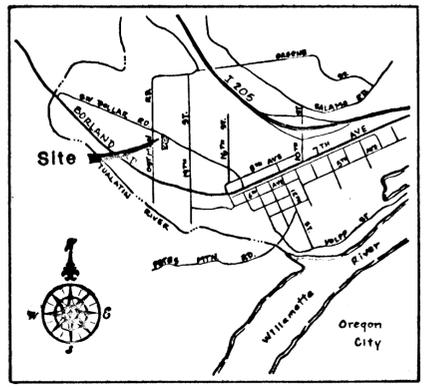
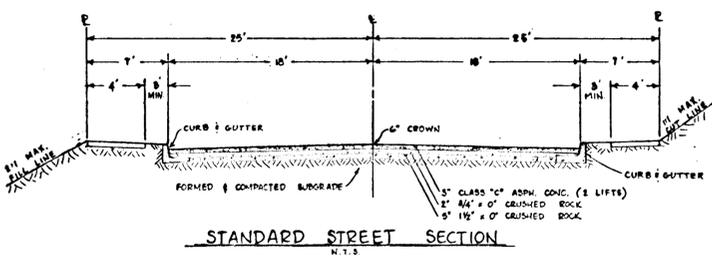
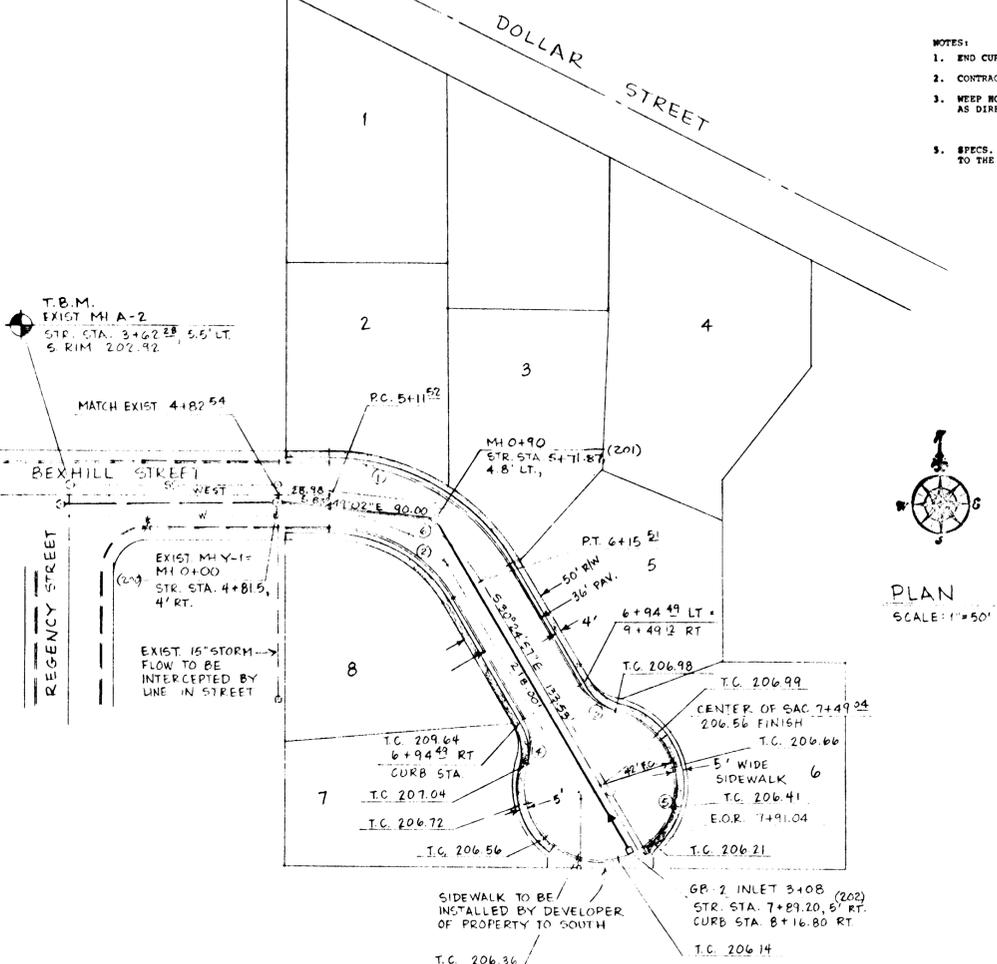


- NOTES:
1. END CURB SECTION, TOP TO BE REMOVED UPON EXTENSION.
 2. CONTRACTION JOINTS AT MAX. 15' AND LOCATIONS DESIGNATED.
 3. WEEP HOLE, 4" PLASTIC DRAIN PIPE OR APPROVED EQUAL, AT 30' OR AS DIRECTED.
 5. SPECS. FOR CONC. AND MISC. MATERIALS USED IN CURB CONST., SHALL CONFORM TO THE CURRENT O.S.H.D. STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.



