CITY OF SHERWOOD
LINCOLN STREET STORM SEWER REPLACEMENT

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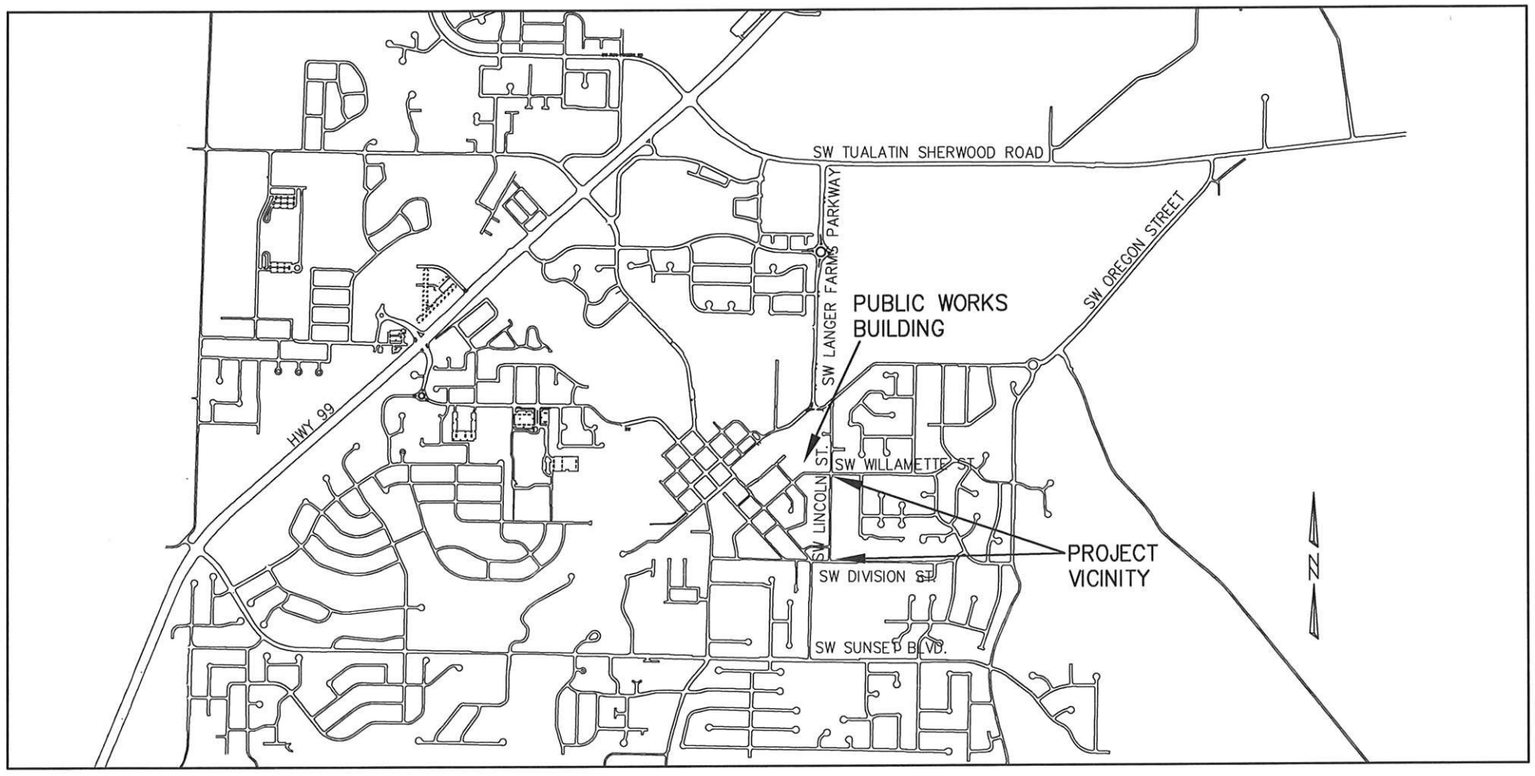
7. CITY OF SHERWOOD DETAILS

DEVELOPER/OWNER:
CITY OF SHERWOOD
15527 SW WILLAMETTE ST
SHERWOOD, OREGON 97140
CONTACT: RICH SATTLER
PH. 503-925-2319
SATTLERR@SHERWOODOREGON.GOV



VICINITY MAP
NOT TO SCALE

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.

OREGON UTILITY NOTIFICATION CENTER
Know what's below. Call before you dig. 811
DIG SAFELY OREGON 1-800-332-2344

INPSECTOR INFORMATION:

CITY OF SHERWOOD: ANDY STIRLING (503) 925-2307

CONTACT INSPECTOR 48 HOURS PRIOR TO CONSTRUCTION.

SURVEY INFORMATION:

VERTICAL DATUM: NGVD29

HORIZONTAL DATUM: NAD83 (OREGON STATE PLANE NORTH)

BENCH MARK INFORMATION:

DATUM IS FROM AN AERIAL DRAWING. SEE PLAN VIEW FOR ASSUMED ELEVATIONS.

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.

COVER SHEET

LINCOLN STREET STORM

LOCATED IN SECTIONS 32AC AND 32BD, T2S, R1W, W.M. IN THE CITY OF SHERWOOD, WASHINGTON COUNTY, STATE OF OREGON

CITY OF SHERWOOD
ENGINEERING DEPARTMENT
22560 SW PINE STREET
SHERWOOD, OREGON 97140
PHONE: (503) 925-2309
FAX: (503) 625-0629
E-MAIL: engineering@sherwoodoregon.gov

REGISTERED PROFESSIONAL ENGINEER — OREGON — CHRISTOPHER C. CRIGGER — 12177 — EXPIRES: 12-31-15

5-9-14

DESIGNED BY:	CCC
DRAWN BY:	AGS/CCC
CHECKED BY:	RS
FULL SIZE SCALE:	AS NOTED
DATE:	MAY 6, 2014
LINCOLN STREET STORM_COVER.DWG	

REVISIONS

JOB NO. 8073

SHEET NO. SHEET 1 OF 7

GENERAL NOTES

1. ALL CONSTRUCTION WORK, MATERIALS AND TESTING SHALL CONFORM TO APPLICABLE CITY OF SHERWOOD STANDARD CONSTRUCTION SPECIFICATIONS, CLEAN WATER SERVICES (CWS) DESIGN AND CONSTRUCTION STANDARDS, UNIFORM PLUMBING CODE (UPC) AND UNIFORM BUILDING CODE (UBC). CONTRACTOR AND SUBCONTRACTOR(S) SHALL HAVE A MINIMUM OF ONE SET OF APPROVED PLANS AND CITY OF SHERWOOD CONSTRUCTION SPECIFICATIONS ON THE JOB SITE AT ALL TIMES DURING CONSTRUCTION.
2. CONTRACTOR SHALL OBTAIN A CITY OF SHERWOOD OR METRO BUSINESS LICENSE BEFORE STARTING CONSTRUCTION.
3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION AND ARRANGE FOR THE RELOCATION OF ANY IN CONFLICT WITH THE PROPOSED CONSTRUCTION AT NO COST TO THE CITY. 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. COST OF ANY UTILITY RELOCATION IS INCIDENTAL.
4. 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.
5. 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.
6. THE CONTRACTOR SHALL PERFORM ANY ROOT PRUNING AS DETERMINED BY THE ENGINEER. THE CONTRACTOR SHALL PROTECT ALL EXISTING LANDSCAPING THAT IS TO REMAIN.
7. 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, SUNDAYS, OR HOLIDAYS.
8. CONTRACTOR SHALL REMOVE AND DISPOSE OF TREES, STUMPS, BRUSH, ROOTS, BOULDERS, MISCELLANEOUS DEBRIS AND OTHER EXCESS MATERIAL OFFSITE. MATERIALS SHALL BE DISPOSED OF IN SUCH A MANNER AS TO MEET ALL APPLICABLE REGULATIONS.
9. CONSTRUCTION VEHICLES SHALL BE PARKED AT SHERWOOD PUBLIC WORKS BUILDING. HOURS OF CONSTRUCTION SHALL BE 7:30 AM TO 6:00 PM, MONDAY THROUGH FRIDAY. CONSTRUCTION IS PROHIBITED ON SATURDAY AND SUNDAY UNLESS WRITTEN APPROVAL IS OBTAINED FROM THE CITY ENGINEER 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 MATERIAL.
11. 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 PROJECT.
12. 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.
13. 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.
14. IF GROUND WATER SPRINGS ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE PROJECT ENGINEER. THE CONTRACTOR SHALL TAKE MEASURES TO ENSURE THAT THE WATER IS NOT CONVEYED THROUGH UTILITY TRENCHES AND THE NATURAL FLOW PATH OF THE SPRING IS ALTERED AS LITTLE AS PRACTICABLE.
15. 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 EXIST, THE CONTRACTOR SHALL NOT PROCEED WITH THE WORK AFFECTED UNTIL REPORTED TO THE PROJECT ENGINEER FOR CLARIFICATION OR CORRECTION.
16. 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.
17. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN FOR APPROVAL TO THE CITY OF SHERWOOD PRIOR TO THE START OF CONSTRUCTION IN ACCORDANCE WITH THE SPECIFICATIONS. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
18. THE CONTRACTOR SHALL PROVIDE TO THE CITY PROJECT MANAGER AND PROJECT ENGINEER A 24 HOUR CONTACT PERSON AND NUMBER.
19. 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.
20. PROPERTY LINES SHOWN ON ALL PLAN SHEETS ARE FOR GENERAL DELINEATION ONLY AND ARE, BY NO MEANS, MEANT TO REPRESENT THE ACTUAL BOUNDARIES.
21. CONTRACTOR TO MAINTAIN ONE COMPLETE SET OF DRAWINGS ON SITE FOR THE SOLE PURPOSE OF CONTRACTOR RECORDING AS-BUILT INSTALLATION OF IMPROVEMENTS. COMPLETE AS-BUILT INFORMATION SHALL BE SUBMITTED TO THE PROJECT ENGINEER UPON COMPLETION OF CONSTRUCTION.
22. 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.
23. 3/4"-0" CRUSHED ROCK PIPE ZONE AND GRANULAR BACKFILL MATERIAL IS REQUIRED FOR ALL UTILITY LINES AND CONDUITS UNLESS NOTED OTHERWISE. REFER TO PROFILES AND TYPICAL TRENCH DETAILS.
24. EXISTING UNDERGROUND PRIVATE UTILITY LOCATIONS ARE SHOWN SCHEMATICALLY. ACTUAL LOCATIONS MAY VARY. THE CONTRACTOR SHALL BE RESPONSIBLE TO NOTIFY THE OREGON UTILITY NOTIFICATION CENTER PRIOR TO EXCAVATING.
25. FUEL, HAZARDOUS MATERIAL OR ANY EQUIPMENT CONTAINING FUEL OR HAZARDOUS MATERIAL SHALL BE LOCATED WITHIN THE STAGING AREA AT THE END OF EACH DAY. ANY CONTAMINATED SOILS OR AGGREGATES DUE TO CONSTRUCTION OPERATIONS SHALL BE REMOVED AND DISPOSED OF AT THE CONTRACTOR'S EXPENSE. NEW MATERIALS SHALL BE IMPORTED AND INSTALLED TO REPLACE THE REMOVED MATERIALS AT THE CONTRACTOR'S EXPENSE.

