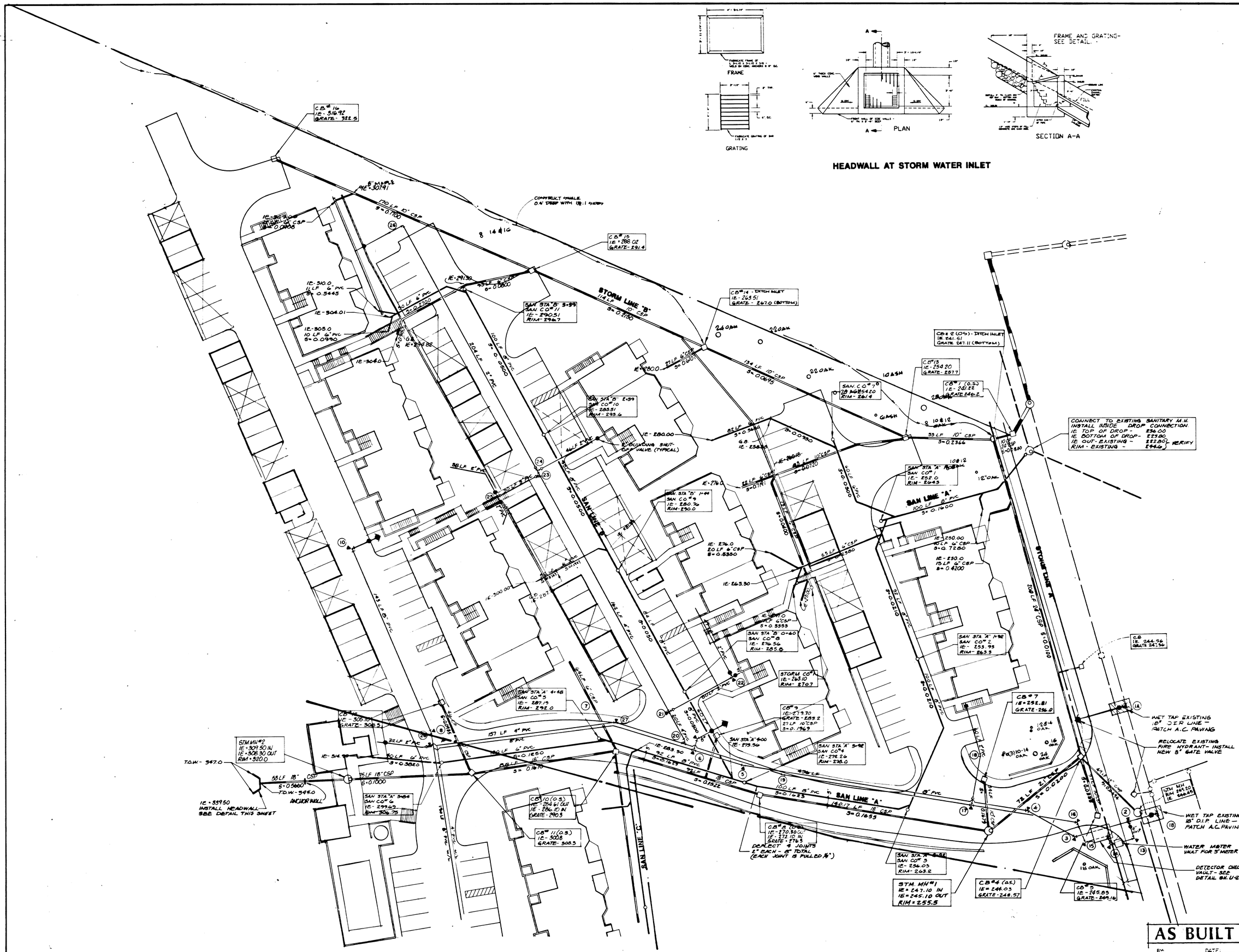


DGB DESIGNED	11-88 DATE
DES DRAWN	11-88 DATE
DGB CHECKED	11-88 DATE

REVISIONS
3 CITY REV. 1-10-89
4 CITY REV. 1-31-89

REGISTERED PROFESSIONAL ENGINEER 10,053 OREGON FEB 27 1979 GREGORY KURAHASHI

COMPOSITE UTILITY PLAN

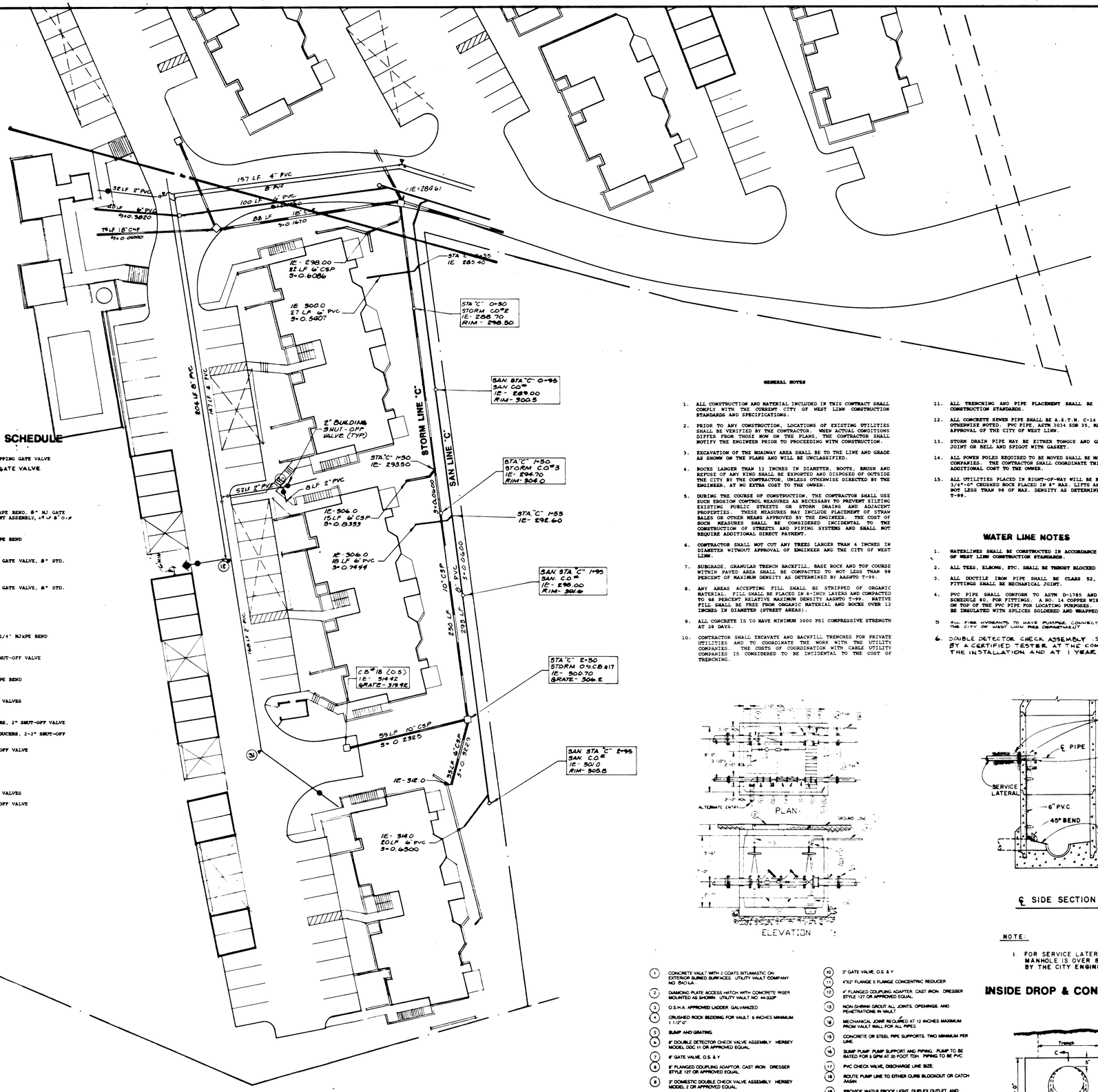
LINNWOOD HEIGHTS
GROUP TWO INVESTORS
P.O. BOX 887
CORVALIS, OREGON 97339

otak incorporated
17355 S.W. Boones Ferry Rd
Lake Oswego, OR 97035 (503) 635-3516
101 E. 6th Street
Vancouver, WA 98660 (206) 695-6957
25 Central Way #305
Kirkland, WA 98033 (206) 822-4446

U-1
SHEET NO.

