

UTILITY NOTES

- ALL SEWER/STORM DRAIN CROSSINGS WATER LINES MUST CONFORM TO SECTION 2.22 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.
- EXISTING WATER LATERALS CROSSING AND/OR PARALLEL TO PROPOSED SEWER AND/OR SEWER MANHOLES, RELOCATED OR DAMAGED WITH THIS PROJECT SHALL BE INSTALLED PER UDACS PLATE # 4 AND UDACS SECTIONS 2.17 AND 2.22.03 AND SERVICE RECONNECTION NOTE.

ENGINEER'S NOTES

- CONTRACTOR TO VERIFY SITE CONDITIONS PRIOR TO CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR DUST AND EROSION CONTROL DURING CONSTRUCTION.
- ENGINEER TO BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
- THESE PLANS SHALL NOT, IN PART OR IN WHOLE, BE USED FOR CONSTRUCTION UNTIL APPROVED AND SIGNED BY THE GOVERNING AGENCIES.

WARNING FIRE LINE (NON-POTABLE WATER)

ALL EXISTING, RELOCATED OR PROPOSED DCPA/RPDA INSTALLATIONS.

TO COMPLY WITH THE FEDERAL SAFE DRINKING ACT, THE FIRE LINE, OR ANY OF ITS COMPONENTS, SHALL NOT BE USED FOR POTABLE DRINKING WATER AT ANY TIME.

ALLEY PLAN VIEW

SCALE: 1" = 30'

FIRE FLOW CALCULATIONS

- * FIRE FLOW IS BASED ON THE TABLE B 105.1 (IFC APPENDIX B)
- * BUILDING HEIGHT, NUMBER OF STORIES, AND TYPE OF CONSTRUCTION ARE ALL DETERMINED BASED ON THE GUIDELINES AND DEFINITION OUTLINE IN IFC APPENDIX B
- * ANY PERMITTED REDUCTIONS IN THE REQUIRED FIRE FLOW ARE OUTLINED IN SNFC B105.2
- * IN DETERMINING THE MINIMUM NUMBER OF HYDRANTS REQUIRED, THE MAXIMUM FLOW FROM EACH HYDRANT SHALL BE 1500GPM. HYDRANT SPACING SHALL BE PER IFC APPENDIX C / SNFC SECTION C105.1

DEVELOPMENTS WITH MULTIPLE BUILDINGS: THIS CHART SHALL BE PROVIDED FOR THE LARGEST BUILDING FOR EACH CONSTRUCTION TYPE, AND FOR EACH SPRINKLERED/NONSPRINKLERED BUILDING TYPE IF APPLICABLE.

FIRE FLOW CALCULATIONS	
FIRE FLOW REQUIREMENT IS 1500 GALLONS PER MINUTE @ 20 PSI RESIDUAL PRESSURE.	
BASED ON:	
SQUARE FOOTAGE:	2046 SF
LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION WALLS:	N/A SF
BUILDING HEIGHT:	15 FT
NUMBER OF STORIES:	1 FLOORS
TYPE OF CONSTRUCTION:	V-B
OCCUPANCY:	B
FULL AUTOMATIC FIRE SPRINKLER SYSTEM:	YES

REDUCED PRESSURE PRINCIPLE ASSEMBLY (RPPA) (2) 1"

THE REDUCED PRESSURE PRINCIPLE ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH THE UDACS PLATE NO. 8. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY LVVWD. 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(S) SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

REDUCED PRESSURE DETECTOR ASSEMBLY (RPDA) (1) 4"

THE REDUCED PRESSURE DETECTOR ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH THE UDACS PLATE NO. 56. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY LVVWD. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) SO AS TO ALLOW LVVWD DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY. EASEMENT(S) SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

