or 11

# CITY OF SHERWOOD 2018 PAVEMENT REHABILITATION PROJECTS

# **MARCH 2018**

(BID DOCUMENT VOLUME 2 OF 2 - CONTRACT DRAWINGS)

PROJECT LOCATION:
SW MERRYMAN STREET (NOTTINGHAM CT - HALL ST) SW NOTTINGHAM COURT (SOUTH OF MERRYMAN ST) SW QUIVER COURT (SOUTH OF MERRYMAN ST) SW WILLAMETTE STREET (HALL ST - MEISSINGER PL) SW UPPER ROY (WILLAMETTE ST - COCHRAN DR) SW TUALATIN STREET (WASHINGTON ST - PINE ST)

DEVELOPER/OWNER: CITY OF SHERWOOD 22560 SW PINE ST SHERWOOD, OREGON 97140 CONTACT: CRAIG CHRISTENSEN, PE CHRISTENSENC@SHERWOODOREGON.GOV

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SW TUALATIN SHERWOOD RD VICINITY MERRYMAN STREET SW OREGON STREET PUBLIC WORKS PROJECT VICINITY WILLAMETTE STREET VICINITY UPPER ROY TUALATIN STREET

THIS DESIGN COMPLIES WITH ORS 92.044 (7) IN THAT NO UTILITY INFRASTRUCTURE IS DESIGNED TO BE WITHIN ONE (1) FOOT OF A SURVEY MONUMENT LOCATION SHOWN ON A SUBDIVISION OR PARTITION PLAT. NO DESIGN EXCEPTIONS NOR FINAL FIELD LOCATION CHANGES SHALL BE PERMITTED IF THAT CHANGE WOULD CAUSE ANY UTILITY INFRASTRUCTURE TO BE PLACED WITHIN THE PROHIBITED AREA.



### VICINITY MAP NOT TO SCALE

CITY OF SHERWOOD: ANDY STIRLING (503) 925-2307 CONTACT INSPECTOR 48 HOURS PRIOR TO CONSTRUCTION.

### INPSECTOR INFORMATION:

### SURVEY INFORMATION:

HORIZONTAL AERIAL TOPOGRAPHIC MAP (2004) AND VISUAL OBSERVATION.

AERIAL TOPOGRAPHIC MAP (2004) WITH ADDITIONAL LEVEL INFORMATION PERFORMED AT

### ATTENTION EXCAVATORS: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-011-0010 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 2 BUSINESS DAYS, BEFORE COMMENCING ANY EXCAVATION. CALL (503) 246-6699.

- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROCURE ALL APPLICABLE PERMITS, LICENSES, AND CERTIFICATES RELATIVE TO THE TRADES TO COMPLETE THE PROJECT AND FOR THE USE OF SUCH WORK WHEN COMPLETED. COMPLIANCE SHALL BE AT ALL LEVELS, FEDERAL, STATE, COUNTY, AND LOCAL, RELATING TO THE PERFORMANCE OF THIS WORK. A CITY OF SHERWOOD OR A METRO BUSINESS LICENSE IS REQUIRED FOR THE CONTRACTOR AND ALL
- 3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS AND DEPTHS PRIOR TO CONSTRUCTION AND ARRANGE FOR PROTECTION OF UTILITIES IN CONFLICT WITH PROPOSED WORK. THE LOCATIONS, DEPTH AND DESCRIPTION OF EXISTING UTILITIES SHOWN WERE COMPILED FROM AVAILABLE RECORDS AND/OR FIELD SURVEYS. THE ENGINEER OR UTILITY COMPANIES DO NOT GUARANTEE THE ACCURACY OR THE COMPLETENESS OF SUCH RECORDS.
  ADDITIONAL UTILITIES MAY EXIST WITHIN THE WORK AREA, POTHOLING PRIOR TO CONSTRUCTION MAY BE NECESSARY. ALL WORK TO VERIFY UTILITY LOCATIONS AND DEPTHS IS INCIDENTAL.
- OREGON LAW REQUIRES THE CONTRACTOR 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. THE CONTRACTOR MAY OBTAIN COPIES OF THESE RULES FROM THE CENTER BY CALLING (503) 232-1987 OR BY ACCESSING THE INTERNET AT WWW.STATE.OR.US/GOVERNMENT.HTM. THE CONTRACTOR MUST NOTIFY THE CENTER AT LEAST 2 BUSINESS DAYS, BUT NOT MORE THAN 10 BUSINESS DAYS, BEFORE COMMENCING AN EXCAVATION. CALL (503) 246-6699.
- THE CONTRACTOR SHALL MAKE PROVISIONS TO KEEP ALL EXISTING UTILITIES IN SERVICE AND PROTECT THEM DURING CONSTRUCTION. CONTRACTOR SHALL IMMEDIATELY REPAIR OR REPLACE ANY DAMAGED UTILITIES USING MATERIAL AND METHODS APPROVED BY THE UTILITY OWNER. NO SERVICE INTERRUPTIONS SHALL BE PERMITTED WITHOUT PRIOR WRITTEN AGREEMENT WITH THE UTILITY PROVIDER AND NOTIFICATION TO SERVICE CUSTOMER. PLEASE NOTE THE STORM SEWER IN THIS AREA IS SHALLOW - DO NOT DAMAGE. REPAIR TO UTILITIES DAMAGED BY THE CONTRACTOR SHALL BE AT THE
- THE CONTRACTOR SHALL PRUNE ALL VEGETATION, AS NECESSARY FOR EQUIPMENT CLEARANCES AWAY AND UP FROM THE STREET AND SIDEWALK. AS WELL AS ANY ROOT PRUNING AS DETERMINED BY THE ENGINEER. THE CONTRACTOR SHALL PROTECT ALL EXISTING LANDSCAPING THAT IS TO REMAIN. DAMAGE TO TREES AND SHRUBS IS THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR. COST OF TREE PRUNING IS INCIDENTAL.
- CONTRACTOR SHALL NOTIFY THE CITY OF SHERWOOD 48 HOURS IN ADVANCE OF STARTING CONSTRUCTION AND 24 HOURS BEFORE RESUMING WORK AFTER SHUTDOWNS, EXCEPT FOR NORMAL RESUMPTION OF WORK FOLLOWING SATURDAYS,
- CONTRACTOR SHALL REMOVE AND DISPOSE OF TREES, STUMPS, BRUSH, ROOTS, EXCESS TOPSOIL, AND OTHER EXCESS
  MATERIAL OFF SITE. MATERIALS SHALL BE DISPOSED OF IN SUCH A MANNER AS TO MEET ALL APPLICABLE REGULATIONS. DISPOSAL LOCATION INFORMATION TO BE PROVIDED TO CITY PRIOR TO BEGINNING ANY WORK
- CONSTRUCTION VEHICLES SHALL PARK AT A LOCATION APPROVED BY THE INSPECTOR OR AT A LOCATION(S) INDICATED ON AN APPROVED PLAN. HOURS OF CONSTRUCTION SHALL BE AS SPECIFIED IN THE PLANS - UNLESS OTHERWISE APPROVED BY THE INSPECTOR. CONSTRUCTION IS PROHIBITED ON SATURDAY AND SUNDAY UNLESS WRITTEN APPROVAL IS OBTAINED FROM THE PUBLIC WORKS DIRECTOR AND CITY MANAGER. CONSTRUCTION ACTIVITIES INCLUDE ALL FIELD MAINTENANCE OF EQUIPMENT, REFUELING, AND PICK UP AND DELIVERY OF EQUIPMENT AS WELL AS THE ACTUAL CONSTRUCTION ACTIVITY.
- 10. AT THE END OF EACH WORK DAY, THE CONTRACTOR SHALL CLEAN UP THE PROJECT AREA AND LEAVE IT IN A NEAT AND SECURED MANNER. UPON COMPLETION, THE CONTRACTOR SHALL LEAVE THE PROJECT AREA FREE OF DEBRIS AND UNUSED
- 11. THE CONTRACTOR SHALL KEEP AN APPROVED SET OF PLANS ON THE PROJECT SITE AT ALL TIMES WITH ALL KNOWN CHANGES REDLINED ON THE WORKING PLAN SET FOR THE SOLE PURPOSE OF RECORDING AS BUILT INFORMATION OF IMPROVEMENTS AND LOCATION AND DEPTH OF ANY EXISTING UTILITIES ENCOUNTERED.
- 12. ANY ALTERATIONS OR VARIATIONS FROM THESE PLANS EXCEPT MINOR FIELD ADJUSTMENTS NEEDED TO MEET EXISTING FIELD CONDITIONS, SHALL BE APPROVED BY THE ENGINEER AND APPLICABLE REGULATORY AGENCY REPRESENTATIVE. CONTRACTOR SHALL KEEP RECORD OF ALL CHANGES AND NOTE ON AS BUILT PLANS. CONTRACTOR SHALL SUBMIT ACCURATE AND COMPLETE "AS-BUILT" INFORMATION TO THE ENGINEER UPON COMPLETION OF CONSTRUCTION
- THE CONTRACTOR SHALL PERFORM ALL WORK NECESSARY TO COMPLETE THIS PROJECT IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS INCLUDING SUCH INCIDENTALS AS MAY BE NECESSARY TO MEET THE INTENT OF THE PROJECT CONTRACT DOCUMENTS, APPLICABLE AGENCY REQUIREMENTS AND OTHER WORK AS NECESSARY TO PROVIDE A COMPLETE
- CONTRACTOR SHALL PROVIDE EFFECTIVE EROSION PROTECTION TO INCLUDE, BUT NOT BE LIMITED TO, GRADING, DITCHING, STRAW WATTLES, TRIANGULAR SILT DAMS, SILT FENCING, AND SEDIMENT BARRIERS TO MINIMIZE EROSION AND IMPACT TO ADJACENT PROPERTY. SEE EROSION AND SEDIMENT CONTROL NOTES AND PLANS.
- THE CONTRACTOR SHALL MAINTAIN AND COORDINATE ACCESS TO ALL AFFECTED PROPERTIES. THE CONTRACTOR SHALL NOTIFY AFFECTED RESIDENTS A MINIMUM OF 48 HOURS PRIOR TO ANY DRIVEWAY CLOSURES AND ASSIST PROPERTY OWNER WITH ALTERNATIVE PARKING AND ACCESS. PEDESTRIAN ACCESS TO ENTRANCES SHALL BE MAINTAINED AT ALL TIMES. THE CONTRACTOR WILL PROVIDE RAMPS OR OTHER APPROVED METHODS FOR MAINTAINING ACCESS TO ENTRANCES. RAMPS SHALL BE ADA COMPLIANT, APPROVED BY THE ENGINEER, AND INCIDENTAL TO THE CONTRACT, RESIDENTIAL DRIVEWAYS MAY ONLY BE CLOSED FOR A MAXIMUM OF ONE DAY (7:00 AM TO 6:00 PM).
- 16. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS BEFORE THE START OF WORK. THE CONTRACTOR SHALL TAKE ALL NECESSARY FIELD MEASUREMENTS AND OTHERWISE VERIFY ALL DIMENSIONS AND EXISTING CONSTRUCTION CONDITIONS INDICATED AND/OR SHOWN ON THE PLANS. SHOULD ANY ERROR OR INCONSISTENCY THE CONTRACTOR SHALL NOT PROCEED WITH THE WORK AFFECTED UNTIL REPORTED TO THE PROJECT ENGINEER FOR CLARIFICATION OR CORRECTION.
- ANY INSPECTION BY THE CITY, COUNTY, STATE, FEDERAL AGENCY OR PROJECT ENGINEER SHALL NOT, IN ANY WAY, RELIEVE THE CONTRACTOR FROM ANY OBLIGATION TO PERFORM THE WORK IN COMPLIANCE WITH THE APPLICABLE CODES, REGULATIONS, CITY STANDARDS AND PROJECT CONTRACT DOCUMENTS
- 18. CONTRACTOR TO VERIFY CENTERLINE AND GUTTER SLOPES PRIOR TO CONSTRUCTION TO ENSURE COMPLIANCE WITH THE CONSTRUCTION DRAWINGS AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
- THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN CONFORMING TO THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR APPROVAL PRIOR TO THE START OF CONSTRUCTION AND ACCORDING TO PROJECT SPECIFICATIONS TRAFFIC CONTROL PLAN SHALL MATCH APPROVED PHASING/SEQUENCING PLAN AND SHALL BE SUBJECT TO THE APPROVAL BY THE CITY, WASHINGTON COUNTY AND/OR ODOT AS APPLICABLE.
- 20. THE CONTRACTOR SHALL PROVIDE TO THE CITY PROJECT MANAGER AND INSPECTOR A 24 HOUR CONTACT PERSON AND
- 21. NO TRENCHES OR PITS WILL BE ALLOWED TO REMAIN OPEN OVERNIGHT. ALL TRENCHES AND PITS SHALL BE COVERED WITH STEEL PLATES OR FILLED IN AT NIGHT.
- 22. PROPERTY LINES SHOWN ON ALL PLAN SHEETS ARE FOR GENERAL DELINEATION ONLY AND ARE, BY NO MEANS, MEANT TO REPRESENT THE ACTUAL BOUNDARIES.

