OREGON TECH INDUSTRIAL PARK DRIVE IMPROVEMENTS

KLAMATH FALLS, OR 97601

CIVIL LEGEND

HATCHES & LINE TYPES:

- NEW CONCRETE PAVING
- NEW ASPHALT PAVING
- NEW GRAVEL PAVING
- NEW LANDSCAPING
- NEW RIP RAP
- EXISTING DRAINAGE SWALE
- NEW DRAINAGE SWALE
- EXISTING EASEMENT
- 18" SD — EXISTING STORM SEWER
- 18" SD — NEW STORM SEWER
- 6" W — EXISTING WATER - PUBLIC
- 8" SS — EXISTING SANITARY SEWER - PUBLIC
- P — EXISTING POWER - BURIED
- P — NEW POWER - BURIED
- GAS — EXISTING NATURAL GAS
- GEO — EXISTING GEOTHERMAL
- CUT — GRADING DAYLIGHT - CUT
- FILL — GRADING DAYLIGHT - FILL
- 4300 — EXISTING SURFACE CONTOUR - MAJOR
- 4300 — EXISTING SURFACE CONTOUR - MINOR
- 4300 — NEW SURFACE CONTOUR - MATCH ELEVATION

SYMBOLS (NEW):

- ac 100.00 / ac 100.00 / 2.0% — GRADE SPOT ELEVATION
- GRADING SLOPE
- D — STORM DRAIN MANHOLE
- CURB INLET
- TYPE 'D' INLET

SYMBOLS (EXISTING):

- (e) ac 100.00 / (e) ac 100.00 — GRADE SPOT ELEVATION
- S — SANITARY SEWER MANHOLE
- WATER METER
- WATER VALVE
- D — STORM DRAIN MANHOLE
- CATCH BASIN
- V — POWER VAULT
- SITE LIGHT
- T — TELEPHONE/DATA RISER
- SIGN

ABBREVIATIONS

ac	ASPHALT CONCRETE	MAX	MAXIMUM
ACP	ASPHALT CONCRETE PAVEMENT	me	MATCH EXISTING
APWA	AMERICAN PUBLIC WORKS ASSOCIATION	MIN	MINIMUM
ASTM	AMERICAN STANDARD TEST METHOD	MP	MID POINT
AWWA	AMERICAN WATER WORKS ASSOCIATION	MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
BMP	BEST MANAGEMENT PRACTICE	(n)	NEW
BOW	BOTTOM OF WALL	NAVD	NORTH AMERICAN VERTICAL DATUM
BP	BASE POINT	ODOT	OREGON DEPARTMENT OF TRANSPORTATION
CI	CURB INLET	OSSC	OREGON STRUCTURAL SPECIALTY CODE
conc	PORTLAND CEMENT CONCRETE	PC	POINT OF CURVATURE
DEQ	DEPARTMENT OF ENVIRONMENTAL QUALITY	PCC	POINT OF COMPOUND CURVATURE
DI	DITCH INLET	PG	PERFORMANCE GRADE
(e)	EXISTING	PI	POINT OF INTERSECTION
EG	EXISTING GRADE	PRC	POINT OF REVERSE CURVATURE
ELEV	ELEVATION	PT	POINT OF TANGENCY
EP	END POINT	PVC	POLY VINYL CHLORIDE
EPA	ENVIRONMENTAL PROTECTION AGENCY	PVC	POINT OF VERTICAL CURVATURE
ESC	EROSION AND SEDIMENT CONTROL	PVI	POINT OF VERTICAL INTERSECTION
FG	FINISHED GRADE	PVT	POINT OF VERTICAL TANGENCY
fl	FLOW LINE	ROW	RIGHT-OF-WAY
FT	FLAT TOP MANHOLE	SDMH	STORM DRAIN MANHOLE
GB	GRADE BREAK	sw	SIDEWALK
gp	GUTTER PLATE	tbc	TOP OF BACK OF CURB
grd	GROUND	TOC	TIME OF CONSTRUCTION
grvl	GRAVEL	tow	TOP OF WALL
HDPE	HIGH-DENSITY POLYETHYLENE	TYP	TYPICAL
HP	HIGH POINT	UPC	UNIFORM PLUMBING CODE
ie	INVERT ELEVATION		
K	RATE OF VERTICAL CURVATURE		
LF	LINEAL FEET		

PROJECT INFORMATION

PROJECT TEAM

OWNER REPRESENTATIVE
OREGON TECH
CONTACT: THOM DARRAH
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KLAMATH FALLS, OR 97601
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ENGINEER OF RECORD
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GEOTECHNICAL ENGINEER
MELVIN GALLI III, PE
THE GALLI GROUP
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GRANTS PASS, OR 97526
(541) 955-1611

CITY ENGINEER
ANDREW LAKEY, PE
CITY OF KLAMATH FALLS
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KLAMATH FALLS, OR 97601
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SURVEYOR
KEITH RHINE, PLS
RHINE-CROSS GROUP, LLC
112 N 5TH STREET SUITE 200
KLAMATH FALLS, OR 97601
(541) 851-9405

SEWER / WATER PROVIDER
CITY OF KLAMATH FALLS
PUBLIC WORKS
500 KLAMATH AVE
KLAMATH FALLS, OR 97601
(541) 883-5316

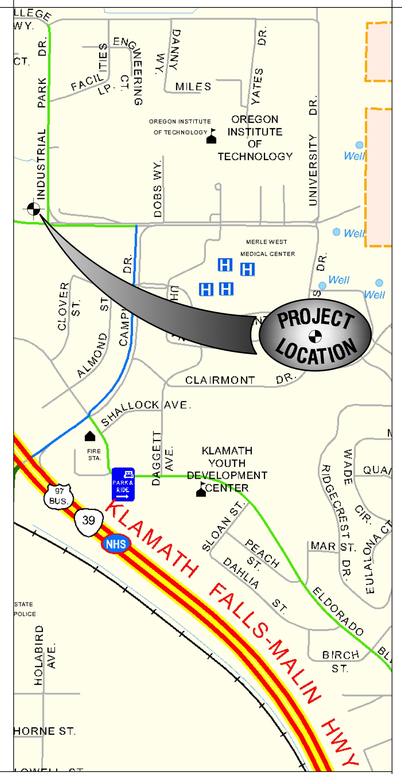
ELECTRIC PROVIDER
PACIFIC POWER
CONTACT: KIRK DANIELS
1950 MALLARD LN
KLAMATH FALLS OR 97601
(541) 883-7828
(541) 274-1803

LOT INFORMATION:

SITE LOCATION:	INDUSTRIAL PARK DRIVE & DAN O'BRIEN WAY KLAMATH FALLS, OREGON 97601
TAX MAP:	T38S-R09E-S20
TAX LOT:	200: ±28.56 ACRES 4900: ±156.42 ACRES
AREA OF IMPACT:	±2.66
ZONING:	GC - GENERAL COMMERCIAL

ATTENTION:
OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH 952-001-0090. YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER. (NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS (503 232-1987).

VICINITY MAP



SHEET INDEX

PROJECT NARRATIVE

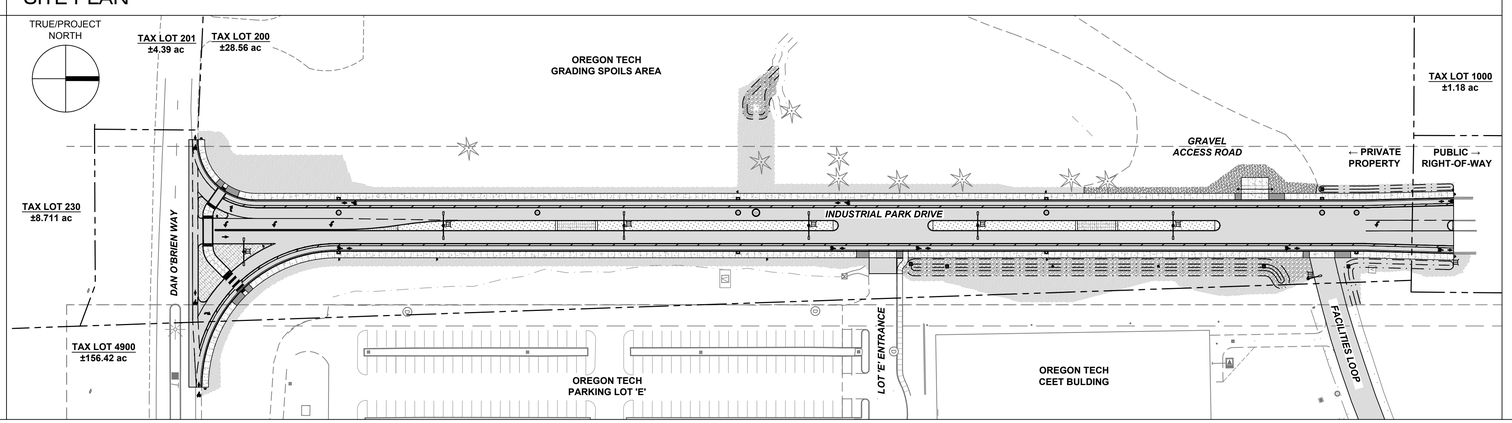
THE PROPOSED PROJECT WILL RE-CONSTRUCT APPROXIMATELY 1,200 LINEAR FEET OF INDUSTRIAL PARK DRIVE IMMEDIATELY NORTH OF THE INTERSECTION WITH DAN O'BRIEN WAY. THE FIRST APPROXIMATELY 1,150 LINEAR FEET OF INDUSTRIAL PARK DRIVE IS A PRIVATELY OWNED AND MAINTAINED ROAD SITUATED WITHIN A 150-FOOT WIDE ROAD EASEMENT ON OIT PROPERTY. THE NORTHERNMOST 50 FEET OF PROPOSED WORK IS WITHIN CITY OF KLAMATH FALLS RIGHT-OF-WAY. THE PROPOSED PRIVATE ROADWAY SECTION IS SIMILAR TO THE STANDARD KLAMATH FALLS MINOR COLLECTOR SECTION WITH BICYCLE LANES; HOWEVER, THE PROPOSED SECTION WILL HAVE CURB-TIGHT SIDEWALKS. ASSOCIATED PRIVATE STORM DRAIN IMPROVEMENTS WILL COLLECT RUNOFF FROM INDUSTRIAL PARK DRIVE AND WILL ALSO INTERCEPT AND CONVEY RUNOFF FROM EXISTING PORTIONS OF THE OREGON TECH CAMPUS. THE NEW STORM SYSTEM WILL INCREASE OVERALL CAPACITY OF THE PRIVATE OREGON TECH STORM SYSTEM, AND WILL REDUCE LOAD ON EXISTING OREGON TECH STORM OUTLETS.

DATUM

HORIZONTAL COORDINATES BASED ON
OCRS BEND-KLAMATH FALLS NAD83 (INTL FEET)

VERTICAL ELEVATIONS BASED ON
NAVD 88

SITE PLAN



ONE INCH EQUALS FULL SCALE

ZCS ENGINEERING ARCHITECTURE
900 Klamath Avenue, Klamath Falls, Oregon 97601 | 541-884-7421

OREGON TECH
FACILITY SERVICES
3201 CAMPUS DRIVE
KLAMATH FALLS, OR 97601

OREGON TECH INDUSTRIAL PARK DRIVE IMPROVEMENTS

Oregon TECH
Oregon Institute of Technology

REGISTERED PROFESSIONAL ENGINEER
70775PE
DIGITAL SIGNATURE
OREGON
Sept. 19, 2006
SYLAS E. ALLEN
EXPIRES: 12-31-23

REVISION ID:	DATE:

PROJECT NO:	K-6345-23
DRAWN:	SMG
CHECKED:	BJD
DATE:	01-31-2024

CIVIL COVER

C0.00

BID AND PERMIT SET

INSPECTION TESTING AND FREQUENCY TABLE	NOTE 1
STREETS, PARKING LOTS, FILLS, ETC.	
SUB-GRADE: 1 TEST PER 4,000 sqft PER LIFT (4 TESTS MIN.)	NOTE 2 AND 3
ENGINEERED FILL: 1 TEST PER 4,000 sqft PER LIFT (4 TESTS MIN.)	NOTE 2 AND 4
BASEROCK: 1 TEST PER 4,000 sqft PER LIFT (4 TESTS MIN.)	NOTE 2 AND 3
ASPHALT: 1 TEST PER 6,000 sqft PER LIFT (4 TESTS MIN.)	NOTE 2
UTILITY TRENCHING	
TRENCH BACKFILL: 1 TEST PER 200 LINEAL FEET PER LIFT (4 TESTS MIN.)	NOTE 2
TRENCH ASPHALT RESTORATION: 1 TEST PER 300 LINEAL FEET PER LIFT (4 TESTS MIN.)	NOTE 2
SITE CONCRETE	
SLUMP, AIR AND CYLINDERS FOR ALL SITE CONCRETE AND PCC PAVEMENTS. UNLESS OTHERWISE SPECIFIED, ONE SET OF CYLINDERS PER 100 CUBIC YARDS (OR PORTION THEREOF) OF CONCRETE POURED PER DAY. SLUMP AND AIR TESTS REQUIRED ON SAME LOAD AS CYLINDERS.	NOTE 2
BUILDING PERMIT INSPECTION AND SPECIAL INSPECTIONS FOR STRUCTURAL CONCRETE, MASONRY, EPOXY ANCHORS, ETC. AS REQUIRED BY PROJECT STRUCTURAL ENGINEER AND CURRENT BUILDING CODES.	NOTE 2
RETAINING WALLS	
BUILDING PERMIT INSPECTION AND SPECIAL INSPECTION, AS WELL AS COMPACTION TESTING ON BACKFILL, AS REQUIRED BY PROJECT ENGINEER AND CURRENT BUILDING CODES.	NOTE 2 AND 4

INSPECTION TESTING AND FREQUENCY SPECIAL NOTES

NOTE 1:	CONTRACTOR IS RESPONSIBLE FOR SCHEDULING ANY AND ALL TESTING, INSPECTIONS, AND SPECIAL INSPECTIONS AS REQUIRED BY PROJECT ENGINEER, CURRENT BUILDING CODES OR JURISDICTIONS HAVING AUTHORITY. ALL TESTING MUST BE COMPLETED AND APPROVED PRIOR TO SUBSEQUENT WORK. ADDITIONAL OR FREQUENT TESTS MAY BE REQUIRED BY AGENCY, BUILDING OFFICIAL, OR ENGINEER.
NOTE 2:	TESTING MUST BE PERFORMED BY AN APPROVED INDEPENDENT TESTING LABORATORY RETAINED BY THE OWNER.
NOTE 3:	IN ADDITION TO IN-PLACE DENSITY TESTING, THE SUB-GRADE AND BASE ROCK SHALL BE PROOF-ROLLED WITH A LOADED DUMP TRUCK OR HEAVY NON-VIBRATORY ROLLER. SOILS SHALL BE REMOVED AND RE-COMPACTED OR REPLACED WITH APPROVED IMPORTED STRUCTURAL FILL IF THEY DO NOT DEMONSTRATE A FIRM, UNYIELDING CONDITION. BASEROCK PROOF-ROLL SHALL TAKE PLACE WITHIN 24 HOURS PRIOR TO PAVING AND SHALL BE WITNESSED BY THE ENGINEER OR GOVERNING AGENCY (LOCATION DEPENDENT).
NOTE 4:	THE APPROVED INDEPENDENT LABORATORY SHALL PROVIDE CERTIFICATION (STAMPED BY A ENGINEER LICENSED IN THE STATE OF OREGON) THAT THE SUB-GRADE WAS PREPARED AND ALL ENGINEERED FILLS WERE PLACED IN ACCORDANCE WITH THE CONTRACT DRAWINGS AND DOCUMENTS.

EROSION CONTROL NOTE:

DRAWINGS IN THE EC8.00 SERIES CONTAIN AN EROSION AND SEDIMENT CONTROL PLAN THAT MUST BE IMPLEMENTED PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES. THE INFORMATION CONTAINED WITHIN THE REFERENCED DRAWINGS SHALL BE CONSIDERED A MINIMUM AND SHALL BE MODIFIED AS REQUIRED BY THE CONTRACTOR, THE CITY OF KLAMATH FALLS, AND THE CERTIFIED EROSION CONTROL INSPECTOR TO CONTAIN ALL SEDIMENT ON SITE. SPECIAL ATTENTION SHALL BE TAKEN AT ALL EXISTING STORM DRAIN CATCH BASINS AND STORM DRAIN CHANNELS AS TO ELIMINATE ANY SEDIMENT TRANSFER INTO THE EXISTING STORM DRAIN SYSTEM.

AN ALL WEATHER ROCK SURFACE SHALL BE PROVIDED AT ALL CONSTRUCTION SITE ENTRANCES. ALL CONSTRUCTION SHALL BE MAINTAINED WITHIN THE DEVELOPMENT LIMITS OF THIS PHASE. REFER TO DRAWINGS IN THE EC8.00 SERIES FOR ADDITIONAL INFORMATION.

DATA SOURCE STATEMENT:

EXISTING UNDERGROUND UTILITIES ILLUSTRATED IN THESE PLANS HAVE BEEN LOCATED BY A UTILITY LOCATE COMPANY IN AS PART OF A TOPOGRAPHIC SURVEY, OR HAVE BEEN APPROXIMATED BASED ON GIS DATA MAPS OBTAINED FROM THE CITY OF KLAMATH FALLS PUBLIC WORKS FILES. LAYOUT INDICATED IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. ALL UTILITY LINES WITHIN PROJECTED WORK ZONE SHALL BE FIELD VERIFIED AS REQUIRED PRIOR TO CONSTRUCTION.

PROPERTY LINE AND TAX LOT INFORMATION HAS BEEN COMPILED FROM TOPOGRAPHIC SURVEY INFORMATION, CITY OF KLAMATH FALLS GIS DATA, AND KLAMATH COUNTY TAX MAPS.

RESTORATION STATEMENT:

CONTRACTOR SHALL RESTORE BACK TO ORIGINAL CONDITION OR AS NOTED IN THE PLANS, PRIOR TO CONTRACT COMPLETION, ALL DISTURBED SURFACES IMPACTED DURING CONSTRUCTION. THIS INCLUDES, BUT IS NOT LIMITED TO, CONSTRUCTION ACCESS, SIDEWALKS, CURBS, ASPHALT, LAWN AND LANDSCAPE AREAS, ETC. DISTURBED AREAS TO BE GRADED SMOOTH AND ADEQUATELY SLOPED TO DRAIN. AREA SHALL BE CLEAN AND FINISH GRADED BEFORE FINAL DEMOBILIZATION. COORDINATE WITH ENGINEER AND OWNER AT THE TIME OF PROJECT CONSTRUCTION COMPLETION.

ONE INCH EQUALS FULL SCALE

GENERAL CIVIL NOTES:

1. ALL WORK AND MATERIALS SHALL CONFORM TO THE 2024 OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION, CURRENT OREGON PLUMBING SPECIALTY CODE, AND ALL APPLICABLE STATE, CITY, AND COUNTY REGULATIONS AND STANDARDS. CONTACT ENGINEER FOR DIRECTIVE IN THE EVENT OF CONFLICTING STANDARDS.
2. ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE COORDINATED WITH THE GOVERNING AGENCY'S INSPECTOR AND SHALL CONFORM TO THAT AGENCY'S CURRENT ENGINEERING STANDARD SPECIFICATIONS AND DETAILS.
3. THE GENERAL CONTRACTOR AND ALL THEIR AFFILIATES SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, AND LOCATIONS PRIOR TO CONSTRUCTION. IMMEDIATELY NOTIFY ENGINEER OF ANY DISCREPANCIES.
4. ALL CONSTRUCTION STAKING, GRADE SURVEYING, AND HORIZONTAL LAYOUT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE PERFORMED BY A PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF OREGON; COORDINATE WITH ENGINEER PRIOR TO CONSTRUCTION.
5. ALL EXISTING UTILITIES IDENTIFIED IN THIS PLAN SET ARE NOT INTENDED TO BE EXACT OR COMPLETE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO IDENTIFY ALL UTILITIES AND PROTECT AS REQUIRED DURING THE COURSE OF CONSTRUCTION. CALL THE "OREGON UTILITY NOTIFICATION CENTER" AT 1-800-332-2344 TO LOCATE EXISTING UTILITIES, 48 HOURS BEFORE DIGGING.
6. CONTRACTOR SHALL NOTIFY ALL APPLICABLE REGULATORY AGENCIES AND UTILITY COMPANIES 48 HOURS PRIOR TO BEGINNING WORK.
7. ALL EXCAVATION, TRENCH BACK FILL, PARKING LOT/ROAD SUB-GRADE, FLAT WORK SUB-GRADE, COMPACTION REQUIREMENTS, ETC. SHALL BE AS NOTED IN THE SITE PREPARATION NOTES AND/OR THE PROJECT GEOTECHNICAL REPORT.
8. ALL BASE ROCK PLACED UNDER PAVEMENT AND IN UTILITY TRENCHES SHALL CONFORM TO THE 2024 OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION.
9. ALL ASPHALT CONCRETE AND PORTLAND CEMENT CONCRETE PAVEMENT AND ITS PLACEMENT SHALL CONFORM TO THE 2024 OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION.
10. PER CITY OF KLAMATH FALLS ENGINEERING STANDARDS 8-5.3.8, ALL SITE CONCRETE SHALL BE f'c = 4,000 psi @ 28 DAYS, 6% ENTRAINED AIR, 4" SLUMP (UNLESS NOTED OTHERWISE). ALL CONCRETE WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE f'c = 4,000 psi.
11. ALL UTILITY SERVICES SHALL BE INSTALLED PER THE RESPECTIVE UTILITY CODES AND STANDARDS.
12. ALL UTILITIES SHALL HAVE A MINIMUM COVER AS IDENTIFIED IN THE PLAN SET OR AS OTHERWISE SPECIFIED BY THE RESPECTIVE UTILITY COMPANY.
13. ALL SERVICES SHALL BE ADEQUATELY MARKED AS TO IDENTIFY THE SIZE, TYPE, AND DEPTH OF THE SERVICE. CONTRACTOR TO PROVIDE LOCATE WIRE/TAPE AS REQUIRED BY THE APPLICABLE AGENCIES.
14. ALL UNDERGROUND UTILITIES AND SERVICE LATERALS SHALL BE INSTALLED PRIOR TO CONSTRUCTION OF CURBS AND GUTTERS. CONTRACTOR SHALL STAMP CURBS OR SIDEWALKS (AS APPLICABLE) TO MARK THE LOCATIONS OF ALL SERVICE LINES (S - SANITARY, W - WATER, D - STORM DRAIN, G - GAS).
15. ALL SERVICES AND SLEEVES SHALL BE PLUGGED AS REQUIRED TO ENSURE THAT NO FOREIGN MATERIALS ENTER THE LINE.
16. GAS, POWER, TELEPHONE, CABLE, AND FIBER OPTIC LINES SHALL BE INSTALLED BASED ON THE PLANS AND SPECIFICATIONS PROVIDED BY THE APPLICABLE UTILITY COMPANIES. APPROXIMATE UTILITY LOCATIONS HAVE BEEN PROVIDED ON THIS PLAN SET AS A REFERENCE. CONTRACTOR SHALL COORDINATE TRENCH EXCAVATIONS, CONDUIT INSTALLATIONS, BEDDING, BACKFILLING, AND INSPECTION REQUIREMENTS WITH THE APPROPRIATE UTILITY REPRESENTATIVES.
17. CONTRACTOR SHALL PROVIDE THE ENGINEER WITH AN AS-BUILT DRAWING OF ALL UTILITY SERVICE INSTALLATIONS INCLUDING THE SERVICE SIZE, TYPE, DEPTH OF MAIN, TYPE OF CONNECTION AT MAIN, INSTALLATION DATE, LOCATION, AND SKETCH (AS APPLICABLE).
18. CONTRACTOR SHALL OBTAIN ALL APPLICABLE PERMITS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. COORDINATE WITH THE ENGINEER PRIOR TO CONSTRUCTION TO IDENTIFY PERMIT REQUIREMENTS.
19. ALL SEWER MANHOLES SHALL BE HYDROSTATICALLY TESTED PER THE 2021 OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION PRIOR TO FINAL ACCEPTANCE. THE CONTRACTOR SHALL PROVIDE THE REQUIRED PERSONNEL AND MATERIALS TO PERFORM THE ABOVE TESTS. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH DOCUMENTATION OF THE TEST RESULTS FOR APPROVAL.
20. EXISTING SEWER SERVICES MUST BE TV INSPECTED AND APPROVED BY THE APPLICABLE AGENCY PRIOR TO THEIR REUSE. IF DEFICIENCIES IN THE SERVICE LINES/CONNECTIONS ARE DISCOVERED DURING THE INSPECTION, THEY MUST BE CORRECTED BASED ON THE APPLICABLE AGENCY STANDARDS.
21. STORM COLLECTION SYSTEM IS DESIGNED FOR WATER TIGHT COMPONENTS UNLESS NOTED OTHERWISE.
22. ALL STORM PIPE IDENTIFIED AS 'HDPE' BE SHALL BE N-12 WT IB CONFORMING TO ASTM F2648. ALL STORM PIPE IDENTIFIED AS 'PVC' SHALL BE SDR 35 CONFORMING TO ASTM D3034. ALL STORM PIPE IDENTIFIED AS 'CMP' SHALL BE 12 GAUGE GALVANIZED CORRUGATED METAL. SEE PLAN SET FOR ADDITIONAL INFORMATION.
23. ALL STORM COLLECTION SYSTEM CONNECTIONS AND COMPONENTS SHALL CONFORM TO PIPE MANUFACTURER REQUIREMENTS. CONTRACTOR TO COORDINATE FINAL STORM SYSTEM LAYOUT WITH ENGINEER AND STORM SYSTEM SUPPLIER PRIOR AT TIME OF CONSTRUCTION. STORM SYSTEM COMPONENT SHOP DRAWINGS SHALL BE PROVIDED FOR ENGINEER'S REVIEW PRIOR TO CONSTRUCTION.
24. ALL STORM SYSTEM CURB INLETS AND DITCH INLETS SHALL BE PROVIDED WITH A MINIMUM 18" SETTLEMENT SUMP BELOW THE LOWEST PIPE INVERT PER CITY OF KLAMATH FALLS STANDARD DRAWINGS 4-115 AND 4.120 (UNLESS NOTED OTHERWISE). REFER TO PLAN SET FOR ADDITIONAL INFORMATION.
25. CONTRACTOR SHALL PROVIDE ENGINEER WITH SHOP DRAWING SUBMITTALS ON ALL PERMANENTLY INSTALLED MANUFACTURED ITEMS.
26. ALL UNDERGROUND PIPING, CONDUIT AND OTHER UTILITIES SHALL BE INSTALLED PER CITY OF KLAMATH FALLS STANDARD DRAWING 2-105 (OR AS OTHERWISE SPECIFIED BY PIPE MANUFACTURER). NOTIFY ENGINEER IN EVENT OF DISCREPANCIES.
27. ALL TEMPORARY PROTECTION AND DIRECTION OF TRAFFIC SHALL BE BY THE CONTRACTOR AND CONFORM WITH BOTH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THE ODOT MANUAL ON SHORT TERM TRAFFIC CONTROL (AS APPLICABLE).

GENERAL CIVIL NOTES (CONTINUED):

28. PREPARATION OF ALL LANDSCAPED AREAS SHALL BE AS NOTED ON THE LANDSCAPE PLANS. ZCS SHALL INSPECT ALL LANDSCAPE PLANTER GRADES PRIOR TO RECEIVING FINAL SURFACE TREATMENT.
29. HOLD SUB-GRADE ELEVATIONS DOWN 4" WITHIN LANDSCAPE AREAS TO BE HYDRO-SEEDED. PLACE RE-CLAIMED SITE TOPSOIL TO FINAL GRADE PRIOR TO HYDRO-SEEDING.
30. SEE LANDSCAPE PLANS FOR MEDIAN PLANTER ISLAND SURFACING AND IRRIGATION SLEEVE PLACEMENT LOCATIONS AND REQUIREMENTS.
31. ALL PAINTED MARKINGS SHALL BE INSTALLED WITH FAST DRYING TRAFFIC LINE PAINT APPLIED IN TWO SEPARATE APPLICATIONS PER THE OREGON APWA / ODOT STANDARD SPECIFICATIONS FOR CONSTRUCTION.
32. SAND SEAL AND TACK ALL CUT ASPHALT EDGES WHEN PLACING NEW ASPHALT ADJACENT TO EXISTING ASPHALT.
33. SEE PLAN SET FOR ADDITIONAL INFORMATION.

SITE PREPARATION NOTES:

CLEARING AND GRUBBING -

1. ALL AREAS BELOW ROADWAYS, PARKING AREAS, AND WALKWAYS SHALL BE CLEARED AND GRUBBED OF ALL PAVEMENT, FOREIGN MATTER, DEBRIS, ORGANIC AND DISTURBED MATERIAL, (U.N.O.) STRIPPING DEPTHS WILL VARY DEPENDING ON LOCATION AND PAVEMENT SECTION REQUIREMENTS. ALL EXPOSED MATERIAL SHALL BE MOISTURE CONDITIONED TO WITHIN 2% OF OPTIMUM PRIOR TO PLACEMENT OF FILL MATERIAL DESCRIBED BELOW.
2. ALL CLEARED AND GRUBBED MATERIAL NOT UTILIZED FOR THE PROJECT SHALL BE REMOVED FROM THE CONSTRUCTION SITE. CONTRACTOR SHALL COORDINATE APPROVED DISPOSAL LOCATION. IF OVER 50 CUBIC YARDS OF MATERIAL ARE TO BE HAULED TO ANY SITE WITHIN CITY LIMITS A SITE CONSTRUCTION PERMIT WILL BE REQUIRED FOR THE DISPOSAL SITE. COORDINATE WITH CITY INSPECTOR AT TIME OF CONSTRUCTION.
3. ALL AREAS WITH ABANDONED UTILITY LINES, STORM DRAINS, UNDERGROUND TANKS, ETC. WHICH PROVIDE VOID SPACE BENEATH THE SURFACE SHALL BE LOCATED AND REMOVED PRIOR TO GRADING ACTIVITIES.
4. ALL HOLES, DEPRESSIONS, AND UNDISTURBED NATIVE MATERIAL SHALL BE CLEARED OF ALL LOOSE AND ORGANIC MATERIAL PRIOR TO BACKFILLING WITH APPROVED STRUCTURAL FILL.
5. AFTER CLEARING THE ABOVE MENTIONED AREAS, ALL EXPOSED SUB-GRADE SHALL BE PROOF ROLLED WITH A LOADED DUMP TRUCK OR HEAVY NON-VIBRATORY ROLLER. SOILS SHALL BE REMOVED AND RE-COMPACTED OR REPLACED WITH APPROVED IMPORTED STRUCTURAL FILL IF THEY DO NOT DEMONSTRATE A FIRM, UNYIELDING CONDITION. GEOTECHNICAL ENGINEER SHALL APPROVE SUB-GRADE SURFACE PRIOR TO STRUCTURAL FILL IMPORT EXPLAINED BELOW.

STRUCTURAL FILL PLACEMENT AND COMPACTION -

6. APPROVED STRUCTURAL FILL SHALL BE IMPORTED AND PLACED BENEATH AREAS RECEIVING ASPHALT AND/OR CONCRETE PAVEMENT.
7. ALL VEHICULAR TRAFFIC AREAS RECEIVING ASPHALT AND/OR CONCRETE SHALL BE PROVIDED WITH AN APPROVED WOVEN GEOTEXTILE FABRIC APPLIED DIRECTLY OVER THE SUB-GRADE DESCRIBED ABOVE. SEE PLAN SET FOR ADDITIONAL DETAILS.
8. STRUCTURAL FILL MATERIALS SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO IMPORTING. ALL FILL SHALL BE FREE OF ORGANIC AND EXPANSIVE CLAY MATERIAL. ALL BASE ROCK SHALL CONFORM TO THE SPECIFICATIONS IDENTIFIED IN THE PLAN SET.
9. STRUCTURAL FILL PLACEMENT LIFTS TO BE DETERMINED BY THE GEOTECHNICAL ENGINEER BASED ON MATERIAL PROPERTIES AND TYPE OF COMPACTION EQUIPMENT USED. BASE ROCK PLACEMENT LIFTS SHALL NOT EXCEED 8". EACH LIFT SHALL BE NEARLY EQUAL IN THICKNESS AND COMPACTED TO A MINIMUM OF 95% OF ASTM D-698. FILLS SHALL BE PLACED AT OR SLIGHTLY ABOVE THEIR OPTIMUM MOISTURE CONTENT.
10. IN ADDITION TO THE NOTES ABOVE, ALL SITE PREPARATION AND SUBSURFACE WORK SHALL CONFORM TO THE PROJECT GEOTECHNICAL INVESTIGATION REPORT AS PREPARED BY "THE GALLI GROUP", DATED 10/04/2023.

CITY OF KLAMATH FALLS SPECIFIC NOTES:

1. REFER TO CITY OF KLAMATH FALLS STD. DRAWING 1-100a THROUGH 1-100e FOR ADDITIONAL INFORMATION.
2. PRIOR TO CITY ISSUANCE OF EITHER AN OBSTRUCTION OF PUBLIC WAY PERMIT OR A SITE CONSTRUCTION PERMIT FOR ANY PROJECT CONSISTING OF HAULING A LARGE QUANTITY OF MATERIAL TO OR FROM A SITE WITHIN CITY LIMITS, THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN WHICH INCLUDES THE PROPOSED TRUCK ROUTE(S). THIS PLAN SHALL CONFORM TO THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. CITY STAFF WILL REVIEW, REVISE AND ULTIMATELY APPROVE THE PROPOSED PLAN. PUBLIC SAFETY AND THE PROTECTION OF PUBLIC INFRASTRUCTURE ARE THE PRIMARY REASONS FOR THIS REQUIREMENT. PER CITY STANDARD DRAWING NUMBER 1-100C, GENERAL NOTE U-6 OF THE CITY OF KLAMATH FALLS PUBLIC WORKS ENGINEERING STANDARDS THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY DAMAGED UTILITIES. STREETS, CURB/GUTTER, SIDEWALKS, AND ALL UNDERGROUND INFRASTRUCTURES ARE CONSIDERED UTILITIES. PRIOR TO PERMIT ISSUANCE, CITY STAFF WILL PHOTOGRAPH THE CONDITION OF ALL UTILITIES WITHIN THE APPROVED AND OR DESIGNATED TRUCK ROUTE. ALL LOADS SHALL BE SECURED, COVERED OR CONTAINED TO AVOID SPILLAGE WITHIN THE ROAD RIGHT OF WAY. APPROVED ROUTES WILL BE MONITORED BY THE CONTRACTOR FOR CLEANLINESS.

SPECIAL CONCRETE NOTES:

THE FOLLOWING NOTES APPLY TO ALL PROJECT CONCRETE. CERTAIN NOTES MAY NOT BE APPLICABLE. CONTACT THE ENGINEER OF RECORD FOR CLARIFICATION AS REQUIRED.

1. ALL FLATWORK CONCRETE TO BE F'C = 4,000 PSI UNLESS NOTED OTHERWISE. ALL RETAINING WALL CONCRETE TO BE F'C = 4,000 PSI UNLESS NOTED OTHERWISE. PROVIDE STANDARD CONCRETE TESTING PUCKS FROM CONCRETE SUPPLIER.
2. ALL CONCRETE TO HAVE 6% (±1%) AIR ENTRAINMENT
3. PERFORM WORK IN ACCORDANCE WITH ACI 301 AND ACI 318. FOLLOW RECOMMENDATIONS OF ACI 305R WHEN CONCRETING DURING HOT WEATHER AND ACI 306R WHEN CONCRETING DURING COLD WEATHER. PLACE CONCRETE IN ACCORDANCE WITH ACI 304R. ENSURE REINFORCEMENT, INSERTS, EMBEDDED PARTS. FORMED JOINTS ARE NOT DISTURBED DURING CONCRETE PLACEMENT. PLACE CONCRETE CONTINUOUSLY OVER THE FULL WIDTH OF THE PANEL AND BETWEEN PREDETERMINED CONSTRUCTION JOINTS
4. ALL CONCRETE SHALL BE PLACED OVER 4" MINIMUM LAYER (UNLESS NOTED OTHERWISE) OF APPROVED 3/4" MINUS ODOT SPEC CRUSHED ROCK COMPACTED TO 95% AASHTO T-99 OVER APPROVED COMPACTED (ASTM D698) STRUCTURAL FILL AS REQUIRED FOR GRADE OVER FIRM, UNDISTURBED, NON-ORGANIC NATIVE MATERIAL. THE EXISTING SITE SHALL BE CLEARED AND GRUBBED OF ALL ORGANIC AND/OR EXPANSIVE MATERIAL PRIOR TO STRUCTURAL FILL IMPORT
5. ALL BACKFILL SHALL BE NON-ORGANIC, NON-EXPANSIVE GRANULAR MATERIAL COMPACTED TO 95% PROCTOR
6. REINFORCING STEEL SHALL CONFORM TO ASTM A 615/A 615M GRADE 60 (420); DEFORMED BILLET STEEL BARS; UNFINISHED FINISH. STEEL WELDED WIRE REINFORCEMENT SHALL BE PLAIN TYPE, ASTM A 185/A 185M; IN FLAT SHEETS; UNFINISHED. DOWELS SHALL CONFORM TO ASTM A 615/A 615M GRADE 40 (280); DEFORMED BILLET STEEL BARS; UNFINISHED FINISH. ALL TIE WIRE SHALL BE A MINIMUM OF #16 ANNEALED STEEL.
7. PLACE AND SECURE FORMS TO CORRECT LOCATION, DIMENSION, PROFILE, AND GRADIENT. ASSEMBLE FORMWORK TO PERMIT EASY STRIPPING AND DISMANTLING WITHOUT DAMAGING CONCRETE. PLACE JOINT FILLER VERTICAL IN POSITION, IN STRAIGHT LINES. SECURE TO FORMWORK DURING CONCRETE PLACEMENT. HOLD TOP OF PRE-MOLDED JOINT FILLER DOWN 1/2" AND SEAL UPPER 3/8" WITH APPROVED JOINT SEAL MATERIAL.
8. RETAINING WALLS TO BE AT MINIMUM 80% DESIGN STRENGTH AND 7 DAYS CURE PRIOR TO ANY BACKFILL PLACEMENT.
9. NO HORIZONTAL CONSTRUCTION JOINTS PERMITTED
10. MAXIMUM VARIATION OF SURFACE FLATNESS SHALL NOT EXCEED 1/4 INCH IN 10 FT AND MAXIMUM VARIATION FROM TRUE POSITION SHALL NOT EXCEED 1/4 INCH
11. IMMEDIATELY AFTER PLACEMENT, PROTECT PAVEMENT FROM PREMATURE DRYING, EXCESSIVE HOT OR COLD TEMPERATURES, AND MECHANICAL INJURY. DO NOT PERMIT PEDESTRIAN TRAFFIC OVER PAVEMENT FOR 7 DAYS MINIMUM AFTER FINISHING.
12. FINISH AS FOLLOWS:
    A. SIDEWALK PAVING: LIGHT BROOM, TEXTURE PERPENDICULAR TO DIRECTION OF TRAVEL WITH TROWELED AND RADIUSED EDGE 1/2 INCH RADIUS
    B. CURBS AND GUTTERS: LIGHT BROOM, TEXTURE PARALLEL TO DIRECTION OF FLOW
    C. RETAINING WALLS: SMOOTH RUBBED FINISH. WET CONCRETE AND RUB WITH CARBORUNDUM BRICK OR OTHER ABRASIVE, NOT MORE THAN 24 HOURS AFTER FORM REMOVAL. REPAIR/PLUG SURFACE DEFECTS, INCLUDING TIE HOLES, IMMEDIATELY AFTER REMOVING FORM WORK.
    D. PLACE CURING COMPOUND ON EXPOSED CONCRETE SURFACES IMMEDIATELY AFTER FINISHING. APPLY IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

ZCS ENGINEERING ARCHITECTURE
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OREGON TECH INDUSTRIAL PARK DRIVE IMPROVEMENTS

Oregon TECH
Oregon Institute of Technology

REGISTERED PROFESSIONAL ENGINEER
70775PE
DIGITAL SIGNATURE
OREGON
Sept. 19, 2006
SKYLAS E. ALLEN
EXPIRES: 12-31-23

REVISION ID:	DATE:

PROJECT NO:	K-6345-23
DRAWN:	SMG
CHECKED:	BJD
DATE:	01-31-2024

CIVIL NOTES

C0.01

BID AND PERMIT SET

GENERAL NOTES

GENERAL

G-1. ALL WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE CURRENT STANDARD SPECIFICATIONS OF THE OREGON CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA), AND THE AWWA STANDARD SPECIFICATIONS, AND THE CITY OF KLAMATH FALLS STANDARD DRAWINGS, EXCEPTED AS AMENDED IN THESE SPECIAL PROVISIONS.

G-2. DEFINITIONS:
FOR MUNICIPAL WATER, SEWER & STREET: ENGINEER IS THE DIRECTOR OF PUBLIC WORKS OR CITY ENGINEER ENGINEER WHO REPRESENTS THE CITY UNDER WHOSE AUTHORITY THE QUALITY OF WORK AND ACCEPTABILITY OF MATERIALS WILL BE DETERMINED. INSPECTOR IS THE AUTHORIZED REPRESENTATIVE OF THE CITY. DESIGN ENGINEER SHALL BE [NAME OF FIRM].

FOR PRIVATE IMPROVEMENTS:
ENGINEER IS [NAME OF FIRM].
INSPECTOR IS [NAME OF FIRM].
DESIGN ENGINEER SHALL BE [NAME OF FIRM]
PUBLIC IMPROVEMENTS SHALL BE CONSIDERED AS WATER, SANITARY SEWER, GAS, ELECTRIC, TELEPHONE/COMMUNICATIONS AND CABLE TV WITHIN THE MAIN ACCESS STREET RIGHT-OF-WAY. ALL OTHER IMPROVEMENTS SHALL BE DEEMED AS PRIVATE, INCLUDING THE MAIN ACCESS ROAD.

G-3. THE CONTRACTOR SHALL FOLLOW ALL APPLICABLE INDUSTRIAL SAFETY REGULATION. THE CITY OF KLAMATH FALLS AND ITS OFFICIALS, THE ENGINEER, AND THE OWNER SHALL NOT BE RESPONSIBLE FOR ENFORCING SAFETY REGULATIONS.

G-4. EXCAVATORS MUST COMPLY WITH THE PROVISIONS OF OAR 952-001-0020.

G-5. ALL CONSTRUCTION PERMITS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND BE INCLUDED IN THE BID.

G-6. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES AND IMPROVEMENTS.

G-7. THE CONTRACTOR SHALL EXPOSE, VERIFY, CONNECT AND/OR MATCH EXISTING UTILITIES AND IMPROVEMENTS, IN CONFORMANCE WITH THE INTENT OF THESE PLANS AND SPECIFICATIONS, TO PROVIDE COMPLETE AND/OR OPERATIONAL SYSTEMS.

G-8. DURING THE COURSE OF THE WORK, THE CONTRACTOR SHALL COORDINATE AND ACCOMMODATE OTHER CONTRACTORS OR OPERATIONS OF OWNER.

G-9. CONTRACTOR SHALL RESTRICT ALL OPERATIONS TO STREET OR DRIVEWAY AREAS WITHIN THE PROJECT BOUNDARIES. ANY DISRUPTION TO NATIVE LANDSCAPES, OUTSIDE OF STREET AND DRIVEWAY AREAS, SHALL BE RESTORED AT NO COST TO THE PROPERTY OWNER.

G-10. CONTRACTOR SHALL NOTIFY CITY OF KLAMATH FALLS AND THE DESIGN ENGINEER TWO WORKING DAYS IN ADVANCE OF STARTING CONSTRUCTION AND SHALL COORDINATE NECESSARY INSPECTIONS THROUGH FINAL CITY APPROVAL. THE CONTRACTOR SHALL NOT COMMENCE ANY WORK WITHOUT FIRST RECEIVING A NOTICE TO PROCEED FROM THE DESIGN ENGINEER AND THE SITE CONSTRUCTION PERMIT.

G-11. THE CONTRACTOR SHALL EMPLOY ALL LABOR, EQUIPMENT, AND METHODS REQUIRED TO PREVENT CONSTRUCTION OPERATIONS FROM PRODUCING DUST IN AMOUNTS DAMAGING TO PROPERTY, CULTIVATED VEGETATION, AND DOMESTIC ANIMALS OR CAUSING A NUISANCE TO PERSONS OCCUPYING BUILDINGS IN THE VICINITY OF THE JOB SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED BY DUST RESULTING FROM CONSTRUCTION OPERATIONS.

CITY OF KLAMATH FALLS

Date	Revision:
2 3/10	5th EDITION
1 6/06	4th EDITION

PUBLIC WORKS CONSTRUCTION PROJECTS
GENERAL NOTES
Approved By: Don Wilcox

Drwn. By: GDG
Date: 1/2002
Drwg. No.: 1-100a

(GENERAL NOTES, CONTINUED)

G-12. CONTRACTOR SHALL VERIFY ALL CONDITIONS ON THE JOB SITE INCLUDING ALL DIMENSIONS, GRADES ELEVATIONS, EXTENT AND COMPATIBILITY TO THE EXISTING SITE CONDITIONS, AND WITH THE WORK DESCRIBED ON THE DESIGN ENGINEER'S DRAWINGS. ANY DISCREPANCIES OR UNEXPECTED CONDITIONS THAT AFFECT OR CHANGE THE WORK DESCRIBED IN THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE DESIGN ENGINEER'S ATTENTION IMMEDIATELY. THE CONTRACTOR SHALL NOT PROCEED WITH ANY OF THE WORK IN THE AREA OF DISCREPANCIES UNTIL ALL SUCH DISCREPANCIES ARE RESOLVED. IF THE CONTRACTOR CHOOSES TO DO SO, THEN IT IS UNDERSTOOD THAT THE CONTRACTOR SHALL BE PROCEEDING AT THE CONTRACTOR'S OWN RISK AND SHALL INCUR ALL COST, IF ANY, TO RESOLVE THE ISSUE TO THE SATISFACTION OF THE ENGINEER.

G-13. ALL WORK AND MATERIALS SHALL BE WARRANTED FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE BY THE OWNER OF IMPROVEMENTS, BY OBTAINING A WARRANTY BOND IN ACCORDANCE WITH SECTION 11.925(4) OF THE CITY OF KLAMATH FALLS COMMUNITY DEVELOPMENT ORDINANCES. THE WARRANTY FOR ALL INFRASTRUCTURE DOES NOT COMMENCE UNTIL THE FINAL RECORD DRAWINGS HAVE BEEN SUBMITTED TO CITY ENGINEERING.

G-14. CONTRACTOR SHALL MAINTAIN AN ACCURATE SET OF RECORD DRAWINGS AND SHALL SUBMIT THESE TO THE DESIGN ENGINEER WITHIN 7 DAYS OF PROJECT COMPLETION. THE INSPECTOR SHALL ALSO SUBMIT A COPY OF THE INSPECTOR'S NOTES AND ANY AVAILABLE DRAWINGS TO THE DESIGN ENGINEER WITHIN THAT SAME TIME PERIOD. THE DESIGN ENGINEER SHALL SUBMIT A COMPLETE SET OF RECORD DRAWINGS TO CITY ENGINEERING WITHIN 15 DAYS OF RECEIVING THE REQUESTED INFORMATION.

G-15. PLANS ARE APPROVED IN GENERAL ONLY AND DO NOT RELIEVE THE CONTRACTOR AND/OR APPLICANT FROM COMPLETING THE CONSTRUCTION IMPROVEMENTS THAT ARE SATISFACTORY TO THE CITY OF KLAMATH FALLS. FIELD CHANGES MAY BE REQUIRED BY THE PUBLIC WORKS DEPARTMENT OR REPRESENTATIVE. IF REVISIONS ARE MADE IN THE FIELD, AS-BUILT DRAWINGS SHALL BE SUBMITTED TO THE CITY INSPECTOR.

G-16. APPLICANT SHALL BE RESPONSIBLE FOR LOCATING AND PRESERVING ALL EXISTING SURVEY MONUMENTATION WITHIN THE WORK AREA IN ACCORDANCE WITH ORS 209.150 AND/OR 209.155. IF MONUMENTATION OR ITS ACCESSORIES ARE INADVERTENTLY OR OTHERWISE DISTURBED OR DESTROYED, APPLICANT SHALL BE RESPONSIBLE FOR ALL COSTS AND COORDINATION ASSOCIATED WITH ITS RE-ESTABLISHMENT BY A PROFESSIONAL OREGON LICENSED SURVEYOR.

G-17. HORIZONTAL/VERTICLE DATUM SHALL CONFORM TO THE MOST CURRENT EDITION OF THE FOLLOWING PUBLICATION: OREGON COORDINATE REFERENCE SYSTEM (OCRS) FOR THE BEND-KLAMATH FALLS ZONE, TRANSVERSE MERCATOR MAP PROJECTION. THE OCRS ZONES ARE REFERENCED TO THE NATIONAL SPATIAL REFERENCE SYSTEM (NSRS) WHICH IS CURRENTLY DEFINED GEOMETRICALLY AS NAD83 (GRS-80 ELLIPSOID) AND IT WILL FOLLOW THE NATIONAL GEODETIC SURVEY (NGS) PATH (NEW DATUM DEFINITIONS') IN THE FUTURE. THE VERTICAL DATUM WILL BE THE CURRENT NAVD88, BUT WILL ALSO FOLLOW THE NGS LEAD ADOPTING THE FUTURE NAVD BASED ON A PURE GRAVIMETRIC GEOID (VIA THE GRAV-D PROJECT).

UTILITIES - GENERAL

U-1. ALL TRENCH BACKFILL WITHIN PUBLIC RIGHTS-OF-WAY, AND AREAS TO BE PAVED WITH AC OR GRAVEL, SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DRY DENSITY PER AASHTO T-99. TRENCH BACKFILL IN SOIL AREAS OUTSIDE OF PAVING SHALL BE COMPACTED TO A MINIMUM OF 90% OF MAX DRY DENSITY PER AASHTO T-99. REFER TO STANDARD DWG. NO. 2-105.

CITY OF KLAMATH FALLS

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2 6/05	3rd EDITION
1 6/04	2nd EDITION

PUBLIC WORKS CONSTRUCTION PROJECTS
GENERAL NOTES
Approved By: Don Wilcox

Drwn. By: GDG
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(GENERAL NOTES, CONTINUED)

U-2. CONTRACTOR SHALL MARK CURBS OR BACK OF SIDEWALKS (STAMPED) FOR ALL CONDUITS AND SERVICE LINES FOR EASE IN SEARCHING FUTURE USE:
S - SANITARY
W - WATER
H - GEOTHERMAL
D - STORM DRAIN

U-3. GAS, POWER, TELEPHONE & CABLE TV UTILITY TRENCHING SHALL BE COMPLETED IN ACCORDANCE WITH PLANS AND SPECIFICATIONS FROM APPLICABLE UTILITY COMPANIES. ALL CABLE AND GAS UTILITIES SHALL BE INSTALLED BY THE APPLICABLE UTILITY COMPANY IN CONFORMANCE WITH THE JOINT TRENCH DETAIL ON THE ATTACHED SHEET. CONTRACTOR SHALL COORDINATE TRENCH EXCAVATIONS, CONDUIT INSTALLATIONS, BEDDING AND BACKFILLING WITH APPROPRIATE UTILITY REPRESENTATIVES.

U-4. ALL UTILITIES SHOWN ARE ACCURATE TO THE EXTENT OF AVAILABLE RECORDS AND KNOWLEDGE. POT HOLING TO VERIFY UTILITY LOCATIONS AND ELEVATIONS WAS NOT AUTHORIZED BY THE OWNER. THE CONTRACTOR HAS TOTAL RESPONSIBILITY IN VERIFYING THE LOCATION OF EXISTING UNDERGROUND UTILITIES AND DISCREPANCIES BETWEEN THE PLANS AND ACTUAL FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE CITY INSPECTOR AND DESIGN ENGINEER IMMEDIATELY.

U-5. CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES PRIOR TO DIGGING BY CONTACTING THE KLAMATH UTILITIES COORDINATING COUNCIL 1-800-332-2344, 48 HOURS BEFORE DIGGING.

U-6. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ALL IMPROVEMENTS AND UTILITIES DAMAGED DURING CONSTRUCTION. ALL REPAIR WORK SHALL MEET OR EXCEED EXISTING CONDITIONS AND BE AT THE CONTRACTOR'S EXPENSE.

U-7. INITIAL CONSTRUCTION STAKING WILL BE PROVIDED BY THE OWNER. IN THE EVENT CONSTRUCTION STAKES ARE LOST OR DISTURBED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF SAID STAKES. ALL STAKING SHALL BE DONE BY A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF OREGON.

U-8. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL UTILITIES WITH THE UTILITY OWNERS TO PREVENT DELAYS DURING CONSTRUCTION.

U-9. ALL UTILITIES SHALL BE MARKED WITH AN APPROVED LOCATOR TAPE PLACED 12" BELOW GROUND SURFACE. ALL TAPE SHALL BE COLOR CODED FOR THE UTILITY BEING MARKED.

U-10. UTILITIES WITHIN A PUBLIC RIGHT-OF-WAY SHALL HAVE THE FOLLOWING MINIMUM HORIZONTAL CLEARANCES (LINES BEING PARALLEL)

MAIN LINES:	SERVICE LATERALS:
ELECTRIC & TELEPHONE/CATV = 12 INCHES	ELECTRIC & TELEPHONE/CATV = 12 INCHES
ELECTRIC & GAS = 3 FEET	ELECTRIC & GAS = 3 FEET
GAS & WATER = 3 FEET	GAS & WATER = 3 FEET
WATER & SEWER = SEE NOTE U-11	WATER & SEWER = SEE NOTE U-11
WATER & POWER = 3 FEET	WATER & POWER = 3 FEET
WATER & STORM = 3 FEET	WATER & STORM = 3 FEET
ALL OTHERS = 12 INCHES	ALL OTHERS = 12 INCHES

CITY OF KLAMATH FALLS

Date	Revision:
4 2/11	5th EDITION
3 6/06	4th EDITION
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PUBLIC WORKS CONSTRUCTION PROJECTS
GENERAL NOTES
Approved By: Don Wilcox

Drwn. By: GDG
Date: 1/2002
Drwg. No.: 1-100c

(GENERAL NOTES, CONTINUED)

U-11. CONTRACTOR SHALL MAINTAIN THE FOLLOWING SEPARATION BETWEEN WATER & SEWER LINES PER OAR 333-061-0050(10):
HORIZONTAL - 10' MINIMUM; VERTICAL - 18" MINIMUM WITH WATER ABOVE SEWER.
VERTICAL SEPARATION FOR: WATER AND POWER = 12" MINIMUM
WATER AND GAS = 12" MINIMUM
ALL UTILITIES OTHER THAN WATER AND SEWER SHALL BE 12" MINIMUM.

UTILITIES - WATER

W-1. THE WATER LINE SHALL HAVE A SINGLE STRAND TRACER WIRE (14 ga - BLUE) PLACED ON TOP OF THE PIPE ZONE (12" FROM TOP OF PIPE) AND BEING CONTINUOUS BETWEEN VALVE BOXES. THE WIRE SHALL EXTEND UP THE OUTSIDE OF THE VALVE BOX EXTENSION THEN UP THE INSIDE OF THE VALVE BOX. 24" OF WIRE SHALL BE LEFT COILED JUST BENEATH THE LID. ALL CONNECTIONS SHALL BE WATERTIGHT.

W-2. ALL SPLICES IN THE TRACER WIRE SHALL BE MADE USING DBR SPLICE KIT, PART NO. 054007-09053 BE ELECTRICAL PRODUCTS DIVISION OF 3M CO. OR APPROVED EQUAL. A CONTINUITY TEST SHALL BE PERFORMED BY THE CITY OF KLAMATH FALLS TO INSURE A CONTINUOUS RUN. TRACER WIRE ON SERVICE LINES SHALL BE SPLICED INTO MAIN TRACER WIRE.

W-3. ALL VALVES SHALL BE IRON BODIED, RESILIENT SEAT WEDGE TYPE EPOXY LINED AND COATED WITH NON-RISING STEMS AND SHALL OPEN WHEN ROTATED COUNTER-CLOCKWISE. VALVE BOX AND COVER SHALL BE BROOKS PRODUCTS 4TT SERIES WITH COVER MARKED "WATER." VALVES SHALL BE MANUFACTURED BY THE KENNEDY VALVE COMPANY. VALVE BOX ASSEMBLIES SHALL CONFORM TO THE "WATER BLOW-OFF ASSEMBLY" STANDARD DWG. NO. 7-115.

W-4. WATER PIPE SHALL BE C900 CLASS 235 POLYVINYL CHLORIDE PIPE AND SHALL BE BLUE IN COLOR THROUGHOUT THE PVC CHEMICAL MIX UNLESS NOTED OTHERWISE. ALL WATER PIPE SHALL BE NEW AND A MANUFACTURER'S WRITTEN CERTIFICATION AND WARRANTY SHALL ACCOMPANY ANY PIPE THAT IS PAST THE ONE YEAR MANUFACTURED DATE. SIZE AS INDICATED ON THE DRAWINGS. ALL PIPE, FITTINGS, VALVES AND APPURTENANCES SHALL BE NSF AND OREGON HEALTH DEPARTMENT APPROVED.

W-5. ALL WATER LINE FITTINGS SHALL BE CAST OR DUCTILE IRON AND SHALL BE INSTALLED WITH THRUST BLOCKS PER THE THRUST BLOCK STANDARD DWG. NO. 2-120 UNLESS NOTED OTHERWISE.

W-6. GENERAL CONTRACTOR SHALL PERFORM DISINFECTION OF FACILITIES BY CHLORINATION ACCORDING TO OREGON ADMINISTRATIVE RULES 333-061-0050 (10) AND AWWA STANDARDS C651 THROUGH C654. CITY PERSONNEL SHALL PERFORM CHLORINE RESIDUAL TESTS IMMEDIATELY AFTER DISINFECTION AND IMMEDIATELY AFTER FLUSHING. CITY PERSONNEL SHALL PERFORM MICROBIOLOGICAL TEST PER CURRENT STANDARDS. SHOULD ANY TEST FAIL, THE CONTRACTOR IS RESPONSIBLE TO PAY THE CITY'S CURRENT HOURLY RATE AT NO LESS THAN 1/2 HOUR INCREMENTS FOR ADDITIONAL TESTS. CALL 883-5368 FOR CURRENT RATE. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR DE-CHLORINATION AS REQUIRED BY FEDERAL, STATE AND LOCAL REGULATIONS.

W-7. GENERAL CONTRACTOR SHALL PRESSURE TEST THE WATER LINE AND ALL SERVICES BY HYDROSTATIC METHOD PER CURRENT AWWA STANDARD SECTION C600. TEST PRESSURE SHALL BE A MINIMUM 150 PSI FOR A TWO HOUR DURATION. CITY PERSONNEL SHALL APPROVE ALL EQUIPMENT USED AND WITNESS THE FILLING OF THE LINE AND THE PRESSURE TESTING PROCESS. SHOULD THE TEST FAIL, THE CONTRACTOR IS RESPONSIBLE TO PAY THE CITY'S CURRENT HOURLY RATE AT NO LESS THAN 1/2 HOUR INCREMENTS FOR ADDITIONAL TESTS. CALL 883-5368 FOR CURRENT RATE.

CITY OF KLAMATH FALLS

Date	Revision:
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3 6/06	4th EDITION
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GENERAL NOTES
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Drwn. By: GDG
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(GENERAL NOTES, CONTINUED)

W-8. THE CONTRACTOR SHALL MECHANICALLY CLEAN THE CONSTRUCTED WATER MAINS BEFORE WATER IS ALLOWED TO ENTER THE NEW MAIN. CLEANING WILL BE ACCOMPLISHED BY PROPELLING OR PULLING AN APPROPRIATELY SIZED BULLET SHAPED FOAM PLUG (PIG) THROUGH THE ENTIRE LENGTH OF THE WATER MAIN. REFER TO THE WATER DISTRIBUTION OPERATOR TRAINING HANDBOOK FOR INSTRUCTIONS. A COPY OF THIS SECTION CAN BE OBTAINED FROM CITY ENGINEERING.

W-9. ALL FIRE HYDRANTS SHALL BE PER CITY STANDARD DWG. NO. 7-110.

W-10. ALL CONNECTIONS TO EXISTING CITY WATER LINES SHALL BE MADE BY THE CONTRACTOR UNDER THE CITY'S SUPERVISION. CONTRACTOR SHALL COORDINATE WITH THE CITY ON TIMING OF THE WORK. THE DESIGN ENGINEER WILL PROVIDE THE CITY WITH A DETAIL DRAWING OF THE CONNECTION FOR APPROVAL THREE WORKING DAYS PRIOR TO INSTALLATION.

W-11. REFER TO THE CITY STANDARD DWG. NO. 2-120 FOR THRUST BLOCK DETAILS. THE DESIGN ENGINEER WILL PROVIDE THE CITY WITH A RESTRAINT JOINT TABLE/SCHEDULE IN-LIEU OF THRUST BLOCKS.

W-12. ONLY NEW, UNUSED PIPE, FITTINGS, METERS, AND ALL OTHER APPURTENANCES WILL BE ACCEPTED BY THE CITY FOR DEDICATED INFRASTRUCTURE WITHIN THE CITY'S WATER SYSTEM. REFURBISHED, RECONDITIONED, ETC. MATERIALS OR EQUIPMENT OF ANY KIND ARE NOT ACCEPTABLE FOR USE IN THE CITY'S WATER SYSTEM.

UTILITIES - STREETS

T-1. THE DESIGN ENGINEER WILL INCLUDE IN THEIR DESIGN/CONSTRUCTION DRAWINGS A PLAN SHOWING TRAFFIC SIGNS, STREET SIGNS, NO PARKING SIGNS, STRIPING, CURB MARKINGS AND ANY OTHER STREET RELATED ITEMS THAT ARE DEEMED NECESSARY BY THE CITY STREET SUPERINTENDENT AND TRAFFIC ENGINEER.

T-2. ALL BASE ROCK THAT IS AFFILIATED WITH STREET CONSTRUCTION, UTILITY TRENCHES AND SIDEWALKS WILL MEET STATE SPECIFICATIONS.

T-3. PLACEMENT OF ASPHALT AND PORTLAND CEMENT CONCRETE WILL ADHERE TO THE SPECIFICATIONS OF THE COMBINED "ODOT/APWA STANDARDS."

T-4. THE GENERAL CONTRACTOR SHALL CONDUCT A PRE-PAVING MEETING WITH THE CITY ON SITE NO LESS THAN THREE WORKING DAYS BEFORE PAVING OPERATIONS START.

T-5. PLATES MUST BE PINNED & WEDGED ON ALL SIDES AND MUST BE MAINTAINED DAILY FOR A MAXIMUM OF 72 HOURS (CITY APPROVAL REQUIRED FOR DURATIONS EXCEEDING 72 HOURS).

CITY OF KLAMATH FALLS

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3 3/11	5th EDITION
2 6/06	4th EDITION
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PUBLIC WORKS CONSTRUCTION PROJECTS
GENERAL NOTES
Approved By: Don Wilcox

Drwn. By: GDG
Date: 1/2002
Drwg. No.: 1-100e

STORM WATER SYSTEM CONSTRUCTION NOTES:

1. EXCEPT AS MODIFIED BY CITY STANDARDS AND THE APPROVED PROJECT DRAWINGS AND SPECIFICATIONS, MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE "OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION" AND THE "OREGON STANDARD DRAWINGS (ENGLISH)".
2. STORM WATER INFRASTRUCTURE SHALL BE CONSTRUCTED AS SHOWN IN THE PLANS AND SPECIFICATIONS. PUBLIC WORKS SHALL APPROVE ALL MODIFICATIONS PRIOR TO CONSTRUCTION.
3. MAXIMUM DEVIATION FROM ESTABLISHED LINE AND GRADE SHALL NOT BE GREATER THAN 1/32 INCH PER INCH OF PIPE DIAMETER AND NOT EXCEED 1/2 INCH PER PIPE LENGTH. THE DIFFERENCE IN DEVIATION FROM ESTABLISHED LINE AND GRADE BETWEEN TWO SUCCESSIVE JOINTS SHALL NOT EXCEED 1/3 OF THE AMOUNTS SPECIFIED ABOVE.
4. NO STORM DRAIN PIPE IN THE PUBLIC RIGHT-OF-WAY SHALL BE LESS THAN 12 INCHES IN DIAMETER, EXCEPT THAT PRIVATE CONNECTIONS TO PUBLIC CATCH BASINS OR MANHOLES MAY BE 6 INCHES OR LARGER.
5. PIPE GRADE SHALL NOT BE MODIFIED WITHOUT THE APPROVAL OF THE CITY.
6. CHANGES OF PIPE SIZE ARE ALLOWED ONLY AT JUNCTIONS. STRUCTURES MUST BE LOCATED AT ALL JUNCTIONS.
7. MINIMUM COVER FOR STORM DRAIN PIPE IS 2 FEET, EXCEPT THAT 3 FEET OF COVER IS REQUIRED FOR PVC PIPE. PVC AND HDPE PIPE SHALL NOT BE EXPOSED WHERE DAMAGE MAY OCCUR FROM DITCH CLEANING, FIRE, OR TRAFFIC.
9. 6 INCHES MINIMUM VERTICAL AND 3 FEET MINIMUM HORIZONTAL CLEARANCE (BETWEEN OUTSIDE SURFACES) SHALL BE PROVIDED BETWEEN STORM DRAIN PIPES AND OTHER UTILITY PIPES AND CONDUITS, EXCEPT WATER LINES, WHICH REQUIRE A MINIMUM 12" VERTICAL SEPARATION, AND ONE FULL STICK OF WATER PIPE SHALL BE CENTERED OVER THE STORM CROSSING.
10. TRENCH EXCAVATION, BEDDING, AND PAVEMENT REPAIR SHALL CONFORM TO STANDARD DRAWING NO.'S 2-105.
11. THE COVER OR GRATING OF A MANHOLE OR CATCH BASIN SHALL NOT BE GROUTED TO FINAL GRADE UNTIL THE FINAL ELEVATION OF THE PAVEMENT, GUTTER, DITCH, OR SIDEWALK IN WHICH IT IS TO BE PLACED HAS BEEN ESTABLISHED, AND UNTIL PERMISSION THEREAFTER IS GIVEN BY THE CITY TO GROUT THE COVER OR GRATING IN PLACE.
12. LIDS, GRATES, AND COVERS SHALL BE SEATED PROPERLY TO PREVENT ROCKING.
13. PVC PIPE SHALL BE WHITE, WHILE HDPE PIPE SHALL BE BLACK. IN BOTH INSTANCES THE COLOR SHALL BE CONSISTENT THROUGHOUT THE ENTIRE COMPOSITION OF THE PIPE.
14. STORM LINE STUBS FOR FUTURE EXTENSIONS REQUIRE A PLUG PER MANUFACTURER SPECIFICATIONS.

CITY OF KLAMATH FALLS

MK	Date	Revision:
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STORM WATER SYSTEM CONSTRUCTION NOTES
Approved By: Mike Kuenzi

Drwn. By: GDG
Date: 1/2002
Drwg. No.: 4-145

ONE INCH EQUALS FULL SCALE

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Sept. 19, 2006
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EXPIRES: 12-31-23

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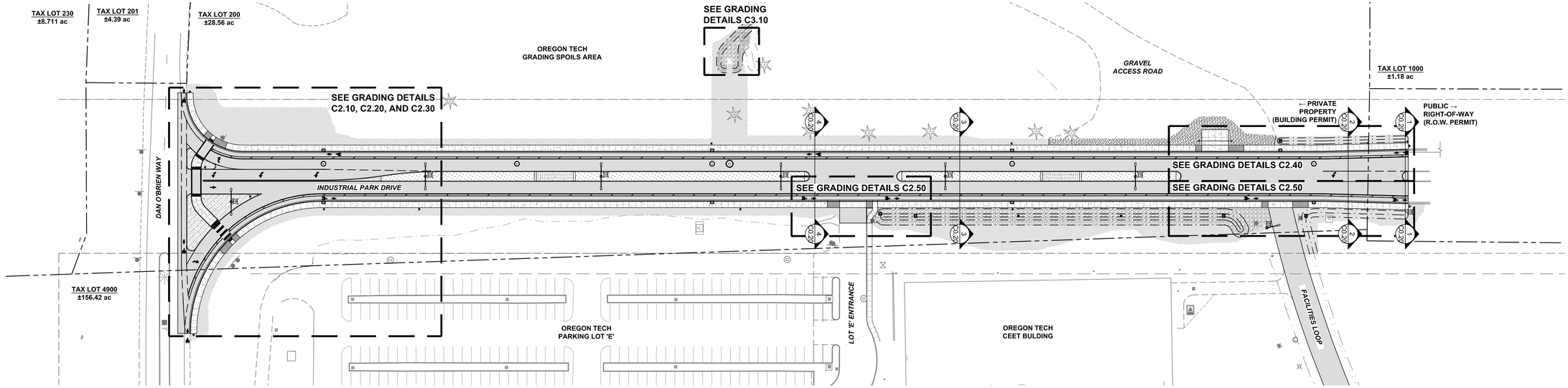
CITY OF KLAMATH FALLS CONSTRUCTION NOTES

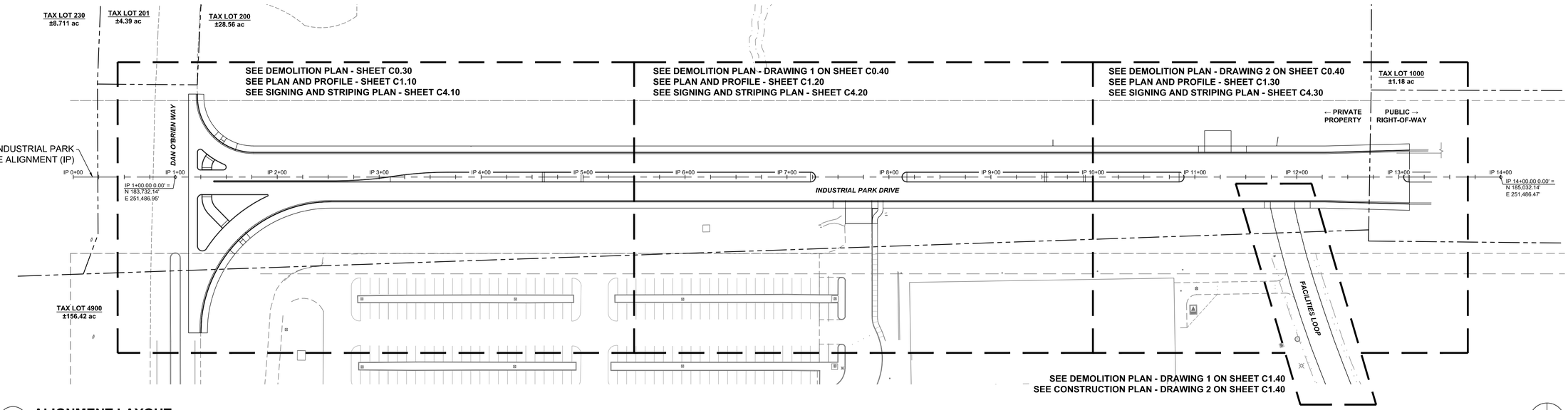
C0.02

BID AND PERMIT SET



1 C0.10 **CIVIL SITE LAYOUT**

1" = 50'



2 C0.10 **ALIGNMENT LAYOUT**

1" = 50'

ONE INCH EQUALS FULL SCALE

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OREGON TECH INDUSTRIAL PARK DRIVE IMPROVEMENTS

Oregon TECH
Oregon Institute of Technology

REGISTERED PROFESSIONAL ENGINEER
70775PE
DIGITAL SIGNATURE
OREGON
Sept. 19, 2006
SYLAS E. ALLEN
EXPIRES: 12-31-23

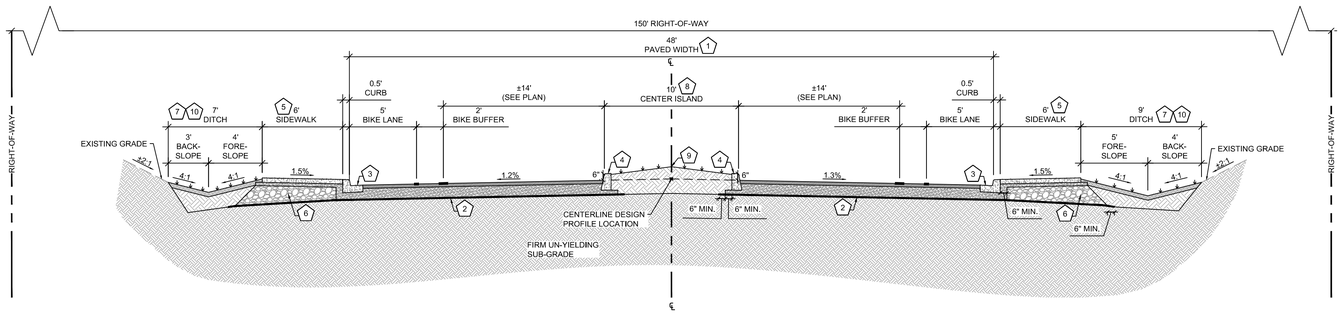
REVISION ID:	DATE:

PROJECT NO:	K-6345-23
DRAWN:	SMG
CHECKED:	BJD
DATE:	01-31-2024

CIVIL SITE AND ALIGNMENT LAYOUT

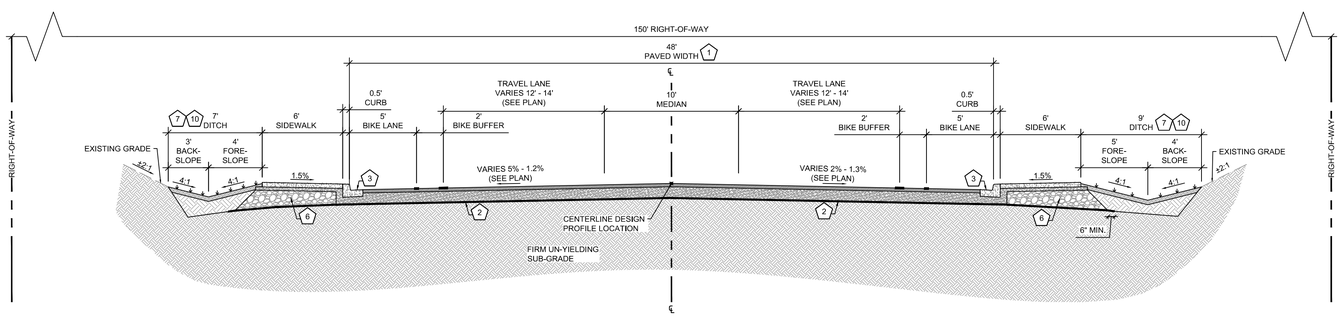
C0.10

BID AND PERMIT SET



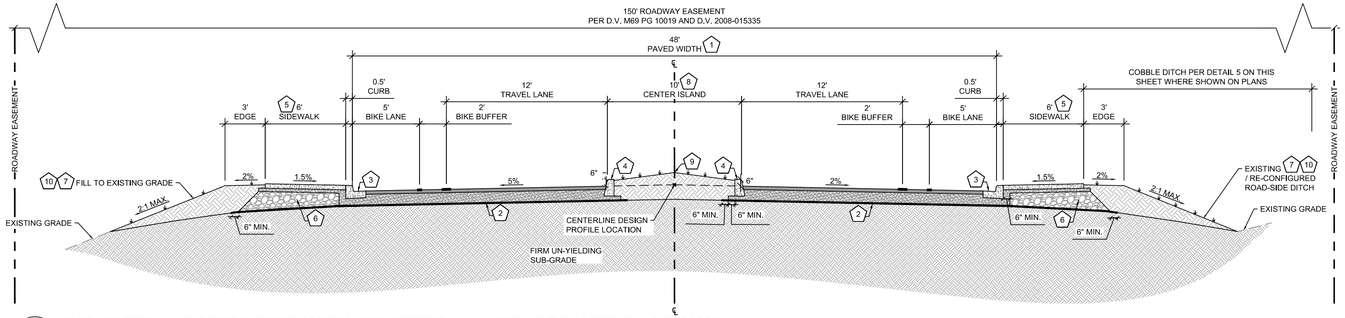
1 C0.20 **INDUSTRIAL PARK DRIVE WITH SPLITTER ISLAND (PUBLIC ROADWAY)**

3/16" = 1'-0"



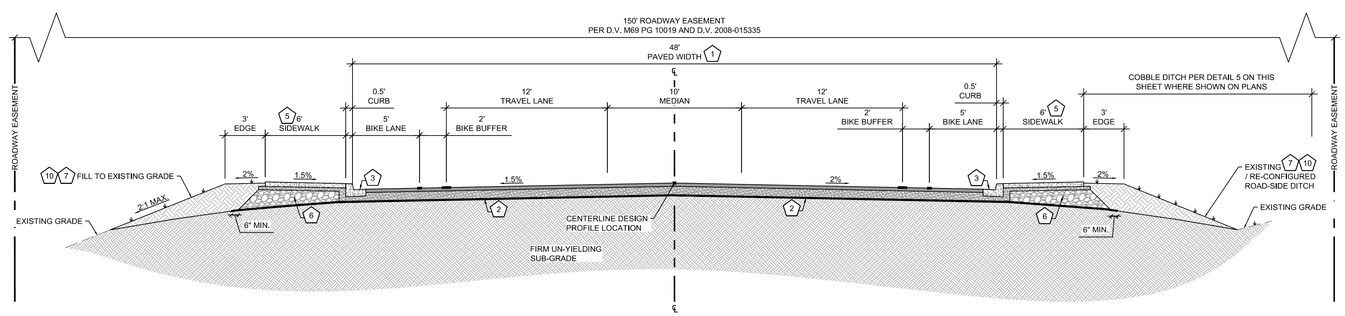
2 C0.20 **INDUSTRIAL PARK DRIVE WITHOUT SPLITTER ISLAND (PUBLIC ROADWAY)**

3/16" = 1'-0"



3 C0.20 **INDUSTRIAL PARK DRIVE WITH SPLITTER ISLAND (PRIVATE ROADWAY)**

3/16" = 1'-0"



4 C0.20 **INDUSTRIAL PARK DRIVE WITHOUT SPLITTER ISLAND (PRIVATE ROADWAY)**

3/16" = 1'-0"

ONE INCH EQUALS FULL SCALE

PAVEMENT CONSTRUCTION NOTES:

GENERAL CONSTRUCTION NOTES:

MATERIALS AND WORK WITHIN THE ROAD EASEMENT SHALL CONFORM TO NOTES ON SHEET C0.01 AND THE PROJECT GEOTECHNICAL REPORT.

