## **GENERAL NOTES**

- ALL WORK AND MATERIALS SHALL CONFORM TO THESE PLANS AND PROVISIONS OF THE CITY OF WEST LINN MINIMUM DESIGN STANDARDS FOR EXTENSIONS AND IMPROVEMENTS TO THE PUBLIC WATER AND SANITARY SEWER SYSTEM. IMPROVEMENTS DEPICTED ON THESE PLANS FORM THE INTENT OF COMPLYING WITH PUBLIC STREET AND PUBLIC STORM IMPROVEMENTS AS REQUIRED BY CITY OF WEST LINN. SEE SHEET SD4.0 FOR ADDITIONAL APPLICABLE CONSTRUCTION NOTES.
- THE CONTRACT DOCUMENTS, WHICH INCLUDE THE CITY OF WEST LINN STANDARDS DRAWINGS, AND ANY OTHER PERTINENT SPECIFICATIONS, PERMITS, REGULATIONS AND REQUIREMENTS UNIQUE TO THE PROJECT, WILL GOVERN THE WORK TO BE DONE. WHEN A PARTICULAR SPECIFICATION, REGULATION, OR REQUIREMENT IS REFERRED TO IN THE CONTRACT DOCUMENTS, SUCH REFERENCE SHALL BE TO CURRENT REVISIONS OR AMENDMENTS. ITEMS MENTIONED IN THE CONTRACT DOCUMENTS AND NOT SHOWN ON THE DRAWINGS OR STANDARD DETAILS SHALL BE OF LIKE EFFECT AS THOUGH SHOWN OR MENTIONED IN BOTH. SPECIFICATIONS AND DRAWINGS REFERRED TO IN ANY OF THE CONTRACT DOCUMENTS SHALL BE CONSIDERED AS BEING INCLUDED IN THE DOCUMENT IN WHICH SUCH REFERENCE IS
- 3. IN ORDER TO PROTECT UNDERGROUND FACILITIES, EXCAVATORS PERFORMING THE WORK SET FORTH ON THESE PLANS MUST COMPLY WITH THE PROVISIONS OF OREGON STATE LAW (REQUIRES CONTRACTOR TO NOTIFY UTILITIES AT LEAST 48
- HOURS, BUT NO MORE THAN 10 BUSINESS DAYS, PRIOR TO ANY EXCAVATIONS.) 4. THE LOCATION OF EXISTING UTILITIES SHOWN ON THE PLANS IS APPROXIMATE AND SHOWN FOR INFORMATION PURPOSES ONLY. THE CONTRACTOR SHALL HAVE ALL UTILITIES LOCATED PRIOR TO COMMENCING CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. ADDITIONAL UNDERGROUND UTILITIES MAY EXIST.
- VERTICAL DATUM: REFER TO TOPOGRAPHIC SURVEY.
- TOPOGRAPHIC SURVEY BY: TOWNSHIP SURVEYING, INC., OREGON CITY, OR. THE CONTRACTOR SHALL CONTROL TRAFFIC THROUGH THE PROJECT SITE IN CONFORMANCE WITH THE LATEST EDITION OF "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", "OREGON SUPPLEMENTS". THE CONTRACTOR SHALL AT ALL TIMES MAINTAIN LOCAL ACCESS FOR HOMEOWNERS AND BUSINESSES ALONG THE
- PROJECT SITE. ROAD CLOSURES ARE NOT ALLOWED. PRIOR TO ANY STREET WORK, THE CONTRACTOR MUST SUBMIT A TRAFFIC PLAN TO THE CITY TO REVIEW AND APPROVE. NO STREET WORK AFFECTING LANES OF TRAFFIC SHALL BEGIN PRIOR TO SUCH APPROVAL.
- 9. THE CONTRACTOR AND/OR SUB-CONTRACTOR SHALL HAVE A MINIMUM OF TWO (2) SETS OF APPROVED CONSTRUCTION PLANS ON THE JOB SITE AT ALL TIMES DURING THE CONSTRUCTION PHASES. ONE SET SHALL BE DEDICATED TO RECORDING "AS-BUILT" CONDITIONS. THE AS-BUILT MARKED SET SHALL BE RETURNED TO THE
- 10. CONTRACTOR SHALL COORDINATE AND SCHEDULE ALL EARTHWORK, TRENCH BACKFILL AND ROAD CONSTRUCTION COMPACTION TESTS AND GEOTECHNICAL REVIEWS WITH THE PROJECT GEOTECHNICAL ENGINEERING OFFICE AS REQUIRED FOR ACCEPTANCE OF PROJECT WORK BY CITY OF WEST LINN AND AS REQUIRED BY
- 11. CONTRACTOR SHALL CAREFULLY MAINTAIN BENCHMARKS, PROPERTY CORNERS, MONUMENTS, AND OTHER REFERENCE POINTS. IF SUCH POINTS ARE DISTURBED OR DESTROYED BY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL PAY FOR THEIR REPLACEMENT BY EMPLOYING THE PROJECT'S PROFESSIONAL LAND SURVEYOR TO RESET PROPERTY CORNERS AND OTHER SUCH MONUMENTS.
- 12. PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL PRESENT A LIST AT THE PRECONSTRUCTION MEETING OF SUBCONTRACTORS, A PROJECT SCHEDULE, A TRAFFIC CONTROL PLAN AND A 24 HOUR PHONE NUMBER FOR CONTRACTOR CONTACT FOR EMERGENCIES.
- 13. FINAL CLEANUP PRIOR TO FINAL ACCEPTANCE AND PAYMENT, THE CONTRACTOR SHALL CLEAN THE WORK SITE AND ADJACENT AREAS OF ANY DEBRIS, DISCARDED ASPHALTIC CONCRETE MATERIAL OR OTHER ITEMS DEPOSITED BY THE CONTRACTOR'S PERSONNEL DURING THE PERFORMANCE OF THIS WORK.
- 14. THE CONTRACTOR SHALL, AS A MINIMUM, COORDINATE THE PROPOSED CONSTRUCTION ACTIVITIES WITH THE OWNER. NEIGHBORS AND THE LOCAL PUBLIC AGENCIES, UTLITIES AND COMPANIES DURING CONSTRUCTION TO AVOID DAMAGE AND TO PREVENT THE INTERRUPTION OF SERVICES AND UTILITIES TO RESIDENTS AND
- BUSINESSES. 15. THE CONTRACTOR SHALL PROVIDE SUBMITTALS OF ALL MATERIALS AND ACCESSORIES
- TO THE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO SITE DELIVERY. 16. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS ON DRAWINGS AND IN FIELD. NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH WORK.
- 17. EXISTING UTILITIES AND SITE INFORMATION SHOWN HEREON ARE BASED ON RECORD DRAWINGS PROVIDED BY OR MADE AVAILABLE BY THE OWNER. THE CONTRACTOR IS REQUIRED TO FIELD VERIFY THE LOCATION OF EXISTING FEATURES AND UTILITIES PRIOR TO CONSTRUCTION, AND SHALL ARRANGE FOR THE RELOCATION OF ANY IN CONFLICT WITH THE PROPOSED WORK. MINOR ADJUSTMENTS BASED ON FIELD CONDITIONS SHALL BE MADE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE
- 17. ALL CONSTRUCTION ACTIVITY SHALL BE DONE IN A SAFE AND NEAT MANNER AND UNDER OBSERVATION BY CITY FORCES.
- 18. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL CONSTRUCTION SAFETY, HEALTH AND OTHER RULES AND REGULATIONS OF STATE AND LOCAL REGULATING AGENCIES FOR SAFETY AND INSTALLATION OF THE WORK
- PROTECTION, GUARDRAILS, ETC. 19. ALL TRENCH EXCAVATIONS SHALL BE PROPERLY SHORED AND BRACED TO PREVENT CAVING. UNUSUALLY DEEP EXCAVATIONS MAY REQUIRE EXTRA SHORING AND BRACING. ALL SHEETING, SHORING, AND BRACING OF TRENCHES SHALL CONFORM TO

INCLUDING BUT NOT LIMITED TO SHORING, BRACING, ERECTION / INSTALLATION, FALL

- OREGON STATE REGULATIONS AND CITY OF THE DALLES CONSTRUCTION STANDARDS. 20. ALL UNDERGROUND UTILITIES SHALL BE INSTALLED PRIOR TO CONSTRUCTION OF
- CURBS, RETAINING WALLS, OR PAVEMENT.
- 21. CONTRACTOR TO REMOVE FROM SITE EXCESS SOIL OR OTHER MATERIALS NOT REUSABLE FOR THIS PROJECT, AND COMPLY WITH ALL RECOMMENDATIONS OF THE
- PROJECT GEOTECHNICAL REPORT 22. APPROPRIATE BENCHING OF FILLS IS REQUIRED FOR FILLS OVER 5 FEET IN HEIGHT ON SLOPES IN EXCESS OF 5 HORIZONTAL TO 1 VERTICAL. THE CONTRACTOR SHALL ARRANGE FOR THE GEOTECHNICAL ENGINEER TO INSPECT EXCAVATED BENCHES PRIOR TO FILL PLACEMENT.
- 23. CUT AND FILL SLOPES SHALL BE PROTECTED FROM EROSION. SUCH CONTROL MAY CONSIST OF APPROPRIATE REVEGETATION OR OTHER ACCEPTABLE MEANS AND METHODS. EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO EARTHWORK OR SITE STRIPPING.
- 24. CRUSHED ROCK BASE MATERIAL AND PIPE ZONE MATERIAL SHALL BE CRUSHED ROCK CONFORMING TO OREGON DEPARTMENT OF TRANSPORTATION AND BE COMPACTED TO 95% OF MAXIMUM DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM D1557.

- 25. 3/4 " 0" CRUSHED ROCK PIPE ZONE AND BACKFILL MATERIAL IS REQUIRED FOR ALL UTILITY LINES, CONDUITS AND LEVELING COURSES BELOW PAVEMENTS AND IN RIGHT-OF-WAYS. REFER TO THE TYPICAL TRENCH AND PAVEMENT DETAILS.
- 26. ASPHALTIC CONCRETE (A.C.) PAVEMENT SHALL BE A 12.5MM DENSE GRADED HOT MIX WITH A 5.8% MINIMUM ASPHALT CONTENT PER OREGON DOT CLASSIFICATION FOR ALL LIFTS. PAVEMENT SHALL BE PLACED ONLY ON DRY, CLEAN AND PROPERLY PREPARED SURFACES, AND WHEN CONDITIONS MEET THE SPECIFICATIONS AS SET FORTH IN THE MOST RECENT EDITION OF THE OREGON DOT SPECIFICATIONS. ALL NEW PAVEMENT AREAS SHALL CONFORM TO THE TYPICAL PAVEMENT SECTION DETAIL. ALL A.C. PAVEMENT TO BE COMPACTED TO 92% OF MAXIMUM DENSITY PER ASTM D2041 FOR SINGLE AND FIRST LIFTS AND 92% COMPACTION SHALL BE REQUIRED FOR SUBSEQUENT LIFTS.
- 27. ALL JOINTS BETWEEN A.C AND CONCRETE STRUCTURES MUST BE TACKED WITH
- BITUMASTIC. NO EXCEPTIONS ALLOWED. 28. ALL PORTLAND CEMENT CONCRETE PAVEMENT SHALL HAVE A 28 DAY MINIMUM ULTIMATE STRENGTH OF 4000 PSI. PROVIDE A MINIMUM OF (4) TEST CYLINDERS IN ACCORDANCE WITH CURRENT IBC AT EACH POUR.
- A. MINIMUM MIX REQUIREMENTS:
- I. CEMENT CONTENT PER YARD: 5 SACKS. II. MAXIMUM WATER/CEMENT RATIO: 0.45. FLY ASH MEETING ASTM C618 AND WITH LOSS ON IGNITION LESS THAN 3% MAY BE ADDED TO THE CEMENT, BUT NOT MORE THAN 15% BY WEIGHT.
- III. SLUMP: 3 INCH TO 4 INCH. DEVIATING FROM DESIGN SLUMP +1/2 INCH TO -1 INCH. WHEN CONCRETE IS TO BE PUMPED, ADD PLASTICIZERS MEETING ASTM C494 AND PROVIDE A NEW MIX DESIGN. DO NOT ADD WATER.
- IV. ADMIX: PROVIDE WATER REDUCING ADMIX (MASTER BUILDERS) AND REDUCE WATER USED BY 10% MINIMUM FOR ALL SLABS.

V. AIR ENTRAINMENT: PER ACI 301 AND 306 AT ALL EXTERIOR SLABS AND FLAT

VI. ALL ADMIXTURES TO BE COMPATIBLE FROM SAME MANUFACTURER. B. PLACE AND CURE ALL CONCRETE PER ACI CODES AND STANDARDS

## 02.0 CLEARING AND GRUBBING

- 1. ALL CONSTRUCTION AND MATERIALS WITHIN THE PUBLIC RIGHT-OF-WAY SHALL CONFORM TO THESE PLANS AND THE APPLICABLE REQUIREMENTS OF CITY OF WEST LINN, STATE OF OREGON.
- NOTIFY ARCHITECT 2 BUSINESS DAYS BEFORE COMMENCING WORK. CONTRACTOR SHALL REMOVE ALL TREES, SHRUBS, RUBBISH, AND MAN-MADE STRUCTURES INCLUDING BUT NOT LIMITED TO CONCRETE SLABS, WALLS, VAULTS, FOOTINGS, ASPHALTIC PAVED SURFACES, GRAVELED AREAS, SHED OR OTHER FREE-STANDING BUILDINGS (CONSTRUCTED OF WOOD, CONCRETE, METAL, ETC.) FOUNDATIONS, FENCES, RAILINGS, MACHINERY, ETC. WITHIN THE CLEARING LIMITS. THE ITEMS LISTED ABOVE SHALL BE DISPOSED OF OFF-SITE. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO CONFIRM THE NUMBER AND TYPE OF STRUCTURES TO BE REMOVED. CONTRACTOR SHALL OBTAIN ALL NECESSARY
- DEMOLITION AND WORK PERMITS. ALL BURIED STRUCTURES (I.E. TANKS, LEACH LINES, DRAIN TILE, AND PIPES) NOT DESIGNATED TO REMAIN ON THE SITE, SHALL BE REMOVED AND THE RESULTING EXCAVATIONS SHALL BE PROPERLY INSPECTED, BACKFILLED AND COMPACTED PRIOR TO ANY GRADING OR FILLING OPERATIONS. THIS IS TO INCLUDE STUMPS AND ROOTBALLS OF TREES TO BE REMOVED FROM THE SITE. NOTIFY CITY FOR INSPECTIONS AS REQUIRED.
- THE AREA OF THE SITE DESIGNATED ON THE PLAN TO BE REGRADED OR PAVED SHALL BE STRIPPED TO REMOVE ALL ORGANIC MATERIAL DOWN TO FIRM SUBGRADE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING SUBGRADE SOILS FROM OVERWORKING AND PROVIDE REPAIR TO DAMAGED SUBGRADE AT NO ADDITIONAL COST TO THE OWNER.
- 6. ALL UNSUITABLE MATERIAL (SOIL AND VEGETATION) REMOVED DURING THE CLEARING AND GRUBBING OPERATIONS SHALL BE REMOVED BY THE CONTRACTOR AND LEGALLY DISPOSED OF IN A SUITABLE LOCATION OFFSITE.
- EXCAVATORS MUST COMPLY WITH ALL PROVISIONS OF ORS 757.541 TO 757.571 INCLUDING NOTIFICATION OF ALL OWNERS OF UNDERGROUND FACILITIES AT USA LOCATES (681-7044), AT LEAST 48 BUSINESS HOURS, BUT NOT MORE THAN 10 BUSINESS DAYS BEFORE COMMENCING AN EXCAVATION.
- ALL EMBANKMENTS REQUIRED SHALL BE STRUCTURAL FILL MEETING THE REQUIREMENTS AND SPECIFICATIONS OF IBC CHAPTER 18.
- ALL EXCESS MATERIAL NOT UTILIZED ON-SITE SHALL BE LEGALLY DISPOSED OF BY THE CONTRACTOR. 10. TREES NOT DESIGNATED TO BE REMOVED BY THE ARCHITECT SHALL BE PROTECTED
- AT ALL TIMES. SAWCUT STRAIGHT LINES TO MATCH EXISTING PAVEMENT WITH THE NEW PAVEMENT.
- 12. CONTRACTOR SHALL PROVIDE AND MAINTAIN ADEQUATE TRAFFIC CONTROL ALONG THE EXISTING ROADS AS REQUIRED BY THE CITY OF WEST LINN.

## **PUBLIC STREET**

- ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO THE CURRENT REQUIREMENTS OF CITY OF WEST LINN "CONSTRUCTION STANDARDS FOR PUBLIC WORKS FACILITIES", AND THE MOST CURRENT EDITION OF THE OREGON CHAPTER APWA SPECIFICATIONS.
- CONTRACTOR SHALL NOTIFY THE ENGINEER AND THE CITY OF WEST LINN 24 HOURS BEFORE STARTING CONSTRUCTION OR RESUMING WORK AFTER SHUTDOWNS, EXCEPT FOR NORMAL RESUMPTION OF WORK FOLLOWING SATURDAYS, SUNDAYS, OR HOLIDAYS. CONTRACTOR SHALL ASSIST THE ENGINEER IN PREPARING AS-BUILT DRAWINGS.
- MARK ALL UTILITIES ON CURB WITH AN "S", "SD", AND "W" FOR SANITARY SEWER. STORM DRAIN AND WATER LATERALS.
- CONTROL STAKES ARE REQUIRED FOR ALL CURB LINES AND STREET CENTERLINES FOR CONSTRUCTION, AND MUST BE PROVIDED BY A SURVEYOR LICENSED IN THE STATE OF OREGON.
- SUB-BASE SHALL BE APPROVED BY THE CITY BEFORE PLACING THE BASE ROCK, BY CONDUCTING ON-SITE COMPACTION TESTS AS DEEMED NECESSARY BY THE CITY AND AS REQUIRED BY THE SPECIFICATIONS.
- THE SUBGRADE SHALL BE APPROVED BEFORE PLACING THE ASPHALT BY CONDUCTING ON-SITE COMPACTION TESTS AS DEEMED NECESSARY BY THE CITY AND AS REQUIRED BY THE SPECIFICATIONS. ALSO, A DEFLECTION TEST(S) PERFORMED WITH A 10 YARD LOADED DUMP TRUCK WILL BE REQUIRED. THIS TEST MUST BE WITNESSED BY THE CITY AND SOILS ENGINEER. NO DEFLECTION IS ALLOWED AND ALL STREETS MUST BE

- COMPACTION TESTS OF AGGREGATE BASE MUST BE IN ACCORDANCE WITH ASSHTO, METHOD T-180 AND ACHIEVE A RELATIVE DENSITY OF 95%. OVER-EXCAVATION AND GEOTEXTILE FABRIC (MIRAFI 500X OR PRE-APPROVED EQUAL) WILL BE REQUIRED IF THE SUBGRADE IS SOFT OR UNSUITABLE OR NOTED ON THE PLANS.
- ASPHALTIC CONCRETE (A.C.) PAVEMENT SHALL BE A 12.5MM DENSE GRADED MIX PER OREGON DOT CLASSIFICATION (FORMERLY CLASS C) FOR ALL LIFTS. PAVEMENT WILL BE PLACED ONLY ON DRY, CLEAN AND PROPERLY PREPARED SURFACES, AND WHEN THE CONDITIONS MEET THE SPECIFICATIONS AS SET FORTH IN THE MOST RECENT EDITION OF THE OREGON DOT SPECIFICATIONS. ALL A.C. PAVEMENT TO BE COMPACTED TO 92% OF MAXIMUM DENSITY PER ASTM D2041 FOR SINGLE AND FIRST LIFTS AND 92% FOR SUBSEQUENT LIFTS.
- 9. ALL JOINTS BETWEEN A.C AND CONCRETE STRUCTURES MUST BE TACKED WITH BITUMASTIC. NO EXCEPTIONS ALLOWED.
- 10. ALL REQUIRED UTILITIES (SANITARY SEWER, STORM SEWER, WATER LINES, POWER TELEPHONE, GAS, STREET LIGHTS, ETC.) SHALL BE IN-PLACE AND THEIR LOCATIONS ACCURATELY LOCATED BY THE GENERAL CONTRACTOR ON "AS-BUILT" DRAWINGS. A FINAL INSPECTION BY CITY STAFF WILL BE REQUIRED TO VERIFY UTILITY CONDITION; AND IF DEFICIENCIES ON ANY OF THEM ARE NOTED, THEY MUST BE CORRECTED PRIOR
- AT ALL SAWCUT JOINTS OF AC PAVEMENT PROVIDE A CONTINUOUS HOT ASPHALT SEAL COAT WITH FULLY SANDED FINISH.

## PUBLIC STORM DRAIN

- ALL STORM SEWER SYSTEM FITTINGS, EQUIPMENT AND MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF WEST LINN ENGINEERING DEPARTMENT.
- PVC STORM DRAIN PIPE SHALL BE ASTM D3034, SDR-35. COMPATIBLE ASTM D3034 FITTINGS MUST BE USED WITH ASTM D3034 PIPE. ALL ASTM D3034 PIPE USED MUST BE OF WATER-TIGHT JOINTS TESTED FOR ROUNDNESS AFTER BACKFILL. PROVIDE PRESSURE TEST, MANDREL TEST AND TV VIDEO TAPE.
- DUCTILE IRON STORM DRAIN PIPE SHALL BE IN ACCORDANCE WITH AWWA C151, CLASS 52, ASTM 536, AND AWWA C104. JOINTS SHALL BE BELL AND SPIGOT WITH RUBBER GASKETS PER AWWA C111.
- 4. STORM DRAIN LINES SHALL BE LAID IN A STRAIGHT ALIGNMENT AND UNIFORM GRADE BETWEEN MANHOLES OR OTHER JUNCTION STRUCTURES. CONTROL STAKES ARE REQUIRED FOR LOCATING NEW STORM DRAIN PIPE AND MUST BE PROVIDED BY A PROFESSIONAL LAND SURVEYOR REGISTERED IN OREGON.
- 5. ALL NEW STORM SEWER PIPES AND MANHOLES MUST BE THOROUGHLY CLEANED AND PRESSURE TESTED AS REQUIRED BY THE CITY. ALL TESTS MUST BE WITNESSED AND PASSED BY THE CITY PRIOR TO PLACING INTO OPERATION.
- 6. ALL CONNECTIONS TO EXISTING STORM SEWER MAINS REQUIRE ISSUANCE OF A
- PUBLIC WORKS PERMIT AND INSPECTION BY THE CITY PRIOR TO BACKFILLING. ALL OTHER CONSTRUCTION PRACTICES (RELATING TO STORM SEWER) WITHIN THE CITY'S PUBLIC RIGHT-OF-WAY, NOT COVERED IN THESE "GENERAL REQUIREMENTS" AND/OR "CONSTRUCTION DETAILS" SECTIONS, MUST COMPLY WITH THE RULES AND REGULATIONS FOUND IN THE MOST RECENT EDITION(S) OF THE CITY OF WEST LINN CONSTRUCTION STANDARDS.

## EARTHWORK SPILLAGE AND DUST CONTROL

- 1. AVOID SOILS SPILLAGE AND CREATION OF DUST NUISANCE BY COVERING AND SECURING LOADS WHEN HAULING ON OR ADJACENT TO PUBLIC STREETS OR
- 2. TAKE PRECAUTIONS NECESSARY TO PREVENT EROSION AND TRANSPORTATION OF SOILS DOWNSTREAM.
- REMOVE SPILLAGE OR DUST AND SWEEP, WASH, OR OTHERWISE CLEAN PROJECT, ADJACENT PROPERTIES, STREETS, HIGHWAYS, AND DOWNSTREAM DRAINAGE SYSTEMS.

## CONSTRUCTION INSPECTIONS AND MEETINGS

- 1. THE CONTRACTOR SHALL SCHEDULE A PRECONSTRUCTION MEETING WITH CITY PERSONEL, ALL SUBCONTRACTORS, PROJECT ARCHITECT, OWNER'S REPRESENTATIVE, PROJECT GEOTECHNICAL ENGINEER AND PROJECT CIVIL ENGINEER PRIOR TO BEGINNING PUBLIC IMPROVEMENT WORK.
- THE CITY SHALL BE NOTIFIED TO INSPECT ALL PUBLIC IMPROVEMENTS. THE CITY'S REPRESENTATIVES SHALL BE ALLOWED ACCESS TO ALL PARTS OF THE WORK, INCLUDING THE PLANS OF PRODUCERS AND FABRICATORS AT ALL TIMES; AND SHALL BE FURNISHED WITH EVERY REASONABLE FACILITY FOR ASCERTAINING WHETHER OR NOT THE WORK, AS PERFORMED, IS IN ACCORDANCE WITH THE REQUIREMENTS AND INTENT OF THE PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL FURNISH. AT THE CONTRACTOR'S OWN EXPENSE, SUCH SAMPLES AS ARE CUSTOMARILY REQUIRED FOR TESTING PURPOSES. THE CITY DOES NOT FURNISH FULL-TIME INSPECTION OF NEW PUBLIC IMPROVEMENTS. FOR THIS REASON, IT IS IMPERATIVE THAT THE OWNER AND/OR THE OWNER'S CONTRACTORS PROVIDE PROMPT AND COMPLETE NOTIFICATION TO THE CITY AS TO THE PROGRESS OF THE CONSTRUCTION OF UTILITY IMPROVEMENTS. NOTIFICATION MUST BE GIVEN TO THE CITY WHEN THE FOLLOWING WORK IS TO BE SCHEDULED AND AT OTHER TIMES AS INSTRUCTED BY CITY PERSONEL:
- A PLACEMENT OF EROSION/SEDIMENTATION CONTROLS. B. UNDERGROUND UTILITY TRENCHING AND CONDUIT PLACEMENT. C. COMPACTION TESTING/PROOF ROLL OF TRENCH BACKFILL AND FILL AREAS. D. ALL TESTING OF UTILITY CONDUITS AND APPURTENANCES. E. CONSTRUCTION OF CONCRETE STRUCTURES (CURBS, INLETS, MANHOLES,
- SIDEWALKS, DRIVEWAYS, ETC.). F. PLACEMENT AND COMPACTION OF ASPHALTIC PAVEMENT.

FAILURE TO GIVE PROPER NOTIFICATION (24 HOURS) OF WORK SCHEDULE MAY INVALIDATE THE WORK PERFORMED AND MAKE NECESSARY REMOVAL OF WORK, AND/OR TESTS AND INSPECTION REPORTS BY AN INDEPENDENT TESTING LABORATORY TO CONFIRM COMPLIANCE WITH THE CONSTRUCTION PLANS AND SPECIFICATIONS. SUCH REMOVAL OF WORK AND TESTS SHALL BE FURNISHED AT THE EXPENSE OF THE CONTRACTOR.

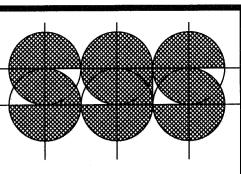
## CIVIL ABBREVIATIONS

	CIVIL ABBREVIATI	ONS	
A. B.	ANCHOR BOLTS	HDPE	HIGH-DENSITY-POLYETHYLENE
ABBR	ANCHOR BOLTS ABBREVIATION ASPHALT CONCRETE	HORIZ	HORIZONTAL
A. C.	ASPHALT CONCRETE	H. P. HT	HIGH POINT HEIGHT
ACCDG A. D.	ACCORDING	I. E.	INVERT ELEVATION
		T L I = 0	INFORMATION
A. F. F.	ABOVE FINISH FLOOR	INT	INTERIOR
AHD ALT	AHLAD ALTERNATE	I.R. JT	IRON ROD JOINT
APPX	APPROXIMATELY	Ĺ	LENGTH
ARCH	ARCHITECTURAL	LBS OR #	POUNDS
A. R. V. B. C. R.	AIR RELIEF VALVE	L.F.	LINEAR FEET LINEAR
BF	AMERICANS WITH DISABILITIES ACT ABOVE FINISH FLOOR AHEAD ALTERNATE APPROXIMATELY ARCHITECTURAL AIR RELIEF VALVE BEGIN CURB RETURN BACKFLOW BUILDING BLOW-OFF BOTTOM BEGIN RETURN BACK OF SIDEWALK	LT	LEFT
BLDG	BUILDING	M. B.	MACHINE BOLT
B. 0. B0T	BLOW-OFF ROTTOM	MANUF MBR	MANUFACTURER MEMBER
B. R.	BEGIN RETURN	MAT'L	MATERIAL
B. S.	BACK OF SIDEWALK	MAX	MAXIMUM
BTWN BW	BETWEEN BACKWATER	MECH M. J.	MECHANICAL MECHANICAL JOINT
C. B.			MANHOLE
C. I.	CAST IRON OR CURB INLET	MIN	MINIMUM
C. J.	COLD JOINT	(N)	NEW
C. L. CLR	CENTER LINE CLEAR	N.S. NTS	NON SHRINK NOT TO SCALE
CNTR	CENTER	0. C.	ON CENTER
CO	CLEANOUT	0. H. OR 0. P. P.	OPPOSITE HAND
COL	COLUMN CONCRETE	0. W. S.	OIL WATER SEPARATOR PLATE
CONN	CONNECTION	P. L.	PROPERTY LINE
CONT	CONTINUOUS	P. C.	POINT OF CURVATURE
COP C. O. T. G.	CATCH BASIN CAST IRON OR CURB INLET COLD JOINT CENTER LINE CLEAR CENTER CLEANOUT COLUMN CONCRETE CONNECTION CONTINUOUS COPPER CLEAN OUT TO GRADE COUPLING CULVERT	P. C. C.	POINT OF COUNTER CURVATURE
CPLG	COUPLING	PERF PERF	PERFORATED PLYWOOD
CULV	CULVERT	P. P.	PRIMARY POWER/POWER POLE
DBL D. C.	DOUBLE CHECK	PROP	PROPOSED
DCDA	DOUBLE CHECK DETECTOR ASSEMBLY	PSF P. T.	POUNDS-PER-SQUARE-FOOT POINT OF TANGENCY
DET	DETAIL	PVC	POLYVINYL-CHLORIDE
D. F.	DOUGLAS FIR	P. U. E.	PUBLIC UTILITY EASEMENT
D. I. DIA OR	DUCTILE IRON OR DITCH INLET DIAMETER	P.W. R OR RAD	PUBLIC WORKS RADIUS
D.714	DIMENSION	R. D.	ROOF DRAIN
DIR	DIMENSION DIRECTION DITTO DOMESTIC DEEP DRAWING DOWN SPOUT DRY WELL DRIVEWAY EACH END CURB RETURN EXISTING GRADE EXPANSION JOINT ELEVATION ELECTRIC EMBEDMENT EDGE OF PAVEMENT ENGINEER OF RECORD EQUAL END RETURN EACH WAY EXISTING EXPANSION EXTERIOR FLANGED COUPLING ADAPTER FOUND	REINF	REINFORCEMENT/REINFORCING
DO Dom	DOMESTIC	REQ' D	REQUIRED
DP	DEEP	REHAB RDCR	REHABILITATION REDUCER
DRWG OR DWG	DRAWING	R. P.	RADIUS POINT
DS D. <b>W.</b>	DRY WELL	RT	RIGHT
D/W	DRIVEWAY	R/W or R.O.W.	RIGHT-OF-WAY SCHEDULE
EΑ	EACH	SCHED SED	SEDIMENTATION
E. C. R.	END CURB RETURN	SERV	SERVICE
E. G. E. J.	EXPANSION JOINT	SHT SIM	SHEET
EL OR ELEV	ELEVATION	SPECS	SIMILAR SPECIFICATIONS
ELEC EMBED	ELECTRIC	SQ	SQUARE
E. O. P.	EDGE OF PAVEMENT	STD S. S.	STANDARD SANITARY SEWER
E. O. R.	ENGINEER OF RECORD	S. S. STA	STATION
EQ E. R.	EQUAL FND RETURN	ST. D.	STORM DRAIN
E. W.	EACH WAY	STIFF STL	STIFFENER STEEL
EX OR EXIST	EXISTING	STRUCT	STRUCTURAL
EXP EXT	EXPANSION		SIDEWALK
F. C. A.	FLANGED COUPLING ADAPTER	SD <b>W</b> LK T.C. TELEP	TOP OF CURB TELEPHONE
FD	FOUND	T. 0. F.	TOP OF FOOTING
			TOP OF SLAB
F. F.	FINISH FLOOR	T. O. W.	TOP OF WALL
F. G.	FINISH GRADE	TYP U. E.	TYPICAL UNDERGROUND ELECTRICAL
F. H.	FIRE HYDRANT	U. O. N.	UNLESS OTHERWISE NOTED
FIN F. L.	FLOW LINE	U. P.	UNDERGROUND POWER
FLG	FLANGE	U.R.M. U.T.	UNREINFORCED MASONRY UNDERGROUND TELEPHONE
FLR	FLOOR	V. B.	VALVE BOX
F. P. F. 0. C.	FOUNDATION FINISH FLOOR FINISH GRADE FIRE HYDRANT FINISH FLOW LINE FLANGE FLOOR FINISH PAVEMENT FACE OF CURB FOOTING GAGE OR GAUGE GALVANIZED	VERT	VERTICAL
FTG	FOOTING	VLT W	VAULT Water
GA	GAGE OR GAUGE	₩. J.	WET JOINT
GALV G. B.	GALVANIZED GRADE BREAK		WATER METER
GEN	GENERAL	W. Q. W. W. F.	WATER QUALITY WELDED WIRE FABRIC
GR	GROUND	W/	WITH
G. S. G. S. P.	GROUND SHOT GALVANIZED STEEL PIPE	w/o	WITHOUT
GUT	GUTTER		
G. V.	GATE VALVE		

CITY OF WEST LINN This approval is only for general conformance with the design concept and general compliance with applicable codes and requirements and shall not be construed as relieving the Design Engineer of full responsibility for accuracy and completeness of the drawings. This plan review approval does not prevent the City from requiring further code corrections in the field.

