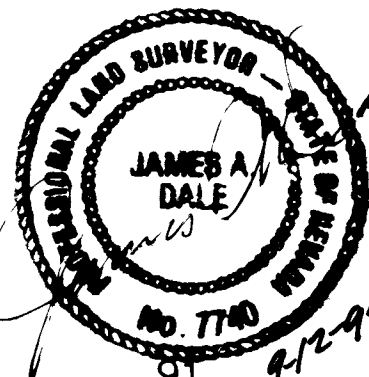


(SUNSET HILLS PHASE 4)

Surveyors Certificate

I, James A. Dale, a Professional Land Surveyor, hereby certify that the information shown hereon reflects as built conditions as of Sept. 13, 1995



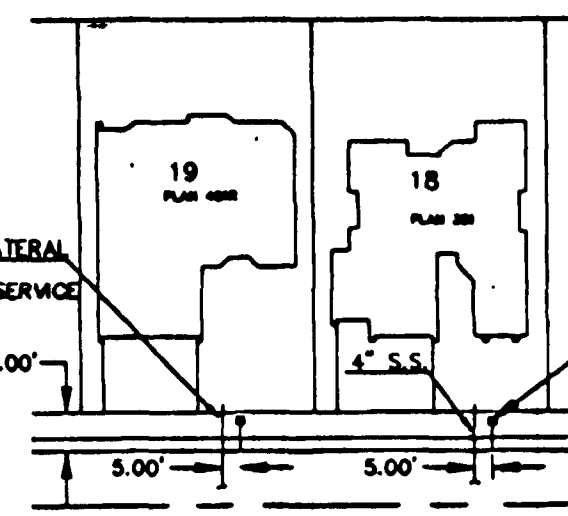
BASIS OF BEARINGS

NORTH 89°44'18" EAST, BEING THE SOUTH LINE OF THE SW 1/4 OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 80 EAST, M.D.M., AS SHOWN IN FILE 52 OF SURVEYS, PAGE 70, CLARK COUNTY NEVADA RECORDER'S CUMULATIVE MAP INDEX.

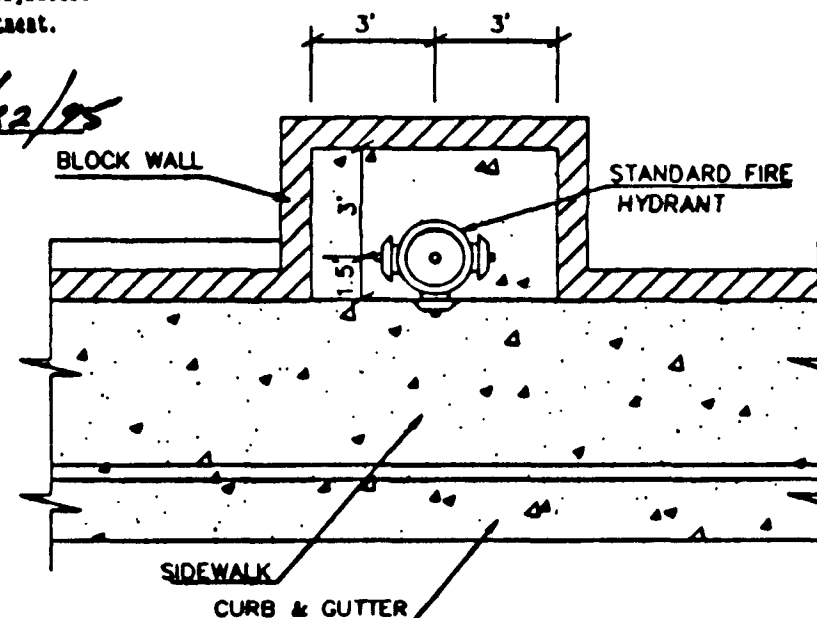
PROJECT BENCHMARK

CITY OF LAS VEGAS BENCHMARK NO. LV90 358996; A RIVET & PLATE IN SOUTH TOP OF CURB AT ANN ROAD AND CALVERTS STREET. ELEVATION=2289.949

SCALE 1"=40'

