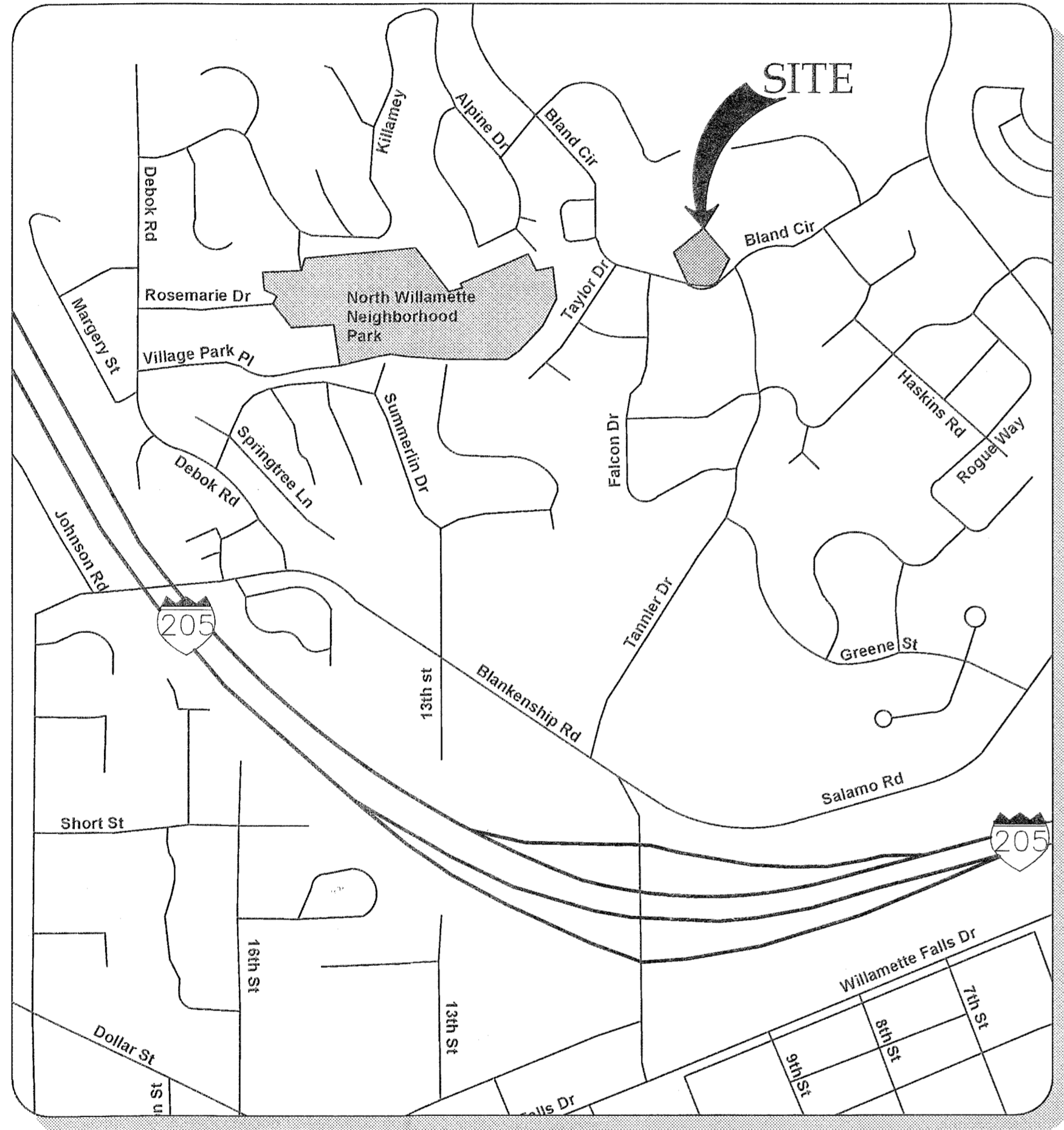


CONSTRUCTION DOCUMENTS

FOR SAVANNA HEIGHTS SUBDIVISION

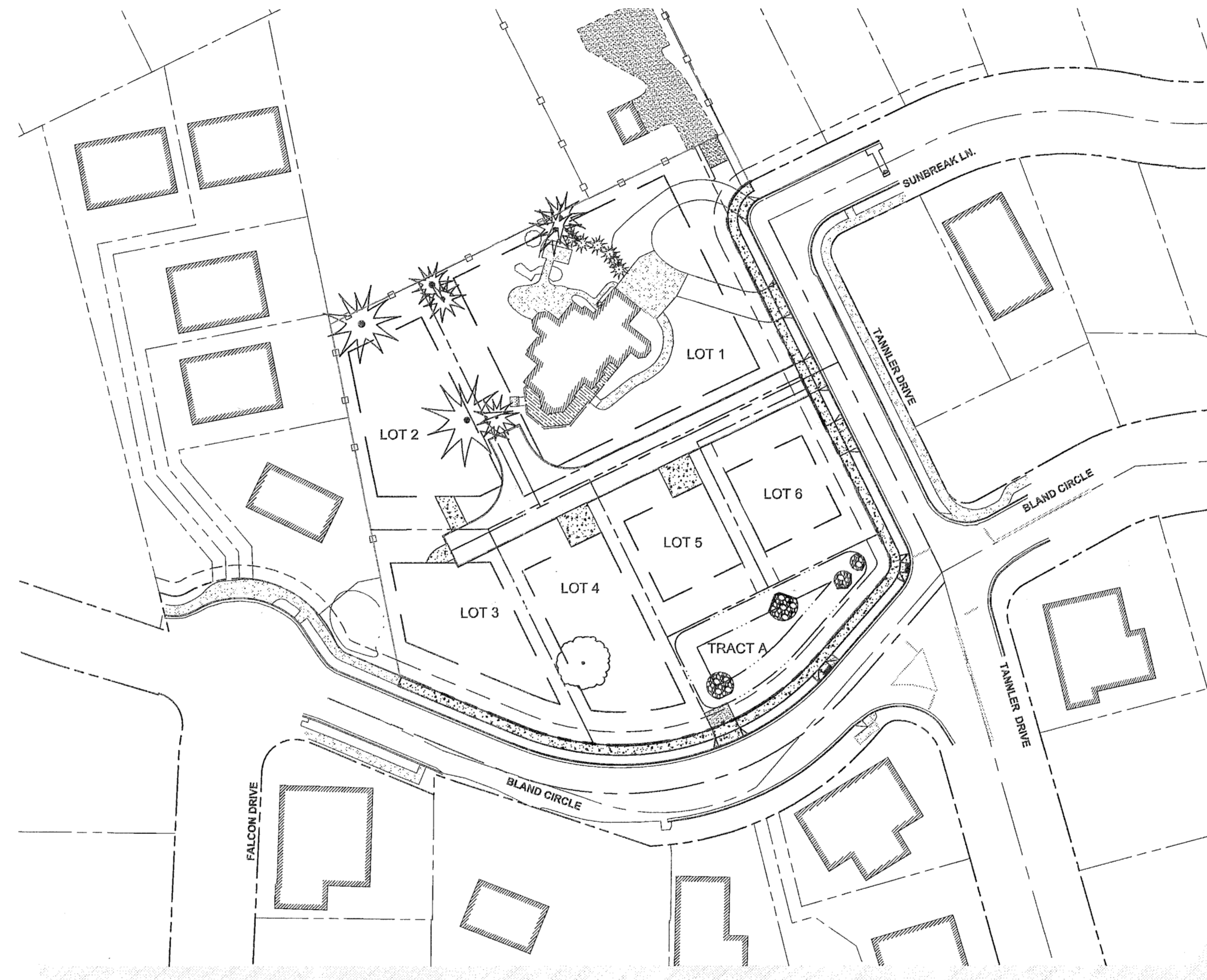
PREPARED FOR
BLAND CIRCLE ESTATES, LLC

Sheet Number	Sheet Title
C000	COVER SHEET
C001	CONDITIONS OF APPROVAL
C002	GENERAL NOTES
C100	EXISTING CONDITIONS
C110	DEMOLITION & PHASE I EROSION CONTROL
C120	TREE PRESERVATION PLAN
C121	TREE INVENTORY
C200	TYPICAL SECTIONS
C210	TENTATIVE PLAN
C211	SITE PLAN
C250	ROAD PROFILES
C260	PHASE II GRADING & EROSION CONTROL
C261	GRADING DETAILS
C290	PHOTOMETRICS PLAN
C300	COMPOSITE UTILITY PLAN
C310	STORM PLAN
C311	STORM PROFILES
C330	STORMWATER FACILITY PLAN
C340	SANITARY SEWER & WATER PLAN
C341	SANITARY SEWER & WATER PROFILE
C400	EROSION CONTROL DETAILS I
C401	EROSION CONTROL DETAILS II
C410	SITE CONSTRUCTION DETAILS I
C411	SITE CONSTRUCTION DETAILS II
C450	UTILITY CONSTRUCTION DETAILS I
C451	UTILITY CONSTRUCTION DETAILS II
C452	UTILITY CONSTRUCTION DETAILS III
L1	LANDSCAPE PLAN



VICINITY MAP
NOT TO SCALE

TAX LOT 500 LOCATED IN THE
N.E. 1/4 OF SECTION 35, T.2S., R.1E., W.M.
CITY OF WEST LINN, CLACKAMAS COUNTY, OREGON



SITE MAP
Scale: 1 inch = 60 feet

SITE INFORMATION

SITE ADDRESS 23128 BLAND CIRCLE WEST LINN, OR 97068	TAX LOT(S) 21E35B 00500
JURISDICTION CITY OF WEST LINN	FLOOD HAZARD MAP NUMBER: 41005C0257D ZONE X (UNSHADED)
ZONING R-7	
UTILITIES & SERVICES	
WATER, STORM, SEWER CITY OF WEST LINN CONTACT: KHOI LE PHONE: (503) 722-5517 EMAIL: klie@westlinnoregon.gov	POWER PGE CONTACT: CHRIS JEWETT PHONE: (503) 672-5481 EMAIL: chris.jewett@pge.com
GAS NORTHWEST NATURAL CONTACT: BRIAN KELLEY PHONE: (503) 220-2427 EMAIL: brian.kelley@nwnatural.com	CABLE COMCAST CONTACT: KENNETH WILLS PHONE: (503) 793-9981
FIRE TUALATIN VALLEY FIRE & RESCUE CONTACT: TY DARBY PHONE: (503) 253-1409 EMAIL: ty.darby@tvfr.com	CABLE CENTURYLINK - REGIONAL ENGINEER CONTACT: KENNETH SKIULLI PHONE: (503) 242-0304 EMAIL: kenneth.skiulli@centurylink.com CENTURYLINK - REGIONAL MANAGER CONTACT: JEREMY MORRIS PHONE: (503) 293-4567 EMAIL: jeremy.morris@centurylink.com
POLICE, ROADS, PARKS CITY OF WEST LINN	
SCHOOLS WEST LINN - WILSONVILLE SCHOOL DISTRICT	

PROJECT TEAM

OWNER / APPLICANT 23128 SOUTH BLAND CIRCLE, LLC 931 SW KING AVENUE PORTLAND, OR 97205 CONTACT: RYAN ZYGAR PHONE: (360) 798-4838 EMAIL: ryan.zygar.com	CIVIL ENGINEER 3J CONSULTING, INC. 5075 SW GRIFFITH DRIVE, SUITE 150 BEAVERTON, OR 97005 CONTACTS: JESSE EMERSON, PE EMAIL: jesse.emerson@3j-consulting.com PHONE: (503) 946-9365 AARON MURPHY, PE EMAIL: aaron.murphy@3j-consulting.com PHONE: (503) 946-9365	LAND SURVEYOR COMPASS SURVEYING 4107 SE INTERNATIONAL WAY, SUITE 705 MILWAUKIE, OR 97222 CONTACT: DON DEVLAMINCK, PLS PHONE: (503) 653-9093 EMAIL: dond@compass-engineering.com
PLANNING CONSULTANT 3J CONSULTING, INC. 5075 SW GRIFFITH DRIVE, SUITE 150 BEAVERTON, OR 97005 CONTACT: ANDREW TULL PHONE: (503) 946-9365 EMAIL: andrew.tull@3j-consulting.com	GEOTECHNICAL CONSULTANT GEOPACIFIC ENGINEERING, INC. 14835 SW 72ND AVENUE PORTLAND, OR 97224 CONTACT: JAMES IMBRIE, PE PHONE: (503) 825-4455 EMAIL: jimbrie@geopacificeng.com	

JURISDICTION STAMPS

APPROVED FOR CONSTRUCTION BY
CITY OF WEST LINN

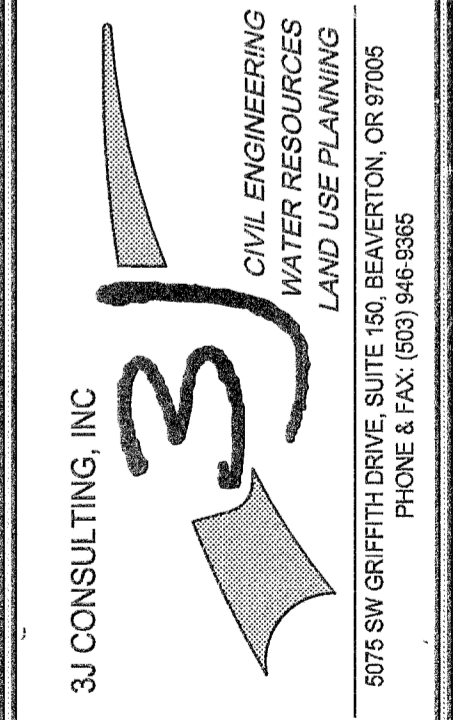
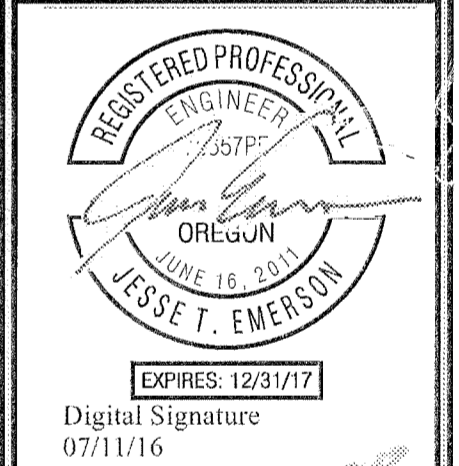
THIS PLAN REVIEW APPROVAL DOES NOT PREVENT THE FIELD INSPECTOR FROM REQUIRING FURTHER CODE CORRECTIONS

APPROVED PLAN
City of West Linn
Building Department
DATE: 7/20/16
BY: [Signature]

RECEIVED
JUL 12 2016
PLANNING & BUILDING
CITY OF WEST LINN

04/20/2016	BY	DATE
PERMIT SET	REVISION SUMMARY	

COVER SHEET
SAVANNA HEIGHTS
SUBDIVISION
BLAND CIRCLE ESTATES, LLC
WEST LINN, OR



3J JOB ID #	15246
LAND USE #	SUB-15-02
TAX LOT #	21E35B 00500
DESIGNED BY	JTE, JCP
CHECKED BY	AM
SHEET TITLE	COVER SHEET
SHEET NUMBER	C000

RECOMMENDATION

Staff recommends approval of application SUB-15-02, based on: 1) the findings submitted by the applicant, which are incorporated by this reference, 2) supplementary staff findings included in the Addendum below, and 3) the addition of conditions of approval below. With these findings, the applicable approval criteria are met. The conditions are as follows:

1. Site Plan. With the exception of modifications required by these conditions, the project shall conform to the Tentative Subdivision Plat dated 9/14/2015.
2. Engineering Standards. All public improvements and facilities associated with public improvements including street improvements, utilities, grading, onsite stormwater design, street lighting, easements, and easement locations are subject to the City Engineer's review, modification, and approval. These must be designed, constructed, and completed prior to final plat approval.
3. Street Improvements. The applicant shall dedicate on the face of the plat additional ROW and complete half street improvements including curb, planter strip and sidewalks, and street trees for the portion of Bland Circle abutting the subject property. In addition, the applicant shall dedicate on the face of the plat additional ROW and complete half street improvements including curb, planter strip and sidewalks, and street trees for the portion of Tannler Drive, from Bland Circle to Sunbreak Lane, abutting the subject property. The applicant shall also pave Tannler Drive, from Bland Circle to Sunbreak Lane, from curb-to-curb and be reimbursed by the City of West Linn for the half street pavement layer not immediately adjacent to the subject property. The applicant shall also complete the private road access to Lots 2-5 prior to Certificate of Occupancy.
4. Stormwater Tract A. The applicant shall dedicate Stormwater Tract A to the City of West Linn.
5. Mutual Maintenance and Easements. The applicant shall provide the City of West Linn, along with the final plat, a Mutual Maintenance and Reciprocal Access and Public Utility Easement for platted Lots 2-5 to ensure continued access and necessary maintenance of the shared drive in perpetuity.
6. No Parking Signs. The applicant shall install signs reading "No Parking - Fire Lane" on both sides of the shared access drive. The signs shall be 12 inches wide by 18 inches

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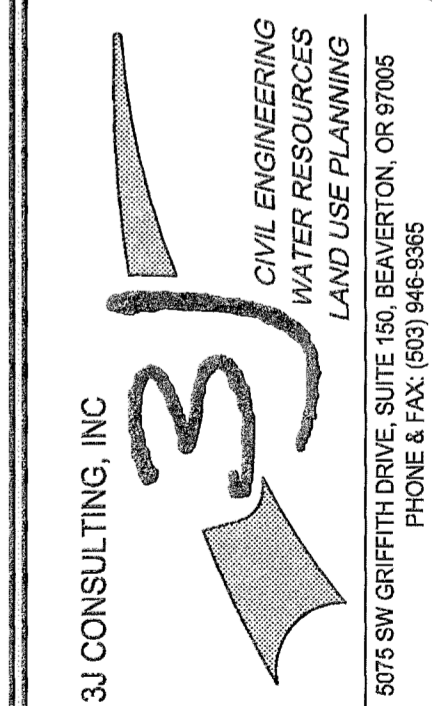
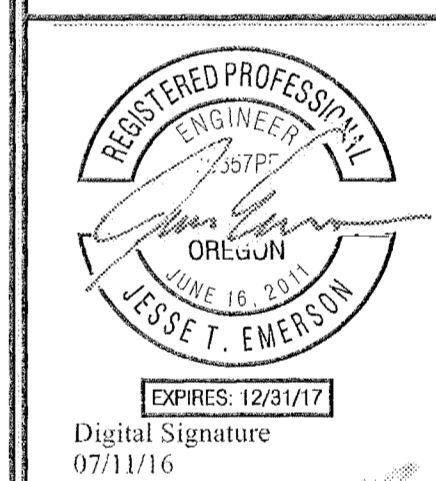
high and shall have red letters on a white reflective background. The signs shall be installed with a clear space above grade level of 7 feet.

7. Fire Flow. The applicant shall perform a fire flow test and submit a letter from Tualatin Valley Fire and Rescue showing adequate fire flow is present.
8. Tree Conservation Easement. The applicant shall provide a tree conservation easement for trees 3991, 3992, and 4772. The easement shall extend outwards to the tree dripline plus 10 feet. The easement shall include a legal description and a map of the area. The easement shall be recorded with the County and a copy of the recorded easement shall be provided to the City of West Linn.
9. Significant Tree Mitigation. The applicant shall mitigate for the loss of 70 caliper inches of significant trees, not including street trees which are a requirement of the subdivision approval, before recording of the final plat. The mitigation shall either occur on the subject property or through fee-in-lieu payment to the City of West Linn.
10. Access During Construction. Approved fire apparatus access roadways shall be installed and operational prior to any combustible construction or storage of combustible materials on the site. Temporary address signage shall also be provided during construction.
11. Public Utility and Access Easement. The applicant shall vacate the portion of the existing public utility and access easement on the eastern edge of the property that is no longer needed, but retain the section on Lot 1 that provides access to the City of West Linn Property to the north.
12. Street Lights. The applicant shall install street lights on Bland Circle and Tannler Drive according to City of West Linn Public Works Standards and Portland General Electric Standards.
13. Lot Access. Access to Lots 1 and 6 shall be from Tannler Drive.

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PERMIT SET	REVISION SUMMARY	BY	DATE
#			

CONDITIONS OF APPROVAL
SAVANNA HEIGHTS
 SUBDIVISION
 BLAND CIRCLE ESTATES, LLC
 WEST LINN, OR



3J JOB ID #	15246
LAND USE #	SUB-15-02
TAX LOT #	21E35B 00500
DESIGNED BY	JTE, JCP
CHECKED BY	AJM

SHEET TITLE
COND. OF APP.

SHEET NUMBER
C001

SANITARY SEWER NOTES

- 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 POURED IN PLACE CONCRETE BASE WITH A MINIMUM COMPRESSIVE STRENGTH OF 3300 PSI OR PRECAST. 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 AND CHANNELS MUST BE ABLE TO PASS A 6"X36" CYLINDER INTO PIPES. PVC PIPE SHALL BE CONNECTED TO MANHOLE BY MEANS OF A FLEXIBLE CONNECTION AND SHALL HAVE A SHEAR JOINT LOCATED 18" OUTSIDE OF MANHOLE. CEMENT GROUT FOR CONNECTING PVC SEWER PIPE TO MANHOLE WILL NOT BE PERMITTED.
3. ALL MANHOLES LOCATED IN EASEMENT AREAS REQUIRE TAMPER PROOF LIDS AND THE LID SHALL BE SET 12" ABOVE THE PROPOSED GRADE WHEN PLACED IN UNPAVED AREAS.
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. FRAME SHALL SIT ON 24"X24" CONCRETE PAD.
5. GRANULAR BACKFILL (3/4"-0) IS TO BE COMPACTED TO 95% MAXIMUM DRY DENSITY PER AASHTO T-180 TEST METHOD AND NATIVE MATERIAL SHALL BE COMPACTED TO 95% OF IN-PLACE DRY DENSITY OF SURROUNDING SOIL. EXCAVATION, BEDDING, AND BACKFILL SHALL BE IN ACCORDANCE WITH DIVISION 204 OF THE CITY OF WEST LINN STANDARD CONSTRUCTION SPECIFICATIONS (W.L.S.C.S.). BACKFILL UNDER NEW STREETS SHALL BE CLASS "B" AND BACKFILL IN EXISTING STREETS SHALL BE CLASS "E".
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"X4" STAKE PAINTED GREEN.
7. SANITARY SEWER PIPE AND APPURTENANCES SHALL BE TESTED FOR LEAKAGE IN ACCORDANCE WITH W.L.S.C.S. DIVISION 301.03.09 AND MANHOLES SHALL BE VACUUM TESTED IN ACCORDANCE WITH W.L.S.C.S. DIVISION 302.03.07. ALL TESTS SHALL BE WITNESSED BY THE ENGINEER AND THE CITY OF WEST LINN. CONTRACTOR IS RESPONSIBLE FOR COORDINATING TESTING SO THAT ALL TEST SHALL BE PASSED AND NEW LINE SHALL BE ACCEPTED PRIOR TO CONNECTION TO EXISTING SYSTEM.
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, TEST, AND INSPECTIONS TO BE MADE IN STRICT ACCORDANCE WITH CITY OF WEST LINN PUBLIC WORKS STANDARD CONSTRUCTION SPECIFICATIONS.

GENERAL GRADING AND EROSION CONTROL

- 1. APPROVAL OF THIS EROSION CONTROL (ESC) PLAN DOES NOT CONSTITUTE ON 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 ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH, OR WITHIN 24 HOURS FOLLOWING A STORM EVENT.
6. 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.
7. 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.
8. 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.
9. DURING CONSTRUCTION, STRAW WATTLES, 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.
10. LARGE ORGANIC MATERIAL, MISCELLANEOUS PIPE OR CONSTRUCTION MATERIAL MUST BE REMOVED FROM THE SITE AND DISPOSED OF PROPERLY.
11. NO FILLING OR CUTTING SHALL BE DONE OUTSIDE OF APPROVED GRADING AREAS.
12. 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.

WATER NOTES

- 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 RUBBER GASKETED JOINTS UNLESS NOTED OTHERWISE ON THE PLAN. PIPE FITTINGS ARE TO BE OF THE SAME MATERIAL AND CLASS AS PIPE OF DOMESTIC ORIGIN.
2. WATER MAINS MUST 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 3300 PSI. SEE DETAILS FOR THRUST BLOCK SIZING. POUR THRUST BLOCKS AGAINST UNDISTURBED EARTH.
4. GATE VALVES SHALL BE RESILIENT SEAT, NON-RISING STEM WITH "O" RING PACKING, COMPLYING WITH AWWA CLASS "C" SPECIFICATIONS. THE VALVES SHALL BE DESIGNED TO WITHSTAND A WORKING PRESSURE OF 150 PSI. GATE VALVES SHALL BE FURNISHED WITH A TWO-INCH SQUARE OPERATING NUT AND SHALL OPEN COUNTERCLOCKWISE WHEN VIEWING FROM ABOVE. BUTTERFLY VALVES SHALL BE RUBBER SEAT TYPE AND BUBBLE-TIGHT AT 150 PSI, AND SHALL CONFORM TO AWWA C504. BUTTERFLY VALVES SHALL BE MUELLER OR APPROVED EQUAL. OPERATING NUT SHALL BE LOCATED ON THE SIDE OF THE MAIN SHOWN ON THE PLANS. VALVE BOXES SHALL BE "VANCOUVER" PATTERN.
5. GRANULAR BACKFILL (3/4"-0) IS TO BE COMPACTED TO 95% MAXIMUM DRY DENSITY PER AASHTO T 180 TEST METHOD AND NATIVE MATERIAL SHALL BE COMPACTED TO 95% OF IN-PLACE DRY DENSITY OF SURROUNDING SOIL. EXCAVATION, BEDDING, AND BACKFILL SHALL BE IN ACCORDANCE WITH DIVISION 204 OF THE CITY OF WEST LINN STANDARD CONSTRUCTION SPECIFICATIONS. BACKFILL UNDER NEW STREETS SHALL BE CLASS "B".
6. SERVICE LATERALS SHALL BE TYPE K COPPER LATERAL SIZES SHALL BE 1". FOR DOUBLE SERVICES TWO 1" WATER SERVICES SHALL BE LAID SIDE BY SIDE. CORPORATION STOPS SHALL BE MUELLER H 15008 OR FORD F1090 40. ANGLE METER STOP SHALL BE MUELLER H 14259 OR FORD 1" KV43-444W/O. METER BOXES SHALL BE EQUAL TO BROOKS #37 WITH A 37-S LID AND COVER. METER BOXES ARE TO BE INSTALLED 3/4" ABOVE FINISH GRADE AND 2- 1/2" FROM THE CURB IN PLANTER STRIPS OR FLUSH WITH SIDEWALK SURFACE IN A SIDEWALK.
7. ALL WATERLINES WILL BE PRESSURE TESTED AND PURIFICATION TESTED BEFORE CONNECTION TO THE CITY WATER SYSTEM. PRESSURE TEST SHALL BE CONDUCTED AT 180 PSI OR 1.5 TIMES THE NORMAL WORKING PRESSURE, WHICHEVER IS HIGHER AND SHALL MEET THE REQUIREMENTS OF DIVISION 403.14 OF THE WEST LINN PUBLIC WORKS STANDARD CONSTRUCTION SPECIFICATIONS.
8. CHLORINATION SHALL CONFORM WITH DIVISION 403.13 OF THE W.L.S.C.S.
9. 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.
10. A PLUMBING PERMIT IS REQUIRED FOR SERVICE LATERAL INSTALLATIONS BEYOND THE WATER METER.
11. ALL MATERIALS, INSTALLATION, TESTS, AND CHLORINATION TO BE IN STRICT ACCORDANCE WITH THE CITY OF WEST LINN PUBLIC WORKS STANDARD CONSTRUCTION SPECIFICATIONS, AND THE OREGON STATE HEALTH DIVISION ADMINISTRATION RULES, CHAPTER 333.

STORM SEWER NOTES

- 1. EIGHT INCH TO 24-INCH STORM DRAIN PIPE IS PREFERRED TO BE SEAMLESS RIBBED PVC PIPE CONFORMING TO ASTM F 794. WHERE LARGER PIPE IS REQUIRED OR LACK OF COVER PREVENTS USE OF RIBBED PVC PIPE, PIPE SHALL BE CLASS 3 NON-REINFORCED, CONCRETE PIPE CONFORMING TO ASTM C14, REINFORCED CONCRETE PIPE CONFORMING TO ASTM C-76, CLASS IV, OR DUCTILE IRON PIPE CONFORMING TO AWWA C151 CLASS 52. RUBBER JOINTS ARE REQUIRED FOR ALL CONCRETE PIPE. SIX INCH AND SMALLER STORM DRAIN PIPE SHALL CONFORM TO ASTM D 3034 PVC PIPE.
2. GUTTER INLETS SHALL BE POURED IN-PLACE CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 3300 PSI. FRAME SHALL BE FABRICATED OF STRUCTURAL STEEL, ASTM A-7, A-36, A-373.
3. MANHOLE BASE MAY BE POURED IN PLACE CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 3300 PSI OF 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. INTERIOR DIMENSIONS NOTED ON THE PLANS ARE MINIMUMS. SOME OR ALL OF THE STORM DRAIN REQUIRED WILL BE OVERSIZED MANHOLES, CONTRACTOR SHALL CHECK WITH MANHOLE MANUFACTURER FOR ACTUAL SIZE OF MANHOLE NEEDED FOR TYPE AND SIZE OF PIPE TO BE USED. INVERTS SHALL BE CONSTRUCTED SO AS TO PROVIDE SMOOTH FLOW-THROUGH CHARACTERISTICS. PIPE SHALL BE CONNECTED TO MANHOLE BY MEANS OF A FLEXIBLE CONNECTION AND SHALL HAVE A SHEAR JOINT LOCATED 18" OUTSIDE OF THE MANHOLE.
4. ALL MANHOLES LOCATED IN EASEMENT AREAS REQUIRE TAMPER PROOF LIDS AND LID SHALL BE SET 12 INCHES ABOVE PROPOSED GRADE.
5. CLEANOUT PIPE, FITTINGS, AND JOINTS SHALL BE THE SAME SPECIFICATIONS AS FOR PIPE. CASTINGS ARE SHOWN ON DETAILS AND SHALL CONFORM TO ASTM A48 (GRADE 30). CLEANOUT RISER SHALL MATCH DOWNSTREAM PIPE DIAMETER.
6. GRANULAR BACKFILL (3/4"-0) IS TO BE COMPACTED TO 95% MAXIMUM DRY DENSITY PER AASHTO T-180 TEST METHOD AND NATIVE MATERIAL SHALL BE COMPACTED TO 95% OF IN-PLACE DRY DENSITY OF SURROUNDING SOIL.
7. STORM DRAIN SERVICE LATERALS SHALL BE 4" PIPE CONFORMING TO THE SAME SPECIFICATIONS AS THE STORM DRAIN MAIN LINES. SERVICES LATERALS SHALL BE INSTALLED TO A POINT BEYOND THE LINE OR UTILITY EASEMENT AS SHOWN ON THE PLAN. THE SERVICE LATERAL SHALL BE PLUGGED WITH 4" RUBBER RING PLUG, AND THE LOCATION OF THE LATERALS END MARKED WITH A 2"X4" STAKE PAINTED WHITE.
8. STORM DRAINS SHALL BE TESTED FOR DEFLECTION IN ACCORDANCE WITH DIVISION 601.03.11 AND VIDEO INSPECTED IN ACCORDANCE WITH DIVISION 601.03.12 OF THE WEST LINN STANDARD CONSTRUCTION SPECIFICATIONS. ALL TESTS SHALL BE WITNESSED BY THE ENGINEER AND A REPRESENTATIVE OF THE CITY.
9. A PLUMBING PERMIT FROM THE CITY OF WEST LINN BUILDING DEPARTMENT IS REQUIRED FOR STORM DRAINS BEYOND THE FIRST CLEANOUT.
10. ALL MATERIALS, INSTALLATION, TESTS, AND INSPECTIONS TO BE IN STRICT ACCORDANCE WITH THE CITY OF WEST LINN STANDARD CONSTRUCTION SPECIFICATIONS.
11. INFILTRATION RAIN GARDEN PLANTINGS TO CONFORM TO PLANTING SPECIFICATION AS SHOWN ON THE PLANS AND DETAILS CONTAINED HEREIN.

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 SCRAPPED CLEAN AS SOON AS POSSIBLE.
D. RE-SEED 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.

STREET NOTES

- 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 8" BELOW SUBGRADE. PROPERLY DISPOSE OF ALL WASTE MATERIAL.
2. STREET SUBGRADE SHALL CONFORM TO DIVISION 501 OF THE CITY OF WEST LINN STANDARD CONSTRUCTION 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 W.L.S.C.S. DIVISION 501.03.08. SUCH TESTING WILL BE AT THE CONTRACTOR'S EXPENSE.
3. AGGREGATE BASE ROCK SHALL CONFORM TO THE REQUIREMENTS OF W.L.S.C.S. DIVISION 205. 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 TO PLACEMENT OF THE ROCK AND AGAIN AFTER PLACEMENT OF THE BASE ROCK AND PRIOR TO PAVING. ALL UNDERGROUND UTILITIES INCLUDING LATERALS, SERVICES, AND POWER OR GAS CONDUITS WILL BE IN PLACE BEFORE SUBGRADE PROOF ROLL WILL TAKE PLACE.
4. ASPHALT CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF W.L.S.C.S. DIVISION 205. 2" BASE LIFT SHALL BE CLASS "B" A.C. AND 2" FINAL LIFT SHALL BE CLASS "C" A.C. MEETING THE SPECIFICATIONS OF W.L.S.C.S. DIVISION 505. 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 3300 PSI CONCRETE MEETING THE SPECIFICATIONS OF W.L.S.C.S. DIVISION 205 (AFTER 28 DAYS) 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. CONTRACTOR SHALL STAMP LOCATION OF SEWER AND WATER CROSSINGS WITH AN (S) OR A (W). A PROOF ROLL OF THE CURBLINES IS REQUIRED PRIOR TO POURING CURBS.
6. ALL MATERIALS, INSTALLATION, TESTS, AND INSPECTIONS TO BE IN STRICT ACCORDANCE WITH CITY OF WEST LINN PUBLIC WORKS STANDARD CONSTRUCTION SPECIFICATIONS.
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.

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.

GENERAL NOTES

- 1. ALL REFERENCES TO CITY DESIGN STANDARDS REFER TO THE CURRENT STANDARDS.
2. THE DESIGN ENGINEER WILL BE RESPONSIBLE FOR INSPECTION OF THE PROPOSED IMPROVEMENTS WITH OVERSIGHT FROM THE 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 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 AND THE CITY 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 PUBLIC IMPROVEMENT GUARANTEE AGREEMENT OR A PUBLIC WORKS PERMIT, A PRE-CONSTRUCTION MEETING WITH THE CITY OF WEST LINN, AND INSTALLATION OF EROSION CONTROL MEASURES ARE REQUIRED PRIOR TO BEGINNING CONSTRUCTION.
7. PRIOR TO SITE CLEARING, 8' TALL CHAIN-LINK FENCING SHALL BE PLACED AT TREE EASEMENT BOUNDARIES PRIOR TO SITE GRADING. THE CITY ARBORIST SHALL INSPECT & APPROVE ALL ONSITE TREE PROTECTION MEASURES PRIOR TO THE START OF THE SITE WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE CITY ARBORIST AND ARRANGE FOR THIS APPROVAL TO TAKE PLACE. NO PERMITS WILL BE ISSUED FROM ENGINEERING, PLANNING, OR BUILDING DEPARTMENTS WITHOUT TREE PROTECTION APPROVAL FROM THE CITY ARBORIST. ALL TREE PROTECTION MEASURES SHALL REMAIN IN PLACE AND FULLY FUNCTIONAL FOR THE ENTIRE TIME THAT SITE WORK AND CONSTRUCTION IS TAKING PLACE.
8. A CITY REPRESENTATIVE AND A REPRESENTATIVE OF THE ENGINEER MUST BE PRESENT AT ALL TESTING AND THE CITY SHALL BE FURNISHED A COPY OF ALL TEST RESULTS. IF ENGINEER OR CITY DO NOT WITNESS TESTING, CONTRACTOR WILL BE REQUIRED TO RE-TEST.
9. ALL FEES FOR STREET TREES SHALL BE PAID TO THE CITY OF WEST LINN PARKS AND RECREATION DEPARTMENT.
10. NO BUILDING PERMITS WILL BE GIVEN UNTIL THE IMPROVEMENTS HAVE BEEN ACCEPTED BY THE CITY AS SUBSTANTIALLY COMPLETE.
11. CONTRACTOR SHALL VERIFY DEPTH AND LOCATION OF EXISTING UTILITIES AND POINTS OF CONNECTION PRIOR TO ORDERING MANHOLES. IF DISCREPANCIES ARE FOUND, CONTRACTOR SHALL NOTIFY THE ENGINEER.

SEEDING / MULCH

- 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.

EXISTING LEGEND

Table with 2 columns: Symbol and Description. Includes Boundary Line, Right-of-Way, Center Line, Lot Line, Existing Utility Easement, Existing Curb, Building, 1 FT Contour, 5 FT Contour, Fence Line, Water Line, Existing Gas Line, Underground Cable Line, Underground Power Line, Existing Underground Telephone Line, Existing Storm Line and Manhole, Existing Sanitary Sewer Line and Manhole, Existing Asphalt to Remain, Existing Asphalt to be Removed, Existing Concrete, Existing Rockery Wall, Existing Deciduous Tree, Existing Coniferous Tree, Existing Sign, Existing Fire Hydrant, Existing Water Valve, Tree to be Removed, Existing Water Meter, Existing Storm Drain Catch Basin, Existing Light Pole.

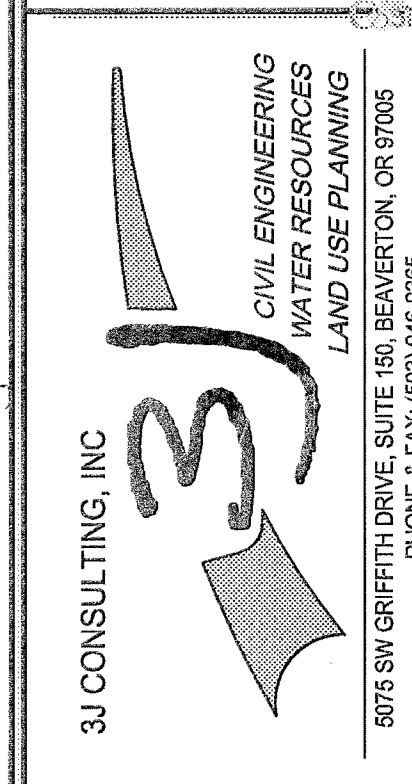
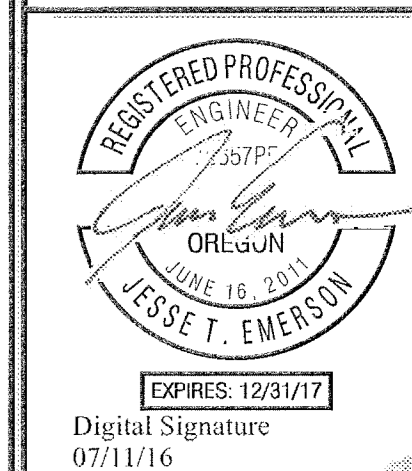
PROPOSED LEGEND

Table with 2 columns: Symbol and Description. Includes Boundary Line, Proposed Lot Line, Proposed Center Line, Proposed Utility/Easement, Proposed Setback Line, Proposed 1FT Contour, Proposed 5FT Index Contour, Limits of Grading/Disturbance, Erosion Control: Fescue Straw Wattle, Erosion Control: Fescue Straw Wattle, Tree Protection Fencing, Erosion Control: Silt Fencing, Sanitary Sewer Line and Manhole, Storm Drain Line and Manhole, Domestic Water Service & Meter, Storm Sewer Lateral as Noted, Sanitary Sewer Lateral as Noted, Proposed Concrete, Proposed Asphalt, Proposed Gravel, Construction Entrance, Significant Tree Canopy to Remain (Dripline + 10 FT), Significant Tree Canopy to be Removed (Dripline + 10 FT), Tree to be Removed, Existing Evergreen Tree, Existing Conifer Tree, Erosion Control: Inlet Protection, Storm Drain Catch Basin.

P:\16246-COPPEDEGE PROPERTY\CAD\DC116246-C000-COVER SHEET.DWG

04/20/2016 PERMIT SET REVISION SUMMARY BY DATE

GENERAL NOTES SAVANNA HEIGHTS SUBDIVISION BLAND CIRCLE ESTATES, LLC WEST LINN, OR



3J JOB ID # | 15246 LAND USE # | SUB-15-02 TAX LOT # | 21E35B 06500 DESIGNED BY | JTE, JCP CHECKED BY | AIM

SHEET TITLE GEN. NOTES SHEET NUMBER C002

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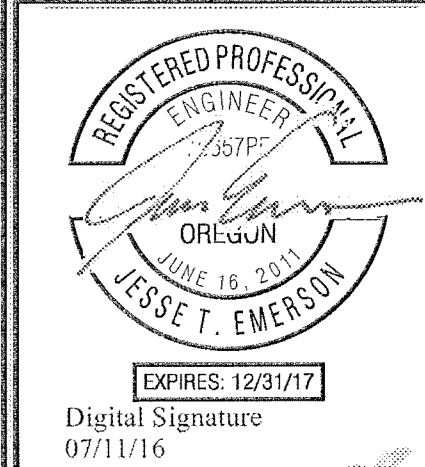


SURVEYOR'S NOTE

- UTILITY INFORMATION SHOWN ON THIS MAP IS BASED UPON OBSERVED FEATURES, RECORD DATA AND TONE MARKS PROVIDED BY PUBLIC UTILITY LOCATION SERVICES. NO WARRANTIES ARE MADE REGARDING THE ACCURACY OR COMPLETENESS OF THE UTILITY INFORMATION SHOWN. ADDITIONAL UTILITIES MAY EXIST. INTERESTED PARTIES ARE HEREBY ADVISED THAT UTILITY LOCATIONS SHOULD BE VERIFIED PRIOR TO DESIGN OR CONSTRUCTION OF ANY CRITICAL ITEMS.
- VERTICAL DATUM: NAVD '88 UTILIZING GPS POSITIONING TIED TO THE ORIGIN WITH REAL TIME CORRECTORS REFERENCED TO NAD '83 (2011).
- CONTOUR INTERVAL IS ONE FOOT.
- TOPOGRAPHIC FEATURES SHOWN ON THIS MAP WERE LOCATED USING STANDARD PRECISION TOPOGRAPHIC MAPPING PROCEDURES. THIRD PARTY USERS OF DATA FROM THIS MAP PROVIDED VIA AUTOCAD DRAWING FILES OR DATA EXCHANGE FILES SHOULD NOT RELY ON ANY AUTOCAD GENERATED INFORMATION WHICH IS BEYOND THE LIMITS OF PRECISION OF THIS MAP. THIRD PARTIES USING DATA FROM THIS MAP IN AN AUTOCAD FORMAT SHOULD VERIFY ANY ELEMENTS REQUIRING PRECISE LOCATIONS PRIOR TO COMMENCEMENT OF ANY CRITICAL DESIGN OR CONSTRUCTION. CONTACT COMPASS LAND SURVEYORS FOR FURTHER INFORMATION. FURTHERMORE, COMPASS LAND SURVEYORS WILL NOT BE RESPONSIBLE NOR HELD LIABLE FOR ANY DESIGN OR CONSTRUCTION RELATED PROBLEMS THAT ARISE OUT OF THIRD PARTY USAGE OF THIS MAP (IN AUTOCAD OR OTHER FORMATS) IN ANY MANNER INCONSISTENT WITH THIS STATEMENT.
- UNDERGROUND PIPE SIZES AND MATERIAL TYPES ARE BASED UPON RECORD DRAWINGS, INFORMATION PROVIDED BY UTILITY LOCATORS AND FIELD OBSERVATIONS AT MANHOLES AND CATCH BASIN RIMS AND SHOULD BE VERIFIED.

