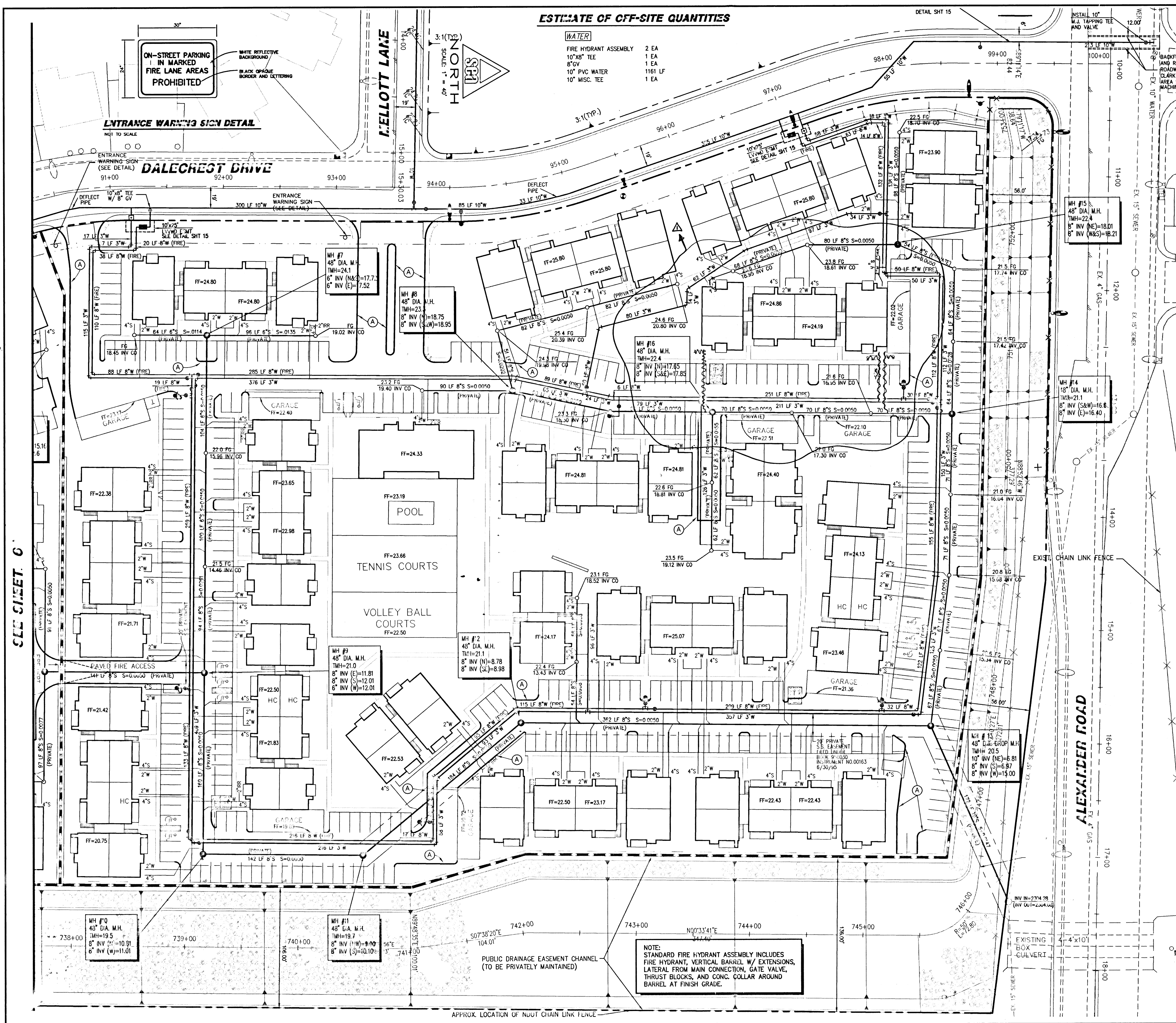




### ESTIMATE OF OFF-SITE QUANTITIES

| WATER                 |         |
|-----------------------|---------|
| FIRE HYDRANT ASSEMBLY | 2 EA    |
| 10"X8" TEE            | 1 EA    |
| 8"GV                  | 1 EA    |
| 10" PVC WATER         | 1161 LF |
| 10" MISC. TEE         | 1 EA    |

