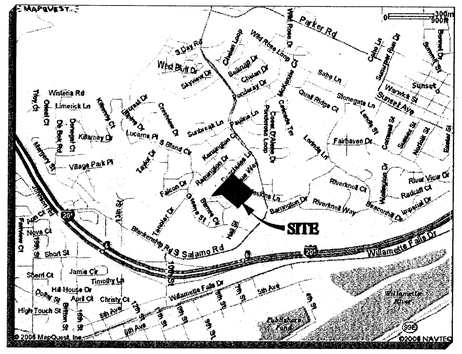
DOUGLAS PARK

AS-BUILT
DATE JMK 7-25-08

A 32-LOT PLANNED DEVELOPMENT OF TAX MAP 21E 35AC, TAX LOTS 200, 300 AND 400



VICINITY MAP
N.T.S.

APPLICANT/OWNER:

DOUGLAS PARK, LLC
1980 WILLAMETTE FALLS DR, SUITE 200
WEST LINN, OR 97068
PHONE (503)657-0406 / FAX (503)655-5591
CONTACT: MARK HANDRIS

PLANNING/ENGINEERING:

SFA DESIGN GROUP, LLC
9020 WASHINGTON SQUARE RD, SUITE 350
PORTLAND, OR 97223
PHONE (503)641-8311 / FAX (503)643-7905
CONTACT: MATTHEW SPRAGUE / BRENT FITCH

SURVEYING:

GAYLORD LAND SURVEYING, INC
2910 SE OAK GROVE BLVD
MILWAUKIE, OR 97267
PHONE (503)654-1492 / FAX (503)654-7878
CONTACT: PAT GAYLORD

SITE INFORMATION:

AREA:	9.06 ACRES
ZONING:	R-10
TAX MAP:	T2S R1E SEC 35AC
EXISTING TAX LOTS:	200, 300 AND 400
PROPOSED # OF LOTS:	32
JURISDICTION:	CITY OF WEST LINN

BENCHMARK:

TEMPORARY BENCHMARK DATUM -
ELEVATIONS ARE TIED TO OSHD BENCHMARK
K631, NGVD 29

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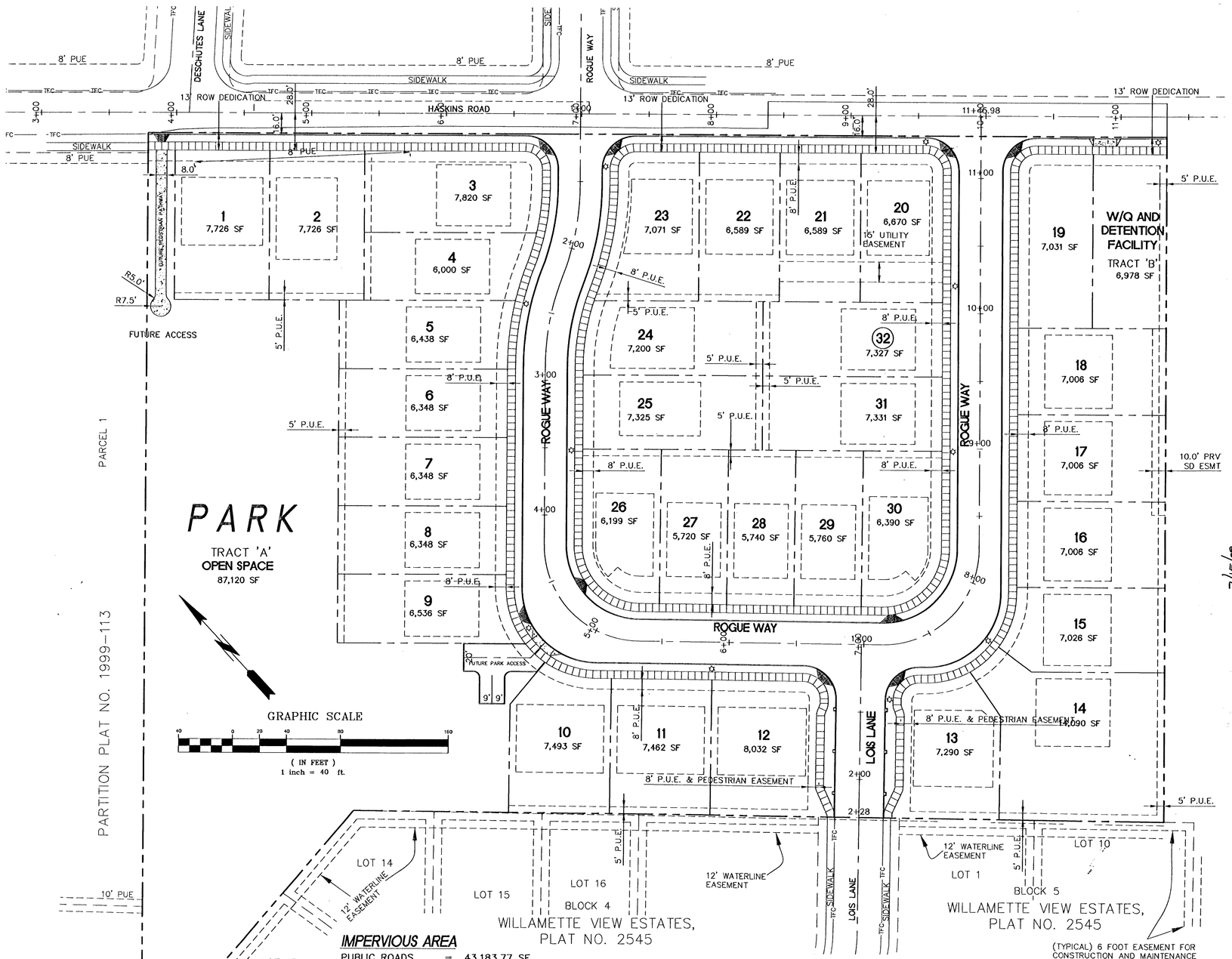

IMPERVIOUS AREA

PUBLIC ROADS	=	43,183.77 SF
PRIVATE PROPERTY	=	84,480.00 SF
TOTAL	=	127,663.77 SF

REPAIR EMERGENCIES

NORTHWEST NATURAL GAS	– 800-882-3377
PORTLAND GENERAL ELECTRIC	– 503-464-7750
QWEST	– 800-573-1311
VERIZON	– 800-483-1000
CITY OF WEST LINN	– 503-722-5501
CITY OPERATIONS	– 503-656-6081

THE CONTRACTOR, IN LOCATION AND PROTECTING UNDERGROUND UTILITIES, MUST COMPLY WITH THE REGULATIONS OF O.R.S. 757.541 TO 757.571.

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
CABLE TV	–	COMCAST

LOCATES (48 HOURS NOTICE REQUIRED)

ONE CALL SYSTEM – 246-6699
(GENERAL TELEPHONE, NORTHWEST NATURAL GAS, PORTLAND GENERAL ELECTRIC)
CABLE TELEVISION – TCI – 246-6699

CALL BEFORE YOU DIG 503-232-1987

SFA Design Group, LLC
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sfadesigngroup.com

TITLE SHEET
DOUGLAS PARK

REGISTERED PROFESSIONAL ENGINEER — OREGON — BRENT E. FITCH — 7/15/09 — VALID THROUGH 12-31-09

NO.	DATE	REVISION	BY

DESIGNED BY DBB DATE 6-1-07
DRAWN BY DBB DATE 6-1-07
REVIEWED BY BEF DATE 6-1-07
PROJECT NO. 105-016 REF.
SCALE HORZ. 1"=40' VERT. N/A
105-016TITLE.dwg

SHEET 1 OF 22

PROJECT DOUGLAS PARK
NO. 105-016
TYPE ASBUILT

WEST LINN PLANNING COMMISSION

FINAL DECISION NOTICE

SUB-06-09/ZC-06-08/VAR-06-07

IN THE MATTER OF THE PROPOSAL OF A 32-LOT SINGLE-FAMILY PUD WITH A VARIANCE FOR FLOOR AREA RATIO AT 3000-3170 HASKINS ROAD

At their meeting of April 5, 2006, the West Linn Planning Commission held a public hearing to consider the request by Douglas Park, LLC to approve a PUD subdivision at 3000-3170 Haskins Road. The proposal would result in the conversion of mostly undeveloped land with two existing homes into a subdivision with 32 lots, each containing a new single family home, and open space proposed to become a City park upon sale to the City. A variance to change the maximum floor area ratio (FAR) from .45 to .55 for 20 of the lots was also requested by the applicant. The approval criteria for the PUD aspects of the subdivision are found within Chapter 24 of the Community Development Code (CDC), and the land division approval criteria are found within Chapter 85 of the CDC. The variance criteria are found within Chapter 75 of the CDC. The hearing was conducted pursuant to the provisions of CDC, Chapter 99.

The hearing commenced with a staff report presented by Tom Soppe, Associate Planner. The applicant provided a presentation, represented by Matt Sprague of SFA Design Group and Michael Robinson of Perkins Coie. Ken Worcester of the City of West Linn Parks and Recreation Department also spoke, regarding the proposal to sell the open space areas proposed on site to his Department for a park. Testifying in favor of the proposal were Shanna Sechrist, Diane Wustrack, Kevin Sullivan, and Holly Miller. Testifying neither for nor against the proposal were Brian Kleiner (reading testimony from Valerie Baker) and Ian Kyles. Testifying in opposition were Ken Pryor and David Rittenhouse, both speaking on behalf of Tanner Basin Neighborhood Association. Also speaking in opposition was Lynn Fox. The applicant's rebuttal was provided by Mr. Robinson, Mr. Sprague, and Herb Koss of Douglas Park, LLC.

The Commission voted to continue the application until another special meeting on April 19, 2007, with an extension of the 120 days to June 21, 2007, as agreed to by the applicant.

At the April 19 meeting, Commissioner Babbitt noted that during his campaign for City Council, he had received campaign contributions from an organization to which Mr. Koss belonged, but did not feel this would bias his decision and therefore did not recuse himself.

Chair Jones re-opened the hearing with a staff report by Mr. Soppe. Mr. Sprague and Mr. Robinson again presented on behalf of the applicant. Mr. Worcester again testified representing the Parks and Recreation Department. Testifying in support were Dale Blanchard and Jerry Offer, both representing the City of West Linn Parks and Recreation Board. Also testifying in support were Jim Sechrist, Mr. Sullivan, Ms. Miller, Brooke Johnson, Ken Chappuis, Ms.

Wustrack, Karl Wustrack, Alice Richmond, and Ms. Baker. Speaking in opposition were Edward and Roberta Schwarz. Speaking neither for nor against was Ms. Fox. Mr. Sprague and Mr. Robinson provided the applicant's rebuttal.

A motion was made by Commissioner Babbitt and seconded by Commissioner Bonoff to approve the application with the following additional findings and with the following final conditions of approval:

Additional Findings

1. Due to the unusually high percentage of trees to be removed from the site, mitigation beyond what has been proposed by applicant and staff is needed.

2. The size of the 14 smallest lots, which is a result of the applicant's proposed sale of two acres of the site to the Parks and Recreation Department, represents enough of an unusual and extraordinary circumstance to justify the applicant's requested FAR variance.

Final Conditions of Approval

1. The mitigation plan proposed to replace significant trees scheduled for removal from home sites and right of way placement areas shall be submitted to the city arborist for approval.

2. For the significant trees for which the applicant proposes to preserve only part of the dripline + 10 area, the City arborist shall analyze these areas to determine the estimated damage these trees will endure due to development within these areas. Any trees determined to be unlikely to survive damage due to development in their dripline + 10 areas shall be removed and replaced on a 2-inch-to-1-inch basis based on the 1-to-1 system as explained in CDC 55.100(B)(2)(f).

3. Prior to commencement of any site clearing or grading, the applicant shall place anchored and secured chain link fencing around the dripline + 10 areas of trees to be preserved (or the portions to be preserved of the dripline + 10 for trees for which the entire dripline + 10 cannot be preserved due to home or ROW placement). The City arborist shall inspect and approve this location prior to the start of work. The fencing shall remain in place throughout the development of the site and construction of the homes, to be removed only upon the completion of all construction activity.

4. All public improvements shall be constructed in conformance to City of West Linn Public Works Design and Construction Standards.

5. The applicant shall make a proportional contribution, based on PM peak hour trips generated, towards future signal installation at the Salamo/Rosemont/Santa Anita intersection, with the current amount of $1,072.00/peak hour trip as of 11/16/2004 inflation adjusted by ENR CCI at time of building permit issuance.

6. Seventy percent of the trees to be removed for the right of ways in accordance with CDC 55.100(B)(2)(f) shall be mitigated at a 2-to-1 basis with no maintenance fee. Priority for mitigations shall be on-site plantings, with locations to be determined by the applicant and the City Arborist. Off-site plantings, if necessary, shall be determined by the City Arborist and the Parks Director.

The motion to approve the application with these additional findings and with these final conditions of approval was supported by commissioners Martin, Babbitt, Bonoff, and Wittenbrink. Commissioner Kovash abstained.

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 $400 and a completed appeal application form together with the specific grounds for appeal to the Planning Director prior to the appeal-filing deadline.

Michael E. Jones 7/26/07

MICHAEL JONES, CHAIR — DATE

WEST LINN PLANNING COMMISSION

Mailed this 2nd day of May, 2007.

Therefore, this decision becomes final at 5 p.m., May 16th, 2007.

Devrew/Finaldecisions/SUB-06-09

(note to commissioners: Technically you voted to modify original condition 3 to include the 14 smallest lots in the variance. However, original condition 3 only ever existed to *limit* the variance to the 6 steep lots. The elimination of this condition therefore reverts to the variance as proposed by the applicant to include all 20 lots, which is what you were voting to support if I am not mistaken. So in this draft I have simply eliminated this condition [and renumbered accordingly] as this seems to most efficiently accomplish your intent of including the entire variance as proposed by the applicant. -Tom)

AS-BUILT

DATE JDK 7-25-08

SFA Design Group, LLC
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CONDITIONS OF APPROVAL

DOUGLAS PARK

REGISTERED PROFESSIONAL ENGINEER — OREGON — BRENT E. FOLTZ — 12-31-09

VALID THROUGH 12-31-09

NO.	DATE	REVISION	BY

DESIGNED BY DBB DATE 6-1-07
DRAWN BY DBB DATE 6-1-07
REVIEWED BY BEF DATE 6-1-07
PROJECT NO. 105-016 REF.
SCALE HORIZ: 1"=40' VERT: N/A
10316TTI.E.dwg

SHEET 1a OF 22

PROJECT DOUGLAS PARK
NO. 105-016
TYPE ASBUILT

GENERAL NOTES:

1. ALL CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE CITY OF WEST LINN CONSTRUCTION STANDARDS.
2. THE DESIGN ENGINEER WILL BE RESPONSIBLE FOR INSPECTION OF THE PROPOSED IMPROVEMENTS WITH OVER SIGHT FROM CITY'S PUBLIC WORKS AND ENGINEERING STAFF.
3. A WORK SCHEDULE WILL BE REQUIRED FROM THE CONTRACTOR SO THAT THE ENGINEER CAN HAVE AN INSPECTOR ONSITE 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.
4. THE CONTRACTOR IS TO RECEIVE THE APPROVAL OF THE ENGINEER OF ANY PROPOSED CHANGES TO THE PLANS OR STANDARD REQUIREMENTS.
5. A BUILDING DEPARTMENT PLUMBING PERMIT IS REQUIRED FOR UTILITIES BEYOND THE FIRST CLEANOUT OR METER ON PRIVATE PROPERTY.
6. A PRE-CONSTRUCTION MEETING WITH THE CITY OF WEST LINN IS REQUIRED PRIOR TO BEGINNING CONSTRUCTION. PRIOR TO SITE CLEARING, CONSTRUCTION "SNOW" FENCING SHALL BE PLACED AROUND TREES TO BE PRESERVED 10 FEET BEYOND THE DRIPLINE OF THE TREES AND SHALL REMAIN IN PLACE THROUGHOUT THE INFRASTRUCTURE IMPROVEMENTS.
7. ALL PUBLIC IMPROVEMENTS SHALL BE IN PLACE AND ACCEPTED PRIOR BY THE CITY PRIOR TO ANY FINAL PLAT RECORDING AND ISSUANCE OF BUILDING PERMITS.
8. ALL PEDESTRIAN RAMPS SHALL MEET ADA REQUIRMENTS.

WATER SUPPLY:

1. WATER MAINS SHALL BE DUCTILE IRON PIPE CONFORMING TO AWWA C151 CLASS 52. PIPE IS TO HAVE CEMENT MORTAR LINING AND BITUMINOUS SEAL COAT CONFORMING TO AWWA C104. JOINTS ARE TO BE PUSH-ON JOINT. PIPE FITTINGS ARE TO BE OF THE SAME MATERIAL AND CLASS AS PIPE AND OF DOMESTIC ORIGIN.
2. WATER MAINS TO HAVE A MINIMUM COVER OF 36".
3. THRUST BLOCKS ARE TO BE PROVIDED AT ALL CHANGES IN DIRECTION AND BRANCHES. THRUST BLOCKING CONCRETE STRENGTH IS TO BE 3000 PSI MIN. SEE DETAILS FOR THRUST BLOCK SIZING. POUR THRUST BLOCKS AGAINST UNDISTURBED EARTH. ALL THRUSTS BLOCKS SHALL BE INSPECTED BY THE CITY PRIOR TO POURING AND PRIOR TO BACKFILLING.
4. GATE VALVES SHALL BE A DOUBLE DISC TYPE CONFORMING TO AWWA C500. BUTTERFLY VALVES SHALL BE CLASS 150 B SHORT BODY TYPE IN CONFORMANCE WITH AWWA C504. VALVE BOXES SHALL BE RICH MODEL 925 OR EQUAL.
5. FIRE HYDRANTS SHALL CONFORM TO AND SHALL BE INSTALLED IN ACCORDANCE WITH CITY STANDARDS. PUMPER OUTLET IS TO FACE THE DIRECTION OF ACCESS.
6. GRANULAR BACKFILL IS TO BE COMPACTED TO 95% MAXIMUM DRY DENSITY PER AASHTO T-180 TEST METHOD AND NATIVE MATERIAL SHALL BE COMPACTED TO 85% 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.
7. 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 #31. METER BOXES ARE TO BE INSTALLED 3/4" ABOVE FINISH GRADE. REFER TO STANDARD DETAIL WL-402.
8. ALL WATERLINES SHALL PASS ALL TESTS PER CITY OF WEST LINN CONSTRUCTION STANDARDS PRIOR TO ACCEPTANCE. PRESSURE TEST SHALL BE CONDUCTED AT 180psi FOR 1 HOUR WITH NO LOSS.
9. (NOT USED)
10. 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.
11. A PLUMBING PERMIT FROM THE CITY OF WEST LINN BUILDING DEPARTMENT IS REQUIRED FOR SERVICE LATERAL INSTALLATIONS BEYOND THE WATER METER.
12. 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.

STREETS:

1. NEW STREET SECTIONS ARE TO BE CLEARED OF ALL SURFACE VEGETATION AND OTHER MISCELLANEOUS STRUCTURES OR MATERIALS. GRUB IMPROVEMENT AREAS TO REMOVE ALL BURIED VEGETATIVE MATTER AND DEBRIS TO A DEPTH OF 8" BELOW SUBGRADE. PROPERLY DISPOSE OF ALL WASTE MATERIAL.
2. 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.
3. 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 10 YARD DUMP TRUCK OF THE SUBGRADE PRIOR 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.
4. 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 #5. THE TOP LIFT OF ASPHALT CONCRETE SHALL NOT BE PLACED PRIOR TO RECEIVING PERMISSION FROM THE CITY OF WEST LINN ENGINEERING DEPARTMENT.
5. CONSTRUCT CURB AND GUTTER USING CLASS 'A' 3300 PSI CONCRETE WITH MAXIMUM 1 1/2" AGGREGATE SIZE. CONTRACTION JOINTS AT 15' MAXIMUM ON CENTERS. THREE INCH WEEPHOLES ARE TO BE INSTALLED ON ALL LOTS UPHILL OR EVEN WITH THE STREET. GENERALLY WEEPHOLES SHALL BE LOCATED AT THE CENTER AND LOWEST EDGE OF CURB FOR EACH LOT. 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) OR A (W).
6. ALL MATERIALS, INSTALLATION, TESTS, AND INSPECTIONS TO BE IN STRICT ACCORDANCE WITH CITY OF WEST LINN STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND THE SUPPLEMENTAL STANDARDS AND SPECIFICATIONS OF THE CITY OF WEST LINN STREET/UTILITY DESIGN AND CONSTRUCTION STANDARDS.
7. 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.
8. THE ASPHALT MUST MEET A DENSITY OF 92%.
9. DUE TO STEEP STREET GRADES, ALL HOMES MUST BE EQUIPPED WITH SPRINKLERS.

UTILITIES:

1. IF NOT NOTED ON THE PLANS UTILITY INFORMATION AND CROSSING LOCATIONS WILL HAVE TO BE OBTAINED FROM THE UTILITIES.
2. UTILITY CONTACTS ARE AS FOLLOWS:

   PGE – CINDY MANSELLE, 650-1411;
   COMCAST – JAMIE STENCIL, 243-7497,
   U.S. WEST COMMUNICATIONS – JACKIE LOLLAR 242-8496.

SANITARY SEWER:

1. PIPE SHALL BE PVC SEWER PIPE CONFORMING TO ASTM D-3034-SDR 35. MINIMUM STIFFNESS SHALL BE 46 PSI AND JOINT TYPE SHALL BE ELASTOMERIC GASKET CONFORMING TO ASTM D-3212.
2. MANHOLE BASE SHALL BE PRECAST CONCRETE BASE WITH A MINIMUM COMPRESSIVE STRENGTH OF 3000 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 MANHOLE BY MEANS OF AN ELASTOMERIC GASKET, AN APPROVED WATERSTOP, OR FLEXIBLE SLEEVE. CEMENT GROUT FOR CONNECTING PVC SEWER PIPE TO MANHOLE WILL NOT BE PERMITTED.
3. 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.
4. 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 MATCH DOWNSTREAM PIPE DIAMETER.
5. GRANULAR BACKFILL IS TO BE COMPACTED TO 95% MAXIMUM DRY DENSITY PER AASHTO T-180 TEST METHOD AND NATIVE MATERIAL SHALL BE COMPACTED TO 85% OF IN-PLACE DENSITY OF SURROUNDING SOIL.
6. 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 PLUGGED 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.
7. SANITARY SEWER PIPE AN APPURTENANCES SHALL BE TESTED FOR LEAKAGE IN ACCORDANCE WITH APWA DIVISION III REQUIREMENTS. LEAKAGE TESTS WILL INCLUDE REQUIRED APWA AIR PRESSURE TEST FOR SEWER LINES AND REQUIRED APWA VACUUM TEST OF MANHOLES. ALL PVC PIPE SHALL BE TESTED FOR DEFLECTION. DEFLECTION SHALL BE TESTED WITH A MANDREL EQUAL TO 95% OF THE PIPE SIZE BEING TESTED. IN ADDITION, SEWER LINES SHALL BE VIDEO INSPECTED BY THE CONTRACTOR PER APWA, DIVISION III, SECTION 303.3.11. ALL TESTS SHALL BE WITNESSED BY THE ENGINEER AND THE CITY OF WEST LINN.
8. A PLUMBING PERMIT FROM THE CITY OF WEST LINN BUILDING DEPARTMENT IS REQUIRED FOR SANITARY SEWER LATERALS BEYOND THE FIRST CLEANOUT.
9. ALL MATERIALS, INSTALLATION, TESTS, AND INSPECTIONS TO BE MADE IN STRICT ACCORDANCE WITH 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:

1. PIPE 24" OR LESS, SHALL BE SEAMLESS PVC PIPE CONFORMING TO ASTM F794. (PW RIB).
2. GUTTER INLETS SHALL BE POURED IN-PLACE CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI. FRAME SHALL BE FABRICATED OF STRUCTURAL STEEL, ASTM A-7, A-36, A-273.
3. 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.
4. 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.
5. 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 MATCH DOWNSTREAM PIPE DIAMETER.
6. GRANULAR BACKFILL IS TO BE COMPACTED TO 95% MAXIMUM DRY DENSITY PER AASHTO T-180 TEST METHOD AND NATIVE MATERIAL SHALL BE COMPACTED TO 85% OF IN-PLACE DRY DENSITY OF SURROUNDING SOIL.
7. RIPRAP WHERE NOTED ON THE PLANS IS TO BE CLASS 50 IN ACCORDANCE WITH OREGON STATE HIGHWAY DIVISION SPECIFICATION 714.
8. STORM DRAINS SHALL BE TESTED FOR DEFLECTION WITH A MANDREL EQUAL TO 95% OF THE PIPE SIZE BEING TESTED. IN ADDITION, STORM LINES SHALL BE VIDEO INSPECTED BY THE CONTRACTOR PER APWA, DIVISION III, SECTION 303.3.11. ALL TESTS SHALL BE WITNESSED BY THE ENGINEER.
9. A PLUMBING PERMIT FROM THE CITY OF WEST LINN BUILDING DEPARTMENT IS REQUIRED FOR STORM DRAINS BEYOND THE FIRST CLEANOUT.
10. A BACKWATER CHECK VALVE SHALL BE INSTALLED ON THE 4" ROOF DRAIN SERVICE TO ANY LOT THE HAS THE END OF ITS ROOF DRAIN STUB LOCATED BELOW THE DETENTION OVERFLOW ELEVATION. THESE CHECK VALVES SHALL BE A CANPLAS 3284 4" ABS VALVE OR OTHER EQUAL LOW PRESSURE VALVE.
11. 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 CITY OF WEST LINN STREET/UTILITY DESIGN AND CONSTRUCTION STANDARDS.

EROSION CONTROL SUMMARY:

1. THE INTENT OF THE REQUIREMENT IS TO PREVENT SILTATION FROM REACHING STORM DRAIN SYSTEMS AND DRAINAGE WAYS.
2. 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) RIPRAP EXITS FROM ALL CULVERTS AND STORM DRAIN PIPES DRAINING INTO THE DITCHES OR SWALES. RIPRAP IS TO BE CLASS 50 RIPRAP 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 SEEDED AREAS SHOW GROWTH SUBSTANTIAL TO PREVENT EROSION.

GENERAL:

1. 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.)
2. 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.
3. 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.
4. 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.
5. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.
6. 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.
7. 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 DOWNSTREAM SYSTEM.
8. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING 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 GRADING AND EROSION CONTROL:

1. CLEAN WASTE MATERIAL EXCAVATED FROM ROAD CUT OR TRENCHING AREAS NOT USED IN STREET FILL AREAS MAY BE SPREAD EVENLY ACROSS LOT AREAS IN DEPTHS NOT TO EXCEED SIX INCHES, EXCEPT WHERE NOTED OTHERWISE ON THE PLANS.
2. DURING CONSTRUCTION, STRAW BALES, CUTOFF TRENCHES OR SOME OTHER METHOD OF RUNOFF CONTROL SHALL BE USED TO PREVENT EROSION AND/OR SILTATION FROM CROSSING OUTSIDE THE WORK AREA BOUNDARIES.
3. LARGE ORGANIC MATERIAL, MISCELLANEOUS PIPE OR CONSTRUCTION MATERIAL MUST BE REMOVED FROM THE SITE AND DISPOSED OF PROPERLY.
4. NO FILLING OR CUTTING SHALL BE DONE OUTSIDE OF APPROVED GRADING AREAS.
5. ALL EROSION CONTROL FACILITIES SHALL MEET THE REQUIREMENTS OF THE CLACKAMAS COUNTY DEPARTMENT OF UTILITIES, EROSION PREVENTION AND SEDIMENT CONTROL PLANS TECHNICAL GUIDANCE HANDBOOK (ECTGH), REVISED AUGUST, 1994; CHAPTER 31 OF THE COMMUNITY DEVELOPMENT CODE; AND THE OREGON ADMINISTRATIVE RULES.

