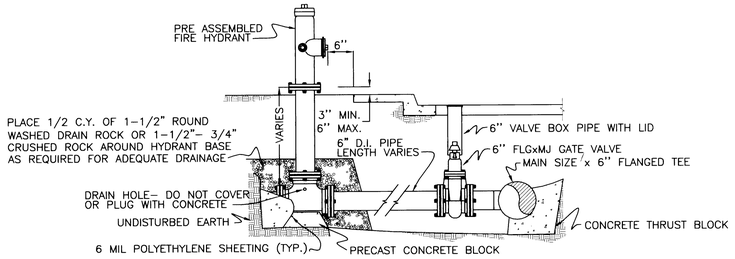
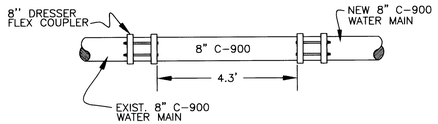


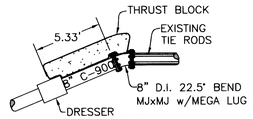
TYPICAL FIRE HYDRANT INSTALLATION
(THRUST BLOCKED)

NOTES:
ALL PIPE AND FITTINGS FOR TIE-IN TO BE CLEAN AND WIPED w/CHLORINE PRIOR TO INSTALLATION

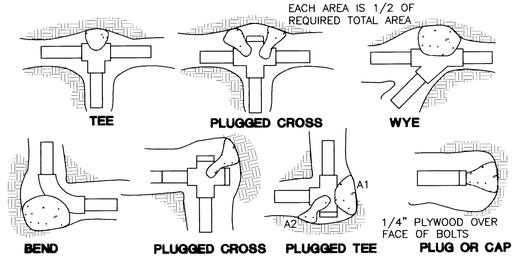
CONTRACTOR TO ALIGN NEW MAINLINE IN BOTH ALIGNMENT AND GRADE w/EXISTING 8" WATERLINE. CONNECTION TO EXISTING WATERLINE CAN ONLY BE MADE AFTER INSTALLATION, TESTING & DISINFECTION OF NEW WATERLINE HAS BEEN COMPLETED.



WATER TIE-IN DETAIL
50+09 STRAUS AVE.



CYPRESS COURT WATER TIE-IN DETAIL

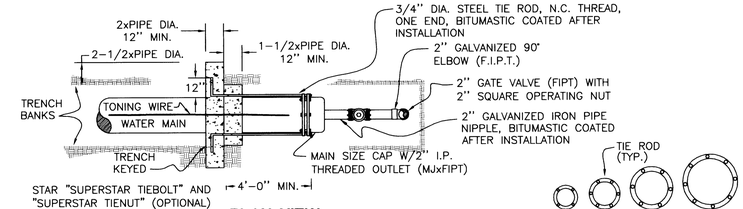


FITTING SIZE	TEE, WYE PLUG, OR CROSS	90° BEND PLUGGED CROSS	TEE PLUGGED ON RUN A1	TEE PLUGGED ON RUN A2	45° BEND	22 1/2° BEND	11 1/4° BEND
2	0.5	1.1	1.6	1.1	0.5	--	--
3	1.3	2.1	3.2	2.1	1.3	0.5	--
4	2.7	3.7	5.1	3.7	2.7	1.1	0.5
6	5.6	8.0	11.5	8.0	4.3	2.7	1.3
8	10.1	14.2	20.3	14.4	7.7	4.0	1.7
10	15.8	22.4	31.5	22.4	12.3	6.4	3.2
12	22.7	32.0	45.4	32.0	17.6	9.1	4.5
14	30.7	43.5	61.4	43.5	23.8	12.3	6.1
16	40.1	56.9	80.1	56.9	31.0	16.0	8.0
18	50.7	72.1	101.5	72.1	39.0	20.3	10.1
20	62.7	88.9	125.5	88.9	48.3	25.1	12.5
24	90.8	128.2	181.6	128.2	70.0	36.3	18.2

NOTE: ABOVE BEARING AREAS BASED ON TEST PRESSURE OF 200 p.s.i. AND AN ALLOWABLE SOIL BEARING STRESS OF 1,000 lbs. PER SQUARE FOOT. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURES AND SOIL BEARING STRESSES, USE THE FOLLOWING EQUATION: BEARING AREA = (TEST PRESSURE/200) x (1000/SOIL BEARING STRESS) x (TABLE VALUE)

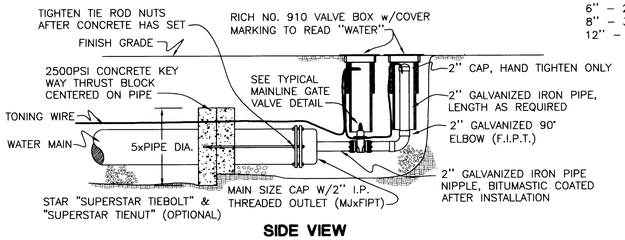
NOTES:
1. CONCRETE THRUST BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH.
2. KEEP CONCRETE CLEAR OF JOINT AND ACCESSORIES.
3. THE REQUIRED THRUST BEARING AREAS FOR SPECIAL CONNECTIONS ARE SHOWN ENCIRCLED ON THE PLANS, e.g. (15) INDICATES 15 SQUARE FEET BEARING AREA REQUIRED.
4. IF NOT SHOWN ON PLANS REQUIRED BEARING AREAS AT FITTING SHALL BE AS INDICATED ABOVE, ADJUSTED IF NECESSARY, TO CONFORM TO THE TEST PRESSURE(S) AND ALLOWABLE SOIL BEARING STRESS(ES) STATED IN THE SPECIAL SPECIFICATIONS.
5. BEARING AREAS AND SPECIAL BLOCKING DETAILS SHOWN ON PLANS. TAKE PRECEDENCE OVER BEARING AREAS AND BLOCKING DETAILS SHOWN ON THIS STANDARD DETAIL.