DATE 3/23/15 BY: (Chur)

APPROVED FOR CONSTRUCTION BY



STEWART GORDON STRAU 6775 SW | | | TH AVENUE SUITE 20 BEAVERTON, OR 97008 (503) 672-7517 (OFFICE) (503) 672-7808 (FAX) sgs@s-straus.com (e-mail)



6443 SW Beaverton-Hillsdale Hwy, suite 21 Portland, Oregon 97221 ph:503.203.8111 fx:503.203.8122 www.wdyi.com



**PROJECT** NUMBER:

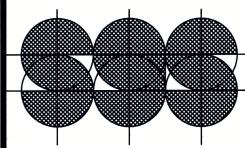
DATE BY DRAWING DESIGN 20 NOV 2013 SGS 11 FEB 2014 SGS DES REV 12 MAR 2014 SGS

22 AUG 2014 SGS PLAN CHECKS ↑ 30 SEPT 2014 CGP 21 OCT 2014 CGP 06 JAN 2015 CGF

23 JAN 2015 CGP

25 FEB 2015 CGF SHEET TITLE **NOTES AND** 

**ABBREVIATIONS** 



STEWART GORDON STRAUS ARCHITECT 6775 SW | | | TH AVENUE SUITE 20 BEAVERTON, OR 97008 (503) 672-75 | 7 (OFFICE) (503) 672-7808 (FAX) sgs@s-straus.com (e-mail)

# WDY

6443 SW Beaverton-Hillsdale Hwy, suite 210 Portland, Oregon 97221 ph:503.203.8111 fx:503.203.8122 www.wdyi.com



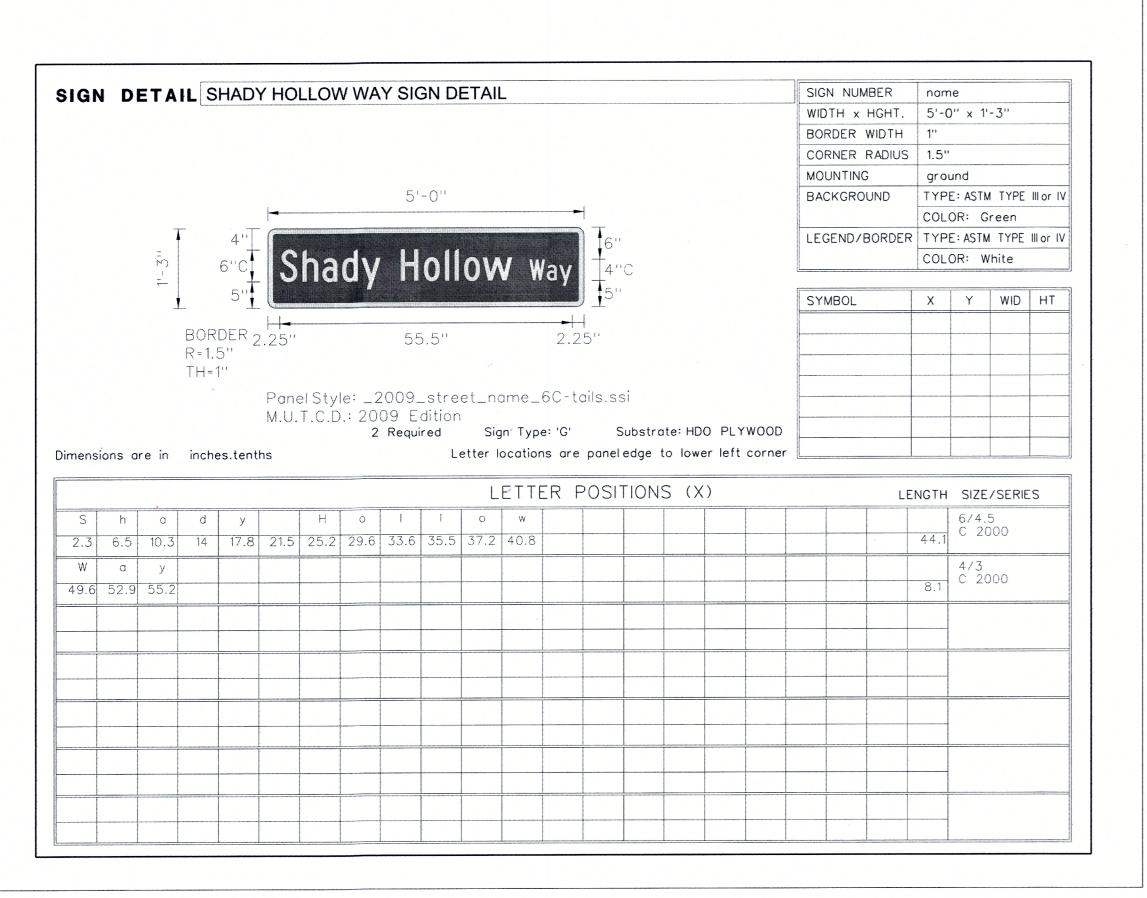
# HADY HOLLOW VILLAMETTE DRIVE

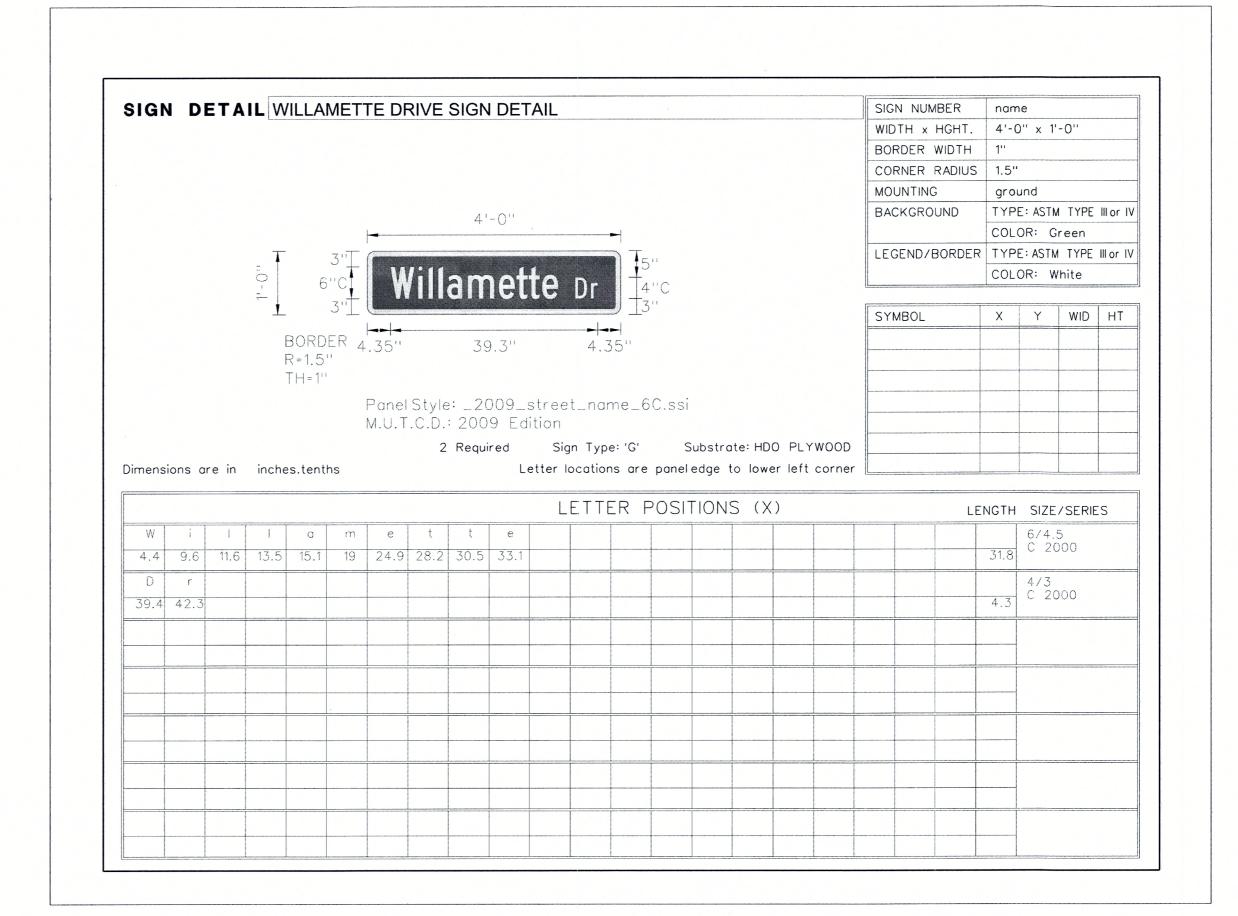
<u> </u>				
	PROJECT NUMBER: 133			
DRAWING	DATE	BY		
DESIGN				
20	NOV 2013	SGS		
11	FEB 2014	SGS		
DES REV				
121	MAR 2014	SGS		
PERMIT				
22	AUG 2014	SGS		
PLAN CHEC	KS			
<u>2</u> 21	OCT 2014	CGP		
<u>3</u> 06	JAN 2015	CGP		
<b>A</b> 23	JAN 2015	CGP		
<u>\$</u> 25	FEB 2015	CGP		
<u> </u>	MAR 2015	CGP		
SHEET TITL	E			

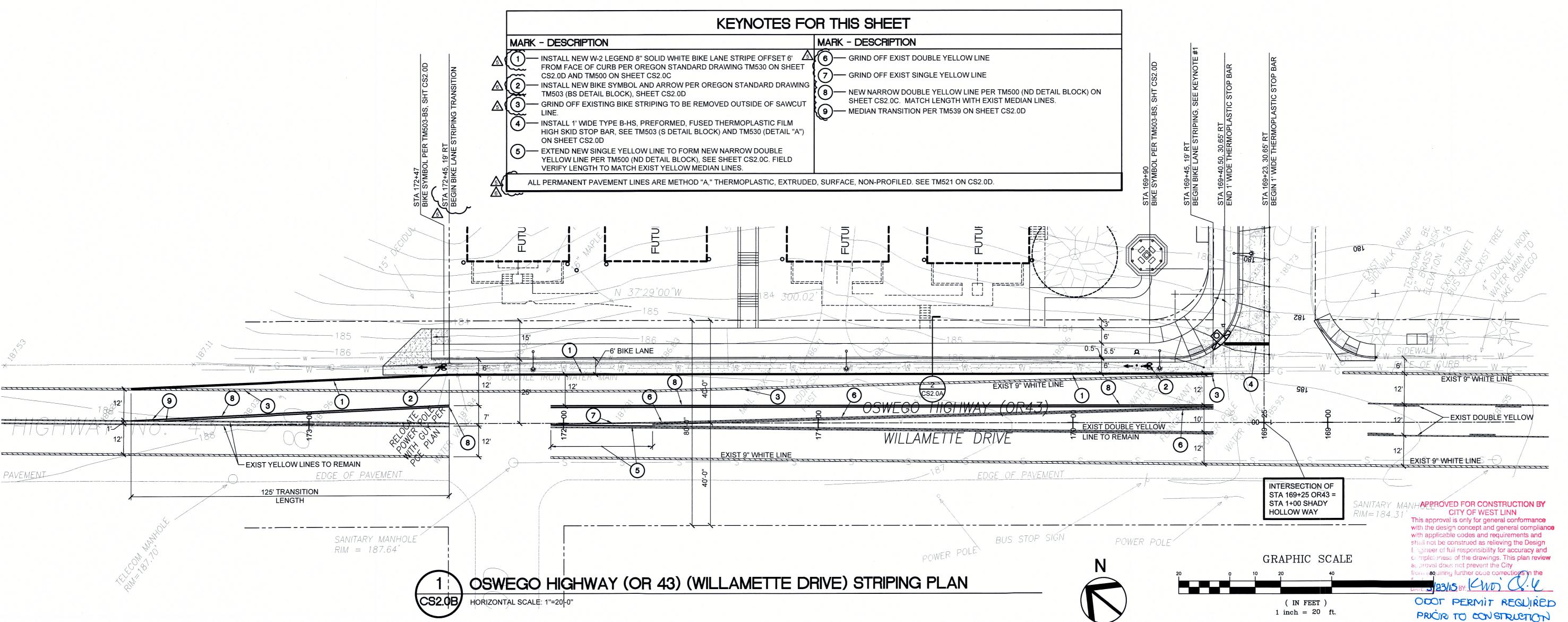
OR43 IMPROVEMENTS

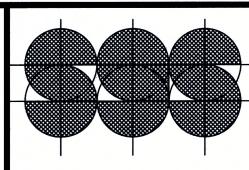
SHEET #

CS2.0A







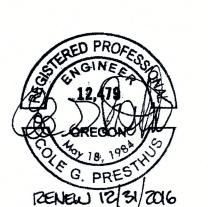


ARCHITECT
6775 SW 111TH AVENUE
SUITE 20
BEAVERTON, OR 97008
(503) 672-7517 (OFFICE)
(503) 672-7808 (FAX)
sqs@s-straus.com (e-mail)

WDY

Structural • Civil Engineers

6443 SW Beaverton-Hillsdale Hwy, suite 21
Portland, Oregon 97221
ph:503.203.8111 fx:503.203.8122
www.wdyi.com

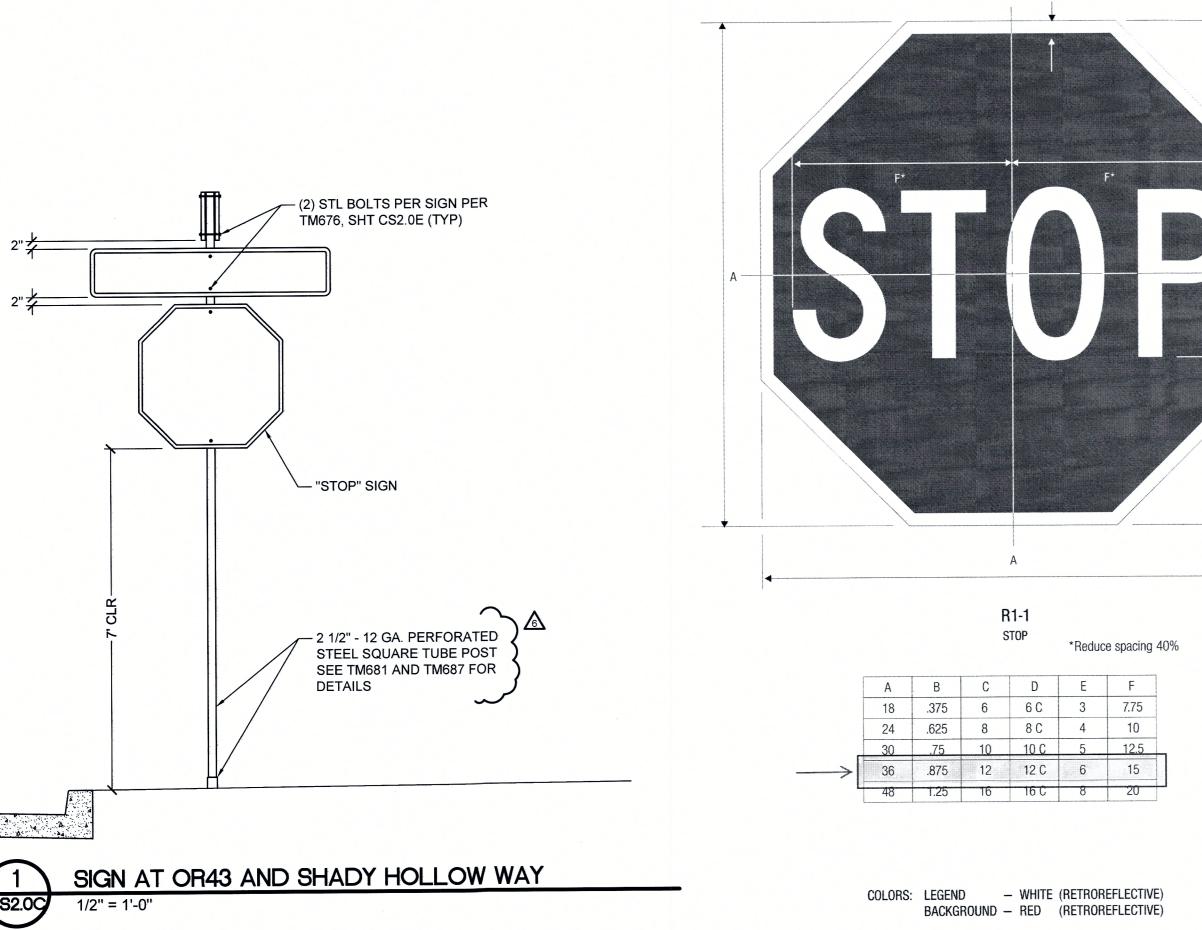


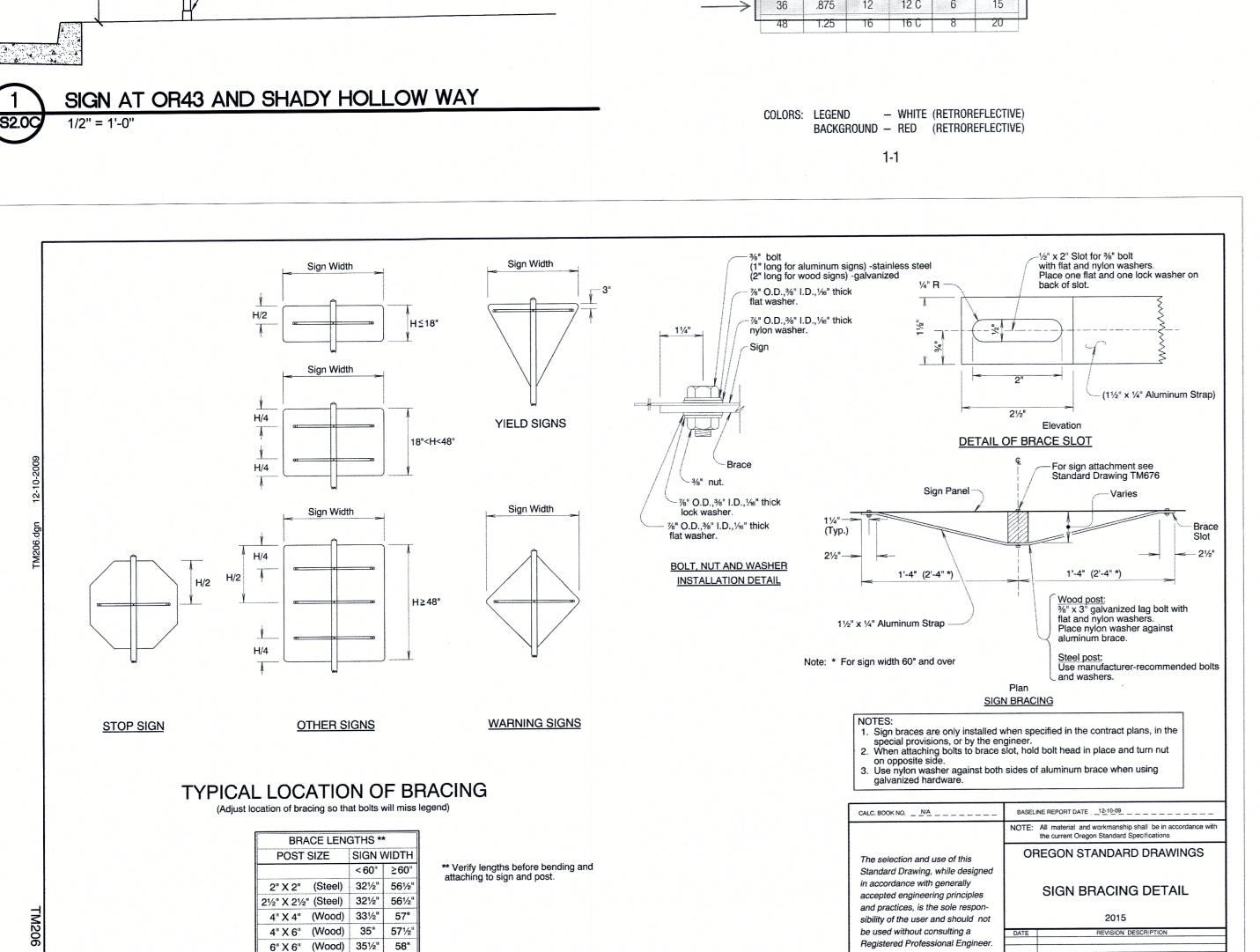
HADY HOLLOW AND WILLAMETTE DRIVE
WEST LINN, OREGON

**PROJECT** NUMBER: DRAWING DATE BY DESIGN 20 NOV 2013 SG 11 FEB 2014 SGS **DES REV** 12 MAR 2014 SG PERMIT 22 AUG 2014 SGS PLAN CHECKS 21 OCT 2014 CGF 06 JAN 2015 CGF 23 JAN 2015 CG 25 FEB 2015 CG 16 MAR 2015 CG SHEET TITLE

OR43 STRIPING PLAN

SHEET #
CS2.0B



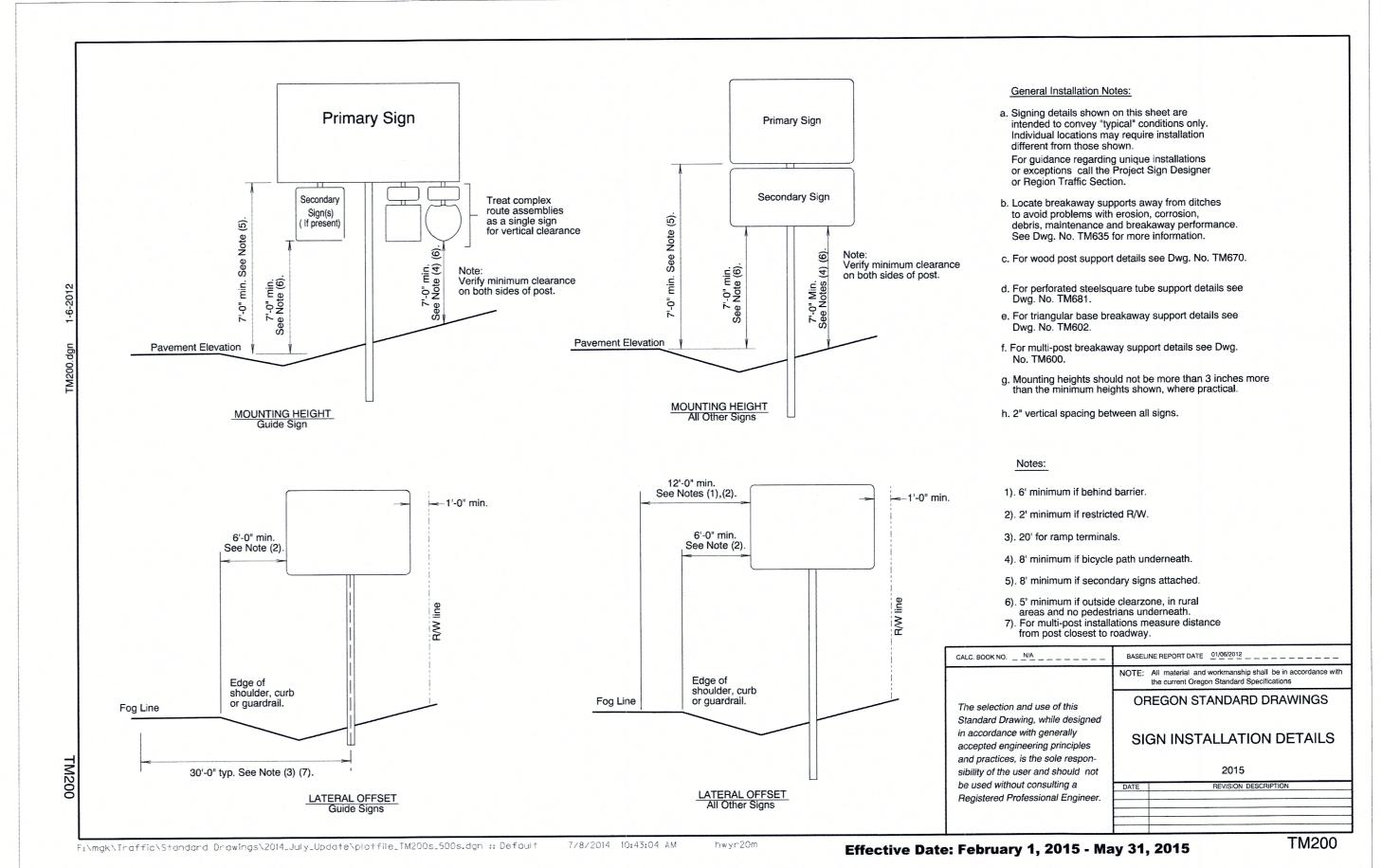


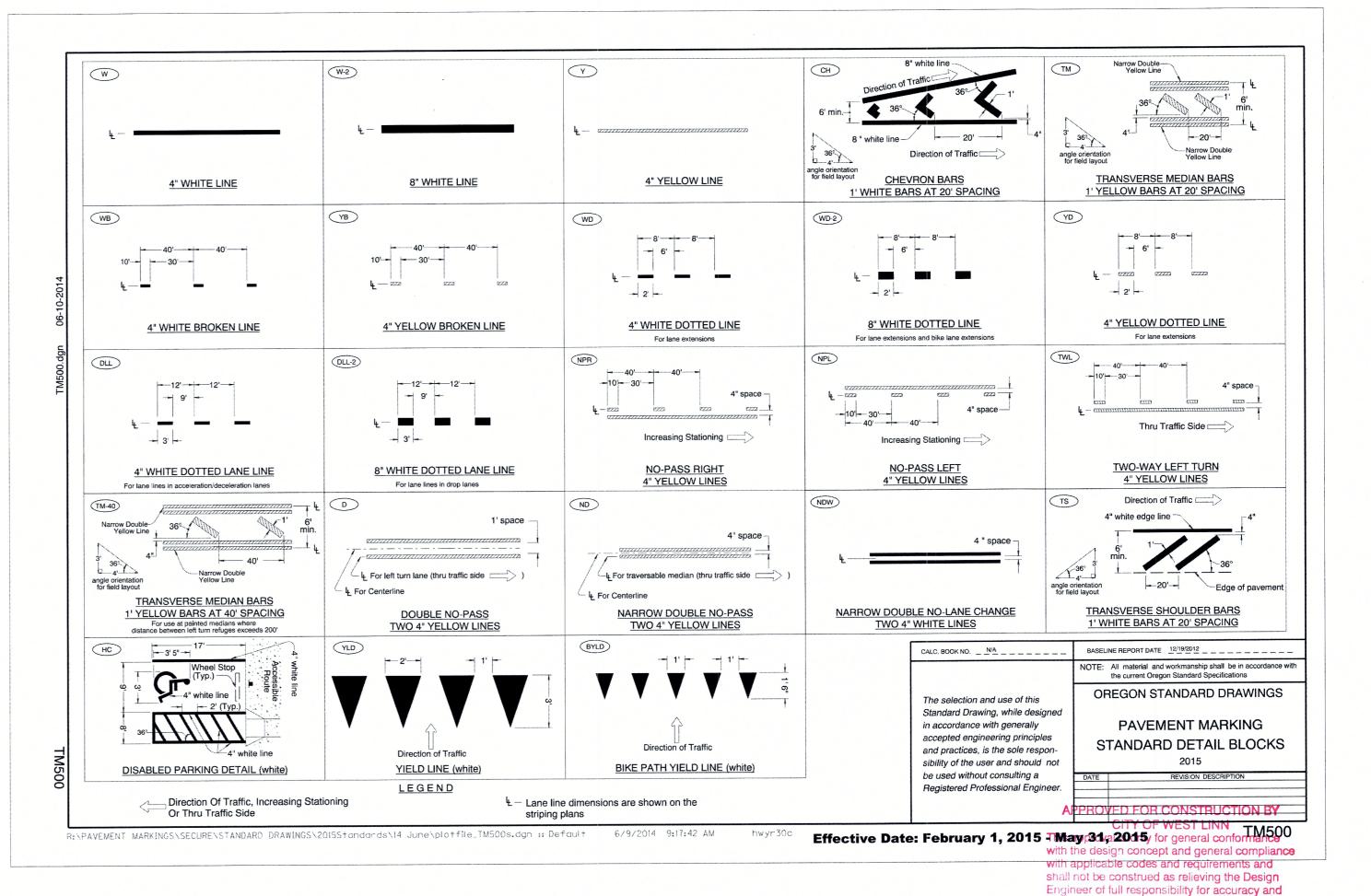
TM206

Effective Date: February 1, 2015 - May 31, 2015

6" X 8" (Wood) 37½" 59 "

F:\mgk\Traffic\Standard Drawings\2014\_July\_Update\plotfile\_TM200s\_500s.dgn :: Default 7/8/2014 10:43:07 AM hwyr20m





STEWART GORDON STRAUS
ARCHITECT
6775 SW 1 1 1TH AVENUE
SUITE 20
BEAVERTON, OR 97008
(503) 672-7517 (OFFICE)
(503) 672-7808 (FAX)
sgs@s-straus.com (e-mail)

WDY

Structural • Civil Engineers

6443 SW Beaverton-Hillsdale Hwy, suite 21
Portland, Oregon 97221
ph:503.203.8111 fx:503.203.8122
www.wdyi.com



HOLLOW AND WILLAMETTE DRIVE
WEST LINN, OREGON

PROJECT 1335 NUMBER: DATE BY DRAWING DESIGN 20 NOV 2013 SGS 11 FEB 2014 **DES REV** 12 MAR 2014 SGS **PERMIT** 22 AUG 2014 PLAN CHECKS 21 OCT 2014 06 JAN 2015 23 JAN 2015 25 FEB 2015 16 MAR 2015

SHEET TITLE

ODOT DETAILS

completeness of the drawings. This plan review

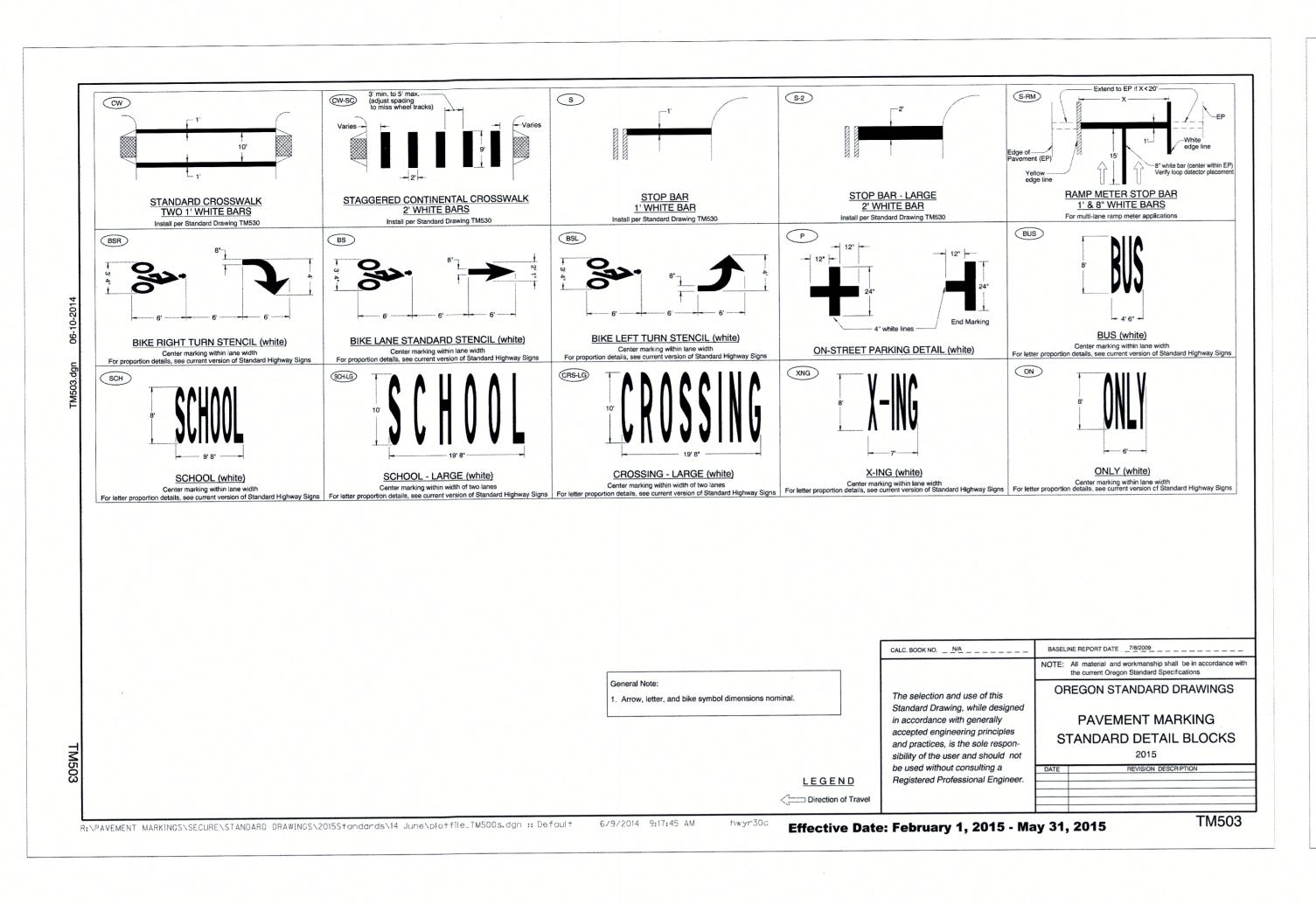
3/23/15 BY: Klvoi Q. W

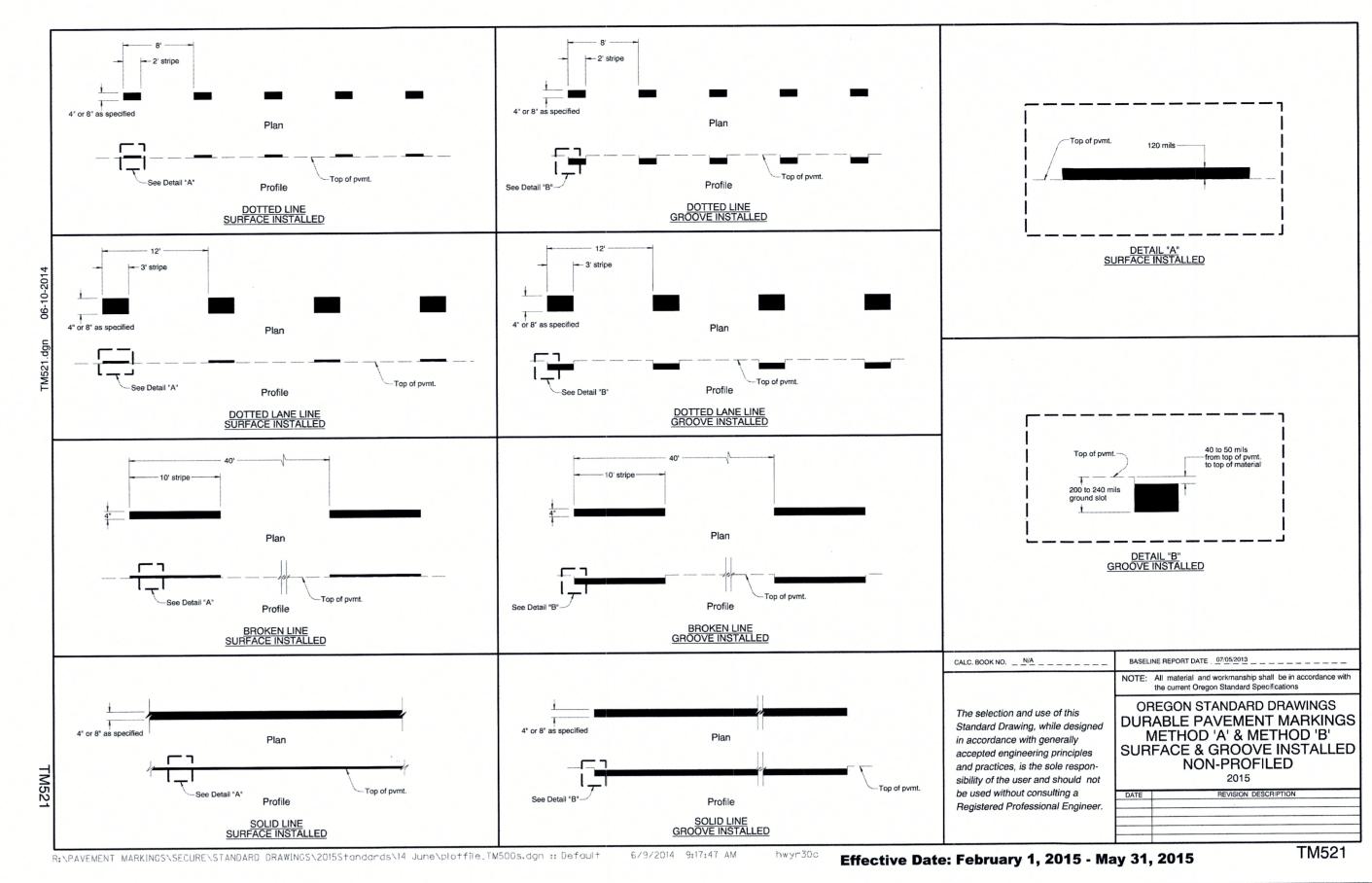
PRIOR TO CONSTRUCTION

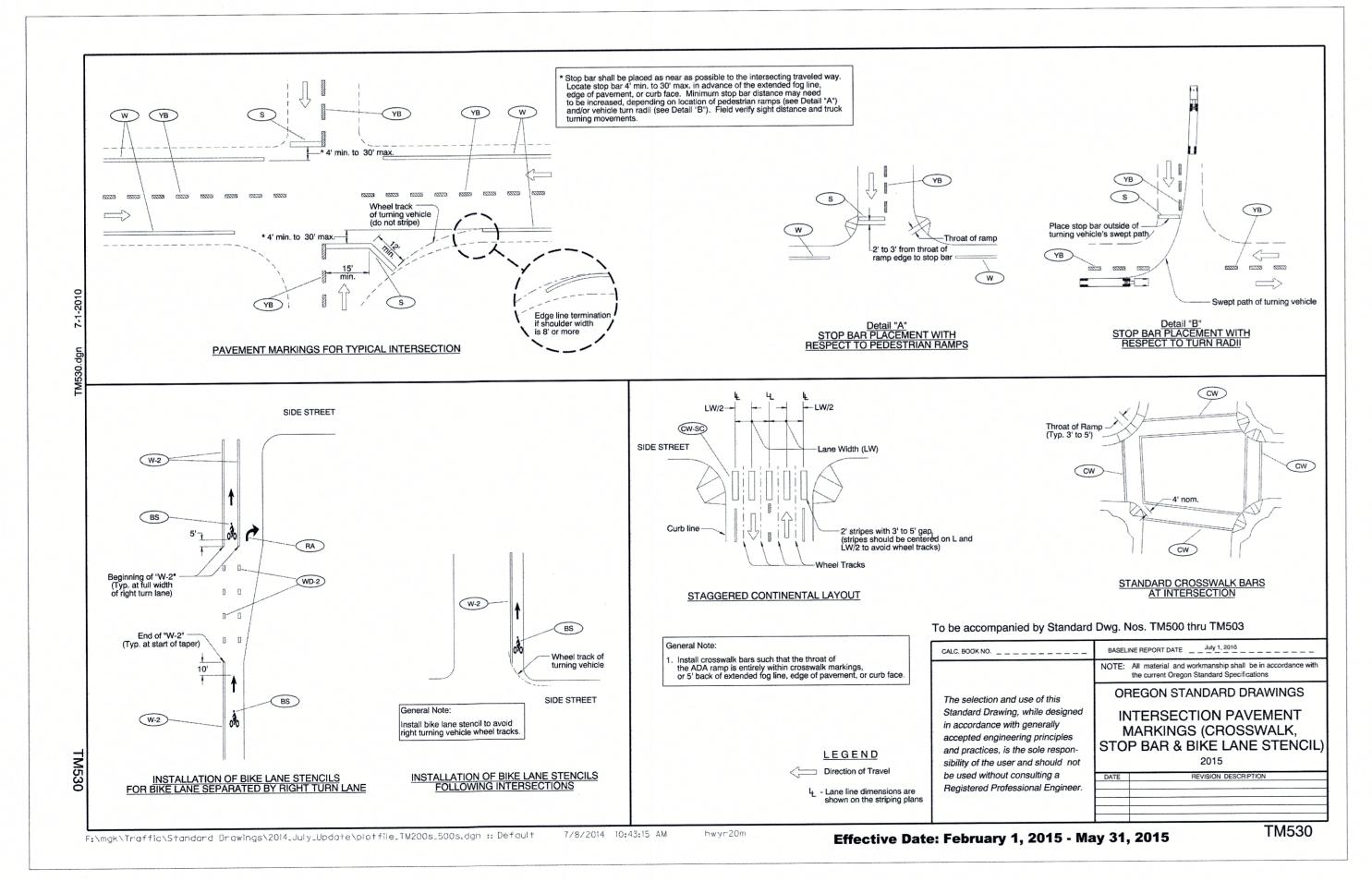
from requiring further code corrections in the

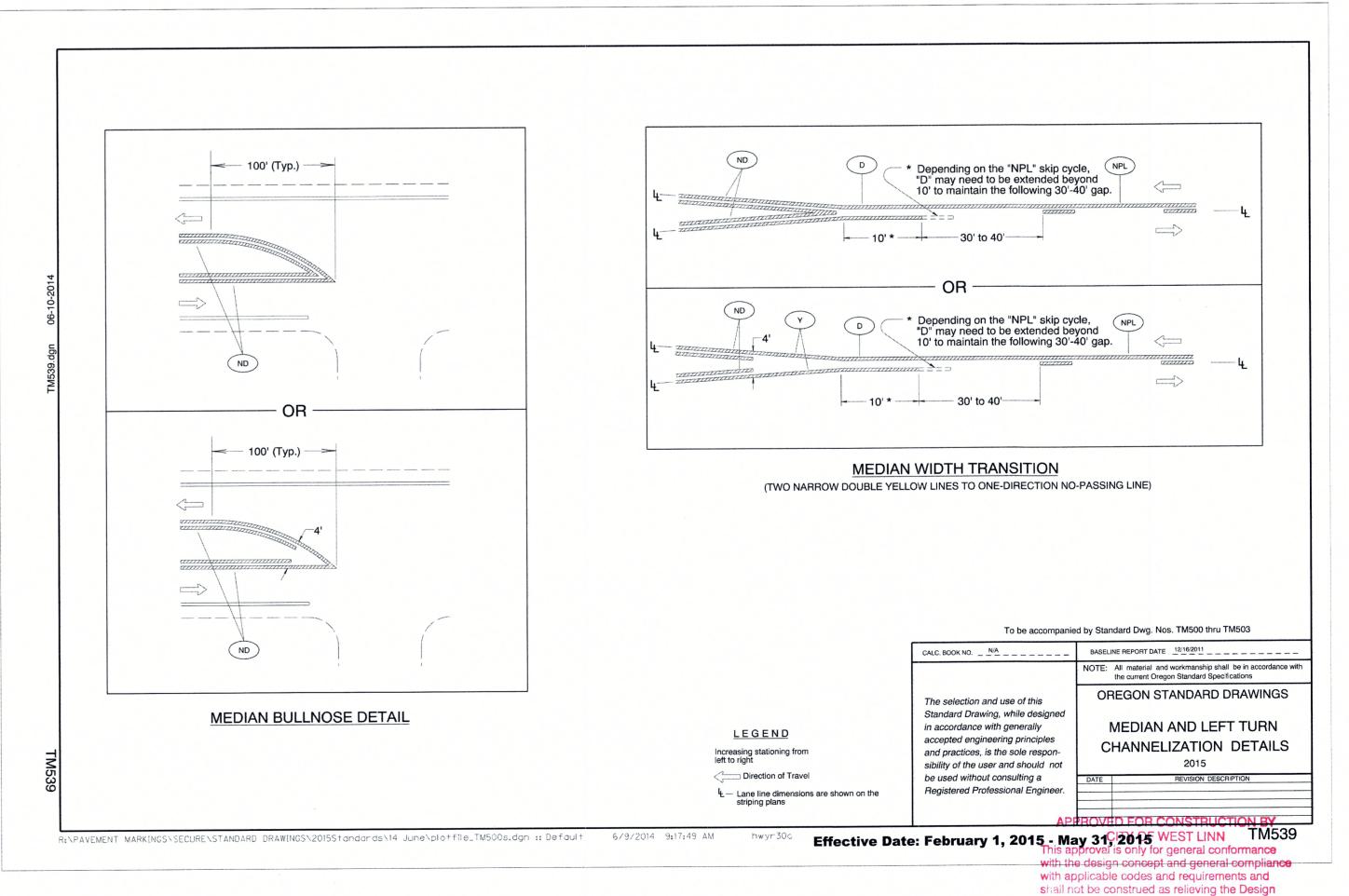
approval does not prevent the City

CS2.0C









STEWART GORDON STRAUS ARCHITECT 6775 SW 111TH AVENUE SUITE 20 BEAVERTON, OR 97008 (503) 672-7517 (OFFICE) (503) 672-7808 (FAX) sgs@s-straus.com (e-mail)