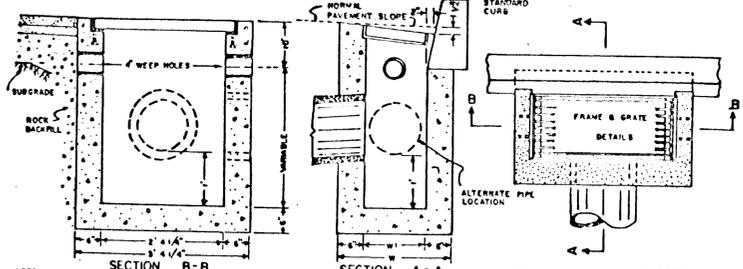
VICINITY MAP n.t.s.



PLAN SCALE: 1"=50'

CURB DATA CHART

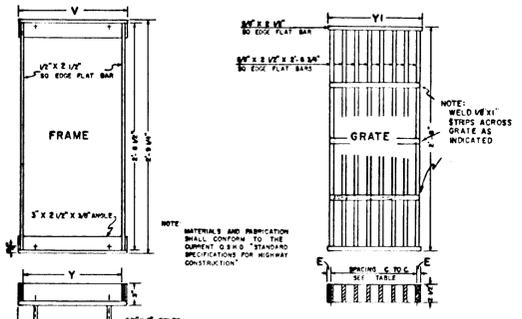
No.	Radius	Delta	Length	Centerline/Face of Curb
1	118.00	59° 35' 03"	122.71	Face of Curb
2	82.00	59° 35' 03"	85.28	Face of Curb
3	32.00	47° 29' 36"	26.53	Face of Curb
4	32.00	47° 29' 36"	26.53	Face of Curb
5	42.00	27° 4' 59" 12"	201.58	Face of Curb
6	100.00	59° 35' 03"	103.99	Centerline



NOTE: SPECIFICATIONS FOR CONCRETE AND MISC. MATERIALS USED IN CONSTRUCTION SHALL CONFORM TO THE CURRENT O.S.H.D. STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

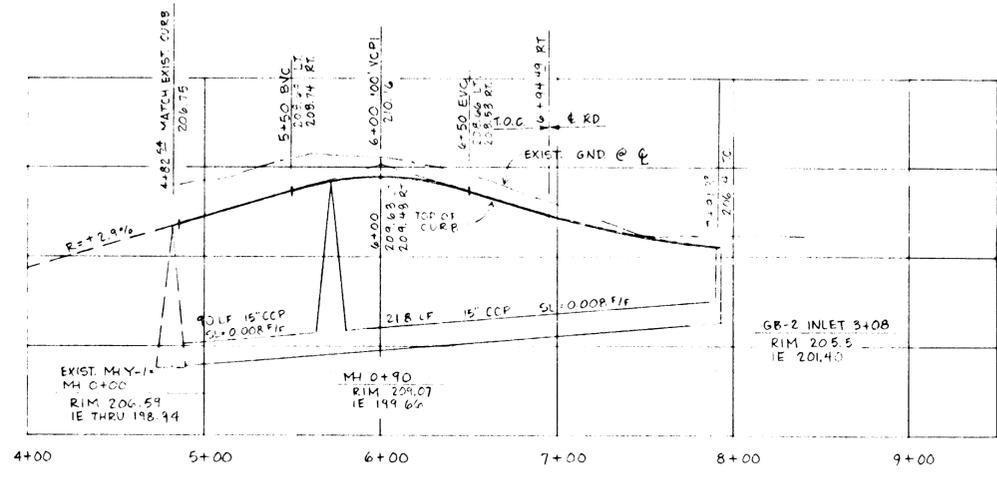
A MAXIMUM DEVIATION FROM PLAN DIMENSIONS OF ONE INCH, AT THE INLET TYPE, SHALL BE ALLOWED FOR TAPERING OF FORMS USED IN CONSTRUCTION OF CONCRETE INLETS.

