



April 10, 2025

Dana L. Krawczuk
760 SW Ninth Avenue, Suite 3000
Portland, OR 97205
D. 503.294.9218
dana.krawczuk@stoel.com

**VIA E-MAIL (LAMAN@CI.MANZANITA.OR.US;
SGEBHART@CI.MANZANITA.OR.US))**

Leila Aman, City Manager
Scott Gebhart, Planning & Building
City of Manzanita
167 S. 5th Street
P.O. Box 129
Manzanita, OR 97130

Re: Appeal of Manzanita Pines (Planning File No. 25001): Third Open Record Period

Dear Leila and Scott:

Please see attached for additional information regarding Manzanita Pines. As you know, Manzanita Pines is the affordable, multi-family housing project that is the subject of the above-referenced application. The attachment to this letter responds to frequently asked questions about the project and seeks to clarify certain details of the project.

The applicants appreciate the City Council's, City staff's, and the public's consideration of this additional information. We look forward to the opportunity to present this project to the City Council and to request that the Planning Commission's decision approving the project be affirmed.

Very truly yours,

A handwritten signature in blue ink, appearing to read 'Dana L. Krawczuk', with a long, sweeping horizontal line extending to the right.

Dana L. Krawczuk

Attachment 1: Response to Frequently Asked Questions

Manzanita Pines - Planning File No. 25001
April 10, 2025

FREQUENTLY ASKED QUESTIONS

1. Variances. *Why does the project need front yard setback, height, and parking variances?*

The project does not request any variances. State law (SB 1537) requires cities to adjust certain development standards for affordable housing projects. These include adjustments to maximum building height and minimum parking standards. In accordance with state law, the project requests adjustments for maximum building height (from 28'6" to 37'2"¹) and for parking (from 120 spaces to 96 spaces).

As well, the project is located in the Special Residential/Recreational (SR-R) zone, which is intended to allow greater freedom and flexibility in site design. In the SR-R zone, the City may "authorize relaxation of [] standards to permit flexibility in design," except for density. As permitted in the SR-R zone, the project requests an adjustment to the minimum setback from Loop Road (from 20' to 10'), which the Planning Commission approved. The reduced setback from Loop Road allows development to be clustered toward Loop Road and away from the eastern portion of the property.

2. Loop Road. *When will the road be constructed and dedicated? What standards will be applied to the road construction? Will the road connect to Meadow Drive?*

"Loop Road" will be constructed and dedicated to the City prior to occupancy of the project. The road will be constructed to the City's standards for "local streets." The property owner is currently seeking a public works permit approval from the City to construct Loop Road, which is a technical proceeding that is occurring separately. We have attached the Loop Road plans as Exhibit C. Upon completion, the road will be named "Legacy Place." Pending City approval, construction of the road is expected to begin in May 2025 and be completed in July 2025.

As indicated by the plans, Loop Road will not connect to Meadow Drive. This is to preserve flexibility for future development of properties to the west of the road. The specifics of a future connection of the road will be evaluated at that time those properties are developed.

¹ SB 1537 requires cities to allow an adjustment to building height by "the greater of: (I) One story; or (II) A 20 percent increase to base zone height[.]" SB 1537 § 38(4)(g)(B)(ii). The Planning Commission applied a 20 percent increase to base zone height to adjust the maximum building height from 28'6" to 34'2". Because SB 1537 requires approval of "the greater of" a one story or 20 percent adjustment, however, SB 1537 requires the City to approve a one story adjustment (at least 9') to increase the maximum building height from 28'6" to at least 37'6."

3. Water and Sanitary Lines. Where will water and sewer lines be constructed for the project?

The proposed location of water and sewer lines to serve the project are shown in Exhibit C. The City is reviewing these improvements as part of the separate public works permit. Both the City of Manzanita Public Works Department and the Nehalem Bay Wastewater Agency confirmed that water and sewer service can be provided for the project.

4. Open Space. How much open space does the project include? Why is the open space located in the north portion of the property? Will the open space be maintained in perpetuity?

The project includes a large natural area, which is approximately 1.88 acres. The 1.88-acre area comprises approximately 40.6% of the site and therefore meets the requirement that 40% of the site be dedicated as permanent open space. The project also includes an outside plaza, playground, stormwater swales and other landscaped areas; these areas are *in addition* to the 1.88-acre natural area that satisfies the 40% open space requirement.

The 1.88-acre open space area is located in the north portion of the property. One reason for locating the open space area in the north portion of the property is to avoid impacts within the Beaches and Dunes Overlay district. As shown on the City's zoning map, the northeast portion of the property is subject to the Beaches and Dunes Overlay District. An excerpt is zoning map, with an overlay of the project, is attached as Exhibit A. The Beaches and Dunes Overlay District is intended to protect dune areas and minimize hazards to property associated with development in dune areas, and the Manzanita Zoning Ordinance ("MZO") generally prohibits residential development in the overlay district. As such, the project proposes to locate the residential buildings in the southern portion of the site, away from the overlay district.

In accordance with the MZO, the 1.88-acre open space area will be preserved in perpetuity through deed restriction or other instrument. The applicants have no objection to a condition of approval requiring execution of such instrument.

5. Development in Southeastern Portion of Property. What is the setback of Building B from the east property line? Does the project include a privacy fence on the east property line? What landscaping will be provided in this area?

Building 'B' is the building located at the easternmost portion of the site. The building is set back approximately 22-1/2' from the property line. As shown on the applicant's landscaping plan, the project includes planting multiple pine and spruce trees along the south and east of Building 'B.' See Plan Set - Sheet L11.

Certain comments have requested that the project also include construction of a privacy fence along a portion of the eastern border of the property. The applicants would be glad to provide a privacy fence with direction from City Staff and the City Council.

6. Traffic. Does the traffic analysis consider additional traffic produced by other pending projects (e.g., Nehalem Bay State Park expansion)? Did the traffic analysis consider impacts of traffic from the project to intersections?

The applicant's transportation engineer, Mackenzie, prepared a Transportation Impact Analysis (TIA) for the project. The scope of the TIA was determined based on direction from the City's independent transportation engineer. Upon completion of the TIA, the City's transportation engineer reviewed the TIA and determined that (1) the TIA accurately modeled anticipated traffic impacts from the project and (2) the project will not cause studied intersections to exceed capacity or operate unsafely.

A supplemental letter from Mackenzie, dated April 10, 2025, and attached as Exhibit B, provides further information regarding the evaluation of traffic from other pending projects and of impacts to nearby intersections.

Exhibits:

A - Excerpt of City of Manzanita Zoning Map (Beach and Dunes Overlay District)

B - Traffic letter from Mackenzie, dated April 10, 2025

C - Plan Set for Loop Road a/k/a Legacy Place

Manzanita Pines – Planning File No. 25001

Excerpt of City of Manzanita Zoning Map -
Beach and Sand Dunes Overlay District

Figure 1 - Excerpt of City of Manzanita Zoning Map

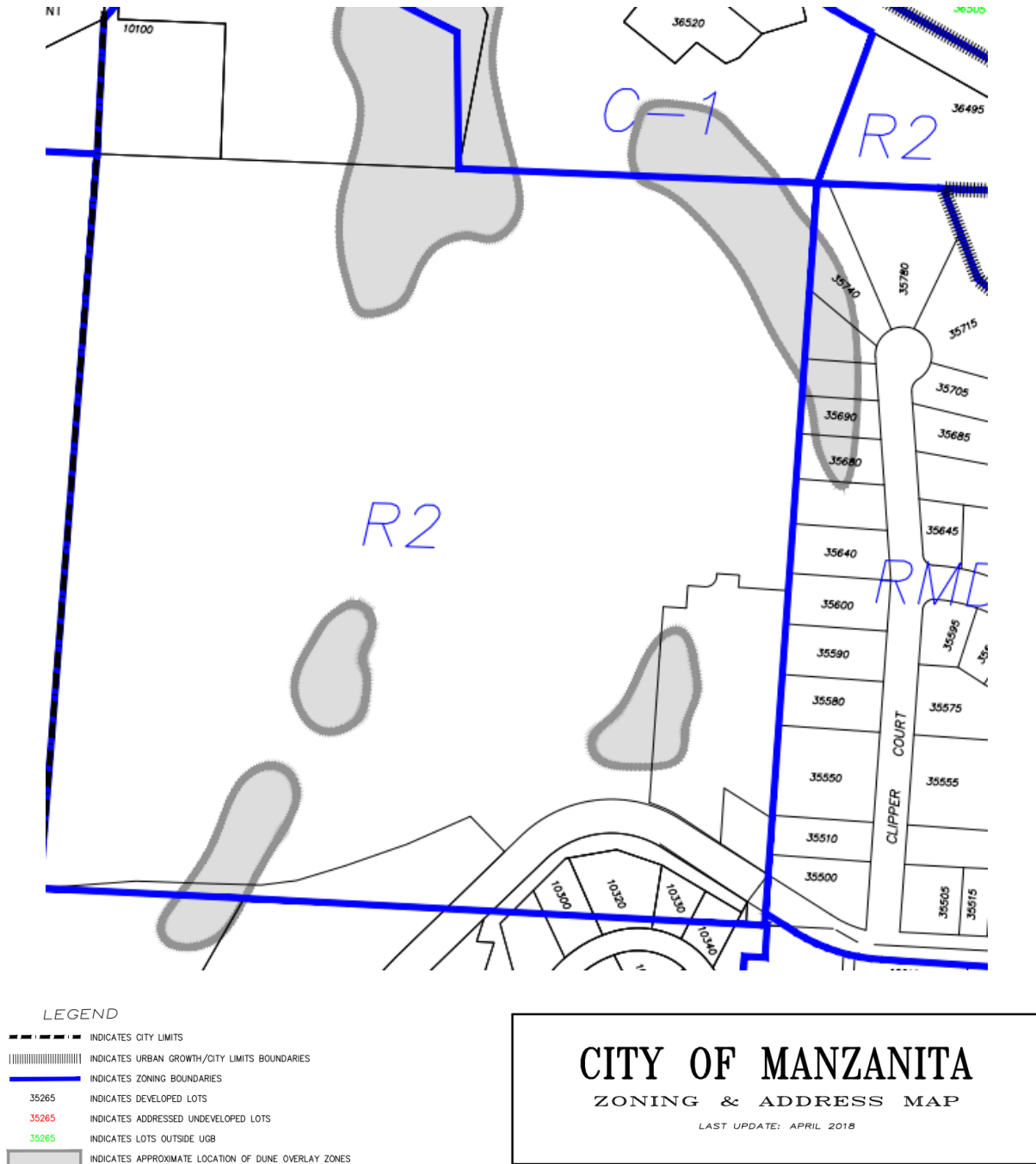


Figure 2 - Excerpt of Zoning Map with Project Overlay



April 10, 2025

City of Manzanita
Attention: Leila Aman, City Manager
167 S. 5th Street
PO Box 129
Manzanita, OR 97130

Re: **Manzanita Pines – Planning File #25001**
Response to Traffic Questions
Project Number 2160454.11

Dear Ms. Aman:

Mackenzie has prepared this letter to address comments regarding the study area intersections and in-process projects included in the Transportation Impact Analysis (TIA) for the subject application, commonly known as Manzanita Pines.

Intersection of Clipper Court and Necarney City Road

The TIA evaluated impacts of the project on certain intersections, referred to as study area intersections. The study area intersections included (1) the intersection of Necarney City Road with the new Loop Road (site access), and (2) the intersection of Highway 101 with Necarney City Road. These intersections were included in the TIA based on direction from the City's transportation consultant, Lancaster Mobley. See letter from Lancaster Mobley dated October 2, 2024, providing the required TIA scope.

A comment was received regarding potential impacts of the project on the intersection of Clipper Court with Necarney City Road. Under standard industry practice, a local street approach such as Clipper Court is not typically included in a TIA when the street volumes are low, and no project trips would be added to the turning movements to and from the local street. Clipper Court is not a through street. Instead, it forms a loop with Schooner Way, which also intersects Necarney City Road to the east and together these roads provide access to approximately 50 homes. Certain comments noted that the intersection of Clipper Court with Necarney City Road is a dangerous intersection. A review of the intersection location through available photographs indicates sight distances may not meet recommended minimums for turns onto Necarney City Road with the posted speed of 35 mph. This is an existing condition that should be addressed by the City regardless any other projects adding trips along Necarney City Road.

In-Process Trips

When analyzing impacts from the project, the TIA considers "in-process" trips. In-process trips are trips that will be added to the roadway system from projects that are approved but not yet completed.

Mackenzie coordinated the list of in-process trips with Lancaster Mobley. The TIA accounts for in-process trips from three projects: Manzanita Lofts, Heron's Rest and the Nehalem Bay State Park Expansion. The TIA includes further details about the trips anticipated from these projects. While there may be other approved projects around the City, the impact of those projects is expected to be covered by the general background growth rate applied in the TIA: 1% for two years, or a 2% increase.

City of Manzanita
Manzanita Pines – Planning File #25001
Project Number 2160454.11
April 10, 2025
Page 2

In summary, the TIA was prepared following general transportation engineering practice as well as City of Manzanita and ODOT standards, including coordination with the City's transportation consultant and ODOT staff.

Sincerely,

A handwritten signature in black ink, appearing to read 'B. Ahrend', written in a cursive style.

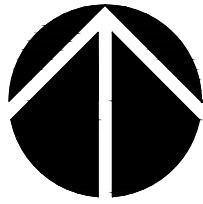
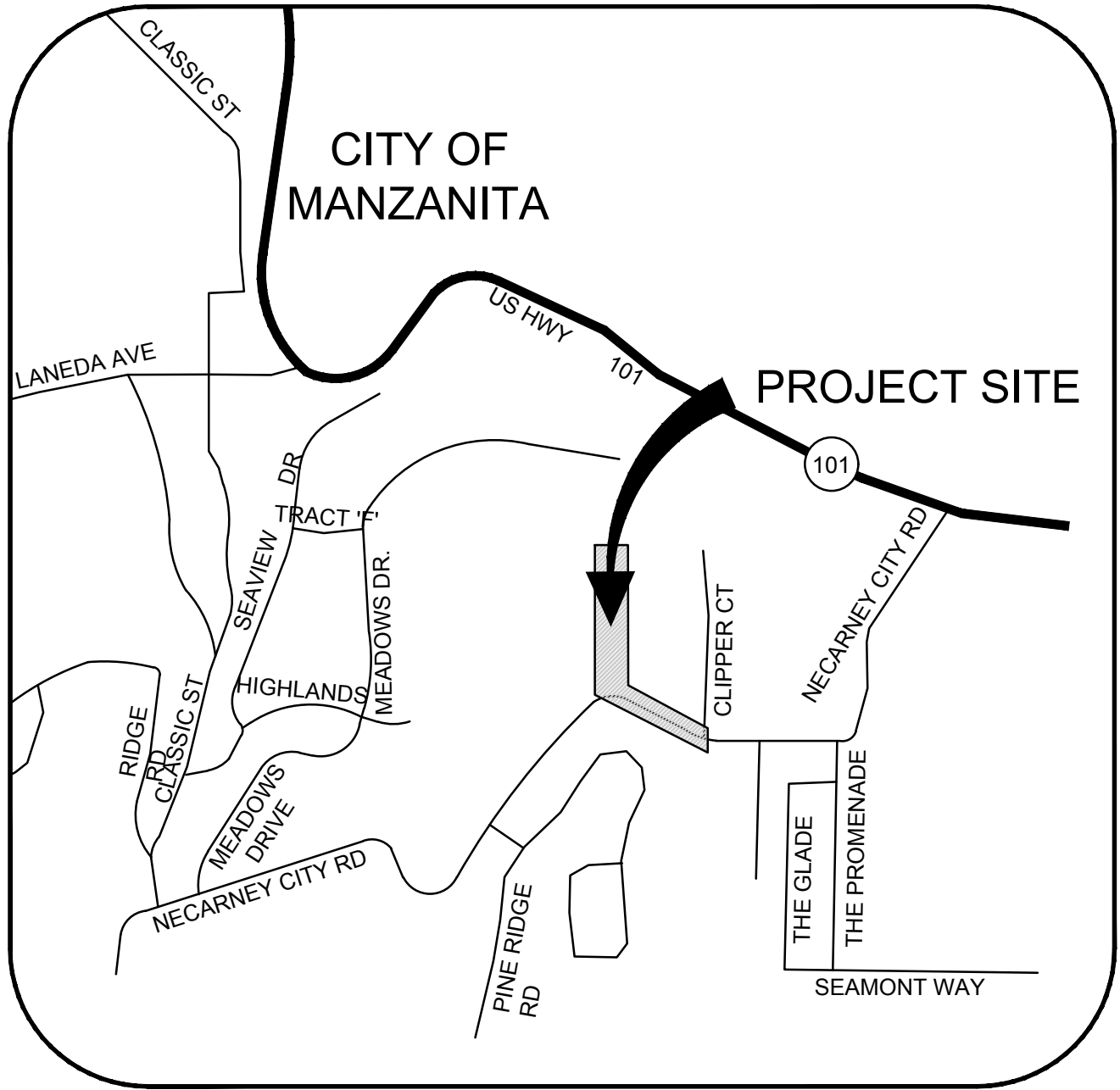
Brent Ahrend, PE
Associate Principal | Traffic Engineer

c: Hayley Siltanen, Dana Krawczuk – Stoel Rives
Ralph Henderson – Mackenze

Exhibit C

LEGACY PLACE AND NECARNEY CITY ROAD IMPROVEMENTS

MANZANITA, TILLAMOOK COUNTY, OREGON
TAX LOT 1401
3N, 10W, 28B



VICINITY MAP
SCALE: NTS

VERTICAL DATUM

VERTICAL DATUM FOR THIS SURVEY IS NGVD 1929.

BENCHMARK - "ELEVATIONS ON THIS MAP ARE BASED UPON THE 3.25" BRASS DISK IN MONUMENT WELL AT THE INTERSECTION OF LANEDA AVENUE AND CARMEL AVENUE. SEE INSURANCE RATE MAP FOR CITY OF MANZANITA, OREGON (COMMUNITY-PANEL NUMBER 410199 0001 B) DATED JANUARY 12, 1982. ELEVATION OF SAID DISK 31.33 FEET (NGVD)."

HORIZONTAL DATUM

HORIZONTAL DATUM FOR THIS SURVEY IS A LOCAL DATUM.

CITY OF MANZANITA CONTROL POINT LOCATED AT NORTHING 10075.51, EASTING 10304.19 AT ELEVATION 187.73 FEET IN THE SECTION CORNER COMMON TO SECTIONS 28 AND 29, TOWNSHIP 3 NORTH RANGE 10 WEST OF THE WILLAMETTE MERIDIAN WAS HELD FOR POSITION. (BRASS DISK AT SW CORNER OF HARRY'S PROPERTY)

NOTICE TO EXCAVATORS:
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 OAR 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).

POTENTIAL UNDERGROUND FACILITY OWNERS

Dig Safely.

Call the Oregon One-Call Center
DIAL 811 or 1-800-332-2344

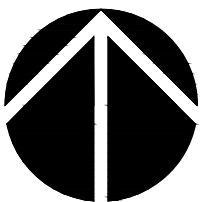
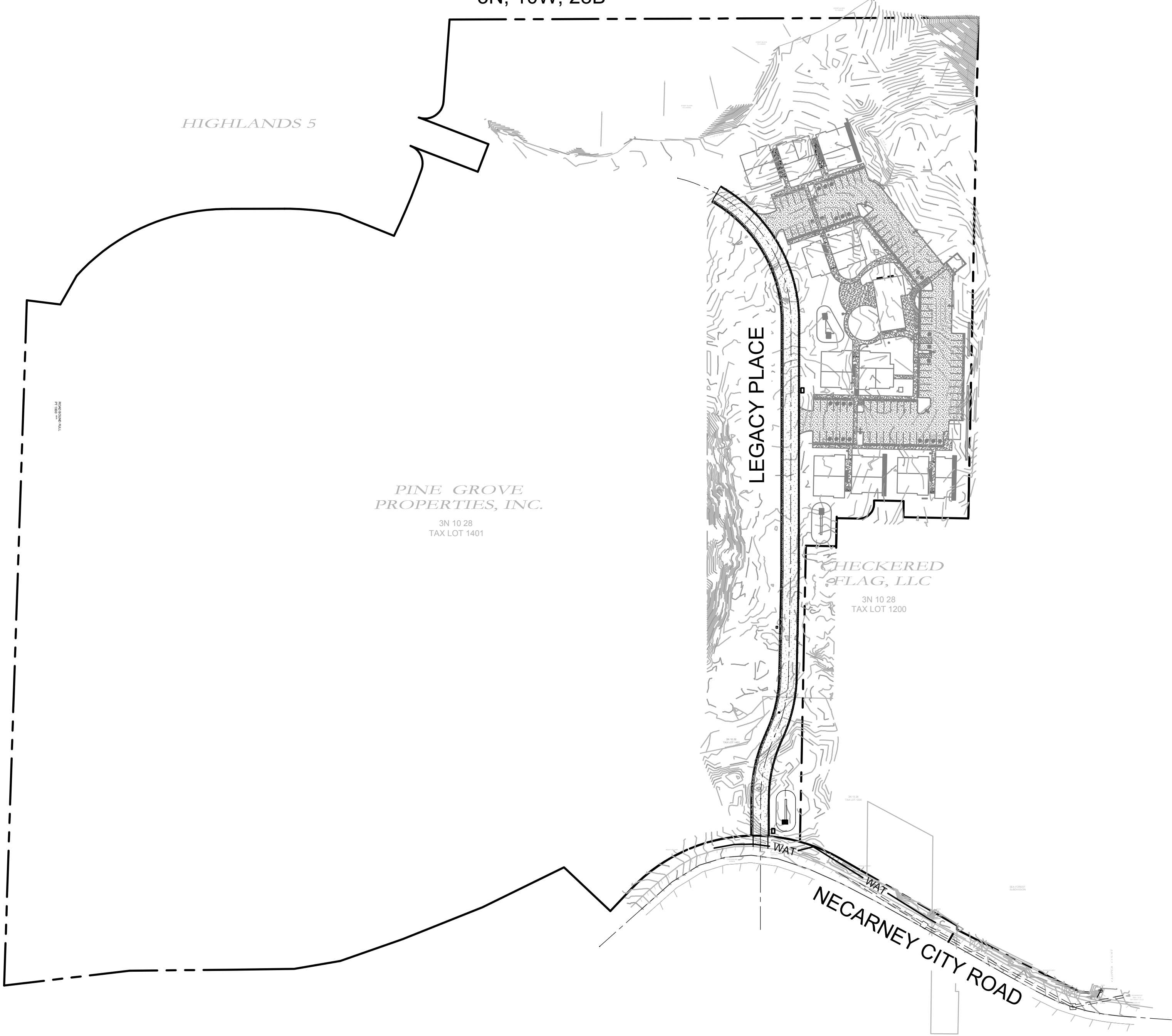
EMERGENCY TELEPHONE NUMBERS

MANZANITA PUBLIC WORKS

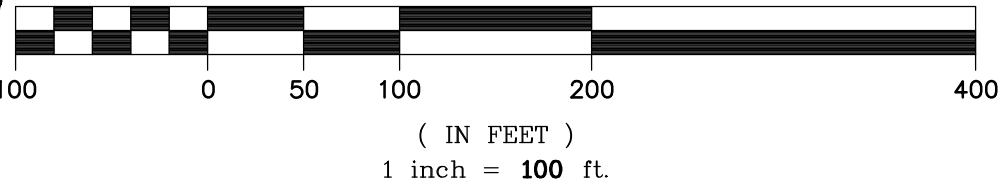
M-F 7:30am-4pm 503-368-5347
AFTER HOURS 503-368-5198

TILLAMOOK PUD

M-F 8am-5pm 503-842-2535
AFTER HOURS 503-842-2122



1 SITE MAP
C0.00



SHEET INDEX

R1.00	COVER SHEET
R1.01	CIVIL NOTES
R1.02	OVERALL ROADWAY PLAN
R1.10	NECARNEY CITY ROAD - STREET AND SANITARY (STA 12+50 - 18+25)
R1.20	LEGACY PLACE - STREET AND STORM (STA 20+50 - 25+50)
R1.21	LEGACY PLACE - STREET AND STORM (STA 25+50 - 30+50)
R1.22	LEGACY PLACE - STORM POND ENLARGEMENT
R1.30	LEGACY PLACE - SANITARY AND WATER (STA 20+50 - 25+50)
R1.31	LEGACY PLACE - SANITARY AND WATER (STA 25+50 - 30+50)
R5.10	CITY OF MANZANITA DETAILS
R5.11	CIVIL DETAILS
R5.12	CIVIL DETAILS
E1.10	ELECTRICAL PLAN
EC1.0	ESCP - COVER SHEET
EC2.0	ESCP - CLEARING & DEMOLITION
EC3.0	ESCP - GRADING & EXCAVATION
EC4.0	ESCP - UTILITY CONSTRUCTION
EC5.0	NOT USED
EC6.0	ESCP - FINAL STABILIZATION
EC7.0	ESCP - DETAILS

OWNER/DEVELOPER

HOME FIRST DEVELOPMENT

CONTACT: BEN PRAY
4351 SE HAWTHORNE BLVD
PORTLAND, OR 97215
PHONE: (503) 320-8929
EMAIL: BEN@HFDPARTNERS.COM

APPLICANT REPRESENTATIVES

MACKENZIE

1515 SE WATER AVENUE #100
PORTLAND, OR 97214
PHONE: (503) 224-9560

ENGINEERING
CONTACT: RALPH HENDERSON
EMAIL: RHENDERSON@MCKNZE.COM

GEOTECHNICAL ENGINEER

CARLSON GEOTECHNICAL

CONTACT: BRAD WILCOX
8430 SW HUNZIKER STREET
TIGARD, OR 97233
PHONE: (503) 684-3460
EMAIL: BWILSON@CARLSONTESTING.COM

SURVEYOR

ONION PEAK DESIGN

CONTACT: ERICK WHITE, PLS
P.O. BOX 326
NEHALEM, OR 97131
PHONE: (503) 336-6102
EMAIL: ERICK.OPD@GMAIL.COM

ELECTRICAL

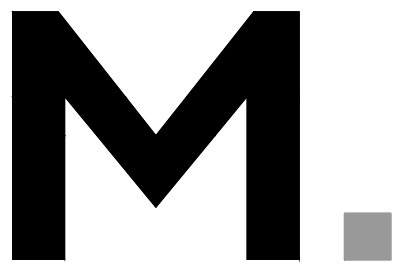
TILLAMOOK PEOPLE'S UTILITY DISTRICT

CONTACT: ZACH HUDSPETH
PHONE: (503) 815-8654
EMAIL: ZHUDSPETH@TPUD.ORG

NOTE:
DEVELOPER TO COORDINATE APPROVAL OF ELECTRICAL SHEETS E1.10 WITH TPUD AND COORDINATE ALL UTILITY INSTALLATIONS WITH CITY PW DEPARTMENT.

