

SPECIFICATIONS

FILED

Date: 7-23-1999 By: J.P.
 This survey consists of: 13 SHEETS
 Map:
 Narrative:
 Corner Ppt:
DOUGLAS COUNTY SURVEYOR

GENERAL:

1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF THE 'STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION', 1990 W/ 1992 & 1996 ADDITIONS, PUBLISHED BY THE AMERICAN PUBLIC WORKS ASSOCIATION, OREGON CHAPTER.
2. BTS ENGINEERING & SURVEYING (DAVID G. PHILLIPI P.E.) WILL BE RESPONSIBLE FOR INSPECTION & TESTING.
3. UPON APPROVAL & ACCEPTANCE OF THE NEW STREET, AND STORM DRAIN IMPROVEMENTS, THEY WILL BECOME THE PROPERTY OF DOUGLAS COUNTY.
4. UPON APPROVAL & ACCEPTANCE OF THE NEW WATERLINE IMPROVEMENTS, THEY WILL BECOME THE PROPERTY OF THE ROBERTS CREEK WATER DISTRICT.
5. UPON APPROVAL & ACCEPTANCE OF THE NEW SEWER IMPROVEMENTS, THEY WILL BECOME THE PROPERTY OF GREEN SANITARY DISTRICT.
6. CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL FEDERAL, STATE, COUNTY AND LOCAL REGULATIONS REGARDING THE CONSTRUCTION OF THIS PROJECT.
7. CONTRACTOR IS REQUIRED TO NOTIFY 'ONE CALL' AT 1-800-332-2344 FOR UTILITY LOCATION PRIOR TO BEGINNING ANY EXCAVATION. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL EXISTING UTILITIES, AND FOR MAINTAINING THEM IN SERVICE DURING CONSTRUCTION.
8. BACKFILL, BACKFILL FOR ALL STORM DRAIN, WATERLINES, AND SEWERLINES WITHIN PUBLIC RIGHT-OF-WAYS SHALL BE CLASS 'B' - 1' MINUS CRUSHED AGGREGATE.

STREET CONSTRUCTION:

1. ALL EMBANKMENT FOR STREET CONSTRUCTION AND EXISTING EARTH WITHIN ONE FOOT OF FINISHED SUBGRADE ELEVATION SHALL BE COMPACTED TO 95% DENSITY IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS. ADD WATER AS REQUIRED.
2. CRUSHED ROCK BASE SHALL BE 1'-0" CRUSHED QUARRY ROCK, IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS.
3. ASPHALTIC CONCRETE PAVEMENT SHALL BE CLASS 'C' IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

STORM DRAIN:

1. ALL 10" & 12" STORM DRAIN PIPE SHALL BE SMOOTH LINED, RIBBED POLYETHYLENE. ADS 'N-12' OR HANCO 'HI-0' OR EQUIVALENT.
1. THE 35"X24" STORM DRAIN PIPE SHALL BE 14 GAGE TYPE II ALUMINIZED CORRUGATED STEEL PIPE DESIGNED FOR H 20 LOADING. MINIMUM COVER SHALL BE 12 INCHES.