INLET TYPE	W	H
GB	2' 1 1/4"	1' 1 1/8"
GB-1	2' 4 1/8"	1' 8 1/4"
GB-2	3' 3 3/4"	2' 3 3/4"

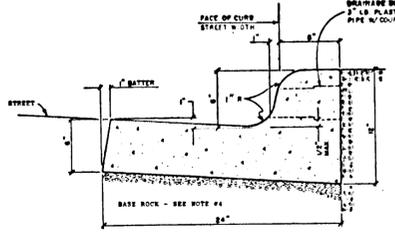


INLET TYPE	V	Y	YI	E	SPACING	NO. OF REINFORCING
G, GB, CG	12.00"	1.00"	1.00"	1.00"	4"	8
G-1, GB-1, CG-1	12.00"	1.00"	1.00"	1.00"	4"	12
G-2, GB-2, CG-2	12.00"	1.00"	1.00"	1.00"	4"	12
G-2M, D	12.00"	1.00"	1.00"	1.00"	4"	8

FRAME AND GRATE DETAILS n.t.s.



CURB PROFILE & STORM LINE PROFILE SCALE: 1"=5' VERT, 1"=50' HOR.



1. WHEN USED ALONG MEDIANS, BUTTERS MAY BE REDUCED WITH PRIOR APPROVAL FROM THE CITY ENGINEER.
2. CONCRETE TO HAVE A BREAKING STRENGTH OF 3000 P.S.I. AFTER 28 DAYS.
3. CONTRACTION JOINTS
- a. TO BE PROVIDED:
 - 1) AT EACH POINT OF VARIATION OF THE CURB.
 - 2) AT EACH END JOINT.
 - 3) AT EACH END OF BRIDGE STRUCTURES.
 - 4) AT EACH END OF DRIVEWAYS.
 - b. SPACING TO BE NOT MORE THAN 18 FEET.
4. BASE ROCK - 1 1/2" MIN. 50% COMPACTION. BASE ROCK SHALL BE TO SURGRADE OF STREET STRUCTURE OR 4" IN DEPTH, WHICHEVER IS GREATER.
5. DRAINAGE BLOCK - 3" DIAMETER PLASTIC PIPE.
- a. 1.0" SPACING WITH WEEP HOLES.
 - b. DRAINAGE BLOCKS THROUGH EXISTING CURBS SHALL BE CUT OFF BY CURB SAW CUT VERTICALLY 16" BACKSIDE OF DRAIN AND REFORCED TO FULL DEPTH OF CURB.

CURB AND GUTTER DETAIL n.t.s.

- GENERAL NOTES:**
- *ALL WORK AND MATERIALS TO BE IN ACCORDANCE WITH THE CITY OF WEST LINN PUBLIC WORKS DEPARTMENT, O.S.H.D. AND 1980 APWA OREGON CHAPTER SPECIFICATIONS.
 - *CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION AND SHALL ARRANGE FOR THE RELOCATION OF ANY IN CONFLICT WITH THE PROPOSED CONSTRUCTION.
 - *CONTRACTOR TO OBTAIN ALL REQUIRED PERMITS AND LICENSES BEFORE STARTING CONSTRUCTION.
 - *EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE ONLY AND MUST BE VERIFIED BY THE CONTRACTOR. ADDITIONAL UNDERGROUND UTILITIES MAY EXIST.
 - *THE ENGINEER HAS NOT BEEN RETAINED OR COMPENSATED TO PROVIDE DESIGN AND CONSTRUCTION REVIEW SERVICES RELATING TO THE CONTRACTOR'S SAFETY PRECAUTIONS OR TO MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED FOR THE CONTRACTOR TO PERFORM HIS WORK.
 - *CONTRACTOR SHALL REMOVE AND DISPOSE OF TREES, STUMPS, BRUSH, ROOTS AND OTHER MATERIAL IN THE ROADWAY AND WHERE INDICATED ON THE PLANS. MATERIALS SHALL BE DISPOSED OF IN SUCH A MANNER AS TO MEET LOCAL REGULATIONS. MATERIAL TO BE DISPOSED OF OFF-SITE. NO ONSITE BURIAL ALLOWED.