ABANDONMENT OF EXISTING SERVICE(S) - 2" AND SMALLER

THE CONTRACTOR SHALL NOTIFY THE INSPECTION DIVISION AT THE LVVWD (702-258-3227) 48 HOURS PRIOR TO THE REQUESTED REMOVAL TIME. TO ALLOW THE DISTRICT TO TAKE THE FINAL METER READING. AFTER THE FINAL READING THE CONTRACTOR MAY THEN BEGIN REMOVAL PROCEDURES FOR THE AFFECTED SERVICE AS FOLLOWS: EXISTING SERVICE LATERALS THAT ARE TO BE ABANDONED FROM THE EXISTING WATER MAINS SHALL HAVE THE CORPORATION STOPS TURNED OFF AT THE MAIN, A MINIMUM OF TWELVE (12) INCHES OF THE LATERAL CUT OUT NEAR THE CORPORATION STOPS, AND A BRASS CAP INSTALLED ON THE CORPORATION STOP. IF THE CORPORATION STOP IS DAMAGED BEYOND REPAIR OR PULLED FROM THE EXISTING WATER MAIN, THE MAIN SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, IN A MANNER APPROVED BY THE DISTRICT. IF THE CORPORATION STOP IS NOT WATER TIGHT, THE CONTRACTOR SHALL NOTIFY LVVWD COMMUNICATION SUPPORT CENTER AT (702-258-7171) FOR FURTHER DIRECTION. THE EXISTING METER(S) SHALL BE REMOVED AND DELIVERED TO THE DISTRICT. THE CONTRACTOR SHALL REMOVE THE EXISTING SERVICE METER BOX AND APPURTENANCES, FILL AND GRADE ANY AND ALL RESULTING VOIDS, AND REPLACE OR RESTORE TO ORIGINAL CONDITIONS OR BETTER, ALL LANDSCAPING, IRRIGATION SYSTEMS, CONCRETE, SIDEWALKS, ASPHALT, OR ANY OTHER ITEMS DAMAGED OR REMOVED DURING THE REMOVAL OF THE EXISTING SERVICE METER BOX.

WATER LATERALS DETAIL

SCALE: VERTICAL = 1"=10'