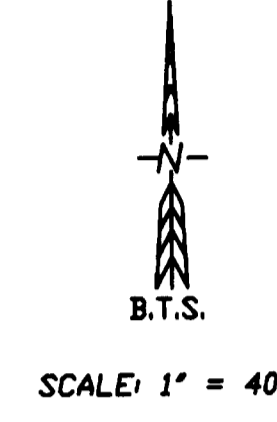
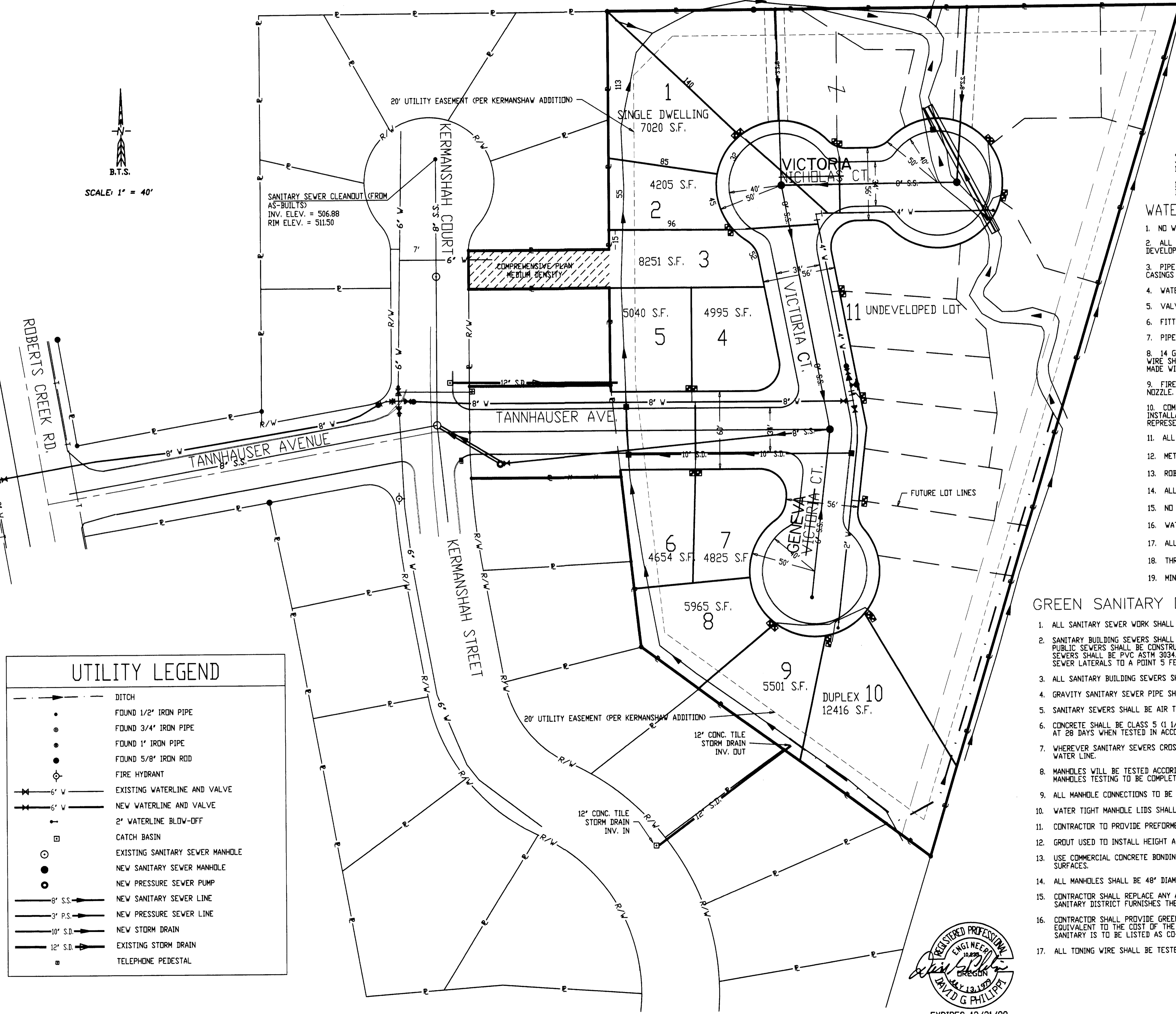
WATERLINE CONSTRUCTION:

1. NO WATERLINE CONSTRUCTION SHALL BEGIN UNTIL WRITTEN APPROVAL OF THE CONSTRUCTION PLANS IS RECEIVED FROM THE OREGON HEALTH DIVISION.
2. ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH APWA STANDARD SPECIFICATIONS AND THE REQUIREMENTS OF THE ROBERTS CREEK WATER DISTRICT. DEVELOPER SHALL WARRANT WATERLINE FOR 2 YEARS AFTER ACCEPTANCE.
3. PIPE FOR WATER MAINS SHALL BE RUBBER RING JOINT P.V.C. PER AWWA C900, CLASS 150, EXCEPT THROUGH BORE CASINGS. WATERLINES WITHIN BORE CASINGS SHALL BE DUCTILE IRON. SEE DETAIL 1/W-1.
4. WATERLINE CASING SHALL BE 12" STANDARD STRUCTURAL TUBING. PIPES SHALL BE SQUARE-GROOVE SEAM WELDED TOGETHER.
5. VALVES SHALL BE RESILIENT SEAT GATE VALVES, PER AWWA C-509.
6. FITTINGS SHALL BE DUCTILE IRON PER AWWA C-110, 250 P.S.I. RATING, WITH MECHANICAL JOINT OR FLANGED ENDS, AS DETAILED.
7. PIPE BEDDING SHALL BE REJECT SAND PER THE APWA STANDARD SPECIFICATIONS.
8. 14 GA. SOLID COPPER TONING WIRE, INSULATED FOR IN GROUND USE, SHALL BE INSTALLED DIRECTLY OVER ALL WATER MAIN AND SERVICE LINE INSTALLATIONS. WIRE SHALL BE BROUGHT TO THE SURFACE AT ALL VALVES, HYDRANTS AND METER BOXES. SPLICES FROM MAIN LINE TO SERVICE LINE TONING WIRE SHALL BE MADE WITH 3M - DIRECT BURY SPLICE KITS DESIGNED FOR IN GROUND USE.
9. FIRE HYDRANT SHALL BE CLOW 'CHALLENGER', 5001 MUELLER 'CENTURIAN' OR M&H #129-T. HYDRANT SHALL HAVE TWO 2 1/2" PORTS AND ONE 4" THREADED PUMPER NOZZLE. HYDRANT VALVE SHALL BE 5 1/4" COMPRESSION TYPE. HYDRANTS SHALL BE MECHANICAL JOINT.
10. COMPLETED WATER LINE INSTALLATIONS SHALL BE FLUSHED AND PRESSURE TESTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. COMPLETED WATER LINE INSTALLATION SHALL BE CHLORINATED AND BACTERIOLOGICALLY TESTED IN ACCORDANCE W/ THE REQUIREMENTS OF ORS 333.61.050 (1). ENGINEER AND WATER DISTRICT REPRESENTATIVE SHALL BE PRESENT FOR TESTING.
11. ALL SERVICE CROSSINGS SHALL HAVE A 1 1/2" PVC CARRIER PIPE WITH A PULL WIRE, MARKED AT EACH END WITH 3/4" PVC PIPE PAINTED BLUE.
12. METER LOCATION TO BE MARKED FOR HORIZONTAL & VERTICAL ALIGNMENT.
13. ROBERTS CREEK WATER DISTRICT SHALL BE NOTIFIED 48 HRS PRIOR TO ANY WATERLINE EXCAVATION.
14. ALL WATERLINE SHALL BE COVERED WHILE A DISTRICT INSPECTOR IS PRESENT.
15. NO OTHER UTILITY SHALL RUN PARALLEL WITHIN 3 FEET OF NEW WATER MAINS.
16. WATERLINE MAINS AND LATERALS SHALL CONFORM TO OREGON HEALTH DIVISION ADMINISTRATIVE RULES CHAPTER 333 PUBLIC WATER SYSTEMS.
17. ALL MECHANICAL JOINT FITTINGS SHALL HAVE MEGA LUG RESTRAINT RINGS IN ADDITION TO THRUST BLOCKS.
18. THRUST BLOCKS SHALL BE INSTALLED AT ALL BENDS AND FITTINGS PER STANDARD DRAWINGS.
19. MINIMUM COVER FOR WATER MAIN LINE IS 36 INCHES.