SEEDING/MULCHING:

1. 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.
2. RECOMMENDED SEED MIXTURE: 80% ELKA DWARF PERENNIAL RYEGRASS AND 20% CREEPING RED FESCUE, BY WEIGHT. APPLICATION RATE SHALL BE 100 POUNDS MINIMUM PER ACRE.
3. 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.
4. 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.
5. 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:

1. 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 SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP, AND BOTH ENDS SECURELY FASTENED TO THE POST.
2. 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.
3. 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.
4. 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.
5. SEDIMENT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
6. 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 JDK 7-25-08

SFA Design Group, LLC
STRUCTURAL | CIVIL | LAND USE PLANNING
9020 SW Washington Square Dr. Suite 350
Portland, Oregon 97223
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sfa

CONSTRUCTION NOTES
DOUGLAS PARK

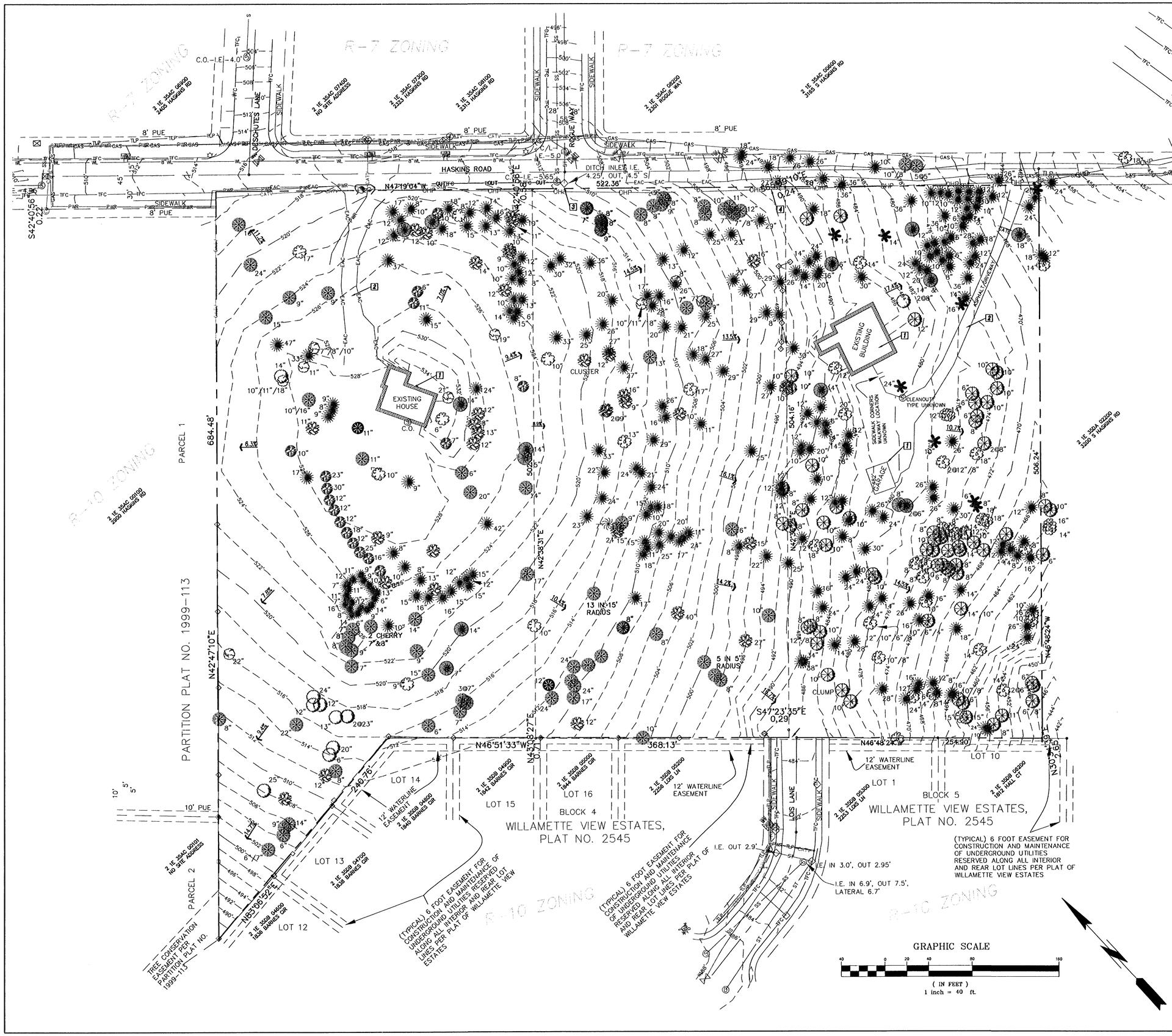
REGISTERED PROFESSIONAL ENGINEER, OREGON, BRENT E. ... — VALID THROUGH 12-31-09

NO.	DATE	REVISION	BY

DESIGNED BY DBB DATE 6-1-07
DRAWN BY DBB DATE 6-1-07
REVIEWED BY BEF DATE 6-1-07
PROJECT NO. 105-016 REF. ____
SCALE HORIZ: 1"=20' VERT: 1"=5'
10516NOTES.dwg

SHEET 2 OF 22

PROJECT DOUGLAS PARK
NO. 105-016
TYPE ASBUILT



LEGEND:

- = EXISTING FIRE HYDRANT
- = WATER VALVE (IRRIGATION VALVES = IWV)
- WL = WATER LINE
- = WATER METER
- = CATCH BASIN(UNLESS OTHERWISE NOTED) – INVERT DEPTH AS NOTED
- = UTILITY POLE GUY ANCHOR
- = UTILITY POLE
- PWR = UNDERGROUND POWER LINE
- TLP = UNDERGROUND TELEPHONE LINES/DUCTS
- CATV = UNDERGROUND TV / FIBER OPTIC CABLE
- EAC = EXISTING EDGE OF ASPHALTIC CONCRETE
- TFC = TOP FACE OF CURB
- = STREET LIGHT POLE
- = STORM SEWER MANHOLE / CLEANOUT (C.O.)
- ST = STORM SEWER LINE
- = TELEPHONE JUNCTION BOX
- = POWER JUNCTION BOX
- = POWER VAULT
- = STORM CLEANOUT (C.O.)
- = SANITARY SEWER MANHOLE / CLEANOUT (C.O.)
- SS = SANITARY SEWER LINE
- = GAS VALVE
- = GAS METER
- GAS = GAS LINE
- = EASEMENT BOUNDARIES
- GUT = GUTTER FACE OF EXTRUDED CURB
- OHP = OVERHEAD POWER
- = CABLE T.V. JUNCTION BOX
- 16.7% = EXISTING SLOPE
- = CEDAR TREE
- = MAPLE TREE
- = BIRCH TREE
- = COTTONWOOD TREE
- = FRUIT TREE (SIZE AS NOTED)
- = FIR TREE
- = OAK TREE
- = SPRUCE TREE
- = HAWTHORN TREE
- = MADRONE TREE
- = LOCUST TREE
- = ASH TREE
- = WILLOW TREE
- = PINE TREE
- = MAGNOLIA TREE
- = HOLLY TREE
- = DECIDUOUS TREE (TYPE UNKNOWN)

SIZED AS NOTED

- = TEMPORARY BENCH MARK DATUM – ELEVATIONS ARE TIED TO OSHD BENCHMARK K631, NGVD 29

NOTES

UTILITIES SHOWN BY THIS SURVEY REPRESENT THOSE WHICH ARE VISIBLE ABOVE GROUND OR FOR WHICH SOME MARKING WAS FOUND INDICATING UNDERGROUND UTILITIES. OTHER UNDERGROUND UTILITIES MAY EXIST.

DEMO NOTES

1. EXISTING STRUCTURES TO BE REMOVED.
2. EXISTING ASPHALT TO BE REMOVED.
3. EXISTING DITCH INLET TO BE REMOVED.
4. EXISTING OVERHEAD POWER LINES TO BE RELOCATED UNDERGROUND, COORDINATE WITH PGE.

AS-BUILT

DATE JDK 7-25-08

SFA Design Group, LLC
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EXISTING CONDITIONS
DOUGLAS PARK

REGISTERED PROFESSIONAL ENGINEER — OREGON — BRENT E. FITCH — VALID THROUGH 12-31-09

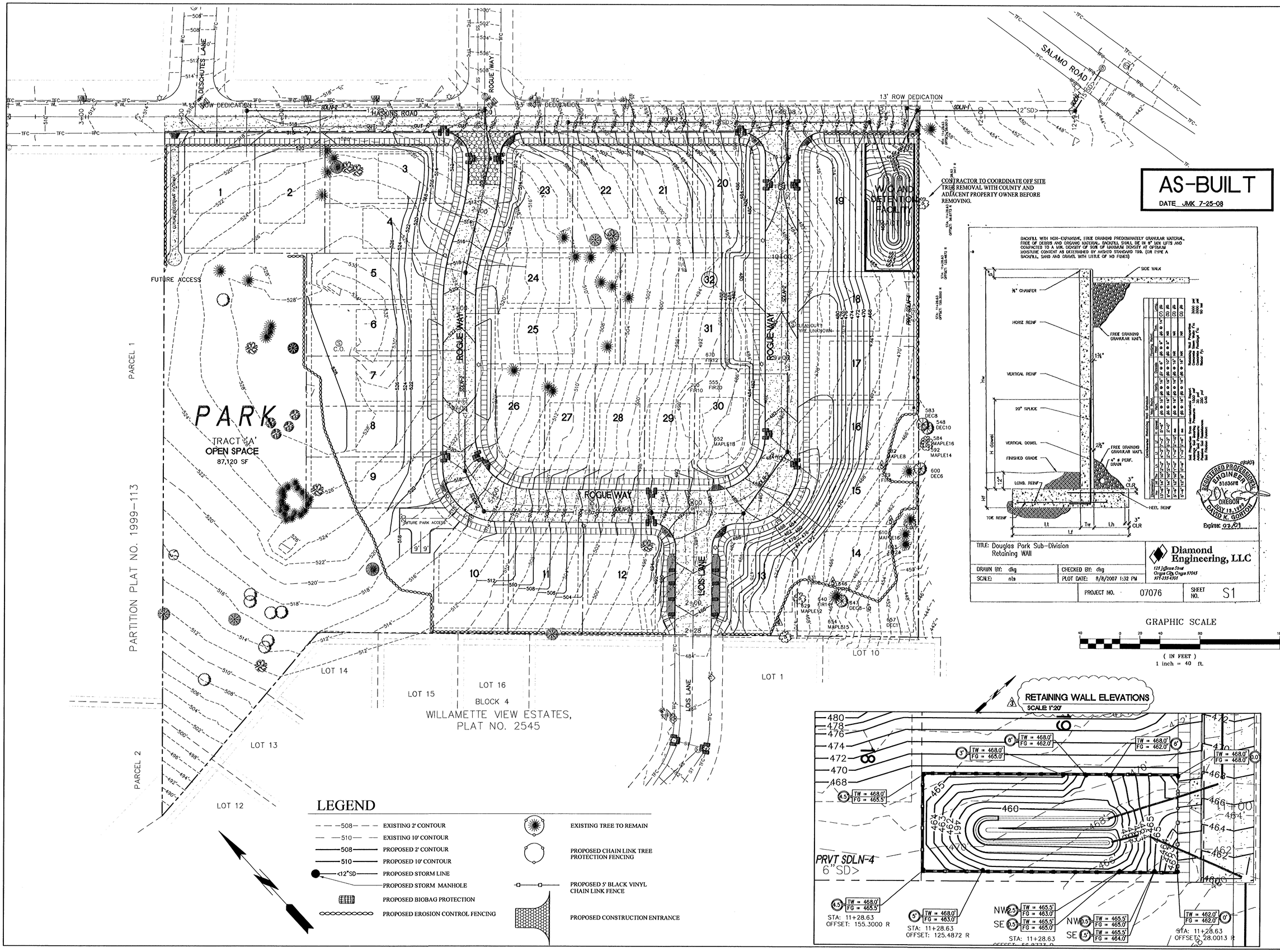
NO.	DATE	REVISION	BY

DESIGNED BY PS DATE 11/06
DRAWN BY PS DATE 11/06
REVIEWED BY MLS DATE 11/06
PROJECT NO. 105-016 REF.
SCALE HORZ: 1"=40' VERT: N/A
105XEXCD.dwg

SHEET 3 OF 22

PROJECT DOUGLAS PARK
NO. 105-016
TYPE ASBUILT

B:\Land Projects 2004\105-016\dwg\ASBUILT\10516_03EXCD.dwg, 7/25/2008 8:53:20 AM, sneilsen


AS-BUILT
DATE JMK 7-25-08
PARK
TRACT 'A'
OPEN SPACE
87,120 SF
PARCEL 1
PARCEL 2
PARTITION PLAT NO. 1999-113
WILLAMETTE VIEW ESTATES, PLAT NO. 2545
BLOCK 4
LOT 1
LOT 10
LOT 12
LOT 13
LOT 14
LOT 15
LOT 16
HASKINS ROAD
SALAMO ROAD
DESCHUTES LANE
ROGUE WAY
LOIS LANE
FUTURE ACCESS
FUTURE PARK ACCESS
W.Q. AND DETENTION FACILITY
TRACT 'B'
CONTRACTOR TO COORDINATE OFF SITE TREE REMOVAL WITH COUNTY AND ADJACENT PROPERTY OWNER BEFORE REMOVING.
13' ROW DEDICATION
PRVT SDLN-4
6"SD>
RETAINING WALL ELEVATIONS
SCALE 1"=20'
STA: 11+28.63 OFFSET: 155.3000 R
STA: 11+28.63 OFFSET: 125.4872 R
STA: 11+28.63 OFFSET: 28.0013 R
LEGEND
EXISTING 2' CONTOUR
EXISTING 10' CONTOUR
PROPOSED 2' CONTOUR
PROPOSED 10' CONTOUR
PROPOSED STORM LINE
PROPOSED STORM MANHOLE
PROPOSED BIOBAG PROTECTION
PROPOSED EROSION CONTROL FENCING
EXISTING TREE TO REMAIN
PROPOSED CHAIN LINK TREE PROTECTION FENCING
PROPOSED 5' BLACK VINYL CHAIN LINK FENCE
PROPOSED CONSTRUCTION ENTRANCE
GRAPHIC SCALE
(IN FEET)
1 inch = 40 ft.
BACKFILL WITH NON-EXPANSIVE, FREE DRAINING PREDOMINATELY GRANULAR MATERIAL, FREE OF DEBRIS AND ORGANIC MATERIAL. BACKFILL SHALL BE IN 8" MIN LIFTS AND COMPACTED TO A MIN. DENSITY OF 90% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT AS DETERMINED BY AASHTO STANDARD T99. (OR TYPE A BACKFILL SAND AND GRAVEL WITH LITTLE OF NO FINES)
SIDE WALK
¾" CHAMFER
HORIZ REINF
FREE DRAINING GRANULAR MAT'L
VERTICAL REINF
20" SPLICE
VERTICAL DOWEL
FINISHED GRADE
4" ø PERF. DRAIN
LONG. REINF
HEEL REINF
TOE REINF
TITLE: Douglas Park Sub-Division Retaining Wall
DRAWN BY: dkg
CHECKED BY: dkg
SCALE: nts
PLOT DATE: 8/8/2007 1:32 PM
PROJECT NO. 07076
SHEET NO. S1
Diamond Engineering, LLC
REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 13, 1997
DAVID K. GORTON
Expires: 07-01
SFA Design Group, LLC
STRUCTURAL | CIVIL | LAND USE PLANNING
9020 SW Washington Square Dr. Suite 350
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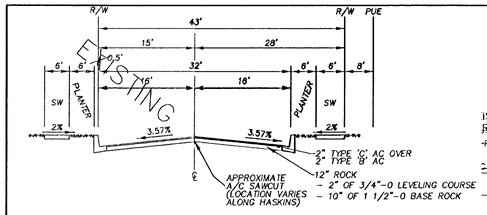
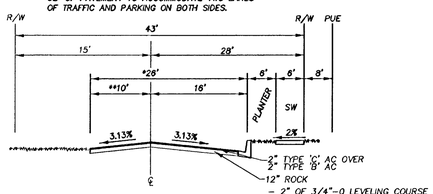
sfadesigngroup.com
GRADING/EROSION CONTROL PLAN
DOUGLAS PARK
VALID THROUGH 12-31-09
NO. DATE REVISION BY
1 10-16-07 TW/FG REVISION DBB
2 10-16-07 EC REVISION DBB
3 11-26-07 TW/FG REVISIONS DBB
DESIGNED BY DBB DATE 6-1-07
DRAWN BY DBB DATE 6-1-07
REVIEWED BY BEF DATE 6-1-07
PROJECT NO. 105-016 REF.
SCALE HORZ: 1"=40' VERT: N/A
105GRAD.dwg
SHEET 4 OF 22
PROJECT DOUGLAS PARK
NO. 105-016
TYPE ASBUILT



TYPICAL STREET SECTION
43' RIGHT-OF-WAY WIDTH
S. HASKINS ROAD

STREET SECTION A-A

*32' OF PAVEMENT TO ACCOMMODATE TWO LANES OF TRAFFIC AND PARKING ON BOTH SIDES.

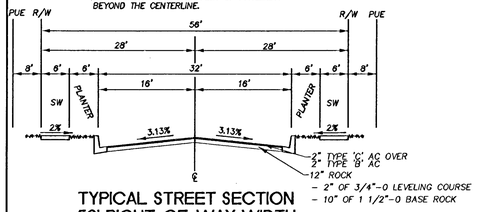


TYPICAL STREET SECTION
43' RIGHT-OF-WAY WIDTH
S. HASKINS ROAD

STREET SECTION B-B

*28' OF PAVEMENT TO ACCOMMODATE TWO LANES OF TRAFFIC AND PARKING THE SOUTHWEST SIDE.

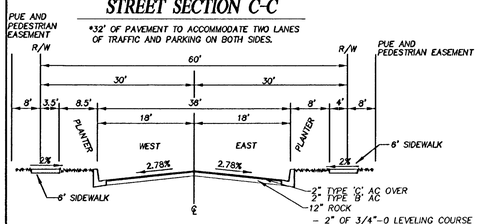
**APPLICANT IS PROPOSING HALF-STREET IMPROVEMENTS PLUS 10' FEET OF PAVEMENT BEYOND THE CENTERLINE.



TYPICAL STREET SECTION
56' RIGHT-OF-WAY WIDTH
ROGUE WAY

STREET SECTION C-C

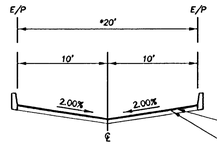
*32' OF PAVEMENT TO ACCOMMODATE TWO LANES OF TRAFFIC AND PARKING ON BOTH SIDES.

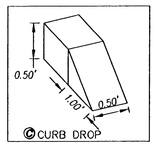


TYPICAL STREET SECTION
60' RIGHT-OF-WAY WIDTH
LOIS LANE

STREET SECTION D-D

*38' OF PAVEMENT TO ACCOMMODATE TWO LANES OF TRAFFIC AND PARKING ON BOTH SIDES.



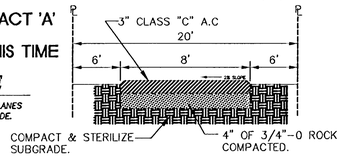


TYPICAL DRIVEWAY SECTION
20' WIDTH
PARK ENTRANCE WITHIN TRACT 'A'

NOT CONSTRUCTED AT THIS TIME

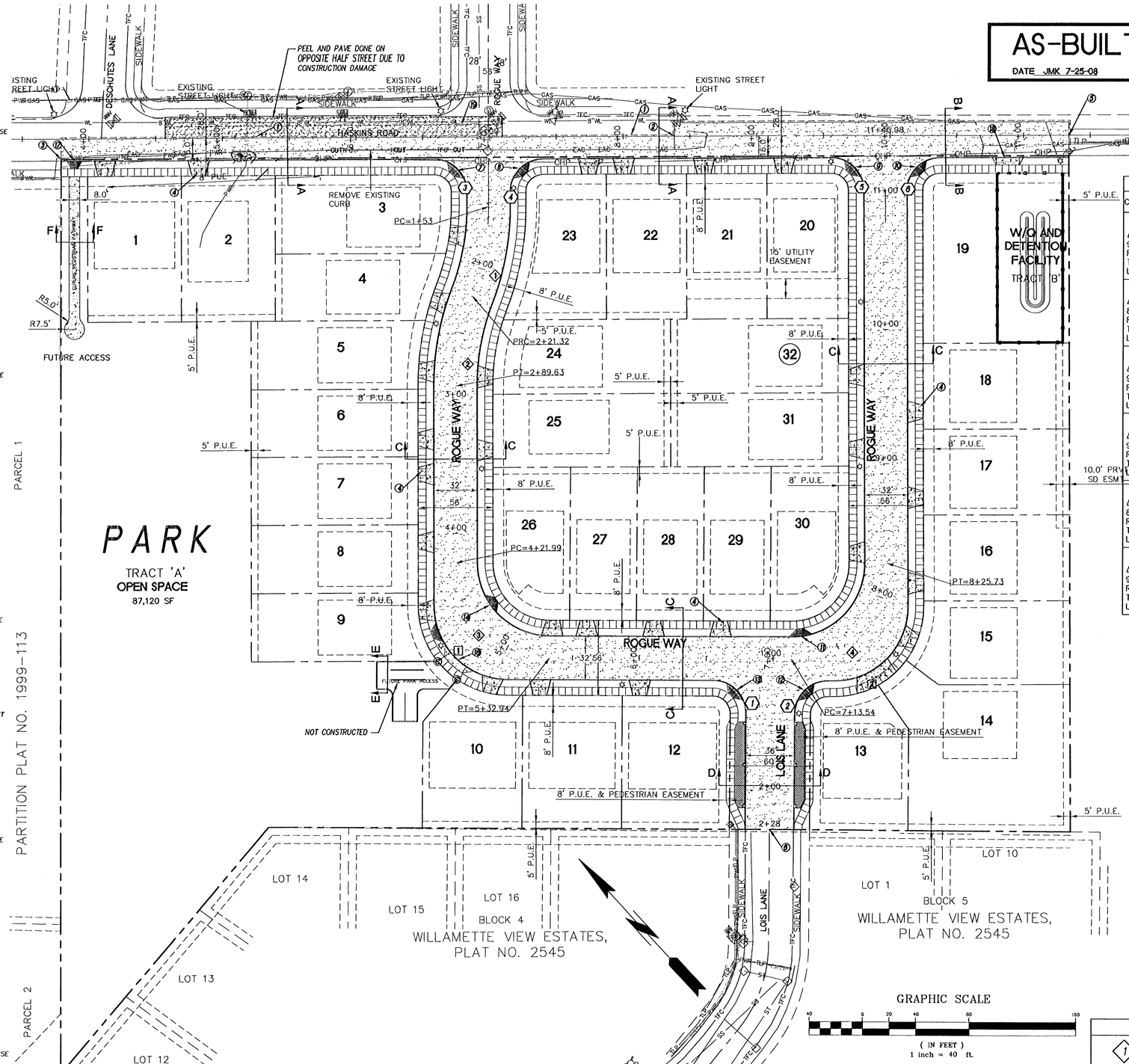
STREET SECTION E-E

*20' OF PAVEMENT TO ACCOMMODATE TWO LANES OF TRAFFIC AND NO PARKING ON EITHER SIDE.



PEDESTRIAN/BIKE PATH
NOT CONSTRUCTED AT THIS TIME

SECTION F-F



CURB RETURN DATA

CURVE DATA	TOP OF CURB ELEVATION	STREET STATION
1 Δ= 90°02'18" R= 25.00 T= 25.02 L= 39.29	PC — 495.89 1/4 Δ — 494.43 1/2 Δ — 492.51 3/4 Δ — 490.63 PT — 489.38	PC = 6+55.22, 16.00' RT DOUGLAS DRIVE PT = 1+41.03, 18.00' RT LOIS LANE
2 Δ= 89°50'02" R= 25.00 T= 24.93 L= 39.20	PC — 489.15 1/4 Δ — 489.42 1/2 Δ — 489.54 3/4 Δ — 489.55 PT — 489.38	PC = 1+40.97, 18.00' LT LOIS LANE PT = 7+35.37, 20.28' RT DOUGLAS DRIVE
3 Δ= 90°00'00" R= 25.00 T= 25.00 L= 39.27	PC — 513.45 1/4 Δ — 512.69 1/2 Δ — 511.71 3/4 Δ — 510.86 PT — 510.48	PC = 6+58.20, 16.00' RT HASKINS ROAD PT = 1+41.00, 16.00' RT ROGUE WAY
4 Δ= 90°00'00" R= 25.00 T= 25.00 L= 39.27	PC — 510.48 1/4 Δ — 510.18 1/2 Δ — 509.40 3/4 Δ — 508.39 PT — 507.38	PC = 1+41.00, 16.00' LT ROGUE WAY PT = 7+40.20, 16.00' RT HASKINS ROAD
5 Δ= 89°55'29" R= 25.00 T= 25.03 L= 39.24	PC — 483.69 1/4 Δ — 482.17 1/2 Δ — 480.30 3/4 Δ — 478.76 PT — 478.20	PC = 9+55.48, 16.00' RT HASKINS ROAD PT = 11+05.03, 16.00' LT TRASK LANE
6 Δ= 90°04'31" R= 25.00 T= 25.03 L= 39.30	PC — 478.20 1/4 Δ — 477.85 1/2 Δ — 476.83 3/4 Δ — 475.46 PT — 474.10	PC = 11+04.93, 16.00' RT TRASK LANE PT = 10+37.48, 16.00' RT HASKINS ROAD

EYEBROW CURB DATA

DESCRIPTION	STA.	ST STA.-OFFSET	ELEVATION 1
BEGIN EYEBROW CURVE	1+00	4+21.99-16.00' RT ROGUE WAY	521.07
PC ELEV	1+31.74	4+46.82-21.61'RT	519.40
1/4Δ	1+53.23	4+62.20-27.19'RT	518.35
1/2Δ	1+74.72	4+77.46-29.07'RT	516.98
3/4Δ	1+96.20	4+92.72-27.19'RT	515.50
PT ELEV	2+17.69	5+08.10-21.61'RT	513.74
END EYEBROW CURVE	2+49.44	5+32.94-16.00'R DOUGLAS DRIVE	510.42

*GRADES SHOWN ARE TOP OF CURB ELEVATIONS

EYEBROW CURB DATA

DESCRIPTION	STA.	ST STA.-OFFSET	ELEVATION 2
BEGIN EYEBROW CURVE	1+00	7+35.37-20.28'RT DOUGLAS DRIVE	488.38
PC ELEV	1+05.12	7+39.10-21.92'RT	489.26
1/4Δ	1+26.74	7+54.51-27.56'RT	488.48
1/2Δ	1+48.36	7+69.81-29.44'RT	487.36
3/4Δ	1+69.97	7+85.11-27.49'RT	486.06
PT ELEV	1+91.59	8+00.52-21.79'RT	484.73
END EYEBROW CURVE	2+23.85	8+25.73-16.00'R TRASK LANE	483.06

*GRADES SHOWN ARE TOP OF CURB ELEVATIONS

CENTERLINE CURVE DATA

1	2	3	4
Δ = 21°09'28"	Δ = 21°09'28"	Δ = 89°32'29"	Δ = 90°32'02"
R = 185.00	R = 185.00	R = 71.00	R = 71.00
T = 34.55	T = 34.55	T = 70.43	T = 71.66
L = 68.32	L = 68.32	L = 110.96	L = 112.19

STREET NOTES

1. 1' SAWCUT LINE.
2. ST STA. 8+38.37, HASKINS RD BEGIN FULL STREET IMPROVEMENTS.
3. ST STA. 3+79.04, HASKINS RD. BEGIN HALF STREET IMPROVEMENTS.
4. STANDARD RESIDENTIAL DRIVEWAY TO BE INSTALLED AT TIME OF HOME CONSTRUCTION, REFER TO DETAIL ON SHEET 20.
5. ST STA. 11+33.91, HASKINS RD. END FULL STREET IMPROVEMENTS, MATCH EXITING GRADE.
6. ST STA. 2+28.00, LOIS LANE END STREET IMPROVEMENTS, MATCH EXITING GRADE.
7. STA. 6+75.88-23.32'R, HASKINS RD STA. 1+23.32-23.32'R, ROGUE WAY INSTALL CURB RAMP (TYP.)
8. STA. 7+22.52-23.32'R, HASKINS RD STA. 1+23.32-23.32'L, ROGUE WAY INSTALL CURB RAMP (TYP.)
9. STA. 9+73.15-23.33'R, HASKINS RD STA. 11+22.70-23.31'L, TRASK LN. INSTALL CURB RAMP (TYP.)
10. STA. 10+19.79-23.33'R, HASKINS RD STA. 11+22.70-23.31'L, TRASK LN. INSTALL CURB RAMP (TYP.)
11. STA. 7+22.58-16.00'L, DOUGLAS DR. INSTALL CURB RAMP (TYP.)
12. STA. 7+21.03-23.86'R, DOUGLAS/TRASK STA. 1+23.32-25.30'L LOIS LN. INSTALL CURB RAMP (TYP.)
13. STA. 6+72.90-23.33'R, DOUGLAS DR. STA. 1+23.35-25.33'L, LOIS LANE INSTALL CURB RAMP (TYP.)
14. STA. 4+64.39-16.00'L, ROGUE WAY INSTALL CURB RAMP (TYP.)
15. INSTALL STREET BARRICADE TYPE 3 AT THE TERMINUS OF HASKINS ROAD.
16. STA. 4+79.13-29.05'R, ROGUE/DOUGLAS INSTALL COMMERCIAL DRIVEWAY (TYP.)
17. STA. 3+89.00-16.00'R, HASKINS ROAD INSTALL CURB RAMP (TYP.)
18. STA. 10+85.71-16.00'R, HASKINS ROAD, INSTALL 15' WIDE COMMERCIAL DRIVEWAY (TYP.), REFER TO DETAIL ON THIS SHEET.
19. SAWCUT LINE FOR PROPOSED STORM AND SANITARY SEWER LINES, REFER TO SHEETS 9 AND 14.
20. STA. 4+61.47-27.01'L, ROGUE WAY INSTALL CURB RAMP (TYP.)

