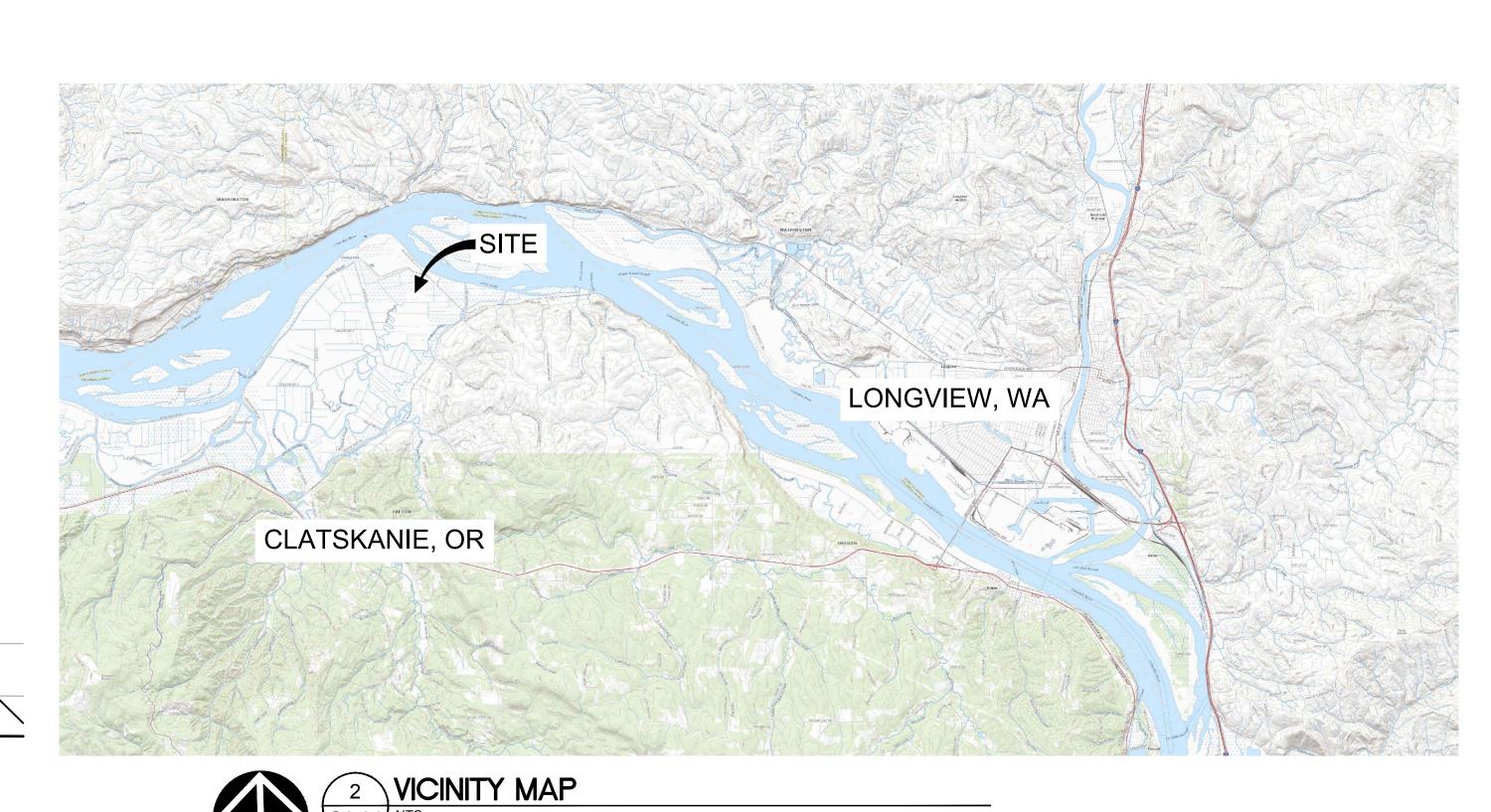
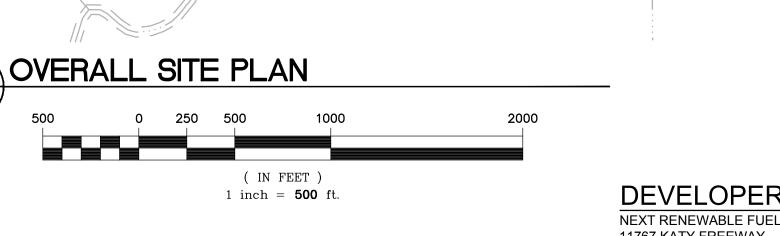


COLUMBIA PACIFIC

**BIOREFINERY** 





PGE BEAVER

**DEVELOPER/OWNER:** NEXT RENEWABLE FUELS OREGON 11767 KATY FREEWAY SUITE 705 HOUSTON, TX 77079 CONTACT: GENE COTTEN PHONE: 661-201-2653 GENE@NEXTRENEWABLES.COM

SITE INFORMATION: PORT WESTWARD CLATSKANIE, OR 97016 COLUMBIA COUNTY TAX LOTS: SITE: 08042200 0100 08042200 0200

08042200 0300

DRIVEWAY:

08042100 0700 PIPE RACK: 08042200 1100 08042100 0700 08041600 0200 08041600 0300

**VERTICAL DATUM** VERTICAL DATUM FOR THIS PROJECT IS NGVD29 LAND ELEVATIONS SHOWN ARE BASED ON LIDAR SURVEY INFORMATION PROVIDED BY DAVE MILLS SURVEYING, DATED AUGUST 27, 2020

CIVIL ENGINEER: MACKENZIE

**CONTACT: BRENT NIELSEN** 1515 SE WATER AVE #100 PORTLAND, OR 97214 PHONE: 971-346-3761 BNIELSEN@MCKNZE.COM

PHONE: 503-224-9560

STUTTLE@MCKNZE.COM

KALLUNKI ROAD

LANDSCAPE ARCHITECT **CONTACT: STEVEN TUTTLE** 1515 SE WATER AVE #100 PORTLAND, OR 97214

SHEET INDEX

COVER SHEET

CIVIL NOTES AND LEGEND

PLANTING DETAILS

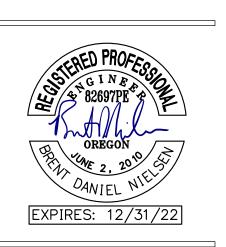
IRRIGATION DETAILS

EXISTING SITE PLAN WEST EXISTING SITE PLAN EAST EXISTING SITE PLAN NORTH PROPOSED SITE PLAN ACCESS, PARKING, AND CIRCULATION PLAN ACCESS ROAD PLAN PIPELINE PLAN **GRADING PLAN** DRAINAGE PLAN ILLUMINATION PLAN - PARKING AND ILLUMINATION DETAILS WETLAND IMPACT MITIGATION PLAN WATERWAY IMPACT PLAN WETLAND IMPACT EARTHWORK PLAN WETLAND IMPACT CROSS-SECTION E-W WETLAND IMPACT CROSS-SECTION N-S C2.23 WETLAND IMPACT TYPICAL CROSS-SECTIONS **EROSION CONTROL - WEST** EC1.12 EROSION CONTROL - EAST EC5.10 EROSION CONTROL DETAILS LANDSCAPE GENERAL INFORMATION AND PLANTING PLAN PLANTING PLAN - ENLARGEMENTS PLANTING PLAN - DRIVEWAY AND RAIL MAINTENANCE ROAD

**NEXT RENEWABLE FUELS OREGON** 

11767 KATY FREEWAY **SUITE 705 HOUSTON, TX 77079** 

**NEXT RENEWABLE FUELS, INC. PORT WESTWARD** COLUMBIA COUNTY,



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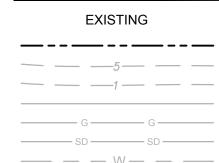
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**COVER SHEET** 

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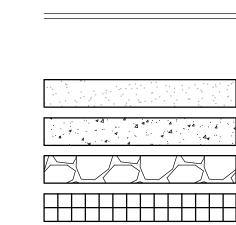


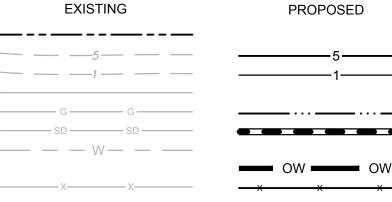
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DITCH LINE WETLAND BOUNDARY

EXISTING WETLAND **VEGETATED BUFFER** · · · · · · · WHEEL WASH

MAJOR CONTOUR MINOR CONTOUR OVERHEAD POWER LINE GAS LINE STORM DRAIN / CULVERT WATERLINE

OIL WATER SEWER CHAIN LINK FENCE ABOVE GROUND GAS LINE EDGE OF GRAVEL DIRT FARM ROAD **VEGETATION LINE** CENTERLINE OF RAILROAD TRACKS

PROPERTY LINE/R.O.W.

UTILITY POLE

ASPHALT PAVING CONCRETE PAVING

GRAVEL SURFACING **EQUIPMENT TRESTLE/PIPE RACK** 

GRAVEL ROAD

LUMINAIRE

PROPOSED DRAINAGE ARROW

TANK CONTAINMENT BERM WALL

TEMPORARY SEDIMENT FENCE

CONCRETE WASHOUT

**GRAVEL CONSTRUCTION ENTRANCE** 

### **GENERAL NOTES**

- 1. ALL WORK SHALL CONFORM TO THE CURRENT STANDARD SPECIFICATIONS AND REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION AND THE CURRENT AMERICAN PUBLIC WORKS ASSOCIATION STANDARDS FOR PUBLIC WORKS CONSTRUCTION
- 2. THE SURVEY INFORMATION SHOWN AS A BACKGROUND SCREEN IS BASED ON A SURVEY BY OTHERS AND IS SHOWN FOR REFERENCE ONLY. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS WITH ITS OWN RESOURCES PRIOR TO START OF ANY CONSTRUCTION

### SITE DEMOLITION NOTES

- 1. COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS FOR DEMOLITION OPERATIONS AND SAFETY OF ADJACENT STRUCTURES AND THE PUBLIC
- 2. INSTALL EROSION CONTROL MEASURES AND TEMPORARY FENCING PRIOR TO ANY DEMOLITION ACTIVITIES
- 3. MITIGATE DUST POLLUTION DUE TO DEMOLITION ACTIVITIES
- 4. PROTECT ALL EXISTING STRUCTURES, UTILITIES, LANDSCAPE AND OTHER ELEMENTS THAT ARE NOT DESIGNATED FOR REMOVAL. ANY DAMAGE TO EXISTING IMPROVEMENTS NOT DESIGNATED FOR REMOVAL SHALL BE REPAIRED/REPLACED AT THE CONTRACTOR'S EXPENSE
- DO NOT BEGIN REMOVAL UNTIL ITEMS TO BE SALVAGED OR RELOCATED HAVE BEEN REMOVED AS NOTED. IF REMOVED GRAVEL OR PAVEMENT MATERIALS ARE TO BE RECYCLED OR REUSED, PREVENT CONTAMINATION OF THESE MATERIALS FROM TOPSOIL OR OTHER DELETERIOUS MATERIAL
- CONTRACTOR SHALL COORDINATE DEMOLITION WORK WITH AFFECTED UTILITY COMPANIES, OBTAIN ALL REQUIRED PERMITS, NOTIFY THEM PRIOR TO STARTING WORK, AND COMPLY WITH THEIR REQUIREMENTS. ADDITIONAL REMOVALS MAY BE REQUIRED BY THE AUTHORITIES HAVING JURISDICTION AND THE CONTRACTOR SHALL CONFIRM ACCORDINGLY PRIOR TO BID. ACCURATELY RECORD ACTUAL LOCATIONS OF CAPPED AND ACTIVE UTILITIES FOR AS-BUILT PURPOSES AND SUPPLY TO OWNER AND ARCHITECT/ENGINEER OF RECORD
- DEMOLISH AND REMOVE ALL NON-BUILDING SITE STRUCTURES AND ASSOCIATED FEATURES (APPURTENANCES) AS SHOWN. WITHIN AREA OF NEW CONSTRUCTION, REMOVE DESIGNATED WALLS AND FOOTINGS TO 2 FEET MINIMUM BELOW FINISHED GRADE. DEMOLISH ALL PAVED AREAS DESIGNATED FOR REMOVAL DOWN TO NATIVE SUBGRADE
- 8. ALL VEGETATION AND DELETERIOUS MATERIALS WITHIN THE LIMITS OF WORK SHALL BE STRIPPED AND REMOVED FROM THE SITE PRIOR TO GRADING WORK UNLESS NOTED OTHERWISE (E.G. PROTECTED TREES)
- 9. IF HAZARDOUS MATERIALS ARE DISCOVERED DURING DEMOLITION, STOP WORK AND IMMEDIATELY NOTIFY THE OWNER AND ARCHITECT/ENGINEER OF RECORD

### **GRADING NOTES**

- ROUGH GRADING: ROUGH GRADE TO ALLOW FOR DEPTH OF BUILDING SLABS, PAVEMENTS, BASE COURSES, AND TOPSOIL PER DETAILS AND SPECIFICATIONS
- FINISH GRADING: BRING ALL FINISH GRADES TO LEVELS INDICATED. WHERE GRADES ARE NOT OTHERWISE INDICATED, HARDSCAPE FINISH GRADES ARE TO BE THE SAME AS ADJACENT SIDEWALKS, CURBS, OR THE OBVIOUS GRADE OF ADJACENT STRUCTURE. SOFTSCAPE GRADES (INCLUDING ADDITIONAL DEPTH OF TOPSOIL) SHALL BE SET 6 INCHES BELOW BUILDING FINISHED FLOORS WHERE ABUTTING BUILDINGS, 1-2 INCHES WHERE ABUTTING WALKWAYS OR CURBS, OR MATCHING OTHER SOFTSCAPE GRADES. GRADE TO UNIFORM LEVELS OR SLOPES BETWEEN POINTS WHERE GRADES ARE GIVEN. ROUND OFF SURFACES, AVOID ABRUPT CHANGES IN LEVELS. AT COMPLETION OF JOB AND AFTER BACKFILLING BY OTHER TRADES HAS BEEN COMPLETED, REFILL AND COMPACT AREAS WHICH HAVE SETTLED OR ERODED TO BRING TO FINAL GRADES
- EXCAVATION: EXCAVATE FOR SLABS, PAVING, AND OTHER IMPROVEMENTS TO SIZES AND LEVELS SHOWN OR REQUIRED. ALLOW FOR FORM CLEARANCE AND FOR PROPER COMPACTION OF REQUIRED BACKFILLING MATERIAL. DAMAGE TO UTILITIES SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE
- 4. EFFECTIVE EROSION PREVENTION AND SEDIMENT CONTROL IS REQUIRED. EROSION CONTROL DEVICES MUST BE INSTALLED AND MAINTAINED MEETING THE LOCAL AGENCY AND STATE AGENCY REQUIREMENTS. THE AUTHORITIES HAVING JURISDICTION MAY, AT ANY TIME, ORDER CORRECTIVE ACTION AND STOPPAGE OF WORK TO ACCOMPLISH EFFECTIVE EROSION CONTROL
- DRAINAGE SHALL BE CONTROLLED WITHIN THE WORK SITE AND SHALL BE ROUTED SO THAT ADJACENT PRIVATE PROPERTY, PUBLIC PROPERTY, AND THE RECEIVING SYSTEM ARE NOT ADVERSELY IMPACTED. THE ENGINEER AND/OR AUTHORITIES HAVING JURISDICTION MAY, AT ANY TIME, ORDER CORRECTIVE ACTION AND STOPPAGE OF WORK TO ACCOMPLISH EFFECTIVE DRAINAGE CONTROL
- 6. SITE TOPSOIL STOCKPILED DURING CONSTRUCTION AND USED FOR LANDSCAPING SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT
- 7. CONTRACTOR TO REVIEW AND CONFIRM GRADES AT JOIN POINTS, SUCH AS AT DAYLIGHT LIMITS AND BUILDING ENTRANCES, PRIOR TO CONSTRUCTION
- 8. ACCESSIBLE PARKING SPACES AND LOADING ZONES SHALL BE CONSTRUCTED AT 2%
- MAXIMUM SLOPE IN ALL DIRECTIONS 9. PEDESTRIAN SIDEWALK CONNECTIONS BETWEEN PUBLIC R.O.W. AND BUILDING ENTRANCES SHALL BE CONSTRUCTED AT AND 2% MAXIMUM CROSS SLOPE AND 5% MAXIMUM LONGITUDINAL SLOPE (8.33% FOR DESIGNATED RAMPS)

### **UTILITY NOTES**

- 1. ALL WORK SHALL CONFORM TO THE CURRENT EDITIONS OF THE STATE PLUMBING AND BUILDING CODES WITH LOCAL AMENDMENTS AS APPLICABLE ALONG WITH ANY ADDITIONAL REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION.
- 2. THE WORKING DRAWINGS ARE GENERALLY DIAGRAMMATIC. THEY DO NOT SHOW EVERY OFFSET, BEND OR ELBOW REQUIRED FOR INSTALLATION IN THE SPACE PROVIDED. THEY DO NOT SHOW EVERY DIMENSION, COMPONENT PIECE, SECTION, JOINT OR FITTING REQUIRED TO COMPLETE THE PROJECT. ALL LOCATIONS FOR WORK SHALL BE CHECKED AND COORDINATED WITH EXISTING CONDITIONS IN THE FIELD BEFORE BEGINNING CONSTRUCTION. EXISTING UNDERGROUND UTILITIES WITHIN THE LIMITS OF EXCAVATION SHALL BE VERIFIED AS TO CONDITION, SIZE AND LOCATION BY UNCOVERING (POTHOLING), PROVIDING SUCH IS PERMITTED BY THE AUTHORITIES HAVING JURISDICTION, BEFORE BEGINNING CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IF THERE ARE ANY DISCREPANCIES.
- 3. NOT ALL REQUIRED CLEANOUTS ARE SHOWN ON THE PLANS. PROVIDE CLEANOUTS AS REQUIRED BY THE AUTHORITIES HAVING JURISDICTION AND THE CURRENT EDITION OF THE OREGON PLUMBING SPECIALTY CODE.
- 4. ALL SANITARY AND STORM PIPING IS DESIGNED USING CONCENTRIC PIPE TO PIPE AND WYE FITTINGS, UNLESS OTHERWISE NOTED
- 5. ALL DOWNSPOUT LEADERS TO BE 6 INCHES AT 2.0% MINIMUM UNLESS NOTED OTHERWISE
- 6. PREFABRICATED PLUMBING PRODUCTS USED SHALL BE LISTED ON THE IAPMO R&T PRODUCT LISTING DIRECTORY (pld.iapmo.org). ALL SUBMITTALS FOR REVIEW SHALL BE ACCOMPANIED BY MANUFACTURER'S LITERATURE CLEARLY STATING THIS CERTIFICATION AND/OR THE PRODUCT LISTING CERTIFICATE FROM THE IAPMO DIRECTORY WEBSITE
- 7. IF APPLICABLE, CONTRACTOR TO PROVIDE POWER TO IRRIGATION CONTROLLER. SEE LANDSCAPE PLANS AND SPECIFICATIONS 8. PIPE LENGTHS SHOWN ON PLANS ARE TWO DIMENSIONAL AND MEASURED FROM CENTER
- OF STRUCTURE TO CENTER OF STRUCTURE 9. MANHOLE OR VAULT RIM ELEVATIONS SHALL BE SET FLUSH IN PAVEMENT AREAS AND 3-4 INCHES ABOVE GRADE IN LANDSCAPE AREAS. RIMS IN PAVEMENT AREAS SHALL BE H-20 TRAFFIC RATED

### EROSION CONTROL NOTES

- 1. EROSION AND SEDIMENT CONTROL MEASURES MUST BE IN PLACE BEFORE ANY LAND IS DISTURBED AND MUST REMAIN IN PLACE AND BE MAINTAINED, REPAIRED, AND PROMPTLY IMPLEMENTED FOLLOWING PROCEDURES ESTABLISHED FOR THE DURATION OF CONSTRUCTION, INCLUDING APPROPRIATE NON-STORMWATER POLLUTION CONTROLS
- 2. THE EROSION CONTROL DRAWING IS FOR GENERAL GUIDANCE ONLY. THE CONTRACTOR SHALL KEEP THE PLAN CURRENT FOR ALL PHASES OF CONSTRUCTION AND MEET EROSION/SEDIMENT CONTROL REQUIREMENTS OF ALL AUTHORITIES HAVING JURISDICTION (AHJ). ALL EROSION CONTROL MEASURES SHALL CONFORM TO THE REQUIREMENTS OF THE AHJ, THE PLANS, AND THE PROJECT SPECIFICATIONS
- 3. CONSTRUCT EROSION CONTROL IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE WATER STANDARDS
- 4. METHOD OF INSTALLATION FOR SEDIMENT FENCE SHALL NOT CAUSE DAMAGE TO VEGETATED SLOPE EXCEPT AT POINT OF INSTALLATION. SIDECAST MATERIAL SHALL BE KEPT TO A MINIMUM AND SHALL BE TO THE UPHILL SIDE OF THE SEDIMENT FENCE. THE FENCE SHALL BE INSTALLED AT LEAST 4 FEET FROM ADJACENT TREES
- 5. ALL EROSION CONTROL DEVICES SHALL BE EXAMINED AND REPAIRED AFTER EACH STORM OCCURRENCE, AND INLETS SHALL BE CLEANED OF SEDIMENT WHENEVER NECESSARY
- 6. HYDROSEED AND MULCH ALL DISTURBED AREAS UPON COMPLETION OF CONSTRUCTION OR AS DIRECTED BY THE AUTHORITIES HAVING JURSIDICTION
- 7. THE CONTRACTOR SHALL LIMIT CONSTRUCTION TRAFFIC TO PAVED AREAS TO PREVENT AND MINIMIZE SEDIMENT TRACKING OFF-SITE. CONTRACTOR SHALL SWEEP OR VACUUM PAVED AREAS IF SEDIMENT ACCUMULATION OCCURS. DO NOT TRACK SEDIMENT TO THE PUBLIC STREET OR NEIGHBORING PROPERTIES
- 8. INSTALL TEMPORARY EROSION PREVENTION SUCH AS JUTE NETTING OR GEOTEXTILE ON DISTURBED AREAS STEEPER THAN 4H:1V
- 9. STAGING AND STOCKPILE AREAS TO BE DETERMINED BY CONTRACTOR AND ADJUSTED TO ACCOMMODATE THE PROGRESS OF CONSTRUCTION

### SITE WORK NOTES

1. ALL CURB RADII TO BE 3 FEET UNLESS NOTED OTHERWISE

OF THE OREGON SPECIALTY STRUCTURAL CODE.

