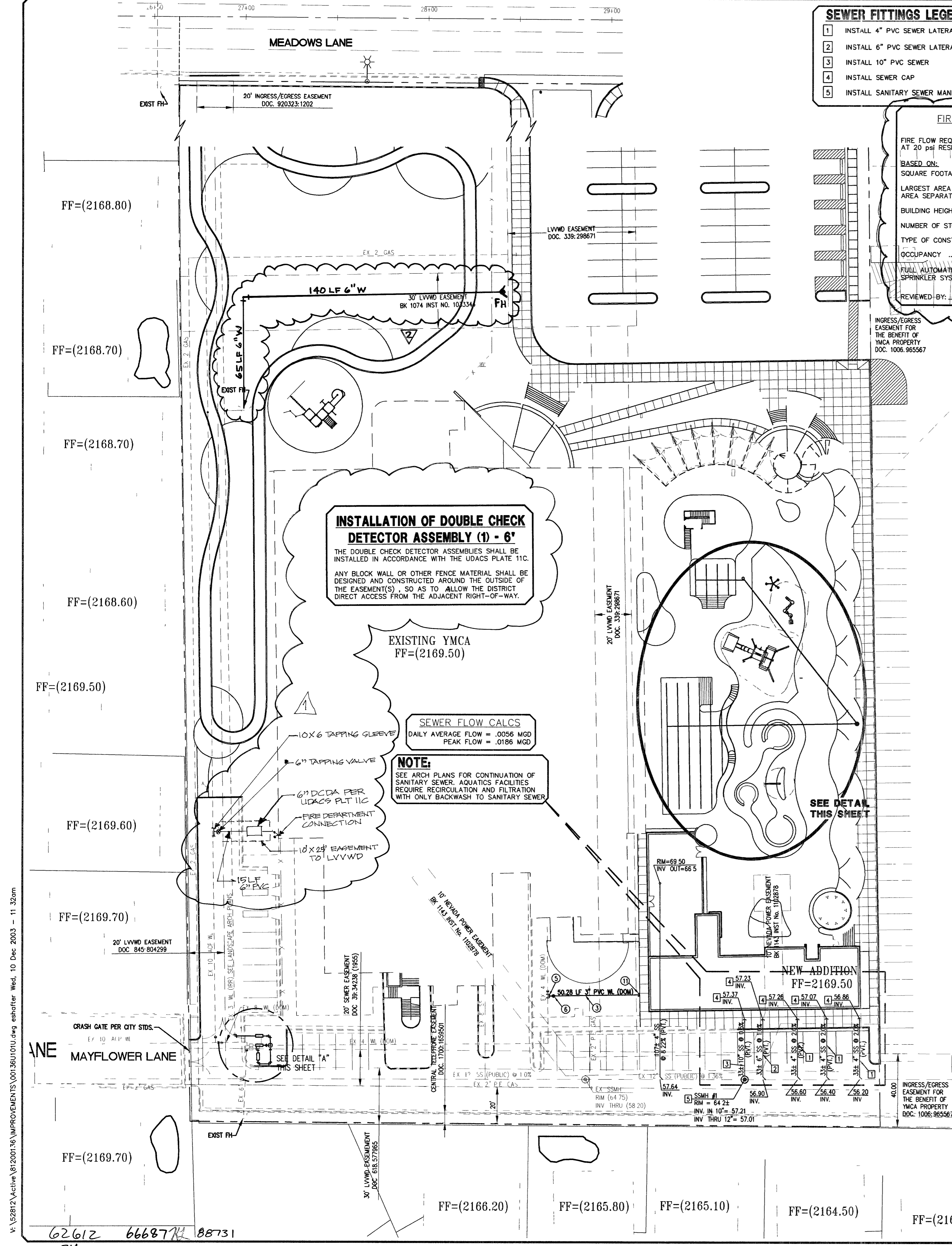


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**SEWER FITTINGS LEGEND & QUANTITY ESTIMATE**

1	INSTALL 4" PVC SEWER LATERAL	100 LF.
2	INSTALL 6" PVC SEWER LATERAL	33 LF.
3	INSTALL 10" PVC SEWER	33 LF.
4	INSTALL SEWER CAP	5 EA.
5	INSTALL SANITARY SEWER MANHOLE (PER USD STD. DWG #403)	1 EA.