DATE	04/20/2016
BY	
REVISION SUMMARY	
PERMIT SET	

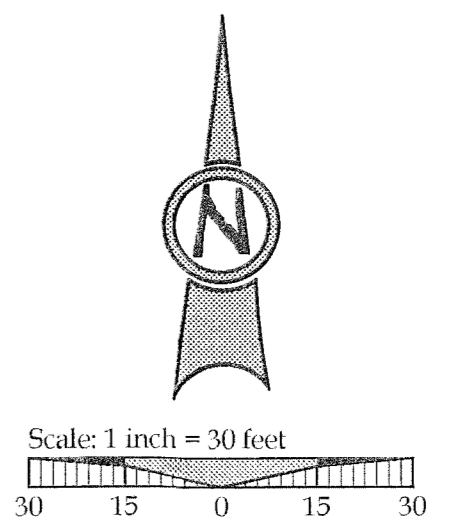
EXISTING CONDITIONS
SAVANNA HEIGHTS
SUBDIVISION
 BLAND CIRCLE ESTATES, LLC
 WEST LINN, OR



EXISTING CONDITIONS PLAN
 THIS PLAN IS INTENDED FOR USE AS AN EXISTING CONDITIONS PLAN SHOWING THE CONDITIONS OF THE SITE PRIOR TO CONSTRUCTION. INFORMATION SHOWN ON THIS PLAN WAS DEVELOPED FROM THE TOPOGRAPHIC SURVEY, AERIAL PHOTOS, AND SITE OBSERVATIONS BY THE ENGINEER. NOT ALL SURFACE FEATURES OR UTILITIES MAY BE SHOWN. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION TO DETERMINE WORK SPECIFIC DETAILS. TOPOGRAPHIC INFORMATION PROVIDED BY COMPASS LAND SURVEYS DATED AUGUST, 2015.

THE SITE IS LOCATED WITHIN ZONE X (UN-SHADED) PER FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY-PANEL NUMBER 41005C0257D. FEMA'S DEFINITION OF ZONE X (UN-SHADED) IS AN AREA OF MINIMAL FLOOD HAZARD, USUALLY DEPICTED ON FIRMS AS ABOVE THE 500-YEAR FLOOD LEVEL. ZONE X IS THE AREA DETERMINED TO BE OUTSIDE THE 500-YEAR FLOOD AND PROTECTED BY LEVEE FROM 100-YEAR FLOOD. IN COMMUNITIES THAT PARTICIPATE IN THE NFIP, FLOOD INSURANCE IS AVAILABLE TO ALL PROPERTY OWNERS AND RENTERS IN THESE ZONES.

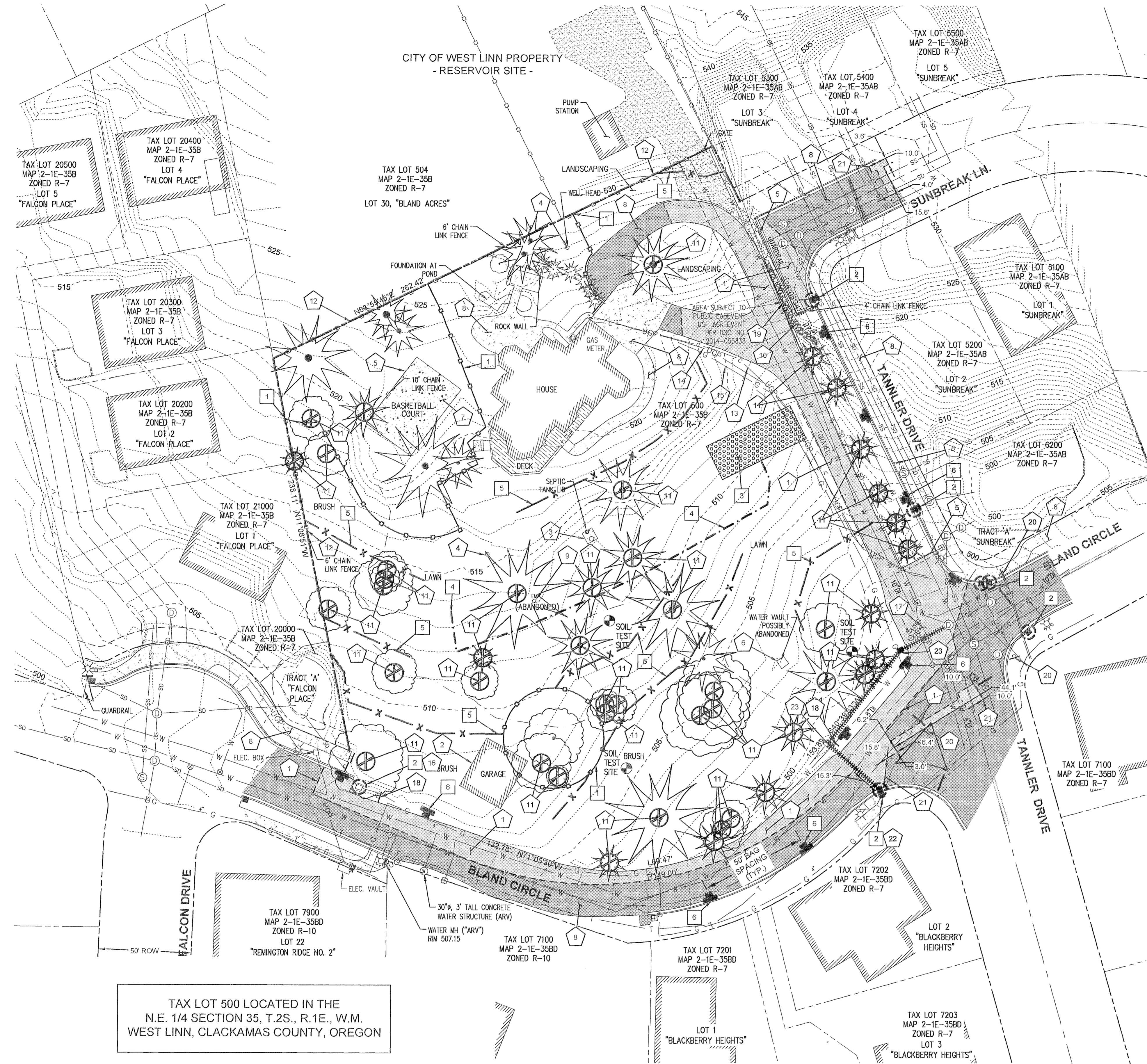
TAX LOT 500, MAP 2-1E-35B
 NE 1/4 SECTION 35, T.2S., R.1E., W.M.
 CITY OF WEST LINN, CLACKAMAS COUNTY, OREGON



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3J CONSULTING, INC
 CIVIL ENGINEERING
 WATER RESOURCES
 LAND USE PLANNING
 8076 SW GRIFFITH DRIVE, SUITE 150, BEAVERTON, OR 97006
 PHONE & FAX: (503) 646-9585

3J JOB ID #	15246
LAND USE #	SUB-15-02
TAX LOT #	21E35B 0500
DESIGNED BY	JTE, JCP
CHECKED BY	JAM
SHEET TITLE	EXIST. COND.
SHEET NUMBER	C100



TAX LOT 500 LOCATED IN THE
N.E. 1/4 SECTION 35, T.2S., R.1E., W.M.
WEST LINN, CLACKAMAS COUNTY, OREGON

DEMOLITION NOTES

- 1 SAW-CUT EXISTING ROADWAY ASPHALT PAVEMENT, CURB, GUTTER, SIDEWALK, PATH, RAMP, AND/OR DRIVEWAY TO FULL DEPTH. REMOVE EXISTING PAVEMENT TO LIMITS SHOWN ON PLAN AND DISPOSE OF OFF-SITE.
- 2 EXISTING GARAGE TO BE DEMOLISHED. DEBRIS AND REFUSE TO BE DISPOSED OF OFF-SITE AT AN APPROVED LOCATION.
- 3 COORDINATE THE REMOVAL OF THE EXISTING SEPTIC TANK AND DRAIN FIELD WITH THE OWNERS AND CITY OF WEST LINN. CONTRACTOR TO DECOMMISSION PER LOCAL, STATE, AND FEDERAL REGULATIONS.
- 4 COORDINATE THE REMOVAL OF THE EXISTING WELL STRUCTURE WITH THE OWNERS AND CITY OF WEST LINN. CONTRACTOR TO DECOMMISSION PER STATE WATER MASTER JURISDICTIONAL STANDARDS.
- 5 REMOVE EXISTING FENCING AND DISPOSE OF OFF-SITE.
- 6 COORDINATE THE REMOVAL OF THE EXISTING WATER VAULT WITH THE CITY OF WEST LINN AND DECOMMISSION PER JURISDICTIONAL STANDARDS.
- 7 REMOVE EXISTING CONCRETE AND BASE ROCK. DISPOSE OF RUBBLE AND REFUSE OFF-SITE.
- 8 PROTECT EXISTING ROADWAY ASPHALT PAVEMENT, CURB, GUTTER, SIDEWALK, PATH, RAMP, AND/OR DRIVEWAY TO REMAIN.
- 9 COORDINATE WITH PGE TO REMOVE EXISTING ELECTRICAL STRUCTURE AND ANY ASSOCIATED WIRES.
- 10 REMOVE EXISTING ROCK WALL AND DISPOSE OF OFF-SITE.
- 11 REMOVE EXISTING TREE / LANDSCAPING NECESSARY TO INSTALL IMPROVEMENTS. SEE SHEET C120 FOR TREE INVENTORY DETAILS.
- 12 PROTECT EXISTING FENCING THROUGHOUT CONSTRUCTION.
- 13 PROTECT EXISTING BURIED TELEPHONE/CABLE LINE THROUGHOUT CONSTRUCTION.
- 14 PROTECT EXISTING BURIED UNDERGROUND POWER LINE THROUGHOUT CONSTRUCTION. COORDINATE POWER SHUT OFF w/ PGE.
- 15 PROTECT EXISTING BURIED GAS LINE THROUGHOUT CONSTRUCTION.
- 16 REMOVE EXISTING DITCH INLET AND DISPOSE OF OFF-SITE. ABANDON PIPE IN-PLACE. COORDINATE REMOVAL w/ CONSTRUCTION OF NEW INLET AND MAINTAIN SERVICE.
- 17 CONTRACTOR TO ADJUST WATER VALVES AS NECESSARY TO BE FLUSH WITH FINAL GRADES. CONTACT UTILITY PRIOR TO ANY WORK ON THE WATER VALVES.
- 18 REMOVE AND SALVAGE EXISTING SIGN "13 TON TRUCK WEIGHT LIMIT". REINSTALL NORTH OF IMPROVEMENTS PER CITY DIRECTION AND REQUIREMENT.
- 19 REMOVE EXISTING RETAINING WALL AND ASPHALT BERM. DISPOSE OF RUBBLE AND REFUSE OFF-SITE.
- 20 PROTECT EXISTING STOP SIGN THROUGHOUT CONSTRUCTION.
- 21 SAW-CUT EXISTING ROADWAY ASPHALT PAVEMENT TO FULL DEPTH AND REMOVE EXISTING PAVEMENT TO LIMITS SHOWN ON PLAN AND DISPOSE OF OFF-SITE PER T-CUT DETAIL WL-203 ON SHEET C410.
- 22 PROTECT EXISTING INLET IN-PLACE. SEE SHEET C310 FOR FURTHER INFORMATION.
- 23 REMOVE EXISTING DITCH INLET AND PIPE AND DISPOSE OF OFF-SITE. COORDINATE REMOVAL w/ CONSTRUCTION OF NEW INLET AND MAINTAIN SERVICE.

EROSION CONTROL NOTES

- 1 INSTALL AND MAINTAIN TREE PROTECTION FENCING THROUGHOUT CONSTRUCTION ACTIVITIES. SEE TREE PRESERVATION PLANS FOR ADDITIONAL INFORMATION. SEE DETAIL WL-219 ON SHEET C401.
- 2 INSTALL AND MAINTAIN INLET PROTECTION UNTIL STRUCTURE IS REMOVED PER CONSTRUCTION SCHEDULE. MAINTAIN INLET PROTECTION IF STRUCTURE IS TO REMAIN. SEE DETAIL 5 ON SHEET C400.
- 3 INSTALL AND MAINTAIN STABILIZED CONSTRUCTION ENTRANCE. SEE DETAIL 2 ON SHEET C400.
- 4 INSTALL AND MAINTAIN STRAW WATTLES. SEE DETAIL 4 ON SHEET C400.
- 5 INSTALL SILT FENCE AT LIMITS OF GRADING ON LEVELS OF CONTOURS. SEE DETAIL 1 ON SHEET C400.
- 6 INSTALL AND MAINTAIN BIOFILTER CHECKDAM (SPACING SHOWN SCHEMATICALLY). SEE DETAIL 2 ON SHEET C120.

GENERAL DEMOLITION NOTES

1. DEMOLITION NOTES ARE FOR CLARIFICATION ONLY AND ARE SHOWN FOR THE CONTRACTOR'S BENEFIT. THESE NOTES ARE NOT INTENDED TO BE COMPREHENSIVE. THE CONTRACTOR SHALL REMOVE OR RELOCATE ALL EXISTING ON-SITE IMPROVEMENTS NECESSARY TO ACCOMMODATE THE PROPOSED CONSTRUCTION.
2. ALL EXISTING PROPERTY UTILITY SERVICES TO BE TERMINATED AND CAPPED AT THE RIGHT OF WAY PRIOR TO DEMOLISHING ANY EXISTING BUILDINGS, UNLESS NOTED OTHERWISE.
3. CONTRACTOR IS TO REMOVE ALL EXISTING SURFACE IMPROVEMENTS AND DEBRIS WITHIN THE LIMITS OF WORK UNLESS OTHERWISE NOTED. ALL DEBRIS FOUND ON SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH APPLICABLE STATE CODES.
4. CONTRACTOR TO PROTECT EXISTING FEATURES WHICH ARE TO REMAIN.
5. CONTRACTOR SHALL PROTECT ALL EXISTING MANHOLE RIMS, DRAINAGE STRUCTURES, VALVE BOXES, VAULT LIDS AND UTILITY ACCESS STRUCTURES WITHIN AREAS AFFECTED BY PROPOSED CONSTRUCTION.
6. CONSTRUCTION AND DEMOLITION ACTIVITIES SHALL BE PHASED IN SUCH A MANNER AS TO ENSURE THAT PUBLIC AND PRIVATE ACCESS ROADS ARE NOT BLOCKED AND REMAIN OPERATIONAL.
7. SEE TREE PROTECTION AND REMOVAL PLAN (SHEET C104) FOR ALL TREE REMOVAL INFORMATION.

Scale: 1 inch = 30 feet

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04/20/2016	DATE
	BY
	REVISION SUMMARY
	PERMIT SET

DEMOLITION & PHASE I EROSION CONTROL
SAVANNA HEIGHTS
SUBDIVISION
BLAND CIRCLE ESTATES, LLC
WEST LINN, OR



3J CONSULTING, INC

CIVIL ENGINEERING
WATER RESOURCES
LAND USE PLANNING

5075 SW GRIFFITH DRIVE, SUITE 160, BEAVERTON, OR 97008
PHONE & FAX: (503) 946-8388

3J JOB ID #	15246
LAND USE #	SUB-15-02
TAX LOT #	21E35B 00500
DESIGNED BY	JTE, JCP
CHECKED BY	AJM
SHEET TITLE	DEMO. & PH I E.C.
SHEET NUMBER	C110

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TAX LOT 500, MAP 2-1E-35B
NE 1/4 SECTION 35, T.2S., R.1E., W.M.
CITY OF WEST LINN, CLACKAMAS COUNTY, OREGON



GENERAL TREE INVENTORY STATISTICS

TOTAL PROPERTY AREA:	91,825 SQ. FT. = 2.11 AC.
TOTAL TREE INVENTORY (PROJECT BOUNDARY):	81 EA.
TOTAL TREES RETAINED:	15 EA.
TOTAL TREES REMOVED:	46 EA.
TOTAL TREE CALIPER INCHES:	1,043 INCHES
TOTAL CALIPER INCHES RETAINED:	285 INCHES
TOTAL CALIPER INCHES REMOVED:	758 INCHES

SIGNIFICANT TREE STATISTICS:

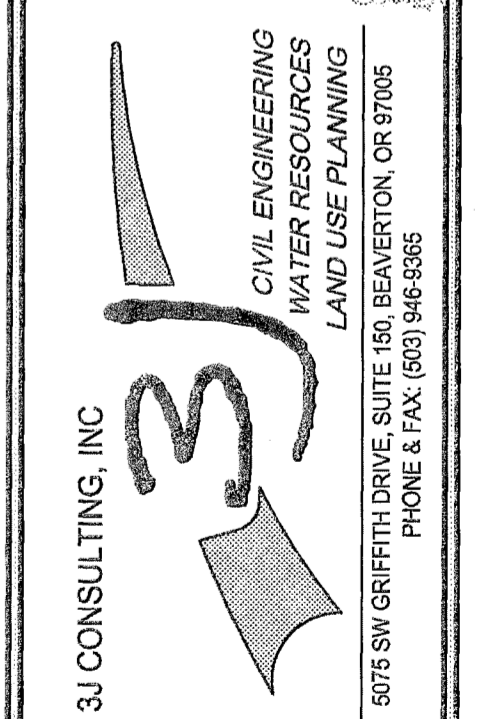
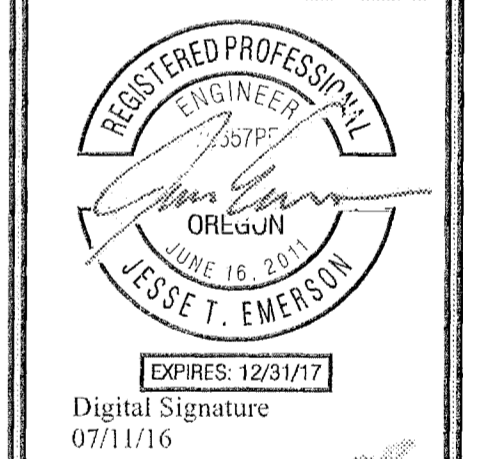
SIGNIFICANT TREE INVENTORY:	19 EA.
SIGNIFICANT TREES RETAINED:	8 EA.
SIGNIFICANT TREES REMOVED:	11 EA.
SIGNIFICANT TREE CALIPER INCHES:	569 INCHES
SIGNIFICANT CALIPER INCHES RETAINED:	240 INCHES
SIGNIFICANT CALIPER INCHES REMOVED:	329 INCHES
EXISTING SIGNIFICANT TREE CANOPY COVERAGE:	35,230 SQ. FT.
SIGNIFICANT TREE CANOPY RETAINED:	11,872 SQ. FT.
SIGNIFICANT TREE CANOPY REMOVED DUE TO R.O.W. IMPROVEMENTS:	23,358 SQ. FT.
TREE PRESERVATION AREA REQUIRED (20% OF EXISTING CANOPY):	7,046 SQ. FT.
TREE PRESERVATION AREA PROVIDED (33.7% OF EXISTING CANOPY):	11,873 SQ. FT.

TREE PRESERVATION NOTES

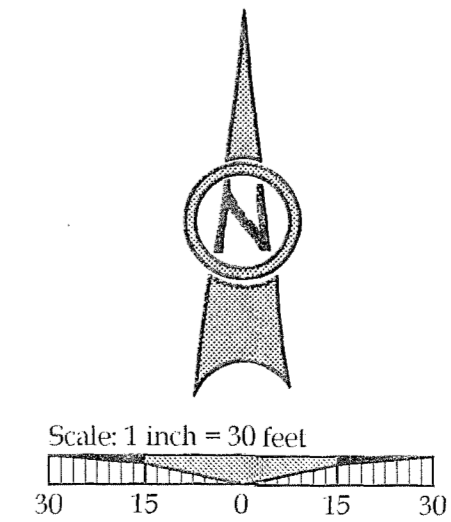
- 1 INSTALL AND MAINTAIN TREE PROTECTION FENCING THROUGHOUT CONSTRUCTION ACTIVITIES PER DETAIL WL-219 ON SHEET C410.

PERMIT SET	04/20/2016	DATE
REVISION SUMMARY		BY

TREE PRESERVATION PLAN
SAVANNA HEIGHTS
SUBDIVISION
BLAND CIRCLE ESTATES, LLC
WEST LINN, OR



3J JOB ID #	15246
LAND USE #	SUB-15-02
TAX LOT #	21E35B 00500
DESIGNED BY	JTE, JCP
CHECKED BY	AJM
SHEET TITLE	TREE PRES.
SHEET NUMBER	C120



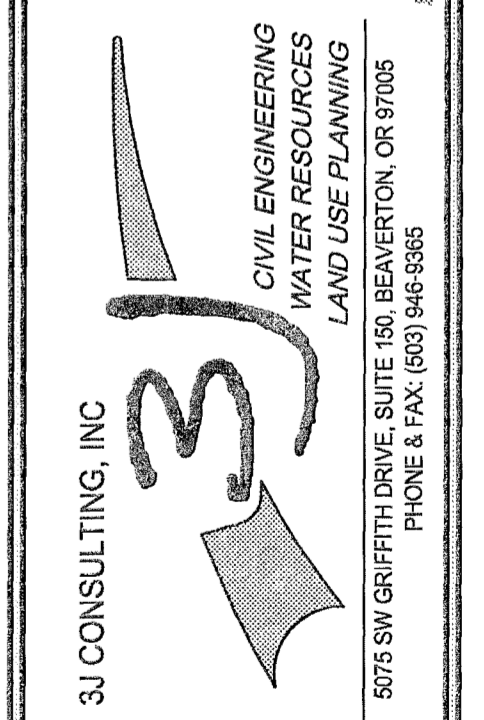
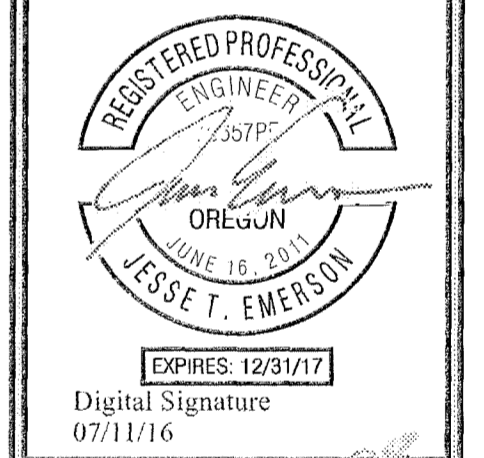
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P:\16246-COPPEDEGE PROPERTY\CD\16246-C-120-TREE INVENTORY.DWG

TREE INVENTORY								
SURVEY POINT NUMBER	COMMON NAME	TREE SPECIES	NOMINAL CALIPER SIZE (INCHES)	DRIP RADIUS (FEET)	CONDITION	COMMENTS	SIG?	TREATMENT
3682	SPRUCE	PICEA SPP.	10	10	FAIR	OLD BROKENTOP, MODERATE STRUCTURE	NO	REMOVE
3683	SPRUCE	PICEA SPP.	10	10	FAIR	OFF-SITE, FORKED LEADERS	NO	REMOVE
3684	SCOTS PINE	PINUS SYLVESTRIS	10	10	FAIR	STRONG BUT SELF-CORRECTING LEAN	NO	REMOVE
3685	SPRUCE	PICEA SPP.	10	8	FAIR	CODOMINANT STEMS, FORKED LEADERS, TRUNK DAMAGE	NO	REMOVE
3686	SPRUCE	PICEA SPP.	8	8	FAIR	CODOMINANT STEMS, TRUNK DAMAGE	NO	REMOVE
3687	SPRUCE	PICEA SPP.	8	8	FAIR	MODERATE STRUCTURE, TWIG DIEBACK	NO	REMOVE
3688	SPRUCE	PICEA SPP.	8	10	FAIR	MODERATE STRUCTURE, SOME TWIG DIEBACK	NO	REMOVE
3689	BIGLEAF MAPLE	ACER MACROPHYLLUM	8	14	FAIR	POOR STRUCTURE, CHLOROTOCI FOLIAGE	NO	REMOVE
3692	AUSTRIAN PINE	PINUS NIGRA	10	10	FAIR	POOR STRUCTURE, OLD BROKEN TOP, OFF-CENTER LEADER	NO	REMOVE
3693	AUSTRIAN PINE	PINUS NIGRA	10	10	FAIR	TRUNK DAMAGE	NO	REMOVE
3694	DOUGLAS-FIR	PSEUDOTSUGA MENZIESII	32	22	FAIR	CODOMINANT LEADERS WITH V-SHAPED CROTCH, THIN CROWN, FEW DEAD BRANCHES	NO	REMOVE
3695	DOUGLAS-FIR	PSEUDOTSUGA MENZIESII	40	26	GOOD	NO MAJOR DEFECTS	YES	REMOVE
3696	DOUGLAS-FIR	PSEUDOTSUGA MENZIESII	21	18	GOOD	BELOW DOMINANT CANOPY	YES	REMOVE
3697	DOUGLAS-FIR	PSEUDOTSUGA MENZIESII	39	22	POOR	TWIG AND BRANCH DIEBACK, POOR VIGOR	NO	REMOVE
3698	DOUGLAS-FIR	PSEUDOTSUGA MENZIESII	21	16	GOOD	BELOW DOMINANT CANOPY	YES	REMOVE
3699	DOUGLAS-FIR	PSEUDOTSUGA MENZIESII	34	18	GOOD	SOME RESIN FLOW AT LOWER TRUNK	YES	REMOVE
3700	DOUGLAS-FIR	PSEUDOTSUGA MENZIESII	38	30	GOOD	NO MAJOR DEFECTS	YES	REMOVE
3701	WHITE PINE	PINUS MONTICOLA	8	8	FAIR	LOWER TRUNK DECAY	NO	REMOVE
3702	MADRONE	ARBUTUS MENZIESII	16	0	DEAD	DISEASED, DECAY, FEW LIVE EPICORMICS, NOT VIABLE	NO	REMOVE
3843	INCENSE CEDAR	CALOCEDRUS DECURRENS	8	6	GOOD	CROWN ASYMMETRY, FLAGGING IN LOWER BRANCHES	NO	RETAIN
3844	INCENSE CEDAR	CALOCEDRUS DECURRENS	7	5	POOR	DIEBACK	NO	RETAIN
3845	INCENSE CEDAR	CALOCEDRUS DECURRENS	6	6	GOOD	MINOR CROWN ASYMMETRY	NO	RETAIN
3934	WESTERN REDCEDAR	THUJA PLICATA	6	6	GOOD	MULTIPLE LEADERS	NO	RETAIN
3935	WESTERN REDCEDAR	THUJA PLICATA	6	6	GOOD	MULTIPLE LEADERS	NO	RETAIN
3936	WESTERN REDCEDAR	THUJA PLICATA	6	6	GOOD	MULTIPLE LEADERS	NO	RETAIN
3937	DOUGLAS-FIR	PSEUDOTSUGA MENZIESII	30	16	FAIR	MODERATE VIGOR, HISTORY OF LATERAL BRANCH FAILURE, PRUNE TO REDUCE / REMOVE HIGH RISK BRANCHES	YES	RETAIN
3938	DOUGLAS-FIR	PSEUDOTSUGA MENZIESII	24	16	FAIR	OLD WOUND NE TRUNK, CROOK IN MAIN STEM, BELOW DOMINANT CANOPY	YES	RETAIN
3939	PALM	ARACACEAE SPP.	6	5	GOOD	SMALL ORNAMENTAL	NO	RETAIN
3988	DOUGLAS-FIR	PSEUDOTSUGA MENZIESII	26	14	GOOD	CODOMINANT CROWN CLASS WITH 3989	YES	RETAIN
3989	DOUGLAS-FIR	PSEUDOTSUGA MENZIESII	42	14	GOOD	CODOMINANT CROWN CLASS WITH 3988	YES	RETAIN
3990	DOUGLAS-FIR	PSEUDOTSUGA MENZIESII	12	14	GOOD	BASAL WOUND, OLD BROKEN TOP	NO	REMOVE
3991	DOUGLAS-FIR	PSEUDOTSUGA MENZIESII	38	28	GOOD	SOME CROWN ASYMMETRY	YES	RETAIN
3992	DOUGLAS-FIR	PSEUDOTSUGA MENZIESII	18	14	GOOD	CODOMINANT WITH 3991	YES	RETAIN
4743	PORT-ORFORD-CEDAR	CHAMAECYPARIS LAWSONIANA	9	8	GOOD	YOUNG TREE ALREADY GROWING INTO FENCE	NO	REMOVE
4744	BIGLEAF MAPLE	ACER MACROPHYLLUM	8	12	FAIR	POOR STRUCTURE, BROKEN TOP	NO	REMOVE
4745	BIGLEAF MAPLE	ACER MACROPHYLLUM	8	12	FAIR	POOR STRUCTURE, BROKEN TOP	NO	REMOVE
4746	DOUGLAS-FIR	PSEUDOTSUGA MENZIESII	44	24	GOOD	NO MAJOR DEFECTS, SAFETY PRUNING RECOMMENDED	YES	RETAIN
4766	BIGLEAF MAPLE	ACER MACROPHYLLUM	6	12	FAIR	CODOMINANT LEADERS, ONE-SIDED CROWN	NO	REMOVE
4767	SCOULERS' WILLOW	SALIX SCOULERIANA	10	10	FAIR	BASAL DECAY, POOR STRUCTURE, MULTIPLE LEADERS WITH INCLUDED BARK	NO	REMOVE
4768	BIGLEAF MAPLE	ACER MACROPHYLLUM	10	8	FAIR	TRUNK DECAY, POOR STRUCTURE, MULTIPLE UPRIGHT LEADERS	NO	REMOVE
4769	SCOULERS' WILLOW	SALIX SCOULERIANA	10	16	FAIR	MODERATE STRUCTURE, ONE-SIDED CROWN WITH LEAN AWAY FROM 4768	NO	REMOVE
4770	BIGLEAF MAPLE	ACER MACROPHYLLUM	10	12	FAIR	CODOMINANT LEADERS	NO	REMOVE
4771	BIGLEAF MAPLE	ACER MACROPHYLLUM	14	20	FAIR	TOPPED AT OVER HEAD LINES, POOR STRUCTURE, DECAY	NO	REMOVE
4772	BIGLEAF MAPLE	ACER MACROPHYLLUM	18	16	GOOD	CODOMINANT LEADERS, NO MAJOR DEFECTS	YES	RETAIN
4773	BIGLEAF MAPLE	ACER MACROPHYLLUM	3x10	16	FAIR	VERY POOR STRUCTURE	NO	REMOVE
4774	BIGLEAF MAPLE	ACER MACROPHYLLUM	12	6	POOR	ADVANCED BASAL AND TRUNK DECAY, DIEBACK	NO	REMOVE
4775	DOUGLAS-FIR	PSEUDOTSUGA MENZIESII	39	30	GOOD	NO MAJOR DEFECTS, REMOVE IVY	YES	REMOVE
4776	BIGLEAF MAPLE	ACER MACROPHYLLUM	2x16	22	GOOD	CODOMINANT STEMS, OKAY IN GROUP WITH 4777 & 4817	YES	REMOVE
4777	BIGLEAF MAPLE	ACER MACROPHYLLUM	14	20	GOOD	ONE-SIDED CROWN, OKAY IN GROUP WITH 4776 & 4817	NO	REMOVE
4778	SCOULERS' WILLOW	SALIX SCOULERIANA	14	10	POOR	ADVANCED DECAY, DIEBACK	NO	REMOVE
4779	SCOULERS' WILLOW	SALIX SCOULERIANA	12	8	POOR	ADVANCED DECAY, DIEBACK	NO	REMOVE
4780	SCOULERS' WILLOW	SALIX SCOULERIANA	9	0	DEAD	DEAD	NO	REMOVE
4816	PONDEROSA PINE	PINUS PONDEROSA	18	18	FAIR	SPUR LEADER, WESTERN GALL RUST INFECTION	YES	REMOVE
4817	BIGLEAF MAPLE	ACER MACROPHYLLUM	15	20	GOOD	MODERATE STRUCTURE, OKAY IN GROUP WITH 4776 & 4777	YES	REMOVE
4818	INCENSE CEDAR	CALOCEDRUS DECURRENS	32	12	GOOD	NO MAJOR DEFECTS, PRUNE LOWER BRANCHES	NO	REMOVE
4825	WESTERN REDCEDAR	THUJA PLICATA	10	10	FAIR	LOWER TRUNK WOUND, FORKED LEADERS	NO	REMOVE
4826	AUSTRIAN PINE	PINUS NIGRA	10	12	FAIR	TRUNK DAMAGE	NO	REMOVE
4827	APPLE	MALUS SPP.	10	12	FAIR	POOR STRUCTURE, NOT MAINTAINED	NO	REMOVE
4828	BIGLEAF MAPLE	ACER MACROPHYLLUM	8	10	FAIR	CODOMINANT LEADERS	NO	REMOVE
4829	WESTERN REDCEDAR	THUJA PLICATA	12	12	POOR	TRUNK DECAY, POOR STRUCTURE	NO	REMOVE
4830	DOUGLAS-FIR	PSEUDOTSUGA MENZIESII	44	20	FAIR	MINOR TWIG DIEBACK, SOME RESIN FLOW	YES	REMOVE

04/20/2016
 PERMIT SET
 REVISION SUMMARY
 BY
 DATE

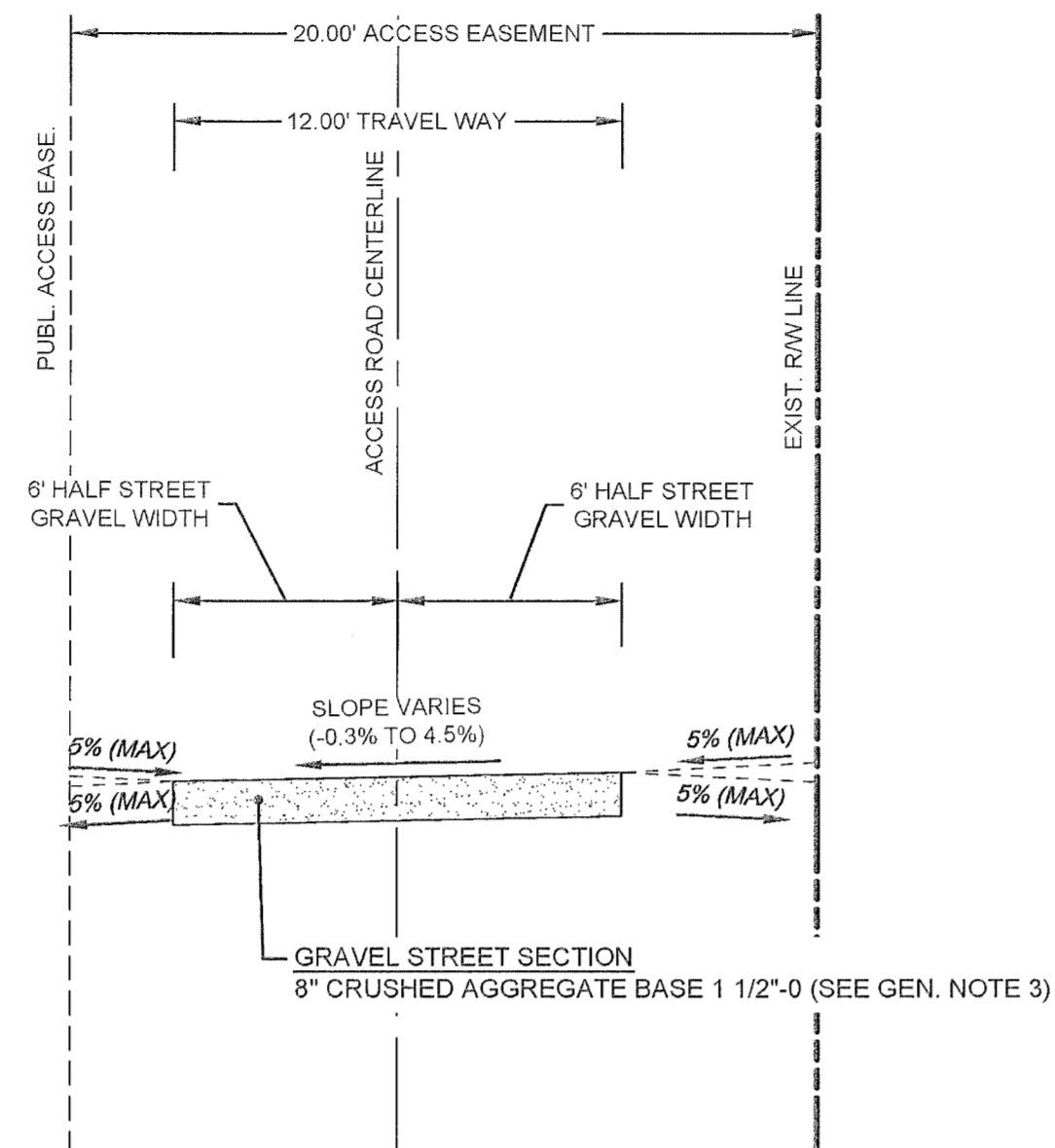
TREE INVENTORY
 SAVANNA HEIGHTS
 SUBDIVISION
 BLAND CIRCLE ESTATES, LLC
 WEST LINN, OR



3J JOB ID # | 15246
 LAND USE # | SUB-15-02
 TAX LOT # | 21E35B 00500
 DESIGNED BY | JTE, JCP
 CHECKED BY | AM
 SHEET TITLE
 TREE INVEN.
 SHEET NUMBER
 C121

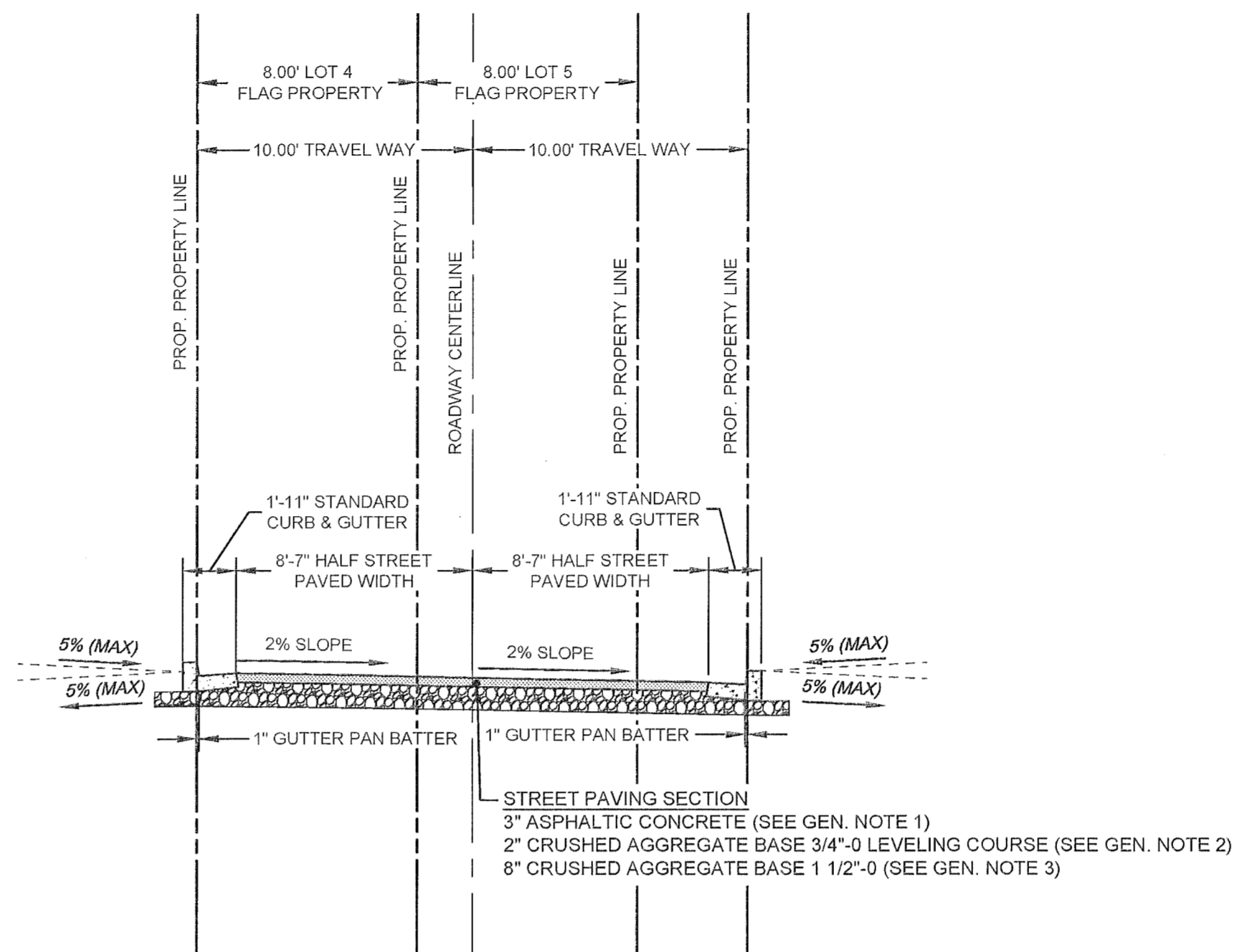
GENERAL NOTES

1. ASPHALTIC CONCRETE COMPACTED TO 91% (MIN.) OF RICE DENSITY AASHTO T-209.
2. CRUSHED AGGREGATE BASE 3/4"-0 LEVELING COURSE COMPACTED TO 95% OF MODIFIED PROCTOR AASHTO T-180.
3. CRUSHED AGGREGATE BASE 1 1/2"-0 (95% OF MODIFIED PROCTOR AASHTO T-180).
4. FINAL SUBGRADE PROOF-ROLL IN THE PRESENCE OF THE CITY ENGINEER OR HIS/HER REPRESENTATIVE WITH A 10 CU. YD. TRUCK LOADED WITH ROCK IS REQUIRED PRIOR TO PLACING THE AGGREGATE BASE.