- 2. STAIR RISERS AND TREADS SHALL BE CONFORMANT WITH THE REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION AND THE OREGON STRUCTURAL SPECIALTY CODE.
- 3. WHEREVER A PEDESTRIAN WALKING PATH IS WITHIN 36 INCHES OF A VERTICAL DROP OF 30 INCHES OR GREATER, GUARDRAIL SHALL BE INSTALLED CONFORMANT WITH THE REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION AND THE CURRENT EDITION



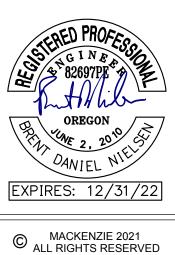
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**NEXT RENEWABLE FUELS OREGON** 

11767 KATY FREEWAY **SUITE 705 HOUSTON, TX 77079** 

NEXT RENEWABLE FUELS, INC. PORT WESTWARD **COLUMBIA COUNTY,** 



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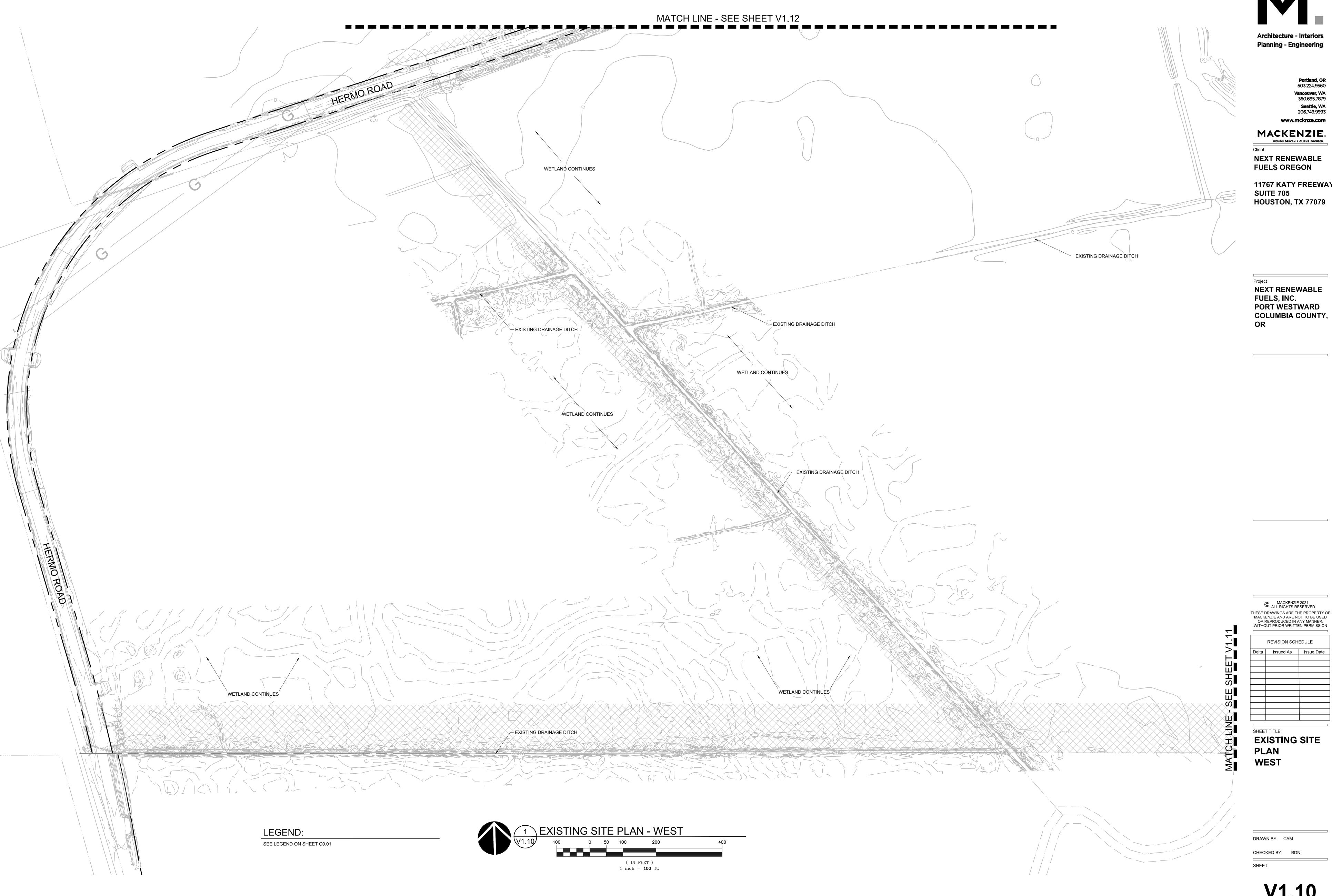
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**CIVIL NOTES** AND LEGEND

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Approved by DR 21-03/V 21-05 JOB NO. 2200315.01

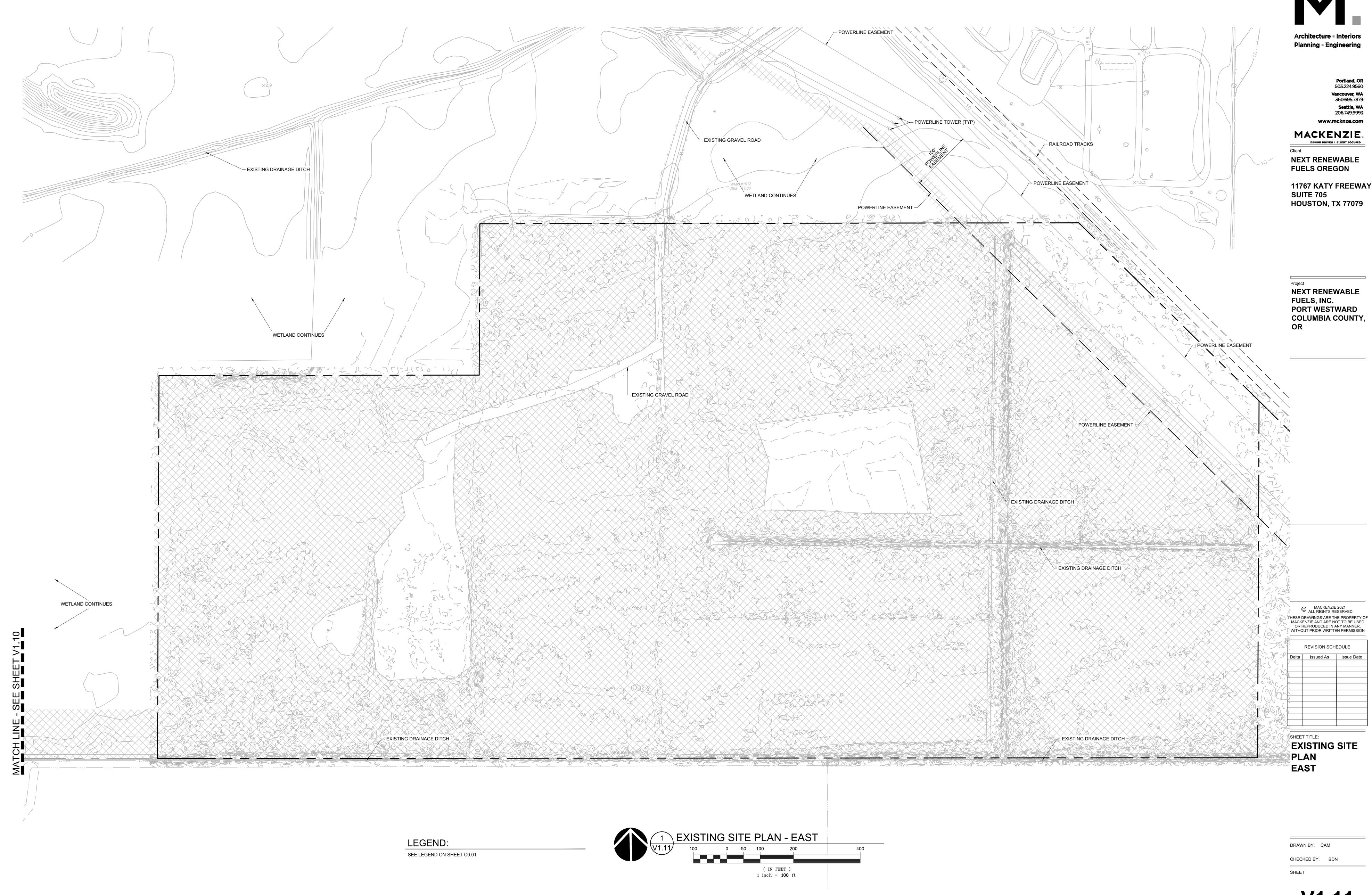
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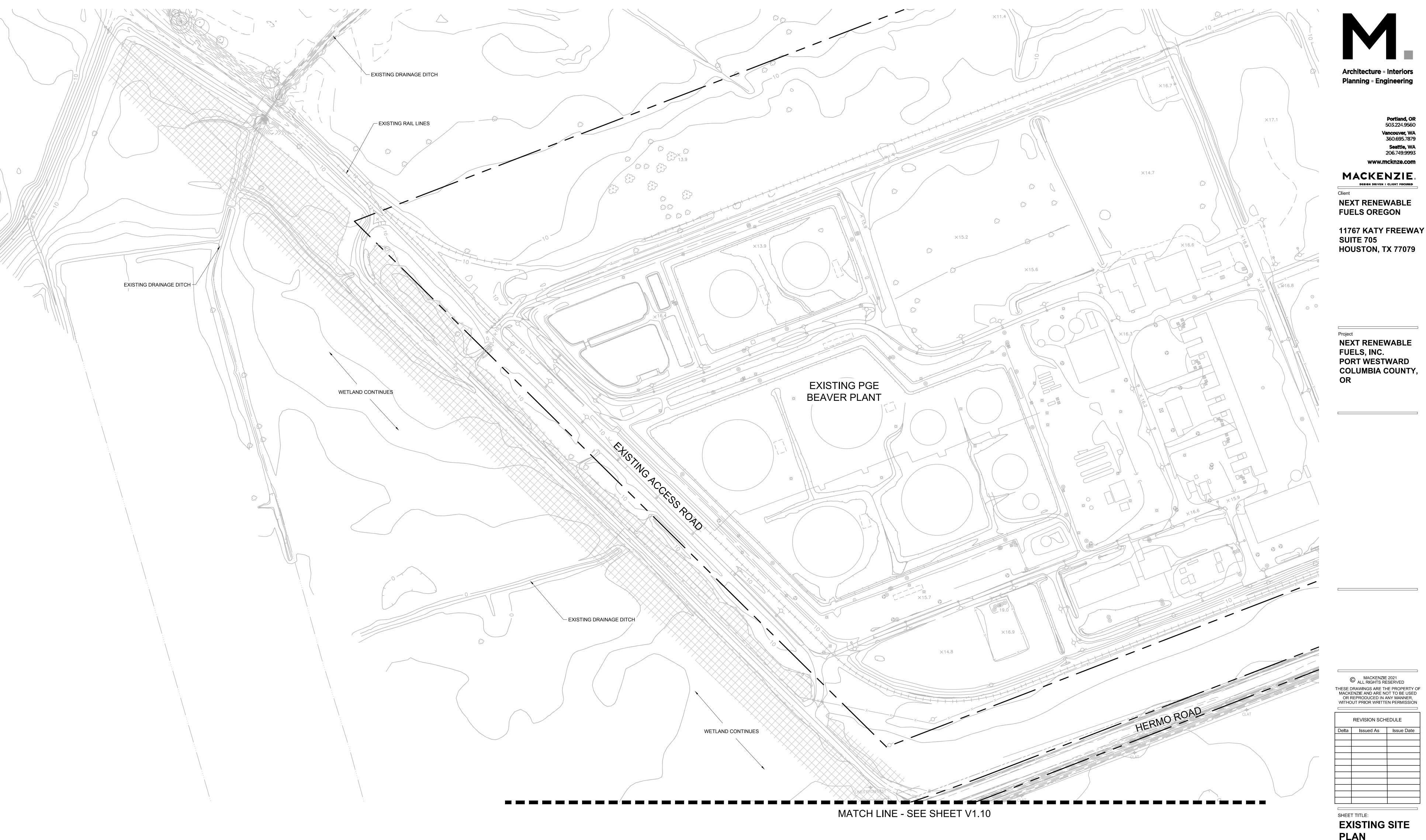
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V1.10



V1.11



LEGEND:

SEE LEGEND ON SHEET C0.01

SHEET TITLE: **EXISTING SITE PLAN** NORTH

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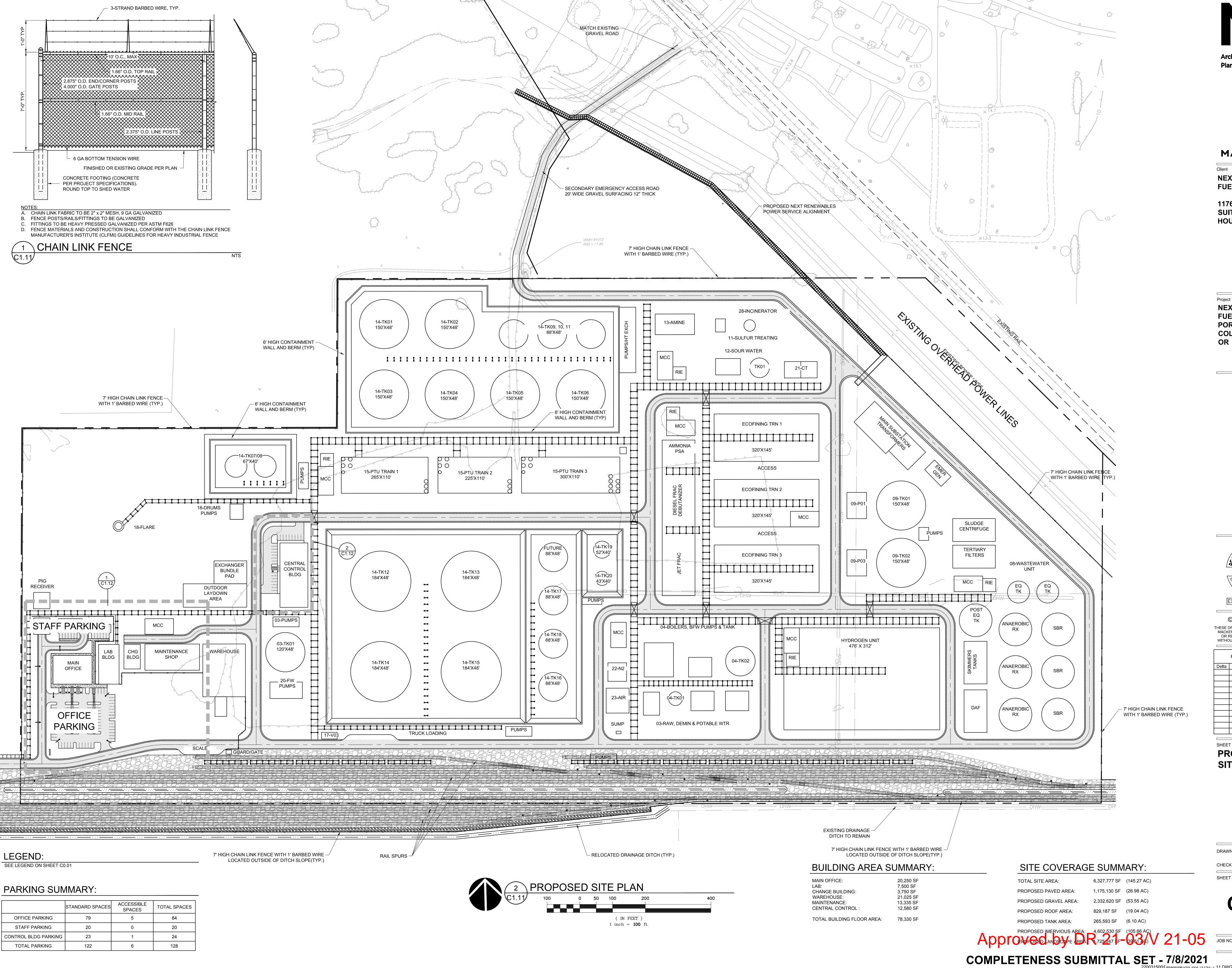
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V1.12



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Planning - Engineering

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Project

NEXT RENEWABLE

FUELS, INC.

PORT WESTWARD

COLUMBIA COUNTY,

OREGON

OREGON

OREGON

OANIEL

EXPIRES: 12/31/22

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PROPOSED
SITE PLAN

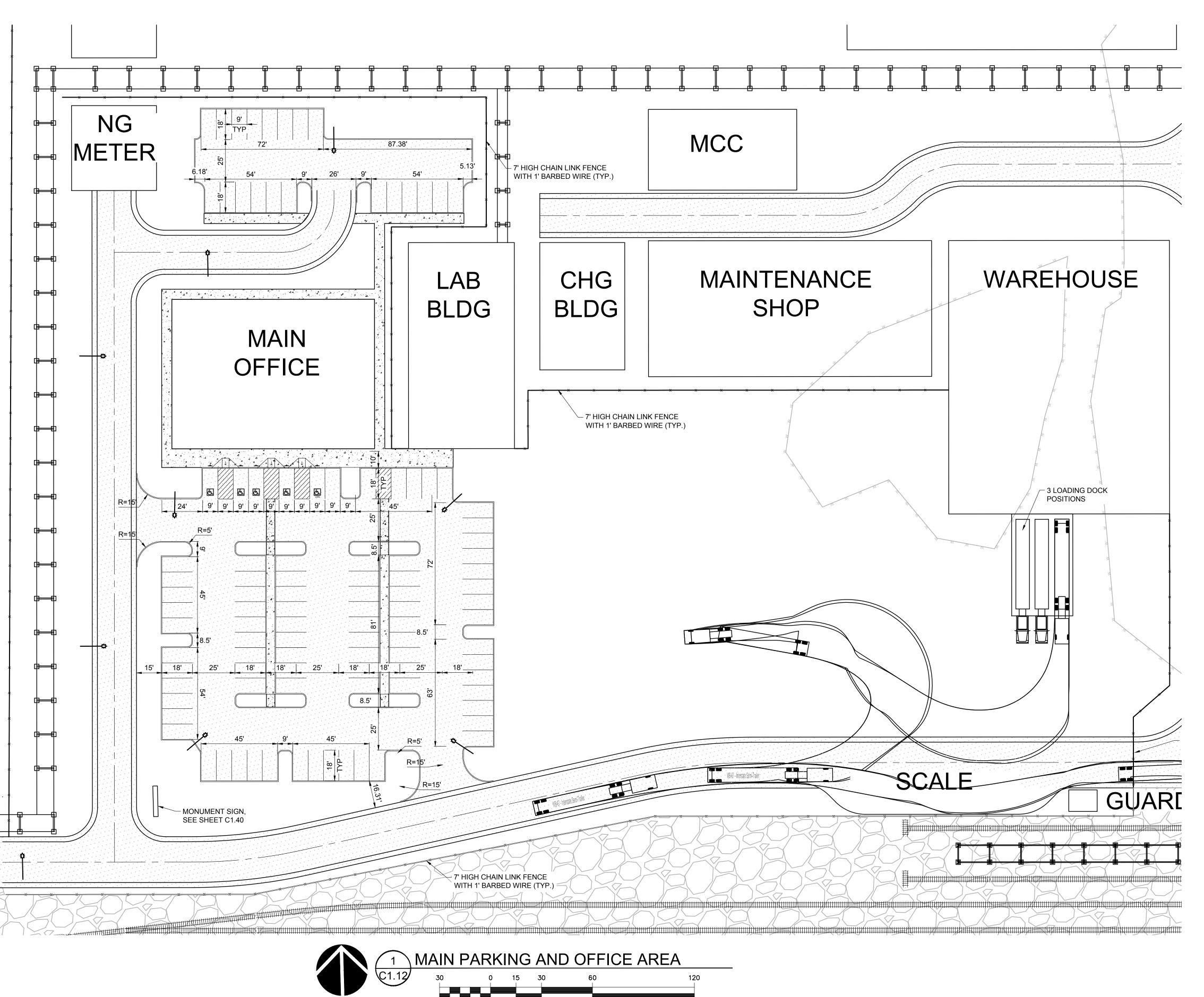
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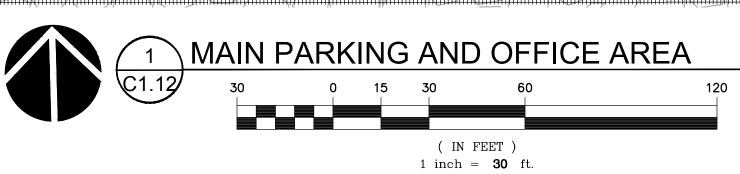
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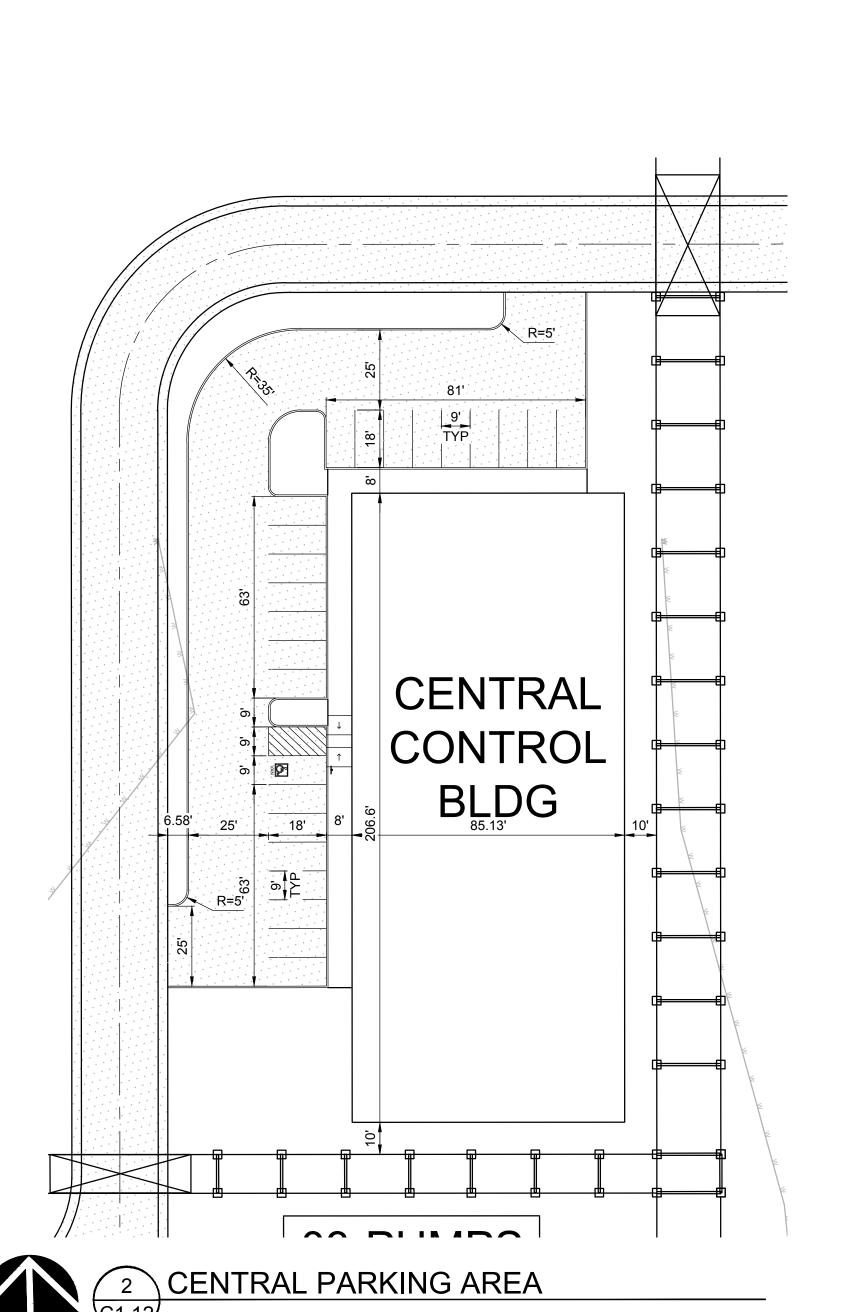
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LEGEND: SEE LEGEND ON SHEET C0.01



( IN FEET ) 1 inch = **30** ft.



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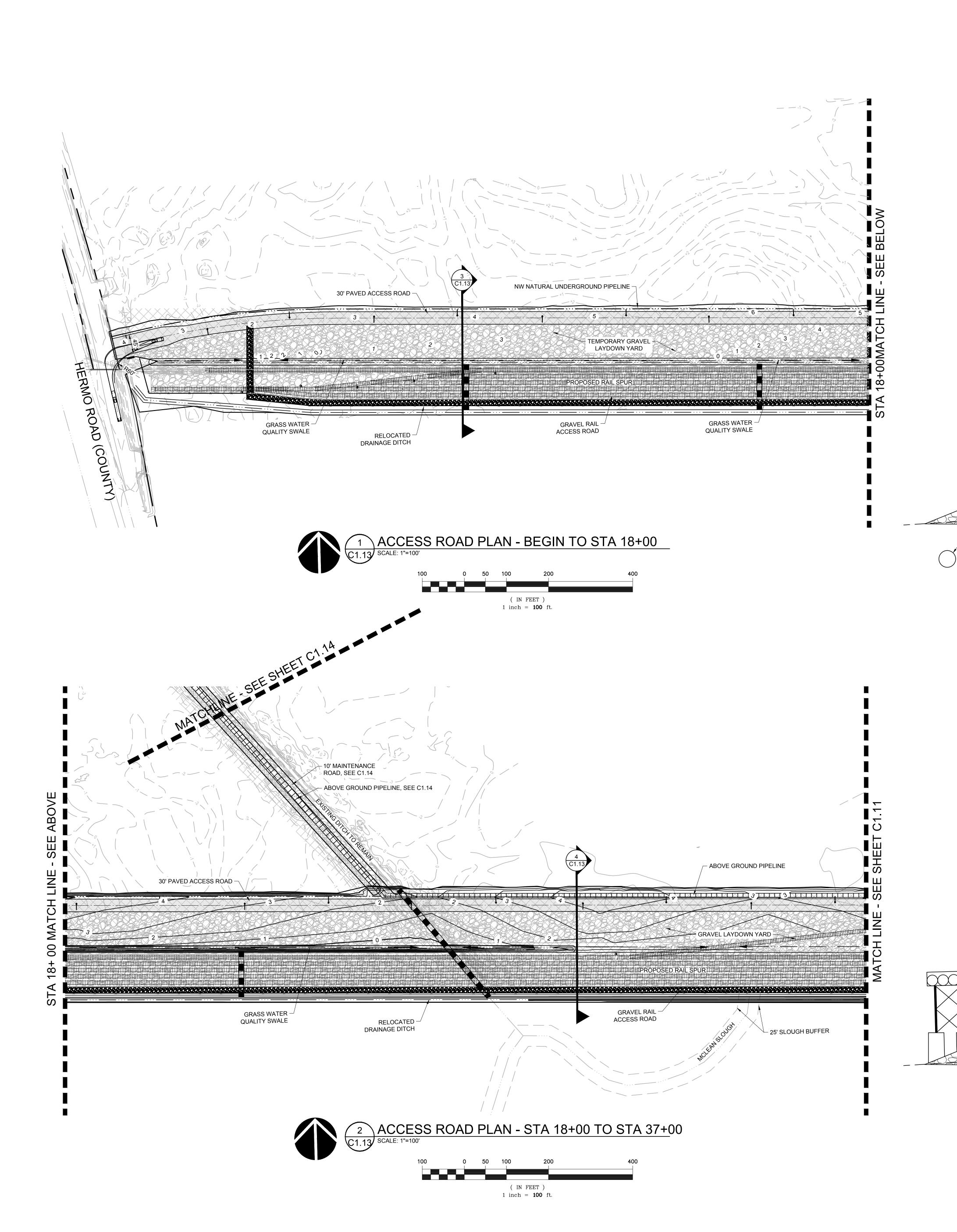


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ACCESS, **PARKING, AND CIRCULATION PLAN** 

C1.12





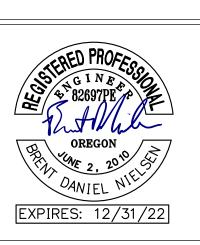
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REVISION SCHEDULE

**ACCESS ROAD PLAN** 

C1.13

RAIL AND ACCESS ROAD

DRAIN TO SWALE

EXISTING GROUND SURFACE

15' MIN GRASS WATER QUALITY SWALE

**GRASS WATER** 

QUALITY SWALE

100' ± TEMPORARY GRAVEL LAYDOWN YARD

DRAIN TO SWALE

80' ± TEMPORARY GRAVEL LAYDOWN YARD

DRAIN TO SWALE

CRUSHED ROCK AGGREGATE
LAYDOWN SURFACING

4 TYPICAL ACCESS ROAD SECTION

3 TYPICAL ACCESS ROAD SECTION

CRUSHED ROCK AGGREGATE
LAYDOWN SURFACING

RAIL AND ACCESS ROAD 10' TREE 10' TREE

DRAIN TO SWALE

─ EXISTING GROUND SURFACE

30' PAVED ROADWAY (2) 12' LANES WITH 3' SHOULDERS

- ABOVE GROUND PIPE RACK

30' PAVED ROADWAY

(2) 12' LANES WITH 3' SHOULDERS

/-- NW NATURAL

GAS PIPELINE

- CRUSHED ROCK AGGREGATE

**ROADWAY BASE** 



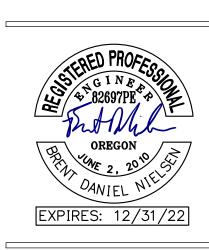
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SHEET TITLE: **PIPELINE ALIGNMENT PLAN** 

C1.14



©EXISTING PGE FACILITY
(NOT PART OF THIS PROJECT)

- MAINTAIN 10' CLEARANCE FROM TOP OF

18" CULVERT AT -

LEGEND:
SEE LEGEND ON SHEET C0.01

DITCH CROSSING

( IN FEET ) 1 inch = **100** ft.

