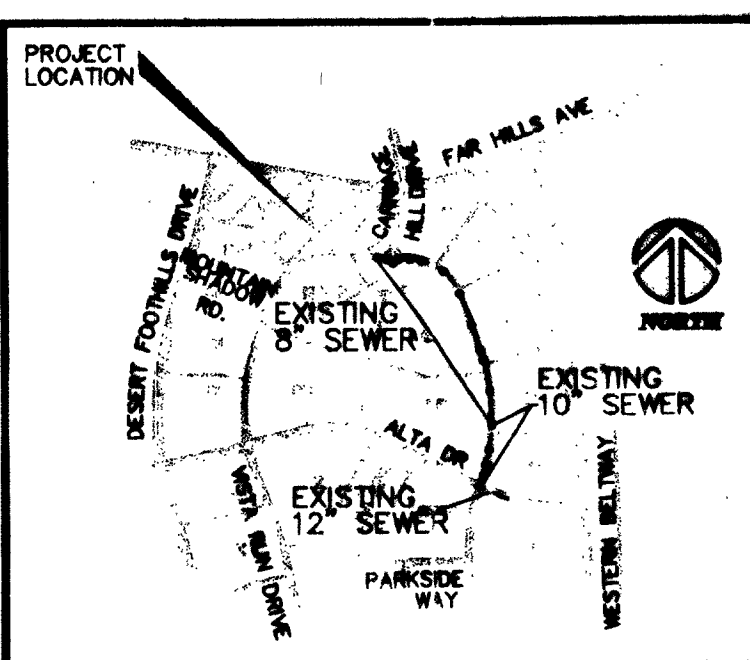


Call before
you dig
1-800-227-2600

Call before
you Overhead
1-702-593-6111



SEWER DISCHARGE MAP
NTS

BENCHMARK
Elevation = 3209.10 FEET (NAVD 88 DATUM)
CITY OF LAS VEGAS BENCHMARK No. 9LV19 2NWS
WOOD DISC SET IN CONCRETE, 50 FEET SOUTH OF THE CENTERLINE OF
CHARLESTON BLVD. AT P.T. COMING OUT OF RED ROCK, STAMPED STA.
787+19.42 PT ± MP 14.7
NAVD 88 ELEVATION = 978.1356 METERS

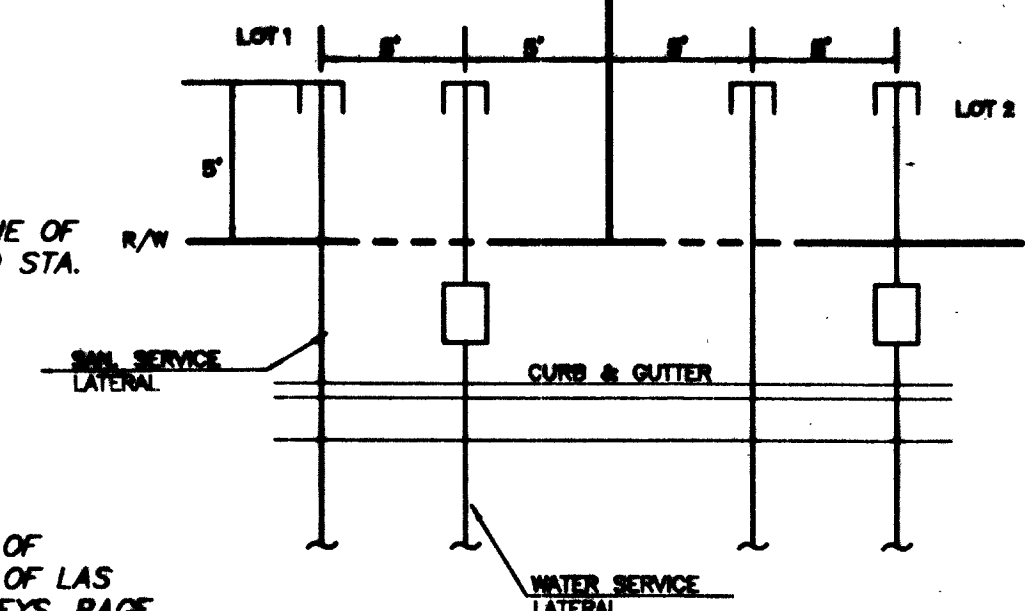
BASIS OF BEARINGS
NORTH 89°46'49" EAST, BEING THE BEARING OF THE NORTH LINE OF
SECTION 27, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS
VEGAS, CLARK COUNTY, NEVADA, AS SHOWN IN FILE 92 OF SURVEYS, PAGE
42, OFFICIAL RECORDS OF CLARK COUNTY, NEVADA.