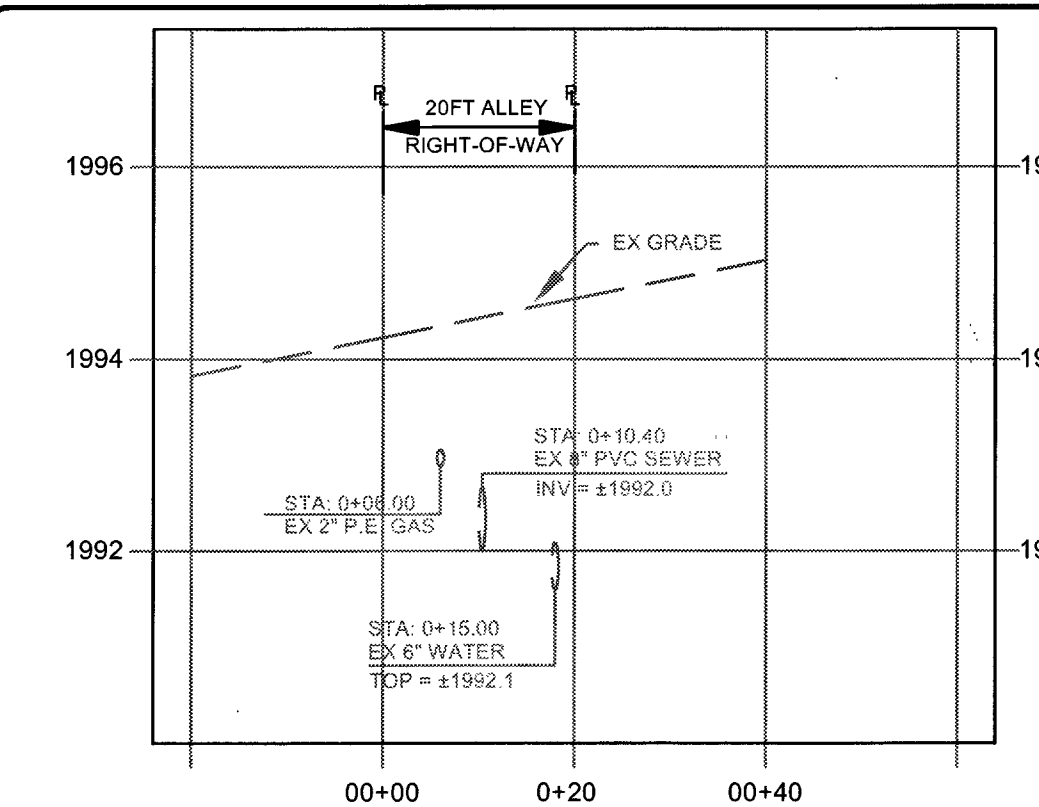
CONSTRUCTION NOTES

- 15FT X 15FT LVVWD EXCLUSIVE EASEMENT
- INSTALL 4" PVC WATER PIPE
- INSTALL 4" RPDA PER UDACS PLATE NO. 56 AND NOTE ON THIS SHEET
- INSTALL 1" COPPER WATER LINE
- INSTALL 1" WATER METER PER UDACS PLATE NO. 4
- INSTALL 1" RPPA PER UDACS PLATE NO. 8 AND NOTE ON THIS SHEET
- INSTALL BOLLARDS PER UDACS NO. 75
- EXISTING 8" PVC WATER MAIN (CO-673)
- AT STATION 1+61.13 CONNECT PROPOSED 1" COPPER WATER LATERAL TO EXISTING 8" PVC MAIN PER UDACS PLATE NO. 4
- AT STATION 1+69.13 CONNECT PROPOSED 6" PVC WATER LATERAL TO EXISTING 8" WATER MAIN PER UDACS PLATE NO. 34, W/8"X6" TAPPING SLEEVE & 6" TAPPING VALVE
- TRENCH AND BACKFILL AND AC PAVEMENT RESTORATION PER CCAUSD NO. 500.3, 500.5 & 503
- REMOVE AND REPLACE CURB AND GUTTER PER CCAUSD NO. 216
- REMOVE AND REPLACE SIDEWALK PER CCAUSD NO. 234
- SAWCUT LINE
- ABANDON AND REMOVE EXISTING 5/8" WATER METER PER UDACS SECTION 2.17.04 AND NOTE ON THIS SHEET
- INSTALL 2" PE WATER LINE
- INSTALL 1" BRASS WATER LINE PER UDACS PLATE NO. 8
- INSTALL 6" PVC WATER LINE PER UDACS PLATE NO. 17
- INSTALL 1" BRASS 90° BEND
- INSTALL 2" BRASS TEE
- INSTALL 2" X 1" REDUCER
- INSTALL 4" GATE VALVE PER UDACS PLATE NO. 30 AND NO. 39
- INSTALL FIRE HYDRANT ASSEMBLY PER UDACS PLATE NO. 40
- INSTALL 6" X 4" REDUCER PER UDACS PLATE NO. 30

ESTIMATE OF QUANTITIES

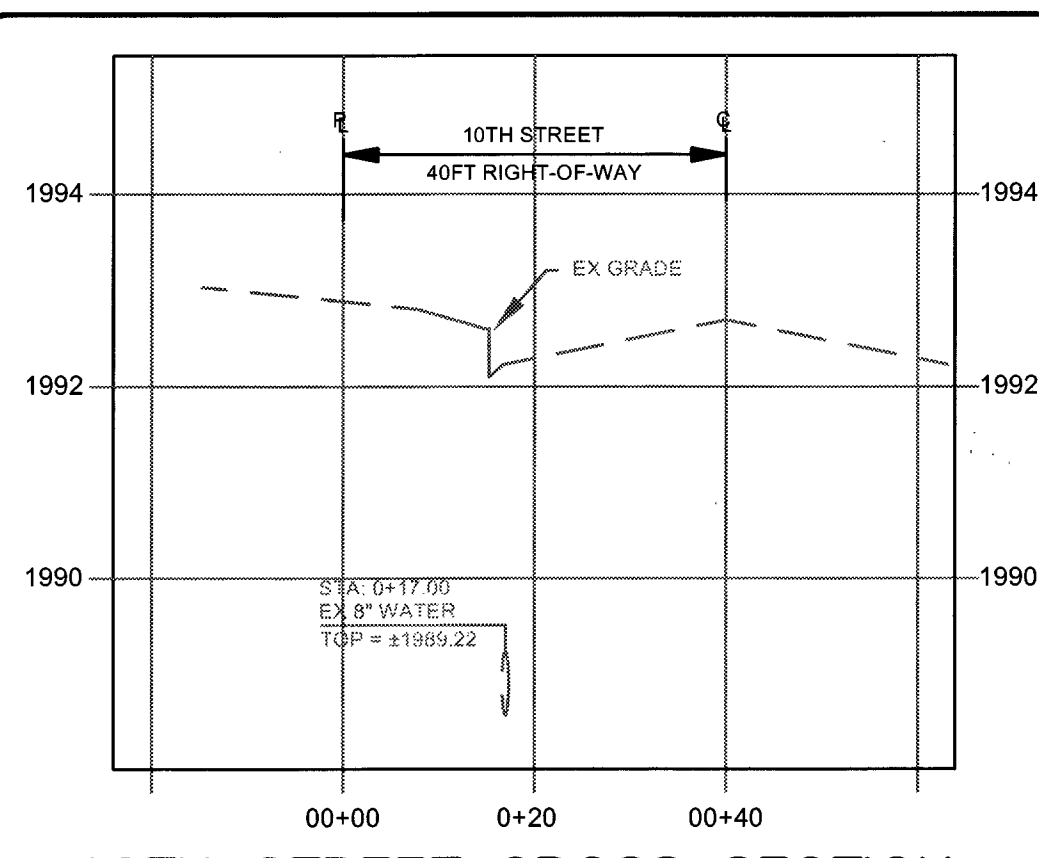
STREET IMPROVEMENTS	PRIVATE	PUBLIC	TOTAL
3" AC PAVEMENT	0 SF	27 SF	27 SF
1" CURB AND GUTTER	0 LF	12 LF	12 LF
SIDEWALK	0 SF	85 SF	85 SF
SEWER/WATER	PRIVATE	PUBLIC	TOTAL
1" BRASS WATER LINE	30 LF	13 LF	43 LF
2" PVC WATER LINE	8 LF	0 LF	8 LF
1" WATER METER	0 EA	2 EA	2 EA
1" RPPA	0 EA	2 EA	2 EA
2" BRASS 90° BEND	0 EA	0 EA	0 EA
2" BRASS TEE	1 EA	0 EA	1 EA
2" X 1" REDUCER	2 EA	0 EA	2 EA
4" PVC WATER LINE	45 LF	0 LF	45 LF
6" PVC WATER LINE	0 LF	22 LF	22 LF
4" RPDA	0 EA	1 EA	1 EA
FIRE HYDRANT ASSEMBLY	0 EA	1 EA	1 EA

