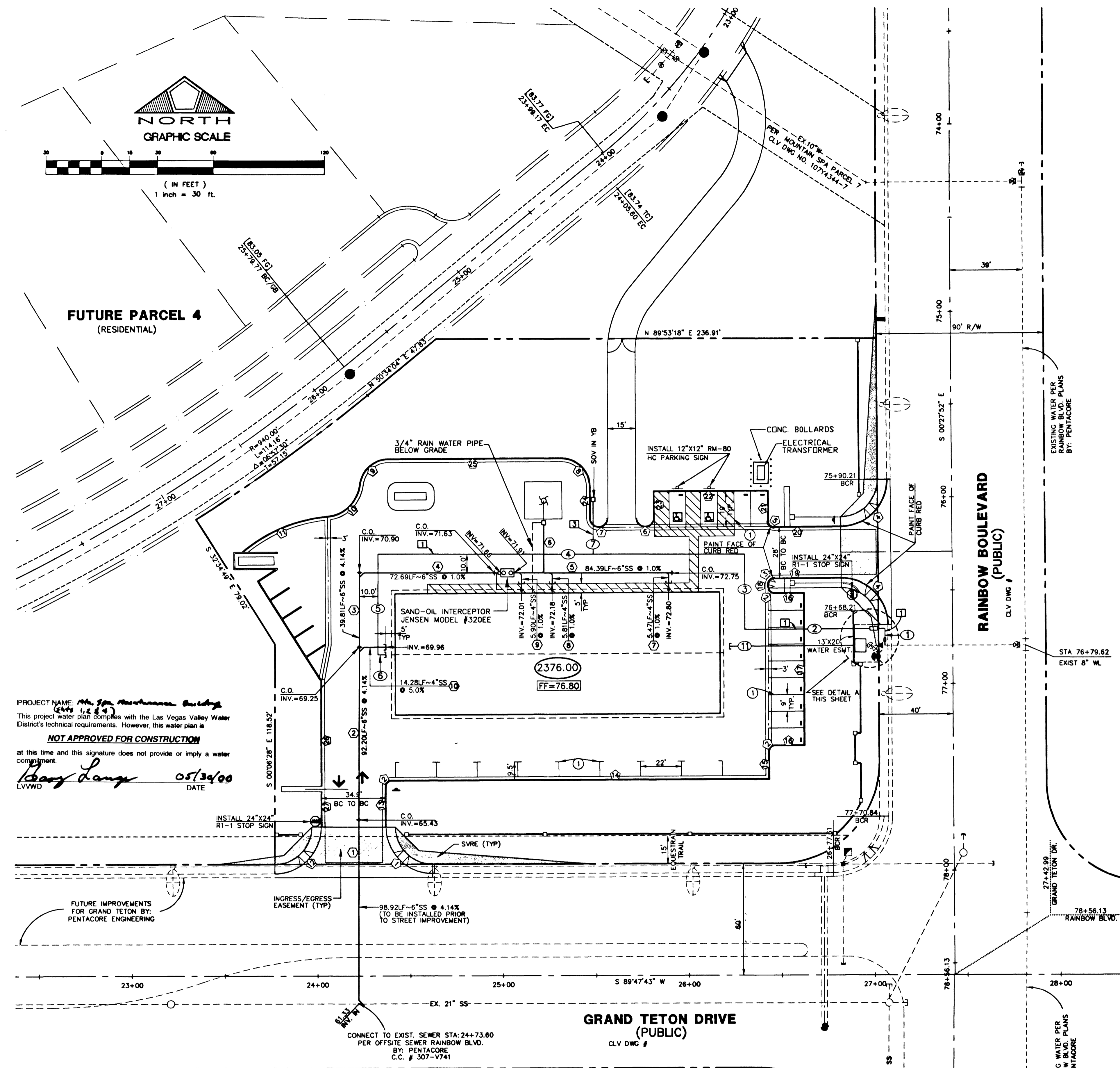


**FUTURE PARCEL 4**  
(RESIDENTIAL)



PROJECT NAME: *Mountain Spa Maintenance Building*  
 This project water plan complies with the Las Vegas Valley Water District's 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.  
*Bary Lange* 05/30/00  
 LVVWD DATE

