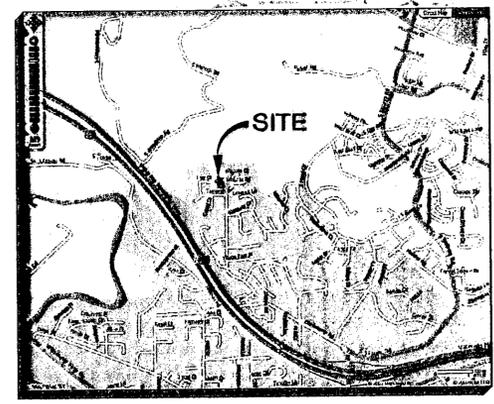
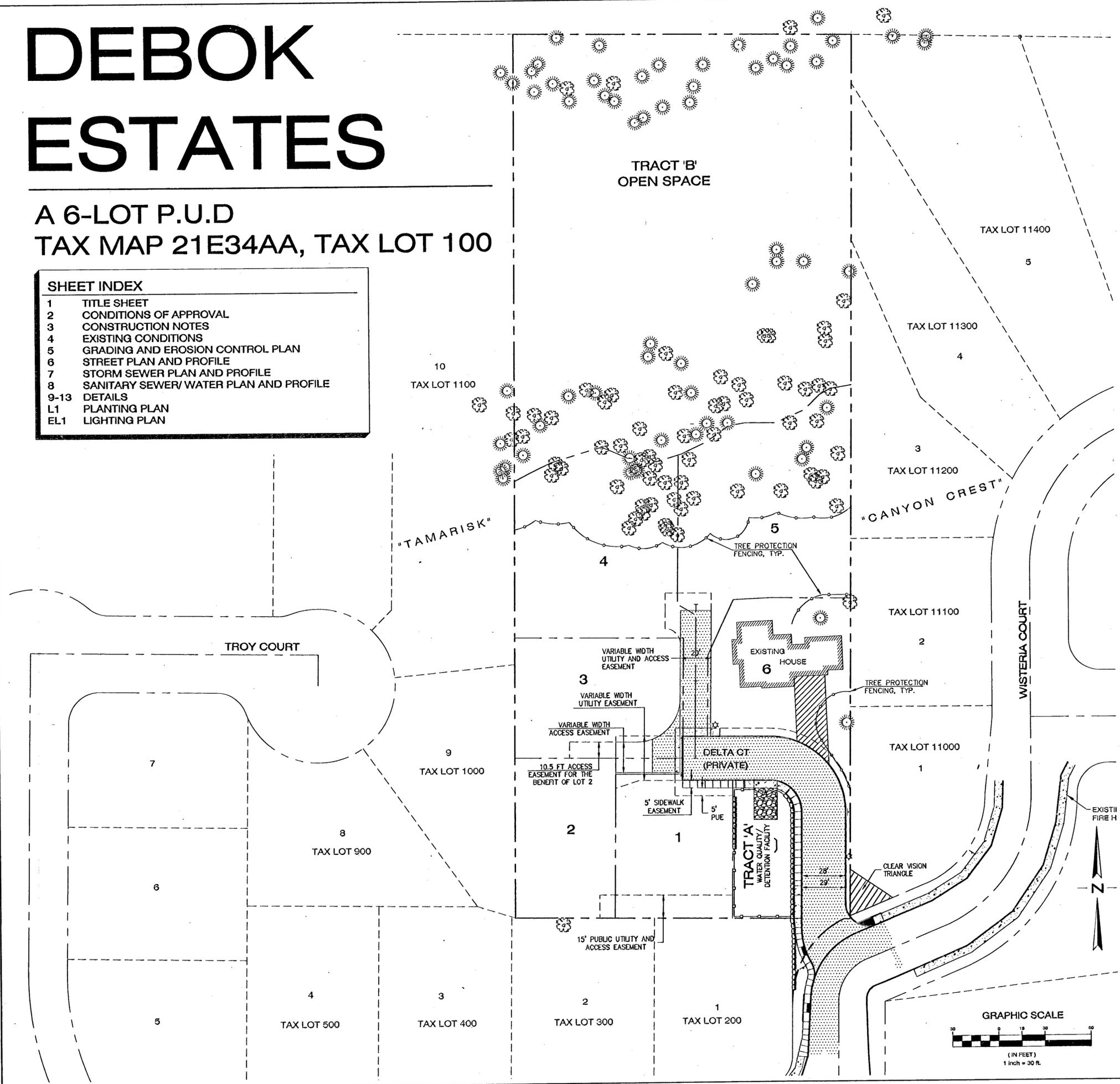


DEBOK ESTATES

A 6-LOT P.U.D
TAX MAP 21E34AA, TAX LOT 100

SHEET INDEX	
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3	CONSTRUCTION NOTES
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7	STORM SEWER PLAN AND PROFILE
8	SANITARY SEWER/WATER PLAN AND PROFILE
9-13	DETAILS
L1	PLANTING PLAN
EL1	LIGHTING PLAN



APPLICANT
CLUTTER PROPERTIES, LLC
18300 S. WHITTEN LN.
WEST LINN, OR 97068
PHONE: (503) 816-3183 / FAX: (503) 636-4763
CONTACT: JAY MINOR

ENGINEER/SURVEYOR
SFA DESIGN GROUP, LLC
9020 SW WASHINGTON SQ. DR. SUITE 350
PORTLAND, OR 97223
PHONE: (503) 641-8311 / FAX: (503) 643-7905
CONTACT: BRENT FITCH, P.E.

SITE INFORMATION

AREA:	2.94 ACRES
ZONING:	R-10
ADDRESS:	2590 DEBOK ROAD
TAX MAP:	T2S R1E SEC 34AA
EXISTING TAX LOT:	100
PROPOSED # OF LOTS:	6
JURISDICTION:	CITY OF WEST LINN

BENCHMARK
AN AS-BUILT ELEVATION OF A SANITARY SEWER MANHOLE RIM AT THE SOUTH END OF LOT 1, "CANYON CREST" WAS USED AS THE BENCHMARK FOR THE SURVEY UNDER THE DIRECTION OF THE CITY OF WEST LINN. RIM ELEVATION = 215.66'

LOCATES (48 HOURS NOTICE REQUIRED)

ONE CALL SYSTEM
(GENERAL TELEPHONE, NORTHWEST NATURAL GAS, PORTLAND GENERAL ELECTRIC) - 800-332-2344

REPAIR EMERGENCIES

NORTHWEST NATURAL GAS	- 800-882-3377
OWEST	- 503-573-1311
PORTLAND GENERAL ELECTRIC	- 503-464-7777
VERIZON	- 800-483-1000
CITY OF WEST LINN	- 503-722-5501
CITY OPERATIONS	- 503-656-6081



ATTENTION: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090.

UTILITY COMPANIES

WATER	- CITY OF WEST LINN
SEWER	- CITY OF WEST LINN
STORM	- CITY OF WEST LINN
GAS	- NORTHWEST NATURAL GAS
ELECTRIC	- PORTLAND GENERAL ELECTRIC
TELEPHONE	- U.S. WEST
TV	- COMCAST

IMPERVIOUS AREA

PRIVATE ROAD =	8,712 SF
PRIVATE PROPERTY =	16,985 SF
TOTAL =	25,697 SF

AS-BUILT
DATE: MHH 03-7-11

SFA Design Group, LLC
STRUCTURAL | CIVIL | PLANNING | SURVEYING
9020 SW WASHINGTON SQUARE DR. SUITE 350
PORTLAND, OREGON 97223
PH: (503) 641-8311 FAX: (503) 643-7905
sfa@designgroup.com

TITLE SHEET
DEBOK ESTATES
CLUTTER PROPERTIES, LLC
City of West Linn, Oregon



NO.	DATE	REVISION	BY
1	03-7-11	AS-BUILT	MH

DESIGNED BY	DATE	210
DRAWN BY	DATE	210
REVIEWED BY	DATE	210
PROJECT NO.	267-001	REF.
SCALE	H: 1"=30'	V: N/A

SHEET	1	OF	13
PROJECT	DEBOK		
NO.	267-001		
TYPE	ENGINEERING		

Journal: Plotter: Aug 22, 2011 - 1:21pm. B:\land Projects\2004\267-001\cases\mgh\asbuilt\267_01C016.dwg

WEST LINN PLANNING COMMISSION
PUD-08-01, SUB-08-03, VAR-08-04, WAP-08-02

SIX-LOT SUBDIVISION AT 2590 DE BOK ROAD
PLANNED UNIT DEVELOPMENT, CLASS II VARIANCE AND
WATER RESOURCE AREA PROTECTION PERMIT

At their meeting of May 21, 2008 the West Linn Planning Commission held a public hearing to consider the request by request of Slavik Dezhnyuk and SFA Design Group, consultants, to subdivide a 2.89-acre (125,884 square foot) property into six lots at 2590 DeBok Road. This will require a Subdivision, Planned Unit Development, Class II Variance and a Water Resource Area (WPA) permit. The zoning is R-10 (10,000 square foot minimum lot size per lot). The drainage way bisects the property on an east-west axis. This drainage way and forested areas to the north and south will be set aside as a conservation easement. The six lots are planned for the southern portion of the site. The approval criteria for the subdivision are contained in Community Development Code (CDC), Chapter 85, in Chapter 75 for a Class II Variance, in Chapter 32 for the WPA Permit, in Chapter 324 for the PUD. Approval or disapproval of the request by the Planning Commission will be based upon these criteria and these criteria only. The hearing was conducted pursuant to the provisions of CDC Chapter 99.

The hearing commenced with a staff report presented by Peter Spir, Associate Planner. The applicant's representative Ben Altman presented the applicant's report stating his satisfaction with the proposed conditions of approval. The public hearing was opened. Aaron Howard expressed concern about the small size of lot 2 adjacent to his property and the grading on that lot. David Rood suggested that the detention pond be relocated and was also concerned about the small size of lot 2. The public hearing was closed.

Commissioner Kovash moved that the application be approved, based upon the findings contained in the staff report, with conditions of approval plus an additional condition regarding lot two. Commissioner Martin seconded the motion. The motion passed unanimously with the following conditions of approval:

1. Significant trees scheduled for retention on the applicant's plan, shall be preserved and protected by the installation of six foot cyclone fence 10 feet beyond the dripline of those trees and this fence shall stay in place from site clearing/grubbing all the way through to home construction to be removed only upon the completion of all construction activity.
2. All public improvements shall be constructed in conformance to City of West Linn Public Works Design and Construction Standards.
3. The setbacks of 20 feet front and rear, 15 feet on sidewalk and 5 feet interior side setback shall apply plus all other setback allowances of the R-10 zone and CDC Chapter 38 shall apply. All driveways leading into garages shall be at minimum 20 feet long. Where a house is contiguous to the perimeter of the site the setback for the house elevation facing the perimeter shall be 20 feet at the rear and 7.5 feet on the side as applicable.

4. The applicant shall convey Tract B to the City of West Linn
5. Sidewalk ramps must meet ADA standards.
6. All stormwater design shall meet City standards.
7. Efficacy of proposed treatment and detention must be quantified by applicant's engineer and supportive data.
8. Provide half street improvements to Wisteria Court along the property frontage. The infield implementation of the actual half street construction shall be determined by the City Engineer and shall include sidewalks. Provide safe intersection to meet Clear Vision Area standards of CDC. Delta Court shall be classified as a private street and shall be maintained by property owners.
9. All runoff from private access driveways to individual homes shall be captured and directed into an approved storm system.
10. All non-native species shall be removed and native species planted in their place in the area south of the drainage way on the non Type I and II lands. The re-planting plan must be approved by the Planning Director.
11. The applicant shall remove the water resource area transition and setbacks from the final plat document.
12. The owners/developers of homes on lots 4 and 5 shall meet all water resource area or natural drainage way standards, transitions and setbacks.
13. All driveways shall be at least 20 feet long from property line to garage door.
14. The cut on the east side of the entry driveway will require a small retaining wall. If final engineering plans show a wall in excess of two feet then the wall must be constructed of textured or split faced masonry product rather than smooth preformed concrete blocks or similar product.
15. Provide improvements to existing water systems commensurate with increased demand generated by this development.
16. Existing septic system shall be identified on the plans and decommissioned per DEQ regulations.
17. Lot two shall maintain existing or natural grades except as necessary for driveway entrance to garage. In the event that the applicant can demonstrate to the City Engineer that the natural grades do not allow reasonable and adequate utility flow, per

engineering standards, then minimal grading may be allowed but only to achieve that purpose.

This decision will become effective 14 days from the date of mailing of this final decision as identified below. Those parties with standing (i.e., those individuals who submitted letters into the record, or provided oral or written testimony during the course of the hearing, or signed in on the attendance sheet at the hearing, or who have contacted City Planning staff and made their identities known to staff) may appeal this decision to the West Linn City Council within 14 days of the mailing of this decision pursuant to the provisions of Chapter 99 of the Community Development Code. Such appeals would require a fee of \$2500 and a completed appeal application form together with the specific grounds for appeal to the Planning Director prior to the appeal-filing deadline.

Michael Babbitt 6-5-08
MICHAEL BABBITT, CHAIR DATE
WEST LINN PLANNING COMMISSION

Mailed this 6th day of June, 2008.

Therefore, this decision becomes final at 5 p.m., June 20th, 2008.

Drawn/Plat/Decision/PUD-08-01DEBOK

SFA Design Group, LLC
STRUCTURAL | CIVIL | PLANNING | SURVEYING
9020 SW Washington Square Dr., Suite 350
Portland, Oregon 97225
Ph: (503) 941-8511 Fax: (503) 640-7905
sfa@sfagroup.com



CONDITIONS OF APPROVAL
DEBOK ESTATES
CLUTTER PROPERTIES, LLC
City of West Linn, Oregon



DESIGNED BY	DATE	SCALE	PROJECT NO.	REF.	BY	REVISION	NO.	DATE	AS-BUILT
MHH	03-7-11		267-001		MHH		1	03-7-11	

AS-BUILT
DATE MHH 03-7-11

SHEET 2 OF 13
PROJECT DEBOK
NO. 267-001
TYPE ENGINEERING

GENERAL NOTES:

- ALL CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE CURRENT CITY OF WEST LINN CONSTRUCTION STANDARDS.
- THE DESIGN ENGINEER WILL BE RESPONSIBLE FOR INSPECTION OF THE PROPOSED IMPROVEMENTS WITH OVER SIGHT FROM CITY'S PUBLIC WORKS AND ENGINEERING STAFF.
- A WORK SCHEDULE WILL BE REQUIRED FROM THE CONTRACTOR SO THAT THE ENGINEER CAN HAVE AN INSPECTOR ON-SITE AT THE APPROPRIATE TIMES. IF THE WORK SCHEDULE IS REVISED THE CONTRACTOR IS TO NOTIFY THE ENGINEER OF THE CHANGES. ADDITIONALLY THE CONTRACTOR IS TO GIVE THE ENGINEER AT LEAST 24 HOURS NOTICE OF ANY TESTING REQUIRING THE PRESENCE OF THE ENGINEER AND/OR CITY STAFF.
- THE CONTRACTOR IS TO RECEIVE THE APPROVAL OF THE ENGINEER OF ANY PROPOSED CHANGES TO THE PLANS OR STANDARD REQUIREMENTS.
- A BUILDING DEPARTMENT PLUMBING PERMIT IS REQUIRED FOR UTILITIES BEYOND THE FIRST CLEANOUT OR METER ON PRIVATE PROPERTY.
- A PRE-CONSTRUCTION MEETING WITH THE CITY OF WEST LINN IS REQUIRED PRIOR TO BEGINNING CONSTRUCTION. PRIOR TO SITE CLEARING, CONSTRUCTION "SHOW" FENCING SHALL BE PLACED AROUND TREES TO BE PRESERVED 10 FEET BEYOND THE DRILLLINE OF THE TREES AND SHALL REMAIN IN PLACE THROUGHOUT THE INFRASTRUCTURE IMPROVEMENTS.
- ALL PUBLIC IMPROVEMENTS SHALL BE IN PLACE AND ACCEPTED BY THE CITY PRIOR TO ANY FINAL PLAT RECORDING AND ISSUANCE OF BUILDING PERMITS.
- ALL PEDESTRIAN RAMPS SHALL MEET ADA REQUIREMENTS.

WATER SUPPLY:

- WATER MAINS SHALL BE DUCTILE IRON PIPE CONFORMING TO ANWA C151 CLASS 52. PIPE IS TO HAVE CEMENT MORTAR LINING AND BITUMINOUS SEAL COAT CONFORMING TO ANWA C104. JOINTS ARE TO BE PUSH-ON JOINT. ALL FITTINGS SHALL CONFORM TO ANS/AWWA SPECIFICATION C110/A21.10 OR ANS/AWWA SPECIFICATION C153/A21.53. ALL DUCTILE IRON FITTINGS SHALL BE CLASS 350. FITTINGS SHALL BE FURNISHED WITH FLANGED OR MECHANICAL JOINTS AS SPECIFIED ON THE PLANS. FITTINGS SHALL BE FURNISHED WITH A STANDARD OUTSIDE COATING, AND A CEMENT MORTAR LINING WITH BITUMINOUS SEAL COAT CONFORMING TO ANS/AWWA SPECIFICATION C104/A21.4. FITTINGS SHALL BE FACTORY LINED WITH CEMENT MORTAR OR CEMENT LINED TO FACTORY STANDARDS. NO FIELD COATING WITH CEMENT WILL BE APPROVED, OTHER THAN FOR MINOR REPAIRS AND ONLY WITH THE EXPRESS PERMISSION OF THE CITY ENGINEER.
- WATER MAINS TO HAVE A MINIMUM COVER OF 36".
- THRUST BLOCKS ARE TO BE PROVIDED BEHIND HYDRANT AND HYDRANT TEE. THRUST BLOCKING CONCRETE STRENGTH IS TO BE 3000 PSI MIN. SEE DETAILS FOR THRUST BLOCK SIZING. POUR THRUST BLOCKS AGAINST UNDISTURBED EARTH. ALL THRUST BLOCKS SHALL BE INSPECTED BY THE CITY PRIOR TO POURING AND PRIOR TO BACKFILLING.
- FIELD LOK GASKETS TO BE PROVIDED AT ALL CHANGES IN DIRECTION AND BRANCHES PER CALCULATIONS (EBA IRON RESTRAINT CALCULATOR)
- FIRE HYDRANTS SHALL CONFORM TO AND SHALL BE INSTALLED IN ACCORDANCE WITH CITY STANDARDS. PUMPER OUTLET IS TO FACE THE DIRECTION OF ACCESS.
- GRANULAR BACKFILL IS TO BE COMPACTED TO 95% MAXIMUM DRY DENSITY PER AASHTO T-100 TEST METHOD AND NATIVE MATERIAL SHALL BE COMPACTED TO 95% OF IN-PLACE DRY DENSITY OF SURROUNDING SOIL. BACKFILL UNDER STREETS SHALL BE IN ACCORDANCE WITH CLASS "B" BACKFILL AS INDICATED ON THE DETAIL SHEET OF THE PLANS. EXCAVATION, BEDDING AND BACKFILL SHALL BE IN ACCORDANCE WITH APWA DIVISION IV, SECTION 401.
- SERVICE LATERALS SHALL BE TYPE "K" LATERAL SIZES SHALL BE 1". CORPORATION STOPS SHALL BE FORD OR APPROVED EQUAL. CURB STOP SHALL BE 1" FORD METER STOP. METER BOXES SHALL BE EQUAL TO BROOKS BODY #37, LID AND COVER NO. 37-S. METER BOXES ARE TO BE INSTALLED 3/4" ABOVE FINISH GRADE. REFER TO STANDARD DETAIL WL-402.
- ALL WATERLINES SHALL PASS ALL TESTS PER CITY OF WEST LINN CONSTRUCTION STANDARDS PRIOR TO ACCEPTANCE. PRESSURE TEST SHALL BE CONDUCTED AT 180 PSI FOR 1 HOUR WITH NO LOSS.
- TWO-INCH GATE VALVES SHALL BE RESILIENT SEAT (RS), NON-RISING STEM WITH "O" RING PACKING, COMPLYING WITH ANWA CLASS "C" SPECIFICATIONS. GATE VALVES 4 IN. THROUGH 10 IN. SHALL BE RESILIENT SEAT, NON-RISING STEM WITH "O" RING PACKING, COMPLYING WITH ANWA CLASS C SPECIFICATIONS. THE VALVES SHALL BE DESIGNED TO WITHSTAND WATER WORKING PRESSURES OF 150 PSI OR MORE. ALL VALVES SHALL BE FURNISHED WITH A 2 IN. SQUARE OPERATING NUT AND SHALL OPEN COUNTER CLOCKWISE WHEN VIEWING VALVE FROM ABOVE. (RESOLUTION 05-10 4/11/05)

OPERATION OF THE VALVE SHALL PERMIT FULL WITHDRAWAL OF THE DISC FROM THE WATERWAY TO PROVIDE A CLEARUNRESTRICTED PASSAGE WHEN THE VALVE IS IN THE OPEN POSITION. THE VALVE SHALL BE FURNISHED WITH MECHANICAL JOINT ENDS UNLESS OTHERWISE SPECIFIED. WHERE FLANGES ARE FURNISHED ON VALVES, THEY SHALL CONFORM WITH ANS SPECIFICATION B-16.1, CLASS 125.

SPECIFIED 2 IN. GATE VALVES SHALL HAVE A RESILIENT WEDGE.

ALL BUTTERFLY VALVES SHALL BE RUBBER-SEAT TYPE AND BUBBLE-TIGHT AT 150 PSI PRESSURE WITH FLOW IN EITHER DIRECTION. THEY SHALL BE DESIGNED FOR DIRECT BURIAL AND BE SATISFACTORY FOR APPLICATION INVOLVING VALVE OPERATION AFTER LONG PERIODS OF INACTIVITY. VALVES SHALL CONFORM TO ANWA SPECIFICATION C-504, CLASS 150B. ALL VALVES SHALL BE MUELLER OR APPROVED EQUAL. OPERATING NUT FOR THE VALVE SHALL BE LOCATED ON THE SIDE OF THE MAIN SHOWN ON THE PLANS. (RESOLUTION 05-10 4/11/05)

VALVE BOXES SHALL BE THE CAST IRON "VANCOUVER" PATTERN (18 IN. TALL CASTING ONLY). VALVE RISER PIPE FROM THE VALVE TO THE CAST IRON TOP SHALL BE 8 IN. PVC SEWER PIPE ASTM D 3034, SDR-35, OR EQUAL FOR THE VANCOUVER BOX. SEE STANDARD DRAWING WL-411 AND WL-412.

VALVE BOX CASTINGS SHALL BE SMOOTH AND UNIFORM. BOX LID SHALL NOT PROTRUDE ABOVE THE RIM AND LIDS SHALL SEAT FLAT WITHOUT ROCKING. BOXES OF UNEVEN THICKNESS, PITTED, OR OTHERWISE FLAWED IN THE CASTING WILL BE REJECTED. PVC SEWER PIPE SHALL BE CUT OFF SMOOTH WITH NO SHARP EDGES

- DO NOT CONNECT NEW PIPE TO EXISTING PIPE PRIOR TO TESTING. THE CITY OF WEST LINN REQUIRES ACCEPTANCE OF NEW WATERLINE PRIOR TO CONNECTION TO EXISTING WATER SYSTEM.
- A PLUMBING PERMIT FROM THE CITY OF WEST LINN BUILDING DEPARTMENT IS REQUIRED FOR SERVICE LATERAL. INSTALLATIONS BEYOND THE WATER METER.
- ALL MATERIALS, INSTALLATION, TESTS, AND CHLORINATION TO BE IN STRICT ACCORDANCE WITH APWA'S STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, THE SUPPLEMENTAL STANDARDS AND CODES OF THE CITY OF WEST LINN, AND THE OREGON STATE HEALTH DIVISION ADMINISTRATIVE RULES, CHAPTER 333.