- ROAD AND STORM SEWER NOTES:**
- *CONCRETE CULVERT PIPE SHALL BE ASTM C 14 CLASS 3 NONREINFORCED CONCRETE PIPE UNLESS SHOWN OTHERWISE ON PROFILE.
 - *PIPE BEDDING SHALL CONFORM WITH GRANULAR BEDDING AND BACKFILL REQUIREMENTS OF 1980 APWA DIVISION III SECTION 301.2.02.
 - *TRENCHES WITHIN THE RIGHT-OF-WAYS SHALL BE "CLASS B" BACKFILL WITH SELECT GRANULAR MATERIAL CONFORMING TO 1980 APWA DIVISION III SECTION 301.2.04 B.
 - *COMPACTION SHALL BE PER 1980 APWA DIVISION III SECTION 301.3.07.
 - *CONTRACTOR TO DETERMINE TYPE OF EQUIPMENT AND METHOD TO USE TO ACHIEVE REQUIRED COMPACTION.
 - *TRENCH BACKFILL OUTSIDE OF RIGHT-OF-WAY MAY BE EXCAVATED TRENCH MATERIAL CONFORMING TO CLASS "A" PER 1980 APWA DIVISION III SECTION 301.2.04.
 - *MATERIAL IN SOFT SPOTS WITHIN THE ROADWAY SHALL BE REMOVED TO THE DEPTH REQUIRED TO PROVIDE A FIRM FOUNDATION AND SHALL BE REPLACED WITH FIT RUN CRUSHED ROCK. THE ENTIRE SUBGRADE SHALL BE THOROUGHLY COMPACTED AT THE LOWEST MOISTURE CONTENT AT WHICH A HANDFUL OF SOIL CAN BE MOLDED BY A FIRM CLOSING OF THE HAND (95% COMPACTION AASHTO T168).
 - *CONTRACTOR SHALL NOTIFY THE ENGINEER AND THE CITY WHEN SUBGRADE IS COMPLETE AND 24 HOURS PRIOR TO PLACEMENT OF ROCK BASE MATERIAL AND 24 HOURS PRIOR TO FINAL PAVING FOR AN INSPECTION OF THE WORK. FAILURE TO DO SO WILL MAKE ANY SUBGRADE FAILURE OR DRAINAGE PROBLEMS THE RESPONSIBILITY OF THE CONTRACTOR.
 - *ASPHALT CONCRETE PAVEMENT MIX TO BE DESIGNED FROM A MIX FORMULA APPROVED BY O.S.H.D. FOR MATERIAL USED. CONTRACTOR TO PROVIDE ENGINEER WITH CERTIFICATE OF COMPLIANCE FROM ASPHALT PAVEMENT PLANT.
 - *EXCESS EXCAVATION TO BE SPREAD AND COMPACTED EVENLY ON LOTS AS DIRECTED BY OWNER. VEGETATION AND TOPSOIL TO BE STRIPPED OFF-FILL AREAS PRIOR TO FILLING.
 - *SIDEWALKS SHOWN ON STREET SECTION ARE NOT PART OF THIS CONTRACT. THEY WILL BE CONSTRUCTED AS PART OF THE LOT IMPROVEMENTS.
 - *ALL PVC PIPE SHALL BE A.S.T.M. 3834.
 - *EXISTING PAVEMENT SHALL BE SAW-CUT PRIOR TO PAVING.

DATE	NO.	REVISION
5-10-88	5	A5-BUILT
12-24-87	4	ADDED CURB PROFILE DETAIL
5-11-87	2	ADDED FUTURE SIDEWALK
4-22-87	2	REV'D PER CITY REMOVED STICKER
4-2-87	1	REV'D PER CITY REQUEST