Back of Curb Curve Table

No.	Delta	Radius	Length	Tangent
1	89°53'18"	25.00	39.27	24.84
2	90°00'00"	3.00	4.71	3.00
3	89°51'07"	3.00	4.70	3.00
4	90°00'00"	25.00	39.27	25.00
5	90°08'53"	3.00	4.72	3.01
6	179°58'14"	4.50	13.99	277.67
7	179°59'08"	4.50	14.14	
8	90°00'00"	15.50	24.35	15.50
9	83°08'42"	15.50	22.52	13.73
10	77°53'17"	19.50	27.52	15.71
11	34°38'09"	83.50	50.48	26.04
12	90°08'42"	25.00	39.32	25.00

Water Line Curb Curve Table

No.	Delta	Radius	Length	Tangent
1	90°00'00"	2.00	3.14	2.00

Back of Curb Line Table

No.	Bearing	Distance
13	N 00°18'59" W	21.68
14	N 89°41'01" E	203.65
15	N 00°18'59" W	15.00
16	S 89°41'01" W	16.00
17	N 00°18'59" W	82.00
18	S 00°18'59" E	1.43
19	S 89°32'08" E	35.80
20	S 89°32'08" W	35.71
21	N 00°18'59" W	15.50
22	N 89°41'01" E	62.00
23	S 00°18'59" E	14.58
24	N 00°18'59" W	17.00
25	S 89°41'01" W	93.77
26	N 00°18'59" W	57.68
27	S 00°18'59" E	18.95

Water Line Table

No.	Bearing	Distance
1	N 89°47'48" E	9.01
2	N 89°36'32" W	75.42
3	N 00°00'00" W	15.00
4	N 90°00'00" E	193.88
5	N 00°00'00" W	53.81
6	N 89°32'08" E	4.30
7	N 00°00'00" E	28.35
8	N 00°12'12" E	6.35
9	N 00°00'00" W	3.75
10	N 89°36'32" W	9.42
11	N 89°36'32" E	67.55

Sewer Line Table

No.	Bearing	Distance
1	N 00°00'00" W	38.92
2	N 00°00'00" W	92.90
3	N 00°00'00" W	39.81
4	N 00°00'00" W	89.63
5	N 90°00'00" E	84.39
6	N 00°00'00" E	25.81
7	N 00°18'59" W	5.47
8	N 00°18'59" W	5.81
9	N 00°18'59" W	5.90
10	N 89°41'01" E	14.28

**REDUCED PRESSURE PRINCIPLE ASSEMBLY-2"**  
 APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY SHALL BE INSTALLED PER THE UDACS PLATE NO. 11A. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNLESS THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVVWD. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY.

**INSTALLATION OF DOUBLE CHECK DETECTOR ASSEMBLY-6"**  
 THE DOUBLE CHECK DETECTOR ASSEMBLY 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, SO AS TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY.

**QUANTITIES**

STREET IMPROVEMENTS (PUBLIC)	
1. "L" TYPE C&G OVER 6" TYPE II AB	805 LF
2. 8" CONC. VALLEY GUTTER	1,391 SF
3. 5" WIDE SIDEWALK	708 SF
4. SIDEWALK UNDERDRAIN	1 EA
5. 6" PVC SEWER	99 LF
6. HANDICAP RAMP	2 EA

WATER (PUBLIC)	
1. 2" DOMESTIC WATER (COPPER)	12 LF
2. 6" DCA (FEBCO MODEL 876)	1 EA
3. 2" RPPA	1 EA
4. 2" 90° BEND	1 EA

STREET IMPROVEMENTS (PRIVATE)	
1. 2" AC OVER 4" TYPE II AB	3,242 SY
2. "L" TYPE C&G OVER 6" TYPE II AB	648 LF
3. "A" TYPE CURB	235 LF
4. 3" WIDE CONC. GUTTER	268 LF