WDY

Structural • Civil Engineers

6443 SW Beaverton-Hillsdale Hwy, suite 21
Portland, Oregon 97221
ph:503.203.8111 fx:503.203.8122

www.wdyi.com



SHADY HOLLOW VILLAGE
SHADY HOLLOW AND WILLAMETTE DRIVE
WEST LINN, OREGON

**PROJECT** 1335 **NUMBER:** DATE BY DRAWING **DESIGN** 20 NOV 2013 SGS 11 FEB 2014 SGS **DES REV** 12 MAR 2014 SGS **PERMIT** 22 AUG 2014 SGS PLAN CHECKS 21 OCT 2014 CG 06 JAN 2015 CG 23 JAN 2015 C 25 FEB 2015 CG 16 MAR 2015 CG SHEET TITLE

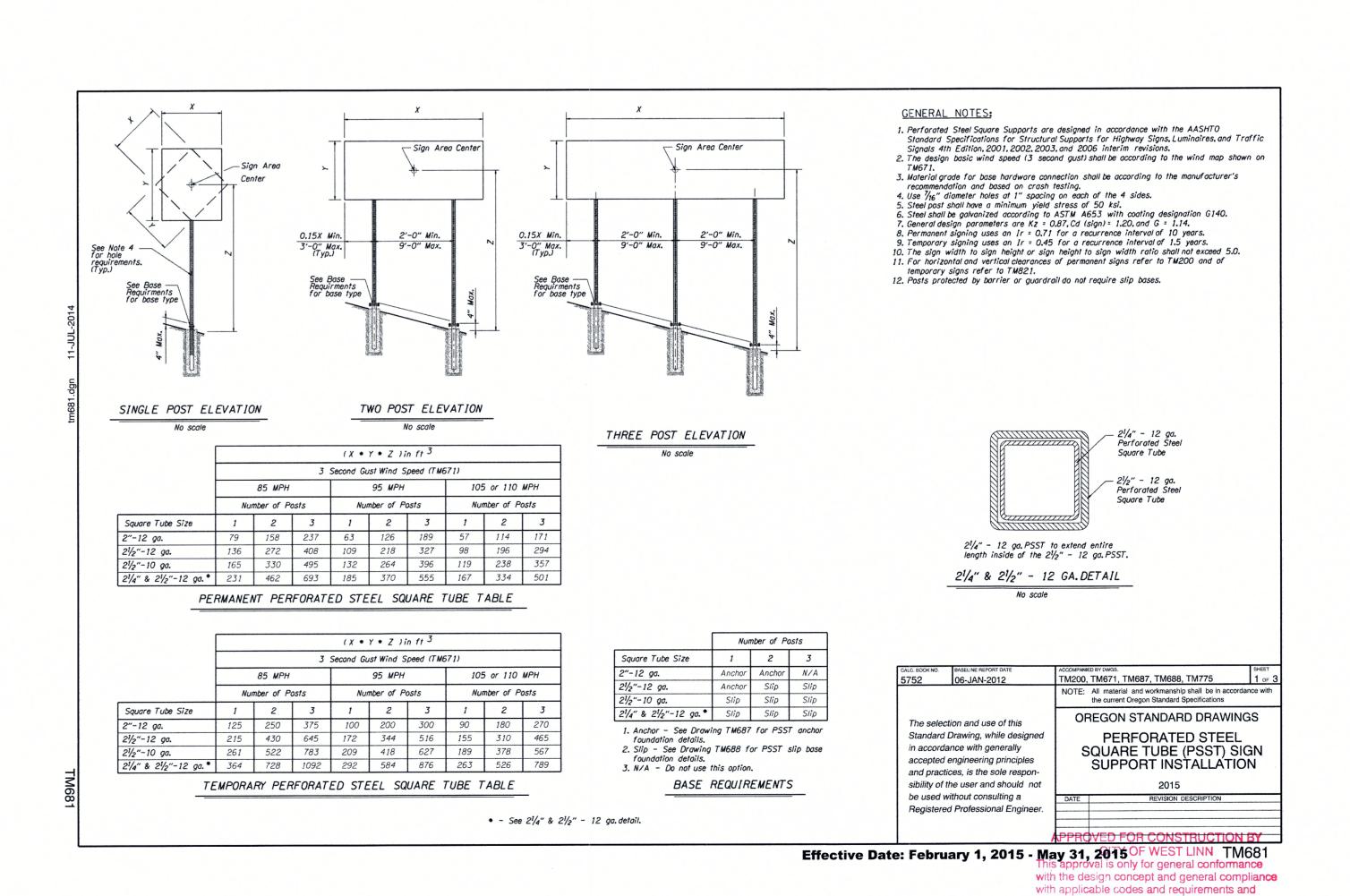
ODOT DETAILS

Engineer of full responsibility for accuracy and completeness of the drawings. This plan review

from requiring further code corrections in the

PRIOR TO CONSTRUCTION

approval does not prevent the City



sgs@s-straus.com (e-mail)

Structural • Civil Engineers

6443 SW Beaverton-Hillsdale Hwy, suite 21
Portland, Oregon 97221
ph:503.203.8111 fx:503.203.8122
www.wdyi.com

STEWART GORDON STRAUS

6775 SW IIITH AVENUE

BEAVERTON, OR 97008 (503) 672-7517 (OFFICE) (503) 672-7808 (FAX)

ARCHITECT

SUITE 20



# SHADY HOLLOW AND WILLAMETTE DRIVE

PROJECT NUMBER: 1335

NUMBER:	130	35
DRAWING	DATE	BY
DESIGN		
20 NO'	V 2013	SGS
II FEE	3 2014	SGS
DES REV		
12 MAF	2014	SGS
PERMIT		
22 AUG	2014	SGS
PLAN CHECKS		
<u></u> 21 0€	T 2014	CGP
	12015	CGP
<b>△</b> 23 JAN	12015	CGP
<u></u>	3 2015	CGP
<u></u>	R 2015	CGP

SHEET TITLE

shall not be construed as relieving the Design Engineer of full responsibility for accuracy and

completeness of the drawings. This plan review

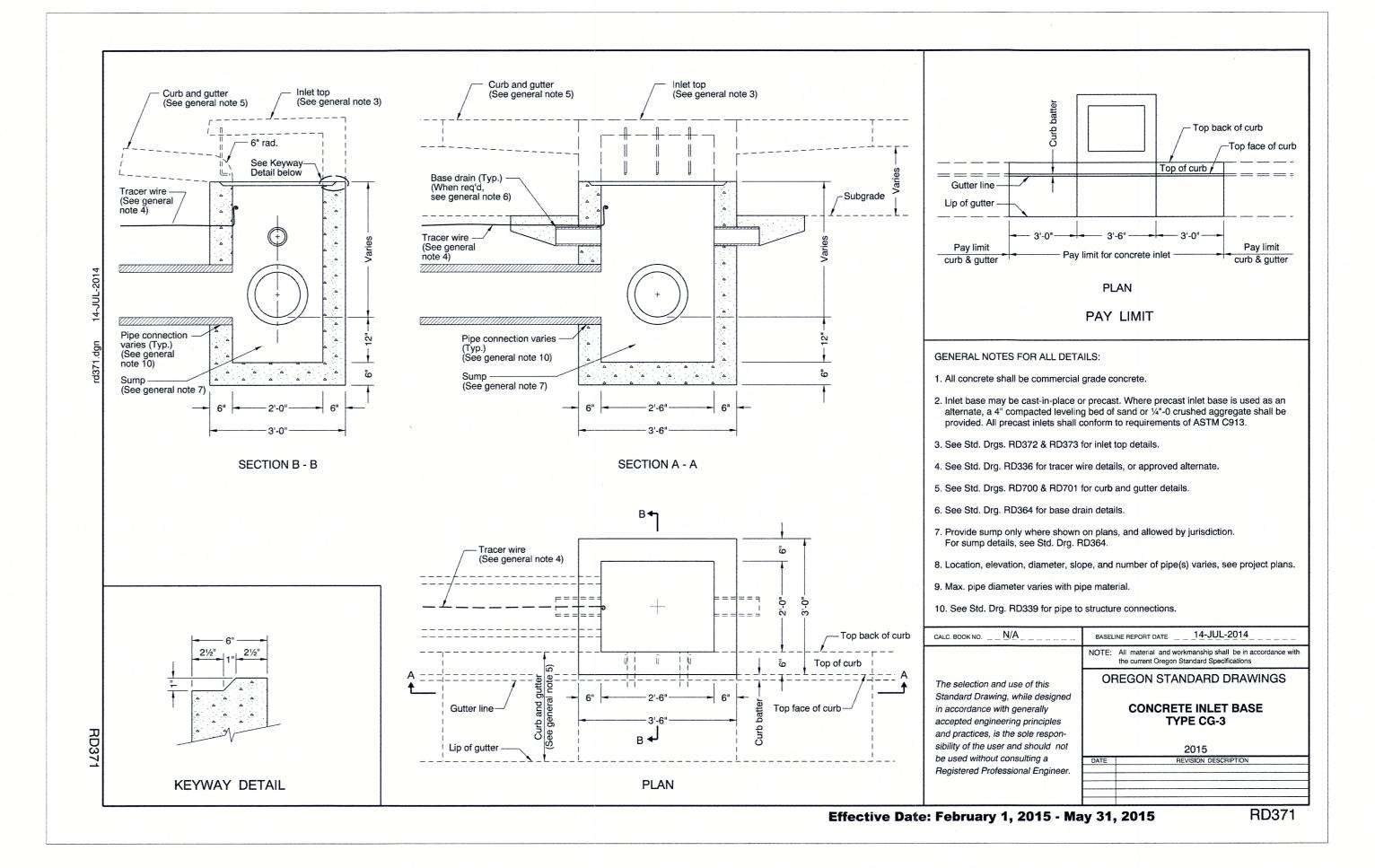
PRIOR TO SCHERWICTION

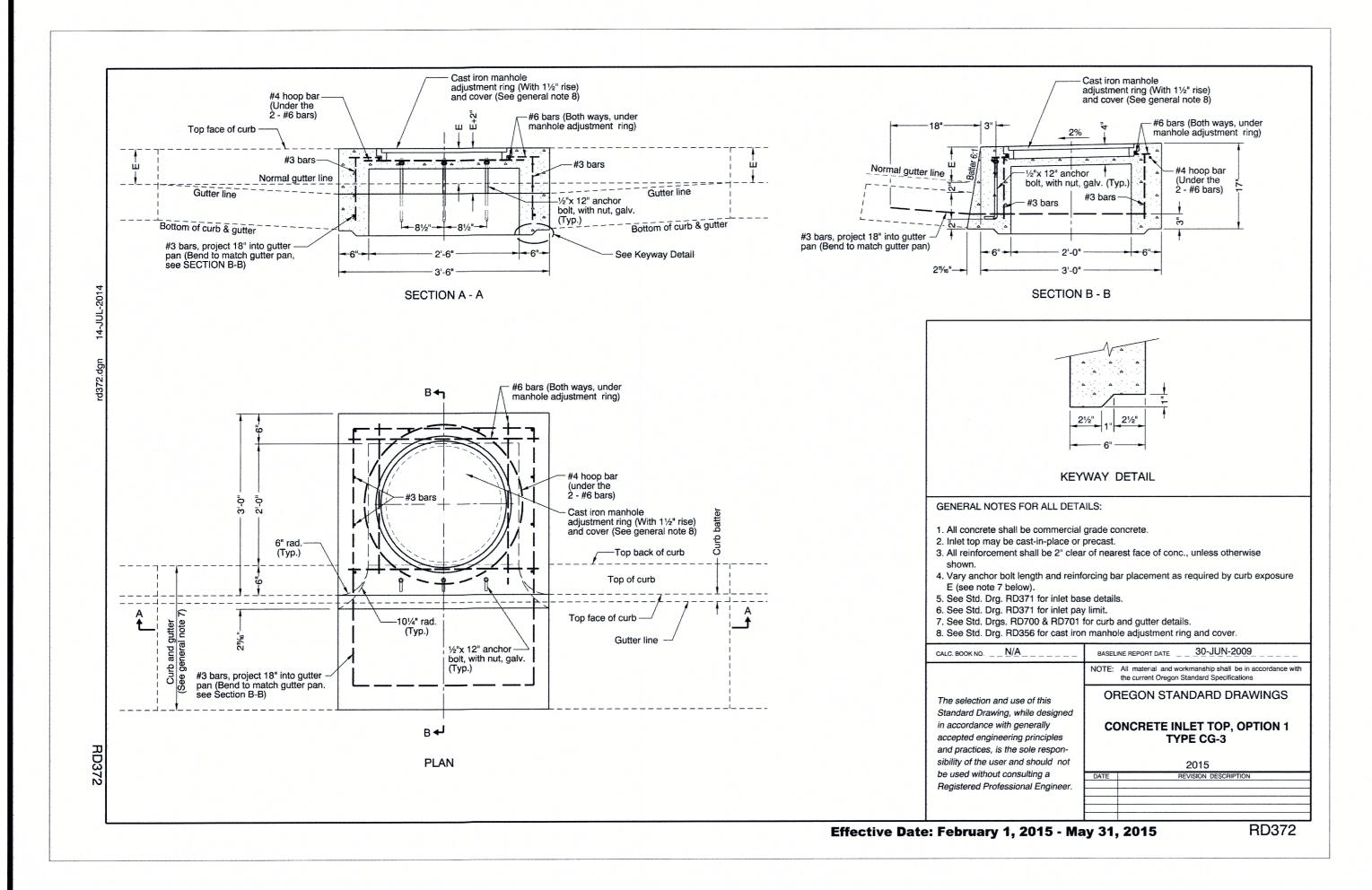
from requiring further code corrections in the

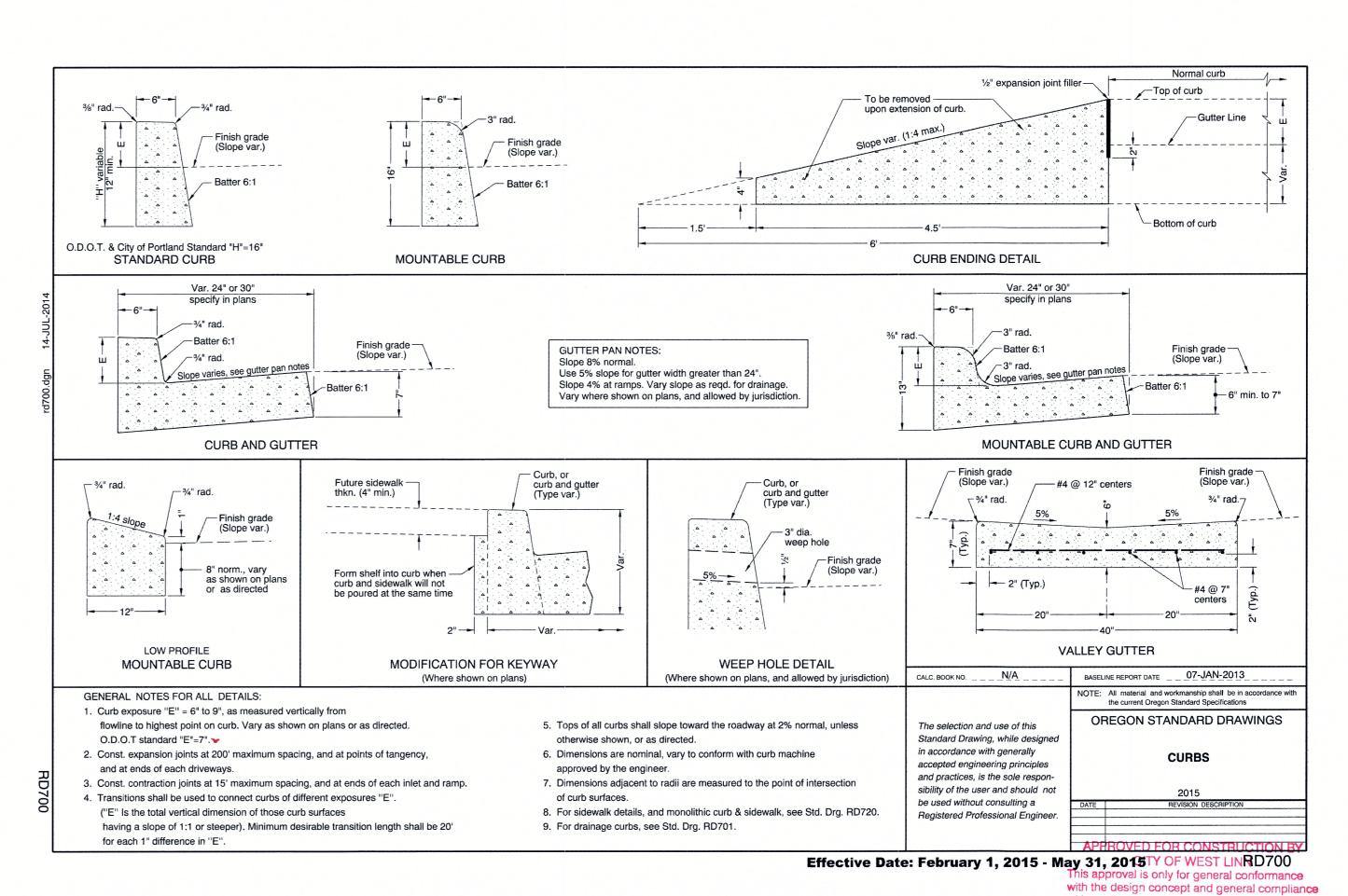
approval does not prevent the City

ODOT DETAILS

CS2.0E







STEWART GORDON STRAUS ARCHITECT 6775 SW | | | TH AVENUE SUITE 20 BEAVERTON, OR 97008

(503) 672-7517 (OFFICE)

(503) 672-7808 (FAX)

sgs@s-straus.com (e-mail)

WDY

Structural • Civil Engineers

6443 SW Beaverton-Hillsdale Hwy, suite 21
Portland, Oregon 97221
ph:503.203.8111 fx:503.203.8122
www.wdyi.com



# SHADY HOLLOW AND WILLAMETTE DRIVE

**PROJECT** 1335 NUMBER: DATE BY DRAWING DESIGN 20 NOV 2013 SGS 11 FEB 2014 SGS **DES REV** 12 MAR 2014 SGS PERMIT 22 AUG 2014 SGS PLAN CHECKS 21 OCT 2014 CGF 06 JAN 2015 | CGF 23 JAN 2015 CGF 25 FEB 2015 CGF 16 MAR 2015 CGP SHEET TITLE

SHEET TITLE

ODOT DETAILS

with applicable codes and requirements and shall not be construed as relieving the Design Engineer of full responsibility for accuracy and

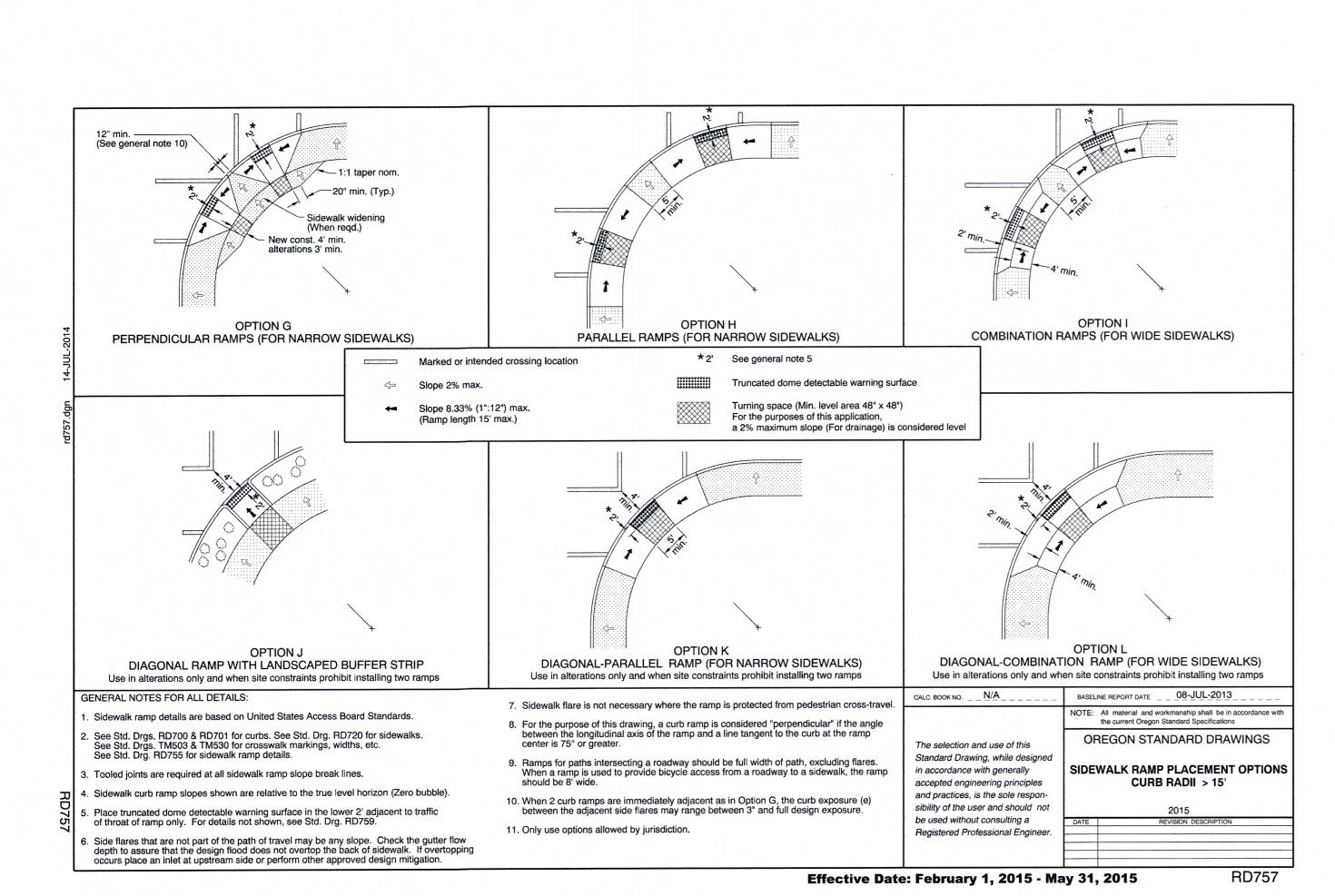
completeness of the drawings. This plan review

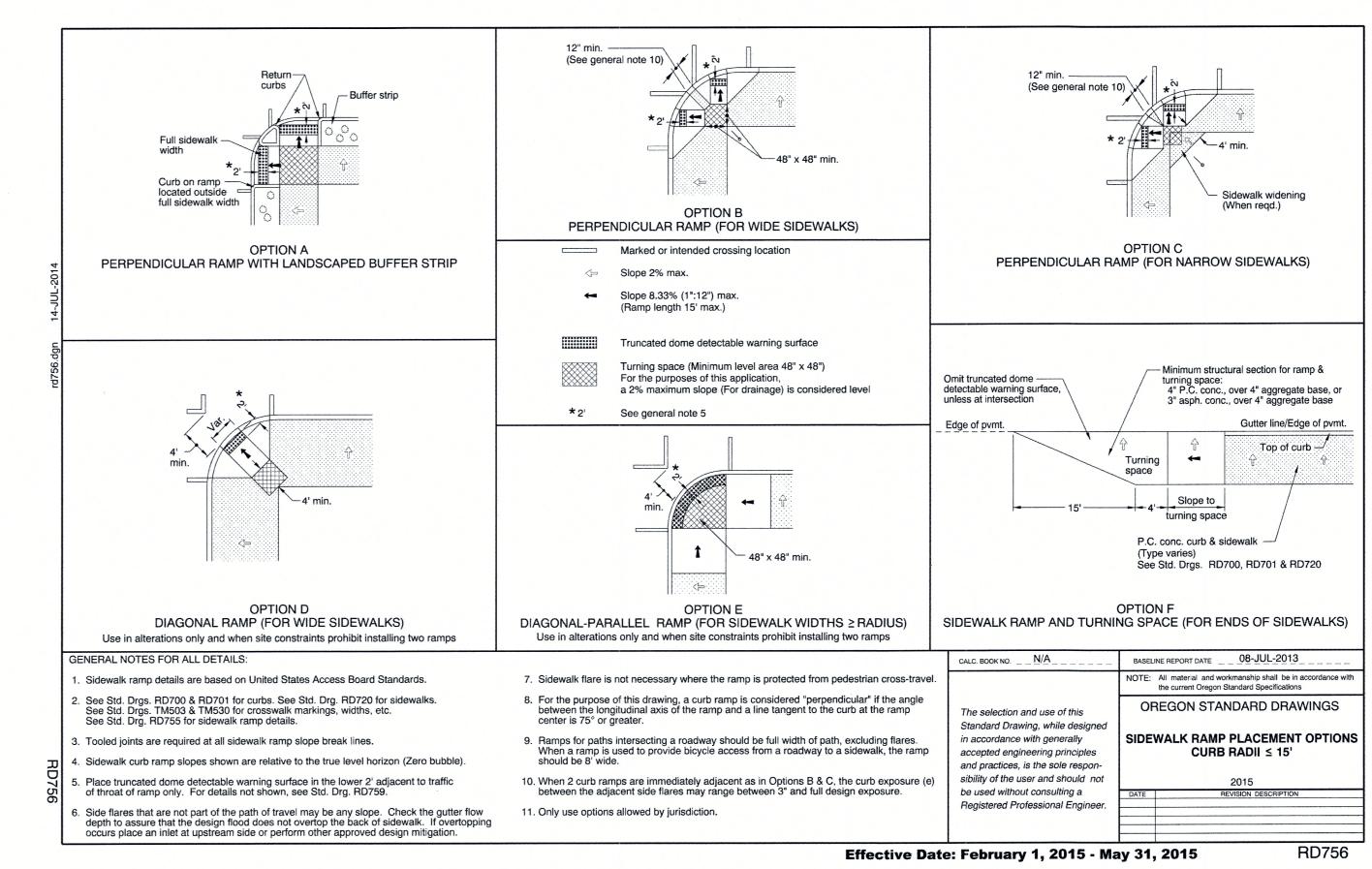
ODOT PERMIT REQUIRED PRIOR TO CONSTRUCTION

from requiring further code corrections in the

approval does not prevent the City

CS2.0F





APPROVED FOR CONSTRUCTION BY
CITY OF WEST LINN

This approval is only for general conformance

shall not be construed as relieving the Design Engineer of full responsibility for accuracy and

a, provel does not prevent the City

with the design concept and general compliance with applicable codes and requirements and

to the plantaness of the drawings. This plan review

ODOT PERMIT REGUIRED PRIOR TO CONSTRUCTION

ARCHITECT
6775 SW 111TH AVENUE
SUITE 20
BEAVERTON, OR 97008
(503) 672-7517 (OFFICE)
(503) 672-7808 (FAX)
sqs@s-straus.com (e-mail)

WDY

Structural • Civil Engineers

6443 SW Beaverton-Hillsdale Hwy, suite 210
Portland, Oregon 97221
ph:503.203.8111 fx:503.203.8122
www.wdyi.com



SHADY HOLLOW AND WILLAMETTE DRIVE
WEST I INN ORFGON

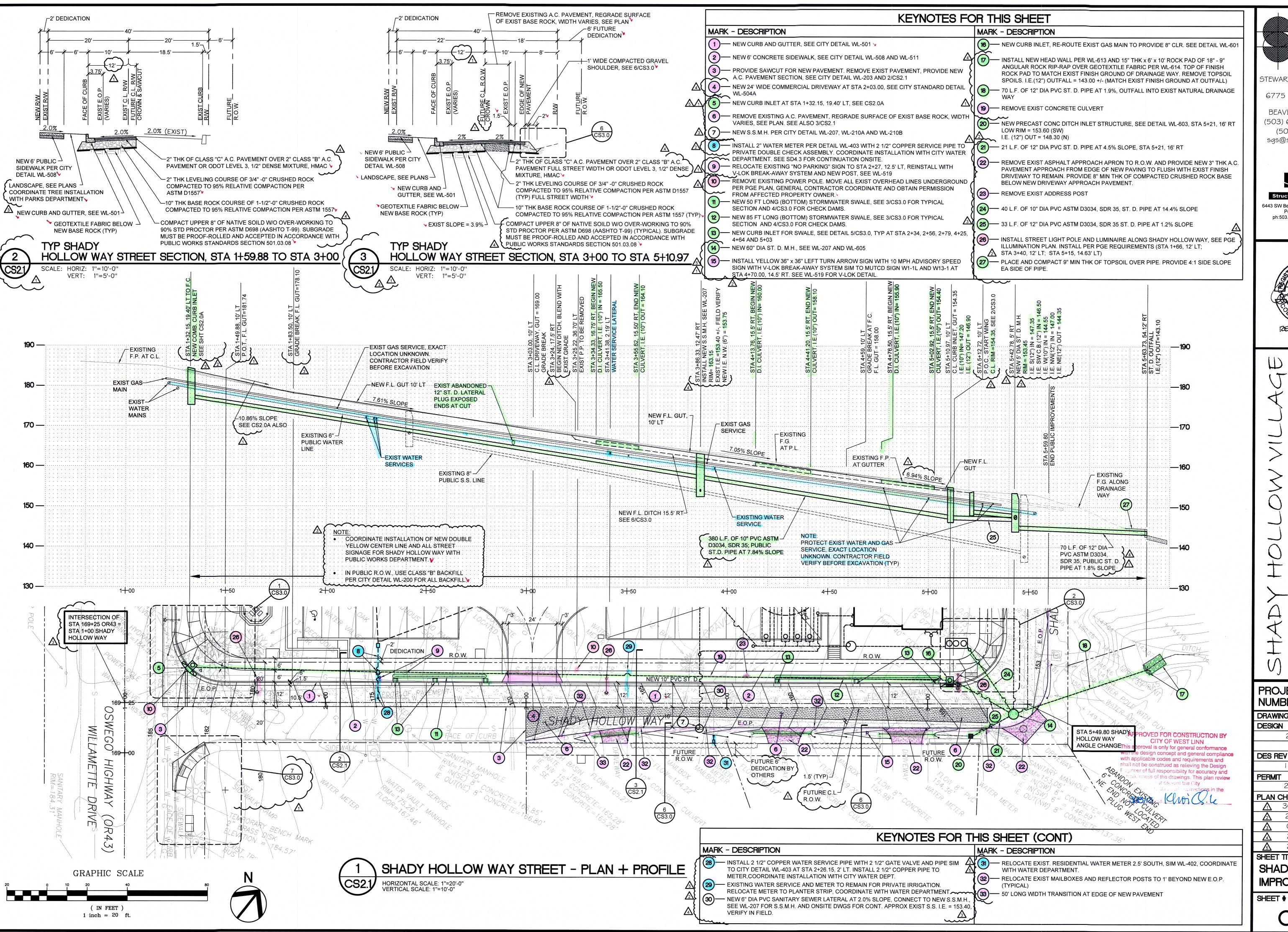
PROJECT NUMBER: 1335

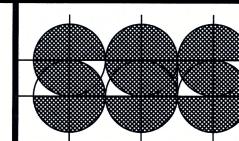
DRAWING DATE BY

11011	<b></b> : 1		
DRAWIN	<b>VG</b>	DATE	BY
DESIGN	1		
8	20 NO'	V 2013	SGS
	II FEE	3 2014	SGS
DES RE	EV		
	12 MAR	2014	SGS
PERMIT	•		
á	22 AUG	2014	SGS
PLAN C	CHECKS		
2	21 OC	Γ2014	CGP
3	06 JAN	12015	CGP
4	23 JAN	12015	CGP
<u>\$</u>	25 FEE	3 2015	CGP
<u>6</u>	16 MA	R 2015	CGP

SHEET TITLE

ODOT DETAILS





STEWART GORDON STRAUS **ARCHITECT** 6775 SW 111TH AVENUE SUITE 20 BEAVERTON, OR 97008

(503) 672-7517 (OFFICE) (503) 672-7808 (FAX) sqs@s-straus.com (e-mail)

**Structural · Civil Engineers** Portland, Oregon 97221 ph:503.203.8111 fx:503.203.8122 www.wdvi.com



DRIVE ₹ **≫** 

**PROJECT** 1335 NUMBER: DATE BY DRAWING DESIGN

20 NOV 2013 11 FEB 2014 **DES REV** 12 MAR 2014 22 AUG 2014

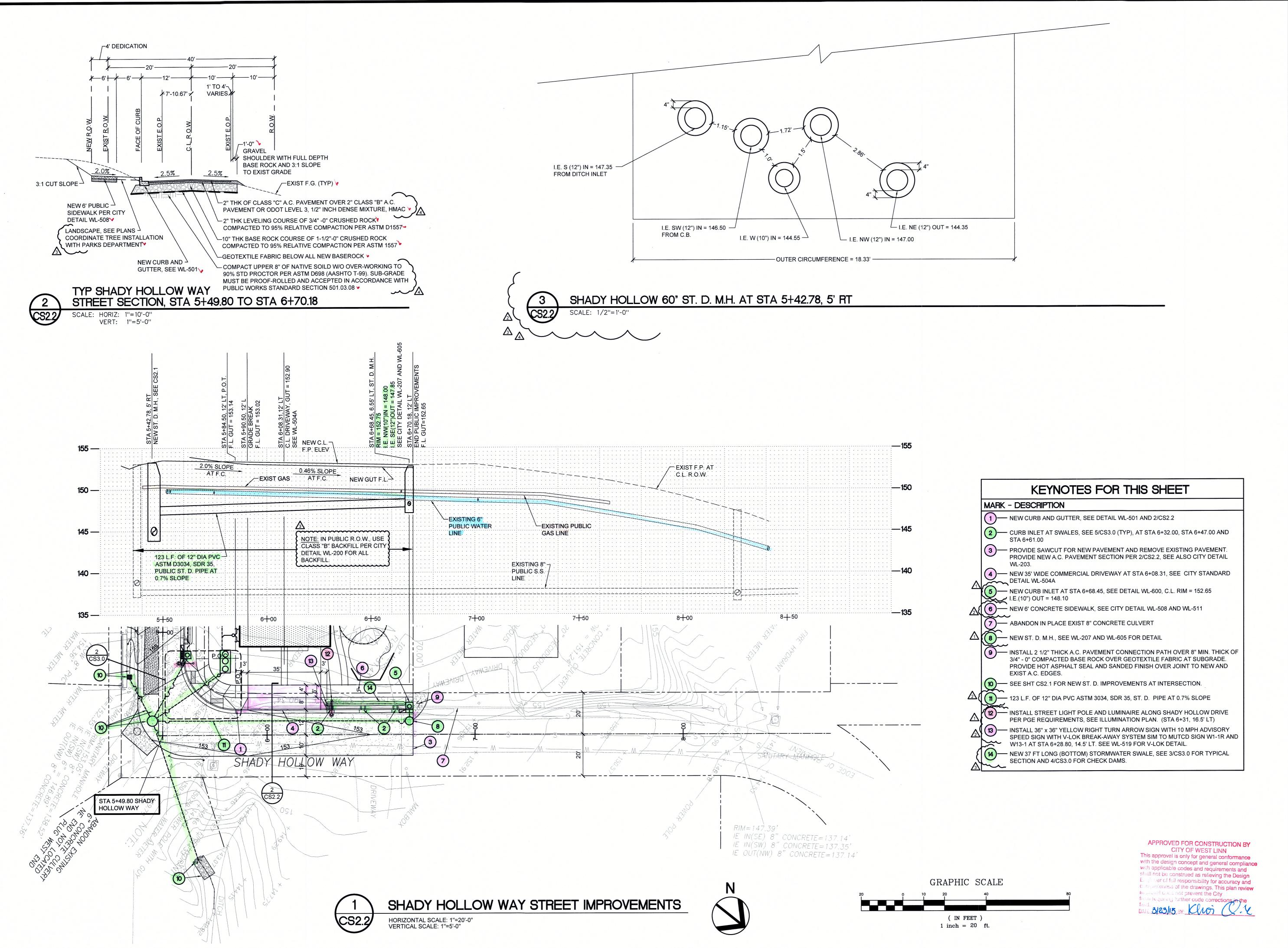
PLAN CHECKS 30 SEPT 2014 CGF

21 OCT 2014 06 JAN 2015 23 JAN 2015

25 FEB 2015 SHADY HOLLOW

**IMPROVEMENTS** 

**CS2.1** 



STEWART GORDON STRAUS **ARCHITECT** 6775 SW 111TH AVENUE SUITE 20 BEAVERTON, OR 97008

(503) 672-7517 (OFFICE) (503) 672-7808 (FAX) sgs@s-straus.com (e-mail)