LAS VEGAS FIRE DEPARTMENT
FIRE FLOW IS 1500 GPM AT 20 PSI RESIDUAL PRESSURE.
BASED ON:
SQUARE FOOTAGE: 2,358 S.F.
BUILDING HEIGHT: 19'
NUMBER OF STORIES: 1
OCCUPANCY: SINGLE FAMILY
FULL AUTOMATIC FIRE SPRINKLERS: NO

REVIEWED BY: *[Signature]* 10/18/02
DATE

STREET LIGHT NOTES

1. ALL STREET LIGHTS, POLES, LUMINAIRES, FOUNDATIONS AND APPURTENANCES WILL CONFORM WITH THE MINIMUM REQUIREMENTS OF SUMMERLIN STANDARD DRAWING # E-27 FOR LIGHT POLE FOUNDATION LOCATION.



TYPICAL UTILITY SERVICE LAYOUT
NOT TO SCALE

GENERAL NOTES

1. CIVIL CONSULTANTS, INC. SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES IN THE PLANS OR CONDITIONS IN THE FIELD.
2. ALL UTILITY INSTALLATION SHALL CONFORM TO THE CITY OF LAS VEGAS STANDARDS, LAS VEGAS VALLEY WATER DISTRICT STANDARDS AND THE UNIFORM PLUMBING CODE.
3. ALL WORK TO BE PERFORMED OUTSIDE OF THE PROJECT BOUNDARY AND ON PRIVATE PROPERTY SHALL NOT BE PERFORMED UNTIL WRITTEN PERMISSION AND EASEMENT HAVE BEEN OBTAINED FROM THE OFFSITE OWNER.
4. ALL WORK PERFORMED WITHIN THE PUBLIC RIGHT-OF-WAY AND OUTSIDE THE PROJECT BOUNDARY SHALL BE PERFORMED UNDER A SEPARATE ENCROACHMENT PERMIT ISSUED BY THE CONTROLLING AUTHORITY.
5. ALL HYDRANTS SHALL BE PLACED A MIN. OF 18" BACK OF SIDEWALK.
6. WATER AND SEWER LINES SHALL BE INSTALLED IN SEPARATE TRENCHES WITH AT LEAST TEN (10) FEET OF SEPARATION MEASURED HORIZONTALLY FROM THE EXISTING PIPE WALLS.
7. ADD 3200' TO ALL ELEVATIONS SHOWN.
8. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL LOCATE AND VERIFY SIZE, MATERIAL, DEPTH, CONDITION, PRESSURE AND LOCATION OF ALL EXISTING UTILITY LINES WITHIN THE CONSTRUCTION AREA.
9. PLANS MAY NOT INDICATE ALL EXISTING UTILITY LINES. CONTRACTOR IS TO EXERCISE EXTREME CAUTION DURING EXCAVATION IN ORDER TO AVOID DAMAGING ANY EXISTING UTILITY LINES. IF THE UTILITY LINES ARE DAMAGED BY THE CONTRACTOR, SUCH DAMAGE SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER AT THE CONTRACTOR'S EXPENSE.
10. CONTRACTOR IS TO SAWCUT AND REMOVE EXISTING ASPHALT AND CONCRETE AS NECESSARY FOR UTILITY TRENCHES, BACKFILL AND PATCH ALL TRENCHES ACCORDING TO SUMMERLIN STANDARDS.
11. FIRE HYDRANT STATIONING REFERENCES TEE LOCATION.
12. IN THE EVENT SEWER LATERAL LOCATIONS ARE PLACED ABOVE WATER LATERALS, OR REQUIRED CLEARANCES ARE NOT MAINTAINED, WATER QUALITY PIPE SHALL BE USED FOR SEWER INSTALLATION. CONTRACTOR SHALL BE RESPONSIBLE FOR INCLUDING ANY ADDITIONAL COSTS IN THEIR BIDDING.
13. ALL DIMENSIONS TO UTILITIES ARE TO CENTERLINE OF PIPE UNLESS INDICATED OTHERWISE.
14. ALL EXISTING UTILITY STRUCTURES WITHIN CONSTRUCTION AREA SHALL BE ADJUSTED TO MATCH FINISH GRADE (i.e. WY, BOX, WMH, ANHODE BOX, FH, TEL BOX, ETC.).
15. THIS SITE IS LOCATED WITHIN THE LAS VEGAS VALLEY WATER DISTRICT (LVWD) 3435 WATER PRESSURE ZONE.
16. INSTALL PIPELINE MARKER BAUS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING PER MANUFACTURER INSTRUCTIONS.

