

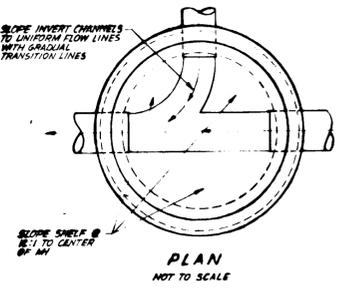
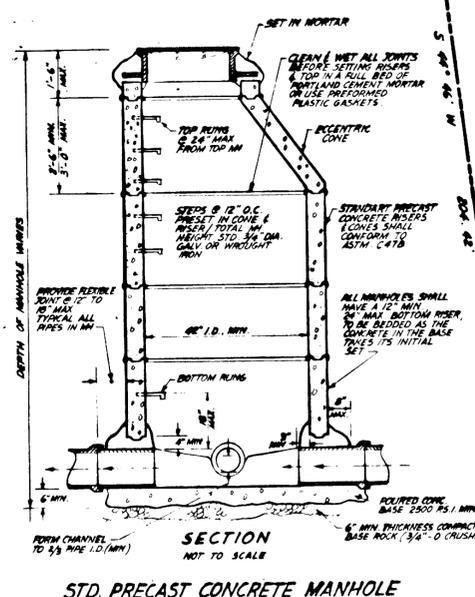
**CONSTRUCTION NOTES**

- GENERAL**
- 1) CONSTRUCTION STAKING SHALL BE PROVIDED BY THE ENGINEER.
  - 2) THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST TWO DAYS IN ADVANCE FOR REQUIRED CONSTRUCTION STAKING.
  - 3) PRIOR TO ANY CONSTRUCTION, LOCATIONS OF EXISTING AND PROPOSED UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR. WHEN ACTUAL CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLANS THE CONTRACTOR SHALL SO NOTIFY THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
  - 4) ALL CONSTRUCTION WILL BE IN ACCORDANCE WITH CURRENT CITY OF WEST LINN REGULATIONS, STANDARDS AND TECHNICAL REQUIREMENTS AND ANY DEVIATION FROM SUCH MUST BE APPROVED BY THE CITY ENGINEER.

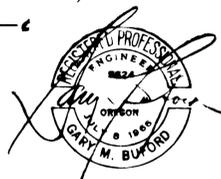
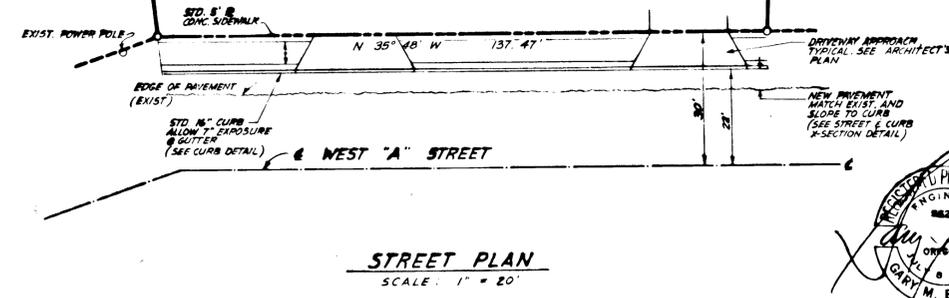
- PAVEMENT, CURB & WALKWAY**
- 1) EXCAVATION OF THE ROADWAY AREA SHALL BE TO THE LINE AND GRADE AS SHOWN ON THE PLANS AND WILL BE UNCLASSIFIED.
  - 2) EMBANKMENT WITHIN ROADWAY AREA WHERE SETTLEMENT CANNOT BE TOLERATED SHALL BE COMPACTED TO NOT LESS THAN 95% STANDARD A.A.S.H.O.
  - 3) NEW PAVEMENT AREA BETWEEN EXISTING PAVEMENT AND PROPOSED CURB OF WEST "A" STREET SHALL CONFORM TO THE CURB AND PAVEMENT DETAIL OF THESE PLANS. NEW PAVEMENT SHALL BE FEATHERED TO MATCH EXISTING PAVEMENT.
  - 4) CONCRETE CURB CONSTRUCTION SHALL CONFORM TO LINE AND GRADE OF PLANS AND SHALL BE IN ACCORDANCE WITH THE CURB DETAIL.
  - 5) CONCRETE SIDEWALK AND DRIVEWAY CONSTRUCTION SHALL CONFORM TO LOCATIONS AND GRADES SHOWN ON PLANS.
  - 6) ALL CONCRETE SHALL BE 28-DAY COMPRESSIVE STRENGTH OF 3300 P.S.I. (MIN.)