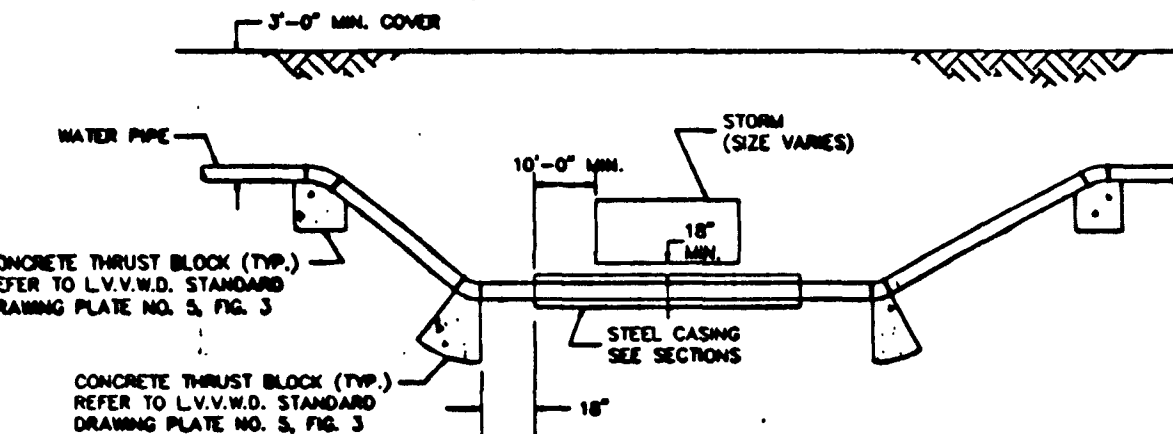


TYPICAL SERVICE LATERAL DETAIL



TYPICAL FIRE HYDRANT WALL CLEARANCE DETAIL

STORM/WATER CROSSING DETAIL



CONSTRUCTION NOTES

- INSTALL 8" PVC SANITARY SEWER
- INSTALL 8" WATER MAIN
- INSTALL 4" PVC SANITARY SEWER LATERAL
- INSTALL 1" COPPER SERVICE LATERAL
- REMOVE EXISTING EXISTING STUB & CAP AND CONNECT TO EXISTING SEWER
- INSTALL 90° FITTING W/THRUST BLOCK
- INSTALL 8" GATE VALVE
- INSTALL 6" x 10" TEE
- INSTALL 8" x 8" TEE
- INSTALL FIRE HYDRANT ASSY. PER LVWD STD. PLATE NO. 7 & STD. DWG. NO. 516
- INSTALL 2" BLOWOFF ASSY. PER STD. PLATE NO. 4
- REMOVE EXISTING STUB, CAP & 2" BLOWOFF ASSY.
- INSTALL 1 1/4" STREET LIGHT CONDUIT
- INSTALL #3 1/2 PULL BOX
- INSTALL 100W HPS STREET LIGHT
- INSTALL 250W HPS STREET LIGHT
- INSTALL 45' D.I. ELL. W/THRUSTBLOCK
- INSTALL 4" x 4" PVC. 60W. 85W. LIT. @ 3' GRADIENT. LATERAL SHALL BE CONC. ENCASED FROM MAIN TO STREET CURB, SEE DRAWING L.V. 11.

LEGEND

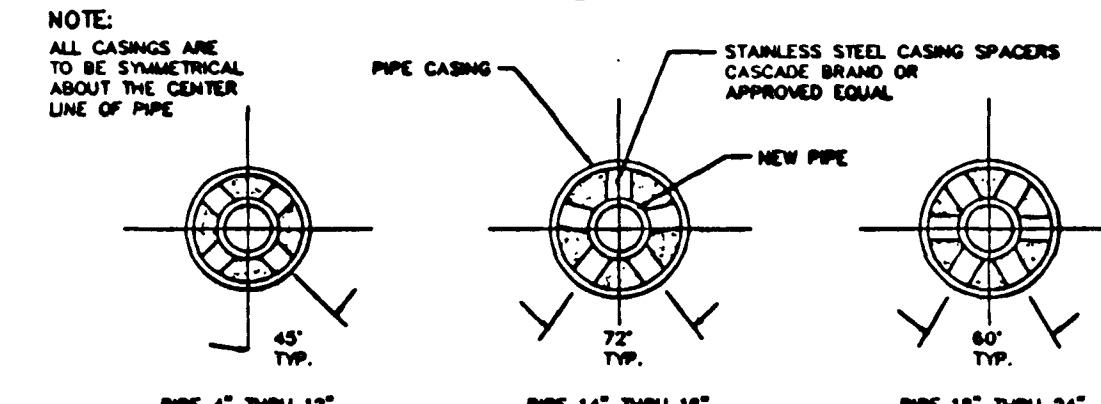
- 65 LOT NUMBER
- GATE VALVE
- FIRE HYDRANT
- TEE
- SANITARY SEWER MANHOLE
- CLEAN OUT
- CAP & PLUG
- STREET LIGHT
- 1-1/4" CONDUIT

A 1" x 3/4" angle meter stop and 3/4" meter box will be required with the 1" service laterals for all services with 5/8" or 3/4" services. Details of the above installation are available from the Engineering Services Division and from the District's Inspectors.

