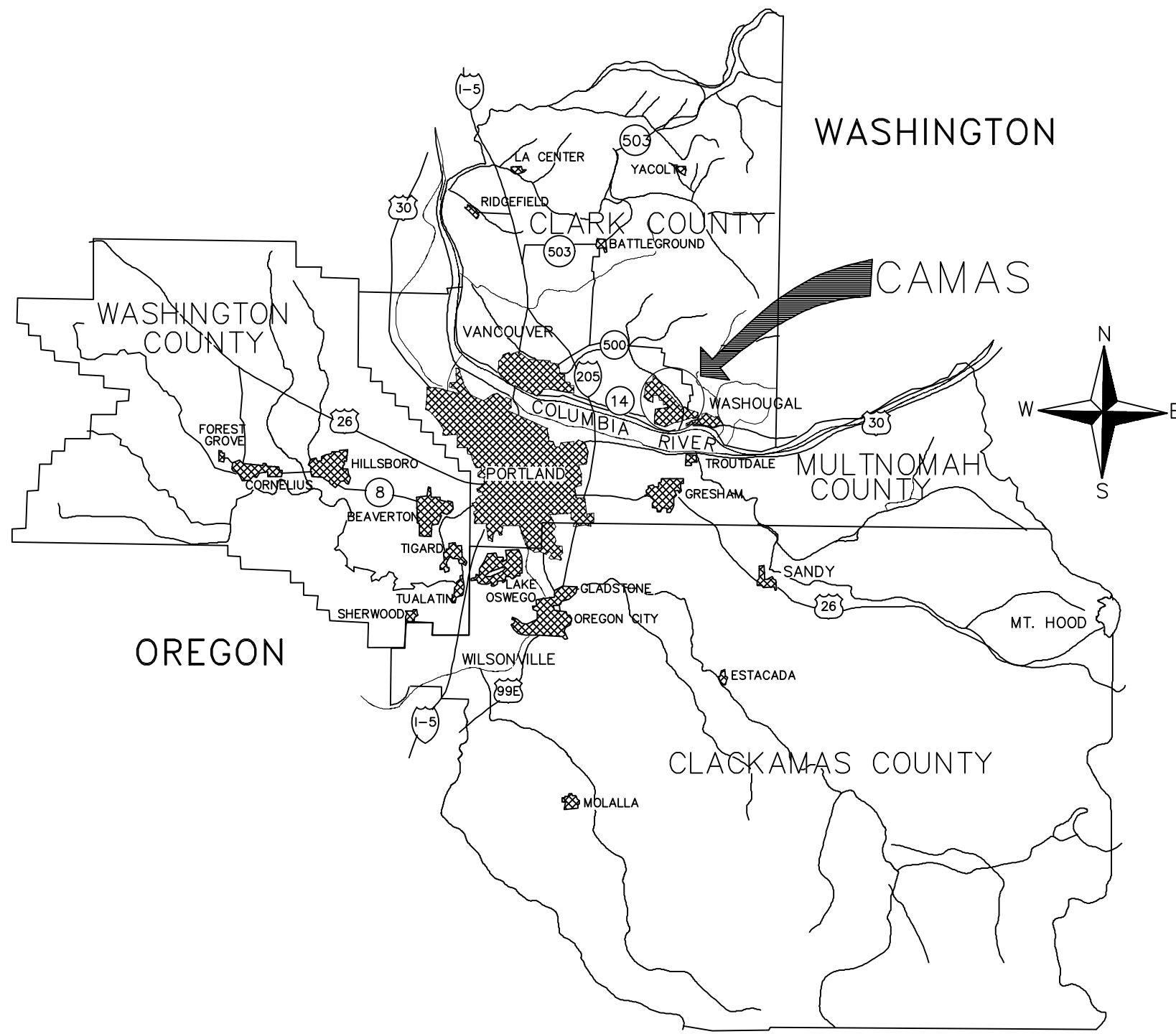
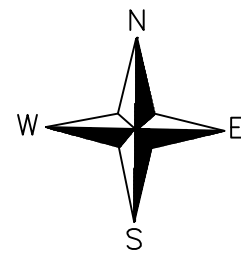


# NW 6TH PLACE SEWER REPAIR

CITY OF CAMAS  
PUBLIC WORKS DEPARTMENT  
CITY PROJECT: SWR26003A



VICINITY MAP  
NOT TO SCALE



SHEET INDEX

SHEET	DESCRIPTION
1.	COVER/VICINITY MAP
2.	NOTES/LEGEND
3.	PLAN AND PROFILE
4.	DETAILS
5.	DETAILS
6.	DETAILS

CITY OF CAMAS			
Signed by: <i>James E. Carothers</i> CITY ENGINEER		6/25/2026 DATE	
REVISION NO.	SHEETS AFFECTED	INITIAL APPROVAL	DATE



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"it's the law"  
CLARK COUNTY UTILITIES COORDINATING COUNCIL

DATES	
DESIGN DATE:	6/18/2026
AS-BUILT DATE:	
SCALES	
HORIZONTAL:	AS SHOWN
VERTICAL:	N/A
CONTACTS	
DESIGNED BY:	A. WESTERSUND
APPROVED BY:	J. MONSRUD
PROJ. ENGR.:	A. WESTERSUND



PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
NW 6TH PLACE SEWER REPAIR  
COVER/VICINITY MAP



CAMAS PROJECT NUMBER SWR26003A	
STATUS	PAGE
<input checked="" type="checkbox"/> DRAFT <input checked="" type="checkbox"/> CONSTRUCTION <input type="checkbox"/> AS-BUILT	1 OF 6
CAMAS DRAWING NUMBER 500-244	
CAMAS CATALOG NUMBER D1365	

**GENERAL CONSTRUCTION NOTES:**

- MATERIALS AND WORKMANSHIP FOR CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE WSDOT/APWA "STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION" AND CITY OF CAMAS STANDARD DETAILS ATTACHED HEREWITHIN.
- EXISTING UTILITIES SHOWN ON THE PLANS ARE PER SURVEY UTILITY LOCATES AND/OR AS-BUILT DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES, INCLUDING THE INVERT AND TOP ELEVATIONS AT CROSSING LOCATIONS, PRIOR TO THE START OF CONSTRUCTION AND TO NOTIFY THE ENGINEER OF ANY POTENTIAL CONFLICTS. THE CONTRACTOR SHALL DIG TEST HOLES OVER ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION TO DETERMINE THEIR EXACT LOCATION. CALL 696-4848 FOR UTILITIES LOCATES A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR SHALL ARRANGE A PRE-CONSTRUCTION MEETING WITH THE CITY OF CAMAS ENGINEERING DEPARTMENT PRIOR TO COMMENCING WITH ANY WORK.
- THE LOCATIONS AND DESCRIPTIONS OF EXISTING UTILITIES SHOWN ON THE PLANS ARE COMPILED FROM AVAILABLE RECORDS. THE CITY DOES NOT GUARANTEE THE ACCURACY NOR THE COMPLETENESS OF SUCH RECORDS. CONTRACTOR TO FIELD VERIFY LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION AND COMPLETE LOCATION OF UTILITIES ON PRIVATE PROPERTY PER THE SPECIFICATIONS.
- 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 OF THE WORK, THE CONTRACTOR SHALL LEAVE THE PROJECT AREA FREE OF DEBRIS AND UNUSED MATERIALS.
- ALL EROSION/SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE EROSION/SEDIMENT CONTROL PLAN AND/OR CITY OF CAMAS EROSION/SEDIMENT CONTROL DETAILS PRIOR TO ANY CLEARING OR THE START OF ANY CONSTRUCTION AND SHALL COMPLY WITH CAMAS MUNICIPAL CODE 14.06.
- THE LIMITS OF CLEARING SHALL BE FLAGGED PRIOR TO CLEARING AND GRUBBING OF THE SITE. NO DISTURBANCE SHALL OCCUR TO ANY EXISTING TREES OR VEGETATION OUTSIDE THE LIMITS OF CLEARING.
- EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO CONSTRUCTION. NO ATTEMPT HAS BEEN MADE TO DELINEATE ALL REQUIRED MEASURES FOR THIS PROJECT. AT A MINIMUM, A FABRIC SEDIMENT BARRIER SHALL BE INSTALLED AROUND ANY MATERIAL STOCKPILES. INSTALL INLET PROTECTION ON ALL DOWN-SLOPE STORM INLETS.
- CONTRACTOR SHALL TAKE CARE TO LIMIT DISTURBANCE TO LANDSCAPING AT ALL RESIDENCES IN AND AROUND THE CONSTRUCTION AREAS. CONTRACTOR SHALL COORDINATE WORK AREA LIMITS WITH PROPERTY OWNERS AND FLAG ALL TREES, PLANTS, AND OTHER BUSHES PROPOSED FOR TEMPORARY REMOVAL AND REPLACEMENT. VEGETATION WILL BE REMOVED ONLY AFTER CITY APPROVAL. ALL LANDSCAPING SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITION IN ACCORDANCE WITH THE SPECIFICATIONS. CONTRACTOR SHALL SAW CUT AND REPLACE CONCRETE SIDEWALK AND CURBING DISTURBED BY CONSTRUCTION TO THE NEAREST JOINT.
- CONTRACTOR IS TO MAINTAIN ACCESS TO ALL EXISTING RESIDENCES DURING CONSTRUCTION.
- RELOCATE SIGNS AND MAILBOXES AS NECESSARY TO CONSTRUCT IMPROVEMENTS. COORDINATE RELOCATION WITH CITY INSPECTORS, HOMEOWNERS, AND U.S. POSTAL SERVICE (PHONE NUMBER 360-835-8581).
- THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO THE CITY OF CAMAS ENGINEERING DEPARTMENT. APPROVAL SHALL BE OBTAINED PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR WILL INSTALL AND MAINTAIN ALL TRAFFIC CONTROL MEASURES THROUGHOUT THE DURATION OF THE PROJECT IN ACCORDANCE WITH THE APPROVED TRAFFIC CONTROL PLAN. FUNDS MAY BE DEDUCTED FROM THE CONTRACTOR'S PAY FOR FAILURE TO IMPLEMENT AND MAINTAIN TRAFFIC CONTROL MEASURES. REFER TO THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- ALL EXISTING MONUMENTS, PROPERTY CORNERS AND SURVEY MARKERS SHALL BE PROTECTED. REPLACEMENT OF LOST, DESTROYED OR DAMAGED MARKERS SHALL BE DONE BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH R.C.W. 58.09 AT THE CONTRACTORS EXPENSE.
- THE CONTRACTOR SHALL NOT EXCAVATE OVER FOUR FEET IN DEPTH WITHOUT USING ADEQUATE SAFETY MEASURES. THE CONTRACTOR IS REFERRED TO TITLE 296 W.A.C., PART N FOR EXCAVATION, TRENCHING AND SHORING REQUIREMENTS.
- ALL UTILITY TRENCHES SHALL HAVE BEDDING, PRE-COVER AND BACKFILL MATERIAL AS REQUIRED IN TRENCH DETAILS G2 & G3. WATER SETTLEMENT OF UTILITY TRENCHES IS NOT ALLOWED. TRENCH LINES LOCATED WITHIN AN EXISTING ROADWAY SHALL BE PLATED OR TOPPED WITH COLD MIX. CRUSHED ROCK BACKFILL OVERNIGHT IS NOT ALLOWED. PLATES SHALL HAVE COLD MIX AROUND ALL EDGES.
- IF THE CITY INSPECTOR OR ENGINEER HAS EVIDENCE OF POOR CONSTRUCTION PRACTICES OR EROSION CONTROL TECHNIQUES, A "STOP WORK" ORDER SHALL BE ISSUED UNTIL PROPER MEASURES HAVE BEEN TAKEN AND APPROVED BY THE CITY ENGINEERING STAFF.
- ANY SIGNIFICANT DEVIATIONS FROM THE PLANS WILL REQUIRE A SUBMITTAL FROM THE CONTRACTOR AND APPROVAL FROM THE CITY OF CAMAS ENGINEERING DEPARTMENT.