UTILITIES:

- IF NOT NOTED ON THE PLANS UTILITY INFORMATION AND CROSSING LOCATIONS WILL HAVE TO BE OBTAINED FROM THE UTILITIES.
- UTILITY CONTACTS ARE AS FOLLOWS:
PGE - CINDY MANSFELD, 650-1411;
COMCAST - JAMIE STENCIL, 243-7497,
U.S. WEST COMMUNICATIONS - JACKIE LOLLAR 242-8496.
NW GAS - SCOTT PALMER - 721-2449

STREETS:

- COMPLETELY REMOVE ALL STUMPS AND ROOTS WITHIN THE LIMITS OF REQUIRED EXCAVATIONS AND FILL AREAS. NO STUMPS OR PORTION THEREOF SHALL COME WITHIN 3 FT. OF FILL SUBGRADE OR SLOPE SURFACES. USE OF EXPLOSIVES FOR STUMP REMOVAL SHALL CONFORM TO REQUIREMENTS OF SUBSECTION 203.02, MATERIALS. OBTAIN ANY AND ALL PERMITS REQUIRED FOR USE OF EXPLOSIVES FROM CONTROLLING JURISDICTION.
ON AREAS TO BE OCCUPIED BY FILLS, REMOVE ALL GRASS, ROOTS, AND EMBEDDED WOOD TO A DEPTH NOT LESS THAN 3 FT. BELOW SUBGRADE OR SLOPE SURFACE ON WHICH THE FILL IS TO BE CONSTRUCTED.
ON EXCAVATION AREAS, REMOVE ALL ROOTS AND EMBEDDED WOOD TO A DEPTH NOT LESS THAN 1 FT. BELOW SUBGRADE OR SLOPE SURFACE THROUGH WHICH EXCAVATION IS REQUIRED.
- STREET SUBGRADE SHALL CONFORM TO CITY OF WEST LINN STANDARD SPECIFICATIONS AREAS TO RECEIVE FILL ARE TO BE INSPECTED BY CITY OF WEST LINN PERSONNEL PRIOR TO PLACEMENT OF THE FILL. THE CONTRACTOR SHALL HAVE FILL AREAS TESTED FOR COMPACTION BY A CERTIFIED TESTING LAB IN ACCORDANCE WITH CITY OF WEST LINN STANDARD SPECIFICATIONS. SUCH TESTING WILL BE AT THE CONTRACTOR'S EXPENSE.
- AGGREGATE BASE ROCK SHALL CONFORM TO THE REQUIREMENTS OF CITY OF WEST LINN STANDARD SPECIFICATIONS. BASE COURSE SHALL BE (1 1/2"-0) CRUSHED ROCK AND LEVELING COURSE SHALL BE (3/4"-0). CITY OF WEST LINN REQUIRES A PROOF ROLL WITH A LOADED TO YARD OF ROCK DUMP TRUCK ON THE SUBGRADE PRIOR TO PLACEMENT OF THE ROCK AND AGAIN AFTER PLACEMENT OF THE BASE ROCK AND PRIOR TO PAVING. ALL UNDERGROUND UTILITIES INCLUDING LATERALS, SERVICES AND POWER OR GAS CONDUITS WILL BE IN PLACE BEFORE SUBGRADE PROOF ROLL WILL TAKE PLACE.
- ASPHALT CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF CITY OF WEST LINN STANDARD SPECIFICATIONS. 2" BASE LIFT SHALL BE CLASS "B" A.C. AND THE FINAL LIFT SHALL BE 1 1/2" OR 2" CLASS "C" A.C. AS PER CITY OF WEST LINN STANDARD SPECIFICATIONS AND AS SPECIFIED ON SHEET #8. THE TOP LIFT OF ASPHALT CONCRETE SHALL NOT BE PLACED PRIOR TO RECEIVING PERMISSION FROM THE CITY OF WEST LINN ENGINEERING DEPARTMENT.
- CONSTRUCT CURB AND GUTTER USING CLASS "A" 3300 PSI CONCRETE WITH MAXIMUM 1 1/2" AGGREGATE SIZE. CONTRACTION JOINTS AT 15' MAXIMUM ON CENTERS. CURB DEPRESSIONS FOR HANDICAP RAMPS SHALL BE CENTERED BETWEEN CURB RETURNS AT INTERSECTIONS UNLESS OTHERWISE NOTED ON THE PLANS. CONTRACTOR SHALL STAMP LOCATION OF SEWER AND WATER CROSSINGS WITH AN (S) AND A (W) RESPECTIVELY.
- ALL MATERIALS, INSTALLATION, TESTS, AND INSPECTIONS TO BE IN STRICT ACCORDANCE WITH CITY OF WEST LINN CURRENT STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND THE CURRENT SUPPLEMENTAL STANDARDS AND SPECIFICATIONS OF THE CITY OF WEST LINN STREET/UTILITY DESIGN AND CONSTRUCTION STANDARDS.
- A STREET CONSTRUCTION ENCROACHMENT PERMIT OR SIMILAR PERMIT MAY BE REQUIRED FROM THE CITY OF WEST LINN. CONSTRUCTION PERMIT FEES OR OTHER SIMILAR FEES OR BONDING REQUIRED OF THE CONTRACTOR WILL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN.
- THE ASPHALT MUST MEET A DENSITY OF 92% AASHTO T-290 AS MODIFIED BY 0310.

SANITARY SEWER:

- PIPE SHALL BE PVC SEWER PIPE CONFORMING TO ASTM D-3034-SDR 35. MINIMUM STIFFNESS SHALL BE 48 PSI AND JOINT TYPE SHALL BE ELASTOMERIC GASKET CONFORMING TO ASTM D-3212. PVC PIPE SHALL REQUIRE PVC RUBBER GASKETS CONFORMING TO ASTM F-477.
- MANHOLE BASE SHALL BE PRECAST CONCRETE BASE WITH A MINIMUM COMPRESSIVE STRENGTH OF 3300 PSI, AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM C478. THE BASE RISER SECTION SHALL BE INTEGRAL WITH THE BASE SLAB. MANHOLE RISERS AND TOPS SHALL BE PRECAST SECTIONS WITH MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI. TOPS SHALL BE ECCENTRIC CONES EXCEPT WHERE INSUFFICIENT HEADROOM REQUIRES FLAT TOPS. INVERTS SHALL BE CONSTRUCTED SO AS TO PROVIDE SMOOTH FLOW-THROUGH CHARACTERISTICS. PVC PIPE SHALL BE CONNECTED TO SANITARY MANHOLES USING AN APPROVED ADAPTER SPECIFICALLY MANUFACTURED FOR THE INTENDED SERVICE AND APPROVED BY THE CITY ENGINEER. PVC PIPE ADAPTERS SHALL BE FERRO CHAL, ROMAC LOK, TYLOX MANHOLE ADAPTERS, VASSALO SERIES 32850, KOR-N-SEAL, SEALITE, Z-LOK-XP, OR EQUAL COMMERCIAL PRODUCT. FIELD-FABRICATED WATERSTOPS OR IMPROVED ADAPTERS SUCH AS GASKETS STRETCHED OVER THE PIPE WILL NOT BE ALLOWED. ADAPTERS REQUIRING THE USE OF GROUT FOR INSTALLATION SHALL BE ANCHORED AND FINISHED USING AN APPROVED NON-SHRINK GROUT. MORTAR IS NOT ACCEPTABLE.
- ALL MANHOLES LOCATED IN EASEMENT AREAS REQUIRE TAMPER PROOF LIDS. ALL MANHOLE RIMS NOT IN PAVEMENT AREA TO BE SET 12 INCHES ABOVE PROPOSED GRADE.
- CLEANOUT PIPE, FITTINGS, AND JOINTS SHALL BE THE SAME SPECIFICATIONS AS FOR PIPE. CASTINGS ARE AS SHOWN ON DETAIL AND SHALL CONFORM TO ASTM A48 (GRADE 30). CLEANOUT RISER SHALL BE OF THE SAME SIZE AS THE MAIN LINE.
- GRANULAR BACKFILL IS TO BE COMPACTED TO 95% MAXIMUM DRY DENSITY PER AASHTO T-100 TEST METHOD AND NATIVE MATERIAL SHALL BE COMPACTED TO 85% OF IN-PLACE DRY DENSITY OF SURROUNDING SOIL.
- PVC SERVICE LATERALS SHALL BE 4" PIPE CONFORMING TO THE SAME SPECIFICATIONS AS THE SEWER MAINS. SERVICE LATERALS SHALL BE INSTALLED TO A POINT BEYOND THE LINE OF THE SEWER OR UTILITY EASEMENT AS SHOWN ON THE PLAN. THE SERVICE LATERAL SHALL BE PLOUGGED WITH A 4" RUBBER RING PLUG, AND THE LOCATION OF THE LATERAL'S END MARKED WITH A 2" X 4" STAKE PAINTED GREEN AND MARKED WITH THE DEPTH OF THE LATERAL.
- SANITARY SEWER PIPE AN APPURTENANCES SHALL BE TESTED FOR LEAKAGE IN ACCORDANCE WITH CITY OF WEST LINN CURRENT STANDARDS. LEAKAGE TESTS WILL INCLUDE REQUIRED AIR PRESSURE TEST FOR SEWER LINES AND REQUIRED VACUUM TEST OF MANHOLES. ALL PVC PIPE SHALL BE TESTED FOR DEFLECTION. DEFLECTION SHALL BE TESTED WITH A MANORREL EQUAL TO 50% OF THE PIPE SIZE BEING TESTED. IN ADDITION, SEWER LINES SHALL BE VIDEO INSPECTED BY THE CONTRACTOR PER CITY OF WEST LINN CURRENT STANDARDS. ALL TESTS SHALL BE WITNESSED BY THE ENGINEER AND THE CITY OF WEST LINN.
- A PLUMBING PERMIT FROM THE CITY OF WEST LINN BUILDING DEPARTMENT IS REQUIRED FOR SANITARY SEWER LATERALS BEYOND THE FIRST CLEANOUT.
- ALL MATERIALS, INSTALLATION, TESTS, AND INSPECTIONS TO BE IN STRICT ACCORDANCE WITH THE CURRENT CITY OF WEST LINN'S STREET/UTILITY CONSTRUCTION STANDARDS, WITH APWA'S STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, AND WITH THE UNIFORM PLUMBING CODE.

STORM SEWER:

- PIPE 24" OR LESS, SHALL BE SEAMLESS PVC PIPE CONFORMING TO ASTM F794. (PW RIB).
- GUTTER INLETS SHALL BE POURED IN-PLACE CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 3300 PSI. FRAME SHALL BE FABRICATED OF STRUCTURAL STEEL, ASTM A-7, A-36, A-273.
- MANHOLE BASE MAY BE POURED IN-PLACE CONCRETE OR PRECAST. MANHOLE RISERS AND TOPS SHALL BE PRECAST SECTIONS WITH A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI. TOPS SHALL BE ECCENTRIC CONES EXCEPT WHERE INSUFFICIENT HEADROOM REQUIRES FLAT TOPS. SOME OR ALL OF THE STORM DRAIN MANHOLES REQUIRED WILL BE OVERSIZED MANHOLES. INTERIOR DIMENSIONS NOTED ON THE PLANS ARE MINIMUMS. CHECK WITH MANHOLE MANUFACTURER FOR ACTUAL SIZE NEEDED FOR TYPE OF PIPE TO BE USED.
- ALL MANHOLES LOCATED IN EASEMENT AREAS REQUIRE TAMPER PROOF LIDS. ALL MANHOLE RIMS NOT IN PAVEMENT AREA TO BE SET 12 INCHES ABOVE PROPOSED GRADE.
- CLEANOUT PIPE, FITTINGS AND JOINTS SHALL BE THE SAME SPECIFICATION AS FOR PIPE. CASTINGS ARE SHOWN ON DETAIL AND SHALL CONFORM TO ASTM A 48 (GRADE 30). CLEANOUT RISER SHALL BE OF THE SAME SIZE AS THE MAIN LINE.
- GRANULAR BACKFILL IS TO BE COMPACTED TO 95% MAXIMUM DRY DENSITY PER AASHTO T-100 TEST METHOD AND NATIVE MATERIAL SHALL BE COMPACTED TO 85% OF IN-PLACE DRY DENSITY OF SURROUNDING SOIL.
- RIP RAP WHERE NOTED ON THE PLANS IS TO BE CLASS 50 IN ACCORDANCE WITH OREGON STATE HIGHWAY DIVISION SPECIFICATION 714.
- STORM DRAINS SHALL BE TESTED FOR DEFLECTION WITH A MANORREL EQUAL TO 95% OF THE PIPE SIZE BEING TESTED. IN ADDITION, STORM LINES SHALL BE VIDEO INSPECTED BY THE CONTRACTOR PER CITY OF WEST LINN CURRENT STANDARDS. ALL TESTS SHALL BE WITNESSED BY THE ENGINEER AND THE CITY OF WEST LINN.
- A PLUMBING PERMIT FROM THE CITY OF WEST LINN BUILDING DEPARTMENT IS REQUIRED FOR STORM DRAINS BEYOND THE FIRST CLEANOUT.
- A BACKFLOW CHECK VALVE SHALL BE INSTALLED ON THE 4" ROOF DRAIN SERVICE TO ANY LOT THAT HAS THE END OF ITS ROOF DRAIN STUB LOCATED BELOW THE DETENTION OVERFLOW ELEVATION. THESE CHECK VALVES SHALL BE A CANPLUS 3284 4" ABR VALVE OR OTHER EQUAL LOW PRESSURE VALVE.
- ALL MATERIALS, INSTALLATION, TESTS, AND INSPECTIONS TO BE IN STRICT ACCORDANCE WITH APWA'S STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND THE SUPPLEMENTAL STANDARDS AND SPECIFICATION OF THE CURRENT CITY OF WEST LINN, STREET/UTILITY DESIGN AND CONSTRUCTION STANDARDS.

EROSION CONTROL SUMMARY:

- THE INTENT OF THE REQUIREMENT IS TO PREVENT SILTATION FROM REACHING STORM DRAIN SYSTEMS AND DRAINAGE WAYS.
- THE MINIMUM MEASURES NEED TO BE MADE ON ALL PROJECTS.
A) A GRAVEL PAD, AT LEAST 50 FEET LONG, IS REQUIRED WHERE VEHICLES WILL LEAVE THE CONSTRUCTION SITE.
B) A SEDIMENT BARRIER IS TO BE CONSTRUCTED OF STRAW BALES OR A SEDIMENT FENCE WHERE NOTED IN THE DETAILS OR WHERE SEDIMENT WILL CROSS OUTSIDE THE WORK AREA.
C) WHERE EXCAVATED MATERIAL IS PLACED ON HARD SURFACES (SUCH AS STREETS) MATERIAL MUST BE BROOMED OR SCRAPED CLEAN AS SOON AS POSSIBLE.
D) RIP RAP EXITS FROM ALL CULVERTS AND STORM DRAIN PIPES DRAINING INTO THE DITCHES OR SWALES. RIP RAP IS TO BE CLASS 50 RIP RAP OR LARGER OR AS NOTED ELSEWHERE IN THE PLANS.
E) RESEED OR COVER DISTURBED AREAS AS SOON AS IS POSSIBLE AND PRACTICAL, BUT NO LATER THAN THE COMPLETION OF CONSTRUCTION ON THE OTHER PHASES OF WORK. EROSION CONTROL MEASURES SUCH AS HAY BALES AND SILT FENCES MUST REMAIN IN PLACE UNTIL SEEDING AREAS SHOW GROWTH SUBSTANTIAL TO PREVENT EROSION.

GENERAL:

- APPROVAL OF THIS EROSION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G. SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.)
- THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED, AND VEGETATION OF LANDSCAPING IS ESTABLISHED.
- THE ESC FACILITIES ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT LADEN WATER DOES NOT ENTER THE DRAINAGE SYSTEM OR VIOLATE APPLICABLE WATER STANDARDS.
- THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT LADEN WATER DOES NOT LEAVE THE SITE.
- THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.
- THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH, OR WITHIN 24 HOURS FOLLOWING A STORM EVENT.
- AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A TRAPPED CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSIDE SYSTEM.
- STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNINGS OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.

GENERAL EROSION CONTROL PLAN DRAWING NOTES:

- APPLY TEMPORARY AND PERMANENT SOIL STABILIZATION MEASURES ON ALL DISTURBED AREAS AS GRADING PROGRESSES.
- CONSTRUCTION ACTIVITIES MUST AVOID OR MINIMIZE EXCAVATION AND CREATION OF BARE GROUND FROM OCTOBER 1ST THROUGH MAY 31ST EACH YEAR.
- DURING WET WEATHER PERIODS TEMPORARY STABILIZATION OF THE SITE MUST OCCUR AT THE END OF EACH WORK DAY IF RAINFALL IS FORECAST IN THE NEXT 24 HOURS.
- ALL EROSION AND SEDIMENT CONTROLS NOT IN THE DIRECT PATH OF WORK MUST BE INSTALLED PRIOR TO ANY LAND DISTURBANCE.
- PRESERVE EXISTING VEGETATION AND RE-VEGETATE OPEN AREAS WHEN PRACTICABLE BEFORE AND AFTER GRADING OR CONSTRUCTION.
- ALL TEMPORARY SEDIMENT CONTROLS MUST REMAIN IN PLACE UNTIL PERMANENT VEGETATION OR OTHER PERMANENT COVERING OF EXPOSED SOIL IS ESTABLISHED.
- SEDIMENT CONTROLS MUST BE INSTALLED AND MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
- ALL ACTIVE CATCH BASINS MUST HAVE SEDIMENT CONTROLS INSTALLED AND MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
- WATER-TIGHT TRUCKS MUST BE USED TO TRANSPORT SATURATED SOILS FROM THE CONSTRUCTION SITE. AN APPROVED EQUIVALENT IS TO DRAIN THE SOIL ON-SITE AT A DESIGNATED LOCATION USING ALL APPROPRIATE BMP'S; SOILS MUST BE DRAINED SUFFICIENTLY FOR MINIMAL SPILLAGE.
- TEMPORARY STABILIZATION OR COVERING OF SOIL STOCKPILES MUST OCCUR AT THE END OF EACH WORK DAY OR OTHER BMP'S MUST BE IMPLEMENTED TO PREVENT TURBID DISCHARGES TO SURFACE WATERS.
- DEVELOP AND MAINTAIN ONSITE A WRITTEN SPILL PREVENTION AND RESPONSE PROCEDURE.
- ANY USE OF TOXIC OR OTHER HAZARDOUS MATERIALS MUST INCLUDE PROPER STORAGE, APPLICATION, AND DISPOSAL.
- THE PERMITTEE MUST PROPERLY PREVENT AND MANAGE HAZARDOUS WASTE, USED OILS, CONTAMINATED SOILS, CONCRETE WASTE, SANITARY WASTE, LIQUID WASTE, OR OTHER TOXIC SUBSTANCES DISCOVERED OR GENERATED DURING CONSTRUCTION.
- SIGNIFICANT AMOUNTS OF SEDIMENT WHICH LEAVE THE SITE MUST BE CLEANED UP WITHIN 24 HOURS AND PLACED BACK ON THE SITE AND STABILIZED OR PROPERLY DISPOSED. THE CAUSE OF THE SEDIMENT RELEASE MUST BE FOUND AND PREVENTED FROM CAUSING A REOCCURRENCE OF THE DISCHARGE WITHIN THE SAME 24 HOURS. ANY IN-STREAM CLEAN UP OF SEDIMENT SHALL BE PERFORMED ACCORDING TO THE OREGON DIVISION OF STATE LANDS REQUIRED TIME FRAME.
- SEDIMENT MUST NOT BE INTENTIONALLY WASHED INTO STORM SEWERS, DRAINAGE WAYS, OR WATERBODIES, OR DRY SWEEPING MUST BE USED TO CLEAN UP RELEASED SEDIMENTS.
- THE APPLICATION RATE OF FERTILIZERS USED TO REESTABLISH VEGETATION MUST FOLLOW THE MANUFACTURER'S RECOMMENDATIONS. NUTRIENT RELEASES FROM FERTILIZERS TO SURFACE WATER MUST BE MINIMIZED. TIME RELEASE FERTILIZERS SHOULD BE USED AND CARE SHOULD BE TAKEN IN THE APPLICATION OF FERTILIZERS WITHIN ANY WATER WAY OR RIPARIAN ZONE.
- SEDIMENT MUST BE REMOVED FROM BEHIND SEDIMENT FENCE WHEN IT HAS REACHED A HEIGHT OF 1/3 THE HEIGHT OF THE FENCE ABOVE THE GROUND, AND BEFORE FENCE REMOVAL.
- SEDIMENT MUST BE REMOVED FROM BEHIND BIO BAGS AND OTHER BARRIERS WHEN IT HAS REACHED A HEIGHT OF TWO (2) INCHES AND BEFORE BMP REMOVAL.
- CLEANING OF TRAPPED CATCH BASINS MUST OCCUR WHEN THE SEDIMENT RETENTION CAPACITY HAS BEEN REDUCED BY FIFTY (50) PERCENT, AND AT COMPLETION OF PROJECT.
- REMOVAL OF TRAPPED SEDIMENT IN A SEDIMENT BASIN OR SEDIMENT TRAP MUST OCCUR WHEN THE SEDIMENT RETENTION CAPACITY HAS BEEN REDUCED BY FIFTY (50) PERCENT, AND AT COMPLETION OF PROJECT.
- SHOULD ALL CONSTRUCTION ACTIVITIES CEASE FOR THIRTY (30) DAYS OR MORE, THE ENTIRE SITE MUST BE TEMPORARILY STABILIZED USING VEGETATION OR HEAVY MULCH LAYER, TEMPORARY SEEDING, OR OTHER METHOD.
- SHOULD CONSTRUCTION ACTIVITIES CEASE FOR FIFTEEN (15) DAYS OR MORE ON ANY SIGNIFICANT PORTION OF A CONSTRUCTION SITE, TEMPORARY STABILIZATION IS REQUIRED FOR THAT PORTION OF THE SITE WITH STRAW, COMPOST, OR OTHER TACKIFIED COVERING THAT WILL PREVENT SOIL OR WIND EROSION UNTIL WORK RESUMES ON THAT PORTION OF THE SITE.
- PARKING WILL BE ALLOWED ON GRAVELLED/PAVED AREAS ONLY.

SEEDING/MULCHING:

- ALL AREAS DISTURBED DURING CONSTRUCTION TO BE GRADED TO DRAIN AND COMPACTED TO A MINIMUM OF 90% OF AASHTO T-99 IMMEDIATELY AFTER INSTALLATION OF UTILITIES OR GRADING.
- RECOMMENDED SEED MIXTURE: 80% ELKA DWARF PERENNIAL RYEGRASS AND 20% CREEPING RED FESCUE, BY WEIGHT. APPLICATION RATE SHALL BE 100 POUNDS MINIMUM PER ACRE.
- FERTILIZER SHALL BE 12-16-8 WITH 50% OF THE NITROGEN DERIVED FROM UREA FORMALDEHYDE, AND APPLIED AT A RATE OF 400 POUNDS PER ACRE.
- SEED AND MULCH AT A RATE OF 2000 LBS/AC WITH HEAVY BONDING AGENT OR NETTING AND ANCHORS. MULCH SHALL BE A WOOD CELLULOSE FIBER OR OTHER MATERIAL SUITABLE FOR HYDROMULCHING.
- TEMPORARY OR PERMANENT HYDROSEEDING ARE ACCEPTABLE SEEDING AND MULCHING MUST BE PROVIDED WHENEVER PERENNIAL COVER CANNOT BE ESTABLISHED ON SITES WHICH WILL BE EXPOSED FOR 60 DAYS OR MORE.

