# CITY OF MILWAUKIE, OREGON WASTEWATER SYSTEM IMPROVMENTS

37TH AVENUE, KENT STREET, WASHINGTON STREET, HARRISON STREET, HOME AVENUE, & MILWAUKIE STATION FOOD CART POD CIP 2021-X39



#### PROJECT DESCRIPTION

### **PROJECT MANAGER**

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#### **INSPECTIONS**

**BUILDINGPERMITS.OREGON.GOV** PHONE NUMBER: 1-888-299-2821

**UTILITY CONTACTS** 

# **EMERGENCY ON-CALL**

**EROSION CONTROL:** GALLEN HOSHOVSKY 503-786-7660 STORMWATER/WASTEWATER: SHANE HART 503-786-7679 STREETS/WATER: RONELLE SEARS 503-786-7615

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### **ABBREVIATIONS**

AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY	CI
	AND TRANSPORTATION OFFICIALS	CL
ACP	ASPHALT CONCRETE PAVEMENT	CMU
ASTM	AMERICAN SOCIETY FOR TESTING AND	COM
	MATERIALS	DEQ
AWWA	AMERICAN WATER WORKS ASSOCIATION	DI
BMP	BEST MANAGEMENT PRACTICE	DWG
CB	CATCH BASIN	Е
CCTV	CLOSED-CIRCUIT TELEVISION	EG
CESL	CERTIFIED EROSION AND SEDIMENT CONTROL	ELEV
	LEAD	EP

**EXISTING GRADE ELEVATION** EDGE OF PAVEMENT CITY OF MILWAUKIE ENGINEERING DEPARTMENT 6101 SE JOHNSON CREEK BLVD MILWAUKIE, OR 97206 PHONE (503) 786-7600

CAST IRON

DRAWING

Scale: N.T.S.

EROSION AND SEDIMENT CONTROL PLAN CENTERLINE **ESMT EASEMENT** CONCRETE MASONRY UNIT FLANGED CITY OF MILWAUKIE FACE OF CURB DEPARTMENT OF ENVIRONMENTAL QUALITY GRADE BREAK **DUCTILE IRON** GEOGRAPHIC INFORMATION SYSTEM INVERT ELEVATION

LINEAR FEET MANHOLE MINIMUM MECHANICAL JOINT MANUAL ON UNIFORM TRAFFIC CONTROL

NORTH NOM NOMINAL OFFSET OREGON PACIFIC RAILROAD OSD OREGON STANDARD DETAIL OREGON STANDARD SPECIFICATIONS FOR OREGON TEMPORARY TRAFFIC CONTROL HANDBOOK CITY OF MILWAUKIE PUBLIC WORKS STANDARDS

DEVICES

POLYVINYL CHLORIDE PIPE **ROADWAY SECTION RIGHT-OF-WAY** SANITARY STATION STORM SOUTH TO BE DETERMINED TYP **TYPICAL** UIC UNDERGROUND INJECTION CONTROL

WM WATER METER

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NOTE: UNDERGROUND AND OVERHEAD POWER, GAS, AND TELECOMUNICATION UTILITIES ARE LOCATED WITHIN THE RIGHT OF WAY. PROJECT HAS NOT BEEN SURVEYED & CITY UTILITY LOCATIONS ARE NOT FROM FIELD LOCATES. ALL DATA WAS COLLECTED FROM GIS AND INVERT MEASUREMENTS.



OREGON LAW REQUIRES CONTRACTORS TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH 952-001-0090. CONTRACTORS MAY OBTAIN COPIES OF THE RULES BY CALLING THE OREGON UTILITY NOTIFICATION CENTER AT 503-232-1987.

				BB	01/2023
				DESIGNED	DATE
				BB	_01/2023_
				DRAFTED	DATE
				CHECKED	DATE
				APPROVED	DATE
NO	DATE	RY	REVISIONS		

(503) 774-8236



CITY OF MI	LWAUKIE
6101 SE JOHNSON CREEK BLVD.	PHONE: 503-786-7600
MILWAUKIE, OR 97206	FAX: 503-774-8236

# WASTEWATER SYSTEM IMPROVEMENTS

**COVER SHEET** 

1 OF 20 G01 01/2023 CIP 2021-X39 CONTRACT NO.: PROJECT NO.: SHEET NO.:

#### **GENERAL NOTES:**

- 1. CONTRACTOR SHALL ADHERE TO THE CITY OF MILWAUKIE PUBLIC WORKS STANDARDS, CITY OF MILWAUKIE - GENERAL CONDITIONS FOR CONSTRUCTION, THE 2021 EDITION OF THE OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION, EXCEPT AS MODIFIED BY SPECIAL PROVISIONS PREPARED FOR THIS PROJECT, ALL APPLICABLE OREGON ADMINISTRATIVE RULES (OAR), AND AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS. ACCEPTANCE BY THE CITY OF MATERIALS, CONSTRUCTION PROCEDURES, AND TESTING REQUIREMENTS ARE MANDATORY FOR THIS PROJECT.
- 2. ANY CONSTRUCTION OBSERVATION BY THE CITY OR THE ENGINEER OF RECORD, SHALL NOT, IN ANY WAY, RELIEVE THE CONTRACTOR FROM ANY OBLIGATION TO PERFORM THE WORK IN STRICT COMPLIANCE WITH THE APPLICABLE CODES AND CITY REQUIREMENTS.
- 3. THE CONTRACTOR SHALL TAKE NO ADVANTAGE OF ANY ERRORS, OMISSIONS, OR DISCREPANCIES IN THE PLANS. WHEN ERRORS, OMISSIONS OR DISCREPANCIES ARE FOUND, THE ENGINEER SHALL BE NOTIFIED. WORK PERFORMED BY THE CONTRACTOR AS A RESULT OF AN ERROR, OMISSION OR DISCREPANCY IN THE PLANS SHALL BE AT THE CONTRACTOR'S RISK AND EXPENSE WHEN SUCH ERROR, OMISSION, OR DISCREPANCY HAS NOT BEEN BROUGHT TO THE ATTENTION OF THE ENGINEER.
- 4. THE CONTRACTOR SHALL HAVE AT ALL TIMES ON-SITE, THE APPROVED CONSTRUCTION PLANS & SPECIAL SPECIFICATIONS, CITY OF MILWAUKIE STANDARD SPECIFICATIONS & STANDARD PLANS, 2018 OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION (OSSC), THE 2016 CITY OF PORTLAND STORMWATER MANAGEMENT MANUAL, AND ALL OTHER APPLICABLE SPECIFICATIONS BOOKS AND MANUALS.
- 5. THERE SHALL BE NO ALTERATION OR VARIANCE FROM THE APPROVED PLANS WITHOUT WRITTEN APPROVAL OF THE CITY.
- 6. THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE CITY OF MILWAUKIE ENGINEERING DEPARTMENT AFTER THE CITY APPROVES THE CONTRACT AND PRIOR TO THE START OF WORK. THE CONTRACTOR SHALL PROVIDE TWO (2) WEEKS NOTICE TO SCHEDULE A PRE-CONSTRUCTION MEETING. THOSE WHO MAY ATTEND ARE: CITY PROJECT MANAGER, DESIGN ENGINEER, PORTLAND GENERAL ELECTRIC (PGE), FRONTIER COMMUNICATIONS, COMCAST, NW NATURAL GAS, CENTURY LINK, CONTRACTOR, AND SELECTED MEMBERS OF THE CITY OF MILWAUKIE PUBLIC WORKS DEPARTMENT.
- . PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL PROVIDE THE FOLLOWING ITEMS: PROJECT SCHEDULE; TRAFFIC CONTROL PLAN; EROSION CONTROL PLAN, WATER DISINFECTION PLAN, EMERGENCY CONTACT NAME AND PHONE NUMBER; MATERIAL SUBMITTALS, AS REQUIRED. 8. CONSTRUCTION ACTIVITIES ARE ALLOWED PER SECTION 180.40 OF THE SPECIAL PROVISIONS.
- 9. THE CONTRACTOR SHALL ERECT AND MAINTAIN TRAFFIC CONTROL PER THE LATEST EDITION OF THE OREGON TEMPORARY TRAFFIC CONTROL HANDBOOK. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO THE CITY FOR APPROVAL PRIOR TO THE START OF WORK.
- 10.THE CONTRACTOR SHALL MAINTAIN AND COORDINATE ACCESS TO ALL AFFECTED PROPERTIES.
- 11.CONTRACTOR SHALL MAINTAIN DELIVERABILITY OF MAIL. DO NOT OBSTRUCT MAILBOXES. REMOVE AND REINSTALL MAILBOXES TO THEIR ORIGINAL CONDITION AS REQUIRED TO COMPLETE CONSTRUCTION.
- 12.PRIOR TO ORDERING ANY MATERIALS, THE CONTRACTOR SHALL PROVIDE TO THE CITY ALL MANUFACTURER'S SPECIFICATION SHEETS FOR MATERIALS FOR CITY REVIEW AND ACCEPTANCE.
- 13.ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE CITY. THE CITY RESERVES THE RIGHT TO ACCEPT OR REJECT ANY MATERIALS OR WORKMANSHIP THAT DOES NOT CONFORM TO THE STANDARDS LISTED ABOVE.
- 14.THE CONTRACTOR SHALL ENSURE THEY HAVE ALL REQUIRED PERMITS AND LICENSES BEFORE STARTING CONSTRUCTION.
- 15. WORK PROVIDED FOR UNDER THE PERMIT SHALL INCLUDE REPAIR OF EXISTING FACILITIES (ROADS, DITCHES, ETC.) AS MAY BE NECESSARY, IN THE PROJECT ENGINEER'S OPINION, TO OVERCOME DETERIORATION OR DAMAGE WHICH OCCURRED IN CONJUNCTION WITH THE WORK AUTHORIZED BY THE PERMIT. CORRECTIVE WORK SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.

16.THE CONTRACTOR SHALL REMOVE ALL MATERIALS EXCAVATED FROM WORK IN THE RIGHT-OF-WAY

- AND DISPOSE AT A PROPER LANDFILL. THE CONTRACTOR IS RESPONSIBLE FOR SECURING ALL NECESSARY PERMITS FOR DISPOSAL 17. CONTRACTOR SHALL SCHEDULE 24-HOURS IN ADVANCE OF INSPECTION THROUGH OREGON
- E-PERMITTING BY CALLING THE INSPECTION LINE AT 1-(888) 299-2821 OR VISITING THE WEBSITE AT https://aca-oregon.accela.com/oregon/. SCHEDULE INSPECTIONS FOR THE FOLLOWING WORK:
- PUBLIC UTILITY EXCAVATION
- STORM FACILITY STRUCTURES INSTALLATION AND FORMS
- STORM FACILITY BACKFILL
- STORM FACILITY PLANTINGS
- PUBLIC UTILITY INSTALLATION
- PUBLIC UTILITY CONNECTIONS
- STREET SUB-GRADE
- STREET BASE AGGREGATE
- STREET PAVEMENT INSTALLATION
- CURB & SIDEWALK FORMS
- FINAL INSPECTION
- PUBLIC UTILITY TESTING
- 18.CONTRACTOR SHALL SCHEDULE CONSTRUCTION IN A MANNER THAT ALLOWS THE CITY TIME TO WITNESS THE REQUIRED TESTING. CONTRACTOR SHALL NOTIFY THE CITY 48 HOURS PRIOR TO TESTING. CONTRACTOR MUST PROVIDE IN WRITING, PRIOR TO CONSTRUCTION, THE PROPER MATERIAL CERTIFICATIONS. THE CONTRACTOR SHALL PAY A CERTIFIED INDEPENDENT TESTING LABORATORY FOR DENSITY, COMPACTION, SLUMP, AND 28-DAY CONCRETE CYLINDER BREAK TESTING. REQUIRED AIR 10.THE CITY LOCATES UTILITY MAIN LINES BUT NOT LATERALS.

TESTING, MANDREL TESTING, TELEVISION INSPECTION, AND VACUUM TESTING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

- 19.THE CONTRACTOR SHALL PROVIDE TEST RESULTS FOR, BUT NOT LIMITED TO:
- BASE COMPACTION
  - TRENCH BACKFILL
  - ASPHALT COMPACTION
- STORM AND SEWER MANHOLE VACUUM TESTING
- STORM AND SEWER MAINLINE HYDROSTATIC PRESSURE TESTING
- STORM AND SEWER PIPE MANDREL
- STORM AND SEWER MAINLINE DEFLECTION TESTING
- WATER PRESSURE TESTING
- WATER CHLORINATION TESTING
- CONCRETE SLUMP & AIR ENTRAINMENT
- CONCRETE CYLINDER BREAK TESTS
- 20.CONTRACTOR SHALL TAKE REASONABLE EFFORT IN THE PRESERVATION OF EXISTING IMPROVEMENTS, LANDSCAPING AND VEGETATION THROUGHOUT CONSTRUCTION. ANY LANDSCAPING/TREES DAMAGED OR DESTROYED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED IN CONFORMANCE WITH CITY OF MILWAUKIE STANDARDS.
- 21.PROPERTY DISTURBED BY CONSTRUCTION ACTIVITY SHALL BE REPAIRED TO EXISTING OR BETTER CONDITION. GRASS, SHRUBS, PAVEMENT, ETC. DISTURBED BY CONSTRUCTION ACTIVITY SHALL BE RE-ESTABLISHED, REINSTALLED, OR REPLACED, WITH LIKE KIND AND MATERIAL TO EXISTING OR BETTER CONDITION.
- 22.CONTRACTOR SHALL NOT USE THE PUBLIC RIGHT OF WAY FOR STORAGE OF EQUIPMENT, MATERIALS, CONSTRUCTION TRAILERS, AND CONSTRUCTION VEHICLES UNLESS OTHERWISE APPROVED. CONSTRUCTION VEHICLES SHALL PARK AT THE LOCATIONS(S) DETERMINED AT THE PRE-CONSTRUCTION MEETING.
- 23.IT IS THE OBLIGATION OF THE CONTRACTOR TO OBTAIN WRITTEN APPROVAL FROM PRIVATE PROPERTY OWNERS FOR USE OF PRIVATE PROPERTY FOR CONSTRUCTION STAGING AND TO RESTORE PRIVATE PROPERTY TO A CONDITION SATISFACTORY TO PROPERTY OWNER AT PROJECT COMPLETION. THE CONTRACTOR SHALL PROVIDE A COPY OF ALL AGREEMENTS SIGNED WITH PRIVATE PROPERTY OWNERS.
- 24.UPON COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL SUBMIT AN APPROVED SET OF "CLEAN AS-BUILT" DRAWINGS TO THE CITY OF MILWAUKIE ENGINEERING DEPARTMENT. DOCUMENT ALL DEVIATIONS AND REVISIONS TO THE APPROVED PLANS. RECORD A DESCRIPTION OF CONSTRUCTION MATERIAL ACTUALLY USED. THE CONTRACTOR SHALL KEEP A COMPLETE SET OF RED-LINED AS-BUILT DRAWINGS ON SITE AT ALL TIMES THAT MUST BE KEPT UP TO DATE AND AVAILABLE FOR CITY INSPECTION AT ANY TIME.

#### **SURVEY AND LOCATES NOTES:**

- 1. 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. YOU MAY OBTAIN COPIES OF THESE RULES FROM THE CENTER BY CALLING 1-877-668-4001
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ANY AND ALL EXISTING UTILITIES AND OBTAINING UTILITY LOCATION PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR MUST CONTACT OREGON UTILITY NOTIFICATION CENTER AT 811 OR 1-800-332-2344 AT LEAST TWO (2) BUSINESS DAYS AND NOT MORE THAN TEN (10) BUSINESS DAYS PRIOR TO AN EXCAVATION.
- 3. CONTRACTOR SHALL MAINTAIN ALL EXISTING BENCHMARKS, PROPERTY CORNERS, AND MONUMENTS. IF ANY SUCH POINTS ARE DISTURBED OR DESTROYED DURING CONSTRUCTION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, AND IF REQUIRED BY ORS 209, THE PROPERTY CORNERS AND OTHER SUCH MONUMENTS SHALL BE RESET BY A REGISTERED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE AND FILED AT THE CLACKAMAS COUNTY RECORDS OFFICE.
- 4. THE CONTRACTOR SHALL VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING FACILITIES AND STUBS TO BE UTILIZED AND NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCIES WITH THE APPROVED PLAN.
- 5. PROPERTY AND RIGHT-OF-WAY LINES SHOWN ARE APPROXIMATE. THESE PLANS ARE NOT MEANT TO SERVE PROPERTY BOUNDARY SURVEY PURPOSES.
- 6. THE CONTRACTOR IS RESPONSIBLE FOR POTHOLING TO VERIFY EXISTING UTILITY LOCATIONS AND ENSURE NO CONFLICTS PRIOR TO CONSTRUCTION. NOTIFY THE CITY WHEN ANY EXCAVATION WORK CAN CONFLICT WITH OR COMPROMISE EXISTING UTILITIES.
- 7. CONTRACTOR MUST VERIFY ALL EXISTING UTILITIES FOR BOTH VERTICAL ELEVATION AND HORIZONTAL LOCATION PRIOR TO START OF WORK. SHOULD CONFLICTS ARISE AND REDESIGN OR RELOCATION OF FACILITIES IS NECESSARY, THEN CHANGES MUST APPROVED BY THE PROJECT ENGINEER IN ADVANCE OF WORK. CONTRACTOR SHALL COORDINATE THE WORK WITH APPLICABLE AGENCIES.
- 8. CONTRACTOR SHALL WORK TO PRESERVE ALL TEMPORARY SURVEY CONTROL POINTS, TEMPORARY BENCHMARKS, TEMPORARY GRADE STAKES, AND OTHER REFERENCE POINTS FOR AS LONG AS THEY ARE NEEDED FOR CONSTRUCTION ACTIVITIES. RE-STAKING DUE TO CONTRACTOR'S, SUBCONTRACTOR'S OR VENDOR'S NEGLECT WILL BE AT CONTRACTOR'S EXPENSE.
- 9. ALL STREET CENTERLINE MONUMENTS SHALL BE SET IN MONUMENT CASES THAT CONFORM TO CLACKAMAS COUNTY SPECIFICATIONS.