WATER CONSTRUCTION KEY NOTES AND QUANTITIES

- | | |
|--|----------|
| 1. INSTALL 8" PVC WATER LINE | 1,166 LF |
| 3. INSTALL 8" GATE VALVE. VALVES SHALL NOT BE LOCATED IN STREET VALLEY GUTTERS OR WITHIN THE PROPOSED CURB AND GUTTER LOCATIONS. | 1 EA |
| 4. INSTALL 8" TEE | 1 EA |
| 7. INSTALL FIRE HYDRANT ASSEMBLY PER UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS (UDS) PLATE No. 7, INCLUDES TEE, 8" PIPE, GATE VALVE AND RISER AND THE LOCATION SHALL BE DETERMINED BY CURB AND COUNTY AREA STD. DWG. 516 VALVES SHALL NOT BE LOCATED IN STREET VALLEY GUTTERS OR WITHIN PROPOSED CURB AND GUTTER LOCATIONS. | 2 EA |
| 9A. INSTALL 3/4" WATER METER AND 1" COPPER SERVICE LATERAL (PER UDACs PLATE No.18) | 29 EA |
| 9B. INSTALL 3/4" WATER METER AND 1" COPPER SERVICE LATERAL (PER UDACs PLATE No.10) | 2 EA |
| 17. INSTALL 45 BEND | 4 EA |
| 18. REMOVE CAP & BLOW OFF AND EXTEND WATER LINE | 3 EA |

LVWD NOTES

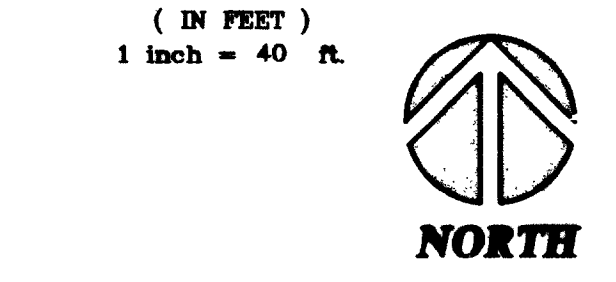
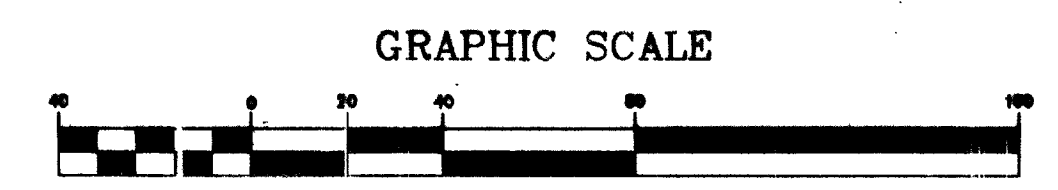
LOTS 65-72 & LOTS 146 & 147 MAY HAVE STATIC WATER PRESSURE PRESSURE IN EXCESS OF 80 PSI. THE UNIFORM PLUMBING CODE REQUIRES THAT INDIVIDUAL, ON-SITE (PRIVATE), PRESSURE REDUCING VALVES BE INSTALLED WHENEVER THE PRESSURE EXCEEDS 80 PSI. PRIVATE ARE THE DEVELOPER'S RESPONSIBILITY AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVWD FACILITIES.

SERVICE LATERALS FOR LOTS: 81 & 134 WILL BE TAPPED ON EXISTING MAIN BY OWNER'S CONTRACTOR UNDER DIRECTION OF THE LVWD.

EXISTING SERVICES:
IF ANY OF THE EXISTING SERVICES ARE INCORRECTLY LOCATED OR NOT USED FOR ANY REASON, THE DEVELOPER SHALL ABANDON THE LATERALS AT THE CONNECTION TO THE ACTIVE MAIN IN ACCORDANCE WITH THE UDACs AND AT THE DEVELOPER'S EXPENSE.