**GRAVITY SEWER CONSTRUCTION NOTES:**

- THE EXISTING SEWER MANHOLES ARE CONSIDERED CONFINED SPACES WITH THE POTENTIAL FOR THE PRESENCE OF NOXIOUS GASES. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS SATISFYING ALL APPLICABLE SAFETY STANDARDS AND L&I REQUIREMENTS FOR CONFINED SPACES, WHILE WORKING IN MANHOLES OR IN CLOSE PROXIMITY TO ACTIVE SEWERS.
- ALL TRENCH EXCAVATION AND PIPE INSTALLATION SHALL CONFORM TO THE MOST RECENTLY ADOPTED VERSION OF W.S.D.O.T. STANDARD SPECIFICATIONS SECTION 7-08.3(1) AND SECTION 7-08.3(2). ALL EXCESS MATERIAL FROM THE TRENCH EXCAVATION SHALL BE IMMEDIATELY LOADED AND DISPOSED OF ON AN APPROVED SITE.
- PIPE BEDDING AND PRE-COVER (PIPE ZONE) MATERIAL SHALL BE 5/8 INCH MINUS CRUSHED ROCK.
- TRENCH BACKFILL MATERIAL SHALL BE 1-1/4 INCH MINUS CRUSHED ROCK.
- TRENCH COMPACTION SHALL BE PER CITY OF CAMAS STANDARD TEST REQUIREMENTS DETAIL G4A. CONTRACTOR TO DETERMINE THE TYPE OF EQUIPMENT AND METHOD TO USE TO ACHIEVE THE REQUIRED COMPACTION. EACH LIFT SHALL BE COMPACTED TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY THE A.A.S.H.T.O. T-180 TEST METHOD.
- ALL PIPE AND FITTINGS SHALL CONFORM TO THE MOST RECENTLY ADOPTED VERSION OF W.S.D.O.T. STANDARD SPECIFICATIONS SECTION 7-17.2.
- SETTLEMENT OF THE FINISHED SURFACE WITHIN THE WARRANTY PERIOD SHALL BE CONSIDERED TO BE A RESULT OF IMPROPER COMPACTION AND SHALL BE PROMPTLY REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO THE CITY.
- PIPE SHALL BE BEDDED WITH A MINIMUM OF 4-INCHES OF APPROVED GRANULAR MATERIAL.
- ALL PIPE AND FITTINGS SHALL BE AIR TESTED AT FOUR P.S.I. FOR ONE MINUTE PER EVERY 100 FEET OF MAINLINE.
- A BYPASS SYSTEM WILL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR IN ACCORDANCE WITH THE SPECIFICATIONS.
- NO WORK SHALL BE ALLOWED OUTSIDE OF RIGHT-OF-WAY, PERMANENT, OR TEMPORARY EASEMENTS WITHOUT THE CONTRACTOR OBTAINING WRITTEN APPROVAL FROM THE PROPERTY OWNER AND DELIVERING A COPY OF THE AGREEMENT TO THE CITY IN ADVANCE OF CONSTRUCTION. CONTRACTOR SHALL PROVIDE PRIVATE PROPERTY OWNERS 48 HOURS NOTICE PRIOR TO COMMENCING WORK WITHIN EASEMENT AREAS.
- ALL PIPE CONNECTIONS SHALL UTILIZE A GASKETED FITTING TO PROVIDE A WATERTIGHT INSTALLATION. INSTALL COUPLINGS ONLY AS NECESSARY FOR CONNECTIONS TO EXISTING AND PROPOSED SEWER. FERROCEMENT COUPLINGS ARE ONLY ALLOWED FOR CONNECTING NEW PIPE TO EXISTING CONCRETE, VITRIFIED CLAY, OR IRON PIPE. APPROVED GASKETED COUPLINGS SHALL BE USED ON ALL OTHER CONNECTIONS.

**EROSION/SEDIMENT CONTROL NOTES:**

- THE EROSION/SEDIMENT CONTROL (ESC) PLAN AND STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IS TO BE UTILIZED AS A GUIDE TO CONTROL THE TRANSPORT OF LOOSE SOILS TO THE PROPERTY OUTSIDE OF THE CONSTRUCTION AREA AND AROUND THE CONSTRUCTION SITE. THE ESC MEASURES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DOES NOT LEAVE THE SITE.
- THE IMPLEMENTATION OF THE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT AND UPGRADING OF THE ESC MEASURES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND PERMANENT VEGETATION/LANDSCAPING IS ESTABLISHED.
- IF THE CITY INSPECTOR OR ENGINEER(S) HAS EVIDENCE OF POOR CONSTRUCTION PRACTICES OR EROSION CONTROL TECHNIQUES, A "STOP WORK" ORDER SHALL BE ISSUED UNTIL PROPER MEASURES HAVE BEEN TAKEN AND APPROVED BY THE CITY ENGINEERING STAFF.
- THE CONTRACTORS SHALL BE RESPONSIBLE TO FAMILIARIZE THEMSELVES WITH THE MOST RECENTLY ADOPTED EDITION OF THE STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON, VOL. II AND THE CITY OF CAMAS MUNICIPAL CODE 14.06 (2011).
- ALL EROSION/SEDIMENT CONTROL MEASURES SHALL BE IN PLACE AND IN WORKING CONDITION PRIOR TO DISTURBING AND EXPOSING ANY SOIL SURFACES (I.E. CONSTRUCTION ENTRANCES, FILTER FABRIC SEDIMENT BARRIERS, AND SEDIMENTATION TRAPS) AND MAINTAINED FOR THE DURATION OF THE PROJECT. TRAPPED SEDIMENT IN EXCESS OF 1 FOOT SHALL BE REMOVED OR STABILIZED ON-SITE. DISTURBED SOIL AREAS RESULTING FROM VEGETATION REMOVAL SHALL BE PERMANENTLY STABILIZED. ADDITIONAL MEASURES MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
- TO MINIMIZE EROSION AND SEDIMENTATION TRANSPORTATION, EARTHWORK SHALL NOT BE PERFORMED WHILE SOILS ARE IN AN UNSTABLE STATE DUE TO PRECIPITATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO HAVE CLEARING LIMITS AND/OR ANY EASEMENTS, SENSITIVE OR CRITICAL AREAS, AND THEIR BUFFERS, TREES, AND DRAINAGE COURSES FLAGGED PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. FLAGGING LIMITS ARE TO BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF CONSTRUCTION.
- REMOVE ONLY THOSE TREES AND SHRUBS THAT NEED TO BE REMOVED FOR THE CONSTRUCTION OF ROADS, SIDEWALKS, UTILITIES, AND STORMWATER FACILITIES.
- ALL EXISTING AND NEWLY CONSTRUCTED ROAD CATCH BASINS AND CURB INLETS AFFECTED BY CONSTRUCTION SHALL BE PROTECTED AGAINST SEDIMENT DEPOSITS. AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A TRAPPED CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.
- ALL POLLUTANTS THAT OCCUR ON-SITE DURING CONSTRUCTION SHALL BE HANDLED AND DISPOSED OF IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF STORMWATER SYSTEM.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR POLICING THE JOB SITE DAILY AND MAINTAINING THE EROSION/SEDIMENT CONTROL MEASURES THROUGHOUT ALL PHASES OF CONSTRUCTION. AN INSPECTION LOG SHALL BE KEPT AND MADE AVAILABLE TO THE CITY OF CAMAS. THE POLICING AND MAINTENANCE SHALL INCLUDE, BUT NOT BE LIMITED TO:
  - VERIFYING THAT ALL AREAS ARE GRADED SUCH THAT ALL RUNOFF IS DIRECTED TO A SEDIMENTATION DEVICE BEFORE DISCHARGE TO SURFACE.
  - REMOVAL OF TRAPPED SILT AT SILT BARRIERS, SILT TRAPS, OR POINTS OF ACCUMULATION.
  - ADDITIONAL PROTECTIVE MEASURES DUE TO JOB SITE OR WEATHER CONDITIONS AS REQUIRED BY THE CITY OF CAMAS.
  - MONITORING OF VEHICLES LEAVING THE SITE TO MINIMIZE TRANSMISSION OF LOOSE SOILS TO THE PUBLIC ROADWAYS.
  - VERIFY THAT ALL PROPERTIES ADJACENT TO THE PROJECT SITE ARE PROTECTED FROM SEDIMENTATION DEPOSITION. THIS MAY BE ACCOMPLISHED BY INSTALLING PERIMETER CONTROLS SUCH AS SEDIMENTATION BARRIERS, FILTERS OR DIKES, SEDIMENTATION BASINS/TRAPS, OR BY A COMBINATION OF SUCH MEASURES.
- THE ESC MEASURES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN 24 HOURS FOLLOWING ANY STORM EVENT.
- ALL DISTURBED SOIL SURFACES ARE TO BE STABILIZED BY A SUITABLE APPLICATION OF "BEST MANAGEMENT PRACTICES" (BMP'S). DURING THE PERIOD OF OCTOBER 1 THROUGH JULY 5 DISTURBED SOILS MAY REMAIN UNSTABILIZED FOR UP TO TWO DAYS WHEN NOT BEING WORKED. FROM JULY 5 THROUGH OCTOBER 1, DISTURBED SOILS MAY REMAIN UNSTABILIZED FOR UP TO 7 DAYS WHEN NOT BEING WORKED. STABILIZATION OF DISTURBED SOIL AREAS MAY CONSIST OF HYDROSEEDING, HAND-SEEDING AND MULCHING, PLACEMENT OF EROSION CONTROL BLANKETS OR PLASTIC. ALL SEEDED AREAS ARE TO BE FERTILIZED, WATERED, AND MAINTAINED TO ENSURE THAT THE GROWTH OF VEGETATION OCCURS AS SOON AS POSSIBLE.
- ALL TEMPORARY SEDIMENT AND EROSION CONTROL BMP'S SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY BMP'S ARE NO LONGER NEEDED.
- CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES SHALL BE STABILIZED IN ACCORDANCE WITH EROSION/SEDIMENT CONTROL NOTE 11. SLOPES FOUND TO BE ERODING EXCESSIVELY WITHIN TWO YEARS OF CONSTRUCTION MUST BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES. THESE MEASURES MAY CONSIST OF ROUGHENED SOIL SURFACES, INTERCEPTORS, DIVERSIONS OR TERRACES, TEMPORARY OR PERMANENT CHANNELS, ADDITIONAL VEGETATION, OR PIPE SLOPE DRAINS AS REQUIRED BY THE CITY OF CAMAS UNTIL THE PROBLEM IS CORRECTED.
- THE ESC MEASURES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN 24 HOURS FOLLOWING ANY STORM EVENT.
- TRENCH DE-WATER DEVICES SHALL DISCHARGE INTO A SEDIMENT TRAP OR SEDIMENT POND.
- SUGGESTED TURF SEED MIXTURE FOR DRY SITUATIONS WHERE THERE IS NO NEED FOR MUCH WATER:

LOW-GROWING TURF SEED MIX*	
SEED VARIETY	% WEIGHT % PURITY % GERMINATION
DWARF TALL FESCUE (SEVERAL VARIETIES)	45 98 90
(FESTUCA ARUNDINACEA VAR.)	
DWARF PERENNIAL RYE	30 98 90
(LOLIUM PERENNE VAR. BARCLAY)	
RED FESCUE	20 98 90
(FESTUCA RUBRA)	
COLONIAL BENTGRASS	98 90
(AGROSTIS TENUIJS)	
*APPLICATION RATE OF 120 LBS/ACRE AND COVERED WITH STRAW OR MULCH	

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CLARK COUNTY UTILITIES COORDINATING COUNCIL

DESIGN DATE:	6/18/2026
AS-BUILT DATE:	
SCALES:	
HORIZONTAL:	AS SHOWN
VERTICAL:	N/A
CONTACTS:	
DESIGNED BY:	A. WESTERSUND
APPROVED BY:	J. MONSRUD
PROJ. ENGR.:	A. WESTERSUND

616 NE 4TH AVENUE  
CAMAS, WA 98607  
PH: (360) 834-3451

PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION

NW 6TH PLACE SEWER REPAIR

NOTES/LEGEND

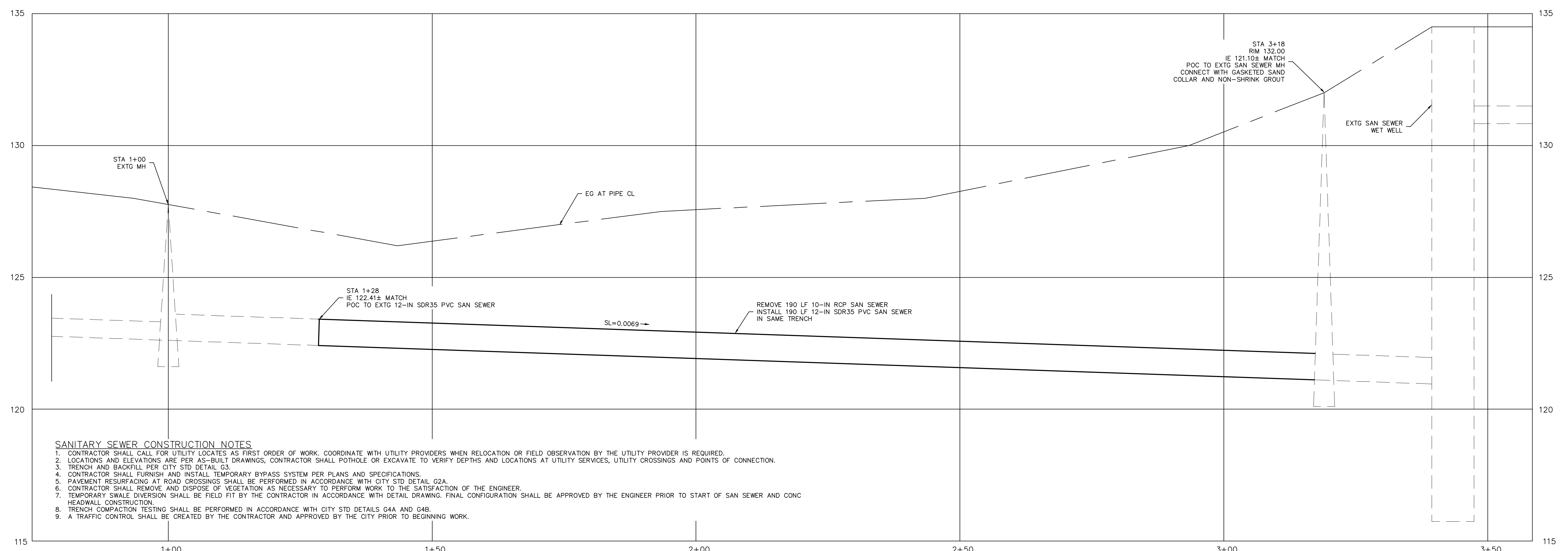
James E. Carothers  
38013  
REGISTERED PROFESSIONAL ENGINEER

CAMAS PROJECT NUMBER  
SWR26003A

STATUS	PAGE
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<input checked="" type="checkbox"/> CONSTRUCTION	
<input type="checkbox"/> AS-BUILT	

CAMAS DRAWING NUMBER  
500-244

CAMAS CATALOG NUMBER  
D1365



- SANITARY SEWER CONSTRUCTION NOTES**
- CONTRACTOR SHALL CALL FOR UTILITY LOCATES AS FIRST ORDER OF WORK. COORDINATE WITH UTILITY PROVIDERS WHEN RELOCATION OR FIELD OBSERVATION BY THE UTILITY PROVIDER IS REQUIRED.
  - LOCATIONS AND ELEVATIONS ARE PER AS-BUILT DRAWINGS. CONTRACTOR SHALL POT-HOLE OR EXCAVATE TO VERIFY DEPTHS AND LOCATIONS AT UTILITY SERVICES, UTILITY CROSSINGS AND POINTS OF CONNECTION.
  - TRENCH AND BACKFILL PER CITY STD DETAIL G3.
  - CONTRACTOR SHALL FURNISH AND INSTALL TEMPORARY BYPASS SYSTEM PER PLANS AND SPECIFICATIONS.
  - PAVEMENT RESURFACING AT ROAD CROSSINGS SHALL BE PERFORMED IN ACCORDANCE WITH CITY STD DETAIL G2A.
  - CONTRACTOR SHALL REMOVE AND DISPOSE OF VEGETATION AS NECESSARY TO PERFORM WORK TO THE SATISFACTION OF THE ENGINEER.
  - TEMPORARY SWALE DIVERSION SHALL BE FIELD FIT BY THE CONTRACTOR IN ACCORDANCE WITH DETAIL DRAWING. FINAL CONFIGURATION SHALL BE APPROVED BY THE ENGINEER PRIOR TO START OF SAN SEWER AND CONC HEADWALL CONSTRUCTION.
  - TRENCH COMPACTION TESTING SHALL BE PERFORMED IN ACCORDANCE WITH CITY STD DETAILS G4A AND G4B.
  - A TRAFFIC CONTROL SHALL BE CREATED BY THE CONTRACTOR AND APPROVED BY THE CITY PRIOR TO BEGINNING WORK.

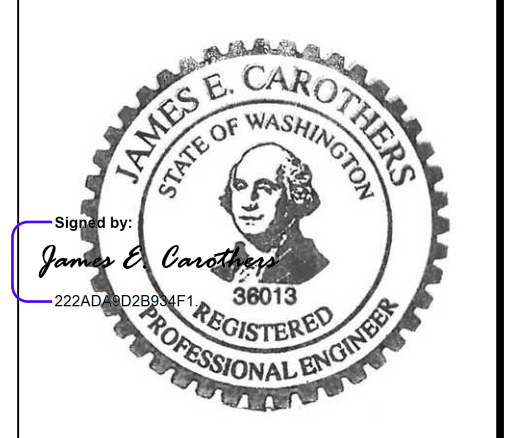
PROFILE VIEW  
VERT. SCALE: 1"=2'  
HORIZ. SCALE: 1"=10'

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APPROVED BY:	J. MONSRUD
PROJ. ENGR.:	A. WESTERSUND

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CAMAS, WA 98607  
PH: (360) 834-3451

PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
NW 6TH PLACE SEWER REPAIR  
PLAN AND PROFILE