#### **SAFETY NOTES:**

- 1. CONTRACTOR SHALL FOLLOW ALL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)
- 2. ALL TRENCHES SHALL BE PROPERLY SHORED AND BRACED TO PREVENT CAVING. SPEED SHORES ARE REQUIRED BETWEEN 4' AND 20' TRENCH DEPTH.TRENCHES OVER 20' IN DEPTH REQUIRE ENGINEERED SHORING TO THE CITY OF MILWAUKIE ENGINEERING DEPARTMENT PRIOR TO USE ON THE PROJECT.
- 3. NO TRENCH SHALL BE LEFT AT ANY TIME IN AN UNSAFE CONDITION. THE CONTRACTOR IS RESPONSIBLE AND LIABLE FOR HAZARDS OR DAMAGE RESULTING FROM PROSECUTION OF THE WORK.
- 4. NO TRENCHES SHALL BE ALLOWED TO REMAIN OPEN OVERNIGHT. ALL TRENCHES SHALL BE COVERED WITH STEEL PLATES OR BACKFILLED AT THE END OF EACH SHIFT.

#### **GENERAL UTILITY NOTES:**

- 1. THE LOCATIONS, DEPTHS, AND DESCRIPTIONS OF EXISTING UTILITIES SHOWN ARE 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
- 2. THE LOCATION OF EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND ARE SHOWN FOR INFORMATION ONLY. UTILITY LOCATIONS SHALL BE VERIFIED BY OREGON UTILITIES NOTIFICATION CENTER IMMEDIATELY PRIOR TO ANY EXCAVATION. NOTIFY PROJECT ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY EXCAVATION. UTILITY LOCATIONS SHOWN IN THE FIELD BY THE OREGON UTILITY NOTIFICATION CENTER ARE ASSUMED TO BE APPROXIMATE IN POSITION. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING UTILITY LOCATE MARKINGS FOR THE DURATION OF THE PROJECT AND SHALL BE RESPONSIBLE FOR LOCATING NEW UTILITIES PRIOR TO CITY ACCEPTANCE.
- 3. PROVISIONS SHALL BE MADE BY THE CONTRACTOR TO KEEP ALL EXISTING UTILITIES IN SERVICE AND PROTECT THEM DURING CONSTRUCTION. THE UTILITY OWNER SHALL BE NOTIFIED IN THE EVENT OF DAMAGE. REPAIRS WILL BE MADE AT THE CONTRACTOR'S EXPENSE.
- 4. FRANCHISE UTILITIES SHOWN ON THESE PLANS ARE FOR INFORMATION AND COORDINATION PURPOSES ONLY AND ARE NOT AUTHORIZED FOR INSTALLATION UNDER THE PUBLIC STREET IMPROVEMENT PERMIT. UTILITY COMPANIES ARE REQUIRED TO SECURE SEPARATE UTILITY PERMITS FROM THE CITY FOR ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
- 5. UTILITIES OR INTERFERING PORTIONS OF ABANDONED UTILITIES SHALL BE REMOVED BY THE CONTRACTOR TO THE EXTENT NECESSARY TO ACCOMPLISH THE WORK. ABANDONED UTILITIES SHALL BE VERIFIED BY CITY STAFF PRIOR TO REMOVAL. THE CONTRACTOR SHALL DRAIN ABANDONED PIPES AND PLUG WATERTIGHT. PLUG WITH GASKETED MECHANICAL PLUGS OR GROUTED SEALS, AS DIRECTED ON THE PLANS. ALL ABANDONED UTILITIES WILL BE DOCUMENTED ON THE AS-BUILT DRAWINGS. UTILITY PIPES OVER 16 INCHES IN DIAMETER SHALL BE ABANDONED WITH CONTROLLED DENSITY FILL (CDF)
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE PROPER SEPARATION FOR UTILITY PLACEMENT, AS REQUIRED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY AND STATE DEPARTMENT OF HEALTH. SEE CITY OF MILWAUKIE STANDARD DETAIL 509.
- 7. ALL UTILITY CROSSINGS AND POINTS OF CONNECTION TO THE EXISTING SYSTEM SHALL BE POTHOLED PRIOR TO EXCAVATION. THIS IS TO ALLOW FOR ADJUSTMENTS DUE TO CONFLICTS AND VERIFY ALIGNMENT, DEPTH, PIPE SIZE, AND PIPE MATERIAL. THE USE OF BENDS TO AVOID ALIGNMENT CONFLICTS WILL NOT BE ALLOWED WITHOUT ENGINEER APPROVAL.
- 8. THE CONTRACTOR WILL NOTIFY THE CITY WHEN ANY EXCAVATION WORK CAN CONFLICT OR COMPROMISE ANY EXISTING UTILITIES.
- 9. THE CONTRACTOR SHALL ARRANGE A PRE-CONNECTION MEETING WITH THE CITY PRIOR TO THE START OF CONNECTION WORK.
- 10.EXISTING UTILITY SERVICES SHALL BE MAINTAINED AT ALL TIMES, WHEN SERVICE DISRUPTIONS ARE REQUIRED CONTRACTOR SHALL NOTIFY AFFECTED BUSINESS OF THE DATE AND DURATION OF THE DISRUPTION A MINIMUM OF 48 HOURS IN ADVANCE OF THE DISRUPTION UNLESS OTHERWISE SPECIFIED. CONTRACTOR SHALL BE REPSONSIBLE TO DELIVER SERVICE DISRUPTION DOOR HANGERS TO AFFECTED RESIDENTS A MINIMUM OF 48 HOURS IN ADVANCE OF DISRUPTION.
- 11.ALL PIPE LENGTHS SHOWN ARE HORIZONTAL DISTANCES AND SHALL BE CONSIDERED APPROXIMATE. FINAL LENGTHS ARE DETERMINED BY FIELD CONDITIONS.
- 12.GRANULAR PIPE BEDDING AND TRENCH BACKFILL SHALL CONFORM TO APWA CLASS B IN PAVED AREAS AND CLASS A IN LANDSCAPE AREAS. MATERIALS SHALL BE COMPACTED IN ACCORDANCE WITH OSSC STANDARDS. SUBSEQUENT 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 OWNER.
- 13. TRENCH COMPACTION TESTING IS REQUIRED IN ACCORDANCE WITH OSSC SECTION 00330. MAINLINE TO BE TESTED EVERY 200 FT AND TEST EACH LATERAL.
- 14.TRACER WIRE TO BE INSTALLED ON ALL PUBLIC OWNED PLASTIC PIPES PER OSD RD 300 AND RD 336. TRACER WIRE SHALL BE CONNECTED WITH TRACER WIRE CONNECTORS WITH 90-DEGREE TWIST LOCK DESIGN IN BLUE COLOR
- 15.MARKING TAPE SHALL BE INSTALLED 12 INCHES OVER ALL UTILITY LINES INCLUDING SERVICE LINES.

WASTEWATER SYSTEM IMPROVEMENTS

01/2023 **DESIGNED** DATE 01/2023 DRAFTED DATE CHECKED APPROVED DATE DATE BY REVISIONS





FAX: 503-774-8236

NOTES SHEET

PROJECT NO.: CIP 2021-X39 CONTRACT NO.:

G02

01/2023

DATE:

2 OF 20

#### **SANITARY SEWER AND STORMWATER NOTES:**

- 1. EVERY NEW OR EXISTING STORM OR SEWER SERVICE LINE THAT HAS ANY WORK DONE TO IT OR THE ADJACENT MAIN IS REQUIRED TO BE TELEVISION INSPECTED, BY THE CONTRACTOR, FROM THE CENTER OF MAIN OR MANHOLE TO THE HOME, BUILDING, OR OTHER STRUCTURE PRIOR TO ACCEPTANCE. LINES WILL BE THOROUGHLY CLEANED PRIOR TO REQUEST FOR INSPECTION. DEBRIS FROM THE CLEANING WILL BE TRAPPED FOR DISPOSAL AND NOT FLUSHED INTO THE SYSTEM.
- 2. ALL HIGH-DENSITY POLYETHYLENE (HDPE) AND PVC PIPE SHALL BE DEFLECTION TESTED NO LESS THAN 30-DAYS AFTER THE TRENCH BACKFILL AND COMPACTION HAS BEEN COMPLETED. THE TEST SHALL BE CONDUCTED BY PULLING AN APPROVED SOLID POINTED 95% OF AN INSIDE DIAMETER MANDREL THROUGH THE PIPELINE. LEAKAGE TESTS INCLUDE AN AIR TEST OF THE SEWER MAINS AND LATERALS AND A WATER EXFILTRATION TEST OR VACUUM TEST OF THE MANHOLES. CITY OF MILWAUKIE INSPECTOR SHALL BE PRESENT DURING TESTING.
- 3. MANHOLES SHALL BE PRECAST CONCRETE SECTIONS WITH MINIMUM INSIDE DIAMETER OF 48-INCHES. CONFORMING TO THE REQUIREMENTS OF ASTM C-478, EXCEPT AS NOTED ON THE PLANS.
- 4. THE SERVICE LATERALS SHALL BE INSTALLED WITH A MINIMUM GRADE OF 2% UNLESS OTHERWISE SHOWN ON THE PLANS.
- 5. ALL SANITARY SERVICE LATERALS THAT ARE NOT CONNECTED TO AN EXISTING SERVICE SHALL EXTEND BEYOND THE PROPERTY LINE PER THE STANDARD DETAIL. THE END SHALL BE MARKED WITH A SINGLE 2X4 WHICH SHALL EXTEND 2 FT ABOVE FINISH GRADE. THE EXPOSED PORTIONS OF THE 2X4 SHALL BE PAINTED WHITE. DEPTH OF LATERAL SHALL BE PAINTED ON THE 2X4.
- 6. SANITARY LATERAL LOCATIONS SHALL BE STAMPED WITH AN "S" ON THE CURB FACE FOR FUTURE LOCATION.
- 7. ALL STORM DRAIN TILE ENCOUNTERED DURING CONSTRUCTION SHALL BE PIPED DIRECTLY TO THE STORM SYSTEM.
- 8. STORMWATER FACILITIES WILL HAVE TOPSOIL INSTALLED IN A MANNER THAT ENSURES ADEQUATE INFILTRATION. PLACE IN TWO EQUAL LIFTS WHICH SHOULD NOT BE COMPACTED, BUT RATHER PLACED IN A MANNER TO REDUCE EXCESSIVE EROSION OR SETTLEMENT. LIFTS MAY BE LIGHTLY WATERED TO ENCOURAGE NATURAL COMPACTION OR, IF NECESSARY, ROLLED WITH A WATER-FILLED LANDSCAPE ROLLER. SLIGHTLY OVERFILL THE FACILITY ABOVE PROPOSED FINISH GRADE TO ACCOMMODATE NATURAL SETTLEMENT.
- 9. FOLLOWING STORMWATER FACILITIES CONSTRUCTION, PLANTING SHALL OCCUR BETWEEN SEPTEMBER 1 AND NOVEMBER 1, OR BETWEEN FEBRUARY 1 AND APRIL 15. IF CONSTRUCTION IS COMPLETED DURING THESE TIME PERIODS, PLANTING SHALL OCCUR IMMEDIATELY. IF CONSTRUCTION IS COMPLETED OUTSIDE OF THESE TIME PERIODS, TOPSOIL SHALL BE COVERED ENTIRELY WITH NORTH AMERICAN GREEN C125BN EROSION CONTROL FABRIC, SECURED WITH 12" WOODEN ECOSTAKES (18" ON-CENTER). AT TIME OF PLANTING, PLANTS SHALL BE INSTALLED THROUGH HOLES CUT IN THE EROSION CONTROL FABRIC. ENSURE FABRIC IS SECURELEY STAKED FOR STABILIZATION AND SOIL COVERAGE FOLLOWING PLANTING.
- 10.DURING WET WEATHER CONDITIONS, CONTRACTOR TO PLACE EROSION CONTROL FABRIC OVER STORMWATER FACILITY TO PREVENT EROSION. FABRIC SHALL BE 100% BIODEGRADABLE COIR FABRIC (NORTH AMERICAN C125BN OR APPROVED EQUAL). STORMWATER FACILITY AND SURROUNDING SITE WILL BE STABILIZED TO PREVENT MEASURABLE SEDIMENT FROM ERODING ON THE SITE AND INTO ADJACENT AREAS.

#### WATER NOTES:

- 1. THE CONTRACTOR WILL MEET WITH THE CITY ON PROJECT SITE TO VERIFY PROPER MATERIALS PRIOR TO ANY WATER INSTALLATION. THE CONTRACTOR MUST PROVIDE A CHLORINATION AND DECHLORINATION PLAN TO THE CITY FOR APPROVAL THAT COMPLIES WITH AWWA REGULATIONS.
- 2. OPERATION OF ALL EXISTING VALVES TO ISOLATE WATERLINES FOR THE REQUIRED WORK SHALL BE CONDUCTED BY CITY OF MILWAUKIE EMPLOYEES ONLY.
- 3. CONTRACTOR SHALL REQUEST WATER SYSTEM SHUT DOWN FROM THE CITY OF MILWAUKIE PROJECT MANAGER AT LEAST FIVE (5) CALENDAR DAYS IN ADVANCE OF ANY PLANNED SERVICE DISRUPTION. UPON APPROVAL, CONTRACTOR WILL PROVIDE NOTIFICATION OF SERVICE DISRUPTION TO THE AFFECTED WATER CUSTOMERS TWO (2) CALENDAR DAYS IN ADVANCE OF SERVICE DISRUPTIONS.
- 4. CONTRACTOR TO FURNISH AND INSTALL ALL FITTINGS, METER BOX, AND LID PER CITY OF MILWAUKIE STANDARDS. WATER METERS TO BE FURNISHED AND INSTALLED BY CITY, UNLESS OTHERWISE INDICATED ON PLANS.
- 5. RETAINER GLANDS ARE REQUIRED FOR ALL MECHANICAL JOINT CONNECTIONS. MEGALUG RETAINER GLANDS SHALL BE USED FOR DUCTILE IRON PIPE CONNECTIONS. GRIPPING RETAINER GLANDS SHALL BE USED FOR CAST IRON AND PVC PIPE CONNECTIONS.
- 6. THRUST BLOCKS SHALL NOT BE USED ON TEES, BENDS OR BLOW-OFFS, UNLESS OTHERWISE INDICATED ON PLANS,
- 7. ALL RESTRAINT FITTINGS SHALL BE INSTALLED WITH MANUFACTURER SPECIFIED TORQUE. CONTRACTOR IS RESPONSIBLE FOR HAVING A FUNCTIONAL TORQUE WRENCH ON-SITE.
- 8. CONTRACTOR SHALL ENCASE ALL DUCTILE IRON FITTINGS WITH 8-MIL PLASTIC SHEETING.
- 9. CITY WATER CREWS HAVE THE RIGHT TO REMOVE OR KEEP ANY OR ALL OLD WATER INFRASTRUCTURE THAT IS EXPOSED BY CONTRACTOR.
- 10.THE MAXIMUM ALLOWABLE JOINT DEFLECTION SHALL NOT EXCEED 3°.
- 11.WATER LINE FILLING AND FLUSHING SHALL BE PERFORMED IN ACCORDANCE WITH OSSC SECTION 01140.50. CONTRACTOR SHALL PROVIDE ALL HOOK-UPS, PIPING, HOSES, AND ALL OTHER EQUIPMENT FOR FLUSHING. CONTRACTOR TO COORDINATE FLUSHING WITH CITY OF MILWAUKIE PROJECT