2080
PROJECT NO.

LINNWOOD HEIGHTS
ATLANTIC COMPANY
2080



WATERLINE SCHEDULE

1 18"x8" TAPPING TEE, 8" TAPPING GATE VALVE
2 8"x8"x4" MJ TEE, 4" MJ GATE VALVE
3 8" 45° MJxPE BEND
4 8" 22 1/2° MJxPE BEND
5 8" 11 1/4° MJxPE BEND
6 8" MJ TEE, 8" 45° MJxPE BEND, 8" MJ GATE VALVE, 8" STD. FIRE HYDRANT ASSEMBLY, 18" x 8" O.D.
7 8" 22 1/2° MJxPE BEND
8 8" MJ TEE, 8" 11 1/4° MJxPE BEND
10 8" 90° MJxPE BEND, 8" MJ GATE VALVE, 8" STD. FIRE HYDRANT ASSEMBLY
12 8" 90° MJxPE BEND, 8" MJ GATE VALVE, 8" STD. FIRE HYDRANT ASSEMBLY
13 4" 90° MJxPE BEND
14 4" 90° MJxPE BEND
15 4" 90° MJxPE BEND
16 4" 45° MJxPE BEND, 4" 11 1/4° MJxPE BEND
17 4" MJ TEE, 2" PVC ADAPTOR
18 2" 22 1/2° PVC BEND, 2" SHUT-OFF VALVE
19 4 11 1/4° MJxPE BEND
20 4 MJxMJxPE TEE, 4 45° MJxPE BEND
21 4" MJ TEE, 2" PVC ADAPTOR
22 2" PVC TEE, 2-2" SHUT-OFF VALVES
23 4" MJ TEE, 3" PVC ADAPTOR
24 4" MJ TEE, 2-2" PVC ADAPTORS, 2" SHUT-OFF VALVE
25 3" PVC TEE, 2-3"x2" PVC REDUCERS, 2-2" SHUT-OFF VALVES
26 2" 90° PVC BEND, 2" SHUT-OFF VALVE
27 4" 22 1/2° MJxPE BEND
28 4" 22 1/2° MJxPE BEND
29 4" 22 1/2° MJxPE BEND
30 2" PVC TEE, 2-2" SHUT-OFF VALVES
31 2" 45° PVC BEND, 2" SHUT-OFF VALVE