**FIRE FLOW CALCULATIONS**  
(EXISTING BUILDING)

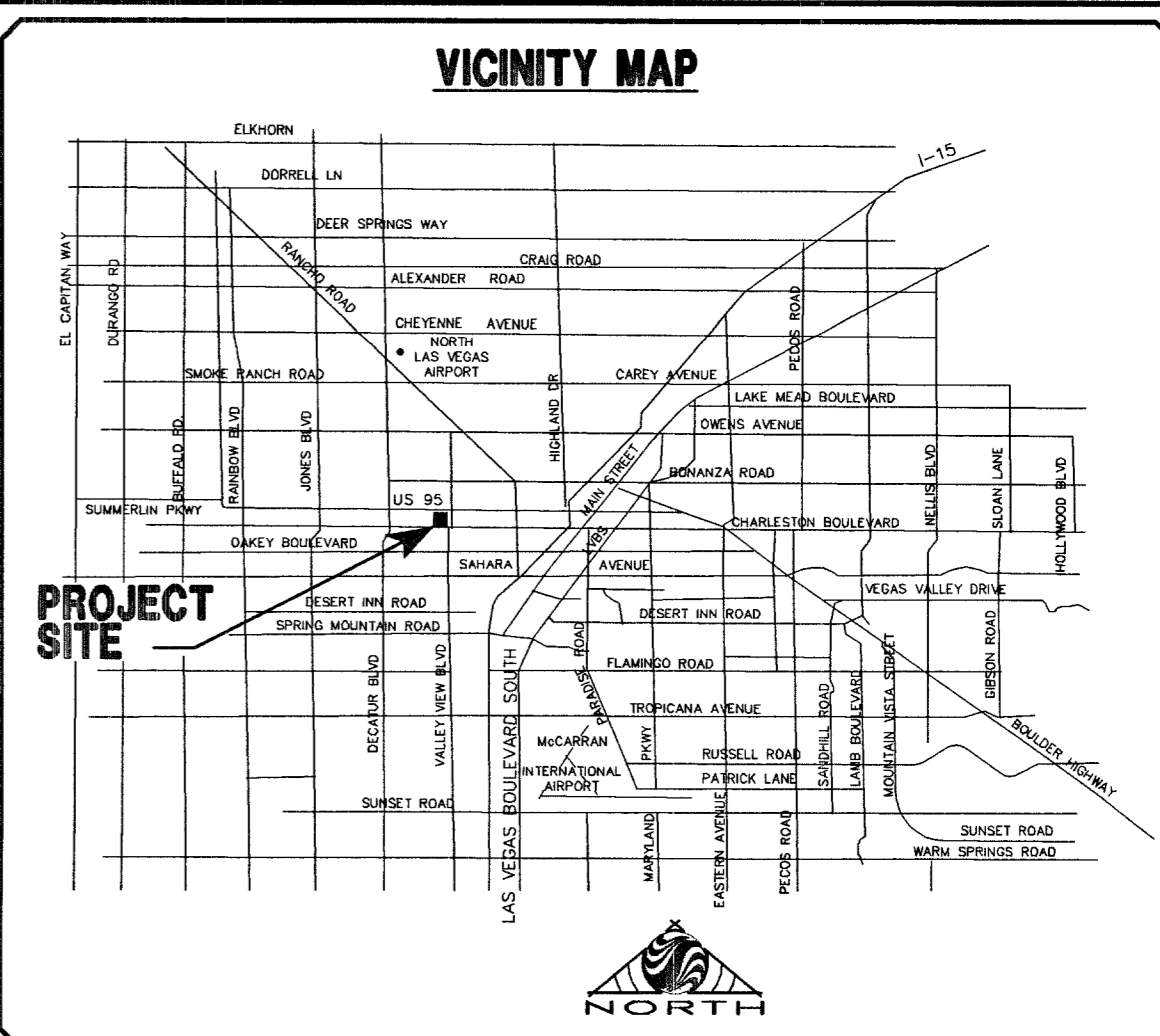
FIRE FLOW REQUIREMENTS IS: 1,500 GALLONS PER MINUTE AT 20 PSI RESIDUAL PRESSURE.