A SINGLE LIFT OF ACP SHALL NOT EXCEED A DEPTH OF 3 INCHES.

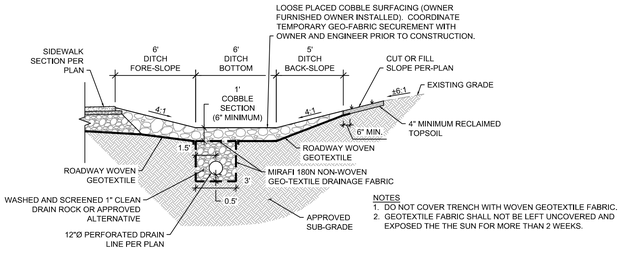
FINAL WEARING COURSE LIFT SHALL BE OF UNIFORM THICKNESS THROUGHOUT ALL ROADWAY SECTIONS UNLESS OTHERWISE NOTED.

REFER TO GEOTECHNICAL REPORT FOR SUB-GRADE, ROCK, AND AC COMPACTION AND TESTING REQUIREMENTS.

REFER TO GENERAL NOTES ON G0.10 AND CITY OF KLAMATH FALLS GENERAL NOTES 1-100b THROUGH 1-100e FOR ADDITIONAL INFORMATION FOR WORK WITHIN THE RIGHT-OF-WAY.

PAVEMENT CONSTRUCTION NOTES:

1. CONSTRUCT INDUSTRIAL PARK DRIVE PAVEMENT SECTION AS:
   3" MIN THICK LEVEL 2, 1/2" DENSE ACP (PG 64-28) COURSE OVER
   8" MIN THICK 3/4"-0" COMPACTED CRUSHED SURFACING TOP COURSE OVER
   APPROVED UN-YIELDING SUB-GRADE.
   REFER TO GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION.
2. WOVEN GEOTEXTILE SUPPORT FABRIC PER GEOTECHNICAL REPORT (ACF S200 OR APPROVED EQUAL).
3. STANDARD TYPE A CONCRETE CURB AND GUTTER PER CITY OF KLAMATH FALLS STANDARD DRAWING 8-100 .
4. STANDARD TYPE B CONCRETE CURB PER CITY OF KLAMATH FALLS STANDARD DRAWING 8-105 .
5. STANDARD 4" THICK PORTLAND CEMENT CONCRETE SIDEWALK PER CITY OF KLAMATH FALLS STANDARD DRAWING 8-209 .
6. 3/4" MINUS CRUSHED ROCK OR APPROVED STRUCTURAL FILL. REFER TO GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION.
7. NON-STRUCTURAL FILL WITH TOPSOIL DRESSING. NON-STRUCTURAL FILL MAY CONSIST OF NON-ORGANIC EXCAVATION SPOILS. REFER TO LANDSCAPE PLANS FOR ADDITIONAL INFORMATION ON TOPSOIL REQUIREMENTS AND PLANTING PLAN.
8. RAISED LANDSCAPE CENTER ISLAND. REFER TO LANDSCAPE PLANS FOR ADDITIONAL INFORMATION ON PLANTING MEDIA REQUIREMENTS AND PLANTING PLAN.
9. SET CENTERLINE ELEVATION OF LANDSCAPE 6" ABOVE SOUTH ADJACENT TOP BACK OF CURB.
10. RECONFIGURED ROADSIDE DITCH. FORE-SLOPE AND BACK-SLOPE NOT TO EXCEED 2h:1v. SEE GRADING DETAILS ON C2.40 AND C2.50 FOR ADDITIONAL INFORMATION.



5 C0.20 **COBBLE DITCH SECTION**

3/16" = 1'-0"

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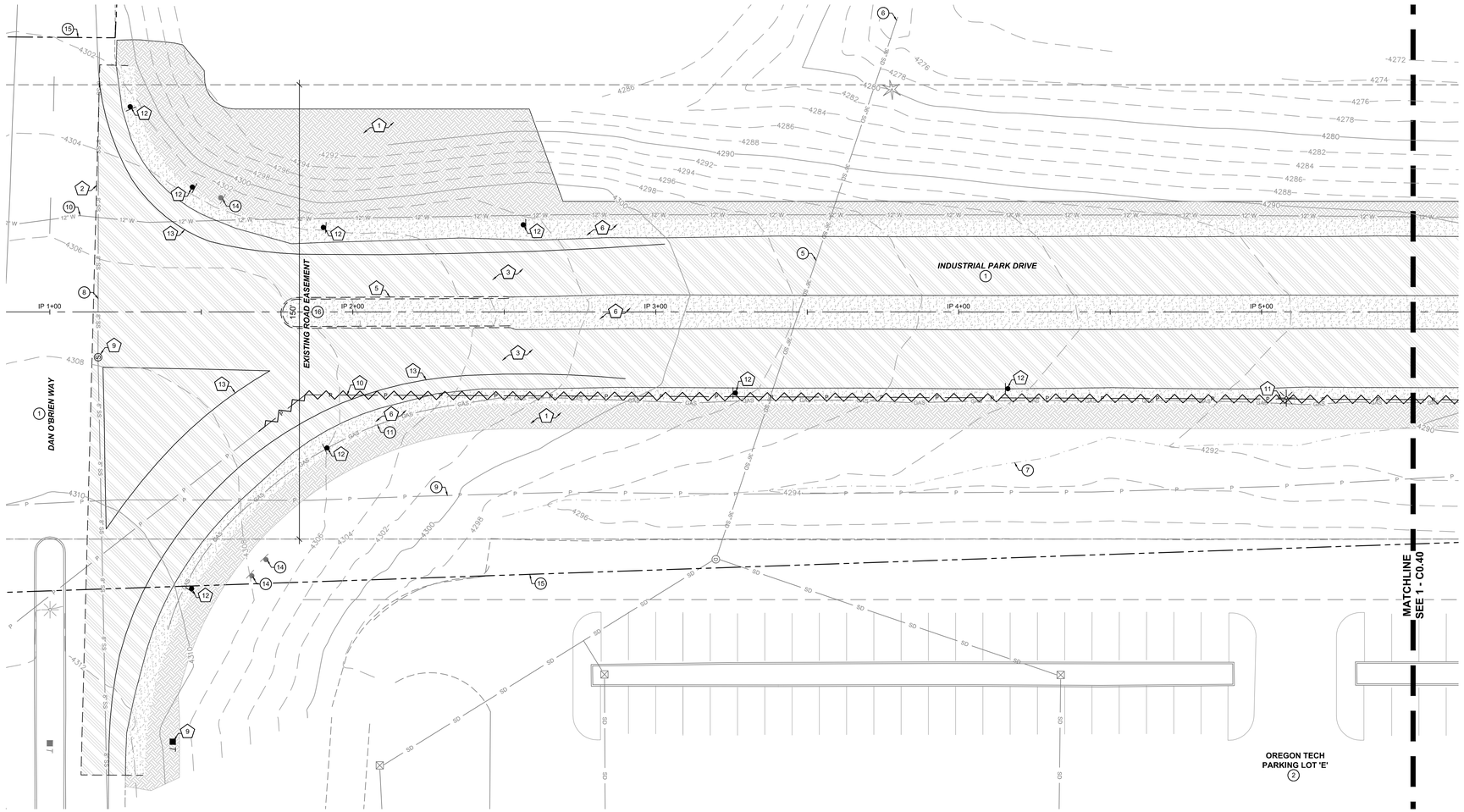
TYPICAL SECTIONS

C0.20

BID AND PERMIT SET



1 C0.30 **EXISTING CONDITIONS AND DEMOLITION PLAN**

1" = 20'

ONE INCH EQUALS FULL SCALE

DEMOLITION LEGEND:

- EXISTING ASPHALT PAVING TO BE REMOVED AND RECYCLED
- EXISTING ASPHALT PAVING RESURFACING
- EXISTING CONCRETE TO BE REMOVED AND RECYCLED
- EXISTING GRAVEL PAVING TO BE REMOVED AND RECYCLED
- APPROXIMATE LIMITS OF CLEARING AND GRUBBING
- EXISTING CURB TO BE REMOVED
- 50 EXISTING UTILITY TO REMAIN
- EXISTING UTILITY LINE TO BE REMOVED
- 4302 EXISTING GROUND CONTOUR (1 FT)
- 4300 EXISTING GROUND CONTOUR (5 FT)
- EXISTING TREE TO REMAIN
- EXISTING STRUCTURE TO REMAIN
- EXISTING STRUCTURE TO BE REMOVED

DEMOLITION AND PROTECTION NOTES:

GENERAL DEMOLITION AND PROTECTION NOTES:

CONTRACTOR SHALL FIELD VERIFY LIMITS OF DEMOLITION AND ADJUST AS REQUIRED.

PROVIDE SMOOTH VERTICAL SAWCUT AT ALL EXTERIOR LIMITS OF HARDSCAPE REMOVAL.

LOCATIONS OF UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE. UPON MOBILIZATION, CONTRACTOR SHALL POTHOLE ALL EXISTING BURIED UTILITIES AND STRUCTURES (AS INDICATED) TO VERIFY HORIZONTAL AND VERTICAL ALIGNMENT, SIZE, AND MATERIAL.

CONTRACTOR SHALL REPORT TO ENGINEER FOR DIRECTION IN EVENT OF DISCREPANCIES BETWEEN PLANS AND FIELD CONDITIONS.

CONTRACTOR SHALL PROVIDE VEHICULAR TRAFFIC AND PEDESTRIAN ACCESS PLAN AND COORDINATE REQUIREMENTS WITH CITY OF KLAMATH FALLS AND OWNER PRIOR TO CONSTRUCTION.

CONTRACTOR SHALL COORDINATE UTILITY SHUTOFF(S) WITH OWNER AND UTILITY PROVIDERS 48 HOURS MINIMUM PRIOR TO CONSTRUCTION TO ENSURE MINIMAL SERVICE DISRUPTION DURING OPERATION HOURS.

CONTRACTOR SHALL STORE SALVAGED MATERIALS ON SITE (OR AT AN APPROVED OFF SITE LOCATION) FOR REUSE.

WHERE INDICATED, EXISTING STRUCTURES, HARDSCAPE, AND UTILITIES/APPURTENANCES SHALL BE PROTECTED THROUGHOUT ALL PHASES OF CONSTRUCTION.

ALL NOTES MAY NOT BE USED ON EACH PLAN SHEET.

DEMOLITION NOTES:

1. APPROXIMATE LIMITS OF CLEARING, GRUBBING, AND MASS GRADING.
2. SAW-CUT EXISTING ASPHALT / CONCRETE.
3. ASPHALT PAVEMENT AND BASE-ROCK SECTIONS TO BE REMOVED.
4. CONCRETE SIDEWALK AND GUARD-RAIL TO BE REMOVED.
5. CONCRETE CURB (WITH GUTTER AS APPLICABLE) TO BE REMOVED.
6. EXISTING GRAVEL PAVEMENT TO BE REMOVED.
7. ROADSIDE DRAINAGE DITCH TO BE RECONFIGURED.
8. STORM PIPE / CULVERT TO BE REMOVED.
9. UTILITY APPURTENANCE TO BE ADJUSTED TO GRADE.
10. EXISTING POWER CONDUIT TO BE REMOVED / ABANDONED IN PLACE. CONTRACTOR TO VERIFY LOCATION OF EQUIPMENT AT TIME OF CONSTRUCTION AND COORDINATE WITH ELECTRICAL ENGINEER AT TIME OF CONSTRUCTION.
11. STREET LIGHT, POLE, AND FOOTING TO BE REMOVED. REFER TO ELECTRICAL PLANS FOR ADDITIONAL INFORMATION ON EQUIPMENT REMOVAL AND DECOMMISSIONING.
12. TRAFFIC SIGN(S), POSTS, AND FOOTINGS TO BE REMOVED. SEE SIGNING AND STRIPING PLAN ON SHEET C4.0 SERIES FOR ADDITIONAL INFORMATION.
13. TRAFFIC STRIPING TO BE REMOVED WITH ASPHALT.
14. FACILITIES LOOP RE-SURFACING. SEE FIGURE 1 ON C1.40 FOR SITE SPECIFIC DEMOLITION NOTES.

PROTECTION NOTES:

1. ROADWAY TO REMAIN ACCESSIBLE THROUGHOUT CONSTRUCTION ACCORDING TO CONTRACTOR PROVIDED TRAFFIC CONTROL PLAN. COORDINATE WITH CITY OF KLAMATH FALLS AND OWNER PRIOR TO CONSTRUCTION.
2. OIT PARKING LOT 'E' AND ASSOCIATED ACCESS. CONTRACTOR TO COORDINATE TIMING AND DURATION OF ACCESS CLOSURES WITH OWNER THROUGHOUT CONSTRUCTION.
3. FACILITIES LOOP ACCESS. CONTRACTOR TO COORDINATE TIMING AND DURATION OF ACCESS CLOSURES WITH OWNER THROUGHOUT CONSTRUCTION.
4. PEDESTRIAN SIDEWALK AND CURB TO REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION.
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8. EXISTING UNDERGROUND SANITARY SEWER MAIN TO REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION.
9. APPROXIMATE LOCATION OF EXISTING UNDERGROUND POWER CONDUIT TO REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION.
10. EXISTING UNDERGROUND 12" ASBESTOS CEMENT PUBLIC WATER MAIN TO REMAIN AND BE PROTECTED IN PLACE THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL EXCAVATE WITH CARE WITHIN A 10-FT ZONE AROUND PIPE TO ENSURE PIPELINE IS NOT DAMAGED.
11. EXISTING UNDERGROUND GAS UTILITY EQUIPMENT TO REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION. CONTRACTOR TO COORDINATE ACTIVITY AROUND GAS EQUIPMENT WITH AVISTA UTILITIES PRIOR TO AND THROUGHOUT CONSTRUCTION.
12. POTENTIAL EXISTING UNDERGROUND GEOTHERMAL EQUIPMENT. CONTRACTOR TO COORDINATE PROTECTION / ABANDONMENT REQUIREMENTS WITH THE CITY OF KLAMATH FALLS PRIOR TO CONSTRUCTION.
13. UTILITY VAULT OR APPURTENANCE TO REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION.
14. STREET / WAY-FINDING SIGN TO REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION.
15. EXISTING PROPERTY LINE.
16. EXISTING 150' ACCESS EASEMENT.

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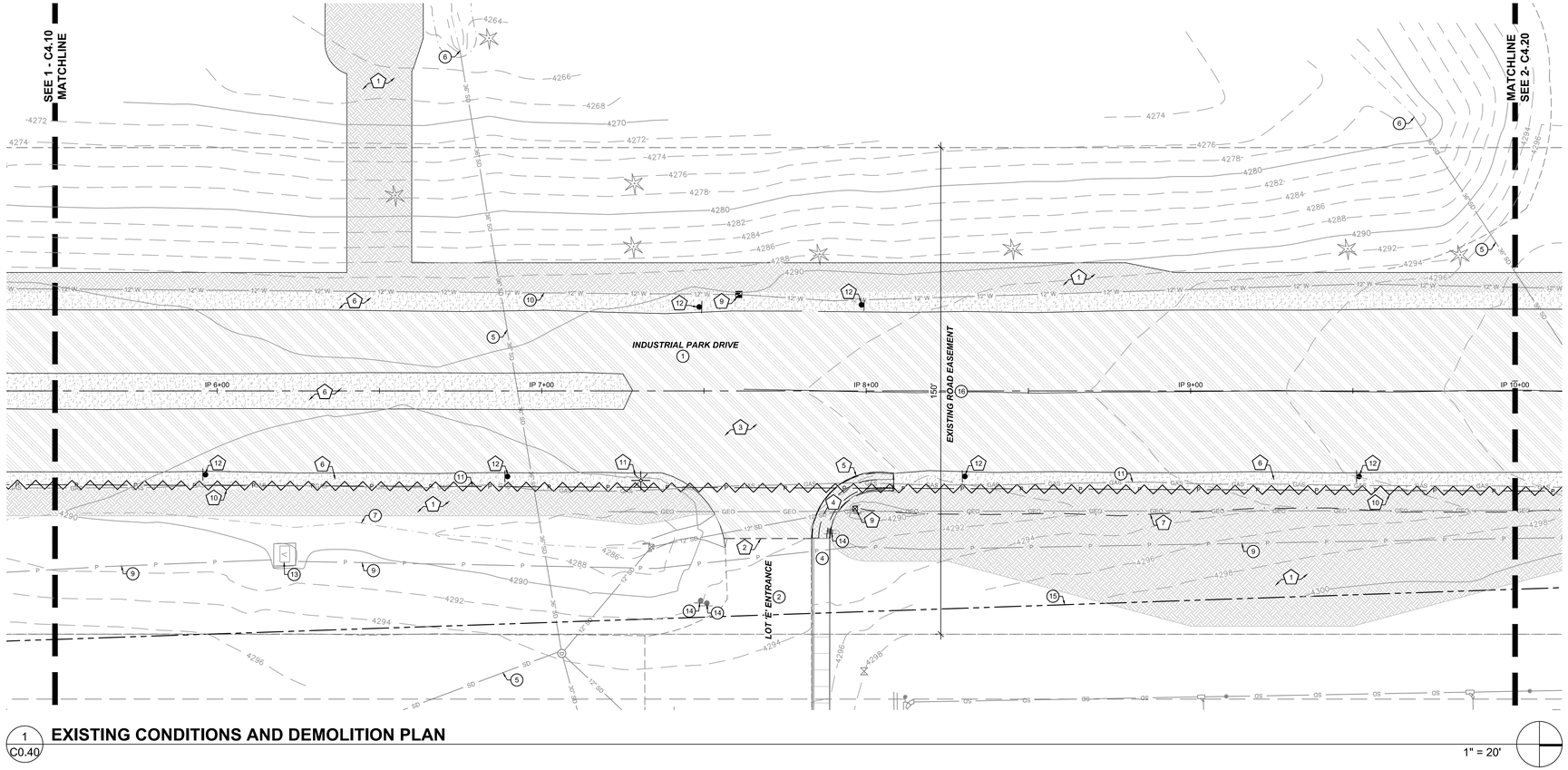
EXISTING CONDITIONS AND DEMOLITION PLAN

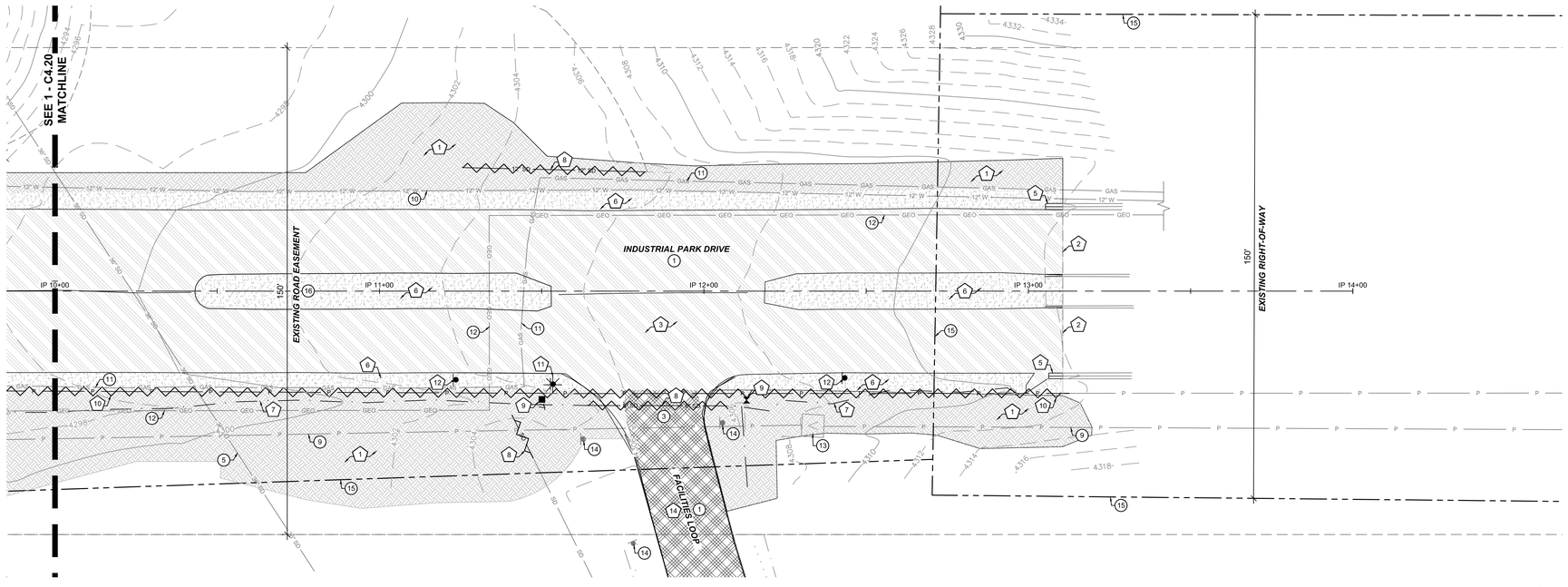
C0.30

BID AND PERMIT SET



1 C0.40 **EXISTING CONDITIONS AND DEMOLITION PLAN**

1" = 20'



2 C0.40 **EXISTING CONDITIONS AND DEMOLITION PLAN**

1" = 20

ONE INCH EQUALS FULL SCALE

DEMOLITION LEGEND:

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- EXISTING ASPHALT PAVING RESURFACING
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- EXISTING GRAVEL PAVING TO BE REMOVED AND RECYCLED
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- EXISTING UTILITY LINE TO BE REMOVED
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- 4300 — EXISTING GROUND CONTOUR (5 FT)
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- EXISTING STRUCTURE TO REMAIN
- EXISTING STRUCTURE TO BE REMOVED

DEMOLITION AND PROTECTION NOTES:

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13. TRAFFIC STRIPING TO BE REMOVED WITH ASPHALT.
14. FACILITIES LOOP RE-SURFACING. SEE FIGURE 1 ON C1.40 FOR SITE SPECIFIC DEMOLITION NOTES.

PROTECTION NOTES:

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12. POTENTIAL EXISTING UNDERGROUND GEOTHERMAL EQUIPMENT. CONTRACTOR TO COORDINATE PROTECTION / ABANDONMENT REQUIREMENTS WITH THE CITY OF KLAMATH FALLS PRIOR TO CONSTRUCTION.
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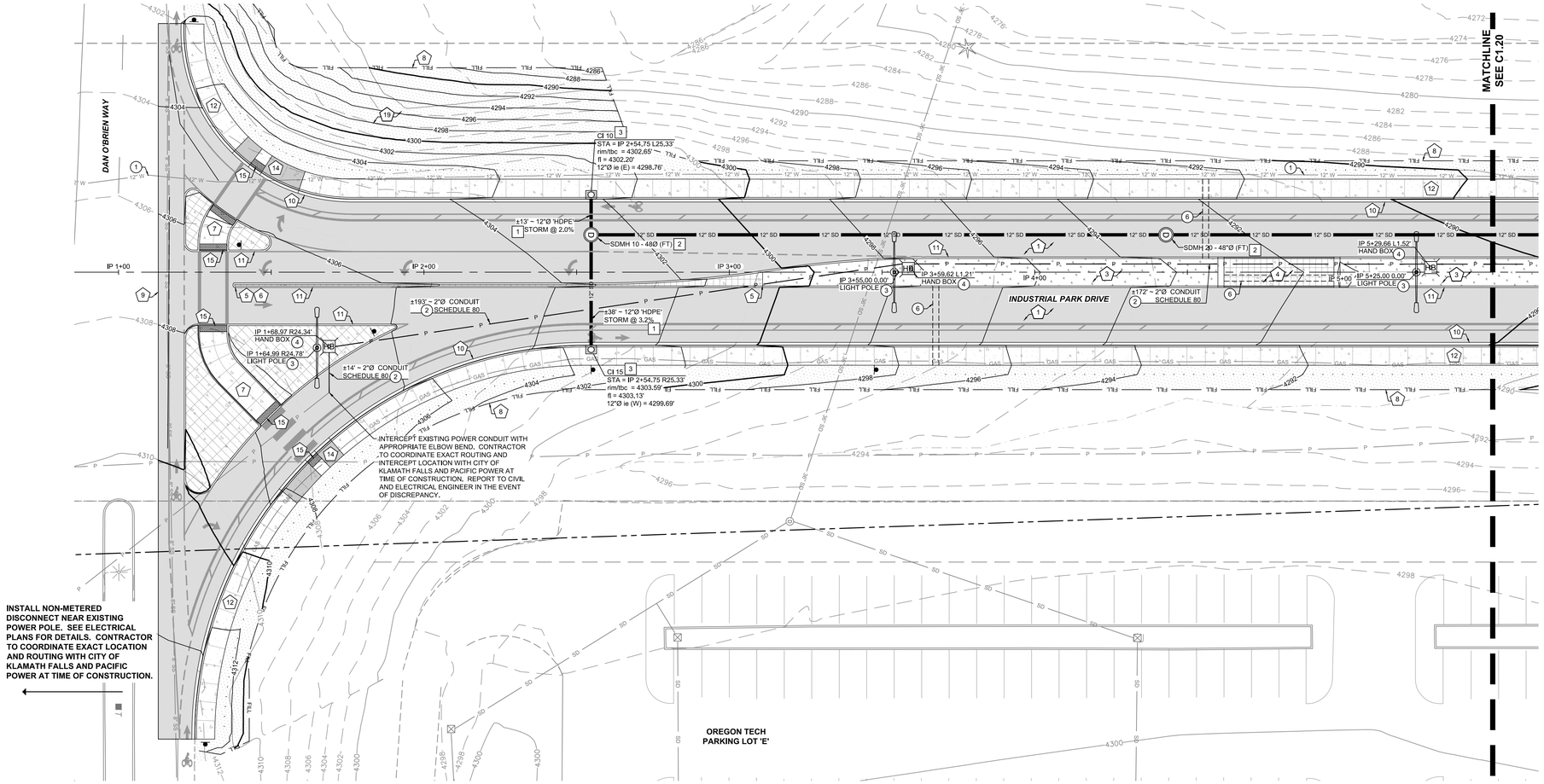
EXISTING CONDITIONS AND DEMOLITION PLAN

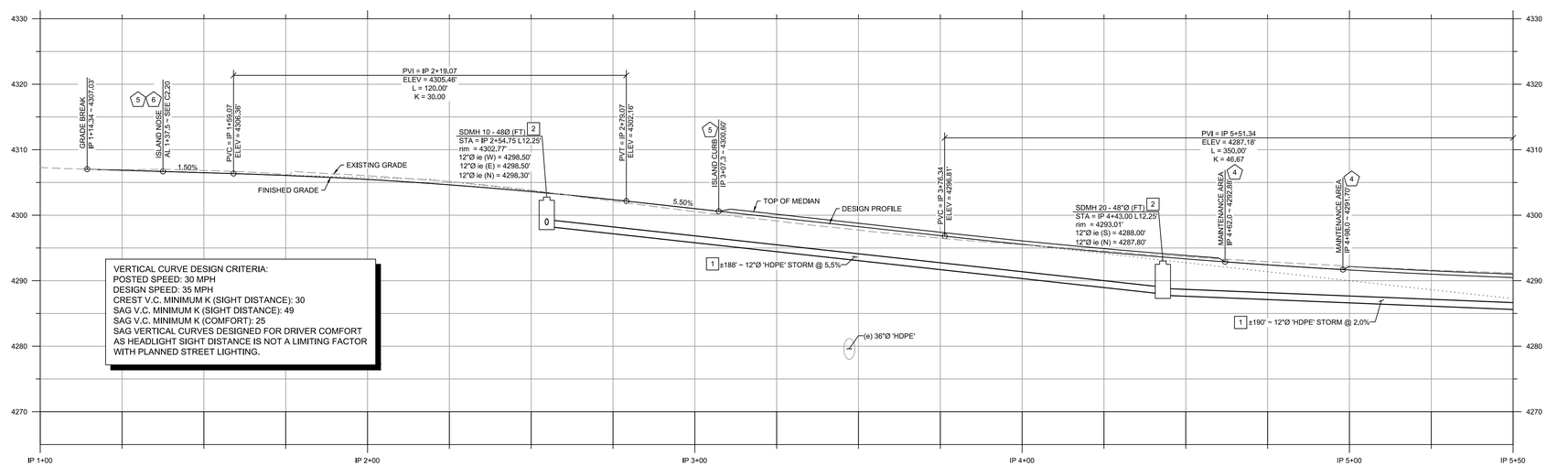
C0.40

BID AND PERMIT SET



1 C1.10 INDUSTRIAL PARK DRIVE CONSTRUCTION PLAN

1" = 20'



ONE INCH EQUALS FULL SCALE

2 C1.10 INDUSTRIAL PARK DRIVE CONSTRUCTION PROFILE

H1" = 20'
V1" = 10'

CONSTRUCTION NOTES:

GENERAL CONSTRUCTION NOTES:

ALL CONCRETE/ASPHALT/GRAVEL PAVEMENT TO BE CONSTRUCTED OVER ACF S200 (OR EQUIVALENT) WOVEN GEOTEXTILE SUPPORT FABRIC OVER HARD UNYIELDING SUBGRADE.

CONTRACTOR TO FIELD VERIFY LIMITS OF REQUIRED ASPHALT MODIFICATION AND ADJUST AS REQUIRED. COORDINATE LIMITS WITH ENGINEER DURING CONSTRUCTION.

TRANSITION BETWEEN NEW AND EXISTING ASPHALT/CONCRETE/CURB TO BE FLUSH AND FREE FROM ABRUPT CHANGES IN HEIGHT.

ACCESSIBLE RAMPS TO BE CONSTRUCTED IN CONFORMANCE WITH CURRENT STATE AND FEDERAL STANDARDS. RAMP SLOPES NOT TO EXCEED 8.33% WITH LANDINGS NOT TO EXCEED 2.0%. COORDINATE WITH ENGINEER AS NECESSARY.

CONSTRUCT PAVING, STRUCTURES, AND PIPING TO GRADES, ELEVATIONS, AND ALIGNMENTS SHOWN ON PLAN.

ALL STORM CURB AND DITCH INLETS TO HAVE A MINIMUM 18" SUMP BELOW THE OUTLET INVERT ELEVATION PER CITY OF KLAMATH FALLS 4-115 AND 4-120.

UPON MOBILIZATION, CONTRACTOR TO POTHOLE AND VERIFY VERTICAL AND HORIZONTAL ALIGNMENT, SIZE, AND MATERIAL OF EXISTING PIPES/STRUCTURES FOR TIE-IN PURPOSES. REPORT TO ENGINEER IN EVENT OF DISCREPANCY.

PROVIDE SUBMITTALS TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ORDERING.

SEE SHEET C0.20 FOR ROADWAY TYPICAL SECTIONS AND ADDITIONAL INFORMATION.

SEE GRADING DETAIL C2.00 SERIES FOR ADDITIONAL ROADWAY, SIDEWALK, ROADSIDE DITCH, AND ADA ACCESS GRADING INFORMATION.

ALL NOTES MAY NOT BE USED IN EACH FIGURE.

ROADWAY CONSTRUCTION NOTES:

1. CONSTRUCT ASPHALT ROADWAY SECTION PER TYPICAL SECTIONS 3 AND 4 ON C0.20 .
2. CONSTRUCT ASPHALT ROADWAY SECTION PER TYPICAL SECTIONS 1 AND 2 ON C0.20 .
3. CONSTRUCT LANDSCAPED CENTER ISLAND PER TYPICAL SECTIONS 1 AND 3 ON C0.20 . SEE LANDSCAPE PLANS FOR ADDITIONAL INFORMATION.
4. CONSTRUCT 36' LONG x 10' WIDE x 6" THICK REINFORCED CONCRETE PAVED MAINTENANCE AREA PER DETAIL 3 ON C5.10 . TRANSITION FROM STANDARD TO MOUNTABLE TYPE B CURB OVER 18" PER CITY OF KLAMATH FALLS STANDARD DRAWINGS 8-105 AND 8-120 . EXTEND REINFORCED CONCRETE SECTION THROUGH 18" CURB TRANSITION AND END FLUSH WITH TOP BACK OF STANDARD CURB.
5. CONSTRUCT CONCRETE PAVED CENTER ISLAND TO LIMITS SHOWN ON PLAN. PAVEMENT BETWEEN CURBS TO BE 4" THICK SECTION OF UN-REINFORCED CONCRETE OVER 4" MINIMUM OF 3/4" MINUS CRUSHED ROCK. PROVIDE APPROVED BOND BREAKER BETWEEN CURB AND CONCRETE PAVEMENT. SCORING PATTERN APPROXIMATELY AS SHOWN.
6. CONSTRUCT CONCRETE PAVED END OF ISLAND BETWEEN CURB TO BE 4" SECTION OF UN-REINFORCED CONCRETE PAVEMENT OVER 4" MINIMUM OF 3/4 MINUS CRUSHED ROCK.
7. CONSTRUCT CONCRETE PAVED CENTER ISLAND WITH ADA ACCESSIBLE PATHWAY BOUND BY TYPE B CURBS PER CITY OF KLAMATH FALLS STANDARD DRAWINGS 8-105.
8. GRADE TO MATCH EXISTING PER PLAN AND PER TYPICAL SECTIONS ON SHEET C0.20 .
9. LIMITS OF NEW ASPHALT PAVEMENT CONSTRUCTION. SEE CITY OF KLAMATH FALLS STANDARD DRAWING 8-240 FOR TRANSITION TO EXISTING PAVEMENT.
10. CONSTRUCT STANDARD TYPE A CURB AND GUTTER PER CITY OF KLAMATH FALLS STANDARD DRAWINGS 8-100 AND 8-120 .
11. CONSTRUCT STANDARD TYPE B CURB PER CITY OF KLAMATH FALLS STANDARD DRAWINGS 8-105 AND 8-120 .
12. CONSTRUCT CONCRETE PAVED SIDEWALK PER TYPICAL SECTIONS 1 AND 2 ON C0.20 AND CITY OF KLAMATH FALLS STANDARD DRAWINGS 8-135 AND 8-209 .
13. CONSTRUCT LOWERED DRIVEWAY PER CITY OF KLAMATH FALLS STANDARD DRAWING 8-210 . REFER TO C2.00 SERIES FOR ADDITIONAL GRADING INFORMATION.
14. CONSTRUCT PARALLEL CURB RAMP PER CITY OF KLAMATH FALLS STANDARD DRAWING 8-155 . REFER TO C2.00 SERIES SHEETS FOR ADDITIONAL GRADING INFORMATION.
15. INSTALL TRUNCATED DOMES PER CITY OF KLAMATH FALLS STANDARD DRAWING 8-155 .
16. INSTALL BOLLARDS WITH D-RING AND CHAIN GATE PER CIVIL DETAIL 1 ON C6.10 .
17. CONSTRUCT GRASSY DITCH PER DETAILS 1 AND 2 ON SHEET C0.20 .
18. CONSTRUCT COBBLED DITCH PER DETAIL 5 ON SHEET C0.20 .
19. CONSTRUCT FILL SLOPE TO APPROXIMATE GRADES SHOWN. KEY AND BENCH EXISTING FILL SLOPE PRIOR TO PLACEMENT OF FILL PER GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. CONTRACTOR TO COORDINATE INSPECTIONS WITH GEOTECNICAL ENGINEER DURING CONSTRUCTION AS NECESSARY.
20. CONSTRUCT GRAVEL PAVEMENT. MINIMUM SECTION CONSISTS OF 6" OF 3/4" MINUS OVER 6" OF 3" MINUS CRUSHED ROCK.

STORM DRAIN CONSTRUCTION NOTES:

1. INSTALL 'HDPE' STORM PIPE OF DIAMETER AND APPROXIMATE LENGTH SHOWN. TRENCH PER CITY OF KLAMATH FALLS STANDARD DRAWING 2-105 .
2. INSTALL STANDARD MANHOLE OF DIAMETER SHOWN PER CITY OF KLAMATH FALLS STANDARD DRAWINGS 2-110, 2-125, AND 4-100 .
3. INSTALL CURB INLET WITH 4' THROAT PER CITY OF KLAMATH FALLS STANDARD DRAWINGS 4-100 AND 4-115 .
4. INSTALL STANDARD DITCH INLET PER CITY OF KLAMATH FALLS STANDARD DRAWING 4-120 .
5. MODIFY EXISTING DITCH INLET TO ADJUST RIM TO GRADE. REMOVE EXISTING DITCH INLET TOP, ADD INLET RISER(S) AS NECESSARY, AND REINSTALL EXISTING DITCH INLET TOP. GRADE ADJACENT SLOPES TO MATCH ADJUSTED DITCH INLET ELEVATION.
6. INSTALL STORM DRAIN CLEANOUT PER DETAIL 2 ON C5.10 .
7. INSTALL STORM PIPE OUTLET WITH RIP-RAP PROTECTION. SEE DRAWING 2 ON C3.10 FOR GRADING INFORMATION AND DETAIL 5 ON C5.10 FOR RIP RAP DETAIL.
8. CONSTRUCT ANCHORED STORM DRAIN DOWN SLOPE WITH TRUST BLOCK AND TEE FITTING ENERGY DISSIPATOR. FIELD GRADE TO PROVIDE POSITIVE DRAINAGE TO EXISTING STORM CONVEYANCE DITCH. COORDINATE WITH ENGINEER AS NECESSARY AT TIME OF CONSTRUCTION. REFER TO DRAWING 2 ON C3.10 AND DETAILS 4 AND 5 ON C5.10 FOR ADDITIONAL INFORMATION.
9. EMERGENCY OVERFLOW ROUTE AT ROADWAY LOW POINT IN EVENT OF STORM SYSTEM CLOG. OVERFLOW DRAINS DOWN SLOPE TO EXISTING CONVEYANCE DITCH NETWORK.

UTILITY CONSTRUCTION NOTES:

1. EXISTING 12" WATER MAIN, PROTECT AT ALL TIMES DURING CONSTRUCTION.
2. INSTALL PRIVATE UNDERGROUND POWER IN SCH 80 PVC CONDUIT WITH PULL STRING. SEE ELECTRICAL PLANS FOR CONDUIT SIZE, PULL STRING REQUIREMENTS, AND CONDUCTOR DESIGN.
3. INSTALL PRIVATE STREET LIGHT. SEE PRIVATE CIVIL DETAIL 5CL-LB ON C6.10 FOR FOUNDATION INFORMATION. SEE ELECTRICAL PLANS FOR ALL OTHER INFORMATION.
4. INSTALL JUNCTION HAND BOX. SEE ELECTRICAL PLANS FOR ALL INFORMATION.
5. INSTALL NON-METERED DISCONNECT PEDESTAL AND CONNECT TO EXISTING UNDERGROUND POWER. SEE ELECTRICAL PLANS FOR ALL INFORMATION.
6. INSTALL IRRIGATION SLEEVE. SEE LANDSCAPE PLANS FOR ALL INFORMATION.
7. POTENTIAL UTILITY CONFLICT. CONTRACTOR TO POTHOLE AND REPORT TO ENGINEER IN EVENT OF CONFLICT.

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OREGON TECH INDUSTRIAL PARK DRIVE IMPROVEMENTS

Oregon TECH
Oregon Institute of Technology

REGISTERED PROFESSIONAL ENGINEER
70775PE
DIGITAL SIGNATURE
OREGON
Sept. 19, 2006
SYLAS E. ALLEN
EXPIRES: 12-31-23

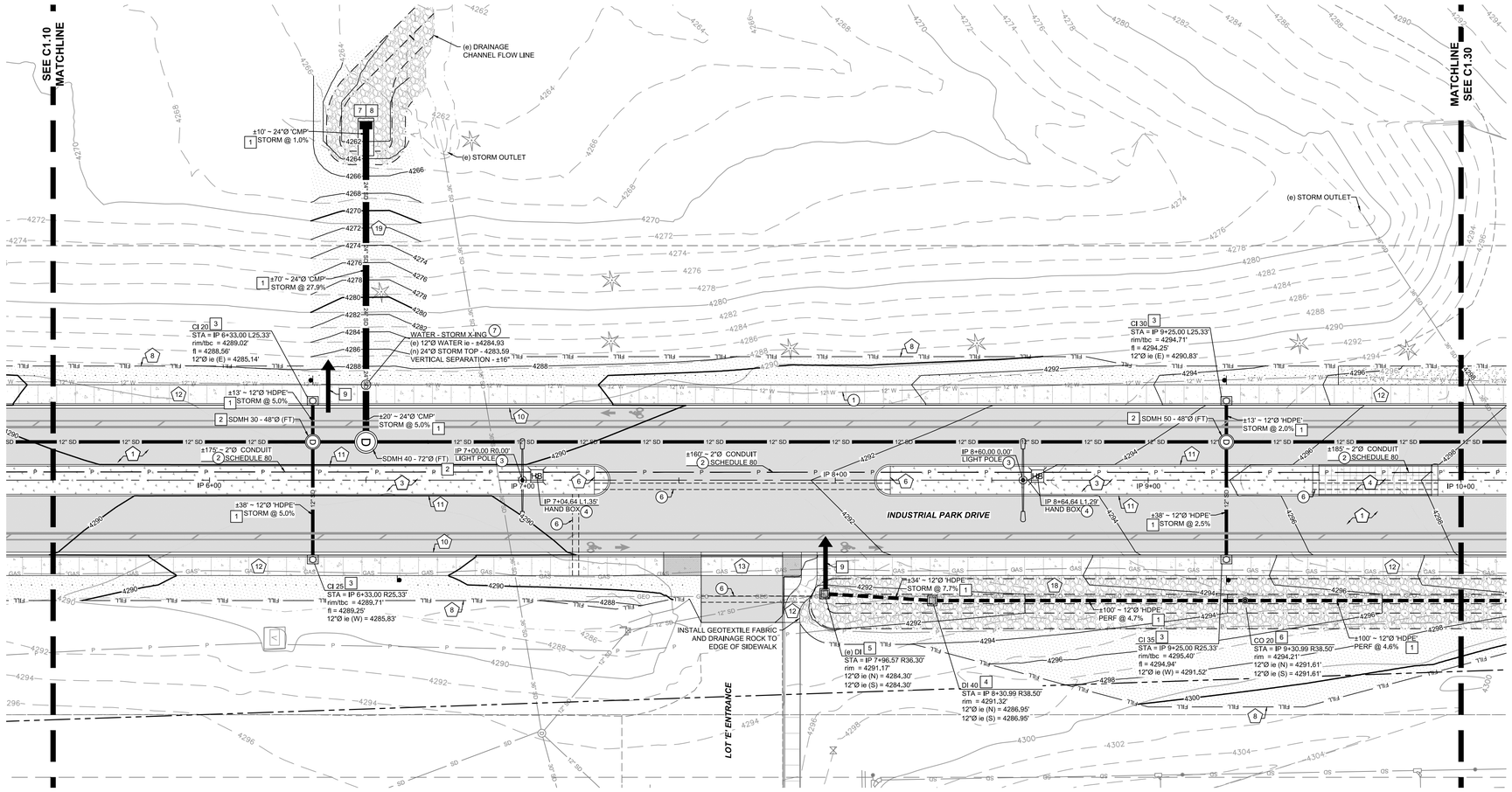
REVISION ID:	DATE:

PROJECT NO:	K-6345-23
DRAWN:	SMG
CHECKED:	BJD
DATE:	01-31-2024

INDUSTRIAL PARK CONSTRUCTION PLAN AND PROFILE

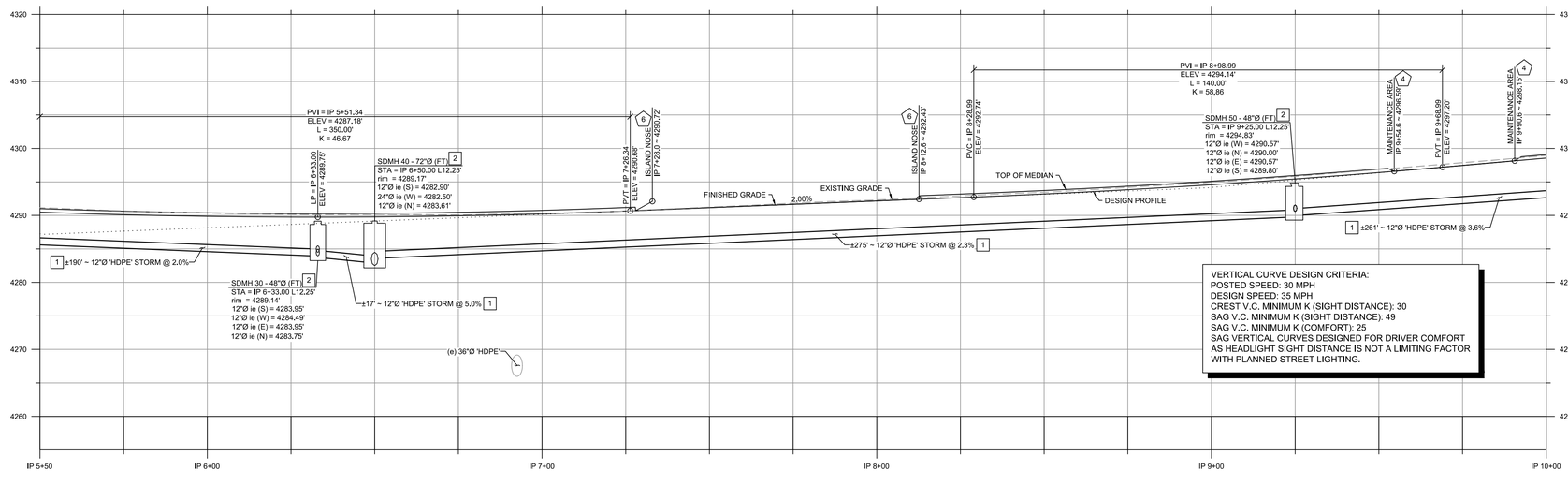
C1.10

BID AND PERMIT SET



1 INDUSTRIAL PARK DRIVE CONSTRUCTION PLAN
C1.20

1" = 20'



2 INDUSTRIAL PARK DRIVE CONSTRUCTION PROFILE
C1.20

H1" = 20'
V1" = 10'

ONE INCH EQUALS FULL SCALE

CONSTRUCTION NOTES:

GENERAL CONSTRUCTION NOTES:

ALL CONCRETE/ASPHALT/GRAVEL PAVEMENT TO BE CONSTRUCTED OVER ACF S200 (OR EQUIVALENT) WOVEN GEOTEXTILE SUPPORT FABRIC OVER HARD UNYIELDING SUBGRADE.

CONTRACTOR TO FIELD VERIFY LIMITS OF REQUIRED ASPHALT MODIFICATION AND ADJUST AS REQUIRED. COORDINATE LIMITS WITH ENGINEER DURING CONSTRUCTION.

TRANSITION BETWEEN NEW AND EXISTING ASPHALT/CONCRETE/CURB TO BE FLUSH AND FREE FROM ABRUPT CHANGES IN HEIGHT.

ACCESSIBLE RAMPS TO BE CONSTRUCTED IN CONFORMANCE WITH CURRENT STATE AND FEDERAL STANDARDS. RAMP SLOPES NOT TO EXCEED 8.33% WITH LANDINGS NOT TO EXCEED 2.0%. COORDINATE WITH ENGINEER AS NECESSARY.

CONSTRUCT PAVING, STRUCTURES, AND PIPING TO GRADES, ELEVATIONS, AND ALIGNMENTS SHOWN ON PLAN.

ALL STORM CURB AND DITCH INLETS TO HAVE A MINIMUM 18" SUMP BELOW THE OUTLET INVERT ELEVATION PER CITY OF KLAMATH FALLS 4-115 AND 4-120.

UPON MOBILIZATION, CONTRACTOR TO POTHOLE AND VERIFY VERTICAL AND HORIZONTAL ALIGNMENT, SIZE, AND MATERIAL OF EXISTING PIPES/STRUCTURES FOR TIE-IN PURPOSES. REPORT TO ENGINEER IN EVENT OF DISCREPANCY.

PROVIDE SUBMITTALS TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ORDERING.

SEE SHEET C0.20 FOR ROADWAY TYPICAL SECTIONS AND ADDITIONAL INFORMATION.

SEE GRADING DETAIL C2.00 SERIES FOR ADDITIONAL ROADWAY, SIDEWALK, ROADSIDE DITCH, AND ADA ACCESS GRADING INFORMATION.

ALL NOTES MAY NOT BE USED IN EACH FIGURE.

ROADWAY CONSTRUCTION NOTES:

1. CONSTRUCT ASPHALT ROADWAY SECTION PER TYPICAL SECTIONS 3 AND 4 ON C0.20 .
2. CONSTRUCT ASPHALT ROADWAY SECTION PER TYPICAL SECTIONS 1 AND 2 ON C0.20 .
3. CONSTRUCT LANDSCAPED CENTER ISLAND PER TYPICAL SECTIONS 1 AND 3 ON C0.20 . SEE LANDSCAPE PLANS FOR ADDITIONAL INFORMATION.
4. CONSTRUCT 36' LONG x 10' WIDE x 6" THICK REINFORCED CONCRETE PAVED MAINTENANCE AREA PER DETAIL 3 ON C5.10 . TRANSITION FROM STANDARD TO MOUNTABLE TYPE B CURB OVER 18" PER CITY OF KLAMATH FALLS STANDARD DRAWINGS 8-105 AND 8-120 . EXTEND REINFORCED CONCRETE SECTION THROUGH 18" CURB TRANSITION AND END FLUSH WITH TOP BACK OF STANDARD CURB.
5. CONSTRUCT CONCRETE PAVED CENTER ISLAND TO LIMITS SHOWN ON PLAN. PAVEMENT BETWEEN CURBS TO BE 4" THICK SECTION OF UN-REINFORCED CONCRETE OVER 4" MINIMUM OF 3/4" MINUS CRUSHED ROCK. PROVIDE APPROVED BOND BREAKER BETWEEN CURB AND CONCRETE PAVEMENT. SCORING PATTERN APPROXIMATELY AS SHOWN.
6. CONSTRUCT CONCRETE PAVED END OF ISLAND BETWEEN CURB TO BE 4" SECTION OF UN-REINFORCED CONCRETE PAVEMENT OVER 4" MINIMUM OF 3/4 MINUS CRUSHED ROCK.
7. CONSTRUCT CONCRETE PAVED CENTER ISLAND WITH ADA ACCESSIBLE PATHWAY BOUND BY TYPE B CURBS PER CITY OF KLAMATH FALLS STANDARD DRAWINGS 8-105.
8. GRADE TO MATCH EXISTING PER PLAN AND PER TYPICAL SECTIONS ON SHEET C0.20 .
9. LIMITS OF NEW ASPHALT PAVEMENT CONSTRUCTION. SEE CITY OF KLAMATH FALLS STANDARD DRAWING 8-240 FOR TRANSITION TO EXISTING PAVEMENT.
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15. INSTALL TRUNCATED DOMES PER CITY OF KLAMATH FALLS STANDARD DRAWING 8-155 .
16. INSTALL BOLLARDS WITH D-RING AND CHAIN GATE PER CIVIL DETAIL 1 ON C6.10 .
17. CONSTRUCT GRASSY DITCH PER DETAILS 1 AND 2 ON SHEET C0.20 .
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20. CONSTRUCT GRAVEL PAVEMENT. MINIMUM SECTION CONSISTS OF 6" OF 3/4" MINUS OVER 6" OF 3" MINUS CRUSHED ROCK.

STORM DRAIN CONSTRUCTION NOTES:

1. INSTALL 'HDPE' STORM PIPE OF DIAMETER AND APPROXIMATE LENGTH SHOWN. TRENCH PER CITY OF KLAMATH FALLS STANDARD DRAWING 2-105 .
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3. INSTALL CURB INLET WITH 4' THROAT PER CITY OF KLAMATH FALLS STANDARD DRAWINGS 4-100 AND 4-115 .
4. INSTALL STANDARD DITCH INLET PER CITY OF KLAMATH FALLS STANDARD DRAWING 4-120 .
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UTILITY CONSTRUCTION NOTES:

1. EXISTING 12" WATER MAIN, PROTECT AT ALL TIMES DURING CONSTRUCTION.
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3. INSTALL PRIVATE STREET LIGHT. SEE PRIVATE CIVIL DETAIL 5CL-LB ON C6.10 FOR FOUNDATION INFORMATION. SEE ELECTRICAL PLANS FOR ALL OTHER INFORMATION.
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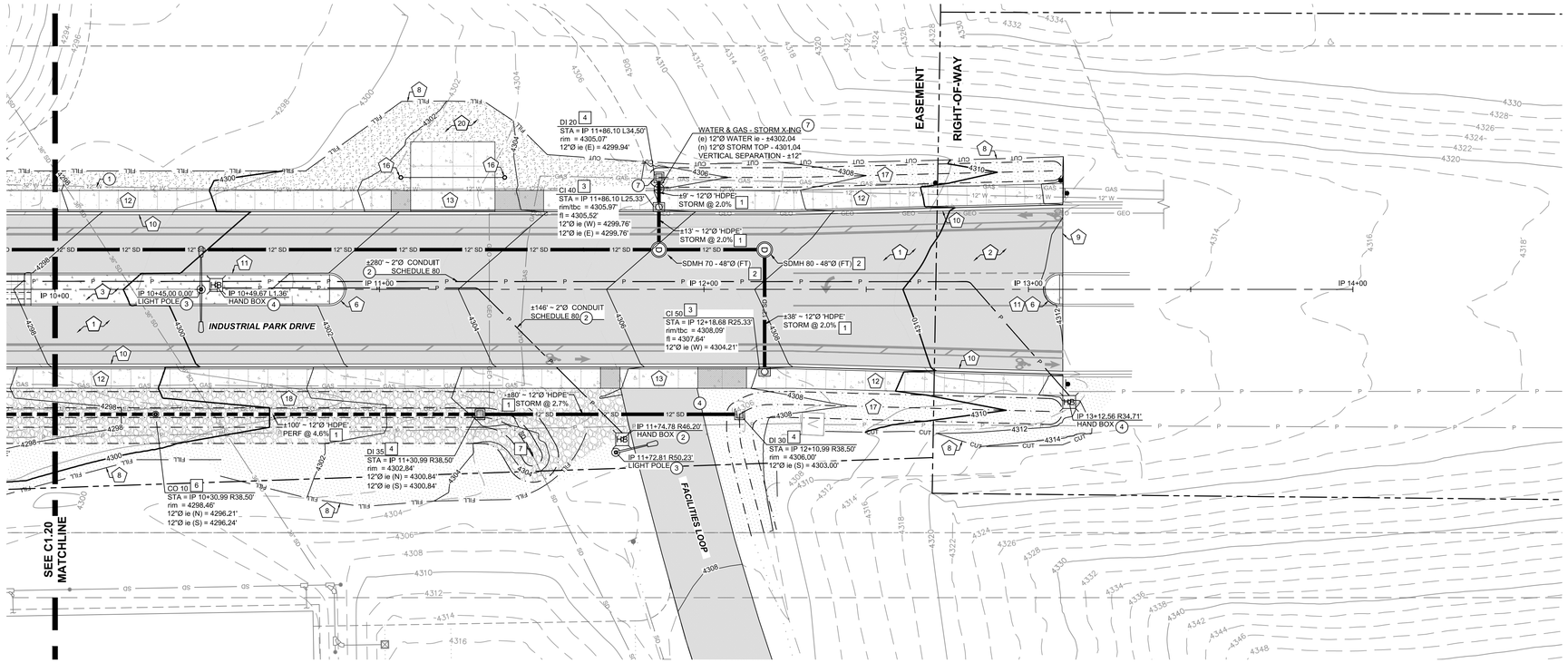
INDUSTRIAL PARK CONSTRUCTION PLAN AND PROFILE

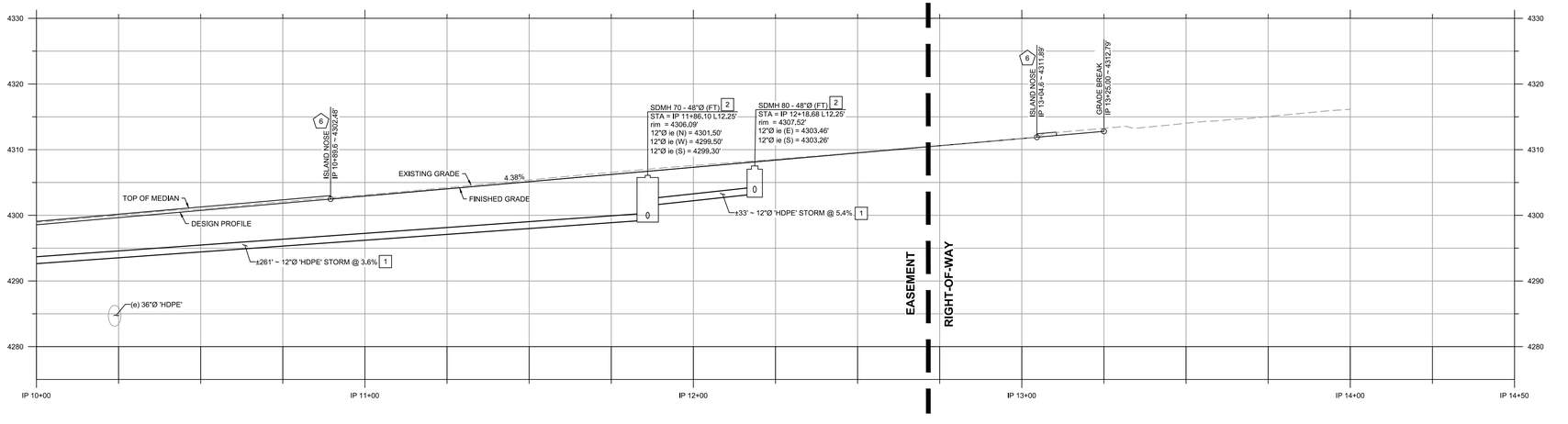
C1.20

BID AND PERMIT SET



1 C1.30 **INDUSTRIAL PARK DRIVE CONSTRUCTION PLAN**

1" = 20'



2 C1.30 **INDUSTRIAL PARK DRIVE CONSTRUCTION PROFILE**

H1" = 20'
V1" = 10'

ONE INCH EQUALS FULL SCALE

CONSTRUCTION NOTES:

GENERAL CONSTRUCTION NOTES:

ALL CONCRETE/ASPHALT/GRAVEL PAVEMENT TO BE CONSTRUCTED OVER ACF S200 (OR EQUIVALENT) WOVEN GEOTEXTILE SUPPORT FABRIC OVER HARD UNYIELDING SUBGRADE.

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ROADWAY CONSTRUCTION NOTES:

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UTILITY CONSTRUCTION NOTES:

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INDUSTRIAL PARK CONSTRUCTION PLAN AND PROFILE

C1.30

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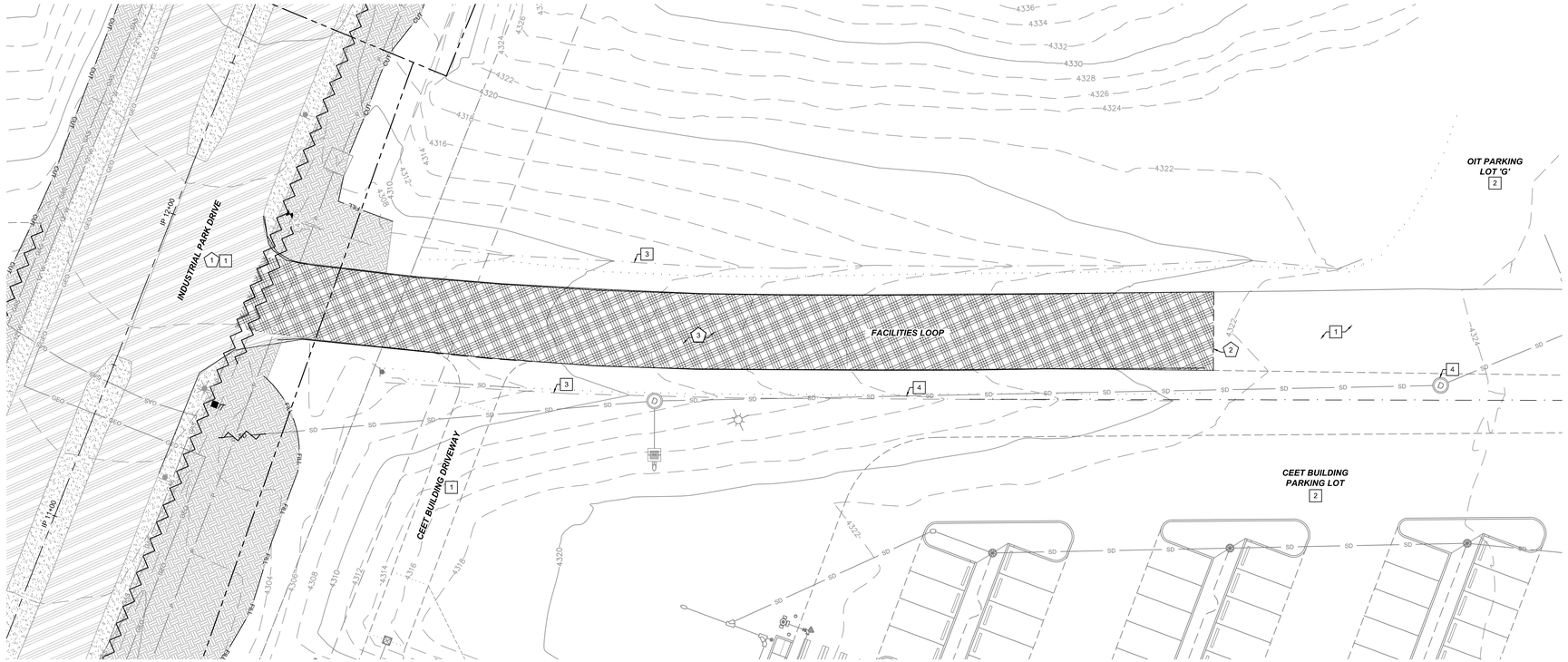
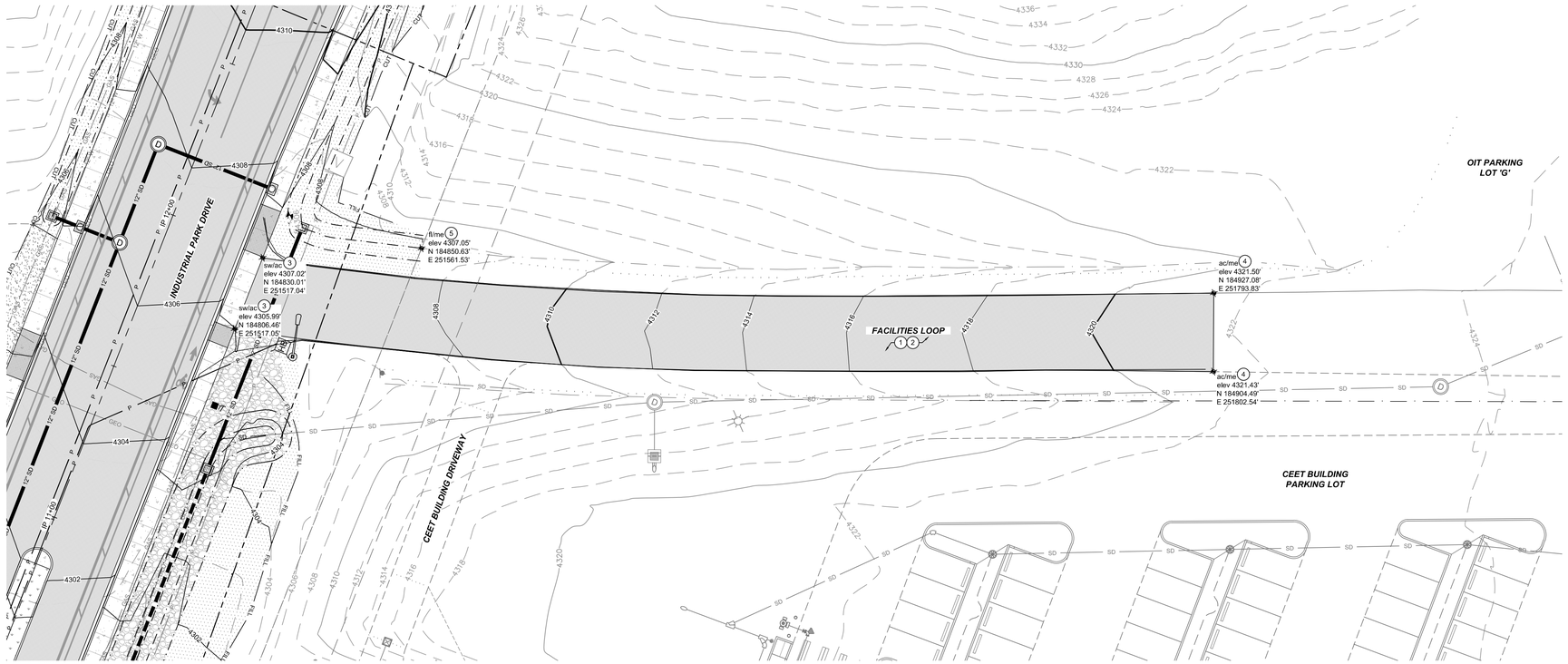


1 C1.40 **FACILITIES LOOP DEMOLITION PLAN**

1" = 20'



2 C1.40 **FACILITIES LOOP CONSTRUCTION PLAN**

1" = 20'

FACILITIES LOOP NOTES:

GENERAL DEMOLITION AND PROTECTION NOTES:

CONTRACTOR SHALL FIELD VERIFY LIMITS OF ASPHALT/CONCRETE/ETC. DEMOLITION AND ADJUST AS REQUIRED.

PROVIDE SMOOTH VERTICAL SAWCUT AT ALL EXTERIOR LIMITS OF ASPHALT/CONCRETE/ETC. REMOVAL.

UPON MOBILIZATION, CONTRACTOR SHALL POTHOLE EXISTING BURIED UTILITIES AND STRUCTURES (AS INDICATED) TO VERIFY HORIZONTAL AND VERTICAL ALIGNMENT, SIZE, AND MATERIAL.

CONTRACTOR SHALL REPORT TO ENGINEER FOR DIRECTION IN EVENT OF DISCREPANCIES BETWEEN PLANS AND FIELD CONDITIONS.

CONTRACTOR SHALL COORDINATE VEHICULAR TRAFFIC PLAN AND PEDESTRIAN ACCESS REQUIREMENTS WITH CITY OF KLAMATH FALLS AND OWNER PRIOR TO CONSTRUCTION.

CONTRACTOR SHALL COORDINATE UTILITY SHUTOFF(S) WITH OWNER AND UTILITY PROVIDERS 48 HOURS MINIMUM PRIOR TO CONSTRUCTION TO ENSURE MINIMAL SERVICE DISRUPTION DURING OPERATION HOURS.

CONTRACTOR SHALL STORE SALVAGED MATERIALS ON SITE (OR AT AN APPROVED OFF SITE LOCATION) FOR REUSE.

WHERE INDICATED, EXISTING STRUCTURES, HARDSCAPE, AND UTILITIES/APPURTENANCES SHALL BE PROTECTED THROUGHOUT ALL PHASES OF CONSTRUCTION.

FACILITIES LOOP DEMOLITION NOTES:

1. SEE SHEET C0.40 FOR INDUSTRIAL PARK DRIVE DEMOLITION PLAN.
2. SAW-CUT EXISTING ASPHALT.
3. REMOVE AND RECYCLE ASPHALT PAVEMENT TO THE LIMITS SHOWN AND MAINTAIN EXISTING BASE-ROCK SECTION WHERE POSSIBLE.

PROTECTION NOTES:

1. EXISTING ASPHALT PAVED ROADWAY / DRIVEWAY TO REMAIN AND BE PROTECTED.
2. EXISTING PARKING LOT TO REMAIN OPEN AND ACCESSIBLE THROUGHOUT ALL PHASES OF CONSTRUCTION.
3. EXISTING ROADSIDE DITCH TO REMAIN AND BE PROTECTED.
4. EXISTING STORM DRAIN SYSTEM TO REMAIN AND BE PROTECTED.

GENERAL CONSTRUCTION NOTES:

ALL CONCRETE/ASPHALT/GRAVEL PAVEMENT SECTIONS SHALL BE CONSTRUCTED OVER 'ACF' 'S200' WOVEN GEOTEXTILE SUPPORT FABRIC OVER HARD AND UNYIELDING SUBGRADE.

CONTRACTOR SHALL FIELD VERIFY EXACT LIMITS OF ASPHALT REPLACEMENT. AGING EXISTING ASPHALT IS TO BE REPLACED UP TO THE LIMITS OF RECENT RE-PAVING ON FACILITIES LOOP. CONTRACTOR TO COORDINATE WITH OWNER AND ENGINEER AS NECESSARY.

TRANSITION BETWEEN NEW AND EXISTING ASPHALT/CONCRETE/CURB SHALL BE FLUSH AND FREE FROM ABRUPT CHANGES IN HEIGHT.

ACCESSIBLE RAMPS SHALL BE CONSTRUCTED IN CONFORMANCE WITH CURRENT STATE AND FEDERAL STANDARDS. RAMP SLOPES SHALL NOT EXCEED 8.33% WITH LANDINGS NOT TO EXCEED 2.0%. COORDINATE WITH ENGINEER AS NECESSARY.

CONSTRUCT PAVING, STRUCTURES, AND PIPING TO GRADES, ELEVATIONS, AND ALIGNMENTS SHOWN ON PLAN.

PROVIDE SUBMITTALS TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ORDERING MATERIALS.

FACILITIES LOOP CONSTRUCTION NOTES:

1. REHABILITATE EXISTING BASE-ROCK SECTION PRIOR TO RE-PAVEMENT. MOISTURIZE, RE-COMPACT, AND PERFORM PROOF-ROLL TEST ON EXISTING BASE-ROCK SECTION. IN AREAS OF PROOF-ROLL FAILURE, EXCAVATE 8" SECTION OF SUB-GRADE. BACK-FILL 8" OF 3/4" MINUS COMPACTED BASE COURSE.
2. CONSTRUCT 3" MIN THICK LEVEL 2, 1/2" DENSE ACP (PG 64-28).
3. ADJUST ROADWAY PROFILE TO MEET NEW BACK OF SIDEWALK GRADE FOR INDUSTRIAL PARK DRIVE WITH ARITHMETIC GRADE CHANGE OF NO MORE THAN 5%. SEE FIGURE 3 ON C2.50 FOR ADDITIONAL GRADING INFORMATION.
4. LIMITS OF NEW ASPHALT PAVEMENT CONSTRUCTION. SEE CITY OF KLAMATH FALLS STANDARD DRAWING 8-240 FOR TRANSITION TO EXISTING PAVEMENT.
5. RE-ROUTE AND RE-GRADE EXISTING ROAD-SIDE DITCH TO DISCHARGE TO NEW DITCH INLET. SEE SHEET C1.30 FOR ADDITIONAL INFORMATION.