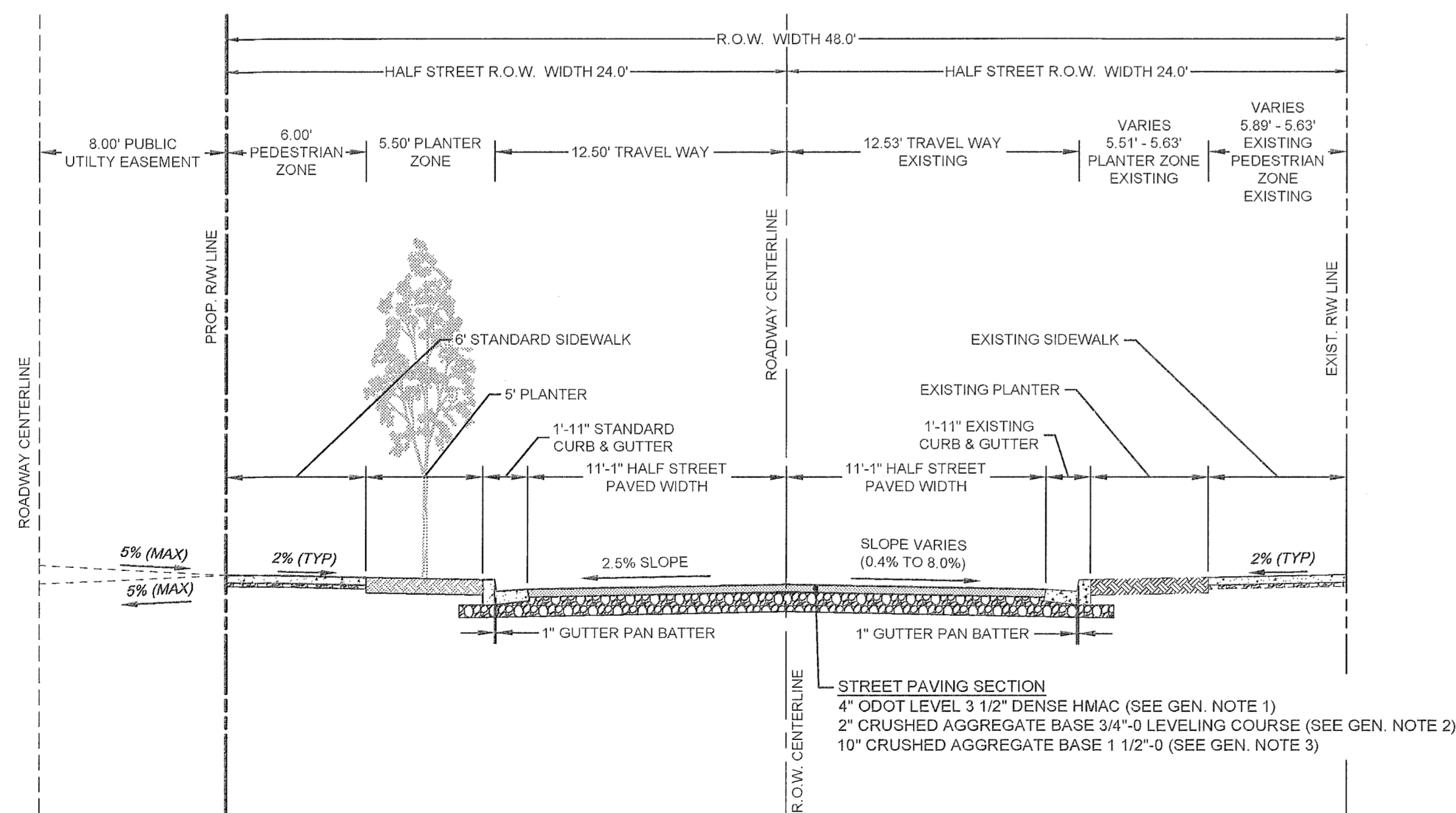
SECTION A: PUBLIC ACCESS ROAD SECTION

N.T.S.



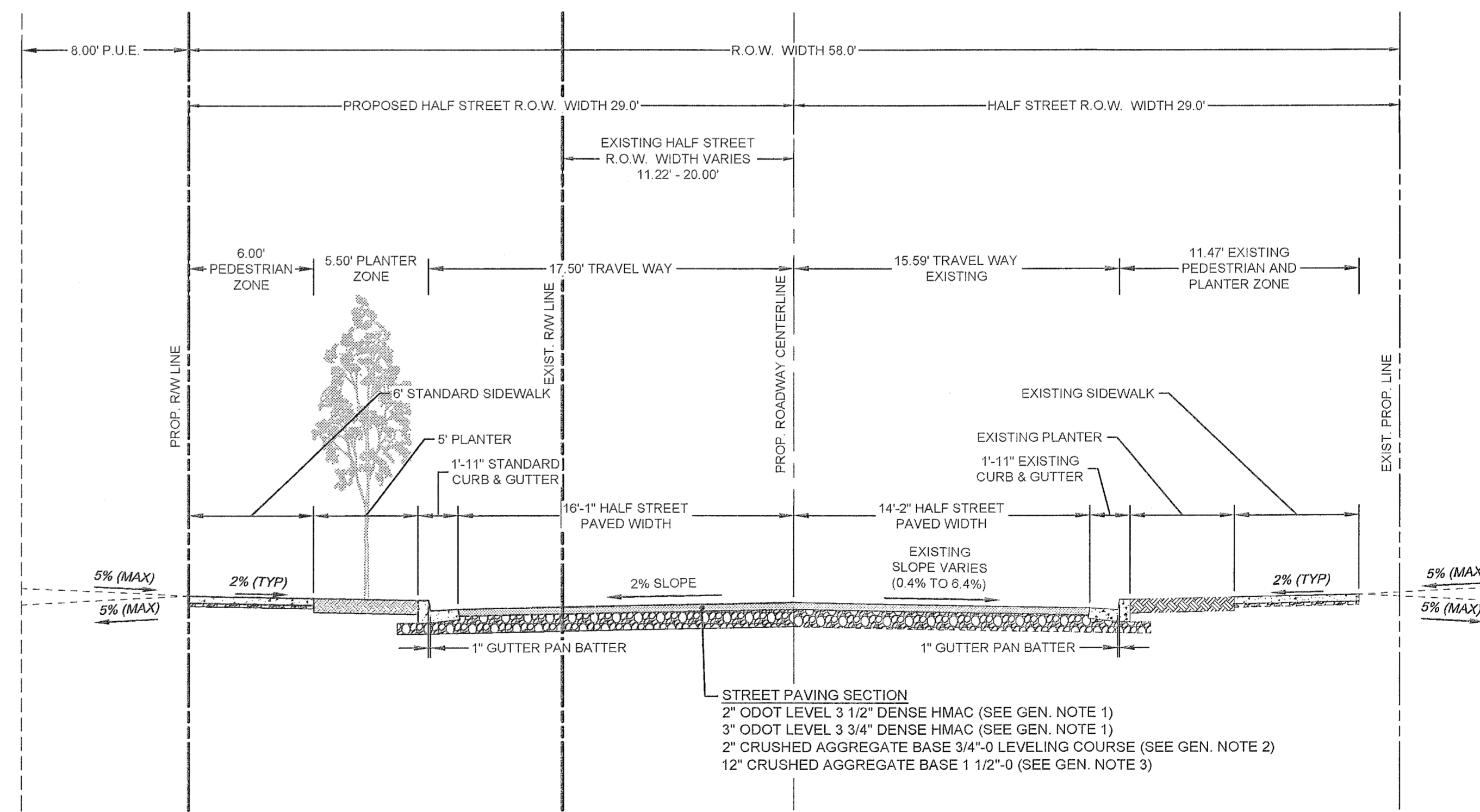
SECTION B: PRIVATE STREET SECTION

N.T.S.



SECTION C: TANLER DRIVE SECTION

N.T.S.



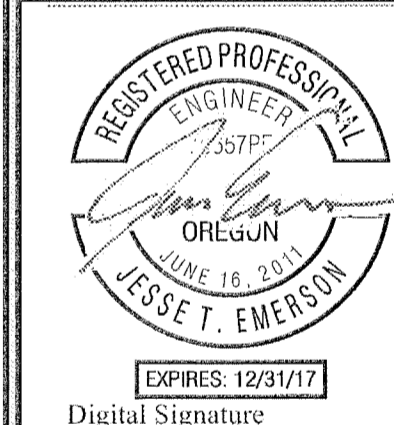
SECTION D: BLAND CIRCLE SECTION

N.T.S.

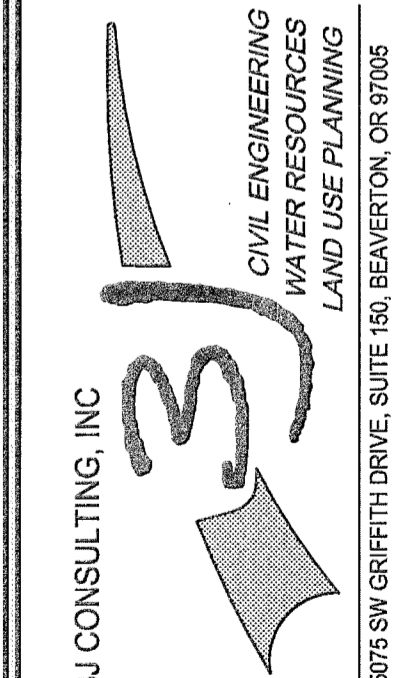
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PERMIT SET	BY	DATE
4		04/20/2016
REVISION SUMMARY		

TYPICAL SECTIONS
SAVANNA HEIGHTS
 SUBDIVISION
 BLAND CIRCLE ESTATES, LLC
 WEST LINN, OR



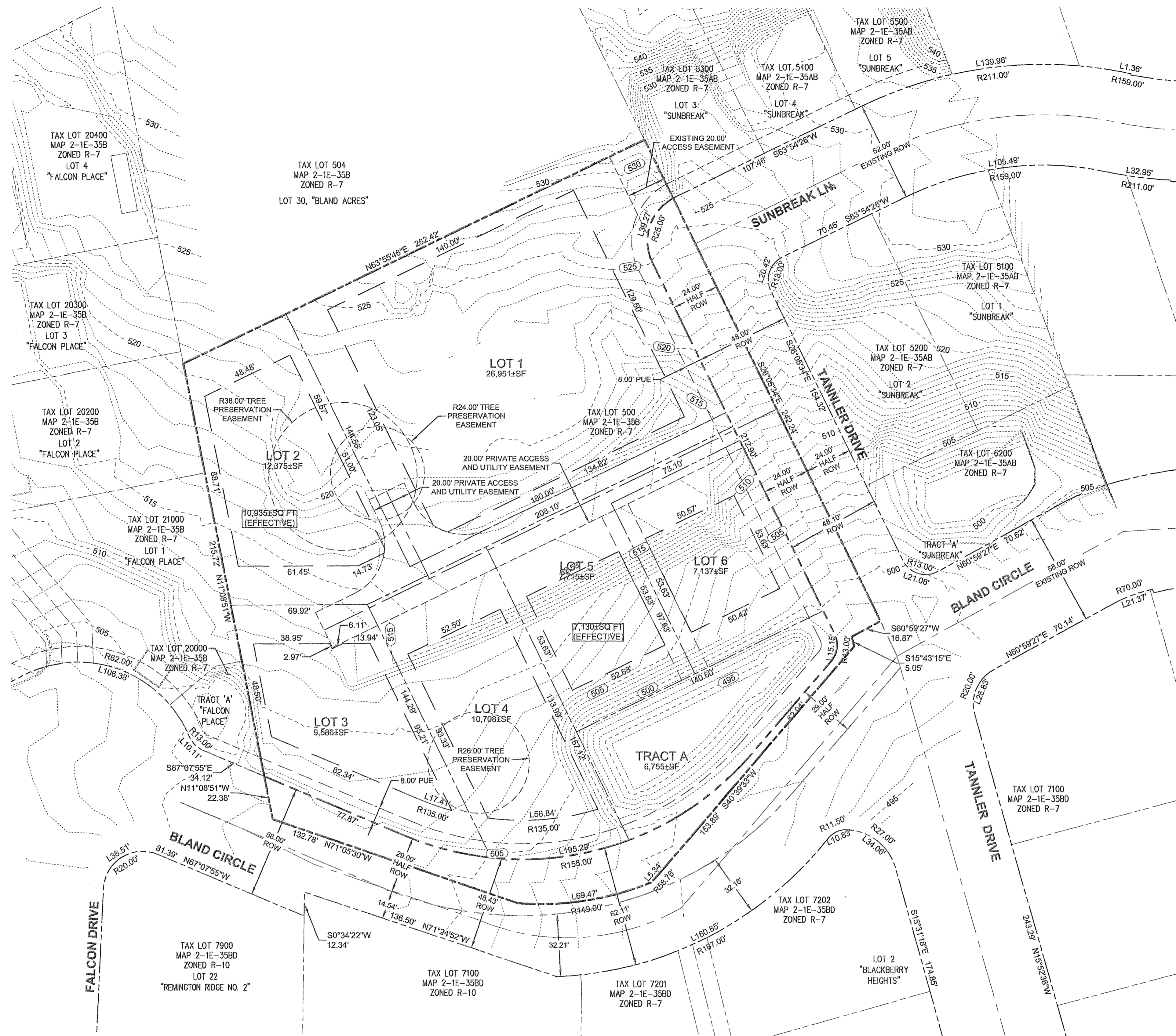
Digital Signature
 07/11/16



3J CONSULTING, INC.
 8075 SW GRIFFITH DRIVE, SUITE 150, BEAVERTON, OR 97005
 PHONE & FAX: (503) 946-5385

3J JOB ID # | 15246
 LAND USE # | SUB-15-02
 TAX LOT # | 21E35B 00500
 DESIGNED BY | JTE, JCP
 CHECKED BY | AIM

SHEET TITLE
TYP. SECTIONS
 SHEET NUMBER
C200



SITE STATISTICS	
SITE ADDRESS	23128 BLAND CIRCLE WEST LINN, OR 97068
TAX LOTS	12E35B 500
JURISDICTION	CITY OF WEST LINN
GROSS SITE AREA	2.11 ACRES
PROPERTY ZONING	R-7
FLOOD HAZARD MAP NUMBER	41005C0257D ZONE X (UNSHADED)

SUBDIVISION STATISTICS	
RIGHT OF WAY DEDICATION	0.243 ± ACRES
MINIMUM ALLOWABLE EFFECTIVE LOT SIZE	7,000 SF
MINIMUM LOT DENSITY	8.1 UNITS
MAXIMUM LOT DENSITY	11.6 UNITS
PROPOSED LOT DENSITY	3.2 UNITS / ACRE
MINIMUM LOT DENSITY (PER R-7 ZONING)	4.3 UNITS / ACRE
MAXIMUM LOT DENSITY (PER R-7 ZONING)	6.2 UNITS / ACRE

SETBACKS:	STANDARD:
FRONT	20 FEET
SIDE	7.5 FEET
REAR	20 FEET
STREET SIDE	15 FEET
MAX. HEIGHT	35 FEET

PROJECT TEAM

OWNER / APPLICANT
 23128 SOUTH BLAND CIRCLE, LLC
 931 SW KING AVENUE
 PORTLAND, OR 97205
 CONTACT: RYAN ZYGAR
 PHONE: (360) 798-4838
 EMAIL: ryan@zygar.com

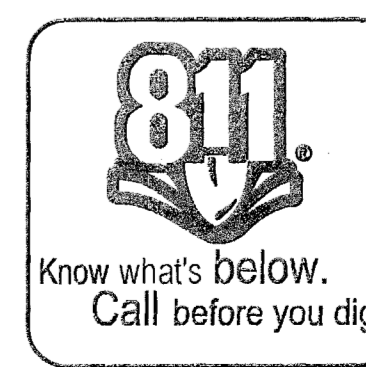
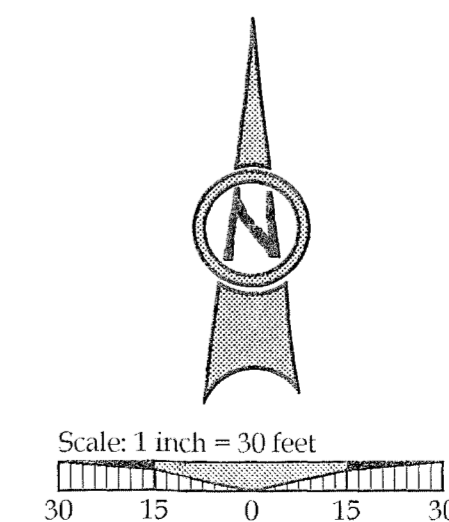
CIVIL ENGINEER
 3J CONSULTING, INC.
 5075 SW GRIFFITH DRIVE, SUITE 150
 BEAVERTON, OR 97005
 CONTACTS:
 JESSE EMERSON, PE
 EMAIL: jesse.emerson@3j-consulting.com
 PHONE: (503) 946-9365
 AARON MURPHY, PE
 EMAIL: aaron.murphy@3j-consulting.com
 PHONE: (503) 946-9365

PLANNING CONSULTANT
 3J CONSULTING, INC.
 5075 SW GRIFFITH DRIVE, SUITE 150
 BEAVERTON, OR 97005
 CONTACT: ANDREW TULL
 PHONE: (503) 946-9365
 EMAIL: andrew.tull@3j-consulting.com

GEOTECHNICAL CONSULTANT
 GEOPACIFIC ENGINEERING, INC.
 14835 SW 72ND AVENUE
 PORTLAND, OR 97224
 CONTACT: JAMES IMBRIE
 PHONE: (503) 625-4455
 EMAIL: jimbrie@geopacificeng.com

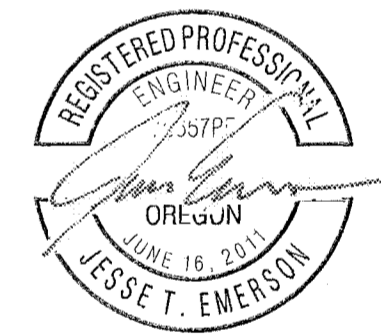
LAND SURVEYOR
 COMPASS SURVEYING
 4107 SE INTERNATIONAL WAY, SUITE 705
 MILWAUKIE, OR 97222
 CONTACT: DON DEVLAMINCK, PLS
 PHONE: (503) 653-9093
 EMAIL: dond@compass-engineering.com

TAX LOT 500 LOCATED IN THE
 N.E. 1/4 OF SECTION 35, T.2S., R.1E., W.M.
 CITY OF WEST LINN, CLACKAMAS COUNTY, OREGON

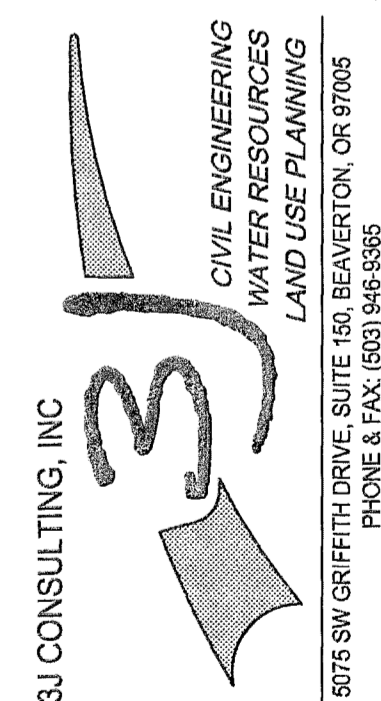


04/20/2016
 PERMIT SET
 REVISION SUMMARY
 BY DATE

TENTATIVE PLAN
SAVANNA HEIGHTS
 SUBDIVISION
 BLAND CIRCLE ESTATES, LLC
 WEST LINN, OR



Digital Signature
 07/11/16

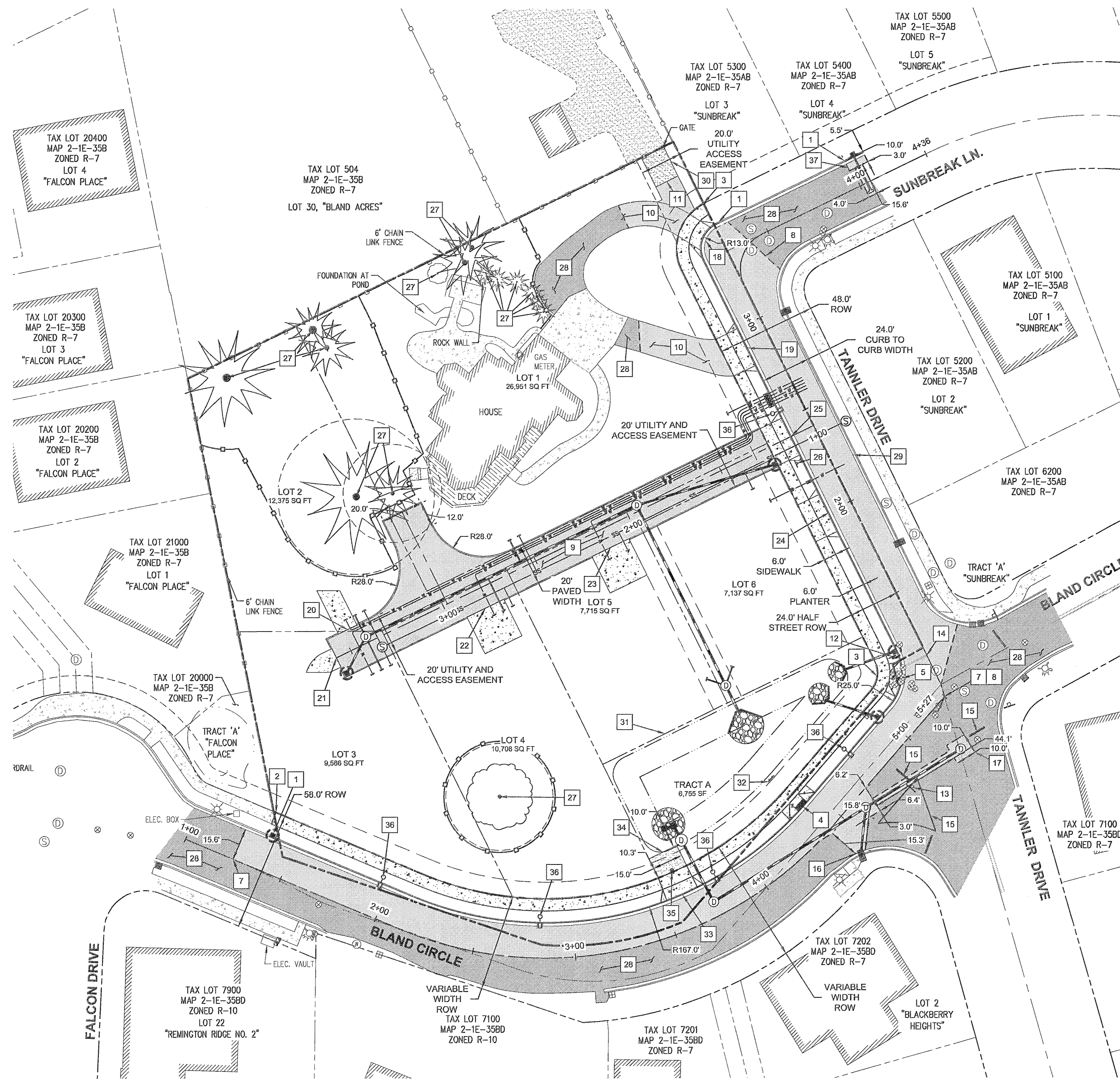


3J JOB ID # | 16246
 LAND USE # | SUB-15-02
 TAX LOT # | 21E35B 00500
 DESIGNED BY | JTE, JCP
 CHECKED BY | AJM

SHEET TITLE
 TENTATIVE PLAN

SHEET NUMBER
C210

P:\16246-COPPEDE PROPERTY\CAD\16246-C210 SITE PLAN.DWG



CONSTRUCTION KEY NOTES

- 1. CONSTRUCT STANDARD CURB AND GUTTER PER CITY OF WEST LINN STANDARD DETAIL WL-501 ON SHEET C410 AND TYPICAL SECTION ON SHEET C200.
2. STA: 1+35.5, 23.0' LT TO STA: 5+13.0, 31.0' LT BLAND CIRCLE CONST. CL. CONSTRUCT 6 FT WIDE DETACHED SIDEWALK PER CITY OF WEST LINN STANDARD DETAIL WL-508 ON SHEET C411 AND TYPICAL SECTION D ON SHEET C200.
3. STA: 1+17.0, 26.1' LT TO STA: 3+38.6, 24.3' LT TANNER DRIVE CONST. CL. CONSTRUCT 6 FT WIDE DETACHED SIDEWALK PER CITY OF WEST LINN STANDARD DETAIL WL-508 ON SHEET C411 AND TYPICAL SECTION C ON SHEET C200.
4. STA: 4+31.2, 17.0' LT TO STA: 4+50.4, 17.0' LT BLAND CIRCLE CONST. CL. CONSTRUCT CURB RAMP PER CITY OF WEST LINN STANDARD DETAIL WL-506A ON SHEET C410, AND GRADING DETAIL ON SHEET C261.
5. STA: 1+03.9, 22.2' LT TO STA: 1+18.7, 12.6' LT TANNER DRIVE CONST. CL. CONSTRUCT CURB RAMP PER CITY OF WEST LINN STANDARD DETAIL WL-506A ON SHEET C410, AND GRADING DETAIL ON SHEET C261.
7. REPAVE FROM SAWCUT LIMITS TO NEW LIP OF GUTTER WITHIN AREA SHOWN (APPROX. 701 SY). SEE STREET PAVING REQUIREMENTS ON TYPICAL SECTION D ON SHEET C200.
8. REPAVE FROM SAWCUT LIMITS TO NEW LIP OF GUTTER WITHIN AREA SHOWN (APPROX. 603 SY). SEE STREET PAVING REQUIREMENTS ON TYPICAL SECTION C ON SHEET C200.
9. PAVE WITHIN AREA SHOWN (APPROX. 646 SY). SEE STREET PAVING REQUIREMENTS ON TYPICAL SECTION B ON SHEET C200.
10. PAVE WITHIN AREA SHOWN (APPROX. 133 SY). SEE STREET PAVING REQUIREMENTS ON TYPICAL SECTION A ON SHEET C200.
11. CONSTRUCT GRAVEL DRIVE WITHIN AREA SHOWN (APPROX. 22 SY). SEE STREET PAVING REQUIREMENTS ON TYPICAL SECTION A ON SHEET C200.
12. STA: 1+21.9, 14.5' LT TANNER DRIVE CONST. CL. INSTALL STOP SIGN AND POST WITH V-LOC BREAKAWAY POST ANCHOR SYSTEM PER INSTALLATION DETAIL 2 ON SHEET C411.
13. PROTECT EXISTING STOP SIGN AND POST THROUGHOUT CONSTRUCTION.
14. INSTALL 12" WHITE STOP BAR PER DETAIL 1 ON SHEET C411 AND NOTES THIS SHEET.
15. PROTECT / REPLACE EXISTING STRIPING THROUGHOUT CONSTRUCTION.
16. CONSTRUCT TRENCH PATCH WITHIN AREA SHOWN (APPROX. 8 SY). SEE TRENCH REQUIREMENTS PER DETAIL WL-203 ON SHEET C410.
17. CONSTRUCT TRENCH PATCH WITHIN AREA SHOWN (APPROX. 31 SY). SEE TRENCH REQUIREMENTS PER DETAIL WL-203 ON SHEET C410.
18. STA: 3+30.3, 20.0' LT TO STA: 3+36.2, 19.8' LT TANNER DRIVE: CONSTRUCT DRIVEWAY ACCESS TO PRIVATE DRIVE (12 FT WIDE) PER CITY OF WEST LINN STANDARD DETAIL WL-503A ON SHEET C410.
19. STA: 2+79.9, 12.0' LT TO STA: 2+99.9, 12.0' LT TANNER DRIVE: CONSTRUCT DRIVEWAY ACCESS TO PRIVATE DRIVE (20 FT WIDE) PER CITY OF WEST LINN STANDARD DETAIL WL-503A ON SHEET C410.
20. STA: 3+41.8, 10.0' RT TO STA: 3+51.8, 10.0' RT PRIVATE DRIVE: CONSTRUCT DRIVEWAY ACCESS TO PRIVATE DRIVE (10 FT WIDE) PER CITY OF WEST LINN STANDARD DETAIL WL-503A ON SHEET C410.
21. STA: 3+57.8, 5.0' LT TO STA: 3+57.8, 5.0' RT PRIVATE DRIVE: CONSTRUCT DRIVEWAY ACCESS TO PRIVATE DRIVE (10 FT WIDE) PER CITY OF WEST LINN STANDARD DETAIL WL-503A ON SHEET C410.
22. STA: 2+72.1, 10.0' LT TO STA: 2+92.1, 10.0' LT PRIVATE DRIVE: CONSTRUCT DRIVEWAY ACCESS TO PRIVATE DRIVE (20 FT WIDE) PER CITY OF WEST LINN STANDARD DETAIL WL-503A ON SHEET C410.
23. STA: 2+04.8, 10.0' LT TO STA: 2+24.8, 10.0' LT PRIVATE DRIVE: CONSTRUCT DRIVEWAY ACCESS TO PRIVATE DRIVE (20 FT WIDE) PER CITY OF WEST LINN STANDARD DETAIL WL-503A ON SHEET C410.
24. STA: 1+99.7, 12.0' LT TO STA: 2+09.7, 12.0' LT TANNER DRIVE: CONSTRUCT DRIVEWAY ACCESS TO PRIVATE DRIVE (20 FT WIDE) PER CITY OF WEST LINN STANDARD DETAIL WL-503A ON SHEET C410.
25. STA: 2+31.2, 12.0' LT TO STA: 2+21.2, 12.0' LT TANNER DRIVE: CONSTRUCT PRIVATE DRIVE ACCESS (20 FT WIDE) PER CITY OF WEST LINN STANDARD DETAIL WL-504A ON SHEET C410.
26. STA: 1+15.3, 13.1' LT PRIVATE DRIVE CONST. CL. INSTALL STOP SIGN AND POST WITH V-LOC BREAKAWAY POST ANCHOR SYSTEM PER INSTALLATION DETAIL 2 ON SHEET C411.
27. PROTECT EXISTING TREES TO REMAIN.
28. PROTECT EXISTING PAVEMENT TO REMAIN.
29. PROTECT EXISTING CURB AND GUTTER THROUGHOUT CONSTRUCTION.
30. CONSTRUCT GRAVEL DRIVE PER TYPICAL SECTION A ON SHEET C200.
31. INSTALL SURFACE WATER FACILITY FENCE PER DETAIL WL-616 ON SHEET C451.
32. INSTALL SURFACE WATER FACILITY SIGN PER DETAIL WL-615 ON SHEET C451.
33. STA: 3+51.9, 17.0' LT TO STA: 3+69.7, 17.0' LT BLAND CIRCLE: CONSTRUCT STORM POND ACCESS (15 FT WIDE) PER CITY OF WEST LINN STANDARD DETAIL WL-503A ON SHEET C410.
34. CONSTRUCT GRAVEL DRIVE TO BE 12" OF 1-1/2" 0 COMPACTED CRUSHED GRAVEL OVER FIRM SUBGRADE AND GEOTEXTILE MAT. CRUSHED AGGREGATE AND SUBGRADE SHALL BE COMPACTED TO 95% OF MAXIMUM DRY DENSITY, AS DETERMINED BY AASHTO T-180.
35. INSTALL REMOVABLE BOLLARD AT LOCATION SHOWN. SEE DETAIL 3 ON SHEET C411 FOR FURTHER INFORMATION.
36. INSTALL TYPE 2 STREET LIGHT AT LOCATION SHOWN. SEE SHEET C290 FOR FURTHER INFORMATION.
37. CONSTRUCT TRENCH PATCH WITHIN AREA SHOWN (APPROX. 99 SY). SEE TRENCH REQUIREMENTS PER DETAIL WL-203 ON SHEET C410.

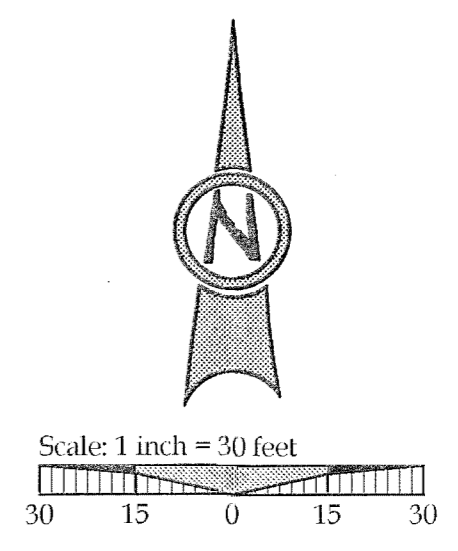
GENERAL NOTES

- 1. CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO EXISTING UTILITIES DURING CONSTRUCTION AT NO COST TO THE DEVELOPER.
2. LINES TO BE INSTALLED UNDERGROUND SHALL BE INSPECTED AND APPROVED BEFORE BACKFILLING. CONTRACTOR SHALL NOTIFY THE AUTHORITATIVE INSPECTORS 48 HOURS BEFORE INSPECTION SERVICES ARE REQUIRED.
3. CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES FOR INSTALLATION REQUIREMENTS AND SPECIFICATIONS.
4. SEE STREET NOTES ON SHEET C002.
5. HMAC COMPACTED TO 92% MAX RICE DENSITY PER AASHTO T-209.
6. LEVELING COURSE AND ROCK BASE COMPACTED TO 95% RELATIVE DRY DENSITY PER AASHTO T-180.

STRIPING NOTES

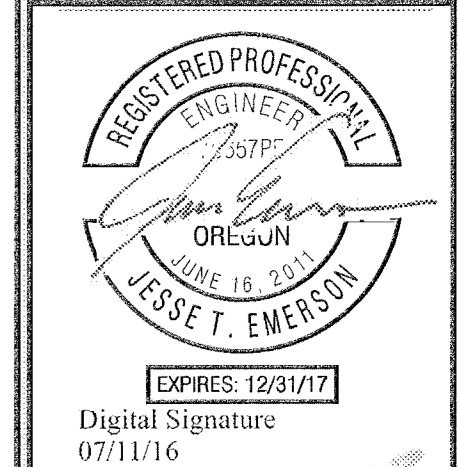
- 1. STRIPING SHALL BE THERMOPLASTIC PAVEMENT MARKING MATERIAL.
2. LOCATE STOP LINE 4' (MIN.) TO 10' (MAX.) IN ADVANCE OF THE NEAREST MARKED CROSSWALK LINE.
3. ALIGN CROSSWALK WITH WHEELCHAIR RAMP LOCATIONS.
4. ALL PAVEMENT MARKING MATERIALS SHALL BE INSTALLED AS PER OREGON STANDARD SPECIFICATIONS.

TAX LOT 500 LOCATED IN THE N.E. 1/4 SECTION 35, T.2S., R.1E., W.M. WEST LINN, CLACKAMAS COUNTY, OREGON



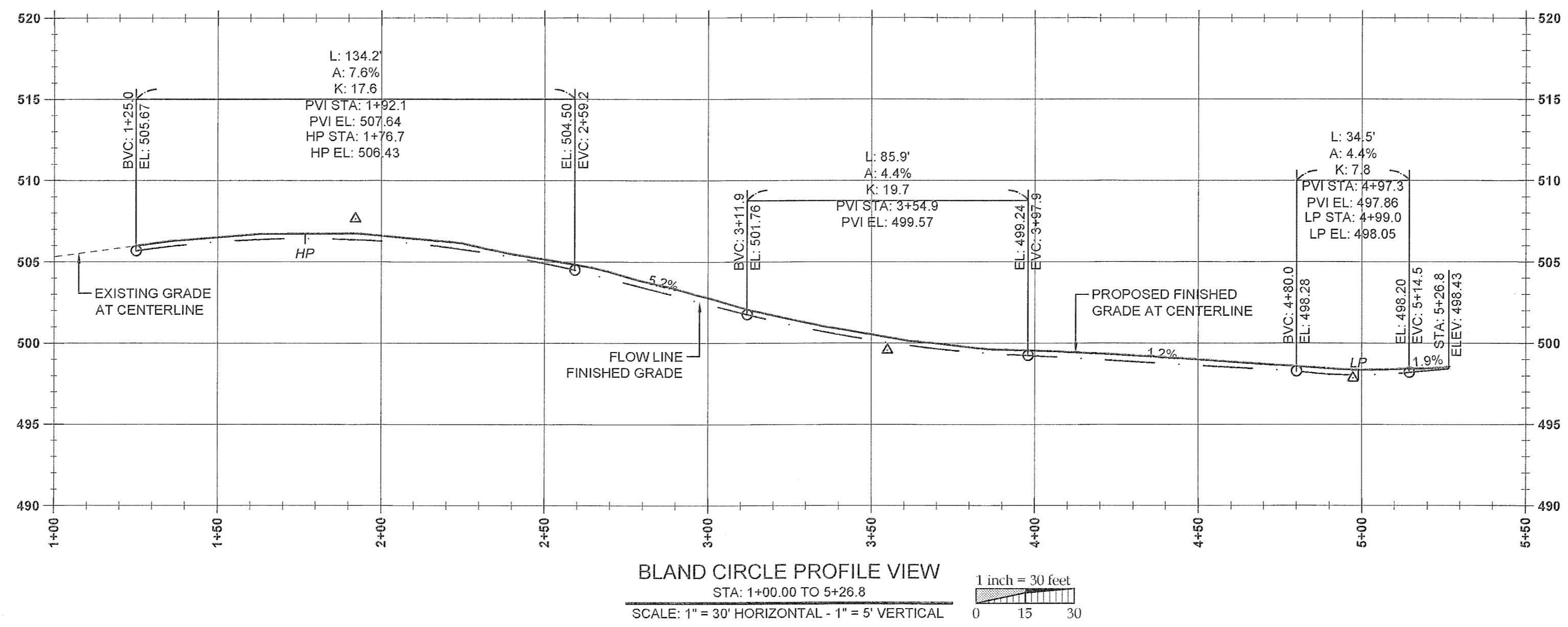
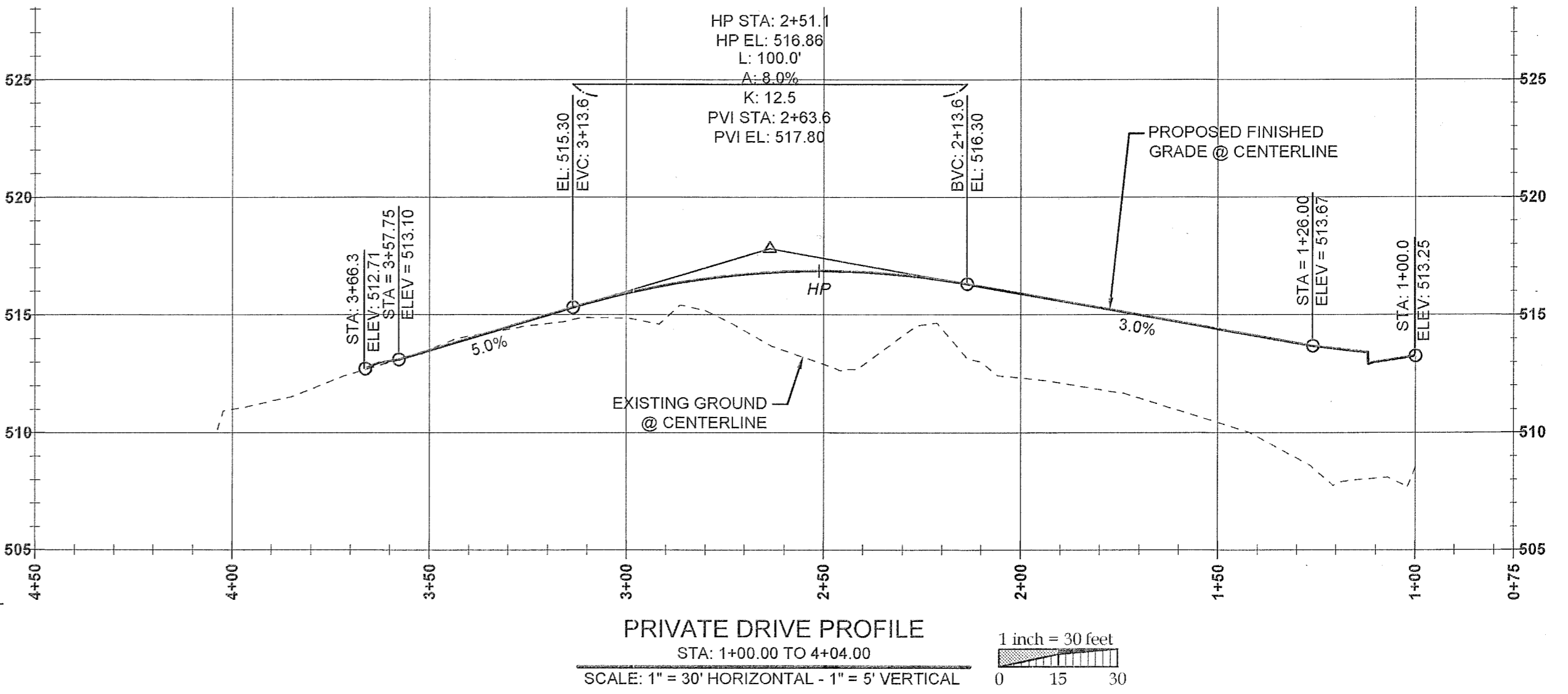
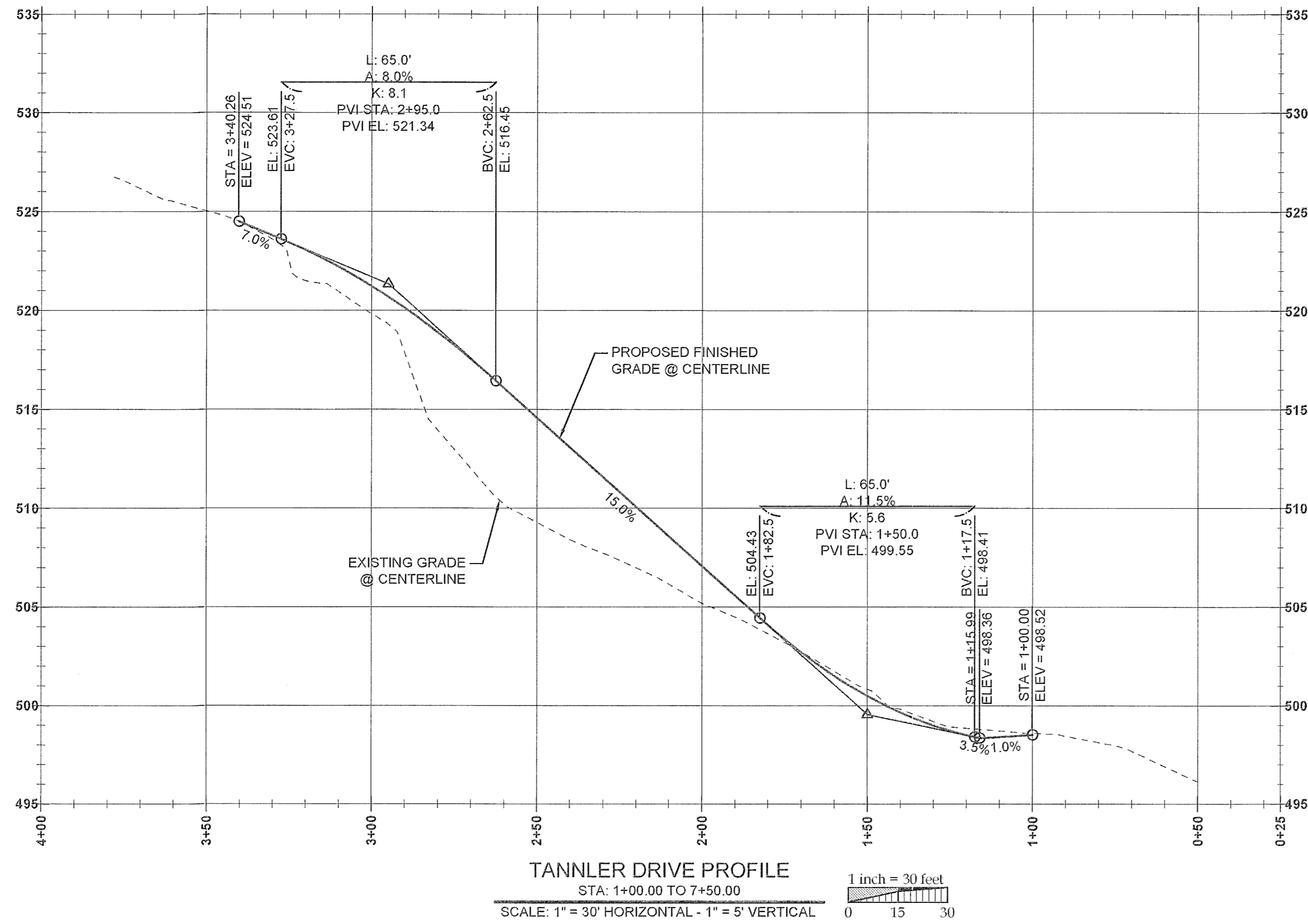
PERMIT SET 04/20/2016 BY DATE