GENERAL NOTES

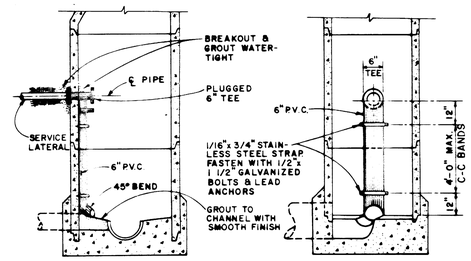
1. ALL CONSTRUCTION AND MATERIAL INCLUDED IN THIS CONTRACT SHALL COMPLY WITH THE CURRENT CITY OF WEST LINN CONSTRUCTION STANDARDS AND SPECIFICATIONS.
2. PRIOR TO ANY CONSTRUCTION, LOCATIONS OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR. WHEN ACTUAL CONDITIONS DIFFER FROM THOSE NOW ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
3. EXCAVATION OF THE ROADWAY AREA SHALL BE TO THE LINE AND GRADE AS SHOWN ON THE PLANS AND WILL BE UNCLASSIFIED.
4. ROCKS LARGER THAN 12 INCHES IN DIAMETER, ROOTS, BRUSH AND REFUSE OF ANY KIND SHALL BE EXPORTED AND DISPOSED OF OUTSIDE THE CITY BY THE CONTRACTOR, UNLESS OTHERWISE DIRECTED BY THE ENGINEER, AT NO EXTRA COST TO THE OWNER.
5. DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL USE SUCH EROSION CONTROL MEASURES AS NECESSARY TO PREVENT SILTING EXISTING PUBLIC STREETS OR STORM DRAINS AND ADJACENT PROPERTIES. THESE MEASURES MAY INCLUDE PLACEMENT OF STRAW BALES OR OTHER MEANS APPROVED BY THE ENGINEER. THE COST OF SUCH MEASURES SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION OF STREETS AND PIPING SYSTEMS AND SHALL NOT REQUIRE ADDITIONAL DIRECT PAYMENT.
6. CONTRACTOR SHALL NOT CUT ANY TREES LARGER THAN 6 INCHES IN DIAMETER WITHOUT APPROVAL OF ENGINEER AND THE CITY OF WEST LINN.
7. SUBGRADE, GRANULAR TRENCH BACKFILL, BASE ROCK AND TOP COURSE WITHIN PAVED AREA SHALL BE COMPACTED TO NOT LESS THAN 98 PERCENT OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99.
8. ANY AREAS ACCEPTING FILL SHALL BE STRIPPED OF ORGANIC MATERIAL. FILL SHALL BE PLACED IN 8-INCH LAYERS AND COMPACTED TO 98 PERCENT RELATIVE MAXIMUM DENSITY AASHTO T-99. NATIVE FILL SHALL BE FREE FROM ORGANIC MATERIAL AND ROCKS OVER 12 INCHES IN DIAMETER (STREET AREAS).
9. ALL CONCRETE IS TO HAVE MINIMUM 3000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
10. CONTRACTOR SHALL EXCAVATE AND BACKFILL TRENCHES FOR PRIVATE UTILITIES AND TO COORDINATE THE WORK WITH THE UTILITY COMPANIES. THE COSTS OF COORDINATION WITH CABLE UTILITY COMPANIES IS CONSIDERED TO BE INCIDENTAL TO THE COST OF TRENCHING.
11. ALL TRENCHING AND PIPE PLACEMENT SHALL BE PER WEST LINN CONSTRUCTION STANDARDS.
12. ALL CONCRETE SEWER PIPE SHALL BE A.S.T.M. C-14 CLASS 3 UNLESS OTHERWISE NOTED. PVC PIPE, ASTM 3034 SDR 35, MAY BE USED UPON APPROVAL OF THE CITY OF WEST LINN.
13. STORM DRAIN PIPE MAY BE EITHER TONGUE AND GROOVE MORTARED JOINT OR BELL AND SPIGOT WITH GASKET.
14. ALL POWER POLES REQUIRED TO BE MOVED SHALL BE MOVED BY UTILITY COMPANIES. THE CONTRACTOR SHALL COORDINATE THIS EFFORT AT NO ADDITIONAL COST TO THE OWNER.
15. ALL UTILITIES PLACED IN RIGHT-OF-WAY WILL BE BACKFILLED WITH 3/4"-0" CRUSHED ROCK PLACED IN 8" MAX. LIFTS AND COMPACTED TO NOT LESS THAN 98 OF MAX. DENSITY AS DETERMINED BY AASHTO T-99.

WATER LINE NOTES

1. WATERLINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF WEST LINN CONSTRUCTION STANDARDS.
2. ALL TEES, ELBOWS, ETC. SHALL BE THRUST BLOCKED WITH CONCRETE.
3. ALL DUCTILE IRON PIPE SHALL BE CLASS 52, TYTON JOINT. FITTINGS SHALL BE MECHANICAL JOINT.
4. PVC PIPE SHALL CONFORM TO ASTM D-1785 AND ASTM D-2467, SCHEDULE 80, FOR FITTINGS. A NO. 14 COPPER WIRE MUST BE USED ON TOP OF THE PVC PIPE FOR LOCATING PURPOSES. THE WIRE SHALL BE INSULATED WITH SPLICES SOLDERED AND WRAPPED.
5. ALL FIRE HYDRANTS TO HAVE PUMPER CONNECTIONS AS PER THE CITY OF WEST LINN FIRE DEPARTMENT.
6. DOUBLE DETECTOR CHECK ASSEMBLY IS TO BE TESTED BY A CERTIFIED TESTER AT THE COMPLETION OF THE INSTALLATION AND AT 1 YEAR AFTER INSTALLATION.