CITY OF MANZANITA

543 LANEDA AVENUE
MANZANITA, OREGON 97130
PHONE: (503) 368-5343
EMAIL: CITYHALL@CI.MANZANITA.OR.US



Architecture • Interiors
Planning • Engineering

Portland, OR
503.224.9560
Vancouver, WA
360.695.7879
Seattle, WA
206.749.9993

www.mackenzie.inc

MACKENZIE

Client

**ENCORE
INVESTMENTS
LLC.**

Project

**HIGHLANDS
PHASE 8**

© MACKENZIE 2025
ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF
MACKENZIE AND ARE NOT TO BE USED
OR REPRODUCED IN ANY MANNER,
WITHOUT PRIOR WRITTEN PERMISSION

REVISION SCHEDULE		
Delta	Issued As	Issue Date

SHEET TITLE:

COVER SHEET

SHEET:

R1.00

JOB NO.

2160454.08

PERMIT SET - MARCH 7, 2025

"216045400" \\GRP.MCK\PROJECTS\PROJECTS\216045400\DRAWINGS\CIVIL\PHASE 8\454-R1.00.DWG;R1.00_ZMP 01/18/25 11:40 1:100

GENERAL NOTES

- ALL WORK SHALL CONFORM TO THE CURRENT STANDARD SPECIFICATIONS AND REQUIREMENTS OF THE CITY OF MANZANITA, THE PROJECT SPECIFICATIONS, THE OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION, AND THE CURRENT AMERICAN PUBLIC WORKS ASSOCIATION STANDARDS FOR PUBLIC WORKS CONSTRUCTION.
- 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.
- CONTRACTOR MUST COMPLY WITH LOCAL AND STATE REQUIREMENTS TO NOTIFY ALL UTILITY COMPANIES FOR LINE LOCATIONS SEVENTY-TWO (72) HOURS (MINIMUM) PRIOR TO START OF WORK. DAMAGE TO UTILITIES SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL ADJUST ALL STRUCTURES IMPACTED BY CONSTRUCTION IMPROVEMENTS TO NEW FINISH GRADES.
- REQUEST BY THE CONTRACTOR FOR CHANGES TO THE PLANS MUST BE APPROVED BY THE ENGINEER AND PUBLIC WORKS.
- ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY REQUIRES A PUBLIC WORKS PERMIT.
- CONTRACTOR SHALL PROVIDE THE ENGINEER OF RECORD WITH AS-BUILT PLANS AT LEAST 2 WEEKS PRIOR TO REQUESTING AGENCY SIGN OFF ON PERMITS FOR OCCUPANCY.
- CONTRACTOR SHALL PERFORM ALL THE WORK SHOWN ON THE DRAWINGS AND ALL INCIDENTAL WORK NECESSARY TO COMPLETE THE PROJECT.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROCURE ALL APPLICABLE PERMITS, LICENSES AND CERTIFICATES RELATIVE TO THE TRADES TO COMPLETE THE PROJECT AND FOR THE USE OF SUCH WORK WHEN COMPLETED. COMPLIANCE SHALL BE AT ALL LEVELS, FEDERAL, STATE AND CITY, RELATING TO THE PERFORMANCE OF THIS WORK.
- ANY SIGNIFICANT DEVIATIONS FROM THE PLANS WILL REQUIRE A REQUEST FROM THE APPLICANT'S ENGINEER AND APPROVAL FROM THE CITY'S ENGINEER, CITY INSPECTOR, AND TILLAMOOK COUNTY.
- ALL CONSTRUCTION WITHIN CITY OF MANZANITA RIGHT-OF-WAY SHALL HAVE AN APPROVED TRAFFIC CONTROL PLAN (PROVIDED BY CONTRACTOR), PUBLIC IMPROVEMENTS PERMIT, AND FACILITY PERMIT TO ANY ON-SITE CONSTRUCTION ACTIVITY.
- THE CONTRACTOR MAY BE REQUIRED TO PROVIDE FLAGGING, SIGNS, AND OTHER TRAFFIC CONTROL DEVICES FOR SAFE TRUCK ACCESS ONTO PUBLIC STREETS. ALL SUCH DEVICES SHALL CONFORM TO THE STANDARDS ESTABLISHED IN THE LATEST ADOPTED EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION AND THE MODIFICATIONS TO THE MUTCD FOR STREETS AND HIGHWAYS FOR THE STATE OF OREGON.
- IN ORDER TO ENHANCE TRAFFIC AND SAFETY ELEMENTS, THE CONTRACTOR SHALL MAINTAIN ADEQUATE SIGHT DISTANCE AT THE SITE ACCESS POINTS AND INTERSECTIONS. DRIVEWAY EXITS SHALL MEET THE SIGHT DISTANCE REQUIREMENTS PER PLANS AND WASHINGTON COUNTY. ANY OBSTRUCTIONS BY LANDSCAPING, SIGNING, PARKING, BUILDINGS, OR OTHER OBJECTS ARE UNSAFE. THE APPLICANT SHALL ENSURE THAT NONE OF THESE INTERFERE WITH VISION CLEARANCE REQUIREMENTS.
- ANY PUBLIC, OR PRIVATE, CURB, GUTTER, SIDEWALK, OR ASPHALT DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED TO CITY OF MANZANITA (LEGACY PLACE) OR TILLAMOOK COUNTY STANDARDS (NECARNEY CITY ROAD).
- ALL ROADWAY COMPACTION SHALL CONFORM TO THE CITY ROAD STANDARDS AND THE LATEST ODOT/APWA STANDARD SPECIFICATIONS FOR CONSTRUCTION.

DEMOLITION NOTES

- INSTALL EROSION CONTROL MEASURES AND TEMPORARY FENCING PRIOR TO ANY DEMOLITION ACTIVITIES.
- DEMOLISH ALL PAVED AREAS ON SITE AS SHOWN, DOWN TO NATIVE SUBGRADE.
- 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).
- PROTECT ALL EXISTING LANDSCAPING AT AND BEYOND LIMITS OF WORK.
- PROTECT ALL UNDERGROUND UTILITY SERVICES AND CONDUIT UNLESS NOTED OTHERWISE.
- WHERE APPLICABLE, VERIFY DISCONNECT OF ELECTRIC WITH UTILITY. CUT/CAP UTILITY SERVICES (STORMWATER AND SANITARY WITHIN 5 FEET OF EDGE OF R.O.W.) CAP WATERLINE ON OWNER'S SIDE OF METER AND PERFORM OTHER DEMOLITION TASKS AS REQUIRED. ADDITIONAL REMOVALS MAY BE REQUIRED BY THE CITY OF MANZANITA AND THE CONTRACTOR SHALL CONFIRM ACCORDINGLY PRIOR TO BID.

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 APPROXIMATE 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.
- 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.
- SITE TOPSOIL STOCKPILED DURING CONSTRUCTION AND USED FOR LANDSCAPING SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT. STOCKPILES OF ERODABLE SOILS SHOULD BE COVERED PER BMP MATRIX, EC1.0
- CONTRACTOR TO REVIEW AND CONFIRM GRADES AT JOIN POINTS, SUCH AS AT DAYLIGHT LIMITS, PRIOR TO CONSTRUCTION

ELECTRICAL NOTE

- ELECTRICAL LAYOUT WILL NEED TO BE REVISED SLIGHTLY AFTER THE MAJORITY OF THE SITE GRADING HAS BEEN COMPLETED. AT THAT TIME, THE CONTRACTOR SHALL STAKE THE ELECTRICAL ALIGNMENT AND CONTACT ZACH HUDSPETH OF TPUD FOR APPROVAL. ZACH HUDSPETH - PHONE: 503-815-8654 E-MAIL: ZHUDSPETH@TPUD.ORG

UTILITY NOTES

- 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 CITY OF MANZANITA.
- 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.
- NOT ALL REQUIRED CLEANOUTS ARE SHOWN ON THE PLANS. PROVIDE CLEANOUTS AS REQUIRED BY THE AUTHORITIES HAVING JURISDICTION AND THE CURRENT EDITION OF THE STATE PLUMBING CODE (E.G. UNIFORM PLUMBING CODE CHAPTER 7, SECTIONS 707 AND 719, AND CHAPTER 11, SECTION 1101.13)
- ALL SANITARY AND STORM PIPING IS DESIGNED USING CONCENTRIC PIPE TO PIPE AND WYE FITTINGS, UNLESS OTHERWISE NOTED. INSTALL GREEN TRACER WIRE IN ALL SANITARY TRENCHES.
- CONTRACTOR TO MAINTAIN MINIMUM 3 FEET OF COVER OVER ALL UTILITY PIPING AND CONDUITS, UNLESS NOTED OTHERWISE.
- WHERE CONNECTING TO AN EXISTING PIPE, AND PRIOR TO ORDERING MATERIALS, THE CONTRACTOR SHALL EXPOSE THE END OF THE EXISTING PIPE TO VERIFY THE LOCATION, SIZE, AND ELEVATION. NOTIFY ENGINEER OF ANY DISCREPANCIES.

- CONTRACTOR SHALL SCOPE ALL PRIVATE ONSITE GRAVITY SYSTEM LINES THAT ARE BEING CONNECTED TO FOR PROPOSED SERVICE. SCOPING SHALL OCCUR A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION AND THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES WITH AS-BUILT RECORDS/SURVEY FINDINGS OR IF THE EXISTING UTILITIES ARE DAMAGED OR SHOW SIGNS OF SIGNIFICANT DETERIORATION. CONTRACTOR SHALL PROVIDE THE ENGINEER WITH VIDEO RECORDS, ALONG WITH A SKETCH IF THE LOCATIONS DIFFER FROM AS-BUILT PLANS OR SURVEY FINDINGS
- PRODUCT MATERIAL SUBMITTALS FOR REVIEW BY THE ENGINEER SHALL BE ACCOMPANIED BY A MANUFACTURER'S CERTIFICATION THAT THE PRODUCT IS CAPABLE OF MEETING PERFORMANCE EXPECTATIONS (I.E. - WATERTIGHT, MINIMUM/MAXIMUM BURIAL, PREVENTION OF GROUNDWATER INTRUSION, ETC.) BASED ON THEIR REVIEW OF THE PROJECT PLANS. IN THE ABSENCE OF A MANUFACTURER'S CERTIFICATION, THE GENERAL CONTRACTOR'S REVIEW STAMP SHALL CONSTITUTE THAT THEY HAVE PERFORMED THE NECESSARY REVIEW TO CERTIFY THE PRODUCT'S CONFORMANCE TO PROJECT SPECIFICATIONS AND GENERAL EXPECTATIONS.
- PIPE LENGTHS SHOWN ON PLANS ARE TWO DIMENSIONAL AND MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
- RIM ELEVATIONS SHOWN ON PLANS REFERENCE THE CENTER OF THE STRUCTURE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECONCILING LIDS/GRATES/ETC TO THE SLOPES OF THE SITE GRADING.
- 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.
- WHEN LOTS ARE DEVELOPED, ALL ROOF DRAINAGE TO BE ROUTED TO A DRYWELL INSTALLED ON THE LOT. A MAXIMUM OF 750 SF OF DRIVEWAY CAN BE DRAINED TO THE ROAD.

EROSION CONTROL NOTES

- HOLD A PRE-CONSTRUCTION MEETING OF PROJECT CONSTRUCTION PERSONNEL THAT INCLUDES THE LOCAL AGENCY INSPECTOR TO DISCUSS EROSION AND SEDIMENT CONTROL MEASURES AND CONSTRUCTION LIMITS.
- 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.
- 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.
- 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.
- 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.
- ALL EROSION CONTROL DEVICES SHALL BE EXAMINED AND REPAIRED AFTER EACH STORM OCCURRENCE, AND INLETS SHALL BE CLEANED OF SEDIMENT WHENEVER NECESSARY.
- HYDROSEED AND MULCH ALL DISTURBED AREAS UPON COMPLETION OF CONSTRUCTION OR AS DIRECTED BY THE AUTHORITIES HAVING JURISDICTION.
- 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.
- INSTALL TEMPORARY EROSION PREVENTION SUCH AS JUTE NETTING OR GEOTEXTILE ON DISTURBED AREAS STEEPER THAN 4H:1V.
- STAGING AND STOCKPILE AREAS TO BE DETERMINED BY CONTRACTOR AND ADJUSTED TO ACCOMMODATE THE PROGRESS OF CONSTRUCTION.

TRENCHING AND EXCAVATION SAFETY (OSHA 29 CFR 1926.651 & 1926.652)

- TRENCHES 5 FEET (1.5 METERS) DEEP OR GREATER REQUIRE A PROTECTIVE SYSTEM UNLESS THE EXCAVATION IS MADE ENTIRELY IN STABLE ROCK. TRENCHES 20 FEET (6.1 METERS) DEEP OR GREATER REQUIRE THAT THE PROTECTIVE SYSTEM BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER OR BE BASED ON TABULATED DATA PREPARED AND/OR APPROVED BY ENGINEER, HIRED BY CONTRACTOR.
- THE FOLLOWING SYSTEMS CAN BE USED AS A PROTECTIVE SYSTEMS FOR TRENCHING. SLOPING, CUTTING BACK THE TRENCH WALL AT AN ANGLE INCLINED AWAY FROM THE EXCAVATION. SHORING, INSTALLING ALUMINUM HYDRAULIC OR OTHER TYPES OF SUPPORTS TO PREVENT SOIL MOVEMENT AND CAVE-INS. SHIELDING BY USING TRENCH BOXES OR OTHER TYPES OF SUPPORTS TO PREVENT SOIL CAVE-INS. DESIGNING A PROTECTIVE SYSTEM MUST CONSIDER: SOIL CLASSIFICATION, DEPTH OF CUT, WATER CONTENT OF SOIL, CHANGES DUE TO WEATHER OR CLIMATE, SURCHARGE LOADS AND OTHER OPERATIONS IN THE VICINITY.
- OSHA STANDARD REQUIRES THAT TRENCHES BE INSPECTED DAILY BY A COMPETENT PERSON PRIOR TO WORKER ENTRY TO ENSURE ELIMINATION OF EXCAVATION HAZARDS. A COMPETENT PERSON IS AN INDIVIDUAL WHO IS CAPABLE OF IDENTIFYING EXISTING AND PREDICTABLE HAZARDS OR WORKING CONDITIONS THAT ARE HAZARDOUS, UNSANITARY, OR DANGEROUS TO EMPLOYEES AND WHO IS AUTHORIZED TO TAKE PROMPT CORRECTIVE MEASURES TO ELIMINATE OR CONTROL THESE HAZARDS AND CONDITIONS.
- OSHA REQUIRES SAFE ACCESS AND EGRESS TO ALL EXCAVATIONS, INCLUDING LADDERS, STEPS, RAMPS OR OTHER SAFE MEANS OF EXIT FOR EMPLOYEES WORKING IN TRENCH EXCAVATIONS 4 FEET (1.22 METERS) OR DEEPER. THESE EQUIPMENTS MUST BE LOCATED WITHIN 25 FEET (7.6 METERS) OF ALL WORKERS.
- GENERAL TRENCHING AND EXCAVATION RULES
 - KEEP HEAVY EQUIPMENT AWAY FROM TRENCH EDGES.
 - KEEP SURCHARGE LOADS AT LEAST 2 FEET (0.6 METERS) FROM TRENCH EDGES)
 - KNOW WHERE UNDERGROUND UTILITIES ARE LOCATED
 - TEST FOR LOW OXYGEN, HAZARDOUS FUMES AND TOXIC GASES.
 - INSPECT TRENCHES AT THE START OF EACH SHIFT.
 - INSPECT TRENCHES FOLLOWING A RAINSTORM.
 - DO NOT WORK UNDER RAISED LOADS.

STORMWATER MANAGEMENT PLAN

- ALL STORM DRAINAGE FROM LOOP ROAD TO SHEET FLOW TO CATCH BASINS INSTALLED ALONG THE ROADWAY SIDE AND CONVEYED TO THE POND DEVELOPED AT THE INTERSECTION OF LOOP ROAD AND NECARNEY CITY ROAD TO MEET THE STORMWATER MANAGEMENT REQUIREMENTS.

ABBREVIATIONS:

BVCE	BEGIN VERTICAL CURVE ELEVATION	P.U.E.	PUBLIC UTILITY EASEMENT
BVCS	BEGIN VERTICAL CURVE STATION	PC	POINT OF CURVATURE
DOM	DOMESTIC	PVI	POINT OF VERTICAL INTERSECTION
E.O.P.	EDGE OF PAVEMENT	PT	POINT OF TANGENT
E.O.G.	EDGE OF GRAVEL	R.O.W.	RIGHT OF WAY
EVCE	END VERTICAL CURVE ELEVATION	SAN	SANITARY
EVCS	END VERTICAL CURVE STATION	SF	SQUARE FEET
EG	EXISTING GRADE	STM	STORM
ELEV.	ELEVATION	TPUD	TILLAMOOK PEOPLE'S UTILITY DISTRICT (TILLAMOOK PUD)
FG	FINISHED GRADE	VC	VERTICAL CURVE
IE	INVERT ELEVATION	WAT	WATER

WATERLINE NOTES

- LOCATION SHOWN FOR EXISTING WATERLINE IS BASED ON AVAILABLE INFORMATION AND IS APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE TO FIELD VERIFY DEPTH AND LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION AND INFORM THE ENGINEER OF ANY DISCREPANCIES IN THE PLANS.
- THE EXCAVATION CONTRACTOR SHALL CALL THE OREGON UTILITY NOTIFICATION CENTER AT (503) 246-6699 AT LEAST 48 HOURS, BUT NOT MORE THAN 10 BUSINESS DAYS, BEFORE BEGINNING EXCAVATION. OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. COPIES OF THE RULES ARE AVAILABLE THROUGH THE NOTIFICATION CENTER.
- THE CONTRACTOR SHALL POTHOLE ALL EXISTING UTILITIES AND CROSSINGS AS REQUIRED TO AVOID CONFLICTS WITH THE PROPOSED WATER LINE.
- THE CONTRACTOR SHALL NOTIFY THE CITY OF MANZANITA WATER DEPARTMENT (DAN WEITZEL) AT (503) 368-5347 A MINIMUM 48 HOURS (TWO BUSINESS DAYS) PRIOR TO CONSTRUCTION. WEEKENDS AND HOLIDAYS ARE NOT TO BE COUNTED AS PART OF NOTIFICATION TIME.
- WATER LINES SHALL BE AWWA C900 PIPE WITH A MINIMUM 36-INCHES OF COVER OVER THE TOP OF PIPE, UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS. ALL WATER LINES LOCATED UNDER A HARD SURFACE SHALL HAVE FULL DEPTH ROCK BACKFILL COMPACTED TO 95% AASHTO T-99.
- ALL RESTRAINED MECHANICAL JOINT FITTINGS SHALL INCLUDE THE REQUIRED NUMBER OF PUSHON PIPE JOINT RESTRAINTS TO OBTAIN THE NECESSARY PIPE RESTRAINED LENGTH. IN ADDITION, PIPE BENDS SHALL HAVE MECHNICAL RESTRAINTS AND THRUST BLOCKS PER DETAIL 3/R5.10.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE PROPER HORIZONTAL AND VERTICAL SEPARATION BETWEEN SANITARY SEWER LINES AND WATER LINES AS REQUIRED BY THE OREGON DEPARTMENT OF HUMAN SERVICES, PUBLIC HEALTH, OAR 333-061-0050.
- ON-SITE DOMESTIC WATER SERVICE SHALL BE INSTALLED AS REQUIRED BY OSPSC. CONTACT THE CITY OF MANZANITA AT (503) 368-5347 FOR REQUIREMENTS.
- PRIOR TO BEING PLACED IN SERVICE, THE WATER LINES AND SERVICES SHALL BE FLUSHED, STERILIZED, AND TESTED BY THE CONTRACTOR. ALL IN ACCORDANCE WITH WATER DEPARTMENT STANDARDS (LATEST EDITION) AND OSPSC. A WATER DEPARTMENT REPRESENTATIVE MUST BE PRESENT DURING CHLORINATION AND TESTING.
- NO CONNECTIONS TO EXISTING WATER LINES SHALL BE MADE WITHOUT AUTHORIZATION OF THE CITY OF MANZANITA .
- NO WATER VALVES SHALL BE OPERATED WITHOUT AUTHORIZATION OF THE CITY OF MANZANITA.
- IN THE EVENT OF CONFLICTS OR CHANGES IN CONDITIONS, THE CITY OF MANZANITA RESERVES THE RIGHT TO MAKE FIELD ADJUSTMENTS TO THE LOCATIONS OF WATER LINES AND APPURTENANCES AS REQUIRED FOR CONSTRUCTION.
- THE CONTRACTOR SHALL INSTALL AND MAINTAIN ALL EROSION CONTROL MEASURES IN ACCORDANCE WITH OREGON DEQ AND APPROVED PLANS.
- ALL EXISTING ASPHALT CONCRETE (AC) PAVEMENT SHALL BE SAW CUT AS REQUIRED.
- ALL DAMAGE CAUSED BY THE CONTRACTOR SHALL BE RESTORED TO AN "AS GOOD OR BETTER" CONDITION AS DETERMINED BY THE CITY OF MANZANITA.
- WATER MAIN SHUT-OFFS SHALL BE COORDINATED THROUGH A CITY OF MANZANITA REPRESENTATIVE. REQUIRED NOTIFICATION FOR SHUT-OFFS SHALL BE 48-HOURS PRIOR FOR RESIDENTIAL PROPERTIES AND 72-HOURS FOR COMMERCIAL OR INDUSTRIAL PROPERTIES. WEEKENDS AND HOLIDAYS ARE NOT TO BE COUNTED AS PART OF NOTIFICATION TIME. FAILURE TO PERFORM WORK WITHIN GIVEN TIME WILL REQUIRE RE-NOTIFICATION.
- TRAFFIC CONTROL IN THE RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE CURRENT EDITIONS OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND OREGON DEPARTMENT OF TRANSPORTATION (ODOT) MANUAL ON TRAFFIC PRACTICES HANDBOOK FOR LOCAL ROADS AND STREETS IN OREGON. DURING THE WORK DAY, ONE LANE OF TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. TWO LANES OF TRAFFIC SHALL BE RESTORED AT THE END OF EACH WORK DAY. ALL TRAFFIC CONTROL PLANS SHALL BE SUBMITTED TO THE CITY OF MANZANITA FOR APPROVAL.
- THE CONTRACTOR SHALL CONFINE PUBLIC IMPROVEMENT WORK TO THE DEDICATED RIGHT-OF-WAY AND UTILITY EASEMENT AREAS.
- DURING CONSTRUCTION, THE CONTRACTOR AND/OR SUBCONTRACTORS SHALL HAVE A MINIMUM OF ONE (1) SET OF APPROVED CITY-STAMPED PLANS AND SPECIFICATIONS ON THE JOBSITE AT ALL TIMES.
- ALL WET TAPS SHALL BE PERFORMED BY CITY OF MANZANITA APPROVED CONTRACTOR.
- ALL MECHANICAL RESTRAINTS SHALL MEET SECTION 02475.50 "RESTRAINED JOINTS" OF THE 2015 OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION.
- ALL WATER METERS AND SERVICE LATERALS SHOULD BE 3/4"
- SEE PROJECT SPECIFICATIONS FOR MATERIALS, TESTING AND INSTALLATION REQUIREMENTS.
- NO ONE SHOULD BE ALLOWED TO OPERATE VALVES EXCEPT CITY FORCES.

LEGEND

	EXISTING	PROPOSED
MAJOR CONTOUR (5FT)		
MINOR CONTOUR (1FT)		
PROPERTY LINE		
RIGHT-OF-WAY LINE		
UTILITY EASEMENT LINE		
SETBACK LINE		
CENTER LINE		
EDGE OF PAVEMENT LINE		
GRAVEL EDGE LINE		
FENCE LINE		
SANITARY SEWER LINE		
STORM LINE		
STORM CATCH BASIN		
STORM/SANITARY MANHOLES		
WATER METER		
FIRE HYDRANT		
WATER VALVE		
PUBLIC WATER LINE		
SEDIMENT FENCE		
SLOPE ARROW		
CUT FILL BOUNDARY		
CONCRETE GUTTER		
ASPHALT PAVEMENT, SEE DETAIL R5.11		
CONSTRUCTION ENTRANCE,SEE EROSION CONTROL PLANS		
ROCK PAD FOR FIRE TRUCK TURNS		

M.

Architecture • Interiors
Planning • Engineering

Portland, OR
503.224.9560
Vancouver, WA
360.695.7879
Seattle, WA
206.749.9993

www.mackenzie.inc

MACKENZIE

Client

ENCORE
INVESTMENTS
LLC.

