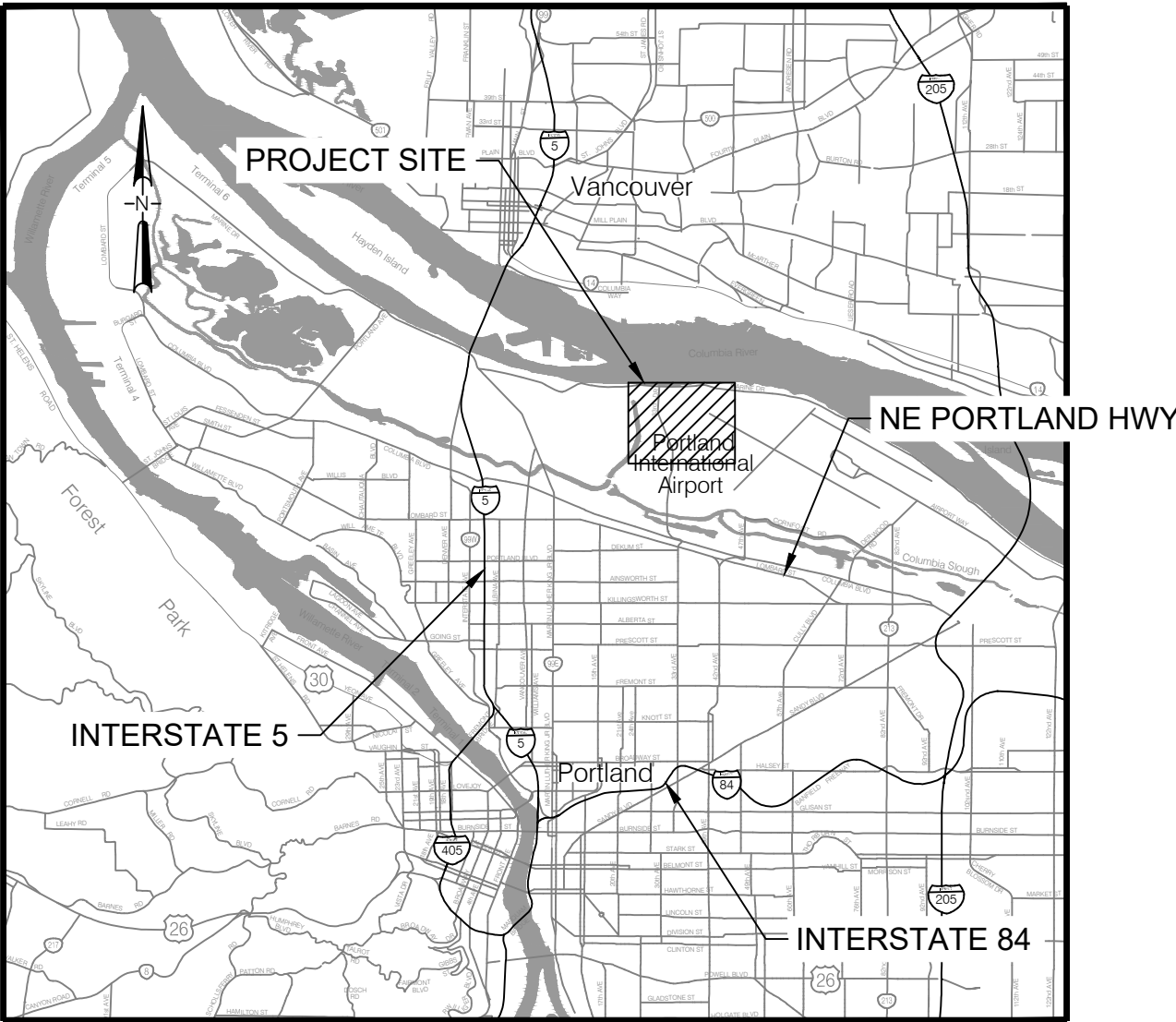


PORTLAND INTERNATIONAL AIRPORT PDX FACILITY IMPROVEMENTS

DECEMBER 21, 2023
ISSUED FOR PERMIT



VICINITY MAP
SCALE: N.T.S.

no.	date	by	ckd	description
A	12/21/23	LBM	RU	ISSUED FOR PERMIT



CIVIL SHEET INDEX	
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EG103	GROUNDING PLAN
EG104	GROUNDING PLAN
EG106	GROUNDING PLAN
EG107	GROUNDING PLAN
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EG104	GROUNDING PLAN
EG106	GROUNDING PLAN
EG107	GROUNDING PLAN
EG102	GROUDING PLAN
EG103	GROUDING PLAN
EG104	GROUDING PLAN
EG106	GROUDING PLAN
EG107	GROUDING PLAN
E-610	HYDRANT PUMP VFD SCHEMATIC
E-613	TRANSFER PUMP SCHEMATIC

Millimeters

Scale For Microfining

Inches

no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT

ISSUED FOR PERMIT ONLY



date	08/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

PDX FUEL COMPANY L.L.C

PORTLAND INTERNATIONAL AIRPORT
5000 NE MARINE DR.
PORTLAND, OREGON 97218

PDX FACILITY IMPROVEMENTS SHEET INDEX

project	153929	contract	
drawing	G-001	rev.	A

file 153929G-101.DWG

GENERAL NOTES:

- DEFINED TERMS:
A. OWNER: PORT OF PORTLAND (POP, PORT)
B. TENANT: PDX FUEL COMPANY, LLC
C. OPERATOR: MENZIES AVIATION
D. ENGINEER: BURNS & MCDONNELL
E. CONTRACTOR: BURNS & MCDONNELL
- SEE SHEET V-101 FOR HORIZONTAL AND VERTICAL CONTROL BENCHMARK INFORMATION.
- ALL DIMENSIONS, ELEVATIONS, AND STATIONS ARE IN FEET, UNLESS INDICATED OTHERWISE.
- CALLOUTS, COORDINATES, AND DIMENSIONS ARE POINTED TO OR MEASURED TO STRUCTURE CENTER, EDGE OF PAVEMENT, BACK OF CURB, OR OUTSIDE FACE OF FOUNDATION WALL, UNLESS INDICATED OTHERWISE.
- ALL WORK SHALL BE SUBJECT TO INSPECTION BY AUTHORIZED PERSONNEL OF LOCAL AND GOVERNMENT REGULATORY AGENCIES AND THE CONTRACTOR.
- ALL WORK SHALL BE CONDUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS AND LOCAL AND GOVERNMENT CODES, ORDINANCES, AND REGULATIONS. IN CASE OF CONTRADICTION OR DISCREPANCY BETWEEN REQUIREMENTS, SUBCONTRACTOR SHALL INCORPORATE WHICHEVER IS MOST STRINGENT. WHERE A QUESTION REMAINS ON WHICH REQUIREMENT IS MOST STRINGENT, SUBCONTRACTOR SHALL SUBMIT ISSUE TO THE CONTRACTOR IN WRITING. THE DECISION OF THE CONTRACTOR SHALL BE CONSIDERED FINAL.
- ALL WORK SHALL BE CONDUCTED IN A PROFESSIONAL WORKMANSHIP MANNER USING QUALITY MATERIALS. WORK SHALL CONFORM TO THE CONTRACT SPECIFICATIONS, UNLESS INDICATED OTHERWISE OR AS DIRECTED BY THE CONTRACTOR.
- WHEN CONSTRUCTION WORK IS RESTRICTED TO BEING PERFORMED WITHIN EASEMENTS, SUBCONTRACTOR SHALL CONFINE WORK WITHIN THE PERMANENT AND TEMPORARY EASEMENTS.

RECORD DRAWING NOTES:

- SUBCONTRACTOR SHALL MAINTAIN UPDATED RECORD DRAWINGS AT ALL TIMES THROUGH THE DURATION OF THE PROJECT. CONSTRUCTION RECORD DRAWINGS SHALL BE SUBMITTED TO THE CONTRACTOR.
- DURING CONSTRUCTION OF THE PROJECT, SUBCONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING TRACK OF ANY CONTRACTOR-APPROVED FIELD CONSTRUCTION REVISIONS TO THE DESIGN DEPICTED ON APPROVED CONSTRUCTION DRAWINGS. THESE REVISIONS SHALL BE USED TO PREPARE RECORD DRAWINGS OF COMPLETED CONSTRUCTION.
- ALL VARIATIONS IN PROJECT CONDITIONS, LOCATIONS, AND CONFIGURATIONS, AND ANY OTHER CHANGES OR DEVIATIONS FROM THE INFORMATION PRESENTED ON THE ORIGINAL, APPROVED CONSTRUCTION DRAWINGS SHALL BE NOTED. THIS INCLUDES BURIED OR CONCEALED CONSTRUCTION AND UTILITY FEATURES THAT WERE REVEALED DURING CONSTRUCTION.
- THE CONTRACTOR WILL REVIEW COMPLETENESS, ACCURACY, AND FORMAT OF SUBMITTED RECORD DRAWINGS. IF THE RECORD DRAWINGS ARE CONSIDERED UNACCEPTABLE, THEY WILL BE RETURNED TO THE SUBCONTRACTOR FOR CORRECTION AND RESUBMISSION.

ACCESS AND STAGING

- ACCESS AND HAUL ROUTES FOR ALL SUBCONTRACTOR PERSONNEL, VEHICLES, EQUIPMENT, AND DELIVERIES ARE ILLUSTRATED ON SHEETS G-103 AND G-104, AND ARE SUBJECT TO THE APPROVAL OF THE CONTRACTOR. IT SHALL BE THE SUBCONTRACTOR'S RESPONSIBILITY TO COORDINATE OFF-SITE HAUL ROUTES WITH THE APPROPRIATE OWNER WHO HAS JURISDICTION OVER THE AFFECTED ROUTE. ACCESS ROUTES AND HAUL ROUTES ARE SUBJECT TO CHANGE AT THE DIRECTION OF THE CONTRACTOR AND MAY CHANGE BASED ON OPERATIONAL REQUIREMENTS OF THE AIRPORT.
- SUBCONTRACTOR SHALL COMPLY WITH THE PORT OF PORTLAND AND PORTLAND INTERNATIONAL AIRPORT (PDX) SECURITY REQUIREMENTS
- SUBCONTRACTOR SHALL COORDINATE ACTIVITIES AND MAINTAIN ALL ACCESS AND HAUL ROUTES IN A MANNER THAT ALLOWS UNOBSTRUCTED EMERGENCY ACCESS TO ALL PROJECT AREAS, AIRPORT AREAS, AND EXISTING ROADWAYS AT ALL TIMES WITHOUT DELAY TO EMERGENCY AND SECURITY VEHICLE RESPONSE TIMES.
- IF ANY EMERGENCY ROUTES REQUIRE CLOSURE DUE TO CONSTRUCTION ACTIVITIES, SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR, POLICE, LOCAL FIRE AUTHORITY, AND ALL OTHER EMERGENCY SERVICES OF THE CLOSURE.
- SUBCONTRACTOR SHALL MAINTAIN ACCESS AND HAUL ROUTES TO BE FREE FROM DEBRIS CAUSED FROM CONSTRUCTION ACTIVITIES ON A DAILY BASIS.
- SUBCONTRACTOR SHALL RESTRICT ALL OPERATIONS TO AREAS WITHIN THE CONSTRUCTION LIMITS UNLESS COORDINATED OTHERWISE WITH THE CONTRACTOR.

- SUBCONTRACTOR SHALL PROVIDE TEMPORARY CONSTRUCTION FENCING AROUND THE SITE DURING CONSTRUCTION.
- SUBCONTRACTOR IS RESPONSIBLE FOR ESTABLISHING A STAGING AND STOCKPILE AREA FOR MATERIALS AND EQUIPMENT. LOCATION OF SUBCONTRACTOR'S STAGING AREA SHALL BE AS ILLUSTRATED ON SHEET G-103 AND G-104. SUBCONTRACTOR MAY SUBMIT ALTERNATIVES TO THE STAGING AREA LOCATIONS AS SHOWN. SUBCONTRACTOR'S STAGING AREA IS SUBJECT TO CHANGE AT THE DIRECTION OF THE CONTRACTOR AND MAY CHANGE BASED ON OPERATIONAL REQUIREMENTS OF THE AIRPORT.
- WHEN NOT ENGAGED IN CONSTRUCTION ACTIVITIES, SUBCONTRACTOR'S EQUIPMENT AND VEHICLES SHALL BE PARKED IN THE STAGING AREA. SUBCONTRACTOR'S VEHICLES SHALL NOT BE PARKED WITHIN 15 FEET OF A FIRE HYDRANT OR WITHIN 10 FEET OF THE AIRPORT OPERATIONS AREA (AOA) FENCE.
- SUBCONTRACTOR SHALL PROVIDE A MINIMUM NOTICE OF 48 HOURS TO THE CONTRACTOR REGARDING CONSTRUCTION DELIVERIES PRIOR TO THOSE DELIVERIES. DELIVERIES SHALL BE SCHEDULED MONDAY-FRIDAY, 8:00 AM TO 3:00 PM.
- SECURITY FENCING AND GATES ASSOCIATED WITH SUBCONTRACTOR'S WORK AREA SHALL MEET OR EXCEED THE EXISTING FENCE STRENGTH, SIZE, AND DIMENSIONS. AT PROJECT COMPLETION, SUBCONTRACTOR SHALL REMOVE TEMPORARY SECURITY FENCING AND GATES AND RESTORE SECURITY FENCE TO ITS ORIGINAL CONDITION.
- ALL SUBCONTRACTOR VEHICLES AND PERSONNEL ARE SUBJECT TO SEARCH BY SECURITY WHEN ENTERING THE AIRPORT AND MAY EXPERIENCE DELAYS. ALL PERSONNEL MUST HAVE A CURRENT AND VALID PHOTO IDENTIFICATION PER PORT OF PORTLAND AND PDX AIRPORT SECURITY REQUIREMENTS, AND ALL VEHICLES MUST HAVE CURRENT AND VALID REGISTRATION AND INSURANCE.
- ALL SUBCONTRACTOR VEHICLES AND PERSONNEL SHALL BE RESPONSIBLE FOR COORDINATING WITH THE PORT OF PORTLAND IN OBTAINING PROPER SECURITY CLEARANCE AND BADGING PRIOR TO ENTERING SECURE AREAS.
- ACCESS POINTS, HAUL ROUTES, STAGING AREA, AND ANY OTHER AREAS DISTURBED BY THE SUBCONTRACTOR SHALL BE RESTORED TO THEIR ORIGINAL CONDITION OR BETTER TO THE SATISFACTION OF THE CONTRACTOR.

COORDINATION AND COMMUNICATION

- SUBCONTRACTOR SHALL APPOINT A PRIMARY CONSTRUCTION SUPERINTENDENT, SUBJECT TO THE APPROVAL OF THE CONTRACTOR, WHO SHALL BE PRESENT ON THE CONSTRUCTION SITE AT ALL TIMES DURING WORKING HOURS AND ACCESSIBLE AT ALL TIMES WHILE WORK IS IN PROGRESS. THE PRIMARY CONSTRUCTION SUPERINTENDENT SHALL BE DESIGNATED THE RESPONSIBLE SUBCONTRACTOR'S REPRESENTATIVE WHO SHALL BE AVAILABLE ON A 24-HOUR BASIS. WHEN THE SUBCONTRACTOR'S PRIMARY CONSTRUCTION REPRESENTATIVE IS NOT AVAILABLE ON THE CONSTRUCTION SITE, AN ALTERNATE REPRESENTATIVE SHALL BE PROVIDED. SUBCONTRACTOR SHALL PROVIDE NAMES AND CONTACT INFORMATION OF REPRESENTATIVES TO THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.
- SUBCONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING CONSTANT COORDINATION BETWEEN ANY ADDITIONAL SUBCONTRACTORS AND THE CONTRACTOR. ALL CONSTRUCTION ACTIVITIES PLANNED BY THE SUBCONTRACTOR SHALL BE REVIEWED AND APPROVED BY THE CONTRACTOR.
- THE FOLLOWING CONTACT INFORMATION IS PROVIDED FOR SUBCONTRACTOR'S USE IN CASE OF AN EMERGENCY:

a. EMERGENCY	911
b. PORT OF PORTLAND	503-460-4000
c. PORT OF PORTLAND POLICE	503-460-4000
d. PORT OF PORTLAND RESCUE AND FIREFIGHTING	503-460-4000

AIRFIELD OPERATIONS COORDINATION

- SUBCONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS INDICATED IN FEDERAL AVIATION ADMINISTRATION (FAA) ADVISORY CIRCULAR (AC) 150/5370-2, OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION (CURRENT EDITION) AND THE PDX-SPECIFIC REQUIREMENTS OF PORT OF PORTLAND MASTER SPECIFICATION 01 32 13 - AIRPORT SECURITY, SAFETY, AND OPERATIONS REGULATIONS (PDX) AVAILABLE AT WWW.PORTOFPORTLAND.COM/BUSINESS/MASTERSPECS.
- SUBCONTRACTOR SHALL NOT ACCESS THE AIRCRAFT OPERATIONS AREA WITHOUT CLEARANCE FROM PORT OF PORTLAND OPERATIONS AND THE CONTRACTOR, AND SHALL CONDUCT WORK IN SUCH A MANNER TO ENSURE A MINIMUM HINDRANCE TO AVIATION OPERATIONS. SUBCONTRACTOR SHALL PROVIDE A MINIMUM NOTICE OF 4 DAYS TO PORT OF PORTLAND OPERATIONS FOR ACCESS TO AN AIRCRAFT OPERATIONS AREA. PEDESTRIAN TRAFFIC AND PRIVATELY OWNED VEHICLES SHALL NOT BE ALLOWED IN THE AIRCRAFT OPERATIONS AREA.
- SUBCONTRACTOR SHALL MAINTAIN RADIO CONTACT WITH AIRFIELD OPERATIONS AT ALL TIMES DURING WORK ON THIS PROJECT. SUBCONTRACTOR SHALL FURNISH HIS/HER OWN 2-WAY RADIOS AND MAY BE REQUIRED TO COMPLETE A TRAINING SESSION ON RADIO USAGE TO BE CONDUCTED BY THE PORT OF PORTLAND OPERATIONS. FREQUENCY SHALL BE COORDINATED WITH PORT OF PORTLAND OPERATIONS. PDX GROUND TRAFFIC FREQUENCY IS 121.9.
- CONSTRUCTION ACTIVITIES MAY REQUIRE SUBCONTRACTOR TO CROSS ACTIVE AIRFIELD AREAS AND AREAS WHERE AIRCRAFT OPERATIONS ARE TAKING PLACE. SUBCONTRACTOR SHALL UTILIZE AIRCRAFT NON-MOVEMENT AREAS AND DESIGNATED VEHICULAR ROADS WHEN POSSIBLE. SUBCONTRACTOR SHALL CONTINUOUSLY MONITOR AIRCRAFT TRAFFIC ON AND AROUND THE AIRPORT BY RADIO. SUBCONTRACTOR IS REQUIRED TO STOP AT ALL AIRFIELD SAFETY AREAS, MONITOR LOCAL RADIO AND CHECK FOR AIRCRAFT OPERATIONS, AND PROCEED ACROSS AIRFIELD ONLY IF AIRCRAFT ARE NOT OPERATING. IF AIRCRAFT ARE OPERATING OR ARE ON APPROACH TO AREAS WHERE WORK IS BEING CONDUCTED, SUBCONTRACTOR IS REQUIRED TO SUSPEND OPERATIONS, MOVE PERSONNEL, EQUIPMENT, AND MATERIALS TO A SAFE LOCATION OUTSIDE OF THE AIRFIELD SAFETY AREA, AND STAND BY UNTIL AIRCRAFT USE IS COMPLETED.
- CONSTRUCTION ACTIVITY AFFECTING AIRCRAFT MOVEMENT AREAS AND AIRFIELD SAFETY REQUIREMENTS SHALL BE COORDINATED WITH PORT OF PORTLAND OPERATIONS AND THE CONTRACTOR. NO AIRCRAFT OPERATIONS AREA SHALL BE CLOSED WITHOUT APPROVAL FROM PORT OF PORTLAND OPERATIONS.
- NOTICES TO AIR MISSION (NOTAMS) SHALL BE ISSUED IN ACCORDANCE WITH AC 150/5370-2 OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION, AND AC 150/5200-28 NOTICES TO AIRMEN FOR AIRPORT OPERATORS (CURRENT EDITIONS). ALL NOTAMS SHALL BE COORDINATED WITH PORT OF PORTLAND OPERATIONS AND THE CONTRACTOR. THE NOTAM INFORMATION SHALL INCLUDE PORTIONS OF THE AIRFIELD THAT ARE CLOSED OR DISPLACED, THE DATE AND TIME OF THE BEGINNING AND ENDING OF WORK, AND THE DURATION OF THE WORK.
- SUBCONTRACTOR SHALL PROVIDE A MINIMUM NOTICE OF 1 WEEK TO PORT OF PORTLAND OPERATIONS AND THE CONTRACTOR FOR CLOSURE OF ANY GATE, SHOULD THAT BE REQUIRED.
- IF CONSTRUCTION OPERATIONS REQUIRE SHUTDOWN OF A NAVIGATIONAL AID (NAVAID), A MINIMUM NOTICE OF 14 DAYS TO PORT OF PORTLAND OPERATIONS AND THE SUBCONTRACTOR IS REQUIRED PRIOR TO THE FACILITY SHUTDOWN.

Scale For Microfinishing

Inches

Millimeters

no.	date	by	ckd	description
A	12/21/23	MGR	SEW	ISSUED FOR PERMIT

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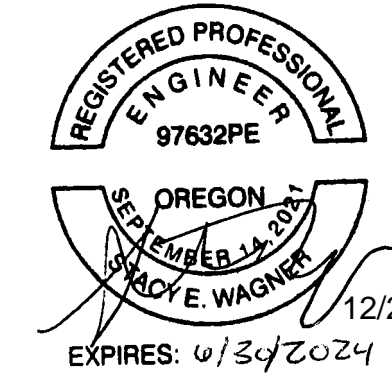
date	08/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

PDX FUEL COMPANY L.L.C

PORTLAND INTERNATIONAL AIRPORT
5000 NE MARINE DR.
PORTLAND, OREGON 97218

PDX FACILITY IMPROVEMENTS ACCESS AND STAGING NOTES

project	153929	contract	
drawing	G-101	rev.	A
file 153929G-103.DWG			



TRAFFIC CONTROL

1. PRIOR TO CONSTRUCTION, SUBCONTRACTOR SHALL CORDON OFF THE CONSTRUCTION WORK AREA AND ASSOCIATED ROADS BY USING BARRICADES AND FENCING APPROVED BY THE CONTRACTOR AS INDICATED ON SHEET G-103 AND G-104.
2. ALL CONSTRUCTION EQUIPMENT AND VEHICLES SHALL BE MARKED WITH COMPANY DESIGNS, INSIGNIAS, OR OTHER MARKINGS, WHICH ARE CLEARLY VISIBLE. SUBCONTRACTOR SHALL PROVIDE EACH VEHICLE WITH A FLAG ATTACHED TO THE VEHICLE WHICH SHOULD BE AT LEAST 3 FEET SQUARE HAVING INTERNATIONAL ORANGE AND WHITE CHECKERED PATTERN SO THAT THE FLAG IS EASILY VISIBLE.
3. CONSTRUCTION EQUIPMENT SHALL HAVE AUTOMATIC SIGNALING DEVICES TO SOUND AN ALARM WHEN MOVING IN REVERSE.
4. ONLY RUBBER-TIRE VEHICLES WILL BE ALLOWED ON EXISTING PAVEMENT-TO-REMAIN.
5. NO PEDESTRIAN TRAFFIC SHALL BE ALLOWED INSIDE THE CONSTRUCTION LIMITS.
6. SUBCONTRACTOR SHALL PROVIDE A MINIMUM NOTICE OF 1 WEEK TO THE PORT, PDX AND THE CONTRACTOR FOR ROAD CLOSURE PRIOR TO THE ROAD REQUIRING CLOSURE.
7. PRIOR TO THE REMOVAL OF BARRICADES AND TRAFFIC CONTROL DEVICES, THE SUBCONTRACTOR SHALL REQUEST THE CONTRACTOR TO SCHEDULE AN INSPECTION. NO ROADWAY OR AREA SHALL BE RE-OPENED UNTIL THE CONTRACTOR HAS COMPLETED INSPECTION AND APPROVED THE RE-OPENING OF ACTIVE AREAS.
8. ANY DAMAGE TO ROADS AND PAVEMENTS-TO-REMAIN DUE TO CONSTRUCTION EQUIPMENT OR TRAFFIC SHALL BE REPAIRED TO RESTORE THE ROADS AND PAVEMENTS TO THEIR ORIGINAL CONDITION TO THE SATISFACTION OF THE CONTRACTOR.

EXCAVATION AND TRENCHES

1. SUBCONTRACTOR SHALL COMPLY WITH THE MOST CURRENT EDITION OF OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS AND THE STATE OF OREGON LAWS CONCERNING EXCAVATION.
2. SUBCONTRACTOR SHALL PERFORM ALL EXCAVATION, TRENCHING, AND SHORING IN A MANNER THAT COMPLIES WITH LOCAL REGULATIONS AND OSHA REGULATIONS FOR CONSTRUCTION.
3. SUBCONTRACTOR SHALL PROVIDE A MINIMUM NOTICE OF 48 HOURS TO THE CONTRACTOR AND ASSOCIATED UTILITY COMPANIES AND AGENCIES BEFORE PROCEEDING WITH ANY EXCAVATION.
4. OPEN ONLY THOSE TRENCHES FOR WHICH MATERIAL IS ON-HAND AND READY FOR PLACING THEREIN. AS SOON AS POSSIBLE AFTER THE MATERIAL HAS BEEN PLACED AND WORK APPROVED, BACKFILL AND COMPACT TRENCHES AS SPECIFIED.

OTHER SAFETY REQUIREMENTS

1. SUBCONTRACTOR SHALL MAINTAIN SAFETY PRACTICES THAT CONFORM TO OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS.
2. THE SUBCONTRACTOR SHALL PERFORM ON-SITE INSPECTIONS THROUGHOUT THE PROJECT AND REMEDY ANY SAFETY CONCERNS IMMEDIATELY.
3. THERE SHALL BE NO PERMANENT WASTE SITES ON AIRPORT PROPERTY. ANY TEMPORARY WASTE AREA SHALL BE APPROVED BY THE CONTRACTOR AND SHALL BE KEPT IN AN ORDERLY CONDITION. REMOVAL OF WASTE THAT IS NOT PROPERLY MAINTAINED IS SUBJECT TO THE DIRECTION OF THE CONTRACTOR.
4. SUBCONTRACTOR SHALL COORDINATE THE RELOCATION OF ANY EQUIPMENT WITH THE OWNER AND CONTRACTOR.
5. SUBCONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL REQUIREMENTS WITH STATE AND LOCAL AUTHORITIES AND SUBMITTING DOCUMENTS FOR PERMITTING FOR EROSION, SEDIMENT CONTROL, AND STORMWATER POLLUTION PREVENTION.
6. EROSION CONTROL DEVICES SHALL BE USED FOR THE ACCESS AND HAUL ROUTES, STAGING AREA, AND ANY MATERIAL STOCKPILES WHEN NECESSARY TO CONTROL EROSION AND STORM WATER RUNOFF. SEE EROSION AND SEDIMENT CONTROL PLANS, NOTES AND DETAILS FOR REQUIREMENTS.
7. STOCKPILED MATERIAL SHALL BE CONSTRAINED IN A MANNER TO PREVENT MOVEMENT RESULTING FROM WIND CONDITIONS.
8. SUBCONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO LIMIT DUST CAUSED BY CONSTRUCTION ACTIVITIES TO A LIMIT ACCEPTABLE TO AIRPORT OPERATIONS. THE SUBCONTRACTOR SHALL CONTROL BLOWING DUST ON THE PROJECT SITE FROM ANY HAUL ROUTE OR WORK AREA REGARDLESS OF SOURCE.
9. WILDLIFE ATTRACTANTS, SUCH AS TRASH AND FOOD SCRAPS, FROM CONSTRUCTION PERSONNEL AND ACTIVITIES SHALL BE REMOVED FROM THE PROJECT LIMITS.
10. GASOLINE, DIESEL FUEL, OIL, AND HAZARDOUS WASTE RESULTING FROM SUBCONTRACTOR'S OPERATIONS OR ACTIVITIES SHALL BE PROPERLY DISPOSED OF IN ACCORDANCE WITH THE SPECIFICATIONS AND LOCAL REGULATORY REQUIREMENTS AND PROPERLY REMOVED FROM THE PROJECT PROPERTY. IF HAZARDOUS MATERIALS ARE ENCOUNTERED OR UNCOVERED DURING CONSTRUCTION ACTIVITIES, THE SUBCONTRACTOR SHALL IMMEDIATELY NOTIFY THE CONTRACTOR.
11. IF CONSTRUCTION REQUIRES THE DISRUPTION OR DISCONNECTION OF ANY WATER LINES OR FIRE HYDRANTS ON PROJECT PROPERTY OR ADJOINING PROPERTY, THE SUBCONTRACTOR SHALL PROVIDE A MINIMUM ADVANCE NOTICE OF 48 HOURS TO THE LOCAL FIRE AUTHORITY AND ALL OTHER EMERGENCY SERVICES.
12. FAILURE TO COMPLY WITH AIRPORT OPERATIONS AND THE CONTRACTOR SAFETY REQUIREMENTS SHALL RESULT IN THE SUSPENSION OF CONSTRUCTION ACTIVITIES UNTIL ALL SAFETY CONCERNS ARE ADDRESSED BY THE SUBCONTRACTOR TO THE SATISFACTION OF THE CONTRACTOR.
13. ANY WORKERS AND EQUIPMENT NOT IN COMPLIANCE WITH SAFETY PLAN OR AIRPORT OPERATIONS SHALL IMMEDIATELY BE REMOVED FROM THE WORK AREA AND SHALL NOT BE PERMITTED TO RETURN THROUGHOUT THE REMAINDER OF THE PROJECT.
14. IF DURING CONSTRUCTION, THE SUBCONTRACTOR ENCOUNTERS AN ASBESTOS COATED PIPING OR OTHER MATERIAL, WORK SHALL BE IMMEDIATELY STOPPED. SUBCONTRACTOR SHALL IMMEDIATELY NOTIFY CONTRACTOR AND OWNER.

Millimeters

Scale For Microfitting

Inches

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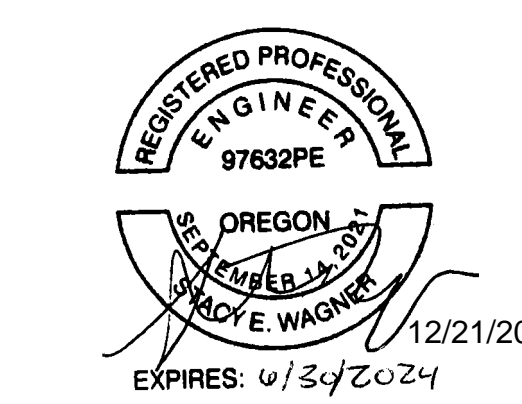
date	08/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

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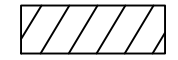

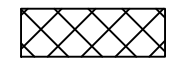
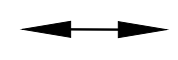

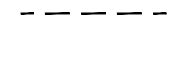
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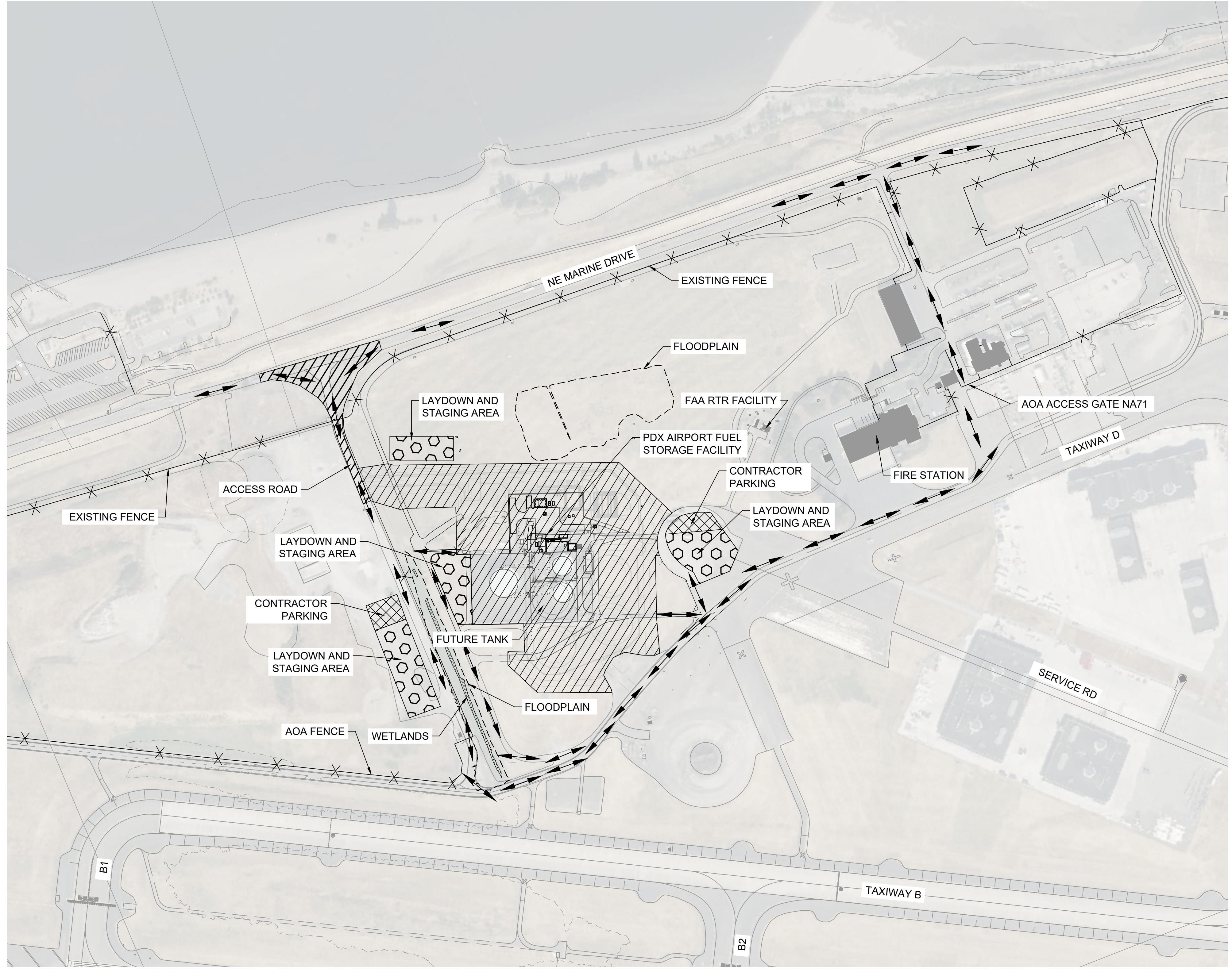
PDX FACILITY IMPROVEMENTS
 ACCESS AND STAGING NOTES 2

project	153929	contract	
drawing	G-102	rev.	A
file 153929G-103.DWG			



ACCESS AND STAGING PLAN NOTES:
 1. SEE ACCESS AND STAGING NOTES ON SHEET G-101 AND G-102.

- LEGEND:**
-  PROJECT LOCATION
 -  LAYDOWN AND STAGING AREA, SEE G-104
 -  CONTRACTOR PARKING
 -  CONTRACTOR HAUL ROUTE
 -  WETLANDS
 -  FLOODPLAIN



Millimeters
 Scale For Microfinishing
 Inches

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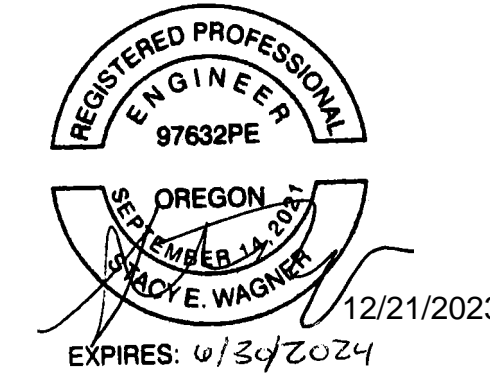
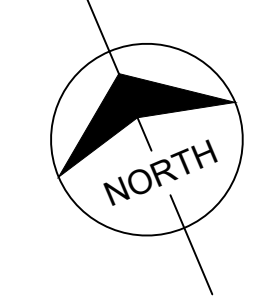
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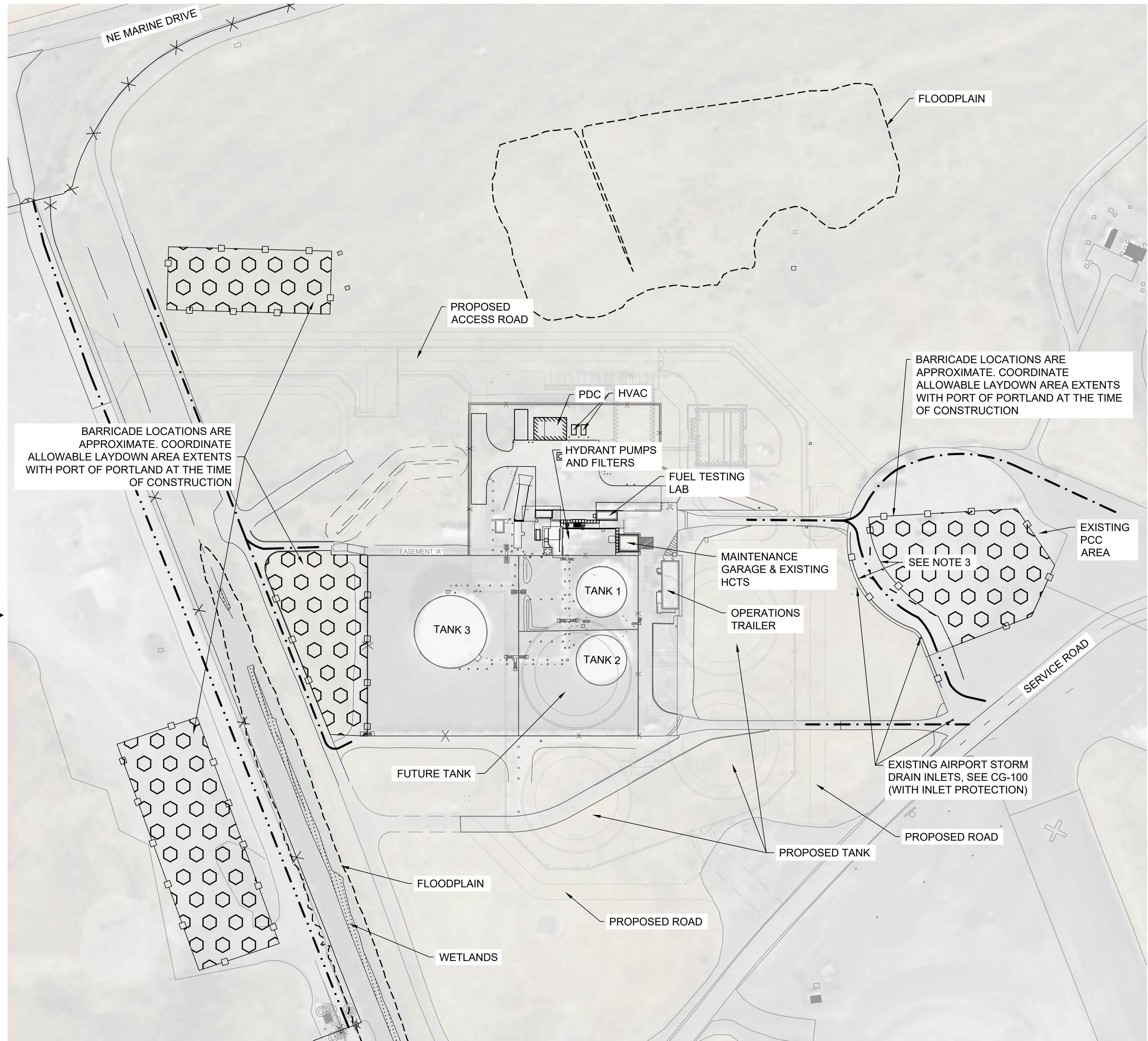
PDX FACILITY IMPROVEMENTS
 ACCESS AND STAGING PLAN

project	153929	contract	
drawing	G-103	rev.	A

file 153929G-103.DWG

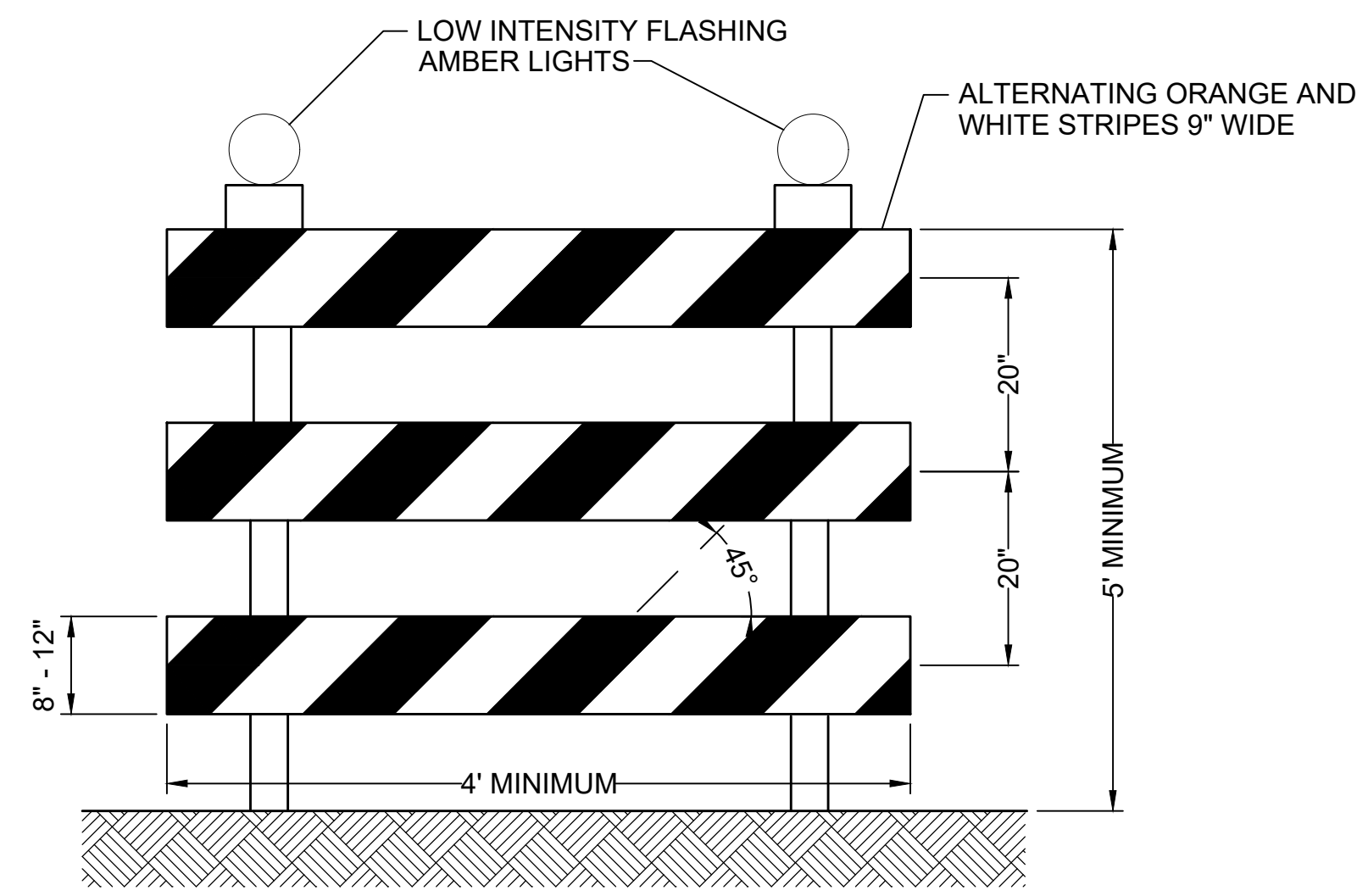
ACCESS AND STAGING PLAN
 0 200' 400'
 SCALE IN FEET





- ACCESS AND STAGING PLAN NOTES:**
1. SEE ACCESS AND STAGING NOTES ON SHEET G-101 AND G102.
 2. LAYDOWN AND STAGING AREA SHOWN IS APPROXIMATE. COORDINATE EXTENTS OF LAYDOWN AND STAGING AREA WITH CONTRACTOR AND PORT OF PORTLAND.
 3. BARRICADES SHALL BE PLACED SO A MINIMUM 20-FOOT WIDE DRIVE PATH IS AVAILABLE AT ALL TIMES FOR FIRE DEPARTMENT ACCESS.

- LEGEND:**
- OPERATIONS AND CONSTRUCTION TRAFFIC
 - . - . CONSTRUCTION TRAFFIC ONLY
 - TYPE III BARRICADE
 - ⬜ LAYDOWN AND STAGING AREA, APPROXIMATELY 50,000 SF
 - ▨ WETLANDS
 - - - FLOODPLAIN



- NOTE:**
1. TYPE III BARRICADE SHALL BE INSTALLED IN ACCORDANCE WITH MUTCD 2009 STANDARDS.

TYPE III BARRICADE DETAIL
NOT TO SCALE

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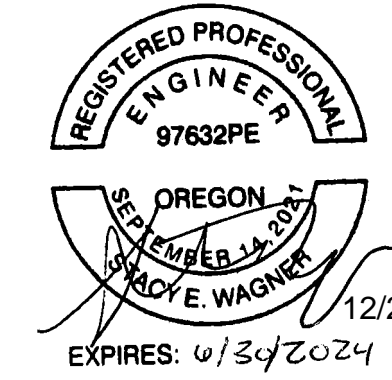
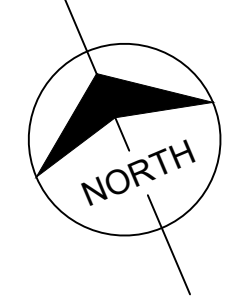
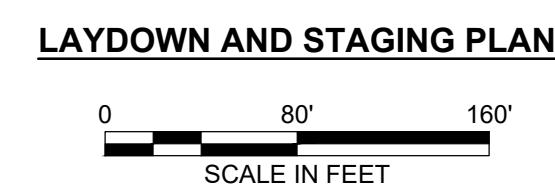
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PDX FACILITY IMPROVEMENTS
LAYDOWN AND STAGING PLAN

project	153929	contract	
drawing	G-104	rev.	A

file 153929G-103.DWG

Scale For Microfinishing
Millimeters
Inches



ABBREVIATIONS

A/G	ABOVE GROUND	VOR	VERY HIGH FREQUENCY OMINDIRECTIONAL RANGE
ABAND	ABANDONED	VSR	VEHICLE SERVICE ROAD
AHJ	AUTHORITY HAVING JURISDICTION	WPS	WELDING PROCEDURE SPECIFICATION
AOA	AIRCRAFT OPERATIONS AREA	WT	WEIGHT
ARFF	AIRCRAFT RESCUE AND FIRE FIGHTING	XFMR	TRANSFORMER
BBL	BARRELS		
BLD	BLIND		
BLDG	BUILDING		
BMP	BEST MANAGEMENT PRACTICE		
BV	BALL VALVE		
CD	CONTAINMENT DRAIN		
CDI	CONTAINMENT DRAIN INLET		
CMU	CONCRETE MASONRY UNIT		
CL	CENTER LINE		
CO	CO CLEANOUT		
CONC	CONCENTRIC		
CONC	CONCRETE		
CS	CARBON STEEL		
DIA	DIAMETER		
DB	DRAIN BASIN		
DBB	DOUBLE BLOCK & BLEED		
DIP	DUCTILE IRON PIPE		
DR	DRAIN, DRIVE		
DWG	DRAWING		
E, ELEC	ELECTRICAL		
ECC	ECCENTRIC		
EEWS	EMERGENCY EYEWASH AND SAFETY SHOWER		
EL, ELEV	ELEVATION		
ESCP	EROSION CONTROL PLAN		
EX	EXISTING		
FAA	FEDERAL AVIATION ADMINISTRATION		
FB	FULL BORE		
FDC	FIRE DEPARTMENT CONNECTION		
FES	FLARED END SECTION		
FF	FINISHED FLOOR		
FLG	FLANGE		
FM	FORCE MAIN		
FOB	FLAT ON BOTTOM		
FOT	FLAT ON TOP		
FP	FOAM PIPE		
FT	FEET/FOOT		
FW	FIRE WATER		
GA	GAUGE		
GAL	GALLON		
GPM	GALLONS PER MINUTE		
HCTS	HYDRANT CART TEST STAND		
HDPE	HIGH-DENSITY POLYETHYLENE		
HORZ	HORIZONTAL		
HPV	HIGH POINT VENT		
HVAC	HEATING, VENTILATION, & AIR CONDITIONING		
IE	INVERT ELEVATION		
IN	INCHES		
INV	INVERT		
IW	INDUSTRIAL WASTEWATER		
JF	JET FUEL		
JFP	JET FUEL PIPE		
KM	KINDER MORGAN		
LBS	POUNDS		
LPD	LOW POINT DRAIN		
MAX	MAXIMUM		
MJ	MECHANICAL JOINT		
MCC	MOTOR CONTROL CENTER		
MIL	MIL		
MIN	MINIMUM		
NAVAID	NAVIGATIONAL AID		
NOTAMS	NOTICES TO AIRMEN		
N.T.S	NOT TO SCALE		
O.C.	ON CENTER		
O.D.	OUTSIDE DIAMETER		
O&M	OPERATION AND MAINTENANCE		
OWS	OIL / WATER SEPARATOR		
PCC	PORTLAND CEMENT CONCRETE		
PDC	POWER DISTRIBUTION CENTER		
PIV	POST INDICATOR VALVE		
POP	PORT OF PORTLAND		
PP&L	PACIFIC POWER & LIGHT		
PVC	POLYVINYL CHLORIDE		
R	RADIUS		
RD	ROAD		
RTR	REMOTE TRANSMITTER / RECEIVER		
SCH	SCHEDULE		
STA	STATION		
STD	STANDARD		
TP	TIE-IN POINT		
TOC	TOP OF CONCRETE		
TOW	TOP OF WALL		
TYP	TYPICAL		
U/G	UNDER GROUND		
UNK	UNKNOWN		
UNO	UNLESS OTHERWISE NOTED		
USGS	UNITED STATES GEOLOGICAL SURVEY		
VERT	VERTICAL		

SYMBOL LEGEND

---X---X---	EXISTING SECURITY FENCE
---SS---	EXISTING SANITARY LINE
---JF---	EXISTING JET FUEL LINE
---W---	EXISTING WATER LINE
---E---	EXISTING ELECTRICAL
---COMM---	EXISTING COMMUNICATION LINE
---22.0---	EXISTING MAJOR CONTOURS
---22.5---	EXISTING MINOR CONTOURS
---L---	LEASE LINE
---22.0---	PROPOSED MAJOR CONTOURS
---22.5---	PROPOSED MINOR CONTOURS
---	LIMITS OF GRADING
---	SURVEY BOUNDARY
---COMM---	COMMUNICATION LINE
---X---X---	SECURITY FENCE
---ST---	STORM DRAIN
---W---	WATER LINE
---STFM---	STORMWATER FORCE MAIN
---UE---UE---UE---UE---	ELECTRICAL DUCT BANK
---JF---	JET FUEL LINE
o 22.0	SPOT ELEVATION
▲	SURVEY CONTROL
⊗	SANITARY MANHOLE
o	CLEAN OUT
•	ROOF DRAIN
o	UNIDENTIFIED PIPE
⊗	WATER VALVE
⊗	FIRE HYDRANT
⊗	FIRE DEPARTMENT CONNECTION
⊗	WATER METER
W	WATER VAULT
⊗	HOSE BIB
⊗	COMMUNICATION RISER
o	GROUNDING ROD
P	POWER VAULT
T	TRANSFORMER
⊗	LIGHT POLE
o	BOLLARD, GUARD POST
⊗	MONITORING WELL
[Cross-hatched box]	NOT IN CONTRACT

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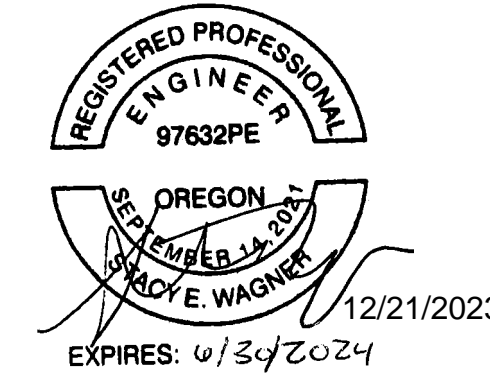
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PDX FACILITY IMPROVEMENTS
 LEGEND AND ABBREVIATIONS

project	153929	contract	
drawing	C-001	rev.	A
file 153929G-101.DWG			



SURVEY AND SUBSURFACE INVESTIGATION NOTES:

1. THE SURVEY WAS PERFORMED BY OTAK IN APRIL 2023, SEE V-101 FOR ADDITIONAL INFORMATION. SURVEY CONTROL POINTS PROVIDED SHALL BE RESET BY THE SUBCONTRACTOR IF DISTURBED DURING CONSTRUCTION.
2. SUBCONTRACTOR SHALL RETAIN A LICENSED SURVEYOR TO SURVEY PROJECT IMPROVEMENTS. IF BENCHMARKS SHOWN ARE IN AREAS THAT REQUIRE DEMOLITION, OTHER BENCHMARKS SHALL BE ESTABLISHED BEFORE DEMOLITION AND CONSTRUCTION WORK BEGINS. SUBCONTRACTOR SHALL SUPPLY CERTIFIED CONTROL POINT DATA TO CONTRACTOR AFTER COMPLETION OF CONSTRUCTION.
3. THE SUBSURFACE/GEOTECHNICAL INVESTIGATION TITLED "REPORT OF GEOTECHNICAL ENGINEERING SERVICES PDX FUEL TANK DESIGN PORTLAND INTERNATIONAL AIRPORT PORTLAND, OREGON" WAS PERFORMED BY HALEY & ALDRICH, INC IN NOVEMBER 2023. THIS REPORT WAS PREPARED FOR BURNS AND MCDONNELL. THE RESULTS OF THE INVESTIGATION ARE CONTAINED IN THE PROJECT GEOTECHNICAL REPORT.
4. THE BORING LOGS AND RELATED INFORMATION, INCLUDING WATER LEVELS, DEPICT CONDITIONS ONLY AT THE SPECIFIC LOCATIONS AND AT THE PARTICULAR TIME DESIGNATED ON THE LOGS.
5. SOIL CONDITIONS AT OTHER LOCATIONS MAY DIFFER FROM CONDITIONS OCCURRING AT THESE SPECIFIC BORING LOCATIONS. ANY ATTEMPT TO INTERPOLATE THE STRATIGRAPHIC CONDITIONS BETWEEN BORINGS IS AT THE SUBCONTRACTOR'S RISK.
6. FLUCTUATIONS OR CHANGES IN WATER LEVELS AND GROUNDWATER CONDITIONS CAN BE INFLUENCED BY SOURCES OUTSIDE THE AREAS OF THE SITE INVESTIGATED, BY SEASONAL RAINFALL, AND BY CHANGES IN DRAINAGE CONDITIONS IN AND AROUND THE SITE. FLUCTUATIONS CAN OCCUR AND SHOULD BE ANTICIPATED BETWEEN THE TIME OF INVESTIGATION AND THE TIME OF CONSTRUCTION.
7. LOCATIONS OF INDICATED STRATIGRAPHIC BOUNDARIES ARE APPROXIMATE AND THE TRANSITIONS BETWEEN SOIL TYPES MAY BE GRADUAL RATHER THAN CLEARLY DEFINED.
8. ADDITIONAL INFORMATION IS CONTAINED IN THE SUBSURFACE INFORMATION DOCUMENT, WHICH IS AVAILABLE UPON REQUEST

EXISTING CONDITIONS NOTES:

1. THE LOCATIONS OF STRUCTURES AND UNDERGROUND UTILITIES AS INDICATED HAVE BEEN OBTAINED FROM EXISTING RECORDS AND FIELD SURVEYS. UNDERGROUND STRUCTURES AND UTILITIES MAY BE PRESENT WHICH ARE NOT DOCUMENTED OR LOCATED.
2. THE SUBCONTRACTOR SHALL FIELD-CHECK ALL EXISTING CONDITIONS AND BE THOROUGHLY FAMILIAR WITH THE SITE BEFORE ANY WORK COMMENCES. ANY DISCREPANCIES IN THE DRAWINGS SHALL BE IMMEDIATELY REPORTED TO THE CONTRACTOR BEFORE ANY FURTHER WORK COMMENCES.
3. IT SHALL BE THE SUBCONTRACTOR'S RESPONSIBILITY TO FIELD-VERIFY EXISTING STRUCTURES, UTILITIES, AND SURVEY INFORMATION, AND TO TAKE NECESSARY PRECAUTIONS DURING DEMOLITION AND CONSTRUCTION. SUBCONTRACTOR SHALL VERIFY EXISTENCE AND MARK LOCATIONS OF ALL UTILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES, PRIOR TO BEGINNING WORK. SUBCONTRACTOR SHALL CONTACT THE CONTRACTOR AND ALL ASSOCIATED UTILITY COMPANIES AND AGENCIES TO IDENTIFY THE LOCATION OF UTILITIES. THERE IS NO GUARANTEE, EITHER EXPRESSED OR IMPLIED, THAT THE LOCATIONS, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ARE REPRESENTATIVE OF THOSE TO BE ENCOUNTERED DURING CONSTRUCTION.
4. THIS SITE HAS EXISTING ABANDONED PIPING. THE BEST AVAILABLE RECORD DRAWINGS HAVE BEEN INCORPORATED TO INDICATE WHERE THESE ABANDONED UTILITIES MAY BE LOCATED, HOWEVER SUBCONTRACTOR SHALL VERIFY TRUE FIELD CONDITIONS.
5. SUBCONTRACTOR SHALL CONTACT OREGON ONE CALL 811 PRIOR TO THE START OF CONSTRUCTION TO CONDUCT UTILITY LOCATES ON SITE, AND AS NEEDED THROUGHOUT CONSTRUCTION.
6. PRIOR TO CONSTRUCTION, THE SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF OPERATIONAL PLANS. IN THE EVENT AN UNEXPECTED UTILITY OR STRUCTURE INTERFERENCE OR CONFLICT IS ENCOUNTERED DURING CONSTRUCTION, THE SUBCONTRACTOR SHALL IMMEDIATELY NOTIFY THE CONTRACTOR. ANY UTILITY SERVICES OR STRUCTURES DISTURBED BY THE SUBCONTRACTOR'S OPERATIONS SHALL BE RESTORED IMMEDIATELY AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
7. THE SUBCONTRACTOR IS RESPONSIBLE FOR PROTECTING ITEMS NOT TO BE DISTURBED OR DAMAGED DURING DEMOLITION AND CONSTRUCTION. THE SUBCONTRACTOR SHALL REPAIR OR REPLACE DAMAGED OR DISTURBED ITEMS TO THE SATISFACTION OF THE OWNER AND CONTRACTOR AT NO ADDITIONAL COST.

GENERAL DEMOLITION NOTES:

1. ALL DEMOLITION, WASTE, DEBRIS, AND UNSATISFACTORY MATERIALS SHALL BE DISPOSED OF OFF SITE.
2. LOCATIONS NOTED FOR DEBRIS REMOVAL MAY CONTAIN ANY OF THE FOLLOWING MATERIALS: AGGREGATE, CONCRETE, ASPHALT, MASONRY, FOUNDATIONS, REBAR, FENCE MATERIAL, PIPING, AND MISCELLANEOUS STRUCTURES. LARGE PIECES OF MATERIAL MAY NEED TO BE CRUSHED AND/OR BROKEN UP FURTHER IN ORDER TO BE HAULED AWAY TO THE WASTE DISPOSAL SITE.
3. SUBCONTRACTOR SHALL COORDINATE LIMITS OF SAWCUT AND PAVEMENT REMOVAL WITH PROPOSED PAVEMENT LAYOUT AND JOINTING PLAN.
4. PAVEMENT DESIGNATED FOR SAWCUT SHALL BE SAWCUT FULL DEPTH.
5. EXISTING PAVEMENT EDGES SHALL BE SAWCUT IN LOCATIONS SHOWN TO PROVIDE CLEAN EDGE FOR CONSTRUCTION OF PROPOSED PAVEMENT.
6. PAVEMENT REMOVAL LIMITS SHALL BE TO THE NEAREST EXISTING PAVEMENT JOINT TO THE GREATEST EXTENT POSSIBLE TO PREVENT PARTIAL PANEL REMOVAL. PAVEMENT REMOVAL SHALL INCLUDE REMOVAL OF PAVEMENT AND ANY SUBBASE MATERIAL PRESENT.
7. ANY DAMAGE TO PAVEMENT AREAS DESIGNATED TO REMAIN SHALL BE REPAIRED OR REMOVED AND REPLACED AT NO ADDITIONAL COST TO OWNER OR CONTRACTOR.
8. ALL DEMO LIMITS SHALL BE COORDINATED WITH NEW SITE WORK.

GENERAL SITE NOTES:

1. COORDINATE WITH CITY OF PORTLAND FOR CONSTRUCTION WITHIN THE RIGHT-OF-WAY.
2. SUBCONTRACTOR SHALL COORDINATE WALKWAYS WITH STRUCTURAL DRAWINGS AND BUILDINGS SPECIFIED ON THE SITE PLAN.
3. SEE STRUCTURAL AND MECHANICAL DRAWINGS FOR MISCELLANEOUS SITE EQUIPMENT AND PADS.
4. SEE SITE PLAN DRAWINGS FOR CONCRETE JOINTING AND ELEVATION PLANS.
5. SEE STRUCTURAL DRAWINGS FOR STRUCTURES, WALLS AND FOUNDATION PLANS AND DETAILS.
6. SEE MECHANICAL AND FIRE PROTECTION DRAWINGS FOR ABOVE GROUND PIPING PLANS AND DETAILS.
7. ALL SIGNS MUST COMPLY WITH THE CITY OF PORTLAND AND PORT OF PORTLAND REQUIREMENTS.
8. DISTURBED AREAS NOT DESIGNATED TO RECEIVE OTHER SURFACING ARE TO BE SEEDED.
9. SEE PDX OPERATIONS BUILDING DRAWINGS BY JH KELLY AND ERIC LANCAULT, ARCHITECT FOR CONTINUATION AND DETAILS ON OPERATIONS BUILDING
10. SEE PDX TANK CANOPY PLANS BY MOUNTAIN VIEW, ENGINEERING FOR CONTINUATION ON TRUCK OFFLOAD AND HCTS.
11. PROPOSED ELEVATIONS INDICATED ARE FOR TOP OF FINAL GRADE, PAVEMENT, OR CURB UNLESS INDICATED OTHERWISE.

GENERAL GRADING NOTES:

1. MATCH EXISTING GRADE ELEVATIONS AT THE LIMITS OF GRADING; PUBLICLY-AVAILABLE USGS DATA HAS BEEN USED TO APPROXIMATE EXISTING GRADES OUTSIDE THE SURVEY LIMITS. ELEVATION LABELS ARE APPROXIMATE AND SHALL BE FIELD VERIFIED. WHERE EXISTING GRADES DIFFER FROM WHAT IS SHOWN, TIE BACK INTO EXISTING GRADES AT A MAXIMUM 3H:1V SLOPE. GRADE TO GENERALLY DRAIN AWAY FROM STRUCTURES, PAVEMENTS, AND DRIVEWAY

1. AREAS. NOTIFY CONTRACTOR OF LOCATIONS WHERE EXISTING GRADE DIFFERS BY MORE THAN A FEW INCHES FROM WHAT IS ASSUMED.
2. PROPOSED ELEVATIONS INDICATED ARE FOR TOP OF FINAL GRADE, PAVEMENT, OR CURB UNLESS INDICATED OTHERWISE.
3. ELEVATIONS DENOTED AS "MATCH" AND GRADING LIMITS ARE INTENDED TO MEET EXISTING GRADE ELEVATIONS. SUBCONTRACTOR SHALL VERIFY ELEVATIONS AT TIE-INS AND MATCH POINTS PRIOR TO BEGINNING CONSTRUCTION.
4. FINISH GRADE AROUND FOUNDATIONS AND STRUCTURES SHALL BE AS INDICATED ON THE GRADING PLANS. TOP OF PAD OR STRUCTURE ELEVATIONS SHALL BE AS INDICATED IN THE STRUCTURAL PLANS.
5. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. ANY DRAINAGE FEATURE OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO EXISTING CONDITIONS OR BETTER SUBJECT TO THE APPROVAL OF THE CONTRACTOR.
6. SURFACES AROUND FACILITY SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS AND PAVEMENTS.
7. THE SUBCONTRACTOR SHALL REMOVE STANDING WATER FROM THE PROJECT WORK LIMITS AS NECESSARY TO PROTECT SUBGRADE, SUBBASE, AND/OR BASE COURSE OF NEW PAVEMENT, SURROUNDING PAVEMENT-TO-REMAIN, OR OTHER COMPLETED WORKS.
8. SEE EROSION CONTROL PLAN, NOTES AND DETAILS FOR RECOMMENDED BEST PRACTICES FOR SEDIMENT AND EROSION CONTROL.
9. TOP ELEVATION OF ALL UTILITY STRUCTURES TO REMAIN SHALL BE ADJUSTED ACCORDINGLY TO FINISH GRADE ELEVATION.
10. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE RE-PAVED OR RE-VEGETATED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

GENERAL UTILITY NOTES:

1. SEE MECHANICAL AND FIRE PROTECTION DRAWINGS FOR ABOVE GROUND PIPING PLANS AND DETAILS.
2. SEE STRUCTURAL DRAWINGS FOR CONTINUATION OF CONTAINMENT DRAINAGE UPSTREAM OF ECCENTRIC PLUG VALVE.
3. SEE ELECTRICAL DRAWINGS FOR DUCT BANK DETAILS
4. TEMPORARY STORM DRAIN TO BE REMOVED AND CONNECTED TO STORM DRAIN AFTER DEMOLITION OF EXISTING TANKS 1, 2, AND 3. PROFILES SHOW BOTH SCENARIOS FOR TSD AND SD. SD SHOWN IN TSD PROFILES IS TO REMAIN AND CONNECT TO DOWNSTREAM SD AT MATCHING ELEVATIONS SHOWN IN UTILITY PROFILES.
5. SEE PDX OPERATIONS BUILDING DRAWINGS BY JH KELLY AND ERIC LANCAULT, ARCHITECT FOR CONTINUATION AND DETAILS ON OPERATIONS BUILDING SANITARY SEWER, WATER AND STORM CONNECTIONS.
6. SEE PDX TANK CANOPY PLANS BY MOUNTAIN VIEW, ENGINEERING FOR CONTINUATION ON TRUCK OFFLOAD AND HCTS STORM CONNECTIONS.
9. SEE FIRE PLANS FOR CONTINUATION AND DETAILS ON OPERATIONS BUILDING FIRE FOAM AND FIRE WATER CONNECTIONS.
10. SEE MECHANICAL PLANS FOR CONTINUATION AND DETAILS ON TRUCK OFFLOAD AND HCTS JET FUEL AND WATER CONNECTIONS.

Millimeters

Scale For Microfinishing

Inches

no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT

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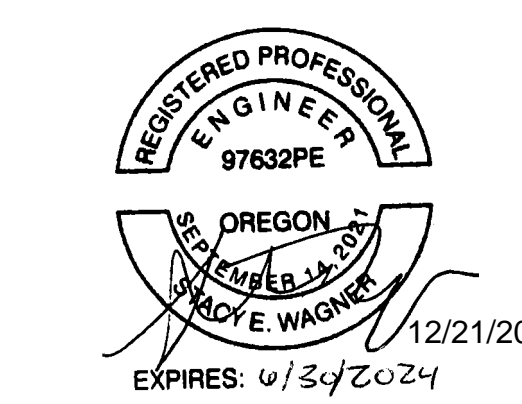


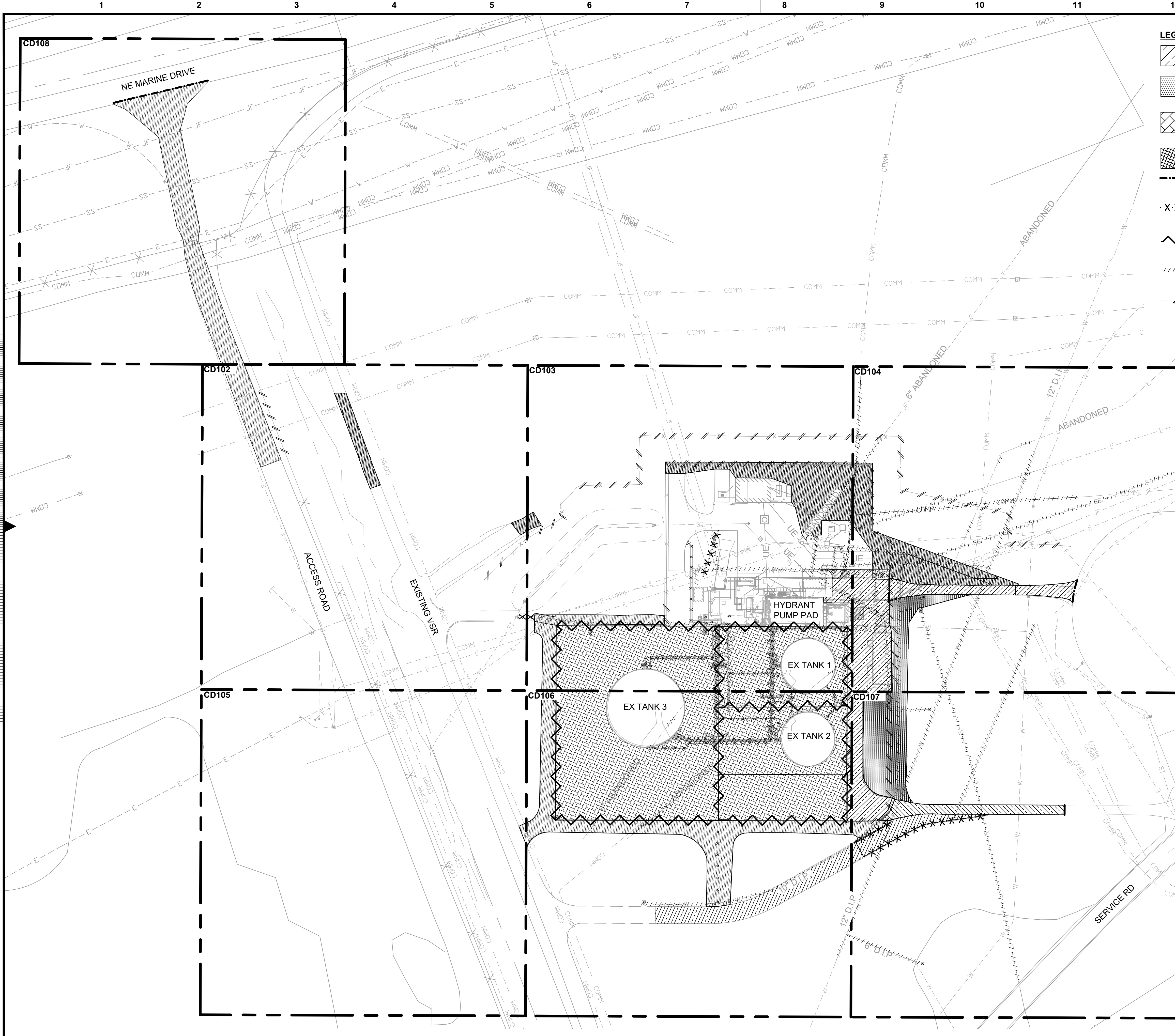
date	08/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

PDX FUEL COMPANY L.L.C

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PORTLAND, OREGON 97218

PDX FACILITY IMPROVEMENTS CIVIL NOTES	
project	contract
153929	
drawing	rev.
C-002	A
file 153929G-101.DWG	

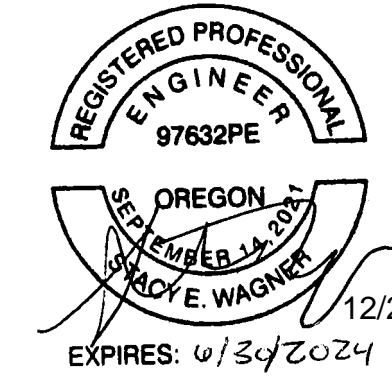
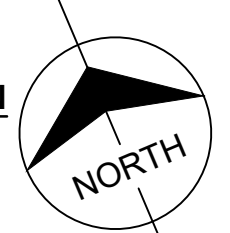




- LEGEND:**
- ASPHALT REMOVAL
 - AGGREGATE REMOVAL
 - CONTAINMENT ROCK AND LINER REMOVAL
 - CONCRETE REMOVAL
 - SAWCUT, FULL DEPTH
 - CURB DEMOLITION
 - CONTAINMENT WALL DEMOLITION
 - UTILITY DEMOLITION
 - FENCE DEMOLITION
 - MISCELLANEOUS DEMOLITION

Millimeters
 Scale For Microfining
 Inches

OVERALL DEMOLITION PLAN
 0 60' 120'
 SCALE IN FEET



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date	08/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

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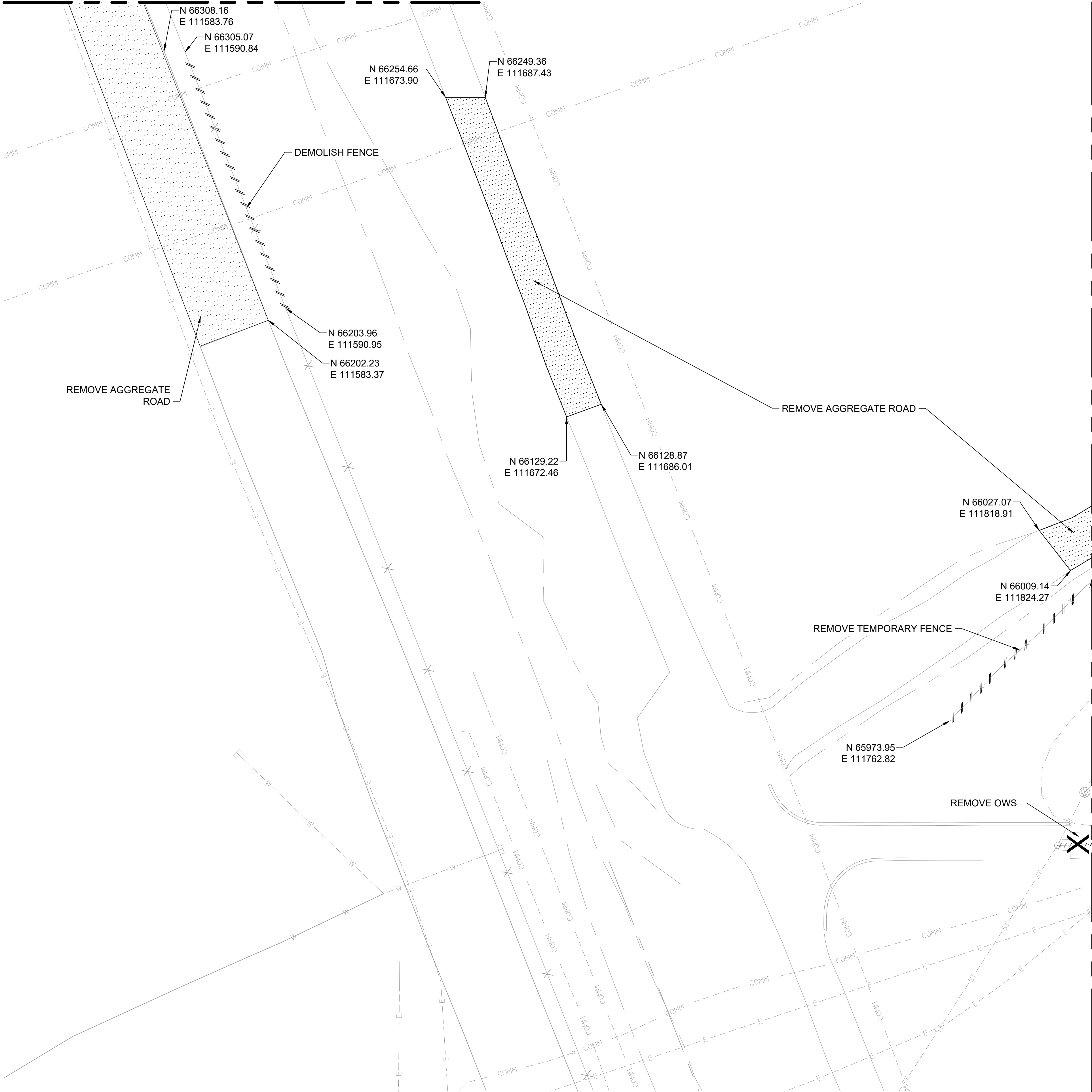
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 PORTLAND, OREGON 97218

PDX FACILITY IMPROVEMENTS
 OVERALL DEMOLITION PLAN

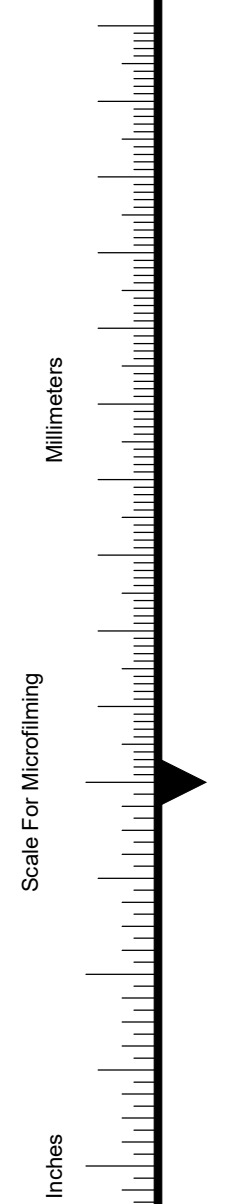
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drawing	CD101	rev.	A

file 153929CD101.DWG

MATCHLINE - SEE SHEET CD108 FOR CONTINUATION

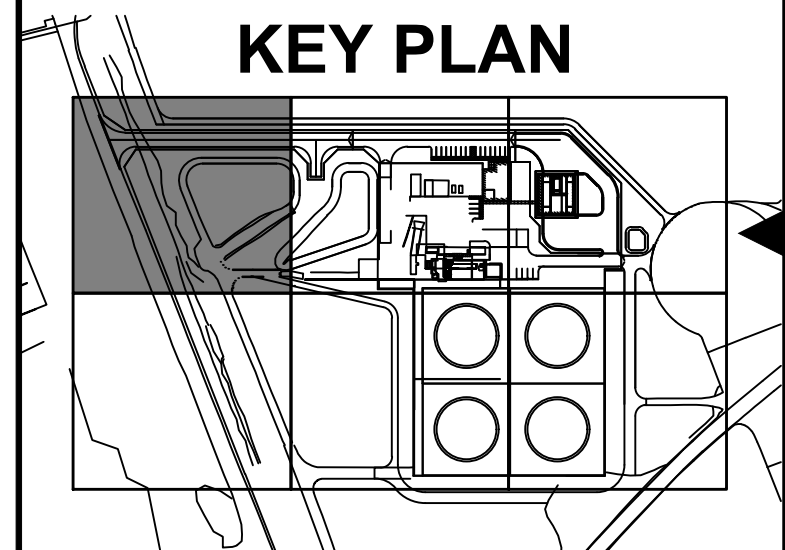


- LEGEND:**
- ASPHALT REMOVAL
 - AGGREGATE REMOVAL
 - CONTAINMENT ROCK AND LINER REMOVAL
 - CONCRETE REMOVAL
 - SAWCUT, FULL DEPTH
 - CURB DEMOLITION
 - CONTAINMENT WALL DEMOLITION
 - UTILITY DEMOLITION
 - FENCE DEMOLITION
 - MISCELLANEOUS DEMOLITION



MATCHLINE - SEE SHEET CD103 FOR CONTINUATION

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designed	M. GREUFE	checked	S. WAGNER

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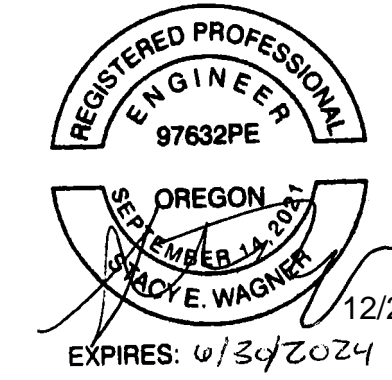
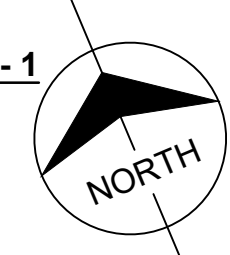
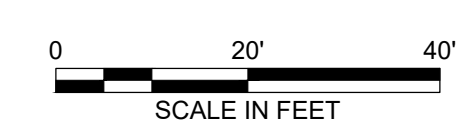
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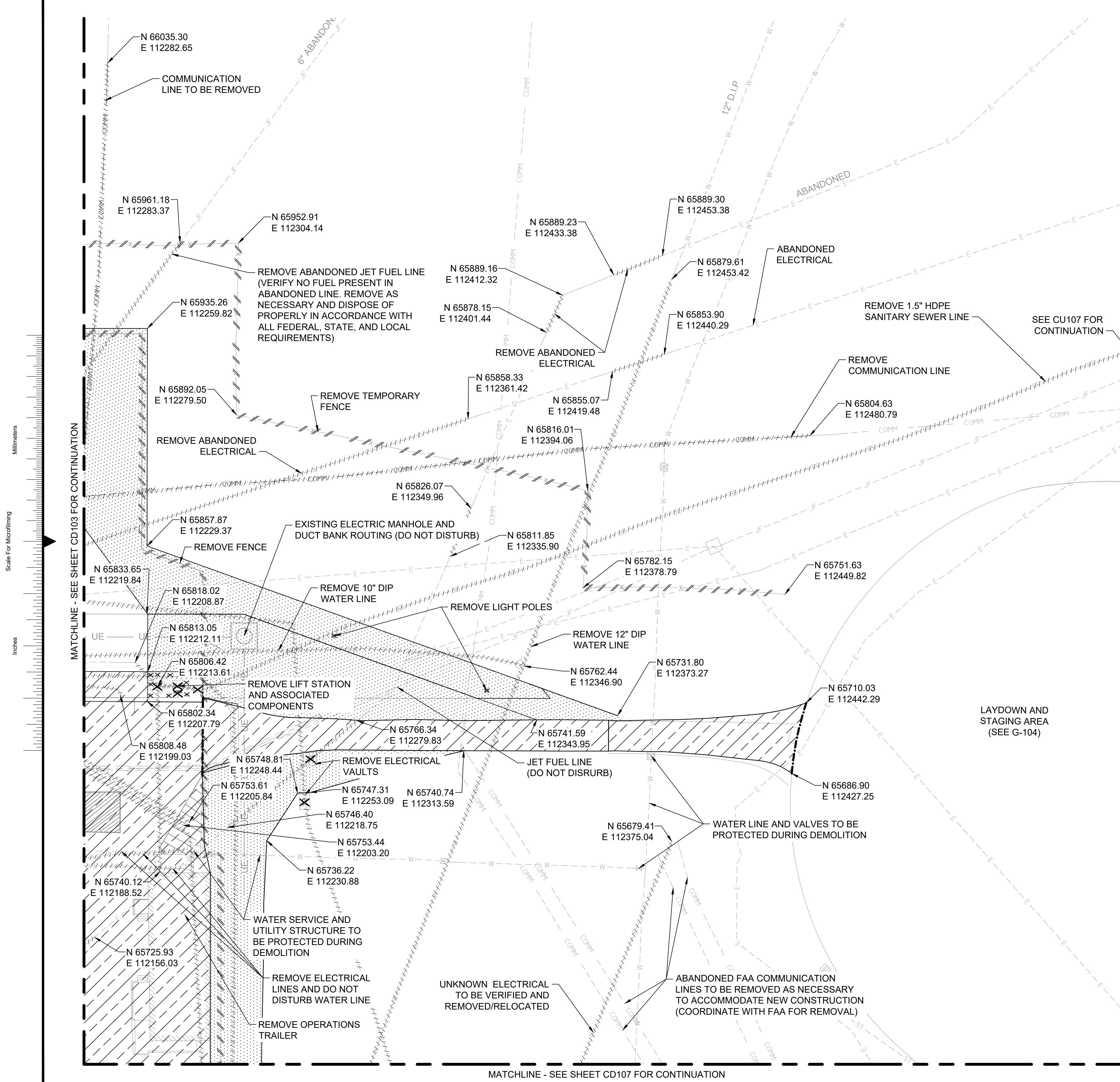
PDX FACILITY IMPROVEMENTS
ENLARGED DEMOLITION PLAN - 1

project	153929	contract	
drawing	CD102	rev.	A

file 153929CD101.DWG

ENLARGED DEMOLITION PLAN - 1





LEGEND:

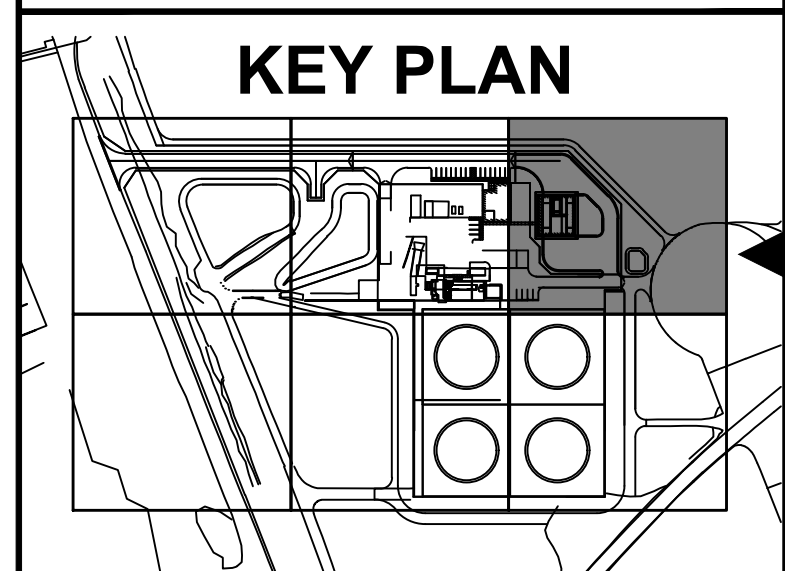
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- AGGREGATE REMOVAL
- CONTAINMENT ROCK AND LINER REMOVAL
- CONCRETE REMOVAL
- SAWCUT, FULL DEPTH
- CURB DEMOLITION
- CONTAINMENT WALL DEMOLITION
- UTILITY DEMOLITION
- FENCE DEMOLITION
- MISCELLANEOUS DEMOLITION

Scale For Microfinishing
Millimeters
Inches

MATCHLINE - SEE SHEET CD103 FOR CONTINUATION

MATCHLINE - SEE SHEET CD107 FOR CONTINUATION

no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT



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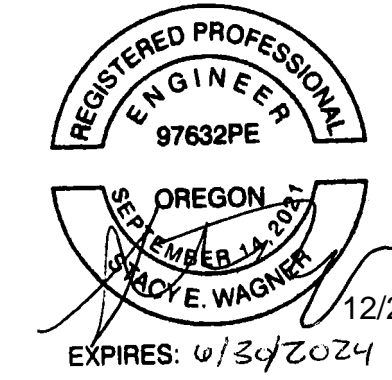
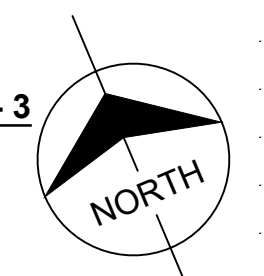
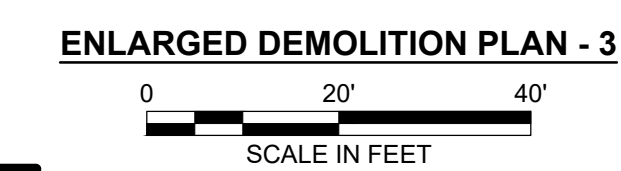
date	08/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