PROPOSED -

ABOVE-GROUND PIPELINE (TYP.)

( IN FEET ) 1 inch = **100** ft.

PROPOSED = ABOVE-GROUND =

PROPOSED 10' WIDE - GRAVEL-SURFACED

MAINTENANCE ROAD

CULVERT ROAD CROSSING PER DETAIL 8/C2.23

CULVERT ROAD — CROSSING PER DETAIL 8/C2.23

EXISTING FENCE
TO REMAIN

GRAVEL ROAD ACCESS
TO HERMO ROAD

18" CULVERT AT — DITCH CROSSING

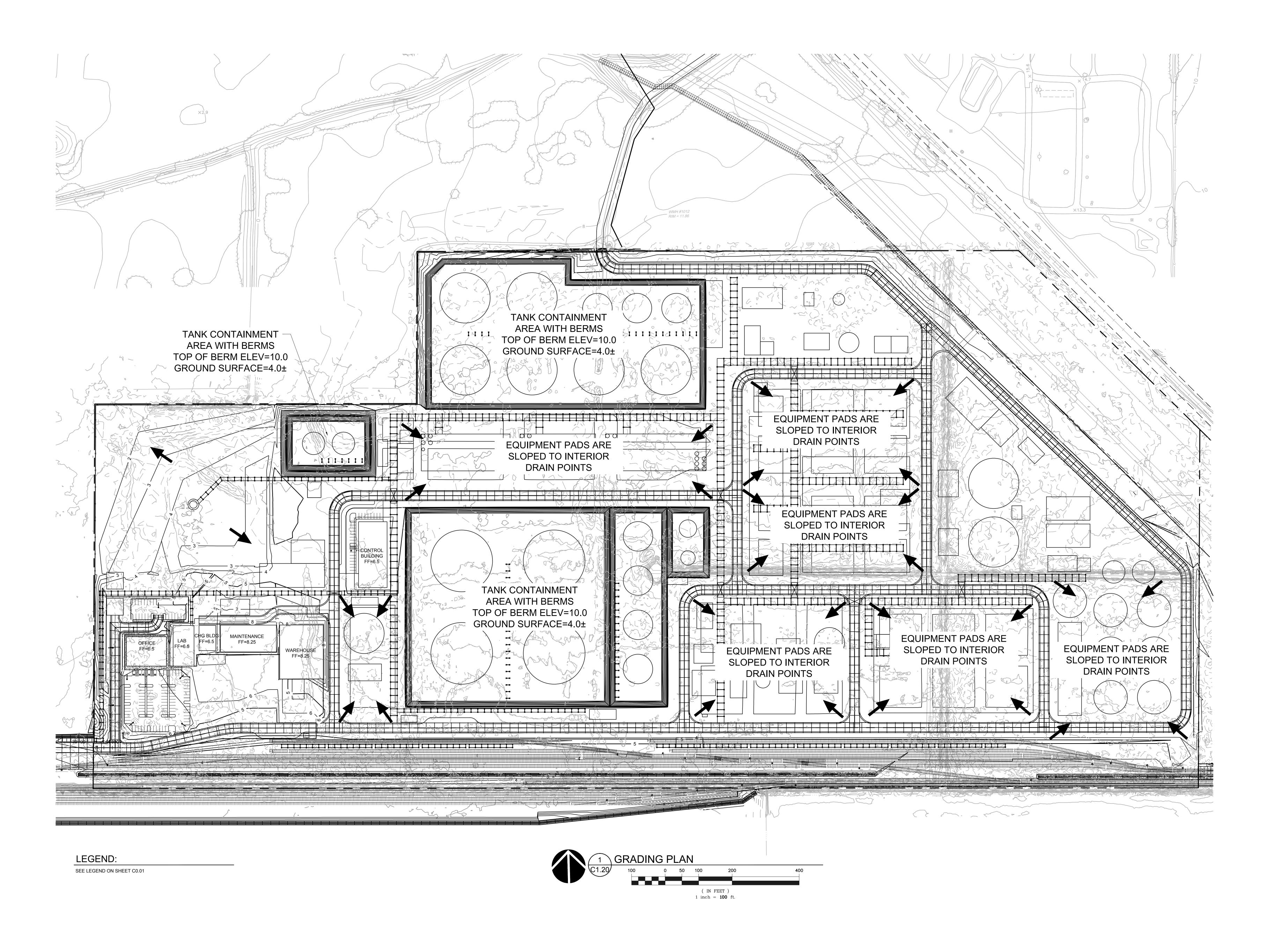
PROTECT EXISTING -

DITCH TO REMAIN

18" CULVERT AT

**DITCH CROSSING** 





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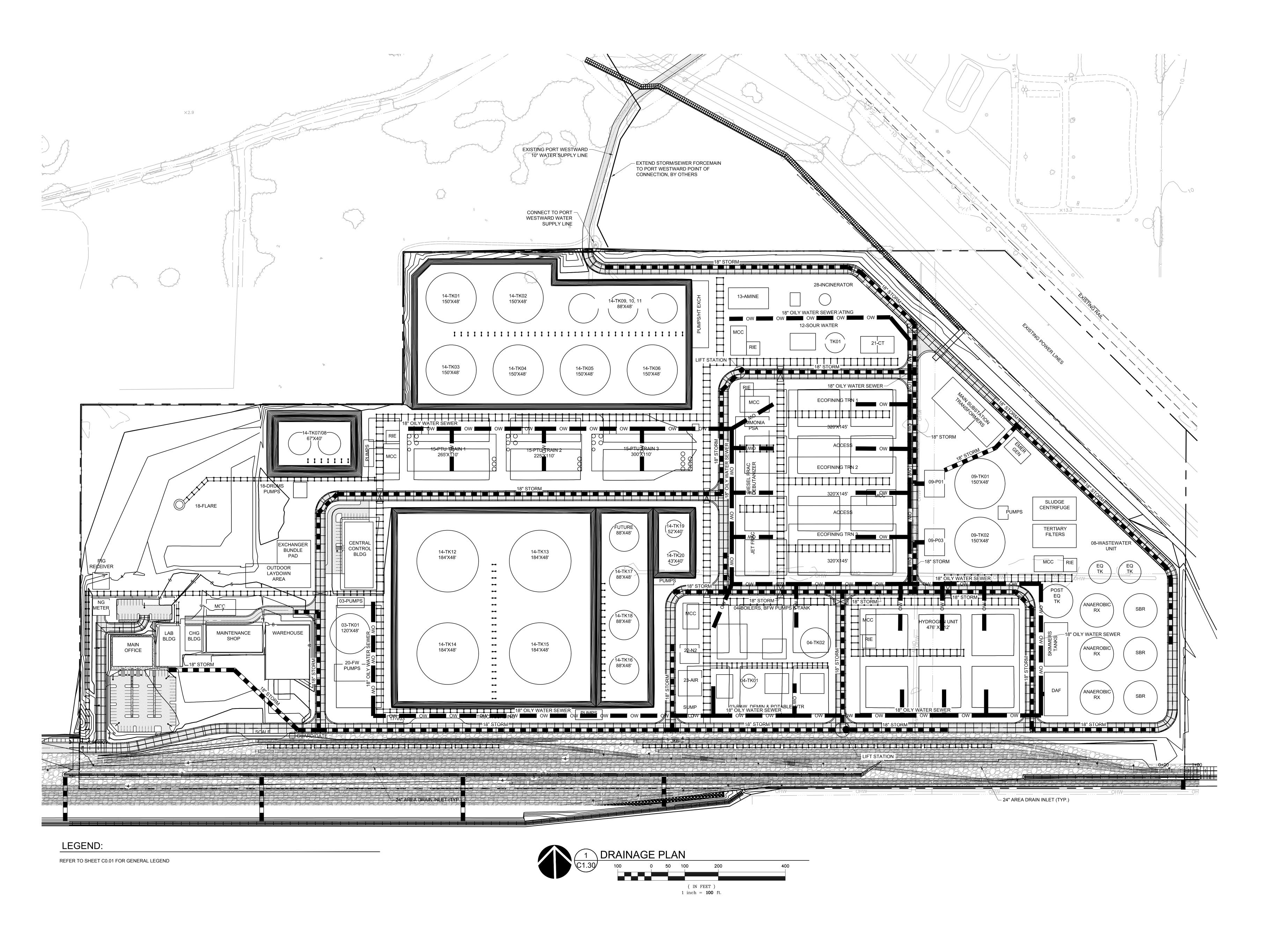
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REVISION SCHEDULE

**GRADING PLAN** 

C1.20



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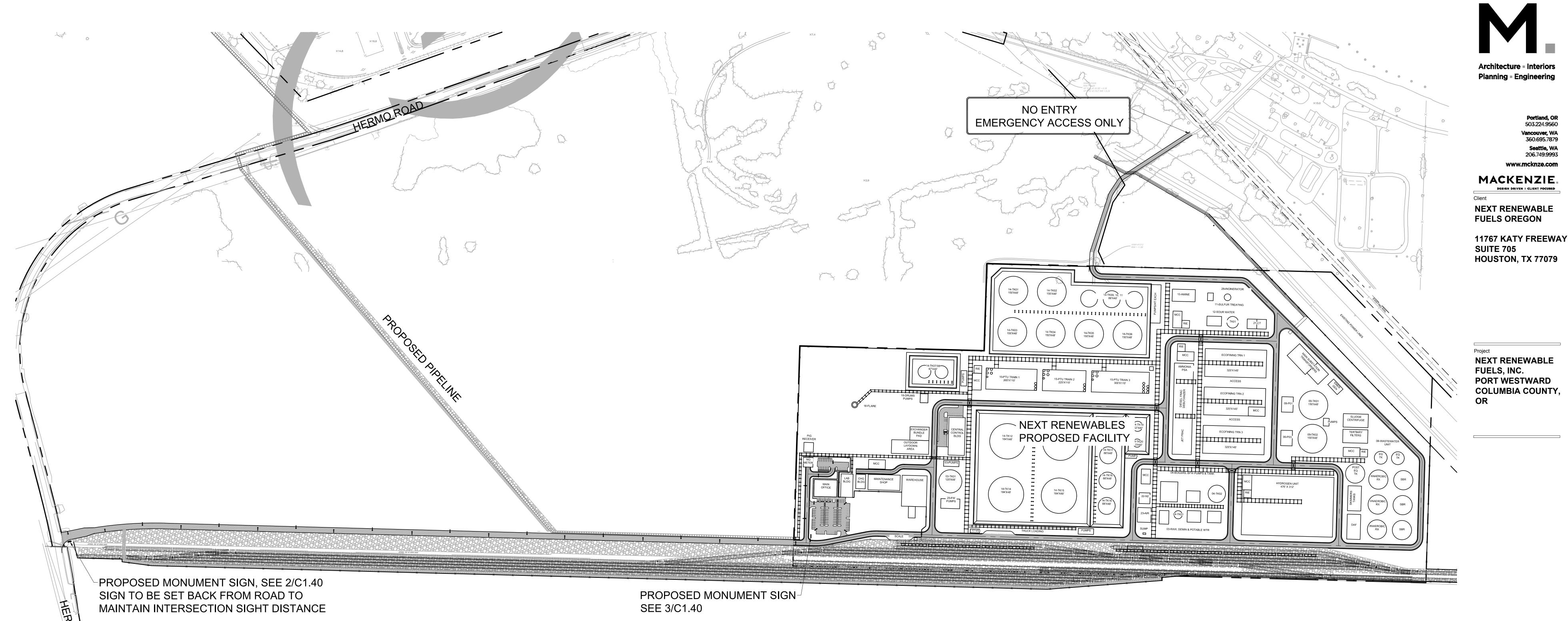
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REVISION SCHEDULE

**DRAINAGE PLAN** 

C1.30



1 inch = **200** ft.

NOTE:

IN-GROUND LED LIGHTING WITH SHIELDING TO PREVENT LIGHT TRESPASS

- CONCRETE SIGN FACE

NOTE: SIGN DIMENSIONS, SYMBOLS, AND WORDING ARE PRELIMINARY. FINAL SIGN

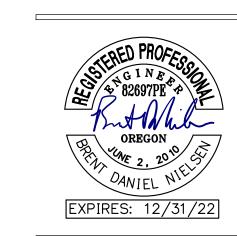
DESIGN TO BE PROVIDED WITH BUILDING PERMIT SUBMITTAL. SIGNS WILL MEET

2 HERMO ROAD SIGN C1.40 N.T.S.

SIGN ELEVATION VIEW

FIRE MARSHAL.

1. INTERNAL PLANT SIGNAGE AND WAYFINDING WILL BE DESIGNED FOR BUILDING PERMIT SUBMITTAL AND WILL BE COORDINATED WITH THE



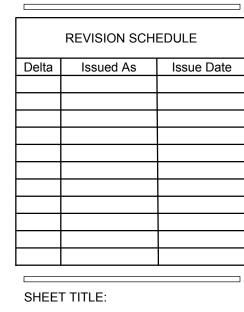
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**Seattle, WA** 206.749.9993

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SIGN **PLAN** 

C1.40

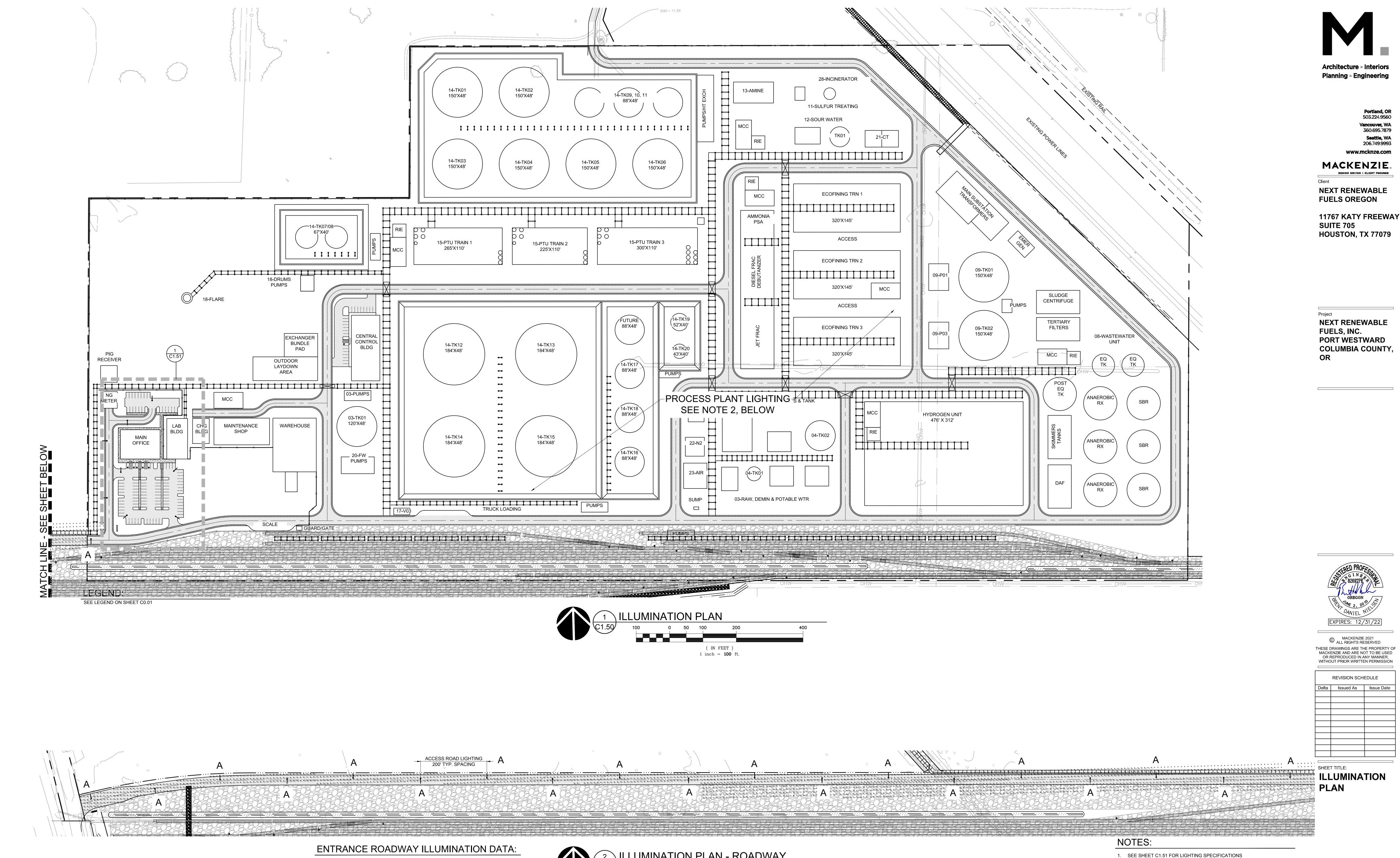
CONCRETE SIGN FACE

SIGN ELEVATION VIEW

NOTE: SIGN DIMENSIONS, SYMBOLS, AND WORDING ARE PRELIMINARY. FINAL SIGN

DESIGN TO BE PROVIDED WITH BUILDING PERMIT SUBMITTAL. SIGNS WILL MEET

3 PLANT ENTRANCE SIGN C1.40 N.T.S.



( IN FEET )

1 inch = 100 ft.

AVERAGE = 1.71 (FOOT CANDLES)

UNIFORMITY RATIO = 5.7:1

C1.50

2. ILLUMINATION WITHIN THE PROCESS PLANT WILL BE PROVIDED THROUGH LIGHTING INSTALLED ON EQUIPMENT STRUCTURES,

4. ALL OUTDOOR LIGHTS WILL BE SHIELDED SO AS NOT TO SHINE

DIRECTLY ONTO ADJACENT PROPERTIES AND ROADS.

INSTITUTE RECOMMENDED PRACTICE 540.

PHYSICAL SWITCHING, OR OTHER MEANS.

STAIRWAYS, PIPERACKS ETC. TO MEET AMERICAN PETROLEUM

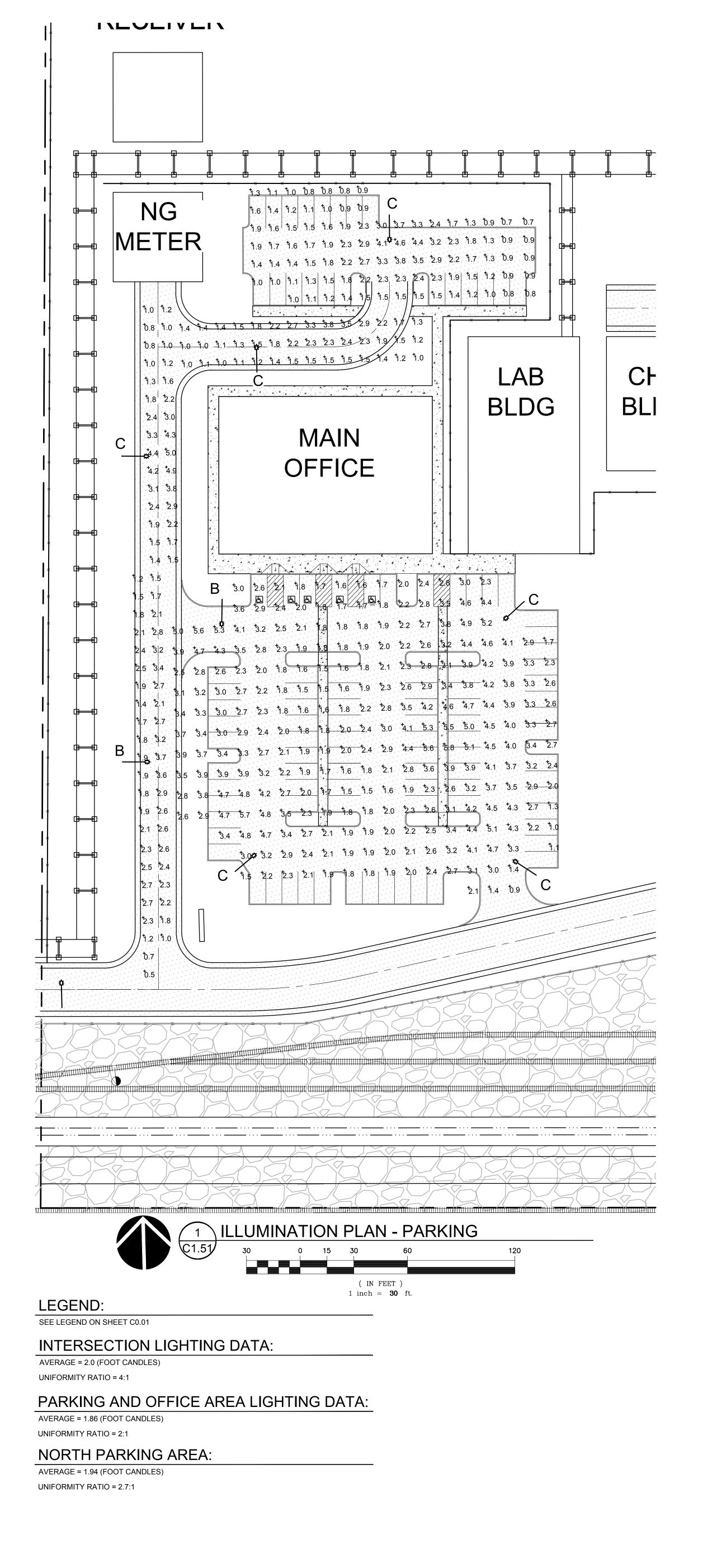
COMBINATION OF PHOTOCELL, TIME CLOCK, MOTION DETECTION,

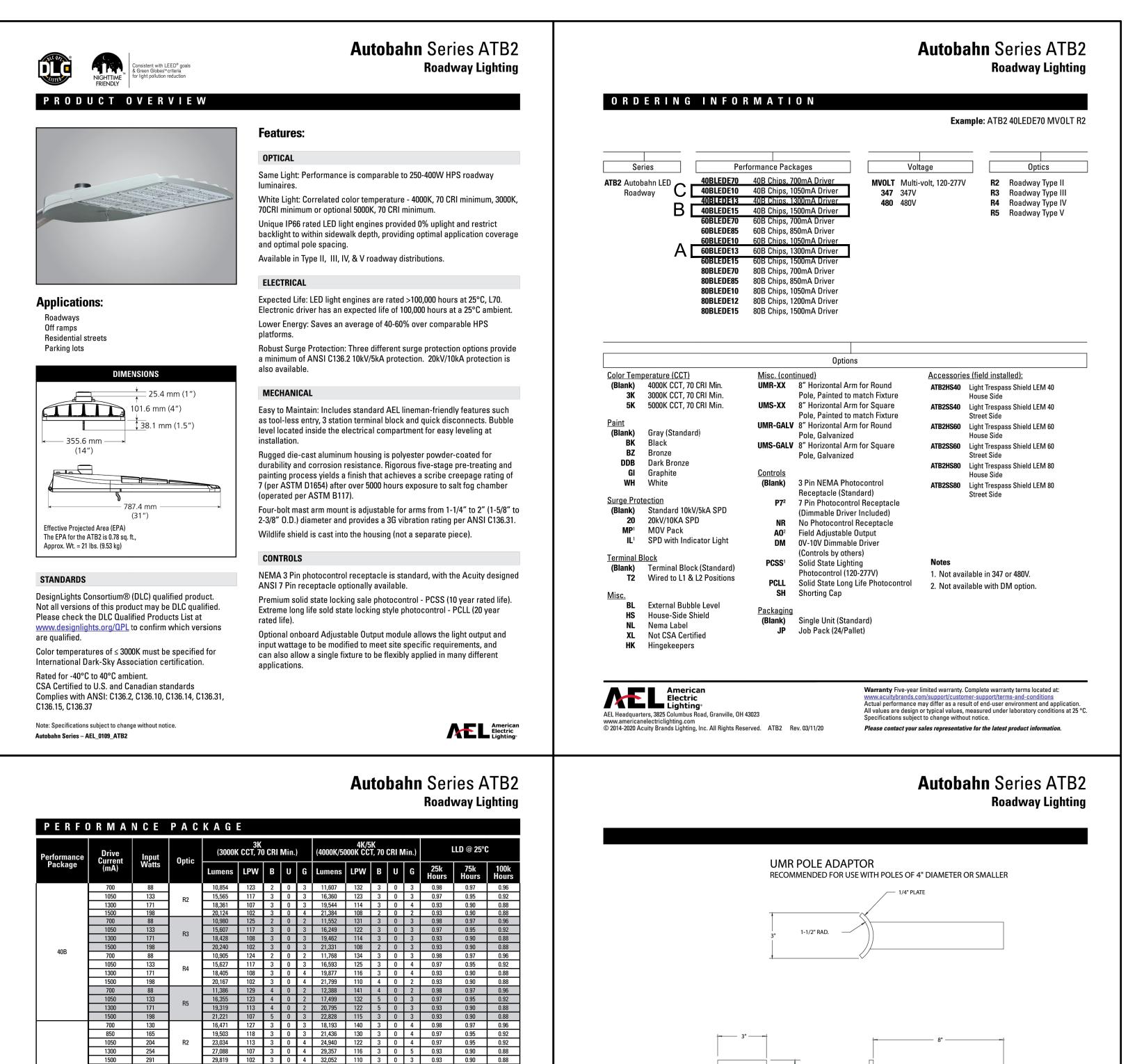
PROCESS AND OUTDOOR LIGHTING WILL BE CONTROLLED THROUGH A

DRAWN BY: CAM

SHEET

CHECKED BY: BDN





- 1.66 O.D. x .140 WALL TB. .43 x 1-3/4" SLOT — **UMS POLE ADAPTOR** American Electric Lighting **Varranty** Five-year limited warranty. Complete warranty terms located at: ctual performance may differ as a result of end-user environment and application All values are design or typical values, measured under laboratory conditions at 25 °C. www.americanelectriclighting.com © 2014-2020 Acuity Brands Lighting, Inc. All Rights Reserved. ATB2 Rev. 03/11/20

LIGHT POLE HEIGHT: 30' MAST ARM LENGTH: 15'

Warranty Five-year limited warranty. Complete warranty terms located at:

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ctual performance may differ as a result of end-user environment and application

All values are design or typical values, measured under laboratory conditions at 25 °C.