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Oregon Institute of Technology

REGISTERED PROFESSIONAL ENGINEER
70775PE
DIGITAL SIGNATURE
OREGON
Sept. 19, 2006
SYLAS E. ALLEN
EXPIRES: 12-31-23

REVISION ID:	DATE:

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CHECKED:	BJD
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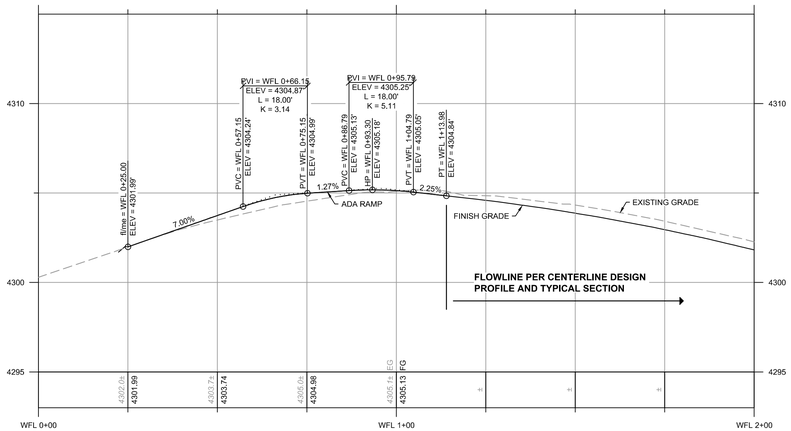
FACILITIES LOOP DEMOLITION AND CONSTRUCTION PLAN

C1.40

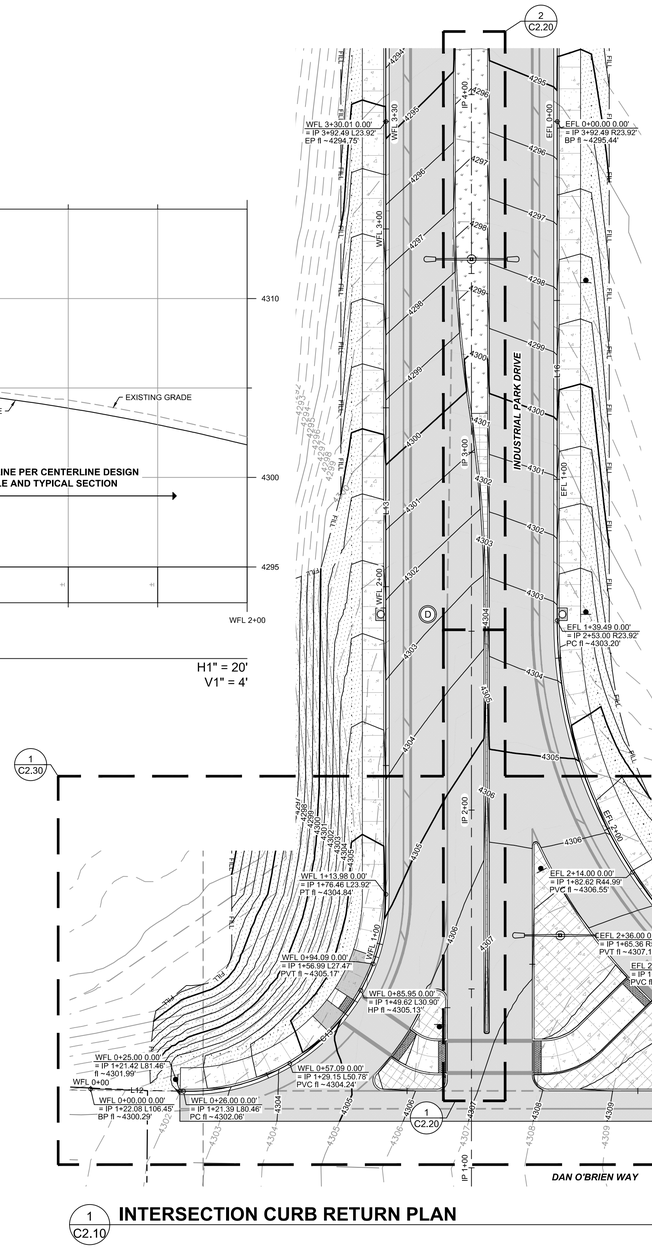
BID AND PERMIT SET

ONE INCH EQUALS FULL SCALE



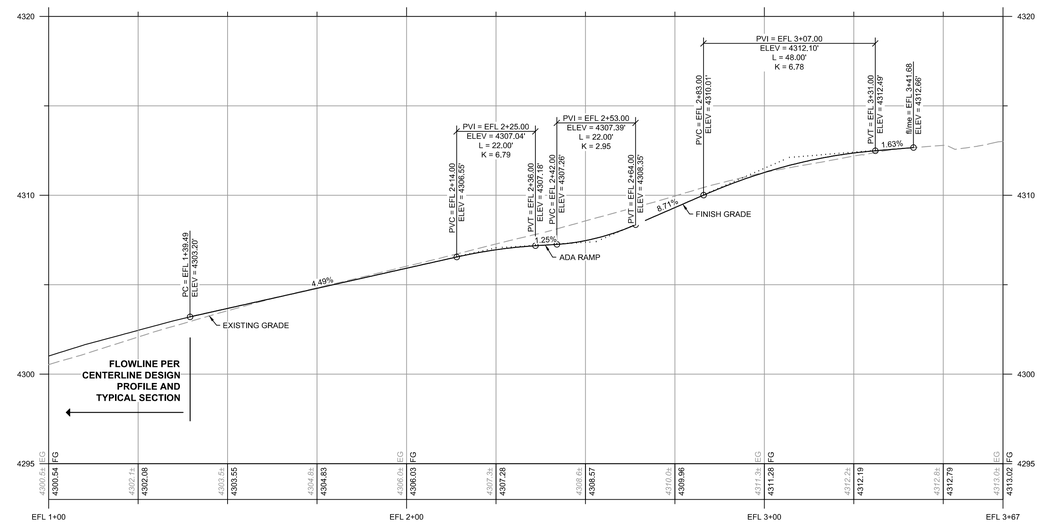
2 C2.10 WEST FLOW LINE (WFL) CURB RETURN PROFILE

H1" = 20'
V1" = 4'



1 C2.10 INTERSECTION CURB RETURN PLAN

1" = 20'



3 C2.10 EAST FLOW LINE (EFL) CURB RETURN PROFILE

H1" = 20'
V1" = 4'

WEST FLOW LINE ALIGNMENT LINE / CURVE TABLE

Number	Alignment	Radius	Length	Line/Chord Direction	Delta Angle
L12	WFL		26.00'	S88° 30' 20.60"E	
C13	WFL	55.08'	87.98'	N45° 44' 11.14"E	091.52°
L13	WFL		216.03'	N0° 01' 17.12"W	

EAST FLOW LINE ALIGNMENT LINE / CURVE TABLE

Number	Alignment	Radius	Length	Line/Chord Direction	Delta Angle
L16	EFL		139.49'	S0° 01' 17.12"E	
C14	EFL	128.08'	201.19'	S45° 01' 17.12"E	090.00°
L14	EFL		1.00'	N89° 58' 42.88"E	
L15	EFL		25.00'	N89° 58' 42.88"E	

ONE INCH EQUALS FULL SCALE

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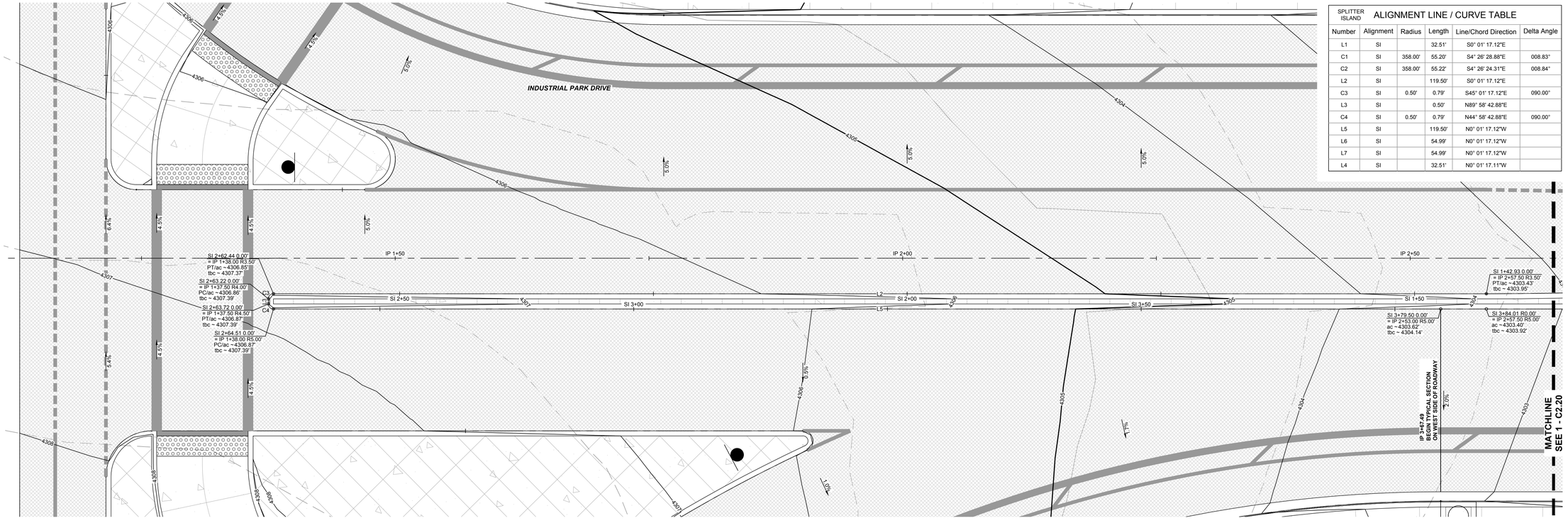
INTERSECTION CURB RETURN PLAN AND PROFILE

C2.10

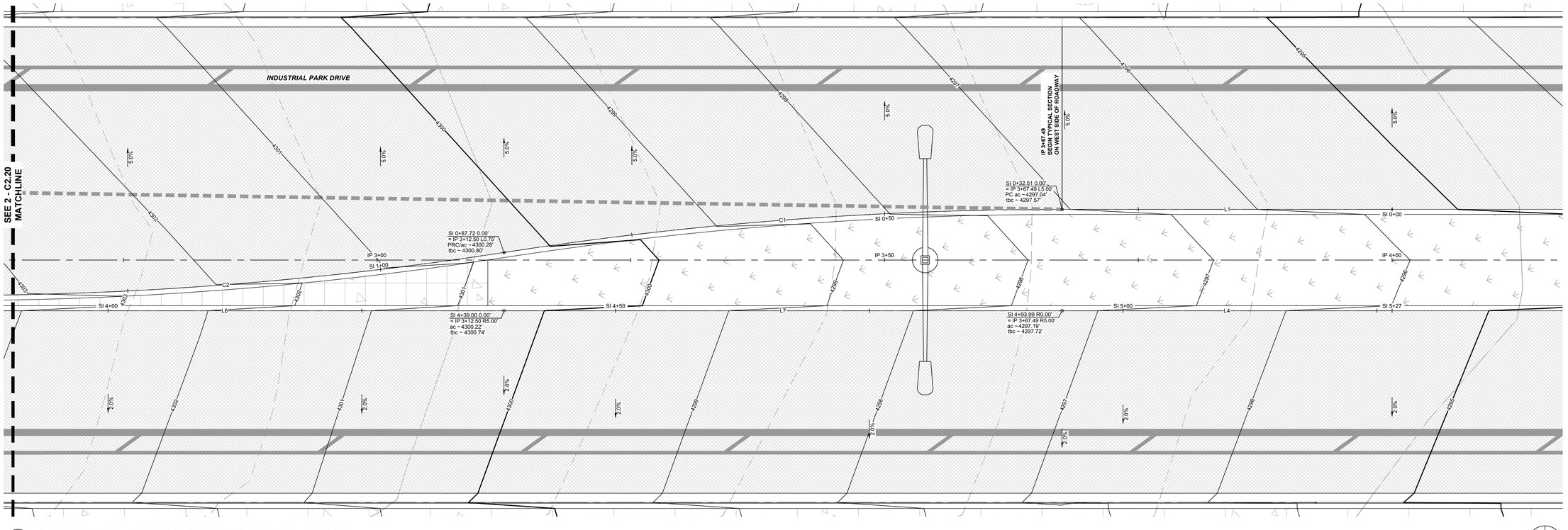
BID AND PERMIT SET



SPLITTER ISLAND	ALIGNMENT LINE / CURVE TABLE				
Number	Alignment	Radius	Length	Line/Chord Direction	Delta Angle
L1	SI		32.51'	S0° 01' 17.12"E	
C1	SI	358.00'	55.20'	S4° 26' 28.88"E	008.83°
C2	SI	358.00'	55.22'	S4° 26' 24.31"E	008.84°
L2	SI		119.50'	S0° 01' 17.12"E	
C3	SI	0.50'	0.79'	S45° 01' 17.12"E	090.00°
L3	SI		0.50'	N89° 58' 42.88"E	
C4	SI	0.50'	0.79'	N44° 58' 42.88"E	090.00°
L5	SI		119.50'	N0° 01' 17.12"W	
L6	SI		54.99'	N0° 01' 17.12"W	
L7	SI		54.99'	N0° 01' 17.12"W	
L4	SI		32.51'	N0° 01' 17.11"W	

1 C2.20 **SPLITTER ISLAND (SI) GRADING DETAIL SOUTH**

1" = 5'



2 C2.20 **SPLITTER ISLAND (SI) GRADING DETAIL NORTH**

1" = 5'

ONE INCH EQUALS FULL SCALE

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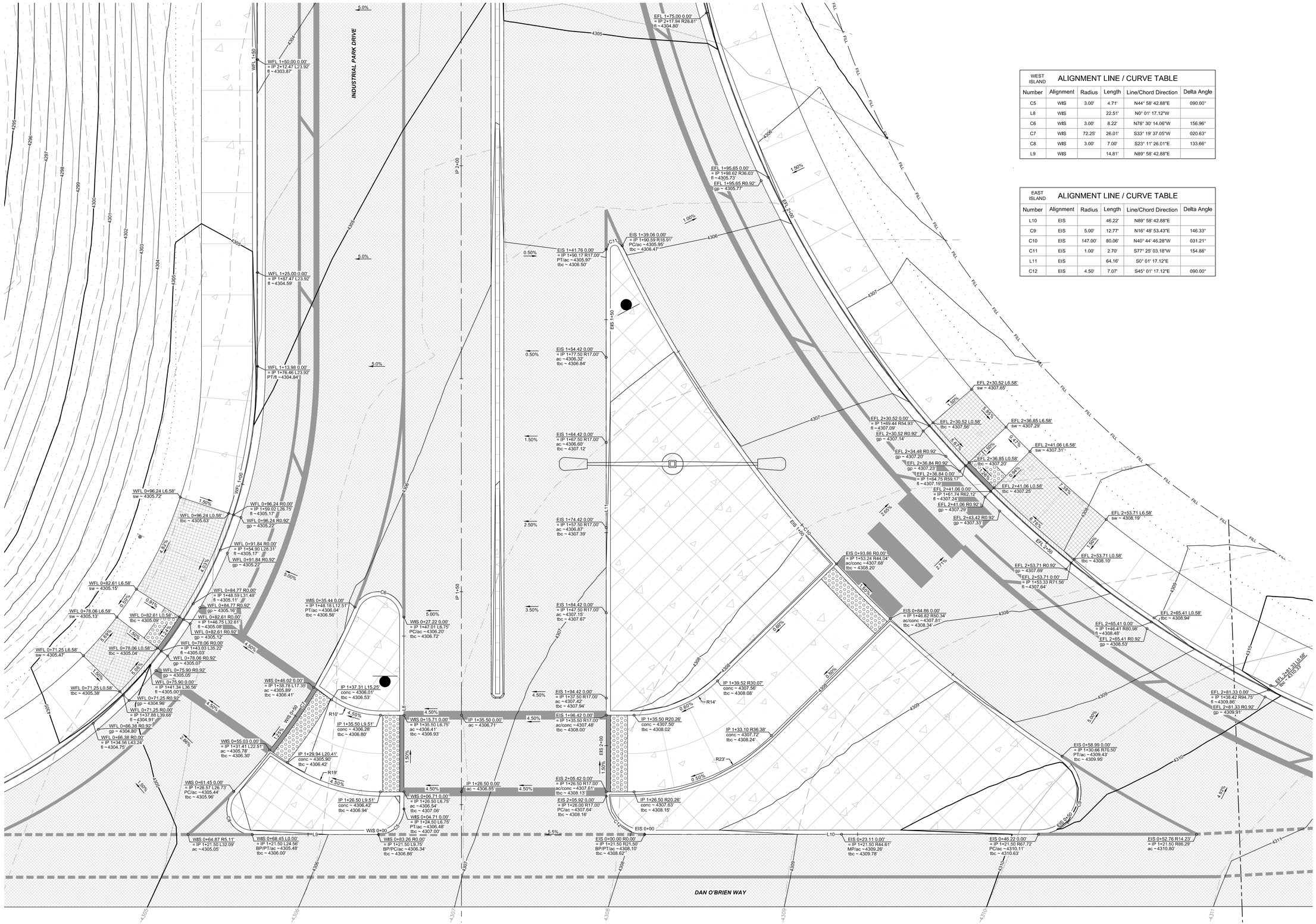
SPLITTER ISLAND GRADING DETAIL

C2.20

BID AND PERMIT SET



WEST ISLAND	ALIGNMENT LINE / CURVE TABLE				
Number	Alignment	Radius	Length	Line/Chord Direction	Delta Angle
C5	WIS	3.00'	4.71'	N44° 58' 42.88"E	090.00°
L8	WIS		22.51'	N0° 01' 17.12"W	
C6	WIS	3.00'	8.22'	N78° 30' 14.06"W	156.96°
C7	WIS	72.25'	26.01'	S33° 19' 37.05"W	020.63°
C8	WIS	3.00'	7.00'	S23° 11' 26.01"E	133.66°
L9	WIS		14.81'	N89° 58' 42.88"E	

EAST ISLAND	ALIGNMENT LINE / CURVE TABLE				
Number	Alignment	Radius	Length	Line/Chord Direction	Delta Angle
L10	EIS		46.22'	N89° 58' 42.88"E	
C9	EIS	5.00'	12.77'	N16° 48' 53.43"E	146.33°
C10	EIS	147.00'	80.06'	N40° 44' 46.28"W	031.21°
C11	EIS	1.00'	2.70'	S77° 25' 03.18"W	154.88°
L11	EIS		64.16'	S0° 01' 17.12"E	
C12	EIS	4.50'	7.07'	S45° 01' 17.12"E	090.00°

ONE INCH EQUALS FULL SCALE

1 C2.30 **WEST ISLAND (WIS) EAST ISLAND (EIS) AND ADA RAMP GRADING DETAIL**

1" = 5'

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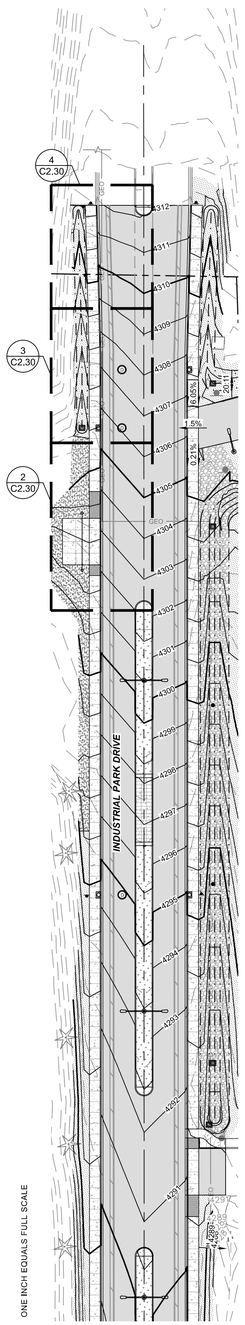
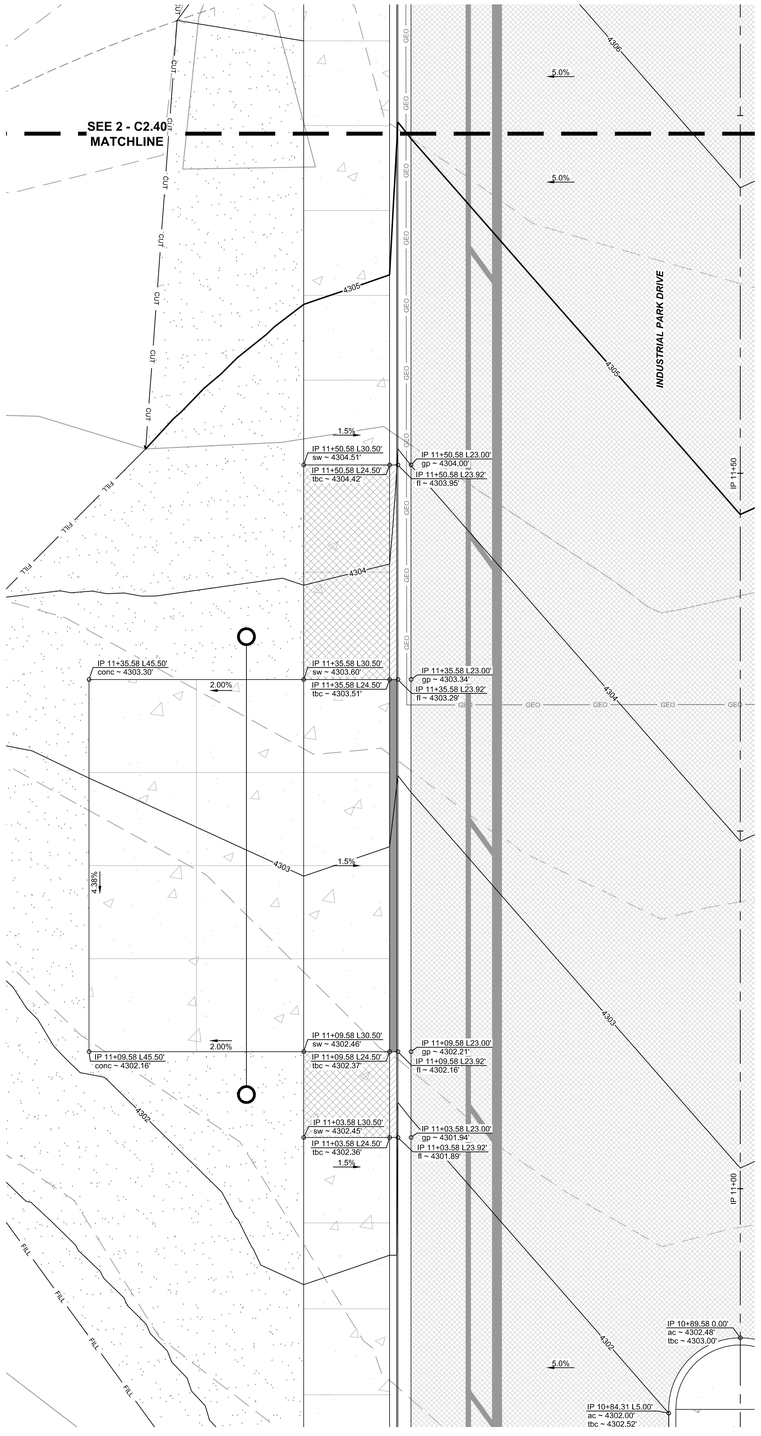
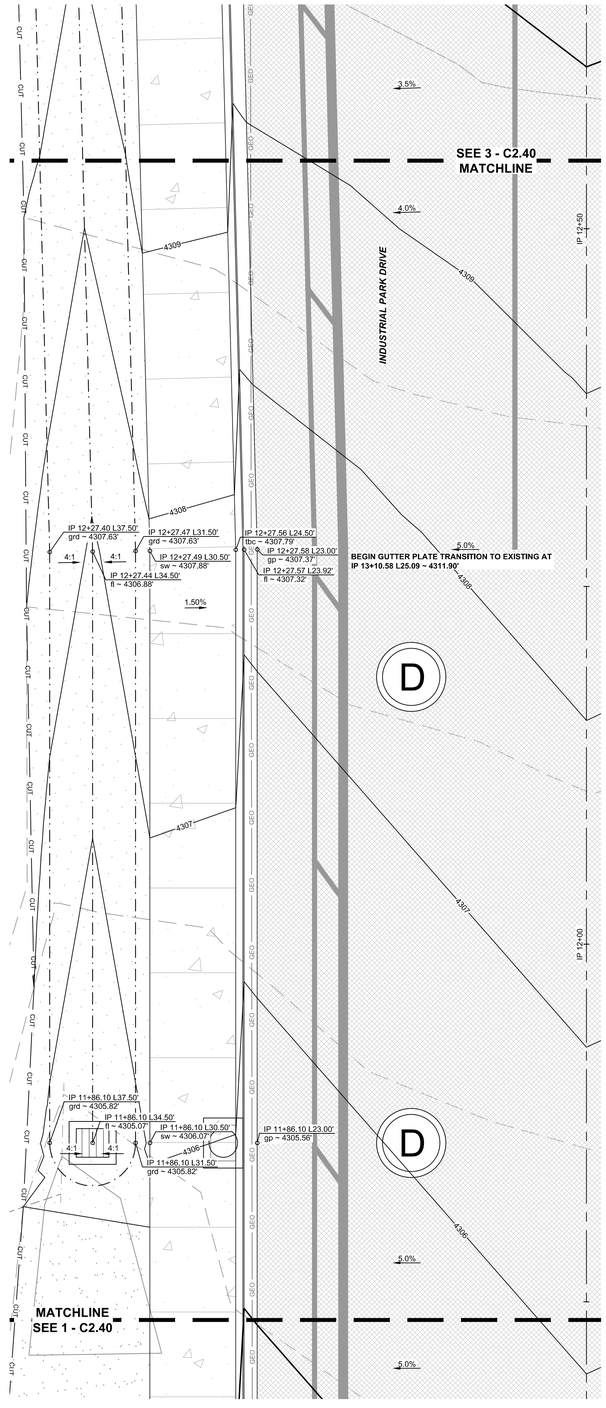
ISLAND AND ADA RAMP GRADING DETAIL

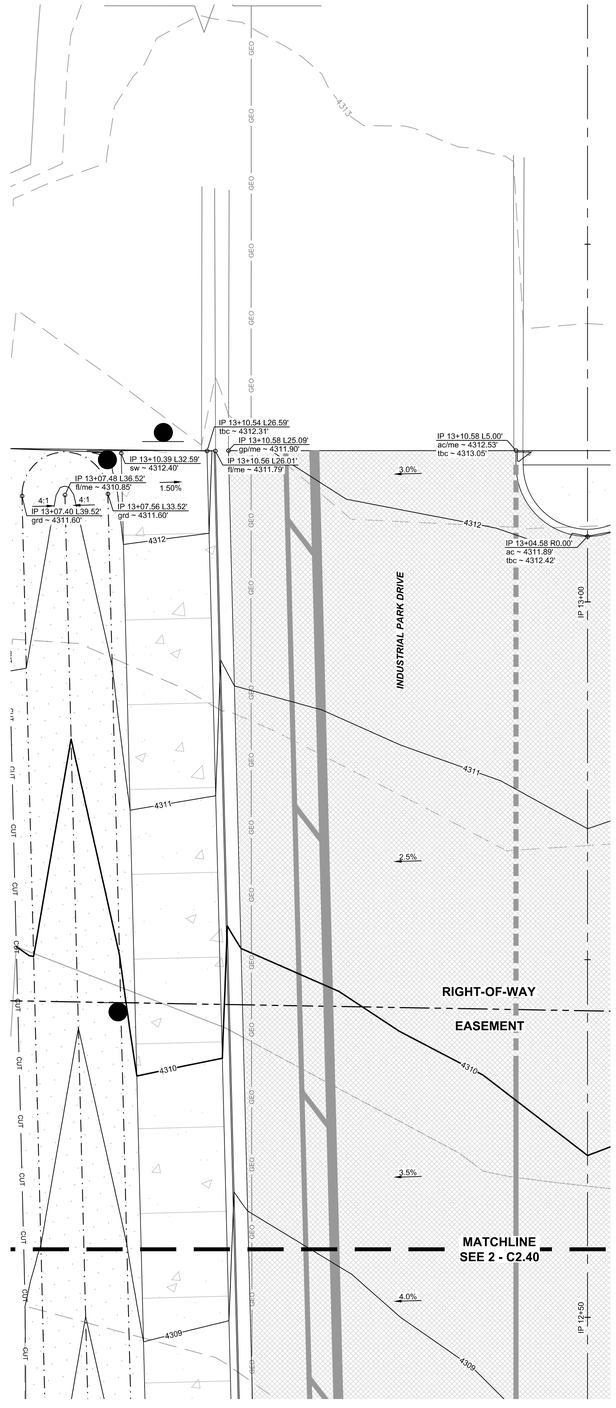
C2.30

BID AND PERMIT SET









2 C2.40 **GRAVEL ACCESS DRIVEWAY APRON GRADING DETAIL** 1" = 5'

3 C2.40 **WEST ROADSIDE DITCH GRADING DETAIL SOUTH** 1" = 5'

4 C2.40 **WEST ROADSIDE DITCH GRADING DETAIL NORTH** 1" = 5'

1 C2.40 **INDUSTRIAL PARK DRIVE DRIVEWAY APRON GRADING DETAIL KEY** 1" = 40'

ONE INCH EQUALS FULL SCALE

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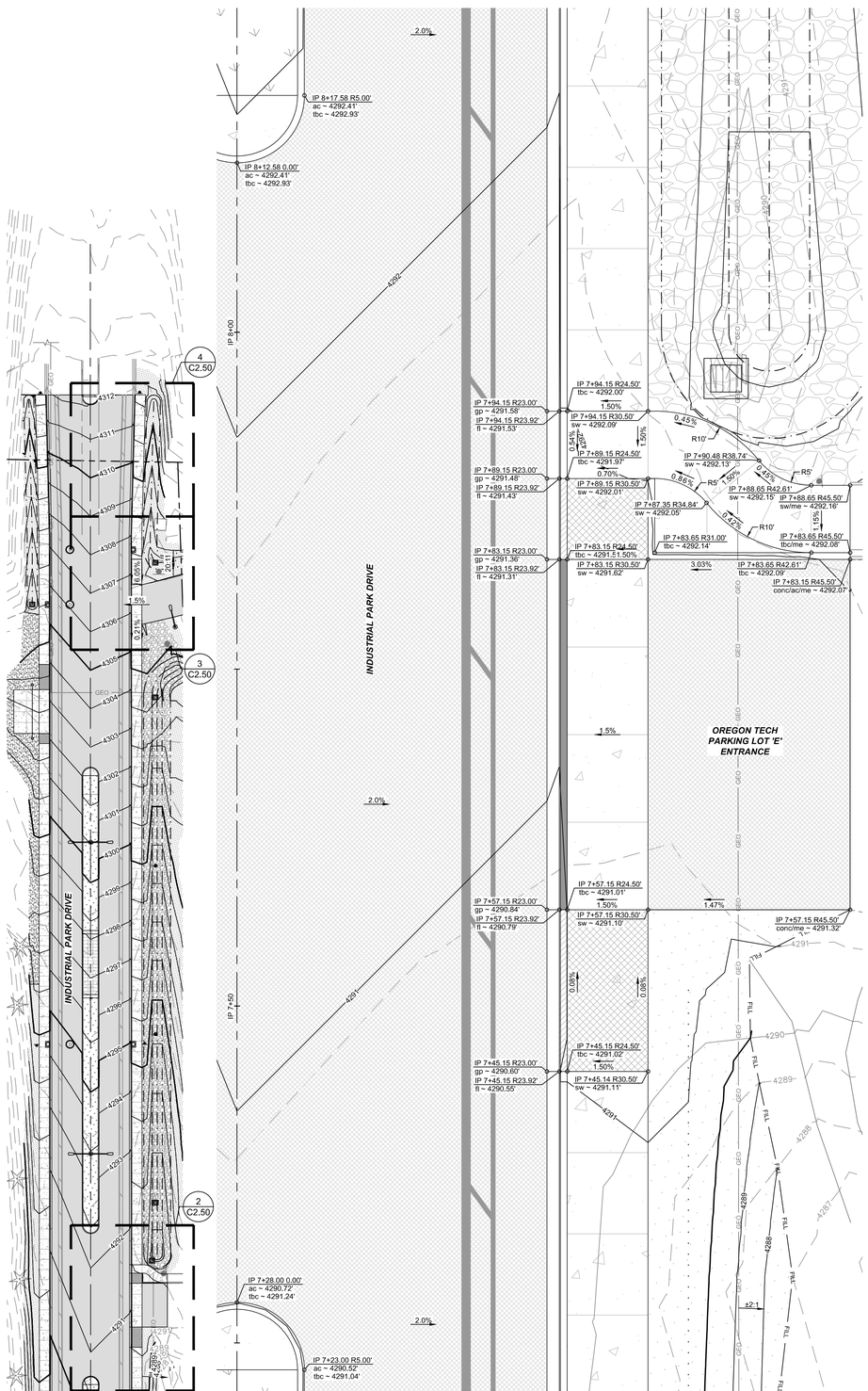
DRIVEWAY APRON GRADING DETAIL

C2.40

BID AND PERMIT SET



ONE INCH EQUALS FULL SCALE

1
C2.50
INDUSTRIAL PARK DRIVE DRIVEWAY APRON GRADING DETAIL KEY
1" = 40'

2
C2.50
LOT 'E' DRIVEWAY APRON GRADING DETAIL
1" = 5'

3
C2.50
FACILITIES LOOP DRIVEWAY APRON GRADING DETAIL
1" = 5'

4
C2.50
EAST ROADSIDE DITCH GRADING DETAIL
1" = 5'

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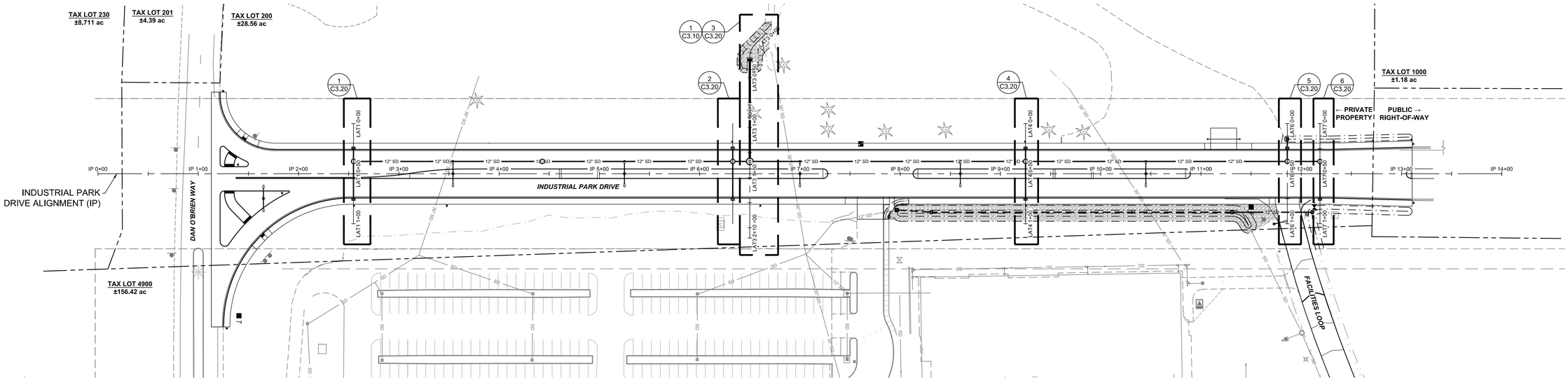
DRIVEWAY APRON
GRADING DETAIL

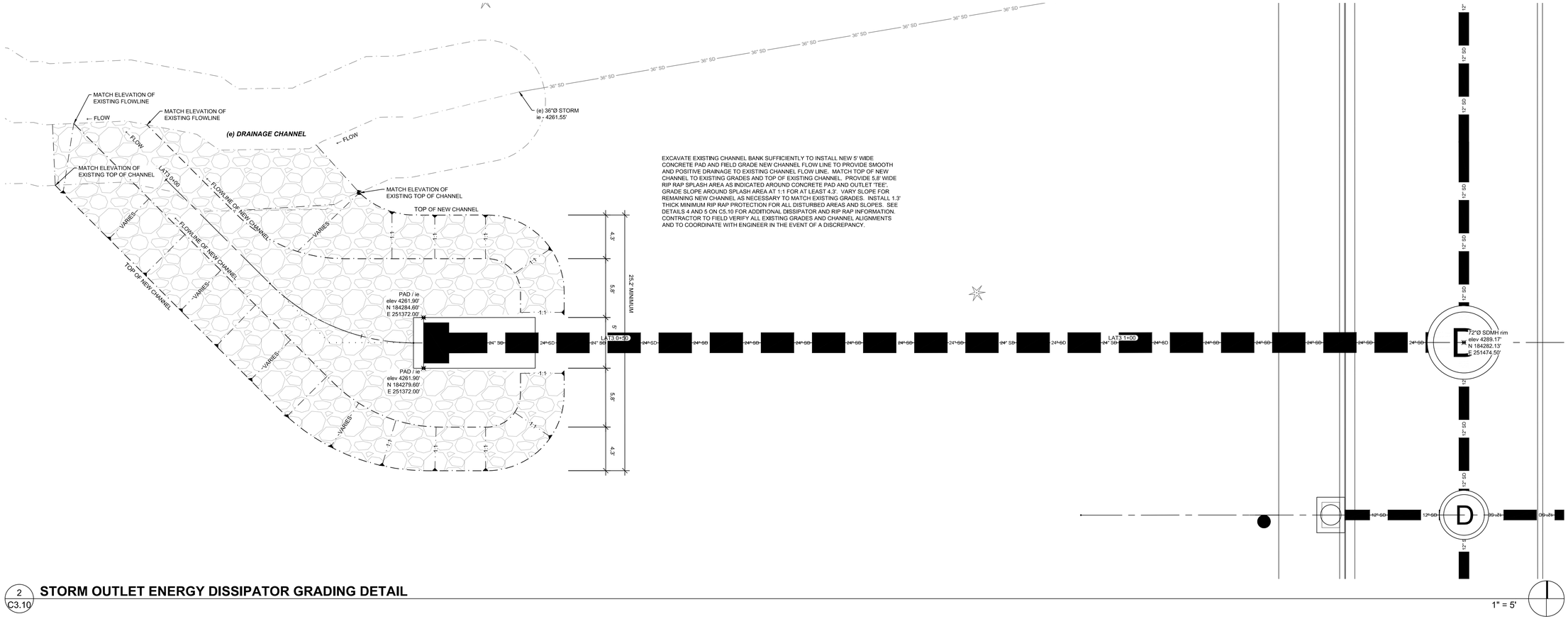
BID AND PERMIT SET

C2.50



1 C3.10 **ALIGNMENT LAYOUT**

1" = 50'



EXCAVATE EXISTING CHANNEL BANK SUFFICIENTLY TO INSTALL NEW 5' WIDE CONCRETE PAD AND FIELD GRADE NEW CHANNEL FLOW LINE TO PROVIDE SMOOTH AND POSITIVE DRAINAGE TO EXISTING CHANNEL FLOW LINE. MATCH TOP OF NEW CHANNEL TO EXISTING GRADES AND TOP OF EXISTING CHANNEL. PROVIDE 5.8' WIDE RIP RAP SPLASH AREA AS INDICATED AROUND CONCRETE PAD AND OUTLET 'TEE'. GRADE SLOPE AROUND SPLASH AREA AT 1:1 FOR AT LEAST 4.3'. VARY SLOPE FOR REMAINING NEW CHANNEL AS NECESSARY TO MATCH EXISTING GRADES. INSTALL 1.3' THICK MINIMUM RIP RAP PROTECTION FOR ALL DISTURBED AREAS AND SLOPES. SEE DETAILS 4 AND 5 ON C5.10 FOR ADDITIONAL DISSIPATOR AND RIP RAP INFORMATION. CONTRACTOR TO FIELD VERIFY ALL EXISTING GRADES AND CHANNEL ALIGNMENTS AND TO COORDINATE WITH ENGINEER IN THE EVENT OF A DISCREPANCY.

2 C3.10 **STORM OUTLET ENERGY DISSIPATOR GRADING DETAIL**

1" = 5'

ONE INCH EQUALS FULL SCALE

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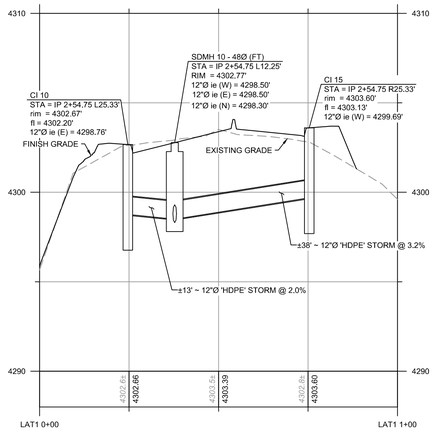
STORM DRAIN ALIGNMENT LAYOUT

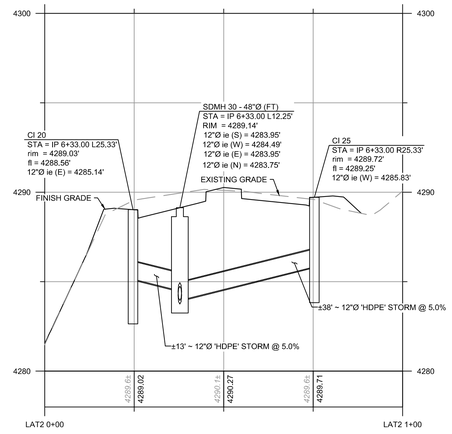
C3.10

BID AND PERMIT SET



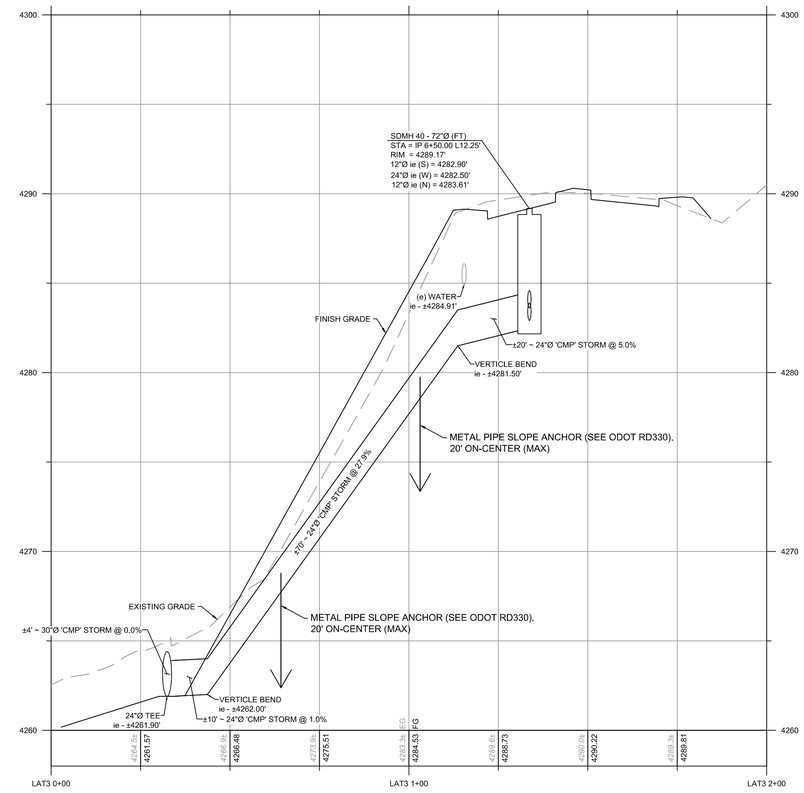
1 C3.20 **LATERAL 1 (LAT 1) SECTION**

H1" = 20'
V1" = 4'



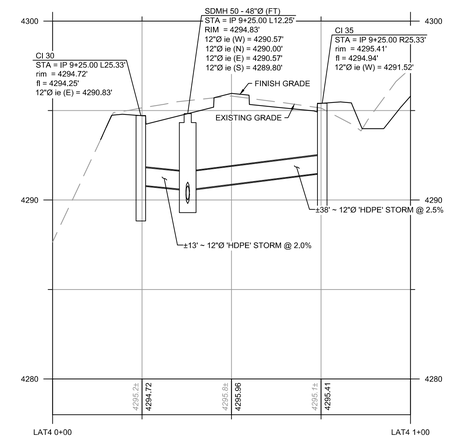
2 C3.20 **LATERAL 2 (LAT 2) SECTION**

H1" = 20'
V1" = 4'



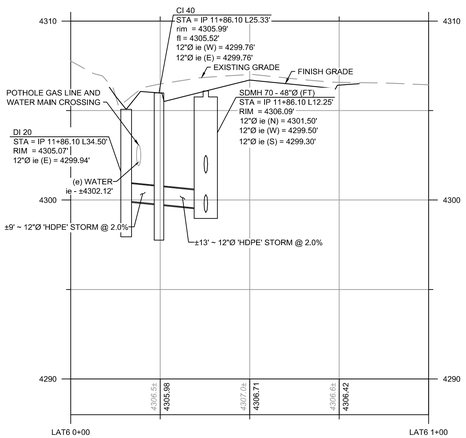
3 C3.10 **LATERAL 3 (LAT 3) SECTION**

H1" = 20'
V1" = 4'



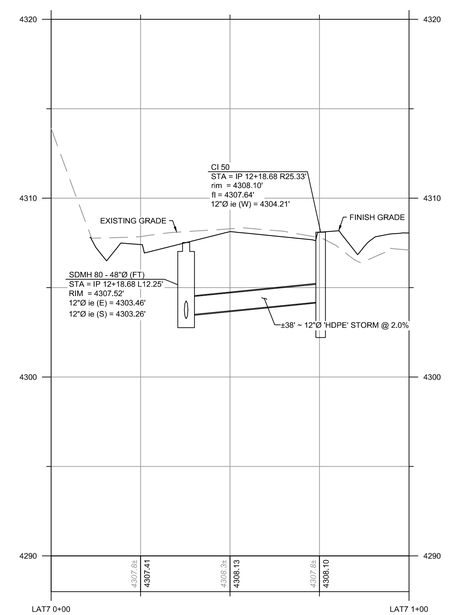
4 C3.20 **LATERAL 4 (LAT 4) SECTION**

H1" = 20'
V1" = 4'



5 C3.20 **LATERAL 6 (LAT 6) SECTION**

H1" = 20'
V1" = 4'



6 C3.20 **LATERAL 7 (LAT 7) SECTION**

H1" = 20'
V1" = 4'

ONE INCH EQUALS FULL SCALE

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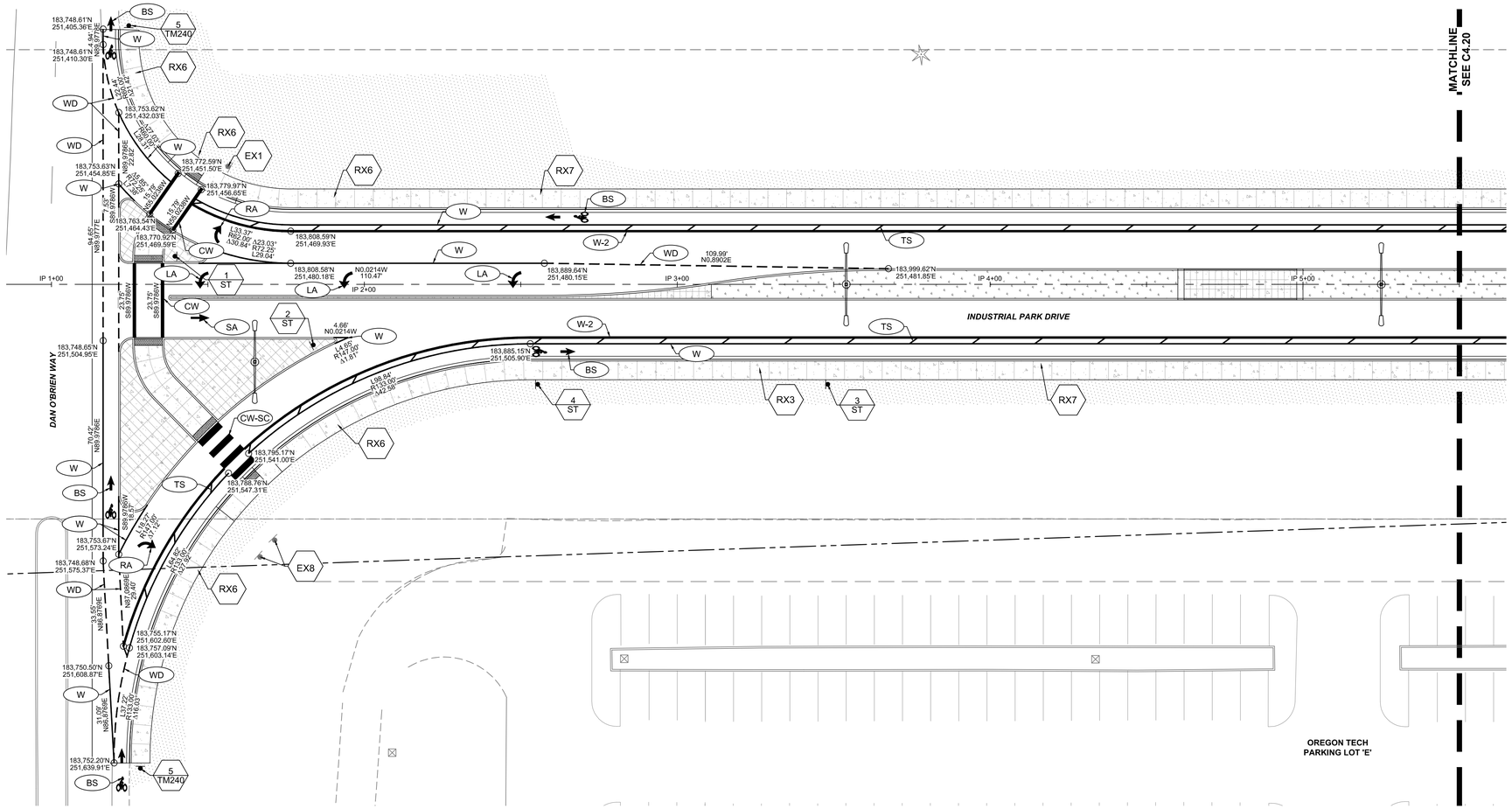
STORM DRAIN SECTIONS

C3.20

BID AND PERMIT SET



1 C4.10 **SIGNING AND STRIPING PLAN**

1" = 20'

SIGNAGE CONSTRUCTION MASTER NOTE LIST:

GENERAL SIGNAGE CONSTRUCTION NOTE:

*****ALL SIGNAGE CONSTRUCTION PER ODOT TM200, TM201, TM223, TM676, TM677, TM681, AND TM687.*****

SIGNAGE CONSTRUCTION NOTES:

RXN	REMOVE EXISTING SIGN (N)
RXN M	REMOVE EXISTING SIGN (N) AND (M) SIGN SUPPORT
N	INSTALL NEW SIGN (N)
N M	INSTALL NEW SIGN (N) ON NEW (M) SIGN SUPPORT
RSN M	REMOVE AND SAVE EXISTING SIGN (N) AND REMOVE (M) SIGN SUPPORT
RIN M	REINSTALL EXISTING SIGN (N) ON NEW (M) SIGN SUPPORT
EXN	MAINTAIN AND PROTECT EXISTING SIGN (N) SUPPORT

NOTE: EXISTING SIGN NOT SHOWN ARE TO REMAIN IN PLACE UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR AGENCY INSPECTOR

NOTE: THE LOCATIONS OF SIGN INSTALLATIONS SHOWN ARE APPROX. WITH EXACT LOACTIONS TO BE DETERMINED IN THE FIELD

N = SIGN NUMBER

M = MATERIAL

MATERIAL OPTIONS ARE: W = WOOD
ST = PERFORATED STEEL SQUARE TUBE
MP = MILEPOST MARKER POST
TBB = TRIANGULAR BASE BREAKAWAY
SCC = STAINLESS STEEL CLAMP
STSS = SQUARE TUBE SIGN SUPPORT
TM240 = CROSSWALK CLOSED SUPPORT ODOT TM240

STRIPING CONSTRUCTION NOTES:

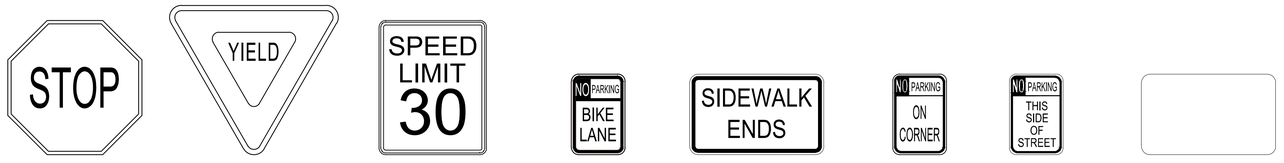
GENERAL STRIPING CONSTRUCTION NOTE:

*****ALL STRIPING DETAILS PER ODOT TM500-TM504.**

STRIPING CONSTRUCTION NOTES:

W	INSTALL 4" WHITE LINE PER ODOT TM500-W.
W-2	INSTALL 8" WHITE LINE PER ODOT TM500-W2.
WD	INSTALL 4" WHITE DOTTED LINE PER ODOT TM500-WD.
SA	INSTALL WHITE STRAIGHT ARROW PER ODOT TM501-SA.
RA	INSTALL WHITE RIGHT TURN ARROW PER ODOT TM501-RA.
LA	INSTALL WHITE LEFT TURN ARROW PER ODOT TM501-LA.
CW-SC	INSTALL STAGGERED CONTINENTAL CROSSWALK PER ODOT TM503-CWSC.
CW	INSTALL STANDARD CROSSWALK TWO 1' WHITE BARS PER ODOT503-CW.
BS	INSTALL WHITE BIKE LANE STANDARD STENCIL PER ODOT TM503-BS.
TS	TRANSVERSE SHOULDER BARS 1' WHITE BARS AT 20' SPACING PER ODOT TM500-TS

ALL NOTES MAY NOT BE ON ALL SHEETS



Sign No. 1 MUTCD: R1-1

Sign No. 2 MUTCD: R1-2

Sign No. 3 MUTCD: R2-1

Sign No. 4 MUTCD: R7-9

Sign No. 5 CUSTOM 'SIDEWALK ENDS' SIMILAR TO MUTCD: R9-9

(e) Sign No. 6

(e) Sign No. 7

Sign No. 8 (e) CUSTOM OREGON TECH WAY-FINDING SIGN

ONE INCH EQUALS FULL SCALE

ZCS ENGINEERING ARCHITECTURE
900 Klamath Avenue, Klamath Falls, Oregon 97601 | 541-884-7421

OREGON TECH
FACILITY SERVICES
3201 CAMPUS DRIVE
KLAMATH FALLS, OR 97601

OREGON TECH INDUSTRIAL PARK DRIVE IMPROVEMENTS

Oregon TECH
Oregon Institute of Technology

REGISTERED PROFESSIONAL ENGINEER
70775PE
DIGITAL SIGNATURE
OREGON
Sept. 19, 2006
SYLAS E. ALLEN
EXPIRES: 12-31-23

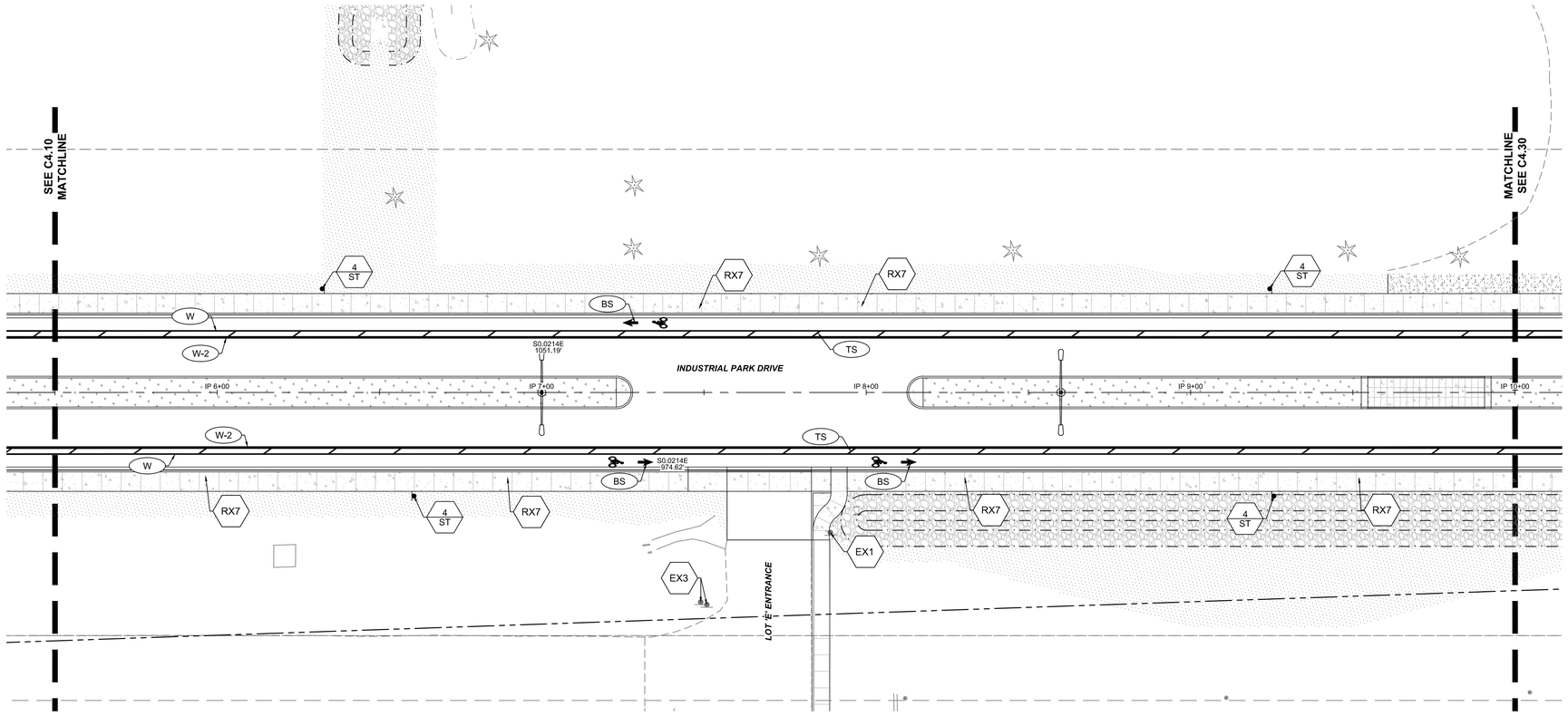
REVISION ID:	DATE:

PROJECT NO:	K-6345-23
DRAWN:	SMG
CHECKED:	BJD
DATE:	01-31-2024

SIGNING AND STRIPING PLAN

C4.10

BID AND PERMIT SET



1 C4.20 **SIGNING AND STRIPING PLAN**

1" = 20'

SIGNAGE CONSTRUCTION MASTER NOTE LIST:

GENERAL SIGNAGE CONSTRUCTION NOTE:

*****ALL SIGNAGE CONSTRUCTION PER ODOT TM200, TM201, TM223, TM676, TM677, TM681, AND TM687.*****

SIGNAGE CONSTRUCTION NOTES:

RXN	REMOVE EXISTING SIGN (N)
RXN / M	REMOVE EXISTING SIGN (N) AND (M) SIGN SUPPORT
N	INSTALL NEW SIGN (N)
N / M	INSTALL NEW SIGN (N) ON NEW (M) SIGN SUPPORT
RSN / M	REMOVE AND SAVE EXISTING SIGN (N) AND REMOVE (M) SIGN SUPPORT
RIN / M	REINSTALL EXISTING SIGN (N) ON NEW (M) SIGN SUPPORT
EXN	MAINTAIN AND PROTECT EXISTING SIGN (N) SUPPORT

NOTE: EXISTING SIGN NOT SHOWN ARE TO REMAIN IN PLACE UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR AGENCY INSPECTOR

NOTE: THE LOCATIONS OF SIGN INSTALLATIONS SHOWN ARE APPROX. WITH EXACT LOACTIONS TO BE DETERMINED IN THE FIELD

N = SIGN NUMBER

M = MATERIAL

MATERIAL OPTIONS ARE: W = WOOD
ST = PERFORATED STEEL SQUARE TUBE
MP = MILEPOST MARKER POST
TBB = TRIANGULAR BASE BREAKAWAY
SCC = STAINLESS STEEL CLAMP
STSS = SQUARE TUBE SIGN SUPPORT
TM240 = CROSSWALK CLOSED SUPPORT ODOT TM240

STRIPING CONSTRUCTION NOTES:

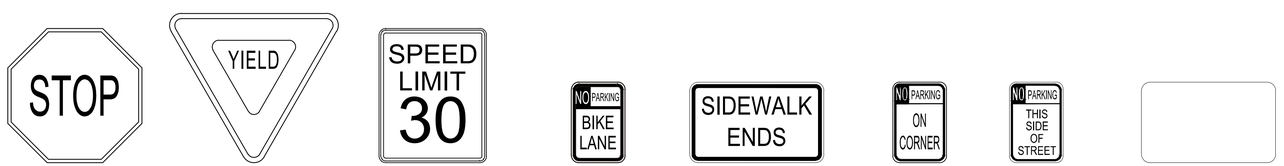
GENERAL STRIPING CONSTRUCTION NOTE:

*****ALL STRIPING DETAILS PER ODOT TM500-TM504.**

STRIPING CONSTRUCTION NOTES:

W	INSTALL 4" WHITE LINE PER ODOT TM500-W.
W-2	INSTALL 8" WHITE LINE PER ODOT TM500-W2.
WD	INSTALL 4" WHITE DOTTED LINE PER ODOT TM500-WD.
SA	INSTALL WHITE STRAIGHT ARROW PER ODOT TM501-SA.
RA	INSTALL WHITE RIGHT TURN ARROW PER ODOT TM501-RA.
LA	INSTALL WHITE LEFT TURN ARROW PER ODOT TM501-LA.
CW-SC	INSTALL STAGGERED CONTINENTAL CROSSWALK PER ODOT TM503-CWSC.
CW	INSTALL STANDARD CROSSWALK TWO 1' WHITE BARS PER ODOT503-CW.
BS	INSTALL WHITE BIKE LANE STANDARD STENCIL PER ODOT TM503-BS.
TS	TRANSVERSE SHOULDER BARS 1' WHITE BARS AT 20' SPACING PER ODOT TM500-TS

ALL NOTES MAY NOT BE ON ALL SHEETS



Sign No. 1 MUTCD: R1-1

Sign No. 2 MUTCD: R1-2

Sign No. 3 MUTCD: R2-1

Sign No. 4 MUTCD: R7-9

Sign No. 5 CUSTOM 'SIDEWALK ENDS' SIMILAR TO MUTCD: R9-9

(e) Sign No. 6

(e) Sign No. 7

Sign No. 8 (e) CUSTOM OREGON TECH WAY-FINDING SIGN

ONE INCH EQUALS FULL SCALE

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Oregon Institute of Technology

REGISTERED PROFESSIONAL ENGINEER
70775PE
DIGITAL SIGNATURE
OREGON
Sept. 19, 2006
SYLAS E. ALLEN
EXPIRES: 12-31-23

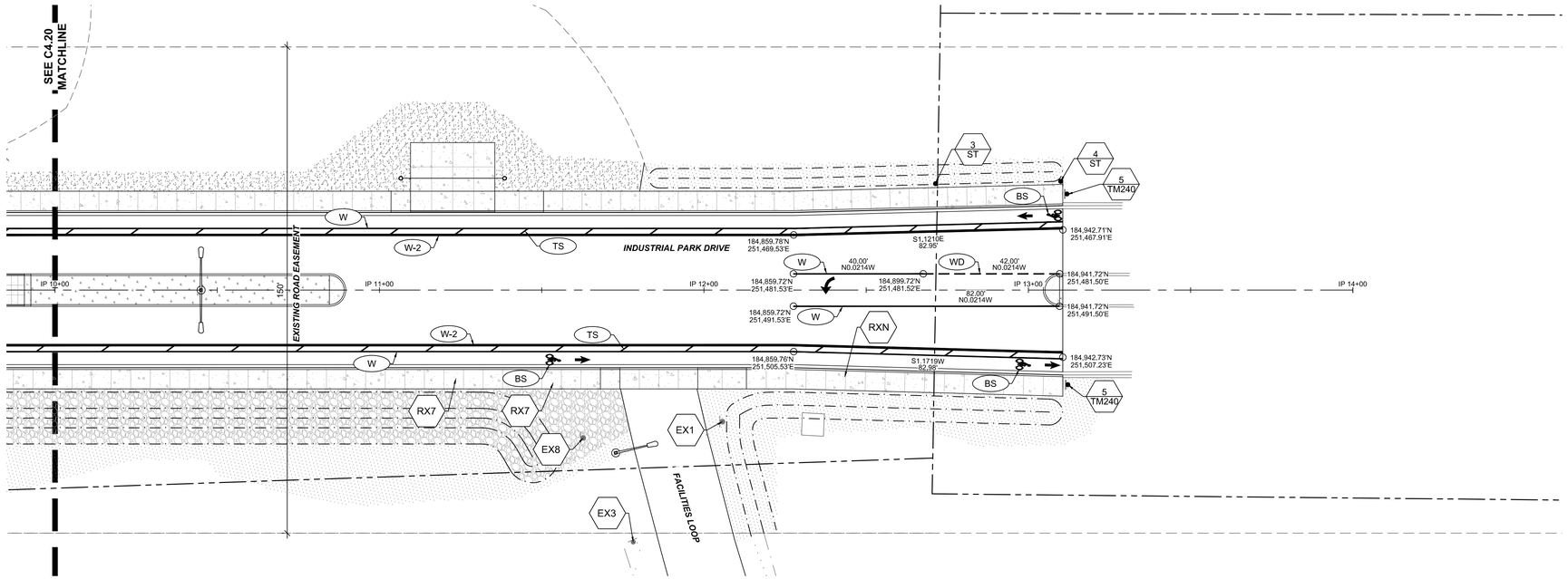
REVISION ID:	DATE:

PROJECT NO:	K-6345-23
DRAWN:	SMG
CHECKED:	BJD
DATE:	01-31-2024

SIGNING AND STRIPING PLAN

C4.20

BID AND PERMIT SET



1 C4.30 **SIGNING AND STRIPING PLAN**

1" = 20

SIGNAGE CONSTRUCTION MASTER NOTE LIST:

GENERAL SIGNAGE CONSTRUCTION NOTE:

*****ALL SIGNAGE CONSTRUCTION PER ODOT TM200, TM201, TM223, TM676, TM677, TM681, AND TM687.*****

SIGNAGE CONSTRUCTION NOTES:

RXN	REMOVE EXISTING SIGN (N)
RXN M	REMOVE EXISTING SIGN (N) AND (M) SIGN SUPPORT
N	INSTALL NEW SIGN (N)
N M	INSTALL NEW SIGN (N) ON NEW (M) SIGN SUPPORT
RSN M	REMOVE AND SAVE EXISTING SIGN (N) AND REMOVE (M) SIGN SUPPORT
RIN M	REINSTALL EXISTING SIGN (N) ON NEW (M) SIGN SUPPORT
EXN	MAINTAIN AND PROTECT EXISTING SIGN (N) SUPPORT

NOTE: EXISTING SIGN NOT SHOWN ARE TO REMAIN IN PLACE UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR AGENCY INSPECTOR

NOTE: THE LOCATIONS OF SIGN INSTALLATIONS SHOWN ARE APPROX. WITH EXACT LOACTIONS TO BE DETERMINED IN THE FIELD

N = SIGN NUMBER

M = MATERIAL

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ST = PERFORATED STEEL SQUARE TUBE
MP = MILEPOST MARKER POST
TBB = TRIANGULAR BASE BREAKAWAY
SCC = STAINLESS STEEL CLAMP
STSS = SQUARE TUBE SIGN SUPPORT
TM240 = CROSSWALK CLOSED SUPPORT ODOT TM240

STRIPING CONSTRUCTION NOTES:

GENERAL STRIPING CONSTRUCTION NOTE:

*****ALL STRIPING DETAILS PER ODOT TM500-TM504.**

STRIPING CONSTRUCTION NOTES:

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W-2	INSTALL 8" WHITE LINE PER ODOT TM500-W2.
WD	INSTALL 4" WHITE DOTTED LINE PER ODOT TM500-WD.
SA	INSTALL WHITE STRAIGHT ARROW PER ODOT TM501-SA.
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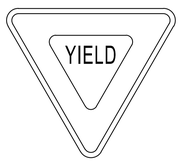
CW	INSTALL STANDARD CROSSWALK TWO 1' WHITE BARS PER ODOT503-CW.
BS	INSTALL WHITE BIKE LANE STANDARD STENCIL PER ODOT TM503-BS.
TS	TRANSVERSE SHOULDER BARS 1' WHITE BARS AT 20' SPACING PER ODOT TM500-TS

ALL NOTES MAY NOT BE ON ALL SHEETS

Sign No. 1
MUTCD: R1-1



Sign No. 2
MUTCD: R1-2

Sign No. 3
MUTCD: R2-1

Sign No. 4
MUTCD: R7-9

Sign No. 5
CUSTOM
'SIDEWALK ENDS'
SIMILAR TO
MUTCD: R9-9

(e) Sign No. 6

(e) Sign No. 7

Sign No. 8
(e) CUSTOM OREGON TECH
WAY-FINDING SIGN

ONE INCH EQUALS FULL SCALE

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70775PE
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OREGON
Sept. 19, 2006
SYLAS E. ALLEN
EXPIRES: 12-31-23

REVISION ID:	DATE:

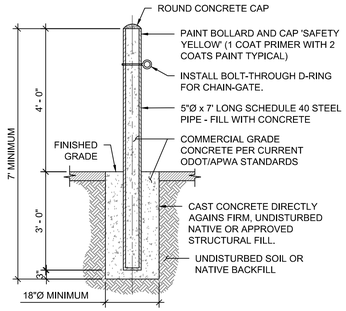
PROJECT NO:	K-6345-23
DRAWN:	SMG
CHECKED:	BJD
DATE:	01-31-2024

SIGNING AND STRIPING PLAN

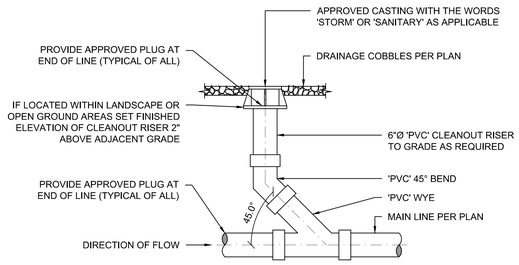
C4.30

BID AND PERMIT SET

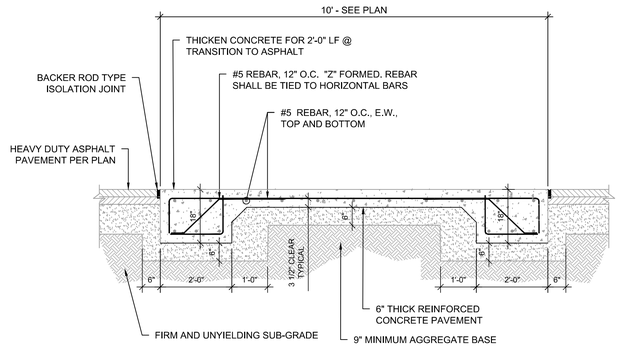
SUBMIT SHOP DRAWINGS FOR ENGINEER APPROVAL PRIOR TO CONSTRUCTION



1 C5.10 **STATIONARY BOLLARD DETAIL** NTS

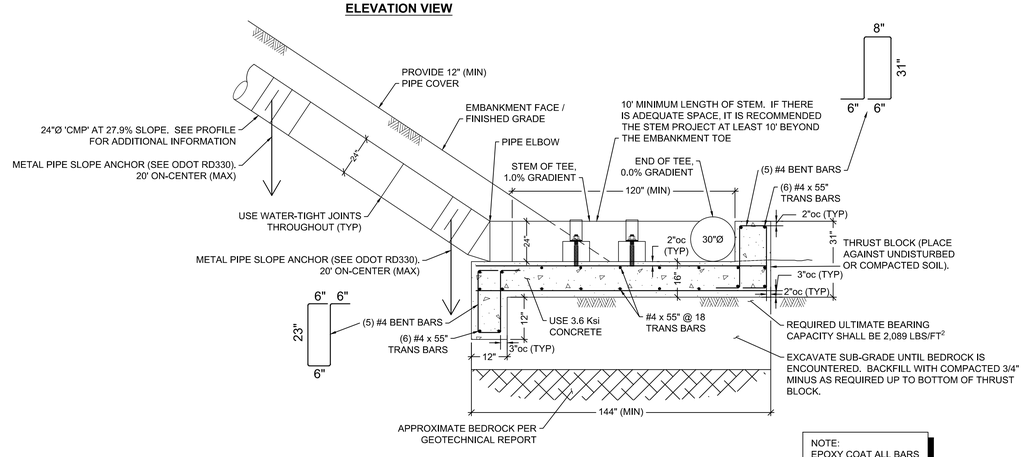


2 C5.10 **TYPICAL PRIVATE CLEANOUT TO GRADE** NTS



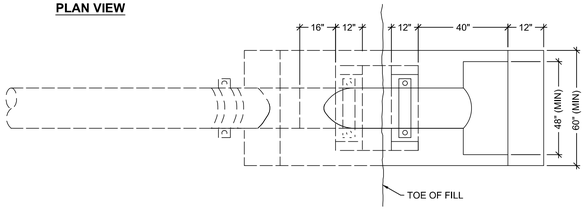
3 C5.10 **REINFORCED CONCRETE PAVEMENT SECTION** 1/2" = 1'

ELEVATION VIEW

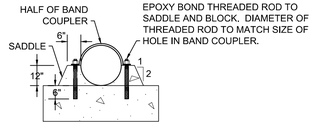


NOTE:
EPOXY COAT ALL BARS

PLAN VIEW

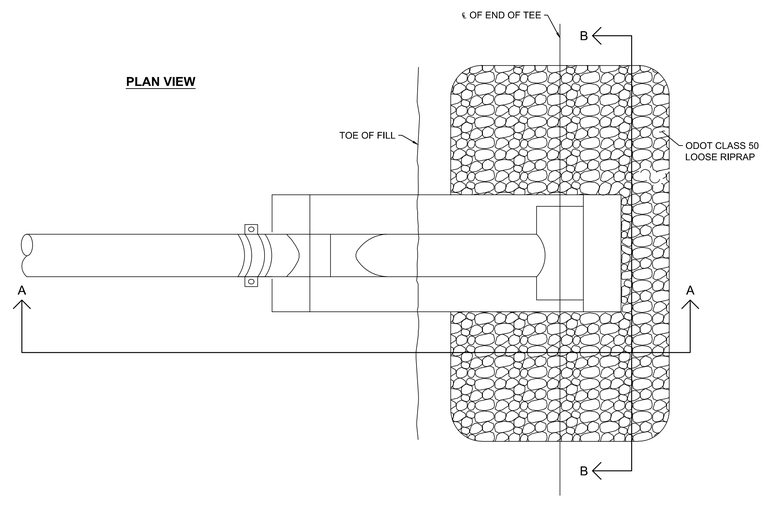


COUPLER DETAIL

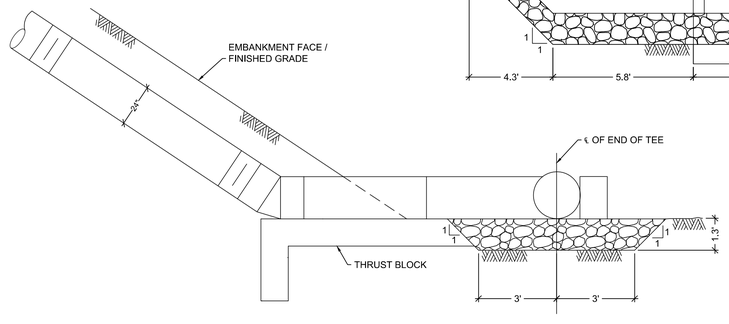


4 C5.10 **LOWER END OF TEE DISSIPATOR** NTS

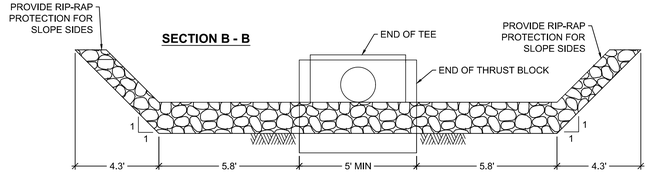
PLAN VIEW



SECTION A - A



SECTION B - B



5 C5.10 **RIPRAP AROUND OUTLET OF TEE DISSIPATOR** NTS

ONE INCH EQUALS FULL SCALE

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OREGON
SCOTT 19, 2006
SILAS E. ALLEN
EXPIRES: 12-31-23

REVISION ID:	DATE:

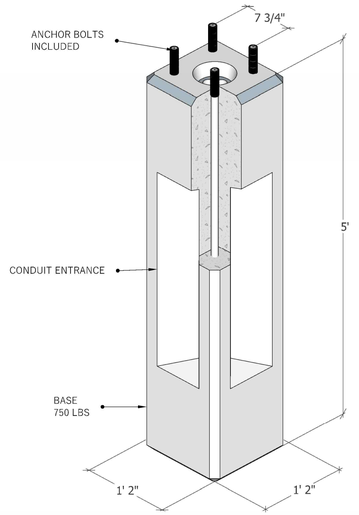
PROJECT NO:	K-6345-23
DRAWN:	SMG
CHECKED:	BJD
DATE:	01-31-2024

CIVIL DETAILS

C5.10

BID AND PERMIT SET

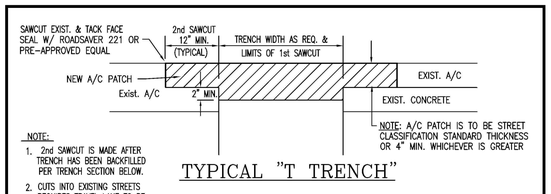
5CL-LB



Advanced PRECAST Products

1111 NE 11th St.
Redmond OR, 97756
541-923-3272

5CL-LB

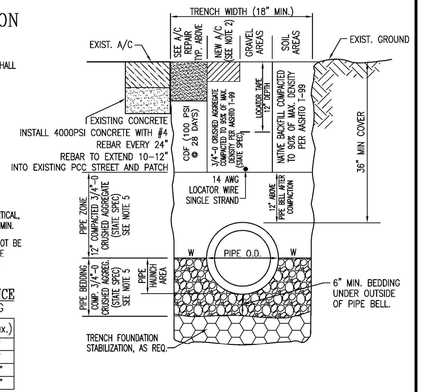


NOTE:
1. 2nd SAWCUT IS MADE AFTER TRENCH HAS BEEN BACKFILLED PER TRENCH SECTION BELOW.
2. CUTS INTO EXISTING STREETS REQUIRES TRAVEL LANE TO BE REPAVED
3. IF CUT IS WITHIN 24" OF THE CURB, ASPHALT SHALL BE REMOVED AND REPLACED TO CURB

TYPICAL "T TRENCH"

CONSTRUCTION NOTES:

1. ALL WORK & MATERIALS SHALL CONFORM TO THE MOST CURRENT EDITION OF THE CITY OF KLAMATH FALLS STANDARD DRAWINGS.
2. ASPHALT DEPTH PER THE DESIGN PLANS.
3. BEDDING & PIPE ZONE MATERIAL SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY PER AASHTO, T-99.
4. TESTING-INTERNAL, 3' VERTICAL, 50' LENGTH WITH 2 TEST MIN.
5. CRUSHER REJECT SHALL NOT BE ACCEPTED AS A SUBSTITUTE FOR 3/4"-0" STATE SPEC CRUSHED AGGREGATE.



SIDEWALL CLEARANCE EXCLUDING SHORING

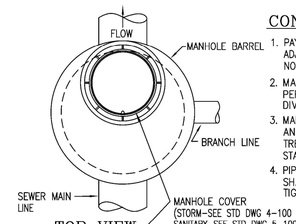
PIPE SIZE	W(Min.-Max.)
0 – 6"	6" – 12"
8" – 24"	8" – 12"
27" – 60"	12" – 18"
Over 60"	18" – 21"

CITY OF KLAMATH FALLS

MK	Date	Revision:
3	3/10	5th EDITION
2	6/06	4th EDITION
1	6/04	2nd EDITION

TRENCH SECTION — Approved By: *Don Wilcox*

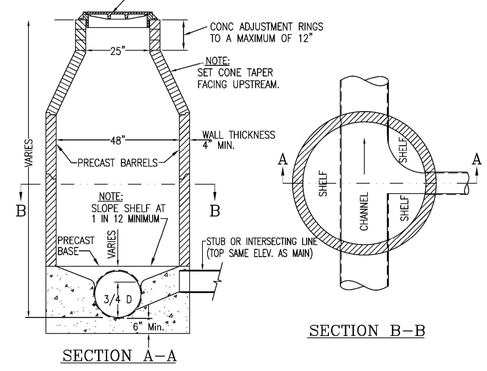
Drwn. By: GDG | Date: 1/2002 | Drwg. No.: **2-105**



TOP VIEW

CONSTRUCTION NOTES:

1. PAY ITEM FOR STANDARD MANHOLE INCLUDES ADJUSTMENT TO GRADE PER STANDARD DRAWING NO. 8-235 AFTER PAVEMENT IS PLACED.
2. MANHOLE RINGS AND BASE SHALL BE PRECAST PER THE APPLICABLE SECTION OF APWA, DIVISION 306.
3. MANHOLE COUPLINGS ARE TO BE THE SAME SIZE AND MATERIAL AS THE PIPE IN THE ADJACENT TRENCH AND INSTALLED WITH WATER STOP AND STAINLESS STEEL BANDS AT THE TIME OF FABRICATION.
4. PIPE STUBOUTS FOR FUTURE SEWER CONNECTION SHALL BE SEALED WITH THE APPROPRIATE WATER TIGHT PLUG.



