

DISCLAIMER NOTE

THESE PLANS SHOW THE LOCATION OF ALL UTILITIES AS SHOWN ON THE RECORD PLANS AND FIELD SURVEY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF LAS VEGAS AND THE NEVADA DEPARTMENT OF WATER RESOURCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF LAS VEGAS AND THE NEVADA DEPARTMENT OF WATER RESOURCES.

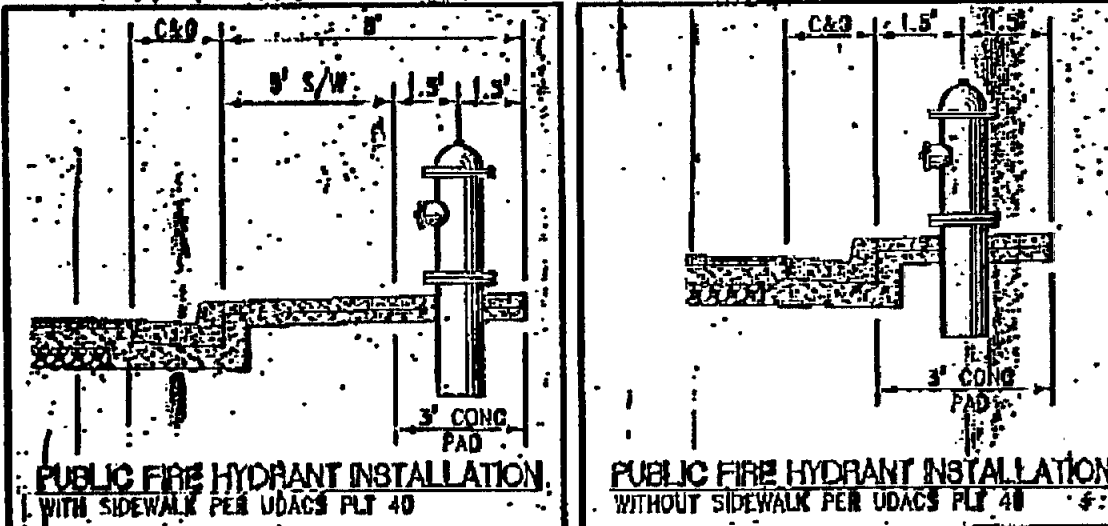
Cal
before you
Overhead
1-702-227-2029
1-800-227-2000
1-800-422-7444

WARNING UTILITY NOTES:
1. EXISTING UTILITIES AS SHOWN ARE FOR REFERENCE ONLY. CONTRACTOR TO FIELD VERIFY BOTH VERTICAL AND HORIZONTAL LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY OWNER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. ENGINEER ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITIES SHOWN INCORRECTLY OR OTHERWISE.

WATER MAIN JOINT DEFLECTION (PVC 4-24)
PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE CORRELATION SHALL BE ONE (1) DEGREE PER JOINT WITH A MAXIMUM RADIUS OF CURVATURE OF 1,158 FEET, PER UOAC 2.07.01 AND 2.07.02.

NOTE:
NORMAL PIPELINE MARKER SHALL BE INCH ABOVE EACH HORIZONTAL ELBOW: 12 INCH PER UOAC PLATE NO. 15.

WATER MAIN FOR ALL LOTS
1. THIS PROJECT RESIDES WITHIN THE 3500 WATER ZONE. THEREFORE, ALL LOTS WITH A FINISH FLOOR ELEVATION LESS THAN 3505.50 WILL REQUIRE AN INDIVIDUAL ON-SITE (PRIVATE) PRESSURE REDUCING VALVE.
2. THIS PROPERTY HAS STATED WATER 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. THE CONTRACTOR'S RESPONSIBILITY AND WILL NOT BE DEPECTED OR INCLUDED IN THE ACCEPTANCE OF LIVING FACILITIES.

