10 EA
 8" SEWER MAIN _____ 3,188 LF
 4" SEWER LATERALS _____ 2,858 LF

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

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 THE CONTROLLING AGENCY MUST BE CLASS "A" CONTRACTORS.



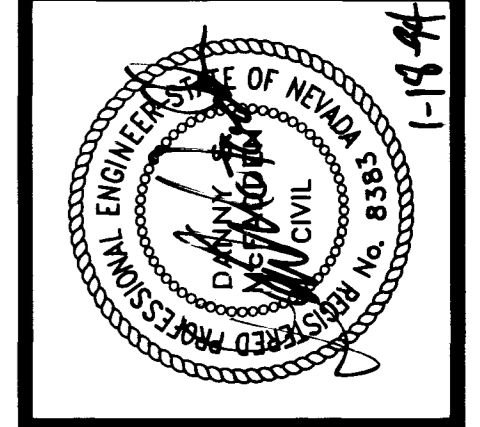
NOTE:

EXISTING UTILITY LOCATIONS SHOWN HEREON 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. CALL BEFORE YOU DIG: 1-800-227-2600.

APPROVAL	REV	DATE	BY	REVISION

MASTER SEWER PLAN

CIMARRON VILLAGE UNIT 1



ESJ ENGINEERS AND SURVEYORS INC.
 PLANNERS • CONSULTING ENGINEERS • SURVEYORS
 708 W. CHARLESTON BLVD. • LAS VEGAS, NEVADA 89102 • (702) 360-4415

W.O. # : AB75
 BY : T.L.B.
 DATE : 1/10/94
 SCALE : 1" = 60'

SHEET 12 OF 14 SHEETS

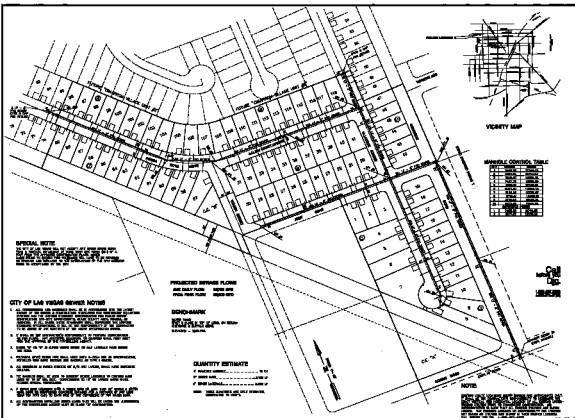
Call before you Dig.
 1-800-227-2600
 UNDERGROUND SERVICE (USA)

20 60 09

4708 5

11-6-97

3074-4291-1



SPECIAL NOTE
 TO ALL OF THE WORK SHOWN ON THIS PLAN, THE OWNER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE CITY OF LAS VEGAS AND THE STATE OF NEVADA. THE CITY OF LAS VEGAS SHALL NOT BE RESPONSIBLE FOR OBTAINING ANY PERMITS FROM ANY OTHER AGENCY OR ENTITY. THE CITY OF LAS VEGAS SHALL NOT BE RESPONSIBLE FOR OBTAINING ANY PERMITS FROM ANY OTHER AGENCY OR ENTITY.

- CITY OF LAS VEGAS SEWER NOTES**
1. THE CITY OF LAS VEGAS SEWER DEPARTMENT HAS REVIEWED THIS PLAN AND HAS APPROVED THE SEWER SYSTEM DESIGN AND LAYOUT. THE CITY OF LAS VEGAS SEWER DEPARTMENT HAS REVIEWED THIS PLAN AND HAS APPROVED THE SEWER SYSTEM DESIGN AND LAYOUT.
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PREDICTED SEWER FLOW
 SEE EXIST. PLAN
 PROPOSED SEWER FLOW
 SEWER SIZE

SEWER-MANHOLES
 SEE PLAN
 MANHOLE SIZE
 MANHOLE DEPTH

QUANTITY ESTIMATE
 IF PROPOSED SEWER FLOW IS LESS THAN 100 GPM, USE 100 GPM.
 IF PROPOSED SEWER FLOW IS GREATER THAN 100 GPM, USE PROPOSED SEWER FLOW.
 SEE TABLE FOR SEWER SIZES AND MANHOLE SIZES.

MANHOLE CONTROL TABLE

MANHOLE NO.	MANHOLE SIZE	MANHOLE DEPTH	MANHOLE TYPE
1	36"	4'-0"	CONCRETE
2	36"	4'-0"	CONCRETE
3	36"	4'-0"	CONCRETE
4	36"	4'-0"	CONCRETE
5	36"	4'-0"	CONCRETE
6	36"	4'-0"	CONCRETE
7	36"	4'-0"	CONCRETE
8	36"	4'-0"	CONCRETE
9	36"	4'-0"	CONCRETE
10	36"	4'-0"	CONCRETE
11	36"	4'-0"	CONCRETE
12	36"	4'-0"	CONCRETE
13	36"	4'-0"	CONCRETE
14	36"	4'-0"	CONCRETE
15	36"	4'-0"	CONCRETE
16	36"	4'-0"	CONCRETE
17	36"	4'-0"	CONCRETE
18	36"	4'-0"	CONCRETE
19	36"	4'-0"	CONCRETE
20	36"	4'-0"	CONCRETE
21	36"	4'-0"	CONCRETE
22	36"	4'-0"	CONCRETE
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25	36"	4'-0"	CONCRETE
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27	36"	4'-0"	CONCRETE
28	36"	4'-0"	CONCRETE
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30	36"	4'-0"	CONCRETE
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93	36"	4'-0"	CONCRETE
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96	36"	4'-0"	CONCRETE
97	36"	4'-0"	CONCRETE
98	36"	4'-0"	CONCRETE
99	36"	4'-0"	CONCRETE
100	36"	4'-0"	CONCRETE

VICINITY MAP

NOTE
 THIS PLAN IS A PRELIMINARY DESIGN AND IS SUBJECT TO CHANGE WITHOUT NOTICE. THE CITY OF LAS VEGAS SEWER DEPARTMENT HAS REVIEWED THIS PLAN AND HAS APPROVED THE SEWER SYSTEM DESIGN AND LAYOUT. THE CITY OF LAS VEGAS SEWER DEPARTMENT HAS REVIEWED THIS PLAN AND HAS APPROVED THE SEWER SYSTEM DESIGN AND LAYOUT.

MASTER SEWER PLAN
 CIMARRON VILLAGE UNIT 1

ESI ENGINEERING AND ARCHITECTURE
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