LAS VEGAS FIRE DEPARTMENT

Fire Flow Requirements 1500 gpm for 20 minutes at 20 pounds per square inch residual.

TYPICAL CASING SECTION



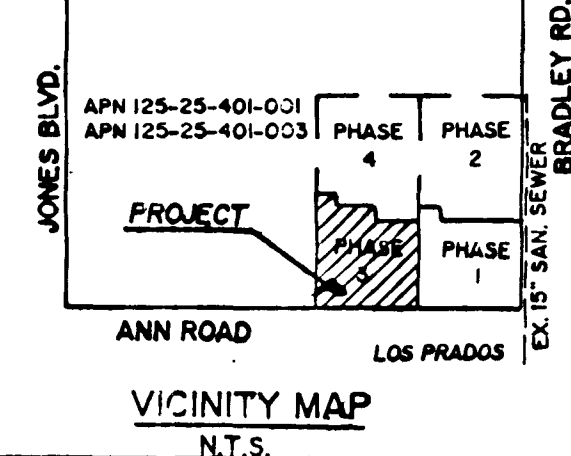
- STEEL PIPE CASING SHALL BE FABRICATED FROM A MINIMUM OF 1/4" THICK STEEL PLATES CONFORMING TO THE REQUIREMENTS OF ASTM A283, GRADE B, C, OR D. ALL JOINTS SHALL BE WELDED. WITNESS JOINTS SHALL BE GROUNDED TO A SMOOTH FINISH. ALL WELDING SHALL BE PERFORMED IN ACCORDANCE WITH ANNA C201, ANNA STANDARD FOR FABRICATED ELECTRICALLY WELDED STEEL WATER PIPE. CONTAINS FOR STEEL CASING ARE NOT REQUIRED.
- PIPE CASING SHALL BE LAID TRUE TO LINE AND GRADE WITH NO BENDS OR CHANGES IN GRADE FOR THE FULL LENGTH OF THE CASING.
- THE PIPE SHALL BE SUPPORTED AT EACH END OF EACH JOINT WITH SPACERS. AFTER INSTALLATION OF THE PIPE, THE CASING SHALL BE SEALED AT BOTH ENDS WITH CASING END SEALS.

| PHASE | SFR | DAILY AVE. Q. | PEAK Q. |
|-------|-----|---------------|-------------|
| 1 | 33 | 8137 GPD | 28,480 GPD |
| 2 | 44 | 10,849 GPD | 37,972 GPD |
| 3 | 39 | 9,616 GPD | 33,657 GPD |
| 4 | 39 | 9,616 GPD | 33,657 GPD |
| TOTAL | 155 | 38,219 GPD | 133,767 GPD |

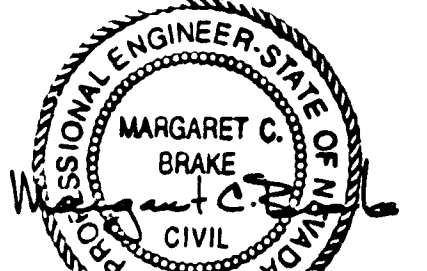
UTILITY NOTE

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR AGREES TO ACCEPT RESPONSIBILITY FOR UTILITIES NOT SHOWN ON THESE PLANS UNLESS NOTED BY THEIR PROPER LOCATION.

Call before you dig
1-800-227-7600



APPROVED FOR CONSTRUCTION
DATE
LVWD



DESIGNED BY: A.S.M.
DRAWN BY: K.K.A.
CHECKED BY: M.C.B.
JANUARY 11, 1995

NEVADA
CLARK COUNTY

IMPROVEMENT PLANS - PHASE 3
SUNSET HILLS - PHASE 3
MASTER UTILITY PLAN

| REV. | DATE | DESCRIPTION | BY | APP'D |
|------|---------|-------------|----|-------|
| 1 | 1/11/95 | AS BUILT | JK | |

SCALE: 1"=40'
HORIZ. 1"=40'
VERT. NONE

SHEET 6 OF 11
JOB P.O. 70897
PA. DESIGN RES. PH-3, MASTGRD3-424, "VIEW UTIL"

1511 11-6-120 "As Built" 3074-4290-3