SEWER CONSTRUCTION KEY NOTES

1. INSTALL 48" SANITARY SEWER MANHOLE PER SOUTHERN NEVADA DESIGN & CONSTRUCTION STANDARDS FOR WASTE WATER COLLECTION SYSTEMS, 1997, SD-1, SD-7.
2. INS' ALL 8" SEWER MAIN
3. TRENCH BACKFILL UNPAVED AREA PER SUMMERLIN STD. DWG. NO. U-19
4. TRENCH BACKFILL PAVED AREA PER SUMMERLIN STD. DWG. NO. U-20
5. NO' IN USE
6. TRENCH BACKFILL PAVED AREA PER SUMMERLIN STD. DWG. NO. U-21 (PRIOR TO FINAL LIFT)
7. REMOVE PLUG AND EXTEND SEWER LINE
- (BWV) BACK WATER VALVE (FOR DETAIL SEE SHEET C2)

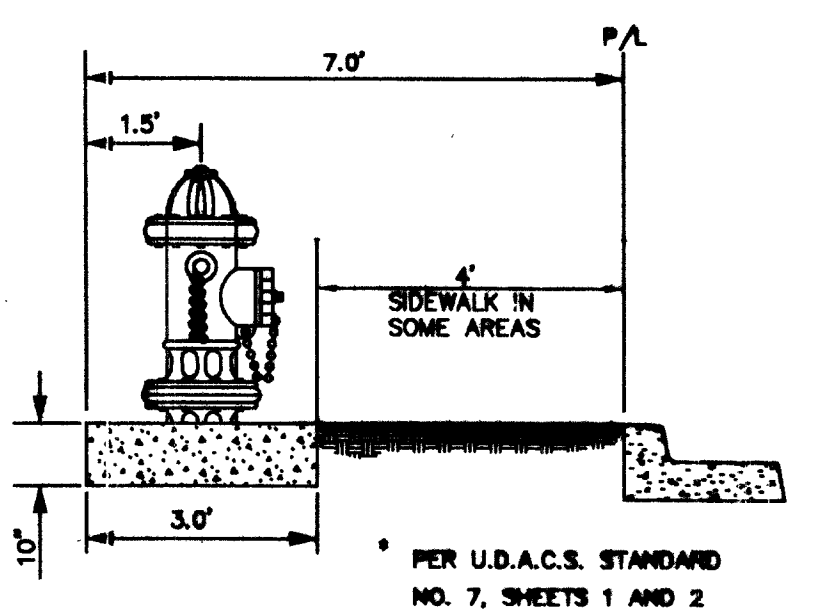


SEWER CONTRIBUTIONS

AVERAGE FLOW: 0.0015 MG
PEAK FLOW: 0.0051 MG

LEGEND

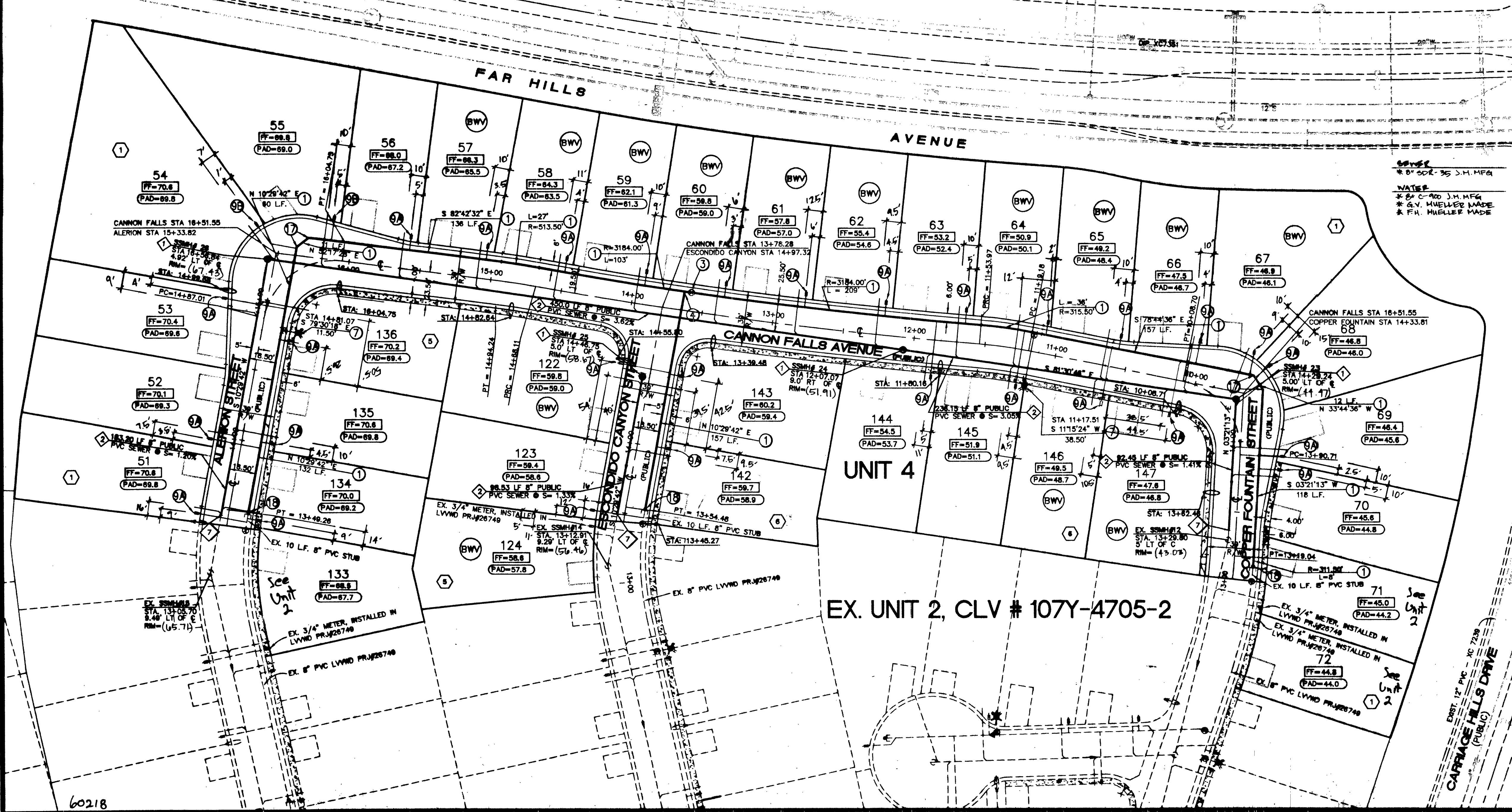
- EXISTING FIRE HYDRANT LOCATION
- PROPOSED FIRE HYDRANT LOCATION
- PROPERTY LINE
- STREET CENTERLINE
- RIGHT OF WAY LINE
- EXISTING TRAFFIC SIGN
- PROPOSED TRAFFIC SIGN
- EXISTING UTILITY VALVE
- PROPOSED UTILITY VALVE
- EXISTING SEWER MAIN WITH MANHOLE
- PROPOSED SEWER MAIN WITH MANHOLE
- PROPOSED 4" SEWER LATERAL
- PROPOSED 1" WATER LATERAL W/ 3/4" METER (UNLESS NOTED OTHERWISE ON PLAN)