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11767 KATY FREEWAY **SUITE 705 HOUSTON, TX 77079** 

**NEXT RENEWABLE** FUELS, INC. **PORT WESTWARD** COLUMBIA COUNTY,



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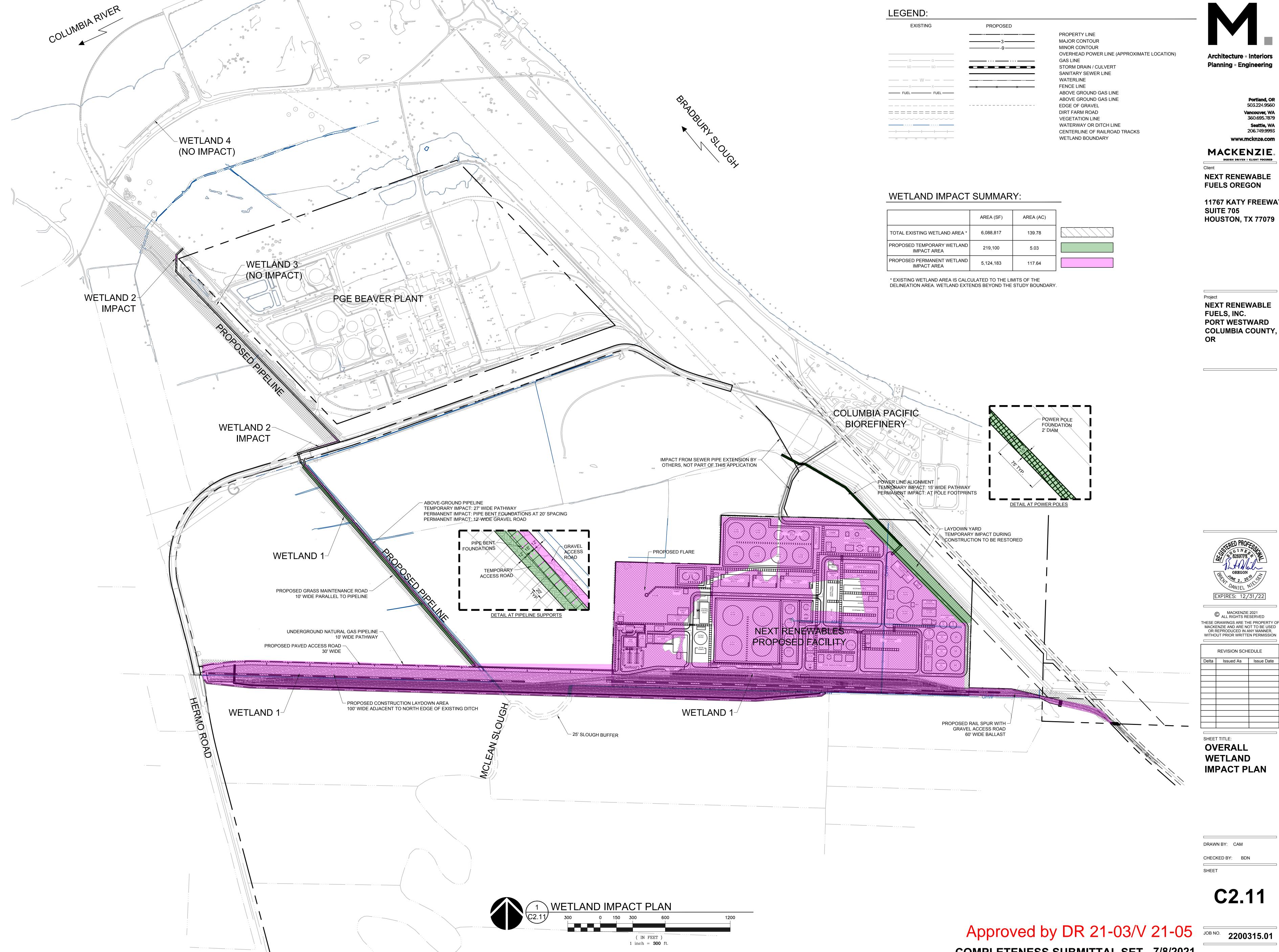
**ILLUMINATION** PLAN -**PARKING & ILLUMINATION DETAILS** 

DRAWN BY: CAM CHECKED BY:

C1.51

Approved by DR 21-03/V 21-05 JOB NO. 2200315.01

ان. 17:07 DKAVVIING 3 المالك 17:07 DKAVVIING 1:30

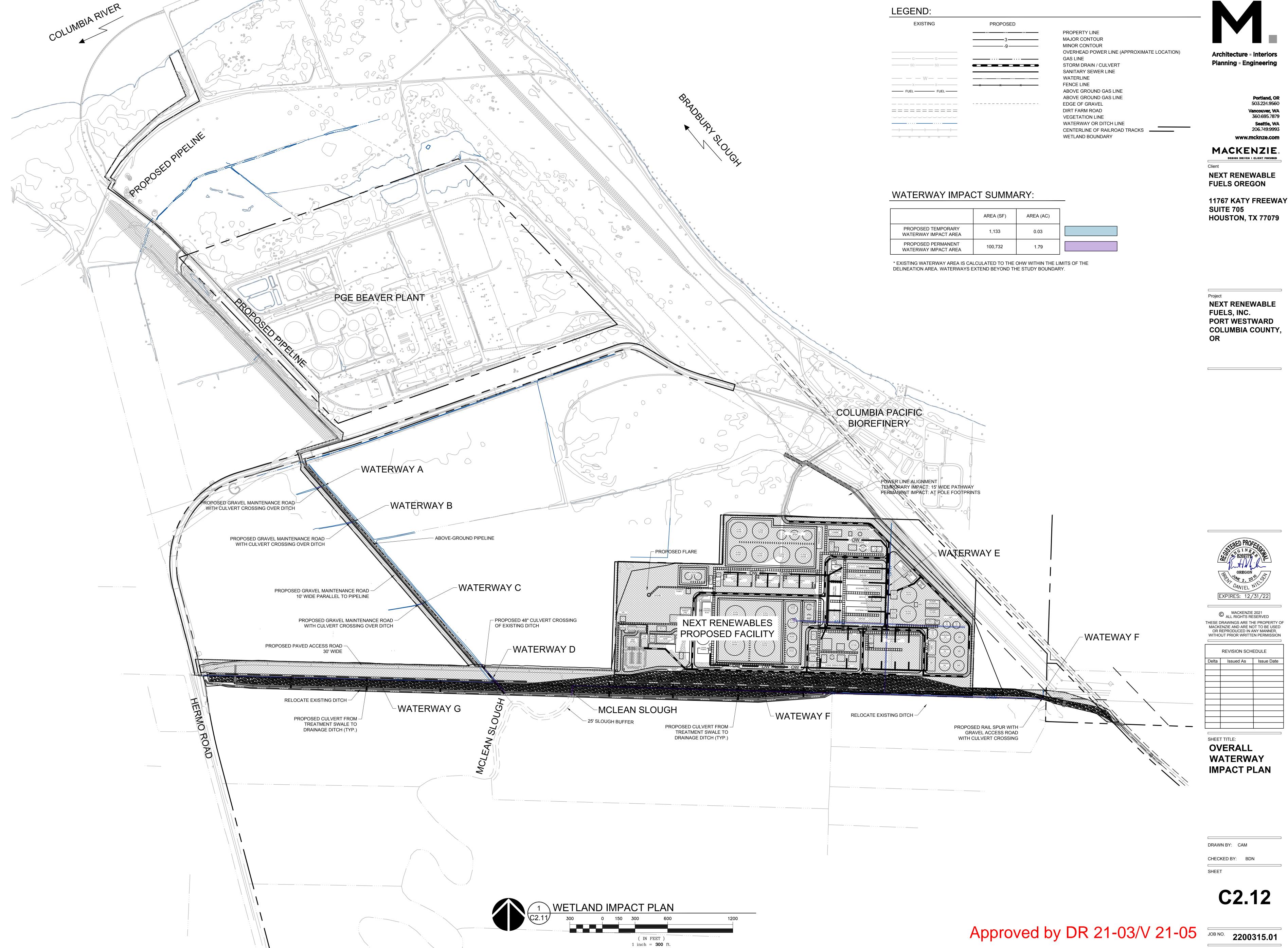


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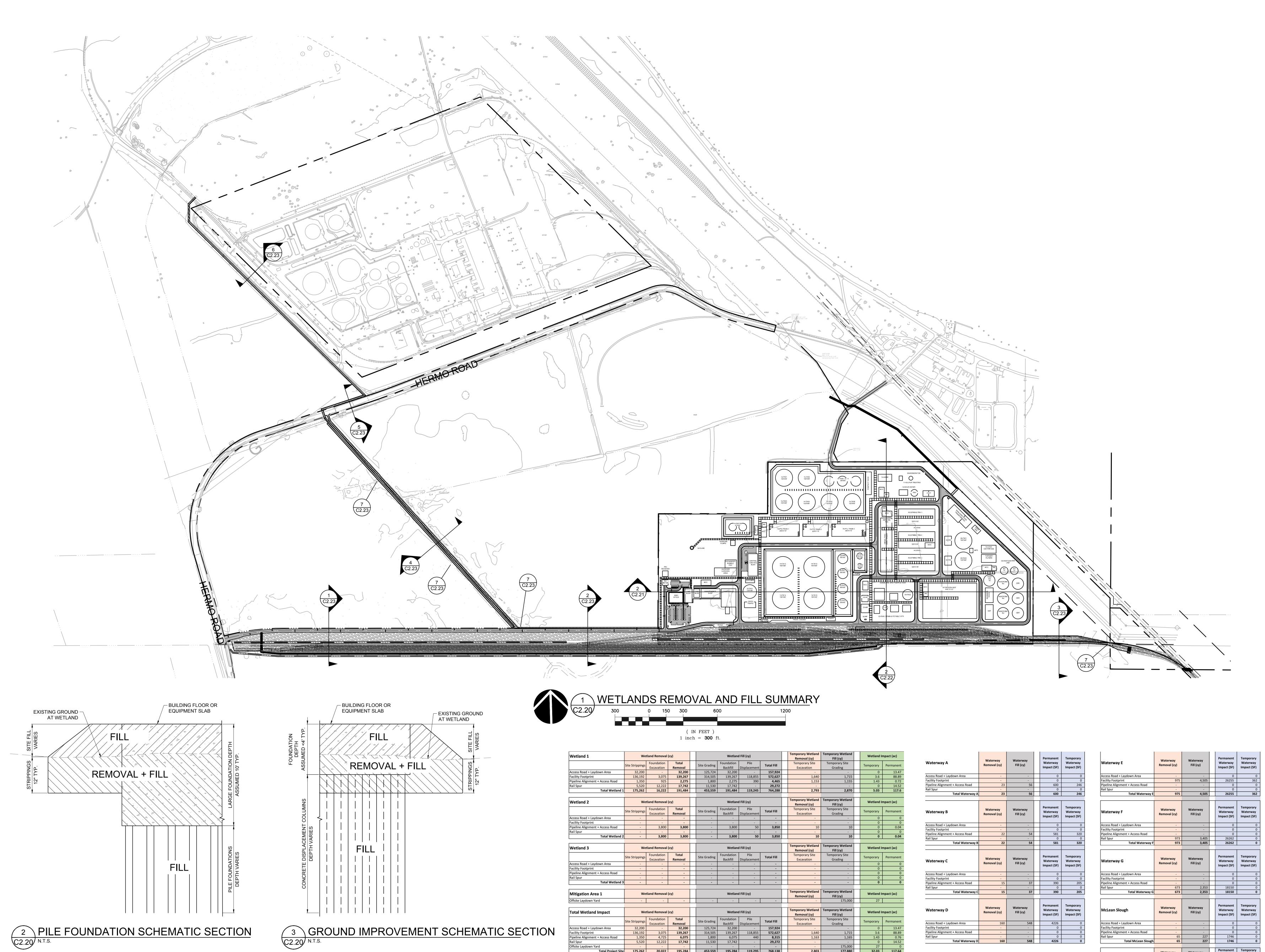
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Facility Footprint

Offsite Laydown Yard

Pipeline Alignment + Access Road

3 GROUND IMPROVEMENT SCHEMATIC SECTION

FILL EMBANKMENT ABOVE EXISTING GRADE CHARACTERIZED AS FILL VOLUME

CONCRETE DISPLACEMENT COLUMN FOUNDATIONS CHARACTERIZED AS FILL VOLUME, ASSUMES 36%

DISPLACEMENT FACTOR FOR CONCRETE FILL

C2.20 N.T.S.

EXCAVATION DEPTH BELOW EXISTING GRADE
CHARACTERIZED AS CUT VOLUME AND FILL VOLUME

WHERE BACKFILLED WITH SOIL OR CONCRETE

PILE FOUNDATIONS
CHARACTERIZED AS FILL VOLUME, ASSUMES
DISPLACEMENT PILES

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SHEET TITLE: **WETLANDS IMPACT EARTHWORK PLAN** 

DRAWN BY: CAM CHECKED BY: BDN SHEET

C2.20

Permanent Waterway Waterway Impact (SF)

548 4226
4,505 26255

147

Approved by DR 21-03/V 21-05

Access Road + Laydown Area
Facility Footprint
Pipeline Alignment + Access Road

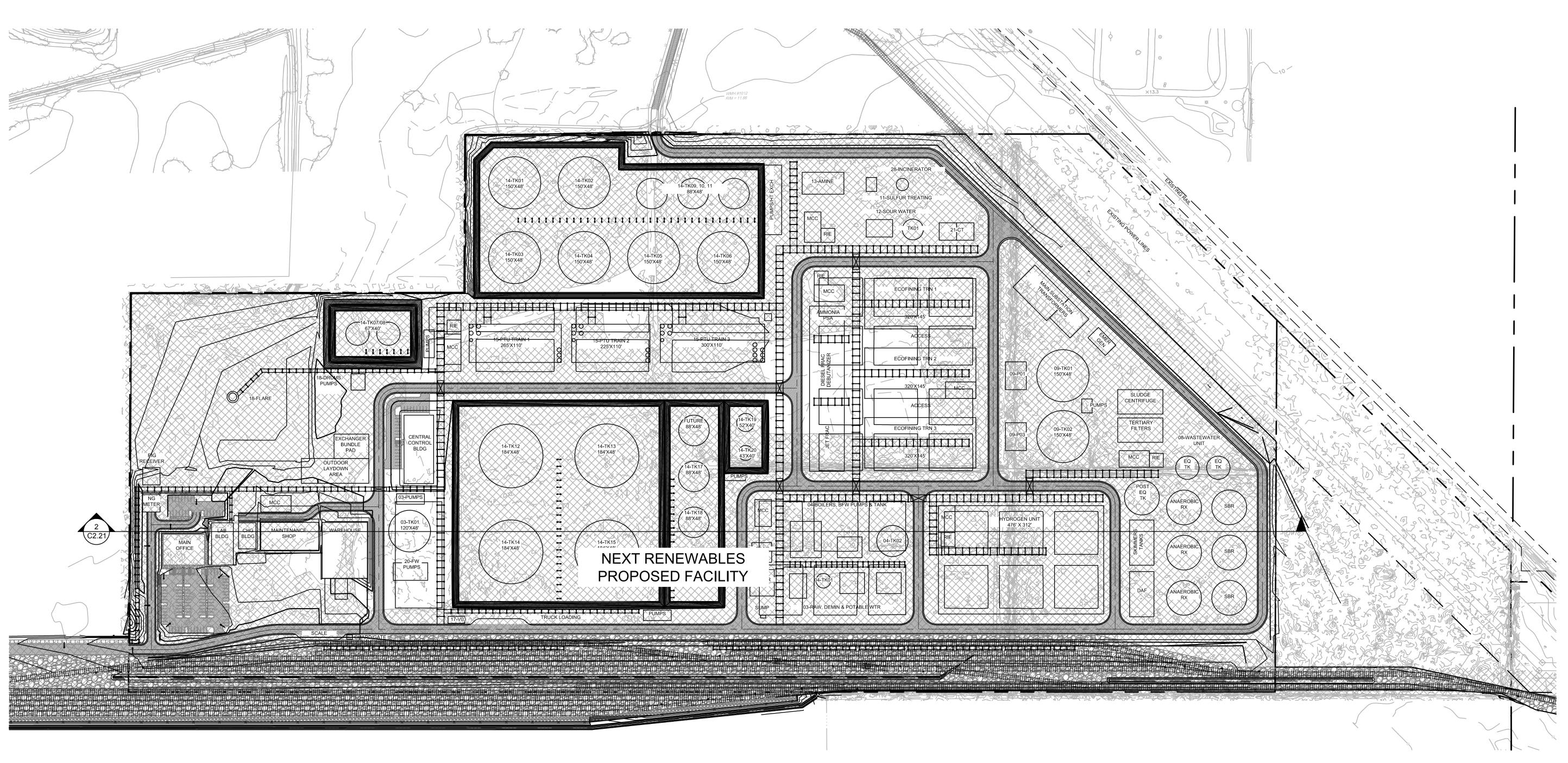
Waterways Total

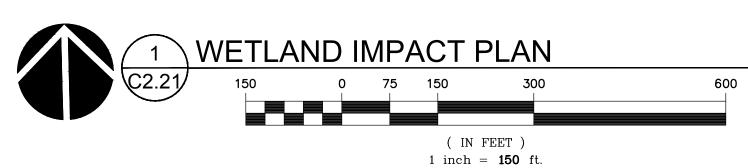
Total Waterway D

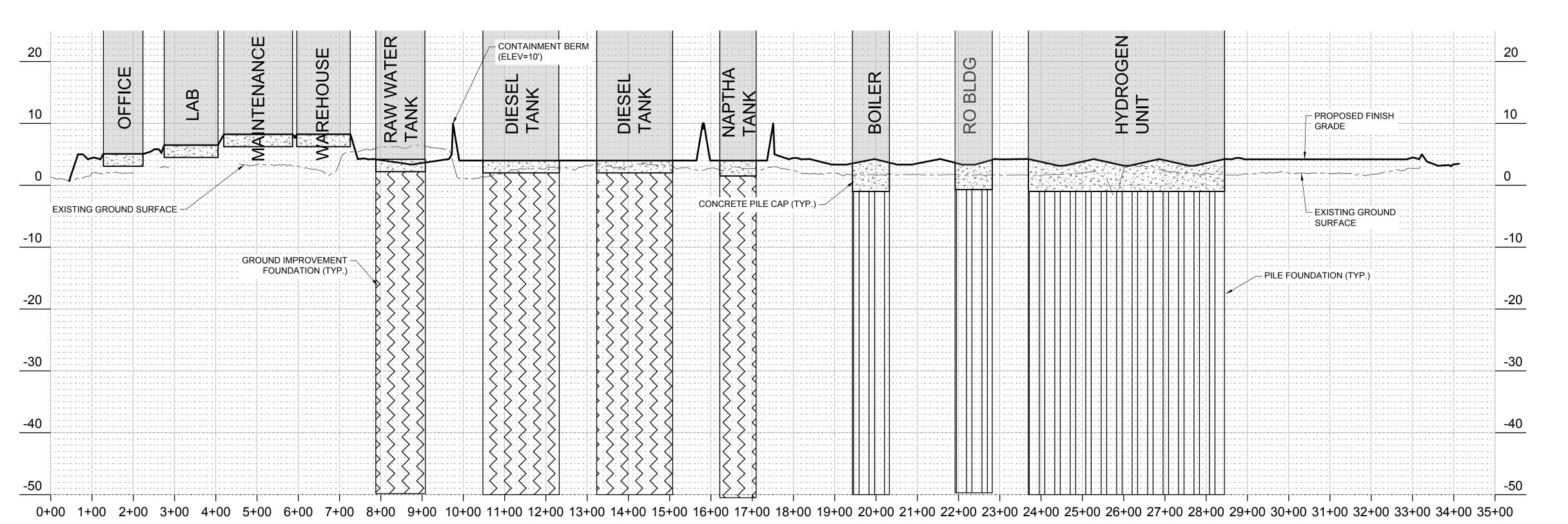
Total McLean Slough

Waterway Removal (cy)

COMPLETENESS SUBMITTAL SET - 7/8/2021
220031500\Dravvings\civil\315-cz.20.DWG BDN 07/07/21 16:42 1:300







2 WETLAND IMPACT CROSS-SECTION

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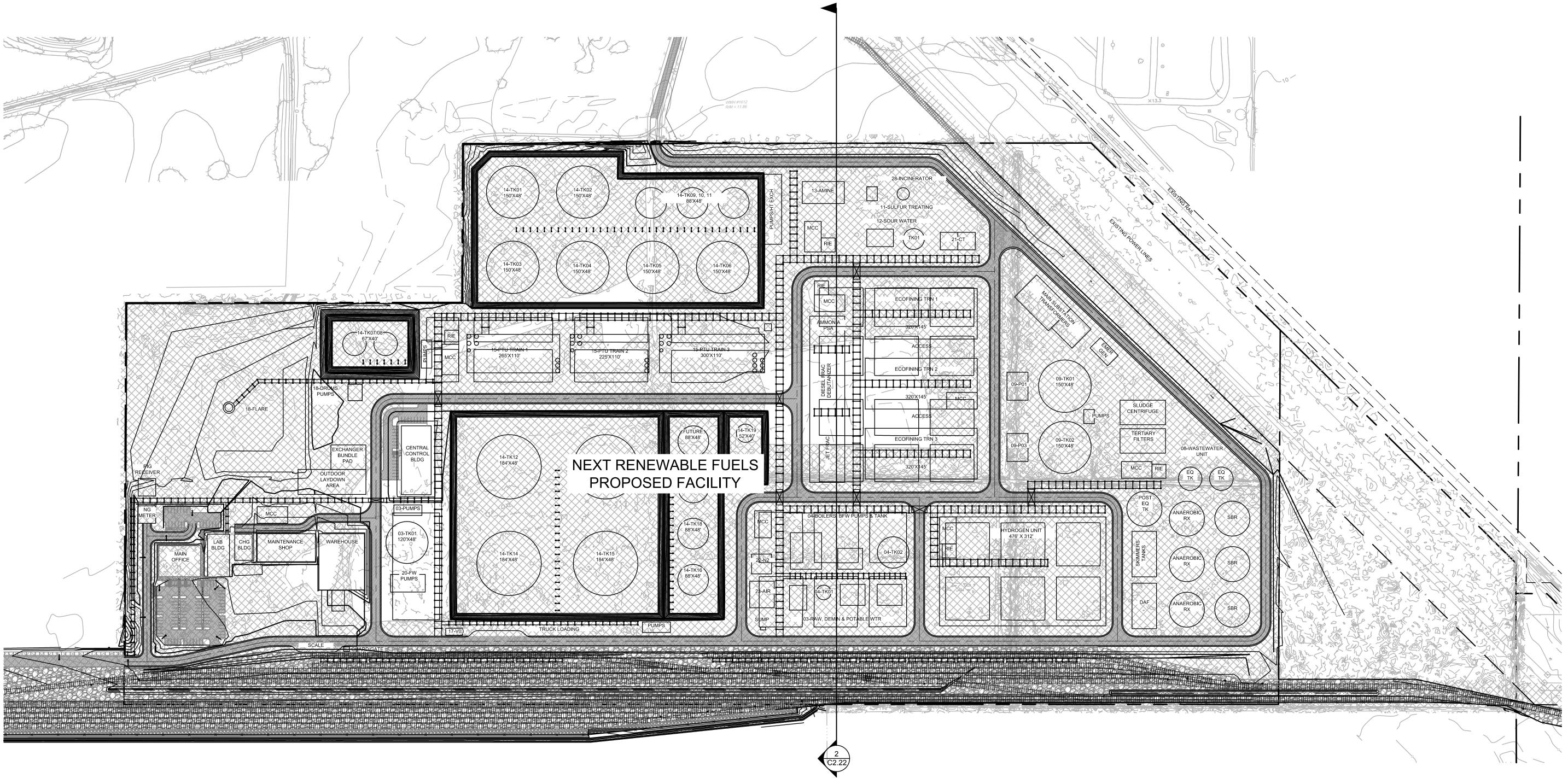
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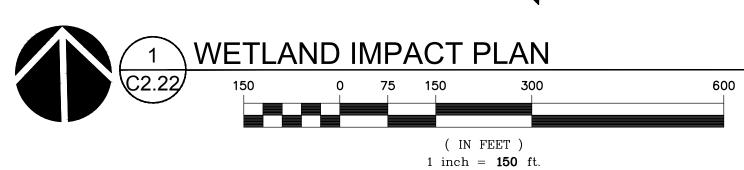
REVISION SCHEDULE							
elta	Issued As Issue Date						