BASED ON:  
 SQUARE FOOTAGE: 73,400 SF  
 LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION WALLS: 7,200 SF  
 BUILDING HEIGHT: 128 FT  
 NUMBER OF STORIES: TWO-STORY  
 TYPE OF CONSTRUCTION: TYPE I  
 OCCUPANCY: CHAPTER A3  
 FULL AUTOMATIC FIRE SPRINKLER SYSTEM: YES

REVIEWED BY: *[Signature]* DATE: 3/26/03

**WATER FITTINGS LEGEND & QUANTITY ESTIMATE**

1	INSTALL 2" PVC WATER PRIVATE (DOM.)	21 LF.
2	INSTALL 3" PVC WATER PRIVATE (DOM.) (IRR.)	13 LF.
3	INSTALL 3" PVC WATER PRIVATE (IRR.) (DOM.)	50 LF.
4	INSTALL 2" RPPA (PER UDACS PLT #11A)	2 EA.
5	INSTALL 4"x3" TEE (PER UDACS PLT #5)	1 EA.
6	INSTALL 3" GATE VALVE W/A.B. (PER UDACS PLT #3)	3 EA.
7	INSTALL 2" BEND (PER UDACS PLT #5)	1 EA.
8	INSTALL 4"x2" REDUCER (PER UDACS PLT #3)	2 EA.
9	INSTALL 4" 90° BEND (PER UDACS PLT #5)	1 EA.
10	INSTALL 4" CROSS (PER UDACS PLT #5)	1 EA.
11	INSTALL 2" CAP (PER UDACS PLT #5)	1 EA.
12	INSTALL 3" RPPA (PER UDACS PLT #11E)	1 EA.
13	INSTALL 4"x3" REDUCER (PER UDACS PLT #5)	1 EA.
14	INSTALL 3" 90° BEND (PER UDACS PLT #5)	1 EA.



**INSTALLATION OF DOUBLE CHECK DETECTOR ASSEMBLY (1) - 6'**

THE DOUBLE CHECK DETECTOR ASSEMBLY SHALL BE INSTALLED IN ACCORDANCE WITH THE UDACS PLATE 11C.