- SEWER**
- 1) MANHOLE CONSTRUCTION SHALL BE AS SHOWN ON THE PLANS. A PRECAST BASE WILL NOT BE PERMITTED FOR THE MANHOLE.
  - 2) STORM CATCH BASIN CONSTRUCTION SHALL BE AS SHOWN ON THE PLANS. PRECAST CATCH BASINS WILL NOT BE ALLOWED.
  - 3) SEWER CONSTRUCTION SHALL BE TO THE LINES AND GRADES AS SHOWN ON PLANS, UNLESS ENGINEER DIRECTS OTHERWISE.
  - 4) CONSTRUCTION OF STORM SEWER SHALL BE IN ACCORDANCE WITH THESE SPECIFICATIONS AND STANDARD SPECIFICATIONS AND CONSTRUCTION DETAILS OF THE PUBLIC WORKS DEPARTMENT, CITY OF WEST LINN.
  - 5) CONCRETE STORM SEWER PIPE SHALL BE ASTM C-14 EXTRA STRENGTH WITH TONGUE AND GROOVE, OR BELL AND SPIGOT-TYPE JOINTS. THE TOP HALF OF ALL JOINTS SHALL BE MORTARED.
  - 6) A MINIMUM 3" THICKNESS OF GRANULAR PIPE BASE MATERIAL SHALL BE PROVIDED BELOW THE FLOW LINE OF ALL SEWER PIPE AND SHALL EXTEND TO THE PIPE INVERT; MATERIAL SHALL BE GRADED 3/4"-0" CRUSHED ROCK.
  - 7) THE PIPE ZONE IS DEFINED TO EXTEND FROM THE PIPE BASE TO A POINT 6" ABOVE THE OUTSIDE OF THE PIPE, FOR THE FULL WIDTH OF THE TRENCH. BACKFILL WITHIN THE PIPE ZONE MAY BE SELECT TRENCHSIDE MATERIAL, SIZE NOT TO EXCEED 1 1/2 INCHES. IF SUITABLE MATERIAL IS NOT AVAILABLE, AND WITHIN AREAS OF ROCK, 3/4"-0" CRUSHED ROCK SHALL BE PROVIDED IN PIPE ZONE.
  - 8) IN AREAS WHERE SETTLEMENT IS NOT A CONSIDERATION, TRENCH ABOVE THE PIPE MAY BE BACKFILLED WITH EXCAVATED MATERIAL. A WINDOW OF EXCAVATED MATERIAL SHALL BE PLACED OVER THE TRENCH TO ALLOW FOR SETTLEMENT.
  - 9) IN PAVEMENT AREAS WHERE SETTLEMENT CANNOT BE TOLERATED, TRENCH ABOVE THE PIPE ZONE SHALL BE BACKFILLED WITH CRUSHED ROCK OR GRAVEL, EVENLY GRADED, WITH A MAXIMUM SIZE OF 4 INCHES, THE ROCK SHALL BE COMPACTED SUFFICIENTLY TO ELIMINATE SUBSEQUENT SETTLEMENT OR FAILURE OF PAVEMENT.
  - 10) SEWER PIPE LOCATED 5 FEET OR MORE FROM A BUILDING OR STRUCTURE SHALL BE CONCRETE, UNLESS OTHERWISE SPECIFIED. SEWER PIPE WITHIN 5 FEET OF A BUILDING OR STRUCTURE SHALL BE CAST IRON. (SEE ALSO SHEET 2)
  - 11) CONCRETE SANITARY SEWER PIPE SHALL BE ASTM C 14 EXTRA STRENGTH WITH PUSH-ON TYPE RUBBER JOINTS ASTM C 443. (SEE ALSO SHEET 2)
  - 12) WHERE CAST IRON PIPE IS SPECIFIED OR REQUIRED FOR SEWER SERVICES IT SHALL MEET OR EXCEED MINIMUM SPECIFICATIONS OF STANDARD NO. A15-67, CAST IRON SOIL PIPE AND FITTINGS, OF THE CAST IRON SOIL PIPE INSTITUTE. (C.I.S.P.I.)
  - 13) SANITARY SEWER PIPE JOINTS SHALL BE GAS AND WATER TIGHT.
  - 14) SEWER CLEANOUT AT BUILDING SHALL BE IRON BODY WITH BRASS PLUG.
  - 15) WITHIN EASEMENTS AND PUBLIC RIGHT-OF-WAY, CONTRACTOR SHALL BE RESPONSIBLE TO RESTORE THE PROPERTY TO ITS ORIGINAL CONDITION INsofar AS IS POSSIBLE.
  - 16) PRIOR TO ACCEPTANCE, ALL SANITARY SEWER SHALL BE AIR TESTED IN ACCORDANCE WITH STANDARD METHOD OF PROCEDURE FOR SUCH TESTS.
  - 17) WHERE SPECIFIED, BLDG. SEWER SHALL BE P.V.C., A.S.T.M. D 3034-73, SDR-35. JOINTS SHALL BE PUSH ON, RUBBER GASKETED, RUBBER RINGS TO CONFORM TO A.S.T.M. D 1849.