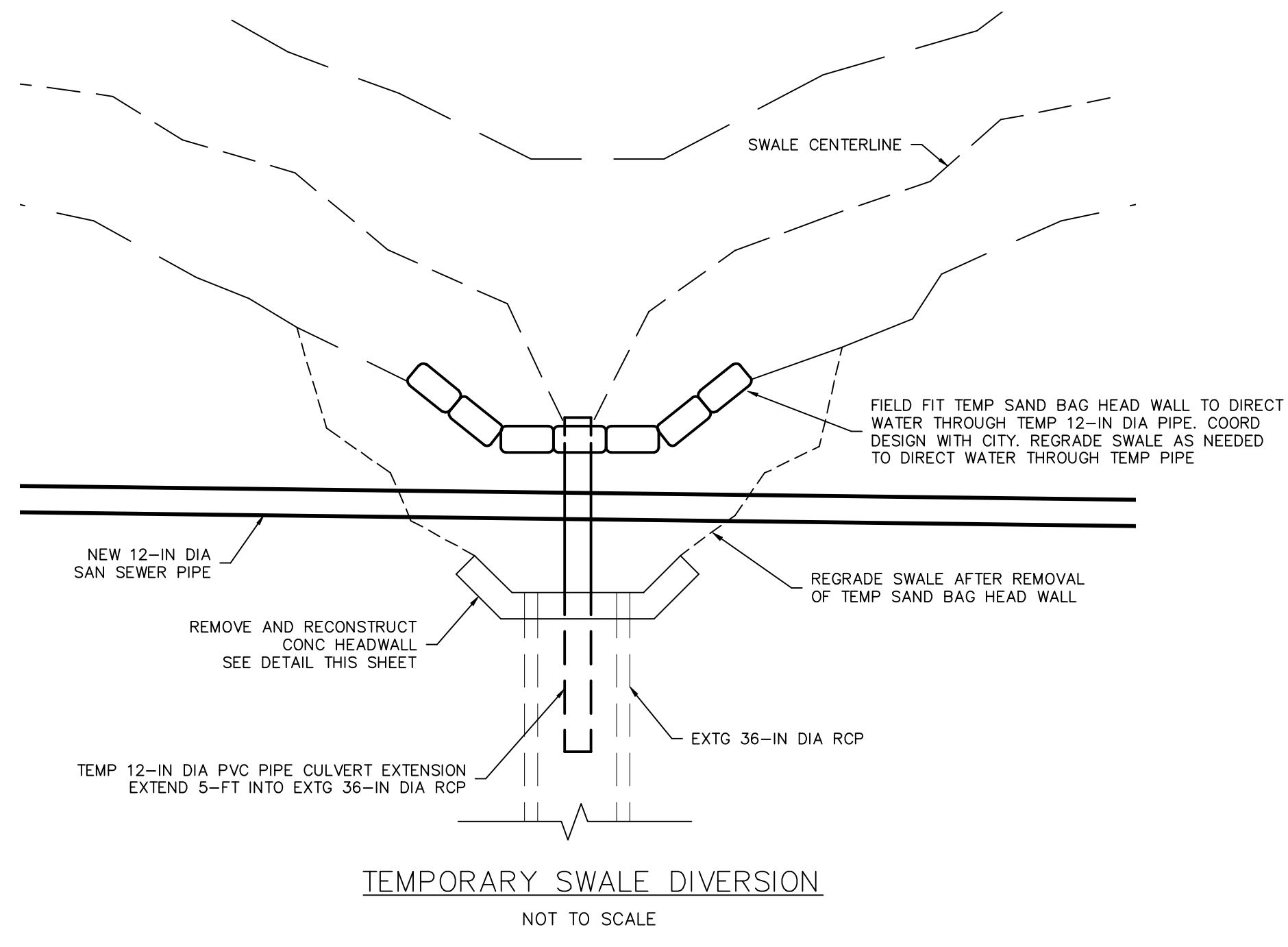


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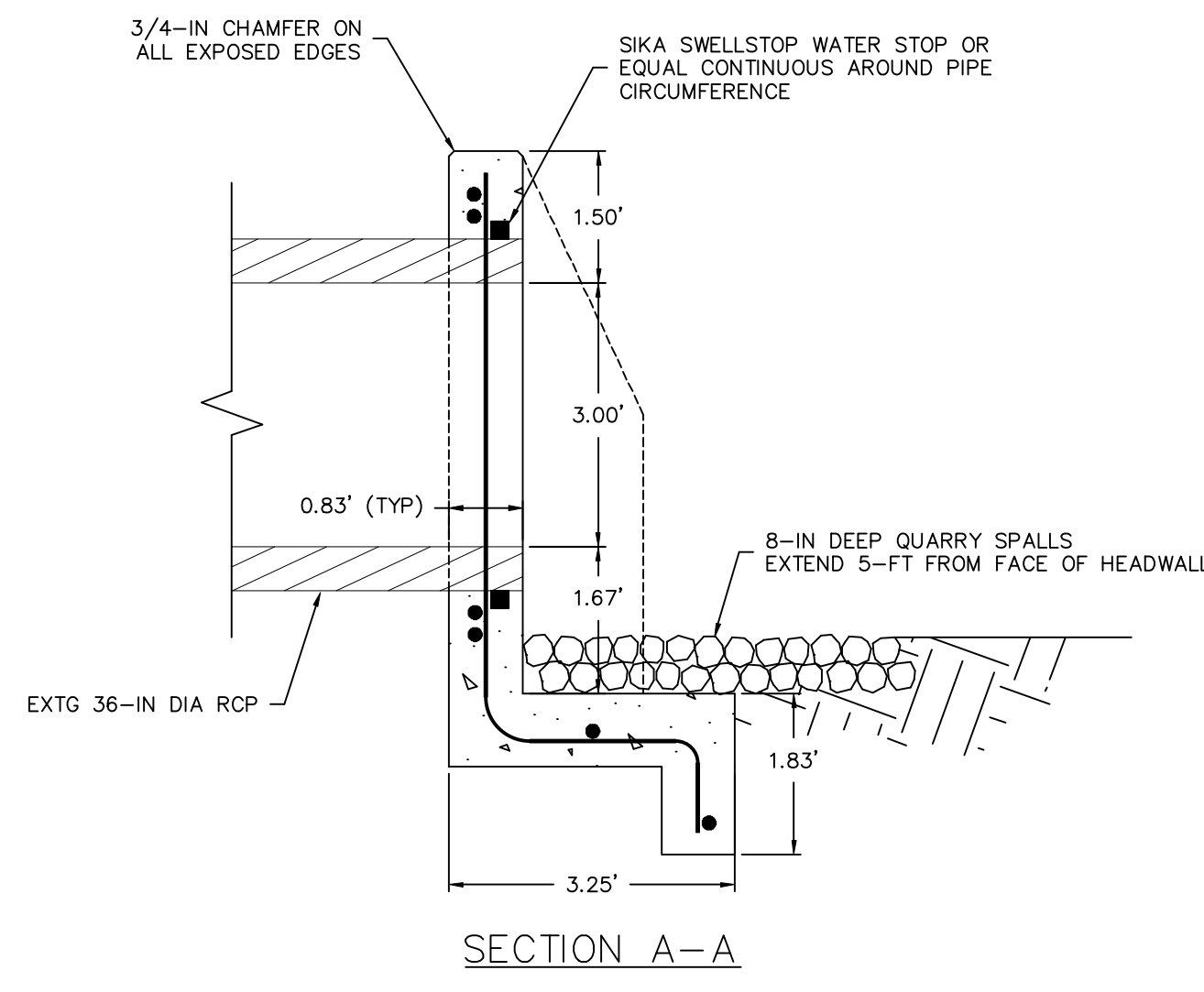
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<input checked="" type="checkbox"/> CONSTRUCTION	
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CAMAS DRAWING NUMBER  
500-244

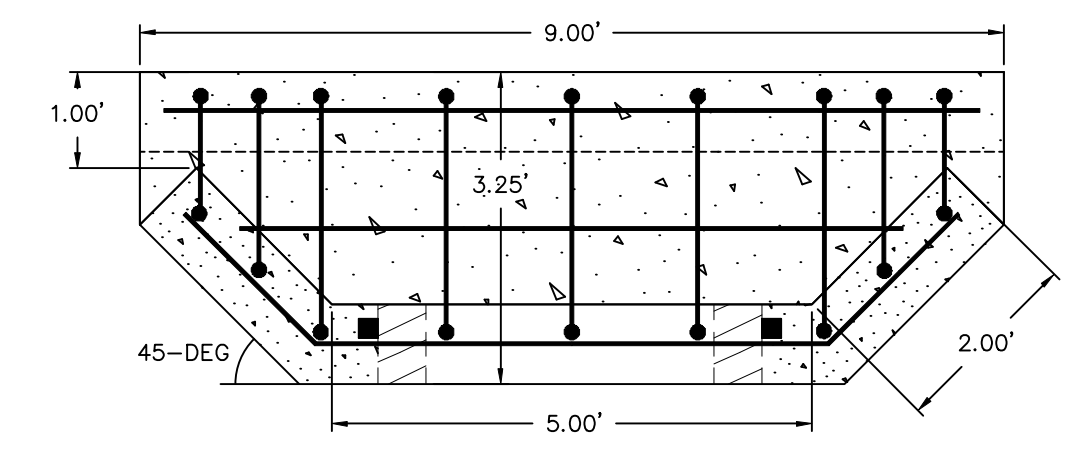
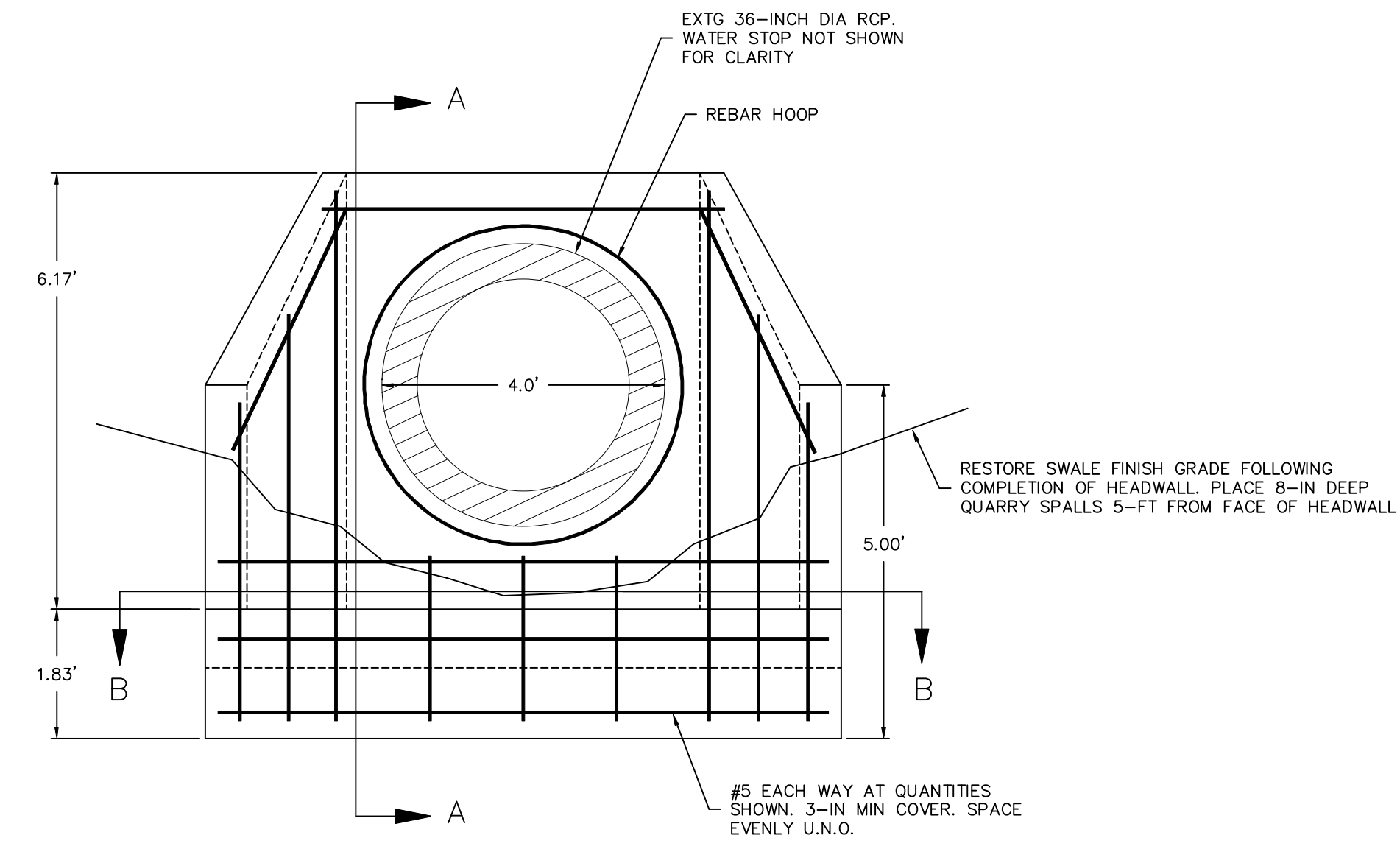
CAMAS CATALOG NUMBER  
D1365



**TEMPORARY SWALE DIVERSION**  
NOT TO SCALE



**SECTION A-A**



**SECTION B-B**

- CONCRETE NOTES:**
1. NOTIFY CITY INSPECTOR 24 HOURS PRIOR TO CONCRETE POUR FOR APPROVAL OF FORMS.
  2. SUBGRADE SHALL BE SHAPED AND COMPACTED TO A FIRM EVEN SURFACE.
  3. ALL SOFT AND YIELDING SUBGRADE SHALL BE REMOVED AND REPLACED WITH CSBC.
  4. CONCRETE SHALL BE AIR ENTRAINED CONCRETE CLASS 3000.
  5. REBAR SHALL BE GRADE 60.
  6. ALL ELEMENTS SHALL BE INSTALLED PER ACI STANDARDS.