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 PORTLAND, OREGON 97218

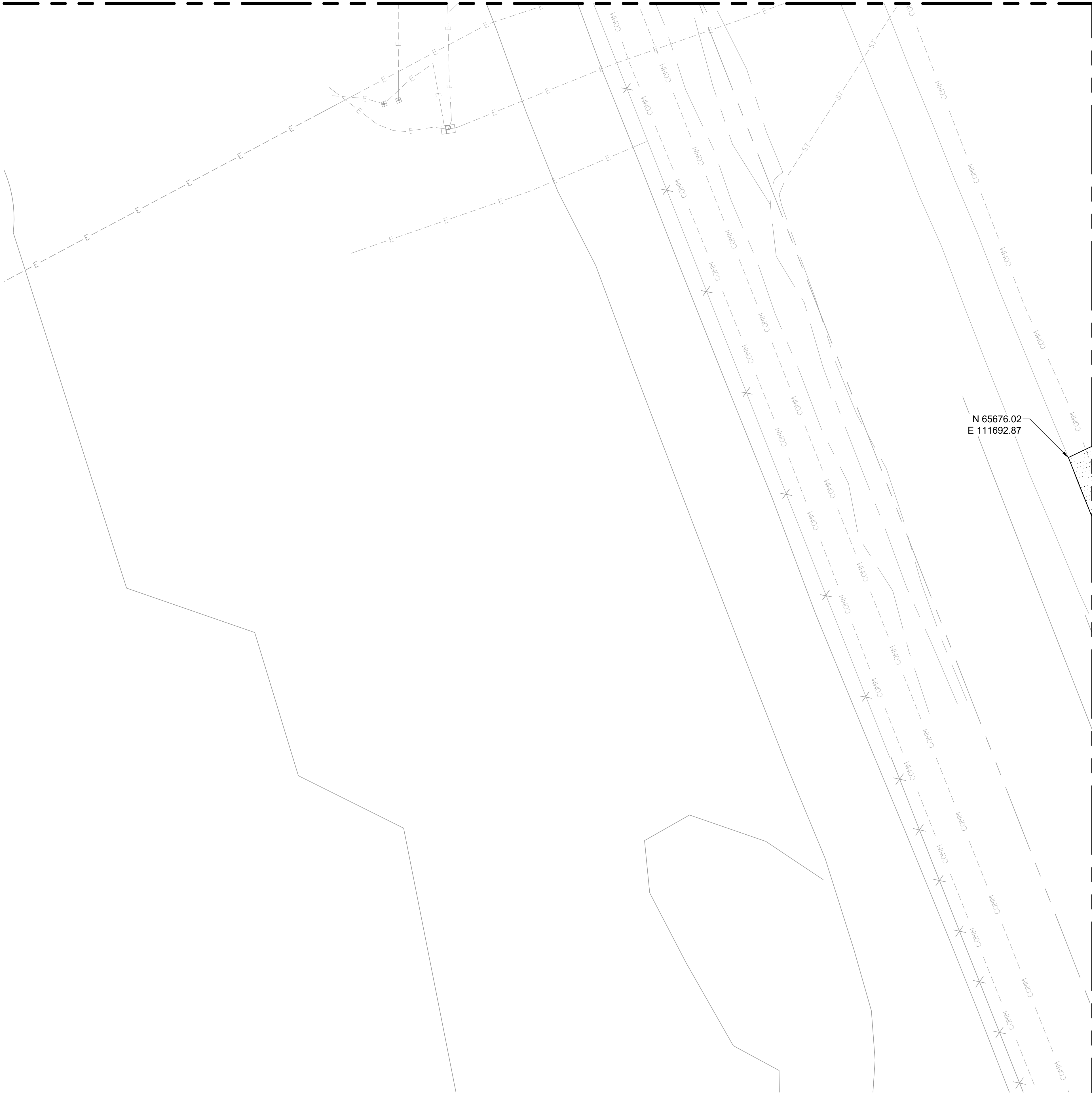
PDX FACILITY IMPROVEMENTS
 ENLARGED DEMOLITION PLAN - 3

project	153929	contract	
drawing	CD104	rev.	A

file 153929CD101.DWG



MATCHLINE - SEE SHEET CD102 FOR CONTINUATION



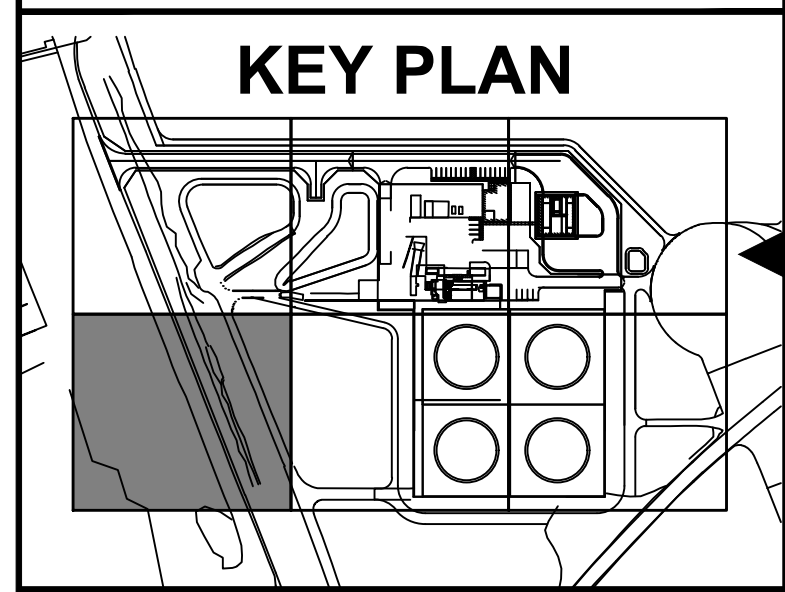
- LEGEND:**
- ASPHALT REMOVAL
 - AGGREGATE REMOVAL
 - CONTAINMENT ROCK AND LINER REMOVAL
 - CONCRETE REMOVAL
 - SAWCUT, FULL DEPTH
 - CURB DEMOLITION
 - CONTAINMENT WALL DEMOLITION
 - UTILITY DEMOLITION
 - FENCE DEMOLITION
 - MISCELLANEOUS DEMOLITION

Millimeters
Scale For Microfining
Inches

N 65676.02
E 111692.87

MATCHLINE - SEE SHEET CD106 FOR CONTINUATION

no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT



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date	08/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

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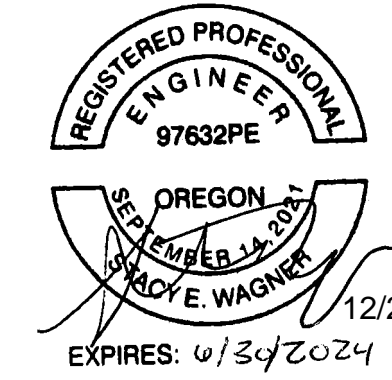
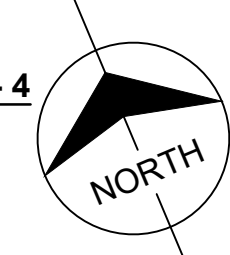
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PDX FACILITY IMPROVEMENTS
ENLARGED DEMOLITION PLAN - 4

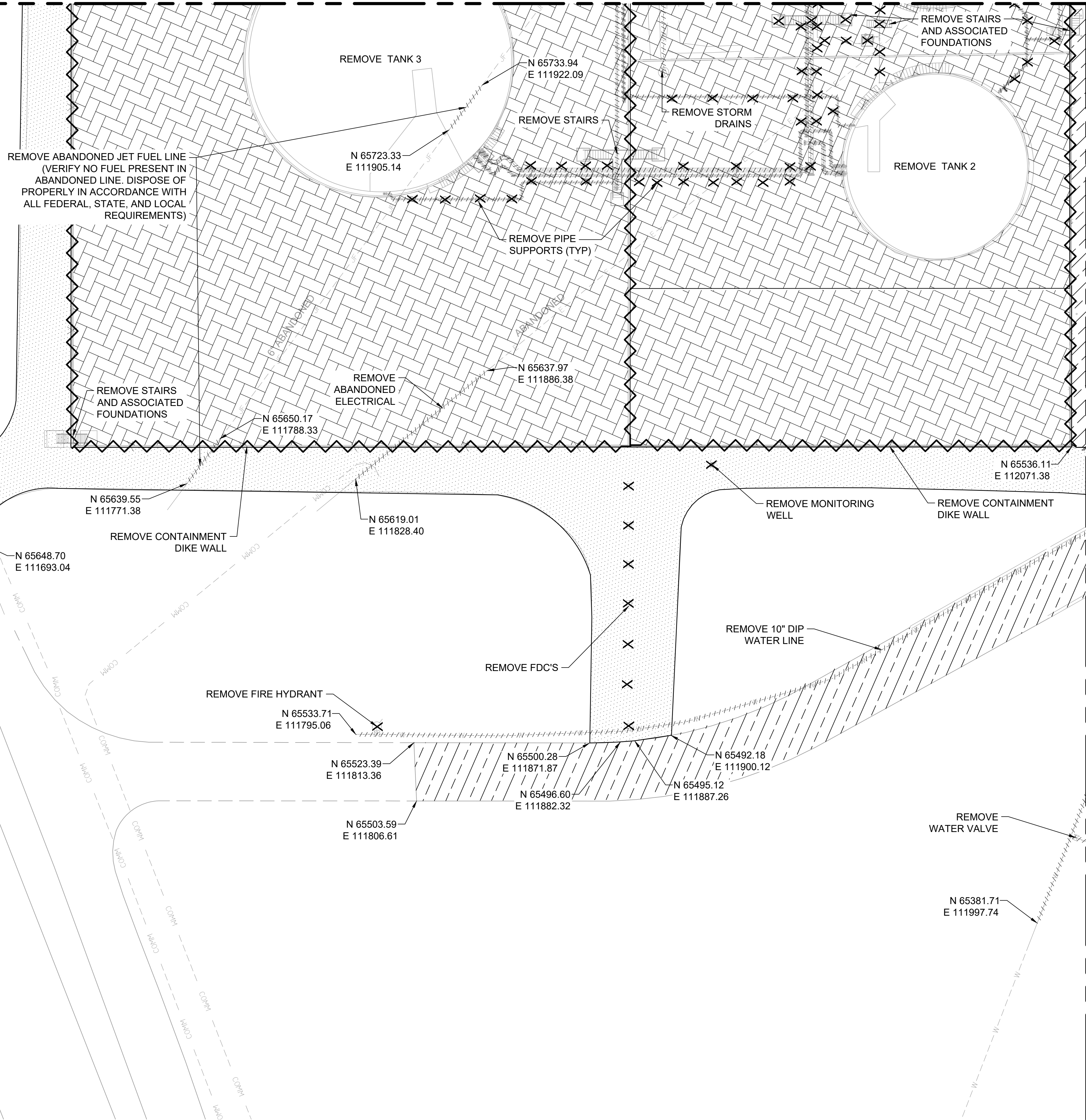
project	153929	contract	
drawing	CD105	rev.	A

file 153929CD101.DWG

ENLARGED DEMOLITION PLAN - 4
0 20' 40'
SCALE IN FEET



MATCHLINE - SEE SHEET CD103 FOR CONTINUATION



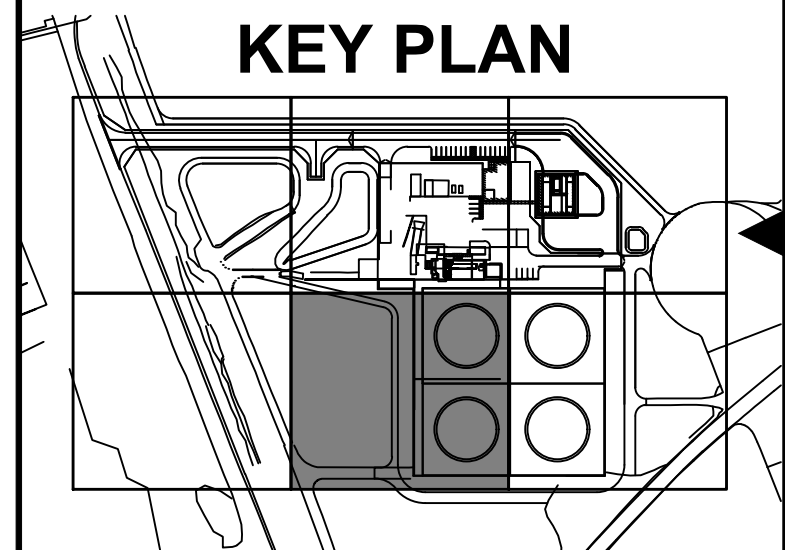
- LEGEND:**
- ASPHALT REMOVAL
 - AGGREGATE REMOVAL
 - CONTAINMENT ROCK AND LINER REMOVAL
 - CONCRETE REMOVAL
 - SAWCUT, FULL DEPTH
 - CURB DEMOLITION
 - CONTAINMENT WALL DEMOLITION
 - UTILITY DEMOLITION
 - FENCE DEMOLITION
 - MISCELLANEOUS DEMOLITION

Scale For Microfinishing
 Millimeters
 Inches

MATCHLINE - SEE SHEET CD105 FOR CONTINUATION

MATCHLINE - SEE SHEET CD107 FOR CONTINUATION

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date	08/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

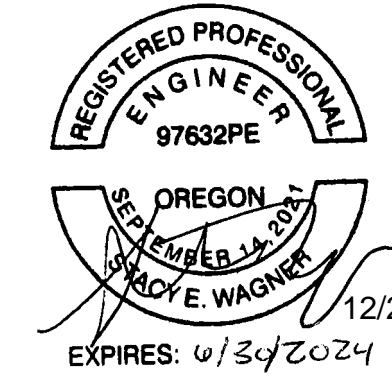
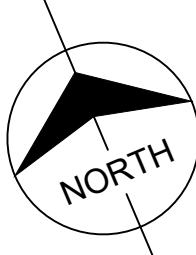
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PDX FACILITY IMPROVEMENTS
 ENLARGED DEMOLITION PLAN - 5

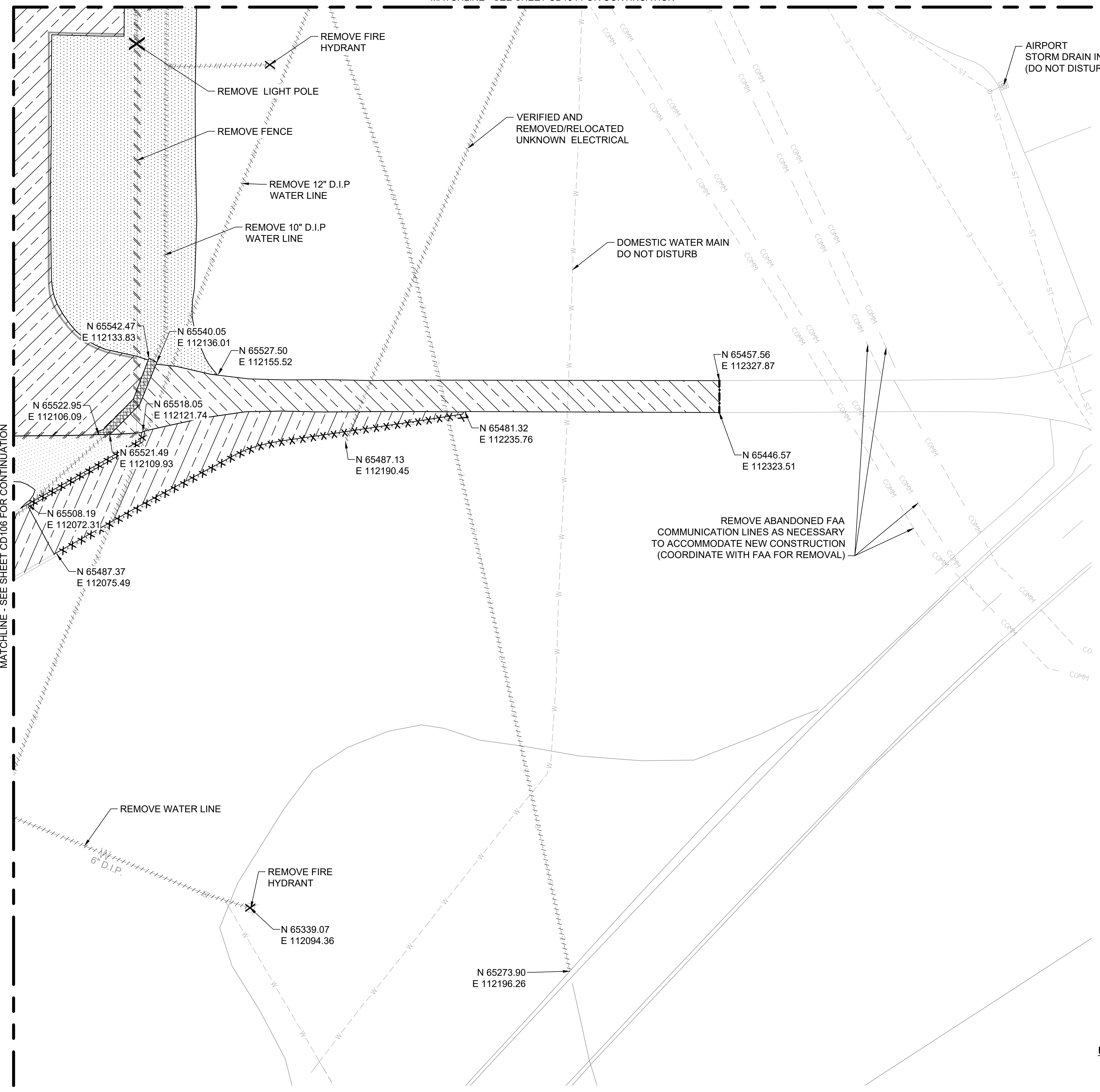
project	153929	contract	
drawing	CD106	rev.	A

file 153929CD101.DWG

ENLARGED DEMOLITION PLAN 5
 0 20' 40'
 SCALE IN FEET



MATCHLINE - SEE SHEET CD104 FOR CONTINUATION

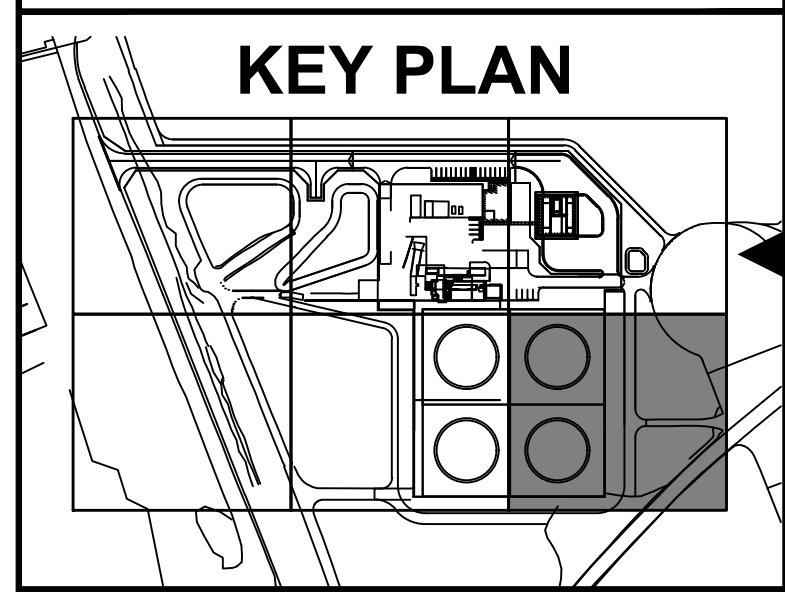


- LEGEND:**
- ASPHALT REMOVAL
 - AGGREGATE REMOVAL
 - CONTAINMENT ROCK AND LINER REMOVAL
 - CONCRETE REMOVAL
 - SAWCUT, FULL DEPTH
 - CURB DEMOLITION
 - CONTAINMENT WALL DEMOLITION
 - UTILITY DEMOLITION
 - FENCE DEMOLITION
 - MISCELLANEOUS DEMOLITION

Scale For Microfitting
Millimeters
Inches

MATCHLINE - SEE SHEET CD106 FOR CONTINUATION

no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT



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date	08/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

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PORTLAND, OREGON 97218

PDX FACILITY IMPROVEMENTS
ENLARGED DEMOLITION PLAN - 6

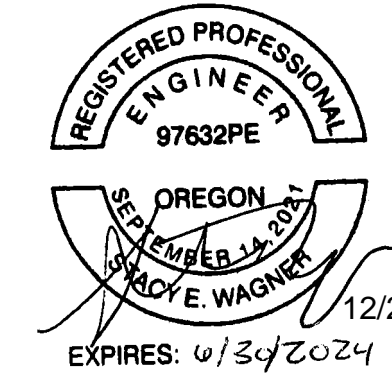
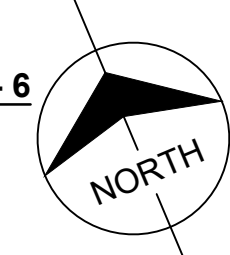
project	153929	contract	
drawing	CD107	rev.	A

file 153929CD101.DWG

ENLARGED DEMOLITION PLAN - 6

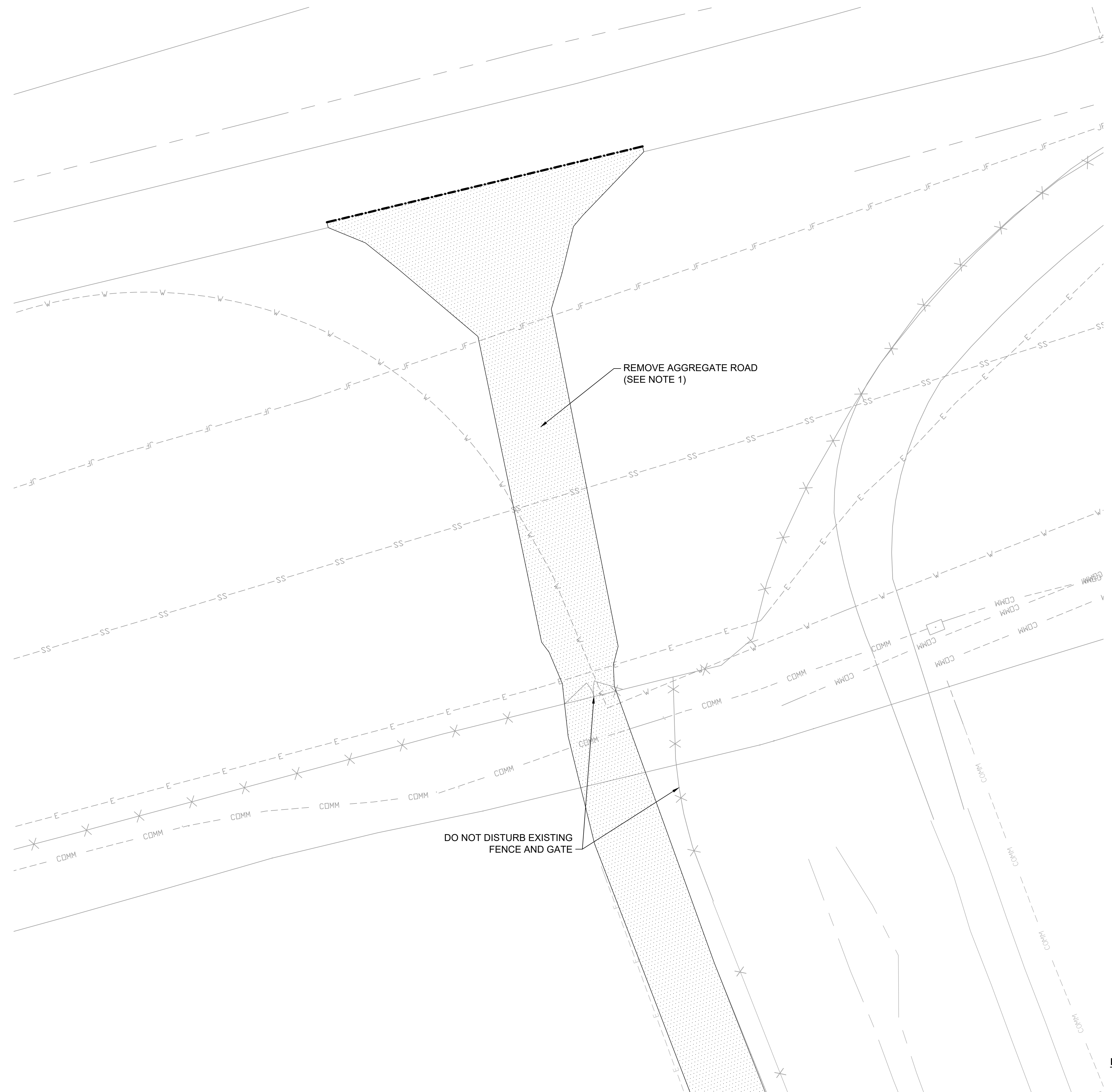
0 20' 40'

SCALE IN FEET



A
B
C
D
E
F
G
H
I

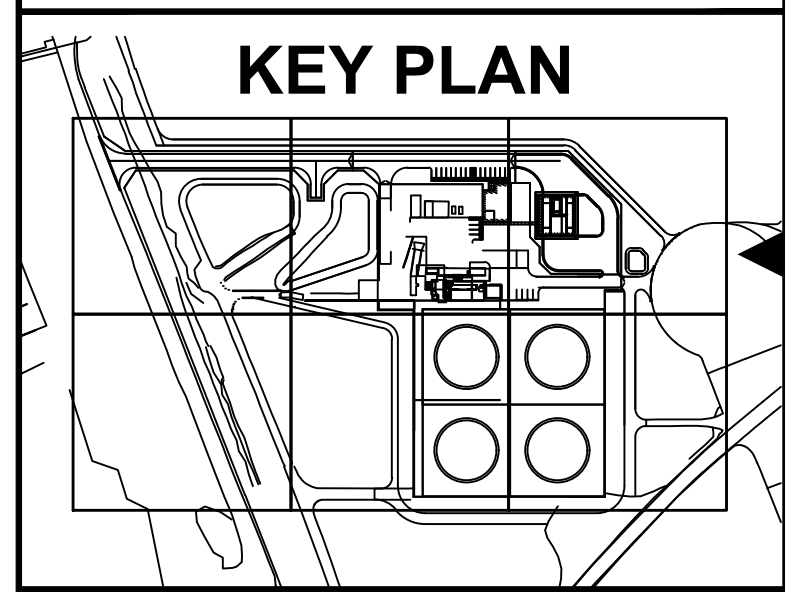
Millimeters
Scale For Microfining
Inches



NOTE:
1. MATCH EXTENTS OF EXISTING CONSTRUCTION ACCESS ROAD WITHIN FENCE (NOT SHOWN). DO NOT DISTURB FENCE.

- LEGEND:**
- ASPHALT REMOVAL
 - AGGREGATE REMOVAL
 - CONTAINMENT ROCK AND LINER REMOVAL
 - CONCRETE REMOVAL
 - SAWCUT, FULL DEPTH
 - CURB DEMOLITION
 - CONTAINMENT WALL DEMOLITION
 - UTILITY DEMOLITION
 - FENCE DEMOLITION
 - MISCELLANEOUS DEMOLITION

no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT



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 Burns & McDonnell Engineering Co., Inc.

date	08/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

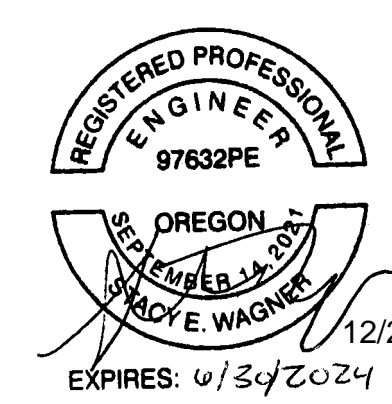
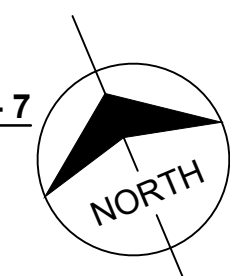
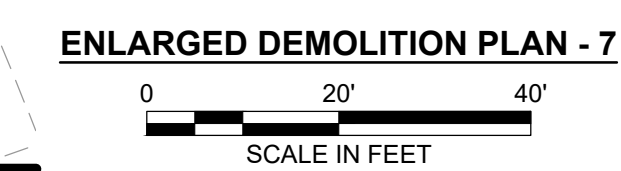
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 PORTLAND, OREGON 97218

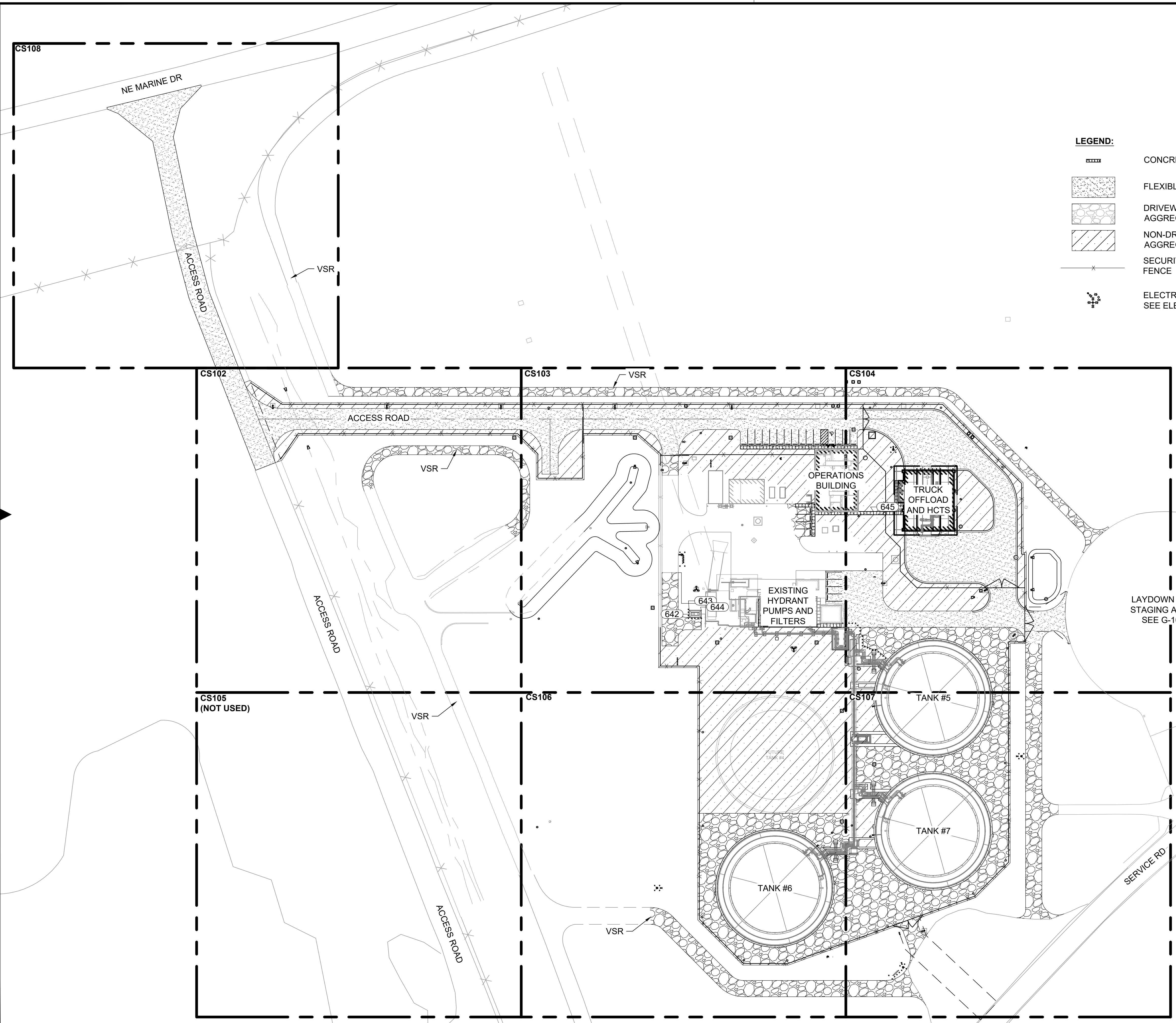
PDX FACILITY IMPROVEMENTS
 ENLARGED DEMOLITION PLAN - 7

project	153929	contract	
drawing	CD108	rev.	A

file 153929CD101.DWG



MATCHLINE - SEE SHEET CD102 FOR CONTINUATION

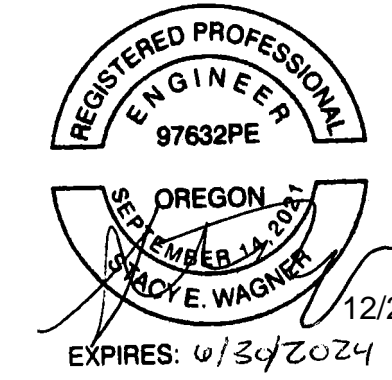
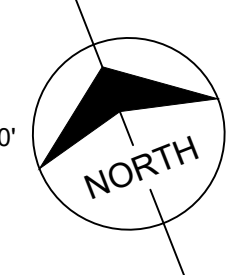


LEGEND:

- CONCRETE SIDEWALK (5 CS502)
- FLEXIBLE PAVEMENT (2 CS502)
- DRIVEWAY AGGREGATE (3 CS502)
- NON-DRIVEWAY AGGREGATE (4 CS502)
- SECURITY FENCE (3 CS501)
- ELECTRICAL APPURTENANCES, SEE ELECTRICAL DRAWINGS

Scale For Microfining
Millimeters
Inches

OVERALL SITE PLAN
SCALE IN FEET
0 60' 120'



no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT

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9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Co., Inc.

date	08/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

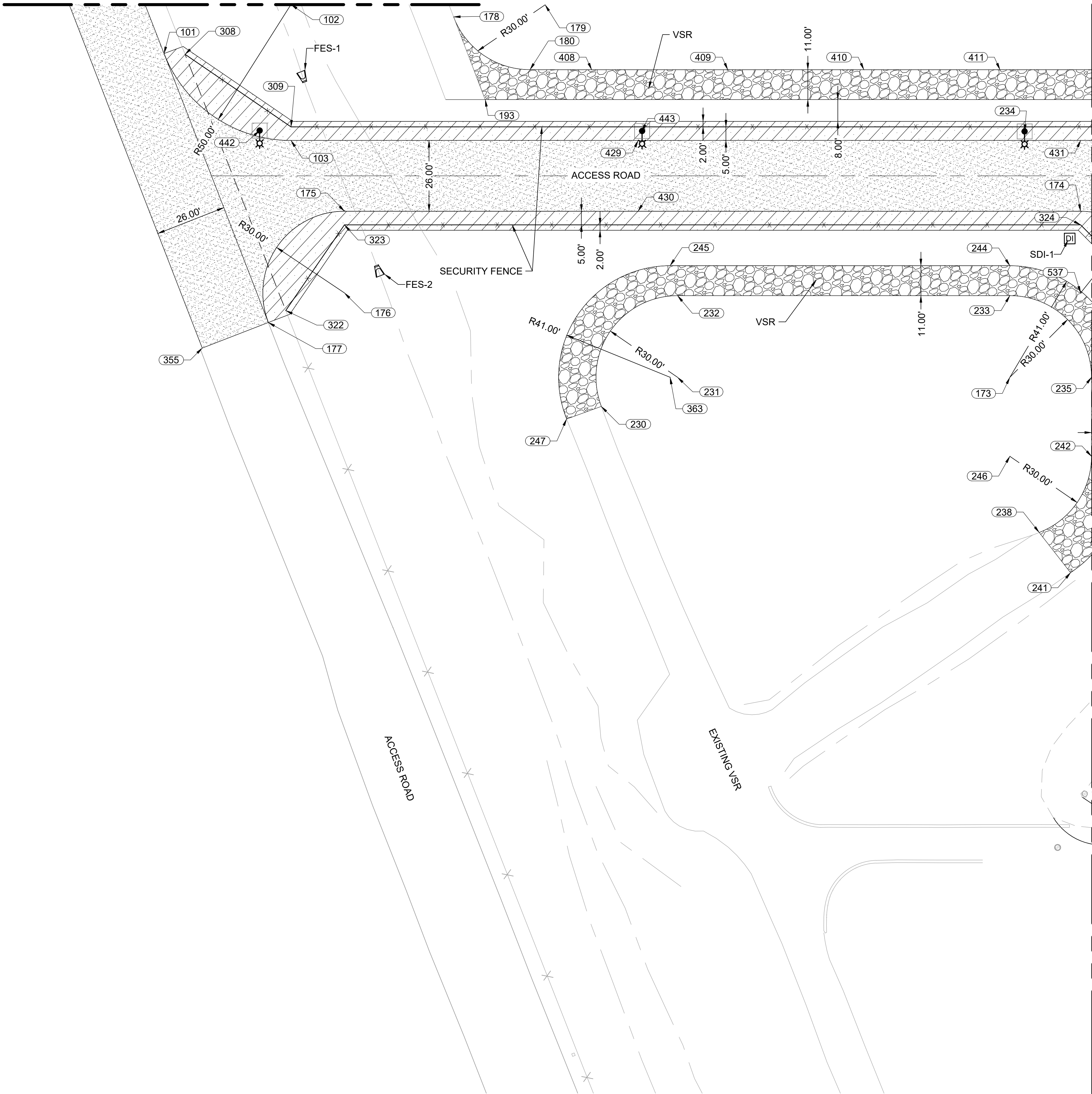
PDX FUEL COMPANY L.L.C
PORTLAND INTERNATIONAL AIRPORT
5000 NE MARINE DR.
PORTLAND, OREGON 97218

PDX FACILITY IMPROVEMENTS
OVERALL SITE PLAN

project	153929	contract	
drawing	CS101	rev.	A

file OVERALL SITE PLAN.DWG

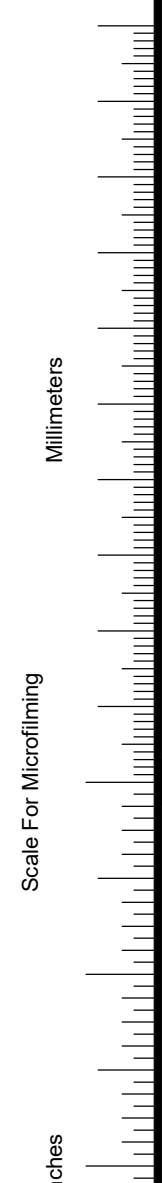
MATCHLINE - SEE SHEET CS108 FOR CONTINUATION



- GENERAL NOTES:**
- DISTURBED AREAS NOT DESIGNATED TO RECEIVE OTHER SURFACING ARE TO BE SEEDED.
 - SEE STRUCTURAL DRAWINGS FOR STRUCTURES, WALLS AND FOUNDATION PLANS AND DETAILS.
 - SEE MECHANICAL AND FIRE PROTECTION DRAWINGS FOR ABOVE GROUND PIPING PLANS AND DETAILS.
 - SEE PDX OPERATIONS BUILDING PLAN (BY OTHERS) FOR BUILDING PLANS AND DETAILS.

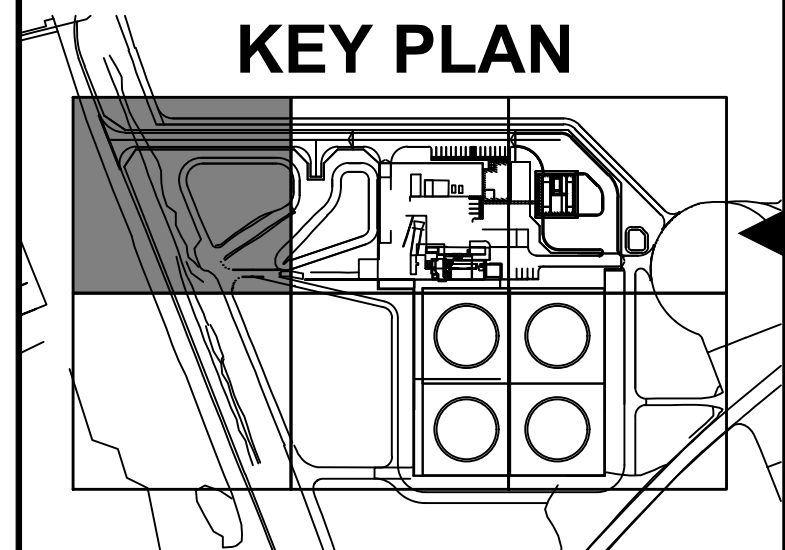
LEGEND:

	CONCRETE SIDEWALK	5	CS502
	FLEXIBLE PAVEMENT	2	CS502
	DRIVEWAY AGGREGATE	3	CS502
	NON-DRIVEWAY AGGREGATE	4	CS502
	SECURITY FENCE	3	CS501
	GUARD POST	2	CS501
	CURB AND GUTTER	7	CS502
	ELECTRICAL APPURTENANCES, SEE ELECTRICAL DRAWINGS		
	COORDINATE POINT, SEE CS120 AND CS121		



MATCHLINE - SEE SHEET CS103 FOR CONTINUATION

no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT



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BURNS MCDONNELL
 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 Burns & McDonnell Engineering Co., Inc.

date	08/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

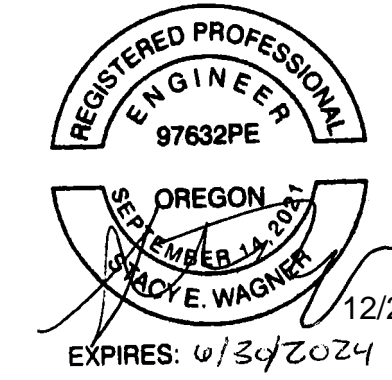
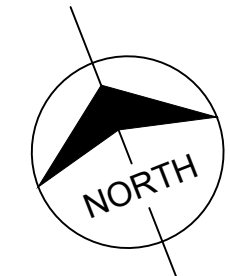
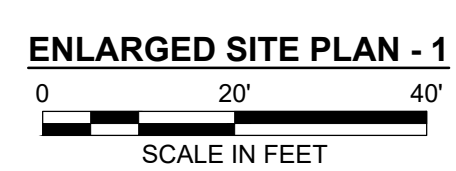
PDX FUEL COMPANY L.L.C

PORTLAND INTERNATIONAL AIRPORT
 5000 NE MARINE DR.
 PORTLAND, OREGON 97218

PDX FACILITY IMPROVEMENTS
 ENLARGED SITE PLAN - 1

project	153929	contract	
drawing	CS102	rev.	A

file OVERALL SITE PLAN.DWG



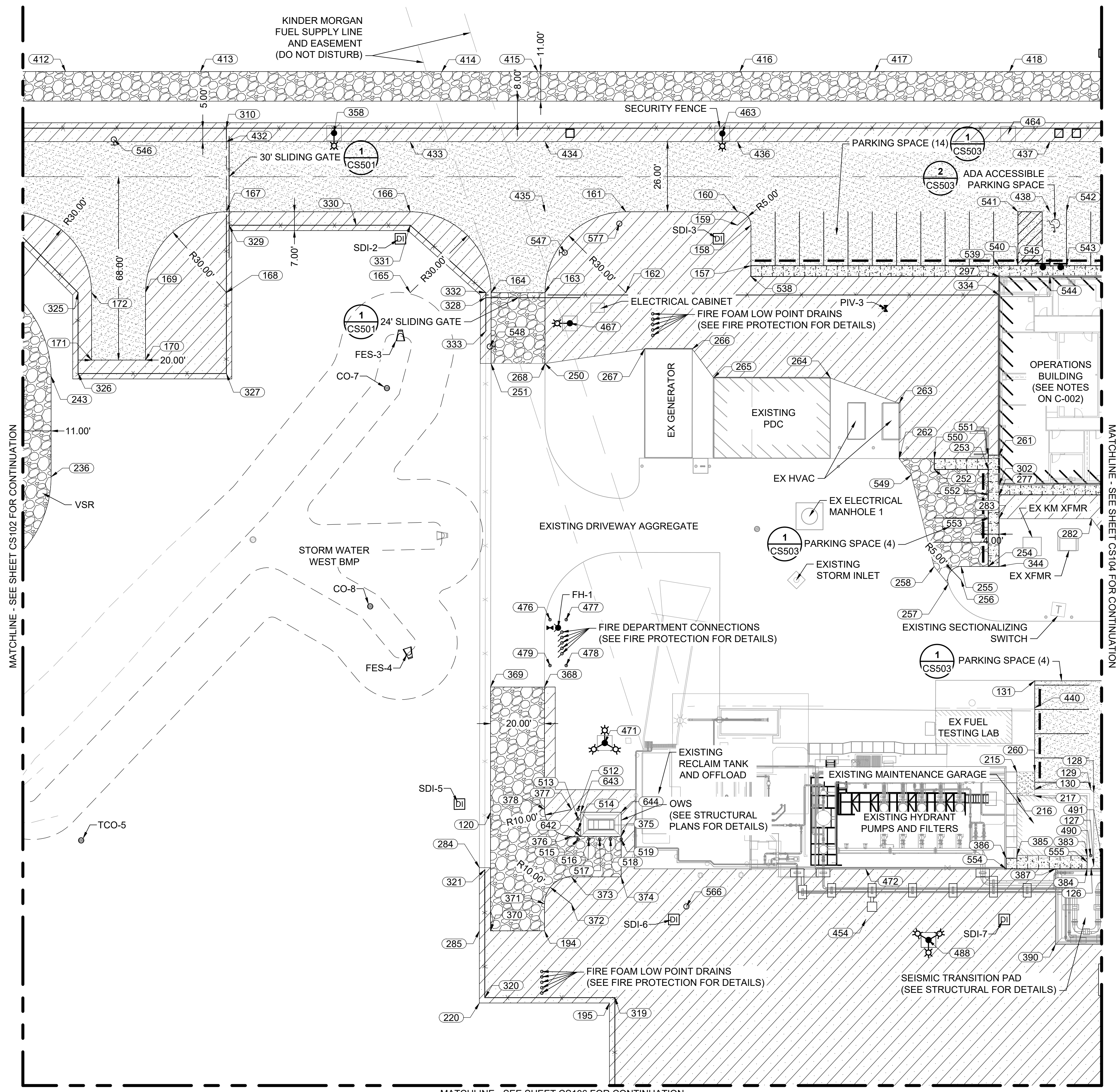
KINDER MORGAN FUEL SUPPLY LINE AND EASEMENT (DO NOT DISTURB)

GENERAL NOTE:
1. SEE CS102 FOR SITE NOTES.

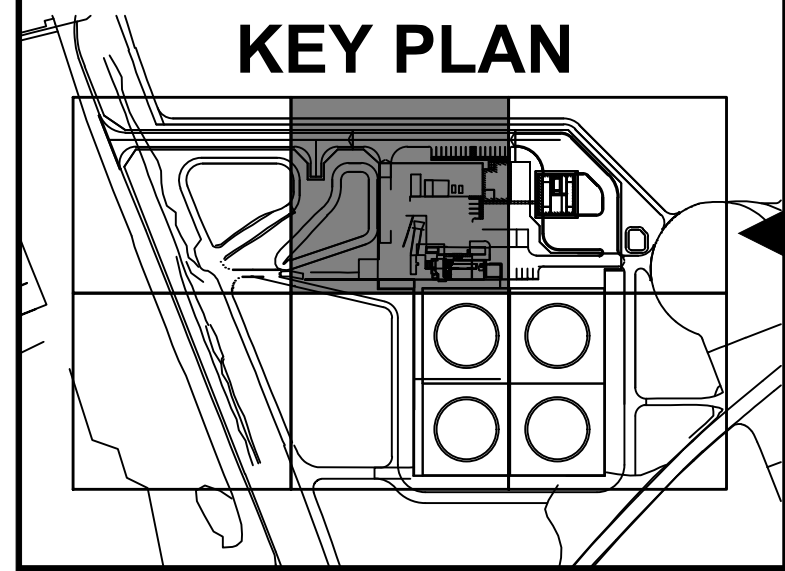
LEGEND:

- CONCRETE SIDEWALK (5 CS502)
- FLEXIBLE PAVEMENT (2 CS502)
- DRIVEWAY AGGREGATE (3 CS502)
- NON-DRIVEWAY AGGREGATE (4 CS502)
- SECURITY FENCE (3 CS501)
- GUARD POST (2 CS501)
- CURB AND GUTTER (7 CS502)
- ELECTRICAL APPURTENANCES, SEE ELECTRICAL DRAWINGS
- COORDINATE POINT, SEE CS120 AND CS121
- PARKING SIGN

Scale For Microfinishing
Millimeters
Inches



no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT



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 816-333-9400
 Burns & McDonnell Engineering Co., Inc.

date	detailed
08/23/23	G. PAMBUENA
designed	checked
M. GREUFE	S. WAGNER

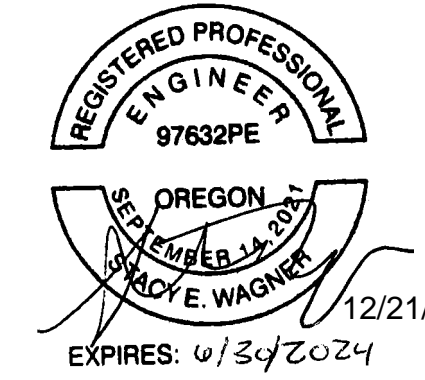
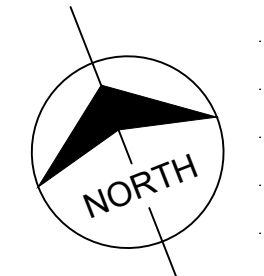
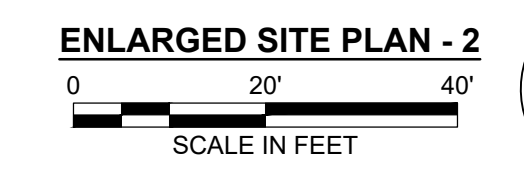
PDX FUEL COMPANY L.L.C

PORTLAND INTERNATIONAL AIRPORT
 5000 NE MARINE DR.
 PORTLAND, OREGON 97218

PDX FACILITY IMPROVEMENTS
 ENLARGED SITE PLAN - 2

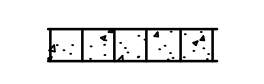
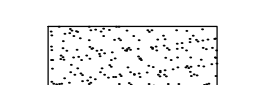
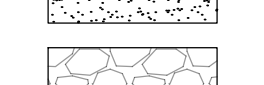
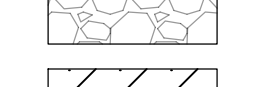
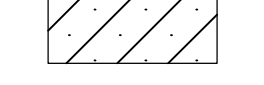
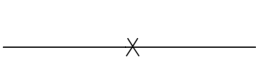

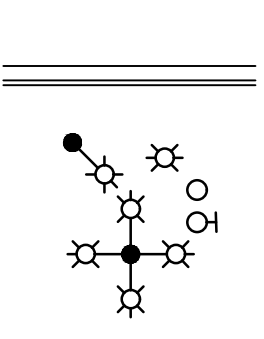
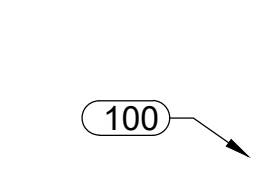
project	contract
153929	
drawing	rev.
CS103	A

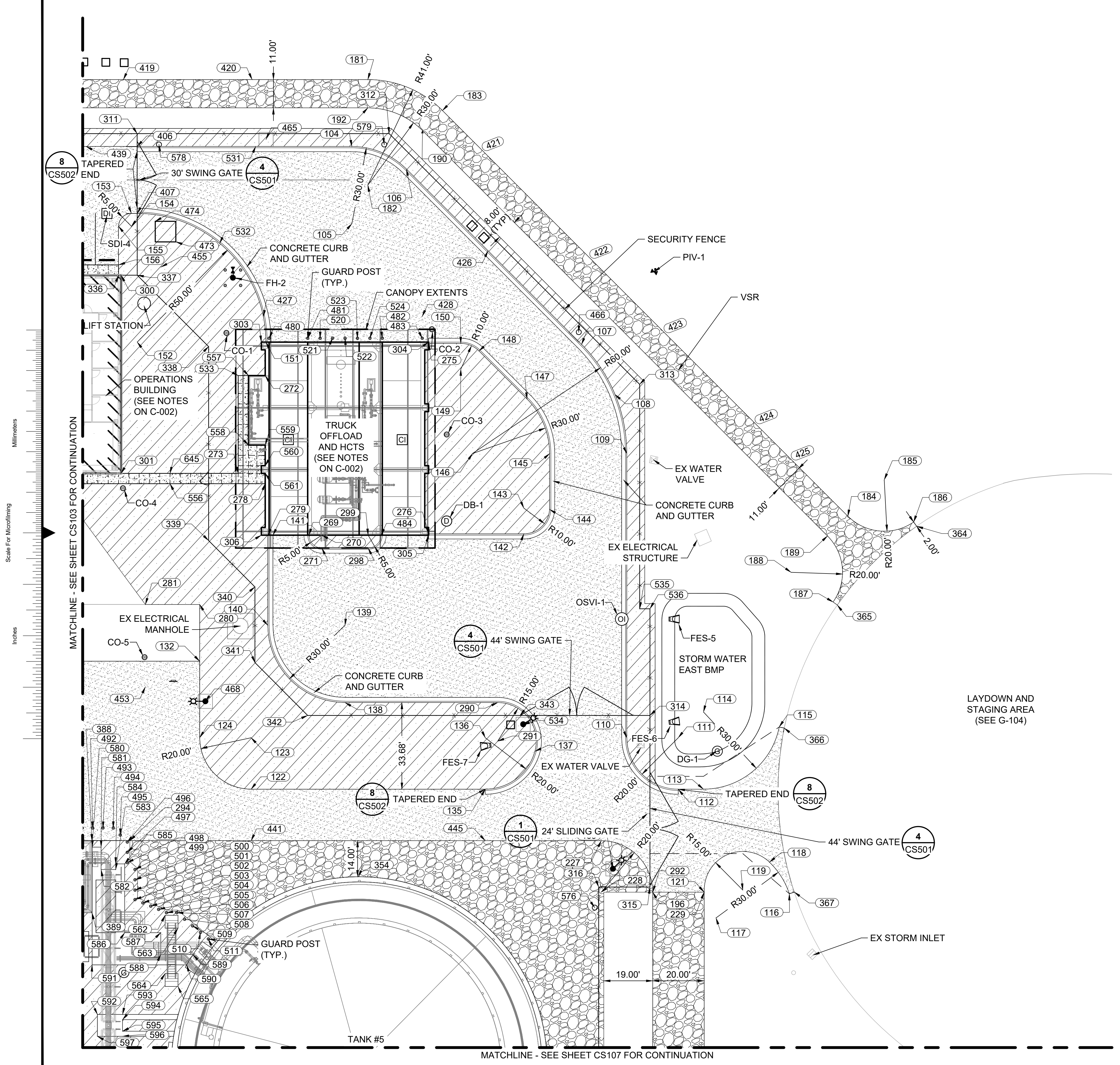
file OVERALL SITE PLAN.DWG



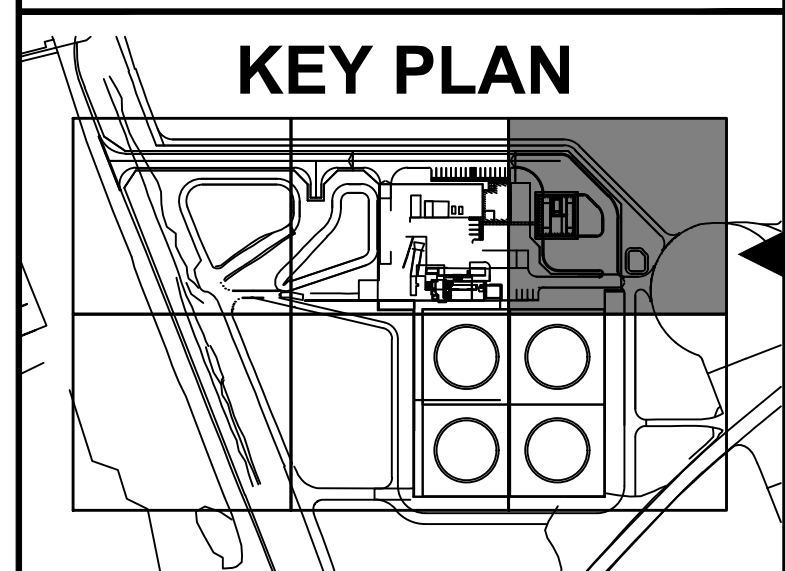
GENERAL NOTE:
1. SEE CS102 FOR SITE NOTES.

LEGEND:

-  CONCRETE SIDEWALK (5 CS502)
-  FLEXIBLE PAVEMENT (2 CS502)
-  DRIVEWAY AGGREGATE (3 CS502)
-  NON-DRIVEWAY AGGREGATE (4 CS502)
-  SECURITY FENCE (3 CS501)
-  GUARD POST (2 CS501)
-  CURB AND GUTTER (7 CS502)
-  ELECTRICAL APPURTENANCES, SEE ELECTRICAL DRAWINGS
-  COORDINATE POINT, SEE CS120 AND CS121



no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT



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BURNS MEDONNELL
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Co., Inc.

date	08/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

PDX FUEL COMPANY L.L.C
PORTLAND INTERNATIONAL AIRPORT
5000 NE MARINE DR.
PORTLAND, OREGON 97218

PDX FACILITY IMPROVEMENTS
ENLARGED SITE PLAN - 3

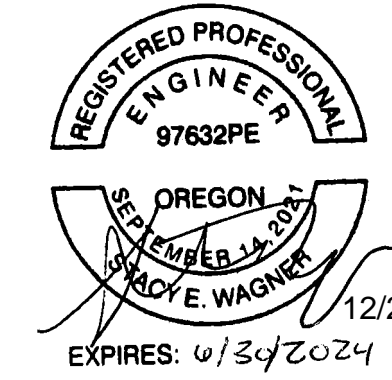
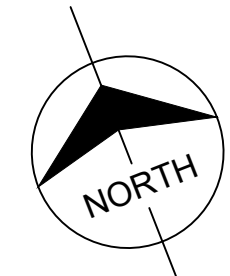
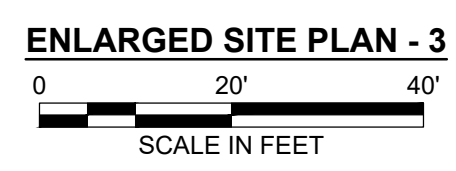
project	153929	contract	
drawing	CS104	rev.	A

file OVERALL SITE PLAN.DWG

Scale For Microfinishing
Millimeters
Inches

MATCHLINE - SEE SHEET CS103 FOR CONTINUATION

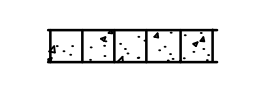
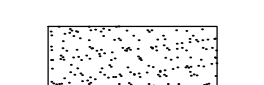
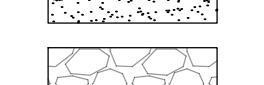
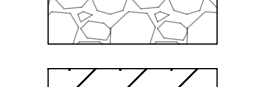
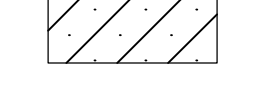
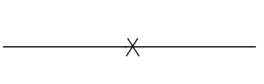

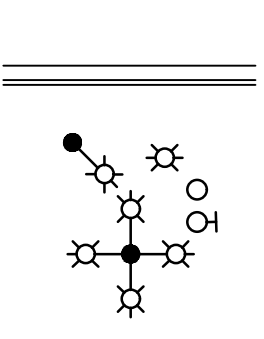
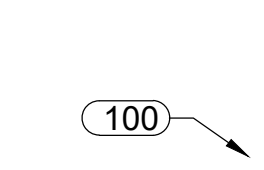
MATCHLINE - SEE SHEET CS107 FOR CONTINUATION



MATCHLINE - SEE SHEET CS103 FOR CONTINUATION

GENERAL NOTE:
1. SEE CS102 FOR SITE NOTES.

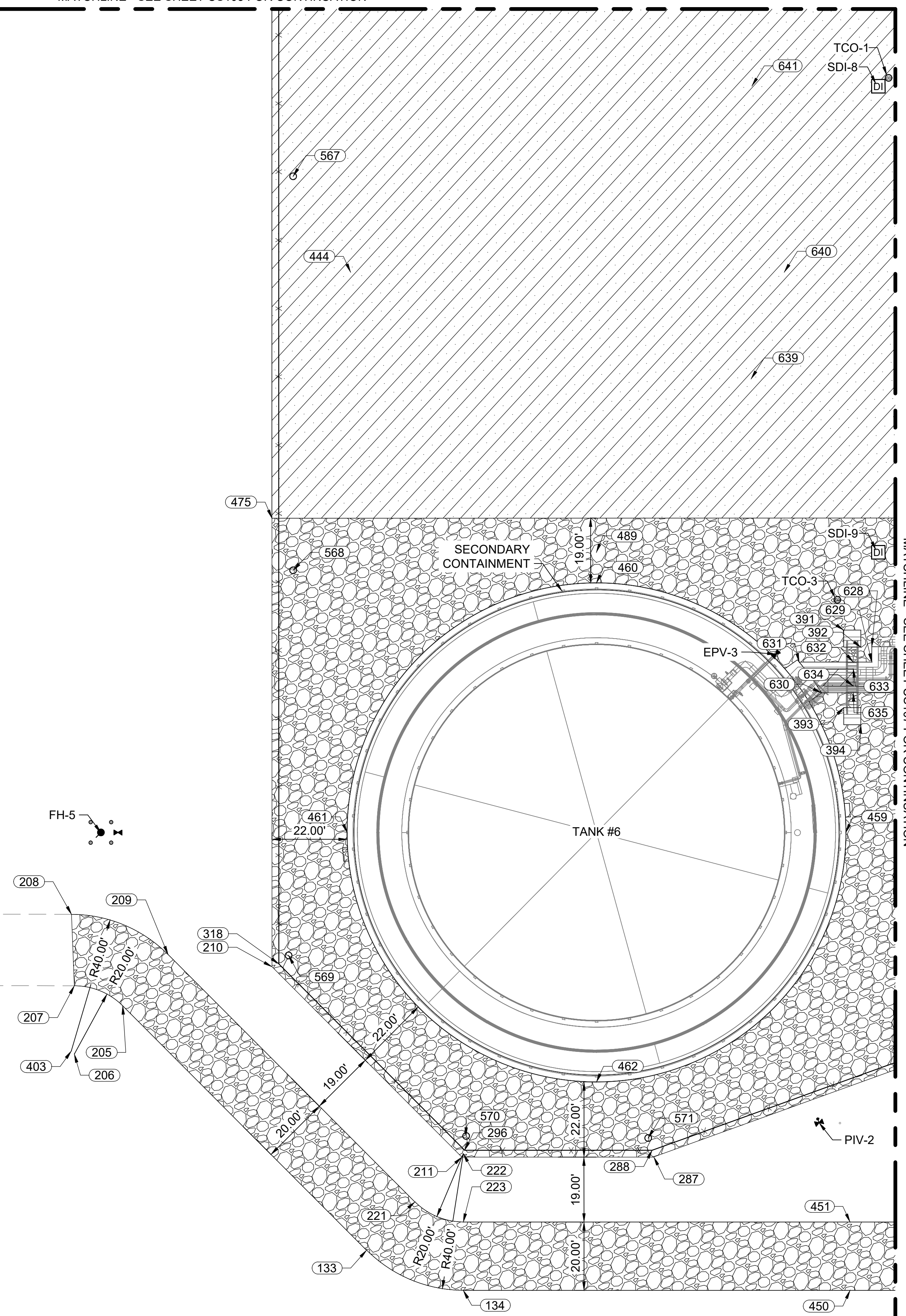
LEGEND:

-  CONCRETE SIDEWALK (5) CS502
-  FLEXIBLE PAVEMENT (2) CS502
-  DRIVEWAY AGGREGATE (3) CS502
-  NON-DRIVEWAY AGGREGATE (4) CS502
-  SECURITY FENCE (3) CS501
-  GUARD POST (2) CS501
-  CURB AND GUTTER (7) CS502
-  ELECTRICAL APPURTENANCES, SEE ELECTRICAL DRAWINGS
-  COORDINATE POINT, SEE CS120 AND CS121

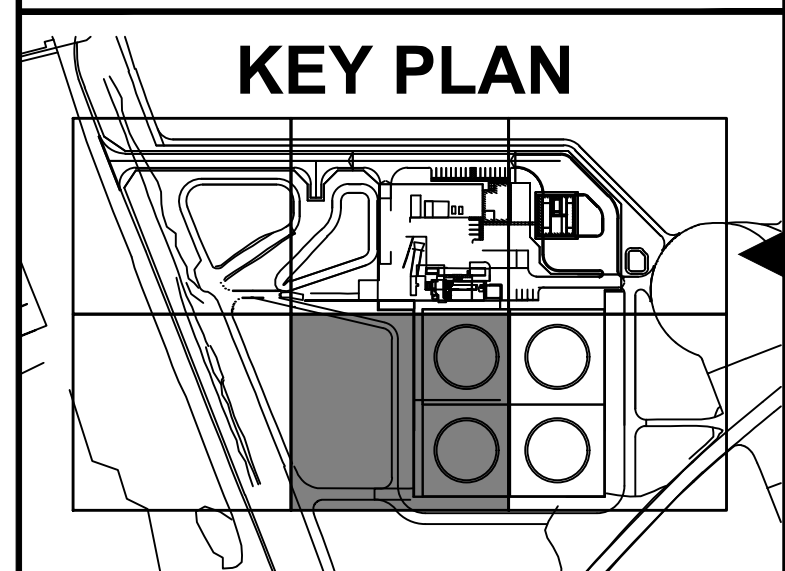
Scale For Microfinishing
Millimeters
Inches

MATCHLINE - SEE SHEET CS105 FOR CONTINUATION

MATCHLINE - SEE SHEET CS107 FOR CONTINUATION



no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT



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9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Co., Inc.

date	08/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

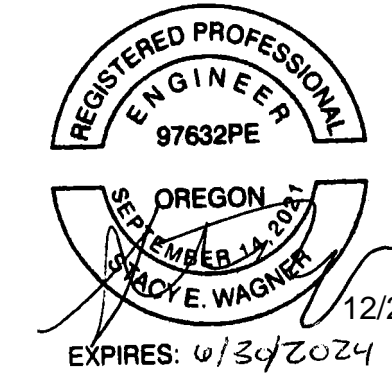
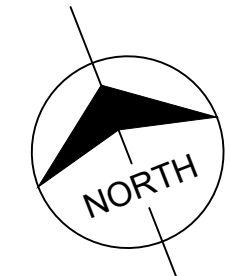
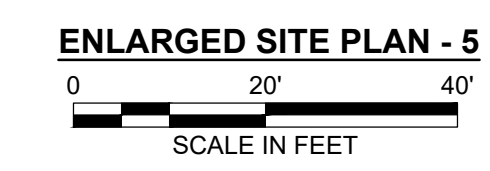
PDX FUEL COMPANY L.L.C

PORTLAND INTERNATIONAL AIRPORT
5000 NE MARINE DR.
PORTLAND, OREGON 97218

PDX FACILITY IMPROVEMENTS
ENLARGED SITE PLAN - 5

project	153929	contract	
drawing	CS106	rev.	A

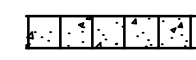
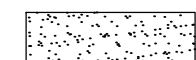


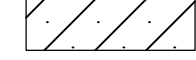
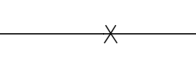

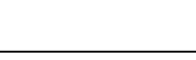

file OVERALL SITE PLAN.DWG



MATCHLINE - SEE SHEET CS104 FOR CONTINUATION

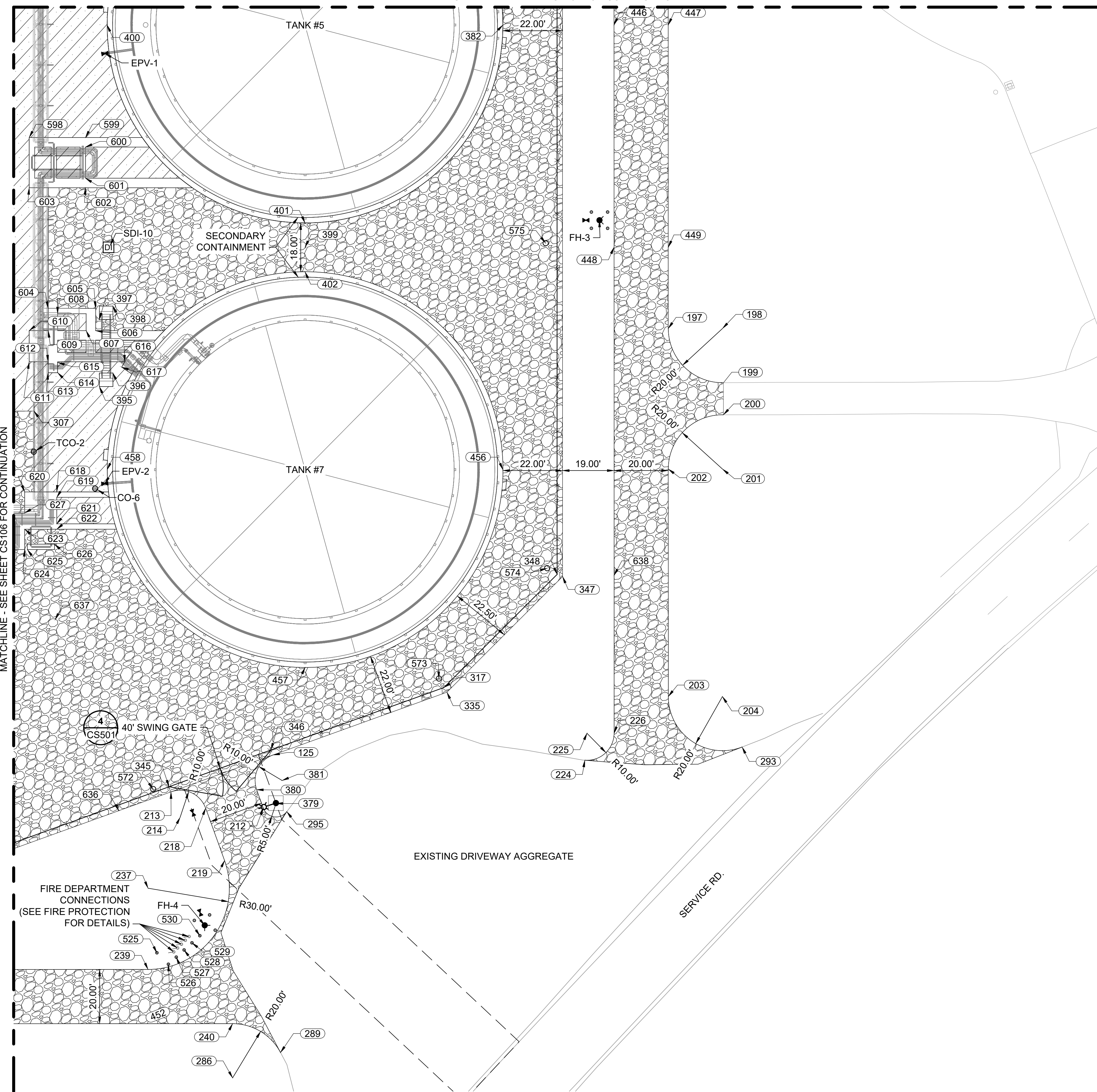
GENERAL NOTE:
1. SEE CS102 FOR SITE NOTES.

LEGEND:

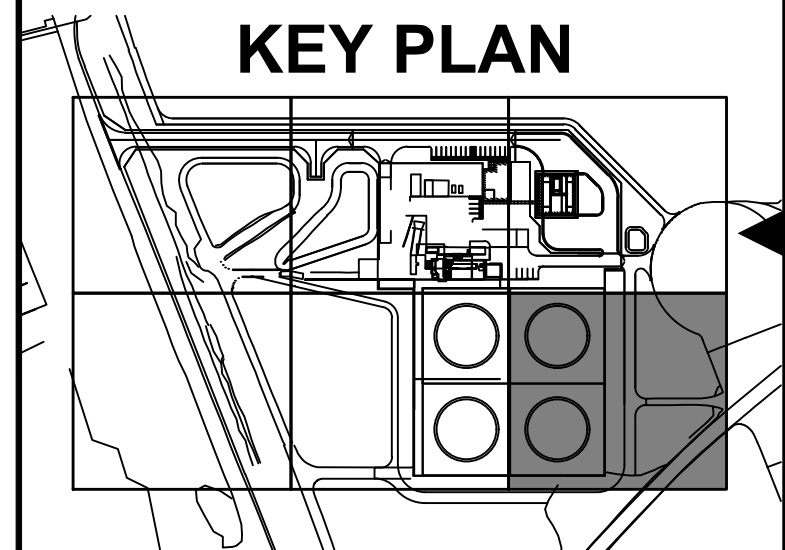
-  CONCRETE SIDEWALK (5) CS502
-  FLEXIBLE PAVEMENT (2) CS502
-  DRIVEWAY AGGREGATE (3) CS502
-  NON-DRIVEWAY AGGREGATE (4) CS502
-  SECURITY FENCE (3) CS501
-  GUARD POST (2) CS501
-  CURB AND GUTTER (7) CS502
-  ELECTRICAL APPURTENANCES, SEE ELECTRICAL DRAWINGS
-  (100) COORDINATE POINT, SEE CS120 AND CS121

Scale For Microfitting
Millimeters
Inches

MATCHLINE - SEE SHEET CS106 FOR CONTINUATION



no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT



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 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 Burns & McDonnell Engineering Co., Inc.

date	08/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

PDX FUEL COMPANY L.L.C

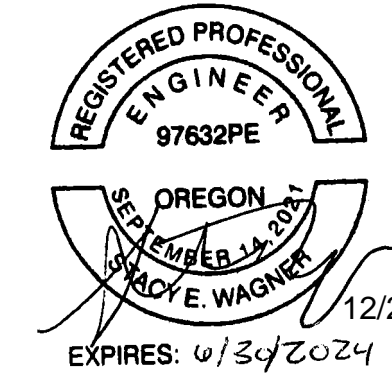
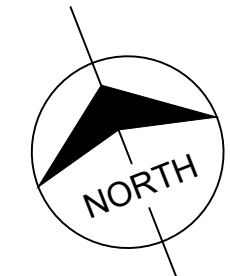
 PORTLAND INTERNATIONAL AIRPORT
 5000 NE MARINE DR.
 PORTLAND, OREGON 97218

PDX FACILITY IMPROVEMENTS
 ENLARGED SITE PLAN - 6



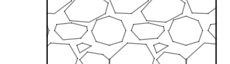
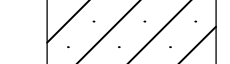
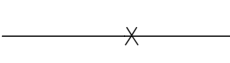
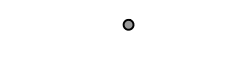
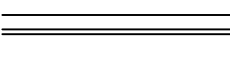
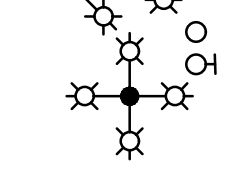

project	153929	contract	
drawing	CS107	rev.	A

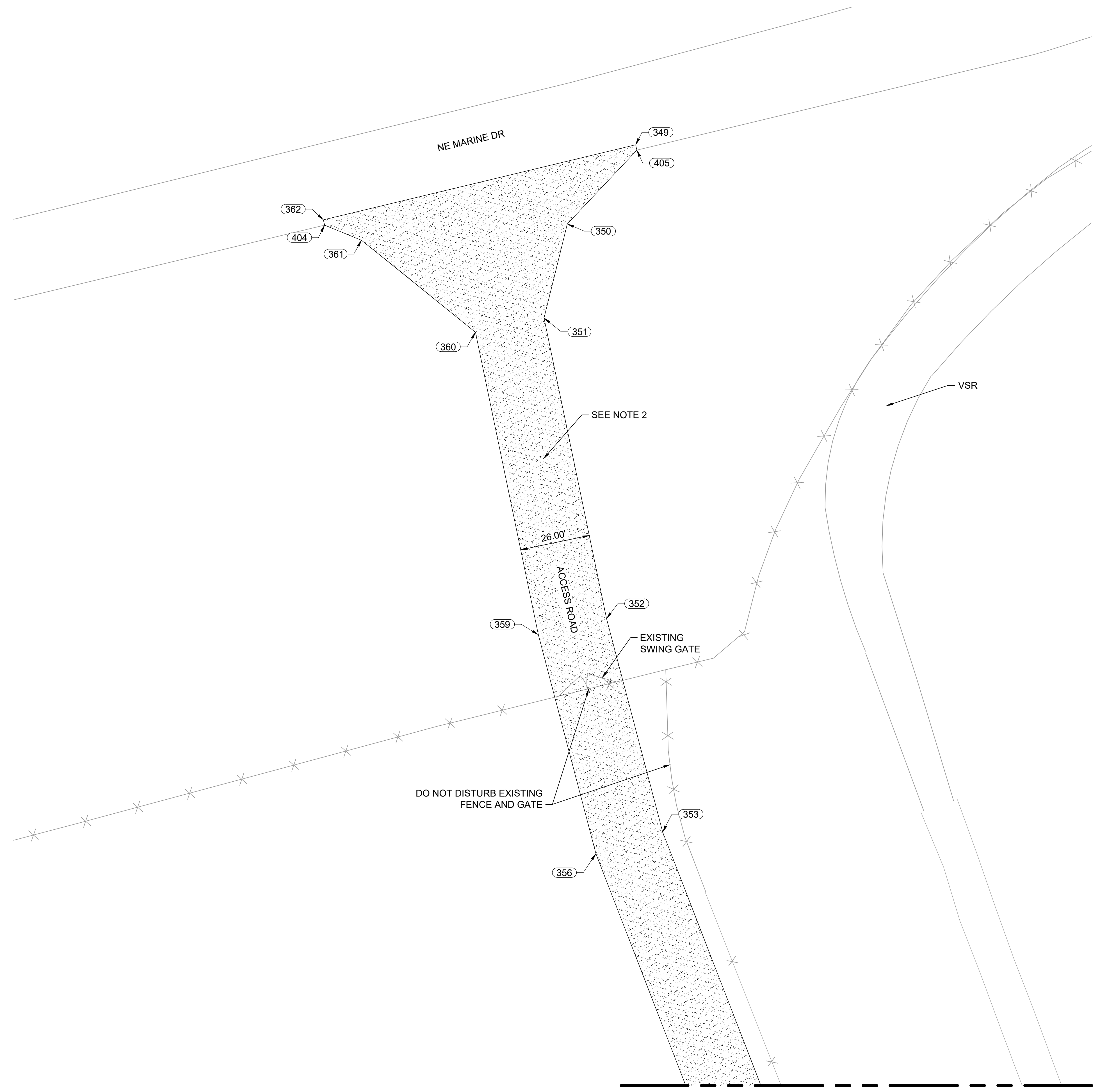
file OVERALL SITE PLAN.DWG

ENLARGED SITE PLAN - 6
 0 20' 40'
 SCALE IN FEET



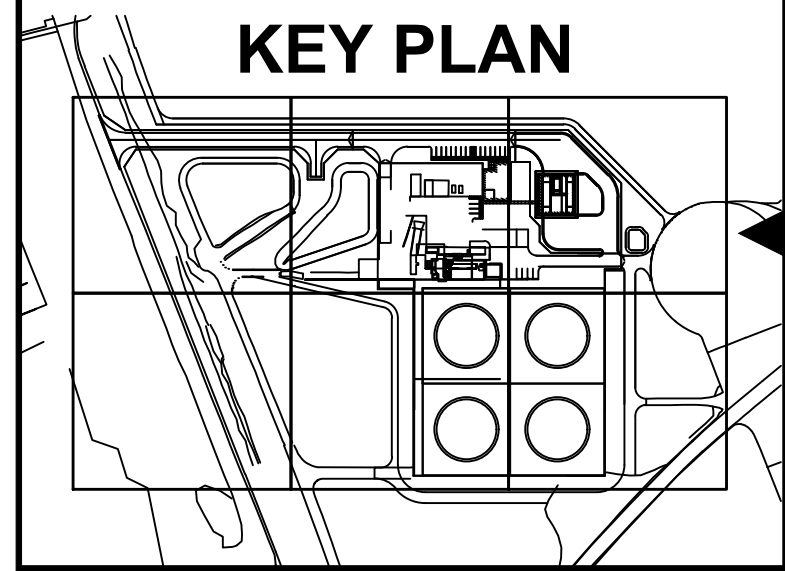
GENERAL NOTE:
 1. SEE CS102 FOR SITE NOTES.
 2. REMOVE EXISTING ROCK DRIVEWAY AND REPLACE WITH ASPHALT - MAINTAIN EXISTING DRAINAGE PATTERNS AND VERIFY POSITIVE DRAINAGE

- LEGEND:**
-  CONCRETE SIDEWALK (5) CS502
 -  FLEXIBLE PAVEMENT (2) CS502
 -  DRIVEWAY AGGREGATE (3) CS502
 -  NON-DRIVEWAY AGGREGATE (4) CS502
 -  SECURITY FENCE (3) CS501
 -  GUARD POST (2) CS501
 -  CURB AND GUTTER (7) CS502
 -  ELECTRICAL APPURTENANCES, SEE ELECTRICAL DRAWINGS
 -  COORDINATE POINT, SEE CS120 AND CS121 (100)



Millimeters
 Scale For Microfining
 Inches

no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT



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BURNS MEDONNELL
 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 Burns & McDonnell Engineering Co., Inc.

date	08/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

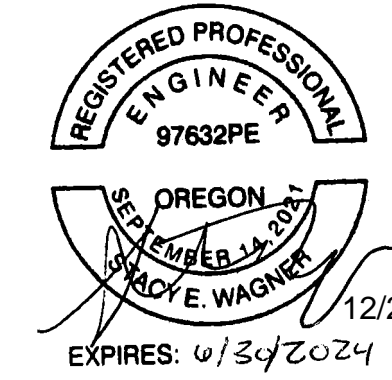
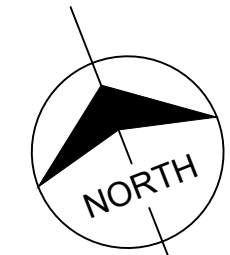
PDX FUEL COMPANY L.L.C
 PORTLAND INTERNATIONAL AIRPORT
 5000 NE MARINE DR.
 PORTLAND, OREGON 97218

PDX FACILITY IMPROVEMENTS
 ENLARGED SITE PLAN - 7

project	153929	contract	
drawing	CS108	rev.	A

file OVERALL SITE PLAN.DWG

ENLARGED SITE PLAN - 7
 0 20' 40'
 SCALE IN FEET



POINT TABLE				
NUMBER	NORTHING	EASTING	DESCRIPTION	ELEVATION
101	66308.16	111583.76	ASPH (ME)	29.40
102	66307.97	111633.76	50' RC (ME)	22.80
103	66261.42	111615.52	ASPH	28.26
104	65969.90	112359.66	BOC	24.55
105	65941.97	112348.72	30' RC	23.98
106	65953.97	112376.21	BOC	24.32
107	65865.75	112414.74	BOC	23.36
108	65842.89	112419.74	BOC	23.12
109	65819.85	112415.62	BOC	22.89
110	65717.07	112375.35	BOC (ST)	22.88
111	65709.77	112393.97	20' RC	19.89
112	65691.15	112386.68	BOC (ET)	21.58
113	65687.58	112395.79	ASPH	21.48
114	65715.52	112406.73	30' RC	19.89
115	65699.34	112432.00	ASPH	21.31
116	65637.59	112412.06	ASPH	21.19
117	65639.24	112382.11	30' RC (ME)	21.42
118	65651.86	112409.33	ASPH	21.27
119	65645.55	112395.72	15' RC (ME)	21.47
120	65859.14	111960.56	AGG	22.03
121	65650.24	112381.44	ASPH	21.50
122	65751.69	112232.15	ASPH	21.55
123	65770.31	112239.44	20' RC	21.44
124	65777.61	112220.82	ASPH	21.56
125	65390.34	112122.99	AGG	23.10
126	65758.50	112160.33	ASPH	22.40
127	65759.14	112161.56	ASPH	22.37
128	65784.42	112171.52	ASPH (ME)	22.32
129	65785.88	112170.83	ASPH (ME)	22.30
130	65793.43	112151.52	ASPH (ME)	22.38
131	65830.94	112166.20	ASPH (ME)	22.18
132	65805.30	112231.67	ASPH	22.19
133	65400.36	111857.91	AGG (ME)	20.97
134	65379.09	111879.99	AGG (ME)	20.86
135	65718.51	112316.85	BOC (ET)	22.05
136	65737.13	112324.14	20' RC	20.34
137	65725.19	112340.18	BOC (ST)	23.51
138	65769.75	112278.39	BOC	23.83
139	65797.68	112289.33	30' RC	23.73
140	65808.63	112261.40	BOC	24.30
141	65840.49	112276.03	ASPH	24.25
142	65805.39	112366.99	BOC	23.56
143	65814.70	112370.64	10' RC	23.62
144	65810.59	112379.77	BOC	23.23
145	65830.80	112387.68	BOC	23.47
146	65841.74	112359.75	30'/60' RC	24.30
147	65853.74	112387.24	BOC	23.94
148	65877.92	112376.69	BOC	24.37
149	65873.92	112367.52	10' RC	24.47
150	65883.23	112371.17	BOC	24.51

POINT TABLE				
NUMBER	NORTHING	EASTING	DESCRIPTION	ELEVATION
151	65911.32	112300.82	BOC	24.75
152	65929.56	112254.27	50' RC	23.86
153	65976.94	112270.41	ASPH	23.78
154	65972.28	112268.59	5' RC	23.67
155	65974.11	112263.93	ASPH	23.65
156	65960.14	112258.46	ASPH	23.92
157	66012.67	112124.38	ASPH	23.08
158	66026.63	112129.85	ASPH	22.89
159	66028.46	112125.20	5' RC	22.81
160	66033.11	112127.02	ASPH	22.79
161	66048.19	112088.54	ASPH	23.17
162	66020.25	112077.60	30' RC	23.17
163	66031.20	112049.67	ASPH	23.36
164	66038.49	112031.04	ASPH	23.36
165	66049.43	112003.11	30' RC	22.92
166	66077.37	112014.05	ASPH	22.83
167	66102.22	111950.60	ASPH	23.94
168	66074.29	111939.66	30' RC	23.94
169	66085.23	111911.73	ASPH	23.76
170	66061.96	111902.61	ASPH	23.95
171	66069.25	111883.99	ASPH	23.82
172	66092.53	111893.10	ASPH	23.57
173	66084.09	111829.66	41'30' RC (ME)	24.15
174	66131.41	111876.11	ASPH	22.88
175	66230.05	111624.31	ASPH	27.64
176	66202.12	111613.37	30' RC (ME)	24.76
177	66202.23	111583.37	ASPH (ME)	28.56
178	66281.91	111687.69	AGG (ME)	24.61
179	66273.77	111720.63	30' RC (ME)	24.35
180	66253.61	111706.74	AGG (ME)	24.16
181	65991.84	112374.93	AGG (ME)	24.11
182	65953.67	112359.97	30'/41' RC	23.96
183	65970.08	112397.55	AGG (ME)	23.91
184	65765.88	112486.72	AGG (ME)	21.87
185	65773.88	112505.05	20' RC (ME)	21.86
186	65754.43	112509.71	AGG (ME)	21.52
187	65736.92	112469.23	AGG	21.46
188	65753.63	112458.24	20' RC	21.83
189	65761.63	112476.57	AGG	22.00
190	65965.67	112387.47	AGG	24.13
192	65981.60	112370.92	AGG	24.33
193	66249.36	111687.43	AGG	24.49
194	65810.89	111963.14	AGG	22.42
195	65777.18	111975.80	AGG	22.50
196	65657.54	112362.82	AGG	21.70
197	65483.62	112316.17	AGG (ME)	21.15
198	65476.33	112334.79	20' RC (ME)	21.21
199	65457.56	112327.87	AGG (ME)	21.14
200	65446.57	112323.51	AGG (ME)	21.16
201	65428.08	112315.89	20' RC (ME)	20.85