- 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,
- 24. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REMOVE EXISTING AGGREGATE BASE AS NECESSARY TO CEMENT TREAT BASE AND ACHIEVE SURFACE BASE LEVEL FOR PLACEMENT OF NEW HMAC WHILE MEETING THE CURB AND DRIVEWAY
- 25. WHEN MATCHING EXISTING PAVEMENT, SAWCUT TO FIRM PAVEMENT. MINIMUM SAWCUT IS 1' FROM EXISTING EDGE OF PAVEMENT OR AS SHOWN ON PLANS, SAWCUT LOCATION TO BE APPROVED BY INSPECTOR.
- 26. CONTRACTOR SHALL PROTECT AND MAINTAIN ALL EXISTING STRUCTURES AND UTILITIES NOT SHOWN TO BE REMOVED. CONTRACTOR SHALL REPLACE OR REPAIR ANY EXISTING STRUCTURES (SIDEWALKS, DRIVEWAYS, CURB, FENCE, STREET TREES, ETC.) DAMAGED DURING CONSTRUCTION, IN ACCORDANCE WITH CITY STANDARDS
- 27. ALL LINEWORK SHOWN ON THE PLAN IS FROM A 2004 AERIAL MAP AND FROM VISUAL OBSERVATION AND IS THEREFORE NOT GUARANTEED FOR ACCURACY AND SHOULD NOT BE USED FOR OTHER PURPOSES.

# EROSION CONTROL NOTES

- THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH LOCAL STATE, AND FEDERAL REGULATIONS.
- THE IMPLEMENTATION OF THESE ESC PLANS AND CONSTRUCTION MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED BY THE LOCAL JURISDICTION, AND VEGETATION/LANDSCAPING IS ESTABLISHED.
- THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES. AND IN SUCH A MANNER AS TO INSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DOES NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE WATER STANDARDS.
- THE ESC FACILITIES SHOWN ON THIS PLAN ARE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DOES NOT LEAVE THE SITE.
- THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.
- AT NO TIME SHALL SEDIMENT BE ALLOWED TO ACCUMULATE MORE THAN 1/3 THE BARRIER HEIGHT. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED AFTER PAVING. THE CLEANING OPERATIONS SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.
- STORM DRAIN INLETS, BASINS, AND AREA DRAINS SHALL BE PROTECTED UNTIL PAVEMENT SURFACES ARE COMPLETED AND/OR VEGETATION IS RE-ESTABLISHED.
- IF THERE ARE EXPOSED SOILS OR SOILS NOT FULLY ESTABLISHED FROM OCTOBER 1ST THROUGH MAY 31ST, THE WET WEATHER EROSION PREVENTION MEASURES WILL BE IN EFFECT. SEE THE EROSION PREVENTION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL (CHAPTER 4) OF CLEAN WATER SERVICES FOR REQUIREMENTS.
- 9. THE CONTRACTOR SHALL REMOVE ESC MEASURES WHEN VEGETATION IS FULLY ESTABLISHED.
- 10. ALL PUMPING OF SEDIMENT-LADEN WATER SHALL BE DISCHARGED OVER AN UNDISTURBED, PREFERABLY VEGETATED AREA, AND THROUGH A SEDIMENT CONTROL BMP (FILTER BAG, DIRT BAG, ETC.)
- 11. SITE EROSION CONTROL PLAN AND BMP'S MEETING CWS STANDARDS TO BE IN PLACE AND APPROVED PRIOR TO
- 12. TRACKING OF MATERIALS OUTSIDE OF THE WORK ZONE, ONTO ADJACENT STREETS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE AND CLEAN TO THE SATISFACTION OF THE INSPECTOR, THIS INCLUDES BUT IS NOT LIMITED TO SOIL, AGGREGATE, ASPHALT DEBRIS, ETC.

# STREET NOTES

- 1. IN AREAS WHERE CURB AND GUTTER EXISTS, NEW ASPHALT WILL MATCH FRONT EDGE OF CONCRETE GUTTER.
- TACK COAT SHALL BE APPLIED AGAINST CONCRETE GUTTER EDGE, CURB FACE, CONCRETE STRUCTURES, EXISTING ASPHALT EDGE, MANHOLE FRAMES, BLOW-OFF FRAMES, CLEANOUT FRAMES AND OTHER SURFACES OR STRUCTURES THAT WILL BE PAVED AGAINST WITH NEW ASPHALT (INCIDENTAL) PRIOR TO PAVING.
- 3. ALL JOINTS BETWEEN THE NEW ACP AND EXISTING ASPHALT SURFACE OR EXISTING/NEW CONCRETE VERTICAL CURB SHALL BE CRACK SEALED WITH HOT RUBBER ASPHALT SEALANT (INCIDENTAL).
- 4. PAVEMENT CROSS SLOPES SHALL BE AT LEAST 2.0%.
- 5. NEW ASPHALT SHALL MATCH EDGE OF CONCRETE CATCH BASINS. THERE WILL BE NO ADJUSTING OF CATCH BASIN GRATES ALLOWED.
- NEW ASPHALT SHALL NOT COVER ANY WEEP HOLES (AT I.E. OR LOWER). CITY WILL PHOTO DOCUMENT PROJECT AREA INCLUDING EXISTING CURBS. COVERED WEEPHOLES SHALL BE CLEARED AT CONTRACTORS EXPENSE AND STREET REPAYED.
- 7. TYPICAL FULL CURB EXPOSURE IS 6" AT TOP FACE OF CURB UNLESS OTHERWISE NOTED.
- 8. TYPICAL DRIVEWAY CURB EXPOSURE IS 3/4" AT TOP FACE OF CURB.
- 9. ADJUST ALL EXISTING VALVES, BLOW-OFFS AND OTHER MISCELLANEOUS BOXES AS NECESSARY TO MATCH NEW ASPHALT SURFACE GRADE - TO BE PAID FOR UNDER THE BID ITEM OF "ADJUSTING BOXES".