SEDIMENT FENCE:

- THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPUNGED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP, AND BOTH ENDS SECURELY FASTENED TO THE POST.
- THE FILTER FABRIC FENCE SHALL BE INSTALLED TO FOLLOW THE CONTOURS, WHERE FEASIBLE. THEN FENCE POSTS SHALL BE SPACED A MAXIMUM OF SIX FEET APART AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 18 INCHES.
- A TRENCH SHALL BE EXCAVATED, ROUGHLY 6 INCHES WIDE BY 6 INCHES DEEP, UPSLOPE AND ADJACENT TO THE WOOD POST TO ALLOW THE FILTER FABRIC TO BE BURIED. BURY THE BOTTOM OF THE FABRIC 6" VERTICALLY BELOW FINISHED GRADE. ALL AREAS OF FILTER FABRIC TRENCH SHALL BE COMPACTED.
- THE FILTER FABRIC SHALL BE INSTALLED WITH STITCHED LOOPS OVER FENCE POSTS. THE FENCE POST SHALL BE CONSTRUCTED OF 2" X 2" FIR, PINE, OR STEEL. THE FENCE POST MUST BE A MINIMUM OF 48" LONG. THE FILTER FABRIC SHALL NOT BE STAPLED OR ATTACHED TO EXISTING TREES.
- SEDIMENT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
- SEDIMENT FENCES SHALL BE INSPECTED BY APPLICANT/CONTRACTOR IMMEDIATELY AFTER EACH RAINFALL, AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

AS-BUILT
DATE: MHH 03-7-11

SFA Design Group, LLC
STRUCTURAL | CIVIL | PLANNING | SURVEYING
9020 SW Washington Square Dr, Suite 350
Portland, Oregon 97223
Ph: (503) 641-5311 Fax: (503) 643-7965
sfa@sgdesigngroup.com



CONSTRUCTION NOTES
DEBOK ESTATES
CLUTTER PROPERTIES, LLC
City of West Linn, Oregon



S. Kelly
VALID THROUGH 12-31-11

NO.	DATE	BY	REVISION	
			AS-BUILTS	MHH
1	03-7-11	MHH		

DESIGNED BY	DATE	2-10
DRAWN BY	DATE	2-10
REVIEWED BY	DATE	2-10
PROJECT NO.	267-001	REF.
SCALE	H.N/A	V.N/A

SHEET 3 OF 13

PROJECT DEBOK
NO. 267-001
TYPE ENGINEERING

TREE TABLE

Tag #	Description	Tag #	Description	Tag #	Description	Tag #	Description
5221	AP-4	5335	MA-18/18	5392	MA-14	5453	AL-15
5222	AP-4	5336	MA-28	5393	CE-28"	5454	CE-16
5223	AP-4	5337	MA-28	5394	FI-30"	5455	AL-18
5224	AP-4	5338	MA-12	5395	MA-18"-18"	5456	OA-14
5225	AP-4	5339	MA-24	5396	MA-28"	5457	FI-19
5226	AP-4	5340	MA-8	5397	MA-12"	5458	AL-16
5227	DE-24	5341	MA-28	5398	CE-24"	5459	CE-7
5228	DE-24	5342	MA-8	5402	MA-24"	5460	MA-27
5229	CE-36	5343	MA-24	5407	CE-10"	5461	CE-14
5230	MA-36	5344	MA-12	5408	CE-10"	5462	AL-14
5244	AP-6	5345	MA-10	5409	CE-13"	5463	OA-9
5245	AP-6	5346	MA-10	5410	CE-12"	5464	AL-18
5246	AP-6	5347	MA-24	5411	MA-8"	5465	MA-8
5247	AP-6	5348	MA-10	5412	MA-18"	5475	MA-15
5248	AP-6	5349	MA-24	5413	CE-36"	5503	CE-32
5249	AP-6	5350	MA-14	5414	CE-36"	5504	CE-32
5250	AP-6	5351	MA-14	5417	OA-23"	5505	MA-2X-14
5251	AP-4	5352	MA-14	5418	OA-13"	5506	MA-2X-14
5252	AP-6	5353	MA-18	5419	OA-7"	5507	MA-2X-14
5253	AP-6	5354	MA-12	5420	OA-13"	5508	MA-18"
5254	AP-6	5355	MA-12	5421	AL-15	5509	CE-25"
5255	MA-10	5356	MA-14	5422	OA-12	5510	CE-32"
5262	AP-4	5357	MA-12	5423	OA-11	5511	CE-26"
5263	AP-6	5358	MA-18	5424	OA-14	5512	AL-18"
5264	AP-6	5359	MA-10	5425	OA-20	5513	CE-15"
5265	AP-6	5360	MA-18	5426	CE-26	5514	FI-21"
5266	AP-6	5361	CE-18/12	5427	CE-20	5515	CE-21"
5274	MA-18	5362	MA-12	5428	CE-24	5516	FI-11"
5275	MA-18	5363	MA-12	5429	CE-24	5517	CE-20"
5278	MA-40	5364	MA-24	5430	CE-42	5518	CE-30"
5285	MA-24	5365	MA-18	5431	OA-30	5519	CE-18"
5286	MA-24	5366	MA-18	5432	OA-18	5520	CE-25"
5287	MA-20	5367	MA-24	5433	OA-40	5521	FI-11"
5288	MA-14	5368	CE-9	5434	CE-16	5522	CE-14"
5289	MA-24/18	5369	FI-12	5435	OA-22/14	5523	CE-15"
5303	DE-10	5370	FI-10	5436	CE-10	5524	CE-8"
5304	MA-28	5372	MA-48	5437	OA-24	5525	CE-28"
5305	BI-24	5374	MA-28	5438	AL-13/21	5532	FI-30"
5321	MA-60" CLUMP	5375	MA-28	5439	CE-14	5533	CE-15
5322	MA-15	5376	MA-24	5440	OA-24	5534	AL-15"
5323	MA-12	5377	MA-12	5441	AL-13	5535	CE-19
5324	MA-10	5378	MA-12	5442	CE-28	5536	CE-28
5325	MA-20	5379	MA-10	5443	AL-23	5537	CE-20
5326	MA-12	5380	MA-18	5444	CE-42	5538	CE-27
5327	MA-14	5384	MA-18"	5445	CE-18	5539	FI-22
5328	MA-14	5385	MA-10"	5446	CE-24	5540	FI-36"
5329	MA-10	5386	MA-18"	5447	CE-18	5541	FI-14"
5330	MA-10	5387	MA-18"	5448	CE-13	5542	CE-10
5331	MA-24	5388	MA-18"	5449	CE-9	5543	FI-10"
5332	MA-10	5389	CE-54"	5450	OA-17	5544	FI-20"
5333	MA-20	5390	MA-12"	5451	OA-18	5545	MA-2X-6"
5334	MA-24	5391	MA-16"	5452	CE-17	5552	FI-10"

R-10 ZONING

AS-BUILT
DATE: M-H 03-7-11

SURVEY LEGEND - EXISTING FEATURES

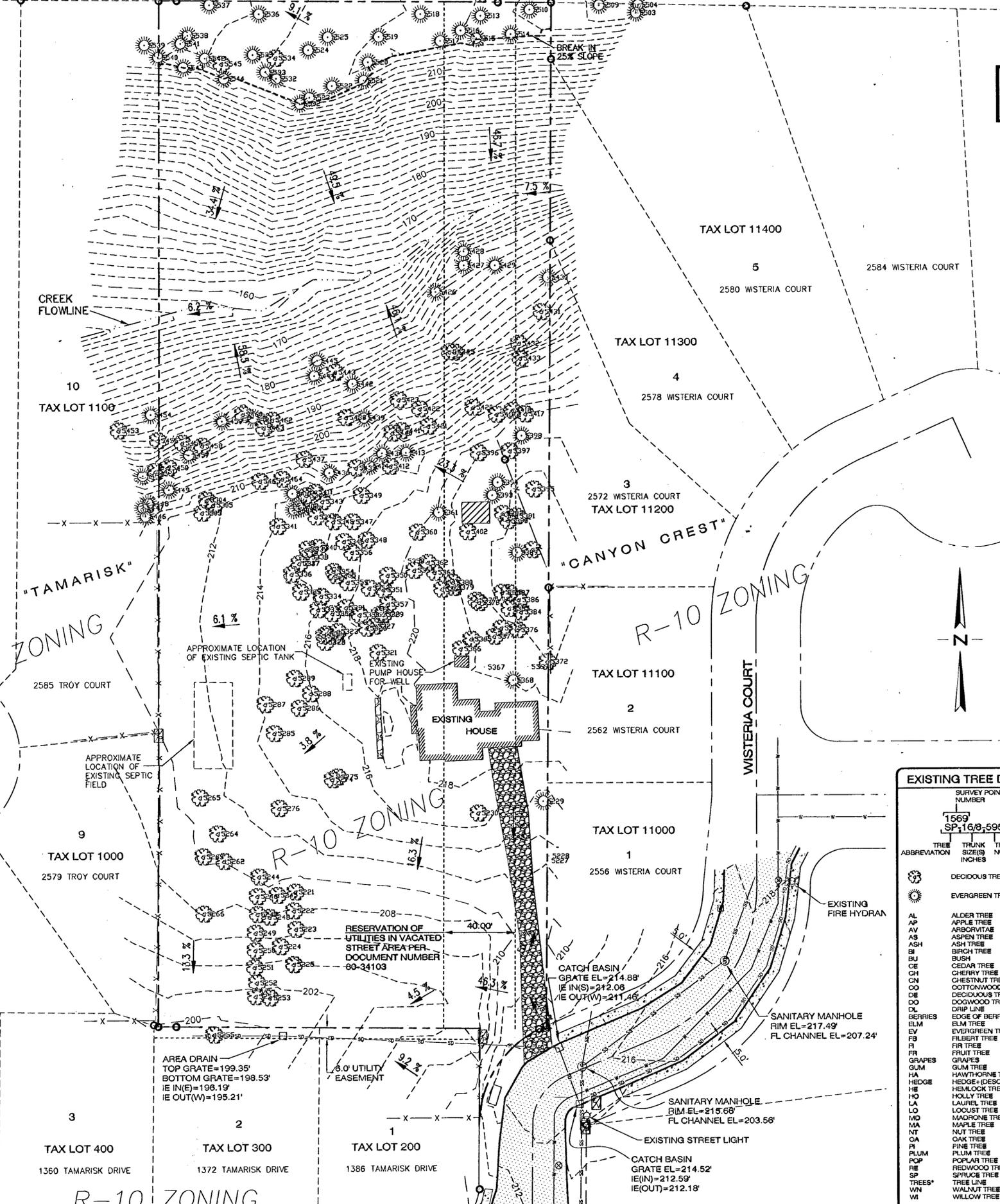
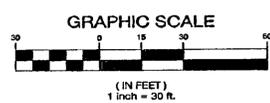
- FLOOD PLAIN
- FLOW LINE
- CONCRETE WALL
- ROCK WALL
- RAIL ROAD
- FENCE
- MINOR CONTOUR
- MAJOR CONTOUR
- WETLAND
- SANITARY SEWER LINE
- STORM DRAIN LINE
- GAS LINE
- WATER LINE
- OVERHEAD UTILITIES LINE
- UNDERGROUND UTILITIES LINE
- COMMUNICATIONS LINE
- ELECTRIC LINE
- FIRE DEPARTMENT CONNECTION
- FIRE HYDRANT
- AIR RELEASE
- WATER MANHOLE
- WATER BLOWOFF
- WATER METER/SERVICE
- WATER VAULT
- IRRIGATION SPRINKLER HEAD
- CURBLET / OUTFALL
- STORM DRAIN MANHOLE
- CATCH BASIN / AREA DRAIN
- SANITARY SEWER MANHOLE
- UTILITY MANHOLE
- UTILITY CLEAN OUT
- UTILITY VAULT
- UTILITY PEDESTAL
- UTILITY POLE
- UTILITY GUY POLE
- UTILITY GUY WIRE
- UTILITY LIGHT POLE
- LIGHT POLE
- LIGHT POLE WITH ARM
- GROUND LIGHT (LANDSCAPE)
- LIGHT SIGNAL JUNCTION BOX
- JUNCTION BOX
- ELECTRIC METER/SERVICE
- ELECTRIC PEDESTAL
- ELECTRIC VAULT
- TELEPHONE MANHOLE
- COMMUNICATIONS VAULT
- GAS METER/SERVICE
- GAS PEDESTAL
- DECIDUOUS TREE
- EVERGREEN TREE
- STUMP
- SIGN POST
- MAILBOX
- TEST PIT
- MONITORING WELL
- WELL
- SURVEY TRAVERSE POINT
- SURVEY FOUND MONUMENT
- SURVEY BENCHMARK
- SLOPE POINT

EXISTING TREE DESC.

ABBREVIATION	TRUNK SIZE(S) INCHES	TREE TAG NUMBER
AL	ALDER TREE	
AP	APPLE TREE	
AV	ARBORVITAE	
AS	ASPEN TREE	
ASH	ASH TREE	
BI	BIRCH TREE	
BU	BUSH	
CE	CEDAR TREE	
CH	CHERRY TREE	
CH	CHESTNUT TREE	
CO	COTTONWOOD TREE	
DO	DOGWOOD TREE	
DR	DRIPLINE	
ELM	EDGE OF BERRIES	
ELM	ELM TREE	
EV	EVERGREEN TREE	
FI	FILBERT TREE	
FR	FIR TREE	
FR	FRUIT TREE	
GR	GRAPES	
GUM	GUM TREE	
HA	HAWTHORNE TREE	
HE	HEDGE (DESCRIPTION)	
HE	HEMLOCK TREE	
HO	HOLLY TREE	
LA	LAUREL TREE	
LO	LOUSTREE	
MD	MADRONE TREE	
MA	MAPLE TREE	
NT	NUT TREE	
OA	OAK TREE	
PI	PINE TREE	
PLUM	PLUM TREE	
POP	POPULAR TREE	
RE	REDWOOD TREE	
SP	SPRUCE TREE	
TR	TREE LINE	
WN	WALNUT TREE	
WI	WILLOW TREE	

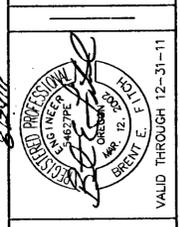
GENERAL NOTES:

- BENCHMARK INFORMATION. AN AS-BUILT ELEVATION OF A SANITARY SEWER MANHOLE RIM AT THE SOUTH END OF LOT 1, "CANYON CREST" WAS USED AS THE BENCHMARK FOR THIS SURVEY UNDER THE DIRECTION OF THE CITY OF WEST LINN. RIM ELEVATION 215.66.
- OREGON LOCATES TICKET NUMBER 7141118. AS OF THE DATE OF THIS MAPPING, THERE WERE NO UNDERGROUND UTILITY PAINT MARKINGS TO MAP THE SUBSURFACE FRANCHISE UTILITIES (GAS, COMMUNICATION, ELECTRIC, CATV, FIBER-OPTIC ETC.). ALL SUBSURFACE FEATURES SHOWN HEREON HAVE BEEN MAPPED UTILITIES ABOVE GROUND EVIDENCE OF EXISTING UTILITY STRUCTURES TOGETHER WITH CONSTRUCTION AS-BUILT PLANS. NO CERTIFICATION CAN BE MADE REGARDING THE COMPLETENESS OR ACCURACY OF THE LOCATION AND/OR EXISTENCE FOR SUBSURFACE FEATURES DUE TO A LACK OF DIRECT KNOWLEDGE OF THEIR ACTUAL SIZE AND LOCATION.



SFA Design Group, LLC
STRUCTURAL / CIVIL / PLANNING / SURVEYING
9000 SW Washington Square Dr., Suite 350
Portland, Oregon 97225
Ph: (503) 641-4311 Fax: (503) 640-1905
sfa@sfadsgroup.com

EXISTING CONDITIONS
DEBOK ESTATES
CLUTTER PROPERTIES, LLC
City of West Linn, Oregon

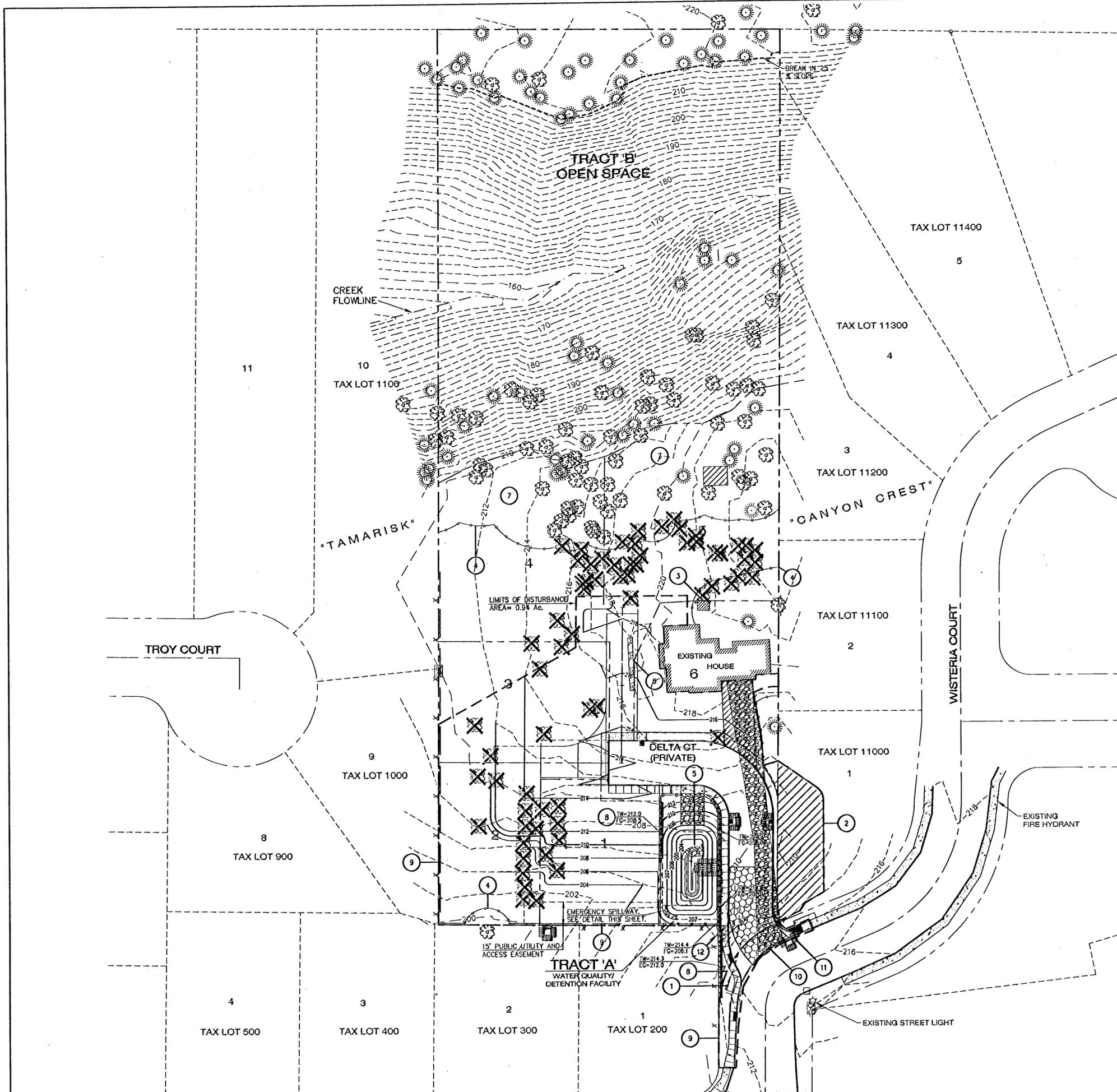


NO.	DATE	REVISION	BY
1	03-7-11	AS-BUILT	MH

DESIGNED BY	LEL	DATE	2/10
DRAWN BY	LEL	DATE	2/10
REVIEWED BY	BEE	DATE	2/10
PROJECT NO.	267-001	REF.	
SCALE	1/4" = 1'-0"	V. N/A	

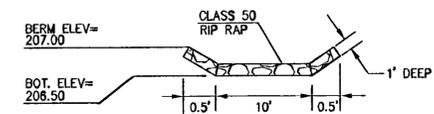
SHEET	4	OF	13
PROJECT	DEBOK		
NO.	267-001		
TYPE	ENGINEERING		

08/20/11, Plotfile: Aug 22, 2011 - 1:24pm, E:\Land Projects\2004\267-001\consr.mxd\AsBuilt\2671_04CXON.dwg



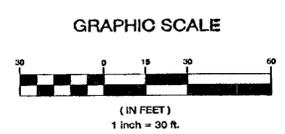
- ### LEGEND
- 218 --- EXISTING 2' CONTOUR
 - 220 --- EXISTING 10' CONTOUR
 - 218 — PROPOSED 2' CONTOUR
 - 220 — PROPOSED 10' CONTOUR
 - PROPOSED CATCH BASIN
 - ▨ PROPOSED BIOBAG PROTECTION
 - X — PROPOSED EROSION CONTROL FENCING
 - X --- SIGNIFICANT TREE PRESERVED TO 10' DRIPLINE
 - ▨ PROPOSED CONSTRUCTION ENTRANCE
 - ☼ EXISTING TREE TO REMAIN
 - O — PROPOSED TREE PROTECTION FENCE (6 FT CYCLONE FENCE)
 - TW=220.0
FG=210.0
EG=200.0
 - ▨ PROPOSED RETAINING WALL (DESIGNED BY OTHERS)
 - --- LIMITS OF DISTURBANCE

- ### GRADING NOTES
- 1 EXISTING VAULT TO REMAIN. COORDINATE WITH PGE BEFORE BEGINNING CONSTRUCTION.
 - 2 FILL REAR OF ADJACENT PROPERTY TO DRAIN TO ROAD. (2% MINIMUM SLOPE).
 - 3 CONTRACTOR TO DECOMMISSION WELL AND SEPTIC FIELD AS REQUIRED BY THE OREGON WATER MASTER AND THE OREGON DEPARTMENT OF HEALTH.
 - 4 INSTALL TREE PROTECTION FENCING PER CITY OF WEST LINN STANDARD DETAIL WL-219. TREE PROTECTION FENCING TO BE INSTALLED A MINIMUM OF 10' OUTSIDE THE DRIPLINES OF TREES TO BE SAVED.
 - 5 OUTFALL PROTECTION PER CITY OF WEST LINN STANDARD DETAILS WL-613 AND WL-614.
 - 6 RELOCATE AND/OR REBUILD EXISTING BOULDER RETAINING WALL AND PRIVATE LANDSCAPE DRAINAGE SYSTEM.
 - 7 REFER TO LANDSCAPE PLAN FOR REMOVAL OF EVASIVE SPECIES AND REPLANTING.
 - 8 PROPOSED KEYSTONE RETAINING WALL (REFER TO ATTACHED STRUCTURAL CALCULATIONS FOR DETAILS)
 - 9 INSTALL SEDIMENT FENCE, TYP.
 - 10 INSTALL GRAVEL CONSTRUCTION ENTRANCE, TYP.
 - 11 INSTALL BIOBAG BARRIER, TYP.
 - 12 RELOCATE EXISTING TELEPHONE PEDESTAL PER PGE PLAN.



EMERGENCY SPILLWAY DETAIL
NTS

AS-BUILT
DATE: **MM-03-11**



SFA Design Group, LLC
STRUCTURAL | CIVIL | PLANNING | SURVEYING
9020 SW Washington Square Dr, Suite 350
Portland, Oregon 97223
PH: (503) 641-8311 Fax: (503) 643-1905
sfa@designgroup.com