**WATER (PRIVATE)**

1. 2" WATER SERVICE	367 LF
2. 3/4" WATER SERVICE	29 LF
3. 6" FIRE SERVICE	74 LF

**SEWER (PRIVATE)**

1. 6" PVC SEWER	289 LF
2. 4" PVC SEWER	57 LF
3. C.O.	4 EA
4. SAND-OIL INTERCEPTOR	1 EA

**TRAFFIC SIGNS (PRIVATE)**

1. INSTALL 24"x24" R1-1 STOP SIGN	2 EA
2. INSTALL 12"x12" RM-80 HANDICAPPED PARKING SIGN	2 EA

**TRAFFIC STRIPING (PRIVATE)**

1. INSTALL 4" WIDE WHITE PAINTED STRIPES FOR PARKING STALLS.	
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\* SUBJECT TO CHANGE PER SOILS REPORT RECOMMENDATION.  
 THESE QUANTITIES ARE APPROXIMATE ONLY AND ARE NOT TO BE USED FOR BIDDING PURPOSES. QUANTITIES ARE TO BE VERIFIED BY THE CONTRACTOR.

**LAS VEGAS VALLEY WATER DISTRICT STANDARD NOTES**  
 LVVWD PROJECT NO. 23763

- NO WORK SHALL BEGIN UNTIL THE WATER PLANS HAVE BEEN RELEASED FOR CONSTRUCTION BY THE LVVWD. FOLLOWING WATER PLAN APPROVAL, 48 HOUR NOTICE SHALL BE GIVEN TO THE LVVWD COMMUNICATIONS SUPPORT CENTER (258-7171) PRIOR TO THE START OF CONSTRUCTION. NOTICE MUST BE GIVEN BY 2:00 P.M. BUSINESS DAY PRIOR TO A LVVWD INSPECTION. WHEN REQUESTING INSPECTIONS PLEASE REFER TO THE PROJECT NO. IDENTIFIED ABOVE.
- ALL WORK SHALL CONFORM TO THE LVVWD'S STANDARD PLATES, DRAWINGS, AND SPECIFICATIONS AND THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS (UDACS), LATEST EDITION.
- ALL WORK, EXCEPT AS MODIFIED BY THESE PLANS OR BY NOTE 2, SHALL BE DONE IN ACCORDANCE WITH THE MOST CURRENT DRAFT OR EDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OR OFFSITE 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 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 GUTTERS.
- THE FOLLOWING REQUIREMENTS MUST BE MET IN THE EVENT A WATER LINE AND SANITARY OR STORM SEWER LINE CROSS:
  - A MINIMUM EIGHTEEN (18) INCH VERTICAL SEPARATION (OUTSIDE TO OUTSIDE) MUST BE MAINTAINED WHEN THE WATER LINE IS INSTALLED OVER THE SANITARY OR STORM SEWER LINE. IF THE VERTICAL SEPARATION CANNOT BE MAINTAINED OR THE WATER LINE MUST BE PLACED UNDER THE SANITARY OR STORM SEWER LINE, THE SANITARY OR STORM SEWER LINE MUST BE CONSTRUCTED WITH ONE OF THE FOLLOWING OR, AS SHOWN ON THESE PLANS:
    - a. POTABLE WATER SUPPLY QUALITY MATERIAL.
    - b. ENCASUREMENT, WITH FOUR (4) INCH CONCRETE (MINIMUM)
    - c. SLEEVING WITH POTABLE WATER SUPPLY QUALITY PIPE.
- EACH PROVISION MUST EXTEND ALONG THE SANITARY OR STORM SEWER, ON EITHER SIDE OF THE MAIN, A MINIMUM 10 FOOT DISTANCE PERPENDICULAR TO THE WATER MAIN EXTERIOR.
- WARNING TAPE SHALL BE REQUIRED OVER ALL MAINS, ALL SIX (6) INCH DIAMETER AND LARGER SERVICE LATERALS, AND ANY SERVICE LATERAL NOT INSTALLED PERPENDICULAR TO THE MAIN IN ACCORDANCE WITH STANDARD PLATE NO. 27.
- ALL WATER FACILITIES SHALL BE FILLED, DISINFECTED, PRESSURE TESTED, FLUSHED, FILLED AND AN ACCEPTABLE WATER SAMPLE OBTAINED, PRIOR TO CONNECTION TO THE LVVWD'S DISTRIBUTION SYSTEM.
- THE CONTRACTOR MUST OBTAIN ALL METERS TWO (2) INCHES AND SMALLER FROM LVVWD CENTRAL STORES. TELEPHONE 258-3152 FORTY-EIGHT (48) HOUR PRIOR TO PICKUP.
- CONSTRUCTION MAY INTERRUPT SERVICE, WITH LVVWD APPROVAL AND PROPER NOTIFICATION BETWEEN THE HOURS OF 10 P.M. AND 6 A.M. SUNDAY THROUGH THURSDAY. CIRCUMSTANCES MAY REQUIRE TEMPORARY SERVICE FEEDS BE INSTALLED, WITHOUT LVVWD REIMBURSEMENT. ANY TEMPORARY SERVICE FEED MUST HAVE PRIOR LVVWD APPROVAL.
- ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE AS LISTED ON THE LVVWD'S PRE-APPROVED MATERIALS AND MANUFACTURERS LISTING FOR NEW FACILITIES, LATEST REVISION, OR SPECIFICALLY APPROVED ON THESE PLANS.  
 LVVWDSD - Revised: April 25, 1995