WDY

Structural · Civil Engineer

6443 SW Beaverton-Hillsdale Hwy, suite: Portland, Oregon 97221 ph:503.203.8111 fx:503.203.8122

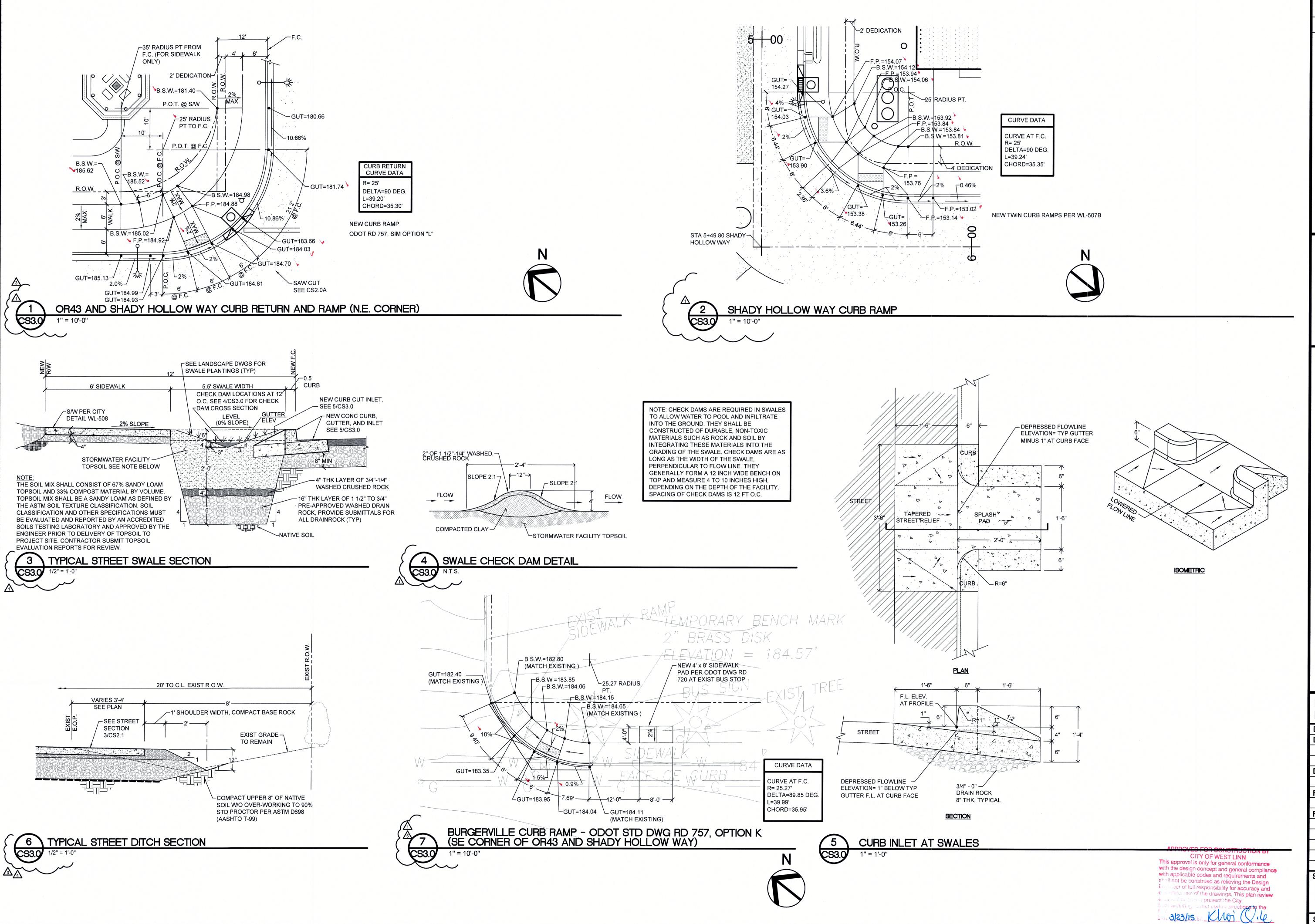


**PROJECT** NUMBER: DATE BY DRAWING

DESIGN 20 NOV 2013 SGS 11 FEB 2014 SGS **DES REV** 12 MAR 2014 SGS PERMIT 22 AUG 2014 SGS PLAN CHECKS ↑ 30 SEPT 2014 CGP 21 OCT 2014 CGP 06 JAN 2015 CGF

23 JAN 2015 CGF 25 FEB 2015 CGF SHEET TITLE

SHADY HOLLOW **IMPROVEMENTS** 



STEWART GORDON STRAUS
ARCHITECT
6775 SW 111TH AVENUE
SUITE 20
BEAVERTON, OR 97008
(503) 672-7517 (OFFICE)
(503) 672-7808 (FAX)
sgs@s-straus.com (e-mail)

WDY

Structural · Civil Engineers

6443 SW Beaverton-Hillsdale Hwy, suite 2 Portland, Oregon 97221 ph:503.203.8111 fx:503.203.8122 www.wdyi.com



SHADY HOLLOW AND WILLAMETTE DRIVE
WEST LINN, OREGON

PROJECT
NUMBER: 1335

DRAWING DATE BY
DESIGN

20 NOV 2013 SGS
11 FEB 2014 SGS

DES REV

12 MAR 2014 SGS

PERMIT

22 AUG 2014 SGS

PLAN CHECKS

△ 30 SEPT 2014 CGP

21 OCT 2014 CGP

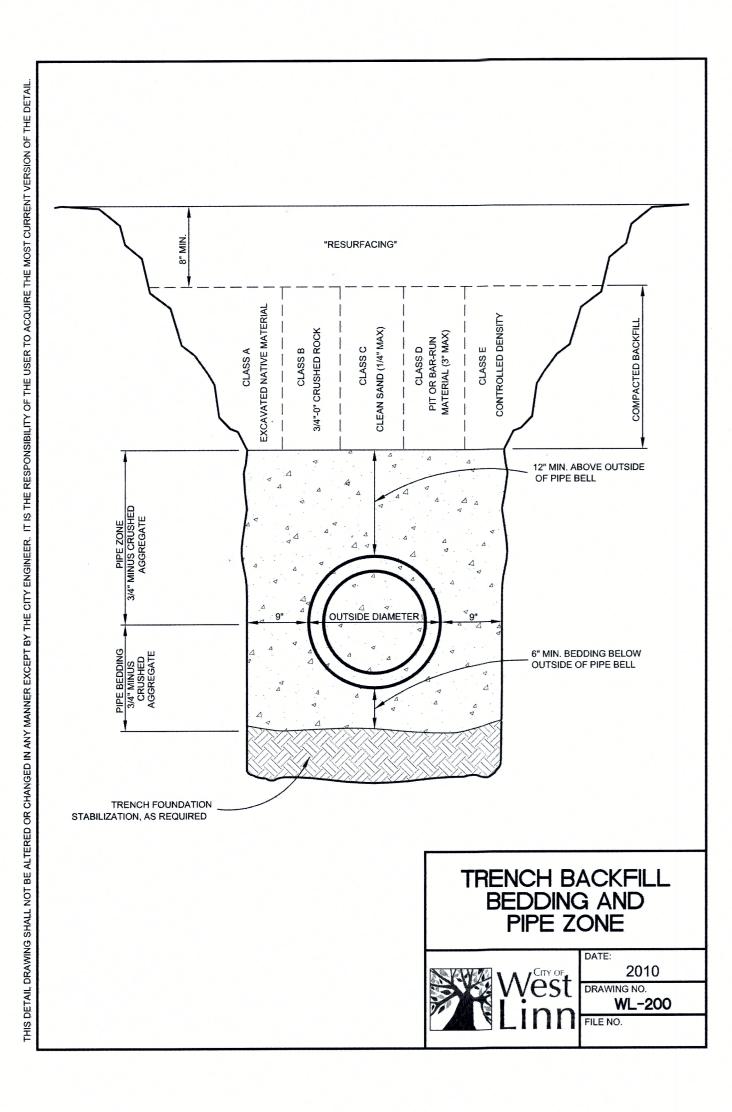
**SHEET TITLE** 

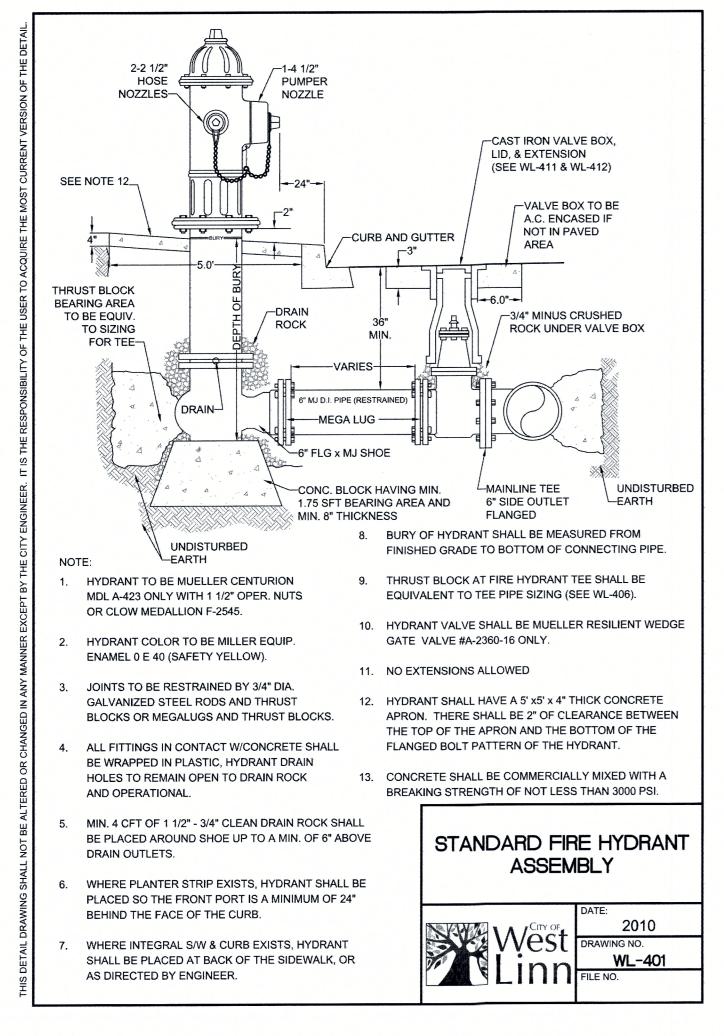
WDY SECTION DETAILS

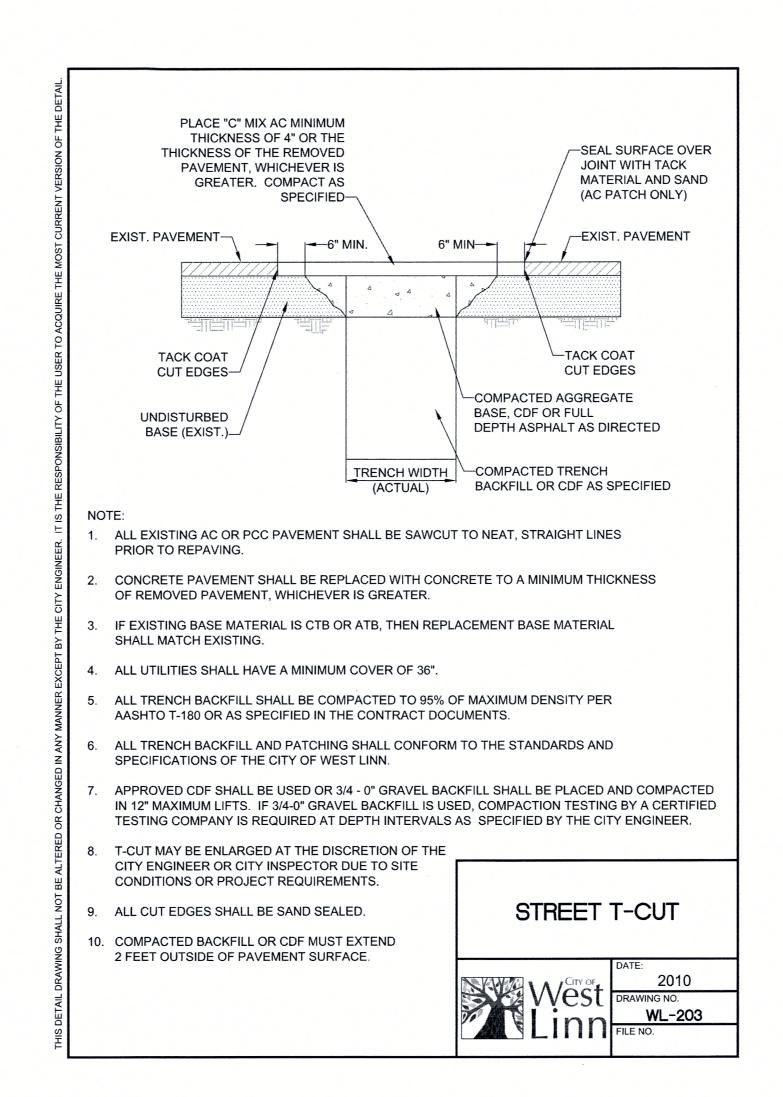
06 JAN 2015 CG

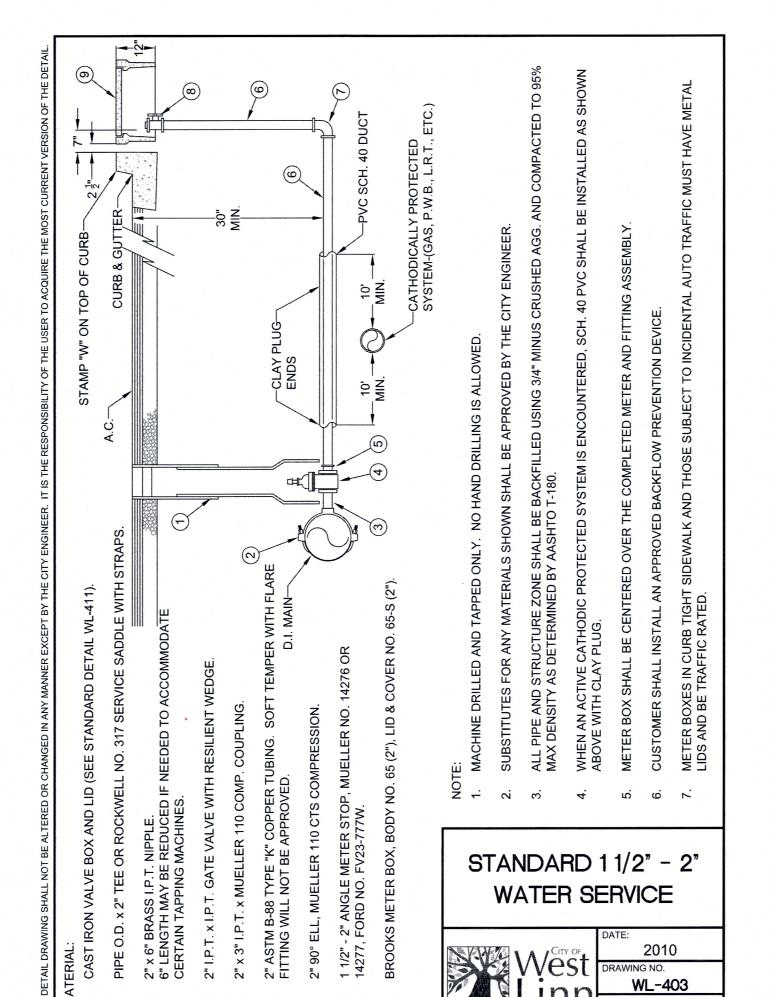
23 JAN 2015 CG

CS3.0





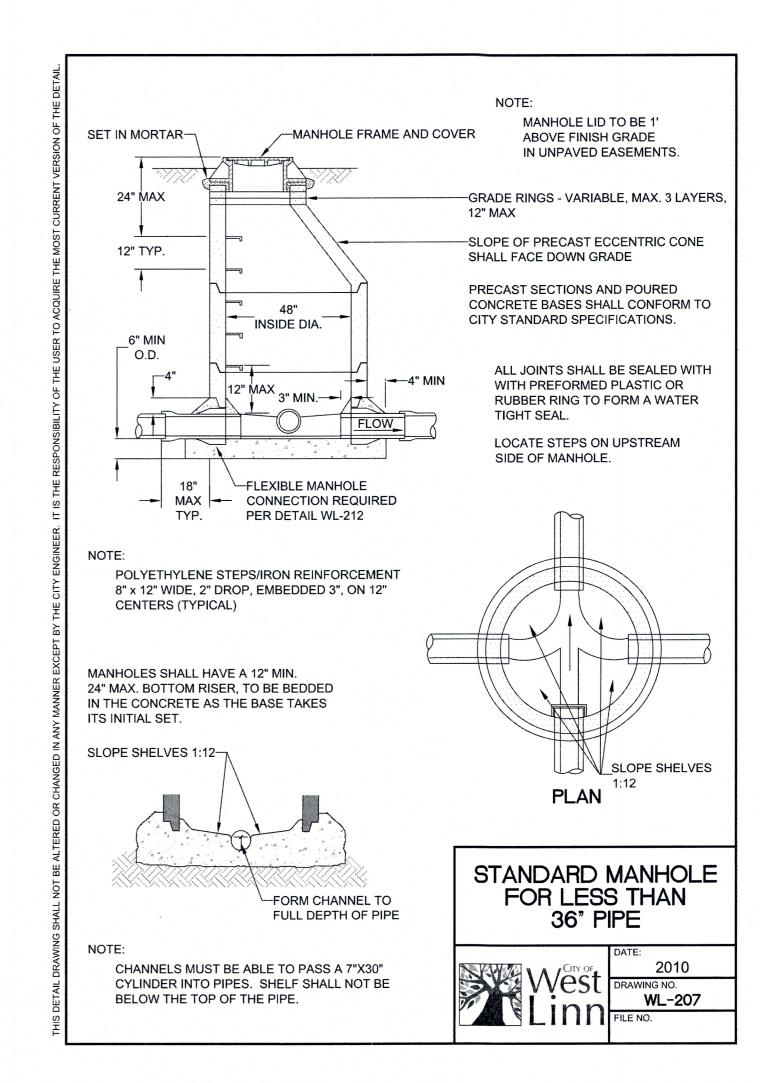


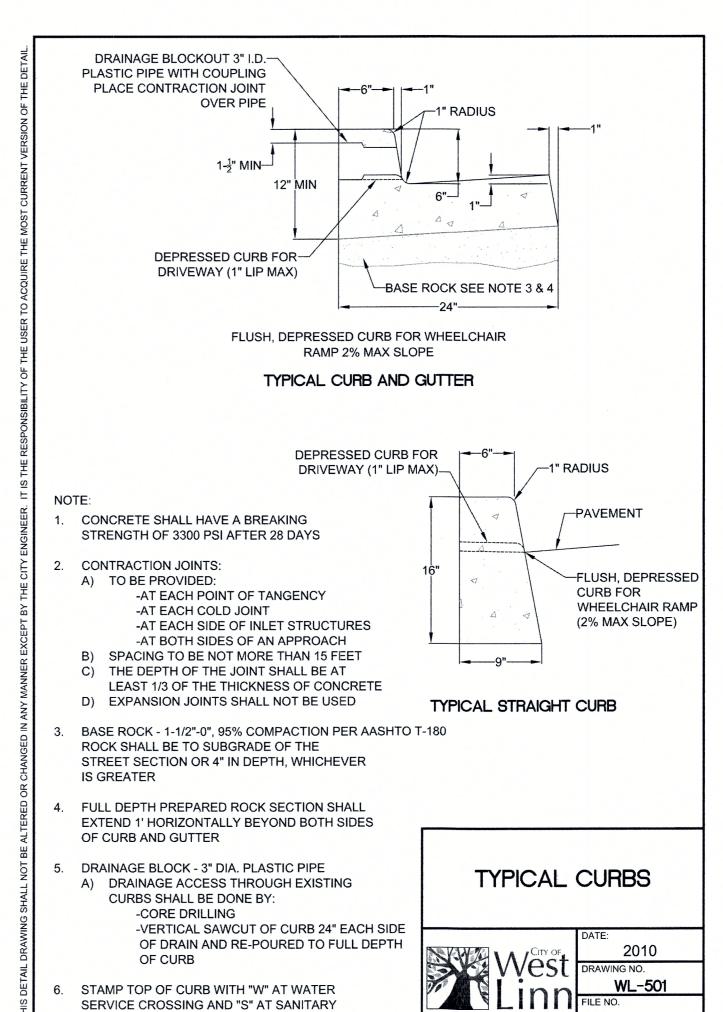


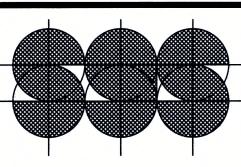
APPROVED FOR CONSTRUCTION BY CITY OF WEST LINN This approval is only for general conformance with the design concept and general compliance with applicable codes and requirements and shall not be construed as relieving the Design Engineer of full responsibility for accuracy and completeness of the drawings. This plan review approval does not prevent the City from requiring further code corrections in the field.

DATE:3/23/15 BY:

LATERAL CROSSING







STEWART GORDON STRAUS ARCHITECT 6775 SW I I I TH AVENUE SUITE 20 BEAVERTON, OR 97008 (503) 672-7517 (OFFICE)

(503) 672-7808 (FAX)

sqs@s-straus.com (e-mail)

Structural · Civil Engineers 6443 SW Beaverton-Hillsdale Hwy, suite 2

Portland, Oregon 97221

ph:503.203.8111 fx:503.203.8122

www.wdyi.com

WDY



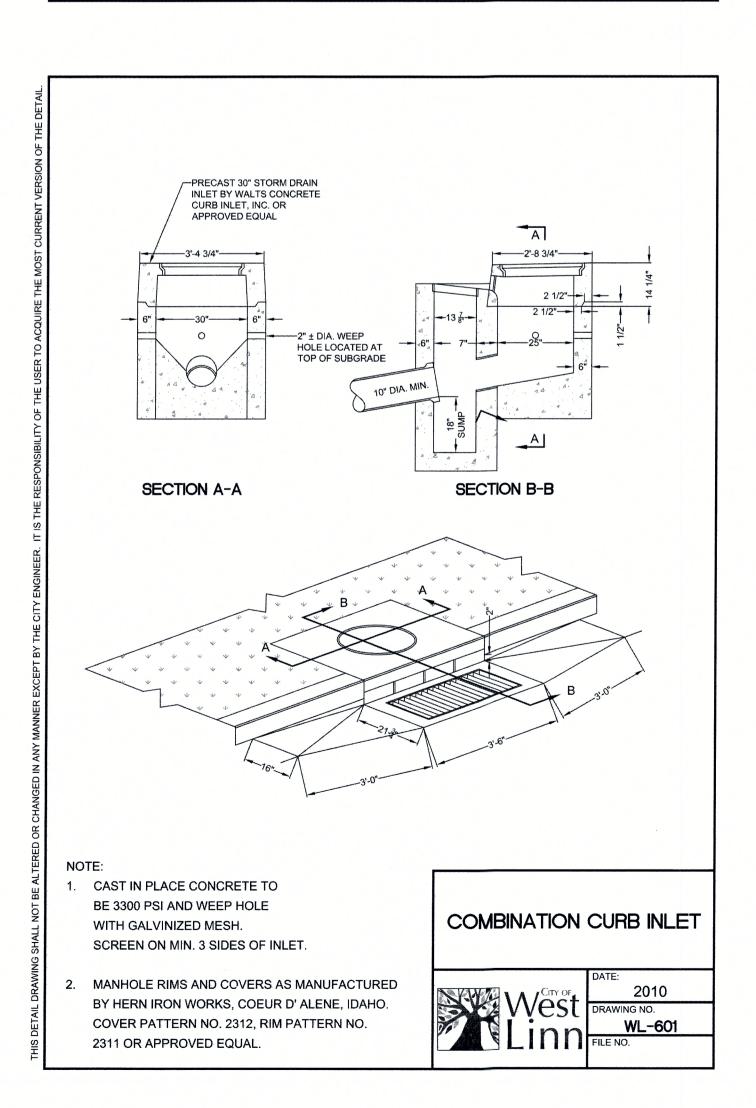
# DRIVE

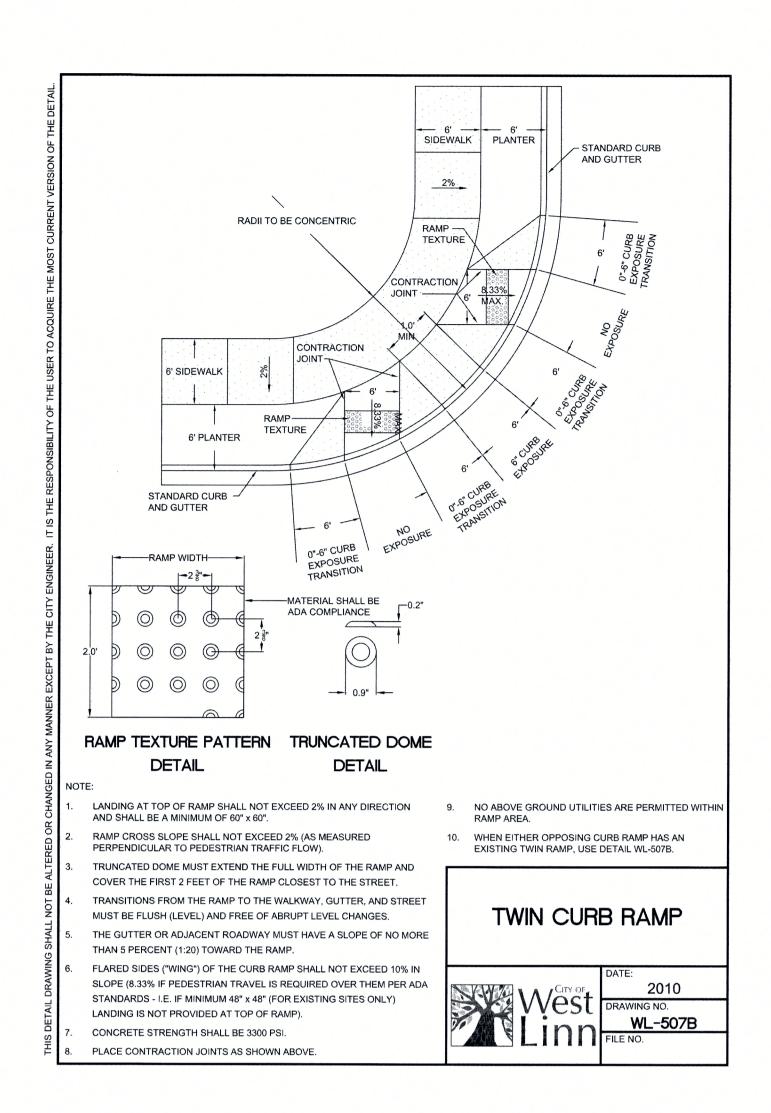
PROJEC1 1335 **NUMBER:** DATE BY DRAWING DESIGN 20 NOV 2013 SG 11 FEB 2014 SG DES REV 12 MAR 2014 SG PERMIT 22 AUG 2014 |SG PLAN CHECKS 30 SEPT 2014 CGF 21 OCT 2014 CGF 06 JAN 2015 CGF 23 JAN 2015 CGF

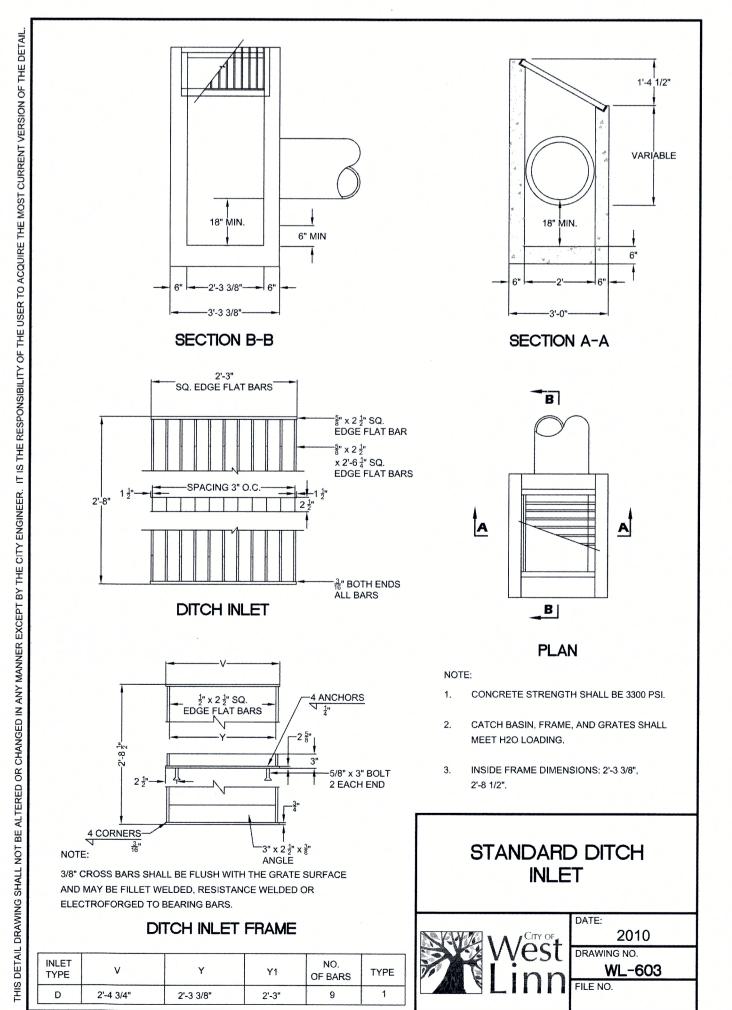
SHEET TITLE CIVIL DETAILS

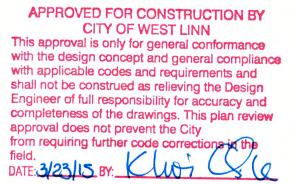
25 FEB 2015 CGF

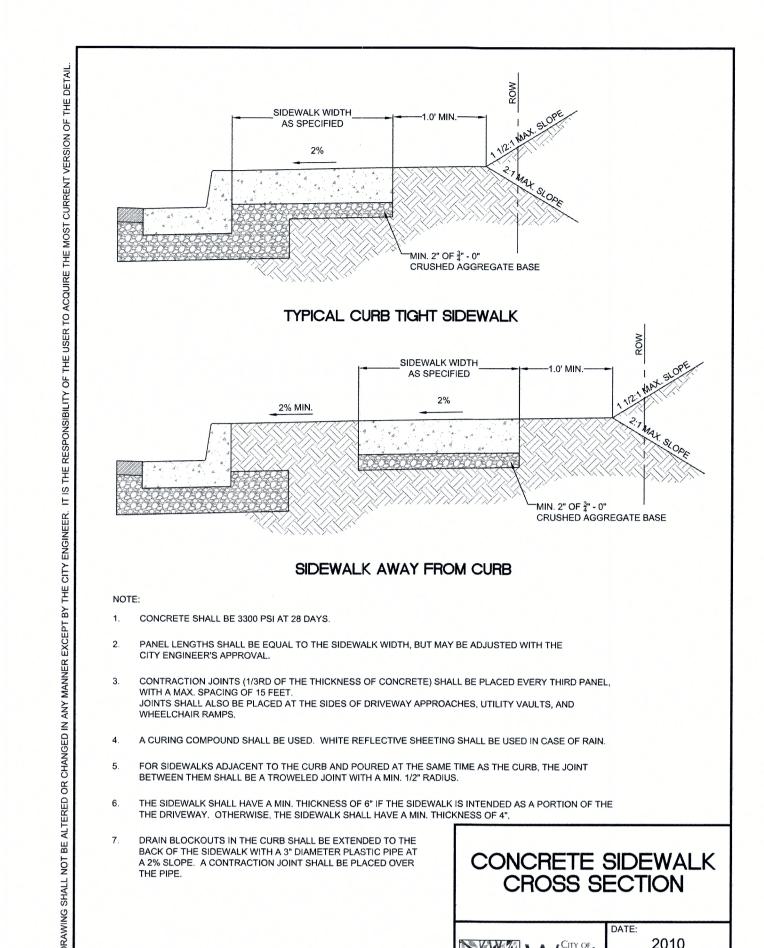
SHEET # **CS3.**1

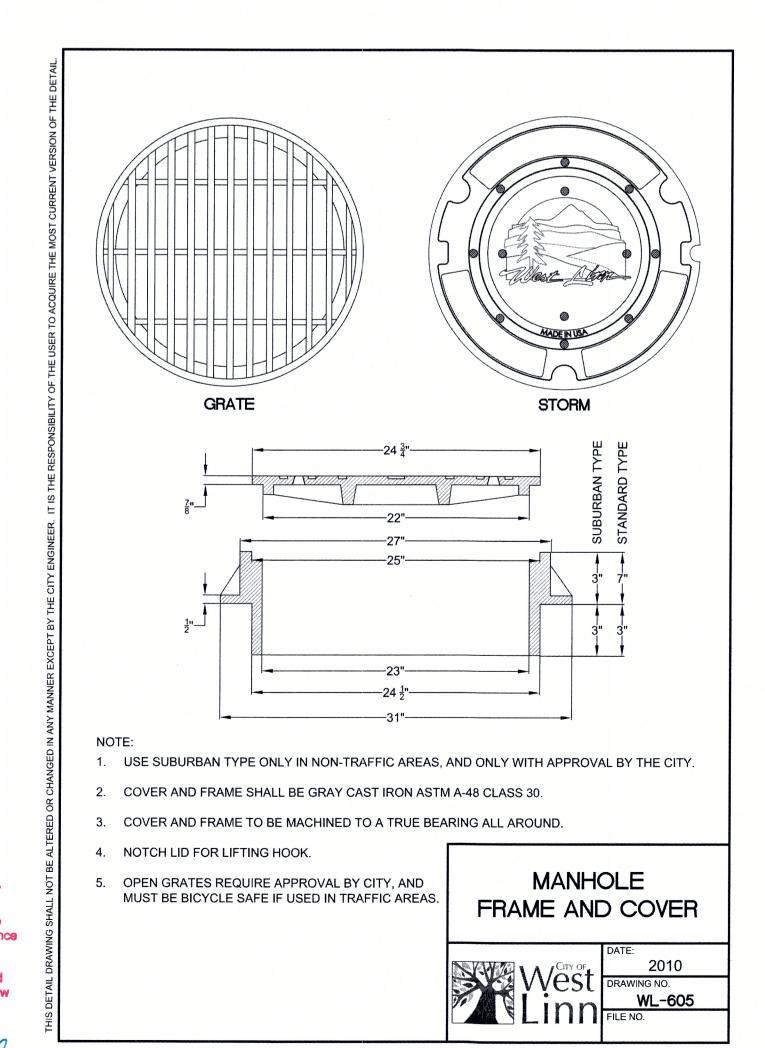


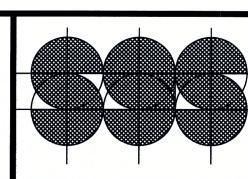












STEWART GORDON STRAUS ARCHITEC 6775 SW 111TH AVENUE SUITE 20 BEAVERTON, OR 97008 (503) 672-7517 (OFFICE (503) 672-7808 (FAX sgs@s-straus.com (e-mail



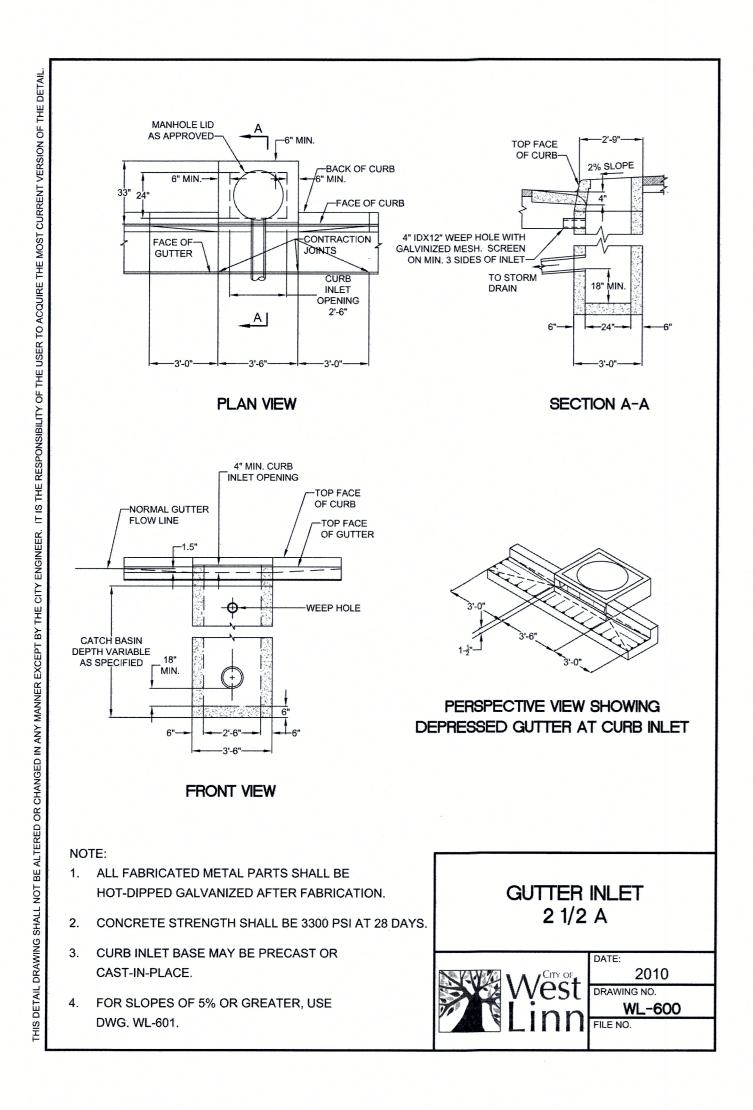
Portland, Oregon 97221 ph:503.203.8111 fx:503.203.8122 www.wdyi.com

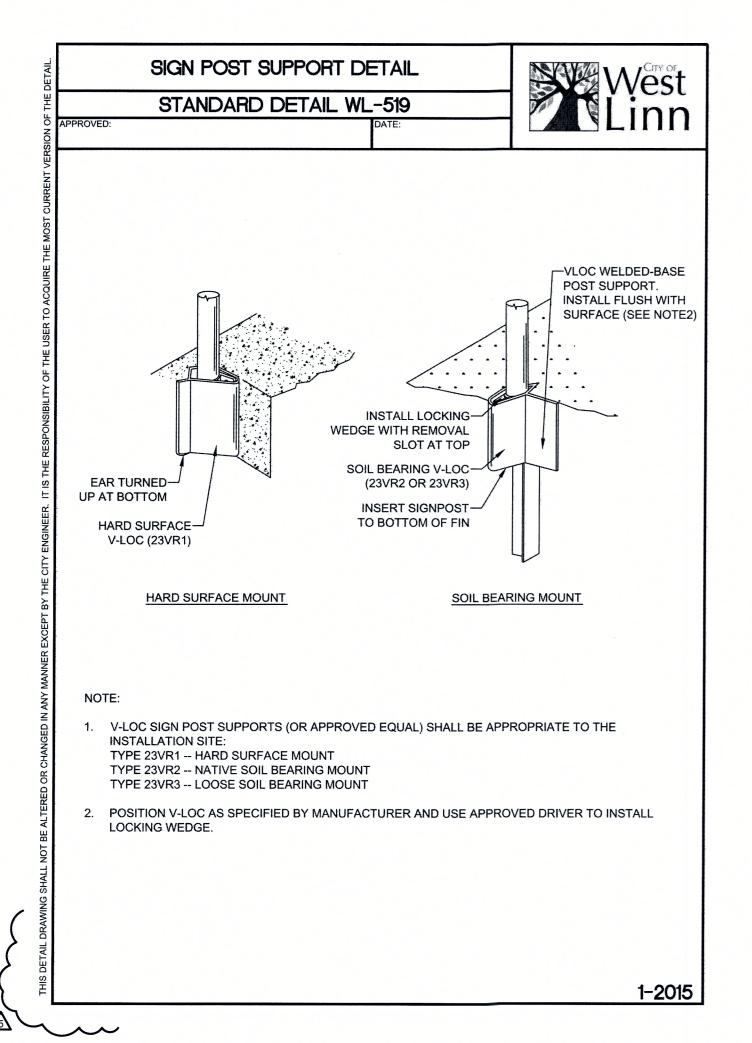


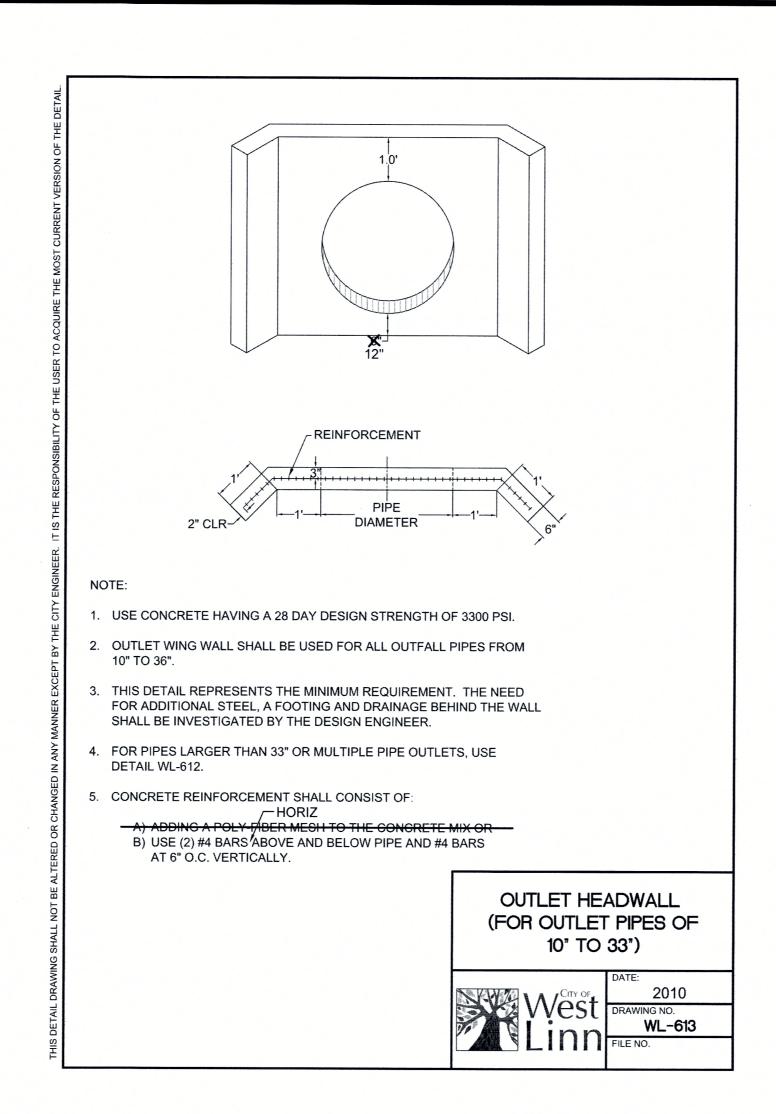
O J		
PROJECT NUMBER:	130	35
DRAWING	DATE	B,
DESIGN		
20 NO	V 2013	SG
II FEE	3 2014	SG
DES REV		
12 MAR	2014	SG
PERMIT		
22 AUG	2014	SG
PLAN CHECKS		
	72014	CG
<u></u> 21 0€	2014	CG
<u> </u>	12015	CG
	12015	CG
∆ 25 FEE	3 2015	CG