SECTION A-A

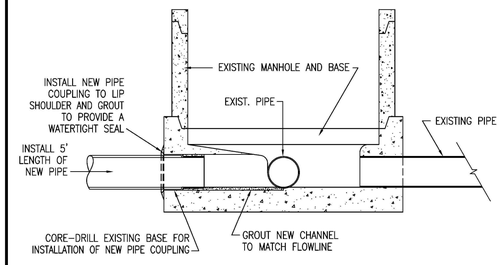
SECTION B-B

CITY OF KLAMATH FALLS

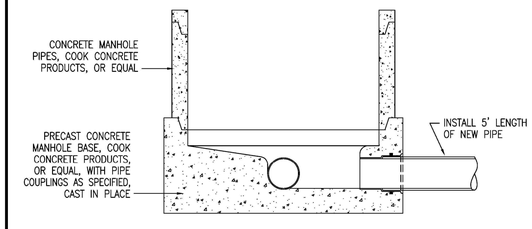
Date	Revision:
2	3/10 5th EDITION
1	6/06 4th EDITION

STANDARD MANHOLE — Approved By: *Don Wilcox*

Drwn. By: GDG | Date: 1/2002 | Drwg. No.: **2-110**



CONNECTION TO EXISTING MANHOLE BASE



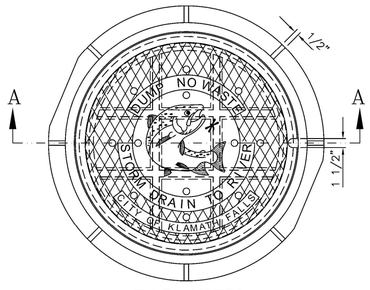
NEW MANHOLE INSTALLATION

CITY OF KLAMATH FALLS

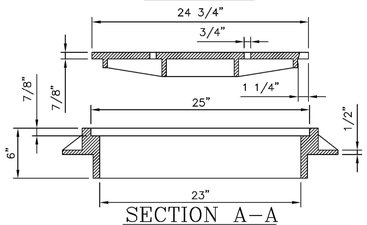
MK	Date	Revision:

STANDARD MANHOLE BASES EXISTING & NEW CONSTRUCTION — Approved By: *Mike Kuenzi*

Drwn. By: GDG | Date: 1/2002 | Drwg. No.: **2-125**



TOP VIEW



SECTION A-A

NOTES:

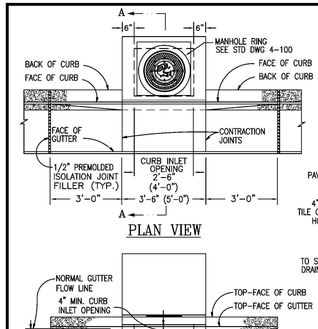
1. RING AND COVER TO BE MACHINED TO A TRUE 25" AND A TRUE BEARING ALL AROUND.
2. CASTINGS TO BE: D& L FOUNDRY AND SUPPLY MODEL A-2107, EAST JORDAN IRONWORKS CATALOG #2603B5 OR APPROVED EQUAL. MANHOLE COVER TO BE BAS-RELIEF CASTING, PAINTINGS AND COATINGS SHALL NOT BE ACCEPTABLE.
3. MINIMUM TOTAL WEIGHT OF RING AND COVER IS 275 LBS.

CITY OF KLAMATH FALLS

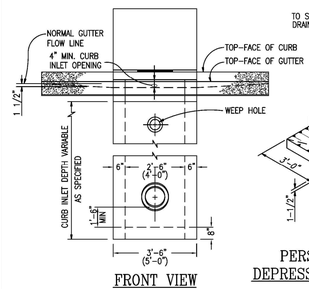
MK	Date	Revision:
2	6/06	4th EDITION
1	6/05	3rd EDITION

STORM WATER SYSTEM STANDARD MANHOLE RING & COVER — Approved By: *Mark Willrett*

Drwn. By: GDG | Date: 1/2002 | Drwg. No.: **4-100**

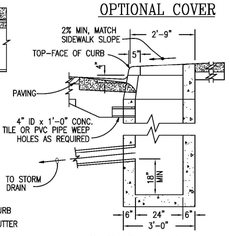


PLAN VIEW

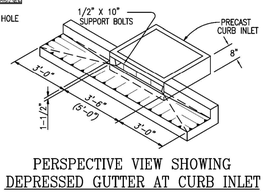


FRONT VIEW

OPTIONAL COVER



SECTION A-A



PERSPECTIVE VIEW SHOWING DEPRESSED GUTTER AT CURB INLET

CONSTRUCTION NOTES:

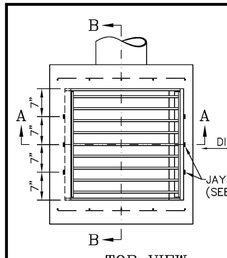
1. CURB INLET TOP AND BASE SHALL MEET H20 LOADING
2. CONCRETE STRENGTH SHALL BE 4000 PSI. (SEE STD. DWG. 8-100 FOR CONC. SPECS.)
3. ALL FABRICATED METAL PARTS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION.
4. FOR STEEP GRADES USE STD. PRECAST INLET WITH 4'-0" OR TWO 2'-6" OPENING INLETS.
5. CURB INLET BASE MAY BE PRECAST OR CAST-IN-PLACE.
6. DIMENSIONS SHOWN ABOVE IN PARENTHESES ARE FOR 4A INLETS. A 1 1/2" "A" INLET SHALL HAVE A CURB INLET OPENING WIDTH OF 1'-6" AND AN OUTSIDE WIDTH OF 2'-6". ALL OTHER DIMENSIONS AND DETAILS SHALL BE AS SHOWN.

CITY OF KLAMATH FALLS

Date	Revision:
3	3/10 5th EDITION
2	6/06 4th EDITION
1	6/05 3rd EDITION

PRECAST CURB INLET — Approved By: *Mark Willrett*

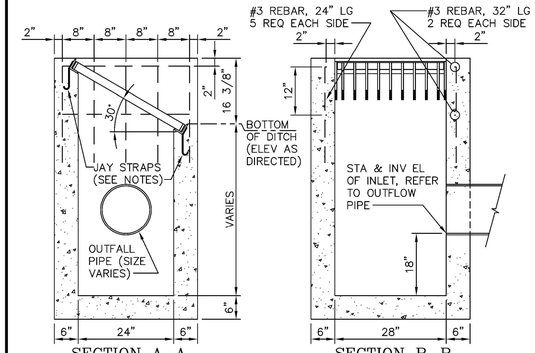
Drwn. By: GDG | Date: 1/2002 | Drwg. No.: **4-115**



TOP VIEW

CONSTRUCTION NOTES:

1. GRATE:
   OVERALL DIMENSIONS-2'-7 1/2"x2'-2 1/2"
   MATERIALS:
   TOP & BOTTOM BARS-
   1/2"x2 1/2"x2'-2 1/2" (2 REQ)
   CROSS BARS-
   1/2"x2 1/2"x2'-6 1/2" (9 REQ)
   BAR SPACING-3" O.C.
2. FRAME:
   INSIDE DIMENSIONS-2'-8"x2'-3"
   MATERIALS:
   3"x2 1/2"x3/8"x2'-4" ANGLES (2 REQ)
   1/2"x2 1/2"x2'-7 1/4" FLAT BARS (2 REQ)
   JAY STRAPS-1/4"x1"x8" (6 REQ)
3. GRATE & FRAME MAY BE OF CAST STEEL CONSTRUCTION.
4. SEE A.W.P.A. SPECIFICATIONS, SECTION 307, FOR DETAILED CONSTRUCTION MATERIALS REQUIREMENTS.



SECTION A-A

SECTION B-B

CITY OF KLAMATH FALLS

MK	Date	Revision:

STANDARD DITCH INLET — Approved By: *Mike Kuenzi*

Drwn. By: GDG | Date: 1/2002 | Drwg. No.: **4-120**

ONE INCH EQUALS FULL SCALE

ZCS ENGINEERING ARCHITECTURE
900 Klamath Avenue, Klamath Falls, Oregon 97601 | 541-884-7421

OREGON TECH
FACILITY SERVICES
3201 CAMPUS DRIVE
KLAMATH FALLS, OR 97601

OREGON TECH INDUSTRIAL PARK DRIVE IMPROVEMENTS

Oregon TECH
Oregon Institute of Technology

FOR INFORMATION ONLY

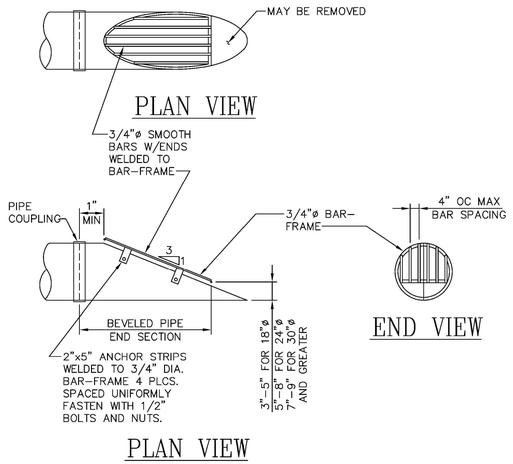
REVISION ID:	DATE:

PROJECT NO:	K-6345-23
DRAWN:	SMG
CHECKED:	BJD
DATE:	01-31-2024

AGENCY STANDARD DETAILS

C6.10

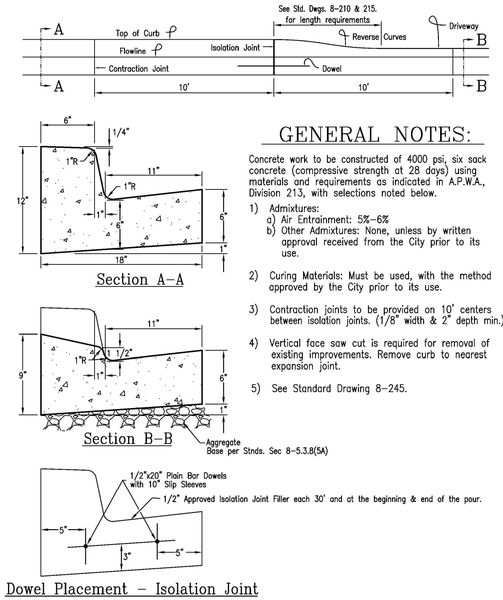
BID AND PERMIT SET



CONSTRUCTION NOTES

1. CMP END-SECTION SHOWN. FOR CONCRETE PIPE BEVELED END-SECTION.
2. ALL PARTS MUST BE ALUMINUM OR STAINLESS STEEL.

CITY OF KLAMATH FALLS			
MK Date Revision:	PIPE END SECTION TRASH RACK	Drwn. By: GDG	
		Date: 1/2002	
1 6/06 4th EDITION	Approved By: *Mike Kuenzi*	Drwg. No.: **4-130**	

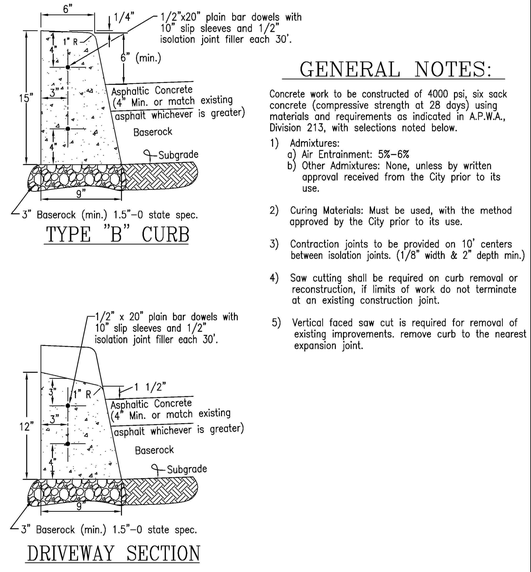


GENERAL NOTES:

Concrete work to be constructed of 4000 psi, six sack concrete (compressive strength at 28 days) using materials and requirements as indicated in A.P.W.A., Division 213, with selections noted below.

1) Admixtures:
   a) Air Entrainment: 5%-6%
   b) Other Admixtures: None, unless by written approval received from the City prior to its use.
2) Curing Materials: Must be used, with the method approved by the City prior to its use.
3) Contraction joints to be provided on 10' centers between isolation joints. (1/8" width & 2" depth min.)
4) Vertical face saw cut is required for removal of existing improvements. Remove curb to nearest expansion joint.
5) See Standard Drawing 8-245.

CITY OF KLAMATH FALLS			
Date Revision:	STANDARD TYPE A CURB	Drwn. By: GDG	
		Date: 1/2002	
3 3/10 5th EDITION			
2 6/06 4th EDITION	Approved By: *Don Wilcox*	Drwg. No.: **8-100**	
1 6/04 2nd EDITION			

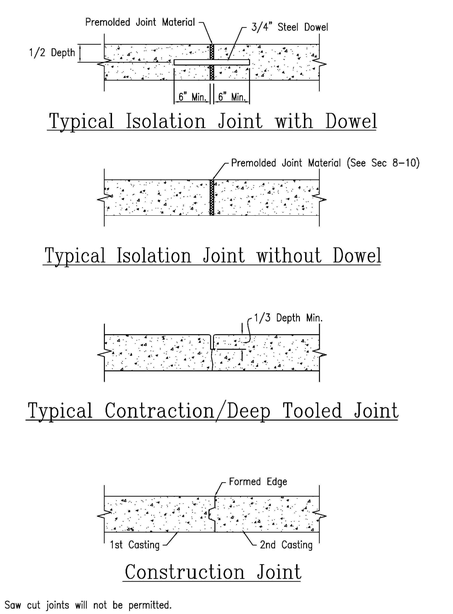


GENERAL NOTES:

Concrete work to be constructed of 4000 psi, six sack concrete (compressive strength at 28 days) using materials and requirements as indicated in A.P.W.A., Division 213, with selections noted below.

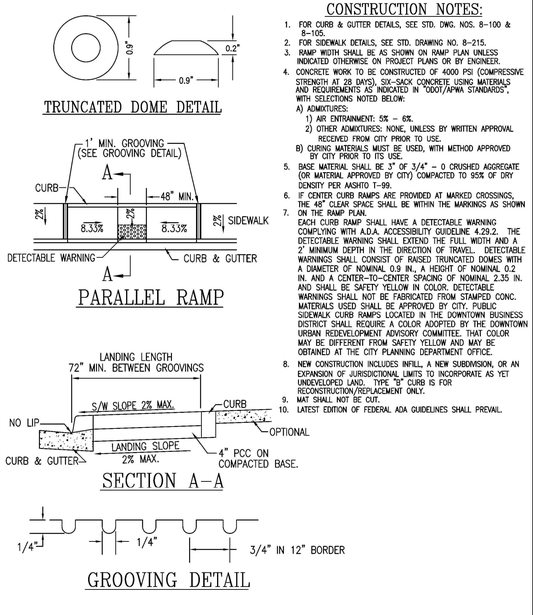
1) Admixtures:
   a) Air Entrainment: 5%-6%
   b) Other Admixtures: None, unless by written approval received from the City prior to its use.
2) Curing Materials: Must be used, with the method approved by the City prior to its use.
3) Contraction joints to be provided on 10' centers between isolation joints. (1/8" width & 2" depth min.)
4) Saw cutting shall be required on curb removal or reconstruction, if limits of work do not terminate at an existing construction joint.
5) Vertical faced saw cut is required for removal of existing improvements. remove curb to the nearest expansion joint.

CITY OF KLAMATH FALLS			
Date Revision:	STANDARD TYPE B CURB FOR RECONSTRUCTION/REPLACEMENT PURPOSES ONLY	Drwn. By: GDG	
		Date: 1/2002	
3 3/10 5th EDITION			
2 6/06 4th EDITION	Approved By: *Don Wilcox*	Drwg. No.: **8-105**	
1 6/04 2nd EDITION			



NOTE: Saw cut joints will not be permitted.

CITY OF KLAMATH FALLS			
Date Revision:	CONCRETE JOINTS	Drwn. By: GDG	
		Date: 1/2002	
1 3/10 5th EDITION	Approved By: *Don Wilcox*	Drwg. No.: **8-135**	



CONSTRUCTION NOTES:

1. FOR CURB & GUTTER DETAILS, SEE STD. DWG. NOS. 8-100 & 8-105.
2. FOR SIDEWALK DETAILS, SEE STD. DRAWING NO. 8-215.
3. RAMP WIDTH SHALL BE AS SHOWN ON RAMP PLAN UNLESS INDICATED OTHERWISE ON PROJECT PLANS OR BY ENGINEER.
4. CONCRETE WORK TO BE CONSTRUCTED OF 4000 PSI (COMPRESSIVE STRENGTH AT 28 DAYS), SIX-SACK CONCRETE USING MATERIALS AND REQUIREMENTS AS INDICATED IN "ODOT/APWA STANDARDS", WITH SELECTIONS NOTED BELOW:
   A) ADMIXTURES:
      1) AIR ENTRAINMENT: 5% – 6%.
      2) OTHER ADMIXTURES: NONE, UNLESS BY WRITTEN APPROVAL RECEIVED FROM CITY PRIOR TO USE.
   B) CURING MATERIALS MUST BE USED, WITH METHOD APPROVED BY CITY PRIOR TO ITS USE.
5. BASE MATERIAL SHALL BE 1" OF 3/4" – 0 CRUSHED AGGREGATE (OR MATERIAL APPROVED BY CITY) COMPACTED TO 95% OF DRY DENSITY PER AASHTO T-99.
6. IF CENTER CURB RAMPS ARE PROVIDED AT MARKED CROSSINGS, THE 48" CLEAR SPACE SHALL BE WITHIN THE MARKINGS AS SHOWN ON THE RAMP PLAN.
7. EACH CURB RAMP SHALL HAVE A DETECTABLE WARNING COMPLYING WITH A.D.A. ACCESSIBILITY GUIDELINE 4.29.2. THE DETECTABLE WARNING SHALL EXTEND THE FULL WIDTH AND A 2" MINIMUM DEPTH IN THE DIRECTION OF TRAVEL. DETECTABLE WARNINGS SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9 IN., A HEIGHT OF NOMINAL 0.2 IN. AND A CENTER-TO-CENTER SPACING OF NOMINAL 2.35 IN. AND SHALL BE SAFETY YELLOW IN COLOR. DETECTABLE WARNINGS SHALL NOT BE FABRICATED FROM STAMPED CONC. MATERIALS USED SHALL BE APPROVED BY CITY. PUBLIC SIDEWALK CURB RAMPS LOCATED IN THE DOWNTOWN BUSINESS DISTRICT SHALL REQUIRE A COLOR ADOPTED BY THE DOWNTOWN URBAN REDEVELOPMENT ADVISORY COMMITTEE. THAT COLOR MAY BE DIFFERENT FROM SAFETY YELLOW AND MAY BE OBTAINED AT THE CITY PLANNING DEPARTMENT OFFICE.
8. NEW CONSTRUCTION INCLUDES INFILL A NEW SUBDIVISION, OR AN EXPANSION OF JURISDICTIONAL LIMITS TO INCORPORATE AS YET UNDEVELOPED LAND. TYPE "B" CURB IS FOR RECONSTRUCTION/REPLACEMENT ONLY.
9. MAT SHALL NOT BE CUT.
10. LATEST EDITION OF FEDERAL ADA GUIDELINES SHALL PREVAIL.

CITY OF KLAMATH FALLS			
Date Revision:	PUBLIC SIDEWALK CURB RAMPS PARALLEL RAMPS W/TYPE A OR B CURB	Drwn. By: GDG	
		Date: 1/2002	
3 3/10 5th EDITION			
2 6/06 4th EDITION	Approved By: *Don Wilcox*	Drwg. No.: **8-155**	
1 6/04 2nd EDITION			

ONE INCH EQUALS FULL SCALE

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OREGON TECH INDUSTRIAL PARK DRIVE IMPROVEMENTS

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FOR INFORMATION ONLY

REVISION ID:	DATE:

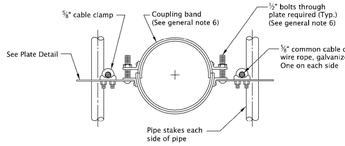
PROJECT NO:	K-6345-23
DRAWN:	SMG
CHECKED:	BJD
DATE:	01-31-2024

AGENCY STANDARD DETAILS

C6.20

BID AND PERMIT SET

RD330.dgn 20-JUL-2020



ANCHOR ASSEMBLY ALTERNATE "A"

Cables and cable clamps to be used when specified.

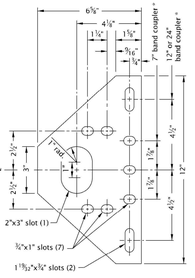


PLATE DETAIL 1A

* Length of band coupler measured parallel to the centerline of the pipe.

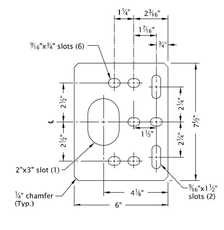
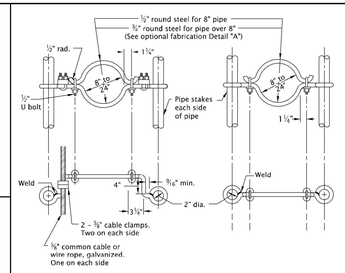


PLATE DETAIL 1B

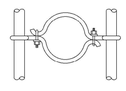
GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. All pipe stakes and hardware to be hot-dip galvanized after fabrication.
2. Either Alternate "A" or Alternate "B" anchor assembly may be used at contractor's option for annularly corrugated pipe. Alternate "A" to be used with helically corrugated pipe.
3. Either Type 1 or Type 2 pipe stakes may be used with either anchor assembly alternate at the contractor's option. Pipe stakes to extend 6" above plate.
4. Place slope anchor assemblies on 20' max. centers on slopes 20% or greater.
5. Plate material to be ASTM A36 ¼". Hot-dip galvanize after fabrication.
6. Use 2 piece coupling bands with ½" bolts through plate with Anchor Assembly Alternate "A". See Std. Dwgs. RD326 and RD327.



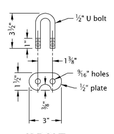
ANCHOR ASSEMBLY ALTERNATE "B"

(Cables and cable clamps to be used when specified.)

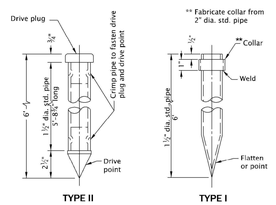


DETAIL "A"

(Optional fabrication for identical upper and lower pipe clamp parts.)

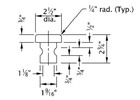


U BOLT

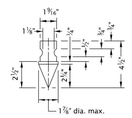


TYPE II

TYPE I



DRIVE PLUG (CAST IRON)



PIPE STAKES

(See general note 3)

DRIVE POINT (CAST IRON)

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

PIPE SLOPE ANCHORS METAL

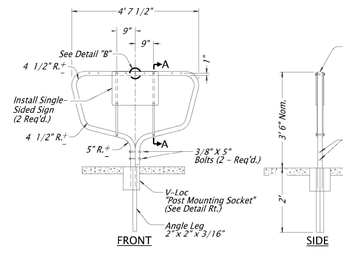
2024

DATE	REVISION DESCRIPTION

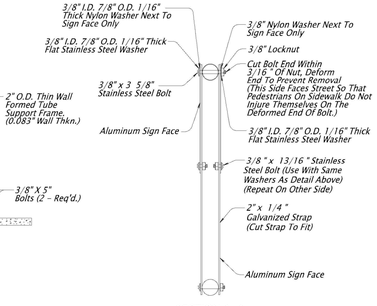
CALC. BOOK NO. N/A | SDR DATE 07-JAN-2013 | RD330

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

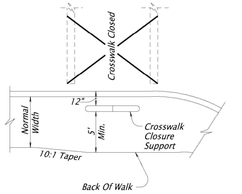
TM240.dgn 02-JUL-2018



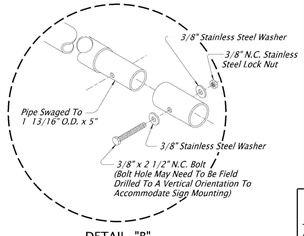
CROSSWALK CLOSURE SUPPORT DETAIL



SECTION A-A



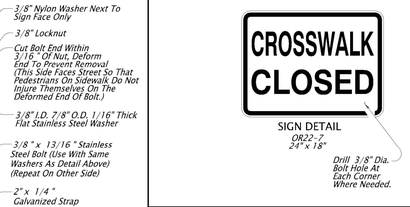
PLAN VIEW



DETAIL "B"

GENERAL NOTES:

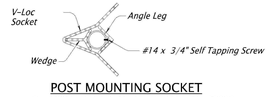
1. *All Holes In The Tube Support Frame To Be Predrilled By The Manufacturer. (1/32" Larger Than Mounting Bolt)*
2. *Pipe Swaged By The Manufacturer.*



SIGN DETAIL

OR22-7
24" x 18"

Drill 3/8" Dia. Bolt Hole At Each Corner Where Needed.



POST MOUNTING SOCKET

For Additional Details See Standard Drg. No. RD100

NOTE:

Care Shall Be Taken That No Concrete Is Placed Within Mounting Socket.

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

CROSSWALK CLOSURE DETAIL

2024

DATE	REVISION DESCRIPTION

CALC. BOOK NO. N/A | SDR DATE 02-JUL-2018 | TM240

Effective Date: December 1, 2023 - May 31, 2024

ZCS ENGINEERING ARCHITECTURE

900 Klamath Avenue, Klamath Falls, Oregon 97601 | 541-884-7421

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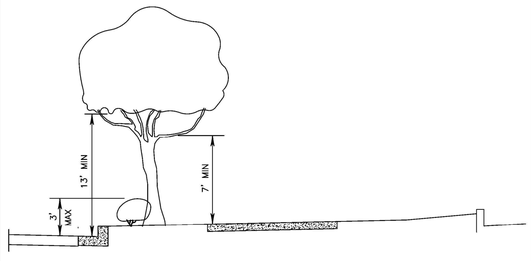
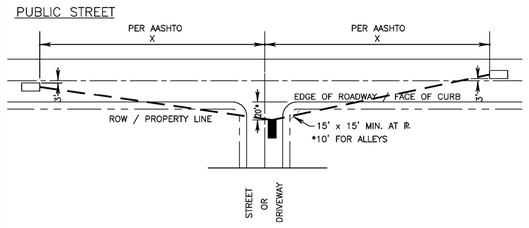
ONE INCH EQUALS FULL SCALE



REFER TO CURRENT AASHTO GUIDELINES AND CITY OF KLAMATH FALLS CDO 14.390 FOR VISUAL CLEARANCE GUIDELINES

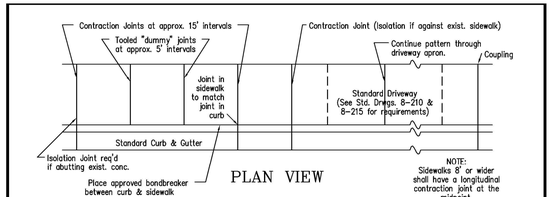


CITY OF KLAMATH FALLS

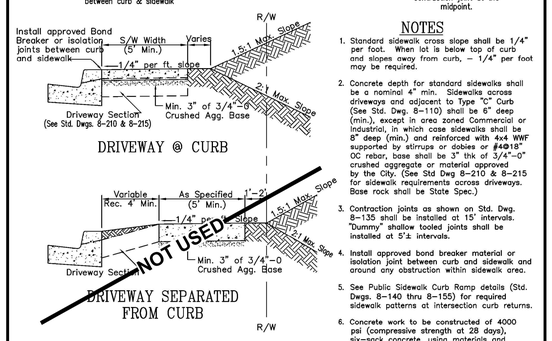
DRIVEWAY & INTERSECTIONS SIGHT TRIANGLES

Date	Revision:
1 3/10	5th EDITION

Drwn. By: GDG | Date: 1/2002 | Approved By: *Don Wilcox* | Drwg. No.: **8-205**



PLAN VIEW



7. Sidewalk width varies with street classification. Refer to Std. Dwg. 8-200 and Std Section 8-10.

CONSTRUCT ALL SIDEWALK CROSS-SLOPES AT 1.5% MAX IN ALL CASES.

NOTES

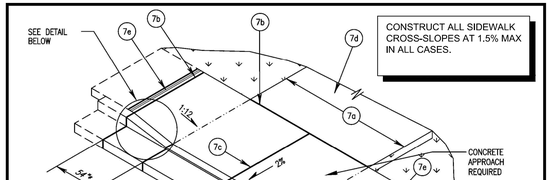
1. Standard sidewalk cross slope shall be 1/4" per foot. When lot is below top of curb and slopes away from curb, – 1/4" per foot may be required.
2. Concrete depth for standard sidewalks shall be a nominal 4" min. Sidewalks across driveways and adjacent to Type "C" Curb (See Std. Dwg. 8-110) shall be 6" deep (min.), except in areas zoned Commercial or Industrial, in which case sidewalks shall be 8" deep (min.) and reinforced with 4x4 WWF supported by stirrups or dobies or #4@18" OC rebar, base shall be 3" thk of 3/4"-0" crushed aggregate or material approved by the City. (See Std Dwg 8-210 & 8-215 for sidewalk requirements across driveways. Base rock shall be State Spec.)
3. Contraction joints as shown on Std. Dwg. 8-135 shall be installed at 15' intervals. "Dummy" shallow tooled joints shall be installed at 5'± intervals.
4. Install approved bond breaker material or isolation joint between curb and sidewalk and around any obstruction within sidewalk area.
5. See Public Sidewalk Curb Ramp details (Std. Dwgs. 8-140 thru 8-155) for required sidewalk patterns at intersection curb returns.
6. Concrete work to be constructed of 4000 psi (compressive strength at 28 days), six-sack concrete, using materials and requirements as indicated in "ODOT/APWA Standards", with selections noted below:
   A) Admixtures: Air entrainment – 5% – 6%
   Other: None, unless written approval of the City is received prior to its use.
   B) Curing materials must be used, with the method approved by the City prior to its use.
   C) Saw cutting shall be required on sidewalk removal or reconstruction, if limits of work do not terminate at an existing construction joint.

CITY OF KLAMATH FALLS

STANDARD PCC SIDEWALK

Date	Revision:
3 3/10	5th EDITION
2 6/06	4th EDITION
1 6/04	2nd EDITION

Drwn. By: GDG | Date: 1/2002 | Approved By: *Don Wilcox* | Drwg. No.: **8-209**



CURB TRANSITION DETAIL

GROOVING DETAIL

CONSTRUCT ALL SIDEWALK CROSS-SLOPES AT 1.5% MAX IN ALL CASES.

NOTES

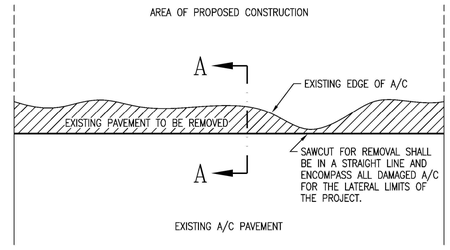
1. Standard sidewalk cross slope shall be ¼" per foot. When lot is below top of curb and slopes away from curb, –¼" per foot may be required.
2. Concrete depth for standard sidewalks shall be a nominal 4" min. Sidewalks across driveways and adjacent to Type "C" Curb (See Std. Dwg. 8-110) shall be 6" deep (min.), except in areas zoned Commercial or Industrial, in which case sidewalks shall be 8" deep (min.) and reinforced with 4x4 WWF supported by stirrups, dobies or #4 @ 18" oc rebar. Base shall be 3" of ¾"-0 crushed aggregate or material approved by City. Base shall be State Spec and compacted to 95% Min.
3. Contraction joints as shown on Std. Dwg. 8-135 shall be installed at 15' intervals. "Dummy" shallow tooled joints shall be installed at 5'± intervals.
4. Install approved bond breaker material or isolation joint between curb and sidewalk and around any obstruction within sidewalk area.
5. See Public Sidewalk Curb Ramp details (Std. Dwgs. 8-140 thru 8-155) for required sidewalk patterns at intersection curb returns.
6. Concrete work to be constructed of 4000 psi (compressive strength at 28 days), six-sack concrete, using materials and requirements as indicated in ODOT/APWA Standards, with selections noted below:
   A) Admixtures: Air entrainment – 5%–6%; Other: None, unless written approval of the City is received prior to its use.
   B) Curing materials must be used, with the method approved by the City prior to its use.
   C) Saw cutting shall be required on sidewalk removal or reconstruction, if limits of work do not terminate at an existing construction joint.
7. The following requirements apply to sidewalks across a driveway section:
   a) Equals width of the driveway at the property line. (Minimum Width = 10')
   b) Full depth isolation joint with premolded filler.
   c) Full depth isolation joint with premolded filler is required at centerline of driveway.
   d) Driveway is to be surfaced with asphaltic concrete or PCC.
   e) 1' Min. grooving (See grooving detail).

CITY OF KLAMATH FALLS

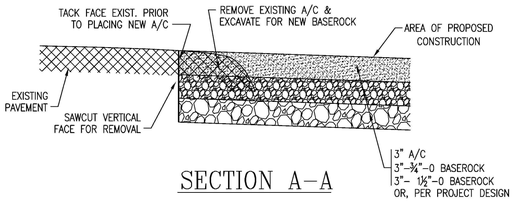
PCC DRIVEWAY ACROSS SIDEWALK TYPE 1

Date	Revision:
3 3/10	5th EDITION
2 6/06	4th EDITION
1 6/04	2nd EDITION

Drwn. By: GDG | Date: 1/2002 | Approved By: *Don Wilcox* | Drwg. No.: **8-210**



PLAN VIEW



SECTION A–A

CITY OF KLAMATH FALLS

STANDARD METHOD FOR MATCHING EXISTING A/C SURFACE

MK	Date	Revision:

Drwn. By: GDG | Date: 1/2002 | Approved By: *Mike Kuenzi* | Drwg. No.: **8-240**

FOR INFORMATION ONLY

REVISION ID:	DATE:

PROJECT NO:	K-6345-23
DRAWN:	SMG
CHECKED:	BJD
DATE:	01-31-2024

AGENCY STANDARD DETAILS

C6.30

BID AND PERMIT SET

Effective Date: December 1, 2023 - May 31, 2024

07-01-2020

TM500.dgn

W — 4" WHITE LINE

W-2 — 8" WHITE LINE

Y — 4" YELLOW LINE

CH — CHEVRON BARS
1' WHITE BARS AT 20' SPACING

TM — TRANSVERSE MEDIAN BARS
1' YELLOW BARS AT 20' SPACING

WB — 4" WHITE BROKEN LINE

YB — 4" YELLOW BROKEN LINE

WD — 4" WHITE DOTTED LINE
For lane extensions

WD-2 — 8" WHITE DOTTED LINE
For lane extensions and bike lane extensions

YD — 4" YELLOW DOTTED LINE
For lane extensions

DLL — 4" WHITE DOTTED LANE LINE
For lane lines in acceleration/deceleration lanes

DLL-2 — 8" WHITE DOTTED LANE LINE
For lane lines in drop lanes

NPR — NO-PASS RIGHT
4" YELLOW LINES

NPL — NO-PASS LEFT
4" YELLOW LINES

TWL — TWO-WAY LEFT TURN
4" YELLOW LINES

TM-40 — TRANSVERSE MEDIAN BARS
1' YELLOW BARS AT 40' SPACING
For use at painted medians where
distance between left turn refuges exceeds 200'

D — DOUBLE NO-PASS
TWO 4" YELLOW LINES

ND — NARROW DOUBLE NO-PASS
TWO 4" YELLOW LINES

NDW — NARROW DOUBLE NO-LANE CHANGE
TWO 4" WHITE LINES

TS — TRANSVERSE SHOULDER BARS
1' WHITE BARS AT 20' SPACING

HC — DISABLED PARKING DETAIL (white)

YLD — YIELD LINE (white)

BYLD — BICYCLE YIELD LINE (white)

LEGEND

Direction Of Traffic, Increasing Stationing
Or Thru Traffic Side

Lane line dimensions are shown on the striping plans

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

PAVEMENT MARKING STANDARD DETAIL BLOCKS

2024

DATE:	REVISION DESCRIPTION
07-2020	Changed Min. widths for CH, TM, TM-40, and TS

CALC BOOK NO. N/A | SDR DATE 07-08-2020 | **TM500**

Effective Date: December 1, 2023 - May 31, 2024

01-03-2022

TM501.dgn

SA — STRAIGHT ARROW (white)
For arrow proportion details, see current version of Standard Highway Signs

LA — LEFT TURN ARROW (white)
For arrow proportion details, see current version of Standard Highway Signs

RA — RIGHT TURN ARROW (white)
For arrow proportion details, see current version of Standard Highway Signs

LSA — LEFT TURN STRAIGHT ARROW (white)
For arrow proportion details, see current version of Standard Highway Signs

RSA — RIGHT TURN STRAIGHT ARROW (white)
For arrow proportion details, see current version of Standard Highway Signs

RALA — RIGHT TURN LEFT TURN ARROW (white)
For arrow proportion details, see current version of Standard Highway Signs

RSLA — RIGHT TURN STRAIGHT LEFT TURN ARROW (white)
For arrow proportion details, see current version of Standard Highway Signs

E-SA — ELONGATED STRAIGHT ARROW (white)
For arrow proportion details, see current version of Standard Highway Signs

E-LA — ELONGATED LEFT TURN ARROW (white)
For arrow proportion details, see current version of Standard Highway Signs

E-RA — ELONGATED RIGHT TURN ARROW (white)
For arrow proportion details, see current version of Standard Highway Signs

E-LSA — ELONGATED LEFT TURN STRAIGHT ARROW (white)
For arrow proportion details, see current version of Standard Highway Signs

E-RSA — ELONGATED RIGHT TURN STRAIGHT ARROW (white)
For arrow proportion details, see current version of Standard Highway Signs

E-RALA — ELONGATED RIGHT TURN LEFT TURN ARROW (white)
For arrow proportion details, see current version of Standard Highway Signs

E-RSLA — ELONGATED RIGHT TURN STRAIGHT LEFT TURN ARROW (white)
For arrow proportion details, see current version of Standard Highway Signs

F-LA — FISH-HOOK LEFT TURN ARROW (white)
For arrow proportion details, see the current ODOT Traffic Line Manual

F-RALA — FISH-HOOK RIGHT TURN LEFT TURN ARROW (white)
For arrow proportion details, see the current ODOT Traffic Line Manual

F-SA — FISH-HOOK STRAIGHT ARROW (white)
For arrow proportion details, see the current ODOT Traffic Line Manual

F-RSA — FISH-HOOK RIGHT TURN SRAIGHT ARROW (white)
For arrow proportion details, see the current ODOT Traffic Line Manual

F-LSA — FISH-HOOK LEFT TURN STRAIGHT ARROW (white)
For arrow proportion details, see the current ODOT Traffic Line Manual

F-RSLA — FISH-HOOK RIGHT TURN STRAIGHT LEFT TURN ARROW (white)
For arrow proportion details, see the current ODOT Traffic Line Manual

LRA-L — LANE REDUCTION ARROW – LEFT LANE ENDS (white)
For arrow proportion details, see current version of Standard Highway Signs

LRA-R — LANE REDUCTION ARROW – RIGHT LANE ENDS (white)
For arrow proportion details, see current version of Standard Highway Signs

WWA — WRONG-WAY ARROW (white)

General Note:
1. Center pavement markings within the lane width.
2. Arrow and letter dimensions nominal, excluding WWA.

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

PAVEMENT MARKING STANDARD DETAIL BLOCKS

2024

DATE:	REVISION DESCRIPTION
07-2020	Some Detail Blocks moved to new Std. Drawing TM504
	Fish-hook Arrows added, LRA split into LRA-L and LRA-R
01-2022	Corrected bubble callout of LRA-L and typo in LRA-R

CALC BOOK NO. N/A | SDR DATE 01-03-2022 | **TM501**

Effective Date: December 1, 2023 - May 31, 2024

07-08-2022

TM503.dgn

BR — BIKE RIGHT TURN STENCIL (white)
Center marking within lane width
For proportion details, see current version of Standard Highway Signs

BS — BIKE LANE STANDARD STENCIL (white)
Center marking within lane width
For proportion details, see current version of Standard Highway Signs

BL — BIKE LEFT TURN STENCIL (white)
Center marking within lane width
For proportion details, see current version of Standard Highway Signs

BRS — BIKE RIGHT TURN STRAIGHT STENCIL (white)
Center marking within lane width
For proportion details, see current version of Standard Highway Signs

BLS — BIKE LEFT TURN STRAIGHT STENCIL (white)
Center marking within lane width
For proportion details, see current version of Standard Highway Signs

SLM — SHARED LANE MARKING (white)
Center marking within lane width or as shown
For proportion details, see current version of Standard Highway Signs

B — BIKE STENCIL (white)
Used for Intersection Bicycle Box applications
Place marking within bicycle box, centered with motor vehicle lane width

BD — BICYCLE DETECTOR MARKING (white)
Place Bicycle Detector Pavement Marking in optimum loction where bicycle acuates the traffic signal

GRN — GREEN SUPPLEMENTAL BICYCLE LANE SOLID LINE (green)

BLE-G — GREEN SUPPLEMENTAL BICYCLE LANE DOTTED LINE EXTENSION (green)

BUS — BUS (white)
Center marking within lane width
For letter proportion details, see current version of Standard Highway Signs

ON — ONLY (white)
Center marking within lane width
For letter proportion details, see current version of Standard Highway Signs

SCH — SCHOOL (white)
Center marking within lane width
For letter proportion details, see current version of Standard Highway Signs

SCH-LG — SCHOOL – LARGE (white)
Center marking within width of two lanes
For letter proportion details, see current version of Standard Highway Signs

CRS-LG — CROSSING – LARGE (white)
Center marking within width of two lanes
For letter proportion details, see current version of Standard Highway Signs

XNG — X-ING (white)
Center marking within lane width
For letter proportion details, see current version of Standard Highway Signs

P — ON-STREET PARKING DETAIL (white)

CW — STANDARD CROSSWALK
TWO 1' WHITE BARS
Install per Standard Drawing TM530

CW-St — STAGGERED CONTINENTAL CROSSWALK
2' WHITE BARS
Install per Standard Drawing TM530

S — STOP BAR
1' WHITE BAR
Install per Standard Drawing TM530

S-2 — STOP BAR – LARGE
2' WHITE BAR
Install per Standard Drawing TM530

S-RM — RAMP METER STOP BAR
1' & 8" WHITE BARS
For multi-lane ramp meter applications

LEGEND

Direction of Travel

General Note:
1. Arrow, letter, and bike symbol dimensions nominal.

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

PAVEMENT MARKING STANDARD DETAIL BLOCKS

2024

DATE:	REVISION DESCRIPTION
07-2022	Added note for measurement of Standard Crosswalk

CALC BOOK NO. N/A | SDR DATE 07-08-2022 | **TM503**

Effective Date: December 1, 2023 - May 31, 2024

ONE INCH EQUALS FULL SCALE

30-01-2007

det4241.dgn

DET4241

3/8" Flat Washer (4) Required
3/8" Grade 2 Nut (4) Required
½" Grade 5 Nut
⅛" Flat Washer 1 3/8" O. D. Max. (6) Required
½" x 2¼" Grade 5 Bolt With Sleeve (3) Required
3/8" Grade 2 Bolt, Typical (2) Required x 3¼" (2) Required x 3"
Teflon Gasket (1) Required

Section A - A
2" x 2" x .105"
1¾" x 1¾" x .105"

Section B - B

Section C - C
2½" x 2½" x .105"
2" x 6" Bottom Subassembly
2¼" x 2¼" x .105"

SLIP BASE ANCHOR
Top Subassembly
Bottom Subassembly
Square Post
Length as Req'd
7' min.
5' Max.
Square Table Sign Support
36"
Concrete Footing
SIDE
3'-6"
12" Dia.
BACK

NOT FOR USE ON STATE HIGHWAY SYSTEM

The selection and use of this detail, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.

OREGON DEPARTMENT OF TRANSPORTATION
TECHNICAL SERVICES
DETAILS

SQUARE TUBE SIGN SUPPORT W/ TRIANGULAR BASE BREAKAWAY

DETAIL NO. DET4241

FOR INFORMATION ONLY

REVISION ID:	DATE:

PROJECT NO:	K-6345-23
DRAWN:	SMG
CHECKED:	BJD
DATE:	01-31-2024

AGENCY STANDARD DETAILS

C6.40

BID AND PERMIT SET

ZCS ENGINEERING ARCHITECTURE
900 Klamath Avenue, Klamath Falls, Oregon 97601 | 541-884-7421

OREGON TECH
FACILITY SERVICES
3201 CAMPUS DRIVE
KLAMATH FALLS, OR 97601

OREGON TECH INDUSTRIAL PARK DRIVE IMPROVEMENTS

Oregon TECH
Oregon Institute of Technology

OREGON TECH INDUSTRIAL PARK DRIVE IMPROVEMENTS
EROSION AND SEDIMENT CONTROL PLAN
KLAMATH FALLS, OR 97601

PROJECT INFORMATION

EROSION AND SEDIMENT CONTROL SHEET INDEX

PROJECT TEAM

CIVIL ENGINEER OF RECORD
SYLAS E. ALLEN, PE
CONTACT: MALIA WATERS
ZCS ENGINEERING & ARCHITECTURE
900 KLAMATH AVE
KLAMATH FALLS, OR 97601
(541) 884-7421

SURVEYOR
KEITH RHINE, PLS
RHINE-CROSS GROUP, LLC
112 N 5TH STREET SUITE 200
KLAMATH FALLS, OR 97601
(541) 851-9405

OWNER REPRESENTATIVE
OREGON TECH
CONTACT: THOM DARRAH
3201 CAMPUS DRIVE
KLAMATH FALLS, OR 97601
(541) 885-1661

PROJECT INFORMATION

SITE LOCATION:	INDUSTRIAL PARK DRIVE & DAN O'BRIEN WAY KLAMATH FALLS, OREGON 97601 KLAMATH COUNTY LATITUDE = 42.254054 LONGITUDE = -121.790532
TAX MAP:	T38S-R09E-S20
SITE ACREAGE:	LOT 200: ±28.56 ACRES LOT 4900: ±156.42 ACRES
TOTAL DISTURBED AREA:	±2.66 ACRES
ZONING:	GC - GENERAL COMMERICAL
SITE SOIL CLASSIFICATION:	NRCS DESIGNATED LORELLA LOAM (49C) 'K' FACTOR OF 0.37 'T' FACTOR OF 1 HYDROLOGIC SOIL GROUP 'D' SLOPES 1% - 15% EROSION POTENTIAL IS MODERATELY HIGH TO HIGH
NEARBY WATER BODIES:	NEAREST/DOWNSTREAM WATER BODY - UPPER KLAMATH LAKE
CLOSEST RAIN GAUGE:	KFTerrace - KORKLAMA149 4423 FT ELEVATION 42.25° N, 121.78° W HTTPS://WWW.WUNDERGROUND.COM/DASHBOARD/PWS/KORKLAMA149

POTENTIAL POLLUTANT GENERATING MATERIALS ANTICIPATED TO BE USED ON-SITE:

- SEDIMENT FROM DEMOLITION AND GRADING ACTIVITIES
- FERTILIZERS
- PESTICIDES
- PAINTS
- CAULKS
- CLEANING SOLVENTS
- FUELS
- HYDRAULIC FLUID
- ASPHALT AND CONCRETE MATERIALS AND WASTES
- GREEN WASTE

CONTRACTOR TO CONTACT OWNER AS NECESSARY TO UPDATE POLLUTANT GENERATING MATERIALS LIST WITH DEQ'S ON-LINE SYSTEM.

ATTENTION EXCAVATORS:
OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH 952-001-0090. YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER AT 503 232-1987. IF YOU HAVE ANY QUESTIONS ABOUT THE RULES, YOU MAY CONTACT THE CENTER. YOU MUST NOTIFY THE CENTER AT LEAST TWO (2) BUSINESS DAYS BEFORE COMMENCING AN EXCAVATION. CALL 503-246-6699.

ONE INCH EQUALS FULL SCALE

PROJECT SPECIFIC ESC INFORMATION

NATURE OF CONSTRUCTION ACTIVITIES AND ESTIMATED TIME TABLE

- DEMOLITION AND CLEARING (JUNE 15 2024 THROUGH JULY 2024)
- MASS GRADING, EXCAVATING AND LAND DEVELOPMENT (JULY 2024 THROUGH SEPTEMBER 2024)
- STREET AND UTILITIES (SEPTEMBER 2024 THROUGH OCTOBER 2024)
- FINAL LANDSCAPING AND SITE STABILIZATION (SEPTEMBER 15 2024)

HAZARDOUS SPILL RESPONSE PLAN:

EMERGENCY COMMUNICATIONS

- CALL 911 FOR MEDICAL EMERGENCY AND PUBLIC SAFETY ASSISTANCE FROM LOCAL FIRE, POLICE, AND MEDICAL SERVICES.
- IMMEDIATELY REPORT THE SPILL, OR THREATENED SPILL, TO OREGON EMERGENCY RESPONSE SYSTEM (OERS), 1-800-452-0311, WHEN THE SPILL OR THREAT OF A SPILL INCLUDES;
  a. ANY AMOUNT OF OIL TO WATERS OF THE STATE
  b. OIL SPILLS ON LAND IN EXCESS OF 42 GALLONS
  c. HAZARDOUS MATERIALS THAT ARE EQUAL TO THE CODE OF FEDERAL REGULATIONS, 40 CFR PART 302 (LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES), AND AMENDMENTS ADOPTED BEFORE JULY 1, 2002

ACTIONS TO TAKE

- MOVE AWAY FROM, OR UPWIND OF, THE SPILL IF YOU DETECT AN ODOR AND ARE UNSURE IF IT IS SAFE.
- AVOID CONTACT WITH LIQUIDS OR FUMES.
- KEEP NON-EMERGENCY PEOPLE OUT OF THE AREA.
- CONTROL AND CONTAIN THE SPILL.
- CLEAN-UP WHAT YOU CAN IMMEDIATELY.
- REMOVE CLEAN-UP MATERIALS TO AN APPROVED FACILITY, SUCH AS A SOLID OR HAZARDOUS WATER LANDFILL OR RECYCLING FACILITY. SAVE YOUR RECEIPTS FOR DOCUMENTATION.
- CONTINUE WITH LONG-TERM CLEAN UP MEASURES.
- FILE A COMPLETED SPILL RESPONSE REPORT FORM WITH DEQ AS REQUIRED.

EMERGENCY PROPERTY OWNER REPRESENTATIVES

- THOM DARRAH (OREGON INSTITUTE OF TECHNOLOGY, DIRECTOR OF FACILITIES MANAGEMENT & PLANNING/PROJECT MANAGER) (541) 885-1661
- MALIA WATERS (ZCS ENGINEERING & ARCHITECTURE, ESC INSPECTOR) (541) 500-8588

PERMITTEE'S SITE INSPECTOR

NAME:	MALIA WATERS
COMPANY:	ZCS ENGINEERING & ARCHITECTURE 900 KLAMATH AVE KLAMATH FALLS, OREGON 97601 (541) 884-7421
PHONE:	(541) 500-8588
EMAIL:	MALIAW@ZCSEA.COM
CERTIFICATION:	RVSS CERTIFICATION #151
EXPIRES:	05-20-2024

RATIONALE STATEMENT

A COMPREHENSIVE LIST OF AVAILABLE BEST MANAGEMENT PRACTICES (BMP) OPTIONS BASED ON DEQ'S GUIDANCE MANUAL HAS BEEN REVIEWED TO COMPLETE THIS EROSION AND SEDIMENT CONTROL PLAN. SOME OF THE ABOVE LISTED BMP'S WERE NOT CHOSEN BECAUSE THEY WERE DETERMINED TO NOT EFFECTIVELY MANAGE EROSION PREVENTION AND SEDIMENT CONTROL FOR THIS PROJECT BASED ON SPECIFIC SITE CONDITIONS, INCLUDING SOIL CONDITIONS TOPOGRAPHIC CONSTRAINTS, ACCESSIBILITY TO THE SITE, AND OTHER RELATED CONDITIONS, AS THE PROJECT PROGRESSES AND THERE IS A NEED TO REVISE THE ESC PLAN, AN ACTION PLAN WILL BE SUBMITTED.

INITIAL

BMP MATRIX FOR CONSTRUCTION PHASES

REVISED BY DEQ 12/15/20

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

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

	DEMO & CLEARING	MASS GRADING	STREET & UTILITIES	FINAL STABILIZATION
BIOSWALES				
CHECK DAMS		X	X	
COMPOST COVER				
CONCRETE TRUCK WASHOUT			X	
CONSTRUCTION ENTRANCE	X	X	X	
DE-WATERING		X	X	
DUST CONTROL				
EC BLANKETS & MATS (CHANNEL)		X	X	X
EC BLANKETS & MATS (SLOPE)		X	X	X
FLOCCULATES & COAGULANTS				
HYDROSEED / MULCH / TACKIFIER		X	X	X
INLET PROTECTION	X*	X	X	X
NATURAL BUFFER ZONE				
ORANGE FENCING				
OUTLET PROTECTION	X	X	X	
PERMANENT LANDSCAPE DESIGN			X	X
PIPE SLOPE DRAINS			X	
PLASTIC SHEETING	X	X	X	
PRESERVE EXISTING VEGETATION	X*	X	X	X
ROAD SWEEPING	X*	X	X	X
SEDIMENT BARRIERS / WATTLES	X*	X	X	
SEDIMENT DIKES / BERMS				
SEDIMENT FENCING	X*	X	X	
SEDIMENT BASINS				
SEDIMENT TRAPS				
SECONDARY CONTAINMENT				
SIDEWALK SUBGRADE BARRIER				
SURFACE ROUGHENING	X	X		
TEMPORARY WASTE STORAGE				
TERRACING				
TREATMENT SYSTEM				
VEGETATED FILTER STRIP				
WHEEL WASH				

* SIGNIFIES BMP THAT WILL BE INSTALLED PRIOR TO ANY GROUND DISTURBING ACTIVITY.

PROJECT SPECIFIC ESC INFORMATION

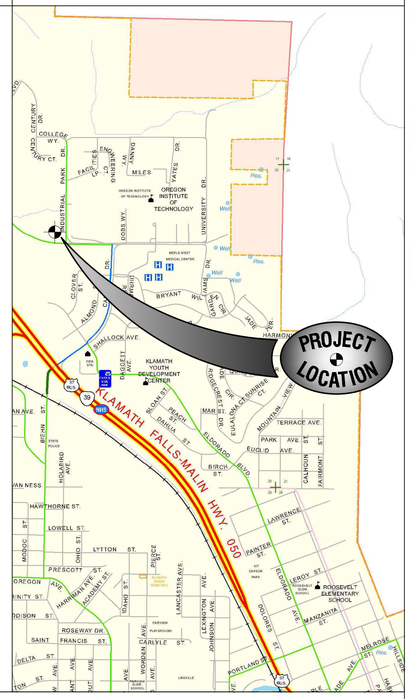
INSPECTION FREQUENCY TABLE

REVISED BY DEQ 12/15/20

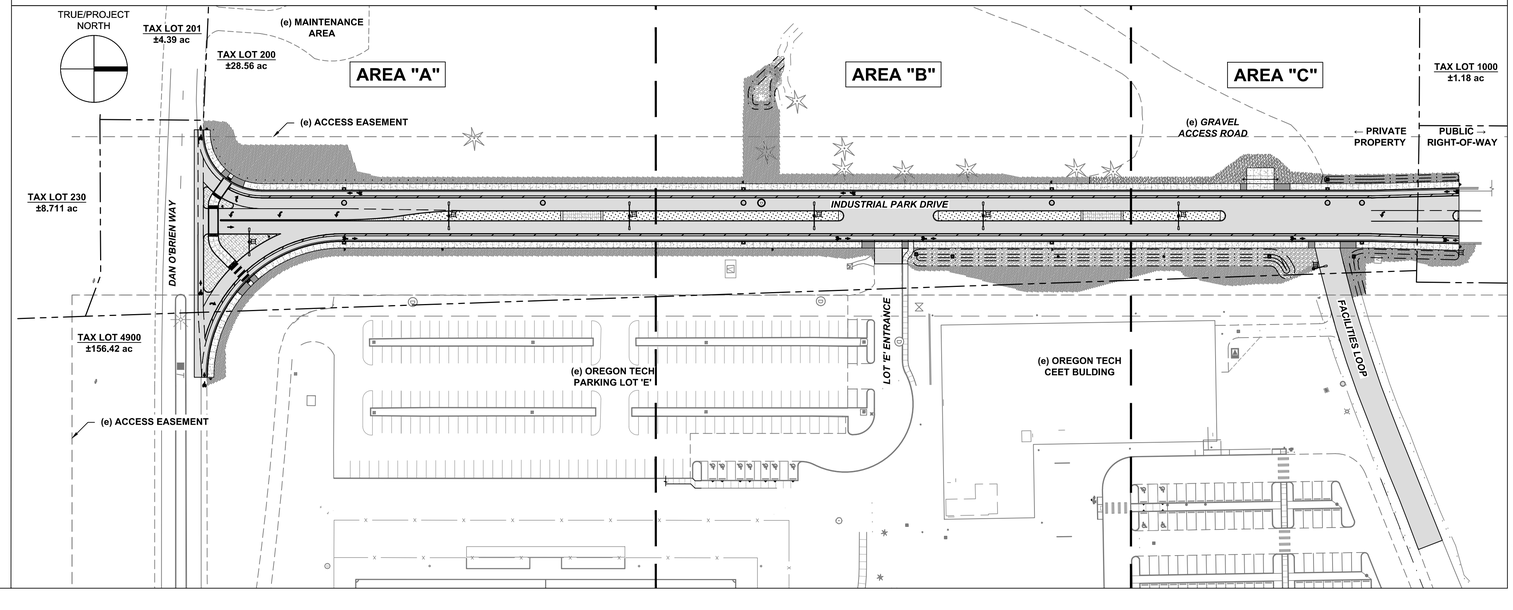
SITE CONDITION	MINIMUM FREQUENCY
ACTIVE PERIOD	ON INITIAL DATE THAT LAND DISTURBANCE ACTIVITIES COMMENCE. WITHIN 24 HOURS OF ANY STORM EVENT, INCLUDING RUNOFF FROM SNOW MELT, THAT RESULTS IN DISCHARGE FROM THE SITE. AT LEAST ONCE EVERY FOURTEEN (14) DAYS, REGARDLESS OF WHETHER STORMWATER RUNOFF IS OCCURRING.
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.
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.
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.
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.

- HOLD A PRE-CONSTRUCTION MEETING OF PROJECT CONSTRUCTION PERSONNEL THAT INCLUDES THE INSPECTOR TO DISCUSS EROSION AND SEDIMENT CONTROL MEASURES AND CONSTRUCTION LIMITS.
- ALL INSPECTIONS MUST BE MADE IN ACCORDANCE WITH DEQ 1200-C PERMIT REQUIREMENTS.
- INSPECTION LOGS MUST BE KEPT IN ACCORDANCE WITH DEQ'S 1200-C PERMIT REQUIREMENTS.
- RETAIN A COPY OF THE ESCP AND ALL REVISIONS ON SITE AND MAKE IT AVAILABLE ON REQUEST TO DEQ, AGENT, OR THE LOCAL MUNICIPALITY. DURING INACTIVE PERIODS OF GREATER THAN SEVEN (7) CONSECUTIVE CALENDAR DAYS, RETAIN THE ESCP AT THE CONSTRUCTION SITE OR AT ANOTHER LOCATION.

VICINITY MAP



SITE PLAN



ZCS ENGINEERING ARCHITECTURE
900 Klamath Avenue, Klamath Falls, Oregon 97601 | 541-884-7421

OREGON TECH
FACILITY SERVICES
3201 CAMPUS DRIVE
KLAMATH FALLS, OR 97601

OREGON TECH INDUSTRIAL PARK DRIVE IMPROVEMENTS

Oregon TECH
Oregon Institute of Technology

REGISTERED PROFESSIONAL ENGINEER
70775PE
DIGITAL SIGNATURE
OREGON
Sept. 19, 2006
SYLAS E. ALLEN
EXPIRES: 12-31-23

REVISION ID:	DATE:

PROJECT NO:	K-6345-23
DRAWN:	KS
CHECKED:	BJD
DATE:	01-31-2024

EROSION AND SEDIMENT CONTROL COVER SHEET

C8.00

BID AND PERMIT SET | 1200-C EROSION AND SEDIMENT CONTROL PLAN

DEQ 1200-C GENERAL EROSION CONTROL NOTES:

REVISED 12/15/2020

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 [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 REGISTRANT MUST IMPLEMENT THE ESP. FAILURE TO IMPLEMENT ANY OF THE CONTROL MEASURES OR PRACTICES DESCRIBED IN THE ESCP IS A VIOLATION OF THE PERMIT. [SECTIONS 4 AND 4.11]
6. THE ESCP MUST BE ACCURATE AND REFLECT SITE CONDITIONS. [SECTION 4.8]
7. SUBMISSION OF ALL ESCP REVISIONS IS NOT REQUIRED. SUBMITTAL OF THE ESCP REVISIONS IS ONLY UNDER SPECIFIC CONDITIONS. SUBMITTAL ALL NECESSARY REVISIONS 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 ZONES. [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 AND CONSTRUCTION. IDENTIFY THE TYPE OF VEGETATIVE SEED MIX USED. [SECTION 2.2.5]
12. MAINTAIN AND DELINEATE ANY EXISTING NATURAL BUFFER WITHIN 50-FEET OF WATERS OF THE STATE. [SECTION 2.2.4]
13. INSTALL PERIMETER SEDIMENT CONTROL, INCLUDING STORM DRAIN INLET PROTECTION, AS WELL AS SEDIMENT BASINS, TRAPS, AND BARRIERS PRIOR TO LAND DISTURBANCE. [SECTION 2.1.3]
14. CONTROL BOTH PEAK FLOW RATE AND TOTAL STORMWATER VOLUME, TO MINIMIZE EROSION AT OUTLETS AND DOWNSTREAM CHANNELS AND STREAM BANKS. [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 MATERIAL AND WASTE STORAGE AREAS, AND OTHER NON-STORMWATER CONTROLS. [SECTION 2.3.7]
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 BMP'S SUCH AS: CONSTRUCTION ENTRANCE, GRAVELED (OR PAVED) EXITS AND PARKING AREAS, GRAVEL ALL UNPAVED ROADS LOCATED ONSITE, OR USE AN EXIT TIRE WASH. THESE BMP'S 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 WASHOUT, 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 AREA NOT OCCURRING ARE NOT DISTURBED. [SECTION 2.2.10]
24. PREVENT SOIL COMPACTION IN AREAS WHERE POST-CONSTRUCTION INFILTRATION ARE TO BE INSTALLED. [SECTION 2.2.12]
25. USE BMP'S 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. [SECTION 2.2.17.a]
27. IF ENGINEERED SOILS ARE USED ON SITE, A SEDIMENTATION BASIN/IMPOUNDMENT MUST BE INSTALLED. [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. [SECTION 2.4]
29. IMPLEMENT THE FOLLOWING BMP'S 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]

DEQ 1200-C GENERAL EROSION CONTROL NOTES (CONT.):

31. THE APPLICATION RATE OF FERTILIZERS USED TO RE-ESTABLISH 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 PRIOR TO 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 THE 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 BMP'S 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 ABOVEGROUND 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 REOCCURRENCE 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]

EROSION AND SEDIMENT CONTROL BMP IMPLEMENTATION NOTES:

1. ALL BASE ESC MEASURES (INLET PROTECTION, PERIMETER SEDIMENT CONTROL, GRAVEL CONSTRUCTION ENTRANCES, ETC.) MUST BE IN PLACE, FUNCTIONAL, AND APPROVED IN AN INITIAL INSPECTION, PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
2. ALL "SEDIMENT BARRIERS (TO BE INSTALLED AFTER GRADING)" SHALL BE INSTALLED IMMEDIATELY FOLLOWING ESTABLISHMENT OF FINISHED GRADE AS SHOWN ON THESE PLANS.
3. 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.
4. STORM WATER FACILITIES SHALL BE CONSTRUCTED AND LANDSCAPED PRIOR TO THE STORM WATER SYSTEM FUNCTIONING AND SITE PAVING.
5. INLET PROTECTION SHALL BE IN-PLACE IMMEDIATELY FOLLOWING PAVING ACTIVITIES.
6. ALL ESC MEASURES AT NEW STORM DRAIN SYSTEM CATCH BASINS AND DOWNSTREAM OFF-SITE CULVERTS SHALL REMAIN IN PLACE UNTIL ALL PHASES OF CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED AND ASPHALT/CONCRETE/LANDSCAPING HAS BEEN INSTALLED.
7. THE ABOVE REQUIREMENTS SHALL BE CONSIDERED A MINIMUM. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL MEASURES AS REQUIRED TO FACILITATE CONSTRUCTION. ALL COSTS FOR EROSION CONTROL MEASURES SHALL BE BORN BY THE CONTRACTOR.
8. THIS PLAN HAS BEEN PREPARED TO ADDRESS THE OVERALL PRIMARY EROSION CONTROL MEASURES THAT MUST BE IMPLEMENTED FOR CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ADJUST SPECIFIC EROSION CONTROL MEASURES TO ACCOMMODATE FOR ADDITIONAL PHASED CONSTRUCTION. ANY MODIFICATIONS TO THIS PLAN SHALL BE REVIEWED AND APPROVED BY THE AGENCIES HAVING JURISDICTION AND THE PROJECT ENGINEER PRIOR TO COMMENCEMENT OF WORK.

PRE-CONSTRUCTION, CLEARING, & DEMOLITION NOTES:

1. ALL BASE ESC MEASURES (INLET PROTECTION, PERIMETER SEDIMENT CONTROL, GRAVEL CONSTRUCTION ENTRANCES, ETC.) MUST BE IN PLACE, FUNCTIONAL, AND APPROVED IN AN INITIAL INSPECTION, PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
2. SEDIMENT BARRIERS APPROVED FOR USE INCLUDE SEDIMENT FENCE, BERMS CONSTRUCTED OUT OF MULCH, CHIPPINGS, OR OTHER SUITABLE MATERIAL, STRAW WATTLES, OR OTHER APPROVED MATERIALS.
3. SENSITIVE RESOURCES INCLUDING, BUT NOT LIMITED TO, TREES, WETLANDS, AND RIPARIAN PROTECTION AREAS SHALL BE CLEARLY DELINEATED WITH ORANGE CONSTRUCTION FENCING OR CHAIN LINK FENCING IN A MANNER THAT IS CLEARLY VISIBLE TO ANYONE IN THE AREA. NO ACTIVITIES ARE PERMITTED TO OCCUR BEYOND THE CONSTRUCTION BARRIER.
4. CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES INCLUDING, BUT NOT LIMITED TO, STREET SWEEPING, AND VACUUMING, MAY BE REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
5. RUN-ON AND RUN-OFF CONTROLS SHALL BE IN PLACE AND FUNCTIONING PRIOR TO BEGINNING SUBSTANTIAL CONSTRUCTION ACTIVITIES. RUN-ON AND RUN-OFF CONTROL MEASURES INCLUDE: SLOPE DRAINS (WITH OUTLET PROTECTION), CHECK DAMS, SURFACE ROUGHENING, AND BANK STABILIZATION.

GRADING, PAVEMENT, AND UTILITY EROSION AND SEDIMENT CONSTRUCTION NOTES:

1. REFER TO LANDSCAPE SPECIFICATIONS.
2. SLOPE TO RECEIVE TEMPORARY OR PERMANENT SEEDING SHALL HAVE THE SURFACE ROUGHENED BY MEANS OF TRACK-WALKING OR THE USE OF OTHER APPROVED IMPLEMENTS. SURFACE ROUGHENING IMPROVES SEED BEDDING AND REDUCES RUN-OFF VELOCITY.
3. LONG TERM SLOPE STABILIZATION MEASURES SHALL INCLUDE THE ESTABLISHMENT OF PERMANENT VEGETATIVE COVER VIA SEEDING WITH APPROVED MIX AND APPLICATION RATE.
4. TEMPORARY SLOPE STABILIZATION MEASURES SHALL INCLUDE: COVERING EXPOSED SOIL WITH PLASTIC SHEETING, STRAW MULCHING, WOOD CHIPS, OR OTHER APPROVED MEASURES.
5. STOCKPILED SOIL OR STRIPPINGS SHALL BE PLACED IN A STABLE LOCATION AND CONFIGURATION. STOCKPILES SHALL BE COVERED WITH PLASTIC SHEETING OR STRAW MULCH. SEDIMENT FENCE IS REQUIRED AROUND THE PERIMETER OF THE STOCKPILE.
6. EXPOSED CUT OR FILL AREAS SHALL BE STABILIZED THROUGH THE USE OF TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS OR MATS, MID-SLOPE SEDIMENT FENCES OR WATTLES, OR OTHER APPROPRIATE MEASURES.
7. AREAS SUBJECT TO WIND EROSION SHALL USE APPROPRIATE DUST CONTROL MEASURES INCLUDING THE APPLICATION OF A FINE SPRAY OF WATER, PLASTIC SHEETING, STRAW MULCHING, OR OTHER APPROVED MEASURES.
8. CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES INCLUDING, BUT NOT LIMITED TO, TIRE WASHES, STREET SWEEPING, AND VACUUMING MAY BE BE REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
9. ACTIVE INLETS TO STORM WATER SYSTEMS SHALL BE PROTECTED THROUGH THE USE OF APPROVED INLET PROTECTION MEASURES. ALL INLET PROTECTION MEASURES ARE TO BE REGULARLY INSPECTED AND MAINTAINED AS NEEDED.
10. SATURATED MATERIALS THAT ARE HAULED OFF-SITE MUST BE TRANSPORTED IN WATER-TIGHT TRUCKS TO ELIMINATE SPILLAGE OF SEDIMENT AND SEDIMENT-LADEN WATER.
11. AN AREA SHALL BE PROVIDED FOR THE WASHING OUT OF CONCRETE TRUCKS IN A LOCATION THAT DOES NOT PROVIDE RUN-OFF THAT CAN ENTER THE STORM WATER SYSTEM. IF THE CONCRETE WASH-OUT AREA CAN NOT BE CONSTRUCTED GREATER THAN 50' FROM ANY DISCHARGE POINT, SECONDARY MEASURES SUCH AS BERMS OR TEMPORARY SETTLING PITS MAY BE REQUIRED. THE WASH-OUT SHALL BE LOCATED WITHIN SIX FEET OF TRUCK ACCESS AND BE CLEANED WHEN IT REACHES 50% OF THE CAPACITY.
12. SWEEPINGS FROM EXPOSED AGGREGATE CONCRETE SHALL NOT BE TRANSFERRED TO THE STORM WATER SYSTEM. SWEEPINGS SHALL BE PICKED UP AND DISPOSED IN THE TRASH.
13. AVOID PAVING IN WET WEATHER WHEN PAVING CHEMICALS CAN RUN-OFF INTO THE STORM WATER SYSTEM.
14. USE BMPS SUCH AS CHECK-DAMS, BERMS, AND INLET PROTECTION TO PREVENT RUN-OFF FROM REACHING DISCHARGE POINTS.
15. COVER CATCH BASINS, MANHOLES, AND OTHER DISCHARGE POINTS WHEN APPLYING SEAL COAT, TACK COAT, ETC. TO PREVENT INTRODUCING THESE MATERIALS TO THE STORM WATER SYSTEM.

ENGINEERED SOILS ANTICIPATED TO BE USED ON-SITE:

NO ENGINEERED SOILS ARE PLANNED TO BE USED DURING CONSTRUCTION. IF CONTRACTOR DETERMINES THE USE OF ENGINEERED SOILS IS REQUIRED, CONTACT THE ENGINEER OF RECORD. AN AMENDMENT TO THIS PLAN WILL BE REQUIRED AND DEQ WILL BE NOTIFIED.

POLLUTION PREVENTION CONTROLS:

PROVIDE AN EFFECTIVE MEANS OF ELIMINATING THE DISCHARGE OF ANY WASTE FROM ANY ACTIVITIES PERFORMED ON SITE BY IMPLEMENTING THE FOLLOWING:

a. LOCATE ACTIVITIES AWAY FROM WATERS OF THE STATE AND STORMWATER INLETS OR CONVEYANCES SO THAT STORMWATER COMING INTO CONTACT WITH THESE ACTIVITIES CANNOT REACH WATERS OF THE STATE;
b. ENSURE ADEQUATE SUPPLIES ARE AVAILABLE AT ALL TIMES TO HANDLE SPILLS, LEAKS, AND DISPOSAL OF LIQUIDS, AND PROVIDE SECONDARY CONTAINMENT (E.G. SPILL BERMS, DECKS, SPILL CONTAINMENT PALLETS);
c. HAVE A SPILL KIT AVAILABLE ON SITE AND ENSURE PERSONNEL ARE AVAILABLE TO RESPOND EXPEDITIOUSLY IN THE EVENT OF A LEAK OR SPILL;
d. CLEAN UP SPILLS OR CONTAMINATED SURFACES IMMEDIATELY USING DRY CLEAN UP MEASURES (DO NOT CLEAN CONTAMINATED SURFACES BY HOSING THE AREA DOWN), AND ELIMINATE THE SOURCE OF THE SPILL TO PREVENT A DISCHARGE OR A CONTINUATION OF AN ONGOING DISCHARGE; AND
e. STORE MATERIALS IN A COVERED AREA (E.G. PLASTIC SHEETING, TEMPORARY ROOFS), OR IN SECONDARY CONTAINMENT TO PREVENT THE EXPOSURE OF THESE CONTAINERS TO PRECIPITATION OR STORMWATER RUNOFF, OR A SIMILARLY EFFECTIVE MEANS DESIGNED TO PREVENT THE DISCHARGE OF POLLUTANTS FROM THESES AREAS.

AUTHORIZED NON-STORMWATER DISCHARGES:

THE FOLLOWING NON-STORMWATER DISCHARGES FROM CONSTRUCTION SITES ARE AUTHORIZED IF THE TERMS AND CONDITIONS OF THIS PERMIT ARE MET, ALL NECESSARY CONTROLS ARE IMPLEMENTED TO MINIMIZE SEDIMENT TRANSPORT, THE DISCHARGE IS NOT A SIGNIFICANT SOURCE OF POLLUTANTS AND NOT CONTAMINATED, AND THE DISCHARGE IS PROHIBITED BY LOCAL ORDINANCE:

- WATER AND ASSOCIATED DISCHARGES FROM EMERGENCY FIREFIGHTING ACTIVITIES
- FIRE HYDRANT FLUSHING
- PROPERLY MANAGED LANDSCAPE IRRIGATION
- WATER USED TO WASH EQUIPMENT AND VEHICLES (EXCLUDING THE ENGINE, UNDERCARRIAGE, AND WHEELS/TIRES) PROVIDED THERE IS NO DISCHARGE OF SOAPS, SOLVENTS, OR DETERGENTS USED
- WATER TO CONTROL DUST
- POTABLE WATER INCLUDING UNCONTAMINATED WATER LINE FLUSHINGS
- EXTERNAL BUILDING WASHDOWN, PROVIDED SOAPS, SOLVENTS, AND DETERGENTS ARE NOT USED, AND EXTERNAL SURFACES DO NOT CONTAIN HAZARDOUS SUBSTANCES
- PAVEMENT WASH WATERS, PROVIDED SPILLS OR LEAKS OF TOXIC OR HAZARDOUS SUBSTANCES HAVE NOT OCCURRED (UNLESS ALL SPILL MATERIAL HAS BEEN REMOVED) AND WHERE SOAPS, SOLVENTS, AND DETERGENTS ARE NOT USED
- UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE
- FOUNDATION OR FOOTING DRAINS WHERE FLOWS ARE NOT CONTAMINATED WITH PROCESS MATERIALS SUCH AS SOLVENTS OR CONTAMINATED GROUNDWATER

PROHIBITED DISCHARGES:

THE FOLLOWING DISCHARGES ARE PROHIBITED DISCHARGES AND ARE NOT AUTHORIZED BY THIS PERMIT. TO PREVENT THESE DISCHARGES, REGISTRANTS MUST COMPLY WITH THE APPLICABLE POLLUTION PREVENTION REQUIREMENTS IN SECTION 2.3:

- VISUALLY TURBID DISCHARGE OR DISCHARGE OF SEDIMENT (SEE SECTION 2.2.11) FROM THE CONSTRUCTION SITE TO SURFACE WATERS OR A CONVEYANCE SYSTEM THAT LEADS TO WATERS OF THE STATE
- CAUSING OR CONTRIBUTING TO AN EXCEEDANCE OF ANY APPLICABLE WATER QUALITY STANDARD
- CONCRETE WASTEWATER FROM WASHING TOOLS AND VEHICLES AFTER POURING, PREPPING, OR FINISHING CONCRETE
- WASTEWATER FROM WASHING AND CLEANOUT OF STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS
- FUELS, OILS, OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE
- SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING OR EXTERNAL BUILDING WASHDOWN
- WHEEL/TIRE WASH WASTEWATER, UNLESS THE DISCHARGE OF WHEEL WASH OR TIRE BATH WASTEWATER IS TO A SEPARATE TREATMENT SYSTEM THAT PREVENTS DISCHARGE TO SURFACE WATER, SUCH AS CLOSED-LOOP RECIRCULATION OR UPLAND LAND APPLICATION, OR TO THE SANITARY SEWER WITH APPROVAL FROM THE LOCAL JURISDICTION
- HYDRO-DEMOLITION WATER AND SAW-CUTTING SLURRY
- TOXICS OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE

DEWATERING REQUIREMENT CONSTRUCTION NOTES:

PER DEQ 1200C PERMIT SECTION 2.4:
THIS SECTION PERTAINS TO ACCUMULATED WATER FROM PRECIPITATION AND UNCONTAMINATED GROUNDWATER DUE TO SHALLOW EXCAVATION ACTIVITIES, NOT FOR THE LOWERING OF CONTAMINATED GROUNDWATER (SEE SECTION 1.2.9). REGISTRANT MUST COMPLY WITH THE FOLLOWING REQUIREMENTS TO PREVENT THE DISCHARGE OF POLLUTANTS IN GROUNDWATER OR ACCUMULATED STORMWATER THAT IS REMOVED FROM EXCAVATIONS, TRENCHES, FOUNDATIONS, VAULTS, OR OTHER SIMILAR POINTS OF ACCUMULATION, IN ACCORDANCE WITH SECTION 1.5.

a. TO THE EXTENT FEASIBLE, USE VEGETATED, UPLAND AREAS OF THE SITE TO INFILTRATE DEWATERING WATER BEFORE DISCHARGE. THE REGISTRANT IS PROHIBITED FROM USING WATERS OF THE STATE AS PART OF THE TREATMENT AREA;
b. IMPLEMENT THE APPROPRIATE CONTROL MEASURES FOR DEWATERING DISCHARGES TO PREVENT THE DISCHARGE OF POLLUTANTS;
c. DO NOT DISCHARGE VISIBLE FLOATING SOLIDS OR FOAM;
d. USE AN OIL-WATER SEPARATOR OR SUITABLE FILTRATION DEVICE (SUCH AS A CARTRIDGE FILTER) THAT IS DESIGNED TO REMOVE OIL, GREASE, OR OTHER PRODUCTS IF DEWATERING WATER IS FOUND TO CONTAIN THESE MATERIALS;
e. AT ALL POINTS WHERE DEWATERING WATER IS DISCHARGED, COMPLY WITH THE VELOCITY DISSIPATION REQUIREMENTS OF SECTION 2.2.16;
f. WITH BACKWASH WATER, EITHER HAUL IT AWAY FOR DISPOSAL OR RETURN IT TO THE BEGINNING OF THE TREATMENT PROCESS;
g. REPLACE AND CLEAN THE FILTER MEDIA USED IN DEWATERING DEVICES WHEN THE PRESSURE DIFFERENTIAL EQUALS OR EXCEEDS THE MANUFACTURER'S SPECIFICATIONS;
h. IF THERE IS NO ALTERNATIVE OPTION, THE USE OF A SANITARY OR COMBINED SEWER DISCHARGE IS AUTHORIZED WITH LOCAL SEWER DISTRICT APPROVAL; AND
i. ACTIVE TREATMENT SYSTEMS FOR TURBIDITY OR ANY OTHER POLLUTANTS MUST BE DESIGNED AND STAMPED BY AN OREGON REGISTERED PROFESSIONAL ENGINEER.