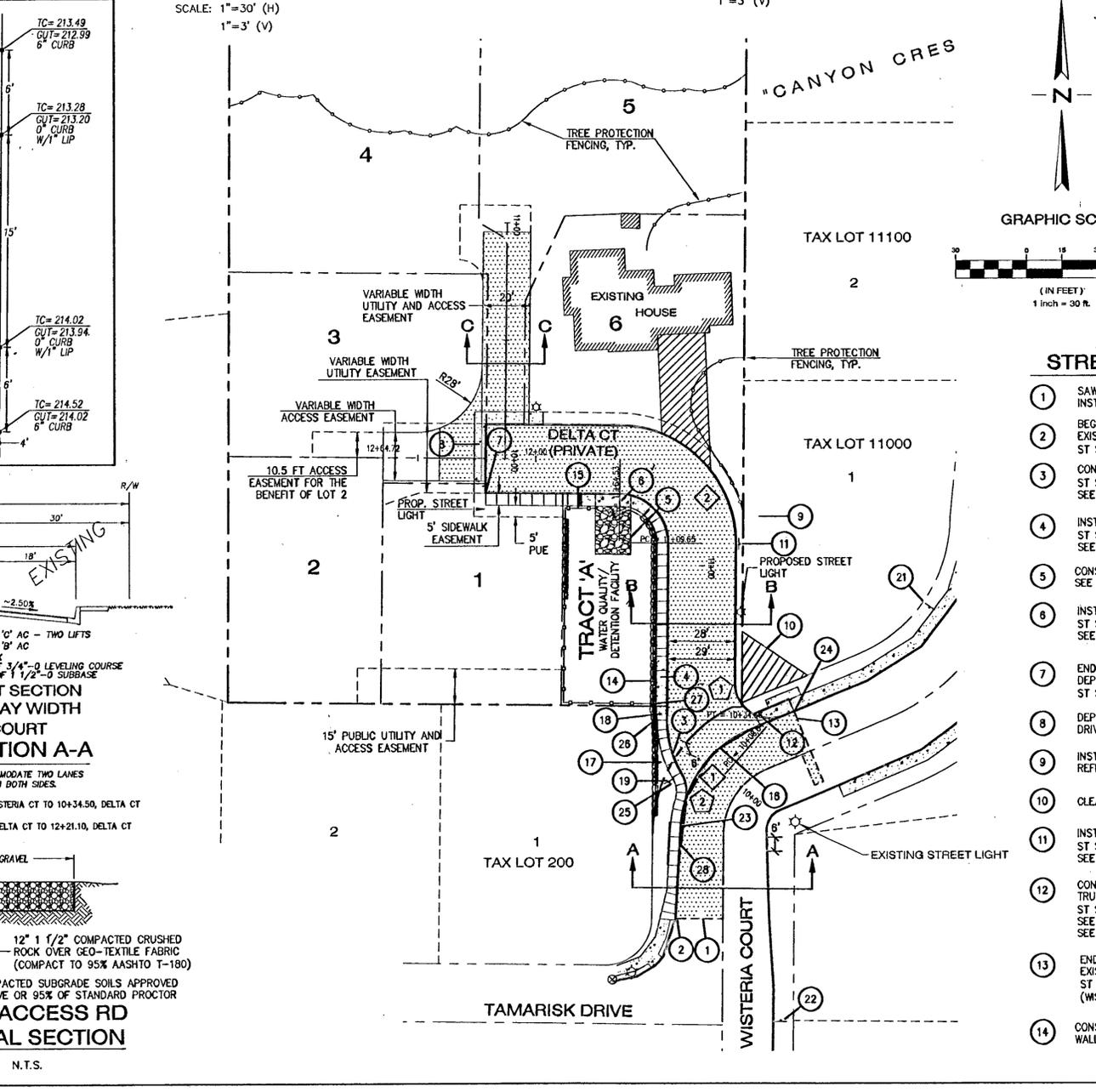
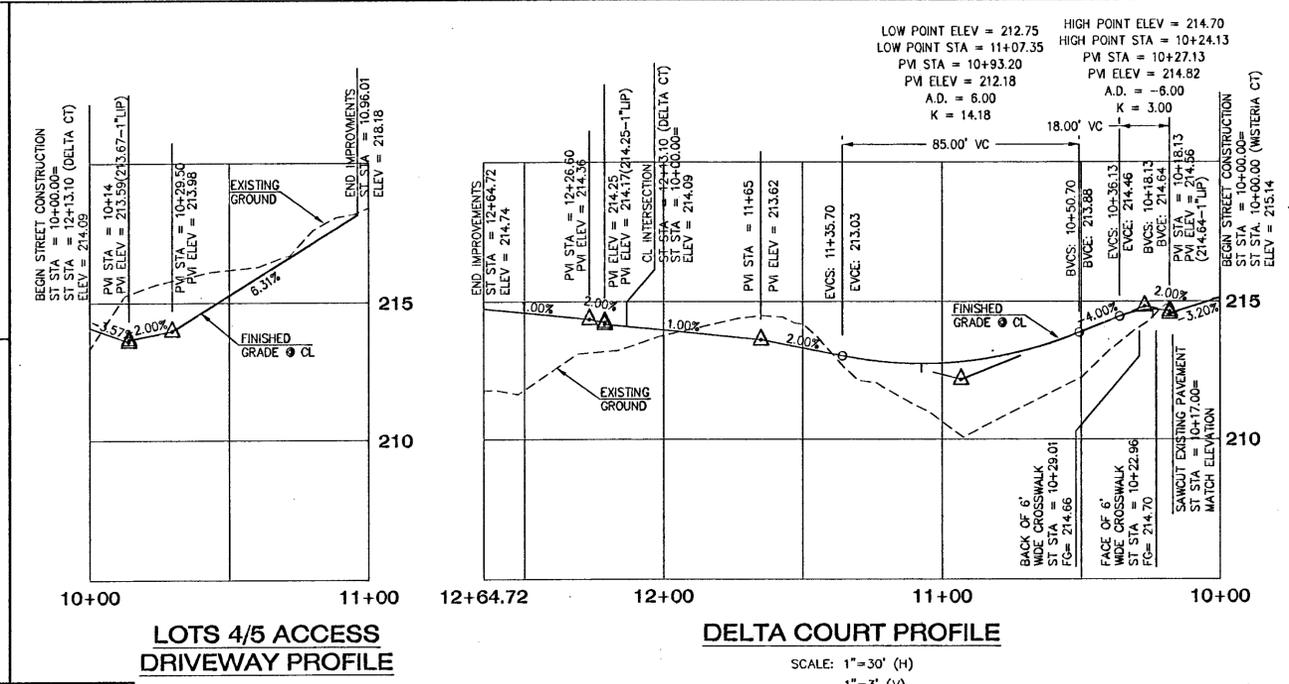
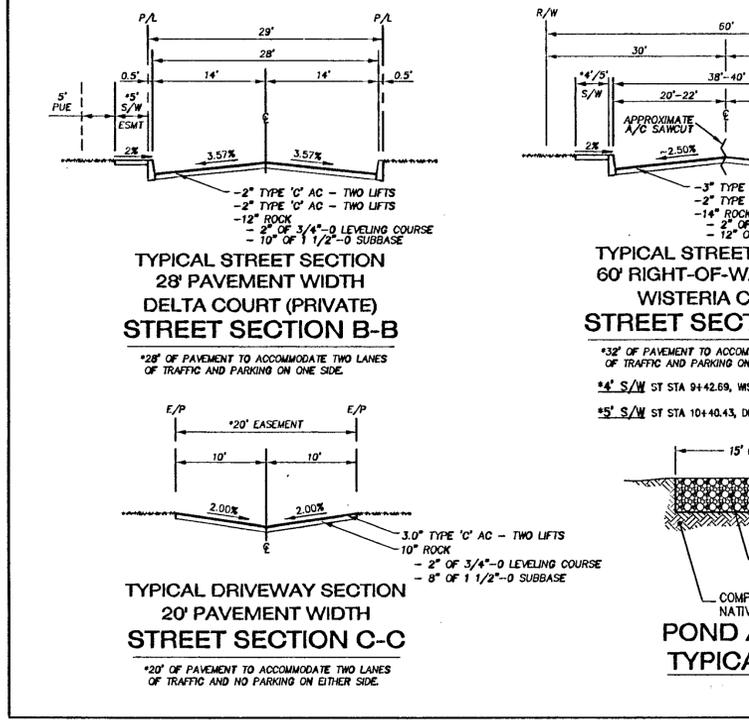
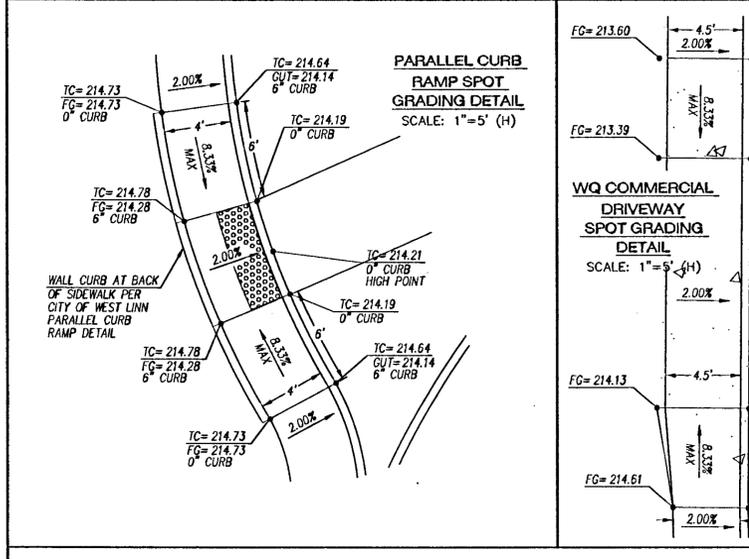
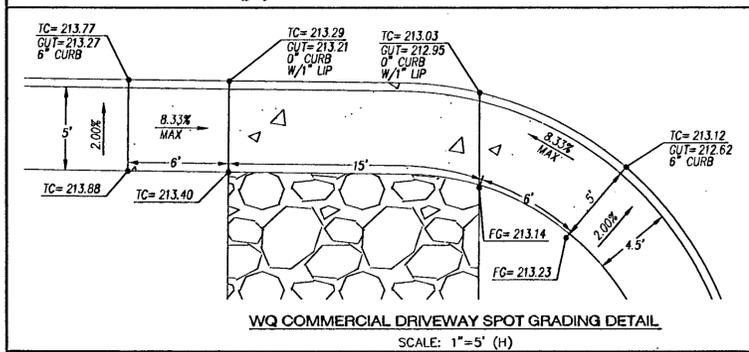
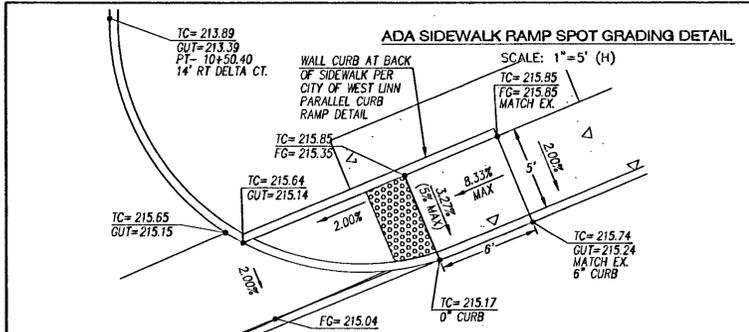
GRADING AND EROSION CONTROL PLAN
DEBOK ESTATES
CLUTTER PROPERTIES, LLC
City of West Linn, Oregon



NO.	DATE	REVISION	BY
1	03-7-11	AS-BUILTS	MHH

DESIGNED BY	LEL	DATE	2/10
DRAWN BY	LEL	DATE	2/10
REVIEWED BY	BEE	DATE	2/10
PROJECT NO.	267-001	REF.	
SCALE	H: 1"=30'	V: N/A	
SHEET	5	OF	13
PROJECT	DEBOK		
NO.	267-001		
TYPE	ENGINEERING		

Submitted: Portland, Aug 22, 2011 - 1:25pm. @ Land Projects 2004\267-001\const mgmt\as-builts\2671_050910.dwg



LEGEND

- R.O.W.
- PROPERTY LINE
- LOT LINE
- CENTERLINE
- PROPOSED EASEMENT
- PROPOSED SAWCUT LINE
- PROPOSED CONCRETE CURB
- PROPOSED CONCRETE SIDEWALK
- PROPOSED CONCRETE DRIVEWAY APRON
- PROPOSED CHAIN LINK FENCE (PER COWL STDS)
- PROPOSED HANDRAIL
- PROPOSED A.C. PAVEMENT
- PROPOSED GRAVEL ACCESS RAMP
- PROPOSED STREET LIGHT - REFER TO SHEET EL1 FOR DESIGN
- PROPOSED RETAINING WALL (DESIGNED BY OTHERS)

AS-BUILT
DATE: MM/03-7-11

CURB RETURN DATA

RETURN NO.	1	2
PO STATION	10+28.73, 17.95' LT (WSTERIA CT.)	9+87.23, 18.0' LT (WSTERIA CT.)
PT STATION	10+50.40 14.0' RT (DELTA CT.)	10+18.43 14.0' LT (DELTA CT.)
RADIUS	15.0'	15.0'
LENGTH	29.60'	12.38'
DELTA ANGLE	113°03'30"	47°17'56"
PO ELEVATION	215.68	214.50
1/4 Δ ELEVATION	215.65	10.14.46, 15.66' LT (DELTA CT.)
1/2 Δ ELEVATION	215.63	214.68 (HP)
3/4 Δ ELEVATION	214.88	214.68 (HP)
PT ELEVATION	213.89	214.65

ELEVATIONS SHOWN REPRESENT TOP OF CURB ELEVATIONS.

CENTERLINE CURVE DATA

CURVE NO.	1	2
RADIUS	30.0'	35.0'
LENGTH	25.82'	54.87'
DELTA ANGLE	49°19'03"	89°49'33"
TANGENT	13.77'	34.89'

- STREET NOTES**
- SAWCUT LINE FOR ROADWAY AND UTILITY INSTALLATION.
 - BEGIN STREET IMPROVEMENTS. MATCH EXISTING CURB, SIDEWALK AND PAVEMENT. ST STA. 9+42.69, 19.78' LT (WSTERIA CT.)
 - CONSTRUCT PARALLEL CURB RAMP ST STA. 10+24.13, 14.00' LT (DELTA CT.) SEE SPOT GRADING DETAIL THIS SHEET
 - INSTALL 15.0' COMMERCIAL DRIVEWAY ST STA. 10+50.00, 14.0' LT (DELTA CT.) SEE SPOT GRADING DETAIL THIS SHEET
 - CONSTRUCT 15.0' WIDE POND ACCESS ROAD. SEE PAVEMENT SECTION, THIS SHEET.
 - INSTALL 15.0' COMMERCIAL DRIVEWAY ST STA. 11+67.26, 14.0' LT (DELTA CT.) SEE SPOT GRADING DETAIL THIS SHEET
 - END SIDEWALK CONSTRUCTION AND BEGIN DEPRESSED CURB. ST STA. 12+21.10, 14.0' LT (DELTA CT.)
 - DEPRESS CURB AND INSTALL RESIDENTIAL DRIVEWAY FOR LOTS 2, 3, 4, AND 5.
 - INSTALL STREET TREE, TYP. REFER TO LANDSCAPE PLAN FOR DETAILS.
 - CLEAR VISION TRIANGLE PER CDC 42.040.
 - INSTALL "NO PARKING-ANY TIME" SIGN R7-1 ST STA. 11+09.65, 15.5' RT (DELTA CT.) SEE DETAIL SHEET 12
 - CONSTRUCT ADA SIDEWALK RAMP WITH TRUNCATED DOME. ST STA. 10+19.74, 21.0' LT (WSTERIA CT.) SEE DETAIL, SHEET 11. SEE SPOT GRADING DETAIL THIS SHEET
 - END STREET CONSTRUCTION. MATCH EXISTING PAVEMENT, SIDEWALK AND CURB. ST STA. 10+33.59, 17.95' LT (WSTERIA CT.)
 - CONSTRUCT WATER QUALITY POND RETAINING WALL. DESIGN BY OTHERS.
 - INSTALL 5.0' CHAIN LINK FENCE WITH 15.0' WIDE GATE PER CITY STD DETAIL.
 - REMOVE STANDARD CURB AND REINSTALL DEPRESSED CONCRETE CURB ACROSS DELTA COURT ENTRANCE (±5.0 LF ON 48' RADIUS)
 - INSTALL 1 1/2" TUBE STEEL HANDRAIL @ 42" HIGH ON TOP OF KEYSTONE WALL. CONTRACTOR SHALL VERIFY DESIGN WITH ENGINEER AND WALL MANUFACTURER BEFORE CONSTRUCTION. PAINT HANDRAIL TO MATCH WQ FENCE
 - TRANSITION SIDEWALK FROM 4.0 FT TO 5.0 FT WIDTH. SEE STREET SECTIONS FOR STATIONING.
 - INSTALL STOP SIGN R1-1. ST STA. 10+18.43, 20.5' LT (DELTA CT.) SEE DETAIL SHEET 12
 - INSTALL CROSSWALK MARKINGS PER LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.) - SEE DETAIL SHEET 12
 - INSTALL MUTCD ADVANCED WARNING SIGN W1-10. ST STA 11+20.11, 26.50' LT (WSTERIA CT) SEE DETAIL SHEET 12
 - INSTALL MUTCD ADVANCED WARNING SIGN W1-10. ST STA 8+99.44, 24.70 RT (WSTERIA CT) SEE DETAIL SHEET 12
 - REMOVE AND REINSTALL STANDARD CURB (±5.0 LF)
 - REMOVE AND REINSTALL STANDARD CURB (±6 LF)
 - ST STA 10+18.43, 19.50' LT (DELTA CT) BEGIN 42" HIGH HANDRAIL
 - ST STA 10+34.47, 19.50' LT (DELTA CT) ANGLE POINT 42" HIGH HANDRAIL
 - ST STA 10+41.41, 20.50' LT (DELTA CT) END 42" HIGH HANDRAIL @ 5' WQ FENCE CORNER
 - CONSTRUCT PARALLEL CURB RAMP ST STA. 9+74.16, 18.27' LT (WSTERIA CT.)

SFA Design Group, LLC
STRUCTURAL, CIVIL, PLANNING, SURVEYING
9020 SW Washington Square Dr, Suite 350
Portland, Oregon 97223
Ph: (503) 941-6811 Fax: (503) 943-7985
sfa@sgdgroup.com

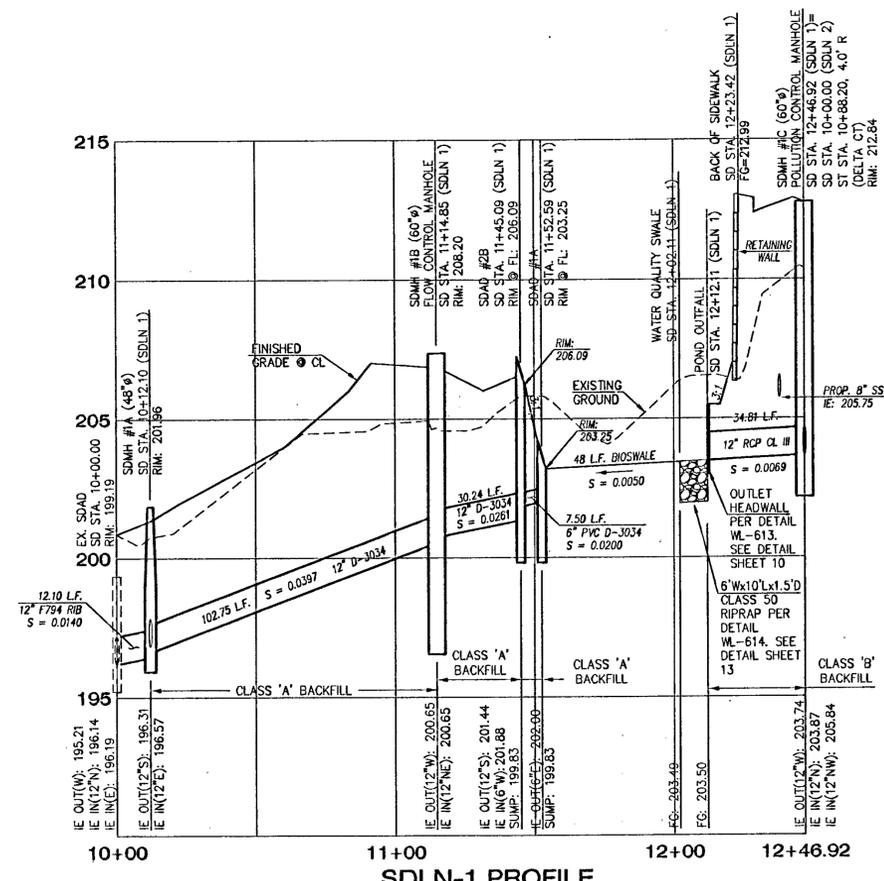
STREET PLAN AND PROFILE
DEBOK ESTATES
CLUTTER PROPERTIES, LLC
City of West Linn, Oregon

DESIGNED BY: MMH
DRAWN BY: MMH
REVIEWED BY: AS-BUILT
PROJECT NO.: 267-001
SCALE: H: 1"=30' V: 1"=3'

SHEET 6 OF 13

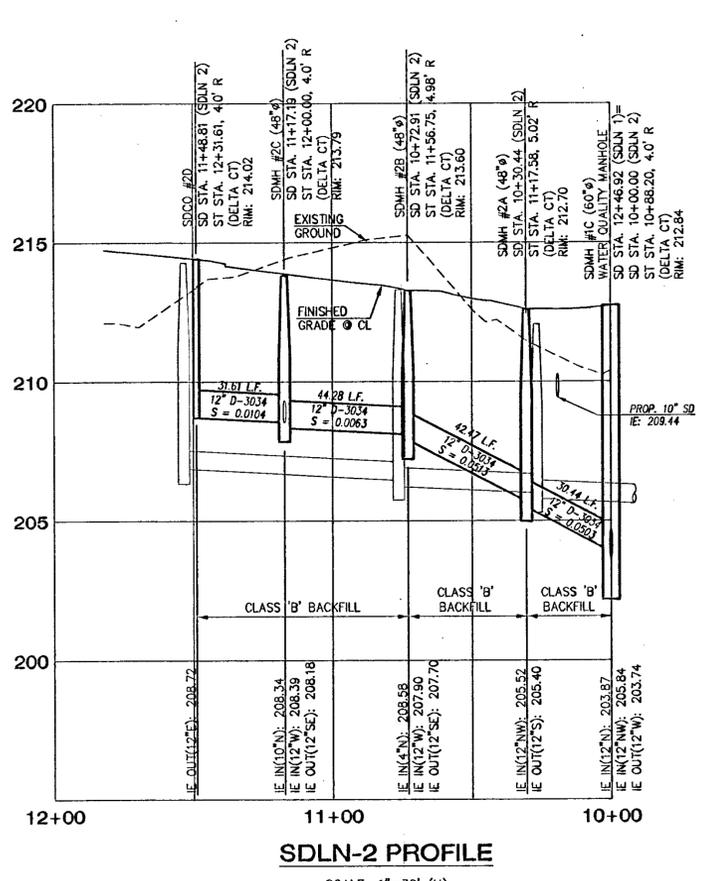
PROJECT DEBOK
NO. 267-001
TYPE ENGINEERING

VALID THROUGH 12-31-11



SDLN-1 PROFILE

SCALE: 1"=30' (H)
1"=3' (V)



SDLN-2 PROFILE

SCALE: 1"=30' (H)
1"=3' (V)

LEGEND

- (8")— PROPOSED SANITARY SEWER LINE
- (12")— PROPOSED STORM SEWER LINE
- (8")— PROPOSED WATER LINE
- ⊙ PROPOSED STORM MANHOLE
- ⊙ PROPOSED SEWER MANHOLE
- ⊞ PROPOSED RETAINING WALL (DESIGNED BY OTHERS)
- ⊞ PROPOSED CHAIN LINK FENCE (PER CoWL STDS)
- PROPOSED CATCH BASIN
- ▣ PROPOSED AREA DRAIN
- ⊙ PROPOSED WATER METER
- ⊙ PROPOSED GATE VALVE

AS-BUILT
DATE: 11/3/07

STORM SEWER NOTES

1. CONNECT TO EXISTING AREA DRAIN, BORE AND GROUT, TYP.
2. INSTALL FLOW CONTROL MANHOLE.
3. INSTALL POLLUTION CONTROL MANHOLE.
4. SEE PLANTING PLAN FOR LANDSCAPE REQUIREMENTS.
5. PROTECT EXISTING CATCH BASIN.
6. DEFLECT WATERLINE UNDER CATCH BASIN LEAD AS NECESSARY.
7. INSTALL CONCRETE HEADWALL AND OUTFALL PROTECTION PER CITY OF WEST LINN STANDARD DETAILS WL-613 AND WL-614. SEE DETAIL SHEETS 10 AND 13.
8. REFER TO STANDARD DETENTION POND OUTLET DETAIL, SHEET 11.

ADDITIONAL NOTES

1. ALL STORM SEWER LATERALS THAT CONNECT TO NEW STORM SEWER SHALL BE 4" P.V.C. PER A.S.T.M. D-3034 SDR 35 INSTALLED AT A MINIMUM OF 2% SLOPE.
2. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION AND NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
3. THE CONTRACTOR SHALL MAINTAIN SANITARY SEWER AND STORM DRAINAGE IN EXISTING SEWERS AT ALL TIMES. THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF WEST LINN PRIOR TO COMMENCEMENT OF CONSTRUCTION.

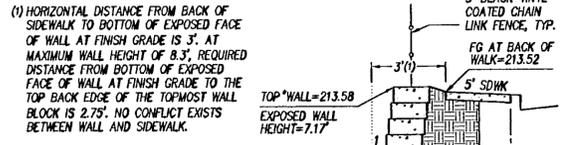
CATCH BASIN DATA

CB#1 CATCH BASIN (TYPE G-1 W/SUMP) STA. 11+07.35, 13.0' RT (DELTA CT) GRATE: 212.12 I.E. OUT: 209.52 INSTALL 26.0' L.F. 10" D.I. @ S=0.0161
CB#2 CATCH BASIN (TYPE G-1 W/SUMP) STA. 11+07.35, 13.0' LT (DELTA CT) GRATE: 212.12 I.E. IN: 209.10 I.E. OUT: 208.74 INSTALL 25.8' L.F. 12" D.I. @ S=0.1133
CB#3 CATCH BASIN (TYPE G-1 W/SUMP) STA. 12+00.00, 13.0' RT (DELTA CT) GRATE: 213.24 I.E. OUT: 210.19 INSTALL 9.0' L.F. 10" PVC @ S=0.2055

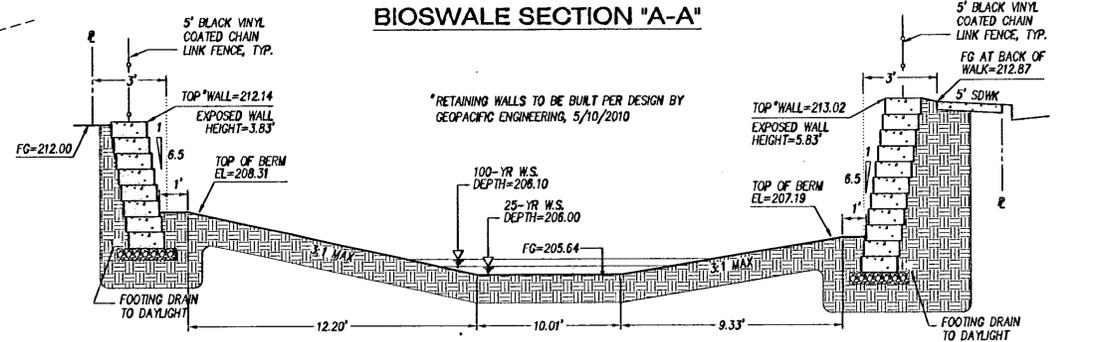
STORM LATERAL TABLE

LOT	SD STATION, LINE	LENGTH (FT)	IE @ END (FT)	MIN. FF
1	11+43.81, "2"	31.0	209.63	213.0
2	11+46.81, "2"	40.0	209.39	213.0
3	11+45.31, "2"	20.0	208.47	214.0
4	11+34.30, "2"	97.0	211.61	216.0
5	11+28.30, "2"	97.0	212.24	220.0

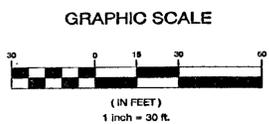
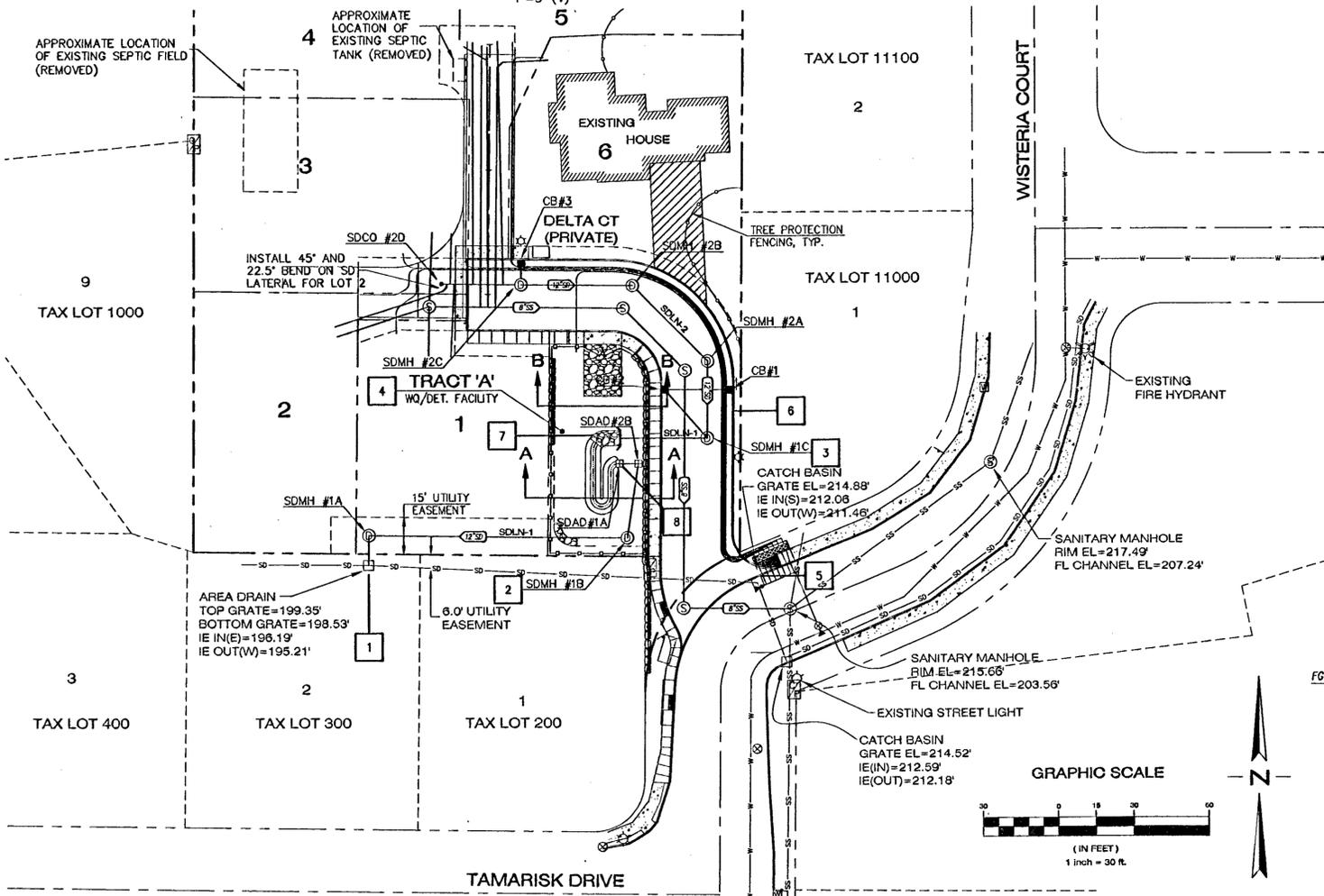
FINAL FF ELEVATIONS ARE THE RESPONSIBILITY OF THE HOME BUILDER. THE ELEVATIONS SHOWN ABOVE ARE THE MINIMUM FOR INSTALLATION OF THE SEWER SERVICES.



