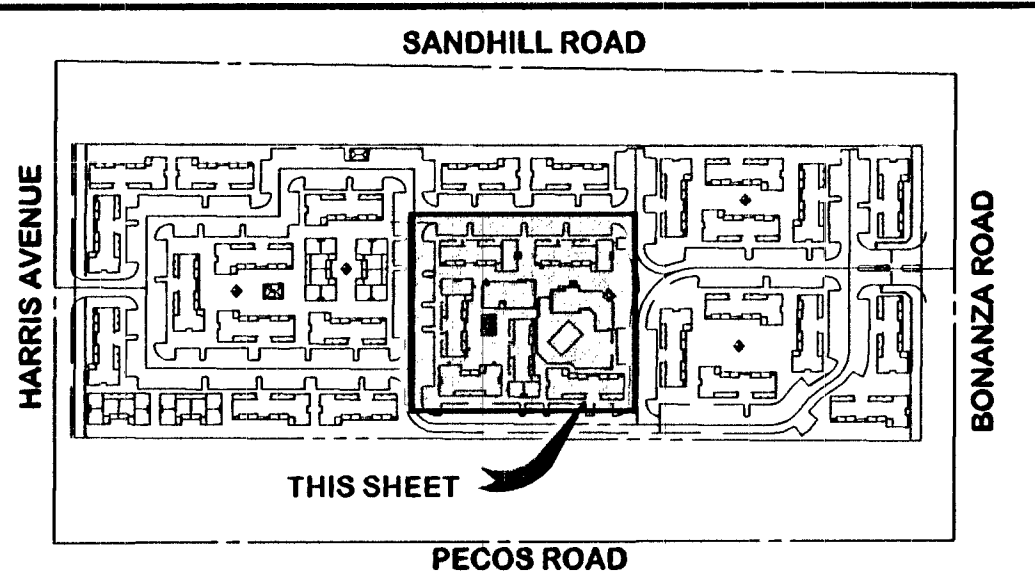


**NOTES:**

- ALL SEWER/STORM DRAINS CROSSING 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.
- EASEMENT WITH TREES, SHRUBS, DECORATIVE ROCKS, BLOCK WALL, OR FENCE TREES, SHRUBS, OR DECORATIVE ROCKS, AND ANY BLOCK WALL OR OTHER FENCE MATERIAL, SHALL BE DESIGNED AND CONSTRUCTED AROUND THE EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS TO THE VAULT(S), BACKFLOW ASSEMBLIES, AND PIPING FROM THE ADJACENT RIGHT-OF-WAY.
- INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING. PER MANUFACTURER INSTRUCTION.



**LOCATION MAP**

**WATER CONSTRUCTION NOTES / QUANTITIES**

- |   |   |        |
|---|---|--------|
| 1 | INSTALL 2" WATER QUALITY PVC WATER LATERAL  | 201 LF |
| 2 | INSTALL FIRE HYDRANT ASSEMBLY PER UDACS PLT. No. 39 AN 40 (PRIVATE)   | 1 EA   |
| 3 | INSTALL 4" C-900 PVC (FIRE). FINAL PIPE SIZE TO BE DETERMINED BY SPRINKLER CONTRACTOR.                          | 192 LF |
| 4 | INSTALL 4" GV PER UDACS PLATE No. 39.   | 1 EA   |
| 5 | INSTALL 8"x 4" MECHANICAL TAPPING SLEEVE PER UDACS PLT. No.'S 31 & 34, W/4" WET TAP GV PER UDACS SECT. 2.24.01B | 1 EA   |
| 6 | INSTALL 2" SERVICE SADDLE PER UDACS PLT. No. 3.   | 1 EA   |
| 7 | INSTALL POST INDICATOR VALVE (P.I.V.) W/TAMPER SWITCH 3" CONDUIT  | 1 EA   |
| 8 | INSTALL FIRE DEPARTMENT CONNECTION (F.D.C.)   | 1 EA   |
| 9 | INSTALL 4" REDUCED PRESSURE DETECTOR ASSEMBLY (RPDA)  | 1 EA   |