SITE PLAN SAVANNA HEIGHTS SUBDIVISION BLAND CIRCLE ESTATES, LLC WEST LINN, OR



3J CONSULTING, INC CIVIL ENGINEERING WATER RESOURCES LAND USE PLANNING 5075 SW GRIFFITH DRIVE SUITE 450 BENTON, OR 97005 PHONE & FAX: (503) 946-9365

3J JOB ID # | 15248 LAND USE # | SUB-15-02 TAX LOT # | 21E35B 00500 DESIGNED BY | JTE, JCP CHECKED BY | AJM SHEET TITLE | SITE PLAN SHEET NUMBER | C211



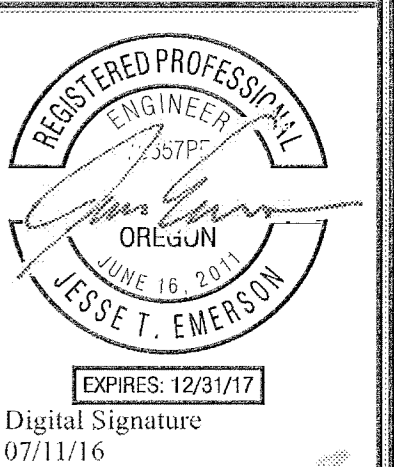
P:\15246-COPPEGE PROPERTY\CADD\15246-C250-PLAN & PROFILE.DWG

TAX LOT 500 LOCATED IN THE
 N.E. 1/4 SECTION 35, T.2S., R.1E., W.M.
 WEST LINN, CLACKAMAS COUNTY, OREGON



PERMIT SET	REVISION SUMMARY	BY	DATE
A			04/20/2016

ROAD PROFILES
SAVANNA HEIGHTS
 SUBDIVISION
 BLAND CIRCLE ESTATES, LLC
 WEST LINN, OR

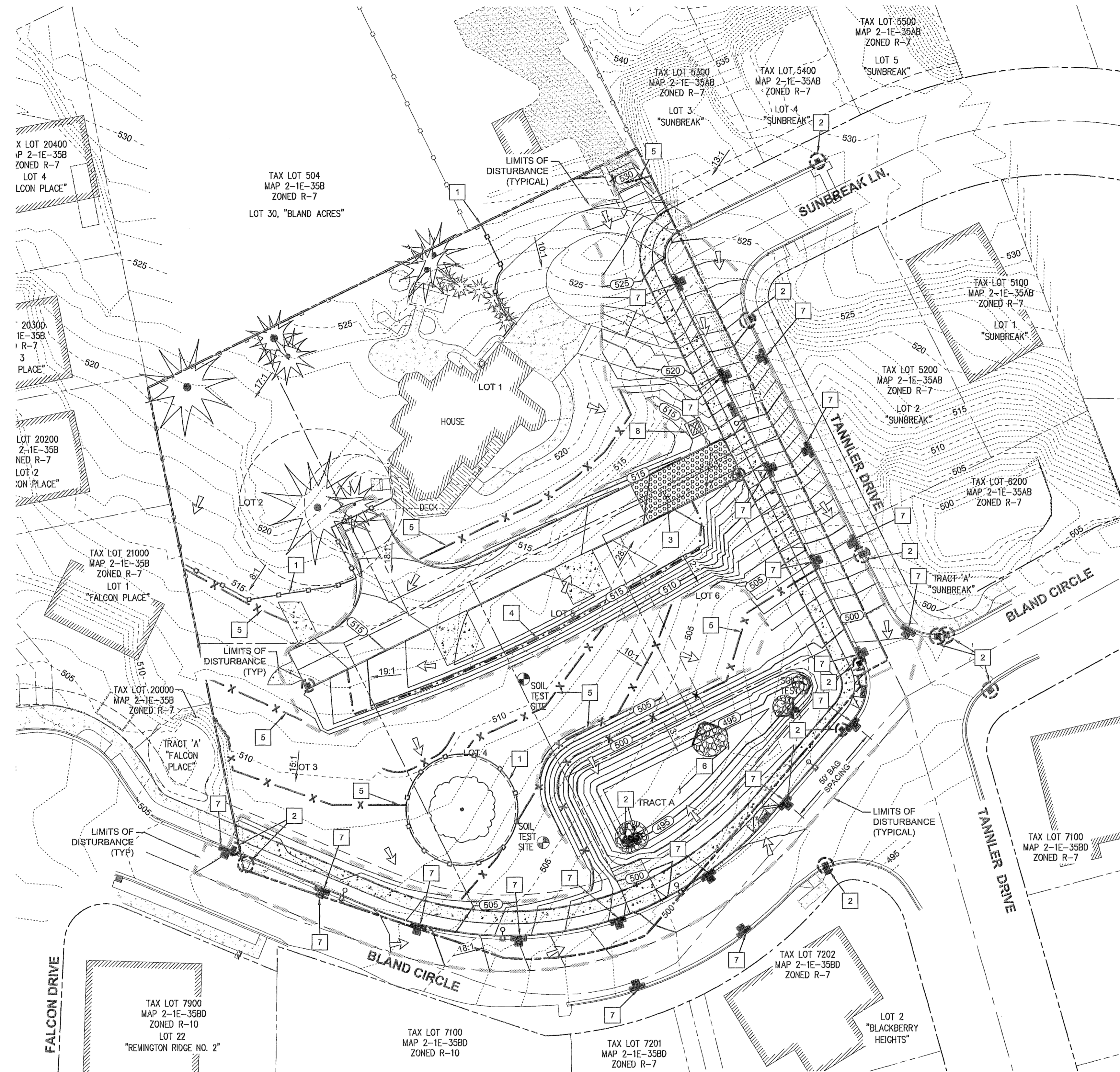


3J CONSULTING, INC
 CIVIL ENGINEERING
 WATER RESOURCES
 LAND USE PLANNING
 5075 SW GRIFFITH DRIVE, SUITE 150, BEAVERTON, OR 97005
 PHONE & FAX: (503) 846-9385

3J JOB ID # | 15246
 LAND USE # | SUB-15-02
 TAX LOT # | 21E35B 00500
 DESIGNED BY | JTE, JCP
 CHECKED BY | AJM

SHEET TITLE
ROAD PROF.
 SHEET NUMBER
C250

P:\15246-CORP\EDGE PROPERTY\CADD\15246-C260-PHASE II EROSION CONTROL.DWG



EROSION CONTROL NOTES

1. INSTALL AND MAINTAIN TREE PROTECTION FENCING THROUGHOUT CONSTRUCTION ACTIVITIES. SEE TREE PRESERVATION PLANS FOR ADDITIONAL INFORMATION.
2. PLACE INLET PROTECTION AT LOCATION SHOWN PER DETAIL 5 ON SHEET C400.
3. CONSTRUCT AND MAINTAIN STABILIZED CONSTRUCTION ENTRANCE AT LOCATION SHOWN PER DETAIL 2 ON SHEET C400.
4. INSTALL STRAW WATTLES AT LOCATION SHOWN PER DETAIL 4 ON SHEET C400.
5. INSTALL SILT FENCE AT LIMITS OF GRADING ON LEVELS OF CONTOUR PER DETAIL 1 ON SHEET C400.
6. CONSTRUCT WATER QUALITY AND DETENTION FACILITY. SEE STORMWATER FACILITY PLAN ON SHEET C330.
7. PLACE BIO-BAG CHECK DAM FOR SEDIMENT CONTROL ADJACENT TO ALL NEW CONCRETE WORK WITHIN RIGHT OF WAY PER DETAIL 2 ON SHEET C401.
8. CONSTRUCT CONCRETE WASH-OUT PIT (8FT x 8FT), 2.4 CY CAPACITY PER DETAIL 2 ON SHEET C401.

CONCRETE WASHOUT NOTES

1. USED FOR CONCRETE TRUCK WASHOUT ONLY. MAY BE RELOCATED TO FACILITATE CONSTRUCTION.
2. DO NOT OVER FILL PIT.
3. THE PIT MUST BE LOCATED WITHIN 6 FEET OF A ROADWAY AND DOES NOT HAVE TO BE LINED.
4. THE PIT MUST BE LOCATED WITHIN 6 FEET OF WHERE TRUCKS CAN PARK.
5. WASHOUT WATER SHOULD NOT BE RELEASED TO STORM DRAINS.

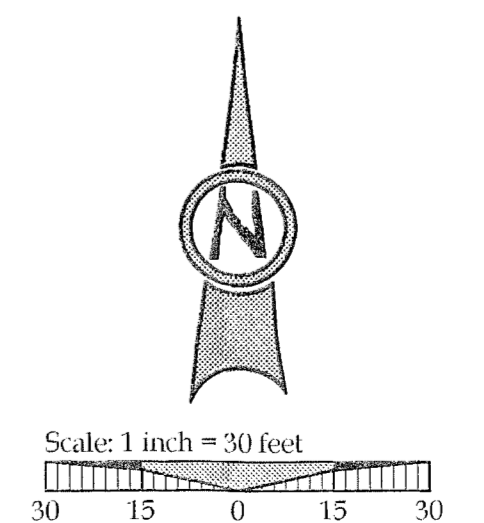
SITE GRADING INFORMATION

SITE STRIPPING	1,717.6 CY
CUT (TO FINISH GRADE)	2,079.5 CY
FILL (TO FINISH GRADE)	2,729.4 CY
MAXIMUM CUT DEPTH	11.1 FT
MAXIMUM FILL DEPTH	7.8 FT
MAXIMUM PROPOSED SLOPE	FILL SLOPE = 2:1 (H:V) CUT SLOPE 2:1 (H:V)
TOTAL AREA OF DISTURBANCE	1.161 ACRES

GRADING GENERAL NOTES

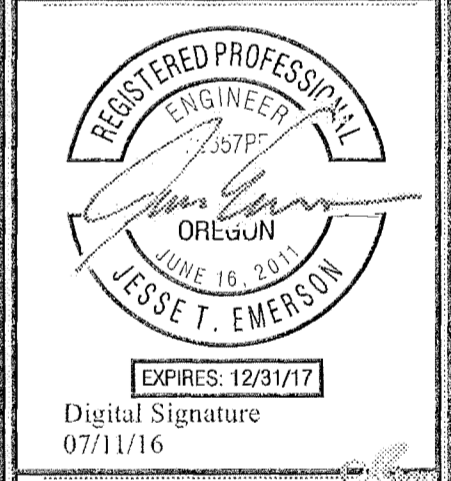
1. ALL GRADING ACTIVITIES SHALL CONFORM TO THE UNIFORM BUILDING CODE AND THE OREGON SPECIALTY CODE AMENDMENTS, INCLUDING APPENDIX J.
2. SEE GRADING AND EROSION CONTROL NOTES ON SHEET C400.

TAX LOT 500 LOCATED IN THE
N.E. 1/4 SECTION 35, T.2S., R.1E., W.M.
WEST LINN, CLACKAMAS COUNTY, OREGON



DATE	04/20/2016
BY	
REVISION SUMMARY	
PERMIT SET	

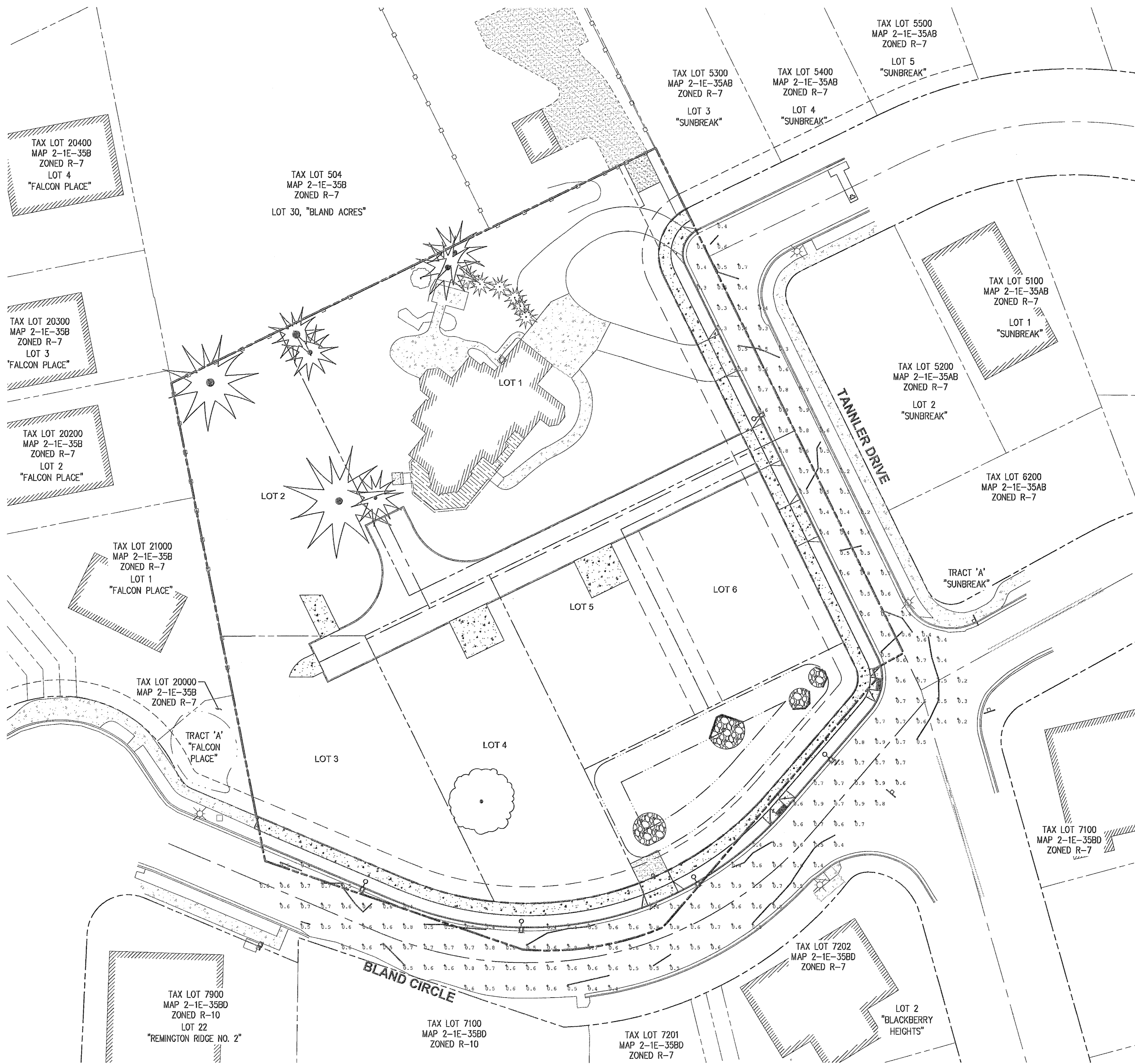
PHASE II GRADING & EROSION CONTROL
SAVANNA HEIGHTS
SUBDIVISION
BLAND CIRCLE ESTATES, LLC
WEST LINN, OR



3J CONSULTING, INC.
CIVIL ENGINEERING
WATER RESOURCES
LAND USE PLANNING
5075 SW GRIFFITH DRIVE, SUITE 150, BEAVERTON, OR 97005
PHONE & FAX: (503) 946-5365

3J JOB ID #	15246
LAND USE #	SUB-15-02
TAX LOT #	21E35B 00500
DESIGNED BY	JTE, JCP
CHECKED BY	AJM
SHEET TITLE	PH. II ESCP
SHEET NUMBER	C260

P:\15248-CORPEDE PROPERTY\CADD\15248-C290-PHOTOMETRICS PLAN.DWG



LEGEND

- - 1.5 FOOT CANDLE ISO-ILLUMINATION CONTOUR
- - 0.5 FOOT CANDLE ISO-ILLUMINATION CONTOUR
- - 0.1 FOOT CANDLE ISO-ILLUMINATION CONTOUR
- - ILLUMINATION ANALYSIS POINT (FC)
- FC - FOOT CANDLE UNIT
- ☉ - PROPOSED LUMINAIRE

PROPOSED - BLAND CIRCLE	PROPOSED
EXISTING LIGHT(S) INCLUDED	1 EA
NEW LIGHTS PROPOSED	4 EA
MAX. ILLUMINATION	0.9 FC
MIN. ILLUMINATION	0.2 FC
AVERAGE ILLUMINATION	0.6 FC
UNIFORMITY (AVG/MIN)	3.0

PROPOSED - TANLER DRIVE	PROPOSED
EXISTING LIGHT(S) INCLUDED	2 EA
NEW LIGHTS PROPOSED	1 EA
MAX. ILLUMINATION	0.9 FC
MIN. ILLUMINATION	0.2 FC
AVERAGE ILLUMINATION	0.52 FC
UNIFORMITY (AVG/MIN)	2.6

LUMINAIRE

CREE LEDWAY IP66 STREET LIGHT - TYPE 2 MEDIUM
STR-LWY-2M-HT-02-E-UL-BZ-700-40K-R-UTL-SPX

POST AND ARM

30 FT BRONZE POLE / 25 FT MOUNTING HEIGHT
6' BRONZE MAST ARM
LED BETA FIXTURE (BRONZE)

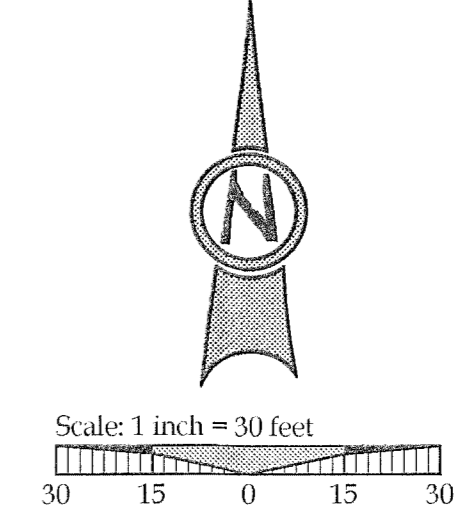
GENERAL NOTES:

- ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO P.G.E. SCHEDULE "91" OPTION "B" SPECIFICATIONS. ALL MATERIALS AND INSTALLATIONS SHALL BE APPROVED BY P.G.E.
- THE CONTRACTOR SHALL COORDINATE WORK WITH CHRIS JEWETT AT (503) 672-5481 TO DETERMINE POWER SOURCE FOR THE LIGHTING SYSTEM.
- ALL ELECTRICAL EQUIPMENT SHALL CONFORM TO THE CURRENT STANDARDS OF THE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA) AND THE UNDERWRITERS LABORATORIES, INC. (UL) WHEREVER APPLICABLE. IN ADDITION TO THE REQUIREMENTS OF THE PLANS, STANDARD SPECIFICATIONS AND THE SPECIAL PROVISIONS, ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE CURRENT REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC), THE NATIONAL ELECTRICAL SAFETY CODE, STANDARDS OF THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) AND ANY LOCAL ORDINANCES WHICH MAY APPLY.

LIGHTING ANALYSIS NOTES:

- SEE THIS SHEET FOR FIXTURE AND POLE DATA.
- FUNCTIONAL AREA INCLUDES INTERSECTION, CROSSWALKS AND NEAREST EXISTING DRIVEWAYS.
- AGI32 (BY LIGHTING ANALYSTS INC) WAS USED TO GENERATE PHOTOMETRIC DATA.

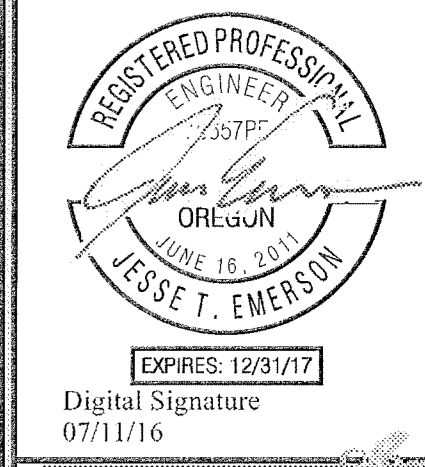
TAX LOT 500 LOCATED IN THE
N.E. 1/4 SECTION 35, T.2S., R.1E., W.M.
WEST LINN, CLACKAMAS COUNTY, OREGON



PERMIT SET

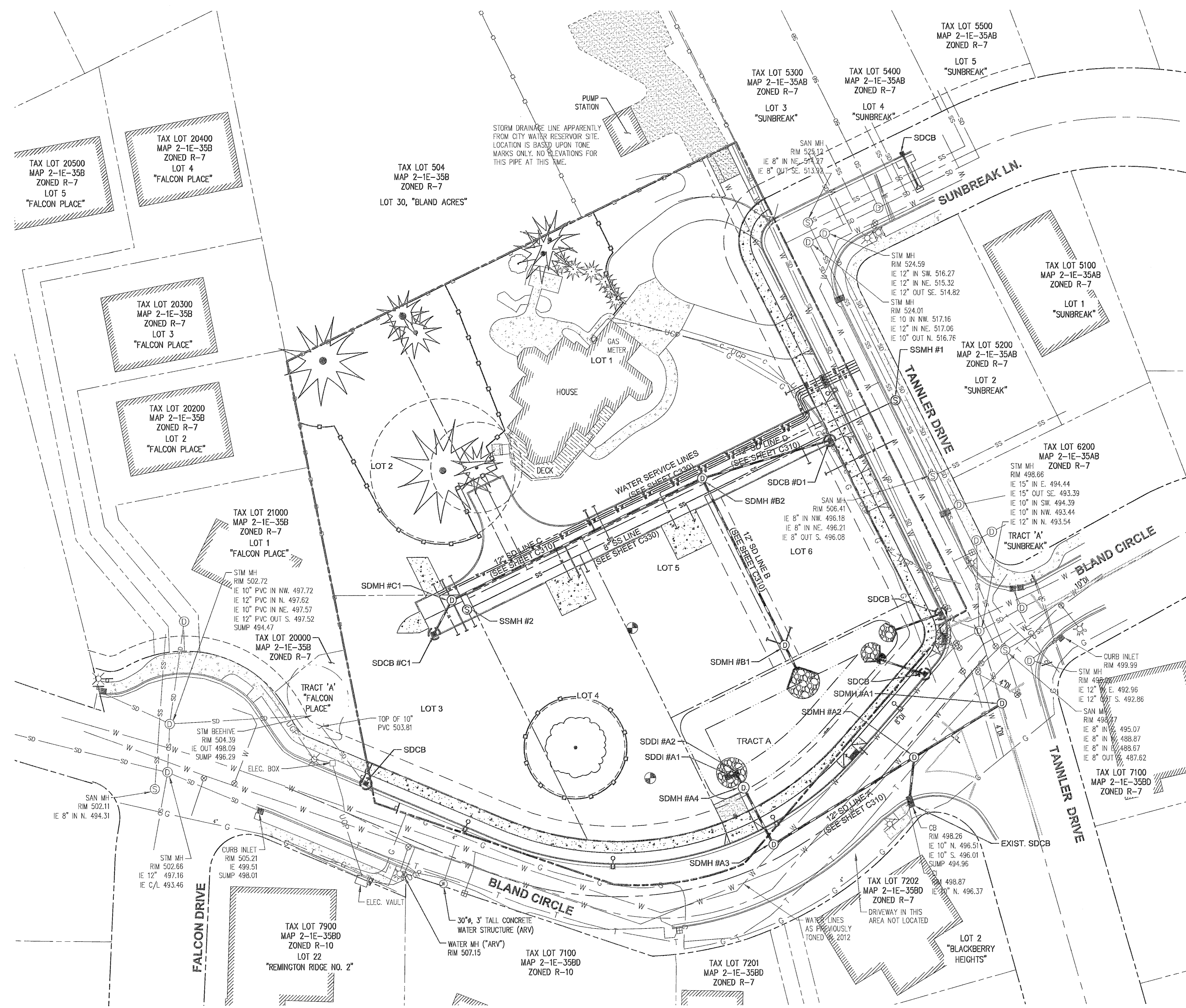
REVISION SUMMARY	BY	DATE

PHOTOMETRICS PLAN
SAVANNA HEIGHTS
SUBDIVISION
BLAND CIRCLE ESTATES, LLC
WEST LINN, OR

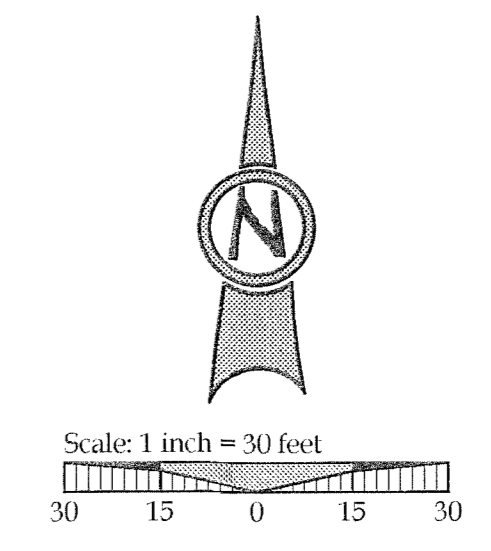


3J CONSULTING, INC
CIVIL ENGINEERING
WATER RESOURCES
LAND USE PLANNING
8074 SW GRIFFITH DRIVE, SUITE 100, BEAVERTON, OR 97005
PHONE & FAX: (503) 946-9395

3J JOB ID #	15246
LAND USE #	SUB-15-02
TAX LOT #	21E35B 00500
DESIGNED BY	JTE, JCP
CHECKED BY	AJM
SHEET TITLE	PHOTO. PLAN
SHEET NUMBER	C290



TAX LOT 500 LOCATED IN THE
N.E. 1/4 SECTION 35, T.2S., R.1E., W.M.
WEST LINN, CLACKAMAS COUNTY, OREGON



PERMIT SET	DATE
REVISION SUMMARY	BY

COMPOSITE UTILITY PLAN
SAVANNA HEIGHTS
SUBDIVISION
BLAND CIRCLE ESTATES, LLC
WEST LINN, OR

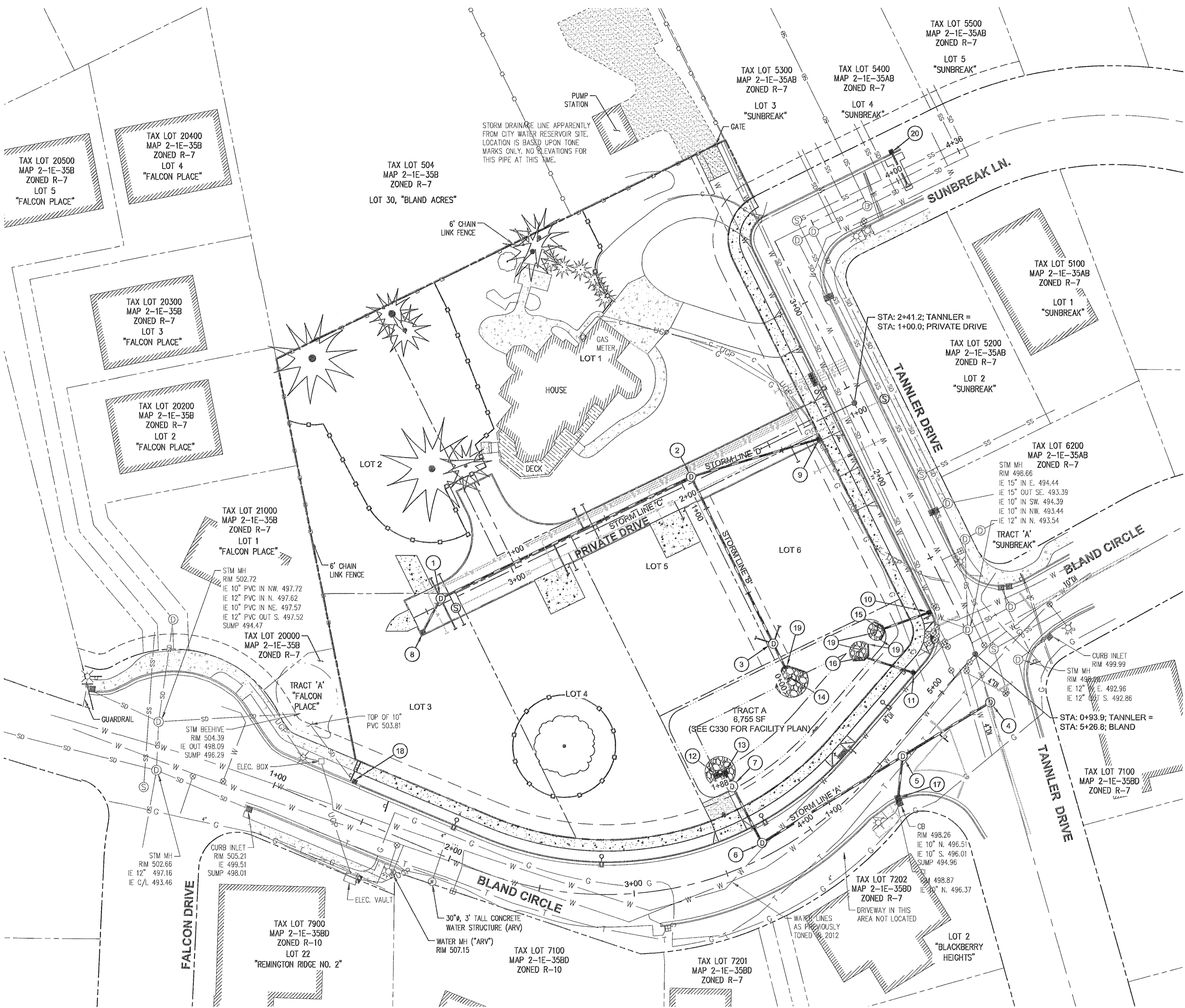


3J CONSULTING, INC

CIVIL ENGINEERING
WATER RESOURCES
LAND USE PLANNING

5075 SW GRIFFITH DRIVE, SUITE 150, BEAVERTON, OR 97005
PHONE & FAX: (503) 946-5655

3J JOB ID #	15246
LAND USE #	SUB-15-02
TAX LOT #	21E35B 00500
DESIGNED BY	JTE, JCP
CHECKED BY	AJM
SHEET TITLE	COMP. UTILITY
SHEET NUMBER	C300



- ### STORM DRAINAGE KEY NOTES
- SDMH #C1 (PROPOSED)
STA: 1+46.4 STORM LINE 'C' = STA: 3+40.5, 3.0' RT PRIVATE DRIVE.
INSTALL STORM SEWER MANHOLE PER CITY STD. DWG. WL-207 (STANDARD MANHOLE FOR LESS THAN 36 IN. PIPE) ON SHEET C450. SEE PROFILE ON SHEET C311 FOR ELEVATION DATA.
 - SDMH #B2 (PROPOSED)
STA: 1+18.6 STORM LINE 'B' = STA: 1+94.1, 3.0' RT PRIVATE DRIVE.
INSTALL STORM SEWER MANHOLE PER CITY STD. DWG. WL-207 (STANDARD MANHOLE FOR LESS THAN 36 IN. PIPE) ON SHEET C450. SEE PROFILE ON SHEET C311 FOR ELEVATION DATA.
 - SDMH #B1 (PROPOSED)
STA: 0+20.0 STORM LINE 'B'
INSTALL STORM SEWER MANHOLE PER CITY STD. DWG. WL-207 (STANDARD MANHOLE FOR LESS THAN 36 IN. PIPE) ON SHEET C450. SEE PROFILE ON SHEET C311 FOR ELEVATION DATA.
 - SDMH #A1 (PROPOSED)
STA: 0+00.0 STORM LINE 'A' = STA: 2+52.3, 27.7' RT BLAND CIRCLE.
INSTALL STORM SEWER MANHOLE PER CITY STD. DWG. WL-207 (STANDARD MANHOLE FOR LESS THAN 36 IN. PIPE) ON SHEET C450. SEE PROFILE ON SHEET C311 FOR ELEVATION DATA.
 - SDMH #A2 (PROPOSED)
STA: 0+54.1 STORM LINE 'A' = STA: 2+00.8, 11.4' RT BLAND CIRCLE.
INSTALL STORM SEWER MANHOLE PER CITY STD. DWG. WL-207 (STANDARD MANHOLE FOR LESS THAN 36 IN. PIPE) ON SHEET C450. SEE PROFILE ON SHEET C311 FOR ELEVATION DATA.
 - SDMH #A3 (PROPOSED)
STA: 1+41.0 STORM LINE 'A' = STA: 3+73.8, 7.3' LT BLAND CIRCLE.
INSTALL STORM SEWER MANHOLE PER CITY STD. DWG. WL-207 (STANDARD MANHOLE FOR LESS THAN 36 IN. PIPE) ON SHEET C450. SEE PROFILE ON SHEET C311 FOR ELEVATION DATA.
 - SDMH #A4 (PROPOSED)
STA: 1+74.8 STORM LINE 'A' = STA: 3+73.8, 41.1' LT BLAND CIRCLE.
INSTALL 72" FLOW CONTROL MANHOLE. SEE PROFILE SHEET C311 & SHEET C330 FOR FLOW CONTROL MANHOLE DESIGN.
 - SDCB #C1 (PROPOSED)
STA: 1+66.3 STORM LINE 'C' = STA: 3+56.8, 8.8' LT PRIVATE DRIVE.
INSTALL COMBINATION CURB INLET PER STD. DWG. WL-601 ON SHEET C451. SEE PROFILE ON SHEET C311 FOR ELEVATION DATA.
 - SDCB #D1 (PROPOSED)
STA: 0+89.9 STORM LINE 'D' = STA: 1+25.2, 8.8' LT PRIVATE DRIVE.
INSTALL COMBINATION CURB INLET PER STD. DWG. WL-601 ON SHEET C451. SEE PROFILE ON SHEET C311 FOR ELEVATION DATA.
 - SDCB #E2 (PROPOSED)
STA: 1+24.3, 12.0' LT TANNER DRIVE.
FL: 498.36
IE OUT (10' W): 495.53
INSTALL 45.5 LF 10" PVC @ S=0.0226 FT/FT
INSTALL COMBINATION CURB INLET PER STD. DWG. WL-601 ON SHEET C451.
 - SDCB #E1 (PROPOSED)
STA: 4+98.1, 17.0' LT BLAND CIRCLE.
FL: 497.97
IE OUT (10' NW): 495.14
INSTALL 34.5 LF 10" PVC @ S=0.0186 FT/FT
INSTALL COMBINATION CURB INLET PER STD. DWG. WL-601 ON SHEET C451.
 - SDDI #A1 (PROPOSED)
STA: 1+87.6 STORM LINE 'A' = STA: 3+67.4, 50.0' LT BLAND CIRCLE.
INSTALL DITCH INLET PER CITY STD. DWG.
 - SDDI #A2 (PROPOSED)
STA: 1+83.1 STORM LINE 'A' = STA: 3+73.8, 49.4' LT BLAND CIRCLE.
INSTALL DITCH INLET PER CITY STD. DWG.
 - STORM DRAIN LINE 'B' POND OFFFALL
IE OUT (12"): 494.50
CLASS 100 RIPRAP ENERGY DISSIPATION PER CITY STD. DWG. WL-614 (STORM SEWER OFFFALL) ON SHEET C451
 - STORM DRAIN POND OFFFALL
IE OUT (10"): 494.50
CLASS 100 RIPRAP ENERGY DISSIPATION PER CITY STD. DWG. WL-614 (STORM SEWER OFFFALL) ON SHEET C451
 - STORM DRAIN POND OFFFALL
IE OUT (10"): 494.50
CLASS 100 RIPRAP ENERGY DISSIPATION PER CITY STD. DWG. WL-614 (STORM SEWER OFFFALL) ON SHEET C451
 - SDCB #A1 (EXISTING)
STA: 0+67.6 STORM LINE 'A' = STA: 4+42.9, 18.8' RT BLAND CIRCLE.
ABANDON EXISTING INLET LEAD.
INSTALL 22.0 LF 10" PVC @ S=0.0910 FT/FT
CONNECT TO SDMH #A2 AS SHOWN. SEE PROFILE SHEET C311.
 - SDCB #F1 (PROPOSED)
STA: 1+38.3, 16.8' LT BLAND CIRCLE.
FL: 505.93
IE OUT (10' NW): 503.29
INSTALL COMBINATION CURB INLET OVER EXISTING LINE PER STD. DWG. WL-601 ON SHEET C451.
 - CONSTRUCT OUTLET HEADWALL PER CITY STD. DWG. WL-613 (OUTLET HEADWALL FOR OUTLET PIPES OF 10" TO 33") ON SHEET C452.
 - SDCB #G1 (PROPOSED)
STA: 4+03.6, 14.0' LT SUNBREAK LANE.
FL: 528.14
RIM: 528.60
IE OUT (10' S): 522.45
IE EXISTING CONNECTION: 521.26
INSTALL COMBINATION CURB INLET AT LOCATION SHOWN AND CONNECT TO EXISTING STORM MAIN PER STD. DWG. WL-601 ON SHEET C451.

GENERAL NOTES

- CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO EXISTING UTILITIES DURING CONSTRUCTION AT NO COST TO THE DEVELOPER.

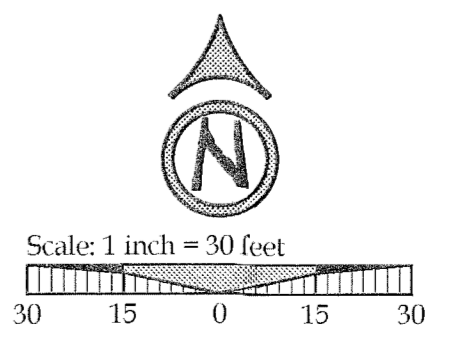
STORM DRAINAGE KEY NOTES

- ALL EXISTING STORM DRAIN PIPING AND STRUCTURES DESIGNATED FOR MODIFICATION WITHIN THESE PLANS SHALL BE POTHOLED AND FIELD VERIFIED FOR LENGTH, ALIGNMENT, DEPTH AND GRADE PRIOR TO COMMENCEMENT OF CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES.
- ALL PRIVATE HORIZONTAL DRAIN PIPING SHOWN SHALL CONFORM TO THE INTERNATIONAL PLUMBING CODE (IPC) AND ALL OREGON SPECIALTY CODE AMENDMENTS FOR FITTINGS, CONNECTIONS, ALIGNMENTS, GRADE & MATERIAL.
- SEE STORM SEWER NOTES ON SHEET C002.