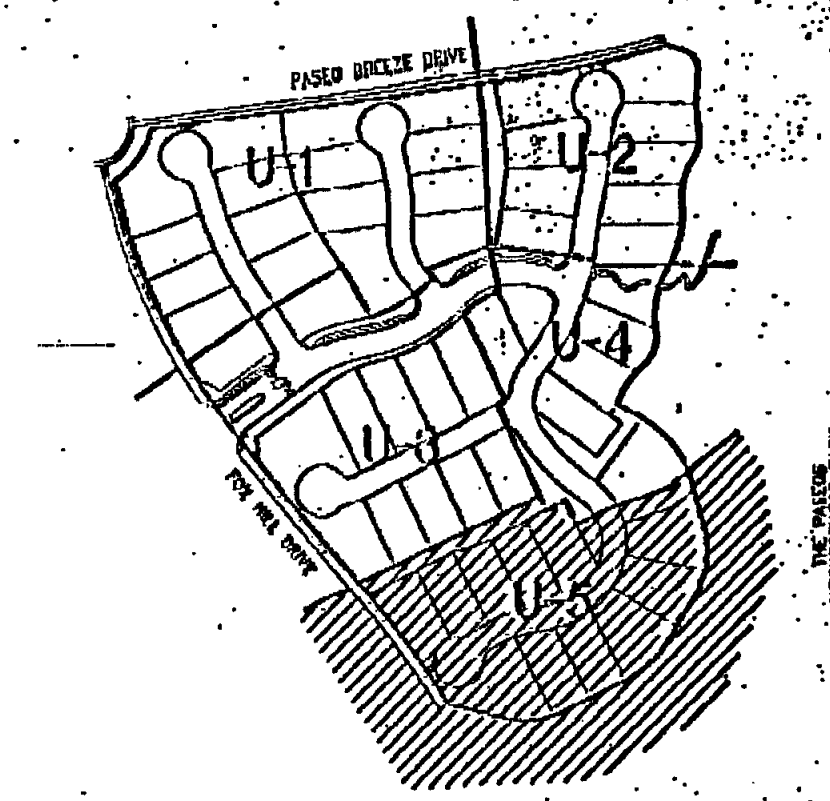


BACKWATER VALVE
ALL LOTS WITH THIS SYMBOL REQUIRE A BACKWATER VALVE.
PRESSURE REDUCING VALVE
ALL LOTS WITH THIS SYMBOL REQUIRE A PRESSURE REDUCING VALVE.

ABANDONED VALVES CUT AND CAP
ALL VALVES TO BE ABANDONED SHALL BE ABANDONED IN THE CLOSED POSITION, UNLESS SHOWN OTHERWISE, BY REMOVING A MINIMUM OF THE TOP TWENTY-FOUR (24) INCHES OF THE VALVE BOX AND THEN FILLING THE BOTTOM OF THE BOX WITH A MINIMUM OF EIGHT (8) INCHES OF SAND OR TYPE A AGGREGATE BASE. THE REMAINING PORTION OF THE VALVE BOX SHALL BE FILLED WITH CONCRETE HAVING A COMPRESSIVE STRENGTH OF AT LEAST TWO THOUSAND (2,000) PSI. THE LATERAL MUST BE CUT WITHIN ONE (1) FOOT OF THE ABANDONED VALVE, OR AS SHOWN ON PLANS, AND CAPPED. THE CONTRACTOR SHALL CUT THE EXISTING PIPE WHERE SHOWN ON THE DRAWING AND INSTALL A CAP COMPLETE WITH THRUST BLOCK. WHERE A JOINT OR COUPLING IN THE EXISTING PIPE IS LOCATED AT THE CUT AND CAP LOCATION, THE INSTALLATION OF A PLUG MAY BE PERMITTED WITH DISTRICT APPROVAL. A CONCRETE THRUST BLOCK SHALL BE INSTALLED AT ALL CAP OR PLUG LOCATIONS IN ACCORDANCE WITH THE PROVISIONS OF UOAC PLATE 31.