SANITARY AND STORM DRAIN NOTES

1. PIPE RULES:
   A. WATERTIGHT GASKETS ARE REQUIRED ON ALL PIPE SIZES.
   B. ALL OPEN TRENCH SEWER PIPING SHALL BE PVC, ASTM D 3034, SDR 35 OR PVC, C-905, SDR 18 OR PVC, C-900, SDR 18. COMPATIBLE FITTINGS MUST BE USED. ALL PIPE USED MUST BE OF WATERTIGHT JOINTS AND BE PRESSURE TESTED IF SO REQUIRED BY THE CITY. USE OF "CONCRETE" OR OTHER PLASTIC PIPE FOR OPEN TRENCH SEWER MAINS AND LATERALS IS NOT ALLOWED.
2. MANHOLE WALLS SHALL BE PRECAST REINFORCED CONCRETE OF THE SIZE REQUIRED PER MANUFACTURER'S RECOMMENDATIONS FOR THE PIPE SIZES AND NUMBER OF OPENINGS.
3. IF DRAINAGE FIELD TILE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND THE CITY'S INSPECTOR. THE INTENT WILL BE TO CONNECT ANY FUNCTIONING DRAIN TILE SYSTEM TO THE STORM DRAIN SYSTEM IN AN APPROPRIATE MANNER. SUCH CONNECTION MUST BE NOTED ON THE AS-BUILT DRAWINGS AND MUST BE APPROVED BY THE PROJECT ENGINEER AS WELL AS THE CITY'S INSPECTOR.
4. ALL MANHOLES SHALL HAVE A CAST IRON MANHOLE FRAME AND COVER GROUTED TO JUST UNDER THE TOP OF THE FRAME.
5. ALL MATERIALS, INSPECTIONS AND TESTS ARE TO BE IN ACCORDANCE WITH CITY OF SHERWOOD AND/OR CWS SPECIFICATIONS. ALL SECTIONS FAILING TO PASS THE REQUIRED TESTS AND INSPECTIONS SHALL BE LOCATED AND REPAIRED. AFTER REPAIR, THESE SECTIONS SHALL BE RETESTED AND INSPECTED UNTIL FOUND ACCEPTABLE.
6. SEWER LINES SHALL BE LAID IN A STRAIGHT ALIGNMENT AND IN A UNIFORM GRADE BETWEEN THE MANHOLES AND CLEANOUTS.
7. ALL STORM LINES SHALL BE MANDREL AND VIDEO TESTED. TESTING AND INSPECTION SHALL BE IN ACCORDANCE WITH CITY OF SHERWOOD AND CWS STANDARDS.
8. ALL OTHER CONSTRUCTION PRACTICES (RELATING TO SANITARY AND STORM SEWER) WITHIN THE CITY'S PUBLIC RIGHT-OF-WAY, NOT COVERED IN THESE "GENERAL REQUIREMENTS" AND/OR "CONSTRUCTION DETAILS" SECTIONS, SHALL COMPLY WITH THE RULES AND REGULATIONS OF THE MOST RECENT EDITION OF THE "CWS DESIGN & CONSTRUCTION STANDARDS."
9. ALL NEW STORM SEWER PIPES AND MANHOLES SHALL BE TESTED, CLEANED AND VIDEOED PRIOR TO FINAL ACCEPTANCE.

EROSION AND SEDIMENT CONTROL NOTES

1. 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.
2. 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.
3. 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.
4. ESTABLISH CONCRETE TRUCK AND OTHER CONCRETE EQUIPMENT WASHOUT AREAS BEFORE BEGINNING CONCRETE WORK.
5. APPLY TEMPORARY AND/OR PERMANENT SOIL STABILIZATION MEASURES IMMEDIATELY ON ALL DISTURBED AREAS AS GRADING PROGRESSES AND FOR ALL ROADWAYS INCLUDING GRAVEL ROADWAYS.
6. WHEN TRUCKING SATURATED SOILS FROM THE SITE, EITHER USE WATER-TIGHT TRUCKS OR DRAIN LOADS ON SITE.
7. 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.
8. 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.
9. USE WATER, SOIL-BINDING AGENT OR OTHER DUST CONTROL TECHNIQUE AS NEEDED TO AVOID WIND-BLOWN SOIL.
10. 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.
11. 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.
12. CONSTRUCTION ACTIVITIES MUST AVOID OR MINIMIZE EXCAVATION AND CREATION OF BARE GROUND DURING WET WEATHER OCTOBER 01 – MAY 31.
13. SEDIMENT FENCE: REMOVE TRAPPED SEDIMENT BEFORE IT REACHES ONE THIRD OF THE ABOVE GROUND FENCE HEIGHT AND BEFORE FENCE REMOVAL.
14. OTHER SEDIMENT BARRIERS (SUCH AS BIOBAGS): REMOVE SEDIMENT BEFORE IT REACHES TWO INCHES DEPTH ABOVE GROUND HEIGHT. AND BEFORE BMP REMOVAL.
15. 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.
16. 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.
17. 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.
18. 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.
19. SEEDING MUST TAKE PLACE NO LATER THAT SEPTEMBER 1.
20. 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).
21. ALL EXPOSED SOILS MUST BE COVERED DURING THE WET WEATHER PERIOD, OCTOBER 01 – MAY 31.

GENERAL NOTES

LINCOLN STREET STORM

LOCATED IN SECTIONS 32AC AND 32BD, T2S, R1W, W.M. IN THE CITY OF SHERWOOD, WASHINGTON COUNTY, STATE OF OREGON

CITY OF SHERWOOD
ENGINEERING DEPARTMENT
22560 SW PINE STREET
SHERWOOD, OREGON 97140
PHONE: (503) 925-2309
FAX: (503) 625-0629
E-MAIL: engineering@sherwoodoregon.gov

5914
REGISTERED PROFESSIONAL ENGINEER
OREGON
JANUARY 15, 2008
CRAIG C. CHRISTENSEN
12/19/14
EXPIRES: 12-31-15

DESIGNED BY:	CCC
DRAWN BY:	ASS/CCC
CHECKED BY:	RS
FULL SIZE SCALE:	AS NOTED
DATE:	MAY 6, 2014

LINCOLN STREET STORM_COVER.DWG

REVISIONS

JOB NO. 8073

SHEET NO. SHEET 2 OF 7

CONSTRUCTION TIMING NOTES

1. ALL WORK UNDER THE CONTRACT, EXCEPT VEGETATION ESTABLISHMENT, MUST BE COMPLETED BY JUNE 30, 2014.
2. DUE TO POTENTIAL CONFLICTS WITH EXISTING UTILITIES AT TIMES IT MAY BE NECESSARY FOR THE ENGINEER TO ANALYZE EXISTING CONDITIONS AND DESIGN A FIX FOR THE CONFLICT. THE ENGINEER WILL WORK TO EXPEDITE THE ISSUE QUICKLY. THE CONTRACTOR SHALL PREPLAN TO HAVE OTHER WORK AVAILABLE IF POSSIBLE DURING IDLE TIME. CONTRACTOR MAY NOT ASK CITY FOR ADDITIONAL COMPENSATION DUE TO IDLE TIME.

CONSTRUCTION NOTES

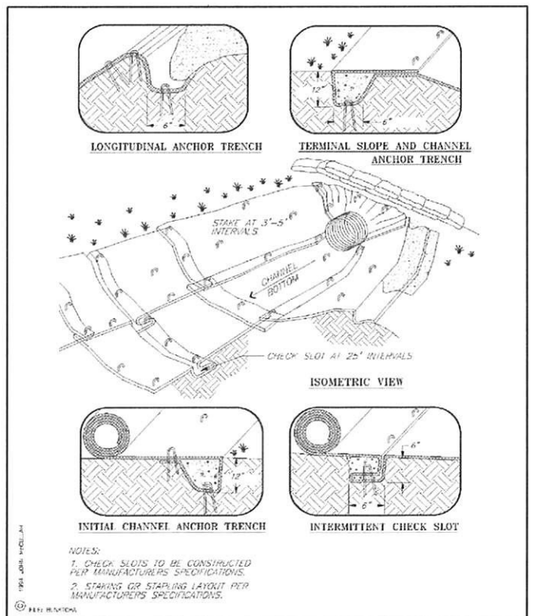
1. REMOVE EXISTING MAILBOXES AND SET UP TEMPORARY MAILBOXES AS NECESSARY. MAILBOXES TO BE REINSTALLED AT 16 FEET FROM CENTERLINE DUE TO FUTURE STREET PAVING. INSTALL AND COMPACT 12 INCHES COMPACTED THICKNESS OF 3/4" MINUS CRUSHED ROCK FROM EDGE OF ASPHALT TO NEW MAILBOX LOCATION – COMPACT TO 95% OF MAXIMUM DENSITY OF AASHTO T-180 TEST METHOD. (INCIDENTAL)
2. THE CONTRACTOR IS TO EXCAVATE THROUGH THE EXISTING ASPHALT WITHOUT SAWCUTTING AS MUCH AS POSSIBLE. WHEN A CLEAN CUT IS NECESSARY AND AUTHORIZED BY THE CITY A SAWCUT SHALL BE PROPVIDED BY THE CONTRACTOR. SAWCUTS NOT AUTHORIZED BY THE CITY SHALL BE AT THE CONTRACTOR'S EXPENSE.
3. CONTRACTOR TO MINIMIZE TRENCH WIDTH AND ASPHALT REMOVAL.
4. TRENCHES IN EXISTING ASPHALT SHALL BE RESURFACED WITH 2-INCH THICKNESS OF COLD PATCH OR HOT MIX ASPHALT AS DIRECTED BY THE INSPECTOR.
5. ALL TRENCHES/EXCAVATIONS TO BE BACKFILLED WITH 3/4" MINUS CRUSHED ROCK UNLESS OTHERWISE DIRECTED BY THE ENGINEER. IN NON-GRAVELLED NON-PAVED AREAS, THE UPPER 6-INCHES OF TRENCHES SHALL TOPSOILED, SEEDED AND MULCHED AS DIRECTED BY THE ENGINEER.
6. CONTRACTOR SHALL SHAPE GROUND AT DITCH INLETS (INCIDENTAL).
7. CONTRACTOR SHALL INSTALL ECONO-JUTE IN DRAINAGE DITCHES NEAR DITCH INLETS (INCIDENTAL).
8. ALL EXCAVATED MATERIAL NOT IMMEDIATELY REUSED ON SITE SHALL BE DISPOSED OF OFFSITE IN ACCORDANCE WITH ALL REGULATIONS.
9. A PROJECT FOR THE REPAVING OF SW LINCOLN STREET FROM SW WILLAMETTE STREET TO SW DIVISION STREET IS ANTICIPATED FOR AUGUST, 2014 CONSTRUCTION. THE NEW ASPHALT WIDTH IS ANTICIPATED TO BE 15 FEET ON EACH SIDE OF THE RIGHT-OF-WAY CENTERLINE (11-FOOT LANES WITH 4 FEET OF WALKING/DRAINAGE AREA).
10. COST OF CATCH BASIN SHALL INCLUDE THE COST OF ALL RESTORATION AROUND CATCH BASIN TO MATCH EXISTING CONDITIONS.
11. CONTRACTOR MAY STAGE EQUIPMENT ON 15434 SW VISTA AVENUE UPON WRITTEN APPROVAL BY THE HOMEOWNER. WRITTEN APPROVAL SHALL BE SUPPLIED TO THE CITY PRIOR TO USING PROPERTY.