- 10. ADJUST ALL MANHOLE FRAME AND COVERS AS NECESSARY TO MATCH NEW ASPHALT SURFACE GRADE TO BE PAID FOR UNDER THE BID ITEM OF "MINOR ADJUSTMENT OF MANHOLES".
- 11. CONTRACTOR TO TEST ASPHALT SURFACE WITH 12-FOOT STRAIGHT EDGE IN TRAVEL LANES PARALLEL TO AND PERPENDICULAR TO THE CENTER LINE, AS DIRECTED BY THE INSPECTOR. THE ASPHALT SURFACE SHALL NOT VARY BY MORE THAN 1/4 INCH.
- 12. EQUIPMENT PARKED ON SITE SHALL BE PARKED AWAY FROM AN INTERSECTION AT A LOCATION APPROVED BY THE INSPECTOR.
- 13. WATER FOR CONSTRUCTION MAY BE OBTAINED FROM CITY FIRE HYDRANTS. INSTALL FIRE HYDRANT METER TO BE OBTAINED FROM CITY OF SHERWOOD WATER DEPARTMENT. COORDINATE WITH INSPECTOR. WATER FOR CONSTRUCTION IS INCIDENTAL.
- 14. REPAIR ALL DISTURBED NEIGHBORING PROPERTY BACK TO ORIGINAL OR BETTER CONDITION.
- 15. ANY SEGMENT OF ROAD CLOSED FOR CONSTRUCTION SHALL NOT HAVE MORE THAN 1 INCH DROP FROM THE ADJACENT ASPHALT.
  ANY DROPS MORE THAN 1 INCH SHALL HAVE A TEMPORARY AGGREGATE WEDGE INSTALLED COMPACTED TO 92% RELATIVE DENSITY OF
  ASHIOT T-180 TEST METHOD (INCIDENTIAL). THIS WILL ALLOW ACCESS FOR EMERGENCY VEHECES, ONCE BASE LIFT OF HIMAC HAS
  BEEN INSTALLED TEMPORARY COLD MIX ASPHALT WEDGES SHALL BE INSTALLED AT DROPS BETWEEN EXISTING ASPHALT AND BASE LIFT AND AT EACH DRIVEWAY (INCIDENTAL).
- 16. ANY EXISTING SURFACE TO REMAIN (CONCRETE CURB AND GUTTER, CONCRETE SIDEWALK, ETC.) THAT IS DAMAGED BY THE CONTRACTOR SHALL BE REMOVED AND REPLACED AND THE CONTRACTOR'S EXPENSE.
- 17. TRAFFIC CONTROL SHALL INCLUDE ALL PAVEMENT MARKING REMOVAL TEMPORARY PAVEMENT MARKING, BARRICADES, DELINEATORS, SIGNAGE, FLAGGERS, TEMPORARY PAVEMENT MARKINGS AND ALL INCEDENTALS NECESSARY TO COMPLETE THE WORK. TO BE PAID FOR UNDER THE BID ITEM "TEMPORARY WORK ZONE TRAFFIC CONTROL, COMPLETE".
- 18. ENSURE THAT THERE IS NO PONDING IN FRONT OF SIDEWALK RAMPS AND DRIVEWAYS AND THAT THERE IS NO PONDING GREATER THAN 1/4" ELSEWHERE IN GUTTER.

# STORM SEWER NOTES

- 1. STORM SEWER PIPE SHALL BE AS NOTED ON PLANS AND CONFORM TO THE REQUIREMENTS BELOW.
- 2. STORM SEWER MATERIALS AND TESTING SHALL MEET CLEAN WATER SERVICES (CWS) DESIGN AND CONSTRUCTION SPECIFICATIONS AND THE CITY OF SHERWOOD'S ENGINEERING DESIGN MANUAL.
- 3. ALL STORM SEWER LINES SHALL BE VIDEO INSPECTED BY THE CONTRACTOR. TESTING AND INSPECTION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES, THIS WILL BE WITHERSED BY THE CITY, MINIMUM 48 HOUR NOTICE IS REQUIRED. CITY WITHERSED NDED INSPECTION SHALL OCCUR AFTER THE PLACEMENT OF ASPHALT. CITY STRONGLY ENCOURAGES VIDEO INSPECTION BY THE DEVELOPER AND/OR CONTRACTOR PRIOR TO ASPHALT PLACEMENT. SHOULD CONTRACTOR PRIOR OF OSTERONGLY ENCOURAGES NO REVELOPER HAVE QUESTIONS REGARDING SPECIFIC SECTIONS OF PRE-ASPHALT WIDEO, CITY INSPECTOR SHALL PROVIDE A RECOMMENDATION UPON THE ACCEPTABILITY OF THE SECTION IN QUESTION.
- ALL STORM SEWER LINES SHALL HAVE A MANDREL PASSED THROUGH TO CHECK DEFLECTION (INCIDENTAL). THIS WILL BE WITNESSED BY THE CITY. MINIMUM 48 HOUR NOTICE IS REQUIRED.

### WORK HOURS/TRAFFIC CONTROL NOTES

- 1. WORK HOURS ARE FROM 8:00AM TO 6:00PM MONDAY THROUGH FRIDAY.
- SW TUALATIN STREET MAY BE "CLOSED" TO TRAFFIC AS NECESSARY TO COMPLETE THE WORK
- SW MERRYMAN STREET, SW WILLAMETTE STREET AND SW UPPER ROY STREET MAY BE "CLOSED LOCAL TRAFFIC"
  ONLY AS NECESSARY TO COMPLETE THE WORK BETWEEN THE HOURS OF 8:30AM TO 5:00PM. ALL LANES SHALL BE REOPENED AT THE FND OF FACH WORKDAY. ROADS IN WHICH ASPHALT HAS BEEN REMOVED SHALL HAVE RECPENDED AT THE END OF EACH MORADAT. KONDS IN WHICH ASPIRAL THAS SEED REMOVED SHALL MAINTAIN ONE LANE OF APPROPRIATE SIGNAGE TO NOTIFY TRAFFIC OF GRAVEL IN ROADWAY. CONTRACTOR SHALL MAINTAIN ONE LANE OF TRAFFIC THROUGH THE SITE DURING CONSTRUCTION OPERATIONS DURING THE SCHOOL YEAR TO ALLOW BUS TRAFFIC THROUGH. ASPHALT REMOVAL, CEMENT TREATMENT AND PLACEMENT OF NEW ASPHALT WILL NEED TO OCCUR AFTER THE SCHOOL YEAR WHICH IS SCHEDULED TO FND ON JUNE 15, 2018 BARRING ANY SNOW DAY MAKEUP
- TRENCHES WITHIN EXISTING ASPHALT PAVING MAY BE BROUGHT TO THE SURFACE WITH GRAVEL FOR INTERIM VEHICLE TRAFFIC ON STREET GRADES LESS THAN 10%. CONTRACTOR SHALL INSTALL APPROPRIATE TRAFFIC CONTROL SIGNAGE AND SHALL MAINTAIN GRAVEL A MINIMUM OF DAILY. CONTRACTOR SHALL SWEEP EXISTING ASPHALT FREE OF GRAVEL AT THE END OF EACH WORK DAY. OTHER AREAS SHALL HAVE EITHER ASPHALT COLD PATCH OR ASPHALT HOT PATCH (1" MINIMUM THICKNESS) AT THE END OF EACH WORK DAY. IF THE CITY PROJECT MANAGER DETERMINES THAT THE RAVEL IS NOT BEING ADEQUATELY MAINTAINED THEN THE CONTRACTOR SHALL INSTALL ASPHALT AS NOTED ABOVE.
- 5. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING EMERGENCY VEHICLE ACCESS TO ALL PROPERTIES AT ALL TIMES.
- 6. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCESS FOR MAIL AND TRASH (FRIDAY) AND SCHOOL BUS SERVICES AT ALL TIMES. NOTE: THERE IS A SPECIAL NEEDS SCHOOL BUS PICK UP/DROP OFF AT 22652 SW UPPER
- TRAFFIC CONTROL SHALL INCLUDE ALL PAVEMENT MARKING REMOVAL, TEMPORARY PAVEMENT MARKING, BARRICADES, DELINEATORS, SIGNAGE, FLAGGERS, TEMPORARY PAVEMENT MARKINGS AND ALL INCEDENTALS FOR VEHICULAR AND PEDESTRIAN TRAFFIC NECESSARY TO COMPLETE THE WORK. TO BE PAID FOR UNDER THE BID ITEM "TEMPORARY WORK ZONE TRAFFIC CONTROL, COMPLETE".