**CONCRETE HEADWALL**  
NOT TO SCALE

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CAMAS, WA 98607  
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PUBLIC WORKS DEPARTMENT  
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DETAILS

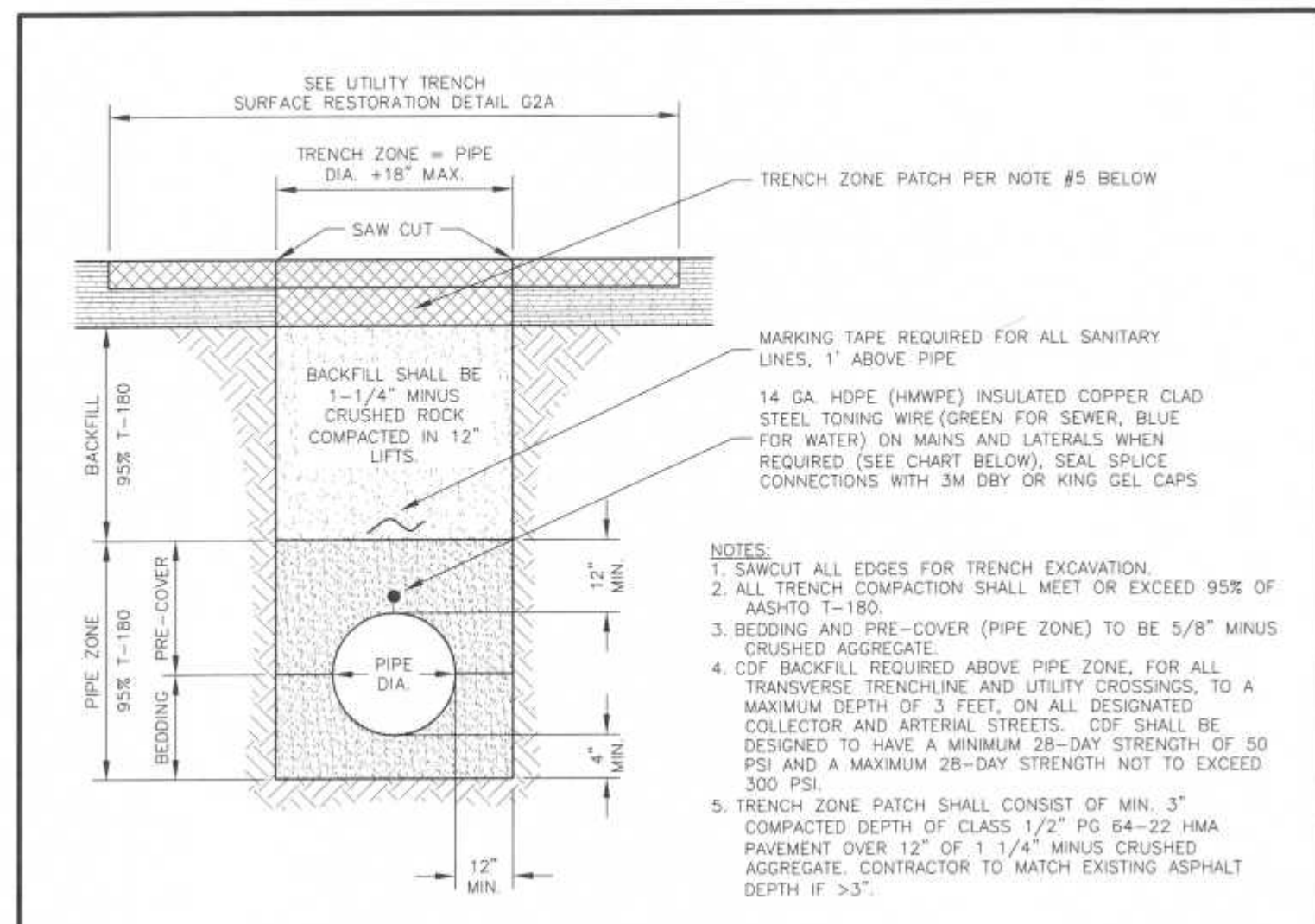


CAMAS PROJECT NUMBER  
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STATUS	PAGE
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<input checked="" type="checkbox"/> CONSTRUCTION	
<input type="checkbox"/> AS-BUILT	

CAMAS DRAWING NUMBER  
500-244

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UTILITY TRENCH WITHIN PAVED AREAS

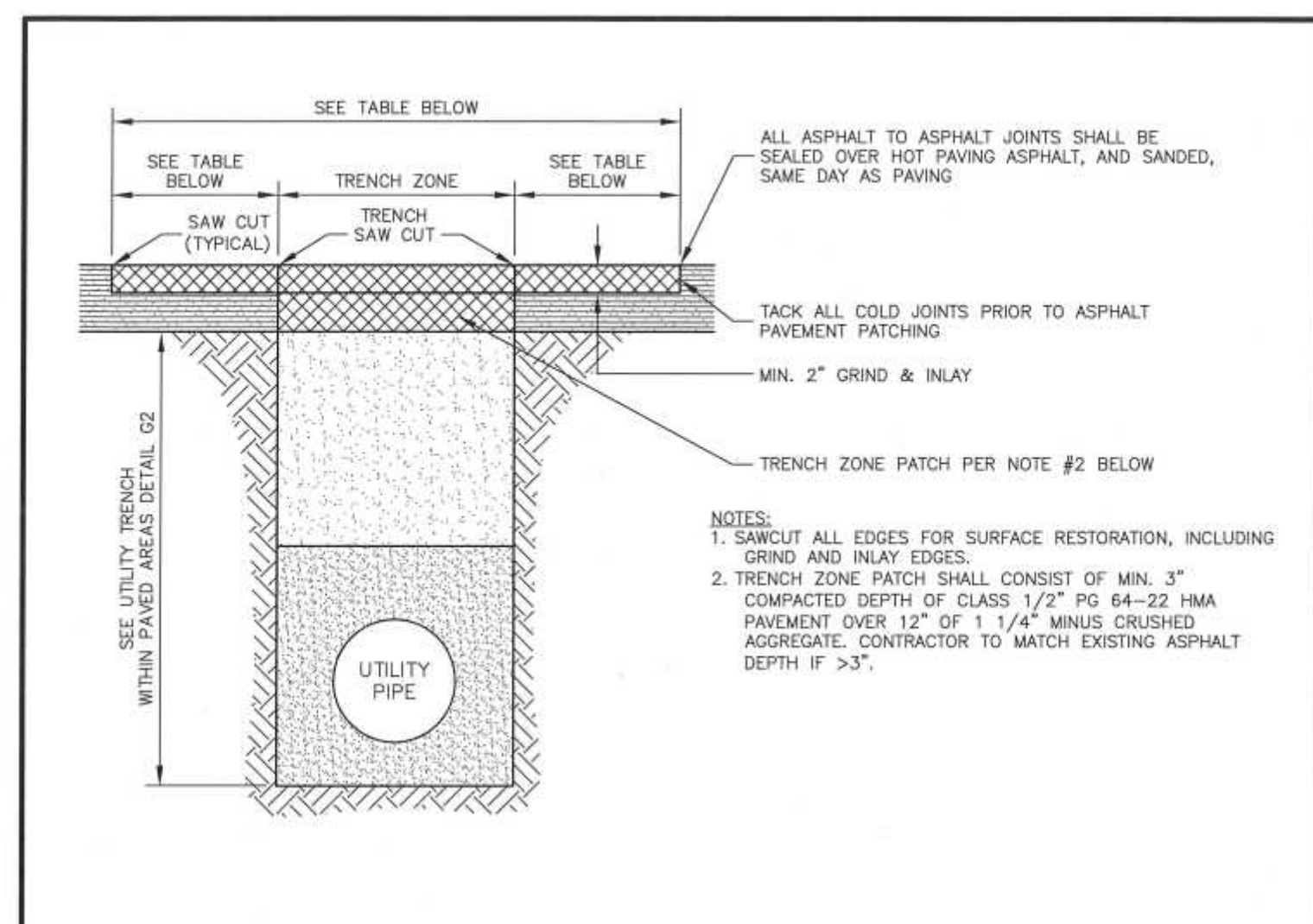
MINIMUM PIPE COVER TABLE			
UTILITY TYPE	MAIN TYPE	MIN. PIPE (MAIN) COVER	MIN. LATERAL OR SERVICE COVER
WATER	DISTRIBUTION	2.5'	2'
	TRANSMISSION (A)	3'	2' (B)
STORM	MAIN	5'	PER PLAN (MIN. 2')
	STEP (C)	5'	1.5'
SEWER	STEP (C)	6'	4.5'
	GRAVITY	6'	4.5'

(NOTES)  
 A. TONING WIRE REQUIRED FOR MAINS 12" DIA. AND LARGER  
 B. SERVICES ONLY ALLOWED WHERE APPROVED  
 C. TONING WIRE REQUIRED