CONTRACTOR'S RESPONSIBILITY

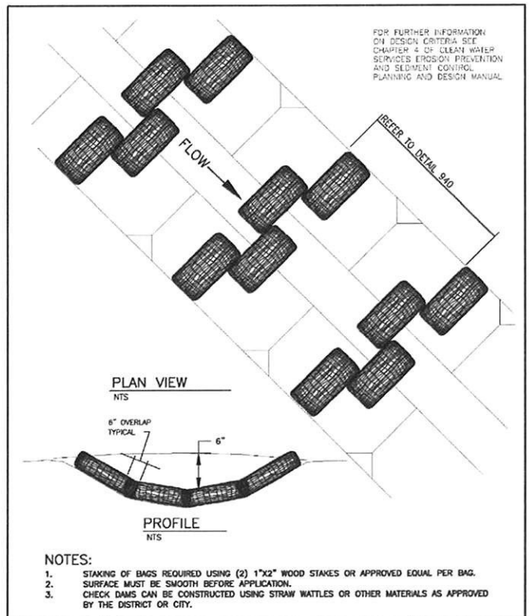
1. THE CONTRACTOR SHALL PROVIDE ALL LABOR, TOOLS AND EQUIPMENT NECESSARY TO COMPLETE THE WORK (INCLUDING TRUCKING, FLAGGING AND MATERIAL PICKUP FROM PUBLIC WORKS COMPOUND, ETC.).
2. THE CONTRACTOR SHALL PROVIDE ALL TRAFFIC CONTROL SIGNAGE AND FLAGGING AS NECESSARY.
3. THE CONTRACTOR SHALL COORDINATE WITH THE CITY AS TO WHAT MATERIALS ARE NEEDED AND THE TIMING OF WHEN SAID MATERIALS ARE NEEDED.
4. FOR MATERIALS THAT WON'T BE STOCKPILED THE CONTRACTOR SHALL COORDINATE NEED WITH PUBLIC WORKS, ORDER AND HAVE THE BILL SENT TO THE CITY FOR PAYMENT.
5. TRUCKING TO GET MATERIALS TO SITE, MOVE MATERIALS AROUND THE SITE AS NEEDED AND TO DISPOSE OF MATERIALS OFF SITE.
6. PLACEMENT AND COMPACTION OF ALL BEDDING, BACKFILL AND SURFACING (INCLUDING ASPHALT). THIS IS INCIDENTAL TO THE PRICE OF PIPE, CATCH BASIN AND MANHOLE INSTALLATION.
7. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND STRUCTURES TO REMAIN.
8. TEMPORARY MAILBOXES.
9. COORDINATING WITH NEIGHBORS (DRIVEWAY ACCESS, MAILBOXES, YARD RESTORATION, ETC.).
10. PRUNING/REMOVAL OF ANY SHRUBS, BRANCHES OR TREES AS APPROVED BY THE INSPECTOR.
11. CLEANING AND MANDREL TESTING OF ALL NEW STORM SYSTEM.
12. IF CITY VIDEO SHOWS AREAS WHERE PONDING MAY BE IN EXCESS OF ALLOWANCES (1/2" FOR 16" PIPE AND 3/8" FOR 12" PIPE) THEN VIDEO INSPECTION OF THOSE SECTIONS OF PIPING SHALL BE PROVIDED BY THE CONTRACTOR AT NO EXPENSE TO THE CITY.
13. PROTECTION OF EXISTING FACILITIES TO REMAIN. COORDINATION OF POWER POLE PROTECTION WITH PGE.
14. KEEPING AS-BUILT RECORDS OF TEE STATIONING, UTILITY RELOCATION INFORMATION, INSTALLED FITTINGS, DEPTH OF LATERAL CONNECTION POINTS, DEPTH OF UTILITIES AT PIPE CROSSINGS, DEPTH OF LATERAL ENDS AND DEPTH TO TOP OF 2"X4".

CITY'S RESPONSIBILITY

1. THE CITY SHALL PAY FOR ALL MATERIALS AND DISPOSAL FEES.
2. SOME MATERIALS MAY BE PREORDERED AND STOCKPILED AT THE PUBLIC WORKS COMPOUND AT 15527 SW WILLAMETTE STREET, SHERWOOD OREGON.
3. THE CITY SHALL PROVIDE AN EQUIPMENT STAGING AREA AT SHERWOOD PUBLIC WORKS BUILDING IF STAGING AREA AT SW VISTA AVENUE IS NOT GRANTED BY HOME OWNER..
4. THE CITY SHALL PROVIDE INITIAL VIDEO OF STORM SYSTEM (SEE NOTE 12 ABOVE).

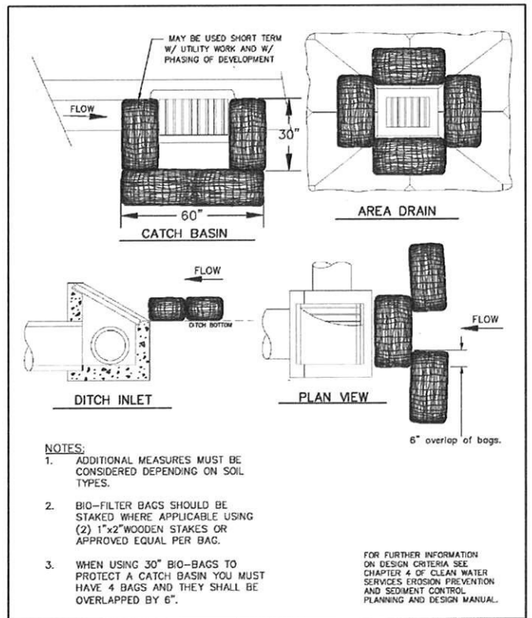


STANDARD DRAWING TITLE	DRAWING NUMBER
MATTING CHANNEL INSTALLATION	ESC-1
SCALE	DATE
N.T.S.	JUL'09



NOTES:
1. STAKING OF BAGS REQUIRED USING (2) 1"X2" WOOD STAKES OR APPROVED EQUAL PER BAG.
2. SURFACE MUST BE SMOOTH BEFORE APPLICATION.
3. CHECK DAMS CAN BE CONSTRUCTED USING STRAW WATTLES OR OTHER MATERIALS AS APPROVED BY THE DISTRICT OR CITY.

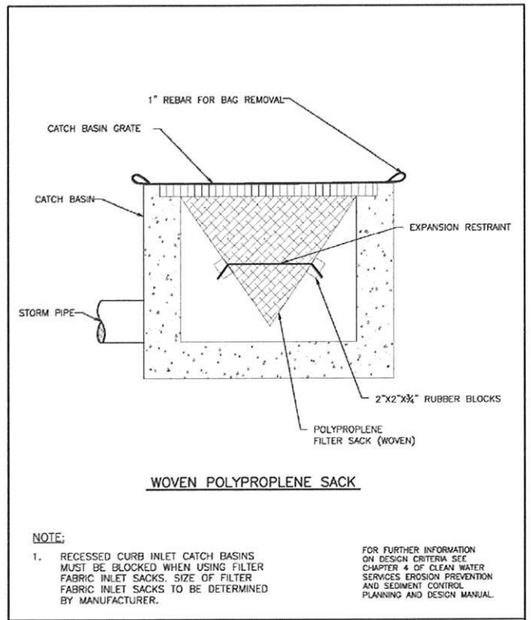
STANDARD DRAWING TITLE	DRAWING NUMBER
CHECK DAM BIO-FILTER BAG	ESC-10
SCALE	DATE
N.T.S.	JUL' 09



NOTES:
1. ADDITIONAL MEASURES MUST BE CONSIDERED DEPENDING ON SOIL TYPES.
2. BIO-FILTER BAGS SHOULD BE STAKED WHERE APPLICABLE USING (2) 1"x2"WOODEN STAKES OR APPROVED EQUAL PER BAG.
3. WHEN USING 30" BIO-BAGS TO PROTECT A CATCH BASIN YOU MUST HAVE 4 BAGS AND THEY SHALL BE OVERLAPPED BY 6".

FOR FURTHER INFORMATION ON DESIGN CRITERIA SEE CHAPTER 4 OF CLEAN WATER SERVICES EROSION PREVENTION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.