LEGEND

- PROPOSED SIDEWALK
- <12"SD — PROPOSED 12" STORM DRAIN LINE
- PROPOSED FIRE HYDRANT
- WV — EXISTING WATER VALVE
- EXISTING WATER LINE
- PROPOSED STREET LIGHT - NOTE: INSTALL STREET LIGHTS PER CITY STANDARDS
- EXISTING STREET LIGHT
- PROPOSED CATCH BASIN
- EXISTING SANITARY MANHOLE & LINE
- PROPOSED PAVEMENT

SFA Design Group, LLC
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STREET PLAN
DOUGLAS PARK

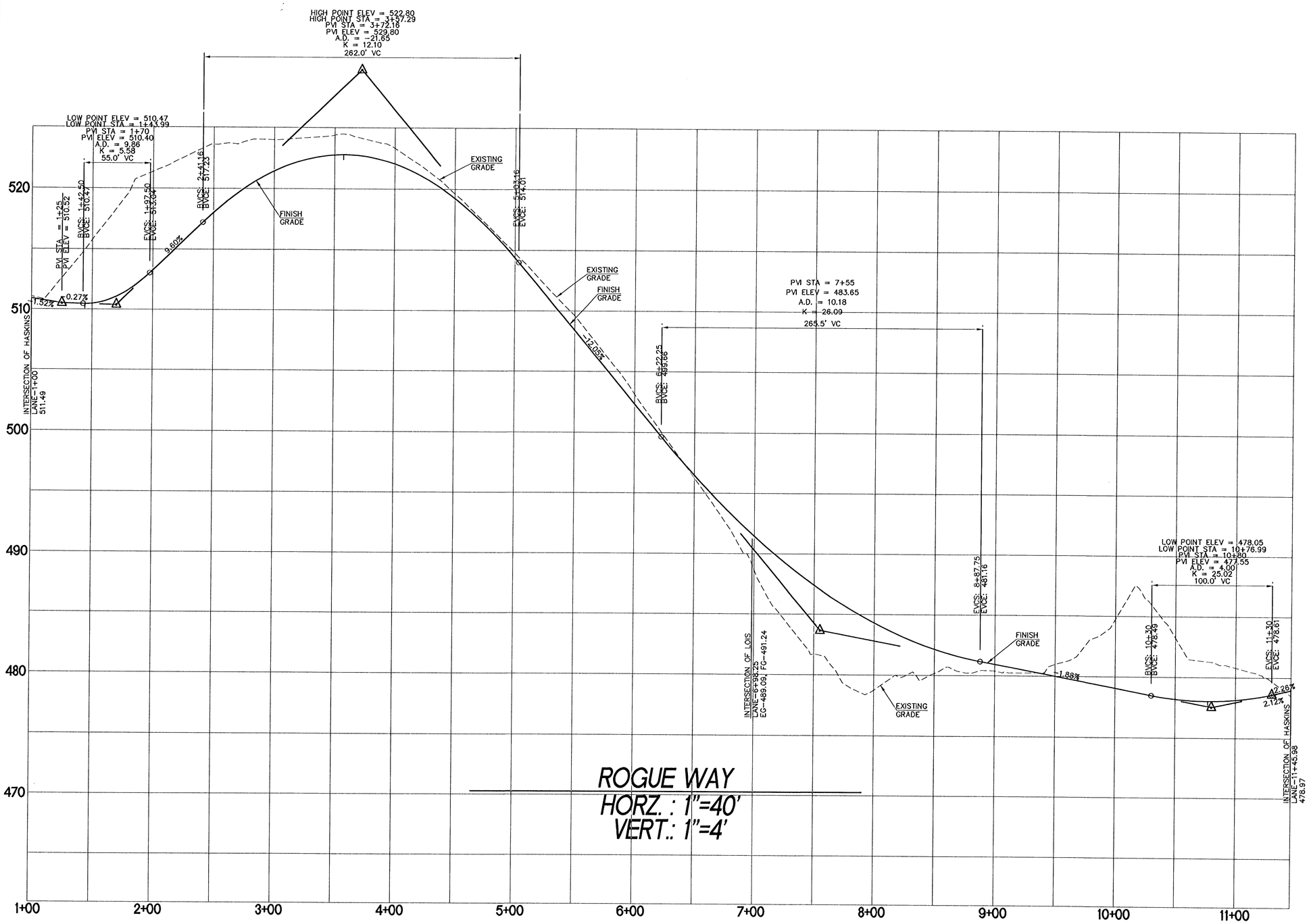
REGISTERED PROFESSIONAL ENGINEER — OREGON — BRENT E. FLITCH — VALID THROUGH 12-31-09

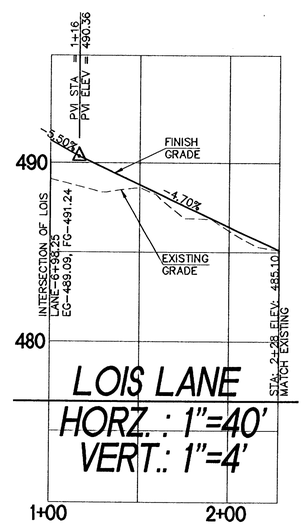
NO.	DATE	REVISION	BY

DESIGNED BY DBB DATE 6-1-07
DRAWN BY DBB DATE 6-1-07
REVIEWED BY BEF DATE 6-1-07
PROJECT NO. 105-016 REF.
SCALE HORZ: 1"=40' VERT:N/A
105165STRT.dwg

SHEET 5 OF 22

PROJECT DOUGLAS PARK
NO. 105-016
TYPE ASBUILT





AS-BUILT
DATE JMK 7-25-08

STREET PROFILES
DOUGLAS PARK

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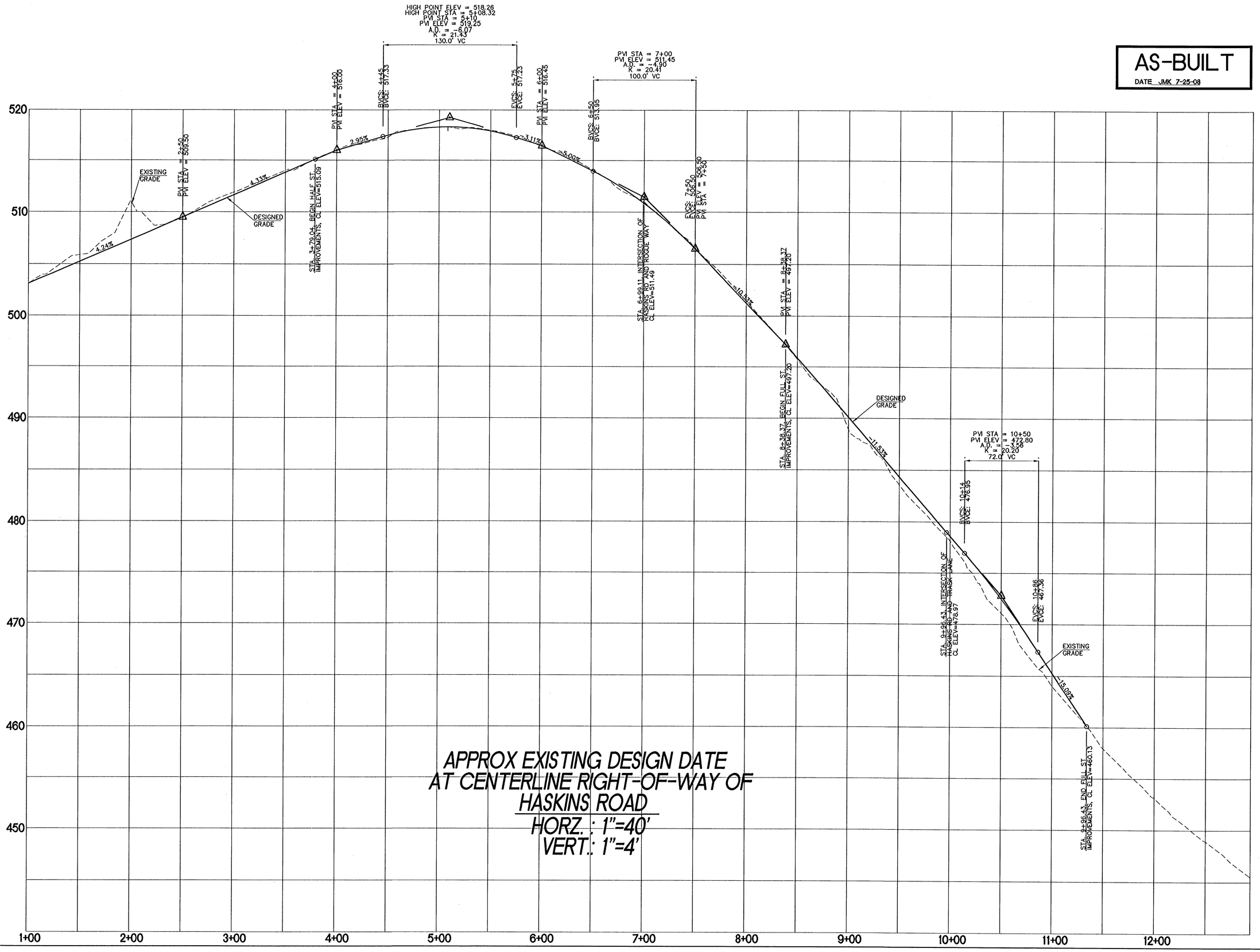
REGISTERED PROFESSIONAL ENGINEER
OREGON
MAR. 12, 2003
BRENT E. FITCH
VALID THROUGH 12-31-09

NO.	DATE	REVISION	BY

DESIGNED BY DSB DATE 6-1-07
DRAWN BY DSB DATE 6-1-07
REVIEWED BY BEF DATE 6-1-07
PROJECT NO. 105-016 REF.
SCALE HORZ. 1"=40' VERT. 1"=4'
105165TRT.dwg

SHEET 6 OF 22

PROJECT DOUGLAS PARK
NO. 105-016
TYPE ASBUILT



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STREET PROFILES
DOUGLAS PARK

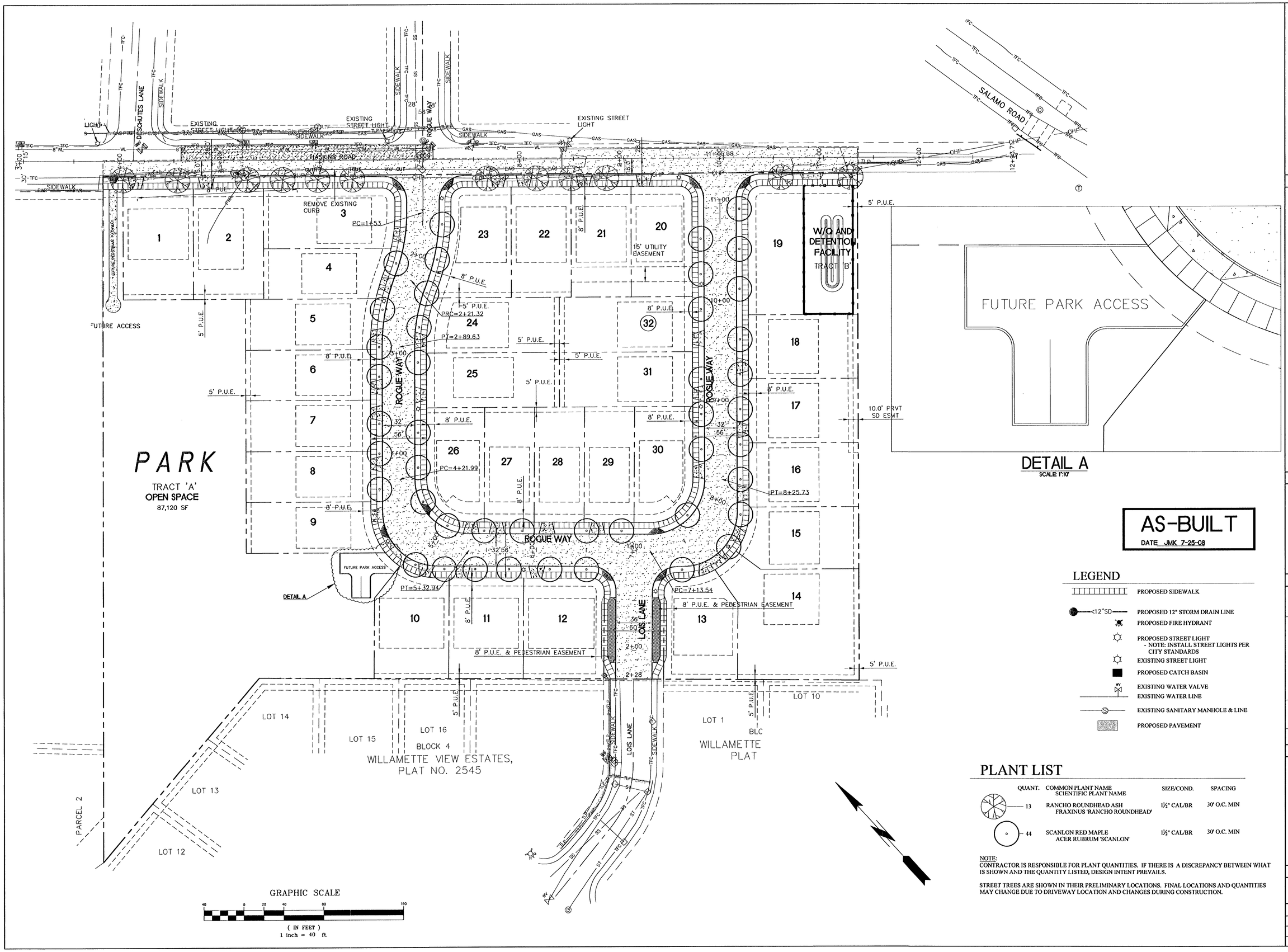
REGISTERED PROFESSIONAL ENGINEER
OREGON
MAR. 12, 2008
GREYT E. FITCH
VALID THROUGH 12-31-09

NO.	DATE	REVISION	BY

DESIGNED BY DSB DATE 6-1-07
DRAWN BY DSB DATE 6-1-07
REVIEWED BY BEF DATE 6-1-07
PROJECT NO. 105-016 REF.
SCALE HORZ. 1"=40' VERT. 1"=4'
105ISSTRT.dwg

SHEET 7 OF 22

PROJECT DOUGLAS PARK
NO. 105-016
TYPE ASBUILT



DETAIL A

SCALE 1"=10'

AS-BUILT

DATE JMK 7-25-09

LEGEND

- PROPOSED SIDEWALK
- <12"SD — PROPOSED 12" STORM DRAIN LINE
- PROPOSED FIRE HYDRANT
- PROPOSED STREET LIGHT - NOTE: INSTALL STREET LIGHTS PER CITY STANDARDS
- EXISTING STREET LIGHT
- PROPOSED CATCH BASIN
- EXISTING WATER VALVE
- EXISTING WATER LINE
- EXISTING SANITARY MANHOLE & LINE
- PROPOSED PAVEMENT

PLANT LIST

QUANT.	COMMON PLANT NAME / SCIENTIFIC PLANT NAME	SIZE/COND.	SPACING
13	RANCHO ROUNDHEAD ASH / FRAXINUS 'RANCHO ROUNDHEAD'	1½" CAL/BR	30' O.C. MIN
44	SCANLON RED MAPLE / ACER RUBRUM 'SCANLON'	1½" CAL/BR	30' O.C. MIN

NOTE:
CONTRACTOR IS RESPONSIBLE FOR PLANT QUANTITIES. IF THERE IS A DISCREPANCY BETWEEN WHAT IS SHOWN AND THE QUANTITY LISTED, DESIGN INTENT PREVAILS.

STREET TREES ARE SHOWN IN THEIR PRELIMINARY LOCATIONS. FINAL LOCATIONS AND QUANTITIES MAY CHANGE DUE TO DRIVEWAY LOCATION AND CHANGES DURING CONSTRUCTION.

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STREET TREE PLAN
DOUGLAS PARK

REGISTERED PROFESSIONAL ENGINEER — OREGON — MAR. 12, 2002 — BRENT E. FITCH — VALID THROUGH 12-31-09

NO.	DATE	REVISION	BY

DESIGNED BY DSB DATE 6-1-07
DRAWN BY DSB DATE 6-1-07
REVIEWED BY BEF DATE 6-1-07
PROJECT NO. 105-016 REF.
SCALE HORZ: 1"=40' VERT:N/A
105165TRT.dwg

SHEET 8 OF 22

PROJECT DOUGLAS PARK
NO. 105-016
TYPE ASBUILT

STORM LATERAL DATA

LOT NO.	D.S. M.H.	DIST. FROM D.S. MH	LENGTH	SIZE	MATERIAL	NV. EL. @ MAINLINE	INV. EL. @ PLUG	SLOPE	DEPTH @ PLUG
1	SDMH#13	0.00'	46.99'	4"	ASTM D 3034 SDR-35	512.88	513.39	0.0109	6.95'
2	SDMH#12	164.61'	47.05'	4"	ASTM D 3034 SDR-35	510.64	514.04	0.0723	4.40'
3	SDMH#12	45.80'	26.50'	4"	ASTM D 3034 SDR-35	508.89	509.75	0.0200	4.65'
4	SDMH#10	55.28'	40.59'	4"	ASTM D 3034 SDR-35	504.88	510.78	0.1454	7.45'
5	SDMH#10	0.00'	44.68'	4"	ASTM D 3034 SDR-35	504.54	514.96	0.2332	7.05'
6	SDMH#9	120.64'	47.00'	4"	ASTM D 3034 SDR-35	503.29	515.97	0.2698	9.00'
7	SDMH#9	69.84'	47.00'	4"	ASTM D 3034 SDR-35	502.62	514.62	0.2553	9.40'
8	SDMH#9	19.04'	47.00'	4"	ASTM D 3034 SDR-35	501.76	516.00	0.2960	5.00'
9	SDMH#8	30.85'	48.12'	4"	ASTM D 3034 SDR-35	501.53	510.61	0.1887	10.30'
10	SDMH#7	134.78'	38.35'	4"	ASTM D 3034 SDR-35	497.92	502.64	0.1145	8.70'

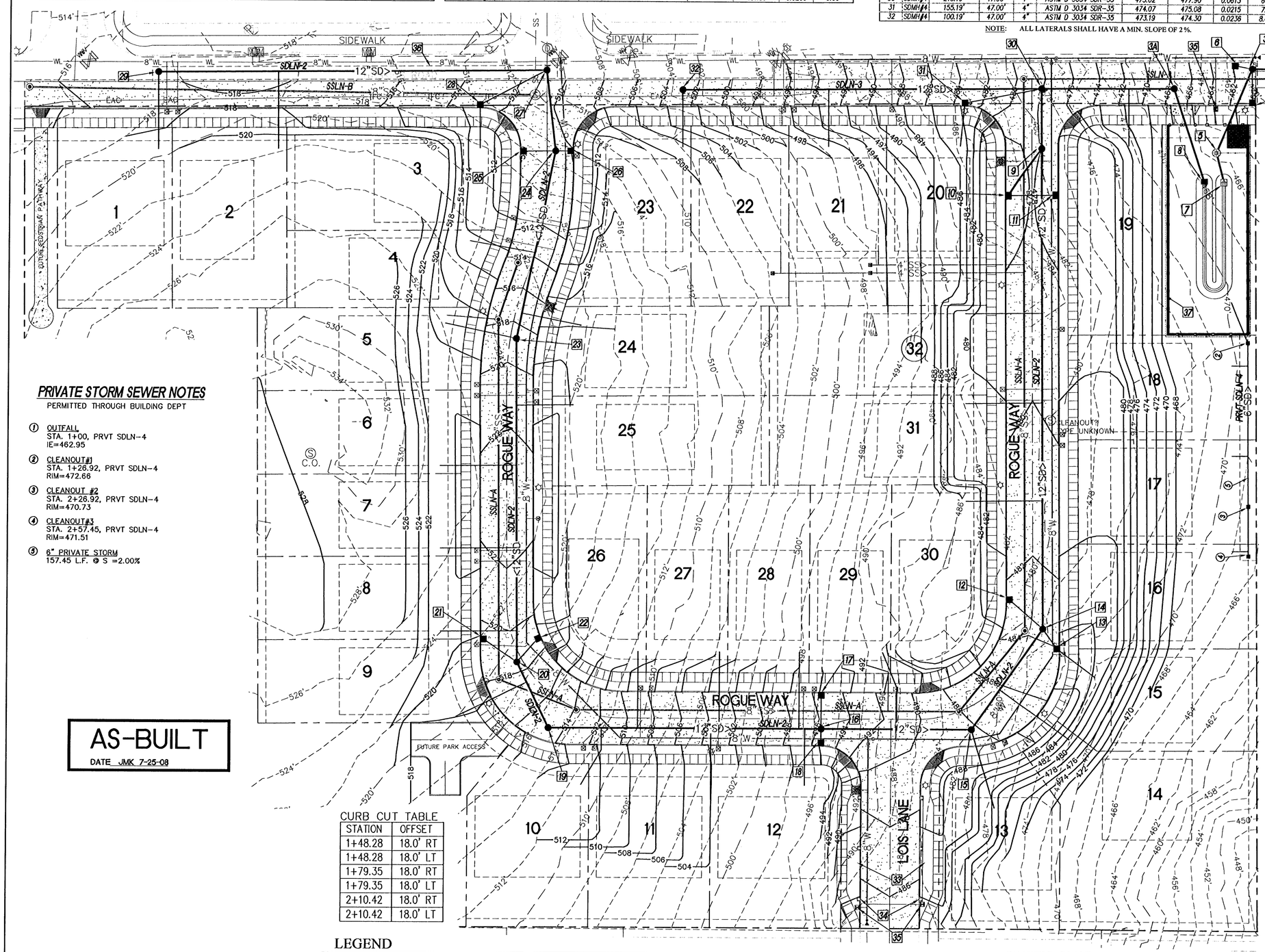
STORM LATERAL DATA

LOT NO.	D.S. M.H.	DIST. FROM D.S. MH	LENGTH	SIZE	MATERIAL	NV. EL. @ MAINLINE	INV. EL. @ PLUG	SLOPE	DEPTH @ PLUG
11	SDMH#7	67.63'	35.00'	4"	ASTM D 3034 SDR-35	492.09	496.26	0.1191	7.75'
12	SDMH#7	10.00'	35.00'	4"	ASTM D 3034 SDR-35	488.82	492.34	0.1577	4.00'
13	SDMH#6	0.00'	50.50'	4"	ASTM D 3034 SDR-35	477.45	478.46	0.0200	4.80'
14	SDMH#5	45.20'	52.59'	4"	ASTM D 3034 SDR-35	476.50	477.87	0.0230	8.00'
15	SDMH#5	0.00'	29.60'	4"	ASTM D 3034 SDR-35	476.43	477.02	0.0200	5.00'
16	SWALE	154.45'	10.00'	4"	ASTM D 3034 SDR-35	466.12	466.32	0.0200	3.00'
17	SWALE	95.92'	10.00'	4"	ASTM D 3034 SDR-35	464.95	465.15	0.0200	4.00'
18	SWALE	40.78'	10.00'	4"	ASTM D 3034 SDR-35	463.85	464.05	0.0200	4.00'
19	SDMH#3A	27.79'	35.00'	4"	ASTM D 3034 SDR-35	464.96	468.98	0.1055	4.40'
20	SDMH#14	85.00'	35.00'	4"	ASTM D 3034 SDR-35	481.16	481.86	0.0200	9.00'

STORM LATERAL DATA

LOT NO.	D.S. M.H.	DIST. FROM D.S. MH	LENGTH	SIZE	MATERIAL	NV. EL. @ MAINLINE	INV. EL. @ PLUG	SLOPE	DEPTH @ PLUG
21	SDMH#14	130.45'	35.00'	4"	ASTM D 3034 SDR-35	486.55	489.42	0.0820	6.15'
22	SDMH#14			4"	ASTM D 3034 SDR-35	THIS LOT TO USE WEEPHOLES			0
23	SDMH#15	0.00'	35.00'	4"	ASTM D 3034 SDR-35	497.06	501.60	0.1203	5'
24	SDMH#10	15.96'	37.37'	4"	ASTM D 3034 SDR-35	504.67	510.24	0.1491	8.5'
25	SDMH#9	157.42'	35.00'	4"	ASTM D 3034 SDR-35	503.78	510.49	0.1917	9.60'
26	SDMH#7	112.58'	47.00'	4"	ASTM D 3034 SDR-35	496.21	503.44	0.1538	8.25'
27	SDMH#7	62.58'	47.00'	4"	ASTM D 3034 SDR-35	491.63	498.24	0.1406	5.65'
28	SDMH#7	13.58'	47.00'	4"	ASTM D 3034 SDR-35	487.14	490.10	0.0630	8.90'
29	SDMH#6	45.75'	48.77'	4"	ASTM D 3034 SDR-35	481.08	486.00	0.0941	5.00'
30	SDMH#4	215.19'	47.00'	4"	ASTM D 3034 SDR-35	475.02	477.90	0.0613	6.10'
31	SDMH#4	155.19'	47.00'	4"	ASTM D 3034 SDR-35	474.07	475.08	0.0215	7.90'
32	SDMH#4	100.19'	47.00'	4"	ASTM D 3034 SDR-35	473.19	474.30	0.0236	8.635'

NOTE: ALL LATERALS SHALL HAVE A MIN. SLOPE OF 2%.



PRIVATE STORM SEWER NOTES

PERMITTED THROUGH BUILDING DEPT

1. OUTFALL
   STA. 1+00, PRVT SDLN-4
   IE=462.95
2. CLEANOUT#1
   STA. 1+26.92, PRVT SDLN-4
   RIM=472.66
3. CLEANOUT #2
   STA. 2+26.92, PRVT SDLN-4
   RIM=470.73
4. CLEANOUT#3
   STA. 2+57.45, PRVT SDLN-4
   RIM=471.51
5. 6" PRIVATE STORM
   157.45 L.F. @ S =2.00%

AS-BUILT

DATE JMK 7-25-08

CURB CUT TABLE

STATION	OFFSET
1+48.28	18.0' RT
1+48.28	18.0' LT
1+79.35	18.0' RT
1+79.35	18.0' LT
2+10.42	18.0' RT
2+10.42	18.0' LT

LEGEND

- PROPOSED SIDEWALK
- <8"SS — PROPOSED 8" SANITARY SEWER LINE
- <12"SD — PROPOSED 12" STORM DRAIN LINE
- EXISTING SANITARY MANHOLE & LINE
- 8"W — PROPOSED 8" WATER LINE
- PROPOSED FIRE HYDRANT
- PROPOSED STREET LIGHT
- EXISTING STREET LIGHT
- PROPOSED CATCH BASIN
- EXISTING WATER VALVE
- EXISTING WATER LINE

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

STORM SEWER NOTES

1. EX. SDMH
   STA. 1+00, SDLN-1
   CONNECT TO EXISTING STORM MANHOLE, REFER TO DETAIL ON SHEET 21. CONTRACTOR TO FIELD VERIFY SLOPE, MATERIAL, IE, AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
2. SDMH#1
   STA. 1+50.17, SDLN-1
   ST STA. 12+89.93-6.00'L, HASKINS RD.
3. SDMH#2
   STA. 3+08.18, SDLN-1
   ST STA. 11+31.93-6.00'L, HASKINS RD.
3A. 60" POLUTION CONTROL MH#3A
   SEE DETAIL ON SHEET 22A
   STA. 1+59.98, SDLN-3
   ST STA. 10+83.94-6.00'R, HASKINS RD.
4. SDCB#13
   INSTALL COMBINATION CURB INLET
   STA. 3+08.18, SDLN-1
   ST STA. 11+31.94-14.50'LT, HASKINS ROAD, TG=459.98, IE(OUT-NE)=455.93, 20.50 L.F. 10" D3034 @ S=0.0161
5. SDMH#3-60" FLOW CONTROL
   STA. 3+63.89, SDLN-1
6. SDCB#14
   STA. 3+08.18, SDLN-1
   ST STA. 11+21.42-8.00'LT, HASKINS RD. TG=461.78, IE(OUT-SE)=454.18
   10.69 L.F. 12" D3034 @ S=0.1618
7. SDDI#1
   STA. 3+82.27, SDLN-1
8. OUTFALL #1
   STA. 1+00, SDLN-3
9. SDMH#4
   STA. 1+00, SDLN-2
   ST STA. 11+03.40-6.00'R, TRASK LN
10. SDCB#1
   STA. 1+00, SDLN-2
   ST STA. 10+65.57-14.50'L, TRASK LN. TG=477.59, IE(IN-E)=472.98
   IE(OUT-NE)=472.84
   43.03 L.F. 12" D3034 @ S=0.0346
11. SDCB#2
   STA. 1+00, SDLN-2
   ST STA. 10+65.57-14.50'R, TRASK LN. TG=477.64, IE(OUT-W)=473.62
   29.00 L.F. 10" D3034 @ S=0.0200
12. SDCB#3
   STA. 3+93.66, SDLN-2
   ST STA. 8+27.73-14.50'L, TRASK LN. TG=482.56, IE(OUT-S)=476.26
   27.27 L.F. 10" D3034 @ S=0.0070
13. SDCB#4
   COMBINATION CURB INLET
   STA. 3+93.66, SDLN-2
   ST STA. 8+03.19-19.00'R, TRASK LN. TG=484.03, IE (IN-S)=476.43
   IE(OUT-NW)=476.28
   14.78 L.F. 10" D3034 @ S=0.0115
14. SDMH#5
   STA. 3+93.66, SDLN-2
   ST STA. 8+11.19-7.64'R, TRASK LN
15. SDMH#6
   STA. 4+69.09, SDLN-2
   ST STA. 7+42.91-13.09'R, DOUGLAS DR
16. SDMH#7
   STA. 5+61.21, SDLN-2
   ST STA. 6+55.22-6.00'R, DOUGLAS DR
17. SDCB#5
   COMBINATION CURB INLET
   STA. 5+61.21, SDLN-2
   ST STA. 6+55.22-14.50'L, DOUGLAS DRIVE. TG=495.21, IE(OUT-SW)=489.71
   20.50 L.F. 10" D3034 @ S=0.0712
18. SDCB#6
   COMBINATION CURB INLET
   STA. 5+61.21, SDLN-2
   ST STA. 6+55.22-14.50'R, DOUGLAS DRIVE. TG=495.44, IE(OUT-NE)=489.49
   8.50 L.F. 10" D3034 @ S=0.1482
19. SDMH#8
   STA. 7+28.76, SDLN-2
   ST STA. 4+95.21-18.32'R, DOULGAS DRIVE
20. SDMH#9
   STA. 7+73.36, SDLN-2
   ST STA. 4+58.18-3.47'R, ROGUE WAY
21. SDCB#7
   COMBINATION CURB INLET
   STA. 7+73.36, SDLN-2
   ST STA. 4+44.10-17.36'R, ROGUE WAY.TG=519.51, IE(OUT-E)=513.06
   24.85 L.F. 10" D3034 @ S=0.4732
22. SDCB#8
   COMBINATION CURB INLET
   STA. 7+73.36, SDLN-2
   ST STA. 4+50.59-14.50'L, ROGUE WAY. TG=518.94, IE(OUT-W)=509.99
   20.23 L.F. 10" D3034 @ S=0.4305
23. SDMH#10
   STA. 9+71.26, SDLN-2
   ST STA. 2+59.71-3.63'L, ROGUE WAY
24. SDMH#11
   STA. 10+88.12, SDLN-2
   ST STA. 1+43.00-5.22'L, ROGUE WAY
25. SDCB#9
   STA. 10+88.12, SDLN-2
   ST STA. 1+43.00-14.50'R, ROGUE WAY. TG=510.18
   IE(OUT-S)=505.83
   19.72 L.F. 10" D3034 @ S=0.0385
26. SDCB#10
   STA. 10+88.12, SDLN-2
   ST STA. 1+43.00-14.50'L, ROGUE WAY. TG=509.98, IE(OUT-W)=505.08
   9.29 L.F. 10" D3034 @ S=0.0183
27. SDMH#12
   STA. 11+37.60, SDLN-2
   ST STA. 6+99.06-6.18'L, HASKINS ROAD
28. SDCB#11
   COMBINATION CURB INLET
   STA. 11+37.60, SDLN-2
   ST STA. 6+58.20-14.50'R, HASKINS ROAD.
   TG=513.09, IE (IN-SW)=508.89
   IE(OUT-E)=508.79
   45.80 L.F. 10" D3034 @ S=0.0723
29. SDMH#13
   STA. 13+75.63, SDLN-2
   ST STA. 4+60.94-6.00'L, HASKINS ROAD
30. SDMH#14
   STA. 2+41.47, SDLN-3
   =STA. 0+63.43, SDLN-2
   ST STA. 10+02.43-6.00'R, HASKINS ROAD
31. SDCB#12
   COMBINATION CURB INLET
   STA. 2+41.47, SDLN-3
   ST STA. 9+55.48-14.50'R, HASKINS ROAD.
   TG=483.40,
   IE(OUT-E)=479.25
   47.72 L.F. 10" D3034 @ S=0.1783
32. SDMH#15
   STA. 4+61.43, SDLN-3
   ST STA. 7+82.47-6.00'R, HASKINS ROAD
33. RAIN GARDEN
   STA. 1+47.03 TO STA. 2+11.67 INSTALL 5' WIDE RAIN GARDEN. REFER TO DETAIL ON SHEET 13.
34. CURB CUTS
   REFER TO DETAIL ON SHEET 22A.
35. 1" IRRIGATION METER
   INSTALL 1" IRRIGATION SERVICE.
36. STREET T-CUT
   SAWCUT FOR PROPOSED STORM SEWER LINE. REFER TO DETAIL ON SHEET 19.
37. RETAINING WALL FOOTING DRAIN
   INSTALL 4" PERFORATED FOOTING DRAIN.