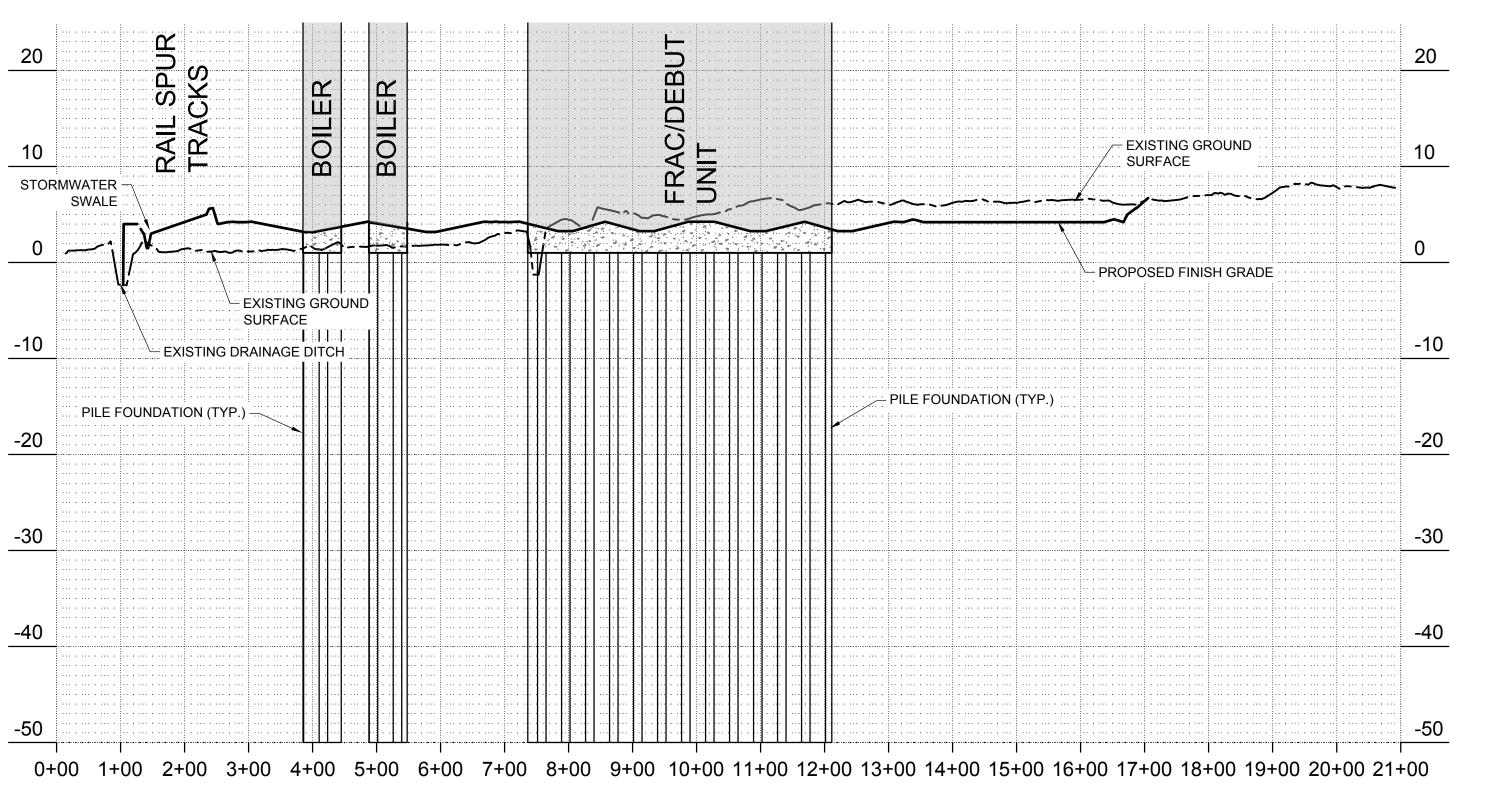
SHEET TITLE:

SCHEMATIC **WETLAND FILL CROSS SECTION EAST-WEST** 

C2.21







2 WETLAND IMPACT CROSS-SECTION

C2.22 HORIZONTAL SCALE: 1" = 150'
VERTICAL SCALE: 1" = 10' (15X EXAGGERATION)

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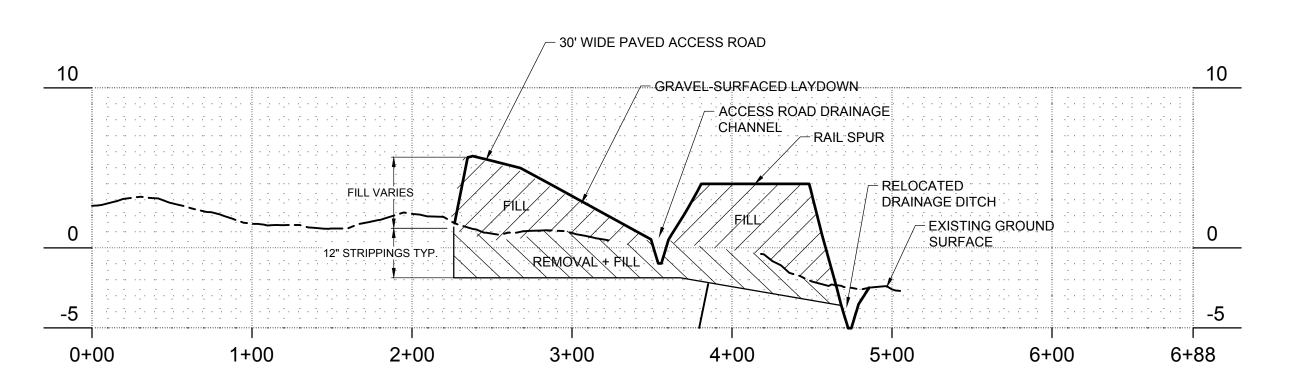


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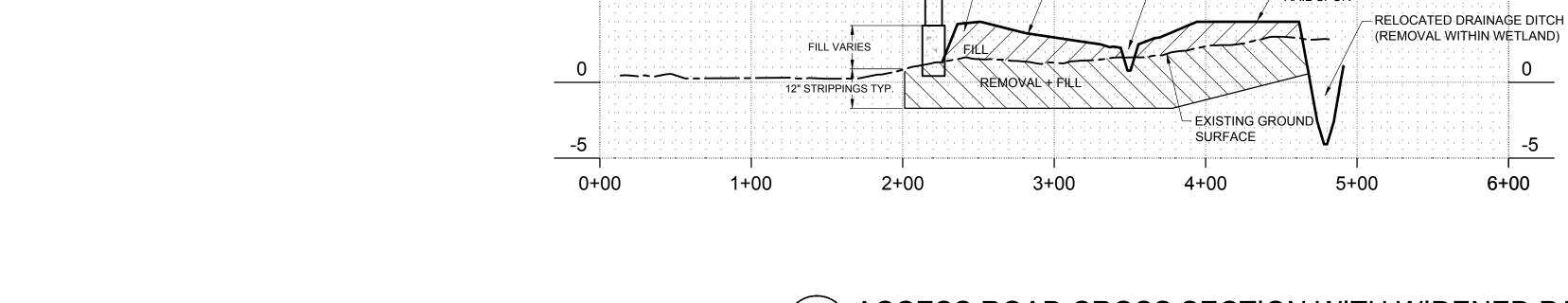
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Delta	Issued As	Issue Date			

SCHEMATIC **WETLAND FILL CROSS SECTION** NORTH-SOUTH

C2.22



ACCESS ROAD CROSS-SECTION C2.23 HORIZONTAL SCALE = 1"=60' VERTICAL SCALE = 1"=6'



PROPOSED ABOVE -

GROUND PIPERACK

2 ACCESS ROAD CROSS SECTION WITH WIDENED PAVING C2.23 HORIZONTAL SCALE = 1"=60' VERTICAL SCALE = 1"=6'

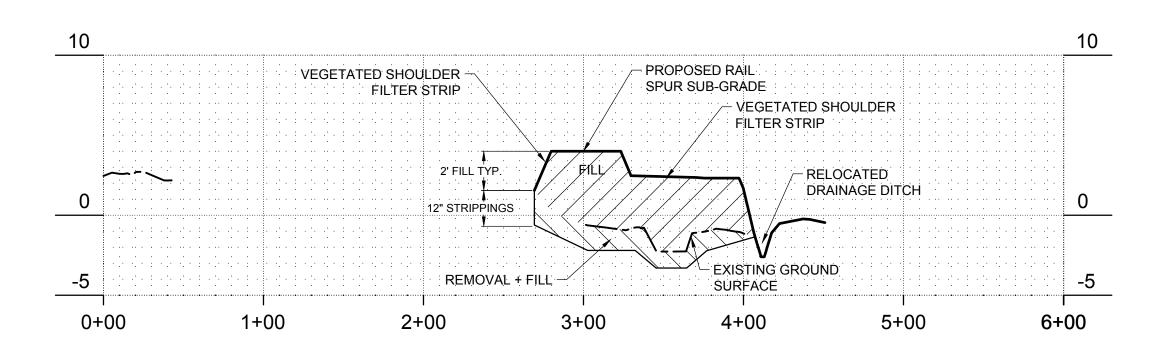
- 30' WIDE PAVED ACCESS ROAD

- GRAVEL-SURFACED LAYDOWN

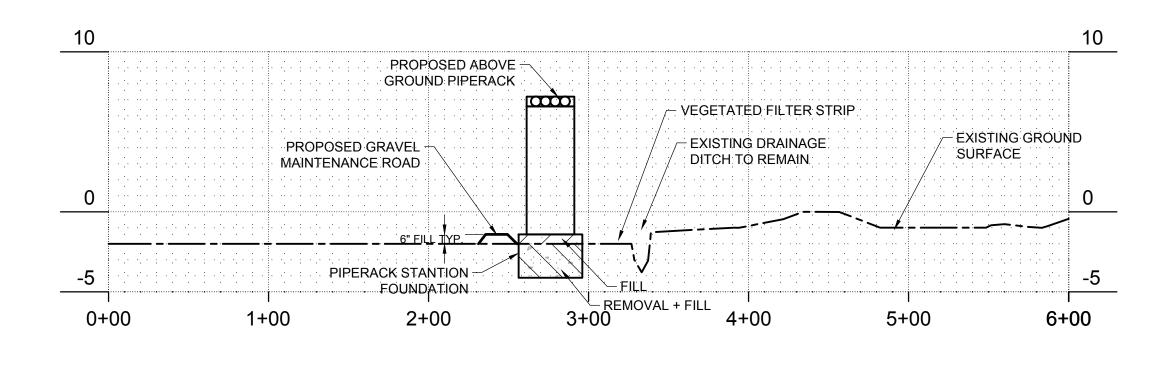
– ACCESS ROAD SWALE

(REMOVAL WITHIN WETLAND)

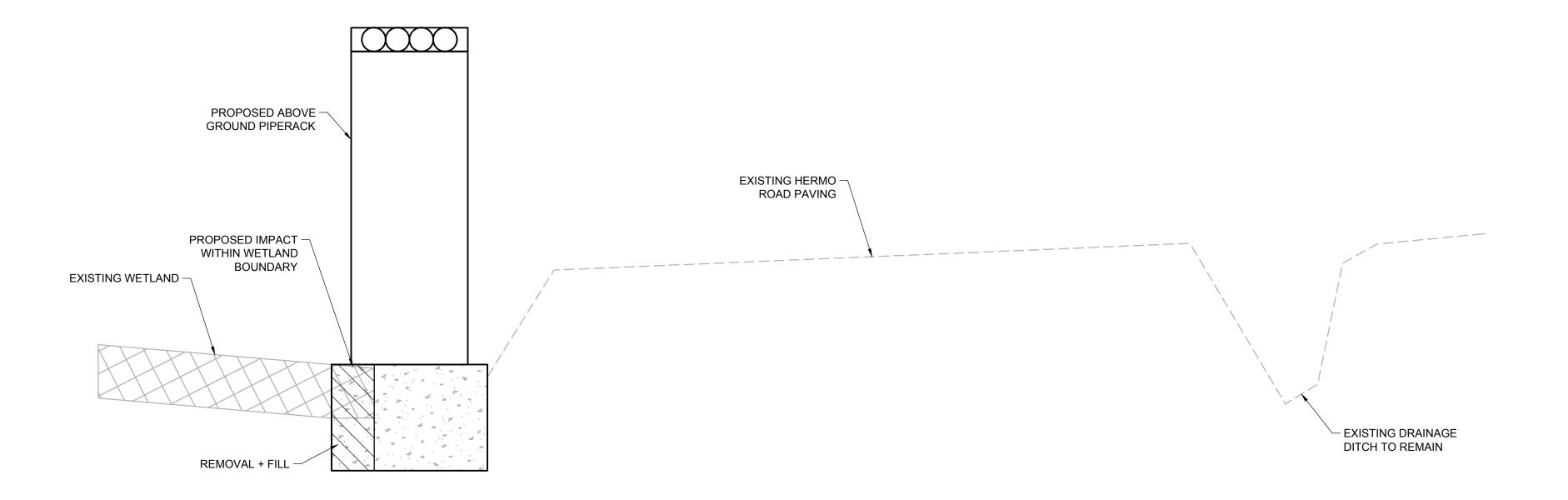
6+00



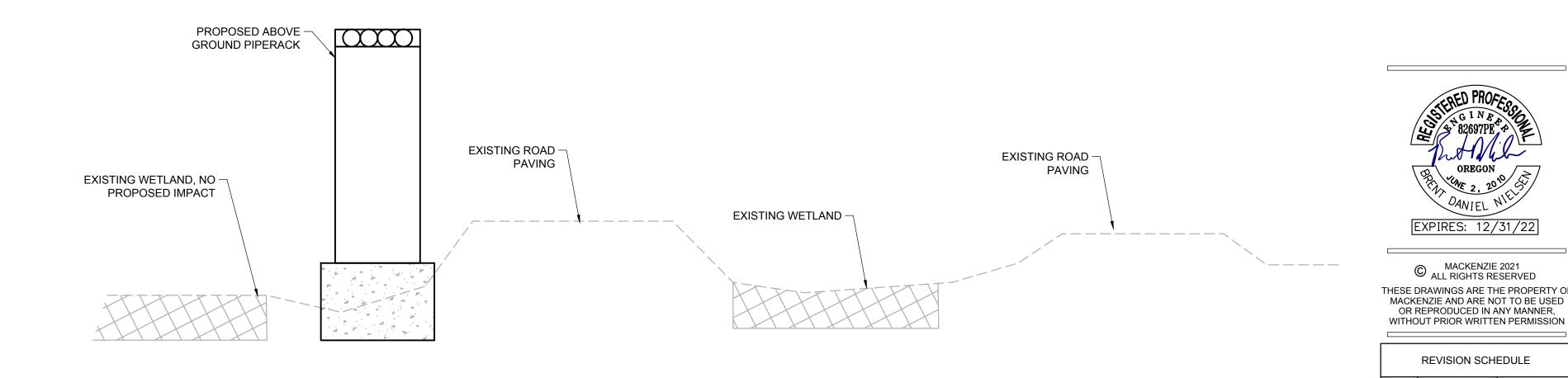
3 RAIL SPUR BRANCH LINE TYPICAL CROSS-SECTION C2.23 HORIZONTAL SCALE = 1"=60' VERTICAL SCALE = 1"=6'



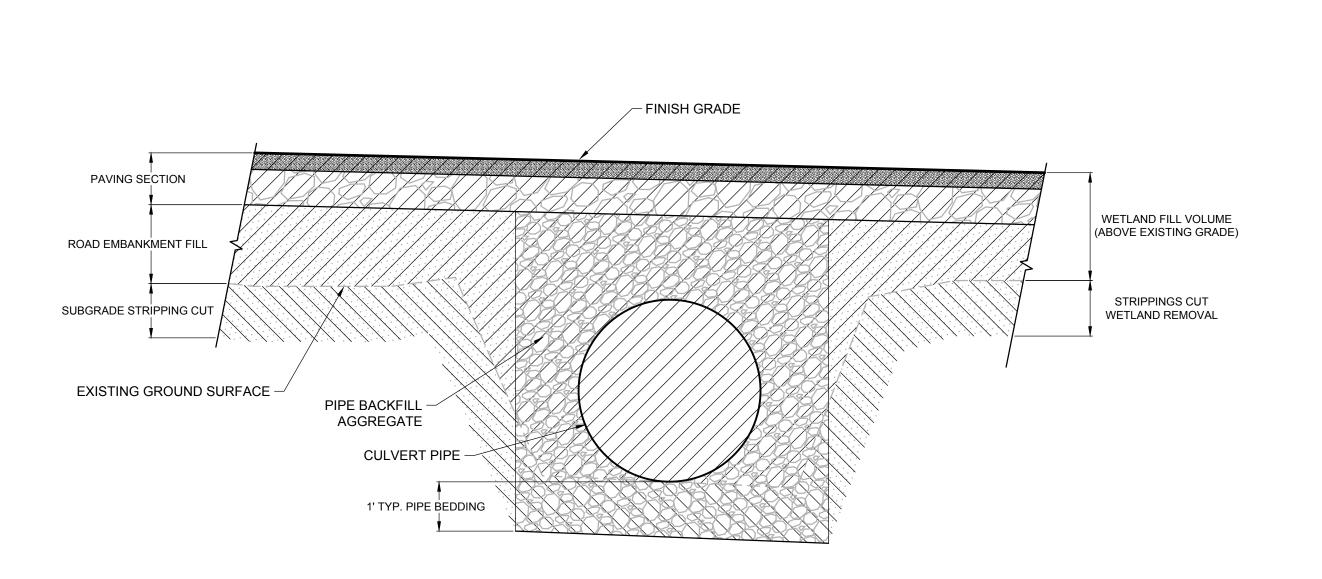
PIPELINE MAINTENANCE ROAD TYPICAL CROSS-SECTION C2.23 HORIZONTAL SCALE = 1"=60' VERTICAL SCALE = 1"=6'



5 TYPICAL CROSS-SECTION OF PIPERACK ALONG HERMO ROAD C2.23 NOT TO SCALE



TYPICAL CROSS-SECTION OF PIPERACK ALONG SERVICE ROAD C2.23 NOT TO SCALE



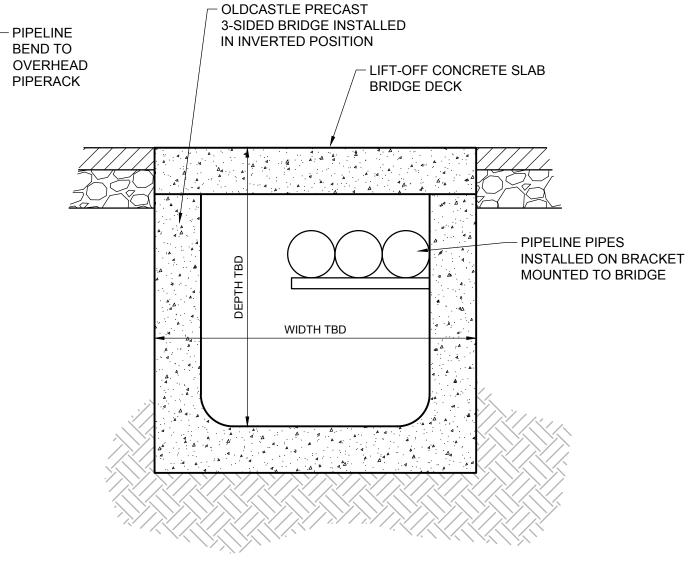
7 TYPICAL CROSS-SECTION OF CULVERT INSTALLATION

35'± TO MATCH WIDTH OF HERMO ROAD EXISTING HERMO -BEYOND **CULVERT ELEVATION VIEW** 

OLDCASTLE PRECAST 3-SIDED BRIDGE -

ROAD SHOULER,

WITH LIFT-OFF SLAB, OR SIMILAR



C2.23

8 PIPELINE CULVERT ROAD CAPSING by DR 21-03/V 21-05 2200315.01

COMPLETENESS SUBMITTAL SET - 7/8/2021

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SHEET TITLE:

**WETLAND** 

**IMPACTS** -

**SECTIONS** 

**TYPICAL** 

DRAWN BY: CAM

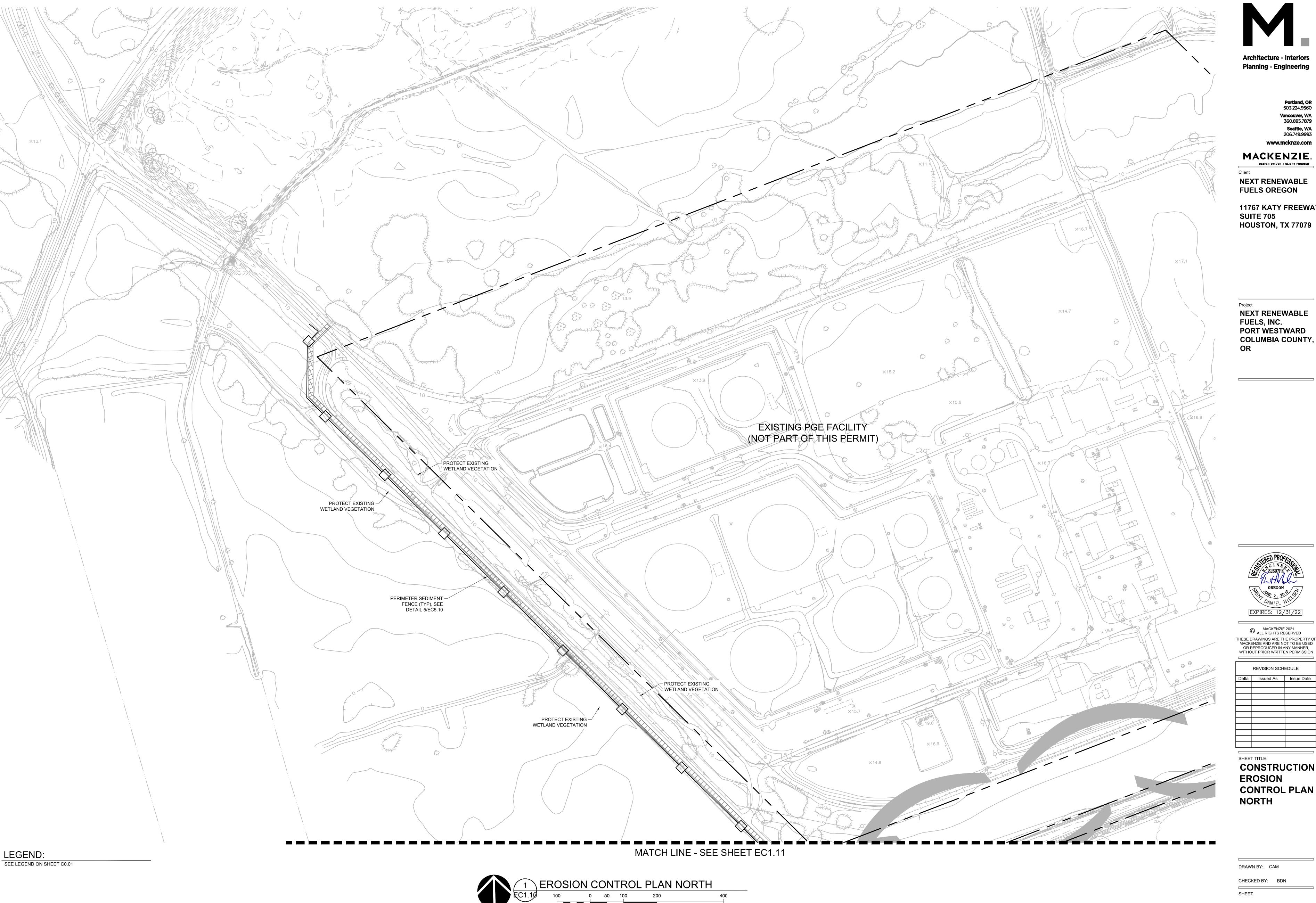
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**FUELS, INC.** 

**FUELS OREGON** 

**SUITE 705** 

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( IN FEET ) 1 inch = **100** ft.

