



- PRIVATE FIRE SERVICE MAIN STANDARD NOTES**
- A PRIVATE FIRE SERVICE MAIN IS THAT PIPE AND ITS APPURTENANCES ON PRIVATE PROPERTY.
 - BETWEEN A SOURCE OF WATER AND THE BASE OF THE RISER (NOT OVER 6 IN. ABOVE THE FLOOR) FOR WATER-BASED FIRE SERVICE MAINS.
 - THE PRIVATE FIRE SERVICE MAIN HAS DETERMINED THAT THE UNDERGROUND PORTIONS OF A SPRINKLER SYSTEM ARE DEFINED AS: THAT PORTION OF THE PIPING BETWEEN A SOURCE OF PUBLIC WATER (USUALLY IN A PUBLIC STREET) AND THE BASE OF THE RISER.
 - THE UNDERGROUND PORTION OF A SPRINKLER SYSTEM IS THE SERVICE MAIN SUPPLYING ANY AUTOMATIC FIRE SPRINKLER SYSTEM. THIS SERVICE MAIN SHALL BE INSTALLED IN ACCORDANCE WITH THE STATE FIRE MARSHAL DIVISION FOR THE UNDERGROUND INSTALLATION OF SPRINKLER.
 - THE INSPECTION AND TESTING OF ALL PRIVATE FIRE SERVICE MAINS SHALL BE WITNESSED AND APPROVED BY THE FIRE PREVENTION DIVISION.
 - ALL VALVES CONTROLLING CONNECTIONS TO WATER SUPPLIES AND TO SPRINKLER PIPING SHALL BE LISTED INDICATING VALVES OR AS APPROVED BY THE FIRE PREVENTION DIVISION.
 - ALL VALVES CONTROLLING CONNECTIONS TO WATER SUPPLIES AND TO SPRINKLER PIPING SHALL BE PROTECTED FROM FREEZING WHEN EXPOSED TO TEMPERATURES LESS THAN 40 F. FREEZE PROTECTION SHALL BE PROVIDED IN SUCH A MANNER THAT IT WILL LAST THE LIFETIME OF THE VALVE.
 - ALL FIRE DEPARTMENT CONNECTIONS (FDC) FOR FIRE SPRINKLER SYSTEMS SHALL BE LOCATED WITHIN 100 FEET OF FIRE HYDRANT. ALL WORK SHALL BE IN ACCORDANCE WITH NIPFA-24 STANDARD FOR THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND RELATED APPURTENANCES.

DOUBLE CHECK DETECTOR ASSEMBLY (DCDA) (1) 8"
 THE DOUBLE CHECK DETECTOR ASSEMBLY(S) SHALL BE INSTALLED IN ACCORDANCE WITH THE UDACS PLATE NO. 11C.
 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 EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

REDUCED PRESSURE PRINCIPLE ASSEMBLY (3) 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 BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVWD.

ANY BLOCK WALL OR OTHER 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.

ESN.026

FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENTS IS 2,250 GALLONS PER MINUTE AT 20 PSI RESIDUAL PRESSURE.

BASED ON:

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|--|--------------------|
| SQUARE FOOTAGE: | 37,803 SQUARE FEET |
| OCCUPANCY: | 29,256 SQUARE FEET |
| LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION WALLS: | N/A |
| NUMBER OF STORIES: | 38-4 FLOORS |
| TYPE OF CONSTRUCTION: | YES |
| OCCUPANCY: | COMMERCIAL |
| FULL AUTOMATIC FIRE SYSTEM: | YES |

REVIEWED BY: [Signature] DATE: 11/20/17
 LAS VEGAS FIRE DEPARTMENT

NOTE:
 PER LAS VEGAS PROJECT STANDARDS MANUAL, DIVISION 2, UNDERGROUND UTILITY TRACING REQUIRES TRACE WIRE ON ALL NON-CONDUCTIVE PIPE.

NOTE:
 "IF THERE IS A CONFLICT BETWEEN CONTRACT DRAWINGS AND/OR SPECIFICATIONS, THE LAS VEGAS PROJECT STANDARDS SHALL PREVAIL."

APPROVED FOR CONSTRUCTION
 [Signature]
 Las Vegas Valley Water District
 DATE: [Blank]
 PROJECT# 113706

QUANTITY ESTIMATES (ON-SITE)

WATER

| | | |
|---|--|-----------|
| 1 | 8" 90° BEND | 7 EA |
| 2 | 8"x8" MJ TAPPING SLEEVE (PER UDACS PLATE 22) | 1 EA. |
| 3 | 8" TAPPING VALVE (PER UDACS PLATE 22) | 1 EA. |
| 4 | 8" CAP AND BLOW OFF (PER UDACS PLATE 4A) | 1 EA. |
| 5 | 8" CAP AND BLOW OFF (PER UDACS PLATE 4A) | 1 EA. |
| | 8" PVC WATER (PRIVATE FIRE LINE)(RATED FOR 200PSI) | 302.90 LF |

BASIS OF BEARINGS
 THE BASIS OF BEARINGS FOR THIS PROJECT IS NORTH 27°54'36" EAST - THE CENTERLINE OF LAS VEGAS BOULEVARD FROM STATION 5+1077+00.00 POT TO STATION 5+1155+93.64 POT (AND FREMONT AVENUE) BEARS NORTH 27°54'36" EAST PER NEVADA DEPARTMENT OF HIGHWAY DRAWINGS, PROJECT NUMBER F005-1(3), AS SHOWN BY THAT RECORD OF SURVEY ON FILE IN THE OFFICE OF THE COUNTY RECORDER, CLARK COUNTY, NEVADA, IN FILE 67 OF SURVEYS, AT PAGE 78.

PROJECT BENCHMARK
 PROJECT DATUM: CITY OF LAS VEGAS BENCHMARK NO. CLVGM FREMONT 6 - RIVET AND PLATE IN THE TOP OF CURB AT THE NORTHEAST RETURN OF FREMONT AND LAS VEGAS BOULEVARD.
 NAVD83 ELEVATION: 2007.32 METERS (6586.70 FEET)

CITY OF LAS VEGAS
 CITY OF LAS VEGAS, NEVADA
 2227 SOUTH RAINBOW BOULEVARD LAS VEGAS, NEVADA 89146-5148
 PH. (702) 837-7550 FAX (702) 382-7597
 nevada.nv.gov

UTILITY PLAN
 FIFTH STREET SCHOOL
 CLV# 107V2288

REVISIONS

| NO. | DATE | BY | REVISION |
|-----|------|----|----------|
| 1 | | | |
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| 6 | | | |
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PROFESSIONAL ENGINEER
 DANIEL J. HOOD
 CIVIL
 LICENSE NO. 12811
 EXPIRES 06-30-07

Call before you Overhead
 1-702-227-2829

Call before you Dig
 1-800-227-2800

Underground
 1-702-455-7511
 CLARK COUNTY ENGINEERS

HANSEN# 18021

UT1
 7 OF 11 SHEETS
 DRAWING NO. CLV# 513-65E