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OREGON TECH INDUSTRIAL PARK DRIVE IMPROVEMENTS

Oregon TECH
Oregon Institute of Technology

REGISTERED PROFESSIONAL ENGINEER
70775PE
DIGITAL SIGNATURE
OREGON
Sept. 19, 2006
SYLAS E. ALLEN
EXPIRES: 12-31-23

REVISION ID:	DATE:

PROJECT NO:	K-6345-23
DRAWN:	KS
CHECKED:	BJD
DATE:	01-31-2024

DEQ EROSION AND SEDIMENT CONTROL NOTES

C8.01

BID AND PERMIT SET | 1200-C EROSION AND SEDIMENT CONTROL PLAN

ONE INCH EQUALS FULL SCALE

STOCKPILE MANAGEMENT:

STOCKPILE MANAGEMENT PROCEDURES AND PRACTICES ARE DESIGNED TO REDUCE OR ELIMINATE AIR AND STORM WATER POLLUTION FROM STOCKPILES OF SOIL, SAND, AND PAVING MATERIALS SUCH AS PORTLAND CEMENT CONCRETE (PCC) RUBBLE, ASPHALT CONCRETE (AC), ASPHALT CONCRETE RUBBLE, AGGREGATE BASE, AGGREGATE SUB-BASE OR PRE-MIXED AGGREGATE, ASPHALT BINDER (SO CALLED "COLD MIX" ASPHALT) AND PRESSURE TREATED WOOD.

ALL STOCKPILES:
- IF FEASIBLE, LOCATE STOCKPILES A MINIMUM OF 50 FEET AWAY FROM INLETS, DRAINAGE COURSES, OR WATER BODIES.
- KEEP STOCKPILES ORGANIZED AND SURROUNDING AREAS CLEAN.
- PROTECT STORM DRAIN INLETS, DRAINAGE COURSES, AND RECEIVING WATERS FROM STOCKPILES, USING DRAIN INLET PROTECTION AND PERIMETER SEDIMENT CONTROLS AS APPROPRIATE.
- IMPLEMENT DUST CONTROL PRACTICES AS APPROPRIATE TO PREVENT WIND EROSION OF STOCKPILED MATERIAL.
- TEMPORARY STOCKPILES NOT REMOVED OR USED BY THE END OF ONE WORKDAY MUST BE MANAGED IN ACCORDANCE WITH THIS BMP AND IN ALL CASES PROTECTED PRIOR TO RAINFALL.

STOCKPILES OF SOIL, PORTLAND CEMENT, SAND, MULCH, CONCRETE RUBBLE, ASPHALT CONCRETE, ASPHALT CONCRETE RUBBLE, AGGREGATE BASE, OR AGGREGATE SUB-BASE:
- PROTECT STOCKPILES WITH A PERIMETER SEDIMENT BARRIER SUCH AS BERMS, SEDIMENT FENCES, FIBER ROLLS, SAND/GRAVEL BAGS, OR STRAW BALE BARRIERS YEAR ROUND.
- STOCKPILES SHOULD ADDITIONALLY BE COVERED OR STABILIZED AS NECESSARY DURING SIGNIFICANT FORECASTED STORM EVENTS (> 0.25 INCHES), PROLONGED PERIODS OF RAIN, AND TO PROTECT FROM WIND EROSION.
- SOIL STOCKPILES MAY BE RETURNED TO THE EXCAVATION IF RAIN IS FORECAST.
- TOPSOIL STOCKPILES SHOULD BE LOW N HEIGHT (IDEALLY <1 METER) AND FLAT AND BE USED WITHIN 6 MONTHS TO PROMOTE HEALTHY SOIL ORGANISMS AND MICROBES. STOCKPILES NOT USED WITHIN 6 MONTHS SHOULD BE RESEEDED WITH A SPECIES THAT IS MYCORRHIZAL DEPENDENT TO AVOID THE DEVELOPMENT OF ANAEROBIC CONDITIONS IN THE STOCKPILE.. IN ADDITION, TOPSOIL STOCKPILES CAN BE TURNED PERIODICALLY TO KEEP ORGANISMS ALIVE FOR LARGER STOCKPILES AND DURING EXTREMELY HOT WEATHER.

STOCKPILES OF "COLD MIX" OR OTHER POLLUTANTS EASILY TRANSPORTED IN STORM WATER (CEMENT, LIME, AND OTHER CAUSTIC AMENDMENTS):
- STOCKPILES SHALL BE PLACED ON PLASTIC OR COMPARABLE MATERIAL AT ALL TIMES.
- STOCKPILES SHALL BE COVERED WITH PLASTIC OR COMPARABLE MATERIAL PRIOR TO THE ONSET OF SIGNIFICANT RAIN (>0.10 INCHES).

BAGGED MATERIALS:
- BAGGED MATERIALS SHALL BE PLACED ON PALLETS AT ALL TIMES AND UNDER COVER (PLASTIC SHEETING, INDOORS, ETC.) PRIOR TO THE ONSET OF SIGNIFICANT RAIN (>0.10 INCHES).
- STOCKPILES/STORAGE OF PRESSURE TREATED WOOD WITH COPPER, CHROMIUM, AND ARSENIC OR AMMONIACAL COPPER, ZINC, AND ARSENATE:
- "STOCKPILES" OF TREATED WOOD SHALL BE COVERED WITH PLASTIC OR COMPARABLE MATERIAL PRIOR TO THE ONSET OF SIGNIFICANT RAIN (>0.25 INCHES).

INSPECTION AND MAINTENANCE:
- INSPECT STOCKPILES REGULARLY AND REPAIR AND/OR REPLACE COVERS, AND PERIMETER CONTROLS AS NEEDED.

DUST CONTROL NOTES:

THE GENERAL CONTRACTOR SHALL PROVIDE EXTRA MEASURES FOR DUST CONTROL. DUST CONTROL MEASURES MUST BE IMPLEMENTED TO PREVENT THE SOIL AND ATTACHED POLLUTANTS FROM LEAVING THE SITE. EXTRA MEASURES SHALL BE TAKEN WHERE EXPOSED SOIL IS LIKELY TO BE TRANSPORTED INTO OPEN BODIES OF WATER.

ACCEPTABLE DUST CONTROL MEASURES ARE AS FOLLOWS:
- WATERING
- VEGETATION
- SPRAY-ON ADHESIVES

IF VEGETATION IS THE METHOD TO BE USED:

THE GENERAL CONTRACTOR SHALL NOT CLEAR AND GRUB AREA'S NOT DIRECTLY AFFECTED BY THE CURRENT CONSTRUCTION. LEAVE ALL EXISTING VEGETATION IN PLACE AS TO PREVENT EROSION OF THE EXISTING SOIL BY WIND.

IF SPRAY-ON ADHESIVE IS THE METHOD TO BE USED:

TYPE OF EMULSION	WATER DILUTION	NOZZLE TYPE	APPLY (gal/acre)
ANIONIC ASPHALT	7:1	COARSE SPRAY	1,200
LATEX	12.5:1	FINE SPRAY	235
RESIN-IN-WATER	4:1	FINE SPRAY	300

SEEDING REQUIREMENTS:

TEMPORARY AND PERMANENT SEED MIX OF RESTORATION AND EROSION CONTROL AREAS SHALL BE HYDROSEEDED PER THE FOLLOWING:

1. REFER TO LANDSCAPE SPECIFICATIONS.

EROSION CONTROL INSPECTION AND MAINTENANCE:

1. ALL INSPECTIONS (SITE CONDITIONS AND FREQUENCIES) SHALL CONFORM TO THE 'INSPECTION FREQUENCY TABLE' ON THIS SHEET.
2. NEWLY SEEDED AREAS SHALL BE INSPECTED FREQUENTLY TO ENSURE THE GRASS IS GROWING. PROVIDE TEMPORARY IRRIGATION AS REQUIRED TO GERMINATE & ESTABLISH SEED. SEE SEEDING REQUIREMENTS FOR ADDITIONAL INFORMATION TYPICAL.
3. IF SEEDED AREAS ARE DAMAGED DUE TO RUNOFF, ADDITIONAL BMP's MAY BE NEEDED. RE-SEED DAMAGED AREAS IMMEDIATELY. SEE SEEDING REQUIREMENTS FOR ADDITIONAL INFORMATION TYPICAL.
4. REFER TO CURRENT OREGON/APWA STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

ONE INCH EQUALS FULL SCALE

CONCRETE MANAGEMENT:

CONCRETE TRUCKS AND TRANSFER CHUTES SHALL BE WASHED-OUT ON-SITE UTILIZING A CONCRETE WASHOUT TO COLLECT ALL WASH WATER AND CONCRETE WASTE. THE WASHOUT AREA WILL BE LOCATED AWAY FROM STORM DRAINS, OPEN DITCHES OR WATER BODIES. SIGNS WILL BE POSTED THROUGHOUT THE JOBSITE, DIRECTING CREWS AND CONCRETE TRUCKS TO CONCRETE WASHOUTS. UPON COMPLETION OF THE CONCRETE WORK, THE CONTRACTOR SHALL BREAK UP, REMOVE, AND HAUL AWAY OR REUSE ON SITE SOLID CONCRETE THAT HAS ACCUMULATED IN THE WASHOUT.

CONSTRUCTION SPECIFICATIONS:
MATERIAL USE:
- INSTALL STORM DRAIN PROTECTION AT ANY DOWN-GRADIENT INLETS THAT MAY BE IMPACTED BY THE ACTIVITY. SEE THE BMP ON "STORM DRAIN INLET PROTECTION."
- DO NOT PLACE CONCRETE DURING RAIN (PRECIPITATION THAT IS SUFFICIENT TO CAUSE LOCAL RUNOFF) OR WITHIN 18 HOURS OF FORECASTED RAIN.
- PLACE STOPPERS ON CONCRETE TRUCK CHUTES DURING TRAVEL ONSITE TO MANAGE POTENTIAL DRIBBLING OF CONCRETE MATERIAL.
- MINIMIZE AMOUNT OF CURING COMPOUND AND FORM OIL USED AND DO NOT OVERSPRAY ONTO A NON-TARGET SURFACE.
- SANDBLASTING: USE SHROUDS WHERE NECESSARY TO CONTAIN WASTE FROM SANDBLASTING. CONDUCT WORK IN ACCORDANCE WITH APPLICABLE AIR QUALITY STANDARDS. COLLECTED DEBRIS FOR PROPER DISPOSAL ASAP AND PRIOR TO RAIN EVENTS.
- MINIMIZE THE AMOUNT OF WATER USED DURING CORING/DRILLING OR SAW CUTTING. DURING WET CORING OR SAW CUTTING, USE A SHOVEL OR WET VACUUM TO LIFT THE COOLING WATER / SLURRY FROM THE PAVEMENT. ADDITIONALLY, IF WET VACUUMING IS NOT ADEQUATE TO CAPTURE WASTEWATER FROM THE ACTIVITY, SAND BAG BARRIERS OR OTHER CONTAINMENT SHALL BE USED.
- IF CONCRETE RESIDUE REMAINS AFTER DRYING, THE AREA SHALL BE SWEPT UP AND RESIDUE REMOVED TO AVOID CONTACT WITH STORM WATER OR ENTERING A STORM DRAIN OR WATER BODY VIA THE WIND.
- THE SWEEPINGS SHALL BE COLLECTED AND RETURNED TO THE AGGREGATE STOCKPILE OR DISPOSED IN THE TRASH AND NOT WASHED INTO THE STREET OR STORM DRAIN.
- WASHING OF FRESH CONCRETE SHALL BE AVOIDED, UNLESS RUNOFF CAN BE DRAINED TO A BERMED OR LEVEL AREA, AWAY FROM STORM DRAIN INLETS AND CHANNELS.
- ACID WASHING OF CONCRETE SHALL BE MINIMIZED. WHERE REQUIRED, ACID WASH SHALL BE DIRECTED INTO A COLLECTION AREA LINED WITH VISQUEEN. RESIDUALS SHALL BE COLLECTED AND PROPERLY DISPOSED OF AS HAZARDOUS WASTE.
- HANDLING OF WET CONCRETE, SUCH AS MOVING A PUMPER CHUTE OR TRANSPORTING MATERIAL IN A WHEELBARROW FROM THE DELIVERY TRUCK, MUST BE PERFORMED IN A CONTROLLED MANNER TO PREVENT DRIPS AND SPILLS OUTSIDE THE TARGET POUR AREA. MINIMIZE WATER USE.
- CONCRETE DRIPS, SPILLS, OVER POURS, AND EQUIPMENT RINSE WATER LANDING ON RAIN-EXPOSED OUTSIDE OF ANY BMP DEVICE MUST BE COLLECTED AND HAVE THE SURFACE CLEANED AND WASTE DISPOSED OF PROPERLY PRIOR TO THE END OF THE WORKDAY OR BEFORE THE NEXT RAIN EVENT. CONCRETE-LADEN EQUIPMENT IMPLEMENTS (E.G., CRANE BUCKETS) MUST BE STORED ON TOP OF HEAVY MIL PLASTIC UNTIL DRY. USED FORMS THAT ARE NOT IMMEDIATELY PLACED INTO A HAUL TRUCK WHEN REMOVED FROM FOUNDATIONS MUST ALSO BE TEMPORARILY STAGED OVER PLASTIC SHEETING OR AN EQUIVALENT UNTIL RINSED, WIPED, OR DRIED OR UNTIL HAULED OFFSITE.

WASTE MANAGEMENT:
- **DO NOT DISCHARGE CONCRETE RESIDUE OR PARTICULATE MATTER INTO A STORM DRAIN INLET OR WATERCOURSE**.
- EXCESS CONCRETE SHALL NOT BE DUMPED ON-SITE.
  THE FOLLOWING OPTIONS SHALL BE USED FOR CONCRETE TRUCK CHUTE AND/OR PUMP AND HOSE WASHOUT:

  CONCRETE WASHOUTS: WASHOUT STATIONS CAN BE A PLASTIC LINED TEMPORARY PIT OR BERMED AREA DESIGNED WITH SUFFICIENT VOLUME TO COMPLETELY CONTAIN ALL LIQUID AND WASTE CONCRETE MATERIALS PLUS ENOUGH CAPACITY FOR RAINWATER. THE DESIGNATED AREA SHALL BE LOCATED AWAY FROM STORM DRAIN INLETS, OR WATERCOURSES. NEW WASHOUTS SHALL BE CONSTRUCTED AS NEEDED TO PROVIDE SUFFICIENT. WASHOUT CAPACITY ON-SITE. WASTES OTHER THAN CONCRETE (I.E., TRASH, PAINT WASTES ETC.) SHALL NOT BE DISPOSED OF IN THE WASHOUT.

INSPECTION AND MAINTENANCE:
- RESPONSIBLE PERSONNEL SHALL ENSURE THAT ALL CONCRETE TRUCK DRIVERS ARE INSTRUCTED ABOUT PROJECT PRACTICES WHEN THE TRUCKS ARRIVE ON SITE.
- CLEAN OUT DESIGNATED WASHOUT AREAS AS NEEDED OR AT A MINIMUM WHEN THE WASHOUT IS 75 PERCENT FULL TO MAINTAIN SUFFICIENT CAPACITY THROUGHOUT THE PROJECT DURATION.
- ANY DESIGNATED ONSITE WASHOUT AREAS SHALL BE CLEANED OUT AND ALL DEBRIS REMOVED UPON PROJECT COMPLETION. DISPOSE OF CONCRETE WASTE ACCORDING TO THE BMP ON "SOLID WASTE MANAGEMENT."
  INSPECT ROUTINELY, WHEN APPLICABLE ACTIVITIES ARE UNDERWAY TO ENSURE THAT CONCRETE WASHOUT DOES NOT OVERFLOW AND THAT FREEBOARD IS ADEQUATE TO CONTAIN CONCRETE AND RAIN.

PAVING OPERATIONS MANAGEMENT:

IN ORDER TO REDUCE THE POTENTIAL FOR THE TRANSPORT OF POLLUTANTS IN STORM WATER RUNOFF FROM PAVING OPERATIONS, PAVING SHALL NOT TAKE PLACE WITHIN 72 HOURS OF A PREDICTED SIGNIFICANT (>0.10") STORM EVENT. IF PAVING DOES OCCUR WITHIN 72 HOURS OF A SIGNIFICANT STORM EVENT, CATCH BASIN FILTERS OR OTHER APPROPRIATE BMPS SHALL BE UTILIZED TO TRAP HYDROCARBONS.

CONSTRUCTION SPECIFICATIONS:
- PROTECT STORM DRAIN INLETS NEAR WORK AND DOWN GRADIENT OF WORK AREAS DURING SAW CUTTING, PAVING, OR GRINDING OPERATIONS.
- SAW-CUT SLURRY SHALL BE SHOVELED, VACUUMED AND REMOVED FROM SITE.
- PAVING MATERIALS AND MACHINERY SHALL BE STORED AWAY FROM STORM DRAINS AND WATER BODIES AND SECONDARY CONTAINMENT WILL BE USED TO CATCH DRIPS, LEAKS OR SPILLS WHERE APPLICABLE.
- IF ONSITE MIXING IS PLANNED THEN AN AREA SHALL BE DESIGNED FOR CONDUCTING THE MIXING. THIS AREA SHALL BE PAVED OR MADE IMPERVIOUS (E.G., PLASTIC OR WOOD SHEETING) AND BE LOCATED AWAY FROM STORM DRAIN INLETS OR WATERCOURSES.
- MINIMIZE OVERSPRAY OF TACKIFYING EMULSIONS OR PLACEMENT OF OTHER PAVING MATERIALS BEYOND THE LIMITS OF THE AREA TO BE PAVED.
- USE DRY METHODS TO CLEAN EQUIPMENT AND CONDUCT CLEANING IN ACCORDANCE WITH THE BMP ON "VEHICLE AND EQUIPMENT CLEANING."
- MATERIAL USE AND STOCKPILES SHALL BE MANAGED IN ACCORDANCE WITH BMPS ON "MATERIAL USE" AND "STOCKPILE MANAGEMENT."
- COLLECT AND REMOVE ALL BROKEN ASPHALT AND CONCRETE OR EXCESS MATERIALS, RECYCLE WHEN FEASIBLE AND DISPOSE OF MATERIALS IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS.
- DO NOT APPLY ASPHALT, CONCRETE PAVING, SEAL COAT, TACK COAT, SLURRY SEAL OR FOG SEAL IF RAIN IS EXPECTED DURING THE APPLICATION OR CURING PERIOD.
- AVOID IF POSSIBLE, TRANSFERRING, LOADING, OR UNLOADING PAVING MATERIALS NEAR STORM DRAIN INLETS OR WATERCOURSES. IF NOT POSSIBLE, USE BMP ON STORM DRAIN INLET PROTECTION.

INSPECTION AND MAINTENANCE:
- INSPECT AND MAINTAIN EQUIPMENT AND MACHINERY ROUTINELY TO MINIMIZE LEAKS AND DRIPS.
- INSPECT INLET PROTECTION MEASURES ROUTINELY.

SPILL PREVENTION AND CONTROL PROCEDURES:

CONSTRUCTION SPECIFICATIONS:
- THE CONTRACTOR SHALL PREPARE A SITE/PROJECT SPECIFIC SPILL RESPONSE PLAN THAT IDENTIFIES THE TYPE AND LOCATION OF PRODUCTS OR WASTES ON THE SITE WITH SPILL POTENTIAL, THE LOCATION OF SPILL CLEANUP MATERIALS, STORM DRAINS OR SENSITIVE AREAS THAT REQUIRE IMMEDIATE RESPONSE, PERSONNEL RESPONSIBLE FOR SPILL RESPONSE AND NOTIFICATIONS, AND SPILL CLEANUP PROCEDURES.
- AVOIDING SPILLS AND LEAKS IS PREFERABLE TO CLEANING THEM UP AFTER THEY OCCUR. HEAVY EQUIPMENT (E.G., BULLDOZERS AND OTHER GRADING EQUIPMENT) AND VEHICLES SHOULD BE INSPECTED DAILY (OR AS OFTEN AS POSSIBLE) FOR LEAKS AND SHOULD BE REPAIRED AS NECESSARY. USE SECONDARY CONTAINMENT AND DRIP PANS FOR VEHICLE FUELING, MAINTENANCE, AND STORAGE (SEE BMP FOR "VEHICLE AND EQUIPMENT FUELING, MAINTENANCE, AND STORAGE."
- DESPITE PRECAUTIONS, SPILLS MAY STILL OCCUR AT THE SITE. SPILLS (OF LIQUID OR DRY MATERIALS) SHOULD NEVER BE CLEANED UP BY HOSING OFF THE AREA. IN THE EVENT THAT SPILLS OCCUR THEY SHOULD BE CONTROLLED AS FOLLOWS:
- ANY FUEL PRODUCTS, LUBRICATING FLUIDS, GREASE OR OTHER PRODUCTS AND/OR WASTE RELEASED FROM VEHICLES, EQUIPMENT, OR OPERATIONS SHALL BE COLLECTED AND DISPOSED OF IN ACCORDANCE WITH STATE, FEDERAL AND LOCAL LAWS.
- IF THE SPILL HAS OCCURRED DURING A RAIN EVENT, THE AREA WILL BE COVERED AS QUICKLY AS POSSIBLE. THE SPILL WILL BE CLEANED UP AS SOON AS POSSIBLE DURING OR AFTER CESSATION OF RAIN.
- SPILL CLEANUP MATERIALS WILL BE STORED NEAR POTENTIAL SPILL AREAS (E.G., PAINTING, VEHICLE MAINTENANCE AREAS).
- ***MINOR SPILLS:*** MINOR SPILLS TYPICALLY INVOLVE SMALL QUANTITIES OF OIL, GASOLINE, PAINT, ETC. THAT CAN BE CONTROLLED BY THE FIRST RESPONDER AT THE DISCOVERY OF THE SPILL. CONTROL OF MINOR SPILLS INVOLVES:
  1. CONTAIN THE SPILL IMMEDIATELY.
  2. RECOVER SPILLED MATERIALS (IF POSSIBLE).
  3. CLEAN THE CONTAMINATED AREA AND DISPOSE OF CONTAMINATED MATERIALS.

MEDIUM-SIZED SPILLS:
- MEDIUM-SIZED SPILLS STILL CAN BE CONTROLLED BY THE FIRST RESPONDER, ALONG WITH THE AID OF OTHER PERSONNEL SUCH AS LABORERS, FOREMEN, ETC. THIS RESPONSE MAY REQUIRE THE CESSATION OF OTHER ACTIVITIES. SPILLS SHOULD BE CLEANED UP IMMEDIATELY, AS FOLLOWS:

  1. NOTIFY THE PROJECT FOREMAN IMMEDIATELY. THE FOREMAN/SUPERINTENDENT IS RESPONSIBLE FOR ANY NECESSARY NOTIFICATIONS (FIRE DEPARTMENT ETC.).
  2. CONTAIN THE SPREAD OF THE SPILL (USING SAND BAGS OR OTHER BARRIERS) IMMEDIATELY.
  3. IF THE SPILL HAS OCCURRED ON A PAVED OR IMPERMEABLE SURFACE, CLEAN IT UP USING DRY METHODS (ABSORBENT MATERIALS, AT LITTER, AND/OR RAGS). CONTAIN THE SPILL BY ENCIRCLING IT WITH ABSORBENT MATERIALS.
  4. IF THE SPILL HAS OCCURRED ON AN UNPAVED OR PERMEABLE SURFACE, IMMEDIATELY CONTAIN THE SPILL BY CONSTRUCTING AN EARTHEN DIKE. DIG UP AND PROPERLY DISPOSE OF CONTAMINATED SOIL.
  5. IF THE SPILL HAS OCCURRED DURING A RAIN EVENT, COVER/CONTAIN THE AREA IF POSSIBLE.

SIGNIFICANT/HAZARDOUS SPILLS:
- FOR LARGE SPILLS OR SPILLS INVOLVING HAZARDOUS MATERIALS THAT CANNOT BE CONTROLLED BY PROJECT PERSONNEL, THE FOLLOWING STEPS SHOULD BE TAKEN:

  1. THE FOREMAN SHOULD NOTIFY THE PROJECT SUPERINTENDENT IMMEDIATELY AND FOLLOW UP WITH A WRITTEN INCIDENT REPORT.
  2. THE PROJECT SUPERINTENDENT WILL NOTIFY LOCAL EMERGENCY RESPONSE PERSONNEL BY DIALING 911. IN ADDITION, THE PROJECT SUPERINTENDENT WILL NOTIFY THE APPROPRIATE COUNTY OFFICIALS. IT IS THE PROJECT SUPERINTENDENT'S RESPONSIBILITY TO HAVE ALL OF THE EMERGENCY PHONE NUMBERS AT THE CONSTRUCTION SITE.
  3. THE PROJECT SUPERINTENDENT WILL ALSO NOTIFY THE OREGON DEQ.
  4. FOR SPILLS OF FEDERAL REPORTABLE QUANTITY (AS ESTABLISHED UNDER 40 CFR PARTS 110, 117, OR 302), THE PROJECT SUPERINTENDENT WILL NOTIFY THE NATIONAL RESPONSE CENTER BY TELEPHONE AT (800) 424-8802 WITHIN 24 HOURS. WITHIN 14 DAYS, THE PROJECT SUPERINTENDENT WILL SUBMIT A WRITTEN DESCRIPTION OF THE RELEASE TO EPA REGION 10, INCLUDING THE DATE AND CIRCUMSTANCES OF THE INCIDENT AND STEPS TAKEN TO PREVENT ANOTHER RELEASE.
  5. RETAIN THE SERVICES OF A SPILL CLEANUP CONTRACTOR OR HAZMAT TEAM IMMEDIATELY. CONSTRUCTION PERSONNEL SHOULD NOT ATTEMPT TO CLEAN UP THE SPILL UNTIL THE APPROPRIATE AND QUALIFIED STAFF HAS ARRIVED AT THE SITE.
  6. OTHER AGENCIES THAT MAY NEED TO BE CONTACTED INCLUDE THE LOCAL FIRE DEPARTMENT, OREGON DEPARTMENT OF TRANSPORTATION, ETC.

INSPECTION AND MAINTENANCE:
- INSPECT WORK AND MATERIAL STORAGE AREAS ROUTINELY FOR ADEQUATE CONTAINMENT TO AVOID UNCONTROLLED RELEASES.

FINAL EROSION CONTROL SITE PREPARATION:

ALL DISTURBED SOIL AREAS, INCLUDING R.O.W., SHALL BE TREATED AND SEEDED PER THE FOLLOWING NOTES. SEED COMPOSITION SHALL CONSIST OF A NATIVE GRASS BLEND MATCHING SURROUNDING AREA. GRASS SEED MIXTURE TO BE SUBMITTED FOR REVIEW PRIOR TO APPLICATION.

1. ALL FINAL GRADE PREPARATION AND PLANTING/SEEDING SHALL BE COORDINATED WITH THE PROJECT LANDSCAPER AND ENGINEER AT TIME OF CONSTRUCTION.
2. BRING ALL PLANTERBED/SEEDBED AREAS TO FINAL GRADE, REMOVE ALL ROCKS AND DEBRIS, AND SMOOTH SURFACE UNDULATIONS LARGER THAN 2 INCHES.
3. DIVERT CONCENTRATED FLOWS AWAY FROM THE PLANTER/SEEDED AREAS.
4. FOR OPTIMUM PLANTING/SEEDING CONDITIONS PRESERVE TOPSOIL AND STOCKPILE MATERIAL UNTIL FINAL GRADES ARE ESTABLISHED. SPREAD TOP SOIL OVER NEW GRADES. SEE PROJECT LANDSCAPER FOR ADDITIONAL INFORMATION RELATED TO TOPSOIL REQUIREMENTS.
5. ROUGHEN THE SOIL BY HARROWING,TRACKING, GROOVING OR FURROWING.
6. THE SEEDBED SHOULD BE FIRM BUT NOT COMPACT. THE TOP 4.0-6.0 INCHES OF SOIL SHOULD BE LOOSE, MOIST AND FREE OF LARGE CLODS AND STONES. VERIFY TOPSOIL REQUIREMENTS WITH LANDSCAPER AT TIME OF CONSTRUCTION.
7. HARROWING, TRACKING OR FURROWING SHOULD BE DONE HORIZONTALLY ACROSS THE FACE OF THE SLOPE, SO RIDGES ARE ALONG THE SLOPE CONTOUR.
8. APPLY SEED AT THE RATES SPECIFIED BY SEED SUPPLIER USING CALIBRATED SEED SPREADERS, CYCLONE SEEDERS, MECHANICAL DRILLS, OR HYDROSEEDER SO THAT SEED IS APPLIED UNIFORMLY ON THE SITE. SEE SEEDING REQUIREMENTS FOR ADDITIONAL INFORMATION TYPICAL.
9. BROADCAST SEED SHOULD BE INCORPORATED INTO THE SOIL BY RAKING OR CHAIN DRAGGING AND THEN LIGHTLY COMPACTED TO PROVIDE GOOD SEED-SOIL CONTACT. SEE SEEDING REQUIREMENTS FOR ADDITIONAL INFORMATION TYPICAL.
10. TO PREVENT SEED FROM BEING WASHED AWAY, CONFIRM INSTALLATION OF ALL REQUIRED SURFACE WATER CONTROL MEASURES.
11. DOUBLE THE RATE OF SEED APPLICATION WHEN SEED IS APPLIED IN A SINGLE APPLICATION. SEE SEEDING REQUIREMENTS FOR ADDITIONAL INFORMATION TYPICAL.

DEWATERING AND PONDED WATER MANAGEMENT:

DEWATERING AND PONDED WATER MANAGEMENT APPLIES TO AREAS WHERE STORM WATER HAS COLLECTED IN LOW SPOTS, TRENCHES OR OTHER DEPRESSIONS AND NEEDS TO BE REMOVED TO PROCEED WITH CONSTRUCTION ACTIVITIES OR FOR VECTOR CONTROL. ALL DEWATERING DISCHARGE ACTIVITIES MUST BE CONDUCTED IN ACCORDANCE WITH LOCAL AGENCY (I.E., LOCAL SEWERAGE AGENCY OR OTHER APPLICABLE AGENCY) PERMIT REQUIREMENTS.

CONSTRUCTION SPECIFICATIONS:
- PONDED STORM WATER SHALL BE SETTLED OR FILTERED FOR SEDIMENT REMOVAL PRIOR TO DISCHARGE.
- WATER FROM TRENCH OR EXCAVATION DEWATERING SHALL BE TESTED IF REQUIRED BY APPLICABLE PERMITS AND DISCHARGED IN ACCORDANCE WITH PERMIT PROVISIONS.
- FOR CLEAN PONDED STORM WATER, DEWATERING DISCHARGES (WITHOUT PERMIT REQUIREMENTS), AND AUTHORIZEDNON-STORM WATER DISCHARGES, USE ONE OF THE FOLLOWING METHODS FOR DISCHARGE / DISPOSAL AS ALLOWABLE BY LOCAL REQUIREMENTS / AGENCIES AND APPROVED BY THE PROJECT SUPERINTENDENT. WATER SHALL BE CLEAN AND FREE OF SIGNIFICANT SEDIMENT, SURFACTANTS, OR OTHER POLLUTANTS.
- REDUCE SEDIMENT DISCHARGE BY PUMPING WATER FROM THE TOP OF PONDED AREAS USING A FLOATING OR RAISED HOSE.
- USE WATER WHERE POSSIBLE FOR CONSTRUCTION ACTIVITIES SUCH AS COMPACTION AND DUST CONTROL AND LANDSCAPE IRRIGATION. IF USED FOR THESE APPLICATIONS, ENSURE THAT THE WATER WILL INFILTRATE AND NOT RUN-OFF FROM THE LAND TO STORM DRAIN SYSTEMS, TO CREEK BEDS (EVEN IF DRY) OR TO RECEIVING WATERS.
- INFILTRATE TO AN APPROPRIATE LANDSCAPED, VEGETATED OR SOIL AREA. NOTE: INFILTRATION MAY BE PROHIBITED IN ACCORDANCE WITH LOCAL REQUIREMENTS.
- DISCHARGE TO AN ON-SITE TEMPORARY SEDIMENT POND.
- DISCHARGE TO THE STORM DRAIN SYSTEM. WATER FROM DEWATERING MUST NOT CONTAIN SIGNIFICANT SEDIMENTS OR OTHER POLLUTANTS AND DISCHARGE MUST BE IN ACCORDANCE WITH LOCAL PERMITS.
- IF A PERMIT IS REQUIRED, PROVIDE TEMPORARY ONSITE STORAGE (BAKER TANKS, ETC.) OF WATER REMOVED FROM TRENCHES, EXCAVATIONS, ETC., UNTIL A PERMIT TO DISCHARGE IS OBTAINED.
- IF A PERMIT IS OBTAINED FOR DISCHARGE TO A STORM DRAIN OR SANITARY SEWER SYSTEM, CONDUCT ALL DEWATERING DISCHARGE ACTIVITIES IN ACCORDANCE WITH PERMIT REQUIREMENTS.

INSPECTION AND MAINTENANCE:
- INSPECT PUMPS, HOSES AND ALL EQUIPMENT BEFORE USE. MONITOR DEWATERING OPERATIONS TO ENSURE IT DOES NOT CAUSE OFFSITE DISCHARGE OR EROSION.
- INSPECT ROUTINELY, WHEN APPLICABLE ACTIVITIES ARE UNDER WAY.

VEHICLE AND EQUIPMENT FUELING, MAINTENANCE, AND STORAGE MANAGEMENT:

VEHICLES AND HEAVY MACHINERY ARE A POTENTIAL SOURCE OF POLLUTANTS SUCH AS PETROLEUM PRODUCTS, ANTIFREEZE, AND EXHAUST AND WASTE OIL CONTAINING HEAVY METALS. POLLUTANTS MAY ENTER STORM WATER RUNOFF BY MEANS OF DIRECT CONTACT WITH MACHINE PORTS AND BY CONTACT WITH SPILLS ON SURFACES AND THE GROUND. THE FOLLOWING CONTROL MEASURES CAN HELP PREVENT CONTACT OF THESE POTENTIAL POLLUTANTS WITH STORM WATER AND GROUND SURFACES.

CONSTRUCTION SPECIFICATIONS:
FUELING - ON SITE VEHICLE AND EQUIPMENT FUELING SHOULD ONLY BE USED WHERE IT IS IMPRACTICAL TO SEND VEHICLES AND EQUIPMENT OFFSITE FOR FUELING. WHEN FUELING MUST OCCUR ON SITE, THE CONTRACTOR SHALL SELECT AND DESIGNATE AN AREA TO BE USED, SUBJECT TO APPROVAL. VEHICLE AND EQUIPMENT FUELING (INCLUDING FUELING OF HANDHELD EQUIPMENT) SHALL BE CONDUCTED IN ACCORDANCE WITH THE FOLLOWING:
- AWAY FROM STORM DRAIN INLETS, DRAINAGE FACILITIES, OR WATERCOURSES.
- ON A PAVED SURFACE WHERE PRACTICAL.
- WITHIN A BERMED AREA TO PREVENT RUN-ON, RUNOFF, AND TO CONTAIN SPILLS.
- STORE PORTABLE FUEL CONTAINERS FOR HAND HELD EQUIPMENT IN A TUB OR EQUIVALENT DEVICE TO AVOID SPILLS AND LEAKS.
- USE SECONDARY CONTAINMENT TECHNIQUES FOR FUELING OF HANDHELD OR PORTABLE EQUIPMENT, SUCH AS DRAIN PANS OR DROP CLOTHS TO CATCH SPILLS OR LEAKS.
- ALL FUELING SHALL BE CONDUCTED WITH THE FUELING OPERATOR IN ATTENDANCE AT ALL TIMES.
- USE VAPOR RECOVERY NOZZLES TO HELP CONTROL DRIPS AND REDUCE AIR POLLUTION AND NOZZLES EQUIPPED WITH AUTOMATIC SHUTOFF FEATURES TO PREVENT OVERTOPPING FUEL TANK.
- SIGNAGE THAT FUEL TANKS SHOULD NOT BE "TOPPED OFF."
- AN ADEQUATE SUPPLY OF SPILL CLEAN UP MATERIALS SHALL BE READILY ACCESSIBLE TO ALL FUELING ACTIVITIES.

MAINTENANCE - MAINTENANCE OF LARGE EQUIPMENT SHALL BE CONDUCTED WITHIN DESIGNATED MAINTENANCE YARDS IN ORDER TO ENABLE CAREFUL MANAGEMENT. DURING MINOR ROUTINE MAINTENANCE, DRIP PANS SHALL BE PLACED UNDER VEHICLES AND EQUIPMENT. ALL ON SITE VEHICLES SHALL BE MONITORED FOR LEAKS AND SHALL RECEIVE PREVENTIVE MAINTENANCE TO REDUCE LEAKAGE.

ONLY NECESSARY MAINTENANCE REQUIRED FOR THE PROPER FUNCTIONING OF HANDHELD EQUIPMENT AND PORTABLE GENERATORS/COMPRESSORS IS ALLOWED ONSITE. DROP CLOTHES, TRAYS OR AN EQUIVALENT METHOD SHALL BE USED UNDERNEATH HANDHELD AND PORTABLE EQUIPMENT TO AVOID LEAKING FLUIDS, FUELS, OILS, OR GREASE ONTO THE GROUND. DO NOT OVERSPRAY AEROSOLS TO THE GROUND OR OTHER RAIN-EXPOSED SURFACES. CLEAN UP SPILLS IMMEDIATELY AND DISPOSE OF WASTE PROPERLY.

FUEL AND VEHICLE STORAGE - FUEL STORAGE SHALL BE CONDUCTED IN ACCORDANCE WITH APPLICABLE LOCAL, STATE,AND FEDERAL REGULATIONS AND IN ACCORDANCE WITH THE BMP FOR "HAZARDOUS MATERIALS AND WASTE MANAGEMENT." VEHICLES AND EQUIPMENT SHALL BE STORED IN DESIGNATED, BERMED VEHICLE STORAGE AREAS (SUCH AS DEDICATED STORAGE AREAS OR FUELING AND MAINTENANCE AREAS) WHEN POSSIBLE, OR OFF OF PAVED AREAS TO THE EXTENT PRACTICAL. DURING LONG PERIODS (TYPICALLY MORE THAN ONE MONTH) OF STORAGE, AND WHEN OTHERWISE NECESSARY DRIP PANS SHALL BE PLACED UNDER VEHICLES AND EQUIPMENT THAT ARE PRONE TO LEAKAGE. PLASTIC TARPS SHALL BE PLACED OVER EXPOSED EQUIPMENT WHEN NOT IN USE FOR LONG PERIODS (>3 MOS.) TO PREVENT CONTACT WITH STORMWATER. ALL ON SITE VEHICLES SHALL BE MONITORED FOR LEAKS AND SHALL RECEIVE PREVENTIVE MAINTENANCE TO REDUCE LEAKAGE.

INSPECTION AND MAINTENANCE:
- CHECK TO ENSURE ADEQUATE SUPPLY OF SPILL CLEANUP MATERIALS IS AVAILABLE.
- PERFORM ROUTINE INSPECTIONS OF DESIGNATED MAINTENANCE, CLEANING, AND FUELING AREAS.
- REPORT ALL SPILLS IMMEDIATELY TO THE PROJECT SUPERINTENDENT.
- SERVICE SUMPS REGULARLY.

SEE KLAMATH FALLS DETAIL 3-225 FOR ADDITIONAL INFORMATION.

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Sept. 19, 2006
SYLAS E. ALLEN
EXPIRES: 12-31-23

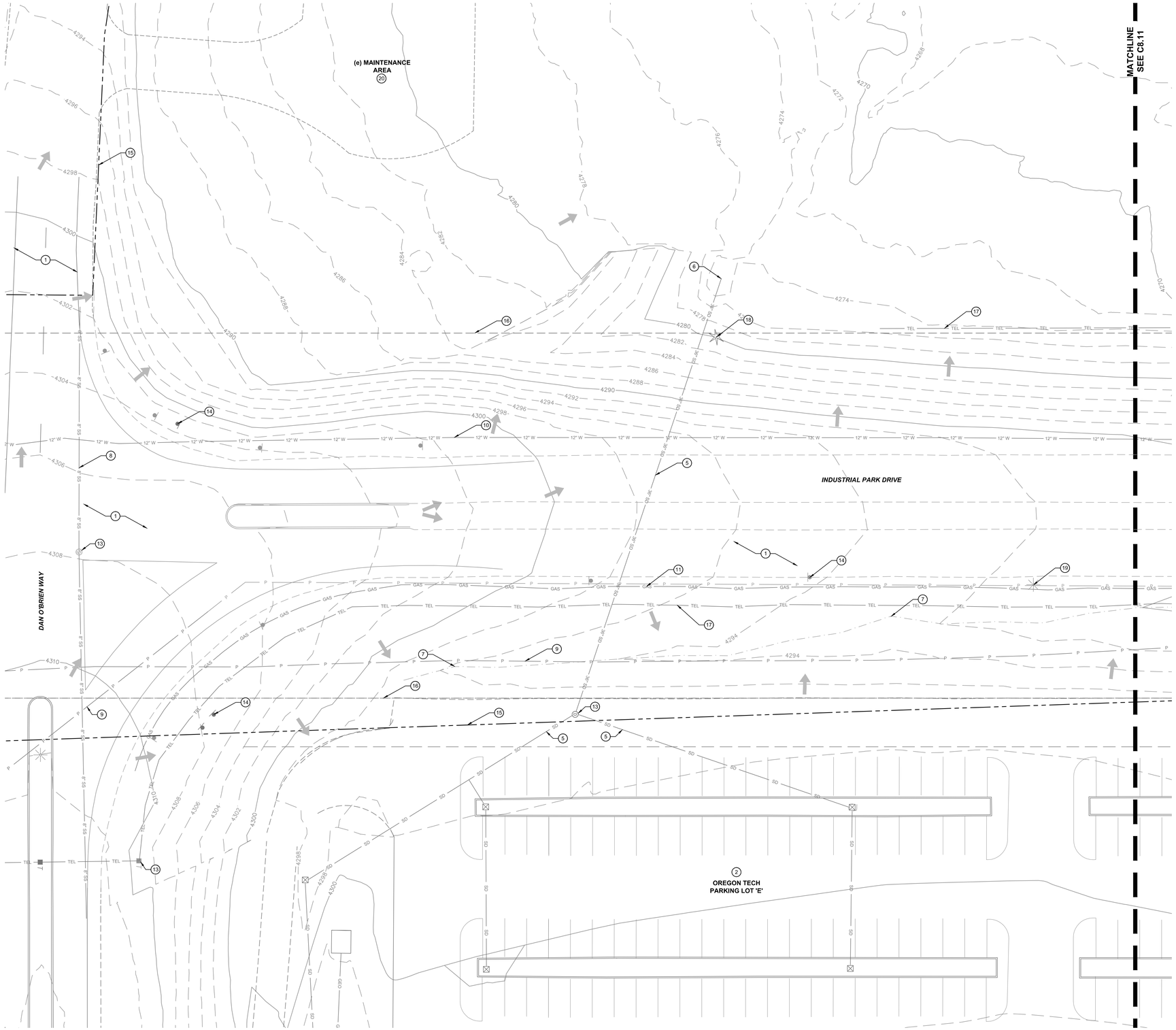
REVISION ID:	DATE:

PROJECT NO: K-6345-23
DRAWN: KS
CHECKED: BJD
DATE: 01-31-2024

ZCS EROSION AND
SEDIMENT CONTROL
NOTES

C8.02

BID AND PERMIT SET | 1200-C EROSION AND SEDIMENT CONTROL PLAN



1 C8.10 **AREA "A" EXISTING CONDITIONS EROSION AND SEDIMENT CONTROL PLAN**

1" = 20'

ONE INCH EQUALS FULL SCALE

EROSION AND SEDIMENT CONTROL LEGEND:

PHASE SPECIFIC CONSTRUCTION LEGEND

- PROPERTY LINE
- EXISTING UTILITY
- EXISTING TREE
- EXISTING GROUND CONTOUR (1 FT)
- EXISTING GROUND CONTOUR (5 FT)
- EXISTING DRAINAGE SWALE
- EXISTING DRAINAGE FLOW DIRECTION

EXISTING CONDITIONS AND PROTECTION NOTES:

GENERAL EXISTING CONDITIONS AND PROTECTION NOTES:

REFER TO CIVIL PERMIT DOCUMENTS FOR ALL CONSTRUCTION INFORMATION, TYPICAL.

NOT ALL NOTES USED ON EACH SHEET OR IN EACH PHASE.

EXISTING CONDITIONS AND PROTECTION NOTES:

1. ROADWAY TO REMAIN ACCESSIBLE THROUGHOUT CONSTRUCTION ACCORDING TO CONTRACTOR PROVIDED TRAFFIC CONTROL PLAN. COORDINATE WITH CITY OF KLAMATH FALLS AND OWNER PRIOR TO CONSTRUCTION.
2. OIT PARKING LOT 'E' AND ASSOCIATED ACCESS. CONTRACTOR TO COORDINATE TIMING AND DURATION OF ACCESS CLOSURES WITH OWNER THROUGHOUT CONSTRUCTION.
3. FACILITIES LOOP ACCESS. CONTRACTOR TO COORDINATE TIMING AND DURATION OF ACCESS CLOSURES WITH OWNER THROUGHOUT CONSTRUCTION.
4. PEDESTRIAN SIDEWALK AND CURB.
5. EXISTING UNDERGROUND STORM DRAIN TO REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION.
6. EXISTING STORM DRAIN OUTLET TO REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION.
7. EXISTING ROADSIDE DITCH.
8. EXISTING UNDERGROUND SANITARY SEWER MAIN TO REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION.
9. APPROXIMATE LOCATION OF EXISTING UNDERGROUND POWER CONDUIT TO REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION.
10. EXISTING UNDERGROUND 12" ASBESTOS CEMENT PUBLIC WATER MAIN TO REMAIN AND BE PROTECTED IN PLACE THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL EXCAVATE WITH CARE WITHIN A 10-FT ZONE AROUND PIPE TO ENSURE PIPELINE IS NOT DAMAGED.
11. EXISTING UNDERGROUND GAS UTILITY EQUIPMENT TO REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION. CONTRACTOR TO COORDINATE ACTIVITY AROUND GAS EQUIPMENT WITH AVISTA UTILITIES PRIOR TO AND THROUGHOUT CONSTRUCTION.
12. POTENTIAL EXISTING UNDERGROUND GEOTHERMAL EQUIPMENT. CONTRACTOR TO COORDINATE PROTECTION / ABANDONMENT REQUIREMENTS WITH THE CITY OF KLAMATH FALLS PRIOR TO CONSTRUCTION.
13. EXISTING UTILITY VAULT OR APPURTENANCE, TYPICAL.
14. EXISTING STREET / WAY-FINDING SIGN, TYPICAL.
15. EXISTING PROPERTY LINE.
16. EXISTING 150' ACCESS EASEMENT.
17. APPROXIMATE LOCATION OF EXISTING UNDERGROUND TELEPHONE CONDUIT TO REMAIN AND BE PROTECTED THROUGH CONSTRUCTION.
18. EXISTING TREE, TYPICAL.
19. EXISTING SITE LIGHT, TYPICAL.
20. EXISTING MAINTENANCE AREA.

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Sept. 19, 2006
SYLAS E. ALLEN

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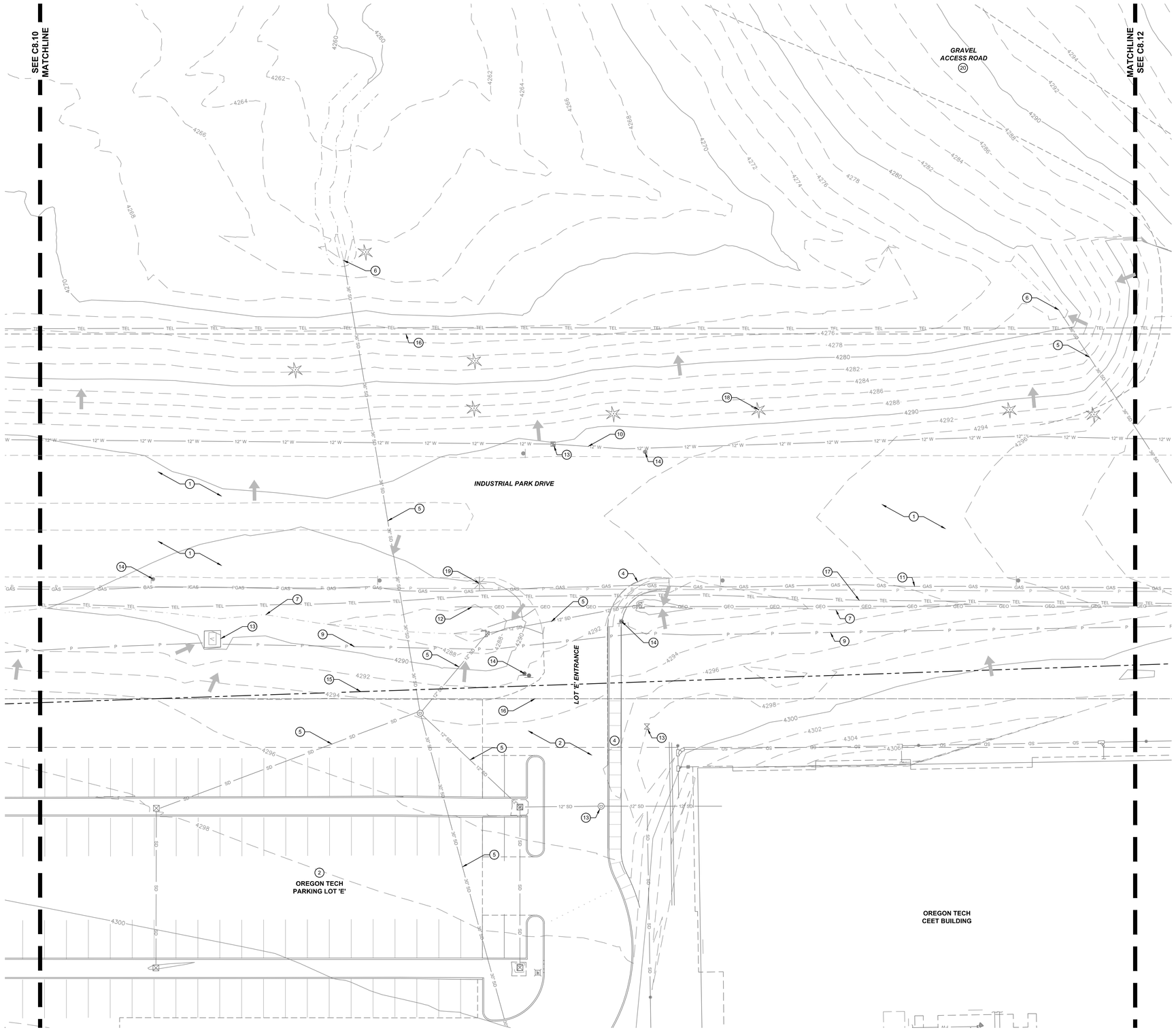
DATE:	01-31-2024

AREA "A" EXISTING CONDITIONS ESC PLAN

C8.10

BID AND PERMIT SET | 1200-C EROSION AND SEDIMENT CONTROL PLAN



1 C8.11 **AREA "B" EXISTING CONDITIONS EROSION AND SEDIMENT CONTROL PLAN**

1" = 20'

ONE INCH EQUALS FULL SCALE

EROSION AND SEDIMENT CONTROL LEGEND:

PHASE SPECIFIC CONSTRUCTION LEGEND

- PROPERTY LINE
- EXISTING UTILITY
- EXISTING TREE
- EXISTING GROUND CONTOUR (1 FT)
- EXISTING GROUND CONTOUR (5 FT)
- EXISTING DRAINAGE SWALE
- EXISTING DRAINAGE FLOW DIRECTION

EXISTING CONDITIONS AND PROTECTION NOTES:

GENERAL EXISTING CONDITIONS AND PROTECTION NOTES:

REFER TO CIVIL PERMIT DOCUMENTS FOR ALL CONSTRUCTION INFORMATION, TYPICAL.

NOT ALL NOTES USED ON EACH SHEET OR IN EACH PHASE.

EXISTING CONDITIONS AND PROTECTION NOTES:

1. ROADWAY TO REMAIN ACCESSIBLE THROUGHOUT CONSTRUCTION ACCORDING TO CONTRACTOR PROVIDED TRAFFIC CONTROL PLAN. COORDINATE WITH CITY OF KLAMATH FALLS AND OWNER PRIOR TO CONSTRUCTION.
2. OIT PARKING LOT 'E' AND ASSOCIATED ACCESS. CONTRACTOR TO COORDINATE TIMING AND DURATION OF ACCESS CLOSURES WITH OWNER THROUGHOUT CONSTRUCTION.
3. FACILITIES LOOP ACCESS. CONTRACTOR TO COORDINATE TIMING AND DURATION OF ACCESS CLOSURES WITH OWNER THROUGHOUT CONSTRUCTION.
4. PEDESTRIAN SIDEWALK AND CURB.
5. EXISTING UNDERGROUND STORM DRAIN TO REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION.
6. EXISTING STORM DRAIN OUTLET TO REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION.
7. EXISTING ROADSIDE DITCH.
8. EXISTING UNDERGROUND SANITARY SEWER MAIN TO REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION.
9. APPROXIMATE LOCATION OF EXISTING UNDERGROUND POWER CONDUIT TO REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION.
10. EXISTING UNDERGROUND 12" ASBESTOS CEMENT PUBLIC WATER MAIN TO REMAIN AND BE PROTECTED IN PLACE THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL EXCAVATE WITH CARE WITHIN A 10-FT ZONE AROUND PIPE TO ENSURE PIPELINE IS NOT DAMAGED.
11. EXISTING UNDERGROUND GAS UTILITY EQUIPMENT TO REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION. CONTRACTOR TO COORDINATE ACTIVITY AROUND GAS EQUIPMENT WITH AVISTA UTILITIES PRIOR TO AND THROUGHOUT CONSTRUCTION.
12. POTENTIAL EXISTING UNDERGROUND GEOTHERMAL EQUIPMENT. CONTRACTOR TO COORDINATE PROTECTION / ABANDONMENT REQUIREMENTS WITH THE CITY OF KLAMATH FALLS PRIOR TO CONSTRUCTION.
13. EXISTING UTILITY VAULT OR APPURTENANCE, TYPICAL.
14. EXISTING STREET / WAY-FINDING SIGN, TYPICAL.
15. EXISTING PROPERTY LINE.
16. EXISTING 150' ACCESS EASEMENT.
17. APPROXIMATE LOCATION OF EXISTING UNDERGROUND TELEPHONE CONDUIT TO REMAIN AND BE PROTECTED THROUGH CONSTRUCTION.
18. EXISTING TREE, TYPICAL.
19. EXISTING SITE LIGHT, TYPICAL.
20. EXISTING MAINTENANCE AREA.

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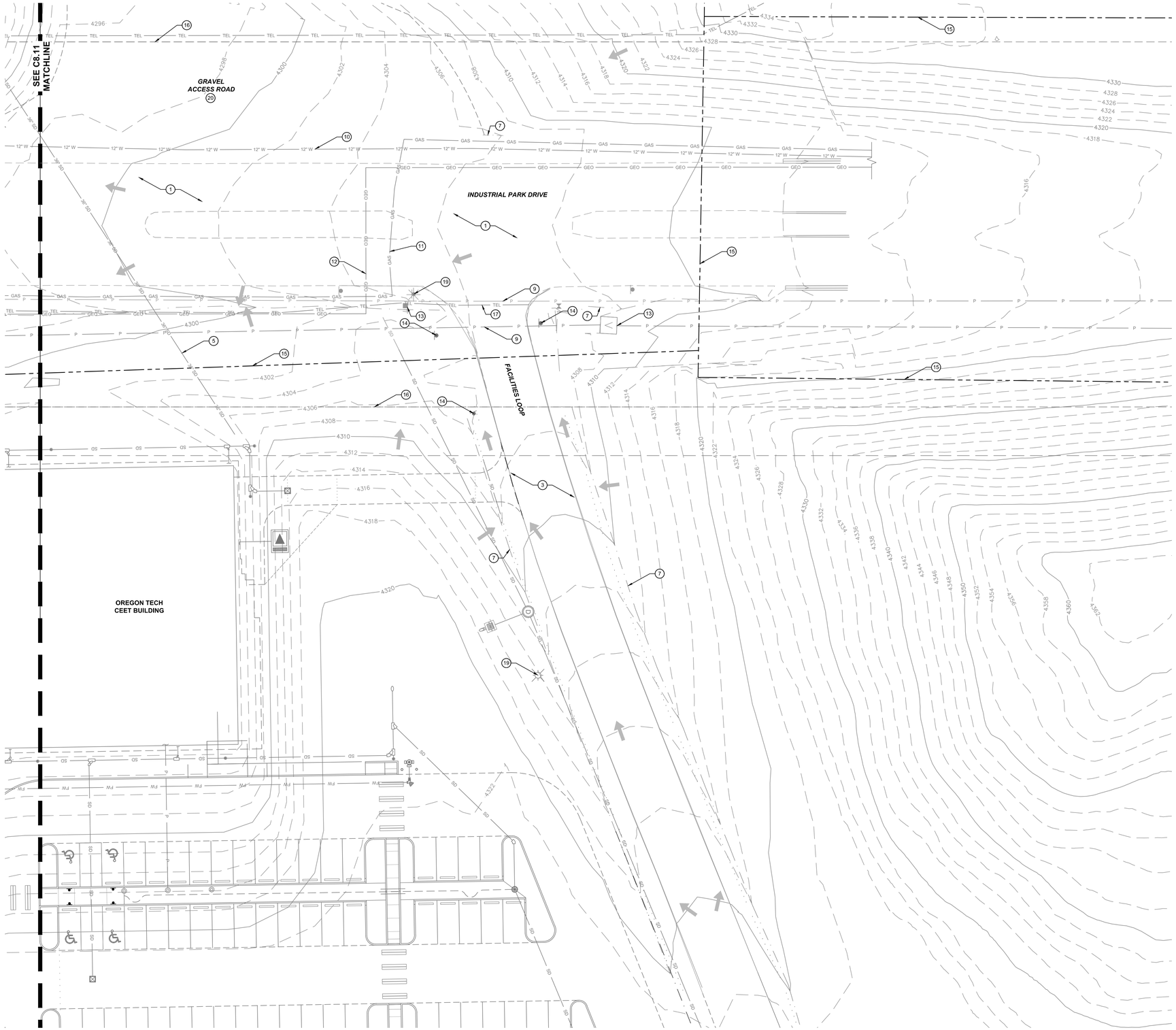
AREA "B"
EXISTING
CONDITIONS
ESC PLAN

C8.11

BID AND PERMIT SET | 1200-C EROSION AND SEDIMENT CONTROL PLAN



1 C8.12 **AREA "C" EXISTING CONDITIONS EROSION AND SEDIMENT CONTROL PLAN**

1" = 20'

ONE INCH EQUALS FULL SCALE

EROSION AND SEDIMENT CONTROL LEGEND:

PHASE SPECIFIC CONSTRUCTION LEGEND

- PROPERTY LINE
- EXISTING UTILITY
- EXISTING TREE
- EXISTING GROUND CONTOUR (1 FT)
- EXISTING GROUND CONTOUR (5 FT)
- EXISTING DRAINAGE SWALE
- EXISTING DRAINAGE FLOW DIRECTION

EXISTING CONDITIONS AND PROTECTION NOTES:

GENERAL EXISTING CONDITIONS AND PROTECTION NOTES:
REFER TO CIVIL PERMIT DOCUMENTS FOR ALL CONSTRUCTION INFORMATION, TYPICAL.

NOT ALL NOTES USED ON EACH SHEET OR IN EACH PHASE.

EXISTING CONDITIONS AND PROTECTION NOTES:

1. ROADWAY TO REMAIN ACCESSIBLE THROUGHOUT CONSTRUCTION ACCORDING TO CONTRACTOR PROVIDED TRAFFIC CONTROL PLAN. COORDINATE WITH CITY OF KLAMATH FALLS AND OWNER PRIOR TO CONSTRUCTION.
2. OIT PARKING LOT 'E' AND ASSOCIATED ACCESS. CONTRACTOR TO COORDINATE TIMING AND DURATION OF ACCESS CLOSURES WITH OWNER THROUGHOUT CONSTRUCTION.
3. FACILITIES LOOP ACCESS. CONTRACTOR TO COORDINATE TIMING AND DURATION OF ACCESS CLOSURES WITH OWNER THROUGHOUT CONSTRUCTION.
4. PEDESTRIAN SIDEWALK AND CURB.
5. EXISTING UNDERGROUND STORM DRAIN TO REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION.
6. EXISTING STORM DRAIN OUTLET TO REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION.
7. EXISTING ROADSIDE DITCH.
8. EXISTING UNDERGROUND SANITARY SEWER MAIN TO REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION.
9. APPROXIMATE LOCATION OF EXISTING UNDERGROUND POWER CONDUIT TO REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION.
10. EXISTING UNDERGROUND 12" ASBESTOS CEMENT PUBLIC WATER MAIN TO REMAIN AND BE PROTECTED IN PLACE THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL EXCAVATE WITH CARE WITHIN A 10-FT ZONE AROUND PIPE TO ENSURE PIPELINE IS NOT DAMAGED.
11. EXISTING UNDERGROUND GAS UTILITY EQUIPMENT TO REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION. CONTRACTOR TO COORDINATE ACTIVITY AROUND GAS EQUIPMENT WITH AVISTA UTILITIES PRIOR TO AND THROUGHOUT CONSTRUCTION.
12. POTENTIAL EXISTING UNDERGROUND GEOTHERMAL EQUIPMENT. CONTRACTOR TO COORDINATE PROTECTION / ABANDONMENT REQUIREMENTS WITH THE CITY OF KLAMATH FALLS PRIOR TO CONSTRUCTION.
13. EXISTING UTILITY VAULT OR APPURTENANCE, TYPICAL.
14. EXISTING STREET / WAY-FINDING SIGN, TYPICAL.
15. EXISTING PROPERTY LINE.
16. EXISTING 150' ACCESS EASEMENT.
17. APPROXIMATE LOCATION OF EXISTING UNDERGROUND TELEPHONE CONDUIT TO REMAIN AND BE PROTECTED THROUGH CONSTRUCTION.
18. EXISTING TREE, TYPICAL.
19. EXISTING SITE LIGHT, TYPICAL.
20. EXISTING MAINTENANCE AREA.

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Sept. 19, 2006
SYLAS E. ALLEN
EXPIRES: 12-31-23

REVISION ID:	DATE:

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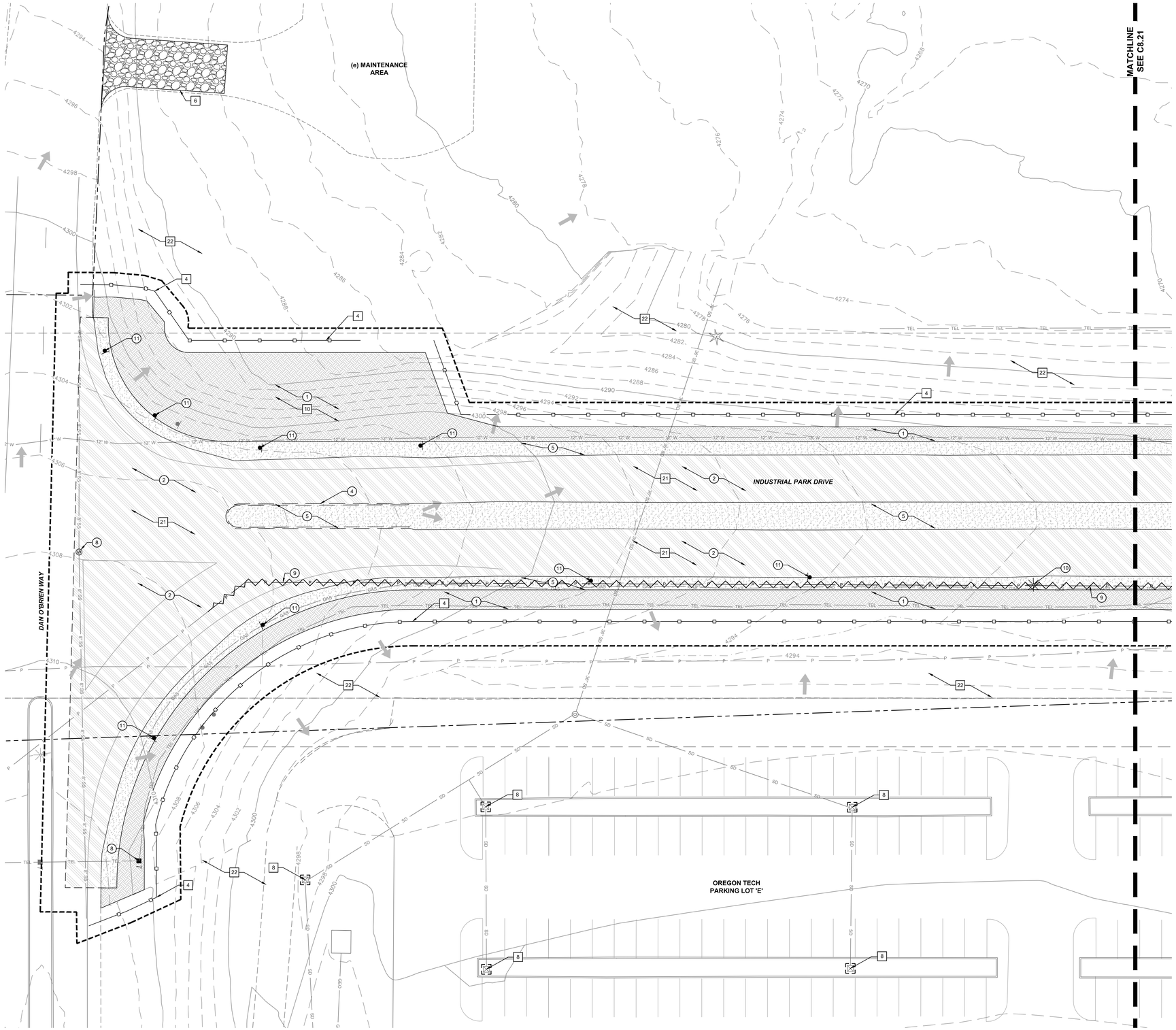
CHECKED:	BJD
DATE:	01-31-2024

AREA "C" EXISTING CONDITIONS ESC PLAN

C8.12

BID AND PERMIT SET | 1200-C EROSION AND SEDIMENT CONTROL PLAN



1 C8.20 **AREA "A" DEMOLITION AND CLEARING EROSION AND SEDIMENT CONTROL PLAN**

1" = 20'

ONE INCH EQUALS FULL SCALE

EROSION AND SEDIMENT CONTROL LEGEND:

PHASE SPECIFIC CONSTRUCTION LEGEND

- ASPHALT PAVEMENT TO BE REMOVED
- CONCRETE PAVEMENT TO BE REMOVED
- GRAVEL PAVEMENT TO BE REMOVED
- APPROXIMATE LIMITS OF CLEARING AND GRUBBING
- EXISTING UTILITY TO REMAIN
- EXISTING UTILITY TO BE REMOVED
- EXISTING GROUND CONTOUR (1 FT)
- EXISTING GROUND CONTOUR (5 FT)
- EXISTING STRUCTURE TO REMAIN
- EXISTING STRUCTURE TO BE REMOVED

EROSION AND SEDIMENT CONTROL LEGEND

- TEMPORARY CONSTRUCTION ENTRANCE
- LIMITS OF WORK (±2.84 ACRE)
- SEDIMENT FENCE
- INLET PROTECTION - CATCH BASIN
- EXISTING DRAINAGE FLOW DIRECTION

PHASE CONSTRUCTION NOTES:

GENERAL PHASE CONSTRUCTION NOTES:

REFER TO CIVIL PERMIT DOCUMENTS FOR ALL CONSTRUCTION INFORMATION, TYPICAL.

ALL NOTES MAY NOT BE USED ON EACH SHEET.

PHASE CONSTRUCTION NOTES:

1. APPROXIMATE LIMITS OF CLEARING, GRUBBING, AND MASS GRADING.
2. ASPHALT PAVEMENT TO BE REMOVED.
3. CONCRETE SIDEWALK TO BE REMOVED.
4. CONCRETE CURB (WITH GUTTER AS APPLICABLE) TO BE REMOVED.
5. EXISTING GRAVEL PAVEMENT TO BE REMOVED.
6. ROADSIDE DRAINAGE DITCH TO BE RECONFIGURED.
7. CULVERT TO BE REMOVED.
8. UTILITY APPURTENANCE TO BE ADJUSTED TO GRADE - TYPE VARIES.
9. EXISTING POWER CONDUIT TO BE REMOVED.
10. STREET LIGHT, POLE, AND FOOTING TO BE REMOVED.
11. TRAFFIC SIGN, POST, AND FOOTING TO BE REMOVED.

EROSION CONTROL NOTES:

GENERAL EROSION CONTROL NOTES:

ALL EROSION AND SEDIMENT CONTROL MEASURES ON SLOPES, AND AT STORM SYSTEM INLETS/OUTLETS SHALL REMAIN IN PLACE UNTIL ALL PHASES OF CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.

THESE REQUIREMENTS SHALL BE CONSIDERED A MINIMUM. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL MEASURES AS REQUIRED TO FACILITATE CHANGES TO OR PHASING OF CONSTRUCTION. ALL COSTS FOR EROSION CONTROL MEASURES SHALL BE BORNE BY THE CONTRACTOR. ANY MODIFICATIONS TO THIS PLAN SHALL BE RESUBMITTED TO DEQ FOR APPROVAL VIA THE ONLINE PORTAL.

ALL POLLUTANT GENERATING ACTIVITIES TO TAKE PLACE INSIDE LIMITS OF WORK.

NOT ALL NOTES USED ON EACH SHEET OR IN EACH PHASE.

EROSION AND SEDIMENT CONTROL NOTES:

1. APPROXIMATE LOCATION OF CONTRACTOR LAYDOWN, TRAILER, AND PARKING.
2. FURNISH AND MAINTAIN TEMPORARY RESTROOM FACILITIES. ALL TEMPORARY FACILITIES TO BE 30' MINIMUM FROM NEAREST CATCH BASIN.
3. FURNISH AND MAINTAIN TEMPORARY TRASH AND RECYCLING FACILITIES WITH LIDS.
4. FURNISH AND MAINTAIN PERIMETER SEDIMENT FENCE AS SHOWN PER CITY OF KLAMATH FALLS DETAIL 3-155.
5. APPROXIMATE LOCATION OF MATERIAL STOCKPILE. FURNISH AND MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES AT ALL MATERIAL AND SPOIL STOCKPILES. COVER PILES WITH PLASTIC SHEETING AND STAKE PER CITY OF KLAMATH FALLS DETAIL 3-115.
6. FURNISH AND MAINTAIN 20' WIDE BY 50' LONG CONSTRUCTION ENTRANCE PER CITY OF KLAMATH FALLS DETAIL 3-100.
7. FURNISH AND MAINTAIN 'TYPE 4' DITCH INLET PROTECTION PER CITY OF KLAMATH FALLS DETAIL 3-190 AT ALL ON-SITE CATCH BASINS.
8. FURNISH AND MAINTAIN 'TYPE 5' CATCH BASIN INLET PROTECTION WITH WOVEN POLYPROPYLENE SACK PER CITY OF KLAMATH FALLS DETAIL 3-195 AT ALL ON-SITE CATCH BASINS.
9. FURNISH AND MAINTAIN 'TYPE 6' CATCH BASIN INLET PROTECTION PER CITY OF KLAMATH FALLS DETAIL 3-200 AT ALL NEWLY INSTALLED CURB INLETS.
10. INSTALL SLOPE TERRACING PRIOR TO SLOPE GRADING PER CITY OF KLAMATH FALLS DETAIL 3-125 AND PER GEOTECHNICAL REPORT.
11. APPLY SURFACE ROUGHENING TO NEWLY ESTABLISHED SLOPES PER CITY OF KLAMATH FALLS DETAIL 3-120.
12. FURNISH AND MAINTAIN OUTLET PROTECTION AND DISSIPATOR PER CITY OF KLAMATH FALLS DETAIL 3-150.
13. FURNISH AND MAINTAIN PIPE SLOPE DRAINS PER CITY OF KLAMATH FALLS DETAIL 3-150.
14. FURNISH AND MAINTAIN WOVEN COIR FABRIC 700 SLOPE MATTING PER CITY OF KLAMATH FALLS DETAILS 3-130 AND 3-140 ON DISTURBED SLOPES GREATER THAN 10%. ENSURE HYDROSEEDING IS INSTALLED BEFORE FABRIC.
15. FURNISH AND MAINTAIN SLOPE SEDIMENT BARRIERS PER ODOT RD1030 OR RD1032.
16. FURNISH AND MAINTAIN WOVEN COIR FABRIC 700 CHANNEL MATTING PER ODOT CITY OF KLAMATH FALLS DETAILS 3-135 AND 3-140 IN ALL NEW AND RECONFIGURED ROAD-SIDE DITCHES. ENSURE HYDROSEEDING IS INSTALLED BEFORE FABRIC.
17. FURNISH AND MAINTAIN TYPE 2 OR TYPE 6 CHECK DAMS PER ODOT RD1006 (TYPICAL).
18. FURNISH AND MAINTAIN CONCRETE TRUCK WASH OUT PER ODOT RD1070.
19. INSTALL PERMANENT LANDSCAPE DESIGN PER LANDSCAPE PLANS.
20. APPLY HYDROSEED AND TACKIFIER TO ALL DISTURBED LANDSCAPE SURFACES NOT SUBJECT TO PERMANENT LANDSCAPE DESIGN. SEE LANDSCAPE PLANS FOR ADDITIONAL INFORMATION OR ODOT SPEC SECTION 1030 IF NOT PROVIDED AS PART OF THE CONTRACT DOCUMENTS.
21. PROVIDE ROADWAY SWEEPING SUFFICIENT FOR GOOD UPKEEP OF ALL DRIVABLE AREAS THROUGH ALL PHASES OF CONSTRUCTION.
22. PRESERVE ALL EXISTING VEGETATION OUTSIDE LIMITS OF WORK.