NOTICE TO CONTRACTORS
QUANTITIES SHOWN ARE FOR PERFORMING PURPOSES ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING HIS OWN QUANTITY TAKE OFF, AND BID ACCORDINGLY.



ALLEY CROSS SECTION STA: 1+13.00

SCALE: VERTICAL = 1"=2'
HORIZONTAL = 1"=20'



10TH STREET CROSS SECTION

STA: 1+61.13

SCALE: VERTICAL = 1"=2'
HORIZONTAL = 1"=20'

LOCATION MAP



GRAPHIC SCALE

(IN FEET)
1 inch = 30 ft.

LEGEND

- ADJACENT PARCEL/PROPERTY LINE
- STREET CENTERLINE
- RIGHT-OF-WAY LINE
- EXISTING FIRE HYDRANT
- ASSESSOR PARCEL NUMBER
- EAST
- EACH
- EXISTING
- FEET
- INVERT ELEVATION
- GAS LINE
- LINEAR FEET
- NORTH
- POWER POLE
- RIM ELEVATION
- REINFORCED CONCRETE BOX CULVERT
- SOUTH
- SANITARY SEWER LINE
- SANITARY SEWER MANHOLE
- STATION
- WATER LINE OR WEST

BENCHMARK

CITY OF LAS VEGAS BENCHMARK NO. 13LV0135W4
RIVET AND PLATE IN TOP OF CURB SOUTHEAST CORNER OF FREMONT AND 11TH STREET.
ELEVATION = 1985.52 FT./605.188 M

BASIS OF BEARING

SOUTH 27°45'00" WEST, BEING THE BEARING OF THE CENTERLINE OF 10TH STREET AS SHOWN ON THAT CERTAIN PLAT OF BUCK'S SUBDIVISION OF LAS VEGAS ON FILE IN BOOK 1 PAGE 15 OF PLATS IN THE OFFICE OF THE COUNTY RECORDER, CLARK COUNTY, NEVADA.



APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
PROJECT NO. 124297 DATE 10/13/16
LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL

107V 6731
HANSEN NO.
62443

OWNER/DEVELOPER: TRINITY HAVEN DEVELOPMENT, LLC
12246 JAH ADD PUBLIC FIRE HYDRANT 3
10/13/16
10/13/16

ENGINEER: HAUNTEC
2721 IRONSIDE DRIVE
LAS VEGAS, NEVADA 89110-15641
PHONE (702) 204-8737
EMAIL: jhaun@haunteceng.com

UTILITY PLAN
ATOMIC LIQUOR FIRE LATERAL & WATER METER
CITY OF LAS VEGAS, NEVADA

DESIGNER:
DRAWN BY:

PROJ: 124297
JOB NO. 15-0076
SHEET NO. C1
3 OF 4

PROJ: 124297 AG# 115970 QS: 135-34-JE