**City of Camas WASHINGTON** GENERAL DETAIL UTILITY TRENCH WITHIN PAVED AREAS NOT TO SCALE DETAIL NO. G2

DETAIL APPROVED BY: *J.P. Carother* DATE: 3-2-22

REVISION: 7 DATE: 03/02/2022



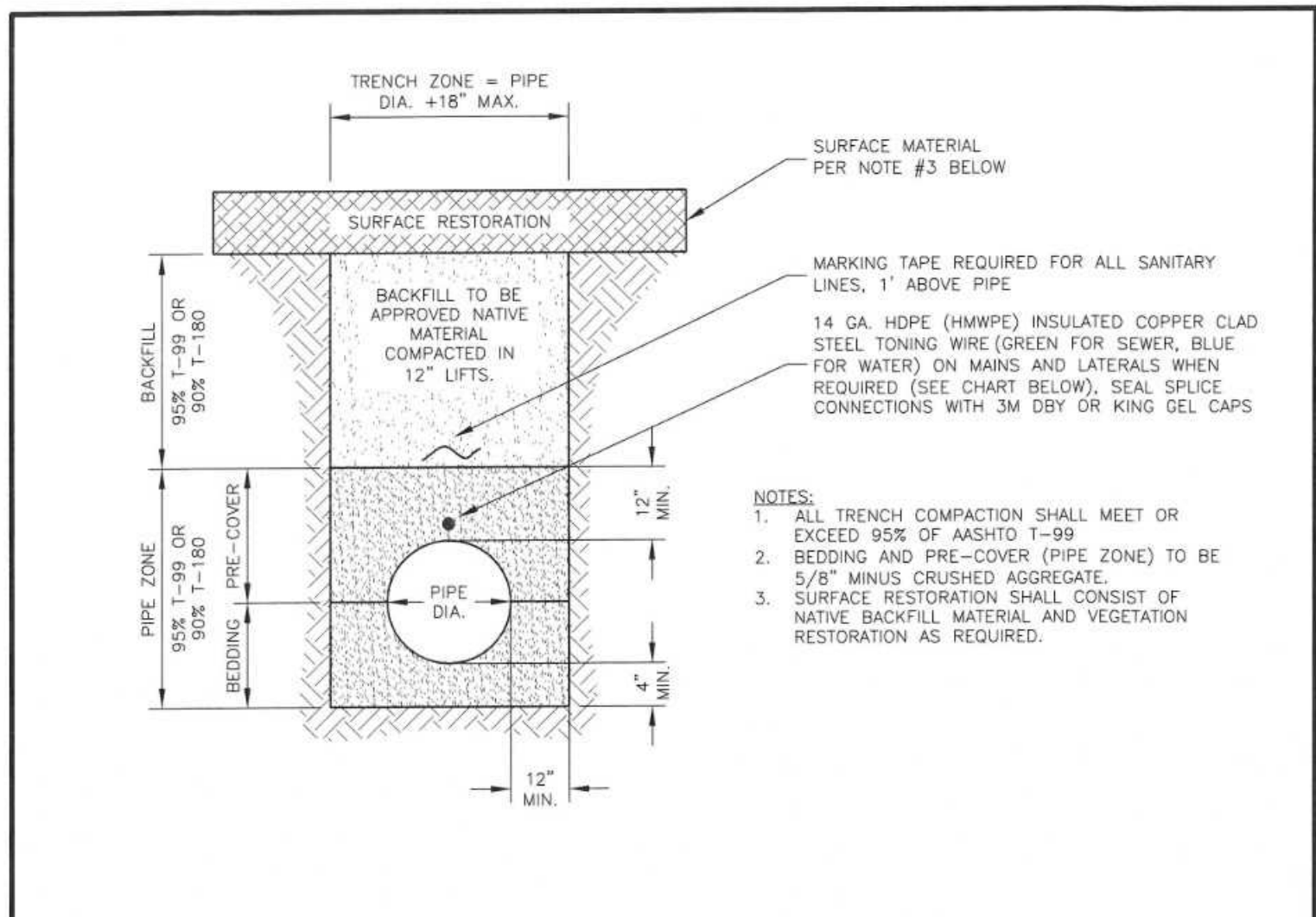
UTILITY TRENCH SURFACE RESTORATION TABLE		
STREET CLASSIFICATION	TRANSVERSE TRENCH REQUIREMENTS	LONGITUDINAL TRENCH REQUIREMENTS
LOCAL INCLUDING DUL-DE-SACS & DEAD ENDS (A)	3" MINIMUM EACH SIDE OF TRENCH; 10 FT MINIMUM TOTAL (B)(C)	FULL LANE WIDTH GRIND & INLAY (B)
LOCAL THROUGH STREETS (A)	12 FT GRIND & INLAY EACH SIDE OF TRENCH (C)	FULL LANE WIDTH GRIND & INLAY
COLLECTOR	12 FT GRIND & INLAY EACH SIDE OF TRENCH	FULL LANE WIDTH GRIND & INLAY
ARTERIAL	12 FT GRIND & INLAY EACH SIDE OF TRENCH	FULL LANE WIDTH GRIND & INLAY

(NOTES)  
 A. MINIMUM REQUIREMENTS FOR PUBLIC AND PRIVATE STREETS  
 B. OPTIONAL FULL DEPTH PATCH, OR GRIND AND INLAY  
 C. SURFACE RESTORATION LESS THAN MIN. SHOWN REQUIRES PRIOR APPROVAL

**City of Camas WASHINGTON** GENERAL DETAIL UTILITY TRENCH SURFACE RESTORATION NOT TO SCALE DETAIL NO. G2A

DETAIL APPROVED BY: *J.P. Carother* DATE: 4/18/19

REVISION: 1 DATE: 4/18/2019



UTILITY TRENCH SECTION FOR UNPAVED AREAS

MINIMUM PIPE COVER TABLE			
UTILITY TYPE	MAIN TYPE	MIN. PIPE (MAIN) COVER	MIN. LATERAL OR SERVICE COVER
WATER	DISTRIBUTION (C)	2.5'	2' (C)
	TRANSMISSION (A)	3'	2' (B)
STORM	MAIN	5'	PER PLAN (MIN. 2')
	STEP (C)	5'	1.5' (C)
SEWER	STEP (C)	6'	4.5' (C)
	GRAVITY	6'	4.5' (C)

(NOTES)  
 A. TONING WIRE REQUIRED FOR MAINS 12" DIA. AND LARGER  
 B. SERVICES ONLY ALLOWED WHERE APPROVED  
 C. TONING WIRE REQUIRED

**City of Camas WASHINGTON** GENERAL DETAIL UTILITY TRENCH FOR UNPAVED AREAS NOT TO SCALE DETAIL NO. G3

DETAIL APPROVED BY: *J.P. Carother* DATE: 9-26-23

REVISION: 7 DATE: 09/26/2023

CATEGORY	TEST	STANDARD	FREQUENCY	TESTING AGENCY	TIMING	TEST REQUIREMENTS
LOT	LOT AREA COMPACTION	AASHTO T-99 OR AASHTO T-180	MIN. 1 PER EVERY 3' DEPTH EACH LOT	CERTIFIED LAB	DAILY, AS MATL. IS PLACED	MINIMUM COMPACTION REQUIRED: 95% WITH T-99 OR 90% WITH T-180
STREET/SUB	SUBGRADE CUT SECTION COMPACTION	CITY OF CAMAS	ALL	CITY OF CAMAS	PRIOR TO BASE ROCK	LOADED 10 CY TRUCK - PROOF ROLL
STREET/SUB	SUBGRADE FILL COMPACTION	AASHTO T-180	EVERY 2500 CY, MIN. 3, AND 1 PER 3 FT. OF DEPTH	CERTIFIED LAB	DAILY, AS MATL. IS PLACED	95% MIN. COMPACTION
STREET/SUB	SUBGRADE FILL COMPACTION	CITY OF CAMAS	ALL	CITY OF CAMAS	PRIOR TO BASE ROCK	LOADED 10 CY TRUCK - PROOF ROLL
STREET/SUB	SUBGRADE GRADE CHECK ELEV.	CITY OF CAMAS	PER STATION (0-25)	CITY OF CAMAS	PRIOR TO BASE ROCK	+0.04" TOLERANCE
STREET/ROCK	BASE ROCK GRADATION	WSDOT 9-03.9	ONE PER SOURCE	CERTIFIED LAB	PRIOR TO PLACEMENT	COPY TO INSPECTOR
STREET/ROCK	BASE ROCK COMPACTION	AASHTO T-180	EVERY 1000 LF	CERTIFIED LAB	DAILY, AS MATL. IS PLACED	95% MIN. COMPACTION
STREET/ROCK	BASE ROCK GRADE CHECK ELEV.	CITY OF CAMAS	PER STATION (0-25)	CITY OF CAMAS	PRIOR TO TOP ROCK	MINIMUM SECTION REQUIRED
STREET/ROCK	TOP ROCK GRADATION	WSDOT 9-03.9	ONE PER SOURCE	CERTIFIED LAB	PRIOR TO PLACEMENT	COPY TO INSPECTOR
STREET/ROCK	TOP ROCK COMPACTION	CITY OF CAMAS	ALL	CITY OF CAMAS	PRIOR TO PAVEMENT	LOADED 10 CY TRUCK - PROOF ROLL
STREET/ROCK	TOP ROCK GRADE CHECK ELEV.	CITY OF CAMAS	PER STATION (0-25)	CITY OF CAMAS	PRIOR TO PAVEMENT	+0.02" TOLERANCE
STREET/AC	STORM SYSTEM INSPECTION	CITY OF CAMAS	AS REQUIRED	CITY OF CAMAS	PRIOR TO PLACEMENT	SYSTEM TO BE 100% FUNCTIONAL
STREET/AC	AC GRADE & OIL CONTENT	WSDOT 9-03.8	ONE PER SOURCE	CERTIFIED LAB	PRIOR TO PLACEMENT	COPY TO INSPECTOR
STREET/AC	AC COMPACTION	AASHTO T-180	ONE EVERY 1000 TONS	CERTIFIED LAB	DURING PLACEMENT	91% MIN. COMPACTION
TRENCH	UTILITY BACKFILL COMPACTION (IN RIGHT OF WAY)	AASHTO T-180	EVERY 500 FT. MIN. 1/LANE; 2 AT 100 FT FOR FAILED TESTS	CERTIFIED LAB	DAILY, AS MATL. IS PLACED	90% MIN. COMPACTION
TRENCH	UTILITY BACKFILL COMPACTION (OUT OF RIGHT OF WAY)	AASHTO T-99 OR AASHTO T-180	EVERY 500 FT. MIN. 1/LANE; 2 AT 100 FT FOR FAILED TESTS	CERTIFIED LAB	DAILY, AS MATL. IS PLACED	MINIMUM COMPACTION REQUIRED: 95% WITH T-99 OR 90% WITH T-180
TRENCH	UTILITY BACKFILL COMPACTION (OVER 6 FT. IN DEPTH)	AASHTO T-99 OR AASHTO T-180	EVERY 5 FT. OF DEPTH & SAME AS ABOVE	CERTIFIED LAB	DAILY, AS MATL. IS PLACED	MINIMUM COMPACTION REQUIRED: 95% WITH T-99 OR 90% WITH T-180