**SEWER CONSTRUCTION NOTES / QUANTITIES**

- |   |   |        |
|---|---|--------|
| 1 | CONNECT TO EXISTING SANITARY SEWER CONTRACTOR TO VERIFIED EXACT LOCATION AT TIME OF CONSTRUCTION. | 4 EA   |
| 2 | INSTALL 6" CLEANOUT PER STD. DWG. SD-28   | 4 EA   |
| 3 | INSTALL 6" PVC SANITARY SEWER LATERAL PER STD. DWG. SD-22, SD-23 AND SD-25.                       | 147 LF |

**FIRE FLOW CALCULATIONS BUILDING A**

FIRE FLOW REQUIREMENT IS: 1,500 GALLONS PER MINUTE AT 20 PSI RESIDUAL PRESSURE.

BASED ON:

SQUARE FOOTAGE	3,325 SF
LARGEST AREA BETWEEN 4-HOUR	N/A
AREA SEPARATION WALLS	18.5 FEET
BUILDING HEIGHT	1
NUMBER OF STORIES	V-N
TYPE OF CONSTRUCTION	COMMERCIAL
OCCUPANCY	YES
FULL AUTOMATIC SPRINKLERS SYSTEM	

**BASIS OF BEARING**

NORTH 89°46'11" WEST, BEING THE BEARING OF THE SOUTH LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 30, TOWNSHIP 20 SOUTH, RANGE 62 EAST, M.D.M., AS SHOWN ON A MAP ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE AS FILE 51, PAGE 65 OF SURVEYS.

**BENCHMARK**

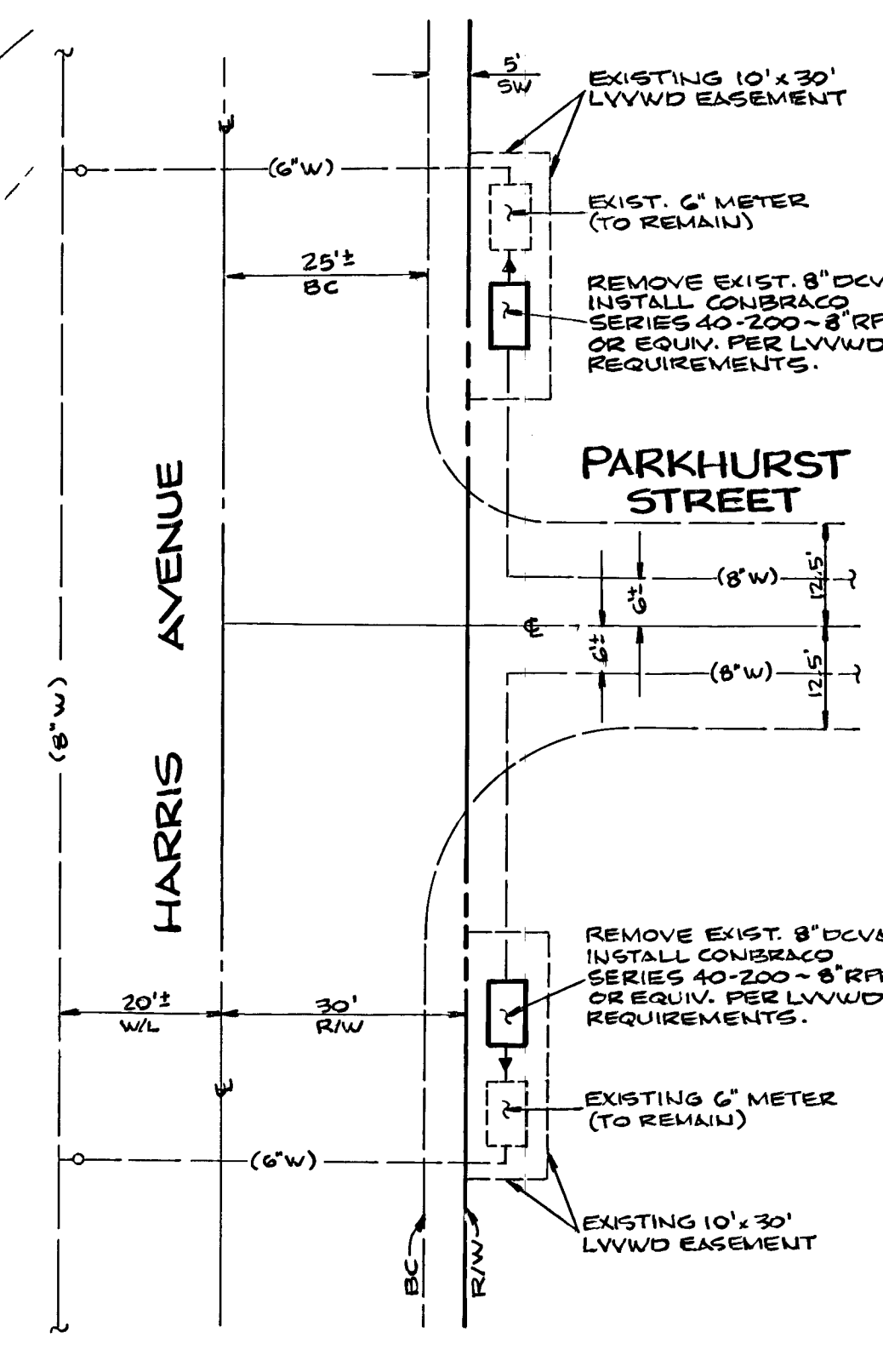
CITY OF LAS VEGAS BENCHMARK NO. 2LV02-30SSW6  
RIVET AND PLATE IN TOP OF CURB, NORTHSIDE OF BONANZA ROAD AT 3750 BONANZA  
ELEVATION = 544.748 METERS (1787.83 FEET) NAVD 1988 DATUM.