# LEGEND

= FXISTING CURB AND GUTTER

= EXISTING WATER VALVE

= EXISTING MANHOLE

EX = EXISTING = EXISTING WATER LINE S/W = SIDEWALK - ST - FXISTING STORM LINE R/W = RIGHT-OF-WAY-SAN- = EXISTING STORM LINE D/W = DRIVEWAY - G - EXISTING GAS LINE R = RADIUS

-T - EXISTING TELECOMMUNICATION LINE C = CENTER LINE TOC = TOP OF CURE

= EXISTING CATCH BASIN

= PROPOSED CURB AND GUTTER

RT = RIGHT LT = LEFT

FG = FINISH GRADE G = GUTTER

AND CITY 32A TE SNE R1W, W00D, HONE: FAX: engin

SHERWOOD G DEPARTMENT PINE STREET OREGON 97140 당 

REHABILITATION

**PAVEMENT** 

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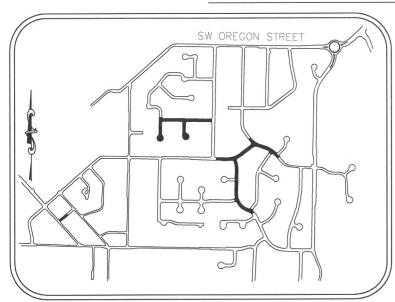
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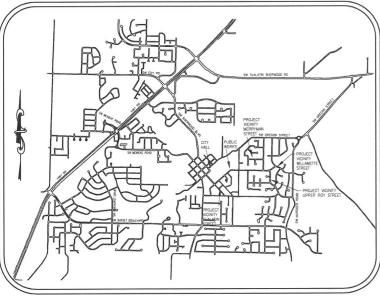
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# ESC PLAN FOR SITES 1 TO 5 ACRES



# SITE MAP NOT TO SCALE



# VICINITY MAP NOT TO SCALE

### PROJECT LOCATION:

- SW TUALATIN STREET (SW WASHINGTON STREET TO SW PINE STREET), LOCATED IN SECTIONS 32A AND 32BD, SW MERRYMAN STREET (WEST OF SW HALL STREET)

  TOWNSHIP 1 SOUTH, RANGE 1 WEST, SW NOTTINGHAM COURT (SOUTH OF SW MERRYMAN STREET)
- SW WILLAMETTE STREET (SW HALL STREET TO SW MEISINGER PLACE SW UPPER ROY (SW WILLAMETTE STREET TO SW COCHRAN DRIVE

WASHINGTON COUNTY, OREGON
LATITUDE = 45'21'21"N, LONGITUDE = 122'50'5"

### PROPERTY DESCRIPTION:

DEVELOPER/COMPANY: CITY OF SHERWOOD ENGINEERING DEPARTMENT ADDRESS: 22560 SW PINE STREET
ADDRESS: SHERWOOD, OREGON 97140

### PLANNING / ENGINEERING / SURVEYING FIRM

ENGINEERING & SURVEY FIRM: CITY OF SHERWOOD ENGINEERING DEPARTMENT CONTACT: CRAIG C. CHRISTENSEN, P.E. ADDRESS: 22560 SW PINE STREET ADDRESS SHERWOOD, OREGON 97140 PHONE: 503-925-2309

### NARRATIVE DESCRIPTIONS

EXISTING SITE CONDITIONS

\* PAVED STREET

DEVELOPED CONDITIONS

\* PAVED STREET

NATURE OF CONSTRUCTION ACTIVITY AND ESTIMATED TIME TABLE

- \* CLEARING (DATES, FROM & TO: APRIL 2018)
- \* MASS GRADING (DATES FROM & TO: APRIL TO JUNE 2018)
- \* UTILITY INSTALLATION (DATES, FROM & TO: APRIL TO MAY 2018)

  \* STREET CONSTRUCTION (DATES, FROM & TO: APRIL TO JUNE 2018)
- \* FINAL STABILIZATION (DATES, FROM & TO: JULY 2018)

TOTAL SITE AREA = 124.146 SF = 2.85 ACRES

TOTAL DISTURBED AREA = 124,146 SF = 2.85 ACRES

SITE SOIL CLASSIFICATION:

ON-SITE SOILS HAVE A MODERATE TO HIGH EROSION POTENTIAL. ALL FILL MATERIAL SHALL BE GENERATED ON-SITE FROM GRADING EXCAVATION AND

RECEIVING WATER BODIES:

NEAREST WATER BODY: ROCK CREEK AND CEDAR CREEK

### INSPECTION FREQUENCY:

SITE CONDITION	MINIMUM FREQUENCY
1. ACTIVE PERIOD	WEEKLY WHEN STORMMATER RUNOFF, INCLUDING RUNOFF FROM SNOW MELT, IS OCCURRING. AT LEAST ONCE EVERY MONTH, REGARDLESS OF WHETHER STORMMATER RUNOFF IS OCCURRING.
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.
INACTIVE PERIODS GREATER THAN FOURTEEN     (14) CONSECUTIVE CALENDAR DAYS.	ONCE EVERY MONTH.
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.
PERIODS DURING WHICH DISCHARGE IS UNLIKELY DUE TO FROZEN CONDITIONS.	MONTHLY. RESUME MONITORING IMMEDIATELY UPON MELT, OR WHEN WEATHER CONDITIONS MAKE DISCHARGES LIKELY.

- HOLD A PRE-CONSTRUCTION MEETING OF PROJECT CONSTRUCTION PERSONNEL THAT INCLUDES THE INSPECTOR TO
- DISCUSS EROSION AND SEDIMENT CONTROL MEASURES AND CONSTRUCTION LIMITS.
  ALL INSPECTIONS MUST BE MADE IN ACCORDANCE WITH DEQ 1200-CN PERMIT REQUIREMENTS.
- ILL INSPECTION LOSS MUST BE KEPT IN ACCORDANCE WITH DEO'S 1200—CN PERMIT RECOURGEMENT.

  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 SEVON (7) CONSECUTIVE CALENDAR
  DAYS, RETAIN THE ESCP AT THE CONSTRUCTION SITE OR AT ANOTHER LOCATION.

# STANDARD EROSION AND SEDIMENT **CONTROL PLAN DRAWING NOTES:**

- 1. 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.

  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.
- source, and reverse reason and seament control regulations.

  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
- 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.
- preserved, especially in perimeter areas.

  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 regetation 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.

  Establish concrete truck and other concrete equipment washout areas before beginning concrete work.

  Direct all wash water into a pit or leak-proof container. Handle wash water as waste, concrete
- 9. Apply temporary and/or permanent soil stabilization measures immediately on all disturbed areas as
- grading progresses and for all roadways including gravel roadways.
  Establish material and waste storage areas, and other non-stormwater controls.
- 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 land-disturbing activities.

  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 the barr's to present of minimize statistical exposure of potential and applications and state exposure exposure of potential and applications and state of the department of the first properties 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.

  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. Operate and maintain the treatment system according 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. Construction activities must avoid or minimize excavation and creation of bare ground during wet
- weather October 01 May 31. 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.
- 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).
- All exposed soils must be covered during the wet weather period, October 01 May 31.

  If water of the state is within the project site or within 50 feet of the project boundary, maintain the existing natural buffer within the 50-foot zone for the duration of the permit coverage, or maintain less than the entire existing natural buffer and provide additional erosion and sediment control BMPs.

THE PERMITTEE IS REQUIRED TO MEET ALL THE CONDITIONS OF THE 1200-CN PERMIT. THIS ESCP AND GENERAL CONDITIONS HAVE BEEN DEVELOPED TO FACILITATE COMPLIANCE WITH THE 1200-CN PERMIT REQUIREMENTS. IN CASES OF DISCREPANCIES OR OMISSIONS, THE 1200-CN PERMIT REQUIREMENTS SUPERCEDE REQUIREMENTS OF THIS PLAN.

# BMP MATRIX FOR CONSTRUCTION PHASES

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

		MASS	UIILIIY	SIKEEI	STABILIZATION	(OCT. 1 - MAY 31ST
	CLEARING	GRADING	INSTALLATION	CONSTRUCTION	STABILIZATION	(OCI. 1 - MAT 3131)
EROSION PREVENTION						
PRESERVE NATURAL VEGETATION						
GROUND COVER						
HYDRAULIC APPLICATIONS						
PLASTIC SHEETING						
MATTING						
DUST CONTROL		Х		X	Х	X
TEMPORARY/ PERMANENT SEEDING					X	X
BUFFER ZONE						
HER:						
SEDIMENT CONTROL						
SEDIMENT FENCE (PERIMETER)						
SEDIMENT FENCE (INTERIOR)						
STRAW WATTLES	**X	х	X	Х	Х	X
FILTER BERM						
INLET PROTECTION	** X	х	X	Х	Х	X
DEWATERING			X			Х
SEDIMENT TRAP						
NATURAL BUFFER ENCROACHMENT						
THER: BIOBAG CHECK DAMS	**X	Х		X	X	X
RUN OFF CONTROL						
CONSTRUCTION ENTRANCE	_					
PIPE SLOPE DRAIN						
OUTLET PROTECTION						
SURFACE ROUGHENING						
CHECK DAMS						
THER:						
POLLUTION PREVENTION						
PROPER SIGNAGE	X	X	X	X	X	X
HAZ WASTE MGMT	Х	х	X	X	X	X
SPILL KIT ON-SITE	X	X	X	X	Х	X
CONCRETE WASHOUT AREA	Х	х	X	Х	X	X
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.

### PERMITTEE'S SITE INSPECTOR: ANDY STIRLING

COMPANY/AGENCY: CITY OF SHERWOOD FAX: (503) 625-0629 E-MAIL: STIRLINGA@SHERWOODOREGON.GOV DESCRIPTION OF EXPERIENCE: 10 YEARS OF EXPERIENCE IN JURISDICTIONAL ESC INSPECTIONS, ENFORCEMENT, PLAN REVIEW, AND REPORTING, CERTIFIED ESC INSPECTOR: CESCL ID# ECO-3-5101622.