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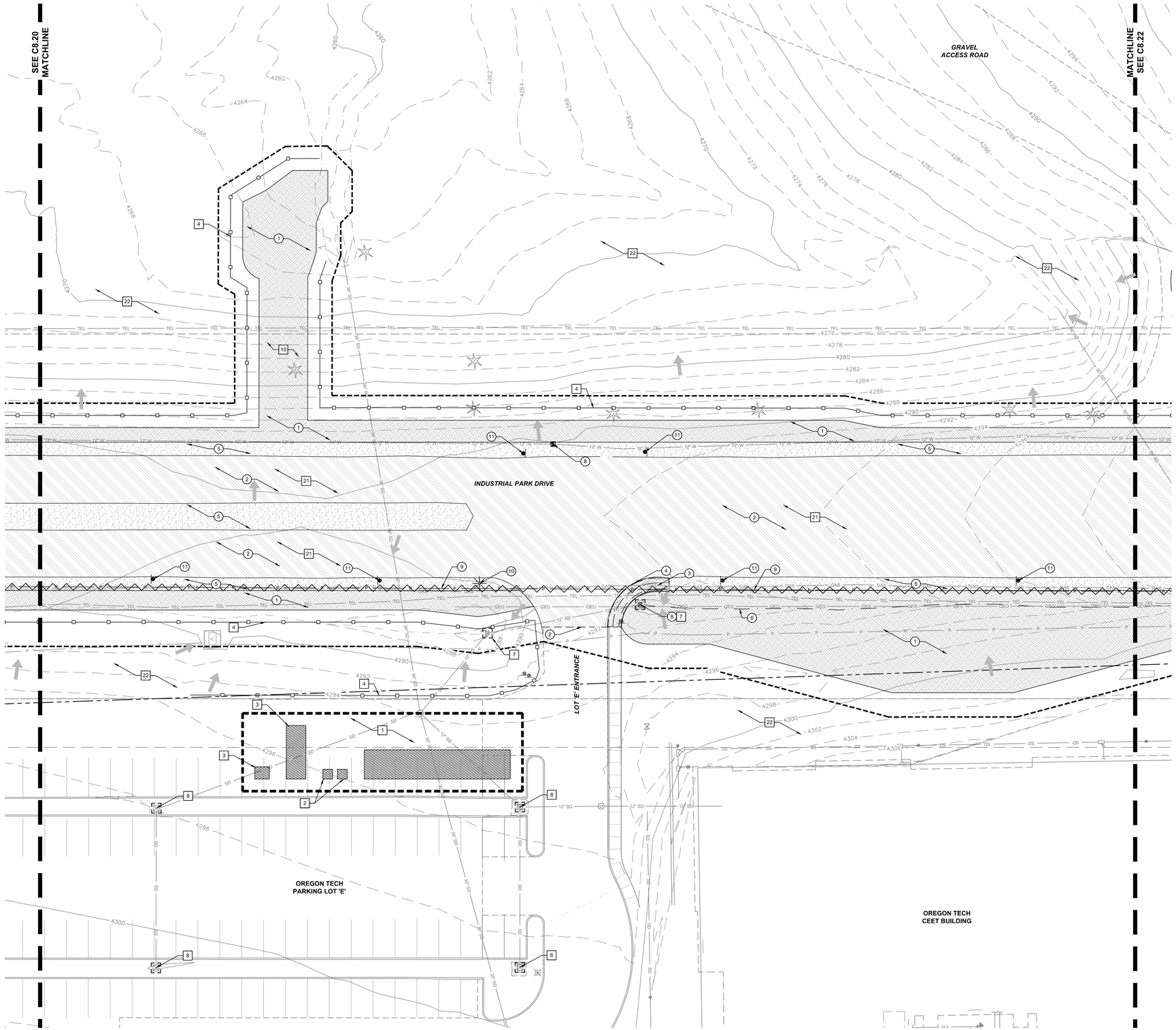
AREA "A" DEMOLITION AND CLEARING ESC PLAN

C8.20

BID AND PERMIT SET | 1200-C EROSION AND SEDIMENT CONTROL PLAN



1 C8.21 **AREA "B" DEMOLITION AND CLEARING EROSION AND SEDIMENT CONTROL PLAN**

1" = 20'

ONE INCH EQUALS FULL SCALE

EROSION AND SEDIMENT CONTROL LEGEND:

PHASE SPECIFIC CONSTRUCTION LEGEND

- ASPHALT PAVEMENT TO BE REMOVED
- CONCRETE PAVEMENT TO BE REMOVED
- GRAVEL PAVEMENT TO BE REMOVED
- APPROXIMATE LIMITS OF CLEARING AND GRUBBING
- EXISTING UTILITY TO REMAIN
- EXISTING UTILITY TO BE REMOVED
- EXISTING GROUND CONTOUR (1 FT)
- EXISTING GROUND CONTOUR (5 FT)
- EXISTING STRUCTURE TO REMAIN
- EXISTING STRUCTURE TO BE REMOVED

EROSION AND SEDIMENT CONTROL LEGEND

- TEMPORARY CONSTRUCTION ENTRANCE
- LIMITS OF WORK (±2.84 ACRE)
- SEDIMENT FENCE
- INLET PROTECTION - CATCH BASIN
- EXISTING DRAINAGE FLOW DIRECTION

PHASE CONSTRUCTION NOTES:

GENERAL PHASE CONSTRUCTION NOTES:

REFER TO CIVIL PERMIT DOCUMENTS FOR ALL CONSTRUCTION INFORMATION, TYPICAL.

ALL NOTES MAY NOT BE USED ON EACH SHEET.

PHASE CONSTRUCTION NOTES:

1. APPROXIMATE LIMITS OF CLEARING, GRUBBING, AND MASS GRADING.
2. ASPHALT PAVEMENT TO BE REMOVED.
3. CONCRETE SIDEWALK TO BE REMOVED.
4. CONCRETE CURB (WITH GUTTER AS APPLICABLE) TO BE REMOVED.
5. EXISTING GRAVEL PAVEMENT TO BE REMOVED.
6. ROADSIDE DRAINAGE DITCH TO BE RECONFIGURED.
7. CULVERT TO BE REMOVED.
8. UTILITY APPURTENANCE TO BE ADJUSTED TO GRADE - TYPE VARIES.
9. EXISTING POWER CONDUIT TO BE REMOVED.
10. STREET LIGHT, POLE, AND FOOTING TO BE REMOVED.
11. TRAFFIC SIGN, POST, AND FOOTING TO BE REMOVED.

EROSION CONTROL NOTES:

GENERAL EROSION CONTROL NOTES:

ALL EROSION AND SEDIMENT CONTROL MEASURES ON SLOPES, AND AT STORM SYSTEM INLETS/OUTLETS SHALL REMAIN IN PLACE UNTIL ALL PHASES OF CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.

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ALL POLLUTANT GENERATING ACTIVITIES TO TAKE PLACE INSIDE LIMITS OF WORK.

NOT ALL NOTES USED ON EACH SHEET OR IN EACH PHASE.

EROSION AND SEDIMENT CONTROL NOTES:

1. APPROXIMATE LOCATION OF CONTRACTOR LAYDOWN, TRAILER, AND PARKING.
2. FURNISH AND MAINTAIN TEMPORARY RESTROOM FACILITIES. ALL TEMPORARY FACILITIES TO BE 30' MINIMUM FROM NEAREST CATCH BASIN.
3. FURNISH AND MAINTAIN TEMPORARY TRASH AND RECYCLING FACILITIES WITH LIDS.
4. FURNISH AND MAINTAIN PERIMETER SEDIMENT FENCE AS SHOWN PER CITY OF KLAMATH FALLS DETAIL 3-155.
5. APPROXIMATE LOCATION OF MATERIAL STOCKPILE. FURNISH AND MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES AT ALL MATERIAL AND SPOIL STOCKPILES. COVER PILES WITH PLASTIC SHEETING AND STAKE PER CITY OF KLAMATH FALLS DETAIL 3-115.
6. FURNISH AND MAINTAIN 20' WIDE BY 50' LONG CONSTRUCTION ENTRANCE PER CITY OF KLAMATH FALLS DETAIL 3-100.
7. FURNISH AND MAINTAIN 'TYPE 4' DITCH INLET PROTECTION PER CITY OF KLAMATH FALLS DETAIL 3-190 AT ALL ON-SITE CATCH BASINS.
8. FURNISH AND MAINTAIN 'TYPE 5' CATCH BASIN INLET PROTECTION WITH WOVEN POLYPROPYLENE SACK PER CITY OF KLAMATH FALLS DETAIL 3-195 AT ALL ON-SITE CATCH BASINS.
9. FURNISH AND MAINTAIN 'TYPE 6' CATCH BASIN INLET PROTECTION PER CITY OF KLAMATH FALLS DETAIL 3-200 AT ALL NEWLY INSTALLED CURB INLETS.
10. INSTALL SLOPE TERRACING PRIOR TO SLOPE GRADING PER CITY OF KLAMATH FALLS DETAIL 3-125 AND PER GEOTECHNICAL REPORT.
11. APPLY SURFACE ROUGHENING TO NEWLY ESTABLISHED SLOPES PER CITY OF KLAMATH FALLS DETAIL 3-120.
12. FURNISH AND MAINTAIN OUTLET PROTECTION AND DISSIPATOR PER CITY OF KLAMATH FALLS DETAIL 3-150.
13. FURNISH AND MAINTAIN PIPE SLOPE DRAINS PER CITY OF KLAMATH FALLS DETAIL 3-150.
14. FURNISH AND MAINTAIN WOVEN COIR FABRIC 700 SLOPE MATTING PER CITY OF KLAMATH FALLS DETAILS 3-130 AND 3-140 ON DISTURBED SLOPES GREATER THAN 10%. ENSURE HYDROSEEDING IS INSTALLED BEFORE FABRIC.
15. FURNISH AND MAINTAIN SLOPE SEDIMENT BARRIERS PER ODOT RD1030 OR RD1032.
16. FURNISH AND MAINTAIN WOVEN COIR FABRIC 700 CHANNEL MATTING PER ODOT CITY OF KLAMATH FALLS DETAILS 3-135 AND 3-140 IN ALL NEW AND RECONFIGURED ROAD-SIDE DITCHES. ENSURE HYDROSEEDING IS INSTALLED BEFORE FABRIC.
17. FURNISH AND MAINTAIN TYPE 2 OR TYPE 6 CHECK DAMS PER ODOT RD1006 (TYPICAL).
18. FURNISH AND MAINTAIN CONCRETE TRUCK WASH OUT PER ODOT RD1070.
19. INSTALL PERMANENT LANDSCAPE DESIGN PER LANDSCAPE PLANS.
20. APPLY HYDROSEED AND TACKIFIER TO ALL DISTURBED LANDSCAPE SURFACES NOT SUBJECT TO PERMANENT LANDSCAPE DESIGN. SEE LANDSCAPE PLANS FOR ADDITIONAL INFORMATION OR ODOT SPEC SECTION 1030 IF NOT PROVIDED AS PART OF THE CONTRACT DOCUMENTS.
21. PROVIDE ROADWAY SWEEPING SUFFICIENT FOR GOOD UPKEEP OF ALL DRIVABLE AREAS THROUGH ALL PHASES OF CONSTRUCTION.
22. PRESERVE ALL EXISTING VEGETATION OUTSIDE LIMITS OF WORK.

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Sept. 19, 2006
SYLAS E. ALLEN
EXPIRES: 12-31-23

REVISION ID:	DATE:

PROJECT NO:	K-6345-23
DRAWN:	KS
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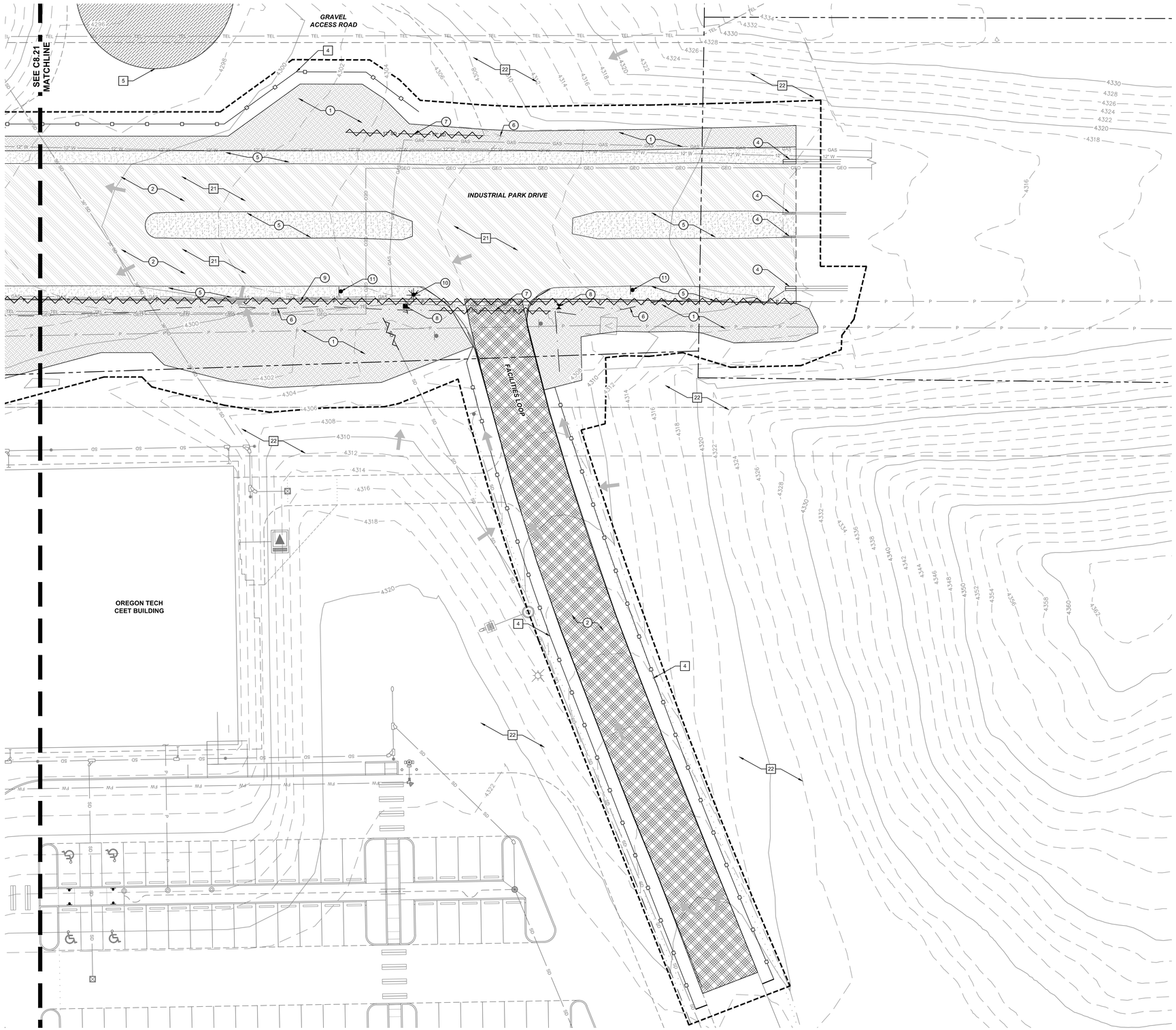
AREA "B" DEMOLITION AND CLEARING ESC PLAN

C8.21

BID AND PERMIT SET | 1200-C EROSION AND SEDIMENT CONTROL PLAN



1 C8.22 **AREA "C" DEMOLITION AND CLEARING EROSION AND SEDIMENT CONTROL PLAN**

1" = 20'

ONE INCH EQUALS FULL SCALE

EROSION AND SEDIMENT CONTROL LEGEND:

PHASE SPECIFIC CONSTRUCTION LEGEND

- ASPHALT PAVEMENT TO BE REMOVED
- CONCRETE PAVEMENT TO BE REMOVED
- GRAVEL PAVEMENT TO BE REMOVED
- APPROXIMATE LIMITS OF CLEARING AND GRUBBING
- EXISTING UTILITY TO REMAIN
- EXISTING UTILITY TO BE REMOVED
- EXISTING GROUND CONTOUR (1 FT)
- EXISTING GROUND CONTOUR (5 FT)
- EXISTING STRUCTURE TO REMAIN
- EXISTING STRUCTURE TO BE REMOVED

EROSION AND SEDIMENT CONTROL LEGEND

- TEMPORARY CONSTRUCTION ENTRANCE
- LIMITS OF WORK (±2.84 ACRE)
- SEDIMENT FENCE
- INLET PROTECTION - CATCH BASIN
- EXISTING DRAINAGE FLOW DIRECTION

PHASE CONSTRUCTION NOTES:

GENERAL PHASE CONSTRUCTION NOTES:

REFER TO CIVIL PERMIT DOCUMENTS FOR ALL CONSTRUCTION INFORMATION, TYPICAL.

ALL NOTES MAY NOT BE USED ON EACH SHEET.

PHASE CONSTRUCTION NOTES:

1. APPROXIMATE LIMITS OF CLEARING, GRUBBING, AND MASS GRADING.
2. ASPHALT PAVEMENT TO BE REMOVED.
3. CONCRETE SIDEWALK TO BE REMOVED.
4. CONCRETE CURB (WITH GUTTER AS APPLICABLE) TO BE REMOVED.
5. EXISTING GRAVEL PAVEMENT TO BE REMOVED.
6. ROADSIDE DRAINAGE DITCH TO BE RECONFIGURED.
7. CULVERT TO BE REMOVED.
8. UTILITY APPURTENANCE TO BE ADJUSTED TO GRADE - TYPE VARIES.
9. EXISTING POWER CONDUIT TO BE REMOVED.
10. STREET LIGHT, POLE, AND FOOTING TO BE REMOVED.
11. TRAFFIC SIGN, POST, AND FOOTING TO BE REMOVED.

EROSION CONTROL NOTES:

GENERAL EROSION CONTROL NOTES:

ALL EROSION AND SEDIMENT CONTROL MEASURES ON SLOPES, AND AT STORM SYSTEM INLETS/OUTLETS SHALL REMAIN IN PLACE UNTIL ALL PHASES OF CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.

THESE REQUIREMENTS SHALL BE CONSIDERED A MINIMUM. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL MEASURES AS REQUIRED TO FACILITATE CHANGES TO OR PHASING OF CONSTRUCTION. ALL COSTS FOR EROSION CONTROL MEASURES SHALL BE BORNE BY THE CONTRACTOR. ANY MODIFICATIONS TO THIS PLAN SHALL BE RESUBMITTED TO DEQ FOR APPROVAL VIA THE ONLINE PORTAL.

ALL POLLUTANT GENERATING ACTIVITIES TO TAKE PLACE INSIDE LIMITS OF WORK.

NOT ALL NOTES USED ON EACH SHEET OR IN EACH PHASE.

EROSION AND SEDIMENT CONTROL NOTES:

1. APPROXIMATE LOCATION OF CONTRACTOR LAYDOWN, TRAILER, AND PARKING.
2. FURNISH AND MAINTAIN TEMPORARY RESTROOM FACILITIES. ALL TEMPORARY FACILITIES TO BE 30' MINIMUM FROM NEAREST CATCH BASIN.
3. FURNISH AND MAINTAIN TEMPORARY TRASH AND RECYCLING FACILITIES WITH LIDS.
4. FURNISH AND MAINTAIN PERIMETER SEDIMENT FENCE AS SHOWN PER CITY OF KLAMATH FALLS DETAIL 3-155.
5. APPROXIMATE LOCATION OF MATERIAL STOCKPILE. FURNISH AND MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES AT ALL MATERIAL AND SPOIL STOCKPILES. COVER PILES WITH PLASTIC SHEETING AND STAKE PER CITY OF KLAMATH FALLS DETAIL 3-115.
6. FURNISH AND MAINTAIN 20' WIDE BY 50' LONG CONSTRUCTION ENTRANCE PER CITY OF KLAMATH FALLS DETAIL 3-100.
7. FURNISH AND MAINTAIN 'TYPE 4' DITCH INLET PROTECTION PER CITY OF KLAMATH FALLS DETAIL 3-190 AT ALL ON-SITE CATCH BASINS.
8. FURNISH AND MAINTAIN 'TYPE 5' CATCH BASIN INLET PROTECTION WITH WOVEN POLYPROPYLENE SACK PER CITY OF KLAMATH FALLS DETAIL 3-195 AT ALL ON-SITE CATCH BASINS.
9. FURNISH AND MAINTAIN 'TYPE 6' CATCH BASIN INLET PROTECTION PER CITY OF KLAMATH FALLS DETAIL 3-200 AT ALL NEWLY INSTALLED CURB INLETS.
10. INSTALL SLOPE TERRACING PRIOR TO SLOPE GRADING PER CITY OF KLAMATH FALLS DETAIL 3-125 AND PER GEOTECHNICAL REPORT.
11. APPLY SURFACE ROUGHENING TO NEWLY ESTABLISHED SLOPES PER CITY OF KLAMATH FALLS DETAIL 3-120.
12. FURNISH AND MAINTAIN OUTLET PROTECTION AND DISSIPATOR PER CITY OF KLAMATH FALLS DETAIL 3-150.
13. FURNISH AND MAINTAIN PIPE SLOPE DRAINS PER CITY OF KLAMATH FALLS DETAIL 3-150.
14. FURNISH AND MAINTAIN WOVEN COIR FABRIC 700 SLOPE MATTING PER CITY OF KLAMATH FALLS DETAILS 3-130 AND 3-140 ON DISTURBED SLOPES GREATER THAN 10%. ENSURE HYDROSEEDING IS INSTALLED BEFORE FABRIC.
15. FURNISH AND MAINTAIN SLOPE SEDIMENT BARRIERS PER ODOT RD1030 OR RD1032.
16. FURNISH AND MAINTAIN WOVEN COIR FABRIC 700 CHANNEL MATTING PER ODOT CITY OF KLAMATH FALLS DETAILS 3-135 AND 3-140 IN ALL NEW AND RECONFIGURED ROAD-SIDE DITCHES. ENSURE HYDROSEEDING IS INSTALLED BEFORE FABRIC.
17. FURNISH AND MAINTAIN TYPE 2 OR TYPE 6 CHECK DAMS PER ODOT RD1006 (TYPICAL).
18. FURNISH AND MAINTAIN CONCRETE TRUCK WASH OUT PER ODOT RD1070.
19. INSTALL PERMANENT LANDSCAPE DESIGN PER LANDSCAPE PLANS.
20. APPLY HYDROSEED AND TACKIFIER TO ALL DISTURBED LANDSCAPE SURFACES NOT SUBJECT TO PERMANENT LANDSCAPE DESIGN. SEE LANDSCAPE PLANS FOR ADDITIONAL INFORMATION OR ODOT SPEC SECTION 1030 IF NOT PROVIDED AS PART OF THE CONTRACT DOCUMENTS.
21. PROVIDE ROADWAY SWEEPING SUFFICIENT FOR GOOD UPKEEP OF ALL DRIVABLE AREAS THROUGH ALL PHASES OF CONSTRUCTION.
22. PRESERVE ALL EXISTING VEGETATION OUTSIDE LIMITS OF WORK.

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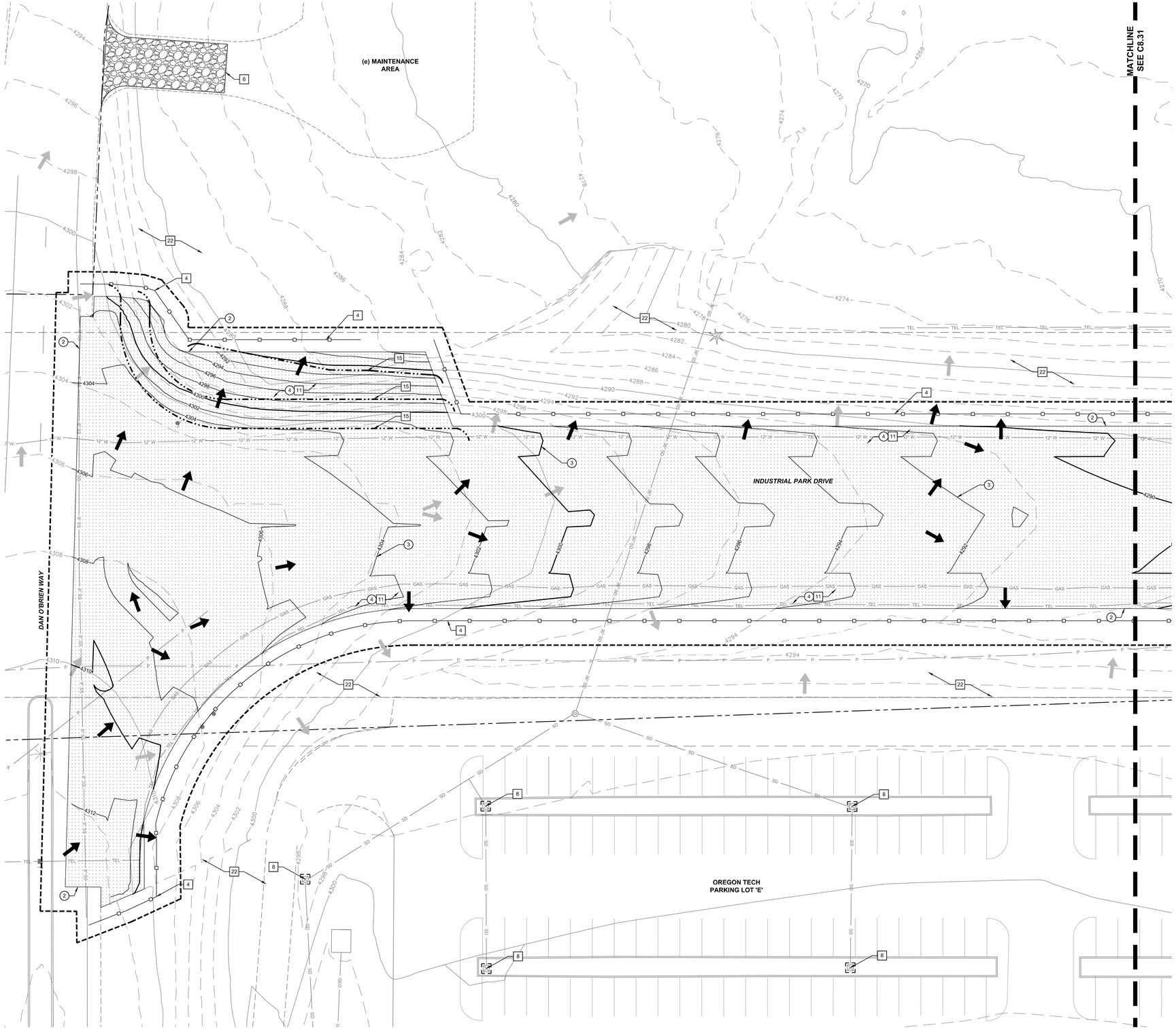
AREA "C" DEMOLITION AND CLEARING ESC PLAN

C8.22

BID AND PERMIT SET | 1200-C EROSION AND SEDIMENT CONTROL PLAN



1 C8.30 **AREA "A" MASS GRADING AND LAND DEVELOPMENT EROSION AND SEDIMENT CONTROL PLAN**

1" = 20'

ONE INCH EQUALS FULL SCALE

EROSION AND SEDIMENT CONTROL LEGEND:

PHASE SPECIFIC CONSTRUCTION LEGEND

- LIMITS OF MASS GRADING
- 90 EXISTING UTILITY TO REMAIN
- 4302 EXISTING GROUND CONTOUR (1 FT)
- 4300 EXISTING GROUND CONTOUR (5 FT)
- 4302 NEW GROUND CONTOUR (1 FT)
- 4300 NEW GROUND CONTOUR (5 FT)

EROSION AND SEDIMENT CONTROL LEGEND

- TEMPORARY CONSTRUCTION ENTRANCE
- LIMITS OF WORK (±2.84 ACRE)
- SEDIMENT FENCE
- SEDIMENT BARRIER
- BIO-FILTER BAG CHECK DAM - TYPE 3
- INLET PROTECTION - CATCH BASIN
- EXISTING DRAINAGE FLOW DIRECTION
- NEW DRAINAGE FLOW DIRECTION

PHASE CONSTRUCTION NOTES:

REFER TO CIVIL PERMIT DOCUMENTS FOR ALL CONSTRUCTION INFORMATION, TYPICAL.

ALL NOTES MAY NOT BE USED ON EACH SHEET.

PHASE CONSTRUCTION NOTES:

1. NOT USED.
2. APPROXIMATE LIMITS OF MASS GRADING AND LAND DEVELOPMENT.
3. NEW FINISH GRADE CONTOURS.
4. NEW FILL SLOPE.
5. NEW ROADSIDE DITCH IMPROVEMENT.

REFER TO CIVIL PERMIT DOCUMENTS FOR ALL CONSTRUCTION INFORMATION, TYPICAL.

EROSION CONTROL NOTES:

GENERAL EROSION CONTROL NOTES:

ALL EROSION AND SEDIMENT CONTROL MEASURES ON SLOPES, AND AT STORM SYSTEM INLETS/OUTLETS SHALL REMAIN IN PLACE UNTIL ALL PHASES OF CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.

THESE REQUIREMENTS SHALL BE CONSIDERED A MINIMUM. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL MEASURES AS REQUIRED TO FACILITATE CHANGES TO OR PHASING OF CONSTRUCTION. ALL COSTS FOR EROSION CONTROL MEASURES SHALL BE BORNE BY THE CONTRACTOR. ANY MODIFICATIONS TO THIS PLAN SHALL BE RESUBMITTED TO DEQ FOR APPROVAL VIA THE ONLINE PORTAL.

ALL POLLUTANT GENERATING ACTIVITIES TO TAKE PLACE INSIDE LIMITS OF WORK.

NOT ALL NOTES USED ON EACH SHEET OR IN EACH PHASE.

EROSION AND SEDIMENT CONTROL NOTES:

1. APPROXIMATE LOCATION OF CONTRACTOR LAYDOWN, TRAILER, AND PARKING.
2. FURNISH AND MAINTAIN TEMPORARY RESTROOM FACILITIES. ALL TEMPORARY FACILITIES TO BE 30' MINIMUM FROM NEAREST CATCH BASIN.
3. FURNISH AND MAINTAIN TEMPORARY TRASH AND RECYCLING FACILITIES WITH LIDS.
4. FURNISH AND MAINTAIN PERIMETER SEDIMENT FENCE AS SHOWN PER CITY OF KLAMATH FALLS DETAIL 3-155.
5. APPROXIMATE LOCATION OF MATERIAL STOCKPILE. FURNISH AND MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES AT ALL MATERIAL AND SPOIL STOCKPILES. COVER PILES WITH PLASTIC SHEETING AND STAKE PER CITY OF KLAMATH FALLS DETAIL 3-115.
6. FURNISH AND MAINTAIN 20' WIDE BY 50' LONG CONSTRUCTION ENTRANCE PER CITY OF KLAMATH FALLS DETAIL 3-100.
7. FURNISH AND MAINTAIN 'TYPE 4' DITCH INLET PROTECTION PER CITY OF KLAMATH FALLS DETAIL 3-190 AT ALL ON-SITE CATCH BASINS.
8. FURNISH AND MAINTAIN 'TYPE 5' CATCH BASIN INLET PROTECTION WITH WOVEN POLYPROPYLENE SACK PER CITY OF KLAMATH FALLS DETAIL 3-195 AT ALL ON-SITE CATCH BASINS.
9. FURNISH AND MAINTAIN 'TYPE 6' CATCH BASIN INLET PROTECTION PER CITY OF KLAMATH FALLS DETAIL 3-200 AT ALL NEWLY INSTALLED CURB INLETS.
10. INSTALL SLOPE TERRACING PRIOR TO SLOPE GRADING PER CITY OF KLAMATH FALLS DETAIL 3-125 AND PER GEOTECHNICAL REPORT.
11. APPLY SURFACE ROUGHENING TO NEWLY ESTABLISHED SLOPES PER CITY OF KLAMATH FALLS DETAIL 3-120.
12. FURNISH AND MAINTAIN OUTLET PROTECTION AND DISSIPATOR PER CITY OF KLAMATH FALLS DETAIL 3-150.
13. FURNISH AND MAINTAIN PIPE SLOPE DRAINS PER CITY OF KLAMATH FALLS DETAIL 3-150.
14. FURNISH AND MAINTAIN WOVEN COIR FABRIC 700 SLOPE MATTING PER CITY OF KLAMATH FALLS DETAILS 3-130 AND 3-140 ON DISTURBED SLOPES GREATER THAN 10%. ENSURE HYDROSEEDING IS INSTALLED BEFORE FABRIC.
15. FURNISH AND MAINTAIN SLOPE SEDIMENT BARRIERS PER ODOT RD1030 OR RD1032.
16. FURNISH AND MAINTAIN WOVEN COIR FABRIC 700 CHANNEL MATTING PER ODOT CITY OF KLAMATH FALLS DETAILS 3-135 AND 3-140 IN ALL NEW AND RECONFIGURED ROAD-SIDE DITCHES. ENSURE HYDROSEEDING IS INSTALLED BEFORE FABRIC.
17. FURNISH AND MAINTAIN TYPE 2 OR TYPE 6 CHECK DAMS PER ODOT RD1006 (TYPICAL).
18. FURNISH AND MAINTAIN CONCRETE TRUCK WASH OUT PER ODOT RD1070.
19. INSTALL PERMANENT LANDSCAPE DESIGN PER LANDSCAPE PLANS.
20. APPLY HYDROSEED AND TACKIFIER TO ALL DISTURBED LANDSCAPE SURFACES NOT SUBJECT TO PERMANENT LANDSCAPE DESIGN. SEE LANDSCAPE PLANS FOR ADDITIONAL INFORMATION OR ODOT SPEC SECTION 1030 IF NOT PROVIDED AS PART OF THE CONTRACT DOCUMENTS.
21. PROVIDE ROADWAY SWEEPING SUFFICIENT FOR GOOD UPKEEP OF ALL DRIVABLE AREAS THROUGH ALL PHASES OF CONSTRUCTION.
22. PRESERVE ALL EXISTING VEGETATION OUTSIDE LIMITS OF WORK.

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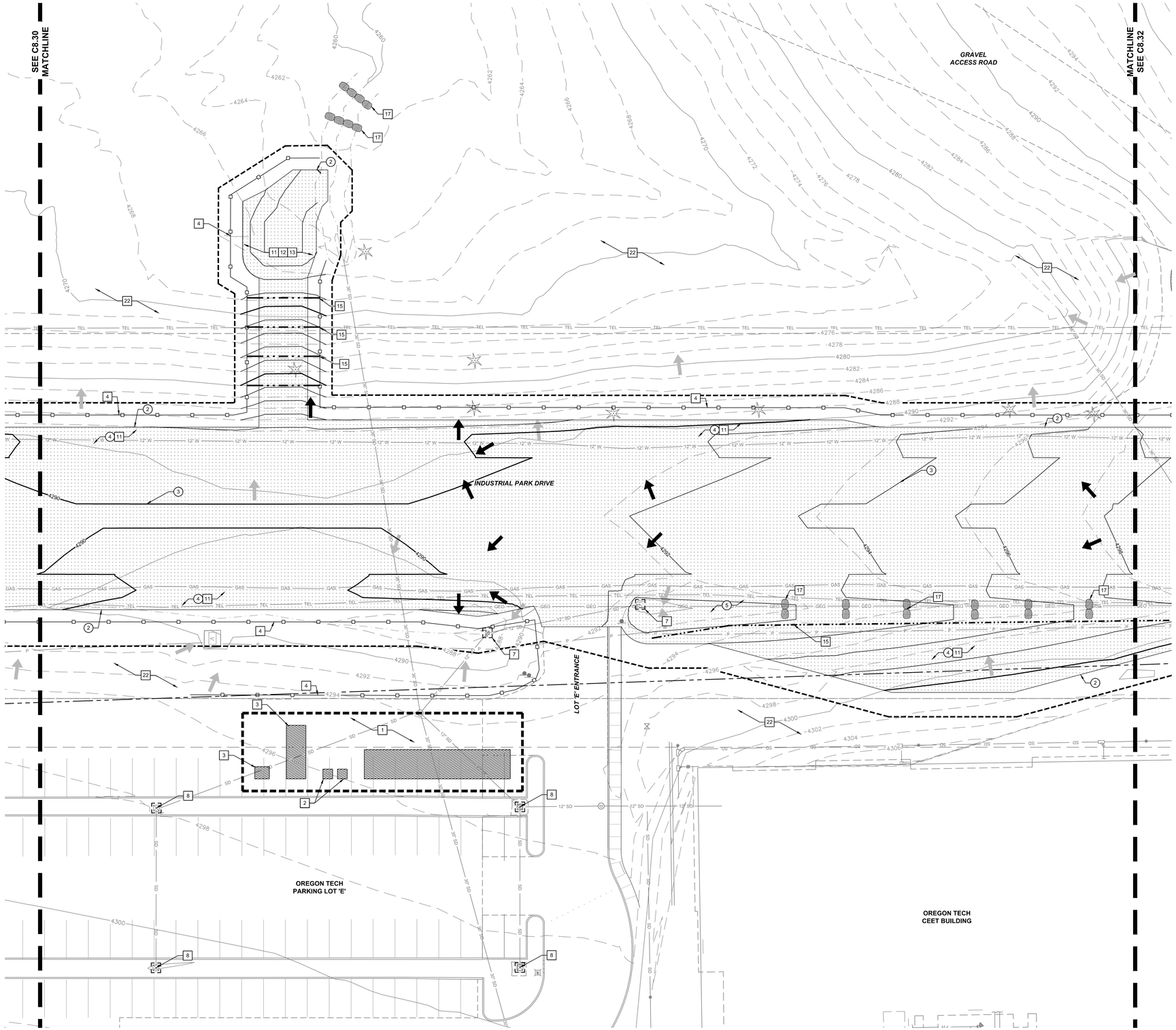
AREA "A"
MASS GRADING AND LAND DEVELOPMENT ESC PLAN

C8.30

BID AND PERMIT SET | 1200-C EROSION AND SEDIMENT CONTROL PLAN



1 C8.31 **AREA "B" MASS GRADING AND LAND DEVELOPMENT EROSION AND SEDIMENT CONTROL PLAN**

1" = 20'

ONE INCH EQUALS FULL SCALE

EROSION AND SEDIMENT CONTROL LEGEND:

PHASE SPECIFIC CONSTRUCTION LEGEND

- LIMITS OF MASS GRADING
- EXISTING UTILITY TO REMAIN
- 4302 EXISTING GROUND CONTOUR (1 FT)
- 4300 EXISTING GROUND CONTOUR (5 FT)
- 4302 NEW GROUND CONTOUR (1 FT)
- 4300 NEW GROUND CONTOUR (5 FT)

EROSION AND SEDIMENT CONTROL LEGEND

- TEMPORARY CONSTRUCTION ENTRANCE
- LIMITS OF WORK (±2.84 ACRE)
- SEDIMENT FENCE
- SEDIMENT BARRIER
- BIO-FILTER BAG CHECK DAM - TYPE 3
- INLET PROTECTION - CATCH BASIN
- EXISTING DRAINAGE FLOW DIRECTION
- NEW DRAINAGE FLOW DIRECTION

PHASE CONSTRUCTION NOTES:

REFER TO CIVIL PERMIT DOCUMENTS FOR ALL CONSTRUCTION INFORMATION, TYPICAL.

ALL NOTES MAY NOT BE USED ON EACH SHEET.

PHASE CONSTRUCTION NOTES:

1. NOT USED.
2. APPROXIMATE LIMITS OF MASS GRADING AND LAND DEVELOPMENT.
3. NEW FINISH GRADE CONTOURS.
4. NEW FILL SLOPE.
5. NEW ROADSIDE DITCH IMPROVEMENT.

REFER TO CIVIL PERMIT DOCUMENTS FOR ALL CONSTRUCTION INFORMATION, TYPICAL.

EROSION CONTROL NOTES:

GENERAL EROSION CONTROL NOTES:

ALL EROSION AND SEDIMENT CONTROL MEASURES ON SLOPES, AND AT STORM SYSTEM INLETS/OUTLETS SHALL REMAIN IN PLACE UNTIL ALL PHASES OF CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.

THESE REQUIREMENTS SHALL BE CONSIDERED A MINIMUM. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL MEASURES AS REQUIRED TO FACILITATE CHANGES TO OR PHASING OF CONSTRUCTION. ALL COSTS FOR EROSION CONTROL MEASURES SHALL BE BORNE BY THE CONTRACTOR. ANY MODIFICATIONS TO THIS PLAN SHALL BE RESUBMITTED TO DEQ FOR APPROVAL VIA THE ONLINE PORTAL.

ALL POLLUTANT GENERATING ACTIVITIES TO TAKE PLACE INSIDE LIMITS OF WORK.

NOT ALL NOTES USED ON EACH SHEET OR IN EACH PHASE.

EROSION AND SEDIMENT CONTROL NOTES:

1. APPROXIMATE LOCATION OF CONTRACTOR LAYDOWN, TRAILER, AND PARKING.
2. FURNISH AND MAINTAIN TEMPORARY RESTROOM FACILITIES. ALL TEMPORARY FACILITIES TO BE 30' MINIMUM FROM NEAREST CATCH BASIN.
3. FURNISH AND MAINTAIN TEMPORARY TRASH AND RECYCLING FACILITIES WITH LIDS.
4. FURNISH AND MAINTAIN PERIMETER SEDIMENT FENCE AS SHOWN PER CITY OF KLAMATH FALLS DETAIL 3-155.
5. APPROXIMATE LOCATION OF MATERIAL STOCKPILE. FURNISH AND MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES AT ALL MATERIAL AND SPOIL STOCKPILES. COVER PILES WITH PLASTIC SHEETING AND STAKE PER CITY OF KLAMATH FALLS DETAIL 3-115.
6. FURNISH AND MAINTAIN 20' WIDE BY 50' LONG CONSTRUCTION ENTRANCE PER CITY OF KLAMATH FALLS DETAIL 3-100.
7. FURNISH AND MAINTAIN 'TYPE 4' DITCH INLET PROTECTION PER CITY OF KLAMATH FALLS DETAIL 3-190 AT ALL ON-SITE CATCH BASINS.
8. FURNISH AND MAINTAIN 'TYPE 5' CATCH BASIN INLET PROTECTION WITH WOVEN POLYPROPYLENE SACK PER CITY OF KLAMATH FALLS DETAIL 3-195 AT ALL ON-SITE CATCH BASINS.
9. FURNISH AND MAINTAIN 'TYPE 6' CATCH BASIN INLET PROTECTION PER CITY OF KLAMATH FALLS DETAIL 3-200 AT ALL NEWLY INSTALLED CURB INLETS.
10. INSTALL SLOPE TERRACING PRIOR TO SLOPE GRADING PER CITY OF KLAMATH FALLS DETAIL 3-125 AND PER GEOTECHNICAL REPORT.
11. APPLY SURFACE ROUGHENING TO NEWLY ESTABLISHED SLOPES PER CITY OF KLAMATH FALLS DETAIL 3-120.
12. FURNISH AND MAINTAIN OUTLET PROTECTION AND DISSIPATOR PER CITY OF KLAMATH FALLS DETAIL 3-150.
13. FURNISH AND MAINTAIN PIPE SLOPE DRAINS PER CITY OF KLAMATH FALLS DETAIL 3-150.
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15. FURNISH AND MAINTAIN SLOPE SEDIMENT BARRIERS PER ODOT RD1030 OR RD1032.
16. FURNISH AND MAINTAIN WOVEN COIR FABRIC 700 CHANNEL MATTING PER ODOT CITY OF KLAMATH FALLS DETAILS 3-135 AND 3-140 IN ALL NEW AND RECONFIGURED ROAD-SIDE DITCHES. ENSURE HYDROSEEDING IS INSTALLED BEFORE FABRIC.
17. FURNISH AND MAINTAIN TYPE 2 OR TYPE 6 CHECK DAMS PER ODOT RD1006 (TYPICAL).
18. FURNISH AND MAINTAIN CONCRETE TRUCK WASH OUT PER ODOT RD1070.
19. INSTALL PERMANENT LANDSCAPE DESIGN PER LANDSCAPE PLANS.
20. APPLY HYDROSEED AND TACKIFIER TO ALL DISTURBED LANDSCAPE SURFACES NOT SUBJECT TO PERMANENT LANDSCAPE DESIGN. SEE LANDSCAPE PLANS FOR ADDITIONAL INFORMATION OR ODOT SPEC SECTION 1030 IF NOT PROVIDED AS PART OF THE CONTRACT DOCUMENTS.
21. PROVIDE ROADWAY SWEEPING SUFFICIENT FOR GOOD UPKEEP OF ALL DRIVABLE AREAS THROUGH ALL PHASES OF CONSTRUCTION.
22. PRESERVE ALL EXISTING VEGETATION OUTSIDE LIMITS OF WORK.

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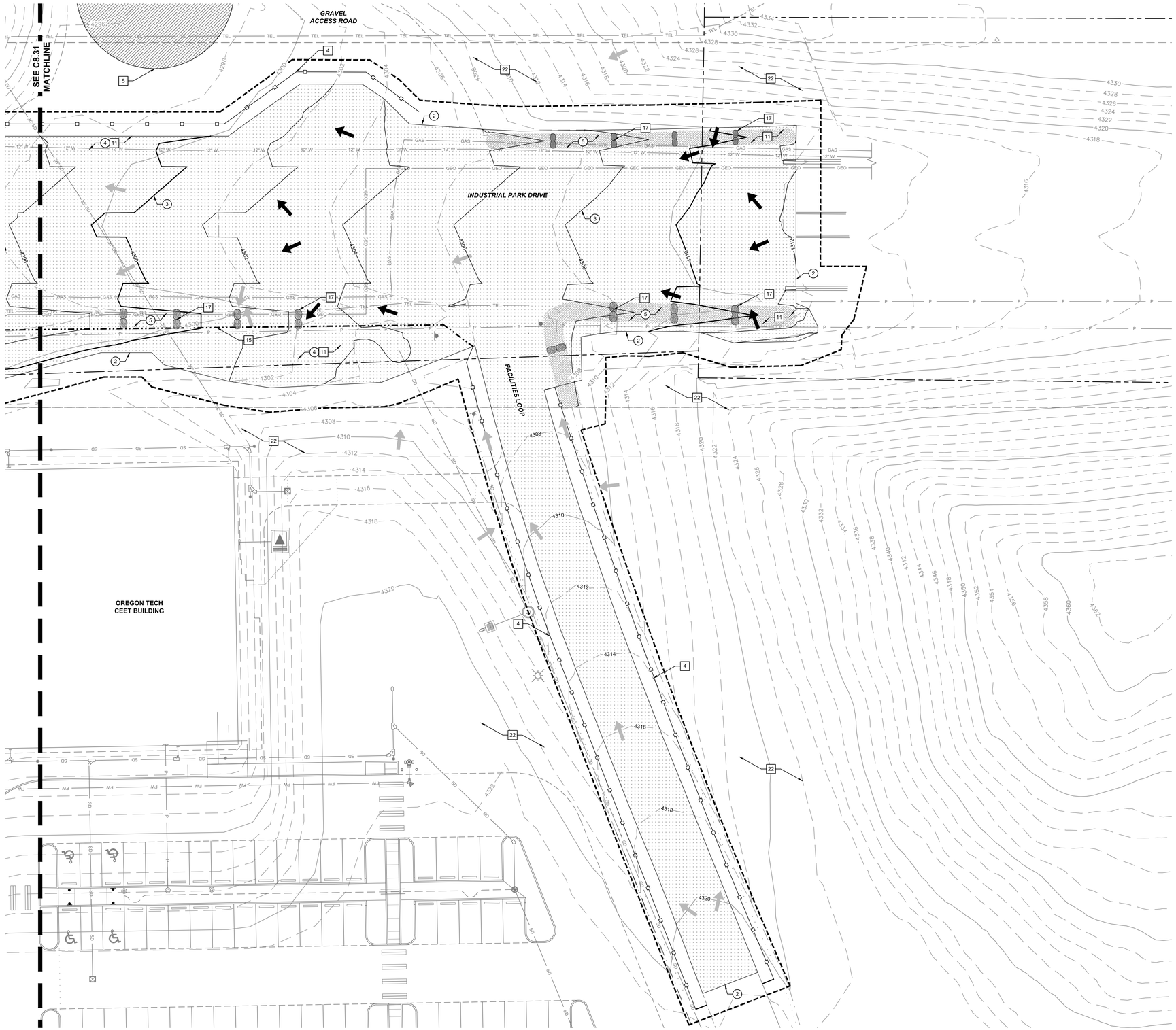
AREA "B"
MASS GRADING AND LAND DEVELOPMENT ESC PLAN

C8.31

BID AND PERMIT SET | 1200-C EROSION AND SEDIMENT CONTROL PLAN



1 C8.32 **AREA "C" MASS GRADING AND LAND DEVELOPMENT EROSION AND SEDIMENT CONTROL PLAN**

1" = 20'

ONE INCH EQUALS FULL SCALE

EROSION AND SEDIMENT CONTROL LEGEND:

PHASE SPECIFIC CONSTRUCTION LEGEND

- LIMITS OF MASS GRADING
- EXISTING UTILITY TO REMAIN
- EXISTING GROUND CONTOUR (1 FT)
- EXISTING GROUND CONTOUR (5 FT)
- NEW GROUND CONTOUR (1 FT)
- NEW GROUND CONTOUR (5 FT)

EROSION AND SEDIMENT CONTROL LEGEND

- TEMPORARY CONSTRUCTION ENTRANCE
- LIMITS OF WORK (±2.84 ACRE)
- SEDIMENT FENCE
- SEDIMENT BARRIER
- BIO-FILTER BAG CHECK DAM - TYPE 3
- INLET PROTECTION - CATCH BASIN
- EXISTING DRAINAGE FLOW DIRECTION
- NEW DRAINAGE FLOW DIRECTION

PHASE CONSTRUCTION NOTES:

REFER TO CIVIL PERMIT DOCUMENTS FOR ALL CONSTRUCTION INFORMATION, TYPICAL.

ALL NOTES MAY NOT BE USED ON EACH SHEET.

PHASE CONSTRUCTION NOTES:

1. NOT USED.
2. APPROXIMATE LIMITS OF MASS GRADING AND LAND DEVELOPMENT.
3. NEW FINISH GRADE CONTOURS.
4. NEW FILL SLOPE.
5. NEW ROADSIDE DITCH IMPROVEMENT.

REFER TO CIVIL PERMIT DOCUMENTS FOR ALL CONSTRUCTION INFORMATION, TYPICAL.

EROSION CONTROL NOTES:

GENERAL EROSION CONTROL NOTES:

ALL EROSION AND SEDIMENT CONTROL MEASURES ON SLOPES, AND AT STORM SYSTEM INLETS/OUTLETS SHALL REMAIN IN PLACE UNTIL ALL PHASES OF CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.

THESE REQUIREMENTS SHALL BE CONSIDERED A MINIMUM. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL MEASURES AS REQUIRED TO FACILITATE CHANGES TO OR PHASING OF CONSTRUCTION. ALL COSTS FOR EROSION CONTROL MEASURES SHALL BE BORNE BY THE CONTRACTOR. ANY MODIFICATIONS TO THIS PLAN SHALL BE RESUBMITTED TO DEQ FOR APPROVAL VIA THE ONLINE PORTAL.

ALL POLLUTANT GENERATING ACTIVITIES TO TAKE PLACE INSIDE LIMITS OF WORK.

NOT ALL NOTES USED ON EACH SHEET OR IN EACH PHASE.

EROSION AND SEDIMENT CONTROL NOTES:

1. APPROXIMATE LOCATION OF CONTRACTOR LAYDOWN, TRAILER, AND PARKING.
2. FURNISH AND MAINTAIN TEMPORARY RESTROOM FACILITIES. ALL TEMPORARY FACILITIES TO BE 30' MINIMUM FROM NEAREST CATCH BASIN.
3. FURNISH AND MAINTAIN TEMPORARY TRASH AND RECYCLING FACILITIES WITH LIDS.
4. FURNISH AND MAINTAIN PERIMETER SEDIMENT FENCE AS SHOWN PER CITY OF KLAMATH FALLS DETAIL 3-155.
5. APPROXIMATE LOCATION OF MATERIAL STOCKPILE. FURNISH AND MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES AT ALL MATERIAL AND SPOIL STOCKPILES. COVER PILES WITH PLASTIC SHEETING AND STAKE PER CITY OF KLAMATH FALLS DETAIL 3-115.
6. FURNISH AND MAINTAIN 20' WIDE BY 50' LONG CONSTRUCTION ENTRANCE PER CITY OF KLAMATH FALLS DETAIL 3-100.
7. FURNISH AND MAINTAIN 'TYPE 4' DITCH INLET PROTECTION PER CITY OF KLAMATH FALLS DETAIL 3-190 AT ALL ON-SITE CATCH BASINS.
8. FURNISH AND MAINTAIN 'TYPE 5' CATCH BASIN INLET PROTECTION WITH WOVEN POLYPROPYLENE SACK PER CITY OF KLAMATH FALLS DETAIL 3-195 AT ALL ON-SITE CATCH BASINS.
9. FURNISH AND MAINTAIN 'TYPE 6' CATCH BASIN INLET PROTECTION PER CITY OF KLAMATH FALLS DETAIL 3-200 AT ALL NEWLY INSTALLED CURB INLETS.
10. INSTALL SLOPE TERRACING PRIOR TO SLOPE GRADING PER CITY OF KLAMATH FALLS DETAIL 3-125 AND PER GEOTECHNICAL REPORT.
11. APPLY SURFACE ROUGHENING TO NEWLY ESTABLISHED SLOPES PER CITY OF KLAMATH FALLS DETAIL 3-120.
12. FURNISH AND MAINTAIN OUTLET PROTECTION AND DISSIPATOR PER CITY OF KLAMATH FALLS DETAIL 3-150.
13. FURNISH AND MAINTAIN PIPE SLOPE DRAINS PER CITY OF KLAMATH FALLS DETAIL 3-150.
14. FURNISH AND MAINTAIN WOVEN COIR FABRIC 700 SLOPE MATTING PER CITY OF KLAMATH FALLS DETAILS 3-130 AND 3-140 ON DISTURBED SLOPES GREATER THAN 10%. ENSURE HYDROSEEDING IS INSTALLED BEFORE FABRIC.
15. FURNISH AND MAINTAIN SLOPE SEDIMENT BARRIERS PER ODOT RD1030 OR RD1032.
16. FURNISH AND MAINTAIN WOVEN COIR FABRIC 700 CHANNEL MATTING PER ODOT CITY OF KLAMATH FALLS DETAILS 3-135 AND 3-140 IN ALL NEW AND RECONFIGURED ROAD-SIDE DITCHES. ENSURE HYDROSEEDING IS INSTALLED BEFORE FABRIC.
17. FURNISH AND MAINTAIN TYPE 2 OR TYPE 6 CHECK DAMS PER ODOT RD1006 (TYPICAL).
18. FURNISH AND MAINTAIN CONCRETE TRUCK WASH OUT PER ODOT RD1070.
19. INSTALL PERMANENT LANDSCAPE DESIGN PER LANDSCAPE PLANS.
20. APPLY HYDROSEED AND TACKIFIER TO ALL DISTURBED LANDSCAPE SURFACES NOT SUBJECT TO PERMANENT LANDSCAPE DESIGN. SEE LANDSCAPE PLANS FOR ADDITIONAL INFORMATION OR ODOT SPEC SECTION 1030 IF NOT PROVIDED AS PART OF THE CONTRACT DOCUMENTS.
21. PROVIDE ROADWAY SWEEPING SUFFICIENT FOR GOOD UPKEEP OF ALL DRIVABLE AREAS THROUGH ALL PHASES OF CONSTRUCTION.
22. PRESERVE ALL EXISTING VEGETATION OUTSIDE LIMITS OF WORK.

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Sept. 19, 2006
SYLAS E. ALLEN
EXPIRES: 12-31-23

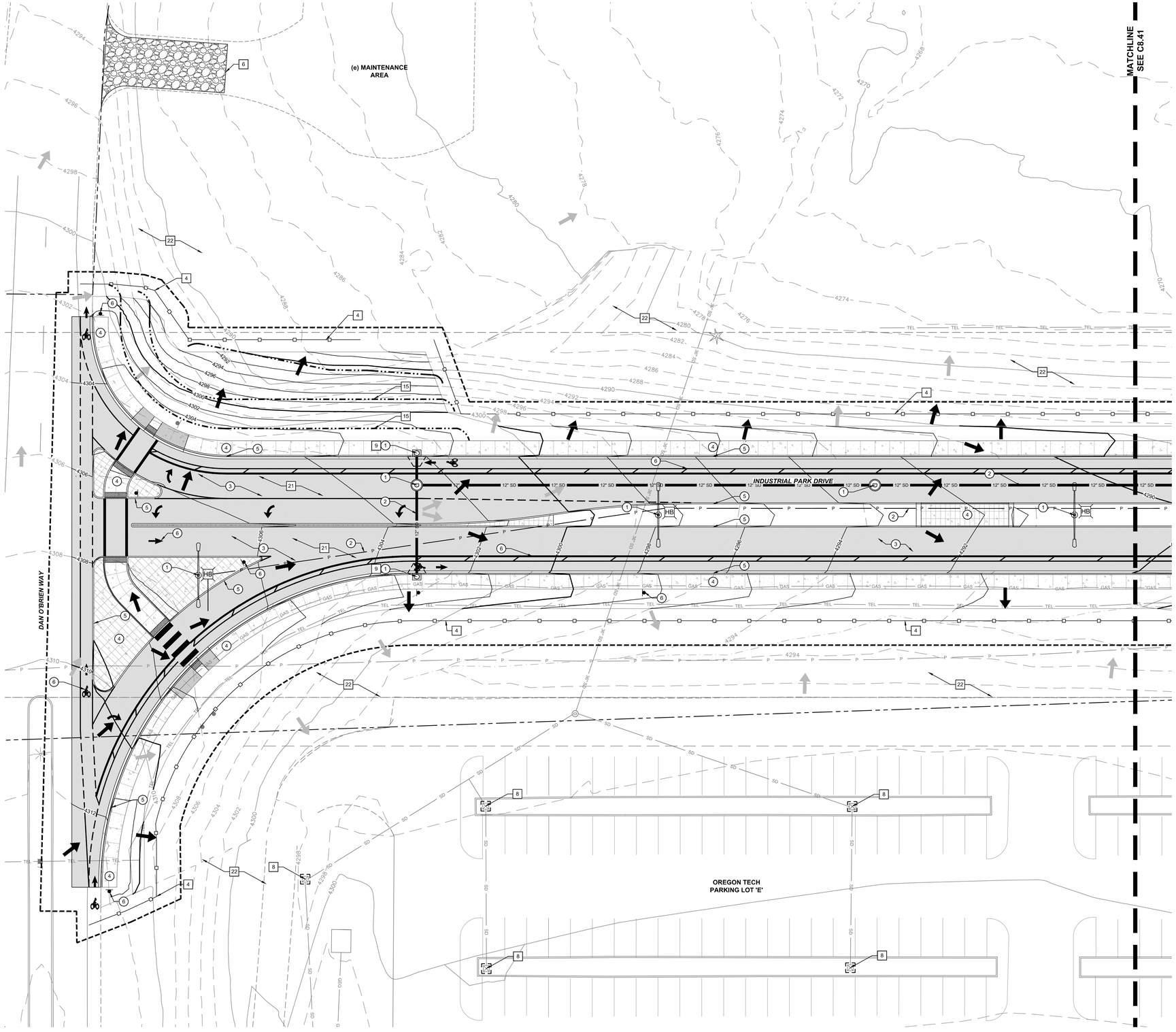
REVISION ID:	DATE:

PROJECT NO:	K-6345-23
DRAWN:	KS
CHECKED:	BJD
DATE:	01-31-2024

AREA "C"
MASS GRADING AND LAND DEVELOPMENT ESC PLAN

C8.32

BID AND PERMIT SET | 1200-C EROSION AND SEDIMENT CONTROL PLAN



1 C8.40 **AREA "A" STREET AND UTILITIES EROSION AND SEDIMENT CONTROL PLAN**

1" = 20'

ONE INCH EQUALS FULL SCALE

EROSION AND SEDIMENT CONTROL LEGEND:

PHASE SPECIFIC CONSTRUCTION LEGEND

- NEW ASPHALT PAVEMENT
- NEW CONCRETE PAVEMENT
- SS NEW UTILITY
- 4302 EXISTING GROUND CONTOUR (1 FT)
- 4300 EXISTING GROUND CONTOUR (5 FT)
- 4302 NEW GROUND CONTOUR (1 FT)
- 4300 NEW GROUND CONTOUR (5 FT)

EROSION AND SEDIMENT CONTROL LEGEND

- TEMPORARY CONTRACTOR STAGING AREA
- MATERIAL STOCKPILE
- LIMITS OF WORK (±2.84 ACRE)
- SEDIMENT FENCE
- WATTLE
- BIO-FILTER BAG CHECK DAM - TYPE 3
- CONCRETE WASH PIT
- INLET PROTECTION - CATCH BASIN
- INLET PROTECTION - CURB INLET
- EXISTING DRAINAGE FLOW DIRECTION
- NEW DRAINAGE FLOW DIRECTION

PHASE CONSTRUCTION NOTES:

1. NEW UTILITY STRUCTURE.
2. NEW BURIED UTILITY, TYPICAL.
3. NEW ASPHALT PAVEMENT.
4. NEW CONCRETE SIDEWALK/PAVEMENT.
5. NEW CONCRETE CURB.
6. NEW STRIPING & SIGNAGE, TYPICAL.

REFER TO CIVIL PERMIT DOCUMENTS FOR ALL CONSTRUCTION INFORMATION, TYPICAL.

EROSION CONTROL NOTES:

GENERAL EROSION CONTROL NOTES:

ALL EROSION AND SEDIMENT CONTROL MEASURES ON SLOPES, AND AT STORM SYSTEM INLETS/OUTLETS SHALL REMAIN IN PLACE UNTIL ALL PHASES OF CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.

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ALL POLLUTANT GENERATING ACTIVITIES TO TAKE PLACE INSIDE LIMITS OF WORK.

NOT ALL NOTES USED ON EACH SHEET OR IN EACH PHASE.

EROSION AND SEDIMENT CONTROL NOTES:

1. APPROXIMATE LOCATION OF CONTRACTOR LAYDOWN, TRAILER, AND PARKING.
2. FURNISH AND MAINTAIN TEMPORARY RESTROOM FACILITIES. ALL TEMPORARY FACILITIES TO BE 30' MINIMUM FROM NEAREST CATCH BASIN.
3. FURNISH AND MAINTAIN TEMPORARY TRASH AND RECYCLING FACILITIES WITH LIDS.
4. FURNISH AND MAINTAIN PERIMETER SEDIMENT FENCE AS SHOWN PER CITY OF KLAMATH FALLS DETAIL 3-155.
5. APPROXIMATE LOCATION OF MATERIAL STOCKPILE. FURNISH AND MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES AT ALL MATERIAL AND SPOIL STOCKPILES. COVER PILES WITH PLASTIC SHEETING AND STAKE PER CITY OF KLAMATH FALLS DETAIL 3-115.
6. FURNISH AND MAINTAIN 20' WIDE BY 50' LONG CONSTRUCTION ENTRANCE PER CITY OF KLAMATH FALLS DETAIL 3-100.
7. FURNISH AND MAINTAIN 'TYPE 4' DITCH INLET PROTECTION PER CITY OF KLAMATH FALLS DETAIL 3-190 AT ALL ON-SITE CATCH BASINS.
8. FURNISH AND MAINTAIN 'TYPE 5' CATCH BASIN INLET PROTECTION WITH WOVEN POLYPROPYLENE SACK PER CITY OF KLAMATH FALLS DETAIL 3-195 AT ALL ON-SITE CATCH BASINS.
9. FURNISH AND MAINTAIN 'TYPE 6' CATCH BASIN INLET PROTECTION PER CITY OF KLAMATH FALLS DETAIL 3-200 AT ALL NEWLY INSTALLED CURB INLETS.
10. INSTALL SLOPE TERRACING PRIOR TO SLOPE GRADING PER CITY OF KLAMATH FALLS DETAIL 3-125 AND PER GEOTECHNICAL REPORT.
11. APPLY SURFACE ROUGHENING TO NEWLY ESTABLISHED SLOPES PER CITY OF KLAMATH FALLS DETAIL 3-120.
12. FURNISH AND MAINTAIN OUTLET PROTECTION AND DISSIPATOR PER CITY OF KLAMATH FALLS DETAIL 3-150.
13. FURNISH AND MAINTAIN PIPE SLOPE DRAINS PER CITY OF KLAMATH FALLS DETAIL 3-150.
14. FURNISH AND MAINTAIN WOVEN COIR FABRIC 700 SLOPE MATTING PER CITY OF KLAMATH FALLS DETAILS 3-130 AND 3-140 ON DISTURBED SLOPES GREATER THAN 10%. ENSURE HYDROSEEDING IS INSTALLED BEFORE FABRIC.
15. FURNISH AND MAINTAIN SLOPE SEDIMENT BARRIERS PER ODOT RD1030 OR RD1032.
16. FURNISH AND MAINTAIN WOVEN COIR FABRIC 700 CHANNEL MATTING PER ODOT CITY OF KLAMATH FALLS DETAILS 3-135 AND 3-140 IN ALL NEW AND RECONFIGURED ROAD-SIDE DITCHES. ENSURE HYDROSEEDING IS INSTALLED BEFORE FABRIC.
17. FURNISH AND MAINTAIN TYPE 2 OR TYPE 6 CHECK DAMS PER ODOT RD1006 (TYPICAL).
18. FURNISH AND MAINTAIN CONCRETE TRUCK WASH OUT PER ODOT RD1070.
19. INSTALL PERMANENT LANDSCAPE DESIGN PER LANDSCAPE PLANS.
20. APPLY HYDROSEED AND TACKIFIER TO ALL DISTURBED LANDSCAPE SURFACES NOT SUBJECT TO PERMANENT LANDSCAPE DESIGN. SEE LANDSCAPE PLANS FOR ADDITIONAL INFORMATION OR ODOT SPEC SECTION 1030 IF NOT PROVIDED AS PART OF THE CONTRACT DOCUMENTS.
21. PROVIDE ROADWAY SWEEPING SUFFICIENT FOR GOOD UPKEEP OF ALL DRIVABLE AREAS THROUGH ALL PHASES OF CONSTRUCTION.
22. PRESERVE ALL EXISTING VEGETATION OUTSIDE LIMITS OF WORK.

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Sept. 19, 2006
SYLAS E. ALLEN
EXPIRES: 12-31-23

REVISION ID:	DATE:

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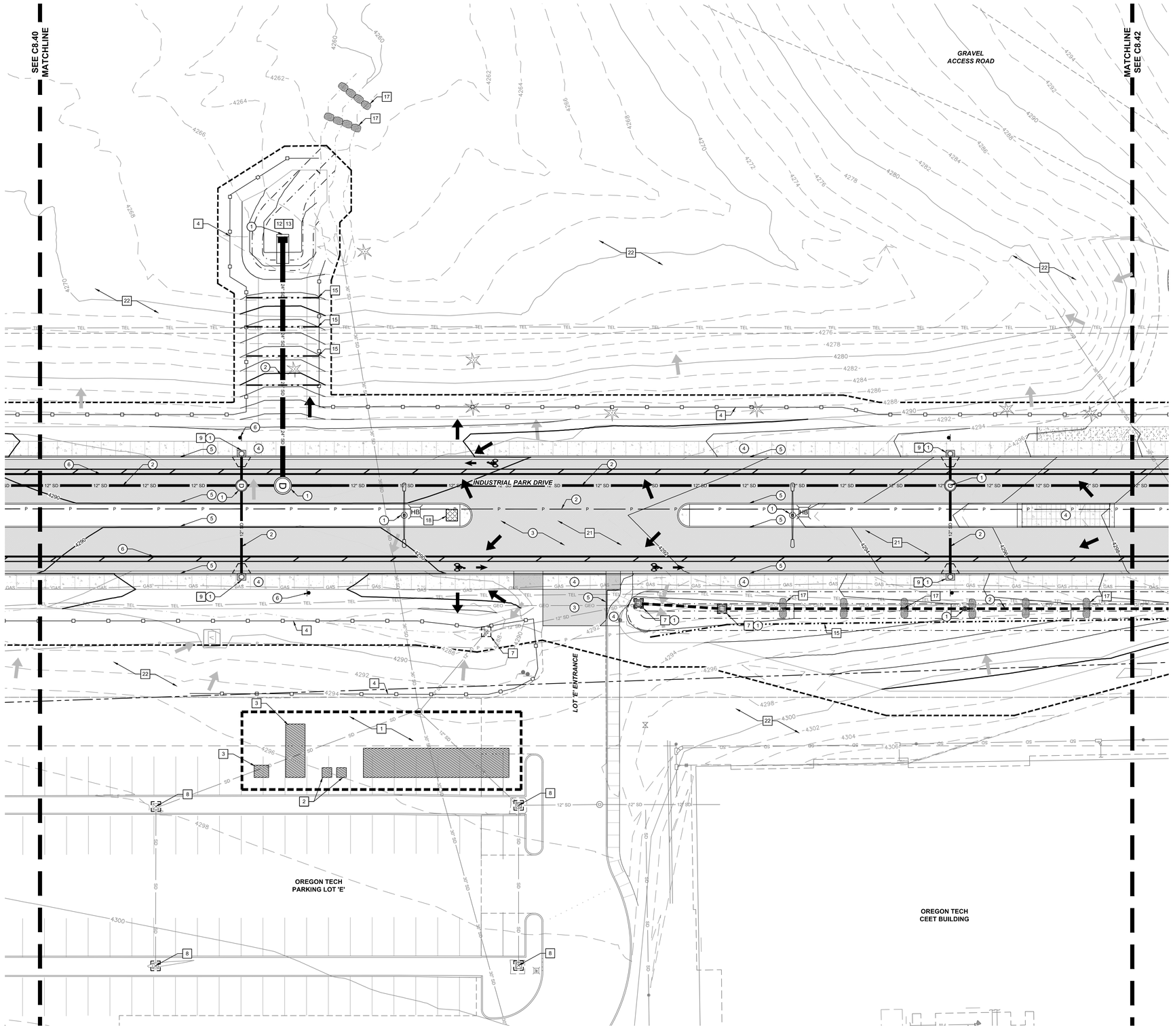
AREA "A" STREET AND UTILITIES ESC PLAN

C8.40

BID AND PERMIT SET | 1200-C EROSION AND SEDIMENT CONTROL PLAN



1 C8.41 **AREA "B" STREET AND UTILITIES EROSION AND SEDIMENT CONTROL PLAN**

1" = 20'

ONE INCH EQUALS FULL SCALE

EROSION AND SEDIMENT CONTROL LEGEND:

PHASE SPECIFIC CONSTRUCTION LEGEND

- NEW ASPHALT PAVEMENT
- NEW CONCRETE PAVEMENT
- SS — NEW UTILITY
- 4302 — EXISTING GROUND CONTOUR (1 FT)
- 4300 — EXISTING GROUND CONTOUR (5 FT)
- 4302 — NEW GROUND CONTOUR (1 FT)
- 4300 — NEW GROUND CONTOUR (5 FT)

EROSION AND SEDIMENT CONTROL LEGEND

- TEMPORARY CONTRACTOR STAGING AREA
- MATERIAL STOCKPILE
- LIMITS OF WORK (±2.84 ACRE)
- SEDIMENT FENCE
- WATTLE
- BIO-FILTER BAG CHECK DAM - TYPE 3
- CONCRETE WASH PIT
- INLET PROTECTION - CATCH BASIN
- INLET PROTECTION - CURB INLET
- EXISTING DRAINAGE FLOW DIRECTION
- NEW DRAINAGE FLOW DIRECTION

PHASE CONSTRUCTION NOTES:

1. NEW UTILITY STRUCTURE.
2. NEW BURIED UTILITY, TYPICAL.
3. NEW ASPHALT PAVEMENT.
4. NEW CONCRETE SIDEWALK/PAVEMENT.
5. NEW CONCRETE CURB.
6. NEW STRIPING & SIGNAGE, TYPICAL.

REFER TO CIVIL PERMIT DOCUMENTS FOR ALL CONSTRUCTION INFORMATION, TYPICAL.

EROSION CONTROL NOTES:

GENERAL EROSION CONTROL NOTES:

ALL EROSION AND SEDIMENT CONTROL MEASURES ON SLOPES, AND AT STORM SYSTEM INLETS/OUTLETS SHALL REMAIN IN PLACE UNTIL ALL PHASES OF CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.

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ALL POLLUTANT GENERATING ACTIVITIES TO TAKE PLACE INSIDE LIMITS OF WORK.

NOT ALL NOTES USED ON EACH SHEET OR IN EACH PHASE.

EROSION AND SEDIMENT CONTROL NOTES:

1. APPROXIMATE LOCATION OF CONTRACTOR LAYDOWN, TRAILER, AND PARKING.
2. FURNISH AND MAINTAIN TEMPORARY RESTROOM FACILITIES. ALL TEMPORARY FACILITIES TO BE 30' MINIMUM FROM NEAREST CATCH BASIN.
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4. FURNISH AND MAINTAIN PERIMETER SEDIMENT FENCE AS SHOWN PER CITY OF KLAMATH FALLS DETAIL 3-155.
5. APPROXIMATE LOCATION OF MATERIAL STOCKPILE. FURNISH AND MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES AT ALL MATERIAL AND SPOIL STOCKPILES. COVER PILES WITH PLASTIC SHEETING AND STAKE PER CITY OF KLAMATH FALLS DETAIL 3-115.
6. FURNISH AND MAINTAIN 20' WIDE BY 50' LONG CONSTRUCTION ENTRANCE PER CITY OF KLAMATH FALLS DETAIL 3-100.
7. FURNISH AND MAINTAIN 'TYPE 4' DITCH INLET PROTECTION PER CITY OF KLAMATH FALLS DETAIL 3-190 AT ALL ON-SITE CATCH BASINS.
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10. INSTALL SLOPE TERRACING PRIOR TO SLOPE GRADING PER CITY OF KLAMATH FALLS DETAIL 3-125 AND PER GEOTECHNICAL REPORT.
11. APPLY SURFACE ROUGHENING TO NEWLY ESTABLISHED SLOPES PER CITY OF KLAMATH FALLS DETAIL 3-120.
12. FURNISH AND MAINTAIN OUTLET PROTECTION AND DISSIPATOR PER CITY OF KLAMATH FALLS DETAIL 3-150.
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15. FURNISH AND MAINTAIN SLOPE SEDIMENT BARRIERS PER ODOT RD1030 OR RD1032.
16. FURNISH AND MAINTAIN WOVEN COIR FABRIC 700 CHANNEL MATTING PER ODOT CITY OF KLAMATH FALLS DETAILS 3-135 AND 3-140 IN ALL NEW AND RECONFIGURED ROAD-SIDE DITCHES. ENSURE HYDROSEEDING IS INSTALLED BEFORE FABRIC.
17. FURNISH AND MAINTAIN TYPE 2 OR TYPE 6 CHECK DAMS PER ODOT RD1006 (TYPICAL).
18. FURNISH AND MAINTAIN CONCRETE TRUCK WASH OUT PER ODOT RD1070.
19. INSTALL PERMANENT LANDSCAPE DESIGN PER LANDSCAPE PLANS.
20. APPLY HYDROSEED AND TACKIFIER TO ALL DISTURBED LANDSCAPE SURFACES NOT SUBJECT TO PERMANENT LANDSCAPE DESIGN. SEE LANDSCAPE PLANS FOR ADDITIONAL INFORMATION OR ODOT SPEC SECTION 1030 IF NOT PROVIDED AS PART OF THE CONTRACT DOCUMENTS.
21. PROVIDE ROADWAY SWEEPING SUFFICIENT FOR GOOD UPKEEP OF ALL DRIVABLE AREAS THROUGH ALL PHASES OF CONSTRUCTION.
22. PRESERVE ALL EXISTING VEGETATION OUTSIDE LIMITS OF WORK.