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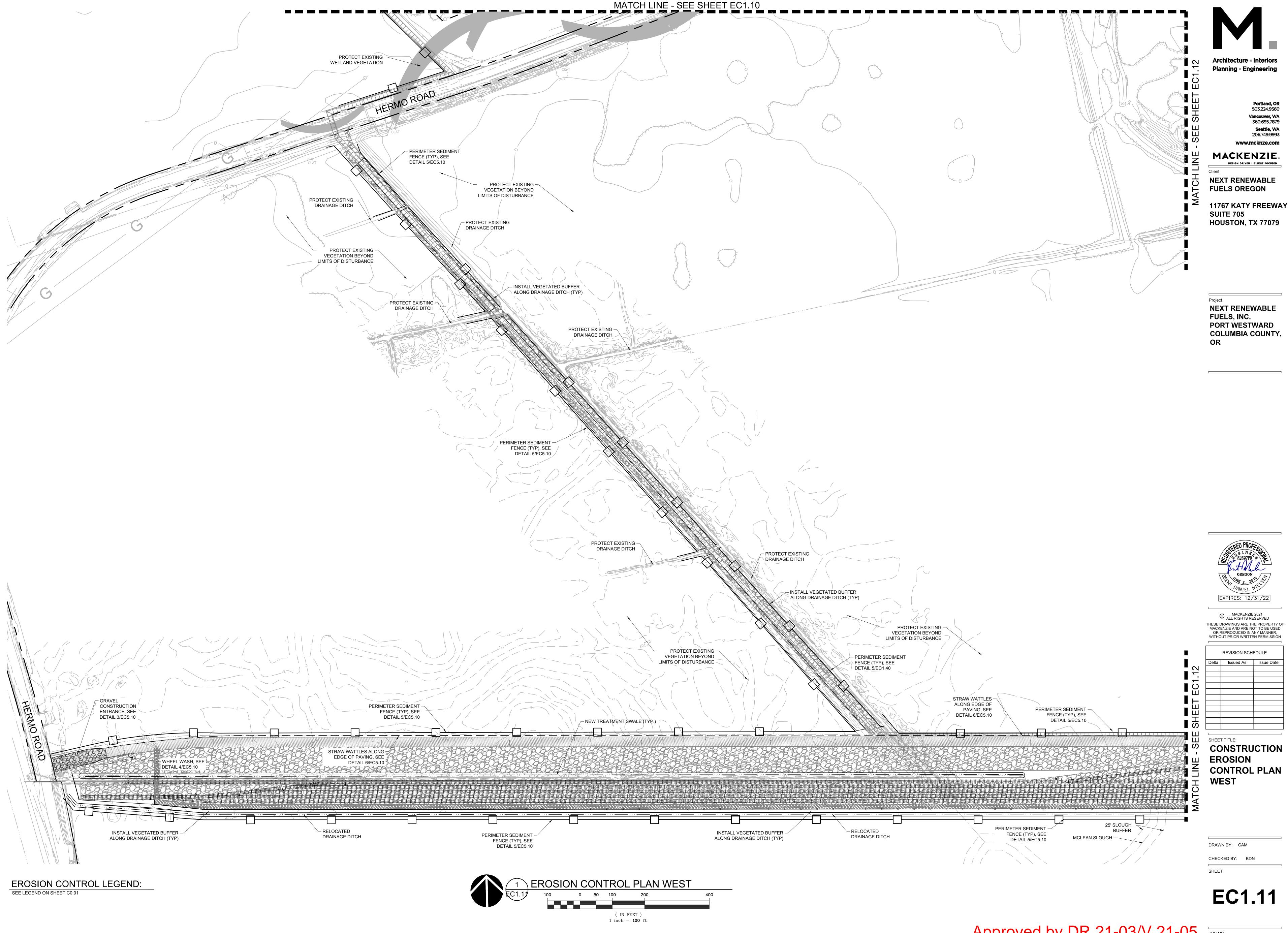
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REVISION SCHEDULE

CONSTRUCTION **EROSION CONTROL PLAN** NORTH

EC1.10



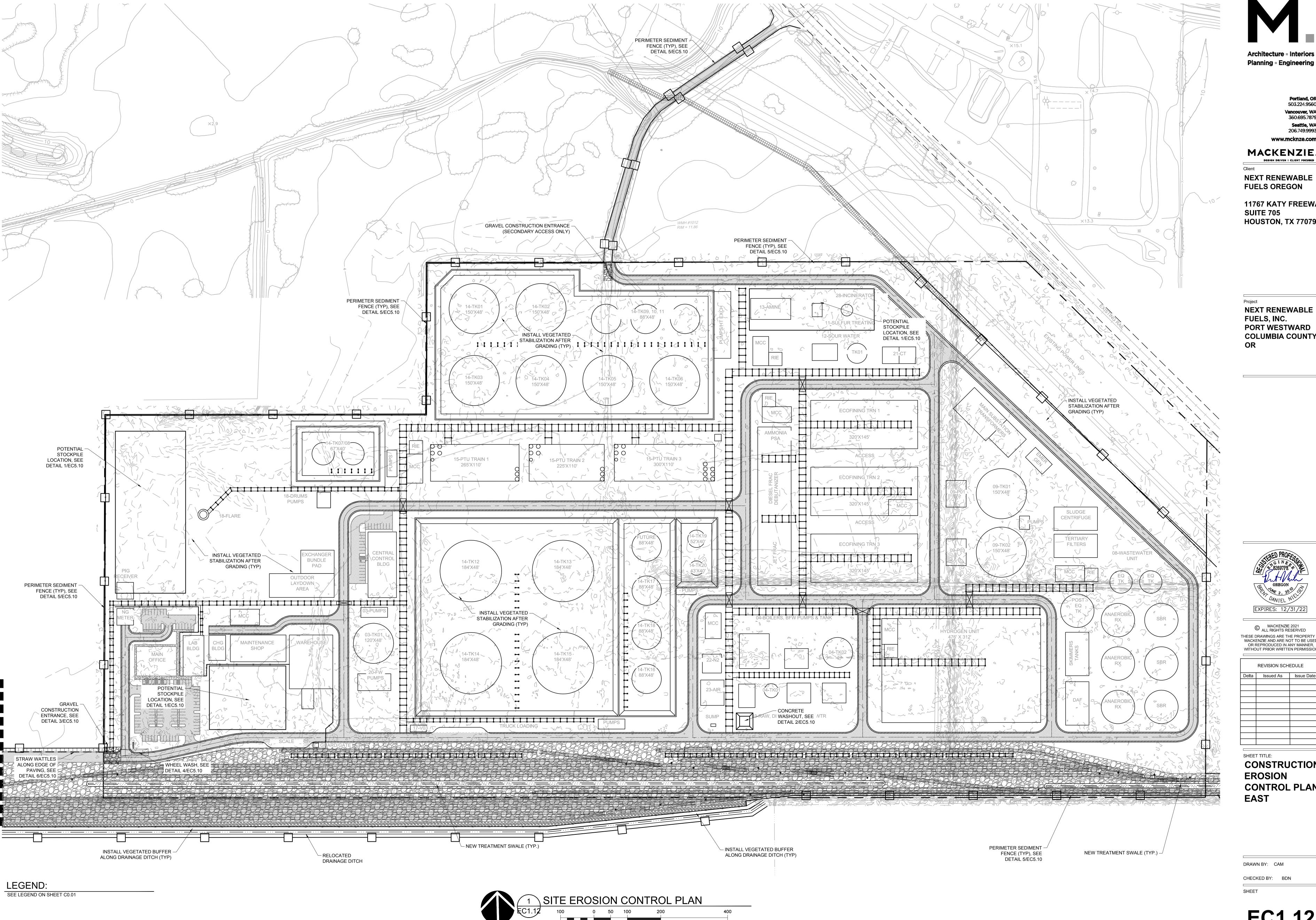
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**Seattle, WA** 206.749.9993

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1 inch = 100 ft

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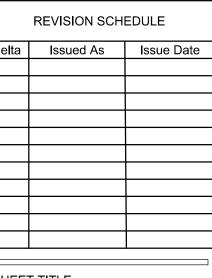
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**NEXT RENEWABLE FUELS, INC. PORT WESTWARD COLUMBIA COUNTY,** 



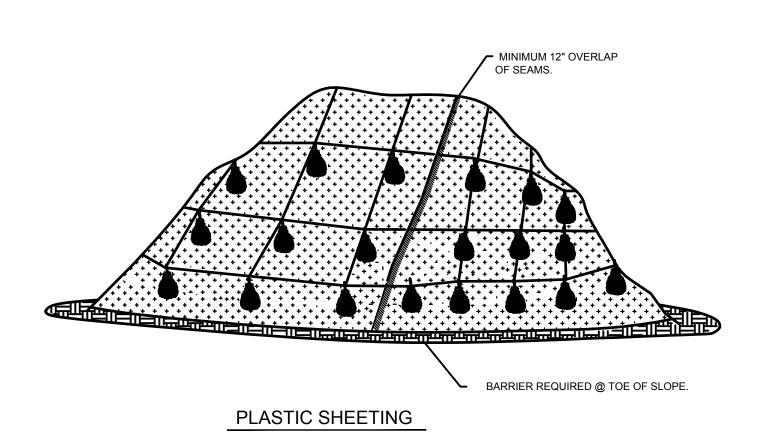
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CONSTRUCTION **EROSION CONTROL PLAN EAST** 

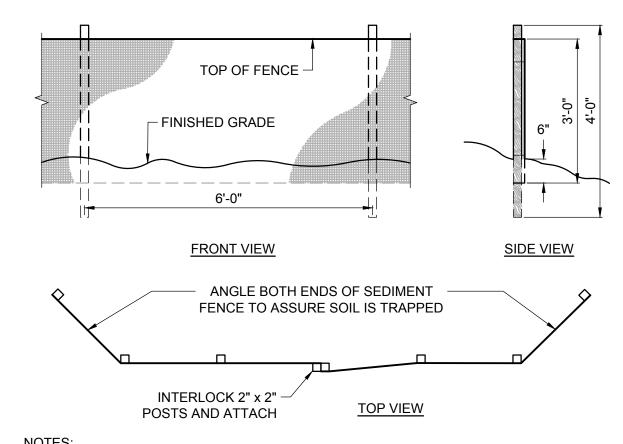
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EC1.12



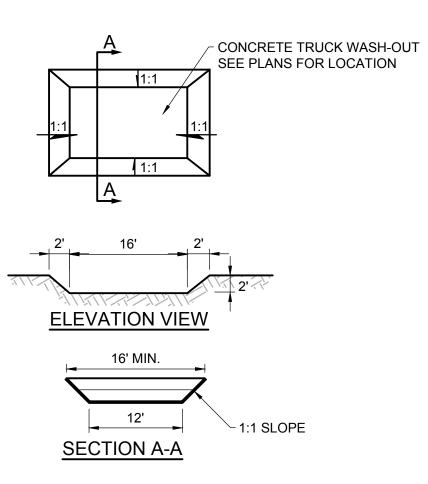
1. MINIMUM 12" OVERLAP OF ALL SEAMS REQUIRED. 2. BARRIER REQUIRED @ TOE OF STOCK PILE. 3. COVERING MAINTAINED TIGHTLY IN PLACE BY USING SANDBAGS OR TIRES ON ROPES WITH A MAXIMUM 10' GRID SPACING IN ALL DIRECTIONS.

# 1 STOCKPILE COVER/SHEETING EC5.10 N.T.S.



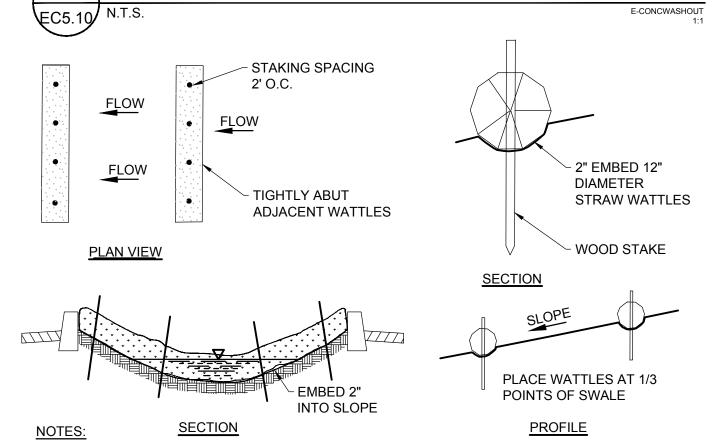
- A. BURY BOTTOM OF FILTER FABRIC 6" MIN VERTICALLY BELOW FINISHED GRADE B. UTILIZE 2" x 2" FIR, PINE, OR STEEL FENCE POSTS TO ANCHOR FENCING
- C. ATTACH FENCING TO POSTS USING STITCHED LOOPS INSTALLED ON UPHILL SIDE OF
- D. COMPACT THE NATIVE FILL IN ALL AREAS OF FILTER FABRIC TRENCH E. ACCUMULATED SEDIMENT CAN BE ALLOWED TO REACH NO MORE THAN ONE-THIRD OF THE SEDIMENT FENCE HEIGHT





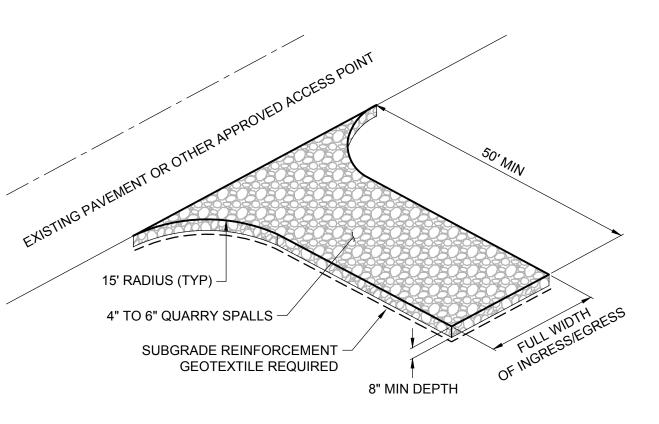
### NOTES:

- 1. CONCRETE WASHOUT AREA. LOCATED SO RUNOFF CANNOT ENTER STORM SYSTEM. IF WASH-OUT CANNOT BE LOCATED MINIMUM OF 50' FROM ENTRY TO STORM SYSTEM, THAN SECONDARY MEASURES SUCH AS BERMS AND TEMPORARY SETTLING PITS MAY BE REQUIRED. 2. CONTRACTOR SHALL CLEAN OUT CONCRETE TRUCK WASH-OUT AREA WHEN WHEN DEPTH
- <sup>2</sup> CONCRETE WASHOUT



- 1. WATTLES TO BE MADE OF STRAW.
- 2. SLOPE REQUIRES MINOR PREPARATION PRIOR TO INSTALLATION
- 3. RILLS AND SHALLOW GULLIES SHOULD BE SMOOTHED AS WORK PROGRESSES. 4. WATTLES SHOULD BE INSTALLED AT THIRD POINTS OF SWALE. 5. WATTLE MUST BE TIGHT AGAINST THE SOIL IN TRENCH. MAKE SURE NO GAPS EXIST BETWEEN THE
- SOIL AND THE WATTLE.
- 6. STAKES MUST BE DRIVEN A MINIMUM OF 12 IN. INTO UNDISTURBED MATERIAL. INSTALL STAKES EVERY 2'.
- 7. INSPECT ONCE PER WEEK ON ACTIVE SITES, ONCE EVERY TWO WEEKS ON INACTIVE SITES, AND WITHIN 24 HOURS FOLLOWING A 0.5 INCH RAIN EVENT.
- 8. MAKE SURE THE WATTLES ARE IN CONTACT WITH THE SOIL. 9. STRING SHOULD BE WRAPPED ROUND WATTLE EVERY FOOT OF ITS LENGTH.

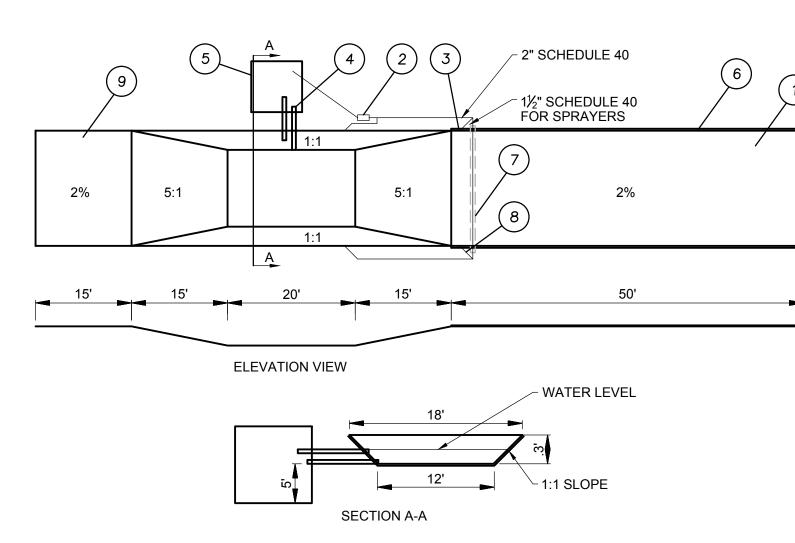




- NOTES:

  1. QUARRY SPALL MATERIAL SHALL BE "CLEAN" (LESS THAN 5% PASSING THE US
- STANDARD NO.200 SIEVE) 2. CONTRACTOR IS RESPONSIBLE FOR OBTAINING APPROVALS FROM THE AUTHORITIES
- HAVING JURISDICTION FOR ALTERNATES, SUCH AS A RUMBLE TRACK 3. PROTECT CONSTRUCTION ENTRANCES FROM SILTATION FROM ADJOINING BARE SOIL
- 4. ANY RAMPING CONSTRUCTED TO MOUNT EXISTING ROADWAY CURBING SHALL NOT IMPEDE DRAINAGE OF THE ROADWAY

# CONSTRUCTION ENTRANCE



4 WHEEL WASH

# NOTES:

- 1. ASPHALT CONSTRUCTION ENTRANCE 6" ASPHALT TREATED
- BASE(ATB). 2. 3-INCH TRASH PUMP WITH FLOATS ON THE SUCTION HOSE.
- MIDPOINT SPRAY NOZZLES IF NEEDED. 4. 6-INCH SEWER PIPE WITH BUTTERFLY VALVES. BOTTOM ONE IS A DRAIN. LOCATE TOP PIPES INVERT ONE FOOT ABOVE BOTTOM
- OF WHEEL WASH. 5. 8'x8' SUMP WITH 5' OF CATCH. BUILD SO CAN BE CLEANED WITH TRACKHOE.
- 6. ASPHALT CURB ON THE LOW ROAD SIDE TO DIRECT WATER BACK TO THE POND.
- 7. 6-INCH SLEEVE UNDER ROAD.
- 9. 15' ATB APRON TO PROTECT GROUND FROM SPLASHING WATER.



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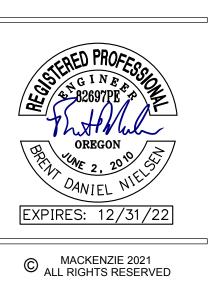
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**EROSION** CONTROL **DETAILS** 

EC5.10

Approved by DR 21-03/V 21-05 JOB NO. 2200315.01

COMPLETENESS SUBMITTAL SET - 7/8/2021

L1.10 LANDSCAPE GENERAL INFORMATION AND PLANTING PLAN

L1.11 PLANTING PLAN - ENLARGEMENTS L1.12 PLANTING PLAN - DRIVEWAY AND RAIL MAINTENANCE ROAD

L5.10 PLANT DETAILS L5.11 IRRIGATION DETAILS

### **ZONING COMPLIANCE**

CENTRAL PARKING LANDSCAPE AREA

PARKING AREA (10% LANDSCAPE MIN) 7,567 SF NORTH PARKING AREA NORTH PARKING LANDSCAPE AREA 3,450 SF SOUTH PARKING AREA 31,551 SF SOUTH PARKING LANDSCAPE AREA 6,225 SF CENTRAL PARKING AREA 11,951 SF

3,870 SF

### LANDSCAPE NOTES

CONTRACTOR SHALL CONFIRM ALL EXISTING CONDITIONS PRIOR TO COMMENCING WORK.

- CALL BEFORE YOU DIG. CONTRACTOR SHALL VERIFY INVERT ELEVATIONS OF ALL UNDERGROUND UTILITIES AND NOTIFY LANDSCAPE ARCHITECT IF THERE ARE ANY DISCREPANCIES WITH PLANTING ROOT ZONES. TO REQUEST LOCATES FOR PROPOSED EXCAVATION CALL 1-800-332-2344 (OR 811) IN OREGON.
- NOTIFY THE OWNER OR OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS WITH EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF ANY WORK.
- LOCATION OF EXISTING TREES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORK.
- DAMAGE TO EXISTING CONCRETE CURB, ASPHALT PAVING, OR OTHER STRUCTURE SHALL BE REPAIRED OR REPLACED TO PRE CONSTRUCTION CONDITIONS.
- CONTRACTOR SHALL COORDINATE WITH THE OWNER ANY DISRUPTION TO VEHICULAR CIRCULATION PRIOR TO COMMENCEMENT OF ANY WORK.

- ALL EXISTING TREES, PLANTS, AND ROOTS SHALL BE PROTECTED FROM DAMAGE FROM ANY CONSTRUCTION PREPARATION, REMOVAL OR INSTALLATION ACTIVITIES WITHIN AND ADJACENT TO PROJECT LIMITS.
- SHRUBS ADJACENT TO PARKING AREAS SHALL BE PLANTED 2 FT MINIMUM AWAY FROM THE BACK OF CURB. SHRUBS AND GROUNDCOVER ALONG OTHER PAVEMENT EDGES SHALL BE PLANTED A MINIMUM OF ONE HALF THEIR ON CENTER SPACING AWAY FROM PAVEMENT EDGE.
- ALL PLANT MATERIAL SHALL BE HEALTHY NURSERY STOCK, WELL BRANCHED AND ROOTED, FULL FOLIAGE, FREE FROM INSECTS, DISEASES, WEEDS, WEED ROT, INJURIES AND DEFECTS WITH NO LESS THAN MINIMUMS SPECIFIED IN AMERICAN STANDARDS FOR NURSERY STOCK, ANSI Z60.1-2004.
- 4. DO NOT PLANT TREES ABOVE WATERLINES, UTILITIES, OR OTHER UNDERGROUND PIPING.

SEED TO LIMIT OF ——

CONTROL

03-TK01

120'X48'

**PUMPS** 

DISTURBANCE, TYP.

\_\_14-TK07/08\_\_\_ 67'X40'

LAYDOWN

WAREHOUSE

MAINTENANCE

X X X X

BLDG

- 5. IF DISTURBANCE IS NECESSARY AROUND EXISTING TREES, CONTRACTOR SHALL PROTECT THE CROWN AND ALL WORK WITHIN THE TREE DRIPZONE SHALL BE LIMITED TO THE USE OF HAND TOOLS AND MANUAL EQUIPMENT ONLY.
- REPLACE. REPAIR AND RESTORE DISTURBED LANDSCAPE AREAS DUE TO GRADING. TRENCHING OR OTHER REASONS TO PRE-CONSTRUCTION CONDITION AND PROVIDE MATERIAL APPROVED BY THE OWNER AND OWNER'S REPRESENTATIVE UNLESS OTHERWISE INDICATED, ALL DISTURBED SOIL SHALL RECEIVE TYPE B NATIVE SEED MIX. IF SEEDED DURING DRY SEASON PROVIDE IRRIGATION THROUGH ESTABLISHMENT. THIS APPLIES TO ALL DISTURBED SOIL ALONG LINEAR IMPROVEMENTS.
- A SOILS ANALYSIS, BY AN INDEPENDENT SOILS TESTING LABORATORY RECOGNIZED BY THE STATE DEPARTMENT OF AGRICULTURE, SHALL BE USED TO RECOMMEND AN APPROPRIATE PLANTING SOIL AND/OR SPECIFIED SOIL AMENDMENTS.
- TOPSOIL SHALL BE AMENDED AS RECOMMENDED BY AN INDEPENDENT SOILS TESTING LABORATORY AND AS OUTLINED IN THE SPECIFICATION.

150'X48'

14-TK03

150'X48'

15-PTU TRAIN 1

14-TK02

150'X48'

14-TK04

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**→** •••• → \* \* \* \* \* \*

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Ψ <del>- 1/6</del> Ψ

15-PTU TRAIN 2 225'X110'

- 9. ALL LANDSCAPED AREAS SHALL BE COVERED BY A LAYER OF ORGANIC MULCH TO A MINIMUM DEPTH OF 2-INCHES.
- <u>IRRIGATION</u> UNLESS OTHERWISE INDICATED, ALL NEW LANDSCAPE AREAS TO BE IRRIGATED WITH A FULLY AUTOMATIC UNDERGROUND IRRIGATION SYSTEM. PROVIDE LOOP SYSTEM FOR OPTIMUM EFFICIENCY.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS (IRRIGATION PLANS) TO LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION. DRAWINGS TO INDICATE HEAD TYPE, GALLONS PER MINUTE, LATERAL LINES, AND BE AT MINIMUM SCALE OF 1"=20'
- CONTRACTOR TO DETERMINE STATIC WATER PRESSURE AT THE P.O.C. PRIOR TO PREPARING SHOP
- CONTRACTOR SHALL ESTABLISH MINIMUM PRESSURE AND MAXIMUM DEMAND REQUIREMENTS FOR IRRIGATION SYSTEM DESIGN, AND PROVIDE INFORMATION IN AN IRRIGATION SCHEDULE.
- IRRIGATION SYSTEM AS DESIGNED AND INSTALLED SHALL PERFORM WITHIN THE TOLERANCES AND SPECIFICATIONS OF THE SPECIFIED MANUFACTURERS.
- 6. SYSTEM SHALL BE DESIGNED TO SUPPLY MANUFACTURER'S SPECIFIED MINIMUM OPERATING PRESSURE TO FARTHEST EMITTER FROM WATER METER.
- 7. SYSTEM SHALL PROVIDE HEAD TO HEAD COVERAGE WITHOUT OVERSPRAY ONTO BUILDING, FENCES, SIDEWALKS, PARKING AREAS, OR OTHER NON-VEGETATED SURFACES.
- ALL IRRIGATION PIPE MATERIAL AND INSTALLATION SHALL CONFORM TO APPLICABLE CODE FOR PIPING AND COMPONENT REQUIREMENTS.
- PROVIDE SLEEVING AT ALL AREAS WHERE PIPE TRAVELS UNDER CONCRETE OR HARD SURFACING.
- 10. VALVES SHALL BE WIRED AND INSTALLED PER MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES AND CONNECTED TO THE IRRIGATION CONTROLLER.
- 11. REFER TO CIVIL DETAILS AND DETAILS ON L5.10 FOR POINT OF CONNECTION AND BACKFLOW PREVENTION INFORMATION.
- 12. CONTROLLER TO BE MOUNTED ON BUILDING EXTERIOR. GENERAL CONTRACTOR TO COORDINATE LOCATION WITH OWNER'S REPRESENTATIVE.
- 13. ZONE THE FOLLOWING AREAS SEPARATELY: TEMPORARY AREAS, PERMANENT LANDSCAPE AREAS, AND
- 14. QUICK COUPLERS TO BE PLACED EVERY 300 LINEAR FEET MAX.

√14-TK09, 10, 11

14-TK06

15-PTU TRAIN 3

ッ∕ 14-TK17`\

88'X48'

∕ 14-TK18 ̇̀\

/14-TK16\

<sup>′</sup> 88'X48'

/14-TK19 52'X40'

14-TK20 `43'X40'

SUMP

14-TK05

- 15. IRRIGATION SHALL BE WINTERIZED THROUGH LOW PRESSURE, HIGH VOLUME AIR BLOWOUT CONNECTION THROUGH QUICK COUPLER.
- 16. THE SYSTEM SHALL BE GRAVITY DRAINED. THE CONTRACTOR SHALL PROVIDE APPROPRIATE MANUAL DRAINS AT LOW POINTS.