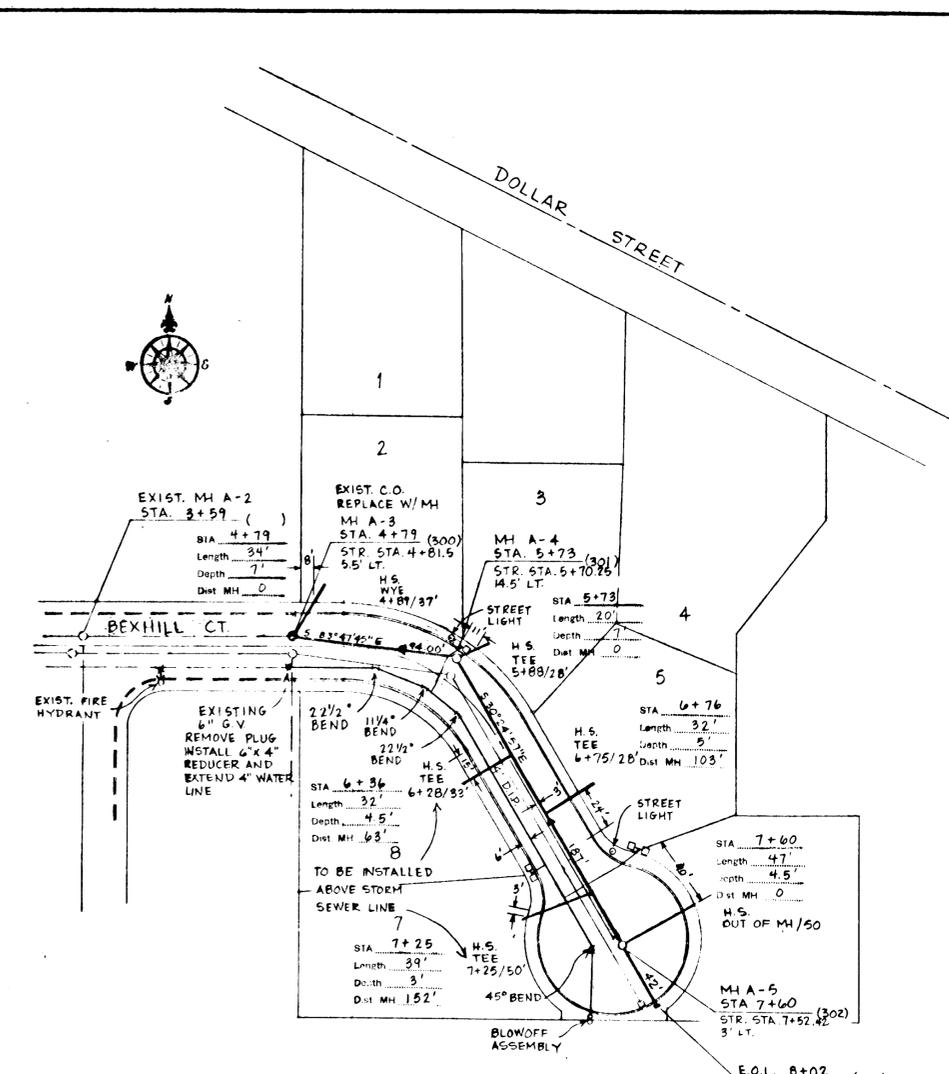
DRAWN	BJW	DESIGNED	TLT	CHECKED
SCALE	As shown		DATE	3-6-87
FILE	86-2248-1372			



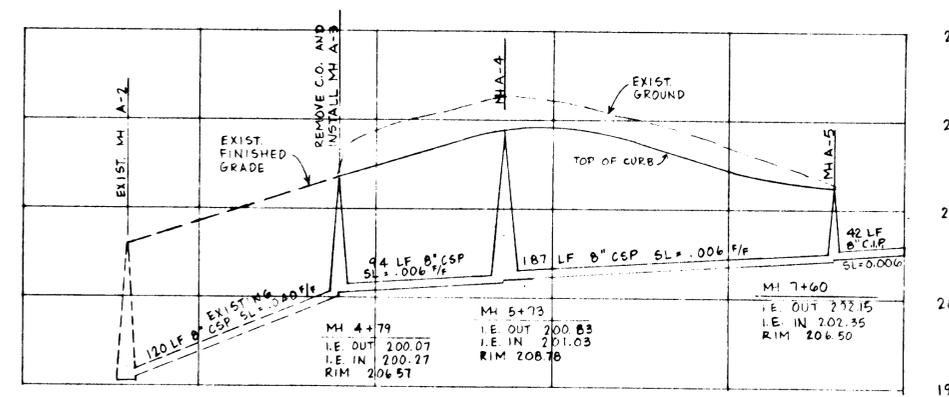
COMPASS CORPORATION
ENGINEERING - SURVEYING - PLANNING
6564 S.E. LAKE ROAD
MILWAUKIE, OREGON 97222