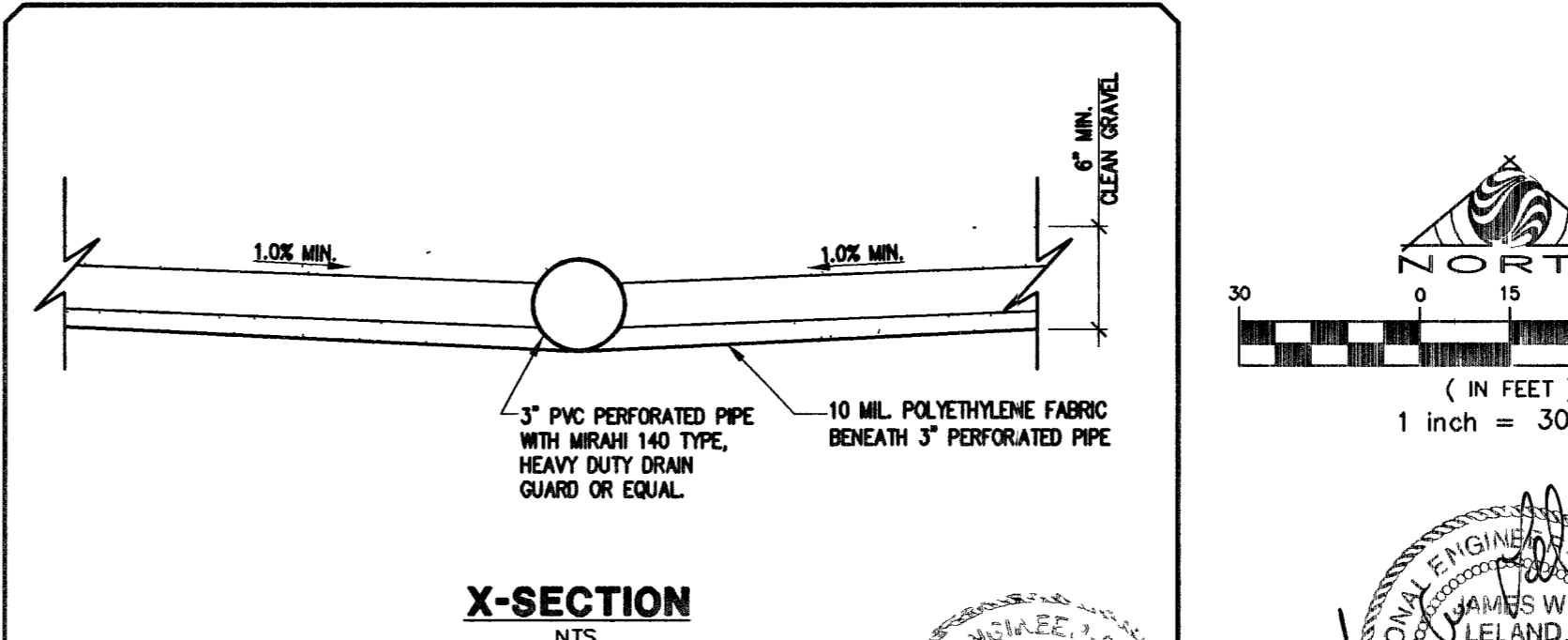
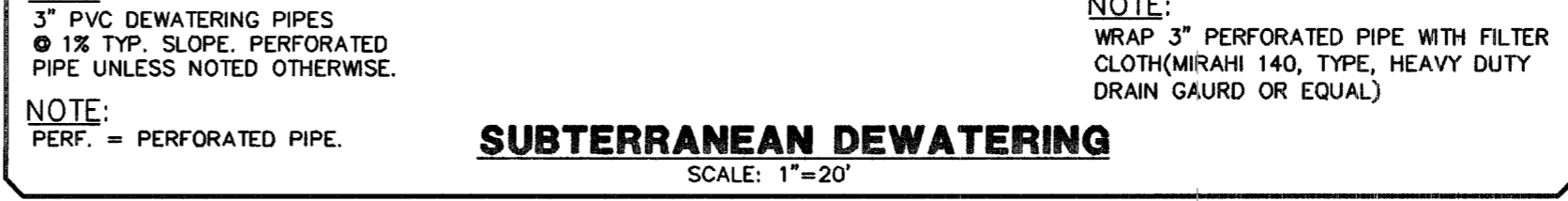
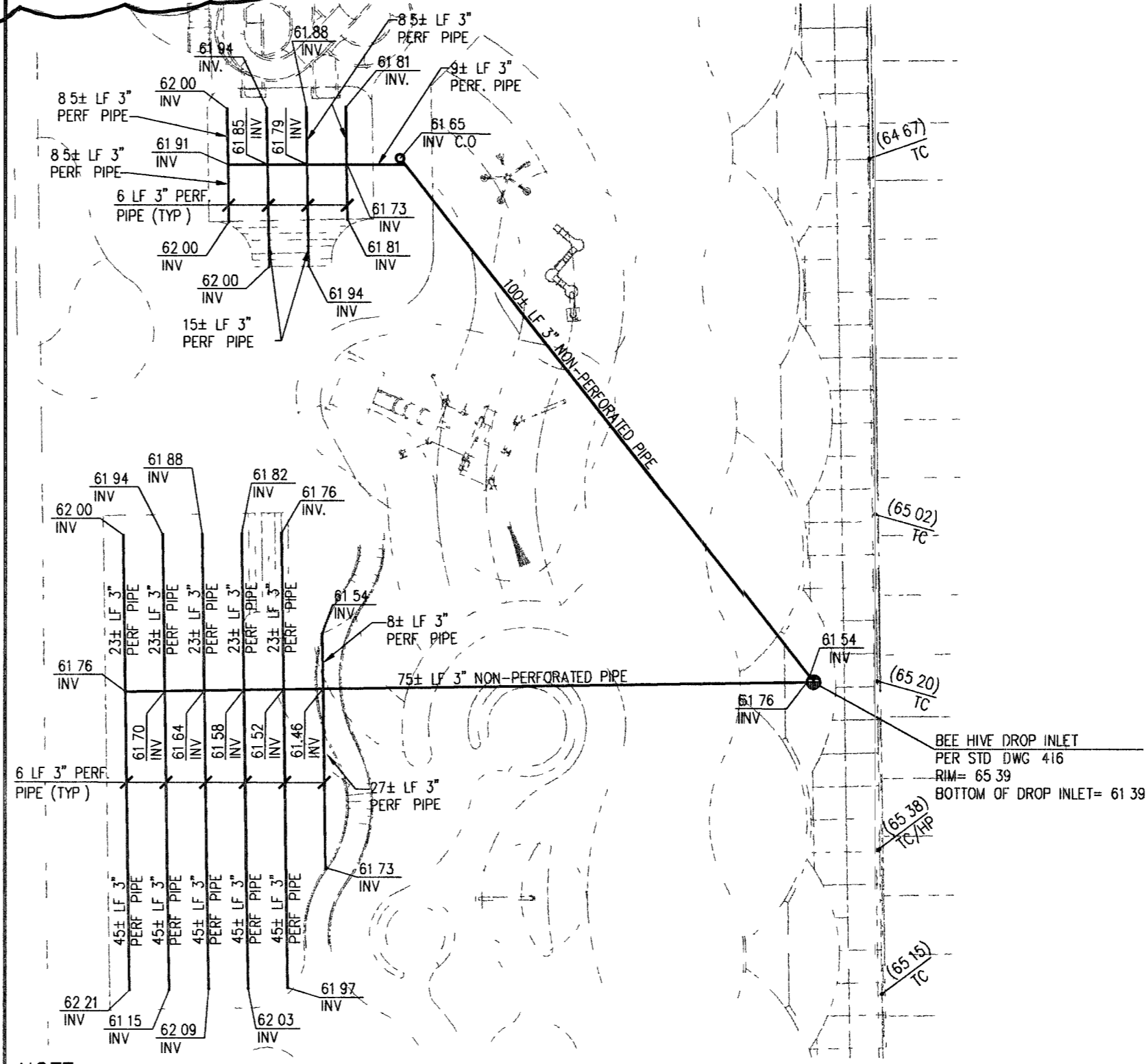
ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S), SO AS TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY.