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STORM PLAN
DOUGLAS PARK

REGISTERED PROFESSIONAL ENGINEER — OREGON — BRENT E. FITCH

VALID THROUGH 12-31-09

NO.	DATE	REVISION	BY
1	10-16-07	REVISED STREET SECTION	DBB
2	10-16-07	CB#1 AND 2 RELOCATED	DBB
3	11-26-07	REVISED WQ FACILITY	DBB
4	11-26-07	REVISED SDLN-3	DBB
5	11-26-07	REVISED SDLN-1	DBB
6	11-26-07	REVISED SDLN-2	DBB
7	11-26-07	PRVT SD LINE/NOTES	DBB

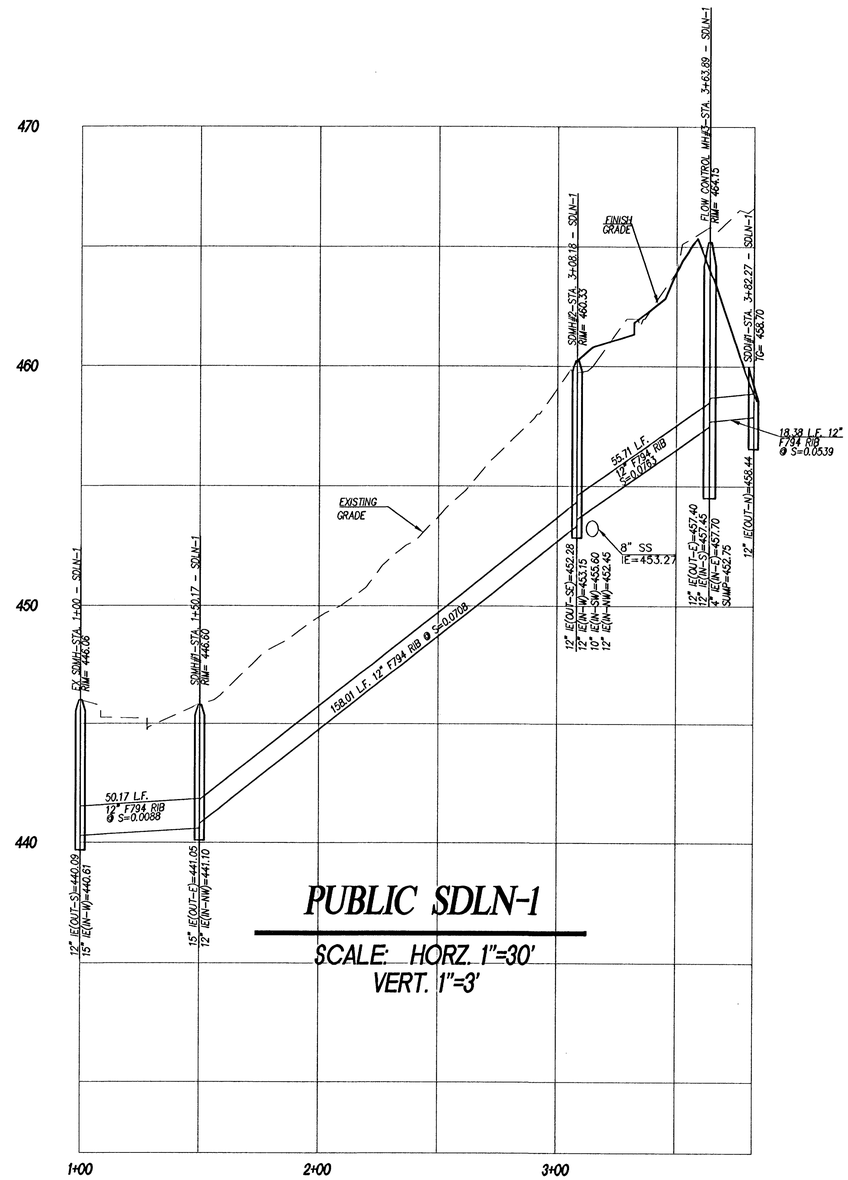
DESIGNED BY DBB DATE 6-1-07
DRAWN BY DBB DATE 6-1-07
REVIEWED BY BEF DATE 6-1-07
PROJECT NO. 105-016 REF.
SCALE HORZ. 1"=30' VERT/N/A
105IBSTRT.dwg

SHEET 9 OF 22

PROJECT DOUGLAS PARK
NO. 105-016
TYPE ASBUILT

AS-BUILT

DATE JMK 7-25-08



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STORM PROFILE
DOUGLAS PARK

REGISTERED PROFESSIONAL ENGINEER
BRENT E. FITCH
OREGON
MAR. 12, 2002
54422PE

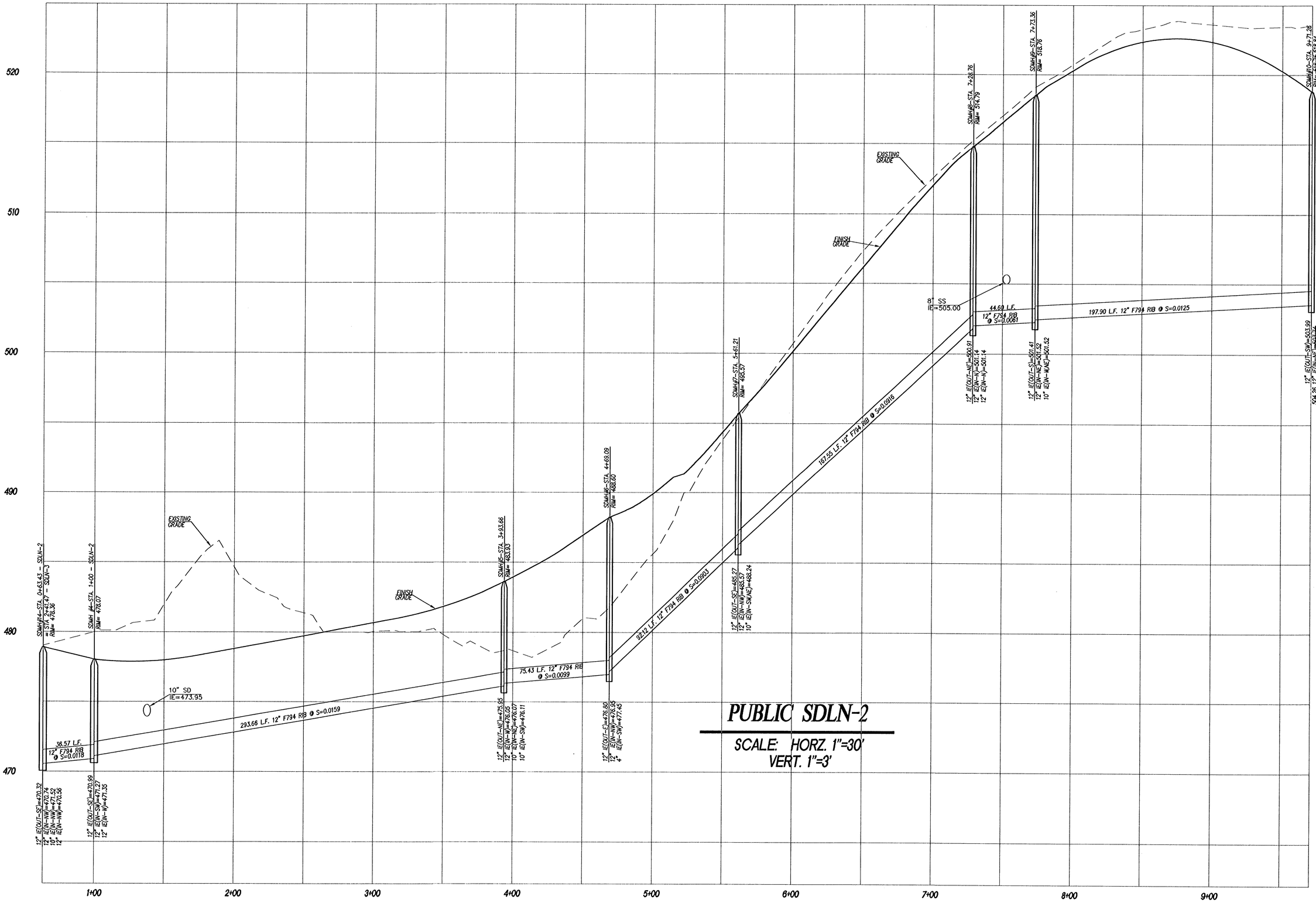
VALID THROUGH 12-31-09

NO.	DATE	REVISION	BY
1	10-16-07	REVISED FINISH GRADE	DBB
2	11-26-07	REVISED SDLN-1	DBB

DESIGNED BY DBB DATE 6-1-07
DRAWN BY DBB DATE 6-1-07
REVIEWED BY BEF DATE 6-1-07
PROJECT NO. 105-016 REF.
SCALE HORZ: 1"=30' VERT:1"=3"
105165TRT.dwg

SHEET 10 OF 22

PROJECT DOUGLAS PARK
NO. 105-016
TYPE ASBUILT



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STORM PROFILE
DOUGLAS PARK

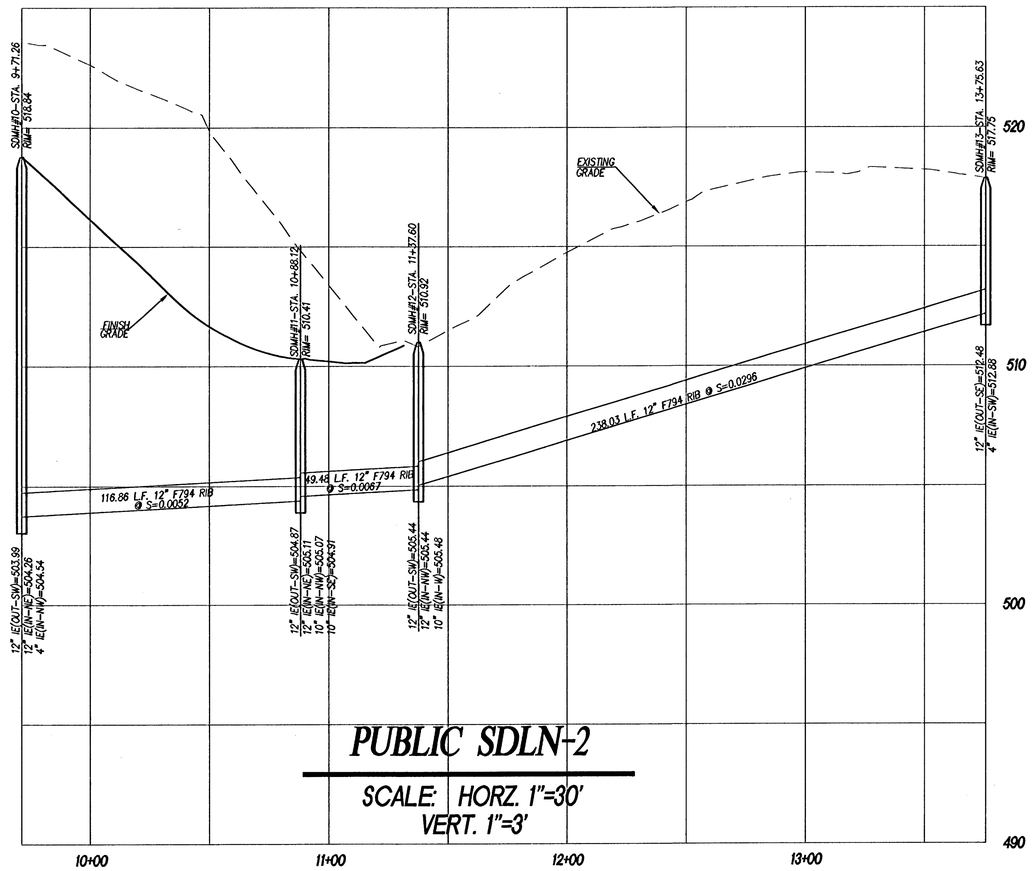
REGISTERED PROFESSIONAL ENGINEER
OREGON
AUG. 12, 2003
BRETT E. FLITCH
VALID THROUGH 12-31-09

NO.	DATE	REVISION	BY
1	10-16-07	REVISED FINISH GRADE	DBB
2	11-26-07	REVISED SDLN-2	DBB

DESIGNED BY DBB DATE 6-1-07
DRAWN BY DBB DATE 6-1-07
REVIEWED BY BEF DATE 6-1-07
PROJECT NO. 105-016 REF. ____
SCALE HORZ. 1"=30' VERT.1"=3'
105165TRT.dwg

SHEET 11 OF 22

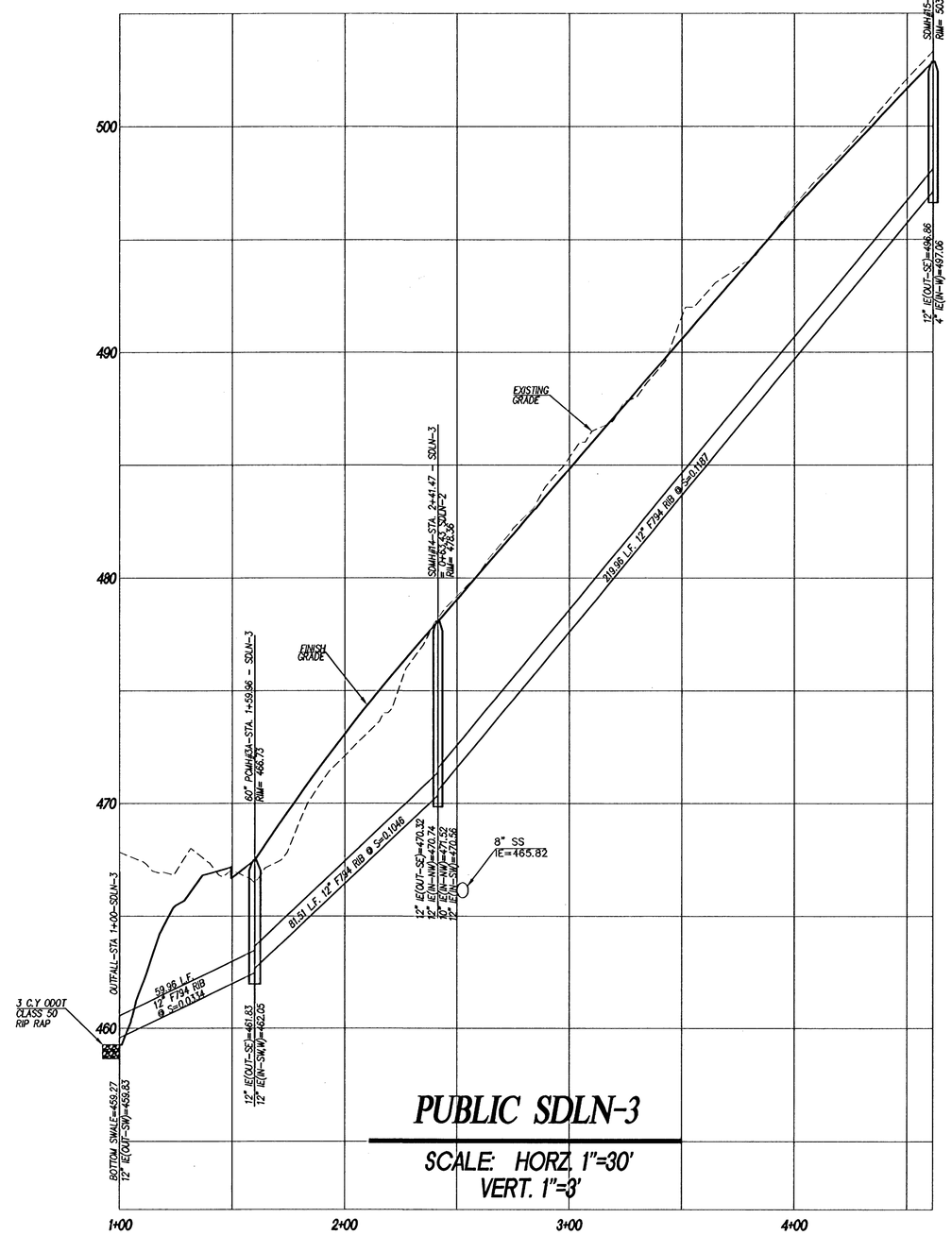
PROJECT DOUGLAS PARK
NO. 105-016
TYPE ASBUILT



PUBLIC SDLN-2

SCALE: HORZ. 1"=30'
VERT. 1"=3'

AS-BUILT
DATE JMK 7-25-08



PUBLIC SDLN-3

SCALE: HORZ. 1"=30'
VERT. 1"=3'

SFA Design Group, LLC
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Portland, Oregon 97223
p: (503) 641-8311 f: (503) 640-7905
sfadesigngroup.com

STORM PROFILE
DOUGLAS PARK

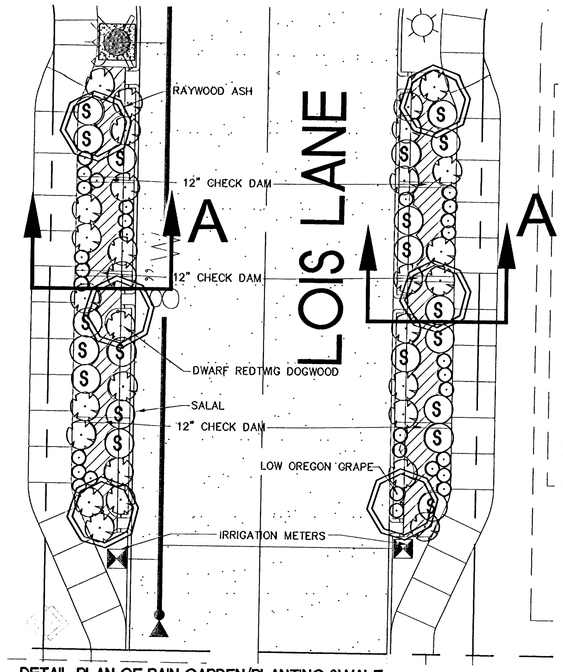
REGISTERED PROFESSIONAL ENGINEER
54927PE
OREGON
MAR. 12, 2002
BRENT E. FLOYD
VALID THROUGH 12-31-09

NO.	DATE	REVISION	BY
1	10-16-07	REVISED FINISH GRADE	DBB
2	11-26-07	REVISED SDLN-2	DBB
2	11-26-07	REVISED SDLN-3	DBB

DESIGNED BY DBB DATE 6-1-07
DRAWN BY DBB DATE 6-1-07
REVIEWED BY BEF DATE 6-1-07
PROJECT NO. 105-016 REF.
SCALE HORZ. 1"=30' VERT.1"=3'
105185TRT.dwg

SHEET 12 OF 22

PROJECT DOUGLAS PARK
NO. 105-016
TYPE ASBUILT



DETAIL PLAN OF RAIN GARDEN/PLANTING SWALE

SCALE 1"=10'

RAIN GARDEN/SWALE PLANT LIST

	COMMON PLANT NAME / SCIENTIFIC NAME	SIZE/COND.	SPACING
6	RAYWOOD ASH / FRAXINUS OXYCARPA 'RAYWOOD'	2" CAL.	25' O.C.
30	DWARF REDTWIG DOGWOOD / CORNUS SERICEA VAR KELSEYII	2 GAL. CONT.	12" O.C.
20	SALAL / GAULTHERIA SHALLON	2 GAL. CONT.	12" O.C.
30	LOW OREGON GRAPE / MAHONIA NERVOSA	2 GAL. CONT.	12" O.C.
320	COLUMBIA SEDGE – 40% / CAREX APERTA	1 GAL. CONT.	12" O.C.
	CREEPING SPIKE RUSH – 30% / ELEOCHARIS PALUSTRIS	1 GAL. CONT.	12" O.C.
	BALTIC RUSH – 30% / JUNCUS BALTICUS	1 GAL. CONT.	12" O.C.

NOTE:
CONTRACTOR IS RESPONSIBLE FOR PLANT QUANTITIES. IF THERE IS A DISCREPANCY BETWEEN WHAT IS SHOWN AND THE QUANTITY LISTED, DESIGN INTENT PREVAILS.

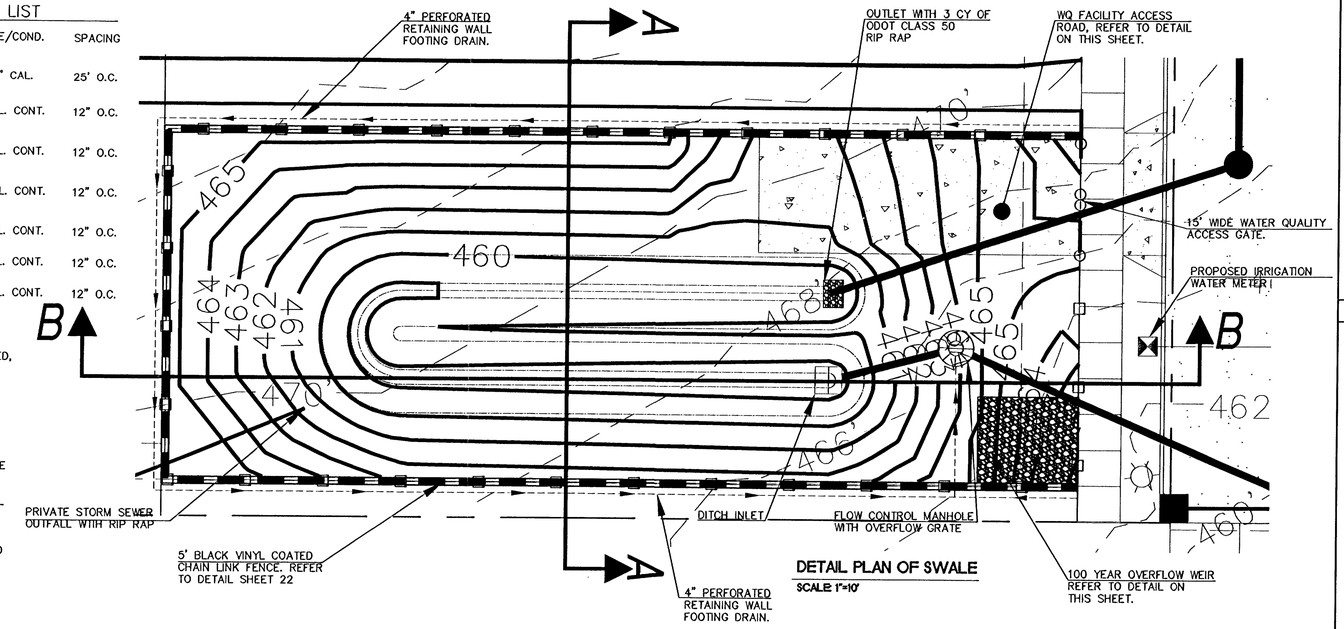
PLANTING SHALL BE EXECUTED IN ACCORDANCE TO STANDARDS ADOPTED BY OREGON LANDSCAPE CONTRACTORS BOARD (OLCB).

IRRIGATION: A TEMPORARY IRRIGATION SYSTEM SHOULD BE USED DURING THE TWO YEARS THAT THE PLANTS ARE ESTABLISHING.

RAIN GARDEN AREA SHALL BE MAINTAINED ON A REGULAR SCHEDULE TO KEEP A WEED-FREE AND TIDY APPEARANCE.

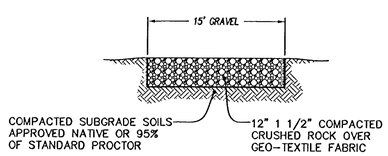
PLANTING PROCEDURE SHALL FOLLOW RAIN GARDEN PLANTING DETAIL FROM CITY OF GRESHAM #GS-15.

PERENNIAL ACCENT PLANTS AND BULBS (LIKE PACIFIC COAST IRIS) MAY BE PLANTED SPORADICALLY THROUGHOUT RAIN GARDEN TO ADD SEASONAL COLOR AND VARIETY.



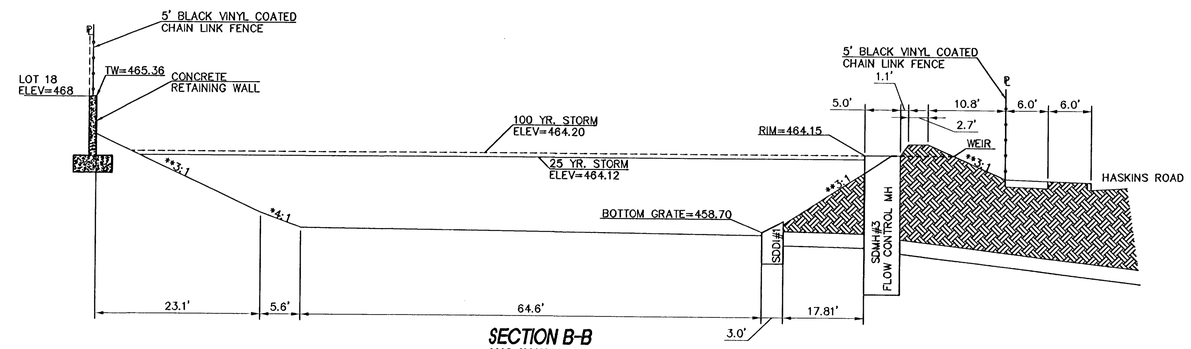
DETAIL PLAN OF SWALE

SCALE 1"=10'



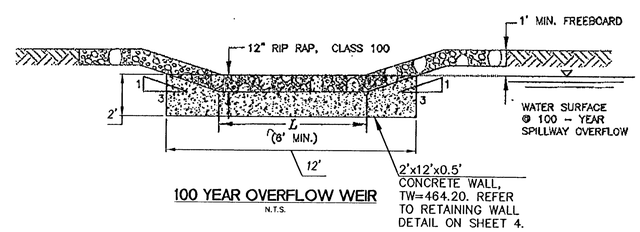
POND ACCESS - TYPICAL SECTION

N.T.S.



SECTION B-B

WQ SWALE DETAIL
*4:1 MAX SLOPE-TREATMENT AREA
**3:1 MAX SLOPE
NTS

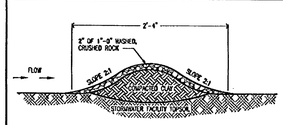


100 YEAR OVERFLOW WEIR

N.T.S.

AS-BUILT

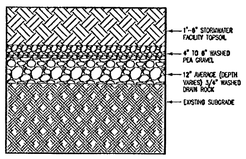
DATE JMK 7-25-08



CHECK DAM

SOIL NOTES:

1. See City of Portland Standard Construction Specifications Section 01040.14 (d) - Stormwater Facility Topsoil.
2. The soil mix shall consist of 67% sandy loam topsoil and 33% compost material by volume. Topsoil shall be a sandy loam as defined by the ASTM soil texture classification. Soil classification and other specifications must be evaluated and reported by an accredited soils testing laboratory and approved by the engineer prior to delivery of topsoil to project site.
3. If no drain rock or pea gravel is specified, excavate native soil 18" below the finish grade of the facility and rototill exposed native soil.
4. Install topsoil in a manner that ensures adequate infiltration. Place in two equal lifts. (If no drain rock is specified rototill the first lift into native soil.) Lifts should not be compacted, but rather placed in a manner to reduce excessive erosion or settlement. Lifts may be lightly watered to encourage natural compaction or, if necessary, rolled with a water-filled landscape roller. Slightly overfill the facility above proposed finished grade to accommodate natural settlement.
5. Pea gravel is specified to separate topsoil from drain rock when drain rock is specified. Geotextile fabric can be used for this purpose but is prone to clogging when used in combination with soils than have high clay and/or silt content. Geotextile fabric can also be used when there are concerns for lateral flow along the walls of the facility or other specific design concerns.



SOIL PROFILE

CHECK DAM SPACING

Facility Length	Longitudinal Street Slope	# of Check Dams *	Additional Inlets **
30	<=1%	0	None
	>1%	1	None
31 - 50	<=1%	1	None
	>1%	2	1
51 - 70	<=1%	2	1
	>1%	3	2
71-90	<=1%	3	2
	>1%	4	3
91 +	<=1%	4	3
	>1%	5	4

TABLE 1

CHECK DAM NOTES:

1. Check Dams to be evenly spaced between inlet and outlet. Additional requirements maybe necessary on steep slopes.
2. Additional inlets to be placed downstream of check dams.
3. Height of check dam 2" less than depth of facility topsoil.

VEGETATED STORMWATER FACILITIES IN THE PUBLIC RIGHT-OF-WAY

TITLE: SOIL & CHECK DAM DETAILS

SHEET NUMBER: P-1

APPROVED	DATE
CHIEF ENGINEER, DES	7/25/02
CITY ENGINEER	7/26/02
CHIEF ENGINEER, PWB	7/26/02

NO.	REVISIONS	DATE	BY
1	DES RDWY - SKMT.DWG	7/25/02	RWB
	FINAL DSGNT - SKMT.DWG	7/15/02	RWB
	DRAFT - SKMT.DWG	11/14/01	RWB

File name: SKMT.dwg Aug 02 2007 - 1:49pm rrobac

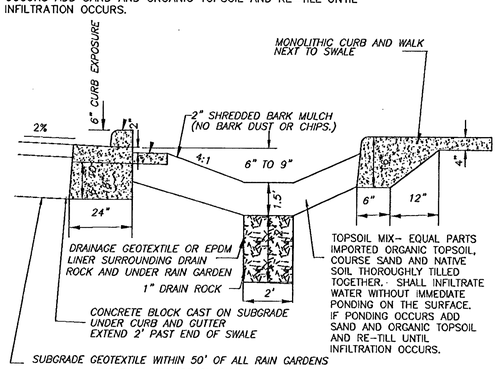
Drafted Using AutoCAD Software

SECTION A-A/RAIN GARDEN

SCALE NTS

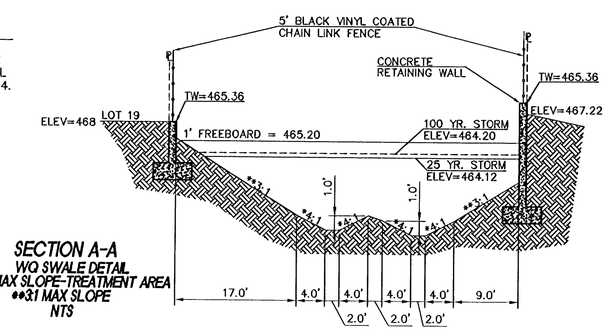
RAIN GARDEN PLANTING TOPSOIL MIX

-EQUAL PARTS IMPORTED ORGANIC TOPSOIL, COURSE SAND AND NATIVE SOIL THOROUGHLY TILLED TOGETHER. SHALL INFILTRATE WATER WITHOUT IMMEDIATE PONDING ON THE SURFACE. IF PONDING OCCURS ADD SAND AND ORGANIC TOPSOIL AND RE-TILL UNTIL INFILTRATION OCCURS.



NOTE: IN HILLSIDE PHYSICAL CONSTRAINT DISTRICT OR ON SLOPES OVER 15% LINE RAIN GARDEN AND DRAIN ROCK WITH 30 MIL EPDM. INSTALL 4" DRAIN PIPE IN DRAIN ROCK. CONNECT DRAIN PIPE TO STORM SEWER INLET.

RAIN GARDEN TYPICAL SECTION



SECTION A-A

WQ SWALE DETAIL
*4:1 MAX SLOPE-TREATMENT AREA
**3:1 MAX SLOPE
NTS

LEGEND

PROPOSED SIDEWALK	PROPOSED 8" WATER LINE
<8"SS PROPOSED 8" SANITARY SEWER LINE	PROPOSED FIRE HYDRANT
<12"SD PROPOSED 12" STORM DRAIN LINE	PROPOSED STREET LIGHT
EXISTING SANITARY MANHOLE & LINE	EXISTING STREET LIGHT
PROPOSED CATCH BASIN	EXISTING WATER VALVE
EXISTING WATER LINE	100 YEAR STORM EVENT OVERFLOW PATH.