BIOSWALE SECTION "A-A"



BIOSWALE SECTION "B-B"



SFA Design Group, LLC
STRUCTURAL, CIVIL, PLUMBING, SANITARY
9020 SW Washington Square Dr, Suite 550
Portland, Oregon 97223
Ph: (503) 641-8311 Fax: (503) 643-7905
sfa@designgroup.com



STORM SEWER PLAN AND PROFILE
DEBOK ESTATES
CLUTTER PROPERTIES, LLC
City of West Linn, Oregon

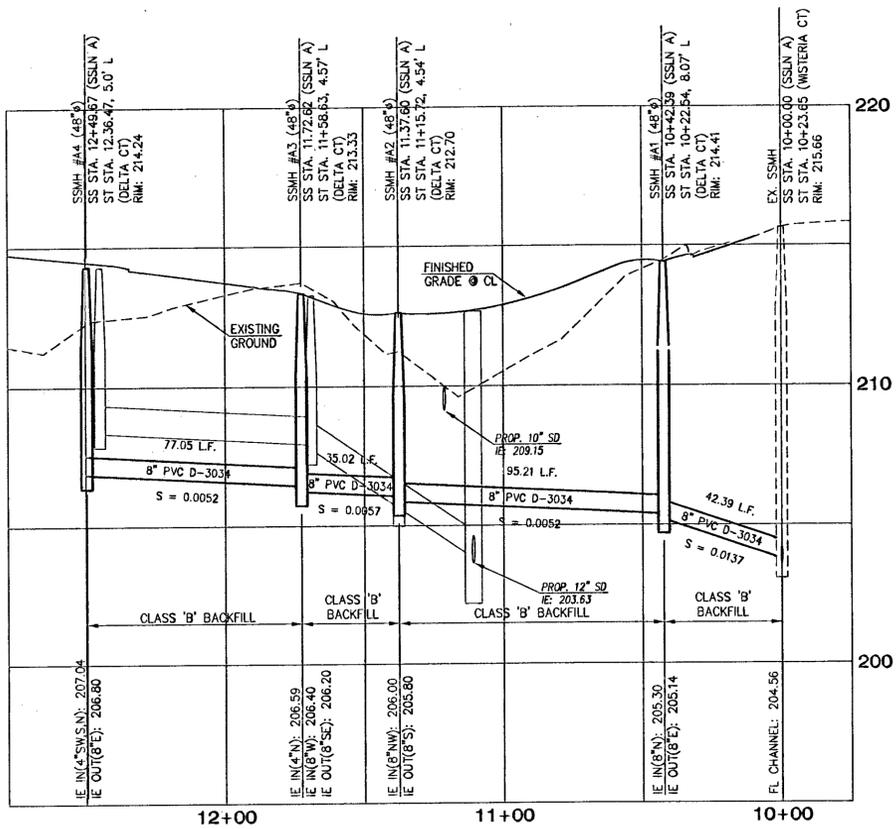


REVISION TABLE

NO.	DATE	BY	REVISION
1	11-7-07	MHH	AS-BUILTS

PROJECT INFORMATION

DESIGNED BY	DATE	2/10
DRAWN BY	DATE	2/10
REVIEWED BY	DATE	2/10
PROJECT NO.	267-001	REF.
SHEET	7	OF
		13
PROJECT	DEBOK	
NO.	267-001	
TYPE	ENGINEERING	



SSLN-A PROFILE
SCALE: 1"=30' (H)
1"=3' (V)

LEGEND

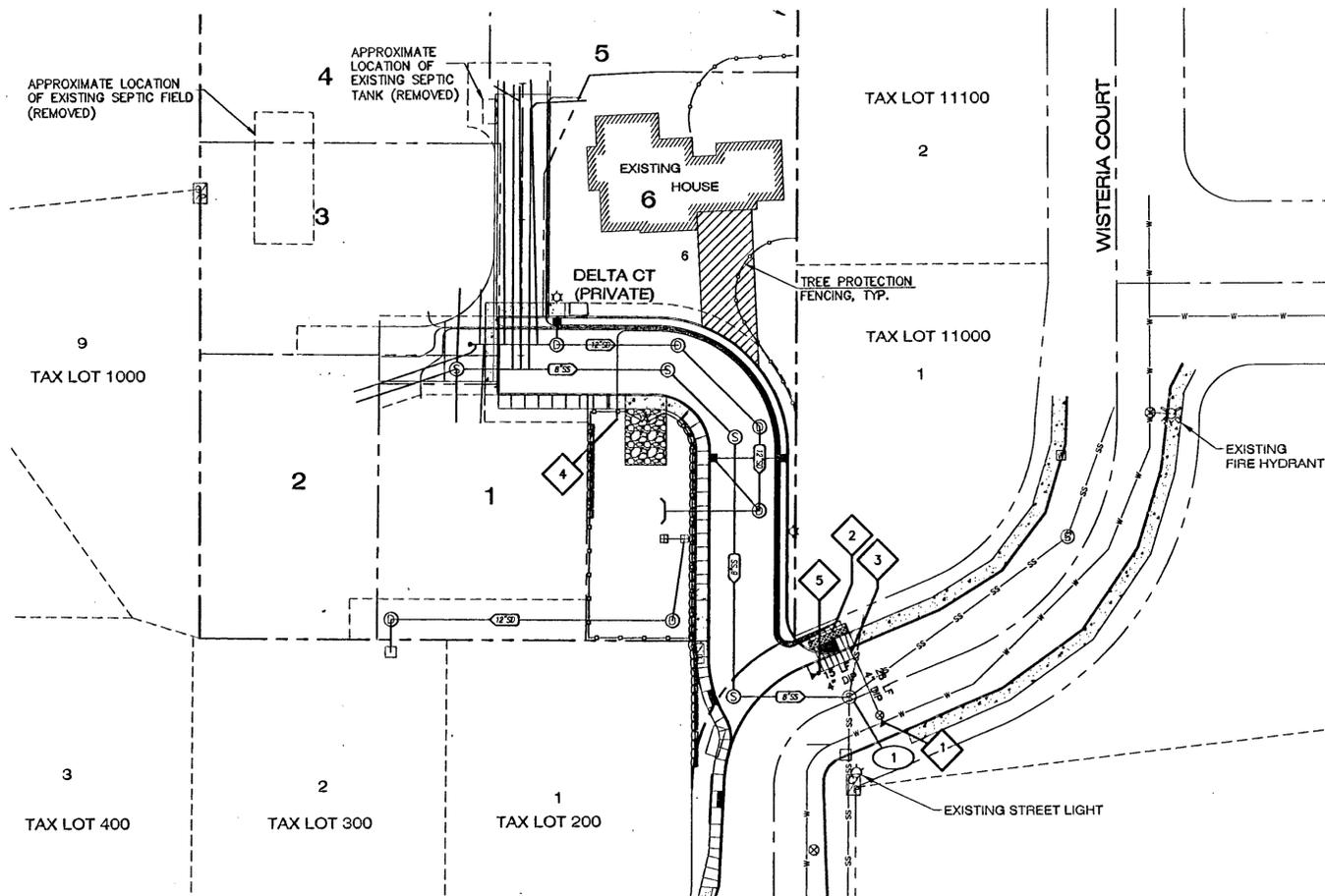
- PROPOSED SANITARY SEWER LINE
- PROPOSED STORM SEWER LINE
- PROPOSED WATER LINE
- ⊙ PROPOSED STORM MANHOLE
- ⊙ PROPOSED SEWER MANHOLE
- ⊞ PROPOSED RETAINING WALL (DESIGN BY OTHERS)
- PROPOSED CATCH BASIN
- ▣ PROPOSED AREA DRAIN
- ⊛ PROPOSED WATER METER
- ⊙ PROPOSED GATE VALVE

WATER NOTES

- 1 ST STA. 10+53.50, 12.06' RT (WISTERIA CT) LIVE TAP EXISTING 6" WATERLINE AND INSTALL 4" GATE VALVE.
- 2 INSTALL (6) 1" WATER METER ASSEMBLY'S AND (1) 1" IRRIGATION SERVICE WITH 1 1/2" WIRSBO SERVICES.
- 3 INSTALL 1" WATER SERVICE, TYP. SEE SHEET 10 FOR DETAIL.
- 4 INSTALL 1" IRRIGATION SERVICE, TYP. SEE SHEET 10 FOR DETAIL.
- 5 INSTALL BLOWOFF ASSEMBLY. SEE SHEET 12 FOR DETAIL.

SANITARY SEWER NOTES

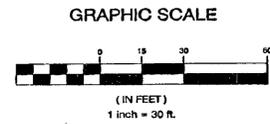
- 1 ST STA. 10+24.33, 1.26' LT (WISTERIA CT) CONNECT TO EXISTING SANITARY MANHOLE. BORE AND GROUT.



SANITARY LATERAL TABLE

LOT	SS STATION, LINE	LENGTH (FT)	IE @ END (FT)	MIN. FF
1	12+49.67, "A"	19.5	208.64	213.0
2	12+49.67, "A"	35.0	208.71	213.0
3	12+49.67, "A"	29.0	207.79	214.0
4	12+27.81, "A"	106.0	211.91	216.0
5	12+24.81, "A"	106.0	212.90	220.0
6	12+21.81, "A"	116.8	212.80	218.0

AS-BUILT
DATE: 11/3/11



SFA Design Group, LLC
STRUCTURAL, CIVIL, PLANNING, SURVEYING
9020 SW Washington Square Dr. Suite 350
Portland, Oregon 97223
Ph: (503) 641-6311 Fax: (503) 644-7905
sfa@sgroup.com

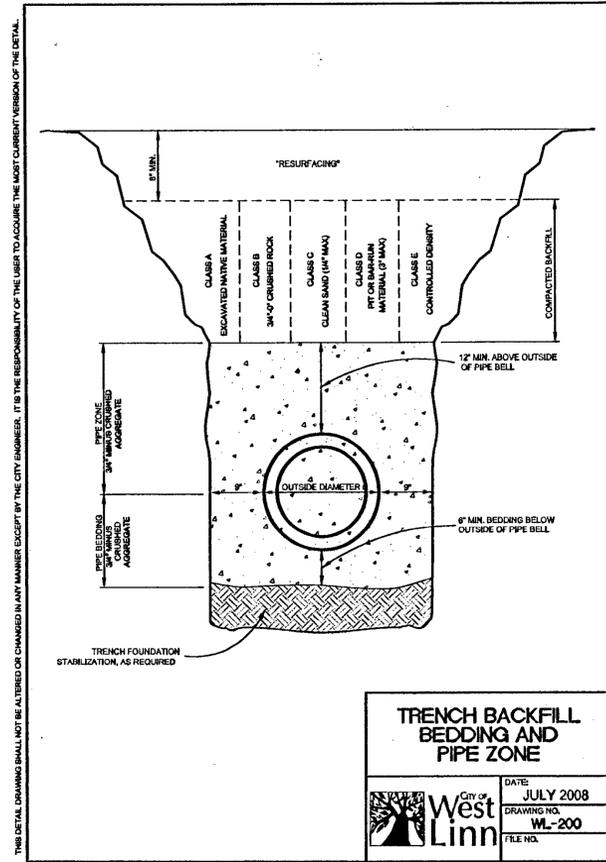
SAN. SEWER / WATER PLAN AND PROFILE
DEBOK ESTATES
CLUTTER PROPERTIES, LLC
City of West Linn, Oregon

8/2/11

 VALID THROUGH 12-31-11

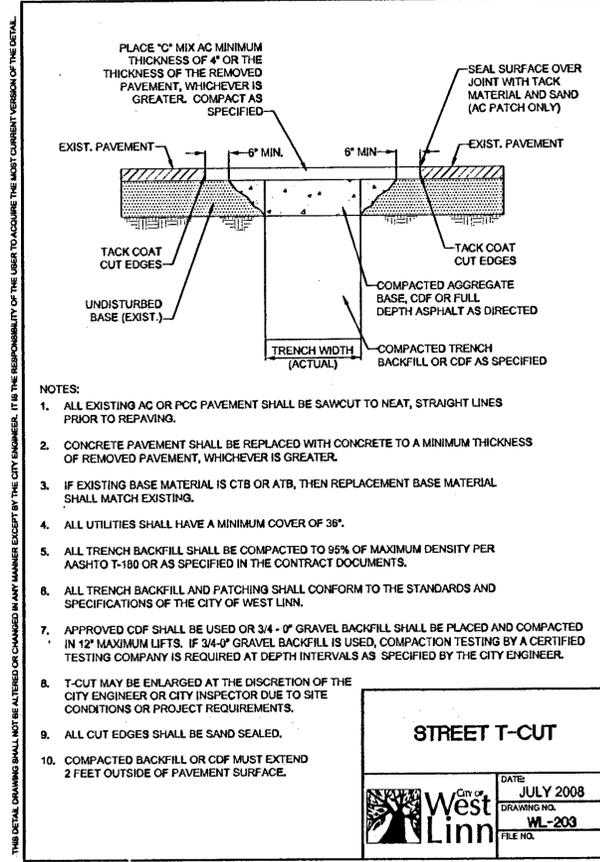
NO.	DATE	REVISION	BY
1	03-11	AS-BUILTS	MH

DESIGNED BY	DATE	2/10
DRAWN BY	DATE	2/10
REVIEWED BY	DATE	2/10
PROJECT NO.	267-001	REF.
SCALE	H: 1"=30'	V: 1"=3'
SHEET	8	OF 13
PROJECT	DEBOK	
NO.	267-001	
TYPE	ENGINEERING	



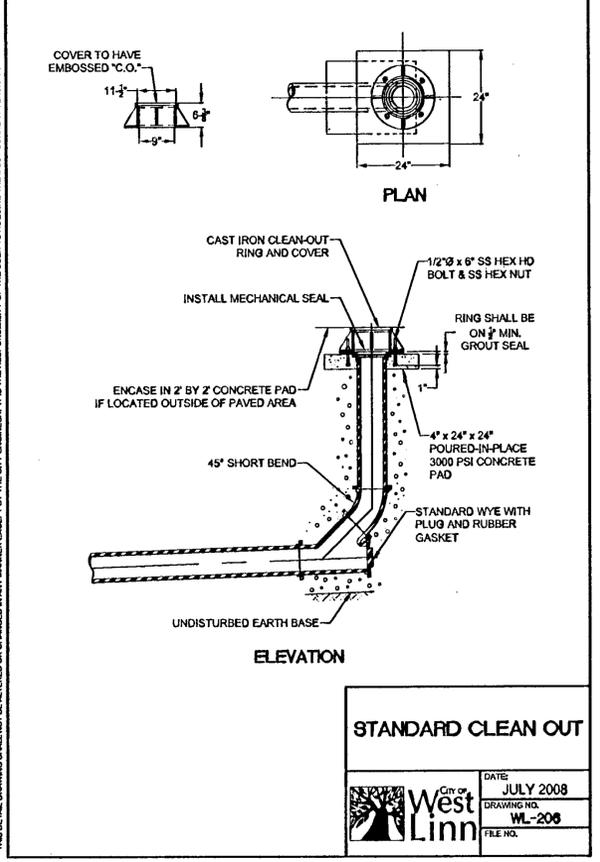
TRENCH BACKFILL BEDDING AND PIPE ZONE

DATE: JULY 2008
DRAWING NO. WL-200
FILE NO.



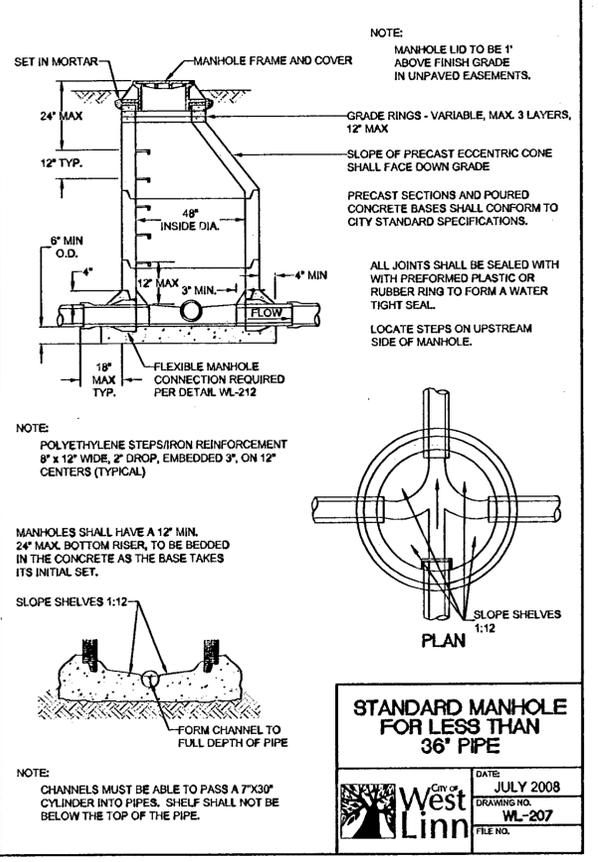
STREET T-CUT

DATE: JULY 2008
DRAWING NO. WL-203
FILE NO.

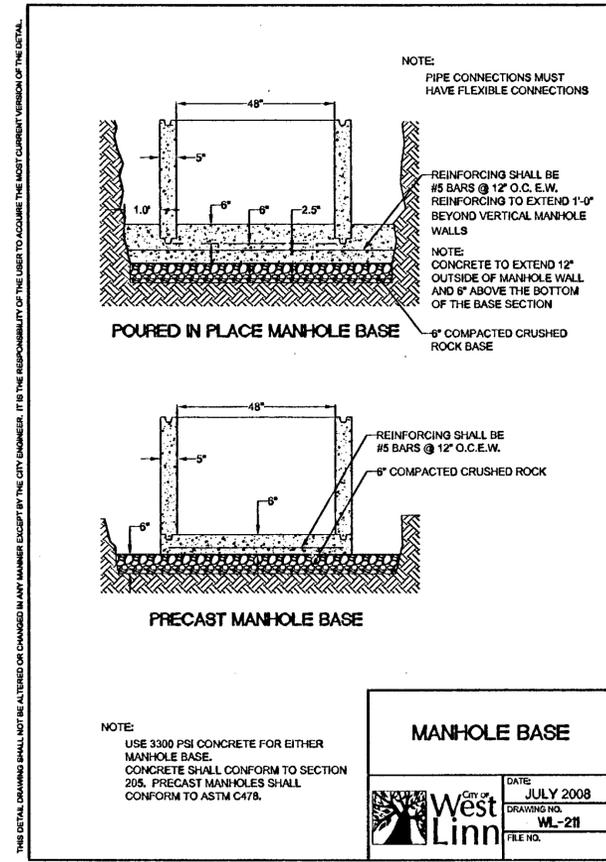


STANDARD CLEAN OUT

DATE: JULY 2008
DRAWING NO. WL-206
FILE NO.

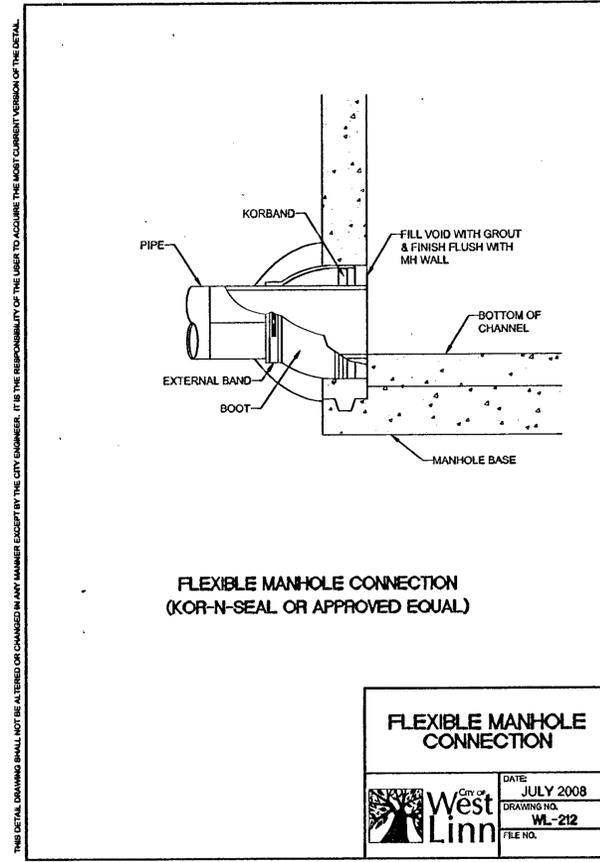


STANDARD MANHOLE FOR LESS THAN 36\"/>



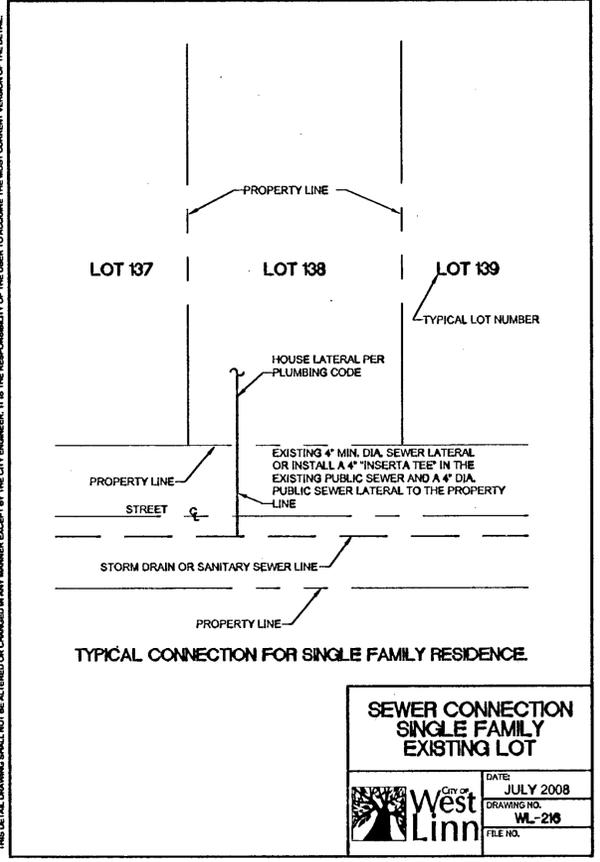
MANHOLE BASE

DATE: JULY 2008
DRAWING NO. WL-211
FILE NO.