EXISTING YMCA  
FF=(2169.50)

**SEWER FLOW CALCS**  
 DAILY AVERAGE FLOW = .0056 MGD  
 PEAK FLOW = .0186 MGD

**NOTE:**  
 SEE ARCH PLANS FOR CONTINUATION OF SANITARY SEWER, AQUATICS FACILITIES REQUIRE RECIRCULATION AND FILTRATION WITH ONLY BACKWASH TO SANITARY SEWER

SEE DETAIL THIS SHEET



**BASIS OF BEARINGS**

SOUTH 89°39'38" EAST, BEING THE BEARING OF THE CENTERLINE OF MEADOWS LANE, AS SHOWN ON THAT CERTAIN MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE IN FILE 33 OF SURVEYS AT PAGE 44, SITUATED IN THE NORTHEAST QUARTER (NE 1/4) OF SECTION 31, TOWNSHIP 20 SOUTH, RANGE 61 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

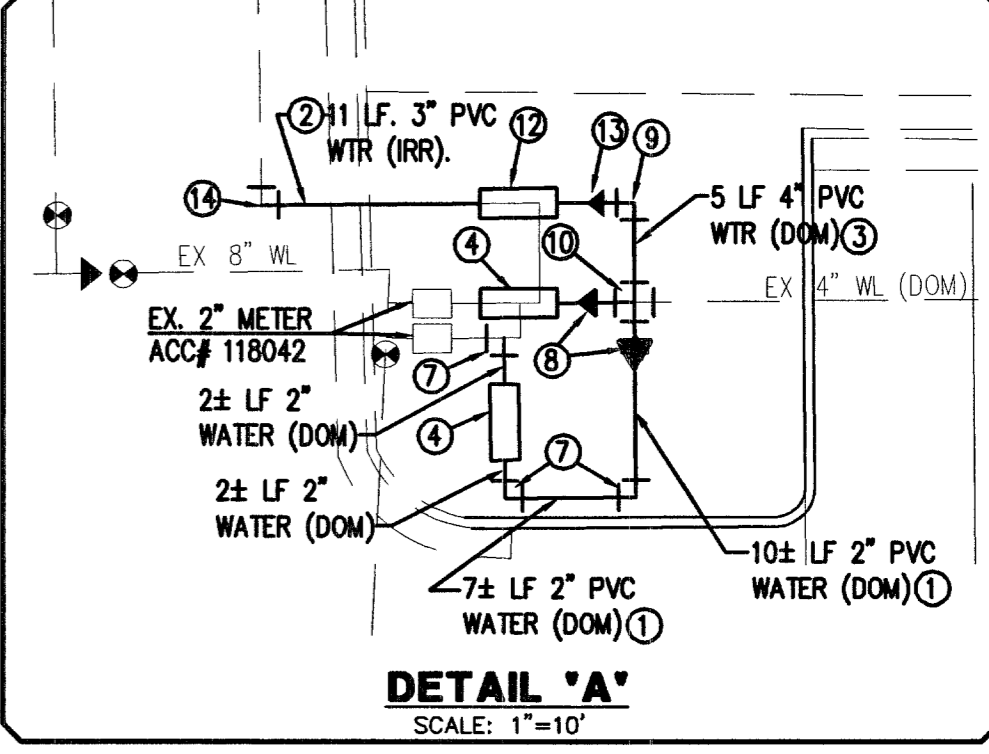
**BENCHMARK**

CITY OF LAS VEGAS BENCHMARK 2LV01 31NE6  
 RIVET AND PLATE IN TOP OF CURB AT SOUTHWEST CORNER OF VALLEY VIEW AND MEADOWS.

ELEVATION = 654.7607 meters (NAV'D'88)  
 ELEVATION = 2148.16 U.S. Survey feet (NAV'D'88)

**APPROVED FOR CONSTRUCTION**

LAS VEGAS VALLEY WATER DISTRICT (C1, C2, C7) DATE: \_\_\_\_\_



**REDUCED PRESSURE PRINCIPLE ASSEMBLY**

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 LVWVD.

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.

EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION

**ENGINEER'S NOTES**

- EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.
- CALL BEFORE YOU DIG: 1-800-782-5348.
- SEE MECHANICAL PLANS FOR LOCATIONS, SIZES, AND DEPTHS OF ALL ONSITE UTILITIES AT THE PROPOSED BUILDINGS
- SEE ELECTRICAL PLAN FOR ONSITE LIGHTING AND POWER SUPPLY
- SEE LANDSCAPE PLANS FOR ONSITE IRRIGATION
- NOTIFY ENGINEER OF ANY DISCREPANCIES IMMEDIATELY

**APPROVALS**

*[Signature]* CIVIL ENGINEER  
 JAMES W. LEVAND  
 Exp. 12/31/05  
 No. 4932 VOL. 100, DIV. 5  
 3/29/04

*[Signature]* CITY FIRE MARSHAL  
 DATE: 12/15/03

*[Signature]* LAS VEGAS VALLEY WATER DISTRICT  
 DATE: 12/26/03

**Call before you Dig.**  
 1-800-227-2600  
 UNDERGROUND SERVICE ALERT (USA)

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

**STANTEC CONSULTING, INC.**  
 7251 W. Charleston Blvd., Las Vegas, Nevada, U.S.A.  
 89117  
 Tel: (702) 258-0115  
 Fax: (702) 258-4956  
 www.stantec.com

**UTILITY PLAN**

LODGE YMCA ASSN OF LAS VEGAS  
 YMCA AQUATICS FACILITY

**PROFESSIONAL ENGINEER**  
 JAMES W. LEVAND  
 No. 4932 VOL. 100, DIV. 5  
 12/10/03

**SHEET C7.0**

CLV, DWG # 10112003