Project

HIGHLANDS
PHASE 8

© MACKENZIE 2025
ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF
MACKENZIE AND ARE NOT TO BE USED
OR REPRODUCED IN ANY MANNER,
WITHOUT PRIOR WRITTEN PERMISSION

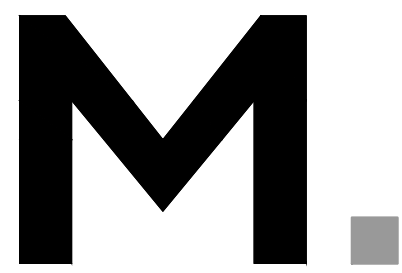
REVISION SCHEDULE		
Delta	Issued As	Issue Date

SHEET TITLE:
CIVIL NOTES

SHEET:

R1.01

JOB NO. 2160454.08



Architecture • Interiors
Planning • Engineering

Portland, OR
503.224.9560
Vancouver, WA
360.695.7879
Seattle, WA
206.749.9993

www.mackenzie.inc

MACKENZIE

Client
**ENCORE
INVESTMENTS
LLC.**

Project
**HIGHLANDS
PHASE 8**

© MACKENZIE 2025
ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF
MACKENZIE AND ARE NOT TO BE USED
OR REPRODUCED IN ANY MANNER
WITHOUT PRIOR WRITTEN PERMISSION

REVISION SCHEDULE		
Delta	Issued As	Issue Date

SHEET TITLE:
**OVERALL
ROADWAY
PLAN**

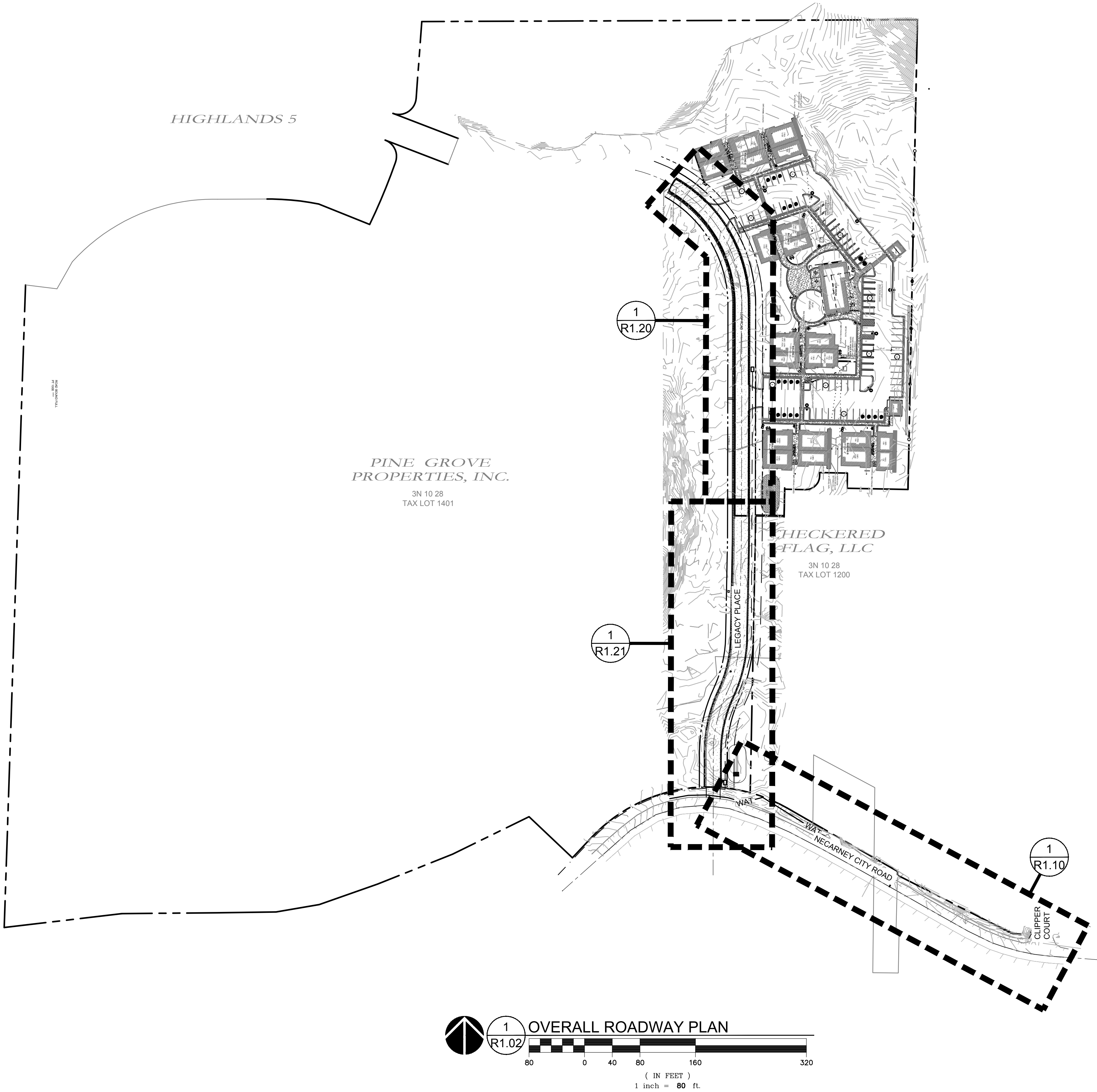
SHEET:

R1.02

JOB NO. **2160454.08**

PERMIT SET - MARCH 7, 2025

"216045400" \\GPR\MCK\PROJECTS\PROJECTS\216045400\4_DRAWINGS\CIVIL\PHASE 8\4-R1.02.DWG R1.02 ZMP 01/18/25 11:14 1:80





Portland, OR
503.224.9560

Vancouver, WA
360.695.7879

Seattle, WA
206.749.9993

www.mackenzie.in

MACKENZIE

nt

**INCORE
INVESTMENTS
L.P.**



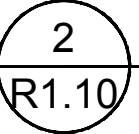
NECARNEY CITY ROAD PLAN STA 12+50 TO STA 18+25

NOTES

REFER TO SHEET R1.01 FOR NOTES, LEGEND AND ABBREVIATIONS.

KEYNOTES

1. PROTECT EXISTING SIGN
2. PROTECT EXISTING WATER METER AND WATER LINE. CONTRACTOR TO VERIFY LOCATION IN FIELD AND REPORT ANY DISCREPANCY TO ENGINEER OF RECORD.
3. PROTECT EXISTING CATCH BASIN. CONNECT TO 10" DRYWELL
4. REPLACE ANY BASE ROCK AND REPAVE ROADWAY IMPACTED BY CONSTRUCTION TO MATCH EXISTING ROAD SECTION.
5. CONSTRUCT SANITARY SEWER MANHOLE. SEE DETAIL RD338/R5.10.
6. CONSTRUCT SANITARY SEWER LINE. INSTALL NEW LANDSCAPING TO MATCH ADJACENT.
7. NEW WATERLINE WILL CROSS SEWER LINE HERE. DESIGN ELEVATIONS OF WATERLINE WILL NEED TO BE CAREFULLY REVIEWED RELATIVE TO SEWER ELEVATIONS.
8. WATERLINE DEPTH HAS BEEN FIELD VERIFIED BY POT-HOLING. CDF IS REQUIRED BETWEEN WATER AND SEWER LINES AT PIPE CROSSING.
9. EXISTING WATERLINE AS MARKED ON GROUND (BLUE) WILL REQUIRE THE SEWER ALIGNMENT TO MOVE INTO THE STREET.
10. REMOVE EXISTING CULVERT. PLUG HOLE AT CATCH BASIN. CONNECT CATCH BASIN TO NEW DRYWELL.
11. DRYWELL PER DETAIL 5/R5.11. SAWCUT AND REPLACE ANY ROADWAY IMPACTED BY DRYWELL CONSTRUCTION TO MATCH EXISTING ROADWAY SECTION.
12. WATERLINE DEPTH HAS BEEN FIELD VERIFIED BY POT-HOLING.
13. REMOVE AND REPLACE EXISTING SIGN.
14. WATERLINE BY OTHERS.



NECARNEY CITY ROAD PROFILE STA 12+50 TO STA 18+25

VERTICAL SCALE: 1"=4'
HORIZONTAL SCALE: 1"=20'

© MACKENZIE 2025
ALL RIGHTS RESERVED
THE DRAWINGS ARE THE PROPERTY
MACKENZIE AND ARE NOT TO BE USED
OR REPRODUCED IN ANY MANNER,
WITHOUT PRIOR WRITTEN PERMISSION

[illegible]

SHEET TITLE:

NECARNEY CITY ROAD PLAN AND PROFILE - STA 12+50 TO 18+25

SHEET:

R1.10

JOB NO. **2160454.08**

PERMIT SET - MARCH 7, 2025



Portland, OR
503.224.9566

Vancouver, WA
360.695.7879

Seattle, WA
206.749.9993

www.mackenzie.in

MACKENZIE

**INCORE
INVESTMENTS
L.C.**

NOTES

REFER TO SHEET R1.01 FOR NOTES, LEGEND AND ABBREVIATIONS

KEYNOTES

1. CRUSHED ROCK SHOULDER, SEE DETAIL ON R5.10
2. 1.5' VALLEY GUTTER, SEE DETAIL ON R5.10
3. NYLOPLAST CATCH BASIN, SEE DETAIL ON R5.10
4. ELECTRICAL VAULT, SEE ELECTRICAL PLAN

GHSLANDS PHASE 8

© MACKENZIE 2025
ALL RIGHTS RESERVED
THE DRAWINGS ARE THE PROPERTY
MACKENZIE AND ARE NOT TO BE USED
OR REPRODUCED IN ANY MANNER,
WITHOUT PRIOR WRITTEN PERMISSION

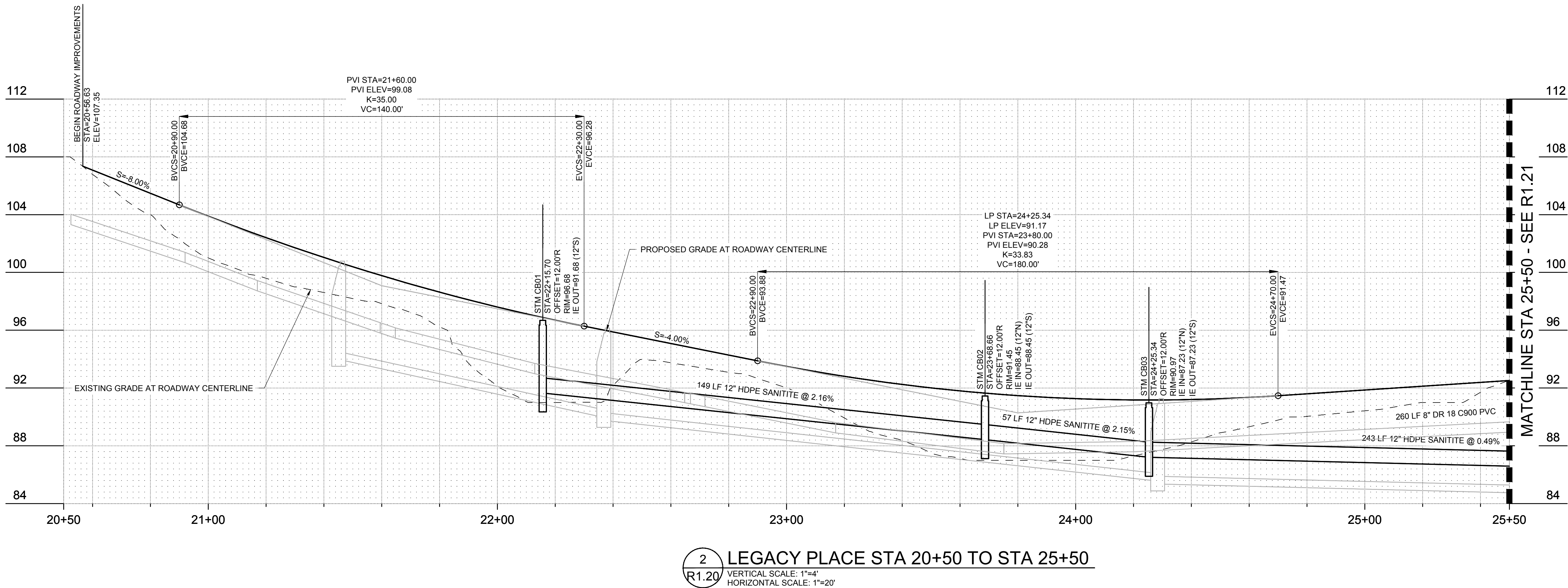
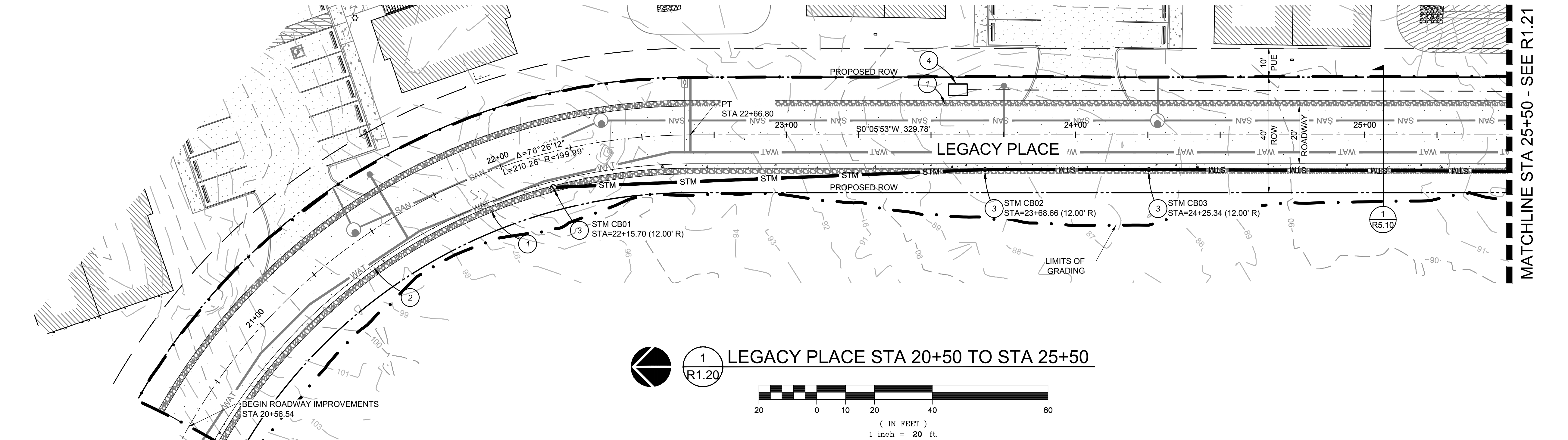
[illegible]

ET TITLE:
LEGACY PLACE
STREET AND
TORM (STA
0+50 TO 25+50

ET:

R1.20

NO. **2160454.08**

PERMIT SET - MARCH 7, 2025

NOTES

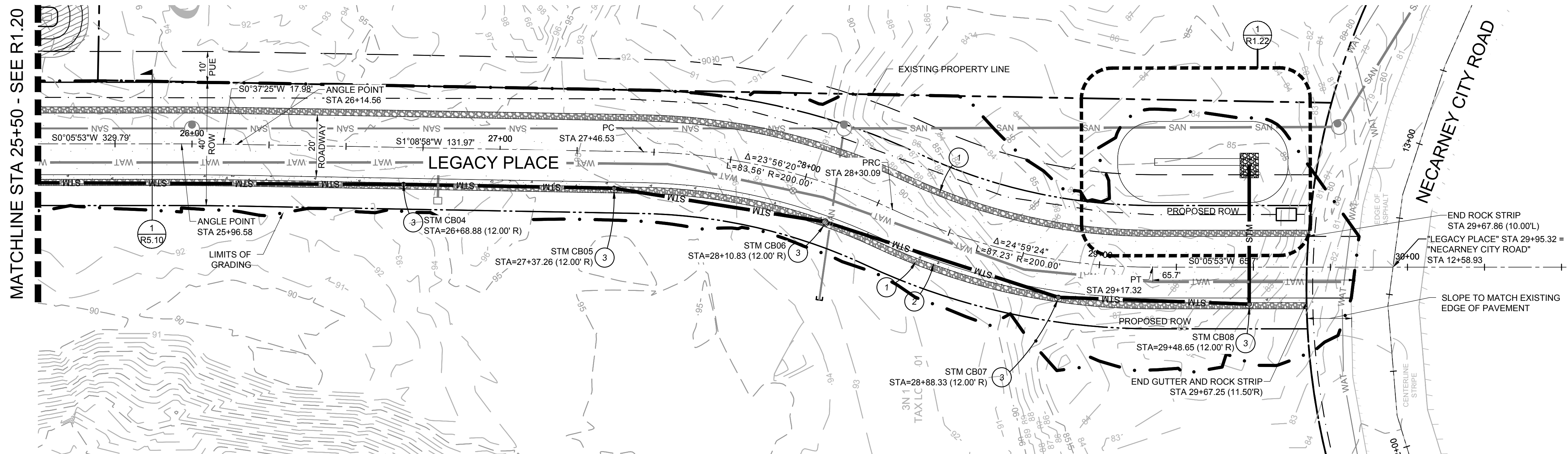
REFER TO SHEET R1.01 FOR NOTES, LEGEND AND ABBREVIATIONS.

KEYNOTES

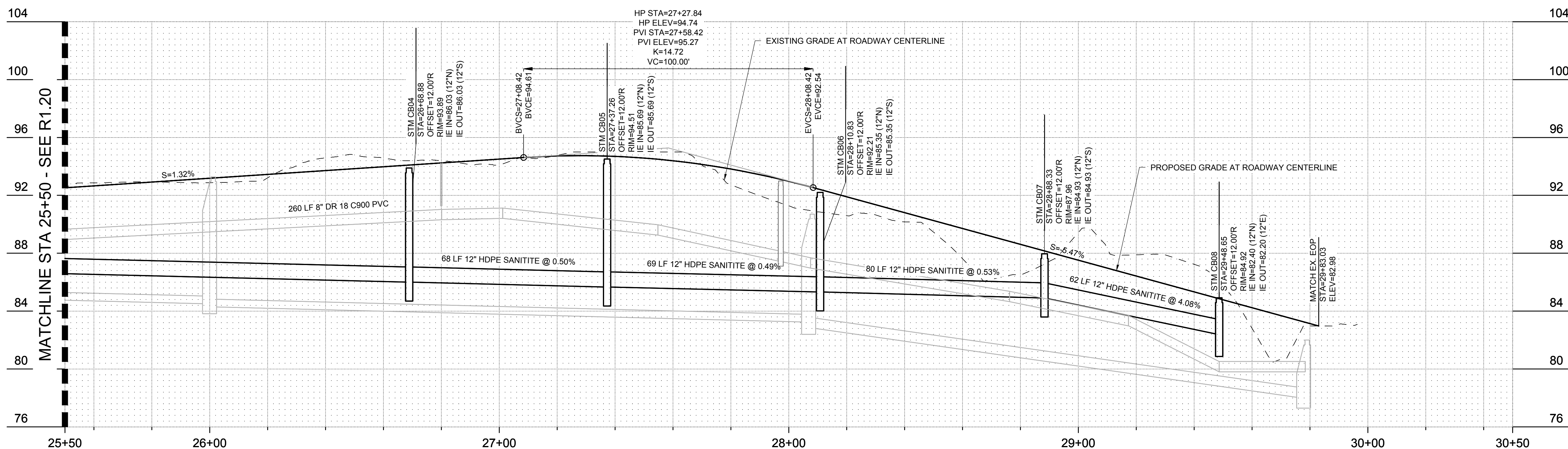
1. CRUSHED ROCK SHOULDER, SEE DETAIL ON R5.10
2. 1.5" VALLEY GUTTER, SEE DETAIL ON R5.10
3. NYLOPLAST CATCH BASIN, SEE DETAIL ON R5.10

REVISION SCHEDULE

Delta	Issued As	Issue Date

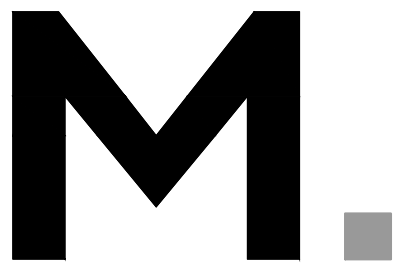


LEGACY PLACE STA 25+50 TO STA 30+50



LEGACY PLACE STA 25+50 TO STA 30+50

VERTICAL SCALE: 1"=4'
HORIZONTAL SCALE: 1"=20'



Architecture • Interiors
Planning • Engineering

Portland, OR
503.224.9560
Vancouver, WA
360.695.7879
Seattle, WA
206.749.9993

www.mackenzie.inc

MACKENZIE

Client

ENCORE
INVESTMENTS
LLC.

NOTES

REFER TO SHEET R1.01 FOR NOTES, LEGEND AND ABBREVIATIONS.

Project

HIGHLANDS
PHASE 8

© MACKENZIE 2025
ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF
MACKENZIE AND ARE NOT TO BE USED
OR REPRODUCED IN ANY MANNER
WITHOUT PRIOR WRITTEN PERMISSION

REVISION SCHEDULE

Delta	Issued As	Issue Date

SHEET TITLE:

LEGACY PLACE
- STORM POND
ENLARGEMENT

SHEET:

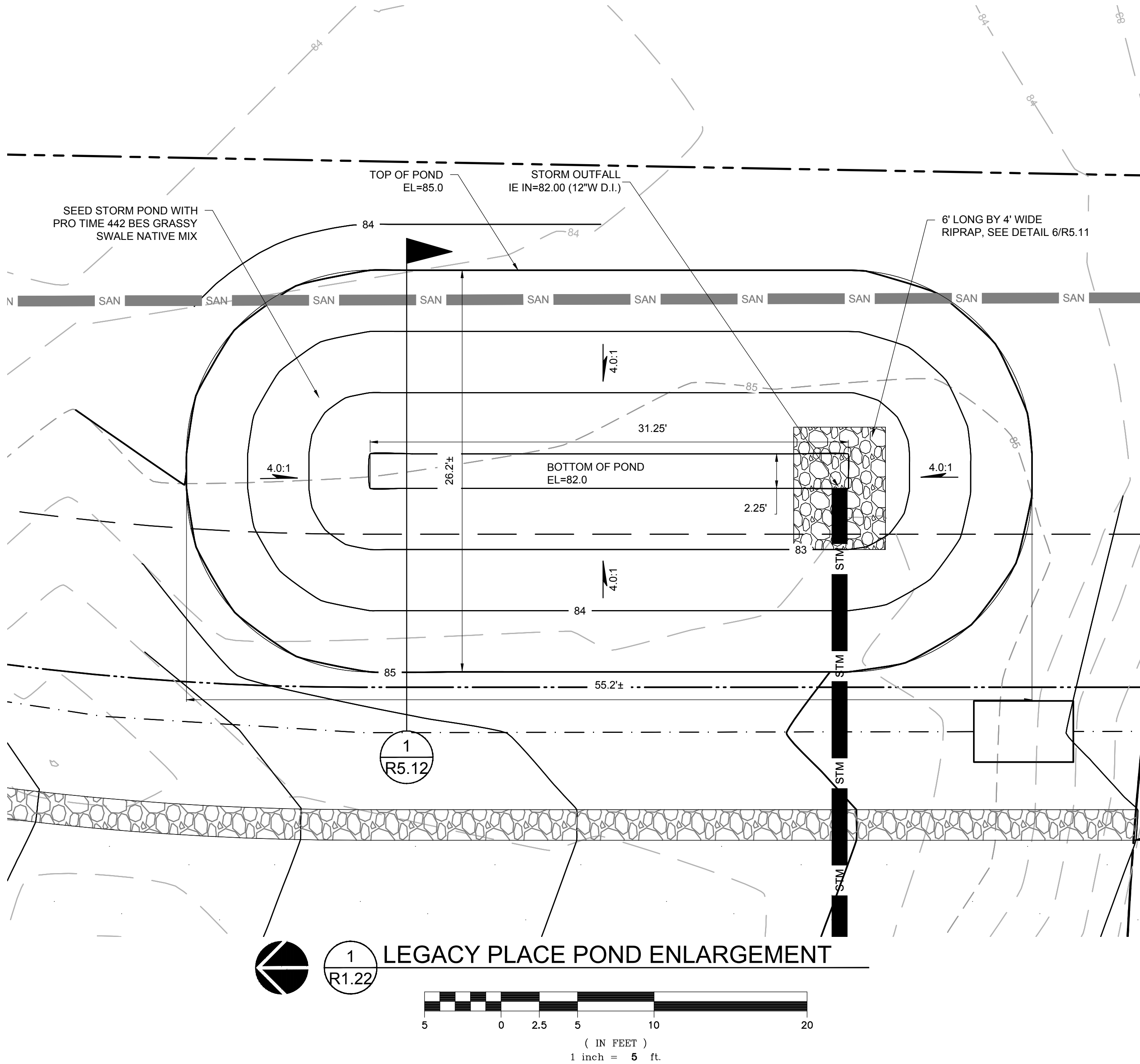
R1.22

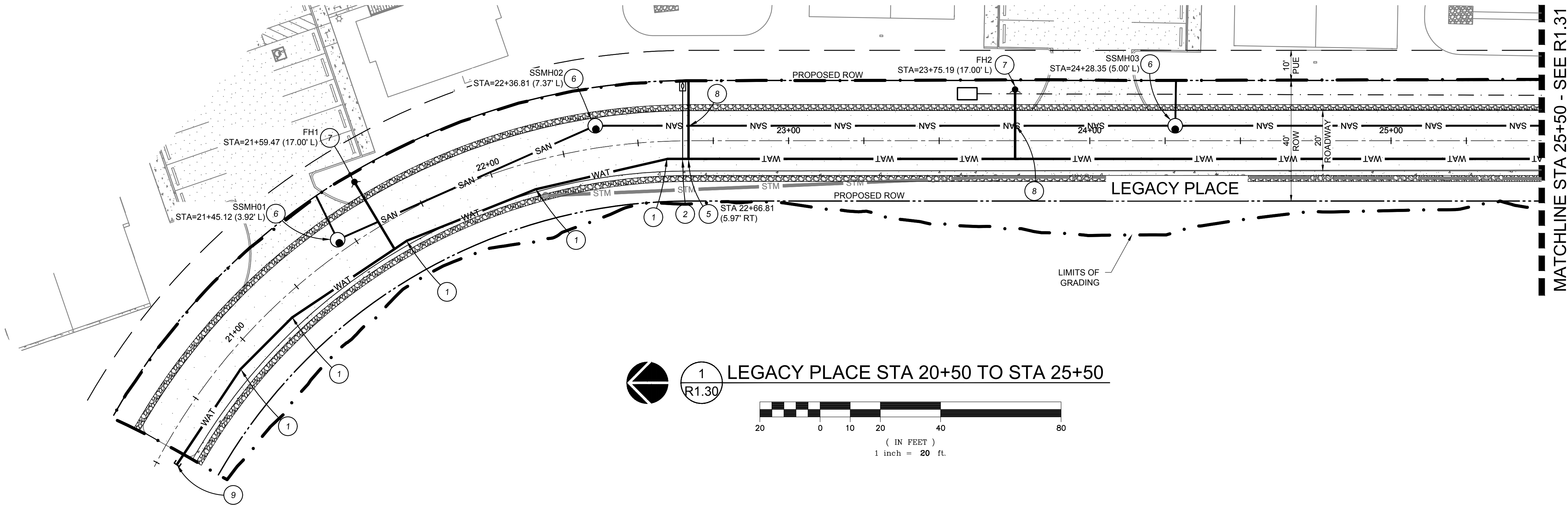
JOB NO.