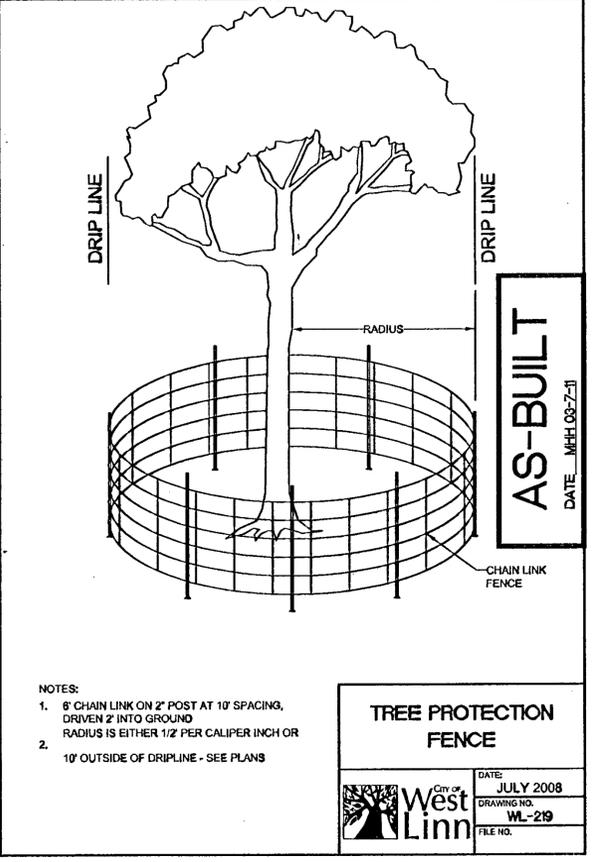
FLEXIBLE MANHOLE CONNECTION

DATE: JULY 2008
DRAWING NO. WL-212
FILE NO.



SEWER CONNECTION SINGLE FAMILY EXISTING LOT

DATE: JULY 2008
DRAWING NO. WL-216
FILE NO.



TREE PROTECTION FENCE

DATE: JULY 2008
DRAWING NO. WL-219
FILE NO.

THIS DETAIL DRAWING SHALL NOT BE ALTERED OR CHANGED IN ANY MANNER EXCEPT BY THE CITY ENGINEER. IT IS THE RESPONSIBILITY OF THE USER TO ACQUIRE THE MOST CURRENT VERSION OF THE DETAIL.

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STRUCTURAL, CIVIL, PLANNING, SURVEYING
9020 SW Washington Square Dr., Suite 550
Portland, Oregon 97223
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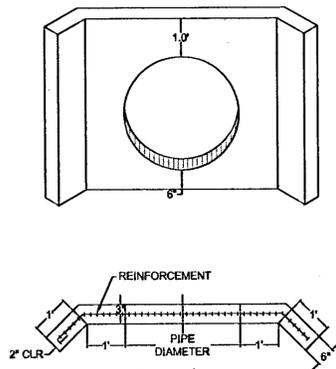
DETAILS
DEBOK ESTATES
CLUTTER PROPERTIES, LLC
City of West Linn, Oregon

THE DETAILS ON THIS SHEET WERE PREPARED BY PUBLIC AGENCIES AND EQUIPMENT SUPPLIERS. THE RESPONSIBILITY FOR THE SELECTION OF THESE DETAILS AS APPROPRIATE TO THE PROJECT.

NO.	DATE	REVISION	BY
1	03-7-11	AS-BUILTS	MHH

DESIGNED BY	DATE	2/10
DRWN BY	DATE	2/10
REVIEWED BY	DATE	2/10
PROJECT NO.	267-001	REF.
SCALE	H: N/A	V: N/A

THIS DETAIL DRAWING SHALL NOT BE ALTERED OR CHANGED IN ANY MANNER EXCEPT BY THE CITY ENGINEER. IT IS THE RESPONSIBILITY OF THE USER TO ACQUIRE THE MOST CURRENT VERSION OF THE DETAIL.

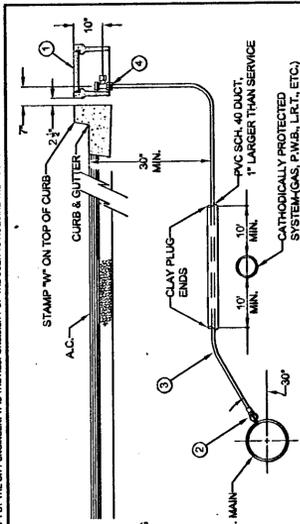


- NOTES:
- USE CONCRETE HAVING A 28 DAY DESIGN STRENGTH OF 3300 PSI.
 - OUTLET WING WALL SHALL BE USED FOR ALL OUTFALL PIPES FROM 10" TO 36".
 - THIS DETAIL REPRESENTS THE MINIMUM REQUIREMENT. THE NEED FOR ADDITIONAL STEEL, A FOOTING AND DRAINAGE BEHIND THE WALL SHALL BE INVESTIGATED BY THE DESIGN ENGINEER.
 - FOR PIPES LARGER THAN 33" OR MULTIPLE PIPE OUTLETS, USE DETAIL WL-612.
 - CONCRETE REINFORCEMENT SHALL CONSIST OF:
 - ADDING A POLY-FIBER MESH TO THE CONCRETE MIX OR
 - USE (2) #4 BARS ABOVE AND BELOW PIPE AND #4 BARS AT 6" O.C. VERTICALLY.

**OUTLET HEADWALL
(FOR OUTLET PIPES OF
10" TO 33")**

City of West Linn
DATE: JULY 2008
DRAWING NO.: WL-613
FILE NO.

THIS DETAIL DRAWING SHALL NOT BE ALTERED OR CHANGED IN ANY MANNER EXCEPT BY THE CITY ENGINEER. IT IS THE RESPONSIBILITY OF THE USER TO ACQUIRE THE MOST CURRENT VERSION OF THE DETAIL.



- NOTES:
- MACHINE DRILLED AND TAPPED ONLY. NO HAND DRILLING IS ALLOWED.
 - SUBSTITUTES FOR ANY MATERIALS SHOWN SHALL BE APPROVED BY THE CITY ENGINEER.
 - ALL PIPE AND STRUCTURE ZONE SHALL BE BACKFILLED USING 3/4" MINUS CRUSHED AGG. AND COMPACTED TO 95% MAX DENSITY AS DETERMINED BY AASHTO T-193.
 - WHEN AN ACTIVE CATHODIC PROTECTED SYSTEM IS ENCOUNTERED, SCH. 40 PVC SHALL BE INSTALLED AS SHOWN ABOVE WITH CLAY PLUG.
 - METER BOX SHALL BE CENTERED OVER THE COMPLETED METER ASSEMBLY.
 - TAPS INTO MAIN TO HAVE 18" SEPARATION ON CENTER MINIMUM.
 - ANGLE METER STOPS TO BE 18" FROM PROPERTY LINE AND NOT IN DRIVEWAY APPROACH.
 - METER BOXES IN CURB TIGHT SIDEWALK AND THOSE SUBJECT TO INCIDENTAL AUTO TRAFFIC MUST HAVE METAL LIDS AND BE TRAFFIC RATED.

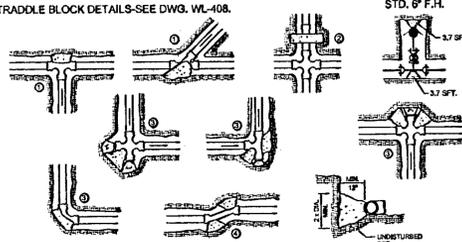
**STANDARD
1" WATER SERVICE**

City of West Linn
DATE: JULY 2008
DRAWING NO.: WL-402
FILE NO.

THIS DETAIL DRAWING SHALL NOT BE ALTERED OR CHANGED IN ANY MANNER EXCEPT BY THE CITY ENGINEER. IT IS THE RESPONSIBILITY OF THE USER TO ACQUIRE THE MOST CURRENT VERSION OF THE DETAIL.

FITTING SIZE (inches)	TEE, WYE & HYDRANTS	STRADDLE BLOCK	90° BEND PLUGGED CROSS TEE PLUGGED RUNS	45° BEND	22 1/2° BEND	11 1/2° BEND
2	1.7	2.1	2.4	1.3	1.3	1.3
4	3.7	4.9	5.3	2.9	2.9	2.9
6	5.7	8.7	9.5	5.1	5.1	5.1
8	7.7	11.7	12.8	7.1	7.1	7.1
10	10.3	15.8	17.3	9.1	9.1	9.1
12	13.1	19.8	21.3	11.6	11.6	11.6
16	18.8	28.8	31.3	16.6	16.6	16.6
18	21.8	34.8	37.3	19.1	19.1	19.1
24	29.8	46.8	50.3	25.6	25.6	25.6
30	37.8	58.8	63.3	31.6	31.6	31.6
36	45.8	70.8	75.3	37.6	37.6	37.6
LARGER

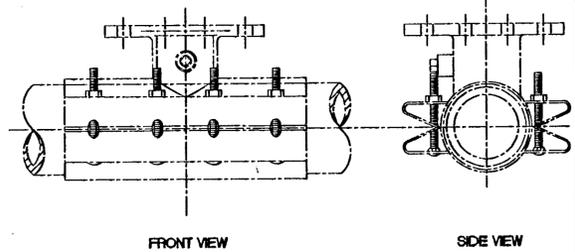
- ALL VALUES ARE BASED ON THE FOLLOWING ASSUMPTIONS: AVG. PRESSURE = 100 PSI X 2 (SAFETY FACTOR); 1500 PSF SOIL BEARING CAPACITY; NORMAL DISTRIBUTION DESIGN VELOCITY NOT TO EXCEED 5 F/S.
- ALL FITTINGS SHALL BE WRAPPED IN 8 MM PLASTIC PRIOR TO PLACEMENT OF CONCRETE.
- BEARING SURFACE OF THRUST BLOCKING SHALL BE AGAINST UNDISTURBED SOIL.
- ALL CONCRETE MIX SHALL HAVE A MIN. 28 DAY STRENGTH OF 3000 PSI.
- ALL PIPE ZONES SHALL BE GRAVEL FILLED AND COMPACTED.
- THRUST BLOCKS FOR PLUGGED CROSS AND PLUGGED TEE SHALL HAVE #4 REBAR LIFTING LOOPS INSTALLED AS SHOWN.
- VERTICAL THRUST DETAILS-SEE DWG. WL-407.
- STRADDLE BLOCK DETAILS-SEE DWG. WL-408.



**HORIZONTAL
THRUST BLOCKING**

City of West Linn
DATE: JULY 2008
DRAWING NO.: WL-406
FILE NO.

THIS DETAIL DRAWING SHALL NOT BE ALTERED OR CHANGED IN ANY MANNER EXCEPT BY THE CITY ENGINEER. IT IS THE RESPONSIBILITY OF THE USER TO ACQUIRE THE MOST CURRENT VERSION OF THE DETAIL.



- NOTES:
- WATER MAIN SHALL BE CLEANED BEFORE ATTACHING SLEEVE.
 - SLEEVE AND VALVE SHALL BE PRESSURE TESTED BEFORE MAKING TAP.
 - PRESSURE TEST AND TAP SHALL BE MADE IN THE PRESENCE OF AN AUTHORIZED CITY REPRESENTATIVE.
 - PROPER TAPPING MACHINE SHALL BE USED TO MAKE TAP.
 - THRUST BLOCKING REQUIREMENTS SHALL BE DETERMINED BY THE ENGINEER OR PER DWG. WL-406.
 - TAP SHALL BE MADE NO CLOSER THAN 18 INCHES FROM THE NEAREST JOINT OR TAP.
 - SLEEVE AND VALVE SHALL BE WRAPPED WITH 8 MIL PLASTIC.
 - SLEEVES TO BE USED ARE JCM OR MUELLER STAINLESS STEEL TAPPING SLEEVES. ALL NUTS AND BOLTS SHALL BE STAINLESS STEEL.
 - SLEEVE SHALL BE AS LEVEL AS POSSIBLE.
 - ALL BOLTS SHALL HAVE NEVER SIEZE ON THREADS.

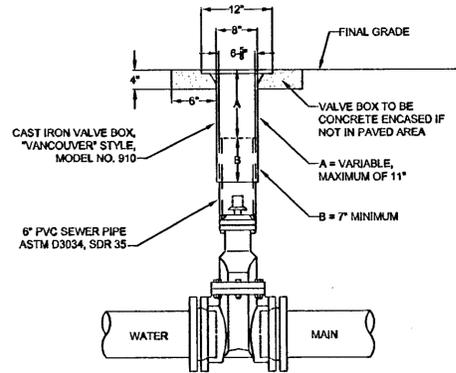
STANDARD WET TAP

City of West Linn
DATE: JULY 2008
DRAWING NO.: WL-410
FILE NO.

AS-BUILT

DATE: M-H 03-7-11

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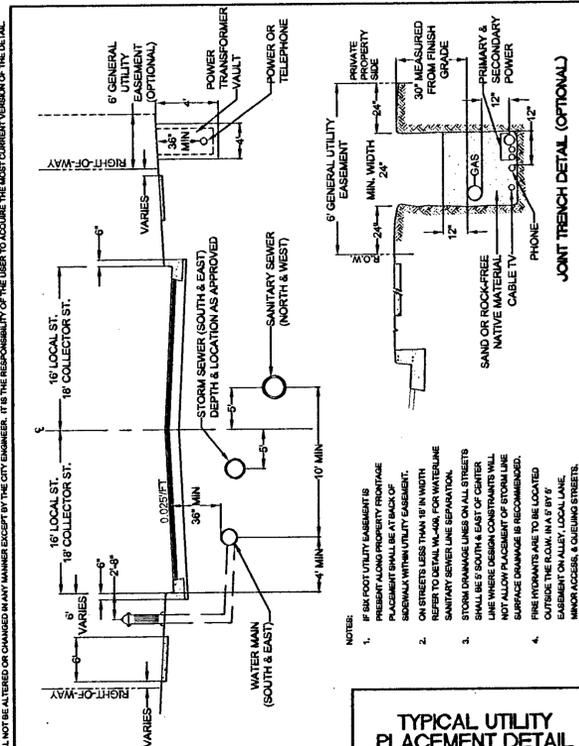


- NOTES:
- VALVE BOXES SHALL BE CENTERED DIRECTLY OVER THE VALVE NUT IN A VERTICAL POSITION.
 - VALVE BOX TOP SHALL BE ADJUSTED TO MEET FINISHED GRADE.
 - PVC SHALL BE ONE CONTINUOUS PIECE-NO BELLS OR COUPLERS.
 - ON VALVES 8" AND LARGER, PVC SHALL BE NOTCHED OVER VALVE PACKING BOLTS SO PVC SITS ON BONNET.

**STANDARD VALVE BOX
DETAIL**

City of West Linn
DATE: JULY 2008
DRAWING NO.: WL-411
FILE NO.

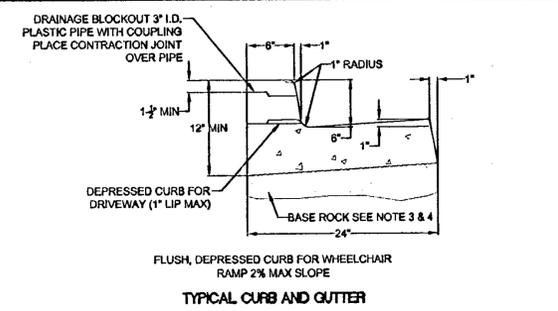
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**TYPICAL UTILITY
PLACEMENT DETAIL**

City of West Linn
DATE: JULY 2008
DRAWING NO.: WL-500
FILE NO.

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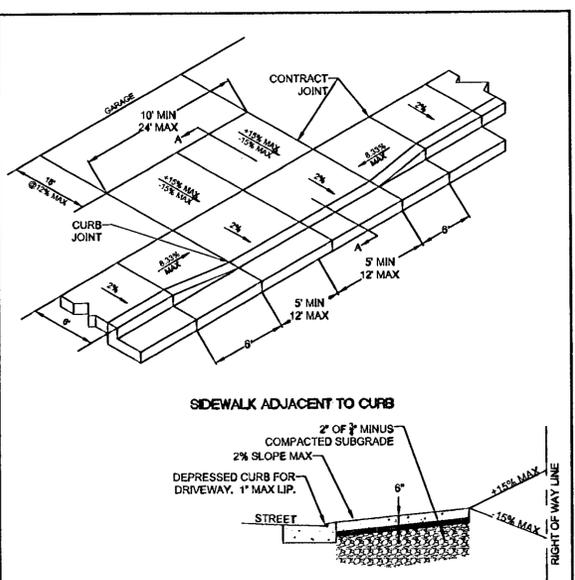


- NOTES:
- CONCRETE SHALL HAVE A BREAKING STRENGTH OF 3300 PSI AFTER 28 DAYS.
 - CONTRACTION JOINTS:
 - TO BE PROVIDED:
 - AT EACH POINT OF TANGENCY
 - AT EACH COLD JOINT
 - AT EACH SIDE OF INLET STRUCTURES
 - AT BOTH SIDES OF AN APPROACH
 - SPACING TO BE NOT MORE THAN 15 FEET
 - THE DEPTH OF THE JOINT SHALL BE AT LEAST 1/3 OF THE THICKNESS OF CONCRETE
 - EXPANSION JOINTS SHALL NOT BE USED
 - BASE ROCK - 1-1/2" - 4", 95% COMPACTION PER AASHTO T-190. ROCK SHALL BE TO SUBGRADE OF THE STREET SECTION OR 4" IN DEPTH, WHICHEVER IS GREATER.
 - FULL DEPTH PREPARED ROCK SECTION SHALL EXTEND 1' HORIZONTALLY BEYOND BOTH SIDES OF CURB AND GUTTER.
 - DRAINAGE BLOCK - 3" DIA. PLASTIC PIPE
 - DRAINAGE ACCESS THROUGH EXISTING CURBS SHALL BE DONE BY:
 - CORE DRILLING
 - VERTICAL SAWCUT OF CURB 24" EACH SIDE OF DRAIN AND RE-POURED TO FULL DEPTH OF CURB
 - STAMP TOP OF CURB WITH "W" AT WATER SERVICE CROSSING AND "S" AT SANITARY LATERAL CROSSING.

TYPICAL CURBS

City of West Linn
DATE: JULY 2008
DRAWING NO.: WL-501
FILE NO.