POINT TABLE				
NUMBER	NORTHING	EASTING	DESCRIPTION	ELEVATION
202	65435.37	112297.27	AGG (ME)	21.16
203	65357.24	112266.66	AGG (ME)	20.95
204	65349.95	112285.28	20' RC (ME)	20.69
205	65493.00	111817.55	AGG (ME)	20.91
206	65485.01	111799.21	20' RC (ME)	20.97
207	65503.63	111806.52	AGG (ME)	20.95
208	65523.39	111813.36	AGG (ME)	21.16
209	65502.15	111835.38	AGG	21.31
210	65487.70	111862.39	AGG	23.21
211	65415.56	111893.83	AGG	23.21
212	65373.41	112112.53	AGG	21.67
213	65391.42	112083.01	AGG	22.90
214	65381.42	112082.74	10' RC	22.03
215	65801.90	112147.71	ASPH (ME)	22.19
216	65793.68	112144.48	ASPH (ME)	22.42
217	65791.25	112150.63	ASPH (ME)	22.42
218	65381.15	112092.73	AGG	22.12
219	65360.60	112092.18	AGG	21.10
220	65794.76	111930.92	NDA	22.76
221	65408.35	111876.24	AGG	21.37
222	65416.33	111894.58	20'/40' RC	23.24
223	65397.71	111887.28	AGG	21.26
224	65346.57	112229.43	AGG (ME)	21.61
225	65355.58	112233.79	50' RC	21.57
226	65351.90	112243.09	AGG	21.35
227	65683.45	112351.50	AGG	22.14
228	65664.83	112344.20	20' RC	22.63
229	65650.24	112381.44	AGG	21.50
230	66128.87	111686.01	AGG (ME)	23.77
231	66128.61	111716.01	30' RC (ME)	23.68
232	66156.55	111726.95	AGG (ME)	23.80
233	66112.03	111840.60	AGG (ME)	24.25
234	66166.22	111867.64	LP	23.51
235	66073.15	111857.59	AGG (ME)	24.01
236	66034.38	111854.21	AGG (ME)	23.27
237	65361.41	112062.19	30' RC	21.32
238	66027.07	111818.91	AGG (ME)	23.57
239	65333.48	112051.25	AGG	20.68
240	65303.48	112073.00	AGG (ME)	20.87
241	66009.14	111824.27	AGG (ME)	23.84
242	66046.13	111847.00	AGG (ME)	23.47
243	66069.14	111867.83	AGG	23.81
244	66122.27	111844.61	AGG	24.05
245	66167.79	111728.41	AGG	23.87
246	66057.07	111819.07	30' RC (ME)	23.72
247	66129.22	111672.46	AGG (ME)	23.78
250	66006.74	112040.03	AGG	23.39
251	66014.02	112021.46	AGG (ME)	23.59
252	65917.53	112160.14	AGG	23.44
253	65910.24	112178.77	AGG	23.90

POINT TABLE				
NUMBER	NORTHING	EASTING	DESCRIPTION	ELEVATION
254	65876.72	112165.63	AGG	22.58
255	65880.39	112156.27	AGG (ME)	22.55
256	65875.73	112154.44	5' RC (ME)	22.52
257	65876.09	112149.45	AGG (ME)	22.46
258	65884.03	112146.97	AGG (ME)	22.52
260	65799.50	112153.88	ASPH (ME)	22.26
261	65913.70	112184.42	NDA	24.00
262	65926.10	112149.48	NDA (ME)	23.17
263	65945.07	112156.95	NDA (ME)	23.25
264	65963.14	112136.65	NDA (ME)	23.36
265	65979.01	112096.33	NDA (ME)	23.36
266	65991.84	112092.88	NDA (ME)	23.36
267	65998.32	112076.44	NDA (ME)	23.36
268	66006.74	112040.03	NDA (ME)	23.39
269	65835.38	112289.06	BOC	24.75
270	65833.56	112293.72	5' RC	24.75
271	65828.90	112291.89	BOC	24.65
272	65899.31	112295.85	NDA	24.25
273	65867.76	112272.21	NDA	24.07
275	65887.79	112359.53	BOC	24.71
276	65818.89	112332.54	BOC	24.67
277	65899.73	112178.95	NDA	23.91
278	65860.21	112280.53	NDA	24.25
279	65841.22	112274.16	BOC	24.75
280	65825.81	112239.71	NDA	22.49
281	65833.51	112220.07	NDA (ME)	22.28
282	65879.24	112207.80	NDA	23.07
283	65891.76	112175.83	NDA	23.50
284	65841.51	111949.23	NDA	22.24
285	65819.69	111940.68	NDA	22.49
286	65284.86	112065.70	20' RC (ME)	20.73
287	65395.11	111946.18	AGG	23.43
288	65397.10	111946.41	FENC	23.50
289	65287.12	112085.57	AGG (ME)	21.22
290	65748.11	112333.62	BOC	23.24
291	65734.15	112328.15	15' RC	21.51
292	65657.54	112362.82	ASPH	21.70
293	65329.95	112285.24	AGG (ME)	20.98
294	65750.27	112180.95	AGG	22.25
295	65369.02	112120.16	AGG (ME)	20.99
296	65417.11	111895.33	FENC	23.28
297	65975.38	112208.58	SW	24.00
298	65822.34	112308.65	BOC	24.65
299	65826.99	112310.48	5' RC	24.75
300	65956.05	112257.93	FENC	24.00
301	65884.36	112229.85	SW	24.00
302	65903.46	112180.41	SW	24.00
303	65911.96	112299.19	NDA	24.25
304	65888.25	112359.72	ASPH	24.21
305	65818.42	112332.36	ASPH	24.17

LEGEND:

AGG	AGGREGATE
ASPH	ASPHALT
BOC	BACK OF CURB
ET	END CURB TAPER
FENC	FINISH GRADE AT FENCE
GP	FINISH GRADE AT GUARD POST
ES	FINISH GRADE AT ELECTRICAL STRUCTURE
ME	MATCH EXISTING
NDA	NON-DRIVEWAY AGGREGATE
RC	RADIUS CENTER
ST	START CURB TAPER
SW	SIDEWALK



no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT

ISSUED FOR PERMIT ONLY

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POINT TABLE				
NUMBER	NORTHING	EASTING	DESCRIPTION	ELEVATION
306	65842.13	112271.84	NDA	24.25
307	65540.64	112087.19	AGG	23.42
308	66305.07	111590.84	FENC (ME)	28.31
309	66266.07	111617.34	FENC	27.90
310	66131.09	111961.91	FENC	23.94
311	66004.99	112283.80	FENC	23.83
312	65969.26	112374.99	FENC	24.35
313	65843.09	112430.09	FENC	23.26
314	65721.87	112386.90	FENC	21.95
315	65659.78	112362.57	FENC	21.77
316	65667.06	112344.00	FENC	22.60
317	65390.50	112190.83	FENC	23.47
318	65487.75	111864.56	FENC	23.28
319	65778.31	111978.39	FENC	22.47
320	65795.90	111933.51	FENC	22.74
321	65840.07	111950.81	FENC	22.24
322	66203.96	111590.95	FENC	27.63
323	66225.39	111622.49	FENC	27.43
324	66126.75	111874.29	FENC	22.75
325	66094.35	111888.45	FENC	23.61
326	66066.42	111877.51	FENC	23.85
327	66046.36	111928.72	FENC	23.94
328	66037.49	112028.53	FENC	23.29
329	66097.20	111949.71	FENC	23.88
330	66080.01	111993.61	FENC	22.91
331	66072.71	112012.23	FENC	22.74
332	66039.21	112029.20	FENC	23.29
333	66025.95	112024.00	FENC	23.38
334	65969.01	112206.09	FENC	24.00
335	65388.49	112191.22	AGG	23.40
336	65956.42	112257.00	SW	24.00
337	65953.77	112263.77	FENC	23.93
338	65917.85	112279.48	FENC	23.80
339	65847.68	112251.99	FENC	23.18
340	65824.36	112262.19	FENC	22.94
341	65796.95	112251.45	FENC	22.28
342	65770.38	112263.06	FENC	22.15
343	65740.29	112339.88	FENC	23.25
344	65875.26	112169.36	SW (ME)	22.66
345	65393.41	112083.06	FENC	22.93
346	65392.33	112123.04	FENC	23.16
347	65412.66	112246.48	AGG	23.20
348	65414.16	112244.92	FENC	23.28
349	66669.28	111667.82	ASPH	29.35
350	66651.18	111633.51	ASPH	29.16
351	66621.88	111612.75	ASPH	29.18
352	66509.61	111593.68	ASPH	29.19
353	66428.30	111584.20	ASPH	28.88
354	65704.84	112258.52	AGG	24.25
355	66202.32	111557.37	ASPH (ME)	28.96

POINT TABLE				
NUMBER	NORTHING	EASTING	DESCRIPTION	ELEVATION
356	66429.86	111558.20	ASPH	29.39
358	66114.82	111998.41	ES	23.56
359	66513.29	111567.93	ASPH	29.48
360	66626.24	111587.11	ASPH	29.52
361	66673.45	111560.19	ASPH	30.07
362	66685.62	111549.80	ASPH	30.27
363	66129.61	111713.46	41' RC (ME)	23.67
364	65752.49	112510.18	AGG (ME)	21.50
365	65735.24	112470.33	AGG (ME)	21.44
366	65698.26	112433.68	AGG (ME)	21.29
367	65637.53	112414.06	AGG (ME)	21.15
368	65895.07	111996.11	AGG (ME)	23.63
369	65902.39	111977.50	AGG (ME)	23.83
370	65818.19	111944.52	AGG	22.48
371	65820.20	111966.78	AGG	22.36
372	65816.56	111976.10	10' RC	22.34
373	65825.87	111979.74	AGG	22.39
374	65819.14	111996.91	AGG	22.43
375	65833.11	112002.38	AGG	22.50
376	65839.83	111985.22	AGG	22.43
377	65849.14	111988.86	10' RC	22.41
378	65852.79	111979.55	AGG	22.44
379	65373.28	112117.53	5' RC/ES	21.43
380	65380.61	112112.72	AGG	22.12
381	65380.34	112122.72	10' RC	21.88
382	65610.11	112300.21	AGG	24.25
383	65763.39	112160.65	SW (ME)	22.40
384	65758.93	112158.84	SW	22.40
385	65773.04	112136.45	SW (ME)	22.40
386	65773.54	112132.34	SW (ME)	22.22
387	65763.21	112147.94	SW	22.40
388	65755.63	112167.25	ASPH	22.40
389	65729.57	112157.04	NDA	23.00
390	65737.13	112137.73	NDA	22.40
391	65518.37	112054.17	AGG	23.78
392	65511.90	112057.00	AGG	23.83
393	65497.27	112045.90	AGG	24.00
394	65490.79	112048.73	AGG	23.95
395	65540.27	112112.95	AGG	24.00
396	65543.12	112119.40	AGG	24.10
397	65563.24	112121.95	AGG	23.70
398	65566.07	112128.43	AGG	23.65
399	65560.39	112202.33	AGG	24.07
400	65663.36	112164.27	NDA	24.25
401	65568.77	112205.61	AGG	24.25
402	65552.01	112199.04	AGG	24.25
403	65486.17	111798.71	40' RC (ME)	20.97
404	66683.64	111549.52	ASPH	30.25
405	66667.30	111667.55	ASPH	29.34
406	66000.33	112281.98	BOC (ET)	23.88

POINT TABLE				
NUMBER	NORTHING	EASTING	DESCRIPTION	ELEVATION
407	65976.12	112272.51	BOC (ET)	23.88
408	66245.34	111727.85	AGG (ME)	24.22
409	66227.10	111774.40	AGG (ME)	24.08
410	66208.86	111820.96	AGG (ME)	24.27
411	66190.63	111867.51	AGG (ME)	24.49
412	66172.39	111914.07	AGG (ME)	24.52
413	66154.15	111960.62	AGG (ME)	24.10
414	66121.50	112043.97	AGG (ME)	23.00
415	66108.53	112077.08	AGG (ME)	22.99
416	66081.20	112146.84	AGG (ME)	23.93
417	66062.96	112193.40	AGG (ME)	23.87
418	66044.72	112239.95	AGG (ME)	23.53
419	66026.48	112286.51	AGG (ME)	23.42
420	66008.25	112333.06	AGG (ME)	23.90
421	65949.16	112406.68	AGG (ME)	23.57
422	65894.95	112430.36	AGG (ME)	23.02
423	65857.52	112446.70	AGG (ME)	23.31
424	65811.70	112466.71	AGG (ME)	22.60
425	65793.43	112474.68	AGG (ME)	22.43
426	65912.92	112394.14	BOC	23.87
427	65920.91	112303.51	BOC	24.55
428	65898.46	112361.03	ASPH	24.05
429	66214.92	111734.23	ASPH	25.02
430	66190.71	111724.74	ASPH	24.76
431	66155.61	111885.60	ASPH	23.14
432	66126.43	111960.09	ASPH	23.94
433	66101.58	112023.54	ASPH	23.26
434	66083.34	112070.09	ASPH	23.84
435	66059.13	112060.61	ASPH	23.32
436	66057.32	112136.51	ASPH	23.23
437	66015.07	112244.35	ASPH	24.24
438	65990.87	112234.86	ASPH	23.72
439	66007.57	112263.51	ASPH	23.88
440	65821.63	112162.55	ASPH	22.23
441	65733.07	112224.85	ASPH	21.75
442	66269.01	111606.12	ES	28.40
443	66217.62	111736.88	ES	24.87
444	65668.60	111957.96	NDA	23.46
445	65699.90	112309.56	ASPH	22.37
446	65595.15	112338.38	AGG	21.50
447	65587.86	112357.00	AGG (ME)	21.10
448	65518.80	112308.47	AGG	21.68
449	65511.51	112327.09	AGG (ME)	21.28
450	65337.79	111985.41	AGG (ME)	20.05
451	65356.41	111992.70	AGG	20.45
452	65314.86	112043.95	AGG	20.48
453	65803.69	112208.35	ASPH	21.84
454	65771.40	112075.56	NDA	22.40
455	65953.38	112273.52	NDA	23.84
456	65457.41	112240.39	AGG	24.25

POINT TABLE				
NUMBER	NORTHING	EASTING	DESCRIPTION	ELEVATION
457	65416.07	112145.79	AGG	24.25
458	65510.66	112104.45	NDA	24.25
459	65463.00	112033.15	AGG	24.25
460	65557.60	111991.81	AGG	24.25
461	65516.26	111897.21	AGG	24.25
462	65421.66	111938.55	AGG	24.25
463	66062.16	112132.38	ES	23.31
464	66023.41	112230.99	ES	24.08
465	65984.65	112329.60	ES	24.75
466	65870.59	112415.43	ES	23.35
467	66017.26	112054.07	ES	23.32
468	65790.00	112228.04	ES	21.90
469	65671.64	112351.74	ES	22.29
471	65867.62	112009.34	ES	
472	65788.87	112082.41	NDA (ME)	22.70
473	65960.34	112282.47	ES	24.21
474	65970.71	112277.94	ES	24.05
475	65609.95	111910.28	AGG	22.47
476	65917.60	112007.13	GP (ME)	23.01
477	65915.41	112012.72	GP (ME)	22.89
478	65899.58	112006.51	GP (ME)	22.53
479	65901.77	112000.93	GP (ME)	23.09
480	65912.27	112302.53	GP	24.22
481	65906.79	112316.50	GP	24.22
482	65896.22	112343.50	GP	24.22
483	65890.56	112357.93	GP	24.22
484	65825.17	112315.13	BOC	24.75
488	65755.81	112094.46	ES	22.48
489	65565.98	111995.09	AGG	24.07
490	65763.04	112161.83	GP	22.37
491	65761.59	112165.55	GP	22.29
492	65760.13	112169.28	GP	22.24
493	65758.67	112173.00	GP	22.21
494	65757.21	112176.73	GP	22.19
495	65753.67	112178.27	GP	22.24
496	65750.13	112179.82	GP	22.29
497	65746.40	112178.36	GP	22.54
498	65742.68	112176.90	GP	22.81
499	65739.12	112178.73	GP	22.86
500	65735.40	112177.27	GP	22.99
501	65731.67	112175.81	GP	23.13
502	65728.21	112174.46	GP	23.25
503	65725.92	112176.84	GP	23.25
504	65723.63	112179.22	GP	23.24
505	65721.33	112181.61	GP	23.25
506	65719.04	112183.99	GP	23.46
507	65717.58	112187.71	GP	23.49
508	65714.07	112189.64	GP	23.38
509	65710.57	112191.57	GP	23.22

LEGEND:

AGG AGGREGATE

ASPH ASPHALT

BOC BACK OF CURB

ET END CURB TAPER

FENC FINISH GRADE AT FENCE

GP FINISH GRADE AT GUARD POST

ES FINISH GRADE AT ELECTRICAL STRUCTURE

ME MATCH EXISTING

NDA NON-DRIVEWAY AGGREGATE

RC RADIUS CENTER

ST START CURB TAPER

SW SIDEWALK

no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT

ISSUED FOR PERMIT ONLY

**BURNS
McDONNELL**
 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 Burns & McDonnell Engineering Co., Inc.

date	08/23/23	detailed	G. PAMBUENA
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POINT TABLE				
NUMBER	NORTHING	EASTING	DESCRIPTION	ELEVATION
510	65707.07	112193.50	GP	23.69
511	65703.56	112195.43	GP	24.21
512	65848.25	111991.13	GP	22.47
513	65845.00	111989.86	GP	22.48
514	65841.27	111988.40	GP	22.48
515	65838.01	111987.12	GP	22.45
516	65836.55	111990.84	GP	22.49
517	65835.09	111994.57	GP	22.49
518	65833.64	111998.29	GP	22.49
519	65832.18	112002.02	GP	22.49
520	65905.03	112321.00	GP	24.22
521	65903.27	112325.50	GP	24.22
522	65901.51	112330.00	GP	24.22
523	65899.74	112334.50	GP	24.22
524	65897.98	112339.00	GP	24.22
525	65338.02	112056.52	GP	20.80
526	65332.52	112058.92	GP	20.74
527	65333.92	112062.58	GP	20.77
528	65335.31	112066.24	GP	20.81
529	65336.70	112069.90	GP	20.85
530	65338.10	112073.56	GP	20.86
531	65983.52	112324.88	BOC (ST)	24.93
532	65953.60	112298.11	BOC (ST)	24.89
533	65903.14	112286.07	SW	24.17
534	65736.63	112339.75	ES	23.21
535	65761.90	112398.28	FENC	22.22
536	65760.44	112402.01	FENC	22.17
537	66103.47	111865.17	30' RC	23.96
538	66008.94	112122.92	SW	23.12
539	65979.11	112210.04	ASPH	23.92
540	65976.55	112216.56	ASPH	23.92
541	65995.18	112223.86	ASPH	23.63
542	65988.61	112240.62	ASPH	23.66
543	65969.99	112233.32	ASPH	23.93
544	65968.52	112226.11	SW	24.00
545	65972.24	112227.57	ASPH	23.92
546	66142.41	111921.48	ES	23.55
547	66042.36	112061.87	ES	23.27
548	66020.05	112023.29	ES	23.51
549	65918.72	112151.46	AGG (ME)	23.08
550	65921.26	112161.60	SW	23.52
551	65915.16	112180.69	SW	23.92
552	65901.42	112175.31	SW	23.84
553	65893.48	112172.20	SW	23.43
554	65769.87	112130.91	SW (ME)	22.35
555	65761.21	112159.76	SW	22.34
556	65873.70	112246.08	SW	22.97
557	65901.68	112289.80	SW	24.25
558	65876.54	112279.95	SW	24.25
559	65874.17	112286.00	SW	24.25

POINT TABLE				
NUMBER	NORTHING	EASTING	DESCRIPTION	ELEVATION
560	65866.72	112283.08	SW	24.25
561	65863.93	112281.99	SW	24.25
562	65718.29	112183.16	AGG	23.55
563	65711.81	112185.99	AGG	23.65
564	65697.18	112174.89	AGG	24.10
565	65690.70	112177.72	AGG	24.05
566	65800.10	112015.41	ES	22.16
567	65700.82	111952.53	ES	23.26
568	65593.46	111910.47	ES	22.70
569	65489.00	111868.11	ES	23.40
570	65420.85	111897.21	ES	23.42
571	65400.88	111946.64	ES	23.63
572	65394.78	112077.25	ES	22.85
573	65394.28	112190.30	ES	23.60
574	65417.59	112242.33	ES	23.43
575	65529.45	112285.52	ES	22.26
576	65660.17	112339.67	ES	22.82
577	66044.97	112084.63	ES	23.12
578	65997.97	112290.14	ES	24.06
579	65966.04	112371.66	ES	24.40
580	65753.29	112166.38	NDA	22.54
581	65752.02	112169.64	NDA	22.52
582	65743.87	112166.45	NDA	22.97
583	65741.80	112171.73	NDA	22.97
584	65743.90	112172.55	NDA	22.85
585	65742.62	112175.81	NDA	22.85
586	65717.71	112166.05	NDA	23.75
587	65712.61	112179.08	NDA	23.75
588	65704.69	112175.98	NDA	23.75
589	65700.11	112187.67	NDA	24.25
590	65697.29	112183.91	NDA	24.25
591	65710.70	112149.70	NDA	23.00
592	65692.01	112144.61	NDA	23.75
593	65688.46	112153.69	NDA	23.75
594	65686.59	112152.96	NDA	23.75
595	65682.40	112151.32	NDA	23.76
596	65680.54	112150.59	NDA	23.75
597	65684.10	112141.51	NDA	23.75
598	65635.22	112122.36	NDA	23.75
599	65627.65	112141.68	NDA	23.75
600	65624.39	112140.41	NDA	23.75
601	65613.68	112136.21	NDA	23.75
602	65610.42	112134.94	AGG	23.75
603	65617.99	112115.61	NDA	23.75
604	65574.00	112105.90	NDA	23.75
605	65567.62	112122.19	NDA	23.75
606	65559.94	112119.19	AGG	23.75
607	65561.22	112115.93	AGG	23.75
608	65570.86	112108.43	NDA	23.75
609	65566.32	112102.89	NDA	23.75

POINT TABLE				
NUMBER	NORTHING	EASTING	DESCRIPTION	ELEVATION
610	65568.87	112096.37	NDA	23.75
611	65558.17	112092.18	NDA	23.75
612	65555.61	112098.70	NDA	23.75
613	65551.89	112097.24	NDA	23.75
614	65550.61	112100.50	NDA	23.75
615	65554.12	112101.87	NDA	23.75
616	65545.31	112124.99	NDA	24.25
617	65543.91	112123.24	NDA	24.25
618	65509.77	112084.14	NDA	23.75
619	65507.90	112083.41	NDA	23.76
620	65514.08	112073.12	AGG	23.75
621	65498.83	112079.85	NDA	23.77
622	65496.96	112079.12	AGG	23.75
623	65501.28	112068.10	AGG	23.75
624	65494.30	112065.37	AGG	23.75
625	65493.93	112066.30	AGG	23.72
626	65492.15	112076.34	AGG	23.68
627	65506.87	112070.29	AGG	23.75
628	65510.88	112060.05	AGG	23.75
629	65506.69	112058.41	NDA	23.75
630	65503.69	112041.40	AGG	24.25
631	65514.45	112038.60	AGG	24.25
632	65508.66	112053.36	AGG	23.75
633	65506.80	112052.63	NDA	23.77
634	65502.15	112050.81	NDA	23.80
635	65500.28	112050.08	AGG	23.75
636	65391.97	112062.62	AGG	22.47
637	65466.10	112066.34	AGG	23.32
638	65406.11	112264.33	AGG	21.48
639	65596.75	112055.78	NDA	24.34
640	65622.27	112076.21	NDA	24.16
641	65676.46	112087.26	NDA	23.55
642	65838.58	111988.42	AGG	22.50
643	65846.96	111991.70	NDA	22.50
644	65841.49	112005.67	NDA	22.50
645	65877.43	112247.54	SW	23.05

- LEGEND:**
- AGG AGGREGATE
 - ASPH ASPHALT
 - BOC BACK OF CURB
 - ET END CURB TAPER
 - FENC FINISH GRADE AT FENCE
 - GP FINISH GRADE AT GUARD POST
 - ES FINISH GRADE AT ELECTRICAL STRUCTURE
 - ME MATCH EXISTING
 - NDA NON-DRIVEWAY AGGREGATE
 - RC RADIUS CENTER
 - ST START CURB TAPER
 - SW SIDEWALK

Millimeters

Scale For Microfitting

Inches

no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT

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BURNS MEDONNELL
 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
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 Burns & McDonnell Engineering Co., Inc.

date	08/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

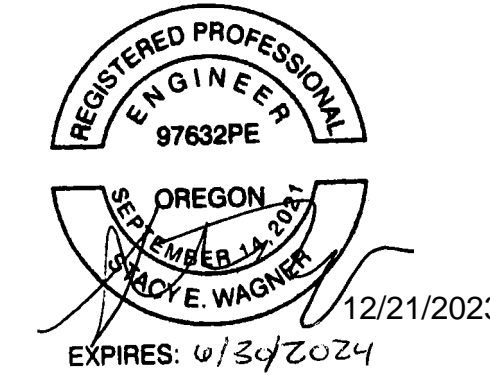
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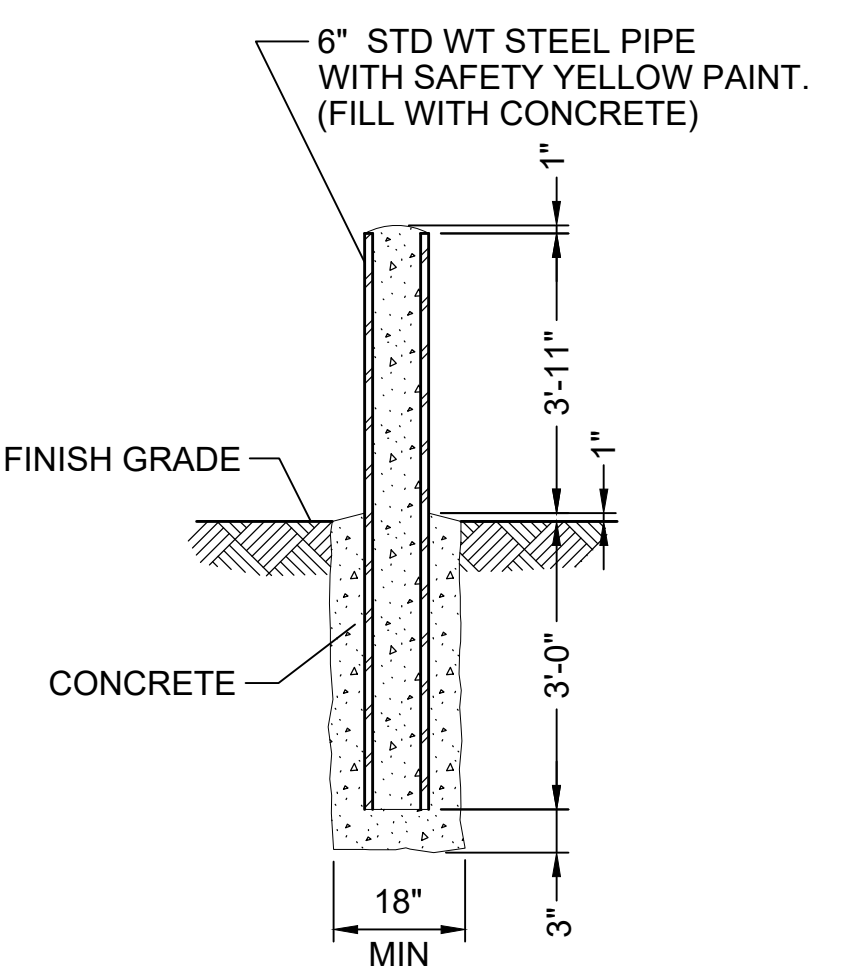
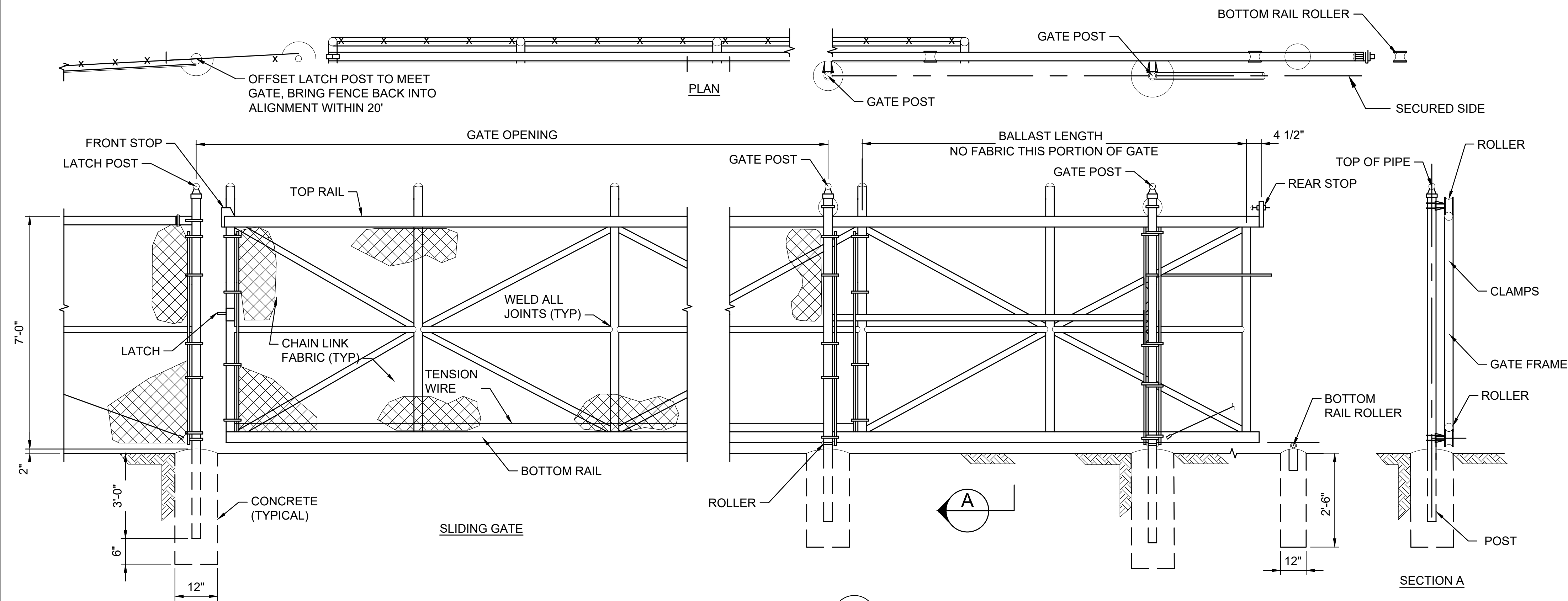
PORTLAND INTERNATIONAL AIRPORT
 5000 NE MARINE DR.
 PORTLAND, OREGON 97218

PDX FACILITY IMPROVEMENTS
 SITE PLAN COORDINATES - 3

project	153929	contract	
drawing	CS122	rev.	A

file OVERALL SITE PLAN.DWG

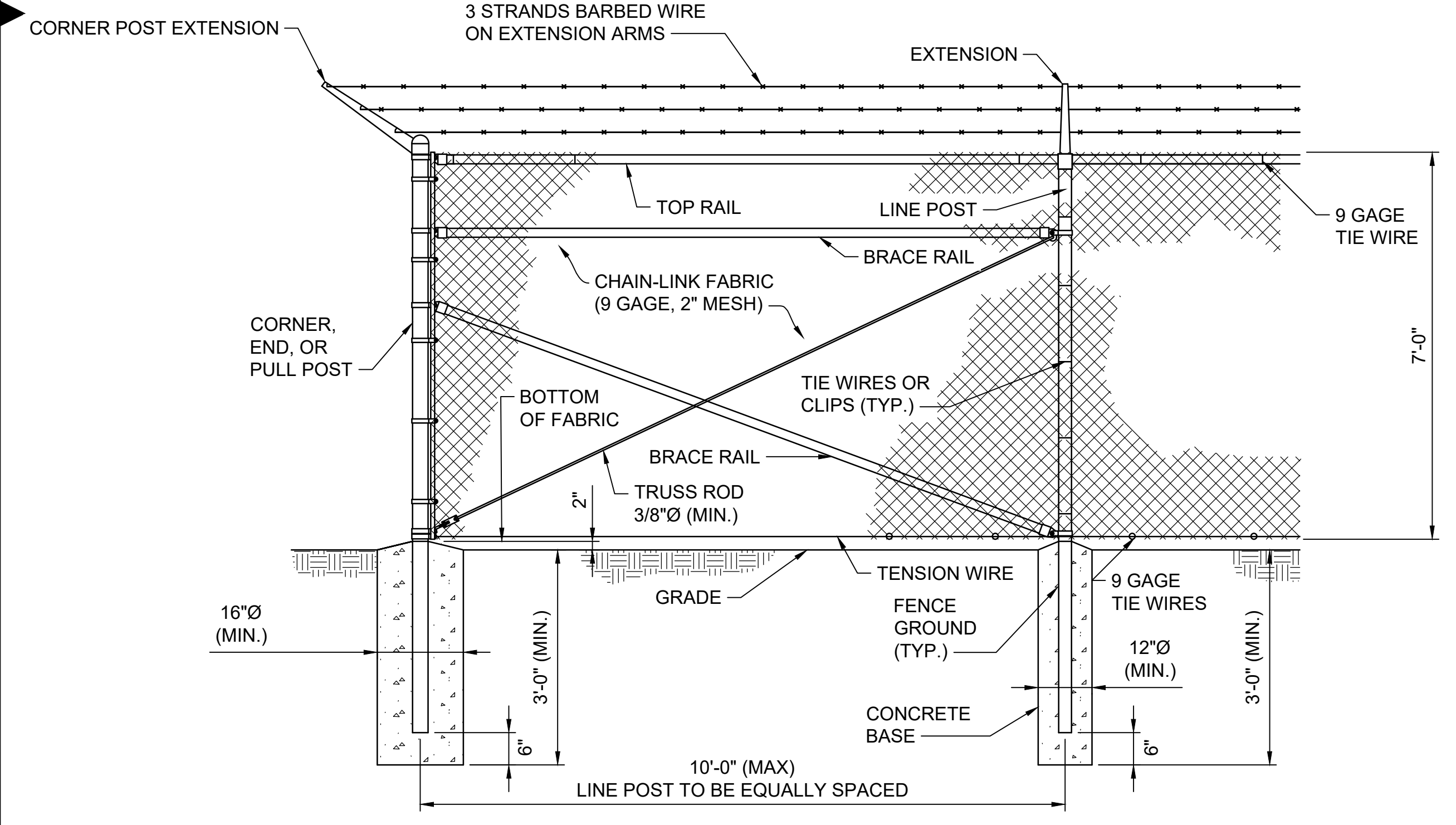




NOTE:
 1. PREPARE SURFACE IN FIELD BY SSPC-SP3 METHODS TO SSPC-SP6 QUALITY AND 1.0 MIL MIN PROFILE DEPTH. FIRST COAT IS TO BE ALKYD PRIMER AT MIN 40% SOLIDS BY VOLUME. APPLIED AT 2 MILS DRY. SECOND AND THIRD COATS ARE TO BE ALKYD GLOSS ENAMEL MIN 40% SOLIDS BY VOLUME. EACH COAT APPLIED AT 1.5 MILS DRY. TOTAL COATING 5 MIL MIN DRY FILM.

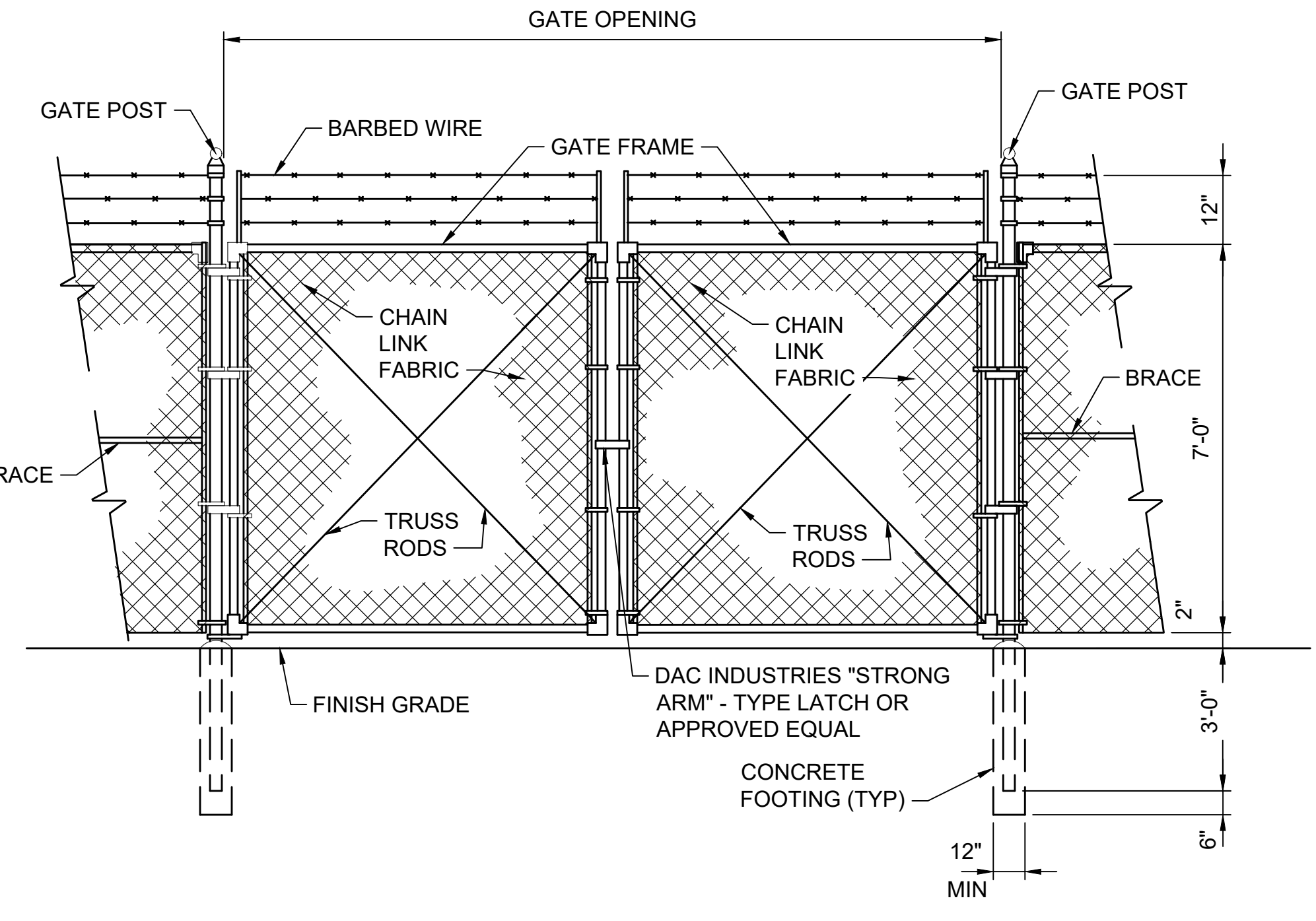
DETAIL 1
 SLIDING GATE
 NOT TO SCALE
 CS103
 CS104

DETAIL 2
 GUARD POST
 NOT TO SCALE
 CS102
 CS103
 CS104
 CS106
 CS107
 CU501



NOTES:
 1. SEE DETAIL ON E-502 FOR FENCE GROUNDING.

DETAIL 3
 CHAIN-LINK SECURITY FENCE
 NOT TO SCALE
 CS102
 CS103
 CS104
 CS106
 CS107



DETAIL 4
 DOUBLE-SWING GATE
 NOT TO SCALE
 CS104
 CS107

no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT

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 9400 WARD PARKWAY
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 816-333-9400
 Burns & McDonnell Engineering Co., Inc.

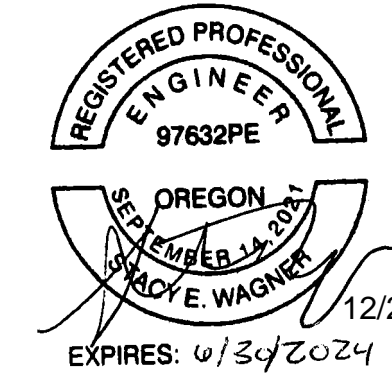
date	detailed
08/23/23	G. PAMBUENA
designed	checked
M. GREUFE	S. WAGNER

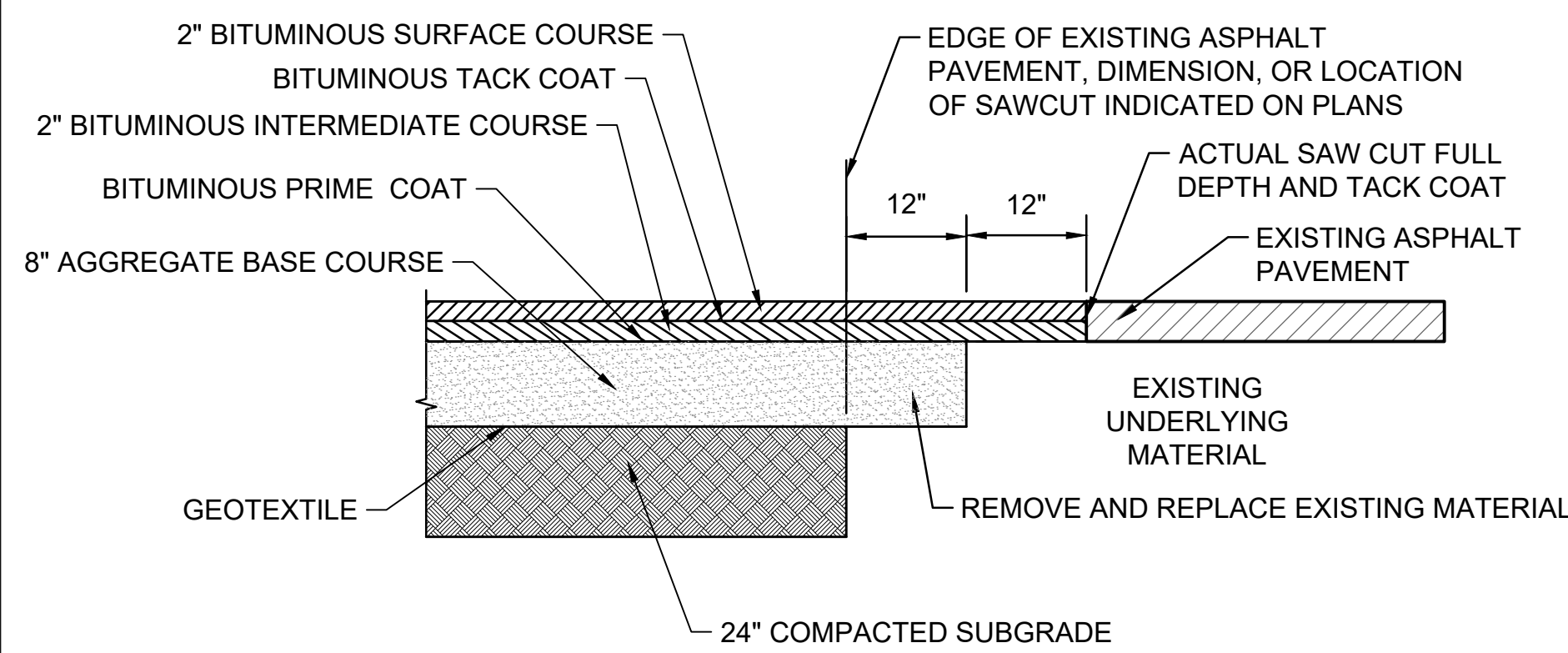
PDX FUEL COMPANY L.L.C
 PORTLAND INTERNATIONAL AIRPORT
 5000 NE MARINE DR.
 PORTLAND, OREGON 97218

PDX FACILITY IMPROVEMENTS
 SITE DETAILS 1

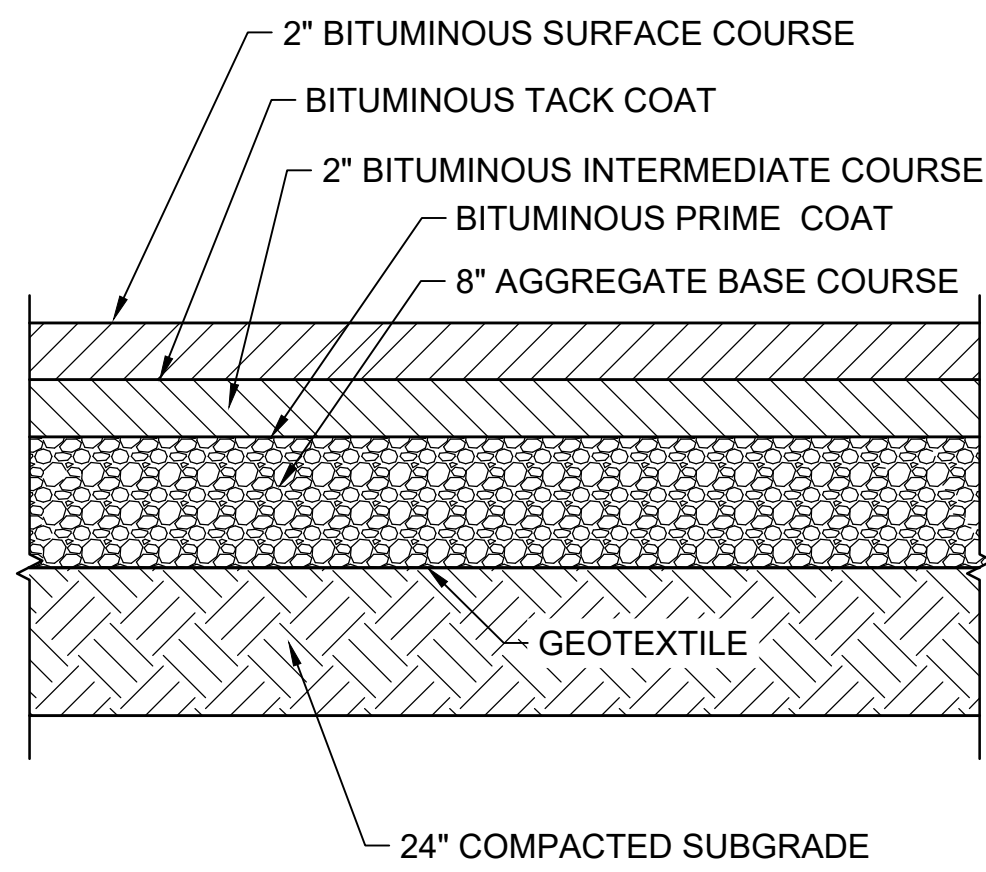
project	contract
153929	
drawing	rev.
CS501	A

file 153929CS501.DWG

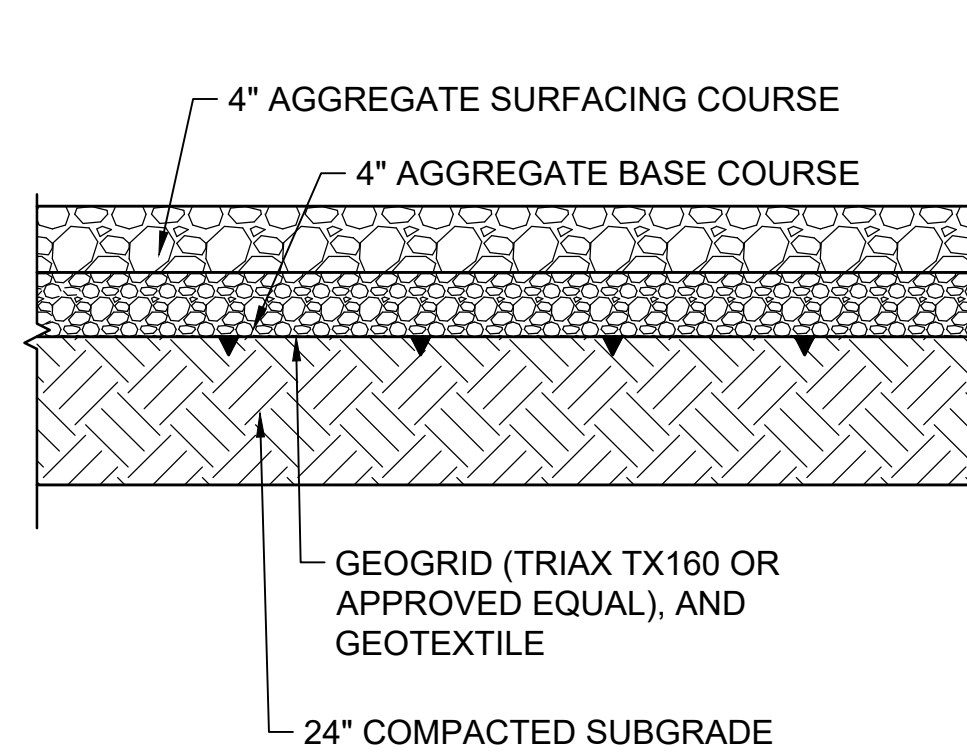




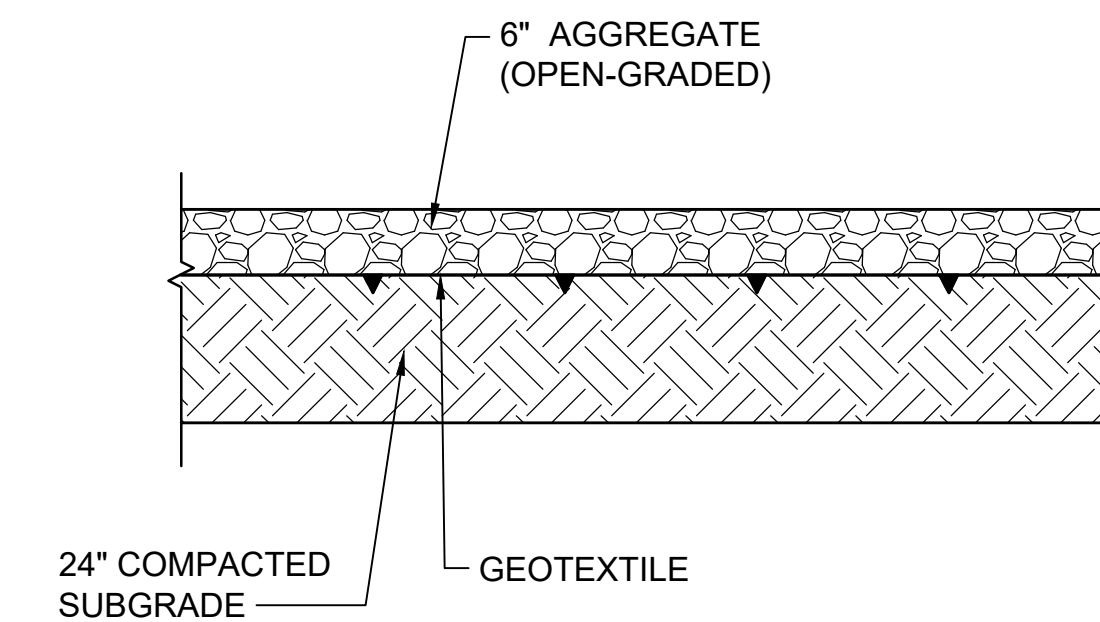
DETAIL 1
JUNCTURE OF EXISTING ASPHALT AND PROPOSED ASPHALT
NOT TO SCALE
CS102
CS103
CS104
CS108



DETAIL 2
TYPICAL FLEXIBLE PAVEMENT
NOT TO SCALE
CS102
CS103
CS104
CS108



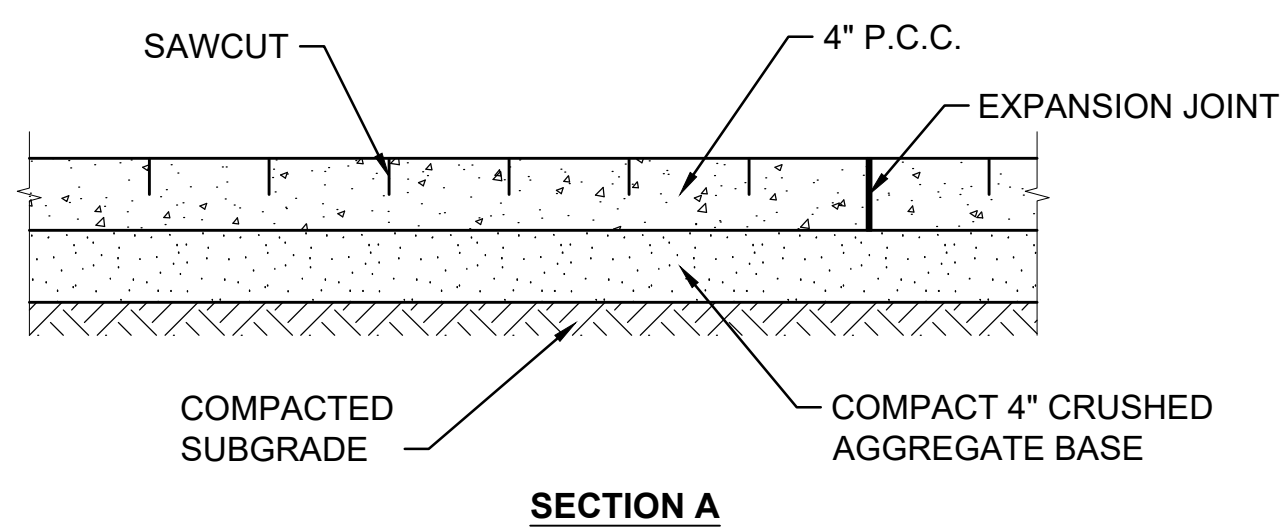
DETAIL 3
DRIVEWAY AGGREGATE
NOT TO SCALE
CS102
CS103
CS104
CS106
CS107



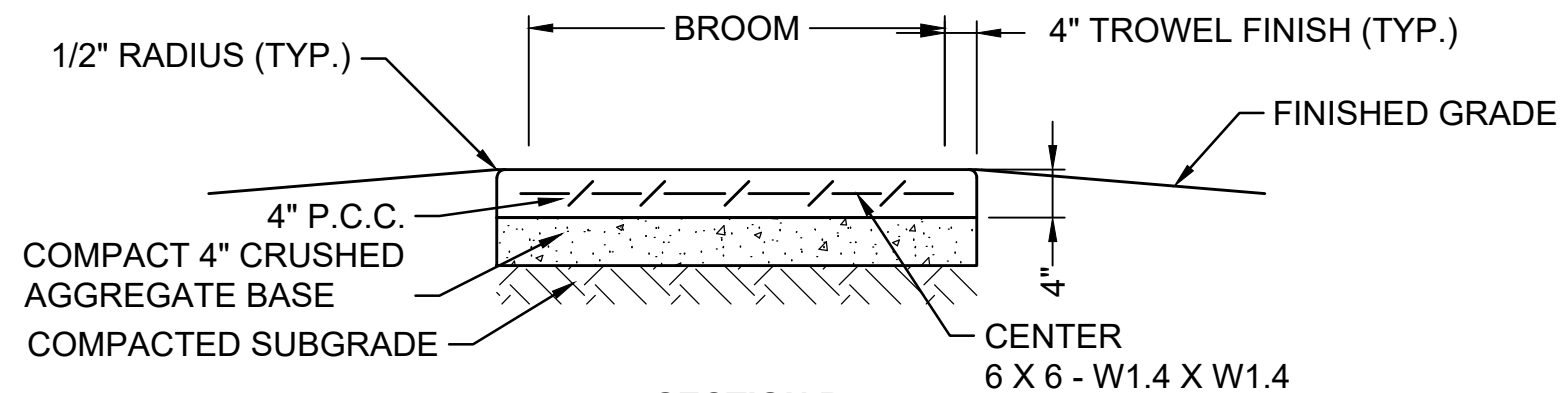
DETAIL 4
NON-DRIVEWAY AGGREGATE
NOT TO SCALE
CS102
CS103
CS104
CS106
CS107

Scale For Microfinishing
Millimeters

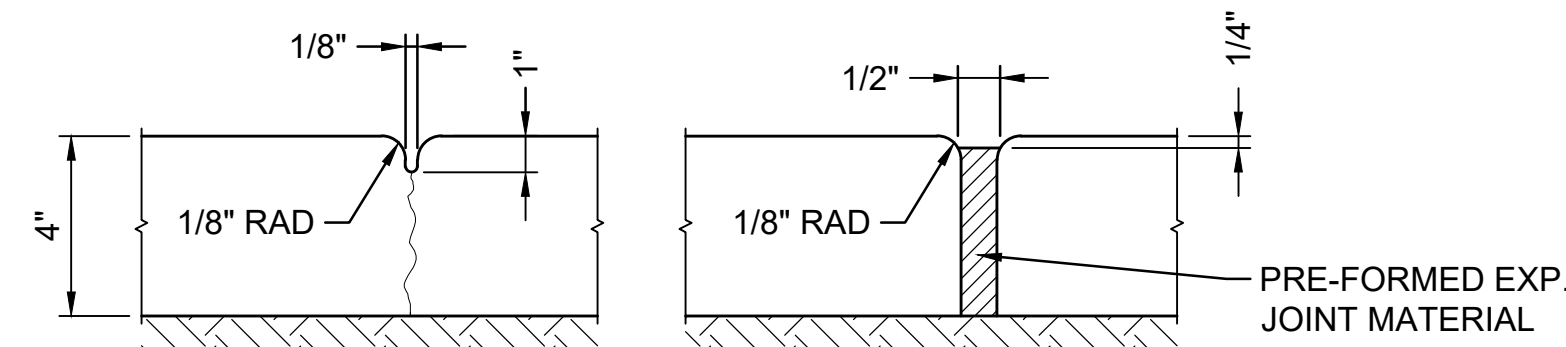
Inches



SECTION A



SECTION B

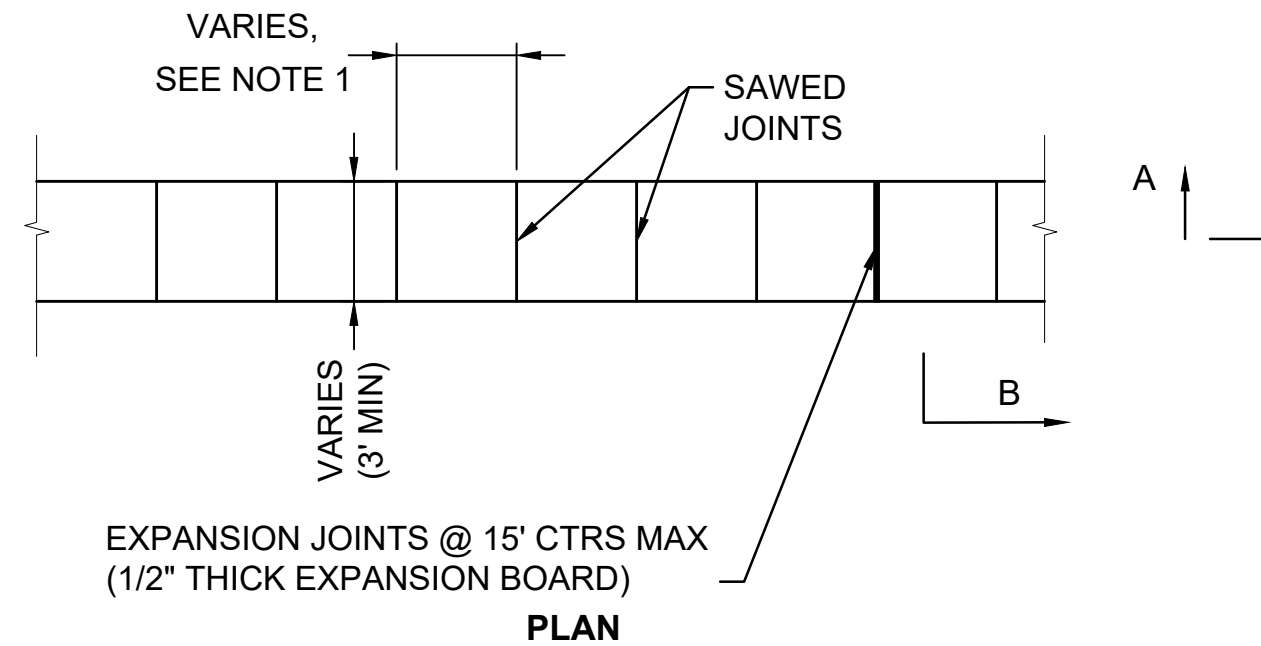


SAW JOINT

EXPANSION JOINT

DETAIL

TYPICAL SIDEWALK
NOT TO SCALE
CS103
CS104



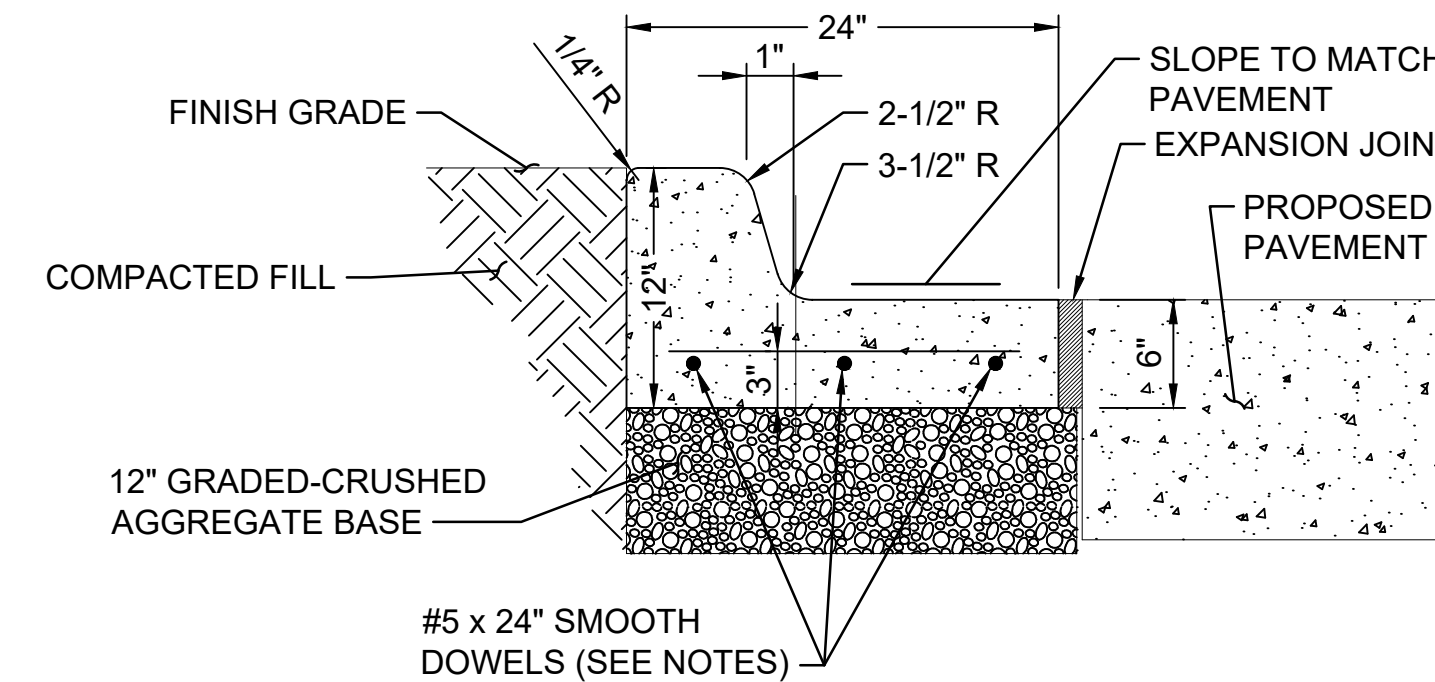
PLAN

- NOTES:**
1. SAW JOINTS TO BE LOCATED TO MAINTAIN AN APPROXIMATE SQUARE SLAB AS INDICATED ON PLANS.
 2. EXPANSION JOINTS SHALL BE LOCATED WHERE WALK ABUTS CONCRETE CURBS, DRIVES, STRUCTURES AND WHERE WALK CHANGES DIRECTION.
 3. BROOM FINISH SHALL BE PERPENDICULAR TO DIRECTION OF TRAFFIC.
 4. SEE SITE PLAN FOR SIDEWALK DIMENSIONS.

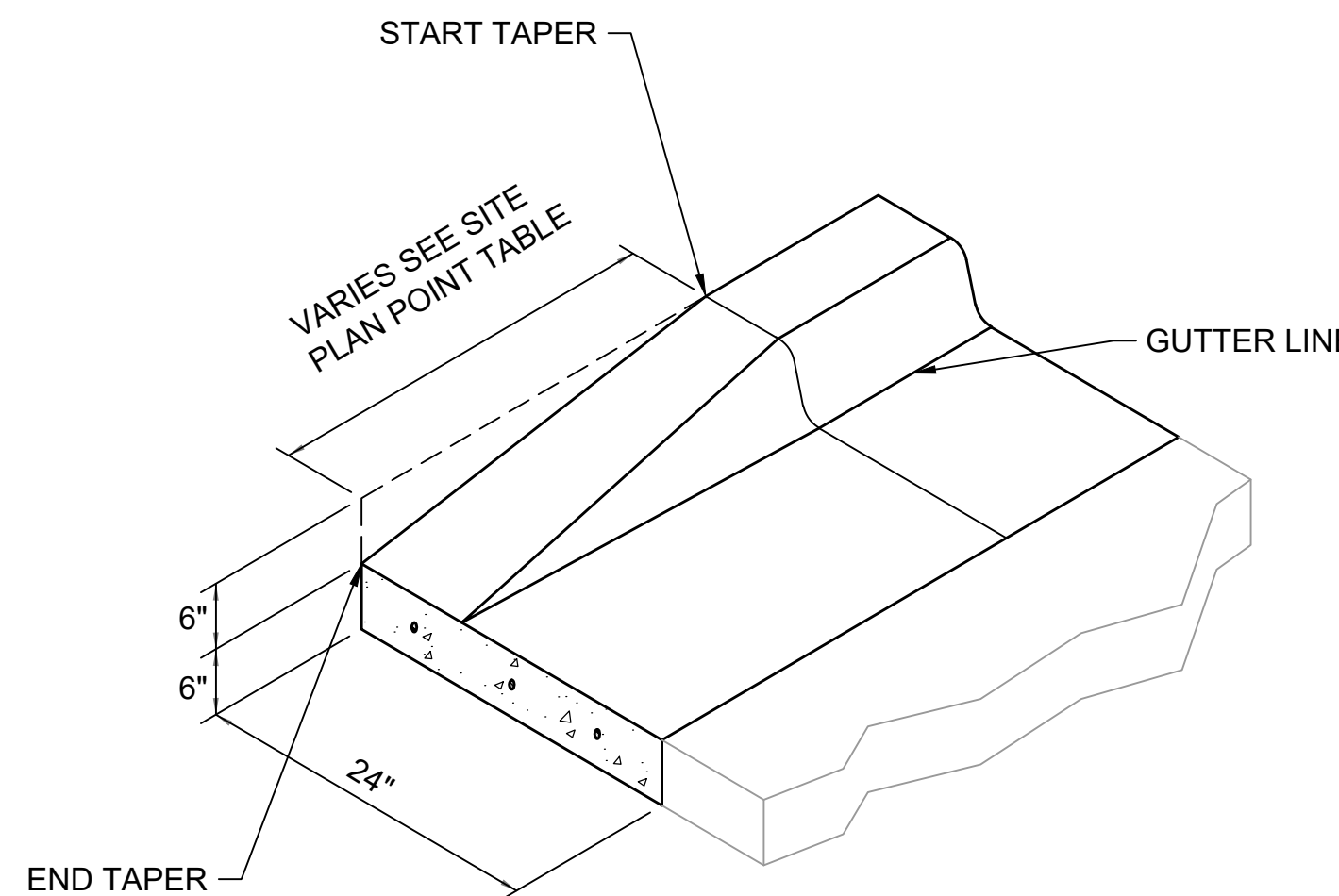
NOTES:

1. PLACE 3/4" EXPANSION JOINTS WITH 24" DOWELS AT RADIUS POINTS OR A MAXIMUM OF 60' ON STRAIGHT SECTIONS. THESE DOWELS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES.
2. INSTALL 1 1/2" DEEP CONTRACTION JOINTS AT APPROXIMATELY 15' INTERVALS. THESE JOINTS SHALL PASS THROUGH THE ENTIRE CURB SECTION.
3. FIX DOWELS WITH BAR CHAIRS OR EQUAL.

DETAIL



CURB AND GUTTER
NOT TO SCALE
CS104



DETAIL 8
CURB AND GUTTER TAPERED END
NOT TO SCALE
CS104

no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT

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9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Co., Inc.

date	detailed
08/23/23	G. PAMBUENA
designed	checked
M. GREUFE	S. WAGNER

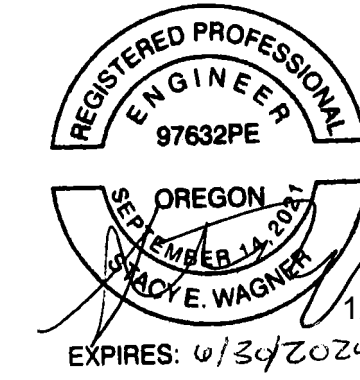
PDX FUEL COMPANY L.L.C

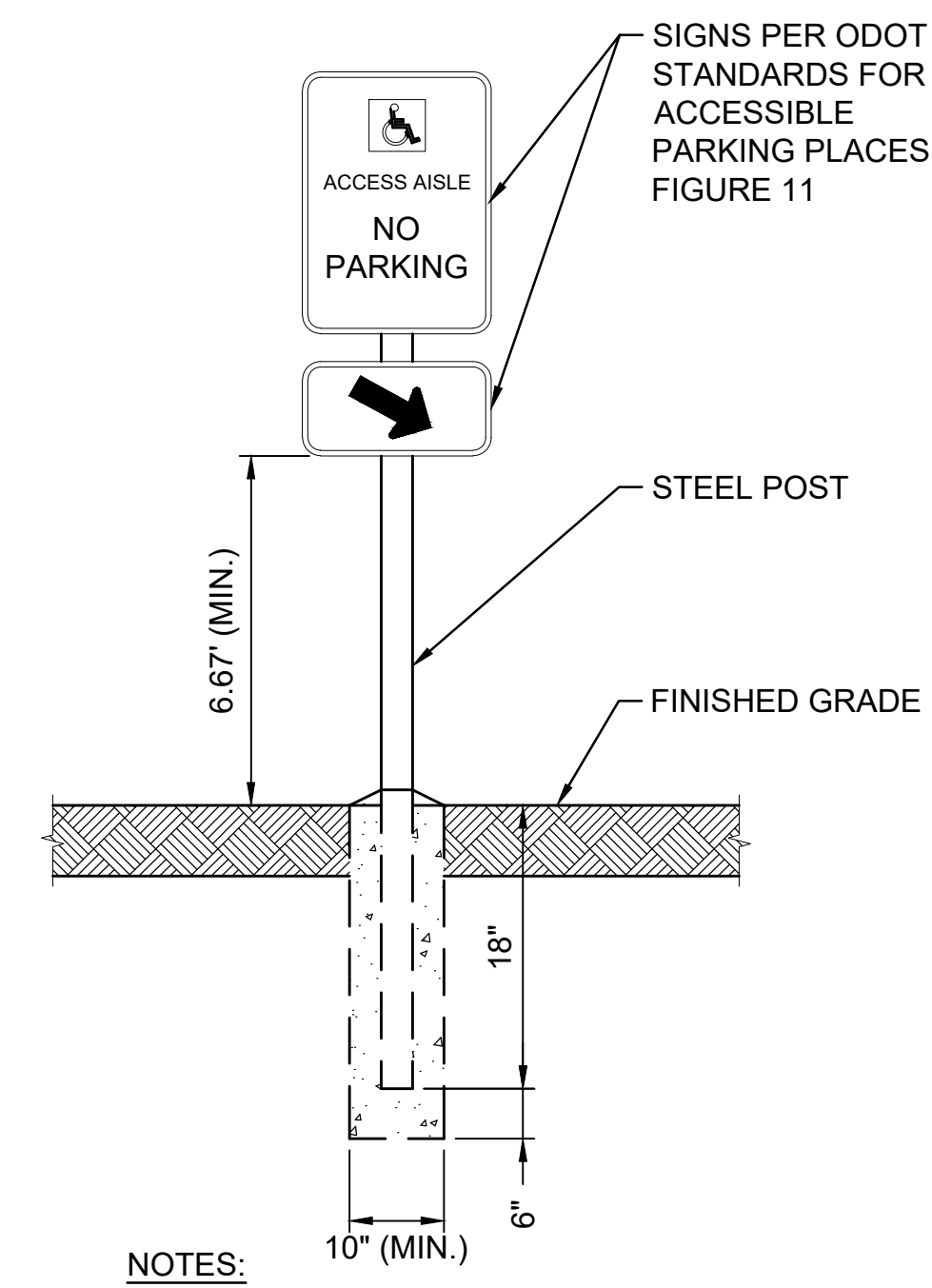
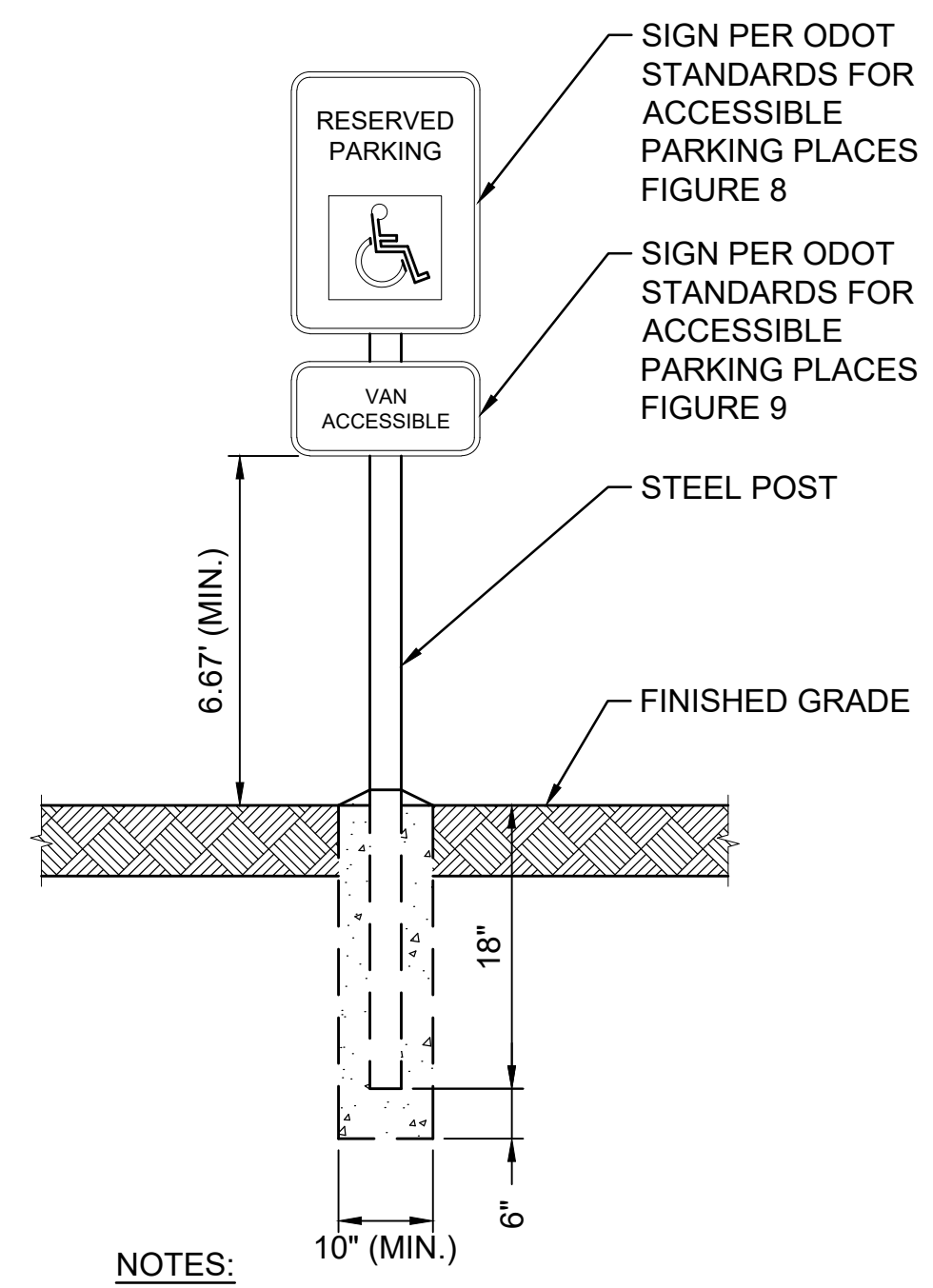
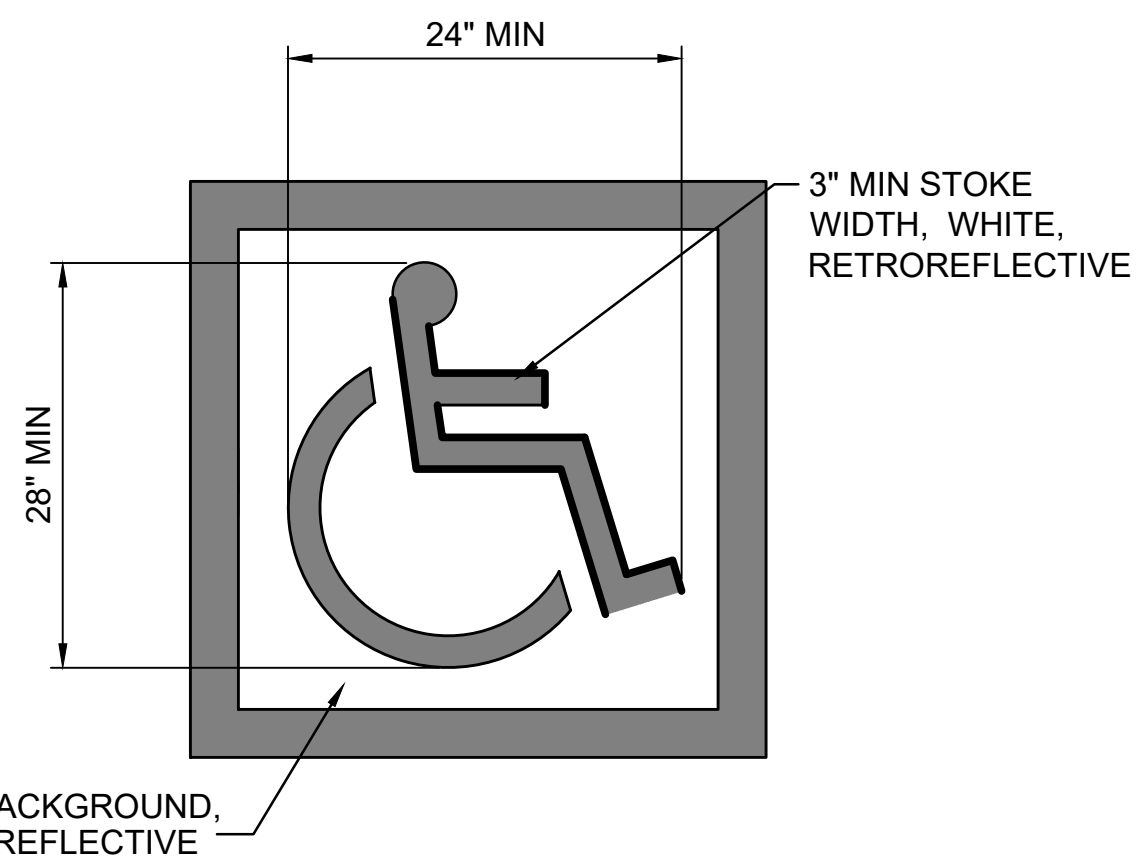
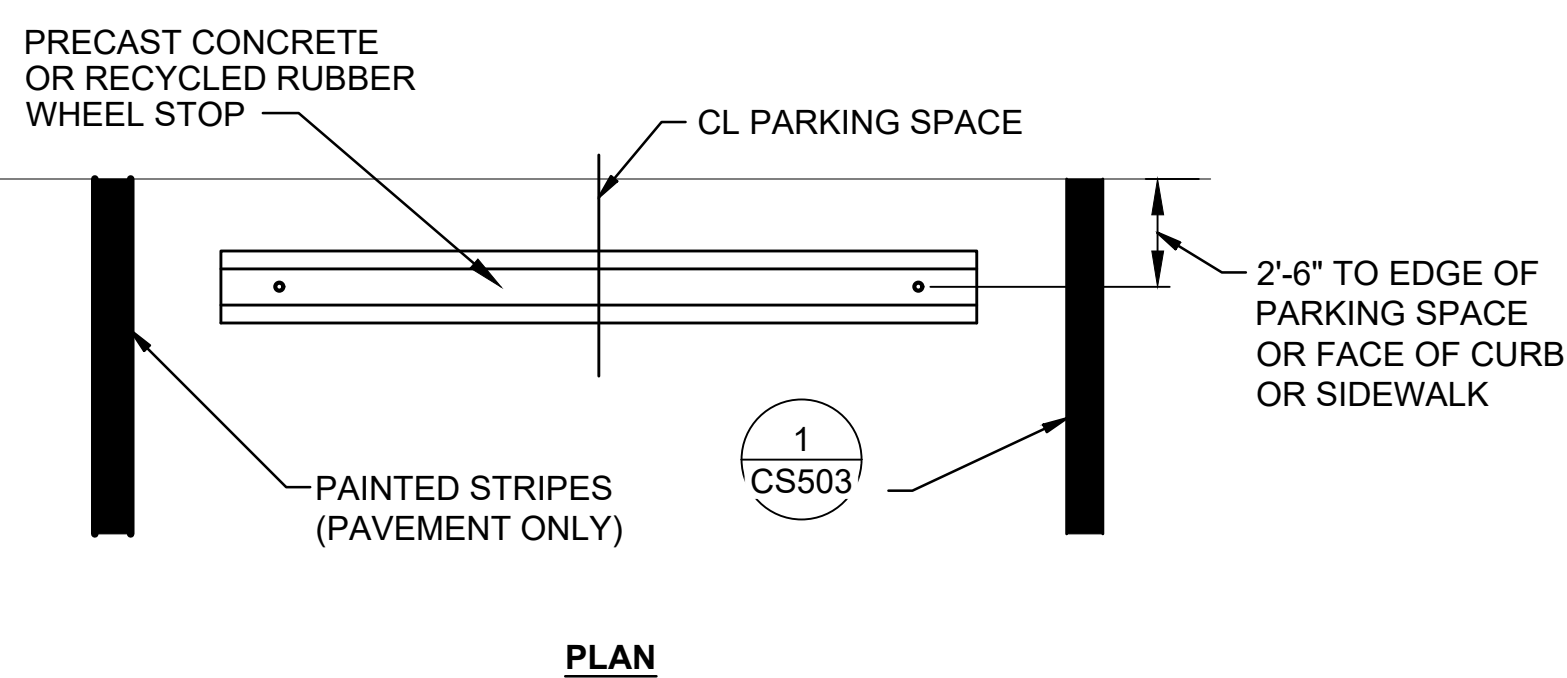
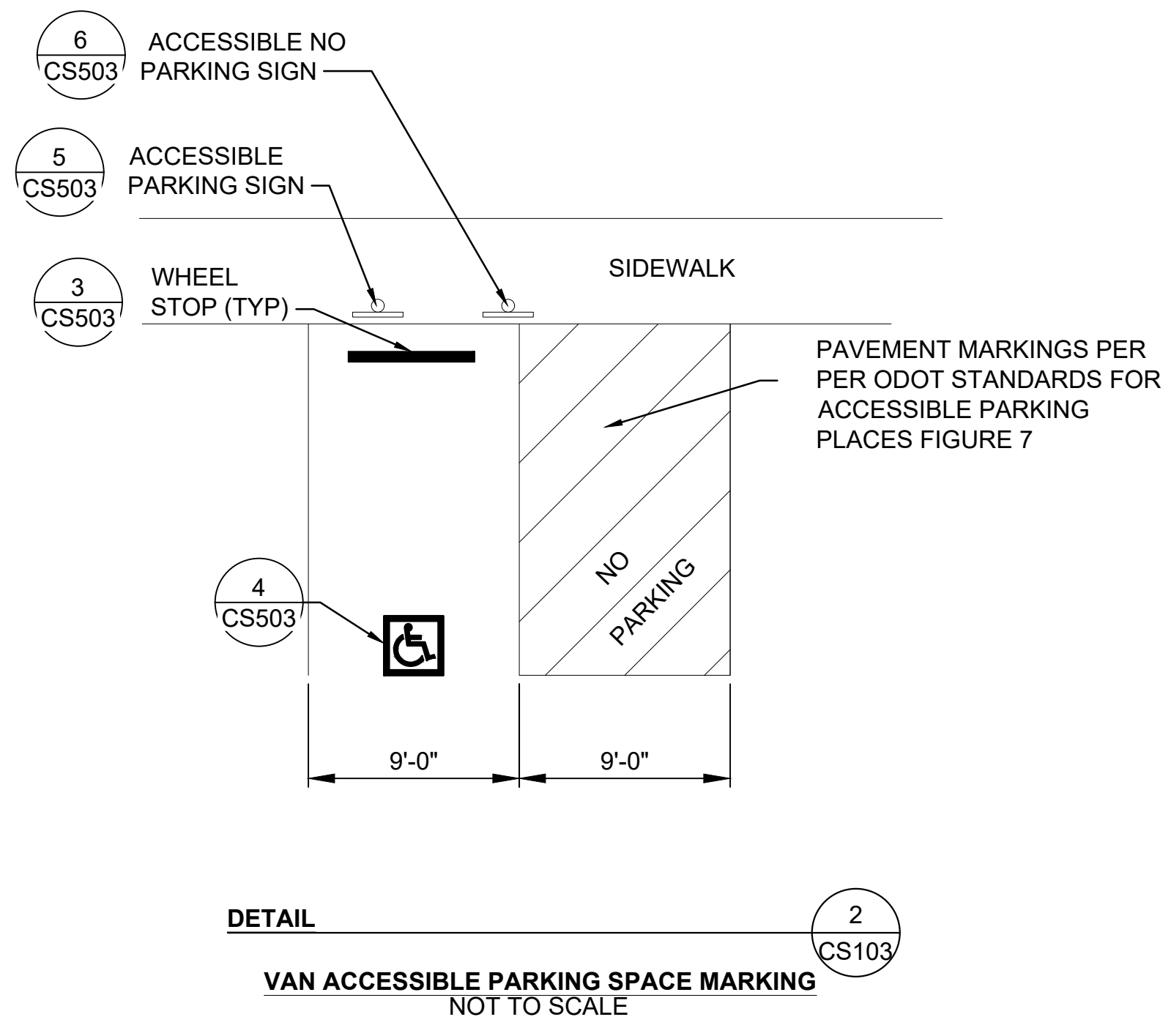
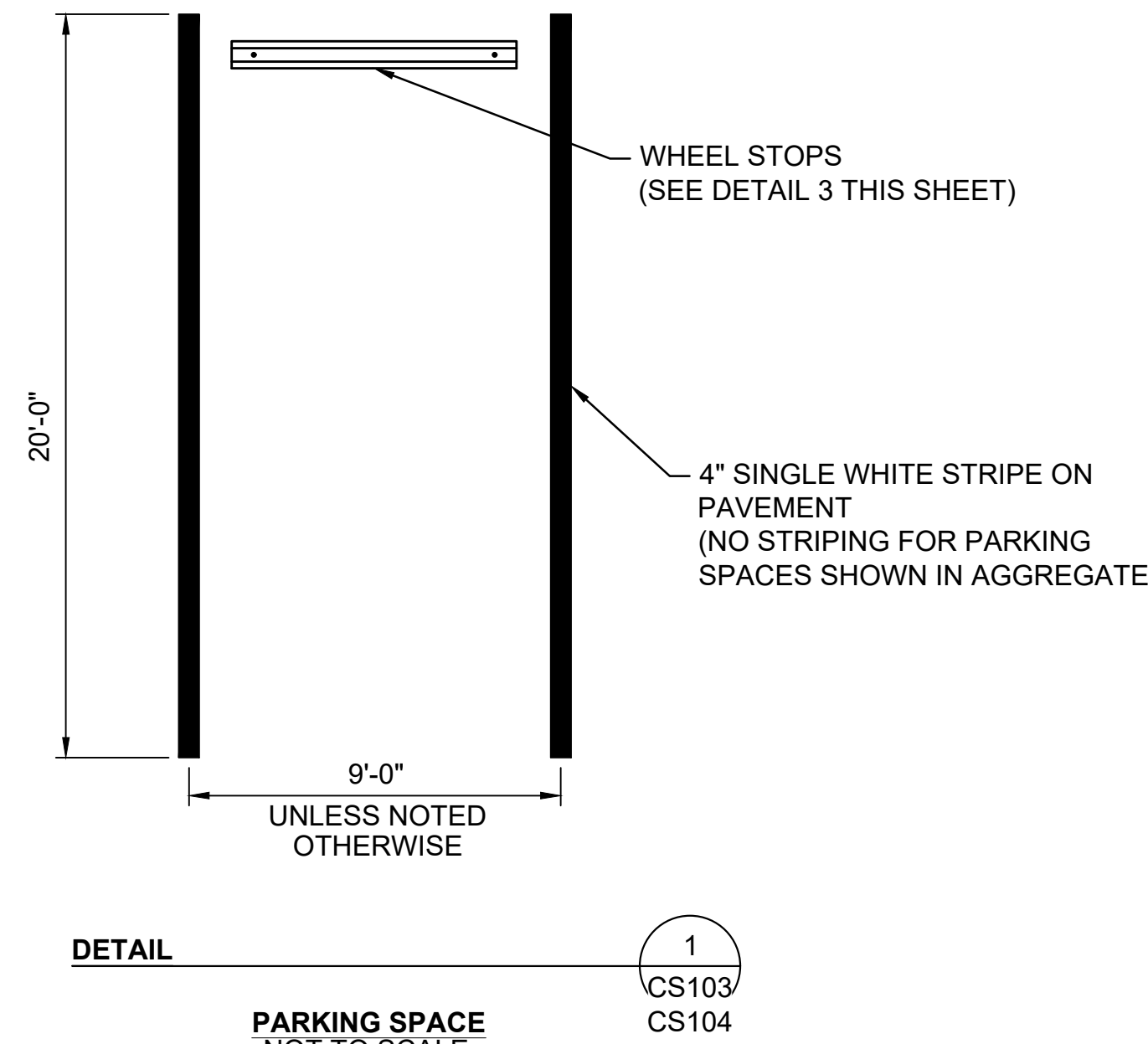
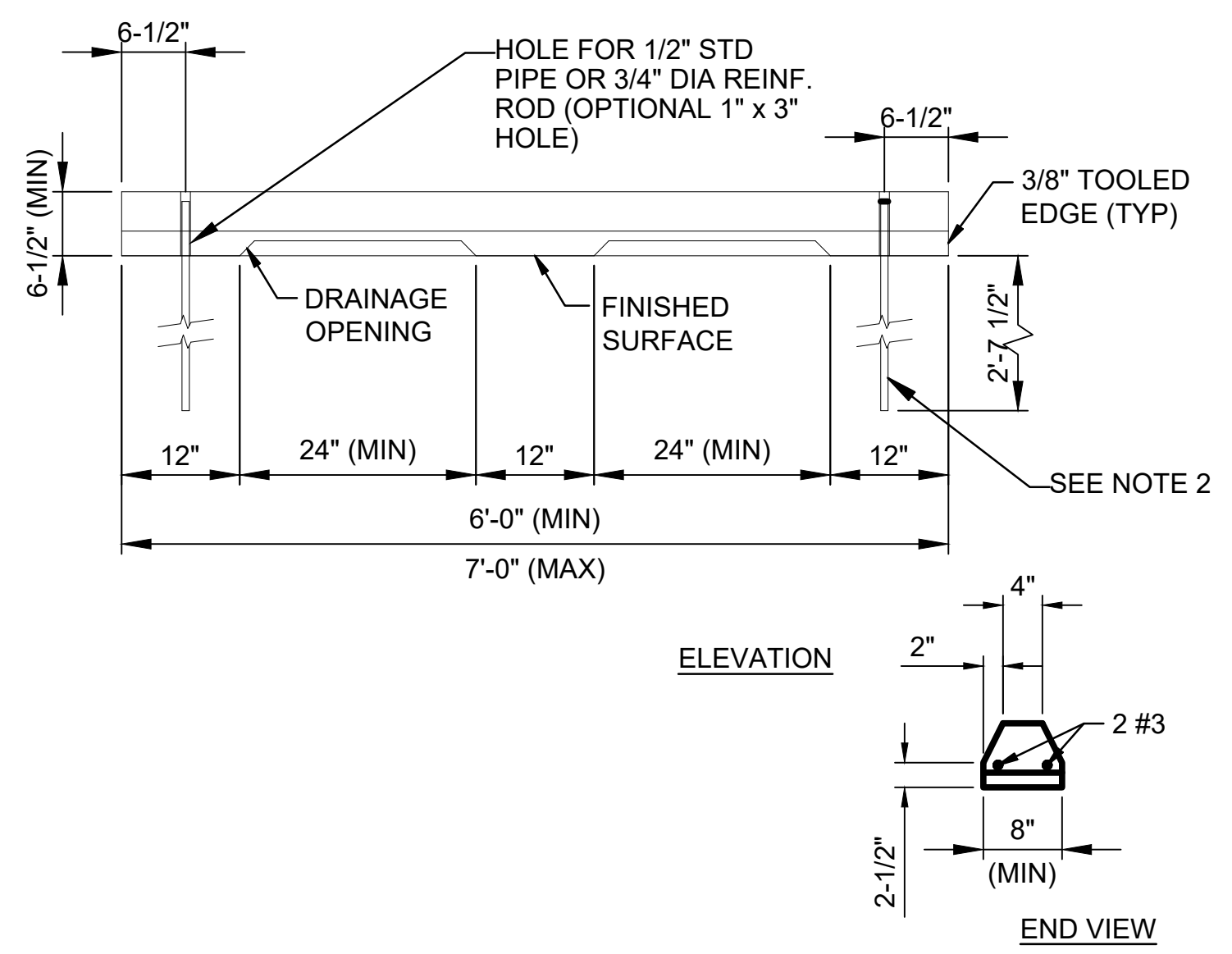
PORTLAND INTERNATIONAL AIRPORT
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PORTLAND, OREGON 97218

PDX FACILITY IMPROVEMENTS
SITE DETAILS 2

project	contract
153929	
drawing	rev.
CS502	A

file 153929CS501.DWG





- NOTES:**
- MINOR DEVIATIONS OF A MANUFACTURER'S STANDARD PRODUCT FROM THE CROSS SECTIONS, HOLES, AND DRAINAGE OPENINGS SHOWN ARE ACCEPTABLE.
 - 1/2" STD PIPE OR 3/4" REINF. ROD SHALL BE PLACED PRIOR TO SURFACING OR ON A HOLE DRILLED IN THE FINISHED SURFACE WITH TIGHT FIT OBTAINED BY AN APPROVED METHOD, OR DRIVEN INTO THE SURFACE.

