

- LEGEND:**
- PROPOSED PVC SEWER MAIN WITH CLEAN OUT
 - PROPOSED PVC WATER MAIN AND GATE VALVE
 - PROPOSED FIRE HYDRANT ASSEMBLY
 - EXISTING 8" PVC SEWER MAIN WITH EXISTING MANHOLE
 - EXISTING 24" STORM DRAIN MAIN WITH EXISTING MANHOLE
 - EXISTING 8" PVC WATER MAIN AND GATE VALVE
 - PROPOSED 4" SEWER LATERAL AND CLEANOUT
 - PROPOSED 2" WATER SERVICE LATERAL WITH 2" METER, STUB AND PLUG
 - EXISTING FIRE HYDRANT ASSEMBLY
 - EXISTING STREETLIGHT
 - PROPOSED STREETLIGHT

RESTAURANT FIRE FLOW CALCULATIONS
FIRE FLOW REQUIREMENT IS 1825 GALLONS PER MINUTE AT 20 POUND PER SQUARE INCH RESIDUAL PRESSURE.

	NEW	EXISTING
SQUARE FOOTAGE	3,700 S.F.	
LARGEST AREA BETWEEN 4 HRS. SEPARATION WALLS	N/A	
BLDG. HEIGHT	23'±	
NUMBER OF STORIES	1 FLOOR	
TYPE OF CONSTRUCTION	TYPE V-N	
OCCUPANCY	COMMERCIAL	
SPRINKLER SYSTEM	YES	
ROOF CONSTRUCTION	TILE	

RECEIVE BY: *[Signature]*
DATE: 8/14/02

RETAIL PAD #1 FIRE FLOW CALCULATIONS
FIRE FLOW REQUIREMENT IS 1825 GALLONS PER MINUTE AT 20 POUND PER SQUARE INCH RESIDUAL PRESSURE.

	NEW	EXISTING
SQUARE FOOTAGE	6,300 S.F.	
LARGEST AREA BETWEEN 4 HRS. SEPARATION WALLS	N/A	
BLDG. HEIGHT	23'±	
NUMBER OF STORIES	1 FLOOR	
TYPE OF CONSTRUCTION	TYPE V-N	
OCCUPANCY	COMMERCIAL	
SPRINKLER SYSTEM	YES	
ROOF CONSTRUCTION	TILE	

RECEIVE BY: *[Signature]*
DATE: 8/16/02

RETAIL PAD #3 FIRE FLOW CALCULATIONS
FIRE FLOW REQUIREMENT IS 1825 GALLONS PER MINUTE AT 20 POUND PER SQUARE INCH RESIDUAL PRESSURE.

	NEW	EXISTING
SQUARE FOOTAGE	14,827 S.F.	
LARGEST AREA BETWEEN 4 HRS. SEPARATION WALLS	N/A	
BLDG. HEIGHT	23'±	
NUMBER OF STORIES	1 FLOOR	
TYPE OF CONSTRUCTION	TYPE V-N	
OCCUPANCY	COMMERCIAL	
SPRINKLER SYSTEM	YES	
ROOF CONSTRUCTION	TILE	

RECEIVE BY: *[Signature]*
DATE: 8/14/02

- WATER KEY NOTES:**
- A INSTALL FIRE HYDRANT ASSEMBLY PER UDACS STD. PLATE NO. 7
 - B 8" GATE VALVE (PER U.D.A.C.S. PLATE NO. 8)
 - C 8" 90° ELBOW
 - D 8" 45° ELBOW
 - E 8" X 22.5" BEND
 - F 8" TEE
 - G 8" CAP
 - H 6" CROSS TEE
 - J 6" TEE
 - K 6" G.V.
 - L 6" CAP
 - M 6" 90° ELBOW
 - N 6" 45° ELBOW
 - O 6" 22.5" ELBOW

- QUANTITIES**
SEE SHEET C4
- UTILITY NOTE**
- NOTIFY TETRA TECH, INC. IMMEDIATELY OF ANY DISCREPANCIES IN THE PLANS OR CONDITIONS IN THE FIELD.
 - 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. TETRA TECH, INC. SHALL BE CONTACTED ONCE THE UTILITY IS LOCATED.
 - 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.
 - CONTRACTOR TO SAWCUT AND REMOVE EXISTING ASPHALT AND CONCRETE AS NECESSARY FOR UTILITY TRENCHES. BACKFILL AND PATCH ALL TRENCHES ACCORDING TO CITY OF LAS VEGAS STANDARDS.
 - ALL WATER SERVICE LINES AND METERS SHALL BE INSTALLED PER LAS VEGAS VALLEY WATER DISTRICT STANDARDS AND SPECIFICATIONS.
 - CONTRACTOR TO FIELD VERIFY LOCATION AND INVERT OF MANHOLE PRIOR TO CONSTRUCTION. TETRA TECH, INC. SHALL BE CONTACTED ONCE THIS INFORMATION HAS BEEN OBTAINED.