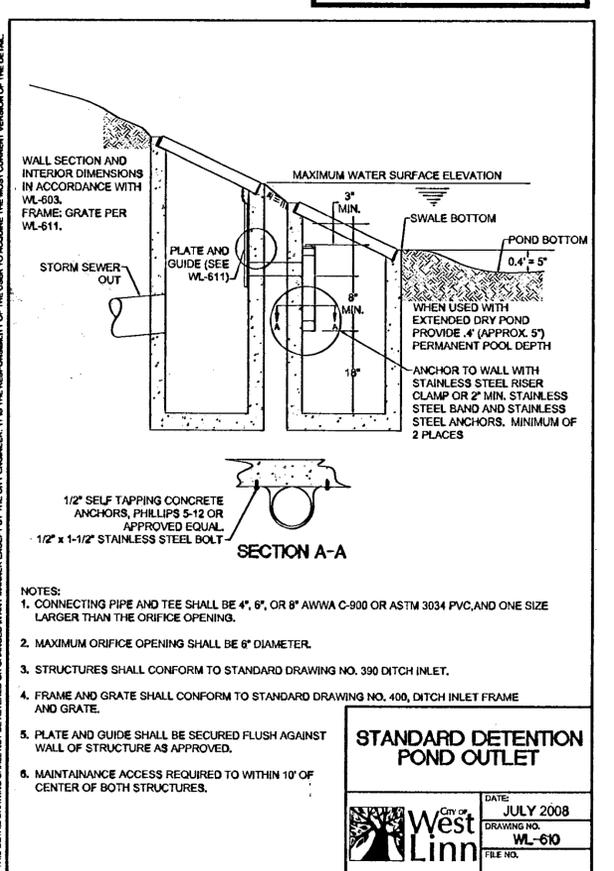
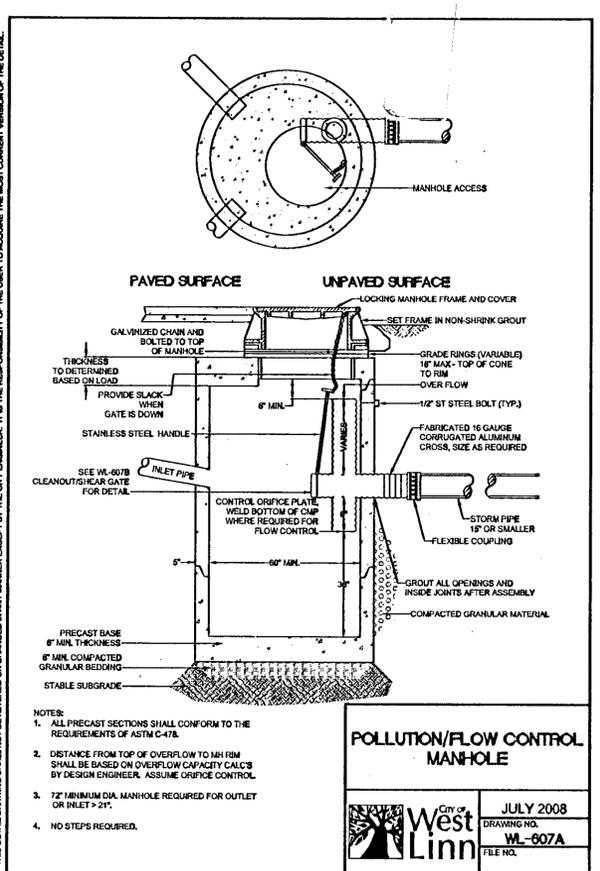
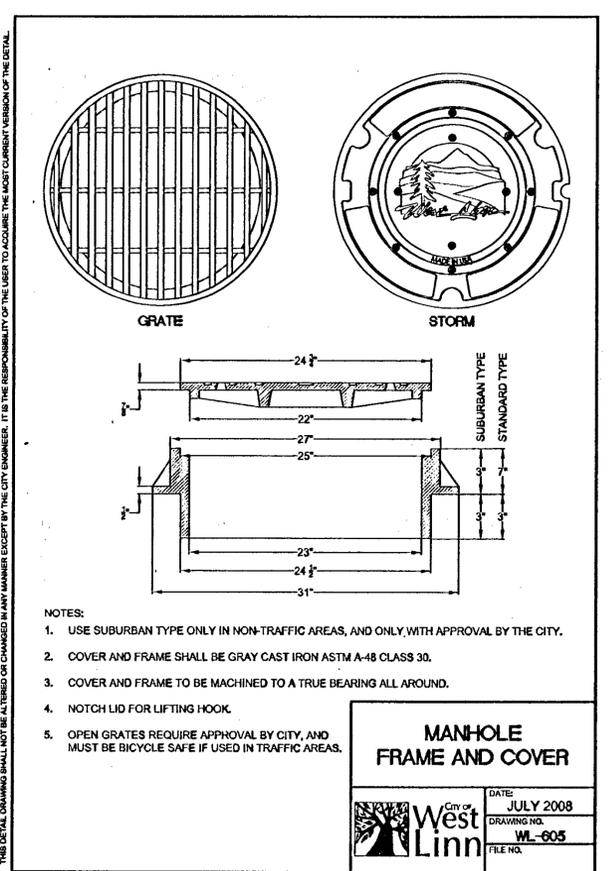
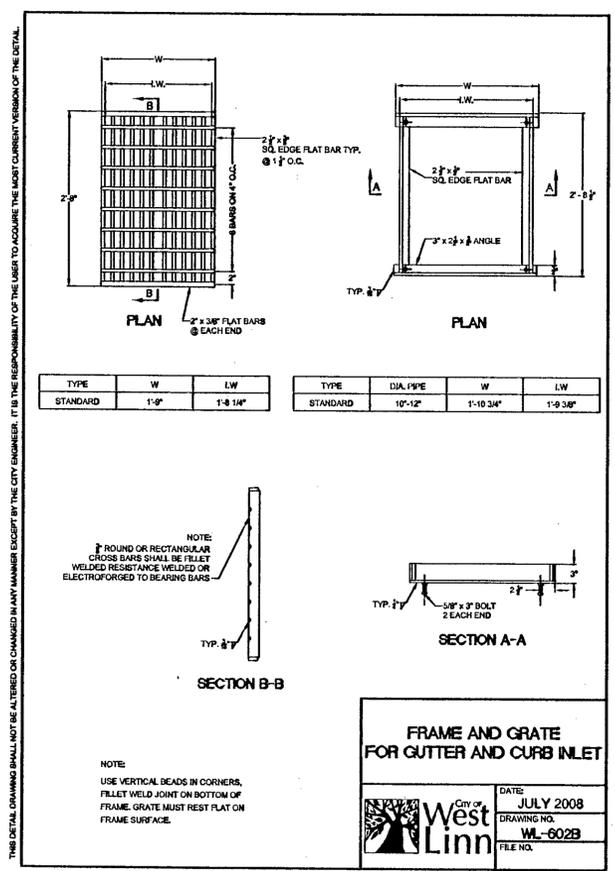
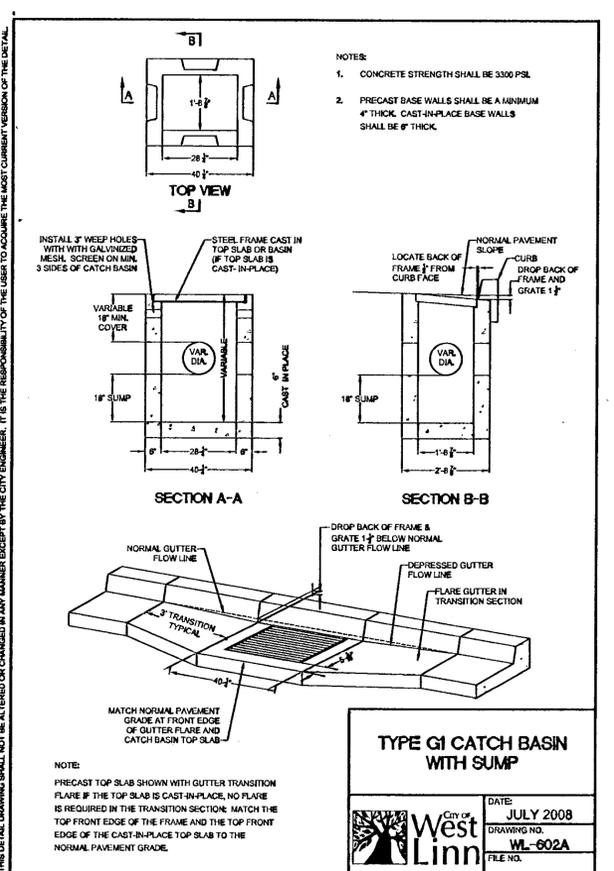
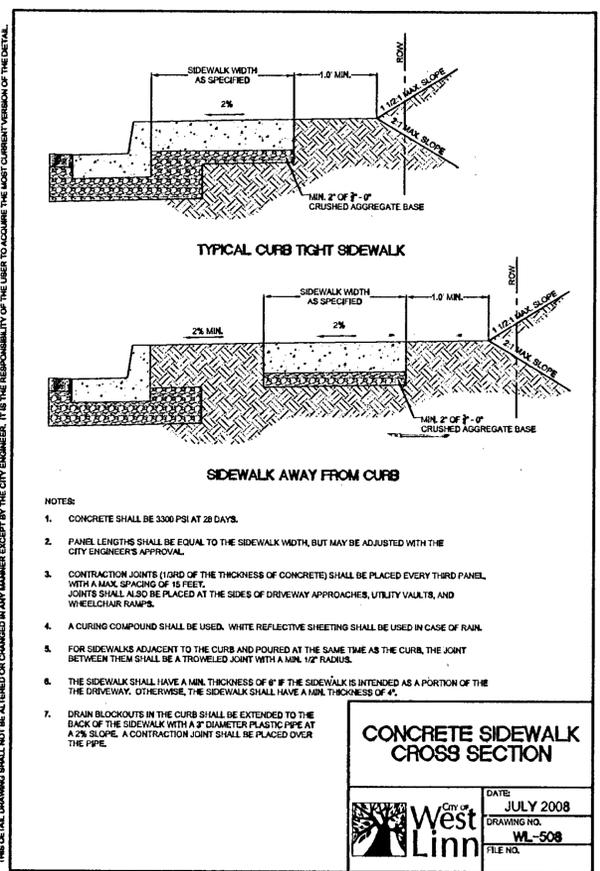
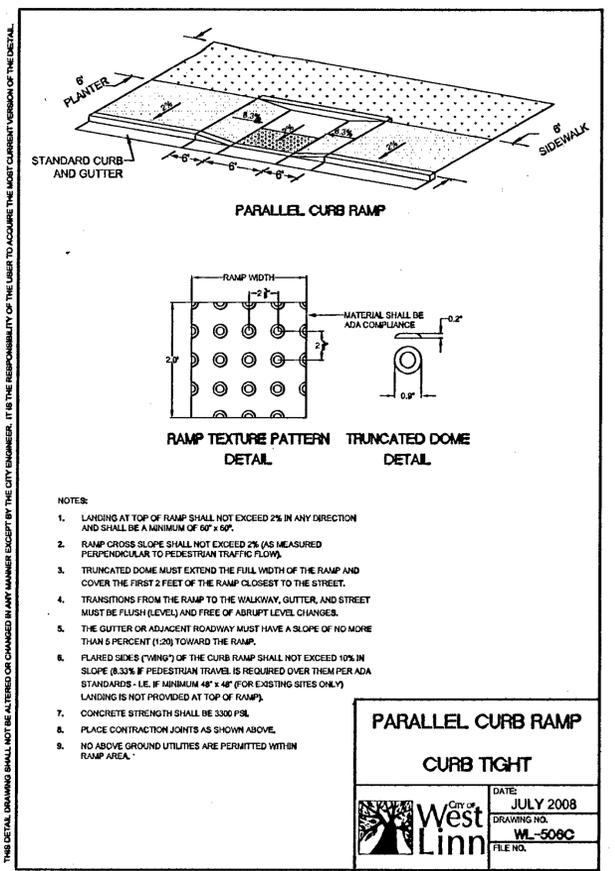
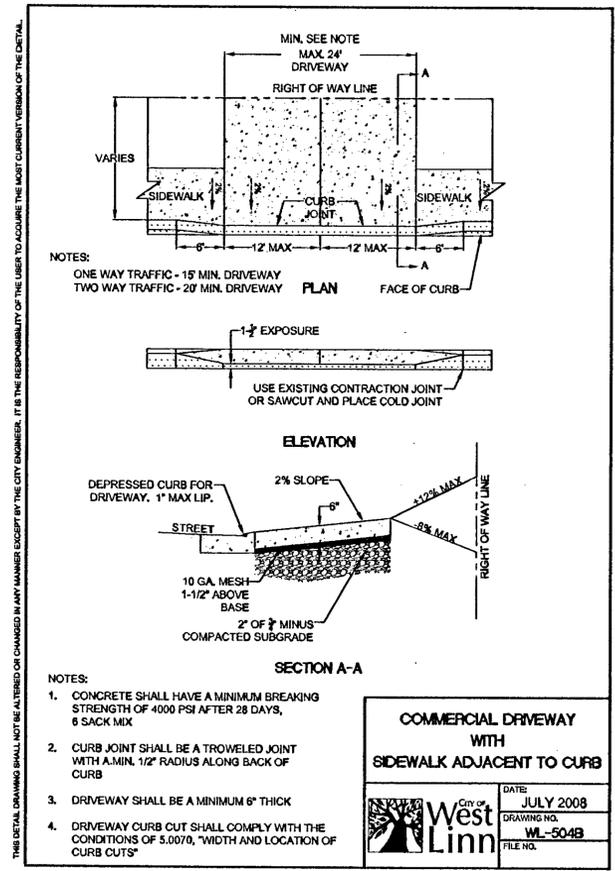
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- NOTES:
- CONCRETE SHALL HAVE A MINIMUM BREAKING STRENGTH OF 3300 PSI AFTER 28 DAYS. 6 SACK MIX.
 - CURB SHALL BE TROWELED JOINT WITH MIN. 1/2" RADIUS ALONG BACK OF CURB.
 - DRIVEWAY SHALL BE A MINIMUM 6" THICK.
 - DRIVEWAY CURB CUT SHALL COMPLY WITH THE CONDITIONS OF 5.0070, "WIDTH AND LOCATION OF CURB CUTS".
 - FOR REPLACEMENT OF EXISTING APPROACH:
 - MUST MEET CURRENT ADA REQUIREMENTS TO GREATEST DEGREE POSSIBLE.
 - DAMAGED ROADWAY MUST BE SAWCUT AND REPAVED WITH CLASS C HOT MIX ASPHALT.

**RESIDENTIAL DRIVEWAY
WITH
SIDEWALK ADJACENT TO CURB**

City of West Linn
DATE: JULY 2008
DRAWING NO.: WL-503B
FILE NO.



AS-BUILT
DATE: MH-03-7-11

SFA Design Group, LLC
STRUCTURAL, CIVIL, PLANNING | SURVEYING
9820 SW Washington Square Dr. Suite 300
Portland, OR 97223
Ph: (503) 644-9311 Fax: (503) 643-7905
sfa@sfadsgroup.com

DEBOK ESTATES CLUTTER PROPERTIES, LLC
City of West Linn, Oregon

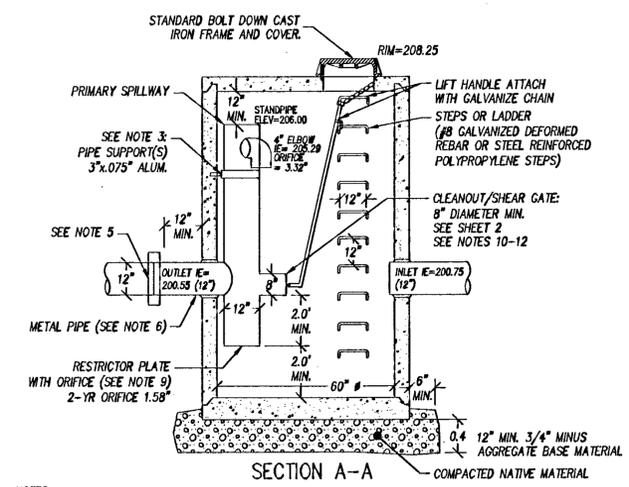
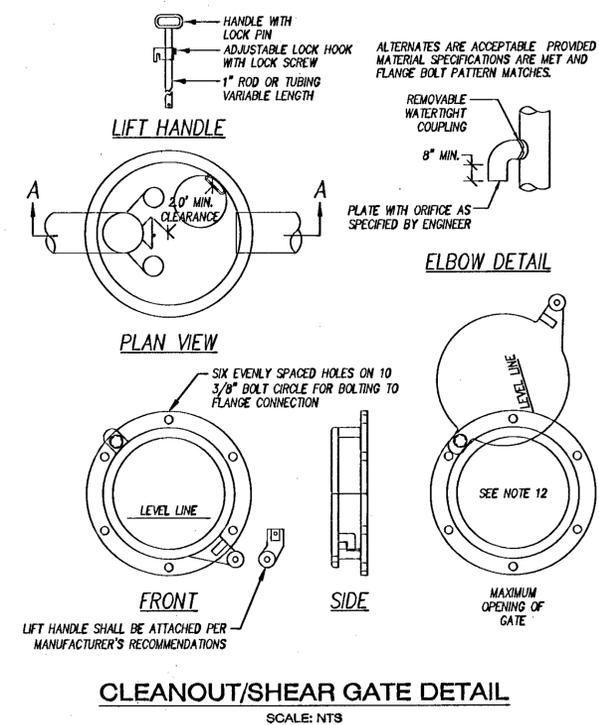
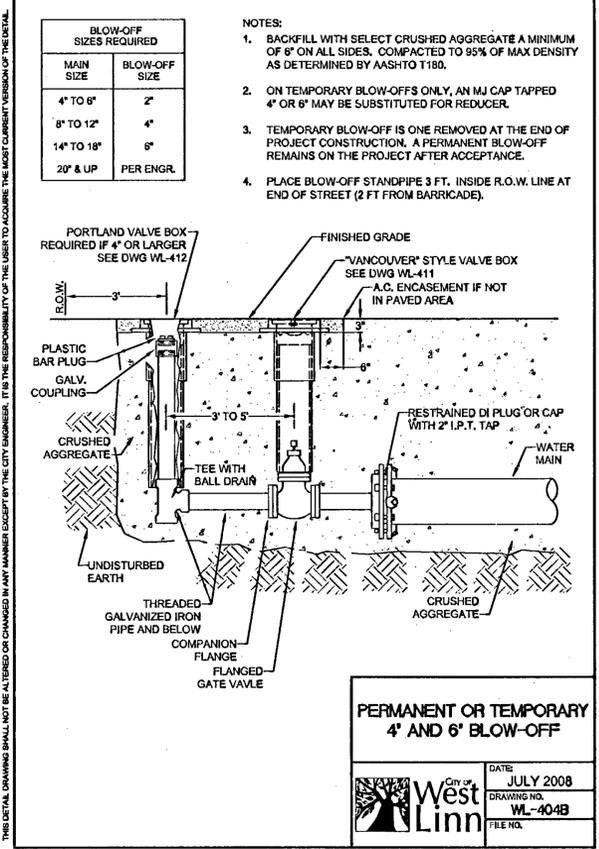
DETAILS

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NO.	DATE	REVISION	BY
1	03-7-11	AS-BUILT	MHH

DESIGNED BY: LEL DATE: 2/10
DRAWN BY: LEL DATE: 2/10
REVIEWED BY: BEF DATE: 2/10
PROJECT NO. 267-001 REF.
SCALE: H:1/4" V:1/4"

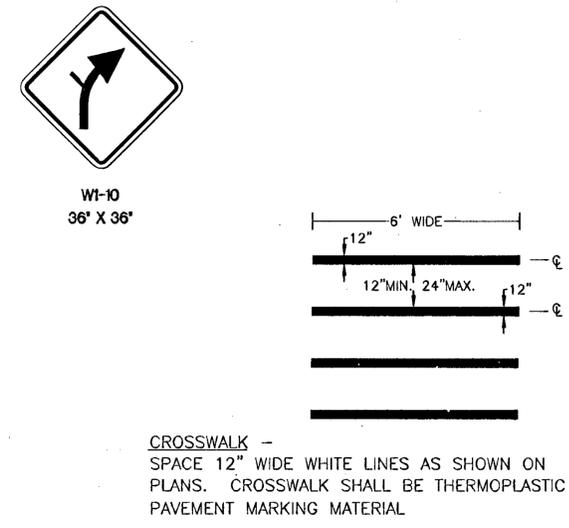
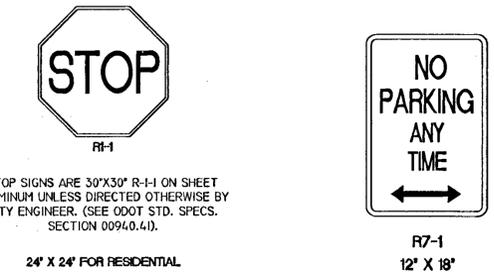
SHEET 11 OF 13
PROJECT: DEBOK
NO. 267-001
TYPE: ENGINEERING



- NOTES:**
- EXCEPT AS SHOWN OR NOTED, UNITS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
 - FLAT TOP SHALL BE H-20 LOAD RATED WITH NO COVER.
 - PIPE SUPPORTS AND RESTRICTOR/SEPARATOR SHALL BE OF THE SAME MATERIAL, AND BE ANCHORED AT 3' MAX SPACING BY 5/8" DIA. STAINLESS STEEL EXPANSION BOLTS OR EMBEDDED 2" IN WALL.
 - THE RESTRICTOR/SEPARATOR SHALL BE FABRICATED FROM .060" (MIN) ALUMINUM, IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF AASHTO M 38, M 104, M189, AND M 274.
 - OUTLET SHALL BE CONNECTED TO CULVERT OR SEWER PIPE WITH A STANDARD COUPLING BAND FOR CORRUGATED METAL PIPE, OR GROUTED INTO THE BELL OF CONCRETE PIPE.
 - THE VERTICAL RISER STEM OF THE RESTRICTOR/SEPARATOR SHALL BE THE SAME DIAMETER AS THE HORIZONTAL OUTLET PIPE, WITH AN 18" MINIMUM DIAMETER.
 - FRAME AND LADDER OR STEPS ARE TO BE OFFSET SO THAT:
 - A. CLEAN OUT GATE IS VISIBLE FROM TOP.
 - B. CLIMB-DOWN SPACE IS CLEAR OF RISER AND GATE.
 - C. FRAME IS CLEAR OF CURB (IF ANY EXISTS).
 - MULTI-ORIFICE ELBOWS MAY BE LOCATED AS SHOWN OR ALL ON ONE SIDE OF RISER TO ASSURE LADDER CLEARANCE. SIZE OF ELBOWS AND PLACEMENT TO BE DETERMINED BY THE ENGINEER.
 - RESTRICTOR PLATE WITH ORIFICE AS SPECIFIED IN THE CONTRACT PLANS. SPECIFIED OPENING TO BE CUT ROUND AND SMOOTH.
 - CLEANOUT/SHEAR GATE: ALUMINUM ALLOY PER A.S.T.M. B-28-2G-32a OR CAST IRON A.S.T.M. A48 CLASS 30B AS REQUIRED. LIFT HANDLE EITHER SOLID OR TUBING WITH ADJUSTABLE HOOK AS REQUIRED. NEOPRENE RUBBER GASKET REQUIRED BETWEEN RISER MOUNTING FLANGE AND GATE FLANGE. MATING SURFACES OF LID AND BODY TO BE MACHINED FOR PROPER FIT. FLANGE MOUNTING BOLTS SHALL BE 3/8" DIA STAINLESS.
 - ALTERNATE CLEANOUT/SHEAR GATES TO THE DESIGN SHOWN ON SHEET 2 ARE ACCEPTABLE, PROVIDED THEY MEET THE MATERIAL SPECIFICATIONS ABOVE AND HAVE A SIX BOLT, 10 3/8" BOLT CIRCLE FOR BOLTING THE FLANGE CONNECTION.
 - GATE SHALL NOT OPEN BEYOND THE CLEAR OPENING BY LIMITED HINGE MOVEMENT, STOP TAB, OR SOME OTHER DEVICE.
 - PRECAST CONCRETE MANHOLE CONSTRUCTED IN ACCORDANCE WITH A.S.T.M. C478.
 - SEE THIS SHEET FOR DETAILS ON ELBOW AND FOR PLAN VIEW.

FLOW CONTROL MANHOLE DETAIL

SCALE: NTS



AS-BUILT
DATE: MHH 03-7-11

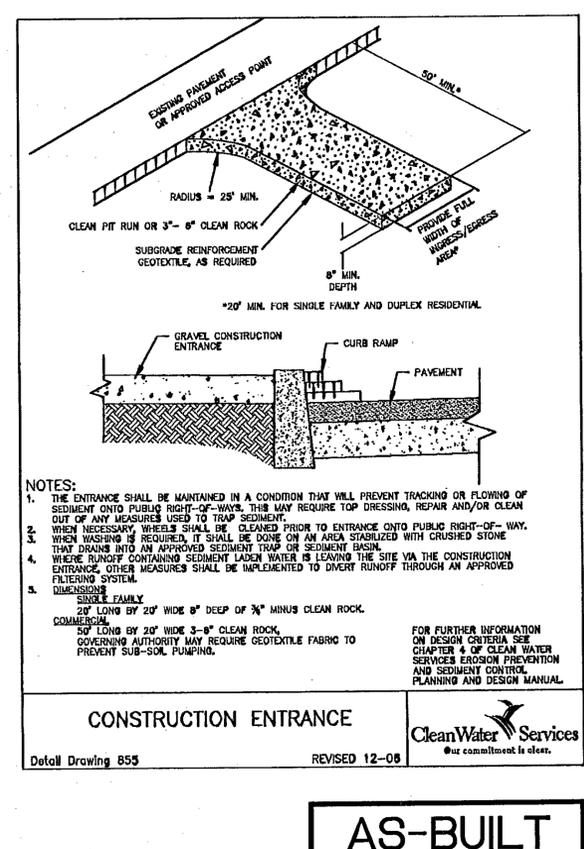
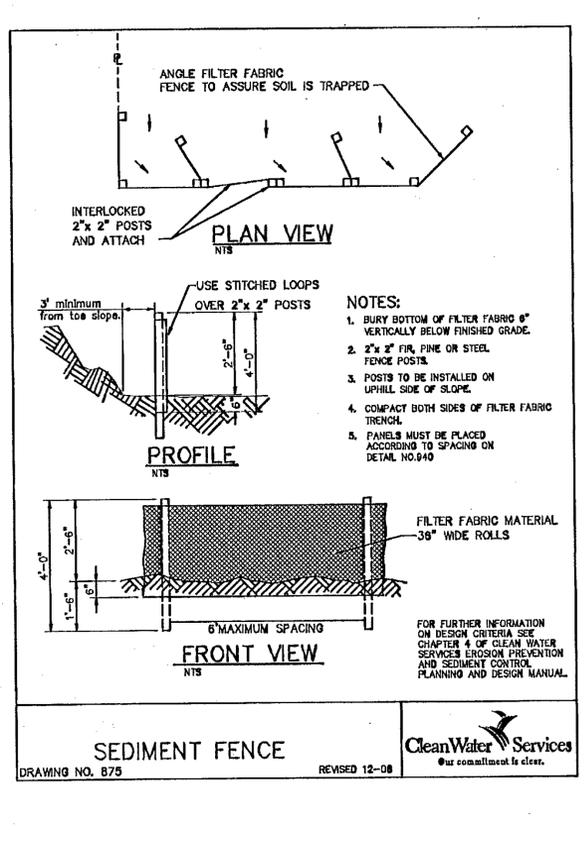
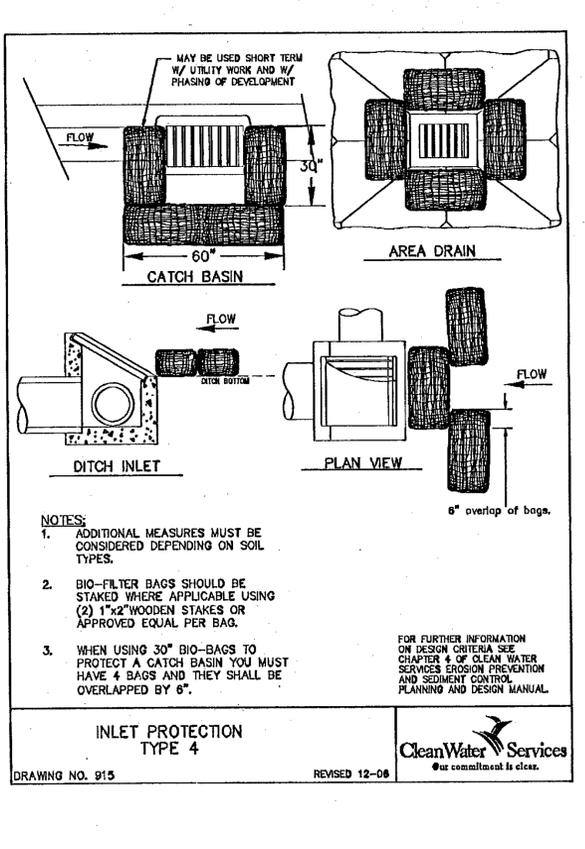
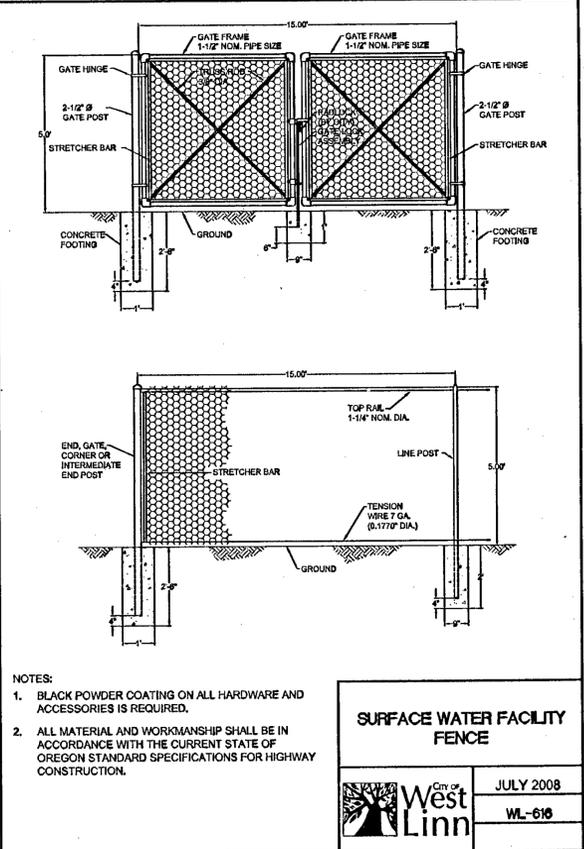
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NO.	DATE	REVISION	BY
1	03-7-11	AS-BUILTS	MHH

DESIGNED BY	DATE	2/10
_____	_____	_____
DRAWN BY	DATE	2/10
_____	_____	_____
REVIEWED BY	DATE	2/10
_____	_____	_____
PROJECT NO.	267-001 REF.	
SCALE	H: 1/4" = 1'-0"	V: N/A