- NOTE:**
- SYMBOL SHALL BE PAINTED AT END OF PARKING SPACE.
 - REFER TO FIGURE 6 ODOT STANDARDS FOR ACCESSIBLE PARKING PLACES

- NOTES:**
- VAN ACCESSIBLE SIGN SHALL BE LOCATED PER ODOT STANDARDS FOR ACCESSIBLE PARKING PLACES FIGURE 1

- NOTES:**
- VAN ACCESSIBLE NO PARKING SIGN SHALL BE LOCATED PER ODOT STANDARDS FOR ACCESSIBLE PARKING PLACES FIGURE 1

no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT

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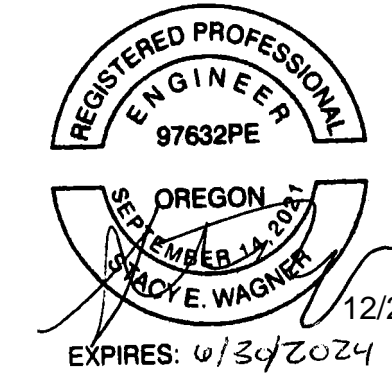
BURNS MEDONNELL
 9400 WARD PARKWAY
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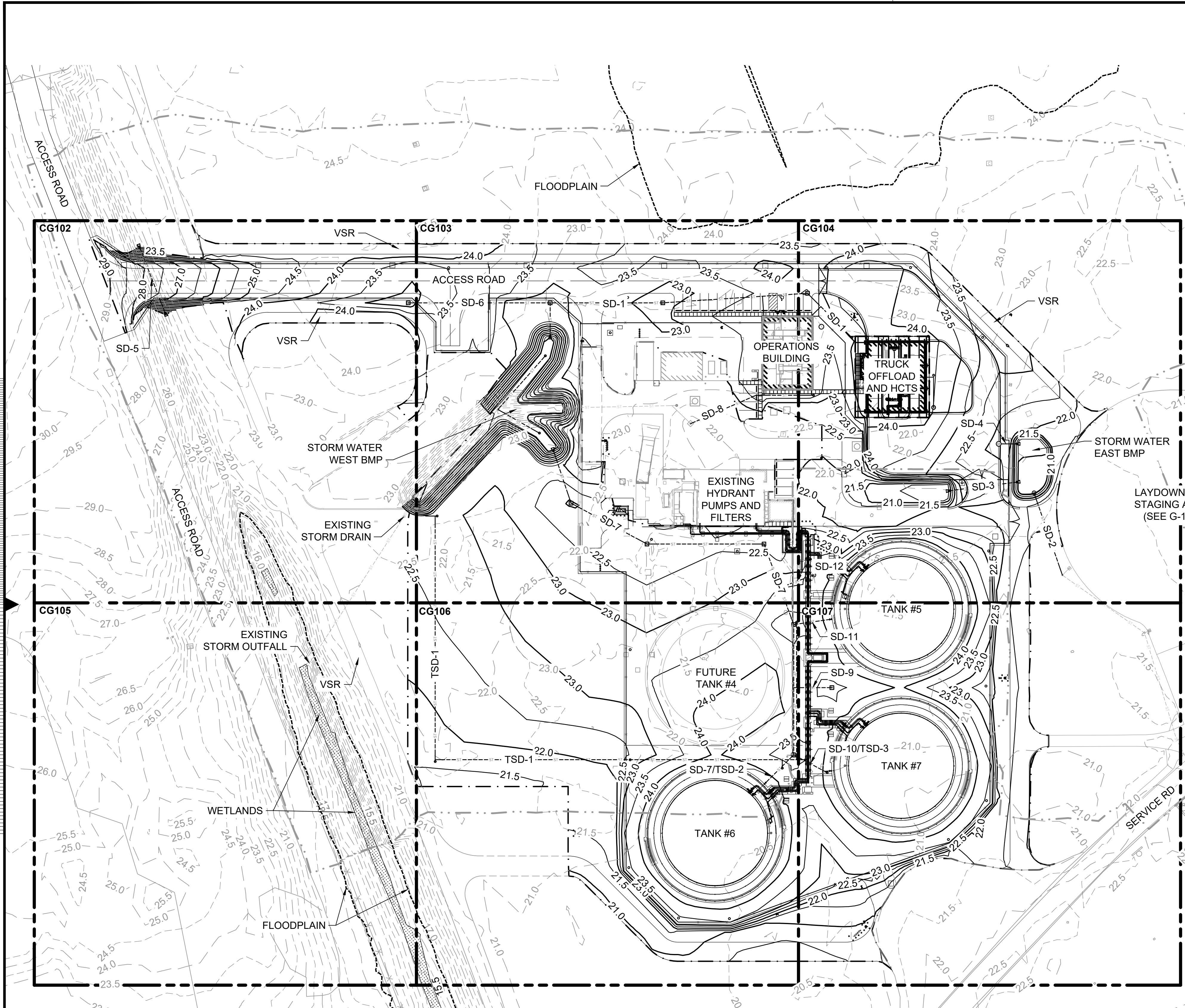
date	08/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

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 PORTLAND INTERNATIONAL AIRPORT
 5000 NE MARINE DR.
 PORTLAND, OREGON 97218

PDX FACILITY IMPROVEMENTS
 SITE DETAILS 3

project	153929	contract	
drawing	CS503	rev.	A





NOTES:

1. SEE CU101 FOR UTILITY INDEX.

LEGEND:

- 22.0 — PROPOSED MAJOR CONTOUR
- 22.5 — PROPOSED MINOR CONTOUR
- - - 22.5 - - - EXISTING MAJOR CONTOUR
- - - 22.5 - - - EXISTING MINOR CONTOUR
- FLOW LINE
- - - - - LIMITS OF GRADING
- - - - - SURVEY LIMITS (SEE NOTES ON C-002)
- [Hatched Box] WETLANDS
- - - - - FLOODPLAIN

Scale For Microfilming
Millimeters
Inches

no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT

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 KANSAS CITY, MO 64114
 816-333-9400
 Burns & McDonnell Engineering Co., Inc.

date	08/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

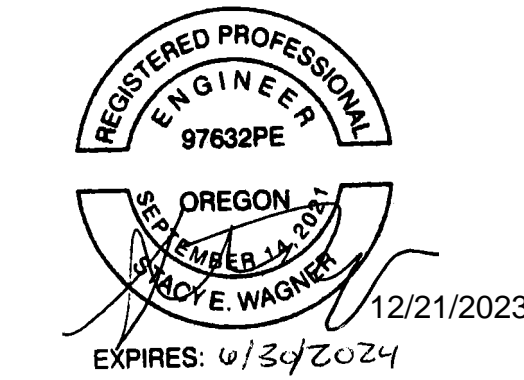
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 PORTLAND, OREGON 97218

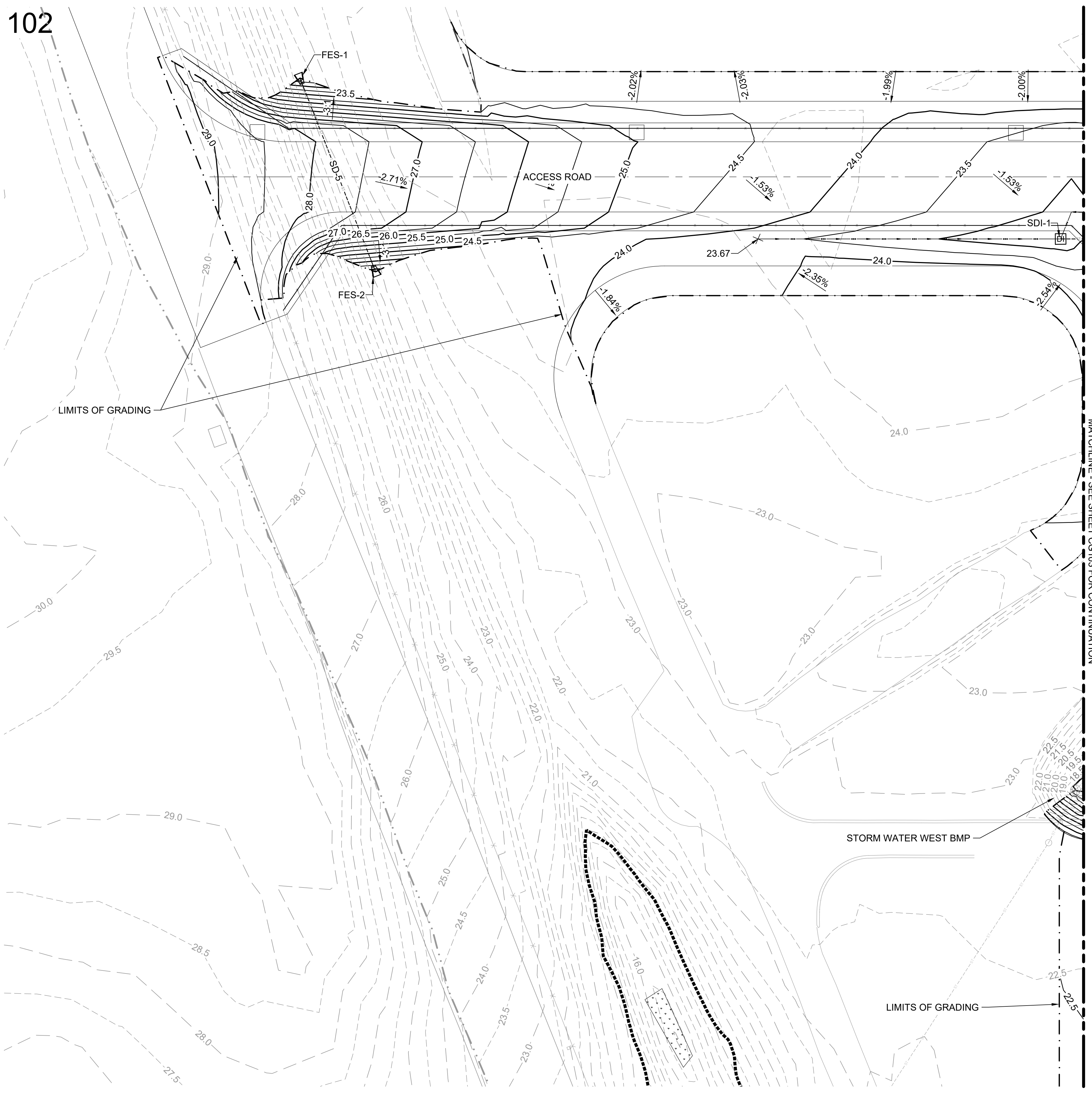
PDX FACILITY IMPROVEMENTS
 OVERALL GRADING CONTROL PLAN

project	153929	contract	
drawing	CG101	rev.	A

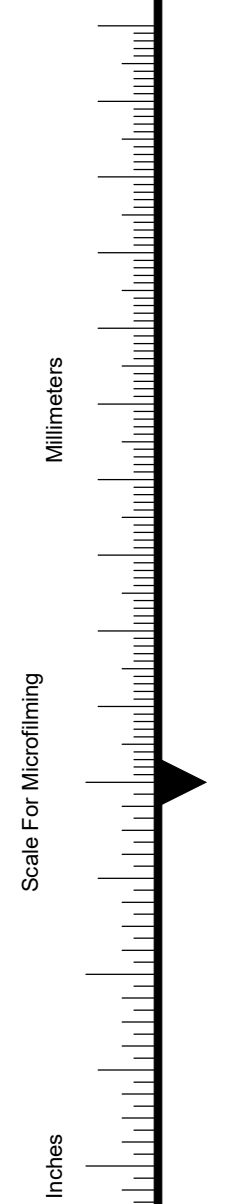
file 153929CG101.DWG



102

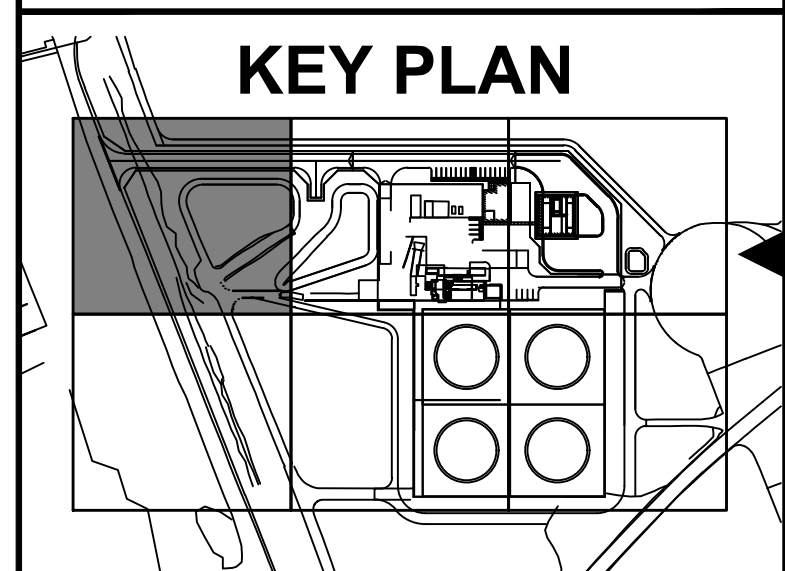


- LEGEND:**
- 22.0 — PROPOSED MAJOR CONTOUR
 - 22.5 — PROPOSED MINOR CONTOUR
 - - 22.5 - - EXISTING MAJOR CONTOUR
 - - 22.5 - - EXISTING MINOR CONTOUR
 - FLOW LINE
 - - - - LIMITS OF GRADING
 - - - - SURVEY LIMITS
 - ⊕ POST INDICATOR VALVE
 - ⊕ ECCENTRIC PLUG VALVE
 - ⊕ FDC (SEE FIRE PROTECTION DRAWINGS)
 - ⊕ FIRE HYDRANT
 - ⊕ CLEANOUT
 - ⊕ STORM DRAINAGE INLET
 - ⊕ CONTAINMENT DRAINAGE INLET (SEE STRUCTURAL DRAWINGS)
 - ⊕ FLARED END SECTION
 - ⊕ OIL STOP VALVE INLET
 - ⊕ CONTAINMENT DRAINAGE BASIN
 - ⊕ DROP IN GRATE



MATCHLINE - SEE SHEET CG103 FOR CONTINUATION

no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT



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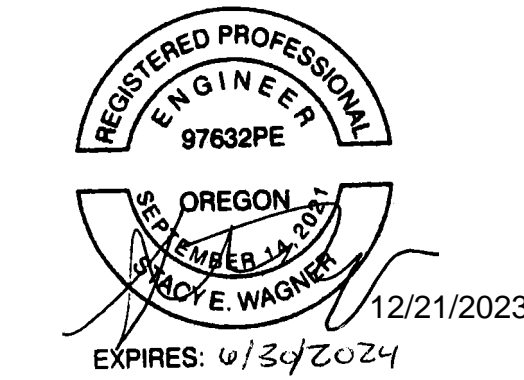
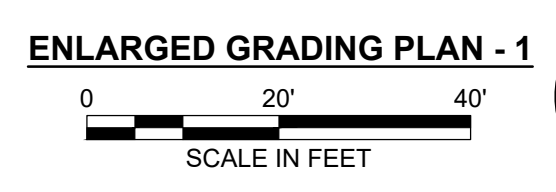
date	08/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

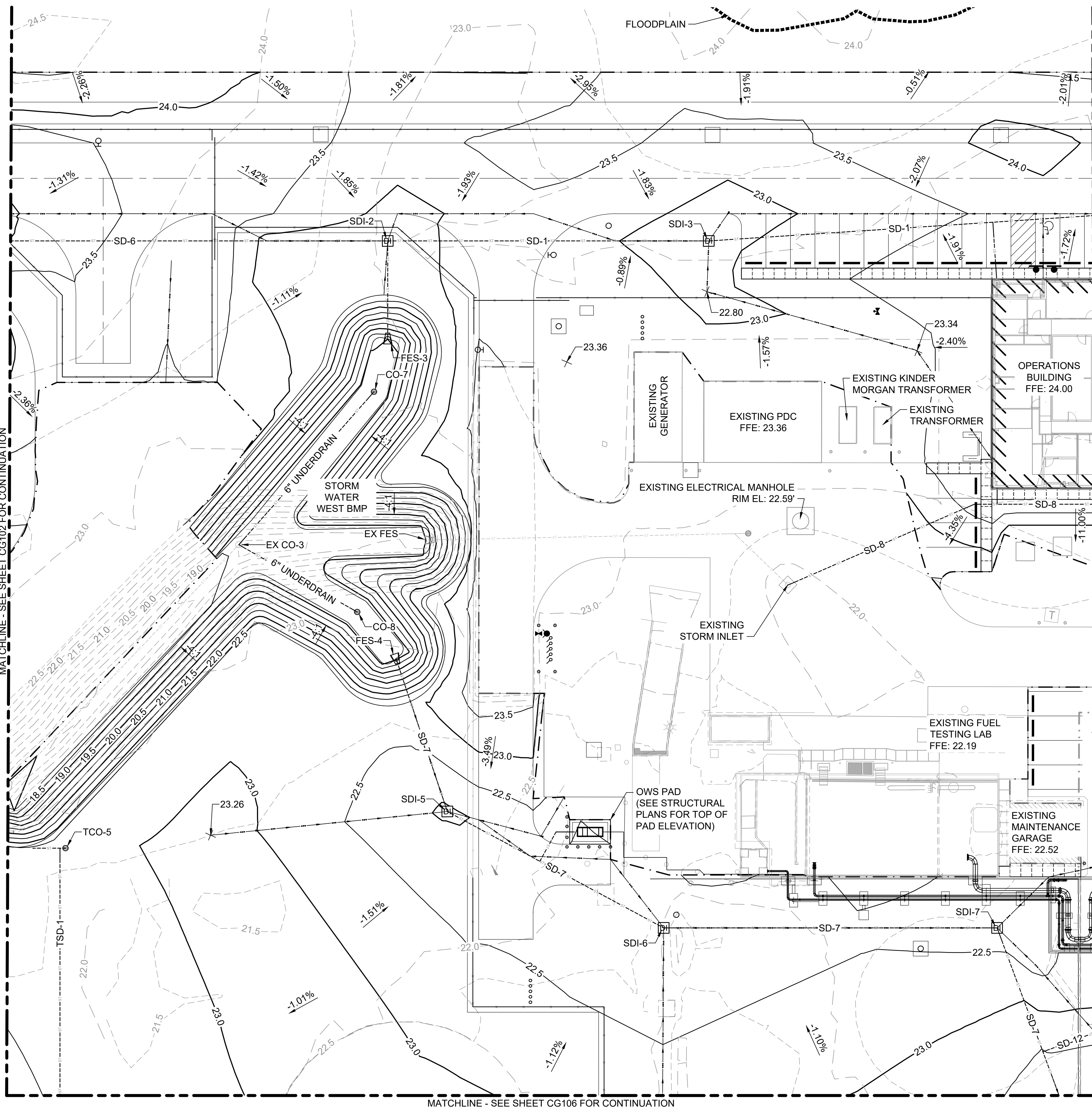
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PDX FACILITY IMPROVEMENTS
 ENLARGED GRADING PLAN - 1

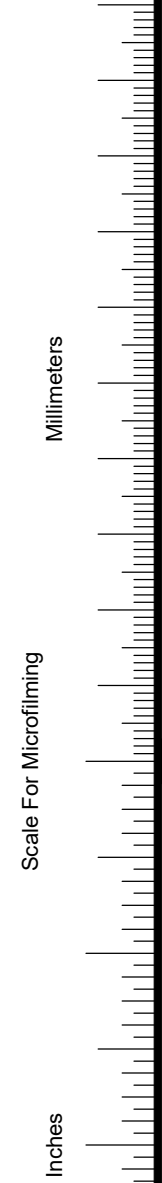
project	153929	contract	
drawing	CG102	rev.	A

file 153929CG101.DWG





- LEGEND:**
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 - 22.5 — PROPOSED MINOR CONTOUR
 - - - 22.5 - - - EXISTING MAJOR CONTOUR
 - - - 22.5 - - - EXISTING MINOR CONTOUR
 - FLOW LINE
 - - - LIMITS OF GRADING
 - - - SURVEY LIMITS
 - ⊕ POST INDICATOR VALVE
 - ⊕ ECCENTRIC PLUG VALVE
 - ⊕ FDC (SEE FIRE PROTECTION DRAWINGS)
 - ⊕ FIRE HYDRANT
 - ⊕ CLEANOUT
 - ⊕ STORM DRAINAGE INLET
 - ⊕ CONTAINMENT DRAINAGE INLET (SEE STRUCTURAL DRAWINGS)
 - ⊕ FLARED END SECTION
 - ⊕ OIL STOP VALVE INLET
 - ⊕ CONTAINMENT DRAINAGE BASIN
 - ⊕ DROP IN GRATE
 - - - FLOODPLAIN

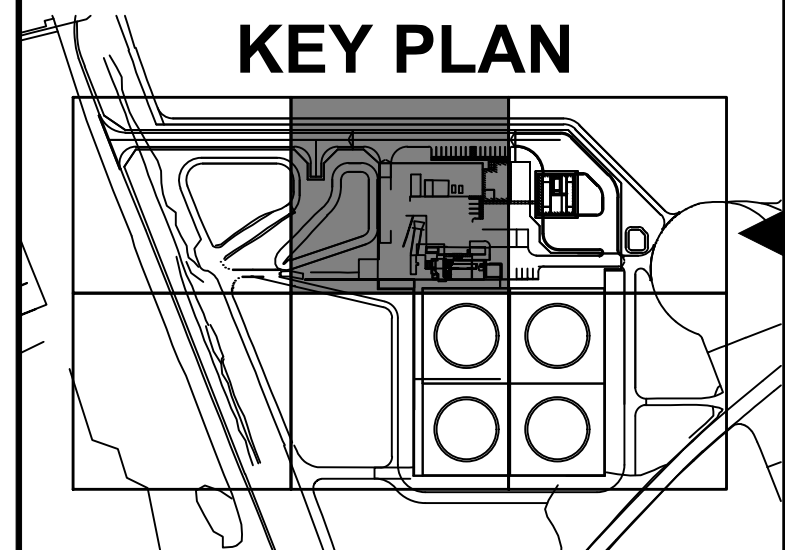


MATCHLINE - SEE SHEET CG102 FOR CONTINUATION

MATCHLINE - SEE SHEET CG104 FOR CONTINUATION

MATCHLINE - SEE SHEET CG106 FOR CONTINUATION

no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT



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designed	M. GREUFE	checked	S. WAGNER

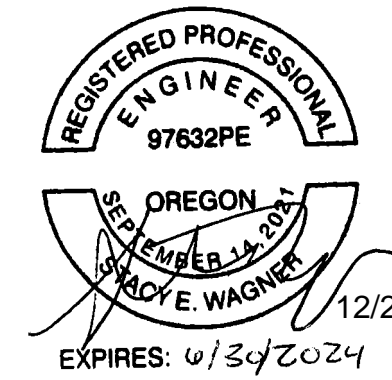
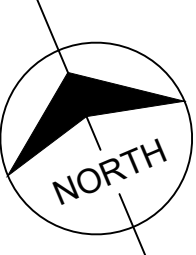
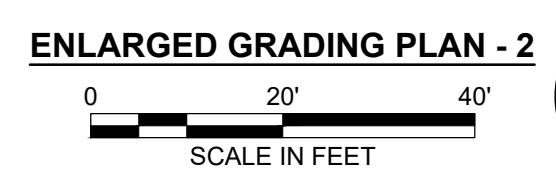
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PORTLAND INTERNATIONAL AIRPORT
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 PORTLAND, OREGON 97218

PDX FACILITY IMPROVEMENTS
 ENLARGED GRADING PLAN - 2

project	153929	contract	
drawing	CG103	rev.	A

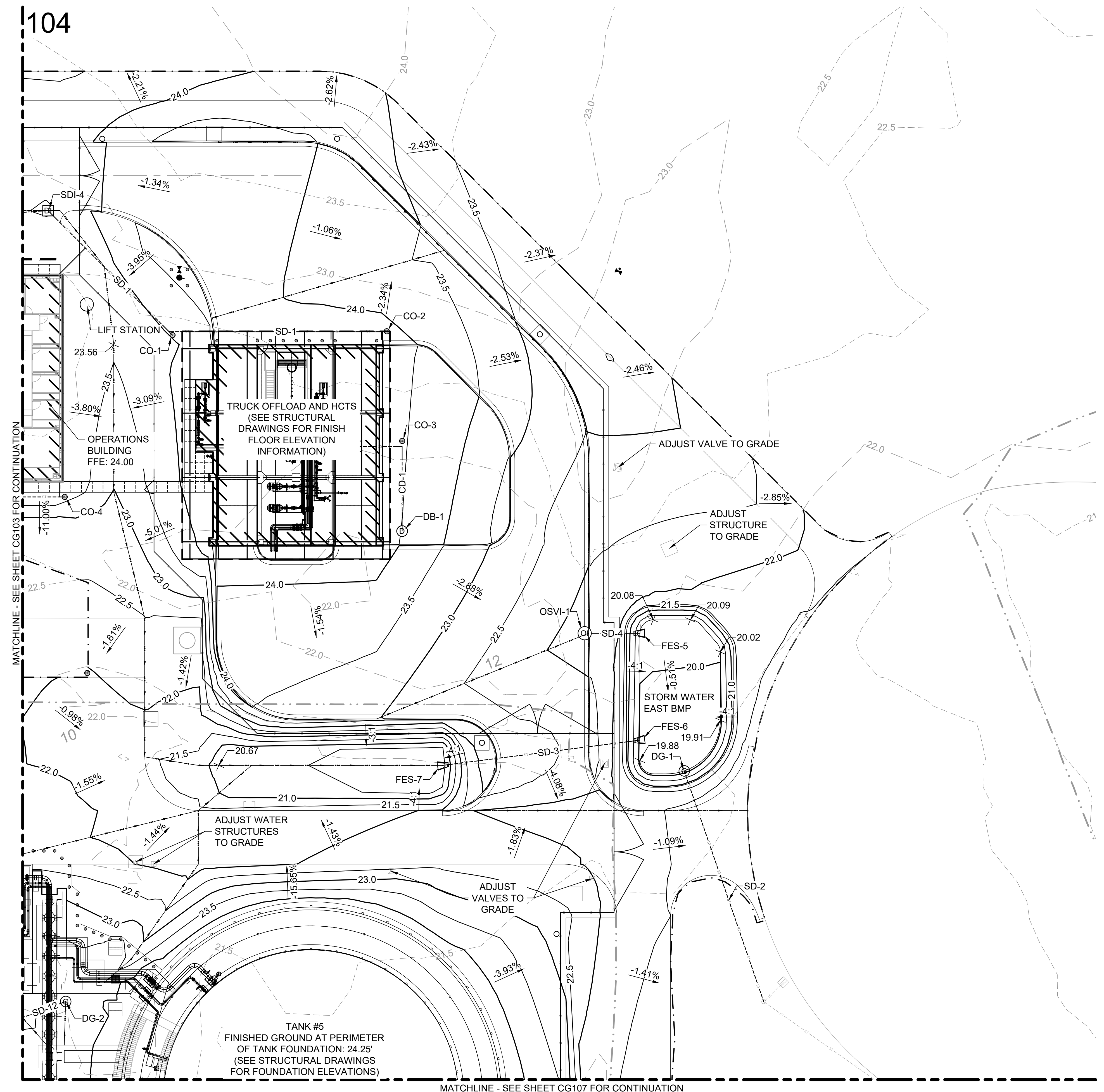
file 153929CG101.DWG



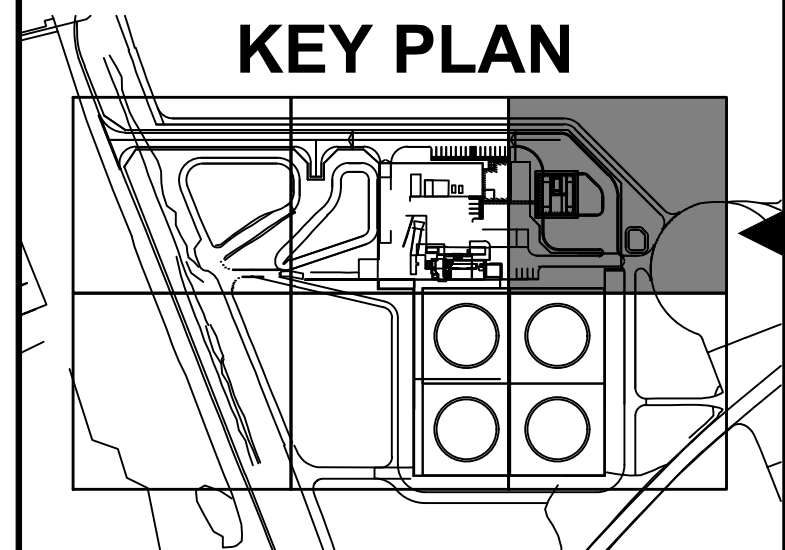
104

- LEGEND:**
- 22.0 — PROPOSED MAJOR CONTOUR
 - 22.5 — PROPOSED MINOR CONTOUR
 - - - 22.5 - - - EXISTING MAJOR CONTOUR
 - - - 22.5 - - - EXISTING MINOR CONTOUR
 - — — FLOW LINE
 - - - - - LIMITS OF GRADING
 - - - - - SURVEY LIMITS
 - ⋈ POST INDICATOR VALVE
 - ⋈ ECCENTRIC PLUG VALVE
 - ⊙ FDC (SEE FIRE PROTECTION DRAWINGS)
 - FIRE HYDRANT
 - CLEANOUT
 - STORM DRAINAGE INLET
 - CONTAINMENT DRAINAGE INLET (SEE STRUCTURAL DRAWINGS)
 - ▽ FLARED END SECTION
 - OIL STOP VALVE INLET
 - CONTAINMENT DRAINAGE BASIN
 - DROP IN GRATE
 - - - - - FLOODPLAIN

Millimeters
Scale For Microfining
Inches



no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT



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date	08/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

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5000 NE MARINE DR.
PORTLAND, OREGON 97218

PDX FACILITY IMPROVEMENTS
ENLARGED GRADING PLAN - 3

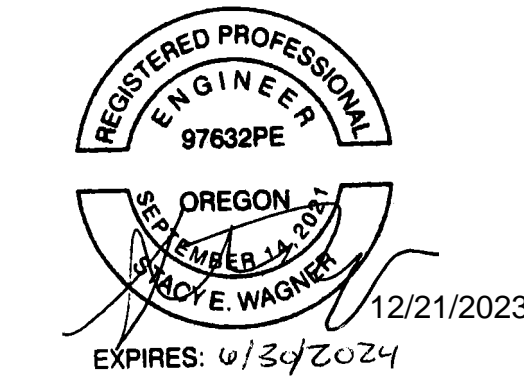
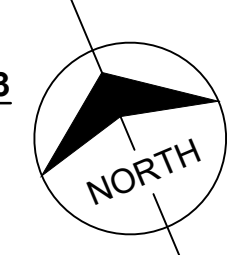
project	153929	contract	
drawing	CG104	rev.	A

file 153929CG101.DWG

ENLARGED GRADING PLAN - 3

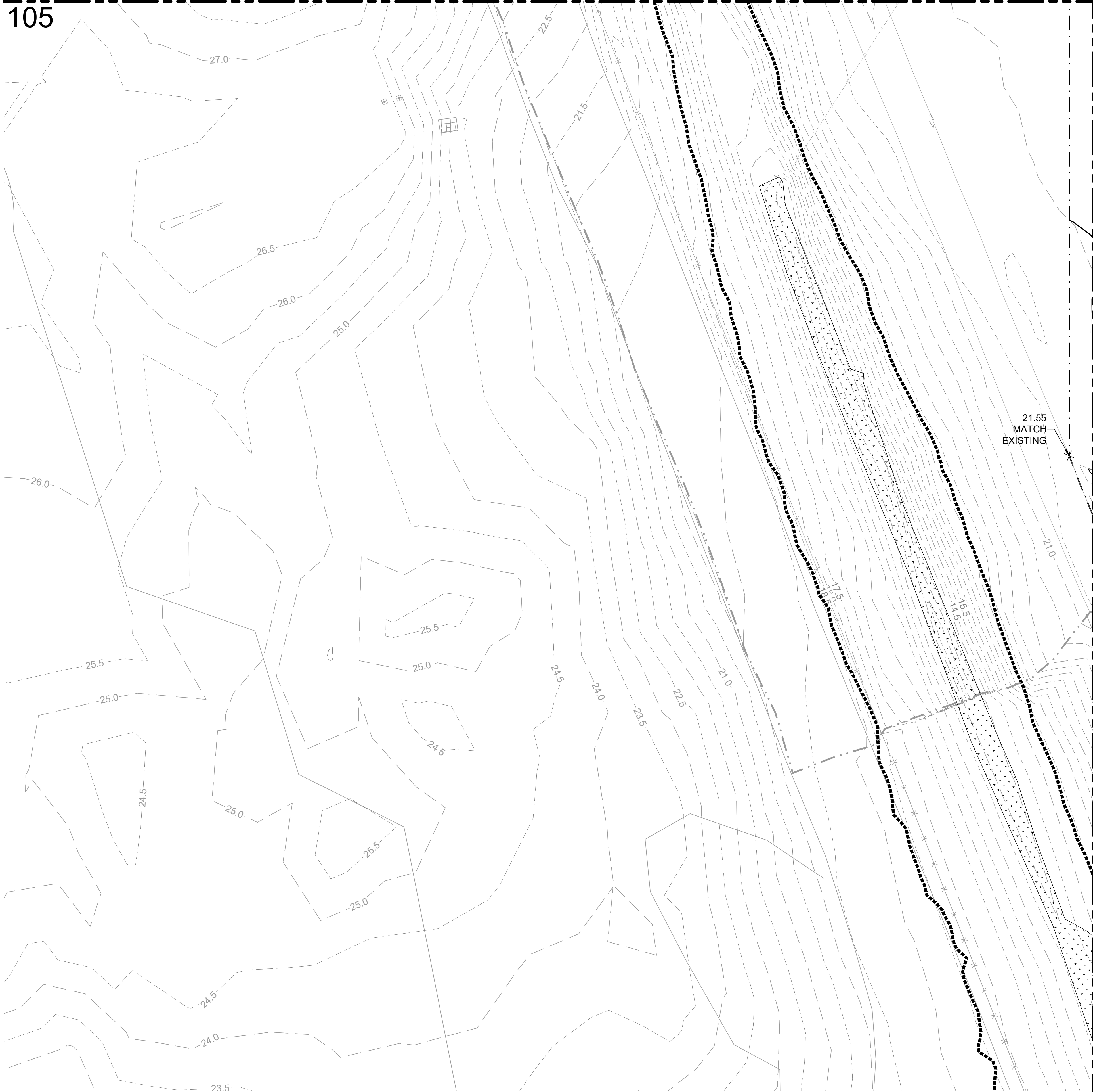
0 20' 40'

SCALE IN FEET

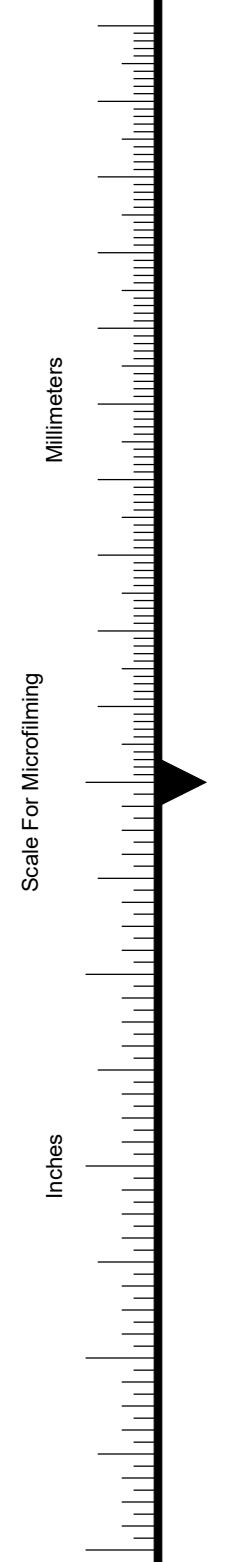


105

MATCHLINE - SEE SHEET CG102 FOR CONTINUATION



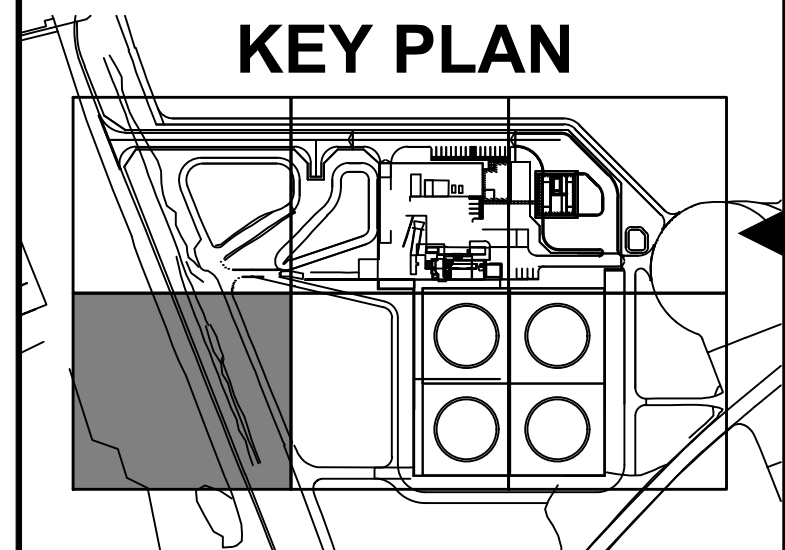
- LEGEND:**
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 - 22.5 — PROPOSED MINOR CONTOUR
 - - 22.5 - - EXISTING MAJOR CONTOUR
 - - 22.5 - - EXISTING MINOR CONTOUR
 - — — FLOW LINE
 - - - - - LIMITS OF GRADING
 - - - - - SURVEY LIMITS
 - ✕ POST INDICATOR VALVE
 - ✕ ECCENTRIC PLUG VALVE
 - ⊙ FDC (SEE FIRE PROTECTION DRAWINGS)
 - FIRE HYDRANT
 - ⊙ CLEANOUT
 - DI STORM DRAINAGE INLET
 - CI CONTAINMENT DRAINAGE INLET (SEE STRUCTURAL DRAWINGS)
 - ▽ FLARED END SECTION
 - ⊙ OIL STOP VALVE INLET
 - ⊙ CONTAINMENT DRAINAGE BASIN
 - ⊙ DROP IN GRATE
 - - - - - FLOODPLAIN



21.55
MATCH
EXISTING

MATCHLINE - SEE SHEET CG106 FOR CONTINUATION

no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT



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date	08/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

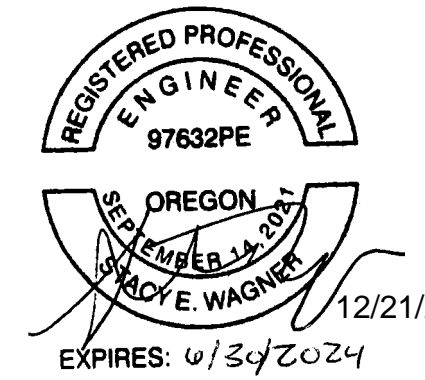
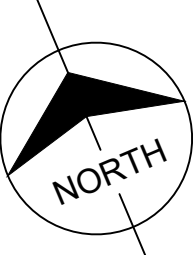
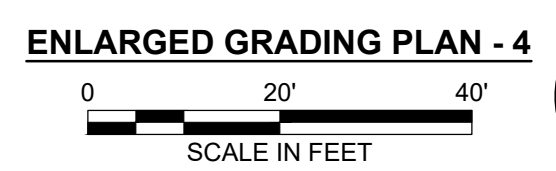
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PDX FACILITY IMPROVEMENTS
ENLARGED GRADING PLAN - 4

project	153929	contract	
drawing	CG105	rev.	A

file 153929CG101.DWG



MATCHLINE - SEE SHEET CG103 FOR CONTINUATION

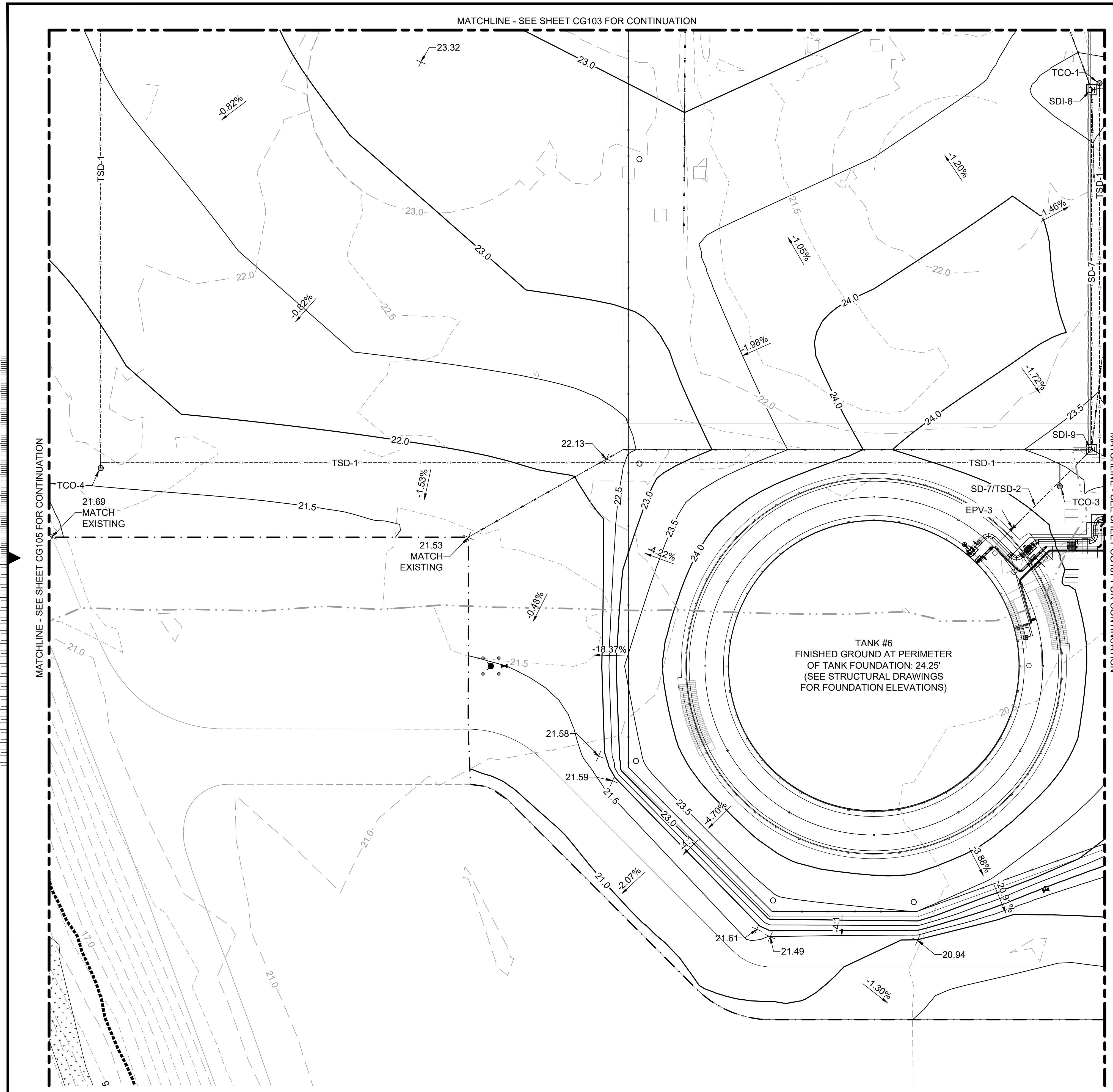
LEGEND:

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- - - 22.5 - - - EXISTING MINOR CONTOUR
- — — FLOW LINE
- - - - - LIMITS OF GRADING
- - - - - SURVEY LIMITS
- ⊕ POST INDICATOR VALVE
- ⊕ ECCENTRIC PLUG VALVE
- ⊕ FDC (SEE FIRE PROTECTION DRAWINGS)
- ⊕ FIRE HYDRANT
- ⊕ CLEANOUT
- ⊕ STORM DRAINAGE INLET
- ⊕ CONTAINMENT DRAINAGE INLET (SEE STRUCTURAL DRAWINGS)
- ▽ FLARED END SECTION
- ⊕ OIL STOP VALVE INLET
- ⊕ CONTAINMENT DRAINAGE BASIN
- ⊕ DROP IN GRATE
- - - - - FLOODPLAIN

Millimeters
Scale For Microfinishing
Inches

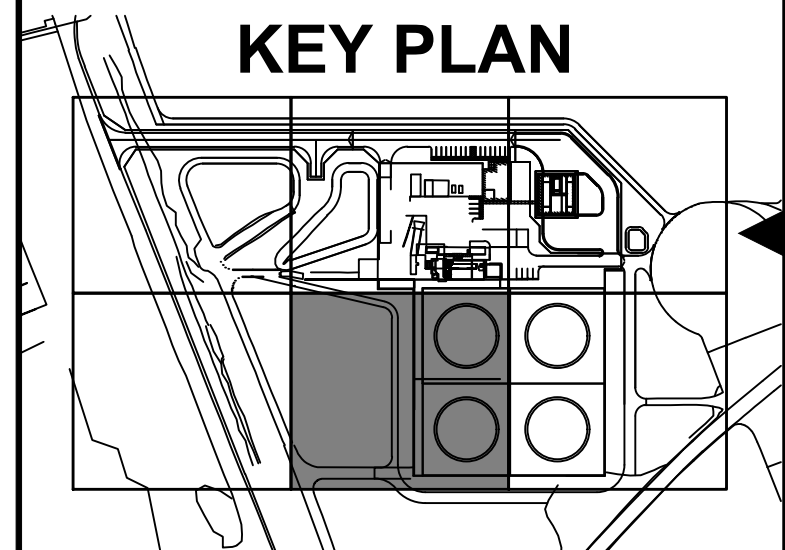
MATCHLINE - SEE SHEET CG105 FOR CONTINUATION

MATCHLINE - SEE SHEET CG107 FOR CONTINUATION



TANK #6
FINISHED GROUND AT PERIMETER
OF TANK FOUNDATION: 24.25'
(SEE STRUCTURAL DRAWINGS
FOR FOUNDATION ELEVATIONS)

no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT



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Burns & McDonnell Engineering Co., Inc.

date	08/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

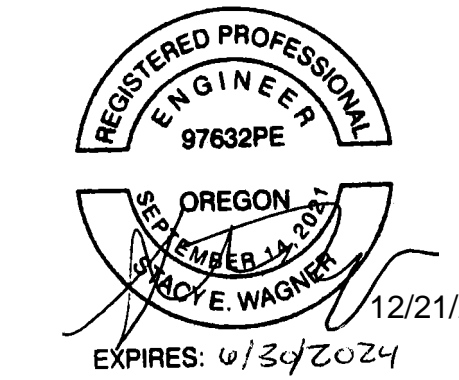
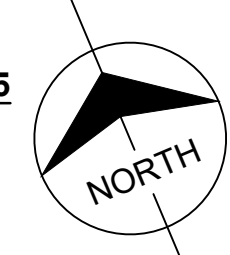
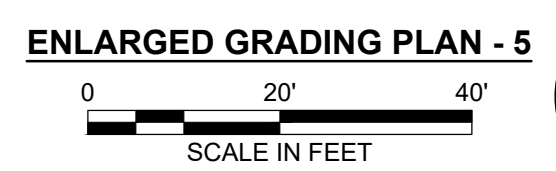
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PDX FACILITY IMPROVEMENTS
ENLARGED GRADING PLAN - 5

project	153929	contract	
drawing	CG106	rev.	A

file 153929CG101.DWG



MATCHLINE - SEE SHEET CG104 FOR CONTINUATION

TANK #5
FINISHED GROUND AT PERIMETER
OF TANK FOUNDATION: 24.25'
(SEE STRUCTURAL DRAWINGS
FOR FOUNDATION ELEVATIONS)

TANK #7
FINISHED GROUND AT PERIMETER
OF TANK FOUNDATION: 24.25'
(SEE STRUCTURAL DRAWINGS
FOR FOUNDATION ELEVATIONS)

EXISTING INLET
RIM EL: 21.05'

LEGEND:

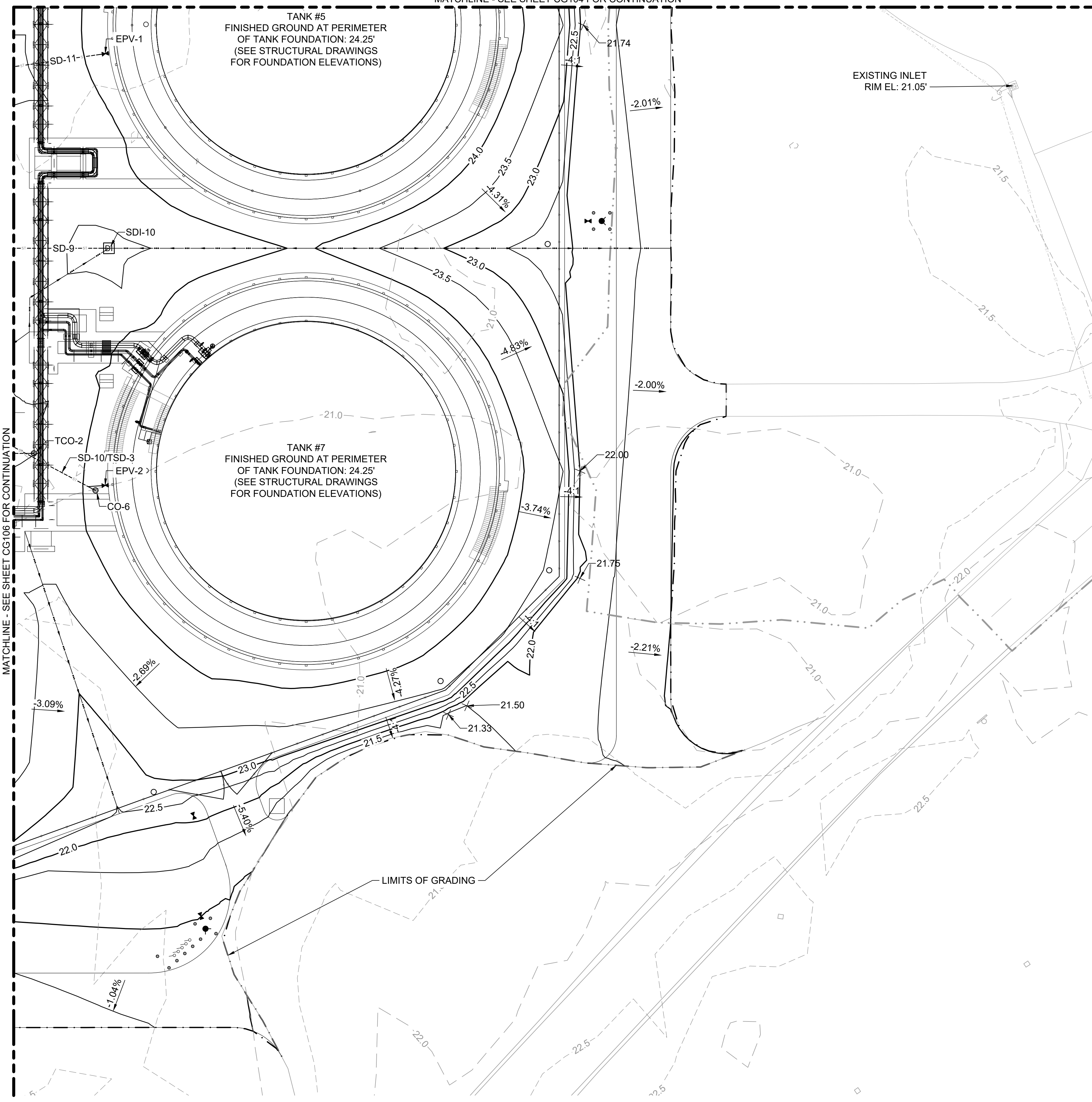
- 22.0 — PROPOSED MAJOR CONTOUR
- 22.5 — PROPOSED MINOR CONTOUR
- - 22.5 - - EXISTING MAJOR CONTOUR
- - 22.5 - - EXISTING MINOR CONTOUR
- — — FLOW LINE
- - - - - LIMITS OF GRADING
- - - - - SURVEY LIMITS
- ⌘ POST INDICATOR VALVE
- ⌘ ECCENTRIC PLUG VALVE
- ⊙ FDC (SEE FIRE PROTECTION DRAWINGS)
- ⊙ FIRE HYDRANT
- ⊙ CLEANOUT
- ⊠ STORM DRAINAGE INLET
- ⊠ CONTAINMENT DRAINAGE INLET (SEE STRUCTURAL DRAWINGS)
- ▽ FLARED END SECTION
- ⊙ OIL STOP VALVE INLET
- ⊙ CONTAINMENT DRAINAGE BASIN
- ⊙ DROP IN GRATE

Millimeters

Scale For Microfitting

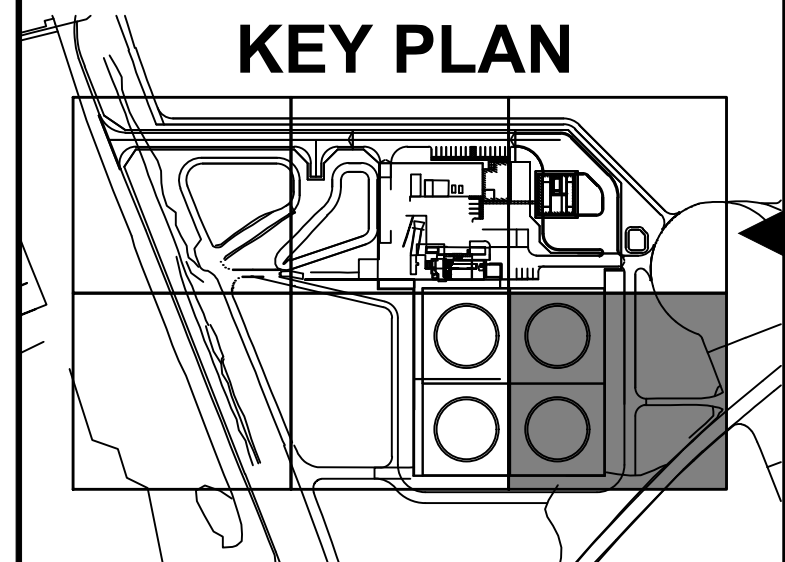
Inches

MATCHLINE - SEE SHEET CG106 FOR CONTINUATION



LIMITS OF GRADING

no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT



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date	08/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

PDX FUEL COMPANY L.L.C

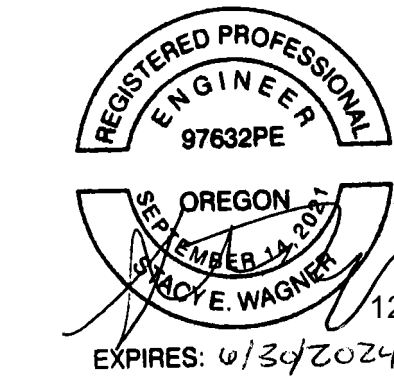
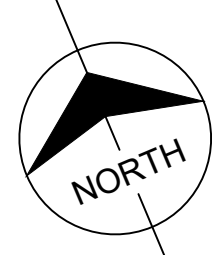
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PORTLAND, OREGON 97218

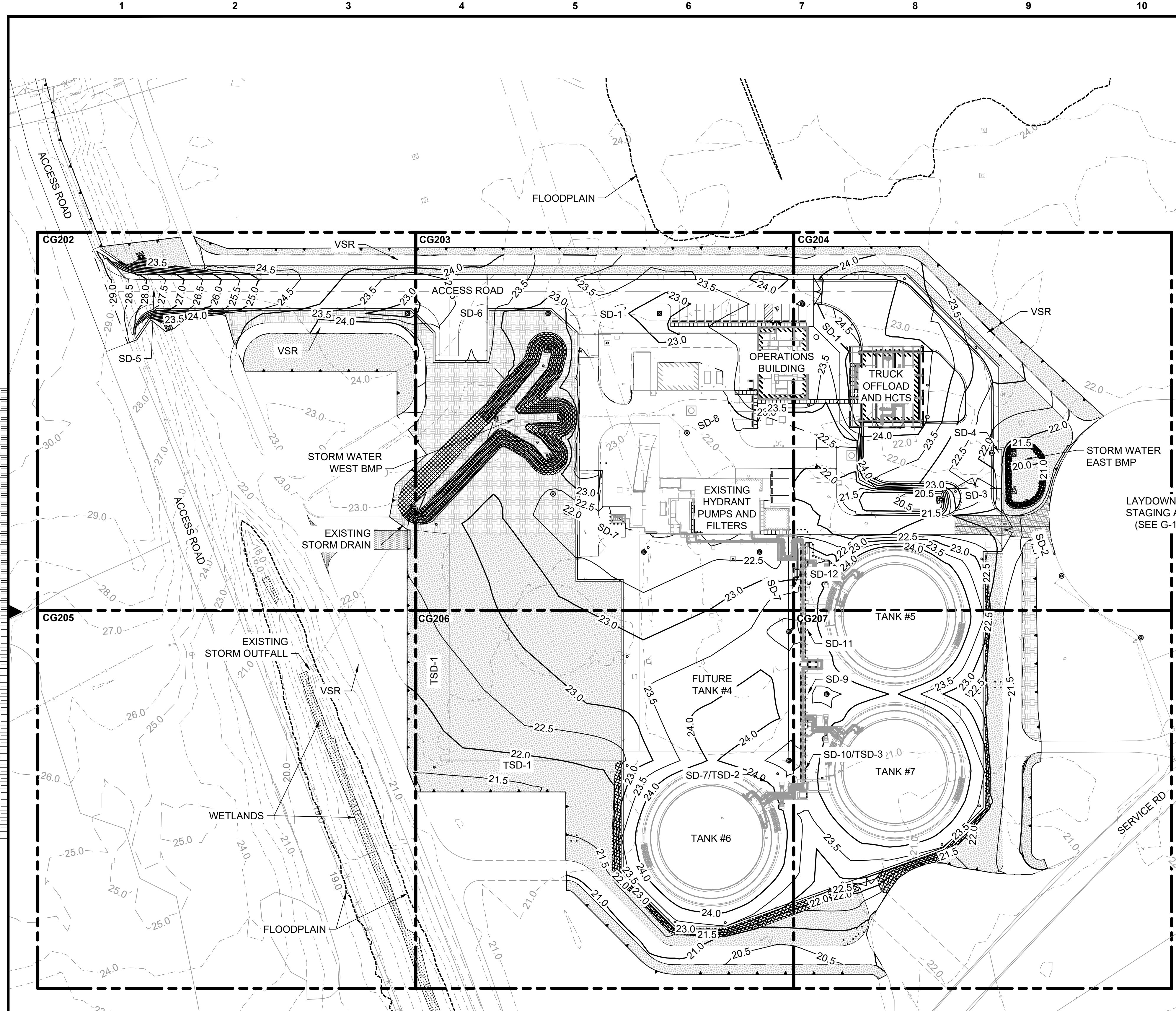
PDX FACILITY IMPROVEMENTS
ENLARGED GRADING PLAN - 6

project	153929	contract	
drawing	CG107	rev.	A

file 153929CG101.DWG

ENLARGED GRADING PLAN - 6
0 20' 40'
SCALE IN FEET





- NOTES:**
- SEE SHEET CG210 FOR EROSION AND SEDIMENT CONTROL NOTES.
 - NEAREST OFFICAL RAIN GAUGE IS THE FORTY-SECOND AVENUE RAIN GAUGE LOCATED AT NE 42ND AVENUE AND BUFFALO STREET.
 - EROSION CONTROL BLANKET SHALL BE TYPE B FROM OREGON DEPARTMENT OF TRANSPORTATION EROSION CONTROL MANUAL QUALIFIED PRODUCT LIST AND INSTALLED IN ACCORDANCE WITH SECTION 00280.44(E) AND STANDARD DRAWING RD1055.
 - IN ACCORDANCE WITH PORT OF PORTLAND SPECIFICATIONS, SEED MIX SHALL BE A THREE-WAY BLEND OF ENDOPHYTE ENHANCED DWARF TURF TYPE TALL FESCUES MEETING THE FOLLOWING CRITERIA:

SEED	% PLS	MINIMUM SEED PURITY (%)	MINIMUM GERMINATION (%)	ENDOPHYTE ENHANCED
SEED TYPE 1	33	98	90	80 MIN
SEED TYPE 2	33	98	90	80 MIN
SEED TYPE 3	33	98	90	80 MIN
INERT MATTER	1	--	--	--

PROPERTY SIZE: 9.29 AC
 AREA OF DISTURBANCE: 9.29 AC

CUT: 1,715 CY
 FILL: 17,392 CY

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 FOURTEEN (14) 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 CONDUCTED AND RUNOFF IS UNLIKELY DURING FROZEN CONDITIONS.	VISUAL MONITORING INSPECTIONS MAY BE REDUCED TO ONCE A MONTH. IMMEDIATELY RESUME MONITORING UPON THAWING, OR WHEN WEATHER CONDITIONS MAKE DISCHARGES LIKELY.

no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT

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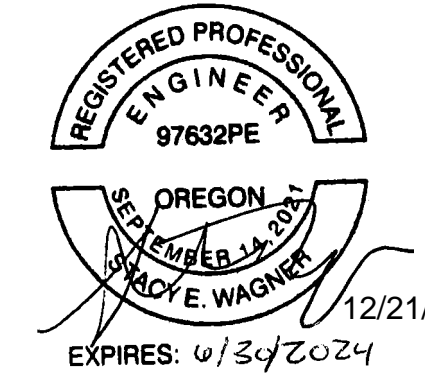
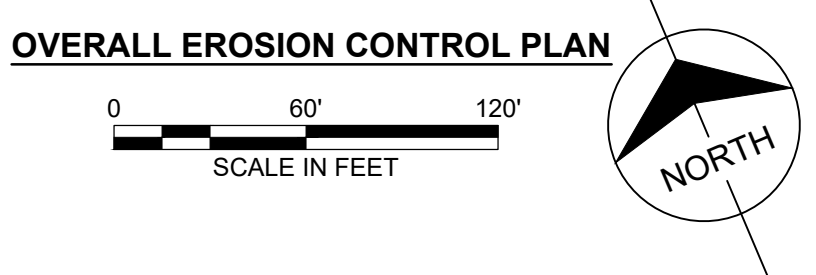
BURNS MEDONNELL
 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 Burns & McDonnell Engineering Co., Inc.

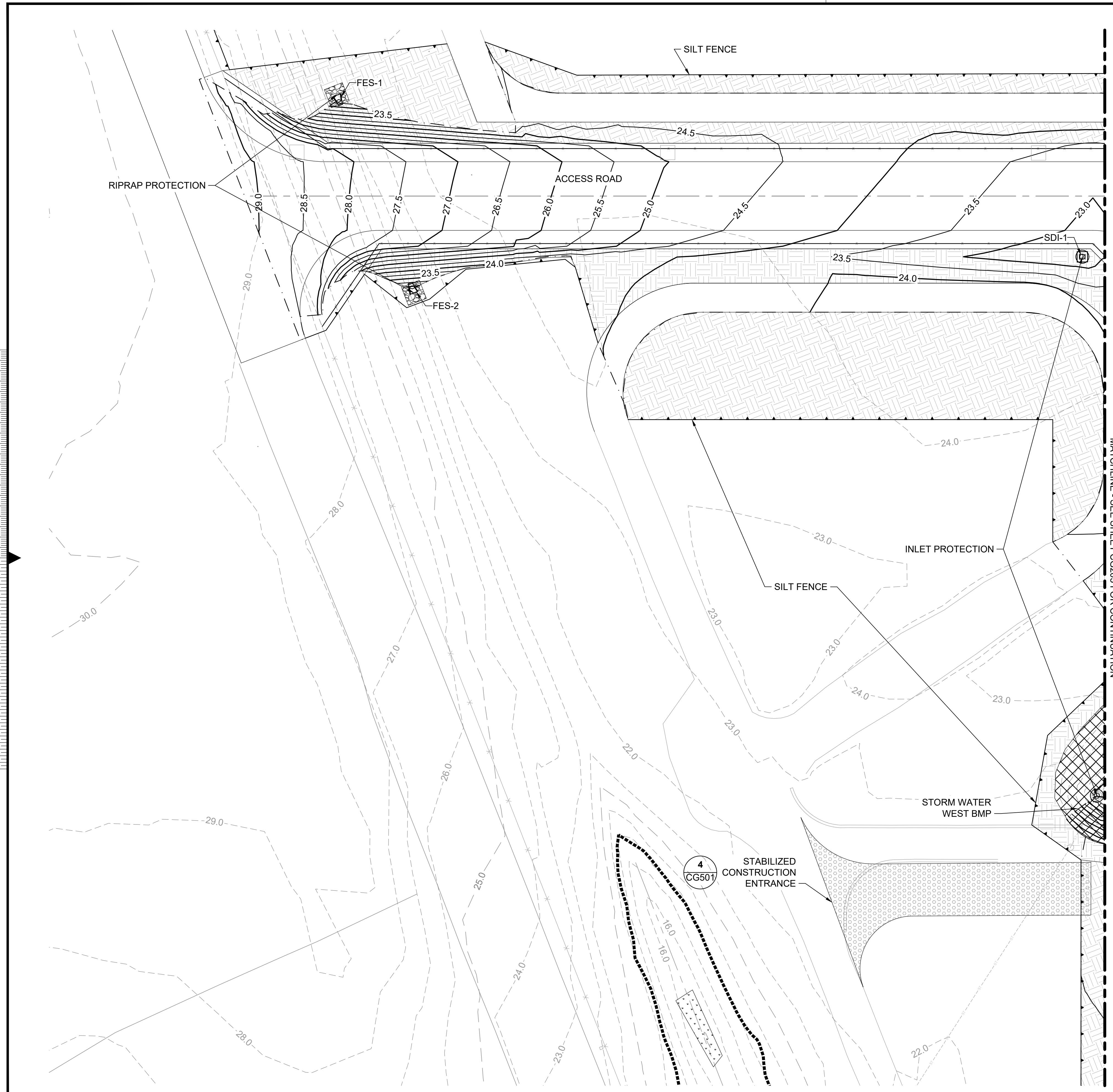
date	detailed
08/23/23	G. PAMBUENA
designed	checked
M. GREUFE	S. WAGNER

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 5000 NE MARINE DR.
 PORTLAND, OREGON 97218

PDX FACILITY IMPROVEMENTS	
OVERALL EROSION CONTROL PLAN	
project	contract
153929	
drawing	rev.
CG201	A
file 153929CG200.DWG	

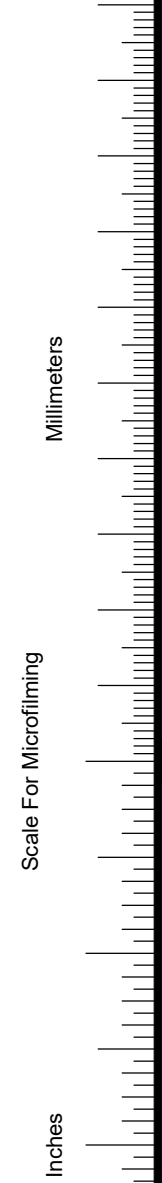
- LEGEND:**
- 22.0 — PROPOSED MAJOR CONTOUR
 - 22.5 — PROPOSED MINOR CONTOUR
 - - - 22.5 - - - EXISTING MAJOR CONTOUR
 - - - 22.5 - - - EXISTING MINOR CONTOUR
 - — — FLOW LINE
 - - - - - LIMITS OF GRADING
 - [Pattern] SEEDING
 - [Pattern] EROSION CONTROL BLANKET SEE NOTE 3
 - [Pattern] RIPRAP PROTECTION 1 CU506
 - [Pattern] WETLANDS
 - [Pattern] FLOODPLAIN



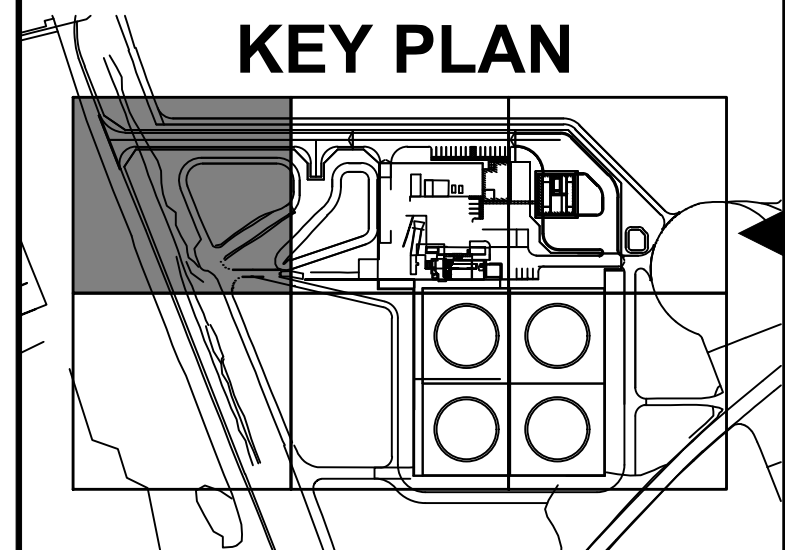


NOTE:
1. SEE SHEET CG210 AND CG211 FOR EROSION AND SEDIMENT CONTROL NOTES.

- LEGEND:**
- 22.0 — PROPOSED MAJOR CONTOUR
 - 22.5 — PROPOSED MINOR CONTOUR
 - - - 22.5 - - - EXISTING MAJOR CONTOUR
 - - - 22.5 - - - EXISTING MINOR CONTOUR
 - — — FLOW LINE
 - - - - - LIMITS OF GRADING
 - ▲— SILT FENCE (1 CG501)
 - ⊙ INLET PROTECTION (2 CG501)
 - [Hatched Box] SEEDING
 - [Cross-hatched Box] EROSION CONTROL BLANKET SEE NOTE 3 ON CG201
 - [Stippled Box] RIPRAP PROTECTION (1 CU506)
 - ⋈ POST INDICATOR VALVE
 - ⋈ ECCENTRIC PLUG VALVE
 - ⋈ FDC (SEE FIRE PROTECTION DRAWINGS)
 - ⋈ FIRE HYDRANT
 - ⊙ CLEANOUT
 - ⊙ STORM DRAINAGE INLET
 - ⊙ CONTAINMENT DRAINAGE INLET (SEE STRUCTURAL DRAWINGS)
 - ▽ FLARED END SECTION
 - ⊙ OIL STOP VALVE INLET
 - ⊙ CONTAINMENT DRAINAGE BASIN
 - ⊙ DROP IN GRATE
 - [Dotted Box] WETLANDS
 - - - - - FLOODPLAIN



no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT



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Burns & McDonnell Engineering Co., Inc.

date	detailed
08/23/23	G. PAMBUENA
designed	checked
M. GREUFE	S. WAGNER

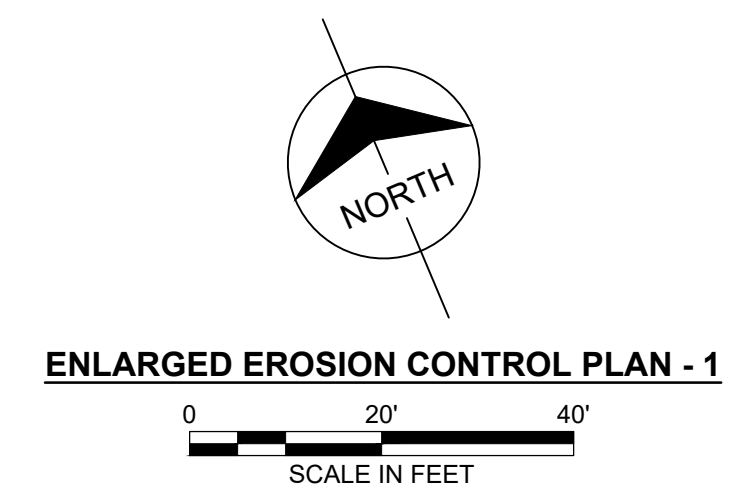
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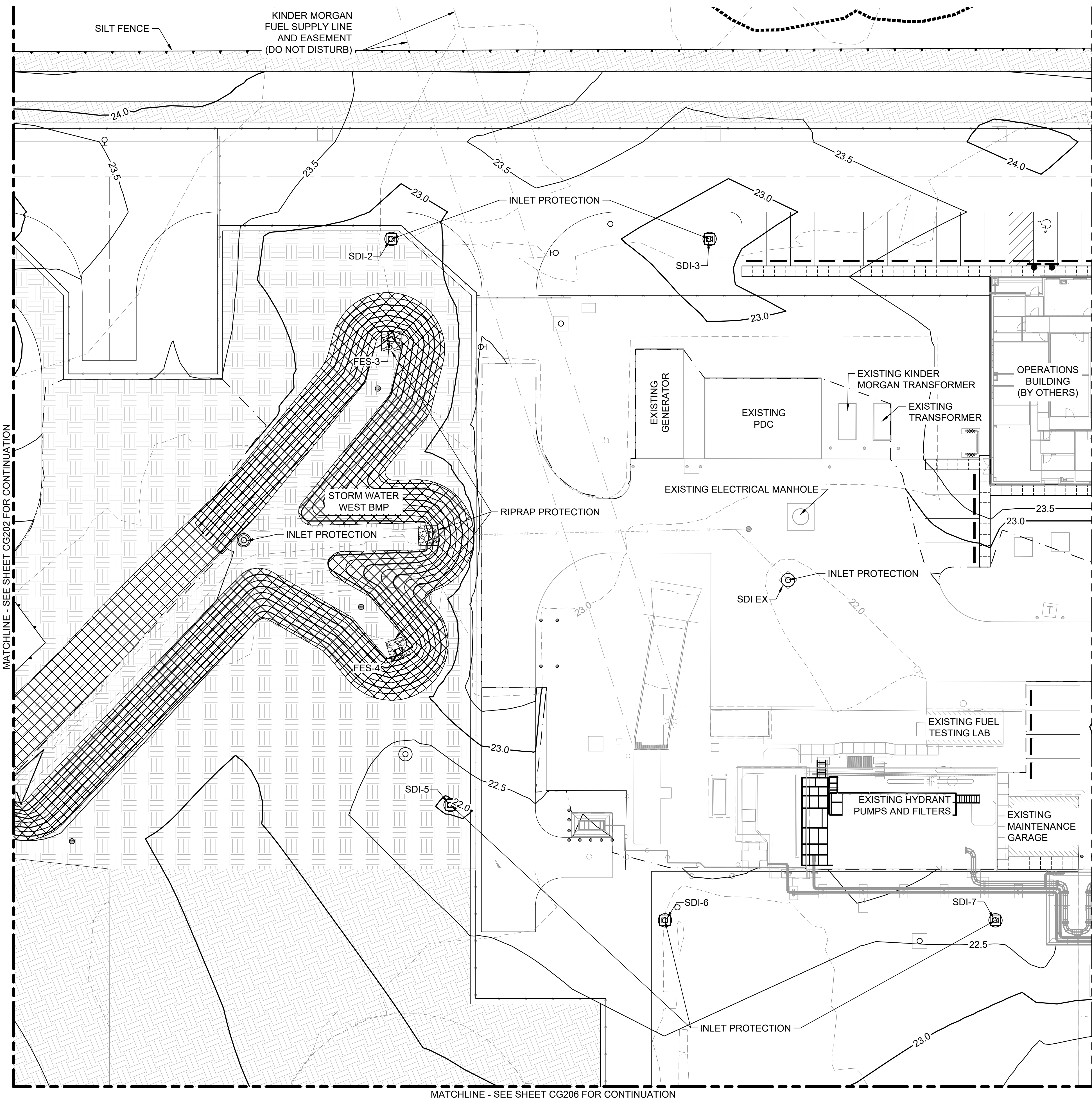
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PDX FACILITY IMPROVEMENTS
ENLARGED EROSION CONTROL PLAN - 1

project	contract
153929	
drawing	rev.
CG202	----

file 153929CG200.DWG





NOTE:
1. SEE SHEET CG210 AND CG211 FOR EROSION AND SEDIMENT CONTROL NOTES.