STANDARD DRAWING TITLE	DRAWING NUMBER
INLET PROTECTION - TYPE 4	ESC-24
SCALE	DATE
N.T.S.	JUL' 09



WOVEN POLYPROPLENE SACK

NOTE;
1. RECESSED CURB INLET CATCH BASINS MUST BE BLOCKED WHEN USING FILTER FABRIC INLET SACKS. SIZE OF FILTER FABRIC INLET SACKS TO BE DETERMINED BY MANUFACTURER.

FOR FURTHER INFORMATION ON DESIGN CRITERIA SEE CHAPTER 4 OF CLEAN WATER SERVICES EROSION PREVENTION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.

STANDARD DRAWING TITLE	DRAWING NUMBER
INLET PROTECTION - TYPE 5	ESC-25
SCALE	DATE
N.T.S.	JUL' 09

PROJECT SPECIFIC NOTES AND EROSION CONTROL DETIALS

LINCOLN STREET STORM

LOCATED IN SECTIONS 32AC AND 32BD, T2S, R1W, W.M. IN THE CITY OF SHERWOOD, WASHINGTON COUNTY, STATE OF OREGON

CITY OF SHERWOOD
ENGINEERING DEPARTMENT
22560 SW PINE STREET
SHERWOOD, OREGON 97140
PHONE: (503) 925-2309
FAX: (503) 625-0629
E-MAIL: engineering@sherwoodoregon.gov

REGISTERED PROFESSIONAL ENGINEER — OREGON — JULY 15, 1997 — CRAIG C. CHRISTENSEN — EXPIRES: 12-31-15

5-9-14

DESIGNED BY:	CCC
DRAWN BY:	AGS/CCC
CHECKED BY:	RS
FULL SIZE SCALE:	AS NOTED
DATE:	MAY 6, 2014
LINCOLN STREET STORM_COVER.DWG	

REVISIONS

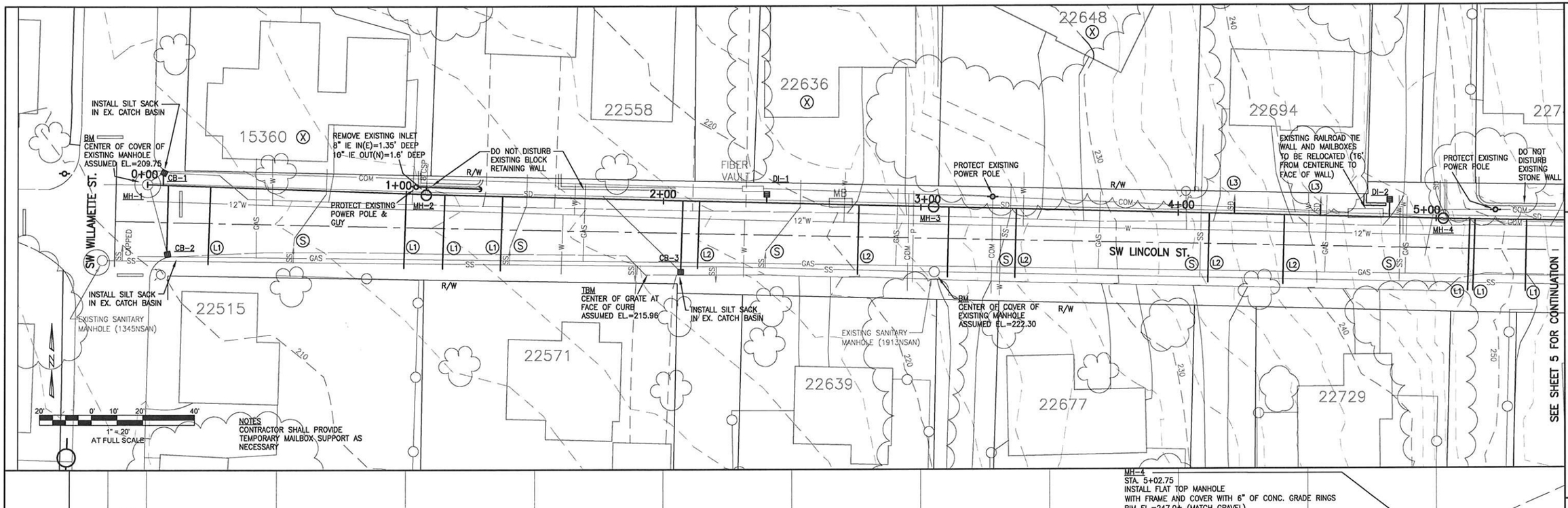
JOB NO. 8073

SHEET NO. SHEET 3 OF 7

STORM SEWER PLAN AND PROFILE NORTH

LINCOLN STREET STORM

LOCATED IN SECTIONS 32AC AND 32BD, T2S, R1W, W.M. IN THE CITY OF SHERWOOD, WASHINGTON COUNTY, STATE OF OREGON



MH-4
STA. 5+02.75
INSTALL FLAT TOP MANHOLE
WITH FRAME AND COVER WITH 6" OF CONC. GRADE RINGS
RIM EL.=247.0± (MATCH GRAVEL)
FIVE 4" I.E.'S INTO CENTER OF 24" CORE HOLE
(E)=240.41 INSTALL FIVE 4" LATERALS (C-900) AT 10%
FOR 4' INSTALL TWO VERT, 45' BENDS WITH RISERS
CONNECT TO EX. 3" ABS PIPES
REMOVE EX. 8" CONC. FOR 12' TO CONNECT
TO EX. 3" ABS – USE FERNCOS
12" I.E. IN (S)=240.49
12" I.E. OUT (N)=239.75

10" IE 237.47
STA. 4+81.80
12"x10" TEE LT.
6' AT 10.0%

4" IE 244.34
STA. 5+35.00
12"x4" TEE RT.
±28' AT 2.0%

4" IE 242.02
STA. 5+15.03
12"x4" TEE RT.
±28' AT 2.0%

4" IE 241.78
STA. 5+13.08
12"x4" TEE RT.
±28' AT 2.0%

4" IE 234.35
STA. 4+54.90
12"x4" TEE LT.
3' AT 10.0% + 2 45° VERT. BENDS AND RISER – CONNECT TO EX. 3" ABS WITH FERNCO

4" IE 230.16
STA. 4+21.60
12"x4" TEE LT.
3' AT 10.0% + 2 45° VERT. BENDS AND RISER – CONNECT TO EX. 3" CONC. WITH FERNCO – LATERAL TO BE C-900

4" IE 232.53
STA. 4+40.87
12"x4" TEE RT.
±26' AT 2.0%

4" IE 228.90
STA. 4+12.00
12"x4" TEE RT.
±26' AT 2.0%

4" IE 219.45
STA. 3+37.00
12"x4" TEE RT.
±26' AT 2.0%

4" IE 216.17
STA. 3+11.00
12"x4" TEE RT.
±26' AT 2.0%

4" IE 214.05
STA. 2+76.00
12"x4" TEE RT.
±26' AT 2.0%

10" IE 212.46
STA. 2+40.00
12"x10" TEE LT.
±2' AT 10.0%

10" IE 211.24
STA. 2+08.60
12"x10" TEE RT.
27±' AT 1.0%

4" IE 211.69
STA. 2+14.00
12"x4" TEE RT.
±26' AT 2.0%

4" IE 208.03
STA. 1+17.50
12"x4" TEE RT.
±30' AT 2.0%

4" IE 207.84
STA. 1+12.50
12"x4" TEE RT.
±30' AT 2.0%

4" IE 207.54
STA. 1+00.00
15"x4" TEE RT.
±30' AT 2.0%

4" IE 207.14
STA. 0+22.00
15"x4" TEE RT.
±30'(C-900) AT 2.0%

10" IE 206.83
STA. 0+08.00
15"x10" TEE RT.
26±'(C-900) AT 0.5%

10" IE 206.82
STA. 0+06.00
15"x10" TEE LT.
4±'(C-900) AT 2.5%

INSTALL 8" C-900 PIPE AT 100% WITH 45° VERTICAL BEND AND FERNCO TO CONNECT TO EXISTING 8" CSP – DO NOT DISTURB WALL

INSTALL 16" PVC C-905 (DR18) L=103.79' S=0.50%

INSTALL 12" PVC CL.3034 (SDR35) L=193.21' S=3.80%

INSTALL 12" PVC CL.3034 (SDR 35) L=193.75' S=12.60%

EX. 12" W.L.

EX. 8" SS

DEPTH APPROXIMATE FROM AS-BUILT

30" COVER

50" COVER

37.5" COVER

53.5" COVER

DI-1
INSTALL DITCH INLET
AT STA. 2+40.00, 3.5' LT.
LOWEST RIM EL.=217.25±
10" I.E. OUT(W)=212.66±
INSTALL BIOBAGS IN FRONT OF DITCH INLET

DI-2
INSTALL DITCH INLET
AT STA. 4+81.80, 7.0' LT.
LOWEST RIM EL.= 243.0±
10" I.E. OUT(W)=238.07
INSTALL BIOBAGS IN FRONT OF DITCH INLET

(X) DUE TO THE POOR CONDITION OF THE EXISTING STORM MAIN LATERALS FOR THESE LOTS COULD NOT BE LOCATED. CONTRACTOR SHALL CONNECT LATERALS UPON ENCOUNTERING USING AN APPROPRIATELY SIZED TEE. LATERALS SHALL BE SIZED TO MATCH THE EXISTING LATERAL SIZE (4"MIN.). TEE AT MAIN SHALL BE TIPPED UP AT 45° WITH A RISER AND 45° VERTICAL BEND TO A 2.0% MIN. SLOPE. USE A FERNCO TO CONNECT TO EXISTING LATERAL.

(S) ARROWS SHOW THE EXISTING SANITARY LATERAL LOCATIONS WERE LOCATED AT THE MAIN BY VIDEO. THE LATERALS ARE ANTICIPATED TO HAVE HORIZONTAL/VERTICAL BENDS. LOCATIONS AND DEPTHS EAST OF MAIN WERE LOCATED FROM A LATERAL LAUNCH AND ARE APPROXIMATE. IF AN EXISTING SANITARY LATERAL IS IN CONFLICT WITH THE NEW STORM SEWER, CONTACT THE ENGINEER FOR RESOLUTION.