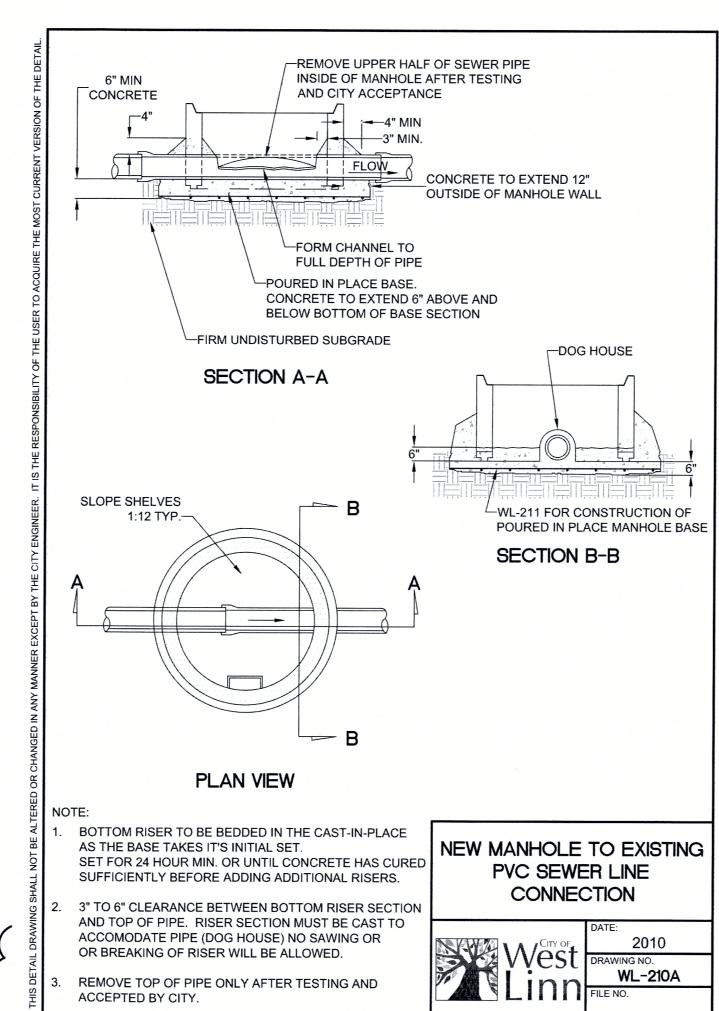
CIVIL DETAILS SHEET # **CS3.2** 

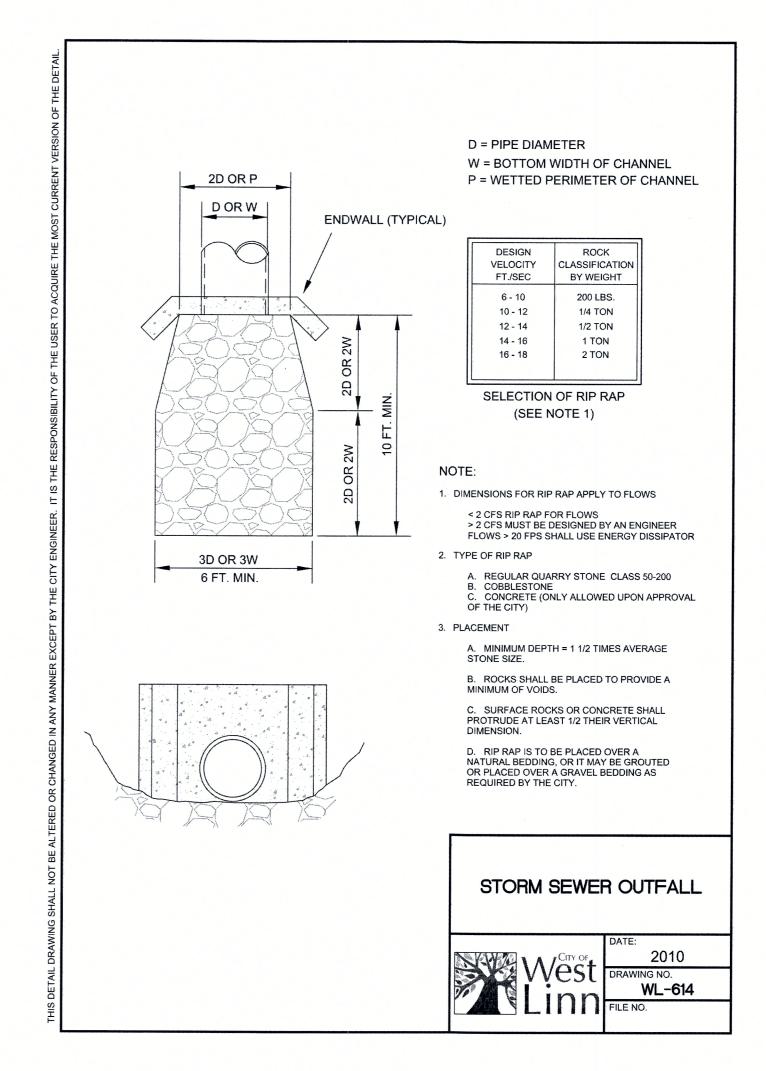
SHEET TITLE

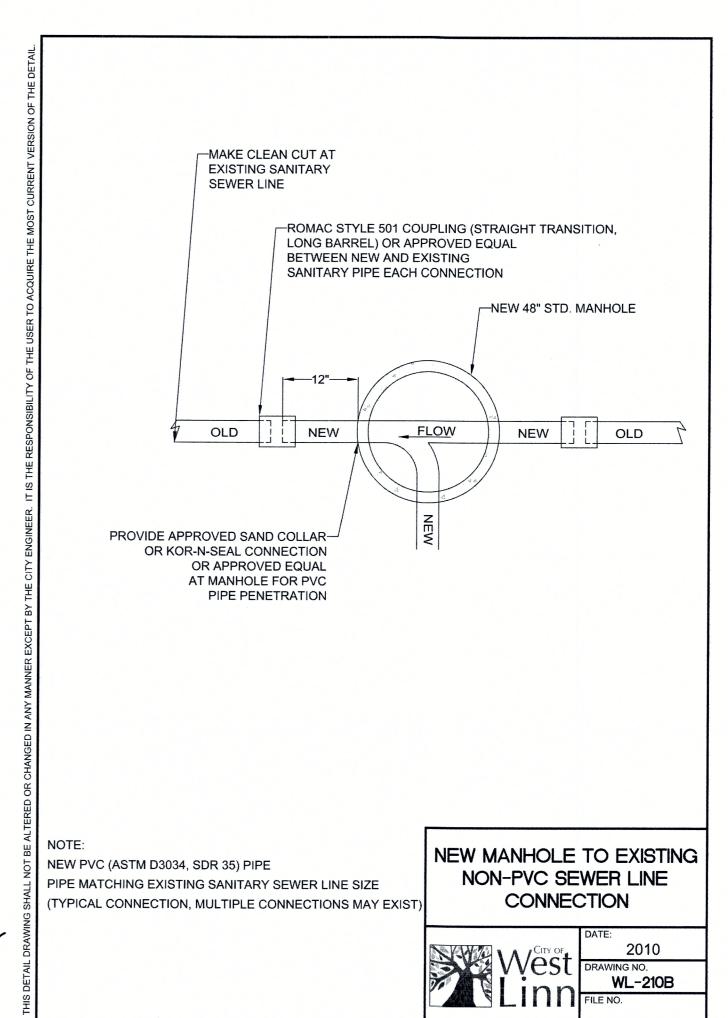


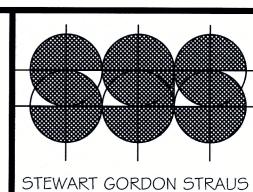












ARCHITECT 6775 SW IIITH AVENUE SUITE 20 BEAVERTON, OR 97008 (503) 672-7517 (OFFICE) (503) 672-7808 (FAX) sgs@s-straus.com (e-mail)

WDY

Structural · Civil Engineers 6443 SW Beaverton-Hillsdale Hwy, suite 21 Portland, Oregon 97221 ph:503.203.8111 fx:503.203.8122 www.wdyi.com



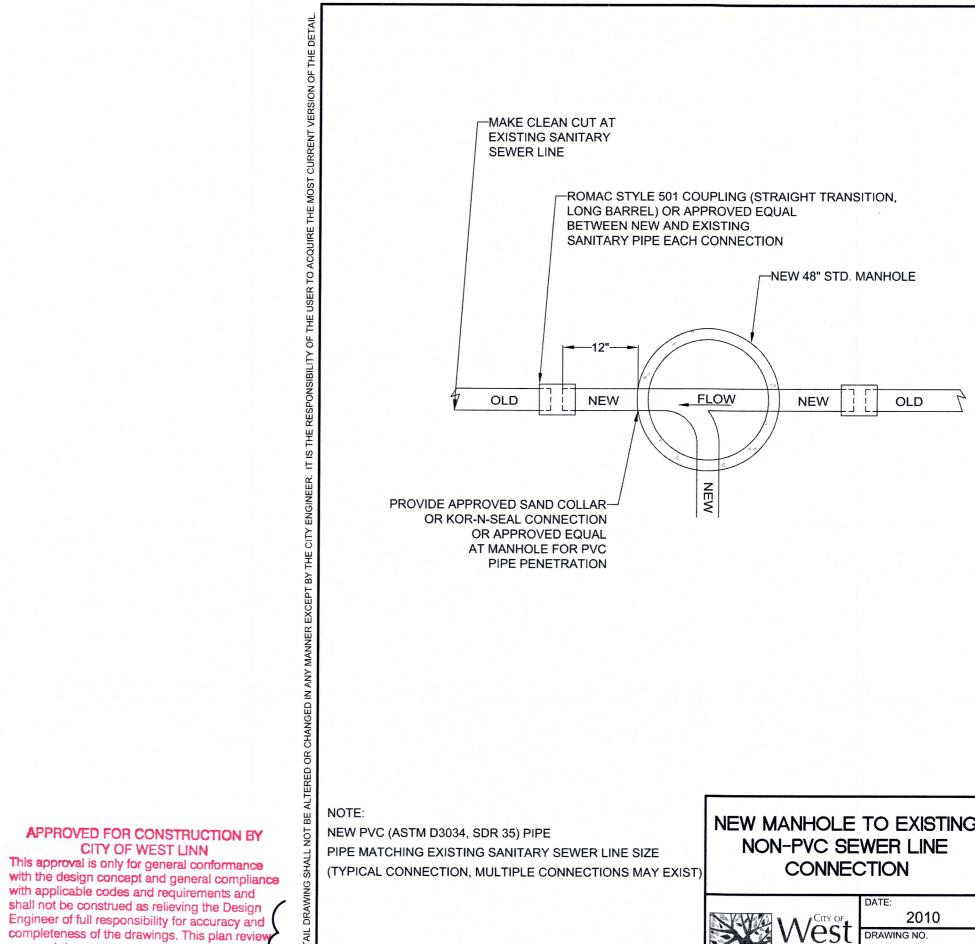
DRIVE

**PROJECT** NUMBER: DRAWING DATE BY DESIGN 20 NOV 2013 SGS 11 FEB 2014 SGS DES REV 12 MAR 2014 SGS PERMIT

22 AUG 2014 | SGS PLAN CHECKS 30 SEPT 2014 CGP 21 OCT 2014 CGP 06 JAN 2015 CGP 23 JAN 2015 CGP 25 FEB 2015 CGP

SHEET TITLE CIVIL DETAILS

SHEET #



CITY OF WEST LINN

approval does not prevent the City

from requiring further code corrections in

## 01.0 GENERAL

- 1. THESE NOTES SET MINIMUM STANDARDS FOR CONSTRUCTION. THE DRAWINGS GOVERN OVER THE GENERAL NOTES TO THE EXTENT SHOWN.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS ON DRAWINGS AND IN FIELD. NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH WORK.
- 3. CONTRACTOR SHALL BE SOLELY RESPONSIBLE TO PROVIDE FOR ALL NECESSARY TRAFFIC CONTROL PLANS, TEMPORARY SHORING AND OTHER INCIDENTAL WORK NEEDED FOR THE COMPLETION OF THE WORK.
- 4. WHERE REFERENCE IS MADE TO IBC. ASTM. AISC. ACI OR OTHER STANDARDS, THE
- LATEST ISSUE AT THE BUILDING PERMIT DATE SHALL APPLY. ALL WORK AND MATERIALS SHALL BE IN COMPLIANCE WITH THE PROJECT
- SPECIFICATIONS. THE "INTERNATIONAL BUILDING CODE" (IBC), THE INTERNATIONAL PLUMBING CODE (IPC) AND THE PROVISIONS OF "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION", 1996 EDITION, OREGON STATE HIGHWAY DIVISION (OSHD), AS AMENDED BY ALL OTHER STATE AND LOCAL CODES, JURISDICTIONS, PERMITS, AND BUILDING REQUIREMENTS THAT APPLY. THE CONTRACTOR SHALL OBTAIN ALL APPLICABLE CONSTRUCTION PERMITS AND SUBMIT TRAFFIC CONTROL PLANS PRIOR TO PROCEEDING WITH WORK.
- 6. EXISTING UTILITIES, SITE AND TOPOGRAPHIC INFORMATION SHOWN HEREON ARE BASED ON RECORD DRAWINGS PROVIDED BY OR MADE AVAILABLE BY THE OWNER. THE CONTRACTOR IS REQUIRED TO FIELD VERIFY THE LOCATION OF EXISTING FEATURES AND UTILITIES PRIOR TO CONSTRUCTION, AND SHALL ARRANGE FOR THE RELOCATION OF ANY IN CONFLICT WITH THE PROPOSED WORK. MINOR ADJUSTMENTS BASED ON FIELD CONDITIONS SHALL BE MADE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. LOCAL COUNTY AND CITY RECORD DRAWINGS SHOULD BE REVIEWED BY THE CONTRACTOR FOR THIS PURPOSE. THE EXISTENCE AND LOCATION OF EXISTING FEATURES ARE NOT GUARANTEED. ADDITIONAL UNDERGROUND UTILITIES MAY EXIST. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF INFORMATION OBTAINED FROM RECORD DRAWINGS OR INFORMATION PROVIDED BY OTHERS, IMPLIED OR OTHERWISE.
- ATTENTION EXCAVATORS: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH BY OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THESE RULES FROM THE CENTER BY CALLING (503) 232-1987. IF YOU HAVE ANY QUESTIONS ABOUT THE RULES, YOU MAY CONTACT THE CALL CENTER. YOU MUST NOTIFY THE CENTER AT LEAST 2 BUSINESS DAYS, BUT NOT MORE THAN 10 BUSINESS DAYS, BEFORE COMMENCING AN EXCAVATION. CALL (800) 332-2344.
- 8. CONTRACTOR SHALL CAREFULLY MAINTAIN BENCHMARKS, PROPERTY CORNERS, MONUMENTS, AND OTHER REFERENCE POINTS. IF SUCH POINTS ARE DISTURBED OR DESTROYED BY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL PAY FOR THEIR REPLACEMENT BY EMPLOYING A PROFESSIONAL LAND SURVEYOR TO RESET PROPERTY CORNERS AND OTHER SUCH MONUMENTS.
- CONTRACTOR TO COORDINATE AND PROVIDE INSTALLATION AS NECESSARY OF ALL PUBLIC AND PRIVATE UTILITIES FOR THIS PROJECT INCLUDING WATER SERVICE, SANITARY SEWER SERVICE, STORM DRAIN, ELECTRIC POWER, COMMUNICATIONS, CABLE TV, NATURAL GAS, STREET LIGHTS, ETC.
- 10. CONTRACTOR TO MAINTAIN ONE COMPLETE SET OF APPROVED DRAWINGS ON SITE FOR THE SOLE PURPOSE OF CONTRACTOR RECORDING AS-BUILT INSTALLATION OF IMPROVEMENTS. SUBMIT AS-BUILT PLANS TO OWNER.
- 11. ALL CONSTRUCTION ACTIVITY SHALL BE DONE IN A SAFE AND NEAT MANNER AND UNDER OBSERVATION BY CITY FORCES.
- 12. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL CONSTRUCTION SAFETY, HEALTH AND OTHER RULES AND REGULATIONS FROM OSHA, DEQ, STATE, AND LOCAL REGULATING AGENCIES FOR SAFETY AND INSTALLATION OF THE WORK INCLUDING BUT NOT LIMITED TO SHORING, BRACING, ERECTION / INSTALLATION, FALL PROTECTION, GUARDRAILS, ETC.
- 13. ALL SEWER TRENCH LINES AND EXCAVATIONS SHALL BE PROPERLY SHORED AND BRACED TO PREVENT CAVING. UNUSUALLY DEEP EXCAVATIONS MAY REQUIRE EXTRA SHORING AND BRACING. ALL SHEETING, SHORING, AND BRACING OF TRENCHES SHALL CONFORM TO OREGON OCCUPATIONAL SAFETY AND HEALTH DIVISION (OSHA) REGULATIONS AND THE CITY OR COUNTY STANDARD CONSTRUCTION SPECIFICATIONS.
- 14. ALL UNDERGROUND UTILITIES SHALL BE INSTALLED PRIOR TO CONSTRUCTION OF CURBS, RETAINING WALLS, OR PAVEMENT
- 15. ALL WATER AND SEWERAGE APPURTENANCES SHALL CONFORM TO APWA, OREGON CHAPTER, "STANDARDS SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION"; THE
- APPROVED CONSTRUCTION DRAWINGS; AND CITY OF WEST LINN REQUIREMENTS. 16. ELEVATION DATUM IS BASED ON THE SHEDHERD AJ8918 BENCH MARK, ELEVATION = 195.00, BRASS DISK LOCATED NEAR THE CONCRETE AND BRICK ENTRANCE SIGN TO MARYLHURST UNIVERSITY.
- EXISTING TOPOGRAPHY, UTILITIES, AND ELEVATION DATUM ARE BASED ON THE OWNER'S TOPOGRAPHIC SURVEY PROVIDED BY THE OWNER/DEVELOPER. THE EXISTENCE AND LOCATION OF EXISTING FEATURES ARE NOT GUARANTEED. ADDITIONAL UNDERGROUND UTILITIES MAY EXIST. THE ENGINEER/WDY ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF INFORMATION PROVIDED BY OTHERS, IMPLIED OR OTHERWISE
- 18. DETAILS SHOWN ON THE DRAWINGS ARE INTENDED TO APPLY AT ALL SIMILAR
- CONDITIONS AND LOCATIONS. 19. DO NOT SCALE INFORMATION FROM DRAWINGS.
- 20. CONTRACTOR TO REMOVE FROM SITE EXCESS SOIL OR OTHER MATERIALS NOT REUSABLE FOR THIS PROJECT, AND COMPLY WITH ALL RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL REPORT.
- 21. APPROPRIATE BENCHING OF FILLS IS REQUIRED FOR FILLS OVER 5 FEET IN HEIGHT ON SLOPES IN EXCESS OF 5 HORIZONTAL TO 1 VERTICAL. THE GEOTECHNICAL ENGINEER SHALL INSPECT BENCHES PRIOR TO FILL PLACEMENT
- 22. CUT AND FILL SLOPES SHALL BE PROTECTED FROM EROSION. SUCH CONTROL MAY CONSIST OF APPROPRIATE REVEGETATION OR OTHER ACCEPTABLE MEANS AND METHODS. EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO EARTHWORK
- 23. MATERIAL IN SOFT SPOTS WITHIN 5 FEET OF RIGHT-OF-WAYS, PAVEMENTS OR BUILDINGS SHALL BE REMOVED TO THE DEPTH REQUIRED TO PROVIDE A FIRM SUBGRADE AND SHALL BE REPLACED WITH 1-1/2" - 0" CRUSHED ROCK COMPACTED TO 95% PER ASTM D1557.
- 24. THE NATIVE SUBGRADE SURFACE SHALL BE APPROVED BEFORE SCARIFYING OR PLACING ANY FILL OR BASE ROCK BY THE SOILS ENGINEER. THE UPPER 8 INCHES OF NATIVE SUBGRADE IS TO BE SCARIFIED, DRIED AND RECOMPACTED TO 90% MAXIMUM DRY DENSITY PER ASTM D698. PLACE GEOTEXTILE FABRIC (MIRAFI 500X, PROPEX GEOTEX 200ST, CONTECH C200 OR EQUAL) BELOW ALL VEHICULAR PAVEMENT. FOR WET WEATHER CONSTRUCTION (AS DETERMINED BY THE GEOTECHNICAL ENGINEER) A WORKING BLANKET OF PIT RUN OR CRUSHED ROCK IS TO BE LAID OVER GEOTEXTILE FABRIC. ON-SITE COMPACTION TESTS AND DEFLECTION TEST(S) PERFORMED WITH A 50,000 LB. VEHICLE MUST BE PERFORMED AND WITNESSED BY THE GEOTECHNICAL ENGINEER. NO DEFLECTION IS ALLOWED AND ALL BUILDING AND PAVEMENT AREAS MUST BE PROOF-ROLLED. DURING WET WEATHER CONSTRUCTION (AS DETERMINED BY THE SOILS ENGINEER), PROVIDE THE PROOF-ROLL TEST OVER THE BASE ROCK SURFACES PRIOR TO PLACEMENT OF ANY PAVEMENT.
- 25. CRUSHED ROCK BASE MATERIAL AND PIPE ZONE MATERIAL SHALL BE CRUSHED ROCK CONFORMING TO OREGON DEPARTMENT OF TRANSPORTATION (ODOT) SECTION 00640 AND 00641 AND BE COMPACTED TO 95% OF MAXIMUM DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM D1557.
- 26. 3/4 " 0" CRUSHED ROCK PIPE ZONE AND BACKFILL MATERIAL IS REQUIRED FOR ALL UTILITY LINES, CONDUITS AND LEVELING COURSES. REFER TO THE TYPICAL UTILITY CONDUIT TRENCH AND PAVEMENT DETAILS.
- 27. ASPHALTIC CONCRETE (A.C.) PAVEMENT SHALL BE A 12.5MM DENSE GRADED HOT MIX WITH A 5.8% MINIMUM ASPHALT CONTENT PER OREGON DOT CLASSIFICATION FOR ALL LIFTS. PAVEMENT SHALL BE PLACED ONLY ON DRY, CLEAN AND PROPERLY PREPARED SURFACES, AND WHEN CONDITIONS MEET THE SPECIFICATIONS AS SET FORTH IN THE MOST RECENT EDITION OF THE OREGON DOT SPECIFICATIONS. ALL NEW PAVEMENT AREAS SHALL CONFORM TO THE TYPICAL PAVEMENT SECTION DETAIL. ALL A.C. PAVEMENT TO BE COMPACTED TO 92% OF MAXIMUM DENSITY PER ASTM D2041 FOR SINGLE AND FIRST LIFTS AND 92% COMPACTION SHALL BE REQUIRED FOR SUBSEQUENT LIFTS.
- 28. ALL JOINTS BETWEEN A.C AND CONCRETE STRUCTURES MUST BE TACKED WITH
- BITUMASTIC. NO EXCEPTIONS ALLOWED. 29. ALL PORTLAND CEMENT CONCRETE PAVEMENT SHALL HAVE A 28 DAY MINIMUM ULTIMATE STRENGTH OF 4000 PSI. PROVIDE A MINIMUM OF (4) TEST CYLINDERS IN ACCORDANCE WITH CURRENT IBC AT EACH POUR.
- A. MINIMUM MIX REQUIREMENTS:
- . CEMENT CONTENT PER YARD: 5 SACKS. II. MAXIMUM WATER/CEMENT RATIO: 0.45. FLY ASH MEETING ASTM C618 AND WITH LOSS ON IGNITION LESS THAN 3% MAY BE ADDED TO THE CEMENT, BUT NOT MORE THAN 15% BY WEIGHT
- III. SLUMP: 3 INCH TO 4 INCH. DEVIATING FROM DESIGN SLUMP +1/2 INCH TO -1 INCH. WHEN CONCRETE IS TO BE PUMPED, ADD PLASTICIZERS MEETING ASTM C494 AND PROVIDE A NEW MIX DESIGN. DO NOT ADD WATER.

- IV. ADMIX: PROVIDE WATER REDUCING ADMIX (MASTER BUILDERS) AND REDUCE WATER USED BY 10% MINIMUM FOR ALL SLABS.
- V. AIR ENTRAINMENT: PER ACI 301 AND 306 AT ALL EXTERIOR SLABS AND FLAT WORK 60% AIR MINIMUM
- VI. ALL ADMIXTURES TO BE COMPATIBLE FROM SAME MANUFACTURER. B. PLACE AND CURE ALL CONCRETE PER ACI CODES AND STANDARDS. C. SLEEVES, PIPES OR CONDUITS OF ALUMINUM SHALL NOT BE EMBEDDED IN

STRUCTURAL CONCRETE UNLESS EFFECTIVELY COATED.

- D. PROVIDE CONTROL JOINTS IN ALL SLABS ON GRADE AS SHOWN ON PLANS. IN AREAS WHERE JOINTS ARE NOT SHOWN, INSTALL IN SQUARE PATTERN AT 15' ON CENTER EACH WAY MAXIMUM. INSTALL JOINTS AT ALL RE-ENTRANT CORNERS. E. PROVIDE 1/4" PREMOLDED EXPANSION JOINT MATERIAL BETWEEN SLABS AND WALLS THAT ARE NOT DOWELED TOGETHER, AND AROUND COLUMNS THAT DO NOT HAVE SLAB BLOCKOUTS.
- 30. ON-SITE HANDICAP/DISABILITY ACCESS ROUTES SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (ADA), STATE AND LOCAL REGULATIONS. NOTIFY ARCHITECT AND ENGINEER PRIOR TO INSTALLING FINISH PAVEMENT IN CONFLICT WITH ADA REQUIREMENTS. IN GENERAL:
- A. MAXIMUM CROSS SLOPE OF ANY PAVEMENT PERPENDICULAR TO DIRECTION OF
- B. MAXIMUM SLOPE OF WALKWAYS IN DIRECTION OF TRAVEL IS 5.0%. C. FOR RAMPS, THE MAXIMUM SLOPE IS 8.33% AND MAXIMUM RISE BETWEEN LANDINGS IS 30 INCHES, HANDRAILS ARE REQUIRED EACH SIDE OF ALL RAMPS WITH SLOPE GREATER THAN 5%.
- D. MAXIMUM SLOPE OF CURB RAMPS AND WINGS OF CURB RAMPS IS 8.33%. THE MAXIMUM LENGTH OF A CURB RAMP IS 6 FEET. E. PROVIDE FINISH PAVEMENT SURFACE TEXTURES IN ACCORDANCE WITH ADA.
- F. STRAIGHT GRADE FINISH PAVEMENT AND TOP OF CURB ELEVATIONS BETWEEN GIVEN ELEVATION POINTS. BLEND FINISH GRADES AT GRADE BREAKS.

## 02.0 CLEARING AND GRUBBING

DEMOLITION AND WORK PERMITS.

- ALL CONSTRUCTION AND MATERIALS WITHIN THE PUBLIC RIGHT-OF-WAY SHALL CONFORM TO THESE PLANS AND THE APPLICABLE REQUIREMENTS OF CITY OF WEST LINN, STATE OF OREGON AND "EROSION PREVENTION AND SEDIMENTATION CONTROL
- NOTIFY ARCHITECT 2 BUSINESS DAYS BEFORE COMMENCING WORK. CONTRACTOR SHALL REMOVE ALL TREES, SHRUBS, RUBBISH, AND MAN-MADE STRUCTURES INCLUDING BUT NOT LIMITED TO CONCRETE SLABS, WALLS, VAULTS, FOOTINGS, ASPHALTIC PAVED SURFACES, GRAVELED AREAS, SHED OR OTHER FREE-STANDING BUILDINGS (CONSTRUCTED OF WOOD, CONCRETE, METAL, ETC.) FOUNDATIONS, FENCES, RAILINGS, MACHINERY, ETC. WITHIN THE CLEARING LIMITS. THE ITEMS LISTED ABOVE SHALL BE DISPOSED OF OFF-SITE. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO CONFIRM THE NUMBER AND TYPE OF STRUCTURES TO BE REMOVED. CONTRACTOR SHALL OBTAIN ALL NECESSARY
- 4. ALL BURIED STRUCTURES (I.E. TANKS, LEACH LINES, DRAIN TILE, AND PIPES) NOT DESIGNATED TO REMAIN ON THE SITE, SHALL BE REMOVED AND THE RESULTING EXCAVATIONS SHALL BE PROPERLY INSPECTED, BACKFILLED AND COMPACTED PRIOR TO ANY GRADING OR FILLING OPERATIONS. THIS IS TO INCLUDE STUMPS AND ROOTBALLS OF TREES TO BE REMOVED FROM THE SITE. NOTIFY CITY FOR INSPECTIONS AS REQUIRED
- THE AREA OF THE SITE DESIGNATED ON THE PLAN TO BE REGRADED OR PAVED SHALL BE STRIPPED TO REMOVE ALL ORGANIC MATERIAL DOWN TO FIRM SUBGRADE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING SUBGRADE SOILS FROM OVERWORKING AND PROVIDE REPAIR TO DAMAGED SUBGRADE AT NO ADDITIONAL
- 6. ALL UNSUITABLE MATERIAL (SOIL AND VEGETATION) REMOVED DURING THE CLEARING AND GRUBBING OPERATIONS SHALL BE REMOVED BY THE CONTRACTOR AND LEGALLY DISPOSED OF IN A SUITABLE LOCATION.
- EXCAVATORS MUST COMPLY WITH ALL PROVISIONS OF ORS 757.541 TO 757.571 INCLUDING NOTIFICATION OF ALL OWNERS OF UNDERGROUND FACILITIES AT USA LOCATES (681-7044), AT LEAST 48 BUSINESS HOURS, BUT NOT MORE THAN 10 BUSINESS DAYS BEFORE COMMENCING AN EXCAVATION.
- 8. ALL EMBANKMENTS REQUIRED SHALL BE STRUCTURAL FILL MEETING THE REQUIREMENTS AND SPECIFICATIONS OF IBC CHAPTER 18.
- 9. ALL EXCESS MATERIAL NOT UTILIZED ON-SITE SHALL BE LEGALLY DISPOSED OF BY THE CONTRACTOR.
- 10. TREES NOT DESIGNATED TO BE REMOVED BY THE ARCHITECT SHALL BE PROTECTED
- 11. SAWCUT STRAIGHT LINES TO MATCH EXISTING PAVEMENT WITH THE NEW PAVEMENT CONTRACTOR SHALL PROVIDE AND MAINTAIN ADEQUATE TRAFFIC CONTROL ALONG THE EXISTING ROADS AS REQUIRED BY THE CITY OF WEST LINN.

## 03.0 PRIVATE UTILITIES

- CONTRACTOR TO PROVIDE UTILITY SUBMITTALS FOR REVIEW PRIOR TO INSTALLATION OF ALL PROPOSED UTILITY PIPES, CONDUITS, MANHOLES, BENDS/FITTINGS AND ALL OTHER SYSTEM APPURTENANCES.
- 2. SANITARY SEWER, STORM DRAIN AND WATER LINES IN PRIVATE PROPERTY SHALL BE PRIVATELY OWNED. MAINTAINED AND OPERATED. PROVIDE TRACER WIRE AND WARNING TAPE FOR ALL PLASTIC UTILITY LINES.
- 3. ALL PRIVATE CATCH BASINS, AREA DRAINS, STORM DRAIN PIPE, SANITARY SEWER PIPE AND WATER PIPE AND APPURTENANCES SHALL MEET THE REQUIREMENTS OF THE LATEST INTERNATIONAL PLUMBING CODE AS APPLICABLE. 4. ALL CONNECTIONS TO EXISTING PUBLIC STORM SEWER, SANITARY SEWER AND
- WATER MAINS REQUIRE ISSUANCE OF A PUBLIC WORKS PERMIT AND INSPECTION BY THE CITY OF WEST LINN AND THE WATER DISTRICT AS APPLICABLE. PRIVATE SANITARY SEWER LATERALS SHALL COMPLY WITH THE REFERENCED PUBLIC STANDARDS AND DRAWINGS FOR PUBLIC SANITARY SEWER. LAY THE 'T' AT A 2%
- 6. CAST IRON SANITARY OR STORM DRAIN PIPE AND JOINTS SHALL BE HUBLESS. SERVICE WEIGHT, AND MEET THE REQUIREMENTS OF CISPI 301. JOINTS SHALL BE MECHANICAL CLAMP RING TYPE, STAINLESS STEEL EXPANDING AND CONTRACTING SLEEVES WITH FULL CIRCLE NEOPRENE RIBBED GASKETS FOR POSITIVE SEAL. COUPLINGS AND SHIELDS TO BEAR THE MANUFACTURER'S REGISTERED INSIGNIA. INSTALL IN
- ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION. PVC SANITARY SEWER OR STORM DRAIN PIPE SHALL BE ASTM D3034, SDR-35. COMPATIBLE ASTM D3034 FITTINGS MUST BE USED WITH ASTM D3034 PIPE. ALL ASTM D3034 PIPE USED MUST BE OF WATER-TIGHT JOINTS AND TESTED FOR ROUNDNESS AFTER BACKFILL. PROVIDE PRESSURE TEST. PROVIDE TV VIDEO TAPE IF SO REQUIRED
- BY THE JURISDCITION HAVING AUTHORITY. HIGH DENSITY POLYETHYLENE (HDPE) STORM DRAIN PIPE AND ASSOCIATED HDPE FITTINGS SHALL MEET THE REQUIREMENTS OF ASTM D 3350 OR ASTM 1248, TYPE III, CLASS C, CATEGORY 4, GRADE P33. 4 INCH TO 10 INCH PIPE SHALL MEET AASHTO M252 TYPE S; 12 INCH TO 36 INCH PIPE SHALL MEET AASHTO M294 TYPE S; 42 INCH TO 48 INCH SHALL MEET AASHTO MP6-95, TYPE S; AND 54 INCH TO 60 INCH SHALL MEET AASHTO M294, TYPE S. JOINTS SHALL BE BELL AND SPIGOT COUPLINGS, OR EQUIVALENT, AND CONFORM TO ASTM D3212. INSTALLATION SHALL BE IN ACCORDANCE WITH ASTM D2321 WITH EXCEPTION THAT MINIMUM COVER IN TRAFFIC
- AREAS SHALL BE 18 INCHES. 9. ABS SCHEDULE 40 SOLID WALL PLASTIC PIPE AND FITTINGS MEETING REQUIREMENTS OF ASTM D 2661 JOINED WITH PIPE CEMENT MEETING REQUIREMENTS OF ASTM 2235. 10. DUCTILE IRON PIPE: AWWA C-151, CLASS 52, WITH GASKETED BELL & SPIGOT JOINTS,
- SEAL COATED PER AWWA C-104. 11. BURIED EXTERIOR PERFORATED FOUNDATION DRAIN PIPE WITH CONTINUOUS FILTER FABRIC SOCK SHALL BE PVC SCHED 40 PERFORATED PIPE WITH SOLVENT WELD JOINTS. INSTALL DRAIN PIPE AT 0.5% SLOPE UP FROM BOTTOM OF FOOTING IN EACH DIRECTION AROUND THE BLDG FROM THE BACKWATER VALVE(S) CONNECTION LOCATION(S) TO THE SITE STORM DRAINAGE SYSTEM. PROVIDE FILTER FABRIC WRAP AROUND A 24 INCH WIDE X 24 INCH HIGH (MIN.) CLEAN DRAIN ROCK BACKFILL SECTION AT PERIMETER OF BUILDING FOUNDATION. LAP FILTER FABRIC 12 INCHES OVER TOP OF DRAIN ROCK SECTION. TOP OF DRAIN ROCK TO BE 9 INCHES BELOW FINISH GRADE BESIDE BUILDING. SEE DWGS FOR TYPICAL FNDN DRAIN INSTALLATION DETAIL.
- 12. ABS OR PVC FOUNDATION DRAIN BACKWATER VALVES SHALL BE HORIZONTAL TYPE SIMILAR TO ASME A112.14.1, WITH REMOVABLE COVER AND SWING CHECK VALVE WITH GASKET. SEE DWGS FOR INSTALLATION DETAIL
- 13. AREA DRAINS IN LANDSCAPE AREAS SHALL BE 15"X15" TURF & LANDSCAPE AREA DRAINS MANUFACTURED BY THE 'LYNCH CO." WITH 4 INCH DIAMETER TRAPPED NO-HUB CONNECTION OUTLETS, EXTENSIONS AND GRATES WITH BARS AT 1 -1/4 INCH ON CENTER FOR COMPLETE ASSEMBLY.
- 14. EXTERIOR AREA DRAINS IN CONCRETE PAVEMENT AREAS SHALL BE "SMITH" FLOOR DRAINS WITH 12 INCH DIAMETER TOPS, DEEP BODY SEDIMENT BUCKETS. 4 INCH DIAMETER TRAPPED NO-HUB CONNECTION OUTLETS, EXTENSIONS AND GRATES FOR COMPLETE ASSEMBLY.
- 15. EXTERIOR CLEANOUTS IN WALKWAYS SHALL BE J.R. SMITH 4023-U WITH HEAVY DUTY NICKEL BRONZE TOP, TAPER HEAD, ABS PLUG AND TOP SECURED WITH VANDAL PROOF SCREWS, FLUSH AT FINISH GRADE.