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Sept. 19, 2006
SYLAS E. ALLEN
EXPIRES: 12-31-23

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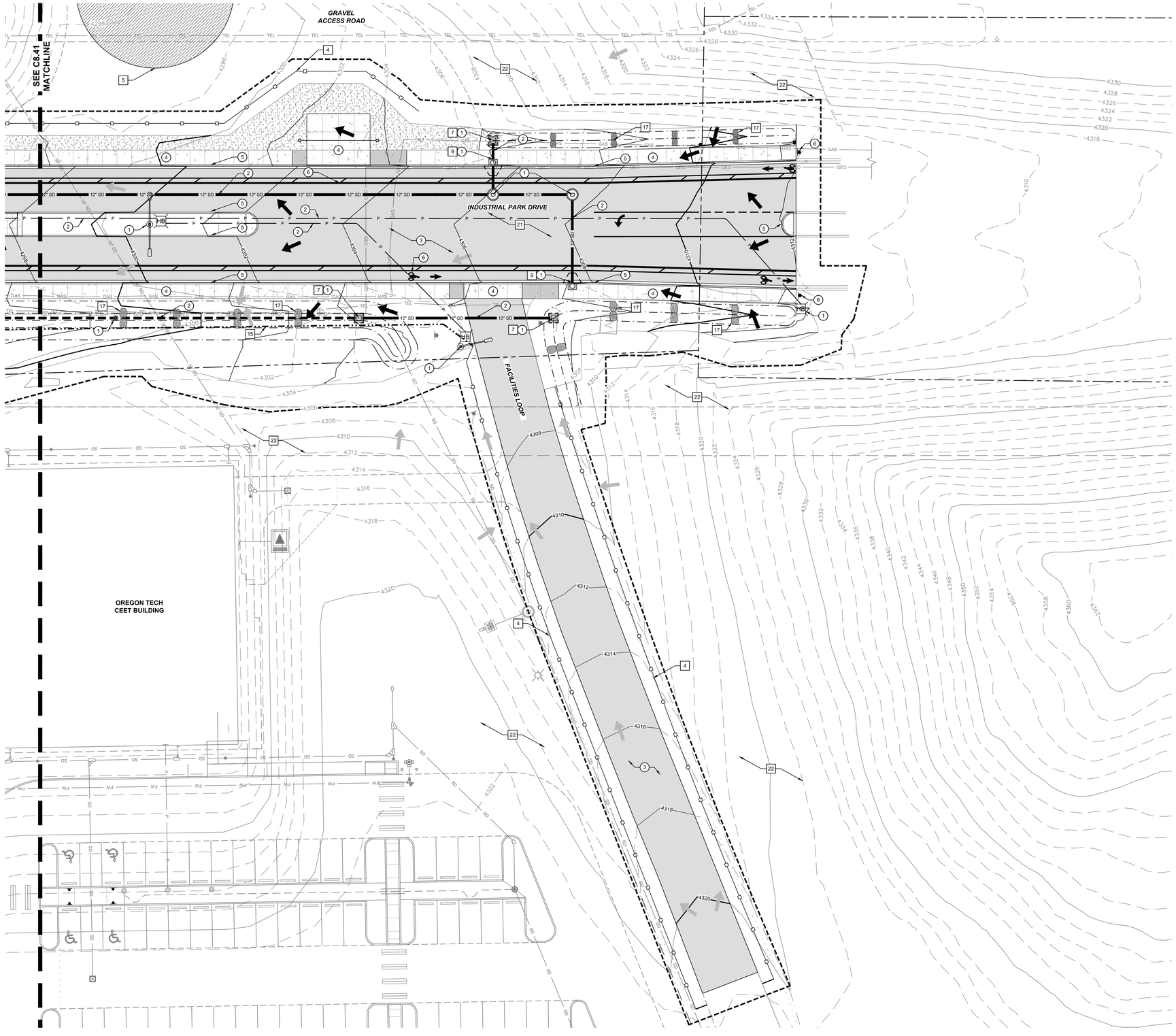
AREA "B" STREET AND UTILITIES ESC PLAN

C8.41

BID AND PERMIT SET | 1200-C EROSION AND SEDIMENT CONTROL PLAN



1 C8.42 **AREA "C" STREET AND UTILITIES EROSION AND SEDIMENT CONTROL PLAN**

1" = 20'

ONE INCH EQUALS FULL SCALE

EROSION AND SEDIMENT CONTROL LEGEND:

PHASE SPECIFIC CONSTRUCTION LEGEND

- NEW ASPHALT PAVEMENT
- NEW CONCRETE PAVEMENT
- NEW UTILITY
- EXISTING GROUND CONTOUR (1 FT)
- EXISTING GROUND CONTOUR (5 FT)
- NEW GROUND CONTOUR (1 FT)
- NEW GROUND CONTOUR (5 FT)

EROSION AND SEDIMENT CONTROL LEGEND

- TEMPORARY CONTRACTOR STAGING AREA
- MATERIAL STOCKPILE
- LIMITS OF WORK (±2.84 ACRE)
- SEDIMENT FENCE
- WATTLE
- BIO-FILTER BAG CHECK DAM - TYPE 3
- CONCRETE WASH PIT
- INLET PROTECTION - CATCH BASIN
- INLET PROTECTION - CURB INLET
- EXISTING DRAINAGE FLOW DIRECTION
- NEW DRAINAGE FLOW DIRECTION

PHASE CONSTRUCTION NOTES:

1. NEW UTILITY STRUCTURE.
2. NEW BURIED UTILITY, TYPICAL.
3. NEW ASPHALT PAVEMENT.
4. NEW CONCRETE SIDEWALK/PAVEMENT.
5. NEW CONCRETE CURB.
6. NEW STRIPING & SIGNAGE, TYPICAL.

REFER TO CIVIL PERMIT DOCUMENTS FOR ALL CONSTRUCTION INFORMATION, TYPICAL.

EROSION CONTROL NOTES:

GENERAL EROSION CONTROL NOTES:

ALL EROSION AND SEDIMENT CONTROL MEASURES ON SLOPES, AND AT STORM SYSTEM INLETS/OUTLETS SHALL REMAIN IN PLACE UNTIL ALL PHASES OF CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.

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EROSION AND SEDIMENT CONTROL NOTES:

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4. FURNISH AND MAINTAIN PERIMETER SEDIMENT FENCE AS SHOWN PER CITY OF KLAMATH FALLS DETAIL 3-155.
5. APPROXIMATE LOCATION OF MATERIAL STOCKPILE. FURNISH AND MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES AT ALL MATERIAL AND SPOIL STOCKPILES. COVER PILES WITH PLASTIC SHEETING AND STAKE PER CITY OF KLAMATH FALLS DETAIL 3-115.
6. FURNISH AND MAINTAIN 20' WIDE BY 50' LONG CONSTRUCTION ENTRANCE PER CITY OF KLAMATH FALLS DETAIL 3-100.
7. FURNISH AND MAINTAIN 'TYPE 4' DITCH INLET PROTECTION PER CITY OF KLAMATH FALLS DETAIL 3-190 AT ALL ON-SITE CATCH BASINS.
8. FURNISH AND MAINTAIN 'TYPE 5' CATCH BASIN INLET PROTECTION WITH WOVEN POLYPROPYLENE SACK PER CITY OF KLAMATH FALLS DETAIL 3-195 AT ALL ON-SITE CATCH BASINS.
9. FURNISH AND MAINTAIN 'TYPE 6' CATCH BASIN INLET PROTECTION PER CITY OF KLAMATH FALLS DETAIL 3-200 AT ALL NEWLY INSTALLED CURB INLETS.
10. INSTALL SLOPE TERRACING PRIOR TO SLOPE GRADING PER CITY OF KLAMATH FALLS DETAIL 3-125 AND PER GEOTECHNICAL REPORT.
11. APPLY SURFACE ROUGHENING TO NEWLY ESTABLISHED SLOPES PER CITY OF KLAMATH FALLS DETAIL 3-120.
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17. FURNISH AND MAINTAIN TYPE 2 OR TYPE 6 CHECK DAMS PER ODOT RD1006 (TYPICAL).
18. FURNISH AND MAINTAIN CONCRETE TRUCK WASH OUT PER ODOT RD1070.
19. INSTALL PERMANENT LANDSCAPE DESIGN PER LANDSCAPE PLANS.
20. APPLY HYDROSEED AND TACKIFIER TO ALL DISTURBED LANDSCAPE SURFACES NOT SUBJECT TO PERMANENT LANDSCAPE DESIGN. SEE LANDSCAPE PLANS FOR ADDITIONAL INFORMATION OR ODOT SPEC SECTION 1030 IF NOT PROVIDED AS PART OF THE CONTRACT DOCUMENTS.
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SILAS E. ALLEN
RENEWAL: 12-31-2023

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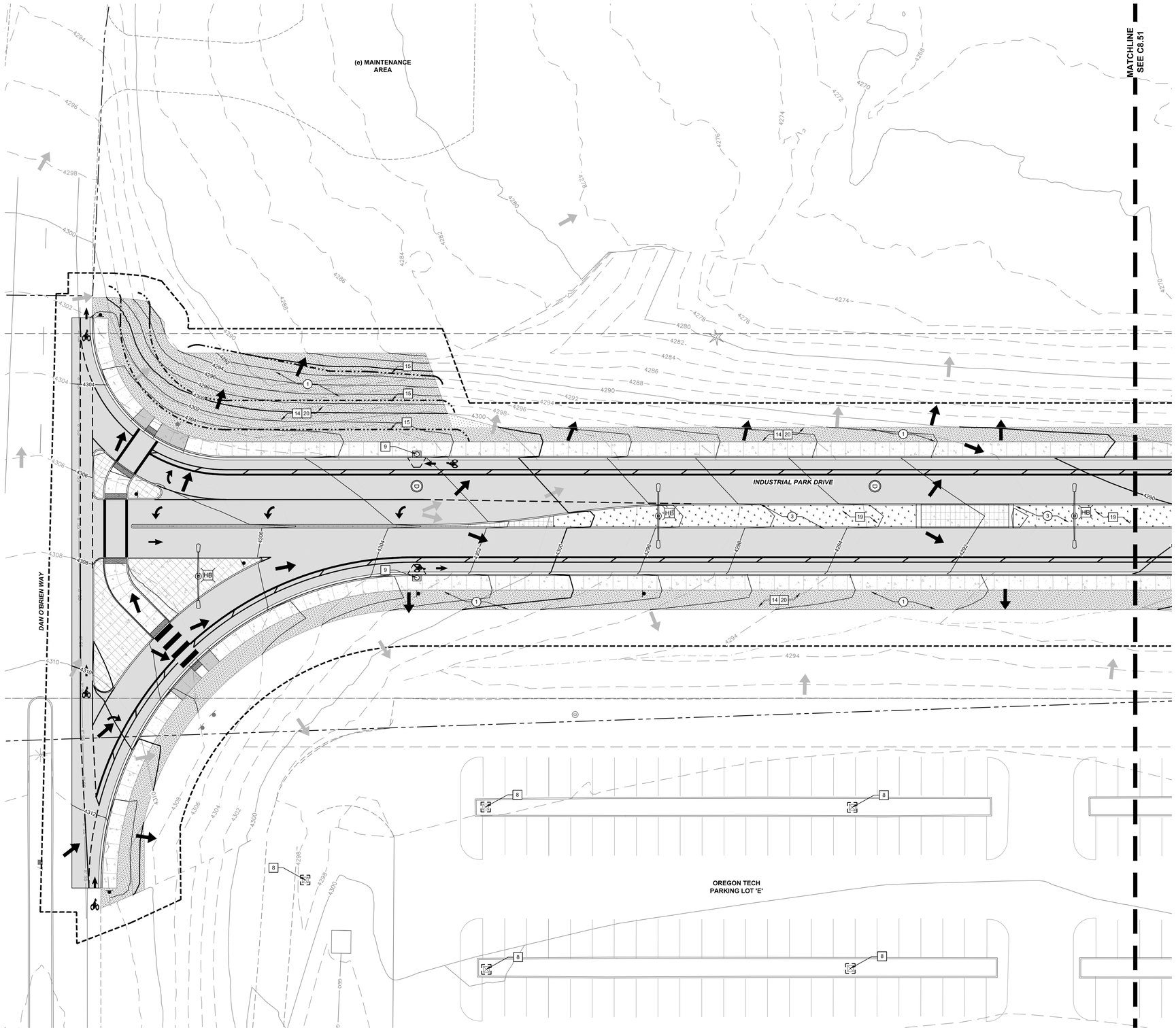
AREA "C" STREET AND UTILITIES ESC PLAN

C8.42

BID AND PERMIT SET | 1200-C EROSION AND SEDIMENT CONTROL PLAN



1 C8.50 **AREA "A" LANDSCAPING AND FINAL STABILIZATION EROSION AND SEDIMENT CONTROL PLAN**

1" = 20'

ONE INCH EQUALS FULL SCALE

EROSION AND SEDIMENT CONTROL LEGEND:

PHASE SPECIFIC CONSTRUCTION LEGEND

- LANDSCAPING REPAIR
- HYDROSEEDING REPAIR
- EROSION CONTROL MATTING/SLOPE PROTECTION
- 4302 EXISTING GROUND CONTOUR (1 FT)
- 4300 EXISTING GROUND CONTOUR (5 FT)
- 4302 NEW GROUND CONTOUR (1 FT)
- 4300 NEW GROUND CONTOUR (5 FT)

PHASE CONSTRUCTION NOTES:

1. HYDRO-SEEDING AND EROSION CONTROL COIR MATTING.
2. NOT USED.
3. LANDSCAPING WITH MULCH AND GROUND COVER PER LANDSCAPING PLANS.
4. NEW DRAINAGE DITCH COBBLE SURFACING.
5. NEW RIP RAP OUTFALL.

REFER TO CIVIL PERMIT DOCUMENTS FOR ALL CONSTRUCTION INFORMATION, TYPICAL.

EROSION CONTROL NOTES:

ALL PERIMETER SEDIMENT FENCING AND CATCH BASIN INLET PROTECTIONS TO BE REMOVED UPON COMPLETION.

ALL NEW STORM DRAIN SYSTEM CATCH BASINS AND INLETS SHALL HAVE INLET PROTECTION INSTALLED PER ODOT STANDARD DRAWING RD1010 AFTER INSTALLATION AND SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED AND ASPHALT/CONCRETE/LANDSCAPING HAS BEEN INSTALLED.

THESE REQUIREMENTS SHALL BE CONSIDERED A MINIMUM. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL MEASURES AS REQUIRED TO FACILITATE CONSTRUCTION. ALL COSTS FOR EROSION CONTROL MEASURES SHALL BE BORNE BY THE CONTRACTOR.

THIS PLAN HAS BEEN PREPARED TO ADDRESS THE OVERALL PRIMARY EROSION CONTROL MEASURES THAT MUST BE IMPLEMENTED FOR CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ADJUST SPECIFIC EROSION CONTROL MEASURES TO ACCOMMODATE FOR ADDITIONAL PHASED CONSTRUCTION. ANY MODIFICATIONS TO THIS PLAN SHALL BE RESUBMITTED TO THE DEQ FOR APPROVAL VIA THE ONLINE PORTAL.

ALL POLLUTANT GENERATING ACTIVITIES TO TAKE PLACE INSIDE LIMITS OF WORK.

NOT ALL NOTES USED ON EACH SHEET OR IN EACH PHASE.

EROSION CONTROL NOTES:

GENERAL EROSION CONTROL NOTES:

ALL EROSION AND SEDIMENT CONTROL MEASURES ON SLOPES, AND AT STORM SYSTEM INLETS/OUTLETS SHALL REMAIN IN PLACE UNTIL ALL PHASES OF CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.

THESE REQUIREMENTS SHALL BE CONSIDERED A MINIMUM. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL MEASURES AS REQUIRED TO FACILITATE CHANGES TO OR PHASING OF CONSTRUCTION. ALL COSTS FOR EROSION CONTROL MEASURES SHALL BE BORNE BY THE CONTRACTOR. ANY MODIFICATIONS TO THIS PLAN SHALL BE RESUBMITTED TO DEQ FOR APPROVAL VIA THE ONLINE PORTAL.

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EROSION AND SEDIMENT CONTROL NOTES:

1. APPROXIMATE LOCATION OF CONTRACTOR LAYDOWN, TRAILER, AND PARKING.
2. FURNISH AND MAINTAIN TEMPORARY RESTROOM FACILITIES. ALL TEMPORARY FACILITIES TO BE 30' MINIMUM FROM NEAREST CATCH BASIN.
3. FURNISH AND MAINTAIN TEMPORARY TRASH AND RECYCLING FACILITIES WITH LIDS.
4. FURNISH AND MAINTAIN PERIMETER SEDIMENT FENCE AS SHOWN PER CITY OF KLAMATH FALLS DETAIL 3-155.
5. APPROXIMATE LOCATION OF MATERIAL STOCKPILE. FURNISH AND MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES AT ALL MATERIAL AND SPOIL STOCKPILES. COVER PILES WITH PLASTIC SHEETING AND STAKE PER CITY OF KLAMATH FALLS DETAIL 3-115.
6. FURNISH AND MAINTAIN 20' WIDE BY 50' LONG CONSTRUCTION ENTRANCE PER CITY OF KLAMATH FALLS DETAIL 3-100.
7. FURNISH AND MAINTAIN 'TYPE 4' DITCH INLET PROTECTION PER CITY OF KLAMATH FALLS DETAIL 3-190 AT ALL ON-SITE CATCH BASINS.
8. FURNISH AND MAINTAIN 'TYPE 5' CATCH BASIN INLET PROTECTION WITH WOVEN POLYPROPYLENE SACK PER CITY OF KLAMATH FALLS DETAIL 3-195 AT ALL ON-SITE CATCH BASINS.
9. FURNISH AND MAINTAIN 'TYPE 6' CATCH BASIN INLET PROTECTION PER CITY OF KLAMATH FALLS DETAIL 3-200 AT ALL NEWLY INSTALLED CURB INLETS.
10. INSTALL SLOPE TERRACING PRIOR TO SLOPE GRADING PER CITY OF KLAMATH FALLS DETAIL 3-125 AND PER GEOTECHNICAL REPORT.
11. APPLY SURFACE ROUGHENING TO NEWLY ESTABLISHED SLOPES PER CITY OF KLAMATH FALLS DETAIL 3-120.
12. FURNISH AND MAINTAIN OUTLET PROTECTION AND DISSIPATOR PER CITY OF KLAMATH FALLS DETAIL 3-150.
13. FURNISH AND MAINTAIN PIPE SLOPE DRAINS PER CITY OF KLAMATH FALLS DETAIL 3-150.
14. FURNISH AND MAINTAIN WOVEN COIR FABRIC 700 SLOPE MATTING PER CITY OF KLAMATH FALLS DETAILS 3-130 AND 3-140 ON DISTURBED SLOPES GREATER THAN 10%, ENSURE HYDROSEEDING IS INSTALLED BEFORE FABRIC.
15. FURNISH AND MAINTAIN SLOPE SEDIMENT BARRIERS PER ODOT RD1030 OR RD1032.
16. FURNISH AND MAINTAIN WOVEN COIR FABRIC 700 CHANNEL MATTING PER ODOT CITY OF KLAMATH FALLS DETAILS 3-135 AND 3-140 IN ALL NEW AND RECONFIGURED ROAD-SIDE DITCHES. ENSURE HYDROSEEDING IS INSTALLED BEFORE FABRIC.
17. FURNISH AND MAINTAIN TYPE 2 OR TYPE 6 CHECK DAMS PER ODOT RD1006 (TYPICAL).
18. FURNISH AND MAINTAIN CONCRETE TRUCK WASH OUT PER ODOT RD1070.
19. INSTALL PERMANENT LANDSCAPE DESIGN PER LANDSCAPE PLANS.
20. APPLY HYDROSEED AND TACKIFIER TO ALL DISTURBED LANDSCAPE SURFACES NOT SUBJECT TO PERMANENT LANDSCAPE DESIGN. SEE LANDSCAPE PLANS FOR ADDITIONAL INFORMATION OR ODOT SPEC SECTION 1030 IF NOT PROVIDED AS PART OF THE CONTRACT DOCUMENTS.
21. PROVIDE ROADWAY SWEEPING SUFFICIENT FOR GOOD UPKEEP OF ALL DRIVABLE AREAS THROUGH ALL PHASES OF CONSTRUCTION.
22. PRESERVE ALL EXISTING VEGETATION OUTSIDE LIMITS OF WORK.

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REGISTERED PROFESSIONAL ENGINEER
70775PE
DIGITAL SIGNATURE
OREGON
SEPT. 19, 2006
SYLAS E. ALLEN
EXPIRES: 12-31-23

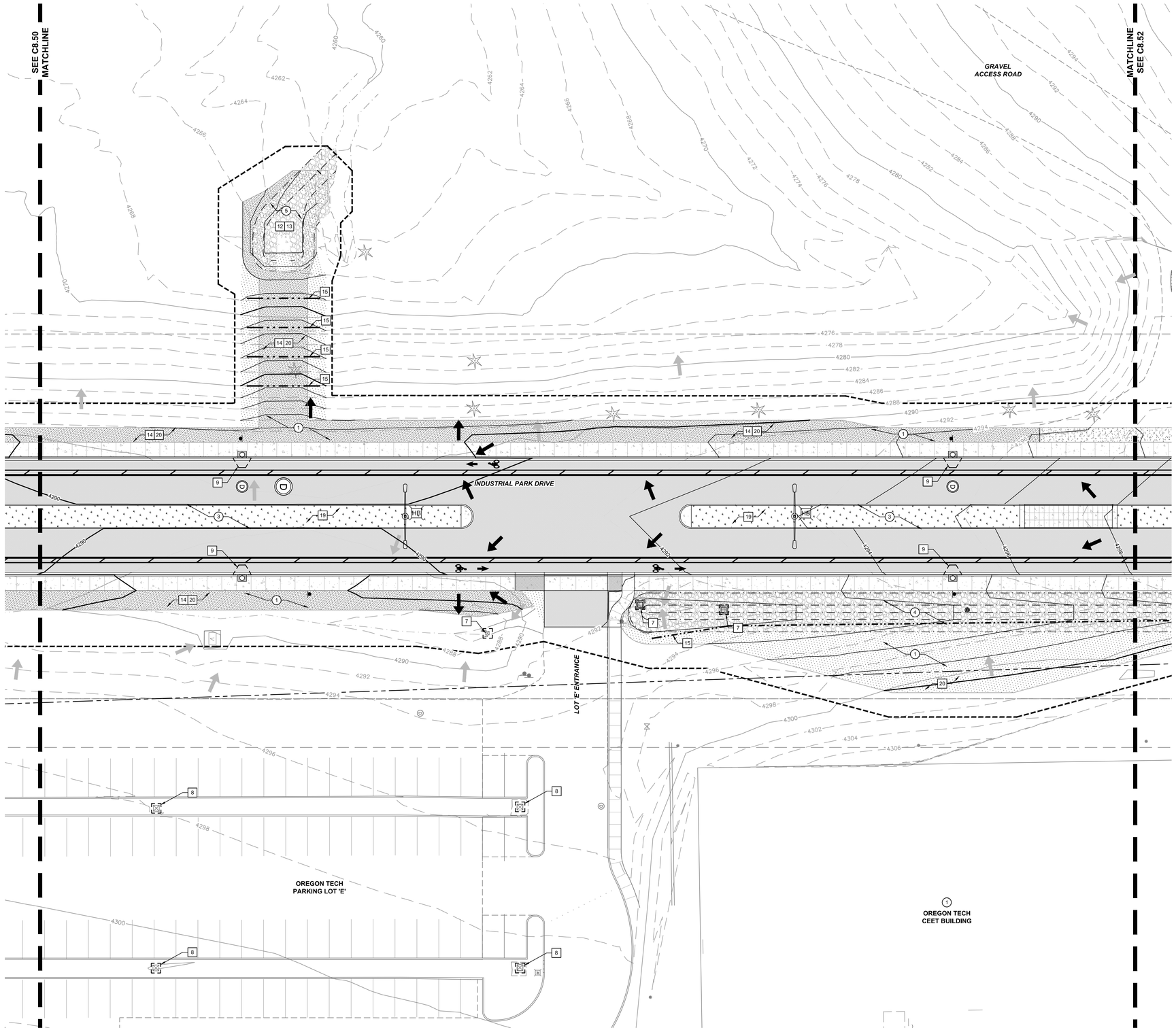
REVISION ID:	DATE:

PROJECT NO:	K-6345-23
DRAWN:	KS
CHECKED:	BJD
DATE:	01-31-2024

AREA "A" LANDSCAPING AND FINAL STABILIZATION ESC PLAN

C8.50

BID AND PERMIT SET | 1200-C EROSION AND SEDIMENT CONTROL PLAN



1 C8.51 **AREA "B" LANDSCAPING AND FINAL STABILIZATION EROSION AND SEDIMENT CONTROL PLAN**

1" = 20'

ONE INCH EQUALS FULL SCALE

EROSION AND SEDIMENT CONTROL LEGEND:

PHASE SPECIFIC CONSTRUCTION LEGEND

- LANDSCAPING REPAIR
- HYDROSEEDING REPAIR
- EROSION CONTROL MATTING/SLOPE PROTECTION
- 4302 EXISTING GROUND CONTOUR (1 FT)
- 4300 EXISTING GROUND CONTOUR (5 FT)
- 4302 NEW GROUND CONTOUR (1 FT)
- 4300 NEW GROUND CONTOUR (5 FT)

PHASE CONSTRUCTION NOTES:

1. HYDRO-SEEDING AND EROSION CONTROL COIR MATTING.
2. NOT USED.
3. LANDSCAPING WITH MULCH AND GROUND COVER PER LANDSCAPING PLANS.
4. NEW DRAINAGE DITCH COBBLE SURFACING.
5. NEW RIP RAP OUTFALL.

REFER TO CIVIL PERMIT DOCUMENTS FOR ALL CONSTRUCTION INFORMATION, TYPICAL.

EROSION CONTROL NOTES:

ALL PERIMETER SEDIMENT FENCING AND CATCH BASIN INLET PROTECTIONS TO BE REMOVED UPON COMPLETION.

ALL NEW STORM DRAIN SYSTEM CATCH BASINS AND INLETS SHALL HAVE INLET PROTECTION INSTALLED PER ODOT STANDARD DRAWING RD1010 AFTER INSTALLATION AND SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED AND ASPHALT/CONCRETE/LANDSCAPING HAS BEEN INSTALLED.

THESE REQUIREMENTS SHALL BE CONSIDERED A MINIMUM. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL MEASURES AS REQUIRED TO FACILITATE CONSTRUCTION. ALL COSTS FOR EROSION CONTROL MEASURES SHALL BE BORNE BY THE CONTRACTOR.

THIS PLAN HAS BEEN PREPARED TO ADDRESS THE OVERALL PRIMARY EROSION CONTROL MEASURES THAT MUST BE IMPLEMENTED FOR CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ADJUST SPECIFIC EROSION CONTROL MEASURES TO ACCOMMODATE FOR ADDITIONAL PHASED CONSTRUCTION. ANY MODIFICATIONS TO THIS PLAN SHALL BE RESUBMITTED TO THE DEQ FOR APPROVAL VIA THE ONLINE PORTAL.

ALL POLLUTANT GENERATING ACTIVITIES TO TAKE PLACE INSIDE LIMITS OF WORK.

NOT ALL NOTES USED ON EACH SHEET OR IN EACH PHASE.

EROSION CONTROL NOTES:

GENERAL EROSION CONTROL NOTES:

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NOT ALL NOTES USED ON EACH SHEET OR IN EACH PHASE.

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3. FURNISH AND MAINTAIN TEMPORARY TRASH AND RECYCLING FACILITIES WITH LIDS.
4. FURNISH AND MAINTAIN PERIMETER SEDIMENT FENCE AS SHOWN PER CITY OF KLAMATH FALLS DETAIL 3-155.
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20. APPLY HYDROSEED AND TACKIFIER TO ALL DISTURBED LANDSCAPE SURFACES NOT SUBJECT TO PERMANENT LANDSCAPE DESIGN. SEE LANDSCAPE PLANS FOR ADDITIONAL INFORMATION OR ODOT SPEC SECTION 1030 IF NOT PROVIDED AS PART OF THE CONTRACT DOCUMENTS.
21. PROVIDE ROADWAY SWEEPING SUFFICIENT FOR GOOD UPKEEP OF ALL DRIVABLE AREAS THROUGH ALL PHASES OF CONSTRUCTION.
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SEPT. 19, 2006
SYLAS E. ALLEN
EXPIRES: 12-31-23

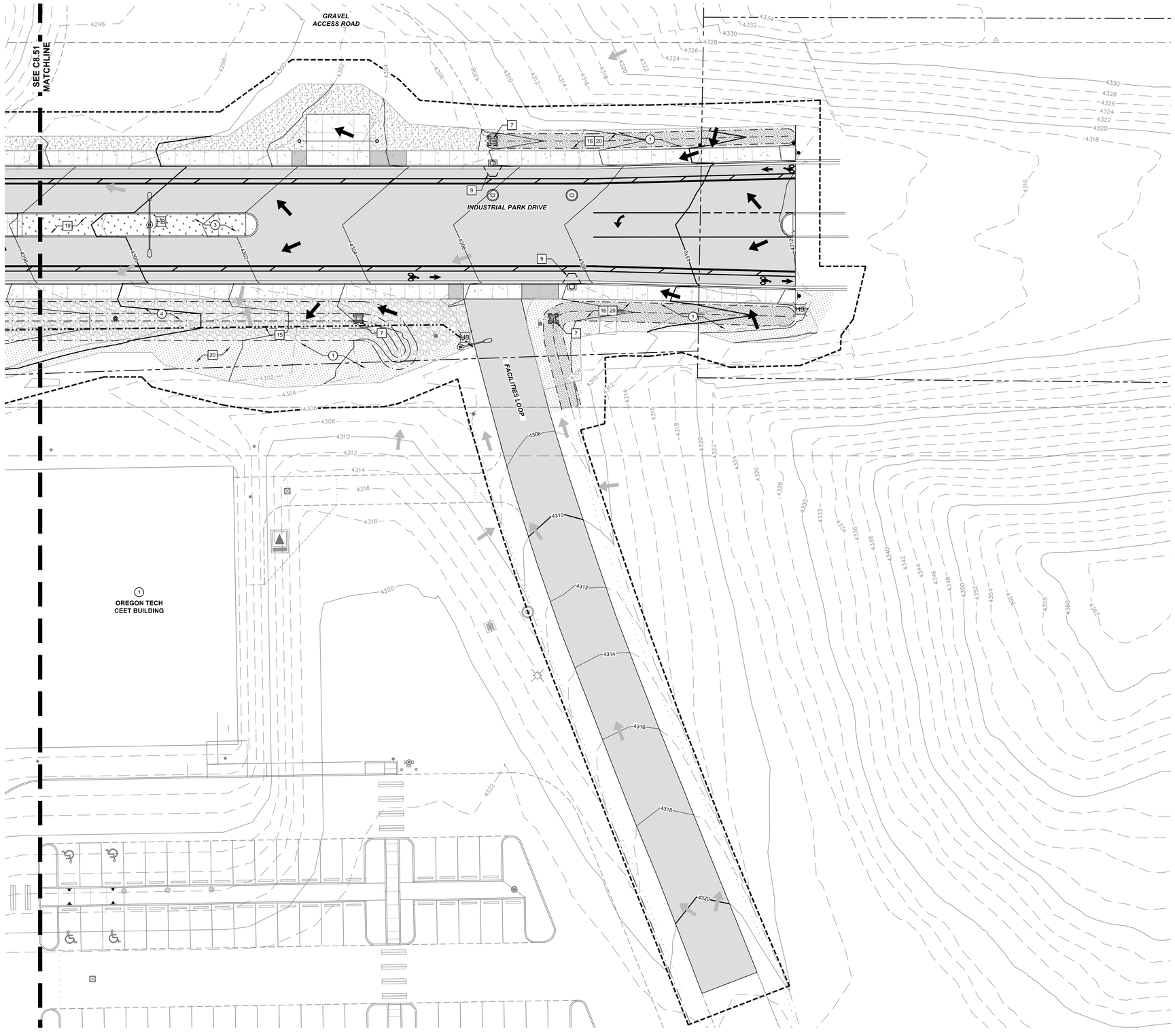
REVISION ID:	DATE:

PROJECT NO:	K-6345-23
DRAWN:	KS
CHECKED:	BJD
DATE:	01-31-2024

AREA "B" LANDSCAPING AND FINAL STABILIZATION ESC PLAN

C8.51

BID AND PERMIT SET | 1200-C EROSION AND SEDIMENT CONTROL PLAN



1 C8.52 **AREA "C" LANDSCAPING AND FINAL STABILIZATION EROSION AND SEDIMENT CONTROL PLAN**

1" = 20'

ONE INCH EQUALS FULL SCALE

EROSION AND SEDIMENT CONTROL LEGEND:

PHASE SPECIFIC CONSTRUCTION LEGEND

- LANDSCAPING REPAIR
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- EROSION CONTROL MATTING/SLOPE PROTECTION
- 4302 EXISTING GROUND CONTOUR (1 FT)
- 4300 EXISTING GROUND CONTOUR (5 FT)
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- 4300 NEW GROUND CONTOUR (5 FT)

PHASE CONSTRUCTION NOTES:

1. HYDRO-SEEDING AND EROSION CONTROL COIR MATTING.
2. NOT USED.
3. LANDSCAPING WITH MULCH AND GROUND COVER PER LANDSCAPING PLANS.
4. NEW DRAINAGE DITCH COBBLE SURFACING.
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SYLAS E. ALLEN

EXPIRES: 12-31-23

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PROJECT NO:	K-6345-23
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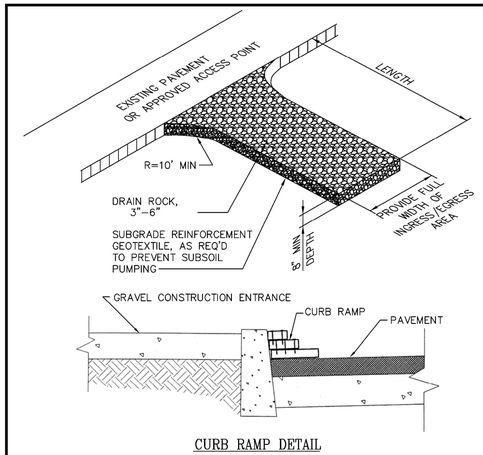
AREA "C" LANDSCAPING AND FINAL STABILIZATION ESC PLAN

C8.52

BID AND PERMIT SET | 1200-C EROSION AND SEDIMENT CONTROL PLAN



CURB RAMP DETAIL

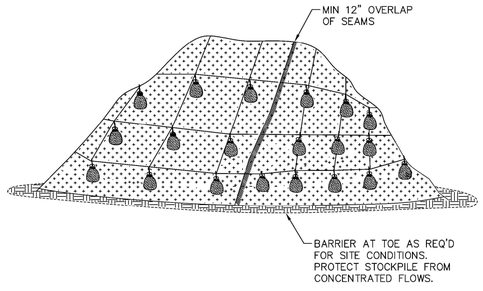
NOTES:

1. DIMENSIONS:
   SMALL SITE – 20' (LENGTH) x 20' (WIDTH) MIN DIMENSIONS
   8" DEPTH OF 1 1/2" DRAIN ROCK, OR CITY APPROVED EQUAL
   LARGE SITE – 50' (LENGTH) x 20' (WIDTH) MIN DIMENSIONS
   8" DEPTH OF DRAIN ROCK, OR CITY APPROVED EQUAL
   GEOTEXTILE FABRIC, AS REQUIRED TO PREVENT SUBSOIL PUMPING
2. TIRE WASH MAY BE REQUIRED ON LARGE SITE IF CONSTRUCTION ENTRANCE DOES NOT PREVENT TRACKING.
3. 3/4"-0" MINUS IS NOT ACCEPTABLE. IT WILL NOT PROVIDE PROPER DRAINAGE.
4. INSTALL CLEAN ROCK WHEN INITIAL LIFT FILLS WITH MUD.

CITY OF KLAMATH FALLS

MK	Date	Revision:
2	3/10	5th EDITION
1	6/06	4th EDITION

CONSTRUCTION ENTRANCE
Approved By: *Don Wilcox*
Drwn. By: GDG
Date: 1/2002
Drwg. No.: **3-100**



PLASTIC SHEETING

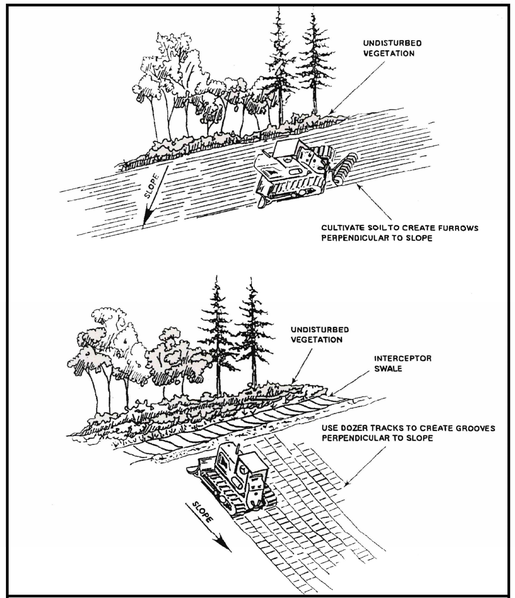
NOTES:

1. MINIMUM 12" OVERLAP OF ALL SEAMS REQUIRED.
2. COVERING MAINTAINED TIGHTLY IN PLACE BY USING SANDBAGS OR TIRES ON ROPES.

CITY OF KLAMATH FALLS

MK	Date	Revision:

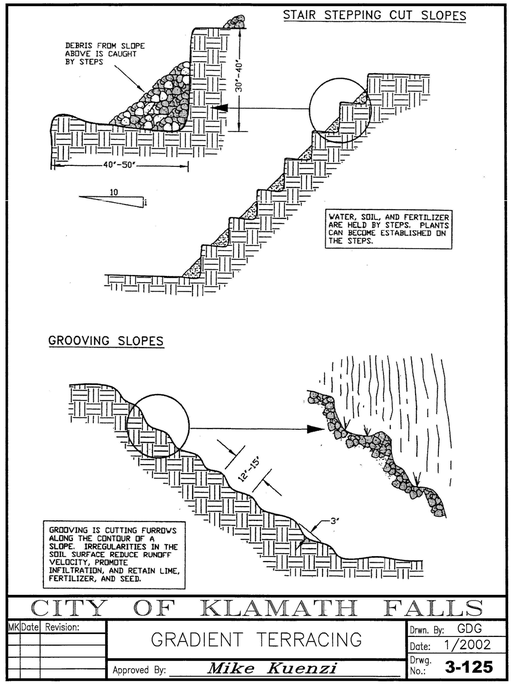
PLASTIC SHEETING
Approved By: *Mike Kuenzi*
Drwn. By: GDG
Date: 1/2002
Drwg. No.: **3-115**



CITY OF KLAMATH FALLS

MK	Date	Revision:

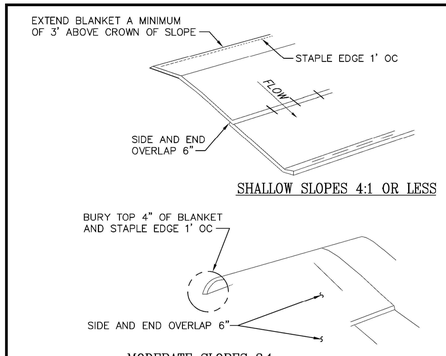
SLOPE ROUGHENING
Approved By: *Mike Kuenzi*
Drwn. By: GDG
Date: 1/2002
Drwg. No.: **3-120**



CITY OF KLAMATH FALLS

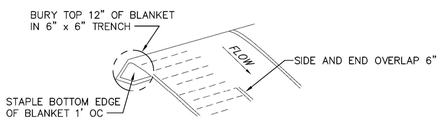
MK	Date	Revision:

GRADIENT TERRACING
Approved By: *Mike Kuenzi*
Drwn. By: GDG
Date: 1/2002
Drwg. No.: **3-125**



SHALLOW SLOPES 4:1 OR LESS

MODERATE SLOPES 3:1



STEEP SLOPES 2:1 OR GREATER

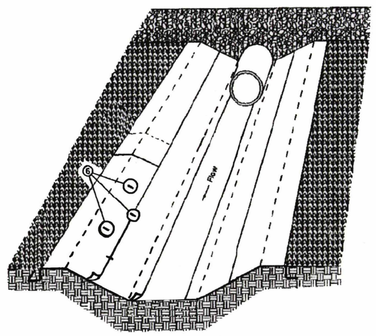
NOTES:

1. ON SHALLOW SLOPES, BLANKETS MAY BE APPLIED ACROSS THE SLOPES.
2. ALL BLANKET STAPLE REQUIRED AS PER TABLE, STANDARD DRAWING 3-140.

CITY OF KLAMATH FALLS

MK	Date	Revision:

MATTING SLOPE INSTALLATION
Approved By: *Mike Kuenzi*
Drwn. By: GDG
Date: 1/2002
Drwg. No.: **3-130**



CHANNEL INSTALLATION

NOTES:

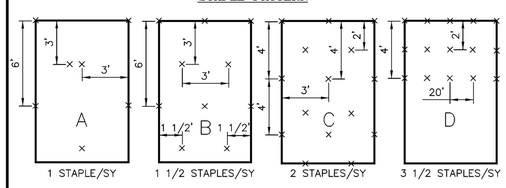
1. THESE ARE MINIMUM REQUIREMENTS. IF MANUFACTURERS REQUIREMENTS ARE MORE STRINGENT, THEY SHALL BE USED.
2. INSTALL MAT PARALLEL IN CENTER OF CHANNEL IN DIRECTION OF FLOW. FOR CULVERT OUTFALLS, PLACE MAT UNDER CULVERT OR RIP RAP A MINIMUM OF 12 INCHES.
3. IN CHANNEL BOTTOM, OVERLAP LENGTH ENDS A MINIMUM OF 12 INCHES.
4. REFER TO STANDARD DRAWING 3-130 FOR CHANNEL SLOPE APPLICATION.
5. REFER TO STANDARD DRAWING 3-140 FOR STAPLE PATTERN.
6. LENGTH OF STAPLES SHALL BE DETERMINED BY SOIL TYPE SOIL USE 6 INCH, NON-COHESIVE SOILS 8-12 INCH.

CITY OF KLAMATH FALLS

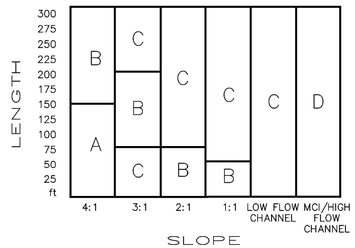
MK	Date	Revision:

MATTING CHANNEL INSTALLATION
Approved By: *Mike Kuenzi*
Drwn. By: GDG
Date: 1/2002
Drwg. No.: **3-135**

STAPLE PATTERN



LENGTH AND SLOPE TABLE

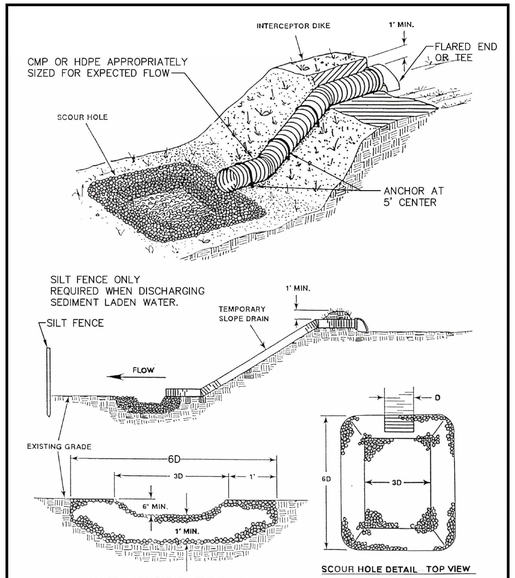


MINIMUM STAPLE PATTERN GUIDE AND RECOMMENDATION FOR SLOPE AND CHANNEL APPLICATION.

CITY OF KLAMATH FALLS

MK	Date	Revision:

MATTING STAPLE TABLE
Approved By: *Mike Kuenzi*
Drwn. By: GDG
Date: 1/2002
Drwg. No.: **3-140**



CITY OF KLAMATH FALLS

MK	Date	Revision:

PIPE SLOPE DRAIN
Approved By: *Mike Kuenzi*
Drwn. By: GDG
Date: 1/2002
Drwg. No.: **3-150**

ONE INCH EQUALS FULL SCALE

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FOR INFORMATION ONLY

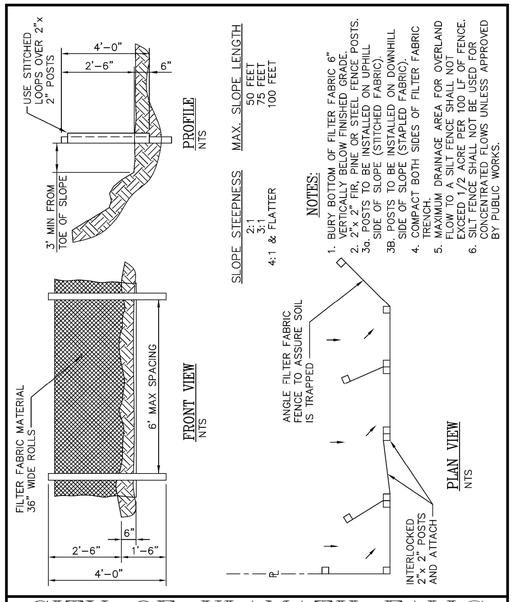
REVISION ID:	DATE:

PROJECT NO:	K-6345-23
DRAWN:	KS
CHECKED:	BJD
DATE:	01-31-2024

EROSION AND SEDIMENT CONTROL DETAILS

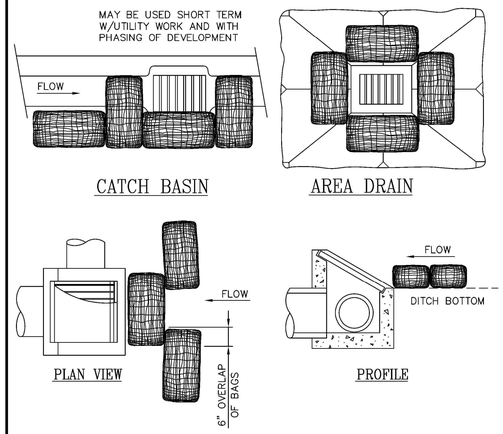
C8.60

BID AND PERMIT SET | 1200-C EROSION AND SEDIMENT CONTROL PLAN



CITY OF KLAMATH FALLS

Date	Revision:		
		SILT FENCE	Drwn. By: GDG
			Date: 1/2002
		Approved By: *Don Wilcox*	Drwg. No.: **3-155**
1	3/10 5th EDITION		

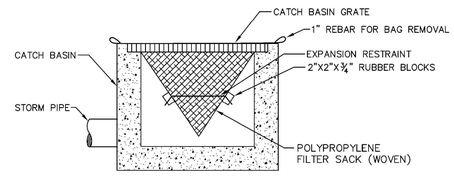


NOTES:

1. ADDITIONAL MEASURES MUST BE CONSIDERED, DEPENDING ON SOIL TYPES.
2. BIOFILTER BAGS SHOULD BE STAKED, WHERE APPLICABLE, USING TWO (2) 1"x2" WOODEN STAKES, OR APPROVED EQUAL, PER BAG.
3. "ROCK SOCKS" OR GRAVEL MAY BE CONSIDERED IN AREAS OUTSIDE OF THE STREET SECTION AND OTHER VEHICULAR TRAVELED WAYS.

CITY OF KLAMATH FALLS

Date	Revision:		
		INLET PROTECTION TYPE 4	Drwn. By: GDG
			Date: 1/2002
		Approved By: *Don Wilcox*	Drwg. No.: **3-190**
1	3/10 5th EDITION		

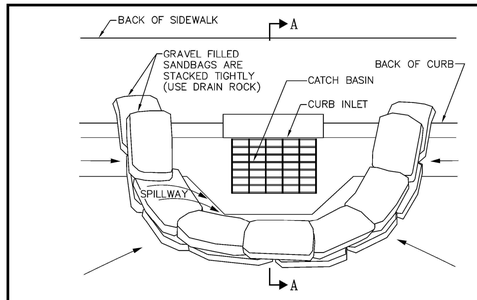


NOTE:

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

CITY OF KLAMATH FALLS

MK	Date	Revision:		
			INLET PROTECTION TYPE 5	Drwn. By: GDG
				Date: 1/2002
			Approved By: *Mike Kuenzi*	Drwg. No.: **3-195**
1		3/10 5th EDITION		



NOTES:

1. PLACE CURB TYPE SEDIMENT BARRIERS ON GENTLY SLOPING STREET SEGMENTS, WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
2. SANDBAGS, OF EITHER BURLAP OR WOVEN GEOTEXTILE FABRIC, ARE FILLED WITH GRAVEL, LAYERED AND PACKED TIGHTLY.
3. LEAVE ONE SANDBAG GAP IN THE TOP ROW TO PROVIDE A SPILLWAY FOR OVERFLOW.
4. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.
5. "ROCK SOCKS" MAY ALSO BE CONSIDERED IN AREAS OUTSIDE OF THE STREET SECTION AND OTHER VEHICULAR TRAVELED WAYS.

CITY OF KLAMATH FALLS

Date	Revision:		
		INLET PROTECTION TYPE 6	Drwn. By: GDG
			Date: 1/2002
		Approved By: *Don Wilcox*	Drwg. No.: **3-200**
1	3/10 5th EDITION		

GRADING AND EROSION CONTROL STANDARD NOTES

1. IMPLEMENTATION OF THE GRADING AND EROSION CONTROL PLAN AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT AND UPGRADING OF EROSION CONTROL FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/OWNER AND THEIR CONTRACTOR/SUBCONTRACTORS UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED, AND PERMANENT COVER IS ESTABLISHED ON THE SITE. GRADING AND EROSION CONTROL SHALL COMPLY WITH THE CONSTRUCTION DOCUMENTS AND CITY STANDARDS.
2. THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSTALLED PRIOR TO THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. IT SHALL BE SOLE ENTRANCE OR EGRESS FROM THE SITE. ADDITIONAL MEASURES MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
3. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE APPLICANT/OWNER AND THEIR CONTRACTOR/SUBCONTRACTORS FOR THE DURATION OF CONSTRUCTION.
4. EROSION CONTROL MEASURES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT LEAVE THE SITE.
5. THE EROSION CONTROL FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE EROSION CONTROL FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS OR SITE CONDITIONS AND TO ENSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT LEAVE THE SITE.
6. EROSION CONTROL FACILITIES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE PER MONTH AND WITHIN 24 HOURS FOLLOWING A STORM EVENT.
7. VISIBLE DEPOSITS OF SEDIMENT THAT LEAVE THE SITE SHALL BE CLEANED UP WITHIN 24 HOURS AND PLACED BACK ONTO THE SITE OR PROPERLY DISPOSED. UNDER NO CONDITION SHALL SEDIMENT FROM THE CONSTRUCTION SITE BE WASHED INTO SEWERS, DRAINAGE COURSES, OR OTHER PORTIONS OF THE CONVEYANCE SYSTEM.
8. EXCESS SOIL FROM THE SITE SHALL BE HAULED TO THE SITE SPECIFIED ON THE EROSION CONTROL PLAN. A SEPARATE PERMIT IS REQUIRED FOR THE FILL SITE IF THE QUANTITY HAULED EXCEEDS 50 CUBIC YARDS.
9. AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A TRAPPED CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE SYSTEMS SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.
10. DUST CONTROL: PREVENTATIVE MEASURES TO MINIMIZE WIND TRANSPORT OF SOIL SHALL BE IMPLEMENTED WHEN A NUISANCE OR TRAFFIC HAZARD MAY BE CREATED OR WHEN SEDIMENT TRANSPORTED BY WIND MAY BE DEPOSITED IN WATER RESOURCES.
11. ONCE CONSTRUCTION IS COMPLETE AND PERMANENT COVER IS ESTABLISHED, CALL FOR FINAL INSPECTION FROM THE CITY. REMOVE TEMPORARY EROSION CONTROL MEASURES WHEN APPROVED BY THE CITY.
12. AT THE TIME OF PROJECT CLOSE-OUT, FOR THOSE REQUIRING A DEQ 1200-C PERMIT, THE CITY WILL NOT ACCEPT THE PROJECT UNTIL DEQ HAS SATISFACTORILY APPROVED THE PROJECT AND TERMINATED THE DEQ PERMIT. IN LIEU OF THAT REQUIREMENT THE DEVELOPER WILL NEED TO APPLY FOR A CITY SITE CONSTRUCTION PERMIT FOR GRADING PURPOSES ONLY. AN UPDATED PLAN AND CURRENT FEE WILL APPLY AND BE SUBMITTED WITH THE PERMIT APPLICATION. THE CITY PERMIT WILL REMAIN ACTIVE UNTIL THE DEVELOPER HAS AN APPROVED TERMINATION OF THE 1200-C PERMIT BY DEQ, WHICH A COPY SHALL BE PROVIDED TO THE CITY.

CITY OF KLAMATH FALLS

MK	Date	Revision:		
			GRADING & EROSION CONTROL STANDARD NOTES	Drwn. By: GDG
				Date: 1/2002
			Approved By: *Don Wilcox*	Drwg. No.: **3-225**
1		2/10 5th EDITION		

ONE INCH EQUALS FULL SCALE

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FOR INFORMATION ONLY

REVISION ID:	DATE:

PROJECT NO:	K-6345-23
DRAWN:	KS
CHECKED:	BJD
DATE:	01-31-2024

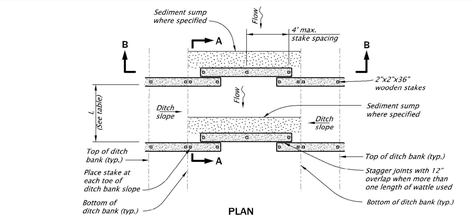
EROSION AND SEDIMENT CONTROL DETAILS

C8.61

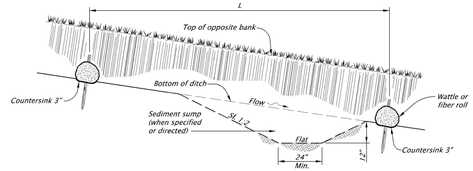
BID AND PERMIT SET | 1200-C EROSION AND SEDIMENT CONTROL PLAN

20-JAN-2021

RD1006.dgn



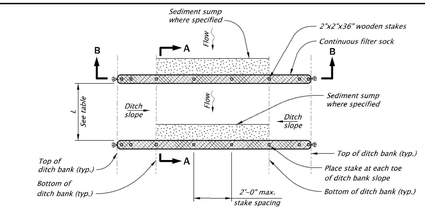
PLAN



SECTION A-A

WATTLE / FIBER ROLL CHECK DAM - TYPE 2

NOT TO SCALE



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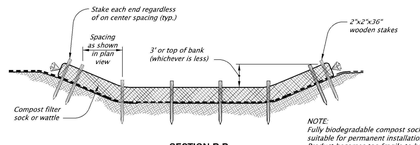
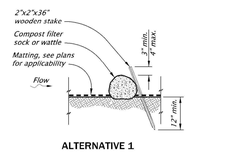


SECTION B-B

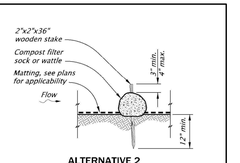
NOTE:
Fully biodegradable compost socks are suitable for permanent installation only. Product becomes too fragile to be moved or removed intact.

COMPOST FILTER SOCK CHECK DAM - TYPE 6

NOT TO SCALE



ALTERNATIVE 1



ALTERNATIVE 2

FIBER ROLL AND COMPOST SOCK STAKING ALTERNATIVES

NOT TO SCALE

MAXIMUM CHECK DAM SPACING "L"

Ditch Grade	H=8"	H=12"	H=18"	H=24"
10%	" "	" "	15'	20'
9%	" "	" "	16'	22'
8%	" "	" "	18'	25'
7%	" "	" "	21'	28'
6%	" "	16'	25'	33'
5%	" "	20'	30'	40'
4%	16'	25'	37'	50'
3%	22'	33'	50'	66'
2%	33'	50'	75'	100'

" " Not allowed H = Min. dam height

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

CHECK DAMS TYPE 2 AND 6

2024

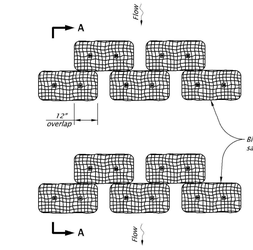
DATE	REVISION DESCRIPTION
03-2021	REMOVED CALC BOOK NUMBERS

CALC BOOK NO. N/A | SDR DATE 20-JAN-2021 | **RD1006**

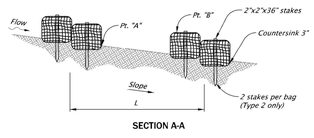
Effective Date: December 1, 2023 - May 31, 2024

20-JAN-2021

RD1030.dgn



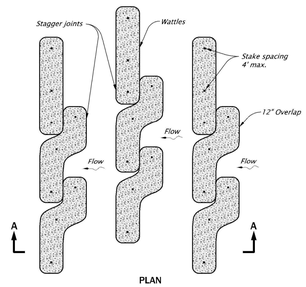
PLAN



SECTION A-A

BIOFILTER BAG / SAND BAG BARRIER - TYPE 2 AND 4

NOT TO SCALE



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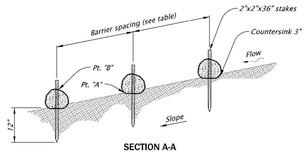


SECTION A-A

FIBER ROLL BARRIER - TYPE 3

NOT TO SCALE

NOTES:
1. *For Type 2 barrier, drive stakes flush with top of bag and into undisturbed ground a min. of 12". Omit stakes if bags are placed on paved surface.*
2. *For Type 2 and Type 4 barriers, space bags (L) so that the elevation of point "A" is less than or equal to the elevation of point "B".*

Type 2 - Biofilter bags
Type 3 - Wattles
Type 4 - Sand bags

BARRIER SPACING

INSTALL PARALLEL ALONG CONTOURS AS FOLLOWS		
% SLOPE	% SLOPE	MAXIMUM SPACING ON SLOPE
10% Flatter	1:10 or Flatter	300'
$10 > \% \geq 15$	$10 > X \geq 7.5$	150'
$15 > \% \geq 20$	$7.5 > X \geq 5$	100'
$20 > \% \geq 30$	$5 > X \geq 3$	50'
Steeper than 30%	Steeper than 1:3	25'

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

SEDIMENT BARRIER TYPE 2, 3 AND 4

2024

DATE	REVISION DESCRIPTION
03-2021	REMOVED CALC BOOK NUMBERS

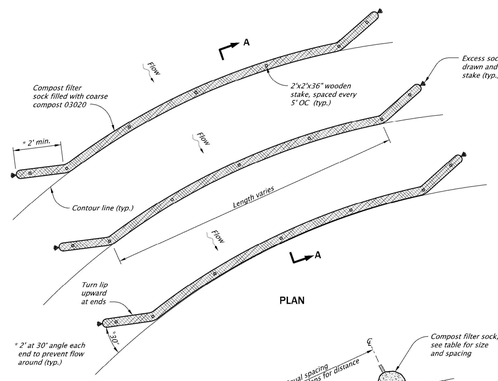
CALC BOOK NO. N/A | SDR DATE 20-JAN-2021 | **RD1030**

Effective Date: December 1, 2023 - May 31, 2024

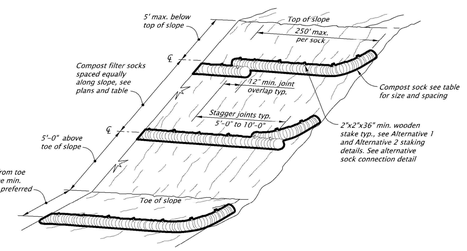
ONE INCH EQUALS FULL SCALE

20-JAN-2021

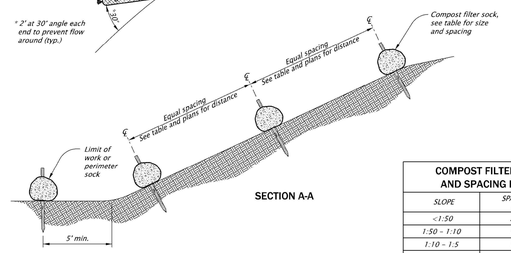
RD1032.dgn



PLAN



SLOPE APPLICATION - PERSPECTIVE VIEW



SECTION A-A

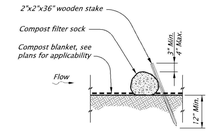
NOTE:
Fully biodegradable compost sock mesh is recommended for permanent installations. Where compost socks must be moved or removed, synthetic sock mesh should be used.

COMPOST FILTER SOCK DIAMETER AND SPACING BASED ON SLOPE

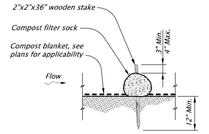
SLOPE	SPACING (ft)	DIAMETER (in)
<1:50	250	8
1:50 - 1:10	125	12
1:10 - 1:5	100	12
1:5 - 1:2	50	18
>1:2	25	18

COMPOST FILTER SOCK

NOT TO SCALE



ALTERNATIVE 1 (Staking)



ALTERNATIVE 2 (Staking)

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

SEDIMENT BARRIER TYPE 8

2024

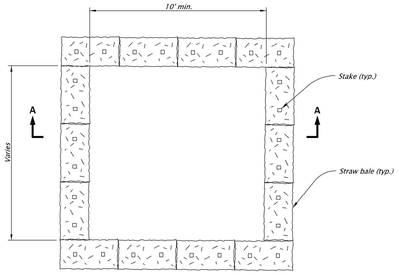
DATE	REVISION DESCRIPTION
03-2021	REMOVED CALC BOOK NUMBERS

CALC BOOK NO. N/A | SDR DATE 20-JAN-2021 | **RD1032**

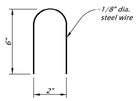
Effective Date: December 1, 2023 - May 31, 2024

20-JAN-2021

RD1070.dgn

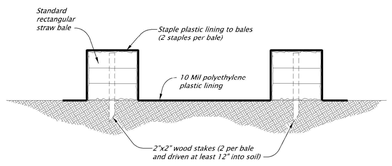


PLAN



STAPLE DETAIL

NOT TO SCALE



SECTION A-A

CONCRETE TRUCK WASH OUT FACILITY

NOT TO SCALE

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

CONCRETE TRUCK WASH OUT

2024

DATE	REVISION DESCRIPTION

CALC BOOK NO. N/A | SDR DATE 20-JAN-2021 | **RD1070**

Effective Date: December 1, 2023 - May 31, 2024

ZCS ENGINEERING ARCHITECTURE

900 Klamath Avenue, Klamath Falls, Oregon 97601 | 541-884-7421

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KLAMATH FALLS, OR 97601

OREGON TECH INDUSTRIAL PARK DRIVE IMPROVEMENTS

Oregon TECH
Oregon Institute of Technology

FOR INFORMATION ONLY

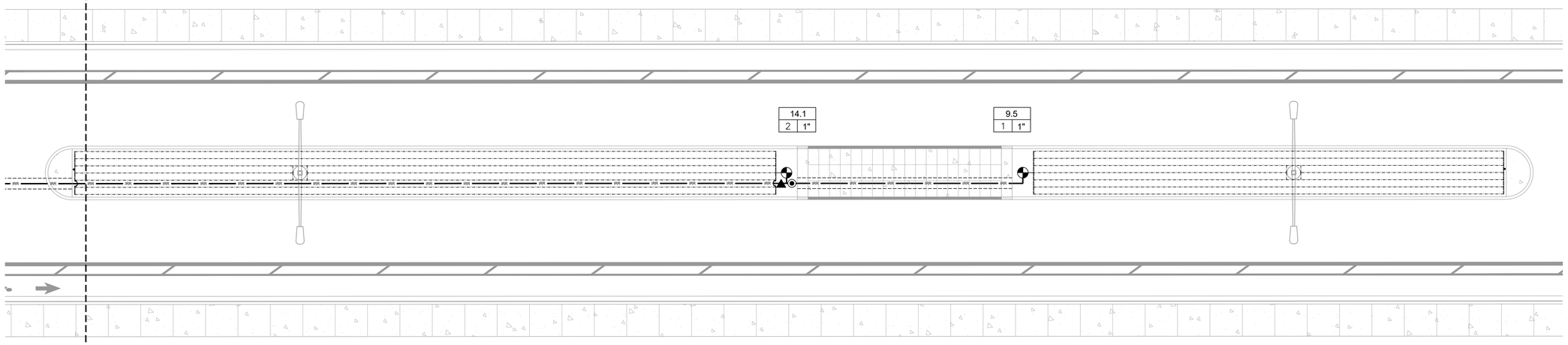
REVISION ID:	DATE:

PROJECT NO: K-6345-23
DRAWN: KS
CHECKED: BJD
DATE: 01-31-2024

EROSION AND SEDIMENT CONTROL DETAILS

C8.62

BID AND PERMIT SET | 1200-C EROSION AND SEDIMENT CONTROL PLAN



MATCHLINE
SEE SHEET L1.10

IRRIGATION LEGEND

SYMBOL	DESCRIPTION
	RAIN BIRD PEB SERIES VALVE WITH CONTROL ZONE KIT. SEE SHEET L1.30 FOR DETAIL.
	RAIN BIRD 44-LRC QUICK COUPLING VALVE. SEE SHEET L1.30 FOR DETAIL.
	MAIN LINE ISOLATION VALVE, AS SPECIFIED. LINE SIZE.
	DRIP LINE FLUSH VALVE. SEE SHEET L1.30 FOR DETAIL.
IRR	MAIN LINE, 2" SCH 40 PVC, UNLESS NOTED OTHERWISE. 24" BURY DEPTH.
	LATERAL LINE, 1.5" SCH 40 PVC.
	DRIP IRRIGATION HEADER, 1.5" SCH 40 PVC.
	LATERAL LINE, DRIP LINE.
	SLEEVE, SCH 40 PVC, MIN. 6" DIA. UNLESS OTHERWISE NOTED. COORDINATE WITH GENERAL CONTRACTOR.
POC	POINT OF CONNECTION: Connect to existing CEET building 2" irrigation mainline. Install mainline isolation valve at POC.
C	Connect to existing CEET building RAIN BIRD ESP-LXD DECODER CONTROLLER w/ WR2 RAIN SENSOR. Coordinate w/ OIT maintenance staff.
W	Extra Valve Box: Install 12" valve box and extend mainline and two-wire communication wire into the box. Provide 24" coil of wire and cap mainline for future use.

GENERAL NOTES

A. The landscape contractor shall inspect the site and verify conditions and dimensions prior to construction.

B. Install irrigation system to comply with the codes and ordinances of all jurisdictional agencies.

C. Irrigation plans are schematic. Place irrigation lines in common trench whenever possible. Field adjust lines to avoid conflict with utilities.

D. Verify backflow prevention device is operational and has been approved by the appropriate authority.

E. All valves shall be placed in valve boxes in a manner which facilitates access for maintenance. Locate valve boxes in shrub beds.

F. All components of irrigation system shall be installed and adjusted to provide complete coverage. Contractor is responsible for providing a complete working system.

G. Verify minimum static water pressure of 70 psi at point of connection to existing irrigation water line. Notify the Landscape Architect and Owner's representative if actual field data differs from this information.

H. Irrigation laterals are sized starting at valve and continuing in direction of flow. Reductions in pipe size are labelled beginning downstream of nearest fitting. All laterals not sized are minimum 1 inch or same size as nearest adjacent pipe.

I. Valve Key — 23.0 (G.P.M.) / 7 (Zone number) 1" (Valve size)

J. Install all irrigation pipe in PVC sleeves below all paved surfaces as specified in Section 32 84 24, Irrigation.

K. Multi-strand control wire not allowed. Use single strand control wire as specified in Section 32 84 24, Irrigation.

L. Install drain valves at low points on main lines.

M. Install pressure regulator on main line as required.

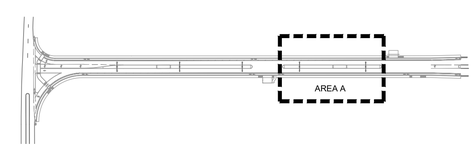
N. Install manual flush valves as required.

O. Install air-relief valves on main lines as specified, and as recommended by the manufacturer.

1 L1.00 **AREA 'A' IRRIGATION PLAN**

1"=10'

10 0 5 10 20
(FEET)
1 INCH = 10 FT



2 L1.00 **SITE KEY**

NTS

ONE INCH EQUALS FULL SCALE

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REGISTERED LANDSCAPE ARCHITECT
433
OREGON
10/31/97

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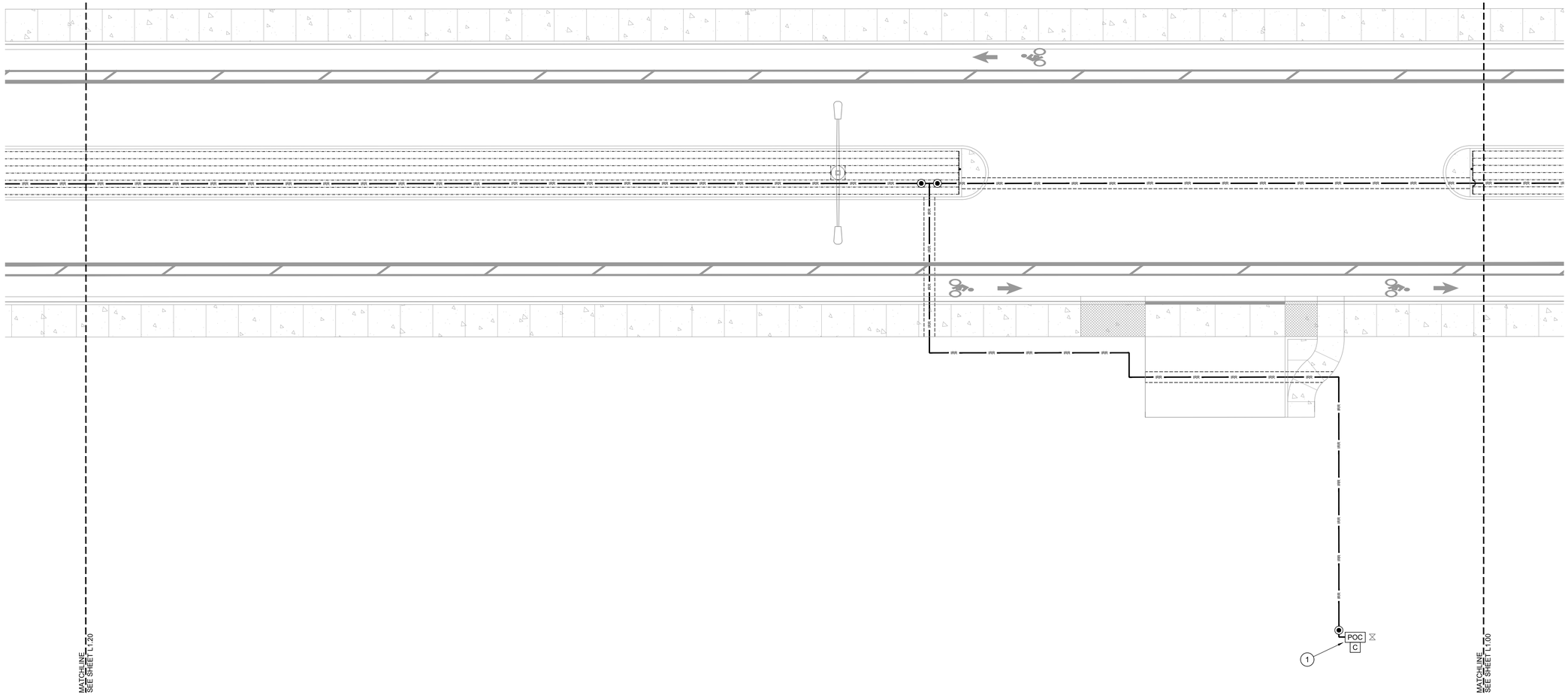
AREA 'A' IRRIGATION PLAN

L1.00

BID AND PERMIT SET

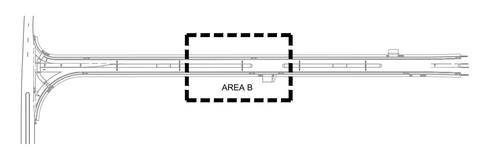
IRRIGATION KEY NOTES

1. CONNECT TO EXISTING IRRIGATION MAINLINE AT APPROXIMATELY THIS LOCATION, DOWNSTREAM FROM EXISTING ISOLATION VALVE AND BACKFLOW PREVENTION DEVICE. PRIOR TO BEGINNING WORK, LOCATE EXISTING IRRIGATION IMPROVEMENTS WITHIN NEW CONSTRUCTION AREA. PROTECT IN PLACE AND RESTORE STRUCTURES OR FACILITIES DAMAGED BY IRRIGATION WORK TO ORIGINAL CONDITION. COORDINATE WITH OIT MAINTENANCE STAFF.



1 L1.10 **AREA 'B' IRRIGATION PLAN** 1"=10'

10 0 5 10 20
(FEET)
1 INCH = 10 FT



2 L1.10 **SITE KEY** NTS

ONE INCH EQUALS FULL SCALE

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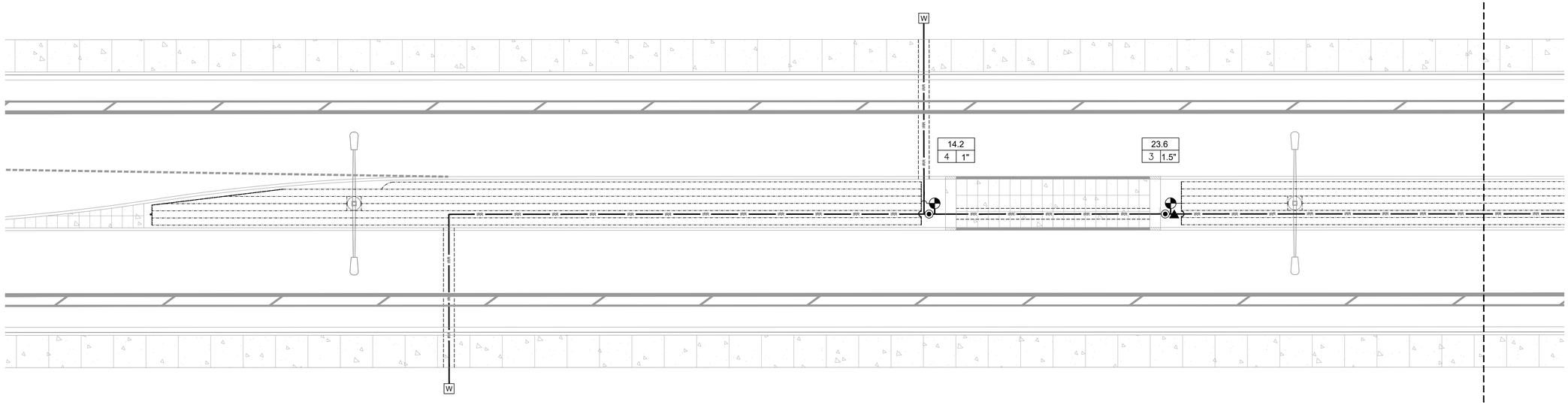
AREA 'B' IRRIGATION PLAN

L1.10

BID AND PERMIT SET



1 L1.20 **AREA 'C' IRRIGATION PLAN**

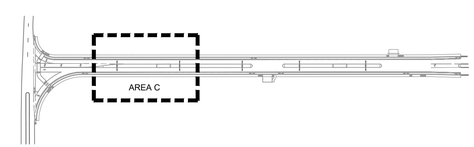
1"=10'

10 0 5 10 20

(FEET)

1 INCH = 10 FT

ONE INCH EQUALS FULL SCALE



2 L1.20 **SITE KEY**

NTS

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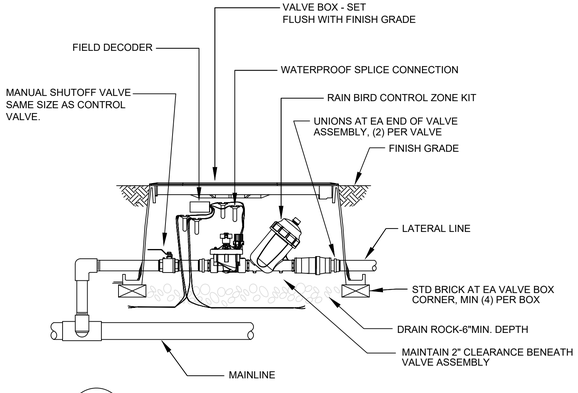
AREA 'C' IRRIGATION PLAN

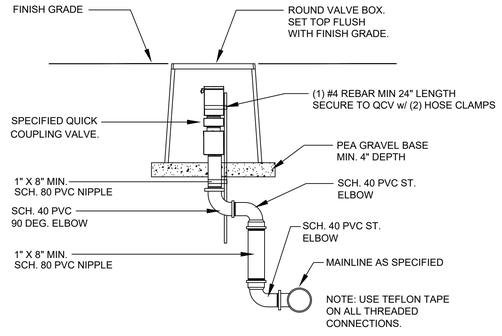
L1.20

BID AND PERMIT SET



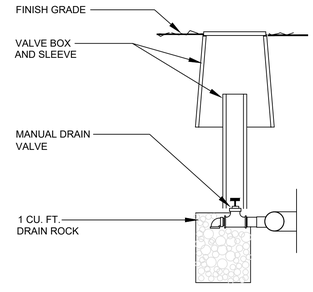
1 L1.30 IRRIGATION CONTROL VALVE

NOT TO SCALE



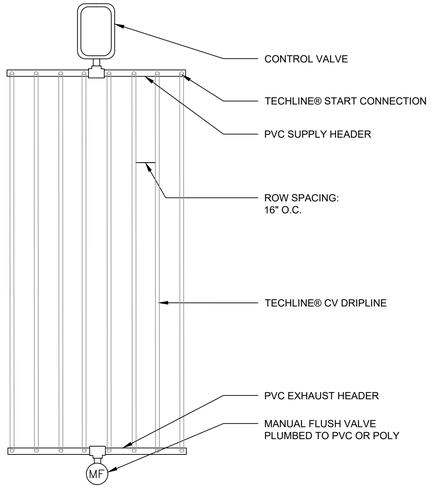
2 L1.30 QUICK COUPLING VALVE

NOT TO SCALE



3 L1.30 MANUAL DRAIN VALVE

NOT TO SCALE

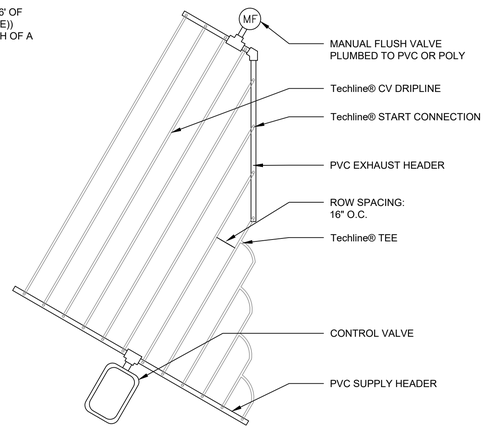


4 L1.30 DRIP LINE END FEED LAYOUT

NOT TO SCALE

NOTE:

1. MINIMUM FILTRATION: 120 MESH
2. PRESSURE AT FLUSH VALVE SHALL BE MIN 14.5 PSI
3. 2 PSI CHECK VALVE (MAX 4.6' OF WATER (ELEVATION CHANGE))
4. REFER TO MAXIMUM LENGTH OF A SINGLE LATERAL CHART



5 L1.30 DRIP LINE IRREGULAR AREAS: TRIANGULAR

NOT TO SCALE

ONE INCH EQUALS FULL SCALE

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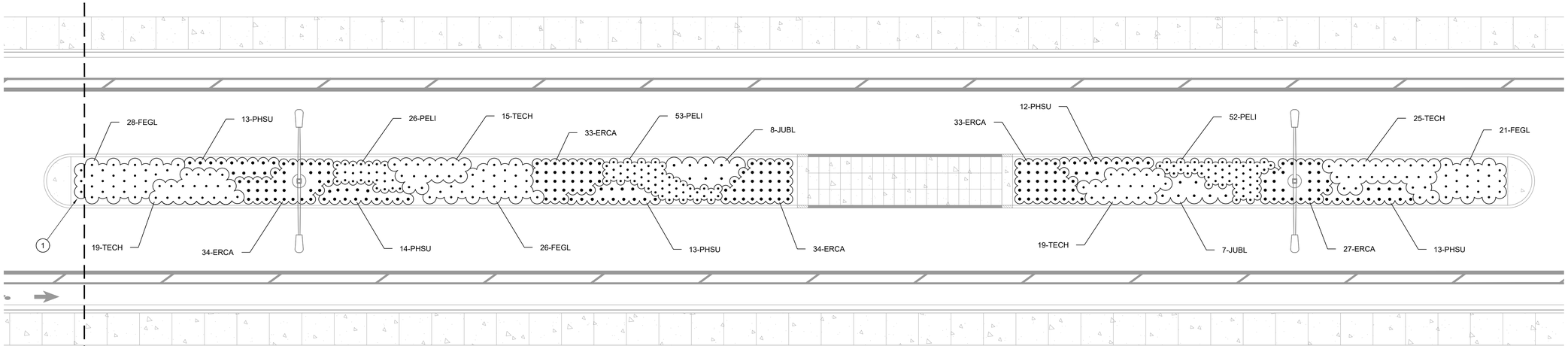
IRRIGATION DETAIL

L1.30

BID AND PERMIT SET

PLANTING KEY NOTES

1. ALL LANDSCAPE PLANTER AREAS TO RECEIVE ROCK MULCH TOP DRESSING THROUGHOUT. INSTALL ROCK MULCH OVER CONTINUOUS LAYER OF GEOTEXTILE FABRIC, EARTHSAVERS NPW 5000 WOVEN PP WEED FABRIC OR APPROVED EQUAL. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION. PRIOR TO PLACEMENT OF ROCK MULCH, WEEDS SHALL BE REMOVED AND ALL AREAS TREATED TO CONTROL WEEDS. COORDINATE WEED ABATEMENT WITH OIT MAINTENANCE STAFF.