STORM LATERAL TABLE

STORM LATERAL	LATERAL SIZE	LENGTH	INVERT AT MAIN	SLOPE	INVERT AT END	DEPTH AT END	ROADWAY STATION
LOT 1 STORM	6"	12.0 lf	508.18	36.1%	512.51	4.0 FT	STA: 2+56.9, PRIVATE DRIVE
LOT 2 STORM	6"	12.0 lf	509.02	16.0%	510.94	4.0 FT	STA: 3+40.5, PRIVATE DRIVE
LOT 3 STORM	6"	18.0 lf	509.02	7.6%	510.38	4.0 FT	STA: 3+40.5, PRIVATE DRIVE
LOT 4 STORM	6"	18.0 lf	508.30	26.3%	513.03	4.0 FT	STA: 2+74.6, PRIVATE DRIVE
LOT 5 STORM	6"	10.0 lf	499.14	16.8%	500.82	4.0 FT	STA: 0+20.0, STORM LINE 'B'
LOT 6 STORM	6"	10.0 lf	499.14	7.3%	499.87	4.0 FT	STA: 0+20.0, STORM LINE 'B'

TAX LOT 500 LOCATED IN THE
N.E. 1/4 SECTION 35, T.2S., R.1E., W.M.
WEST LINN, CLACKAMAS COUNTY, OREGON



04/20/2016
 PERMIT SET
 REVISION SUMMARY
 DATE
 BY

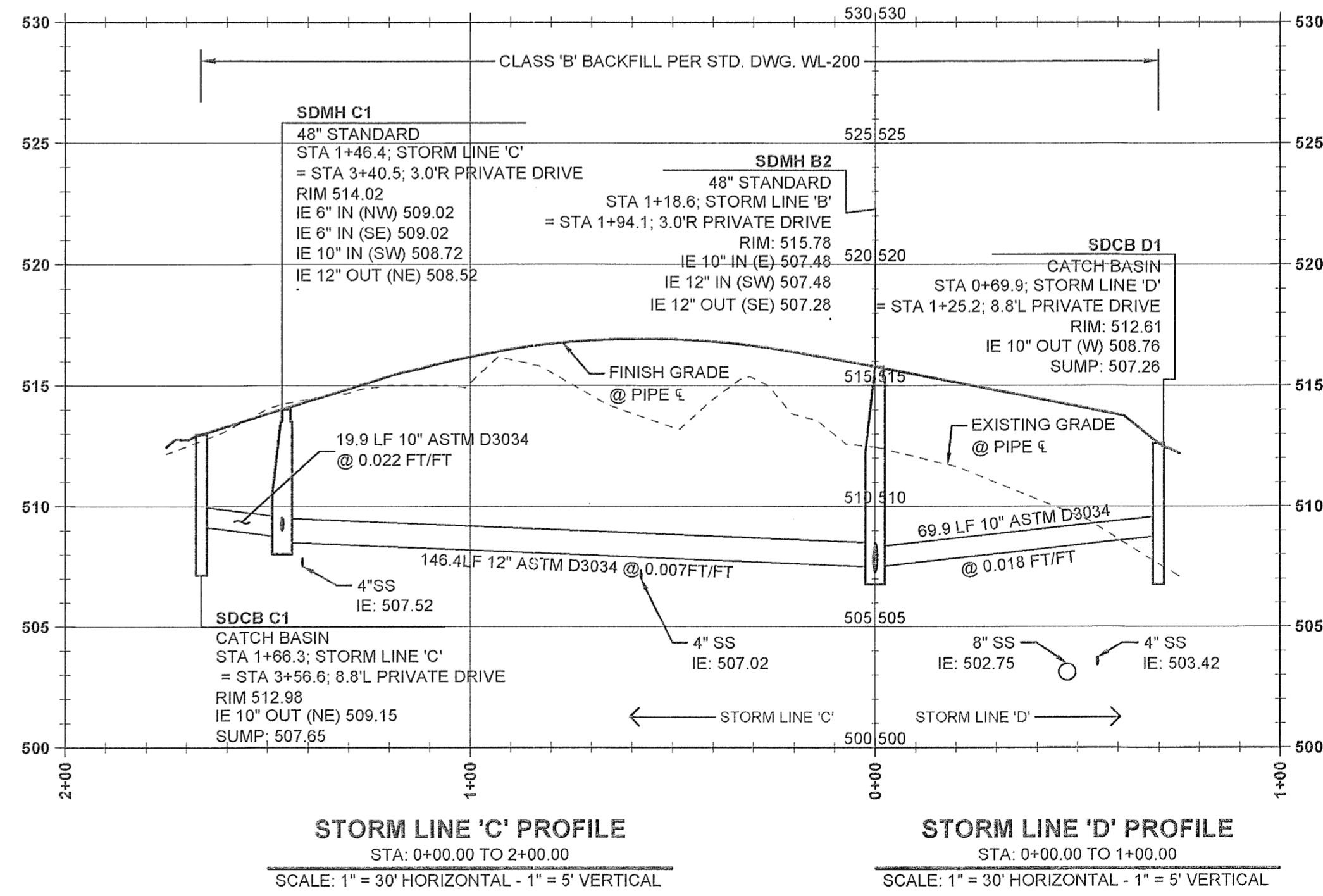
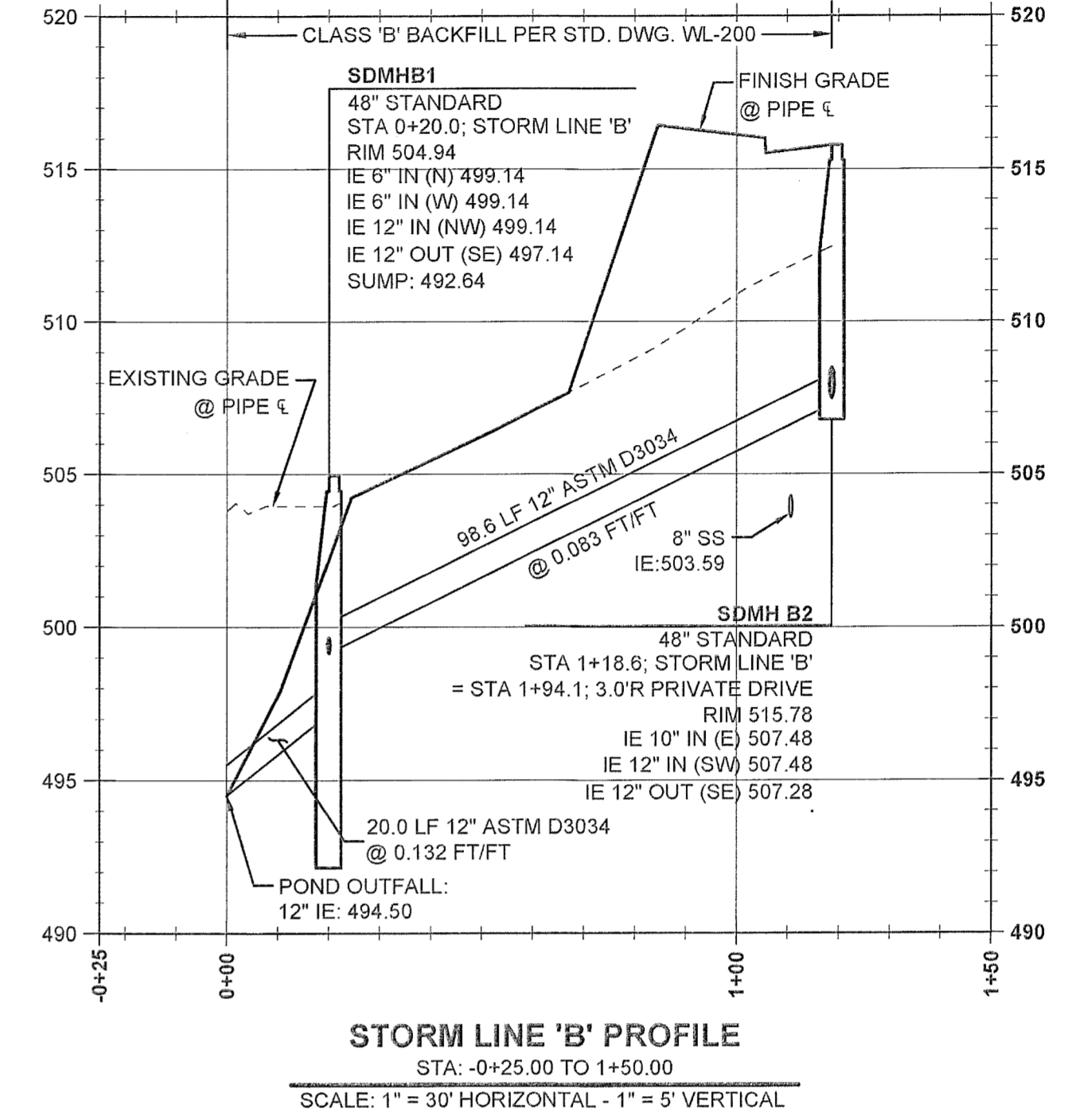
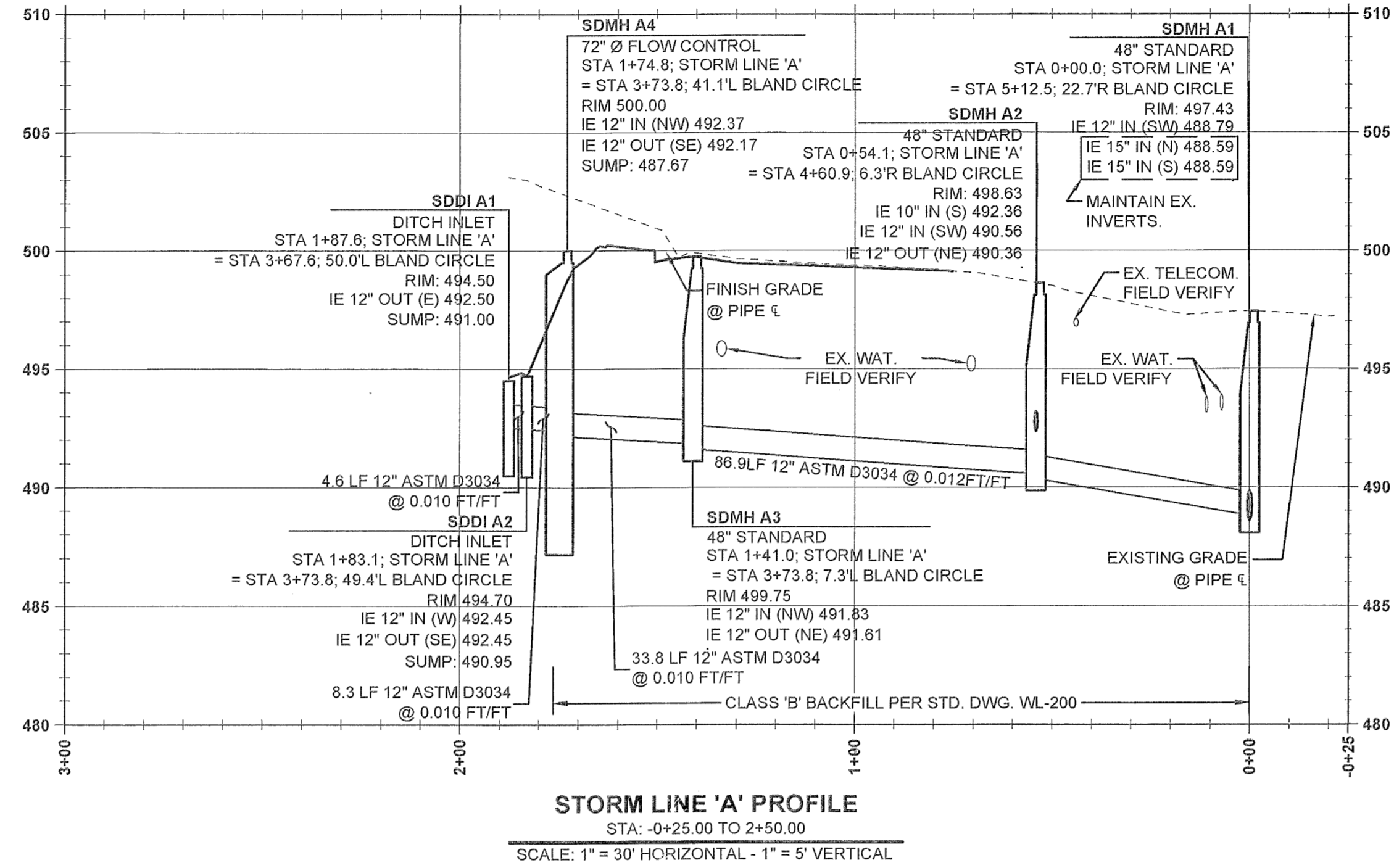
STORM PLAN
SAVANNA HEIGHTS
SUBDIVISION
 BLAND CIRCLE ESTATES, LLC
 WEST LINN, OR

REGISTERED PROFESSIONAL ENGINEER
 JESSE T. EMERSON
 OREGON
 EXPIRES: 12/31/17
 Digital Signature
 07/11/16

3J CONSULTING, INC
 CIVIL ENGINEERING
 WATER RESOURCES
 LAND USE PLANNING
 8076 SW GRIFFITH DRIVE, SUITE 150, BEAVERTON, OR 97005
 PHONE & FAX: (503) 946-9985

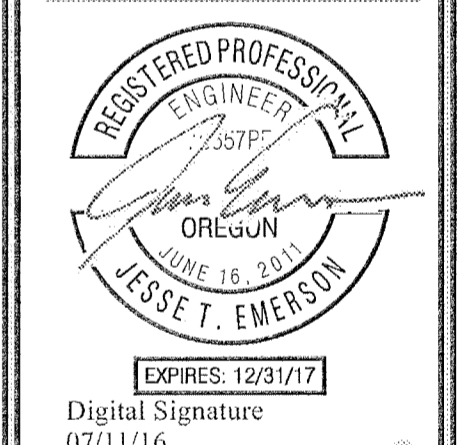
3J JOB ID # | 15246
 LAND USE # | SUB-15-02
 TAX LOT # | 21E356 00500
 DESIGNED BY | JTE, JCP
 CHECKED BY | AJM

SHEET TITLE
STORM PLAN
 SHEET NUMBER
C310

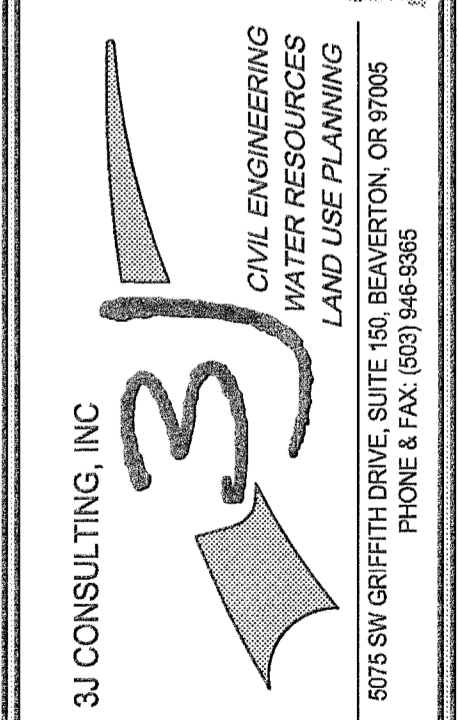


PERMIT SET	BY	DATE
REVISION SUMMARY		
A		04/20/2016

STORM PROFILES
SAVANNA HEIGHTS
SUBDIVISION
BLAND CIRCLE ESTATES, LLC
WEST LINN, OR



Digital Signature
07/11/16

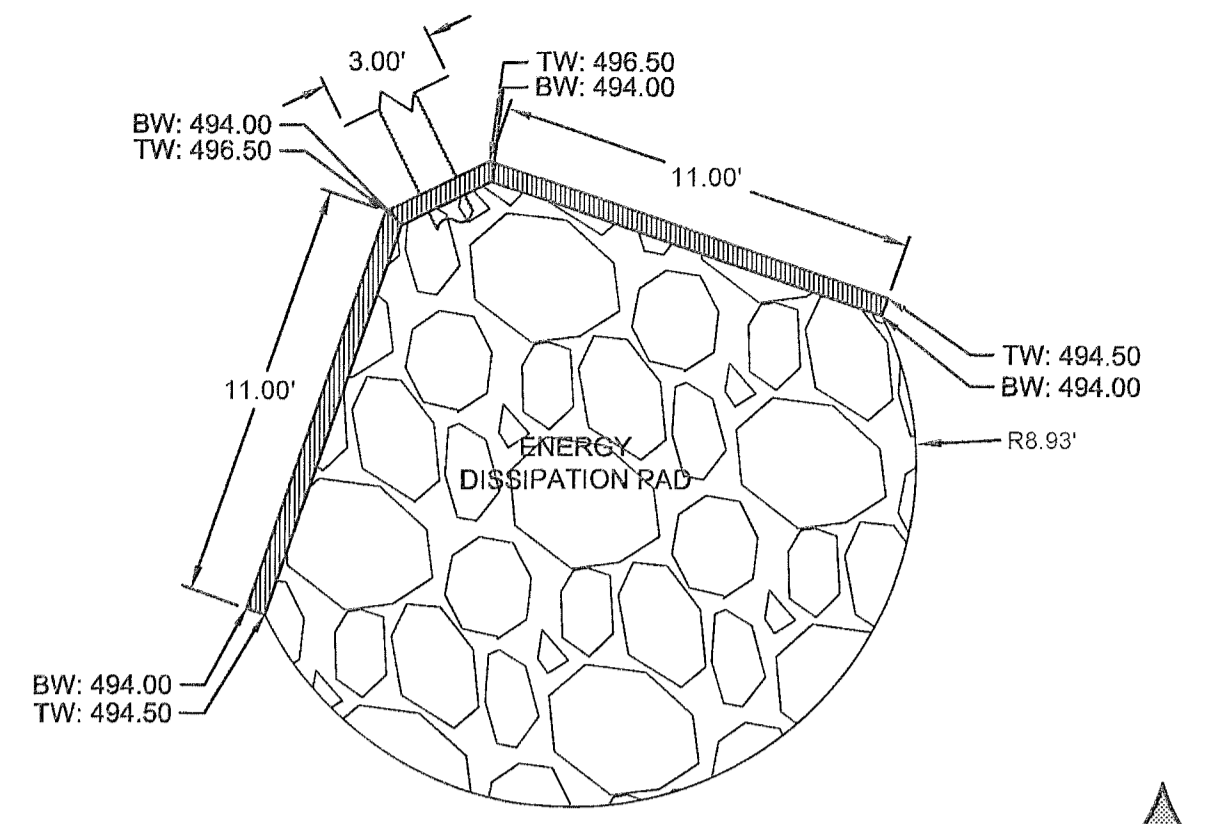


3J JOB ID # | 15246
LAND USE # | SUB-15-02
TAX LOT # | 21E35B 00500
DESIGNED BY | JTE, JCP
CHECKED BY | AIM

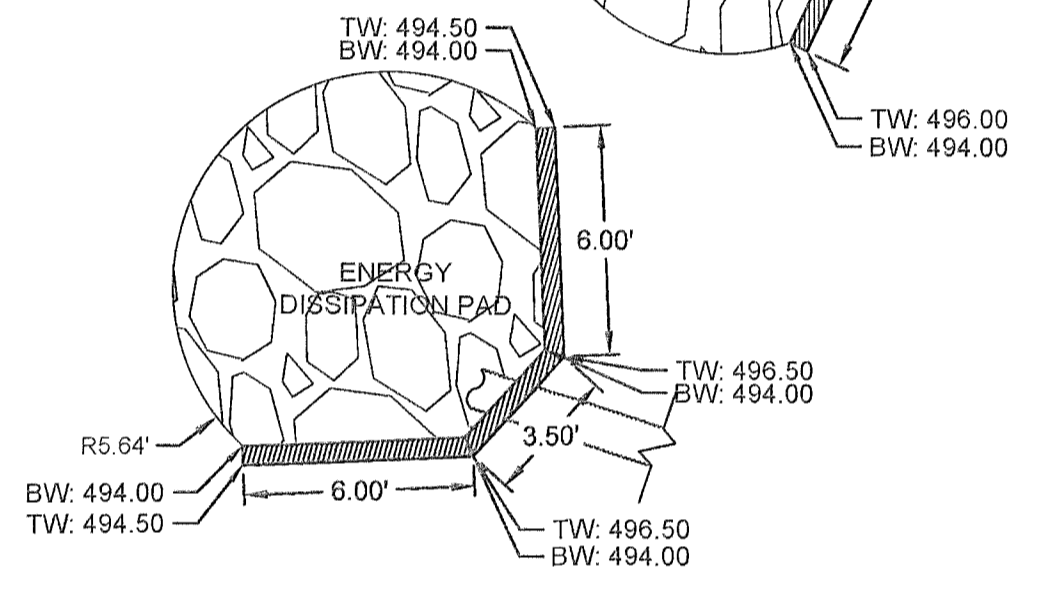
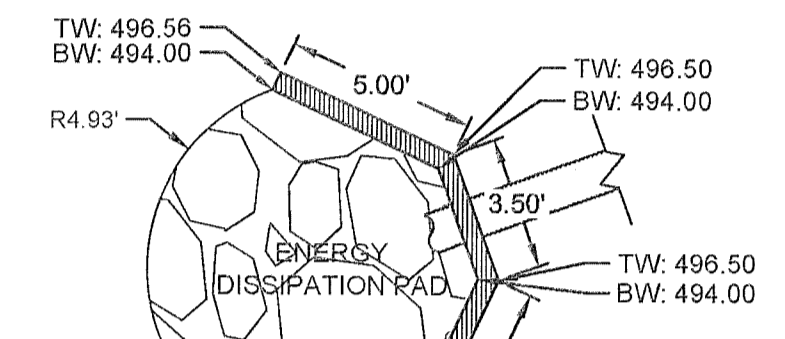
SHEET TITLE
STORM PROF
SHEET NUMBER
C311

TAX LOT 500 LOCATED IN THE
N.E. 1/4 SECTION 35, T.2S., R.1E., W.M.
WEST LINN, CLACKAMAS COUNTY, OREGON

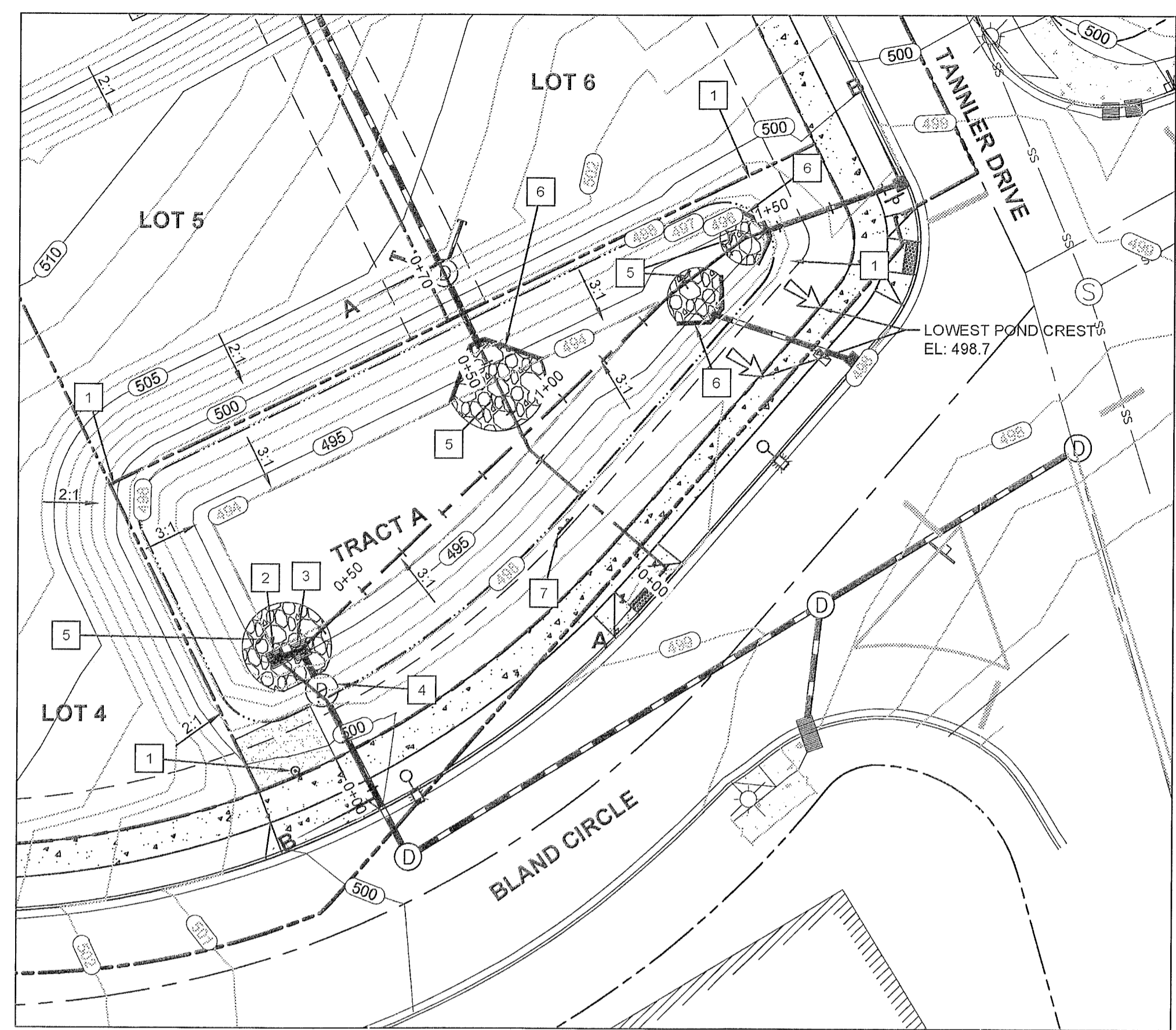




STORM LINE 'B' OUTFALL DETAIL
1 inch = 5 feet

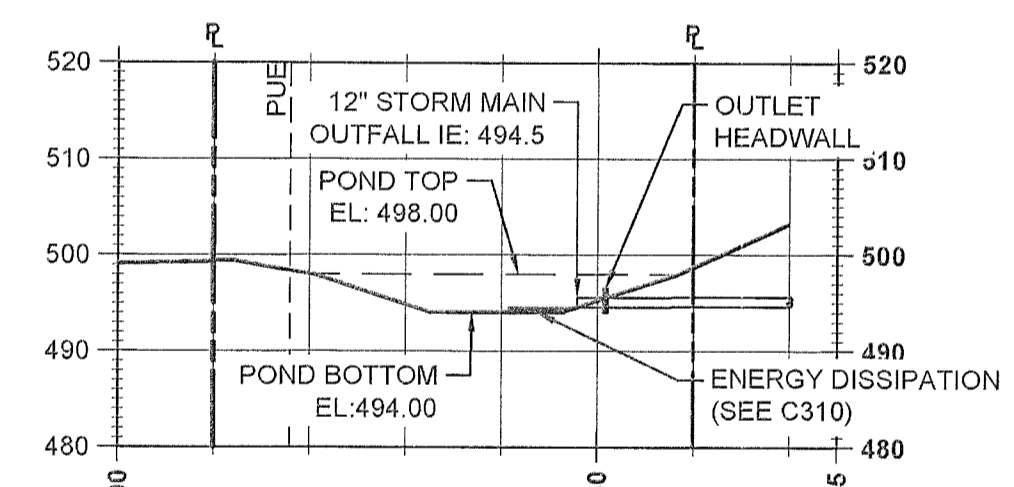


EAST OUTFALL DETAILS
1 inch = 5 feet

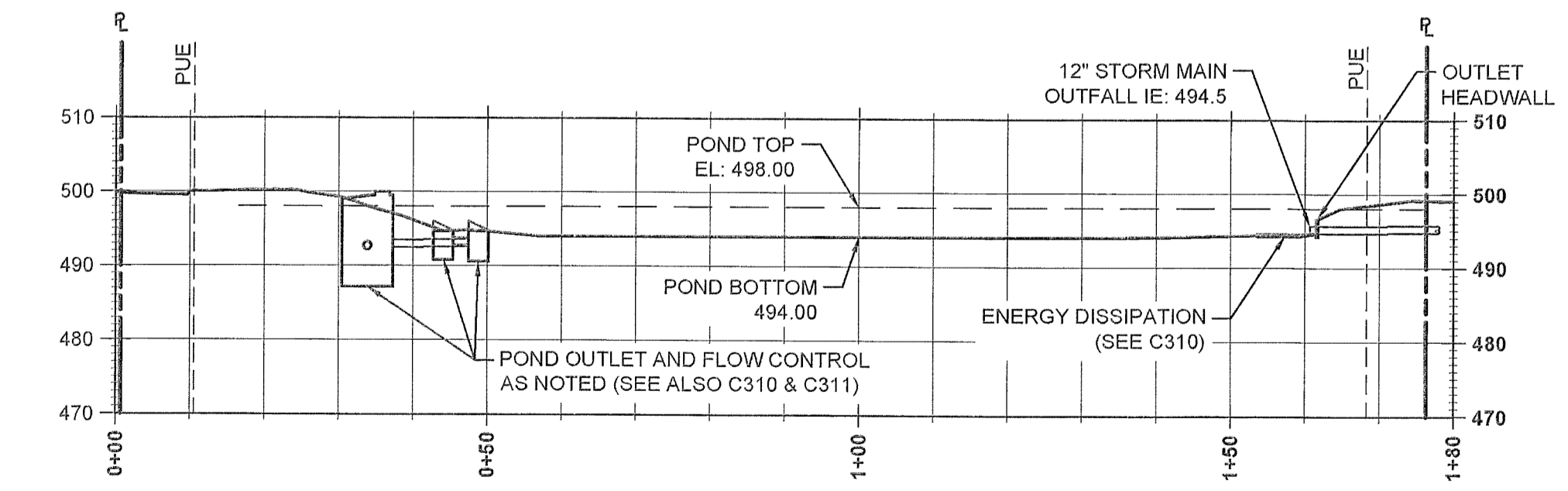


STORM DRAIN POND - PLAN
1 inch = 20 feet

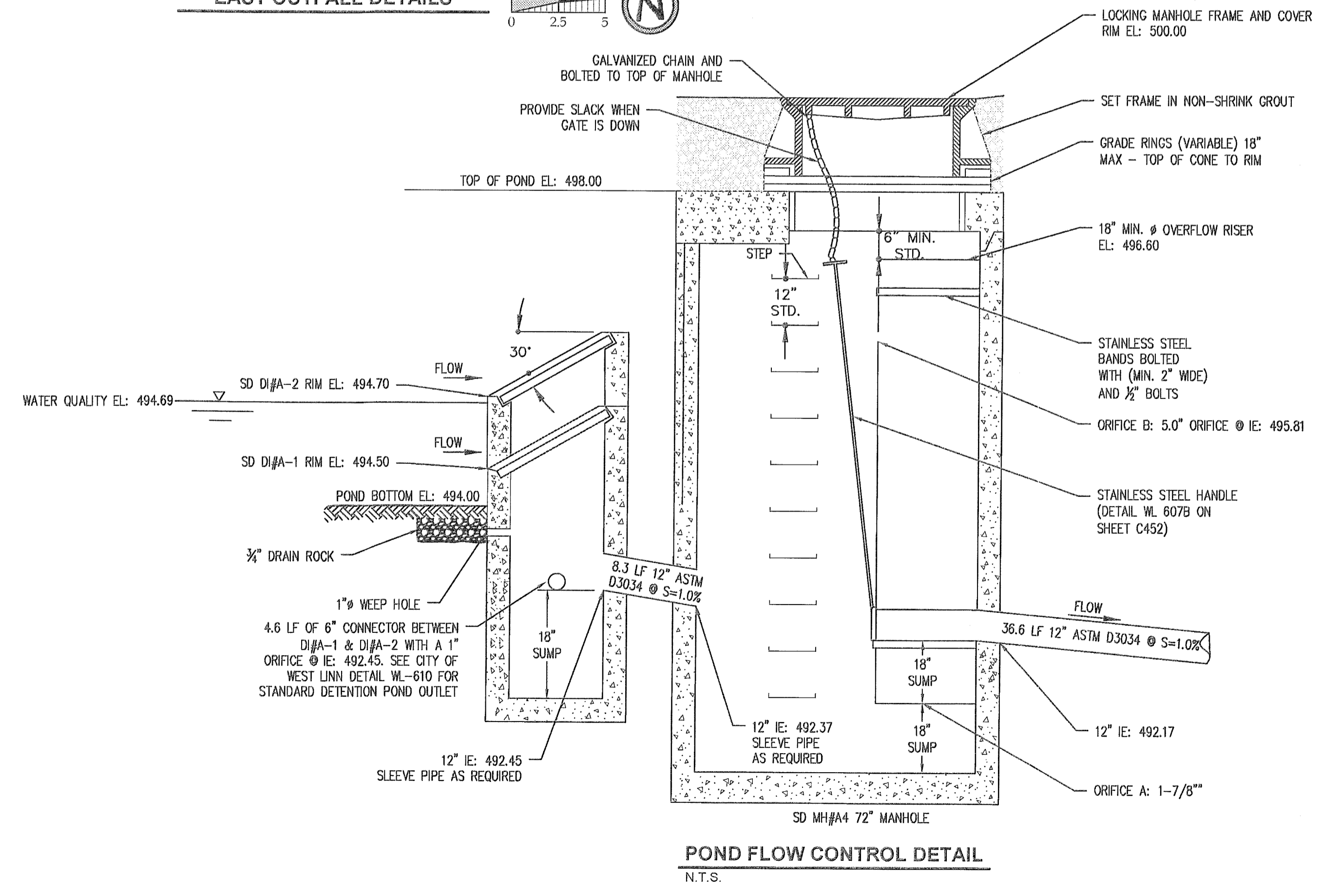
- STORM DRAIN POND CONSTRUCTION NOTES**
1. INSTALL REMOVABLE BOLLARD PER DETAIL 3 ON SHEET C411.
 2. DITCH INLET SDDI #A1 POND DEWATERING DRAIN. SEE PROFILE ON C311 FOR ELEVATION DATA.
 3. DITCH INLET SDDI #A2 POND DEWATERING DRAIN. SEE PROFILE ON C311 FOR ELEVATION DATA.
 4. 72" FLOW CONTROL MANHOLE. SEE "POND FLOW CONTROL DETAIL" THIS SHEET. SEE PROFILE ON C311 FOR PIPE ELEVATION DATA.
 5. ENERGY DISSIPATION PAD FOR OUTFALL, AS NOTED.
 6. CONSTRUCT OUTLET HEADWALL PER CITY STD. DWG. WL-613 (OUTLET HEADWALL FOR OUTLET PIPES OF 10" TO 33") ON SHEET C452.
 7. INSTALL SURFACE WATER FACILITY SIGN PER DETAIL WL-615 ON SHEET C451.



POND SECTION A-A
SCALE: 1" = 20' (HORIZONTAL = VERTICAL)



POND SECTION B-B
SCALE: 1" = 20' (HORIZONTAL = VERTICAL)



POND FLOW CONTROL DETAIL
N.T.S.

DATE	04/20/2016
BY	
REVISION SUMMARY	
PERMIT SET	

STORMWATER FACILITY PLAN
SAVANNA HEIGHTS
SUBDIVISION
BLAND CIRCLE ESTATES, LLC
WEST LINN, OR

REGISTERED PROFESSIONAL ENGINEER
JESSE T. EMERSON
JUNE 18, 2011
EXPIRES: 12/31/17
Digital Signature
07/11/16

3J CONSULTING, INC
CIVIL ENGINEERING
WATER RESOURCES
LAND USE PLANNING
6075 SW GRIFFITH DRIVE SUITE 150, BEAVERTON, OR 97005
PHONE & FAX: (503) 946-9585

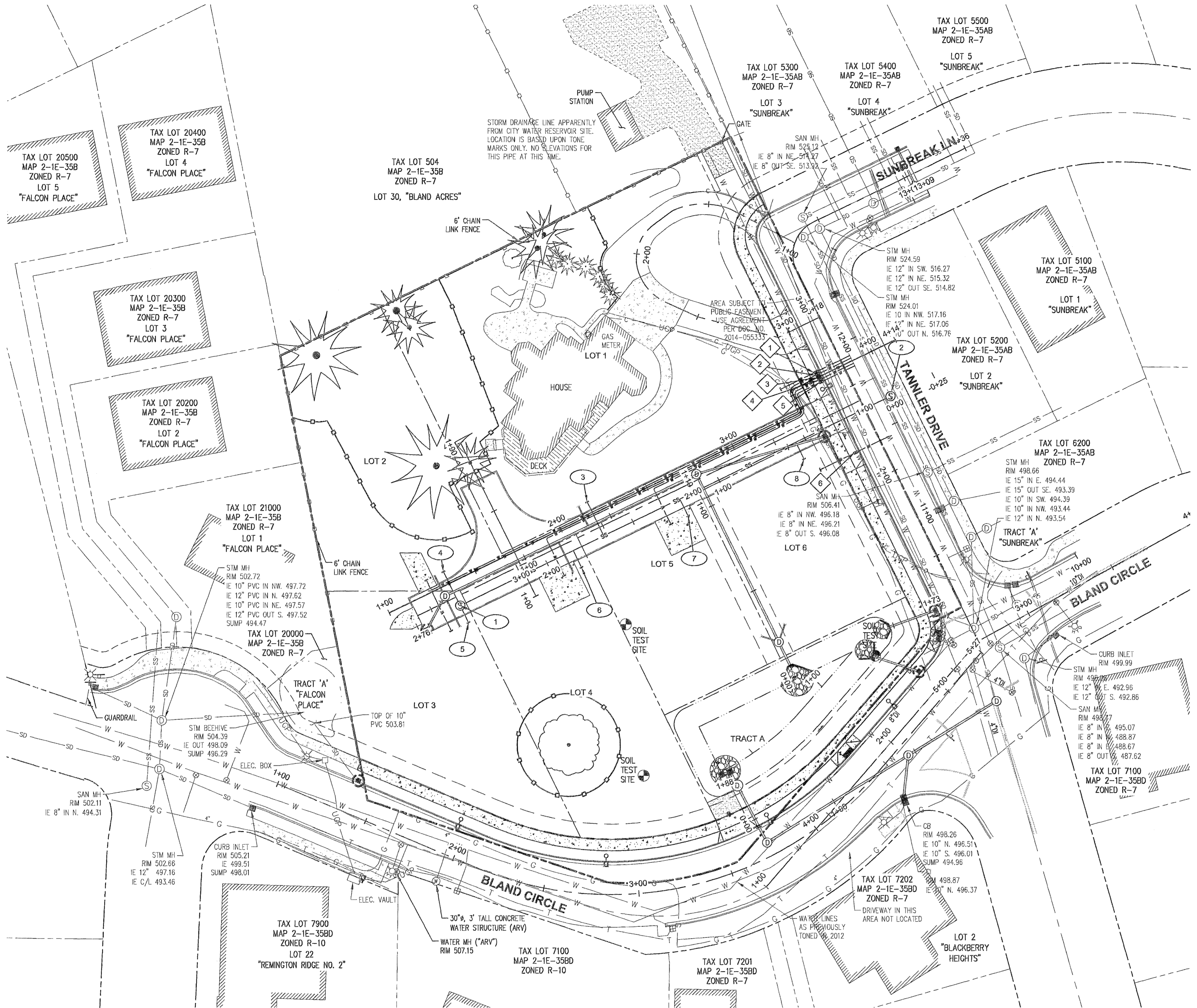
3J JOB ID #	15246
LAND USE #	SUB-16-02
TAX LOT #	21E35B 00500
DESIGNED BY	JTE, JCP
CHECKED BY	AIM

SHEET TITLE
STORM. FACILITY
SHEET NUMBER

C330



TAX LOT 500 LOCATED IN THE
N.E. 1/4 SECTION 35, T.2S., R.1E., W.M.
WEST LINN, CLACKAMAS COUNTY, OREGON



SANITARY SEWER KEY NOTES

- SSMH #2 STA: 2+50.8 SANITARY LINE
INSTALL SANITARY SEWER MANHOLE PER CITY OF WEST LINN STANDARD DETAIL WL-207 (STANDARD MANHOLE FOR LESS THAN 36 IN. PIPE) ON SHEET C451. SEE PROFILE ON THIS SHEET FOR ELEVATION DATA.
- SSMH #1
STA: 0+00.0 SANITARY LINE
INSTALL CAST-IN-PLACE SANITARY SEWER MANHOLE PER CITY OF WEST LINN STANDARD DETAIL WL-210A (STANDARD MANHOLE FOR LESS THAN 36 IN. PIPE) ON SHEET C450. SEE PROFILE ON THIS SHEET FOR ELEVATION DATA.
- SANITARY SEWER STUB (LOT 1)
SEE LATERAL TABLE THIS SHEET FOR ELEVATION DATA.
CAP AND MARK END PER CITY OF WEST LINN STANDARD DETAIL WL-218 (SERVICE BRANCH) ON SHEET C450.
- SANITARY SEWER STUB (LOT 2)
SEE LATERAL TABLE THIS SHEET FOR ELEVATION DATA.
CAP AND MARK END PER CITY OF WEST LINN STANDARD DETAIL WL-218 (SERVICE BRANCH) ON SHEET C450.
- SANITARY SEWER STUB (LOT 3)
SEE LATERAL TABLE THIS SHEET FOR ELEVATION DATA.
CAP AND MARK END PER CITY OF WEST LINN STANDARD DETAIL WL-218 (SERVICE BRANCH) ON SHEET C450.
- SANITARY SEWER STUB (LOT 4)
SEE LATERAL TABLE THIS SHEET FOR ELEVATION DATA.
CAP AND MARK END PER CITY OF WEST LINN STANDARD DETAIL WL-218 (SERVICE BRANCH) ON SHEET C450.
- SANITARY SEWER STUB (LOT 5)
SEE LATERAL TABLE THIS SHEET FOR ELEVATION DATA.
CAP AND MARK END PER CITY OF WEST LINN STANDARD DETAIL WL-218 (SERVICE BRANCH) ON SHEET C450.
- SANITARY SEWER STUB (LOT 6)
SEE LATERAL TABLE THIS SHEET FOR ELEVATION DATA.
CAP AND MARK END PER CITY OF WEST LINN STANDARD DETAIL WL-218 (SERVICE BRANCH) ON SHEET C450.

WATER KEY NOTES

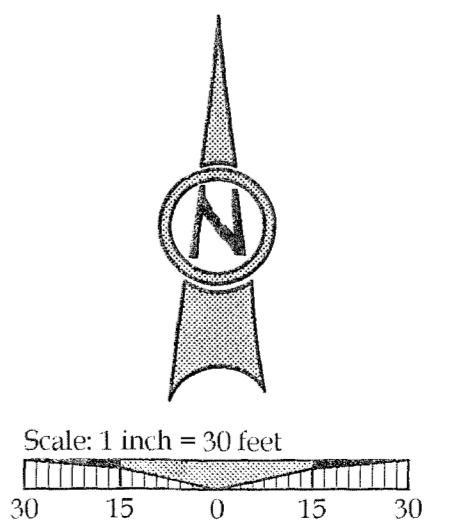
- (LOT 1) STA: 2+64.8, 5.4' RT TANNER DRIVE:
INSTALL 1" METER BOX IN PLANTER STRIP PER CITY OF WEST LINN STANDARD DETAIL WL-402 (STANDARD 1" WATER SERVICE) ON SHEET C452.
CAP 1" STUB-OUT 3' BEYOND PUE AND MARK W/ 2x4.
- (LOT 2) STA: 2+63.3, 5.4' RT TANNER DRIVE:
INSTALL 1" METER BOX IN PLANTER STRIP PER CITY OF WEST LINN STANDARD DETAIL WL-402 (STANDARD 1" WATER SERVICE) ON SHEET C452.
CAP 1" STUB-OUT 3' BEYOND PUE AND MARK W/ 2x4.
- (LOT 3) STA: 2+61.8, 5.4' RT TANNER DRIVE:
INSTALL 1" METER BOX IN PLANTER STRIP PER CITY OF WEST LINN STANDARD DETAIL WL-402 (STANDARD 1" WATER SERVICE) ON SHEET C452.
CAP 1" STUB-OUT 3' BEYOND PUE AND MARK W/ 2x4.
- (LOT 4) STA: 2+60.3, 5.4' RT TANNER DRIVE:
INSTALL 1" METER BOX IN PLANTER STRIP PER CITY OF WEST LINN STANDARD DETAIL WL-402 (STANDARD 1" WATER SERVICE) ON SHEET C452.
CAP 1" STUB-OUT 3' BEYOND PUE AND MARK W/ 2x4.
- (LOT 5) STA: 2+58.8, 5.4' RT TANNER DRIVE:
INSTALL 1" METER BOX IN PLANTER STRIP PER CITY OF WEST LINN STANDARD DETAIL WL-402 (STANDARD 1" WATER SERVICE) ON SHEET C452.
CAP 1" STUB-OUT 3' BEYOND PUE AND MARK W/ 2x4.
- (LOT 6) STA: 2+17.5, 5.3' RT TANNER DRIVE:
INSTALL 1" METER BOX IN PLANTER STRIP PER CITY OF WEST LINN STANDARD DETAIL WL-402 (STANDARD 1" WATER SERVICE) ON SHEET C452.
CAP 1" STUB-OUT 3' BEYOND PUE AND MARK W/ 2x4.

GENERAL NOTES

- CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO EXISTING UTILITIES DURING CONSTRUCTION AT NO COST TO THE DEVELOPER.
- ALL SEWER PIPE TO BE PVC AND SHALL CONFORM TO ASTM D-3034 UNLESS OTHERWISE NOTED.
- MAINTAIN 10' MINIMUM HORIZONTAL CLEARANCE FROM WATER MAIN TO SEWER MAIN.
- EXTEND PRIVATE UTILITIES WITH A JOINT TRENCH WITHIN 20' PUE SHOWN. CONTRACTOR TO COORDINATE WITH UTILITY PROVIDER TO OBTAIN DESIGN INFORMATION.
- SEE SANITARY SEWER NOTES ON SHEET C002.
- SEE CITY OF WEST LINN GENERAL WATER CONSTRUCTION NOTES ON SHEET C002.
- WATER SYSTEM TO BE INSTALLED AND TESTED PER CITY OF WEST LINN STANDARD CONSTRUCTION SPECIFICATIONS.
- WATER EXTENSIONS TO BE CONSTRUCTED UNDER PRIVATE WATER PERMIT.