NOTES:
1. ADJUST WATER VALVE BOXES TO FINISH GRADE PER UOAC PLATE NO. 3A. VALVES SHALL BE ACCESSIBLE AT ALL TIMES.
2. ALL SEWER/STORM DRAINAGE CROSSING WATERLINES MUST CONFORM TO SECTION 2.22 OF UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UOACS) FOR WATER AND STORM MAIN CROSSING AND CLEARANCES.
3. ALL WATER PIPE DIMENSIONS SHOWN ARE GIVEN FROM FITTING TO FITTING AND ARE FOR REFERENCE ONLY. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.

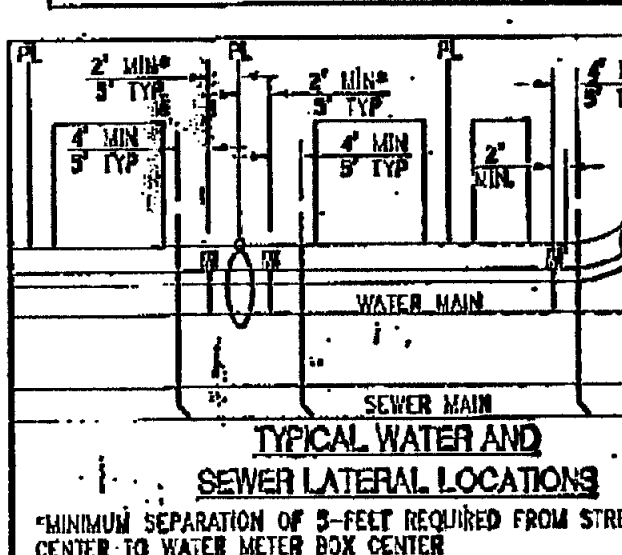
FIRE FLOW INFORMATION
TYPE OF CONSTRUCTION: V-1
TOTAL LIVING AREA: < 4,000 S.F.
TOTAL # OF UNDER ROOF: < 4,000 S.F.
NUMBER OF STORES: 0
BUILDING USE: SINGLE FAMILY RESIDENTIAL
SPRINKLER: 0
NUMBER OF FIRE HYDRANTS: 1
FIRE FLOW: 1,750 GPM AT 20 PSI RESIDUAL



BENCHMARK
CITY OF LAS VEGAS BENCHMARK NO. 71508 3464
A BENCHMARK PLATE IN THE TOP OF CURB AT THE NORTHEAST CORNER OF THE INTERSECTION OF THE STREET AND THE ALLEY.
ELEVATION=997.024 METERS (NAVD'83)
ELEVATION=3271.07 US SURVEY FEET (NAVD'83)
BASIS OF BEARINGS
SOUTH 83°00'00" WEST BEING THE BEARING OF THE CENTERLINE OF PASADENA DRIVE AS SHOWN ON THE THEODOLITE FIELD IN THE CLARK COUNTY RECORDER'S OFFICE IN BOOK 121, PAGE 12 OF PLATS.

SEWER CONSTRUCTION NOTES
(24) INSTALL 48" STANDARD MANHOLE (PER DCSWCS STD. NO. 50-1A, SD-4, SD-5 & SD-8).
(25) INSTALL 4" SEWER LATERAL (PER DCSWCS STD. NO. 50-17, SD-22 & SD-25) AND 1 CU-FT THRUST BLOCK & CAP.
(26) ABANDON EXISTING 8" SEWER MAIN PER DCSWCS S.18.1.
(27) ABANDON EXISTING 48" SEWER MANHOLE PER DCSWCS S.18.2.
(28) INSTALL 48" STANDARD MANHOLE WITH CORROSION PROTECTION (PER DCSWCS STD. NO. 50-1A, SD-4, SD-5, SD-8 & DCSWCS 2.2.10.1.2).