2160454.08

PERMIT SET - MARCH 7, 2025

Z:\160454\004_DRAWINGS\CIVIL\PHASE 8\454-R1.2X.DWG AOC 03/17/25 15:40 1:20





1 LEGACY PLACE STA 20+50 TO STA 25+50
R1.30

NOTES

- REFER TO SHEET R1.01 FOR NOTES, LEGEND AND ABBREVIATIONS.
- PER OSHA AND OAR REGULATION, SEE NOTES ON "TRENCHING AND EXCAVATION SAFETY", SHEET R1.01.
- FOR WATER/SEWER CROSSING, SEE DETAIL 2/R5.11.
- FOR SANITARY SERVICE, SEE DETAIL 4/R5.11.
- FOR WATER SEPARATION DETAILS, SEE DETAIL 3/R5.11.
- FOR WATER THRUST BLOCK DETAIL, SEE DETAIL 1/R5.11.

KEYNOTES

- FURNISH AND INSTALL (1) 8" MJ 11-1/4 DEGREE HORIZONTAL BEND. FITTINGS TO BE MECHANICALLY RESTRAINED AND THRUST BLOCKED, SEE DETAIL 1/R5.11.
- INSTALL 3" TAP, 3" TYPE K CROSS LINKED POLYETHYLENE (PEXa) "REHAU-MUNICIPEX" AS REQUIRED AND 3" WATER METER PER CITY OF MANZANITA STANDARDS.
- CONNECT TO EXISTING WATER MAIN STUB BUILT BY SEPARATE CITY PROJECT. CONTRACTOR TO VERIFY SIZE, LOCATION AND DEPTH PRIOR TO START OF CONSTRUCTION. FITTING SHOULD BE MECHANICALLY RESTRAINED AND THRUST BLOCKED, SEE DETAIL 1/R5.11.
- FURNISH AND INSTALL AIR RELIEF VALVE IN VAULT, SEE DETAIL 405/R5.11. FITTING TO BE MECHANICALLY RESTRAINED AND THRUST BLOCKED, SEE DETAIL 1/R5.11.
- INSTALL 8" x 6" WATERLINE TEE FOR SITE FIRE VAULT. FITTING TO BE MECHANICALLY RESTRAINED AND THRUST BLOCKED, SEE DETAIL 1/R5.11.
- CONSTRUCT SANITARY SEWER MANHOLE, SEE DETAIL RD338/R5.10.
- INSTALL FIRE HYDRANT ASSEMBLY. SEE FIRE HYDRANT DETAIL ON SHEET R5.10. CONNECT TO MAIN LINE IN STREET WITH 8"X6" TEE. FITTINGS TO BE MECHANICALLY RESTRAINED AND THRUST BLOCKED. SEE DETAIL 1/R5.11.
- CONTROLLED DENSITY FILL (CDF) BETWEEN WATER AND SANITARY CROSSING.
- INSTALL BLANK FLANGE AND 8" GATE VALVE WITH BOX AND LID FOR FUTURE WATERLINE EXTENSION.

© MACKENZIE 2025
ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF
MACKENZIE AND ARE NOT TO BE USED
OR REPRODUCED IN ANY MANNER
WITHOUT PRIOR WRITTEN PERMISSION

REVISION SCHEDULE		
Delta	Issued As	Issue Date

SHEET TITLE:
**LEGACY PLACE
- SANITARY
AND WATER
(STA 20+50 TO
25+50)**

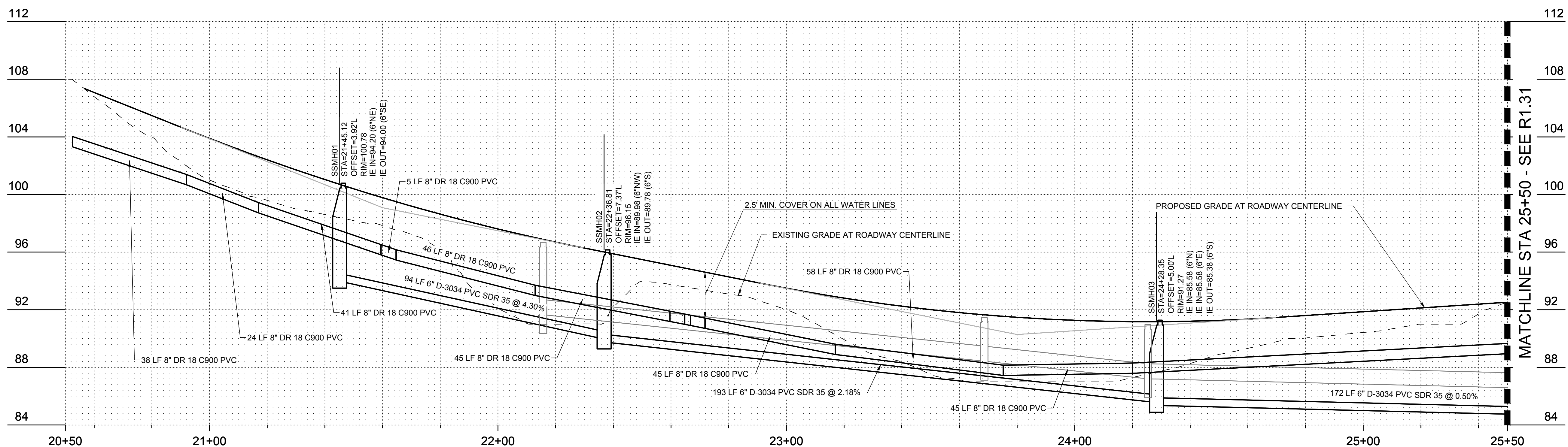
SHEET:

R1.30

JOB NO. 2160454.08

PERMIT SET - MARCH 7, 2025

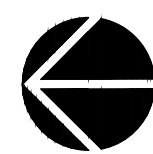
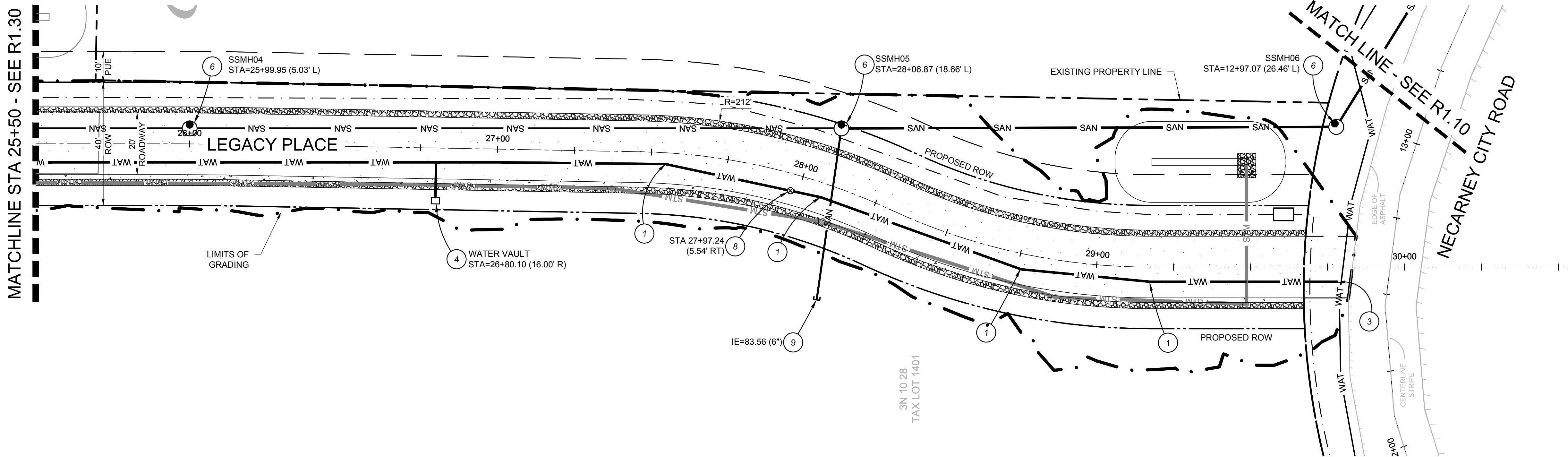
2160454004_DRAWINGS\CIVIL\PHASE 8\454-R1.3X.DWG AOC 03/17/25 15:35 1:20



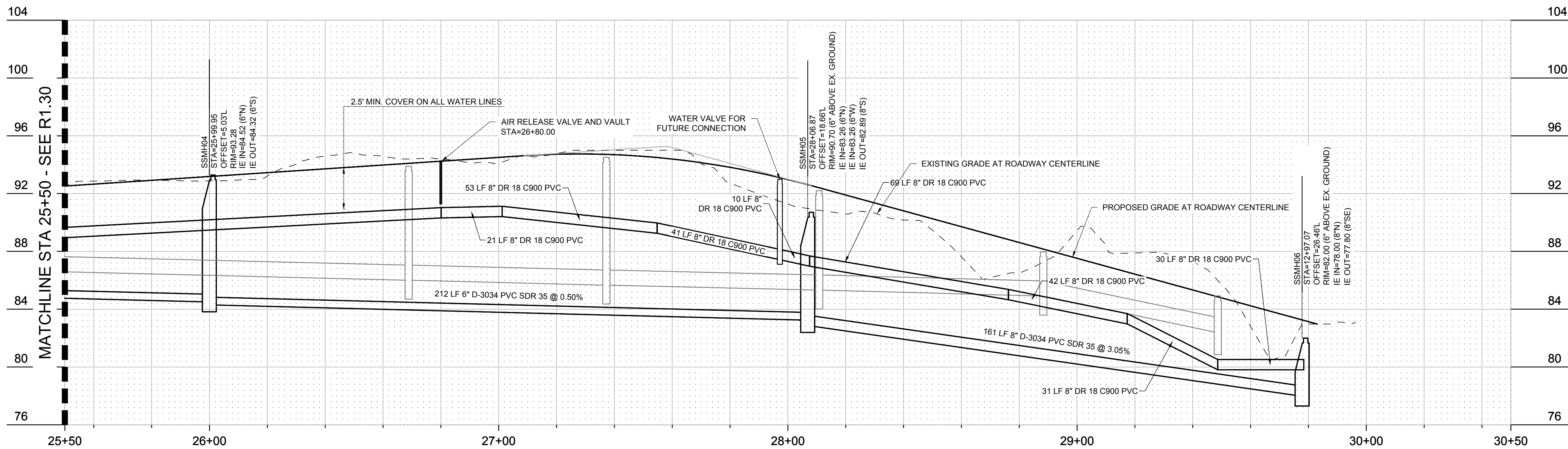
2 LEGACY PLACE STA 20+50 TO STA 25+50
R1.30

VERTICAL SCALE: 1"=4'
HORIZONTAL SCALE: 1"=20'

REVISION SCHEDULE		
Delta	Issued As	Issue Date

1
R1.31

LEGACY PLACE STA 25+50 TO STA 30+50

(IN FEET)
1 inch = 20 ft.2
R1.31

LEGACY PLACE STA 25+50 TO STA 30+50

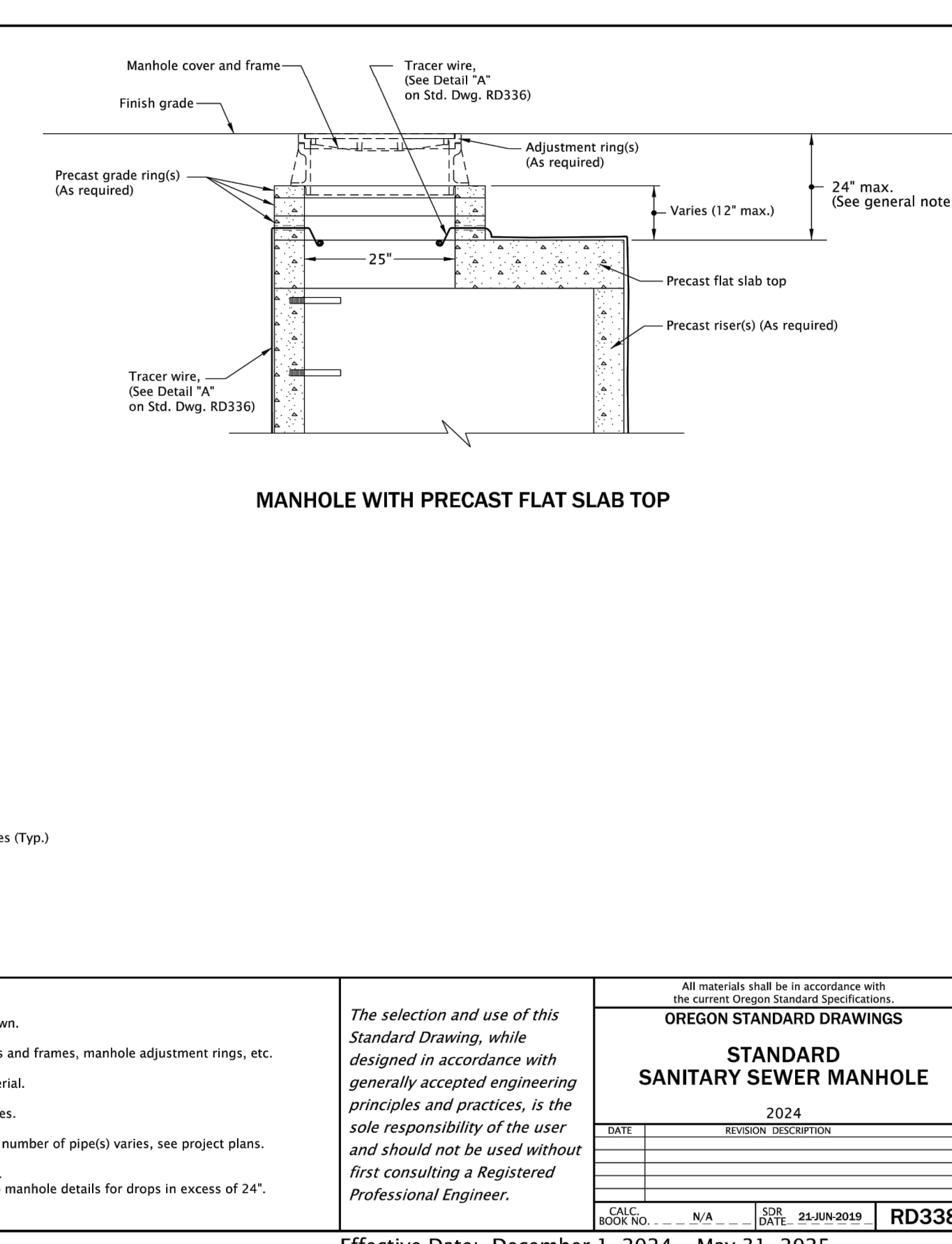
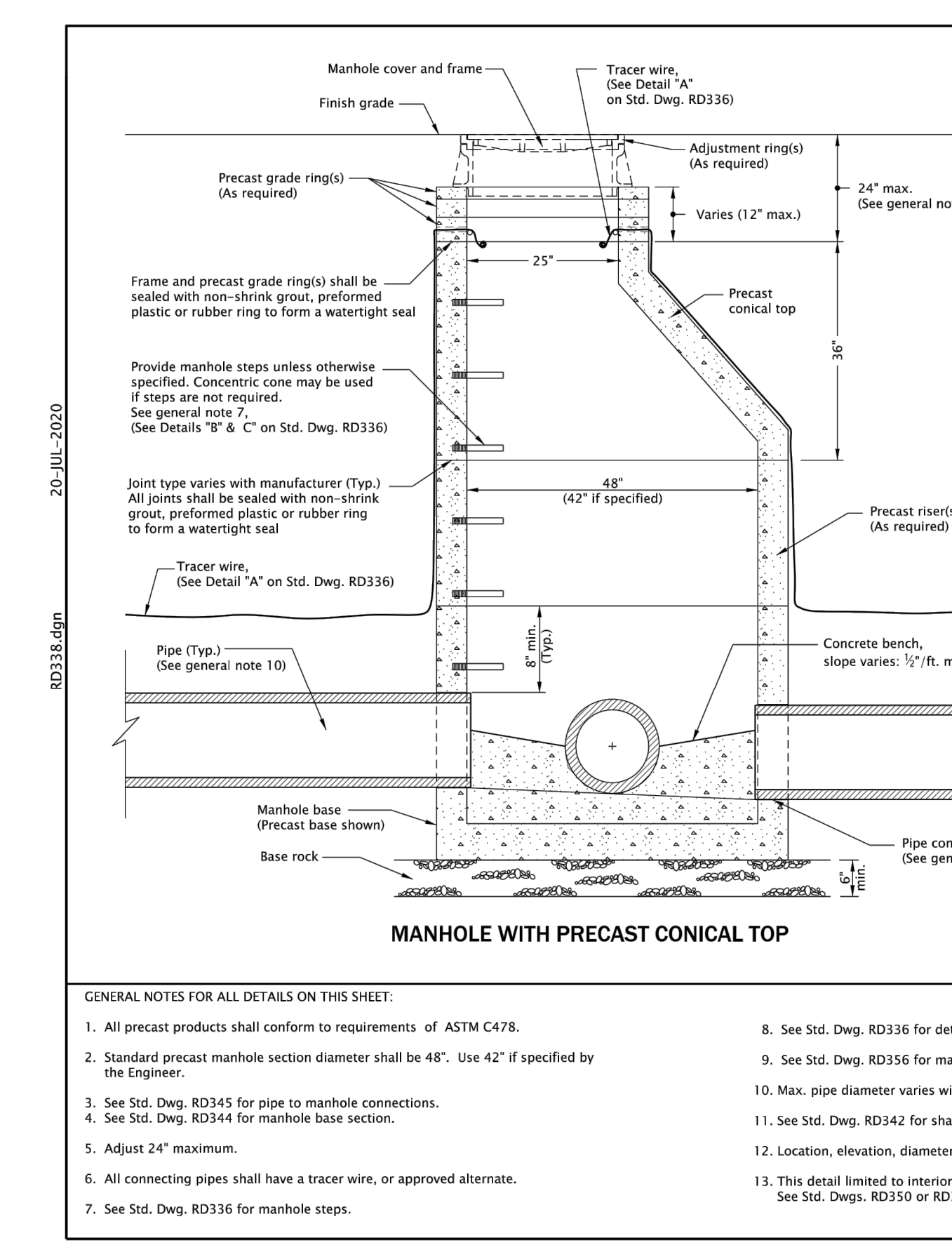
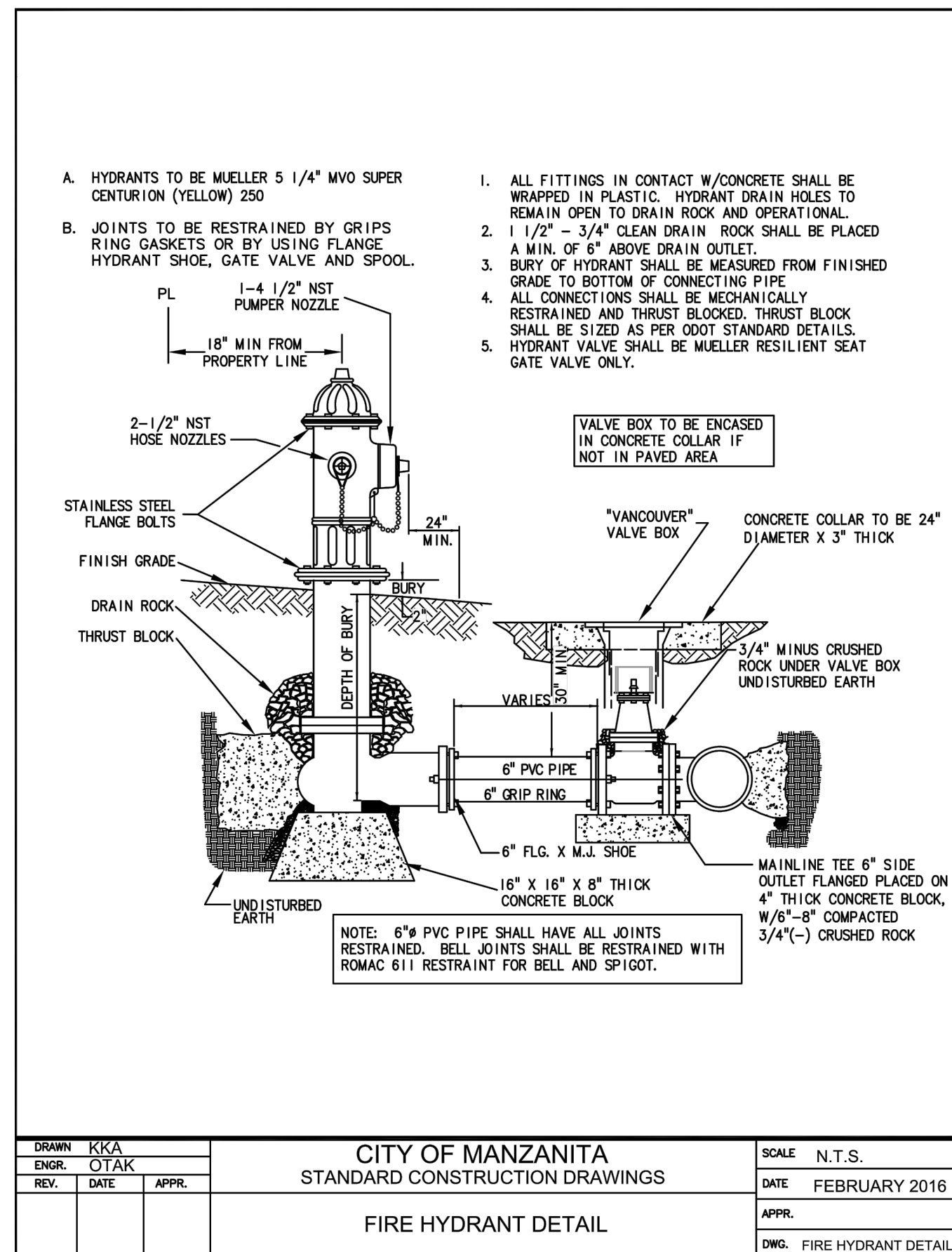
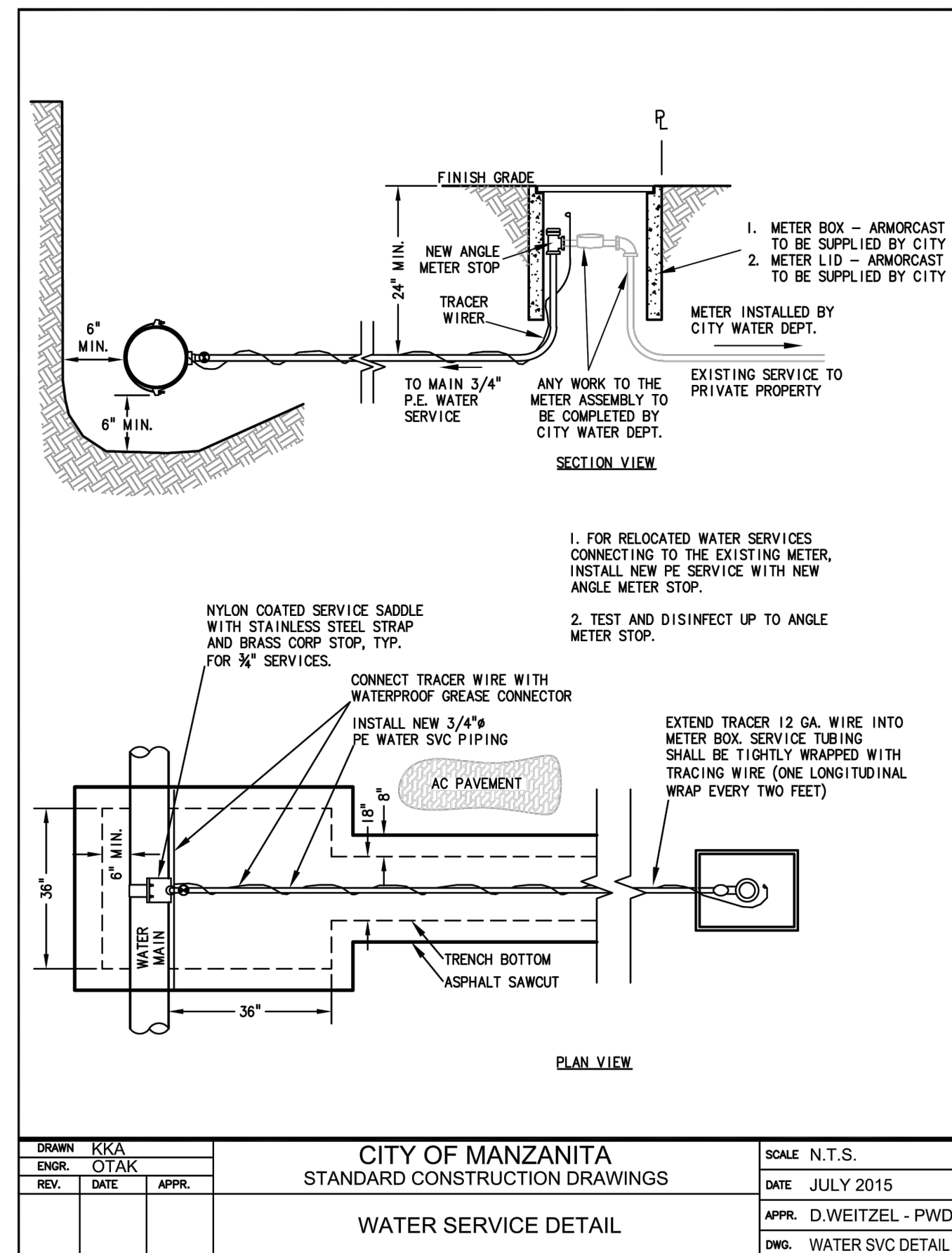
VERTICAL SCALE: 1"=4'
HORIZONTAL SCALE: 1"=20'