CARL COFFMAN
16615 S. Wachtman
Oregon City, Oregon 97045 Ph. 631-2903

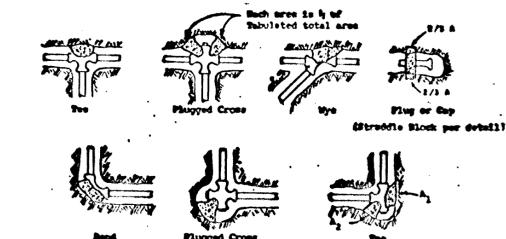
ROAD AND STORM SEWER PLAN AND PROFILES



PLAN
SCALE: 1" = 50'



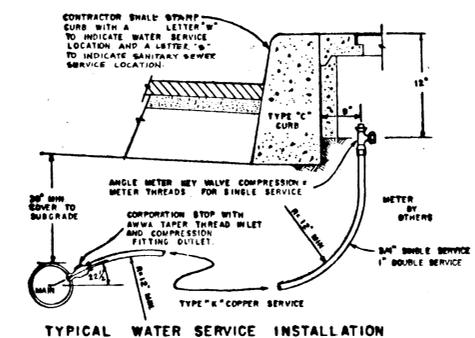
LATERAL "A" PROFILE
SCALE: 1" = 50' HORIZ., 1" = 5' VERT.



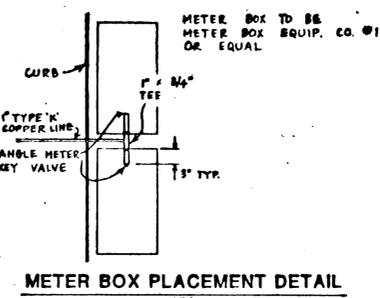
SANITARY SEWER NOTES:

- *CONCRETE SANITARY SEWER PIPE SHALL BE ASTM C14, CLASS 3 NONREINFORCED CONCRETE PIPE WITH RUBBER GASKETS UNLESS SHOWN OTHERWISE ON PROFILE.
- *ENGINEER RESERVES THE RIGHT TO ADJUST GRADES OR ALIGNMENT TO ACCOMMODATE UTILITIES OR EXISTING SEWER LINES AS REQUIRED.
- *ALL TRENCH EXCAVATION SHALL CONFORM TO 1988 APWA DIVISION SECTION 301.1.01 AND SHALL BE UNCLASSIFIED.
- *ALL EXCESS MATERIAL FROM THE TRENCH EXCAVATION SHALL BE DISPOSED OF ON SITE OR AS DIRECTED BY THE ENGINEER.
- *PIPE BEDDING SHALL BE AS PER 1988 APWA DIVISION III, SECTION 301.2.02 AND SHALL BE 3/4"-0 CRUSHED ROCK.
- *TRENCH BACKFILL SHALL BE CLASS "A" PER 1988 APWA DIVISION III SECTION 301.2.04 ON ALL SEWER LINES OUTSIDE PUBLIC RIGHT-OF-WAY OR PAVED AREAS IN THE PROJECT. TRENCH BACKFILL SHALL BE CLASS "B" PER 1988 APWA DIVISION III, SECTION 301.2.04B IN ALL PUBLIC RIGHTS-OF-WAY OR PAVED AREAS IN THE PROJECT.
- *TRENCH BACKFILL COMPACTION SHALL BE AS PER 1988 APWA DIVISION III, SECTION 301.3.07. CONTRACTOR TO DETERMINE TYPE OF EQUIPMENT AND METHOD TO USE TO ACHIEVE THE REQUIRED COMPACTION.
- *SUBSEQUENT SETTLEMENT OF THE FINISHED SURFACE WITHIN THE WARRANTY PERIOD SHALL BE CONSIDERED TO BE A RESULT OF IMPROPER COMPACTION AND SHALL BE PROMPTLY REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.
- *ALL CONCRETE MANHOLES SHOWN ON THE PLANS ARE 48" MINIMUM DIAMETER AND CONFORM TO CITY STANDARD.
- *BUILDING SERVICE CONNECTIONS TO SLOPE 2% MINIMUM UP TO FUTURE HOUSE LOCATION FROM SEWER LATERAL OR MAIN. SERVICE SHALL BE 6-INCH SEWER PIPE AND SHALL EXTEND TO MINIMUM OF 1 PIPE LENGTH BEYOND THE RIGHT-OF-WAY OR EASEMENT LINE.
- *WYES AND 1/8TH BENDS REQUIRED FOR HOUSE SERVICE CONNECTION AT MAIN LINE.
- *STATIONING AND DISTANCE SHOWN ON PLAN AND PROFILE ARE HORIZONTAL AND NOT SLOPE DISTANCE.
- *CONTRACTOR SHALL PREPARE A PRINT FOR THE ENGINEER SHOWING AS-CONSTRUCTED DATA. STATION OF WYE ALONG SEWER, LENGTH OF CONNECTION AND DEPTH OF SERVICE CONNECTION AT PROPERTY LINE OF END OF SERVICE AND ANY CHANGES MADE DURING CONSTRUCTION.
- *FIELD OBSERVATION WILL BE AS DETERMINED NECESSARY BY ENGINEER. IF INSPECTOR IS NOT PRESENT, CONTRACTOR SHALL CALL FOR INSPECTION PRIOR TO BACKFILLING TRENCH AND TO WITNESS PIPELINE TESTING.
- *ALL SEWER LINES ARE TO BE AIR TESTED PER DIVISION III, SECTION 303.3.16 OF THE STANDARD SPECIFICATIONS.
- *ALL MANHOLES THAT REQUIRE HYDROSTATIC TESTING SHALL BE TESTED IN ACCORDANCE WITH 1988 APWA DIVISION III, SECTION 303.3.15.
- *PAVEMENT RESURFACING WHERE REQUIRED SHALL CONFORM TO 1988 APWA DIVISION III, SECTION 309.