- 16. ALL SEWER LINES SHALL BE LAID IN A STRAIGHT ALIGNMENT AND IN A UNIFORM GRADE BETWEEN MANHOLES, CLEANOUTS OR OTHER STRUCTURES.
- 17. PVC WATER PIPE (3/4" TO 2-1/2" DIAMETER) SHALL CONFORM WITH ASTM D2241, 160 PSI PIPE. JOINTS SHALL BE SOLVENT CEMENT WELDED CONFORMING WITH ASTM D2672
- OR ASTM 03036. SOLVENT CEMENT SHALL CONFORM TO ASTM D 2564. 18. COPPER WATER PIPE (3/4 INCH TO 2-1/2 INCH DIAMETER) SHALL BE TYPE 'K' HARD TEMPERED COPPER PER ANSI H23.1 WITH WROUGHT COPPER SOLDER JOINT FITTINGS
- 19. INSTALL ALL PLASTIC PIPE AND FITTINGS IN ACCORDANCE WITH ASTM D2321
- 20. PROVIDE A PRESSURE REDUCING VALVE ASSEMBLY (INCLUDING GATE VALVES IMMEDIATELY UP AND DOWNSTREAM) IN AN ACCESSIBLE ROOM, CONCRETE BOX OR VAULT WITH OPENABLE LID(S) FOR THE WATER SERVICE LINE WHERE MAXIMUM STATIC PRESSURE IS OR EXCEEDS EIGHTY (80) PSI. VALVES SHALL BE SET TO PROVIDE A MAXIMUM PRESSURE OF 60 PSI AND SHALL BE OF A PRESSURE RATING TO ACCOMMODATE THE UPSTREAM PRESSURE INCLUDING AN ALLOWANCE OF 100 PSI FOR SURGE. VALVE SHALL BE CLAYTON 90-01 SERIES AS MANUFACTURED BY CAL-VAL
- CO., NEWPORT BEACH, CA OR WATER DISTRICT PRE-APPROVED. 21. A MINIMUM DEPTH OF 36 INCHES FROM FINISHED GRADE TO THE TOP OF WATER PIPE
- 22. BLOW-OFF ASSEMBLIES ARE REQUIRED AT ALL DEAD-END PRIVATE WATER LINES. 23. ALL PRIVATE WATER LINES SHALL BE FLUSHED, PRESSURE TESTED AND DISINFECTED
- PER AWWA C600, SECTION 4 AND AWWA C601. 24. ALL WATER LINE CROSSINGS WITH SANITARY SEWER SHALL COMPLY WITH

APPLICABLE DEQ AND OREGON STATE HEALTH DIVISION RULES AND REGULATIONS

- RELATING TO VERTICAL AND HORIZONTAL SEPARATION. 25. ALL NEW AND EXISTING MANHOLE RIMS, CATCH BASIN RIMS, CLEAN-OUTS AND OTHER INCIDENTAL STRUCTURES SHALL BE LOCATED AND ADJUSTED TO FINISH GRADE OR AS OTHERWISE INDICATED ON THE DRAWINGS.
- 26. PRECAST CONCRETE UTILITY VAULTS: A. REINFORCED PRECAST CONCRETE UTILITY VAULTS SHALL BE APPROVED BY THE OREGON STATE PLUMBING BOARD. PROVIDE COMPLETE ASSEMBLIES FOR
- INSTALLATION INCLUDING INLET AND OUTLET PIPING. B. GRADE RINGS: PROVIDE MANUFACTURER'S STANDARD PRECAST CONCRETE GRADE RINGS FOR ADJUSTING VAULT LIDS TO FINISH GRADE.
- C. MINIMUM STRUCTURAL REQUIREMENTS: I. CONCRETE: 28 DAY COMPRESSIVE STRENGTH FC = 4500 PSI
- II. REBAR: ASTM A-615 GRADE 60. III. MESH: ASTM A185 GRADE 65.
- IV. STEEL: ASTM A36 GRADE 36. V. GALVANIZING: ASTM A-123-89 AND A-153-87 (HOT DIPPED) VI. STEEL DESIGN: AISC MANUAL OF STEEL CONSTRUCTION, 9<sup>TH</sup> EDITION.
- VII. CONCRETE DESIGN: ACI-318-89 BUILDING CODE. ASTM C-857 MINIMUM STRUCTURAL DESIGN. LOADING FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES.
- VIII. LOADS: AASHTO H-20 16 KIP WHEEL LOAD WITH 30% IMPACT (10"X20"
- AASHTO LIVE LOAD SURCHARGE (2' SOIL) 8' DEPTH EFFECTIVE SOIL PRESSURE ABOVE WATER TABLE - 80 P.C.F. EFFECTIVE SOIL PRESSURE ABOVE WATER TABLE - 45 P.C.F.
- IX. SOIL COVER: 1'-6" MINIMUM WITH WATER TABLE 3'-0" BELOW FINISHED GRADE. 5'0" MAXIMUM WITH WATER TABLE 3'-0" BELOW FINISHED GRADE
- 0' MINIMUM WITH WATER TABLE BELOW BOTTOM OF VAULT. 5'-0" MAXIMUM WITH WATER TABLE BELOW BOTTOM OF VAULT. D. ACCEPTABLE MANUFACTURERS:

12.0 CONSTRUCTION OBSERVATION, INSPECTION AND TESTING

- I. UTILITY VAULT COMPANY, WILSONVILLE, OREGON
- II. ENGINEER PRE-APPROVED EQUAL MEETING SAME OR BETTER REQUIREMENTS.

## 12.1 GENERAL

- INDEPENDENT TESTING LAB TO BE RETAINED BY OWNER TO PROVIDE INSPECTIONS
- AND SPECIAL INSPECTIONS AS DESCRIBED HEREIN. CONTRACTOR IS RESPONSIBLE TO COORDINATE AND PROVIDE ON SITE ACCESS TO
- ALL REQUIRED INSPECTIONS AND NOTIFY GEOTECHNICAL ENGINEER AND TESTING LABS IN TIME TO MAKE SUCH INSPECTIONS AND ALL NECESSARY REINSPECTIONS. CONTRACTOR: DO NOT COVER WORK REQUIRED TO BE INSPECTED OR REINSPECTED
- PRIOR TO INSPECTION BEING MADE. IF WORK IS COVERED, UNCOVER AS NECESSARY. INSPECTORS SHALL PROMPTLY NOTIFY THE CONTRACTOR PRIOR TO LEAVING THE SITE AND OWNER'S REPRESENTATIVE OF SUBSTANDARD WORK AND PROVIDE A COPY OF ALL REPORTS TO THE OWNER, ARCHITECT, ENGINEER, CONTRACTOR, AND
- 5. CONTRACTOR TO NOTIFY CIVIL ENGINEER WHEN UTILITY WORK BEGINS AND FOR OBSERVATION OF BASE ROCK PRIOR TO PLACING FINISH CURBS OR PAVEMENTS

## 12.2 SPECIAL INSPECTIONS

- REQUIRED SPECIAL INSPECTIONS SHALL BE PERFORMED BY AN INDEPENDENT SPECIAL INSPECTOR PER SECTION 1701 OF THE INTERNATIONAL BUILDING CODE (IBC) FOR THE FOLLOWING:
- A. SOILS: I. FOUNDATION EXCAVATION TO BE OBSERVED BY OWNER'S GEOTECHNICAL ENGINEER FOR FIELD VERIFYING FOUNDATION DRAINAGE AND DEWATERING RECOMMENDATIONS
- II. NATIVE SUBGRADE SURFACE TO BE PROOF-ROLLED AND OBSERVED BY THE OWNER'S GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE PRIOR TO PLACEMENT OF ALL FILL OR BASE ROCK MATERIALS UNDER OR WITHIN 5 FEET OF ALL PAVEMENT AND BUILDING AREAS. DURING WET WEATHER CONSTRUCTION WHEN PROOF-ROLL OF NATIVE SUBGRADE MAY NOT BE APPROPRIATE (AS DETERMINED BY GEOTECHNICAL ENGINEER), PROVIDE PROOF-ROLL OF ALL BASE
- ROCK SURFACES PRIOR TO PLACEMENT OF ANY FINISH PAVEMENTS. III. DURING THE PLACEMENT OF ALL FILL, INCLUDING TRENCH BACKFILL AND BASE BELOW PAVEMENTS AND BUILDINGS. GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE TO VERIFY THAT MINIMUM COMPACTION REQUIREMENTS ARE MET. PROVIDE TEST FOR EACH 40 CUBIC YARDS PLACED.
- IV. GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE TO OBSERVE ALL PROOF CONTACT: ALDER GEOTECHNICAL SERVICES, JOHN CUNNINGHAM, P.E.

## B. PAVEMENTS:

I. VERIFY COMPACTION OF ASPHALT PAVEMENTS.

3910 NE 10<sup>1H</sup> AVE.

(503) 282-7482

PORTLAND, OR 97212

C. STORM DRAIN AND SANITARY PIPE: I. CONTRACTOR TO PROVIDE HYDROSTATIC OR AIR TESTING OF ALL PIPES, JOINTS, MANHOLES, ETC. AS REQUIRED BY LOCAL AND STATE JURISDICTIONS. II. OBSERVE DEFLECTION TEST PERFORMED BY CONTRACTOR FOR ALL FLEXIBLE STORM AND SANITARY PIPE. DEFLECTION TEST TO BE IN ACCORDANCE WITH OREGON CHAPTER APWA 303.9.

SD4.0

SD4.1A

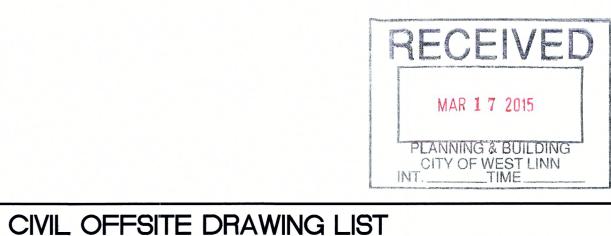
SD4.1B

SD4.3

SD4.4

## CIVIL ABBREVIATIONS

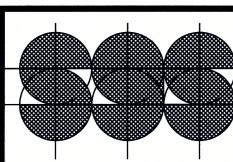
A D	ANGUAR ROLTS	UDDE	HIGH DENCITY DOLVETHYLENE
A. B. ABBR	ANCHOR BOLTS ABBREVIATION ASPHALT CONCRETE ACCORDING	HDPE HORIZ	HIGH-DENSITY-POLYETHYLENE HORIZONTAL
A. C.	ASPHALT CONCRETE	H. P.	HIGH POINT
ACCDG	ACCORDING AREA DRAIN AMERICANS WITH DISABILITIES ACT ABOVE FINISH FLOOR AHEAD ALTERNATE APPROXIMATELY ARCHITECTURAL AIR RELIEF VALVE BEGIN CURB RETURN BACKFLOW BUILDING BLOW-OFF BOTTOM BEGIN RETURN BACK OF SIDEWALK	HT	HEIGHT
A. D.	ACCORDING AREA DRAIN	I. E.	INVERT ELEVATION
ADA _	AMERICANS WITH DISABILITIES ACT	INFO	INFORMATION
A. F. F.	ABOVE FINISH FLOOR	INT	INTERIOR
AHD ALT	AHLAU ALTERNATE	I. K.	IRON ROD JOINT
APPX	APPROXIMATELY	1	LENGTH
ARCH A. R. V. B. C. R.	ARCHITECTURAL	_ LBS OR #	
A. R. V.	AIR RELIEF VALVE	L. F. "	POUNDS LINEAR FEET
B. C. R.	BEGIN CURB RETURN	LIN	LINEAR
BF	BACKFLOW	LT	LEFT NACHANIE BOLT
BLDG	BUILDING	M. B.	MACHINE BOLT
B. 0. BOT	BLUW-UFF BOTTOM	MANUF	MANUFACTURER MEMBER
B. R.	BEGIN RETURN	MOIN	MATERIAL
B. S.	BEGIN RETURN BACK OF SIDEWALK	MAX	MAXIMUM
BTWN	BETWEEN	MECH	MECHANICAL
BW	BACKWATER	M. J.	MECHANICAL JOINT
C. B.	CATCH BASIN	MH	MANHOLE
C. I.	CAST IRON OR CURB INLET		MINIMUM
C. J. C. L.	COLD JOINT CENTER LINE CLEAR CENTER CLEANOUT COLUMN CONCRETE CONNECTION CONTINUOUS COPPER	(N)	NEW NON SHRINK NOT TO SCALE
CLR	CIFAR	N. S.	NON SHRINK
CNTR	CENTER	N. T. S. 0. C.	ON CENTER
CO	CLEANOUT	0. H. OR 0. P. P.	ON OCIVICIN
COL	COLUMN	0. W. S.	ATL WATER CERABATOR
CONC	CONCRETE	PL	PLATE PROPERTY LINE POINT OF CURVATURE POINT OF COUNTER CURVATURE
CONN	CONNECTION	P. L.	PROPERTY LINE
CONT	CONTINUOUS	P. C.	POINT OF CURVATURE
COP C. O. T. G.	COPPER CLEAN OUT TO GRADE	1.0.0.	TOTAL OF COOKIEK CONTINUE
CPLG	COUPLING	PERF	PERFORATED
CULV	CULVERT	PLYWD P. P.	PLYWOOD
DBL		PROP	PRIMARY POWER/POWER POLE PROPOSED
D. C.	DOUBLE CHECK	PSF	POUNDS-PER-SQUARE-FOOT
DCDA	DOUBLE CHECK DOUBLE CHECK DETECTOR ASSEMBLY	P. T.	POINT OF TANGENCY
DET	DETAIL		POLYVINYL-CHLORIDE
D. F.	DOUGLAS FIR	P. U. E.	PUBLIC UTILITY EASEMENT
D. I. DIA OR	DUCTILE IRON OR DITCH INLET		PUBLIC WORKS
DIM	DIMENSION	R OR RAD	RADIUS
DIR	DIRECTION	R. D.	ROOF DRAIN
DO	DITTO	REINF	REINFORCEMENT/REINFORCING
DOM	DOMESTIC	REQ' D REHAB	REQUIRED REHABILITATION
DP	DEEP	RDCR	REDUCER
DRWG OR DWG	DRAWING	R. P.	RADIUS POINT
DS D. <b>W</b> .	DDA MEI I	RT	RIGHT
D. <b>W</b>	DRIVEWAY	R/W or R.O.W.	
EA"	FACH	SCHED	SCHEDULE
E. C. R.	END CURB RETURN	SED	SEDIMENTATION
		SERV	SERVICE
E. G.	EXISTING GRADE	CUT	CHEET
E. G. E. J.	EXISTING GRADE EXPANSION JOINT	SHT	SHEET SIMILAR
E. G. E. J. EL_OR ELEV	EXISTING GRADE EXPANSION JOINT ELEVATION	SHT SIM	SIMILAR
E. G. E. J. EL OR ELEV ELEC	EXISTING GRADE EXPANSION JOINT ELEVATION ELECTRIC	SHT SIM SPECS SQ	
E. G. E. J. EL OR ELEV ELEC EMBED	EXISTING GRADE EXPANSION JOINT ELEVATION ELECTRIC EMBEDMENT	SHT SIM SPECS SQ STD	SIMILAR SPECIFICATIONS
E. G. E. J. EL OR ELEV ELEC EMBED E. O. P.	EXISTING GRADE EXPANSION JOINT ELEVATION ELECTRIC EMBEDMENT EDGE OF PAVEMENT ENGINEER OF RECORD	SHT SIM SPECS SQ STD	SIMILAR SPECIFICATIONS SQUARE STANDARD SANITARY SEWER
E. G. E. J. EL OR ELEV ELEC EMBED E. O. P. E. O. R. EQ	EXISTING GRADE EXPANSION JOINT ELEVATION ELECTRIC EMBEDMENT EDGE OF PAVEMENT ENGINEER OF RECORD EQUAL	SHT SIM SPECS SQ STD S. S. STA	SIMILAR SPECIFICATIONS SQUARE STANDARD SANITARY SEWER STATION
	EXISTING GRADE EXPANSION JOINT ELEVATION ELECTRIC EMBEDMENT EDGE OF PAVEMENT ENGINEER OF RECORD EQUAL END RETURN	SHT SIM SPECS SQ STD S. S. STA ST. D.	SIMILAR SPECIFICATIONS SQUARE STANDARD SANITARY SEWER STATION STORM DRAIN
E. W.	EACH WAY	SHT SIM SPECS SQ STD S. S. STA ST. D. STIFF	SIMILAR SPECIFICATIONS SQUARE STANDARD SANITARY SEWER STATION STORM DRAIN STIFFENER
E. W. EX OR EXIST	EACH WAY EXISTING	SHT SIM SPECS SQ STD S. S. STA ST. D. STIFF STL	SIMILAR SPECIFICATIONS SQUARE STANDARD SANITARY SEWER STATION STORM DRAIN STIFFENER STEEL
E. W. EX OR EXIST EXP	EACH WAY EXISTING EXPANSION	SHT SIM SPECS SQ STD S. S. STA ST. D. STIFF STL STRUCT SDWIK	SIMILAR SPECIFICATIONS SQUARE STANDARD SANITARY SEWER STATION STORM DRAIN STIFFENER STEEL STRUCTURAL SIDEWALK
E. W. EX OR EXIST EXP EXT	EACH WAY EXISTING EXPANSION	SHT SIM SPECS SQ STD S. S. STA ST. D. STIFF STL STRUCT SDWIK	SIMILAR SPECIFICATIONS SQUARE STANDARD SANITARY SEWER STATION STORM DRAIN STIFFENER STEEL STRUCTURAL SIDEWALK TOP OF CURB
E. W. EX OR EXIST EXP EXT F. C. A.	EACH WAY EXISTING EXPANSION	SHT SIM SPECS SQ STD S. S. STA ST. D. STIFF STL STRUCT SDWIK	SIMILAR SPECIFICATIONS SQUARE STANDARD SANITARY SEWER STATION STORM DRAIN STIFFENER STEEL STRUCTURAL SIDEWALK TOP OF CURB TELEPHONE
E. W. EX OR EXIST EXP EXT	EACH WAY EXISTING EXPANSION EXTERIOR FLANGED COUPLING ADAPTER FOUND FIRE DEPARTMENT CONNECTION	SHT SIM SPECS SQ STD S. S. STA ST. D. STIFF STL STRUCT SDWLK T. C. TELEP T. O. F.	SIMILAR SPECIFICATIONS SQUARE STANDARD SANITARY SEWER STATION STORM DRAIN STIFFENER STEEL STRUCTURAL SIDEWALK TOP OF CURB TELEPHONE TOP OF FOOTING
E. W. EX OR EXIST EXP EXT F. C. A. FD F. D. C. FNDN	EACH WAY EXISTING EXPANSION EXTERIOR FLANGED COUPLING ADAPTER FOUND FIRE DEPARTMENT CONNECTION	SHT SIM SPECS SQ STD S. S. STA ST. D. STIFF STL STRUCT SDWLK T. C. TELEP T. O. F.	SIMILAR SPECIFICATIONS SQUARE STANDARD SANITARY SEWER STATION STORM DRAIN STIFFENER STEEL STRUCTURAL SIDEWALK TOP OF CURB TELEPHONE TOP OF FOOTING TOP OF SLAB
E. W. EX OR EXIST EXP EXT F. C. A. FD F. D. C. FNDN F. F.	EACH WAY EXISTING EXPANSION EXTERIOR FLANGED COUPLING ADAPTER FOUND FIRE DEPARTMENT CONNECTION	SHT SIM SPECS SQ STD S. S. STA ST. D. STIFF STL STRUCT SDWLK T. C. TELEP T. O. F.	SIMILAR SPECIFICATIONS SQUARE STANDARD SANITARY SEWER STATION STORM DRAIN STIFFENER STEEL STRUCTURAL SIDEWALK TOP OF CURB TELEPHONE TOP OF FOOTING TOP OF SLAB
E. W. EX OR EXIST EXP EXT F. C. A. FD F. D. C. FNDN F. F. F. G.	EACH WAY EXISTING EXPANSION EXTERIOR FLANGED COUPLING ADAPTER FOUND FIRE DEPARTMENT CONNECTION	SHT SIM SPECS SQ STD S. S. STA ST. D. STIFF STL STRUCT SDWLK T. C. TELEP T. O. F.	SIMILAR SPECIFICATIONS SQUARE STANDARD SANITARY SEWER STATION STORM DRAIN STIFFENER STEEL STRUCTURAL SIDEWALK TOP OF CURB TELEPHONE TOP OF FOOTING TOP OF SLAB
E. W. EX OR EXIST EXP EXT F. C. A. FD F. D. C. FNDN F. F. F. G. F. H.	EACH WAY EXISTING EXPANSION EXTERIOR FLANGED COUPLING ADAPTER FOUND FIRE DEPARTMENT CONNECTION	SHT SIM SPECS SQ STD S. S. STA ST. D. STIFF STL STRUCT SDWLK T. C. TELEP T. O. F.	SIMILAR SPECIFICATIONS SQUARE STANDARD SANITARY SEWER STATION STORM DRAIN STIFFENER STEEL STRUCTURAL SIDEWALK TOP OF CURB TELEPHONE TOP OF FOOTING TOP OF SLAB TOP OF WALL TYPICAL UNDERGROUND ELECTRICAL UNLESS OTHERWISE NOTED
E. W. EX OR EXIST EXP EXT F. C. A. FD F. D. C. FNDN F. F. F. G. F. H. FIN	EACH WAY EXISTING EXPANSION EXTERIOR FLANGED COUPLING ADAPTER FOUND FIRE DEPARTMENT CONNECTION	SHT SIM SPECS SQ STD S. S. STA ST. D. STIFF STL STRUCT SDWLK T. C. TELEP T. O. F.	SIMILAR SPECIFICATIONS SQUARE STANDARD SANITARY SEWER STATION STORM DRAIN STIFFENER STEEL STRUCTURAL SIDEWALK TOP OF CURB TELEPHONE TOP OF FOOTING TOP OF SLAB TOP OF WALL TYPICAL UNDERGROUND ELECTRICAL UNLESS OTHERWISE NOTED UNDERGROUND POWER
E. W. EX OR EXIST EXP EXT F. C. A. FD F. D. C. FNDN F. F. F. G. F. H. FIN F. L.	EACH WAY EXISTING EXPANSION EXTERIOR FLANGED COUPLING ADAPTER FOUND FIRE DEPARTMENT CONNECTION	SHT SIM SPECS SQ STD S. S. STA ST. D. STIFF STL STRUCT SDWLK T. C. TELEP T. O. F.	SIMILAR SPECIFICATIONS SQUARE STANDARD SANITARY SEWER STATION STORM DRAIN STIFFENER STEEL STRUCTURAL SIDEWALK TOP OF CURB TELEPHONE TOP OF FOOTING TOP OF SLAB TOP OF WALL TYPICAL UNDERGROUND ELECTRICAL UNLESS OTHERWISE NOTED UNDERGROUND POWER UNREINFORCED MASONRY
E. W. EX OR EXIST EXP EXT F. C. A. FD F. D. C. FNDN F. F. F. G. F. H. FIN F. L. FLG FLR	EACH WAY EXISTING EXPANSION EXTERIOR FLANGED COUPLING ADAPTER FOUND FIRE DEPARTMENT CONNECTION	SHT SIM SPECS SQ STD S. S. STA ST. D. STIFF STL STRUCT SDWLK T. C. TELEP T. O. F.	SIMILAR SPECIFICATIONS SQUARE STANDARD SANITARY SEWER STATION STORM DRAIN STIFFENER STEEL STRUCTURAL SIDEWALK TOP OF CURB TELEPHONE TOP OF FOOTING TOP OF SLAB TOP OF WALL TYPICAL UNDERGROUND ELECTRICAL UNLESS OTHERWISE NOTED UNDERGROUND POWER UNREINFORCED MASONRY UNDERGROUND TELEPHONE
E. W. EX OR EXIST EXP EXT F. C. A. FD F. D. C. FNDN F. F. F. G. F. H. FIN F. L. FLG FLR F. P.	EACH WAY EXISTING EXPANSION EXTERIOR FLANGED COUPLING ADAPTER FOUND FIRE DEPARTMENT CONNECTION	SHT SIM SPECS SQ STD S. S. STA ST. D. STIFF STL STRUCT SDWLK T. C. TELEP T. O. F.	SIMILAR SPECIFICATIONS SQUARE STANDARD SANITARY SEWER STATION STORM DRAIN STIFFENER STEEL STRUCTURAL SIDEWALK TOP OF CURB TELEPHONE TOP OF FOOTING TOP OF SLAB TOP OF WALL TYPICAL UNDERGROUND ELECTRICAL UNLESS OTHERWISE NOTED UNDERGROUND POWER UNREINFORCED MASONRY UNDERGROUND TELEPHONE VALVE BOX
E. W. EX OR EXIST EXP EXT F. C. A. FD F. D. C. FNDN F. F. F. G. F. H. FIN F. L. FLG FLR F. P. F. O. C.	EACH WAY EXISTING EXPANSION EXTERIOR FLANGED COUPLING ADAPTER FOUND FIRE DEPARTMENT CONNECTION	SHT SIM SPECS SQ STD S. S. STA ST. D. STIFF STL STRUCT SDWLK T. C. TELEP T. O. F.	SIMILAR SPECIFICATIONS SQUARE STANDARD SANITARY SEWER STATION STORM DRAIN STIFFENER STEEL STRUCTURAL SIDEWALK TOP OF CURB TELEPHONE TOP OF FOOTING TOP OF SLAB TOP OF WALL TYPICAL UNDERGROUND ELECTRICAL UNLESS OTHERWISE NOTED UNDERGROUND POWER UNREINFORCED MASONRY UNDERGROUND TELEPHONE VALVE BOX VERTICAL
E. W. EX OR EXIST EXP EXT F. C. A. FD F. D. C. FNDN F. F. F. G. F. H. FIN F. L. FLG FLR F. P. F. O. C. FTG	EACH WAY EXISTING EXPANSION EXTERIOR FLANGED COUPLING ADAPTER FOUND FIRE DEPARTMENT CONNECTION	SHT SIM SPECS SQ STD S. S. STA ST. D. STIFF STL STRUCT SDWLK T. C. TELEP T. O. F.	SIMILAR SPECIFICATIONS SQUARE STANDARD SANITARY SEWER STATION STORM DRAIN STIFFENER STEEL STRUCTURAL SIDEWALK TOP OF CURB TELEPHONE TOP OF FOOTING TOP OF SLAB TOP OF WALL TYPICAL UNDERGROUND ELECTRICAL UNLESS OTHERWISE NOTED UNDERGROUND POWER UNREINFORCED MASONRY UNDERGROUND TELEPHONE VALVE BOX
E. W. EX OR EXIST EXP EXT F. C. A. FD F. D. C. FNDN F. F. F. G. F. H. FIN F. L. FLG FLR F. P. F. O. C. FTG GA	EACH WAY EXISTING EXPANSION EXTERIOR FLANGED COUPLING ADAPTER FOUND FIRE DEPARTMENT CONNECTION	SHT SIM SPECS SQ STD S. S. STA ST. D. STIFF STL STRUCT SDWLK T. C. TELEP T. O. F.	SIMILAR SPECIFICATIONS SQUARE STANDARD SANITARY SEWER STATION STORM DRAIN STIFFENER STEEL STRUCTURAL SIDEWALK TOP OF CURB TELEPHONE TOP OF FOOTING TOP OF SLAB TOP OF WALL TYPICAL UNDERGROUND ELECTRICAL UNLESS OTHERWISE NOTED UNDERGROUND POWER UNREINFORCED MASONRY UNDERGROUND TELEPHONE VALVE BOX VERTICAL VAULT WATER WET JOINT
E. W. EX OR EXIST EXP EXT F. C. A. FD F. D. C. FNDN F. F. F. G. F. H. FIN F. L. FLG FLR F. P. F. O. C. FTG GA GALV	EACH WAY EXISTING EXPANSION EXTERIOR FLANGED COUPLING ADAPTER FOUND FIRE DEPARTMENT CONNECTION	SHT SIM SPECS SQ STD S. S. STA ST. D. STIFF STL STRUCT SDWLK T. C. TELEP T. O. F.	SIMILAR SPECIFICATIONS SQUARE STANDARD SANITARY SEWER STATION STORM DRAIN STIFFENER STEEL STRUCTURAL SIDEWALK TOP OF CURB TELEPHONE TOP OF FOOTING TOP OF SLAB TOP OF WALL TYPICAL UNDERGROUND ELECTRICAL UNLESS OTHERWISE NOTED UNDERGROUND POWER UNREINFORCED MASONRY UNDERGROUND TELEPHONE VALVE BOX VERTICAL VAULT WATER WET JOINT WATER
E. W. EX OR EXIST EXP EXT F. C. A. FD F. D. C. FNDN F. F. F. G. F. H. FIN F. L. FLG FLR F. P. F. O. C. FTG GA	EACH WAY EXISTING EXPANSION EXTERIOR FLANGED COUPLING ADAPTER FOUND FIRE DEPARTMENT CONNECTION	SHT SIM SPECS SQ STD S. S. STA ST. D. STIFF STL STRUCT SDWLK T. C. TELEP T. O. F. T. O. S. T. O. W. TYP U. E. U. O. N. U. P. U. R. M. U. T. V. B. VERT VLT W W. J. W. M. W. Q.	SIMILAR SPECIFICATIONS SQUARE STANDARD SANITARY SEWER STATION STORM DRAIN STIFFENER STEEL STRUCTURAL SIDEWALK TOP OF CURB TELEPHONE TOP OF FOOTING TOP OF SLAB TOP OF WALL TYPICAL UNDERGROUND ELECTRICAL UNLESS OTHERWISE NOTED UNDERGROUND POWER UNREINFORCED MASONRY UNDERGROUND TELEPHONE VALVE BOX VERTICAL VAULT WATER WET JOINT WATER METER WATER QUALITY
E. W. EX OR EXIST EXP EXT F. C. A. FD F. D. C. FNDN F. F. F. G. F. H. FIN F. L. FLG FLR F. P. F. O. C. FTG GA GALV G. B. GEN GR	EACH WAY EXISTING EXPANSION EXTERIOR FLANGED COUPLING ADAPTER FOUND FIRE DEPARTMENT CONNECTION FOUNDATION FINISH FLOOR FINISH GRADE FIRE HYDRANT FINISH FLOW LINE FLANGE FLOOR FINISH PAVEMENT FACE OF CURB FOOTING GAGE OR GAUGE GALVANIZED GRADE BREAK GENERAL GROUND	SHT SIM SPECS SQ STD S.S. STA ST.D. STIFF STL STRUCT SDWLK T.C. TELEP T.O.F. T.O.S. T.O.W. TYP U.E. U.O.N. U.P. U.R.M. U.T. V.B. VERT VLT W W.J. W.M. W.Q. W.W.F.	SIMILAR SPECIFICATIONS SQUARE STANDARD SANITARY SEWER STATION STORM DRAIN STIFFENER STEEL STRUCTURAL SIDEWALK TOP OF CURB TELEPHONE TOP OF FOOTING TOP OF SLAB TOP OF WALL TYPICAL UNDERGROUND ELECTRICAL UNLESS OTHERWISE NOTED UNDERGROUND POWER UNREINFORCED MASONRY UNDERGROUND TELEPHONE VALVE BOX VERTICAL VAULT WATER WET JOINT WATER METER WATER QUALITY WELDED WIRE FABRIC
E. W. EX OR EXIST EXP EXT F. C. A. FD F. D. C. FNDN F. F. F. G. F. H. FIN F. L. FLG FLR F. P. F. O. C. FTG GA GALV G. B. GEN GR G. S.	EACH WAY EXISTING EXPANSION EXTERIOR FLANGED COUPLING ADAPTER FOUND FIRE DEPARTMENT CONNECTION FOUNDATION FINISH FLOOR FINISH GRADE FIRE HYDRANT FINISH FLOW LINE FLANGE FLOOR FINISH PAVEMENT FACE OF CURB FOOTING GAGE OR GAUGE GALVANIZED GRADE BREAK GENERAL GROUND GROUND SHOT	SHT SIM SPECS SQ STD S. S. STA ST. D. STIFF STL STRUCT SDWLK T. C. TELEP T. O. F. T. O. S. T. O. W. TYP U. E. U. O. N. U. P. U. R. M. U. T. V. B. VERT VLT W W. J. W. M. W. Q. W. W. F.	SIMILAR SPECIFICATIONS SQUARE STANDARD SANITARY SEWER STATION STORM DRAIN STIFFENER STEEL STRUCTURAL SIDEWALK TOP OF CURB TELEPHONE TOP OF FOOTING TOP OF SLAB TOP OF WALL TYPICAL UNDERGROUND ELECTRICAL UNLESS OTHERWISE NOTED UNDERGROUND POWER UNREINFORCED MASONRY UNDERGROUND TELEPHONE VALVE BOX VERTICAL VAULT WATER WET JOINT WATER METER WATER QUALITY WELDED WIRE FABRIC WITH
E. W. EX OR EXIST EXP EXT F. C. A. FD F. D. C. FNDN F. F. F. G. F. H. FIN F. L. FLG FLR F. P. F. O. C. FTG GA GALV G. B. GEN GR G. S. G. S. P.	EACH WAY EXISTING EXPANSION EXTERIOR FLANGED COUPLING ADAPTER FOUND FIRE DEPARTMENT CONNECTION FOUNDATION FINISH FLOOR FINISH GRADE FIRE HYDRANT FINISH FLOW LINE FLANGE FLOOR FINISH PAVEMENT FACE OF CURB FOOTING GAGE OR GAUGE GALVANIZED GRADE BREAK GENERAL GROUND GROUND SHOT GALVANIZED STEEL PIPE	SHT SIM SPECS SQ STD S.S. STA ST.D. STIFF STL STRUCT SDWLK T.C. TELEP T.O.F. T.O.S. T.O.W. TYP U.E. U.O.N. U.P. U.R.M. U.T. V.B. VERT VLT W W.J. W.M. W.Q. W.W.F.	SIMILAR SPECIFICATIONS SQUARE STANDARD SANITARY SEWER STATION STORM DRAIN STIFFENER STEEL STRUCTURAL SIDEWALK TOP OF CURB TELEPHONE TOP OF FOOTING TOP OF SLAB TOP OF WALL TYPICAL UNDERGROUND ELECTRICAL UNLESS OTHERWISE NOTED UNDERGROUND POWER UNREINFORCED MASONRY UNDERGROUND TELEPHONE VALVE BOX VERTICAL VAULT WATER WET JOINT WATER METER WATER QUALITY WELDED WIRE FABRIC
E. W. EX OR EXIST EXP EXT F. C. A. FD F. D. C. FNDN F. F. F. G. F. H. FIN F. L. FLG FLR F. P. F. O. C. FTG GA GALV G. B. GEN GR G. S.	EACH WAY EXISTING EXPANSION EXTERIOR FLANGED COUPLING ADAPTER FOUND FIRE DEPARTMENT CONNECTION FOUNDATION FINISH FLOOR FINISH GRADE FIRE HYDRANT FINISH FLOW LINE FLANGE FLOOR FINISH PAVEMENT FACE OF CURB FOOTING GAGE OR GAUGE GALVANIZED GRADE BREAK GENERAL GROUND GROUND SHOT	SHT SIM SPECS SQ STD S. S. STA ST. D. STIFF STL STRUCT SDWLK T. C. TELEP T. O. F. T. O. S. T. O. W. TYP U. E. U. O. N. U. P. U. R. M. U. T. V. B. VERT VLT W W. J. W. M. W. Q. W. W. F.	SIMILAR SPECIFICATIONS SQUARE STANDARD SANITARY SEWER STATION STORM DRAIN STIFFENER STEEL STRUCTURAL SIDEWALK TOP OF CURB TELEPHONE TOP OF FOOTING TOP OF SLAB TOP OF WALL TYPICAL UNDERGROUND ELECTRICAL UNLESS OTHERWISE NOTED UNDERGROUND POWER UNREINFORCED MASONRY UNDERGROUND TELEPHONE VALVE BOX VERTICAL VAULT WATER WET JOINT WATER METER WATER QUALITY WELDED WIRE FABRIC WITH



CS1.0	COVERSHEET
CS1.1	PUBLIC IMPROVEMENTS STANDARD NOTES
CS2.0A	OSWEGO HIGHWAY (OR43) (WILAMETTE DRIVE) IMPROVEMENTS
CS2.0B	OSWEGO HIGHWAY (OR43) (WILAMETTE DRIVE) STRIPING PLAN
CS2.0C	ODOT STANDARD DRAWINGS
CS2.0D	ODOT STANDARD DRAWINGS
CS2.0E	ODOT STANDARD DRAWINGS
CS2.0F	ODOT STANDARD DRAWINGS
CS2.0G	ODOT STANDARD DRAWINGS
CS2.1	SHADY HOLLOW WAY PLAN AND PROFILE
CS2.2	SHADY HOLLOW WAY PLAN AND PROFILE
CS3.0	WDY SECTION DETAILS
CS3.1	PUBLIC IMPROVEMENT DETAILS
CS3.2	PUBLIC IMPROVEMENT DETIALS
CS3.3	PUBLIC IMPROVEMENT DETAILS
	CS1.1 CS2.0A CS2.0B CS2.0C CS2.0D CS2.0E CS2.0F CS2.0G CS2.1 CS2.2 CS3.0 CS3.1 CS3.2

SHEET NO

TITLE



STEWART GORDON STRAUS ARCHITECT 6775 SW | | | TH AVENUE SUITE 20 BEAVERTON, OR 97008 (503) 672-75 | 7 (OFFICE) (503) 672-7808 (FAX) sqs@s-straus.com (e-mail)

Structural · Civil Engineers

6443 SW Beaverton-Hillsdale Hwy, suite 2 Portland, Oregon 97221 ph:503.203.8111 fx:503.203.8122 www.wdyi.com

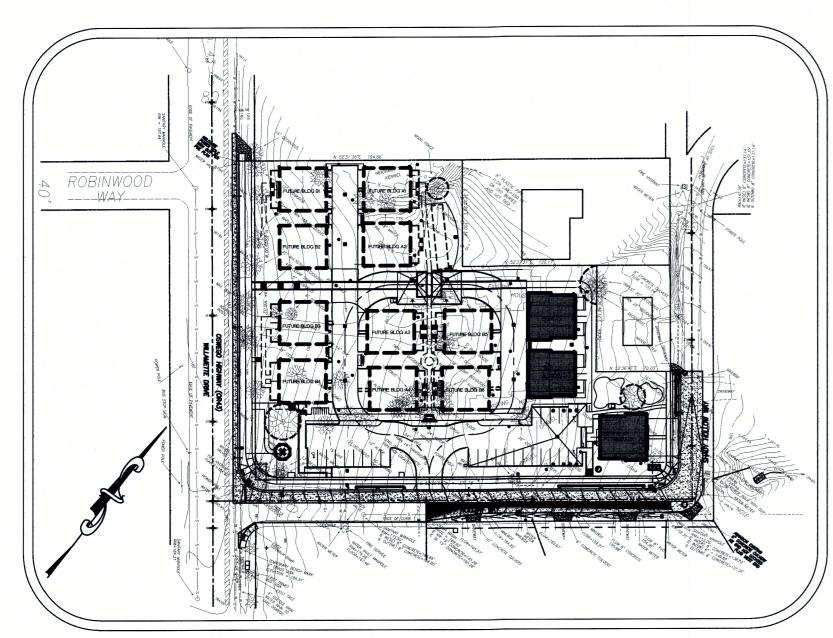


**PROJECT** 1335 DRAWING DATE | BY DESIGN 20 NOV 2013 SG 11 FEB 2014 S

DES REV 12 MAR 2014 SG PERMIT 22 AUG 2014 | S PLAN CHECK ⚠ 08 OCT 2014 | CG 21 OCT 2014 06 JAN 2015 23 JAN 2015 28 JAN 2015 | CGI

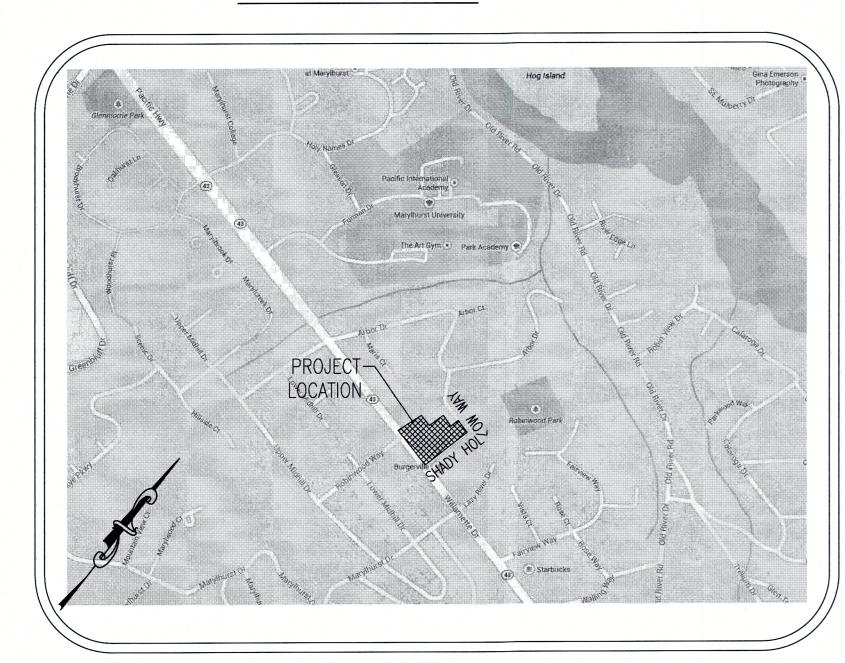
SHEET TITLE CIVIL NOTES AND **ABBREVIATIONS** 

# ESC PLAN FOR SITES 1 TO 5 ACRES



# SITE MAP

NOT TO SCALE



# VICINITY MAP NOT TO SCALE

# PROJECT LOCATION:

CORNER OF WILLAMETTE DRIVE AND SHADY HOLLOW WAY IN THE CITY OF WEST LINN, OREGON LATITUDE = 45.393041, LONGITUDE = -122.646871

# PROPERTY DESCRIPTION:

TAX LOT: 45, 46, & 47 (LOCATED IN THE SE 1/4 OF SECTION 14, TOWNSHIP 2 SOUTH, RANGE 1 EAST, WILLAMETTE MERIDIAN, CITY OF WEST LINN, CLACKAMAS COUNTY, STATE OF OREGON

## ATTENTION EXCAVATORS:

OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THESE RULES FROM THE CENTER BY CALLING 503-232-1987. IF YOU HAVE ANY QUESTIONS ABOUT THE RULES, YOU MAY CONTACT THE CENTER. YOU MUST NOTIFY THE CENTER AT LEAST TWO BUSINESS DAYS, BEFORE COMMENCING AN EXCAVATION. CALL 503-246-6699.