CB-1
REMOVE EXISTING INLET
REMOVE CURB AND SIDEWALK AS NECESSARY AS APPROVED BY INSPECTOR
INSTALL CATCH BASIN (CG-2) AT STA. 0+06.00, LT
GRATE EL.=209.67 AT FACE OF CURB
10" I.E. OUT(W)=206.92
INSTALL BIOBAGS AROUND EX. INLET AND INSTALL SILT SACK AND BIOBAGS IN NEW CATCH BASIN

CB-2
REMOVE EXISTING INLET
REMOVE CURB AND SIDEWALK AS NECESSARY AS APPROVED BY INSPECTOR
INSTALL CATCH BASIN (CG-2) AT STA. 0+08.00
GRATE EL.=209.05 AT FACE OF CURB
10" I.E. OUT(E)=206.96
INSTALL BIOBAGS AROUND EX. INLET AND INSTALL SILT SACK AND BIOBAGS IN NEW CATCH BASIN

CB-3
REMOVE EXISTING INLET
REMOVE CURB AND SIDEWALK AS NECESSARY AS APPROVED BY INSPECTOR
INSTALL CATCH BASIN (CG-2) AT STA. 1+76.60
GRATE EL.=215.84 AT FACE OF CURB
10" I.E. OUT(E)=211.51
INSTALL BIOBAGS AROUND EX. INLET AND INSTALL SILT SACK AND BIOBAGS IN NEW CATCH BASIN

LATERAL NOTES
ALL LATERALS SHALL BE PVC CL.3034 (SDR 35) UNLESS OTHERWISE NOTED.

(L1) INSTALL 12-GAGE STRANDED COPPER WIRE OVER LATERAL AND UP TO TOP OF 2"x4". INSTALL CAP WITH 2"x4" AT END – LEAVE 2"X4" TWO FEET BELOW GRADE. EXISTING GAS LINE ON EAST SIDE OF ROADWAY – USE CAUTION.

(L2) SEE NOTE L1 + STOP LATERAL SHORT OF EXISTING CURB – DO NOT DAMAGE EXISTING CURB OR SIDEWALK.

(L3) RECONNECT EXISTING STORM LATERAL WITHIN RIGHT-OF-WAY (20' FROM CENTER OF ROAD). LOCATION SHOWN IS APPROXIMATE.

(L4) INSTALL 12-GAGE STRANDED COPPER WIRE OVER LATERAL AND UP TO TOP OF 2"x4". INSTALL CAP WITH 2"x4" AT END – 2"X4" TO BE 3 FEET ABOVE GRADE

MH-1
STA. 0+00.00
EXISTING MANHOLE
RIM EL.=209.75
10" I.E. IN (SW & SE)
6" I.E. IN (S)
15" I.E. IN (S)=206.55
24" I.E. OUT (N)=206.45
PLUG EXISTING HOLES WITH LIBERAL AMOUNT OF CONCRETE TO THE APPROVAL OF THE INSPECTOR – RECHANNEL BASE

NOTE: EXISTING 12" WATER LINE IS SHOWN AT 48" DEPTH WHERE POTHOLES WERE NOT DUG ACTUAL DEPTH VARIES – LOCATIONS SHOWING DEPTH OF COVER WERE POTHOLED

MH-2
STA. 1+07.79
INSTALL FLAT TOP MANHOLE WITH FRAME AND COVER WITH 10" OF CONC. GRADE RINGS
RIM EL.=213.10±
8" I.E. IN (E)=209.90
12" I.E. IN (S)=207.40
15" I.E. OUT (N)=207.07

NOTES
CONCRETE GRADE RINGS ARE BASED UPON 10" THICK FLAT TOP.

LENGTH AND SLOPE OF PIPE IS HORIZONTAL LENGTH FROM INSIDE CONCRETE OF MANHOLE TO INSIDE CONCRETE OF MANHOLE.

MH-3
STA. 3+05.00
INSTALL STANDARD MANHOLE WITH FRAME AND COVER WITH 2" OF CONC. GRADE RINGS
RIM EL.=222.8± MATCH GRAVEL
12" I.E. IN (S)=215.33
12" I.E. OUT (N)=214.74

0+00 1+00 2+00 3+00 4+00 5+00

SW LINCOLN STREET – STORM PROFILE
HORIZ. 1"=20' VERT. 1"=5' AT FULL SCALE

CITY OF SHERWOOD
ENGINEERING DEPARTMENT
22560 SW PINE STREET
SHERWOOD, OREGON 97140
PHONE: (503) 925-2309
FAX: (503) 625-0629
E-MAIL: engineering@sherwoodoregon.gov

REGISTERED PROFESSIONAL ENGINEER – OREGON – CRAIG C. CHRISTENSEN – 17295PE – RENEWAL: 12-31-15

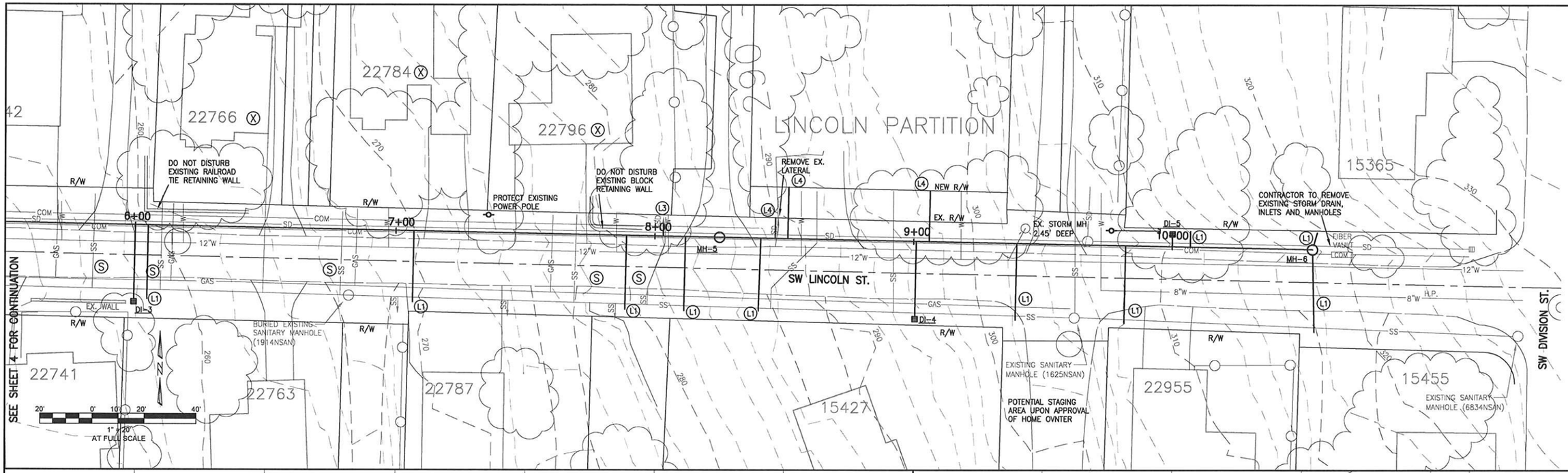
DESIGNED BY:	CCC
DRAWN BY:	ACS/CCC
CHECKED BY:	RS
FULL SIZE SCALE:	AS NOTED
DATE:	MAY 6, 2014

LINCOLN STREET STORM_PANDP.DWG

REVISIONS

JOB NO. 8073

SHEET NO. 4 OF 7



DI-3
INSTALL DITCH INLET
AT STA. 6+00.00, 30'RT.
LOWEST RIM EL.=256.25±
10" I.E. OUT(W)=251.95±
INSTALL BIOBAGS IN FRONT OF DITCH INLET

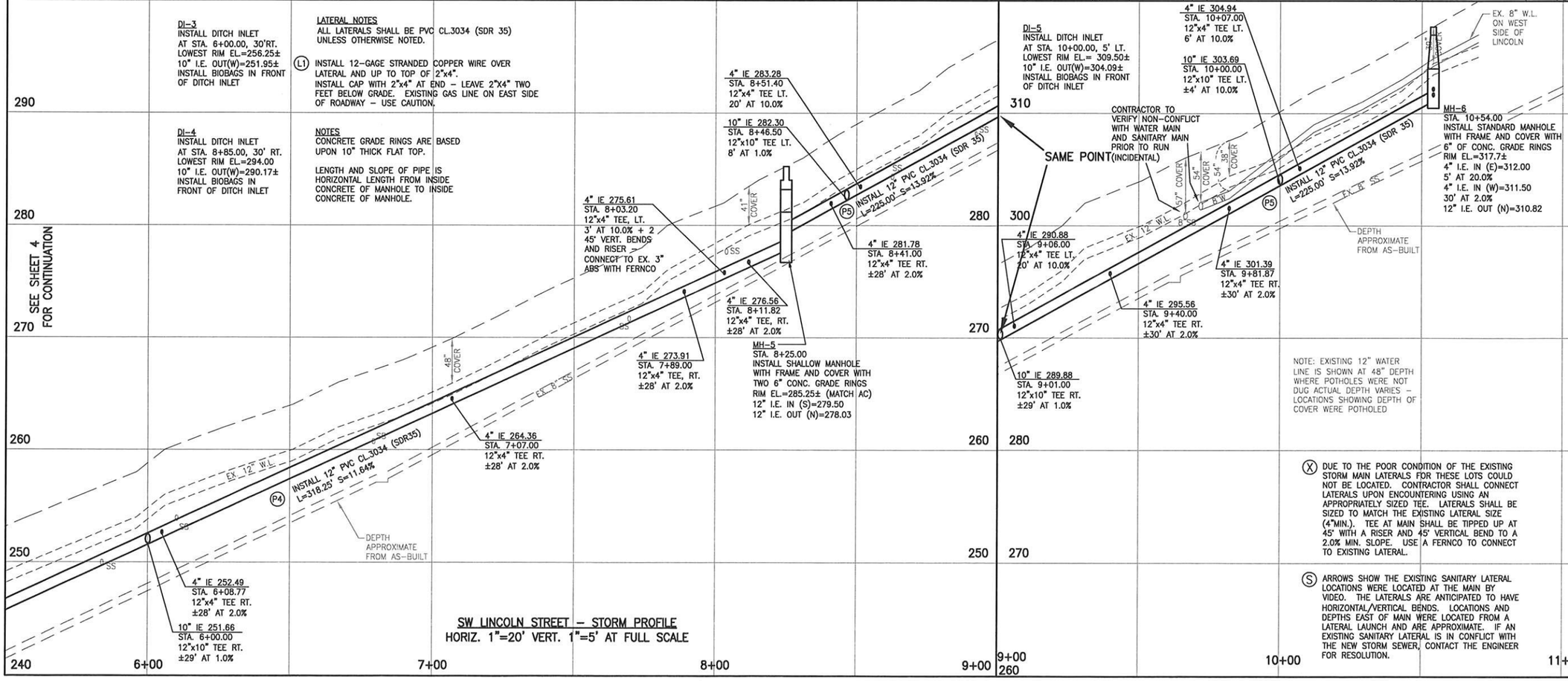
DI-4
INSTALL DITCH INLET
AT STA. 8+85.00, 30' RT.
LOWEST RIM EL.=294.00
10" I.E. OUT(W)=290.17±
INSTALL BIOBAGS IN FRONT OF DITCH INLET

LATERAL NOTES
ALL LATERALS SHALL BE PVC CL.3034 (SDR 35) UNLESS OTHERWISE NOTED.