# SHEET INDEX

SHEET 3/11 - 1200CN COVER SHEET

SHEET 6/11 - SW MERRYMAN STREET - PLAN AND PROFILE

SHEET 7/11 - SW WILLAMETTE STREET - PLAN VIEW SHEET 8/11 - SW UPPER ROY STREET - PLAN MEW

SHEET 9/11 - SW TUALATIN STREET - PLAN VIEW

SHEET 11/11 - CITY OF SHERWOOD DETAILS

### ATTENTION EXCAVATORS:

OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN QAR 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 EXCAMATION. CALL 503-246-6699.

# **EROSION AND SEDIMENT CONTROL PLANS**

SHEET 4/11 - 1200CN NOTES

P 8

еет 4

### PRE-CONSTRUCTION, CLEARING, AND DEMOLITION NOTES:

- 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. SEDIMENT BARRIERS APPROVED FOR USE INCLUDE SEDIMENT FENCE, BERMS CONSTRUCTED OUT OF MULCH, CHIPPINGS, OR OTHER SUITABLE MATERIAL, STRAW WATTLES, OR OTHER APPROVED MATERIALS.
- 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, STREET SWEEPING AND VACUUMING, 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: SLOPE DRAINS (WITH OUTLET PROTECTION), CHECK DAMS, AND SURFACE ROUGHENING.

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:

- 1. 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.)

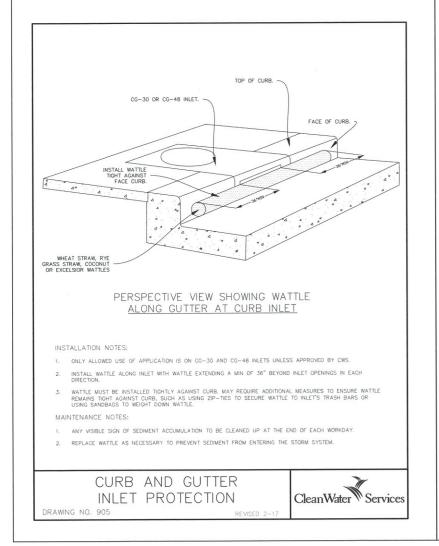
REDUCES RUN-OFF VELOCITY.

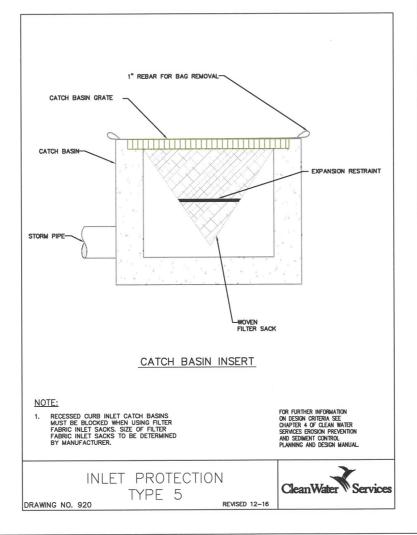
- 1. DWARF PERENNIAL RYEGRASS (80% BY WEIGHT)
- 2. CREEPING RED FESCUE (20% BY WEIGHT) C. STANDARD HEIGHT GRASS MIX (MIN. 100LB./AC.)

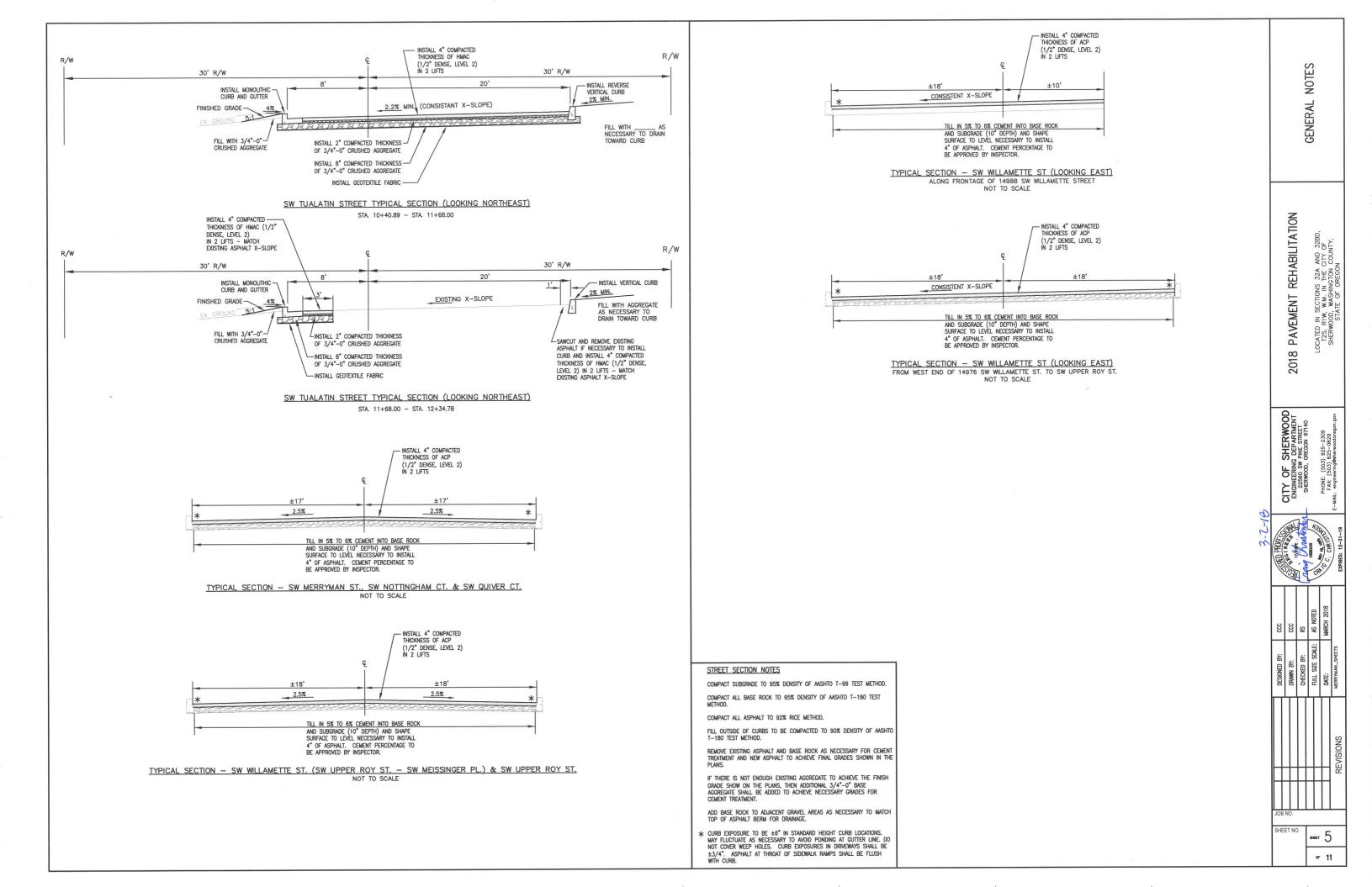
  - 1. ANNUAL RYEGRASS (40% BY WEIGHT) 2. TURF-TYPE FESCUE (60% BY WEIGHT)
- 2. SLOPE TO RECEIVE TEMPORARY OR PERMANENT SEEDING SHALL HAVE THE SURFACE ROUGHENED BY MEANS OF TRACK-WALKING OR THE USE OF OTHER APPROVED IMPLEMENTS. SURFACE ROUGHENING IMPROVES SEED BEDDING AND