TAX LOT 500 LOCATED IN THE
N.E. 1/4 SECTION 35, T.2S., R.1E., W.M.
WEST LINN, CLACKAMAS COUNTY, OREGON

SANITARY LATERAL TABLE							
SANITARY LATERAL	LATERAL SIZE	LENGTH	INVERT AT MAIN	SLOPE	INVERT AT END	DEPTH AT END	ROADWAY STATION
LOT 1 SANITARY	4"	20.0 lf	510.33	27.7%	504.79	6.0 FT	STA: 2+51.8, PRIVATE DRIVE
LOT 2 SANITARY	4"	20.0 lf	509.13	13.4%	506.44	6.0 FT	STA: 3+35.5, PRIVATE DRIVE
LOT 3 SANITARY	4"	10.0 lf	508.60	21.6%	506.44	6.0 FT	STA: 3+35.5, PRIVATE DRIVE
LOT 4 SANITARY	4"	10.0 lf	511.11	60.0%	505.11	6.0 FT	STA: 2+69.6, PRIVATE DRIVE
LOT 5 SANITARY	4"	10.0 lf	510.50	64.9%	504.01	6.0 FT	STA: 2+07.6, PRIVATE DRIVE
LOT 6 SANITARY	4"	10.0 lf	507.51	47.0%	502.81	6.0 FT	STA: 1+40.0, PRIVATE DRIVE



04/20/2016	DATE
	BY
	REVISION SUMMARY
	PERMIT SET

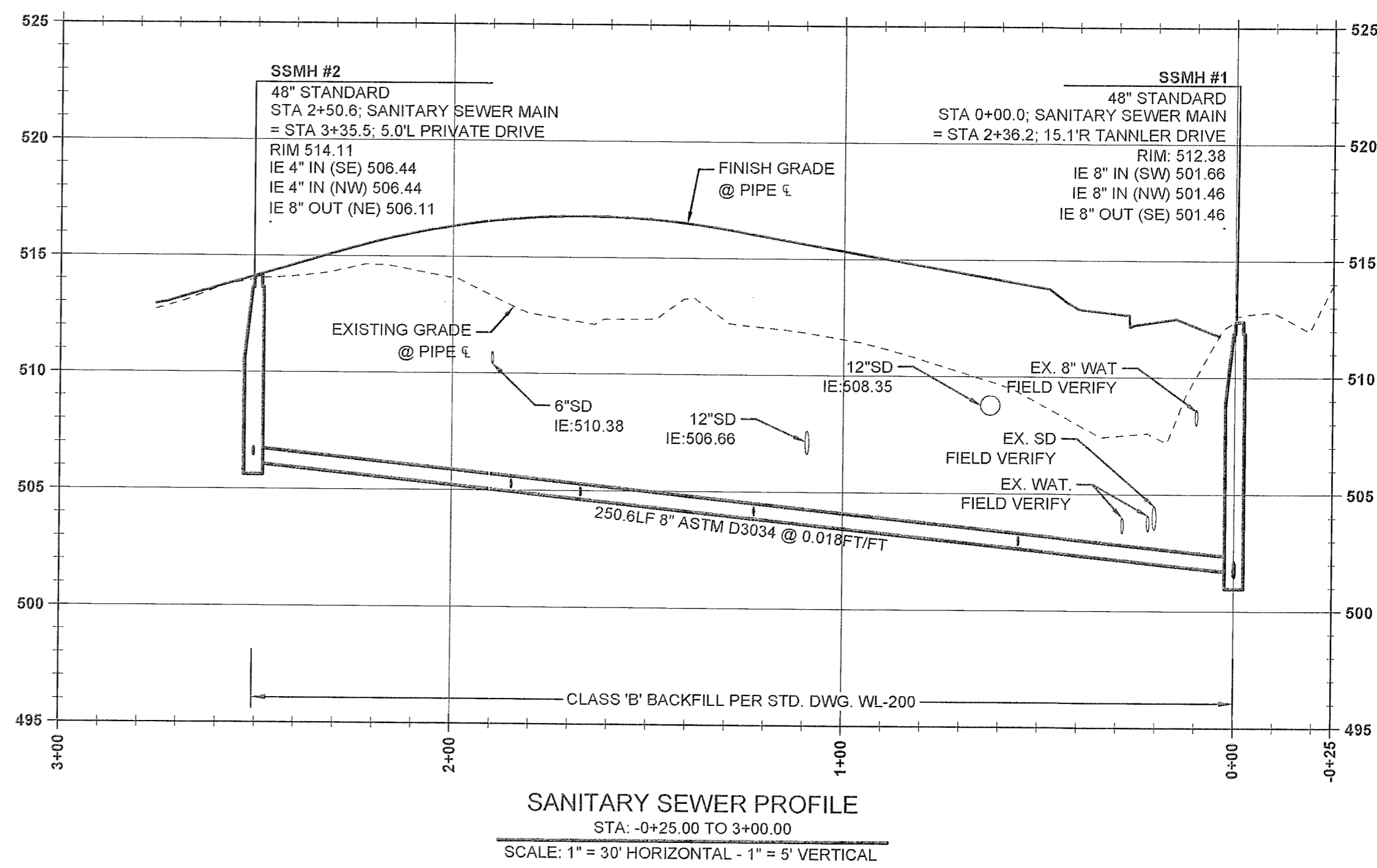
SANITARY SEWER & WATER PLAN
SAVANNA HEIGHTS
SUBDIVISION
BLAND CIRCLE ESTATES, LLC
WEST LINN, OR



3J CONSULTING, INC
CIVIL ENGINEERING
WATER RESOURCES
LAND USE PLANNING
8075 SW GRIFFITH DRIVE, SUITE 150, BEAVERTON, OR 97005
PHONE & FAX: (503) 946-6585

3J JOB ID #	15246
LAND USE #	SUB-15-02
TAX LOT #	21E35B 00500
DESIGNED BY	JTE, JCP
CHECKED BY	AJM
SHEET TITLE	SS & WAT. PLAN
SHEET NUMBER	C340

P:\15246-COPPEDEGE PROPERTY\CADD\CD15246-C340-SANITARY SEWER & WATER PLAN.DWG

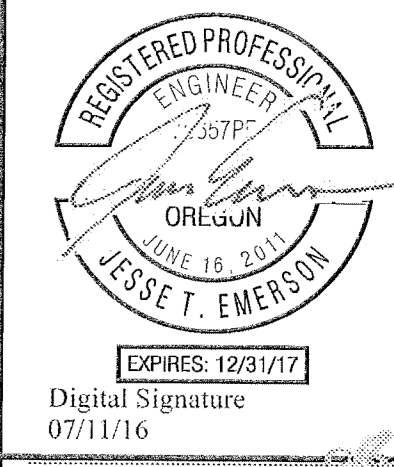


TAX LOT 500 LOCATED IN THE
 N.E. 1/4 SECTION 35, T.2S., R.1E., W.M.
 WEST LINN, CLACKAMAS COUNTY, OREGON



PERMIT SET #	04/20/2016
REVISION SUMMARY	BY DATE

SANITARY SEWER & WATER PROFILE
SAVANNA HEIGHTS
 SUBDIVISION
 BLAND CIRCLE ESTATES, LLC
 WEST LINN, OR



3J CONSULTING, INC
 CIVIL ENGINEERING
 WATER RESOURCES
 LAND USE PLANNING
 8074 SW GRIFFITH DRIVE, SUITE 100, BEAVERTON, OR 97005
 PHONE & FAX: (503) 946-5886

3J JOB ID # | 15246
 LAND USE # | SUB-15-02
 TAX LOT # | 21E35B 00500
 DESIGNED BY | JTE, JCP
 CHECKED BY | AJM

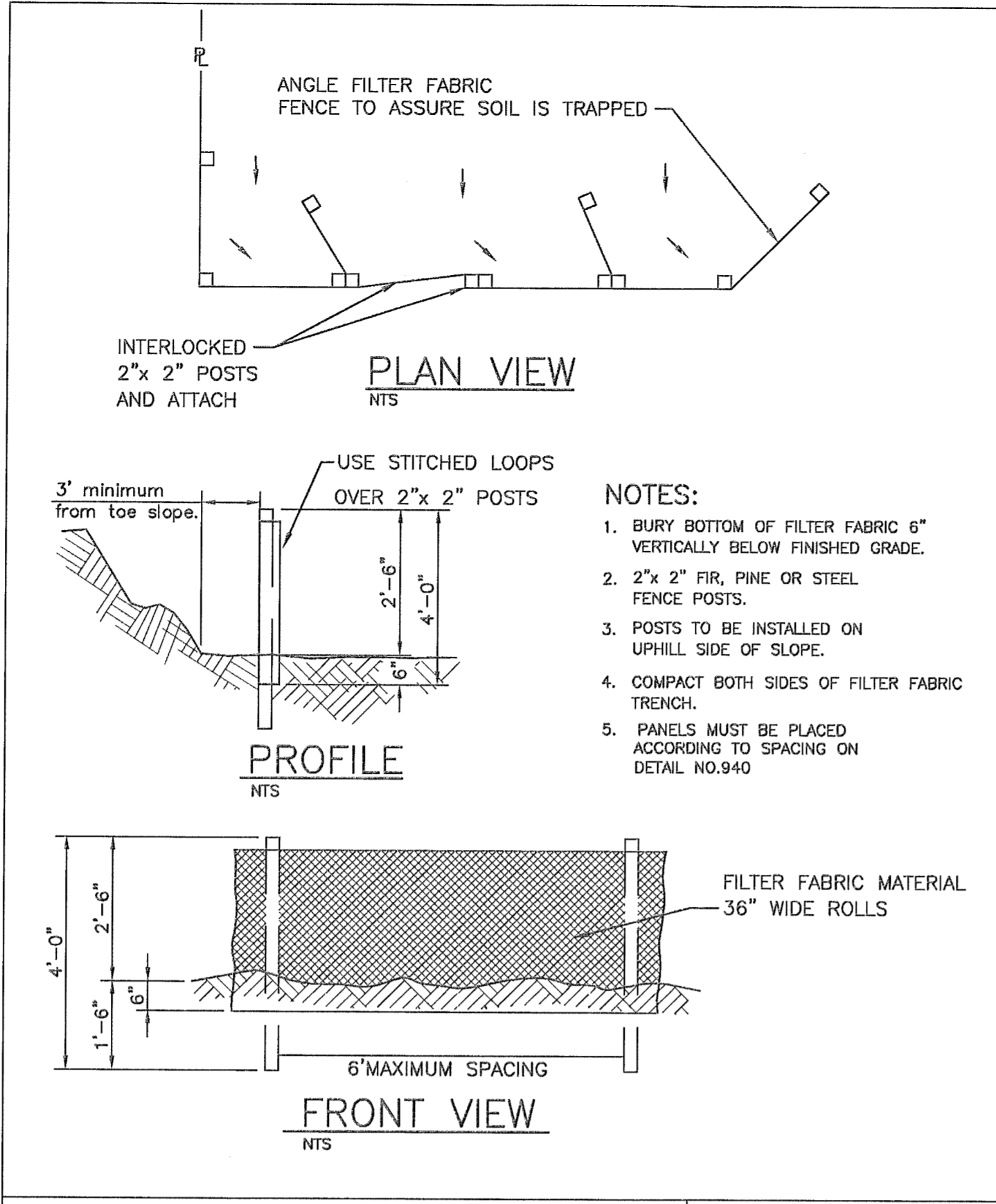
SHEET TITLE
SS & WAT. PROF.
 SHEET NUMBER
C341

EROSION AND SEDIMENT CONTROL PLAN NOTES

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

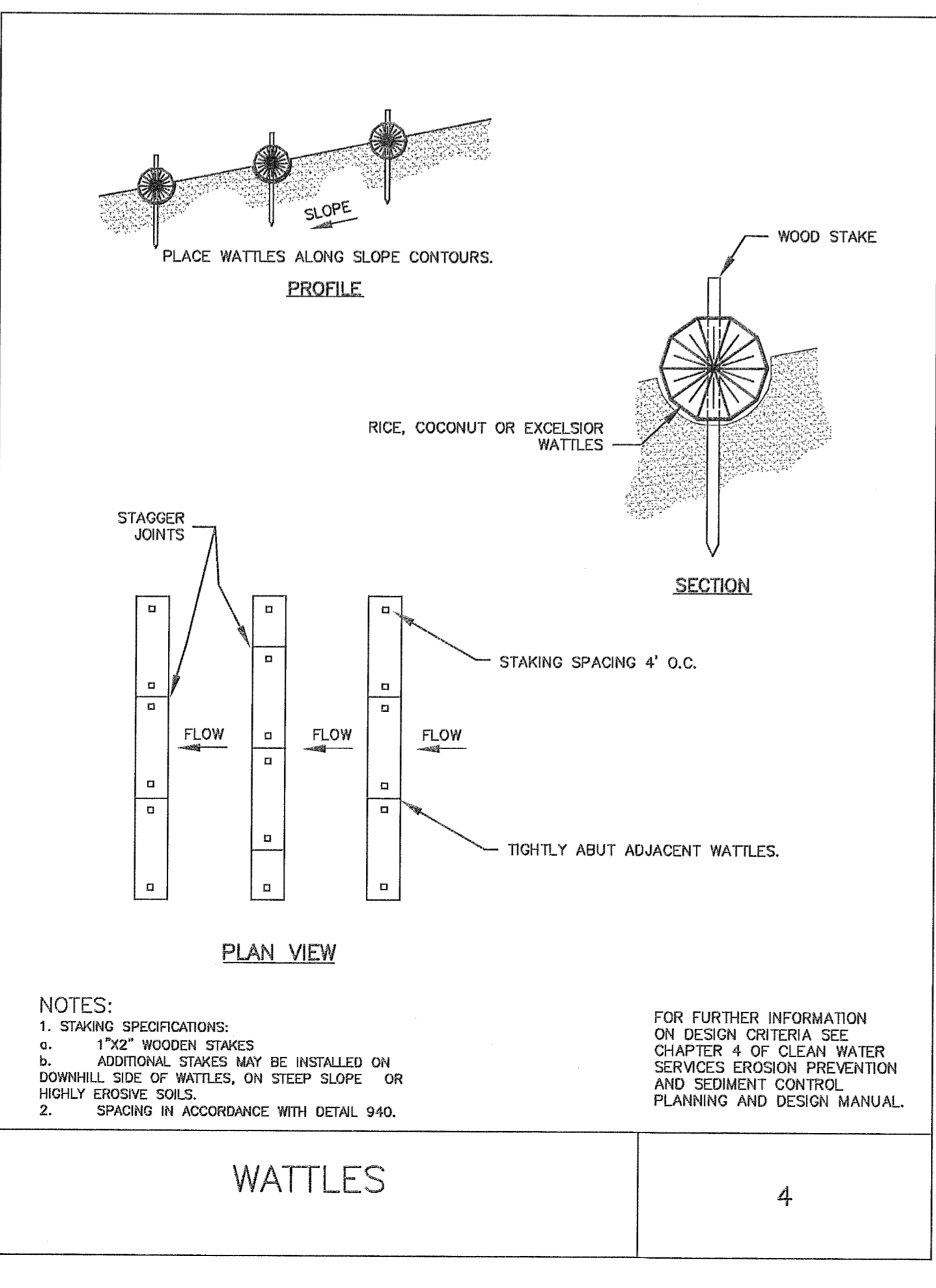
LOCAL AGENCY SPECIFIC EROSION CONTROL NOTES

- OWNER OR DESIGNATED PERSON SHALL BE RESPONSIBLE FOR PROPER INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE LOCAL, STATE, AND FEDERAL REGULATIONS.
- PRIOR TO ANY LAND DISTURBING ACTIVITIES, THE BOUNDARIES OF THE CLEARING LIMITS, VEGETATED BUFFERS, AND ANY SENSITIVE AREAS SHOWN ON THIS PLAN SHALL BE CLEARLY DELINEATED IN THE FIELD. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE IS PERMITTED BEYOND THE CLEARING LIMITS. THE OWNER/PERMITEE MUST MAINTAIN THE DELINEATION FOR THE DURATION OF THE PROJECT. NOTE: VEGETATED CORRIDORS TO BE DELINEATED WITH ORANGE CONSTRUCTION FENCE OR APPROVED EQUAL.
- PRIOR TO ANY LAND DISTURBING ACTIVITIES, THE BMPs THAT MUST BE INSTALLED ARE A GRAVEL CONSTRUCTION ENTRANCE, PERIMETER SEDIMENT CONTROL, AND INLET PROTECTION. THESE BMPs MUST BE MAINTAINED FOR THE DURATION OF THE PROJECT.
- IF VEGETATED SEED MIXES ARE SPECIFIED, SEEDING MUST TAKE PLACE NO LATER THAN SEPTEMBER 1; THE TYPE AND PERCENTAGES OF SEED IN THE MIX MUST BE IDENTIFIED ON THE PLANS.
- THE ESC PLAN MUST BE KEPT ON SITE. ALL MEASURES SHOWN ON THE PLAN MUST BE INSTALLED PROPERLY TO ENSURE THAT SEDIMENT OR SEDIMENT LADEN WATER DOES NOT ENTER A SURFACE WATER SYSTEM, ROADWAY, OR OTHER PROPERTIES.
- THE ESC MEASURES SHOWN ON THIS PLAN ARE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE MEASURES SHALL BE UPGRADED AS NEEDED TO COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL EROSION CONTROL REGULATIONS.
- ALL EXPOSED SOILS MUST BE COVERED DURING THE WET WEATHER PERIOD.



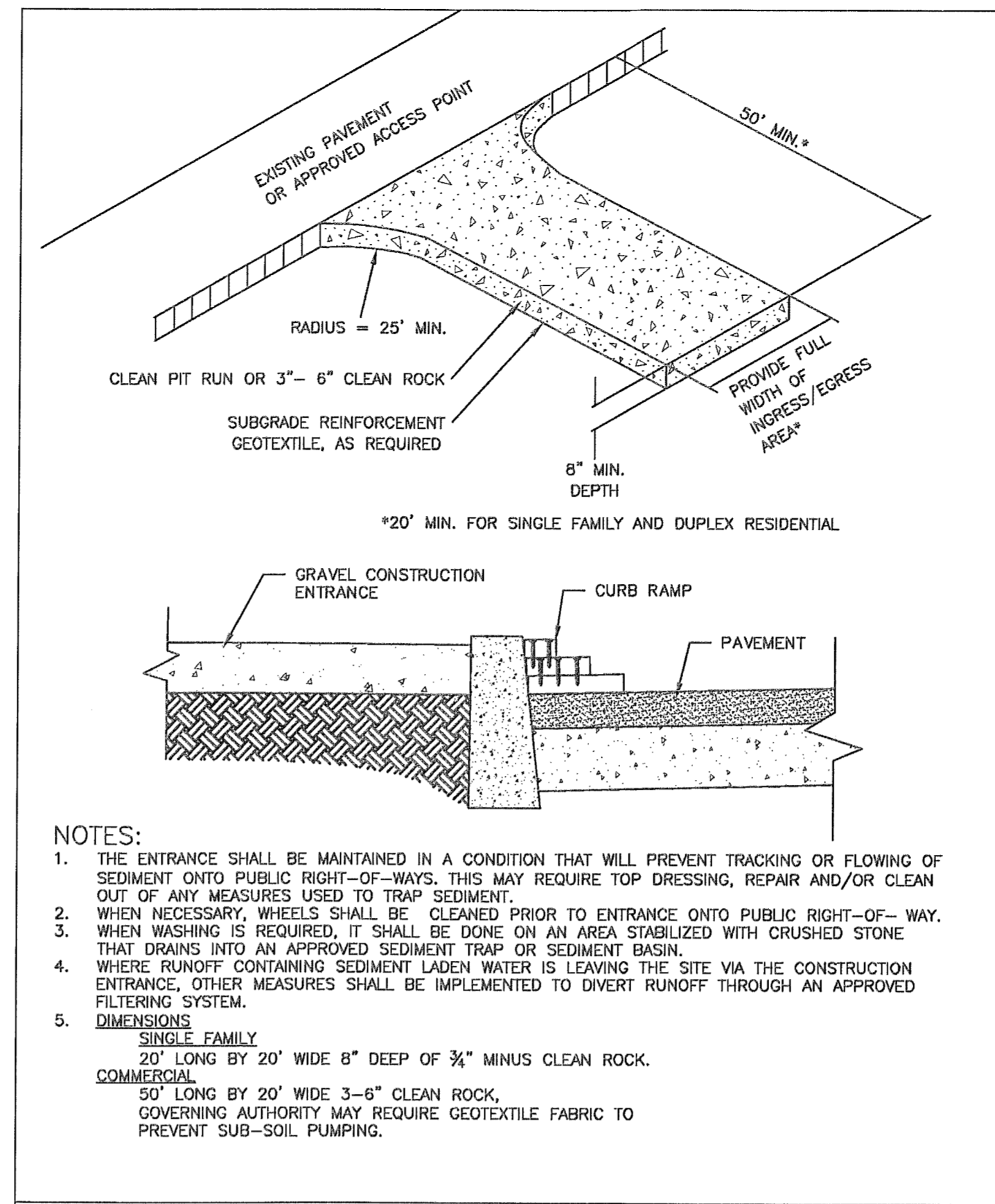
SEDIMENT FENCE

1



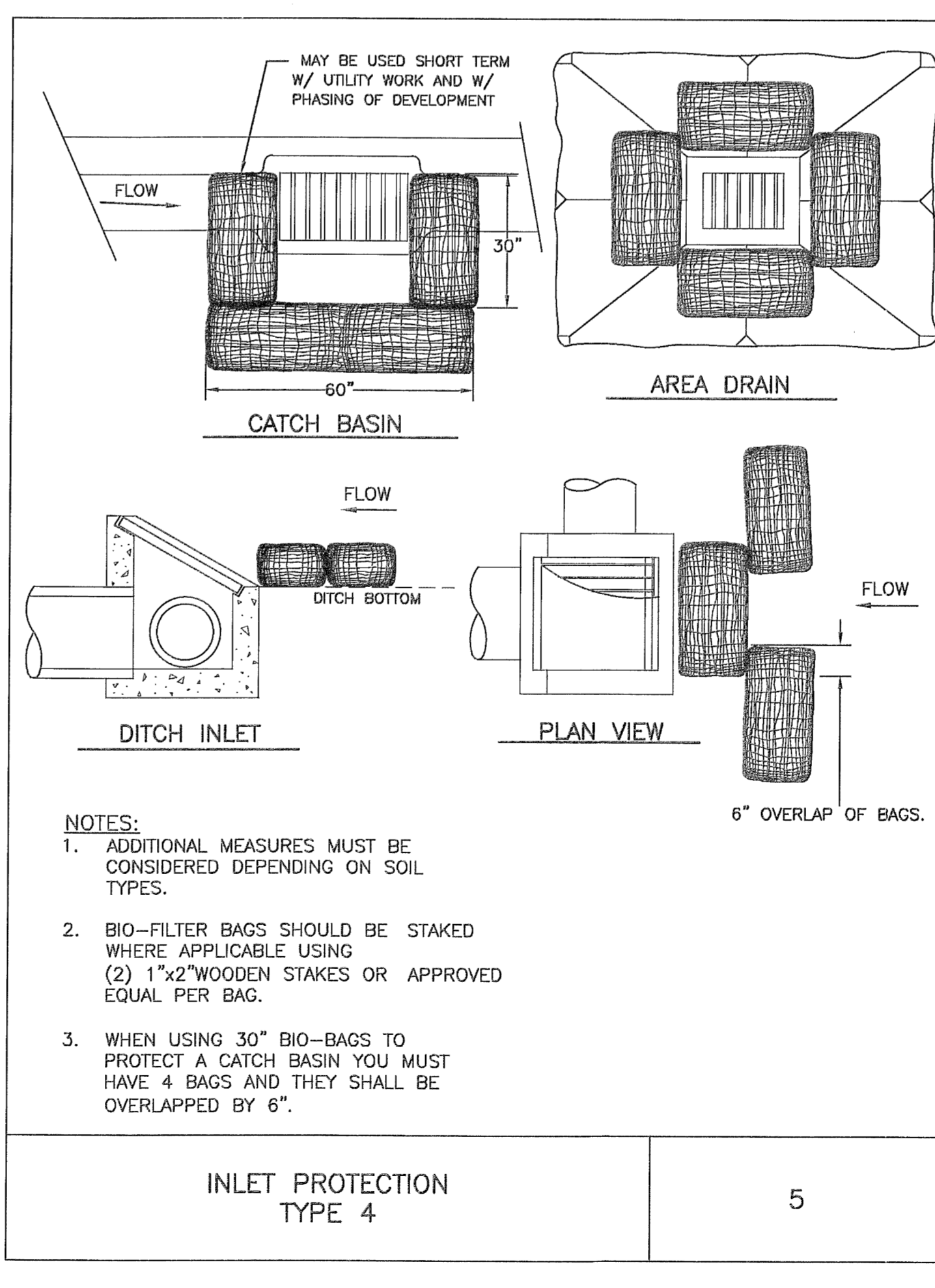
WATTLES

4



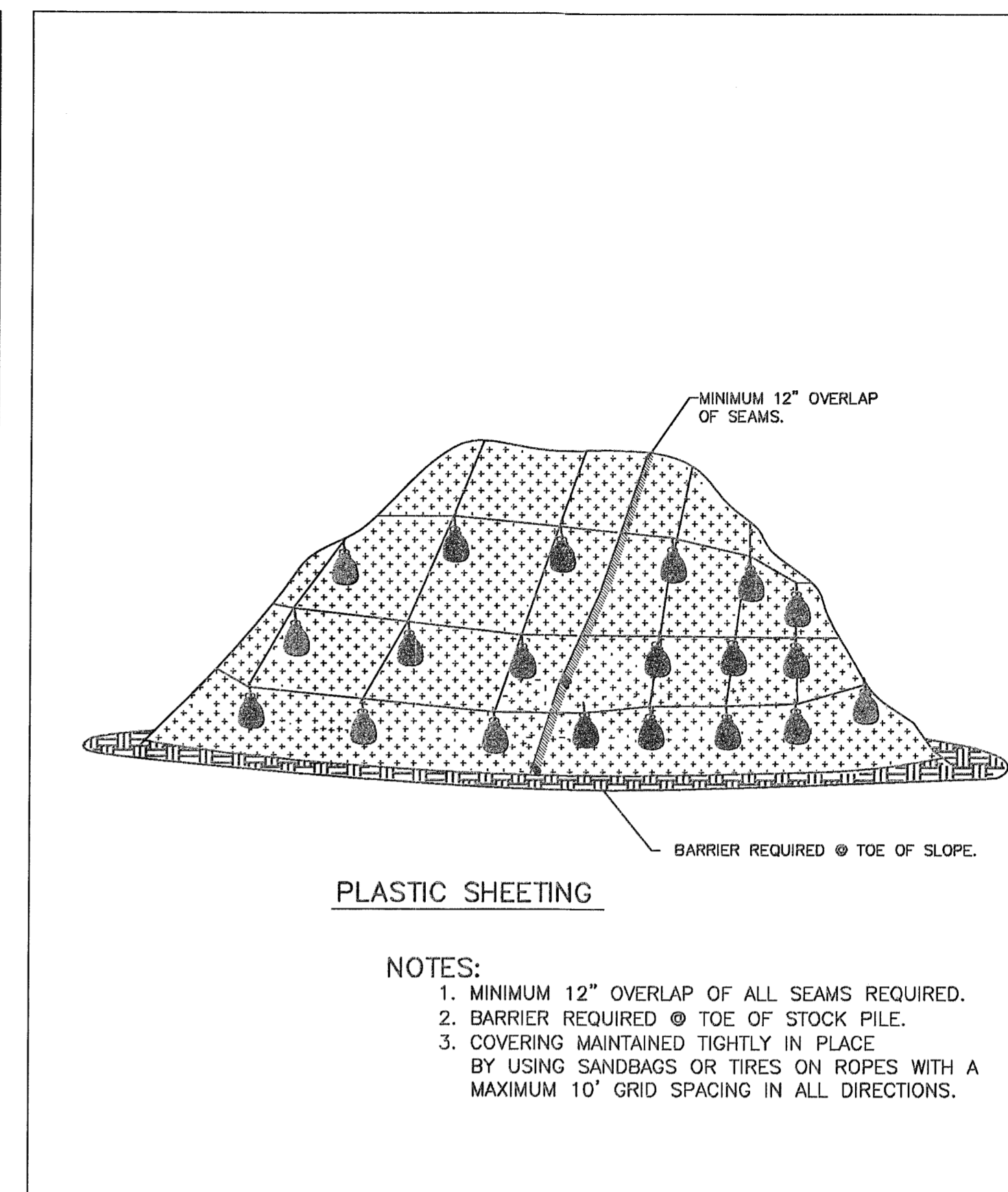
CONSTRUCTION ENTRANCE

2



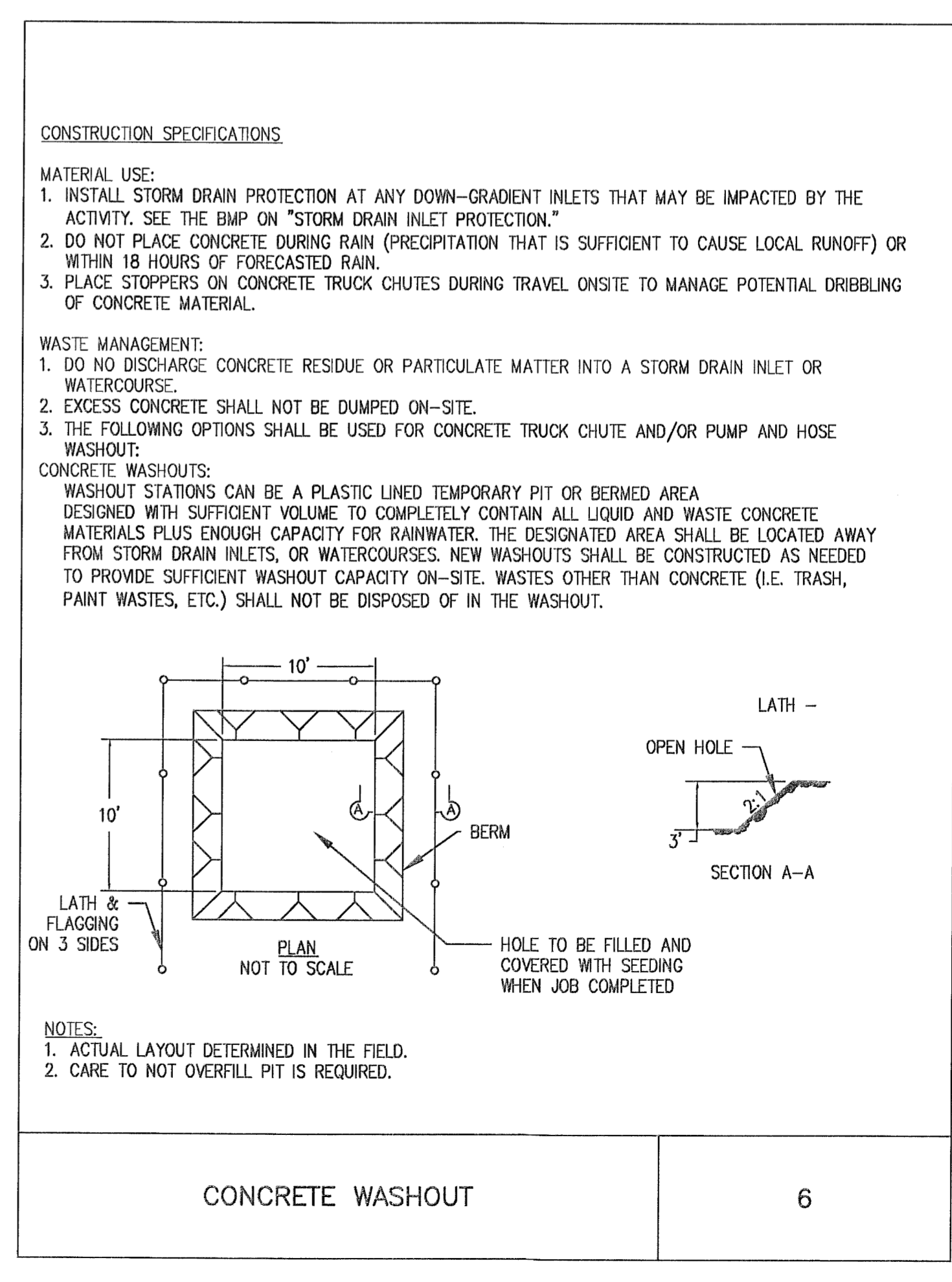
INLET PROTECTION TYPE 4

5



PLASTIC SHEETING

3



CONCRETE WASHOUT

6

PERMIT SET	BY	DATE
REVISION SUMMARY		
#		

EROSION CONTROL DETAILS I
SAVANNA HEIGHTS
SUBDIVISION
BLAND CIRCLE ESTATES, LLC
WEST LINN, OR

3J CONSULTING, INC
CIVIL ENGINEERING
WATER RESOURCES
LAND USE PLANNING
6075 SW GRIFFITH DRIVE, SUITE 100, BEAVERTON, OR 97008
PHONE & FAX: (503) 946-6586

3J JOB ID #	15248
LAND USE #	SUB-15-02
TAX LOT #	21E35B 00900
DESIGNED BY	JTE, JCP
CHECKED BY	AJM
SHEET TITLE	E.C. DETAILS I
SHEET NUMBER	C400

P:\15246-COPPEDEE PROPERTY\CAD\CD\15246-C400-EROSION CONTROL DETAILS.DWG

CONSTRUCTION SPECIFICATIONS

MATERIAL USE:

1. INSTALL STORM DRAIN PROTECTION AT ANY DOWN-GRADE INLETS THAT MAY BE IMPACTED BY THE ACTIVITY. SEE THE BMP ON "STORM DRAIN INLET PROTECTION."
2. DO NOT PLACE CONCRETE DURING RAIN (PRECIPITATION THAT IS SUFFICIENT TO CAUSE LOCAL RUNOFF) OR WITHIN 18 HOURS OF FORECASTED RAIN.
3. PLACE STOPPERS ON CONCRETE TRUCK CHUTES DURING TRAVEL ON-SITE TO MANAGE POTENTIAL DRIBBLING OF CONCRETE MATERIAL.

WASTE MANAGEMENT:

1. DO NOT DISCHARGE CONCRETE RESIDUE OR PARTICULATE MATTER INTO A STORM DRAIN INLET OR WATERCOURSE.
2. EXCESS CONCRETE SHALL NOT BE DUMPED ON-SITE.
3. THE FOLLOWING OPTIONS SHALL BE USED FOR CONCRETE TRUCK CHUTE AND/OR PUMP AND HOSE WASHOUT:

CONCRETE WASHOUTS:
 WASHOUT STATIONS CAN BE A PLASTIC LINED TEMPORARY PIT OR BERMED AREA DESIGNED WITH SUFFICIENT VOLUME TO COMPLETELY CONTAIN ALL LIQUID AND WASTE CONCRETE MATERIALS PLUS ENOUGH CAPACITY FOR RAINWATER. THE DESIGNATED AREA SHALL BE LOCATED AWAY FROM STORM DRAIN INLETS, OR WATERCOURSES. NEW WASHOUTS SHALL BE CONSTRUCTED AS NEEDED TO PROVIDE SUFFICIENT WASHOUT CAPACITY ON-SITE. WASTES OTHER THAN CONCRETE (I.E. TRASH, PAINT WASTES, ETC.) SHALL NOT BE DISPOSED OF IN THE WASHOUT.

NOTES:

1. ACTUAL LAYOUT DETERMINED IN THE FIELD.
2. CARE TO NOT OVERFILL PIT IS REQUIRED.

CONCRETE MANAGEMENT (CONCRETE WASHOUT)	NON-STORM WATER POLLUTION CONTROL BMP NS-14
---	--

CONCRETE WASHOUT
N.T.S.

1

NOTE:
Pt "A" must be a minimum of 6" higher than Pt "B"

BIOFILTER BAG CHECK DAM
N.T.S.

2

NOTE:

1. 6' CHAIN LINK ON 2" POST AT 10' SPACING, DRIVEN 2" INTO GROUND. RADIUS IS EITHER 1/2" PER CALIPER INCH OR
2. 10' OUTSIDE OF DRIP LINE - SEE PLANS

TREE PROTECTION FENCE

DATE: 2010
DRAWING NO: WL-219
FILE NO.

EROSION CONTROL DETAILS II
SAVANNA HEIGHTS
SUBDIVISION
 BLAND CIRCLE ESTATES, LLC
 WEST LINN, OR

PERMIT SET #	04/20/2016
REVISION SUMMARY	BY DATE

3J CONSULTING, INC

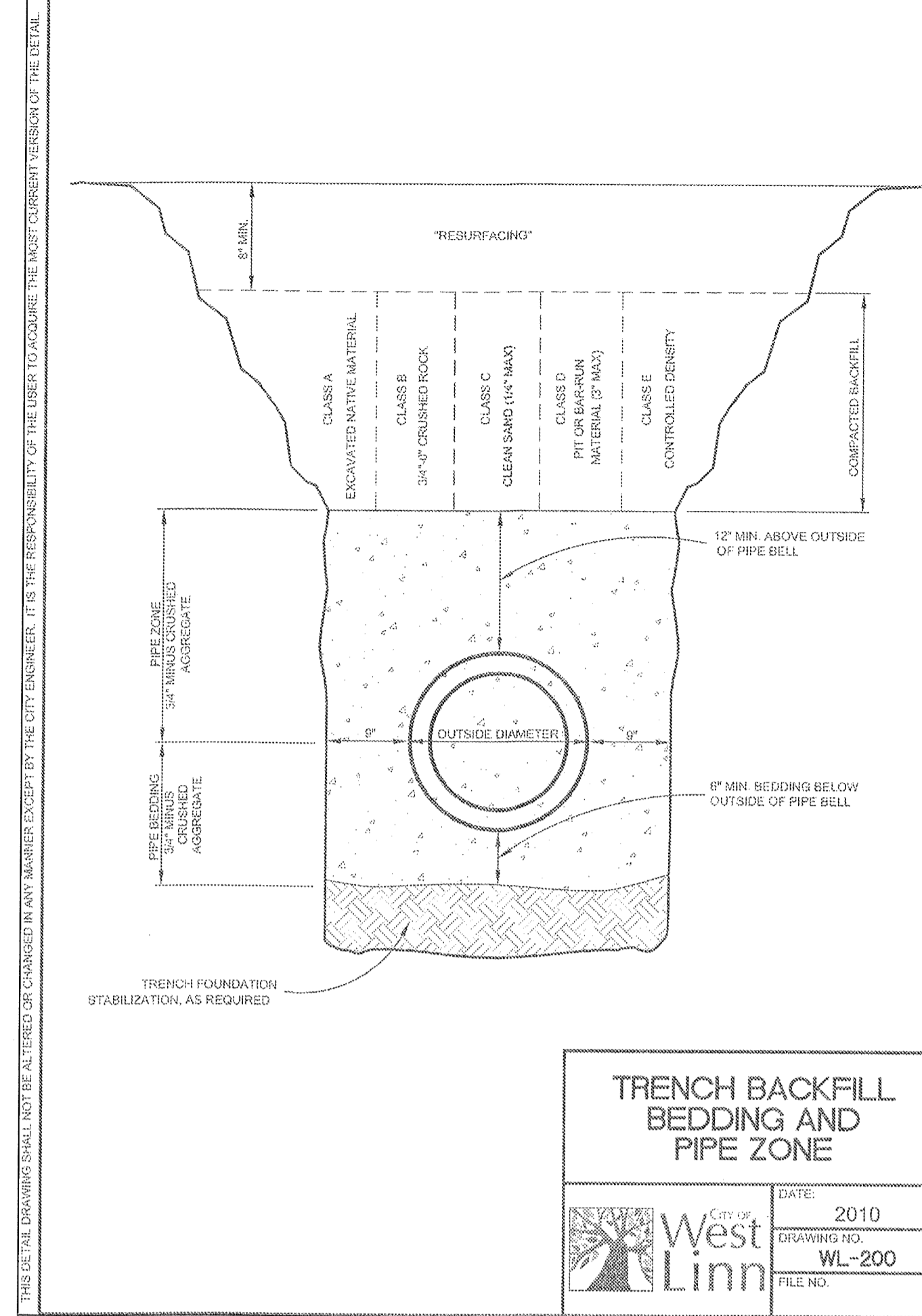
CIVIL ENGINEERING
 WATER RESOURCES
 LAND USE PLANNING

5075 SW GRIFFITH DRIVE, SUITE 150, BEAVERTON, OR 97005
 PHONE & FAX: (503) 946-5385

3J JOB ID #	15246
LAND USE #	SUB-15-02
TAX LOT #	21E35B 00500
DESIGNED BY	JTE, JCP
CHECKED BY	AIM

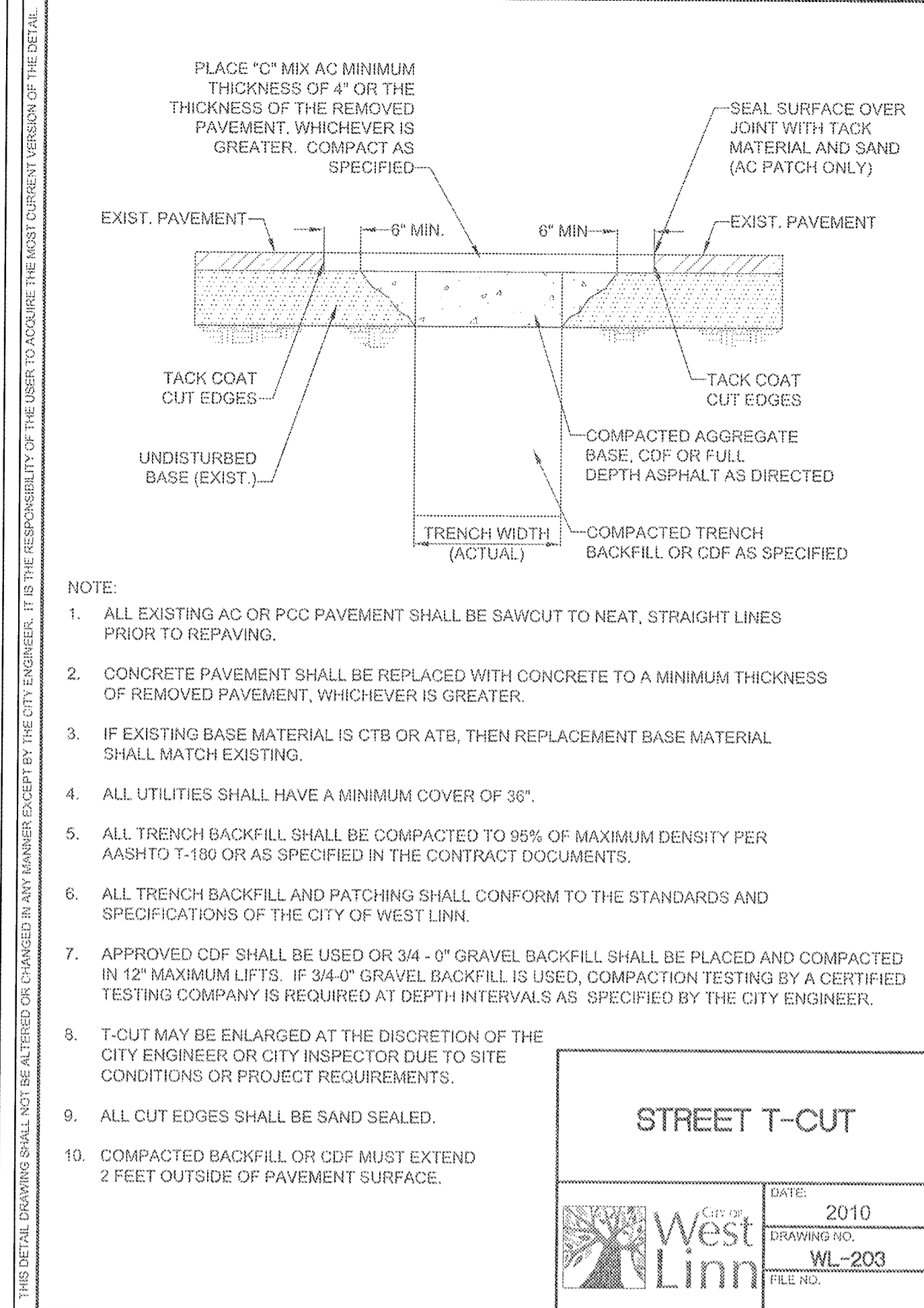
SHEET TITLE
E.C. DETAILS II

SHEET NUMBER
C401



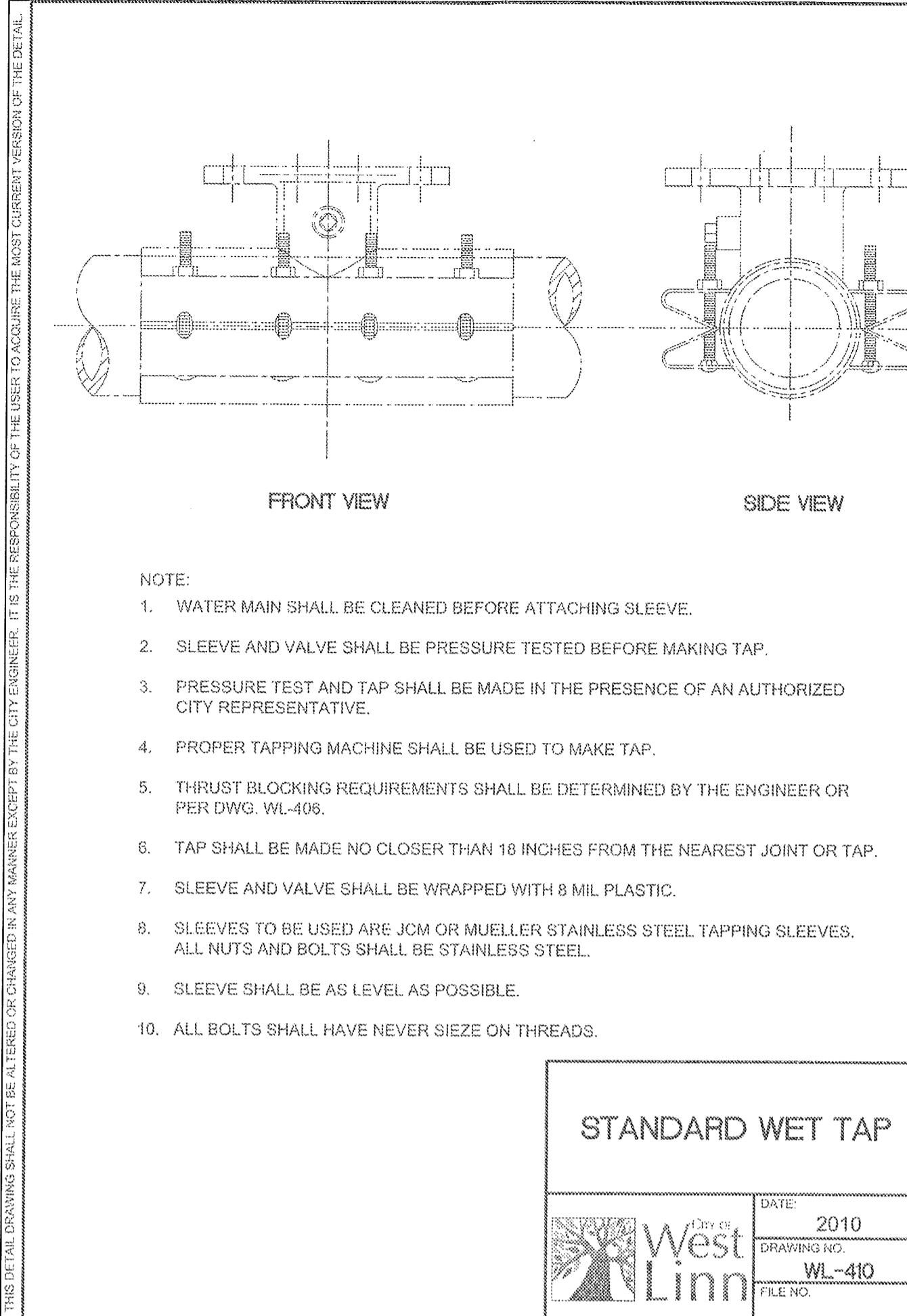
TRENCH BACKFILL BEDDING AND PIPE ZONE

City of West Linn
 DATE: 2010
 DRAWING NO: WL-200
 FILE NO.