(L1) INSTALL 12-GAGE STRANDED COPPER WIRE OVER LATERAL AND UP TO TOP OF 2"x4". INSTALL CAP WITH 2"x4" AT END – LEAVE 2"X4" TWO FEET BELOW GRADE. EXISTING GAS LINE ON EAST SIDE OF ROADWAY – USE CAUTION.

NOTES
CONCRETE GRADE RINGS ARE BASED UPON 10" THICK FLAT TOP.

LENGTH AND SLOPE OF PIPE IS HORIZONTAL LENGTH FROM INSIDE CONCRETE OF MANHOLE TO INSIDE CONCRETE OF MANHOLE.



SW LINCOLN STREET – STORM PROFILE
HORIZ. 1"=20' VERT. 1"=5' AT FULL SCALE

(X) DUE TO THE POOR CONDITION OF THE EXISTING STORM MAIN LATERALS FOR THESE LOTS COULD NOT BE LOCATED. CONTRACTOR SHALL CONNECT LATERALS UPON ENCOUNTERING USING AN APPROPRIATELY SIZED TEE. LATERALS SHALL BE SIZED TO MATCH THE EXISTING LATERAL SIZE (4"MIN.). TEE AT MAIN SHALL BE TIPPED UP AT 45° WITH A RISER AND 45° VERTICAL BEND TO A 2.0% MIN. SLOPE. USE A FERNCO TO CONNECT TO EXISTING LATERAL.

(S) ARROWS SHOW THE EXISTING SANITARY LATERAL LOCATIONS WERE LOCATED AT THE MAIN BY VIDEO. THE LATERALS ARE ANTICIPATED TO HAVE HORIZONTAL/VERTICAL BENDS. LOCATIONS AND DEPTHS EAST OF MAIN WERE LOCATED FROM A LATERAL LAUNCH AND ARE APPROXIMATE. IF AN EXISTING SANITARY LATERAL IS IN CONFLICT WITH THE NEW STORM SEWER, CONTACT THE ENGINEER FOR RESOLUTION.

STORM SEWER PLAN AND PROFILE SOUTH

LINCOLN STREET STORM

LOCATED IN SECTIONS 32AC AND 32BD, T2S, R1W, W.M. IN THE CITY OF SHERWOOD, WASHINGTON COUNTY, STATE OF OREGON

CITY OF SHERWOOD
ENGINEERING DEPARTMENT
22560 SW PINE STREET
SHERWOOD, OREGON 97140
PHONE: (503) 925-2309
FAX: (503) 925-0629
E-MAIL: cgriesen@sherwoodoregon.gov

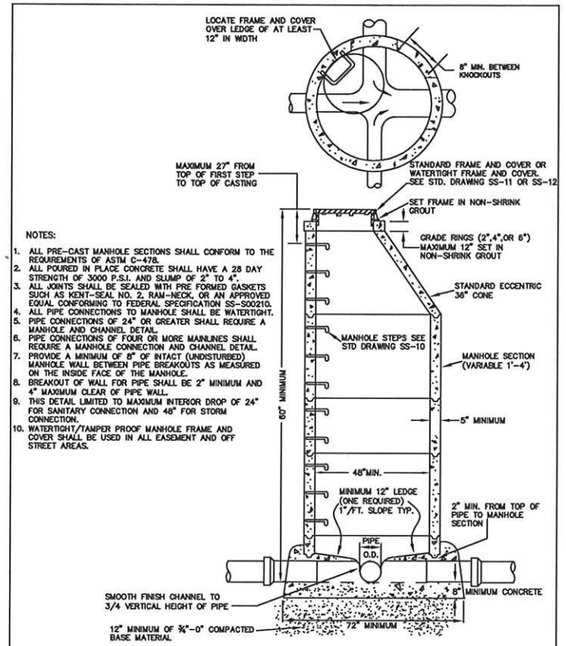
REGISTERED PROFESSIONAL ENGINEER – OREGON – 12719 – CRAIG C. CHRISTENSEN
EXPIRES: 12-31-15

DESIGNED BY:	CCC
DRAWN BY:	ASS/CCC
CHECKED BY:	RS
FULL SIZE SCALE:	AS NOTED
DATE:	MAY 6, 2014
LINCOLN STREET PANDP_SHEET.DWG	

REVISIONS

JOB NO. 8073

SHEET NO. SHEET 5 OF 7



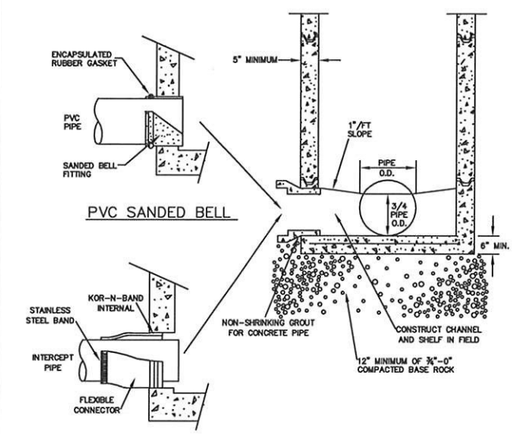
NOTES:

1. ALL PRE-CAST MANHOLE SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-478.
2. ALL POURED IN PLACE CONCRETE SHALL HAVE A 28 DAY STRENGTH OF 3000 P.S.I. AND SLUMP OF 2" TO 4".
3. ALL JOINTS SHALL BE SEALED WITH PRE FORMED GASKETS SUCH AS KENT-SEAL NO. 2, RAM-NECK, OR AN APPROVED EQUAL CONFORMING TO FEDERAL SPECIFICATION SS-S00210.
4. ALL PIPE CONNECTIONS TO MANHOLE SHALL BE WATERTIGHT.
5. PIPE CONNECTIONS OF 24" OR GREATER SHALL REQUIRE A MANHOLE AND CHANNEL DETAIL.
6. PIPE CONNECTIONS OF FOUR OR MORE MAINLINES SHALL REQUIRE A MANHOLE CONNECTION AND CHANNEL DETAIL.
7. PROVIDE A MINIMUM OF 8" OF INTACT (UNDISTURBED) MANHOLE WALL BETWEEN PIPE BREAKOUTS AS MEASURED ON THE INSIDE FACE OF THE MANHOLE.
8. BREAKOUT OF WALL FOR PIPE SHALL BE 2" MINIMUM AND 4" MAXIMUM CLEAR OF PIPE WALL.
9. THIS DETAIL LIMITED TO MAXIMUM INTERIOR DROP OF 24" FOR SANITARY CONNECTION AND 48" FOR STORM CONNECTION.
10. WATERTIGHT/TAMPER PROOF MANHOLE FRAME AND COVER SHALL BE USED IN ALL EASEMENT AND OFF STREET AREAS.

STANDARD DRAWING TITLE	DRAWING NUMBER
STANDARD MANHOLE	SS-1
SCALE: N.T.S.	DATE: JUL' 09

Any alteration of this drawing may not be associated in any way with the City of Sherwood Standard Drawings.

NOTES:
ALL PRE-CAST MANHOLE SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-478 AND APPLICABLE PROVISIONS OF STANDARD DRAWING SS-1



STANDARD DRAWING TITLE	DRAWING NUMBER
PRECAST CONCRETE MANHOLE BASE	SS-2
SCALE: N.T.S.	DATE: JUL' 09

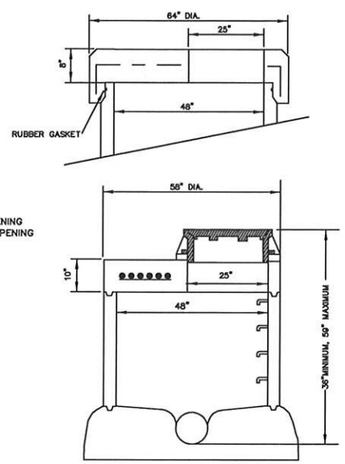
Any alteration of this drawing may not be associated in any way with the City of Sherwood Standard Drawings.

NOTES:
1. ALL JOINTS AND RUBBER GASKETS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-433.
2. ALL MANHOLE SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-478 AND APPLICABLE PROVISIONS OF STANDARD MANHOLE, DRAWING SS-1.
3. STEPS REQUIRED ON FLAT TOP MANHOLES DEEPER THAN 48".

RUBBER GASKET FLAT TOP REINFORCEMENT
OR
STANDARD MANHOLE FLAT TOP REINFORCEMENT

#6 BAR AROUND OUTSIDE OF OPENING
#6 DIAGONALS BOTH SIDES OF OPENING
#6 6" O.C. BOTH WAYS

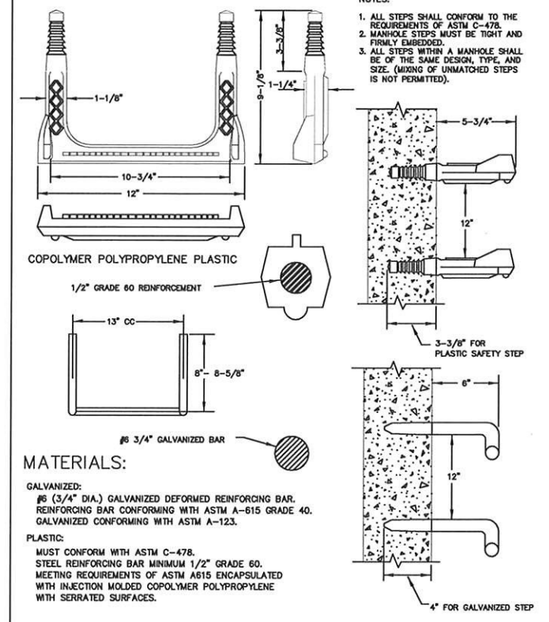
RUBBER GASKET FLAT TOP (OPTIONAL)



STANDARD DRAWING TITLE	DRAWING NUMBER
FLAT TOP MANHOLE	SS-5
SCALE: N.T.S.	DATE: JUL' 09

Any alteration of this drawing may not be associated in any way with the City of Sherwood Standard Drawings.