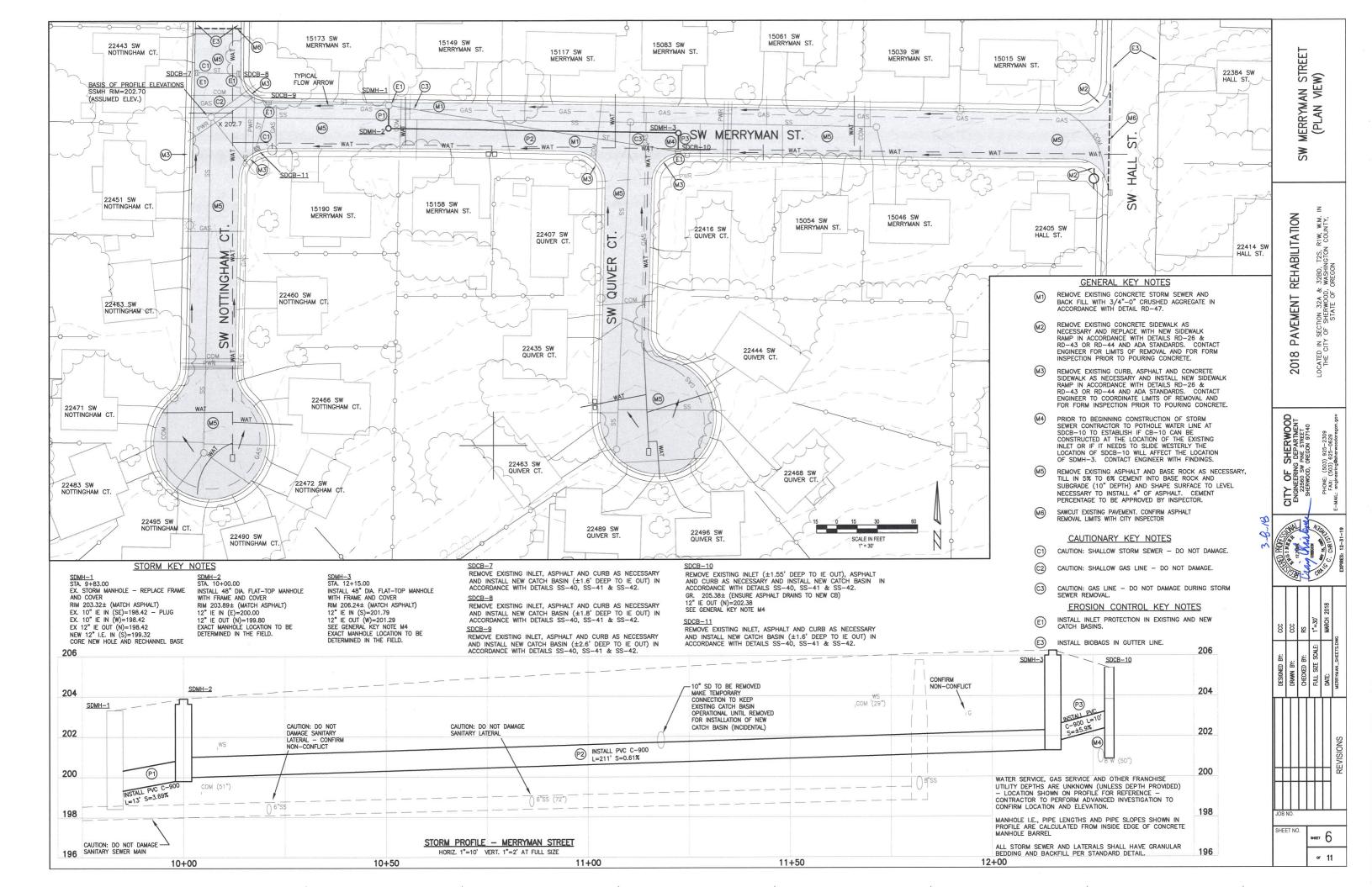
- 3. LONG TERM SLOPE STABILIZATION MEASURES SHALL INCLUDE THE ESTABLISHMENT OF PERMANENT VEGETATIVE COVER VIA SEEDING WITH APPROVED MIX AND APPLICATION RATE.
- 4. TEMPORARY SLOPE STABILIZATION MEASURES SHALL INCLUDE: COVERING EXPOSED SOIL WITH PLASTIC SHEETING, STRAW MULCHING, WOOD CHIPS, OR OTHER APPROVED 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 MFASURFS
- 8. 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.

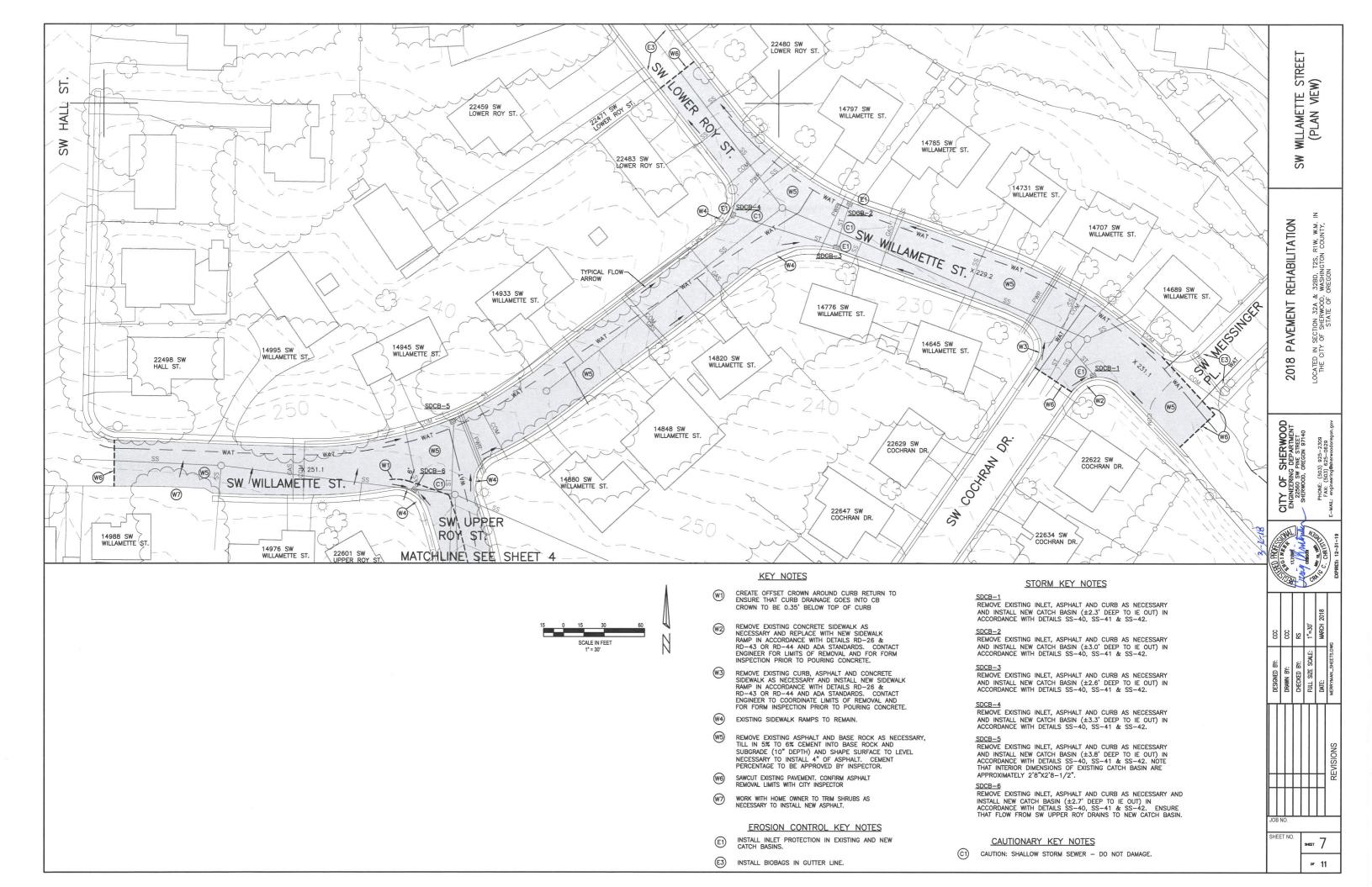
- 9. ACTIVE INLETS TO STORM WATER SYSTEMS SHALL BE PROTECTED THROUGH THE USE OF APPROVED INLET PROTECTION MEASURES. ALL INLET PROTECTION MEASURES ARE TO BE REGULARLY INSPECTED AND MAINTAINED AS NEEDED.
- 10. SATURATED MATERIALS THAT ARE HAULED OFF-SITE MUST BE TRANSPORTED IN WATER-TIGHT TRUCKS TO ELIMINATE 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 OR SURFACE WATERS. 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