- WATERLINE (SEE NOTE SHEET 2 - OFFSITE WATER BY CITY OF WEST LINN)**
- 1) WATERLINE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS, REQUIREMENTS OF THE CITY OF WEST LINN AND STANDARD PROCEDURES AND METHODS OF CONSTRUCTION. THE CITY OF WEST LINN SHALL BE RESPONSIBLE FOR ENGINEERING, INSTALLATION AND INSPECTION SERVICES FOR OFFSITE WATERLINE CONSTRUCTION.
  - 2) WATERLINE SHALL BE CONSTRUCTED WITH POLYVINYL CHLORIDE (PVC) PRESSURE PIPE, NSF APPROVED CLASS NO. SDR 26. RUBBER RINGS SHALL CONFORM TO ASTM D 1869 JOINTS SHALL BE PUSH ON RUBBER GASKETED "RING-TITE" OR APPROVED EQUAL. FITTINGS SHALL BE CAST IRON "TIE-TEC" OR APPROVED EQUAL AND LESS THAN EQUAL WORKING PRESSURE AND JOINTS IDENTICAL TO PIPE. FITTINGS AT BENDS SHALL BE SHANKED AND/OR BLOCKED (SEE NOTE 10) TO ADEQUATELY RESTRAIN JOINT.
  - 3) BEDDING AND PRECOVER FOR WATERLINE SHALL BE 3/4"-0" CRUSHED ROCK, UNLESS OTHERWISE ALLOWED. TO PREVENT SETTLEMENT, THE TOP TWO (2) FEET SHALL BE 3/4"-0" CRUSHED ROCK, COMPACTED.
  - 4) CORPORATION STOP SHALL BE FORD NO. F1000 WITH OUTLET FOR 1/4"-INCH COPPER ANGLE METER STOPS SHALL BE FORD MYT 21W WITH LOCK WING (SHUT-OFF VALVE SHALL BE PROVIDED AT EACH BUILDING)
  - 5) SERVICE PIPE SHALL BE COPPER WATER TUBE, SEAMLESS TYPE "K" SOFT TEMPER, CONFORMING TO ASTM B 88; OR POLYBUTYLENE (P.B.) PLASTIC TUBING NSF APPROVED. SERVICE TUBING SHALL BE CONSTRUCTED TO 5 FEET DISTANT FROM DUPLEX BUILDINGS (SEE SHEET 2)
  - 6) INSTALLATION OF WATER SERVICES WILL BE IN ACCORDANCE WITH STANDARD METHODS AND PROCEDURES.
    - a) WATER SERVICE SIZES SHALL BE AS SHOWN ON CONSTRUCTION PLANS, SEE SCHEDULE OF WATER SERVICE TUBING SIZES, SHEET 2.
    - b) WATER SERVICE LOCATIONS SHOWN ARE TENTATIVE AND MAY BE REVISED AS DETERMINED NECESSARY AT TIME OF CONSTRUCTION (WATER METERS AND METER BOXES WILL BE INSTALLED BY CITY OF WEST LINN)