NT S	CHEDULE						
• \$	ACER RUBRUM 'OCTOBER GLORY' OCTOBER GLORY MAPLE	10' HT. MIN. B&B		<b>(•)</b>	VACCINIUM OVATUM EVERGREEN HUCKLEBERRY	5 GAL.	36" o.c.
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	FRAXINUS LATIFOLIA OREGON ASH	10' HT. MIN. B&B		$\odot$	VIBURNUM DAVIDII DAVID VIBURNUM	5 GAL.	36" o.c.
1				SHRUB AREAS	BOTANICAL / COMMON NAME	SIZE	SPACING
•	QUERCUS GARRYANA OREGON OAK	10' HT. MIN. B&B		+`+`+`+`+\+\+\+\+\+\	+ PERIMETER PLANTING TYPE A + SEE 3/L1.11 +		
	RHAMNUS PURSHIANA	10' HT. MIN. B&B		\$\phi \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	PERIMETER PLANTING TYPE B SEE 4/L1.11		
• )	CASCARA			GROUND COVERS	BOTANICAL / COMMON NAME	SIZE	SPACING
<u> </u>	BOTANICAL / COMMON NAME	SIZE	SPACING		ARCTOSTAPHYLOS UVA-URSI KINNIKINNICK	1 GAL.	24" o.c.
•	AMELANCHIER ALNIFOLIA SERVICEBERRY	6'-8' HT. MIN., B&B	180" o.c.		MAHONIA REPENS CREEPING MAHONIA	1 GAL.	18" o.c.
$\bigcirc$	ARBUTUS UNEDO 'COMPACTA' DWARF STRAWBERRY TREE	5 GAL.	60" o.c.		SEED MIX TYPE A LAWN	1 LB / 1000 SF	
$\bigoplus$	CORNUS SERICEA 'KELSEYI' KELSEYI DWARF REDTWIG DOGWOOD	1 GAL.	24" o.c.	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	SEED MIX TYPE B NATIVE UPLAND MIX	1 LB / 1000 SF	
$\bigcirc$	COTONEASTER GLAUCOPHYLLUS BRIGHT BEAD COTONEASTER	5 GAL.	72" o.c.	* * * * * * * * *			
$\overline{\langle \cdot \rangle}$	GAULTHERIA SHALLON SALAL	5 GAL.	60" o.c.				
$\bigotimes$	HOLODISCUS DISCOLOR OCEAN—SPRAY	5 GAL.	96" o.c.				
( <u>A</u> )	LONICERA INVOLUCRATA TWINBERRY	5 GAL.	72" o.c.				

36" o.c.

24" o.c.

48" o.c.

MAHONIA AQUIFOLIUM

ROSA X 'NOARE' TM

SPIRAEA BETULIFOLIA

BIRCH LEAF SPIREA

SPIRAEA DOUGLASII

WESTERN SPIREA

28-INCINERATOR

TK01

12-SOUR WATER

AMMONIA PSA

-

-

-

03-RAW, DEMIN & POTABLE WTR

FLOWER CARPET RED GROUNDCOVER ROSE

OREGON GRAPE

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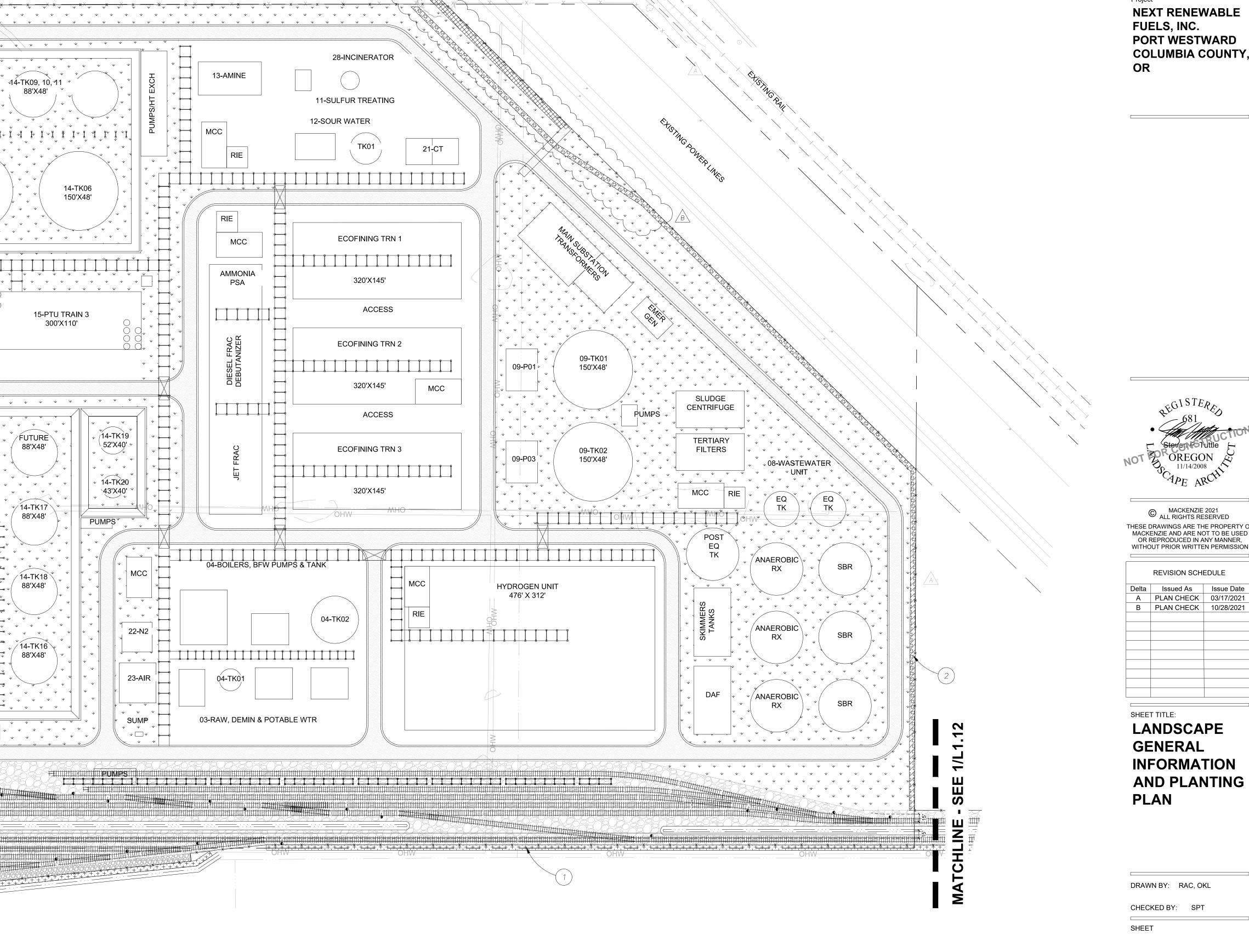
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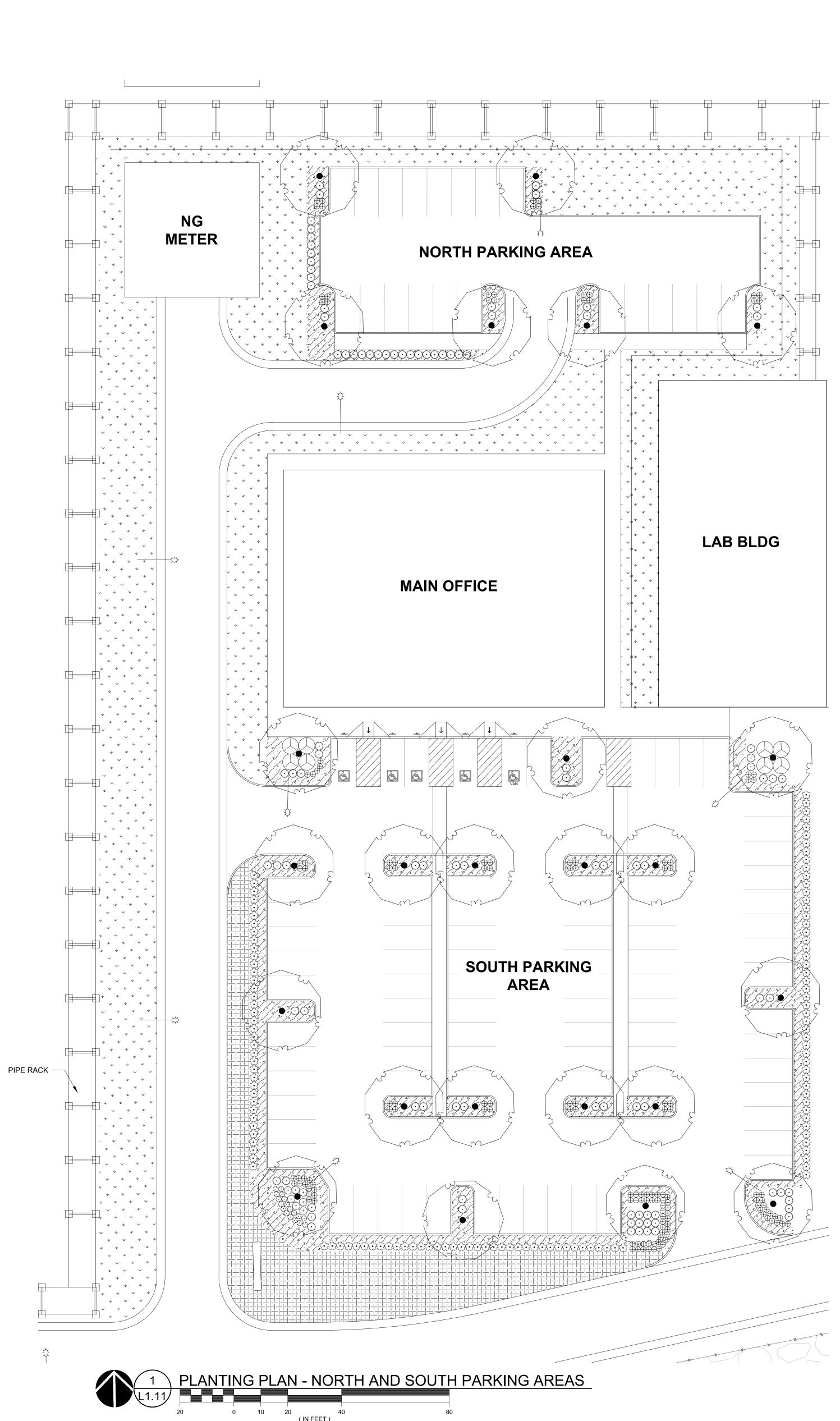
PLAN CHECK 03/17/2021 PLAN CHECK 10/28/2021

L1.10

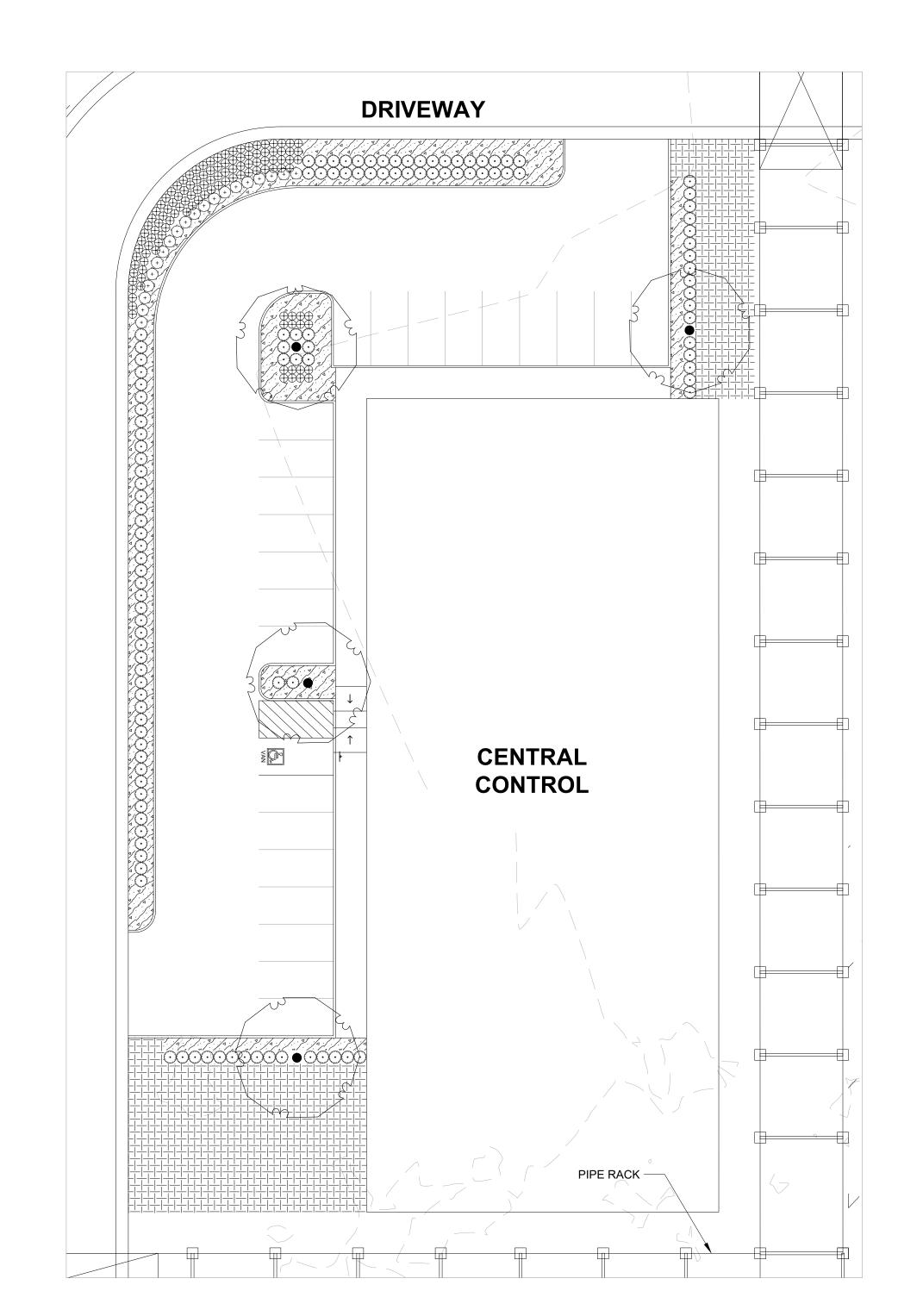
- SWALE, SEE CIVIL — DITCH, SEE CIVIL **KEYNOTES** 1. PERIMETER PLANTING, TYPE A, SEE 3/L1.11 2. PERIMETER PLANTING, TYPE B, SEE 4/L1.11 1 inch = 100 ft.

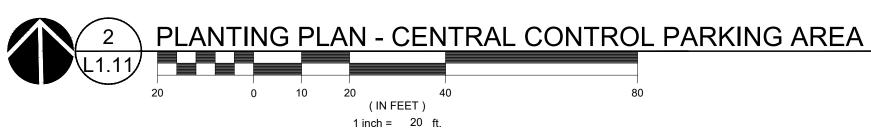
RAIL SPUR, SEE CIVIL

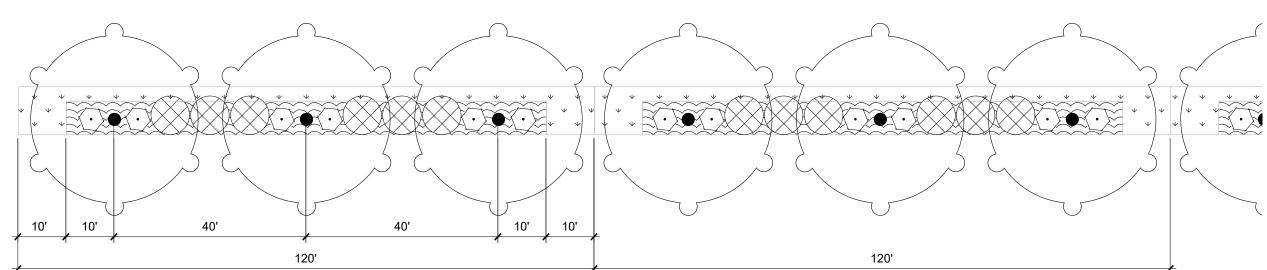


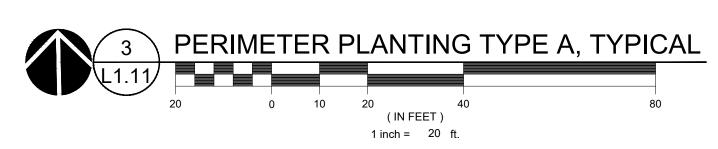


1 inch = 20 ft.

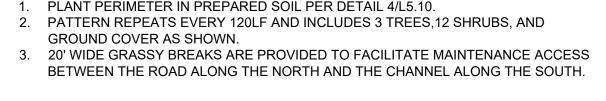


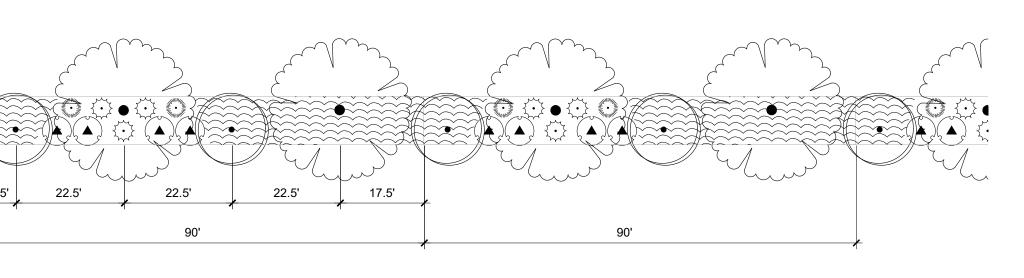


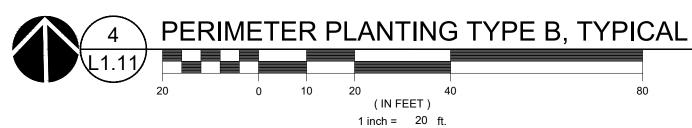




## **NOTES** 1. PLANT PERIMETER IN PREPARED SOIL PER DETAIL 4/L5.10.







**NOTES** REMOVE ANY NOXIOUS OR NUISANCE PLANTS WITHIN PERIMETER PLANTING,

INCLUDING BLACKBERRY, BINDWEED, LOOSESTRIFE, ETC. PATTERN REPEATS EVERY 90LF AND INCLUDES 4 TREES AND 9 SHRUBS AS

# **PLANT KEY LEGEND**

BOTANICAL / COMMON NAME ACER RUBRUM 'OCTOBER GLORY' OCTOBER GLORY MAPLE FRAXINUS LATIFOLIA OREGON ASH QUERCUS GARRYANA OREGON OAK RHAMNUS PURSHIANA CASCARA BOTANICAL / COMMON NAME AMELANCHIER ALNIFOLIA *SER VICEBERRY* 

CORNUS SERICEA 'KELSEYI' KELSEYI DWARF REDTWIG DOGWOOD COTONEASTER GLAUCOPHYLLUS BRIGHT BEAD COTONEASTER

GAULTHERIA SHALLON SALAL

HOLODISCUS DISCOLOR OCEAN-SPRAY

MAHONIA AQUIFOLIUM OREGON GRAPE

TWINBERRY

ROSA X 'NOARE' TM FLOWER CARPET RED GROUNDCOVER ROSE

SPIRAEA BETULIFOLIA

WESTERN SPIREA

LONICERA INVOLUCRATA

SPIRAEA DOUGLASII

VACCINIUM OVATUM EVERGREEN HUCKLEBERRY

VIBURNUM DAVIDII DAVID VIBURNUM

GROUND COVERS BOTANICAL / COMMON NAME

ARCTOSTAPHYLOS UVA-URSI KINNIKINNICK

MAHONIA REPENS CREEPING MAHONIA

SEED MIX TYPE A LA WN

| \psi \psi \psi \psi | SEED MIX TYPE B · • • NATIVE UPLAND MIX | \psi \psi \psi \psi |

# REFERENCE NOTES

1. PLANT SIZE AND SPACING, SEE PLANT SCHEDULE L1.10

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**NEXT RENEWABLE FUELS, INC. PORT WESTWARD COLUMBIA COUNTY,** 

11/14/2008

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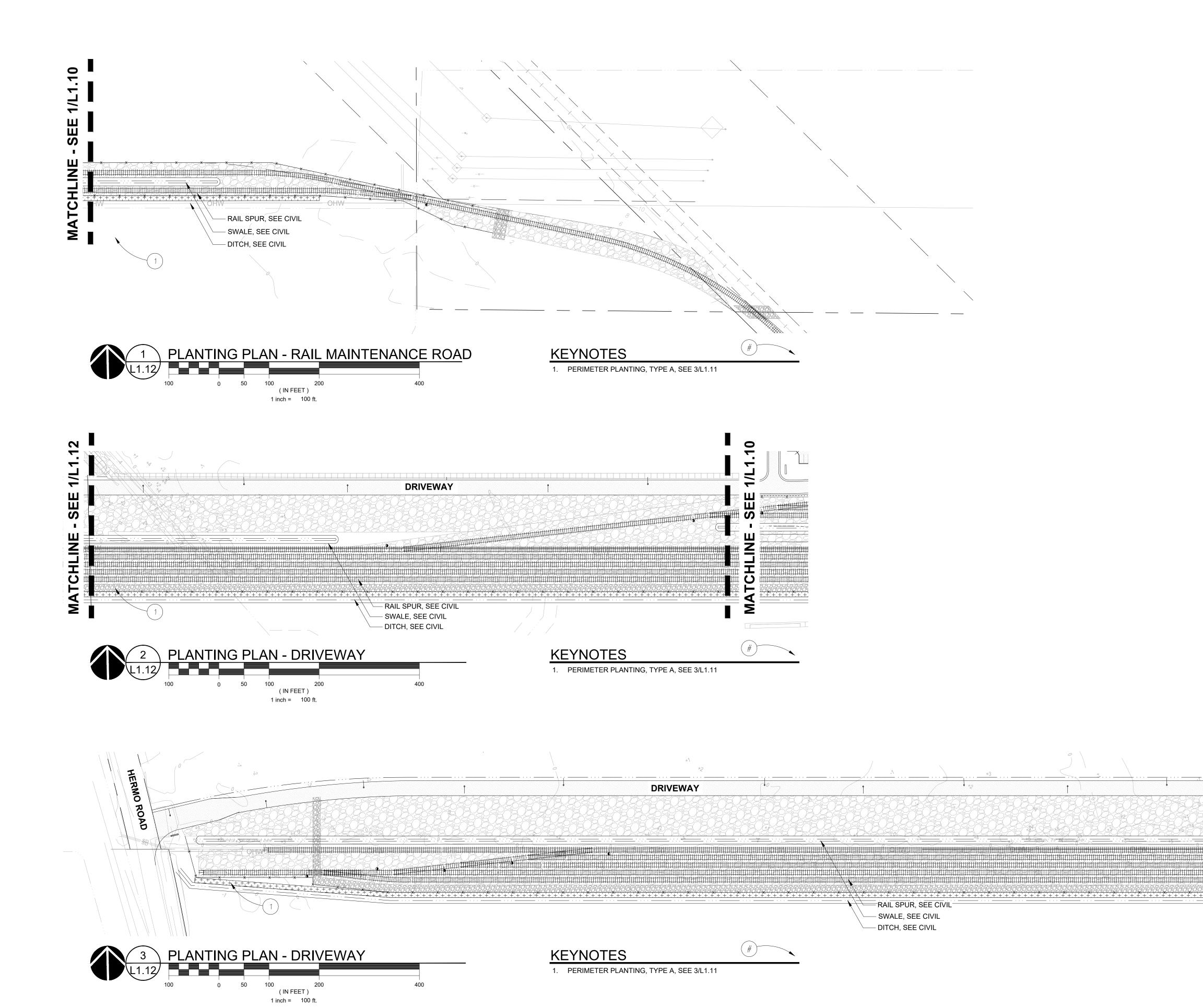
REVISION SCHEDULE Issued As Issue Date PLAN CHECK 03/17/2021

