

SIGHT VISIBILITY RESTRICTION ZONE (SVZ)
 SVZ SIGHT VISIBILITY RESTRICTION ZONE - NO OBSTRUCTION TO BE OVER 24" FROM TC IN HEIGHT IN HATCHED AREA. SEE SHEET 5 FOR DETAILS

EST. SEWAGE CONTRIBUTION
 AVERAGE FLOW: 0.04000 M.G.D.
 PEAK FLOW: 0.14000 M.G.D.

LAS VEGAS VALLEY WATER DISTRICT (LVVWD) STANDARD NOTES
 LVVWD PROJECT # 10103

- NO WORK SHALL BEGIN UNTIL THE WATER PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE LVVWD FOLLOWING WATER PLAN APPROVAL. NOTICE SHALL BE GIVEN TO THE LVVWD COMMUNICATION SUPPORT CENTER (258-7171) TWO (2) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION. FOR FUTURE INSPECTIONS, NOTICE MUST BE GIVEN BY 2:00 P.M. THE BUSINESS DAY PRIOR TO THE REQUESTED LVVWD INSPECTION. WHEN REQUESTING INSPECTIONS, PLEASE REFER TO THE PROJECT # IDENTIFIED ABOVE.
- ALL WORK SHALL CONFORM TO LVVWD STANDARD PLATES, DRAWINGS, AND SPECIFICATIONS, AND TO THE 2003 EDITION OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS).
- ALL WORK, EXCEPT AS MODIFIED BY THESE PLANS OR BY NOTE 2 ABOVE, SHALL BE DONE IN ACCORDANCE WITH THE MOST RECENT DRAFT OR EDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENT, CLARK COUNTY AREA.
- A SINGLE PIPE MATERIAL SHALL BE USED THROUGHOUT THE PROJECT UNLESS OTHERWISE APPROVED BY THE LVVWD.
- ALL SERVICE LATERALS TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING WITH LVVWD APPROVED SERVICE SADDLES.
- ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
- ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS, VALLEY AND CURB CUTTERS.
- ALL WATER AND STORM DRAIN OR SANITARY SEWER CROSSINGS SHALL CONFORM TO SECTION 2.19 OF THE 2003 EDITION OF THE UDACS.
- ALL WATER FACILITIES SHALL BE FILLED, DISINFECTED, PRESSURE TESTED, FLUSHED, FILLED, AND AN ACCEPTABLE WATER SAMPLE OBTAINED, PRIOR TO CONNECTION TO THE LVVWD DISTRIBUTION SYSTEM.
- THE CONTRACTOR MUST OBTAIN ALL METERS TWO (2) INCHES AND SMALLER FROM LVVWD CENTRAL STORES. TELEPHONE 258-3152 OR 258-3502, TWO (2) WORKING DAYS PRIOR TO METER PICKUP.
- ANY INTERRUPTION OF SERVICE MUST BE APPROVED BY THE LVVWD INSPECTION DIVISION PRIOR TO SCHEDULED WORK. WRITTEN NOTIFICATION MUST BE GIVEN TO ALL AFFECTED CUSTOMERS.
- ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE AS LISTED ON THE LVVWD PRE-APPROVED MATERIALS AND MANUFACTURER'S LISTING FOR NEW FACILITIES. LATEST REVISION, OR SPECIFICALLY APPROVED ON THESE PLANS.
- TELEPHONE "CALL BEFORE YOU DIG" AT 1-800-227-2600

REV. MAY 2003

CLARK COUNTY FIRE DEPARTMENT NOTES:

- ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE 2005 CLARK COUNTY FIRE CODE, AND THE 2002 EDITION OF NATIONAL FIRE PROTECTION ASSOCIATION PAMPHLET #24.
- ON ANY BUILDING CONSTRUCTION, ACCESSIBLE FIRE HYDRANTS SHALL BE INSTALLED BEFORE COMBUSTIBLE MATERIALS ARE DELIVERED TO THE SITE AND CONSTRUCTION COMMENCED. SAID FIRE HYDRANTS SHALL BE IN GOOD WORKING ORDER WITH REQUIRED WATER SUPPLY.
- IF DURING CONSTRUCTION IT BECOMES NECESSARY TO CLOSE ANY CONTROL VALVE OR PLACE A HYDRANT OUT OF SERVICE, THE CLARK COUNTY FIRE DEPARTMENT MUST BE CONTACTED.
- PAINTING OF CURBS AND/OR STRIPING OF ASPHALT AREAS AND PROTECTION OF HYDRANT FROM PHYSICAL INJURY SHALL BE PER THE FIRE HYDRANT INSTALLATION SPECIFICATIONS OF THE FIRE PREVENTION BUREAU.
- NO FIRE HYDRANT SHALL BE LOCATED WITHIN 25 FEET OF ANY STRUCTURE, OR 5 FEET OF A DRIVEWAY, POWER POLE, LIGHT STANDARD, OR ANY OTHER OBSTRUCTION. FOR WALL, FENCE AND PLANTER LOCATIONS, A PERIMETER MEASURING A MINIMUM OF 3 FEET FROM ITS EXTERIOR SHALL BE MAINTAINED CLEAR OF ALL OBSTRUCTIONS AT ALL TIMES.
- AT ALL TIMES DURING CONSTRUCTION SUITABLE EMERGENCY VEHICLE ACCESS ROADS MUST BE MAINTAINED. ROADWAYS MUST BE SMOOTH, COMPACTED AND CAPABLE OF SUPPORTING THE IMPOSED LOADS OF ALL EMERGENCY VEHICLES.
- PRIOR TO ACCEPTANCE OF ANY FIRE SERVICE MAIN, A SATISFACTORY HYDROSTATIC TEST WITH PIPING JOINTS UNCOVERED MUST BE CONDUCTED. APPROVED PLANS AND A CONTRACTOR'S MATERIALS AND TEST CERTIFICATE MUST BE PROVIDED AT TIME OF INSPECTION.
- BLUE REFLECTIVE MARKERS MUST BE PROVIDED BEFORE FINAL HYDRANT ACCEPTANCE CAN BE ATTAINED. [2005 CLARK COUNTY FIRE CODE, Sec. 901.4.3]
- APPROVED FIRE HYDRANTS FOR THIS PROJECT ARE:
 - KENNEDY - GUARDIAN MODEL S W/IA AND W/IB
 - MUELLER - SUPER CENTURION 250 MODEL A-423
 - CLOW - MEDALLION MODEL F-2548LVD
 - TROY VALVE - PATRIOT MODEL P18000 NEVADA HYDRANT

09/20/05

ASBUILT

APPROVALS
 ESTIMATE MANAGER: *1st. App: 7/28/06* DATE: _____
Robert J. Morgan 4/16/07
 LAS VEGAS VALLEY WATER DISTRICT
 PROJECT # 10103

STORM DRAIN MANHOLE SCHEDULE

M/H#	ID	TYPE	STATION	OFFSET	RIM EL.	N INV EL.	S INV EL.	E INV EL.	W INV EL.	COMMENTS
SDMH1	60"	III	12+57.41 PEAK DRIVE	33.16'RT	2261.46	2259.30	2259.33	-	2257.32	-
SDMH2	60"	III	14+72.14 MADRES MESA DR	19.34'RT	2257.51	-	2259.04	-	2259.59	-

SANITARY SEWER MANHOLE SCHEDULE

M/H#	ID	TYPE	STATION	OFFSET	RIM EL.	N INV EL.	S INV EL.	E INV EL.	W INV EL.	COMMENTS
SSMH1	SD-1	14+72.78	MICKY MANTLE CT.	5'RT	2263.8	-	2258.80	-	-	-
SSMH2	SD-1	11+00.00	MICKY MANTLE CT.	5'RT	2261.7	2254.20	2254.00	-	-	-
SSMH3	SD-1	10+05.23	MICKY MANTLE CT.	5'RT	2259.8	2248.69	-	2248.62	2248.82	T-LOCK
SSMH4	SD-1	9+90.32	MADRES MESA DR.	5'RT	2257.9	-	2248.63	2248.83	-	-
SSMH5	SD-1	14+40.53	MADRES MESA DR.	7.53'LT	2253.9	2242.52	2242.72	-	-	OFF-SITE SSMH
SSMH6	SD-1	18+90.53	MADRES MESA DR.	8.54'LT	2250.8	2240.52	2240.72	-	-	OFF-SITE SSMH
SSMH7	SD-1	23+40.55	MADRES MESA DR.	8.81'LT	2247.7	-	2238.52	2238.72	-	OFF-SITE SSMH
SSMH8	SD-1	27+90.54	MADRES MESA DR.	7.44'LT	2243.8	2231.52	2231.72	-	-	OFF-SITE SSMH
SSMH9	SD-1	32+40.57	MADRES MESA DR.	6.41'LT	2240.2	-	2234.52	2234.72	-	OFF-SITE SSMH
SSMH10	SD-1	11+52.85	MADRES MESA DR.	5'LT	2236.30	-	2234.34	2234.54	-	OFF-SITE SSMH
EXSSMH	SD-1	36+32.03	MADRES MESA DR.	11.04'LT	2233.5	-	(2217.85)	-	2218.05	OFF-SITE SSMH