- LEGEND:**
- 22.0 — PROPOSED MAJOR CONTOUR
 - 22.5 — PROPOSED MINOR CONTOUR
 - - - 22.5 - - - EXISTING MAJOR CONTOUR
 - - - 22.5 - - - EXISTING MINOR CONTOUR
 - — — FLOW LINE
 - - - - - LIMITS OF GRADING
 - — — SILT FENCE (1 CG501)
 - ⊙ INLET PROTECTION (2 CG501)
 - [Hatched Box] SEEDING
 - [Cross-hatched Box] EROSION CONTROL BLANKET SEE NOTE 3 ON CG201
 - [Stippled Box] RIPRAP PROTECTION (1 CU506)
 - ⊙ POST INDICATOR VALVE
 - ⊙ ECCENTRIC PLUG VALVE
 - ⊙ FDC (SEE FIRE PROTECTION DRAWINGS)
 - ⊙ FIRE HYDRANT
 - ⊙ CLEANOUT
 - ⊙ DI STORM DRAINAGE INLET
 - ⊙ CI CONTAINMENT DRAINAGE INLET (SEE STRUCTURAL DRAWINGS)
 - ▽ FLARED END SECTION
 - ⊙ OIL STOP VALVE INLET
 - ⊙ CONTAINMENT DRAINAGE BASIN
 - ⊙ DROP IN GRATE
 - [Dotted Box] WETLANDS
 - - - FLOODPLAIN

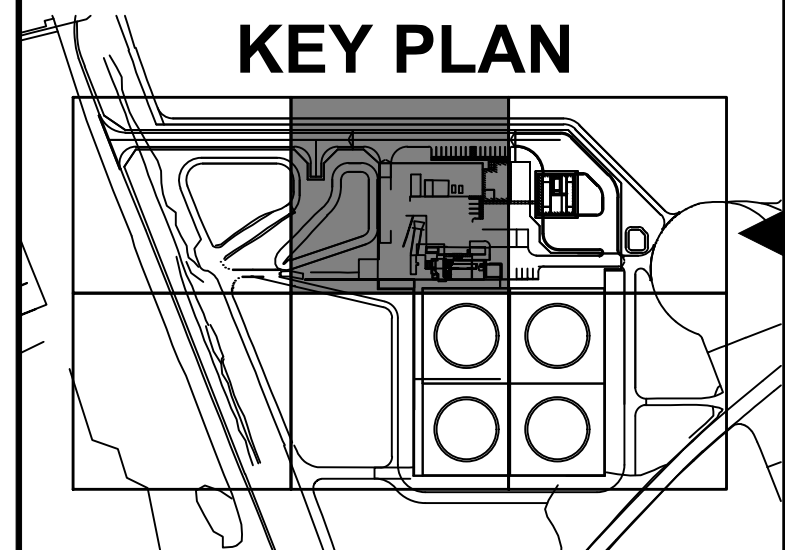
Millimeters
Scale For Microfining
Inches

MATCHLINE - SEE SHEET CG202 FOR CONTINUATION

MATCHLINE - SEE SHEET CG204 FOR CONTINUATION

MATCHLINE - SEE SHEET CG206 FOR CONTINUATION

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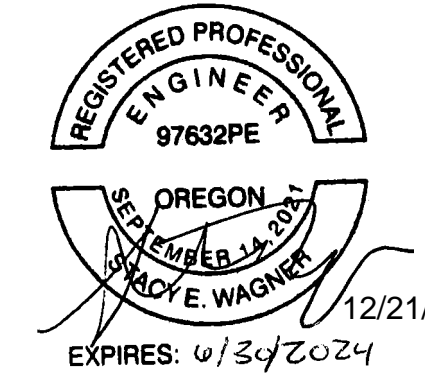
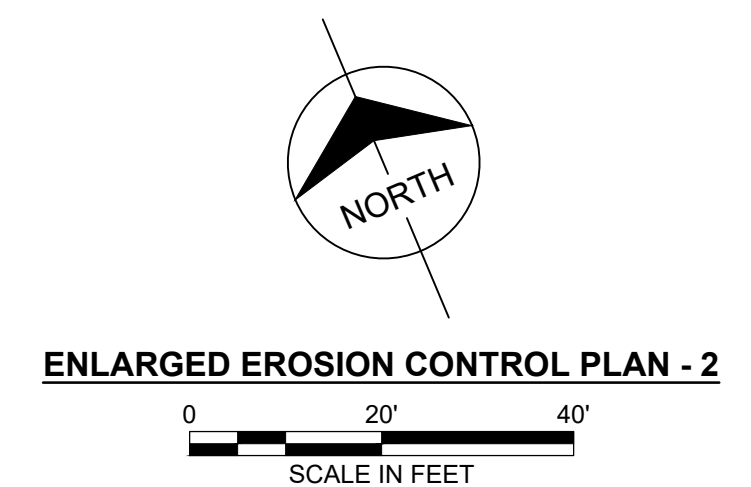
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PDX FACILITY IMPROVEMENTS
ENLARGED EROSION CONTROL PLAN - 2

project	153929	contract	
drawing	CG203	rev.	A

file 153929CG200.DWG

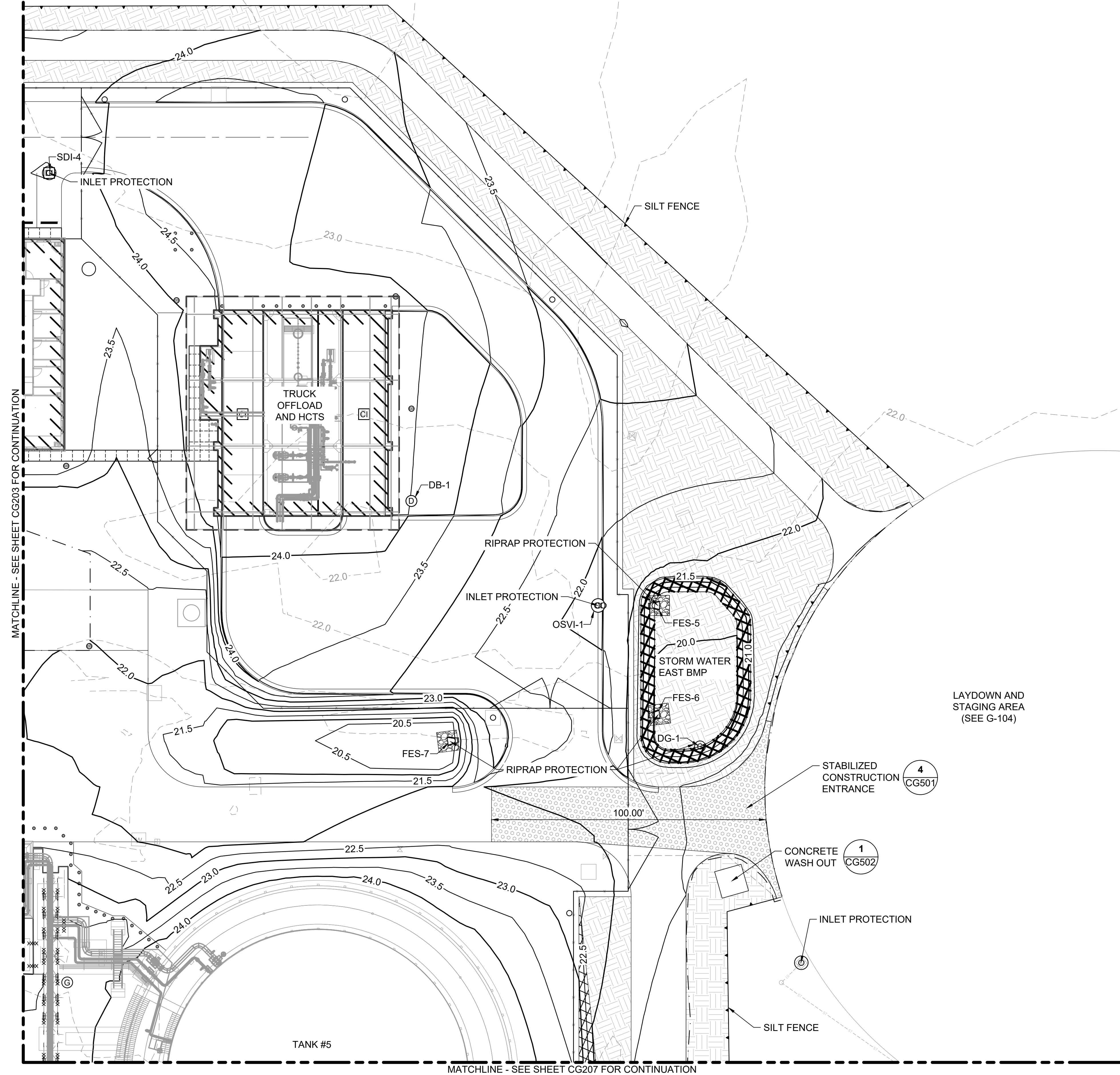


NOTE:
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 - — — SILT FENCE (1 CG501)
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 - [Hatched Box] SEEDING
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 - ⊙ FIRE HYDRANT
 - ⊙ CLEANOUT
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 - ⊙ CONTAINMENT DRAINAGE INLET (SEE STRUCTURAL DRAWINGS)
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 - ⊙ OIL STOP VALVE INLET
 - ⊙ CONTAINMENT DRAINAGE BASIN
 - ⊙ DROP IN GRATE
 - [Dotted Box] WETLANDS
 - - - FLOODPLAIN

Millimeters
Scale For Microfining
Inches

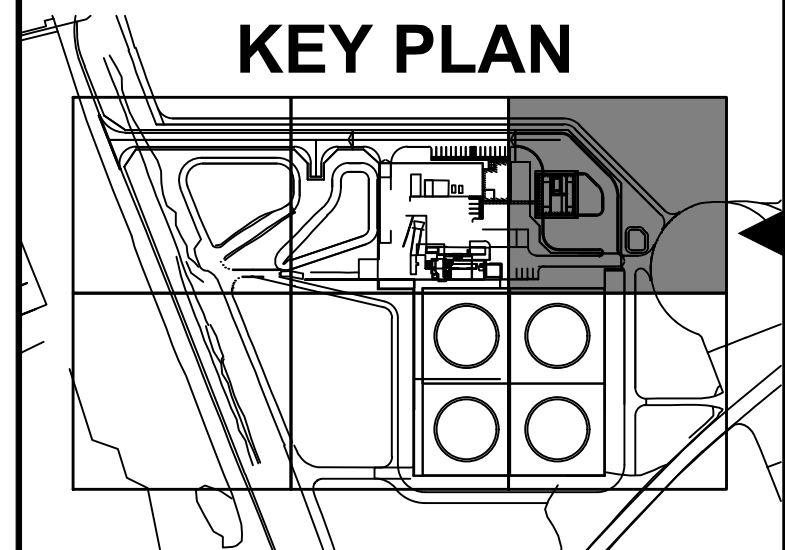
MATCHLINE - SEE SHEET CG203 FOR CONTINUATION



LAYDOWN AND STAGING AREA (SEE G-104)

MATCHLINE - SEE SHEET CG207 FOR CONTINUATION

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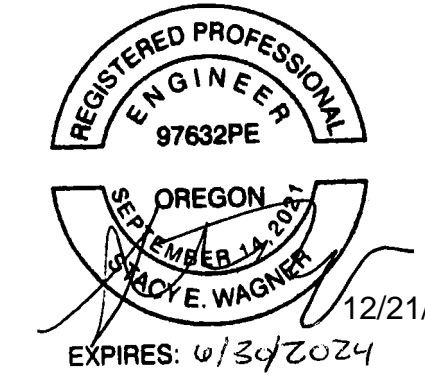
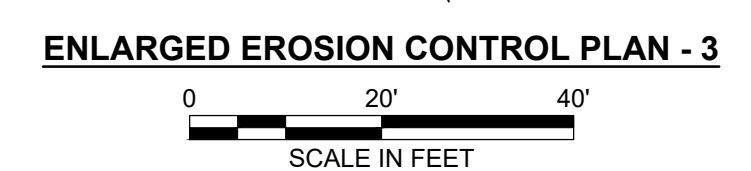
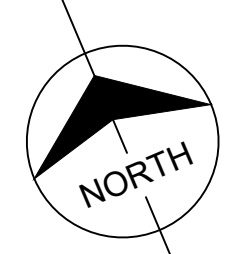
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PDX FACILITY IMPROVEMENTS
ENLARGED EROSION CONTROL PLAN - 3

project	contract
153929	

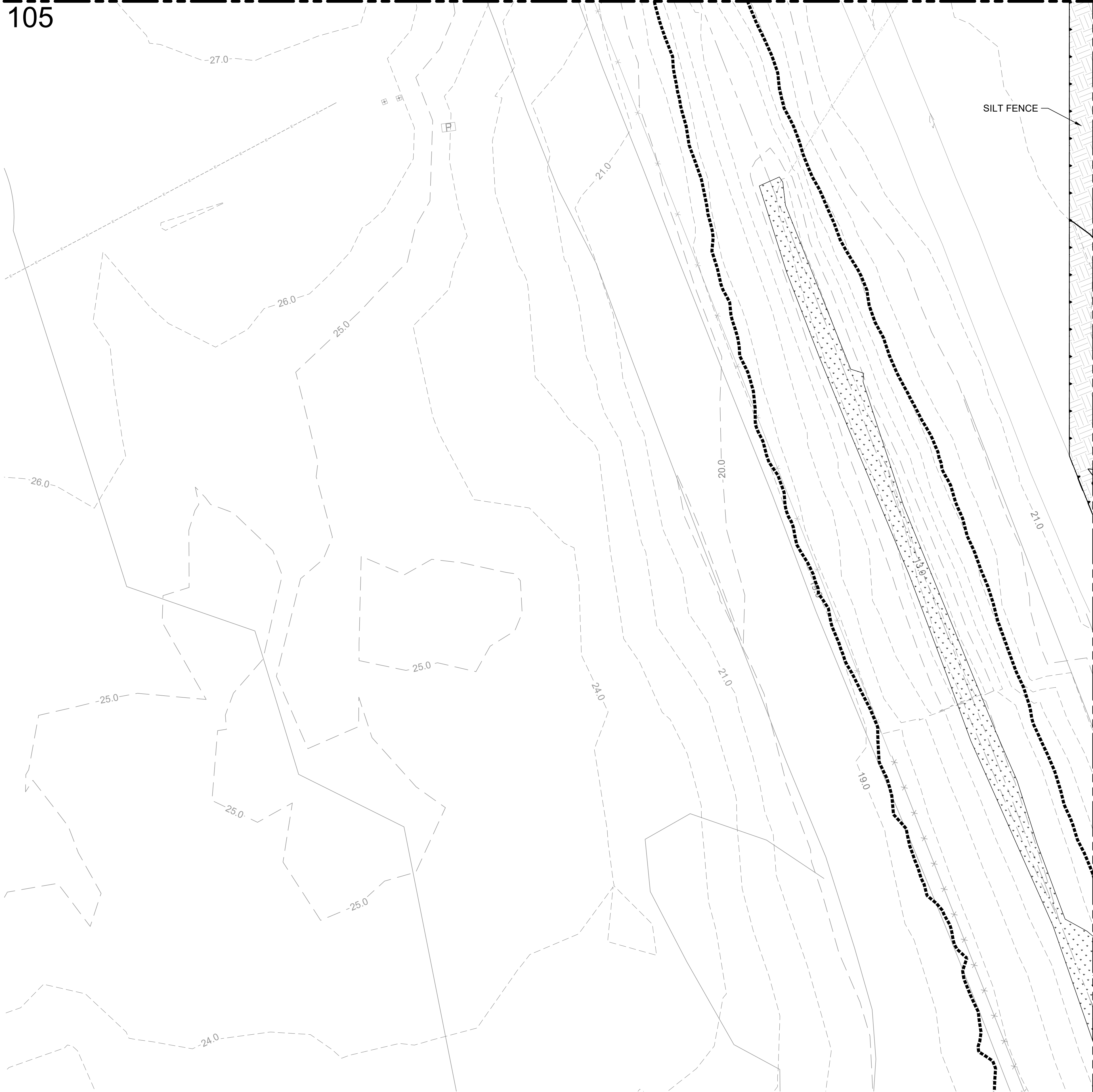
drawing **CG204** rev. **A**

file 153929CG200.DWG



105

MATCHLINE - SEE SHEET CG202 FOR CONTINUATION

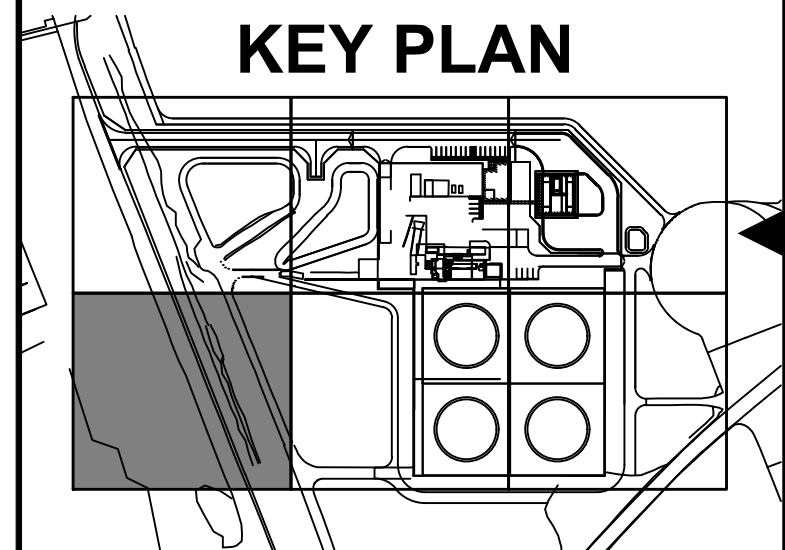


NOTE:
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MATCHLINE - SEE SHEET CG206 FOR CONTINUATION

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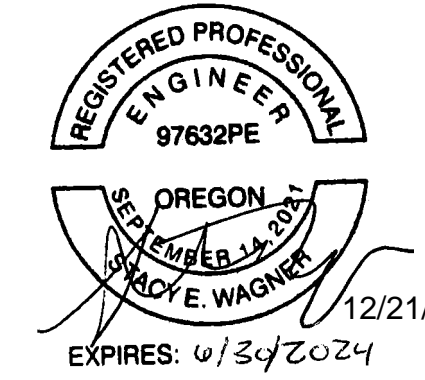
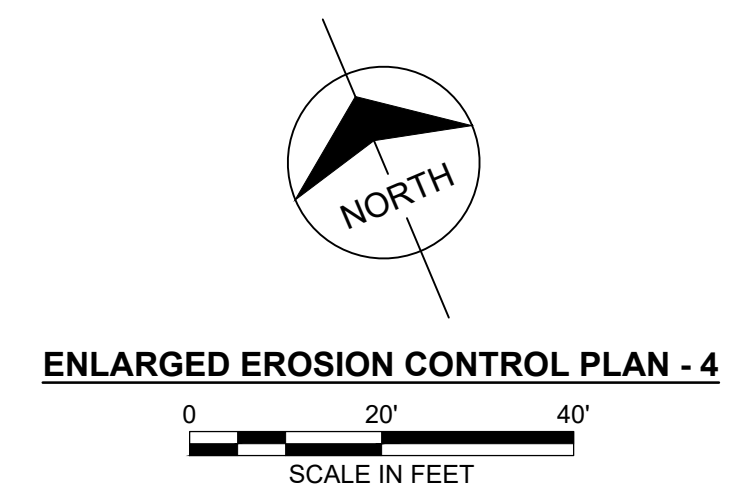
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PDX FACILITY IMPROVEMENTS
ENLARGED EROSION CONTROL PLAN - 4

project	153929	contract	
drawing	CG205	rev.	A

file 153929CG200.DWG

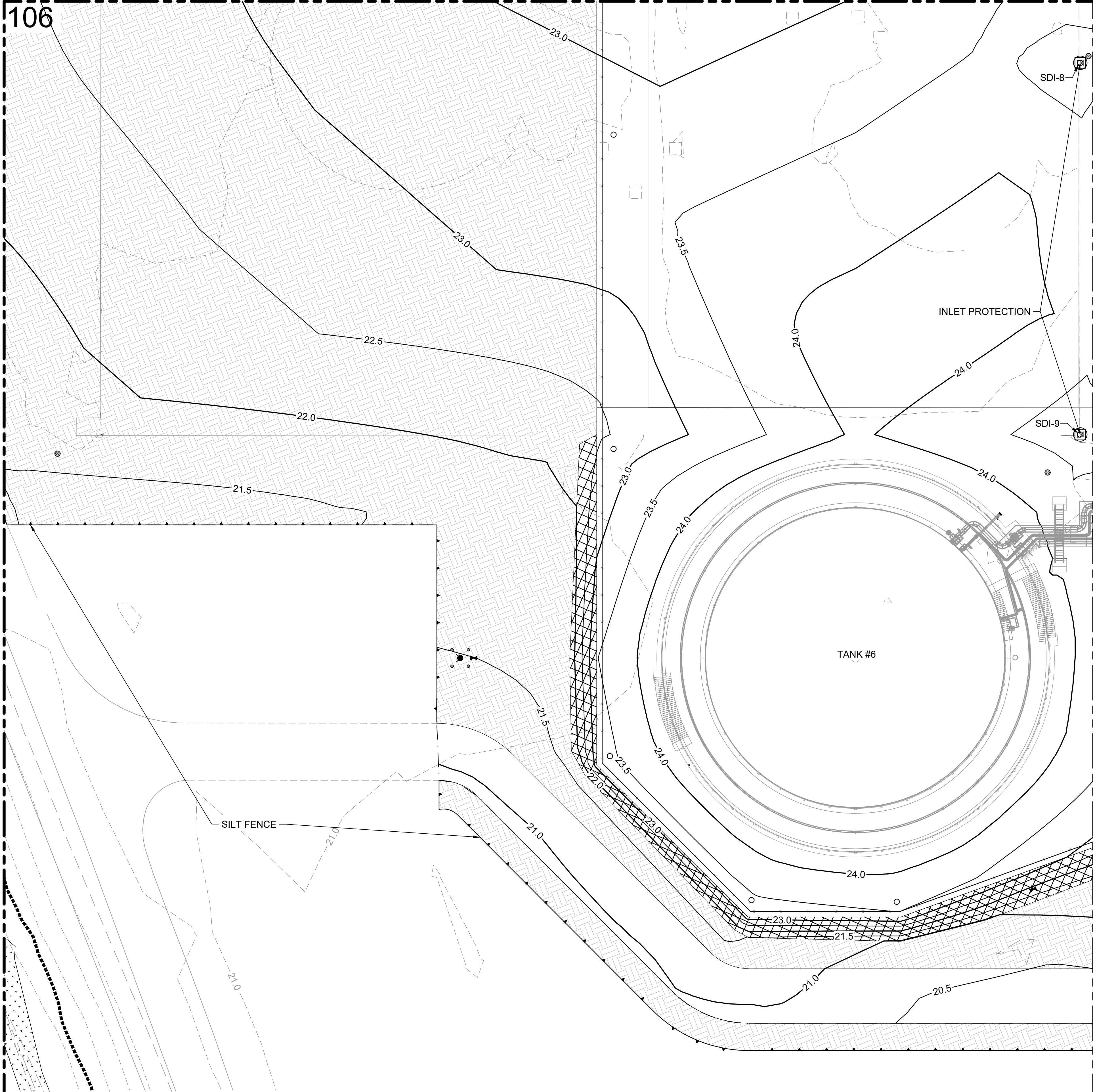


MATCHLINE - SEE SHEET CG203 FOR CONTINUATION

106

MATCHLINE - SEE SHEET CG205 FOR CONTINUATION

MATCHLINE - SEE SHEET CG207 FOR CONTINUATION

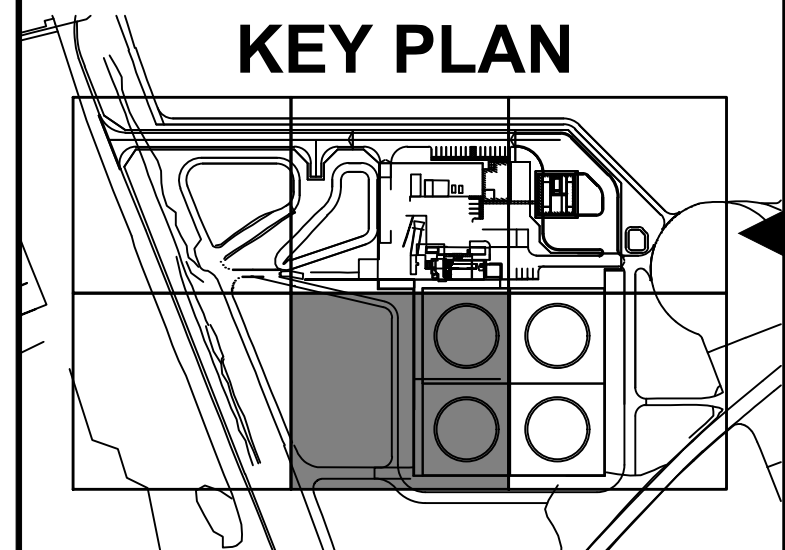


NOTE:
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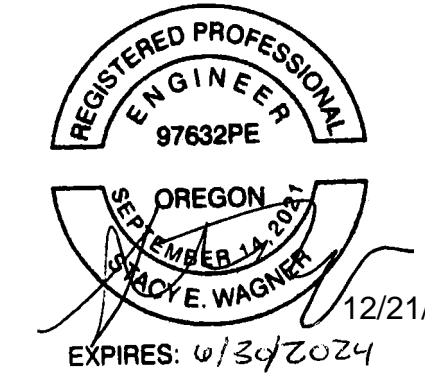
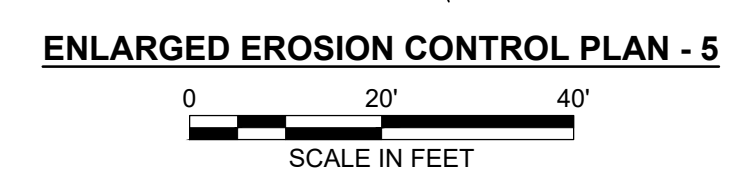
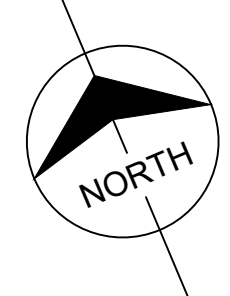
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PDX FACILITY IMPROVEMENTS
ENLARGED EROSION CONTROL PLAN - 5

project	153929	contract	
drawing	CG206	rev.	A

file 153929CG200.DWG



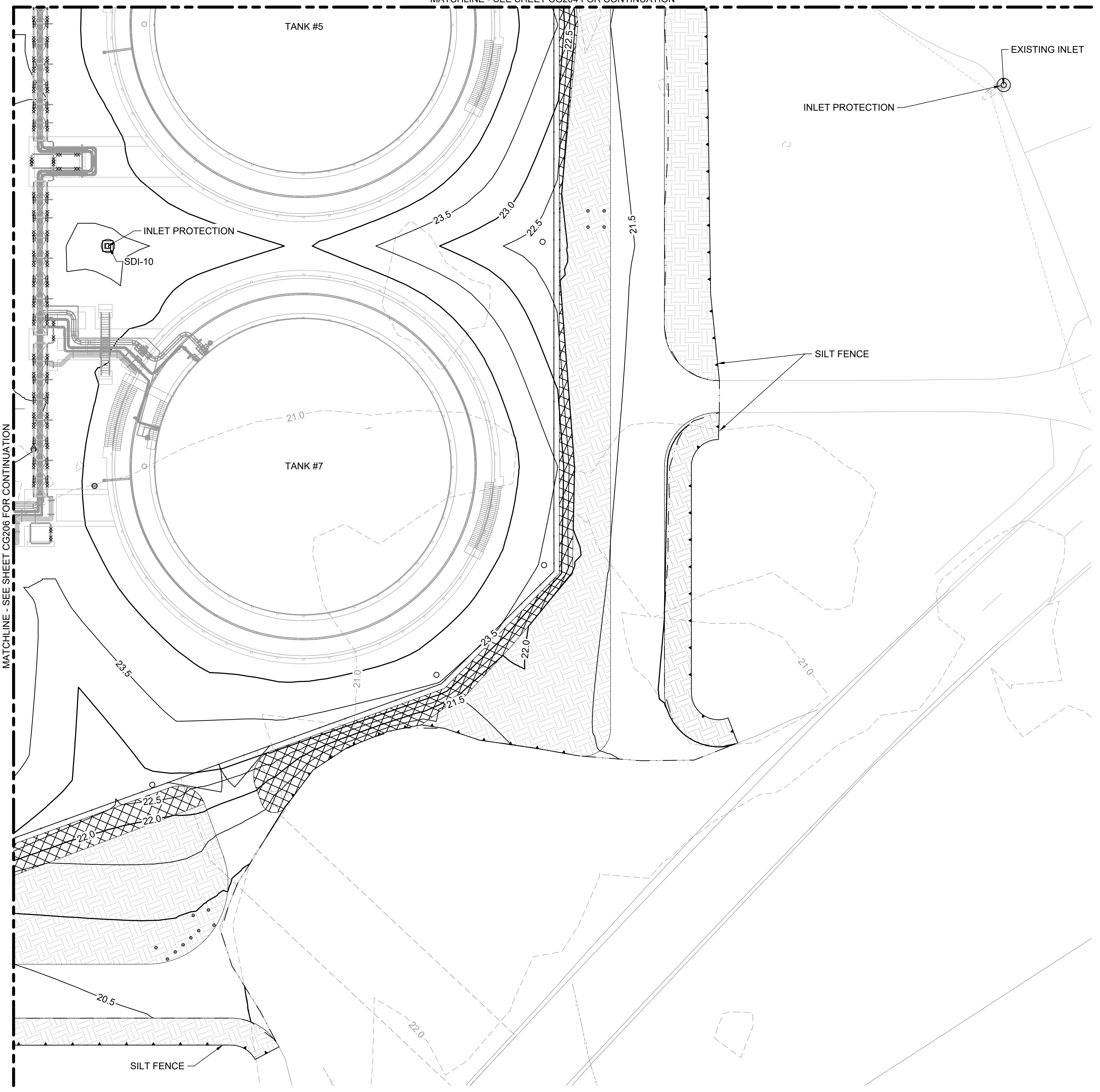
MATCHLINE - SEE SHEET CG204 FOR CONTINUATION

NOTE:
1. SEE SHEET CG210 AND CG211 FOR EROSION AND SEDIMENT CONTROL NOTES.

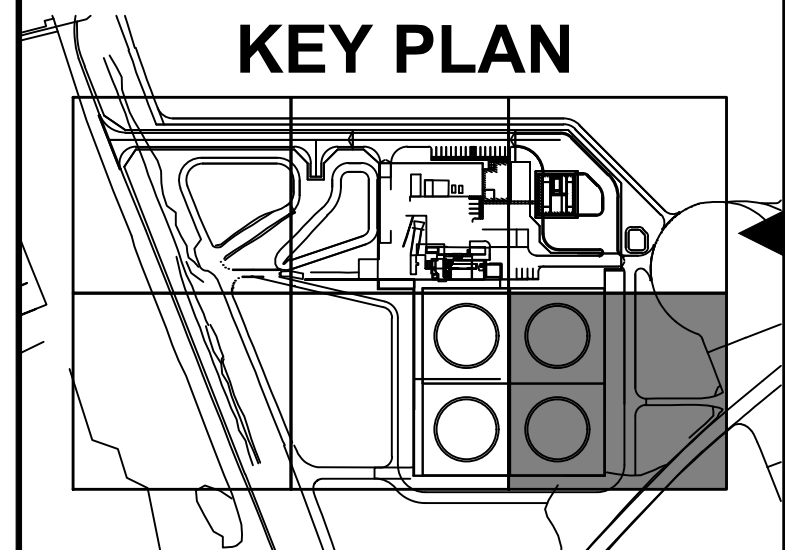
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 - [Dotted Box] WETLANDS
 - - - FLOODPLAIN

Millimeters
Scale For Microfining
Inches

MATCHLINE - SEE SHEET CG206 FOR CONTINUATION



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date	08/23/23	detailed	G. PAMBUENA
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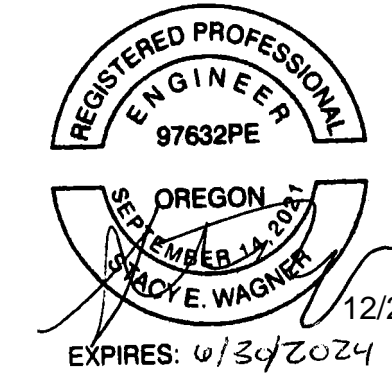
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PDX FACILITY IMPROVEMENTS
ENLARGED EROSION CONTROL PLAN - 6

project	153929	contract	
drawing	CG207	rev.	A

file 153929CG200.DWG

ENLARGED EROSION CONTROL PLAN - 6
SCALE IN FEET



CIVIL GRADING AND EROSION CONTROL NOTES:

1. 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)
2. VISUAL MONITORING INSPECTION REPORTS MUST BE MADE IN ACCORDANCE WITH DEQ 1200-C PERMIT REQUIREMENTS. (SECTION 6.5)
3. INSPECTION LOGS MUST BE KEPT IN ACCORDANCE WITH DEQ'S 1200-C PERMIT REQUIREMENTS. (SECTION 6.5.Q)
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 RESTRAINTS MUST IMPLEMENT THE ESCP. FAILURE TO IMPLEMENT ANY OF THE CONTROL MEASURES OR PRACTICES DESCRIBED IN THE ESCP IS A VIOLATION OF THE PERMIT. (SECTION 4 AND 4.11)
6. THE ESCP MUST BE ACCURATE AND REFLECT SITE CONDITIONS. (SECTION 4.8)
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 CONTROLS AND PONDING. (SECTION 2.2.3)
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 STABILIZATION 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 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 PAVED) EXITS AND PARKING AREAS, GRAVEL ALL UNPAVED ROADS LOCATED ONSITE, OR USE AN EXIT TIRE WASH. THESE BMPS MUST BE IN PLACE PRIOR TO LAND- DISTURBING ACTIVITIES. (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/IMPONDMENT MUST BE INSTALLED. (SEE SECTIONS 2.2.17 AND 2.2.18)
28. PROVIDE A DEWATERING PLAN FOR ACCUMULATED WATER FROM PRECIPITATION AND UNCONTAMINATED GROUNDWATER SEEPAGE DUE TO SHALLOW EXCAVATION ACTIVITIES. (SEE SECTION 2.4)
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 2.1.5.D)
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 REQUIRED 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)

Millimeters

Scale For Microfining

Inches

no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT

ISSUED FOR PERMIT ONLY

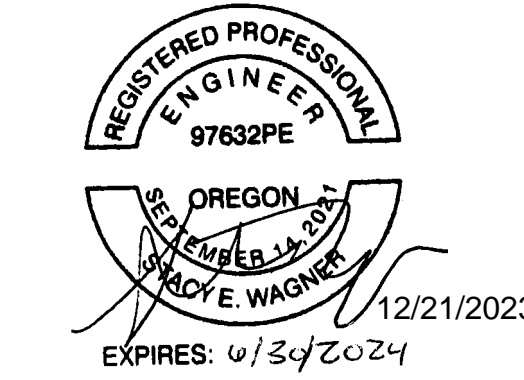
BURNS MEDONNELL
 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 Burns & McDonnell Engineering Co, Inc.

date	08/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

PDX FUEL COMPANY L.L.C

 PORTLAND INTERNATIONAL AIRPORT
 5000 NE MARINE DR.
 PORTLAND, OREGON 97218

PDX FACILITY IMPROVEMENTS	
EROSION AND SEDIMENT CONTROL NOTES - 1	
project	contract
153929	
drawing	rev.
CG210	A
file 153929CG001.DWG	



ESCP NARRATIVE

PERMIT REGISTRATION INFORMATION

PROJECT NAME: PDX FACILITY IMPROVEMENTS
ESCP PREPARED BY: JEREMY JEWELL
COMPANY NAME: BURNS & MCDONNELL
EMAIL ADDRESS: JJEWEL@BURNSMCD.COM

OREGON PROFESSIONAL CERTIFICATION INFORMATION

IS YOUR ESCP FOR AN ACTIVITY THAT COVERS 20 ACRES OR MORE OF DISTURBED LAND? NO

DOES YOUR ESCP REQUIRE ENGINEERED FACILITIES SUCH AS SETTLING BASINS AND/OR DIVERSION STRUCTURES? NO

ENGINEER NAME: STACY WAGNER, P.E.
ADDRESS: 9400 WARD PARKWAY, KANSAS CITY, MO 64114
TELEPHONE: (816) 652-2566

VISUAL INSPECTOR QUALIFICATION INFORMATION

NAME: TBD
TELEPHONE: TBD
ADDRESS: TBD
EMAIL: TBD
CERTIFICATE PROGRAM AND NUMBER: TBD
EXPIRATION DATE: TBD
TRAINING DOCUMENTATION WILL BE MAINTAINED ON-SITE

ENVIRONMENTAL MANAGEMENT PLAN

WILL CONTAMINATED SOILS, CONTAMINATED GROUNDWATER, OR HAZARDOUS MATERIALS BE OR HAVE THE POTENTIAL TO BE ENCOUNTERED DURING CONSTRUCTION ACTIVITIES? NO

IS AN ACTIVE TREATMENT SYSTEM FOR SEDIMENT, PH NEUTRALIZATION, OR OTHER POLLUTANT REMOVAL PLANNED OR TO BE IMPLEMENTED AT THE PROJECT SITE? NO

NARRATIVE SITE DESCRIPTION

THE PURPOSE OF THIS PROJECT IS TO IMPROVE THE EXISTING FUEL STORAGE FACILITY LOCATED AT THE PORTLAND INTERNATIONAL AIRPORT. THE FOLLOWING CONSTRUCTION ACTIVITIES WILL BE CONDUCTED: (1) EXPANDING/IMPROVING ACCESS DRIVEWAYS; (2) REMOVAL AND REPLACEMENT/RELOCATION OF FUEL STORAGE FACILITIES; (3) CONSTRUCTION OF AN OPERATIONS BUILDING AND TRUCK OFFLOAD AND HYDRANT CART TEST STAND; (4) REPLACEMENT/REROUTING/INSTALLATION OF WATER, FIREWATER, ELECTRICAL, COMMUNICATIONS, JET FUEL, STORM, AND SANITARY UTILITIES.

303(D) AND TMDL LISTED WATERBODIES INFORMATION

THE COLUMBIA RIVER IS LOCATED APPROXIMATELY 1/4 MILE TO THE NORTH OF THE PROJECT SITE. THE COLUMBIA RIVER FROM SANDY RIVER TO WILLAMETTE RIVER IS LISTED UNDER 303(D) CATEGORY 5 FOR DDE, 4,4', PCBS, PAHS, AND TEMPERATURE AND CATEGORY 4A FOR DIOXIN AND TOTAL DISSOLVED GAS. THE FOLLOWING ACTIVE TMDLS COVER THIS SECTION OF THE COLUMBIA RIVER: WILLAMETTE BASIN TMDL, COLUMBIA RIVER - DIOXIN, AND COLUMBIA RIVER (LOWER). HOWEVER, THE TOPOGRAPHY OF THE SITE PREVENTS ANY DIRECT DISCHARGE INTO THE RIVER. ALL RUNOFF WILL FLOW THROUGH THE TWO BMPS PRESENTED ON THE ESCP DRAWINGS WHICH WILL BE OUTFITTED WITH INLET PROTECTION AS NOTED ON THE DRAWINGS.

THERE WILL BE NO OFFSITE CONSTRUCTION SUPPORT ACTIVITY AREAS. LAYDOWN AREAS ADJACENT TO SITE WILL BE UTILIZED AS DEPICTED ON SHEET G-103. EROSION AND SEDIMENT CONTROL INFORMATION IS DEPICTED ON SHEET CG201 AND CG207.

CONSTRUCTION SCHEDULE:

INSTALL EROSION CONTROLS: JUNE 2024
SITE DEMOLITION AND PREPARATION: JULY 2024
SITE GRADING, SWALES, PONDS AND STORM SEWER: JULY - SEPTEMBER 2024
OPERATIONS BUILDING - AUGUST 2024 - MARCH 2025
OFFLOAD AND HCTS - AUGUST 2024 - APRIL 2025
TANKS AUGUST 2024 - MARCH 2027
STRUCTURAL, MECHANICAL, AND ELECTRICAL: AUGUST 2024 - JANUARY 2027
FINE GRADING AND INSTALLATION OF SURFACING: MAY 2025 FOR OPS AND HCTS, FEBRUARY 2027 FOR TANKS, AND JUNE 2027 AND FOR EXISTING TANK DEMO
PERMANENT SEEDING JUNE 2025 FOR OPS AND HCTS, MARCH 2027 FOR TANKS, AND JUNE 2027 EXISTING TANK DEMO
FOR EX TANKS FINAL STABILIZATION AND REMOVAL OF BMPS: JULY 2027

FILL MATERIAL

SOILS AT THE SITE CONSIST OF PILCHUCK-URBAN LAND COMPLEX AT 0-3% SLOPES. THE MATERIAL IS PRIMARILY SANDY ALLUVIUM AND IS CHARACTERIZED BY HIGH HYDRAULIC CONDUCTIVITIES. SUBSURFACE INVESTIGATIONS AT THE SITE INDICATED THE SITE IS COMPOSED OF THREE MATERIAL TYPES: (1) SANDY FILL, COLUMBIA RIVER OVERBANK DEPOSITS, AND COLUMBIA RIVER SAND AQUIFER. FILL MATERIAL USED DURING CONSTRUCTION WILL BE EXTRACTED ON-SITE.

SEED MIX AND STABILIZATION MEASURES:

SEE SHEET CG201 FOR SEED MIX. ALL DISTURBED AREAS THAT ARE NOT INSTALLED WITH INFRASTRUCTURE OR PAVED WITH AGGREGATE MATERIALS WILL BE REVEGETATED.

NATURAL BUFFER ZONE:

THIS PROJECT IS NOT WITHIN 50 FEET OF WATERS OF THE STATE. NO NATURAL BUFFER IS PRESENT.

ENGINEERED SOILS:

ARE ENGINEERED SOILS TO BE USED ON SITE? NO

POLLUTANT GENERATING ACTIVITIES ON SITE

POTENTIAL POLLUTANT SOURCES INCLUDE THE FOLLOWING. LOCATIONS OF PORTABLE TOILETS AND TRASH ARE UNKNOWN BUT WILL BE MARKED AS CONSTRUCTION COMMENCES. SEDIMENT/DUST, CONCRETE, VEHICLE FUEL AND MAINTENANCE OILS, AND SANITARY WASTES ARE THE EXPECTED POLLUTANTS DURING CONSTRUCTION.
-DISTURBED AND STORED SOILS
-VEHICLE TRACKING
-LOADING AND UNLOADING OPERATIONS
-VEHICLE AND EQUIPMENT MAINTENANCE AND FUELING
-DUST GENERATION
-CONCRETE TRUCK/EQUIPMENT WASHING
-PORTABLE TOILETS AND TRASH

SPILL PREVENTION PROCEDURES

MATERIAL MANAGEMENT PRACTICES:

HAZARDOUS MATERIALS, CHEMICALS, FUELS, AND OILS SHOULD NOT BE STORED WITHIN 100 FEET OF A STREAM BANK, WETLAND, WATER SUPPLY WELL, SPRING, OR OTHER WATERBODY.
FUELING OF CONSTRUCTION EQUIPMENT SHOULD NOT BE CONDUCTED WITHIN 100 FEET OF A STREAM BANK, WETLAND, WATER SUPPLY WELL, SPRING, OR OTHER WATERBODY.
THE MINIMUM AMOUNT OF HAZARDOUS OR TOXIC MATERIALS SHOULD BE STORED ONSITE.
ONSITE MATERIALS SHOULD BE STORED IN A NEAT, ORDERLY MANNER, IN APPROPRIATE CONTAINERS, AND UNDER A ROOF OR OTHER ENCLOSURE.
PRODUCTS SHOULD BE KEPT IN ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.
SUBSTANCES SHOULD NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
WHENEVER POSSIBLE, A CONTAINER'S ENTIRE CONTENTS SHOULD BE USED PRIOR TO CONTAINER DISPOSAL.
IF SURPLUS PRODUCT MUST BE DISPOSED OF, THEN THE MANUFACTURER'S OR STATE- AND LOCAL-RECOMMENDED METHODS FOR PROPER DISPOSAL SHOULD BE FOLLOWED.
REMOVAL OF ALL OPEN OR EXPIRED SURPLUS LIQUID MATERIALS (OPENED PAINT CAN, PARTIALLY USED CONTAINERS OF SOLVENT, EXPIRED EPOXY MATERIALS, ETC.) FROM THE PROJECT SITE IS THE RESPONSIBILITY OF THE CONTRACTOR OR SUBCONTRACTOR.

NON-PETROLEUM PRODUCTS

DUE TO THE CHEMICAL MAKEUP OF SPECIFIC PRODUCTS, CERTAIN HANDLING AND STORAGE PROCEDURES ARE REQUIRED TO PROMOTE THE SAFETY OF HANDLERS AND LIMIT THE POSSIBILITY OF POLLUTION. CARE SHOULD BE TAKEN TO FOLLOW DIRECTIONS AND WARNINGS FOR PRODUCTS USED ON THE PROJECT SITE. PERTINENT INFORMATION CAN BE FOUND ON THE SDS FOR EACH PRODUCT. THE SDS FOR EACH PRODUCT USED ONSITE MUST BE KEPT AT THE PROJECT SITE.

PETROLEUM PRODUCTS

ONSITE VEHICLES SHOULD BE MONITORED FOR LEAKS AND RECEIVE REGULAR MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS MUST BE STORED IN TIGHTLY SEALED, CLEARLY LABELED CONTAINERS. IF FEASIBLE, THE CONTAINERS SHOULD BE STORED IN A COVERED TRUCK OR TRAILER THAT PROVIDES SECONDARY CONTAINMENT.
BULK STORAGE TANKS WITH A CAPACITY GREATER THAN 55 GALLONS MUST HAVE SECONDARY CONTAINMENT. CONTAINMENT CAN BE PROVIDED BY TEMPORARY EARTHEN BERMS LINED WITH PLASTIC SHEETING OR OTHER MEANS APPROVED BY CHEROKEE. AFTER EACH RAINFALL EVENT, THE INSPECTOR MUST INSPECT THE CONTENTS OF THE SECONDARY CONTAINMENT AREA FOR EXCESS WATER. IF NO SHEEN IS VISIBLE, THEN THE COLLECTED WATER CAN BE PUMPED TO THE GROUND IN A MANNER THAT DOES NOT CAUSE SCOURING. IF SHEEN IS PRESENT, THEN THE WATER MUST BE TREATED PRIOR TO DISCHARGE OR MUST BE TRANSPORTED AND DISPOSED OF OFFSITE IN ACCORDANCE WITH

FEDERAL, STATE, AND LOCAL REQUIREMENTS.

BULK FUEL OR LUBRICATING OIL DISPENSERS SHOULD NOT HAVE A SELF-LOCKING MECHANISM THAT ALLOWS FOR UNSUPERVISED FUELING. FUELING OPERATIONS SHOULD BE OBSERVED TO DETECT AND CONTAIN SPILLS IMMEDIATELY.
NO WASTE OIL OR OTHER PETROLEUM-BASED PRODUCTS WILL BE DISPOSED OF ONSITE (E.G., BURIED OR POURED), BUT MUST BE TAKEN OFFSITE FOR PROPER DISPOSAL.

SPILL CONTROL AND CLEANUP

IN ADDITION TO THE MATERIAL MANAGEMENT PRACTICES DISCUSSED PREVIOUSLY, THE FOLLOWING SPILL CONTROL AND CLEANUP PRACTICES MUST BE USED TO LIMIT STORMWATER POLLUTION IN THE EVENT OF A SPILL:
THE CONTRACTOR AND SUBCONTRACTORS MUST MAKE ONSITE PERSONNEL AWARE OF CLEANUP PROCEDURES AND THE LOCATION OF SPILL EQUIPMENT.
SPILLS MUST BE CONTAINED AND CLEANED UP IMMEDIATELY AFTER DISCOVERY.
MANUFACTURER'S METHODS FOR SPILL CLEANUP OF A MATERIAL MUST BE FOLLOWED, AS DESCRIBED ON THE MATERIAL'S SDS.
MATERIALS AND EQUIPMENT NEEDED FOR CLEANUP PROCEDURES MUST BE KEPT READILY AVAILABLE ONSITE, EITHER AT AN EQUIPMENT STORAGE AREA OR ON CONTRACTORS' OR SUBCONTRACTORS' TRUCKS; EQUIPMENT TO BE KEPT ONSITE SHOULD INCLUDE, BUT NOT BE LIMITED TO, BROOMS, DUST PANS, SHOVELS, GRANULAR ABSORBENTS, SAND, SAW DUST, ABSORBENT PADS AND BOOMS, PLASTIC AND METAL TRASH CONTAINERS, GLOVES, AND GOGGLES.
TOXIC, HAZARDOUS, OR PETROLEUM PRODUCT SPILLS REQUIRED TO BE REPORTED BY REGULATION MUST BE DOCUMENTED TO THE APPROPRIATE FEDERAL, STATE, AND LOCAL AUTHORITIES.
SPILLS MUST BE DOCUMENTED, AND A RECORD OF SPILLS MUST BE KEPT WITH THIS ESCP.
REPORTING OF REPORTABLE SPILLS MUST BE DONE WITHIN 24 HOURS FROM THE TIME THE PERMITTEE BECOMES AWARE OF THE CIRCUMSTANCES.
IF A SPILL OCCURS ONSITE, THEN THE CONTRACTOR'S OR SUBCONTRACTOR'S SUPERINTENDENT MUST INITIATE SPILL RESPONSE, INCLUDING MEASURES TO LOCALIZE THE SPILL IMPACT VIA CONTAINMENT. THE CONTRACTOR'S EMERGENCY CONTACT, MUST BE NOTIFIED WITHIN 15 MINUTES OF DISCOVERING THE SPILL. EMERGENCY PERSONNEL WILL IMPLEMENT SPILL RESPONSE PROCEDURES TO DOCUMENT THE SPILL AND PROVIDE GUIDANCE AND SUPPORT NECESSARY TO REMEDIATE THE SPILL. THE CONTRACTOR WILL BE RESPONSIBLE FOR CONTACTING THE FOLLOWING AUTHORITIES AS NECESSARY:
FEDERAL NATIONAL RESPONSE CENTER: (800) 424-8802
STATE OREGON 24-HOUR SPILL REPORTING LINE: 1-800-452-0311

PLANNED BUSINESS DAYS: MONDAY-FRIDAY 7:00AM - 4:00PM



Table with columns for BMP Implementation Schedule, Year (2024, 2025, 2026, 2027), and Month (1-12). Rows include BMPs, Concrete Truck Washout, Construction Entrance, Storm Water Ponds / Swales, Permanent Seeding and Planting, Preserve Existing Vegetation, Silt Fencing, Storm Drain Inlet Protection, and Erosion Control Blankets.

Table with columns: no., date, by, ckd, description. Row 1: A, 12/21/23, MRG, SEW, ISSUED FOR PERMIT

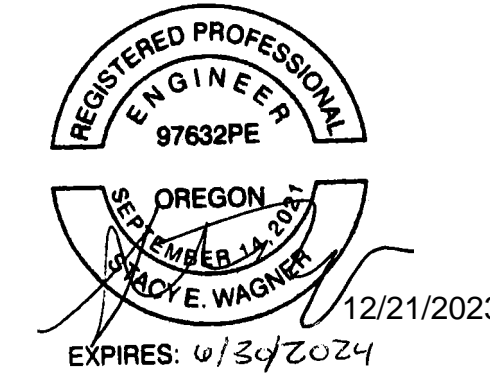
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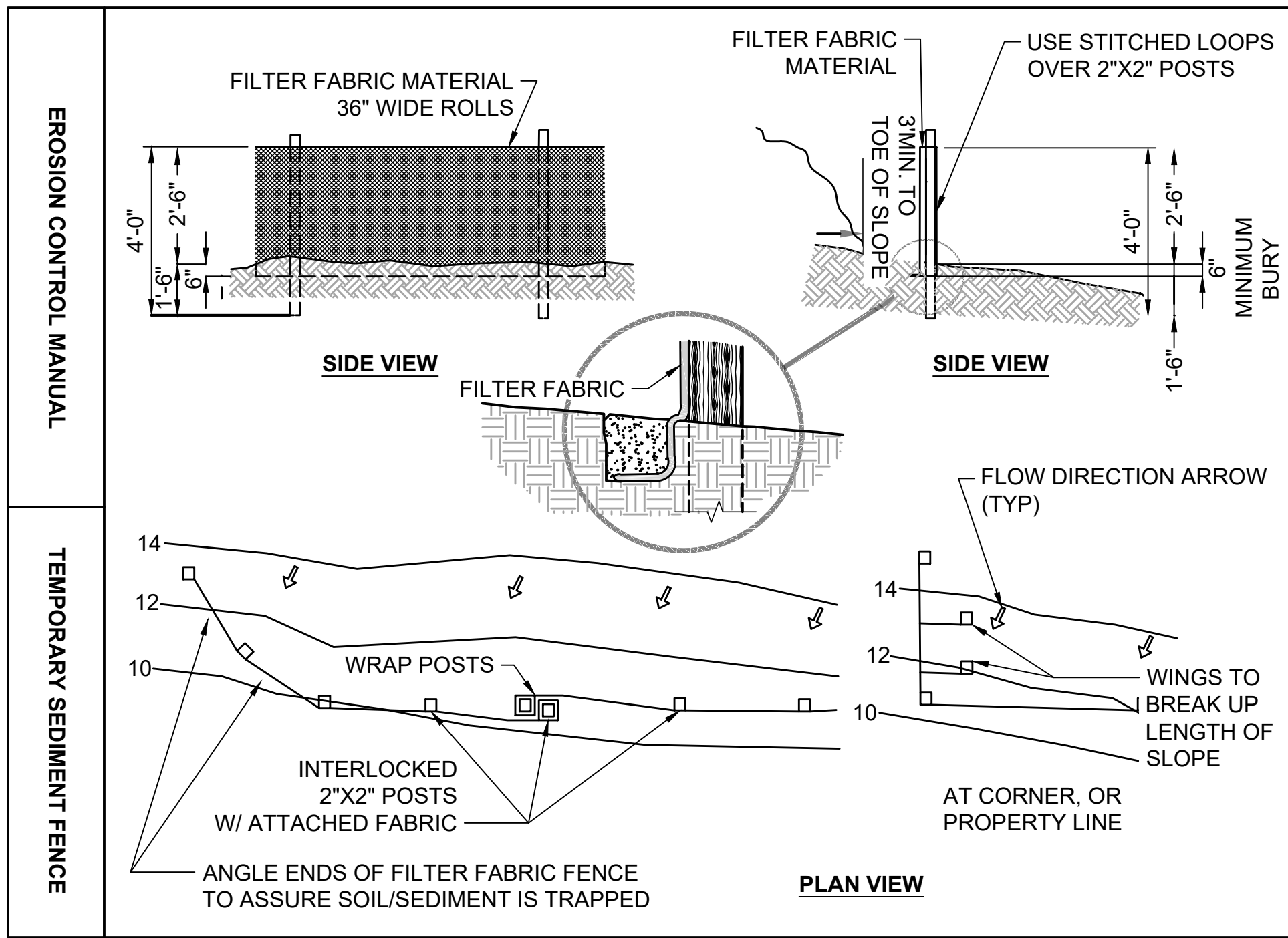


Table with columns: date, detailed, designed, checked. Date: 08/23/23, Detailed: G. PAMBUENA, Designed: M. GREUFE, Checked: S. WAGNER

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5000 NE MARINE DR.
PORTLAND, OREGON 97218

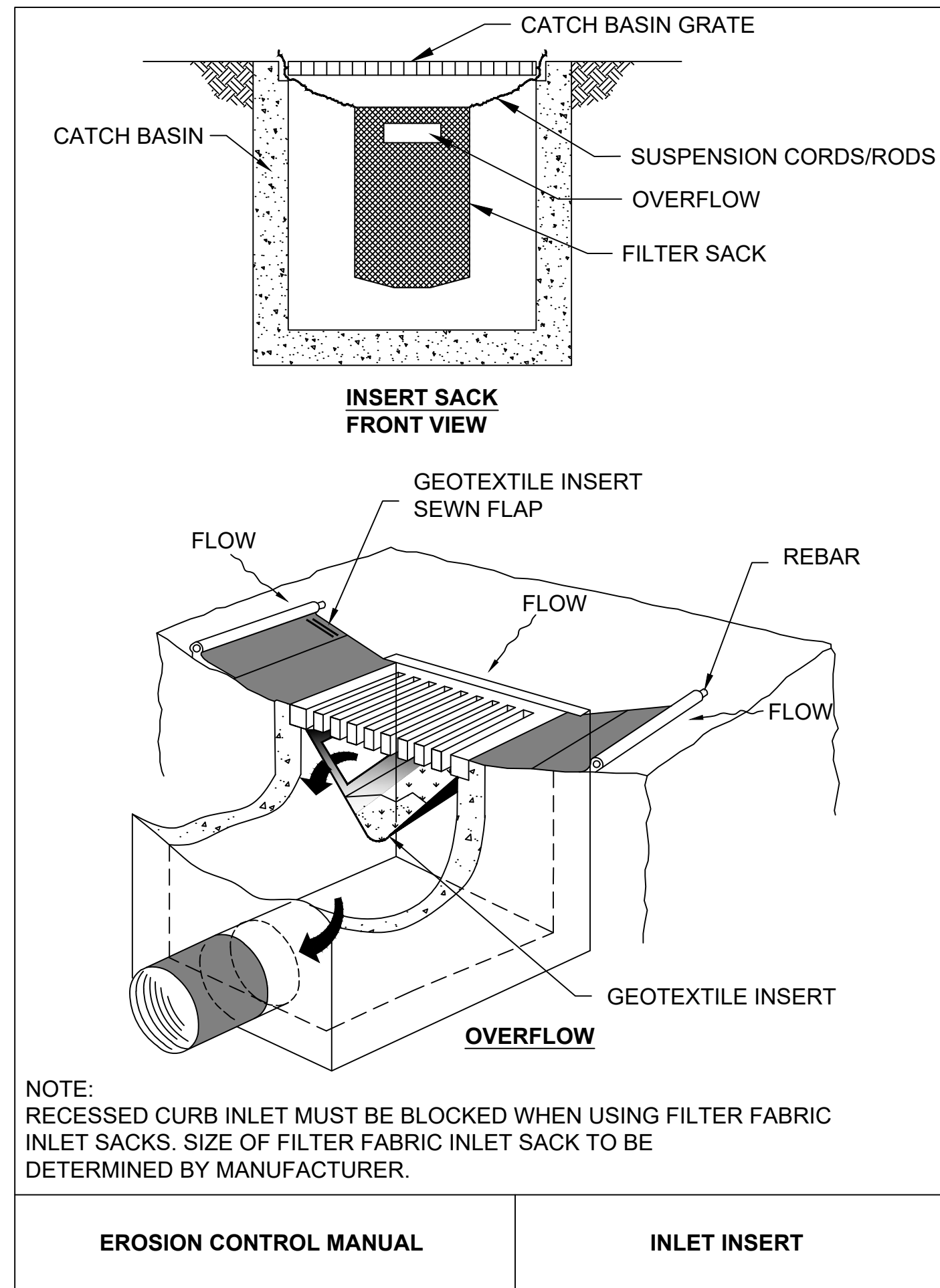
Table with columns: project, contract, drawing, rev. Project: 153929, Contract: , Drawing: CG211, Rev: A. File: 153929CG001.DWG





NOTES:
 1. SILT FENCE SHALL BE IN ACCORDANCE WITH CITY OF PORTLAND, OREGON EROSION AND SEDIMENT CONTROL MANUAL, SECTION 4.3.2.

DETAIL 1
 CG202
 CG203
 CG204
 CG206
 CG207
SILT FENCE
 NOT TO SCALE



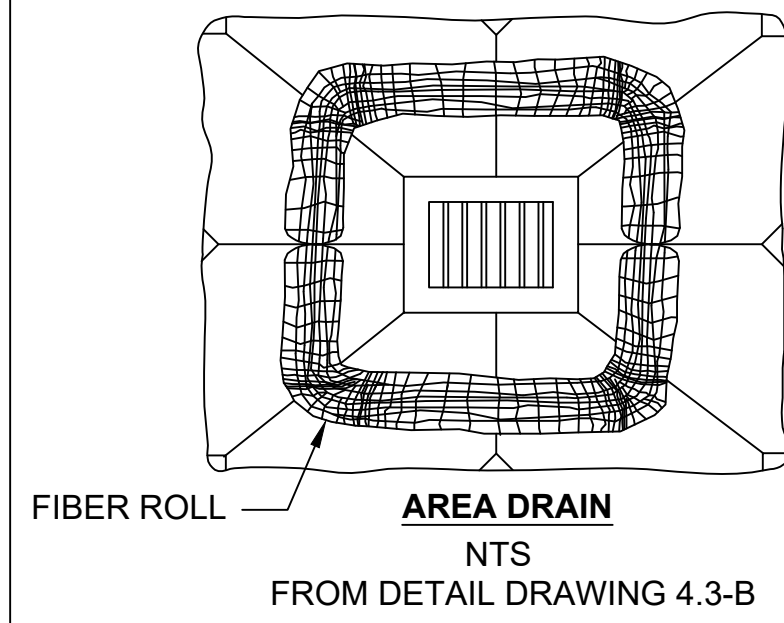
NOTE:
 RECESSED CURB INLET MUST BE BLOCKED WHEN USING FILTER FABRIC INLET SACKS. SIZE OF FILTER FABRIC INLET SACK TO BE DETERMINED BY MANUFACTURER.

EROSION CONTROL MANUAL **INLET INSERT**

DETAIL

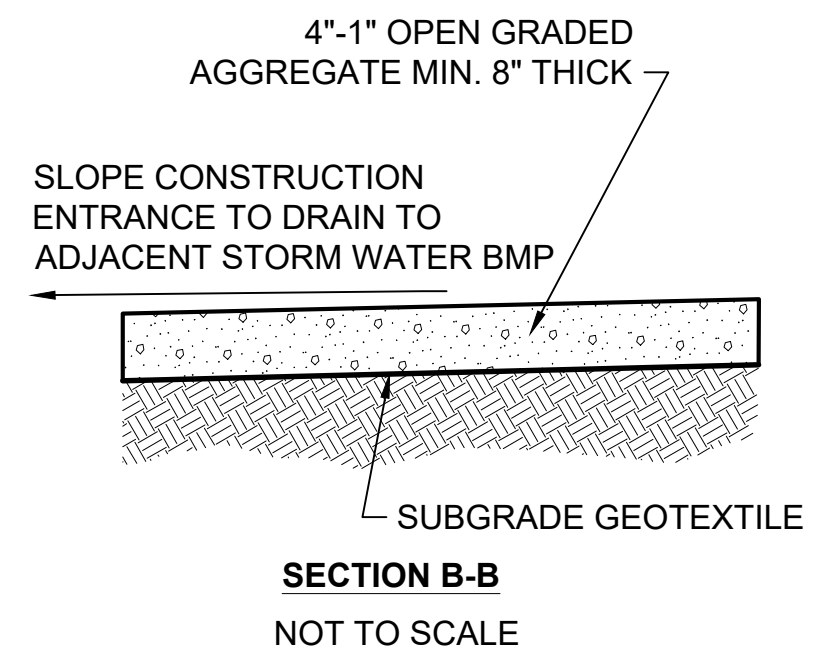
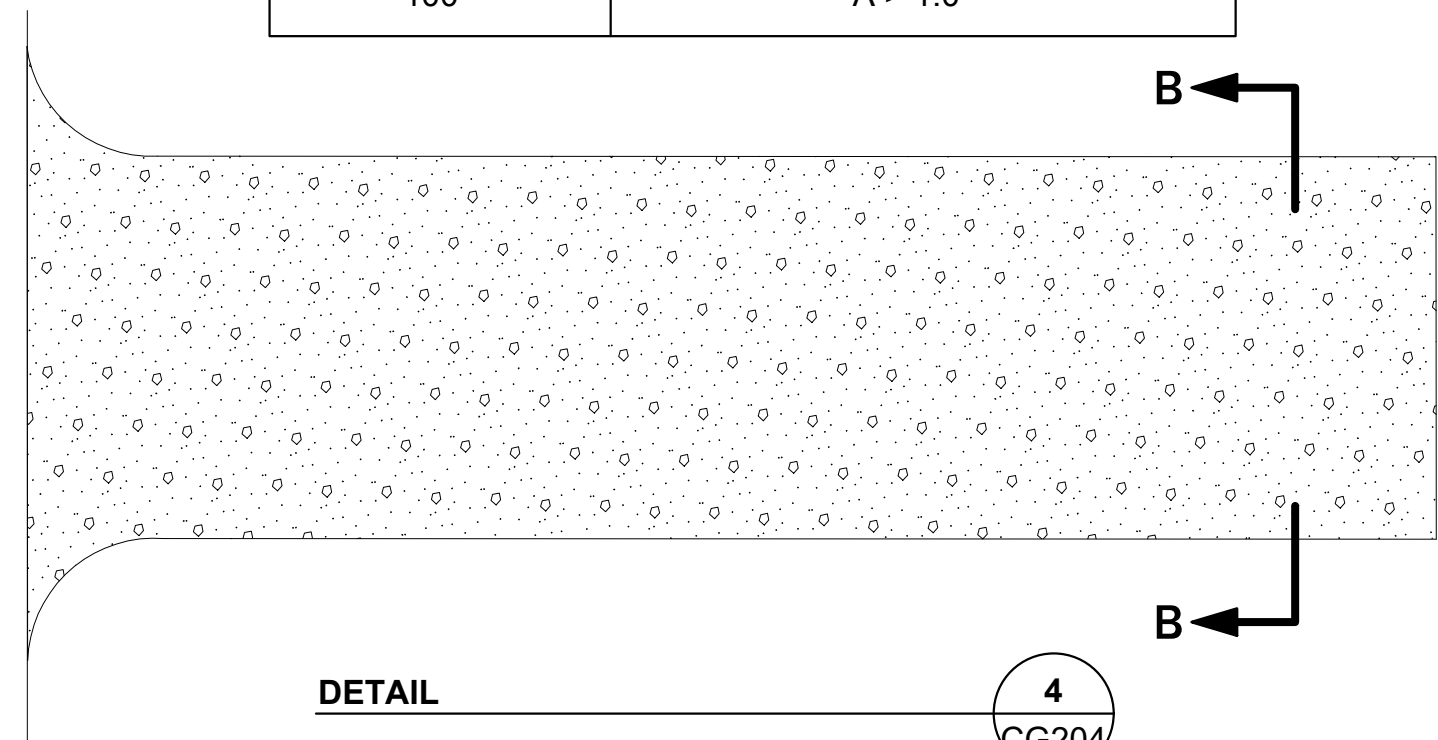
INLET PROTECTION
 NOT TO SCALE

- NOTES:**
1. INLET INSERT SHALL BE IN ACCORDANCE WITH CITY OF PORTLAND, OREGON EROSION AND SEDIMENT CONTROL MANUAL, SECTION 4.3.6.
 2. FIBER ROLLS SHALL BE INSTALLED AROUND NEW AND EXISTING INLETS AS SHOWN, IN CONJUNCTION WITH INLET INSERTS.
 3. FIBER ROLLS SHALL BE IN ACCORDANCE WITH CITY OF PORTLAND, OREGON EROSION AND SEDIMENT CONTROL MANUAL, SECTION 4.3.3. GEOTEXTILE BAGS SHALL BE USED IN TRAFFIC AREAS.



Scale For Microfinishing
 Millimeters
 Inches

CONSTRUCTION ENTRANCE TABLE MINIMUM LENGTH	
LENGTH (FT)	AREA OF EXPOSED SOIL (ACRE)
20	0.25
50	0.25 < A < 1.0
100	A > 1.0



DETAIL 4
 CG204
CONSTRUCTION ENTRANCE - TYPE 1
 NOT TO SCALE

no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT

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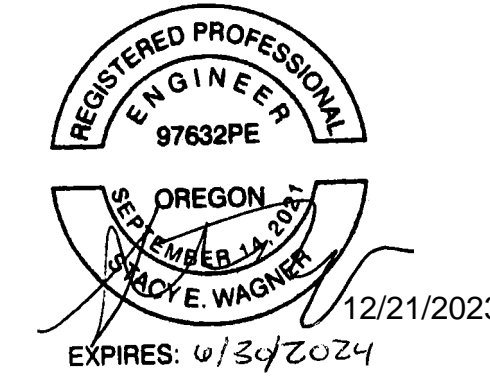
**BURNS
 McDONNELL**
 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 Burns & McDonnell Engineering Co., Inc.

date	08/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

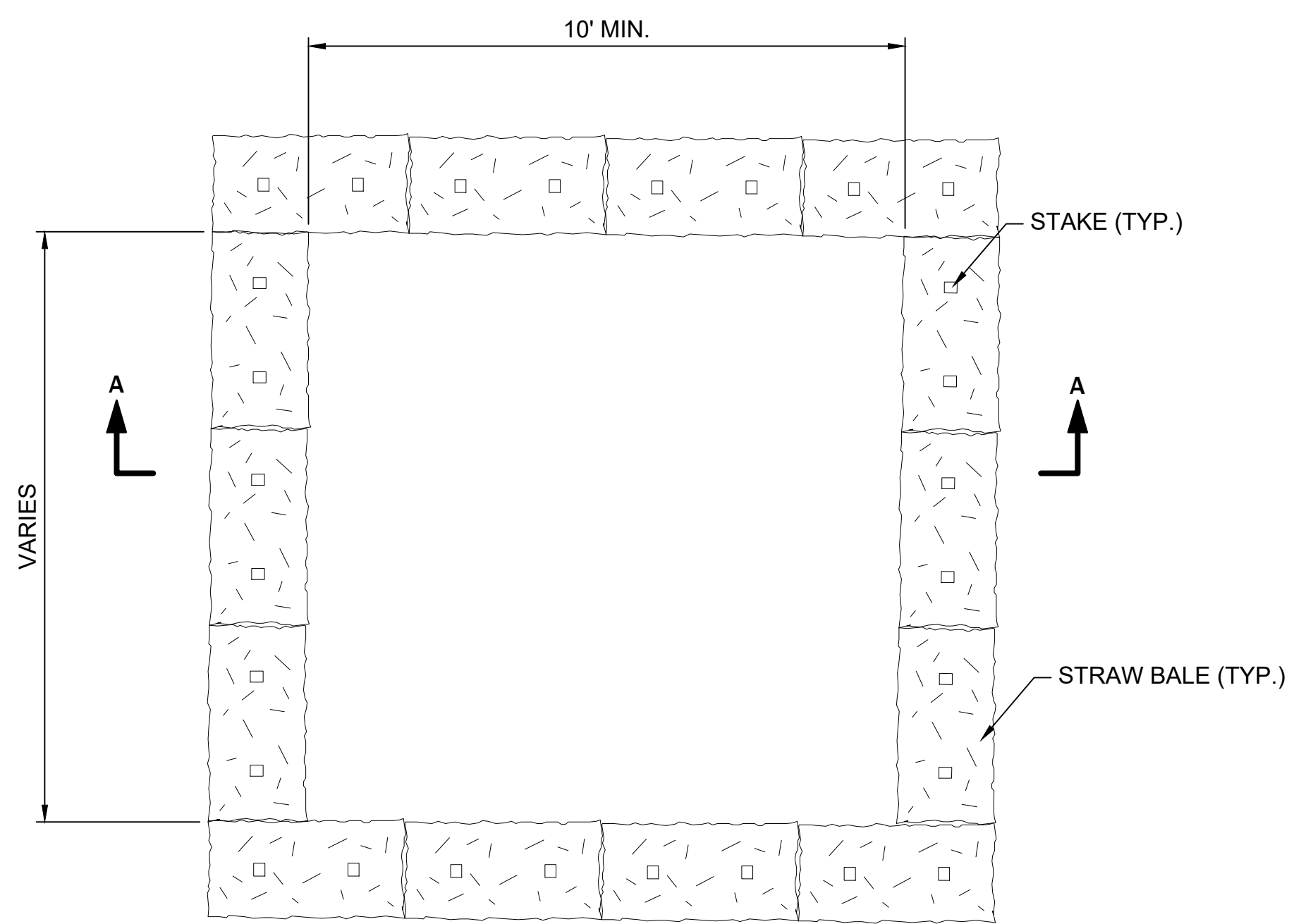
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 PORTLAND INTERNATIONAL AIRPORT
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 PORTLAND, OREGON 97218

PDX FACILITY IMPROVEMENTS
 EROSION AND SEDIMENT CONTROL DETAILS - 1

project	153929	contract	
drawing	CG501	rev.	A

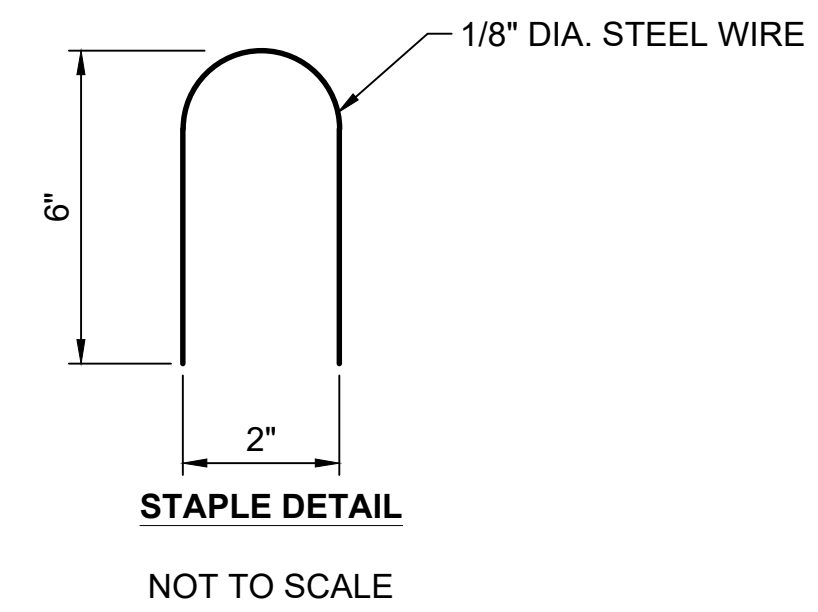
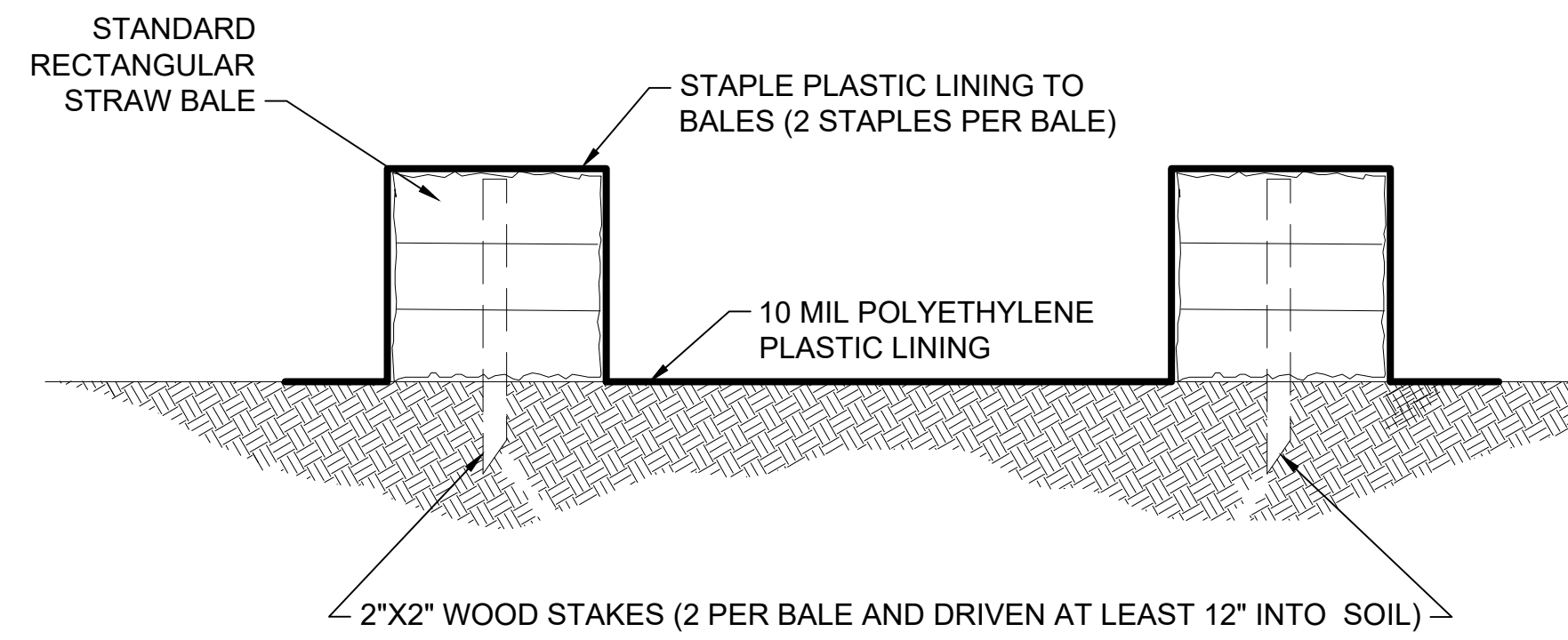


Scale For Microfinishing
 Millimeters
 Inches



PLAN

DETAIL 1 CG204
CONCRETE WASHOUT FACILITY
 NOT TO SCALE



no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT

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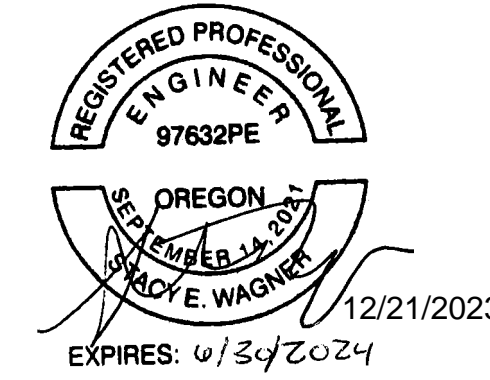
date	08/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

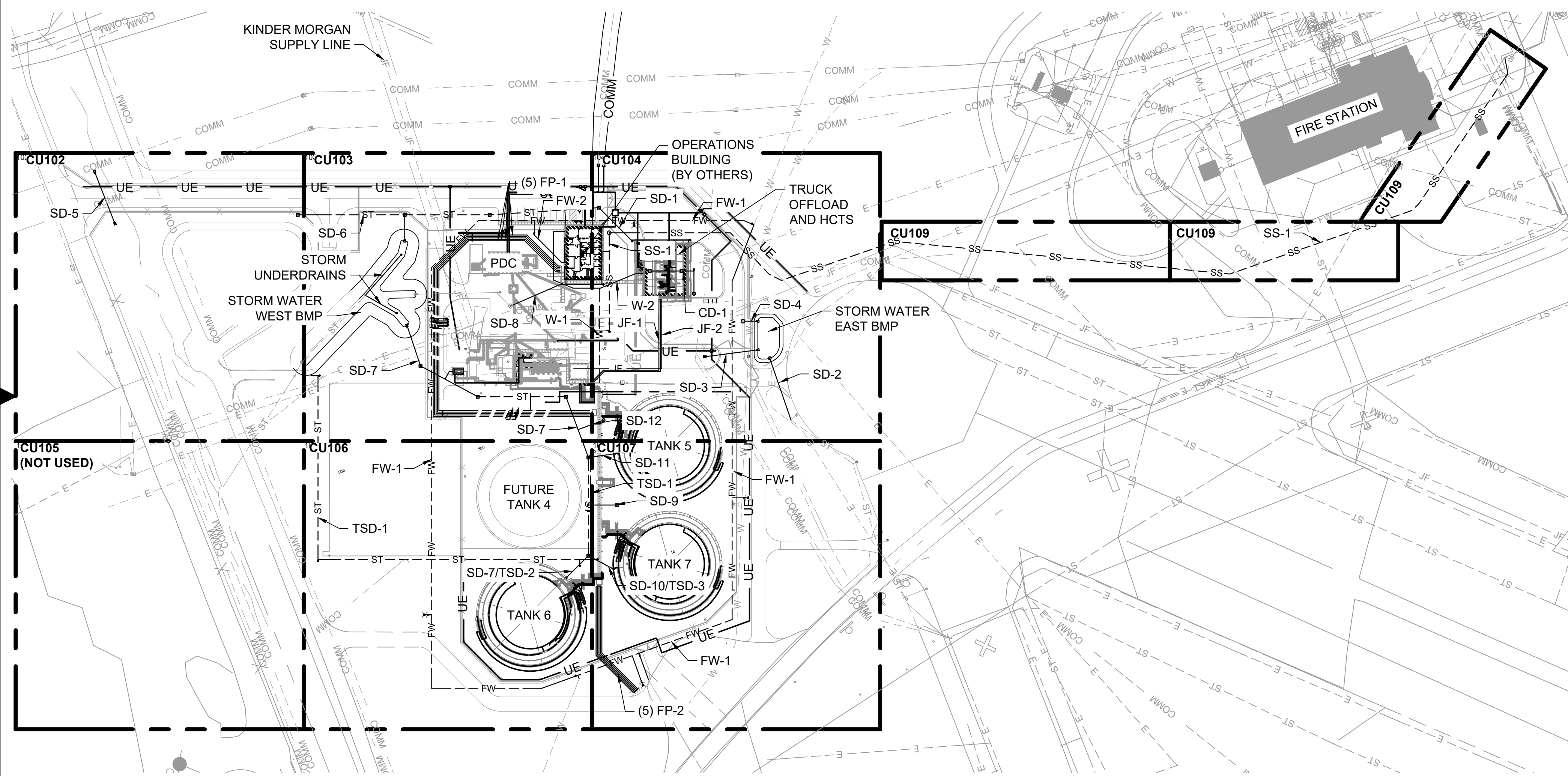
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PDX FACILITY IMPROVEMENTS
 EROSION AND SEDIMENT CONTROL DETAILS - 2

project	153929	contract	
drawing	CG502	rev.	A

file 153929CG501.DWG





LEGEND:

---	ST	EXISTING STORMWATER LINE
---	SS	EXISTING SANITARY LINE
---	JF	EXISTING JET FUEL
---	W	EXISTING WATER LINE
---	E	EXISTING POWER LINE
---	COMM	EXISTING COMMUNICATION LINE
---	COMM	COMMUNICATION LINE
---	W	WATER LINE
---	FW	FIRE WATER LINE
---	FP	FIRE PROTECTION LINE
---	SS	SANITARY SEWER LINE
---	ST	STORMWATER LINE
---	UE	ELECTRICAL DUCT BANK OR CONDUITS
---	JF	JET FUEL LINE

no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT

ISSUED FOR PERMIT ONLY

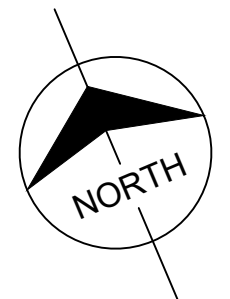
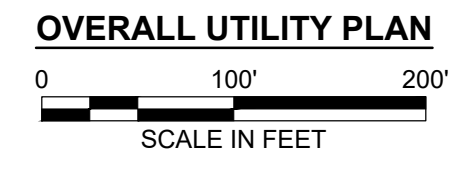
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 KANSAS CITY, MO 64114
 816-333-9400
 Burns & McDonnell Engineering Co., Inc.

date	06/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

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PDX FACILITY IMPROVEMENTS OVERALL UTILITY PLAN	
project	contract
153929	
drawing	rev.
CU101	A
file 153929CU101.DWG	

Millimeters
Scale For Microfinishing
Inches



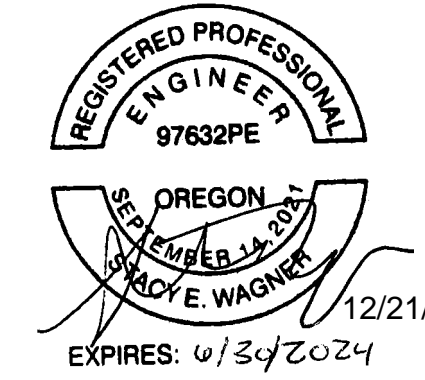
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 FP-1:
 PLAN - CU103
 PROFILE - CU201
 FP-2:
 PLAN - CU107
 PROFILE - CU201
- FIRE WATER:**
 FW-1:
 PLAN - CU103, CU104, CU106, CU107
 PROFILE - CU201, CU202, CU203
 FW-2:
 PLAN - CU103
 PROFILE - CU203
- JET FUEL:**
 JF-1 AND JF-2:
 PLAN - CU103, CU104
 PROFILE - CU203

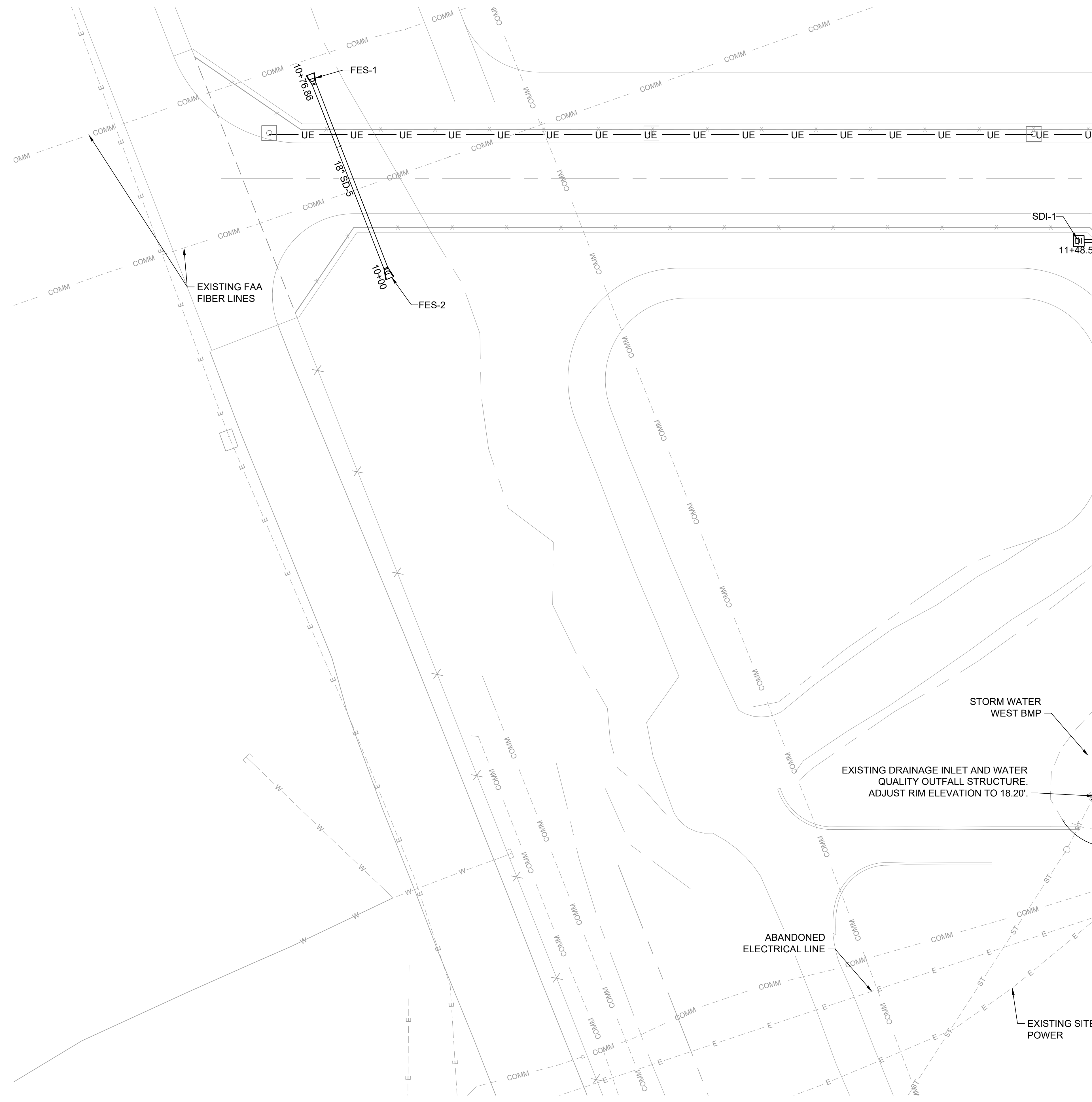
- SANITARY SEWER:**
 SS-1:
 PLAN - CU104, CU109
 PROFILE - CU204, CU205
- WATER:**
 W-1:
 PLAN - CU103, CU104
 PROFILE - CU205
 W-2:
 PLAN - CU104
 PROFILE - CU206
- TEMPORARY STORM DRAINS:**
 TSD-1:
 PLAN - CU103, CU106, CU107
 PROFILE - CU206
 TSD-2:
 PLAN - CU106
 PROFILE - CU206
 TSD-3:
 PLAN - CU106, CU107
 PROFILE - CU206

UTILITY SHEET INDEX

- CONTAINMENT DRAIN:**
 CD-1:
 PLAN - CU104
 PROFILE - CU206
- STORM DRAIN:**
 SD-1:
 PLAN - CU103, CU104
 PROFILE - CU207
 SD-2:
 PLAN - CU104
 PROFILE - CU207
 SD-3:
 PLAN - CU104
 PROFILE - CU207
 SD-4:
 PLAN - CU104
 PROFILE - CU207
 SD-5:
 PLAN - CU102
 PROFILE - CU207

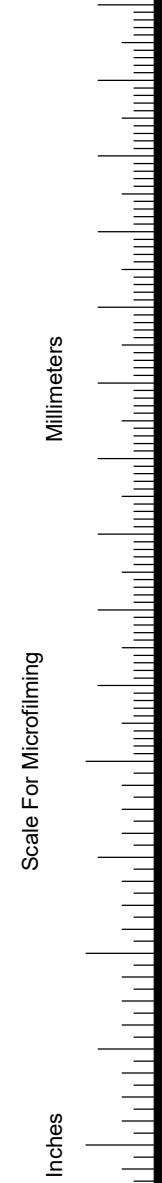
- STORM DRAIN CONT.:**
 SD-6:
 PLAN - CU102, CU103
 PROFILE - CU207
 SD-7:
 PLAN - CU103, CU106
 PROFILE - CU207, CU208
 SD-8:
 PLAN - CU103, CU104
 PROFILE - CU208
 SD-9:
 PLAN - CU106, CU107
 PROFILE - CU208
 SD-10:
 PLAN - CU106, CU107
 PROFILE - CU208
 SD-11:
 PLAN - CU106, CU107
 PROFILE - CU208
 SD-12:
 PLAN - CU103, CU104
 PROFILE - CU208





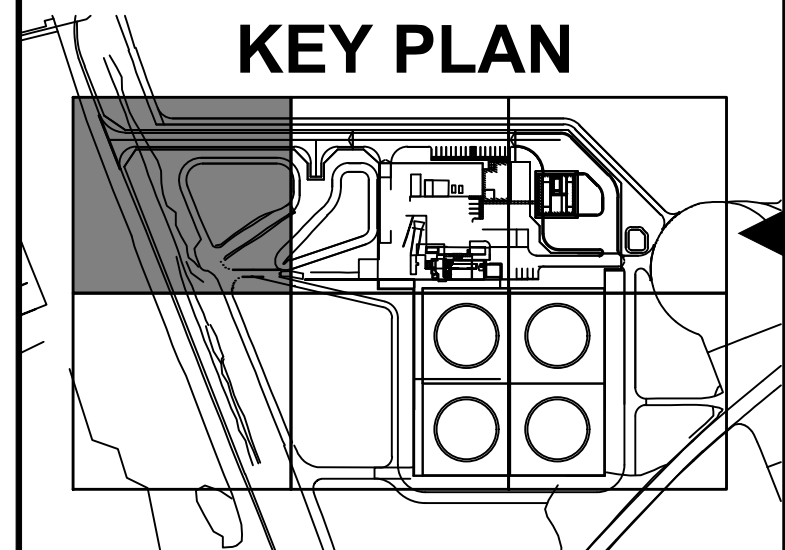
LEGEND:

- ST --- EXISTING STORMWATER LINE
- SS --- EXISTING SANITARY LINE
- JF --- EXISTING JET FUEL LINE
- W --- EXISTING WATER LINE
- E --- EXISTING POWER LINE
- COMM --- EXISTING COMMUNICATION LINE
- UE --- EXISTING ELECTRICAL LINE
- x x EXISTING FENCE
- ⊙ EXISTING SANITARY MANHOLE
- ⊙ EXISTING CLEANOUT
- ⊙ EXISTING WATER VALVE
- ⊙ EXISTING FIRE HYDRANT
- ⊙ EXISTING POST INDICATOR VALVE
- ⊙ EXISTING WATER METER
- ⊙ EXISTING WATER VAULT
- ⊙ EXISTING HOSE BIB
- ⊙ EXISTING COMMUNICATION RISER
- ⊙ EXISTING POWER VAULT
- ⊙ EXISTING TRANSFORMER
- ⊙ EXISTING LIGHT POLE
- ⊙ EXISTING BOLLARD
- ⊙ EXISTING MONITORING WELL
- ==== 10" SD-1 === STORMWATER LINE
- ==== 4" SS-1 === SANITARY LINE
- ==== 6" JF-1 === JET FUEL LINE
- ==== 2" W-1 === WATER LINE
- ==== 12" FW-1 === FIRE WATER LINE
- ==== 8" FP-1 === FIRE PROTECTION LINE
- UE --- UNDERGROUND ELECTRICAL LINE
- COMM --- UNDERGROUND COMMUNICATION LINE
- x x FENCE
- ⊙ POST INDICATOR VALVE
- ⊙ ECCENTRIC PLUG VALVE
- ⊙ FDC (SEE FIRE PROTECTION DRAWINGS)
- ⊙ FIRE HYDRANT
- ⊙ CLEANOUT
- ⊙ STORM DRAINAGE INLET
- ⊙ CONTAINMENT DRAINAGE INLET (SEE STRUCTURAL DRAWINGS)
- ⊙ FLARED END SECTION
- ⊙ OIL STOP VALVE INLET
- ⊙ CONTAINMENT DRAINAGE BASIN
- ⊙ DROP IN GRATE



MATCHLINE - SEE SHEET CU103 FOR CONTINUATION

no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT



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**BURNS
MCDONNELL**
 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 Burns & McDonnell Engineering Co., Inc.

date	06/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

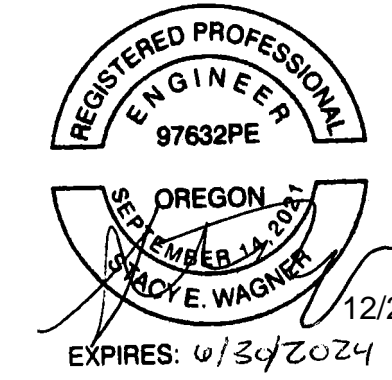
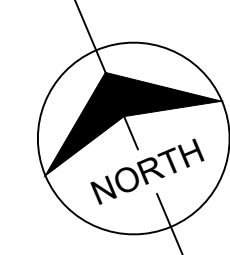
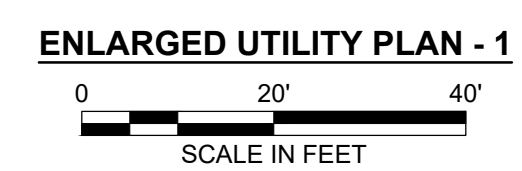
PDX FUEL COMPANY L.L.C

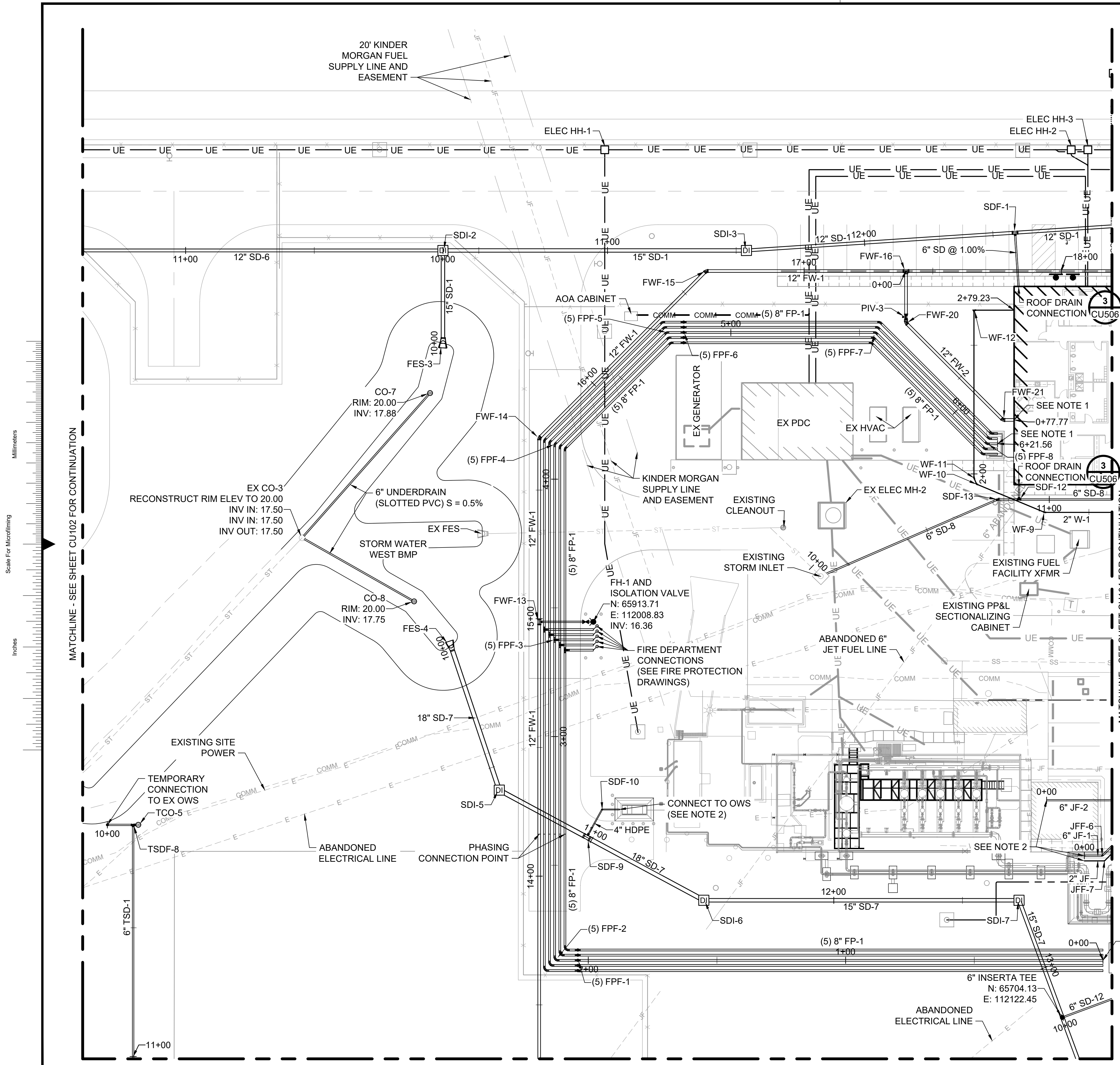
 PORTLAND INTERNATIONAL AIRPORT
 5000 NE MARINE DR.
 PORTLAND, OREGON 97218

PDX FACILITY IMPROVEMENTS
 ENLARGED UTILITY PLAN - 1

project	153929	contract	
drawing	CU102	rev.	A

file ENLARGED UTILITY PLAN 6.DWG





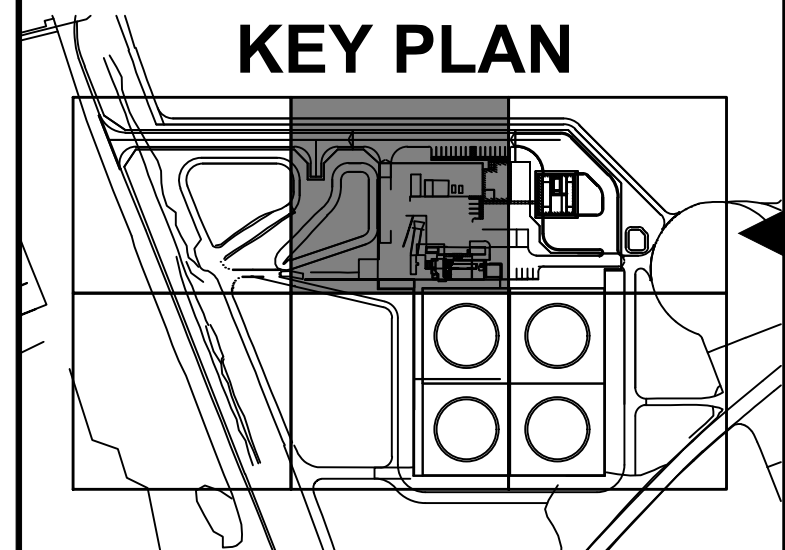
LEGEND:

- ST --- EXISTING STORMWATER LINE
- SS --- EXISTING SANITARY LINE
- JF --- EXISTING JET FUEL LINE
- W --- EXISTING WATER LINE
- E --- EXISTING POWER LINE
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- UE --- EXISTING ELECTRICAL LINE
- X --- EXISTING FENCE
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- ⊙ --- EXISTING CLEANOUT
- ⊙ --- EXISTING WATER VALVE
- ⊙ --- EXISTING FIRE HYDRANT
- ⊙ --- EXISTING POST INDICATOR VALVE
- ⊙ --- EXISTING WATER METER
- ⊙ --- EXISTING WATER VAULT
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- ⊙ --- CONTAINMENT DRAINAGE INLET (SEE STRUCTURAL DRAWINGS)
- ⊙ --- FLARED END SECTION
- ⊙ --- OIL STOP VALVE INLET
- ⊙ --- CONTAINMENT DRAINAGE BASIN
- ⊙ --- DROP IN GRATE

NOTES:

1. FOR BUILDING CONNECTIONS SEE NOTES ON C-002.
2. FOR ABOVE GROUND PIPING SEE NOTES ON C-002.

no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT



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 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 Burns & McDonnell Engineering Co., Inc.