GREEN SANITARY DISTRICT GENERAL CONSTRUCTION SPECIFICATIONS

1. ALL SANITARY SEWER WORK SHALL BE IN CONFORMANCE WITH GREEN SANITARY DISTRICT'S STANDARDS, SPECIFICATIONS AND ORDINANCES.
2. SANITARY BUILDING SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH OREGON STATE DEPARTMENT OF COMMERCE, BUILDING CODE (LATEST REVISION) AND ITS AMENDMENTS. 6" AND LARGER PUBLIC SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DEQ STANDARDS FOR PUBLIC SEWERS AND TO THE LINES, GRADES AND DETAILS SHOWN ON THE PLANS. 4" SANITARY BUILDING SEWERS SHALL BE PVC ASTM 3034. ALL LINES SHALL HAVE 12 GAGE INSULATED GREEN TONING WIRE INSTALLED IN THE TRENCH FOR FUTURE LOCATING. CONTRACTOR SHALL INSTALL SEWER SEWER LATERALS TO A POINT 5 FEET BEHIND THE PROPERTY LINE.
3. ALL SANITARY BUILDING SEWERS SHALL BE AIR TESTED IN ACCORDANCE WITH APPLICABLE CODE.
4. GRAVITY SANITARY SEWER PIPE SHALL BE PVC ASTM 3034 SDR 35. PRESSURE SEWER PIPE SHALL BE CLASS 200, ASTM D2241.
5. SANITARY SEWERS SHALL BE AIR TESTED IN ACCORDANCE WITH STANDARD SPECIFICATION, UNIBELL B-06.85, AFTER COMPACTION OF BACKFILL.
6. CONCRETE SHALL BE CLASS 5 (1 1/2" MAXIMUM AGGREGATE SIZE) WITH 6 SACKS OF CEMENT PER CUBIC YARD OF CONCRETE, WITH A MIN. COMPRESSIVE STRENGTH OF NOT LESS THAN 3,000 PSI AT 28 DAYS WHEN TESTED IN ACCORDANCE WITH ASTM C-39.86.
7. WHEREVER SANITARY SEWERS CROSS UNDER WATER LINES WITH LESS THAN 18" VERTICAL CLEARANCE, THE SANITARY SEWER SHALL BE C900 PVC OR DUCTILE IRON PIPE 9" MINIMUM EACH SIDE OF WATER LINE.
8. MANHOLES WILL BE TESTED ACCORDING TO 1990 APWA STANDARD SPECIFICATION 306.6.03. WATER TO BE FILLED TO THE RIM OR VACUUM TESTED IN ACCORDANCE W/ ASTM C-924.86. MANHOLES TESTING TO BE COMPLETED FOLLOWING ALL STREET CONSTRUCTION, INCLUDING PAVING.
9. ALL MANHOLE CONNECTIONS TO BE FACTORY CONNECTORS WITH NON-SHRINK GROUT OR A CORED HOLE WITH FLEXIBLE BOOT, IE KOR-N-SEAL.
10. WATER TIGHT MANHOLE LIDS SHALL CONFORM TO THE APWA DRAWING #313
11. CONTRACTOR TO PROVIDE PREFORMED PLASTIC GASKETS IN ALL MANHOLE JOINTS.
12. GROUT USED TO INSTALL HEIGHT ADJUSTING RINGS, LID FRAMES AND BASES SHALL BE NON-SHRINK GROUT.
13. USE COMMERCIAL CONCRETE BONDING AGENT ON ALL CONCRETE FACES, BOTH INTERIOR AND EXTERIOR, TO BE GROUTED OR WHERE NEW CONCRETE WILL BE PLACED AGAINST EXISTING CONCRETE SURFACES.
14. ALL MANHOLES SHALL BE 48" DIAMETER WITH CONCENTRIC OR ECCENTRIC CONES.
15. CONTRACTOR SHALL REPLACE ANY AND ALL SURVEY MONUMENTS WHICH ARE AFFECTED BY THE CONSTRUCTION. ALL MONUMENTS WILL BE RESET BY A LICENSED LAND SURVEYOR. **WHEN GREEN SANITARY DISTRICT FURNISHES THE LICENSED SURVEYOR, CONTRACTOR WILL BE BILLED FOR THE ACTUAL COST OF RESETTING THE MONUMENT OR MONUMENTS.
16. CONTRACTOR SHALL PROVIDE GREEN SANITARY DISTRICT WITH A BOND FOR ONE YEAR EQUIVALENT TO THE COST OF THE SEWER PORTION OF THE CONSTRUCTION BID. **GREEN SANITARY IS TO BE LISTED AS CO-INSURED ON CONTRACTOR'S INSURANCE POLICY.
17. ALL TONING WIRE SHALL BE TESTED FOR CONTINUITY BEFORE FINAL SURFACING.

| | | | |
|--|---------------------------------------|---------|---------------|
| PROJECT: | BRIARWOOD SUBDIVISION | DATE: | JULY 28, 1998 |
| OWNER: | BEACON DEVELOPMENT | REV. 1: | AUG 24, 1998 |
| SHEET TITLE: | UTILITIES | REV. 2: | OCT. 26, 1998 |
| BTS ENGINEERING & SURVEYING, INC. | 431 S.E. MAIN ST., ROSEBURG, OR 97470 | REV. 3: | |
| PHONE (541) 673-0966 FAX (541) 673-0105 | | JOB #: | 97-131 |
| | | SHEET | U1 OF 1 |



UTILITY LEGEND

| | |
|--|---------------------------------|
| | DITCH |
| | FOUND 1/2" IRON PIPE |
| | FOUND 3/4" IRON PIPE |
| | FOUND 1" IRON PIPE |
| | FOUND 5/8" IRON ROD |
| | FIRE HYDRANT |
| | EXISTING WATERLINE AND VALVE |
| | NEW WATERLINE AND VALVE |
| | 2" WATERLINE BLOW-OFF |
| | CATCH BASIN |
| | EXISTING SANITARY SEWER MANHOLE |
| | NEW SANITARY SEWER MANHOLE |
| | NEW PRESSURE SEWER PUMP |
| | NEW SANITARY SEWER LINE |
| | NEW PRESSURE SEWER LINE |
| | NEW STORM DRAIN |
| | EXISTING STORM DRAIN |
| | TELEPHONE PEDESTAL |

381UTILS