### LEGEND

|                                                                                                                                            |          |
|--------------------------------------------------------------------------------------------------------------------------------------------|----------|
| TELEPHONE VAULT                                                                                                                            | [Symbol] |
| ELECTRIC VAULT                                                                                                                             | [Symbol] |
| EXISTING HYDRANT                                                                                                                           | [Symbol] |
| WATER METER                                                                                                                                | [Symbol] |
| GATE VALVE                                                                                                                                 | [Symbol] |
| EXISTING MANHOLE                                                                                                                           | [Symbol] |
| TRANSFORMER BOX                                                                                                                            | [Symbol] |
| POWER POLE                                                                                                                                 | [Symbol] |
| ELEC. POWERBOX                                                                                                                             | [Symbol] |
| EXISTING STREETLIGHT                                                                                                                       | [Symbol] |
| CABLE TV BOX                                                                                                                               | [Symbol] |
| FIRE HYDRANT                                                                                                                               | [Symbol] |
| PROPOSED CLEANOUT                                                                                                                          | [Symbol] |
| PROPOSED MANHOLE                                                                                                                           | [Symbol] |
| PROPOSED STREETLIGHT                                                                                                                       | [Symbol] |
| PAINTED RED CURB (NO PARKING LANE)                                                                                                         | [Symbol] |
| PAINTED WHITE BLOCK LETTERING - "NO PARKING FIRE LANE" (NOT LESS THAN 4" IN HEIGHT WITH A STROKE OF NOT LESS THAN 3/4" 50' TO FIT ON CURB) | [Symbol] |
| ENTRANCE WARNING SIGN                                                                                                                      | [Symbol] |

### ESTIMATE OF ON-SITE QUANTITIES

| WATER                    |         | SEWER               |         |
|--------------------------|---------|---------------------|---------|
| 3" FIRE HYDRANT ASSEMBLY | 7 EA    | 10" PVC SEWER       | 172 LF  |
| 3" GATE VALVE            | 8 EA    | 8" PVC SEWER        | 2719 LF |
| 8" GATE VALVE            | 6 EA    | 6" PVC SEWER        | 364 LF  |
| 8" ELBOW                 | 14 EA   | 4" SERVICE LATERALS | 61 EA   |
| 3" ELBOW                 | 10 EA   | 48" MANHOLE         | 22 EA   |
| 8"x8"x8" TEE             | 2 EA    | CLEANOUTS           |         |
| 3"x3"x3" TEE             | 5 EA    |                     |         |
| 3" MISC. FITTINGS        | 11 EA   |                     |         |
| 8" MISC. FITTINGS        | 6 EA    |                     |         |
| 8" PVC WATER             | 2713 LF |                     |         |
| 3" PVC WATER             | 3283 LF |                     |         |
| 2" SERVICE LATERALS      | 61 EA   |                     |         |

### FIRE FLOW CALCULATION

FIRE FLOW REQUIREMENT IS 2750 GALLONS PER MINUTE AT 20 PSI RESIDUAL

BASED ON:

|                      |                                |
|----------------------|--------------------------------|
| SQUARE FOOTAGE       | 10560 SF (LARGEST SINGLE BLDG) |
| BUILDING HEIGHT      | 2 STORIES                      |
| TYPE OF CONSTRUCTION | TYPE V-N                       |
| SPRINKLER SYSTEM     | NO                             |

### SEWER FLOWS

|              |           |
|--------------|-----------|
| AVERAGE FLOW | 0.078 MGD |
| PEAK FLOW    | 0.26 MGD  |

### BENCHMARK

RIVET IN ALUMINUM PLATE @ NORTHEAST RETURN OF ALEXANDER AND TENAYA.  
ELEVATION = 2324.89

### BASIS OF BEARING

THE NORTHERLY LINE OF THE NORTHEAST QUARTER OF SECTION 10, TOWNSHIP 20 SOUTH, RANGE 60 EAST, M.D.M. WHICH BEARS NORTH 88°52'46" WEST AS SHOWN BY MAP IN THE OFFICE OF THE CLARK COUNTY NEVADA RECORDER IN FILE 64, PAGE 78, RECORDS OF SURVEY.

### APPROVALS

*[Signature]* 7.27.95  
LAS VEGAS VALLEY WATER DISTRICT  
*[Signature]* 7.26.95  
CITY OF LAS VEGAS FIRE DEPARTMENT

### UTILITY NOTE

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 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

Call before you Dig.  
1-800-227-2300

REVISIONS  
NO. DESCRIPTION/DATE BY  
1 WATER & SEWER

1230 GRIER DRIVE  
LAS VEGAS, NEVADA 89119  
PHONE (702) 381-8050  
FAX (702) 381-0659  
Incorporated 1988  
CONSULTING ENGINEERS

MASTER UTILITY PLAN  
A.C. SPACES  
ALEXANDER APARTMENTS

JOB NO.: 2-102-105  
ACAD FILE: ALX-UTL2  
DESIGNED: RFE  
DRAWN: TL  
CHECKED: RFE  
DATE: JULY 1995

7  
OF 21 SHEETS