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sfadesigngroup.com

WQ/DETENTION PLAN
DOUGLAS PARK

REGISTERED PROFESSIONAL ENGINEER — OREGON — BRENT E. FOLTZ — VALID THROUGH 12-31-09

NO.	DATE	REVISION	BY
1	10-16-07	REVISED RAIN GARDEN	DBB
2	10-16-07	WEIR REVISION	DBB
3	10-16-07	SWALE SEC. A-A REVISION	DBB
4	11-26-07	SWALE SEC. A-A REVISION	DBB
5	11-26-07	WEIR REVISION	DBB
6	11-26-07	ADDED SWALE SEC. B-B	DBB
7	11-26-07	REVISED WQ FACILITY	DBB

DESIGNED BY DBB DATE 6-1-07
DRAWN BY DBB DATE 6-1-07
REVIEWED BY BEF DATE 6-1-07
PROJECT NO. 105-016 REF. ____
SCALE HORZ: 1"=30' VERT: 1"=3'
105ISBTRT.dwg

SHEET 13 OF 22

PROJECT DOUGLAS PARK
NO. 105-016
TYPE ASBUILT

SANITARY LATERAL DATA

LOT NO.	D.S. M.H.	DIST. FROM D.S. MH	LENGTH	SIZE	MATERIAL	NV. EL. @ MAINLINE	INV. EL. @ PLUG	SLOPE	DEPTH @ PLUG
1	EX. #2	238.75'	36.52'	4"	ASTM D 3034 SDR-35	506.79	510.13	0.0915	10.40'
2	EX. #2	161.87'	35.14'	4"	ASTM D 3034 SDR-35	506.38	514.34	0.2265	7.60'
3	EX. #2	50.00	34.00'	4"	ASTM D 3034 SDR-35	505.62	509.50	0.1091	6.50'
4	SSMH#8	0.00'	32.70'	4"	ASTM D 3034 SDR-35	508.11	511.48	0.1031	7.10'
5	SSMH#7	0.00'	31.80'	4"	ASTM D 3034 SDR-35	507.31	511.80	0.1412	7.20'
6	SSMH#6	136.42'	36.00'	4"	ASTM D 3034 SDR-35	506.39	517.72	0.3147	6.95'
7	SSMH#6	85.62'	36.00'	4"	ASTM D 3034 SDR-35	506.08	516.88	0.3000	6.10'
8	SSMH#6	34.82'	36.00'	4"	ASTM D 3034 SDR-35	505.78	515.42	0.2678	8.00'
9	SSMH#6	0.00'	33.78'	4"	ASTM D 3034 SDR-35	505.74	513.26	0.2226	7.75'
10	SSMH#5	0.00'	46.04'	4"	ASTM D 3034 SDR-35	502.36	506.01	0.0793	7.15'

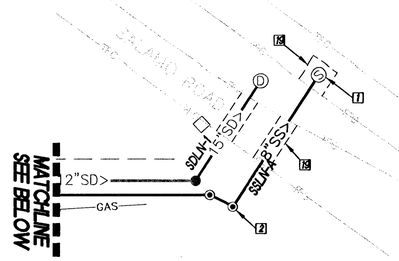
SANITARY LATERAL DATA

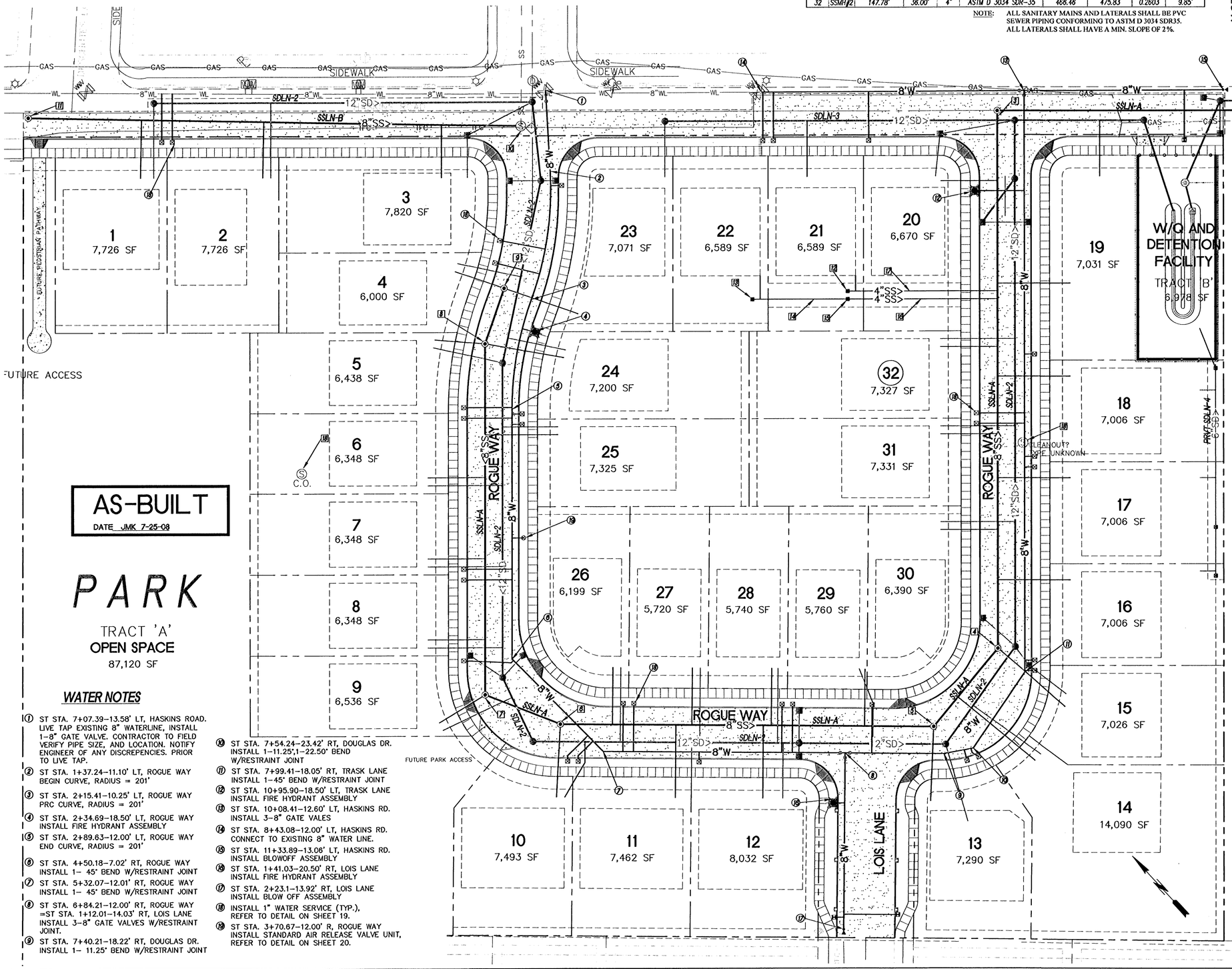
LOT NO.	D.S. M.H.	DIST. FROM D.S. MH	LENGTH	SIZE	MATERIAL	NV. EL. @ MAINLINE	INV. EL. @ PLUG	SLOPE	DEPTH @ PLUG
11	SSMH#4	162.22'	46.00'	4"	ASTM D 3034 SDR-35	492.36	497.43	0.1102	8.20'
12	SSMH#4	107.09'	46.00'	4"	ASTM D 3034 SDR-35	485.10	492.57	0.1624	5.50'
13	SSMH#4	0.00'	46.92'	4"	ASTM D 3034 SDR-35	471.09	472.20	0.0200	8.00'
14	SSMH#3	39.79'	63.13'	4"	ASTM D 3034 SDR-35	469.61	471.04	0.0200	8.00'
15	SSMH#3	0.00'	56.29'	4"	ASTM D 3034 SDR-35	468.20	469.50	0.0200	8.00'
16	SSMH#2	294.36'	46.00'	4"	ASTM D 3034 SDR-35	467.41	475.63	0.1787	6.55'
17	SSMH#2	230.36'	46.00'	4"	ASTM D 3034 SDR-35	467.00	468.09	0.0200	8.00'
18	SSMH#2	166.36'	46.00'	4"	ASTM D 3034 SDR-35	466.58	467.67	0.0200	8.00'
19	SSMH#2	108.00'	46.00'	4"	ASTM D 3034 SDR-35	466.03	467.12	0.0200	10.80'
20	SSMH#2	43.69'	35.65'	4"	ASTM D 3034 SDR-35	465.78	475.00	0.2586	7.00'

SANITARY LATERAL DATA

LOT NO.	D.S. M.H.	DIST. FROM D.S. MH	LENGTH	SIZE	MATERIAL	NV. EL. @ MAINLINE	INV. EL. @ PLUG	SLOPE	DEPTH @ PLUG
21	SSMH#2	112.77'	98.89	4"	ASTM D 3034 SDR-35	466.23	489.93	0.2397	5.90'
22	SSMH#2	117.77'	163.90'	4"	ASTM D 3034 SDR-35	466.27	498.99	0.1996	5.30'
23	SSMH#8	0.00'	49.30'	4"	ASTM D 3034 SDR-35	508.11	509.99	0.0416	6.50'
24	SSMH#7	0.00'	50.44'	4"	ASTM D 3034 SDR-35	507.23	511.14	0.0775	7.90'
25	SSMH#6	163.20'	46.00'	4"	ASTM D 3034 SDR-35	506.55	514.13	0.1648	5.80'
26	SSMH#4	202.09'	36.00'	4"	ASTM D 3034 SDR-35	497.61	505.39	0.2161	6.75'
27	SSMH#4	152.09'	36.00'	4"	ASTM D 3034 SDR-35	491.03	498.79	0.2156	6.00'
28	SSMH#4	102.09'	36.00'	4"	ASTM D 3034 SDR-35	484.45	491.45	0.1944	7.80'
29	SSMH#4	43.40'	36.00'	4"	ASTM D 3034 SDR-35	476.72	481.89	0.1436	8.70'
30	SSMH#2	262.78'	36.00'	4"	ASTM D 3034 SDR-35	467.21	479.48	0.3408	6.70'
31	SSMH#2	202.78'	36.00'	4"	ASTM D 3034 SDR-35	466.82	479.53	0.3531	3.25'
32	SSMH#2	147.78'	36.00'	4"	ASTM D 3034 SDR-35	466.46	475.83	0.2603	9.85'

NOTE: ALL SANITARY MAINS AND LATERALS SHALL BE PVC SEWER PIPING CONFORMING TO ASTM D 3034 SDR35. ALL LATERALS SHALL HAVE A MIN. SLOPE OF 2%.





AS-BUILT
DATE JMK 7-25-08

PARK

TRACT 'A'
OPEN SPACE
87,120 SF

WATER NOTES

1. ST STA. 7+07.39–13.58' LT, HASKINS ROAD. LIVE TAP EXISTING 8" WATERLINE, INSTALL 1–8" GATE VALVE. CONTRACTOR TO FIELD VERIFY PIPE SIZE, AND LOCATION. NOTIFY ENGINEER OF ANY DISCREPENCIES. PRIOR TO LIVE TAP.
2. ST STA. 1+37.24–11.10' LT, ROGUE WAY BEGIN CURVE, RADIUS = 201'
3. ST STA. 2+15.41–10.25' LT, ROGUE WAY PRC CURVE, RADIUS = 201'
4. ST STA. 2+34.69–18.50' LT, ROGUE WAY INSTALL FIRE HYDRANT ASSEMBLY
5. ST STA. 2+89.63–12.00' LT, ROGUE WAY END CURVE, RADIUS = 201'
6. ST STA. 4+50.18–7.02' RT, ROGUE WAY INSTALL 1– 45° BEND W/RESTRAINT JOINT
7. ST STA. 5+32.07–12.01' RT, ROGUE WAY INSTALL 1– 45° BEND W/RESTRAINT JOINT
8. ST STA. 6+84.21–12.00' RT, ROGUE WAY =ST STA. 1+12.01–14.03' RT, LOIS LANE INSTALL 3–8" GATE VALVES W/RESTRAINT JOINT.
9. ST STA. 7+40.21–18.22' RT, DOUGLAS DR. INSTALL 1– 11.25° BEND W/RESTRAINT JOINT
10. ST STA. 7+54.24–23.42' RT, DOUGLAS DR. INSTALL 1–11.25',1–22.50° BEND W/RESTRAINT JOINT
11. ST STA. 7+99.41–18.05' RT, TRASK LANE INSTALL 1–45° BEND W/RESTRAINT JOINT
12. ST STA. 10+95.90–18.50' LT, TRASK LANE INSTALL FIRE HYDRANT ASSEMBLY
13. ST STA. 10+08.41–12.60' LT, HASKINS RD. INSTALL 3–8" GATE VALES
14. ST STA. 8+43.08–12.00' LT, HASKINS RD. CONNECT TO EXISTING 8" WATER LINE.
15. ST STA. 11+33.89–13.06' LT, HASKINS RD. INSTALL BLOWOFF ASSEMBLY
16. ST STA. 1+41.03–20.50' RT, LOIS LANE INSTALL FIRE HYDRANT ASSEMBLY
17. ST STA. 2+23.1–13.92' RT, LOIS LANE INSTALL BLOW OFF ASSEMBLY
18. INSTALL 1" WATER SERVICE (TYP.), REFER TO DETAIL ON SHEET 19.
19. ST STA. 3+70.67–12.00' R, ROGUE WAY INSTALL STANDARD AIR RELEASE VALVE UNIT, REFER TO DETAIL ON SHEET 20.

SANITARY SEWER NOTES

1. EX. SSMH#1
   STA. 1+00, SSLN–A
   CONNECT TO EXISTING SANITARY MANHOLE, REFER TO DETAIL ON SHEET 21. CONTRACTOR TO FIELD VERIFY SLOPE, MATERIAL, IE, AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
2. SSMH#1
   STA. 1+66.10, SSLN–A
3. SSMH#2
   STA. 4+80.21, SSLN–A
   ST STA. 9+91.43–5.00' RT, HASKINS RD.
4. SSMH#3
   STA. 8+12.48, SSLN–A
   ST STA. 8+07.82–2.84' LT, TRASK LANE
5. SSMH#4
   STA. 8+76.18, SSLN–A
   ST STA. 7+40.36–0.01' RT DOUGLAS DR.
6. SSMH#5
   STA. 11+11.06, SSLN–A
   ST STA. 5+04.38–0.73' RT, DOUGLAS DR.
7. SSMH#6
   STA. 11+61.98, SSLN–A
   ST STA. 4+61.39–18.42' RT, ROGUE WAY
8. SSMH#7
   STA. 13+82.57, SSLN–A
   ST STA. 2+50.20–9.40' RT, ROGUE WAY
9. SSMH#8
   STA. 14.19.48, SSLN–A
   ST STA. 2+14.35–8.30' RT, ROGUE WAY.
10. EX. SSMH#2
    STA. 1+00, SSLN–B
    ST STA. 6+91.90–8.79' RT, HASKINS RD.
11. SSMH#9
    STA. 4+09.91, SSLN–B
    ST STA. 3+82.04–3.20' RT, HASKINS RD.
12. SSCO#1
    STA. 5+86.44–94.12'RT, SSLN–A
    INSTALL STD CLEANOUT
    RIM=±498.76
13. SSCO#2
    STA. 5+91.36–154.13'RT, SSLN–A
    INSTALL STD CLEANOUT
    RIM=±510.22
14. 60 L.F 4" PVC D3034
    @S=0.1996
15. SSCO#3
    STA. 5+91.36–94.13'RT, SSLN–A
    INSTALL STANDARD CLEANOUT
    RIM=±497.99
16. 94.13 L.F 4" PVC D3034
    @S=0.1996
17. 98.89 L.F 4" PVC D3034
    @S=0.2397
18. REMOVE EXISTING CLEANOUT
19. STREET T–CUT
    SAWCUT FOR PROPOSED SANITARY SEWER LINE, REFER TO DETAIL ON SHEET 19.

LEGEND

- PROPOSED SIDEWALK
- <8"SS — PROPOSED 8" SANITARY SEWER LINE
- <12"SD — PROPOSED 12" STORM DRAIN LINE
- 8"W — PROPOSED 8" WATER LINE
- PROPOSED FIRE HYDRANT
- PROPOSED STREET LIGHT - NOTE: INSTALL STREET LIGHTS PER CITY STANDARDS
- EXISTING STREET LIGHT
- PROPOSED CATCH BASIN
- EXISTING WATER VALVE
- EXISTING WATER LINE
- EXISTING SANITARY MANHOLE & LINE

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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SANITARY/WATER PLAN
DOUGLAS PARK

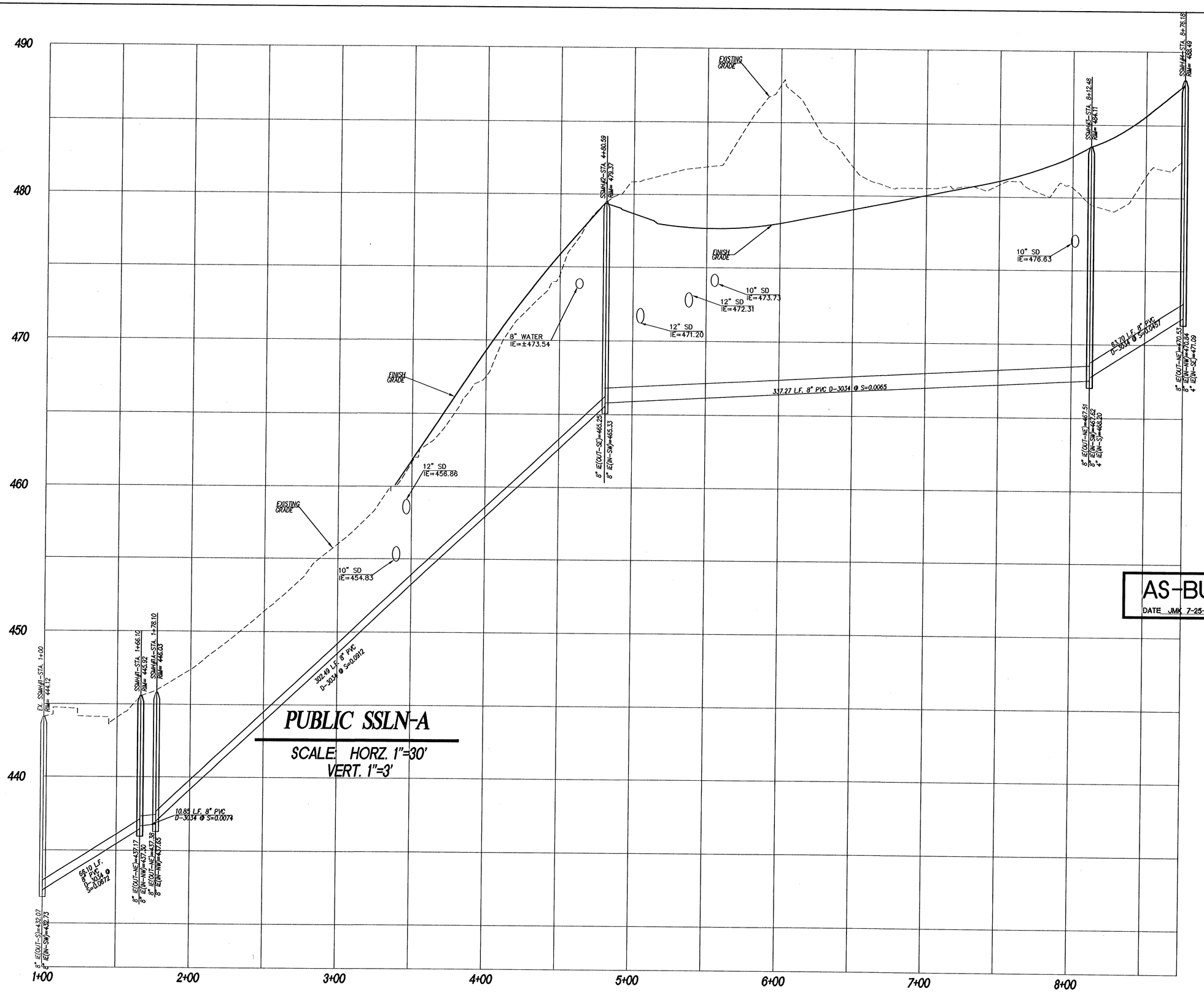
REGISTERED PROFESSIONAL ENGINEER — BRENT E. FOLTZ — OREGON — VALID THROUGH 12-31-09

NO.	DATE	REVISION	BY

DESIGNED BY DSB DATE 6-1-07
DRAWN BY DSB DATE 6-1-07
REVIEWED BY BEF DATE 6-1-07
PROJECT NO. 105-016 REF.
SCALE HORZ: 1"=30' VERT:N/A
105016STRT.dwg

SHEET 14 OF 22

PROJECT DOUGLAS PARK
NO. 105-016
TYPE ASBUILT



AS-BUILT
DATE JMK 7-25-08

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Portland, Oregon 97223
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SANITARY PROFILE
DOUGLAS PARK

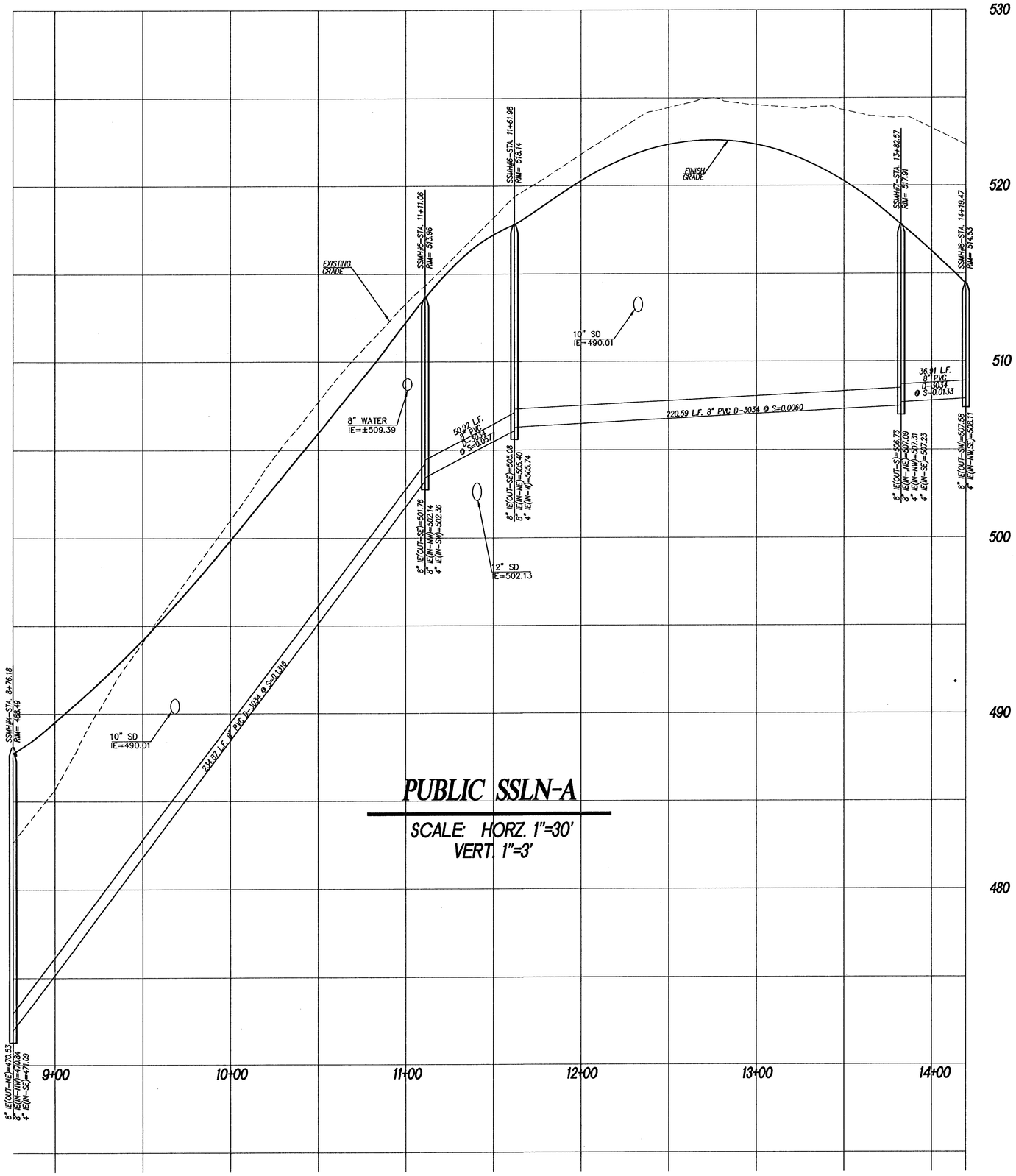
REGISTERED PROFESSIONAL ENGINEER 54627PE OREGON MAR. 12, 2008 BRENT E. HOLTON
VALID THROUGH 12-31-09

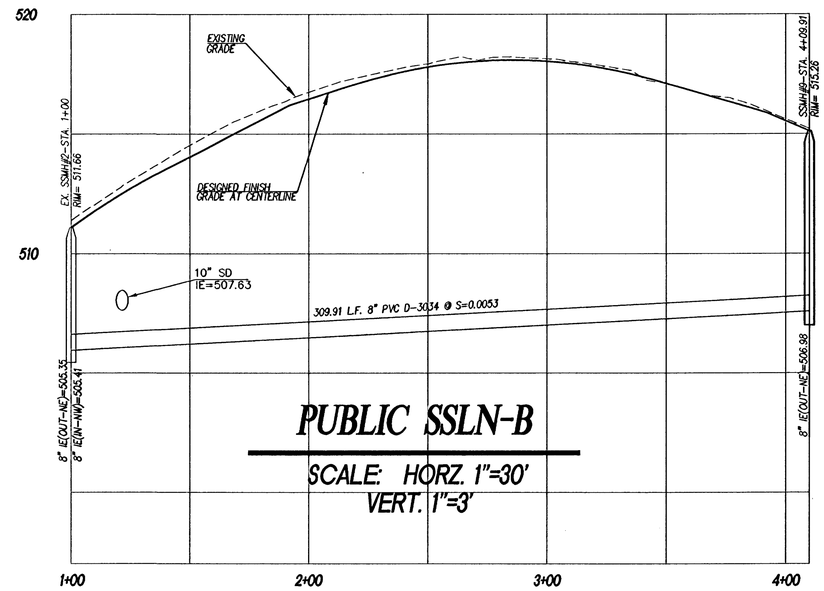
NO.	DATE	REVISION	BY

DESIGNED BY DSB DATE 6-1-07
DRAWN BY DSB DATE 6-1-07
REVIEWED BY BEF DATE 6-1-07
PROJECT NO. 105-016 REF. ____
SCALE HORZ: 1"=30' VERT: 1"=3'
105ISSTRT.dwg

SHEET 15 OF 22

PROJECT DOUGLAS PARK
NO. 105-016
TYPE ASBUILT





AS-BUILT

DATE JMK 7-25-08

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SANITARY PROFILES
DOUGLAS PARK

REGISTERED PROFESSIONAL ENGINEER 54527PE OREGON JANUARY 12, 2009 BRENT E. HOLLY

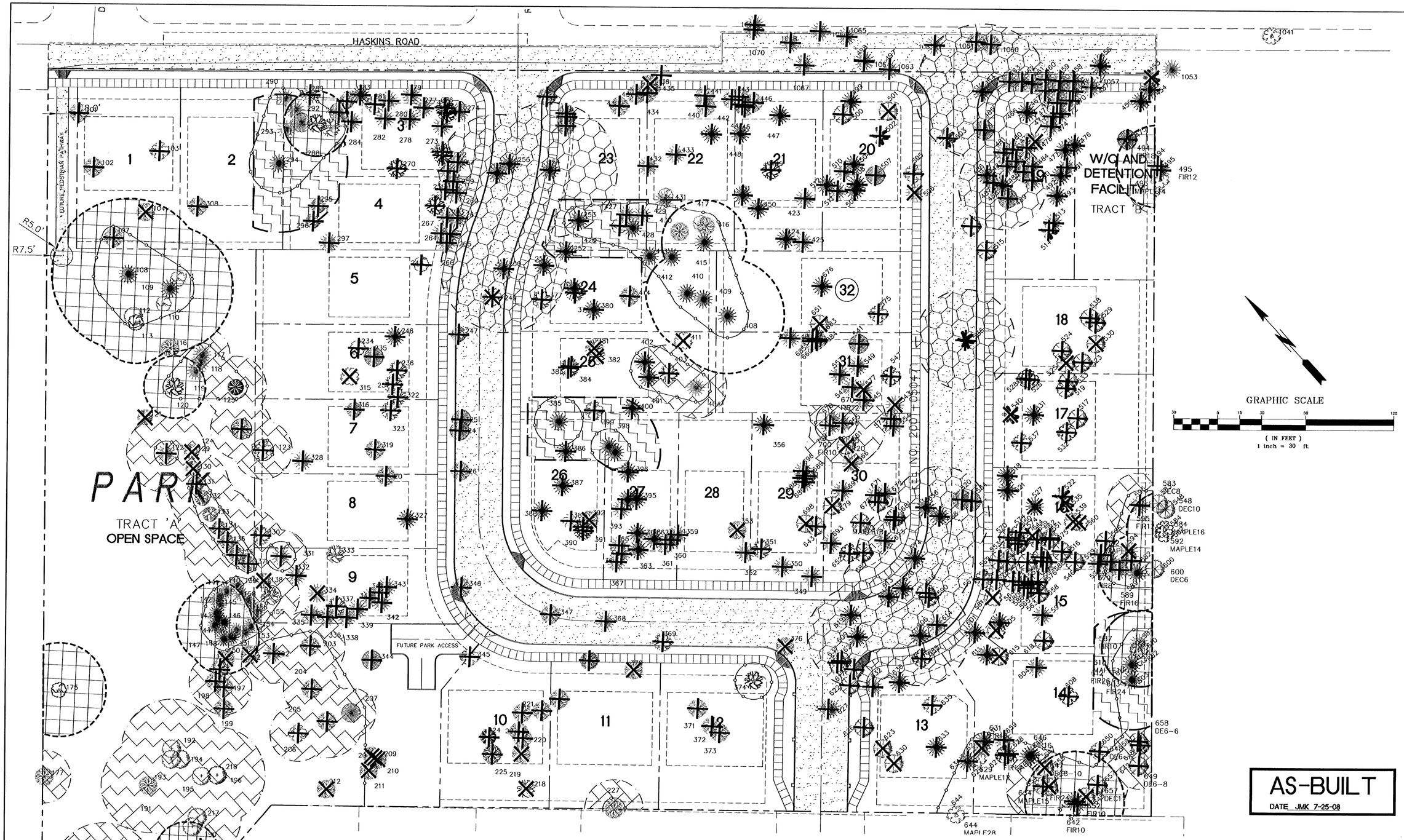
VALID THROUGH 12-31-09

NO.	DATE	REVISION	BY

DESIGNED BY DBB DATE 6-1-07
DRAWN BY DBB DATE 6-1-07
REVIEWED BY BEF DATE 6-1-07
PROJECT NO. 105-016 REF. ____
SCALE HORZ. 1"=30' VERT. 1"=3'
105SSTRT.dwg

SHEET 16 OF 22

PROJECT DOUGLAS PARK
NO. 105-016
TYPE ASBUILT



AS-BUILT

DATE JMK 7-25-08

LEGEND

- EXISTING SIGNIFICANT TREE
- EXISTING NON-SIGNIFICANT TREE
- TREES TO BE SAVED
- TREE TO BE REMOVED
- HAZARDOUS TREE TO BE REMOVED
- PROPOSED BUILDING ENVELOPE

NOTE: 1) PLEASE REFER TO THE *TREE CONDITION INVENTORY*, INCLUDED WITH THE SUBDIVISION APPLICATION, FOR INFORMATION REGARDING TREE TYPE, SIZE AND CONDITION.