BENCH-MARK
 PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88)
 CITY OF LAS VEGAS BENCHMARK: 7725, SLV00 14566
 ELEVATION: 694.8878 METERS (2279.81 FEET)
 RIVET & PLATE IN TOP OF CURB ON THE WEST SIDE OF MAVERICK STREET @ CARTIER

CLARK COUNTY FIRE DEPARTMENT APPROVAL
 APPROVED BY: *Southern* DATE: 4/16/07
 APPROVAL OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR AN APPROVAL, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS, FIRE FLOW 1500 GPM AT 20 P.S.I. RESIDUAL.

UTILITY LEGEND

PROPOSED	EXISTING	DESCRIPTION
(Symbol)	(Symbol)	GATE VALVE
(Symbol)	(Symbol)	FIRE HYDRANT ASSEMBLY W/8" LATERAL & 6" GV
(Symbol)	(Symbol)	SEWER MANHOLE
(Symbol)	(Symbol)	PROPERTY LINE
(Symbol)	(Symbol)	EDGE OF PAVEMENT
(Symbol)	(Symbol)	SEWER LINE
(Symbol)	(Symbol)	WATER LINE
(Symbol)	(Symbol)	STREET LIGHT CONDUIT
(Symbol)	(Symbol)	4" SEWER LATERAL
(Symbol)	(Symbol)	WATER REDUCER
(Symbol)	(Symbol)	BACK WATER VALVE
(Symbol)	(Symbol)	PRESSURE REDUCING VALVE
(Symbol)	(Symbol)	5/8" PROPOSED WATER LATERAL & METER PER UDACS PLATE 1B UNLESS OTHERWISE NOTED
(Symbol)	(Symbol)	BLOW-OFF ASSEMBLY
(Symbol)	(Symbol)	CONCRETE DRIVEWAY
(Symbol)	(Symbol)	150W STREET LIGHT
(Symbol)	(Symbol)	STREET LIGHT PULLBOX
(Symbol)	(Symbol)	REMOVAL OF EXISTING PAVEMENT
(Symbol)	(Symbol)	PROPOSED PAVEMENT

FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENTS IS: 1500 GALLONS PER MINUTE AT XX psi RESIDUAL PRESSURE.

BASED ON:
 SQUARE FOOTAGE: 3000 SF
 LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION WALLS: N/A
 BUILDING HEIGHT: 30' ±
 NUMBER OF STORES: 2
 TYPE OF CONSTRUCTION: TYPE NFPBH
 OCCUPANCY: SINGLE-FAMILY
 FULL AUTOMATIC FIRE SPRINKLER SYSTEM: NONE

REVIEWED BY: *[Signature]* DATE: 4/16/07

ESTIMATE OF WATER QUANTITIES

8" PVC WATER MAIN	189 LF
8" PVC WATER MAIN	162 LF
8" 11.25' BEND	1 EA
8" GATE VALVE	1 EA
8"x8" TEE	1 EA
8"x6" REDUCER	1 EA
5" GATE VALVE	1 EA
2" BLOW-OFF ASSEMBLY W/CAP PER UDACS PLATE 4	1 EA
STD. FIRE HYDRANT ASSEMBLY W/ 6" LATERAL, 6" GATE VALVE	2 EA
3/4" WATER METER PER UDACS PLATE 1D (TYPICAL)	16 EA
1" WATER METER PER UDACS PLATE 1D W/1" RPPA PER UDACS PLATE 11A	1 EA

NOTE: QUANTITIES ARE APPROXIMATE ONLY - CONTRACTOR TO VERIFY.