MATCHLINE
SEE SHEET L2.10

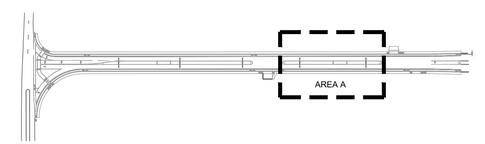
PLANT LIST

KEY	BOTANICAL NAME	COMMON NAME	SIZE / CONDITION
	TREES		
GIPR	GINKO B. 'PRINCETON SENTRY'	PRINCETON SENTRY GINKO	1.25" CAL
	SHRUBS		
BECR	BERBERIS T. 'CRIMSON PYGMY'	CRIMSON PYGMY BARBERRY	1 GAL
CASA	CARYOPTERIS C. 'SAPPHIRE MIST'	SAPPHIRE MIST BLUEBEARD	1 GAL
COST	CORNUS STOLONIFERA 'KELSEYI'	KELSEY DWF RED-OSIER DOGWOOD	1 GAL
PIPU	PICEA PUNGENS 'GLOBOSA'	COLORADO SPRUCE	5 GAL
PIMU	PINUS MUGO 'SLOWMOUND'	DWARF MUGO PINE	5 GAL
POAB	POTENTILLA F. 'ABBOTSWOOD'	ABBOTSWOOD POTENTILLA	1 GAL
SPAN	SPIRAEA X B. 'ANTHONY WATERER'	ANTHONY WATERER SPIREA	1 GAL
TECH	TEUCRIUM CHAMAEDRYS	CREEPING GERMANDER	1 GAL
	GROUND COVERS & GRASSES		
BOBL	BOUTELOUA G. 'BLONDE AMBITION'	BLUE GRAMA GRASS	1 GAL
ERCA	ERICA CARNEA	WINTER HEATH	1 GAL
FEGL	FESTUCA GLAUCA 'BOULDER BLUE'	BEYOND BLUE FESCUE	1 GAL
JUBL	JUNIPERUS 'BLUE RUG'	BLUE RUG JUNIPER	1 GAL
PHSU	PHLOX SUBULATA	MOSS PHLOX	1 GAL
PELI	PENNISETUM A. 'LITTLE BUNNY'	LITTLE BUNNY FOUNTAIN GRASS	1 GAL

1 L2.00 **AREA 'A' PLANTING PLAN**

1"=10'

10 0 5 10 20
(FEET)
1 INCH = 10 FT



2 L2.00 **SITE KEY**

NTS

ONE INCH EQUALS FULL SCALE

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AREA 'A' PLANTING PLAN

L2.00

BID AND PERMIT SET

PLANTING KEY NOTES

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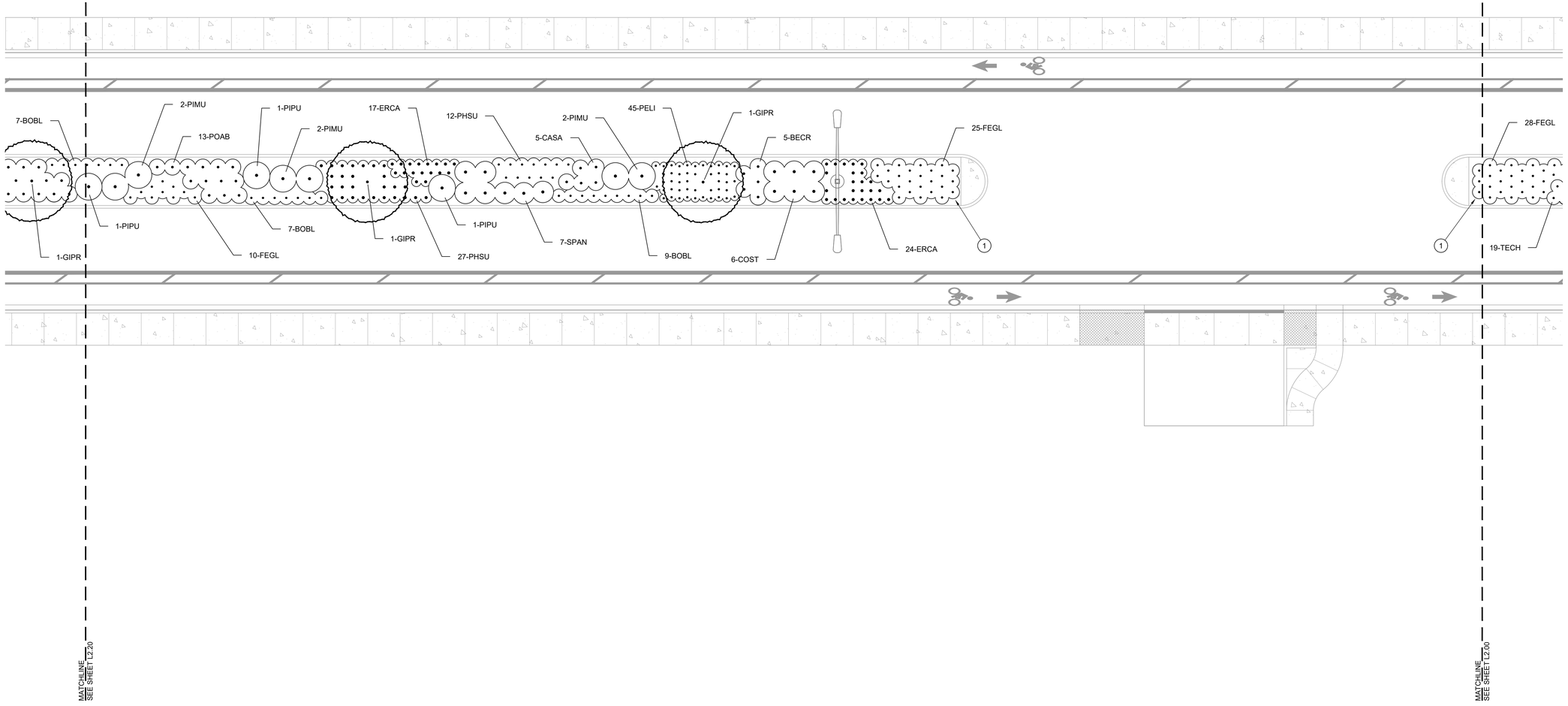
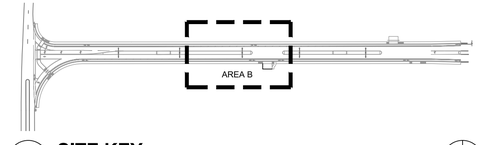


1 L2.10 **AREA 'B' PLANTING PLAN** 1"=10'

10 0 5 10 20

(FEET)

1 INCH = 10 FT



2 L2.10 **SITE KEY** NTS

ONE INCH EQUALS FULL SCALE

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AREA 'B' PLANTING PLAN

L2.10

BID AND PERMIT SET

PLANTING KEY NOTES

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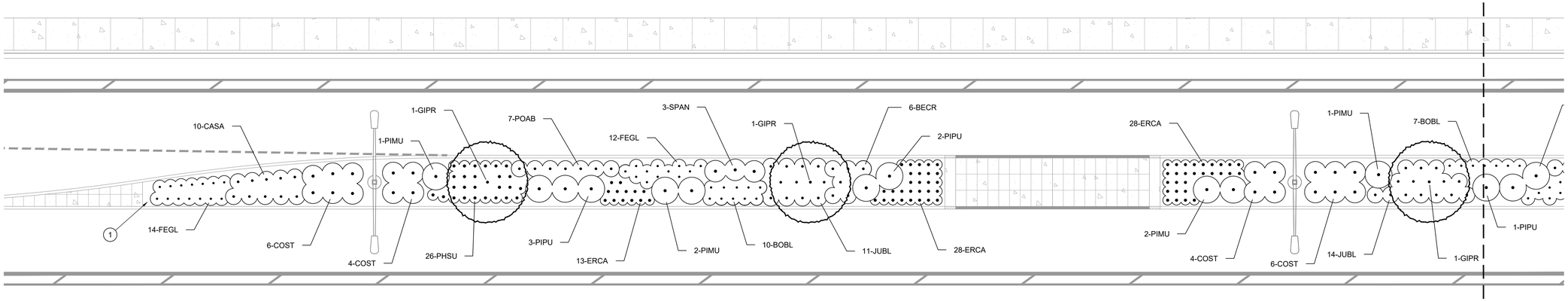


MATCHLINE
SEE SHEET L2.10

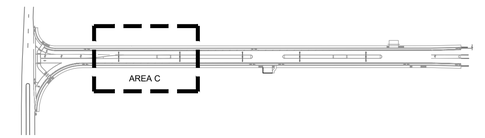
1 L2.20 **AREA 'C' PLANTING PLAN**

1"=10'

10 0 5 10 20

(FEET)

1 INCH = 10 FT



2 L2.20 **SITE KEY**

NTS

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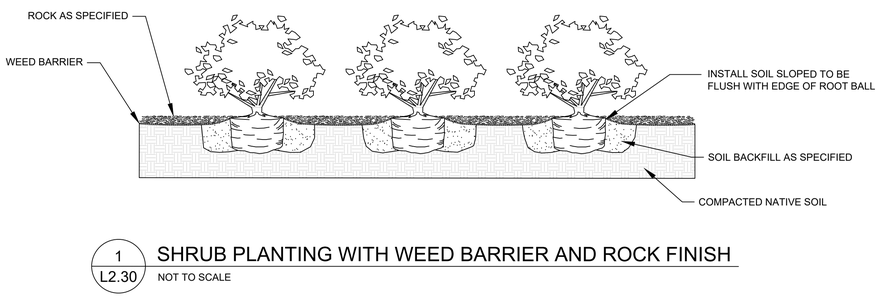
AREA 'C' PLANTING PLAN

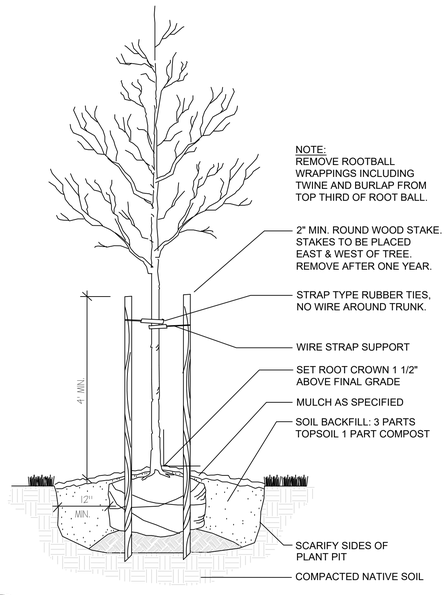
L2.20

BID AND PERMIT SET



1 L2.30 SHRUB PLANTING WITH WEED BARRIER AND ROCK FINISH

NOT TO SCALE



2 L2.30 TREE PLANTING

ONE INCH EQUALS FULL SCALE

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PLANTING DETAIL

L2.30

BID AND PERMIT SET

SECTION 328424- IRRIGATION

PART 1 GENERAL

1.1 WORK INCLUDED

A. Provide underground landscape irrigation system as indicated on the Drawings and as herein specified.

1.2 REFERENCES

A. ASTM A53: Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.

B. ASTM D1784: Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds.

C. ASTM D1785: Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40 and 80.

D. ASTM D2466: Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40.

E. ASTM D2564: Standard Specification for Solvent Cements for Poly (Vinyl Chloride) (PVC) Plastic Piping Systems.

F. ASTM F656: Standard Specification for Primers for Use in Solvent Cement Joints of Poly (Vinyl Chloride) (PVC) Plastic Pipe and Fittings.

1.3 SUBMITTALS

A. Product Submittals:

1. Submit product data showing manufacturer's name, catalog number, technical data, and photo or drawing for each component of the irrigation system.

2. Submit product data no later than 30 days prior to beginning work.

B. Water Pressure Tests:

1. Submit report of water pressure tests at irrigation water supply connection(s).

2. Submit report of irrigation pressure tests for main line prior to backfilling.

C. Submit Record Drawings at closeout of contract to include:

1. Variations or changes to system.

2. Main and lateral line locations.

3. Automatic control valves.

4. Quick coupling valves.

5. Drain valves.

6. Wire runs.

7. Wire splice valve box locations.

8. Operating and Maintenance instructions for all irrigation equipment.

1.4 SITE CONDITIONS

A. Weather Requirements:

1. Do not solvent weld polyvinyl chloride pipe when ambient temperature is below 40ºF or above 95ºF.

2. Do not solvent weld polyvinyl chloride pipe in wet conditions.

B. Schedule for Installing Pipe, Sleeves and Sprinkler Heads:

1. Schedule installation of pipe sleeves below paving and walks prior to construction.

2. Schedule installation of sprinkler heads after pressure testing and final grading.

C. Complete removal of materials deleterious to plant growth as indicated in Section 329113 – Soil Preparation prior to start of irrigation installation.

1.5 DAMAGES

A. Restore structures or facilities damaged by irrigation work to original condition.

B. Repair damage caused by leaks or breaks in equipment and materials furnished or installed in this contract for one year after date of final acceptance.

1.6 EXISTING UTILITIES

A. Locate and identify, with visible marking, existing underground utilities in areas of work. Utilities to remain in place shall be protected during excavation operations.

B. Consult with utility owner for instructions before proceeding if uncharted piping or other utilities are encountered during execution of work.

C. Cooperate with Owner and public or private utility companies in keeping their respective services and facilities in operation. Coordinate temporary interruptions to existing services and facilities and provide temporary utility services.

1.7 REGULATIONS

A. Work to be accomplished in accordance with applicable Local, State and Federal codes and regulations.

1.8 RECORD DRAWINGS

A. Maintain a current record of pipe, wire, and equipment placement, and record variations or changes.

B. Include Record Drawings in Operating and Maintenance Manual.

1.9 WARRANTIES

A. Equipment Warranty: Provide manufacturer's standard warranty for all specified equipment.

B. Installer's Warranty:

1. Warranty all irrigation pipes to be free of leaks for one year from the date of final acceptance.

2. Warranty shall include repair of trench backfill that settles more than 1" and repair of plantings, paving, and improvements damaged by settlement of trench backfill soils during warranty period.

1.10 QUALIFICATIONS

A. Irrigation Installer: The landscape construction professional as defined in ORS 671.520 and performing work under this section of the contract shall hold a valid landscape contractor's license in accordance with ORS 671.510 to 671.760.

PART 2 PRODUCTS

2.1 PVC PIPE

A. Polyvinyl Chloride Plastic (PVC) Pipe: PVC 1220, Type 1, normal impact, I.P.S., N.S.F. approved or accepted substitute.

1. Main and Lateral (Zone) Lines: Schedule 40 PVC pipe, conforming to ASTM D1784, ASTM D1785 and PS22.

2. PVC pipe to be new, defect free, continuously and permanently marked with manufacturer's name or trademark, size, schedule and type of pipe.

2.2 PVC PIPE FITTINGS

A. PVC Fittings: PVC 1220, schedule 40, type 1, normal impact, I.P.S., N.S.F. approved meeting requirements of ASTM D2466 or accepted substitute.

B. PVC nipples to be standard weight schedule 80, with molded threads.

2.3 PVC SOLVENT CEMENT

A. For pipe diameter up to 1-1/2": Weld-On 721 blue color, or accepted substitute, meeting N.S.F. approval for Type I and II PVC and requirements of ASTM D2564.

B. For pipe diameter 2" and larger: Weld-On 711 gray color, or accepted substitute, meeting N.S.F. approval for Type I and II PVC and requirements of ASTM D2564.

2.4 PVC PRIMER

A. Weld-On P-70, purple color, or accepted substitute meeting requirements of ASTM F656.

2.5 PVC SLEEVES

A. Schedule 40 PVC, sized two times the diameter of the pipes scheduled to be contained in the sleeve. Minimum sleeve size is 6" diameter, unless otherwise noted on the Drawings.

2.6 GALVANIZED STEEL PIPE AND FITTINGS

A. Pipe: Schedule 40, hot-dipped galvanized, conforming to ASTM A53.

B. Fittings: Hot-dipped galvanized, malleable iron.

2.7 DRIP IRRIGATION COMPONENTS

A. As indicated on the Drawings.

2.8 VALVES AND ACCESSORIES

A. Control Valves: See schedule on the Drawings.

B. Main Line Isolation Valves:

1. Manufacturer: Tuf-Skin or approved equal.

2. Type: Lever-operated butterfly valve, 150-PSI min. rating, with cast iron body, stainless steel butterfly valve, resilient rubber seat and flanged fittings.

3. Size: Same size as line on which it is installed, unless otherwise indicated on the Drawings.

C. Valve Boxes for Control and Isolation Valves: 12" minimum size box, one box for each valve, with locking lid, and with 3" and/or 6" extensions as needed to facilitate required installation.

1. Valve boxes shall be no closer than 12 inches apart, when multiple valve boxes are placed together.

2. Manufacturer: Carson, Armor, or approved equal with "T" top lid.

D. Manual Ball Valve: Full port brass manual ball valve with unions, same size as line on which it is installed.

E. Manual Drain Valves: Brass manual angle valve with "T" stem. Valves shall be 1" size.

F. Quick Coupling Valves: See schedule on the Drawings.

G. Valve Boxes for Quick Coupling Valves and Manual Drain Valves: Carson, Armor, or approved equal, 10" diameter round valve boxes, one box for each valve.

H. Air-relief Valves:

1. Manufacturer & Model: Nelson ACV200B Air Control Valve with brass base.

2. Size: Same size as line on which it is installed, unless otherwise recommended by the manufacturer.

2.9 IRRIGATION CONTROLLER

A. Controller: See schedule on the Drawings.

B. Weather Sensor: See schedule on the Drawings.

2.10 IRRIGATION CONTROL WIRE, DECODERS, AND SURGE PROTECTION

A. Controller to Decoder: No. 14 AWG, solid copper, jacketed two-conductor, direct burial cable as recommended by the manufacturer.

B. Decoder to Solenoid: As recommended by the manufacturer.

C. Surge Protection: Lightning arrestor surge protection as recommended by the manufacturer.

2.11 BACKFLOW PREVENTION DEVICE

A. Backflow Prevention Device: See schedule on the Drawings.

2.12 WATER SOURCE

A. New domestic water service dedicated for landscape irrigation as indicated on the Drawings.

2.13 OTHER MATERIALS

A. Keys:

1. Two (2) keys for each type of locking valve box, cover, or valve with integral locking lid.

2. Two (2) valve-operating keys of type and length required to operate manual drain valves.

B. Electrical Connectors: Water-tight electrical connectors.

1. 3-M DBY.

2. RainBird DB Series.

3. Or accepted substitute.

C. Locator Wire: All main lines to be marked with continuous 14-gauge, single-strand locator wire, with light blue color coating. Provide minimum 3'-0" long coiled loop of locator wire in each valve box.

D. Concrete for Thrust-Blocking: Concrete for thrust blocks to be from same source and conform to pipe manufacturer's recommendations and applicable ASTM requirements.

E. Pipe Joint Tape: Minimum of 1/2" Teflon tape intended for use in wrapping threaded PVC and/or galvanized pipe fittings and joints, as required.

F. Drain Rock: 1/4" round clean, washed pea gravel.

G. Steel Concrete Nails: 1-1/2" heavy-duty 10-Gauge shank concrete nails.

PART 3 EXECUTION

3.1 GENERAL

A. Do not allow work to be covered or enclosed until it has been reviewed, pressure tested, and approved by the Landscape Architect.

B. Code Requirements:

1. Installation of materials and equipment shall be in accordance with manufacturer's written specifications and recommendations, and all local and state codes.

2. Contractor is responsible for identifying conflicts between manufacturer's written specifications and recommendations, local and state codes, and the Contract Documents.

3. Contractor shall correct work installed to meet manufacturer's or code requirements at no additional cost.

C. Minor changes necessary to conform to ground conditions may be made without the Landscape Architect's approval. Changes shall be recorded on the Record Drawings.

D. Obtain written permission to shut off any water lines prior to work. Keep disruptions in service to a minimum.

E. Maintain system and protect it from damage, including damage caused by vandalism or adverse weather conditions, until date of final acceptance. Repair damage at no additional cost to the Owner.

3.2 PIPE TRENCHING

A. Minimum depth of cover to top of irrigation piping shall be as follows:

1. Lateral Lines: Minimum of 12" deep.

2. Mainline: Minimum of 18" deep.

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3. Sleeves under vehicular pavement: Minimum of 24" deep

B. Backfill trenches in cool part of day to minimize expansion and contraction of PVC pipe.

C. Remove debris, trash, rocks, and other foreign material from irrigation trenches.

1. Irrigation lines to have a firm, uniform bearing surface for entire length of each line.

2. Wedging or blocking of pipe other than specified thrust blocking is not permitted.

D. Before backfilling trenches, pipe shall be flushed clear and clean of dirt and foreign material. (See 3.12 FLUSHING, TESTING, AND ADJUSTING)

E. Backfill trenches in layers of not more than 6" in depth and compact each layer.

1. Fill trenches to finish grade with planting soil.

2. Restore disturbed surfaces to original condition or better.

F. Repair or replace materials and equipment damaged or destroyed while backfilling.

3.3 PIPE

A. Exercise care in handling and storing pipe and fittings.

1. Store materials under cover before using.

2. Transport materials in a vehicle of adequate size and capacity to prevent bending or concentration of an external load at any point on materials.

3. Materials or portions of materials that are damaged shall be discarded and replaced.

B. Remove foreign matter and dirt from inside pipe or fittings before lowering into trench.

C. Install pipe and fittings per manufacturer's specifications with specified materials. Use Teflon tape on threaded joints.

D. Install locator wire on top side of pipe.

1. Tape locator wire to pipe at no less than 20'-0" intervals.

2. Sections of locator wire shall be spliced together with watertight splice connectors, to provide a continuous run.

E. Install concrete thrust blocks at changes of direction for main line pipe 2-1/2" or greater in diameter. Pour a minimum of 1 cubic foot of pre-mixed concrete against pipe and firm soil, in accordance with pipe manufacturer's recommendations.

F. Snake pipe in trenches where applicable to allow for expansion and contraction as recommended by manufacturer.

G. Cut pipe ends square and remove burrs.

H. Repair settlement of backfilled trenches during warranty period and completely restore and repair plantings, paving and other site improvements disturbed by irrigation construction.

3.4 BACKFLOW PREVENTION DEVICE

A. Install complete with fittings, valve boxes and extensions. Verify that backflow prevention device is tested and approved by authorities having jurisdiction.

3.5 CONTROL VALVES

A. Valve boxes to be installed with top of box 1/2" above finish grade.

B. Install valves in box allowing room to perform ongoing maintenance.

C. Place drain rock in valve box to within 2" of bottom of valve assembly.

D. A maximum of two one-inch valves may be installed per jumbo size valve box. Install one control valve assembly per valve box for valves larger than one inch.

E. Provide jumbo valve box if necessary to allow room for maintenance.

F. Connect control valve decoders to irrigation controller according to manufacturer's instructions.

3.6 DRAIN VALVES

A. Install complete with fittings, valve boxes and extensions. Install a minimum of one cubic foot of drain rock at each drain valve location

3.7 ISOLATION AND AIR-RELIEF VALVES

A. Install complete with fittings, valve boxes and extensions.

B. Air-relief Valves: Install in quantities and locations as recommended by the manufacturer

3.8 QUICK COUPLING VALVES

A. Install quick coupling valves on double swing joint assemblies plumb and flush to grade. Angle of nipple relative to main line shall be no more than 45 degrees and no less than 10 degrees. Install quick coupling valves as detailed on the Drawings.

3.9 IRRIGATION HEADS

A. Install irrigation heads of types, sizes, and coverage indicated in Irrigation Legend at locations shown on the Drawings.

1. Minor changes in head location may be necessary to achieve the required coverage.

2. Make changes at no additional expense to the Owner.

3. Notify the Landscape Architect for approval prior to making major changes.

4. Document changes on the Record Drawings.

B. Locate heads no closer than 6" from any adjacent edge of paving curb, wall, or fence.

3.10 IRRIGATION SLEEVES

A. Install sleeves for irrigation lines and/or control wire under pavement prior to placing pavement materials.

1. Extend sleeves beyond pavement edge a minimum of 12".

2. If length of required sleeve is greater than the length of a single piece of pipe, solvent weld joints, otherwise sleeves shall be one continuous length of pipe.

B. Tape ends of sleeve closed with a minimum of three layers of duct tape to keep soil out of sleeve until irrigation lines and/or control wire are installed.

C. Permanently attach a single length of 14-gauge locator wire to the entire length of the sleeve.

D. Stake both ends of sleeves with a readily visible stake extending 12" above grade and below grade to the bottom of sleeve. After curb or sidewalk is installed mark sleeve location with steel concrete nail.

1. Mark above-grade portion of stake with words 'Irrig. Sleeve.'

2. Prior to removing stakes install concrete nail at curb above sleeve location and note location on Record Drawings. Do not remove stakes until irrigation lines and/or control wires are installed and inspected.

3.11 IRRIGATION CONTROL WIRE

A. Controller to Decoder: Lay two-wire communication wire in trench under mainline and/or lateral lines whenever they occur in same trench. Place communication wire in sleeves when under paving, and in conduit when not in common trench with mainline and/or lateral lines.

B. Decoder to Solenoid: Make connections according to manufacturer's installation instructions.

C. Wire splices to be moisture proof using specified electrical connectors according to manufacturer's installation instructions.

1. Make splices only in valve boxes.

2. Provide minimum 1'-0" length of coiled slack between wire splices.

1. Perform lateral line leak testing for each control valve in numerical sequence, immediately after main line pressure testing has been approved, in the presence of the Landscape Architect.

2. Open each control valve, one at a time, under main line dynamic pressure to demonstrate the absence of leaks at valves, pipe joints, and fittings.

H. Where inspected work does not comply with specified requirements or if pressure tests fail, replace rejected work until compliance is achieved.

I. Adjust and balance irrigation system to provide uniform coverage.

1. Change, reset or adjust heads and/or nozzles as required to provide uniform coverage and match final grades.

2. Perform final coverage test by operating each control valve in the presence of the Landscape Architect when the irrigation system has been completely installed and adjusted.

J. Locator wires must be tested and approved. Wire tests to be conducted by Owner or designated representative.

3.13 IRRIGATION CONTROLLER

A. Install controller and cabinet on pedestal at location shown on the Drawings according to manufacturer's installation instructions.

B. Connect controller to power supply according to all code requirements and manufacturer's installation instructions.

C. Install electrical surge protection for irrigation control system according to all code requirements and manufacturer's installation instructions.

D. Install weather sensor and connect to irrigation controller according to manufacturer's installation instructions.

3.14 CLEAN-UP

A. Remove packaging, excess materials, and trash, and dispose of in a legal manner.

3.15 FINAL SUBMITTALS AND TRAINING

A. Irrigation Valve Schedule, laminated on both sides with plastic, for placement inside irrigation controller.

B. Clean print of final Project Record Drawing, reduced by 50% and with zones clearly color-coded, for delivery to Owner's Representative.

C. Provide a minimum of two (2) hours of training and orientation with Owner's Representative to demonstrate operation, adjustment, and maintenance of irrigation system. Review spring activation and winterization operations as part of the Owner's training and orientation procedures.

END OF SECTION

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SECTION 329113 – SOIL PREPARATION

PART 1 GENERAL

1.1 WORK INCLUDED

A. Subgrade preparation and placing existing and imported topsoil in planting areas.

B. Preparing planting soil materials and areas to be planted with trees, shrubs, and ground cover at locations indicated on the Drawings and as herein specified.

1.2 REFERENCES

A. Definition of Noxious Weed: Includes Blackberry, Canada Thistle, Dandelion, Horsetail, Morning Glory, Nut Sedge, Poison Oak, Rush Grass, Annual Bluegrass, Bermuda Grass, Brome, Crabgrass, Johnson Grass, Nut Grass, Quack Grass, and other noxious weeds as designated on State of Oregon Dept. of Agriculture's Noxious Weed List.

1.3 SUBMITTALS

A. Topsoil:

1. Submit written verification of source and type of imported topsoil.

2. Submit analysis of existing (on-site) and imported topsoil from licensed soils testing laboratory for approval prior to reuse of existing topsoil or delivery of imported topsoil. See paragraph 2.1 A. for test requirements.

3. Sample: Submit 1/2-gallon sample each of existing and imported topsoil.

B. Submit manufacturer's or vender's certified analysis of compost, fertilizers, and soil amendments.

1.4 SITE CONDITIONS

A. Environmental Requirements: Prepare soil only when topsoil is not in a wet, muddy, or frozen condition.

B. Complete subgrade preparation prior to placing topsoil (see paragraph 3.2, this section).

C. Scheduling: Schedule preparation of areas to be seeded within 48 hours prior to application of seed.

PART 2 PRODUCTS

2.1 MATERIALS

A. Existing (On-site) and Imported Topsoil:

1. Fertile, friable, natural loam, surface soil, capable of sustaining vigorous plant growth; porous and free draining; free of subsoil clay lumps, brush, noxious weeds, weed seeds, roots, stones larger than 1-1/2 inches in any dimension and other material harmful to plant growth.

2. Topsoil samples and analysis from a licensed soils laboratory shall be submitted to the Landscape Architect for approval prior to delivery or use of any topsoil on the project site. Soil sample shall be a composite acquired from four different sections of the stockpiled soil or four different locations on the site at a depth between six and twelve inches, for a total combined quantity of one-half gallon. Sampling shall be observed by the Architect or Inspector of Record and a written verification describing the sampling locations and process observed shall be provided to the Landscape Architect. Soil test shall include the following: sieve analysis of soil particle size; magnesium, nitrogen, phosphorous, boron, zinc, and potassium levels; soluble salt level; pH; organic matter; and infiltration rate. Test results shall include specific recommendations for soil conditioners, amendments and fertilizers to adjust the soil to meet the description noted above. A written narrative summarizing the analysis and recommendations shall be included in the submittal.

3. Acceptable gradation as defined by USDA triangle of physical characteristics as measured by hydrometer:

a. Sand: 15 to 60 percent.

b. Silt: 10 to 60 percent.

c. Clay: 5 to 30 percent.

B. On-Site or Imported Earth Fill: Approved excavated earth fill materials, free of subsoil clay lumps, brush, weeds, roots, stones larger than 1-1/2 inches in any dimension and other material harmful to plant growth.

C. Lime: Dolomite limestone, calcium magnesium carbonate, 50% passing through a 100 mesh sieve, 95% to 100% passing through a 20 mesh sieve, agricultural ground grade, minimum neutralizing value of 90%.

D. Compost: 1/4-inch minus fir or hemlock sawdust aged a minimum of 2 years, or approved substitute.

E. Fertilizers and Amendments:

1. Planting Bed Fertilizer: Best Fertilizer Triple Pro 15-15-15, or approved equal.

2. Mycorrhizae Soil Amendment: Plant Success Mycorrhizae Tablets, or approved equal.

PART 3 EXECUTION

3.1 PERFORMANCE

A. Site Verification of Conditions:

1. Examine site for conditions which will adversely affect execution, permanence, quality of work, survival of plant material, and survival of lawn.

2. Verify that grade and slopes of lawn areas and planting beds are acceptable to the Landscape Architect prior to beginning soil preparation.

3. Report existing conditions detrimental to completion of soil preparation work.

4. Begin Work required in this Section only after conditions are satisfactory.

5. Start of Work in this Section denotes acceptance of existing conditions.

B. Protection of Existing Site:

1. Protect utility lines and site improvements.

2. Stake location of underground utilities and avoid excavation in these areas beyond safe limits.

3. Hand excavate where required to avoid utility line damage.

3.2 SUBGRADE PREPARATION

A. Removal of Materials Deleterious to Plant Growth including the following:

1. Remove all gravel, aggregate base rock material, asphalt, concrete, roots of any dead tree or tree to be removed, and all construction debris, from planting beds to a minimum depth of 18" inches below finish grade, and a minimum depth of 12" inches below finish grade for areas to be seeded.

2. Replace with earth fill, if necessary, to bring subgrade to correct levels prior to placing topsoil.

B. Scarify Subgrade:

1. For shrub and groundcover areas, scarify subgrade to a depth of 12 inches in two directions at 90 degrees to each other where topsoil is scheduled to be placed to ensure interfacing of subsoil and topsoil, and to achieve specified compaction density.

2. Repeat cultivation and scarification prior to placing topsoil planting mix in planting areas where compaction exceeds 75% of maximum density, and where surface soils have sealed and/or formed a soil lens inhibiting drainage.

3.3 PREPARATION

A. Stockpiling:

1. Stockpile and protect existing and imported topsoil on site in designated location as directed by Owner's representative.

2. Do not mix other excavated materials with stockpiles.

B. Preparing Shrub and Ground Cover Planting Bed Areas:

1. Place 12" depth of topsoil at areas to be planted with shrubs and groundcovers.

2. Place 18" depth of topsoil where trees are to be placed in a diameter of 3 times the root ball.

3. Spread 4" depth of compost, and 13.5 pounds per 1,000 square feet of Planting Bed Fertilizer.

4. Apply additional soil amendments as required by soil test analysis at the rate indicated by the analysis.

5. Till soil amendments into topsoil to a minimum depth of 8".

6. Float amended topsoil to 3" below finish elevations.

7. Place Mycorrhizae Tablets in each plant pit at the time of planting according to the manufacturer's specifications:

a. 1 tablet for each 4" pot

b. 2 tablets for each 1 gallon container

c. 4 tablets for each 3 gallon container

d. 8 tablets for each 5 gallon container

e. 10 tablets per inch of stem width for each tree (e.g. 20 tablets for each 2" caliper tree)

3.4 COMPLETION

A. Adjusting and Cleaning:

1. Restore eroded, settled, or compacted soil to specified condition prior to landscape planting and seeding.

2. Remove excess topsoil and soil amendments from adjacent paving, curb, and walk surfaces.

3. Provide protective cover and barriers as necessary to prevent damage and staining.

4. Remove debris, topsoil, fertilizer, soil amendments, and soil mixes from curbs, walks, paving, and other improvement surfaces daily.

5. Sweep and hose down curb, pavement, and walk areas daily as necessary to maintain clean surfaces.

6. Transport surplus materials to a legal disposal area.

END OF SECTION

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SECTION 329200 - HYDROSEEDING

PART 1 GENERAL

1.1 WORK INCLUDED

A. Hydroseeding

1.2 SUBMITTALS

A. Product Data: For each type of product indicated.

1. Pesticides and Herbicides: Include product label and manufacturer's application instructions specific to this Project.

2. Maintenance Fertilizer

3. Hydro (Wood Fiber) Mulch

4. Tackifier

B. Submit seed vendor's certified statement of analysis for grass seed mix.

1. Comply with standards established by the Association of Official Seed Analysts.

2. Seed shall have a guaranteed minimum germination rate of 80%.

3. Seed must contain a maximum of 1.0% total weed seed by weight.

C. Maintenance Instructions: Submit written recommendations for turf maintenance procedures for one calendar year. Submit before expiration of required establishment period.

1.3 REGULATORY REQUIREMENTS

A. Meet State of Oregon licensing requirements for the application of herbicides.

1.4 DELIVERY, STORAGE AND HANDLING

A. Seed and Other Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and indication of conformance with state and federal laws, as applicable.

1.5 SITE CONDITIONS

A. Environmental Requirements:

1. Apply seed when wind velocity is less than 5 miles per hour at the site.

2. Do not seed when the air temperature is below 40ºF or above 90ºF.

B. Scheduling:

1. Perform seeding work after soil preparation, planting, irrigation, and other work affecting ground surface has been completed.

2. Seed between April 15 and October 15, unless otherwise approved by the Owner.

3. Apply seed within 4 hours after final preparation of seeding areas.

4. If approved by Owner to seed after October 15, increase grass seed mixture by one pound per 1000 square feet per week up to a total of 12 pounds per 1000 square feet.

1.6 MAINTENANCE

A. Establishment Period: Begin maintenance immediately after each area is seeded and continue until acceptable coverage is established, but for not less than the following periods:

1. 60 days from date of seeding

2. When establishment period has not elapsed or seeded area is not fully established before end of planting season, continue maintenance during next planting season.

B. Maintenance:

1. Do not walk on seeded areas for the first 30 days without using plywood protection boards to walk over prepared areas.

2. Apply Maintenance Fertilizer within the maintenance period at 5 pounds per 1,000 square feet if required to supplement establishment after germination or as directed by the Landscape Architect.

3. Water fertilizer thoroughly into soil.

C. Repair:

1. Apply seed to bare areas that occur in seeded areas during the establishment period.

2. Reseed areas where soil erosion or poor germination causes bare areas.

3. Completely remove weeds including weed roots.

4. Remove and replace unaccepted areas in accordance with requirements in this Section.

D. Maintenance Conclusion: Notify Owner in writing 5 days minimum prior to Owner assuming maintenance responsibility for seeded areas.

E. Acceptance:

1. Acceptance of seeded areas is contingent upon meeting the requirements of this Section and the establishment of a healthy, weed-free stand of the seeded species with uniform coverage.

2. Coverage Requirements: 90% coverage over any 50 sq. ft. area, with bare spots not exceeding 12 by 12 inches.

3. Weed-free Tolerance: One broadleaf or narrow-leaf weed for each 100 square feet of seeded area.

4. Re-establish unaccepted areas and provide maintenance beyond the required establishment period as necessary to achieve specified results.

1.7 QUALIFICATIONS

A. Installer Qualifications: The landscape construction professional as defined in ORS 671.520 and performing work under this section of the contract shall hold a valid landscape contractor's license in accordance with ORS 671.510 to 671.760

PART 2 PRODUCTS

2.1 SEEDING MATERIALS

A. Fertilizer and Accessories:

1. Maintenance Fertilizer: Best Turf Gold 22-5-6, or approved equal.

2. Vapor Retarder: 6 mil thick, black polyethylene sheet.

B. Seed Mix:

1. Seed Mix:

a. 25% Annual Ryegrass

b. 25% Perennial Ryegrass

c. 25% Creeping Red Fescue

d. 15% Sheep Fescue

e. 4% Chewing Fescue

f. 3% - White Yarrow

g. 3% - Blue Flax

2. All seed shall be State of Oregon Department of Agriculture Certified Blue Tag Seed.

3. Inoculate all seed blends with mycorrhizae according to the manufacturer's recommended application rate.

C. Hydro Mulch:

1. Material: Virgin wood cellulose fiber containing no growth or germination inhibiting factors.

2. Application Metering Material: Green dye to facilitate visual metering.

3. Performance Characteristics: Forms homogenous slurry upon agitation for rapid and even dispersal.

4. Acceptable Wood Fiber Mulches: Eco-Fiber by Profile Products or approved equal.

D. Binder or Tackifier: Agritek-PAM or approved equal.

2.2 PESTICIDES AND HERBICIDES

A. General: Pesticide, registered and approved by EPA, acceptable to authorities having jurisdiction, and of type recommended by manufacturer for each specific problem and as required for Project conditions and application. Do not use restricted pesticides unless authorized in writing by authorities having jurisdiction.

B. Post-Emergent Herbicide (Selective and Non-Selective): Effective for controlling weed growth that has already germinated.

2.3 EQUIPMENT

A. Hydraulic Hydro-seeding Equipment: Continuous mixing and agitating action to mix water, seed, fertilizer, and mulch and distribute the mixture on areas to be seeded.

PART 3 EXECUTION

3.1 PERFORMANCE

A. Verification of Conditions:

1. Inspect soil in areas to be seeded

2. Verify compliance with required soil preparation, compaction, grades, slope to drains, and completion of underground utility lines in affected areas.

3. Start of seeding work indicates acceptance of subgrade and topsoil conditions.

B. Protection of Adjacent Surfaces Prior to Seeding: Protect existing utility systems, paving, walks, curbs, and other site improvements from damage during seeding.

C. Protection of Adjacent Surfaces Prior to Hydro-seeding: Install 10 feet minimum width vapor retarder sheet cover at perimeter of hydro-seeding area to prevent hydro-seeding drift on adjacent surfaces.

D. Surface Preparation for Seeding:

1. Comply with requirements in Section 32 91 13, Soil Preparation.

2. Remove hard or soft topsoil areas and adjust grade of topsoil where required.

3. Lightly irrigate dry planting soil.

4. Allow time for free surface water to drain prior to seeding.

E. Hydroseeding:

1. Seed all areas shown on Drawings and areas disturbed as a result of construction operations.

2. Apply seed, mulch, fertilizer, amendments, and water uniformly in one application with hydraulic equipment to prepared areas.

3. Seed mix: Apply 5 pounds seed per 1000 square feet.

4. Apply 70 pounds (dry weight) wood fiber mulch for each 1,000 square feet and 2 pounds binder or tackifier for each 1,000 square feet.

5. Apply mixture through a pressure spray distribution system providing a continuous, non-fluctuating discharge of mixture in the above quantities uniformly on areas to be seeded.

6. Apply seed and mulch mixture using a sweeping, horizontal motion of spray distribution system.

7. Do not seed within 2 feet of base of trees.

3.2 PESTICIDE AND HERBICIDE APPLICATION

A. Apply pesticides and other chemical products and biological control agents in accordance with requirements of authorities having jurisdiction and manufacturer's written recommendations. Coordinate applications with Owner's operations and others in proximity to the Work. Notify Owner before each application is performed.

B. Post-Emergent Herbicides (Selective and Non-Selective): Apply in accordance with manufacturer's written recommendations and only as necessary to treat already-germinated weeds.

3.3 COMPLETION

A. Adjusting and Cleaning:

1. Contractor may adjust method of seeding application only when written request is acceptable to the Owner.

2. At completion of Work in each area, remove debris, equipment, and surplus materials.

3. Wash walks, walls, and paving areas adjacent to lawn areas to completely remove seed, mulch, soil materials, and stains from exposed surfaces.

END OF SECTION

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SECTION 329300 - PLANTING

PART 1 GENERAL

1.1 WORK INCLUDED

A. Planting trees, shrubs, and ground covers.

B. Mulching.

C. Weed Fabric.

D. Plant establishment and warranty period.

1.2 SUBMITTALS

A. Product Submittals:

1. Sample: Submit 1/2 gallon product sample of mulch prior to delivery at the site.

2. Submit a sample of plant guys.

B. Quality Assurance Submittals:

1. Submit written confirmation of plant order with landscape bid. Substitution requests for plants must be submitted prior to bidding. See submittal procedures.

2. Submit Certificates required by law with plant shipments in the Closeout Manual.

3. Submit notification to Owner 14 days minimum prior to Owner assuming plant maintenance responsibility that indicates the recommended landscape maintenance procedures for the next 60 days.

1.3 QUALITY ASSURANCE

A. Regulatory Requirements:

1. Comply with minimum requirements for plant quality, grade tolerances, and caliper to height ratios as specified in American Standards for Nursery Stock, ANSI Z60.1.

2. Meet or exceed the specifications of federal, state, and county laws requiring inspection of plants and planting material for plant disease control.

B. Plant Names:

1. Names and sizes of plants shall comply with the Standards of Practice of the American Association of Nurserymen, Inc.

2. Conform to Standardized Plant Names by J. Horace McFarland Company.

3. Botanical names take precedence over common names.

C. The Landscape Architect may reject plant material that does not meet specified standards at any time prior to Final Acceptance.

1.4 DELIVERY, STORAGE AND HANDLING

A. Packing and Shipping:

1. Notify the Landscape Architect of delivery schedule so plant materials may be inspected upon delivery.

2. Do not deliver more plant materials than can be planted in 48 hours.

3. Deliver packaged materials in manufacturer's unopened containers, fully identified by name, brand, type, weight, and analysis.

B. Storage and Protection:

1. Protect plants against damage and dehydration.

2. Cover plant roots and root balls with soil or other accepted material upon delivery, if not scheduled for planting within 4 hours.

3. Store plant materials in shade and protect against harmful weather.

4. Store packaged materials to prevent damage and intrusion of foreign matter.

1.5 SITE CONDITIONS

A. Environmental Requirements:

1. Do not plant when air temperature is less than 35ºF or above 90ºF.

2. Do not plant when ground is frozen, excessively wet or dry.

3. Do not plant when wind velocity exceeds 25 mph.

B. Scheduling:

1. Conduct landscape work when within the acceptable planting season for each kind of plant.

2. Coordinate Work with other contractors.

1.6 PLANT WARRANTIES

A. Warranty begins on date of Final Acceptance.

B. Plant materials shall be in healthy condition at end of one-year warranty period, or for one full growing season after installation, whichever is longer.

C. Replace unhealthy plants within 15 days or as approved by the Landscape Architect.

D. Corrective Work shall be done within 15 days or as approved by the Landscape Architect.

E. The contractor is not responsible for plants damaged by vandalism or theft during warranty period.

1.7 MAINTENANCE SERVICE AND PERIOD

A. Begin maintenance service immediately after planting and continue until Final Acceptance.

B. Water, weed, fertilize, spray, cultivate, mulch, reset plants to correct grade and upright position, remove dead wood, and perform other necessary maintenance work necessary for healthy growth.

C. Remove fallen leaves, cones, and plant litter from landscape areas.

D. Irrigate planting soils when necessary to avoid drying out of plant materials and to promote healthy growth.

1.8 QUALIFICATIONS

A. Installer Qualifications: The landscape construction professional as defined in ORS 671.520 and performing work under this section of the contract shall hold a valid landscape contractor's license in accordance with ORS 671.510 to 671.760.

PART 2 PRODUCTS

2.1 PLANTS

A. Nursery Stock:

1. Healthy, well-branched and rooted, full-foliaged when in leaf, free of disease, injury, insects, weeds, and weed roots.

2. Typical of plant species and variety.

3. Plants held in storage will be rejected if they show signs of growth during storage.

4. Do not use cold storage plants.

5. Where drawings indicate row planting, furnish plants matched in form.

6. Plants larger than specified in plant list may be used when acceptable to the Landscape Architect at no additional cost to Owner.

7. If use of larger plants is acceptable to the Landscape Architect, then increase the spread of roots or root ball in proportion to the plant size.

B. Plant Names:

1. Furnish plants true to name.

2. Tag a minimum of one of each bundle or lot with common and botanical name.

C. Balled and Burlapped Plants (B&B):

1. Ball and Burlap with natural ball of size to insure healthy growth.

2. Dig with firm natural balls of earth of sufficient diameter and depth to encompass the feeding root system necessary for full recovery of the plant.

3. Comply with ball sizes listed by American Standard for Nursery Stock.

4. Cracked or broken balls are not acceptable.

D. Container Grown Plants:

1. Furnish plants in removable containers or integral peat pots.

2. Furnish plants well rooted to ensure healthy growth.

3. Furnish plants grown in containers from six months to two years prior to delivery, with roots filling container but not root bound.

4. Furnish plants grown in container for sufficient length of time for root system to hold container soil together.

E. Trees:

1. Furnish species that mature at heights over 25 feet with a single main trunk.

2. Do not furnish trees that have a main trunk with two or more co-dominant leaders, or trees with "V" branch connection angles.

3. Do not furnish conifers which have been sheared as for Christmas tree stock.

4. Trees shall not contain pruning wounds with a diameter of more than 1 inch. Pruning wounds must be made at branch collar and have sound bark on all edges.

F. Shrubs and Ground Covers:

1. Furnish plants with spread and height requirements typical for the species in the specified container size.

2. Furnish plants in a moist and vigorous condition, free of dead wood, bruises, root injuries, and branch injuries.

G. Plant List: As indicated on the Drawings.

1. Contractor shall verify plant quantities indicated on the Drawings. Quantity errors on the Drawings are not the responsibility of the Owner or the Landscape Architect. Provide sufficient quantity of plants to complete work shown on the Drawings.

2.2 ACCESSORIES

A. Mulch:

1. Free from weeds, seeds, and material harmful to plant life.

2. Crushed rock: ¾ minus crushed granite (no fines).

B. Wood Stakes:

1. Wood Species and Grade: Douglas Fir, WCLIB or WWPA No. 2 or Construction grade.

2. Nominal Size for Deciduous Trees: 2" x 2" square, or 2" diameter round, by 8 feet long, or larger if needed.

C. Plant Guys:

1. Broad belt-type strapping or plastic chain, minimum 1" width.

D. Weed Fabric:

1. Earth Saver NPW 5000 Woven Needle-Punched Polypropylene Weed Barrier landscape fabric, or approved equal.

PART 3 EXECUTION

3.1 ACCEPTABLE PLANT INSTALLERS

A. Employ a planting field superintendent to be present and direct performance of planting Work. Planting superintendent shall be familiar with planting materials and methods of installation.

3.2 PERFORMANCE

A. Verification of Conditions:

1. Examine planting areas and site conditions prior to starting work.

2. Verify location of underground utilities prior to starting work.

3. Starting work indicates acceptance of existing site conditions.

B. Protection:

1. Protect utility lines.

2. Barricade and cover excavations as required to protect pedestrians, employees, equipment, and adjacent property.

3. Protect existing shrubs and trees from damage, discoloration, and soiling.

4. Protect existing and new improvements from damage, discoloration, and soiling.

5. Provide protective cover and barriers as necessary to prevent damage and staining.

C. Preparation:

1. Comply with requirements in Section 32 91 13, Soil Preparation.

2. Excavate pit to a minimum of three times diameter of root ball or root system, not less than 6" deeper for shrubs, and not to exceed depth of root ball for holes for balled trees.

3. Assure plant pit drainage by flooding prior to planting.

4. Immediately prior to planting, scarify bottom and sides of hole with shovel.

D. Placement of Trees and Shrubs:

1. Set top of root ball 1-1/2 inches above finished grade.

2. If hole is too deep, fill hole with compacted soil to correct levels. Deep planting is not permitted.

3. Install plants upright and face plants to give best appearance and relationship to adjacent plants and structures.

4. Remove root ball containers completely.

5. After trees have been set in plant pit, remove top and sides of wire baskets. Use bolt cutters to cut wire in several places and remove wire from plant pit. Remove fasteners and burlap wrapping from top third of root ball. Do not bury wire and fasteners in landscape; dispose of legally.

6. Trim broken and frayed roots and any circularly growing roots conforming to the container shape.

7. Adjust plant locations to minimize conflicts with irrigation equipment.

E. Installation of Weed Fabric: Place and secure weed fabric in all planter areas as described by the manufacturer.

F. Installation of Tree Support: Guy and stake deciduous trees from two directions with guys, guy wire, and stakes as detailed on the Drawings.

G. Planting Trees and Shrubs:

ONE INCH EQUALS FULL SCALE

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OREGON TECH INDUSTRIAL PARK DRIVE IMPROVEMENTS

Oregon TECH
Oregon Institute of Technology

REGISTERED LANDSCAPE ARCHITECT
434
OREGON
10/31/97

EXPIRES: 05/31/2024

REVISION ID:	DATE:

PROJECT NO:	K-6345-23
DRAWN:	BKS
CHECKED:	ADP
DATE:	01-31-2024

Landscape Specifications

L3.40

BID AND PERMIT SET

1. Cut off broken and frayed roots.
2. Place and compact prepared planting soil carefully to avoid injury to roots and fill voids.
3. When hole is filled to within 4" of finish grade, fill with water and let stand until water is absorbed by soil.
4. Backfill with prepared soil mix and compact to eliminate voids.
5. Place Mycorrhizae Tablets in each plant pit as specified in Section 32 91 13, Soil Preparation. Ensure tablets are in direct contact with plant roots or rootball.
6. Do not perform initial watering of trees and shrubs by irrigation system. Water plants thoroughly by hand with a hose immediately after planting.

H. Planting Ground Covers:

1. Install plants at spacing indicated.
2. Dig holes large enough to allow spreading of roots.
3. Backfill with prepared soil mix and compact to eliminate voids.
4. Place Mycorrhizae Tablets in each plant pit as specified in Section 32 91 13, Soil Preparation. Ensure tablets are in direct contact with plant roots.
5. Slightly dish soil surface at each plant and water thoroughly.

I. Pruning Trees and Shrubs: Prune trees and shrubs to remove damaged, dead and poorly connected branches.

J. Mulching:

1. Apply 3" thick layer of crushed rock mulch over planting beds within two days after planting. Ensure rock does not spill onto adjacent hardscape areas.
2. Lift plant foliage above mulch to prevent mulch contact with foliage.

3.3 ADJUSTING AND CLEANING

A. Remove defective trees, plants, and ground covers from the site within 8 hours after site delivery.

B. Repair damage to utility lines and site improvements as a result of planting work.

C. Reshape finish grade to match adjacent surfaces.

D. Replace defective trees, plants, and ground covers prior to Final Acceptance or where necessary during next planting season.

E. Remove all weeds from project landscape area.

F. Ensure weed fabric is completely covered by mulch in all planter areas.

G. Remove excess materials from the site.

H. Sweep clean adjacent paving, curbs, walls, and walk surfaces.

END OF SECTION

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REGISTERED LANDSCAPE ARCHITECT
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OREGON
10/31/97

EXPIRES: 05/31/2024

REVISION ID:	DATE:

PROJECT NO:	K-6345-23
DRAWN:	BKS
CHECKED:	ADP
DATE:	01-31-2024

Landscape Specifications

L3.50

BID AND PERMIT SET

ONE INCH EQUALS FULL SCALE

GENERAL NOTES - ELECTRICAL

1. COORDINATE LOCATION/INSTALLATION OF ELECTRICAL UTILITIES WORK WITH ALL OTHER TRADES. BEGIN INSTALLATION AND ROUGH-IN ONLY AFTER PROPER AND TIMELY COORDINATION WITH ALL TRADES ASSOCIATED WITH THE INSTALLATION IS COMPLETE. CONTRACTOR IS RESPONSIBLE FOR REWORK OF INSTALLED EQUIPMENT RESULTING FROM INSUFFICIENT COORDINATION.

2. ELECTRICAL DRAWINGS ARE ONLY A PORTION OF THE COMPLETE SET OF PLANS AND CONTRACT DOCUMENTS. THE ELECTRICAL SCOPE OF WORK IS DEFINED BY THE COMPLETE SET OF CONTRACT DOCUMENTS. THIS INCLUDES BUT IS NOT LIMITED TO REFERENCING; CIVIL PLANS FOR DIMENSIONS, DETAILS AND EQUIPMENT LOCATIONS.

CODE NOTES - ELECTRICAL

1. PROVIDE ELECTRICAL INSTALLATION IN ACCORDANCE WITH ALL LOCAL, STATE, AND NATIONAL CODES.

2. THE CURRENT ADOPTED EDITION OF THE ELECTRICAL CODE IS THE STANDARD FOR THE ELECTRICAL INSTALLATION. VERIFY WITH LOCAL OFFICIALS WHEN PERMITS ARE OBTAINED. NOTIFY DESIGN TEAM OF ANY DESCREPANCIES BETWEEN THE PROJECT MANUAL OR DRAWINGS AND THE GOVERNING CODE.

3. ALL MATERIALS USED IN CONSTRUCTION OF THE ILLUMINATION SYSTEM AND POWER DISTRIBUTION SYSTEM TO CONFORM WITH PACIFIC POWER DESIGN SPECIFICATIONS, AND CITY OF KLAMATH FALLS PUBLIC WORKS DESIGN STANDARDS.

INSTALLATION NOTES - ELECTRICAL

1. BECOME FAMILIAR WITH EXISTING CONDITIONS PRIOR TO BID.

2. RACEWAYS AND BOXES ARE SHOWN DIAGRAMMATICALLY ONLY AND INDICATE GENERAL AND APPROXIMATE LOCATIONS. LAYOUTS DO NOT ALWAYS SHOW THE TOTAL NUMBER OF RACEWAYS OR BOXES FOR THE CIRCUITS REQUIRED, NOR ARE THE LOCATIONS OF INDICATED RUNS INTENDED TO SHOW THE ACTUAL ROUTING OF THE RACEWAYS.

3. LIGHT FIXTURES, BOXES, DEVICES, ETC, ARE SHOWN IN PREFERRED LOCATION. MODIFY CONDUIT, CIRCUITING, ETC. TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM.

4. PROVIDE A DEDICATED GREEN INSULATED GROUND CONDUCTOR TO ALL DEVICES. DO NOT USE CONDUIT SYSTEM AS THE ONLY EQUIPMENT GROUNDING METHOD.

5. FOR COORDINATION OF LIGHTING AND POWER SYSTEM INSTALLATION REQUIREMENTS, CONTACT KELLY BRENNAN WITH THE CITY OF KLAMATH FALLS MAINTENANCE AT 541-883-5397.

SITE NOTES - ELECTRICAL

1. UTILITIES SHOWN ON ELECTRICAL SITE PLAN ARE SCHEMATIC ONLY. VERIFY ALL SITE CONDITIONS AND DIMENSIONS ON SITE PRIOR TO SUBMITTING BID AND ORDERING EQUIPMENT.

2. REPAIR ALL AFFECTED SURFACES AND RESTORE TO EXISTING CONDITIONS AT COMPLETION OF PROJECT.

3. WARNING - CALL BEFORE YOU DIG: LAW REQUIRES ANYONE DOING EXCAVATION, FENCING, PLANTING OR DRILLING TO CALL 48 HOURS IN ADVANCE. HAND DIG WITHIN 18 INCHES OF ANY LOCATE MARK OR FLAG. ONE-CALL 811.

PROJECT DELIVERY NOTES - ELECTRICAL

1. THE DELIVERY METHOD FOR THIS PROJECT IS INDIVIDUAL SUB-CONTRACTS TO ONE GENERAL CONTRACTOR. THIS CONTRACTOR IS RESPONSIBLE FOR MEETING WITH ALL SUB-CONTRACTORS TO COORDINATE LOCATIONS AND INSTALLATION OF ELECTRICAL WORK WITH ALL OTHER TRADES. REWORK OF INSTALLED EQUIPMENT WILL BE AT CONTRACTORS EXPENSE.

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Oregon TECH
Oregon Institute of Technology

REGISTERED PROFESSIONAL ENGINEER
99536PE
DIGITALLY SIGNED
OREGON
MAY 10, 2022
CODY ARTHUR COWDIN

EXPIRES: 12/31/2025

REVISION ID:	DATE:

PROJECT NO. 23199.00
DRAWN: CAC
CHECKED: CAC
DATE: 01-31-2024

GENERAL NOTES

E0.1

BID AND PERMIT SET

ONE INCH EQUALS FULL SCALE 1/26/2024 5:09:34 PM

LUMINAIRE SCHEDULE

ID TAG	QUANTITY	MANUFACTURER	MODEL NUMBER	DESCRIPTION	LUMEN OUTPUT (LM)	COLOR TEMPERATURE (K)	INPUT WATTAGE (W)	VOLTAGE (V)	BUG RATING	PHOTOCONTROL	REMARKS
SL-1	5	HOLOPHANE (AEL)	ATB0 P204 MVOLT R3	AUTOBAHN ROADWAY LED FIXTURE	12470	4000	88	240	B2-U0-G2	NEMA 3-PIN	-
SL-2	8	HOLOPHANE (AEL)	ATB0 (PREVIOUS MODEL)	AUTOBAHN ROADWAY LED FIXTURE	12748	4000	105	240	B2-U0-G2	NEMA 3-PIN	LUMINAIRES FROM EXISTING SPARE INVENTORY FURNISHED BY OREGON TECH
-	3	HOLOPHANE (AEL)	ATB0 20BLEDE70 R2	AUTOBAHN ROADWAY LED FIXTURE	(EXISTING)	(EXISTING)	48	240	(EXISTING)	(EXISTING)	EXISTING LUMINAIRES INSTALLED NORTH OF PROJECT SCOPE AREA

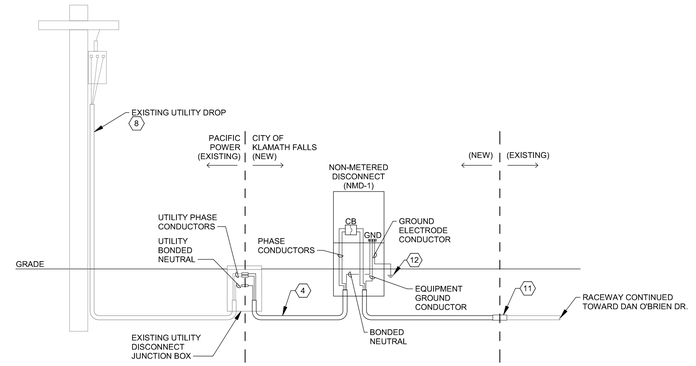
POLE SCHEDULE

ID TAG	MANUFACTURER	MODEL NUMBER	DESCRIPTION	POLE LENGTH (FT)	LUMINAIRE TYPE	LUMINAIRE QUANTITY	MAST ARM QUANTITY	ARM LENGTH (FT)	FIXTURE MOUNTING HEIGHT (FT)	NOTES
P-1	VALMONT	270845806T4-SBF	ROUND TAPERED ALUMINIUM POLE W/ 4-BOLT ANCHOR BASE	28	SL-1	1	1	10	30	1, 3
P-2	VALMONT	270845806T4-SBF	ROUND TAPERED ALUMINIUM POLE W/ 4-BOLT ANCHOR BASE	28	SL-2	2	2	10	30	1, 2, 3
P-3	VALMONT	270845806T4-SBF	ROUND TAPERED ALUMINIUM POLE W/ 4-BOLT ANCHOR BASE	28	SL-2	2	2	10	30	1, 2, 3
P-4	VALMONT	270845806T4-SBF	ROUND TAPERED ALUMINIUM POLE W/ 4-BOLT ANCHOR BASE	28	SL-2	2	2	10	30	1, 2, 3
P-5	VALMONT	270845806T4-SBF	ROUND TAPERED ALUMINIUM POLE W/ 4-BOLT ANCHOR BASE	28	SL-2	2	2	10	30	1, 2, 3
P-6	VALMONT	270845806T4-SBF	ROUND TAPERED ALUMINIUM POLE W/ 4-BOLT ANCHOR BASE	28	SL-1	2	2	10	30	1, 2, 3
P-7	VALMONT	320845806T4-SBF	ROUND TAPERED ALUMINIUM POLE W/ 4-BOLT ANCHOR BASE	33	SL-1	2	2	10	35	1, 2, 3

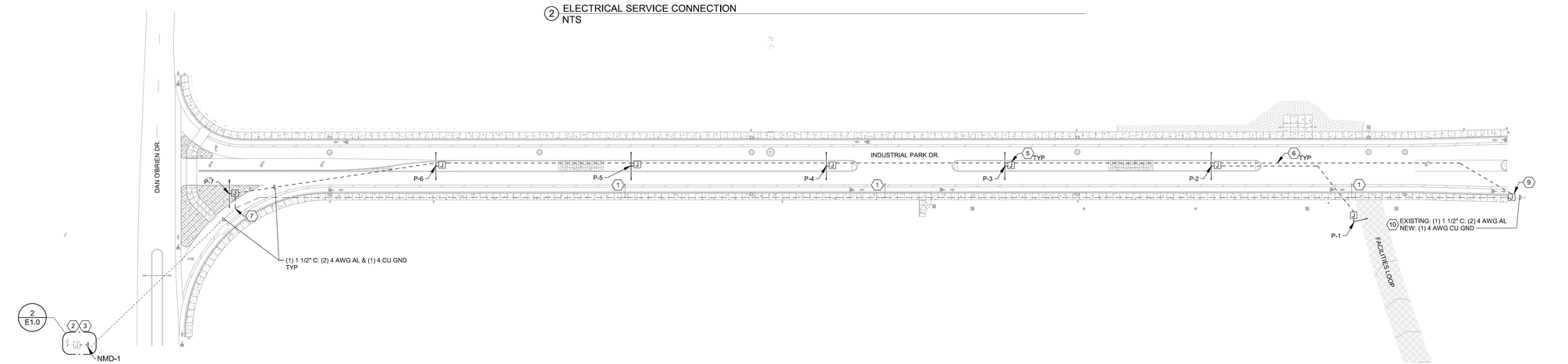
NOTES:
1. EXISTING SPARE POLE FURNISHED BY OREGON TECH.
2. FIELD MODIFY EXISTING POLE TO ATTACH SECOND MAST ARM 180 DEGREES FROM EXISTING ARM. CONSULT POLE MANUFACTURER FOR POLE MODIFICAITON INSTRUCTIONS.
3. OREGON TECH TO FURNISH PRECAST POLE ANCHOR BASE, FROM EXISTING SPARE INVENTORY. REFER TO CIVIL PLANS FOR ANCHOR BASE TYPICAL DETAIL.

NEW EQUIPMENT AND MATERIAL SCHEDULE

ID TAG	EQUIPMENT TYPE	DESCRIPTION	MANUFACTURER	QUANTITY	QUANTITY TYPE	MODEL NUMBER	REMARKS
-	CONDUIT	ELECTRICAL GRADE 1 1/2" SCHEDULE 80 PVC	PW PIPE	-	LINEAR FEET	-	REFER TO CIVIL PLANS FOR ESTIMATED LINEAR FEET OF CONDUIT REQUIRED.
-	CONDUIT ELBOWS	90 DEGREE PVC SWEEP WITH 36" BEND RADIUS	CANTEX	26	UNITS	-	-
-	WET LOCATION CONDUCTOR	TYPE XHHW, SIZE 4 AWG STRANDED ALUMINIUM CONDUCTOR	SOUTHWIRE	-	LINEAR FEET	-	REFER TO CIVIL PLANS FOR ESTIMATED LINEAR FEET OF CONDUCTOR REQUIRED.
-	WET LOCATION CONDUCTOR	TYPE XHHW, SIZE 4 AWG STRANDED COPPER CONDUCTOR	SOUTHWIRE	-	LINEAR FEET	-	ORDER WITH GREEN COLORED INSULATION. REFER TO CIVIL PLANS FOR ESTIMATED LINEAR FEET OF CONDUCTOR REQUIRED.
-	UNDERGROUND WARNING TAPE	6" RED UNDERGROUND TAPE THAT READS "CAUTION BURIED ELECTRICAL LINE...	DOTTIE	1	1000' REEL	UT29D	-
-	BARE COPPER CONDUCTOR	6 AWG BARE COPPER CONDUCTOR	SOUTHWIRE	10	LINEAR FEET	-	-
-	GROUND ROD	5/8" X 10'-0" COPPER GROUND ROD	DOTTIE	2	UNITS	GR5810	-
	HANDHOLE/JUNCTION BOX	13"X24"X12" RECTANGULAR ENCLOSURE, POLYMER CONCRETE	OLDCASTLE	8	UNITS	S1324B12AA	
-	HANDHOLE/JUNCTION BOX LID	13"X24"X12" ENCLOSURE LID, POLYMER CONCRETE	OLDCASTLE	8	UNITS	S1324HBBOA	ENCLOSURE AND LID ARE NOT RATED FOR VEHICLE TRAFFIC AND SHOULD BE INSTALLED OUTSIDE OF ROADWAY.
NMD-1	NON-METERED DISCONNECT	NON-METERED DISCONNECT PEDESTAL, DIRECT BURIAL TYPE	MILBANK	1	UNITS	U5200-XL	PROVIDE WITH TWO 20A, 2-POLE, BRANCH CIRCUIT BREAKERS.
-	MAST ARMS	10' ALUMINIUM BOLT ON STYLE POLE MOUNTED MAST ARM	VALMONT	5	UNITS	-	NEW MAST ARMS TO MATCH EXISTING SPARE MAST ARMS IN MAKE MODEL AND LOAD RATING.



2 ELECTRICAL SERVICE CONNECTION
NTS



1 SITE PLAN - ELECTRICAL
1" = 50'-0"

NOTES

A. THE LOCATION OF EXISTING LIGHTING POLES, AND UNDERGROUND RACEWAY SHOWN IS APPROXIMATE.

B. NEW POLE LOCATIONS, ROUTING OF NEW UNDERGROUND RACEWAY AND LOCATIONS OF UNDERGROUND JUNCTION BOXES SHOWN ARE DIAGRAMMATIC. REFER TO PLANS BY CIVIL ENGINEER FOR DETAILED ROUTING OF CONDUIT, LOCATION OF POLES, AND TRENCHING REQUIREMENTS.

C. MINIMUM BURIAL DEPTH OF 24" FOR PVC CONDUIT UNDER ALL ROADWAY SURFACE.

KEYNOTES (#)

1. REMOVE EXISTING POLE, LIGHT FIXTURE AND ALL OTHER APPERTENCANCES. DISCONNECT EXISTING BRANCH CIRCUITING AND PULL BACK TO SOURCE.
2. APPROXIMATE LOCATION OF EXISTING UTILITY UNDERGROUND SWITCH BOX SHOWN, FIELD VERIFY EXACT LOCATION.
3. APPROXIMATE INSTALL LOCATION OF NEW NON-METERED DISCONNECT SHOWN. PRIOR TO ROUGH-IN, COORDINATE FINAL INSTALL LOCATION WITH ELECTRICAL UTILITY (PACIFIC POWER) AND CITY OF KLAMATH FALLS.
4. INTERCEPT EXISTING UNDERGROUND RACEWAY ON CUSTOMER SIDE OF UNDERGROUND UTILITY SWITCH BOX AND EXTEND TO NEW NON-METERED DISCONNECT ENCLOSURE.
5. INSTALL JUNCTION BOX WITHIN 3'-0" OF THE LIGHT POLE THAT IT SERVES.
6. INSTALL WARNING TAPE BURIED WITH A MINIMUM OF 6" SEPERATION ABOVE THE UNDERGROUND CONDUIT.
7. INTERCEPT EXISTING UNDERGROUND RACEWAY NORTH OF DAN O'BRIEN DRIVE AND EXTEND RACEWAY TO JUNCTION BOX AT POLE P-7. POINT OF INTERCEPTION SHOWN IS APPROXIMATE, FIELD VERIFY LOCATION OF EXISTING CONDUIT, AND COORDINATE CONNECTION POINT WITH CIVIL ENGINEER PRIOR TO CONNECTION AND EXTENSION OF NEW CONDUIT.
8. EXISTING SECONDARY SERVICE LATERALS BY PACIFIC POWER CONNECTED TO POLE MOUNTED TRANSFORMER NEAR EXISTING UNDERGROUND SWITCH BOX. PACIFIC POWER TO PROVIDE BONDED NEUTRAL CONDUCTOR FROM POLE MOUNTED TRANSFORMER TO EXISTING SWITCH BOX IF EXISTING NEUTRAL CONDUCTOR IS NOT PRESENT IN THE FIELD.
9. INTERCEPT EXISTING CONDUIT AND INSTALL NEW JUNCTION BOX. CONNECT NEW BRANCH CIRCUITING TO EXISTING BRANCH CIRCUITING THAT SERVES THE LIGHT FIXTURES NORTH OF PROJECT SCOPE AREA.
10. EXTEND NEW EQUIPMENT GROUND CONDUCTOR TO BOND EXISTING LIGHT FIXTURES NORTH OF PROJECT SCOPE AREA. PULL CONDUCTOR THROUGH EXISTING RACEWAY ALONG SIDE EXISTING PHASE CONDUCTORS FROM NEW JUNCTION BOX TO THE NORTH. PROVIDE CONDUCTOR AND ALL OTHER APPERTENCANCES AS REQUIRED TO BOND EXISTING LIGHTING FIXTURES WITH NEW EQUIPMENT GROUND CONDUCTOR PATH BACK TO THE NON-METERED SERVICE DISCONNECT.
11. CONNECT NEW RACEWAY FROM LOAD SIDE OF NON-METERED DISCONNECT TO EXISTING RACEWAY THAT IS ROUTED TO THE NORTH UNDER DAN O'BRIEN DR. PROVIDE NEW BRANCH CIRCUITING FROM NON-METERED DISCONNECT AS SHOWN ON PLANS.
12. PROVIDE TWO 5/8" X 10'-0" COPPER GROUND RODS EQUALLY SPACED. EXOTHERMIC WELD OR CRIMP WITH IRREVERSIBLE COMPRESSION CONNECTOR TO 6 AWG BARE COPPER GROUNDING ELECTRODE CONDUCTOR.

ELECTRICAL SYMBOLS LEGEND

	EXTERIOR POLE MOUNTED LED LIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE
J	UNDER GROUND JUNCTION BOX
	NON-METERED DISCONNECT
- - - - -	NEW UNDERGROUND CONDUIT
- - - - -	EXISTING UNDERGROUND CONDUIT TO BE REMOVED.
---------	EXISTING UNDERGROUND CONDUIT TO REMAIN IN SERVICE.

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EXPIRES: 12/31/2025

REVISION ID:	DATE:

PROJECT NO. 23199.00
DRAWN: CAC
CHECKED: CAC
DATE: 01-31-2024

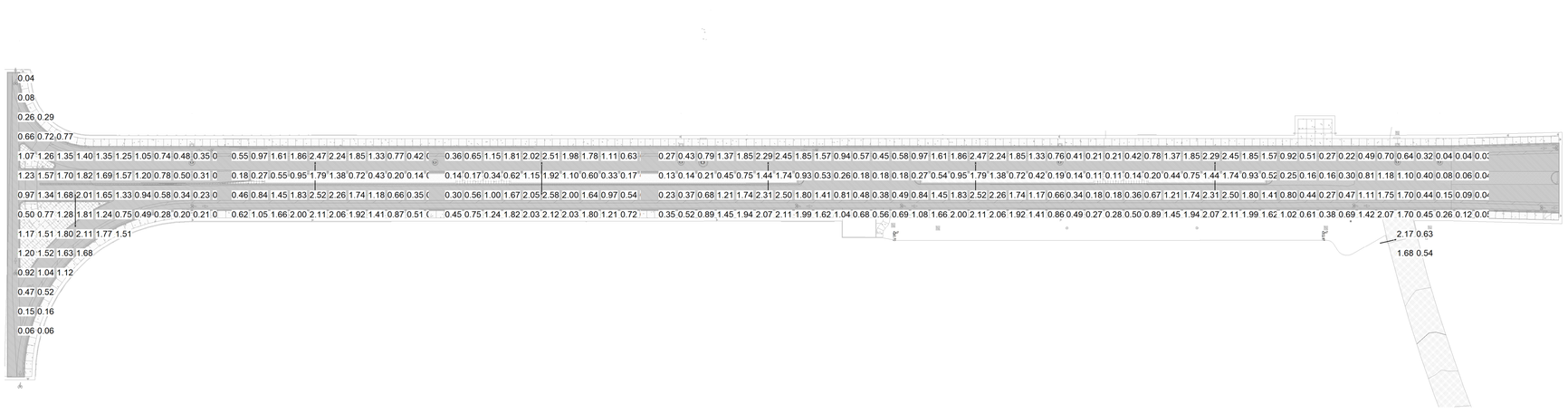
SITE PLAN

E1.0

BID AND PERMIT SET

ONE INCH EQUALS FULL SCALE 1/26/2024 5:09:35 PM

INDUSTRIAL PARK DR. - PHOTOMETRIC CALCULATION SCHEDULE			
AVERAGE	MAXIMUM	MINIMUM	AVG/MIN
1.01 fc	2.58 fc	0.03 fc	34.04



1 PHOTOMETRIC PLAN
1" = 50'-0"

N

ONE INCH EQUALS FULL SCALE

1/26/2024 5:09:55 PM

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EXPIRES: 12/31/2025

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DRAWN: CAC
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PHOTOMETRIC PLAN

E1.1

BID AND PERMIT SET