APPROVALS

LAS VEGAS VALLEY WATER DISTRICT TECHNICAL APPROVAL

PROJECT NAME: Buffalo 95 Davis

THIS PROJECT WATER PLAN COMPLIES WITH THE LAS VEGAS VALLEY WATER DISTRICTS 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] 7/19/02
LAS VEGAS VALLEY WATER DISTRICT DATE

LAS VEGAS VALLEY WATER DISTRICT DATE

[Signature] 9/6/02
CITY OF LAS VEGAS FIRE DEPARTMENT DATE

SEE BLOW UP DRAWING # 2 ON SHEET 7A OF 8

NOTE

THIS PROPERTY MAY HAVE STATIC 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. PRIVS ARE THE DEVELOPER'S RESPONSIBILITY AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVWD FACILITIES.

INSTALLATION OF DOUBLE CHECK DETECTOR ASSEMBLY (3)-8"

THE DOUBLE CHECK DETECTOR ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH THE UDACS PLATE 20B.

ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S), SO AS TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY.

REDUCED PRESSURE PRINCIPLE ASSEMBLY (9)-2"

APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLATE NO. 11A. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACK FLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVWD.

ANY BLOCK WALL OR FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY. EASEMENT SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

DISCLAIMER NOTE:

UTILITY LOCATION SHOWN HEREON ARE APPROXIMATE. ONLY IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVER-HEAD 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 LOCATIONS. NOTIFY ENGINEER IMMEDIATELY IF DISCREPANCIES ARE ENCOUNTERED.

SEE BLOW UP DRAWING # 3 ON SHEET 7A OF 8

Avoid overhead power line contact.

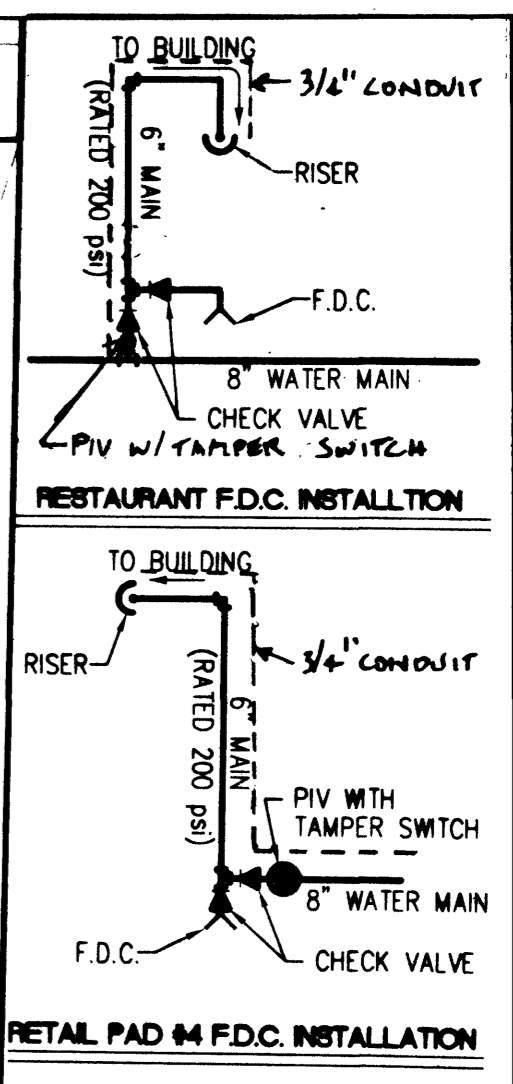
Call before you Overhead

1-702-593-6111
NEVADA POWER ENVIRONMENT SAFETY SERVICES DEPARTMENT

Avoid cutting underground utility lines. It's costly.

Call before you Dig

1-800-227-2600
UNDERGROUND SERVICE (USA)



PHD PROPERTIES
3225-B S. RAINBOW BLVD., SUITE 206
LAS VEGAS, NEVADA 89146
TEL: (702) 875-1167, FAX (702) 248-1324

TETRA TECH, INC.
REGISTERED PROFESSIONAL ENGINEERS & ARCHITECTS
401 N. Durbin Dr., Suite 100, Las Vegas, Nevada 89101
(702) 248-4800

UTILITY PLAN
BUFFALO / 95 - DAVIS
CITY OF LAS VEGAS, NEVADA

REVISION

NO.	DATE	BY	REASON

PHD001-2824

SCALE: 1"=40'

DESIGNED BY: *[Signature]*
DRAWING CHECKED BY: *[Signature]*
DATE: 7/18/02

REGISTERED PROFESSIONAL ENGINEER
JOSEPH D. THOMPSON
CIVIL
No. 11907

UT1
7 of 7
DRAWING NO. 107-V-3472-02