  - 7) GATE VALVES SHALL BE ANWA APPROVED NON-RISING STEM, IRON BODY, BRONZE MOUNTED TYPE MANUFACTURE AND MODEL NUMBER IN ACCORDANCE WITH STANDARDS OF THE CITY. AN ADJUSTABLE VALVE BOX SHALL BE PROVIDED AT EACH VALVE.
  - 8) FIRE HYDRANT UNIT SHALL BE IN ACCORDANCE WITH STANDARDS OF THE CITY:
    - a) 6"-INCH M.T. x FLANGE TEE AT MAIN, WITH CONCRETE THRUST BLOCK.
    - b) 6" INCH FLANGE x M.T. GATE VALVE.
    - c) 6" INCH P.E. x P.E., LENGTH AS REQD., WITH DUC-LUGS AND TIE RODS, LENGTH AS REQD.
    - d) 6" INCH M.T. BOTTOM HYDRANT, DRESSER MODEL 300 WITH 5/16" VALVE OPENING AND 3 OUTLETS.
    - e) 2'-0" SQUARE PRE-CAST CONCRETE PIER BLOCK UNDER HYDRANT (BASE) WITH 3/4" DRAIN ROCK UNDER AND HYDRANT TO 6" ABOVE WEEP HOLE IN HYDRANT BARREL.
    - f) DEPTH OF BURY AND EXACT LOCATION OF HYDRANT WILL BE FIELD DETERMINED. THRUST BLOCK AT HYDRANT SHALL BE PROVIDED IN ACCORDANCE WITH CITY OF WEST LINN WATER DEPT. STANDARDS.
  - 9) MAINTAIN 18" MINIMUM SEPARATION AT WATERLINE CROSSINGS WITH SANITARY SEWER; WATERLINE SHALL BE LOCATED ABOVE SEWER; HORIZONTAL SEPARATION SHALL BE AS SHOWN.
  - 10) CONCRETE THRUST BLOCKING SHALL BE PROVIDED AT ALL WATERLINE FITTINGS. BLOCKING SHALL BE POURED AGAINST UNDISTURBED EARTH. KEEP CONCRETE CLEAR OF JOINT ACCESSORIES. BEARING AREA OF THRUST BLOCK SHALL BE COMPUTED ON BASIS OF SOIL BEARING PRESSURE.
  - 11) WATERLINE SHALL BE PRESSURE TESTED FOLLOWING COMPLETION. TEST PRESSURE SHALL BE 150 P.S.I. AT LOWEST POINT IN TEST SECTION AND SHALL BE HELD ON THE LINE FOR A PERIOD OF 30 MINUTES. LEAKAGE MUST BE WITHIN ALLOWABLE LEAKAGE LIMITS.
  - 12) PRIOR TO BEING PLACED IN SERVICE, THE WATERLINE SHALL BE FLUSHED, STERILIZED AND FLUSHED, ALL IN ACCORDANCE WITH STANDARD METHODS OF THE HEALTH DIVISION, DEPT. OF HUMAN RESOURCES, STATE OF OREGON.
  - 13) PRIOR TO ALLOWING HUMAN CONSUMPTION OF WATER FROM THE NEW WATERLINE, A SAMPLE SHALL BE TAKEN AND TESTED FOR BACTERIOLOGICAL QUALITY; THE RESULTS MUST BE WITHIN STANDARDS OF THE STATE OF OREGON.