- MANAGER. CITY INSPECTOR TO BE ON SITE TO MEASURE VELOCITY PRODUCED.
- 12.HYDROSTATIC TESTING SHALL BE PERFORMED IN ACCORDANCE WITH AWWA C600, SECTION 5. TESTING SHALL BE MONITORED BY THE CITY OF MILWAUKIE INSPECTOR. DISINFECTION SHALL BE PERFORMED AFTER THE HYDROSTATIC TESTING. CONTRACTOR SHALL USE A PRESSURE GAUGE THAT READS IN ONE POUND INCREMENTS.
- 13.PIPELINES SHALL BE FLUSHED AND DISINFECTED BEFORE PLACING INTO SERVICE. CHLORINATED WATER SHALL BE DISCHARGED TO AN APPROVED SANITARY SEWER MANHOLE. APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS CONCERNING DISCHARGE SHALL BE FOLLOWED. OREGON STATE HEALTH DIVISION BACTERIOLOGICAL TESTS SHALL BE TAKEN BY THE CITY OF MILWAUKIE.
- 14.DUE TO THE AGE OF THE EXISTING WATERLINES AND VALVES, LEAKAGE OF EXISTING FACILITIES MAY OCCUR DURING CONSTRUCTION OF TIE-INS. CONTRACTOR SHALL HAVE ON-SITE PUMPS ADEQUATE TO KEEP TRENCHES DE-WATERED AND WILL FOLLOW ALL CITY STORMWATER REQUIREMENTS FOR DEWATERING.
- 15. "STICK BY STICK" CONSTRUCTION MAY BE REQUIRED IN AREAS WHERE PROPOSED WATERLINE IS CLOSE TO EXISTING WATER MAIN. IF TRENCH OF THE EXISTING WATERLINE IS FALLING INTO THE NEW CONSTRUCTION TRENCH, OR IF THE EXISTING WATERLINE IS EXPOSED, "STICK BY STICK" CONSTRUCTION WILL BE REQUIRED.
- 16.CITY MUST APPROVE SUB-CONTRACTOR DOING DIRECT TAPPING ON LIVE CITY WATER MAINS.
- 17.IF CONNECTING TO CITY FIRE HYDRANT FOR TEMPORARY WATER, CONTRACTOR TO RENT HYDRANT METER THROUGH THE CITY. CITY PUBLIC WORKS WILL INSTRUCT CONTRACTOR ON USE. CONTRACTOR TO PROVIDE DEPOSIT AND COMPLETED HYDRANT METER APPLICATION TO CITY BUILDING DEPARTMENT AND PICK UP HYDRANT METER FROM THE JOHNSON CREEK BLVD. OFFICE BUILDING.
- 18. WHERE NEW WATER METER, SERVICES AND HYDRANTS ARE BEING INSTALLED, SIDEWALK PANELS SHALL BE CUT IN FULL AND REPLACED. DISPOSAL IS RESPONSIBILITY OF CONTRACTOR. SIDEWALK SCORING SHALL MATCH EXISTING SCORING. CONTRACTOR SHALL PLACE AND MAINTAIN TEMPORARY BACKFILL OR TEMPORARY TRAFFIC STEEL PLATE ON OPEN SIDEWALK AREA FOR DURATION OF PROJECT, UNTIL SIDEWALK IS READY TO BE POURED.
- 19. THE CONTRACTOR MUST MAINTAIN PIPE PLUGS IN NEW WATER MAIN DURING MAINLINE CONSTRUCTION.
- 20.ANY LEADED FITTINGS OR SERVICE LINES EXPOSED DURING WORK THAT WERE NOT PREVIOUSLY IDENTIFIED FOR REPLACEMENT NEED TO BE COMMUNICATED TO THE PROJECT MANAGER IMMEDIATELY.
- 21.WHEN A CORROSIVE POTENTIAL CONDITION IS ENCOUNTERED, ALL DUCTILE-IRON PIPE AND FITTINGS WILL BE POLYETHYLENE ENCASED WITH AN 8MIL TUBING MEETING MANUFACTURER AND AWWA STANDARDS. WHERE AN ACTIVE CATHODIC PROTECTION SYSTEM IS ENCOUNTERED AS A RESULT OF OTHER UTILITIES, A DEVIATION FROM NORMAL PIPE MATERIAL OR INSTALLATION MAY BE REQUIRED BY THE CITY ENGINEER.
- 22.ALL GATE VALVES SHALL BE RESILIENT WEDGE PER LATEST REVISION OF AWWA C-515.
- 23.FOR WATER SERVICE INSTALLATION, WHEN A CORROSIVE POTENTIAL CONDITION IS ENCOUNTERED AND THE COPPER SERVICE PASSES OVER OR UNDER AN ACTIVE CATHODIC PROTECTION SYSTEM, THE SERVICE SHALL BE INSTALLED IN A SCHEDULE 40 PVC CONDUIT FOR A DISTANCE OF TEN FEET ON EACH SIDE OF THE ACTIVE SYSTEM. ALL CONDUIT PLACEMENTS WILL BE AS-BUILT. PEX WATER SERVICE LINES ARE APPROVED TO BE USED IN AREAS WHERE COPPER SERVICE LINES FAIL PREMATURELY.
- 24.WATER SAMPLING STATIONS WILL BE REQUIRED AS DIRECTED BY THE CITY ENGINEER. APPROVED STATION IS KUPFERLE ECLIPSE #88-SS WITH "CITY OF MILWAUKIE" LOGO CAST INTO THE ACCESS DOOR.

#### STREET NOTES:

- 1. PAVING NOTES AND DETAILS WITHIN THESE PLANS ARE INTENDED FOR DRY WEATHER CONSTRUCTION.
- 2. THE SPREADING OF MUD OR DEBRIS OR STORAGE OF MATERIAL OR EQUIPMENT OF ANY KIND UPON ANY ROADWAY WITHOUT CITY PERMISSION IS STRICTLY PROHIBITED.
- 3. POCKETS OF ORGANIC DEBRIS OR LOOSE FILL ENCOUNTERED DURING RIPPING OR RILL SHALL BE REMOVED AND REPLACED WITH ENGINEERED FILL.
- 4. THE CONTRACTOR SHALL ADJUST ALL VALVE BOXES, MANHOLES AND WATER METER BOXES TO FINISHED STREET, DRIVEWAY, OR SIDEWALK GRADE.
- 5. THE CONTRACTOR SHALL SAWCUT STRAIGHT MATCHLINES TO CREATE A BUTT JOINT BETWEEN THE EXISTING PAVEMENT AND NEW PAVEMENT. SAWCUT LINES SHOWN REPRESENT APPROXIMATE LOCATIONS. FINAL LOCATION SHALL BE APPROVED BY CITY. SEAL JOINTS WITH RUBBERIZED SEALANT IMMEDIATELY FOLLOWING PAVING.
- 6. THE CONTRACTOR SHALL VACUUM SAW CUT SLURRY AS SAW CUTTING IS BEING PERFORMED.
- 7. CONTRACTOR TO PROOF-ROLL FINAL SUB-GRADE WITH 10 CUBIC YARD TRUCK LOADED WITH ROCK PRIOR TO PLACING AGGREGATE BASE WITHIN THE PUBLIC RIGHT-OF-WAY. CITY INSPECTOR MUST BE PRESENT FOR PROOF-ROLL.
- 8. IDENTIFIED SOFT/LOOSE SOILS ENCOUNTERED DURING SUBGRADE PREPARATION TO BE REPLACED PER OSSC SECTION 00330.
- 9. AGGREGATE BASE SHALL BE COMPACTED TO 95% MAX. DRY DENSITY AS DETERMINED BY AASHTO T-180. CONTRACTOR TO HAVE AGGREGATE BASE COMPACTION TESTING CONDUCTED BY A QUALIFIED THIRD-PARTY TESTING FACILITY PRIOR TO PLACEMENT OF ASPHALT CONCRETE WITHIN THE PUBLIC RIGHT-OF-WAY. TEST REPORTS TO BE PROVIDED TO CITY OF MILWAUKIE. A MINIMUM OF ONE (1) DENSITY TEST SHALL BE PERFORMED AT TOP OF ROCK FOR EACH SECTION. FOR SECTIONS LONGER THAN ONE HUNDRED (100) FEET IN LENGTH, AT LEAST ONE (1) TEST SHALL BE COMPLETED AT THE TOP OF ROCK PER EVERY ONE HUNDRED (100) LINEAL FEET.

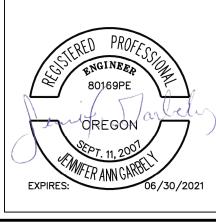
- 10.EACH LIFT OF ASPHALT CONCRETE SHALL BE COMPACTED TO 92% RICE DENSITY IN CONFORMANCE WITH AASHTO T-209. CONTRACTOR TO HAVE ASPHALT CONCRETE COMPACTION TESTING CONDUCTED BY A QUALIFIED THIRD-PARTY TESTING FACILITY WITHIN THE PUBLIC RIGHT-OF-WAY. TEST EVERY TWO HUNDRED (200) LINEAL FEET AND PROVIDE TEST REPORTS TO CITY OF MILWAUKIE.
- 11.ALL EXCAVATIONS WITHIN A PAVED STREET OPEN TO TRAFFIC SHALL BE TEMPORARILY RESURFACED OR PLATED AT THE END OF EACH WORK DAY AND PRIOR TO ALLOWING VEHICULAR TRAFFIC ONTO EXCAVATED AREAS. CONTRACTOR SHALL BE RESPONSIBLE FOR PLACING, MAINTAINING, AND REMOVING TEMPORARY SURFACING MATERIALS.
- 12.THE PROJECT ENGINEER AND CITY RESERVE THE RIGHT TO ADJUST GRADES OR ALIGNMENT TO ACCOMMODATE OTHER UTILITIES AS REQUIRED.
- 13.ALL MISCELLANEOUS PORTLAND CEMENT CONCRETE STRUCTURES SHALL HAVE A MINIMUM 28-DAY ULTIMATE COMPRESSIVE STRENGTH OF 3,300 PSI.
- 14.CONTRACTOR TO PROTECT NEW CONCRETE FINISH. CONTRACTOR RESPONSIBLE FOR REMOVING, REPLACING, AND DISPOSING OF MATERIAL IF FINISH DOES NOT MEET ENGINEERING STANDARDS.

#### **SIGNAGE AND MARKING NOTES:**

- 1. CONTRACTOR SHALL NOT REMOVE ANY STREET SIGNAGE NOT INDICATED IN THE PLANS WITHOUT PRIOR CITY APPROVAL.
- 2. CONTRACTOR SHALL REPLACE DAMAGED SIGNS OR SIGN POLES.
- 3. CONTRACTOR SHALL UPDATE ALL SIGNAGE PER MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) WHEN SIGNS ARE REMOVED OR DAMAGED.
- 4. CONTRACTOR SHALL REPLACE DAMAGED OR REMOVED PAVEMENT MARKINGS UPON COMPLETION OF FINAL PAVING.
- 5. CONTRACTOR SHALL RETURN ALL SIGNS/POLES/HARDWARE NOT BEING REINSTALLED TO THE CITY OF MILWAUKIE.
- 6. ALL SIGNING, MARKING AND PERMANENT BARRICADES TO BE INSTALLED BY THE CONTRACTOR PER OSSC. LOCATIONS ARE APPROXIMATE. FINAL LOCATION SHALL BE DETERMINED BY PROJECT MANAGER IN THE FIELD.

#### **TEMPORARY TRAFFIC CONTROL NOTES:**

- 1. ALL TRAFFIC CONTROL MEASURES SHALL CONFORM WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND LATEST EDITION OF THE OREGON TEMPORARY TRAFFIC CONTROL HANDBOOK (OTTCH).
- 2. CONTRACTOR SHALL INSTALL AND MAINTAIN ALL TEMPORARY TRAFFIC CONTROL DEVICES THROUGHOUT THE DURATION OF CONSTRUCTION.
- 3. ALL TRAVEL LANES, STREETS, DRIVEWAYS, AND POINTS OF ACCESS SHALL BE OPENED TO VEHICULAR TRAFFIC AT THE END OF EACH WORK DAY.
- 4. CONTRACTOR SHALL PROVIDE VEHICULAR ACCESS TO SIDE STREETS AND DRIVEWAYS TO THE EXTENT PRACTICABLE. WHEN VEHICULAR ACCESS WILL BE RESTRICTED LONGER THAN 20 MINUTES, CONTRACTOR SHALL GAIN APPROVAL FROM CITY. CONTRACTOR WILL NOTIFY THE AFFECTED BUSINESS / PROPERTY OWNER OF DATE AND DURATION OF INTERRUPTION, 14 DAYS IN ADVANCE OF THE CLOSURE.
- 5. THE MINIMUM VEHICLE TRAVEL LANE WIDTH SHALL BE APPROVED BY THE CITY.
- 6. CONTRACTOR TO PROVIDE TEMPORARY TRAFFIC CONTROL PLAN AT THE PRE-CONSTRUCTION MEETING.
- 7. WORK AT SIGNALIZED INTERSECTIONS REQUIRES FLAGGERS TO BE STATIONED AT EACH LEG OF THE INTERSECTION AND THE TRAFFIC SIGNAL TURNED OFF. CONTACT CLACKAMAS COUNTY AT 503 650-3735 TO SCHEDULE SIGNAL SHUT DOWNS SIGNAL SHUTDOWNS MUST BE SCHEDULED 48-HOURS PRIOR TO SHUTDOWN.



MILWAUKIE, OR 97206



WASTEWATER SYSTEM IMPROVEMENTS

NOTES SHEET

FAX: 503-786-7600 PROJECT NO.: CIP 2021-X39

CONTRACT NO.:

G03

DATE:

01/2023

SHEET NO.: 3 OF 20

# WASTEWATER SYSTEM IMPROVEMENTS EROSION AND SEDIMENT CONTROL PLAN

DESIGNER:

NAME: Brandon Boutros ADDRESS: 10722 SE MAIN STREET, MILWAUKIE OR 97222 PHONE: 503-786-7541 EMAIL: BOUTROSB@MILWAUKIEOREGON.GOV CONTRACTOR: TBD

NAME: ADDRESS PHONE: EMAIL:

BMP INSTALLER/MAINTAINER: TBD

ADDRESS PHONE: EMAIL:

PHONE:

CESCL SITE INSPECTOR: TBD

NAME: ADDRESS:

EMAIL: CERTIFICATE PROGRAM AND NUMBER:

EXPIRATION DATE:

NAICS CODE: 237110

CONSTRUCTION ACTIVITIES:

SITE DESCRIPTION:

45.444, -122.619

SIC CODE: 1623

LATITUDE AND LONGITUDE:

EXISTING SITE CONDITIONS:

THREE UNIFORM TWO-LANE PAVED RESIDENTIAL ROADWAYS AND ONE FOOD CART POD

DEVELOPED CONDITIONS:
TWO SANITARY SEWER MANHOLE INSTALLATIONS, 2 NEW MANHOLES, 1360 FEET OF SANITARY MAIN REPLACEMENT, 309 FEET OF
SANITARY LATERAL INSTALLATION AND TRENCH PATCHING.

TOTAL SITE AREA: 16,800 SQFT TOTAL DISTURBED AREA: 8,400 SQFT

MAXIMUM AREA TO BE DISTURBED AT ONE TIME: 2800 SQFT

NEAREST RAIN GAUGE:

Station 64 — Harney Rain Gage 2033 Harney St.