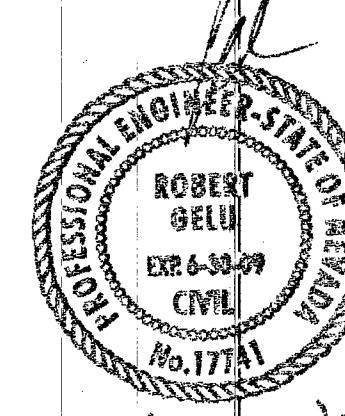
- CONSTRUCTION NOTES:**
- INSTALL 1" COPPER WATER LINE (IRRIGATION) W/ 1" METER AND 1" RPPA (REF. UDACS PLTS ID #11A)
 - INSTALL FIRE HYDRANT W/ASSEMBLY PER UDACS PLATE 7
 - INSTALL 8" GATE VALVE PER UDACS PLATE 3
 - INSTALL 10"x10" TRAPPING ASSEMBLY W/8" APPROXIMATE PER UDACS PLATE 3
 - INSTALL 11 1/4" BEND PER UDACS PLATE 5
 - INSTALL 8" x 8" REDUCER PER UDACS PLATE 5
 - INSTALL 8" x 6" TEE
 - INSTALL 4" PVC SEWER LATERAL
 - INSTALL 2" BLOWOFF ASSEMBLY PER UDACS PLATE 4
 - INSTALL (2) 4" PVC IRRIGATION SLEEVES
 - INSTALL 1" COPPER WATER LATERAL W/3/4" METER PER UDACS PLATE 1B
 - INSTALL 8" GATE VALVE PER PLATE 3
 - RELOCATE EXISTING HYDRANT PER UDACS PLATE 7

NOTES

- 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. PRVs ARE THE DEVELOPER'S RESPONSIBILITY AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVVWD FACILITIES.
- INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING PER UDACS PLATE #27.
- ALL STREET LIGHT INFO AND NOTES, INCLUDING REDUCES (4" THIS SHEET ARE SHOWN ON SHEET 14 TRAFFIC/ STREET LIGHTING PLAN.
- ALL STREET LIGHT AND TRAFFIC CONDUITS/PULLBOXES ARE TO BE INSTALLED UNDER SIDEWALK AREA (TYP).

Call before you UnderGround
 1-702-455-7777
 1-702-229-0811
 1-800-227-2929 1-800-227-2600

FIRE HYDRANT RELOCATION AND LATERAL ABANDONMENT
 (Existing lateral to be abandoned)
 Where shown on the drawing(s), the Contractor shall abandon the existing fire hydrant(s) by removing both the upper and lower barrels of the fire hydrant so that no portion of the remaining fire hydrant assembly is closer than two (2) feet to the existing grade. Fire hydrants shall be tested prior to and after relocation under the direction of the District to ensure quality of the fire hydrant(s). The adding hydrant shall be installed at the new location as indicated on the drawing, in accordance with UDACS Plate 7. The existing valve shall be abandoned in a 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 II 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 shall be cut within three (3) feet of the abandoned valve, or as shown on plans, and capped. Where a joint or coupling in the existing pipe is uncovered 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 cut and cap locations in accordance with the provisions of UDACS Plate 5. ESN:015A



SUMMIT ENGINEERING CORPORATION
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 PHONE (702) 382-3828 FAX (702) 222-0247

DESIGNED BY: RJC
 DRAWN BY: JH
 CHECKED BY: AH
 REVISED BY: RED - LIVES

CIVIL IMPROVEMENT PLANS FOR BUNKER COMMONS II UTILITY PLAN

REVISIONS:

NO.	DATE	DESCRIPTION	BY	APP'D
1	11/16/05	PROJECT CANCEL	RJC	[Signature]
2	11/16/05	REVISED PER OWNER	RJC	[Signature]
3	11/16/05	REVISED PER OWNER	RJC	[Signature]
4	11/16/05	REVISED PER OWNER	RJC	[Signature]

SHEET 13 OF 15
 SCALE: HORIZONTAL: AS SHOWN VERTICAL: AS SHOWN
 JOB NO: 70008
 PROJECT: BUNKER COMMONS II UTILITY PLAN