2) TREE PROTECTION FENCING WILL BE PROVIDED CONSISTENT WITH CITY REQUIREMENTS FOR ALL TREES TO BE PRESERVED.

3) TOTAL AREA OF SIGNIFICANT TREES ON NON-TYPE I AND II LAND EQUALS 391,113 SQUARE FEET.

TREE CANOPY AREA

- PRESERVED SIGNIFICANT TREE CANOPY (DRIPLINE PLUS 10') - 39,595 SF
- PRESERVED SIGNIFICANT TREE CANOPY NOT CONFORMING TO CODE CRITERIA - 12,577 SF
- PRESERVED NON-SIGNIFICANT TREE CANOPY - 37,595 SF
- SIGNIFICANT TREE CANOPY WITHIN PROPOSED RIGHT-OF-WAY (TO BE REMOVED) - 39,129 SF

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TREE PRESERVATION PLAN
DOUGLAS PARK

REGISTERED PROFESSIONAL ENGINEER — OREGON — BRENT E. FILLMORE — AUG 12, 2008

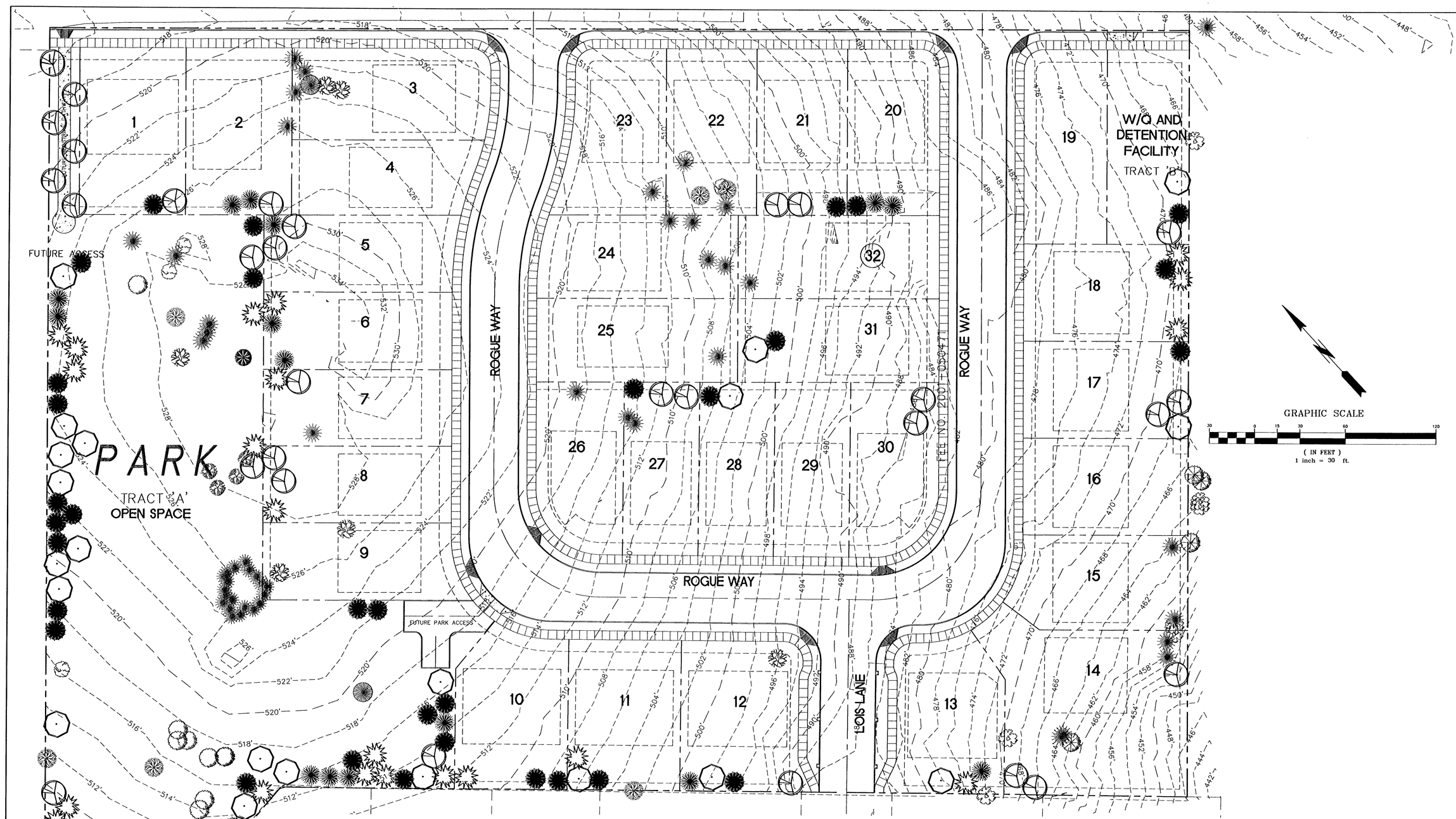
VALID THROUGH 12-31-09

NO.	DATE	REVISION	BY

DESIGNED BY MLS DATE 6-1-07
DRAWN BY AS DATE 6-1-07
REVIEWED BY MLS DATE 6-1-07
PROJECT NO. 105-016 REF.
SCALE HORZ: 1" = 30' VERT: N/A
105016TREE.dwg

SHEET 17 OF 22

PROJECT	DOUGLAS PARK
NO.	105-016
TYPE	ASBUILT



TREE MITIGATION PLANT LIST

	COMMON TREE NAME / SCIENTIFIC NAME	SIZE/COND.	SPACING
28	DOUGLAS FIR / PSEUDOTSUGA MENZIEZII	2" CAL.	AS SHOWN
28	OREGON WHITE OAK / QUERCUS GARRYANA	2" CAL.	AS SHOWN
30	BIG LEAF MAPLE / ACER MACROPHYLLUM	2" CAL.	AS SHOWN
35	WESTERN RED CEDAR / THUJA PLICATA	2" CAL.	AS SHOWN
20	WESTERN HEMLOCK / TSUGA HETEROPHYLLA	2" CAL.	AS SHOWN

NOTE:
CONTRACTOR IS RESPONSIBLE FOR PLANT QUANTITIES. IF THERE IS A DISCREPANCY BETWEEN WHAT IS SHOWN AND THE QUANTITY LISTED, DESIGN INTENT PREVAILS.

PLANTING SHOULD BE DONE IN NATURAL-LOOKING CLUSTERS. PLANT ALL CLUSTERS IN UNEVEN NUMBERS (GROUP OF 3, 5, 7, ETC.)

TEMPORARY IRRIGATION IS REQUIRED FOR A TWO YEAR PLANT ESTABLISHMENT PERIOD. WATERING SHOULD BE PROVIDED AT A RATE OF AT LEAST ONE INCH PER WEEK BETWEEN JUNE 15 AND OCTOBER 15.

IRRIGATION NEEDS ARE TO BE MET USING A TEMPORARY IRRIGATION SYSTEM WITH A TIMER DURING THE DRY SEASON. SYSTEMS SHOULD BE WINTERIZED DURING THE WET SEASON TO ASSURE LONGEVITY AND GUARD AGAINST DAMAGE FROM FREEZING TEMPERATURES. WATER SOURCE SHALL BE AS SHOWN ON THE APPROVED PLANS.

TREES INCHES TO BE MITIGATED=281.

—— EXISTING TREES TO REMAIN

AS-BUILT
DATE JMK 7-25-08

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TREE MITIGATION PLAN
DOUGLAS PARK

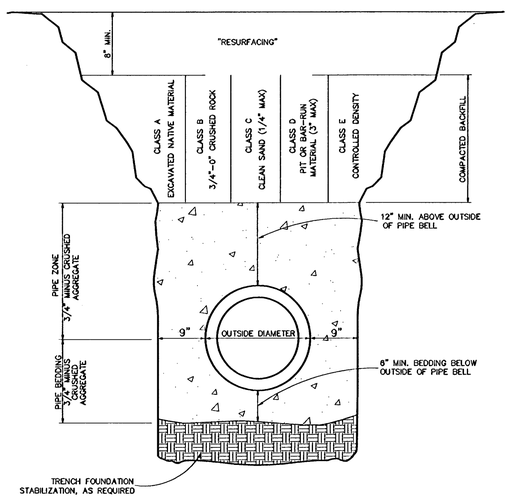
REGISTERED PROFESSIONAL ENGINEER 54627PE OREGON JULY 12, 1990 BRENT E. FOLTZ
VALID THROUGH 12-31-09

NO.	DATE	REVISION	BY

DESIGNED BY MLS DATE 12/06
DRAWN BY RJW DATE 12/06
REVIEWED BY MLS DATE 12/06
PROJECT NO. 105-016 REF. ____
SCALE HORZ: 1" = 30' VERT: N/A
105016TREEMIT.dwg

SHEET 18 OF 22

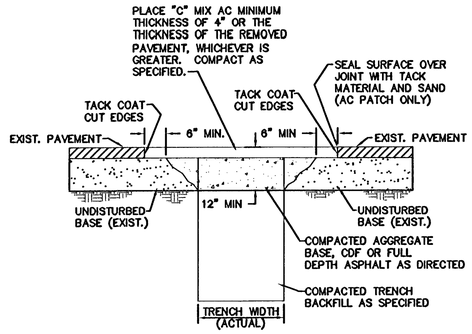
PROJECT DOUGLAS PARK
NO. 105-016
TYPE ASBUILT



Trench Backfill, Bedding and Pipe Zone

West Linn

DATE:	JAN 2000
DRAWING NO.	WL-200
FILE NO.	00-200

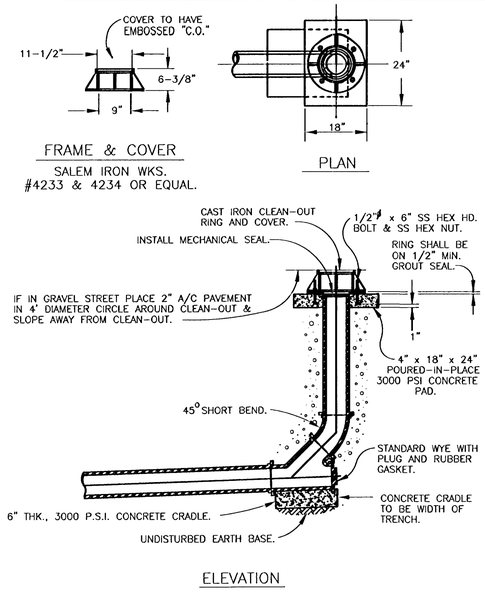


NOTES:
1. ALL EXISTING AC OR PCC PAVEMENT SHALL BE SAWCUT TO NEAT, STRAIGHT LINES PRIOR TO REPAVING.
2. CONCRETE PAVEMENT SHALL BE REPLACED WITH CONCRETE TO A MINIMUM THICKNESS OF REMOVED PAVEMENT, WHICHEVER IS GREATER.
3. IF EXISTING BASE MATERIAL IS CTB OR ATB, THEN REPLACEMENT BASE MATERIAL SHALL MATCH EXISTING.
4. ALL UTILITIES SHALL HAVE A MINIMUM COVER OF 36".
5. ALL TRENCH BACKFILL SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY PER AASHTO T-180 OR AS SPECIFIED IN THE CONTRACT DOCUMENTS.
6. ALL TRENCH BACKFILL AND PATCHING SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CITY OF WEST LINN.
7. BACKFILL SHALL BE PLACED AND COMPACTED IN A MAXIMUM OF 6" LIFTS.

Street T-Cut

West Linn

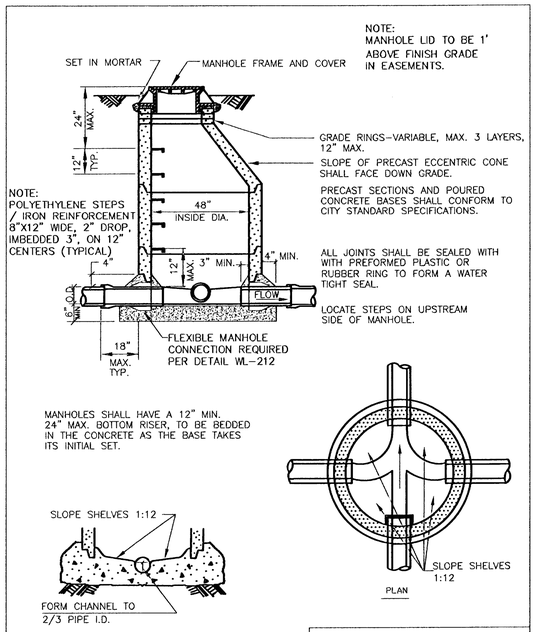
DATE:	JAN 2000
DRAWING NO.	WL-203
FILE NO.	00-203



Standard Clean Out

West Linn

DATE:	JAN 2000
DRAWING NO.	WL-206
FILE NO.	00-206

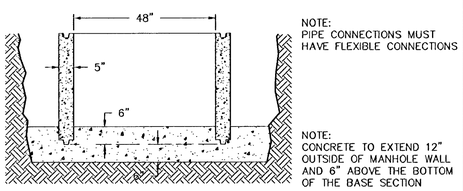


NOTE:
CHANNELS MUST BE ABLE TO PASS A 7"X30" CYLINDER INTO PIPES. SHELF SHALL NOT BE BELOW THE TOP OF THE PIPE.

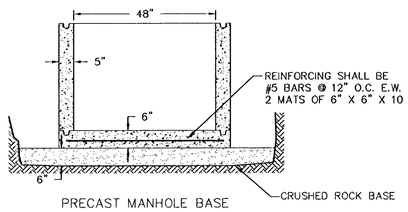
Standard Manhole for Less than 36" Pipe

West Linn

DATE:	JAN 2000
DRAWING NO.	WL-207
FILE NO.	00-207



POURED IN PLACE MANHOLE BASE



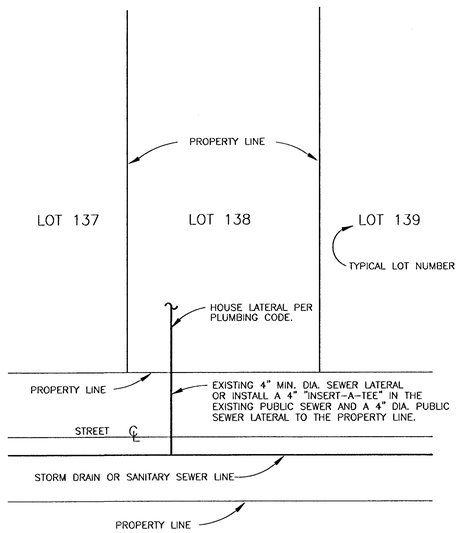
PRECAST MANHOLE BASE

NOTE:
USE 3300 PSI CONCRETE FOR EITHER MANHOLE BASE.

Manhole Base

West Linn

DATE:	JAN 2000
DRAWING NO.	WL-211
FILE NO.	00-211



TYPICAL CONNECTION FOR SINGLE FAMILY RESIDENCE.

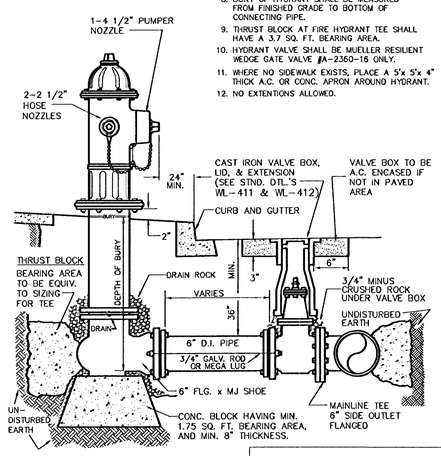
Sewer Connection Single Family

West Linn

DATE:	JAN 2000
DRAWING NO.	WL-216
FILE NO.	00-216

NOTES:

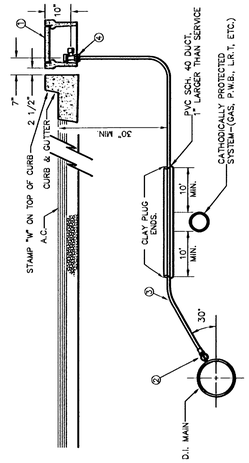
1. HYDRANTS TO BE MUELLER CENTURION MDL A-423 ONLY WITH 1 1/2" OPER. NUTS OR CLOW MEDDALION F-2545.
2. HYDRANT COLOR TO BE MILLER EQUIP. ENAMEL O E 40 (SAFETY YELLOW).
3. JOINTS TO BE RESTRAINED BY 3/4" DIA. GALVANIZED STEEL RODS AND THRUST BLOCKS OR MEGA LUGS AND THRUST BLOCKS.
4. ALL FITTINGS IN CONTACT W/CONCRETE SHALL BE WRAPPED IN PLASTIC. HYDRANT DRAIN HOLES TO REMAIN OPEN TO DRAIN ROCK AND OPERATIONAL.
5. MIN. 4 CU. FT. OF 1 1/2"-3/4" CLEAN DRAIN ROCK SHALL BE PLACED AROUND SHOE UP TO A MIN. OF 6" ABOVE DRAIN OUTLETS.
6. WHERE PLANTER STRIP EXISTS, HYDRANT SHALL BE PLACED 50 FRONT PORT IS A MINIMUM OF 24" BEHIND FACE OF CURB.
7. WHERE INTEGRAL S/W & CURB EXISTS, HYD. SHALL BE PLACED AT BACK OF SIDEWALK, OR AS DIRECTED BY ENGINEER.
8. BURY OF HYDRANT SHALL BE MEASURED FROM FINISHED GRADE TO BOTTOM OF CONNECTING PIPE.
9. THRUST BLOCK AT FIRE HYDRANT TEE SHALL HAVE A 3.7 SQ. FT. BEARING AREA.
10. HYDRANT VALVE SHALL BE MUELLER RESILIENT WEDGE GATE VALVE #A-2360-16 ONLY.
11. WHERE NO SIDEWALK EXISTS, PLACE A 5'x 5'x 4" THICK A.C. OR CONC. APRON AROUND HYDRANT.
12. NO EXTENTIONS ALLOWED.



Standard Fire Hydrant Assembly

West Linn

DATE:	JAN 2000
DRAWING NO.	WL-401
FILE NO.	00-401



MATERIALS:

1. BROOKS METER BOX, BODY NO. 37, LID AND COVER NO. 37-S.
2. MUELLER CORP. STOP NO. H-15008 OR FORD F1000-4Q SET CORP. STOP WITH OPERATING NUT AT 3 OR 9 O'CLOCK.
3. 1" SOFT TEMPER, TYPE 'K' COPPER TUBING COMPLYING WITH ASTM B-88.
4. MUELLER ANGLE METER STOP NO. H-14258 (FORD NO. KV43-444W-Q).

NOTES:

1. SUBSTITUTES FOR ANY MATERIALS SHOWN SHALL BE APPROVED BY THE CITY ENGINEER.
2. ALL PIPE AND STRUCTURE ZONES SHALL BE BACKFILLED USING 3/4" MINUS CRUSHED AGG. AND COMPACTED TO 95% MAX DENSITY AS DETERMINED BY AASHTO T-180.
3. WHEN AN ACTIVE CATHODIC PROTECTED SYSTEM IS ENCOUNTERED, SCH. 40 PVC SHALL BE INSTALLED AS SHOWN ABOVE WITH CLAY PLUG.
4. METER BOX SHALL BE CENTERED OVER THE COMPLETED METER ASSEMBLY.
5. FOR VACANT RESIDENTIAL LOTS, LOCATE SINGLE SERVICE 18" INSIDE SIDE LOT LINE.
6. TAPS INTO MAIN TO BE AT 18" CENTERLINE MIN.
7. ANGLE METER STOPS TO BE 18" FROM PROPERTY LINE AND NOT IN DRIVEWAY APPROACH.

Standard 1" Water Service

West Linn

DATE:	JAN 2000
DRAWING NO.	WL-402
FILE NO.	00-402

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DETAIL SHEET
DOUGLAS PARK

AS-BUILT
DATE JMK 7-25-08

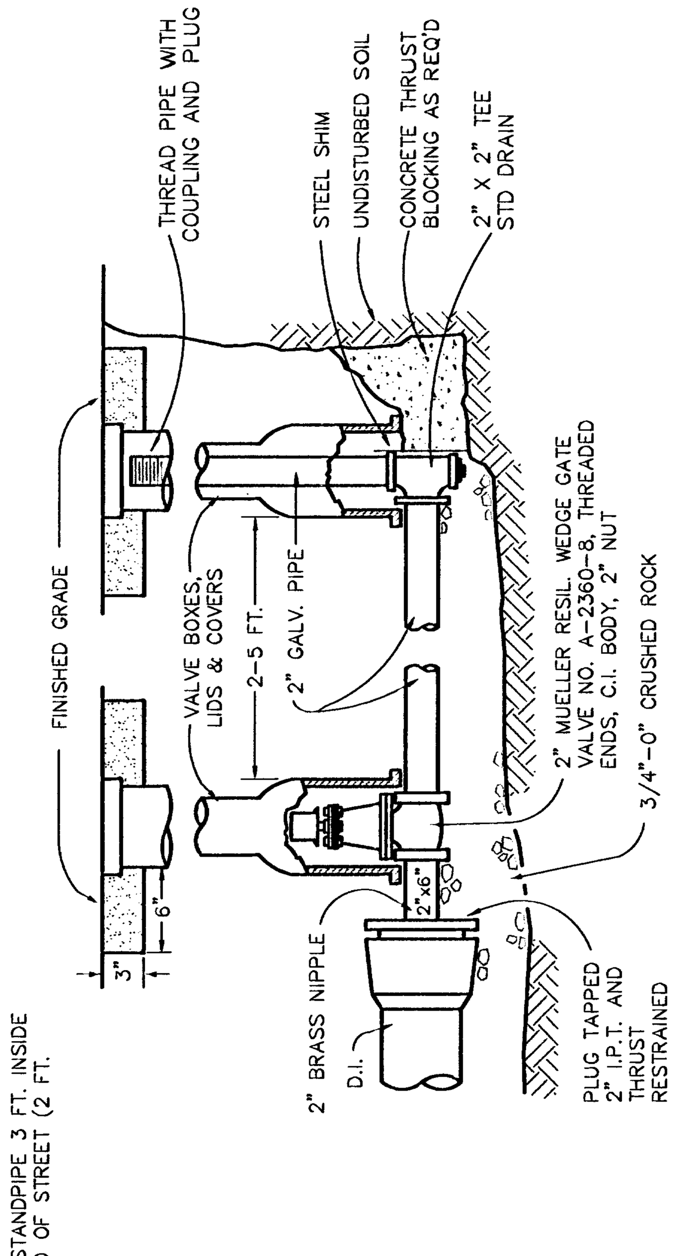
THE DETAILS ON THIS SHEET WERE PREPARED BY PUBLIC AGENCIES AND EQUIPMENT SUPPLIERS. THE PROJECT ENGINEER IS LIMITED TO THE SELECTION OF THESE DETAILS AS APPROPRIATE TO THE PROJECT.

NO.	DATE	REVISION	BY

DESIGNED BY DBB DATE 6-1-07
DRAWN BY DBB DATE 6-1-07
REVIEWED BY BEF DATE 6-1-07
PROJECT NO. 105-016 REF.
SCALE HORZ. N/A VERT. N/A
105ROCET.dwg

SHEET 19 OF 22

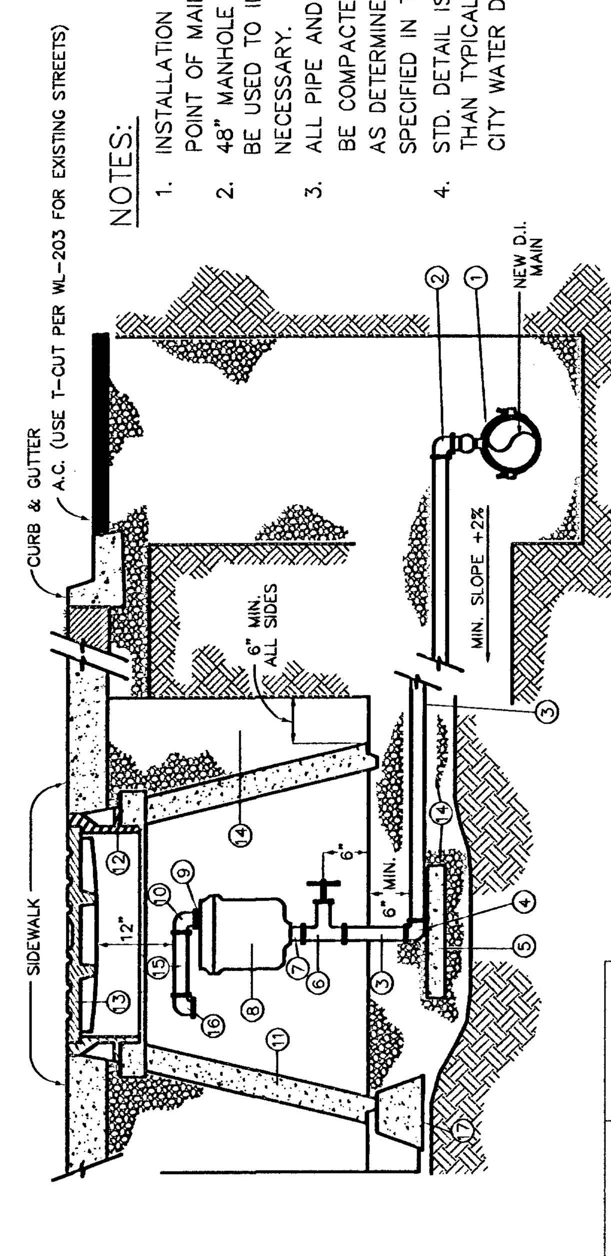
PROJECT DOUGLAS PARK
NO. 105-016
TYPE ASBUILT



NOTES:
1. VALVE BOX SHALL BE PER STANDARD DETAIL WL-411.
2. VALVE BOX TO BE ASPHALT ENCASED AS SHOWN, IF NOT IN PAVED AREA.
3. BLOW-OFF UNIT SHALL BE BACKFILLED WITH 3/4"-0" CRUSHED ROCK AND COMPACTED TO 95% OF MAX. DENSITY DETERMINED BY AASHTO T-180.
4. PLACE BLOW-OFF STANDPIPE 3 FT. INSIDE R.O.W. LINE AT END OF STREET (2 FT. FROM BARRICADE).

Standard 2" Blow-off Assembly

West Linn | DATE: JAN 2000 | DRAWING NO. WL-404A | FILE NO. 00-404A



NOTES:
1. INSTALLATION LOCATED AT HIGH POINT OF MAIN
2. 48" MANHOLE BARREL SECTIONS SHALL BE USED TO INCREASE DEPTH IF NECESSARY.
3. ALL PIPE AND STRUCTURE ZONES SHALL BE COMPACTED TO 95% OF MAX. DENSITY AS DETERMINED BY AASHTO T-180 OR AS SPECIFIED IN THE CONTRACT DOCUMENTS.
4. STD. DETAIL IS NOT FOR SHALLOWER THAN TYPICAL INSTALLATIONS. CONTACT CITY WATER DEPT. FOR OPTIONS.

MATERIALS:
1. ROCKWELL NO. 317 SERVICE SADDLE WITH STAINLESS STRAPS
2. MUELLER NO. H15045 2" CORPORATION STOP WITH 1/4 BEND ADAPT (I.P.T. MUELLER 110 CTS)
3. 2" VARIABLE LENGTH BRASS I.P.T. NIPPLE
4. 2" BRASS 90 DEGREE ELL (MUELLER 110 CTS)
5. 12" X 12" X 4" CONCRETE BLOCK
6. NIBCO NO. 113 2" BRASS GATE VALVE
7. 2" X 3" BRASS I.P.T. NIPPLE
8. 2" AIR RELEASE VALVE (VAL-MATIC #38 OR APCO #205 FOR TYPICAL INSTALLATIONS, IN SOME INSTANCES THE CITY MAY REQUIRE COMBINATION AIR RELEASE & VACUUM UNIT). INSTALL WALL BRACKETS TO SUPPORT VALVE AS NECESSARY.
9. 1/2" X 1 1/2" OR 2" X 1 1/2" BRASS I.P.T. NIPPLE
10. 1/2" OR 2" BRASS 90 DEGREE ELL (F.M. I.P.T. X F.M. I.P.T.)
11. STD. 48" CONCRETE MANHOLE CONE
12. FRAME PER STD. DWG. WL-214.
13. TAMPERPROOF MANHOLE COVER PER STD. DWG. WL-214.
14. 3/4" MINUS CRUSHED AGG.
15. 1/2" X 6" OR 2" X 6" BRASS NIPPLE, I.P.T.
16. 1/2" OR 2" BRASS 90 DEGREE ELL WITH SCREEN ON OUTLET
17. 3 EA. 12" CONCRETE PIER BLOCKS

Standard Air Release Valve Unit

West Linn | DATE: JAN 2000 | DRAWING NO. WL-405 | FILE NO. 00-405

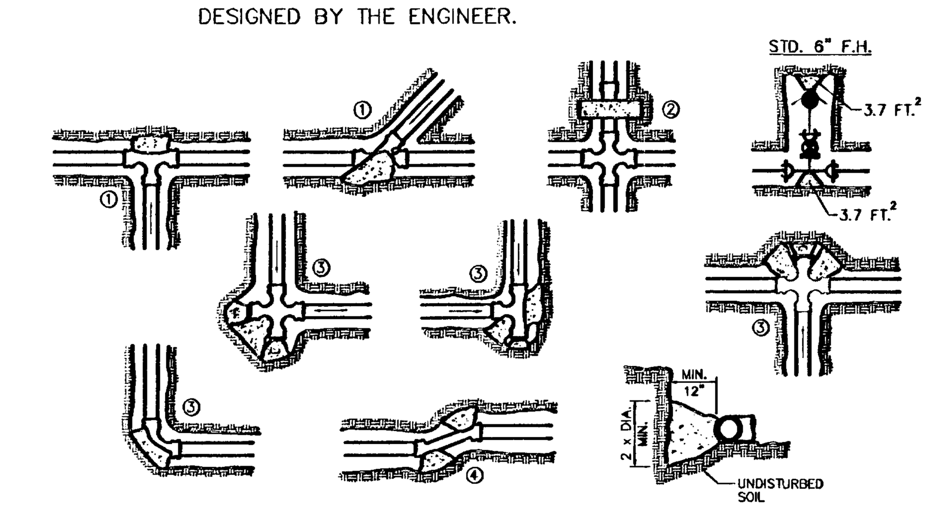
FITTING SIZE (Inches)	TEE, WYE, & ① HYDRANTS	STRADDLE BLOCK ②	90° BEND ③ PLUGGED CROSS TEE PLUGGED-RUNS	45° BEND ④	22 1/2° BEND ④	11 1/2° BEND ④
2	*	*	*	*	*	*
4	1.7	2.1	2.4	1.3	*	*
6	3.7	4.9	5.3	2.9	1.5	*
8	6.7	8.7	9.5	5.1	2.7	1.3
10	10.5	13.6	14.8	8	4.1	2
12	15.1	19.6	21.3	11.6	5.9	2.9
14						
16	26.8	34.8	37.9	20.5	10.4	5.2
18	33.9	44	47.9	25.9	12.8	6.7
LARGER	**	**	**	**	**	**

BEARING AREA OF THRUST BLOCKS (sq. ft.)