**City of Camas WASHINGTON** SANITARY SEWER DETAIL STANDARD TESTING REQUIREMENTS NOT TO SCALE DETAIL NO. G4A

DETAIL APPROVED BY: *J.P. Carother* DATE: 3-2-22

REVISION: 5 DATE: 03/02/2022

CATEGORY	TEST	STANDARD	FREQUENCY	TESTING AGENCY	TIMING	TEST REQUIREMENTS
LOT	LOT AREA COMPACTION	AASHTO T-99 OR AASHTO T-180	MIN. 1 PER EVERY 3' DEPTH EACH LOT	CERTIFIED LAB	DAILY, AS MATL. IS PLACED	MINIMUM COMPACTION REQUIRED: 95% WITH T-99 OR 90% WITH T-180
STORM	STORM SEWER MANHOLE TEST	WSDOT 7-17.3	AT CITY REQUEST	CONTRACTOR	PRIOR TO BASE ROCK	EFFECTIVE LENGTH > D, MANHOLE DIA > 0.950
STORM	STORM SEWER TV TEST	WSDOT 7-17.3	AT CITY REQUEST	CONTRACTOR	PRIOR TO BASE ROCK	INSPECTION REPORT AND VIDEO RECORDING ON DVD
SEWER	CONVENTIONAL SEWER - AIR TEST	WSDOT 7-17.3	MANH. LATERALS	CONTRACTOR	PRIOR TO BASE ROCK	4 PSI FOR 1 MINUTE PER 100 LF OF MAIN
SEWER	STEP & CONVENTIONAL SEWER - MANHOLE TEST	WSDOT 7-17.3	AT CITY REQUEST	CONTRACTOR	PRIOR TO BASE ROCK	EFFECTIVE LENGTH > D, MANHOLE DIA > 0.950
SEWER	STEP & CONVENTIONAL SEWER - TV TEST	WSDOT 7-17.3	REQUIRED ON MAINS	CONTRACTOR	PRIOR TO BASE ROCK	INSPECTION REPORT AND VIDEO RECORDING ON DVD
SEWER	CONVENTIONAL SEWER - TV TEST	WSDOT 7-17.3	REQUIRED ON MAINS AND LATERALS	CONTRACTOR	PRIOR TO FINAL ACCEPTANCE	INSPECTION REPORT AND VIDEO RECORDING ON DVD
SEWER	STEP & CONVENTIONAL SEWER - MANHOLE WADOM TEST	CITY OF CAMAS	1.4 MH MINIMUM; ADD 1 MH PER FAILURE	CERTIFIED LAB	AFTER PAVEMENT INSTALLED, PRIOR TO MANHOLE COATING	-10 IN. Hg VACUUM FOR 60 SECONDS
SEWER	STEP SEWER - AIR TEST	WSDOT 7-17.3	MANH. LATERALS	CONTRACTOR	PRIOR TO BASE ROCK	5 PSI FOR 1 MINUTE PER 100 FT.
SEWER	STEP SEWER - TONE TEST	CITY OF CAMAS	MANH. SERVICES	CITY OF CAMAS	PRIOR TO BASE ROCK	CONTINUOUS TONE
SEWER	STEP SEWER - TONE TEST	CITY OF CAMAS	MANH. SERVICES	CONTRACTOR	PRIOR TO BASE ROCK	CONTINUOUS TONE
SEWER	STEP SEWER - HYDROSTATIC TEST	CITY OF CAMAS	MANH. AIR/VAC	CITY OF CAMAS	PRIOR TO BASE ROCK	15 MIN. AT 150 PSI (MIN.) OR WORKING PRESSURE (WHICHEVER IS 2), < 200 PSI
SEWER	STEP SEWER - SERVICE	CITY OF CAMAS	ALL SERVICES	CONTRACTOR	PRIOR TO BASE ROCK	PIPE MANUFACTURER RECOMMENDED HYDROSTATIC TEST PROCEDURE
SEWER	ALL SEWER - OPERATIONS INSPECTION	CITY OF CAMAS	MANH. SERVICES	CITY OF CAMAS	PRIOR TO PAVING	OPERATIONS TO INSPECT PRIOR TO FINAL PAVE
WATER	CHLORINATE WATER MAINS	WSDOT 7-09.3 (24)	ALL	CONTRACTOR	PRIOR TO BACTERIA SAMPLE	50mg/L AT INSERTION, 25 mg/L AFTER 24 HRS. AVAILABLE CHLORINE, WATER DEPT. TO FILL LINES
WATER	BACTERIA WATER SAMPLE	AWWA	MIN. 1 PER BLOWOFF	CITY OF CAMAS	PRIOR TO PRESSURE TEST AND BASE ROCK	E. COLI & COLIFORM ABSENT
WATER	WATER LINE PRESSURE TEST	WSDOT 7-09.3(23)	MANH. SERVICE, F.I.C. AIR/VAC ROUTE/ADVE	CONTRACTOR	PRIOR TO BASE ROCK	15 MIN. AT 200 PSI (MIN.) AT HIGH POINT. NOT TO EXCEED 200 PSI AT LOW POINT.
WATER	ALL WATER - OPERATIONS INSPECTION	CITY OF CAMAS	MANH. SERVICES	CITY OF CAMAS	PRIOR TO PAVING	OPERATIONS TO INSPECT PRIOR TO FINAL PAVE

**City of Camas WASHINGTON** SANITARY SEWER DETAIL STANDARD TESTING REQUIREMENTS NOT TO SCALE DETAIL NO. G4B

DETAIL APPROVED BY: *J.P. Carother* DATE: 3-2-22

REVISION: 5 DATE: 03/02/2022

CALL 2 BUSINESS DAYS BEFORE YOU DIG  
 1-800-424-5555  
 "it's the law"  
 CLARK COUNTY UTILITIES COORDINATING COUNCIL

DESIGN DATE:	6/18/2026
AS-BUILT DATE:	
SCALES:	
HORIZONTAL:	AS SHOWN
VERTICAL:	N/A
CONTACTS:	
DESIGNED BY:	A. WESTERSUND
APPROVED BY:	J. MONSRUD
PROJ. ENGR.:	A. WESTERSUND