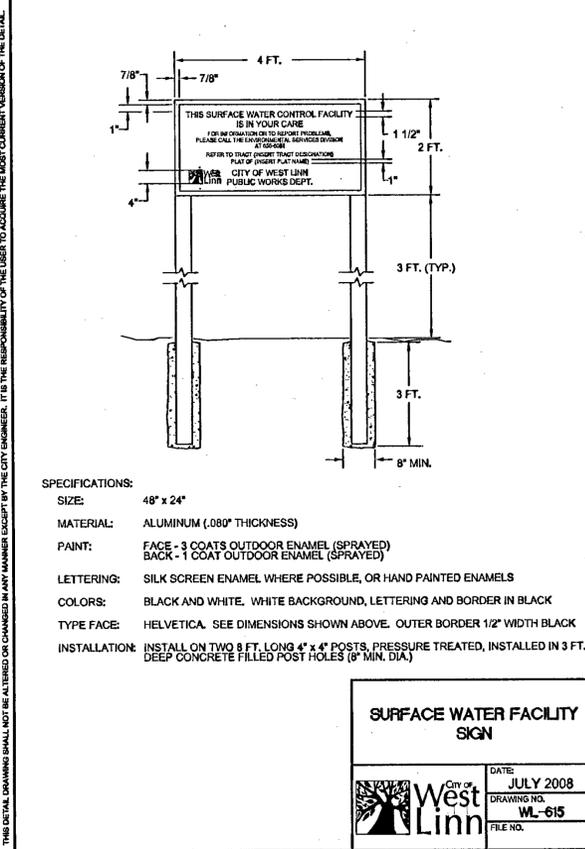
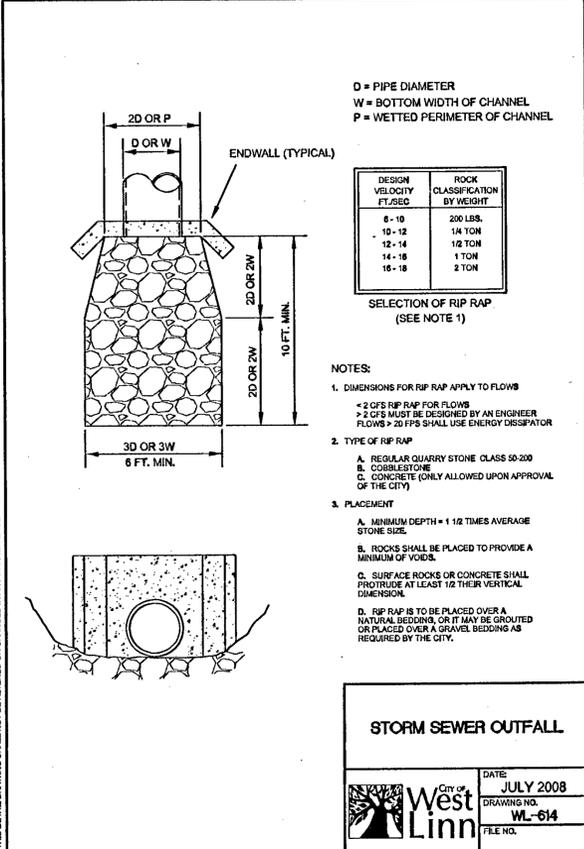
SHEET	12	OF	13
PROJECT	DEBOK		
NO.	267-001		
TYPE	ENGINEERING		

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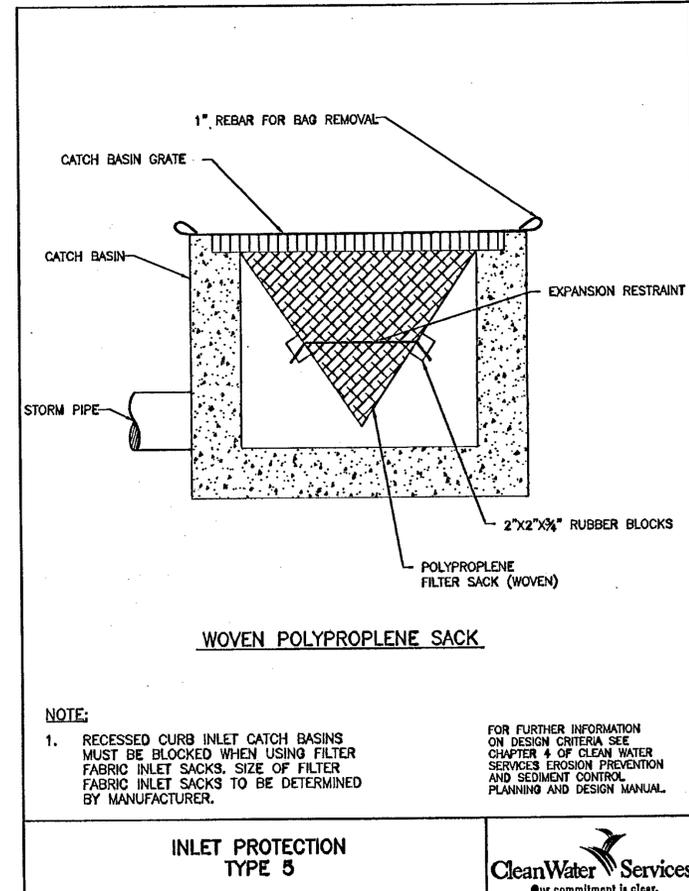
AS-BUILT
DATE: M-H 03-7-11

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SEDIMENT FENCE NOTES

- THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP, AND BOTH ENDS SECURELY FASTENED TO THE POST, OR OVERLAP 2"x2" POSTS AND ATTACH AS SHOWN ON SEDIMENT FENCE DETAIL.
- THE FILTER FABRIC FENCE SHALL BE INSTALLED TO FOLLOW THE CONTOURS WHERE FEASIBLE. THE FENCE POSTS SHALL BE SPACED A MAXIMUM OF 6 FEET APART AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 24 INCHES.
- THE FILTER FABRIC FENCE SHALL HAVE A MINIMUM VERTICAL BURIAL OF 6 INCHES. ALL EXCAVATED MATERIAL FROM FILTER FABRIC FENCE INSTALLATION SHALL BE BACKFILLED AND COMPACTED ALONG THE ENTIRE DISTURBED AREA.
- STANDARD OR HEAVY DUTY FILTER FABRIC FENCE SHALL HAVE MANUFACTURED STITCHED LOOPS FOR 2"x2" POST INSTALLATION. STITCHED LOOPS SHALL BE INSTALLED ON THE UP HILL SIDE OF THE SLOPED AREA.
- FILTER FABRIC FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY PROTECTED AND STABILIZED.
- FILTER FABRIC FENCES SHALL BE INSPECTED BY APPLICANT/CONTRACTOR IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- AT NO TIME SHALL SEDIMENT BE ALLOWED TO ACCUMULATE MORE THAN 1/3 THE HEIGHT OF ANY SEDIMENT CONTROL BARRIER (OR APPROXIMATELY 10") ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.

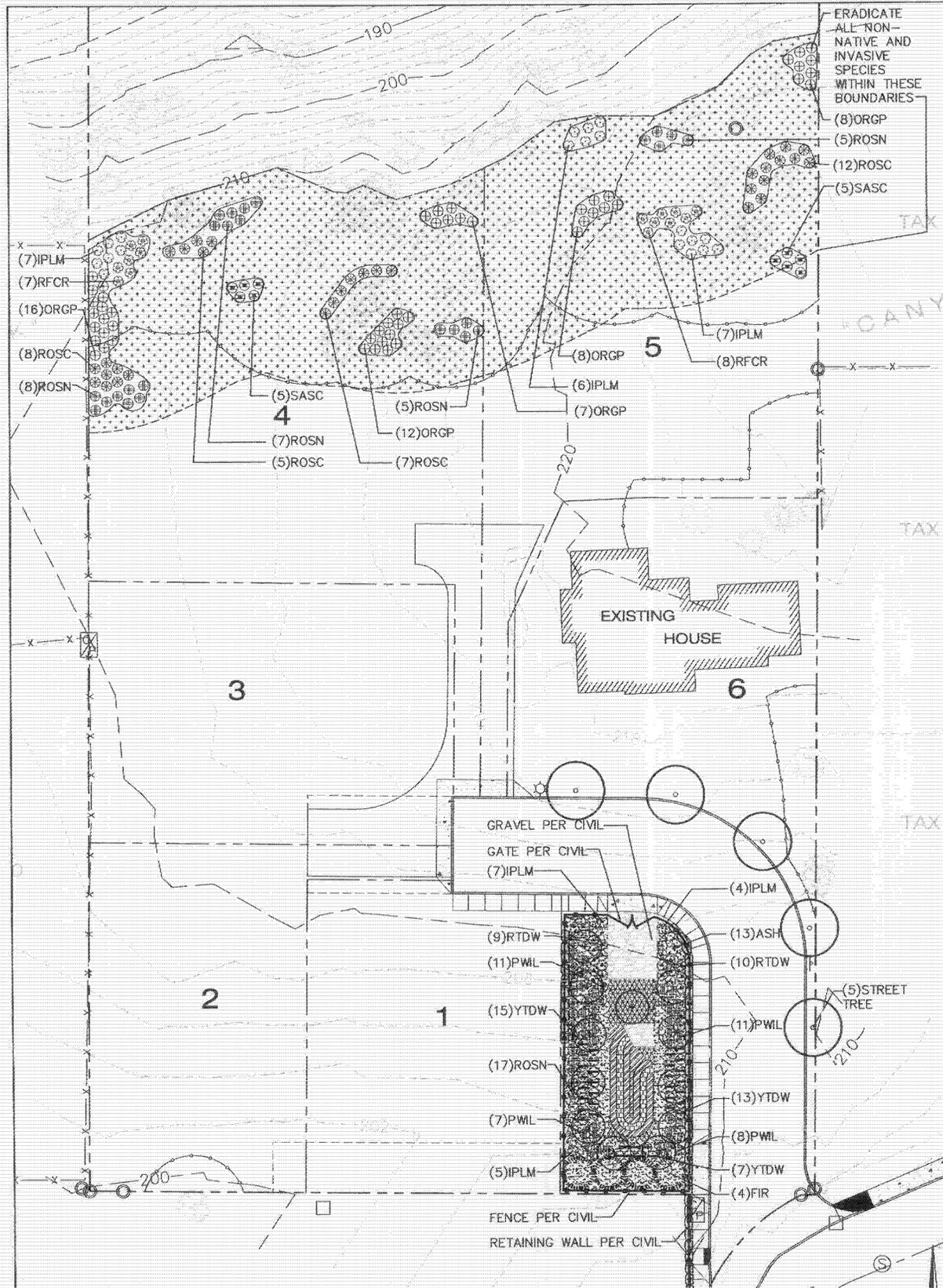


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NO.	DATE	REVISION	BY
1	03-7-11	AS-BUILTS	MH

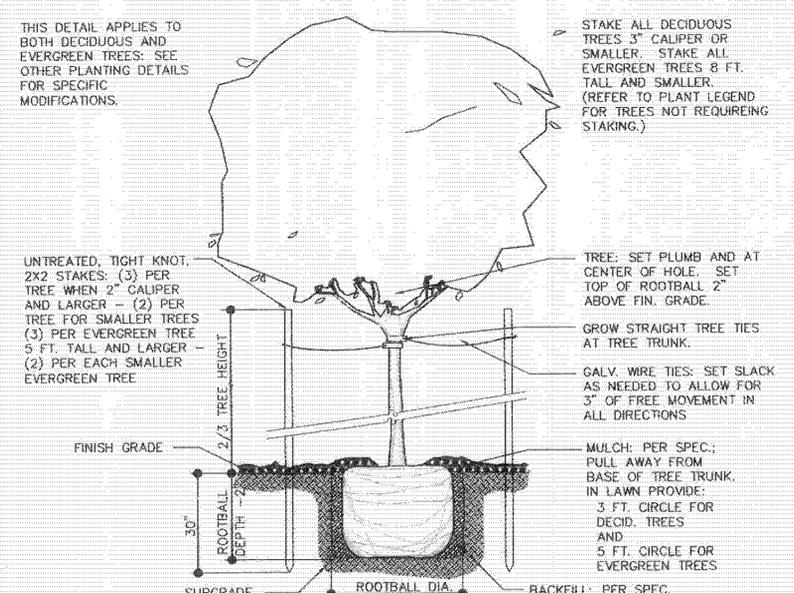
DESIGNED BY	DATE	2010
DRAWN BY	DATE	2010
REVIEWED BY	DATE	2010
PROJECT NO.	267-001	REF.
SCALE	1/4" = 1'	N/A

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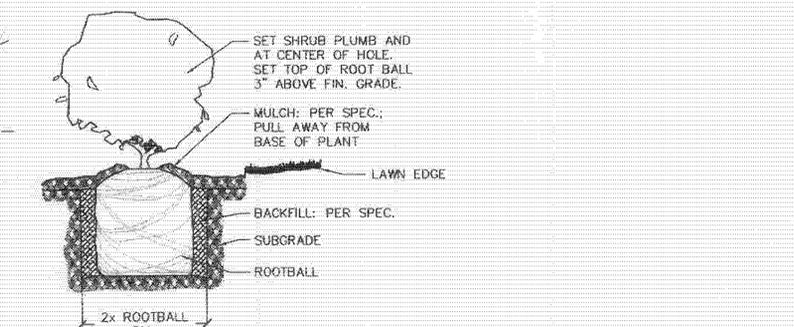


PLANT MATERIAL LEGEND

symbol	tag	common name/botanical name: size and comments (quantity)
(+)	ASH	OREGON ASH/FRAXINUS LATIFOLIA: 1" CALIPER (13)
(●)	FIR	DOUGLAS FIR/PSEUDOTSUGA MENZIESII: 6' HGT. (4)
(○)	STREET TREE	SCANLON RED MAPLE/ACER RUBRUM 'SCANLON': 1 1/2" CALIPER, 30' O.C. MIN. (5)
(⊕)	IPLM	INDIAN PLUM/OEMLERIA CERASIFORMIS: 1 gallon (36)
(⊕)	ORGP	OREGON GRAPE/MAHONIA AQUIFOLIUM: 1 gallon (51)
(⊕)	PWIL	PACIFIC WILLOW/SALIX LUCCIDA (ssp.) LASIANDRA: 1 gallon (37)
(⊕)	RFCR	RED FLOWERING CURRANT/RIBES SANGUINEUM: 1 gallon (15)
(⊕)	ROSC	CLUSTERED WILD ROSE/ROSA PISOCARPA: 1 gallon (32)
(⊕)	ROSN	NOOTKA ROSE/ROSA NUTKANANA: 1 gallon (42)
(⊕)	RTDW	RED TWIG DOGWOOD/CORNUS STOLONIFERA: 1 gallon (19)
(⊕)	SASK	SASKATOON/AMELANCHIER ALNIFOLIA: 1 gallon (10)
(⊕)	YTDW	YELLOW TWIG DOGWOOD/CORNUS SERICEA 'FLAVRAMEA': 1 gallon (35)
(■)		SLOUGH SEDGE/CAREX OBNUPTA: 4" POTS, 12" O.C., LINE AREA WITH 2"-4" RIVER STONE (26)
(■)		SOFT RUSH/JUNCUS EFFUSUS: 4" POTS, 12" O.C.: (67)
(■)		TUFTED HAIR GRASS/DESCHAMPSIA CESPIIOSA: 1 gallon, 24" O.C.: (22)
(■)		WET AREA SEED: "NATIVE WATERQUALITY MIX", "SUNMARK SEEDS" (503)241-SEED. APPLY AT 3LB./1000SF
(■)		NATIVE SEED MIX: "NATIVE EC MIX", "SUNMARK SEEDS" (503)241-SEED. APPLY AT 3LB./1000SF
(—)		TREE PROTECTION FENCE



2 TYPICAL TREE DETAIL
N.T.S. (DP 0003A)



3 TYPICAL SHRUB DETAIL
N.T.S. (DP 0001A)

- LANDSCAPE SPECIFICATION NOTES:**
- PRIOR TO BEGINNING WORK, LOCATE ALL EXISTING UTILITIES AND UNDERGROUND IMPROVEMENTS. TAKE MEASURES NEEDED TO PREVENT DAMAGE AND DISTURBANCE.
 - PRIOR TO AND DURING THE COURSE OF WORK EXAMINE THE SITE AND TAKE NOTICE OF ANY CONDITIONS WHICH ARE AT A VARIANCE FROM DRAWINGS, WHICH MAY INTERFERE WITH COMPLETION OF WORK, AND WHICH MIGHT BE DELETERIOUS TO PLANT INSTALLATION, GROWTH, AND VIGOR. DO NOT PROCEED WITH WORK UNTIL ADVERSE CONDITIONS HAVE BEEN REMEDIED. PROCEEDING WITH WORK PLACES THE FULL RESPONSIBILITY OF THE CONSEQUENCES AND THE REQUIREMENT FOR FUTURE REMEDIAL ACTION, WITHOUT ADDITIONAL COST TO THE OWNER, SOLELY ON THE CONTRACTOR.
 - ERADICATE ALL INVASIVE AND NON-NATIVE SPECIES FROM SITE.
 - PROVIDE 3 INCH DEEP (SETTLED) LAYER OF MEDIUM-TO-FINE GROUND FIR OR HEMLOCK BARK MULCH IN ALL SHRUB BEDS.
 - EXCAVATE PLANTING HOLES THE SAME DEPTH AND 2 TIMES THE DIAMETER OF THE ROOT BALL. PLACE SHRUB IN HOLE. BACKFILL HOLE WITH A BLENDED MIX OF 2/3 NATIVE SOIL AND 1/3 ORGANIC AMENDMENT. PROVIDE 3 INCH DEEP MULCH WITHIN 3 FOOT DIAMETER OF EACH SHRUB.
 - TILL TO LOOSEN SOIL IN WATER QUALITY DETENTION POND. ADD 3 INCHES OF ORGANIC AMENDMENT, AND TILL TO BLEND TO A DEPTH OF 6 INCHES.
 - PROVIDE PLANTS OF INDICATED SIZE AND TYPE. LARGER SIZES MAY BE PROVIDED AT NO ADDITIONAL COST TO OWNER. NO SUBSTITUTIONS ARE ALLOWED WITHOUT OWNER'S WRITTEN APPROVAL. THE OWNER HAS SOLE DISCRETION ON ACCEPTANCE AND REJECTION OF SUBSTITUTIONS.
 - PROVIDE TREES AND SHRUBS WITH TAGS IDENTIFYING THE COMMON AND BOTANICAL NAME. REMOVE THE TAGS AT THE TIME THE FINAL INSPECTION IS COMPLETED AND ALL WORK HAS BEEN ACCEPTED BY THE OWNER.
 - PROVIDE PLANTS WHICH ARE HEALTHY, FREE OF DAMAGE, DEFECTS, DISEASE, AND WEEDS. PLANTS SHALL BE WELL FORMED, SYMMETRICAL, AND FULL. TREES SHALL HAVE STRONG SINGLE CENTRAL LEADERS.
 - INSTALL PLANTS AS DETAILED.
 - COVER SEEDED AREAS WITH 1/2 INCH THICK LAYER OF FINE GROUND, GREEN DYED SEED MULCH.
 - FERTILIZER: PROVIDE A SLOW RELEASE FERTILIZER ("OSMOCOTE" 10-10-10) AT MANUFACTURERS RECOMMENDED RATE, INTO THE BACKFILL SOIL AROUND EACH PLANT IN THE WOODED AREA. PROVIDE A TOP DRESSING OF THE SAME FERTILIZER OVER THE TOP OF THE SOIL PRIOR TO PLACING MULCH.
 - NOTIFY THE OWNER AND ACCOMPANY THEM DURING INSPECTIONS AT THE FOLLOWING MILESTONES:
 - INSTALLATION ACCEPTANCE: WHEN ALL LANDSCAPE WORK IS IN-PLACE, COMPLETE, AND FREE OF ALL SHORT COMINGS AND DEFECTS
 - FINAL ACCEPTANCE: 30 DAYS AFTER INSTALLATION ACCEPTANCE.
 - PROVIDE A ONE YEAR WARRANTY, FROM THE DATE OF FINAL ACCEPTANCE FOR ALL PLANTS. PROVIDE REPLACEMENTS FOR ALL PLANTS WHICH ARE NOT HEALTHY, VIGOROUS AND WELL FORMED. PROVIDE REPLACEMENTS WITHIN 5 WORK DAYS OF OWNER'S NOTICE, UNLESS APPROVED, IN WRITING, OTHERWISE BY OWNER. REPLACEMENTS SHALL BE AT LEAST THE SIZE OF ORIGINALLY PROVIDED PLANTS. PROVIDE A ONE YEAR WARRANTY FOR ALL REPLACEMENT PLANTS.
 - DO NOT STORE PLANT MATERIALS ON SITE. DELIVER TO SITE WHEN ALL CONDITIONS ARE READY FOR PLANTING. INSTALL WITHIN 8 HOURS OF DELIVERY.
 - PROVIDE ALL CARE AND MAINTENANCE FOR PLANTS FROM INSTALLATION TO FINAL ACCEPTANCE.
 - HAND WATER PLANTS AS NECESSARY DURING ESTABLISHMENT PERIOD TO MAINTAIN PLANT VIGOR.
 - HAND WATER, WEED, AND PERFORM OTHER MAINTENANCE TASKS AS REQUIRED TO ESTABLISH FULL COVERAGE, AND DENSE AND VIGOROUS PLANT GROWTH IN SEEDED AREAS.
 - KEEP PLANTING BEDS FREE OF WEEDS AND DEBRIS AT ALL TIMES. DO NOT 'CHOP' OFF TOP OF WEEDS. KILL AND REMOVE ALL ABOVE AND BELOW GROUND PORTIONS OF WEEDS. PLANTS WHICH ARE FOUND TO HAVE BEEN BROUGHT IN WITH WEEDS IN THEIR ROOT BALLS ARE UNACCEPTABLE, THEY SHALL BE REMOVED AND REPLACED WITH WEED FREE PLANTS OF THE INDICATED TYPE AND SIZE.
 - AT THE TIME OF THE INSPECTION FOR FINAL ACCEPTANCE:
 - ALL PLANTS SHALL BE HEALTHY, VIGOROUS, WELL FORMED AND DEFECT FREE.
 - PLANTING AREAS SHALL BE WEED FREE
 - PLANTING AREAS SHALL BE SMOOTH, WELL GRADED, AND HAVE THE REQUIRED SOIL AND MULCH DEPTH.
 - ALL OTHER CONDITIONS AND MATERIALS SHALL BE SATISFACTORY TO OWNER.

1 LANDSCAPE PLANTING PLAN

SFA Design Group, LLC
STRUCTURAL CIVIL PLANNING SURVEYING
9020 SW Washington Square Dr. Suite 350
Portland, Oregon 97223
Ph: (503) 641-8311 Fax: (503) 643-7905
sfa@sfadesigngroup.com

PLANTING PLAN
DEBOK ESTATES
Clutter Properties, LLC
City of West Linn, Oregon

MURASE Associates
LANDSCAPE ARCHITECTURE
URBAN DESIGN
PLANNING
2712 N. Mississippi Ave
Portland, OR 97227
www.murase.com
P 503-242-1477
F 503-250-0946

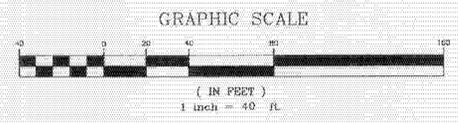
REGISTERED
374
JOE PERCIVAL
OREGON
LANDSCAPE ARCHITECT

NO	DATE	REVISION	BY

DESIGNED BY	J.P.	DATE	2/10
DRAWN BY	M.G.	DATE	2/10
REVIEWED BY	J.P.	DATE	2/10
PROJECT NO.	207-001	REF.	
SCALE	1" = 20'	V. N/A	



STREETLIGHTING DESIGN
 Scale: 1" = 40'-0"



LUMINAIRE SCHEDULE							
PROJECT: DEEBOK ESTATES							
QTY	LABEL	DESCRIPTION	WATTS	LUMENS	ARM	ARRANGEMENT	LLF
1	LP1-EXISTING STREETLIGHT	HPS, 'TOWN AND COUNTRY' STYLE, LUMINAIRE MOUNTED ON A 16" WOOD POLE	70,100	6500	0	SINGLE	0.690
2	LP2-PROPOSED STREETLIGHT	HPS, 'COBRA' STYLE, FLAT LENS LUMINAIRE MOUNTED ON A 25" FIBERGLASS POLE	70,100	6500	6	SINGLE	0.690
1	LP3-REPLACE FIXTURE	HPS, 'TOWN AND COUNTRY' STYLE, LUMINAIRE MOUNTED ON AN EXISTING 16" WOOD POLE	70,100	16000	0	SINGLE	0.690

NUMERIC SUMMARY							
PROJECT: DEEBOK ESTATES							
LABEL	CALC TYPE	UNITS	AVG	MAX	MIN	AVG/MIN	MAX/MIN
PRIVATE STREET	ILLUMINANCE	Fc	0.44	1.80	0.10	4.40	18.00
WISTERIA COURT	ILLUMINANCE	Fc	0.77	3.40	0.20	3.85	17.00
INTERSECTION	ILLUMINANCE	Fc	0.86	3.80	0.20	4.30	19.00

APPROVED FOR CONSTRUCTION BY
 CITY OF WEST Linn
 This approval is only for general compliance with the design concept and general compliance with applicable codes and requirements and shall not be construed as relieving the Design Engineer of full responsibility for accuracy and completeness of the drawings. This plan review approval does not prevent the City Inspector from requiring further code corrections in the field.
 DATE: 7/26/10 BY: [Signature] ENGINEERING
 DATE: [Signature] BY: [Signature] PLUMBING

Northstar Electrical Contractors
 19450 S.W. Cipole Road, Suite 107
 Tualatin, Oregon 97062-7111
 Phone 503-612-0840
 Fax 503-612-0891
 Email: Itgdesign@NorthStarElect.com



DEBOK
 ESTATES
 West Linn, OR

REV DATE	NO.	REV DESCRIPTION

Title: STREETLIGHTING
 Designed by: Chris Pelser
 Checked by: Ken Murphy
 Date: July 26, 2010

DWG. NO
EL1