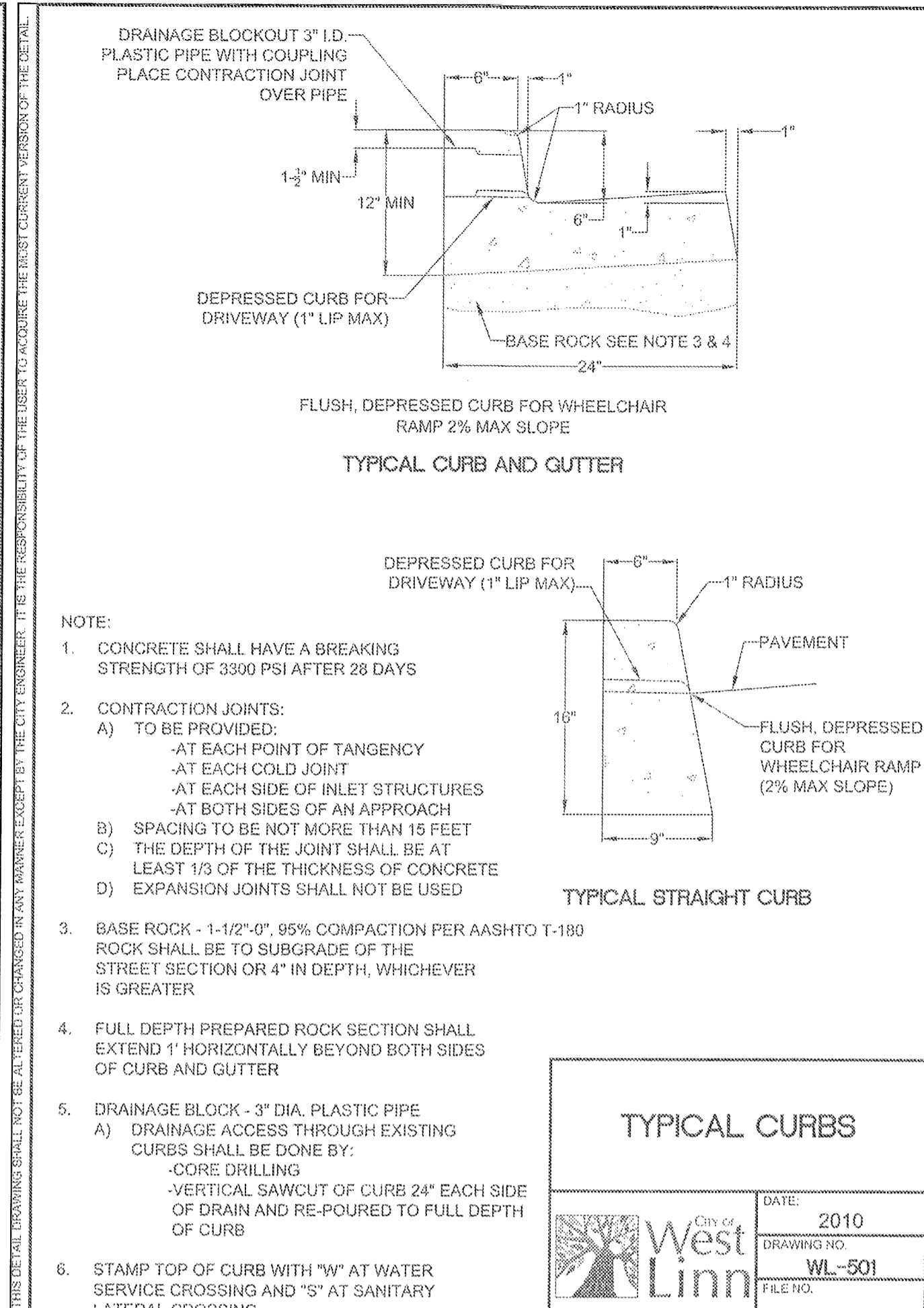
STREET T-CUT

City of West Linn
 DATE: 2010
 DRAWING NO: WL-203
 FILE NO.



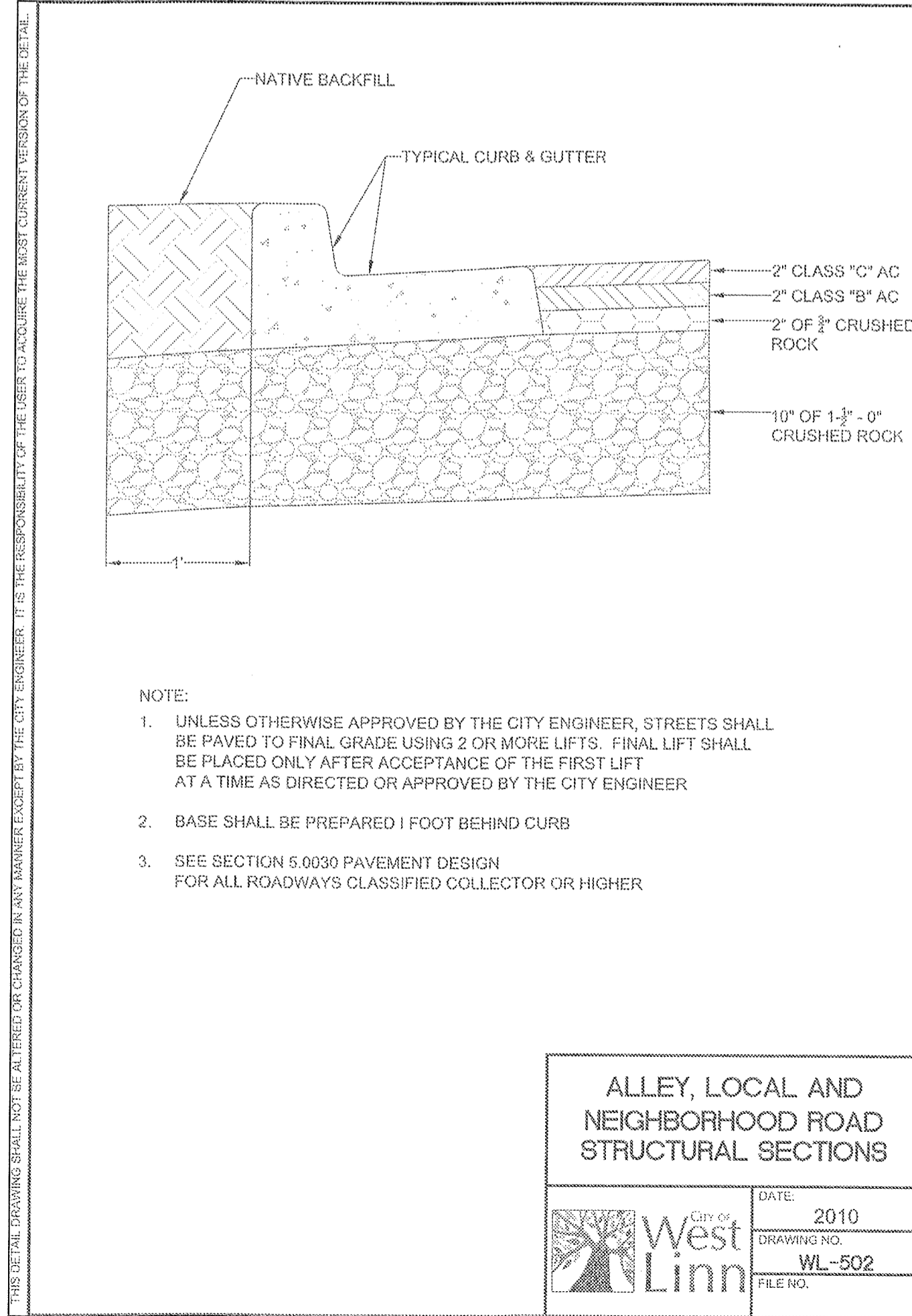
STANDARD WET TAP

City of West Linn
 DATE: 2010
 DRAWING NO: WL-410
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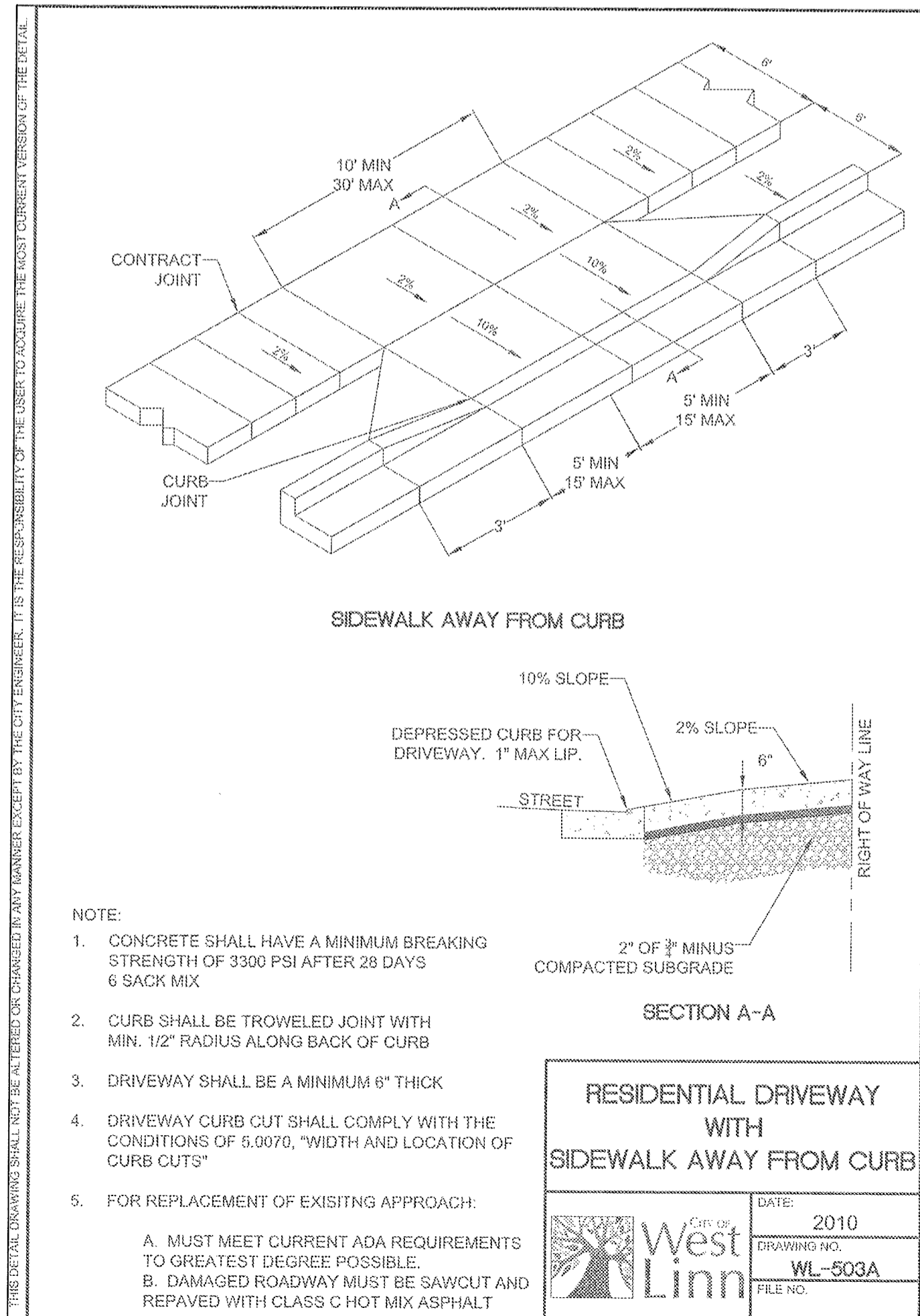
TYPICAL CURBS

City of West Linn
 DATE: 2010
 DRAWING NO: WL-501
 FILE NO.



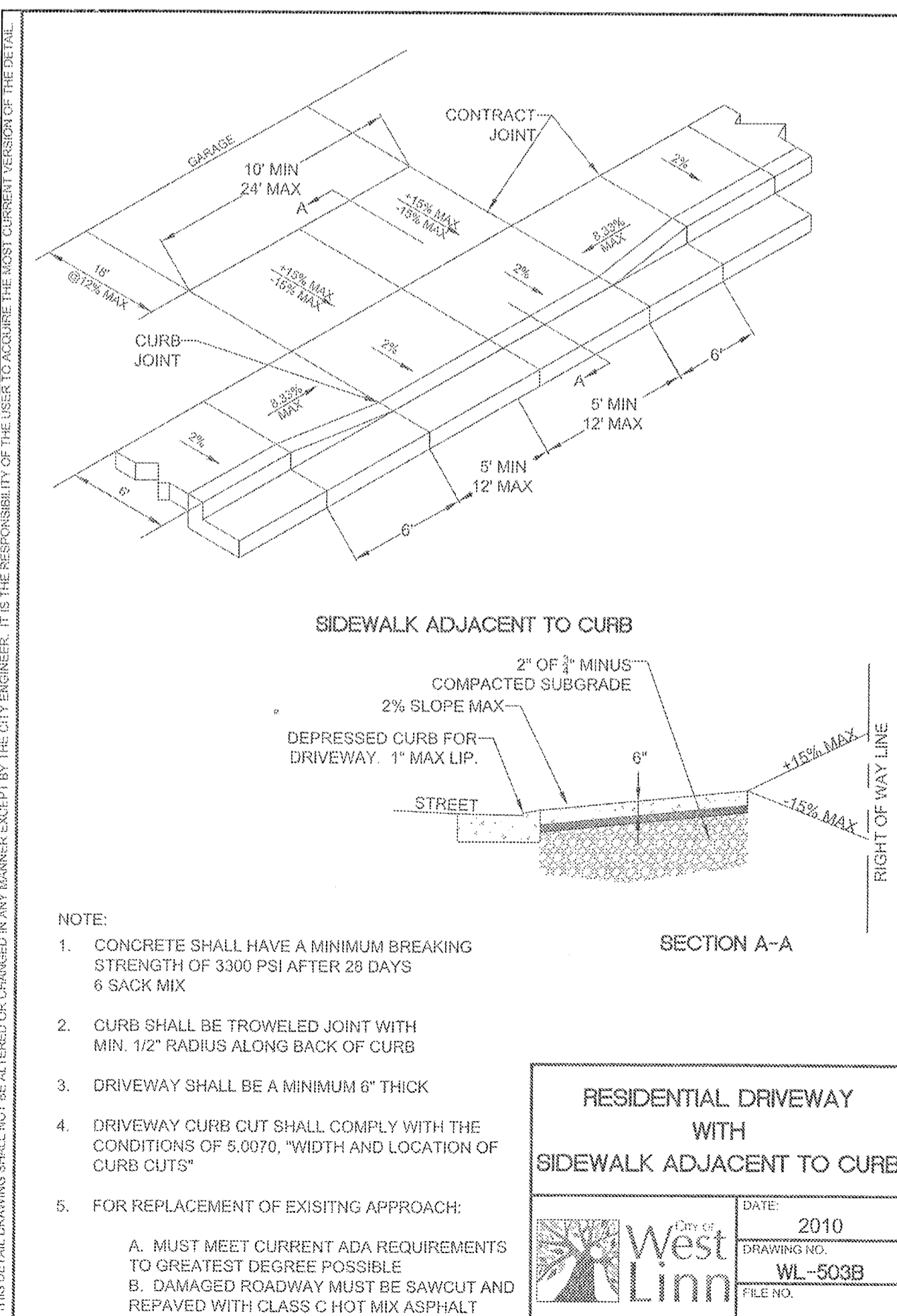
ALLEY, LOCAL AND NEIGHBORHOOD ROAD STRUCTURAL SECTIONS

City of West Linn
 DATE: 2010
 DRAWING NO: WL-502
 FILE NO.



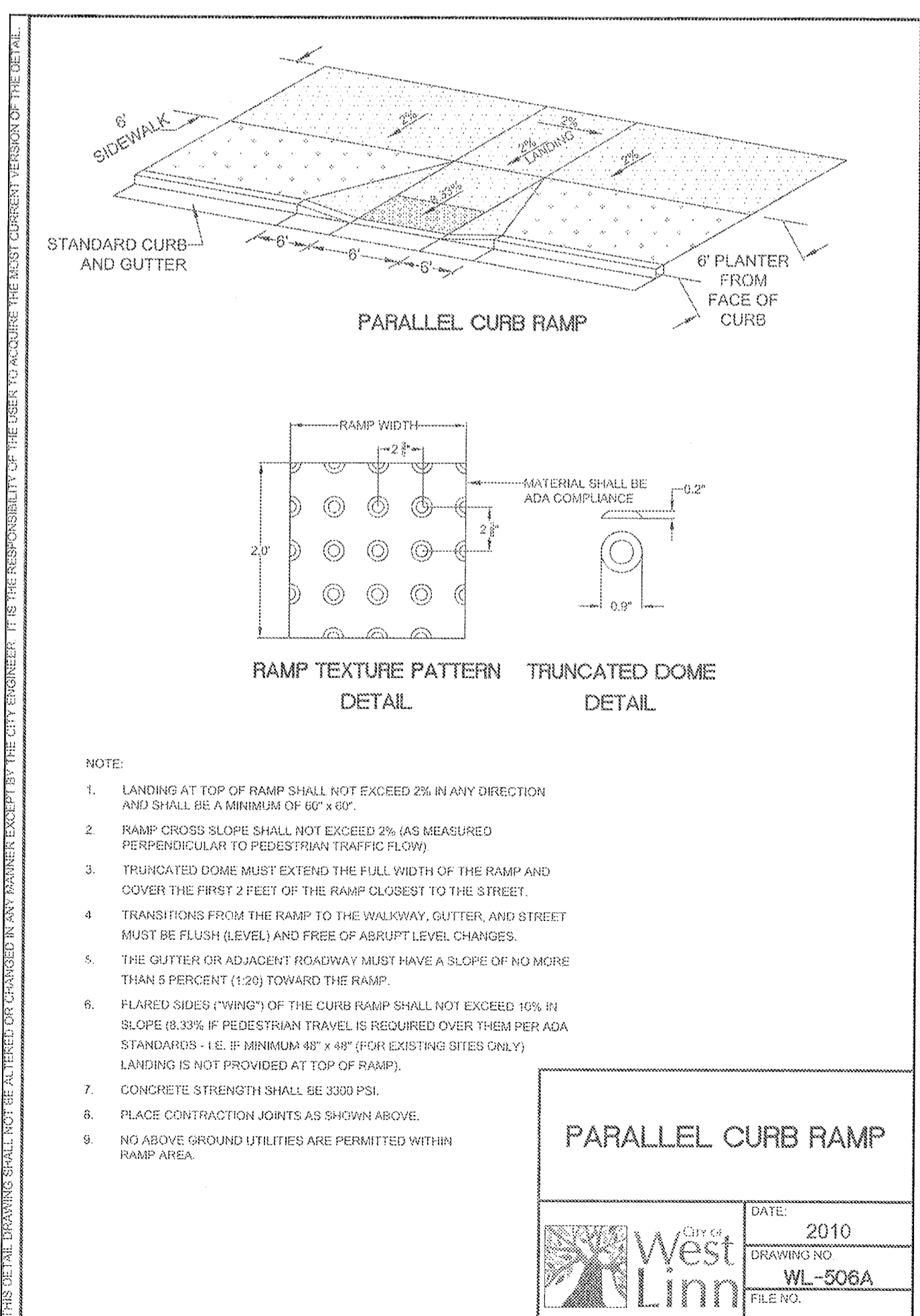
RESIDENTIAL DRIVEWAY WITH SIDEWALK AWAY FROM CURB

City of West Linn
 DATE: 2010
 DRAWING NO: WL-503A
 FILE NO.



RESIDENTIAL DRIVEWAY WITH SIDEWALK ADJACENT TO CURB

City of West Linn
 DATE: 2010
 DRAWING NO: WL-503B
 FILE NO.



PARALLEL CURB RAMP

City of West Linn
 DATE: 2010
 DRAWING NO: WL-506A
 FILE NO.

P15246-CORPEDGE PROPERTY CAD/CIVIL/246-C410-SITE CONSTRUCTION DETAILS DWG

PERMIT SET

REVISION SUMMARY	DATE

SITE CONSTRUCTION DETAILS I
SAVANNA HEIGHTS
 SUBDIVISION
 BLAND CIRCLE ESTATES, LLC
 WEST LINN, OR

3J CONSULTING, INC

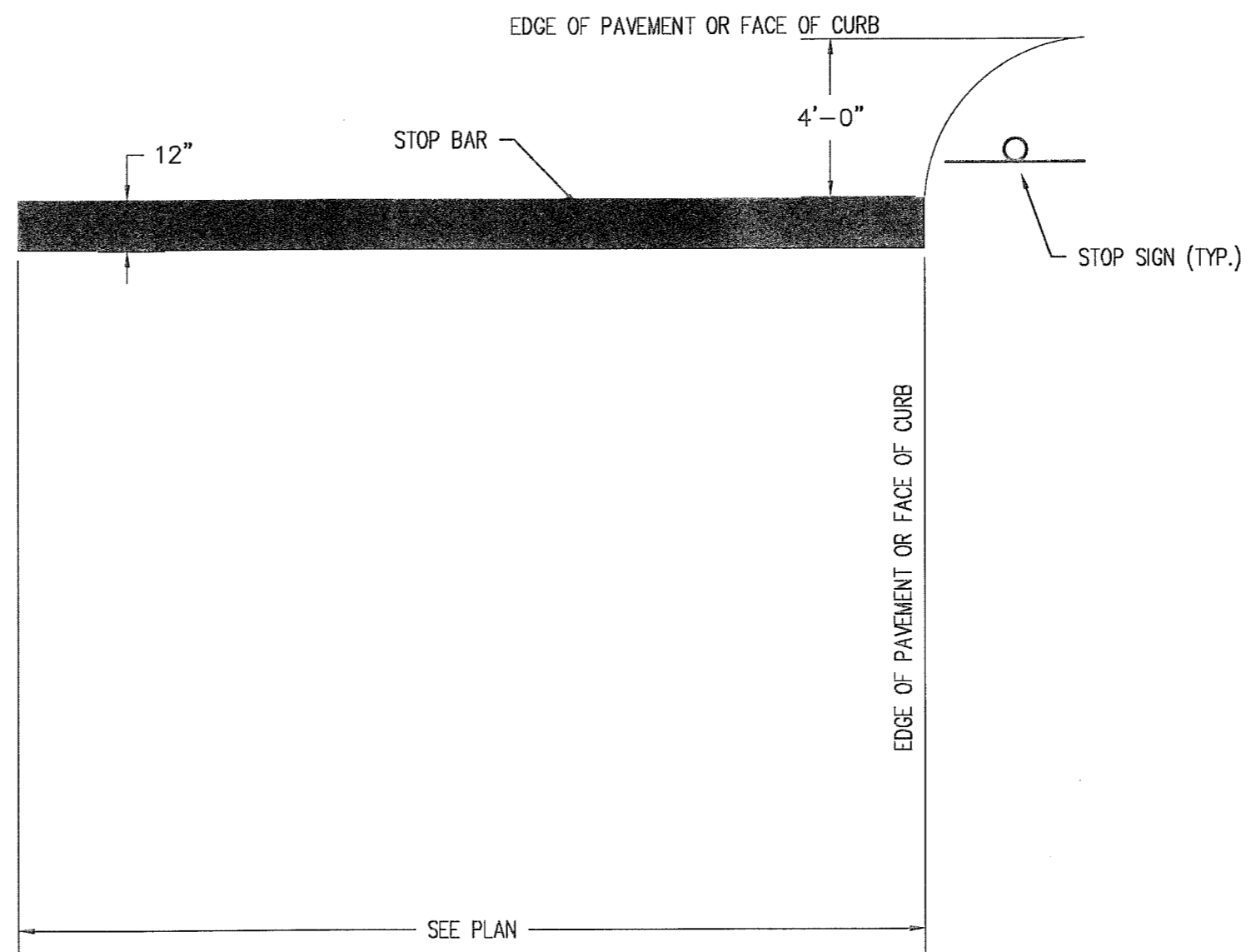
CIVIL ENGINEERING
 WATER RESOURCES
 LAND USE PLANNING

6075 SW GRIFFITH DRIVE, SUITE 150, BEAVERTON, OR 97005
 PHONE & FAX: (503) 946-5985

3J JOB ID # | 15246
 LAND USE # | SUB-15-02
 TAX LOT # | 21E358 00500
 DESIGNED BY | JTE, JCP
 CHECKED BY | AJM

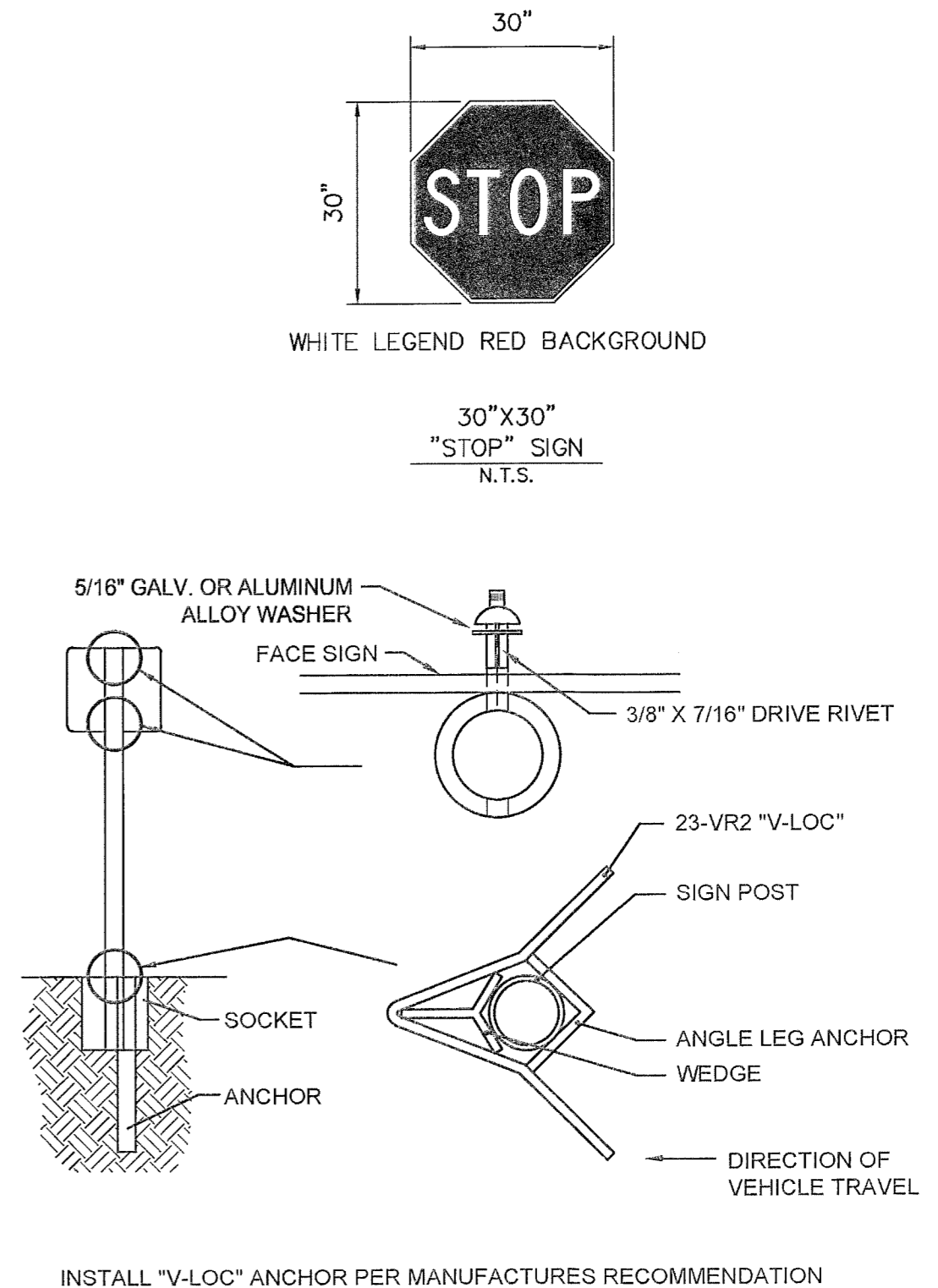
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SHEET NUMBER
C410

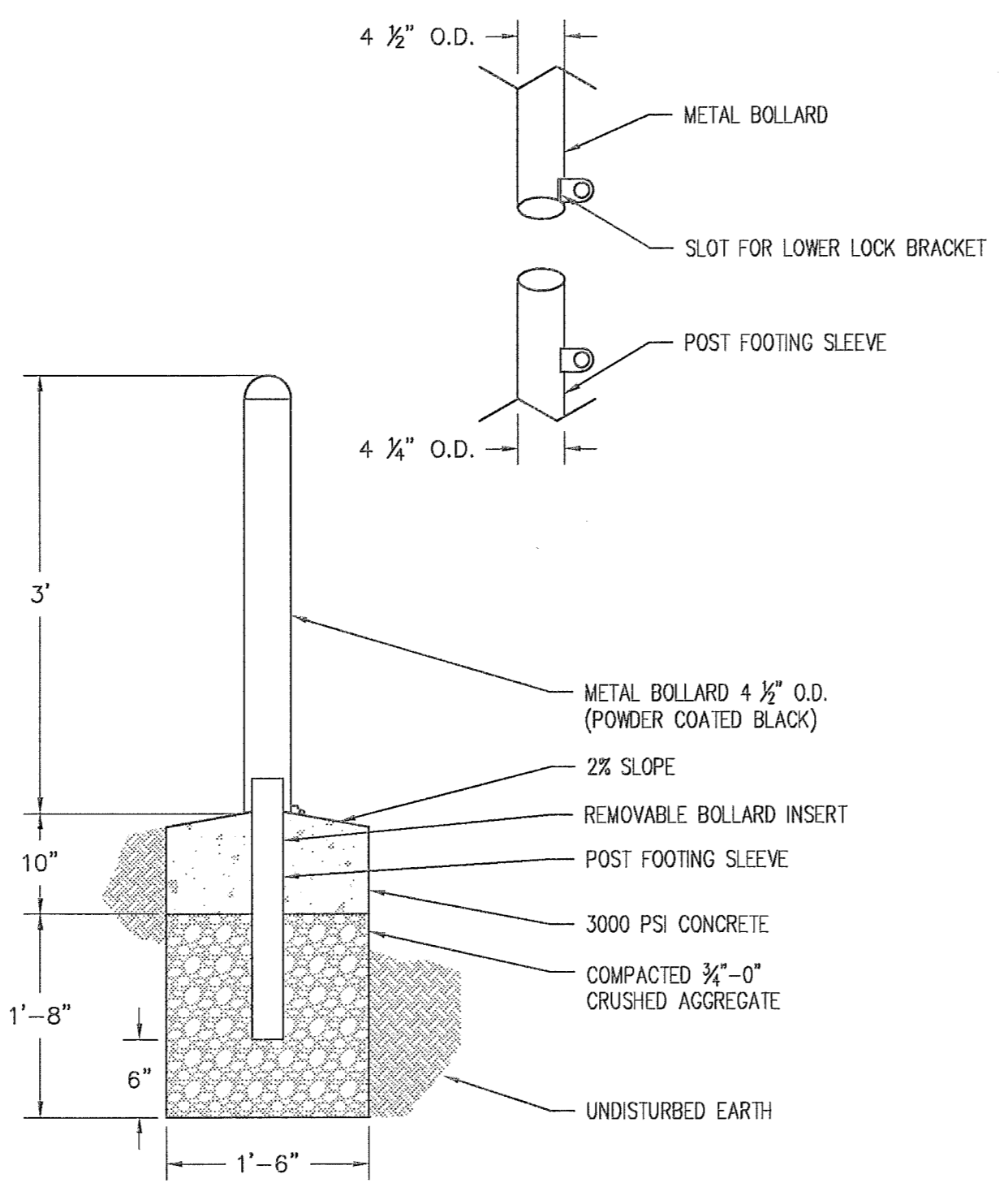


NOTE:
 1. WORDS AND ARROWS FOR DRIVEWAYS SHALL BE APPLIED ACCORDING TO REQUIREMENTS AS OUTLINED IN SECTION 3B OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS
 2. THIS BAR IS TO BE PAINTED REFLECTIVE WHITE.

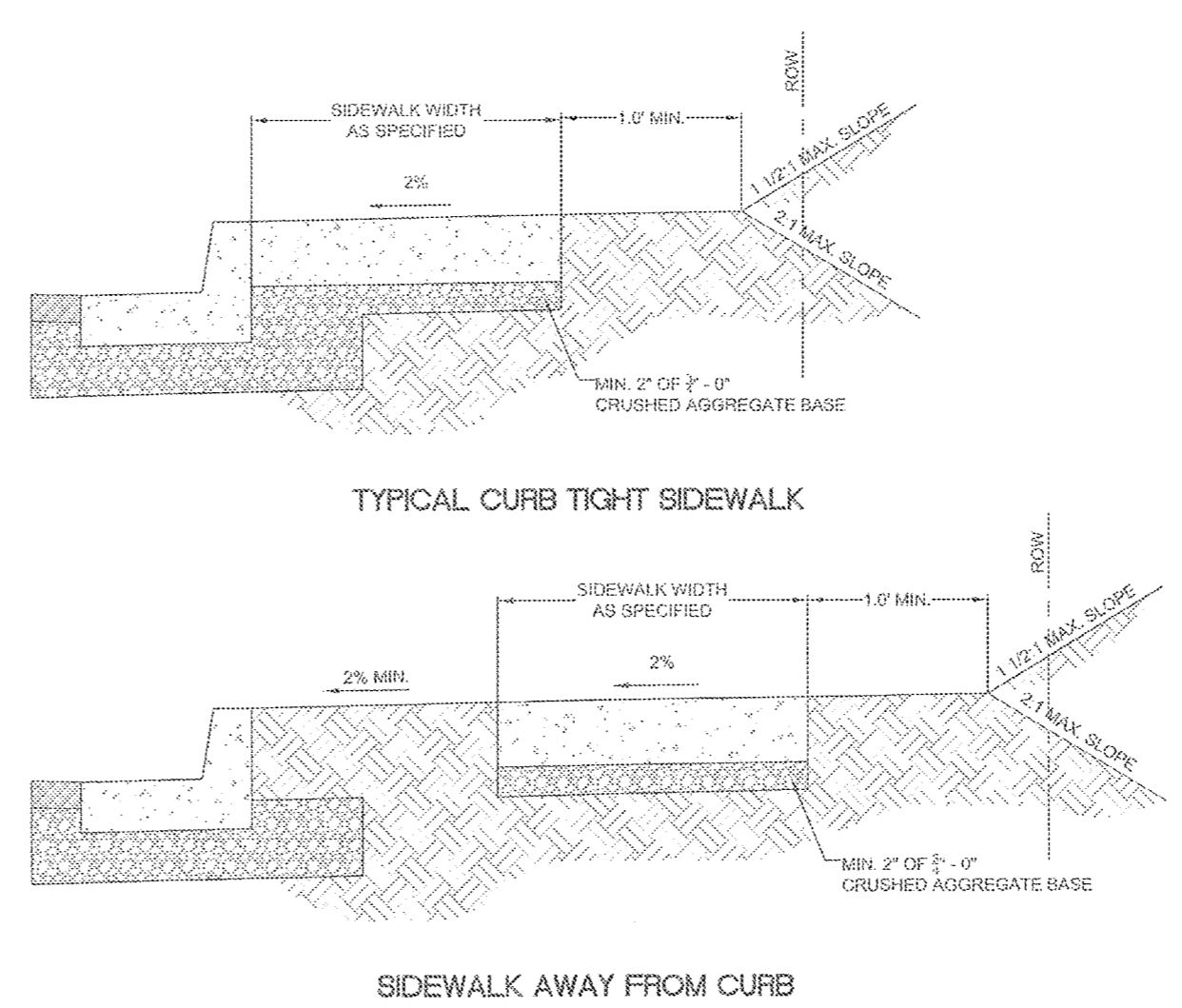
STOP BAR MARKING
 N.T.S.



STOP SIGN AND TYPICAL INSTALLATION DETAIL
 N.T.S.

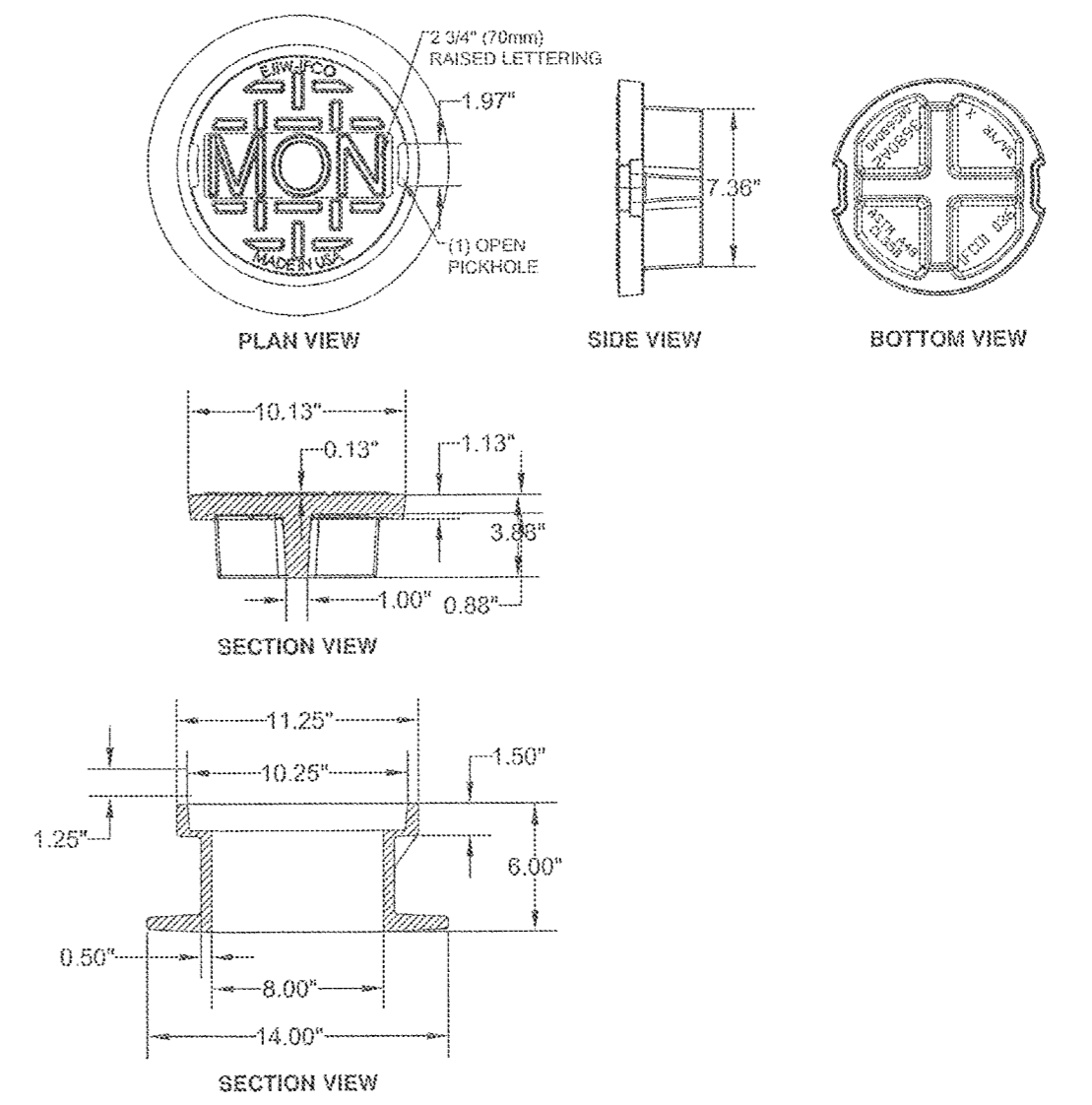


REMOVABLE BOLLARD
 N.T.S.