THRUST BLOCK DETAILS AND INFORMATION
NO SCALE



PLAN VIEW

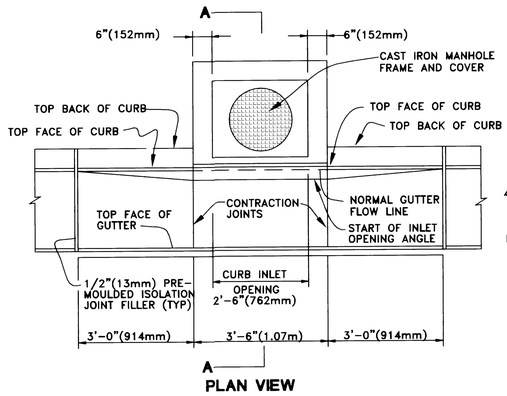
TIE ROD PATTERN
4" – 2 TIE RODS
6" – 2 TIE RODS
8" – 3 TIE RODS
12" – 4 TIE RODS



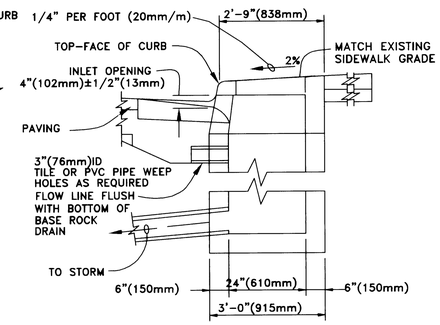
SIDE VIEW

TYPICAL 2" BLOWOFF ASSEMBLY DETAIL

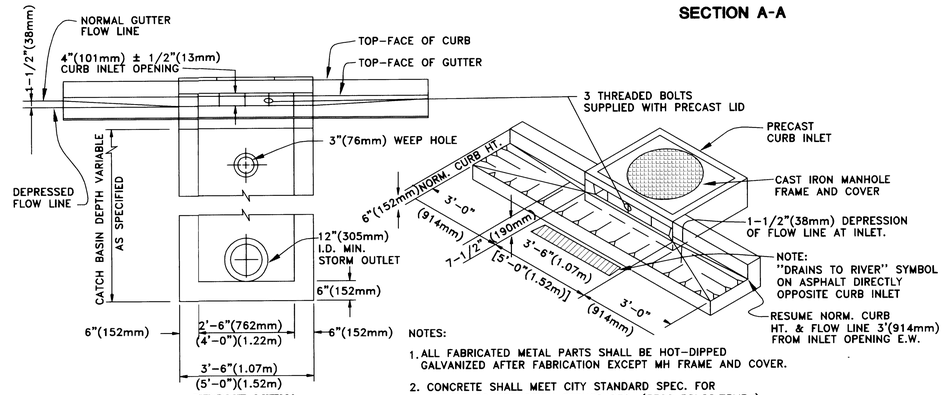
FILED
Date: 1/2/2003 By: LP
This survey consists of:
Map: _____
Narrations: _____
Corner Rpt: _____
DOUGLAS COUNTY SURVEYOR



PLAN VIEW



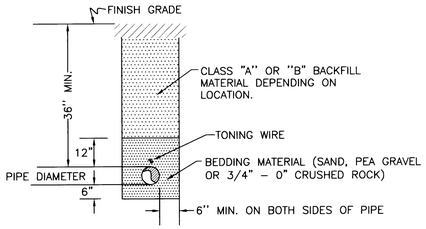
SECTION A-A



FRONT VIEW

NOTES:
1. ALL FABRICATED METAL PARTS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION EXCEPT MH FRAME AND COVER.
2. CONCRETE SHALL MEET CITY STANDARD SPEC. FOR STREET CONSTRUCTION STRUCTURES. (3300 PSI,22.75MPa)
3. FOR STEEP GRADES USE STD. PRECAST INLET WITH 4'-0"(102mm) OPENING OR TWO 2'-6"(762mm) OPENING INLETS.
4. CURB INLET BASE MAY BE PRECAST OR CAST-IN-PLACE.

TYPICAL CG-3 INLET DETAIL



TYPICAL WATER MAINLINE TRENCH DETAIL

CALL BEFORE YOU DIG !
ONE CALL: (800) 332-2344
OAR 952-001-0010 THROUGH
OAR 952-001-0090

i.e. ENGINEERING
741 SE Jackson Street
Roseburg, Oregon 97470
PHONE (541) 673-0166
FAX (541) 440-9392

STAMP MUST BE SEALED
REGISTERED PROFESSIONAL ENGINEER 14928 OREGON JULY 25, 1990 DAVID T. BUHL
EXPIRES: 12/31/2003

Rev.	Date	Dwg	Description
1	1/08/02	BWC	AGENCY REVIEWS
2	8/29/02	MLJ	AS-BUILTS PH. 3

Project Name:
PHASE 3 AND 4
SADDLE BUTTE RANCH

Title:
DETAILS

DES	DTB	PROJECT NO.	140-74
DWG	BWC	DATE:	NOVEMBER 19, 2001
CHK	SNL	SCALE:	AS SHOWN
APP	SNL	SHEET:	9 OF 10

901ADET2

DO NOT DUPLICATE

Co. Rd. # 901A

CO. RD. # 901A DETAILS