**FIRE FLOW CALCULATIONS**

FIRE FLOW REQUIREMENTS IS: 1,500 GPM AT 20 PSI RESIDUAL PRESSURE.

BASED ON:  
 SQUARE FOOTAGE: 11,375 ± SF  
 LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION WALLS: N/A  
 BUILDING HEIGHT: 14' ±  
 NUMBER OF STORIES: 1  
 TYPE OF CONSTRUCTION: TYPE I NR  
 OCCUPANCY: B & S-3  
 FULL AUTOMATIC FIRE SPRINKLER SYSTEM: YES

REVIEWED BY: *[Signature]* DATE: 5/24/00

**LEGEND**

- SUBDIVISION BOUNDARY
- - - EASEMENT LINE
- STREET CENTERLINE
- CONCRETE CURB & GUTTER
- - - EXISTING IMPROVEMENTS
- ⊕ STREET LIGHT BY OTHERS

**BASIS OF BEARING**

SOUTH 00°37'59" EAST, BEARING OF THE EAST LINE OF THE NORTHEAST (N1/4) OF SECTION 10, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M. AS SHOWN BY A MAP ON FILE IN CLARK COUNTY, NEVADA RECORDER'S OFFICE AS FILE 70, PAGE 15 OF RECORD OF SURVEYS.