Portland, OR 97202

https://or.water.usgs.gov/non-usgs/bes/harney\_pump.rain

RECEIVING WATERBODIES:

NEAREST RECEIVING BODY: JOHNSON CREEK, MT SCOTT CREEK (KELLOGG CREEK), WILLAMETTE RIVER

303(d) CATEGORY 4 & 5 IMPAIRMENT STATUS:

JOHNSON CREEK CATEGORY 5: TEMPERATURE— YEAR ROUND; TEMPERATURE— SPAWNING; IRON (TOTAL)— AQUATIC LIFE; BIOCRITERIA; ENDOSULFAN— AQUATIC LIFE; POLYCHLORINATED BIPHENYLS (PCBS)— HUMAN HEALTH; POLYCYCLIC AROMATIC HYDROCARBONS (PAHS)— HUMAN HEALTH; ENDRIN ALDEHYDE— HUMAN HEALTH. CATEGORY 4A: E. COLI; DDE 4,4'— HUMAN HEALTH; DDT 4,4'— HUMAN HEALTH; DIELDRIN— HUMAN HEALTH

MOUNT SCOTT CREEK CATEGORY 5: DISSOLVED OXYGEN- SPAWNING; ENDRIN ALDEHYDE- HUMAN HEALTH. CATEGORY 4A: E. COLI

<u>WILLAMETTE RIVER SOUTH OF JOHNSON CREEK</u> CATEGORY 5: CYANIDE— AQUATIC LIFE; ALDRIN— HUMAN HEALTH; DIELDRIN— HUMAN HEALTH; ETHYLBENZENE— HUMAN HEALTH; HEXACHLOROBENZENE— HUMAN HEALTH; DDE 4,4'— HUMAN HEALTH; DDT 4,4'— HUMAN HEALTH; POLYCHLORINATED BIPHENYLS (PCBS)— HUMAN HEALTH; BIOCRITERIA; POLYCYCLIC AROMATIC HYDROCARBONS (PAHS)— HUMAN HEALTH; TEMPERATURE— YEAR ROUND. CATEGORY 4(B,C): ,PENTACHLOROPHENOL— HUMAN HEALTH

WILLAMETTE RIVER NORTH OF JOHNSON CREEK CATEGORY 5: TEMPERATURE— YEAR ROUND; CHLOROPHYLL—A; IRON (TOTAL)— AQUATIC LIFE; ALDRIN— HUMAN HEALTH; DIELDRIN— HUMAN HEALTH; ETHYLBENZENE— HUMAN HEALTH; HEXACHLOROBENZENE— HUMAN HEALTH; DDT 4,4'— HUMAN HEALTH; POLYCHLORINATED BIPHENYLS (PCBS)— HUMAN HEALTH; CHLORDANE— HUMAN HEALTH; DISSOLVED OXYGEN— YEAR ROUND; BIOCRITERIA; HARMFUL ALGAL BLOOMS; CYANIDE— AQUATIC LIFE; POLYCYCLIC AROMATIC HYDROCARBONS (PAHS)— HUMAN HEALTH. CATEGORY 4(B,C): ,PENTACHLOROPHENOL— HUMAN HEALTH

ROJECTED SCHEDUL

UTILITY CONSTRUCTION: March-July 2023
REMOVAL OF STORMWATER CONTROLS AND CONSTRUCTION EQUIPMENT: July 30, 2023
FINAL DATE OF CONSTRUCTION POLLUTANT-GENERATING ACTIVITIES: July 31, 2023

WORK DAYS & HOURS
MONDAY THROUGH FRIDAY 7:00 AM TO 7:00 PM

SATURDAY 8:00 AM TO 5:00 PM
CITY INSPECTOR WORK HOURS ARE MONDAY THROUGH FRIDAY 8:00 AM TO 5:00 PM

SITE SOIL CLASSIFICATION:

Latourell loam, 0 to 3 percent slopes
Woodburn silt loam, 3 to 8 percent slopes

TYPE OF FILL MATERIAL TO BE USED: 3/4-INCH AGGREGATE

ENGINEERED SOILS: NONE

AUTHORIZED NON-STORMWATER DISCHARGES: DEWATERING TRENCHES TO SANITARY SEWER

ATTENTION EXCAVATORS

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



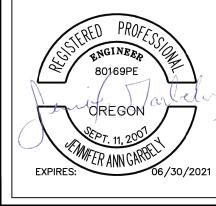
Know what's **below. Call before you dig.** 

#### SHEET INDEX

SHEET NO.	DESCRIPTION	
C10 C11 C12 C13 C14 C15	EROSION AND SEDIMENT CONTROL COVER SHEET EROSION AND SEDIMENT CONTROL NOTES EROSION AND SEDIMENT CONTROL PLANS EROSION AND SEDIMENT CONTROL DETAILS	

MILWAUKIE. OR 97206

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### BMP MATRIX FOR CONSTRUCTION PHASES

BMP MATRIX					
	PRECONSTRUCTION	UTILITY CONSTRUCTION			
EROSION PREVENTION					
PRESERVE NATURAL VEGITATION	X	X			
PLASTIC SHEETING		X			
DUST CONTROL		X			
SEDIMENT CONTROL					
INLET PROTECTION	X	X			
DEWATERING		X			

#### **INSPECTION FREQUENCY:**

SITE CONDITION	MINIMUM FREQUENCY
1. ACTIVE PERIOD	ON INITIAL DATE THAT LAND DISTURBANCE ACTIVITIES COMMENCE. WITHIN 24 HOURS OF ANY STORM EVENT, INCLUDING RUNOFF FROM SNOW MELT, THAT RESULTS IN DISCHARGE FROM THE SITE. AT LEAST ONCE EVERY 14 DAYS, REGARDLESS OF WHETHER STORMWATER RUNOFF IS OCCURRING.
2. INACTIVE PERIODS GREATER THAN SEVEN (7) CONSECUTIVE CALENDAR DAYS.	THE INSPECTOR MAY REDUCE THE FREQUENCY OF INSPECTIONS IN ANY AREA OF THE SITE WHERE THE STABILIZATION STEPS IN SECTION 2.2.20 HAVE BEEN COMPLETED TO TWICE PER MONTH FOR THE FIRST MONTH, NO LESS THAN 14 CALENDAR DAYS APART, THEN ONCE PER MONTH.
3. PERIODS DURING WHICH THE SITE IS INACCESSIBLE DUE TO INCLEMENT WEATHER.	IF SAFE, ACCESSIBLE AND PRACTICAL, INSPECTIONS MUST OCCUR DAILY AT A RELEVANT DISCHARGE POINT OR DOWNSTREAM LOCATION OF THE RECEIVING WATERBODY.
4. PERIODS DURING WHICH CONSTRUCTION ACTIVITIES ARE SUSPENDED AND RUNOFF IS UNLIKELY DUE TO FROZEN CONDITIONS.	VISUAL MONITORING INSPECTIONS MAY BE TEMPORARILY SUSPENDED. IMMEDIATELY RESUME MONITORING UPON THAWING, OR WHEN WEATHER CONDITIONS MAKE DISCHARGES LIKELY.
5. PERIODS DURING WHICH CONSTRUCTION ACTIVITIES ARE SUSPENDED AND RUNOFF IS UNLIKELY DUE TO FROZEN CONDITIONS.	VISUAL MONITORING INSPECTIONS MAY BE REDUCED TO ONCE A MONTH. IMMEDIATELY RESUME MONITORING UPON THAWING, OR WHEN WEATHER CONDITIONS MAKE DISCHARGES LIKELY.

### WASTEWATER SYSTEM IMPROVEMENTS

EROSION AND SEDIMENT CONTROL COVER SHEET

FAX: 503-774-8236 PROJECT NO.: CIP 2021-X39 CONTRACT NO.: C10 DATE: 01/2023 SHEET NO.: 4 OF 20

#### DEQ EROSION AND SEDIMENT CONTROL PLAN DRAWING NOTES REV. 12/15/20

- 1. Once known, include a list of all contractors that will engage in construction activities on site, and the areas of the site where the contractor(s) will engage in construction activities. Revise the list as appropriate until permit coverage is terminated (Section 4.4.c.i). In addition, include a list of all personnel (by name and position) that are responsible for the design, installation and maintenance of stormwater control measures (e.g. ESCP developer, BMP installer (see Section 4.10), as well as their individual responsibilities. (Section 4.4.c.ii)
- Visual monitoring inspection reports must be made in accordance with DEQ 1200—C permit requirements. (Section 6.5)
- Inspection logs must be kept in accordance with DEQ's 1200—C permit requirements. (Section 6.5.g)
- 4. Retain a copy of the ESCP and all revisions on site and make it available on request to DEQ, Agent, or the local
- municipality. (Section 4.7) 5. The permit registrant must implement the ESCP. Failure to implement any of the control measures or practices described in
- the ESCP is a violation of the permit. (Sections 4 and 4.11) 6. The ESCP must be accurate and reflect site conditions. (Section 4.8)

controls and ponding. (section 2.2.3)

excavation activities. (See Section 2.4)

- 7. 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 within 10 days. (Section 4.9)
- 8. Sequence clearing and grading to the maximum extent practical to prevent exposed inactive areas from becoming a source
- of erosion. (Section 2.2.2) 9. Create smooth surfaces between soil surface and erosion and sediment controls to prevent stormwater from bypassing
- 10. Identify, mark, and protect (by construction fencing 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. (Section 2.2.1)
- 11. 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. (Section 2.2.5)
- 12. Maintain and delineate any existing natural buffer within the 50-feet of waters of the state. (Section 2.2.4) 13. Install perimeter sediment control, including storm drain inlet protection as well as all sediment basins, traps, and barriers
- prior to land disturbance. (Sections 2.1.3) 14. Control both peak flow rates and total stormwater volume, to minimize erosion at outlets and downstream channels and
- streambanks. (Sections 2.1.1. and 2.2.16)
- 15. Control sediment as needed along the site perimeter and at all operational internal storm drain inlets at all times during construction, both internally and at the site boundary. (Sections 2.2.6 and 2.2.13)
- 16. Establish concrete truck and other concrete equipment washout areas before beginning concrete work. (Section 2.2.14)
- 17. Apply temporary and/or permanent soil stabilization measures immediately on all disturbed areas as grading progresses. Temporary or permanent stabilizations measures are not required for areas that are intended to be left unvegetated, such
- as dirt access roads or utility pole pads.(Sections 2.2.20 and 2.2.21) 18. Establish material and waste storage areas, and other non-stormwater controls. (Section 2.3.7)
- 19. Keep waste container lids closed when not in use and close lids at the end of the business day for those containers that are actively used throughout the day. For waste containers that do not have lids, provide either (1) cover (e.g., a tarp, plastic sheeting, temporary roof) to prevent exposure of wastes to precipitation, or (2) a similarly effective means designed 13. to prevent the discharge of pollutants (e.g., secondary containment). (Section 2.3.7)
- 20. Prevent tracking of sediment onto public or private roads using BMPs such as: construction entrance, graveled (or 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. (Section 2.2.7)
- 21. When trucking saturated soils from the site, either use water—tight trucks or drain loads on site. (Section 2.2.7.f)
- 22. Control prohibited discharges from leaving the construction site, i.e., concrete wash—out, wastewater from cleanout of stucco, paint and curing compounds. (Sections 1.5 and 2.3.9)
- 23. Ensure that steep slope areas where construction activities are not occurring are not disturbed. (Section 2.2.10)
- 24. Prevent soil compaction in areas where post-construction infiltration facilities are to be installed. (Section 2.2.12) 25. 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, fertilizer, pesticides and herbicides, paints, solvents, curing compounds and adhesives from construction operations. (Sections 2.2.15 and 2.3)
- 26. Provide plans for sedimentation basins that have been designed per Section 2.2.17 and stamped by an Oregon Professional Engineer. (See Section 2.2.17.a)
- 27. If engineered soils are used on site, a sedimentation basin/impoundment must be installed. (See Sections 2.2.17 and 2.2.18)
- 28. Provide a dewatering plan for accumulated water from precipitation and uncontaminated aroundwater seepage due to shallow
- 29. 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. (Section 2.3)
- 30. Use water, soil-binding agent or other dust control technique as needed to avoid wind-blown soil. (Section 2.2.9) 31. 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.
- (Section 2.3.5) 32. If an active 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 Environmental Management Plan approval from DEQ before operating the treatment system. Operate
- and maintain the treatment system according to manufacturer's specifications. (Section 1.2.9) 33. Temporarily stabilize soils at the end of the shift before holidays and weekends, if needed. The registrant is responsible for
- ensuring that soils are stable during rain events at all times of the year. (Section 2.2) 34. As needed based on weather conditions, 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. (Section 2.2.8)
- 35. Sediment fence: remove trapped sediment before it reaches one third of the above ground fence height and before fence removal. (Section 2.1.5.b)
- 36. Other sediment barriers (such as biobags): remove sediment before it reaches two inches depth above ground height and before BMP removal. (Section 2.1.5.c)
- 37. 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. (Section
- 38. 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 Department of State Lands require timeframe. (Section 2.2.19.a)
- 39. 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. (Section 2.2.19)
- 40. Document any portion(s) of the site where land disturbing activities have permanently ceased or will be temporarily inactive for 14 or more calendar days. (Section 6.5.f.)
- 41. Provide temporary stabilization for that portion of the site where construction activities cease for 14 days or more with a covering of blown straw and a tackifier, loose straw, or an adequate covering of compost mulch until work resumes on that portion of the site. (Section 2.2.20)
- 42. Do not remove temporary sediment control practices until permanent vegetation or other cover of exposed areas is established. Once construction is complete and the site is stabilized, all temporary erosion controls and retained soils must be removed and disposed of properly, unless needed for long term use following termination of permit coverage. (Section 2.2.21)

#### LOCAL AGENCY-SPECIFIC EROSION CONTROL NOTES

- ALL EROSION PREVENTION MEASURES SHALL BE IN PLACE, FUNCTIONAL, AND APPROVED IN ACCORDANCE WITH THE APPROVED EROSION PREVENTION AND SEDIMENT CONTROL PLAN PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES. ALL SOIL DISTURBING AND CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED IN ACCORDANCE WITH MMC CHAPTER 16.28 EROSION CONTROL AND ANY APPLICABLE LOCAL. STATE. OR FEDERAL REQUIREMENTS.
- 2. ALTERNATE SEDIMENT CONTROLS MUST PROVIDE A DISCHARGE THAT IS CLEAN AND FREE OF SEDIMENT, SURFACTANTS, AND OTHER POLLUTANTS PRIOR TO ENTERING THE STORM SYSTEM. APPROVAL OF ALTERNATIVE SEDIMENT CONTROLS BY THE CITY OF MILWAUKIE ENVIRONMENTAL SERVICES COORDINATOR IS REQUIRED PRIOR TO INSTALLATION.
- DUMPING OR DISPOSAL OF SPOIL MATERIALS INTO ANY STREAM CORRIDOR, WETLAND, SURFACE WATER, OR ON ANY PUBLIC OR PRIVATE PROPERTY NOT SPECIFIED FOR SAID PURPOSE IS PROHIBITED
- SEDIMENT AND POLLUTANTS SHALL NOT BE WASHED INTO STORM SEWERS. DRAINAGE WAYS. OR WATER BODIES. DRY SWEEPING SHALL BE IMPLEMENTED TO CLEAN UP CONSTRUCTION AREAS TO PREVENT RELEASE OF SEDIMENTS INTO THE STORM SYSTEM.
- DISPOSAL OF SEDIMENT LADEN WATER INTO THE WASTEWATER SYSTEM IS PROHIBITED, UNLESS PRIOR WRITTEN APPROVAL IS RECEIVED FROM THE CITY OF MILWAUKIE ENVIRONMENTAL SERVICES COORDINATOR. SEDIMENT LADEN WATER SHALL BE PUMPED THROUGH AN APPROVED SEDIMENT CONTROL BMP PRIOR TO DISPOSAL INTO THE WASTEWATER SYSTEM.
- SAWCUTTING SLURRY AND DEBRIS SHALL BE VACUUMED AND REMOVED FROM ALL IMPERVIOUS SURFACES. VACUUMED SAWCUTTING SLURRY SHALL BE PROPERLY DISPOSED OF AND NOT DISCHARGED INTO THE STORM SYSTEM.
- 7. AN AREA SHALL BE DESIGNATED FOR WASHING OUT CONCRETE TRUCKS SUCH THAT RUNOFF FROM WASHING ACTIVITIES ARE CONTAINED AND DO NOT LEAVE THE SITE OR ENTER THE STORM SYSTEM.
- SWEEPING FROM EXPOSED AGGREGATE CONCRETE SHALL NOT BE WASHED TO THE STREET OR STORM SYSTEM. SWEEPING SHALL BE COLLECTED AND PROPERLY DISPOSED OF IN THE TRASH.
- 9. PAVING IN WET WEATHER WHEN PAVING CHEMICALS CAN RUN OFF INTO THE STORM SYSTEM IS PROHIBITED.
- 10. TRACKING OF DIRT AND DEBRIS ONTO IMPERVIOUS SURFACES, SUCH AS STREETS AND PARKING LOTS, IS PROHIBITED. IMPERVIOUS SURFACES SHALL BE KEPT FREE OF DIRT AND DEBRIS AT ALL TIME IF IT CAN BE SPREAD BY TRAFFIC OR CAN ENTER THE STORM SYSTEM.
- 11. GRAVEL OR DIRT CURB RAMPS ARE PROHIBITED. ONLY WOOD STEP STYLE CURB RAMPS ARE ALLOWED.
- 12. UPON COMPLETION OF SITE RESTORATION AND APPROVAL FROM THE CITY OF MILWAUKIE ENGINEERING DIRECTOR. ALL TEMPORARY EROSION CONTROL MEASURES MAY BE REMOVED.
- DRAINAGE FROM SPRINGS OR GROUNDWATER MUST BE ADDRESSED DURING CONSTRUCTION BY THE CONTRACTOR. DISCHARGE FROM GROUNDWATER ENCOUNTERED ON THE SITE MUST BE CLEAN OF SEDIMENT OR POLLUTANTS.
- AREA SUBJECT TO WIND EROSION SHALL USE APPROPRIATE DUST CONTROL MEASURES INCLUDING THE APPLICATION OF A FINE SPRAY OF WATER, PLASTIC SHEETING, STRAW MULCH, OR OTHER APPROVED MEASURE.
- 15. DATES OF IMPLEMENTATION OF WET WEATHER MEASURES ARE OCTOBER 1ST TO APRIL 30TH.
- 16. MATERIAL SHALL NOT BE STOCKPILED ON PUBLIC STREETS OR IN THE RIGHT-OF-WAY LONGER THAN IMMEDIATE USE.
- 17. PRIOR TO ANY LAND DISTURBING ACTIVITIES, THE BOUNDARIES OF THE CLEARING LIMITS, VEGETATED BUFFERS, AND ANY SENSITIVE AREAS SHOWN ON THIS PLAN SHALL BE CLEARLY DELINEATED IN THE FIELD. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE IS PERMITTED BEYOND THE CLEARING LIMITS. THE CONTRACTOR MUST MAINTAIN THE DELINEATION FOR THE DURATION OF THE PROJECT. NOTE: VEGETATED CORRIDORS TO BE DELINEATED WITH ORANGE CONSTRUCTION FENCE OR APPROVED EQUAL.
- 18. PRIOR TO ANY LAND DISTURBING ACTIVITIES. THE BMP's THAT MUST BE INSTALLED ARE A GRAVEL CONSTRUCTION ENTRANCE, PERIMETER SEDIMENT CONTROL, AND INLET PROTECTION AS SPECIFIED, THESE BMP'S MUST BE MAINTAINED FOR THE DURATION OF THE PROJECT.
- 19. 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 WITH AN ESTABLISHED HEALTHY STAND OF GRASS OF 80% COVERAGE BY OCTOBER 1ST.
- 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. THE ESC PLAN MUST BE KEPT ON SITE. ALL MEASURES SHOWN ON THE PLAN MUST BE INSTALLED PROPERLY TO ENSURE THAT SEDIMENT OR SEDIMENT LADEN WATER DOES NOT ENTER A SURFACE WATER SYSTEM, ROADWAY, OR OTHER