1. 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.
2. ALL FITTINGS SHALL BE WRAPPED IN PLASTIC PRIOR TO PLACEMENT OF CONCRETE.
3. BEARING SURFACE OF THRUST BLOCKING SHALL BE AGAINST UNDISTURBED SOIL
4. ALL CONCRETE MIX SHALL HAVE A MIN. 28 DAY STRENGTH OF 3000 PSI.
5. ALL PIPE ZONES SHALL BE GRAVEL FILLED AND COMPACTED.
6. THRUST BLOCKS FOR PLUGGED CROSS AND PLUGGED TEE SHALL HAVE #4 REBAR LIFTING LOOPS INSTALLED AS SHOWN.
7. VERTICAL THRUST DETAILS-SEE DWG. WL-407.
8. STRADDLE BLOCK DETAILS-SEE DWG. WL-408.

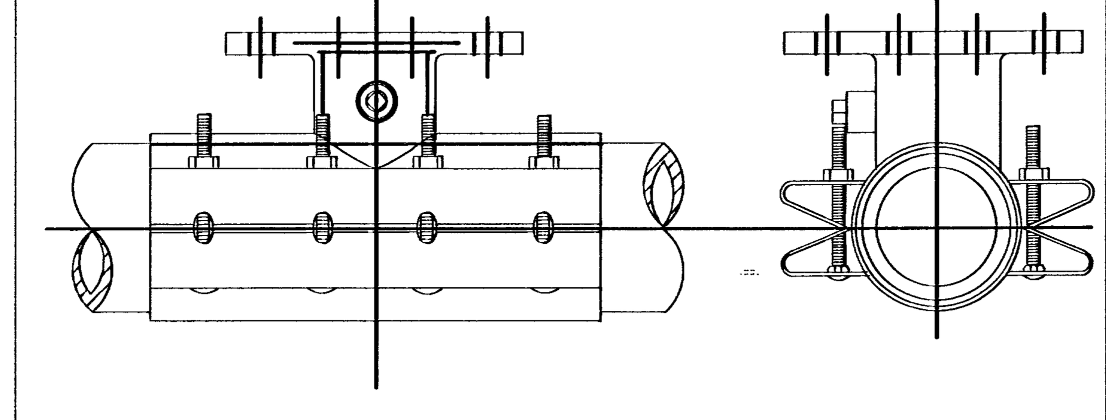
* BLOCK TO UNDISTURBED TRENCH WALLS

** THRUST BLOCKS FOR PIPES LARGER THAN 18" WILL BE INDIVIDUALLY DESIGNED BY THE ENGINEER.



Horizontal Thrust Blocking

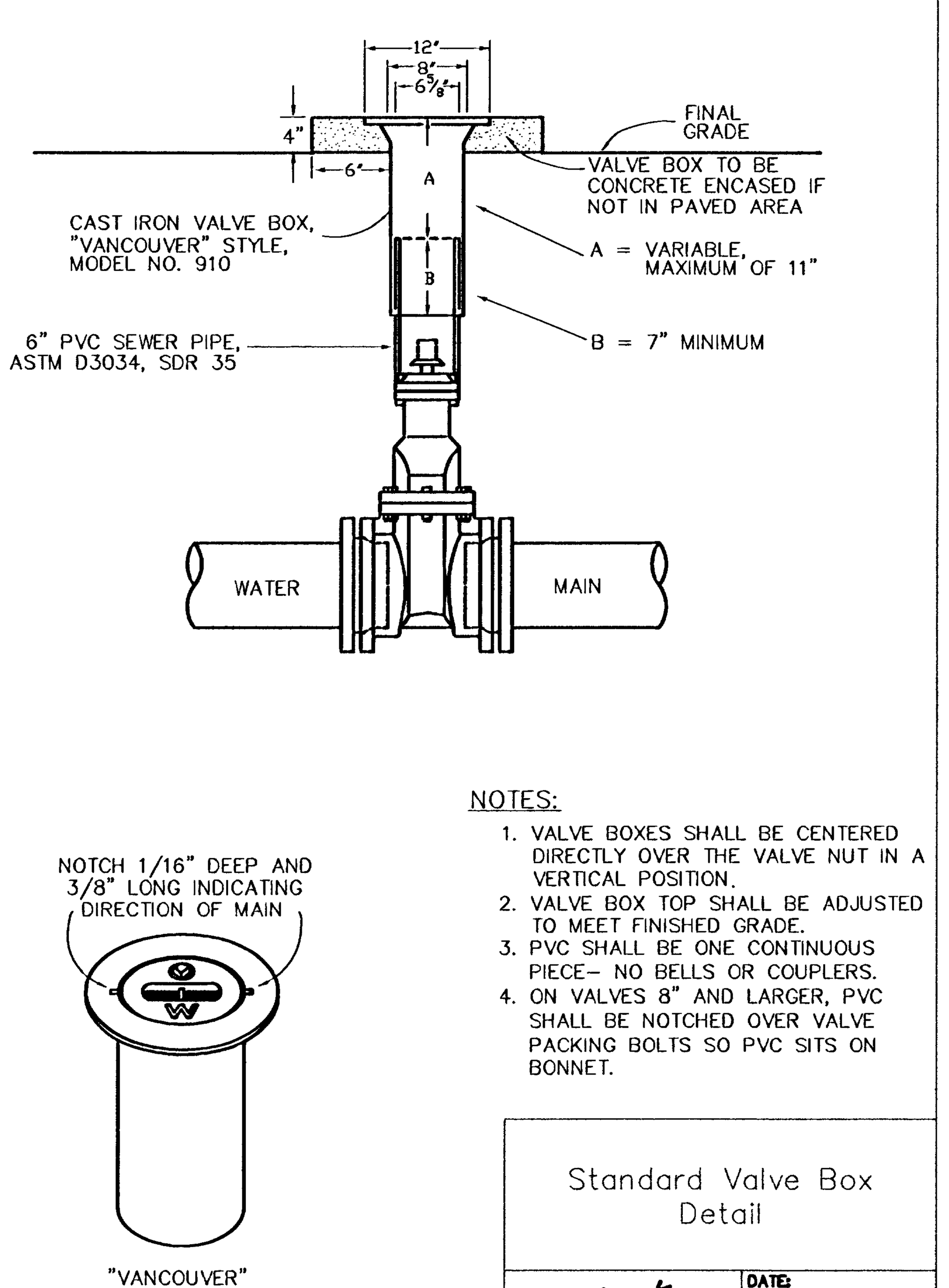
West Linn | DATE: JAN 2000 | DRAWING NO. WL-406 | FILE NO. 00-406



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

Standard Wet Tap

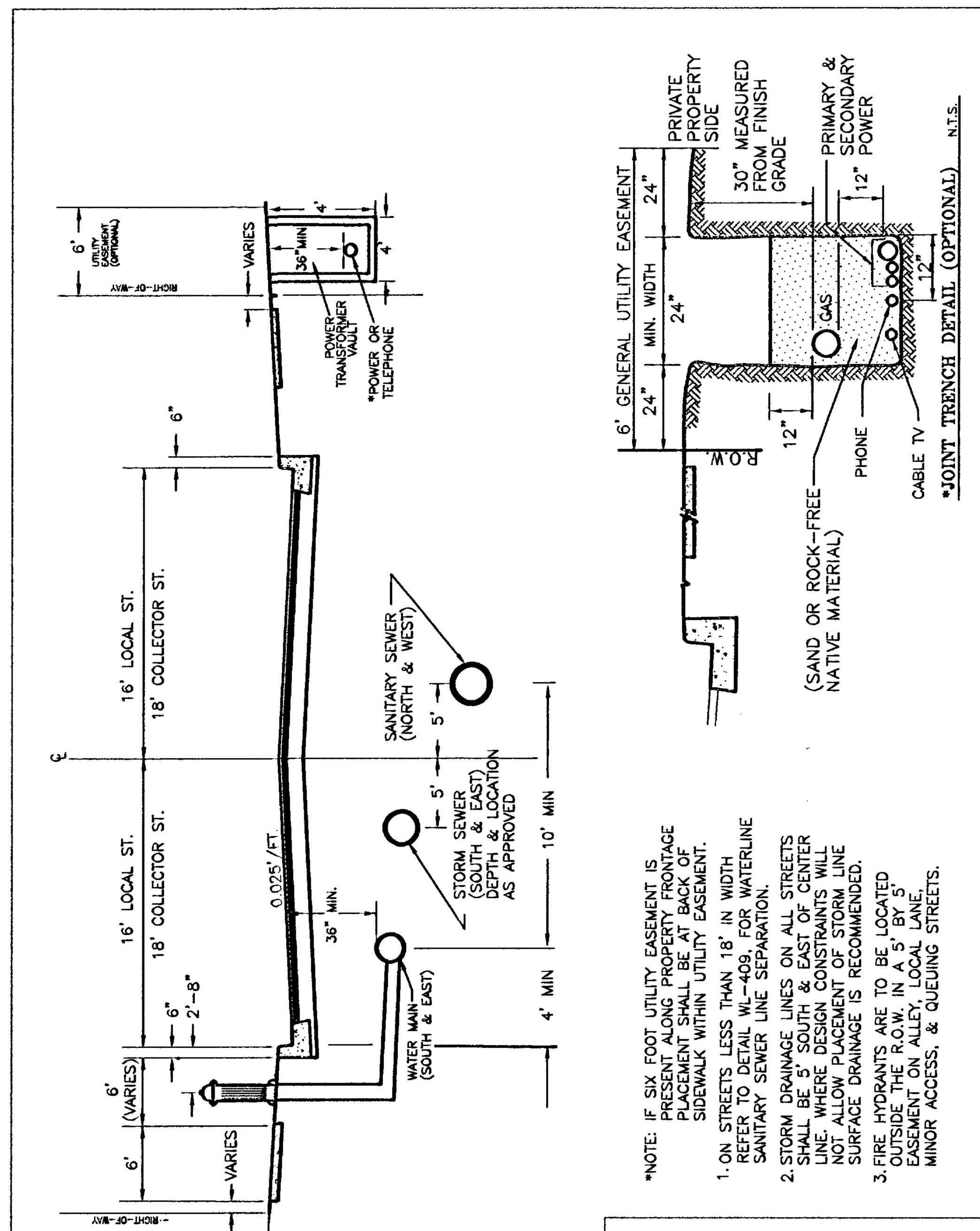
West Linn | DATE: JAN 2000 | DRAWING NO. WL-410 | FILE NO. 00-410



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

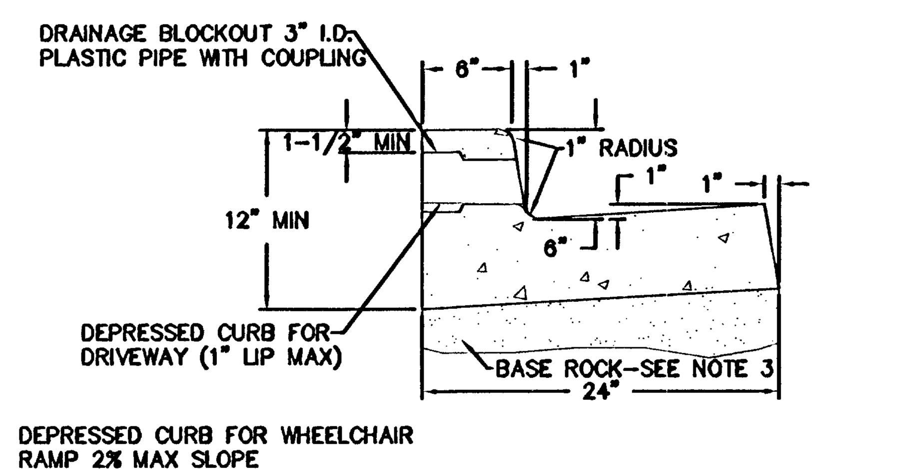
Standard Valve Box Detail

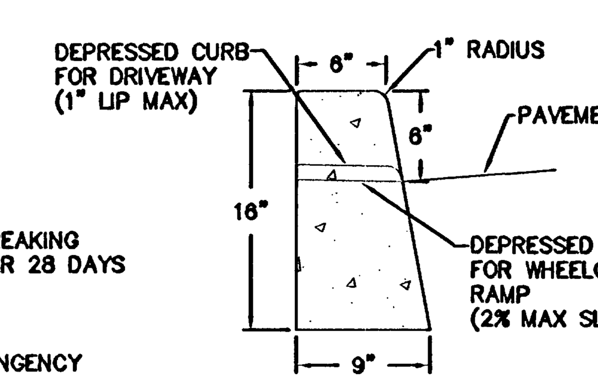
West Linn | DATE: JAN 2000 | DRAWING NO. WL-411 | FILE NO. 00-411



Typical Utility Placement Detail

West Linn | DATE: JAN 2000 | DRAWING NO. WL-500 | FILE NO. 00-500

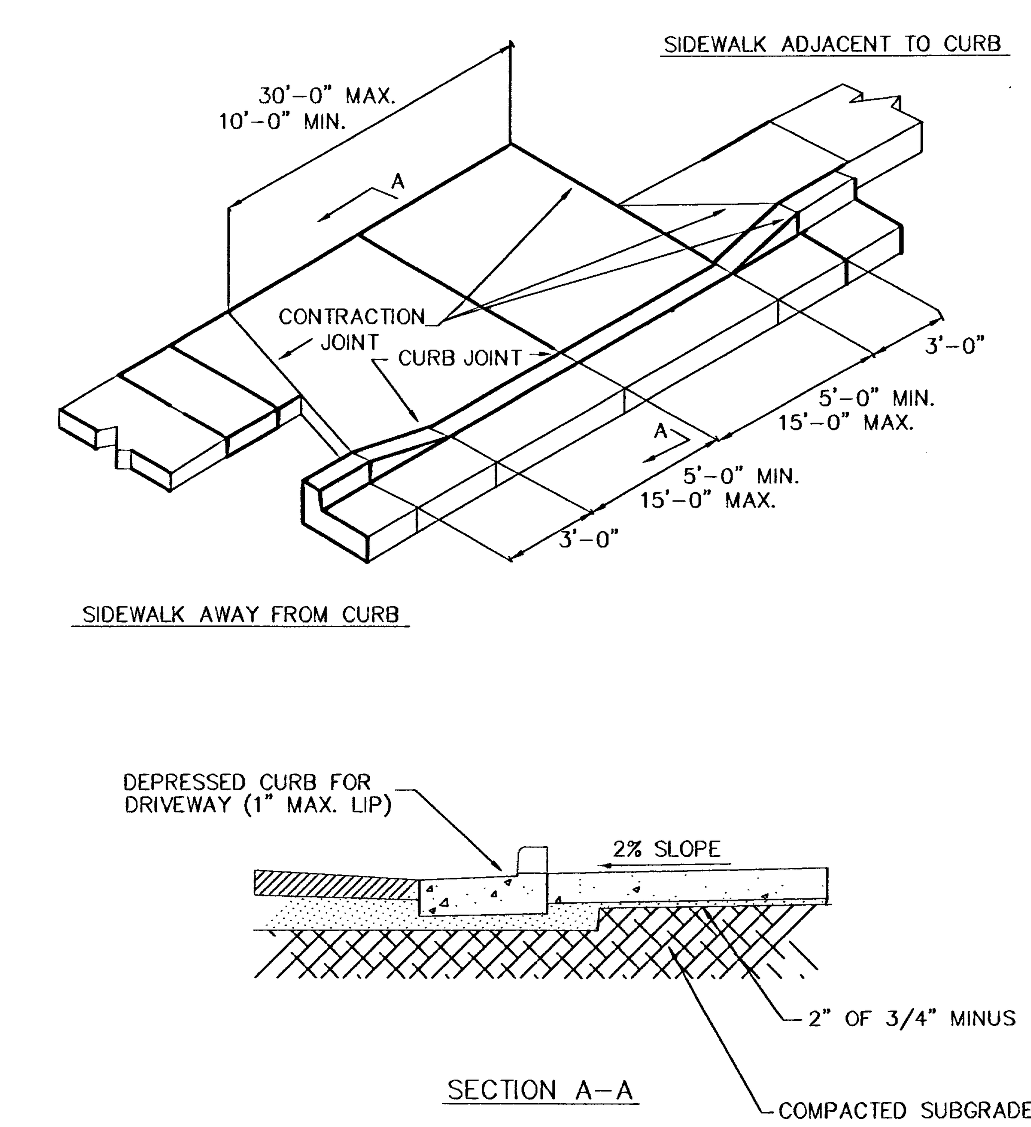




NOTES:
1. CONCRETE SHALL HAVE A BREAKING STRENGTH OF 3300 PSI AFTER 28 DAYS
2. CONTRACTION JOINTS
   A) TO BE PROVIDED
      -AT EACH POINT OF TANGENCY
      -AT EACH COLD JOINT
      -AT EACH SIDE OF INLET STRUCTURES
      -AT BOTH SIDES OF AN APPROACH
   B) SPACING TO BE NOT MORE THAN 15 FEET
   C) THE DEPTH OF THE JOINT SHALL BE AT LEAST 1/3 OF THE THICKNESS OF CONCRETE
   D) EXPANSION JOINTS SHALL NOT BE USED
3. BASE ROCK - 1-1/2"-0", 95% COMPACTION ROCK SHALL BE TO SUBGRADE OF THE STREET SECTION OR 4" IN DEPTH, WHICHEVER IS GREATER
4. DRAINAGE BLOCK - 3" DIA. PLASTIC PIPE
   A) DRAINAGE ACCESS THROUGH EXISTING CURBS SHALL BE DONE BY:
      -CORE DRILLING
      -VERTICAL SAWCUT OF CURB 18" EACH SIDE OF DRAIN AND RE-POURED TO FULL DEPTH OF CURB
5. STAMP TOP OF CURB WITH "W" AT WATER SERVICE CROSSING AND "S" AT SANITARY LATERAL CROSSING

Typical Curbs

West Linn | DATE: JAN 2000 | DRAWING NO. WL-501 | FILE NO. 00-501



NOTES
1. CONCRETE SHALL HAVE A MINIMUM BREAKING STRENGTH OF 3300 PSI AFTER 28 DAYS, 6 SACK MIX.
2. CURB SHALL BE TROWELED JOINT WITH A MIN. 1/2" RADIUS ALONG BACK OF CURB.
3. DRIVEWAY SHALL BE A MINIMUM 6" THICK.

Residential Driveway

West Linn | DATE: JAN 2000 | DRAWING NO. WL-503 | FILE NO. 00-503

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DETAIL SHEET
DOUGLAS PARK

AS-BUILT
DATE JMK 7-25-08

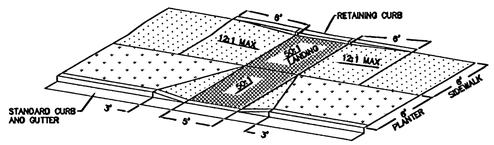
THE DETAILS ON THIS SHEET WERE PREPARED BY PUBLIC AGENCIES AND EQUIPMENT SUPPLIERS. THE RESPONSIBILITY OF THE PROJECT ENGINEER IS LIMITED TO THE SELECTION OF THESE DETAILS AS APPROPRIATE TO THE PROJECT.

NO.	DATE	REVISION	BY

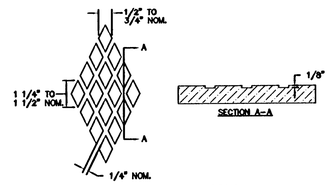
DESIGNED BY DBB DATE 6-1-07
DRAWN BY DBB DATE 6-1-07
REVIEWED BY BEF DATE 6-1-07
PROJECT NO. 105-016 REF.
SCALE HORZ: N/A VERT: N/A
105-DET.dwg

SHEET 20 OF 22

PROJECT DOUGLAS PARK
NO. 105-016
TYPE ASBUILT



PARALLEL CURB RAMP



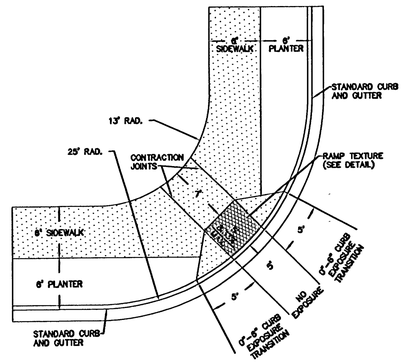
RAMP TEXTURE DETAIL

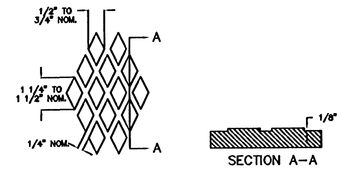
NOTES:
1. THE AMERICANS WITH DISABILITIES ACT" (ADA) REQUIRES THAT ACCESS RAMPS TO SIDEWALKS CONFORM TO ALL FEDERAL GUIDELINES. EXCEPTIONS TO THE REQUIREMENTS IN THIS DRAWING MUST BE APPROVED BY THE CITY ENGINEER AND MUST COMPLY WITH ADA.
2. NO ABOVE GROUND UTILITIES ARE PERMITTED WITHIN RAMP AREA.
3. LANDINGS SHALL BE PLACED AT THE TOP OF EACH RAMP. LANDING SLOPES SHALL NOT EXCEED 50:1 IN ANY DIRECTION. THE SLOPE OF THE SURFACING AT THE BOTTOM OF THE RAMP SHALL NOT EXCEED 20:1 FOR A DISTANCE OF 2' (SEE TYPICAL SECTION ABOVE).
4. MINIMUM LANDING DIMENSIONS SHALL BE 4' X 4'.
5. RAMP SURFACE SHALL BE TEXTURED WITH RAISED DIAMOND TEXTURE. TEXTURING SHALL BE DONE WITH AN EXPANDED METAL GRATE STAMPED INTO THE CONCRETE.
6. CONCRETE STRENGTH SHALL BE 3300 PSI.

Parallel Curb Ramp

West Linn

DATE:	JAN 2000
DRAWING NO.	WL-506
FILE NO.	00-506





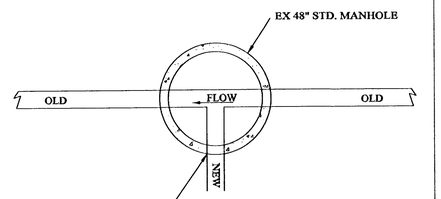
RAMP TEXTURE DETAIL

NOTES:
1. THE "AMERICANS WITH DISBILITIES ACT" (ADA) REQUIRES THAT ACCESS RAMPS TO SIDEWALKS CONFORM TO ALL FEDERAL GUIDELINES. EXCEPTIONS TO THE REQUIREMENTS IN THIS DRAWING MUST BE APPROVED BY THE CITY ENGINEER.
2. NO ABOVE GROUND UTILITIES ARE PERMITTED WITHIN RAMP AREA.
3. RAMP SURFACE SHALL BE TEXTURED WITH RAISED DIAMOND TEXTURE. TEXTURING SHALL BE DONE WITH AN EXPANDED METAL GRATE STAMPED INTO THE CONCRETE.
4. CONCRETE STRENGTH SHALL BE 3300 PSI.
5. PLACE CONTRACTION JOINTS AS SHOWN ABOVE.
6. WHEN EITHER OPPOSING CURB RAMP HAS AN EXISTING TWIN RAMP, USE DETAIL WL-507B.

Single Curb Ramp (For Use At Intersection of (2) Local Streets Only)

West Linn

DATE:	JAN 2000
DRAWING NO.	WL-507A
FILE NO.	00-507A

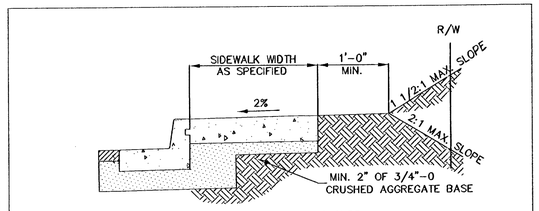


PROVIDE APPROVED SAND COLLAR OR KOR-N-SEAL CONNECTION (OR APPROVED EQUAL) AT MANHOLE FOR PVC PIPE PENETRATION. CORE DRILL THE MANHOLE ABOVE THE BENCH.

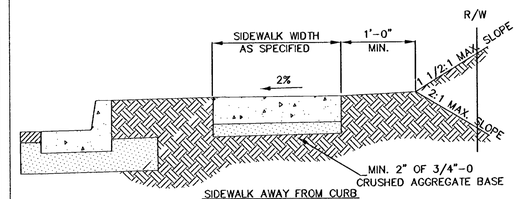
NEW PVC (ASTM 3034, SDR 35) PIPE
PIPE MATCHING EXISTING SANITARY SEWER LINE SIZE

(TYPICAL CONNECTION, MULTIPLE CONNECTIONS MAY EXIST)

Manhole Detail-Plan View Existing Manhole to New Sewer Line Connection



TYPICAL SIDEWALK ABUTTING CURB



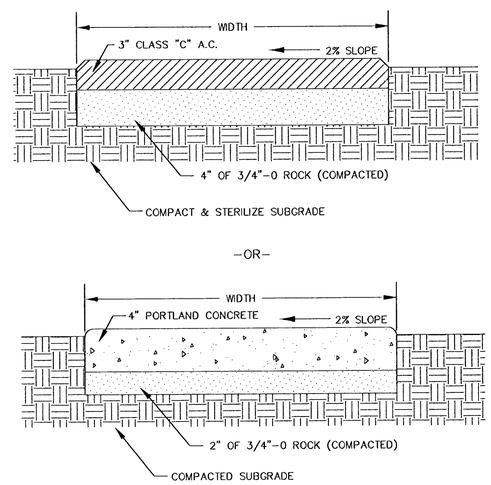
SIDEWALK AWAY FROM CURB

NOTES
1. CONCRETE SHALL BE 3300 PSI AT 28 DAYS, 6 SACK MIX, SLUMP RANGE OF 1 1/2" TO 3".
2. PANEL LENGTHS SHALL BE EQUAL TO THE SIDEWALK WIDTH, BUT MAY BE ADJUSTED WITH THE CITY ENGINEER'S APPROVAL.
3. CONTRACTION JOINTS (1/3RD OF THE THICKNESS OF CONCRETE) SHALL BE PLACED EVERY THIRD PANEL, WITH A MAX. SPACING OF 18 FEET. JOINTS SHALL ALSO BE PLACED AT THE SIDES OF DRIVEWAY APPROACHES, UTILITY VAULTS, AND WHEELCHAIR RAMPS.
4. A CURING COMPOUND SHALL BE USED. WHITE REFLECTIVE SHEETING SHALL BE USED IN CASE OF RAIN.
5. FOR SIDEWALKS ADJACENT TO THE CURB AND POURED AT THE SAME TIME AS THE CURB, THE JOINT BETWEEN THEM SHALL BE A TROWELED JOINT WITH A MIN. 1/2" RADIUS.
6. THE SIDEWALK SHALL HAVE A MIN. THICKNESS OF 6" IF MOUNTABLE CURB IS USED OR IF THE SIDEWALK IS INTENDED AS A PORTION OF THE DRIVEWAY. OTHERWISE, THE SIDEWALK SHALL HAVE A MIN. THICKNESS OF 4".
7. DRAIN BLOCKOUTS IN THE CURB SHALL BE EXTENDED TO THE BACK OF THE SIDEWALK WITH A 3" DIA. PLASTIC PIPE AT A 2% SLOPE. A CONTRACTION JOINT SHALL BE PLACED OVER THE PIPE.

Concrete Sidewalk Cross Section

West Linn

DATE:	JAN 2000
DRAWING NO.	WL-508
FILE NO.	00-508

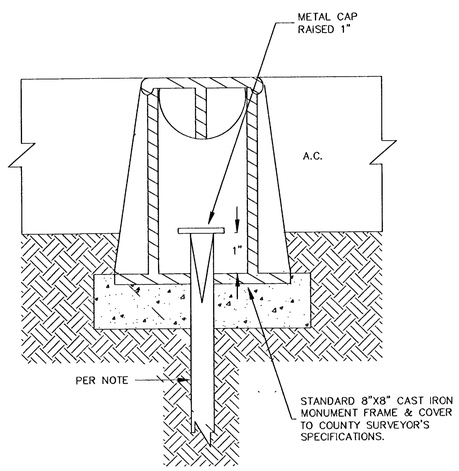


NOTES
1. CONCRETE SHALL BE 3300 PSI AT 28 DAYS, SIX SAC MIX, SLUMP RANGE OF 1 1/2"-3"
2. SIDEWALK PANELS SHALL BE SQUARE, 3/4" DEEP SCRIBES AT JOINTS, EDGED ON 4 SIDES AND HAVE A LIGHT BROOM FINISH.
3. PEDESTRIAN PATH OR BIKEWAY SHALL HAVE A MINIMUM WIDTH OF 5 FEET.

Pedestrian Path or Bikeway

West Linn

DATE:	JAN 2000
DRAWING NO.	WL-510
FILE NO.	00-510



NOTES: ALL MONUMENTS SHALL USE EITHER 5/8" DIA.X 30" LONG IRON ROD OR 3/4" DIA.X 30" LONG IRON PIPE.

ALL MONUMENTS SHALL BE IN ACCORDANCE WITH ORS 209.250(4).

CONCRETE SHALL BE CLASS 3300.

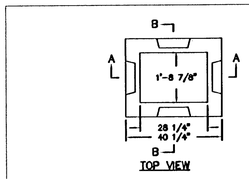
FRAME AND COVER SHALL BE CAST IRON OR ALUMINUM.

COVER SHALL HAVE "MONUMENT" CAST INTO TOP.

Centerline Survey Monuments

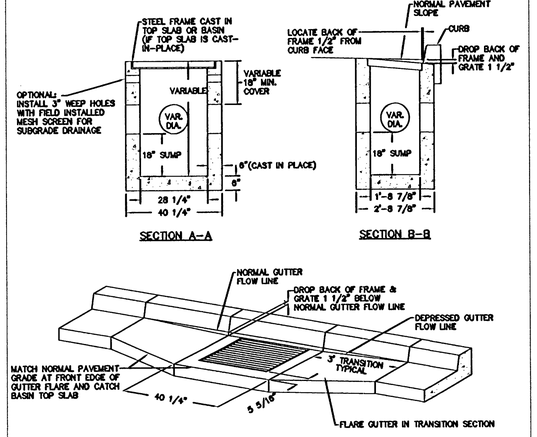
West Linn

DATE:	JAN 2000
DRAWING NO.	WL-513
FILE NO.	00-513



TOP VIEW

NOTES:
1. CONCRETE STRENGTH SHALL BE 3300 PSI.
2. PRECAST BASE WALLS SHALL BE A MINIMUM 4" THICK. CAST-IN-PLACE BASE WALLS SHALL BE 8" THICK.