1. CONCRETE VAULT WITH 2 COATS BITUMASTIC ON EXTERIOR BURIED SURFACES. UTILITY VAULT COMPANY NO. 840 LA.
2. DIAMOND PLATE ACCESS HATCH WITH CONCRETE RISER MOUNTED AS SHOWN. UTILITY VAULT NO. 44-332P
3. O.S.H.A. APPROVED LADDER, GALVANIZED.
4. CRUSHED ROCK BEDDING FOR VAULT. 6 INCHES MINIMUM. 1 1/2"-0"
5. SUMP AND GRATING
6. 8" DOUBLE DETECTOR CHECK VALVE ASSEMBLY. HERSEY MODEL DDC 11 OR APPROVED EQUAL.
7. 8" GATE VALVE, O.S. & Y
8. 8" FLANGED COUPLING ADAPTOR, CAST IRON. DRESSER STYLE 127 OR APPROVED EQUAL.
9. 3" DOMESTIC DOUBLE CHECK VALVE ASSEMBLY. HERSEY MODEL 2 OR APPROVED EQUAL.
10. 3" GATE VALVE, O.S. & Y
11. 4"X3" FLANGE X FLANGE CONCENTRIC REDUCER
12. 4" FLANGED COUPLING ADAPTER, CAST IRON. DRESSER STYLE 127 OR APPROVED EQUAL.
13. NON-SHRINK GROUT ALL JOINTS, OPENINGS, AND PENETRATIONS IN VAULT.
14. MECHANICAL JOINT REQUIRED AT 12 INCHES MAXIMUM FROM VAULT WALL FOR ALL PIPES.
15. CONCRETE OR STEEL PIPE SUPPORTS. TWO MINIMUM PER LINE.
16. SUMP PUMP. PUMP SUPPORT AND PIPING. PUMP TO BE RATED FOR 5 GPM AT 30 FOOT TDH. PIPING TO BE PVC
17. PVC CHECK VALVE, DISCHARGE LINE SIZE.
18. ROUTE PUMP LINE TO EITHER CURB BLOCKOUT OR CATCH BASIN
19. PROVIDE WATER PROOF LIGHT, DUPLEX OUTLET, AND POWER FOR SUMP PUMP.

DETECTOR CHECK VAULT



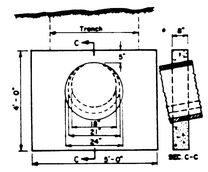
℄ SIDE SECTION

℄ FRONT SECTION

NOTE:

1. FOR SERVICE LATERAL CONNECTION ONLY WHEN MANHOLE IS OVER 8'-0" DEEP OR AS APPROVED BY THE CITY ENGINEER.

INSIDE DROP & CONNECTION TO EXISTING MANHOLE



FOR 18", 21" & 24" SEWER PIPE
0.42 Cu. Yd. Concrete Each

NOTES:

All concrete to be 3,000 lbs., 2" to 4" slump.

Anchor walls to be equally spaced with maximum distance between walls to be 21 ft on slope measure.

Place wall immediately below bell of pipe where possible.

SEWER PIPE ANCHOR WALLS

AS BUILT

BY: DATE:

DGB DESIGNED	11-88 DATE
DES DRAWN	11-88 DATE
DGB CHECKED	11-88 DATE

REVISIONS
3 CITY REV. 1-10-89
4 CITY REV. 1-31-89

REGISTERED PROFESSIONAL ENGINEER 14053 OREGON FEB 23 1979 GREGORY K. URBANSKI

COMPOSITE UTILITY PLAN

LINNWOOD HEIGHTS
GROUP TWO INVESTORS
P.O. BOX 887
CORVALLIS, OREGON 97339

otak INCORPORATED
17354 S.W. Boones Ferry Rd. Lake Oswego, OR 97035 (503) 635-3618
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25 Central Way #305 Kirkland, WA 98033 (206) 822-4446

U-2
SHEET NO.

2080
PROJECT NO.

2080 A-4A

2080