NOTE:
 1. CONCRETE SHALL BE 3000 PSI AT 28 DAYS.
 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 15 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 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" DIAMETER PLASTIC PIPE AT A 2% SLOPE. A CONTRACTION JOINT SHALL BE PLACED OVER THE PIPE.

CONCRETE SIDEWALK CROSS SECTION



STANDARD 8' MONUMENT WELL
 USED BY CLACKAMAS COUNTY SURVEY DEPARTMENT
 WHERE SPEEDS ARE ABOVE 35 MPH

EAST JORDAN IRON WORKS, INC.
 P.O. BOX 459
 EAST JORDAN, MI. 48727
 1-800-874-4100
 FAX: 231-536-4458

Anders Jorganson
 Oregon Sales Representative
 East Jordan Iron Works
 (503) 774-1444
 Fax (503) 775-5263
 Cell (503) 367-7925
 ajorganson@ejir.com

8' MONUMENT BOX FRAME AND COVER

DATE: 2010
 DRAWING NO: WL-508
 FILE NO:

DATE: 2010
 DRAWING NO: WL-513A
 FILE NO:

PERMIT SET	REVISION SUMMARY	BY	DATE
			04/20/2016

SITE CONSTRUCTION DETAILS II
 SAVANNA HEIGHTS
 SUBDIVISION
 BLAND CIRCLE ESTATES, LLC
 WEST LINN, OR

3J CONSULTING, INC.
 CIVIL ENGINEERING
 WATER RESOURCES
 LAND USE PLANNING
 8074 SW GRIFFITH DRIVE, SUITE 150, BEAVERTON, OR 97005
 PHONE & FAX: (503) 646-9885

3J JOB ID # | 15246
 LAND USE # | SUB-15-02
 TAX LOT # | 21E358 00500
 DESIGNED BY | JTE, JCP
 CHECKED BY | AJM

SHEET TITLE
 SITE CONST. DET. II
 SHEET NUMBER
 C411

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

STANDARD MANHOLE FOR LESS THAN 36" PIPE

NOTE: MANHOLE LID TO BE 1' ABOVE FINISH GRADE IN UNPAVED EASEMENTS.

GRADE RINGS - VARIABLE, MAX. 3 LAYERS, 12" MAX

SLOPE OF PRECAST ECCENTRIC CONE SHALL FACE DOWN GRADE

PRECAST SECTIONS AND POURED CONCRETE BASES SHALL CONFORM TO CITY STANDARD SPECIFICATIONS.

ALL JOINTS SHALL BE SEALED WITH PREFORMED PLASTIC OR RUBBER RING TO FORM A WATER TIGHT SEAL.

LOCATE STEPS ON UPSTREAM SIDE OF MANHOLE.

NOTE: POLYETHYLENE STEPS/IRON REINFORCEMENT 8" x 12" WIDE, 2" DROP, EMBEDDED 3", ON 12" CENTERS (TYPICAL)

MANHOLES SHALL HAVE A 12" MIN. 24" MAX. BOTTOM RISER, TO BE BEDDED IN THE CONCRETE AS THE BASE TAKES ITS INITIAL SET.

SLOPE SHELVES 1:12

FORM CHANNEL TO FULL DEPTH OF PIPE

NOTE: CHANNELS MUST BE ABLE TO PASS A 7"x30" CYLINDER INTO PIPES. SHELF SHALL NOT BE BELOW THE TOP OF THE PIPE.

DATE: 2010
DRAWING NO. WL-207
FILE NO.

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

SHALLOW MANHOLE FOR LESS THAN 36" PIPE

NOTE: MANHOLE LID TO BE 1' ABOVE FINISH GRADE IN UNPAVED EASEMENTS.

GRADE RINGS - VARIABLE, MAX. 3 LAYERS, 12" MAX

PRECAST SECTIONS AND POURED CONCRETE BASES SHALL CONFORM TO CITY STANDARD SPECIFICATIONS.

ALL JOINTS SHALL BE SEALED WITH PREFORMED PLASTIC OR RUBBER RING TO FORM A WATER TIGHT SEAL.

LOCATE STEPS ON UPSTREAM SIDE OF MANHOLE.

NOTE: POLYETHYLENE STEPS/IRON REINFORCEMENT 8" x 12" WIDE, 2" DROP, EMBEDDED 3", ON 12" CENTERS (TYPICAL)

MANHOLES SHALL HAVE A 12" MIN. 24" MAX. BOTTOM RISER, TO BE BEDDED IN THE CONCRETE AS THE BASE TAKES ITS INITIAL SET.

SLOPE SHELVES 1:12

FORM CHANNEL TO FULL DEPTH OF PIPE

NOTE: CHANNELS MUST BE ABLE TO PASS A 7"x30" CYLINDER INTO PIPES. SHELF SHALL NOT BE BELOW THE TOP OF THE PIPE.

DATE: 2010
DRAWING NO. WL-208
FILE NO.

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

NEW MANHOLE TO EXISTING PVC SEWER LINE CONNECTION

NOTE: REMOVE UPPER HALF OF SEWER PIPE INSIDE OF MANHOLE AFTER TESTING AND CITY ACCEPTANCE

6" MIN CONCRETE

4" MIN

3" MIN

CONCRETE TO EXTEND 12" OUTSIDE OF MANHOLE WALL

FORM CHANNEL TO FULL DEPTH OF PIPE

POURED IN PLACE BASE. CONCRETE TO EXTEND 6" ABOVE AND BELOW BOTTOM OF BASE SECTION

FIRM UNDISTURBED SUBGRADE

DOG HOUSE

WL-211 FOR CONSTRUCTION OF POURED IN PLACE MANHOLE BASE

SLOPE SHELVES 1:12 TYP.

PLAN VIEW

NOTE: 1. BOTTOM RISER TO BE BEDDED IN THE CAST-IN-PLACE AS THE BASE TAKES ITS INITIAL SET. SET FOR 24 HOUR MIN. OR UNTIL CONCRETE HAS CURED SUFFICIENTLY BEFORE ADDING ADDITIONAL RISERS.

2. 3" TO 6" CLEARANCE BETWEEN BOTTOM RISER SECTION AND TOP OF PIPE. RISER SECTION MUST BE CAST TO ACCOMMODATE PIPE (DOG HOUSE) NO SAWING OR OR BREAKING OF RISER WILL BE ALLOWED.

3. REMOVE TOP OF PIPE ONLY AFTER TESTING AND ACCEPTED BY CITY.

DATE: 2010
DRAWING NO. WL-210A
FILE NO.

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

MANHOLE BASE

NOTE: PIPE CONNECTIONS MUST HAVE FLEXIBLE CONNECTIONS

REINFORCING SHALL BE #5 BARS @ 12" O.C. E.W. REINFORCING TO EXTEND 1'-0" BEYOND VERTICAL MANHOLE WALLS

NOTE: CONCRETE TO EXTEND 12" OUTSIDE OF MANHOLE WALL AND 6" ABOVE THE BOTTOM OF THE BASE SECTION

6" COMPACTED CRUSHED ROCK BASE

POURED IN PLACE MANHOLE BASE

REINFORCING SHALL BE #5 BARS @ 12" O.C. E.W.

6" COMPACTED CRUSHED ROCK

PRECAST MANHOLE BASE

NOTE: USE 3300 PSI CONCRETE FOR EITHER MANHOLE BASE. CONCRETE SHALL CONFORM TO SECTION 205. PRECAST MANHOLES SHALL CONFORM TO ASTM C478.

DATE: 2010
DRAWING NO. WL-211
FILE NO.

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

FLEXIBLE MANHOLE CONNECTION (KOR-N-SEAL OR APPROVED EQUAL)

KORBAND

PIPE

FILL VOID WITH GROUT & FINISH FLUSH WITH MH WALL

EXTERNAL BAND

BOOT

MANHOLE BASE

DATE: 2010
DRAWING NO. WL-212
FILE NO.

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

WATERPROOF AND TAMPERPROOF MANHOLE FRAME AND COVER

LOCATING STUD ONE REQUIRED PER COVER

SECTION B-B

1/2" - 13NCx1" STAINLESS STEEL HEXAGON HEAD CAP SCREW

0.5" NC

7/16"

3/8"

320°

SECTION A-A

1/16" GASKET

NOTE: 1. COVER AND FRAME TO BE MACHINED TO A TRUE BEARING ALL AROUND

2. MATERIAL SHALL BE OF GRAY CAST IRON A.S.T.M. A-48 CLASS 30

3. 2 HOLE LID FOR SANITARY SEWER

4. 16 HOLE LID FOR STORM SEWER

DATE: 2010
DRAWING NO. WL-214
FILE NO.

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

SEWER CONNECTION SINGLE FAMILY EXISTING LOT

PROPERTY LINE

LOT 137

LOT 138

LOT 139

TYPICAL LOT NUMBER

HOUSE LATERAL PER PLUMBING CODE

EXISTING 4" MIN. DIA. SEWER LATERAL OR INSTALL A 4" "INSERTA TEE" IN THE EXISTING PUBLIC SEWER AND A 4" DIA. PUBLIC SEWER LATERAL TO THE PROPERTY LINE

PROPERTY LINE

STREET

STORM DRAIN OR SANITARY SEWER LINE

PROPERTY LINE

TYPICAL CONNECTION FOR SINGLE FAMILY RESIDENCE.

DATE: 2010
DRAWING NO. WL-216
FILE NO.

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

SERVICE BRANCH

2" x 4" STAKE FROM INVERT TO 4" ABOVE FINISH GRADE. STAKE SHALL BE CONTINUOUS AND REMAIN VERTICAL AFTER BACKFILLING. END SHALL BE PAINTED GREEN FOR SANITARY AND WHITE FOR STORM. TYPICAL FOR ALL SERVICES

STAMPS ON TOP OF CURB FOR SANITARY AND STORM

BACK OF UTILITY EASEMENT LINE

6" MIN. DEPTH FOR DESIGN CRITERIA

PLUG

SEWER PIPE

SEWER PIPE

MINIMUM SLOPE 1/4" PER FOOT

MINIMUM SLOPE 1/4" PER FOOT

45.00°

45.00°

NOTE: 1. SCHEME AND DEPTH FOR HOUSE SERVICE TO BE DETERMINED BY DESIGN ENGINEER.

2. SERVICE SHALL NOT BE BACKFILLED PRIOR TO INSPECTION.

3. TRACER WIRE REQUIRED.

DATE: 2010
DRAWING NO. WL-218
FILE NO.

UTILITY CONSTRUCTION DETAILS I

SAVANNA HEIGHTS SUBDIVISION

BLAND CIRCLE ESTATES, LLC

WEST LINN, OR

PERMIT SET

REVISION SUMMARY

DATE: 04/20/2016

BY: [Signature]

3J CONSULTING, INC

CIVIL ENGINEERING

WATER RESOURCES

LAND USE PLANNING

8076 SW GRIFFITH DRIVE, SUITE 150, BEAVERTON, OR 97005

PHONE & FAX: (503) 946-9585

3J JOB ID # | 15246

LAND USE # | SUB-15-02

TAX LOT # | 21E358 00500

DESIGNED BY | JTE, JCP

CHECKED BY | AIM

SHEET TITLE

UTIL. DETAILS I

SHEET NUMBER

C450

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

SECTION A-A **SECTION B-B**

NOTE:
 1. CAST IN PLACE CONCRETE TO BE 3000 PSI AND WEEP HOLE WITH GALVANIZED MESH. SCREEN ON MIN. 3 SIDES OF INLET.
 2. 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: 2010	FILE NO.
DRAWING NO. WL-601	

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

PLAN **SECTION A-A**

TYPE	W	LW
STANDARD	1'-9"	1'-8 1/4"

TYPE	DIA. PIPE	W	LW
STANDARD	10"-12"	1'-10 3/4"	1'-9 3/8"

NOTE:
 USE VERTICAL BEADS IN CORNERS, FILLET WELD JOINT ON BOTTOM OF FRAME. GRATE MUST REST FLAT ON FRAME SURFACE.

FRAME AND GRATE FOR GUTTER AND CURB INLET	
DATE: 2010	FILE NO.
DRAWING NO. WL-602B	

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

ENDWALL (TYPICAL)

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)

NOTE:
 1. DIMENSIONS FOR RIP RAP APPLY TO FLOWS:
 < 2 CFS RIP RAP FOR FLOWS
 > 2 CFS MUST BE DESIGNED BY AN ENGINEER
 FLOWS > 20 PPS 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 CITY)
 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 PROJECT 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	
DATE: 2010	FILE NO.
DRAWING NO. WL-614	

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

SURFACE WATER FACILITY SIGN

SPECIFICATIONS:
 SIZE: 48" x 24"
 MATERIAL: ALUMINUM (.080" THICKNESS)
 PAINT: FACE - 3 COATS OUTDOOR ENAMEL (SPRAYED)
 BACK - 1 COAT OUTDOOR ENAMEL (SPRAYED)
 LETTERING: SILK SCREEN ENAMEL WHERE POSSIBLE, OR HAND PAINTED ENAMELS
 COLOR: BLACK AND WHITE. WHITE BACKGROUND, LETTERING AND BORDER IN BLACK
 TYPE FACE: HELVETICA. SEE DIMENSIONS SHOWN ABOVE. OUTER BORDER 1/2" WIDTH BLACK
 INSTALLATION: INSTALL ON TWO 8 FT. LONG 4" x 4" POSTS, PRESSURE TREATED, INSTALLED IN 3 FT. DEEP CONCRETE FILLED POST HOLES (6" MIN. DIA.)

SURFACE WATER FACILITY SIGN	
DATE: 2010	FILE NO.
DRAWING NO. WL-615	

UTILITY CONSTRUCTION DETAILS II
SAVANNA HEIGHTS
 SUBDIVISION
 BLAND CIRCLE ESTATES, LLC
 WEST LINN, OR

PERMIT SET 04/20/2016

REVISION SUMMARY BY DATE

3J CONSULTING, INC. CIVIL ENGINEERING
 WATER RESOURCES
 LAND USE PLANNING
 5075 SW GRIFFITH DRIVE, SUITE 150, BEAVERTON, OR 97005
 PHONE & FAX: (503) 946-9385

3J JOB ID # | 15246
 LAND USE # | SUB-15-02
 TAX LOT # | 21E35B 00500
 DESIGNED BY | JTE, JCP
 CHECKED BY | AJM

SHEET TITLE
UTIL. DETAILS II

SHEET NUMBER
C451

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

MATERIAL

- BROOKS METER BOX, BODY NO. 37, LID AND COVER NO. 37-S.
- MUELLER CORP. STOP NO. H-15008 OR FORD F-1000-4Q CORP. STOP WITH OPERATING NUT AT 3 OR 9 O'CLOCK.
- 1/4 SOFT TEMPER. TYPE "K" COPPER TUBING COMPLYING WITH ASTM B-88.
- MUELLER ANGLE METER STOP NO. H-14258 (FORD NO. KV43-444W-Q).

NOTE:

- MACHINE DRILLED AND TAPPED ONLY. NO HAND DRILLING IS ALLOWED.
- SUBSTITUTES FOR ANY MATERIALS SHOWN SHALL BE APPROVED BY THE CITY ENGINEER.
- ALL PIPE AND STRUCTURE ZONE SHALL BE BACKFILLED USING 3/4" MINUS CRUSHED AGG. AND COMPACTED TO 95% MAX. DENSITY AS DETERMINED BY AASHTO T-99.
- WHEN AN ACTIVE CATHODIC PROTECTED SYSTEM IS ENCOUNTERED, SCH. 40 PVC SHALL BE INSTALLED AS SHOWN ABOVE WITH CLAY PLUG.
- METER BOX SHALL BE CENTERED OVER THE COMPLETED METER ASSEMBLY.
- TAPS INTO MAIN TO HAVE 18" SEPARATION ON CENTER MINIMUM.
- ANGLE METER STOPS TO BE 18" FROM PROPERTY LINE AND NOT IN DRIVEWAY APPROACH.
- METER BOXES IN CURB TIGHT SIDEWALK AND THOSE SUBJECT TO INCIDENTAL AUTO TRAFFIC MUST HAVE METAL LIDS AND BE TRAFFIC RATED.

STANDARD 1" WATER SERVICE

DATE:	2010
DRAWING NO.	WL-402
FILE NO.	

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

NOTE:

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

STANDARD VALVE BOX DETAIL

DATE:	2010
DRAWING NO.	WL-411
FILE NO.	

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

NOTE:

- CLEANOUT/SHEAR GATE AND LIFT HANDLE SHALL BE ALUMINUM ALLOY PER ASTM B26-B26-02A.
- LIFT HANDLE EITHER SOLID OR TUBING WITH ADJUSTABLE HOOK AS REQUIRED.
- INSURE 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" DIAMETER STAINLESS STEEL.
- ALTERNATE CLEANOUT/SHEAR GATES TO THE DESIGN SHOWN ARE ACCEPTABLE PROVIDED THEY MEET THE MATERIAL SPECIFICATIONS ABOVE AND HAVE A SIX (6) INCH, 10 (10) BOLT CIRCLE FOR BOLTING THE FLANGE CONNECTION.
- GATE SHALL NOT OPEN BEYOND THE CLEAR OPENING BY LIMITED HINGE MOVEMENT, STOP TAB, OR SOME OTHER DEVICE.

CLEANOUT/SHEAR GATE

DATE:	2010
DRAWING NO.	WL-607B
FILE NO.	

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

NOTE:

- CONNECTING PIPE AND TEE SHALL BE 4", 6", OR 8" AWWA C-900 OR ASTM 3034 PVC AND ONE SIZE LARGER THAN THE ORIFICE OPENING.
- MAXIMUM ORIFICE OPENING SHALL BE 6" DIAMETER.
- STRUCTURES SHALL CONFORM TO STANDARD DRAWING NO. 390 DITCH INLET.
- FRAME AND GRATE SHALL CONFORM TO STANDARD DRAWING NO. 400, DITCH INLET FRAME AND GRATE.
- PLATE AND GUIDE SHALL BE SECURED FLUSH AGAINST WALL OF STRUCTURE AS APPROVED.
- MAINTAINANCE ACCESS REQUIRED TO WITHIN 10' OF CENTER OF BOTH STRUCTURES.

STANDARD DETENTION POND OUTLET

DATE:	2010
DRAWING NO.	WL-610
FILE NO.	

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

NOTE:

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

DATE:	2010
DRAWING NO.	WL-613
FILE NO.	

UTILITY CONSTRUCTION DETAILS III

SAVANNA HEIGHTS SUBDIVISION

BLAND CIRCLE ESTATES, LLC
WEST LINN, OR

PERMIT SET 04/20/2016

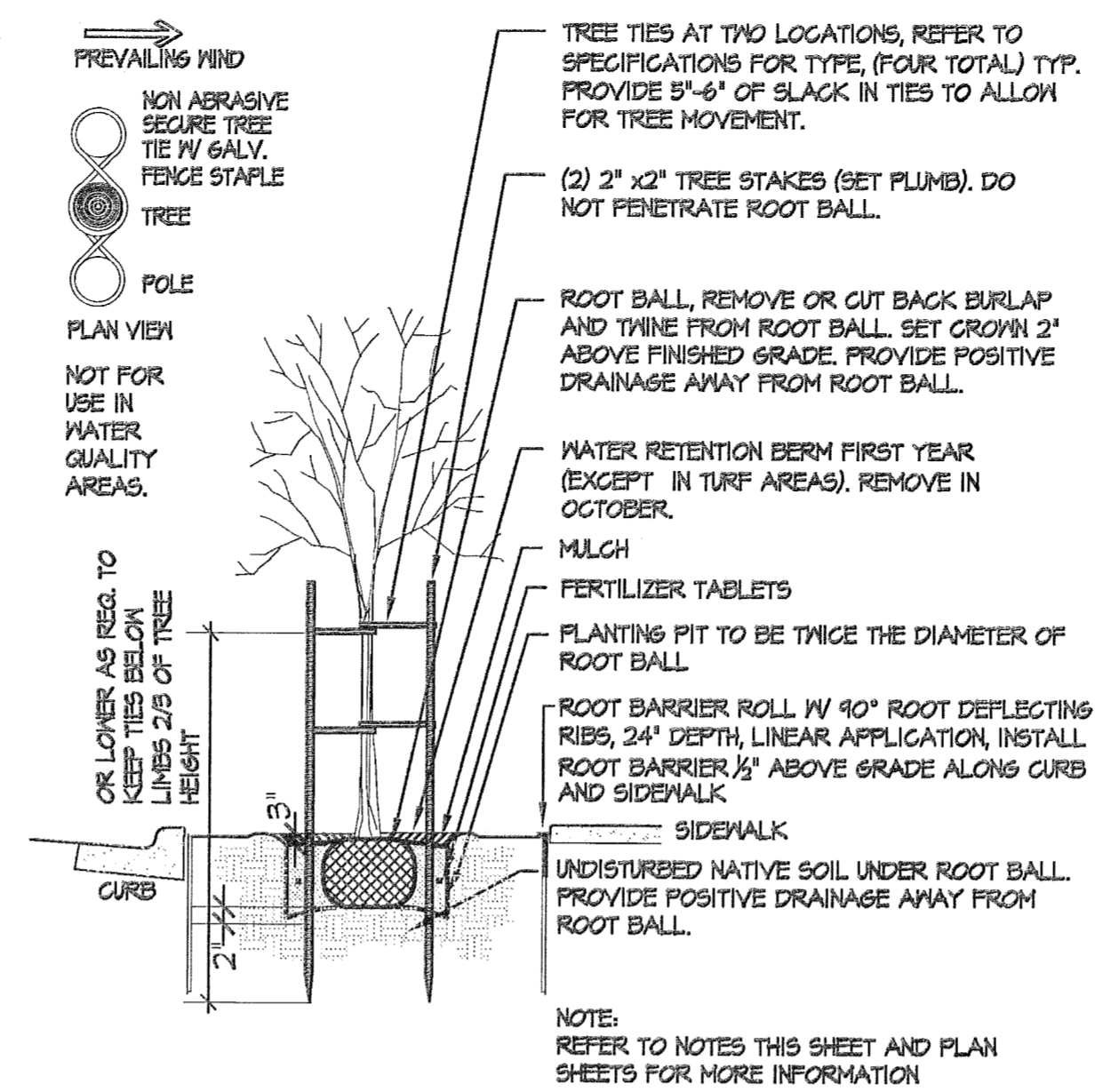
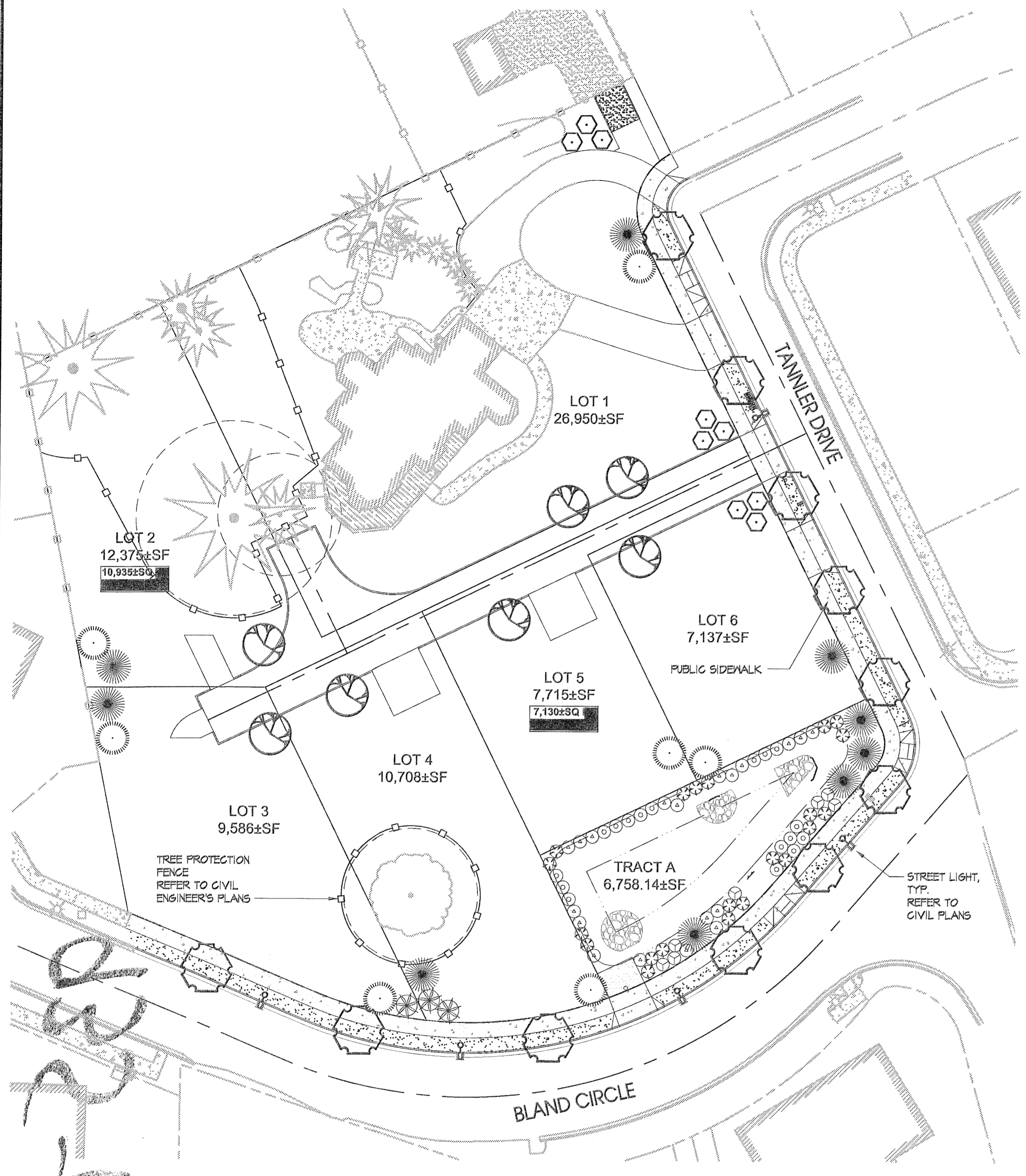
REVISION SUMMARY BY DATE

3J CONSULTING, INC. CIVIL ENGINEERING WATER RESOURCES LAND USE PLANNING
5076 SW GRIFFITH DRIVE, SUITE 150, BEAVERTON, OR 97005
PHONE & FAX: (503) 946-9385

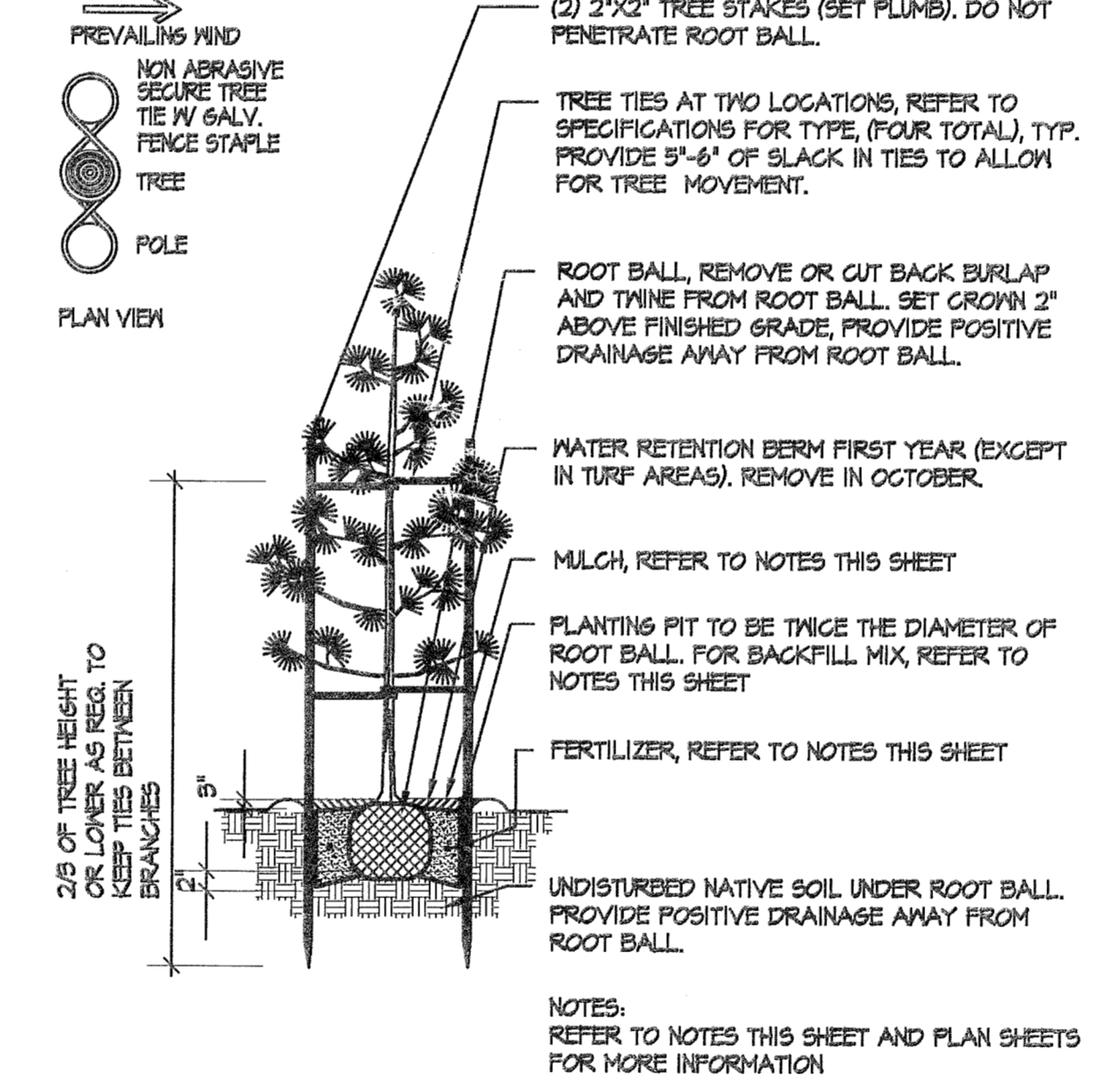
3J JOB ID # | 15246
LAND USE # | SUB-15-02
TAX LOT # | 21E35B 00500
DESIGNED BY | JTE, JCP
CHECKED BY | AJM

SHEET TITLE
UTIL. DETAILS III

SHEET NUMBER
C452



A B & B Tree Planting Detail
Not To Scale SECTION / PLAN VIEW

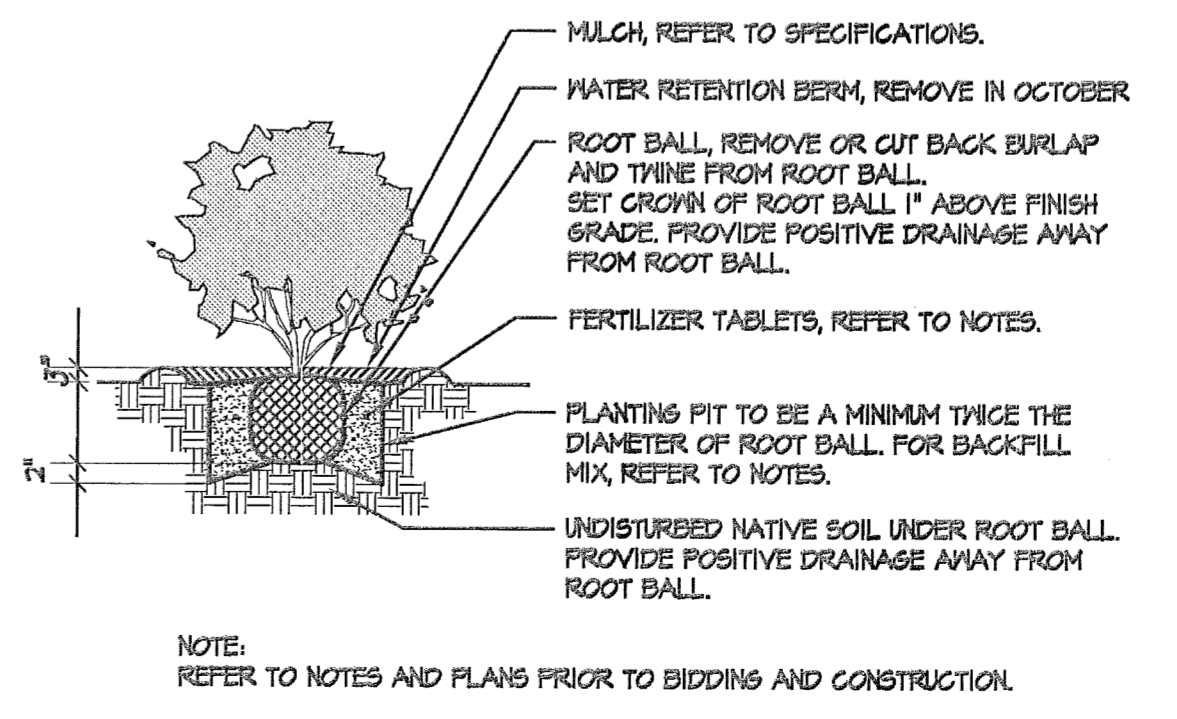


B B & B Tree Planting Detail: Evergreen under 8' Height
Not To Scale SECTION / PLAN VIEW

PLANT LEGEND			
SYMBOL	BOTANICAL / COMMON NAME	SIZE	QTY.
TREES			
	ACER GRiseum / PAPERBARK MAPLE	2' cal.	7 (14' MITIGATION)
	CHAMAECYPARIS NOOTKATENSIS 'GREEN ARROW' / GREEN ARROW ALASKAN CEDAR	6' HT. MIN.	9 (18' MITIGATION)
	CUPRESSUS LEYLANDII 'GOLD RIDER' / GOLD RIDER LEYLAND CYPRESS	6' HT. MIN.	9 (18' MITIGATION)
	GINKGO BILOBA 'PRINCETON SENTRY' / PRINCETON SENTRY GINKGO	2' cal.	11
	PICEA PUNGENS 'GLAUCA FASTIGIATA' / COLUMNAR BLUE SPRUCE	6' HT. MIN.	3 (6' MITIGATION)
	PINUS FLEXILLIS 'VANDERWOLF' / VANDERWOLF PINE	6' HT. MIN.	7 (14' MITIGATION)
	CHAMAECYPARIS OBUSA 'GRACILIS' / SLENDER HINOKI FALSE CYPRESS	6' HT. MIN.	21
	MITIGATION TREES/INCHES REQUIRED (STREET TREES NOT INCLUDED)		10'
	MITIGATION TREES/INCHES PROVIDED (STREET TREES NOT INCLUDED)		10'
SHRUBS			
	ARBUTUS UNEDO 'COMPACTA' / COMPACT STRAWBERRY BUSH	5 GAL.	7
	ILEX X MESERVEAE 'BLUE BOY' / BLUE BOY HOLLY	5 GAL.	19
	ILEX X MESERVEAE 'BLUE GIRL' / BLUE GIRL HOLLY	5 GAL.	17
GROUNDCOVER			
	LAWN	-	2,410 SF.
	SYMBOL NOT SHOWN	BARK MULCH (ALL PLANTER BEDS EXCEPT LAWN)	

PLANTING NOTES

- ALL BOUNDARIES, EASEMENTS, UTILITIES AND LEGAL ENCUMBRANCES TO BE CONFIRMED WITH OWNER PRIOR TO BEGINNING WORK. PROPERTY LINES AND SURVEY INFORMATION PROVIDED BY 3J CONSULTING, INC.
- IN NO WAY IS THIS PLAN TO BE INTERPRETED TO EXCEED THE LEGAL BOUNDARIES OF THE OWNER'S REAL PROPERTY.
- THE LANDSCAPE ARCHITECT ASSUMES NO RESPONSIBILITY FOR THE LOCATION OF BOUNDARIES, UTILITIES AND WETLANDS.
- THIS PLAN SHALL BE INSTALLED TO MEET ALL APPLICABLE CITY, COUNTY, STATE AND FEDERAL CODES.
- THIS PLAN SHALL BE CONSIDERED PRELIMINARY UNTIL APPROVED BY ALL GOVERNING AGENCIES. IMPLEMENTATION OF THIS PLAN SHALL NOT PROCEED UNTIL ISSUANCE OF ALL RELATED PERMITS.
- PLANT QUANTITIES ARE FOR INFORMATION ONLY. IN CASE OF ANY DISCREPANCY, THE PLAN SHALL GOVERN.
- ALL WORK IS TO BE PERFORMED BY LICENSED CONTRACTORS AND EXPERIENCED WORKERS.
- THE CONTRACTOR IS TO VERIFY THE LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES PRIOR TO PERFORMING ANY EXCAVATION. CONTRACTOR SHALL REPAIR ANY DAMAGE TO UTILITIES CAUSED BY THE CONTRACTOR'S WORK, AT NO ADDITIONAL COST TO THE OWNER. CONTACT ALL UTILITY PROVIDERS SERVING THE SITE AREA 48 HOURS PRIOR TO ANY EXCAVATION.
- ALL PLANT MATERIALS SHALL MATCH SPECIFICATIONS PER SPECIES AND SHALL COMPLY WITH ANSI Z601 STANDARD FOR NURSERY STOCK.
- THE CONTRACTOR SHALL ADHERE TO THE OREGON ASSOCIATION OF NURSERYMEN'S GUIDELINES FOR PLANTING PRACTICES.
- THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING ELEMENTS ON AND OFF SITE, RESULTING FROM THE CONTRACTOR'S WORK.
- THE CONTRACTOR IS RESPONSIBLE FOR THE VIABILITY OF ALL PLANT MATERIAL FOR 2 YEARS AFTER COMPLETION OF PLANTING. DISEASED, DYING, OR DEAD PLANT MATERIAL SHALL BE REPLACED BY THE CONTRACTOR DURING THE TWO YEAR PERIOD AND MAINTAINED FOR AN ADDITIONAL PERIOD UNDER CONTRACT.
- IMMEDIATELY UPON BID AWARD, CONTRACTOR SHALL SECURE THE PLANT MATERIALS AS SPECIFIED FROM AVAILABLE SOURCES. IN THE EVENT THAT PLANT MATERIALS ARE NOT AVAILABLE, CONTACT LANDSCAPE ARCHITECT FOR APPROVED SUBSTITUTIONS. NO SUBSTITUTION FOR PLANT MATERIAL WILL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT.
- TORRESSES ALL SHRUB AREAS (NOT LAWN) WITH 3" OF FIR BARK MULCH. SUBMIT SAMPLE TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO CONSTRUCTION.
- TREE LOCATIONS MAY BE ADJUSTED IN THE FIELD TO SUIT SITE REQUIREMENTS AS DIRECTED BY THE LANDSCAPE ARCHITECT.
- THE CONTRACTOR SHALL ENSURE THAT ALL EXCAVATED PLANTING PITS HAVE POSITIVE DRAINAGE. PLANT PITS FULLY FLOODED WITH WATER SHALL DRAIN WITHIN (2) HOURS OF FILLING.
- FINISH GRADE SHALL BE SET TO ALLOW POSITIVE DRAINAGE.
- ROTTOTILL 2" OF COMPOST INTO ALL PLANTED AREAS.
- INCORPORATE PEAT INTO THE ROOT ZONE OF RHODODENDRONS, AZALEAS AND OTHER ACID LOVING PLANTS.
- INCORPORATE 10-20-20 FERTILIZER INTO THE ROOT ZONE OF ALL NEW PLANTINGS.
- RONSTAR, OR APPROVED EQUAL, PREEMERGENT HERBICIDE TO BE APPLIED TO ALL PLANTED AREAS PER MANUFACTURERS INSTRUCTIONS.
- EXISTING VEGETATION TO BE SPRAYED WITH ROUNDUP, OR APPROVED EQUAL, PER MANUFACTURERS INSTRUCTIONS. SUFFICIENT TIME SHALL BE GIVEN TO ALLOW EXISTING MATERIAL TO DIE. REMOVE EXISTING VEGETATION MAT AND ROTTOTILL OR SCARIFY EXISTING SOIL.
- ROLL LAWN AREA TO INSURE PROPER COMPACTION TO MINIMIZE SETTLING.
- AMEND SOIL IN LAWN AREAS WITH 80 LBS. OF DOLOMITE LIME AND 40 LBS. OF 10-20-20 SLOW RELEASE FERTILIZER OR EQUIVALENT. PROVIDE A 3" LAYER OF SANDY LOAM TOPSOIL FOR LAWN AND BED AREA.
- SEED LAWN AREAS WITH GRASS SEED PER MANUFACTURER'S RECOMMENDATIONS. COVER SEED WITH FINE MULCH APPLIED WITH ROLLER OR HYDROSEED.
- THE PROPERTY OWNER IS RESPONSIBLE FOR MAINTAINING TURF PLANTED WITHIN THE RIGHT OF WAY.
- PLANT MATERIAL SHALL BE PLANTED W/ ROOT CROWN 1" ABOVE FINISHED GRADE TO ALLOW POSITIVE DRAINAGE AWAY FROM CROWN.
- STAKE ALL TREES OVER 6 FT. IN HEIGHT PER DETAILS ON THIS SHEET.
- REFER TO DETAILS FOR ADDITIONAL INFORMATION.
- ALL PLANTING SHALL BE IRRIGATED BY AN AUTOMATIC UNDERGROUND SPRINKLER SYSTEM.
- ALL PLANT MATERIALS FURNISHED ARE TO BE HEALTHY, UNIFORMLY BRANCHED AND WITH WELL DEVELOPED FIBROUS ROOT SYSTEMS.
- ALL PLANT MATERIALS FURNISHED ARE TO BE FREE FROM DEAD OR BROKEN BRANCHES, LICHENS, SCARS, BROKEN BARK OR WOUNDS. ALL PLANT MATERIALS WILL BE INSECT, NEMATODE, AND DISEASE FREE ACCORDING TO THE REQUIREMENTS OF THE WASHINGTON STATE DEPARTMENT OF AGRICULTURE FOR NURSERY PLANT MATERIALS SOLD FOR WHOLESALE OR RETAIL. ALL PRUNING WOUNDS MUST BE WELL HEALED WITH NO EVIDENCE OF DECAY.



C B & B Shrub Planting Detail
Not To Scale SECTION

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REGISTERED
354
Christopher A. Baumann
OREGON
07/26/96
LANDSCAPE ARCHITECT

GRO™
OUTDOOR LIVING

PROJECT NAME:
Savanna Heights
Subdivision
Bland Circle & Tanner Drive
West Linn, Oregon

LANDSCAPE PLAN

DRAWN: CB/ HA
CHECKED: CB

SCALE: 1"=30'-0"
DATE: 04/21/16

JOB #:
Savanna Heights

REVISIONS:

SHEET NAME:
Landscape Plan

LI

SHEET 1 OF 1