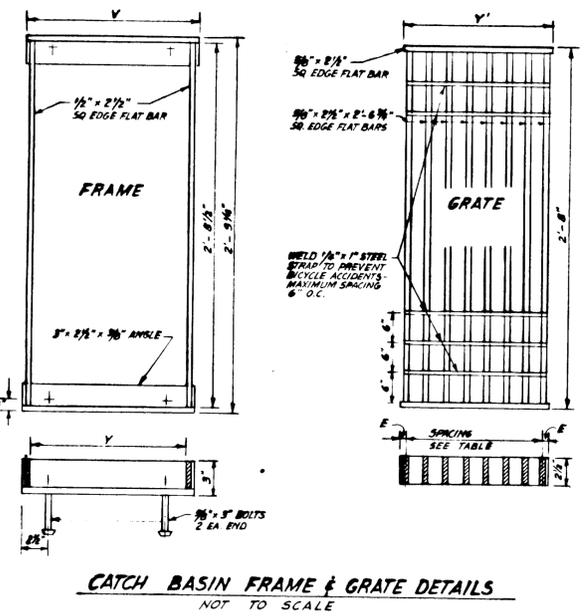
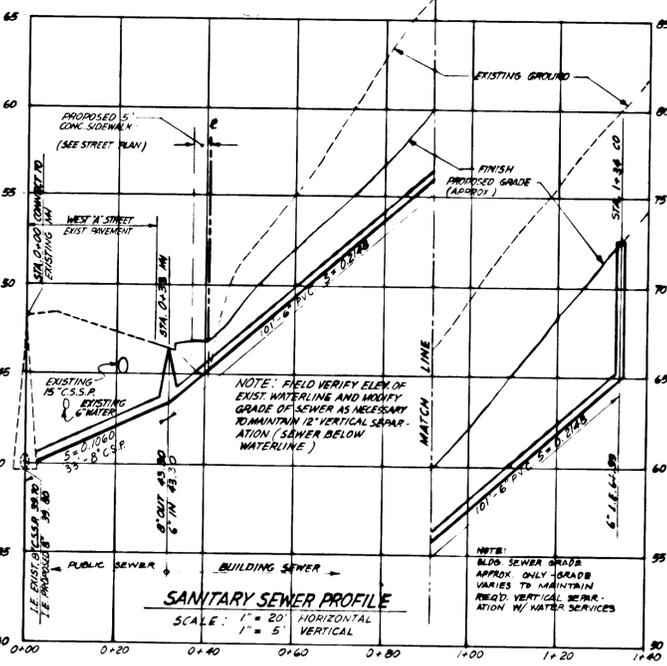
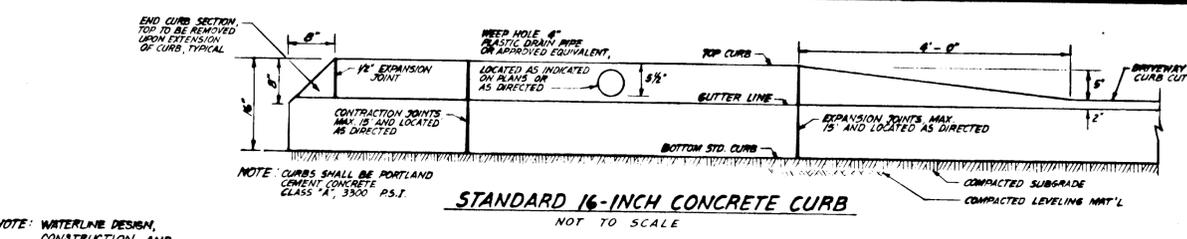
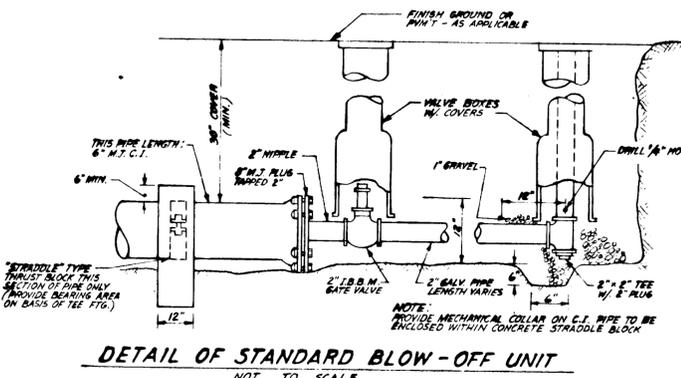
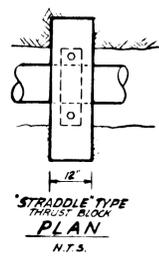
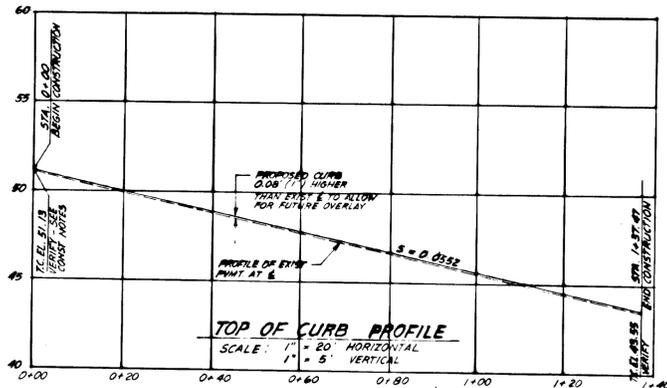