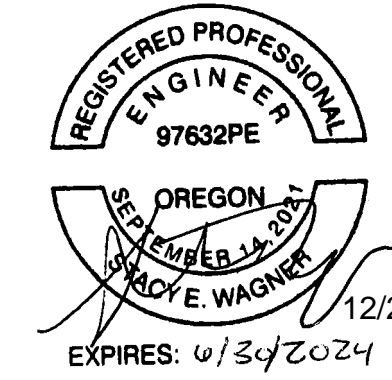
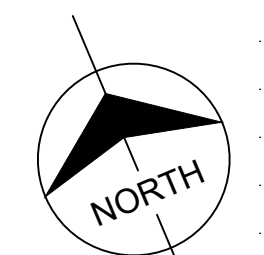
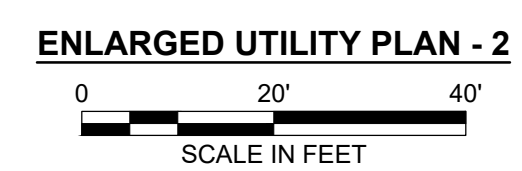
date	06/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

PDX FUEL COMPANY L.L.C
 PORTLAND INTERNATIONAL AIRPORT
 5000 NE MARINE DR.
 PORTLAND, OREGON 97218

PDX FACILITY IMPROVEMENTS
 ENLARGED UTILITY PLAN - 2

project	153929	contract	
drawing	CU103	rev.	A

file ENLARGED UTILITY PLAN 6.DWG

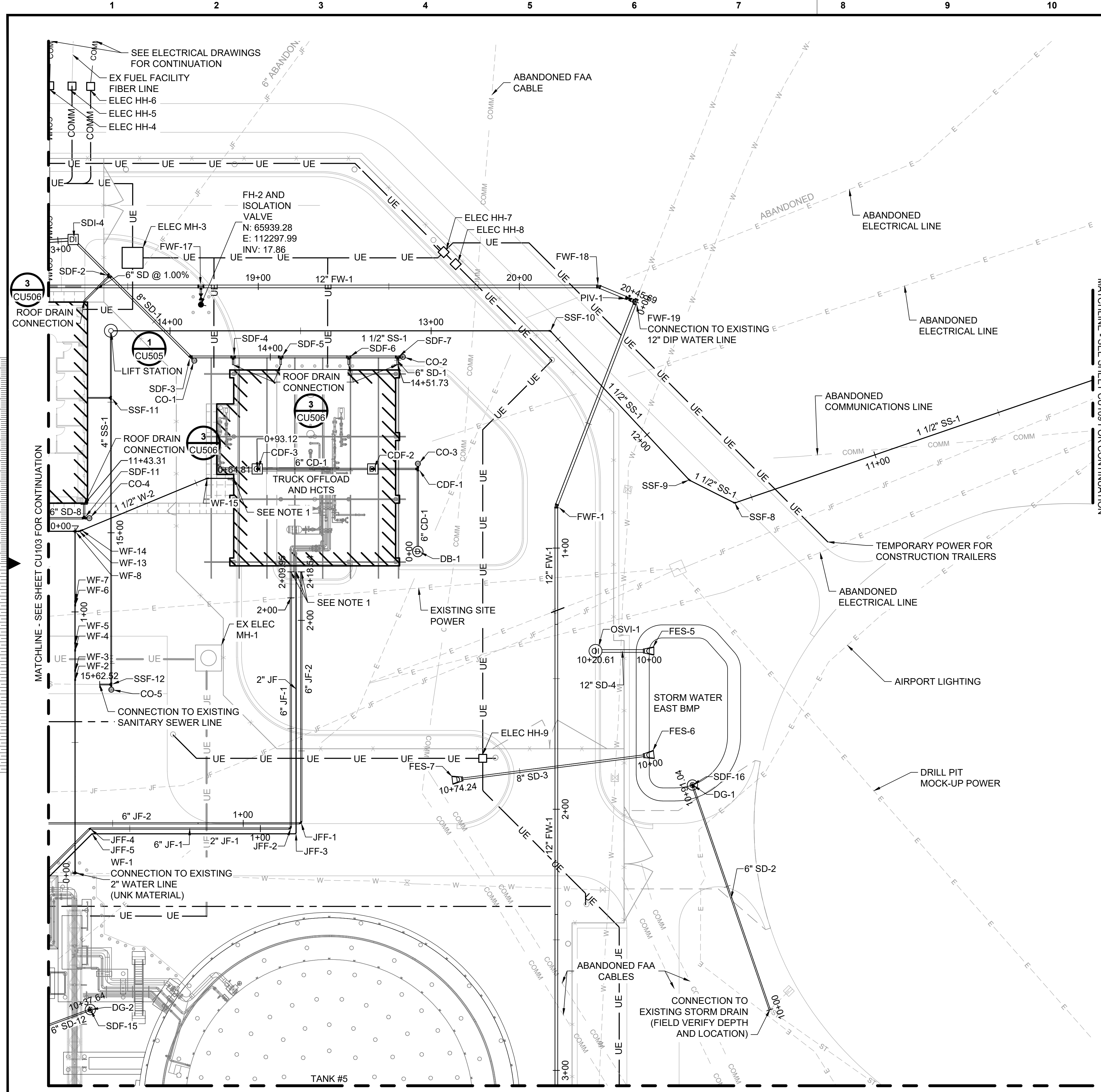


Scale For Microfitting
Millimeters
Inches

MATCHLINE - SEE SHEET CU102 FOR CONTINUATION

MATCHLINE - SEE SHEET CU104 FOR CONTINUATION

MATCHLINE - SEE SHEET CU106 FOR CONTINUATION



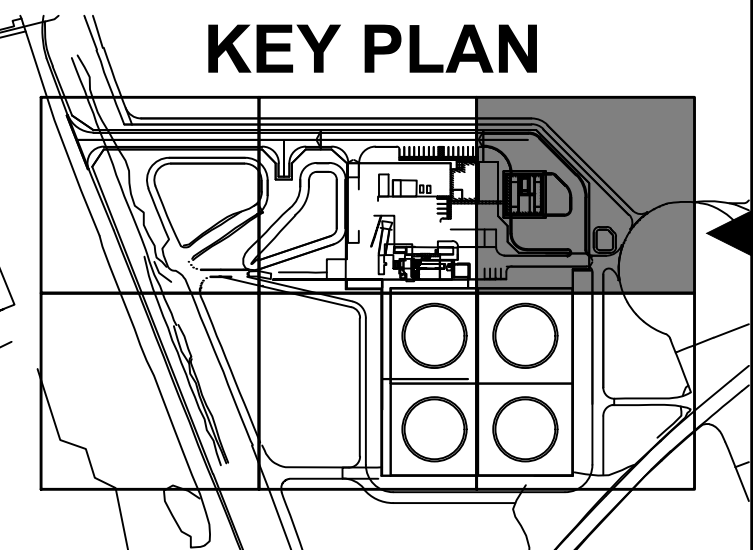
LEGEND:

- ST --- EXISTING STORMWATER LINE
- SS --- EXISTING SANITARY LINE
- JF --- EXISTING JET FUEL LINE
- W --- EXISTING WATER LINE
- E --- EXISTING POWER LINE
- COMM --- EXISTING COMMUNICATION LINE
- UE --- EXISTING ELECTRICAL LINE
- X --- EXISTING FENCE
- ⊙ --- EXISTING SANITARY MANHOLE
- ⊙ --- EXISTING CLEANOUT
- ⊙ --- EXISTING WATER VALVE
- ⊙ --- EXISTING FIRE HYDRANT
- ⊙ --- EXISTING POST INDICATOR VALVE
- ⊙ --- EXISTING WATER METER
- ⊙ --- EXISTING WATER VAULT
- ⊙ --- EXISTING HOSE BIB
- ⊙ --- EXISTING COMMUNICATION RISER
- ⊙ --- EXISTING POWER VAULT
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- ⊙ --- OIL STOP VALVE INLET
- ⊙ --- CONTAINMENT DRAINAGE BASIN
- ⊙ --- DROP IN GRATE

NOTES:

- FOR BUILDING CONNECTIONS SEE NOTES ON C-002.
- FOR ABOVE GROUND PIPING SEE NOTES ON C-002.

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A	12/21/23	MRG	SEW	ISSUED FOR PERMIT



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 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 Burns & McDonnell Engineering Co., Inc.

date	06/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

PDX FUEL COMPANY L.L.C

PORTLAND INTERNATIONAL AIRPORT
 5000 NE MARINE DR.
 PORTLAND, OREGON 97218

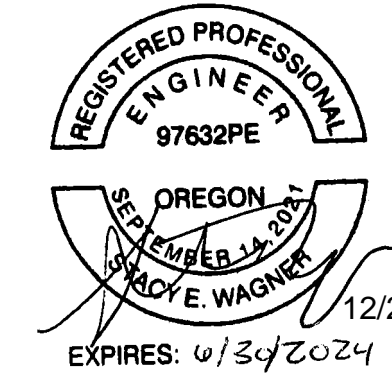
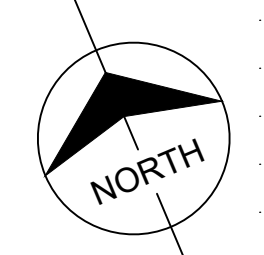
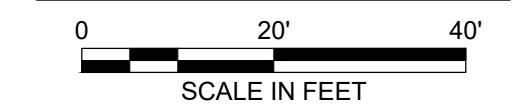
**PDX FACILITY IMPROVEMENTS
 ENLARGED UTILITY PLAN - 3**

project	153929	contract	
drawing		rev.	A

CU104

file ENLARGED UTILITY PLAN 6.DWG

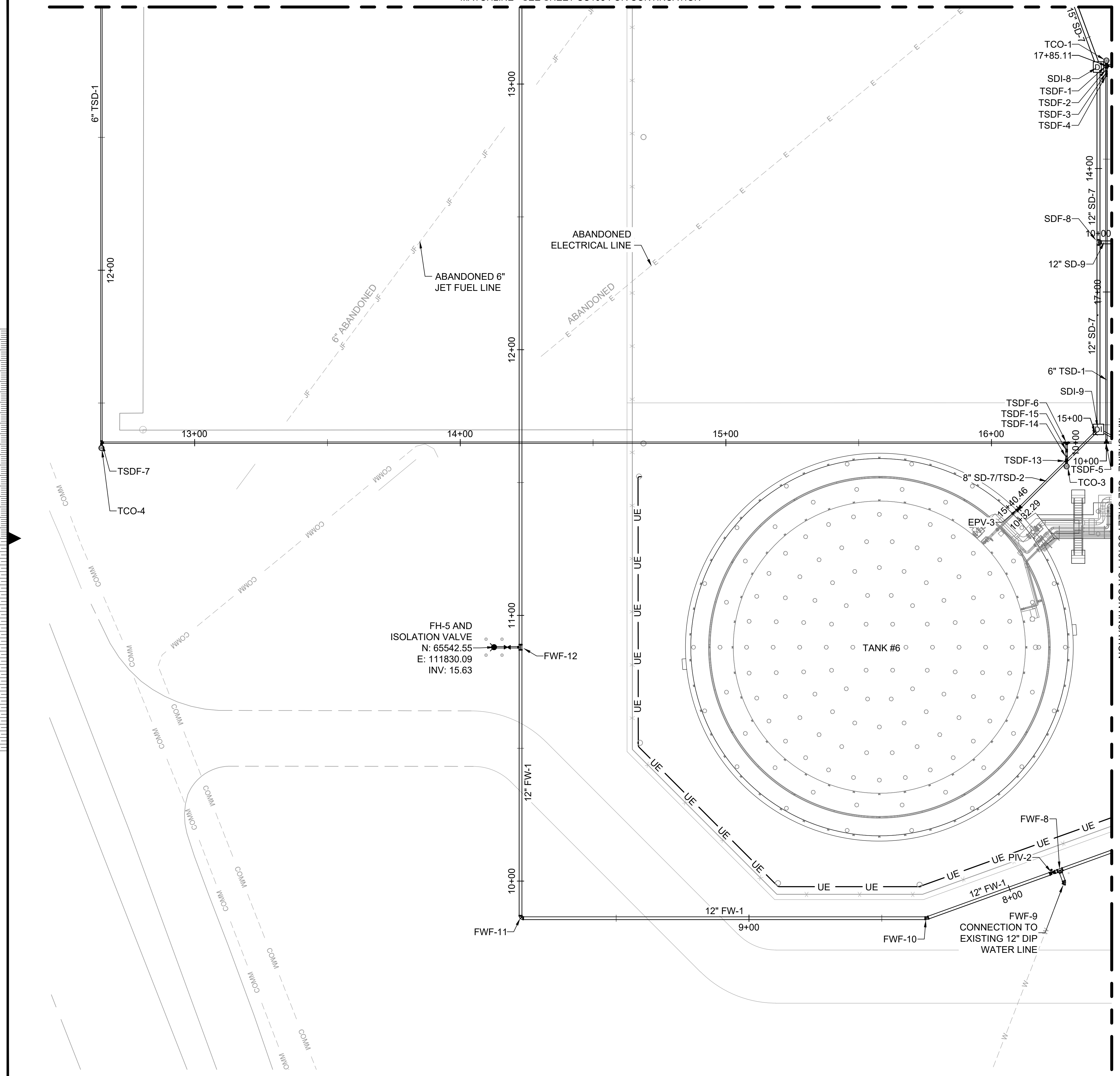
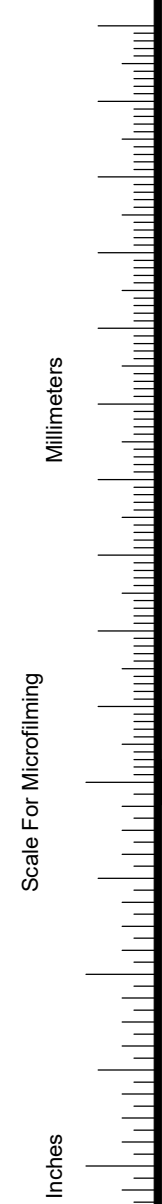
ENLARGED UTILITY PLAN - 3



MATCHLINE - SEE SHEET CU103 FOR CONTINUATION

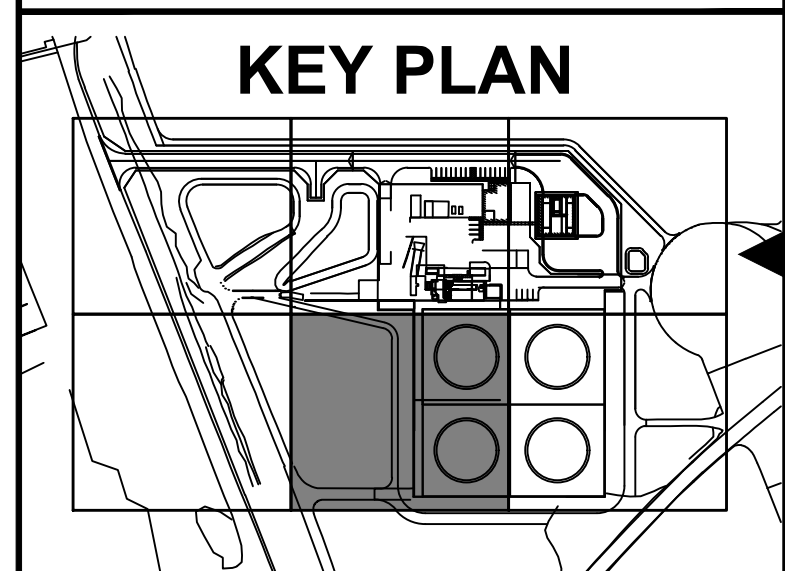
LEGEND:

- ST --- EXISTING STORMWATER LINE
- SS --- EXISTING SANITARY LINE
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- UE --- EXISTING ELECTRICAL LINE
- x x EXISTING FENCE
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- ⊙ EXISTING CLEANOUT
- ⊙ EXISTING WATER VALVE
- ⊙ EXISTING FIRE HYDRANT
- ⊙ EXISTING POST INDICATOR VALVE
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- ⊙ EXISTING POWER VAULT
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- COMM --- UNDERGROUND COMMUNICATION LINE
- x x FENCE
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- ⊙ ECCENTRIC PLUG VALVE
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- ⊙ FIRE HYDRANT
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- ⊙ STORM DRAINAGE INLET
- ⊙ CONTAINMENT DRAINAGE INLET (SEE STRUCTURAL DRAWINGS)
- ⊙ FLARED END SECTION
- ⊙ OIL STOP VALVE INLET
- ⊙ CONTAINMENT DRAINAGE BASIN
- ⊙ DROP IN GRATE



MATCHLINE - SEE SHEET CU107 FOR CONTINUATION

no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT



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BURNS MEDONNELL
 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 Burns & McDonnell Engineering Co., Inc.

date	06/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

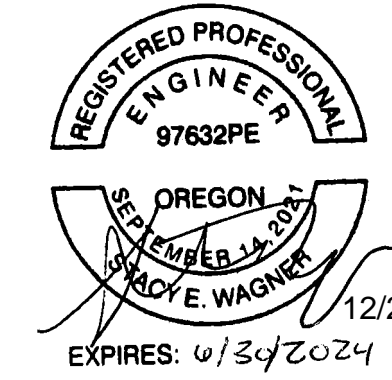
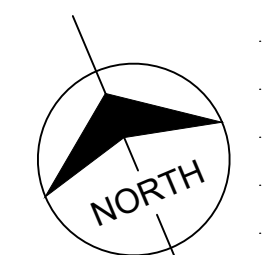
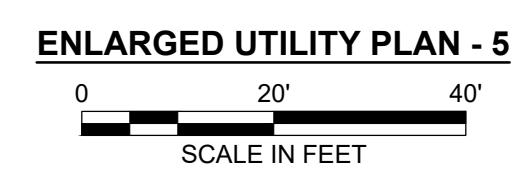
PDX FUEL COMPANY L.L.C

 PORTLAND INTERNATIONAL AIRPORT
 5000 NE MARINE DR.
 PORTLAND, OREGON 97218

PDX FACILITY IMPROVEMENTS
 ENLARGED UTILITY PLAN - 5

project	153929	contract	
drawing	CU106	rev.	A

file ENLARGED UTILITY PLAN 6.DWG

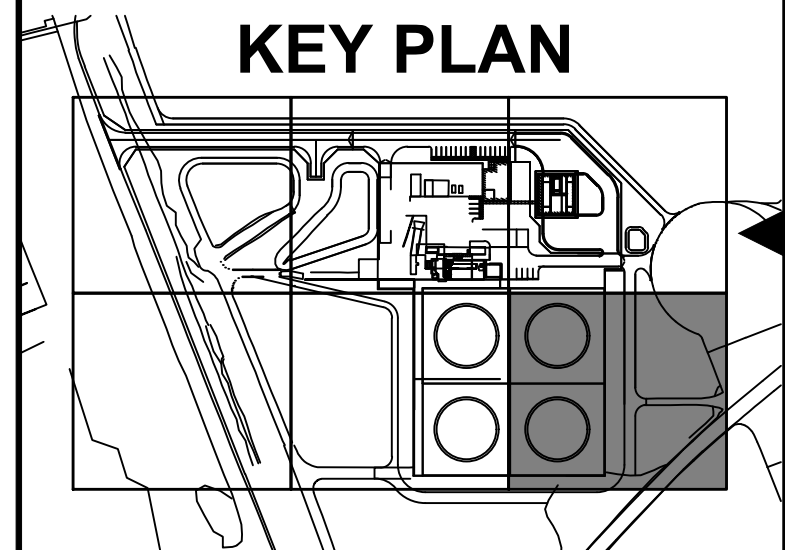


MATCHLINE - SEE SHEET CU104 FOR CONTINUATION

LEGEND:

- ST --- EXISTING STORMWATER LINE
- SS --- EXISTING SANITARY LINE
- JF --- EXISTING JET FUEL LINE
- W --- EXISTING WATER LINE
- E --- EXISTING POWER LINE
- COMM --- EXISTING COMMUNICATION LINE
- UE --- EXISTING ELECTRICAL LINE
- X --- EXISTING FENCE
- ⊙ --- EXISTING SANITARY MANHOLE
- ⊙ --- EXISTING CLEANOUT
- ⊙ --- EXISTING WATER VALVE
- ⊙ --- EXISTING FIRE HYDRANT
- ⊙ --- EXISTING POST INDICATOR VALVE
- ⊙ --- EXISTING WATER METER
- ⊙ --- EXISTING WATER VAULT
- ⊙ --- EXISTING HOSE BIB
- ⊙ --- EXISTING COMMUNICATION RISER
- ⊙ --- EXISTING POWER VAULT
- ⊙ --- EXISTING TRANSFORMER
- ⊙ --- EXISTING LIGHT POLE
- ⊙ --- EXISTING BOLLARD
- ⊙ --- EXISTING MONITORING WELL
- ==== ST ==== STORMWATER LINE
- ==== SS ==== SANITARY LINE
- ==== JF ==== JET FUEL LINE
- ==== W ==== WATER LINE
- ==== FW-1 ==== FIRE WATER LINE
- ==== FP-1 ==== FIRE PROTECTION LINE
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no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT



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 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 Burns & McDonnell Engineering Co., Inc.

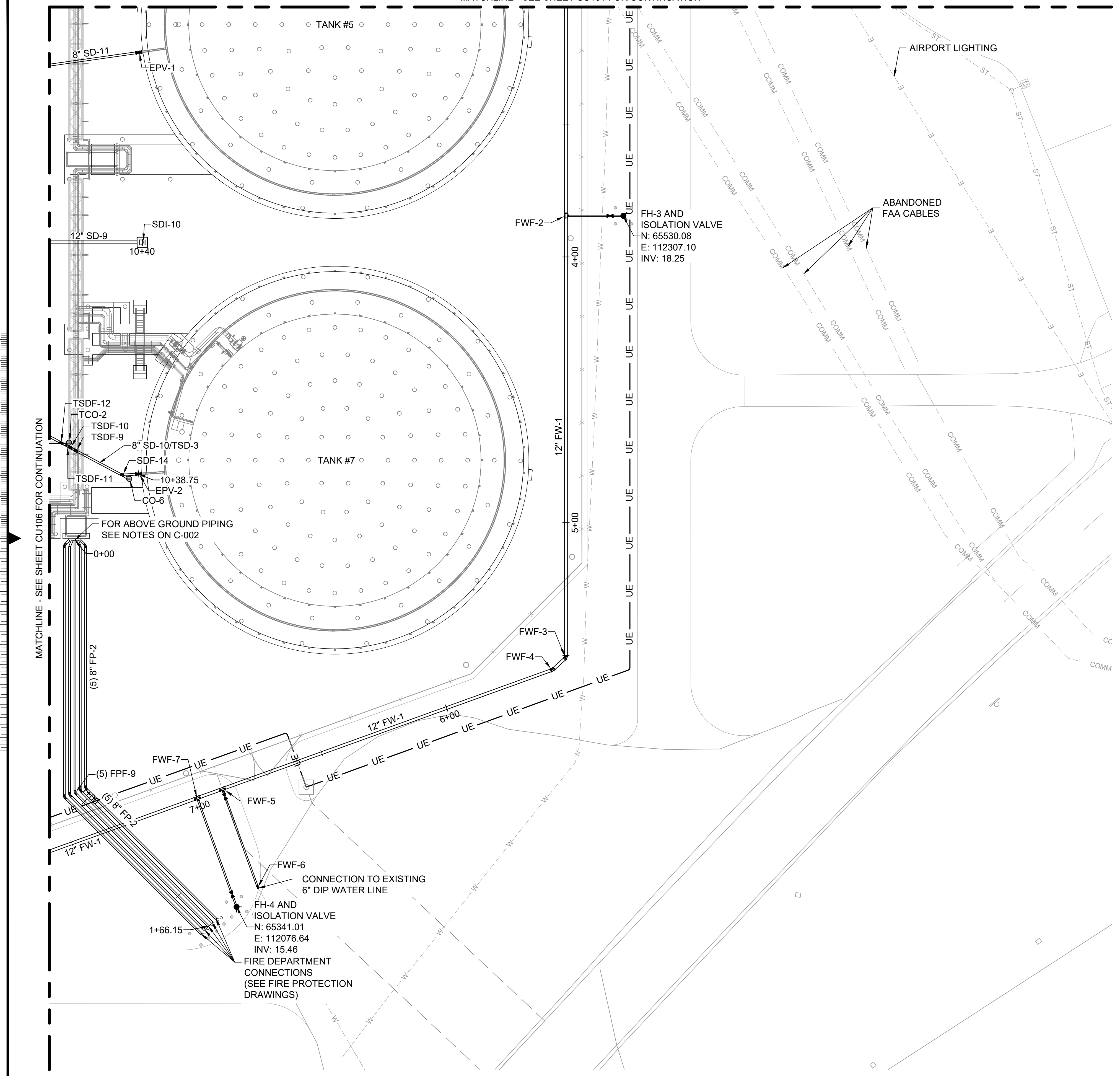
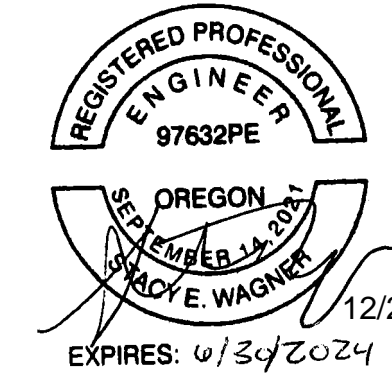
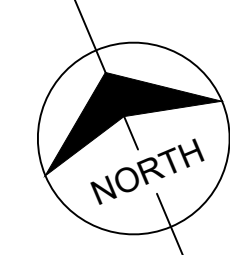
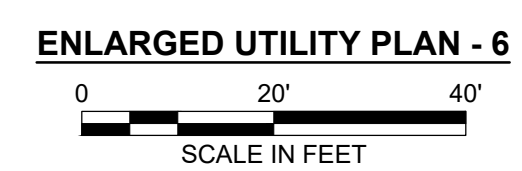
date	detailed
06/23/23	G. PAMBUENA
designed	checked
M. GREUFE	S. WAGNER

PDX FUEL COMPANY L.L.C

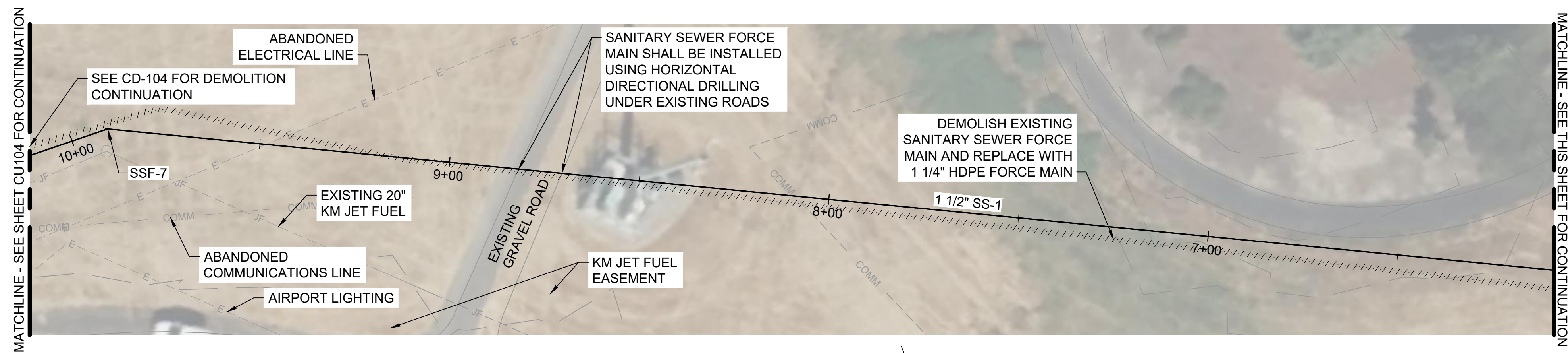
 PORTLAND INTERNATIONAL AIRPORT
 5000 NE MARINE DR.
 PORTLAND, OREGON 97218

PDX FACILITY IMPROVEMENTS
 ENLARGED UTILITY PLAN - 6

project	contract
153929	
drawing	rev.
CU107	A
file ENLARGED UTILITY PLAN 6.DWG	

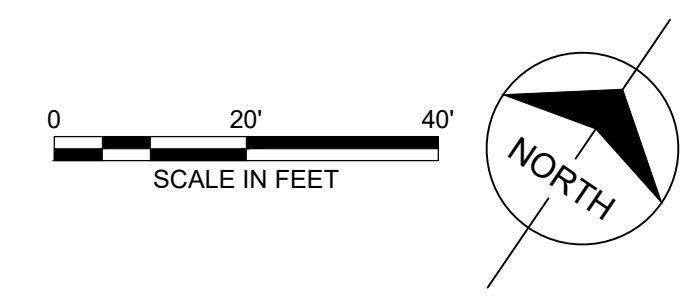
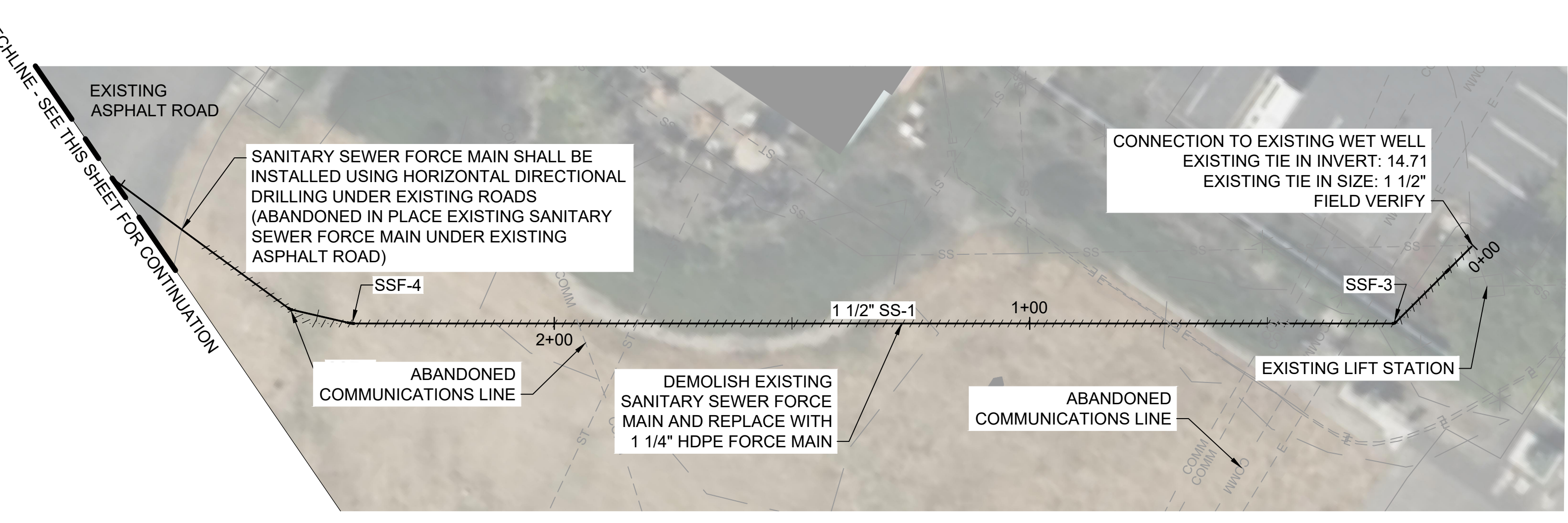
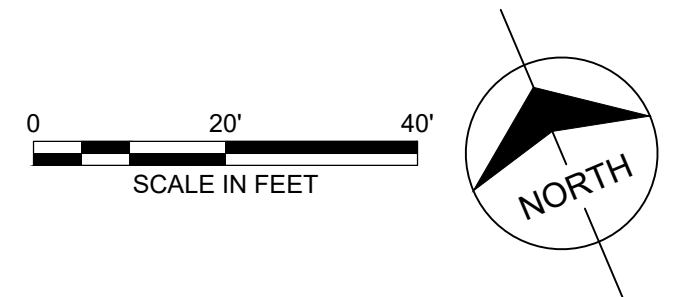
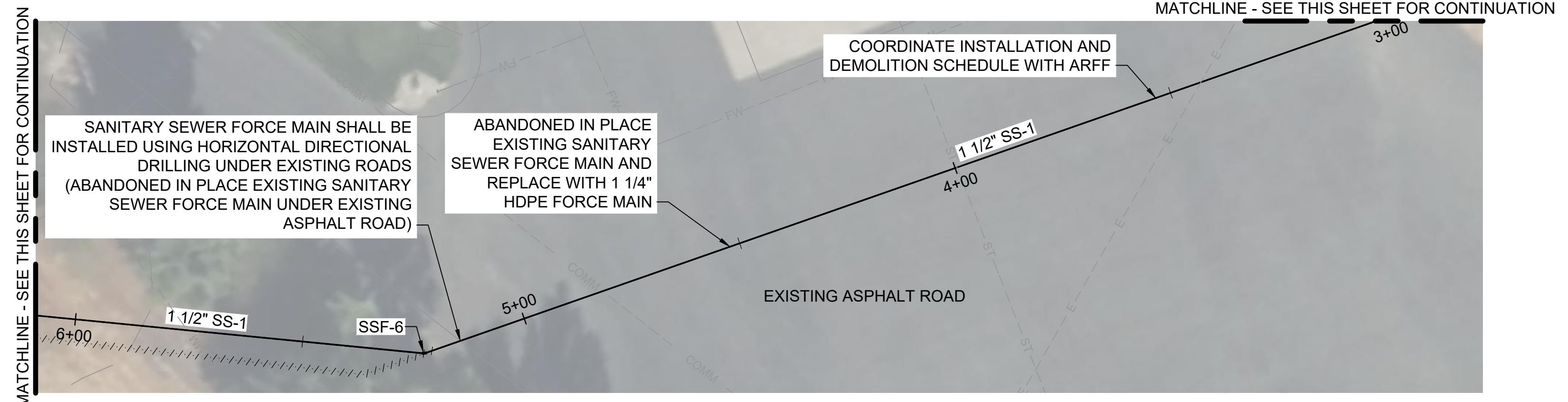
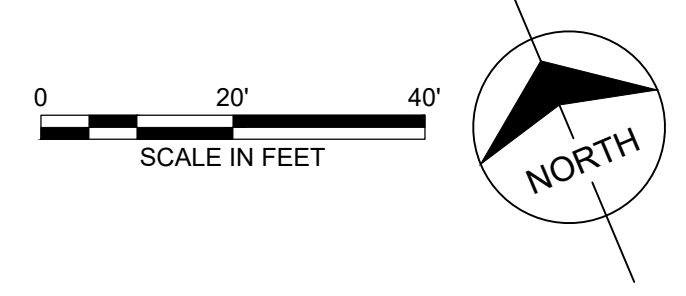


Scale For Microfitting
Millimeters
Inches



LEGEND:

- ST --- EXISTING STORMWATER LINE
- SS --- EXISTING SANITARY LINE
- JF --- EXISTING JET FUEL LINE
- W --- EXISTING WATER LINE
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- ⊙ --- OIL STOP VALVE INLET
- ⊙ --- CONTAINMENT DRAINAGE BASIN
- ⊙ --- DRAINAGE



NOTES:

1. EXISTING WET WELL INFORMATION FROM ALPHA ENGINEERS AND CONSTRUCTORS, INC. LAB AND OFFICE PROJECT AS-BUILTS DATED OCTOBER 8TH, 2004. ELEVATIONS FROM THE AS-BUILTS ARE ADJUSTED 3.6' TO ACCOUNT FOR A VERTICAL DATUM SHIFT FROM NGVD 29 TO NAVD 88.

no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT

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 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 Burns & McDonnell Engineering Co., Inc.

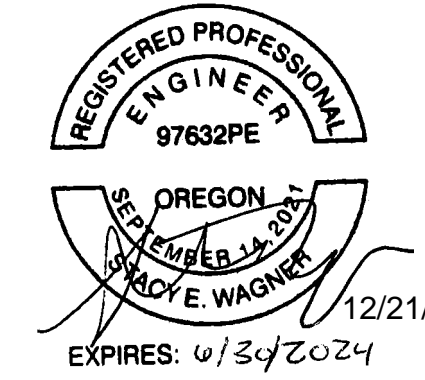
date	06/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

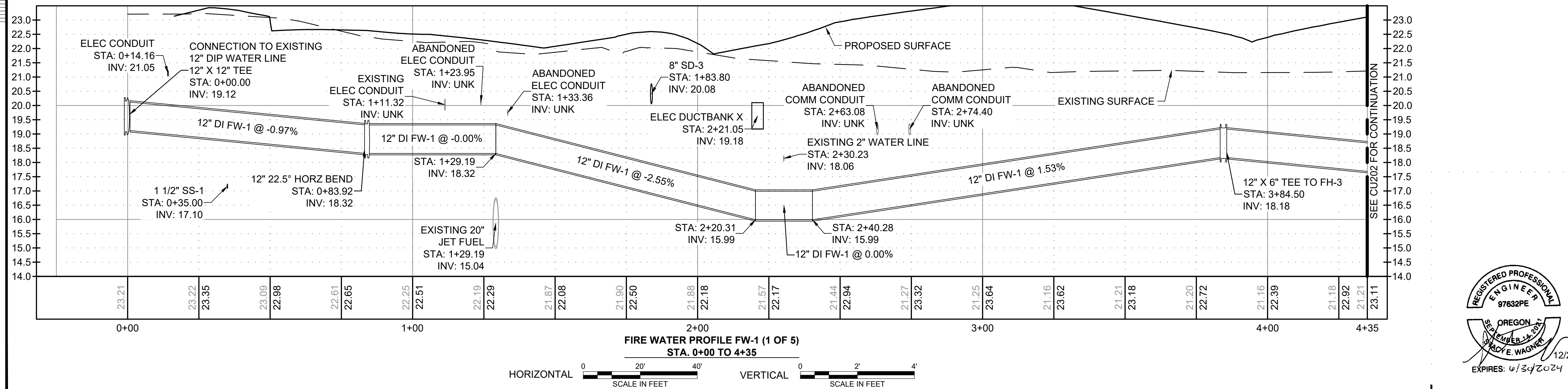
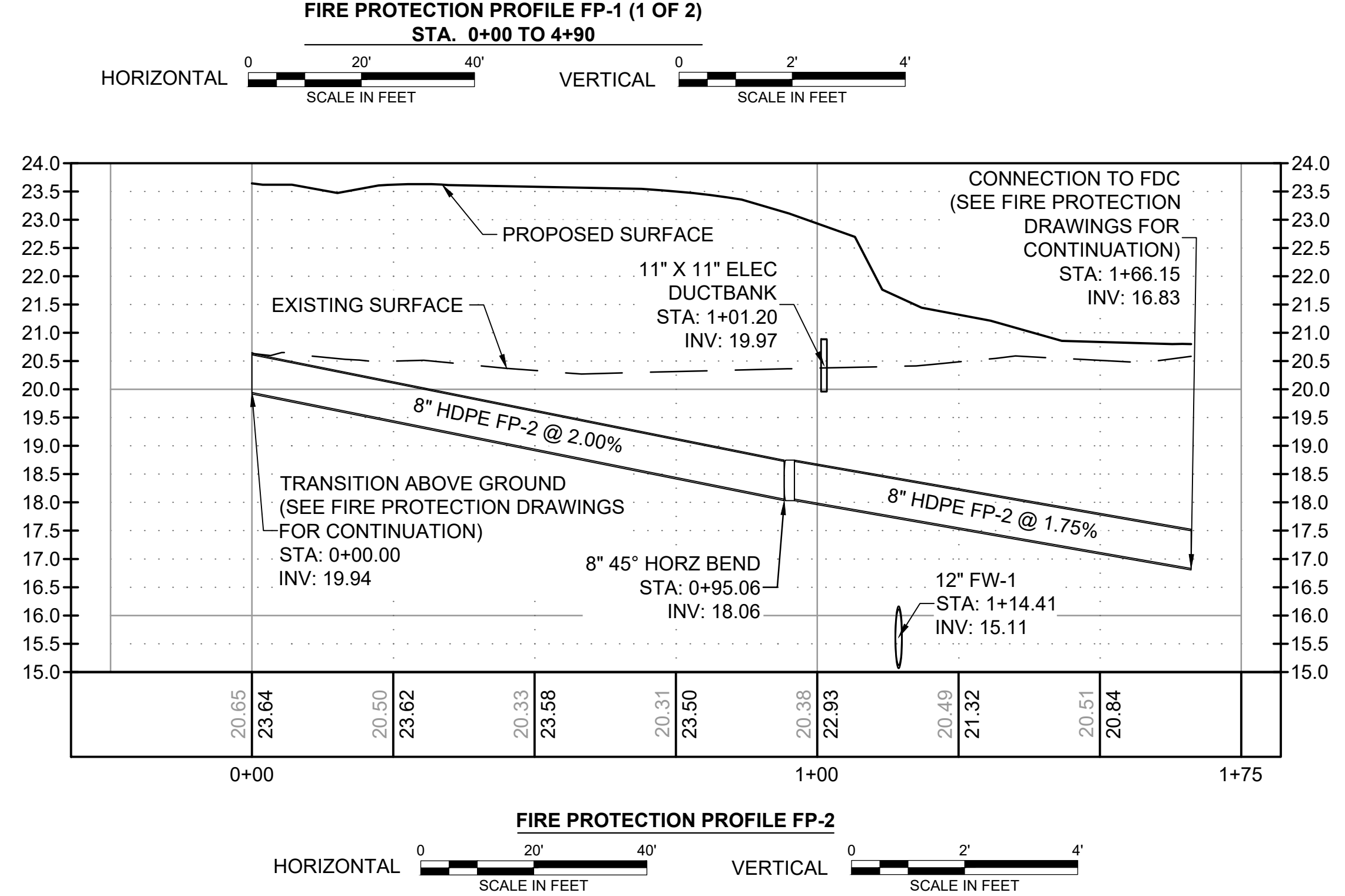
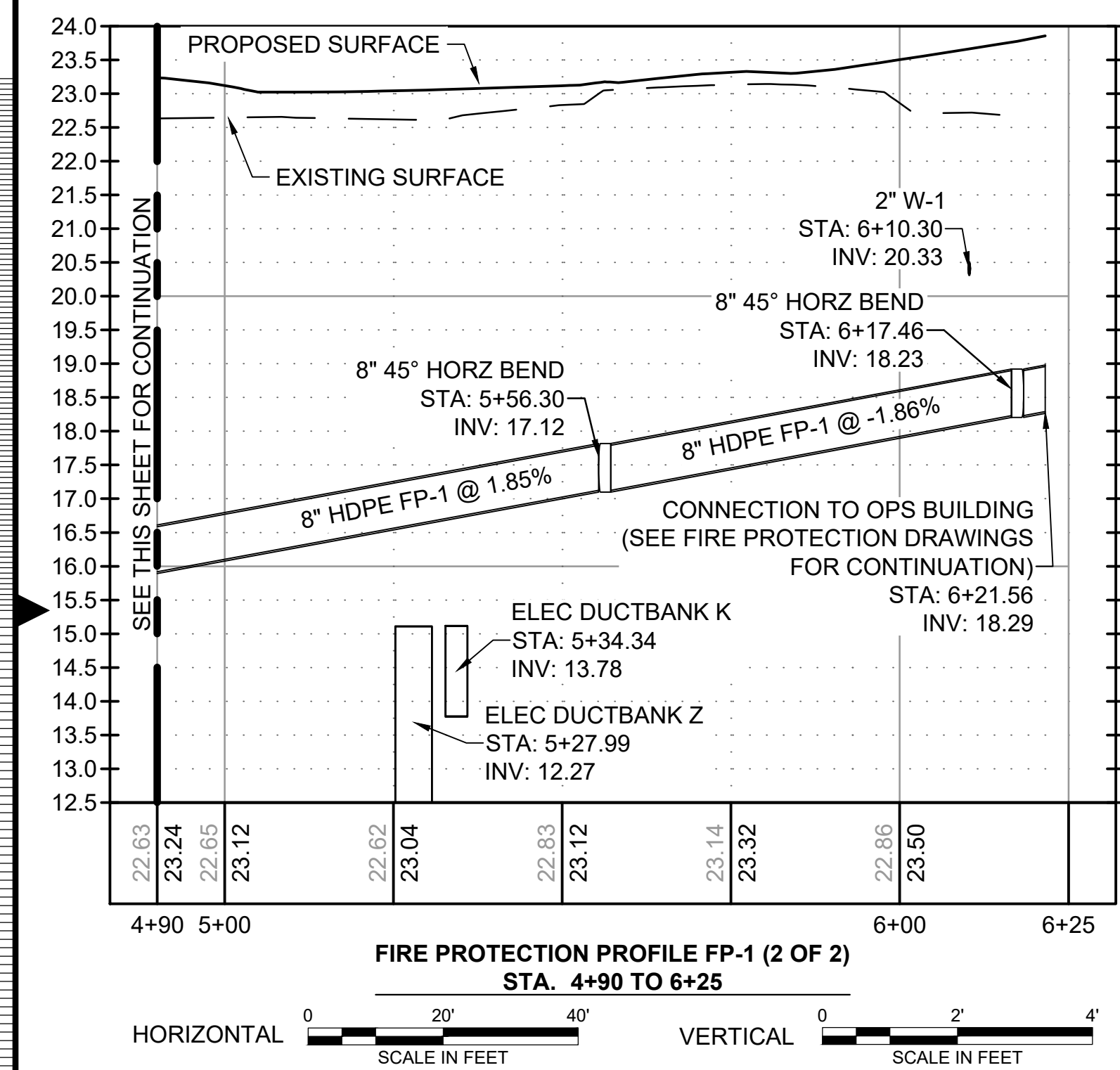
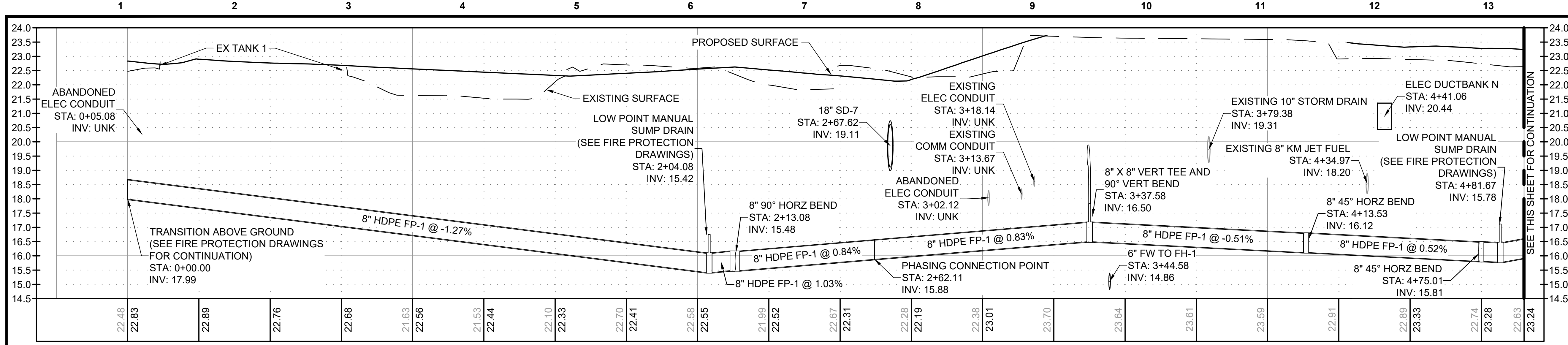
PDX FUEL COMPANY L.L.C
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 PORTLAND, OREGON 97218

PDX FACILITY IMPROVEMENTS
 ENLARGED UTILITY PLAN - 7

project	153929	contract	
drawing	CU109	rev.	A

file ENLARGED UTILITY PLAN 6.DWG





- NOTES:**
- FIRE PROTECTION PROFILES FP-1 AND FP-2 PROFILE THE CENTER PIPE OF THE FIVE (5) FIRE PROTECTION PIPES.
 - EXISTING UTILITIES DEPTHS ARE UNKNOWN AND WERE ASSUMED TO BE AS FOLLOWS UNLESS OTHERWISE INDICATED:
 A. ELECTRICAL/COMMUNICATIONS: 24"
 B. WATER: 36"
 C. JET FUEL: 48"
 - EXISTING UTILITY DEPTH INFORMATION IS PER A SURVEY BY OTAK DATED JANUARY 29TH, 2023 OR PER GIS DATA PROVIDED BY THE PORT OF PORTLAND (NOTED ON PROFILES).

no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT

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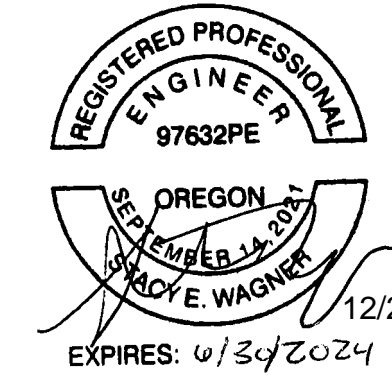
BURNS MEDONNELL
 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
 816-333-9400
 Burns & McDonnell Engineering Co., Inc.

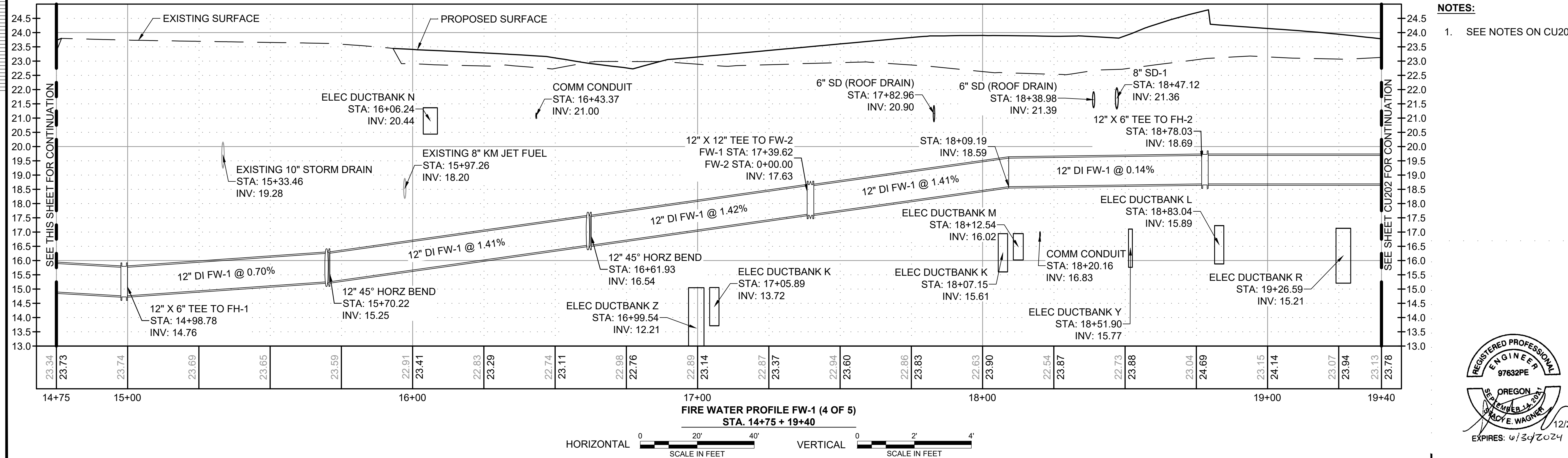
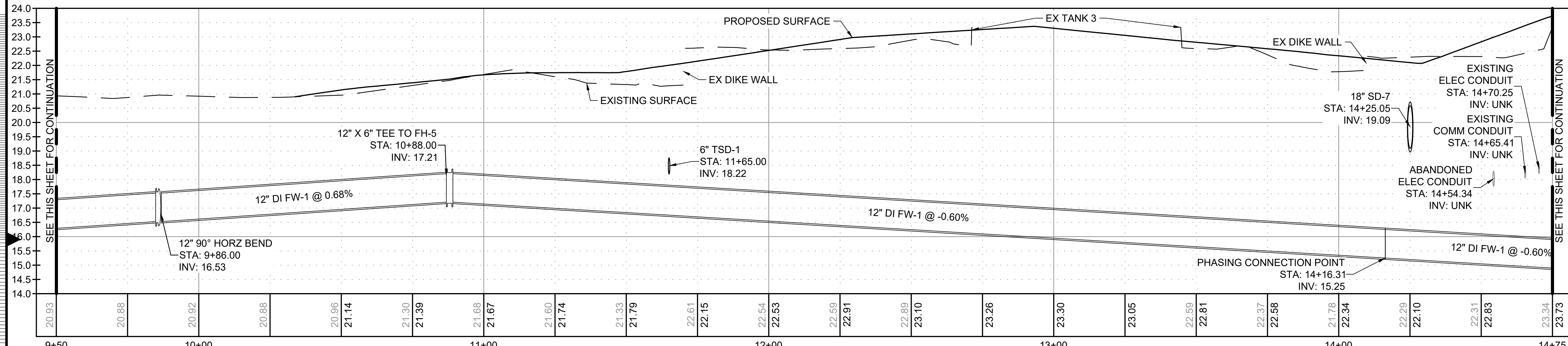
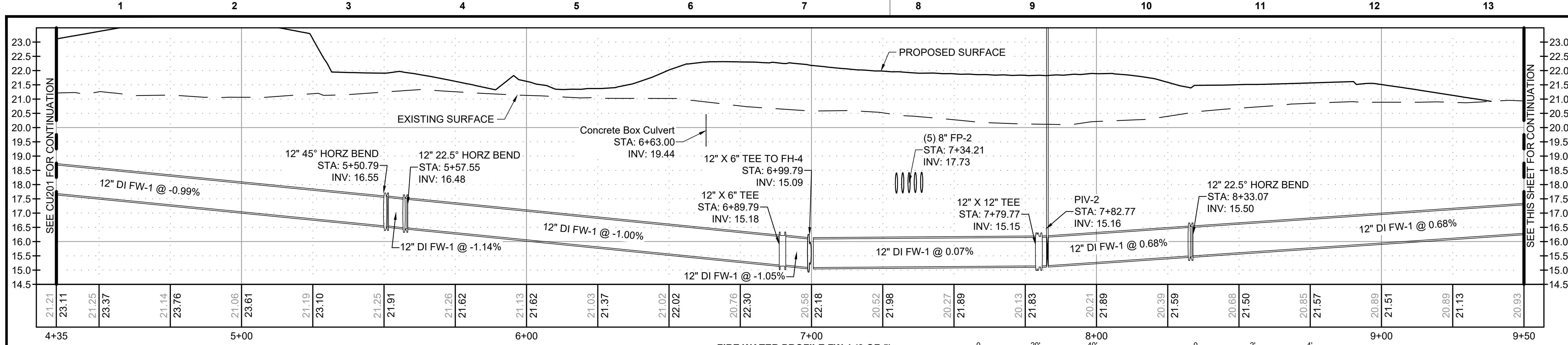
date	detailed
06/23/23	G. PAMBUENA
designed	checked
M. GREUFE	S. WAGNER

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PDX FACILITY IMPROVEMENTS
 UTILITY PROFILES - 1

project	contract
153929	
drawing	rev.
CU201	A
file 153929CU201.DWG	





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 Burns & McDonnell Engineering Co., Inc.

date	06/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

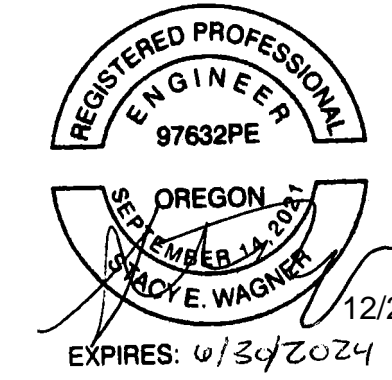
PDX FUEL COMPANY L.L.C
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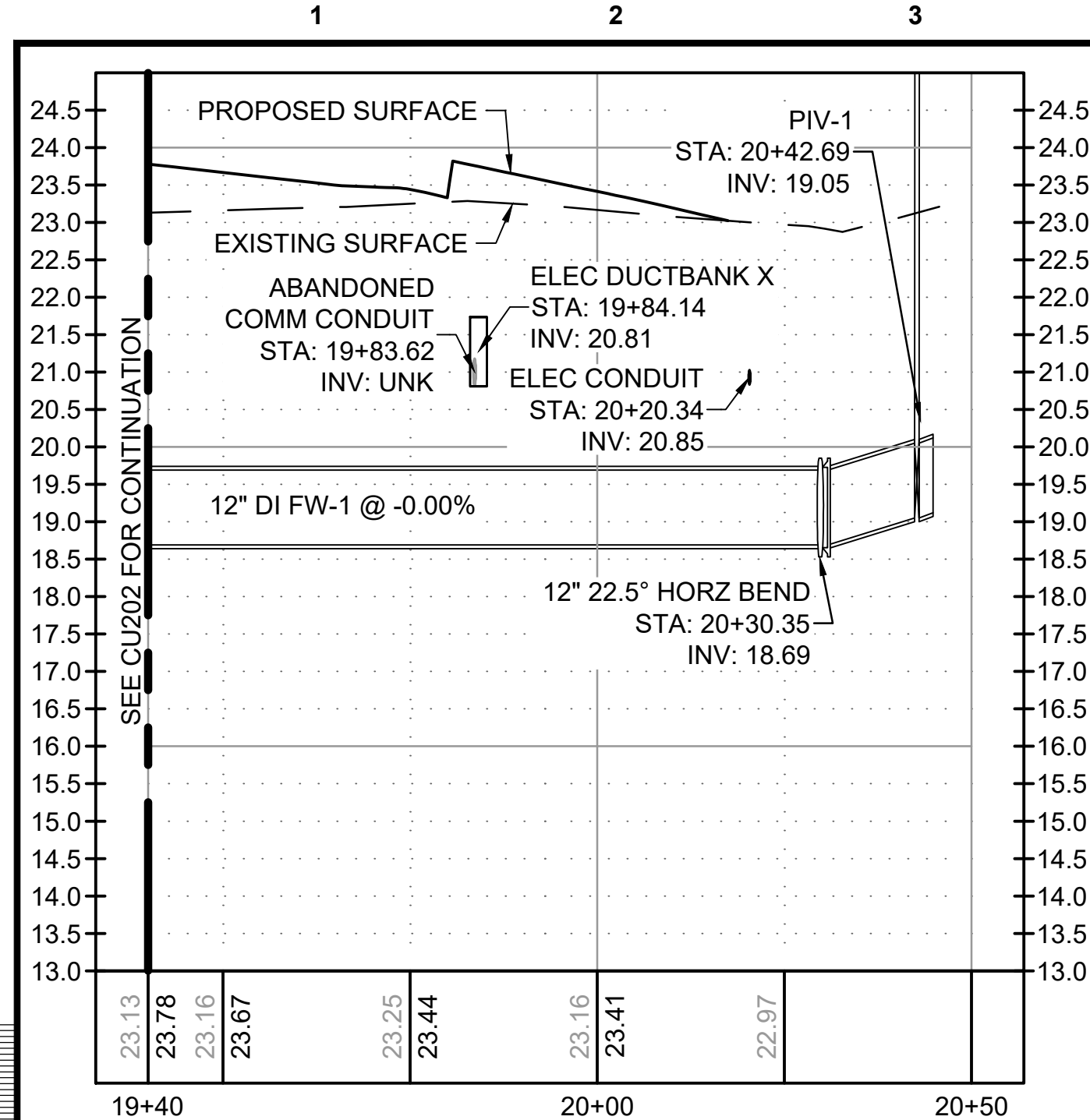
PDX FACILITY IMPROVEMENTS
 UTILITY PROFILES - 2

project	153929	contract	
drawing	CU202	rev.	A

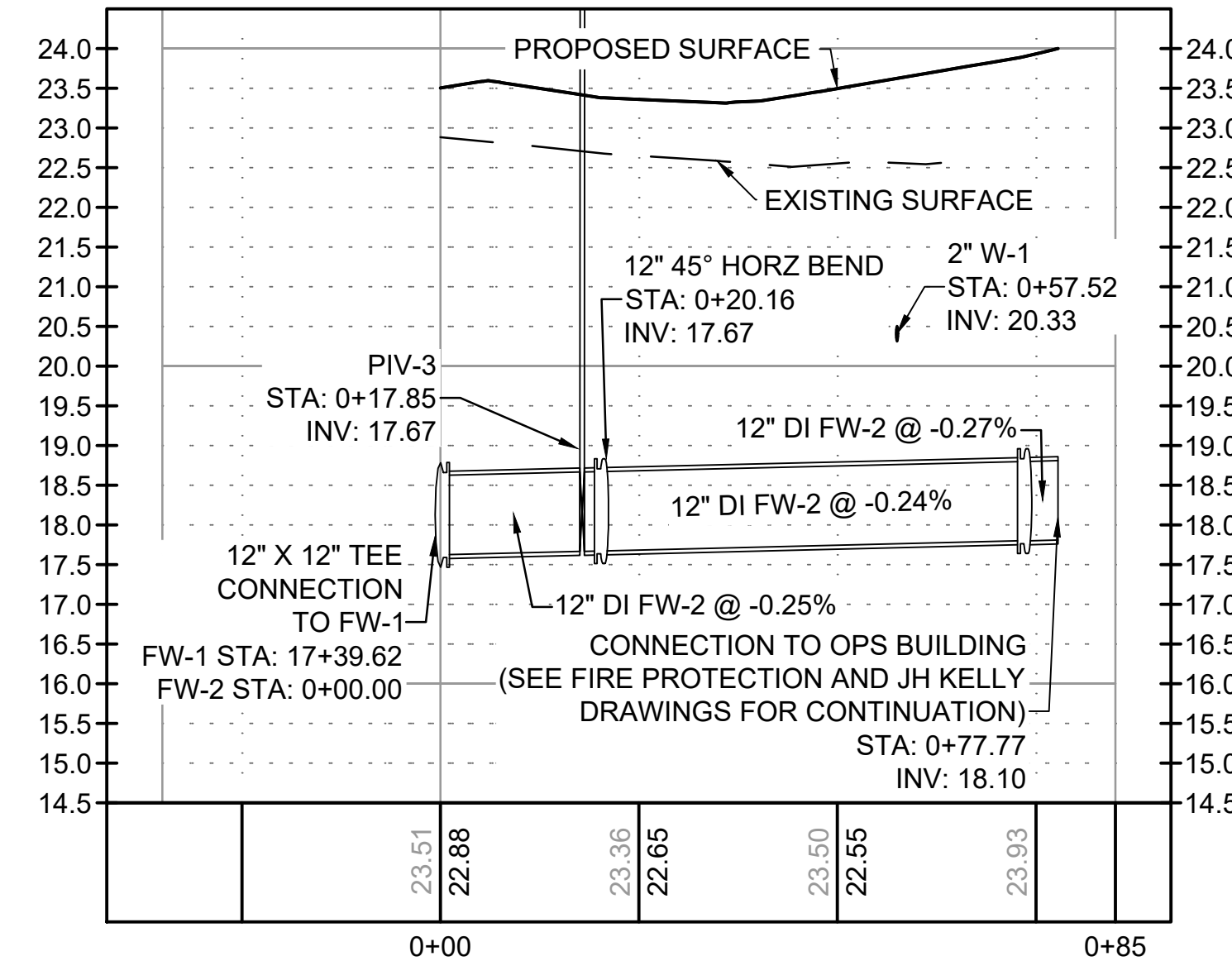
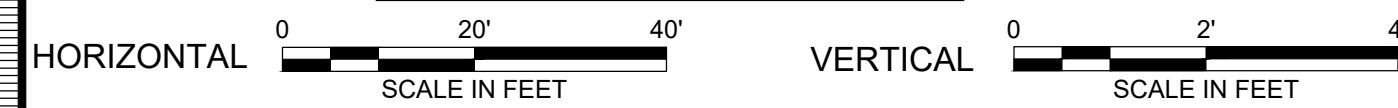
file 153929CU201.DWG

NOTES:
 1. SEE NOTES ON CU201.

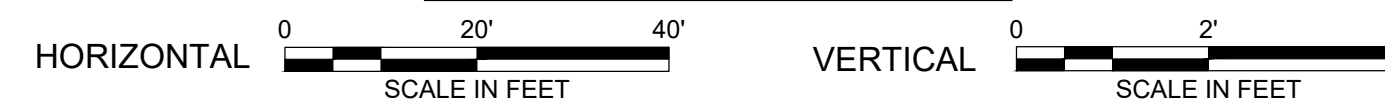




**FIRE WATER PROFILE FW-1 (5 OF 5)
STA. 19+40 TO 20+50**

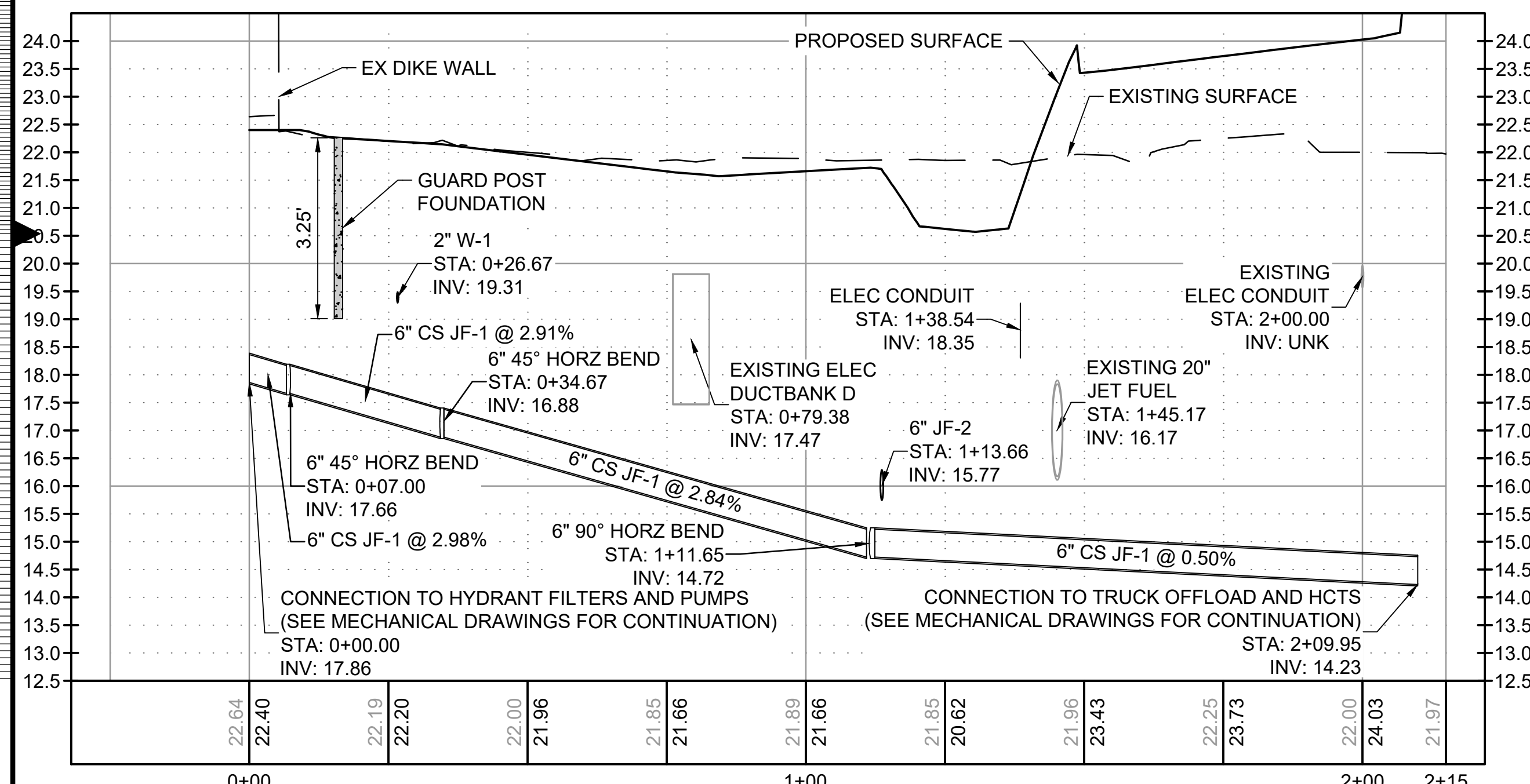


FIRE WATER PROFILE FW-2

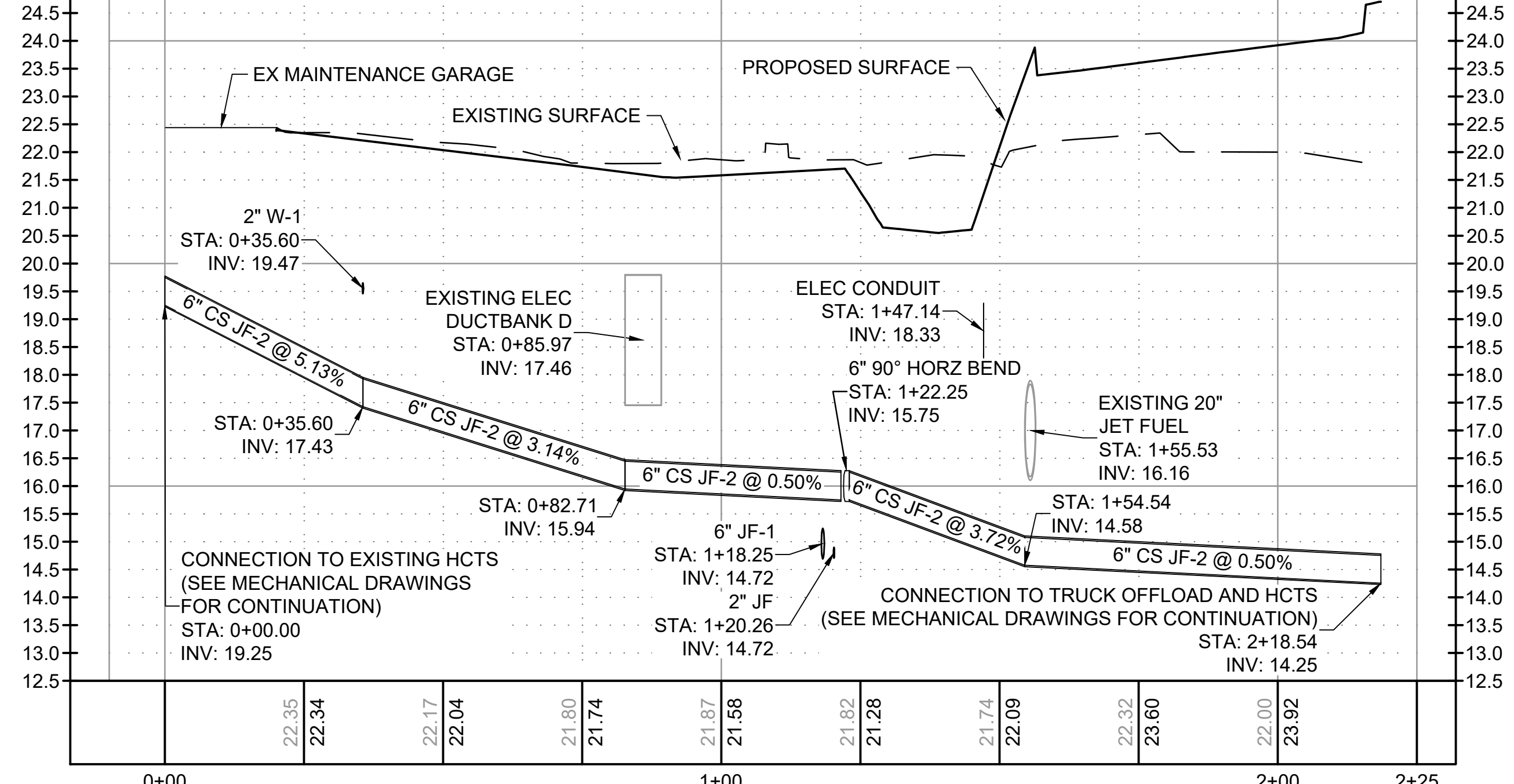
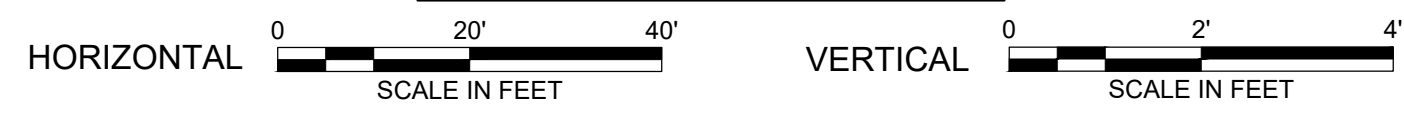


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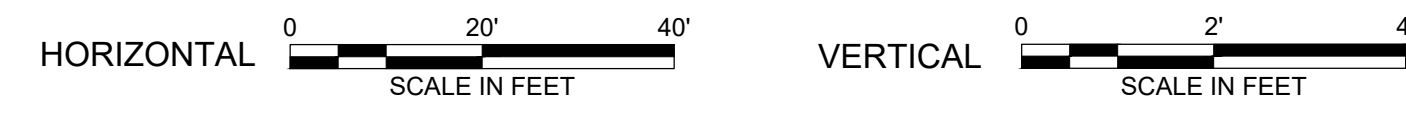
1. SEE NOTES ON CU201.
2. THE 2" JET FUEL LINE SHALL FOLLOW THE JF-1 PROFILE, MATCHING INVERTS, WITH A 2' OFFSET.