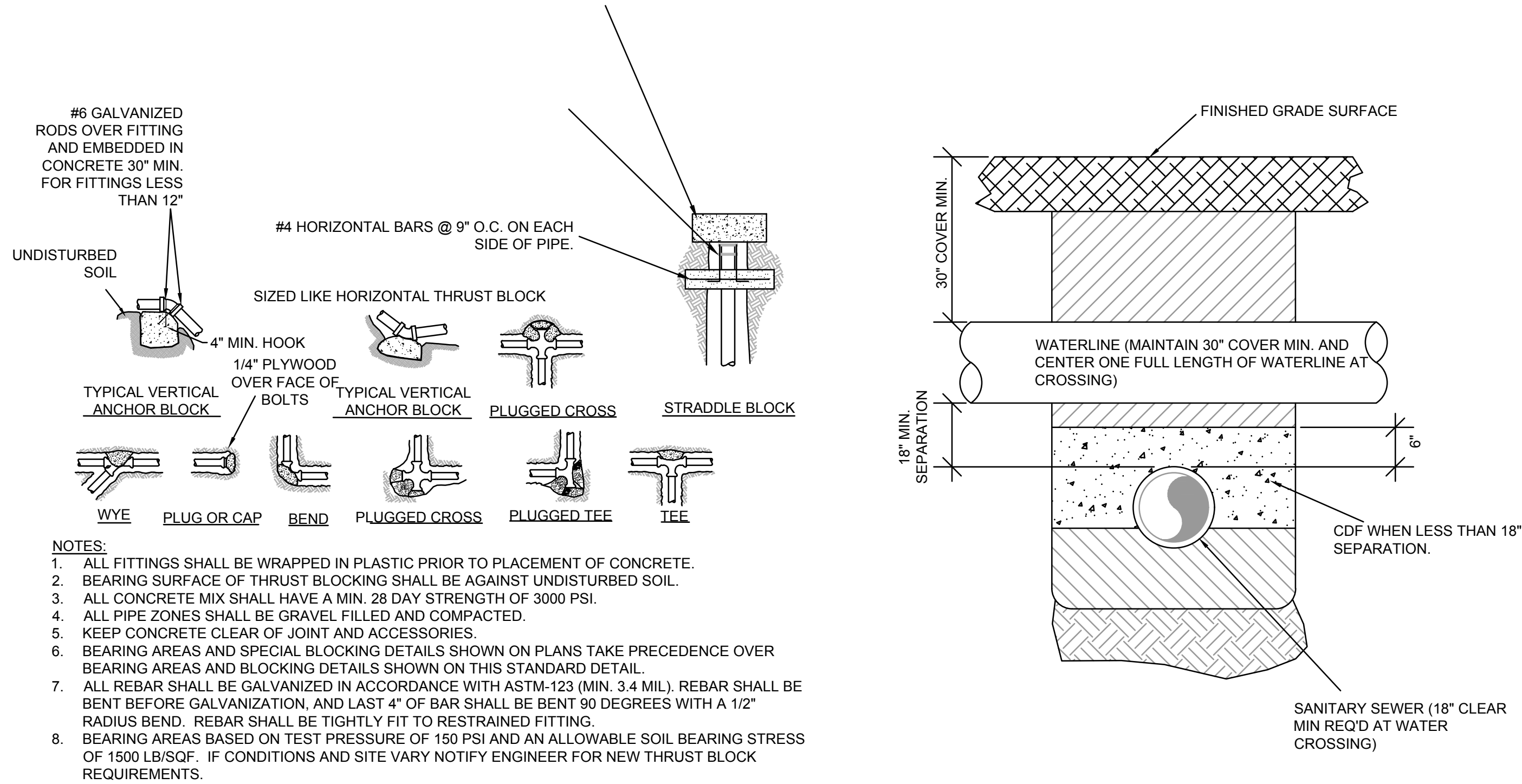
NOTES

1. REFER TO SHEET R1.01 FOR NOTES, LEGEND AND ABBREVIATIONS.
2. PER OSHA AND OAR REGULATION, SEE NOTES ON "TRENCHING AND EXCAVATION SAFETY", SHEET R1.01
3. FOR WATER/SEWER CROSSING, SEE DETAIL 2/R5.11
4. FOR SANITARY SERVICE, SEE DETAIL 4/R5.11
5. FOR WATER SEPARATION DETAILS, SEE DETAIL 3/R5.11
6. FOR WATER THRUST BLOCK DETAIL, SEE DETAIL 1/R5.11

KEYNOTES

1. FURNISH AND INSTALL (1) 8" MJ 11-1/4 DEGREE HORIZONTAL BEND. FITTINGS TO BE MECHANICALLY RESTRAINED AND THRUST BLOCKED, SEE DETAIL 1/R5.11.
2. INSTALL 3/4" TAP, 3/4" TYPE K CROSS LINKED POLYETHYLENE (PEXa) "REHAU-MUNICIPEX" AS REQUIRED AND 3/4" WATER METER PER CITY OF MANZANITA STANDARDS.
3. CONNECT TO EXISTING WATER MAIN STUB BUILT BY SEPARATE CITY PROJECT. CONTRACTOR TO VERIFY SIZE, LOCATION AND DEPTH PRIOR TO START OF CONSTRUCTION. FITTING SHOULD BE MECHANICALLY RESTRAINED AND THRUST BLOCKED, SEE DETAIL 1/R5.11.
4. FURNISH AND INSTALL AIR RELIEF VALVE IN VAULT, SEE TUALATIN VALLEY WATER DISTRICT DETAIL 405/R5.11. FITTING TO BE MECHANICALLY RESTRAINED AND THRUST BLOCKED, SEE DETAIL 1/R5.11.
5. SANITARY SEWER MANHOLE, SEE DETAIL RD338/R5.10.
6. INSTALL FIRE HYDRANT ASSEMBLY. SEE FIRE HYDRANT DETAIL ON SHEET R5.10. CONNECT TO MAIN LINE IN STREET WITH 8"x6" TEE. FITTINGS TO BE MECHANICALLY RESTRAINED AND THRUST BLOCKED. SEE DETAIL 1/R5.11.
7. INSTALL 8" WATER VALVE.
8. STUB, PLUG AND MARK FOR FUTURE CONNECTION.





BEARING AREA OF THRUST BLOCKS IN SQ. FT.							
FITTING SIZE	TEE, WYE, PLUG OR CAP	90° BEND OR PLUGGED CROSS	TEE PLUGGED ON RUN	45° BEND	22 1/2° BEND	11 1/2° BEND	STRADDLE BLOCK
4	2.0	2.8	3.8	2.0	1.0	1.0	4.8
6	4.2	6.0	8.6	3.2	2.0	1.0	11.1
8	7.6	10.6	15.2	5.8	3.0	2.0	15.9
10	11.0	17.0	22.0	8.2	4.8	2.2	23.0

WATER LINE RESTRAINT CALCULATION		
SITE NAME	FITTING TYPE	RESTRAINT (FT)
LOOP ROAD	8" DEAD END	116
LOOP ROAD	11.25" HORIZONTAL BEND	4
LOOP ROAD	22.5" HORIZONTAL BEND	8
LOOP ROAD	45" HORIZONTAL BEND	16
LOOP ROAD	90" HORIZONTAL BEND	37
LOOP ROAD	8" X 6" TEE	47 (BRANCH) 2 (RUN)

1 THRUST BLOCK DETAIL

R5.11 N.T.S.

1:1

2 WATER/SEWER CROSSING DETAIL

R5.11 N.T.S.

1:1

3 WATER SEPARATION REQUIREMENTS

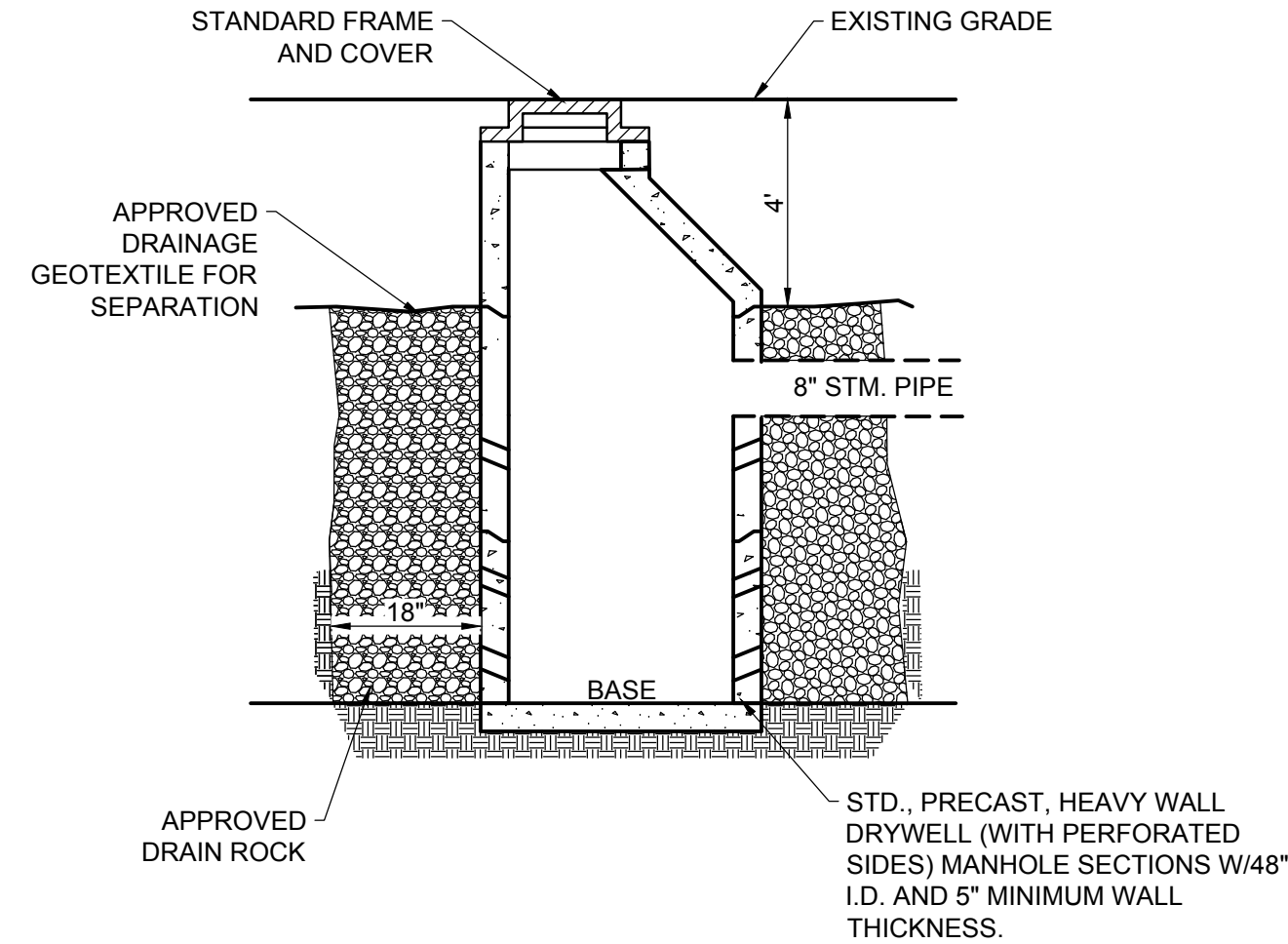
R5.11 N.T.S.

1:1

4 SEWER SERVICE DETAIL

R5.11 N.T.S.

1:1



5 DRYWELL

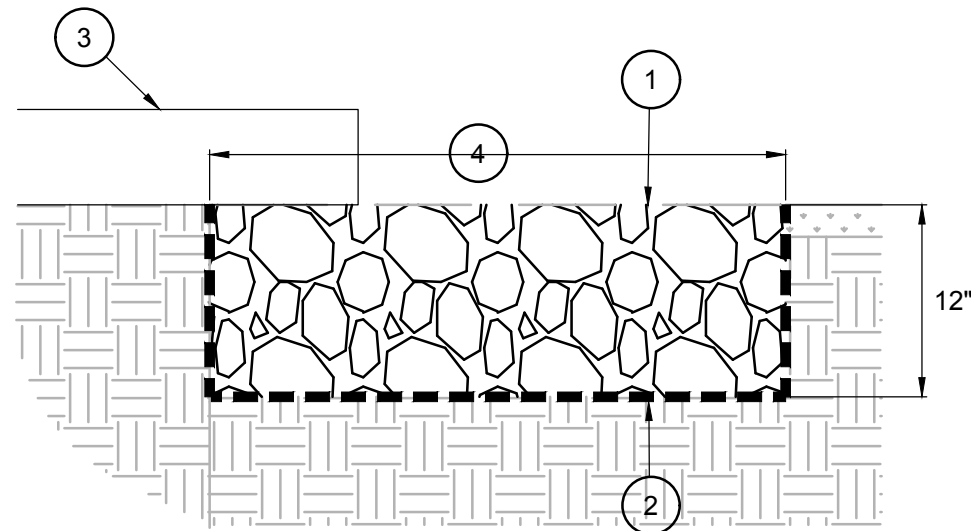
R5.11 N.T.S.

1:1

5 RIP RAP PAD

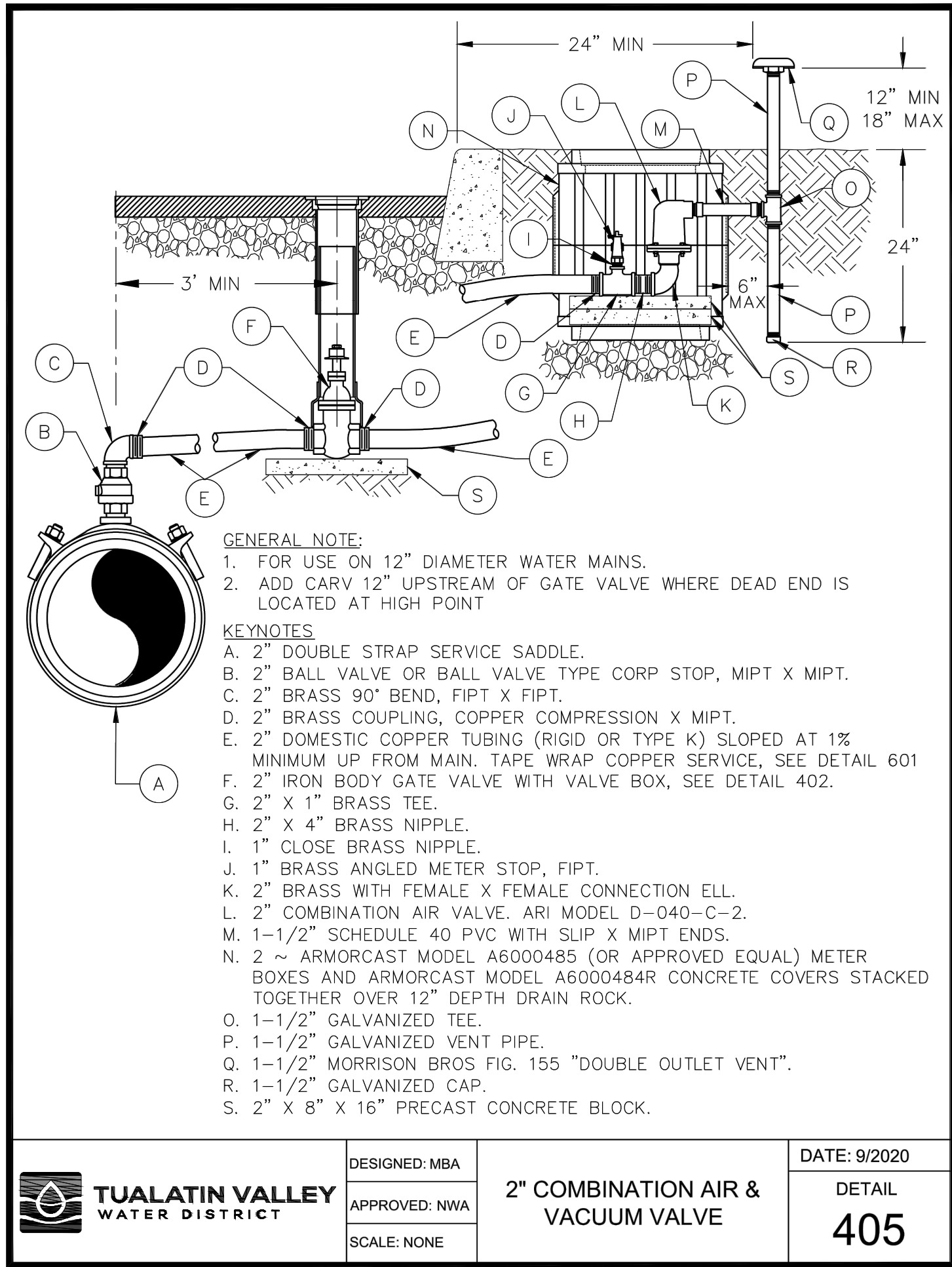
R5.11

N.T.S.



- KEYNOTES:**
- CRUSHED, ANGULAR, 6"-10" DIAMETER ROCK (I.E. ODOT CLASS 50 RIP RAP). TOP OF RIP RAP LAYER TO BE FLUSH WITH ADJACENT GRADE
 - WOVEN FILTER FABRIC, ENCASING ALL BUT THE TOP SURFACE OF THE AGGREGATE
 - PIPE OUTFALL, WIDTH/DIAMETER, AND INVERT PER PLAN. CENTER RIP RAP PAD ON PIPE OUTFALL/CURB BREAK
 - RIP RAP PAD DIMENSIONS PER PLAN. IF NONE NOTED, INSTALL TO A MINIMUM WIDTH OF 12" TO EITHER SIDE OF A CURB BREAK OR PIPE OUTFALL AND 48" LONG

- NOTES:**
- ALL FEATURES SHOWN OTHER THAN THE RIP RAP PAD ARE SHOWN FOR REFERENCE ONLY TO PROVIDE CONTEXT OF THE RIP RAP'S RELATIONSHIP TO ITS SURROUNDINGS. REFER TO THE PLANS FOR PROJECT SPECIFIC RELATIONSHIPS TO OTHER SITEWORK ELEMENTS



TUALATIN VALLEY
WATER DISTRICT

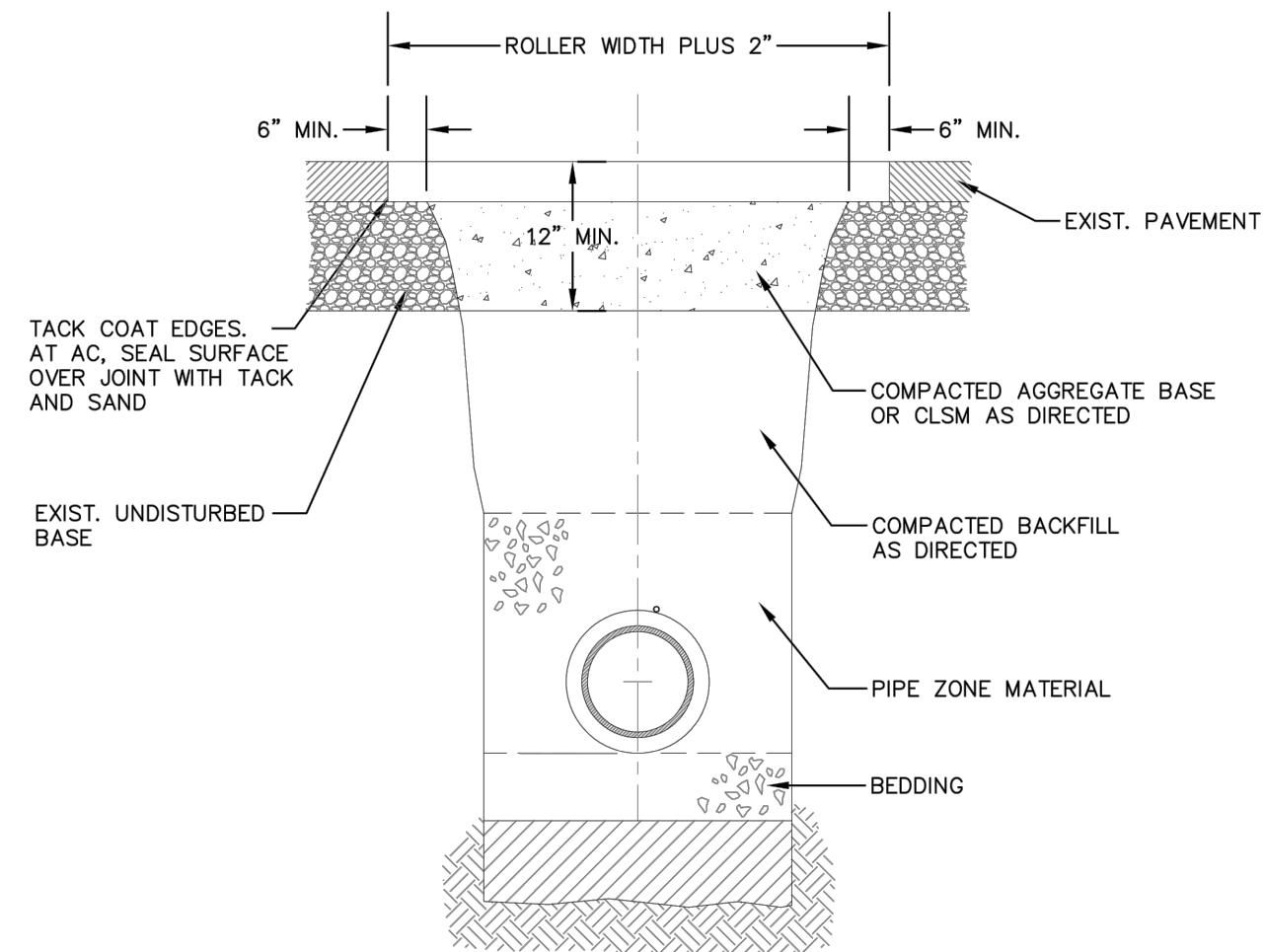
DESIGNED: MBA
APPROVED: NWA
SCALE: NONE

2" COMBINATION AIR &
VACUUM VALVE

DATE: 9/2020

DETAIL

405



- NOTES:**
- ALL EXISTING AC OR PCC PAVEMENT SHALL BE SAWCUT IMMEDIATELY PRIOR TO REPAVING.
 - CONCRETE PAVEMENT SHALL BE REPLACED WITH CONCRETE TO A MINIMUM THICKNESS OF 6 INCHES OR TO THE THICKNESS OF REMOVED PAVEMENT, WHICHEVER IS GREATER.
 - PLACE AC MIX TO A MINIMUM THICKNESS OF 4 INCHES OR THE THICKNESS OF REMOVED PAVEMENT, WHICHEVER IS GREATER. COMPACT AS DIRECTED.
 - COMPLY WITH THE REQUIREMENTS OF THE AGENCY HAVING JURISDICTION OVER THE ROAD IN WHICH THE STREET CUT OCCURS.

Neskowin Regional
Water District
Tillamook County, Oregon

STREET CUT
STANDARD DETAIL

DETAIL NO.
W-151
6/29/06

© MACKENZIE 2025
ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF
MACKENZIE AND ARE NOT TO BE USED
OR REPRODUCED IN ANY MANNER
WITHOUT PRIOR WRITTEN PERMISSION

REVISION SCHEDULE		
Delta	Issued As	Issue Date

SHEET TITLE:
CIVIL DETAILS

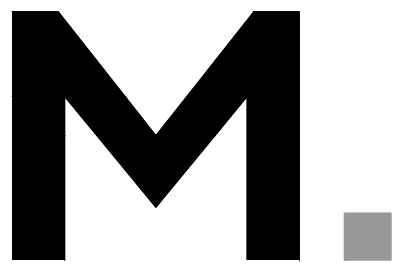
SHEET:

R5.11

JOB NO. 2160454.08

PERMIT SET - MARCH 7, 2025

2160454004_DRAWINGS\CIVIL\PHASE 8\454-R5.10.DWG AOC 03/17/25 15:41



Architecture • Interiors
Planning • Engineering

Portland, OR
503.224.9560
Vancouver, WA
360.695.7879
Seattle, WA
206.749.9993

www.mackenzie.inc

MACKENZIE

Client
ENCORE
INVESTMENTS
LLC.