WATER CONSTRUCTION NOTES
(1) INSTALL FIRE HYDRANT ASSEMBLY PER UOAC PLATE NO. 40 (INCLUDES 8" GATE VALVE).
(2) INSTALL 8" X 8" TAPPING SLEEVE WITH 8" TAPPING VALVE PER UOAC PLATE NO. 34, 39 AND UOAC 2.24.01A.
(3) INSTALL 8" X 8" TEE PER UOAC PLATE NO. 31.
(4) INSTALL 8" 45° BEND PER UOAC PLATE NO. 31.
(5) INSTALL 8" 22.5° BEND PER UOAC PLATE NO. 31.
(6) INSTALL 8" 11.25° BEND PER UOAC PLATE NO. 31.
(7) INSTALL 8" 3" BEND WITH RESTRAINED JOINTS.
(8) INSTALL 8" GATE VALVE PER UOAC PLATE NO. 30 & NO. 30.
(9) INSTALL 8" X 8" TEE PER UOAC PLATE NO. 31.
(10) INSTALL 8" X 8" REDUCER PER UOAC PLATE NO. 30.
(11) INSTALL 8" 11.25° BEND PER UOAC PLATE NO. 31.
(12) INSTALL (2) 4" SCHEDULE 40 PVC IRRIGATION SLEEVES.
(13) INSTALL (4) 4" SCHEDULE 40 PVC IRRIGATION SLEEVES.
(14) OPEN GATE VALVE AFTER ISOLATION OF 3450 PRESSURE ZONE IS COMPLETED PER NOTE 10 BELOW.
(15) INSTALL 4" CAP WITH 2" BLOW OFF ASSEMBLY PER UOAC PLATE NO. 38.
(16) INSTALL 1" COUPLER SERVICE LATERAL WITH 3/4" WATER PER UOAC PLATE NO. 4 (INSTALL PER UNIMPROVED LOCATION).
(17) INSTALL 1" COPPER SERVICE LATERAL WITH 3/4" WATER METER (FOR IRRIGATION) WITH 1" BPPA PER UOAC PLATE NO. 4 & 8 (1" BRASS WATERLINE BETWEEN METER AND BPPA).
(18) PRIOR TO CONNECTIONS TO THE EXISTING WATER MAIN IN FOX HILL DRIVE, GATE VALVES AND CONNECTION PIPE BETWEEN WATER PRESSURE ZONES TO BE ABANDONED PER THE NOTE ON NO. 30-3078 SHEET DA WHICH ISOLATES THE 3450 PRESSURE ZONE.
(19) INSTALL 8" 22.5° BEND PER UOAC PLATE NO. 31.



CITY OF LAS VEGAS FIRE DEPARTMENT APPROVAL
BY: [Signature] DATE: 4/18/13
APPROVAL OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR OR ANY APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE CITY OF LAS VEGAS FIRE DEPARTMENT. FIRE FLOW 1,750 GPM AT 20 PSI RESIDUAL.

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: 4/18/13 PROJECT: 121254
LVWD APPROVED FIRE FLOW 1,750 GPM AT 20 PSI RESIDUAL.

WASTEWATER FLOW CALCULATION
CALCULATIONS:
UNIT 1 = 53 ENU (53 LOTS) * 250 GPD * 0.0353 MGD = 0.0153 S.F. * 0.0458 MGD P.S.F. =

NAME	DATA	DATA	LENGTH	TANGENT
C18	42' 0" 0"	200.00	158.27	61.29
C19	22' 0" 0"	155.00	118.07	56.14
C20	42' 0" 0"	200.00	158.27	61.29
C21	42' 0" 0"	200.00	158.27	61.29

TOLL BROTHERS INC.
1101 W. LAS VEGAS BLVD. SUITE 200
LAS VEGAS, NV 89102
PHONE: 702-432-2800 FAX: 702-432-2810
WWW.TOLLBROTHERS.COM

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SANTALUZ AT SUMMERLIN VILLAGE 28A
PARCELS ES-1 AND WS-1
UTILITY PLAN (SHEET 5 OF 5)

CITY OF LAS VEGAS
APPROVED FOR CONSTRUCTION
DATE: 4/18/13
PROJECT: 121254
LVWD APPROVED FIRE FLOW 1,750 GPM AT 20 PSI RESIDUAL.

U-5
SHT 29 OF 39
CITY DRAWING NUMBER
10748984
CITY PROJECT NUMBER 14819