# DEVELOPER

BARRINGTON MANAGEMENT ATTN: DAVID EMAMI 3380 BARRINGTON DRIVE WEST LINN, OR 97068 PHONE: 503-532-2027 Email: emami007@comcast.net

## CML ENGINEERS

WDY, INC.
CONTACT: COLE G. PRESTHUS
6443 SW BEAVERTON/HILLSDALE HWY, SUITE #210
PORTLAND, OREGON 97221
PHONE: 503-203-8111
FAX: 503-203-8122

## NARRATIVE DESCRIPTIONS

## EXISTING SITE CONDITIONS

\* THE SITE IS MADE OF THREE TAX LOTS WITH TWO EXISTING HOUSES AND MOSTLY GRASS AND TREES. THE AVERAGE SLOPE ACROSS THE SITE IS 7% TO THE NORTHWEST.

**ARCHITECT** 

STEWART GORDON STRAUSS

BEAVERTON, OREGON 97008

PHONE: 503-672-7517

**SURVEYOR** 

TOWNSHIP SURVEYS, LLC

OREGON CITY, OR 97045

PHONE: 503-656-4915

1415 WASHINGTON STREET

6775 SW 111TH AVENUE, SUITE 20

## DEVELOPED CONDITIONS

- \* THE PROPOSED SITE WILL BE BECOME SHADY HOLLOW VILLAGE AND WILL INCLUDE 13 HOUSING UNITS, A BASKETBALL AREA, A PUTTING GREEN AND A PARKING LOT.
- \* SIDEWALKS, ROOFTOPS, BASKETBALL AREA, PARKING LOT = 59,485 SQ.FT. (1.37 ACRES)

  \* LANDSCAPE AREAS = 31,085 SQ.FT. (0.71 ACRES)

NATURE OF CONSTRUCTION ACTIVITY AND ESTIMATED TIME TABLE

- \* CLEARING (Oct 2014 Oct 2014) \* MASS GRADING (Oct 2014 - Nov 2014)
- \* MASS GRADING (Oct 2014 Nov 2014)

  \* UTILITY INSTALLATION (Nov 2014 Dec 2014)
- \* STREET CONSTRUCTION (April 2015 May 2015)
- \* FINAL STABILIZATION (May 2015)

ESTIMATE OF TOTAL PERMITTED PROJECT AREA

\* TOTAL ESTIMATED PERMITTED SITE AREA = 2.62 ACRES = 114,270 SQ.FT.

TOTAL DISTURBED AREA

\* TOTAL PRIVATE ONSITE AREA = 2.08 ACRES = 90,570 SQ.FT.

\* TOTAL PUBLIC OFFSITE AREA = 0.54 ACRES = 23,700 SQ.FT.

# SITE SOIL CLASSIFICATION:

ON-SITE SOILS HAVE A MODERATE EROSION POTENTIAL. FILL MATERIAL SHALL BE GENERATED ON-SITE FROM GRADING EXCAVATION AND UTILITY TRENCH SPOILS OR OTHERWISE IMPORTED GRANULAR MATERIAL.

# RECEIVING WATER BODIES: TRIBUTARY OF ROCK CREEK

PERMITTEE'S SITE INSPECTOR: DAVID IRISH

COMPANY/AGENCY: CARLSON TESTING

PHONE: 503-601-8250

FAX:

E-MAIL:

DESCRIPTION OF EXPERIENCE: STATE OF WASHINGTON, CERTIFIED EROSION AND

SEDIMENT CONTROL LEAD, No: UW073-751803

SERVED AS FIELD TECHNICIAN FOR MULTIPLE COMMERCIAL PROJECTS IN THE STATE OF OREGON INCLUDING: NEVAH-SHALOM IMPROVEMENTS IN PORTLAND, OREGON;

PENSKE TRUCK CENTER IN CLACKAMAS, OREGON; WEBB DISTRICT ROAD IN CLASKANIE, OREGON

## INSPECTION FREQUENCY:

	SITE CONDITION	MINIMUM FREQUENCY
1.	ACTIVE PERIOD	DAILY WHEN STORMWATER RUNOFF, INCLUDING RUNOFF FROM SNOWMELT, IS OCCURRING.
2.	PRIOR TO THE SITE BECOMING INACTIVE OR IN ANTICIPATION OF SITE INACCESSIBILITY.	ONCE TO ENSURE THAT EROSION AND SEDIMENT CONTROL MEASURES ARE IN WORKING ORDER. ANY NECESSARY MAINTENANCE AND REPAIR MUST BE MADE PRIOR TO LEAVING THE SITE.
3.	INACTIVE PERIODS GREATER THAN SEVEN (7) CONSECUTIVE CALENDAR DAYS.	ONCE EVERY TWO (2) WEEKS.
4.	PERIODS DURING WHICH THE SITE IS INACCESSIBLE DUE TO INCLEMENT WEATHER.	IF PRACTICAL, INSPECTIONS MUST OCCUR DAILY AT A RELEVANT AND ACCESSIBLE DISCHARGE POINT OR DOWNSTREAM LOCATION.

- \* HOLD A PRE-CONSTRUCTION MEETING OF PROJECT CONSTRUCTION PERSONNEL THAT INCLUDES THE INSPECTOR TO DISCUSS EROSION AND SEDIMENT CONTROL MEASURES AND CONSTRUCTION
- \* ALL INSPECTIONS MUST BE MADE IN ACCORDANCE WITH DEQ 1200-CN PERMIT REQUIREMENTS.

  \* INSPECTION LOGS MUST BE KEPT IN ACCORDANCE WITH DEQ'S 1200-CN PERMIT REQUIREMENTS.
- RETAIN A COPY OF THE ESCP AND ALL REVISIONS ON SITE AND MAKE IT AVAILABLE ON REQUEST TO DEQ, AGENT, OR THE LOCAL MUNICIPALITY. DURING INACTIVE PERIODS OF GREATER THAN SEVEN (7) CONSECUTIVE CALENDAR DAYS, RETAIN THE ESCP AT THE CONSTRUCTION SITE OR AT ANOTHER LOCATION.

# STANDARD EROSION AND SEDIMENT CONTROL PLAN DRAWING NOTES:

- . All permit registrants must implement the ESCP. Failure to implement any of the control measures or practices described in the ESCP is a violation of the permit.
- 2. The ESCP measures shown on this plan are minimum requirements for anticipated site conditions. During the construction period, upgrade these measures as needed to comply with all applicable local, state, and federal erosion and sediment control regulations.
- 3. Submission of all ESCP revisions is not required. Submittal of the ESCP revisions is only under specific conditions. Submit all necessary revision to DEQ or Agent.
  4. Phase clearing and grading to the maximum extent practical to prevent exposed inactive areas from becoming a source of erosion.
- 5. Identify, mark, and protect (by fencing off or other means) critical riparian areas and vegetation including important trees and associated rooting zones, and vegetation areas to be preserved. Identify vegetative buffer zones between the
- site and sensitive areas (e.g., wetlands), and other areas to be preserved, especially in perimeter areas.

  S. Preserve existing vegetation when practical and re-vegetate open greas. Re-vegetate open greas when practicable before and after grading or construction, identify the type of vegetative seed mix used.
- Preserve existing vegetation when practical and re—vegetate open areas. Re—vegetate open areas when practicable before and after grading or construction. Identify the type of vegetative seed mix used.

  Erosion and sediment control measures including perimeter sediment control must be in place before vegetation is disturbed and must remain in place and be maintained, repaired, and promptly implemented following procedures
- established for the duration of construction, including protection for active storm drain inlets and catch basins and appropriate non-stormwater pollution controls.
- 8. Establish concrete truck and other concrete equipment washout areas before beginning concrete work.
- 9. Apply temporary and/or permanent soil stabilization measures immediately on all disturbed areas as grading progresses and for all roadways including gravel roadways.

  10. Establish material and waste storage areas, and other non-stormwater controls.
- 11. Prevent tracking of sediment onto public or private roads using BMPs such as: graveled (or paved) exits and parking areas, gravel all unpaved roads located onsite, or use an exit tire wash. These BMPs must be in place prior to
- 12. When trucking saturated soils from the site, either use water—tight trucks or drain loads on site.
  13. Use BMPs to prevent or minimize stormwater exposure to pollutants from spills; vehicle and equipment fueling, maintenance, and storage; other cleaning and maintenance activities; and waste handling activities. These pollutants include
- fuel, hydraulic fluid, and other oils from vehicles and machinery, as well as debris, leftover paints, solvents, and glues from construction operations.

  14. Implement the following BMPs when applicable: written spill prevention and response procedures, employee training on spill prevention and proper disposal procedures, spill kits in all vehicles, regular maintenance schedule for vehicles and
- machinery, material delivery and storage controls, training and signage, and covered storage areas for waste and supplies.
- 15. Use water, soil—binding agent or other dust control technique as needed to avoid wind—blown soil.
  16. The application rate of fertilizers used to reestablish vegetation must follow manufacturer's recommendations to minimize nutrient releases to surface waters. Exercise caution when using time—release fertilizers within any waterway riparian
- zone.

  17. If a stormwater treatment system (for example, electro-coagulation, flocculation, filtration, etc.) for sediment or other pollutant removal is employed, submit an operation and maintenance plan (including system schematic, location of
- system, location of inlet, location of discharge, discharge dispersion device design, and a sampling plan and frequency) before operating the treatment system. Obtain plan approval before operating the treatment system. Obtain plan approval before operating the treatment system. Operate and maintain the treatment system according to manufacturer's specifications.
- 18. At the end of each workday soil stockpiles must be stabilized or covered, or other BMPs must be implemented to prevent discharges to surface waters or conveyance systems leading to surface waters.
- 19. Construction activities must avoid or minimize excavation and creation of bare ground during wet weather October 01 May 31.

  20. Sediment fence: remove trapped sediment before it reaches one third of the above ground fence height and before fence removal.
- 21. Other sediment barriers (such as biobags): remove sediment before it reaches two inches depth above ground height, and before BMP removal.
- 22. Catch basins: clean before retention capacity has been reduced by fifty percent. Sediment basins and sediment traps: remove trapped sediments before design capacity has been reduced by fifty percent and at completion of project.

  23. Within 24 hours, significant sediment that has left the construction site, must be remediated. Investigate the cause of the sediment release and implement steps to prevent 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 timeframe.
  24. The intentional washing of sediment into storm sewers or drainage ways must not occur. Vacuuming or dry sweeping and material pickup must be used to cleanup released sediments.
- 25. Provide permanent erosion control measures on all exposed areas. Do not remove temporary sediment control practices until permanent vegetation or other cover of exposed areas is established. However, do remove all temporary erosion
- control measures as exposed areas become stabilized, unless doing so conflicts with local requirements. Properly dispose of construction materials and waste, including sediment retained by temporary BMPs.

  26. If vegetative seed mixes are specified, seeding must take place no later that September 1; the type and percentages of seed in the mix must be identified on the plans.
- 27. All pumping of sediment laden water shall be discharged over an undisturbed, preferably vegetated area, and through a sediment control BMP i.e. (filter bag).
- 28. All exposed soils must be covered during the wet weather period, October 01 May 31.

# BMP MATRIX FOR CONSTRUCTION PHASES

REFER TO DEQ GUIDANCE MANUAL FOR A COMPREHENSIVE LIST OF AVAILABLE BMP'S.

		MASS	UTILITY	STREET	FINAL	WET WEATHER
	CLEARING	GRADING	INSTALLATION	CONSTRUCTION	STABILIZATION	(OCT. 1 - MAY 31ST)
EROSION PREVENTION						
PRESERVE NATURAL VEGETATION	** X	Х	X	X	X	X
GROUND COVER					X	X
HYDRAULIC APPLICATIONS					Х	X
PLASTIC SHEETING						
MATTING					X	Х
DUST CONTROL	** X	Х	X	Х	Χ	χ
TEMPORARY/ PERMANENT SEEDING					χ	Х
BUFFER ZONE					Χ	Х
THER:						
SEDIMENT CONTROL						
SEDIMENT FENCE (PERIMETER)	** X	Х	X	X	χ	Х
SEDIMENT FENCE (INTERIOR)						
STRAW WATTLES				4		
FILTER BERM						
INLET PROTECTION	** X	Х	Х	Х	χ	X
DEWATERING						
SEDIMENT TRAP	** X	Х	X	X	Х	Х
THER:						
RUN OFF CONTROL						
CONSTRUCTION ENTRANCE	** X	Х	Х	X	X	Х
PIPE SLOPE DRAIN			X	X	χ	X
OUTLET PROTECTION			Х	X	Х	Х
SURFACE ROUGHENING			X	Х	X	X
CHECK DAMS			X	X	Х	X
THER:						
POLLUTION PREVENTION						
PROPER SIGNAGE						
HAZ WASTE MGMT						
SPILL KIT ON-SITE				4		
CONCRETE WASHOUT AREA						
THER:						

\*\* SIGNIFIES BMP THAT WILL BE INSTALLED PRIOR TO ANY GROUND DISTURBING ACTIVITY.

# RATIONALE STATEMENT

A COMPREHENSIVE LIST OF AVAILABLE BEST MANAGEMENT PRACTICES (BMP) OPTIONS BASED ON DEQ'S GUIDANCE MANUAL HAS BEEN REVIEWED TO COMPLETE THIS EROSION AND SEDIMENT CONTROL PLAN. SOME OF THE ABOVE LISTED BMP'S WERE NOT CHOSEN BECAUSE THEY WERE DETERMINED TO NOT EFFECTIVELY MANAGE EROSION PREVENTION AND SEDIMENT CONTROL FOR THIS PROJECT BASED ON SPECIFIC SITE CONDITIONS, INCLUDING SOIL CONDITIONS TOPOGRAPHIC CONSTRAINTS, ACCESSIBILITY TO THE SITE, AND OTHER RELATED CONDITIONS, AS THE PROJECT PROGRESSES AND THERE IS A NEED TO REVISE THE ESC PLAN, AN ACTION PLAN WILL BE SUBMITTED.

# INITIAL

# SHEET INDEX

THE PERMITTEE IS REQUIRED TO MEET ALL THE

TO FACILITATE COMPLIANCE WITH THE 1200-CN

DISCREPANCIES OR OMISSIONS, THE 1200-CN

PERMIT REQUIREMENTS SUPERCEDE REQUIREMENTS

PERMIT REQUIREMENTS. IN CASES OF

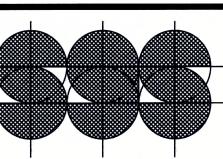
OF THIS PLAN.

CONDITIONS OF THE 1200-CN PERMIT. THIS ESCP

AND GENERAL CONDITIONS HAVE BEEN DEVELOPED

# EROSION AND SEDIMENT CONTROL PLANS

SD4.1A	EROSION AND SEDIMENT CONTROL COVER SHEET
SD4.1B	CLEARING AND DEMOLITION EROSION AND SEDIMENT CONTROL PLAN
SD4.1C	DRAINAGE, GRADING AND STABILIZATION CONSTRUCTION
	EROSION AND SEDIMENT CONTROL PLAN
SD4.2	EROSION AND SEDIMENT CONTROL DETAILS



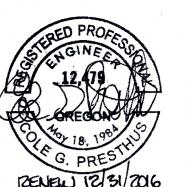
TEWART GORDON STRAUS
ARCHITECT
6775 SW | | | TH AVENUE
SUITE 20
BEAVERTON, OR 97008
(503) 672-75 | 7 (OFFICE)

(503) 672-7808 (FAX) sqs@s-straus.com (e-mail)

WDY

Structural • Civil Engineers
6443 SW Beaverton-Hillsdale Hwy, suite 210
Portland, Oregon 97221
ph:503.203.8111 fx:503.203.8122

www.wdyi.com



WILLAMETTE DRIVE
OREGON

SHADY HOLLOW AND WILLAM

PROJEC1 1335 NUMBER: DRAWING DATE BY DESIGN 20 NOV 2013 SGS 11 FEB 2014 SGS **DES REV** 12 MAR 2014 SGS PERMIT 22 AUG 2014 SGS PLAN CHECK 08 OCT 2014 | CGF 21 OCT 2014 CGF 06 JAN 2015 CGF

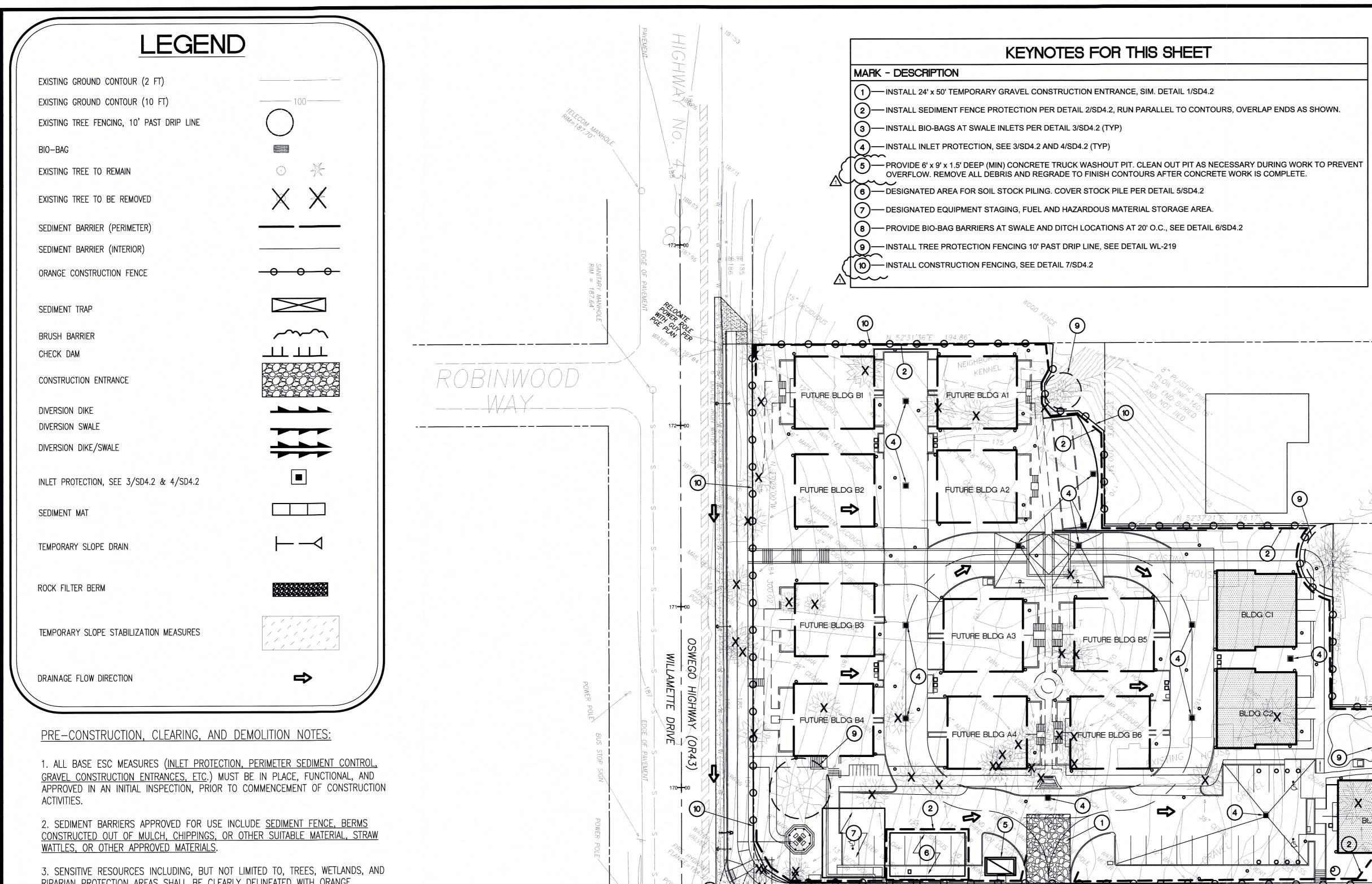
SHEET TITLE
EROSION CONTROL
COVER SHEET

23 JAN 2015 | CGF

28 JAN 2015 CGF

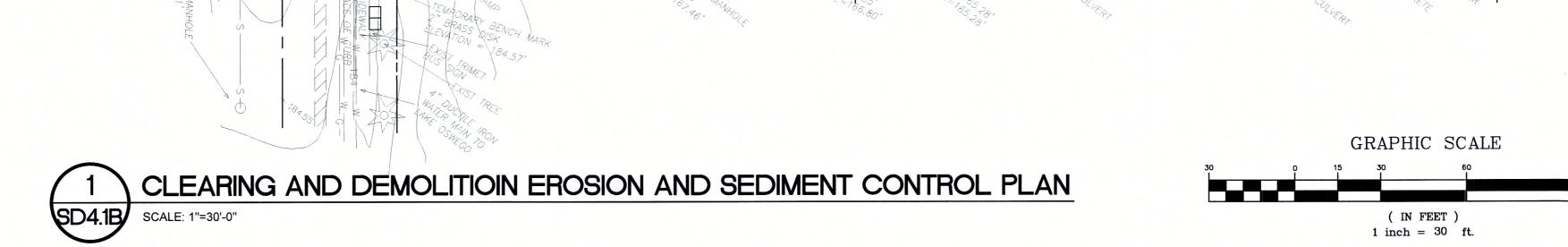
SHEET #

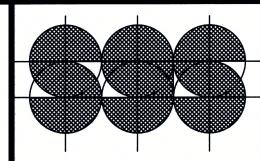
SD4.1A



- 3. SENSITIVE RESOURCES INCLUDING, BUT NOT LIMITED TO, TREES, WETLANDS, AND RIPARIAN PROTECTION AREAS SHALL BE CLEARLY DELINEATED WITH ORANGE CONSTRUCTION FENCING OR CHAIN LINK FENCING IN A MANNER THAT IS CLEARLY VISIBLE TO ANYONE IN THE AREA. NO ACTIVITIES ARE PERMITTED TO OCCUR BEYOND THE CONSTRUCTION BARRIER.
- 4. CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES INCLUDING, BUT NOT LIMITED TO, <u>STREET SWEEPING</u>, <u>AND VACUUMING</u>, MAY BE REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
- 5. RUN-ON AND RUN-OFF CONTROLS SHALL BE IN PLACE AND FUNCTIONING PRIOR TO BEGINNING SUBSTANTIAL CONSTRUCTION ACTIVITIES. RUN-ON AND RUN-OFF CONTROL MEASURES INCLUDE: <u>SLOPE DRAINS</u> (<u>WITH OUTLET PROTECTION</u>), <u>CHECK DAMS</u>, <u>SURFACE ROUGHENING</u>, <u>AND BANK STABILIZATION</u>.

THESE EROSION AND SEDIMENT CONTROL PLANS ASSUME "DRY WEATHER" CONSTRUCTION. "WET WEATHER" CONSTRUCTION MEASURES NEED TO BE APPLIED BETWEEN OCTOBER 1ST AND MAY 31ST.



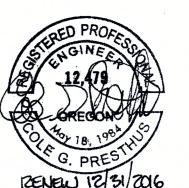


STEWART GORDON STRAUS ARCHITECT 6775 SW 111TH AVENUE SUITE 20 BEAVERTON, OR 97008 (503) 672-7517 (OFFICE) (503) 672-7808 (FAX) sgs@s-straus.com (e-mail)

WDY

Structural • Civil Engineers

6443 SW Beaverton-Hillsdale Hwy, suite 21
Portland, Oregon 97221
ph:503.203.8111 fx:503.203.8122
www.wdyi.com



DENEW 12/31/2016

SHADY HOLLOW AND WILLAMETTE D WEST LINN, OREGON

PROJECT NUMBER: 1335

DRAWING DATE BY

DESIGN

20 NOV 2013 5GS

11 FEB 2014 5GS

DES REV

12 MAR 2014 5GS

 DES REV

 12 MAR 2014 5GS

 PERMIT

 22 AUG 2014 5GS

 PLAN CHECK

 ♠ 08 OCT 2014 CGP

 ♠ 21 OCT 2014 CGP

 ♠ 06 JAN 2015 CGP

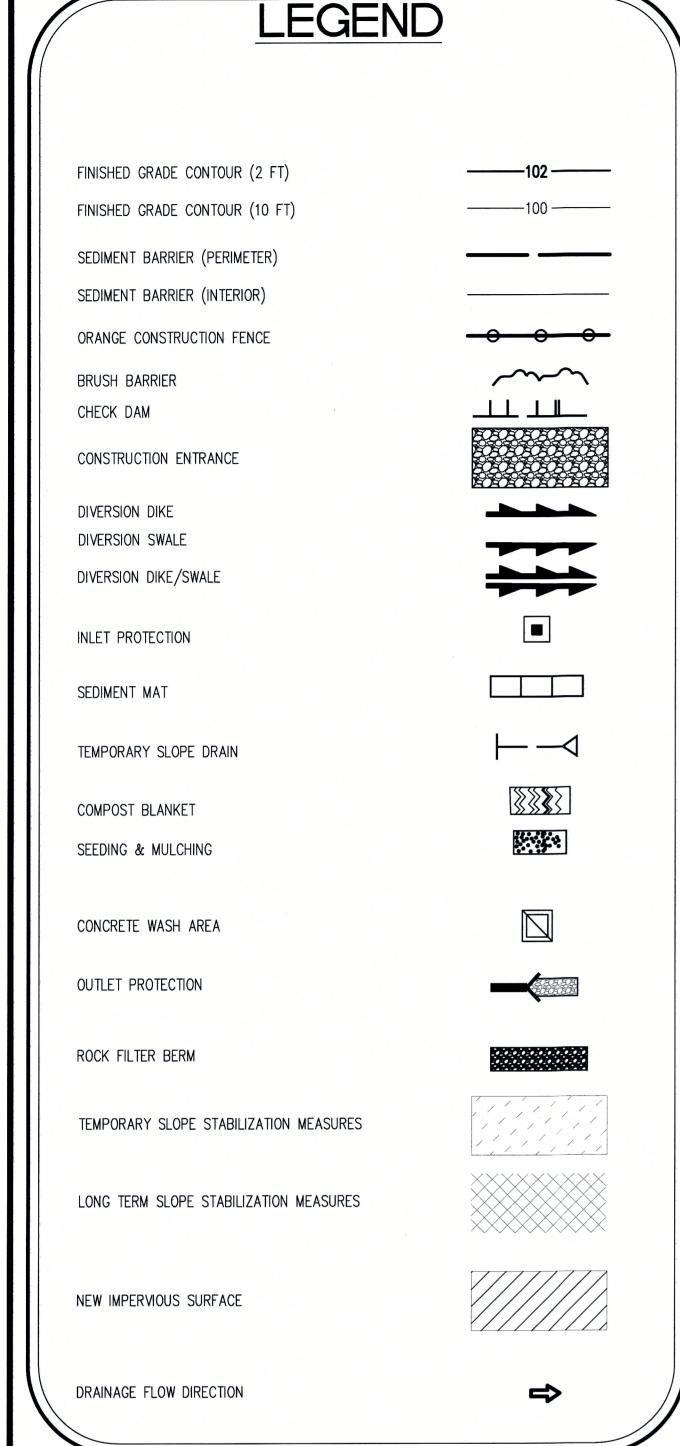
 ♠ 23 JAN 2015 CGP

 ♠ 28 JAN 2015 CGP

SHEET TITLE
CLEARING + DEMO
ESC PLAN

SHEET #

**SD4.1B** 



THESE EROSION AND SEDIMENT CONTROL PLANS ASSUME "DRY WEATHER" CONSTRUCTION. "WET WEATHER" CONSTRUCTION MEASURES NEED TO BE APPLIED BETWEEN OCTOBER 1ST AND MAY 31ST.

GRADING, STREET AND UTILITY EROSION AND SEDIMENT **CONSTRUCTION NOTES:** 

I. SEED USED FOR TEMPORARY OR PERMANENT SEEDING SHALL BE COMPOSED OF ONE OF THE FOLLOWING MIXTURES. UNLESS OTHERWISE AUTHORIZED:

A. VEGETATED CORRIDOR AREAS REQUIRE NATIVE SEED MIXES. SEE RESTORATION PLAN FOR APPROPRIATE SEED MIX.

B. DWARF GRASS MIX (MIN. 100 LB./AC.)

1. DWARF PERENNIAL RYEGRASS (80% BY WEIGHT)

2. CREEPING RED FESCUE (20% BY WEIGHT) C. STANDARD HEIGHT GRASS MIX (MIN. 100LB./AC.)

> 1. ANNUAL RYEGRASS (40% BY WEIGHT) 2. TURF-TYPE FESCUE (60% BY WEIGHT)

2. SLOPE TO RECEIVE TEMPORARY OR PERMANENT SEEDING SHALL HAVE THE SURFACE ROUGHENED BY MEANS OF TRACK-WALKING OR THE USE OF OTHER APPROVED IMPLEMENTS. SURFACE ROUGHENING IMPROVES SEED BEDDING AND REDUCES RUN-OFF VELOCITY.

3. LONG TERM SLOPE STABILIZATION MEASURES SHALL INCLUDE THE ESTABLISHMENT OF PERMANENT VEGETATIVE COVER VIA SEEDING WITH APPROVED MIX AND APPLICATION RATE.

4. TEMPORARY SLOPE STABILIZATION MEASURES SHALL INCLUDE: COVERING EXPOSED SOIL WITH PLASTIC SHEETING, STRAW MULCHING, WOOD CHIPS, 2" OF COMPOST COVER OR OTHER APPROVED MEASURES.

5. STOCKPILED SOIL OR STRIPPINGS SHALL BE PLACED IN A STABLE LOCATION AND CONFIGURATION. DURING "WET WEATHER" PERIODS, STOCKPILES SHALL BE COVERED WITH PLASTIC SHEETING OR STRAW MULCH. SEDIMENT FENCE IS REQUIRED AROUND THE PERIMETER OF THE STOCKPILE.

6. EXPOSED CUT OR FILL AREAS SHALL BE STABILIZED THROUGH THE USE OF TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS OR MATS, MID-SLOPE SEDIMENT FENCES OR WATTLES, OR OTHER APPROPRIATE MEASURES. SLOPES EXCEEDING 25% MAY REQUIRE ADDITIONAL EROSION CONTROL MEASURES.

7. AREAS SUBJECT TO WIND EROSION SHALL USE APPROPRIATE DUST CONTROL MEASURES INCLUDING THE APPLICATION OF A FINE SPRAY OF WATER, PLASTIC SHEETING, STRAW MULCHING, OR OTHER APPROVED MEASURES.

B. CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT ADDITIONAL MEASURES INCLUDING, BUT NOT LIMITED TO, TIRE WASHES, STREET SWEEPING, AND VACUUMING MAY BE BE REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.

9. ACTIVE INLETS TO STORM WATER SYSTEMS SHALL BE PROTECTED THROUGH THE USE OF APPROVED INLET PROTECTION MEASURES. ALL INLET PROTECTION MEASURES ARE TO BE REGULARLY INSPECTED AND MAINTAINED AS NEEDED.

10. SATURATED MATERIALS THAT ARE HAULED OFF-SITE MUST BE TRANSPORTED IN WATER-TIGHT TRUCKS TO ELIMINATE SPILLAGE OF SEDIMENT AND SEDIMENT-LADEN WATER.

11. AN AREA SHALL BE PROVIDED FOR THE WASHING OUT OF CONCRETE TRUCKS IN A LOCATION THAT DOES NOT PROVIDE RUN-OFF THAT CAN ENTER THE STORM WATER SYSTEM. IF THE CONCRETE WASH-OUT AREA CAN NOT BE CONSTRUCTED GREATER THAN 50' FROM ANY DISCHARGE POINT, SECONDARY MEASURES SUCH AS BERMS OR TEMPORARY SETTLING PITS MAY BE REQUIRED THE WASH-OUT SHALL BE LOCATED WITHIN SIX FEET OF TRUCK ACCESS AND BE CLEANED WHEN IT REACHES 50% OF THE CAPACITY.

12. SWEEPINGS FROM EXPOSED AGGREGATE CONCRETE SHALL NOT BE TRANSFERRED TO THE STORM WATER SYSTEM. SWEEPINGS SHALL BE PICKED UP AND DISPOSED IN THE TRASH.

13. AVOID PAVING IN WET WEATHER WHEN PAVING CHEMICALS CAN RUN-OFF INTO THE STORM WATER SYSTEM.

14. USE BMPs SUCH AS CHECK-DAMS, BERMS, AND INLET PROTECTION TO PREVENT RUN-OFF FROM REACHING DISCHARGE POINTS.

15. COVER CATCH BASINS, MANHOLES, AND OTHER DISCHARGE POINTS WHEN APPLYING SEAL COAT, TACK COAT, ETC. TO PREVENT INTRODUCING THESE MATERIALS TO THE STORM WATER SYSTEM.

# EROSION AND SEDIMENT CONTROL BMP IMPLEMENTATION:

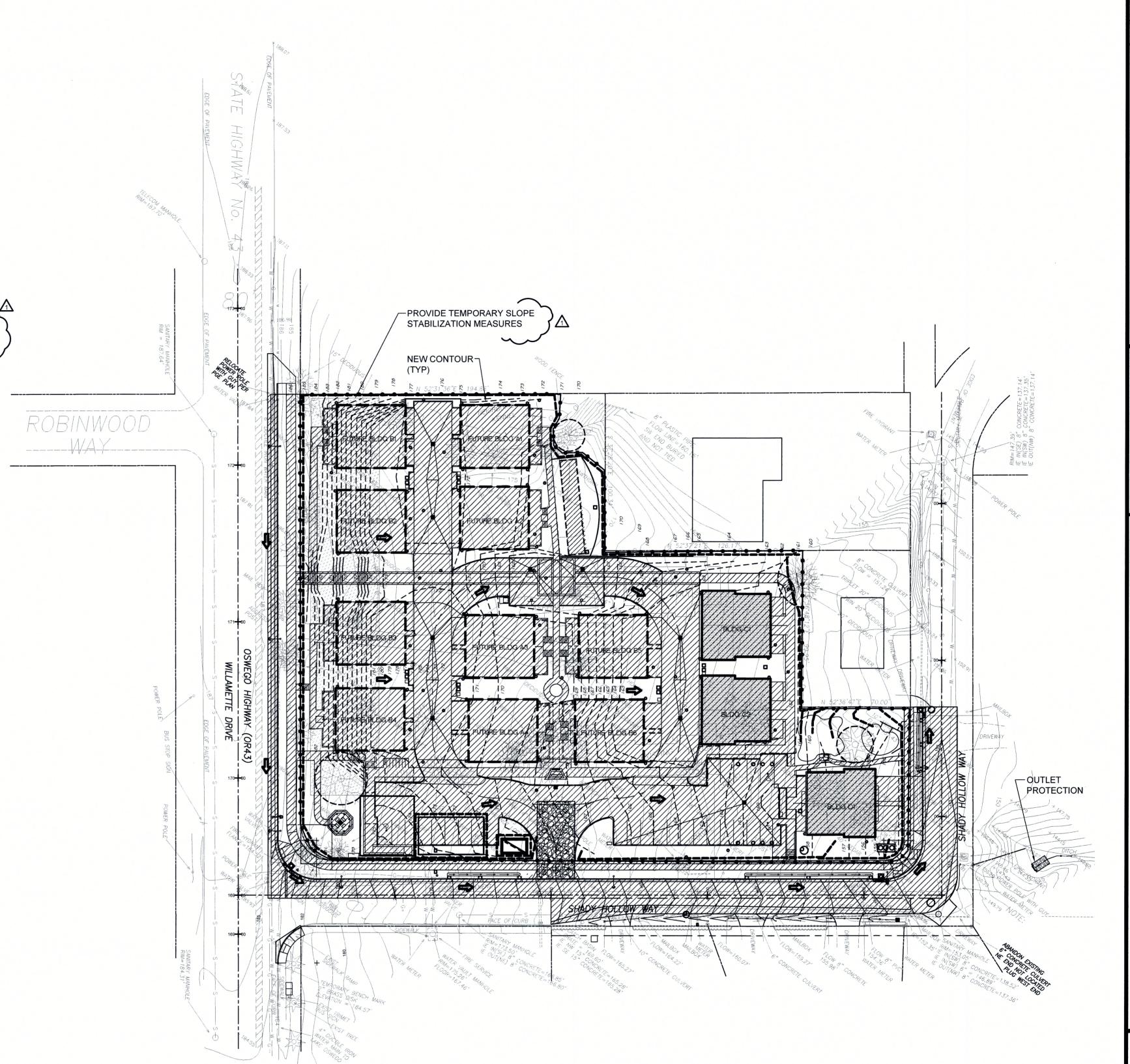
1. ALL BASE ESC MEASURES (INLET PROTECTION, PERIMETER SEDIMENT CONTROL, GRAVEL CONSTRUCTION ENTRANCES, ETC.) MUST BE IN PLACE, FUNCTIONAL, AND APPROVED IN AN INITIAL INSPECTION, PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

2. ALL "SEDIMENT BARRIERS (TO BE INSTALLED AFTER GRADING)" SHALL BE INSTALLED IMMEDIATELY FOLLOWING ESTABLISHMENT OF FINISHED GRADE AS SHOWN ON THESE PLANS.