**APPROVAL**

*Brian Curtis*  
CITY FIRE DEPARTMENT  
DATE: 6/26/14

**APPROVED FOR CONSTRUCTION (for New Facilities)**

*Don Heady*  
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICE MANAGER  
DATE: 6/26/14 PROJECT No. 122 900  
LVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL.



**RPPA RETROFIT DETAIL**  
SCALE 1" = 20'

**DISCLAIMER NOTE**

UTILITY LOCATIONS 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 OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

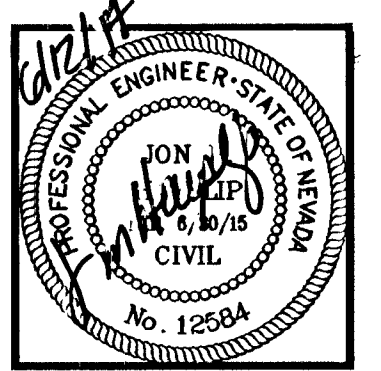
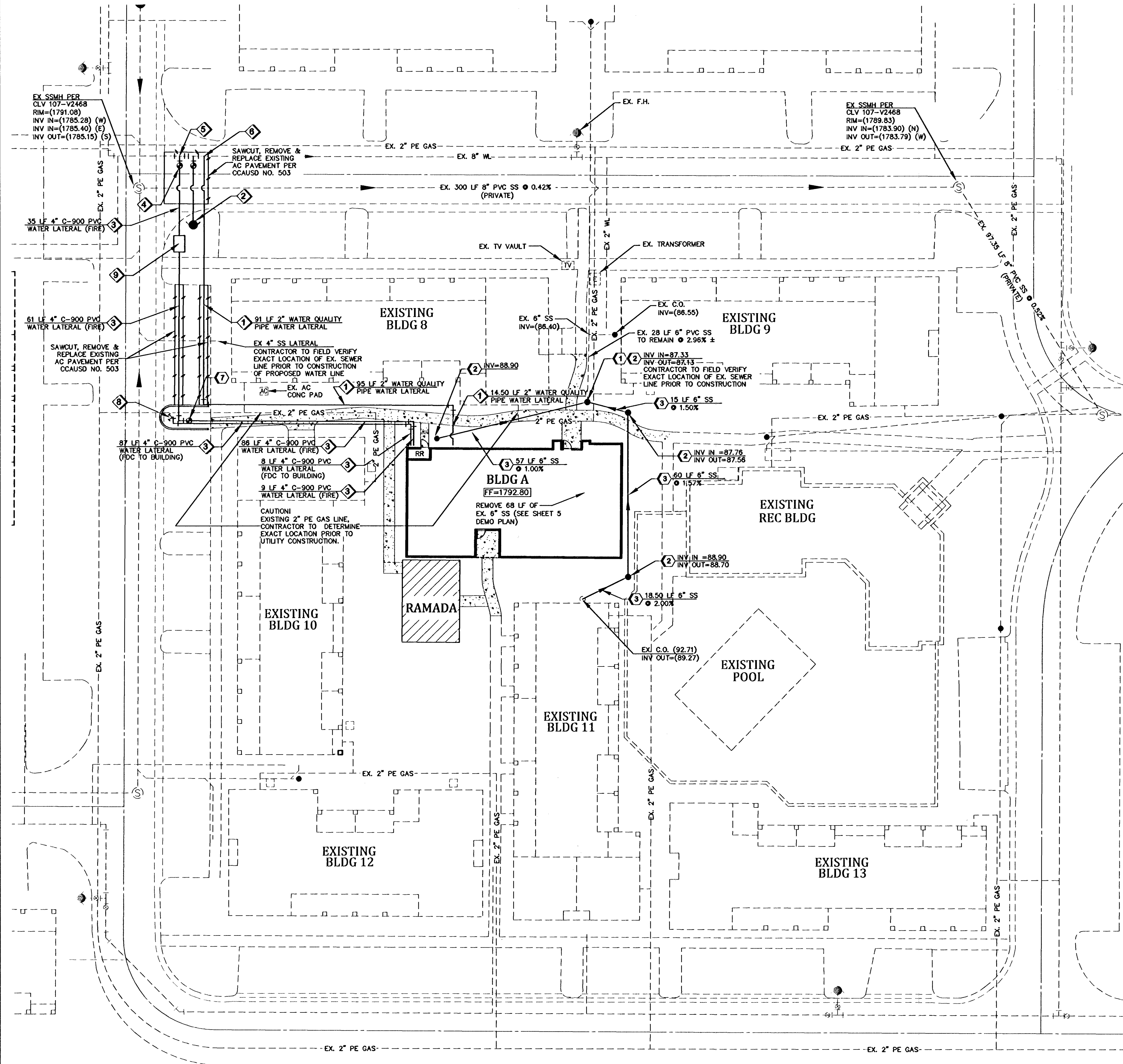
Call before you Dig  
Avoid overhead power line contact  
Call before you OVERHEAD  
Call before you Dig

1-800-277-2600  
CLARK COUNTY TRAFFIC OPERATIONS  
1-702-455-7544

NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT  
1-702-227-2929

CALL BEFORE YOU DIG  
CALL BEFORE YOU DIG  
CALL BEFORE YOU DIG

1-702-455-7511  
CLARK COUNTY TRAFFIC OPERATIONS  
1-702-455-5300  
LAS VEGAS AREA COMPUTERIZED TRAFFIC SYSTEM



DESIGNED BY: CA	CHKD BY: FT	DATE: August 2013	DATE APPL:
DRAWN BY: CA	REVISION		
JOB NUMBER:			
NO.			

**L. R. NELSON CONSULTING ENGINEERS, INC.**  
6765 West Russell Road, Suite 200  
Las Vegas, Nevada 89116  
(702) 788-7978  
(702) 451-2296 FAX

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"AKA" BONANZA SPRINGS  
CITY OF LAS VEGAS NEVADA