NOTES:
1. ALL STEPS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-478.
2. MANHOLE STEPS MUST BE TIGHT AND FIRMLY EMBEDDED.
3. ALL STEPS WITHIN A MANHOLE SHALL BE OF THE SAME DESIGN, TYPE, AND SIZE. (MIXING OF UNMATCHED STEPS IS NOT PERMITTED).



MATERIALS:

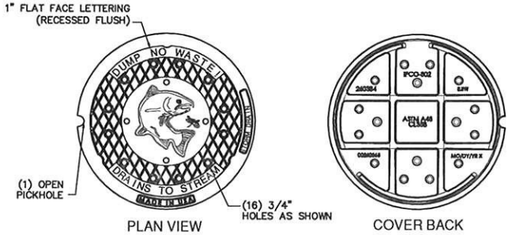
GALVANIZED:
#6 (3/4" DIA.) GALVANIZED DEFORMED REINFORCING BAR. REINFORCING BAR CONFORMING WITH ASTM A-615 GRADE 40. GALVANIZED CONFORMING WITH ASTM A-123.

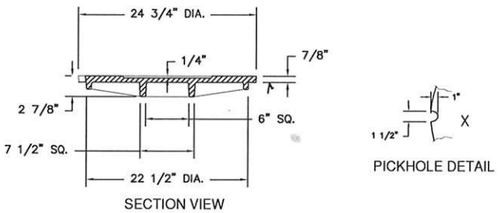
PLASTIC:
MUST CONFORM WITH ASTM C-478.
STEEL REINFORCING BAR MINIMUM 1/2" GRADE 60.
MEETING REQUIREMENTS OF ASTM A615 ENCAPSULATED WITH INJECTION MOLDED COPOLYMER POLYPROPYLENE WITH SERRATED SURFACES.

STANDARD DRAWING TITLE	DRAWING NUMBER
MANHOLE STEP	SS-10
SCALE: N.T.S.	DATE: JUL' 09

Any alteration of this drawing may not be associated in any way with the City of Sherwood Standard Drawings.

1" FLAT FACE LETTERING (RECESSED FLUSH)

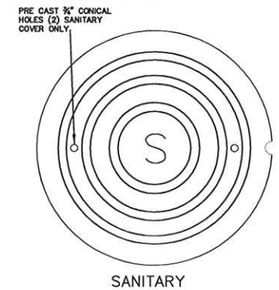


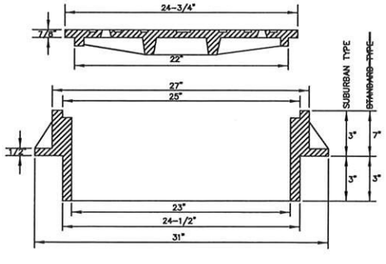


SEE DETAIL SS-11 FOR MANHOLE FRAME SPECIFICATIONS.

STANDARD DRAWING TITLE	DRAWING NUMBER
STORM WATER MANHOLE LID	SS-12
SCALE: N.T.S.	DATE: JUL '09

Any alteration of this drawing may not be associated in any way with the City of Sherwood Standard Drawings.

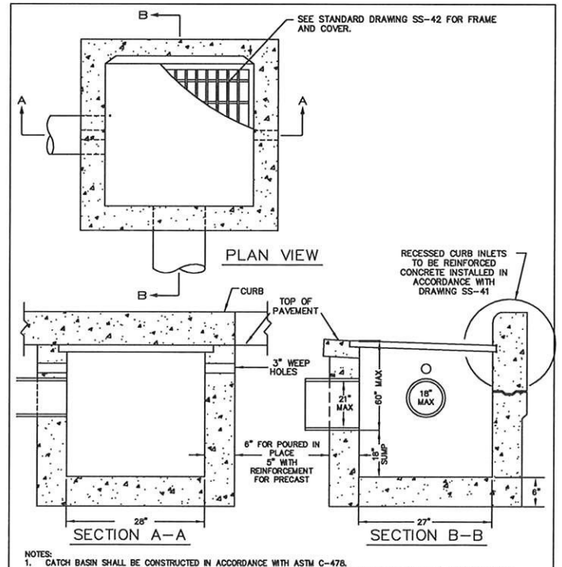




NOTES:
1. SUBURBAN TYPE NOT FOR USE IN TRAFFIC AREAS OF COLLECTOR AND ARTERIAL STREETS
2. COVER AND FRAME SHALL BE GRAY CAST IRON ASTM A-48 CLASS 30.
3. COVER AND FRAME TO BE MACHINED TO A TRUE BEARING ALL AROUND.
4. NOTCH LID FOR LIFTING HOOK.

STANDARD DRAWING TITLE	DRAWING NUMBER
SUBURBAN AND STANDARD MANHOLE FRAME AND COVER SANITARY	SS-11
SCALE: N.T.S.	DATE: JUL' 09

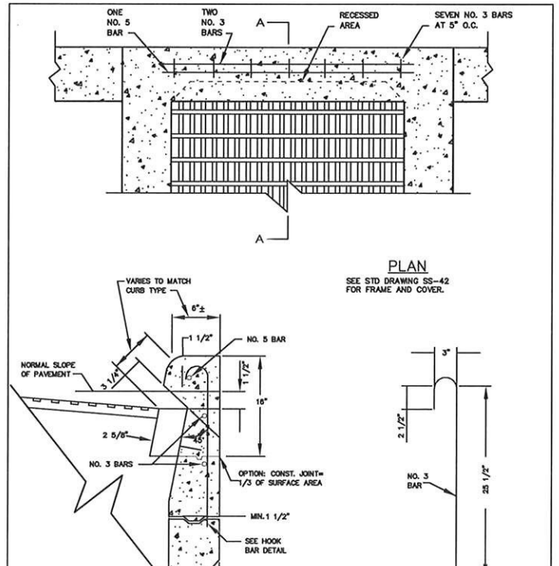
Any alteration of this drawing may not be associated in any way with the City of Sherwood Standard Drawings.



NOTES:
1. CATCH BASIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C-478.
2. INSTALL STEPS WHEN DISTANCE FROM TOP OF GRATE TO FLOW LINE OF PIPE IS GREATER THAN 48". SEE STANDARD DRAWING SS-10. SET FIRST STEP 12" FROM TOP OF GRATE.
3. INSTALL STRUCTURE ON MINIMUM OF 8" OF 3/4"-0" COMPACTED BASE MATERIAL.
4. REINFORCEMENT FOR PRE CAST CATCH BASIN SHALL BE REBAR MEETING ASTM A-615 GRADE 60 OR WELDED WIRE MEETING ASTM A-497.
5. ALL POURED INPLACE CONCRETE SHALL HAVE A 28 DAY STRENGTH OF 3000 P.S.I. AND A SLUMP OF 2" TO 4".
6. CHANNEL REQUIRED IN FLOW THROUGH APPLICATIONS, AS APPROVED. ALL OTHER APPLICATIONS REQUIRE AN 18" SUMP BELOW LOWEST PIPE INVERT.
7. FULL CURB EXPOSEURE REQUIRED CANNOT BE LOCATED IN SIDEWALK RAMPS OR RAMP WINGS.

STANDARD DRAWING TITLE	DRAWING NUMBER
GUTTER & CURB INLET CATCH BASIN (CG-2)	SS-40
SCALE: N.T.S.	DATE: JUL' 09

Any alteration of this drawing may not be associated in any way with the City of Sherwood Standard Drawings.



STANDARD DRAWING TITLE	DRAWING NUMBER
GUTTER & CURB INLET CATCH BASIN (CG-2) REINFORCEMENT	SS-41
SCALE: N.T.S.	DATE: JUL '09

Any alteration of this drawing may not be associated in any way with the City of Sherwood Standard Drawings.

STANDARD CITY DETAILS

LINCOLN STREET STORM

LOCATED IN SECTIONS 32AC AND 32BD, T2S, R1W, W.M. IN THE CITY OF SHERWOOD, WASHINGTON COUNTY, STATE OF OREGON

CITY OF SHERWOOD
ENGINEERING DEPARTMENT
22560 SW PINE STREET
SHERWOOD, OREGON 97140
PHONE: (503) 925-2309
FAX: (503) 925-2309
E-MAIL: engineering@sherwoodoregon.gov

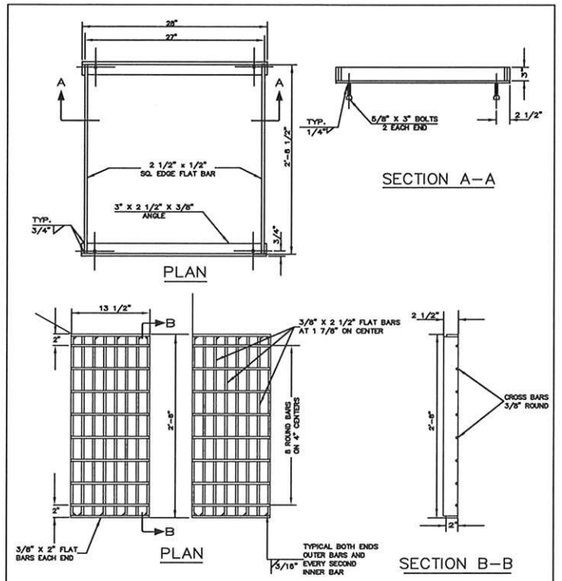
REGISTERED PROFESSIONAL ENGINEER — OREGON — 11/7/1985 — CRAIG C. CHRISTENSEN — EXPIRES: 12-31-15

DESIGNED BY:	CCC
DRAWN BY:	AIS/CCC
CHECKED BY:	RS
FULL SIZE SCALE:	AS NOTED
DATE:	MAY 6, 2014
LINCOLN STREET STORM_DETAILS.DWG	

REVISIONS

JOB NO. 8073

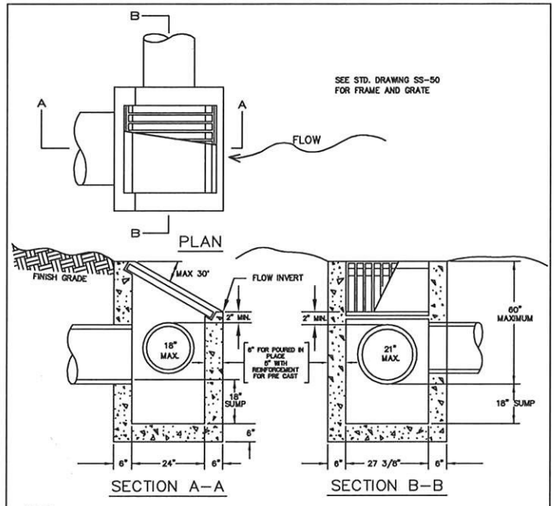
SHEET NO. 6 of 7



NOTE:
FRAME AND GRATE TO BE NEW STRUCTURAL ASTM A-36 FLAT BAR STEEL OR APPROVED EQUAL.
ADDITIONAL THICKNESS AND REINFORCEMENT SHALL BE REQUIRED FOR STATE HIGHWAY APPLICATIONS.