3. LONG TERM SLOPE STABILIZATION MEASURES "INCLUDING MATTING" SHALL BE IN PLACE OVER ALL EXPOSED SOILS BY OCTOBER 1.

4. THE STORM WATER FACILITY SHALL BE CONSTRUCTED AND LANDSCAPED PRIOR TO THE STORM WATER SYSTEM FUNCTIONING AND SITE PAVING.

5. INLET PROTECTION SHALL BE IN-PLACE IMMEDIATELY FOLLOWING PAVING ACTIVITIES.





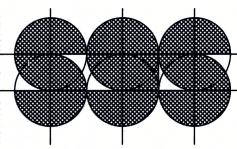
GRAPHIC SCALE

( IN FEET )

1 inch = 40 ft.







STEWART GORDON STRAL **ARCHITECT** 6775 SW | | | TH AVENUE

SUITE 20 BEAVERTON, OR 97008 (503) 672-7517 (OFFICE) (503) 672-7808 (FAX) sqs@s-straus.com (e-mail)

WDY

Structural · Civil Engineers

Portland, Oregon 97221 ph:503.203.8111 fx:503.203.8122 www.wdyi.com



WO.

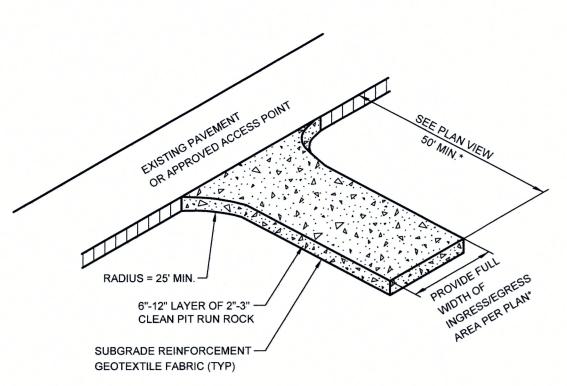
**PROJECT** 1335 NUMBER:

DATE BY DRAWING DESIGN 20 NOV 2013 SG 11 FEB 2014 SGS **DES REV** 12 MAR 2014 SGS PERMIT 22 AUG 2014 SGS PLAN CHECK 08 OCT 2014 CGP 21 OCT 2014 CGP 06 JAN 2015 CGF 23 JAN 2015 CGF 28 JAN 2015 CGP

SHEET TITLE DRAINAGE, GRADING + STABILIZATION

SHEET #

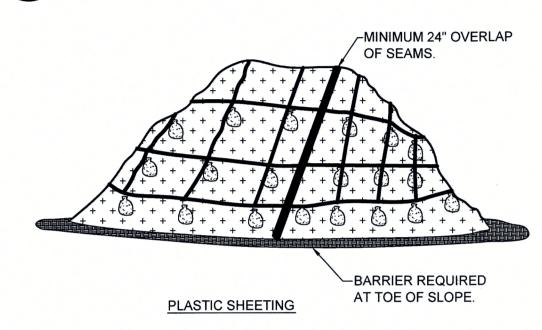
SD4.1C



\*20' MIN. FOR SINGLE FAMILY AND DUPLEX RESIDENTIAL \*SEE EROSION CONTROL PLAN FOR MIN. EXTENT OF CONSTRUCTION PAD

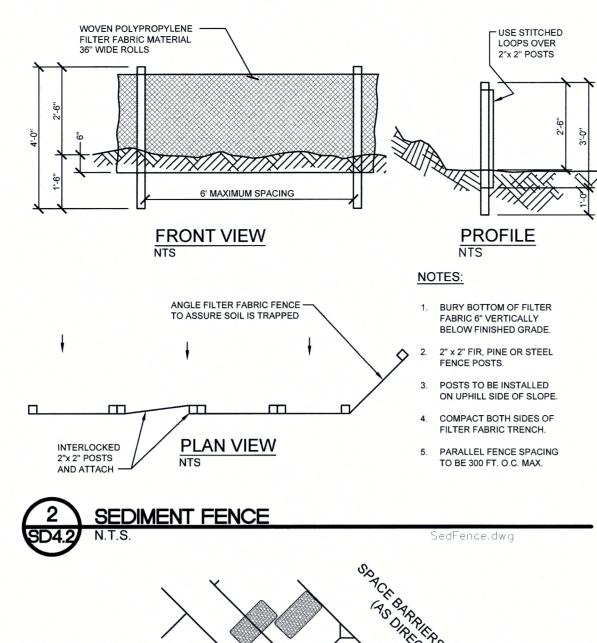
GRAVEL CONSTRUCTION ENTRANCE CONTROL NOTES

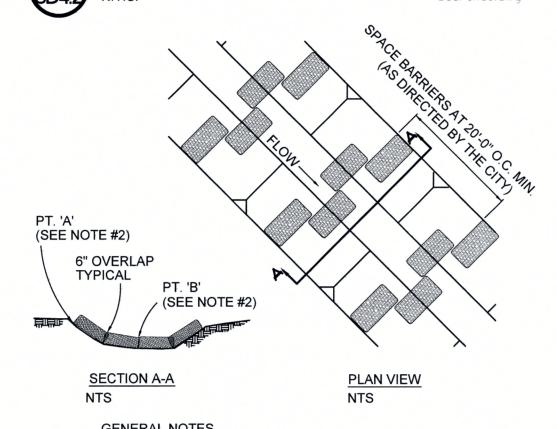
SEE EROSION



- 1. MINIMUM 24" OVERLAP OF ALL SEAMS REQUIRED.
- 2. BARRIER REQUIRED AT TOE OF STOCK PILE. 3. COVERING TO BE MAINTAINED TIGHTLY IN PLACE
- BY USING SANDBAGS OR TIRES ON ROPES WITH A MAXIMUM 10' GRID SPACING IN ALL DIRECTIONS.







 STAKING OF BAGS IS REQUIRED USING (2) 1" X 2" WOOD STAKES OR APPROVED EQUAL PER BAG. DRIVE STAKES A MINIMUM OF 24" INTO THE GROUND. 2. PT. 'A' MUST BE 6" MINIMUM HIGHER THAN PT. 'B'.



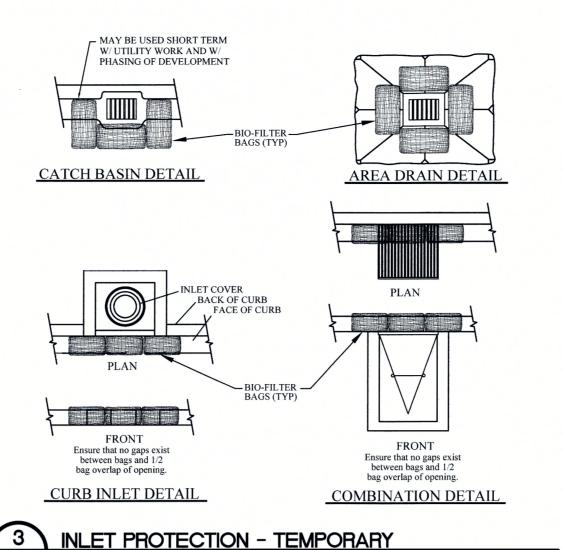
BIOFILTER BAGS IN DITCHES AND SWALES

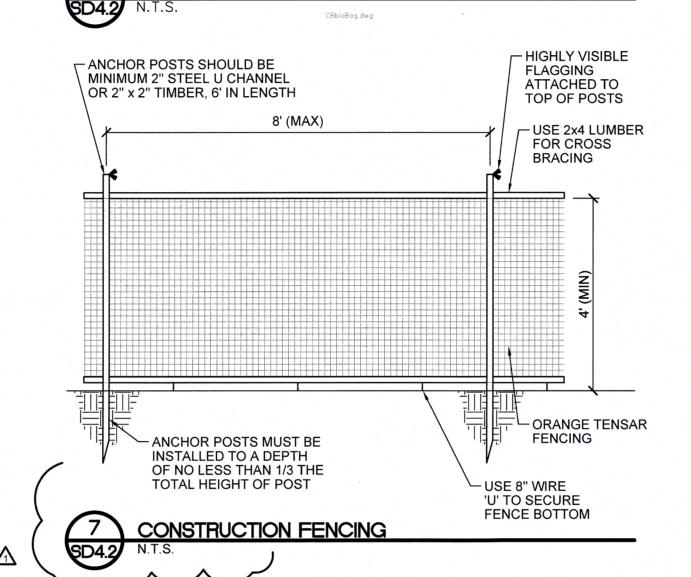
## OTHER MISCELLANEOUS BMP NOTES:

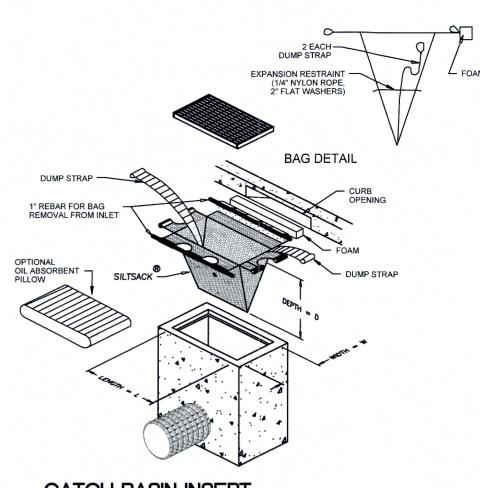
TO PREVENT ILLICIT CONNECTION AND ILLEGAL DISCHARGE:

1. INSPECT SITE BEFORE BEGINNING THE JOB FOR EVIDENCE OF ILLICIT CONNECTIONS OR ILLEGAL DUMPING OR DISCHARGES.

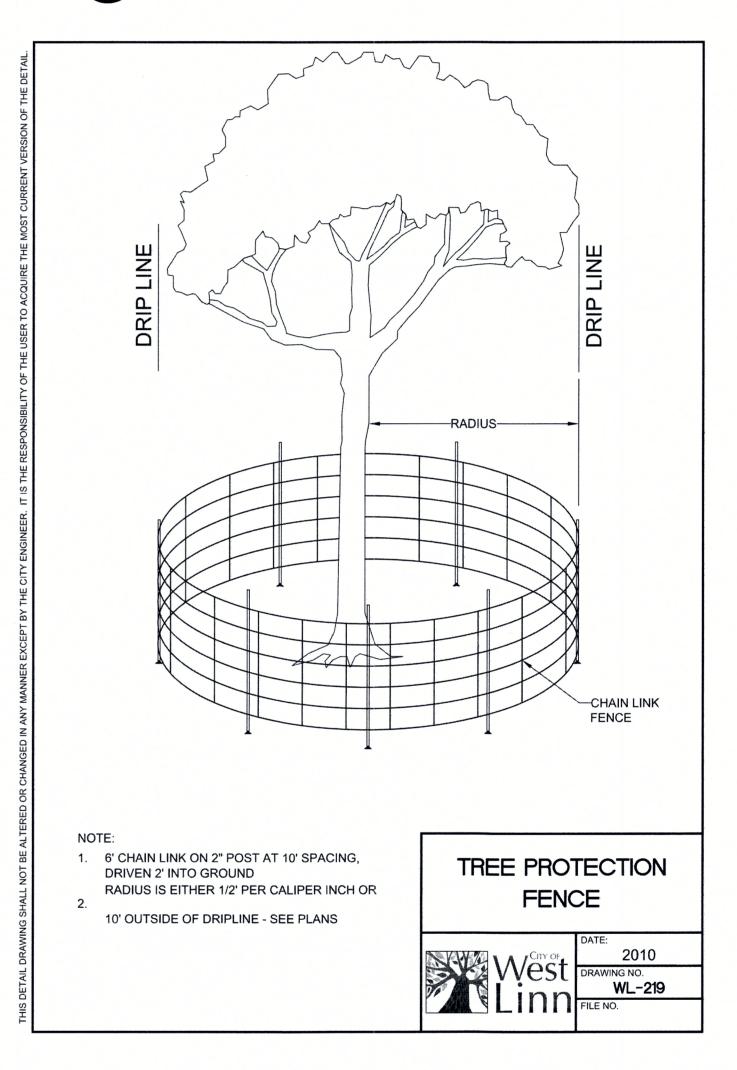
- 2. INSPECT SITE REGULARLY DURING PROJECT EXECUTION FOR EVIDENCE OF ILLICIT CONNECTIONS OR ILLEGALLY DUMPED MATERIAL WHICH MAY ENTER THE JOB SITE.
- 3. OBSERVE SITE PERIMETER FOR EVIDENCE OR POTENTIAL OF ILLICITLY DISCHARGED OR ILLEGALLY DUMPED MATERIAL WHICH MAY ENTER THE JOB SITE.
- 4. IDENTIFICATION OF ILLICIT CONNECTIONS AND ILLEGAL DUMPING OR DISCHARGES:
  - A. SOLIDS: LOOK FOR DEBRIS, OR RUBBISH PILES. SOLID WASTE DUMPING OFTEN OCCURS ON ROADWAYS WITH LIGHT TRAFFIC LOADS OR IN AREAS NOT EASILY VISIBLE FROM THE TRAVELED WAY.
- B. LIQUIDS:
- 1. VISIBLE SIGNS OF STAINING OR UNUSUAL COLORS TO THE PAVEMENT OR SURROUNDING ADJACENT SOILS.
- 2. DISCOLORATION OR OILY SUBSTANCES IN THE WATER OR STAINS AND RESIDUES DETAINED WITH DITCHES, CHANNELS OR DRAINAGE BOXES.
- 3. PUNGENT ODORS COMING FROM THE DRAINAGE SYSTEMS. 4. ABNORMAL WATER FLOW DURING THE DRY WEATHER SEASON.
- 5. URBAN AREAS EVIDENCE OF ILLICIT CONNECTIONS OR ILLEGAL DISCHARGES IS TYPICALLY DETECTED AT THE STORM DRAIN OUTFALL LOCATIONS OR AT THE MANHOLES. SIGNS OF AN ILLICIT CONNECTION OR ILLEGAL DISCHARGE CAN INCLUDE:
- -- ABNORMAL WATER FLOW DURING THE DRY WEATHER SEASON.
- -- UNUSUAL FLOWS IN SUB-DRAIN SYSTEMS USED FOR DEWATERING. -- PUNGENT ODORS COMING FROM THE DRAINAGE SYSTEMS.
- -- DISCOLORATION OR OILY SUBSTANCES IN THE WATER OR STAINS AND RESIDUES DETAINED WITHIN DITCHES.
- -- EXCESSIVE SEDIMENT DEPOSITS, PARTICULARLY ADJACENT TO OR NEAR ACTIVE OFF-SITE CONSTRUCTION.
- 5. NOTIFY THE PROJECT SUPERINTENDENT OF ANY ILLICIT CONNECTIONS, DUMPINGS, OR DISCHARGES AT THE TIME OF DISCOVERY. 6. VEHICLES AND EQUIPMENT SHOULD BE WASHED OFF SITE AT A CONTROLLED WASH FACILITY WHEN AT ALL POSSIBLE.
- 7. USE "DRY CLEANING METHODS" SUCH AS WIPING DOWN WHENEVER POSSIBLE RATHER THAN WATER WASHING VEHICLES ON SITE.
- 8. IF CLEANING MUST BE CONDUCTED ON-SITE, IT SHALL BE CONDUCTED IN A DEDICATED AREA WITH THE FOLLOWING CHARACTERISTICS:
- A. LOCATED AWAY FROM THE STORM DRAIN INLETS, DRAINAGE FACILITIES, OR WATERCOURSES.
- B. PAVED WITH CONCRETE OR ASPHALT, OR STABILIZED WITH AN AGGREGATE BASE. C. BERMED TO CONTAIN WASH WATERS AND TO PREVENT RUN-ON AND RUNOFF.
- D. CONFIGURED WASH AREA WITH A SUMP TO ALLOW COLLECTION AND DISPOSAL OF WASH WATER.
- E. DISCHARGE WASH WATER TO A SANITARY OR PROCESS WASTE SEWER (WHERE PERMITTED), OR TO A DEAD END SUMP. WASH WATERS SHALL NOT
- BE DISCHARGED TO STORM DRAINS OR WATERCOURSES. F. USED ONLY WHEN NECESSARY.
- 9. WHEN CLEANING VEHICLES OR EQUIPMENT WITH WATER:
- A. USE AS LITTLE WATER AS POSSIBLE. CONSIDER USING A HIGH PRESSURE SPRAYER AND USE THE POSITIVE SHUTOFF VALVE.
- B. DO NOT USE SOLVENTS OR DETERGENTS TO CLEAN VEHICLES OR EQUIPMENT ON SITE.
- C. DO NOT USE STEAM CLEANING ON SITE.
- 10. INSPECT AND CLEAN WORK AREAS REGULARLY TO LIMIT WIND BLOWN DEBRIS AND POLLUTANTS TRANSPORTED BY STORMWATER.
- TO REUSE AND RECYCLE CONSTRUCTION WASTES:
- 1. USE TRENCH SPOILS AND CUT AREA SOIL FOR FILL UNSUITABLE AND EXCESS MATERIAL SHALL BE HAULED OFF SITE TO AN APPROVED LOCATION. IMPORTED FILL MATERIAL SHALL BE APPROVED BY THE PROJECT'S GEOTECHNICAL ENGINEER.

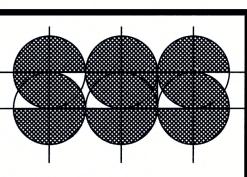






CATCH BASIN INSERT BAG AND CURB OVERFLOW INLET PROTECTION





STEWART GORDON STRAUS ARCHITECT 6775 SW IIITH AVENUE SUITE 20

BEAVERTON, OR 97008 (503) 672-7517 (OFFICE) (503) 672-7808 (FAX) sgs@s-straus.com (e-mail)

WDY

Structural · Civil Engineers 6443 SW Beaverton-Hillsdale Hwy, suite 2 Portland, Oregon 97221 ph:503.203.8111 fx:503.203.8122 www.wdyi.com



**PROJECT** NUMBER:

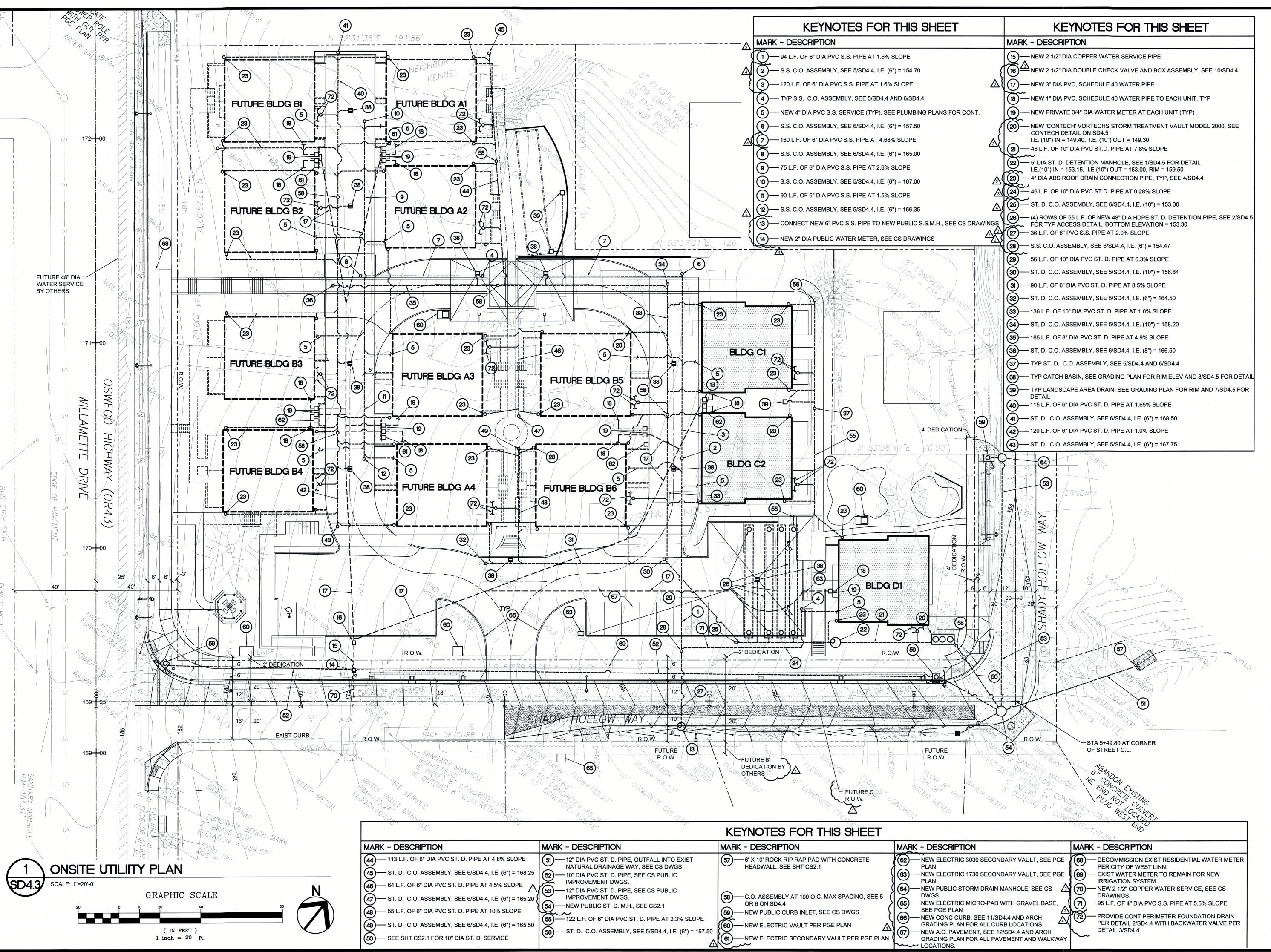
DRAWING DATE BY DESIGN 20 NOV 2013 SGS 11 FEB 2014 SGS **DES REV** 12 MAR 2014 SGS

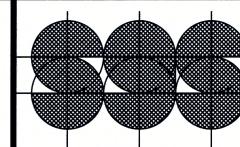
PERMIT 22 AUG 2014 SG PLAN CHECK ↑ 08 OCT 2014 CC 21 OCT 2014 C 06 JAN 2015 C

23 JAN 2015 CG

28 JAN 2015 CG SHEET TITLE **EROSION** 

CONTROL DETAILS SHEET #





STEWART GORDON STRAUS ARCHITECT 6775 SW | | | TH AVENUE

BEAVERTON, OR 97008 (503) 672-7517 (OFFICE) (503) 672-7808 (FAX) sqs@s-straus.com (e-mail)

SUITE 20

WDY

Structural · Civil Enginee

6443 SW Beaverton-Hillsdale Hwy, suite 210 Portland, Oregon 97221 ph:503.203.8111 fx:503.203.8122 www.wdyi.com



HADY HOLLOW AND WILLAMETTE DRIVE

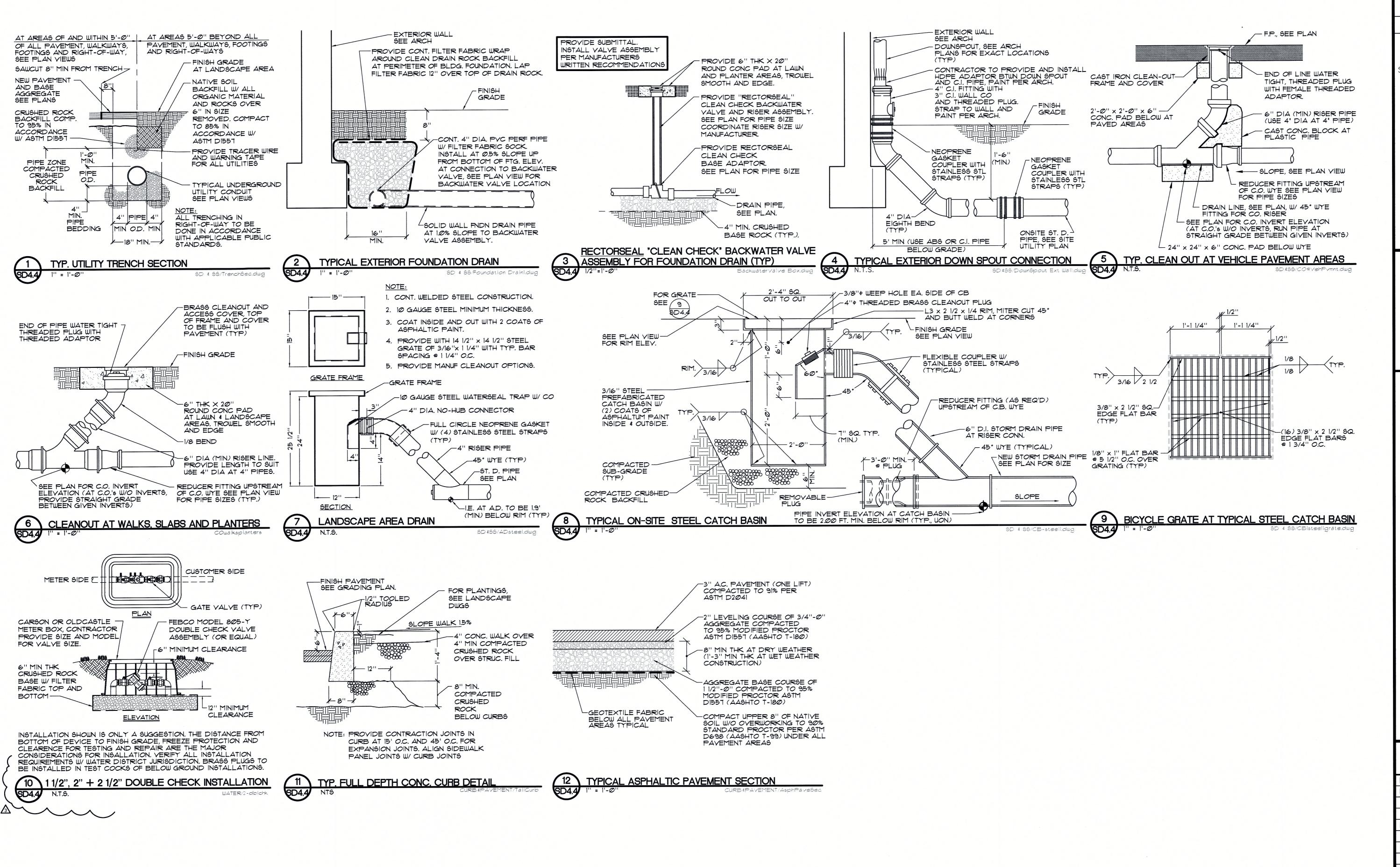
PROJECT NUMBER: 133

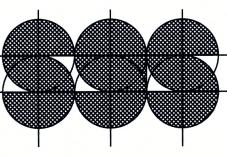
NUMBER: 133	35
DRAWING DATE	BY
DESIGN	
20 NOV 2013	SGS
11 FEB 2014	SGS
DES REV	
12 MAR 2014	SGS
PERMIT	
22 AUG 2014	SGS
PLAN CHECK	
∆ 08 OCT 2014	CGP
21 OCT 2014	CGP
<u> </u>	CGP
∆ 23 JAN 2015	CGP
<u></u>	CGP

SHEET TITLE
ONSITE UTILITY
PLAN

SHEET #

SD4.3





STEWART GORDON STRAU ARCHITECT 6775 SW I I ITH AVENUE SUITE 20

BEAVERTON, OR 97008 (503) 672-7517 (OFFICE) (503) 672-7808 (FAX) sgs@s-straus.com (e-mail)

**W** W D Y Structural · Civil Engineers

Portland, Oregon 97221 ph:503.203.8111 fx:503.203.8122 www.wdyi.com



BENEW 12/31/2016

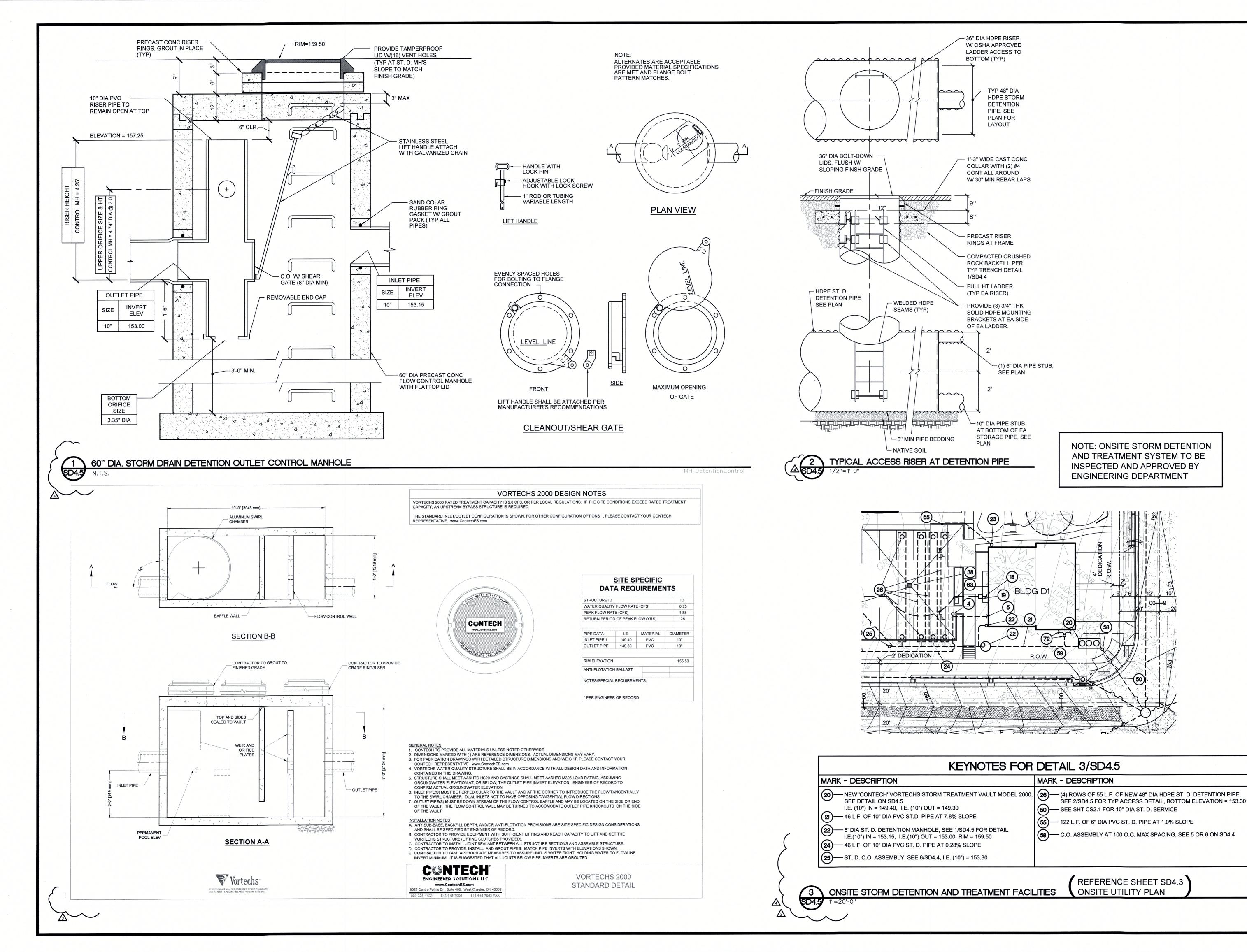
AND WE Q

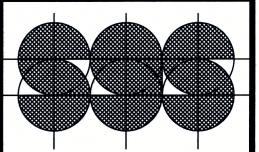
**PROJECT** 1335 NUMBER: DATE BY DRAWING DESIGN 20 NOV 2013 SG 11 FEB 2014 SG DES REV 12 MAR 2014 SG PERMIT 22 AUG 2014 |SG PLAN CHECK 08 OCT 2014 CGP 21 OCT 2014 CGP 06 JAN 2015 | CGF 23 JAN 2015 CGF 28 JAN 2015 | CGI

SHEET TITLE ONSITE CIVIL **DETAILS** 

SHEET #

SD4.4





STEWART GORDON STRAUS ARCHITECT 6775 SW I I I TH AVENUE SUITE 20 BEAVERTON, OR 97008 (503) 672-7517 (OFFICE) (503) 672-7808 (FAX) sgs@s-straus.com (e-mail)

WDY

Structural · Civil Engineers

6443 SW Beaverton-Hillsdale Hwy, suite 21 Portland, Oregon 97221 ph:503.203.8111 fx:503.203.8122 www.wdyi.com



DENEW 12/31/2016

≥ p AND **≫**0. SHADY

PROJEC1 1335 NUMBER: DATE BY DRAWING

DESIGN 20 NOV 2013 SG 11 FEB 2014 SGS

**DES REV** 

12 MAR 2014 SGS

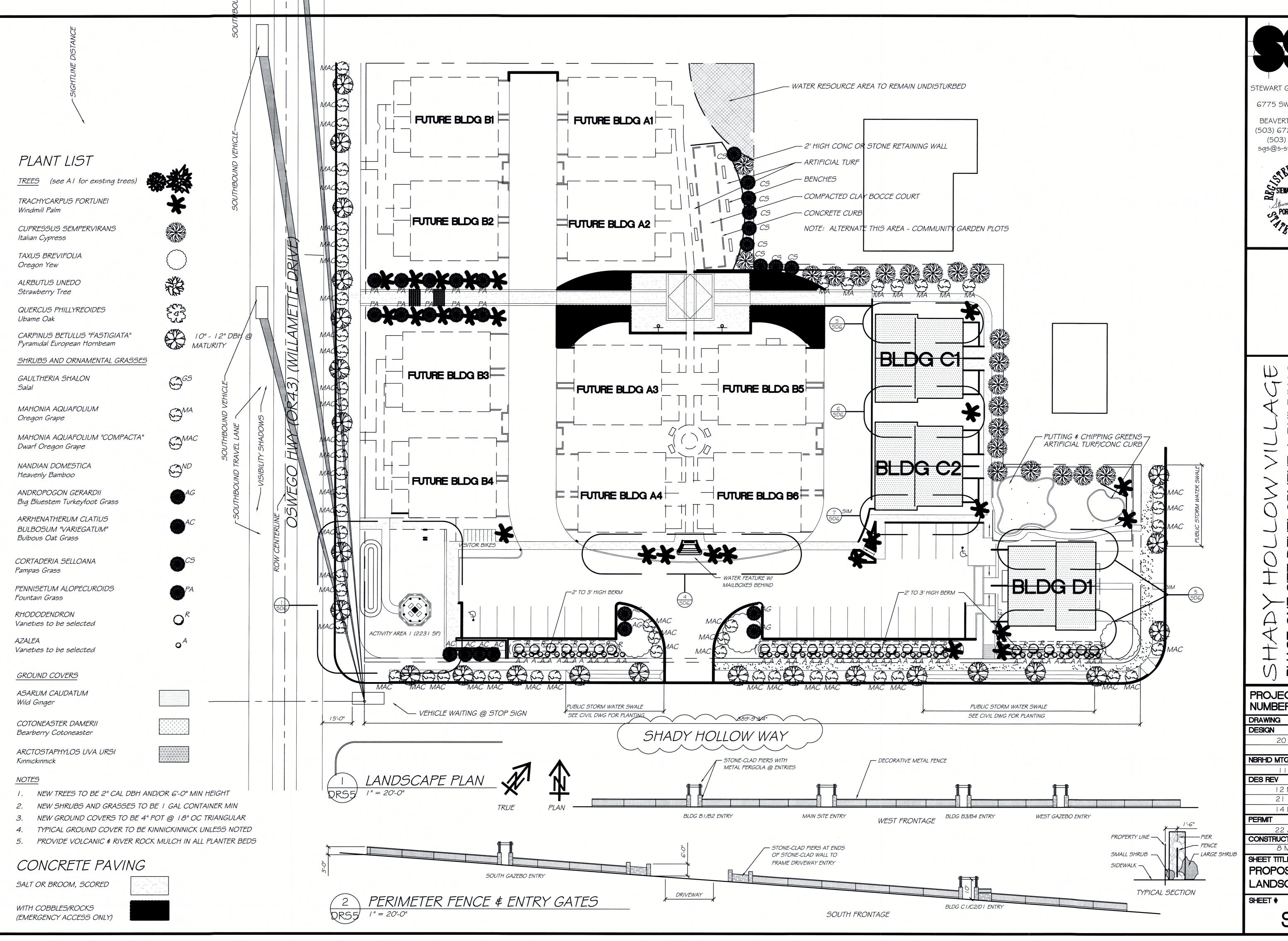
**PERMIT** 22 AUG 2014 SGS

PLAN CHECK 08 OCT 2014 21 OCT 2014 06 JAN 2015 CC 23 JAN 2015

28 JAN 2015 CG SHEET TITLE ONSITE CIVIL

**DETAILS** SHEET #

SD4.5



STEWART GORDON STRAUS ARCHITECT 6775 SW 111TH AVENUE SUITE 20 BEAVERTON, OR 97008 (503) 672-7517 (OFFICE) (503) 672-7808 (FAX) sgs@s-straus.com (e-mail)



# SHADY HOLLOW VILLAGE DRIVE SHADY HOLLOW AND WILLAMETTE DRIVE WEST LINN, OREGON

**PROJECT** 1335 NUMBER: DATE BY 20 NOV 2013 NBRHD MTG 11 FEB 2014 12 MAR 2014 21 APR 2014 14 MAY 2014 22 AUG 2014 CONSTRUCTION 8 MAR 2015 SHEET TITLE PROPOSED LANDSCAPE

SD5