JET FUEL PROFILE JF-1



JET FUEL PROFILE JF-2



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date	detailed
06/23/23	G. PAMBUENA
designed	checked
M. GREUFE	S. WAGNER

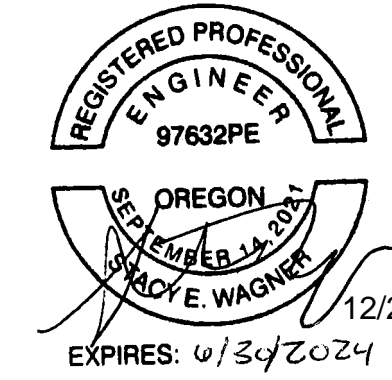
PDX FUEL COMPANY L.L.C

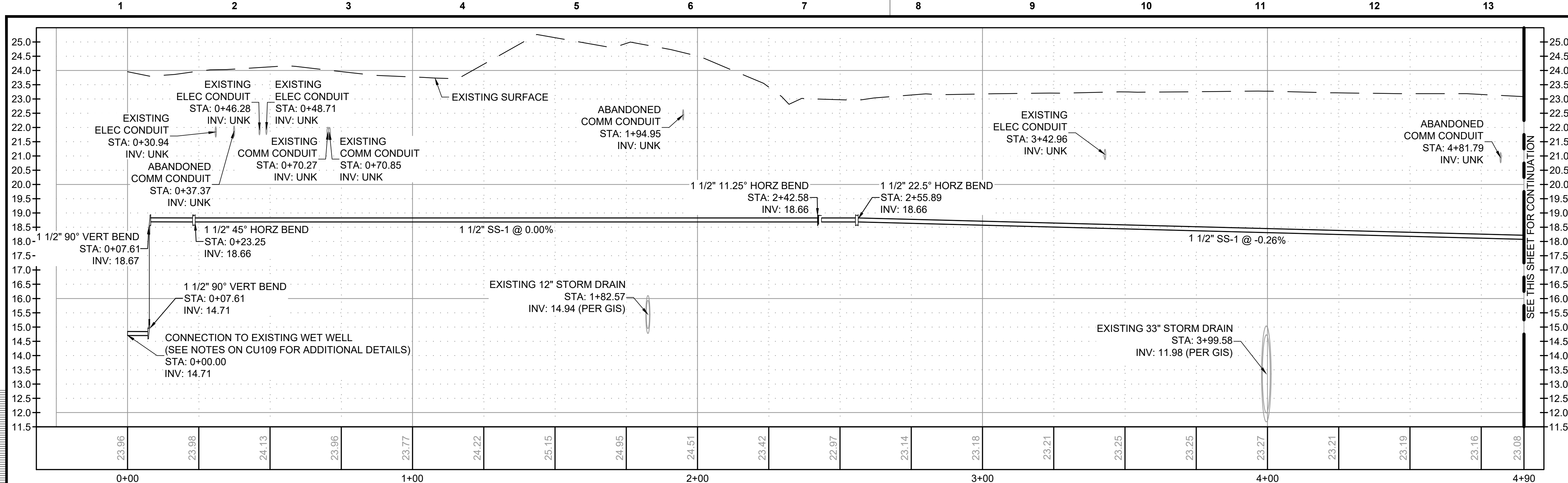
PORTLAND INTERNATIONAL AIRPORT
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PDX FACILITY IMPROVEMENTS
UTILITY PROFILES - 3

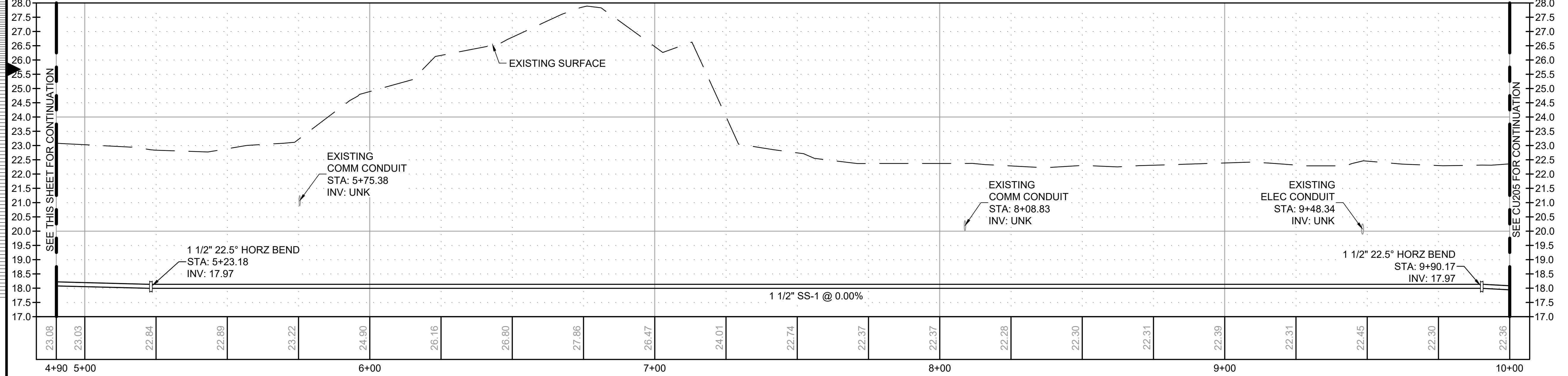
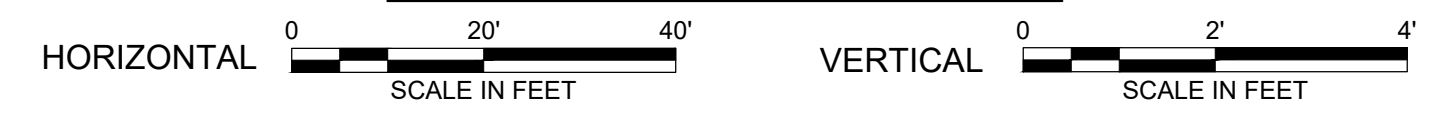
project	contract
153929	
drawing	rev.
CU203	A

file 153929CU201.DWG

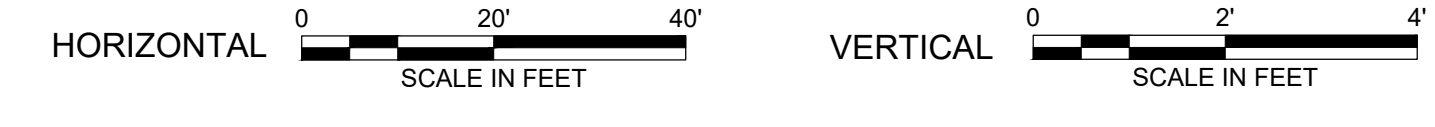




SANITARY SEWER PROFILE SS-1 (1 OF 4)
STA. 0+00 TO 4+90



SANITARY SEWER PROFILE SS-1 (2 OF 4)
STA. 4+90 + 10+00



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816-333-9400
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date	06/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

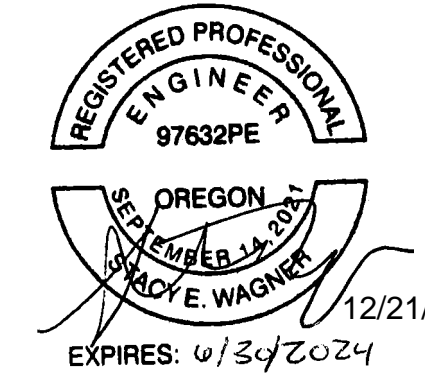
PDX FUEL COMPANY L.L.C

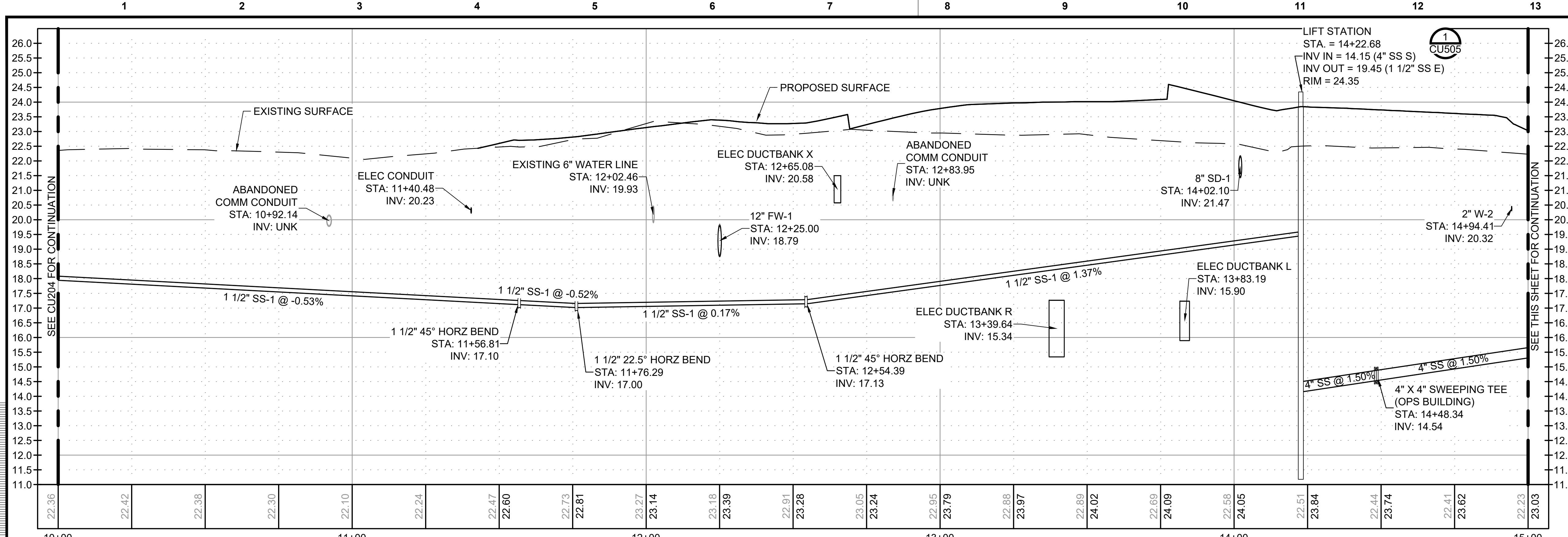
PORTLAND INTERNATIONAL AIRPORT
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PORTLAND, OREGON 97218

PDX FACILITY IMPROVEMENTS
UTILITY PROFILES - 4

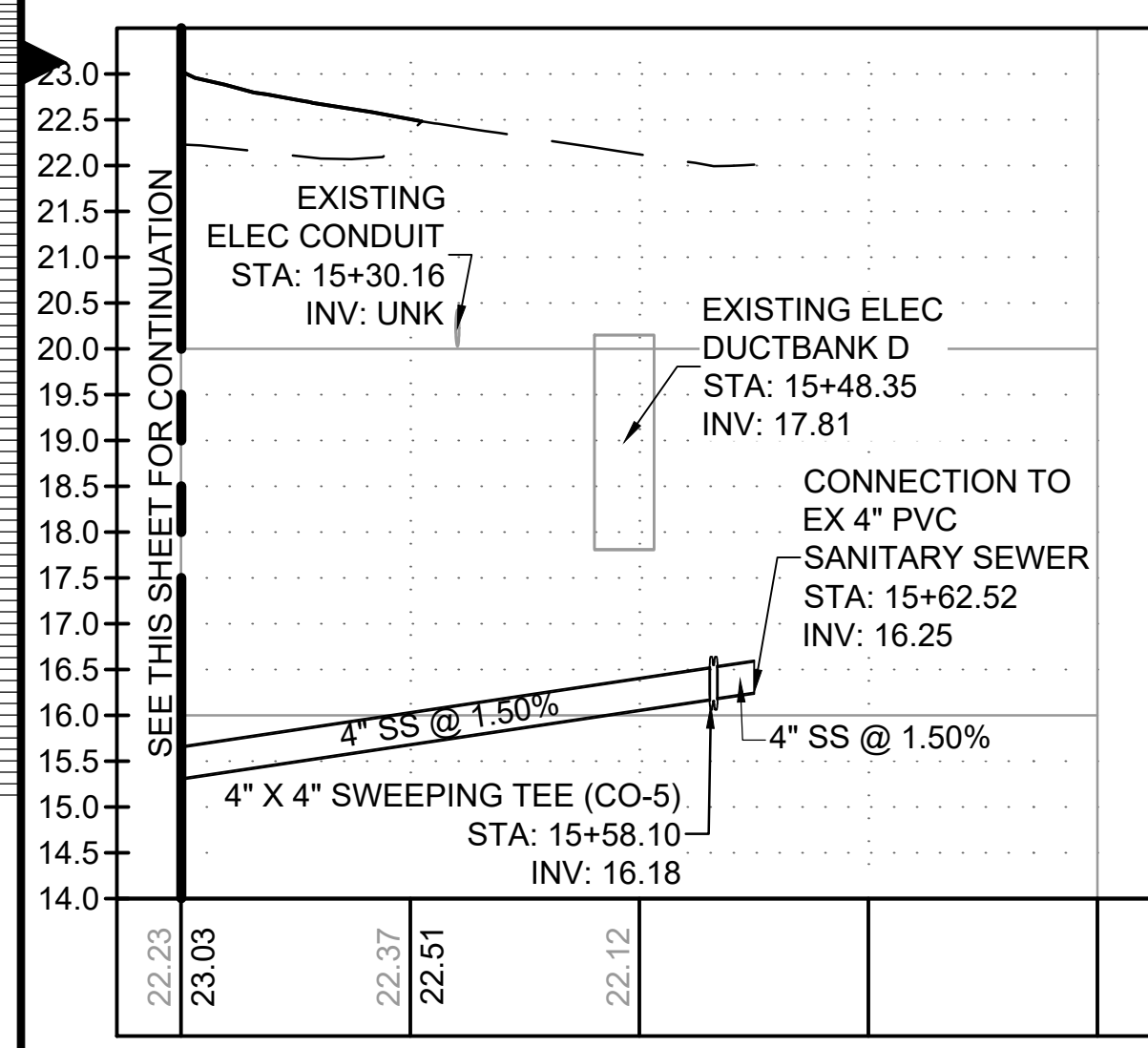
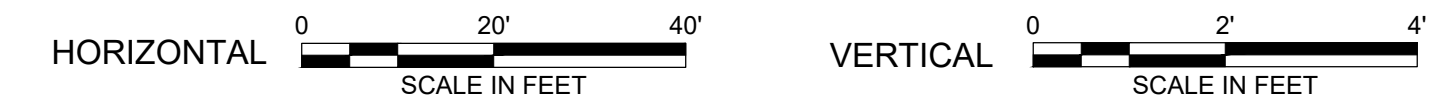
project	153929	contract	
drawing	CU204	rev.	A

file 153929CU201.DWG

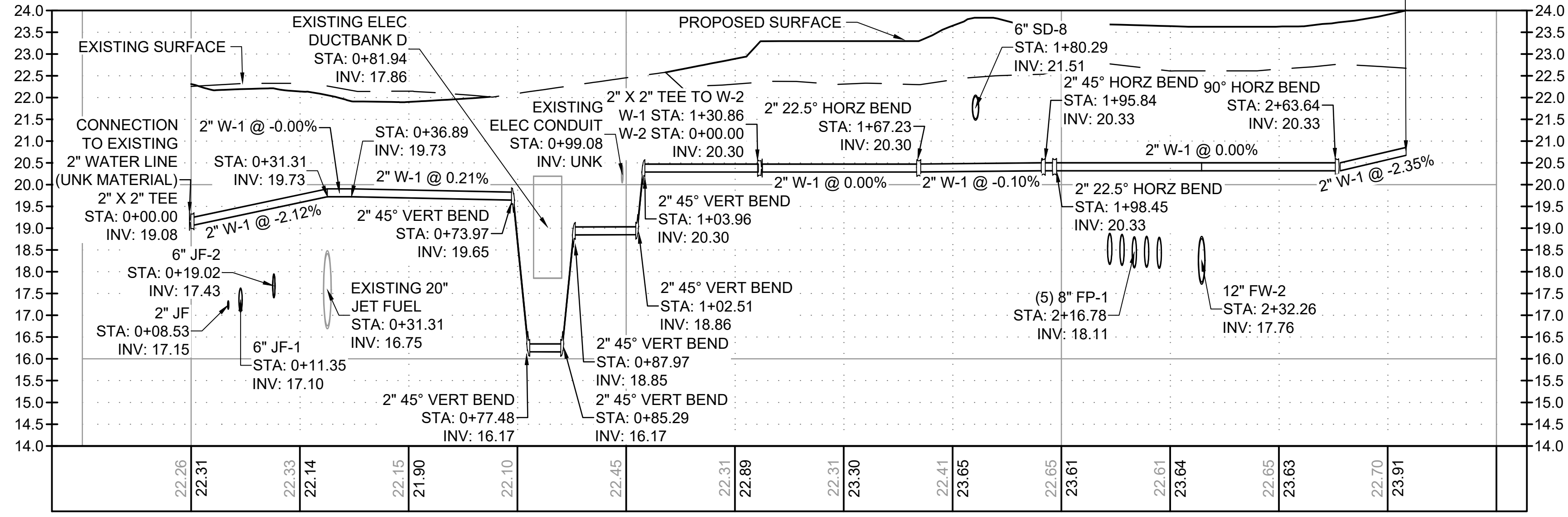
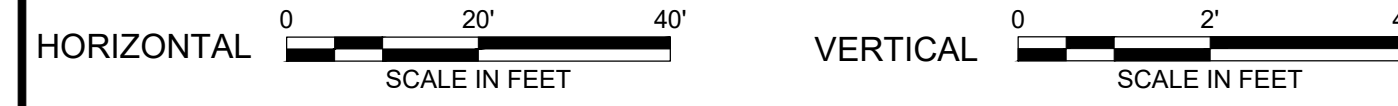




SANITARY SEWER PROFILE SS-1 (3 OF 4)
STA. 10+00 TO 15+00



SANITARY SEWER PROFILE SS-1 (4 OF 4)
STA. 15+00 TO 16+00



WATER PROFILE W-1



no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT

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816-333-9400
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date	detailed
06/23/23	G. PAMBUENA
designed	checked
M. GREUFE	S. WAGNER

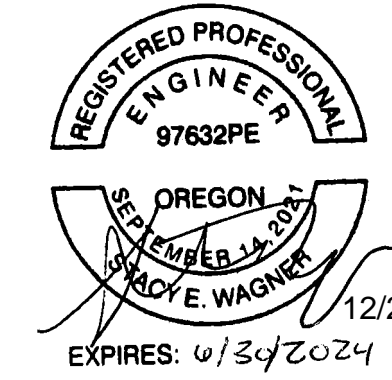
PDX FUEL COMPANY L.L.C

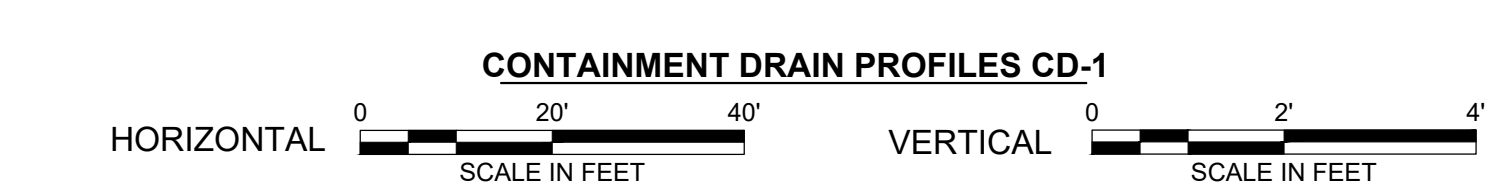
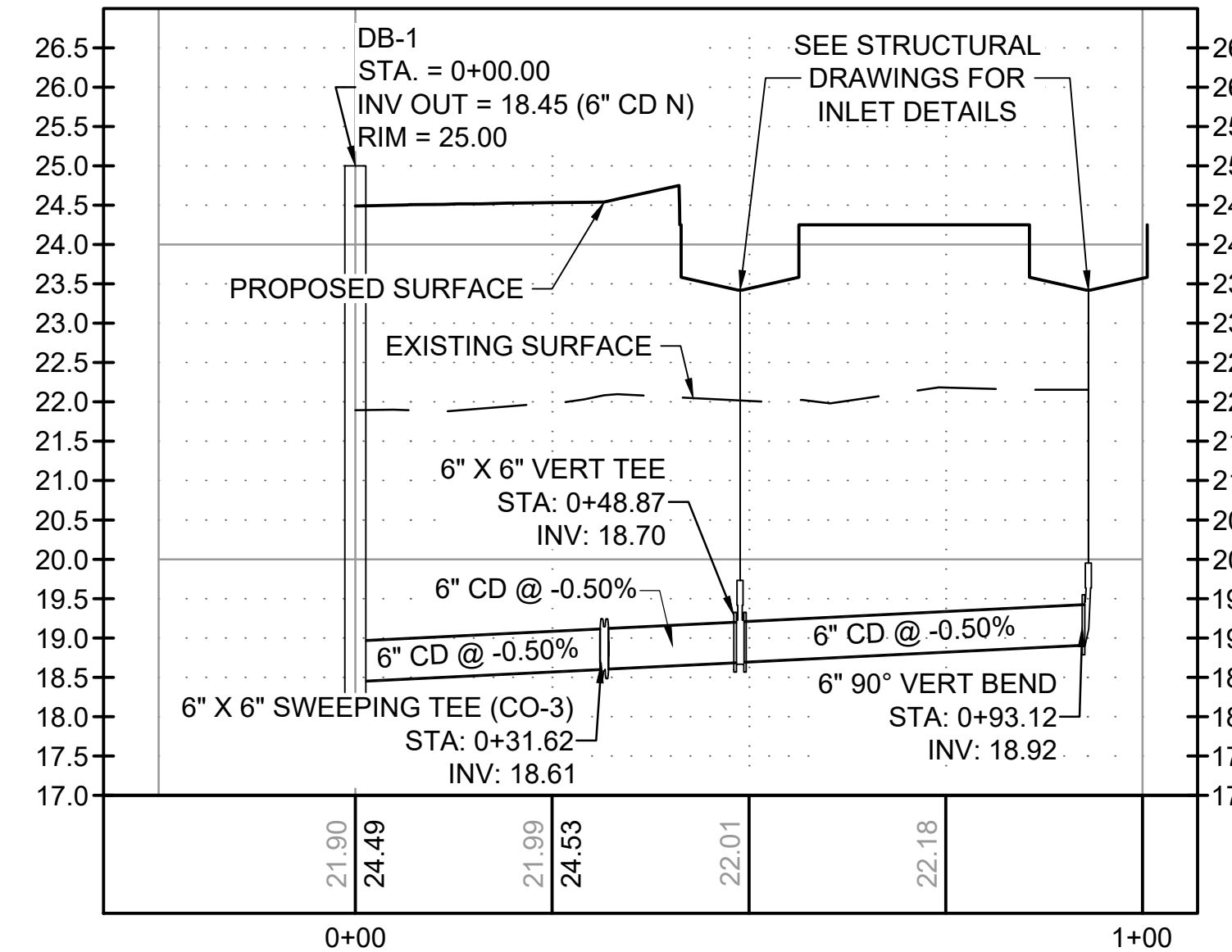
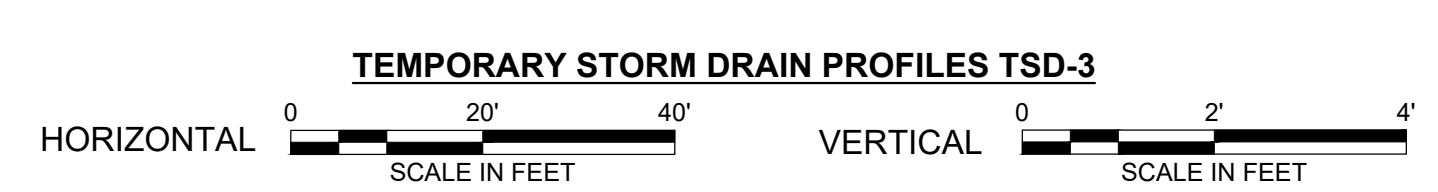
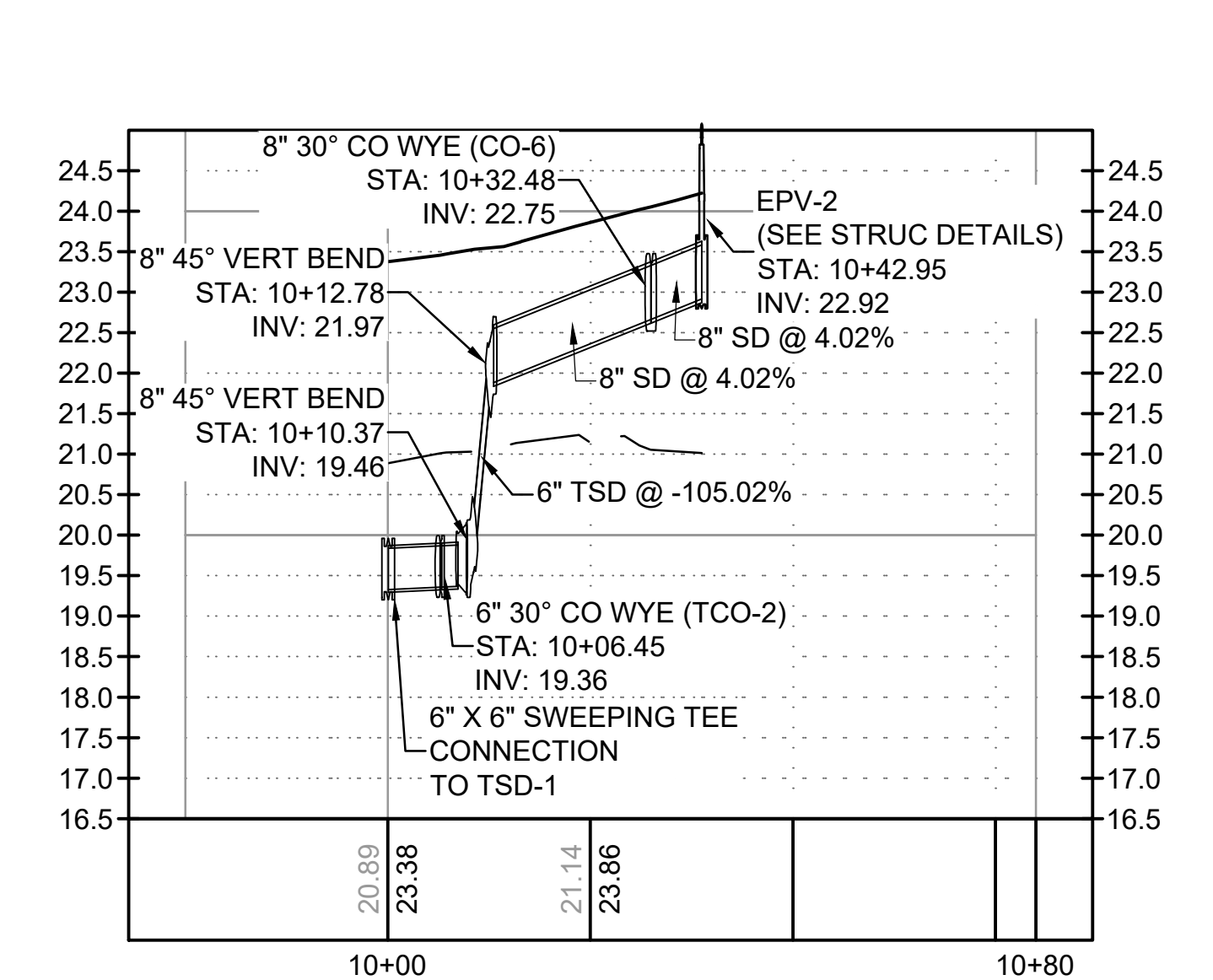
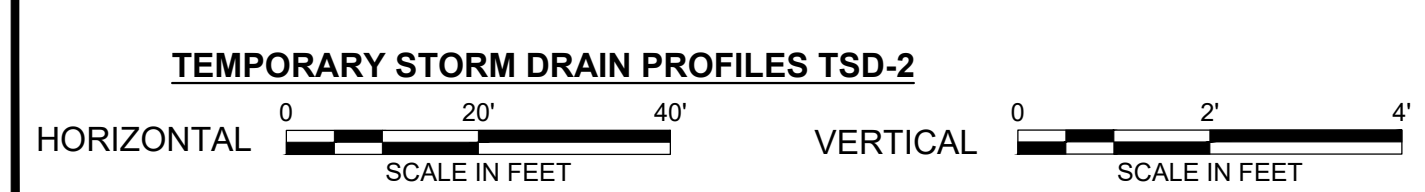
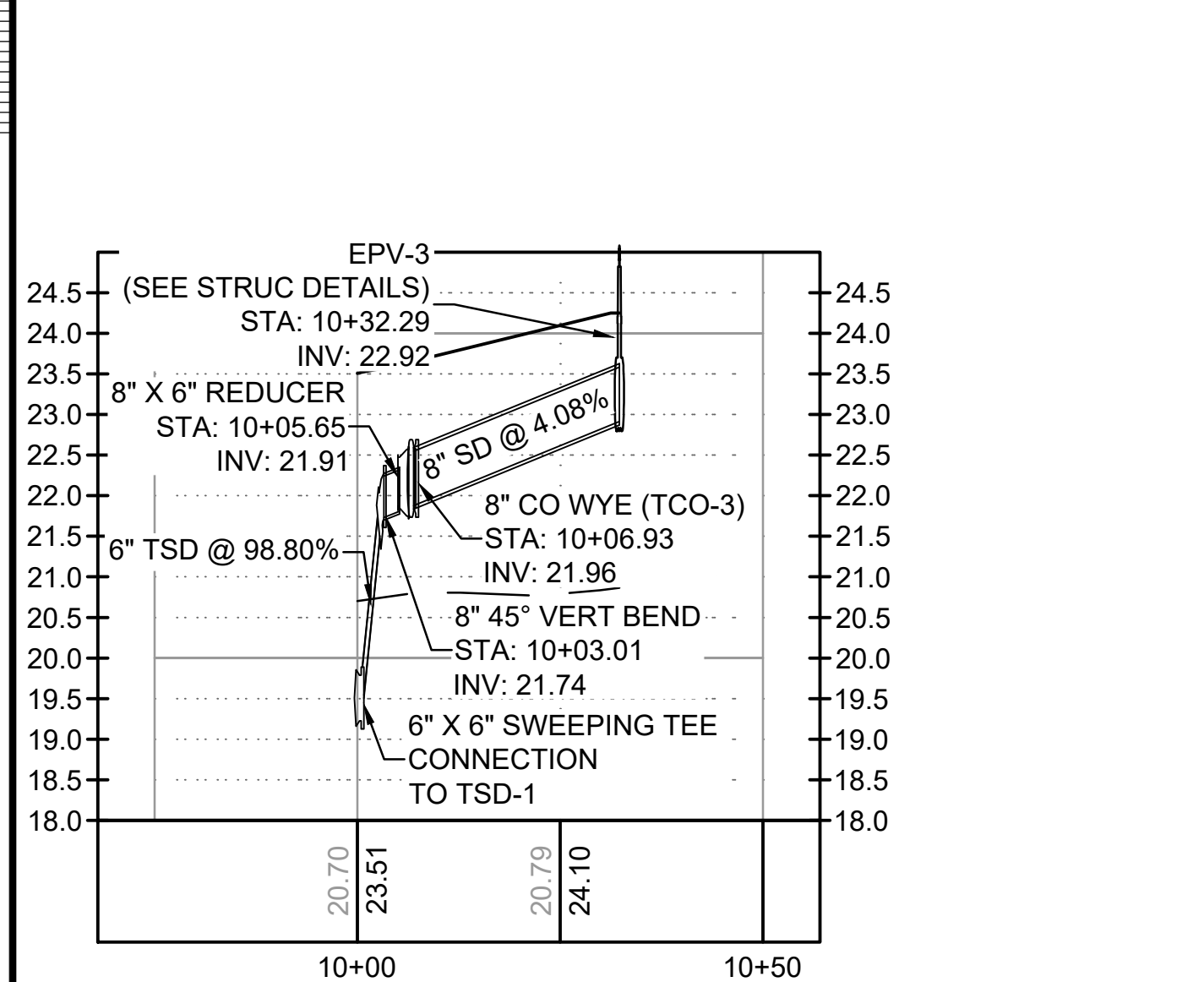
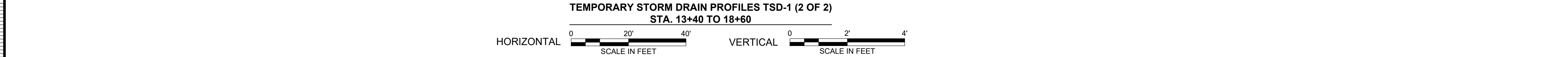
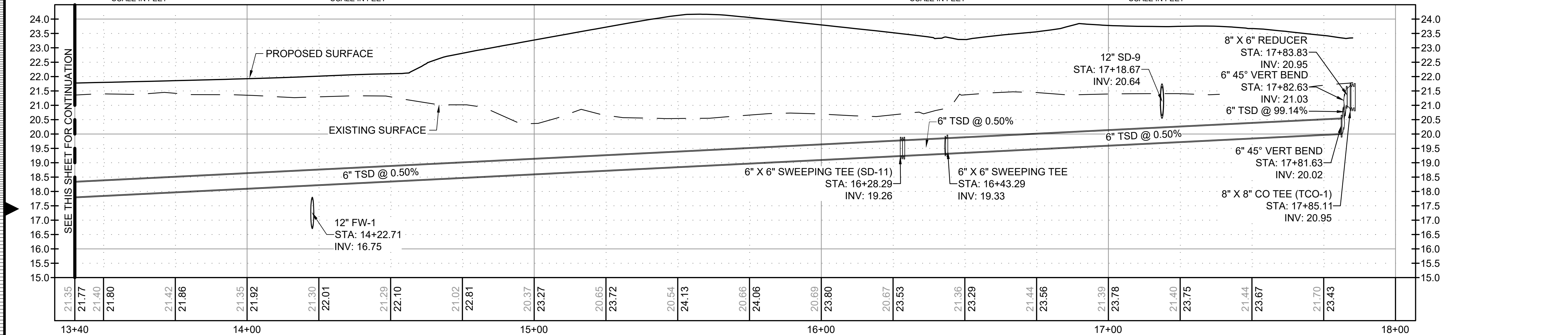
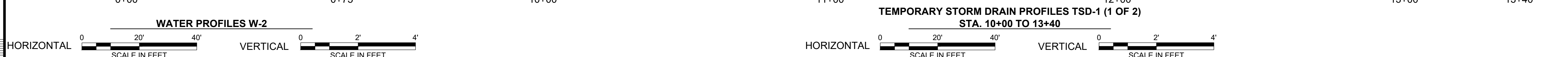
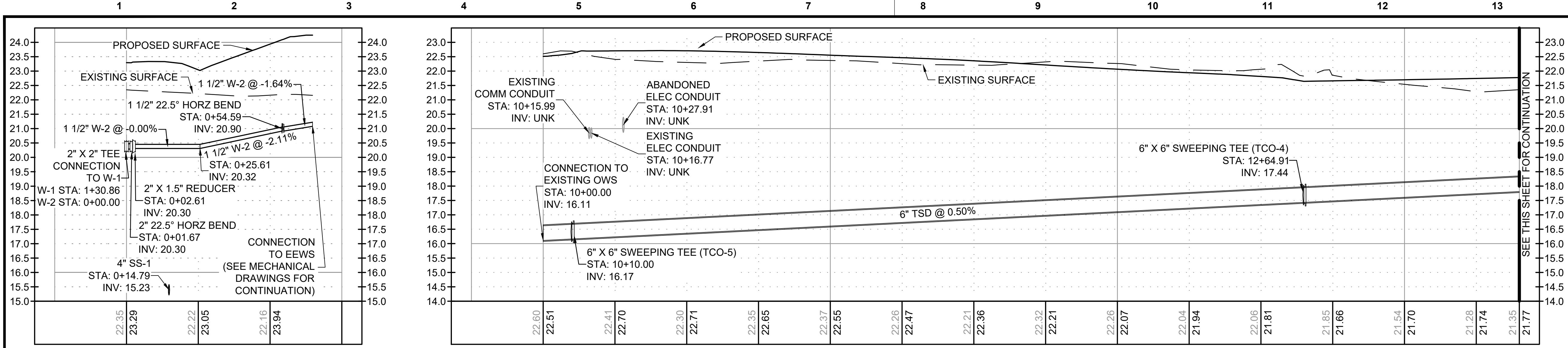
PORTLAND INTERNATIONAL AIRPORT
5000 NE MARINE DR.
PORTLAND, OREGON 97218

PDX FACILITY IMPROVEMENTS
UTILITY PROFILES - 5

project	contract
153929	
drawing	rev.
CU205	A

file 153929CU201.DWG





no.	date	by	ckd	description
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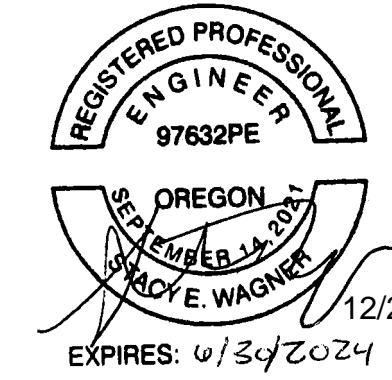
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 9400 WARD PARKWAY
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 816-333-9400
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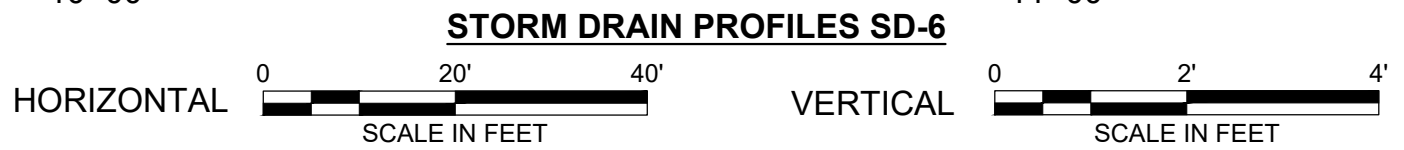
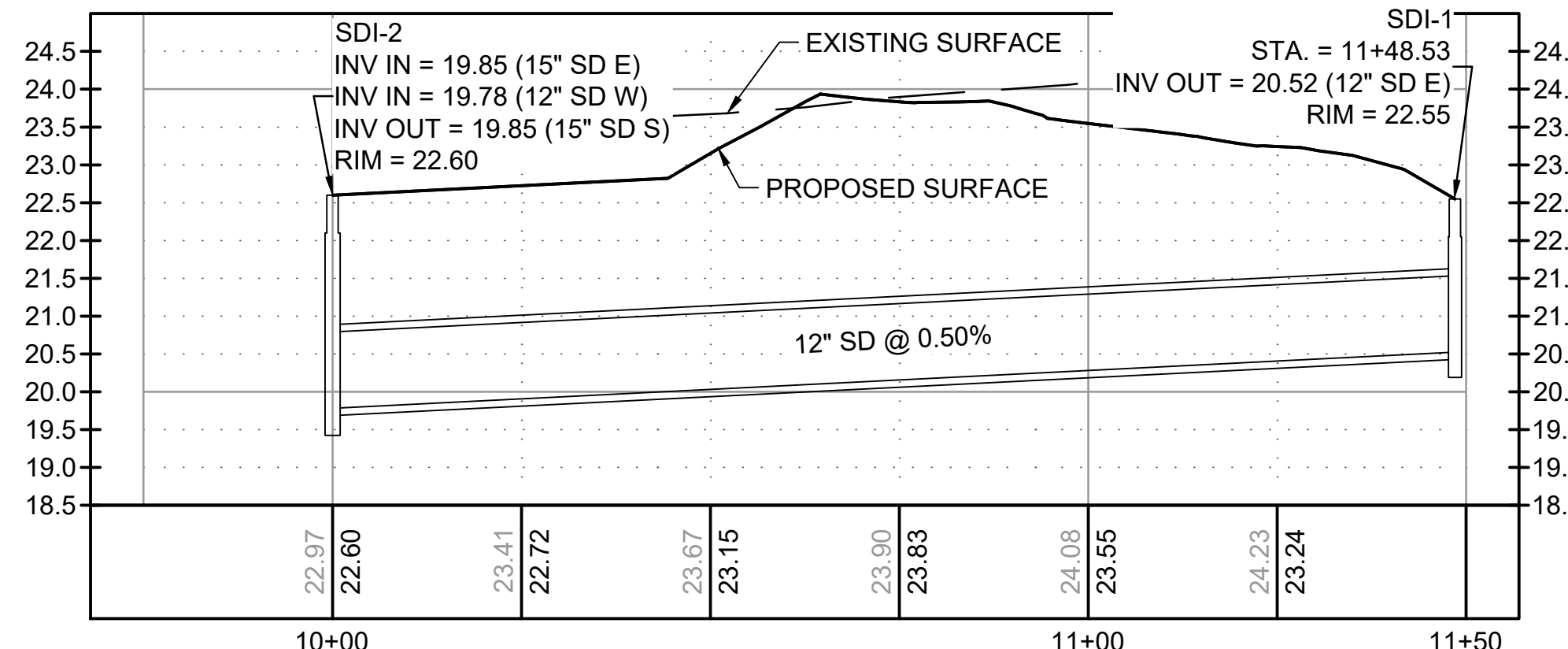
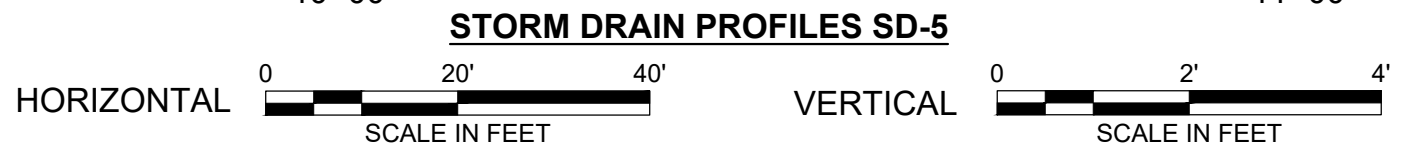
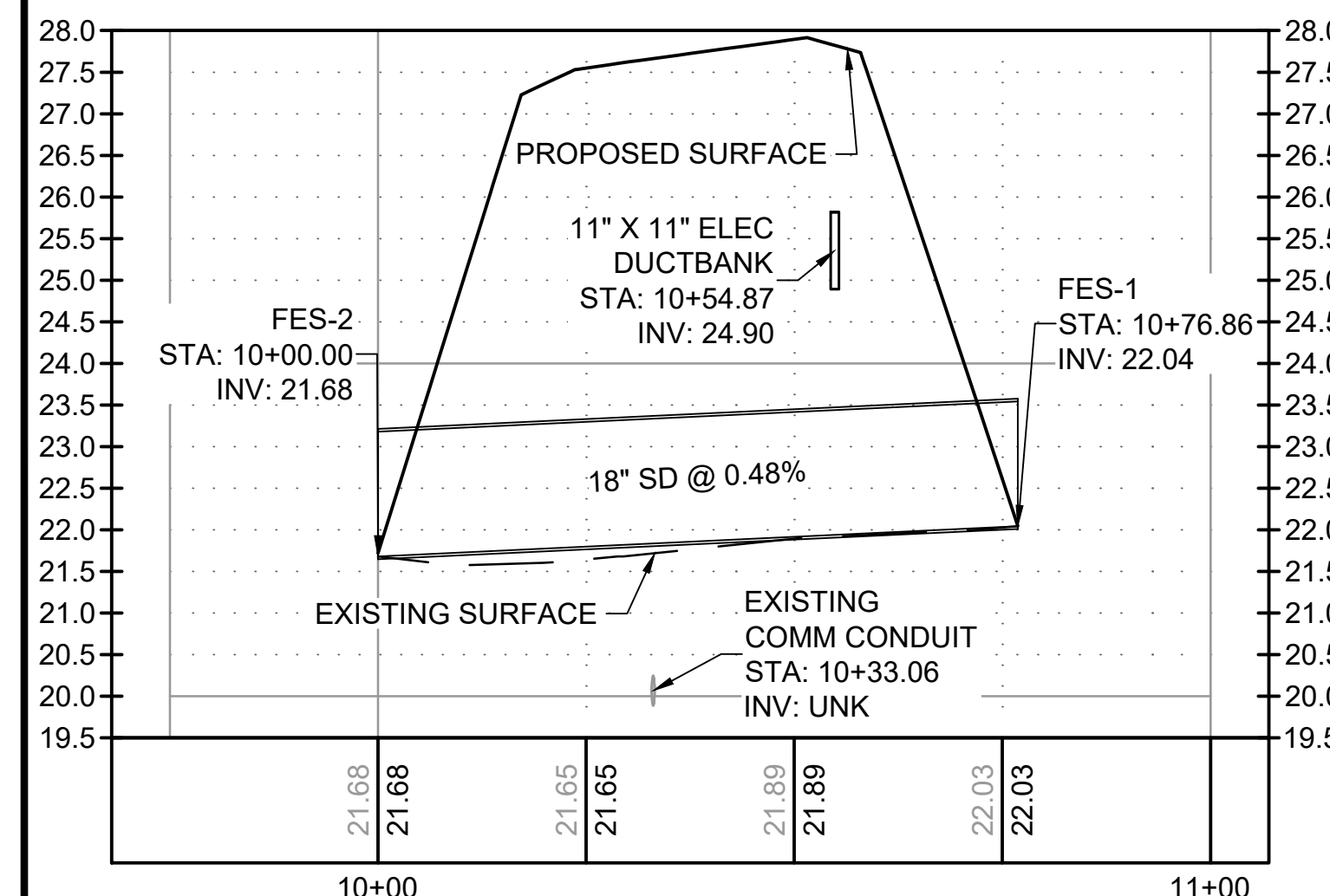
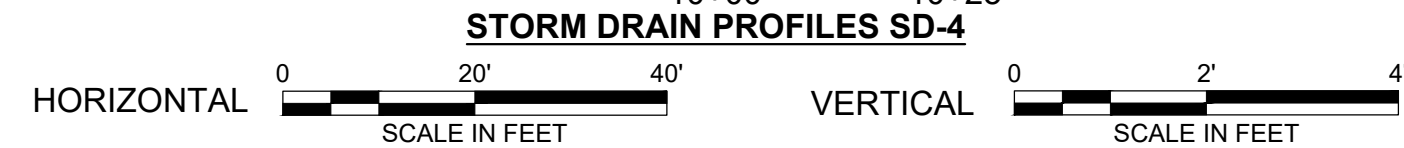
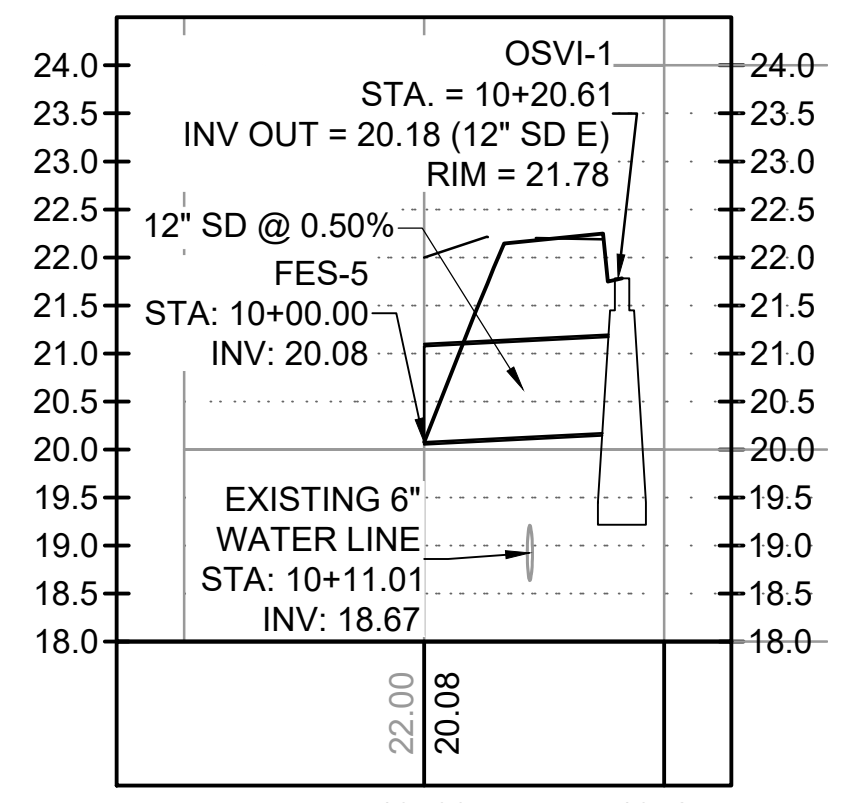
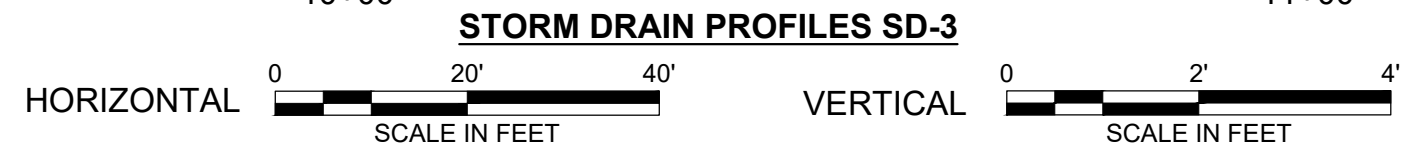
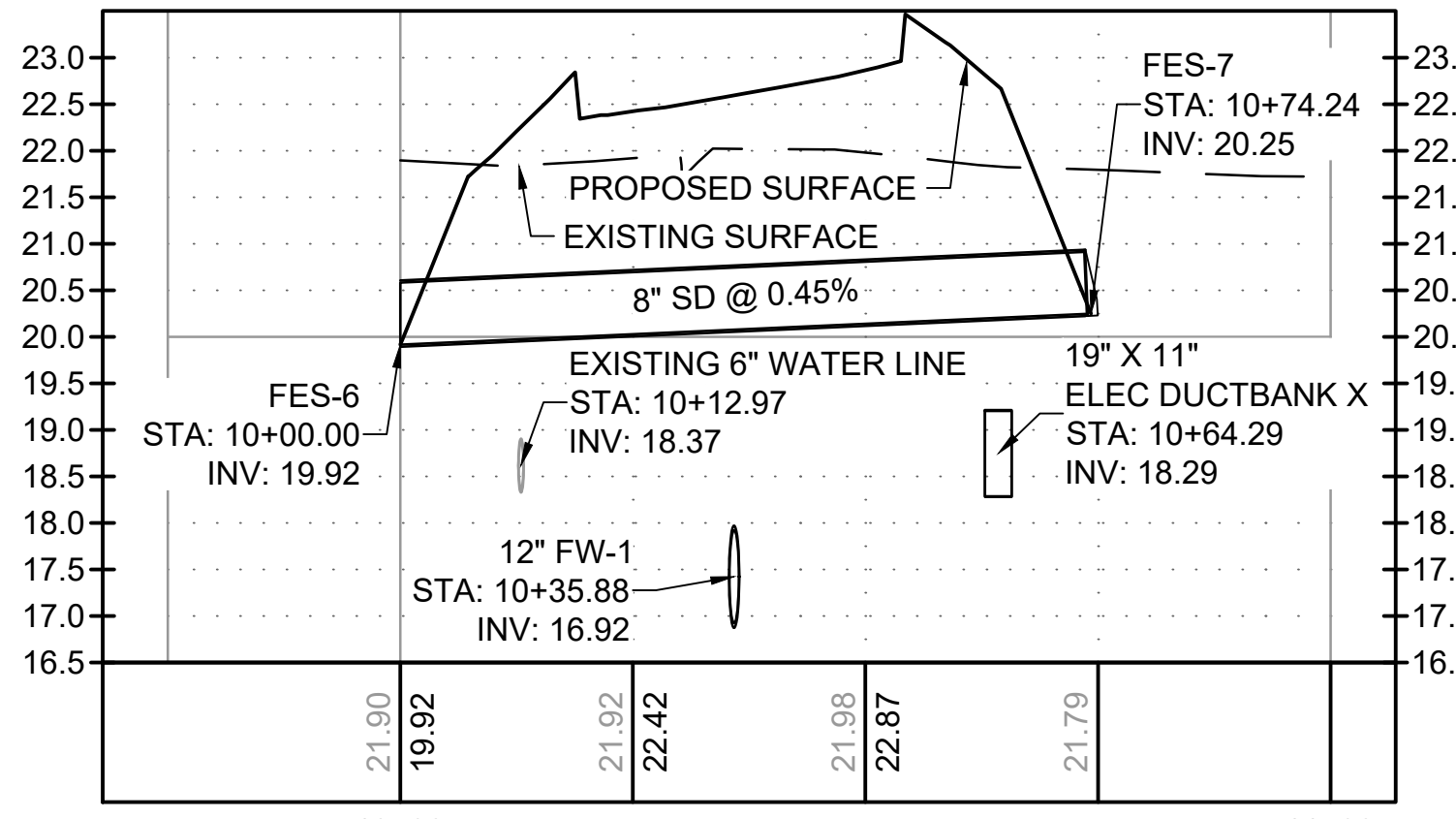
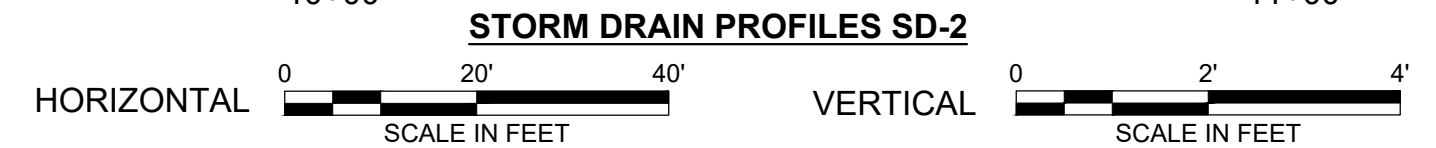
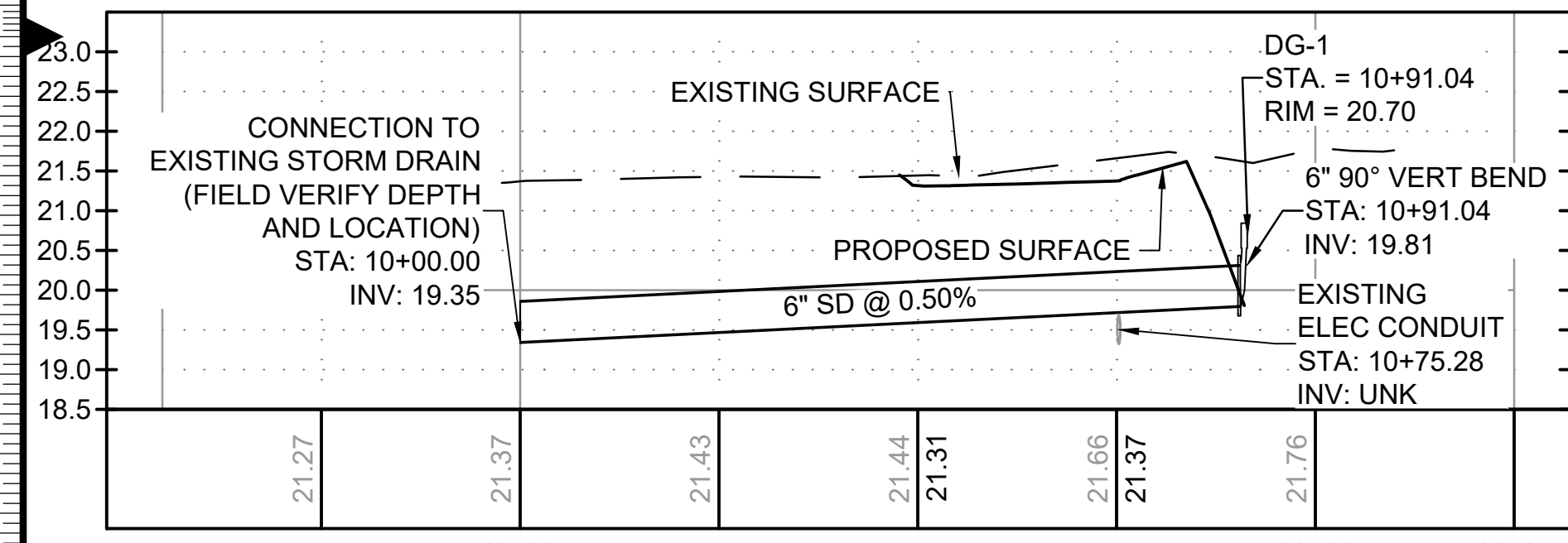
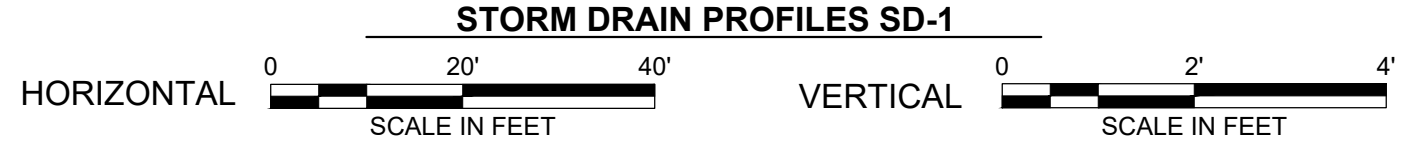
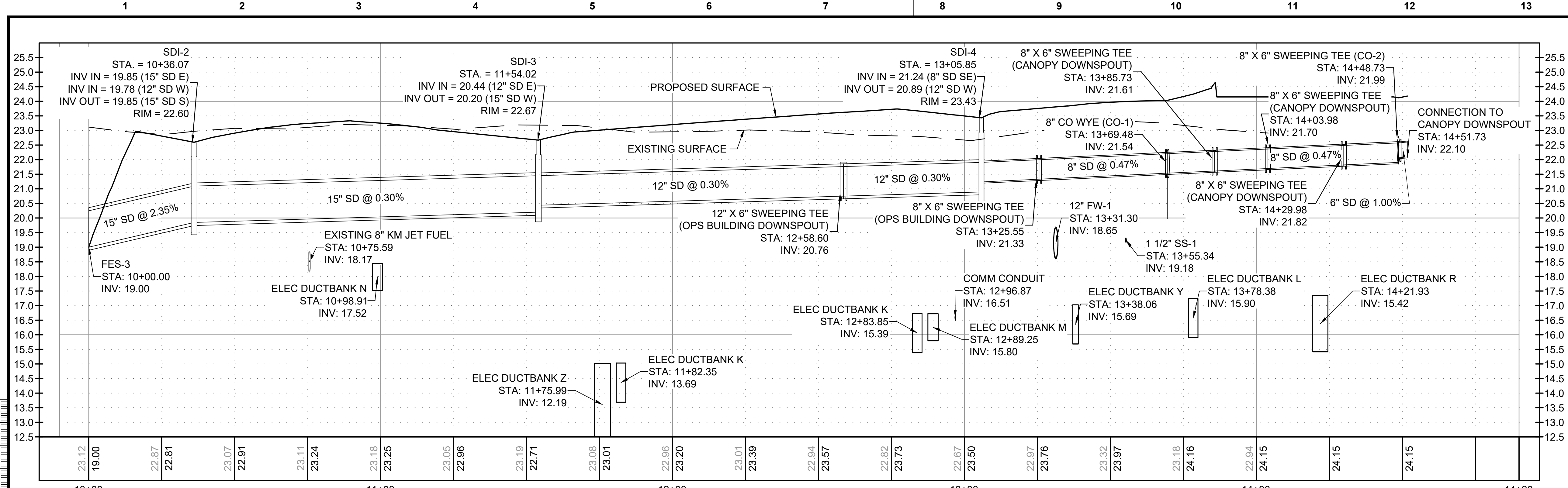
date	06/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

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PDX FACILITY IMPROVEMENTS
 UTILITY PROFILES - 6

project	153929	contract	
drawing	CU206	rev.	A





no.	date	by	ckd	description
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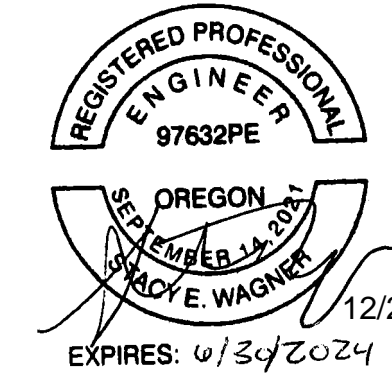
BURNS MEDONNELL
 9400 WARD PARKWAY
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 816-333-9400
 Burns & McDonnell Engineering Co., Inc.

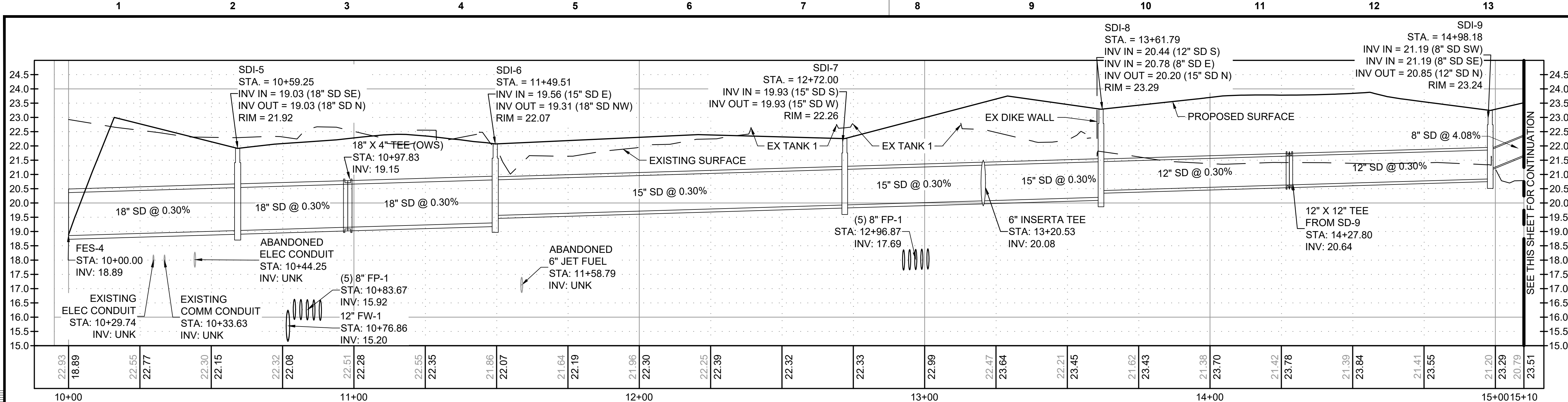
date	06/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

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 5000 NE MARINE DR.
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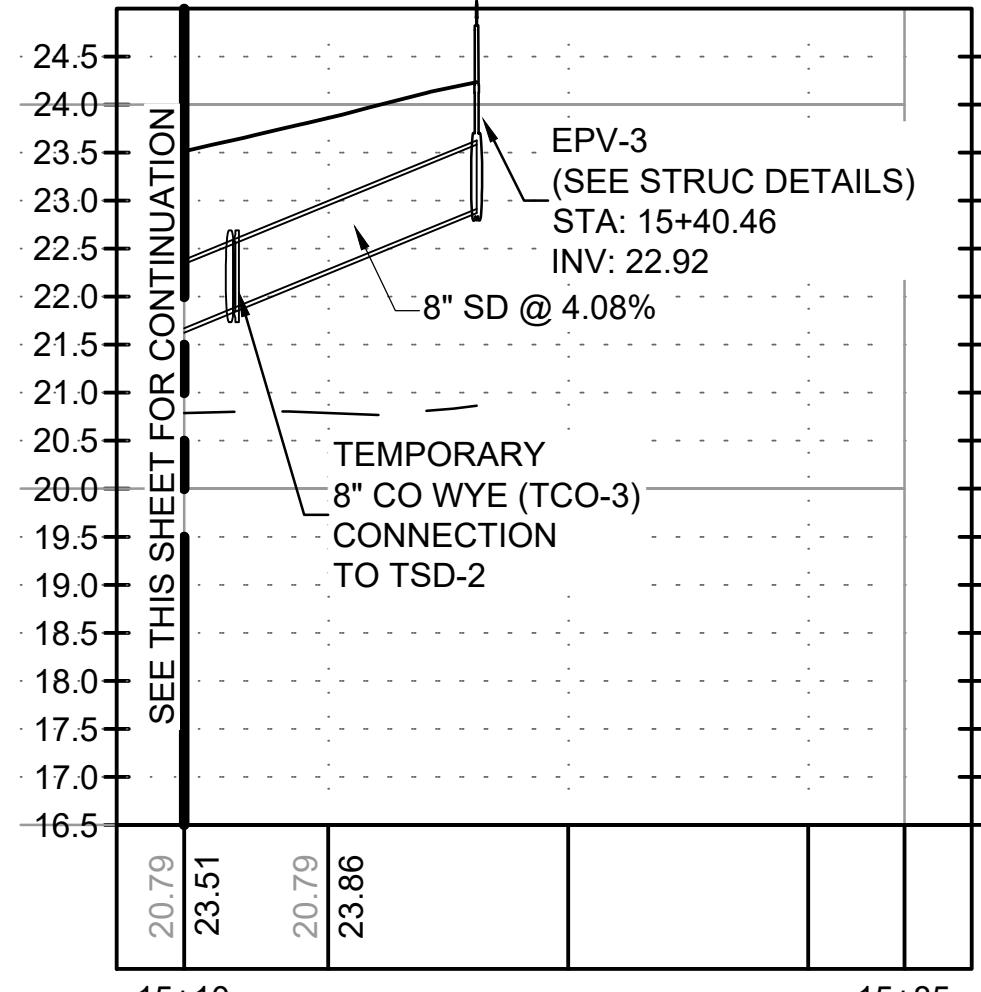
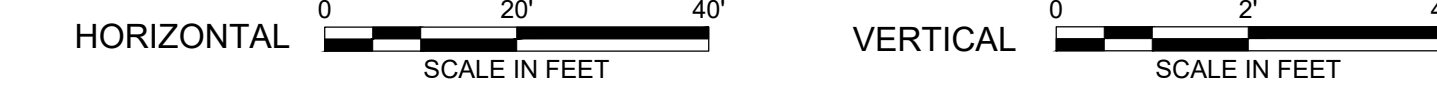
PDX FACILITY IMPROVEMENTS
 UTILITY PROFILES - 7

project	153929	contract	
drawing	CU207	rev.	A

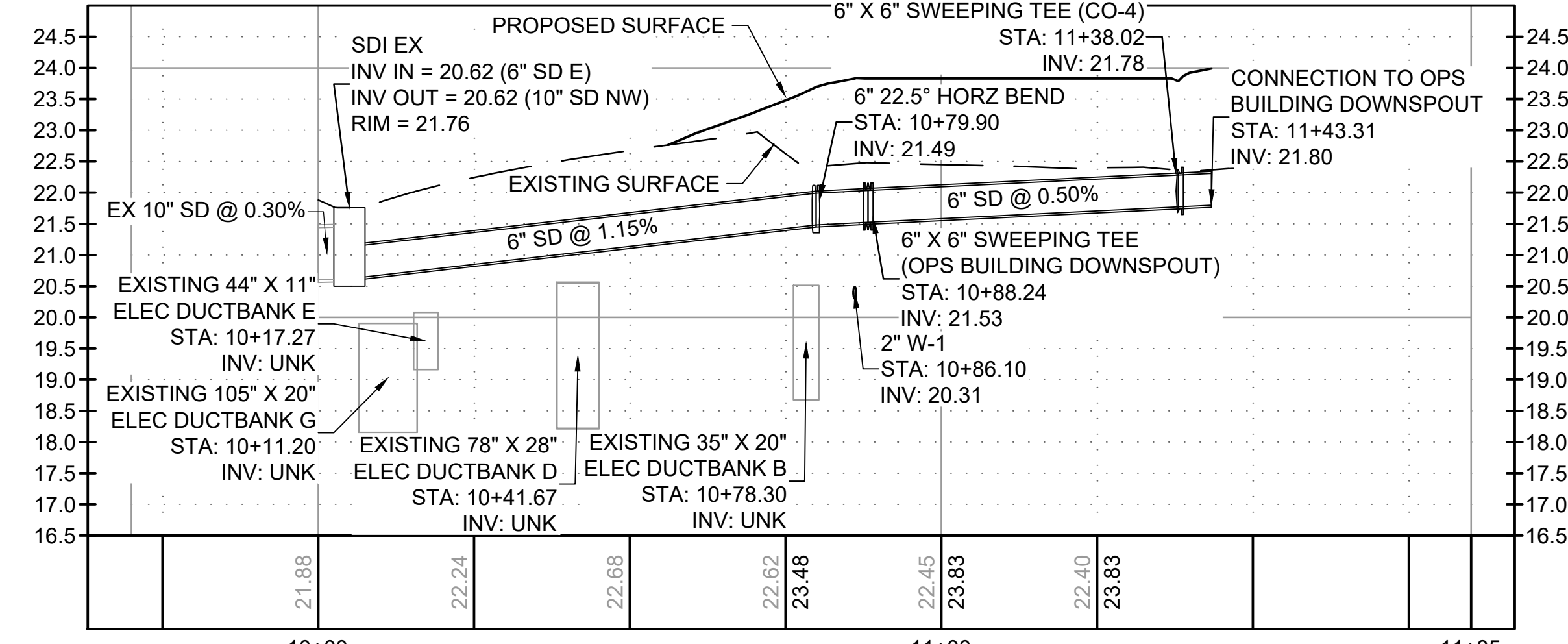
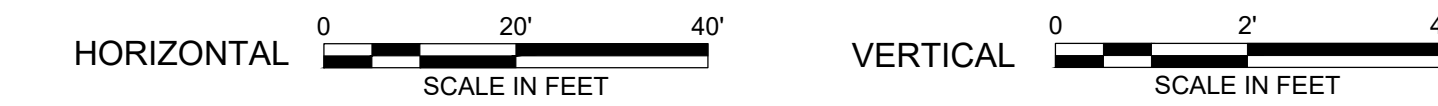




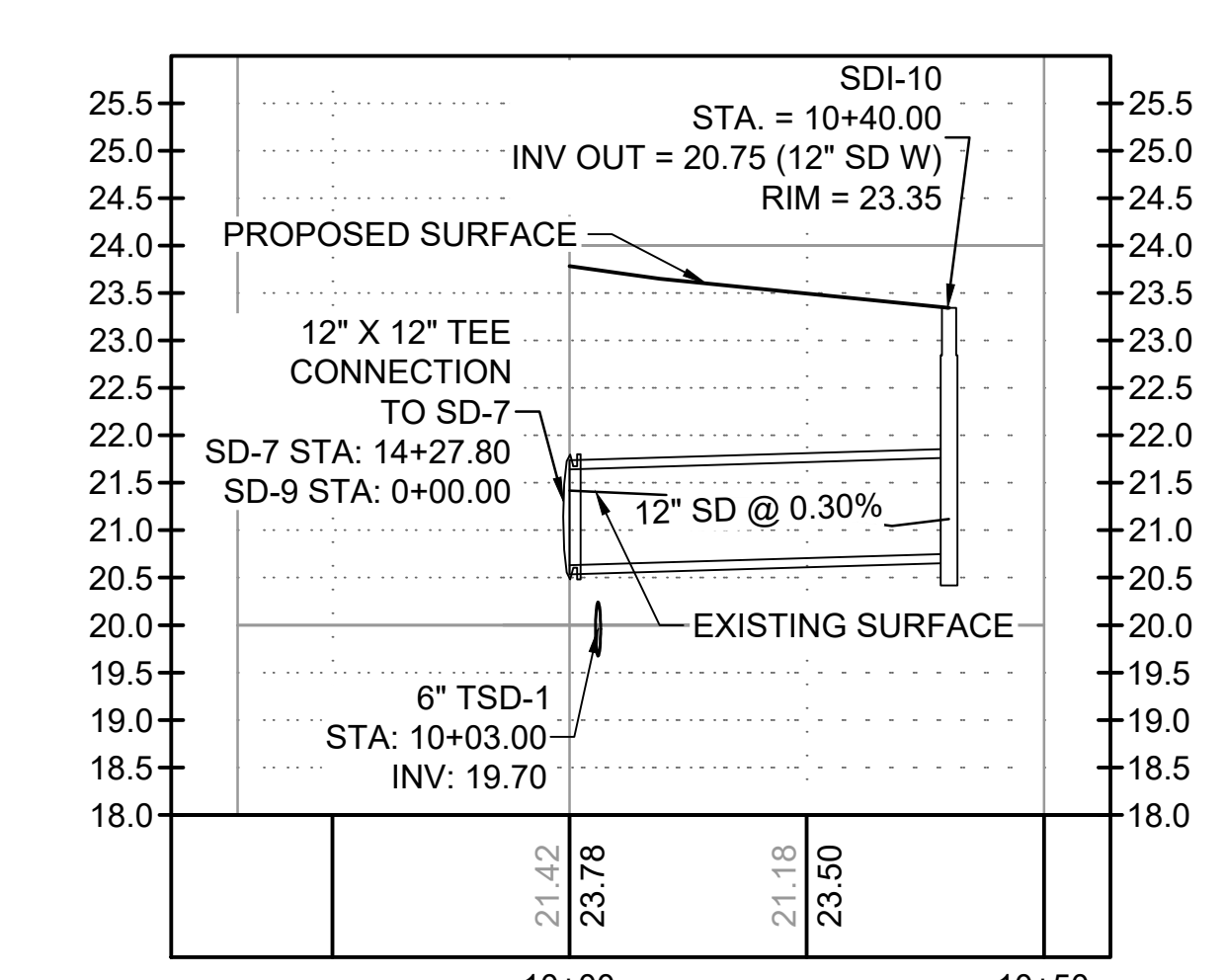
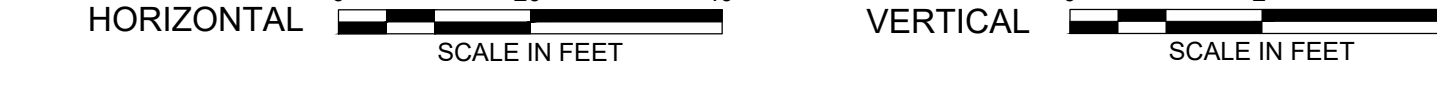
STORM DRAIN PROFILES SD-7 (1 OF 2)
STA. 10+00 TO 15+20



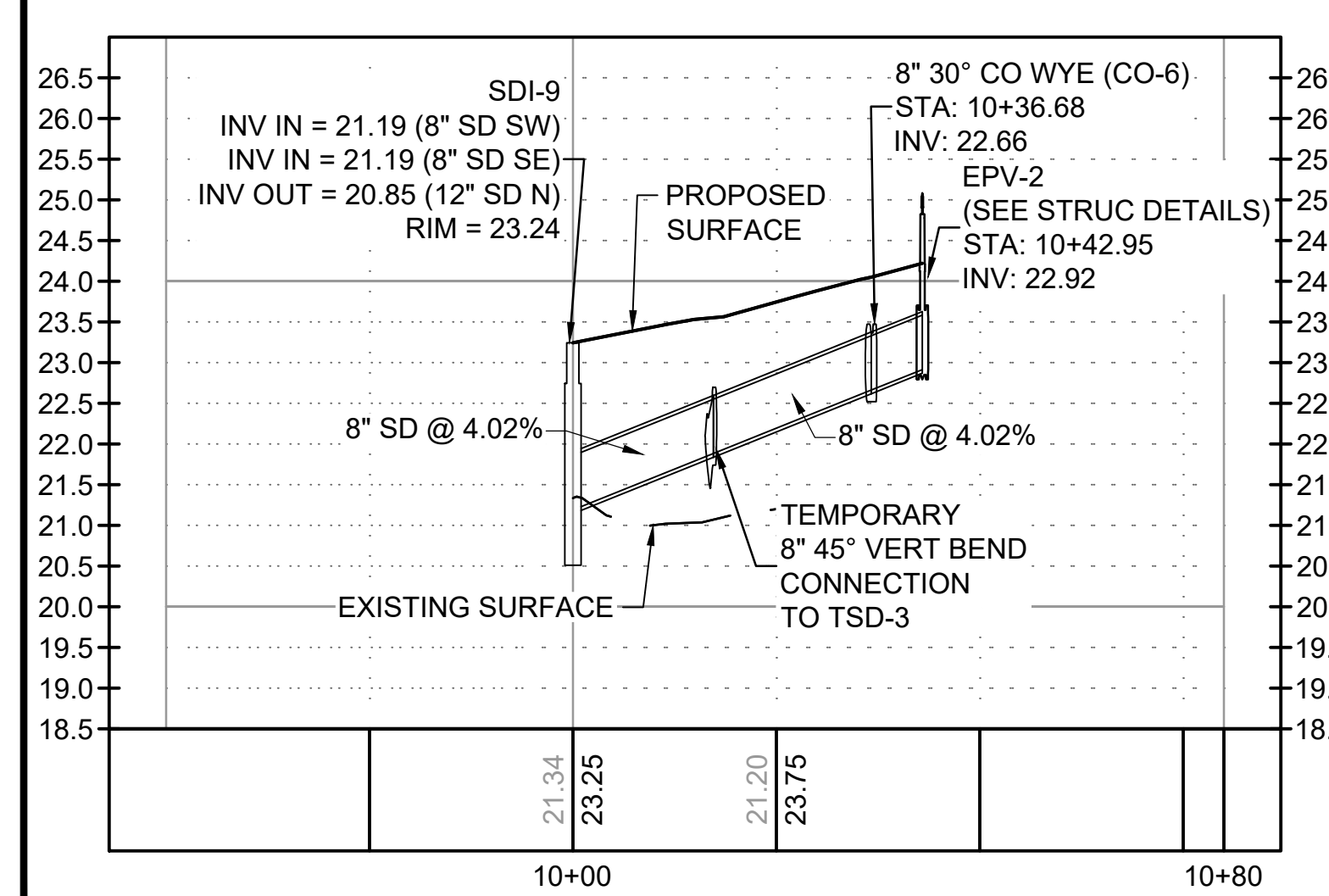
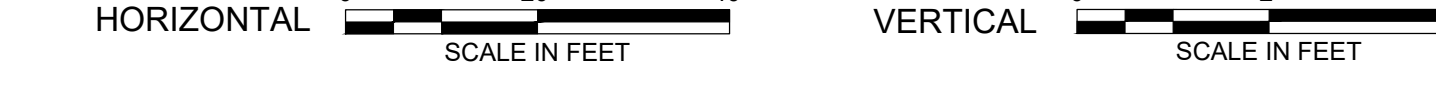
STORM DRAIN PROFILES SD-7 (2 OF 2)
STA. 15+10 TO 15+85



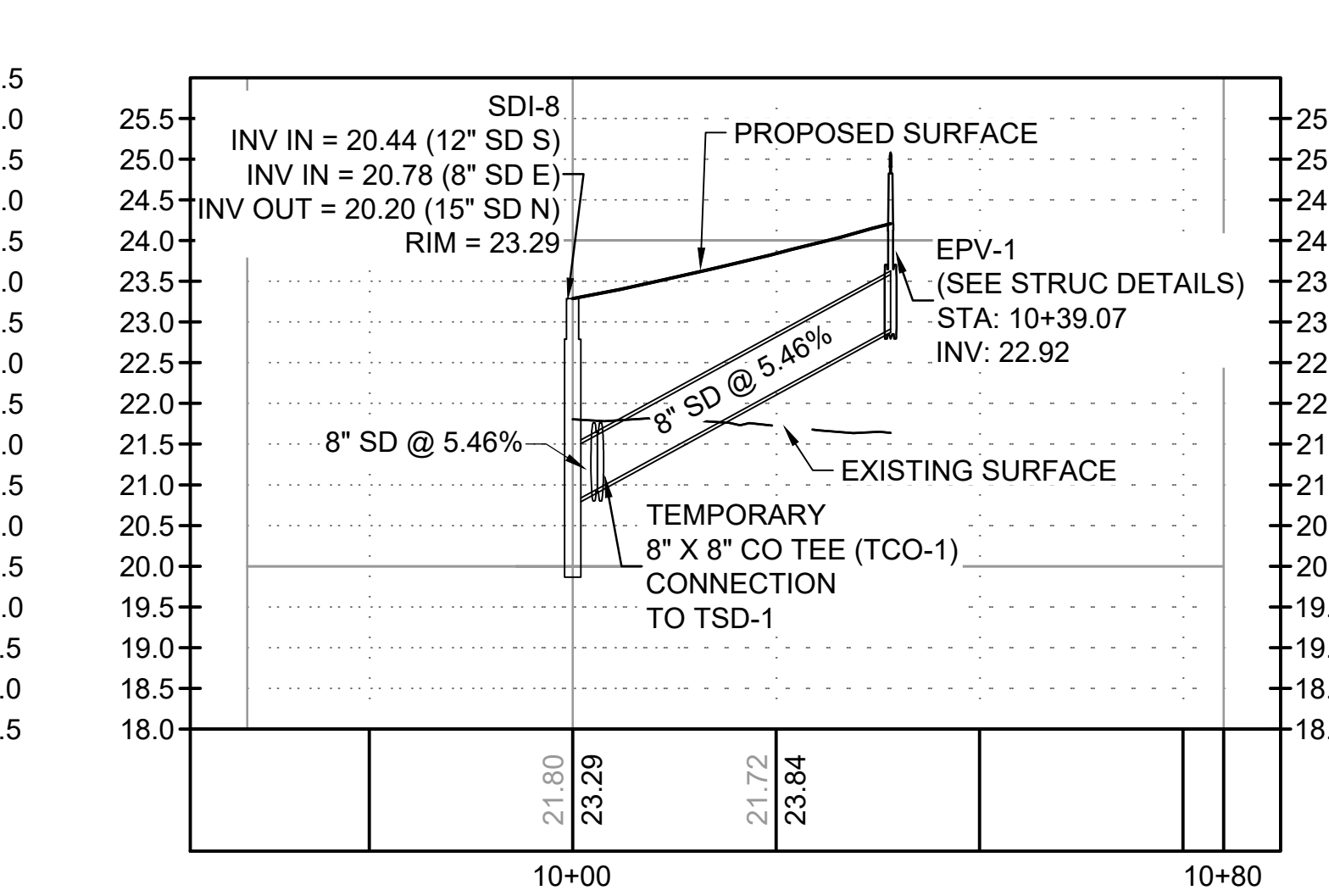
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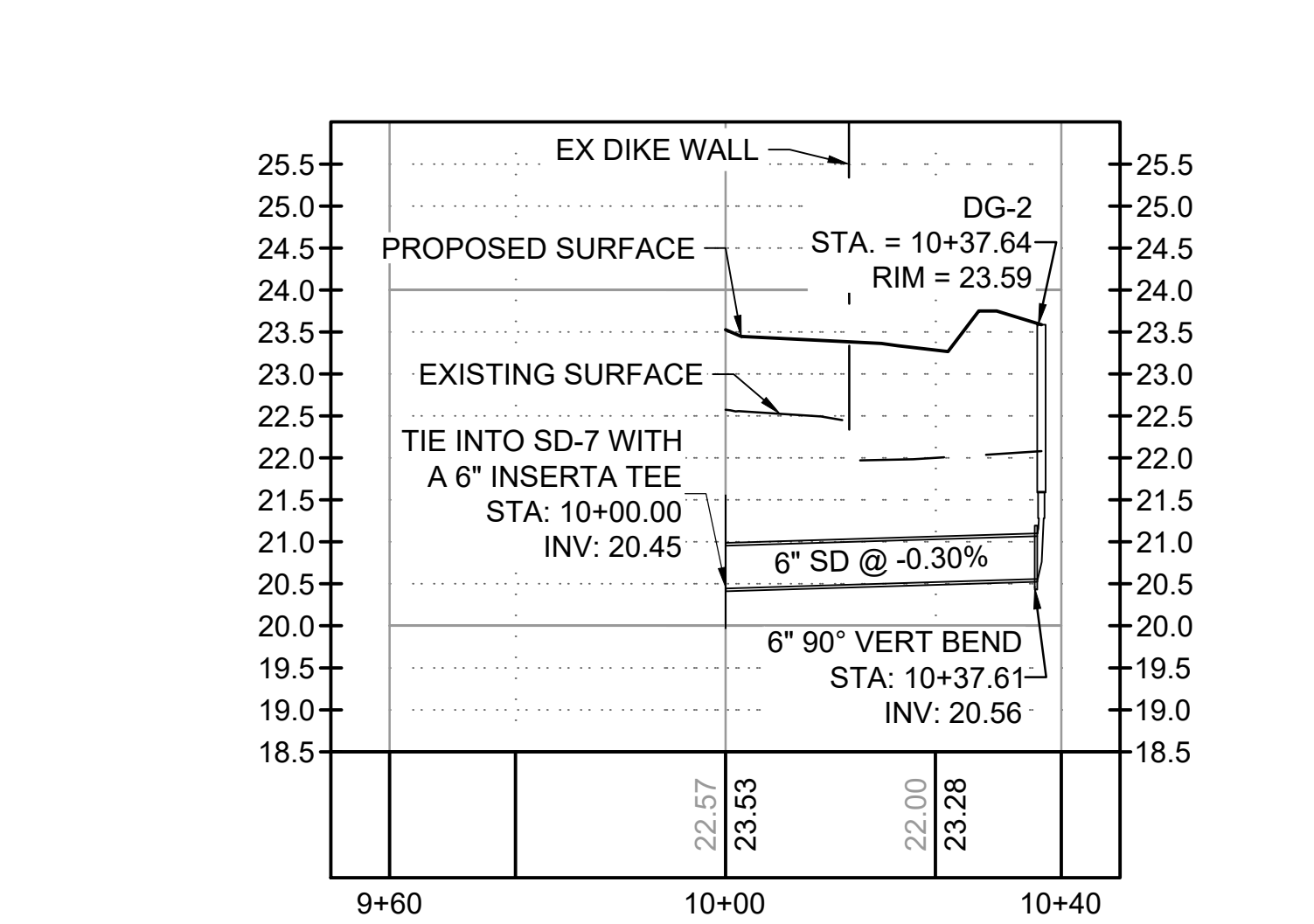
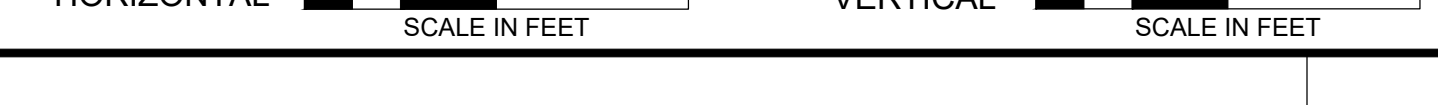
STORM DRAIN PROFILES SD-9



STORM DRAIN PROFILES SD-10



STORM DRAIN PROFILES SD-11



STORM DRAIN PROFILES SD-12



no.	date	by	ckd	description
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Burns & McDonnell Engineering Co., Inc.

date	detailed
06/23/23	G. PAMBUENA
designed	checked
M. GREUFE	S. WAGNER

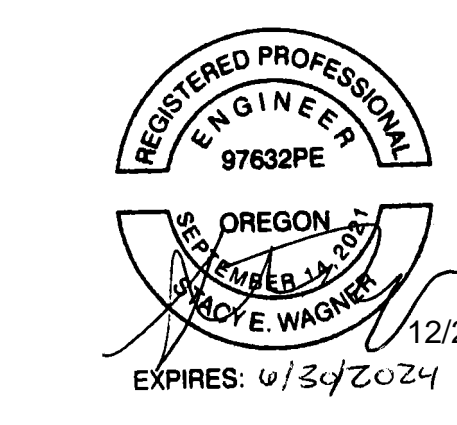
PDX FUEL COMPANY L.L.C

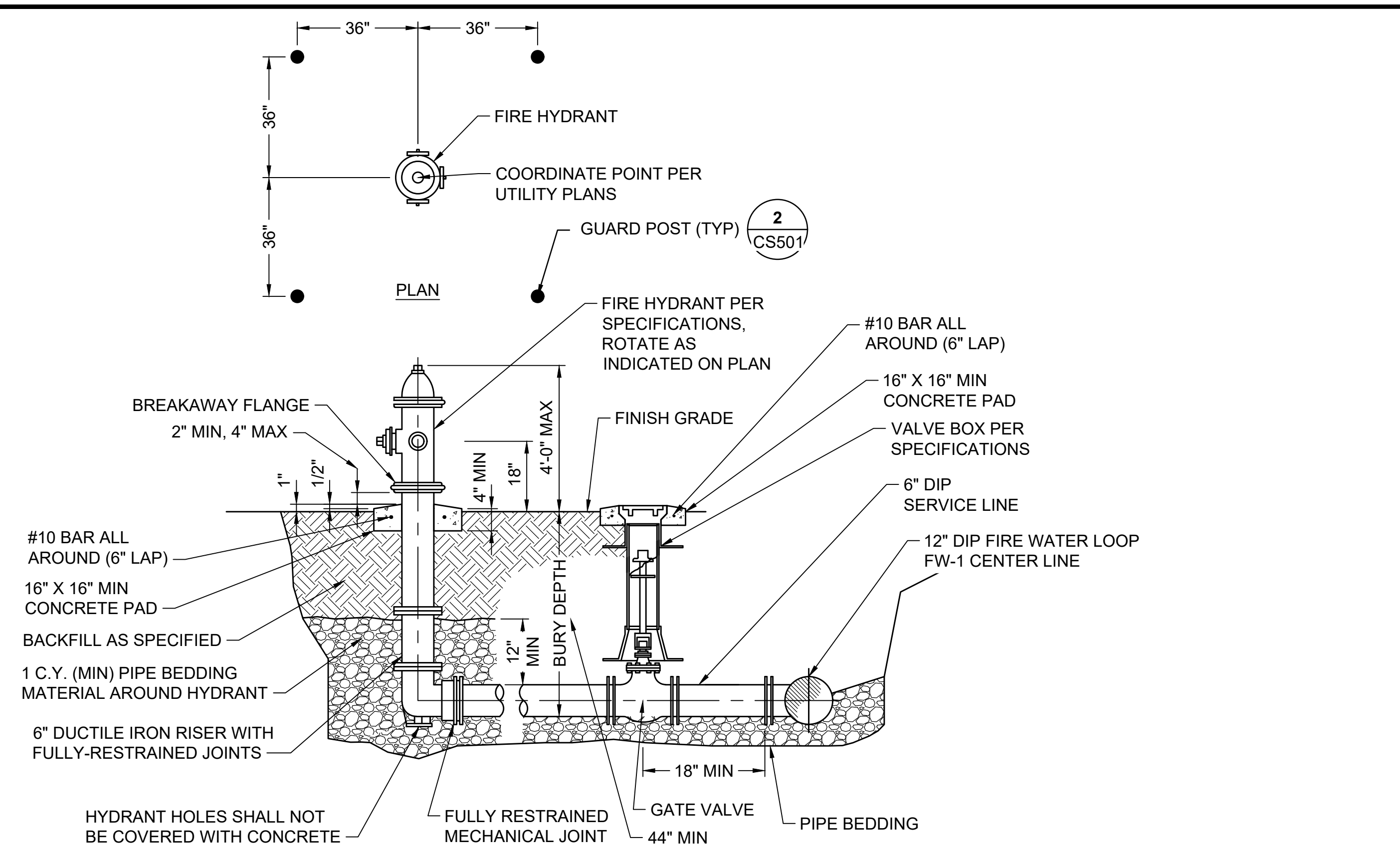
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PORTLAND, OREGON 97218

PDX FACILITY IMPROVEMENTS
UTILITY PROFILES - 8

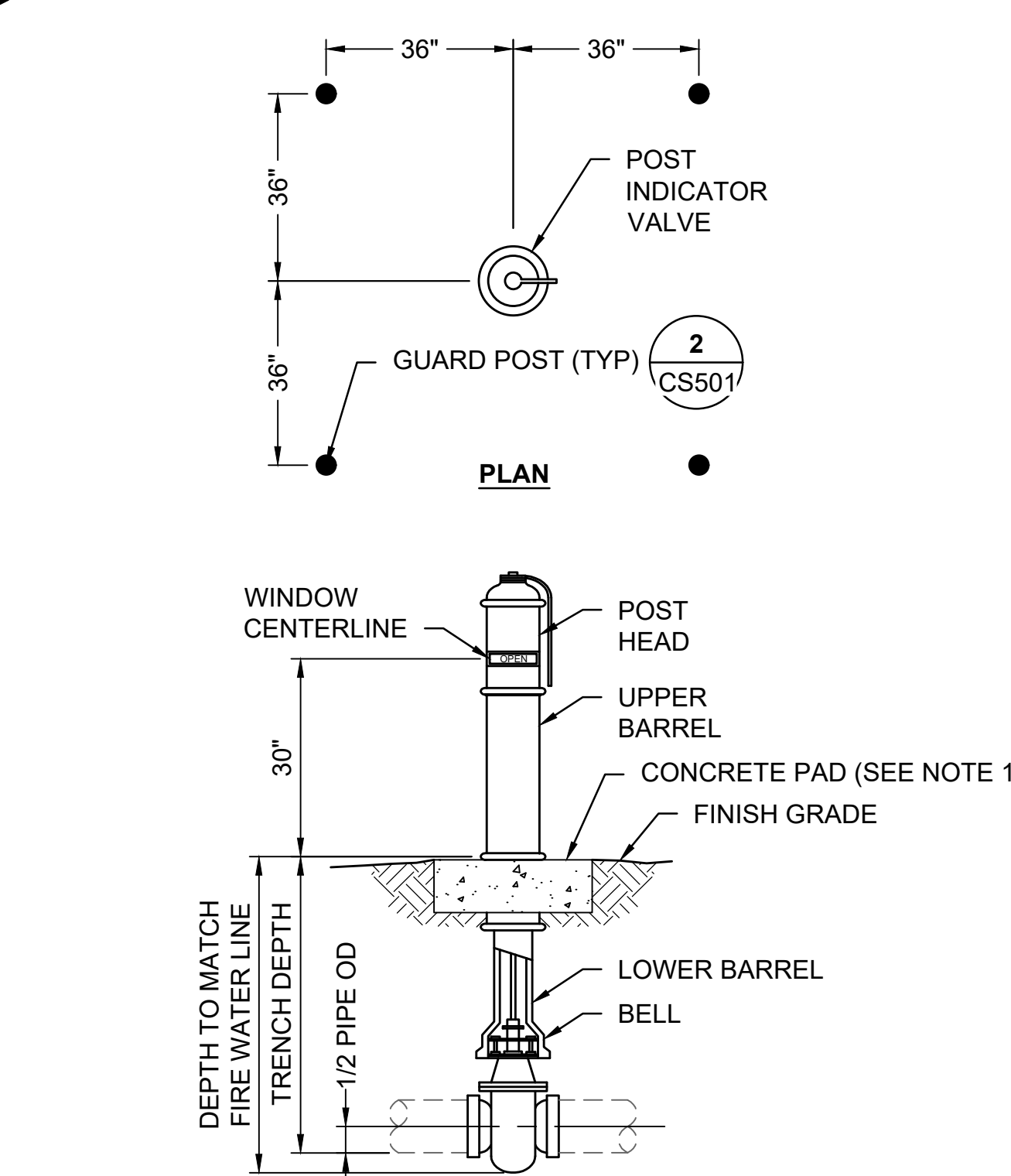
project	contract
153929	
drawing	rev.
CU208	A

file 153929CU201.DWG

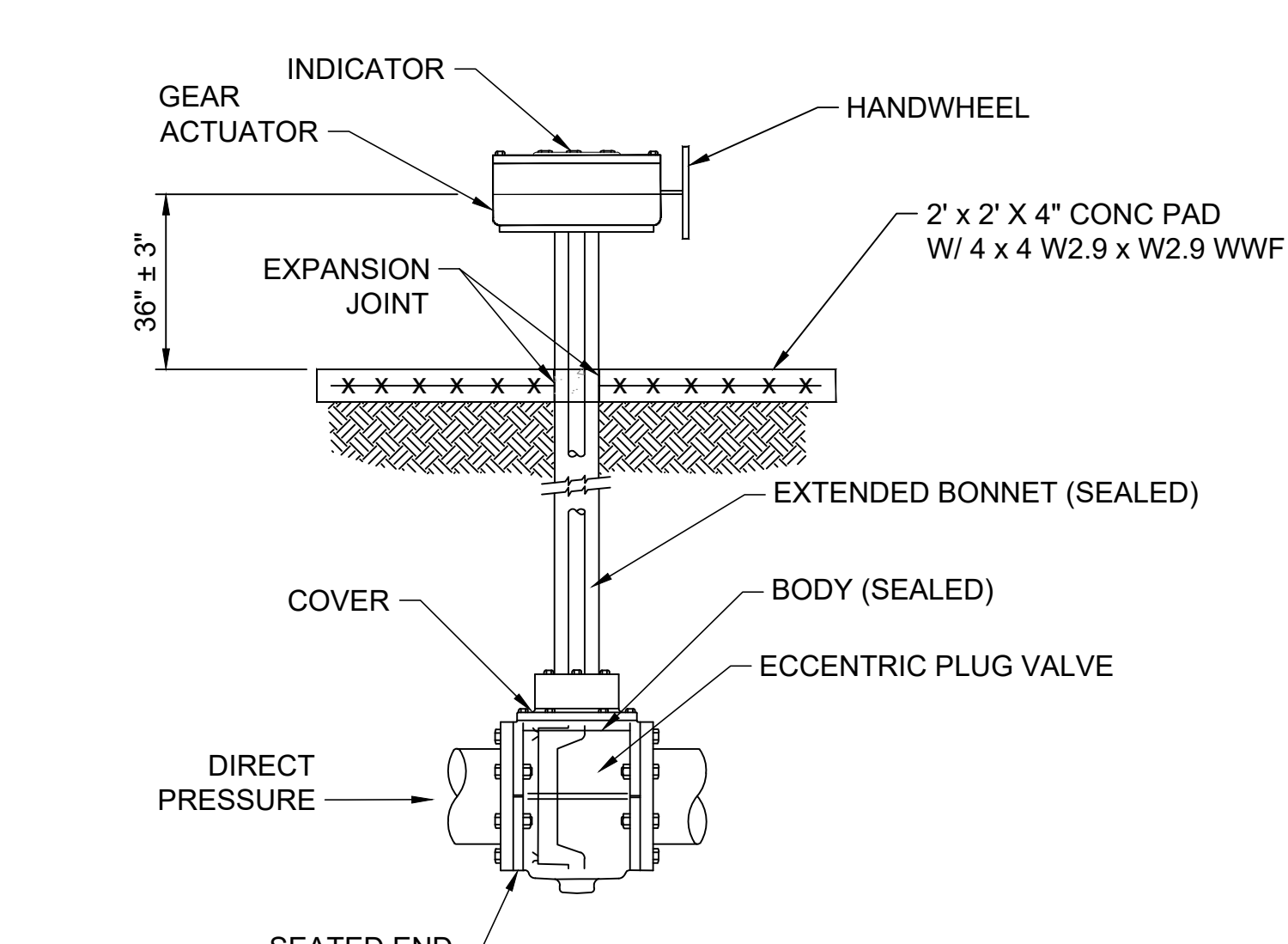




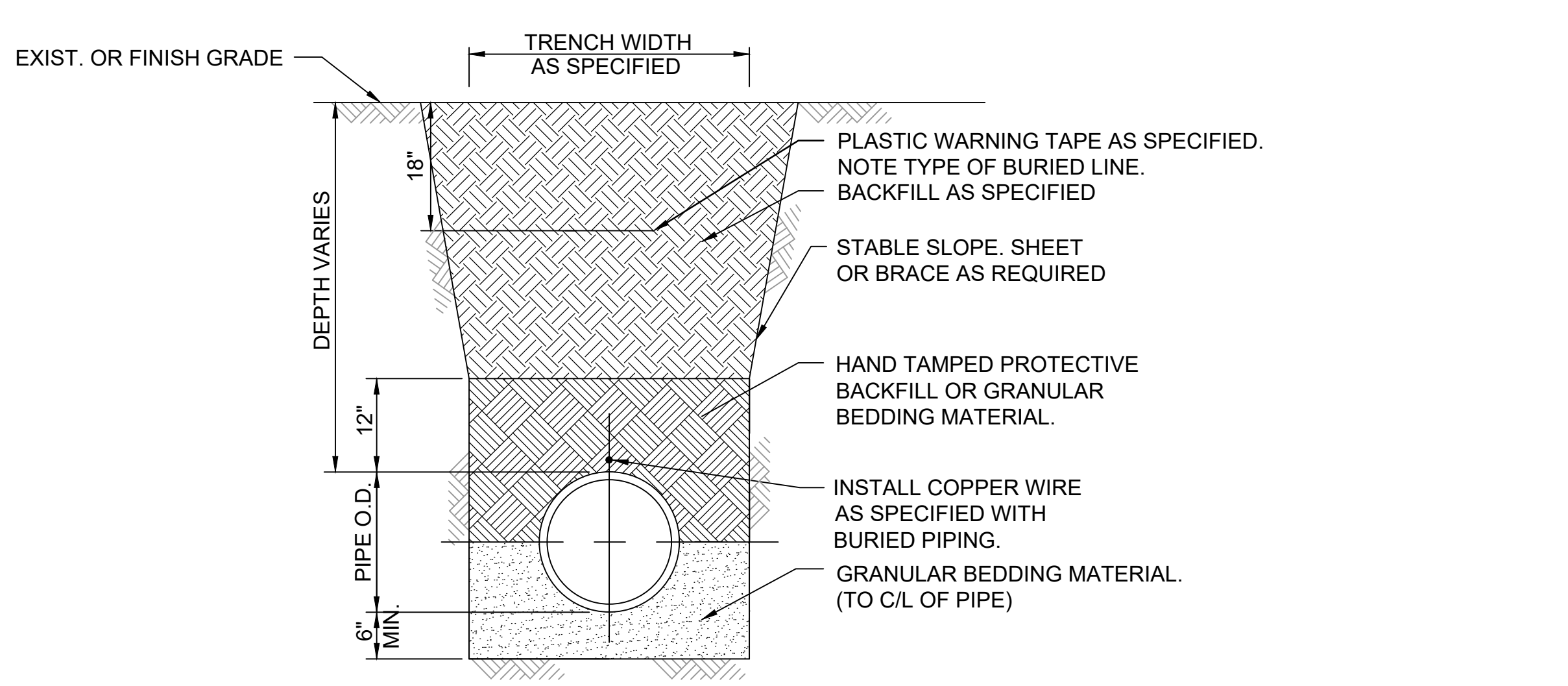
DETAIL 1
FIRE HYDRANT AND ISOLATION VALVE
 NOT TO SCALE
 CU103
 CU104
 CU106
 CU107



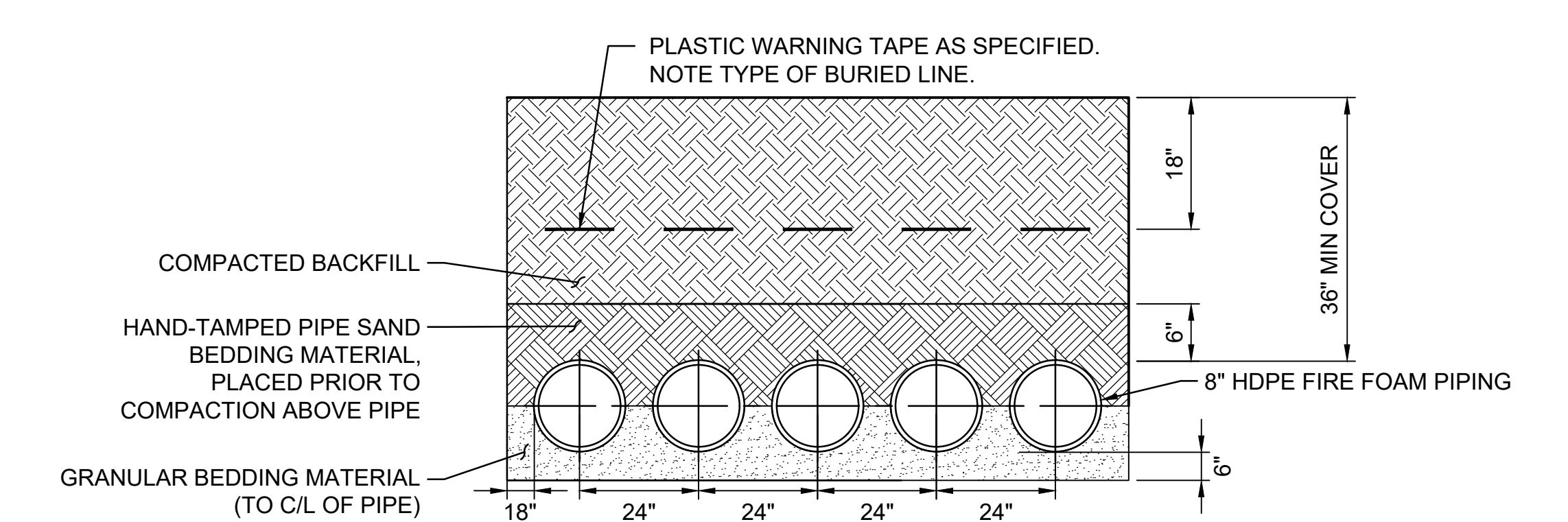
DETAIL 3
POST INDICATOR VALVE
 NOT TO SCALE
 CU103
 CU104
 CU106



DETAIL 4
CONTAINMENT DRAIN ECCENTRIC PLUG VALVE
 NOT TO SCALE
 CU106
 CU107



DETAIL 2
UTILITY TRENCH
 NOT TO SCALE
 CU102
 CU103
 CU104
 CU106
 CU107
 CU108



- NOTES:**
- TRENCH BOXES SHALL BE USED DURING THE INSTALLATION OF UTILITIES.
 - SURFACE TREATMENT SHALL MATCH WHAT IS REQUIRED PER THESE PLANS (I.E. SIDEWALK, PAVEMENT, AND GRASS). SEE SITE PLAN AND DETAILS FOR REQUIRED SURFACE TREATMENT.
 - FIRE PROTECTION PROFILE FP-1 PROFILES THE CENTER PIPE OF THE FIVE (5) FIRE PROTECTION PIPES.