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

- ALL BASE ESC MEASURES MUST BE IN PLACE, FUNCTIONAL, AND APPROVED IN AN INITIAL INSPECTION. PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
- 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 I THE AREA. NO ACTIVITIES ARE PERMITTED TO OCCUR BEYOND THE CONSTRUCTION BARRIER.
- CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
- RUN-ON AND RUN-OFF CONTROLS SHALL BE IN PLACE AND FUNCTIONING PRIOR TO BEGINNING SUBSTANTIAL CONSTRUCTION ACTIVITIES.
- 5. ITEMS NOTED FOR REMOVAL OR DEMOLITION TO BE DISPOSED OF IN A MANNER THAT MEETS APPLICABLE STATE AND FEDERAL REGULATIONS.
- INSTALLATION AND APPROVAL OF ALL TREE PROTECTION AND ESC MEASURES ARE NEEDED BEFORE CONSTRUCTION BEGINS.
- UNDERGROUND AND OVERHEAD POWER LINES AND FRANCHISE UTILITIES ARE LOCATED WITHIN RIGHT-OF-WAY ADJACENT TO THE PROJECT SITE. COORDINATE WORK WITH THE UTILITY COMPANY

#### TREE REMOVAL AND PRESERVATION NOTES:

- CONTRACTOR SHALL INSTALL 6' HIGH CHAIN LINK TREE PROTECTION FENCING AROUND ALL TREES TO REMAIN ON SITE DURING CONSTRUCTION. FENCING SHALL BE PLACED AT THE TREE DRIP LINE. COORDINATE TREE PROTECTION FENCING LOCATION WITH PROJECT ARBORIST.
- 2. INSTALLATION AND APPROVAL OF ALL TREE PROTECTION AND ESC MEASURES ARE NEEDED BEFORE CONSTRUCTION BEGINS.
- 3. TREE REMOVAL OPERATIONS SHALL NOT DAMAGE TREES TO BE SAVED.
- 4. ALL DEMOLITION AND TREE REMOVAL WITHIN THE TREE PROTECTION FENCING SHALL BE COMPLETED UNDER THE SUPERVISION OF THE PROJECT ARBORIST. NO REMOVAL OF ANY STRUCTURES OR TREES SHALL BE PERFORMED WITHOUT THE PROJECT ARBORIST ON SITE.

#### GRADING, STREET, AND UTILITY ESC CONSTRUCTION NOTES:

- SEED USE 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.
  - DWARF GRASS MIX (MIN 100 LB/AC)
    - 1. DWARF PERENNIAL RYEGRASS (80% BY WEIGHT) 2. CREEPING RED FESCUE (20% BY WEIGHT)
- C. STANDARD HEIGHT GRASS MIX (MIN 100 LB/AC)
  - 1. ANNUAL RYEGRASS (40% BY WEIGHT)
  - 2. TURF-TYPE FESCUE (60% BY WEIGHT)
- 2. SLOPE TO RECEIVE TEMPORARY OR PERMANENT SEEDING SHALL HAVE THE SURFACE ROUGHENED BY MEANS OF TRACK-WALKING OR THE USE OF OTHER APPROVED IMPLEMENTS. SURFACE ROUGHENING IMPROVES SEED BEDDING AND REDUCES RUN-OFF VELOCITY.
- 3. LONG TERM SLOPE STABILIZATION MEASURES SHALL INCLUDE THE ESTABLISHMENT OF PERMANENT VEGETATIVE COVER VIA HYDROSEEDING TO 2000 LBS/ACRES WITH AN ADDED TACKIFIER.
- 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. STOCKPILES SHALL BE COVERED WITH PLASTIC SHEETING OR STRAW MULCH. SEDIMENT FENCE IS REQUIRED AROUND THE PERIMETER OF THE
- 6. EXPOSED CUT OR FILL AREAS SHALL BE STABILIZED THROUGH THE USE OF TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS OR MATS, MID-SLOPE SEDIMENT FENCES OR WATTLES, OR OTHER APPROPRIATE MEASURES. SLOPES EXCEEDING 25% MAY REQUIRE ADDITIONAL EROSION CONTROL MEASURES.
- 7. AREAS SUBJECT TO WIND EROSION SHALL USE APPROPRIATE DUST CONTROL MEASURES INCLUDING THE APPLICATION OF A FINE SPRAY OF WATER. PLASTIC SHEETING. STRAW MULCHING. OR OTHER APPROVED MEASURES.
- 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 REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
- ACTIVE INLETS TO STORM WATER SYSTEMS SHALL BE PROTECTED THROUGH THE USE OF APPROVED INLET PROTECTION MEASURES. ALL INLET PROTECTION MEASURES ARE TO BE REGULARLY INSPECTED AND MAINTAINED AS NEEDED.
- 10. SATURATED MATERIALS THAT ARE HAULED OFF-SITE MUST BE TRANSPORTED IN WATER-TIGHT TRUCKS TO ELIMINATE SPILLAGE OF SEDIMENT AND SEDIMENT-LADEN WATER.
- 11. AN AREA SHALL BE PROVIDED FOR THE WASHING OUT OF CONCRETE TRUCKS IN A LOCATION THAT DOES NOT PROVIDE RUN-OFF THAT CAN ENTER THE STORM WATER SYSTEM. IF THE CONCRETE WASH-OUT AREA CAN NOT BE CONSTRUCTED GREATER THAN 50 FEET 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 CAPACITY.
- 12. SWFFPING 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
- 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.
- 16. CONTRACTOR TO PROTECT UICs AND DRYWELLS DURING CONSTRUCTION TO PREVENT SEDIMENT FROM ENTERING
- 17. AFTER OCTOBER 1ST, COVER AREAS AT FINAL GRADE WITH SEED/STRAW MULCH AT 4000 LBS/ACRE.
- \* HOLD A PRE-CONSTRUCTION MEETING OF PROJECT CONSTRUCTION PERSONNEL, INCLUDING THE INSPECTOR, TO DISCUSS EROSION AND SEDIMENT CONTROL MEASURES AND CONSTRUCTION LIMITS.
- \* ALL INSPECTIONS MUST BE MADE IN ACCORDANCE WITH 1200-CN PERMIT REQUIREMENTS.
- \* INSPECTION LOGS MUST BE KEPT IN ACCORDANCE WITH 1200-CN PERMIT REQUIREMENTS.
- \* RETAIN A COPY OF THE ESC PLAN AND ALL REVISIONS ON SITE AND MAKE IT AVAILABLE ON REQUEST TO DEQ, AGENT, OR THE LOCAL MUNICIPALITY. DURING INACTIVE PERIODS OF GREATER THAN SEVEN (7) CONSECUTIVE CALENDAR DAYS, RETAIN THE ESC PLAN AT THE CONSTRUCTION SITE OR AT ANOTHER LOCATION.
- \* CHANGES TO THE APPROVED ESC PLAN MUST BE SUBMITTED TO DEQ IN THE FORM OF AN ACTION PLAN.

01/2023 DESIGNED DATE BB 01/2023 DRAFTED DATE CHECKED DATE APPROVED DATE DATE BY REVISIONS

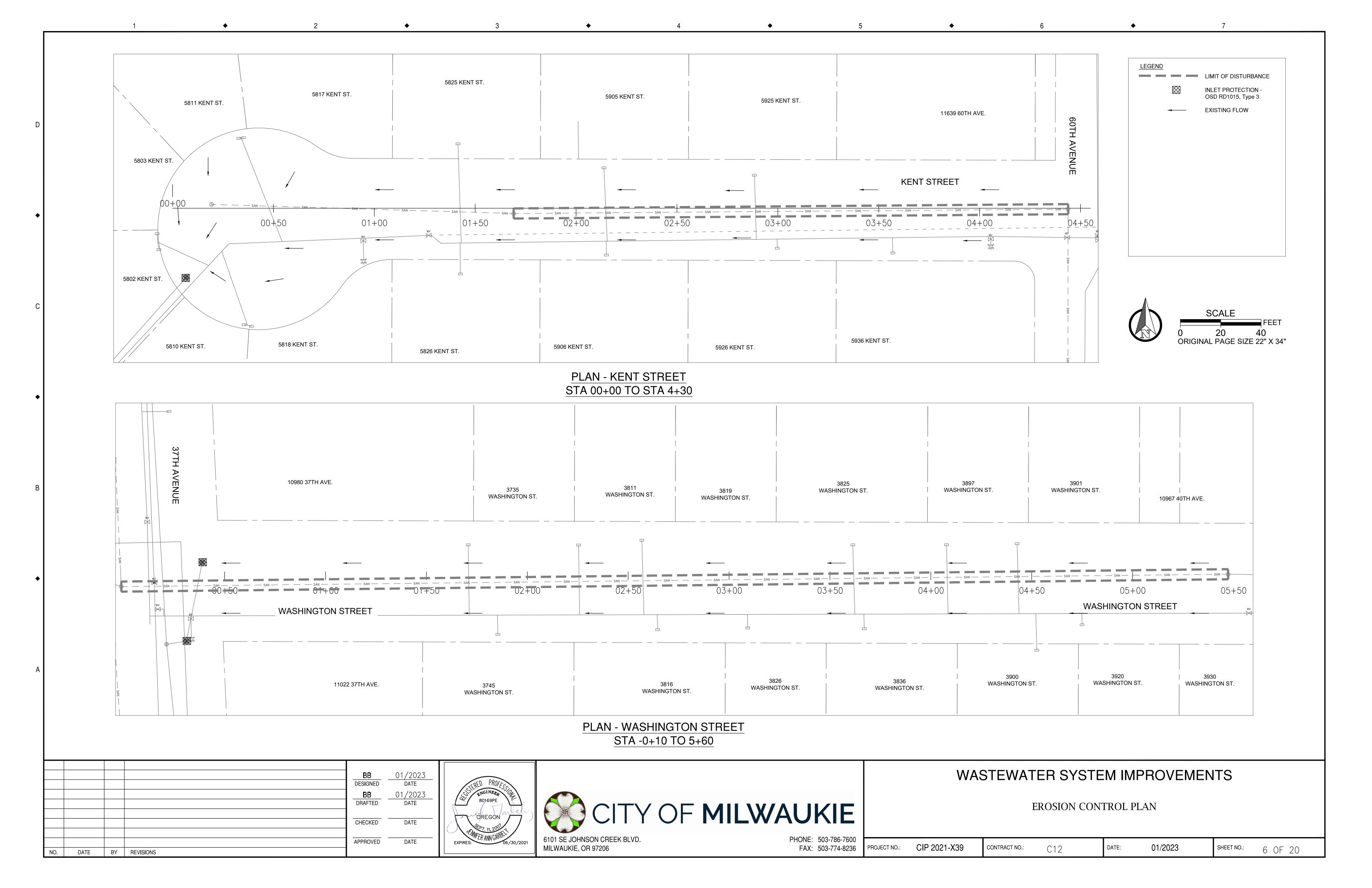


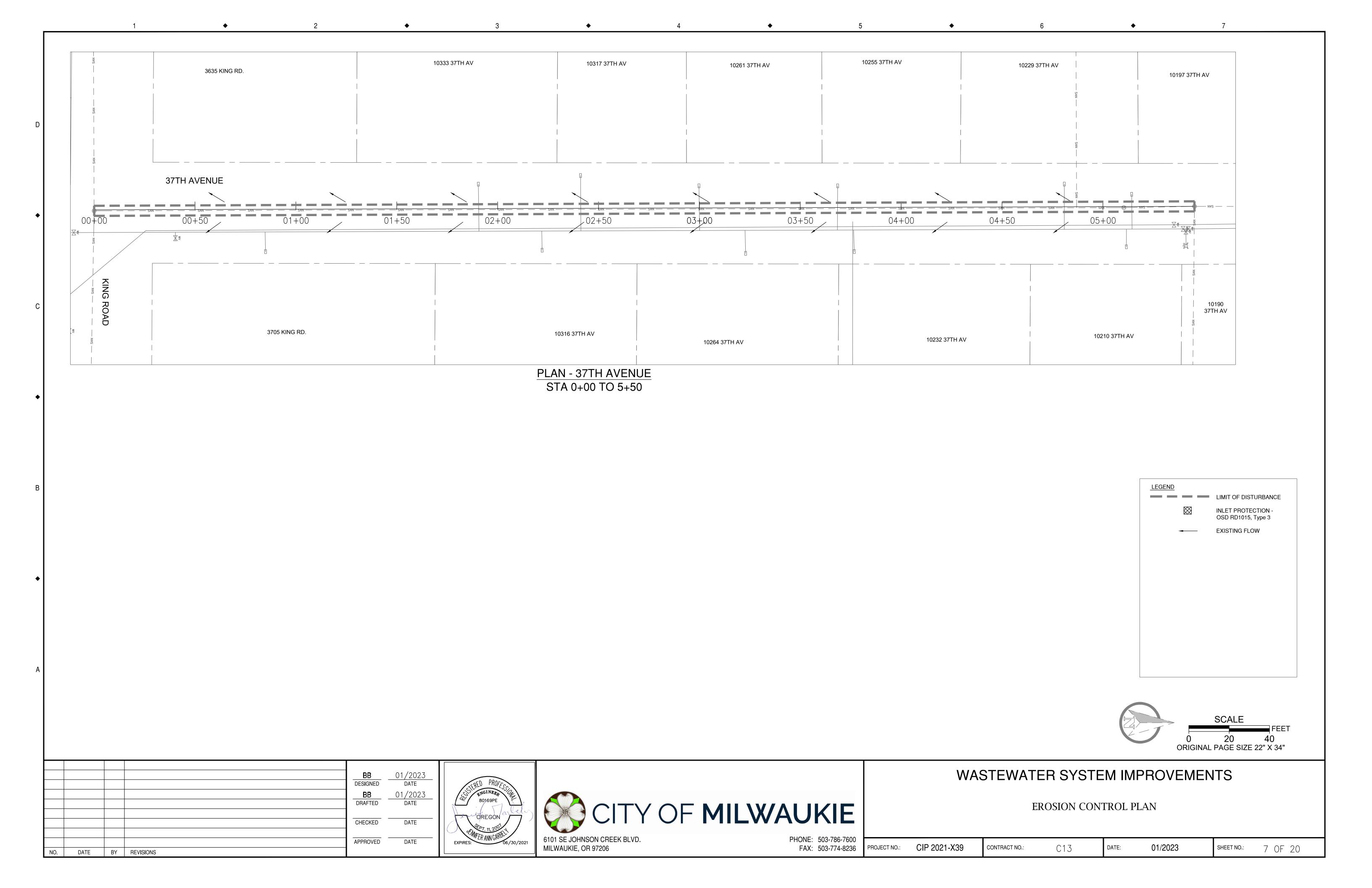


**EROSION CONTROL NOTES** 

WASTEWATER SYSTEM IMPROVEMENTS

CIP 2021-X39 01/2023 5 OF 20 PROJECT NO.: CONTRACT NO.: C11 SHEET NO.:





LEGEND

LIMIT OF DISTURBANCE

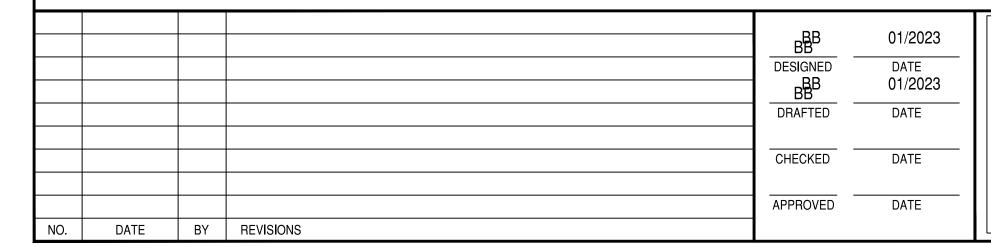
INLET PROTECTION OSD RD1015, Type 3

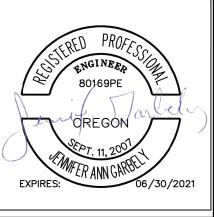
EXISTING FLOW

EXISTING CANOPY COVER

PLAN - Milwaukie Station 11301 SE 21st Av







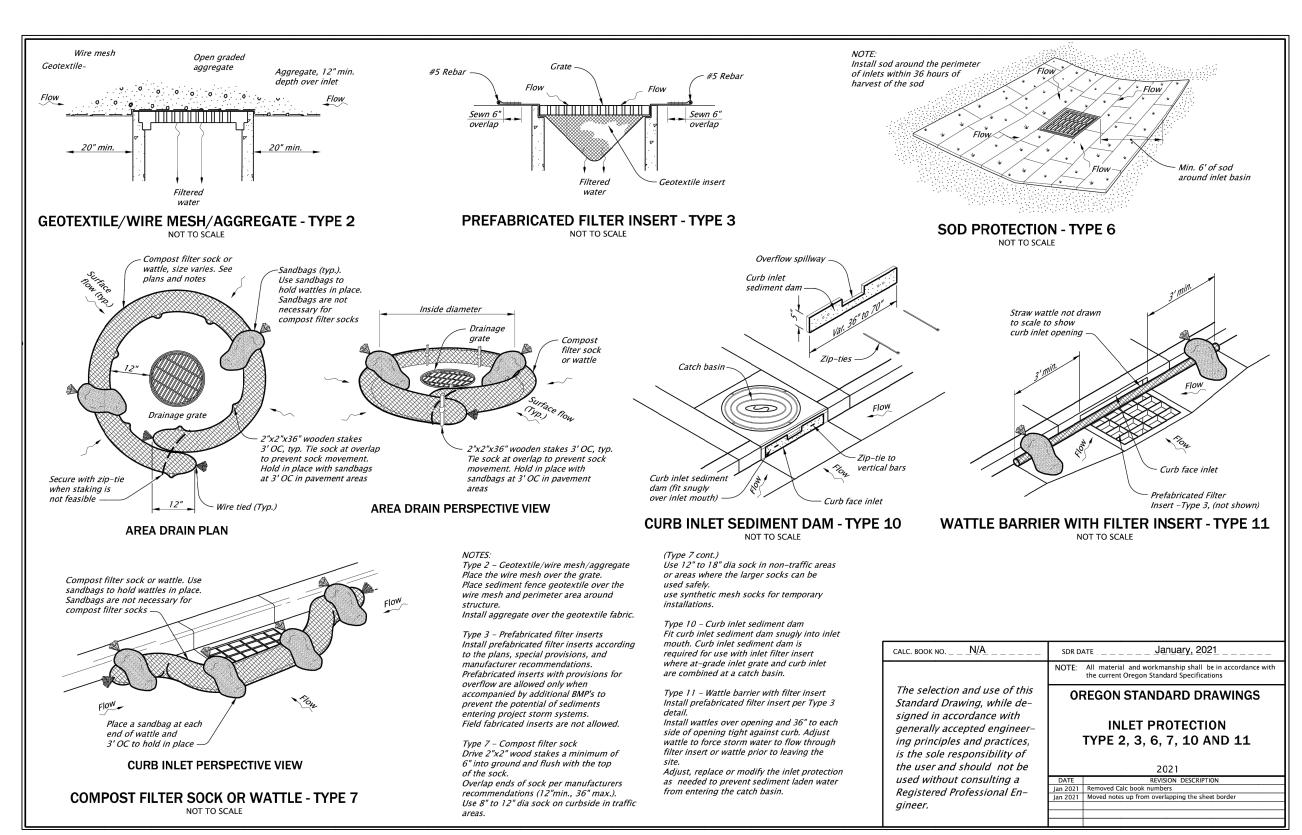


# WASTEWATER SYSTEM IMPROVEMENTS

EROSION CONTROL PLAN

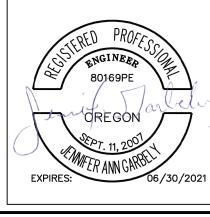
Milwaukie Station Food Cart Pod

PROJECT NO.: CIP 2021-X39 CONTRACT NO.: C14 DATE: 01/2023 SHEET NO.: 8 OF 20



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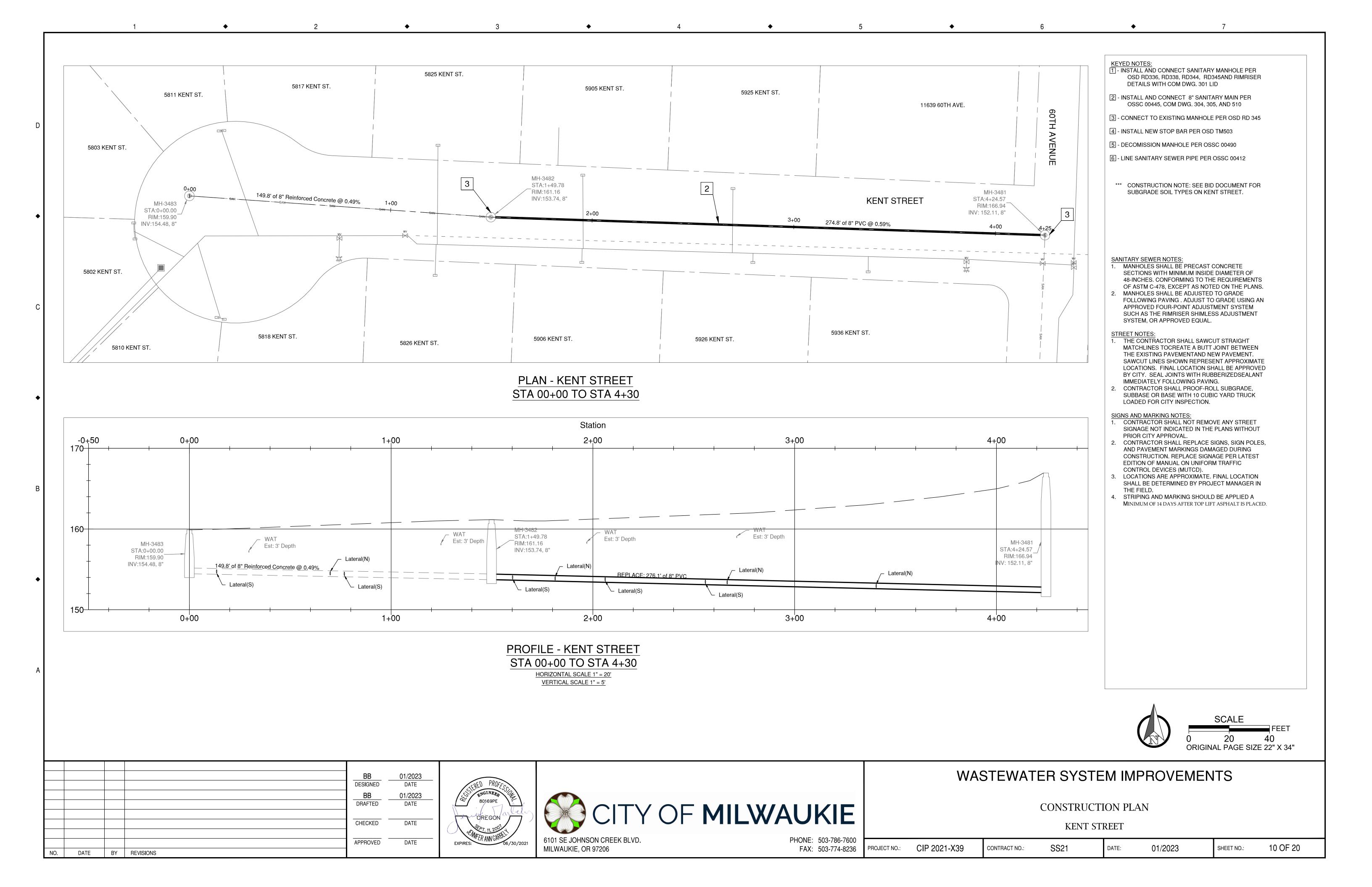


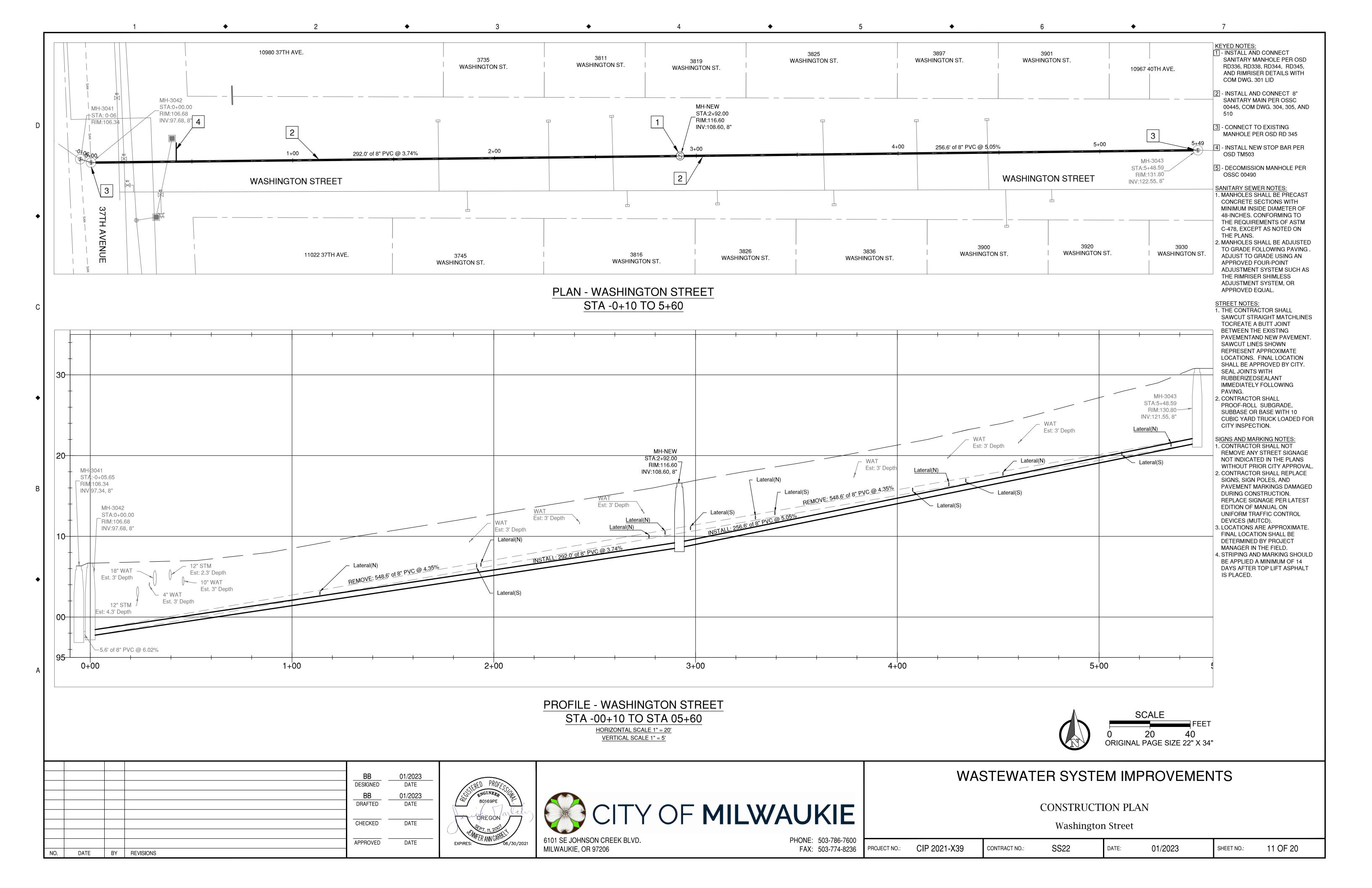


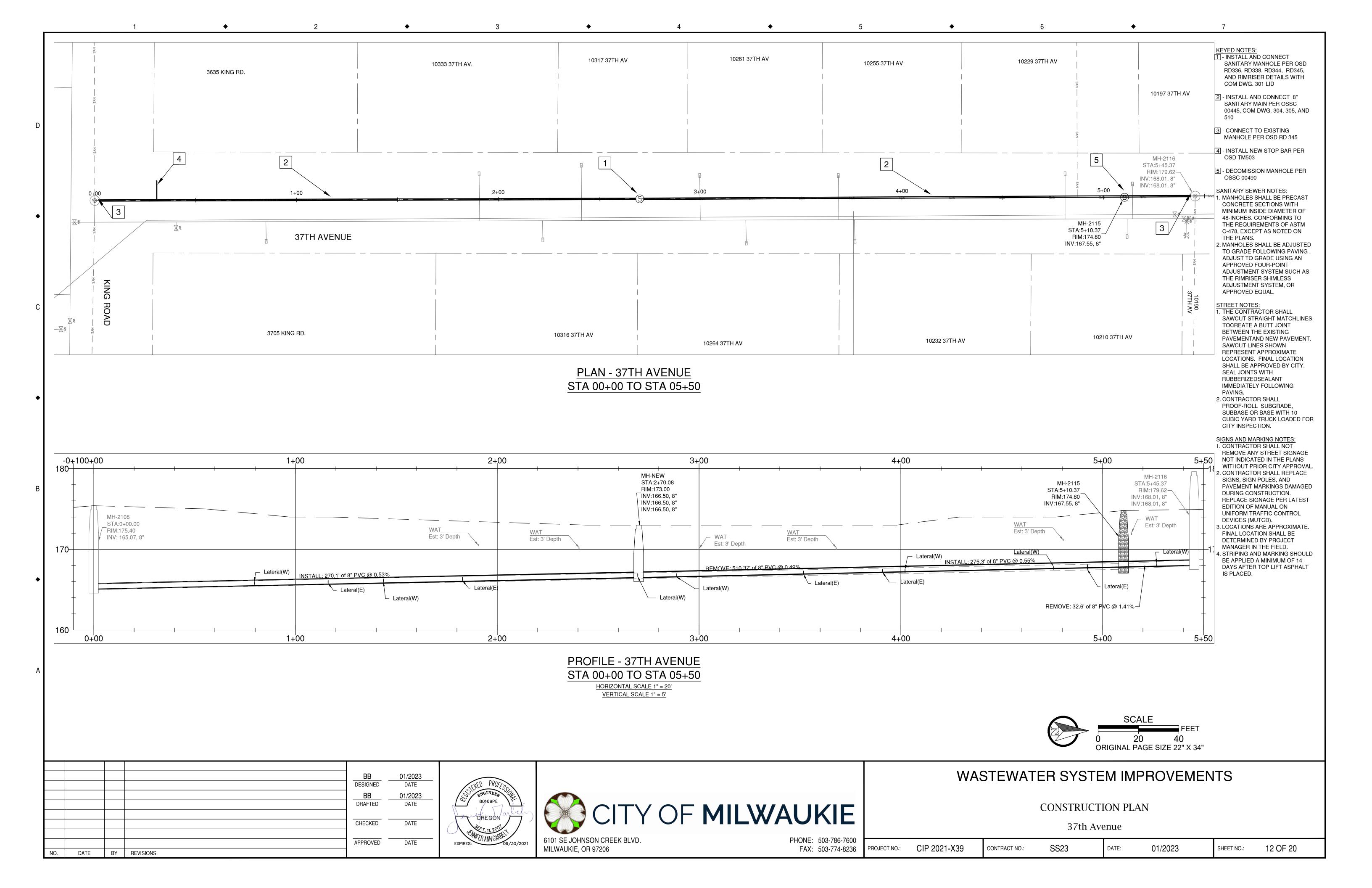
## WASTEWATER SYSTEM IMPROVEMENTS

EROSION CONTROL DETAILS

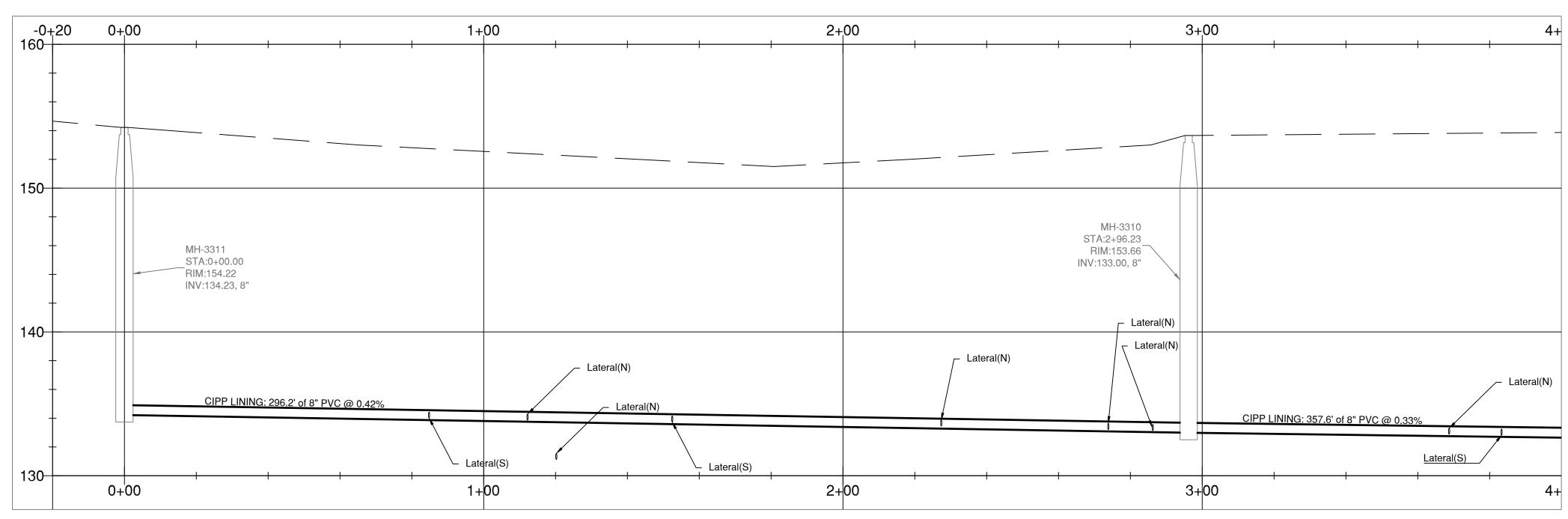
PROJECT NO.: CIP 2021-X39 CONTRACT NO.: C15 DATE: 01/2023 SHEET NO.: 9 OF 20