Fitting Plug or Size	2" Wye, Plugged Cross	3" Wye, Plugged Cross	4" Wye, Plugged Cross	6" Wye, Plugged Cross	8" Wye, Plugged Cross	10" Wye, Plugged Cross
4	3.0	3.5	4.0	4.5	5.0	5.5
6	3.5	4.0	4.5	5.0	5.5	6.0
8	4.0	4.5	5.0	5.5	6.0	6.5
10	4.5	5.0	5.5	6.0	6.5	7.0
12	5.0	5.5	6.0	6.5	7.0	7.5
14	5.5	6.0	6.5	7.0	7.5	8.0
16	6.0	6.5	7.0	7.5	8.0	8.5
18	6.5	7.0	7.5	8.0	8.5	9.0
20	7.0	7.5	8.0	8.5	9.0	9.5
24	8.0	8.5	9.0	9.5	10.0	10.5

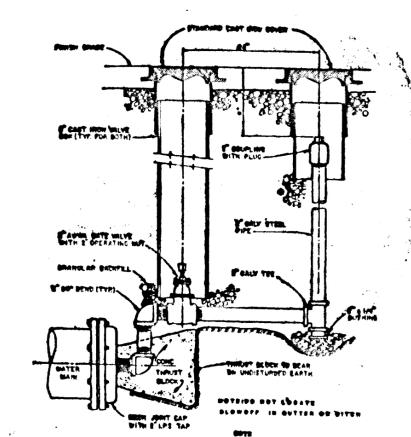


TYPICAL WATER SERVICE INSTALLATION
N.T.S.

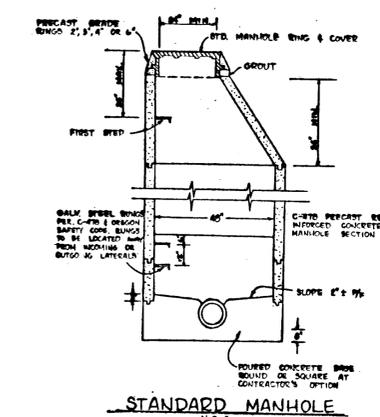


METER BOX PLACEMENT DETAIL
N.T.S.

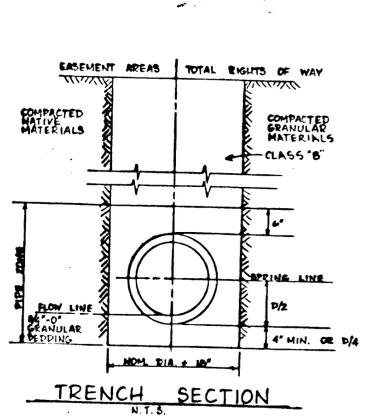
THRUST BLOCKING DETAILS
N.T.S.



BLOWOFF ASSEMBLY
N.T.S.



STANDARD MANHOLE
N.T.S.



TRENCH SECTION
N.T.S.