**BENCHMARK**

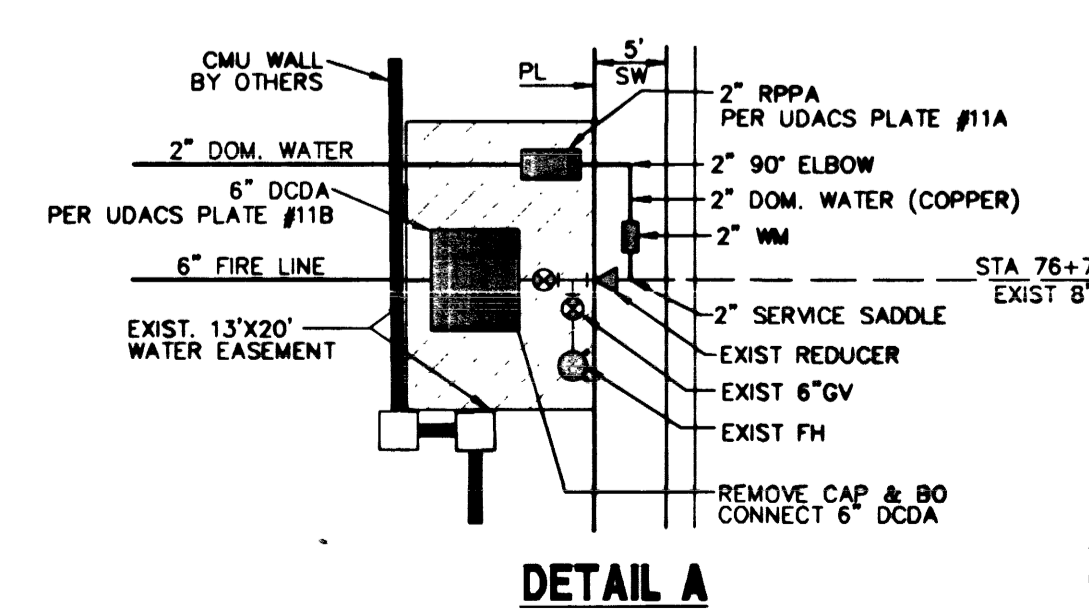
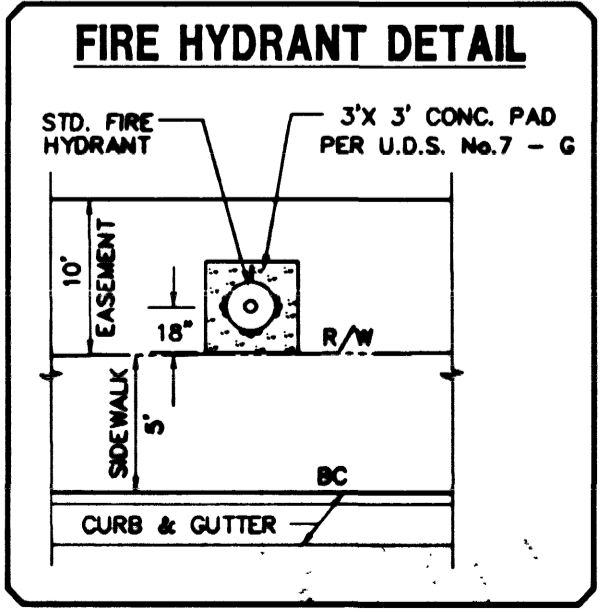
BLM BRASS CAP #41, RAINBOW BLVD. & HORSE DRIVE. STA. 1LV90/11W4, ELEV. = 2396.994' (NGVD29) USED (ADD 2.41 FEET TO ALL ELEVATIONS TO CONVERT TO NAVD 88 DATUM)

**APPROVAL**

*[Signature]* *[Signature]*  
 CITY FIRE MARSHAL DATE

**APPROVAL**

*[Signature]* 9/13/00  
 LVVWD DATE



**NOTE**  
 THE CONTRACTOR TO VERIFY THE EXACT LENGTH OF ALL PIPING PRIOR TO POURING FLOOR SLABS. CONTRACTOR TO NOTIFY THE ENGINEER IF ANY DISCREPANCIES ARE FOUND PRIOR TO POURING FLOOR SLABS.

**Call before you Overhead**  
 1-702-593-6111

**Call before you Dig.**  
 1-800-227-2600

25801 25834

**MOUNTAIN SPA RESIDENTIAL DEVELOPMENT, L.L.C.**  
 2810 WEST CHARLESTON, F-58  
 LAS VEGAS, NV. 89102  
 (702) 870-1234

**PENTACORE**  
 CIVIL ENGINEERING - LAND SURVEYING - PLANNING  
 CONSTRUCTION MANAGEMENT - ADA CONSULTING  
 LAS VEGAS, NEVADA 89102 (702) 258-0115

UTILITY PLAN AND HORIZONTAL CONTROL PLAN  
 MOUNTAIN SPA MAINTENANCE BUILDING

DATE: 02/18/00  
 S.F.A.  
 DRAWN BY: [Signature]  
 DESIGNED BY: [Signature]  
 CHECKED BY: [Signature]  
 QA CHECKED BY: [Signature]  
 JOB NO.: 0158.0200  
 SCALE: 1" = 30'