10594 47TH AVE. 4751 HARRISON ST. 4793 HARRISON ST. 4815 HARRISON ST. 4841 HARRISON ST. 4877 HARRISON ST. 1+00 2+00 HARRISON STREET MH-3310 STA:0+00.00 STA:2+96.23 RIM:154.22 RIM:153.66 INV:134.23, 8" INV:133.00, 8" 4700 HARRISON ST. 4744 HARRISON ST. 4784 HARRISON ST. 4846 HARRISON ST. 4866 HARRISON ST. PLAN - HARRISON STREET STA 0+00 TO 4+00



PROFILE - HARRISON STREET

STA 00+00 TO STA 04+00

HORIZONTAL SCALE 1" = 20' VERTICAL SCALE 1" = 5' KEYED NOTES:

- 1 INSTALL AND CONNECT SANITARY MANHOLE PER OSD RD336, RD338, RD344, RD345AND RIMRISER DETAILS WITH COM DWG. 301 LID
- 2 INSTALL AND CONNECT 8" SANITARY MAIN PER OSSC 00445, COM DWG. 304, 305, AND 510
- 3 CONNECT TO EXISTING MANHOLE PER OSD RD 345
- 4 INSTALL NEW STOP BAR PER OSD TM503
- 5 DECOMISSION MANHOLE PER OSSC 00490
- 6 LINE SANITARY SEWER PIPE PER OSSC 00412
- \*\*\* CONSTRUCTION NOTE: SEE BID DOCUMENT FOR SUBGRADE SOIL TYPES ON KENT STREET.

SANITARY SEWER NOTES:

- MANHOLES SHALL BE PRECAST CONCRETE
   SECTIONS WITH MINIMUM INSIDE DIAMETER OF
   48-INCHES. CONFORMING TO THE REQUIREMENTS
   OF ASTM C-478, EXCEPT AS NOTED ON THE PLANS.
- 2. MANHOLES SHALL BE ADJUSTED TO GRADE FOLLOWING PAVING . ADJUST TO GRADE USING AN APPROVED FOUR-POINT ADJUSTMENT SYSTEM SUCH AS THE RIMRISER SHIMLESS ADJUSTMENT SYSTEM, OR APPROVED EQUAL.

#### STREET NOTES:

- 1. THE CONTRACTOR SHALL SAWCUT STRAIGHT
  MATCHLINES TOCREATE A BUTT JOINT BETWEEN
  THE EXISTING PAVEMENTAND NEW PAVEMENT.
  SAWCUT LINES SHOWN REPRESENT APPROXIMATE
  LOCATIONS. FINAL LOCATION SHALL BE APPROVED
  BY CITY. SEAL JOINTS WITH RUBBERIZEDSEALANT
  IMMEDIATELY FOLLOWING PAVING.
- CONTRACTOR SHALL PROOF-ROLL SUBGRADE, SUBBASE OR BASE WITH 10 CUBIC YARD TRUCK LOADED FOR CITY INSPECTION.

#### SIGNS AND MARKING NOTES:

- 1. CONTRACTOR SHALL NOT REMOVE ANY STREET SIGNAGE NOT INDICATED IN THE PLANS WITHOUT PRIOR CITY APPROVAL.
- 2. CONTRACTOR SHALL REPLACE SIGNS, SIGN POLES, AND PAVEMENT MARKINGS DAMAGED DURING CONSTRUCTION. REPLACE SIGNAGE PER LATEST EDITION OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- 3. LOCATIONS ARE APPROXIMATE. FINAL LOCATION SHALL BE DETERMINED BY PROJECT MANAGER IN THE FIELD.
- 4. STRIPING AND MARKING SHOULD BE APPLIED A MINIMUM OF 14 DAYS AFTER TOP LIFT ASPHALT IS PLACED.



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# WASTEWATER SYSTEM IMPROVEMENTS

#### CONSTRUCTION PLAN

SS24

CONTRACT NO.:

CIP 2021-X39

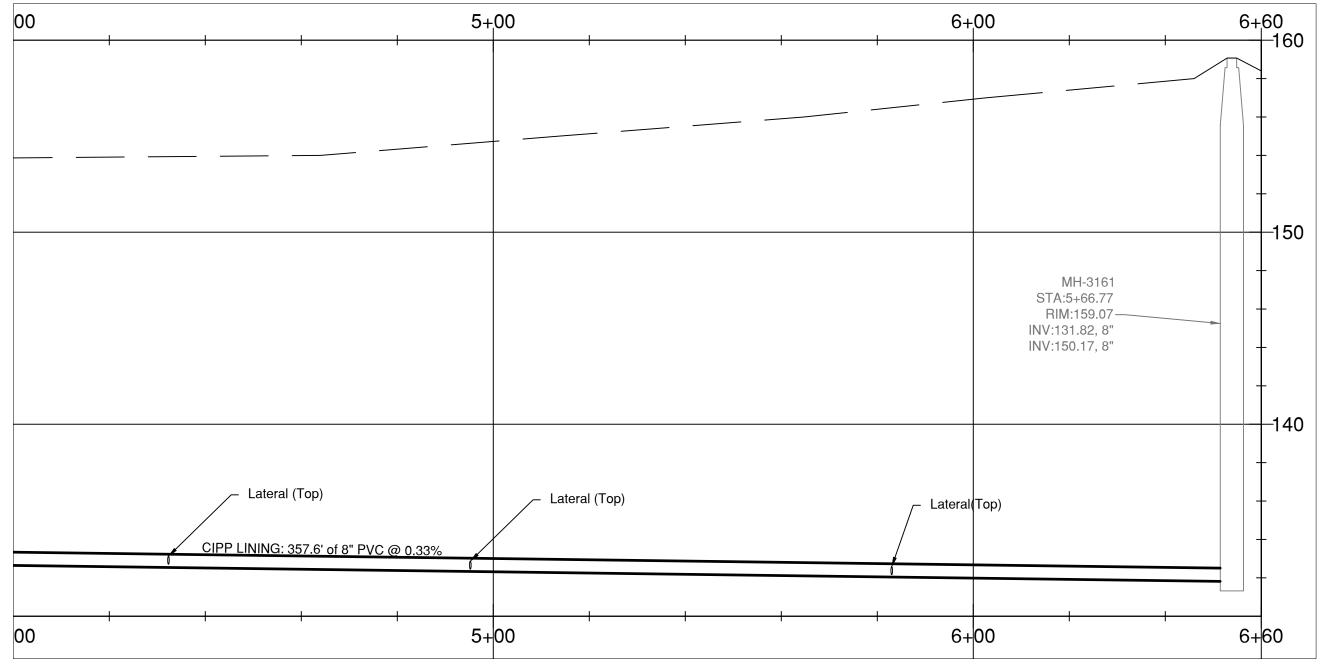
Harrison Street

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DATE: 01/2023

SHEET NO.: 13 OF 20

4901 HARRISON ST. 4933 HARRISON ST. 4957 HARRISON ST. HOME HARRISON ST. AVENUE 5+00 HARRISON STREET 4868 4902 HARRISON ST. 4908 HARRISON ST. 10603 HOME AV. HARRISON ST. PLAN - HARRISON STREET STA 04+00 TO 06+60



PROFILE - HARRISON STREET STA 04+00 TO STA 06+60 HORIZONTAL SCALE 1" = 20' VERTICAL SCALE 1" = 5'

# WASTEWATER SYSTEM IMPROVEMENTS

CONSTRUCTION PLAN

Harrison Street

CIP 2021-X39

PROJECT NO.:

SS25 14 OF 20 01/2023 CONTRACT NO.: SHEET NO.:

1 - INSTALL AND CONNECT SANITARY MANHOLE PER

2 - INSTALL AND CONNECT 8" SANITARY MAIN PER

OSSC 00445, COM DWG. 304, 305, AND 510

3 - CONNECT TO EXISTING MANHOLE PER OSD RD 345

DETAILS WITH COM DWG. 301 LID

4 - INSTALL NEW STOP BAR PER OSD TM503

5 - DECOMISSION MANHOLE PER OSSC 00490

**SANITARY SEWER NOTES:** 

6 - LINE SANITARY SEWER PIPE PER OSSC 00412

1. MANHOLES SHALL BE PRECAST CONCRETE

2. MANHOLES SHALL BE ADJUSTED TO GRADE

SYSTEM, OR APPROVED EQUAL.

IMMEDIATELY FOLLOWING PAVING.

LOADED FOR CITY INSPECTION.

SIGNS AND MARKING NOTES:

PRIOR CITY APPROVAL.

THE FIELD.

CONTROL DEVICES (MUTCD).

2. CONTRACTOR SHALL PROOF-ROLL SUBGRADE, SUBBASE OR BASE WITH 10 CUBIC YARD TRUCK

1. CONTRACTOR SHALL NOT REMOVE ANY STREET SIGNAGE NOT INDICATED IN THE PLANS WITHOUT

2. CONTRACTOR SHALL REPLACE SIGNS, SIGN POLES, AND PAVEMENT MARKINGS DAMAGED DURING CONSTRUCTION. REPLACE SIGNAGE PER LATEST EDITION OF MANUAL ON UNIFORM TRAFFIC

3. LOCATIONS ARE APPROXIMATE, FINAL LOCATION SHALL BE DETERMINED BY PROJECT MANAGER IN

4. STRIPING AND MARKING SHOULD BE APPLIED A

MINIMUM OF 14 DAYS AFTER TOP LIFT ASPHALT IS PLACED.

SCALE

SECTIONS WITH MINIMUM INSIDE DIAMETER OF 48-INCHES, CONFORMING TO THE REQUIREMENTS

OF ASTM C-478, EXCEPT AS NOTED ON THE PLANS.

FOLLOWING PAVING . ADJUST TO GRADE USING AN APPROVED FOUR-POINT ADJUSTMENT SYSTEM SUCH AS THE RIMRISER SHIMLESS ADJUSTMENT

THE CONTRACTOR SHALL SAWCUT STRAIGHT MATCHLINES TOCREATE A BUTT JOINT BETWEEN THE EXISTING PAVEMENTAND NEW PAVEMENT. SAWCUT LINES SHOWN REPRESENT APPROXIMATE LOCATIONS. FINAL LOCATION SHALL BE APPROVED BY CITY. SEAL JOINTS WITH RUBBERIZEDSEALANT

\*\*\* CONSTRUCTION NOTE: SEE BID DOCUMENT FOR

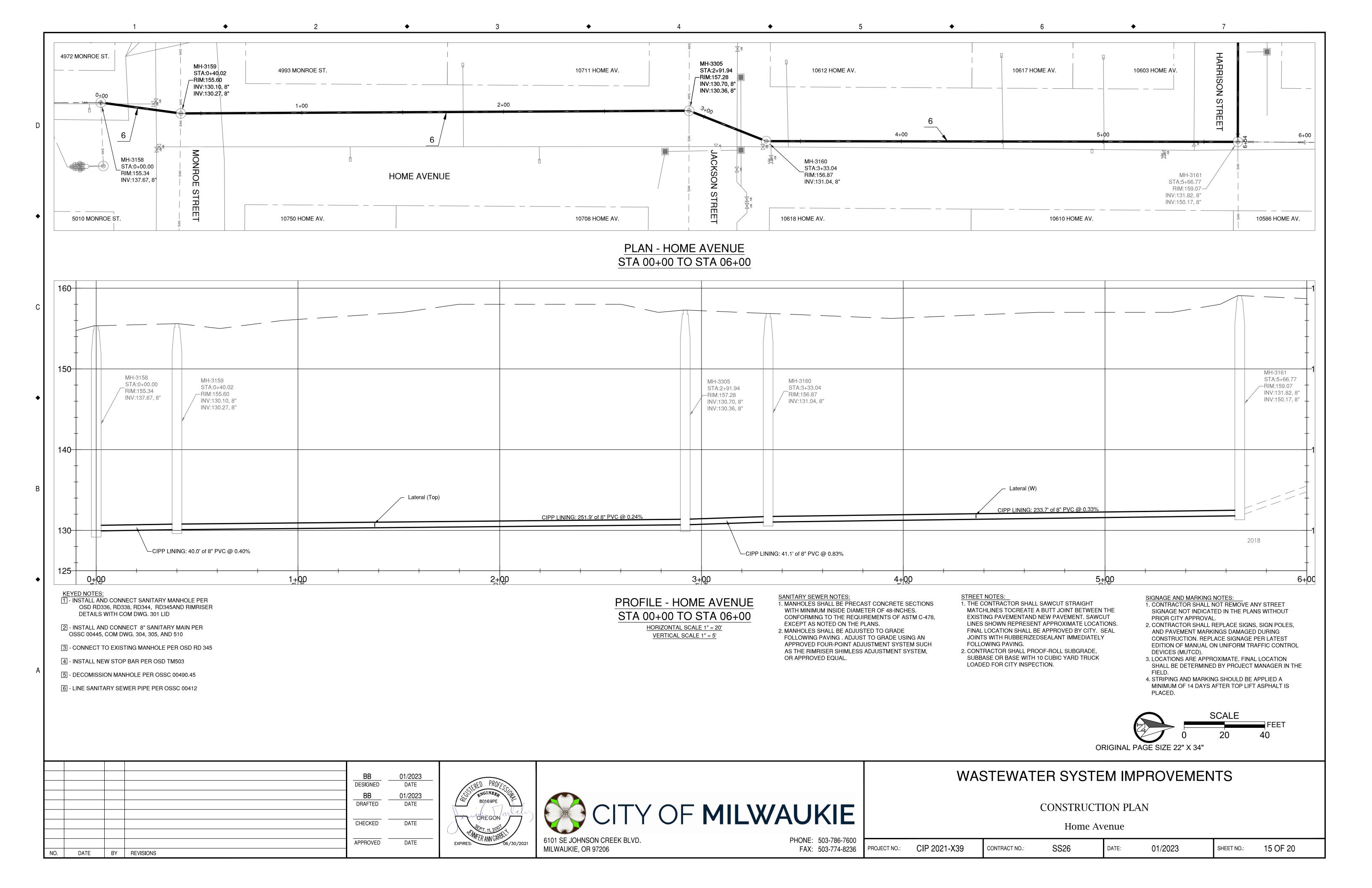
SUBGRADE SOIL TYPES ON KENT STREET.

OSD RD336, RD338, RD344, RD345AND RIMRISER

01/2023 DESIGNED DATE DRAFTED CHECKED APPROVED NO. DATE BY REVISIONS







21ST AVENUE

PLAN - Milwaukie Station Food Cart Pod 11301 SE 21st Av

KEVED

- 1 INSTALL AND CONNECT SANITARY MANHOLE PER OSD RD336, RD338, RD344, RD345 AND RIMRISER DETAILS WITH COM DWG. 301 LID
- 2 INSTALL AND CONNECT 8" SANITARY MAIN PER OSSC 00445, COM DWG. 304, 305, AND 510
- 3 CONNECT TO EXISTING MANHOLE PER OSD RD 345
- 4 INSTALL NEW STOP BAR PER OSD TM503
- 5 DECOMISSION MANHOLE PER OSSC 00490
- 6 LINE SANITARY SEWER PIPE PER OSSC 00412
- 7 INSTALL AND CONNECT 4" PVC SANITARY LINE PER OSSC 00445, COM DWG. 304, 305, AND 510
- 8 INSTALL 4" PVC SANITARY CLEANOUT WITH A HATCH LID APPROVED BY ENGINEER PER OSD RD362 AS MODIFIED IN THESE PLANS.
- INSTALL SCHIER GB-250 GREASE INTERCEPTOR OR APPROVED EQUAL WITH TRAFFIC RATED LIDS IN A 5'X9' CONCRETE PAD
- 10 PROTECT EXISTING 2' DEEP X 2' SPACED WATER & ELECTRIC LINES

MILWAUKIE STATION FOOD CART POD NOTES:

- BUSINESSES ARE EXPECTED TO BE OPEN AND OPERATING AS USUAL. PROVIDE PUBLIC ACCESS.
   IF A TEMPORARY CLOSURE IS NECESSARY,
- COORDINATE THROUGH THE ENGINEER A MINIMUM OF 7 CALENDAR DAYS IN ADVANCE.