Project
HIGHLANDS
PHASE 8

© MACKENZIE 2025
ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF
MACKENZIE AND ARE NOT TO BE USED
OR REPRODUCED IN ANY MANNER
WITHOUT PRIOR WRITTEN PERMISSION

REVISION SCHEDULE		
Delta	Issued As	Issue Date

SHEET TITLE:
CIVIL DETAILS

SHEET:

R5.12

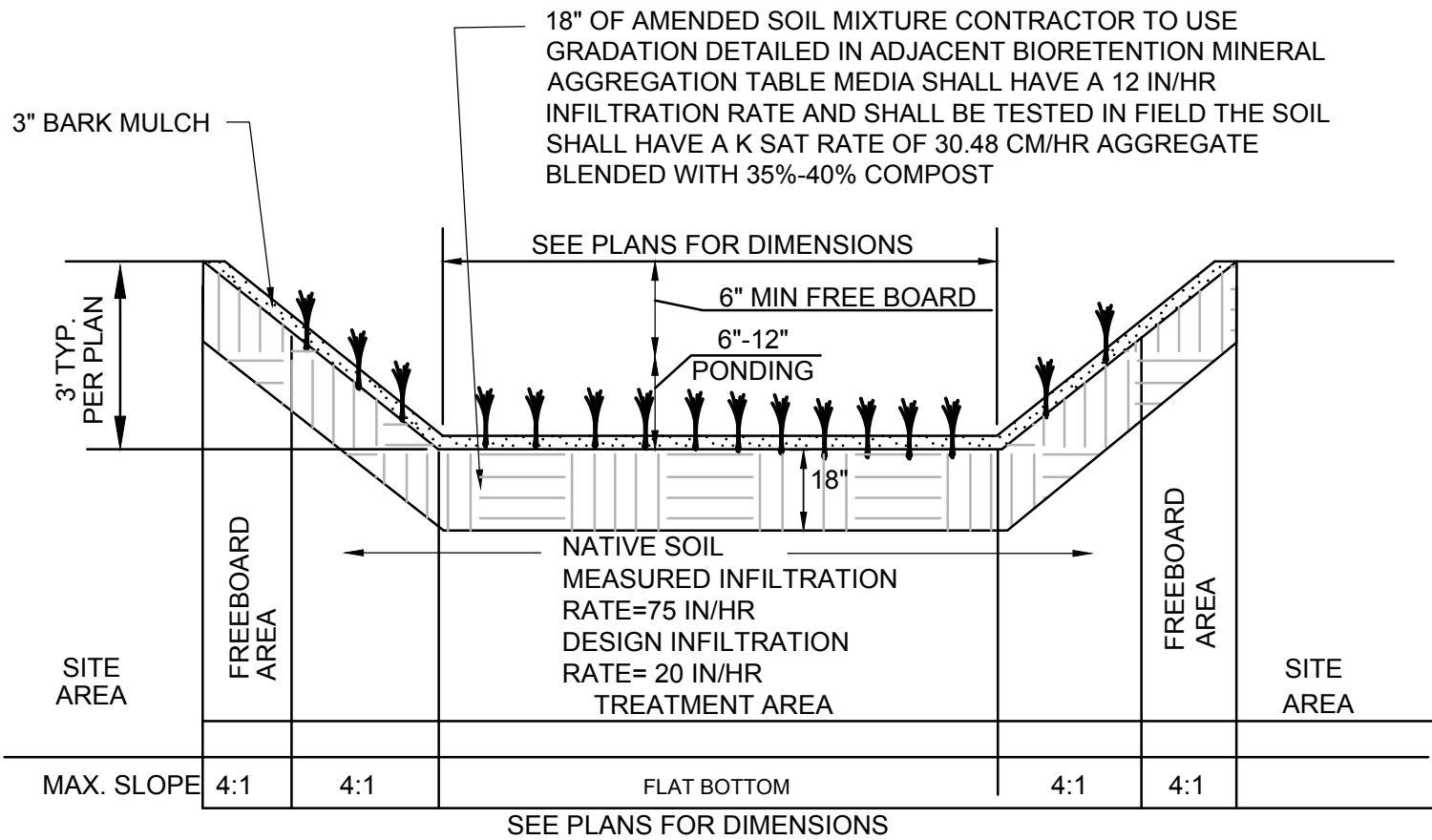
JOB NO. 2160454.08

PERMIT SET - MARCH 7, 2025

2160454004_DRAWINGS\CIVIL\PHASE 8\454-R5.10.DWG AOC 03/17/25 15:41 1:1

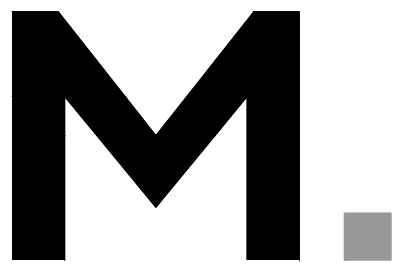
BIORETENTION SOIL AGGREGATE GRADATION	
SIEVE #	% PASSING
3/8"	100%
#4	95-100%
#10	75-90%
#40	25-40%
#100	4-10%
#200	2-5%

CONTRACTOR SHALL PROTECT BIOFILTRATION BASINS BY INSTALLING ORANGE CONSTRUCTION FENCING AROUND THE PERIMETER FOLLOWING EXCAVATION TO AND PREVENT CONSTRUCTION TRAFFIC OTHER ACTIVITIES WHICH MAY POTENTIALLY REDUCE INFILTRATION. CEC >= 5 MEQ/100 GRAMS OF DRY SOIL; 8-10 PERCENT ORGANIC MATTER CONTENT; GRADTION PER PROVIDED GRADATION TABLE.
CONTRACTOR TO FIELD TEST NATIVE INFILTRATION RATE PRIOR TO INSTALLING AMENDED SOIL.



- NOTES:
1. SEE LANDSCAPE PLANS AND SPECIFICATIONS FOR REQUIREMENTS INCLUDING PLANTING, AMENDED SOIL AND ALL PLANTING SPECIFICATIONS.
 2. PROVIDE IRRIGATION AS PER THE LANDSCAPE PLAN.
 3. 18-INCHES OF AMENDED SOIL SHALL BE PLACED THROUGHOUT BIORETENTION FACILITY AREA.
 4. SEE CIVIL PLANS FOR LOCATION, DIMENSION AND GRADING OF SWALE/WQ BASIN. SEE STORM REPORT FOR SIZING AND TREATMENT CALCULATIONS.

1
R5.12 TYPICAL BIORETENTION FACILITY SECTION
N.T.S. SWALE 4 1:1



Architecture • Interiors
Planning • Engineering

Portland, OR
503.224.9560
Vancouver, WA
360.695.7879
Seattle, WA
206.749.9993

www.mackenzie.inc

MACKENZIE

Client
ENCORE
INVESTMENTS
LLC.

Project
HIGHLANDS
PHASE 8

© MACKENZIE 2025
ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF
MACKENZIE AND ARE NOT TO BE USED
OR REPRODUCED IN ANY MANNER,
WITHOUT PRIOR WRITTEN PERMISSION

REVISION SCHEDULE		
Delta	Issued As	Issue Date

SHEET TITLE:
ELECTRICAL
PLAN

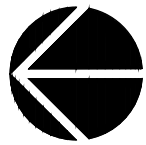
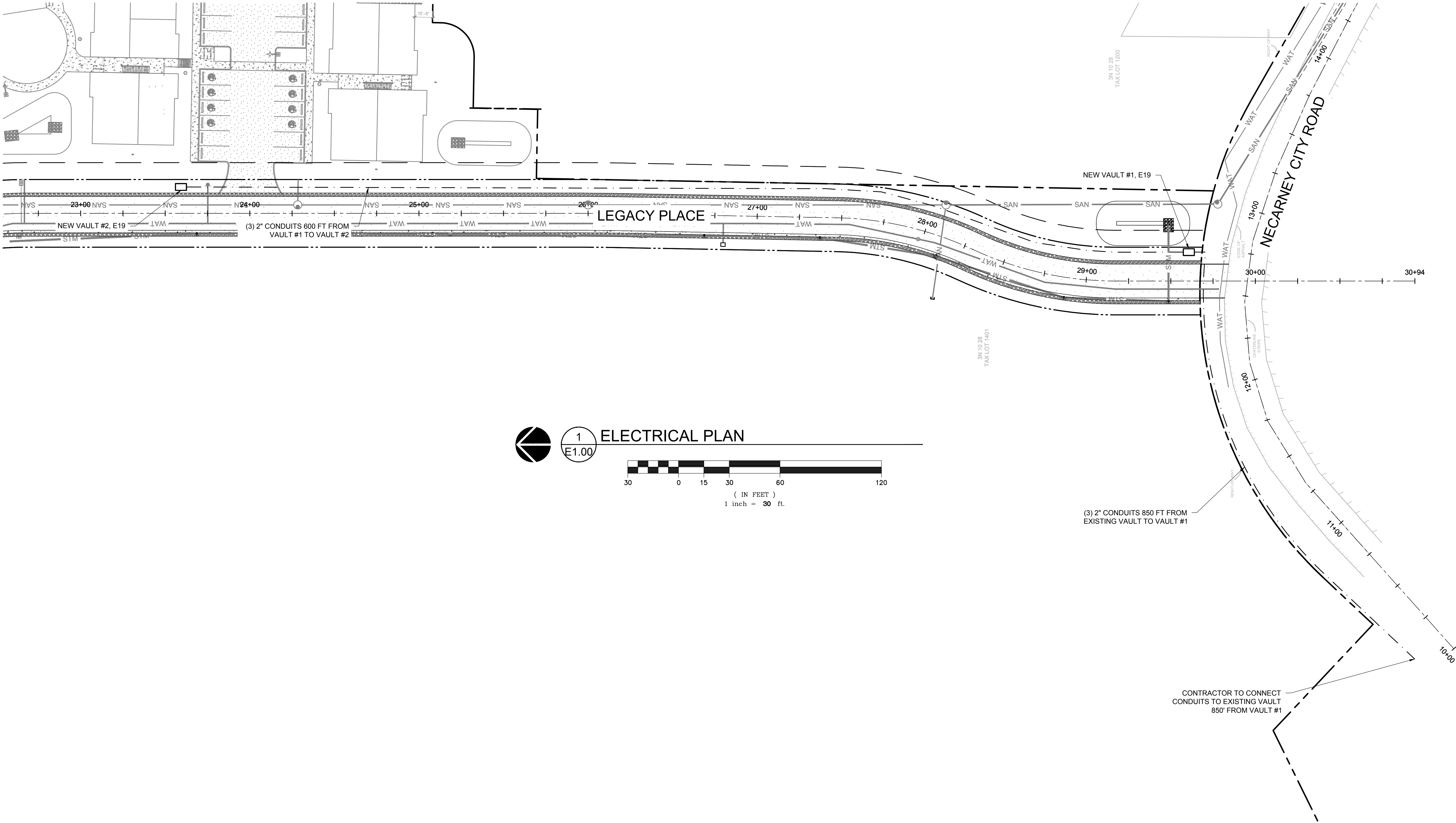
SHEET:

E1.00

JOB NO. 2160454.08

PERMIT SET - MARCH 7, 2025

2160454004_DRAWINGS\CIVIL\PHASE 0\454-E1.0.DWG AOC 03/17/25 15:41 1:30



1
E1.00

ELECTRICAL PLAN

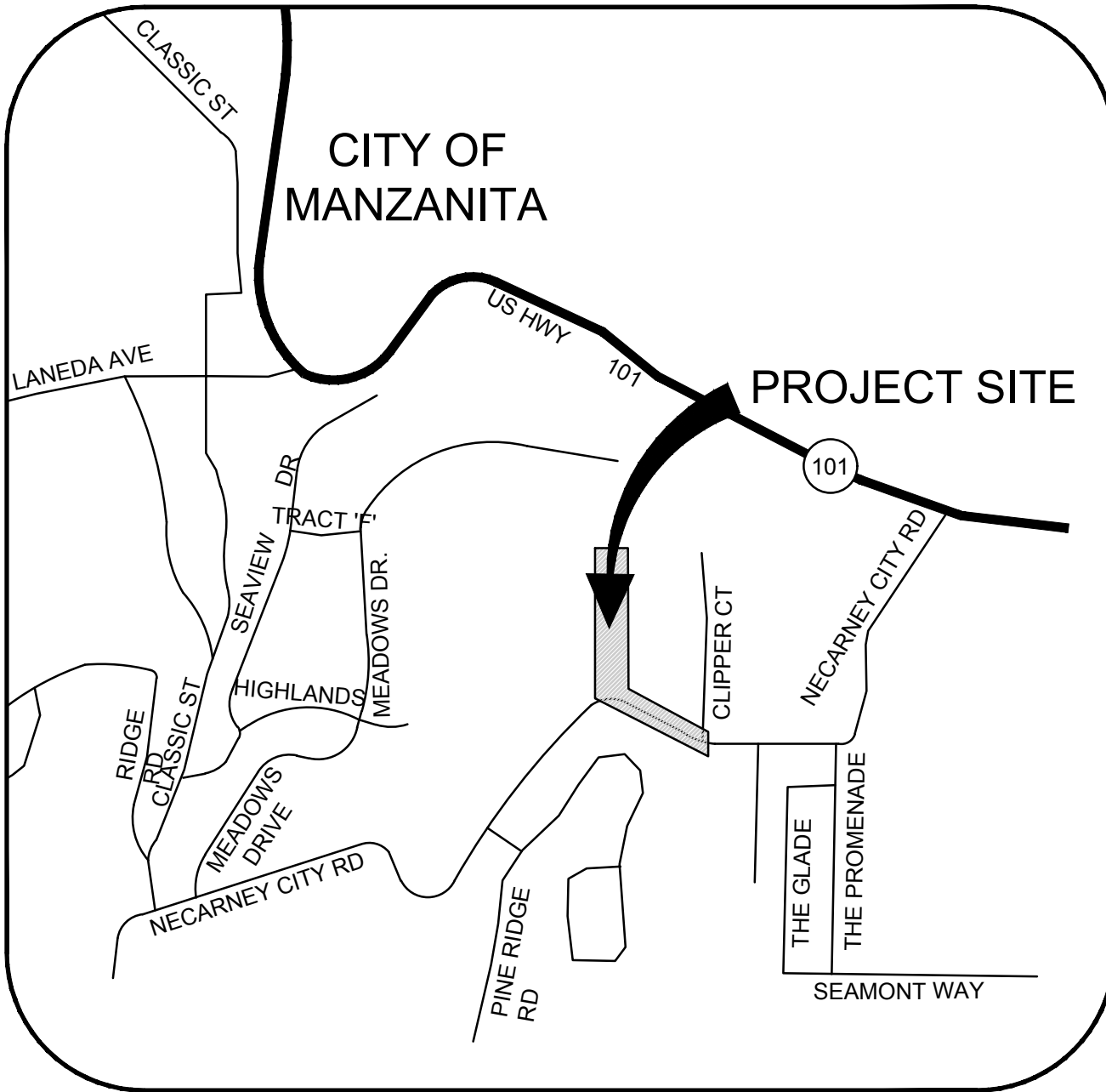


(IN FEET)
1 inch = 30 ft.

REVISION SCHEDULE		
Delta	Issued As	Issue Date

LEGACY PLACE AND NECARNEY CITY ROAD IMPROVEMENTS

1200-C EROSION AND SEDIMENT CONTROL PLAN



SHEET INDEX:

EC1.0	ESCP - COVER SHEET
EC2.0	ESCP - CLEARING & DEMOLITION
EC3.0	ESCP - GRADING & EXCAVATION
EC4.0	ESCP - UTILITY CONSTRUCTION
EC5.0	NOT USED
EC6.0	ESCP - FINAL STABILIZATION
EC7.0	ESCP - DETAILS

PROJECT LOCATION

SITE: NORTH OF NECARNEY CITY ROAD, ABOUT ½ MILE EAST OF CLASSIC STREET, MANZANITA, OR 97130
LATITUDE = 45°42'55"N LONGITUDE = 123°55'20"W

PROPERTY DESCRIPTION

LOCATED IN THE SW ¼ OF SECTION 28B
TOWNSHIP 3 N, RANGE 10 W, W.M.,
CITY OF MANZANITA, TILLAMOOK COUNTY, OREGON

SITE INFORMATION:

- TYPE OF DEVELOPMENT: ROADWAY
- CONSTRUCTION ACTIVITY WILL CONSIST OF:
 - CURB, ASPHALT PAVING, AND SIDEWALK CONSTRUCTION
 - WASTEWATER SYSTEM CONSTRUCTION
 - STORMWATER DRAINAGE SYSTEM:
 - STORMWATER PIPING
 - STORMWATER TREATMENT DETENTION POND
 - DOMESTIC WATER SYSTEM CONSTRUCTION
 - FRANCHISE UTILITY CONSTRUCTION
 - PUBLIC ROADWAY IMPROVEMENTS
- PROJECT TIMELINE:
 - BEGINNING DATE: MAY 2025
 - COMPLETION DATE: SEPTEMBER 2025
- PROJECT SITE AREAS:
 - TOTAL AREA: 29.65 AC (1,291,509 SF)
 - DISTURBED AREA: 1.07 AC (46,610 SF)
- ONSITE SOIL TYPES
 - WALDPOR FINE SAND, 3 TO 15 PERCENT SLOPES
 - NETARTS FINE SANDY LOAM, 5 TO 30 PERCENT SLOPES
 - HECETA FINE SAND, 0 TO 3 PERCENT SLOPES
- CUT AND FILL DATA
 - CUT: 580 CU. YD
 - FILL (1.0 FACTOR): 2475 CU. YD.
 - NET ADJUSTED: 1895 CU. YD. (FILL)
- RAIN GAUGE:
 - NEAREST RAIN GAUGE IS LOCATED IN TILLAMOOK COUNTY WITH STATION NAMED WILSON RIVER AT SOLLIE SMITH BR AT TILLAMOOK, OR
 - STATION NUMBER: 14302020
- OPERATING HOURS: M-F 7:00AM - 5:00PM
- RECEIVING WATER BODIES:
 - NEAHKAHNIE CREEK

PHASE SCHEDULING

CLEARING & DEMOLITION: MAY 2025 - JUNE 2025
GRADING & EXCAVATION: JUNE 2025 - JULY 2025
UTILITY CONSTRUCTION: JUNE 2025 - AUGUST 2025
OFFSITE: MAY 2025 - SEPT 2025
VERTICAL CONSTRUCTION: NONE
FINAL STABILIZATION: SEPT 2025

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 ESCP PLAN, AN ACTION PLAN WILL BE SUBMITTED.

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

INSPECTION FREQUENCY TABLE

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

- 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

THE PERMITEE 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 SUPERSEDE REQUIREMENTS OF THIS PLAN

BMP MATRIX FOR CONSTRUCTION PHASES

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

	CLEARING	MASS GRADING	UTILITY CONSTRUCTION	VERTICAL CONSTRUCTION	FINAL STABILIZATION
EROSION PREVENTION					
PRESERVE NATURAL VEGETATION	**X	X	X		X
GROUND COVER					X
HYDRAULIC APPLICATIONS					
MATTING					
DUST CONTROL	X	X	X		
TEMPORARY/PERMANENT SEEDING		X	X		
OTHER:					
SEDIMENT CONTROL					
SEDIMENT FENCE (PERIMETER)	**X	X	X		
SEDIMENT FENCE (INTERIOR)					
STRAW WATTLES	**X	X	X		
FILTER BERM					
INLET PROTECTION		X	X		
DEWATERING					
SEDIMENT TRAP					
NATURAL BUFFER ENCROACHMENT					
OTHER:					
RUNOFF CONTROL					
CONSTRUCTION ENTRANCE	X	X	X		
PIPE SLOPE DRAIN					
OUTLET PROTECTION					
SURFACE ROUGHENING					
CHECK DAMS					
OTHER:					
POLLUTION PREVENTION					
PROPER SIGNAGE	X	X	X		X
HAZ WASTE MGMT	X	X	X		X
SPILL KIT ON-SITE	X	X	X		X
CONCRETE WASHOUT AREA					
OTHER:					

*SIGNIFIES ADDITIONAL BMP'S REQUIRED FOR WORK WITHIN 50' OF WATER OF THE STATE

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

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 NOT 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 USED 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. DIRECTING PAVEMENT WASH WATERS INTO ANY SURFACE WATER, STORM DRAIN INLET, OR STORMWATER CONVEYANCE IS PROHIBITED, UNLESS THE CONVEYANCE IS CONNECTED TO A SEDIMENT BASIN, SEDIMENT TRAP, OR SIMILARLY EFFECTIVE CONTROL FOR THE POLLUTANTS PRESENT. PER 2.2.19.B, HOISING OF ACCUMULATED SEDIMENTS ON PAVEMENT INTO ANY STORMWATER CONVEYANCE IS PROHIBITED;
- UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE;
- UNCONTAMINATED, NON-TURBID DISCHARGES OF GROUNDWATER OR SPRING WATER;
- FOUNDATION OR FOOTING DRAINS WHERE FLOWS ARE NOT CONTAMINATED WITH PROCESS MATERIALS SUCH AS SOLVENTS OR CONTAMINATED GROUNDWATER; AND
- CONSTRUCTION DEWATERING ACTIVITIES (INCLUDING GROUNDWATER DEWATERING AND WELL DRILLING DISCHARGE ASSOCIATED WITH THE REGISTERED CONSTRUCTION ACTIVITY), PROVIDED THAT:
 - THE WATER IS LAND APPLIED IN A WAY THAT RESULTS IN COMPLETE INFILTRATION WITH NO POTENTIAL TO DISCHARGE TO A SURFACE WATER OF THE STATE, OR THE USE OF A SANITARY OR COMBINED SEWER DISCHARGE IS AUTHORIZED WITH LOCAL SEWER DISTRICT APPROVAL; OR
 - BEST MANAGEMENT PRACTICES AND A TREATMENT SYSTEM APPROVED BY DEQ OR AGENT (SEE SECTION 1.2.9) ARE USED TO ENSURE COMPLIANCE WITH DISCHARGE AND WATER QUALITY REQUIREMENTS IN SECTION 2.4