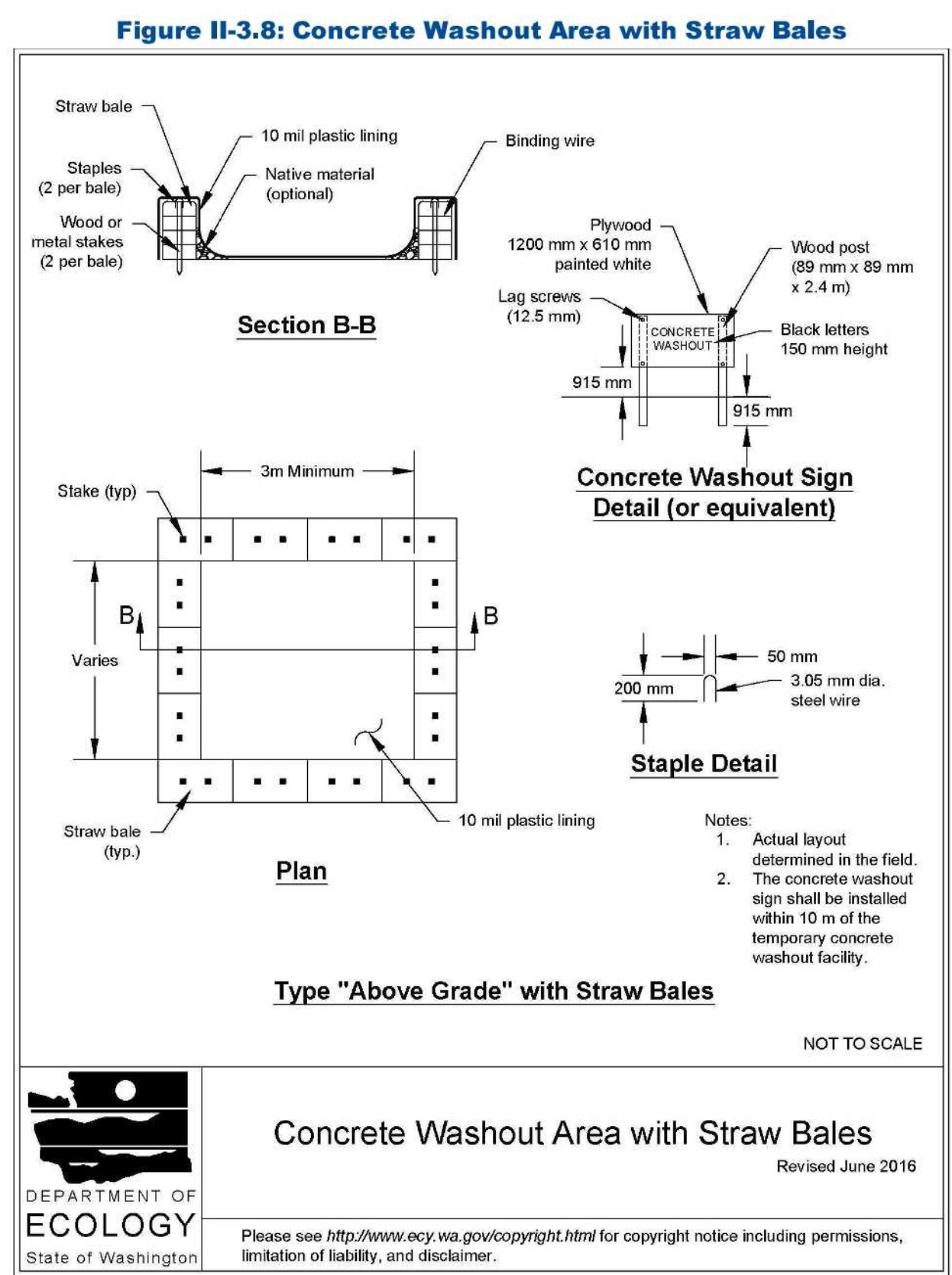
**City of Camas WASHINGTON**

616 NE 4TH AVENUE  
 CAMAS, WA 98607  
 PH: (360) 854-3451

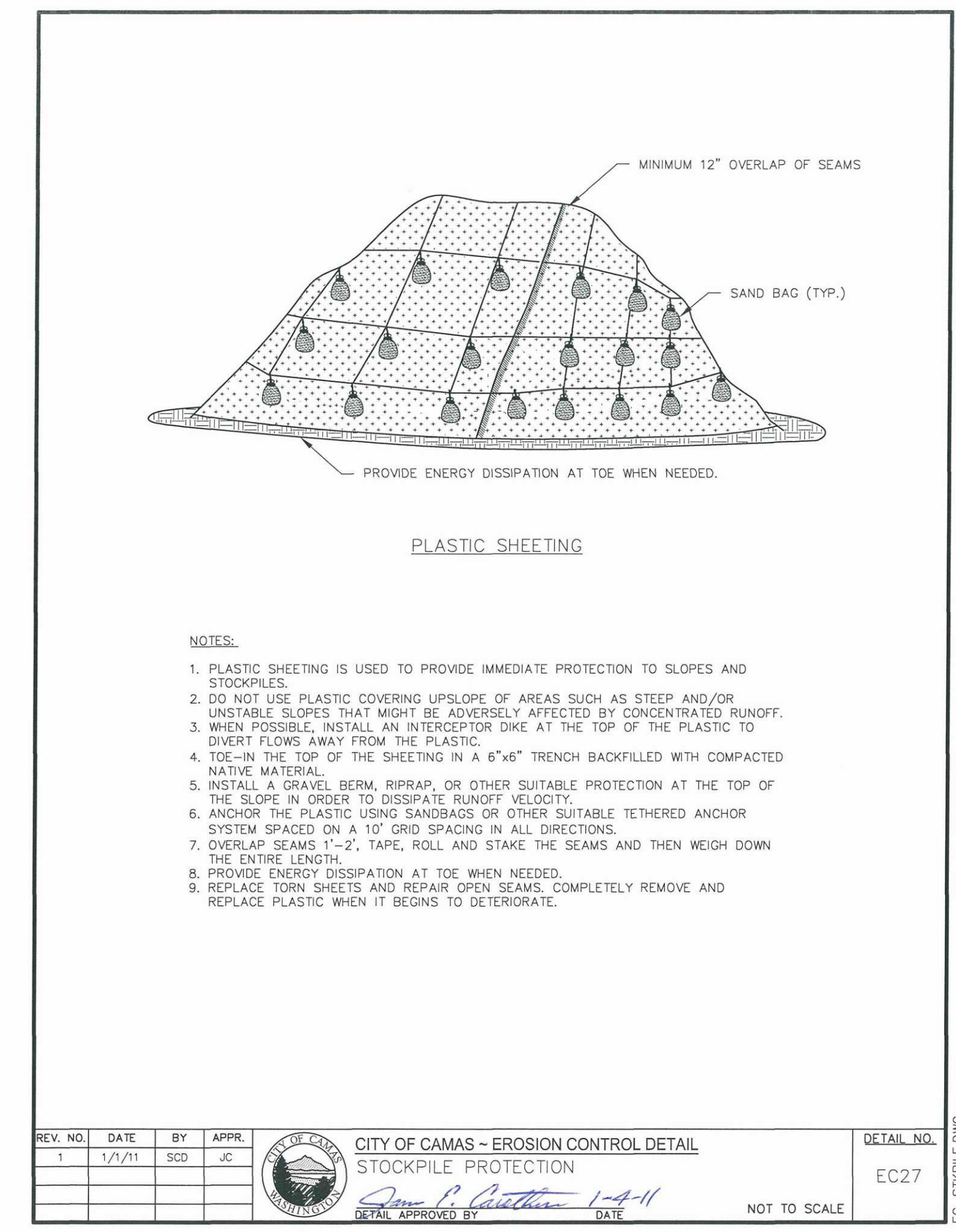
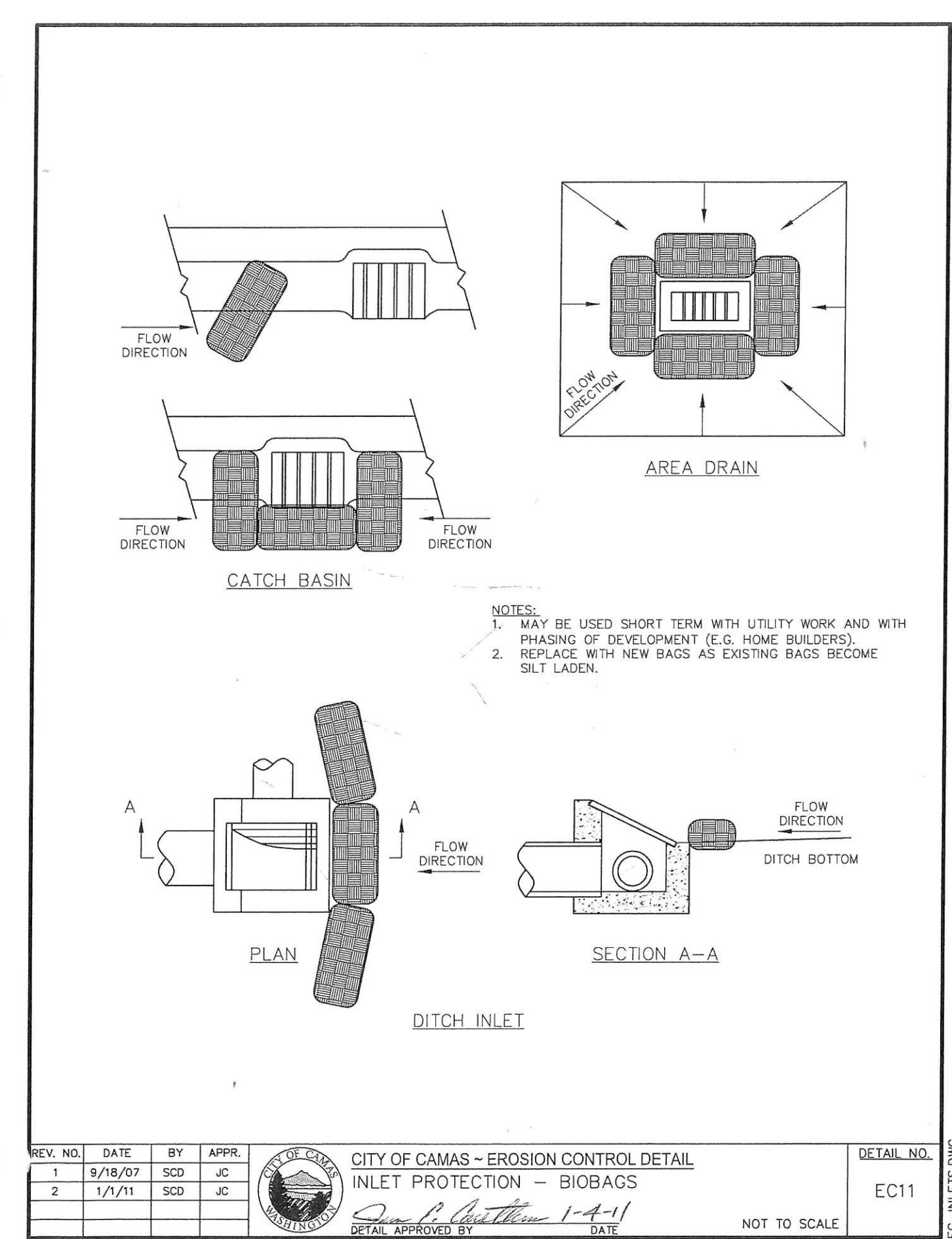
PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 NW 6TH PLACE SEWER REPAIR  
 DETAILS

**JAMES E. CAROTHERS**  
 STATE OF WASHINGTON  
 REGISTERED PROFESSIONAL ENGINEER  
 38013

CAMAS PROJECT NUMBER SWR26003A	
STATUS	PAGE
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CAMAS DRAWING NUMBER 500-244	
CAMAS CATALOG NUMBER D1365	



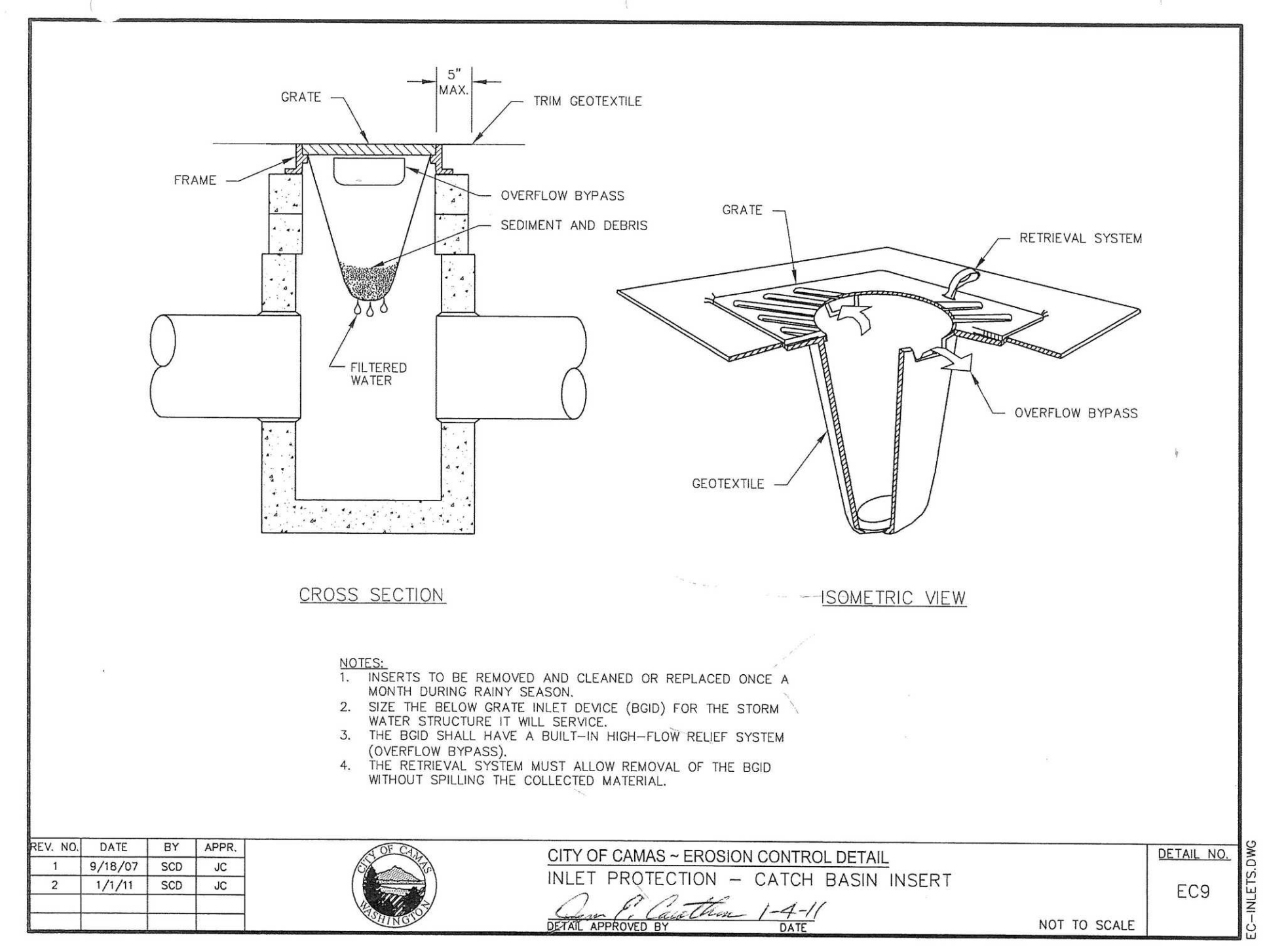
2019 Stormwater Management Manual for Western Washington  
Volume II - Chapter 3 - Page 325



SITE SITUATION	EROSION CONTROL MATRIX									
	General construction	General construction or disturbed area	General construction or disturbed area	General construction or disturbed area	General construction or disturbed area	General construction or disturbed area	General construction or disturbed area	General construction or disturbed area	General construction or disturbed area	General construction or disturbed area
SINGLE FAMILY/DUPLX RES. 50% + of site, slope <20% 50% + of site, slope >20%	X	X								
<5000 sq. ft. DISTURBED AREA	X	X	X							
OTHER DISTURBED SITES slope < 8% <15% <20% <30% <40% >=40%	X	X	X	X	X	X	X	X	X	X
OTHER spills stock piles utilities construction catch basin drainage direct ditch drainage ditches/swales	X									

KEY: X - Base Measures Year-around Construction O - Option/Alternate to X NA - Not Allowed

CITY OF CAMAS - EROSION CONTROL DETAIL EROSION CONTROL MATRIX. DETAIL APPROVED BY: [Signature] DATE: 1-4-11. NOT TO SCALE. EC-NOTES.DWG. DETAIL NO. EC5.



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616 NE 4TH AVENUE  
CAMAS, WA 98607  
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PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
NW 6TH PLACE SEWER REPAIR  
DETAILS

**JAMES E. CAROTHERS**  
STATE OF WASHINGTON  
REGISTERED PROFESSIONAL ENGINEER  
38013  
2224502000

CAMAS PROJECT NUMBER SWR26003A	
STATUS	PAGE
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CAMAS DRAWING NUMBER 500-244	
CAMAS CATALOG NUMBER D1365	