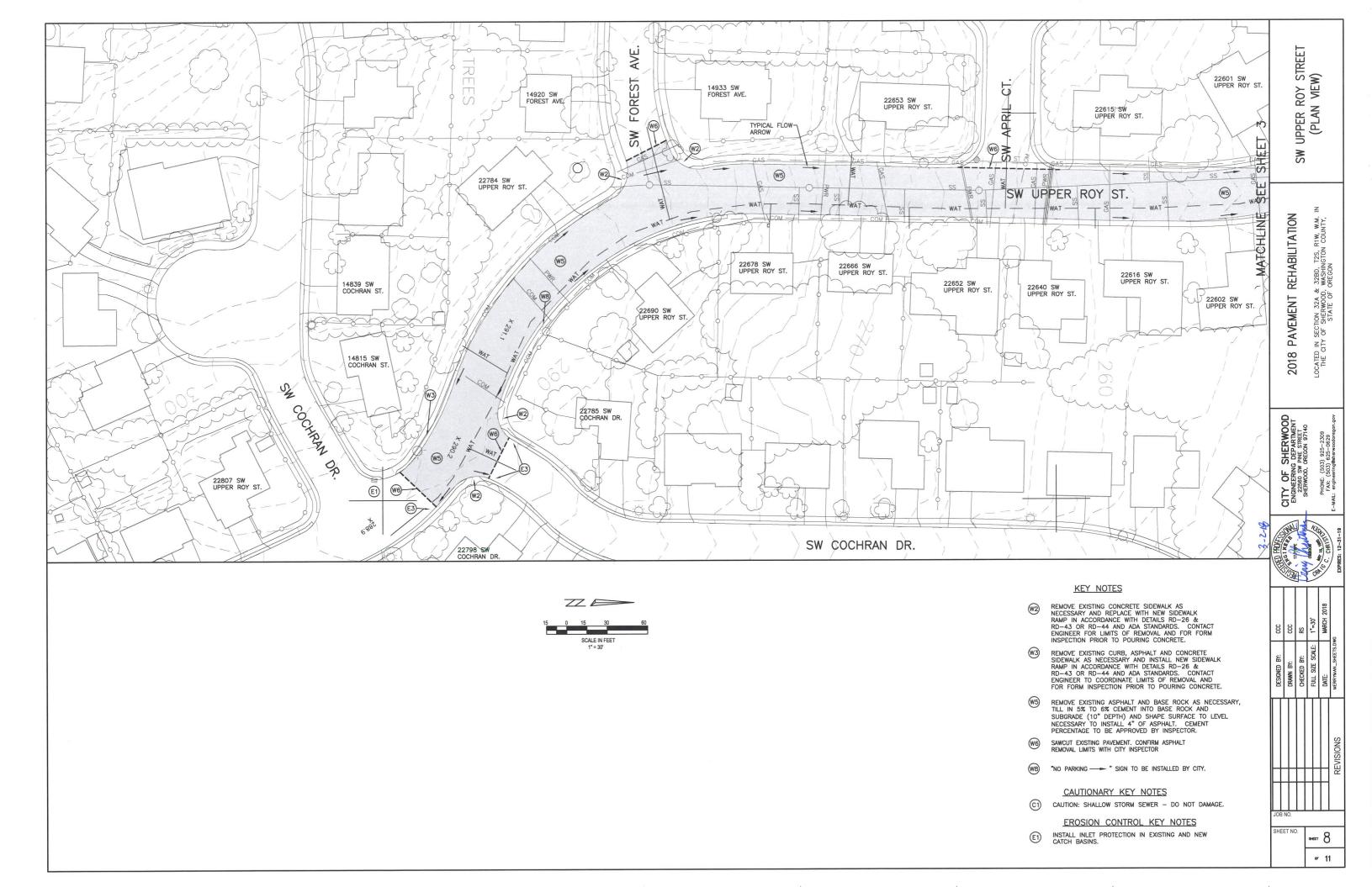


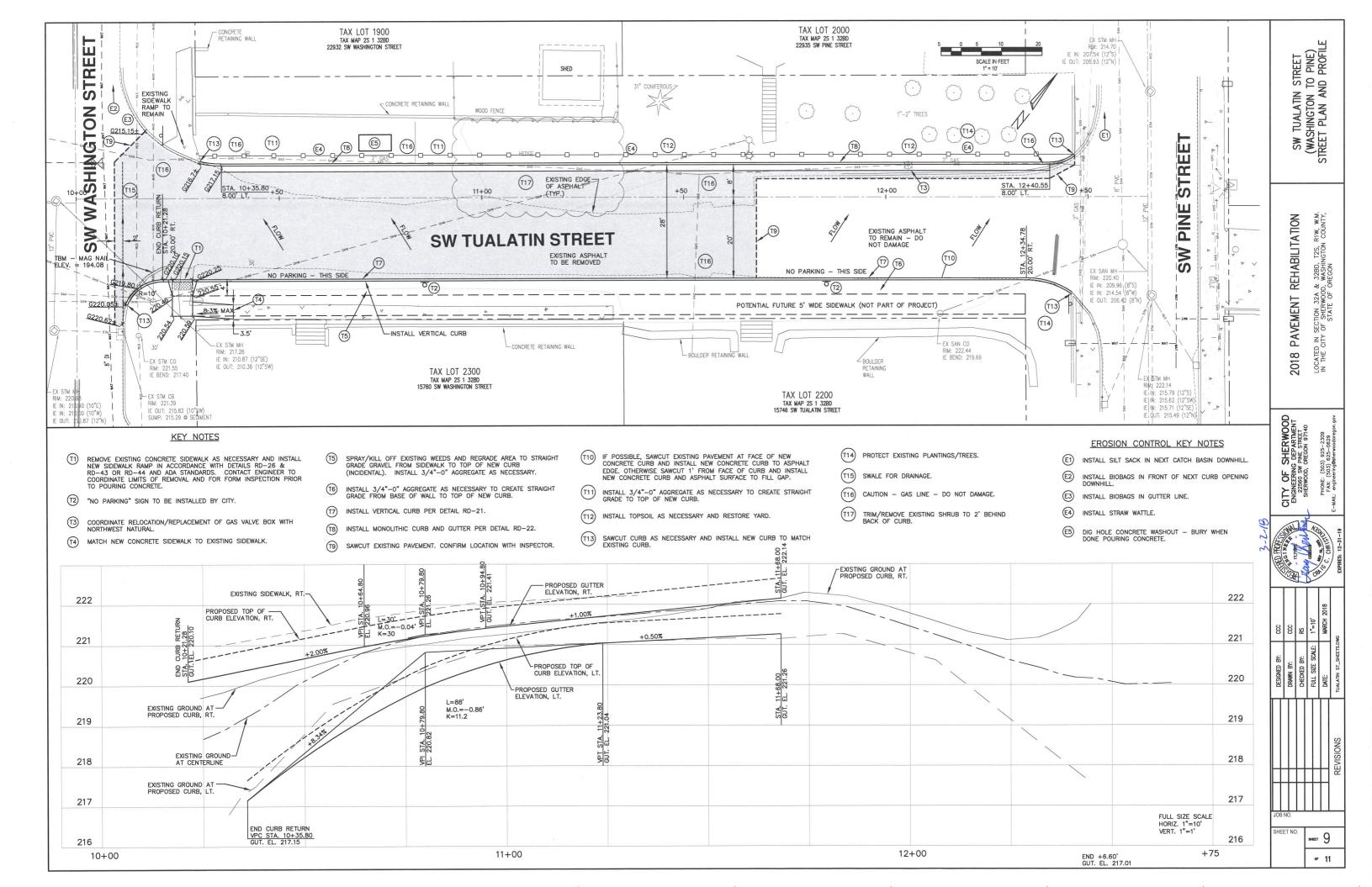




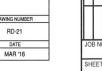




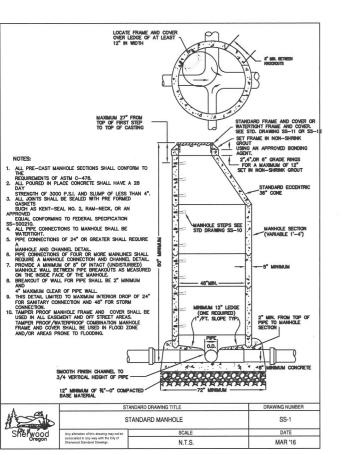




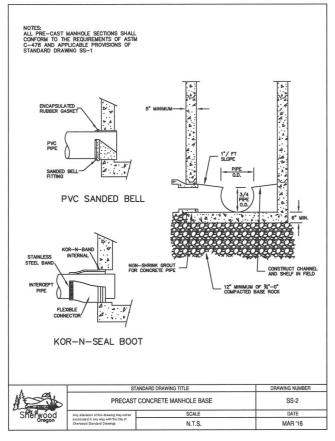
SECTIONS
W.M. IN 1
WASHING

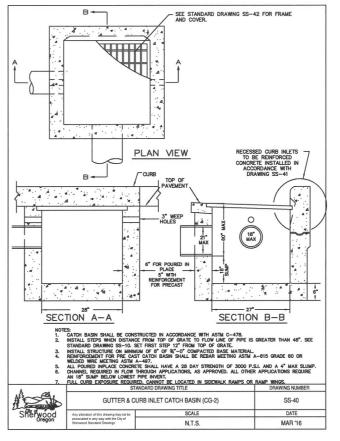


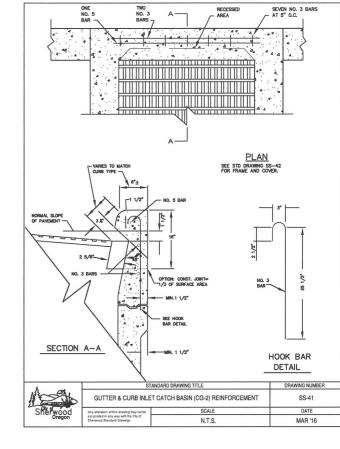
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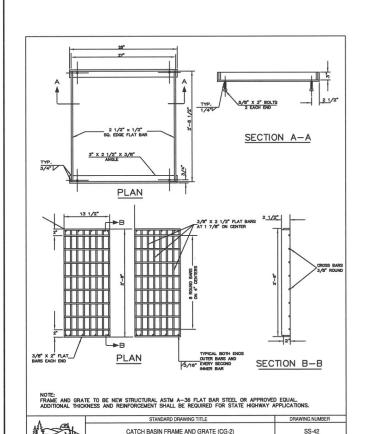


ALL PIPE CONNECTIONS TO MANHOLE SHALL BE



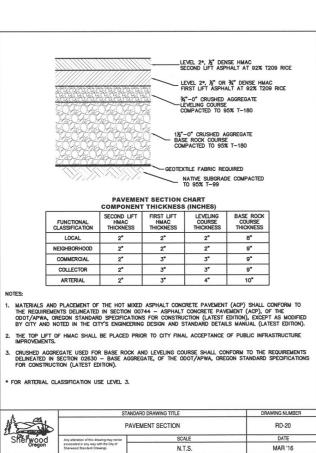


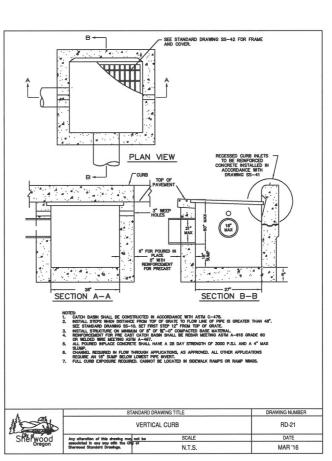


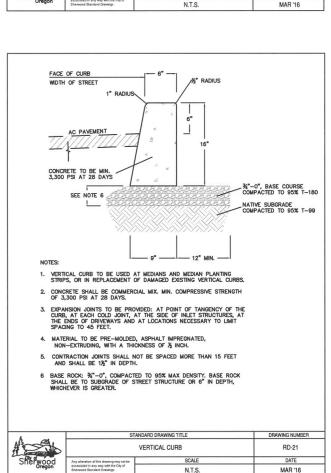


N.T.S.