STANDARD EROSION AND SEDIMENT CONTROL PLAN DRAWING NOTES

- ONCE KNOWN, INCLUDE A LIST OF ALL CONTRACTORS THAT WILL ENGAGE IN CONSTRUCTION ACTIVITIES ON SITE, AND THE AREAS OF THE SITE WHERE THE CONTRACTOR(S) WILL ENGAGE IN CONSTRUCTION ACTIVITIES. REVISE THE LIST AS APPROPRIATE UNTIL PERMIT COVERAGE IS TERMINATED (SECTION 4.4.C.I). IN ADDITION, INCLUDE A LIST OF ALL PERSONNEL (BY NAME AND POSITION) THAT ARE RESPONSIBLE FOR THE DESIGN, INSTALLATION AND MAINTENANCE OF STORMWATER CONTROL MEASURES (E.G. ESCP DEVELOPER, BMP INSTALLER (SEE SECTION 4.10), AS WELL AS THEIR INDIVIDUAL RESPONSIBILITIES. (SECTION 4.4.C.II)
- VISUAL MONITORING INSPECTION REPORTS MUST BE MADE IN ACCORDANCE WITH DEQ 1200-C PERMIT REQUIREMENTS. (SECTION 6.5)
- INSPECTION LOGS MUST BE KEPT IN ACCORDANCE WITH DEQ'S 1200-C PERMIT REQUIREMENTS. (SECTION 6.5.Q)
- 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)
- THE PERMIT REGISTRANT MUST IMPLEMENT THE ESCP. FAILURE TO IMPLEMENT ANY OF THE CONTROL MEASURES OR PRACTICES DESCRIBED IN THE ESCP IS A VIOLATION OF THE PERMIT. (SECTIONS 4 AND 4.11)
- THE ESCP MUST BE ACCURATE AND REFLECT SITE CONDITIONS. (SECTION 4.8)
- SUBMISSION OF ALL ESCP REVISIONS IS NOT REQUIRED. SUBMITTAL OF THE ESCP REVISIONS IS ONLY UNDER SPECIFIC CONDITIONS. SUBMIT ALL NECESSARY REVISION TO DEQ OR AGENT WITHIN 10 DAYS. (SECTION 4.9)
- SEQUENCE CLEARING AND GRADING TO THE MAXIMUM EXTENT PRACTICAL TO PREVENT EXPOSED INACTIVE AREAS FROM BECOMING A SOURCE OF EROSION. (SECTION 2.2.2)
- CREATE SMOOTH SURFACES BETWEEN SOIL SURFACE AND EROSION AND SEDIMENT CONTROLS TO PREVENT STORMWATER FROM BYPASSING CONTROLS AND PONDING. (SECTION 2.2.3)
- IDENTIFY, MARK, AND PROTECT (BY CONSTRUCTION FENCING OR OTHER MEANS) CRITICAL RIPARIAN AREAS AND VEGETATION INCLUDING IMPORTANT TREES AND ASSOCIATED ROOTING ZONES, AND VEGETATION AREAS TO BE PRESERVED. IDENTIFY VEGETATIVE BUFFER ZONES BETWEEN THE SITE AND SENSITIVE AREAS (E.G., WETLANDS), AND OTHER AREAS TO BE PRESERVED, ESPECIALLY IN PERIMETER AREAS. (SECTION 2.2.1)
- PRESERVE EXISTING VEGETATION WHEN PRACTICAL AND RE-VEGETATE OPEN AREAS. RE-VEGETATE OPEN AREAS WHEN PRACTICABLE BEFORE AND AFTER GRADING OR CONSTRUCTION. IDENTIFY THE TYPE OF VEGETATIVE SEED MIX USED. (SECTION 2.2.5)
- MAINTAIN AND DELINEATE ANY EXISTING NATURAL BUFFER WITHIN THE 50-FEET OF WATERS OF THE STATE. (SECTION 2.2.4)
- INSTALL PERIMETER SEDIMENT CONTROL, INCLUDING STORM DRAIN INLET PROTECTION AS WELL AS ALL SEDIMENT BASINS, TRAPS, AND BARRIERS PRIOR TO LAND DISTURBANCE. (SECTIONS 2.1.3)
- CONTROL BOTH PEAK FLOW RATES AND TOTAL STORMWATER VOLUME. TO MINIMIZE EROSION AT OUTLETS AND DOWNSTREAM CHANNELS AND STREAMBANKS. (SECTIONS 2.1.1. AND 2.2.16)
- 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)
- ESTABLISH CONCRETE TRUCK AND OTHER CONCRETE EQUIPMENT WASHOUT AREAS BEFORE BEGINNING CONCRETE WORK. (SECTION 2.2.14)
- APPLY TEMPORARY AND/OR PERMANENT SOIL STABILIZATION MEASURES IMMEDIATELY ON ALL DISTURBED AREAS AS GRADING PROGRESSES. TEMPORARY OR PERMANENT STABILIZATIONS MEASURES ARE NOT REQUIRED FOR AREAS THAT ARE INTENDED TO BE LEFT UNVEGETATED, SUCH AS DIRT ACCESS ROADS OR UTILITY POLE PADS. (SECTIONS 2.2.20 AND 2.2.21)
- ESTABLISH MATERIAL AND WASTE STORAGE AREAS, AND OTHER NON-STORMWATER CONTROLS. (SECTION 2.2.7)
- 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 2.2.7)
- PREVENT FLOWING 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)
- WHEN TRUCKING SATURATED SOILS FROM THE SITE, EITHER USE WATER-TIGHT TRUCKS OR DRAIN LOADS ON SITE. (SECTION 2.2.7.F)
- CONTROL PROHIBITED DISCHARGES FROM LEAVING THE CONSTRUCTION SITE, I.E., CONCRETE WASH-OUT, WASTEWATER FROM CLEANOUT OF STUCCO, PAINT AND CURING COMPOUNDS. (SECTIONS 1.5 AND 2.3.9)
- ENSURE THAT STEEP SLOPE AREAS WHERE CONSTRUCTION ACTIVITIES ARE NOT OCCURRING ARE NOT DISTURBED. (SECTION 2.2.10)
- PREVENT SOIL COMPACTION IN AREAS WHERE POST-CONSTRUCTION INFILTRATION FACILITIES ARE TO BE INSTALLED. (SECTION 2.2.12)
- 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)
- PROVIDE BASINS FOR SEDIMENTATION BASINS THAT HAVE BEEN DESIGNED PER SECTION 2.2.17 AND STAMPED BY AN OREGON PROFESSIONAL ENGINEER. (SEE SECTION 2.2.17.A)
- IF ENGINEERED SOILS ARE USED ON SITE, A SEDIMENTATION BASIN/IMPOUNDMENT MUST BE INSTALLED. (SEE SECTIONS 2.2.17 AND 2.2.18)
- PROVIDE A DEWATERING PLAN FOR ACCUMULATED WATER FROM PRECIPITATION AND UNCONTAMINATED GROUNDWATER SEEPAGE DUE TO SHALLOW EXCAVATION ACTIVITIES. (SEE SECTION 2.4)
- 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)
- USE WATER, SOIL-BINDING AGENT OR OTHER DUST CONTROL TECHNIQUE AS NEEDED TO AVOID WIND-BLOWN SOIL. (SECTION 2.2.9)
- THE APPLICATION RATE OF FERTILIZERS USED TO REESTABLISH VEGETATION MUST FOLLOW MANUFACTURER'S RECOMMENDATIONS TO MINIMIZE NUTRIENT RELEASES TO SURFACE WATERS. EXERCISE CAUTION WHEN USING TIME-RELEASE FERTILIZERS WITHIN ANY WATERWAY RIPARIAN ZONE. (SECTION 2.3.5)
- IF AN ACTIVE TREATMENT SYSTEM (FOR EXAMPLE, ELECTRO-COAGULATION, FLOCCULATION, FILTRATION, ETC.) FOR SEDIMENT OR OTHER POLLUTANT REMOVAL IS EMPLOYED, SUBMIT AN OPERATION AND MAINTENANCE PLAN (INCLUDING SYSTEM SCHEMATIC, LOCATION OF SYSTEM, LOCATION OF INLET, LOCATION OF DISCHARGE, DISCHARGE DISPERSION DEVICE DESIGN, AND A SAMPLING PLAN AND FREQUENCY) BEFORE OPERATING THE TREATMENT SYSTEM. OBTAIN ENVIRONMENTAL MANAGEMENT PLAN APPROVAL FROM DEQ BEFORE OPERATING THE TREATMENT SYSTEM. OPERATE AND MAINTAIN THE TREATMENT SYSTEM ACCORDING TO MANUFACTURER'S SPECIFICATIONS. (SECTION 1.2.9)
- TEMPORARILY STABILIZE SOILS AT THE END OF THE SHIFT BEFORE HOLIDAYS AND WEEKENDS, IF NEEDED. THE REGISTRANT IS RESPONSIBLE FOR ENSURING THAT SOILS ARE STABLE DURING RAIN EVENTS AT ALL TIMES OF THE YEAR. (SECTION 2.2)
- 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)
- SEDIMENT FENCE: REMOVE TRAPPED SEDIMENT BEFORE IT REACHES ONE THIRD OF THE ABOVE GROUND FENCE HEIGHT AND BEFORE FENCE REMOVAL. (SECTION 2.1.5.B)
- ESTABLISH BARRIERS (SUCH AS BIOBAGS); REMOVE SEDIMENT BEFORE IT REACHES TWO INCHES DEPTH ABOVE GROUND HEIGHT AND BEFORE BMP REMOVAL. (SECTION 2.1.5.C)
- 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)
- WITHIN 24 HOURS, SIGNIFICANT SEDIMENT THAT HAS LEFT THE CONSTRUCTION SITE, MUST BE REMEDIATED. INVESTIGATE THE CAUSE OF THE SEDIMENT RELEASE AND IMPLEMENT STEPS TO PREVENT A RECURRENT 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)
- 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)
- DOCUMENT ANY PORTION(S) OF THE SITE WHERE LAND DISTURBING ACTIVITIES HAVE PERMANENTLY OCCURRED OR WILL BE TEMPORARILY INACTIVE FOR 14 OR MORE CALENDAR DAYS. (SECTION 6.5.F.)
- 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)
- 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)

MACKENZIE GENERAL EROSION CONTROL NOTES:

- THIS PLAN IS INTENDED TO BE ONLY A BASELINE APPROACH TO EROSION AND SEDIMENT CONTROL FOR THE PROJECT SITE. THE OWNER'S EROSION AND SEDIMENT CONTROL INSPECTOR SHALL BE RESPONSIBLE FOR INSTRUCTING THE CONTRACTOR TO ADJUST BMP'S AS NECESSARY TO PROPERLY MANAGE THE VARIOUS PHASES OF CONSTRUCTION AND ANY UNFORESEEN CONDITIONS REQUIRING DIFFERENT OR ADDITIONAL BMP'S TO MANAGE.
- SEED USED FOR TEMPORARY OR PERMANENT SEEDING SHALL BE COMPOSED OF ONE OF THE FOLLOWING MIXTURES, UNLESS OTHERWISE AUTHORIZED:
 - DWARF GRASS MIX (MIN 100 LB/AC)
 - DWARF PERENNIAL RYEGRASS (80% BY WEIGHT)
 - CREEPING RED FESCUE (20% BY WEIGHT)
 - STANDARD HEIGHT GRASS MIX (MIN 100LB/AC)
 - ANNUAL RYEGRASS (40% BY WEIGHT)
 - TURF-TYPE FESCUE (60% BY WEIGHT)
- STAGING AND STOCKPILE AREAS ARE TO BE DETERMINED BY THE CONTRACTOR AND ADJUSTED TO ACCOMMODATE THE PROGRESS OF CONSTRUCTION. THE OWNER'S EROSION CONTROL INSPECTOR SHALL BE MADE AWARE OF ALL CHANGES AND CONSULTED FOR BMP IMPLEMENTATIONS THAT MAY BE NECESSARY TO ACCOMMODATE THE SELECTED LOCATIONS.
- REMOVE SEDIMENT FROM PERMANENT (POST-CONSTRUCTION) STRUCTURAL STORMWATER FACILITIES BY OVER EXCAVATING AND REPLACING WITH LOCALLY APPROVED GROWTH MEDIA BEFORE VEGETATING.
- IF CONSTRUCTION ACTIVITY INVOLVES THE USE OF ENGINEERED SOILS (SOIL AMENDMENTS INCLUDING, BUT NOT LIMITED TO, PORTLAND CEMENT-TREATED BASE, CEMENT KILN DUST, OR FLY ASH), THE REGISTRANT MUST CONDUCT AND DOCUMENT pH MONITORING OF STORMWATER CAPTURED IN THE SEDIMENT IMPOUNDMENT PER SECTION 6.6.1 OF THE DEQ 1200-C GENERAL PERMIT. ADDITIONALLY, AN IMPERMEABLE LINER IS REQUIRED IN THE SEDIMENT IMPOUND WHERE THE BOTTOM OF THE FACILITY IS WITHIN 5' OF THE SEASONAL HIGH GROUNDWATER ELEVATION. AN ENVIRONMENTAL MANAGEMENT PLAN (PER APPENDIX A OF THE DEQ 1200-C GENERAL PERMIT) IS REQUIRED IF AN ACTIVE TREATMENT SYSTEM WILL BE USED FOR SEDIMENT, pH NEUTRALIZATION, OR OTHER POLLUTANT REMOVAL.

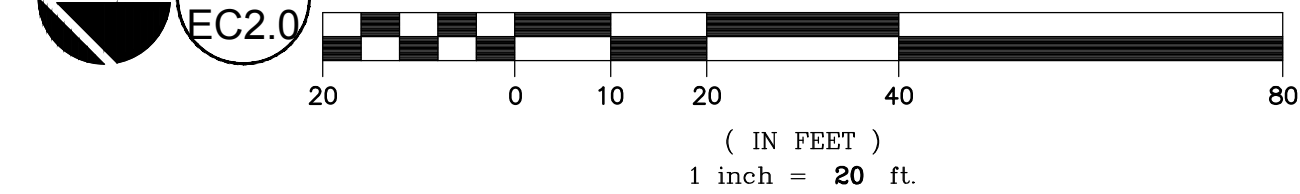
PERMIT SET - MARCH 7, 2025

REVISION SCHEDULE		
Delta	Issued As	Issue Date

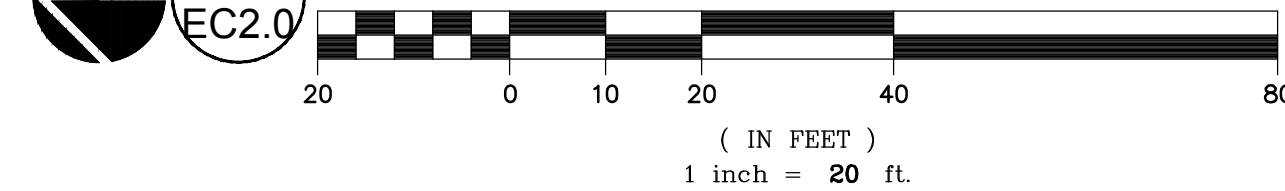
LEGEND

	PROPERTY BOUNDARY
	LIMITS OF GRADING
	EXISTING CONTOUR
	SEDIMENT FENCE PER DETAIL 3/EC7.0
	EXISTING DRAINAGE FLOW ARROW
	CATCH BASIN SEDIMENT FILTER BAG PER DETAIL 1/EC7.0
	STRAW WATTLES PER DETAIL 4/EC7.0
	CONSTRUCTION ENTRANCE PER DETAIL 2/EC7.0

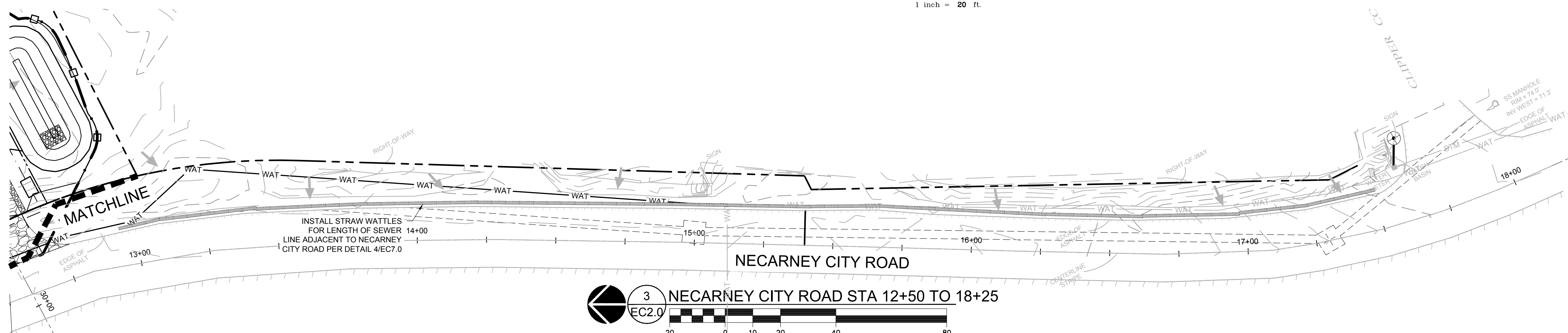
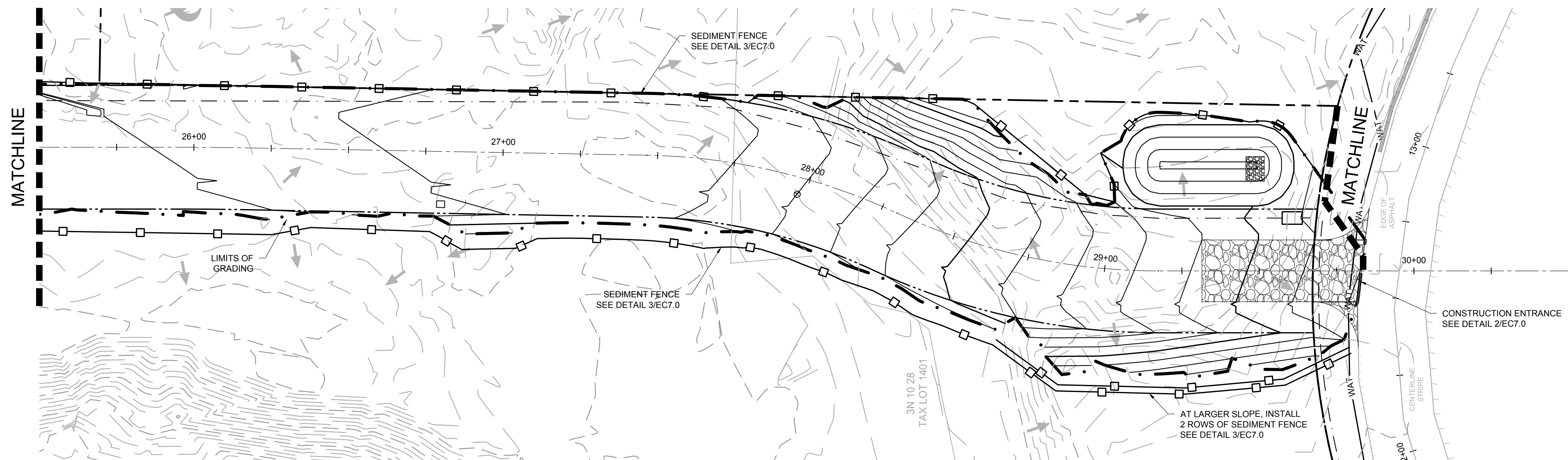
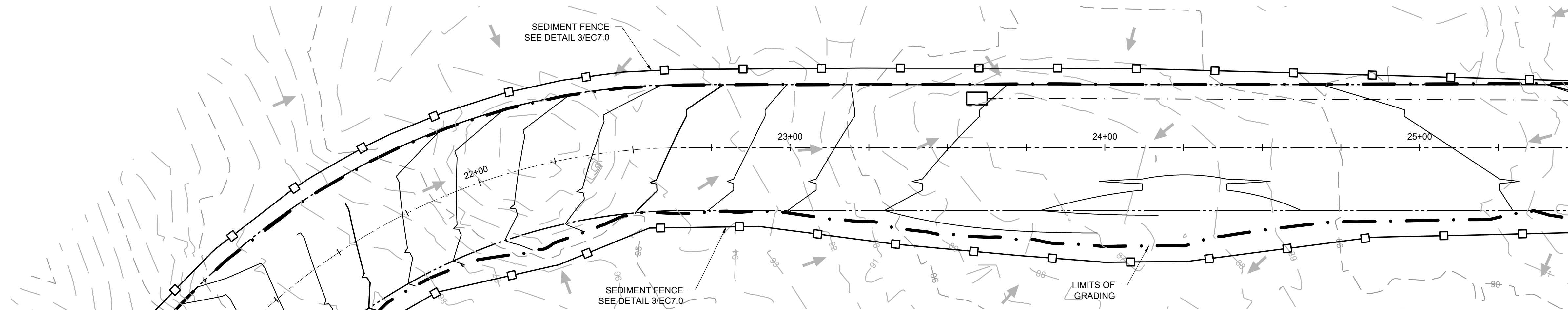
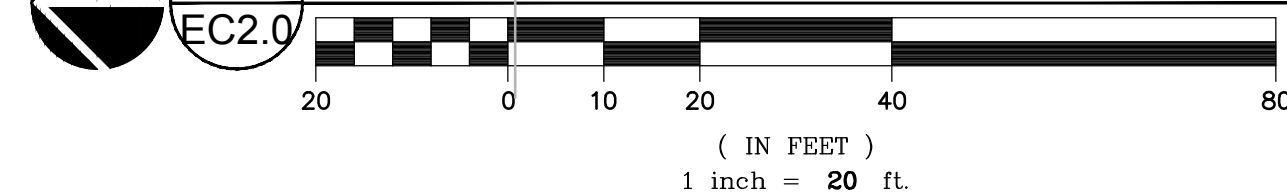
1 LEGACY PLACE - STA 20+50 TO STA 25+50



2 LEGACY PLACE - STA 25+50 TO STA 30+50



3 NECARNEY CITY ROAD STA 12+50 TO 18+25



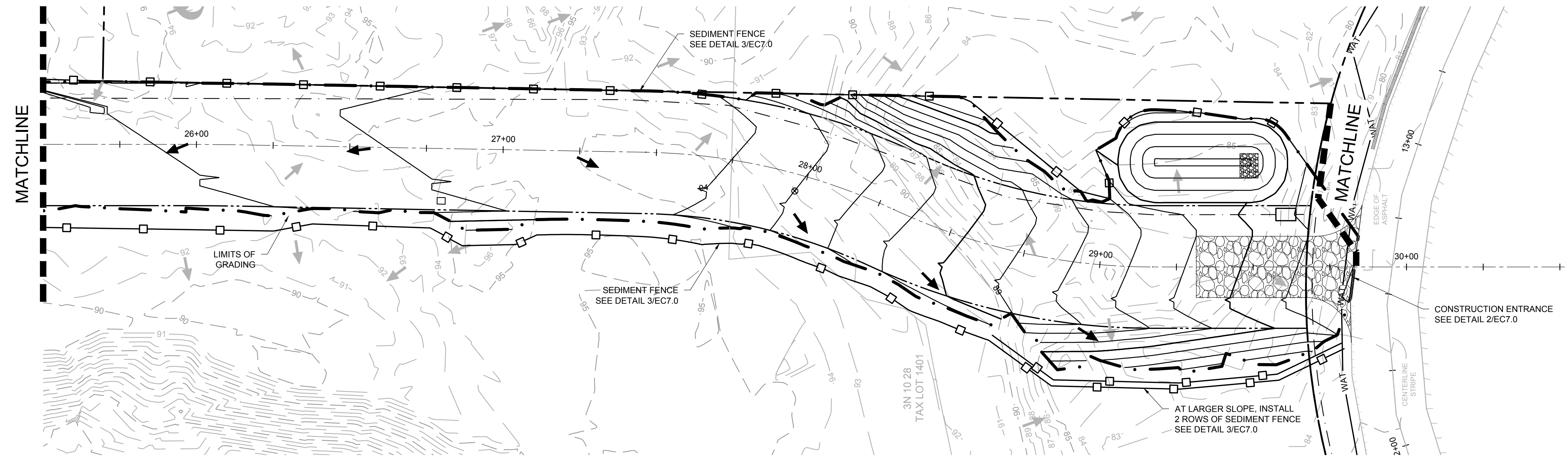
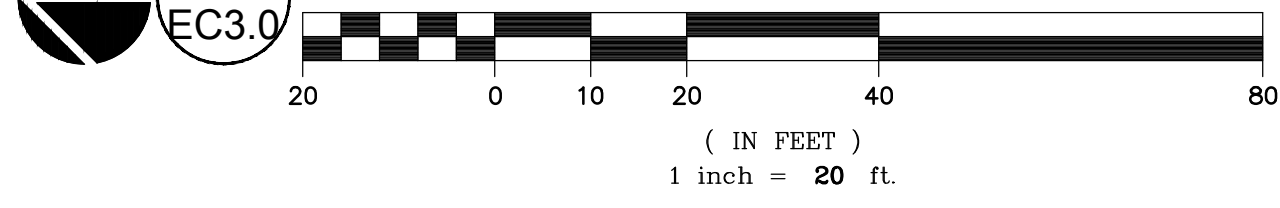
REVISION SCHEDULE		
Delta	Issued As	Issue Date

LEGEND

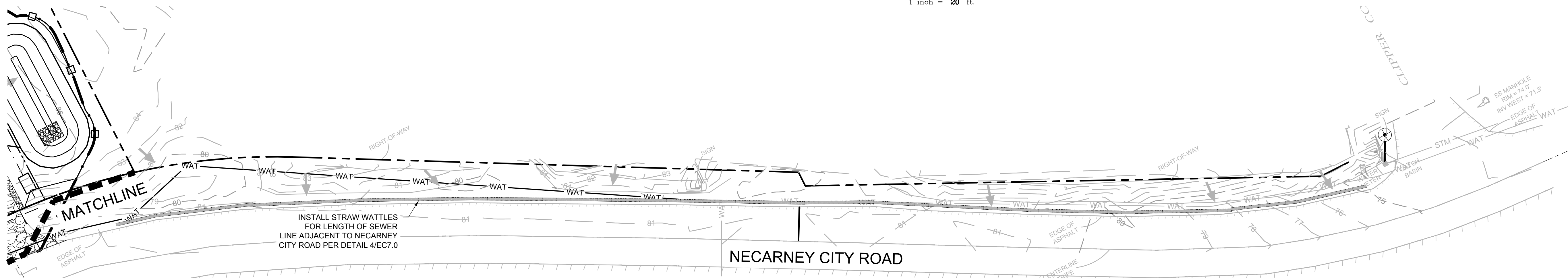
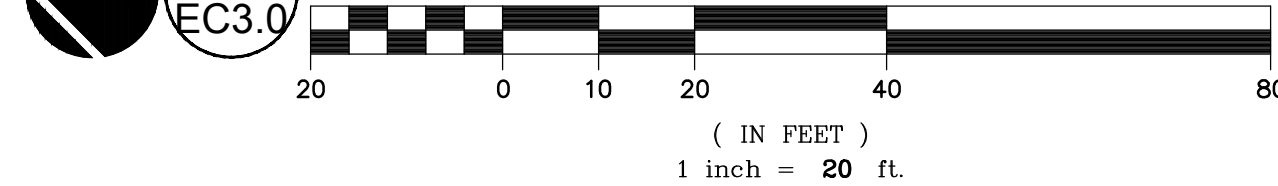
- PROPERTY BOUNDARY
- LIMITS OF GRADING
- EXISTING CONTOUR
- SEDIMENT FENCE PER DETAIL 3/EC7.0
- EXISTING DRAINAGE FLOW ARROW
- CATCH BASIN SEDIMENT FILTER BAG PER DETAIL 1/EC7.0
- STRAW WATTLES PER DETAIL 4/EC7.0
- CONSTRUCTION ENTRANCE PER DETAIL 2/EC7.0