WATER SYSTEM NOTES:

- *ALL WORK AND MATERIALS SHALL COMPLY WITH THE CITY OF WEST Linn STANDARDS, THE OREGON STATE HEALTH DIVISION ADMINISTRATIVE RULES CHAPTER 333, THE A.W.W.A. AND THE 1988 APWA STANDARDS.
- *CONTRACTOR SHALL NOTIFY UTILITIES BEFORE STARTING CONSTRUCTION AND SHALL COORDINATE WATER LINE CONSTRUCTION WITH OTHER FACILITIES AND UTILITIES.
- *CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION AND SHALL CONSTRUCT THE WATER LINE TO AVOID CONFLICT WITH THE EXISTING UTILITIES.
- *ALL PIPE TO BE MINIMUM COVER OF 30 INCHES BELOW FUTURE STREET GRADES.
- *CONTRACTOR SHALL TAKE PRECAUTIONS TO PROTECT PIPE INTERIORS, FITTINGS, AND VALVES AGAINST CONTAMINATION.
- *FIRE HYDRANTS TO BE DRY-BARREL WATEROUS TYPE AND COMPLY WITH A.W.W.A. C502.
- *HOUSE SERVICES TO BE COPPER TYPE "K" SEAMLESS SOFT ANNEALED. SERVICES TO HAVE FORD COMPRESSION FITTINGS. SINGLE SERVICES TO BE 3/4-INCH. DOUBLE SERVICES TO BE 1-INCH. COPPER TUBE BENDS TO BE SMOOTH RADIUS.
- *METER BOXES TO BE SUPPLIED BY THE CONTRACTOR AND SHALL BE NO. 1 METER BOX AS MANUFACTURED BY METER BOX EQUIPMENT COMPANY, TIGARD, OREGON.
- *METER LOCATIONS TO BE 12-INCHES BELOW TOP OF CURB AND 6-INCHES BEHIND CURB. METER LOCATIONS TO BE 12 INCHES BELOW TOP OF CURB AND 5.5 FEET BEHIND CURB IN CUL-DE-SAC. METERS SHALL NOT BE LOCATED IN FUTURE SIDEWALK AREAS. SERVICE TAPS TO BE AT LEAST 18-INCHES APART.
- *GATE VALVES TO BE A.W.W.A. C500. BUTTERFLY VALVES TO MEET A.W.W.A. C504. VALVES TO HAVE 2-INCH OPERATING NUT WITH COUNTER CLOCKWISE OPENING AND NON-RISING STEM.
- *DUCTILE IRON PIPE TO BE TYTON JOINT CEMENT MORTAR LINED CLASS 52 AND SHALL CONFORM TO ASTM C110, C150 AND C151.
- *FITTINGS AND PIPE SECTIONS THAT WILL NOT BE DISINFECTED BY CHLORINE IN LINE FOR 24 HOURS SHALL HAVE THE INTERIORS SWABBED WITH A 5 PERCENT HYPOCHLORITE SOLUTION BEFORE THEY ARE INSTALLED.
- *CONCRETE THRUST BLOCKS TO BE CONSTRUCTED AT TEES, BENDS, FIRE HYDRANTS, BLOWOFFS AND WHERE INDICATED ON PLANS. THE MINIMUM BEARING SURFACE AGAINST UNDISTURBED SOIL TO BE AS SHOWN ON THE DETAIL SHEET. CONCRETE SHALL BE ALLOWED TO CURE BEFORE PIPELINE PRESSURE TESTING.
- *PIPELINE TO BE TESTED AT 150 P.S.I. AND HELD AT THE PRESSURE FOR 2 HOURS. TEST TO BE WITNESSED BY CITY WATER DEPARTMENT PERSONNEL.
- *PIPELINE TO BE THOROUGHLY DISINFECTED AND FLUSHED IN ACCORDANCE WITH A.W.W.A. STANDARD C 601.
- *USE SINGLE STRAP SERVICE SADDLE ON ALL SERVICES.

ROSE WAY

5-10-88	4	AS-BUILTS	DRAWN B.J.W.	DESIGNED T.L.T.	CHECKED
5-4-87	3	APPLIED NOTES 21, RELOCATED WATER SERVICES ON LOT 3 & 4.			
4-22-87	2	REV'D PER CITY, REMOVED STICKER			
4-3-87	1	REV'D PER CITY REQUEST			
DATE	NO.	REVISION	FILE	86-2248-1372	

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Oregon City, Oregon 97045 Ph. 631-2903

**SANITARY SEWER PLAN AND PROFILE
WATER LINE PLAN**