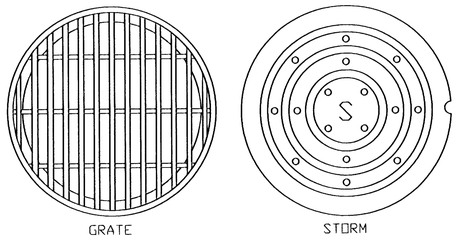


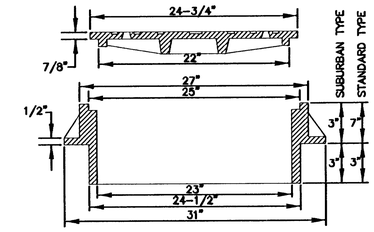
NOTE:
PRECAST TOP SLAB SHOWN WITH GUTTER TRANSITION FLARE IF THE TOP SLAB IS CAST-IN-PLACE, NO FLARE IS REQUIRED IN THE TRANSITION SECTION. MATCH THE TOP FRONT EDGE OF THE FRAME AND THE TOP FRONT EDGE OF THE CAST-IN-PLACE TOP SLAB TO THE NORMAL PAVEMENT GRADE.

Type G-1 Catch Basin with Sump

West Linn

DATE:	JAN 2000
DRAWING NO.	WL-602
FILE NO.	00-602





NOTES:
1. USE SUBURBAN TYPE ONLY IN NON-TRAFFIC AREAS, AND ONLY WITH APPROVAL BY THE CITY.
2. COVER AND FRAME SHALL BE GRAY CAST IRON ASTM A-48 CLASS 30.
3. COVER AND FRAME TO BE MACHINED TO A TRUE BEARING ALL AROUND.
4. NOTCH LID FOR LIFTING HOOK.
5. OPEN GRATES REQUIRE APPROVAL BY CITY, AND MUST BE BICYCLE SAFE IF USED IN TRAFFIC AREAS.

SUBURBAN AND STANDARD MANHOLE FRAME AND COVER

Manhole Covers

West Linn

DATE:	JAN 2000
DRAWING NO.	WL-605
FILE NO.	00-605

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sfadesigngroup.com

DETAIL SHEET
DOUGLAS PARK

AS-BUILT
DATE JMK 7-25-08

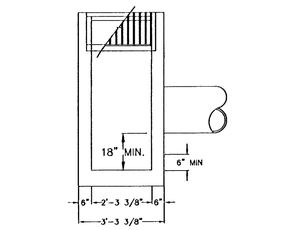
THE DETAILS ON THIS SHEET WERE PREPARED BY PUBLIC AGENCIES AND EQUIPMENT SUPPLIERS. THE RESPONSIBILITY OF THE ENGINEER IS LIMITED TO THE SELECTION OF THESE DETAILS AS APPROPRIATE TO THE PROJECT.

NO.	DATE	REVISION	BY

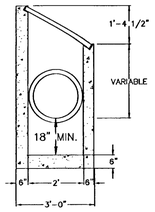
DESIGNED BY DBB DATE 6-1-07
DRAWN BY DBB DATE 6-1-07
REVIEWED BY BEF DATE 6-1-07
PROJECT NO. 105-016 REF.
SCALE HORZ: N/A VERT: N/A
105160ST.dwg

SHEET 21 OF 22

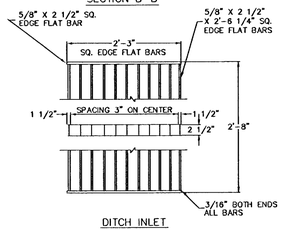
PROJECT	DOUGLAS PARK
NO.	105-016
TYPE	ASBUILT



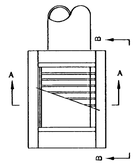
SECTION B-B



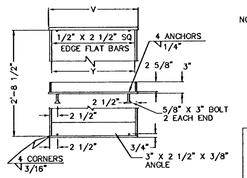
SECTION A-A



DITCH INLET



PLAN



NOTES:
1. CONCRETE STRENGTH SHALL BE 3300 PSI.
2. CATCH BASIN, FRAME, AND GRATES SHALL MEET H20 LOADING.
3. INSIDE FRAME DIMENSIONS: 2'-3 3/8", 2'-8 1/2".

NOTE:
3/8" CROSS BARS SHALL BE FLUSH WITH THE GRATE SURFACE AND MAY BE FILLET WELDED, RESISTANCE WELDED OR ELECTROFORGED TO BEARING BARS.

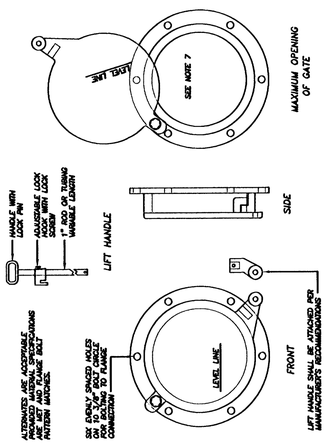
DITCH INLET FRAME

INLET TYPE	V	Y	Y1	NO. OF BARS	TYPE
D	2'-4 3/4"	2'-3 3/8"	2'-3"	9	1

Standard Ditch Inlet

West Linn

DATE: JAN 2000
DRAWING NO. WL-603
FILE NO. 00-603



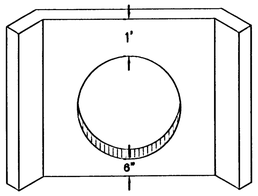
CLEANOUT/SHEAR GATE
SCALE:NTS

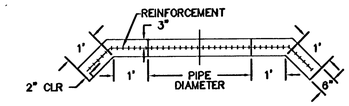
NOTES:
1. CLEANOUT/SHEAR GATE SHALL BE ALUMINUM ALLOY PER ASTM B-26-70-32a OR CAST IRON ASTM A48 CLASS 30B AS REQUIRED.
2. LIFT HANDLE EITHER SOLID OR TUBING WITH ADJUSTABLE HOOK AS REQUIRED.
3. NEOPRENE RUBBER GASKET REQUIRED BETWEEN RISER MOUNTING FLANGE AND GATE FLANGE.
4. MATING SURFACES OF LID AND BODY TO BE MACHINED FOR PROPER FIT.
5. FLANGE MOUNTING BOLTS SHALL BE 3/8" DIAMETER STAINLESS STEEL.
6. ALTERNATE CLEANOUT/SHEAR GATES TO THE DESIGN SHOWN ON THIS SHEET ARE ACCEPTABLE, PROVIDED THEY MEET THE MATERIAL SPECIFICATIONS ABOVE AND HAVE A SIX BOLT, 10 3/8" BOLT CIRCLE FOR BOLTING THE FLANGE CONNECTION.
7. GATE SHALL NOT OPEN BEYOND THE CLEAR OPENING BY LIMITED HINGE MOVEMENT, STOP TAB, OR SOME OTHER DEVICE.

Cleanout / Shear Gate

West Linn

DATE: JAN 2000
DRAWING NO. WL-611
FILE NO. 00-611





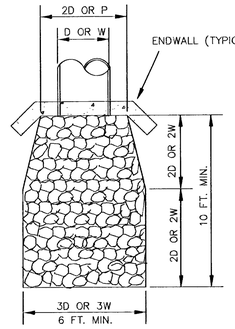
NOTES:
1. USE CONCRETE HAVING A 28 DAY DESIGN STRENGTH OF 3300 PSI.
2. OUTLET WING WALL SHALL BE USED FOR ALL OUTFALL PIPES FROM 10" TO 36".
3. THIS DETAIL REPRESENTS THE MINIMUM REQUIREMENT. THE NEED FOR ADDITIONAL STEEL, A FOOTING AND DRAINAGE BEHIND THE WALL SHALL BE INVESTIGATED BY THE DESIGN ENGINEER.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

West Linn

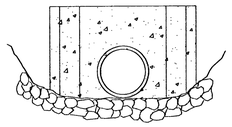
DATE: JAN 2000
DRAWING NO. WL-613
FILE NO. 00-613

D = PIPE DIAMETER
W = BOTTOM WIDTH OF CHANNEL
P = WETTED PERIMETER OF CHANNEL



DESIGN VELOCITY FT./SEC	ROCK CLASSIFICATION BY WEIGHT
6 - 10	200 LBS.
10 - 12	1/4 TON
12 - 14	1/2 TON
14 - 16	1 TON
16 - 18	2 TON

SELECTION OF RIP RAP (SEE NOTE 1)

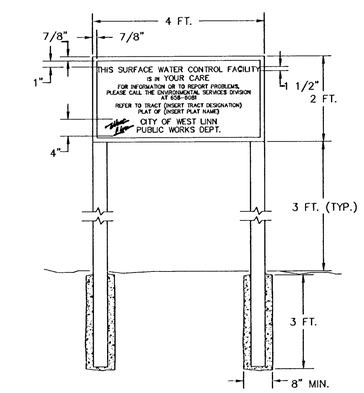


NOTES:
1. DIMENSIONS FOR RIP RAP APPLY TO FLOWS < 2 CFS RIP RAP FOR FLOWS > 2 CFS MUST BE DESIGNED BY AN ENGINEER FLOWS > 20 FPS SHALL USE ENERGY DISSIPATOR
2. TYPE OF RIP RAP
   A. REGULAR QUARRY STONE CLASS 50-200
   B. COBBLESTONE
   C. CONCRETE (ONLY ALLOWED UPON APPROVAL OF THE DISTRICT)
3. PLACEMENT
   A. MINIMUM DEPTH = 1 1/2 TIMES AVERAGE STONE SIZE
   B. ROCKS SHALL BE PLACED TO PROVIDE A MINIMUM OF VOIDS.
   C. SURFACE ROCKS OR CONCRETE SHALL PROTRUDE AT LEAST 1/2 THEIR VERTICAL DIMENSION.
   D. RIP RAP IS TO BE PLACED OVER A NATURAL BEDDING, OR IT MAY BE GROUTED OR PLACED OVER A GRAVEL BEDDING AS REQUIRED BY THE CITY.

Storm Sewer Outfall

West Linn

DATE: JAN 2000
DRAWING NO. WL-614
FILE NO. 00-614



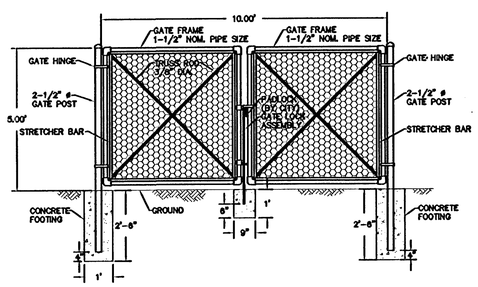
SPECIFICATIONS:

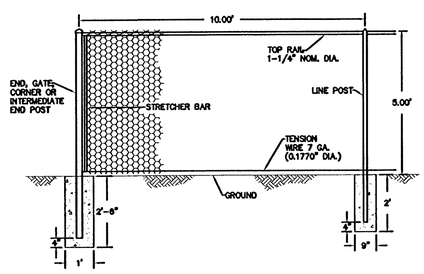
SIZE: 48" BY 24"
MATERIAL: GRADE "B" OR BETTER EXTERIOR PLYWOOD
PAINT: FACE - 3 COATS OUTDOOR ENAMEL (SPRAYED). BACK - 1 COAT OUTDOOR ENAMEL (SPRAYED).
LETTERING: SILK SCREEN ENAMEL WHERE POSSIBLE, OR HAND PAINTED ENAMELS.
COLORS: BLACK AND WHITE. WHITE BACKGROUND, LETTERING AND BORDER IN BLACK
TYPE FACE: HELVETICA. 1 1/2" TALL WITH 7/8" SPACING BETWEEN LETTERS AND OUTER BORDER. OUTER BORDER 1/2" WIDTH
INSTALLATION: SECURED TO CHAIN LINK FENCE IF AVAILABLE, OTHERWISE INSTALL ON TWO 8 FT. LONG 4" X 4" POSTS, PRESSURE TREATED, INSTALLED IN 3 FT. DEEP CONCRETE FILLED POST HOLES (8" MIN. DIA.)

Surface Water Facility Sign

West Linn

DATE: JAN 2000
DRAWING NO. WL-615
FILE NO. 00-615



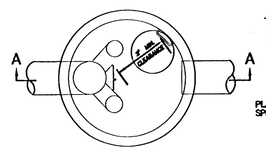


NOTES:
1. BLACK POWDER COATING ON ALL HARDWARE AND ACCESSORIES IS REQUIRED.
2. ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE CURRENT STATE OF OREGON STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

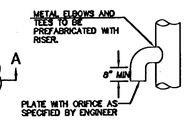
Surface Water Facility Fence

West Linn

DATE: JAN 2000
DRAWING NO. WL-616
FILE NO. 00-616

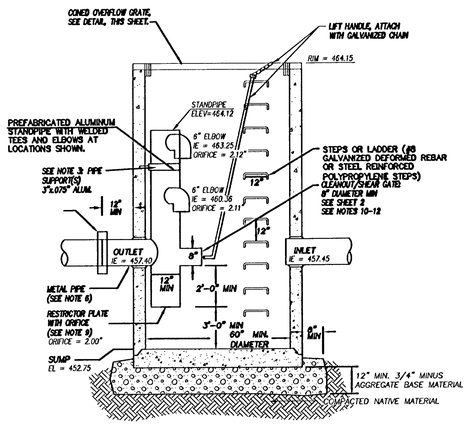


PLAN VIEW



ELBOW DETAIL

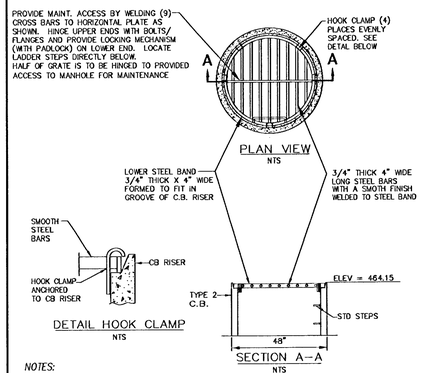
SIZE OF ORIFICES TO BE AS SHOWN AND WELDED TO ALUMINUM STANDPIPE.



SECTION "A-A" 60"ø
FLOW CONTROL MANHOLE#3
N.T.S

NOTES

1. EXCEPT AS SHOWN OR NOTED, UNITS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
2. FLAT TOP SHALL BE H-20 LOAD RATED WITH NO COVER.
3. PIPE SUPPORTS AND RESTRICTOR/SEPARATOR SHALL BE OF THE SAME MATERIAL, AND BE ANCHORED AT 3' MAX SPACING BY 3/8" DIA. STAINLESS STEEL EXPANSION BOLTS OR EMBEDDED 2" IN WALL.
4. THE RESTRICTOR/SEPARATOR SHALL BE FABRICATED FROM .060" (MIN) ALUMINUM, IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF AASHTO M 36, M 196, M197, AND M 274.
5. 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.
6. THE VERTICAL RISER STEM OF THE R ESTRICTOR/SEPARATOR SHALL BE THE SAME DIAMETER AS THE HORIZONTAL OUTLET PIPE, WITH A 12" MINIMUM DIAMETER.
7. FRAME AND LADDER OR STEPS ARE TO BE OFFSET SO THAT:
   A. CLEANOUT GATE IS VISIBLE FROM TOP.
   B. CLIMB-DOWN SPACE IS CLEAR OF RISER AND GATE.
   C. FRAME IS CLEAR OF CURB (IF ANY EXISTS).
8. 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.
9. RESTRICTOR PLATE WITH ORIFICE AS SPECIFIED IN THE CONTRACT PLANS. SPECIFIED OPENING TO BE CUT ROUND AND SMOOTH.
10. CLEANOUT/SHEAR GATE: ALUMINUM ALLOY PER ASTM B-26-70-32a OR CAST IRON ASTM 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
11. ALTERNATE CLEANOUT/SHEAR GATES TO THE DESIGN SHOWN ON THIS SHEET ARE ACCEPTABLE, PROVIDED THEY MEET THE MATERIAL SPECIFICATIONS ABOVE AND HAVE A SIX BOLT, 10 3/8" BOLT CIRCLE FOR BOLTING THE FLANGE CONNECTION.
12. GATE SHALL NOT OPEN BEYOND THE CLEAR OPENING BY LIMITED HINGE MOVEMENT, STOP TAB, OR SOME OTHER DEVICE.
13. PRECAST CONCRETE MANHOLE CONSTRUCTED IN ACCORDANCE WITH ASTM C478.
14. SEE THIS SHEET FOR DETAILS ON ELBOW AND FOR PLAN VIEW.



NOTES:

1. ALL PRECAST MANHOLE SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF A.S.T.M. C 478.
2. ALL POURED IN PLACE CONCRETE SHALL HAVE A 28 DAY STRENGTH OF 3,300 P.S.I., AND SLUMP OF 2" TO 4".
3. ALL JOINTS SHALL BE SEALED WITH PREFORMED GASKETS SUCH AS KENT-SEAL NO. 2, RAM-NECK, OR AN APPROVED EQUAL CONFORMING TO FEDERAL SPECIFICATION SS-S00210.
4. ALL PIPE CONNECTIONS TO MANHOLE SHALL BE WATERTIGHT.
5. ALL METAL PARTS TO BE CORROSION RESISTANT.

OVERFLOW GRATE FOR FLOW CONTROL MANHOLE SDMH#3
N.T.S

SFA Design Group, LLC
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Portland, Oregon 97223
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sfadesigngroup.com

DETAIL SHEET
DOUGLAS PARK

AS-BUILT
DATE JMK 7-25-08

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

NO.	DATE	REVISION	BY
1	10-16-07	REVISED FCMH#3	DBB
2	11-26-07	REVISED FCMH#3	DBB

DESIGNED BY DBB DATE 6-1-07
DRAWN BY DBB DATE 6-1-07
REVIEWED BY BEF DATE 6-1-07
PROJECT NO. 105-016 REF.
SCALE VERT: N/A HORZ: N/A
105160ET.dwg

SHEET 22 OF 22

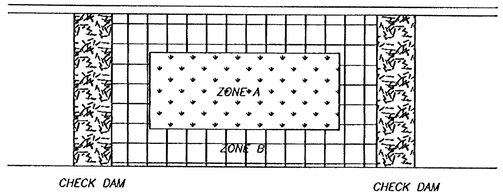
PROJECT DOUGLAS PARK
NO. 105-016
TYPE ASBUILT

RAIN GARDEN PLANTS

ZONE	BOTANICAL NAME	COMMON NAME
A	CAREX APERTA	COLUMBIA SEDGE
A	CAREX DENSA	DENSE SEDGE
A	CAREX PANSA	
A	CAREX TESTACAE	NEW ZEALAND ORANGE SEDGE
A	CAREX TUMILICOLA	FOOTHILL SEDGE
A	DESCHAMPSIA CAESPITOSA "NORTHERN LIGHTS"	TUFTED HAIR GRASS
A	ELEOCHARIS PALUSTRIS	CREEPING SPIKE RUSH
A	JUNCUS BALTICUS	BALTIC RUSH
A	JUNCUS EFFUSUS "CARMEN'S JAPANESE"	COMMON RUSH
A	JUNCUS EFFUSUS "GOLD STRIKE"	COMMON RUSH
A	JUNCUS EFFUSUS "CARMAN'S GRAY"	COMMON RUSH
A	JUNCUS PATENS	SPREADING RUSH
B	ARCTOSTAPHYLLOS UVA-URSI	KINNICKINNIK
B	BLECHNUM SPICANT	DEER FERN
B	CORNUS SERICEA VAR. KELSEYII	DWARF REDTWIG DOGWOOD
B	LIRIOPE MUSCARI "BIG BLUE"	BIG BLUE LILY TURF
B	GAUTHERIA SHALLON	SALAL
B	MAHONIA NERVOSA	LOW OREGON GRAPE
B	MAHONIA REPENS	CREEPING OREGON GRAPE

PLANT 1 GALLON POTS 12" ON CENTER IN EACH ZONE. A MINIMUM OF 3 SPECIES SHALL BE USED IN EACH ZONE.

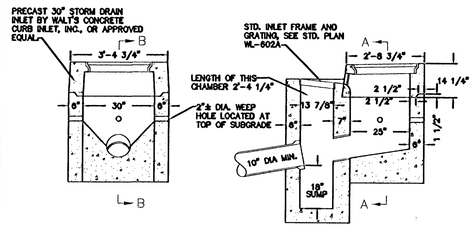
PERENNIAL ACCENT PLANTS AND BULBS MAY BE PLANTED SPORADICALLY THROUGHOUT RAIN GARDEN TO ADD SEASONAL COLOR AND VARIETY.

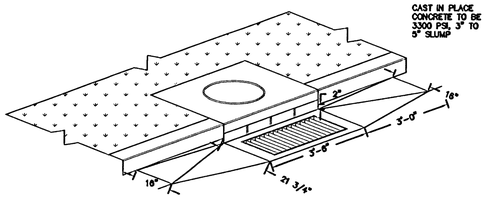


RAIN GARDEN TYPICAL PLAN VIEW

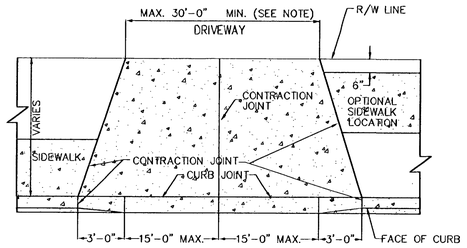
DRAWN RCS			DEPARTMENT OF ENVIRONMENTAL SERVICES	SCALE N.T.S.
DIV. TRANSPORTATION			CITY OF GRESHAM	DATE JUNE 2007
REV.	DATE	APPR.	1333 N.W. EASTMAN PARKWAY, GRESHAM, OREGON 97030	APPR.
			RAIN GARDEN PLANTING DETAIL	DWG. NO. GS-15

MANHOLE RIMS AND COVERS AS MANUFACTURED BY HERN IRON WORKS, COEUR D' ALENE, IDAHO. COVER PATTERN NO. 2312, RIM PATTERN NO. 2311 OR APPROVED EQUAL.

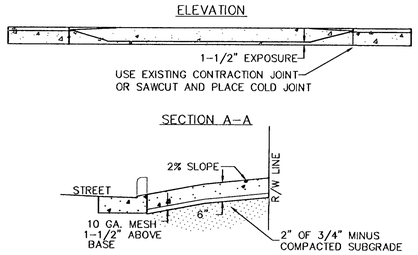




Combination Curb Inlet	DATE: JAN 2000
West Linn	DRAWING NO. WL-601
	FILE NO. 00-601



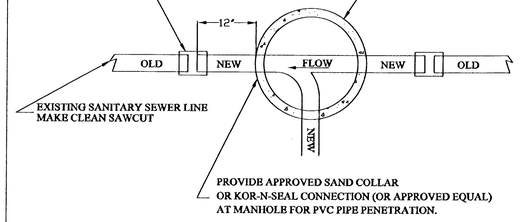
NOTE: ONE-WAY TRAFFIC – MIN. 15' DRIVEWAY
TWO-WAY TRAFFIC – MIN. 24' DRIVEWAY



NOTES

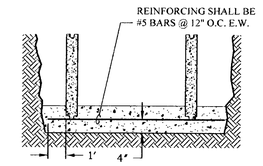
1. CONCRETE SHALL HAVE A MINIMUM BREAKING STRENGTH OF 3300 PSI AFTER 28 DAYS, 6 SACK MIX.
2. CURB JOINT SHALL BE A TROWELED JOINT WITH A MIN. 1/2" RADIUS ALONG BACK OF CURB.
3. DRIVEWAY SHALL BE A MINIMUM 6" THICK.

Commercial Driveway	DATE: JAN 2000
West Linn	DRAWING NO. WL-504
	FILE NO. 00-504

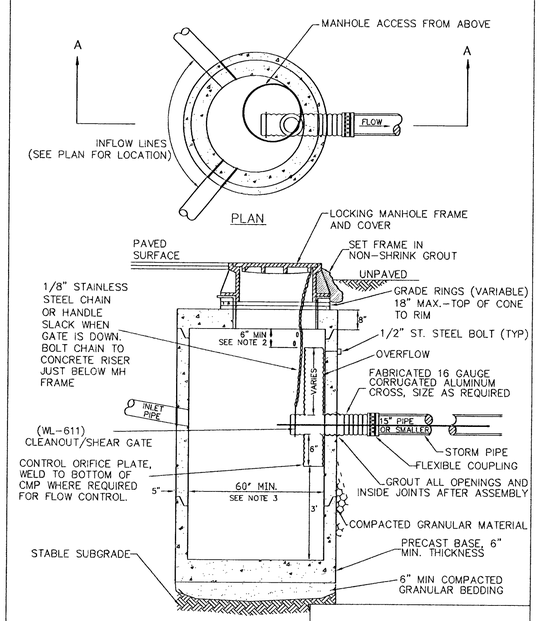


NEW PVC (ASTM 3034, SDR 35) PIPE
PIPE MATCHING EXISTING SANITARY SEWER LINE SIZE

(TYPICAL CONNECTION, MULTIPLE CONNECTIONS MAY EXIST)



Manhole Detail-Plan View New Manhole to Existing Sewer Line Connection	DATE: JAN 2000
West Linn	DRAWING NO. WL-210
	FILE NO. 00-210



NOTES:

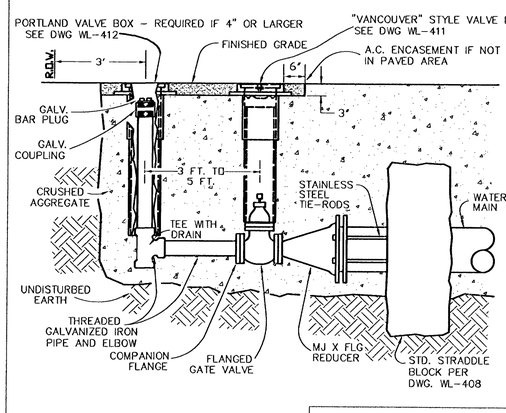
1. ALL PRECAST SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-478.
2. DISTANCE FROM TOP OF OVERFLOW TO MH RIM SHALL BE BASED ON OVERFLOW CAPACITY CALC'S BY DESIGN ENGINEER. ASSUME ORIFICE CONTROL.
3. 72" MINIMUM DIA. MANHOLE REQUIRED FOR OUTLET OR INLET > 21".
4. NO STEPS REQUIRED

Pollution / Flow Control Manhole	DATE: JAN 2000
West Linn	DRAWING NO. WL-607
	FILE NO. 00-607

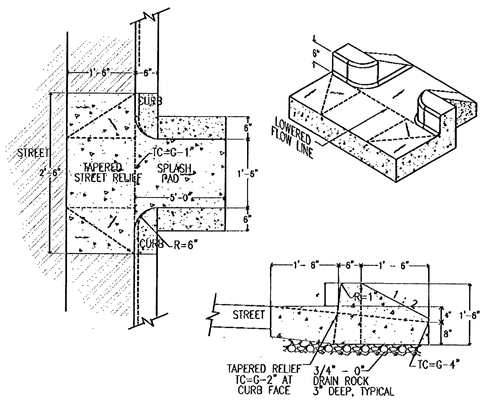
BLOW-OFF SIZES REQUIRED	
MAIN SIZE	BLOW-OFF SIZE
4" TO 6"	2"
8" TO 12"	4"
14" TO 18"	6"
20" & UP	PER ENGR.

NOTES:

1. BACKFILL WITH SELECT CRUSHED AGGREGATE A MINIMUM OF 6" ON ALL SIDES.
2. ON TEMPORARY BLOW-OFFS ONLY, AN MJ CAP TAPPED 4" OR 6" MAY BE SUBSTITUTED FOR REDUCER.
3. TEMPORARY BLOW-OFF IS ONE REMOVED AT THE END OF PROJECT CONSTRUCTION. A PERMANENT BLOW-OFF REMAINS ON THE PROJECT AFTER ACCEPTANCE.
4. PLACE BLOW-OFF STANDPIPE 3 FT. INSIDE R.O.W. LINE AT END OF STREET (2FT. FROM BARRICADE).

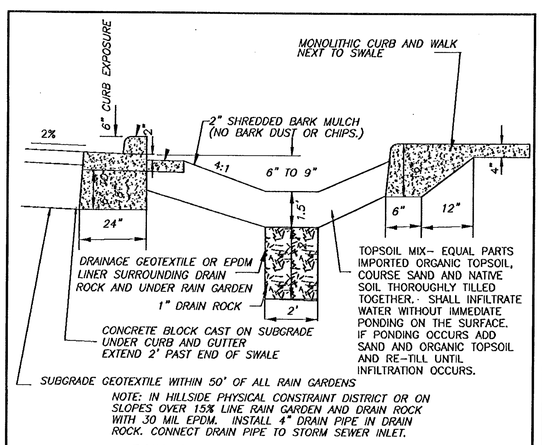


Permanent or Temporary 4" & 6" Blow-off	DATE: JAN 2000
West Linn	DRAWING NO. WL-404B
	FILE NO. 00-404B



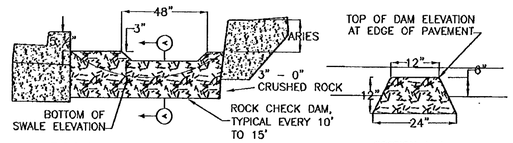
1. CONCRETE SPLASH PAD NECESSARY WHERE WATER ENTERS AND/OR EXITS RAIN GARDEN.
2. INSTALL STORM INLET NEAR LOWER RAIN GARDEN CURB OPENING, INSIDE OR OUTSIDE OF THE RAIN GARDEN.

DRAWN RCS			DEPARTMENT OF ENVIRONMENTAL SERVICES	SCALE N.T.S.
DIV. TRANSPORTATION			CITY OF GRESHAM	DATE JUNE 2007
REV.	DATE	APPR.	1333 N.W. EASTMAN PARKWAY, GRESHAM, OREGON 97030	APPR.
			RAIN GARDEN CURB OPENING	DWG. NO. GS-19



NOTE: IN HILLSIDE PHYSICAL CONSTRAINT DISTRICT OR ON SLOPES OVER 15% LINE RAIN GARDEN AND DRAIN ROCK WITH 30 MIL EPDM. INSTALL 4" DRAIN PIPE IN DRAIN ROCK. CONNECT DRAIN PIPE TO STORM SEWER INLET.

RAIN GARDEN TYPICAL SECTION



ROCK CHECK DAM DETAIL

SECTION A-A
N.T.S.

RAIN GARDEN AREA SHALL BE MINIMUM 6% OF IMPERVIOUS SURFACE AREA TREATED.

DRAWN RCS			DEPARTMENT OF ENVIRONMENTAL SERVICES	SCALE N.T.S.
DIV. TRANSPORTATION			CITY OF GRESHAM	DATE JUNE 2007
REV.	DATE	APPR.	1333 N.W. EASTMAN PARKWAY, GRESHAM, OREGON 97030	APPR.
			GREEN STREET RAIN GARDEN DETAILS	DWG. NO. GS-16

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sfadesigngroup.com

DETAIL SHEET
DOUGLAS PARK

AS-BUILT
DATE JMK 7-25-08

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

NO.	DATE	REVISION	BY

DESIGNED BY DBB DATE 8-1-07
DRAWN BY DBB DATE 8-1-07
REVIEWED BY BEF DATE 8-1-07
PROJECT NO. 105-016 REF.
SCALE HORZ: N/A VERT: N/A
105\DETAIL.DWG

SHEET 22A OF 22

PROJECT DOUGLAS PARK
NO. 105-016
TYPE ASBUILT