  3. THE ENGINEER MAY PERMIT NIGHT WORK TO EASE
- THE IMPACT ON THE BUSINESSES ONSITE.

  4. FOOD CARTS ARE NOT EXPECTED TO BE MOVED
- FOR CONSTRUCTION

  TRENCH RESUREACING WILL INCLUDE RETURNING
- 5. TRENCH RESURFACING WILL INCLUDE RETURNING ASPHALT, SIDEWALK, AND GRAVEL TO PREEXISTING CONDITIONS.
- 6. IF COVERS FOR SEATING AREAS ARE TO BE DISASSEMBLED IN PART OR IN FULL SO WORK MAY PROCEED, THEY WILL BE REASSEMBLED INCIDENTAL TO OTHER BID ITEMS.

SANITARY SEWER NOTES:

- 1. MANHOLES SHALL BE PRECAST CONCRETE SECTIONS WITH MINIMUM INSIDE DIAMETER OF 48-INCHES. CONFORMING TO THE REQUIREMENTS OF ASTM C-478, EXCEPT AS NOTED ON THE PLANS.
- 2. MANHOLES SHALL BE ADJUSTED TO GRADE FOLLOWING PAVING . ADJUST TO GRADE USING AN APPROVED FOUR-POINT ADJUSTMENT SYSTEM SUCH AS THE RIMRISER SHIMLESS ADJUSTMENT SYSTEM, OR APPROVED EQUAL.

TREET NOTES:

- THE CONTRACTOR SHALL SAWCUT STRAIGHT
  MATCHLINES TOCREATE A BUTT JOINT BETWEEN
  THE EXISTING PAVEMENTAND NEW PAVEMENT.
  SAWCUT LINES SHOWN REPRESENT APPROXIMATE
  LOCATIONS. FINAL LOCATION SHALL BE APPROVED
  BY CITY. SEAL JOINTS WITH RUBBERIZEDSEALANT
  IMMEDIATELY FOLLOWING PAVING.
- 2. CONTRACTOR SHALL PROOF-ROLL SUBGRADE, SUBBASE OR BASE WITH 10 CUBIC YARD TRUCK LOADED FOR CITY INSPECTION.

SIGNS AND MARKING NOTES:

- 1. CONTRACTOR SHALL NOT REMOVE ANY STREET SIGNAGE NOT INDICATED IN THE PLANS WITHOUT PRIOR CITY APPROVAL.
- 2. CONTRACTOR SHALL REPLACE SIGNS, SIGN POLES, AND PAVEMENT MARKINGS DAMAGED DURING CONSTRUCTION. REPLACE SIGNAGE PER LATEST EDITION OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- 3. LOCATIONS ARE APPROXIMATE. FINAL LOCATION SHALL BE DETERMINED BY PROJECT MANAGER IN THE FIELD.
- 4. STRIPING AND MARKING SHOULD BE APPLIED A MINIMUM OF 14 DAYS AFTER TOP LIFT ASPHALT IS PLACED.



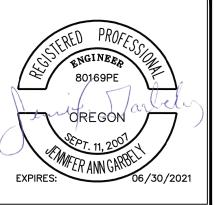
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				APPROVED	DATE
NO	DATE	BV	REVISIONS		



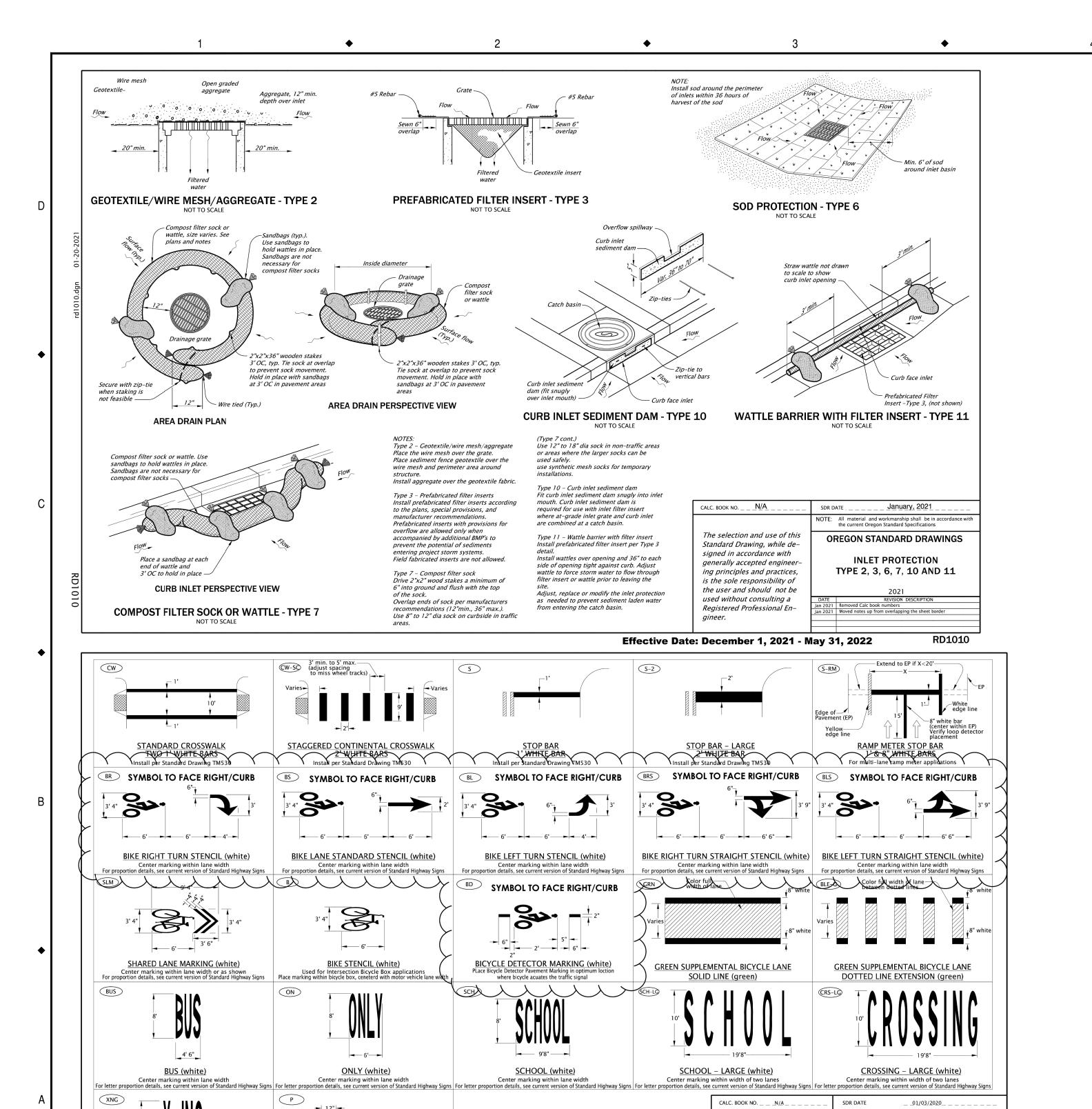


# WASTEWATER SYSTEM IMPROVEMENTS

CONSTRUCTION PLAN

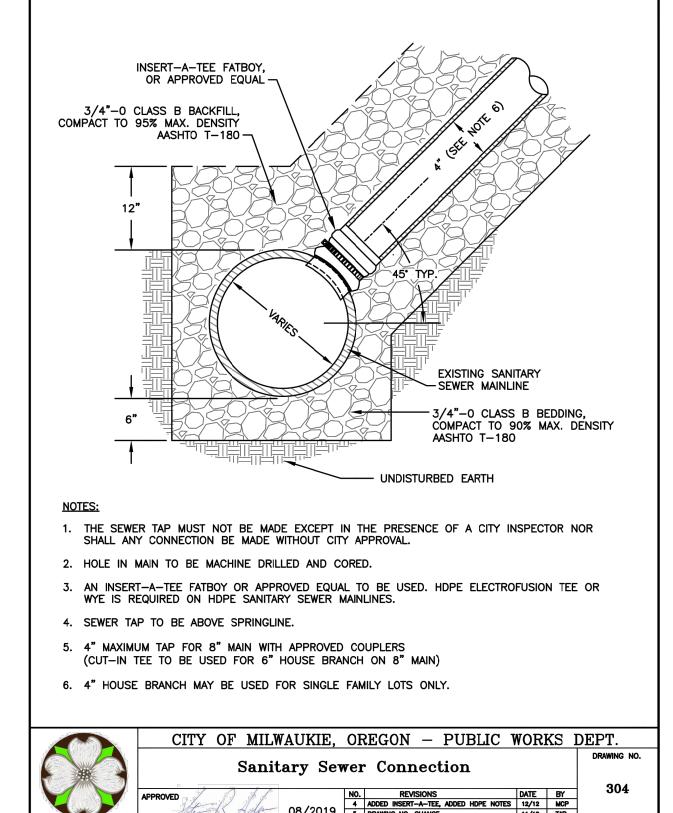
Milwaukie Station Food Cart Pod

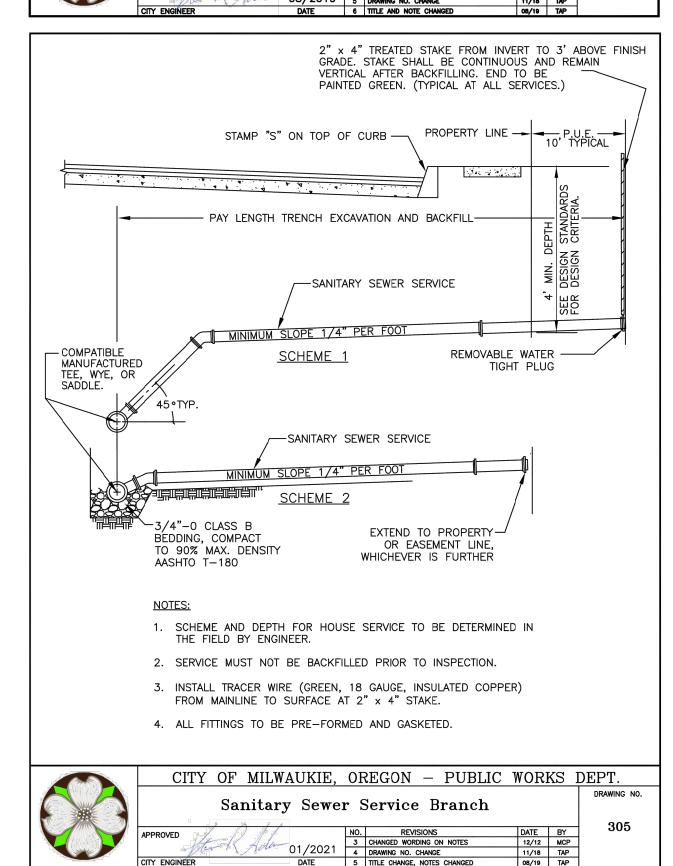
PROJECT NO.: CIP 2021-X39 CONTRACT NO.: SS27 DATE: 01/2023 SHEET NO.: 16 OF 20

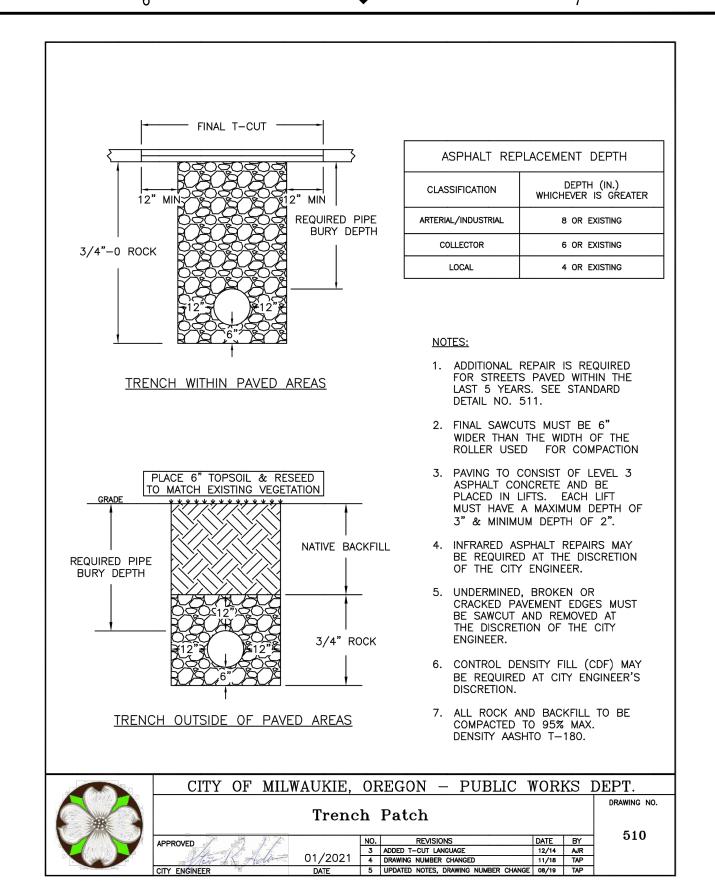


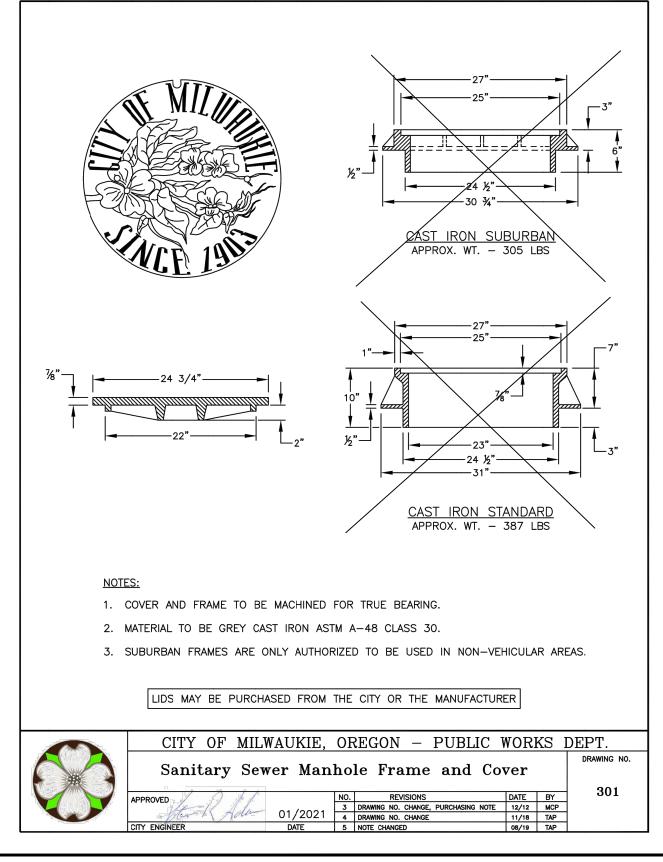
General Note:

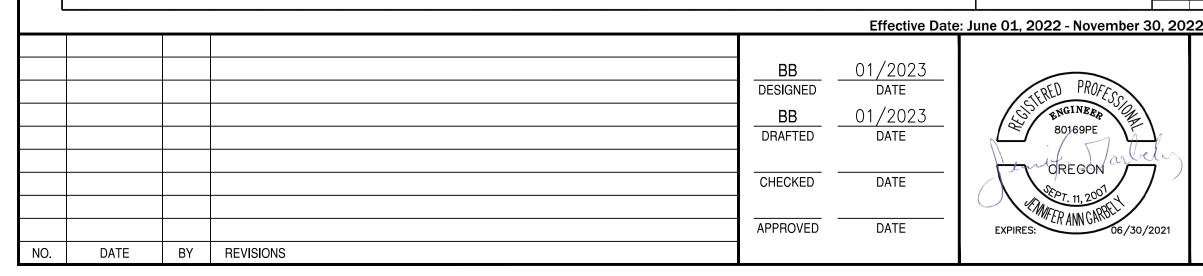
. Arrow, letter, and bike symbol dimensions nominal.









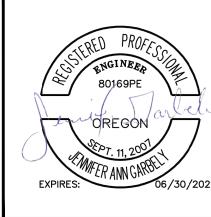


ON-STREET PARKING DETAIL (white)

X-ING (white)

Center marking within lane width

For letter proportion details, see current version of Standard Highway Signs



The selection and use of this

Standard Drawing, while de-

signed in accordance with

generally accepted engineer

ing principles and practices,

is the sole responsibility of

the user and should not be

used without consulting a Registered Professional En-

<u>L E G E N D</u> C Direction of Trave OREGON STANDARD DRAWINGS

**PAVEMENT MARKING** 

STANDARD DETAIL BLOCKS

\*AS MODIFIED BY CITY OF MILWAUKIE

TM503



# WASTEWATER SYSTEM IMPROVEMENTS

CONSTRUCTION DETAILS

SS28 SHEET NO.: 17 OF 20 CIP 2021-X39 PROJECT NO.: CONTRACT NO.: DATE: 01/2023