MATCHLINE

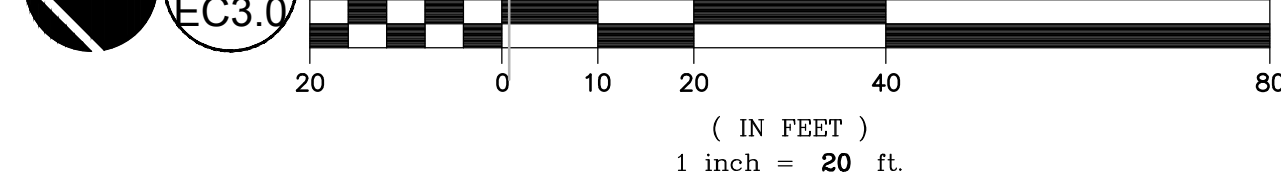
1 LEGACY PLACE - STA 20+50 TO STA 25+50



2 LEGACY PLACE - STA 25+50 TO STA 30+50

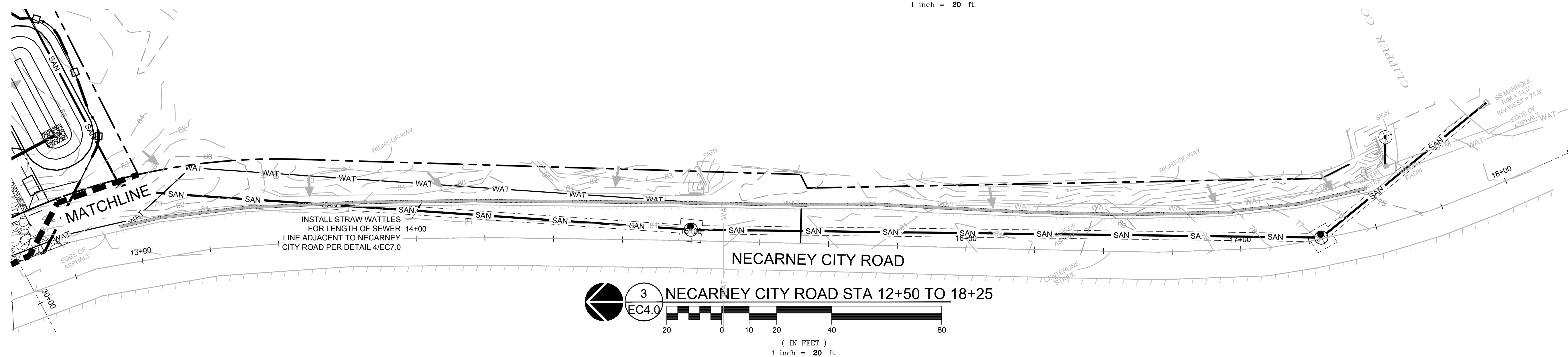
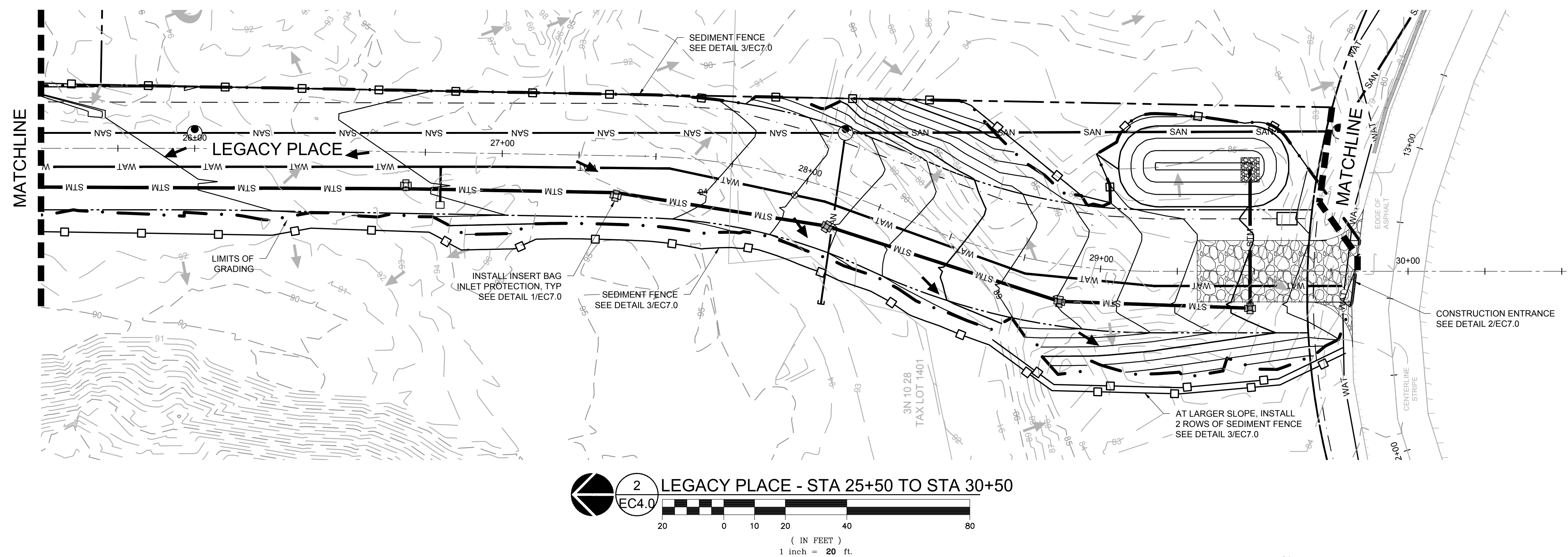
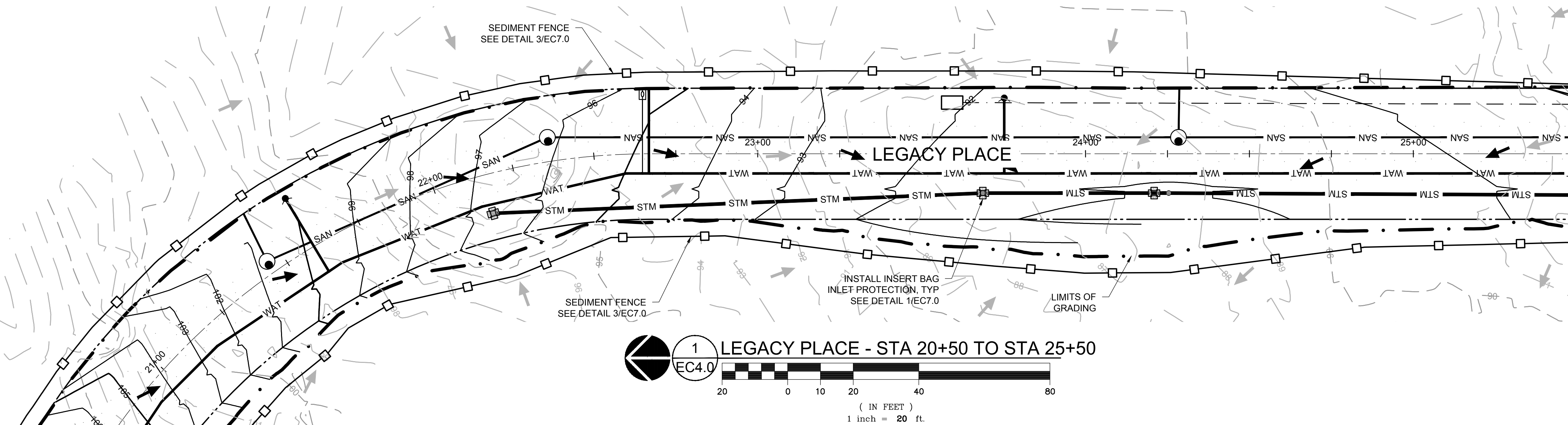


3 NECARNEY CITY ROAD STA 12+50 TO 18+25



LEGEND

	PROPERTY BOUNDARY
	LIMITS OF GRADING
	EXISTING CONTOUR
	PROPOSED CONTOUR
	SEDIMENT FENCE PER DETAIL 3/EC7.0
	STORM LINE
	SANITARY LINE
	WATER LINE (FIRE)
	WATER LINE (DOMESTIC)
	EXISTING DRAINAGE FLOW ARROW
	PROPOSED DRAINAGE FLOW ARROW
	CATCH BASIN SEDIMENT FILTER BAG PER DETAIL 1/EC7.0
	STRAW WATTLES PER DETAIL 4/EC7.0
	CONSTRUCTION ENTRANCE PER DETAIL 2/EC7.0



Project
HIGHLANDS
PHASE 8

© MACKENZIE 2025
ALL RIGHTS RESERVED
THESE DRAWINGS ARE THE PROPERTY OF
MACKENZIE AND ARE NOT TO BE USED
OR REPRODUCED IN ANY MANNER
WITHOUT PRIOR WRITTEN PERMISSION

REVISION SCHEDULE		
Delta	Issued As	Issue Date

SHEET TITLE:
ESCP - UTILITY
CONSTRUCTION

SHEET:

EC4.0

JOB NO. 2160454.08

PERMIT SET - MARCH 7, 2025

REVISION SCHEDULE		
Delta	Issued As	Issue Date

SHEET TITLE:
ESCP - FINAL
STABILIZATION

SHEET:

EC6.0

JOB NO. 2160454.08

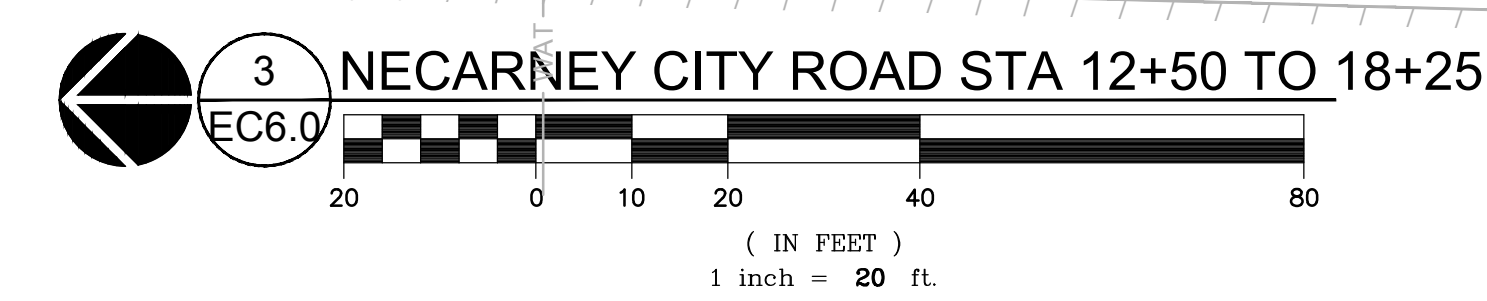
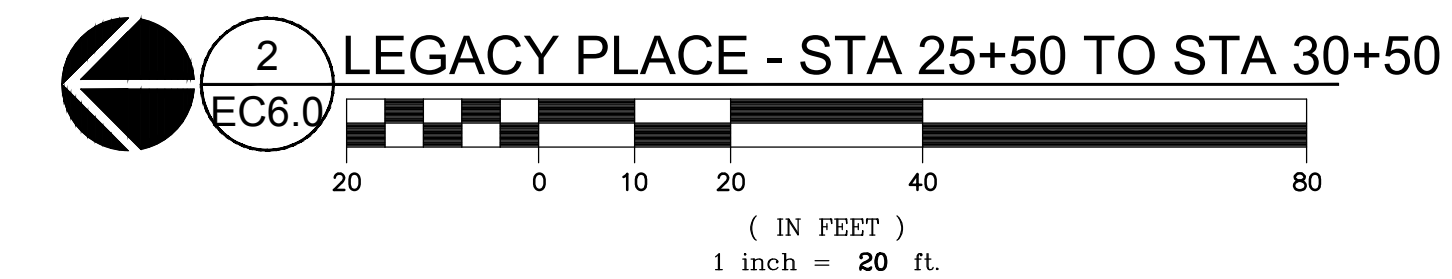
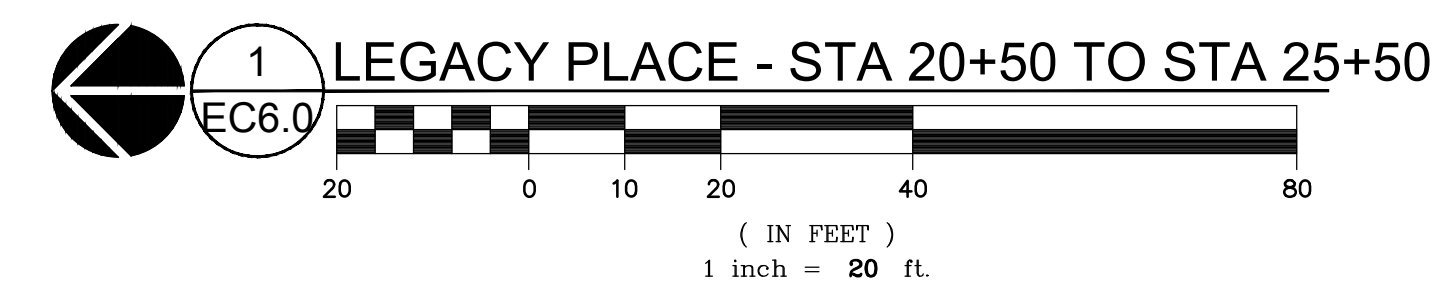
PERMIT SET - MARCH 7, 2025
2160454004_DRAWINGS\CIVIL\PHASE 8\1200\C-ROAD\M43-R1.4X.DWG:EC6.0 AOC 03/14/25 08:06 1:20

LEGEND

- PROPERTY BOUNDARY
- LIMITS OF GRADING
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING DRAINAGE FLOW ARROW
- PROPOSED DRAINAGE FLOW ARROW
- PLANTING PER LANDSCAPE PLANS
- AC
- CONCRETE

MATCHLINE

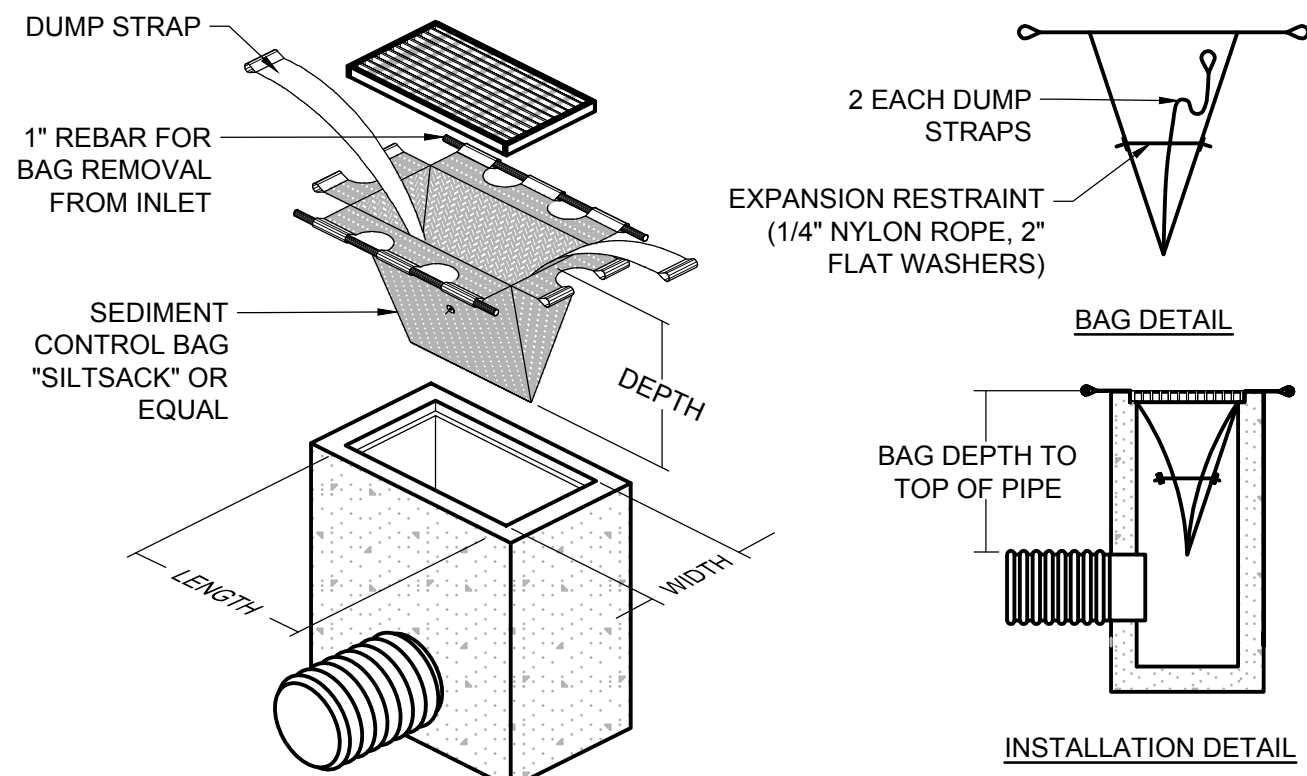
MATCHLINE



SEEDING ON SLOPES TO BE
ESTABLISHED PRIOR TO REMOVING
EROSION CONTROL MEASURES

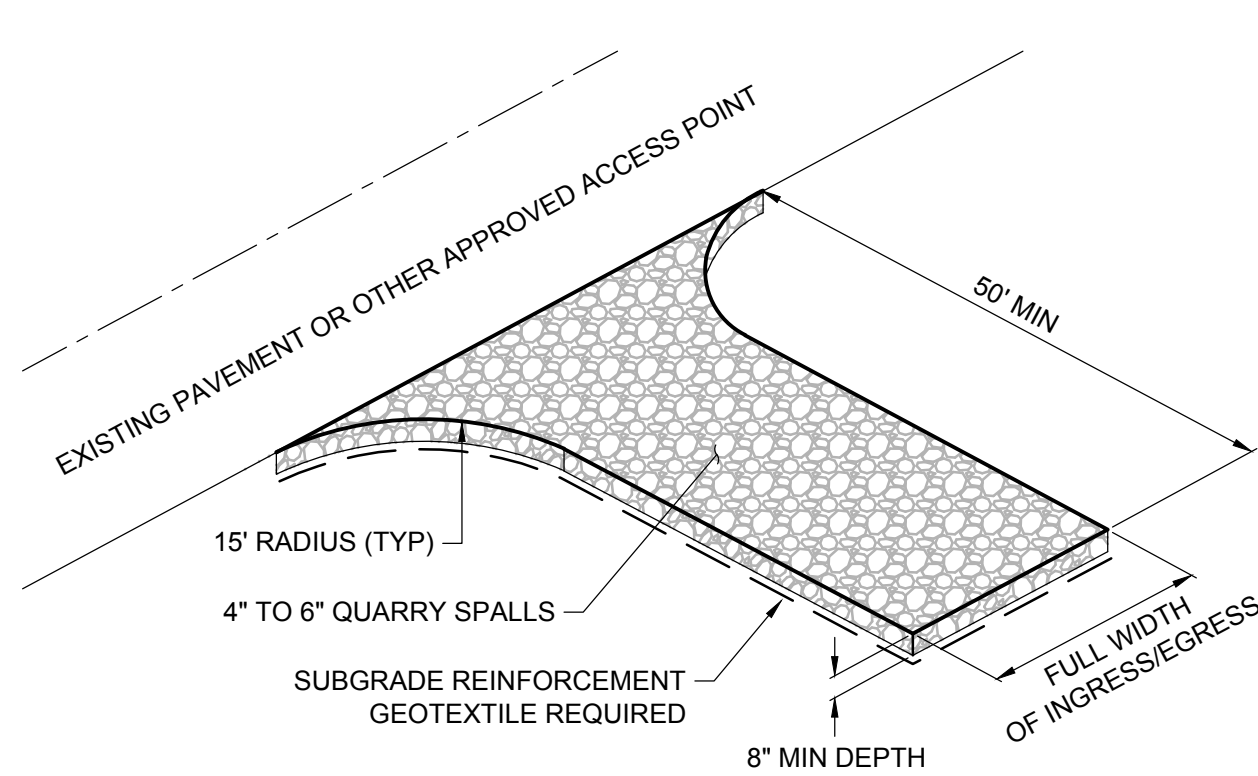
NECARNEY CITY ROAD

REVISION SCHEDULE		
Delta	Issued As	Issue Date



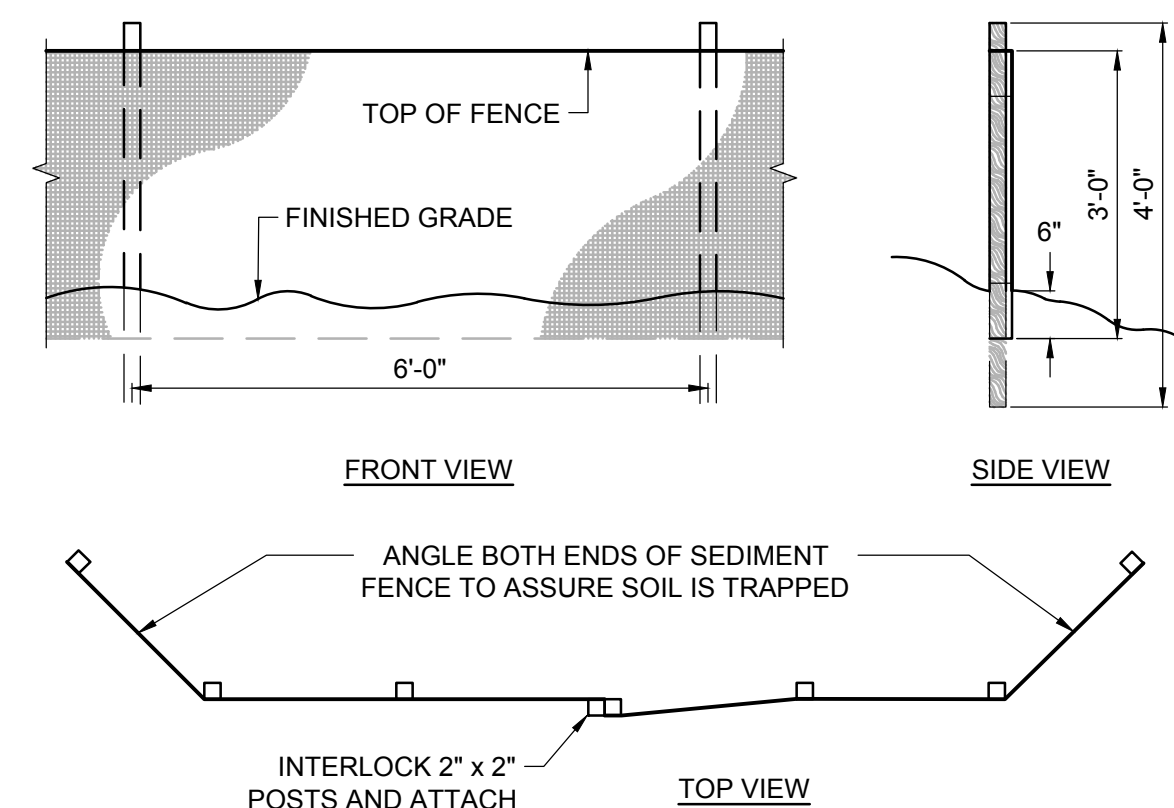
- NOTES:
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE CORRECT SIZE DEVICE FOR EACH INLET
 - THE INLET SEDIMENT CONTROL DEVICE SHALL BE OF NORMAL FLOW DESIGN, 40 GAL/MIN/SF WITH NO OVERFLOWS
 - THE SEDIMENT CONTROL DEVICE SHALL BE INSPECTED DAILY BY THE CONTRACTOR AND MAINTAINED A MINIMUM OF ONCE PER MONTH AND WITHIN THE 24 HOURS FOLLOWING A STORM EVENT
 - SUBSTITUTION OF A SHEET OF FILTER FABRIC PLACED OVER THE OPENING OF THE INLET IS NOT APPROVED

1 CATCH BASIN SEDIMENT FILTER BAG
EC7.0 NTS



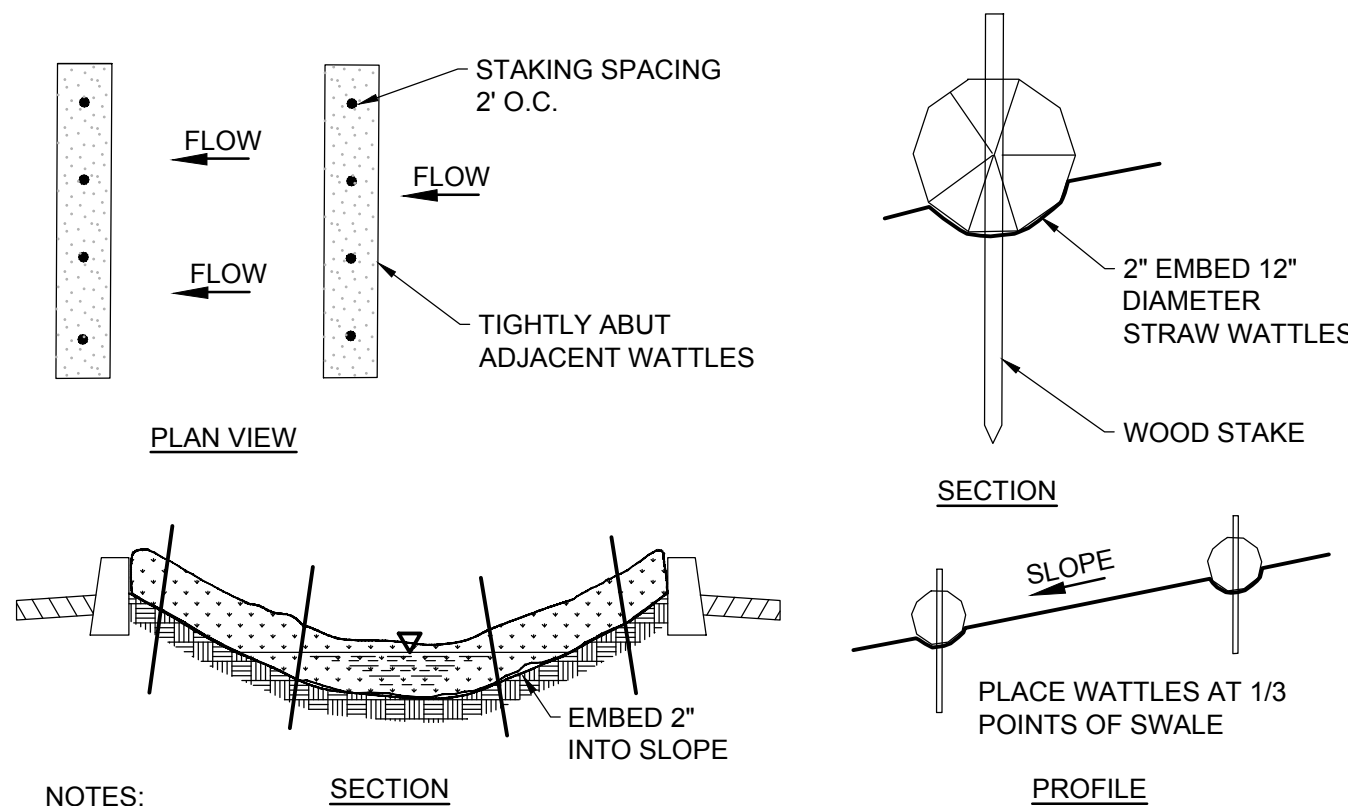
- NOTES:
- QUARRY SPALL MATERIAL SHALL BE "CLEAN" (LESS THAN 5% PASSING THE US STANDARD NO 200 SIEVE)
 - CONTRACTOR IS RESPONSIBLE FOR OBTAINING APPROVALS FROM THE AUTHORITIES HAVING JURISDICTION FOR ALTERNATES, SUCH AS A RUMBLE TRACK
 - PROTECT CONSTRUCTION ENTRANCES FROM SILTATION FROM ADJOINING BARE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

2 CONSTRUCTION ENTRANCE
EC7.0 NTS



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

3 SEDIMENT FENCE
EC7.0 NTS



- NOTES:
- WATTLES TO BE MADE OF STRAW.
 - SLOPE REQUIRES MINOR PREPARATION PRIOR TO INSTALLATION
 - RILLS AND SHALLOW GULLIES SHOULD BE SMOOTHED AS WORK PROGRESSES.
 - WATTLES SHOULD BE INSTALLED AT THIRD POINTS OF SWALE.
 - WATTLE MUST BE TIGHT AGAINST THE SOIL IN TRENCH. MAKE SURE NO GAPS EXIST BETWEEN THE SOIL AND THE WATTLE.
 - STAKES MUST BE DRIVEN A MINIMUM OF 12 IN. INTO UNDISTURBED MATERIAL. INSTALL STAKES EVERY 2'.
 - 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.
 - MAKE SURE THE WATTLES ARE IN CONTACT WITH THE SOIL.
 - STRING SHOULD BE WRAPPED ROUND WATTLE EVERY FOOT OF ITS LENGTH.

4 STRAW WATTLE EROSION CONTROL
EC7.0 N.T.S. WATTLES