STANDARD DRAWING TITLE	DRAWING NUMBER
CATCH BASIN FRAME AND GRATE (CG-2)	SS-42
SCALE	DATE
N.T.S.	JUL '09

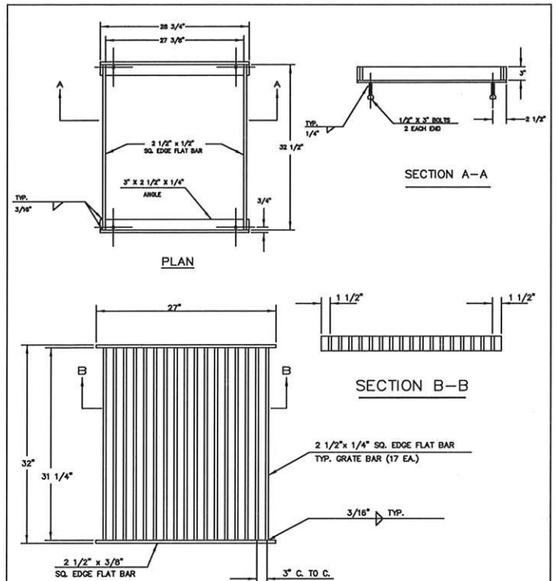
Any alteration of this drawing may not be associated in any way with the City of Sherwood Standard Drawings



NOTES:
1. ALL PRE CAST SECTIONS SHALL CONFORM TO REQUIREMENTS OF ASTM C-478.
2. INSTALL STRUCTURE ON MINIMUM OF 8" OF 3/4" - 0" COMPACTED BASE MATERIAL.
3. PRE CAST REINFORCEMENT SHALL BE REBAR MEETING ASTM A615 GRADE 60 OR WELDED WIRE MEETING ASTM A497
4. ALL POURED IN PLACE CONCRETE SHALL HAVE A 28 DAY STRENGTH OF 3000 PSI AND SLUMP OF 2" TO 4".
5. PRE-CAST STRUCTURE'S CONFORMING TO O.D.O.T. TYPE G-2 CATCH BASIN DESIGN/WITH DITCH INLET TOP ARE AN ACCEPTABLE ALTERNATE. ALL GRATE MATERIALS SHALL MEET C.W.S. STANDARDS AS SHOWN ON DETAIL SS-50

STANDARD DRAWING TITLE	DRAWING NUMBER
DITCH INLET	SS-49
SCALE	DATE
N.T.S.	JUL '09

Any alteration of this drawing may not be associated in any way with the City of Sherwood Standard Drawings



NOTE:
FRAME AND GRATE SHALL BE NEW STRUCTURAL ASTM A-36 FLAT BAR STEEL OR APPROVED EQUAL.

STANDARD DRAWING TITLE	DRAWING NUMBER
DITCH INLET FRAME AND GRATE	SS-50
SCALE	DATE
N.T.S.	JUL '09

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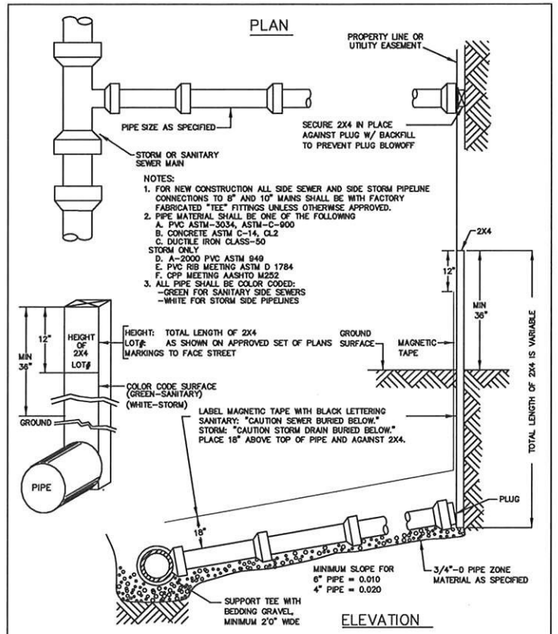
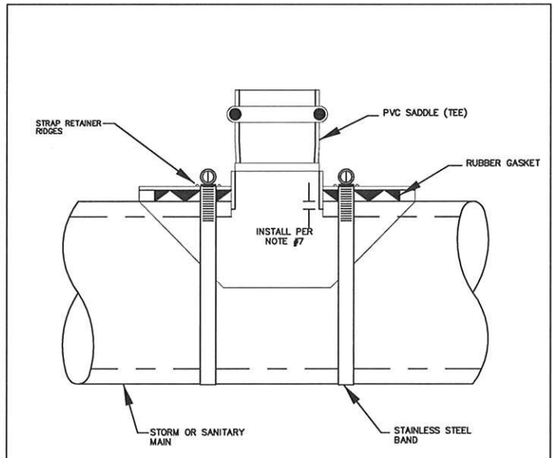


STANDARD DRAWING TITLE	DRAWING NUMBER
SIDE SEWER/SIDE STORM PIPELINE	SS-62
SCALE	DATE
N.T.S.	JUL' 09

Any alteration of this drawing may not be associated in any way with the City of Sherwood Standard Drawings



NOTES:
1. INDEXED PVC GASKETED SADDLE SHALL CONFORM TO ASTM 3034 SDR35.
2. PVC COMPOUNDS SHALL CONFORM TO ASTM D1784 WITH CELL CLASS OF 12454-B/C OR 12364-C.
3. ALL ELASTOMERIC SEALS (RUBBER GASKETS) SHALL CONFORM TO ASTM F477.
4. INDEXED PVC GASKETED SADDLE SHALL BE INSTALLED WITH RUBBER GASKETS APPROVED FOR THE SEWER MAIN WALL CONFIGURATION (PROFILE OR SMOOTH WALL).
5. STAINLESS STEEL BANDS SHALL BE 300 SERIES, 3/4" BAND WIDTH, CADMIUM PLATED, CARBON STEEL, AND ATTACHED WITH HEX HEAD, SLOTTED SCREWS.
6. INSERTION HOLE SHALL BE CORE DRILLED.
7. INDEXED SADDLE SHALL BE INSERTED A MINIMUM OF 1/2" FROM OUTSIDE WALL OF HOST PIPE AND SHALL NOT PROTRUDE BEYOND THE INSIDE WALL OF THE HOST PIPE.

STANDARD DRAWING TITLE	DRAWING NUMBER
INDEXED PVC GASKETED SADDLE	SS-64
SCALE	DATE
N.T.S.	JUL' 09

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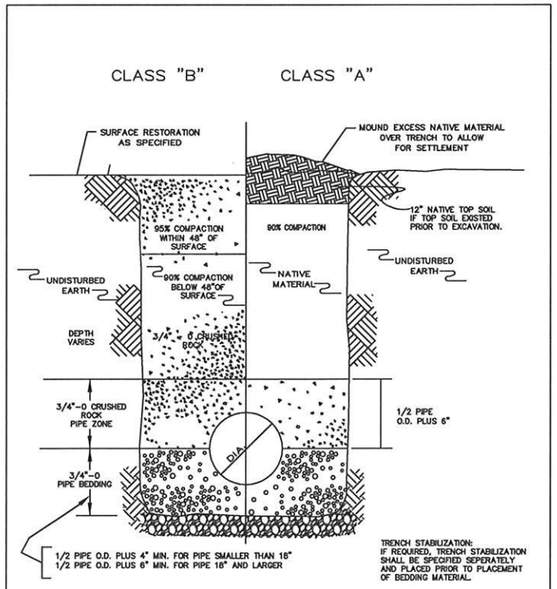

NOTE:
ALL COMPACTTION REQUIREMENTS PER
AASHTO T-99 AND ODOT/APWA SPEC 00405.

STANDARD DRAWING TITLE	DRAWING NUMBER
TRENCH BACKFILL DETAILS	SS-69
SCALE	DATE
N.T.S.	JUL' 09

Any alteration of this drawing may not be associated in any way with the City of Sherwood Standard Drawings

STANDARD CITY DETAILS

LINCOLN STREET STORM

LOCATED IN SECTIONS 32AC AND 32BD, T2S, R1W, W.M. IN THE CITY OF SHERWOOD, WASHINGTON COUNTY, STATE OF OREGON

CITY OF SHERWOOD
ENGINEERING DEPARTMENT
22560 SW PINE STREET
SHERWOOD, OREGON 97140
PHONE: (503) 925-2309
FAX: (503) 625-0629
E-MAIL: engineering@sherwoodoregon.gov

REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 17, 1998
CRAIG C. CHRISTENSEN
EXPIRES: 12-31-15

DESIGNED BY:	CCC
DRAWN BY:	ASS/CCC
CHECKED BY:	RS
FULL SIZE SCALE:	AS NOTED
DATE:	MAY 6, 2014

LINCOLN STREET STORM_DETAILS.DWG

REVISIONS

JOB NO. 8073

SHEET NO. SHEET 7 OF 7