NOTE: BOUNDARY INFORMATION AND UTILITIES DESIGN ON BASIS OF PROPERTY SURVEY BY DONALD J. MCINTOSH (PACIFIC SURVEYS)



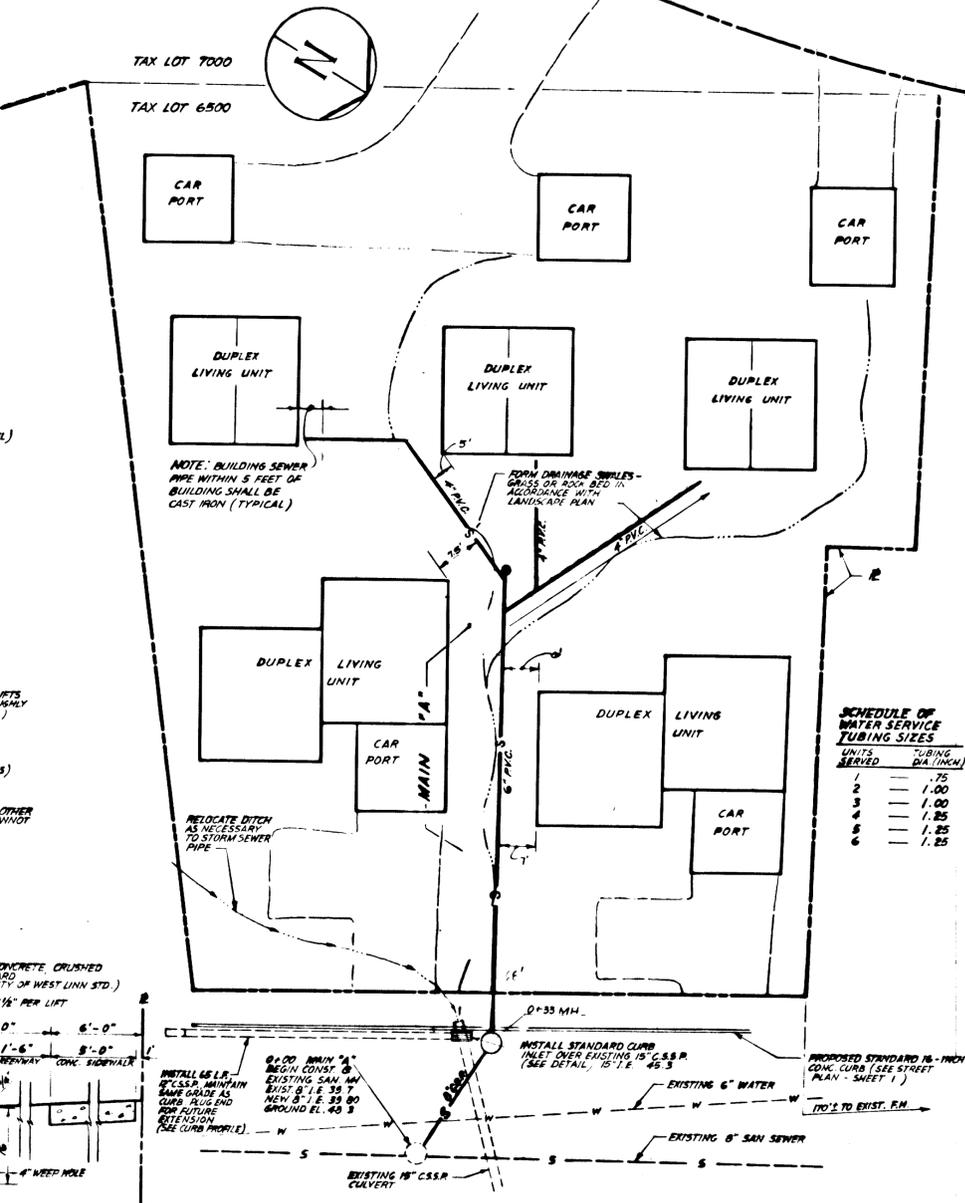
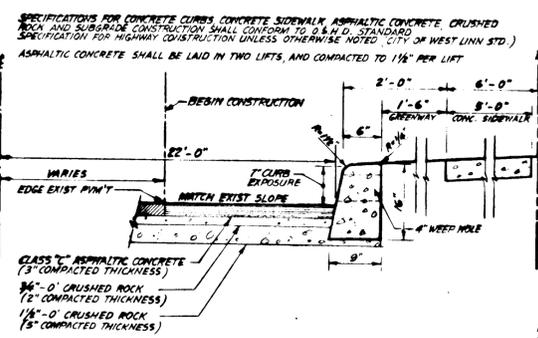
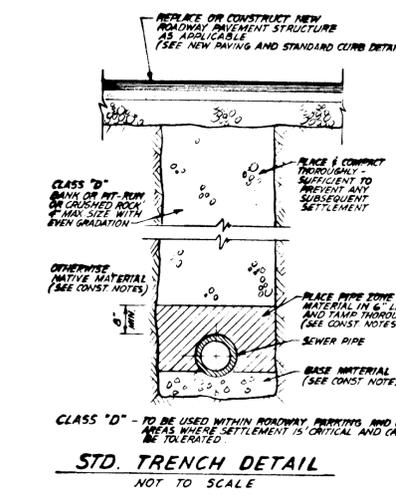
DRIESEL ARTS  
11/19/77  
11-19-76