DETAIL 5
FIRE PROTECTION PIPE TRENCH
 NOT TO SCALE
 CU103
 CU104
 CU107

no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT

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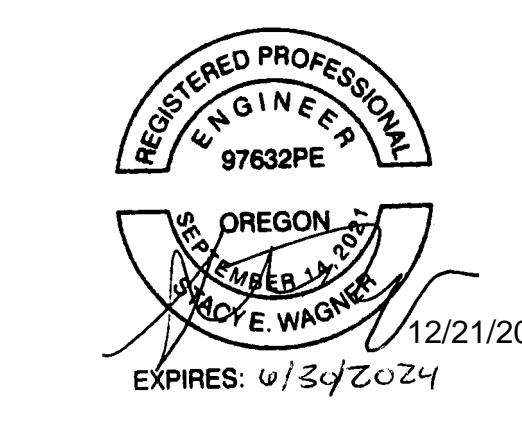
BURNS MEDONNELL
 9400 WARD PARKWAY
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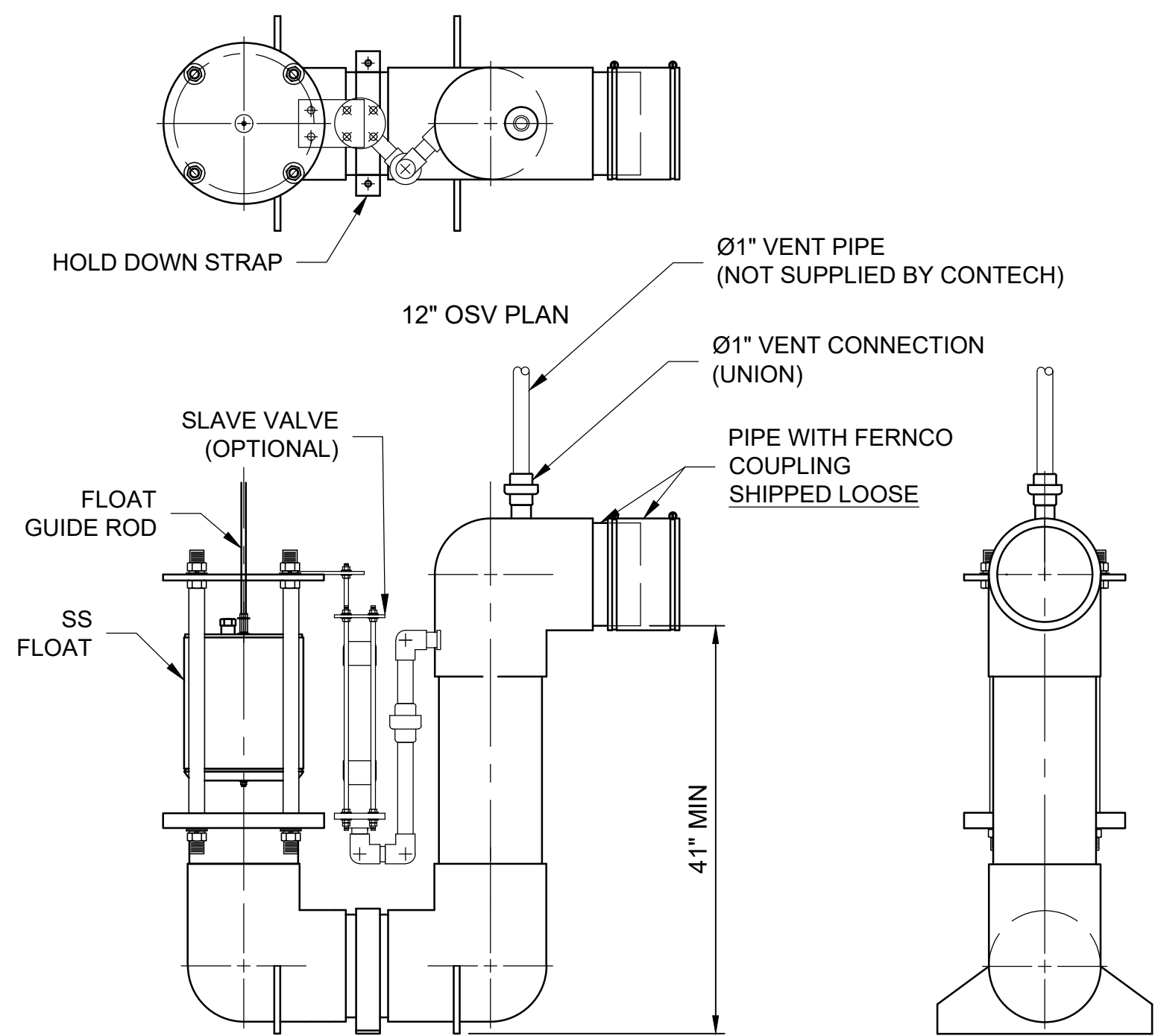
date	06/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

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PDX FACILITY IMPROVEMENTS
 UTILITY DETAILS - 1

project	153929	contract	
drawing	CU501	rev.	A
file 153929CU501.DWG			





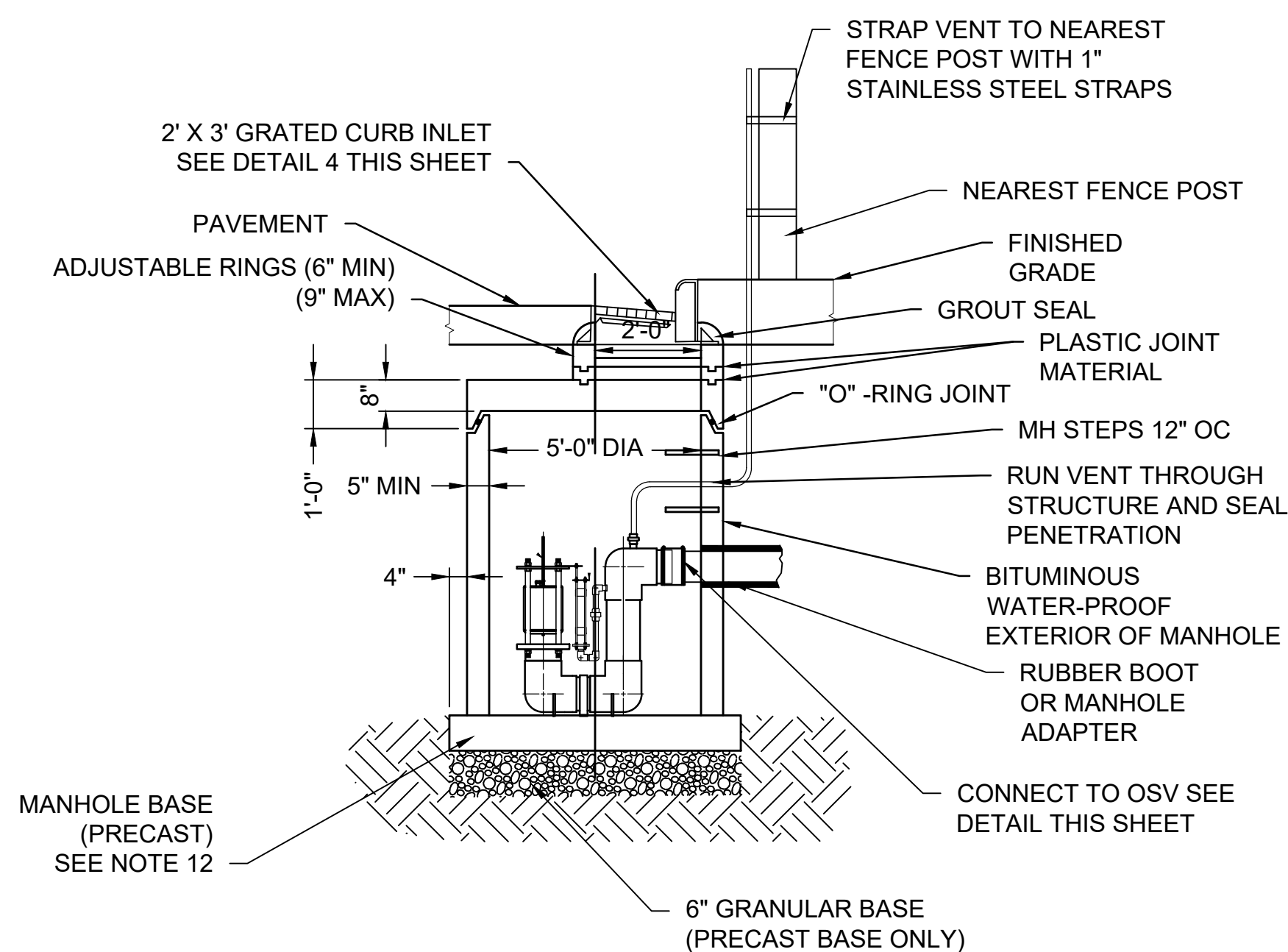
12" OSV SIDE VIEW

12" OSV OUTLET END VIEW

- NOTES:**
1. DETAIL SHOWN IS FOR AN 12" OIL STOP VALVE AS MANUFACTURED BY CONTECH. AN ALTERNATIVE EQUIVALENT PRODUCT MAY BE SUBMITTED BY SUBCONTRACTOR FOR CONTRACTOR APPROVAL, INCLUDING ANY MODIFICATIONS REQUIRED FOR COMPATIBILITY WITH THE REST OF THE SYSTEM.
 2. 12" OSV TO BE INSTALLED IN CONCRETE INLET STRUCTURE (DETAIL 2, CU506).

DETAIL 1
OIL STOP VALVE (OSV) DETAIL
CU502

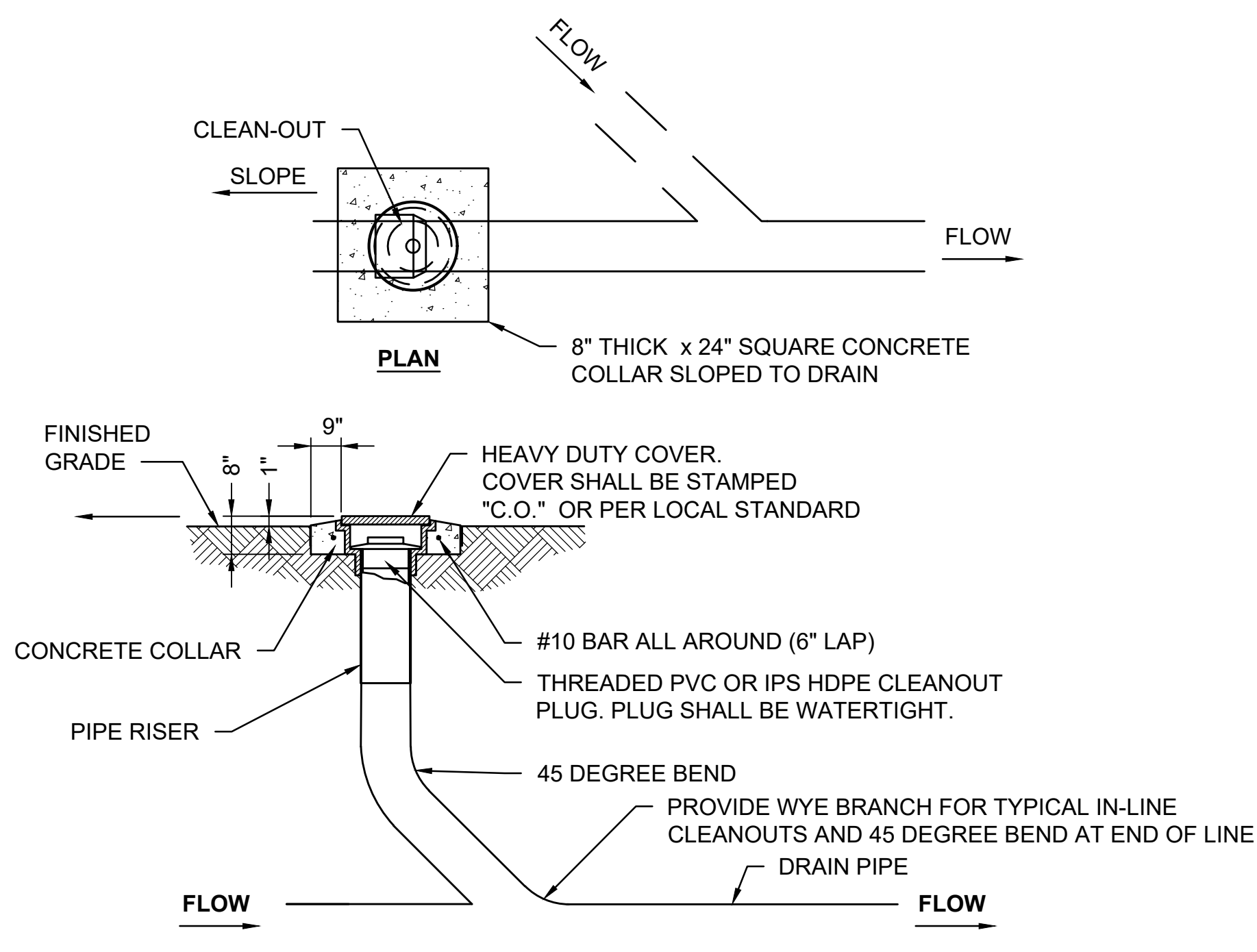
NOT TO SCALE



DETAIL 3
OIL STOP VALVE INLET
CU104 / CU502
NOT TO SCALE

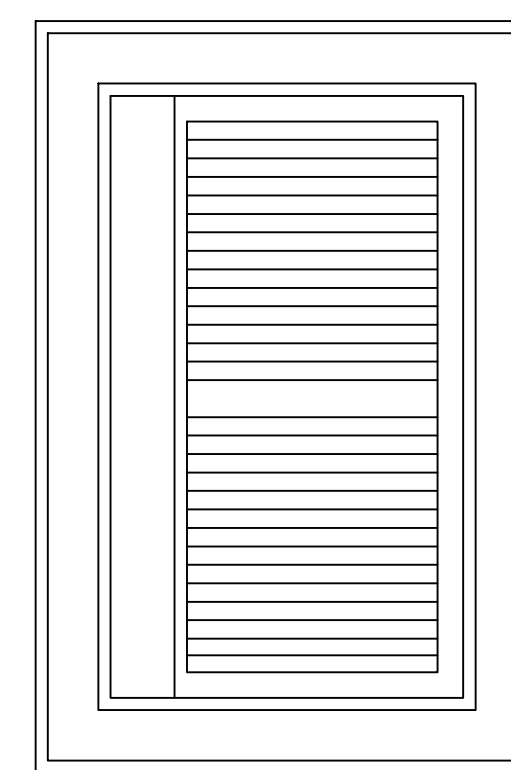
INLET NOTES:

1. ALL UTILITY STRUCTURES ARE TO BE H-20 RATED UNLESS INDICATED OTHERWISE.
2. INLET IS LOCATED IN PAVEMENT AREAS, GRATE ELEVATION SHALL BE FLUSH WITH FINAL GRADE.
3. COVERS AND CASTINGS OF INLET AND STRUCTURES SHALL BE STAMPED PER THE APPROPRIATE UTILITY TYPE OR PER THE LOCAL STANDARDS, AND SHALL BE STAMPED PER THE ORIGIN OF MANUFACTURE.
4. ALL JOINTS SHALL BE SEALED WITH JOINT COMPOUND OR GROUTED WITH MORTAR.
5. ANY LIFT LOOPS FOR UTILITY STRUCTURES SHALL BE GROUTED FLUSH AFTER INSTALLATION.
6. ALL REINFORCEMENT SHALL BE PLACED 2" CLEAR OF NEAREST FACE OF CONCRETE UNLESS INDICATED OTHERWISE.
7. INLET STEPS SHALL BE PLACED INTO INLET WALL DURING PLACEMENT OR MORTARED INTO HOLES AFTER CONCRETE HAS CURED.
8. ALL PRECAST INLETS SHALL CONFORM TO ASTM C478.
9. ALL INLET BASES SHALL HAVE #4 @ 12-INCHES ON CENTER, EACH WAY STEEL REINFORCEMENT.
10. INLET DESIGN SHALL BE SEALED BY A PROFESSIONAL ENGINEER IN THE STATE OF OREGON AND SUBMITTED TO THE OWNER FOR REVIEW PRIOR TO INSTALLATION.
11. FRAME AND ADJUSTMENT RINGS SHALL BE SEALED WITH NON-SHRINK GROUT, PREFORMED PLASTIC, OR RUBBER RING TO FORM WATERTIGHT SEAL.
12. BASE TO BE SIZED FOR STRUCTURE ANTI-FLOATATION AND DESIGNED FOR FULL INUNDATION WITH A FACTOR OF SAFETY OF 1.5.
13. ALL MATERIALS USED SHALL BE JET FUEL RESISTANT.



ELEVATION

DETAIL 2
CLEANOUT
CU103 / CU104 / CU106 / CU107
NOT TO SCALE

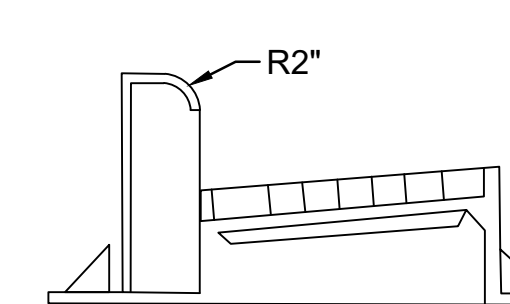


PLAN

NOTES:

1. COMBINATION 2' X 3' CURB INLET GRATE SHALL BE H-20 RATED. THE CURB OPENING HEIGHT SHALL BE 4".
2. GRATE SHALL HAVE A TYPE "V BI-DIRECTIONAL GRATE".
3. FLOW LINE SHALL BE MIN. 0.62' BELOW TOP OF CURB.

DETAIL 4
STORM DRAIN CURB INLET CASTING
CU502
NOT TO SCALE



SECTION A-A

no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT

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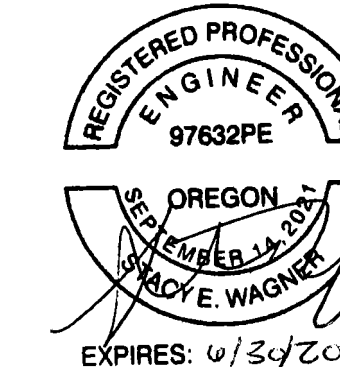
date	detailed
06/23/23	G. PAMBUENA
designed	checked
M. GREUFE	S. WAGNER

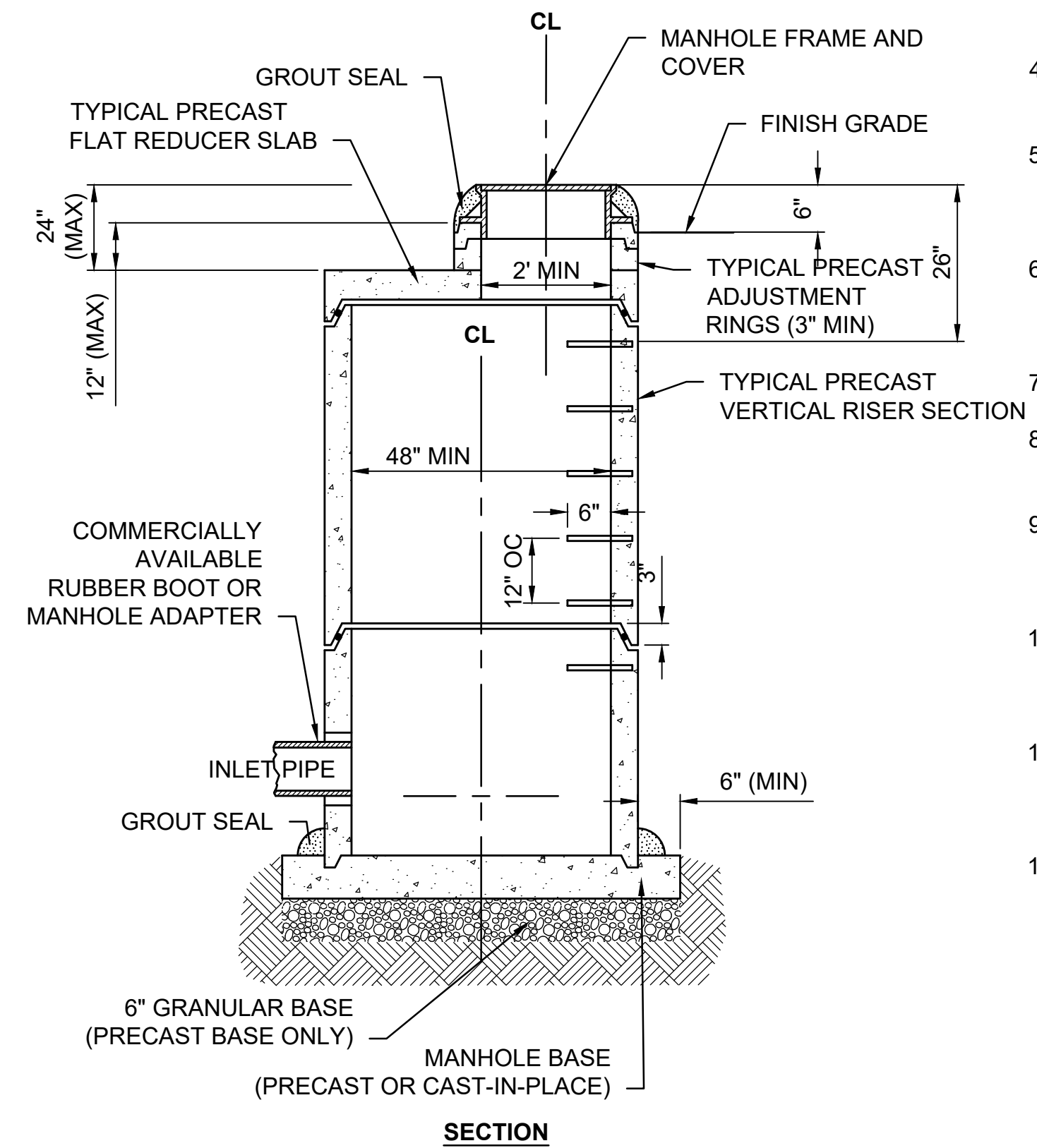
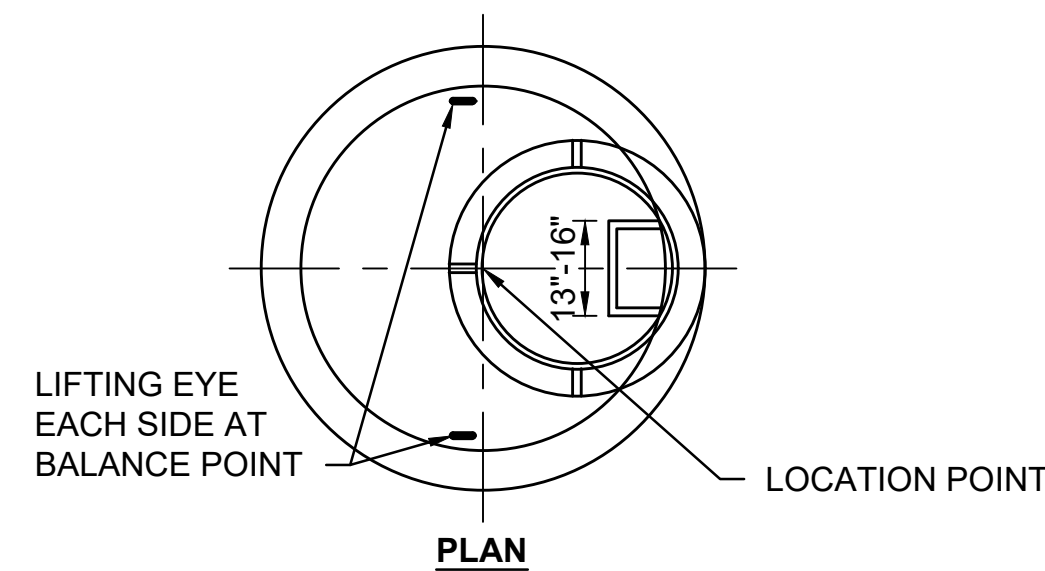
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PDX FACILITY IMPROVEMENTS
UTILITY DETAILS - 2

project	contract
153929	
drawing	rev.
CU502	A
file 153929CU501.DWG	

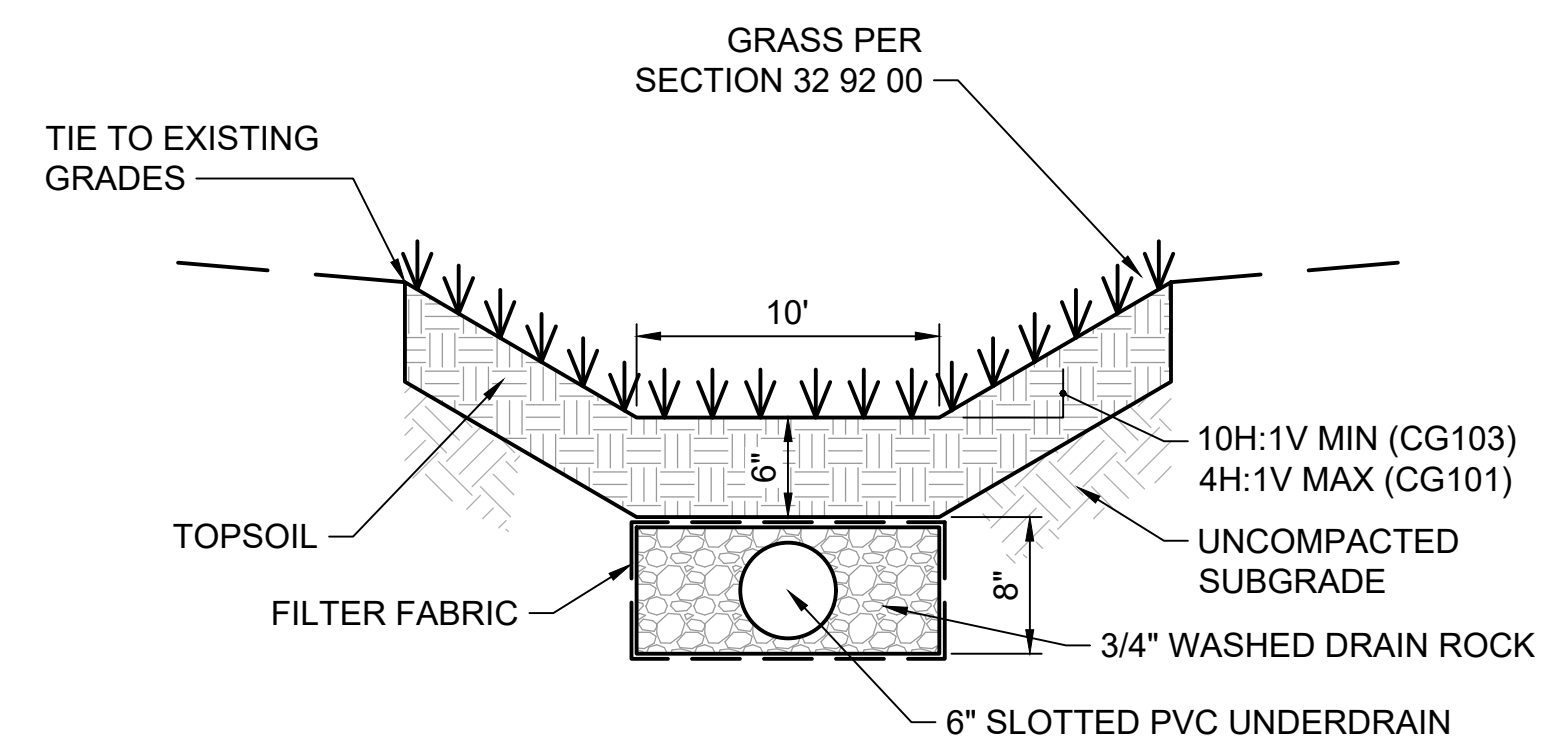




DETAIL 1
CONTAINMENT DRAINAGE BASIN
NOT TO SCALE
CU104

MANHOLE NOTES:

1. ALL UTILITY STRUCTURES ARE TO BE H-20 RATED UNLESS INDICATED OTHERWISE.
2. COVERS AND CASTINGS OF INLET AND STRUCTURES SHALL BE STAMPED PER THE APPROPRIATE UTILITY TYPE OR PER THE LOCAL STANDARDS, AND SHALL BE STAMPED PER THE ORIGIN OF MANUFACTURE.
3. ALL JOINTS SHALL BE SEALED WITH JOINT COMPOUND OR GROUTED WITH MORTAR.
4. ANY LIFT LOOPS FOR UTILITY STRUCTURES SHALL BE GROUTED FLUSH AFTER INSTALLATION.
5. ALL REINFORCEMENT SHALL BE PLACED 2" CLEAR OF NEAREST FACE OF CONCRETE UNLESS INDICATED OTHERWISE.
6. MH STEPS SHALL BE PLACED INTO INLET WALL DURING PLACEMENT OR MORTARED INTO HOLES AFTER CONCRETE HAS CURED.
7. ALL PRECAST MH SHALL CONFORM TO ASTM C478.
8. ALL MH BASES SHALL HAVE #4 @ 12-INCHES ON CENTER, EACH WAY STEEL REINFORCEMENT.
9. MH DESIGN SHALL BE SEALED BY A PROFESSIONAL ENGINEER IN THE STATE OF OREGON AND SUBMITTED TO THE OWNER FOR REVIEW PRIOR TO INSTALLATION.
10. FRAME AND ADJUSTMENT RINGS SHALL BE SEALED WITH NON-SHRINK GROUT, PREFORMED PLASTIC, OR RUBBER RING TO FORM WATERTIGHT SEAL.
11. BASE TO BE SIZED FOR STRUCTURE ANTI-FLOATATION AND DESIGNED FOR FULL INUNDATION WITH A FACTOR OF SAFETY OF 1.5.
12. ALL MATERIALS USED SHALL BE JET FUEL RESISTANT.



NOTES:

1. VEGETATED SWALE CONSTRUCTION SHALL MEET ALL REQUIREMENTS OF PORT OF PORTLAND STORMWATER DESIGN STANDARDS MANUAL (DSM).
2. SWALE SHALL NOT BE PUT INTO OPERATION UNTIL AREAS OF EXPOSED SOIL IN THE CONTRIBUTING DRAINAGE AREA HAVE BEEN SUFFICIENTLY STABILIZED AND THE VEGETATION HAS BEEN ESTABLISHED. EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL THIS TIME.

Scale For Microfinishing
Millimeters
Inches

no.	date	by	ckd	description
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date	06/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

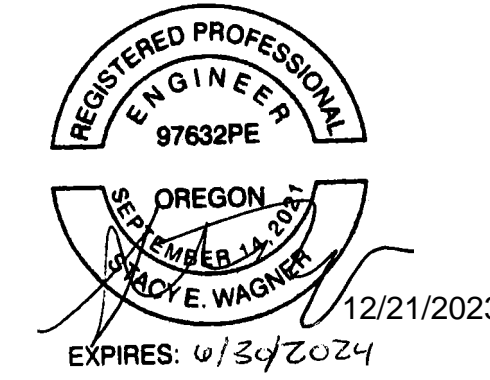
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PDX FACILITY IMPROVEMENTS
UTILITY DETAILS - 3

project	153929	contract	
drawing	CU503	rev.	A

file 153929CU501.DWG



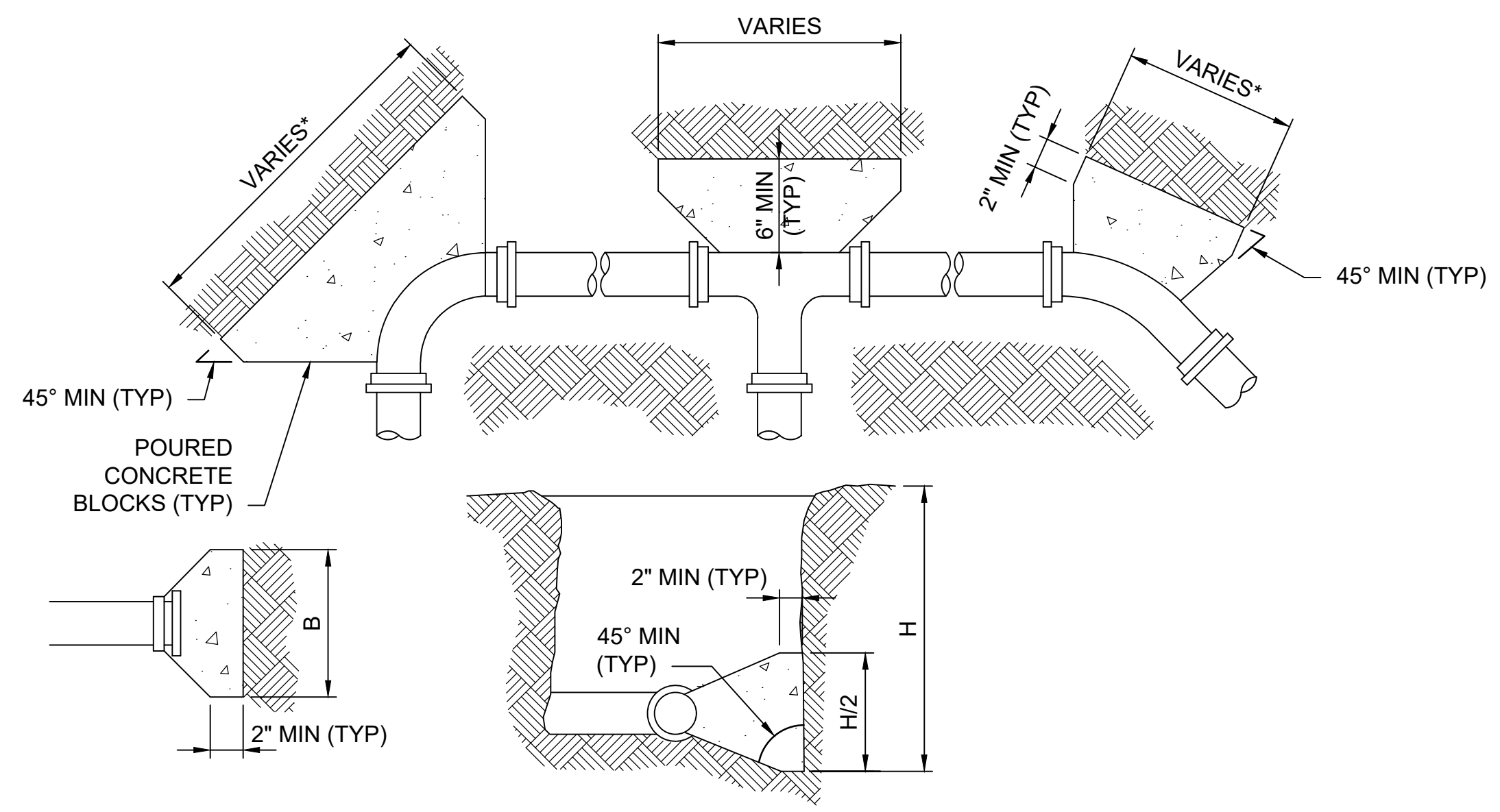


TABLE 1: HORIZONTAL THRUST BLOCK

AREA OF BLOCK (ft²) FOR FITTINGS

PIPE SIZE	TEES & ENDS	90° BEND	45° BENDS	22.5° BENDS	11.25° BENDS
2"	0.63	0.89	0.48	0.25	0.12
6"	5.65	8.00	4.33	2.21	1.11
12"	22.62	31.99	17.31	8.83	4.43

*AREAS BASED ON PIPE WORKING PRESSURE OF 85 PSI, AND 200 PSI TEST PRESSURE WITH A SOIL BEARING PRESSURE OF 1,500 PSF AND FACTOR OF SAFETY OF 2.0. THE SOIL BEARING PRESSURE INFORMATION WAS OBTAINED FROM THE SUBSURFACE/GEOTECHNICAL INVESTIGATION DATED NOVEMBER 2023, AND PREPARED BY HALEY & ALDRICH, INC.

**PER NFPA 24, PARAGRAPH 10.10.2.2.1 : ALL PIPING AND ATTACHED APPURTENANCES SUBJECTED TO SYSTEM WORKING PRESSURE SHALL BE HYDROSTATICALLY TESTED AT GAUGE PRESSURE OF 200 PSI OR 50 PSI IN EXCESS OF THE SYSTEM WORKING PRESSURE, WHICHEVER IS GREATER, AND SHALL MAINTAIN THAT PRESURE AT GAUGE PRESSURE OF +/- 5 PSI FOR 2 HOURS.

GENERAL HORIZONTAL AND VERTICAL THRUST BLOCK NOTES:

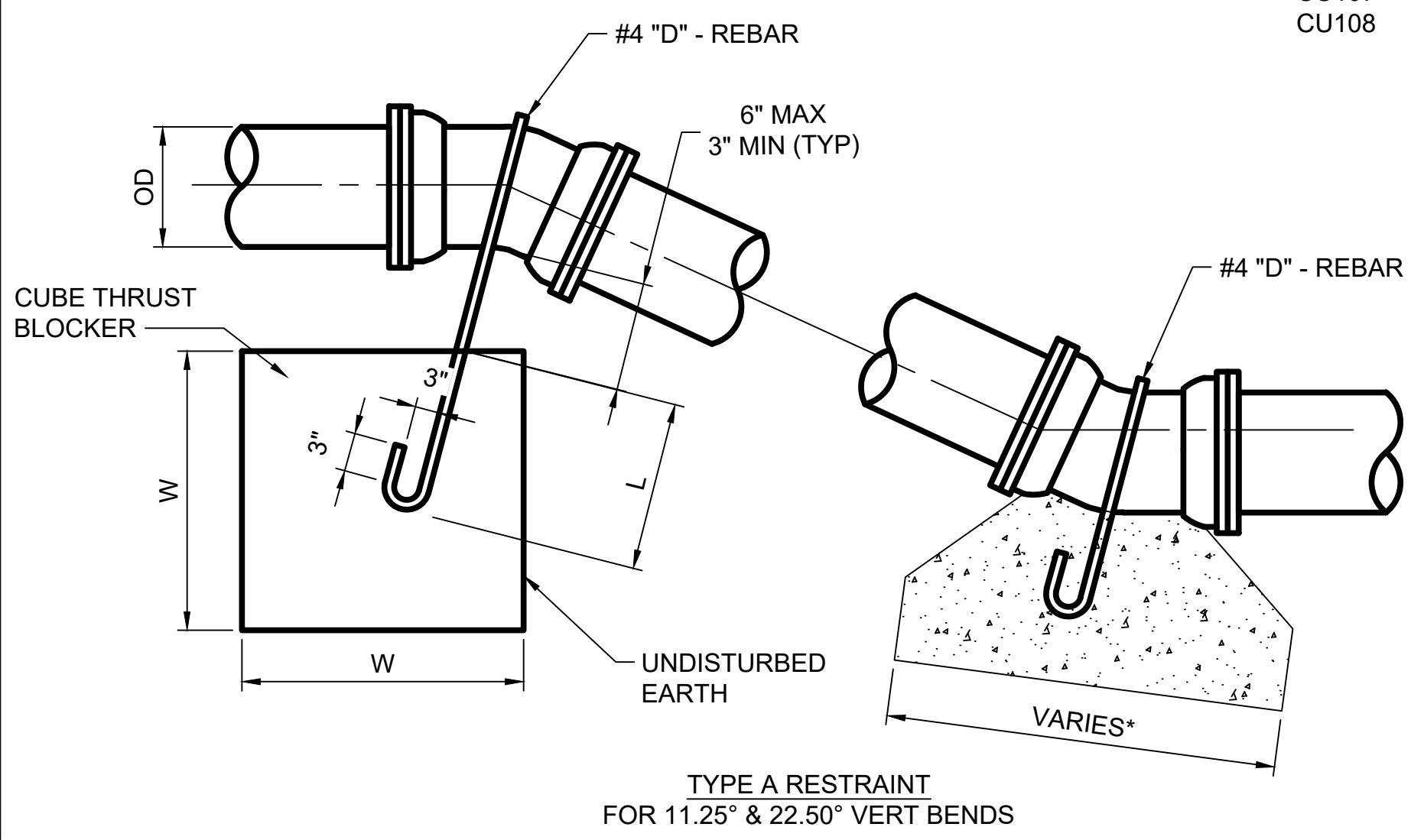
1. CONCRETE BLOCK AT VALVE TO HAVE SUFFICIENT BEARING IN UNDISTURBED SOIL TO PREVENT THRUST MOVEMENT.
2. THE THRUST BLOCK SHALL BE CONSTRUCTED SUCH THAT BOLTS, NUTS, AND OTHER MJ ACCESSORIES ARE KEPT CLEAR OF CONCRETE.
3. ALL VALVES AT DEAD ENDS AND AT OTHER LOCATIONS AS CALLED OUT ON THE PLANS SHALL BE BLOCKED AS SHOWN HERE.
4. A NONPOROUS MATERIAL 8 MILS MIN VISQUEEN OR 15 LB MIN FELT SHALL BE PLACED BETWEEN THE FITTING AND CONCRETE THRUST BLOCK.
5. JOINTS SHALL NOT BE COVERED WITH CONCRETE. SUFFICIENT CLEARANCE SHALL BE PROVIDED BETWEEN CONCRETE AND FITTINGS FOR FUTURE MAINTENANCE.
6. DOUBLE LAYER OF TAR PAPER BETWEEN CONCRETE BLOCK AND PLUG TO PERMIT EASY REMOVAL FOR FUTURE EXTENSION OF WATER MAIN WHERE REQUIRED.
7. ALL REBAR USED ON THRUST BLOCKS SHALL BE EPOXY COATED.
8. ALL CONCRETE USED FOR THRUST BLOCKS MUST HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2,500 PSI.
9. THRUST BLOCKS SHALL NOT BE REQUIRED WHERE FITTINGS ARE FULLY RESTRAINED.
10. BLOCKING NOT REQUIRED WHERE JOINTS/BENDS ARE FULLY RESTRAINED.

no.	date	by	ckd	description
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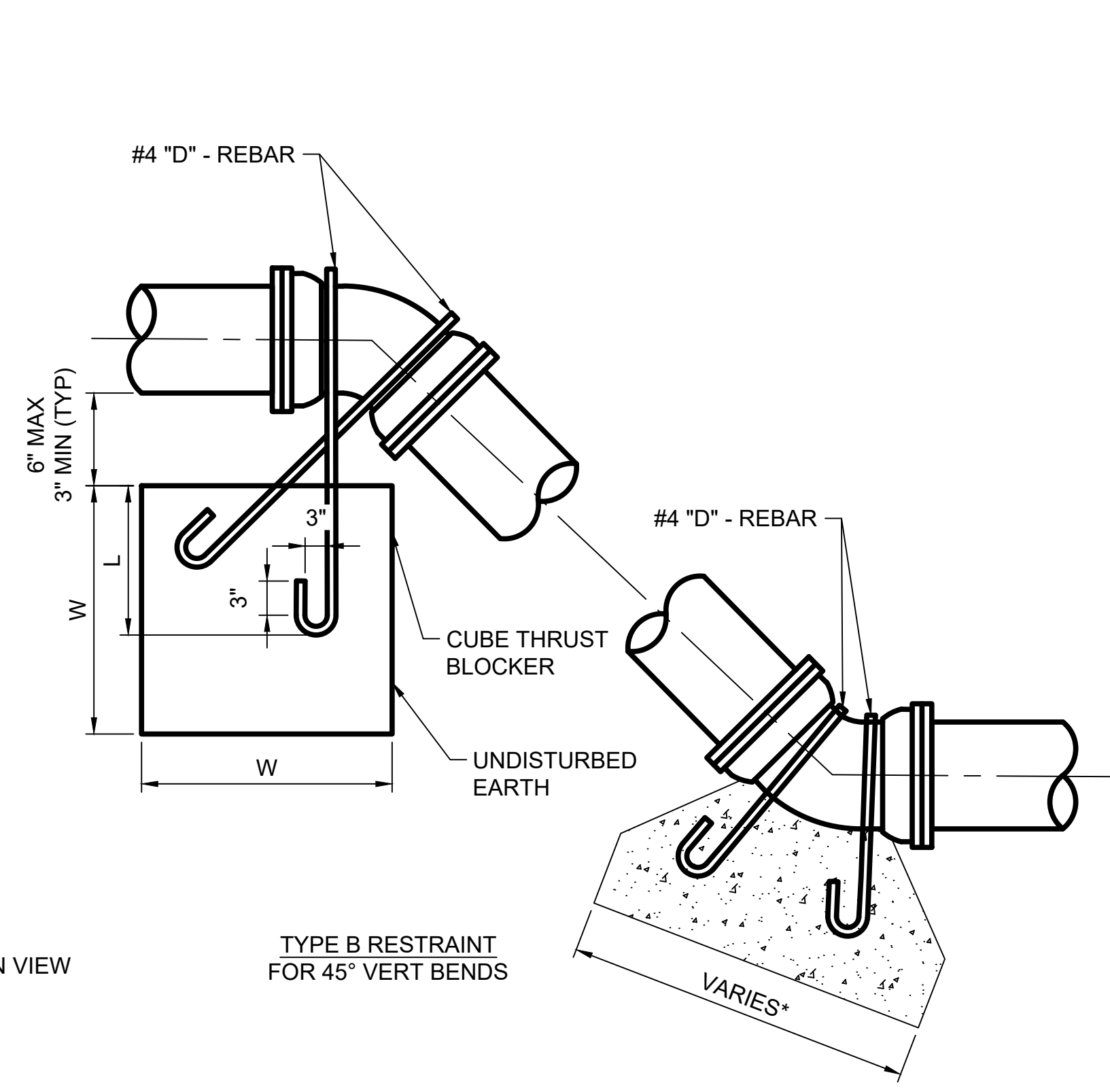
Scale For Microfinishing
Millimeters

Inches

DETAIL 1
CU103
CU104
CU105
CU106
CU107
CU108
HORIZONTAL THRUST BLOCK
NOT TO SCALE



TYPE A RESTRAINT
FOR 11.25° & 22.50° VERT BENDS



TYPE B RESTRAINT
FOR 45° VERT BENDS

- NOTES:**
1. ALL REBAR ON VERTICAL JOINTS SHALL BE EPOXY COATED FOR FIELD BENT BARS PER ASTM A775.
 2. ANY DAMAGE TO THE FACTORY COATING DURING TRANSPORT, STORAGE, OR INSTALLATION, SHALL BE FIELD REPAIRED PER THE MANUFACTURER'S RECOMMENDATIONS.

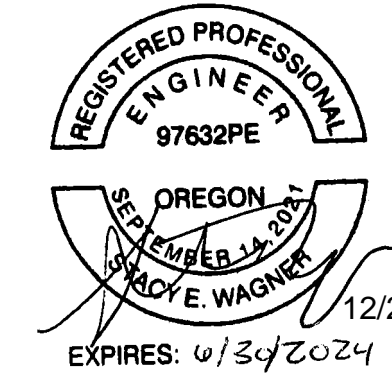
DETAIL 2
CU202
CU204
CU205
VERTICAL THRUST BLOCK
NOT TO SCALE

TABLE 2: VERTICAL THRUST BLOCK

DEG BEND	PIPE DIA	THRUST (lbs)*	CF (CONCRETE)	CY (CONCRETE)	BLOCK SIZE - ft (w)	SIZE ROUNDED TO NEAREST 0.25
45	2"	1886	12.57	0.47	2.33	2.50
	6"	5724	38.16	1.41	3.37	3.50
	12"	20949	139.66	5.17	5.19	5.25
22.5	2"	962	6.41	0.24	1.86	2.00
	6"	2918	19.45	0.72	2.69	2.75
	12"	10680	71.20	2.64	4.14	4.25
11.25	2"	484	3.23	0.12	1.48	1.50
	6"	1466	9.77	0.36	2.14	2.25
	12"	5366	35.77	1.32	3.29	3.50

*AREAS BASED ON PIPE WORKING PRESSURE OF 85 PSI, AND 200 PSI TEST PRESSURE WITH A SOIL BEARING PRESSURE OF 1,500 PSF AND FACTOR OF SAFETY OF 2.0. THE SOIL BEARING PRESSURE INFORMATION WAS OBTAINED FROM THE SUBSURFACE/GEOTECHNICAL INVESTIGATION DATED NOVEMBER 2023, AND PREPARED BY HALEY & ALDRICH, INC.

**PER NFPA 24, PARAGRAPH 10.10.2.2.1 : ALL PIPING AND ATTACHED APPURTENANCES SUBJECTED TO SYSTEM WORKING PRESSURE SHALL BE HYDROSTATICALLY TESTED AT GAUGE PRESSURE OF 200 PSI OR 50 PSI IN EXCESS OF THE SYSTEM WORKING PRESSURE, WHICHEVER IS GREATER, AND SHALL MAINTAIN THAT PRESURE AT GAUGE PRESSURE OF +/- 5 PSI FOR 2 HOURS.



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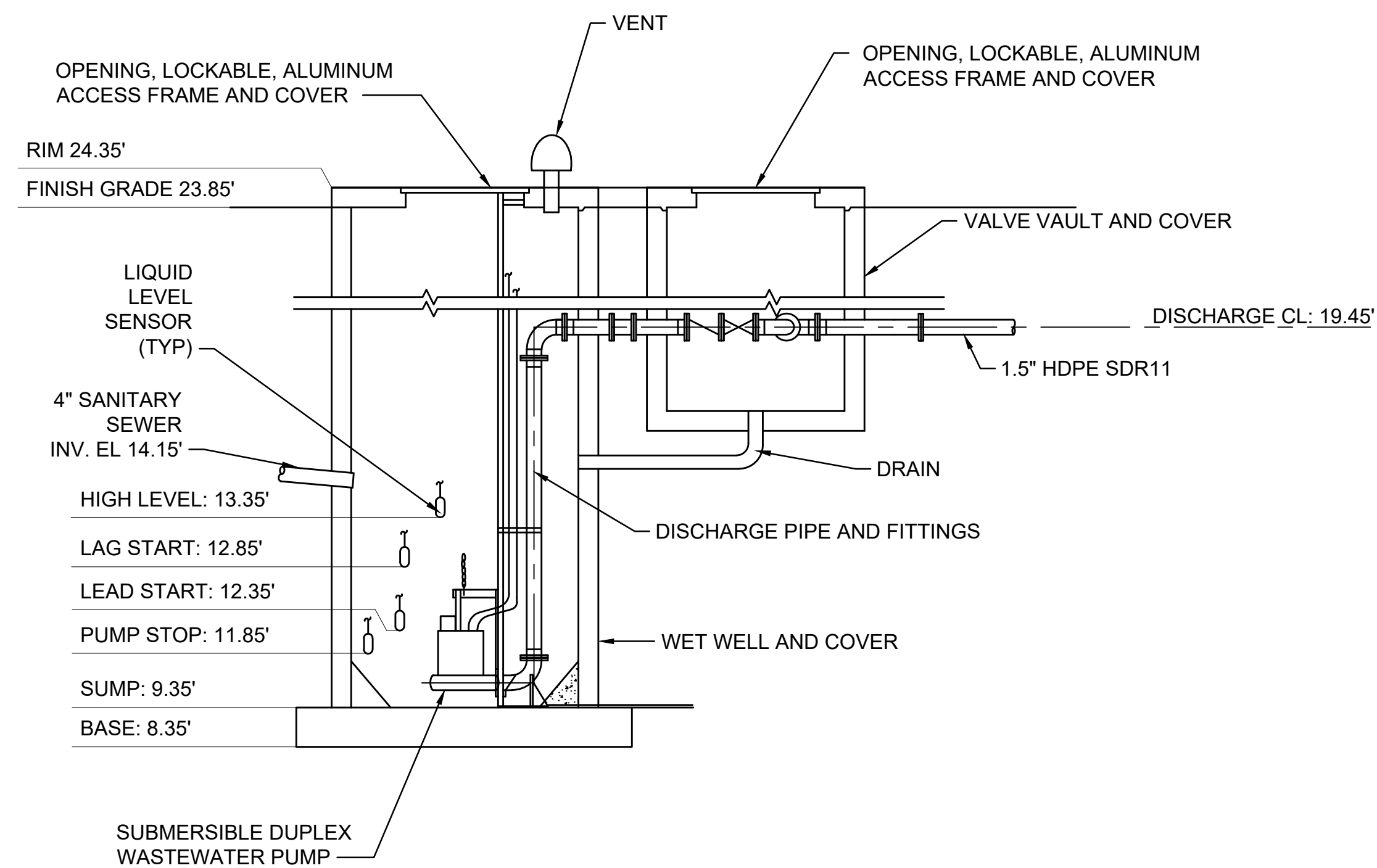
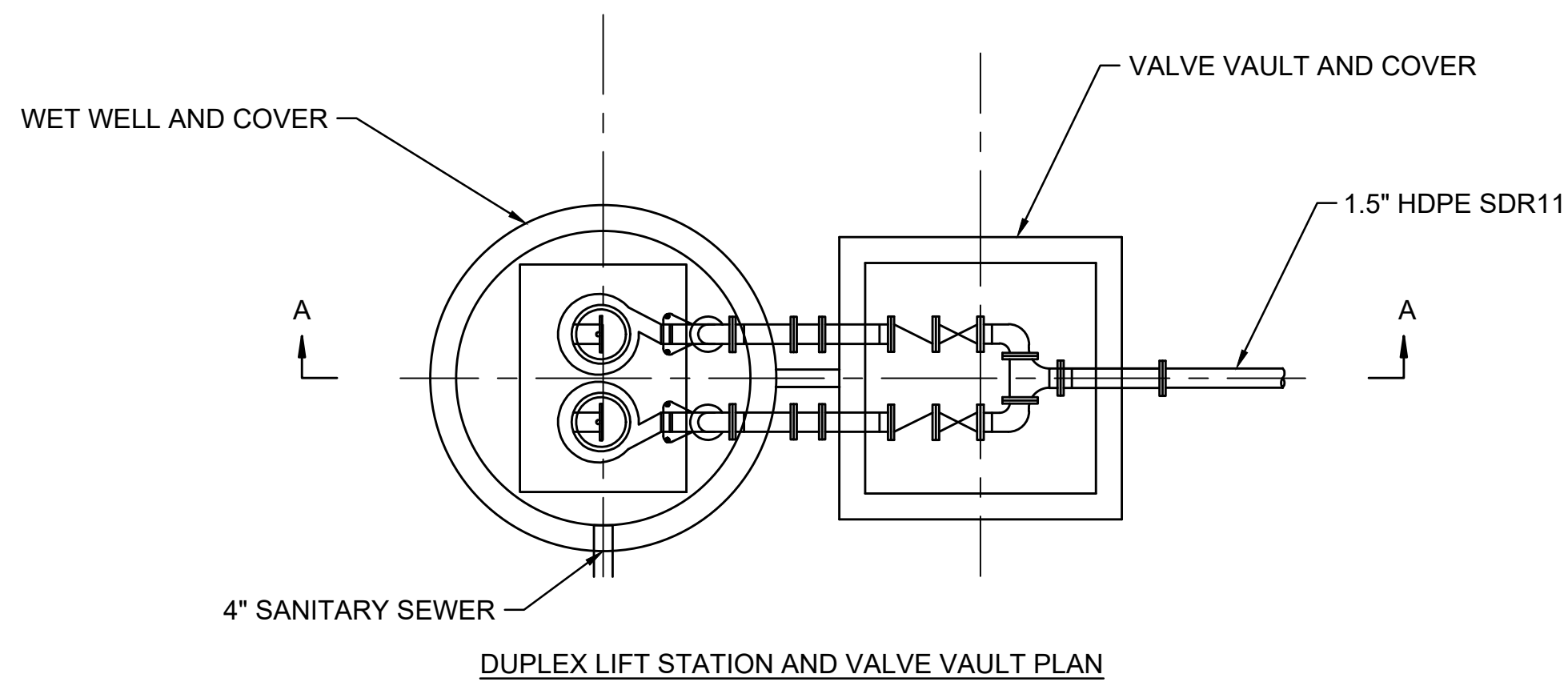


date	detailed
06/23/23	G. PAMBUENA
designed	checked
M. GREUFE	S. WAGNER

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PDX FACILITY IMPROVEMENTS
UTILITY DETAILS - 4

project	contract
153929	
drawing	rev.
CU504	A
file 153929CU501.DWG	



LIFT STATION & VALVE VAULT

DETAIL 1
CU104
CU205
LIFT STATION
NOT TO SCALE

NOTES:

1. LIFT STATION PACKAGE PER ROMTEC UTILITIES OR APPROVED EQUAL. ELEVATIONS AND DETAILS SHOWN ARE FOR REFERENCE, REFER TO ROMTEC DESIGN OR APPROVED EQUAL FOR CONSTRUCTION DETAILS. LIFT STATION SHALL MEET THE DESIGN REQUIREMENTS BELOW.
 - 1.1. INFLUENT PIPE SHALL BE 4" SCHEDULE 40 WITH A FLOW LINE OF 14.15'.
 - 1.2. PEAK DESIGN INFLOW SHALL BE 29 GALLONS PER MINUTE (GPM) OR 750 GALLONS PER DAY (GPD).
 - 1.3. FORCE MAIN IS APPROXIMATELY 1500' LONG. WITH A HIGH POINT ELEVATION OF APPROXIMATELY 20.00'
 - 1.4. DISCHARGE ELEVATION OF FORCE MAIN PER PROFILE ON CU109.
 - 1.5. CONTROL PANEL SHALL BE LOCATED WITH IN 10' OF LIFT STATION.
 - 1.6. POWER SUPPLY FOR LIFT STATION IS 3-PHASE 480V.
 - 1.7. LIFT STATION SHALL BE RATED FOR CLASS 1, DIV 1, GROUP D.

no.	date	by	ckd	description
A	12/21/23	MRG	SEW	ISSUED FOR PERMIT

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date	06/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

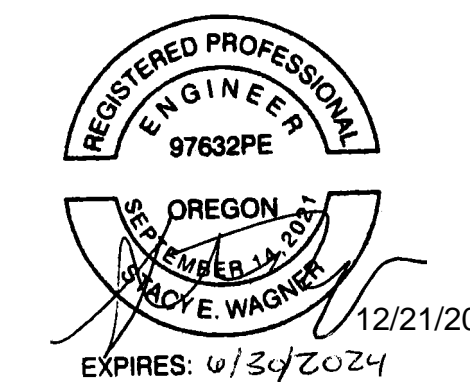
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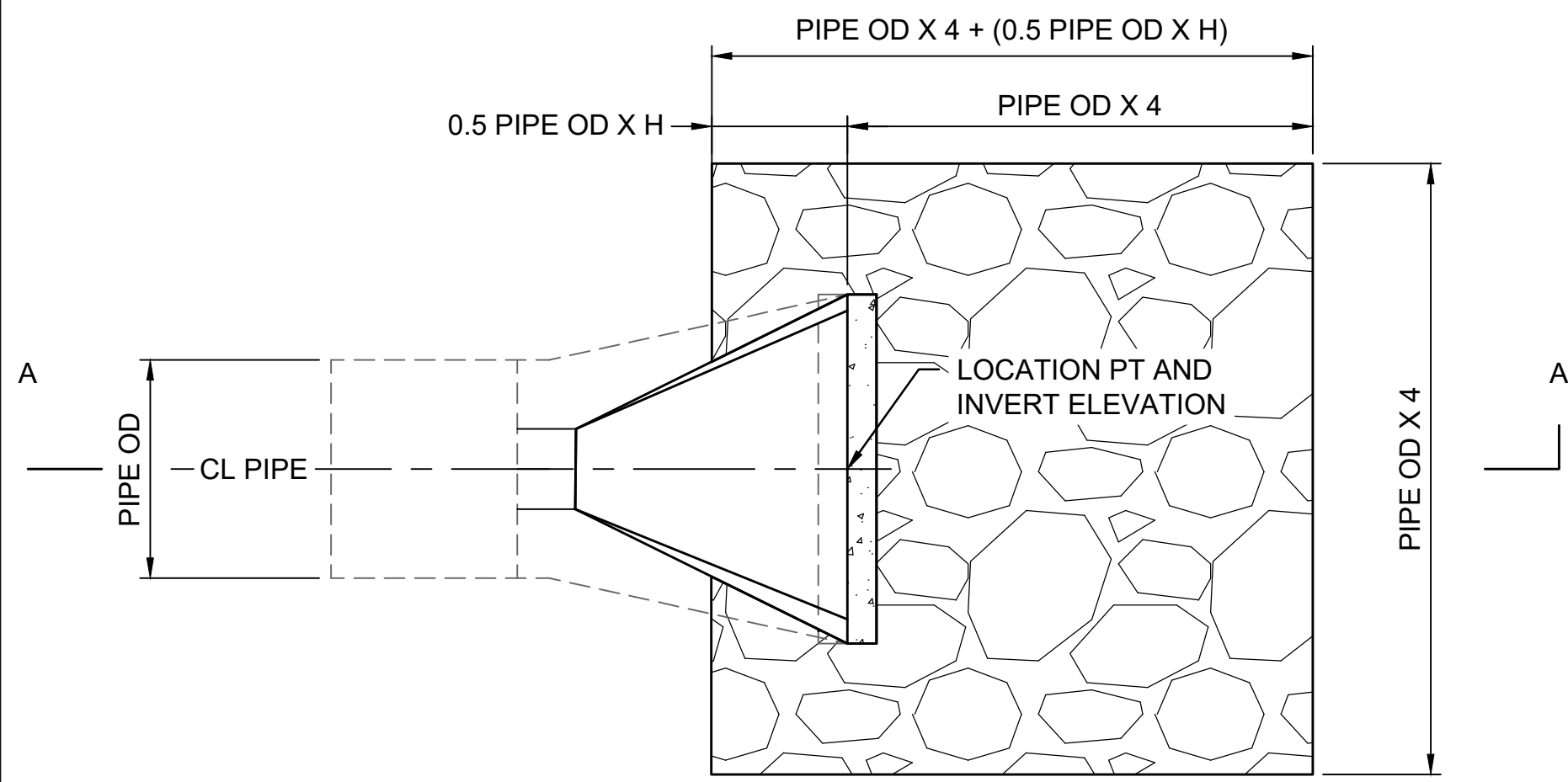
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PDX FACILITY IMPROVEMENTS
UTILITY DETAILS - 5

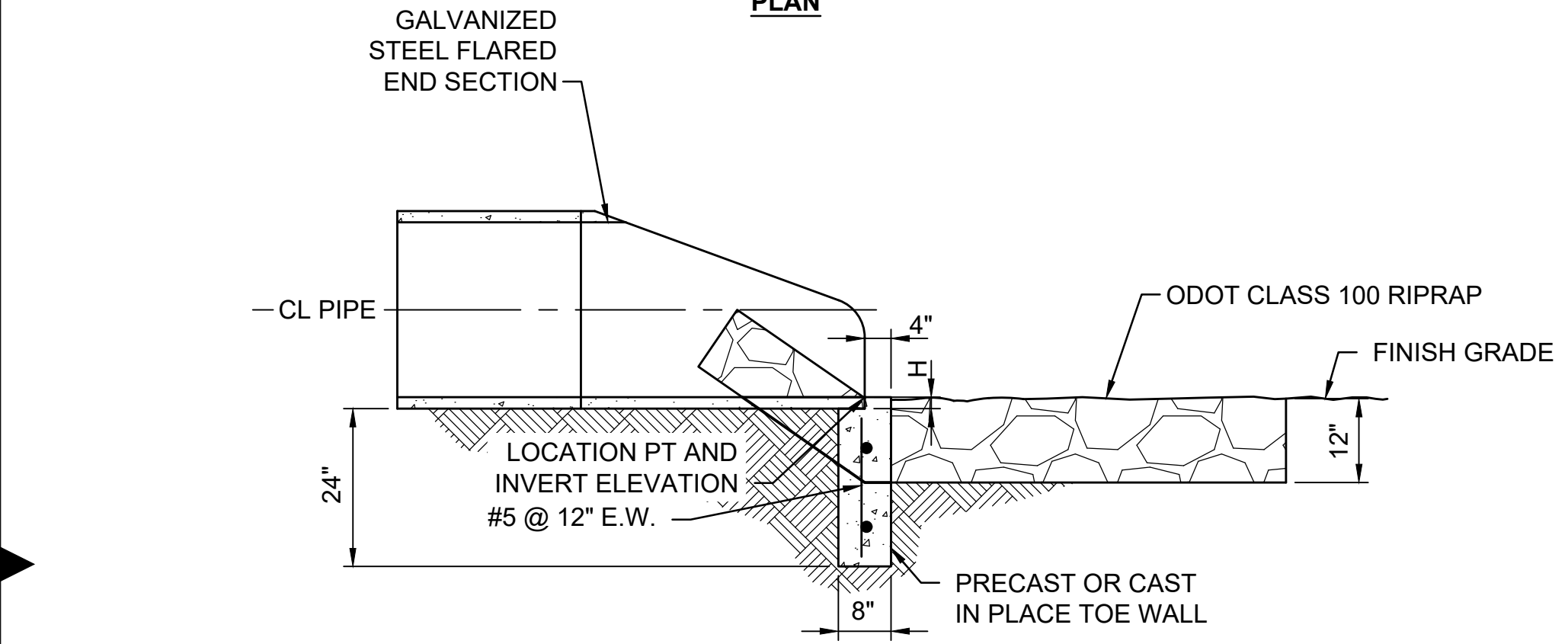
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drawing	CU505	rev.	A

file 153929CU501.DWG

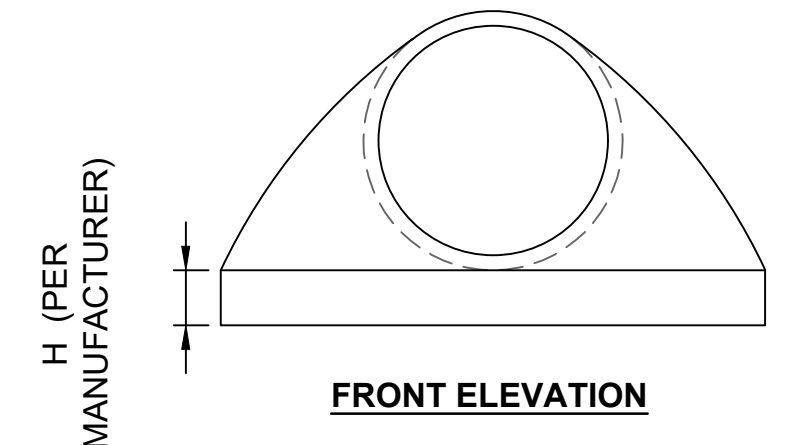




PLAN



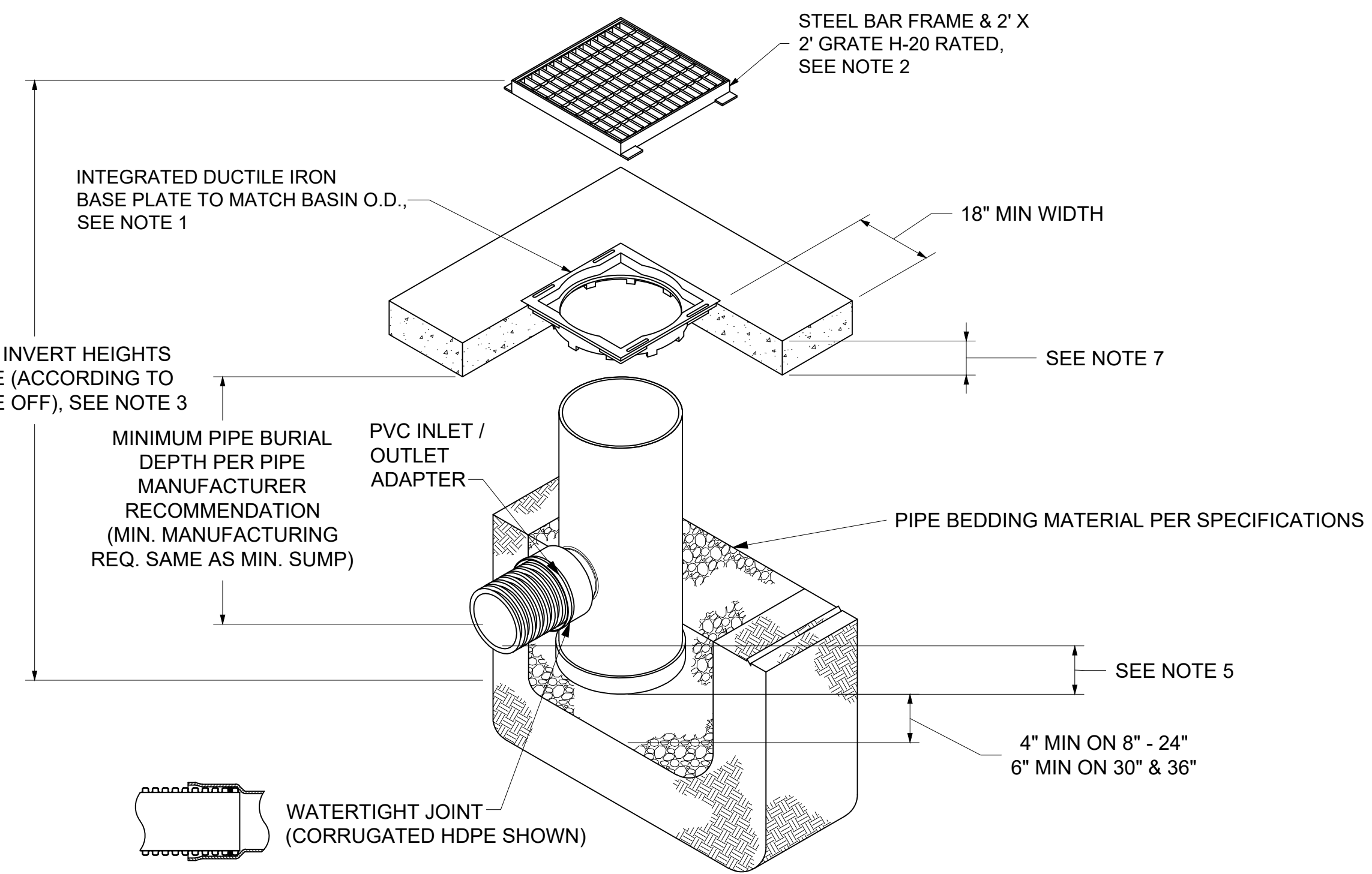
SECTION A-A



FRONT ELEVATION

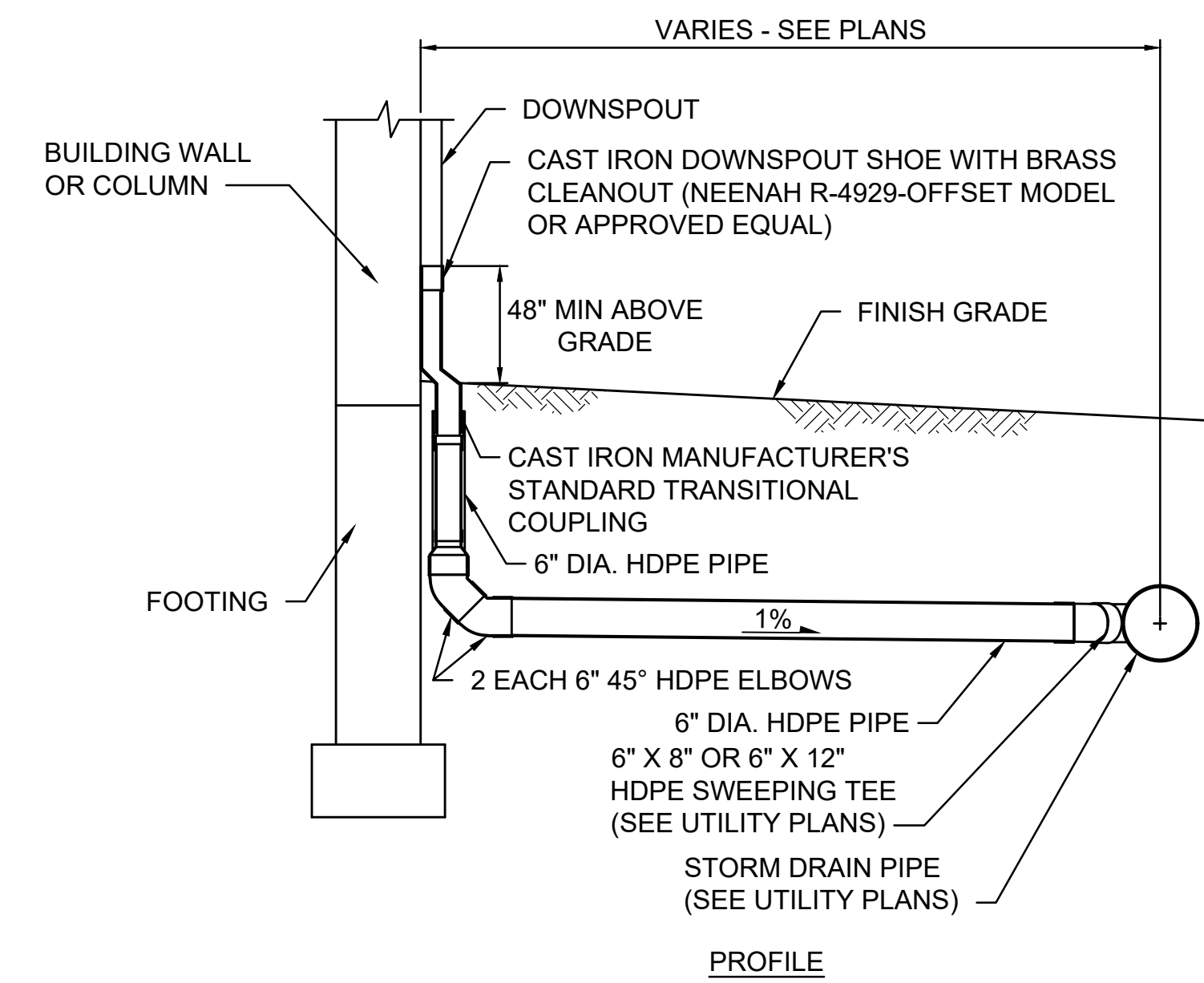


DETAIL 1

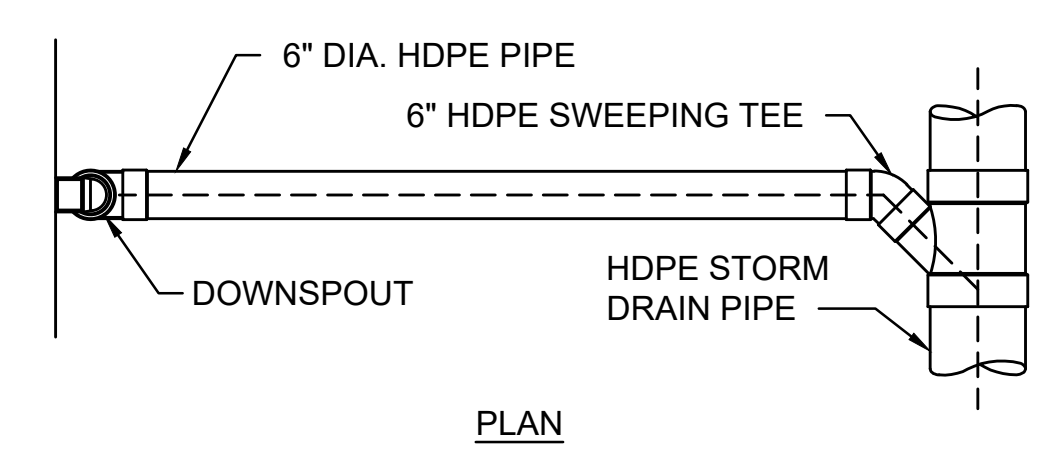


DETAIL 2
STORM DRAIN INLET
NOT TO SCALE
CU102
CU103
CU104
CU106
CU107

1. DRAWING NUMBERS LISTED FOR THIS DETAIL ARE AVAILABLE FROM NYOPLAST, WWW.NYOPLAST-US.COM.
2. GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
3. DRAINAGE BASIN TO BE SIZED BY MANUFACTURER PER NUMBER OF PIPES AND ANGLES OF ENTRANCE.
4. STANDARD DRAIN BASIN HAS FIXED ADAPTER LOCATIONS OF 0° & 180°. CUSTOM DRAIN BASIN ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
5. SUMP TO BE 6" MIN ON 8" - 24", 10" MIN ON 30" AND 12" MIN ON 36" BASED ON MANUFACTURING REQ.
6. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR PVC SEWER (4" - 24").
7. CONCRETE MAINTENANCE SLAB SHALL BE 8" THICK, CONFORMING TO SPECIFICATION SECTION 03 30 00. REINFORCE WITH #4 DEFORMED BARS SPACED AT 9" ON-CENTER, EACH WAY.



DETAIL 3
DOWNSPOUT TO UNDERGROUND STORM DRAIN CONNECTION
NOT TO SCALE
CU103
CU104



PLAN

no.	date	by	ckd	description
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date	06/23/23	detailed	G. PAMBUENA
designed	M. GREUFE	checked	S. WAGNER

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PDX FACILITY IMPROVEMENTS
UTILITY DETAILS - 6

project	153929	contract	
drawing	CU506	rev.	A

file 153929CU501.DWG