- PROPOSED DRIVEWAY LOCATION
- AREA OF EX. AC OR SIDEWALK REMOVAL
- PROPOSED STREETLIGHT



FIRE HYDRANT DETAIL

NOT TO SCALE
PROJECT NAME: Summerlin Village 20
Parcel U (ENCANTO)
Parcel T (SANTALINA)
This project water plan complies with the Las Vegas Valley Water District's technical requirements. However, this water plan is
NOT APPROVED FOR CONSTRUCTION
at this time and this signature does not provide or imply a water commitment.
[Signature] 10/28/02
LVWD #32 DATE

APPROVED FOR CONSTRUCTION
[Signature] 12-03-02
LAS VEGAS VALLEY WATER DISTRICT DATE



EX. UNIT 2, CLV # 107Y-4705-2

DESIGNED BY: *[Signature]*
DRAWN BY: *[Signature]*
CHECKED BY: *[Signature]*
PROJECT DATE: 10/28/02

UTILITY PLAN
SUMMERLIN, VILLAGE 20
PARCEL U (ENCANTO)
PARCEL T (SANTALINA)
UNIT 4

William Lyon Homes, Inc.

STATE OF NEVADA
COUNTY OF CLARK
JAMES A. BARNETT
PROFESSIONAL LAND SURVEYOR
No. 10574

6280 S. Valley View Blvd Suite 200
Las Vegas, NV 89118
Tel: (702) 368-3008
Fax: (702) 368-0047

CONSULTANTS, INC.
ENGINEERING - PLANNING - LAND SURVEYING

SHEET
U1
7 OF 11
AGENCY DWG. NO.
307Y-4705-4

AS-BUILT