DRAWN: S.A. DATE: MAY 1976		APPROVED: _____ CITY ENGINEER WEST LINN		CONSULTING ENGINEERS <b>GARY M. BUFORD AND ASSOCIATES</b> LAND SURVEYORS LAND PLANNERS P.O. BOX 1531 LAKE OSWEGO, OREGON 97034		PREPARED FOR: <b>RAY DRIESEL</b> 17540 S.E. BRANDON CT. GLADSTONE, OREGON 97007		<b>IMPROVEMENT PLANS FOR DUPLEX DEVELOPMENT</b> TAX LOT 6500 & TAX LOT 7000, MAP 21E 25 AD, WEST LINN CITY OF WEST LINN, CLACKAMAS COUNTY, OREGON		SHEET 1 OF 2	
NO.	REVISIONS	DATE	SCALE: AS SHOWN	REC. NO.: L 416							



INLET TYPE	V	Y	Y'	E	SPACING	NO. OF C TO C BARS
CURB	1'-10"	1'-8 1/2"	1'-8 1/2"	3/8"	1 1/2"	12

GRATE & FRAME DIMENSIONS



SCHEDULE OF WATER SERVICE TUBING SIZES

UNITS SERVED	TUBING DIA. (INCH)
1	1.75
2	1.00
3	1.00
4	1.25
5	1.25
6	1.25

- NOTES:
- 1) POLYVINYL-CHLORIDE (P.V.C.) BUILDING SEWER PIPE SHALL BE IN ACCORDANCE WITH A.S.T.M. D 3503 OR D 3504 AS APPROVED BY STATE OF OREGON DEPT. OF COMMERCE, PLUMBING SECTION AND CITY OF WEST LINN BUILDING DEPT.
  - 2) BUILDING SEWER PIPE WITHIN 5 FEET OF A BUILDING SHALL BE CAST IRON.
  - 3) BUILDING SEWER SHALL BE A MINIMUM OF 5 FEET FROM WATER LINE.
  - 4) AT WATERLINE-BUILDING SEWER CROSSINGS, A MINIMUM VERTICAL SEPARATION OF 10 INCHES IS REQUIRED.
  - 5) ANCHOR WALLS SHALL BE CONSTRUCTED OVER BUILDING SEWER AT INTERVALS NOT EXCEEDING 35 FEET O.C. FOR GRADES IN EXCESS OF 20 PER CENT.
  - 6) ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH RULES AND REGULATIONS OF OREGON STATE DEPT. OF COMMERCE, PLUMBING DIVISION.
  - 7) CONTRACTOR SHALL ADVISE ENGINEER OF CONSTRUCTION SCHEDULE FOR PURPOSE OF SUPERVISORY INSPECTION SERVICES AND CONSTRUCTION STAKING AS REQUIRED.
  - 8) MAINTAIN 12" VERTICAL SEPARATION BETWEEN PARALLEL WATER AND BUILDING SEWER LINES.
  - 9) AT CHANGE IN SANITARY SEWER PIPE MATERIALS PROPER TRANSITION COUPLINGS SHALL BE PROVIDED.