SHEET TITLE: **PLANTING** PLAN-**ENLARGEMENTS** 

DRAWN BY: RAC, OKL

L1.11

Approved by DR 21-03/V 21-05 JOB NO. 2200315.01



ACER RUBRIUM 'OCTOBER CLORY OCTOBER SUCRY MARIE  OTHER SUCRY MARIE  ORGANIANUS LATIFICIA  ORGANIANUS LATIFICIA  ORGANIANUS PURSHARIA  CASCARIA  ON HI, MIN, BAB  ORGANIANUS PURSHARIANIA  CASCARIA  ORGANIANUS PURSHARIANIA  CASCARIA  ORGANIANUS PURSHARIANIA  ORGANIANUS SERVICESERY  ORGANIANUS SERVICE MELESTY  RESERVI DIMINE REPTWER DEGINACIOR  ORGANIANUS SERVICESERY  ORGANIANUS PURSHARIANIANIANIANIANIANIANIANIANIANIANIANIANI	PLANT SO	CHEDULE		
GREGON ASH  GUERCUS GARRYANA OREGON OAK  RHAMRUS PORSHIANA CASCARA  BOTANICAL / COMMON NAME SIZE SMACING  AMELIARCHICAL AMITOLIA SCHRICEBERRY  AMELIARCHICAL AMITOLIA SCHRICEBERRY  AMELIARCHICAL AMITOLIA SCHRICEBERRY  GAL  AMELIARCHICAL AMITOLIA SCHRICEBERRY  GAL  COMMIS SERICE AMELIARCH COMMIS DISCORDA COMMIS SERICE COMMIS DISCORDA COMIS DISCORDA COMIS DISCORDA COMIS DISCORDA COMIS DISCORDA COMIS DISCORDA COMIS	2 · E	ACER RUBRUM 'OCTOBER GLORY'	10' HT. MIN. B&B	
### PURPOSE ON A ### PURPOSE OF A PACING OF A PACING OF A PACING ASCARA			10' HT. MIN. B&B	
SHRUBS BOTANICAL / COMMON NAME SIZE SPACING  AMELANCHER ALNIFOLIA 6'-8' HT. MIN., B&B 180" o.c.  SERVICEBERRY  AMELANCHER ALNIFOLIA 6'-8' HT. MIN., B&B 180" o.c.  SERVICEBERRY  DWAME SIRAMBERRY INEL 5 GAL 66" o.c.  CORNUS SERICEA KELSEY! ARELSEYI DWARF REDIVING DOGWOOD  COTONESSIER GLAVOOPHYLUS BRICHT BFAD COTONFASTER 5 GAL 72" o.c.  GAULTHERIA SHALLON 5 GAL 66" o.c.  ANCOISCUS DISCOLOR 5 GAL 96" o.c.  OCAN-SPRAY  OCIONERA INVOLUCRATA 5 GAL 72" o.c.  MAHONIA ADUIFOLIUM 5 GAL 54" o.c.  POSA X NOAME TM FLOWER CARPET RED GROUNDCOVER ROSE 7 GAL 74" o.c.  SPRALA BEIGHT OLIA BIRCH LEAF SPIREA 1 GAL 74" o.c.  SPRALA BEIGHT OLIA BIRCH LEAF SPIREA 1 GAL 74" o.c.  SPRALA DUGLESSI DISCOLOR 7 GAL 74" o.c.  SPRALA DUGLESSI PER TO GROUNDCOVER ROSE 7 GAL 74" o.c.  SPRALA DUGLESSI PER TO GROUNDCOVER ROSE 7 GAL 74" o.c.  SPRALA DUGLESSI 7 GAL 7	•		10' HT. MIN. B&B	
AMELANCHIER ALNIFOLIA SPRUICHEMINY  ARBUTUS UNEDO 'COMPACTA' DWARF STRAWBEERY TREE  CORNUS SERICEA 'KELSEY!' KELSEYI DWARF RECTWIG DOGWOOD  COTONEASTER GLAUCOPHYLLUS BRIGHT BEAD COTONEASTER  GAULTHERIA SHALLON SALAL	$\overline{}$		10' HT. MIN. B&B	
### ARRUNUS UNREO "COMPACIA"    ARRUNUS UNREORY TREE   DWARF STRAWBERRY TREE    CORNUS SERICEA "KELSEY!"   KELSEY! DWARF REDTWIG DOGWOOD   1 GAL.   24" a.c.     COTONEASTER GLAUCOPHYLLUS   5 GAL.   72" a.c.     GAULTHERIA SHALLON   5 GAL.   60" a.c.     SALAL     WHOLODISCUS DISCOLOR   5 GAL.   96" a.c.     COEAM—SERY   5 GAL.   72" a.c.     LONICERA INVOLUCRATA   1 WINGHER HRY   5 GAL.   72" a.c.     MAHONIA ADUIFOLIUM   5 GAL.   54" a.c.     GROWN GRAPE   7 M   7 GAL.   7	SHRUBS	BOTANICAL / COMMON NAME	SIZE	SPACING
OWARF STRAWBERRY TREE  CORNUS SERTICEA 'KELSEYI' KELSEYI DWARF REDTWING DOGWOOD  COTONEASTER GLAUCOPHYLUS BRICHT BEAD COTONEASTER  GAULTHERIA SHALLON SALAL  COLOR BEAD COTONEASTER  GAULTHERIA SHALLON SALAL  COLOR BEAD COTONEASTER  S GAL.  GAULTHERIA SHALLON SALAL  COLOR BEAD COTONEASTER  S GAL.  GOZEAN-SPRAY  LONICERA INVOLUCRATA IWINGERRY  COLOR GRAPE	•		6'-8' HT. MIN., B&B	180" o.c.
RELSEYI DWARF REDTWIG DOGWOOD  COTONEASTER GLAUCOPHYLLUS BRIGHT BEAD COTONEASTER  CAULTHERIA SHALLON SALAL  HOLODISCUS DISCOLOR OCEAN—SPRAY  LONICERA INVOLUCRATA TWINDERRY  LONICERA INVOLUCRATA TWINDERRY  COMMAHONIA AQUIFOLIUM OREGON GRAPE  ROSA X 'NOARE' TM FLOWER CARPET RED GROUNDCOVER ROSE  SPIRAEA BETULIFOLIA BIRCH LEAF SPIREA  VACCINIUM OVATUM EVERGREEN HUCKLEBERRY  VACCINIUM DAVIDII WESTERN SPIREA  VACCINIUM DAVIDII SEE JALIII  SEE JALIII  SEE JALIII  ROSALI COMMON NAME SIZE SPACING  SPRIMETER PLANTING TYPE A SEE JALIII  ARCTOSTAPHYLOS UVA—URSI KINNIKINNICK  MAHONIA REPENS GREENING MAHONIA  I LB / 1000 SF	$\odot$		5 GAL.	60" o.c.
BRIGHT BEAD COTONEASTER  CAULTHERIA SHALLON SALAL  MOLODISCUS DISCOLOR OCEAN—SPRAY  LONICERA INVOLUCRATA IWINBERRY  LONICERA INVOLUCRATA IWINBERRY  LONICERA INVOLUCRATA IWINBERRY  LONICERA INVOLUCRATA IWINBERRY  SEED MIX TYPE B  5 GAL. 60° o.c. 6	$\oplus$		1 GAL.	24" o.c.
SALAL  HOLODISCUS DISCOLOR OCEAN-SPRAY  LONICERA INVOLUCRATA TWINBERRY  MAHONIA AQUIFOLIUM OREGON GRAPE  ROSA X 'NOARE' TM FLOWER CARPET RED GROUNDCOVER ROSE  SPIRAEA BETULIFOLIA BIRCH LEAF SPIREA  VACCINIUM OVATUM EVERGREEN HUCKLEBERRY  VIBURNUM DAVIDII DAVID VIBURNUM  SHRUB AREAS  BOTANICAL / COMMON NAME  SIZE  SPACING  SPRIMETER PLANTING TYPE B  ARCTOSTAPHYLOS UVA-URSI KINNIKINNICK  MAHONIA REPENS CRUME VALOUS SEED MIX TYPE A  LAWN  SEED MIX TYPE B  1 LB / 1000 SF  1 LB / 1000 SF	$\bigcirc$		5 GAL.	72" o.c.
OCEAN-SPRAY  LONICERA INVOLUCRATA TWINBERRY  MAHONIA AQUIFOLIUM OREGON GRAPE  PLOWER CARPET RED GROUNDCOVER ROSE  SPIRAEA BETULIFOLIA BIRCH LEAF SPIREA  SPIRAEA DOUGLASII WESTERN SPIREA  VACCINIUM OVATUM EVEROREEN HUCKLEBERRY  VIBURNUM DAVIDII DAVID VIBURNUM  SHRUB AREAS BOTANICAL / COMMON NAME  SEE 3/L1.11  GROUND COVERS  BOTANICAL / COMMON NAME  SIZE SPACING  SPACING  SPACING  SPACING  SPACING  SPACING  ARCTOSTAPHYLOS UVA-URSI I GAL.  1 LB / 1000 SF	$\bigcirc$		5 GAL.	60" o.c.
MAHONIA AQUIFOLIUM OREGON GRAPE  ROSA X 'NOARE' TM FLOWER CARPET RED GROUNDCOVER ROSE  SPIRAEA BETULIFOLIA BIRCH LEAF SPIREA  SPIRAEA DOUGLASII WESTERN SPIREA  VACCINIUM OVATUM EVERGREEN HUCKLEBERRY  VIBURNUM DAVIDII DAVID VIBURNUM  SHRUB AREAS BOTANICAL / COMMON NAME  SIZE SPACING  SPACING  SPACING  SPACING  SPACING  SPACING  ARCTOSTAPHYLOS UVA-URSI KINNIKINNICK  MAHONIA REPENS CREEPING MAHONIA  1 GAL. 5 GAL. 5 GAL. 56" o.c.  SPACING  SPACING  ARCTOSTAPHYLOS UVA-URSI KINNIKINNICK  MAHONIA REPENS CREEPING MAHONIA  1 LB / 1000 SF  1 LB / 1000 SF			5 GAL.	96" o.c.
OREGON GRAPE  ROSA X 'NOARE' TM FLOWER CARPET RED GROUNDCOVER ROSE  SPIRAEA BETULIFOLIA BIRCH LEAF SPIREA  SPIRAEA DOUGLASII WESTERN SPIREA  VACCINIUM OVATUM EVERGREEN HUCKLEBERRY  VIBURNUM DAVIDII DAVID VIBURNUM  SHRUB AREAS BOTANICAL / COMMON NAME  SIZE SPACING  """  SEE J/L1.11  SEE J/L1.11  GAL.  36" o.c.  SPACING  SPACING  SIZE SPACING  """  SPACING  """  SPACING  """  SEE J/L1.11  SEE A/L1.11  SEE SPACING  """  ARCTOSTAPHYLOS UVA—URSI KINNIKINNICK  MAHONIA REPENS CREEPING MAHONIA  """  SEED MIX TYPE A  1 LB / 1000 SF  """  SEED MIX TYPE B  1 LB / 1000 SF	( <u>A</u> )		5 GAL.	72" o.c.
FLOWER CARPET RED GROUNDCOVER ROSE  SPIRAEA BETULIFOLIA BIRCH LEAF SPIREA  SPIRAEA DOUGLASII WESTERN SPIREA  1 GAL. 48" o.c.  VACCINIUM OVATUM EVERGREEN HUCKLEBERRY  VIBURNUM DAVIDII DAVID VIBURNUM  SHRUB AREAS BOTANICAL / COMMON NAME  SIZE SPACING  ARCTOSTAPHYLOS UVA—URSI KINNIKINNICK  MAHONIA REPENS CREEPING MAHONIA  SEED MIX TYPE A  1 LB / 1000 SF  1 LB / 1000 SF	<del>{``</del> }		5 GAL.	54" o.c.
SPIRAEA DOUGLASII WESTERN SPIREA  VACCINIUM OVATUM EVERGREEN HUCKLEBERRY  VIBURNUM DAVIDII DAVID VIBURNUM  SHRUB AREAS BOTANICAL / COMMON NAME  SIZE  SPACING  SPACING  SPACING  SPACING  SPACING  SPACING  ARCTOSTAPHYLOS UVA-URSI KINNIKINNICK  MAHONIA REPENS CREEPING MAHONIA  SEED MIX TYPE A  1 LB / 1000 SF  1 LB / 1000 SF	(+)		3 GAL.	36" o.c.
WESTERN SPIREA  VACCINIUM OVATUM EVERGREEN HUCKLEBERRY	$\odot$		1 GAL.	24" o.c.
VIBURNUM DAVIDII DAVID VIBURNUM  5 GAL.  5 GAL.  36" o.c.  SHRUB AREAS BOTANICAL / COMMON NAME  SIZE  SPACING  +++++++++++++++++++++++++++++++++++	Manual Company of the		1 GAL.	48" o.c.
SHRUB AREAS  BOTANICAL / COMMON NAME  SIZE  SPACING  +++++++++++++++++++++++++++++++++++	$\odot$		5 GAL.	36" o.c.
++++++++++++++++++++++++++++++++++++++	$\odot$			36" o.c.
++++++++++++++++++++++++++++++++++++++	SHRUB AREAS	BOTANICAL / COMMON NAME	SIZE	SPACING
SEE 4/L1.11  GROUND COVERS  BOTANICAL / COMMON NAME  SIZE  SPACING  ARCTOSTAPHYLOS UVA-URSI  KINNIKINNICK  MAHONIA REPENS  CREEPING MAHONIA  SEED MIX TYPE A  LAWN  1 LB / 1000 SF	++++++++++++++++++++++++++++++++++++++			
ARCTOSTAPHYLOS UVA—URSI KINNIKINNICK  MAHONIA REPENS CREEPING MAHONIA  SEED MIX TYPE A LAWN  1 GAL.  1 GAL.  1 GAL.  1 B" o.c.				
MAHONIA REPENS CREEPING MAHONIA  SEED MIX TYPE A LAWN  1 LB / 1000 SF	GROUND COVERS	BOTANICAL / COMMON NAME	SIZE	SPACING
CREEPING MAHONIA  1 LB / 1000 SF  LAWN  1 LB / 1000 SF			1 GAL.	24" o.c.
LAWN    LAWN		1	1 GAL.	18" o.c.
			1 LB / 1000 SF	
	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		1 LB / 1000 SF	

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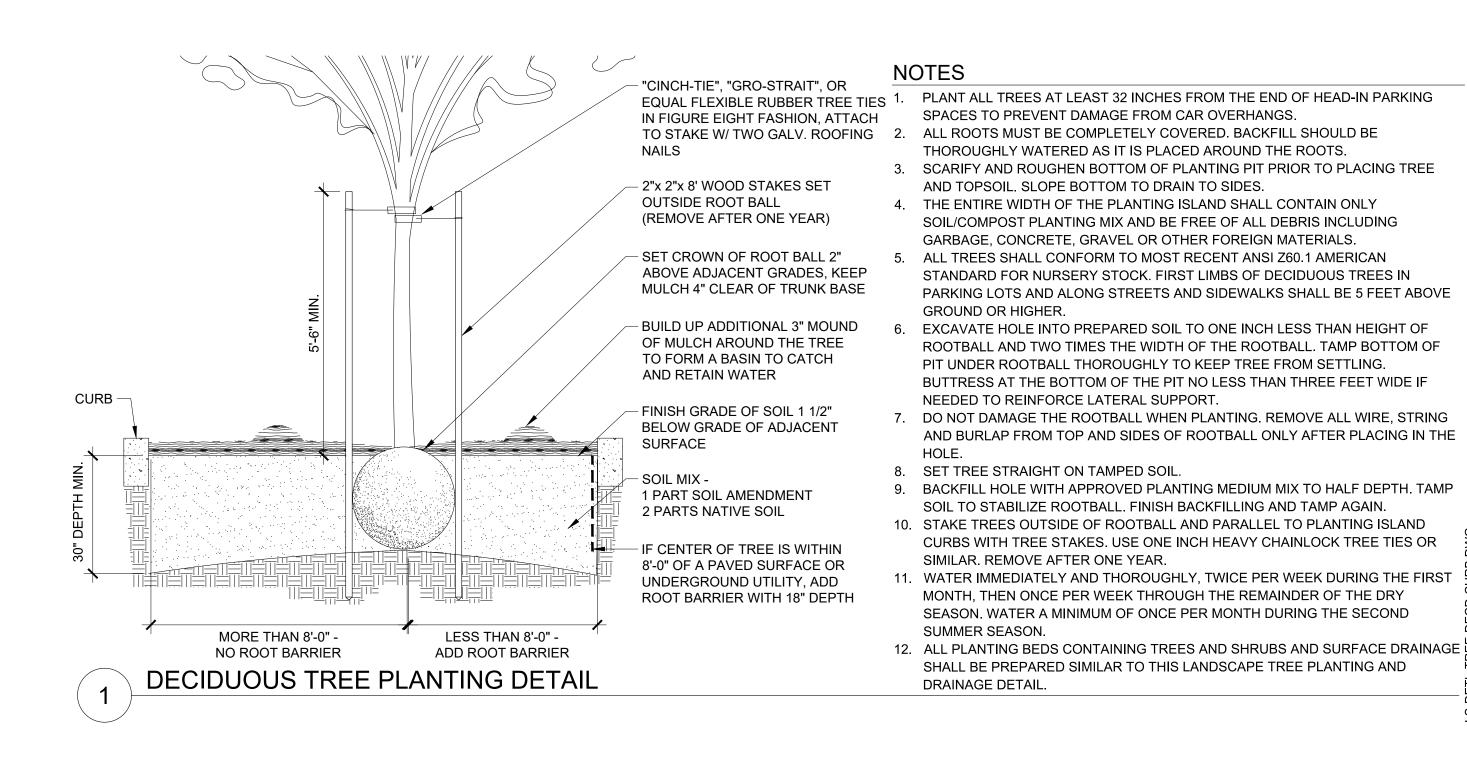
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REVISION SCHEDULE A PLAN CHECK 03/17/2021

SHEET TITLE:
PLANTING PLAN - DRIVEWAY **AND RAIL MAINTENANCE ROAD** 

DRAWN BY: RAC, OKL

L1.12



SPECIFIED HYDROSEED

FINISH GRADE ESTABLISH 1" BELOW ADJACENT PAVING

SCALE: NTS

SURFACES

REMOVE ALL ROCK, DEBRIS AND OTHER FOREIGN MATTER OVER 1" IN

4. SUBMIT SAMPLE OF BARK MULCH & TOPSOIL FOR ACCEPTANCE PRIOR TO

RIP AND TILL SUBGRADE TO 6" DEEP (MIN.) PRIOR TO INSTALLING TOPSOIL

DIAMETER FROM TOP 6" OF SOIL.

PLACEMENT.

AND TILL INTERFACE OF SUBGRADE AND TOPSOIL.

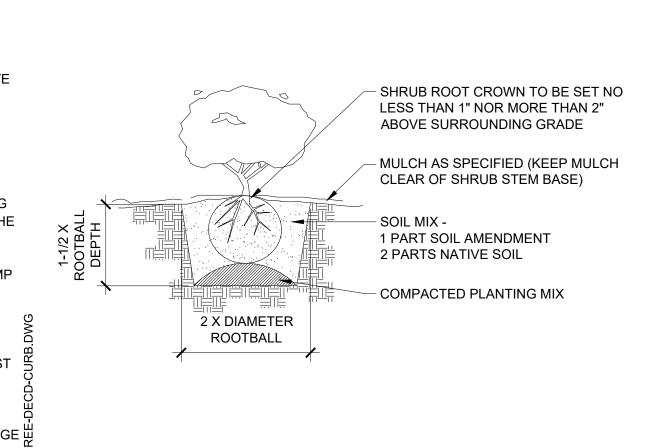
SOIL PREP. AT HYDROSEED

TILL TOPSOIL AND SOIL AMENDMENTS TO A MIN. 8" DEPTH.

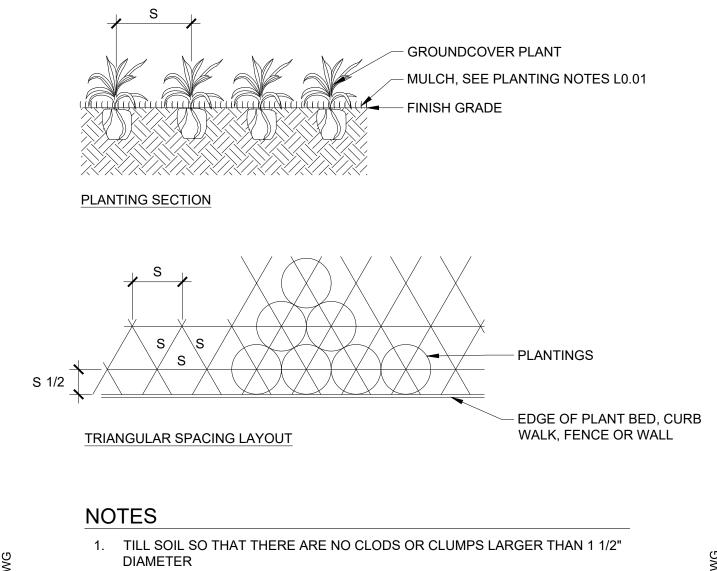
— SPECIFIED SOIL

AMENDMENTS

— EXISTING SUBGRADE

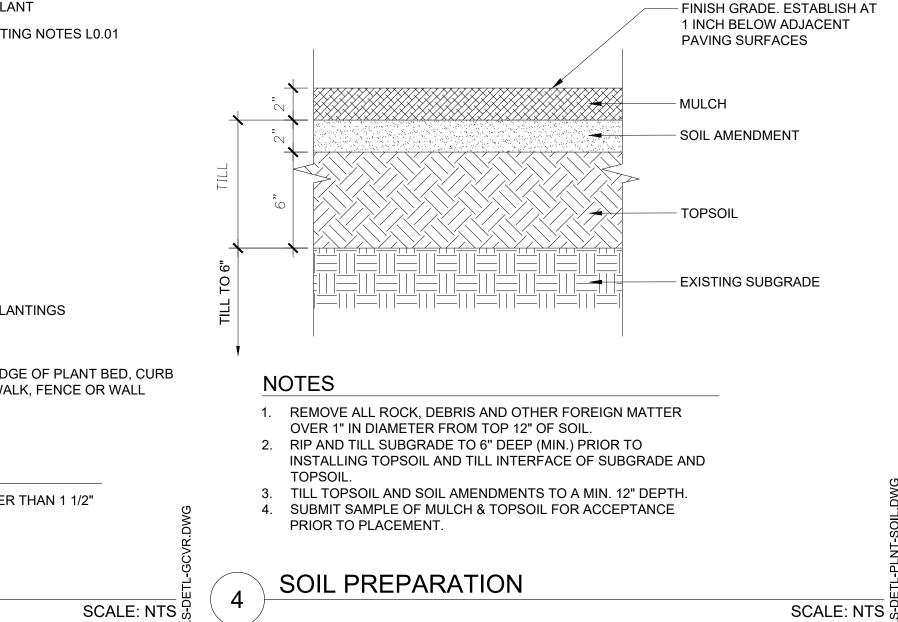


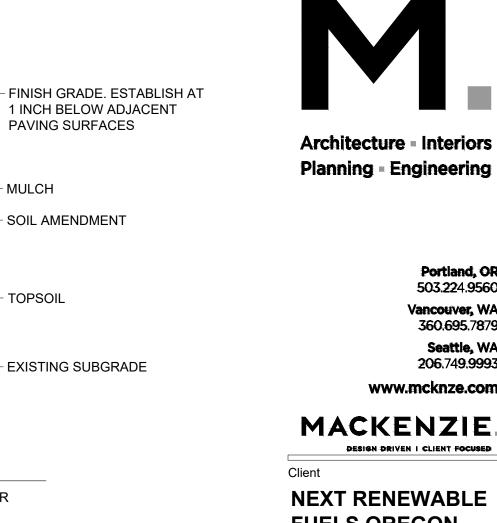
SHRUB PLANTING



GROUNDCOVER PLANTING

SCALE: NTS 🖟





Seattle, WA 206.749.9993 www.mcknze.com MACKENZIE. DESIGN DRIVEN I CLIENT FOCUSED

503.224.9560

360.695.7879

**NEXT RENEWABLE FUELS OREGON** 

11767 KATY FREEWAY **SUITE 705 HOUSTON, TX 77079** 

**NEXT RENEWABLE FUELS, INC. PORT WESTWARD COLUMBIA COUNTY,** 

11/14/2008

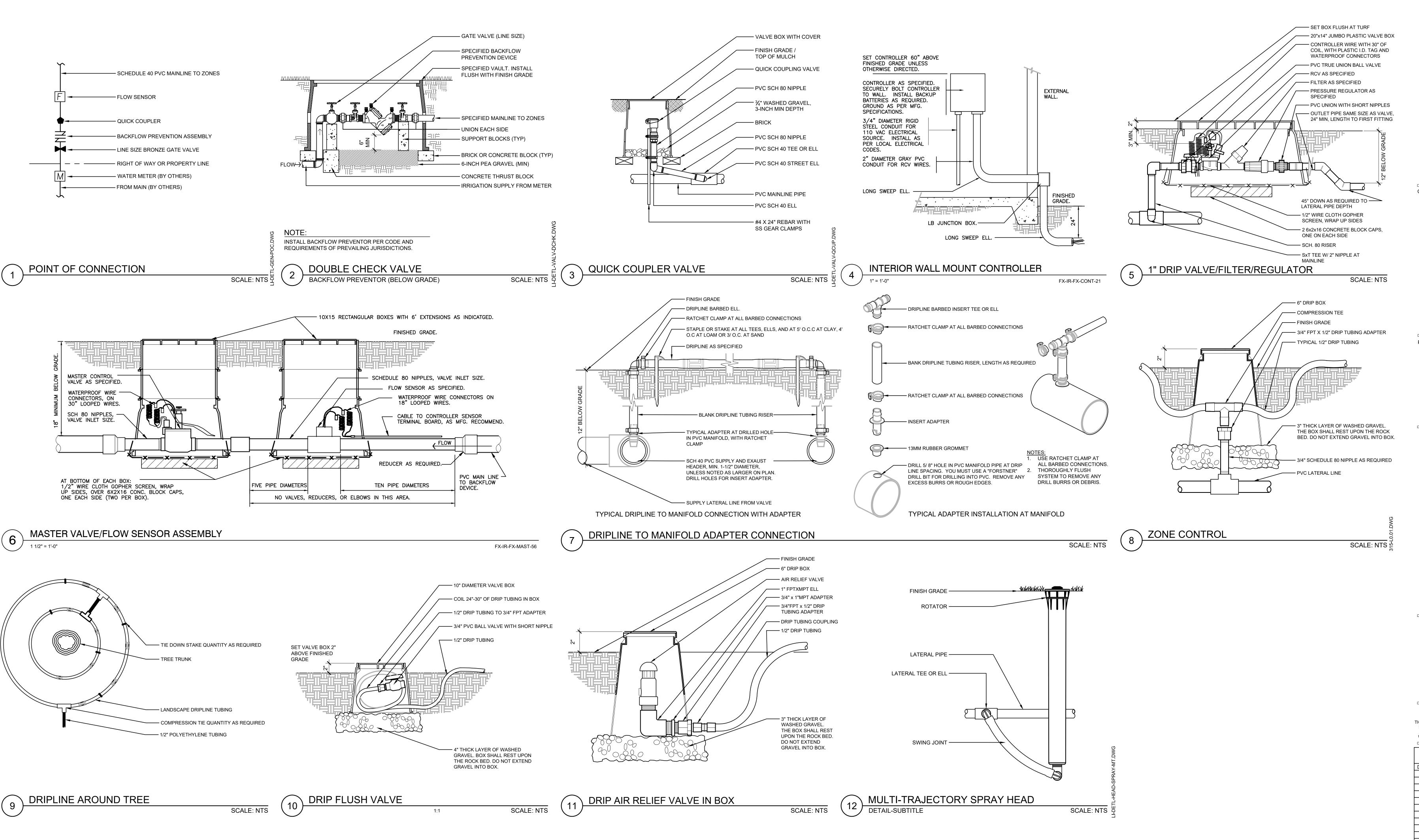
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REVISION SCHEDULE Issued As Issue Date

**PLANTING DETAILS** 

L5.10

Approved by DR 21-03/V 21-05 JOB NO. 2200315.01



Planning - Engineering

**Portland, OR** 503.224.9560 Vancouver, WA 360.695.7879 Seattle, WA

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REVISION SCHEDULE Issued As Issue Date SHEET TITLE:

**IRRIGATION DETAILS**