MAR '16



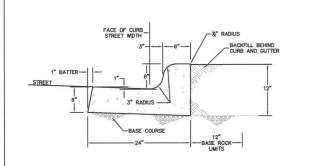




AND 32B CITY OF COUNTY,

LOCATED IN SECTIONS 32A A
T2S, R1W, W.M. IN THE CI
SHERWOOD, WASHINGTON CI
STATE OF OFFICION

SHEET 11



### NOTES:

- NOTES:

  1. MONOLITHIC CURB AND GUTTER SHALL BE USED ON ALL NEW ROADWAY SECTIONS, EXCEPT AT ROADWAY MEDIANS AND AT MOUNTABLE CURB SECTIONS (SEE STD DET RO—21 & RO—24 FOR THESE CONDITIONS).

  2. CONCRETE SHALL BE COMMERCIAL MX, WITH A 28—DAY COMPRESSIVE STRENGTH OF 3300 PS, WITH A SLUMP RANGE OF 1½" TO 3" MAX.

  3. EXPANSION JOINTS TO DE PROVIDED AT EACH:

  A. POINT OF TANGENCY.

  B. COLD JOINT.

  C. SIDE OF INLET STRUCTURES.

  D. SIDE OF DRIVEWAY.

  5. EXPANSION JOINT MATERIAL SHALL BE PRE-MOLDED, ASPHALT IMPREGNATED, NON-EXTRUDING, WITH A THICKNESS OF ½".

FXISTING AC-

EXISTING BASE ROCK-

- EXPANSION JOINT MATERIAL SHALL BE PRE-MOLDED, ASPHALT IMPREGNATED, NON-EXTRUDING, WITH A THICKNESS OF \$".
   CONTRACTION JOINTS SHALL HAVE:

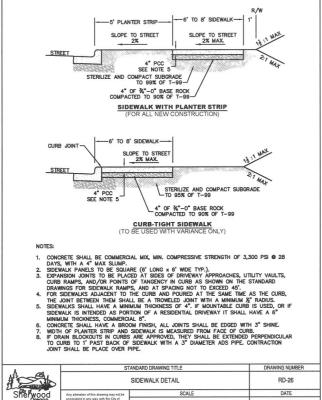
   A. SPACING OF NOT MORE THAN 15 FEET.
   B. DEPTH OF JOINT OF AT LEAST 1\$".

   BASE ROCK SHALL BE \$"-0", COMPACTED TO 95% OF MAXIMUM DENSITY PER AASHTO T-180. BASE ROCK SHALL BE TO SUBGRADE OF STREET STRUCTURES OR 4", WHICHEYER IS GREATER, AND SHALL EXTEND 12" BEHIND QUIRB.
   FOR CURB AND GUTTER REQUIREMENTS ON SHED AND SUPERELVATED ROAD SECTIONS, SEE STD DET RD-23.

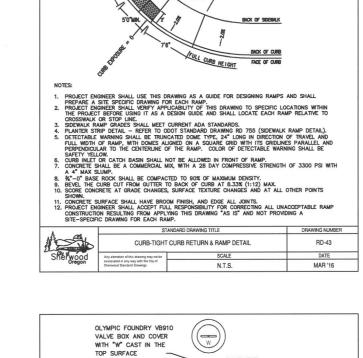
A .	STA	NDARD DRAWING TITLE	DRAWING NUMBER
	MONOL	THIC CURB AND GUTTER	RD-22
Sherwood	Any alteration of this drawing may not be	SCALE	DATE
Oregon	associated in any way with the City of Sherwood Standard Drawings.	N.T.S.	MAR '16

TOTAL WIDTH VARIES\_ SEE NOTES 2-4

SAND SEAL EDGE



ood	STANDARD DRAWING TITLE		DRAWING NUMBER
	SIDEWALK DETAIL		RD-26
	Any alteration of this drawing may not be	SCALE	DATE
	associated in any way with the City of Sherwood Standard Drawings.	N.T.S.	MAR '16

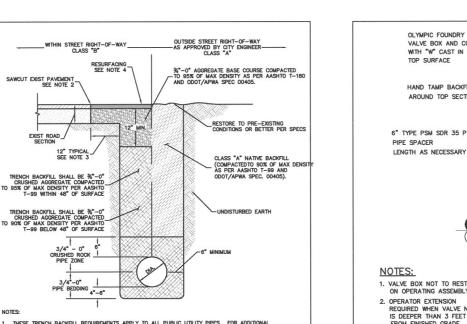


0.45

0.80°

TRUNCATED DOME DETAIL

0 0 0 0 0 0 0 0 0



### NOTES:

AGGREGATE TRENCH BACKFILL COMPACTED PER RD-47

- T-CUT IS 12" MINIMUM FOR TRENCHES WIDER THAN 12".
   IF NEW EDGE OF PAVEMENT IS LESS THAN 3" FROM ANOTHER PATCH, CURB, EDGE OF STREET OR LONGTUDINAL CRACK, REPLACE THE PAVEMENT IN BETWEEN.
   IF MORE THAN ONE EXISTING PATCH EDGE IS WITHIN THE 3" ZONE, REMOVE PAVEMENT TO THE FAR EDGE OF THE PRE-CASTING PATCH.

CROSS-SECTION

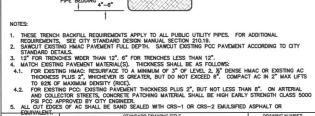
- OF THE PRE-EXISTING PATCH.

  NEW EDGE OF PAYMENT (EDGE LINE) SHALL NOT LIE IN A WHEEL PATH. WIDTH OF T-CUT SHALL BE WIDENED WHERE NECESSARY TO MOVE THE EDGE LINE OUT OF THE WHEEL PATH.

  S. SEE STD DET RD-20 FOR TYPICAL STREET PAYMENTS SECTION.

  SEE STD DET RD-47 FOR TYPICAL TRENCH BACKFILL REQUIREMENTS.

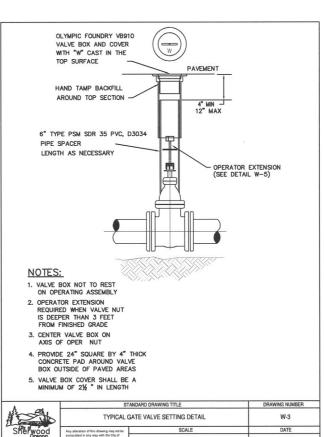
A	STA	NDARD DRAWING TITLE	DRAWING NUMBER
	PIPE TRENCH RESTORATION		RD-45
Sherwood	Any alteration of this drawing may not be	SCALE	DATE
Oregon	associated in any way with the City of Sherwood Standard Drawngs.	N.T.S.	MAR '16



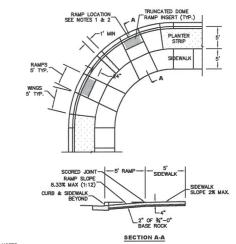
SAWCUT EXIST PAVEMENT SEE NOTE 2

EXIST ROAD\_

EQUIVALENT.	STANDARD	DRAWING TITLE	DRAWING NUMBER
	PIPE TRE	NCH BACKFILL	RD-47
Sherwood	Any alteration of this drawing may not be	SCALE	DATE
Oregon	associated in any way with the City of Sherwood Standard Drawings.	N.T.S.	MAR '16



	ST	ANDARD DRAWING TITLE	DRAWING NUMBER
	TYPICAL (	W-3	
vood	Any alteration of this drawing may not be	SCALE	DATE
VOOD regon	associated in any way with the City of Sherwood Standard Drawings.	N.T.S.	JUL' 09



Sher

- NOTES:

  1. PROJECT ENGINEER SHALL USE THIS DRAWING AS A GUIDE FOR DESIGNING RAMPS AND SHALL PREPARE A SITE SPECIFIC DRAWING FOR EACH RAMP.

  A SITE SPECIFIC DRAWING FOR EACH RAMP.

  PROJECT BEFORE USING IT AS A DESIGN GUIDE AND SHALL LOCATE EACH RAMP RELATIVE TO CROSSWALAY OR STOP LINE.

  3. SIDEWALAY RAMP GRADES SHALL BET CURRENT ADA STANDAGOG.

  3. SIDEWALAY RAMP GRADES SHALL BE RUNCALD DOME THE AST TOWN IN DIRECTION OF TRAVEL AND FULL PREPENDICULAR TO THE CENTERLINE OF THE RAMP. COLOR OF DETECTABLE WARNING SHALL BE SHALL BE SHALL BE ASSET YELLOW. COTS BEACH SHALL BE ADD SHALL BOOK SHALL BE CONSIDERED AND SHALL BE SHALL BE SAFETY YELLOW. COTS BEACH SHALL BE SHALL SHALL BE SAFETY YELLOW. COTS BEACH SHALL BE SHALL SHALL BE SHA

	STANDARD DRAWING TITLE DOUBLE CROSSING CURB RETURN & RAMP DETAIL		DRAWING NUMBER
wood			
	Any alteration of this drawing may not be	SCALE	DATE
	associated in any way with the City of Sherwood Standard Drawings.	N.T.S.	MAR '16